# CONSTRUCTION PLANS
# FOR
# NW LOWENSTEIN DRIVE & NW BLACK TWIG LANE IMPROVEMENTS
# STREETS OF WEST PRYOR
## LEE'S SUMMIT, MISSOURI

JULY 2019

## RECORD DRAWINGS

ELECTRIC– SERVICE
KCP&L
NATHAN MICHAEL
(913) 347–4310
Nathan.Michael@kcpl.com

GAS SERVICE
SPIRE
KATIE DARNELL
(816) 969–2247
Katie.Darnell@spireenergy.com

WATER, SANITARY/STORM SEWER SERVICE
CITY OF LEE'S SUMMIT
KENT MONTER
(816) 969–1900
Kent.Monter@cityofls.net

CALL BEFORE YOU
DIG – DRILL – BLAST
1–800–344–7483
(TOLL FREE)
MISSOURI ONE CALL SYSTEM, INC.

COMMUNICATION SERVICE
AT&T
CARRIE CILKE
(816) 703–4386
cc3527@att.com

COMMUNICATION SERVICE
TIME WARNER CABLE
STEVE BAXTER
(913) 643–1928
Steve.Baxter@charter.com

COMMUNICATION SERVICE
COMCAST
RYAN ALKIRE
(816) 795–2218
Ryan.Alkire@cable.comcast.com

COMMUNICATION SERVICE
GOOGLE FIBER
BECKY DAVIS
(913) 725–8745
KC–Google–UC@google.com
rebeccadavis@google.com

**UTILITY STATEMENT:**
THE UNDERGROUND UTILITIES SHOWN HEREON ARE FROM FIELD SURVEY INFORMATION OF ONE–CALL LOCATED UTILITIES, FIELD SURVEY INFORMATION OF ABOVE GROUND OBSERVABLE EVIDENCE, AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT WARRANT 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 BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

**CAUTION – NOTICE TO CONTRACTOR**
THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. **THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.**

**SAFETY NOTICE TO CONTRACTOR**
IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS REQUIREMENT WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

**WARRANTY / DISCLAIMER**
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT IN THE SPECIFIC CASES WHERE KAW VALLEY ENGINEERING PERSONNEL INSPECT AND CONTROL THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.




LOCATION MAP
CITY OF LEE'S SUMMIT, MISSOURI

| | POSTED SPEED | DESIGN SPEED |
|---|---|---|
| NW LOWENSTEIN DRIVE | 25 | 25 |
| NW BLACK TWIG LANE | 25 | 25 |

Sue Pyles 2022.11.22 14:44:30-06'00'

**Record Drawing**

I HAVE REVIEWED THE AS–BUILT INFORMATION PROVIDED ON THESE RECORD DRAWINGS AND TAKE NO EXCEPTION TO THE INFORMATION PROVIDED ON JANUARY 13, 2021 BY EMERY SAPP AND SONS, INC.

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
PROFESSIONAL ENGINEER

APPROVED THIS _____ DAY OF _____, _____

_____
OWNER: MATT PENNINGTON

APPROVED THIS _____ DAY OF _____, _____

_____
CITY APPROVAL

**OWNER:**
STREETS OF WEST PRYOR, LLC
7200 WEST 132ND STREET
OVERLAND PARK, KS 66213
CONTACT: MATT PENNINGTON
email: matt@drakekc.com

**DEVELOPER:**
STREETS OF WEST PRYOR, LLC
7200 WEST 132ND STREET
OVERLAND PARK, KS 66213
AGENT: DAVID N. OLSON
email: dovelson@monarchprojectllc.com

**PREPARED BY:**
KAW VALLEY ENGINEERING, INC.
2319 N. JACKSON
JUNCTION CITY, KS 66441
785–762–5040
CONTACT: LEON D OSBOURN
EMAIL: ldo@kveng.com

5 AS–BUILT

**DATUM BENCHMARK:**
VERTICAL DATUM IS NAVD 88 ESTABLISHED USING OPUS PROJECTS ON PROJECT CONTROL.

**BENCHMARKS:**
BM #1: CHISELED "SQUARE" ON TOP OF CURB POINT OF INTERSECTION OF WEST PARK PARKING LOT AT EAST DRIVE ENTRANCE. ELEV=984.97

BM #2: CHISELED "SQUARE" ON NORTHWEST CORNER AREA INLET, 25'± EAST OF CURB LINE AND ON–LINE WITH SOUTH CURB OF LOWENSTEIN DRIVE AT 90° BEND IN ROAD. ELEV=970.98

INDEX TO SHEETS


1 TITLE SHEET
2 GENERAL NOTES
3 GENERAL LAYOUT SHEET
4 TYPICAL SECTIONS
5 NW LOWENSTEIN DRIVE – PLAN & PROFILE
6 NW LOWENSTEIN DRIVE – PLAN & PROFILE
7 NW LOWENSTEIN DRIVE – PLAN
8 NW LOWENSTEIN DRIVE – PROFILE
9 NW LOWENSTEIN DRIVE – PLAN & PROFILE
10 NW PRYOR RD WIDENING AT NW LOWENSTEIN DR
11 NW BLACK TWIG LANE – PLAN & PROFILE
12 NW BLACK TWIG LANE – PLAN & PROFILE
13 NW BLACK TWIG LANE – PLAN & PROFILE
13A GEOMETRIC LAYOUT – INTERSECTION AND SIDEWALK
13A1 ADA RAMPS
13B GEOMETRIC LAYOUT – INTERSECTION, SIDEWALK AND ADA RAMPS
13C GEOMETRIC LAYOUT – INTERSECTION AND SIDEWALK
13D GEOMETRIC LAYOUT – INTERSECTION, SIDEWALK AND ADA RAMPS
14 DRAINAGE AREA MAP
15 STORM SEWER PLAN AND PROFILE – LINE D
16 STORM SEWER PLAN AND PROFILE – LINE D AND D2
17 STORM SEWER PLAN AND PROFILE – LINE F
18 STORM SEWER PLAN AND PROFILE – LINE H
19 STORM SEWER PLAN AND PROFILE – LINE D–6 AND T
20 STORM SEWER PLAN AND PROFILE – LINE V AND V–1
21 STORM SEWER PLAN AND PROFILE – LINE G
22 EROSION CONTROL PLAN
23 PAVEMENT MARKING & SIGNING PLANS
24 PAVEMENT MARKING & SIGNING PLANS
25 PAVEMENT MARKING DETAIL SHEET
26 SIGN AND TRAFFIC CONTROL DETAIL SHEET
27 STREET DETAIL SHEET
28 STREET DETAIL SHEET
29 STORM SEWER DETAIL SHEET
30 STORM SEWER AND EROSION CONTROL DETAIL SHEET
31 EROSION CONTROL DETAIL SHEET
32 NW LOWENSTEIN DRIVE – CROSS SECTIONS
33 NW LOWENSTEIN DRIVE – CROSS SECTIONS
34 NW LOWENSTEIN DRIVE – CROSS SECTIONS
35 NW LOWENSTEIN DRIVE – CROSS SECTIONS
36 NW LOWENSTEIN DRIVE – CROSS SECTIONS
37 NW LOWENSTEIN DRIVE – CROSS SECTIONS
38 NW LOWENSTEIN DRIVE – CROSS SECTIONS
39 NW LOWENSTEIN DRIVE – CROSS SECTIONS
40 NW PRYOR DR WIDENING – CROSS SECTIONS
41 NW BLACK TWIG LANE – CROSS SECTIONS
42 NW BLACK TWIG LANE – CROSS SECTIONS
43 NW BLACK TWIG LANE – CROSS SECTIONS


| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2–9–21 | AS–BUILT PLANS | LDO | JT | LDO |
| 2 | 7–5–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5–16–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01–11–19 | INITIAL ISSUE | LDO | JT | LDO |


LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762–5040 | FAX (785) 762–7744
ldo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19


**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**TITLE SHEET**

PROJ. NO. A14_7067–1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067–1PI_TS
SHEET 1 | REV 5


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

## CONSTRUCTION NOTES:

1. EXCESS EXCAVATION SHALL BE DEPOSITED IN AREAS AS DIRECTED BY THE OWNER.

2. THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE EXISTING SURFACING ON STREETS NEEDED TO BE TRAVELED UPON BY EQUIPMENT DURING CONSTRUCTION, AND IF DAMAGED, HE SHALL REPLACE THE SURFACING AND REPAIR THE STREET TO THE ORIGINAL CONDITION. NO TYPE OF EARTH MOVING EQUIPMENT WILL BE PERMITTED TO HAUL ON OR OVER ANY EXISTING STREET.

3. THE CONTRACTOR SHALL TAKE CARE IN PROTECTING EXISTING TREES AND SHRUBS OUTSIDE OF THE PROPOSED CONSTRUCTION. CARE SHALL BE TAKEN NOT TO DISTURB LAWNS OR EXISTING STRUCTURES OUTSIDE OF THE CONSTRUCTION LIMITS.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF DUST AND DIRT RISING AND SCATTERING IN THE AIR DURING CONSTRUCTION AND SHALL PROVIDE WATER SPRINKLING OR OTHER SUITABLE METHODS OF CONTROL. THE CONTRACTOR SHALL COMPLY WITH ALL GOVERNING REGULATIONS PERTAINING TO ENVIRONMENTAL PROTECTION.

5. CONTRACTOR SHALL SEED ALL DISTURBED AREAS IN ACCORDANCE TO REQUIREMENTS OF TECHNICAL SPECIFICATIONS. BUILDING LOTS WILL NOT REQUIRE SEEDING BUT ALL SLOPES AND BACKFILL BEHIND CURBS SHALL BE SEEDED WITHIN RIGHT-OF-WAY LIMITS, AND ON SLOPES OF EMBANKMENTS. AREAS SHALL BE SEEDED WITHIN 28 DAYS OF FINISH GRADING OR AS DIRECTED BY OWNER.

6. JOINT SPACING FOR CONCRETE PAVEMENT SHALL BE MODIFIED TO MEET THE CONTRACTOR'S CONSTRUCTION EQUIPMENT AND METHODS OF POURING. CONTRACTOR TO DRILL AND INSERT EPOXY-COATED DOWEL BARS INTO CONSTRUCTION JOINTS AND HEADERS. CONTRACTOR TO SAW-CUT CLEAN VERTICAL EDGE AT JOINT LOCATION. SAWED CONTRACTION JOINTS SHALL BE REQUIRED ON MAXIMUM 12'-0" CENTERS.

7. CONTRACTOR SHALL SUBMIT A JOINTING PLAN AND RECEIVE APPROVAL FROM THE ENGINEER AND CITY PRIOR TO CONCRETE PAVING OPERATIONS.

8. ALL SANITARY SEWER, WATER MAINS AND STORM SEWER UNDER PAVEMENTS SHALL BE BACKFILLED WITH MODOT TYPE 5 AGGREGATE IN TRENCHES GREATER THAN 24" AND FLOWABLE IN TRENCHES LESS THAN 24".

9. CONTRACTOR SHALL INSTALL SILT FENCE TO PREVENT SEDIMENT FROM LEAVING CONSTRUCTION LIMITS. SILT FENCE IS REQUIRED AT BOTTOM OF SLOPE ON ALL EMBANKMENTS AND AT DISCHARGE POINTS OF STREETS, STORM SEWER INLETS AND PIPE END SECTIONS.

10. PIPE LENGTHS ARE CENTER TO CENTER OF STRUCTURE OR TO END OF END SECTIONS.

11. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON-SITE. EXCESS TOPSOIL MAY BE WASTED IN FILL SLOPES PROVIDED THAT NO TOPSOIL WILL BE WASTED WITHIN 10 FEET OF THE EDGE OF THE BUILDING OR PARKING AREA. BURNING OF TIMBER WILL NOT BE PERMITTED UNLESS APPROVAL IS OBTAINED FROM GOVERNING OFFICIALS. STRIPPING EXISTING TOPSOIL AND ORGANIC MATTER SHALL BE TO A MINIMUM DEPTH OF 6 INCHES.

12. CONTRACTOR SHALL COMPLETE ROUGH SITE AND STREET GRADING PRIOR TO INSTALLATION OF UTILITIES.

13. EROSION CONTROL SEDIMENT FENCE SHALL BE INSTALLED 1'-0" BEHIND CURB & GUTTER UPON COMPLETION OF BACKFILL OF CURB IN ALL AREAS WHERE SLOPES FROM LOT DRAIN TOWARDS CURB. UPON COMPLETION OF FINAL GRADING THE TOES OF ALL EMBANKMENTS IN EXCESS OF TWO FEET IN HEIGHT SHALL HAVE EROSION CONTROL SEDIMENT FENCE INSTALLED.

14. CUT AND FILL SECTIONS ARE TYPICAL ONLY. NEITHER ALTERNATE PAVEMENT TYPE IS SPECIFIED FOR EXCLUSIVE USE WITH CUT OR FILL SECTIONS. REFER TO SPECIFICATIONS FOR INFORMATION ON FLY ASH TREATED SUBGRADE, CRUSHED AGGREGATE BASE COURSE, AND PAVEMENT UNDERDRAINS.

15. WHERE CURB AND GUTTER IS MONOLITHIC WITH THE STREET, THE CURVE SHALL BE POURED AT THE SAME DEPTH AS THE STREET.

16. UNLESS SPECIFIED OTHERWISE, KCMMB 4K IS REQUIRED FOR ALL CONCRETE.

20. THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE CITY OF LEE'S SUMMIT SHALL GOVERN THE CONSTRUCTION OF ALL PUBLIC IMPROVEMENTS FOR THIS PROJECT.

**Summary of Quantities**

**Sanitary Sewer**

| Item No. | Item | Estimated Quantity | Unit |
|---|---|---|---|
| 1 | Connect to Existing Manhole | 2 | Ea. |
| 2 | 8" Sewer Main | 4,346 | L.F. |
| 3 | Extra Depth Manhole (Less than 10') | 9 | Ea. |
| 4 | Extra Depth Manhole (10' to 15') | 6 | Ea. |
| 5 | Extra Depth Manhole (Greater than 15') | 8 | Ea. |
| 6 | General Conditions Profit and Misc. | 1 | Ea. |

**Storm Sewer**

| Item No. | Item | Estimated Quantity | Unit |
|---|---|---|---|
| 1 | Demo, Clearing and Grubbing | 1 | L.S. |
| 2 | Excavation | 7,629 | C.Y. |
| 3 | Embankment | 7,629 | C.Y. |
| 4 | Seeding | 1 | L.S. |
| 5 | 5'x3' Curb Inlet | 1 | Ea. |
| 6 | 5'X4' Curb Inlet | 14 | Ea. |
| 7 | 5'x5' Curb Inlet | 2 | Ea. |
| 8 | 6'x4' Curb Inlet | 1 | Ea. |
| 9 | 4'x4'Junction Box | 1 | Ea. |
| 10 | Landscape drain | 1 | Ea. |
| 11 | 18" RCP | 461 | L.F. |
| 12 | 24" RCP | 698 | L.F. |
| 13 | 30" RCP | 374 | L.F. |
| 14 | 15" HDPE | 180 | L.F. |
| 15 | 18" Corrugated HDPE | 70 | L.F. |
| 16 | 15" HDPE End Section | 1 | Ea. |
| 17 | 30" RCP End Section | 2 | Ea. |
| 18 | General Conditions Profit and Misc. | 1 | Ea. |

**Paving**

| Item No. | Item | Estimated Quantity | Unit |
|---|---|---|---|
| 1 | 2' Curb & Gutter (CG-1) | 6,796 | L.F. |
| 2 | 2" Asphaltic cement concrete surface | 11,521 | S.Y. |
| 3 | 7.5" Asphaltic cement concrete base | 11,521 | S.Y. |
| 4 | 6" MoDOT Type 5 Base | 14,075 | S.Y. |
| 5 | 8" Concrete Entrance | 1,855 | S.Y. |
| 6 | 4" Aggregate (Driveway) | 137 | S.Y. |
| 7 | Handicap Ramp | 11 | Ea. |
| 8 | 8" Concrete Patch | 15 | S.Y. |
| 9 | Pavement Removal | 1 | L.S. |
| 10 | Concrete Sidewalk | 1,830 | S.Y. |
| 11 | Mulit-use trail | 1,280 | S.Y. |
| 12 | Wood Fence Replacement | 78 | L.F. |
| 13 | Modular Block Retaining Wall | 128 | L.F. |
| 14 | General Conditions Profit and Misc. | 1 | Ea. |

**Water Main**

| Item No. | Item | Estimated Quantity | Unit |
|---|---|---|---|
| 1 | Connect to Existing Water Main | 4 | Ea. |
| 2 | 6" Fire Line Main | 208 | L.F. |
| 3 | 6" Water Main | 41 | L.F. |
| 4 | 8" Water Main | 452 | L.F. |
| 5 | 12" Water Main | 1,808 | L.F. |
| 6 | 1" Copper Water Service Line | 164 | L.F. |
| 7 | Fire Hydrant with 6" Valve | 4 | Ea. |
| 8 | Temporary Fire Hydrant with 8" Valve | 4 | Ea. |
| 9 | 6" Gate Valve | 1 | Ea. |
| 10 | 8" Gate Valve | 4 | Ea. |
| 11 | 12" Gate Valve | 2 | Ea. |
| 12 | 8" Butterfly Valve | 1 | Ea. |
| 13 | 12" Butterfly Valve | 3 | Ea. |
| 14 | 12"x8"x8" Tee | 2 | Ea. |
| 15 | 12"x12"x8" Tee | 2 | Ea. |
| 16 | 12"x12"x6" Tee | 2 | Ea. |
| 17 | Air Release Valve | 1 | Ea. |
| 18 | General Conditions Profit and Misc. | 1 | Ea. |

## LEGEND

- SECTION CORNER, ORIGIN UNKNOWN UNLESS OTHERWISE NOTED
- MONUMENT FOUND, ORIGIN UNCERTAIN UNLESS OTHERWISE NOTED
- (D) DESCRIBED
- (M) MEASURED
- (C) CALCULATED
- (P) PLATTED
- STREET SIGN
- UTILITY POLE
- LP UTILITY POLE W/ LIGHT
- UTILITY POLE W/TRANSFORMER
- LIGHT POLE
- DEADMAN ANCHOR
- (5) OU OVERHEAD UTILITY - # LINES
- AIR CONDITIONING UNIT
- ELECTRIC PEDESTAL
- ELECTRIC METER
- E UNDERGROUND ELECTRIC LINE
- UTILITY MANHOLE
- CATV CABLE TV SIGN
- CABLE TV PEDESTAL
- GAS SIGN
- GAS METER
- G UNDERGROUND GAS LINE
- GTS GAS CATHODIC PROTECTION STATION
- W WATER LINE
- WATER LINE GATE VALVE
- WS WATER SPIGOT
- WATER METER
- WELL
- FIRE HYDRANT
- SANITARY SEWER MANHOLE
- S SANITARY SEWER LINE
- STORM SEWER MANHOLE
- TELEPHONE SIGN
- TELEPHONE MANHOLE
- TELEPHONE PEDESTAL
- T UNDERGROUND TELEPHONE LINE
- SPLICE BOX
- FOC FIBER OPTIC CABLE SIGN
- FOC UNDERGROUND FIBER OPTIC CABLE
- TRAFFIC CONTROL POLE
- PULL BOX
- FP FLAG POLE
- MB MAILBOX
- ADA HANDICAP SIGN
- HANDICAP PAINTED SYMBOL
- LEFT TURN ARROW
- STRAIGHT ARROW
- RIGHT TURN ARROW
- GP GATE POST
- FENCE POST
- WOOD FENCE
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- 18" DECIDUOUS TREE W/SIZE & DRIP LINE
- 22" EVERGREEN TREE W/SIZE & DRIP LINE
- SAP SAPPLING TREE
- SHRUB
- STUMP
- TREE LINE
- SHRUB LINE
- 10 PARKING STALL COUNT
- 970 1' CONTOUR INTERVAL
- RESTRICTED ACCESS
- B/B BACK OF CURB TO BACK OF CURB
- E/E EDGE TO EDGE

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-4300 | FAX (785) 762-7744
js@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

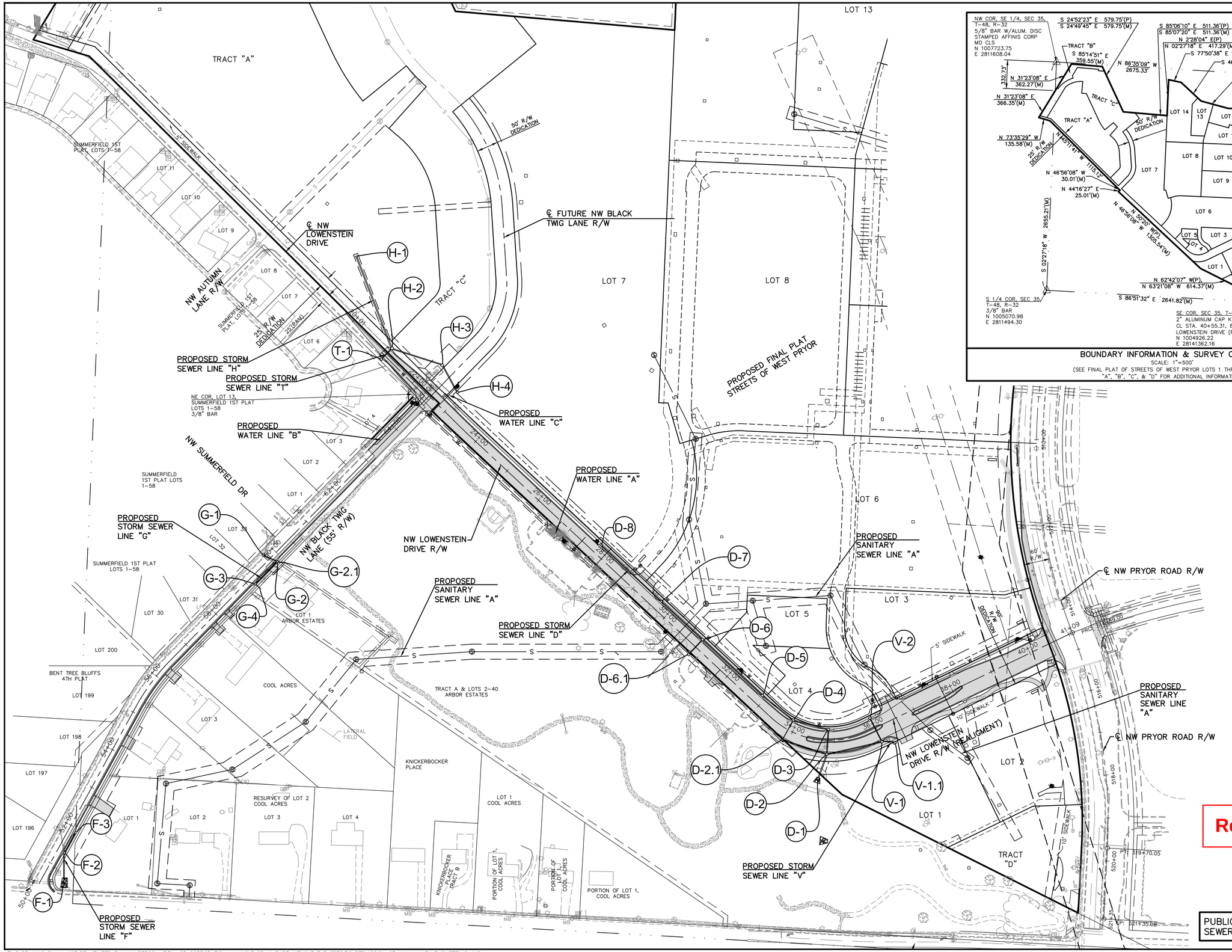
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

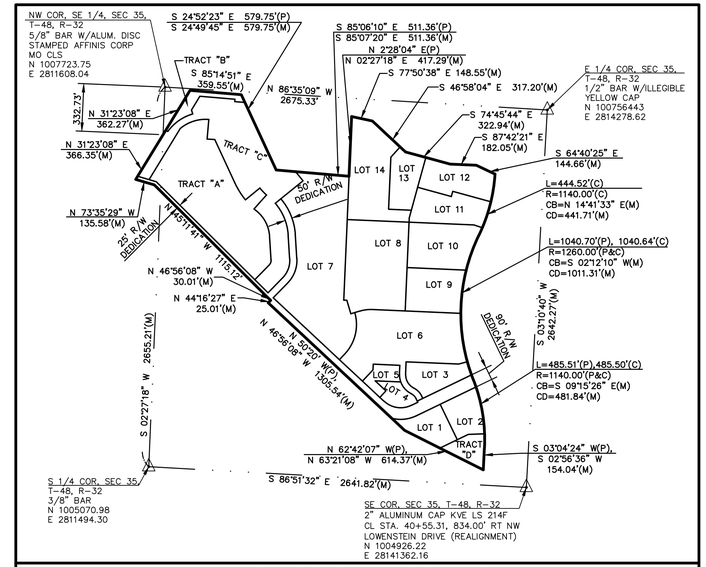
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**GENERAL NOTES**

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_GEN
SHEET 2 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




## BOUNDARY INFORMATION & SURVEY CONTROL

SCALE: 1"=500'

(SEE FINAL PLAT OF STREETS OF WEST PRYOR LOTS 1 THRU 14, TRACTS "A", "B", "C", & "D" FOR ADDITIONAL INFORMATION)

0 50 100 200

SCALE: 1" = 100'

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| | | | LDO | JT | LDO |
| | | | LDO | BKR | LDO |
| | | | LDO | JT | LDO |
| | | | LDO | JT | LDO |
| | | | LDO | JT | LDO |
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785)762-5040 | FAX (785)762-7744
jo@kveng.com | www.kveng.com


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

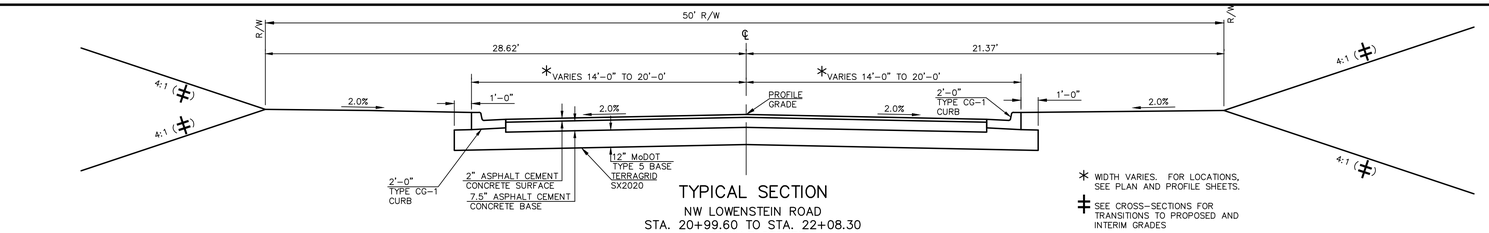
# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
GENERAL LAYOUT SHEET

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_GLS |
| SHEET | 3 |
| REV | 5 |

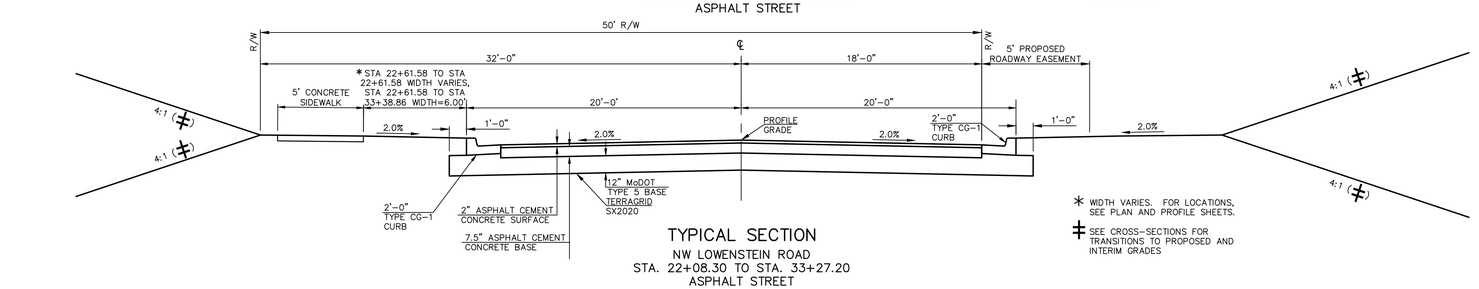
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

**Record Drawing**



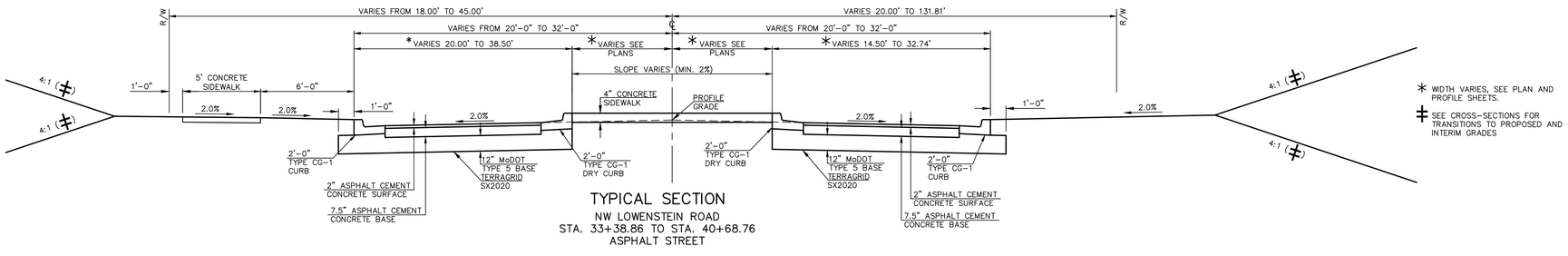

TYPICAL SECTION
NW LOWENSTEIN ROAD
STA. 20+99.60 TO STA. 22+08.30
ASPHALT STREET

* WIDTH VARIES. FOR LOCATIONS, SEE PLAN AND PROFILE SHEETS.
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES



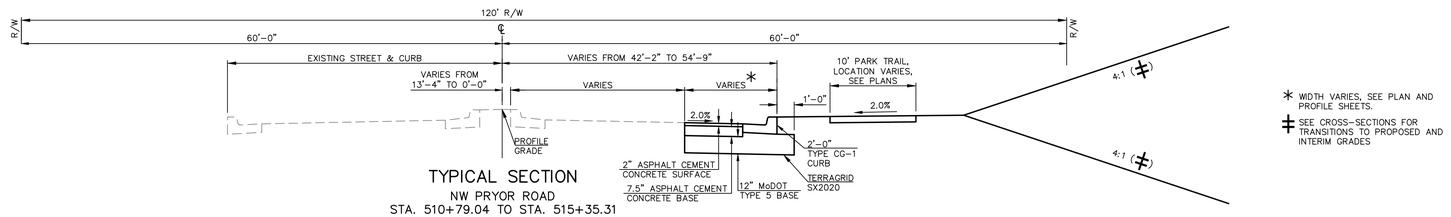

TYPICAL SECTION
NW LOWENSTEIN ROAD
STA. 22+08.30 TO STA. 33+27.20
ASPHALT STREET

* WIDTH VARIES. FOR LOCATIONS, SEE PLAN AND PROFILE SHEETS.
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES



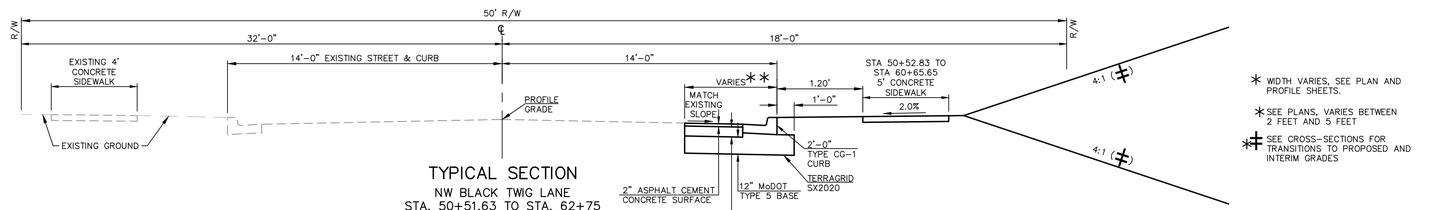

TYPICAL SECTION
NW LOWENSTEIN ROAD
STA. 33+38.86 TO STA. 40+68.76
ASPHALT STREET

* WIDTH VARIES, SEE PLAN AND PROFILE SHEETS.
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES



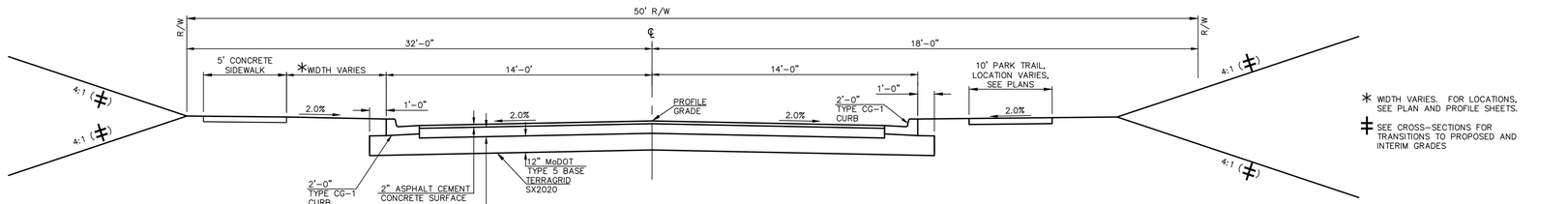

TYPICAL SECTION
NW PRYOR ROAD
STA. 510+79.04 TO STA. 515+35.31
ASPHALT STREET WIDENING

* WIDTH VARIES, SEE PLAN AND PROFILE SHEETS.
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES




TYPICAL SECTION
NW BLACK TWIG LANE
STA. 50+51.63 TO STA. 62+75
ASPHALT STREET

* WIDTH VARIES, SEE PLAN AND PROFILE SHEETS.
* SEE PLANS, VARIES BETWEEN 2 FEET AND 5 FEET
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES




TYPICAL SECTION
NW BLACK TWIG LANE
STA. 62+75 TO STA. 64+96.32
ASPHALT STREET

* WIDTH VARIES. FOR LOCATIONS, SEE PLAN AND PROFILE SHEETS.
‡ SEE CROSS-SECTIONS FOR TRANSITIONS TO PROPOSED AND INTERIM GRADES

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jdkweng.com | www.kweng.com


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**TYPICAL SECTIONS**

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_TYP | |
| SHEET | REV |
| 4 | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

**Record Drawing**

TRACT "A"

EXISTING POWER POLE AND GUY ANCHORS TO REMAIN UNTIL FUTURE INTERSECTION CONSTRUCTION

CONTRACTOR TO COORDINATE ADJUSTMENT OF EXISTING UTILITIES AS NECESSARY

PROP. 30' UTILITY ESMT

20' ANCHOR EASEMENT DOC. NO. I-800361, BK I-1725, PG 610 9-17-87

FUTURE NW BLACK TWIG LANE

PROP. 10' BUILDING SETBACK & UTILITY ESMT

92+00

CL STA 22+48.75 NW LOWENSTEIN DRIVE=
CL STA 65+08.32 NW BLACK TWIG LANE
N 1006250.66
E 2812322.90

CL STA 22+52.07 NW LOWENSTEIN DRIVE=
CL STA 92+88.78 NW BLACK TWIG LANE
N 1006248.33
E 2812325.26

CONTRACTOR TO COORDINATE RELOCATION OF FIBER OPTIC LINE WITH UTILITY COMPANY

PROPOSED RETAINING WALL (SEE MASS GRADING PLANS)
CONSTRUCTION LIMITS

FUTURE BUILDING

STA 20+99.60
**BEGIN** STREET CONSTRUCTION
N 1006355.77
E 2812217.08

STA 21+09.55, 15.50' LT
CONSTRUCT 5'x5' CURB INLET
SEE CURB INLET DETAIL

10' ELECTRIC LINE EASEMENT DOC. NO. I-800361, BK I-1725, PG 610 RECORDED: 9-17-1987

STA. 21+81.69
O/S 18.38' LT.

PROPOSED 5' CONCRETE SIDEWALK

PROP. 20' BUILDING SETBACK

STA 22+73.39, 20.00' LT
INSTALL SIDEWALK RAMP

Δ=1°44'27"
R=980.00'

9.00'

LOT 7

Δ=4°37'13"
R=500.00'

STA. 22+21.97
O/S 20.00' LT.

STA. 23+42.89
O/S 20.00' LT.

PC: 23+50.48

PT: 23+65.68

STA. 23+73.27
O/S 20.00' LT.

PROP. UTILITY ESMT

21.68

N 45°11'41" W 152.47'

N 45°11'41" W 149.15'

14.00'

14.00'

50' R/W

22.68

23+00

S 45°11'41" E 98.41'

CURVE #1

24+00

S 46°56'08" E 973.18'

25+00

26+00

27+00

PROPOSED 32' R/W

PROPOSED 18' R/W

20.00'

20.00'

℄ NW LOWENSTEIN DRIVE IMPROVEMENTS

Δ=4°04'57"
R=701.00'

STA. 23+42.95
O/S 20.47' RT.

STA 21+09.77, 15.50' RT
CONSTRUCT 5'x4' CURB INLET
SEE CURB INLET DETAIL

WOOD FENCE

PROP. TEMP. GRADING ESMT

STA 21+67.18, 15.06' RT TO STA 21+77.19, 15.47' RT
BEGIN TRANSITION OF STANDARD CURB HEIGHT TO VARIABLE CURB HEIGHT. VARIABLE CURB HEIGHT TO END AT RAMP

REMOVE FIRE HYDRANT, VALVE AND WATER LINE TO LIMITS SHOWN ON WATER LINE PLANS

STA. 22+93.01
O/S 20.21' RT.

PROP. 5' ROADWAY ESMT

PROP. 15' UTILITY ESMT

STA. 22+88.97
O/S 20.04' RT.

CONSTRUCTION LIMITS

TRACT A & LOTS 2-40 ARBOR ESTATES

STA 26+73.09, 40.00' RT
CONSTRUCT ENTRANCE
W=28.0'
SEE DRIVEWAY WITH BUFFER DETAIL

CONTRACTOR TO COORDINATE ADJUSTMENT OF EXISTING UTILITIES AS NECESSARY

LOT 5
OWNER: MICHAEL & CARLA CIACCIO

STA: 21+77.19
OFF: 15.47'R
TC=985.78
FL=984.81

STA: 22+15.73
OFF: 17.05'R
TC=987.87
FL=986.90

RELOCATE FENCE, REPLACE 21.7 LF WOOD FENCE, MATCH EXISTING.

LOT 4
OWNER: KEVIN I & PATRICIA M SNOW

28' B/B

65+00

22.68

53.32'

NW BLACK TWIG LANE (55' R/W)
PUBLIC - ASPHALT STREET

64+00

ASPHALT

12"

15"

SCALE: 1" = 20'

SCALE: 1" = 5'

**℄ CURVE DATA**

CURVE #1
Δ=01°44'27"
R=500.00'
T=7.60'
L=15.19'
CB=S 46°03'54" E
CD=15.19'

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

AS-BUILT

550' VC
HIGH PT STA=24+75.42
HIGH PT ELEV=993.93
PVI STA=24+00.65
PVI ELEV=1000.84
K=50.67'
AD=-10.85%

EXISTING GROUND

-3.95%

FINISHED PROFILE GRADE

STA. 23+01.14
APPROX LOCATION
EXISTING GAS MAIN
DEPTH UNKNOWN

STA. 22+22.11
APPROX LOCATION
EXISTING TELEPHONE LINE
DEPTH UNKNOWN

STA. 22+38.25
APPROX LOCATION
EXISTING 8" WATER LINE
DEPTH UNKNOWN

+52.07
NW BLACK TWIG LANE
℄ STA
FUTURE NW BLACK TWIG LANE

STA. 22+80.07
PROPOSED WATER LINE "C"
ELEV=980.62

STA = 20+99.60
ELEV = 980.06

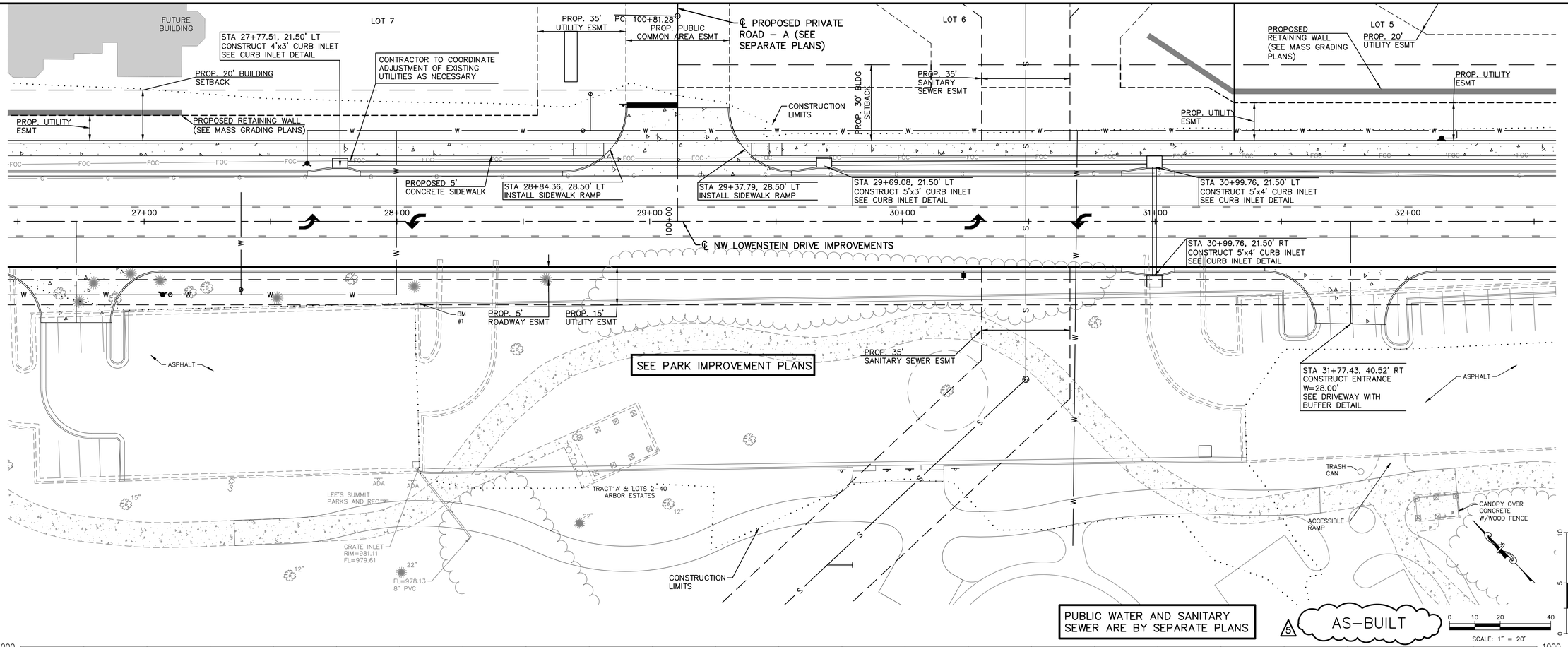
BVCS: 21+25.65
BVCE: 981.86

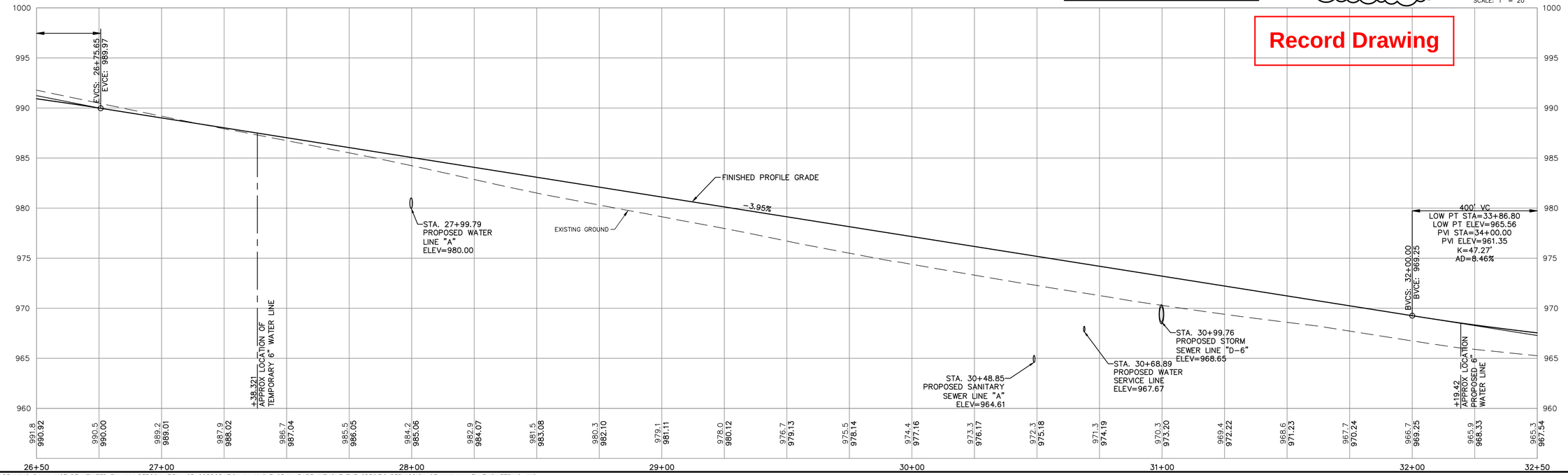
STA. 21+09.66
PROPOSED STORM SEWER LINE "T"
ELEV=975.58

6.90%

6.46%

| | | |




| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5641 | FX: (785) 762-7744
jb@kveng.com | www.kveng.com

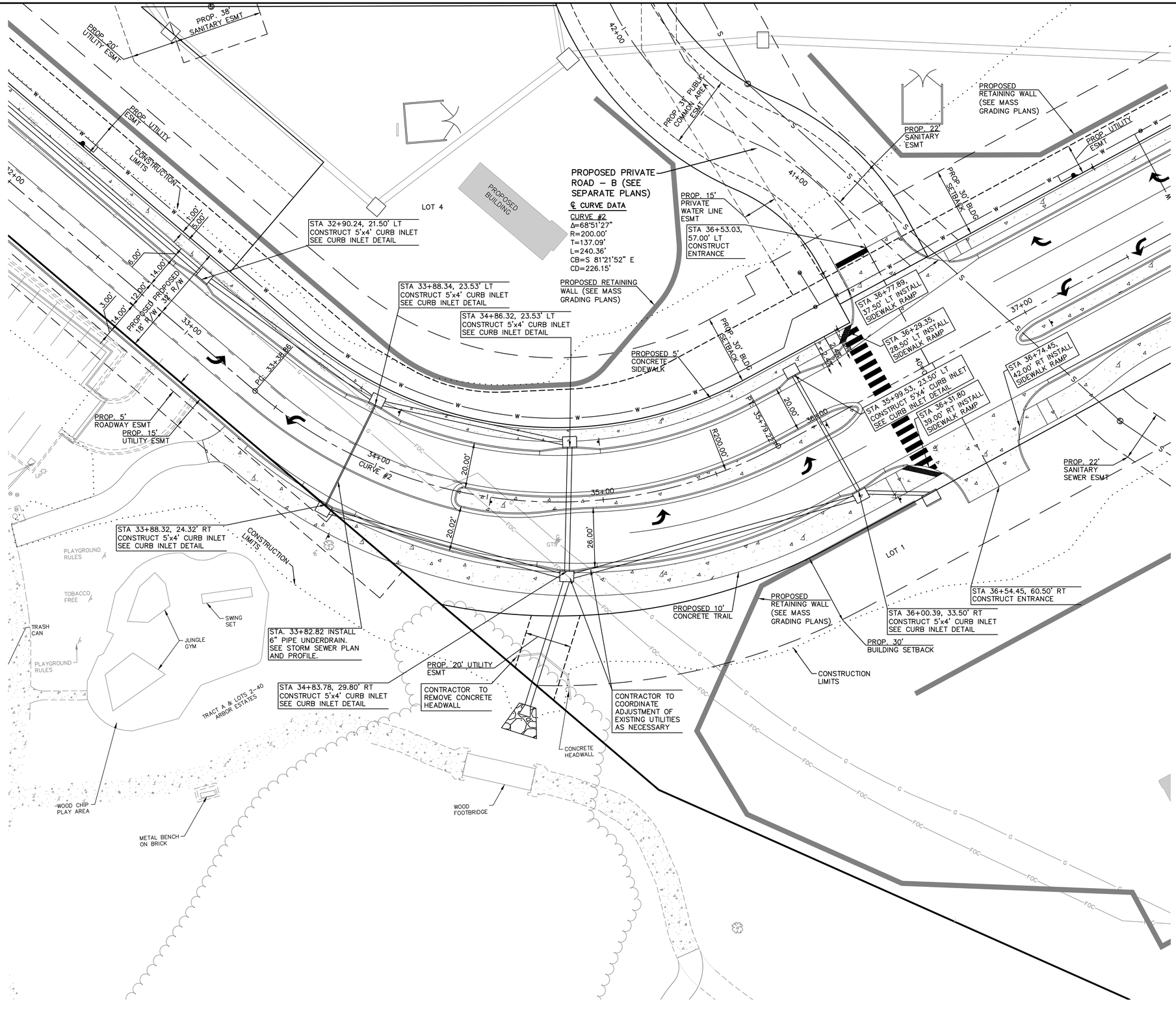
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

**PUBLIC STREET PLANS**
NW LOWENSTEIN DRIVE - PLAN & PROFILE

| PROJ. NO. | A14_7067-1 | |
|---|---|---|
| DESIGNER | LDO | DRAWN BY JT/BKR |
| CFN | 7067-1PI_STPP | |
| SHEET | 6 | REV 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

Record Drawing

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5500 | FAX: (785) 762-7744
jbowers@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

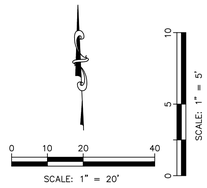
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

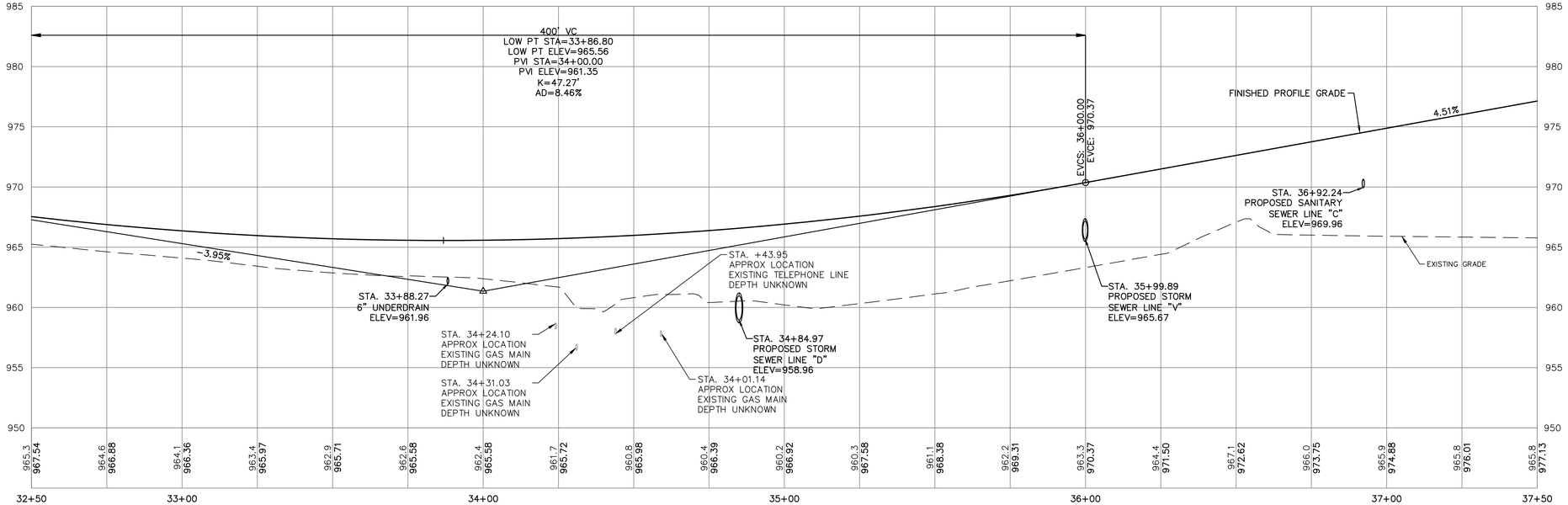
## PUBLIC STREET PLANS
NW LOWENSTEIN DRIVE - PLAN

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 7 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS




Record Drawing

5
AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jdavis@kveng.com | www.kveng.com

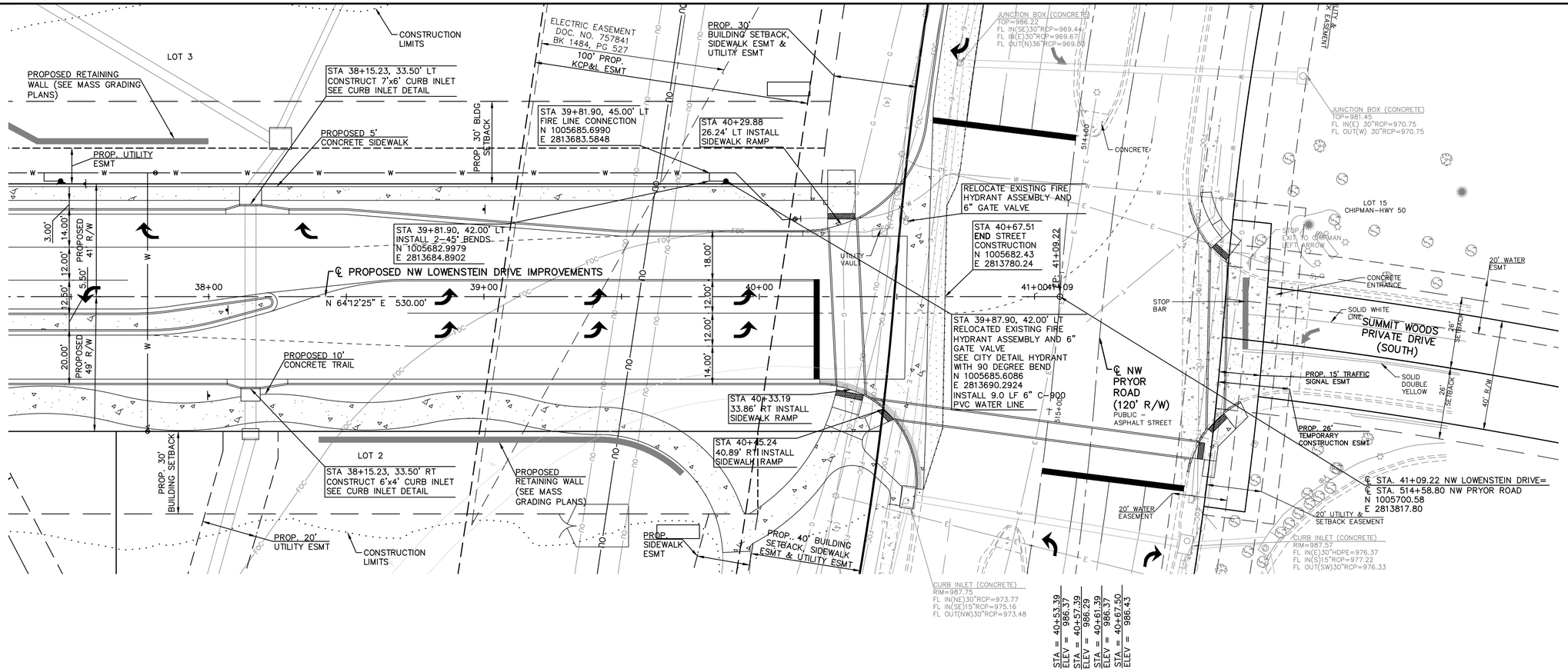
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

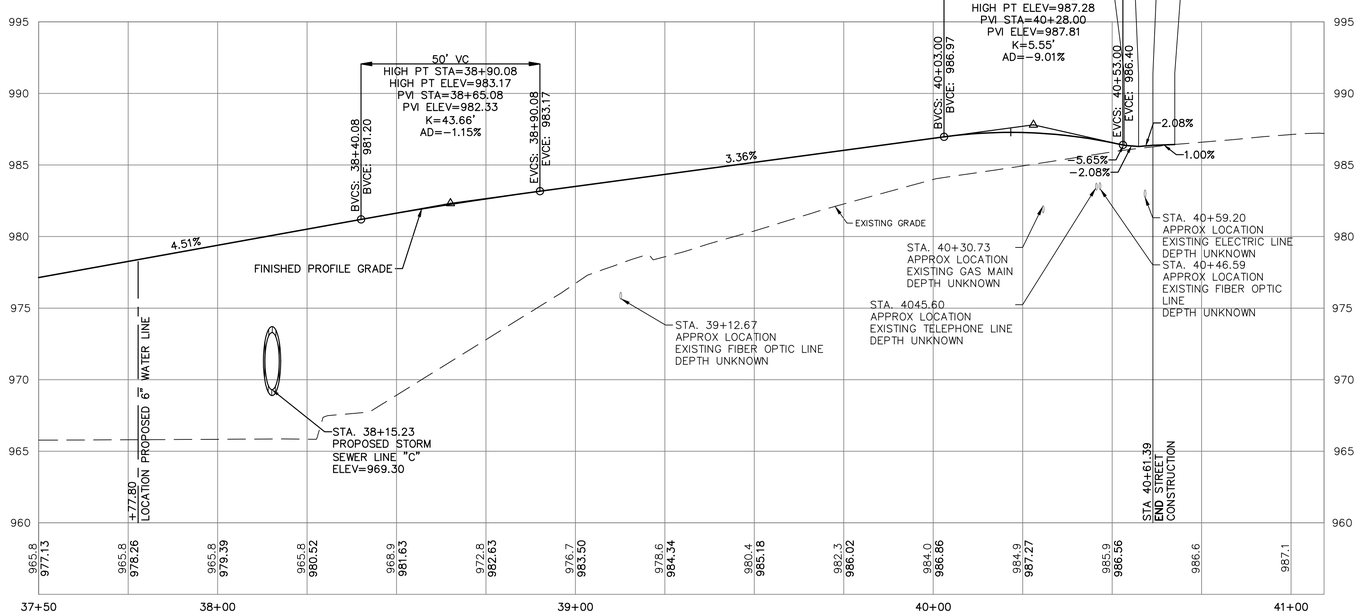
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

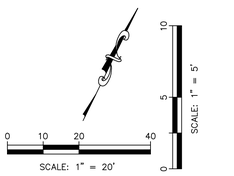
**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - PROFILE**

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV. |
| 8 | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

**Record Drawing**

AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 4 | 9-10-19 | REVISED PER FIELD CONDITIONS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5441 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com

**KAW VALLEY ENGINEERING**

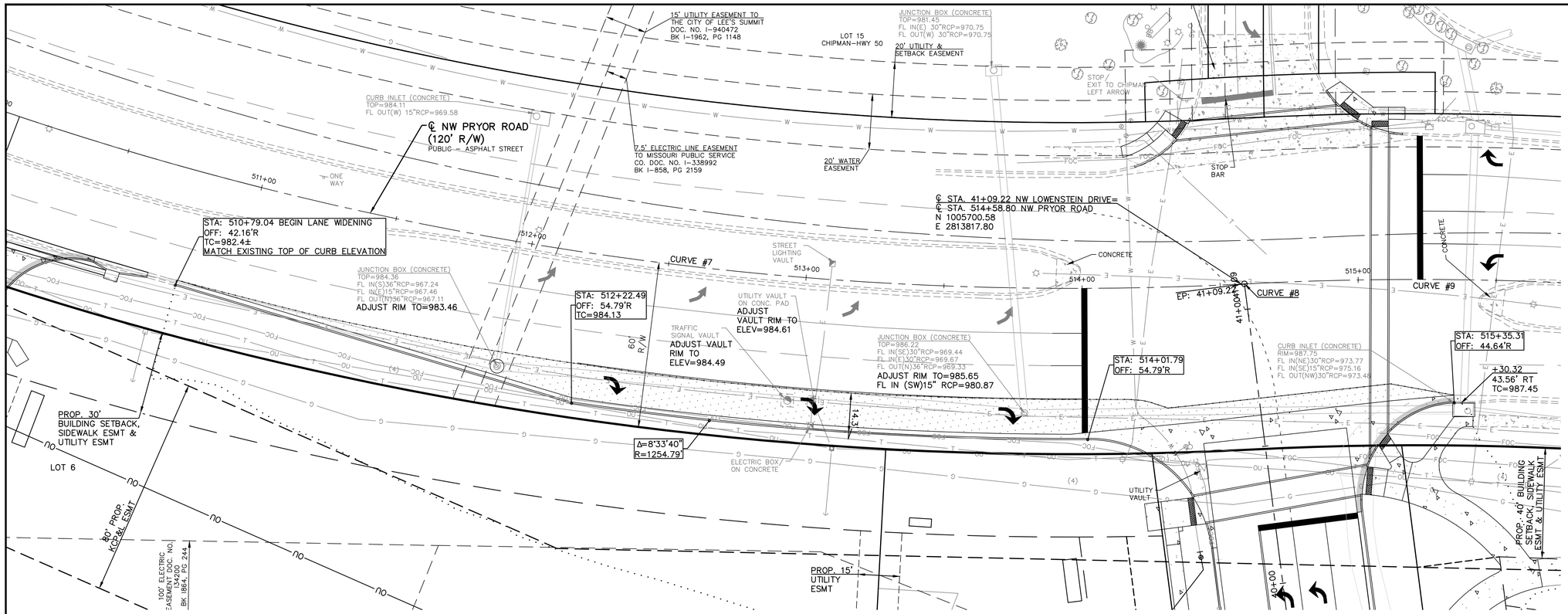
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

## PUBLIC STREET PLANS
## NW LOWENSTEIN DRIVE - PLAN & PROFILE

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_STPP
SHEET 9 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

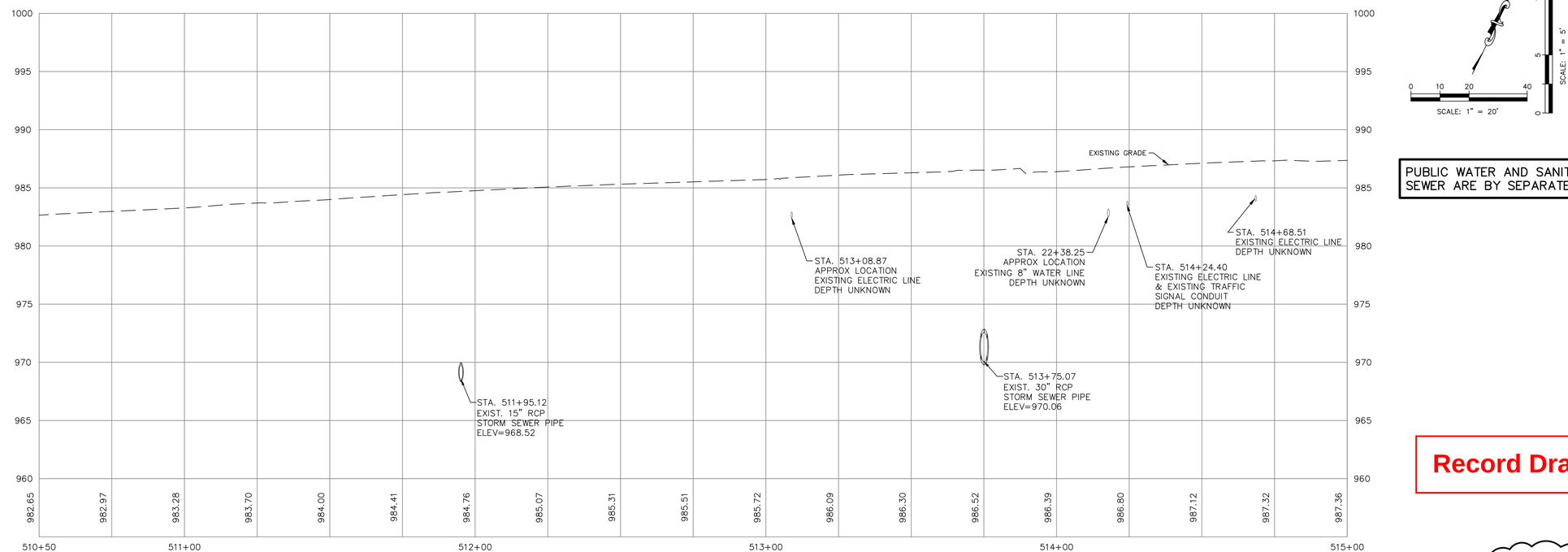


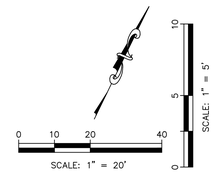

## ℄ CURVE DATA

CURVE #7
POC STA. 510+08.63
N 1006140.33 E 2813734.70
POC STA. 514+58.80 NW PRYOR ROAD = ℄ STA. 41+09.22 NW LOWENSTEIN DRIVE
N 1005700.58 E 2813817.80
Δ=21°29'39"
R=1200.00'
T=227.76'
L=450.17'
CB=S 10°42'05" E
CD=447.54'

CURVE #8
POC STA. 514+58.80 NW PRYOR ROAD = ℄ STA. 41+09.22 NW LOWENSTEIN DRIVE
N 1005700.58 E 2813817.80
PRC STA 514+59.00
N 1005700.40 E 2813817.87
Δ=00°00'34"
R=1200.00'
T=0.10'
L=0.20'
CB=S 21°27'11" E
CD=0.20'

CURVE #9
PRC STA. 514+59.00
N 1005700.40 E 2813817.87
PC STA. 519+70.05
N 1005199.81 E 2813899.46
Δ=24°24'04"
R=1200.00'
T=259.46'
L=511.05'
CB=S 09°15'26" E
CD=507.20'




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

**Record Drawing**

5
AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jb@kveng.com | www.kveng.com

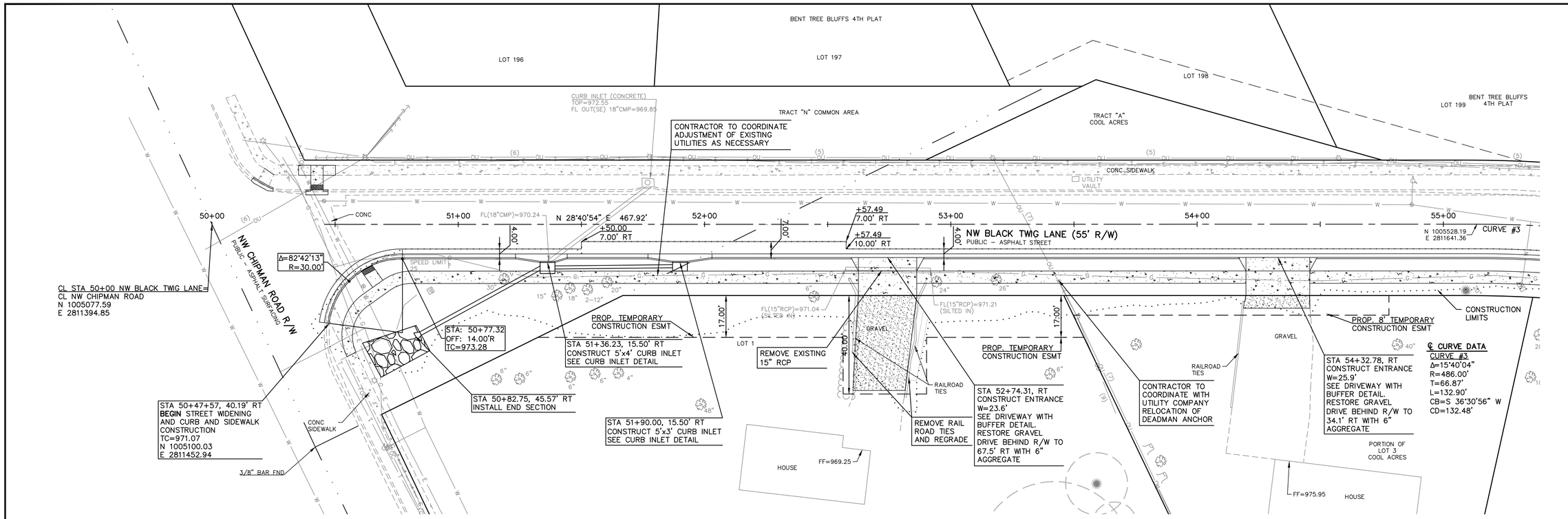

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

**PUBLIC STREET PLANS**
NW PRYOR RD WIDENING AT NW LOWENSTEIN DR

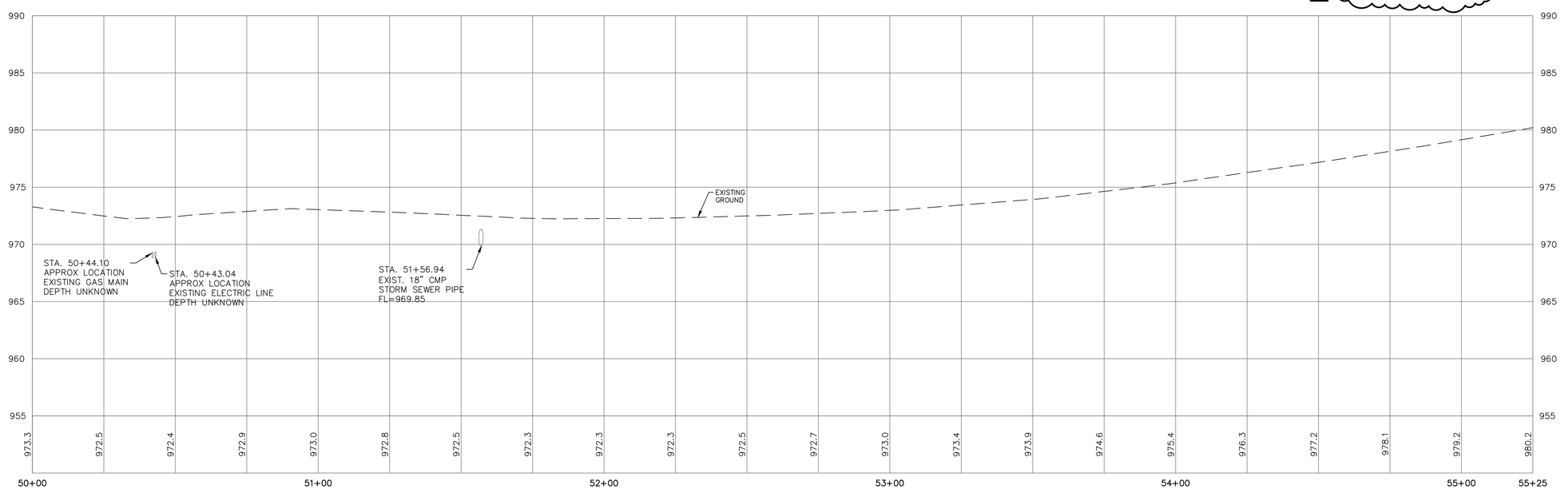
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 10 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




**Record Drawing**

AS-BUILT




| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5990 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com

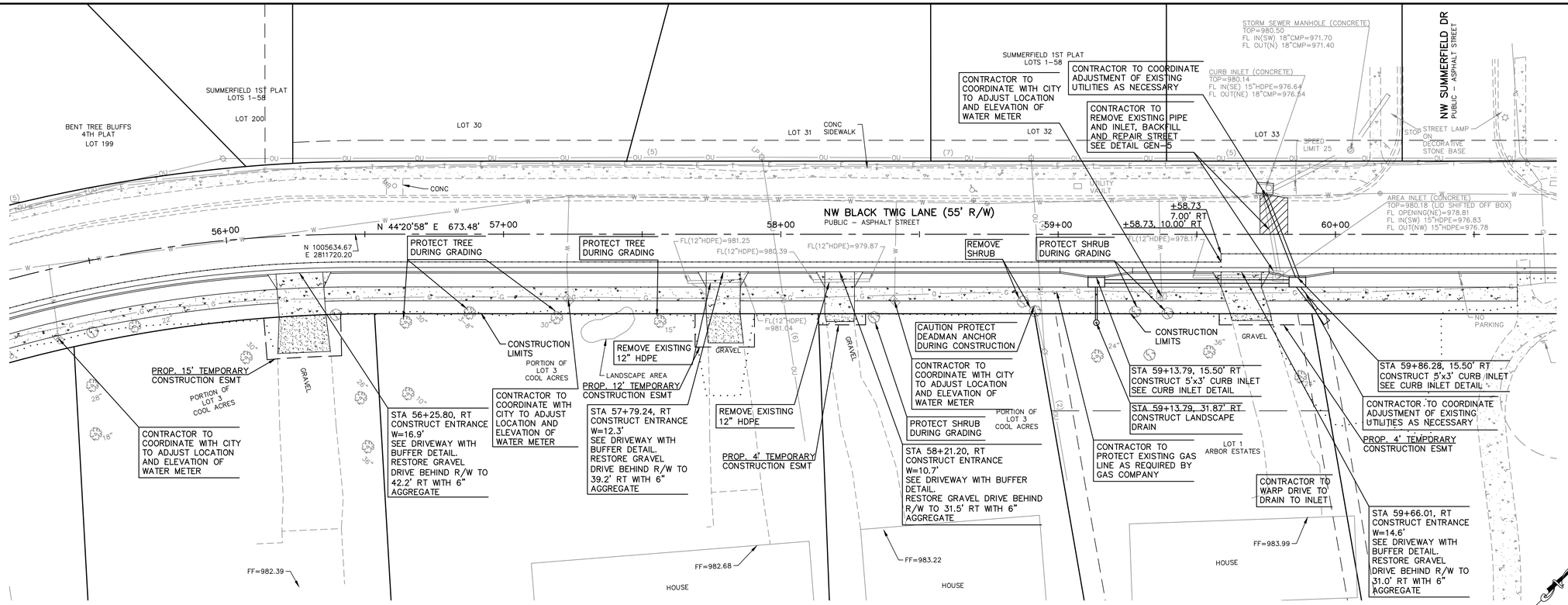

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW BLACK TWIG LANE - PLAN & PROFILE**

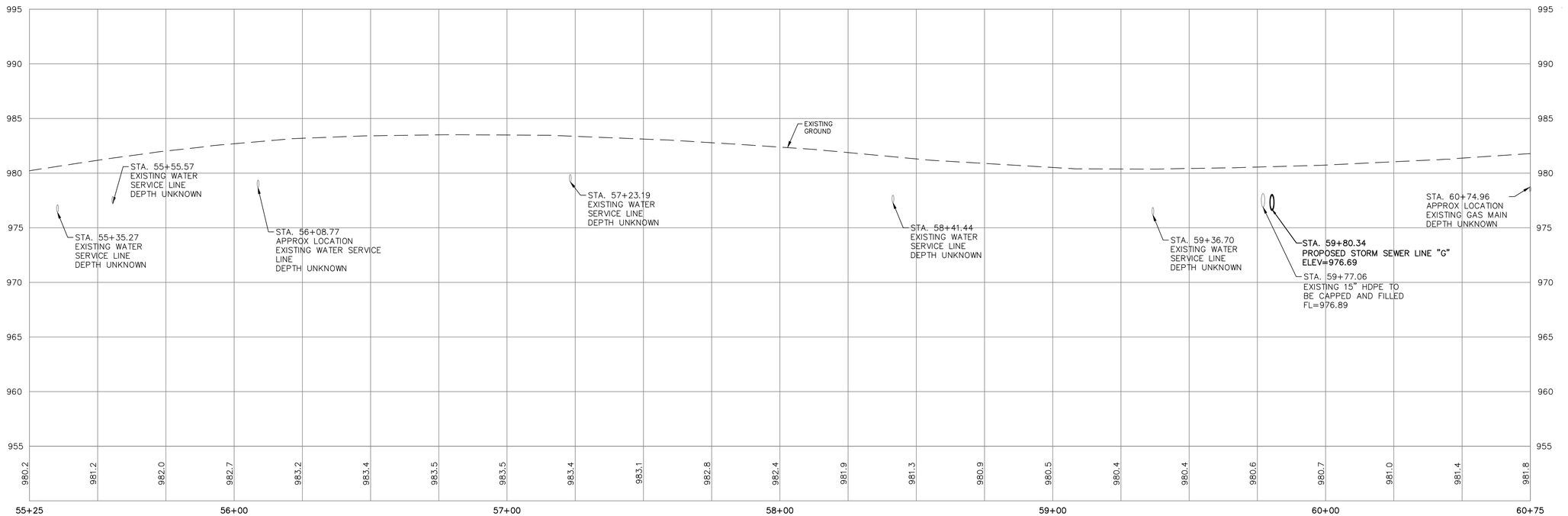
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 11 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




**Record Drawing**

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS




| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlowers@kveng.com | www.kveng.com

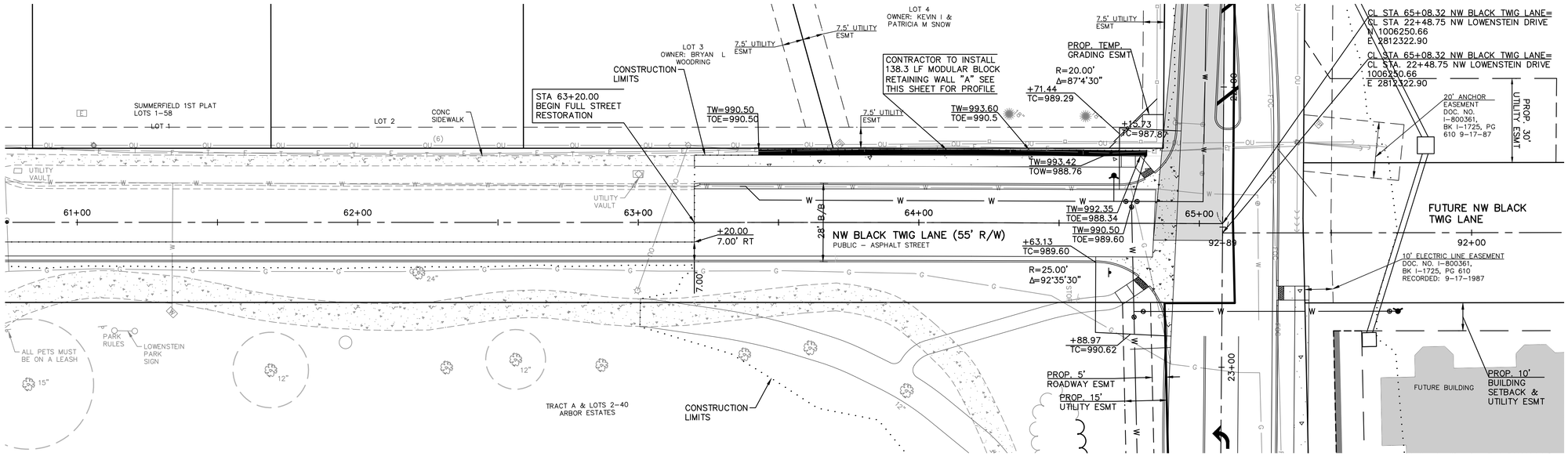

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

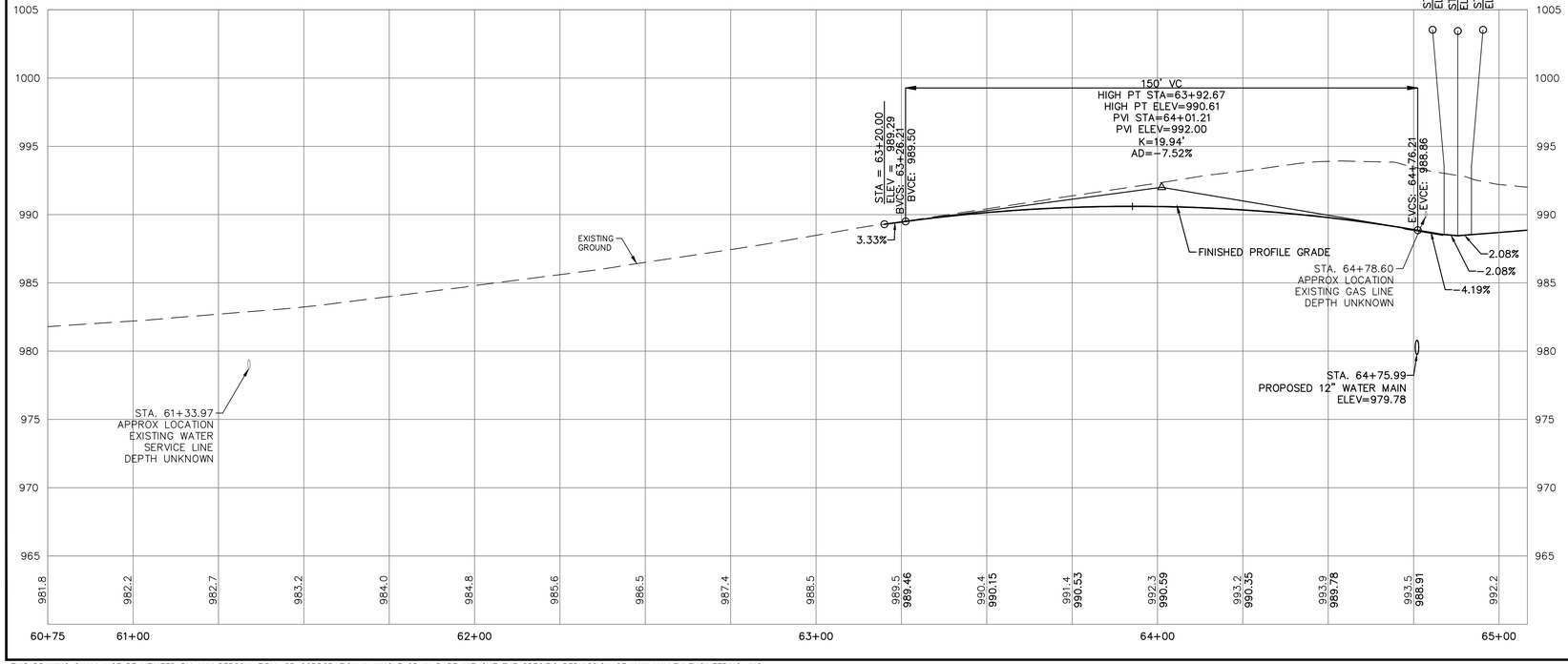
**PUBLIC STREET PLANS**
**NW BLACK TWIG LANE - PLAN & PROFILE**

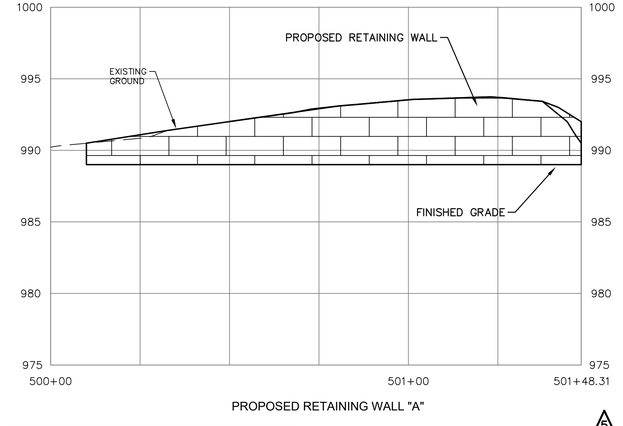
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 12 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS




PROPOSED RETAINING WALL "A"

5

**Record Drawing**

AS–BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2–9–21 | AS–BUILT PLANS | LDO | JT | LDO |
| 4 | 8–14–19 | REVISED PER CITY COMMENTS | LDO | JT | JT |
| 3 | 7–25–19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7–5–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5–16–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01–11–19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5641 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW BLACK TWIG LANE - PLAN & PROFILE**

| | |
|---|---|
| PROJ. NO. | A14_7067–1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067–1PI_STPP |
| SHEET | 13 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

PROPOSED 30' BLDG SETBACK, SIDEWALK & UTILITY EASEMENT

STA: 18+19.44
OFF: 54.79'L
TC=986.17

CONCRETE

NW PRYOR ROAD
(120' R/W)

STA: 18+04.24
OFF: 57.80'L
TC=986.51

LOT 3

10.00'

STA: 18+19.44
OFF: 99.79'L
R=45.0'
L=65.14'
Δ=82°55'59"
N: 1005722.08
E: 2813703.72

SAW CUT LINE (TYP)
MATCH EXISTING PAVEMENT
ELEVATIONS

STA: 40+22.91
OFF: 24.56'L
TC=987.36
G=986.81

STA: 40+15.86
OFF: 24.00'L
TC=987.29

STA: 17+91.20
OFF: 66.42'L
TC=986.86

STA: 40+36.67
OFF: 29.10'L
TC=987.09
G=986.54

PROPOSED 30' BLDG SETBACK & UTILITY EASEMENT

UTILITY VAULT

STA: 40+31.79
OFF: 26.91'L
EOP=986.10

11.00'

24.00'

PROPOSED 41' R/W

PROPOSED REALIGNMENT NW LOWENSTEIN DRIVE (PROPOSED 90' R/W)

40+00

41+00

41+09

51+00

GOOGLE FIBER

PULL BOX FOR LIGHTING

PRIVATE DRIVE
(ASPHALT SURFACE)

SOLID WHITE LINE

SOLID DOUBLE YELLOW

CONCRETE ENTRANCE

PULL BOX FOR LIGHTING

UTILITY VAULT FOR AT&T

STA: 40+36.04
OFF: 34.97'R
EOP=986.10

STA: 40+22.02
OFF: 32.00'R
TC=987.16

STA: 17+12.19
OFF: 57.08'L
TC=986.74

STA: 17+09.48
OFF: 54.37'L
TC=987.32
G=986.81

32.00'

PROPOSED 49' R/W

STA: 40+26.32
OFF: 32.28'R
TC=987.24
G=986.73

STA: 17+00.34
OFF: 48.29'L
TC=987.22

CONCRETE

UTILITY VAULT

PROPOSED 30' BLDG SETBACK & SIDEWALK EASEMENT

STA: 40+39.60
OFF: 36.79'R
TC=987.41
G=986.90

PROPOSED 10' CONCRETE TRAIL

STA: 40+43.59
OFF: 39.51'R
TC=987.42
G=986.91

STA: 16+85.93
OFF: 44.64'L
TC=987.6±
MATCH EXISTING TOP OF CURB ELEVATION

PROPOSED KCP&L EASEMENT

10.00'

30.00'

100.00'

40.00'

PROPOSED 40' BLDG SETBACK, SIDEWALK EASEMENT & UTILITY EASEMENT

LOT 2

NW LOWENSTEIN DRIVE AND NW PRYOR ROAD

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

0 5 10 20
SCALE: 1" = 10'

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 1 | 7-5-19 | REVISED PER CITY COMMENT | LDO | JT | LDO |
| 0 | 5-16-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jdkveng.com | www.kveng.com


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR

NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

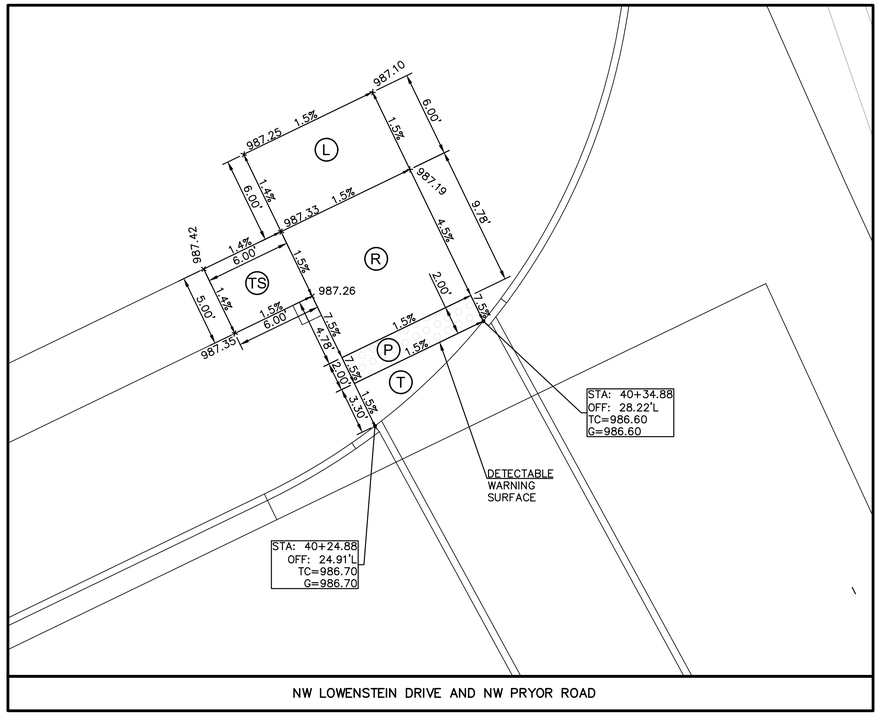
PUBLIC STREET PLANS
GEOMETRIC LAYOUT - INTERSECTION AND SIDEWALK

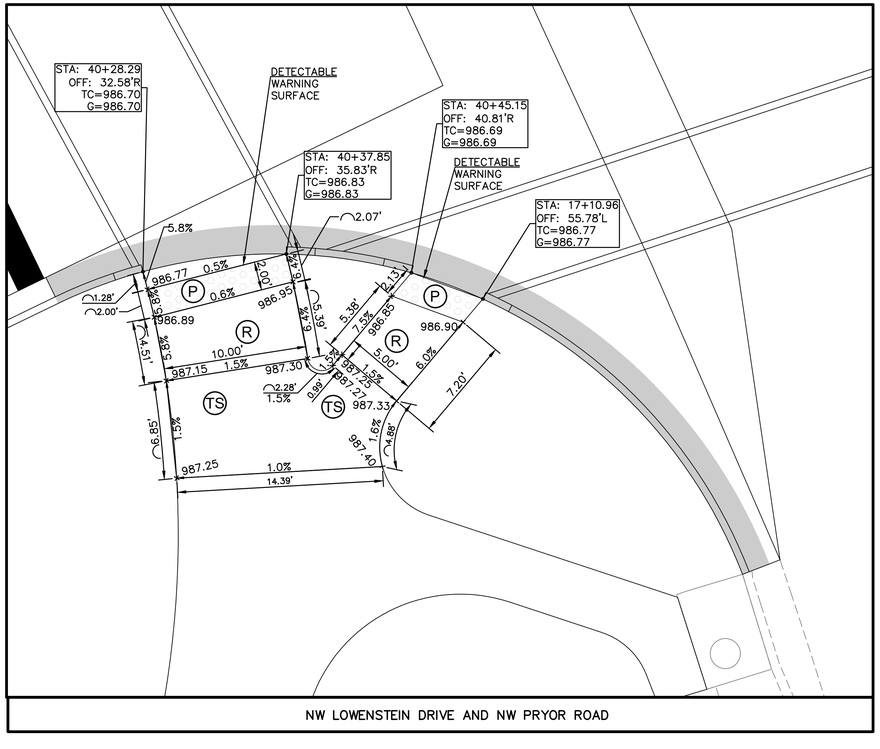
**Record Drawing**

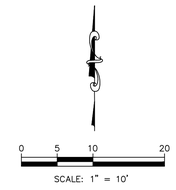
5
AS-BUILT

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_INT | |
| SHEET | REV |
| 13A | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




## LEGEND

| | |
|---|---|
| | DRY CURB |
| TC | TOP OF CURB ELEVATION |
| G | GUTTER ELEVATION |
| (R) | RAMP (7.5% RUNNING SLOPE, 1.5% MAXIMUM CROSS SLOPE) |
| (L) | LANDING (1.5% MAX IN ALL DIRECTIONS) |
| (TS) | TURNING SPACE (1.5% MAX IN ALL DIRECTIONS) |
| (P) | PAN |
| (T) | TRANSITION |

**CONSTRUCTION NOTES:**

1. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LEE'S SUMMIT STANDARD DETAIL GEN-3A. CONSTRUCTION SHALL COMPLY WITH GENERAL NOTES.

811 Know what's **below.** **Call** before you dig.

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 7-25-19 | REVISED PER CITY COMMENTS | LDO | BKR | LDO |
| 0 | 7-5-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5141 | FAX (785) 762-7744
jlb@kveng.com | www.kveng.com

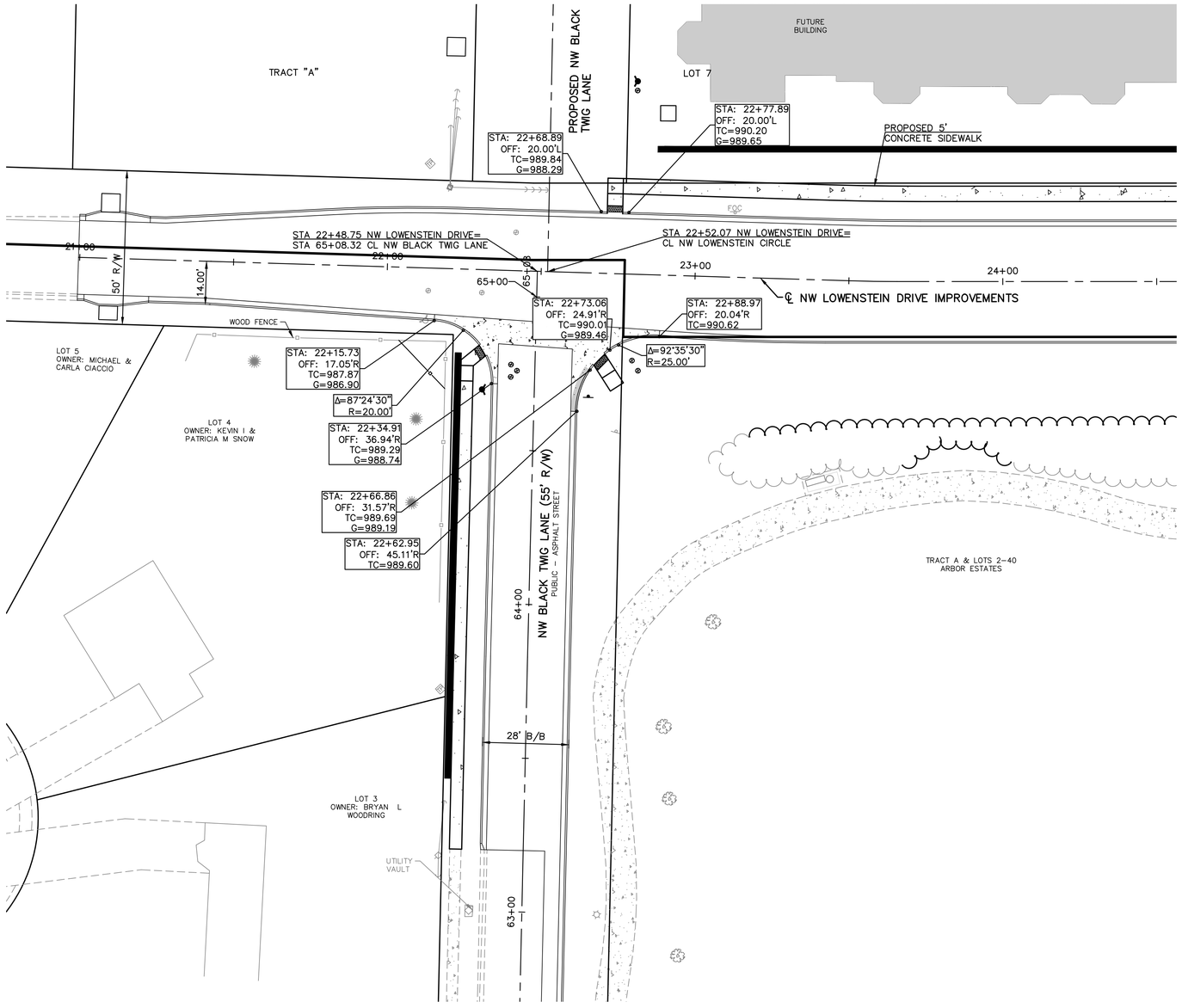
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
ADA RAMPS

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_INT
SHEET 13A1 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




**LEGEND**

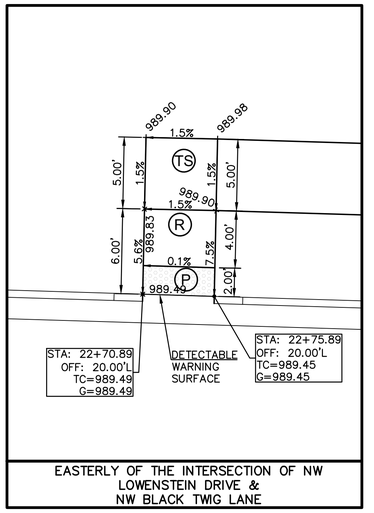
| | |
|---|---|
| | DRY CURB |
| TC | TOP OF CURB ELEVATION |
| G | GUTTER ELEVATION |
| (R) | RAMP (7.5% RUNNING SLOPE, 1.5% MAXIMUM CROSS SLOPE) |
| (L) | LANDING (1.5% MAX IN ALL DIRECTIONS) |
| (TS) | TURNING SPACE (1.5% MAX IN ALL DIRECTIONS) |
| (P) | PAN |
| (T) | TRANSITION |

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

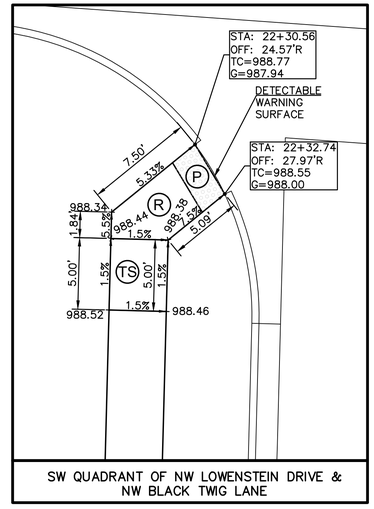
0 10 20 40
SCALE: 1" = 20'

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

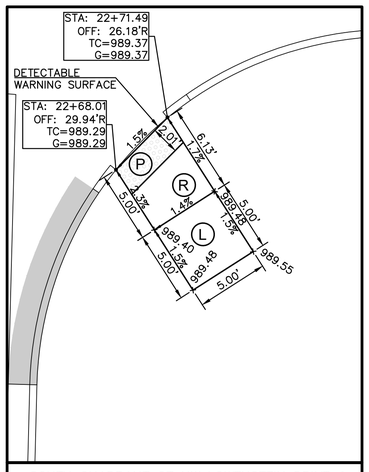
**CONSTRUCTION NOTES:**
1. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LEE'S SUMMIT STANDARD DETAIL GEN-3A. CONSTRUCTION SHALL COMPLY WITH GENERAL NOTES.




EASTERLY OF THE INTERSECTION OF NW LOWENSTEIN DRIVE & NW BLACK TWIG LANE




SW QUADRANT OF NW LOWENSTEIN DRIVE & NW BLACK TWIG LANE




SOUTH QUADRANT OF NW LOWENSTEIN DRIVE & NW BLACK TWIG LANE

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-25-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 7-10-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 5-16-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

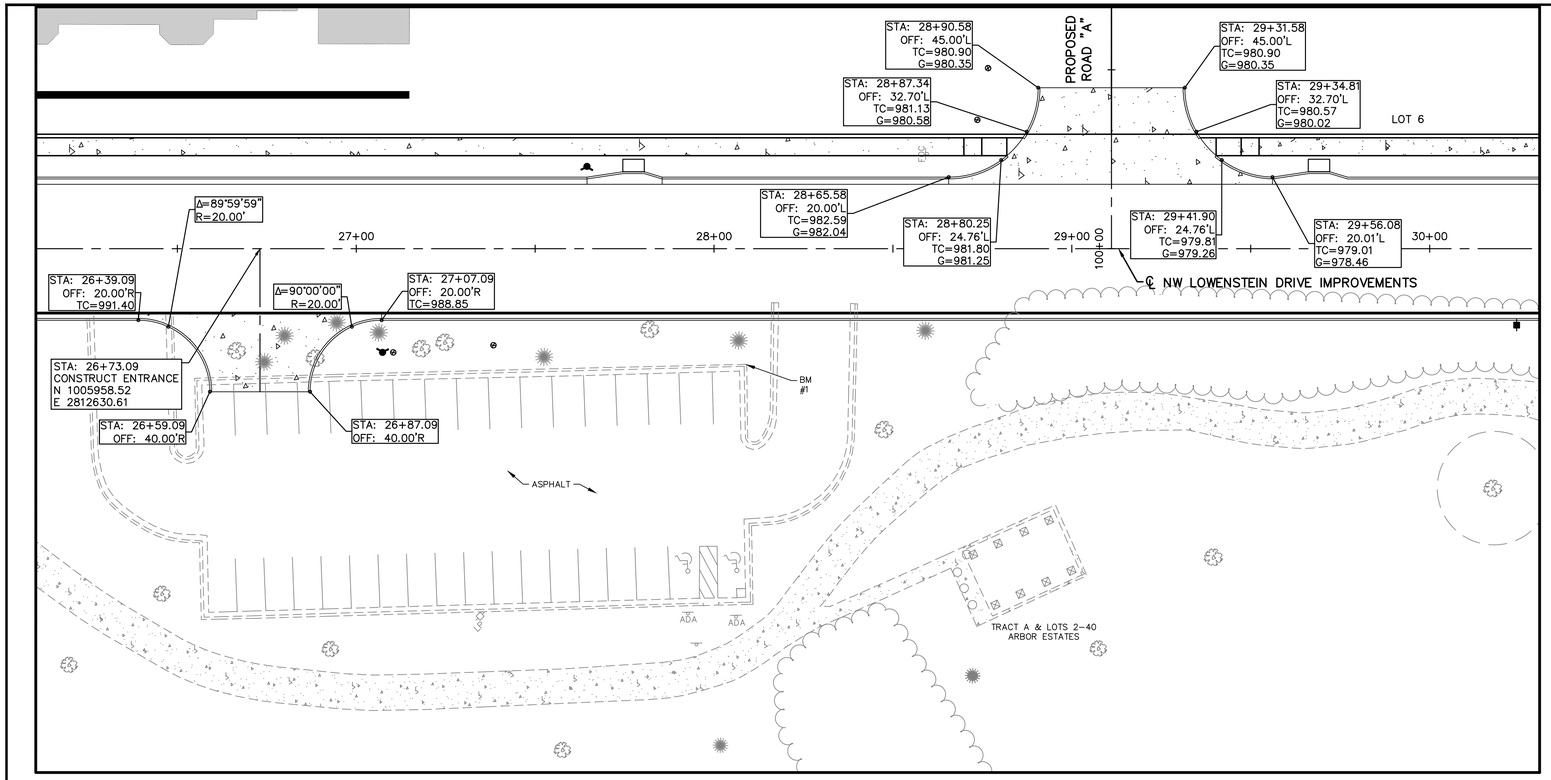

KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19


# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

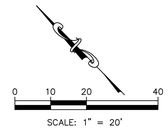
**PUBLIC STREET PLANS**
GEOMETRIC LAYOUT - INTERSECTION, SIDEWALK AND ADA RAMPS

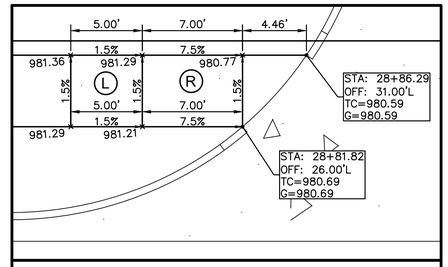
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_INT2 |
| SHEET | 13B |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

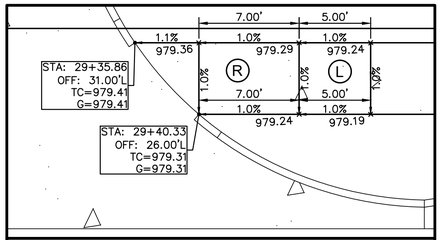



PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

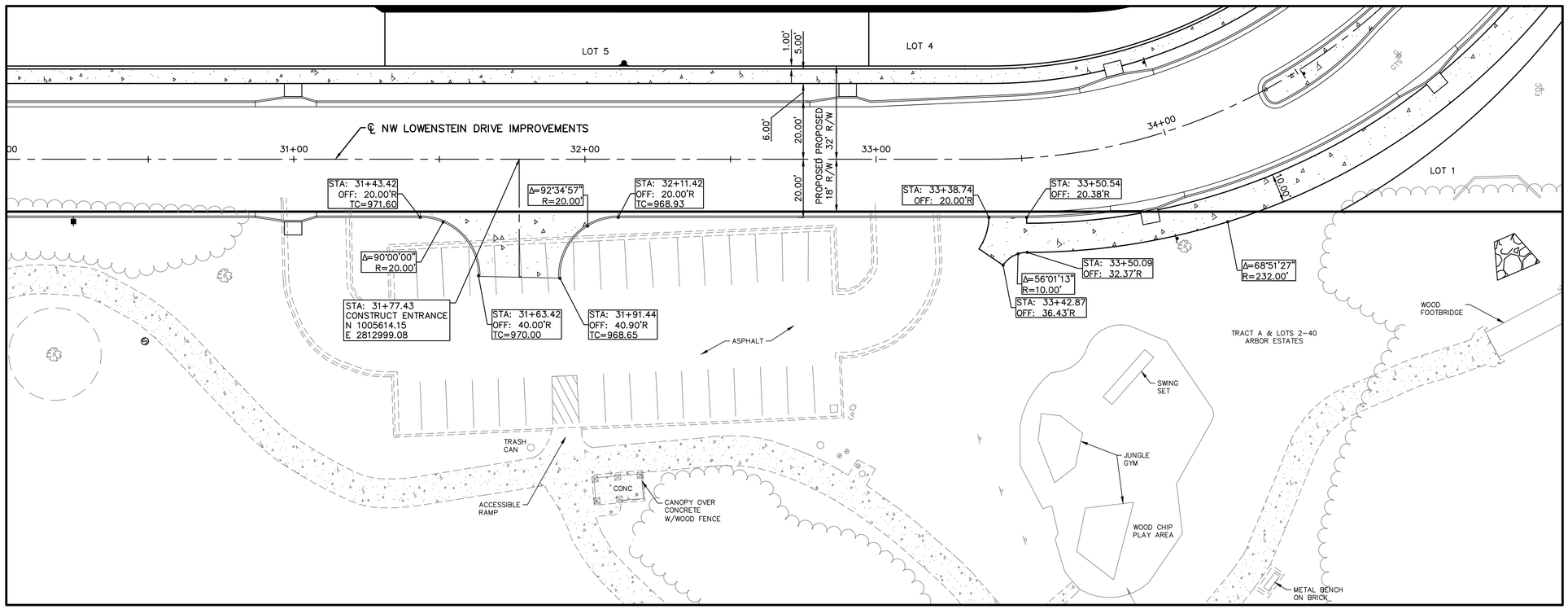



NORTH QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "A"




SOUTH QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "A"




**Record Drawing**

AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 10-4-19 | PER IN HOUSE REVIEW | LDO | BKR | LDO |
| 2 | 9-19-19 | PER IN HOUSE REVIEW | LDO | BKR | LDO |
| 1 | 7-25-19 | REVISED PER CITY COMMENT | LDO | JT | LDO |
| 0 | 5-16-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5641 | FAX: (785) 762-7744
jb@kveng.com | www.kveng.com

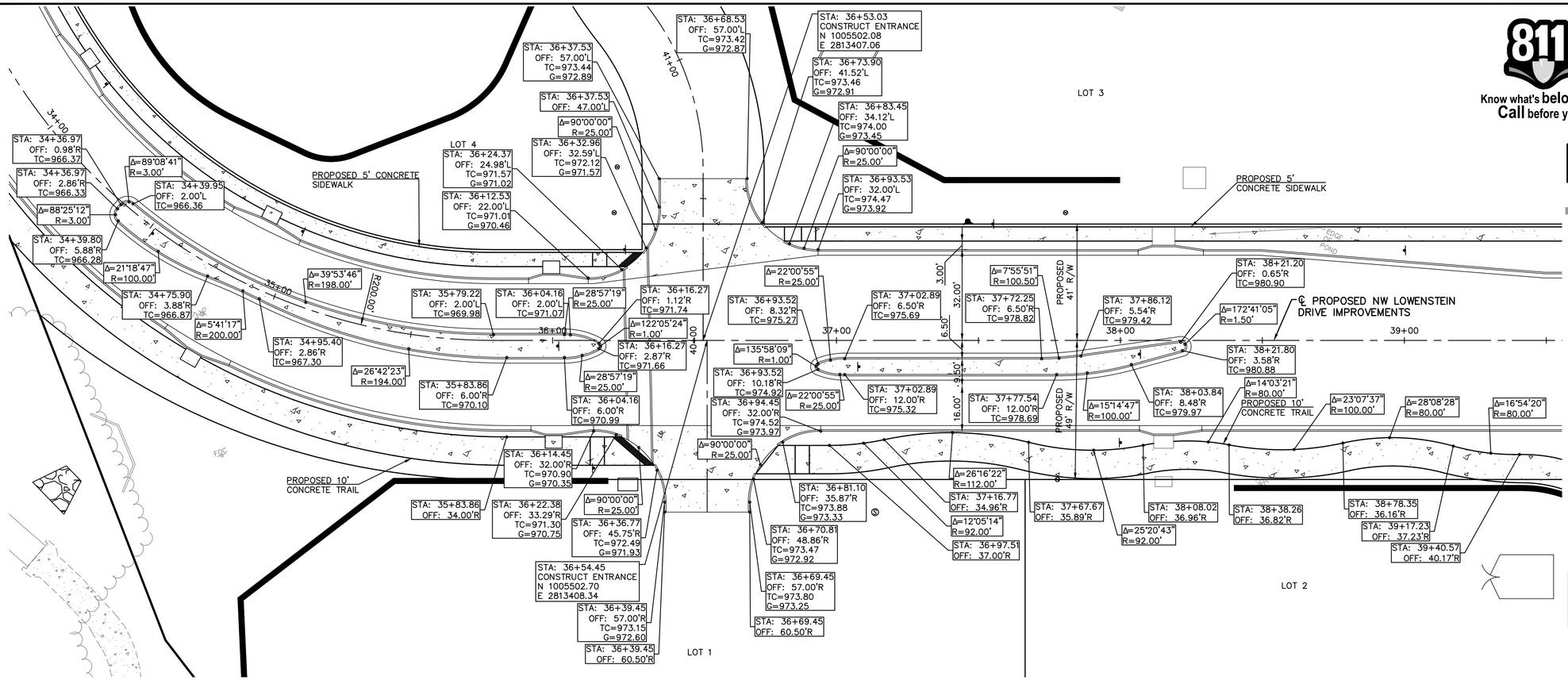

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
GEOMETRIC LAYOUT - INTERSECTION AND SIDEWALK

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_INT2 |
| SHEET | 13C |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

LEGEND

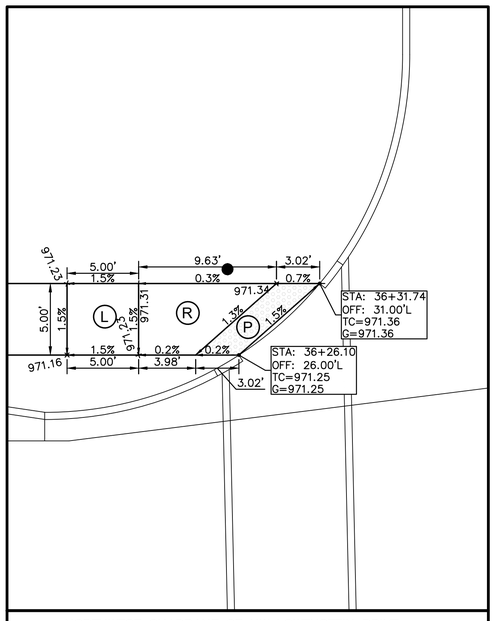
| | |
|---|---|
| | DRY CURB |
| TC | TOP OF CURB ELEVATION |
| G | GUTTER ELEVATION |
| R | RAMP (7.5% RUNNING SLOPE, 1.5% MAXIMUM CROSS SLOPE) |
| L | LANDING (1.5% MAX IN ALL DIRECTIONS) |
| P | PAN |
| T | TRANSITION |

**CONSTRUCTION NOTES:**

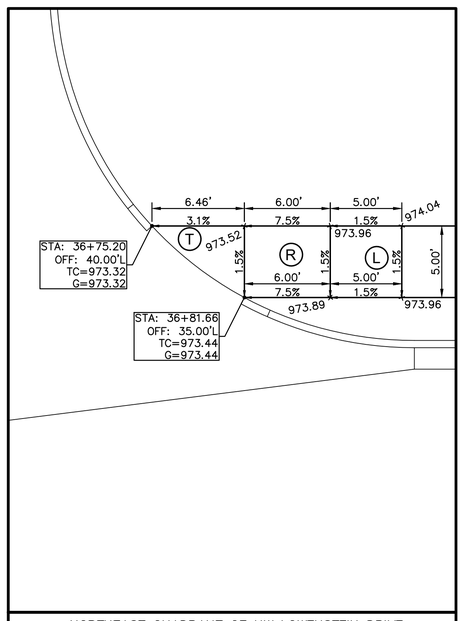
1. SIDEWALK RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH LEE'S SUMMIT STANDARD DETAIL GEN-3A. CONSTRUCTION SHALL COMPLY WITH GENERAL NOTES.

**Record Drawing**

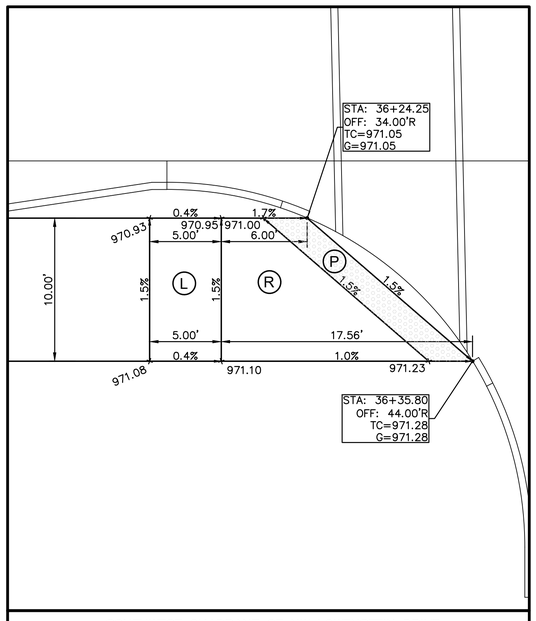
5 AS-BUILT



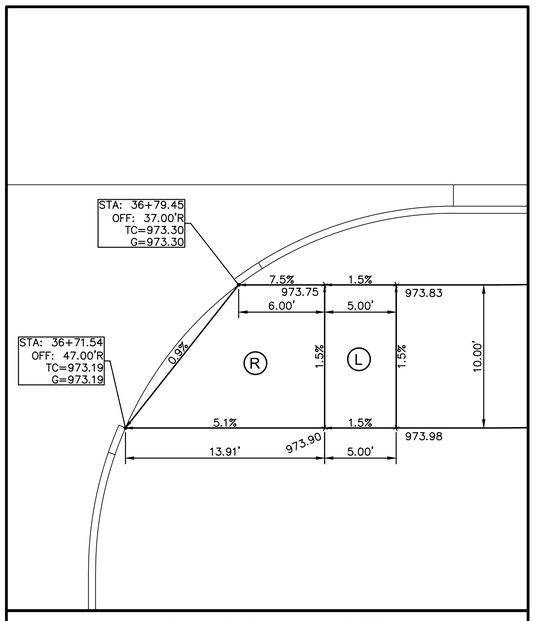

NORTHWEST QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "B"




NORTHEAST QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "B"




SOUTHWEST QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "B"




SOUTHEAST QUADRANT OF NW LOWENSTEIN DRIVE & PRIVATE ROAD "B"

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | (DATE) | REVISED PER CITY COMMENTS | LDO | BKR | LDO |
| 2 | 7-16-19 | REVISED PER IN-HOUSE REVIEW | LDO | BKR | LDO |
| 1 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | BKR | LDO |
| 0 | 5-16-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5060 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

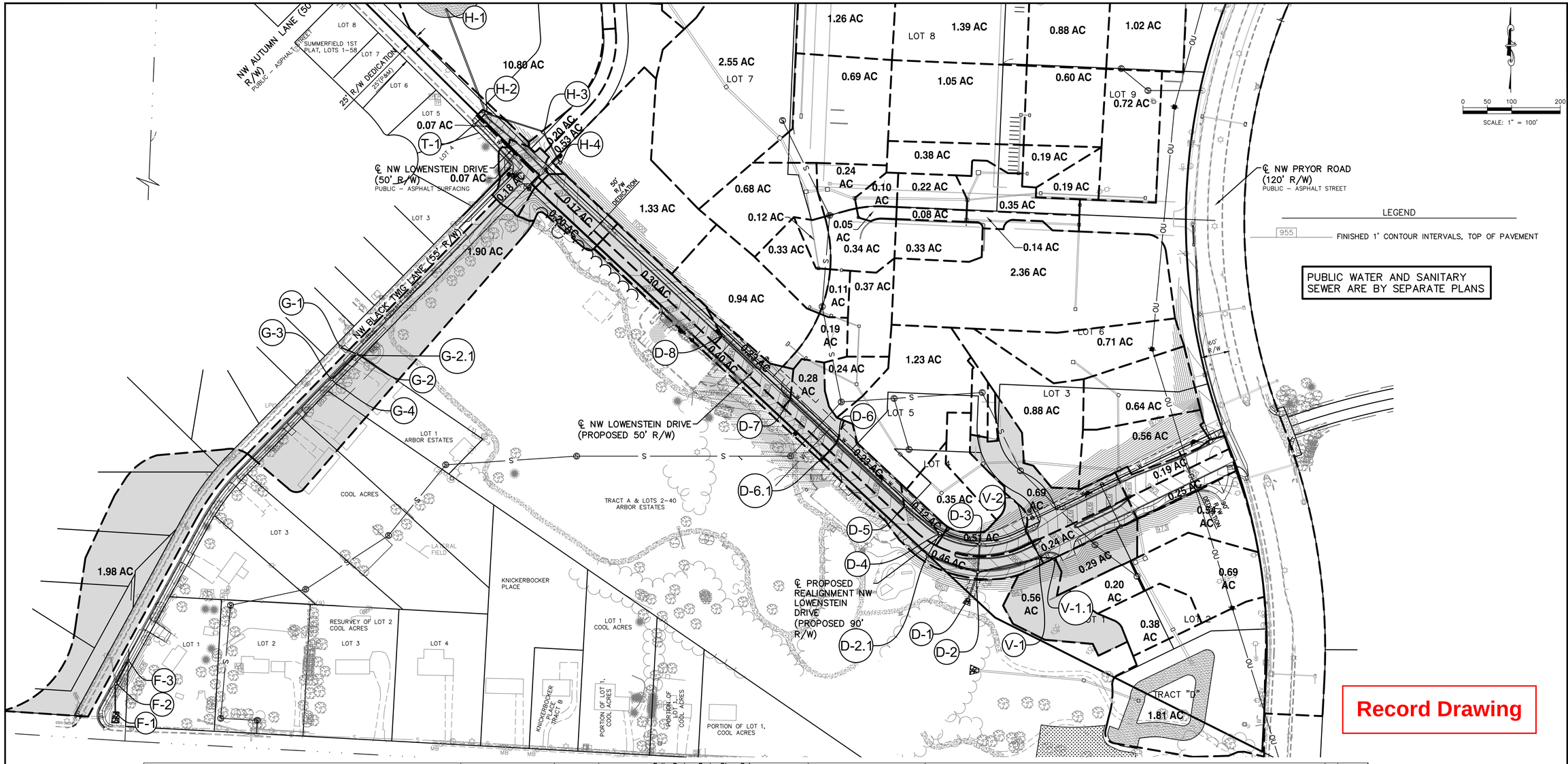
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**GEOMETRIC LAYOUT - INTERSECTION, SIDEWALK AND ADA RAMPS**

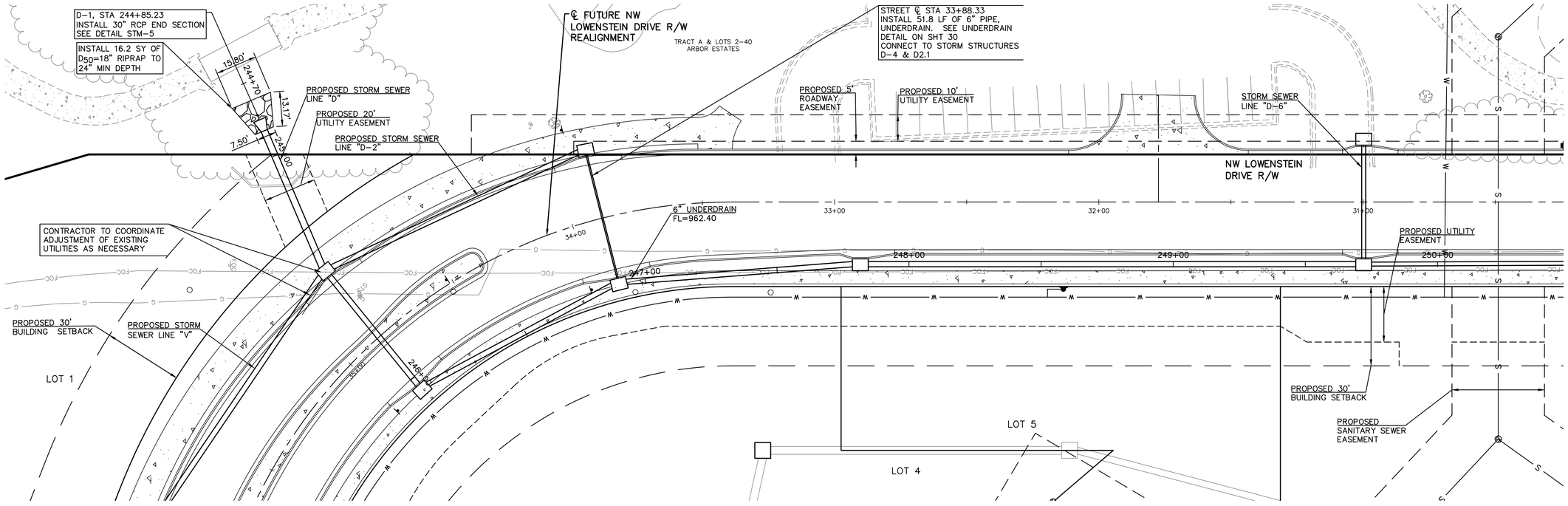
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_INT2 |
| SHEET | 13D |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



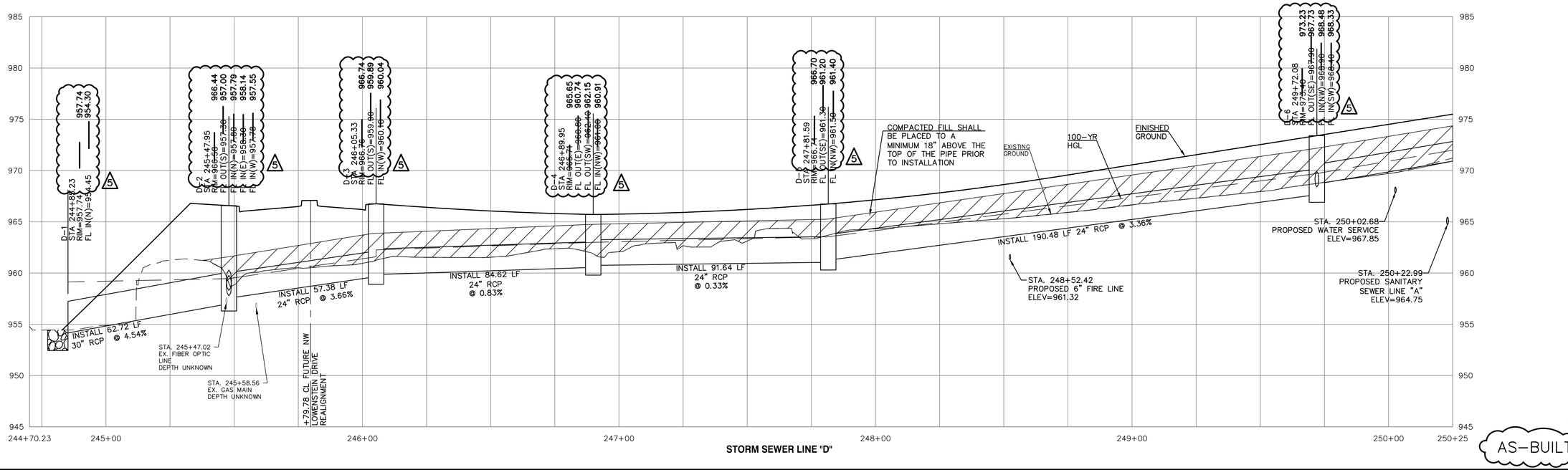

**Record Drawing**

| Overland Flow | | |




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

**Record Drawing**




**STORM SEWER LINE "D"**

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5401 | FAX: (785) 762-7744
jlo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

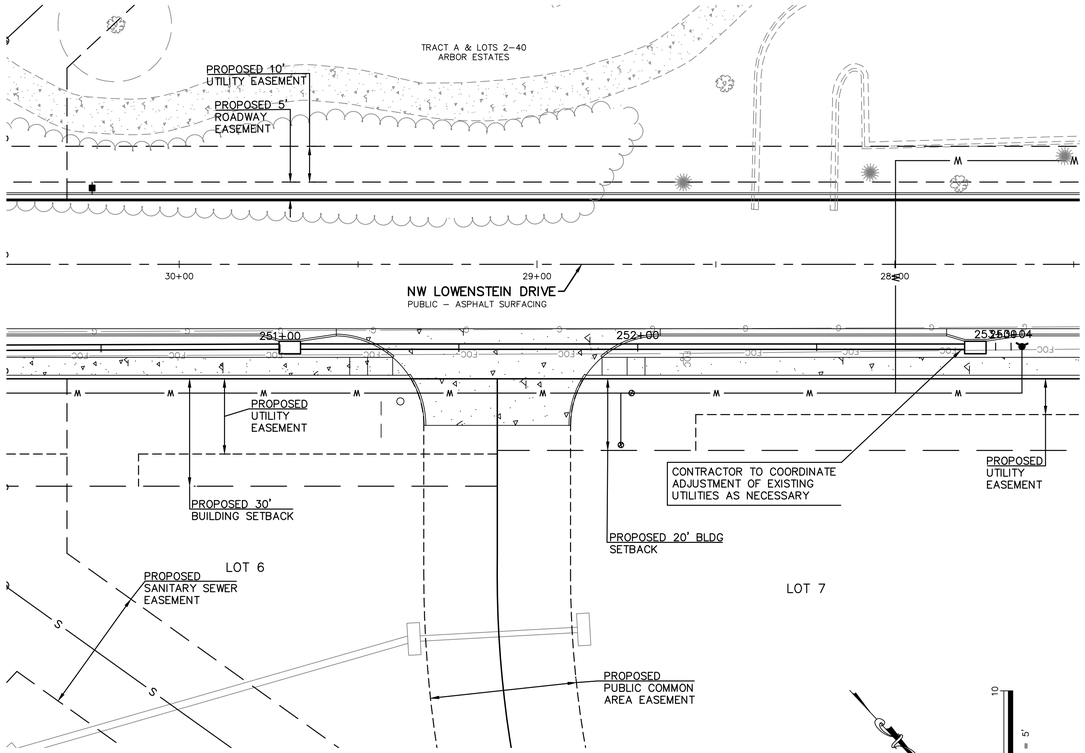

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

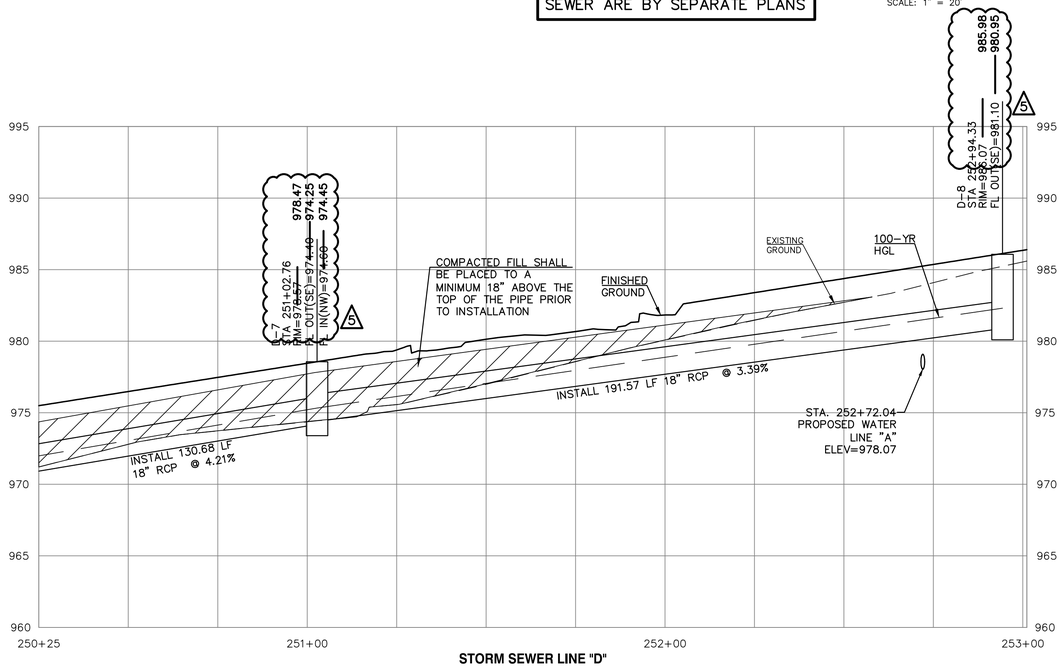
**PUBLIC STREET PLANS**
**STORM SEWER PLAN AND PROFILE - LINE D**

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_DPP |
| SHEET | 15 |
| REV | 5 |

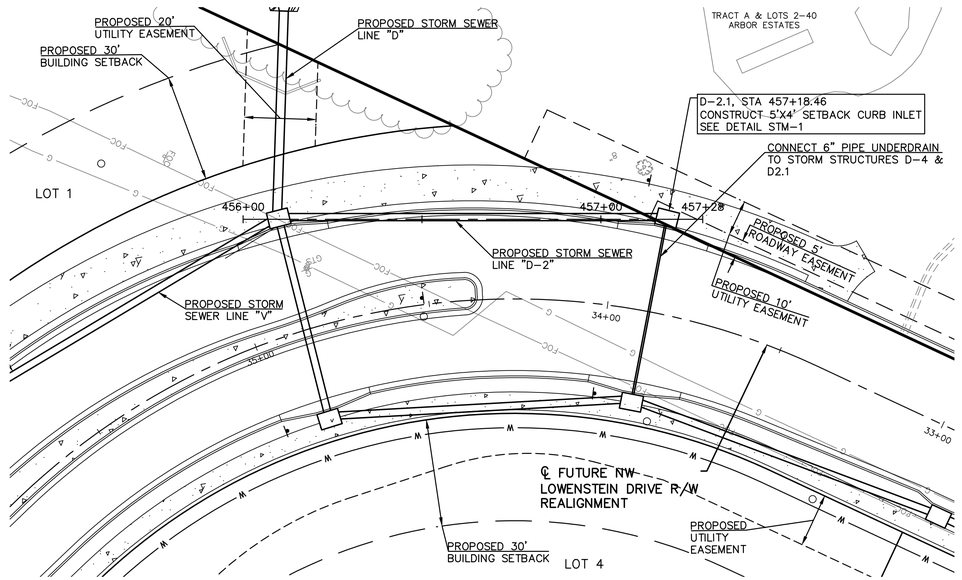

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

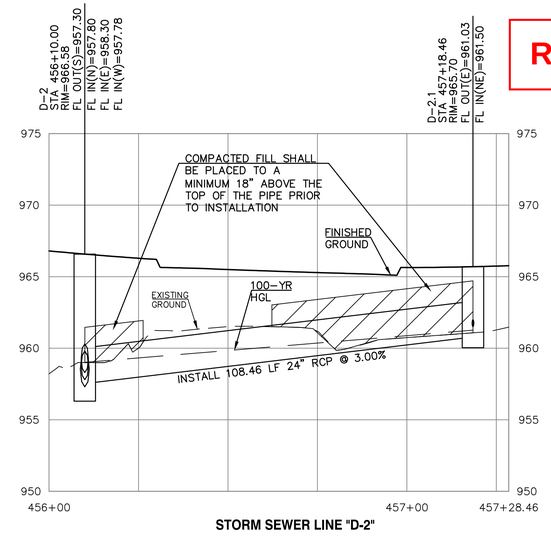



**STORM SEWER LINE "D"**










**STORM SEWER LINE "D-2"**

**Record Drawing**

AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5660 | FAX (785) 762-7744
jkaweng.com | www.kaweng.com

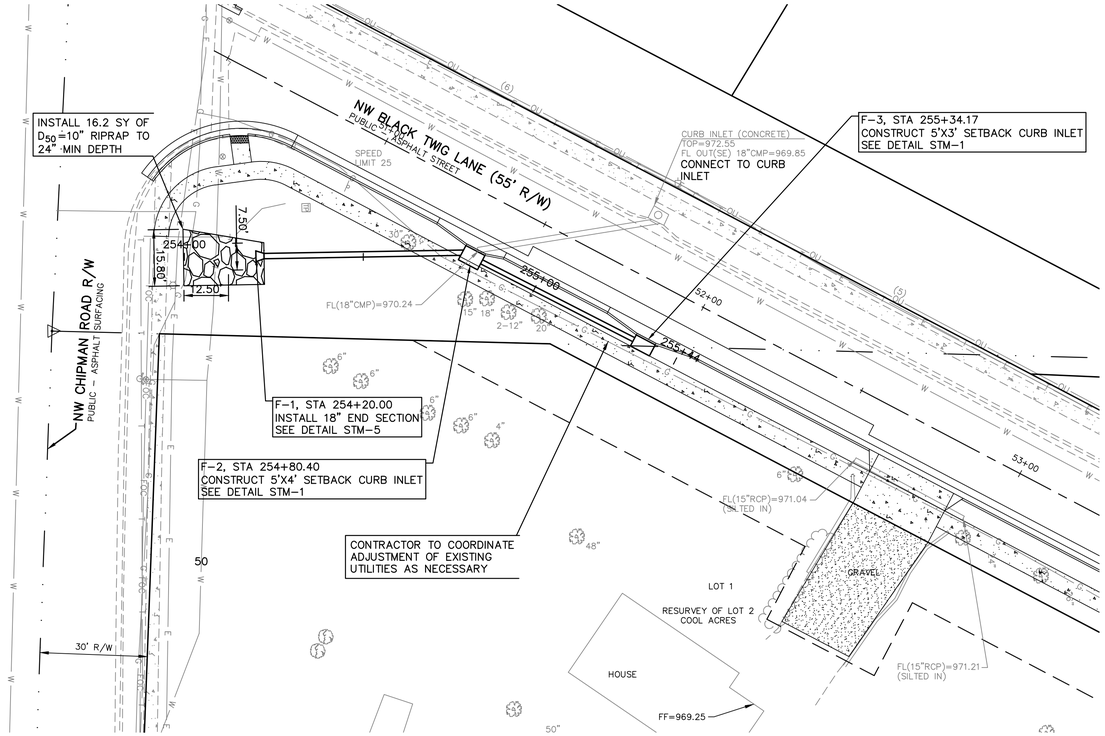

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**STORM SEWER PLAN AND PROFILE - LINE D AND D2**

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_DPP | |
| SHEET | REV |
| 16 | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

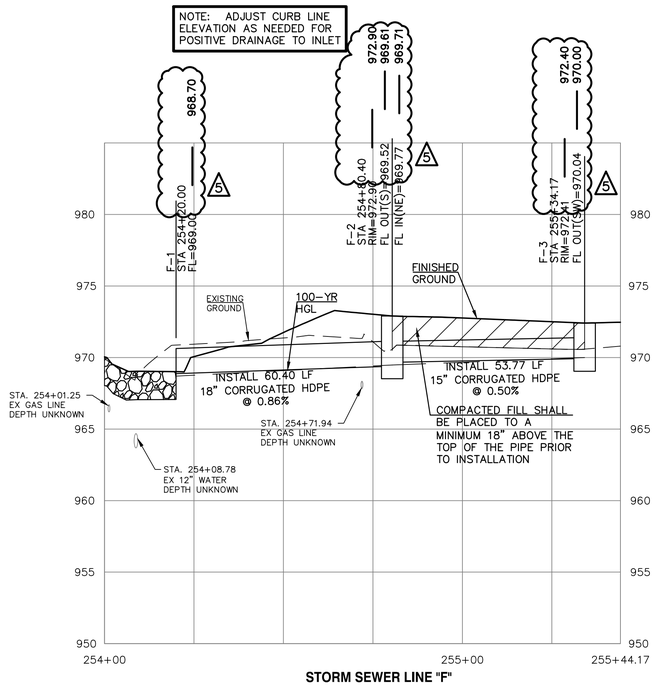



SCALE: 1" = 20'

SCALE: 1" = 5'

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

NOTE: ADJUST CURB LINE ELEVATION AS NEEDED FOR POSITIVE DRAINAGE TO INLET




**STORM SEWER LINE "F"**

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlk@kveng.com | www.kveng.com


**KAW VALLEY ENGINEERING**

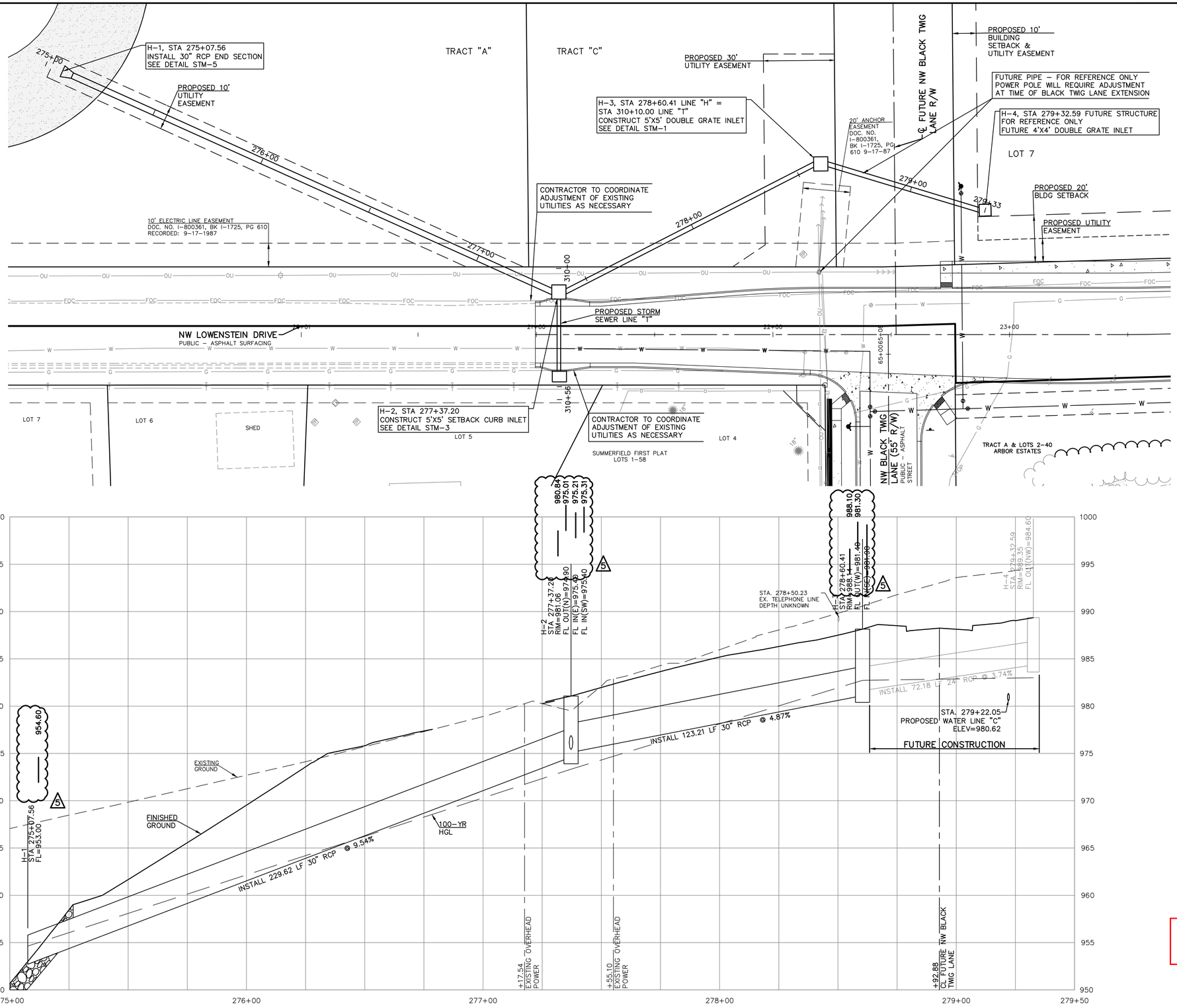
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**STORM SEWER PLAN AND PROFILE - LINE F**

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_DPP | |
| SHEET | REV |
| 17 | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




**STORM SEWER LINE "H"**

Record Drawing

AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |
| 0 | | | | | |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlo@kveng.com | www.kveng.com

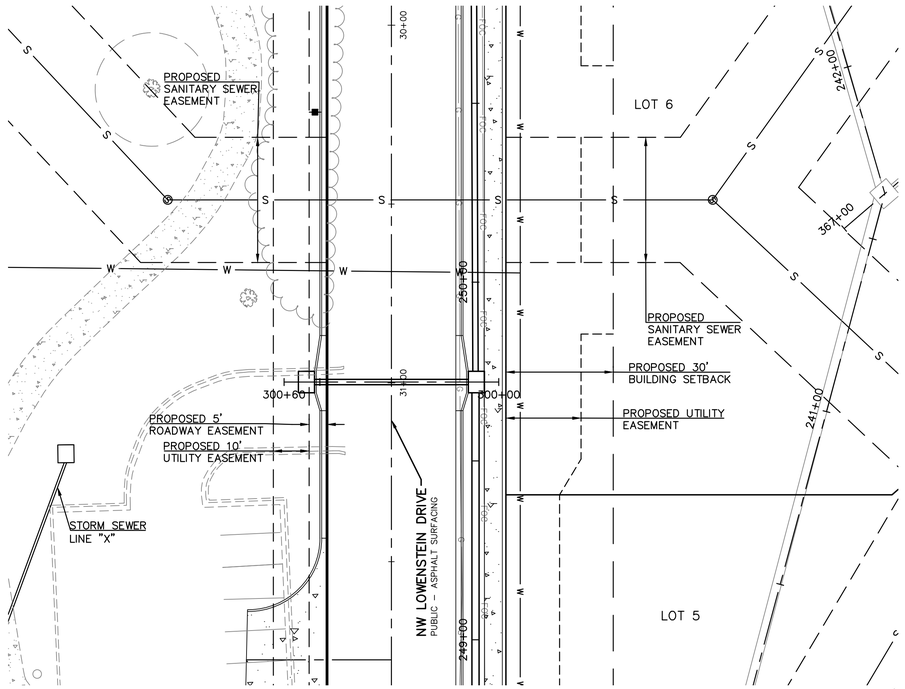

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

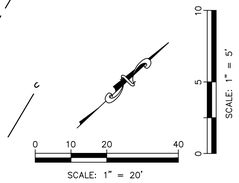
# STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
STORM SEWER PLAN AND PROFILE - LINE H

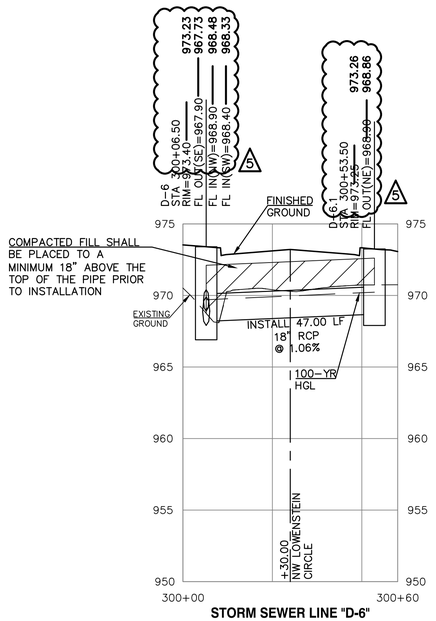
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_DPP |
| SHEET | 18 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

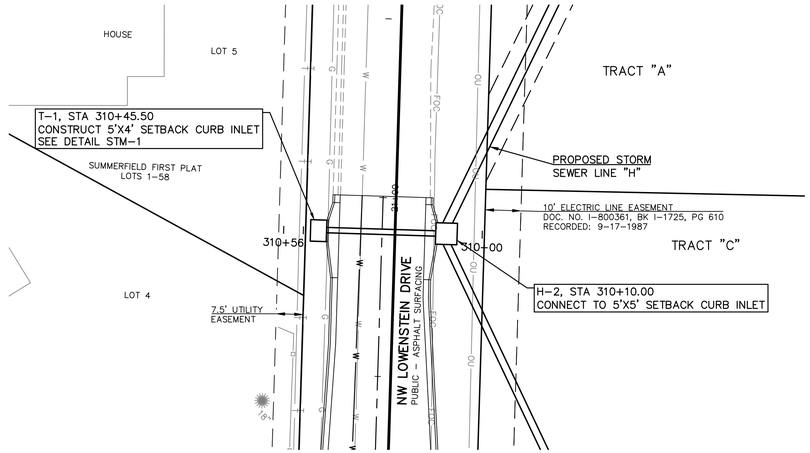


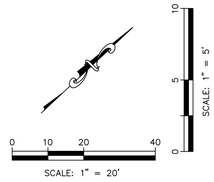



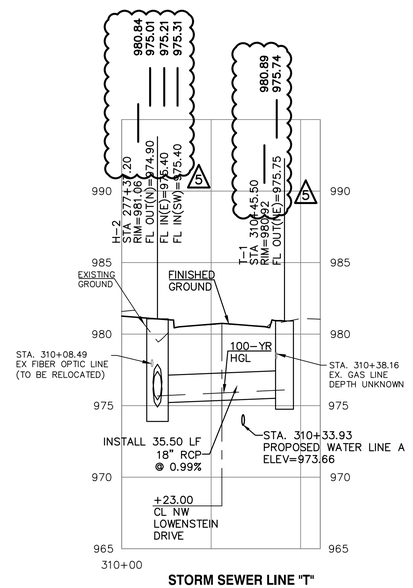

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS




**STORM SEWER LINE "D-6"**




**STORM SEWER LINE "T"**

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jb@kveng.com | www.kveng.com

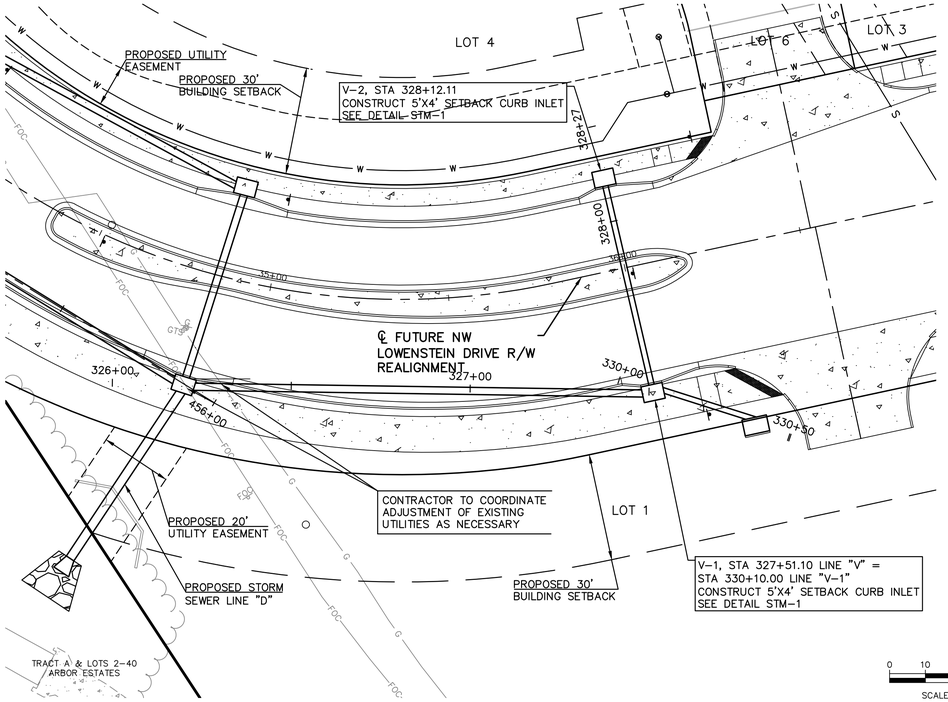

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

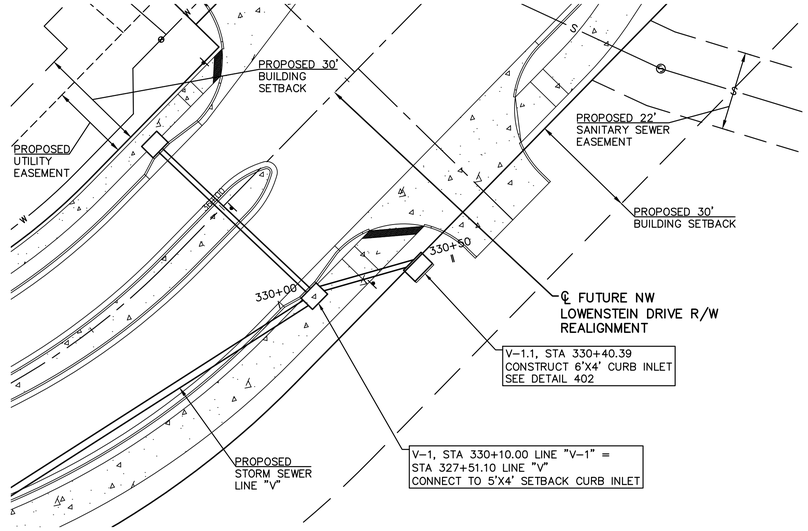
# STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

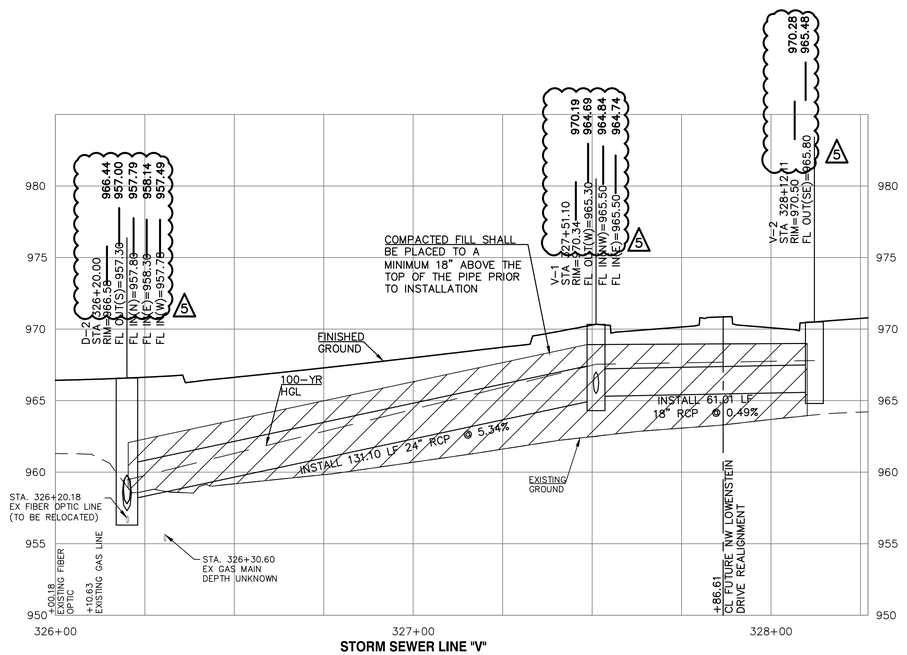
PUBLIC STREET PLANS
STORM SEWER PLAN AND PROFILE - LINE D-6 AND T

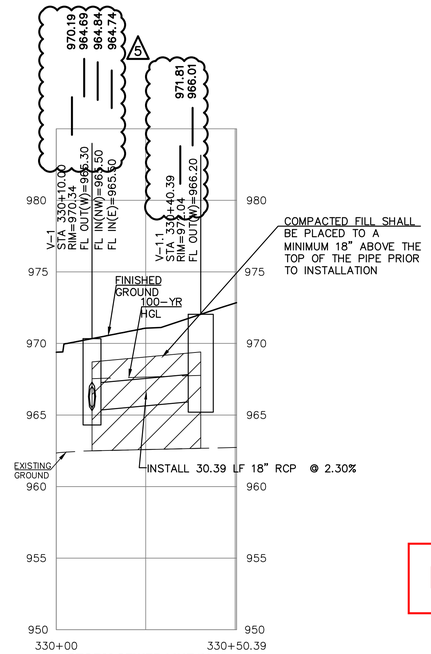
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_DPP |
| SHEET | 19 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




**Record Drawing**

AS-BUILT

PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5060 | FAX (785) 762-7744
js@kveng.com | www.kveng.com

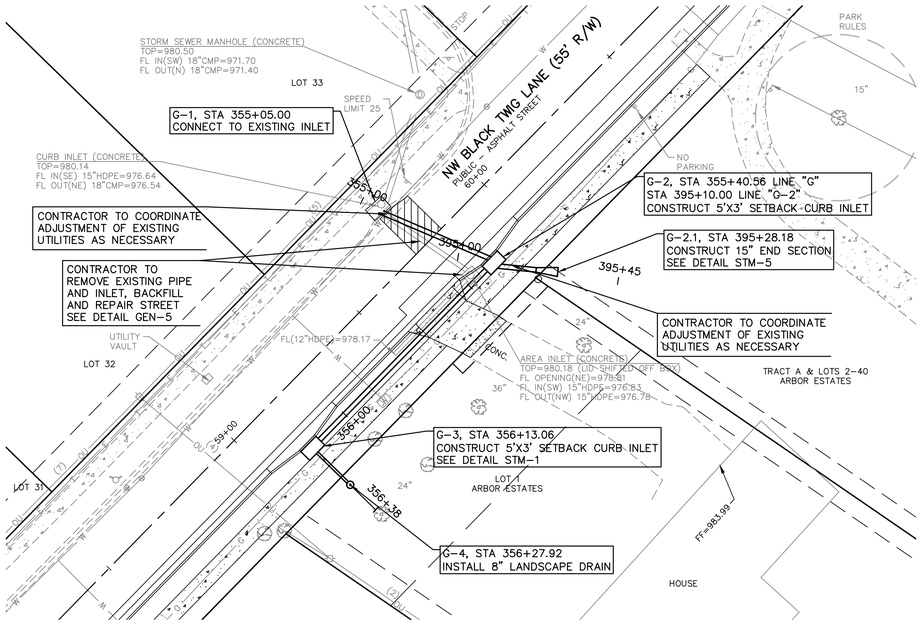

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**STORM SEWER PLAN AND PROFILE - LINE V AND V-1**

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_DPP |
| SHEET | 20 |
| REV | 5 |

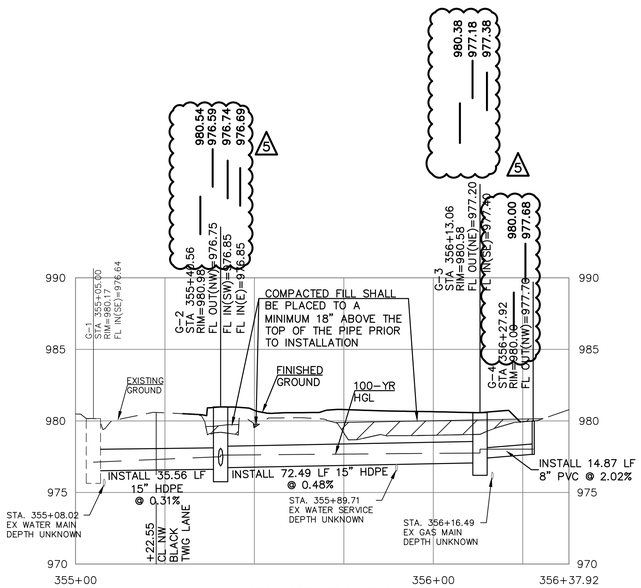
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



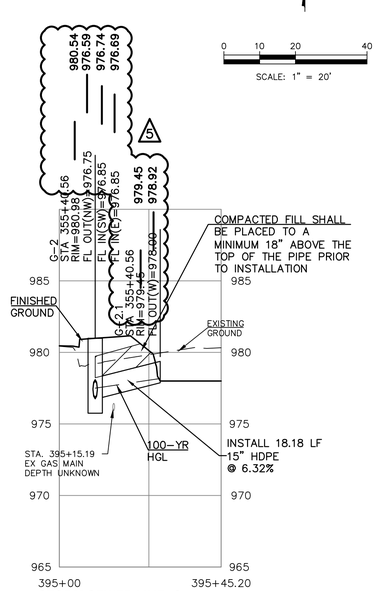

NOTE: ADJUST CURB LINE ELEVATION AS NEEDED FOR POSITIVE DRAINAGE TO EACH INLET

SCALE: 1" = 20'

SCALE: 1" = 5'




**STORM SEWER LINE "G"**




**STORM SEWER LINE "G-2"**

**Record Drawing**

5 AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON || P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

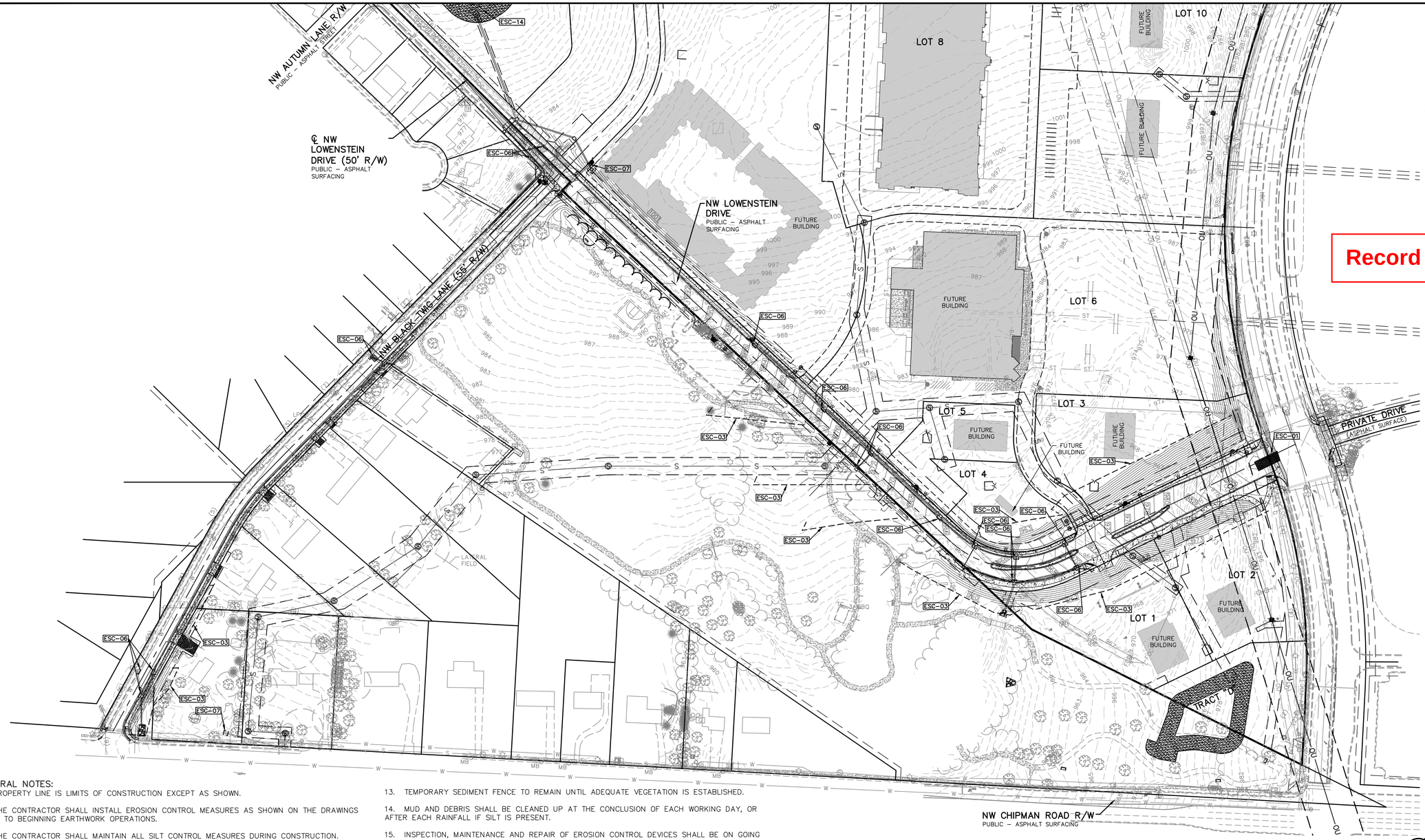
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**STORM SEWER PLAN AND PROFILE - LINE G**

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_DPP
SHEET 21 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




Record Drawing

AS-BUILT

GENERAL NOTES:

1. PROPERTY LINE IS LIMITS OF CONSTRUCTION EXCEPT AS SHOWN.
2. THE CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING EARTHWORK OPERATIONS.
3. THE CONTRACTOR SHALL MAINTAIN ALL SILT CONTROL MEASURES DURING CONSTRUCTION.
4. ALL SILT SHALL REMAIN ON SITE AND SURROUNDING STREETS SHALL BE KEPT CLEAR OF ALL MUD AND DEBRIS.
5. A SEDIMENTATION BARRIER IS TO BE INSTALLED AS SHOWN.
6. ACCUMULATED SEDIMENT SHALL BE REMOVED AND THE SEDIMENTATION BARRIERS MAINTAINED AS NEEDED TO PREVENT SEDIMENTATION BYPASS OF THE BARRIER.
7. SLOPES ARE TO BE LEFT IN A ROUGH CONDITION DURING GRADING.
8. CURB INLET SEDIMENTATION BARRIERS ARE TO BE INSTALLED AROUND INLETS AND WEIRS WHERE SEDIMENTATION IS A CONCERN. INLET BARRIERS SHALL BE EITHER BLOCK AND GRAVEL, OR SECURED STRAW BALES, OR SILT FENCE.
9. SEDIMENT IS TO BE REMOVED FROM STORM WATER DRAINAGE SYSTEMS.
10. RIPRAP IS TO BE INSTALLED AT AREAS OF CONCENTRATED FLOW (I.E. CULVERT OUTLETS).
11. CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL AS HE/SHE DEEMS NECESSARY.
12. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION AND SILTATION CONTROLS REQUIRED TO PREVENT SOIL EROSION FROM LEAVING THE PROJECT SITE. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO ENSURE THAT METHODS UTILIZED ARE ADEQUATE AND COMPLY WITH REQUIREMENTS OF THE SPECIFICATIONS AND GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE WORK.
13. TEMPORARY SEDIMENT FENCE TO REMAIN UNTIL ADEQUATE VEGETATION IS ESTABLISHED.
14. MUD AND DEBRIS SHALL BE CLEANED UP AT THE CONCLUSION OF EACH WORKING DAY, OR AFTER EACH RAINFALL IF SILT IS PRESENT.
15. INSPECTION, MAINTENANCE AND REPAIR OF EROSION CONTROL DEVICES SHALL BE ON GOING THROUGHOUT THE LIFE OF BUILDING CONSTRUCTION TO KEEP THE DEVICES IN OPERABLE CONDITION AT ALL TIMES. ADDITIONAL MEASURES SHALL BE INSTALLED AS REQUIRED BY ACTUAL FIELD CONDITIONS AND/OR GOVERNING INSPECTION AGENCIES.
16. INSTALL CONSTRUCTION ENTRANCE AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING THE SITE AND AS SHOWN ON PLANS.
17. AT COMPLETION OF SITE GRADING AND OTHER RELATED CONSTRUCTION ACTIVITIES, ALL DISTURBED AREAS WITHIN THE PROJECT SITE SHALL BE SEEDED, SODDED, OR LANDSCAPED AS SHOWN ON THE LANDSCAPE PLAN WITHIN 14 DAYS.
18. TOPSOIL IS TO BE PLACED IN AREAS UNSUITABLE FOR VEGETATIVE GROWTH.
19. STRIP TOPSOIL PRIOR TO EXCAVATION, STOCKPILE AND SPREAD ONTO DISKED SUBGRADE (4" MIN) A THICKNESS OF 4 INCHES.
20. ROCK LINING (RIPRAP) SHALL BE DURABLE STONE CONTAINING A COMBINED TOTAL OF NOT MORE THAN 10 PERCENT OF EARTH, SAND, SHALE AND NON-DURABLE ROCK. AT LEAST 60 PERCENT OF THE MASS SHALL BE OF PIECES HAVING A MINIMUM WEIGHT OF 150 POUNDS OR MORE PER CUBIC FOOT.
21. THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR RESOLVING COMPLAINTS IN THE EVENT THAT COMPLAINTS OR DAMAGE CLAIMS ARE FILED DUE TO DAMAGES OCCURRING ADJACENT TO OR DOWNSTREAM FROM PROPERTY BY SEDIMENT RESULTING FROM EROSION ON THE PROJECT SITE.
22. GOOD HOUSEKEEPING PRACTICES SHALL BE MAINTAINED ON SITE TO KEEP SOLID WASTE FROM ENTRY INTO WATERS.

**CONTRACTOR TO COORDINATE EROSION CONTROL WITH MASS GRADING CONSTRUCTION IN PHASES**

23. ALL FUELING FACILITIES PRESENT ON SITE SHALL ADHERE TO APPLICABLE FEDERAL AND STATE REQUIREMENTS CONCERNING UNDERGROUND STORAGE, ABOVE GROUND STORAGE AND DISPENSERS, INCLUDING SPILL PREVENTION, CONTROL AND COUNTER MEASURES.
24. RIGHT OF WAY TO BE STABILIZED AS REQUIRED BY APWA SECTION 2400.
25. EROSION CONTROL IS TO BE PLACED IN PHASING AS CONSTRUCTION PROGRESSES.
26. MINIMAL WASHING OF CONCRETE EQUIPMENT ALLOWED, CHUTE ETC. CONCRETE WASHOUT OF THE DRUM IS NOT ALLOWED. ANY PIT/WASHOUT AREA NEEDS TO BE MAINTAINED IN A NON-DISCHARGING MANNER AND ANY WASTE RESIDUE WILL NEED TO BE CLEANED OUT AND REMOVED AT THE END OF PROJECT.
27. EROSION CONTROL SEDIMENT FENCE TO BE INSTALLED 1'-0" BEHIND CURB & GUTTER UPON COMPLETION OF BACKFILL OF CURB IN ALL AREAS WHERE SLOPES FROM LOT DRAIN TOWARDS CURB. UPON COMPLETION OF FINAL GRADING THE TOES OF ALL EMBANKMENTS IN EXCESS OF TWO FEET IN HEIGHT WILL HAVE EROSION CONTROL SEDIMENT FENCE INSTALLED.

**PUBLIC WATER AND SANITARY SEWER ARE BY SEPARATE PLANS**

DETAILS – SEE EROSION CONTROL DETAIL SHEETS FOR THE FOLLOWING DETAILS

ESC-01 CONSTRUCTION ENTRANCE DETAIL
ESC-03 SILT FENCE
ESC-06 CURB INLET PROTECTION
ESC-07 AREA INLET AND JUNCTION BOX PROTECTION
ESC-14 OUTLET PROTECTION

**EROSION & PROPOSED IMPROVEMENTS LEGEND:**

970 EXISTING GROUND CONTOUR (1' INTERVALS)
970 PROPOSED FINISHED GROUND CONTOUR (1' INTERVALS)
SILT FENCE
INLET PROTECTION

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5060 | FAX (785) 762-7744
e@kveng.com | www.kveng.com

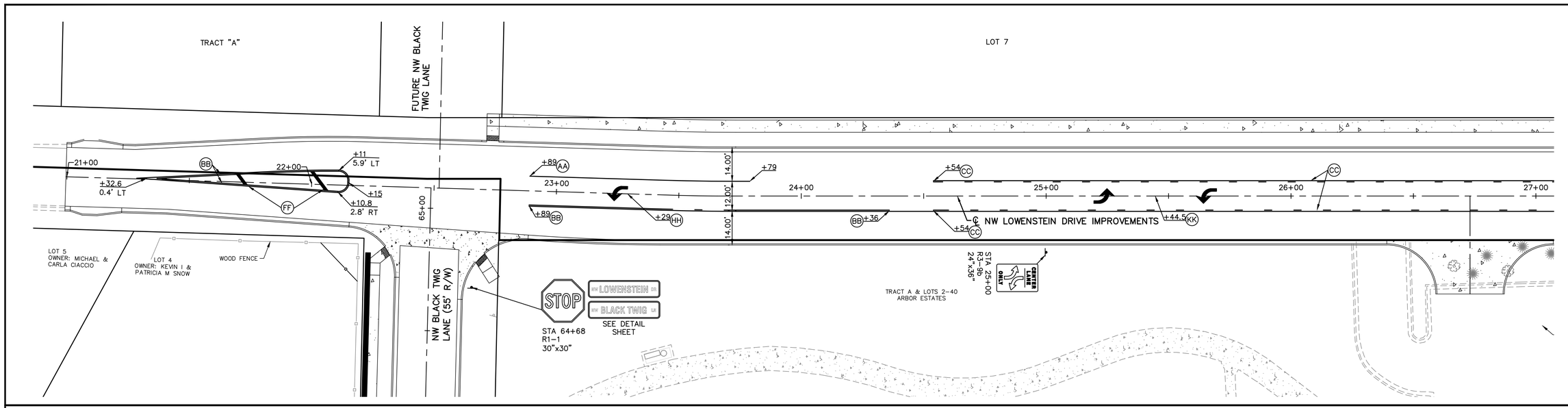

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

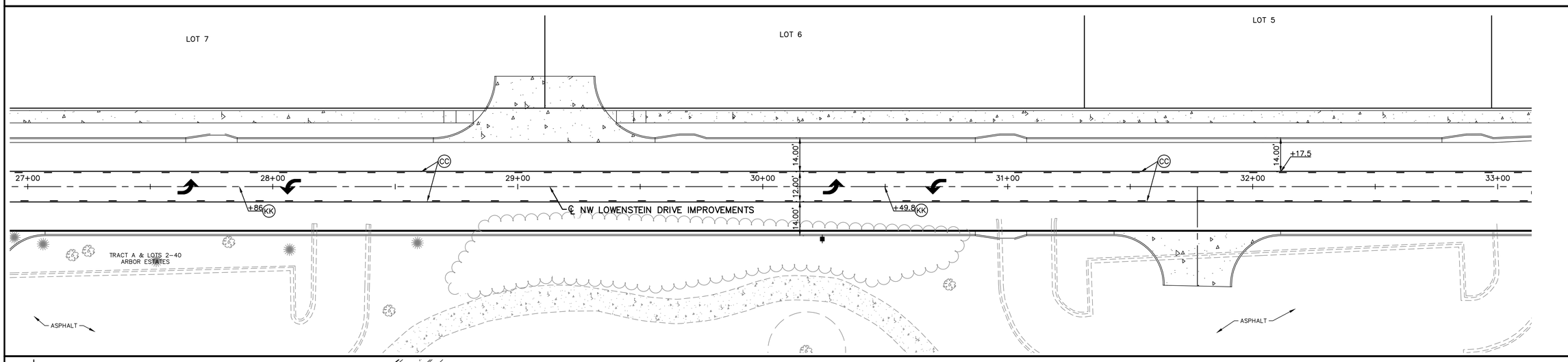
# STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

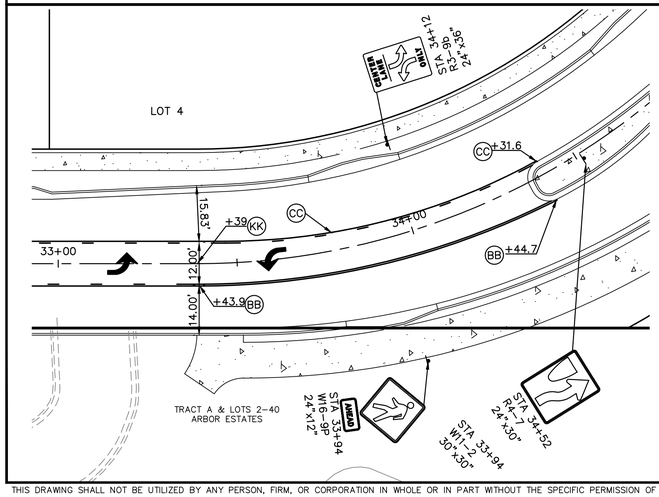
## PUBLIC STREET PLANS
## EROSION CONTROL PLAN

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_ECP
SHEET 22 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




NOTE:
1. PAVEMENT MARKING SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CITY OF LEE'S SUMMIT PAVEMENT MARKING STANDARDS.

2. ALL DIMENSIONS REFERENCING DOUBLE YELLOW LINES REFERS TO THE CENTER OF THE SPACE BETWEEN THE TWO DOUBLE YELLOW LINES.

3. CONTRACTOR TO GRIND OFF CONFLICTING PAVEMENT MARKING.

| LIST OF PAVEMENT MARKING | |
|---|---|
| MARK | ITEM |
| AA | 4" SOLID WHITE LINE (HIGH BUILD PAINT) |
| BB | 4" DOUBLE YELLOW LINE (HIGH BUILD PAINT) |
| CC | 4" SOLID W/BROKEN YELLOW LINE (HIGH BUILD PAINT) |
| DD | 6" DASHED WHITE EXTENSION LINE (THERMOPLASTIC) |
| EE | 6" SOLID WHITE CROSS-WALK LINE (THERMOPLASTIC) |
| FF | 12" SOLID YELLOW LINE (THERMOPLASTIC) |
| GG | 24" STOP BAR (THERMOPLASTIC) |
| HH | TURN ARROW WHITE (LEFT) (THERMOPLASTIC) |
| JJ | TURN ARROW WHITE (RIGHT) (THERMOPLASTIC) |
| KK | TWO-WAY LEFT-TURN LANE ARROW (THERMOPLASTIC) |

0 10 20 40
SCALE: 1" = 20'

**Record Drawing**

5
AS-BUILT

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 4 | 8-14-19 | REVISED PER CITY COMMENTS | LDO | JT | JT |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jlkvwe@yahoo.com | www.kvweng.com
KAW VALLEY ENGINEERING

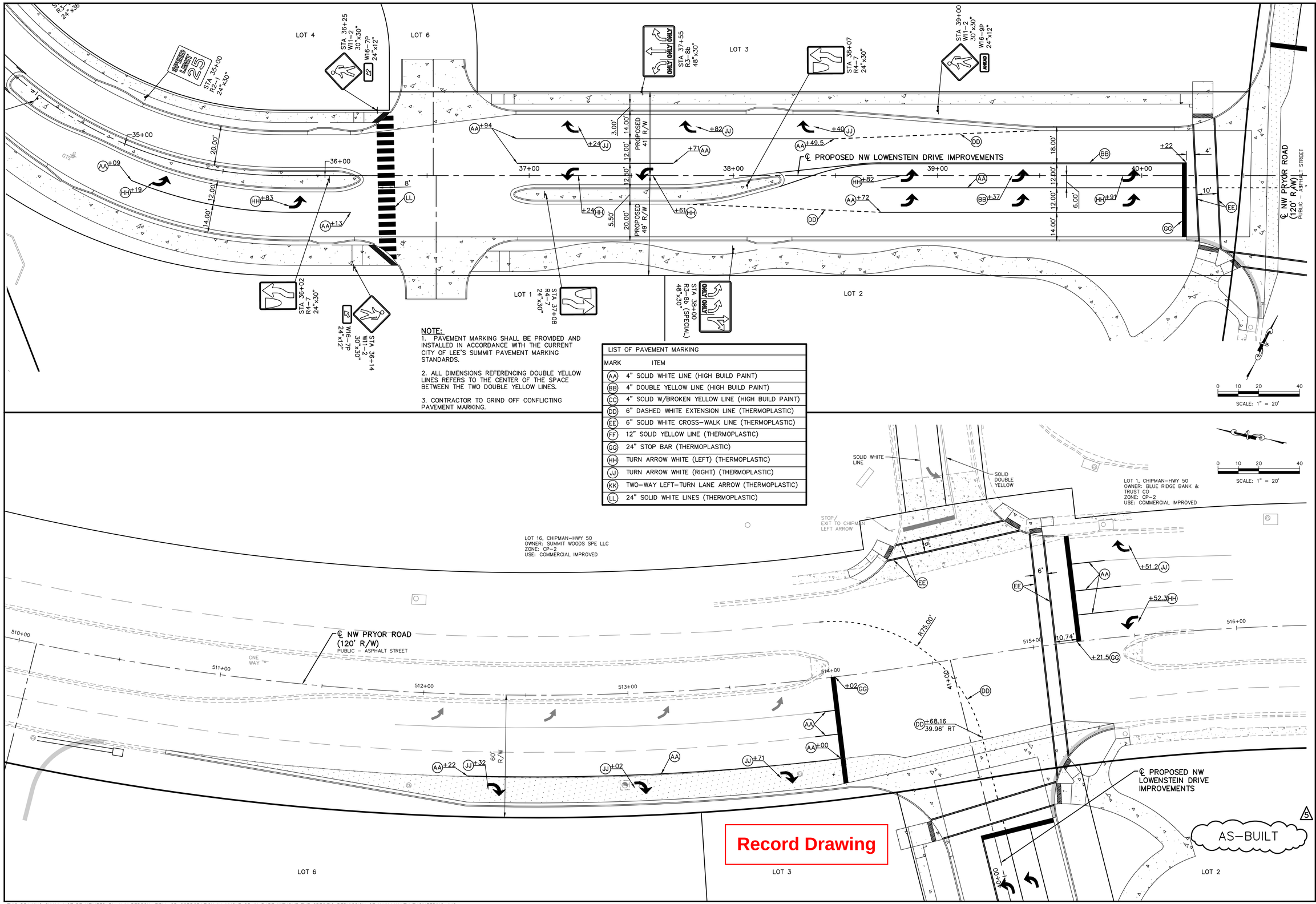
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
PAVEMENT MARKING & SIGNING PLANS

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_PMP |
| SHEET | 23 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




NOTE:

1. PAVEMENT MARKING SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH THE CURRENT CITY OF LEE'S SUMMIT PAVEMENT MARKING STANDARDS.

2. ALL DIMENSIONS REFERENCING DOUBLE YELLOW LINES REFERS TO THE CENTER OF THE SPACE BETWEEN THE TWO DOUBLE YELLOW LINES.

3. CONTRACTOR TO GRIND OFF CONFLICTING PAVEMENT MARKING.

| LIST OF PAVEMENT MARKING | |
|---|---|
| MARK | ITEM |
| (AA) | 4" SOLID WHITE LINE (HIGH BUILD PAINT) |
| (BB) | 4" DOUBLE YELLOW LINE (HIGH BUILD PAINT) |
| (CC) | 4" SOLID W/BROKEN YELLOW LINE (HIGH BUILD PAINT) |
| (DD) | 6" DASHED WHITE EXTENSION LINE (THERMOPLASTIC) |
| (EE) | 6" SOLID WHITE CROSS-WALK LINE (THERMOPLASTIC) |
| (FF) | 12" SOLID YELLOW LINE (THERMOPLASTIC) |
| (GG) | 24" STOP BAR (THERMOPLASTIC) |
| (HH) | TURN ARROW WHITE (LEFT) (THERMOPLASTIC) |
| (JJ) | TURN ARROW WHITE (RIGHT) (THERMOPLASTIC) |
| (KK) | TWO-WAY LEFT-TURN LANE ARROW (THERMOPLASTIC) |
| (LL) | 24" SOLID WHITE LINES (THERMOPLASTIC) |

0 10 20 40
SCALE: 1" = 20'




0 10 20 40
SCALE: 1" = 20'

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 4 | 8-14-19 | REVISED PER CITY COMMENTS | LDO | JT | JT |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlb@kveng.com | www.kveng.com

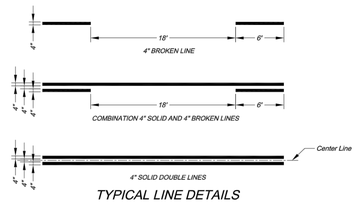

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR

NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

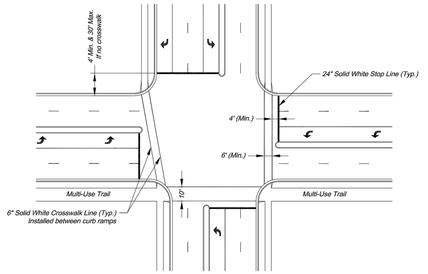
PUBLIC STREET PLANS
PAVEMENT MARKING & SIGNING PLANS

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_PMP |
| SHEET | 24 |
| REV | 5 |



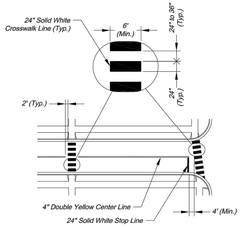

## TYPICAL LINE DETAILS

NOTES:
1. All edge line, center line, and lane line pavement markings shall be 4" wide unless otherwise noted.
2. Edge lines shall be continuous solid white or yellow lines. Right side edge lines shall be solid white. Median or left side edge lines on divided roadways are to be solid yellow. Edge lines and center lines shall be continuous across driveways.

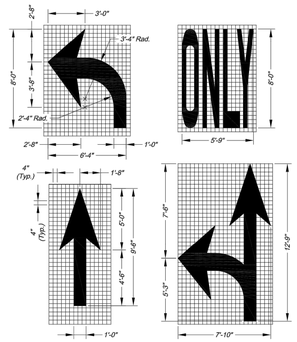



## TYPICAL INTERSECTION MARKINGS

NOTES:
1. Transverse crosswalk lines shall be installed such that the distance between lines is at least 6 or 10 feet.
2. Stop lines are required at signalized intersections, on multi-lane stop controlled approaches, or in front of crosswalks at controlled intersections.

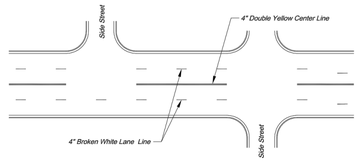



## TYPICAL MIDBLOCK OR SCHOOL CROSS WALK

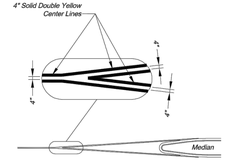



## ARROW AND SYMBOL DETAILS

NOTES:
1. All arrow and symbol markings shall be white, and shall be centered in their respective traffic lanes.
2. Right-turn and combination right-turn/straight arrows are reverse of arrows shown.

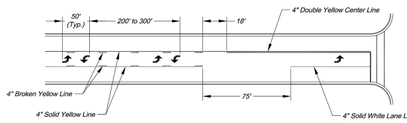



## TYPICAL MARKINGS FOR FOUR-LANE UNDIVIDED ROADWAY

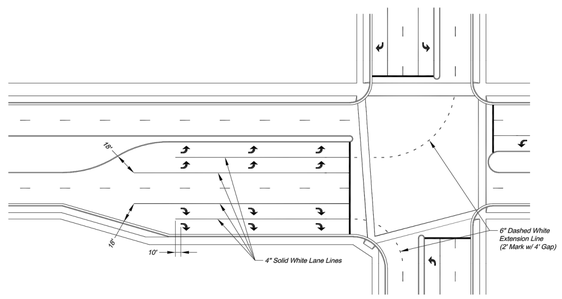



## TYPICAL MEDIAN NOSE CENTER LINE DETAIL

PAVEMENT MARKING GENERAL NOTES:
1. All pavement markings shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. All words and symbols shall conform to the latest edition of Standard Alphabets for Highway Signs and Pavement Markings printed by the U.S. Department of Transportation, Federal Highway Administration.
3. Pavement markings, either temporary or permanent are required at all times if the roadway is open to traffic.
4. All pavement markings that conflict with the desired markings shall be completely removed. Removals shall not leave the road surface scarred with an image that misleads traffic. Any excess damage or scarring of pavement shall be repaired at the Contractor's expense.
5. The proposed permanent markings shall be laid out by the Contractor in advance of the marking installation. Markings shall not be applied until the layout has been approved by the City Traffic Engineer.
6. Center lines shall be marked on all undivided arterial streets, and any other undivided street with more than two lanes and/or a speed limit of 30 mph or more.
7. Edge lines shall be marked on all non-curbed streets.

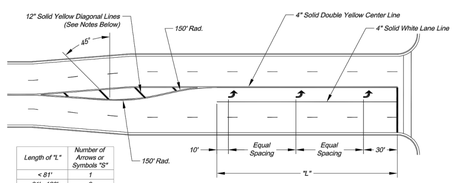



## TYPICAL MARKINGS FOR TWO-WAY LEFT-TURN LANE




## TYPICAL DUAL TURN LANE MARKINGS

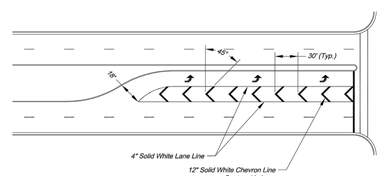
NOTE:
1. Dashed extension lines shall not extend through crosswalks.




| Length of "L" | Number of Arrows or Symbols "S" |
|---|---|
| < 81' | 1 |
| 81' - 120' | 2 |
| 121' - 200' | 3 |
| 201' - 280' | 4 |
| 281' - 360' | 5 |
| 361' - 440' | 6 |

## TYPICAL TURN LANE MARKINGS

NOTES:
1. Diagonal lines are required between centerlines if the width of the area between the center lines is greater than 12' and/or the length of the area between center lines is greater than 250'.
2. Diagonal lines should be spaced at 5' increments, equal to the posted speed limit.
3. Equal Spacing is calculated as (L - 40) / (S - 1).
4. When a through lane of traffic terminates as a mandatory turn lane, Arrow and "ONLY" symbols should be marked in the turn lane, in alternating order. The first and last symbols should be Arrows.




## TYPICAL STRIPED OUT TURN LANE MARKINGS

5
AS-BUILT

**Record Drawing**

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project: ROADWAY MARKING DETAILS
Sheet Name: STANDARD DRAWING PM-1

STATE OF MISSOURI
LEON D OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

Drawn By: AS
Checked By: JW
Date: 09/09/2009
Project#
1 OF 2
**1**


2319 N. JACKSON || P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5041 | FAX: (785) 762-7744
jw@kveng.com | www.kveng.com


**KAW VALLEY ENGINEERING**

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project: INTERSECTION MARKING DETAILS
Sheet Name: STANDARD DRAWING PM-2

# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

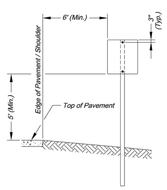
# PUBLIC STREET PLANS
## PAVEMENT MARKING DETAIL SHEET

PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_DET
SHEET 25 | REV 5

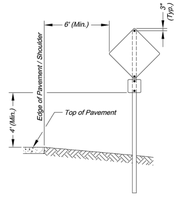
Drawn By: AS
Checked By: JW
Date: 09/09/2009
Project#
2 OF 2
**2**

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

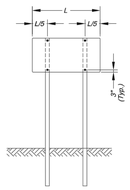
**Record Drawing**



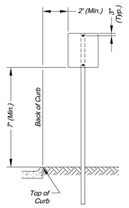

SIGN INSTALLATION FOR NON-CURBED STREET



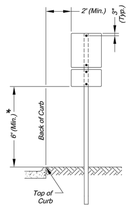

SIGN INSTALLATION WITH AUXILARY SIGN FOR NON-CURBED STREET



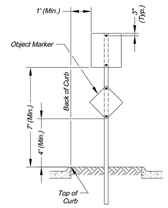

SIGN INSTALLATION WITH TWO SIGN POSTS




SIGN INSTALLATION FOR CURBED STREET




SIGN INSTALLATION WITH AUXILARY SIGN FOR CURBED STREET

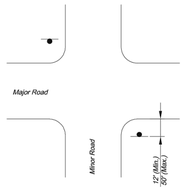



SIGN INSTALLATION FOR RAISED MEDIANS

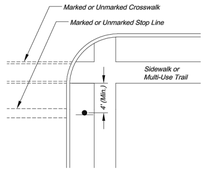
## SIGN MOUNTING DETAILS

★ The height to the bottom of a sign when it is located in a pedestrian walkway or extends into a walkway shall be a minimum of 80 inches above the walkway.

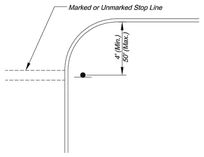
NOTE:
1. Generally, the sign mounting height should not be more than 1' greater than the minimum mounting height.




NON-CURBED INTERSECTION INSTALLATION

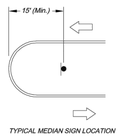



INTERSECTION WITH SIDEWALK / MULTI-USE TRAIL INSTALLATION




CURBED INTERSECTION INSTALLATION

## CONTROL SIGN LOCATION




TYPICAL MEDIAN SIGN LOCATION

## MEDIAN SIGN LOCATION

NOTES:
1. A 4" P.V.C. sleeve shall be installed in new concrete medians at each location where a sign is to be installed.
2. For existing concrete medians, a 4" hole shall be cored into the concrete.

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: SIGN MOUNTING DETAILS
STANDARD DRAWING SN-1

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

1 OF 3

**1**

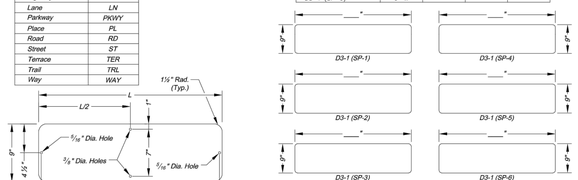
## STANDARD ABBREVIATION LISTS

| Named Streets | |
|---|---|
| Avenue | AVE |
| Boulevard | BLVD |
| Circle | CIR |
| Creek | CR |
| Court | CT |
| Crossing | XING |
| Drive | DR |
| Highway | HWY |
| Lane | LN |
| Parkway | PKWY |
| Place | PL |
| Road | RD |
| Street | ST |
| Terrace | TER |
| Trail | TRL |
| Way | WAY |

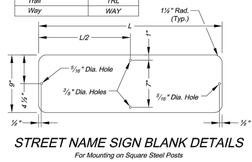
| Numbered Streets | |
|---|---|
| First | ST |
| Second | ND |
| Third | RD |
| Fourth to Tenth | TH |

## STREET NAME SIGN QUANTITIES

| Sign Designation | Sign Size | Sign Area (Sq. Ft.) | Number | Quantity (Sq. Ft.) |
|---|---|---|---|---|
| D3-1 (SP-1) | 9" x | Sq. Ft. | 1 | 1 |
| D3-1 (SP-2) | 9" x | | | |
| D3-1 (SP-3) | 9" x | | | |
| D3-1 (SP-4) | 9" x | | | |
| D3-1 (SP-5) | 9" x | | | |
| D3-1 (SP-6) | 9" x | | | |

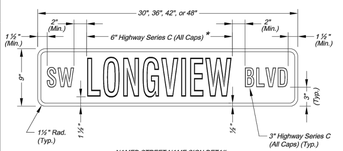



## PROJECT SIGN DETAILS



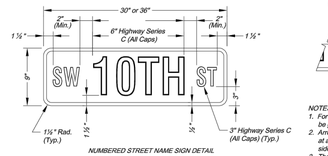

## STREET NAME SIGN BLANK DETAILS

For Mounting on Square Steel Posts

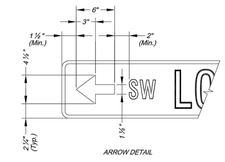



NAMED STREET NAME SIGN DETAIL

★ Use Highway Series B (All Caps) in lieu of series C if necessary to fit text on a 36" sign blank.




NUMBERED STREET NAME SIGN DETAIL



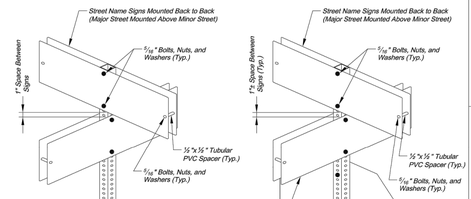

ARROW DETAIL



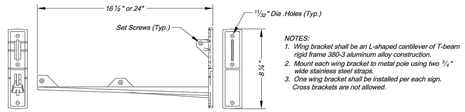

PRIVATE STREET TAG DETAIL

NOTES:
1. For all street name signs, the legend shall be white and the background shall be green.
2. Arrows shall be added to street name signs where the name of a street changes at an intersection. Street name signs with arrows are to be installed on each side of the intersection to indicate the change in names. Arrows shall be white.
3. The "PRIVATE STREET" tag should be added to the end of street name signs to indicate where a street that is outside the right-of-way intersects a public street. The background for the "PRIVATE STREET" tag shall be yellow.

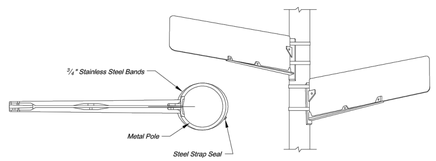
## STREET NAME SIGN FACE DETAILS




## SQUARE STEEL POST MOUNTING DETAILS




NOTES:
1. Wing bracket shall be an L-shaped cantilever of T-beam rigid frame 380-3 aluminum alloy construction.
2. Mount each wing bracket to metal pole using two ¾" wide stainless steel straps.
3. One wing bracket shall be installed per each sign. Cross brackets are not allowed.




## WING BRACKET MOUNTING DETAILS

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: STREET NAME SIGN DETAILS
STANDARD DRAWING SN-3

Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

3 OF 3

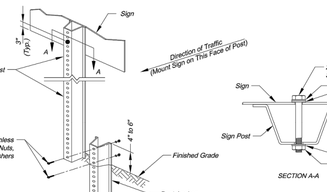
**3**

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER

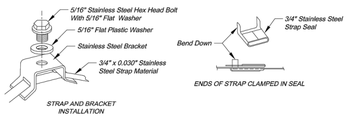
LEON D. OSBOURN
ENGINEER
MO # 021726

PERMANENT SIGNING GENERAL NOTES:
1. All signing shall be in accordance with the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. The Contractor is responsible for avoiding any and all utilities when installing sign posts, whether the utility is indicated on the plans or not.
3. All workmanship and materials shall be subject to the inspection and approval of the Public Works Department of the City of Lee's Summit.
4. The Contractor shall stake the location of all sign posts to be installed. The City Inspector shall inspect the staking prior to installation. Minor relocation to avoid conflicts may be allowed with the approval of the City Traffic Engineer or designee.
5. Signs shown to be installed on the side of metal poles shall be mounted with stainless steel straps or wing brackets as detailed. No signs are to be installed on wood poles. See Traffic Signal Standard Drawings for the installation of signs on mast arms.
6. All post mounted signs shall be installed with breakaway anchors according to the Standard Drawings.
7. All existing signs will be used in place during construction and protected from damage unless otherwise indicated in the plans. If the Contractor damages any existing sign or posts during construction, the Contractor will be required to replace the damaged materials with new signs or posts of the same type and size at the Contractor's expense. The Contractor shall be responsible for removing and storing any signs that are to be reinstalled on the project. All equipment shall be reinstalled in good condition.
8. Existing permanent signs and posts removed by the Contractor for construction purposes which are not to be reinstalled shall be delivered to the City's Public Works Maintenance Facility (1971 SE Hamblen Road). The Contractor shall be responsible for removing and storing equipment in good condition and is fully responsible for the equipment until it is delivered.
9. All Stop, Yield, or street name signs shall be maintained in a conspicuous location for the driving public. All Stop and Yield signs removed for construction purposes can be temporarily erected in reflectorized drums (no less than 7 feet above the pavement surface) until they can be reinstalled. Any temporary Stop or Yield sign installation to be left in place overnight will require prior approval from the City Inspector.



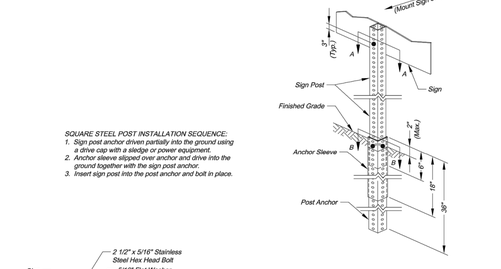

## U-STEEL POST DETAILS

U-STEEL POST NOTES:
1. Splice shall be positioned entirely between finished grade line and 18" above finished grade line. Only one splice will be allowed per post.
2. U-Steel post shall be 3 lb./ft., galvanized according to ASTM A123.
3. U-Steel post can be used for installation of signs with an area of less than 2.5 square feet.
4. All posts shall be embedded a minimum of 3 feet.

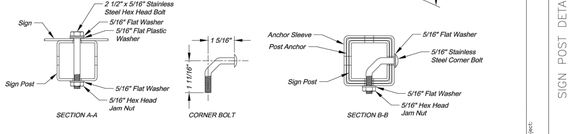



## STRAP TYPE SIGN SUPPORT DETAILS

METAL POLE SIGN MOUNTING NOTES:
1. Signs on metal poles shall be attached with two brackets and stainless steel bands.
2. Holes in sign for attachment to the mounting brackets shall be offset a minimum of 2 inches from the edge of the sign.
3. Holes in sign shall be located such that the sign is level.
4. All strap, bracket, and seal materials should be Type 201 stainless steel.




SQUARE STEEL POST INSTALLATION SEQUENCE:
1. Sign post anchor driven partially into the ground using a drive cap with a sledge or power equipment.
2. Anchor sleeve slipped over anchor and drive into the ground together with the sign post anchor.
3. Insert sign post into the post anchor and bolt in place.




## SQUARE STEEL POST DETAILS

SQUARE STEEL POST NOTES:
1. Square steel sign posts and break-away anchor shall consist of the following materials:
   Sign Post - 14 Ga. 2" x 2" Square Steel Post
   Post Anchor - 12 Ga. 2 ½" x 2 ½" x 36" Square Steel Post
   Anchor Sleeve - 12 Ga. 2 ½" x 2 ½" x 18" Square Steel Post
2. 14 Gauge posts must meet a certified minimum yield strength of 60,000 psi.
3. In all installations the first hole above the finished grade line on the sign post, anchor, and anchor sleeve must be in line for the insertion of the corner bolt.
4. The maximum area for one sign post is 9.0 square feet. A sign or combination of signs with an area greater than 9.0 square feet will require two posts. Also, signs with a width greater than 36" (not including 36" x 36" diamond shaped signs) will require two posts.

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: SIGN POST DETAILS
STANDARD DRAWING SN-2

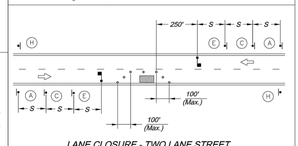
Drawn By: AS
Checked By: JW
Date: 08/26/2009
Project#

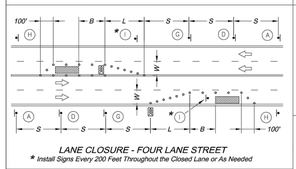
2 OF 3

**2**

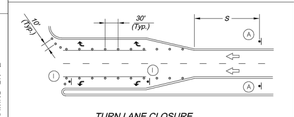
## SYMBOL LEGEND

- Work Area
- Sign
- Barricade
- Direction of Travel
- Channelizer
- Arrow Panel
- Flagger

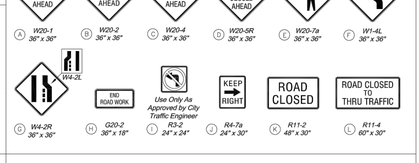



★ Install Signs Every 200 Feet Throughout the Closed Lane or As Needed

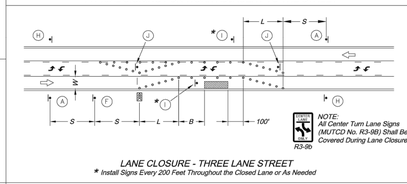



## SIGN LEGEND





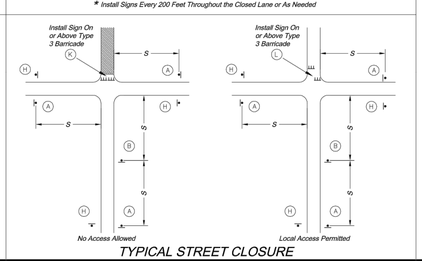





★ Install Signs Every 200 Feet Throughout the Closed Lane or As Needed

NOTE: All Center Turn Lane Signs (MUTCD No. R3-9B) Shall Be Covered During Lane Closure

R3-9b




## TYPICAL STREET CLOSURE

## GENERAL NOTES:

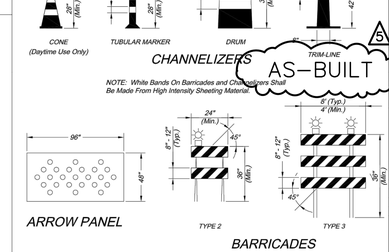
1. All signs, barricades, channelizers, markings and other traffic control devices shall conform to the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD).
2. All traffic control devices shall be standard in size, shape, color, and message, in good condition, and retro-reflectorized. All signs shall be securely mounted with height and lateral location as described in the MUTCD.
3. Warning lights shall be used on barricades in place at night and on warning signs which alert drivers about a change in alignment, traffic control, lane closure, or road closure.
4. Flaggers shall be used where indicated on the plans, where construction vehicles interact with normal traffic, or where construction activities impose a restriction on traffic, as directed by the City Traffic Engineer. Where flaggers are used, advance signing shall be erected as shown in the details or as specified in the MUTCD. Flaggers shall meet the requirements in the MUTCD in regard to character, training, attire, and behavior.
5. Trim-lines are the City's preferred channelizing device. Cones may not be used at nighttime.
6. Traffic control devices not in use or not applicable shall be either covered or removed from the work area.
7. The Contractor shall use barricades, street plates, or fencing as needed to effectively shield pedestrian and vehicular traffic from exposed objects, excavations, and construction activities.
8. Access shall be maintained to all driveways and side streets unless noted otherwise on the plans.
9. No street shall be closed without the approval of the City Traffic Engineer. The Contractor shall notify the City Traffic Engineer at least 7 days in advance of any street closure. If a detour route around the closure is to be provided, all detour signing shall be as shown on a plan approved by the City Traffic Engineer.
10. Construction vehicles parked along streets shall be located within the work area (traffic control) or where otherwise normally permitted. Construction materials, including traffic control and vehicles shall not restrict sight distance for vehicles exiting at streets or drives.
11. Construction materials shall be kept off of sidewalks, consolidated in one location within City right-of-way, and removed daily unless otherwise approved by the Inspector. Dirt, mud, and other construction debris on streets and sidewalks shall be removed immediately.
12. The Contractor shall not perform any work that will restrict vehicular traffic in any way between the hours of 7:00 a.m. and 9:00 a.m. or 4:00 p.m. and 6:00 p.m. Monday through Friday unless otherwise indicated in the specifications.
13. All travel lanes should be at least 11 feet wide unless otherwise authorized by the City Traffic Engineer. A "Narrow Lanes" sign shall be installed in advance of a lane width reduction to less than 11 feet.
14. All edge drop-offs of more than 2 inches and less than 4 inches should be protected by a wedge or barrier and all edge drop-offs greater than 4 inches shall have edge protection (see Traffic Control Specifications for edge treatment requirements).
15. The "Workers" symbolic sign (MUTCD No. W21-1a) may be used instead of the "Road Work Ahead" sign for work with a duration of 12 hours or less. The "End Road Work" sign is not required to be installed after the "Workers" sign.
16. No traffic signal shall be altered or modified in any way without a plan approved by the City Traffic Engineer.
17. The Contractor shall be responsible for maintaining all traffic control devices on an around-the-clock basis, whether or not work is actively being pursued and any deficiencies noted shall be corrected immediately.
18. The traffic control requirements shown on these plans are minimum requirements only and do not attempt to address in depth the variety of situations that may occur once construction has started. In no way do the requirements shown on these plans relieve the Contractor of his responsibility for selecting the proper traffic control devices and implementation procedures that will assure the safety of drivers, pedestrians, and workers at all times.
19. Should the contractor fail to enforce the traffic control plan or fail to clean, replace or otherwise maintain the traffic control devices when directed to do so by the City Traffic Engineer or representative, the City may take one or more of the following actions:
   A) Employ another agency to correct deficiencies in traffic control devices and deduct the cost from the Contractor's pay estimate,
   B) Stop the work until deficiencies are corrected,
   C) Suspend all pay estimates until deficiencies are corrected, or
   D) Place the Contractor in default.

| Sign Spacing "S" | |
|---|---|
| Speed Limit (mph) | Spacing (Feet) |
| 25 | 100 |
| 30 - 35 | 250 |
| ≥ 40 | 350 |

| Taper Dimensions (Feet) | | | | |
|---|---|---|---|---|
| Speed Limit (mph) | Minimum Taper Length "L", per Lane Width "W" | | | Minimum Number of Channelizers |
| | 10 | 11 | 12 | |
| 25 | 105 | 115 | 125 | 6 |
| 30 | 150 | 165 | 180 | 7 |
| 35 | 205 | 225 | 245 | 8 |
| 40 | 270 | 295 | 320 | 9 |
| 45 | 450 | 495 | 540 | 13 |

| Guidelines for Length of Longitudinal Buffer Space "B" | |
|---|---|
| Speed Limit (mph) | Length (Feet) |
| 25 | 35 |
| 30 | 55 |
| 35 | 85 |
| 40 | 120 |
| 45 | 170 |

| Maximum Channelizer Spacing | | |
|---|---|---|
| Speed Limit (mph) | Within Taper (Feet) | Outside Taper (Feet) |
| 25 | 25 | 50 |
| 30 | 30 | 60 |
| 35 | 35 | 70 |
| 40 | 40 | 80 |
| 45 | 45 | 90 |




NOTE: White Bands On Barricades and Channelizers Shall Be Made From High Intensity Sheeting Material.

CITY OF LEE'S SUMMIT
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION
220 SE GREEN STREET
LEE'S SUMMIT, MISSOURI 64063
PHONE: (816) 969-1800 FAX: (816) 969-1809

Project:
Sheet Name: TRAFFIC CONTROL DETAILS
STANDARD DRAWING TC-1

Drawn By: JJW
Checked By: MP
Date: 12-10-2008
Project No.: X

x OF x

**X**


KAW VALLEY ENGINEERING, INC. - IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

KAW VALLEY ENGINEERING

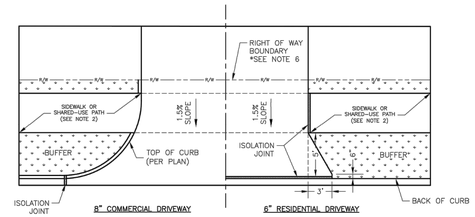
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5000 FAX (785) 762-7744
ksveng.com | www.kveng.com


**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**SIGN AND TRAFFIC CONTROL DETAIL SHEET**

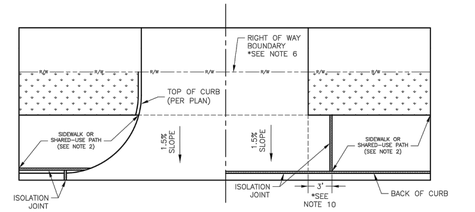
PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_DET
SHEET 26 | REV 5

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



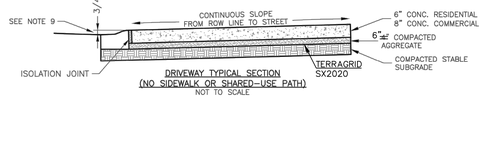

8" COMMERCIAL DRIVEWAY — 6" RESIDENTIAL DRIVEWAY

DRIVEWAY WITH BUFFER
NOT TO SCALE

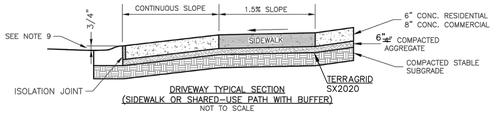



8" COMMERCIAL DRIVEWAY — 6" RESIDENTIAL DRIVEWAY

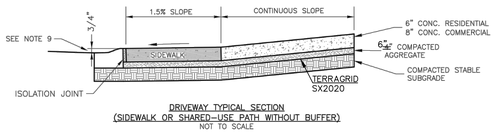
DRIVEWAY WITHOUT BUFFER
NOT TO SCALE




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



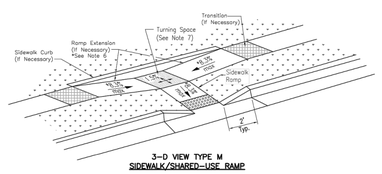

DRIVEWAY TYPICAL SECTION
(SIDEWALK OR SHARED-USE PATH WITHOUT BUFFER)
NOT TO SCALE

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 GEN–3B, SIDEWALK/SHARED USE PATH RAMP AT DRIVEWAY 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, IN THE PUBLIC RIGHT OF WAY, SHALL BE KCMMB 4K CONCRETE MIX.
6. RESIDENTIAL DRIVEWAYS, IN THE PUBLIC RIGHT OF WAY, KCMMB 4K CONCRETE MIX IS RECOMMENDED. OTHER CONCRETE MIXES NEEDS TO BE APPROVED BY CITY INSPECTOR.
7. A JOINT MUST BE INSTALLED AT THE RIGHT OF WAY BOUNDARY FOR PROPERTY DELINEATION.
8. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.
9. ¾" FROM TOP OF CURB TO FLOWLINE AT DRIVEWAY (TYPE CG–1 CURB ONLY). MUST MAINTAIN ORIGINAL FLOWLINE OF CURB.
10. SIDEWALK ADJOINING CURB SHALL BE 6" THICK, EXTENDING 3' FROM THE DRIVEWAY.
11. THE MAXIMUM WIDTH OF A RESIDENTIAL DRIVEWAY IS 36 FEET WITHIN THE RIGHT OF WAY.

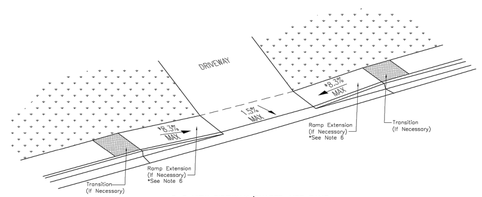
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
DRIVEWAY DETAIL

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

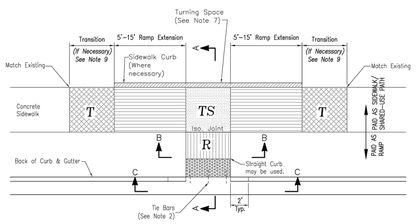
GEN-1



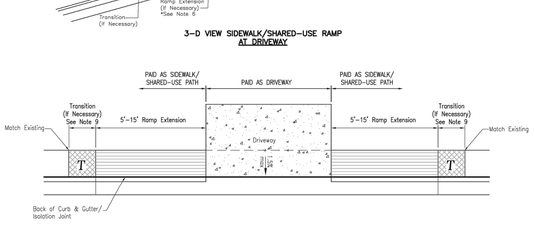

3–D VIEW TYPE M
SIDEWALK/SHARED–USE RAMP



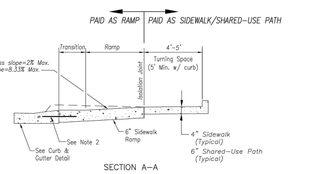

3–D VIEW SIDEWALK/SHARED–USE RAMP
AT DRIVEWAY



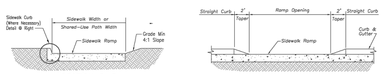

TYPE M SIDEWALK/SHARED–USE RAMP
Not to Scale




SIDEWALK/SHARED USE RAMP
AT DRIVEWAY WITH ADJOINING CURB




SECTION A–A

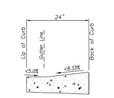



SECTION B–B

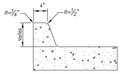



SECTION C–C

TYPE M SIDEWALK RAMP
Not to Scale




CURB & GUTTER DETAIL AT RAMP
Not to Scale




SIDEWALK CURB DETAIL
Not to Scale

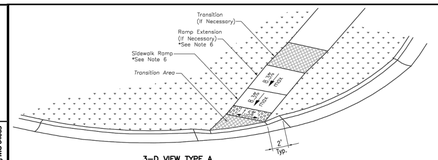
LEGEND
- R — SIDEWALK RAMP
- TS — TURNING SPACE
- DETECTABLE WARNING SURFACE
- T — TRANSITION

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).

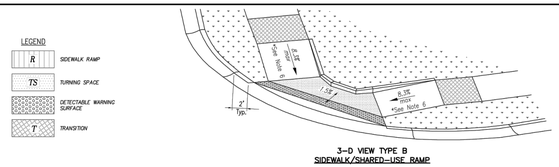
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

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

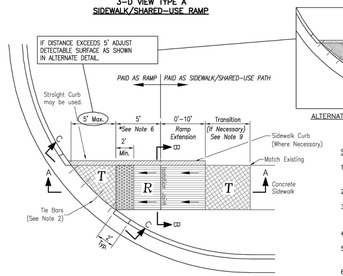
GEN-3B



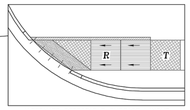

3–D VIEW TYPE A
SIDEWALK/SHARED–USE RAMP



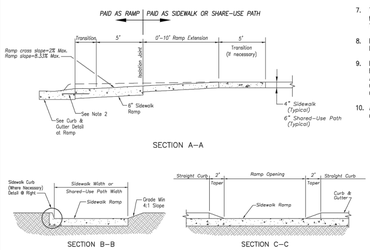

3–D VIEW TYPE B
SIDEWALK/SHARED–USE RAMP




TYPE A SIDEWALK/SHARED–USE RAMP
Not to Scale




ALTERNATE DETECTABLE SURFACE LAYOUT




SECTION A–A

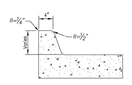



SECTION B–B

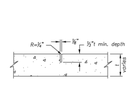



SECTION C–C

TYPE A & B SIDEWALK RAMP
Not to Scale

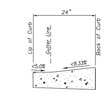



SIDEWALK CURB DETAIL
Not to Scale

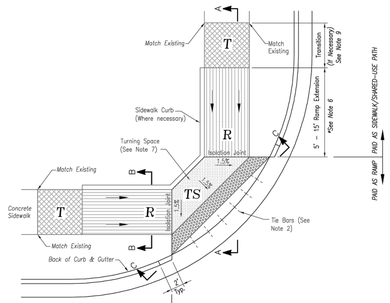



CONTRACTION JOINT — ISOLATION JOINT

JOINT DETAILS
Not to Scale




CURB & GUTTER DETAIL AT RAMP
Not to Scale

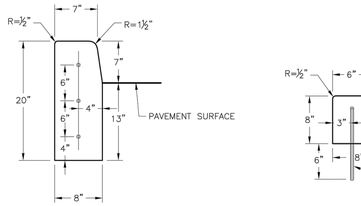



TYPE B SIDEWALK/SHARED–USE RAMP
Not to Scale

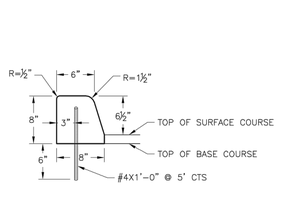
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
DRIVEWAY DETAIL

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

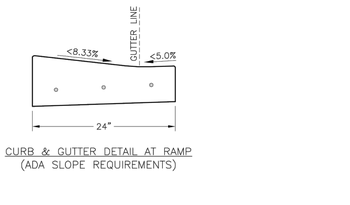
GEN-3A



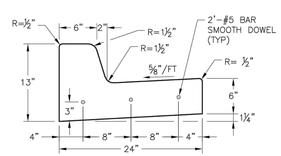

STRAIGHT CURB
(TYPE C–1)



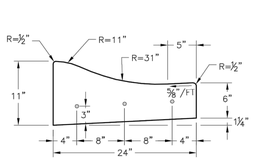

DOWELLED CURB
(TYPE DC)



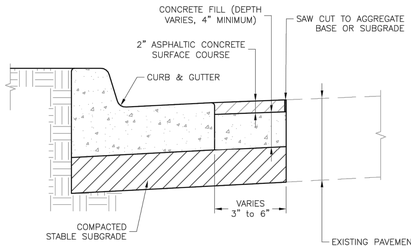

CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



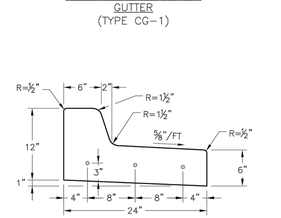

STRAIGHT BACK CURB & GUTTER
(TYPE CG–1)



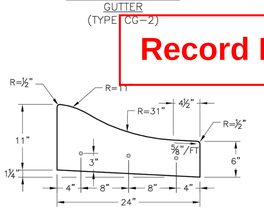

ROLL BACK CURB & GUTTER
(TYPE CG–2)




CURB REPLACEMENT DETAIL




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




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

Record Drawing

5 AS–BUILT

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.

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

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

GEN-4

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2–9–21 | AS–BUILT PLANS | LDO | JT | LDO |
| 2 | 7–5–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5–16–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01–11–19 | INITIAL ISSUE | LDO | JT | LDO |

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

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

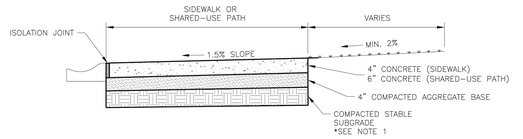

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jo@kveng.com | www.kvengineering.com
KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19


# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

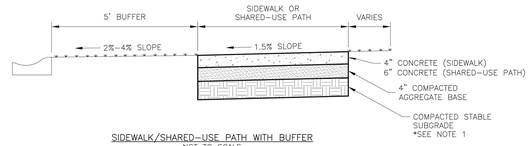
# PUBLIC STREET PLANS
## STREET DETAIL SHEET

PROJ. NO. A14_7067–1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067–1PI_DET
SHEET 27 | REV 5


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




SIDEWALK/SHARED–USE PATH WITHOUT BUFFER
NOT TO SCALE




SIDEWALK/SHARED–USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

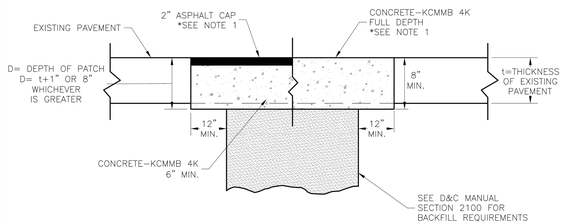
1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED–USE PATHS OR AS APPROVED BY THE CITY INSPECTOR.
4. ALL SIDEWALK/SHARED–USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 150 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED–USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED–USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED–USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED–USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. 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:

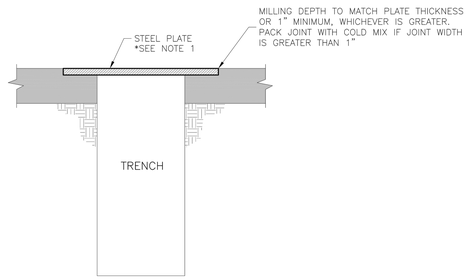
1. ASPHALT CAP OR FULL DEPTH CONCRETE SHALL BE DETERMINED BY CITY INSPECTOR.

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

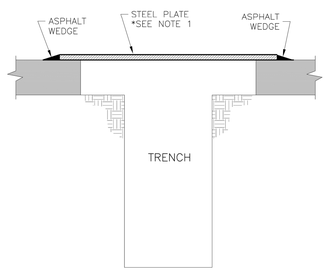
TRENCHING/PATCHING ROADWAYS DETAIL

Date: 04/17 | Drawn By: MJF | Checked By: DL

GEN-5




TYPE "A" PLATING
NOT TO SCALE
(CITY POSTED SPEEDS OF 35 MPH AND GREATER)




TYPE "B" PLATING
NOT TO SCALE
(CITY POSTED SPEEDS OF 30 MPH OR LESS)

GENERAL NOTES:

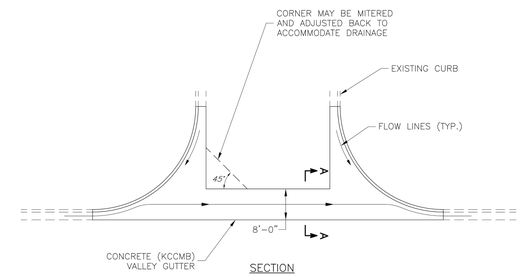
1. THE CONTRACTOR SHALL PROVIDE ADEQUATE OVERLAP OF PLATE ON ASPHALT TO ASSURE NO SLIPPAGE OF PLATE AND NO COLLAPSING OF TRENCH.
2. ALL PLATES SHALL BE ANCHORED SO PLATES DO NOT MOVE OR SHIFT UNDER TRAFFIC.

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

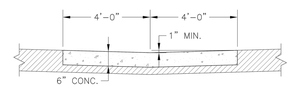
TRENCHING PLATE DETAIL

Date: 04/17 | Drawn By: MJF | Checked By: DL

GEN-6




SECTION




SECTION
Scale: 1" = 1'–0"

VALLEY GUTTER DETAIL
**Intersection of Two Public Streets**

5
AS–BUILT

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

VALLEY GUTTER DETAIL

Date: 04/17 | Drawn By: MJF | Checked By: DL

GEN-7

**Record Drawing**

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2–9–21 | AS–BUILT PLANS | LDO | JT | LDO |
| 1 | 5–16–19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01–11–19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2–9–2021

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785)762-5040 | FAX: (785)762-7744
jlkvceng.com | www.kvceng.com
KAW VALLEY ENGINEERING

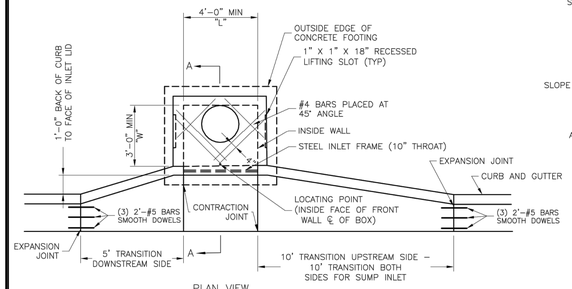
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

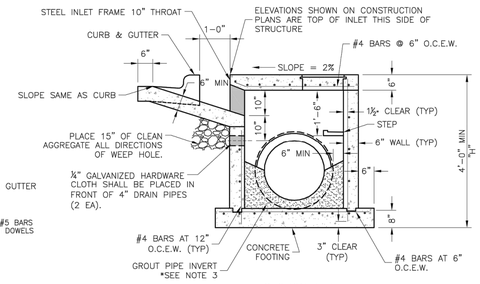
PUBLIC STREET PLANS
STREET DETAIL SHEET

PROJ. NO. A14_7067–1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067–1PI_DET
SHEET 28 | REV 5

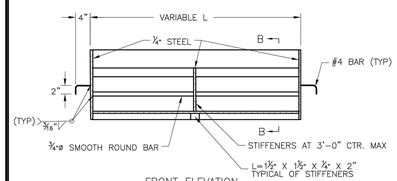
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.



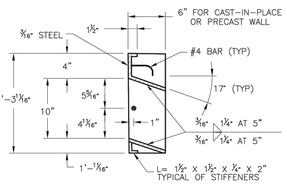

PLAN VIEW



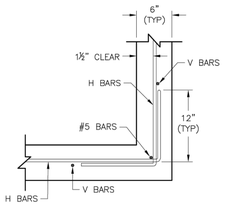

SECTION A–A



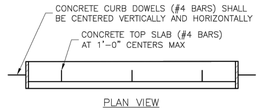

FRONT ELEVATION




SECTION B–B




WALL CORNER DETAIL




PLAN VIEW

STEEL FRAME NOTES:
1. ALL WELDS SHALL BE PERFORMED IN ACCORDANCE WITH APPROPRIATE AWS SPECIFICATIONS AND PROCEDURES.
2. ALL WELDS ON EXPOSED SURFACES SHALL BE DRESSED SO AS TO PROVIDE A PLEASING FINISHED APPEARANCE.
3. THE ENTIRE FRAME SHALL BE PAINTED A SINGLE COAT OF CHEM–PRIME #37H–78 PRIMER (GRAY) OR EQUAL.

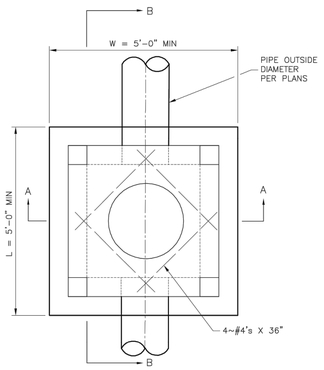
GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ¾" TOOLED EDGE.
7. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON–SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

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

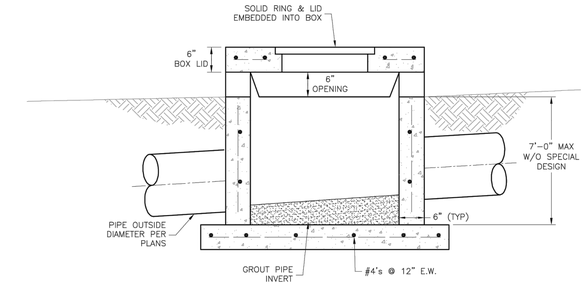
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: CURB INLET DETAIL

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

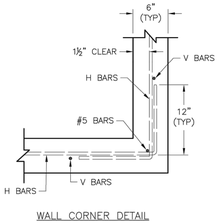
STM-1



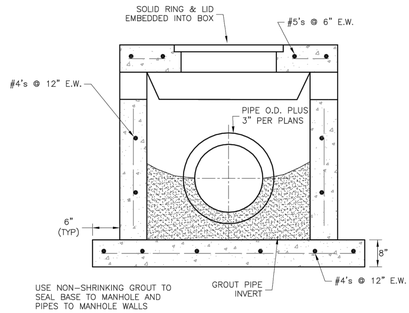

PLAN VIEW




SECTION B–B




WALL CORNER DETAIL




SECTION A–A

GENERAL NOTES:
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
2. USE ¾" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
5. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS OF THE STRUCTURE.
6. THE MINIMUM REINFORCING SHALL BE 1 H–BAR OVER A CAST–IN–PLACE PIPE AND 2 H–BARS OVER A PRECAST BOXOUT.
7. SHOW FIELD INLET ORIENTATION ON PLANS PLUS NUMBER AND SIDE OF OPENINGS.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

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

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

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

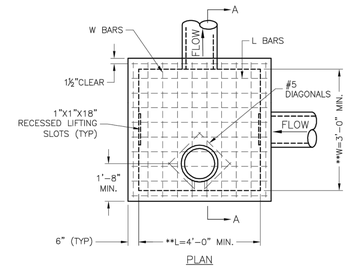
STM-2

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2–9–21 | AS–BUILT PLANS | LDO | JT | LDO |
| 0 | 01–11–19 | INITIAL ISSUE | LDO | JT | LDO |

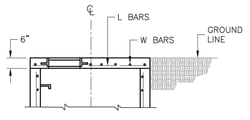
STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
2-9-2021
E-21726
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jo@kveng.com | www.kvengineering.com
KAW VALLEY ENGINEERING
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19


PLAN

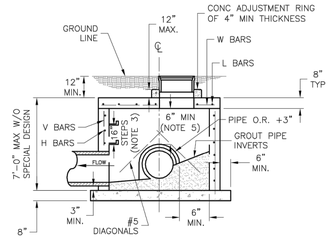



SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

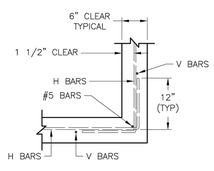
** INCREASE IN MULTIPLES OF 6" (7'–0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

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




SECTION A–A




WALL CORNER DETAIL

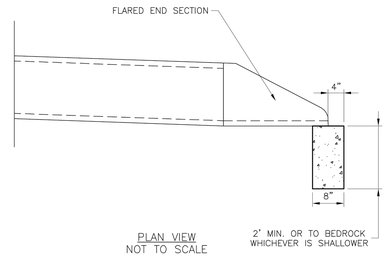
GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS 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.

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

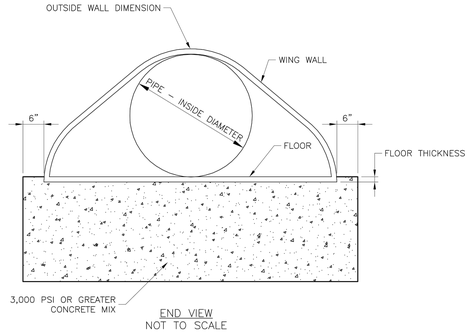
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: JUNCTION BOX DETAIL

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

STM-3




PLAN VIEW
NOT TO SCALE




END VIEW
NOT TO SCALE

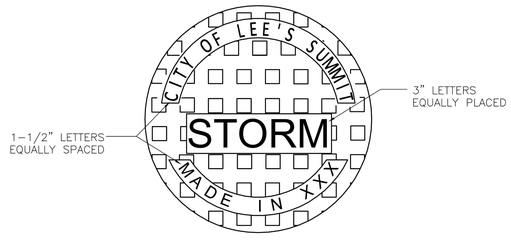
LEE'S SUMMIT MISSOURI
PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063

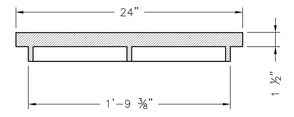
FLARED END SECTION SUPPORT DETAIL

Date: 04/17
Drawn By: MJF
Checked By: DL

STM-5

**Record Drawing**




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.

5
AS–BUILT

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

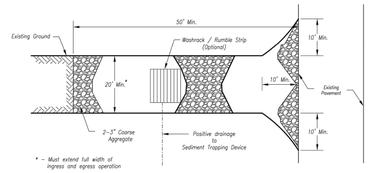
STM-6

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

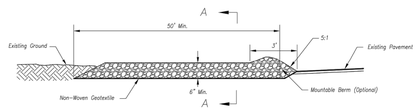
**PUBLIC STREET PLANS**
**STORM SEWER DETAIL SHEET**

PROJ. NO. A14_7067–1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067–1PI_DET
SHEET 29 | REV 5

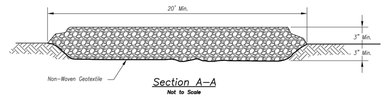
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




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.

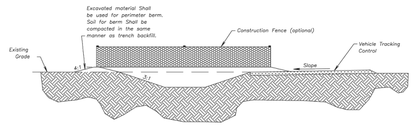
CONSTRUCTION ENTRANCE

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:

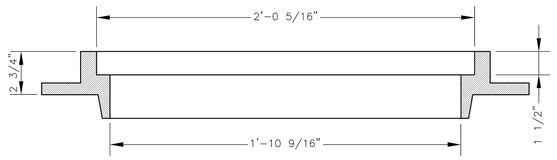
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface 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.



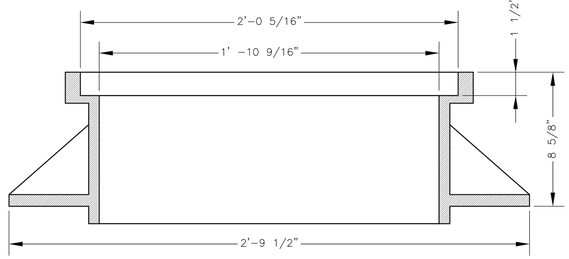

CONCRETE WASHOUT

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 | |
| CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT | STANDARD DRAWING NUMBER ESC-01 | |
| | ADOPTED: 10/24/2016 | |

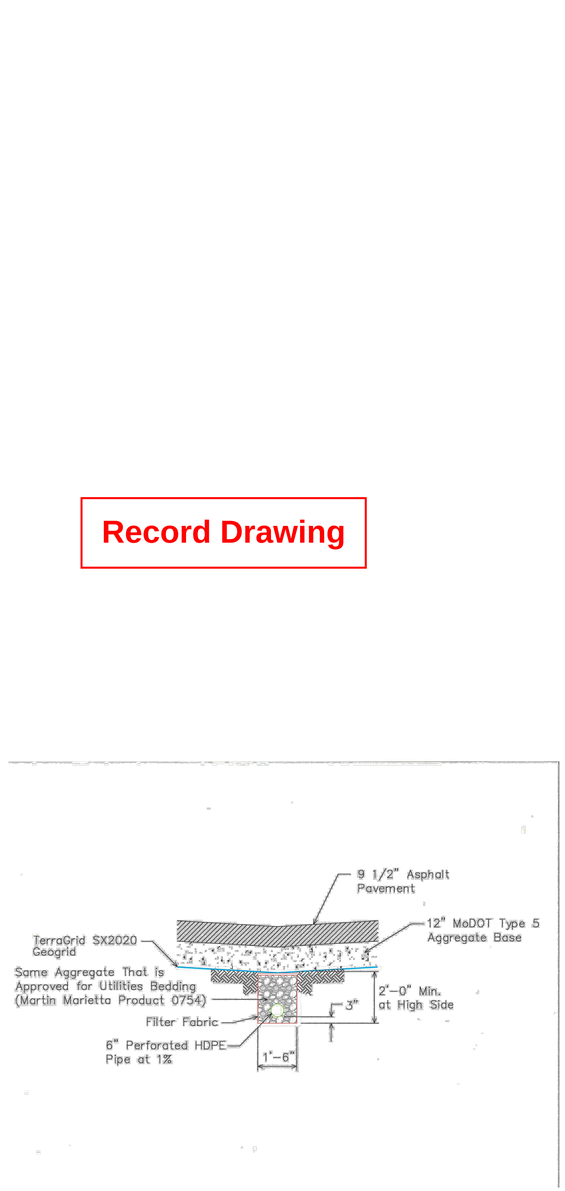


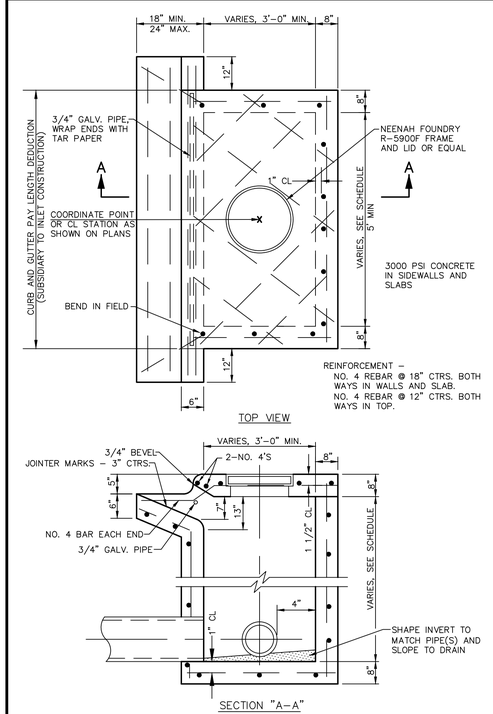

SLAB MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS103A
MINIMUM WEIGHT = 145 LB




STANDARD 24" MANHOLE FRAME
LEE'S SUMMIT PART NO.: LS101A
MINIMUM WEIGHT = 250 LB

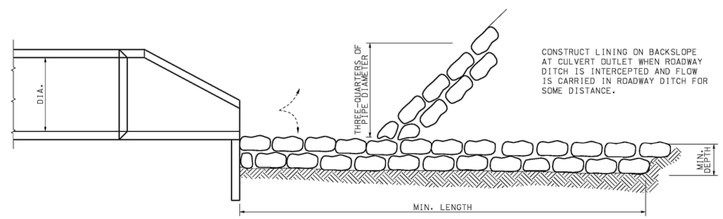
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.



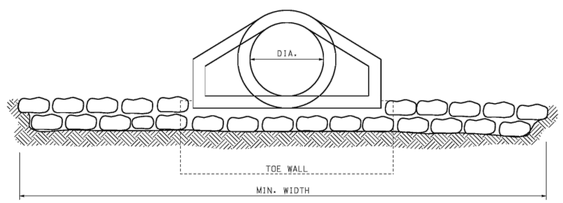




NOTES:
1. USE 3000 P.S.I. CONCRETE IN SIDE WALL AND SLAB.
2. PROVIDE 3/4" ROUNDED EDGE ON ALL EXPOSED CORNERS.
3. WHERE INLETS ARE SET IN CURVES, FORM FRONT WALL TO CONFORM TO CURVE.
4. PRE-CAST UNITS MAY BE SUBSTITUTED WITH THE ENGINEERS APPROVAL. SHOP DRAWINGS AND DESIGN CALCULATIONS MUST BE SUBMITTED.
5. THE TOP OF THE INLET SHALL BE SLOPED TO FIT STREET, SIDEWALK, OR FINISHED GROUND ELEVATIONS

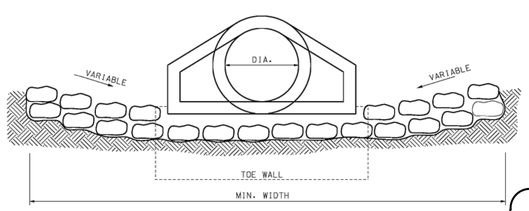
CURB INLET 402




SIDE VIEW




END VIEW




END VIEW
(ALTERNATE METHOD)

ROCK LINING FOR CULVERT OUTLETS

| CULVERT SIZE. DIA (IN.) | MINIMUN DEPTH AND WIDTH (FT.) | MINIMUM LENGHT (FT.) | ROCK LINING (CU.YD.) | EQUIVALENT PIPE ARCH CULVERT (APPROX.) | EQUIVALENT CONCRETE BOX CULVERT (APPROX.) |
|---|---|---|---|---|---|
| 18 | 1 X 4 | 12 | 2 | | |
| 24 | 1 X 6 | 14 | 3 | | 2' X 1½' |
| 30 | 1 X 7 | 16 | 4 | B-5 | 2' X 2' |
| 36 | 1.5 X 9 | 18 | 9 | B-6 | 3' X 2' |
| 42 | 2 X 10 | 20 | 15 | B-7 | 3' X 3' |
| 48 | 2 X 12 | 20 | 18 | B-8 | 4' X 3' |
| 54 | 2 X 13.5 | 22 | 22 | B-9 | 4' X 4' |
| 60 | 2 X 15 | 25 | 28 | B-10 | 5' X 4' |
| 66 | 2 X 18 | 25 | 33 | B-11 | 5' X 5' |
| 72 | 2 X 20 | 30 | 44 | B-12 | 5' X 6' |
| 84 | 2.5 X 25 | 35 | 81 | | 6' X 6' |
| 96 | 2.5 X 30 | 40 | 111 | | 7' X 7' |
| 108 | 3 X 32 | 40 | 142 | | 8' X 8' |

GENERAL NOTES:

THE DIMENSIONS SHOWN IN THE TABLE CAN BE APPLIED TO BOX OR ARCH CULVERTS OF EQUIVALENT WATERWAY AREA.

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION
105 WEST CAPITOL
JEFFERSON CITY, MO 65102
1-888-ASK-MODOT (1-888-275-6636)

STATE OF MISSOURI KATHRYN PHILLIPS HARVEY NUMBER PE-2009 PROFESSIONAL ENGINEER
THIS SHEET HAS BEEN SIGNED AND SEALED AND DATED ELECTRONICALLY

ROCK LINING FOR CULVERT OUTLET

DATE EFFECTIVE: 10/01/1981
DATE PREPARED: 8/21/2009

609.70C

SHEET NO. 1 OF 1

5 AS-BUILT

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |
| REV | DATE | DESCRIPTION | DSN | DWN | CHK |

STATE OF MISSOURI
LEONA OSBOURN
NUMBER E-21726
2-9-2021
RESIDENT PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5641 | FAX: (785) 762-7744
jo@kveng.com | www.kveng.com

KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED

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

STORM MANHOLE FRAME DETAIL

STM-7

Date: 04/17
Drawn By: MJF
Checked By: DL

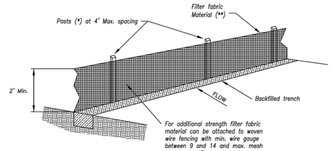
STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

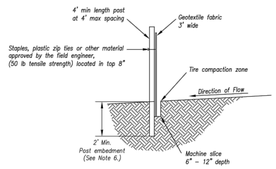
PUBLIC STREET PLANS
STORM SEWER AND EROSION CONTROL DETAIL SHEET

PROJ. NO. A14_7067-1
DESIGNER LDO
DRAWN BY JT/BKR
CFN 7067-1PI_DET
SHEET 30
REV 5

Record Drawing

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.




(*) 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

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.

**SILT FENCE DETAILS**
Not to Scale

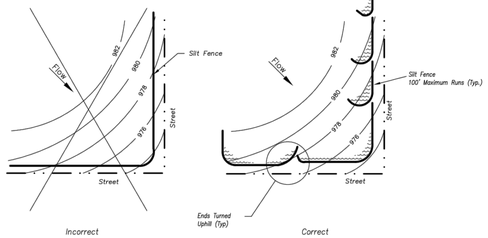
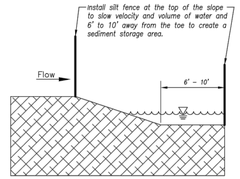
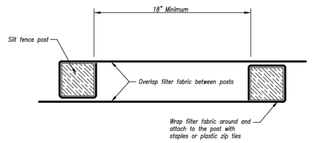



Figure A

**SILT FENCE LAYOUT**
Not to Scale

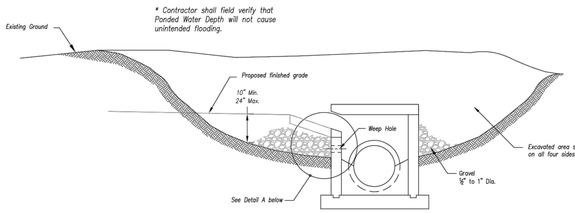


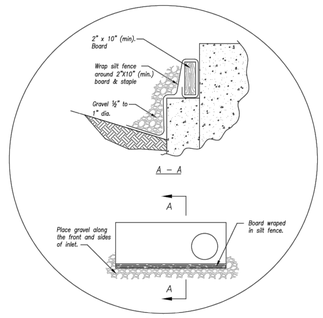




**JOINING FENCE SECTIONS**
Not to Scale

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

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



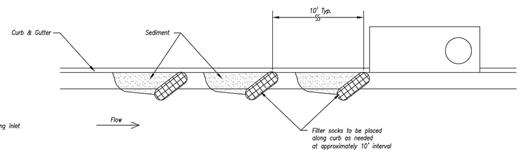

**EARLY STAGE CURB INLET**
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

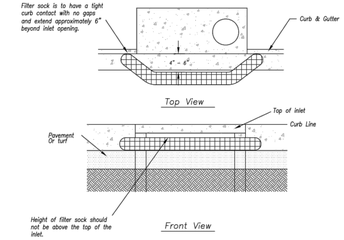
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. (Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When 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.




On Grade Curb Inlet Protection

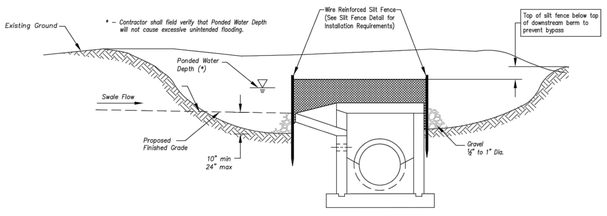



Sump Inlet Sediment Filter

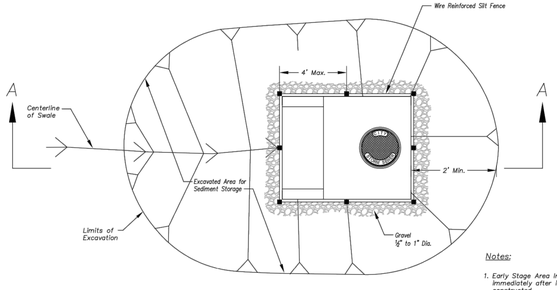
**LATE STAGE CURB INLET**
(After Pouring Curb and Inlet Throat)

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

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

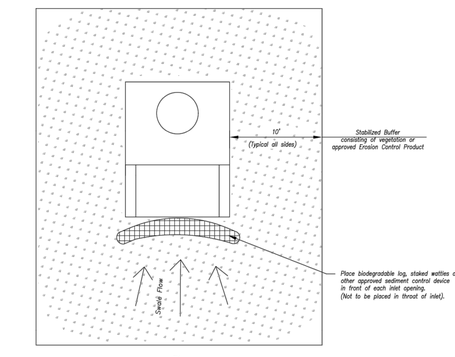



Section A–A
Not to Scale

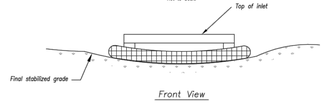



Plan
Not to Scale

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




Plan
Not to Scale




Front View

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

Notes:

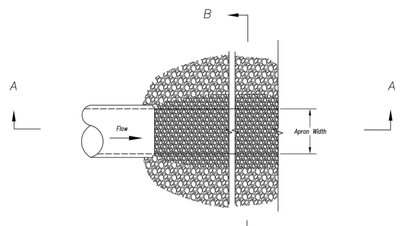
1. Early Stage Area Inlet Sediment Barrier to be installed immediately after inlet or junction box is constructed.
2. Silt fence shall remain in place until excavated area is removed and Late Stage Area Inlet is being installed.
3. Backfill excavated area ONLY after final grading of the site. Stabilization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

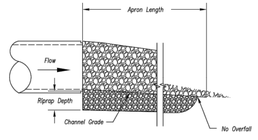
Maintenance:

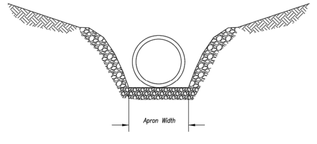
1. Remove deposited sediment from excavated storage areas when available storage has been reduced by 20%.
2. Remove deposited sediment from filter socks or similar when any accumulation of sediment is visible.
3. Repair or replace as necessary to maintain function and integrity of installation.

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

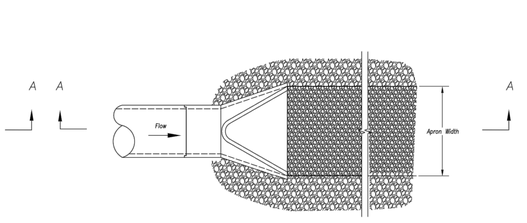
| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER | |
|---|---|---|
| AREA INLET AND JUNCTION BOX PROTECTION | STANDARD DRAWING NUMBER ESC-07 | ADOPTED: 10/24/2016 |

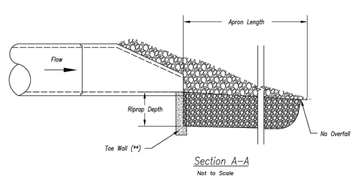



OUTLET PROTECTION W/O END SECTION




OUTLET PROTECTION WITH END SECTION

Notes:

1. Rock all sides steeper than 3:1.
2. Stabilize all disturbed areas downstream of outlet to the limits of disturbance.
3. Alternative outlet protection and slope stabilization measures may be used with approval by the Engineer.
4. Install riprap apron so that it is no higher than flowline of pipe.
5. Reference APWA Specification 2650 for rock type, size, and placement.

5 AS–BUILT

**Record Drawing**

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

| AMERICAN PUBLIC WORKS ASSOCIATION | KANSAS CITY METRO CHAPTER | |
|---|---|---|
| OUTLET PROTECTION | STANDARD DRAWING NUMBER ESC-14 | ADOPTED: 10/24/2016 |

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
2-9-2021
REGISTERED PROFESSIONAL ENGINEER

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlb@kveng.com | www.kvengr.com
KAW VALLEY ENGINEERING

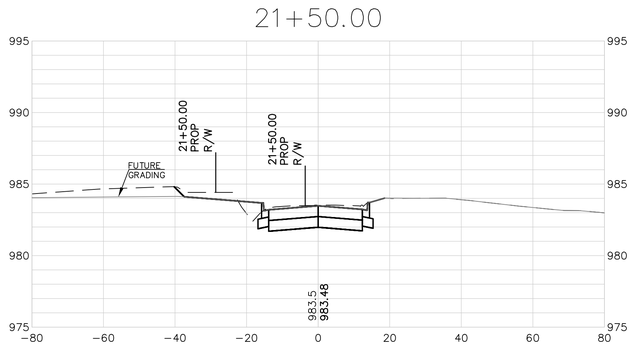
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

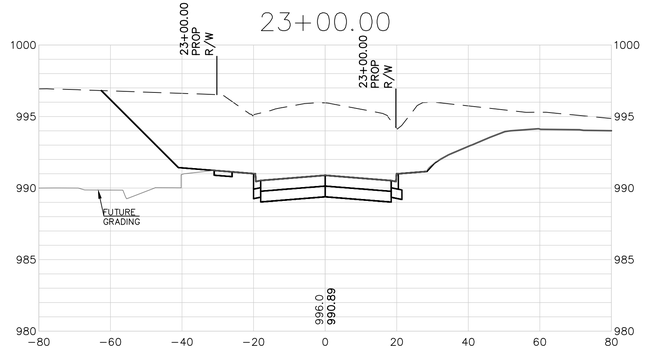
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

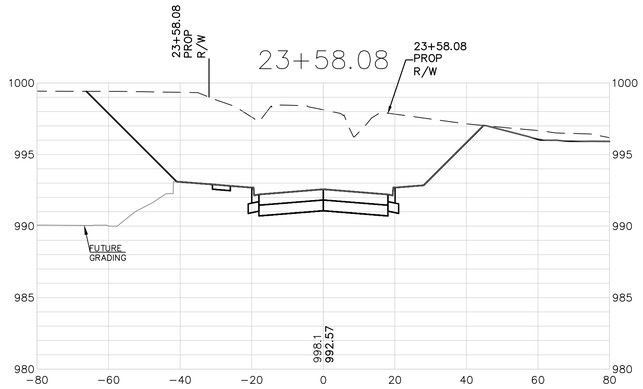
**PUBLIC STREET PLANS**
**EROSION CONTROL DETAIL SHEET**

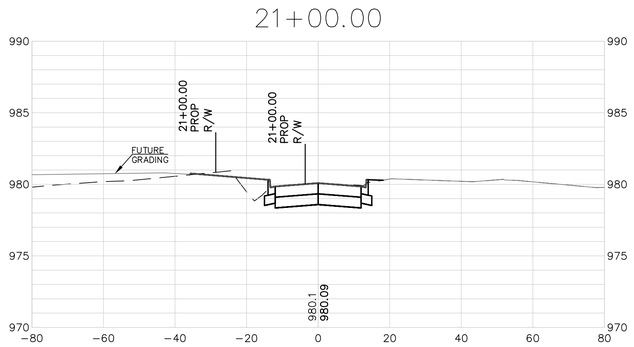
PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_DET
SHEET 31 | REV 5

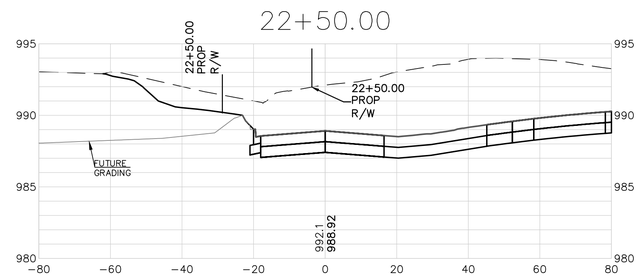
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

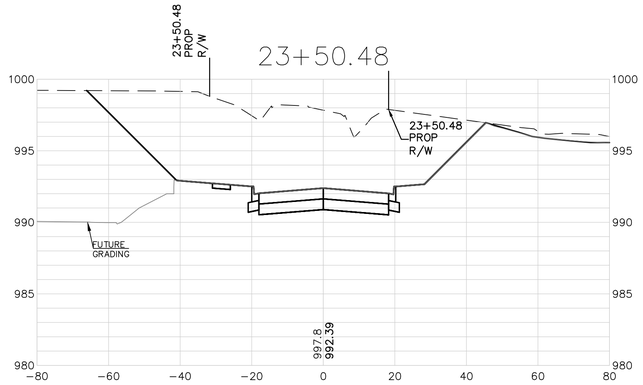


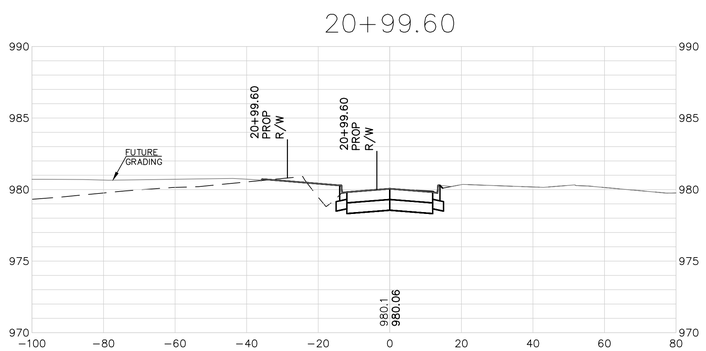



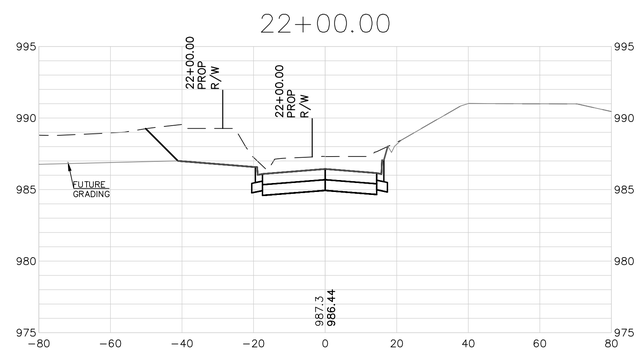



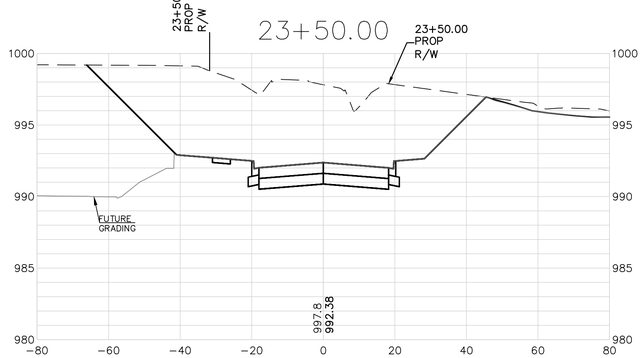




**Record Drawing**

5
AS–BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 3 | 7-25-19 | REVISED PER CITY COMMENT | LDO | BKR | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jdkaw@kaweng.com | www.kaweng.com
KAW VALLEY ENGINEERING

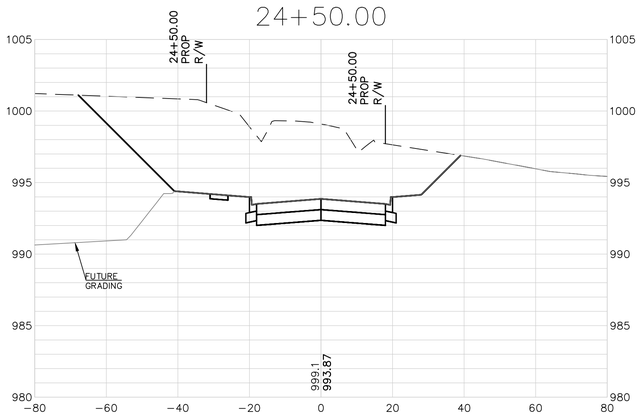

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

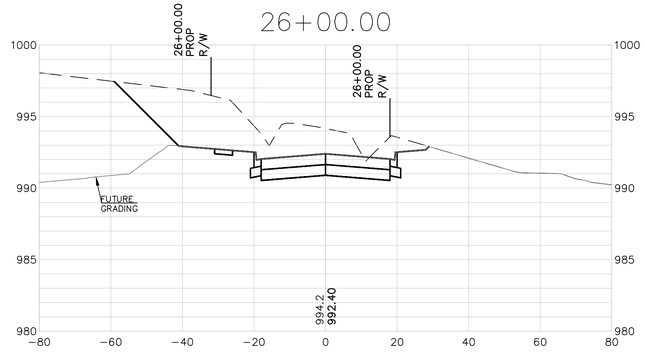
**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

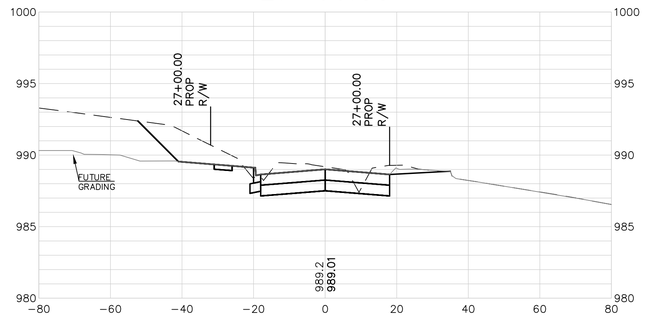
**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - CROSS SECTIONS**

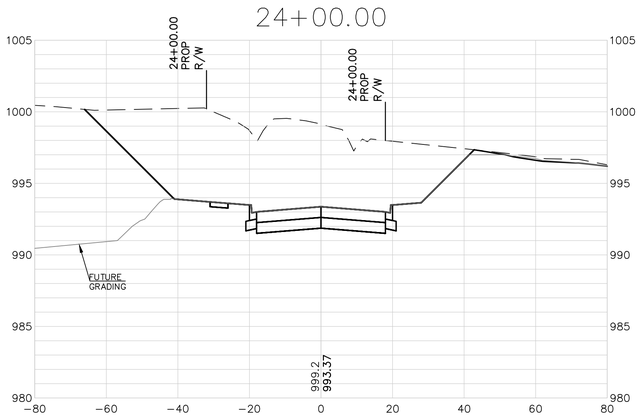
PROJ. NO. A14_7067-1
DESIGNER LDO | DRAWN BY JT/BKR
CFN 7067-1PI_STPP
SHEET 32 | REV 5

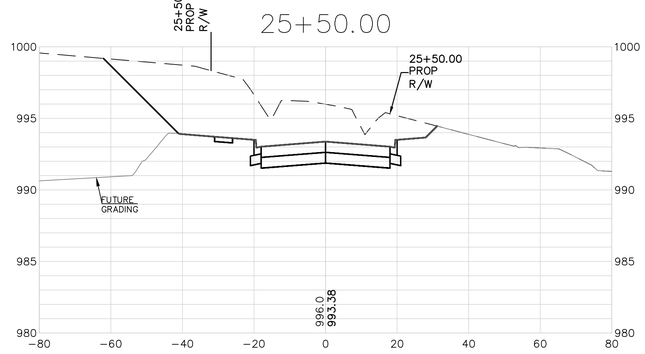
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

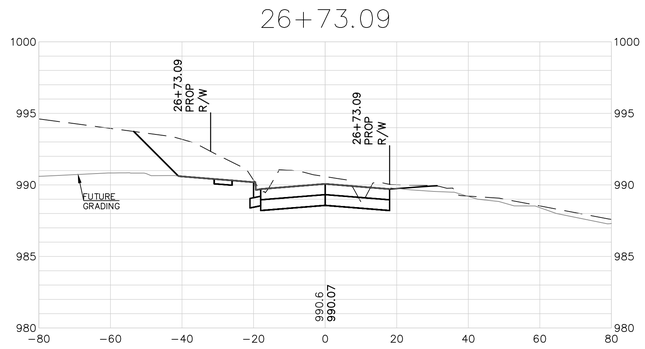


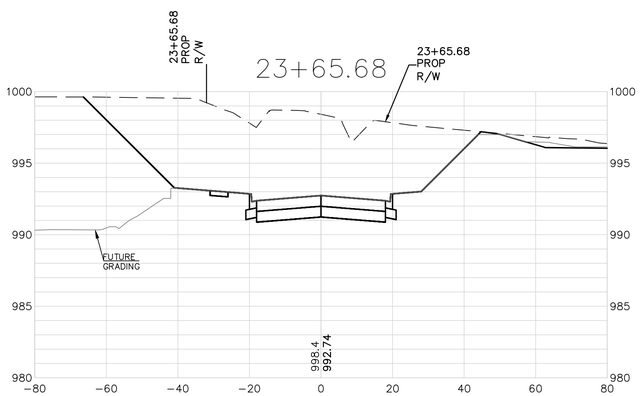



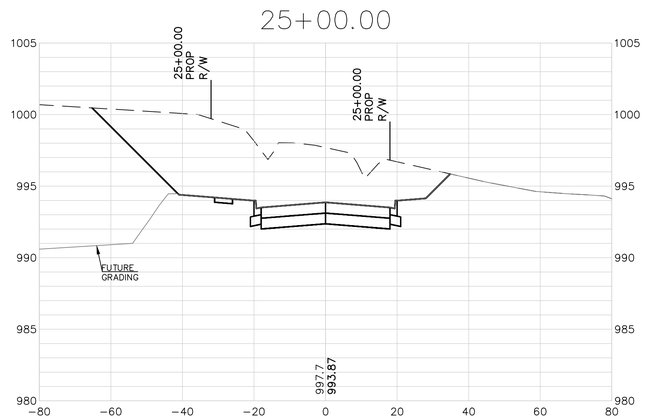



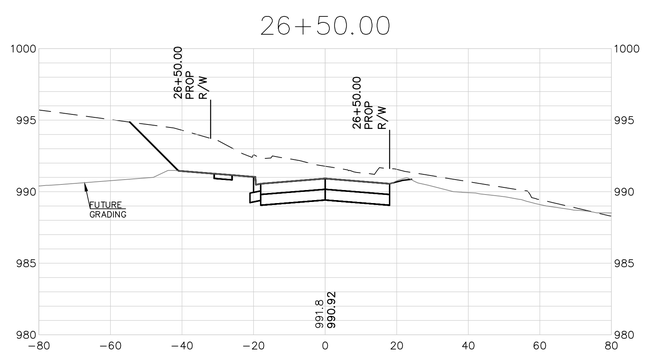




**Record Drawing**

AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-5-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlb@kveng.com | www.kveng.com


**KAW VALLEY ENGINEERING**

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

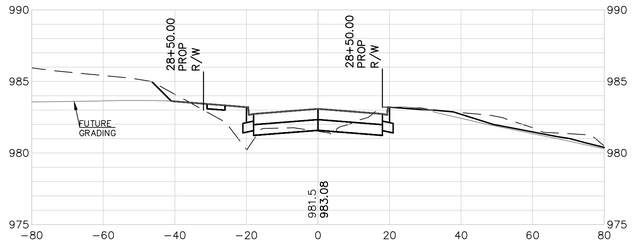
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - CROSS SECTIONS**

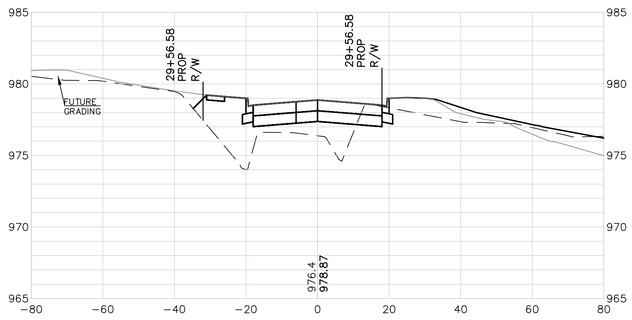
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 33 |
| REV | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

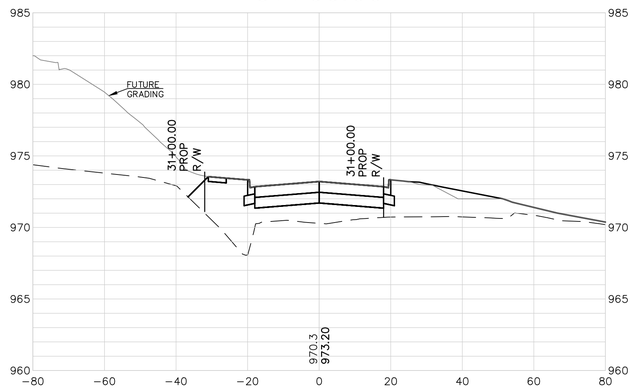
## 28+50.00



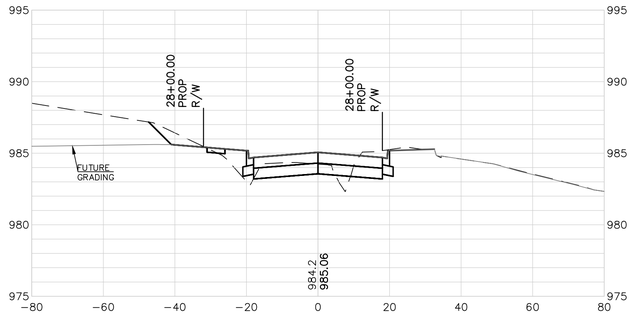

## 29+56.58



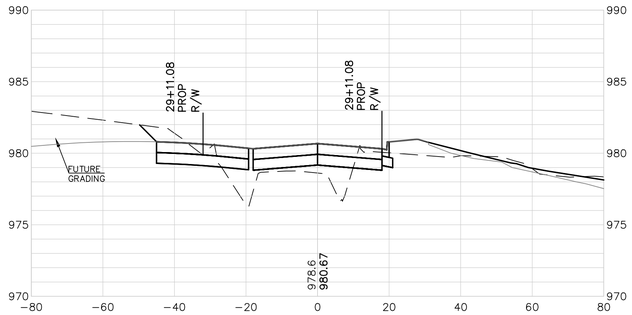

## 31+00.00



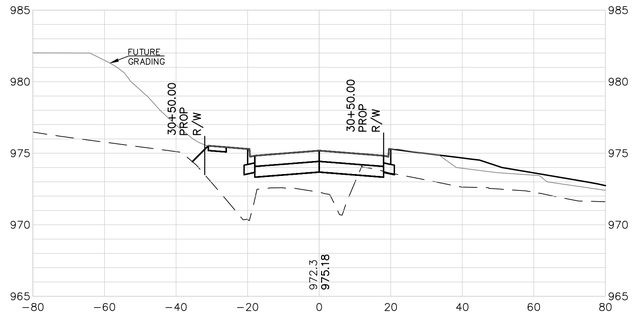

## 28+00.00



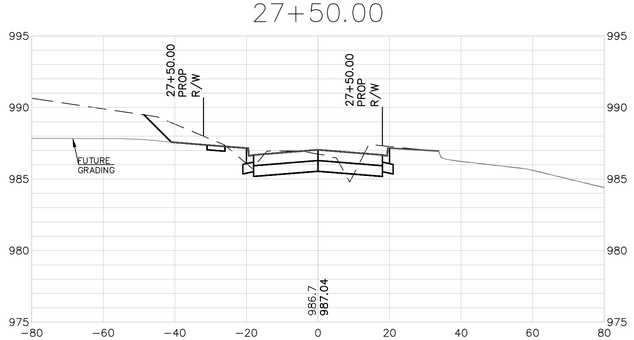

## 29+11.08



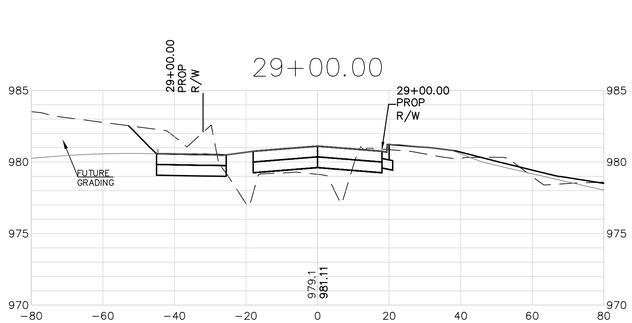

## 30+50.00



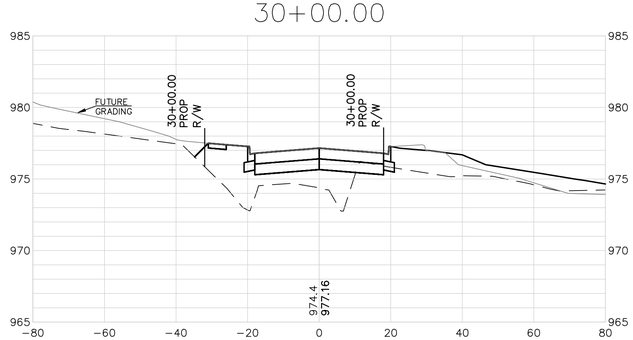

## 27+50.00




## 29+00.00




## 30+00.00




**Record Drawing**

AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5641 | FAX: (785) 762-7744
jlb@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

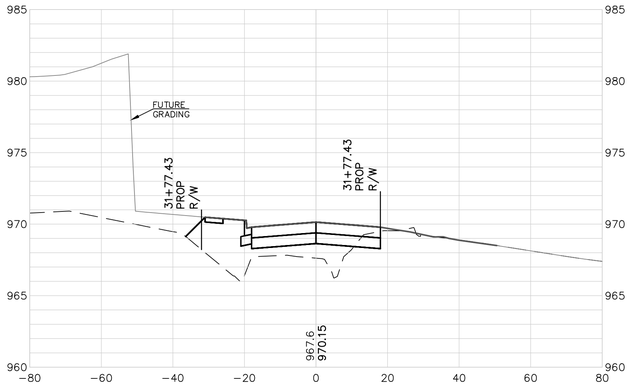
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - CROSS SECTIONS**

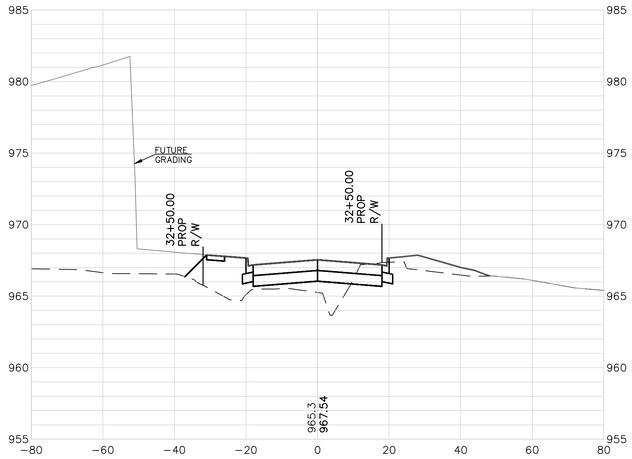
| PROJ. NO. | A14_7067-1 | |
|---|---|---|
| DESIGNER | LDO | DRAWN BY JT/BKR |
| CFN | 7067-1PI_STPP | |
| SHEET | 34 | REV 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

## 31+77.43



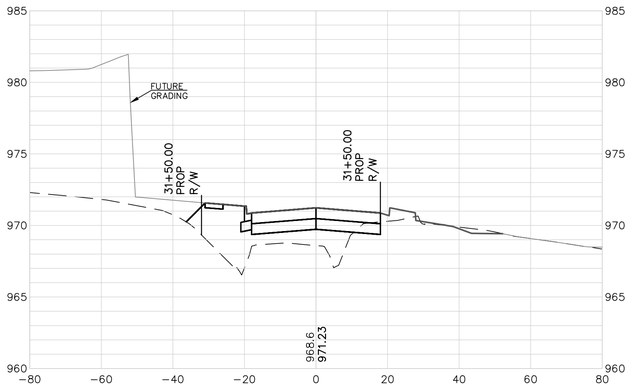

## 32+50.00



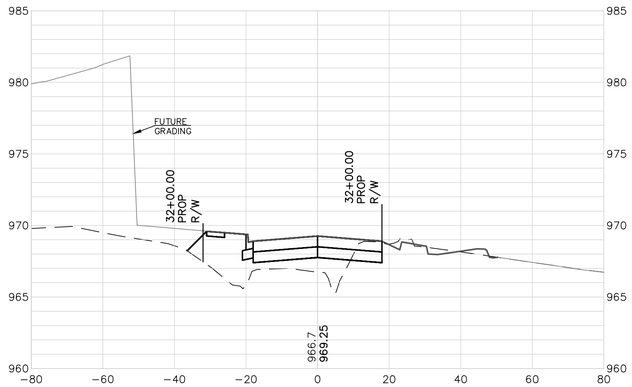

## 33+26.72




## 31+50.00




## 32+00.00




## 33+00.00




**Record Drawing**

AS-BUILT

5

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5090 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - CROSS SECTIONS**

| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV |
| 35 | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

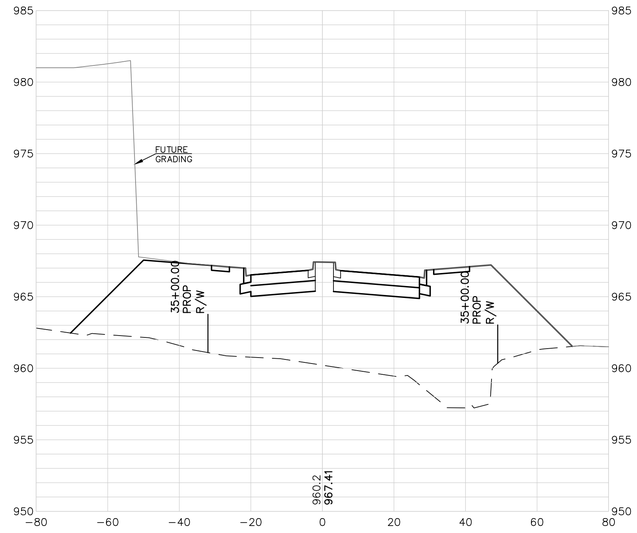
## 33+50.00



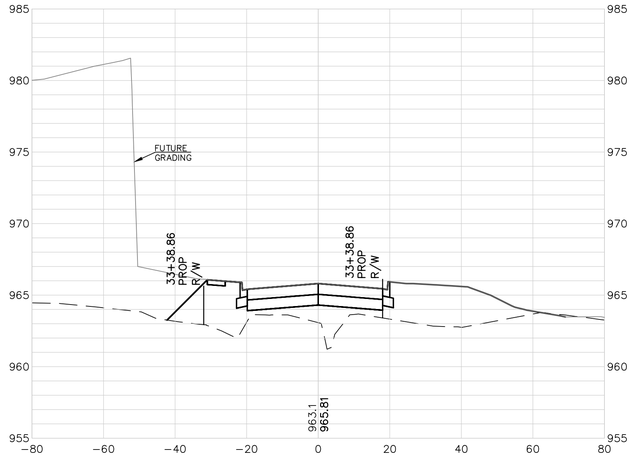

## 34+50.00



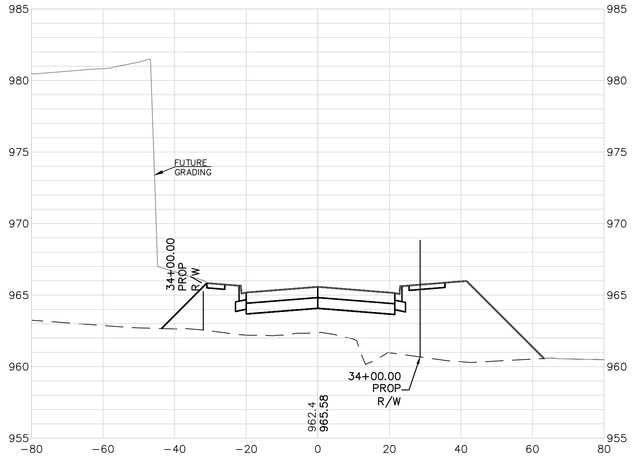

## 35+00.00



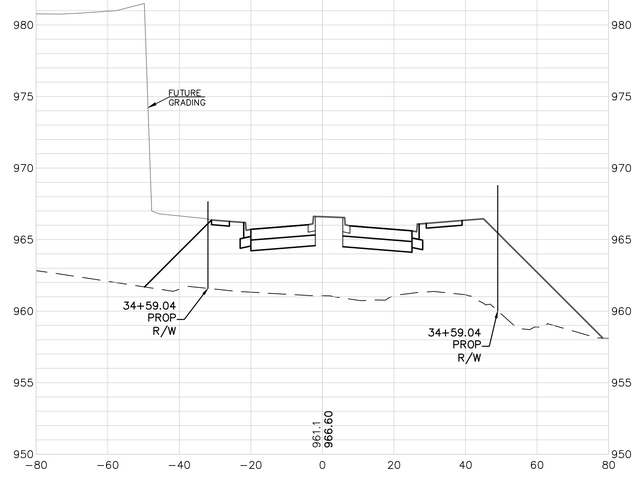

## 33+38.86




## 34+00.00




## 34+59.04




NOTE: FINISH GROUND ELEVATION REPORTED AT CENTERLINE IS TO TOP OF MEDIAN WHEN PRESENT. CONSULT THE VERTICAL PROFILE FOR PROFILE GRADE ELEVATIONS.

**Record Drawing**

5 AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785)762-5040 | FAX (785)762-7744
jlb@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

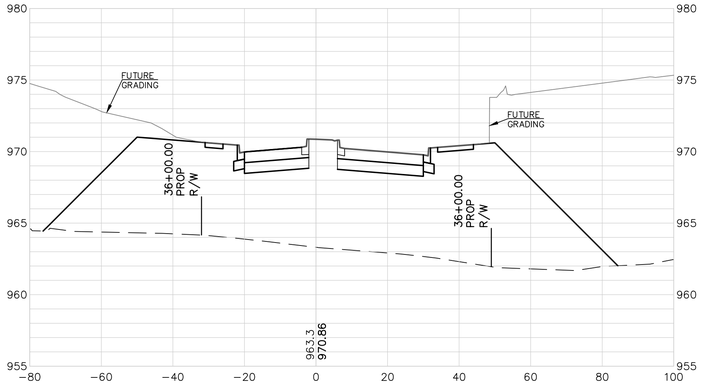
# STREETS OF WEST PRYOR
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
NW LOWENSTEIN DRIVE - CROSS SECTIONS

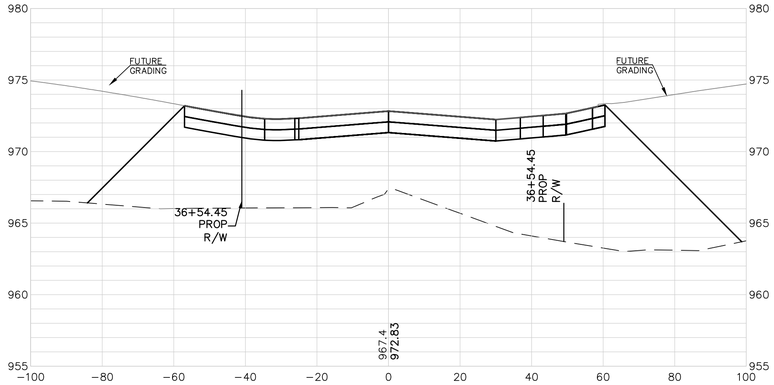
| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV |
| 36 | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

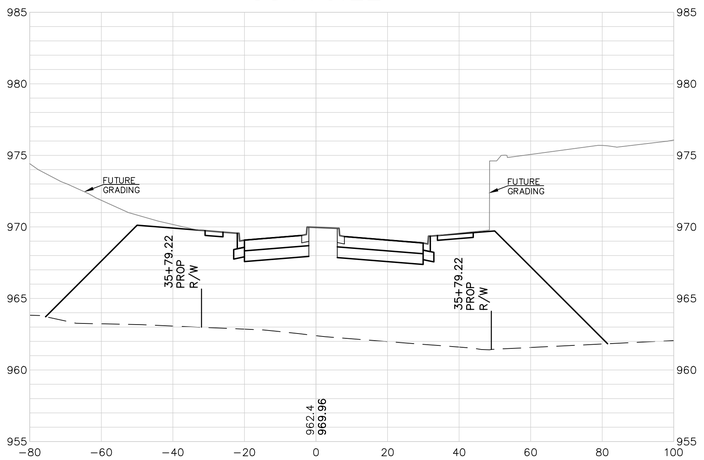
## 36+00.00



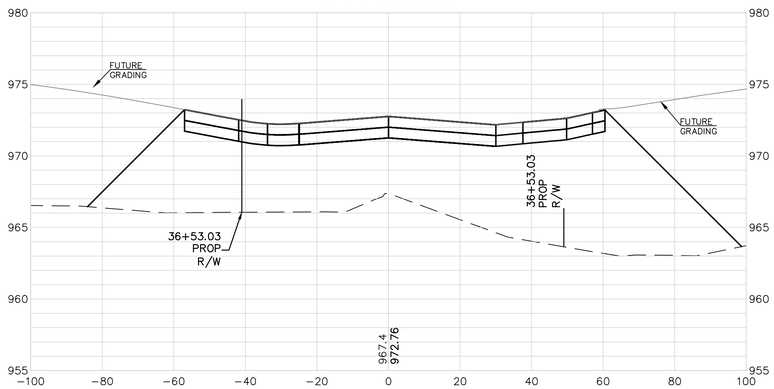

## 36+54.45




## 35+79.22



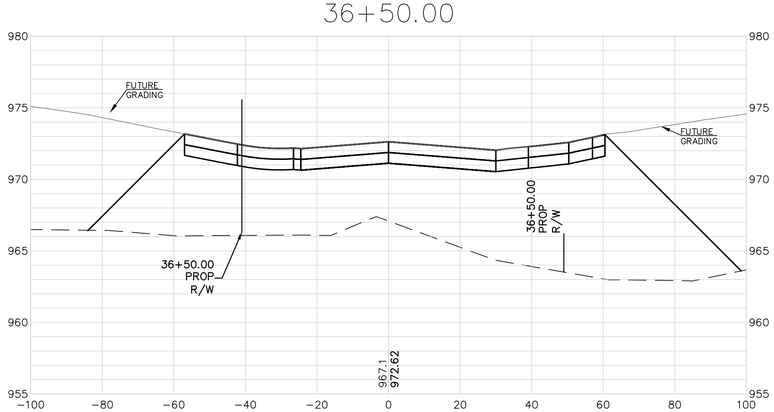

## 36+53.03




## 35+50.00




## 36+50.00




**Record Drawing**

NOTE: FINISH GROUND ELEVATION REPORTED AT CENTERLINE IS TO TOP OF MEDIAN WHEN PRESENT. CONSULT THE VERTICAL PROFILE FOR PROFILE GRADE ELEVATIONS.

5 AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-25-19 | REVISED PER CITY COMMENTS | LDO | BKR | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 238-5308 | FAX (785) 762-7744
js@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

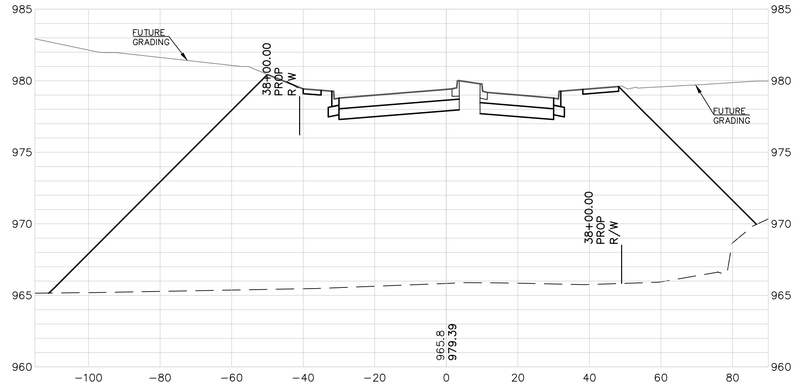
**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

**PUBLIC STREET PLANS**
NW LOWENSTEIN DRIVE - CROSS SECTIONS

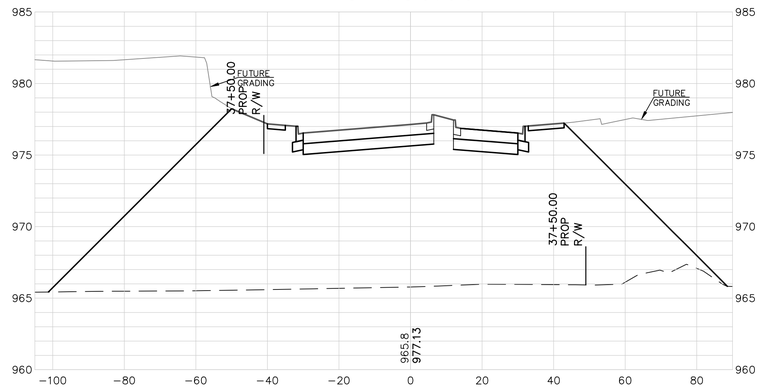
| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV |
| 37 | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

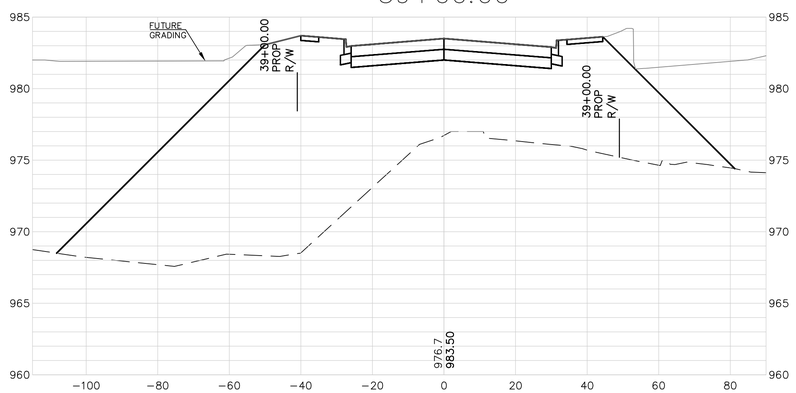
## 38+00.00



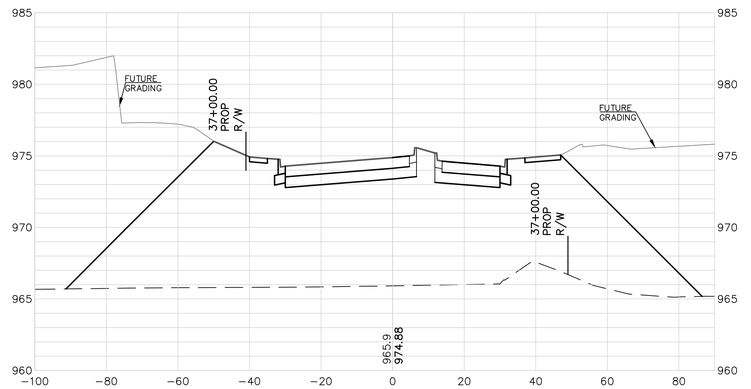

## 37+50.00



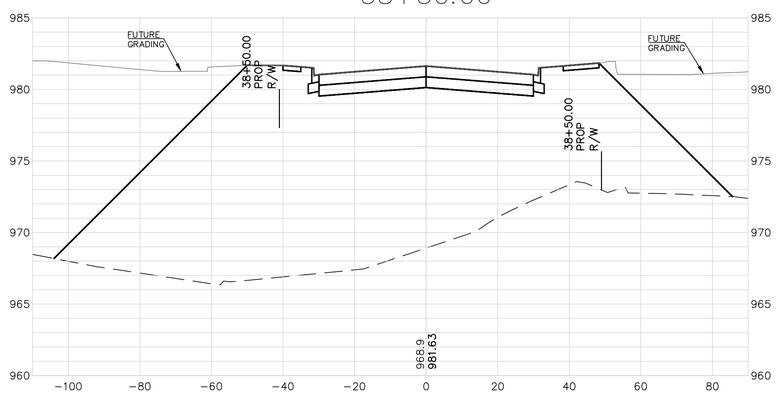

## 39+00.00




## 37+00.00




## 38+50.00




**Record Drawing**

NOTE: FINISH GROUND ELEVATION REPORTED AT CENTERLINE IS TO TOP OF MEDIAN WHEN PRESENT. CONSULT THE VERTICAL PROFILE FOR PROFILE GRADE ELEVATIONS.

5
AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5040 | FAX (785) 762-7744
jlawrence@kvengr.com | www.kvengr.com


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842.
EXPIRES 12/31/19

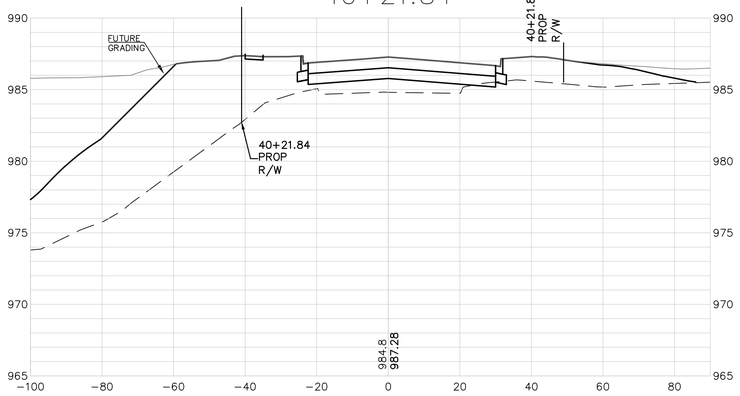
**STREETS OF WEST PRYOR**
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

**PUBLIC STREET PLANS**
NW LOWENSTEIN DRIVE - CROSS SECTIONS

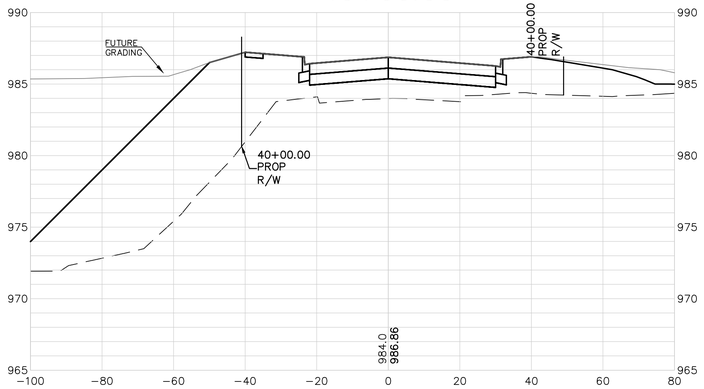
| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV. |
| 38 | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

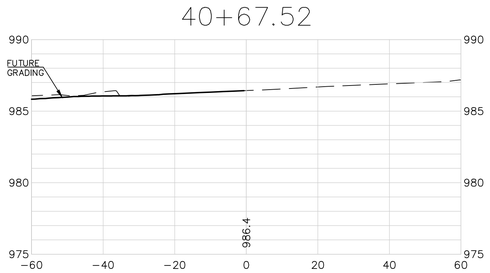
## 40+21.84



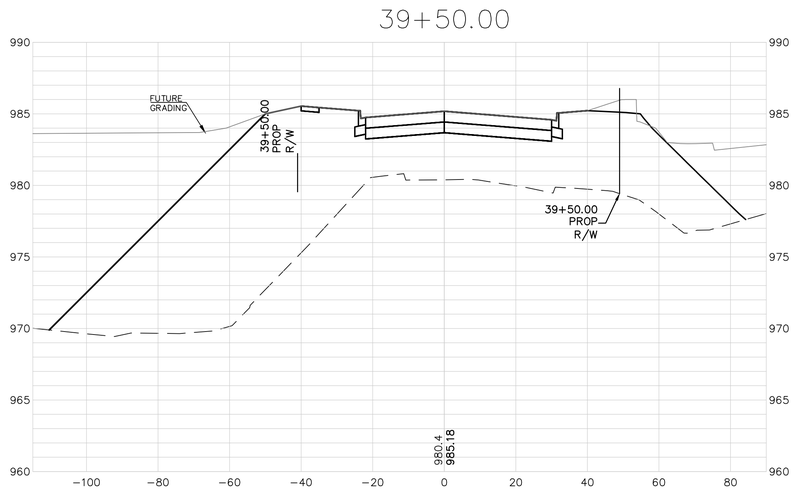

## 40+00.00



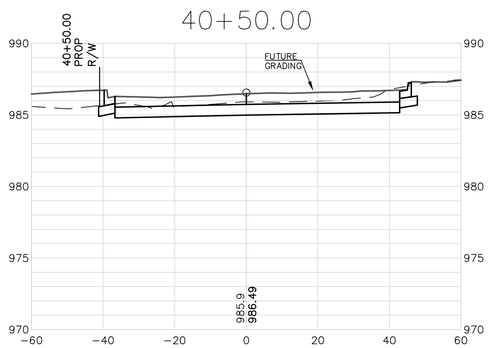

## 40+67.52




## 39+50.00




## 40+50.00




**Record Drawing**

5
AS−BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5641 | FAX: (785) 762-7744
jlb@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

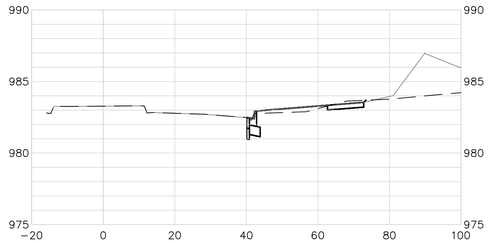
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

**PUBLIC STREET PLANS**
**NW LOWENSTEIN DRIVE - CROSS SECTIONS**

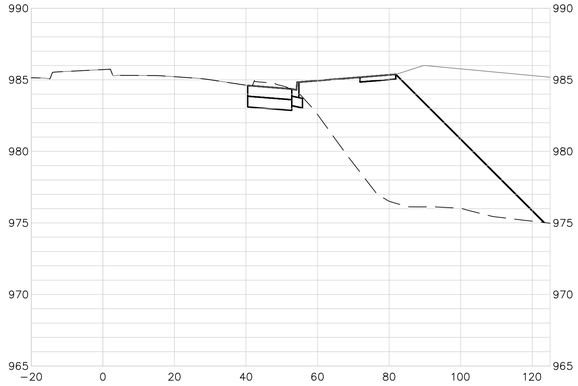
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 39 |
| REV | 5 |


THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

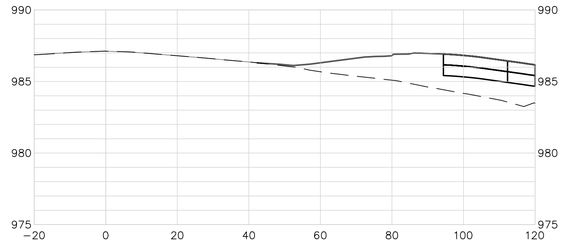
511+00.00



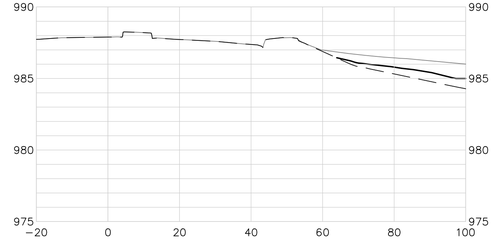

513+00.00



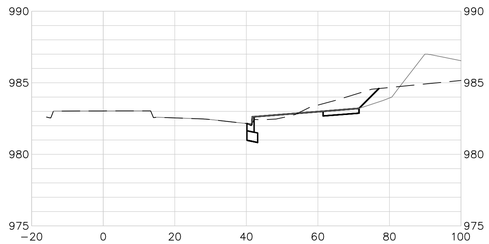

514+50.00



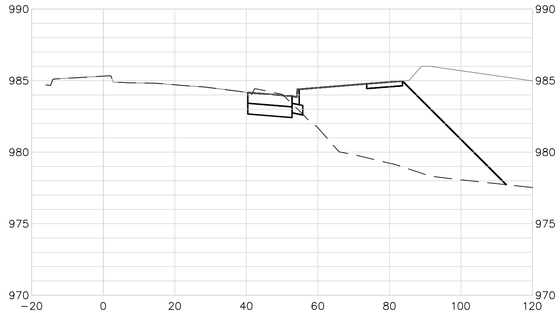

515+50.00



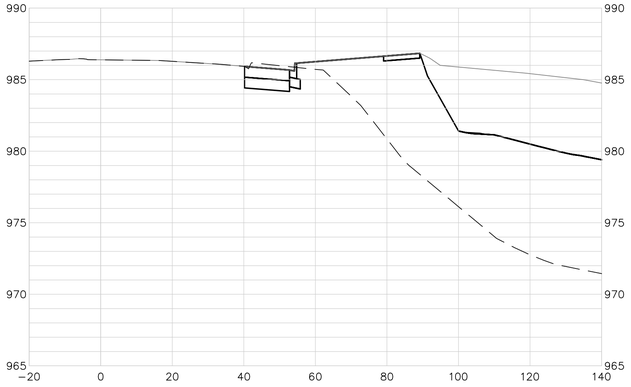

510+79.80



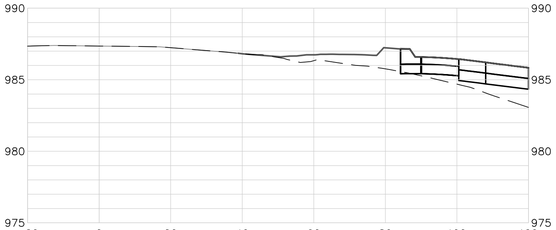

512+50.00



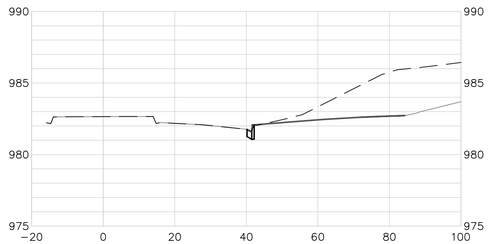

514+00.00



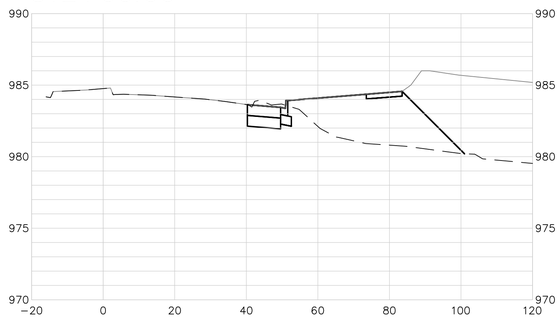

515+00.00



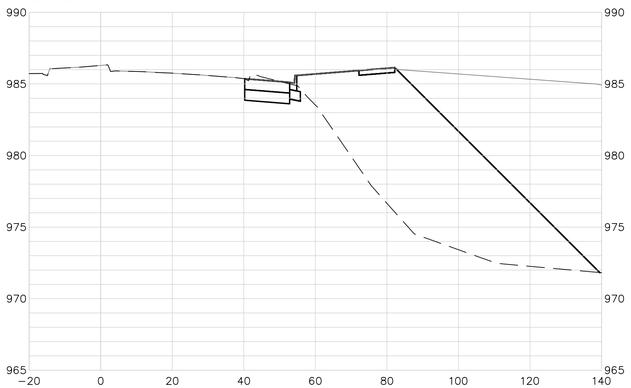

510+50.00



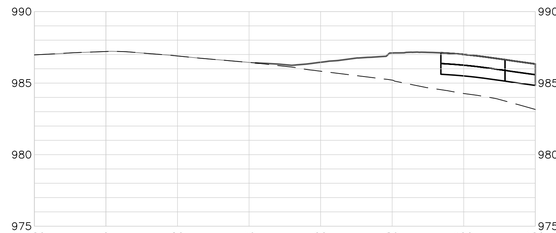

512+00.00



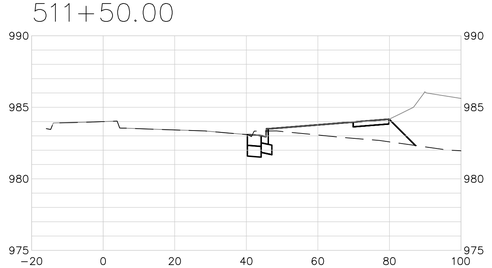

513+50.00




514+59.00




511+50.00




Record Drawing

5
AS−BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 2 | 7-25-19 | REVISED PER CITY COMMENTS | LDO | BKR | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726


KAW VALLEY ENGINEERING
2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jb@kveng.com | www.kveng.com


KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR

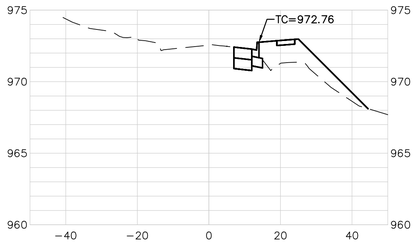
NWQ NW PRYOR RD & NW LOWENSTEIN DR
LEE'S SUMMIT, MISSOURI

PUBLIC STREET PLANS
NW PRYOR DR WIDENING - CROSS SECTIONS

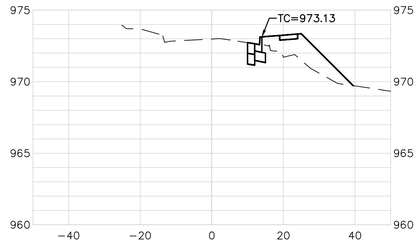
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 40 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

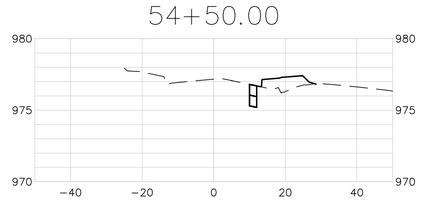
51+50.00



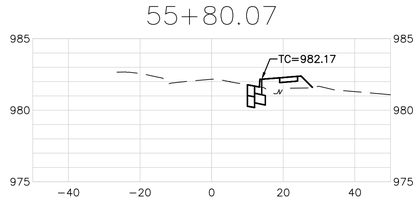

53+00.00



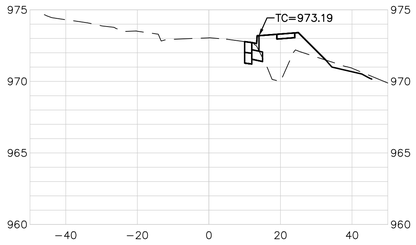

54+50.00



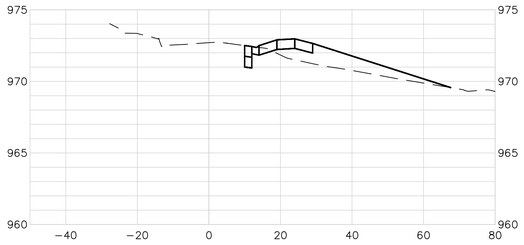

55+80.07



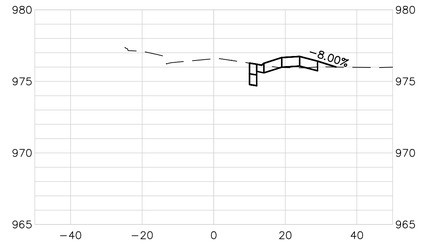

51+00.00



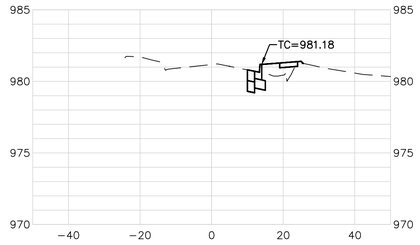

52+74.31



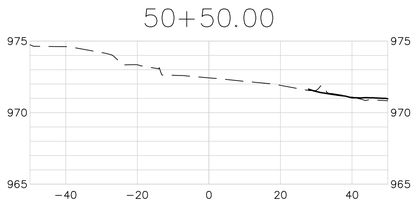

54+32.78



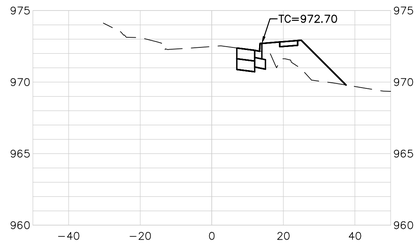

55+50.00



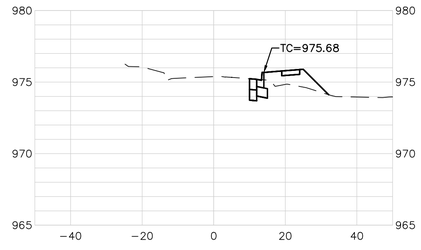

50+50.00



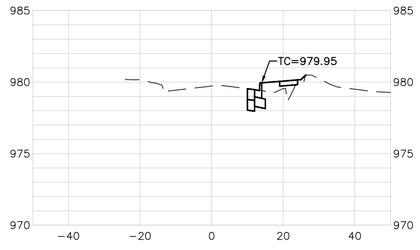

52+50.00



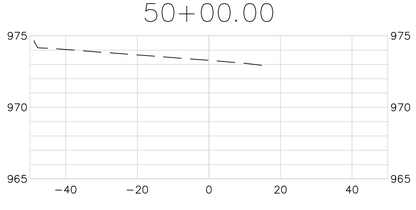

54+00.00



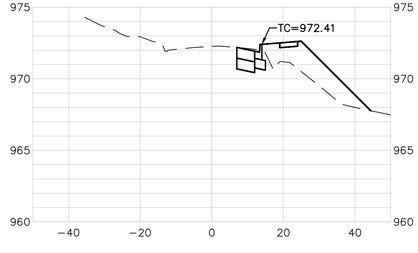

55+13.62



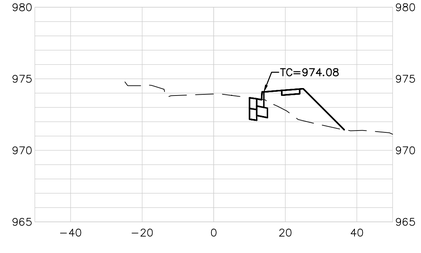

50+00.00



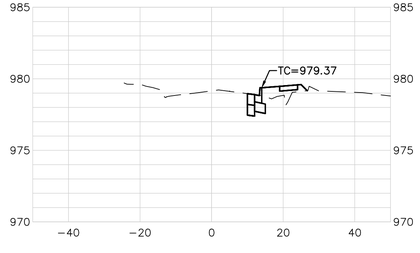

52+00.00




53+50.00




55+00.00




**Record Drawing**

AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH: (785) 762-5040 | FAX: (785) 762-7744
jlb@kveng.com | www.kveng.com

KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR

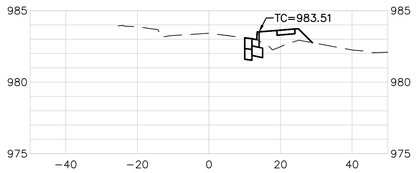
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

## PUBLIC STREET PLANS
## NW BLACK TWIG LANE - CROSS SECTIONS

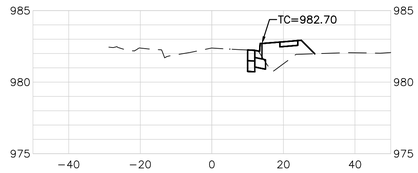
| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 41 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

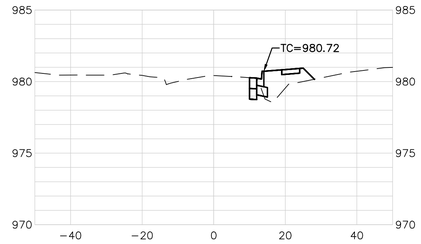
56+50.00



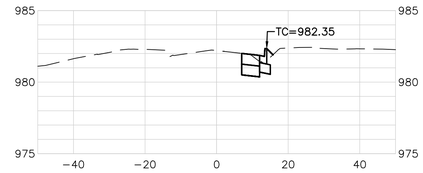

58+00.00



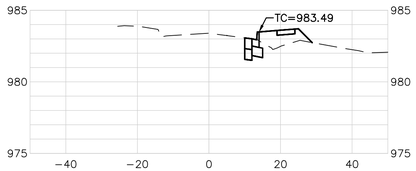

59+50.00



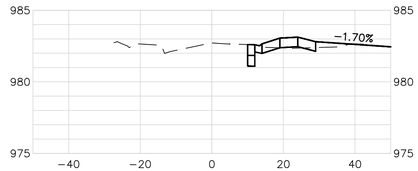

61+00.00



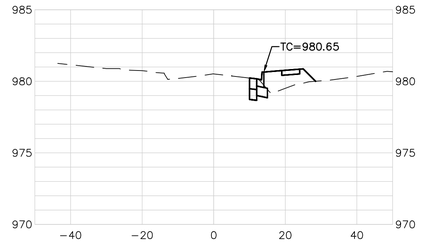

56+46.52



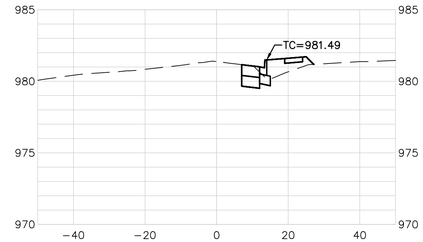

57+79.24



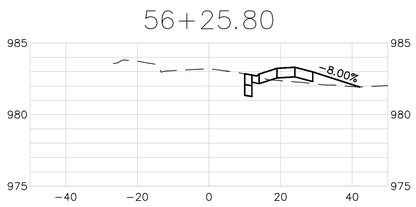

59+00.00



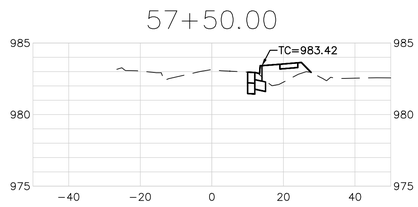

60+50.00



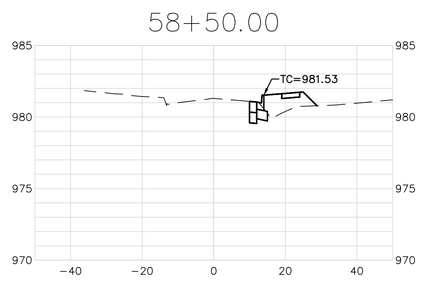

56+25.80



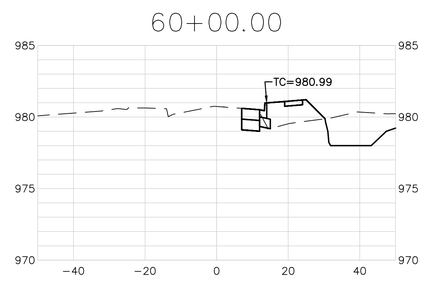

57+50.00



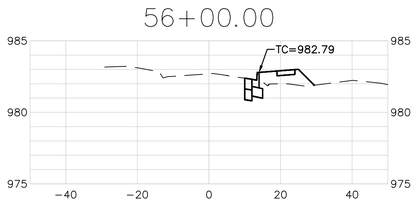

58+50.00



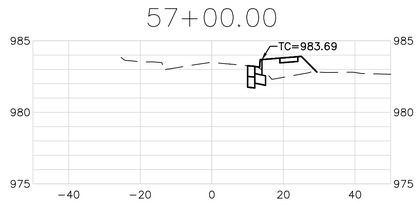

60+00.00



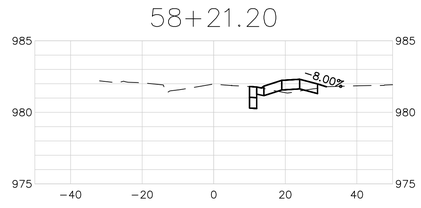

56+00.00



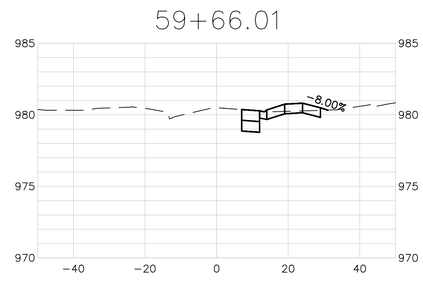

57+00.00




58+21.20




59+66.01




**Record Drawing**

5 AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5105 | FAX (785) 762-7744
jo@kveng.com | www.kveng.com

KAW VALLEY ENGINEERING

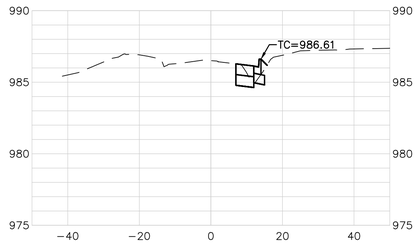
KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

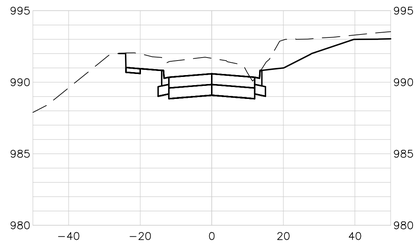
**STREETS OF WEST PRYOR**
**NWQ NW PRYOR RD & NW LOWENSTEIN DR**
**LEE'S SUMMIT, MISSOURI**

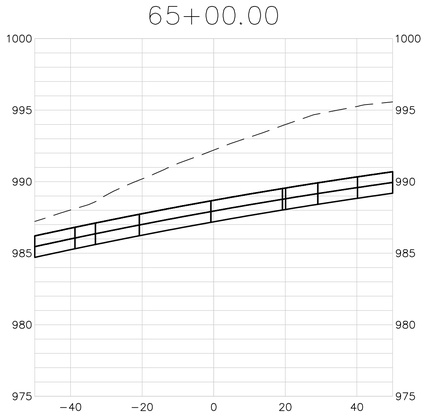
**PUBLIC STREET PLANS**
**NW BLACK TWIG LANE - CROSS SECTIONS**

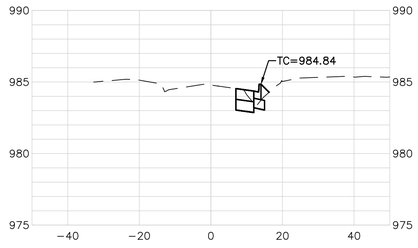
| PROJ. NO. | |
|---|---|
| A14_7067-1 | |
| DESIGNER | DRAWN BY |
| LDO | JT/BKR |
| CFN | |
| 7067-1PI_STPP | |
| SHEET | REV |
| 42 | 5 |

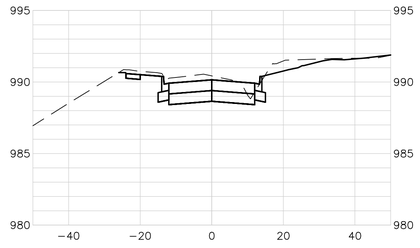
THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.

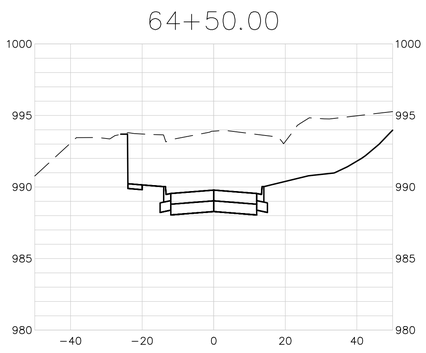


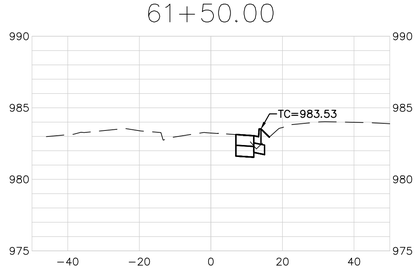



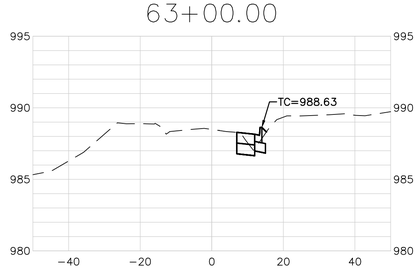



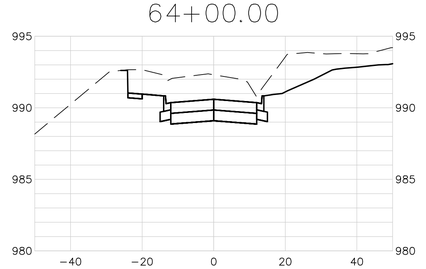



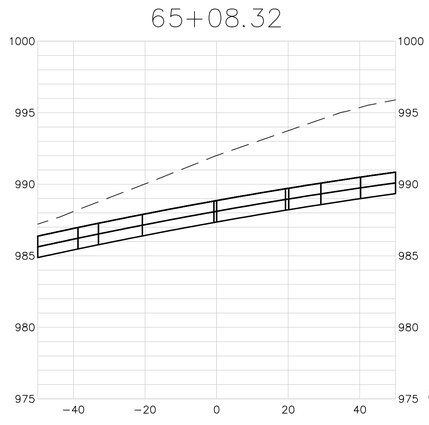




**Record Drawing**

5 AS-BUILT

SCALE:
1"=20' HORIZ.
1"=5' VERT.

| REV | DATE | DESCRIPTION | DSN | DWN | CHK |
|---|---|---|---|---|---|
| 5 | 2-9-21 | AS-BUILT PLANS | LDO | JT | LDO |
| 1 | 5-16-19 | REVISED PER CITY COMMENTS | LDO | JT | LDO |
| 0 | 01-11-19 | INITIAL ISSUE | LDO | JT | LDO |

STATE OF MISSOURI
LEON D. OSBOURN
NUMBER
E-21726
REGISTERED PROFESSIONAL ENGINEER
2-9-2021

LEON D. OSBOURN
ENGINEER
MO # 021726

2319 N. JACKSON | P.O. BOX 1304
JUNCTION CITY, KANSAS 66441
PH. (785) 762-5090 | FAX (785) 762-7744
jlb@kveng.com | www.kveng.com
KAW VALLEY ENGINEERING

KAW VALLEY ENGINEERING, INC., IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842. EXPIRES 12/31/19

# STREETS OF WEST PRYOR
## NWQ NW PRYOR RD & NW LOWENSTEIN DR
## LEE'S SUMMIT, MISSOURI

## PUBLIC STREET PLANS
## NW BLACK TWIG LANE - CROSS SECTIONS

| | |
|---|---|
| PROJ. NO. | A14_7067-1 |
| DESIGNER | LDO |
| DRAWN BY | JT/BKR |
| CFN | 7067-1PI_STPP |
| SHEET | 43 |
| REV | 5 |

THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.