



**KAW VALLEY ENGINEERING, INC.**

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Address: 14700 West 114<sup>th</sup> Terrace  
Lenexa, KS 66215

March 29, 2024

**C23D1880**

Mr. Kyle Gorrell  
Lee's Summit School District Facility Services  
600 SE Miller Street  
Lee's Summit, Missouri 64063

**RE: STORM WATER MANAGEMENT  
LEE'S SUMMIT HIGH SCHOOL EAST PARKING LOT PROJECT  
LEE'S SUMMIT, MISSOURI**

Dear Mr. Gorrell:

Kaw Valley Engineering, Inc. has completed a review of the stormwater management implications associated with reconstructing the east parking lot at the Lee's Summit High School Campus located at 400 SE Blue Parkway in Lee's Summit, Missouri.

To accommodate the relocation of Blue Parkway across the southeast corner of the Lee's Summit High School Property, the Lee's Summit School District (LSSD) is proposing to remove the east parking lot and reconstruct the lot northwest of the proposed right of way line with a more efficient layout in accordance with current City of Lee's Summit standards (Phase I). After Blue Parkway has been relocated and a portion of the Missouri Highway Patrol site is deeded to LSSD, the LSSD may elect to expand the stadium parking lot (Phase II). The proposed improvements and changes in land cover are illustrated on the attached Site Plan and Demolition Plan. The existing drainage patterns on the campus will generally be preserved. At completion of Phase I, the campus will realize a reduction in impervious coverage of 13,920 SF. If Phase II is built, 13,760 SF of impervious coverage will be added on site, but the total change in land cover for both phases is a reduction of 160 SF.

Due to the planned decrease in impervious coverage, KVE is requesting that the City of Lee's Summit permits the proposed improvements without mitigation based on exceptions covered in the City of Lee's Summit Design and Construction Manual. Exception 5601.3, A.2 is the most applicable exception for this project. The exception states that the APWA 5600 design criterion does not apply for redevelopment and maintenance activities that include remodeling, repair, replacement or other improvements to any existing structure or facility and appurtenances that does not cause an increased area of impervious surface on the site.

If you have any questions or require additional information, please do not hesitate to contact me at (913) 894-5150.

Respectfully submitted,  
**Kaw Valley Engineering, Inc.**

David D. Wood, P.E.  
Project Manager



Attachments: Site Plan, Demolition Plan, Grading Plan, Drainage Plans



VICINITY MAP  
SEC 8 - TWP 47N - RNG 31W  
NOT TO SCALE

|           |  |          |  |
|-----------|--|----------|--|
| PROJ. NO. |  | C23_1880 |  |
| DESIGNER  |  | DRAWN BY |  |
| DDW       |  | NJN      |  |
| CFN       |  |          |  |
| 18800SP   |  |          |  |
| SHEET     |  | REV      |  |
| C000      |  | 0        |  |

A graphic scale bar is located at the bottom of the page. It is a horizontal line with tick marks at 0, 50, 100, and 200 feet. Below the bar, the text "SCALE: 1" = 100'" is printed. To the left of the scale bar is a north arrow pointing upwards, consisting of a vertical line with a decorative flourish.

**PREPARED BY:**  
KAW VALLEY ENGINEERING, INC.  
14700 W 114TH TERR.  
LENEXA, KANSAS 66215  
PHONE: (913) 894-5150  
CONTACT: DAVID WOOD  
EMAIL: wood@kveng.com

1. COORDINATE START-UP AND ALL CONSTRUCTION ACTIVITIES WITH THE LEE'S SUMMIT SCHOOL DISTRICT.
2. CONSTRUCTION METHODS AND MATERIALS NOT SPECIFIED IN THESE PLANS ARE TO MEET OR EXCEED THE KANSAS CITY METROPOLITAN CHAPTER OF APWA STANDARD SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT.
3. ALL CONSTRUCTION WORK AND UTILITY WORK OUTSIDE OF PROPERTY BOUNDARIES SHALL BE PERFORMED IN COOPERATION WITH AND IN ACCORDANCE WITH REGULATIONS OF THE KANSAS CITY METROPOLITAN CHAPTER OF APWA.
4. PUBLIC CONVENIENCE AND SAFETY: THE CONTRACTOR SHALL CONDUCT THE WORK IN A MANNER THAT WILL INSURE, AS FAR AS PRACTICABLE, THE LEAST OBSTRUCTION TO TRAFFIC AND SHALL PROVIDE FOR THE CONVENIENCE AND SAFETY OF THE GENERAL PUBLIC AND RESIDENTS ALONG AND ADJACENT TO PUBLIC HIGHWAYS IN THE CONSTRUCTION AREA.
5. ALL SIGNS AND TOWNS ARE TO THE BASIS OF CURB UNLESS OTHERWISE NOTED.
6. ALL TRAFFIC CONTROL DEVICES, INSTALLATION AND OPERATIONS SHALL CONFORM WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES".

**TRACT 1:** (MISSOURI WARRANTY DEED, Bk. 1-80, Pg. 1904) ALL THAT PART OF LOT 3, MUCKEY ADDITION, A SUBDIVISION OF LAND IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI ACCORDING TO THE RECORDED PLAT THEREOF, LYING SOUTH OF THE SOUTH U. OF 6TH STREET IN LEE'S SUMMIT, AS SAID STREET IS DESCRIBED IN THE DEED RECORDED IN BOOK 1039 AT PAGE 122.

**TRACT 1:** (MISSOURI WARRANTY DEED, BOOK 923, AT PAGE 743)(DEED 1A)  
ALL OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 47, R  
31, IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, EXCEPT THAT PART CONVEYED TO THE STATE  
MISSOURI BY WARRANTY DEED RECORDED IN BOOK 656 AT PAGE 111 (DEED 1B), AND

ALSO EXCEPT THAT PART THEREOF CONVEYED TO THE STATE OF MISSOURI BY WARRANTY DEED  
RECORDED IN BOOK 661 AT PAGE 166 (DEED 1C),

— ALSO EXCEPT THAT PART THEREOF CONVEYED TO ARTHUR B. MCLENNAN AND PAULINE P. MCLENNAN  
HUSBAND AND WIFE BY WARRANTY DEED RECORDED IN BOOK 883 AT PAGE 51 (DEED 1D), AND

ALSO EXCEPT A TRACT OF LAND IN SAID SOUTHWEST QUARTER OF THE NORTHEAST QUARTER, SECTION 8, TOWNSHIP 47, RANGE 31 DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 651.69 FEET NORTH OF THE SOUTHEAST CORNER OF THE SAID QUARTER SECTION, THENCE WEST 491.69 FEET; THENCE NORTH 63 FEET; THENCE EAST 491.69 FEET TO THE QUARTER SECTION LINE; THENCE SOUTH 63 FEET TO POINT OF BEGINNING.

**TRACT 2:** (MISSOURI WARRANTY DEED, BOOK 1243, AT PAGE 716)(DEED 2)  
ALL OF THE WEST 327 FEET OF THE NORTH 2 ACRES OF THE SOUTH 5 ACRES OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP RANGE 31, IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 198 FEET NORTH OF THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 8, TOWNSHIP 47, RANGE 3, JACKSON COUNTY, MISSOURI, AND RUNNING THENCE EAST 327 FEET; THENCE NORTH 132 FEET; WEST 327 FEET; THENCE SOUTH 132 FEET TO POINT OF BEGINNING.

**TRACT 3:** (MISSOURI WARRANTY DEED, BOOK 1277, AT PAGE 325)(DEED 3)  
THE SOUTH 5 ACRES OF THE WEST HALF OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER  
OF SECTION 8, TOWNSHIP 47, RANGE 31, IN LEES' SUMMIT, JACKSON COUNTY, MISSOURI.

**TRACT 4:** (REPORT OF COMMISSIONERS, BOOK 1484, AT PAGE 306)(DEED 4)  
ALL OF THE WEST 327 FEET OF THE SOUTH 3 ACRES OF THAT PART OF THE NORTHWEST QUARTER  
THE NORTHEAST QUARTER OF SECTION 8 TOWNSHIP 47, RANGE 31 IN LEE'S SUMMIT, JACKSON CO  
MISSOURI DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUAR  
THE NORTHEAST QUARTER AND RUNNING THENCE EAST 327 FEET; THENCE NORTH 198 FEET; TH  
WEST 327 FEET; THENCE SOUTH 198 FEET TO THE POINT OF BEGINNING.

**TRACT 5:** (MISSOURI WARRANTY DEED, BOOK 1491, AT PAGE 140)(DEED 5)  
ALL THAT PART OF THE EAST HALF OF THE NORTHWEST QUARTER OF SECTION 8, TOWNSHIP 47,  
31, IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF THE INTERSECTION OF 7TH STREET AND BROWNING A  
THENCE SOUTH ALONG THE EAST LINE OF BROWNING AVENUE A DISTANCE OF 678.52 FEET TO THE  
NORTH LINE OF 8TH STREET; THENCE EAST ALONG THE NORTH LINE OF 8TH STREET A DISTANCE  
133 FEET TO THE EAST LINE OF SAID QUARTER SECTION; THENCE NORTH ALONG THE EAST LINE  
SAID QUARTER SECTION A DISTANCE OF 678.52 FEET TO THE NORTH LINE OF 7TH STREET EXTENSION  
THENCE WEST ALONG THE NORTH LINE OF 7TH STREET EXTENDED A DISTANCE OF 135.77 FEET TO  
POINT OF BEGINNING.

**TRACT 6:** (MISSOURI WARRANTY DEED, BOOK 1536, AT PAGE 205)(DEED 6)  
ALL THAT PART OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 47  
31, DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT 556.69 FEET NORTH OF THE SOUTHEAST CORNER OF 1/4 OF 1/4 SECTION 36, TOWNSHIP 36 NORTH, RANGE 10 WEST, THENCE WEST 491.68 FEET; THENCE NORTH 158 FEET; THENCE EAST 491.69 FEET; THENCE SOUTH 158 FEET TO THE POINT OF BEGINNING, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI,

EXCEPT THAT PART CONTAINED IN THE REPORT OF COMMISSIONERS RECORDED AS DOCUMENT NO. 10 IN BOOK 189 AT PAGE 465, DESCRIBED AS FOLLOWS:

ALL THAT PART OF THE SW 1/4 OF THE NE 1/4 OF SECTION 8, T47N, R31W, IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI DESCRIBED AS FOLLOWS: BEGINNING AT A POINT 714.69 FEET NORTH 57.55 FEET WEST OF THE SOUTHEAST CORNER OF THE SW 1/4 OF THE NE 1/4 OF SAID SECTION 8,

POINT BEING 70 FEET WESTERLY OF THE CENTERLINE OF STATE HIGHWAY DESIGNATED ROUTE 00 BY-PASS), AS MEASURED AT RIGHT ANGLES THERETO; THENCE SOUTH 3 DEGREES 14 MINUTES 2 SECONDS WEST PARALLEL SAID HIGHWAY CENTERLINE, 158 FEET; THENCE WEST PARALLEL SOUTH LINE OF SAID 1/4 1/4 SECTION, A DISTANCE OF 432 FEET; THENCE NORTH PARALLEL EAST LINE OF SAID 1/4 1/4 SECTION, A DISTANCE OF 75 FEET; THENCE NORTHEASTERLY ALONG STRAIGHT LINE TO THE POINT OF BEGINNING.

**TRACT 7:** (MISSOURI WARRANTY DEED, BOOK 1869, AT PAGE 312)(DEED 7) BEGINNING AT A POINT 1320.0 FEET NORTH OF THE EAST–WEST CENTER LINE OF SECTION 8, TOWNSHIP 47, RANGE 31, IN LEE’S SUMMIT, JACKSON COUNTY, MISSOURI, AND ON THE EAST LINE OF THE EAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SAID SECTION; THENCE WEST 186.3; THENCE NORTH 100 FEET; THENCE EAST 186.3 FEET TO A POINT ON THE EAST LINE; THENCE SOUTH ON THE EAST LINE 100.0 FEET TO THE POINT OF BEGINNING, EXCEPTING THEREFROM THAT PART SITUATED UNDER US HIGHWAY 71 BY-PASS.

**TRACT 8:** (MISSOURI WARRANTY DEED, BOOK 1869, AT PAGE 313)(DEED 8)  
ALL OF THE SOUTH 3 ACRES OF THE EAST 1/2 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4  
SECTION 8, TOWNSHIP 47, RANGE 31, IN LEE'S SUMMIT JACKSON COUNTY, MISSOURI, EXCEPT THE  
327 FEET THEREOF AND ALSO EXCEPT THE SOUTH 100 FEET OF THE EAST 186.3 FEET THEREOF.

**TRACT 9:** (MISSOURI WARRANTY DEED, BOOK 1-79, AT PAGE 635)(DEED 9)  
THE EAST 88.5 FEET OF THAT PART OF LOT 1, MUCKEY ADDITION, A SUBDIVISION IN LEE'S SUMM  
JACKSON COUNTY, MISSOURI, LYING SOUTH OF THE SOUTH LINE OF 6TH STREET, AS SAID STREET  
DESCRIBED IN DEED RECORDED IN BOOK 1039 AT PAGE 122, EXCEPT THE NORTH 155 FEET OF S  
EAST 88.5 FEET.

**TRACT 10:** (MISSOURI WARRANTY DEED, BOOK 551, AT PAGE 135)(DEED 10) OF THE NORTH 2 ACRES OF THE SOUTH 5 ACRES OF THE SOUTHWEST 1/4 OF THE NORTHW 1/4 OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 47, RANGE 31, EXCEPT ALL THE WEST 32 FEET THEREOF MORE PARTICULARLY DESCRIBED AS FOLLOWS: BEGINNING AT A POINT 198 FEET NORTH OF THE SOUTHWEST CORNER OF THE SOUTHEAST 1/4 OF THE NORTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 8, TOWNSHIP 47, RANGE 31 AND RUNNING THENCE EAST 327 FEET; THENCE NORTH 10 FEET; THENCE WEST 327 FEET; THENCE SOUTH 132 FEET TO POINT OF BEGINNING, ALL IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI.

**TRACT 11:** (MISSOURI WARRANTY DEED, BOOK 623, AT PAGE 833)(DEED 11)  
THE SOUTH 220 FEET OF THE WEST 88.5 FEET OF LOT 1, MUCKEY ADDITION, A SUBDIVISION IN L  
SUMMIT, JACKSON COUNTY, MISSOURI.

STORM WATER MANAGEMENT IS PROPOSED AS PART OF THIS PROJECT COMPLIES WITH THE KC METROPOLITAN CHAPTER OF APWA DESIGN CRITERIA SECTION 5600 AS ADOPTED BY THE CITY OF LEE'S SUMMIT. PROPOSED STORM WATER MANAGEMENT SYSTEM WILL MITIGATE INCREASES IN RUNOFF FOR THE STORM EVENTS ANALYZED TO A RATE AT OR LESS THAN THE EXISTING CONDITIONS.

THE UNDERGROUND UTILITIES SHOWN HEREON ARE DEPICTED FROM FIELD SURVEY INFORMATION OF ONE- CALL LOCATED UTILITIES AND/OR THE SCALING AND PLOTTING OF EXISTING UTILITY MAPS AND DRAWINGS MADE AVAILABLE TO THE SURVEYOR AT THE TIME OF SURVEY. THE SURVEYOR DOES NOT CERTIFY THAT THE UTILITIES SHOWN HEREON ARE IN THE EXACT LOCATION DEPICTED IN THE AREA EITHER IN SERVICE OR ABANDONED. FURTHERMORE, THE SURVEYOR DOES NOT CERTIFY THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION DEPICTED ALTHOUGH HE DOES CERTIFY THAT THEY ARE DEPICTED AS ACCURATELY AS POSSIBLE FROM INFORMATION MADE AVAILABLE TO THE SURVEYOR. THE SURVEYOR DOES NOT CERTIFY THAT THE UTILITIES SHOWN ARE THE ONLY UNDERGROUND UTILITIES SHOWN HEREON BY EXCAVATION UNLESS OTHERWISE NOTED ON THIS SURVEY.

MISSOURI ONE CALL TICKET NUMBER: #200431409, #200431440, #200431475, 200440745.

THE SURVEYED PARCEL LIES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY FEMA FLOOD INSURANCE RATE MAP NUMBER 29095C0438G, MAP REVISED JANUARY 20, 2017, AND BY MAP NUMBER 29095C0436G, REVISED JANUARY 20, 2017 LEE'S SUMMIT, JACKSON COUNTY, MISSOURI. LOCATION DETERMINED BY A SCALED GRAPHICAL PLOT OF THE FLOOD INSURANCE RATE MAP.

TOTAL SITE AREA: 1,983,297 SF – 45.53 Ac

PROJECT AREA/AREA OF DISTURBANCE  
PHASE I: 124,423 SF (2.856 AC.)

|                                    |                                     |
|------------------------------------|-------------------------------------|
| <u>PARKING</u>                     |                                     |
| EXISTING:                          | 1154 REGULAR (22 ACCESSIBLE) STALLS |
| PROPOSED (COMPLETION OF PHASE I):  | 1116 REGULAR (22 ACCESSIBLE) STALLS |
| PROPOSED (COMPLETION OF PHASE II): | 1171 REGULAR (22 ACCESSIBLE) STALLS |

| PROPOSED IMPERVIOUS COVERAGE WITHIN PHSAE I PROJECT AREA |                         |
|--|-------------------------|
| EXISTING:  | 90,419 S.F. - 2.076 AC. |
| PROPOSED:  | 76,499 S.F. - 1.756 AC. |
| DECREASE:  | 13,920 S.F. - 0.323 AC. |

TOTAL: RP-2, CP-1(EAST 290')

UNLESS OTHERWISE NOTED THE COORDINATES SHOWN HEREON ARE GROUND  
COORDINATES BASED ON THE MISSOURI STATE PLANE (1983) WEST ZONE  
(NAD 1983) (NAVD 1988)  
CAF: 0.9998978  
SCALED AROUND 0,0

JA-25 (PID: 095025)

|            |                          |                           |
|------------|--------------------------|---------------------------|
| NORTHING:  | 303646.030 (GRID/METERS) | 996313.829 (GROUND/FEET)  |
| EASTING:   | 860950.475 (GRID/METERS) | 2824923.692 (GROUND/FEET) |
| ELEVATION: | 321.8 (METERS)           | 1055.77 (FEET)            |

BM-60  
FOUND CUT SQUARE AT THE SOUTHWEST CORNER OF CONCRETE HEADWALL OF CONCRETE FLUME ON  
THE WEST SIDE OF THE SCHOOL SOUTHEAST OF ENTRY DRIVE.  
ELEVATION= 1042.70

BM-64  
SET CUT SQUARE AT THE TOP NORTHEAST CORNER OF A CONCRETE PATIO WITH COVERED TABLES ON THE EAST SIDE OF BUILDING "B".  
ELEVATION= 1015.74

CP #200  
1/2" REBAR W/ ORANGE KVE CAP  
NORTHING: 996572.06 (GROUND) 996470.24 (GRID)  
EASTING: 2827438.76 (GROUND) 2827149.83 (GRID)

CP\_#201  
1/2" REBAR W/ ORANGE KVE CAP  
NORTHING: 996570.39 (GROUND) 996468.55 (GRID)  
EASTING: 2827055.45 (GROUND) 2826766.55 (GRID)  
ELEV = 1048.24

CP #250  
1/2" REBAR W/ ORANGE KVE CAP  
NORTHING: 996889.02 (GROUND) 996787.14 (GRID)  
EASTING: 2827403.78 (GROUND) 2827114.81 (GRID)  
ELEV = 1047.07

CP #352  
OLSSON CONTROL POINT #3  
NORTHING: 997219.69 (GROUND) 997117.77 (GRID)  
EASTING: 2828082.23 (GROUND) 2827793.20 (GRID)  
ELEV = 1034.64

CP #353  
OLSSON CONTROL POINT #4  
NORTHING: 997996.59 (GROUND) 997894.59 (GRID)  
EASTING: 282818.84 (GROUND) 2827829.81 (GRID)  
ELEV = 1032.75

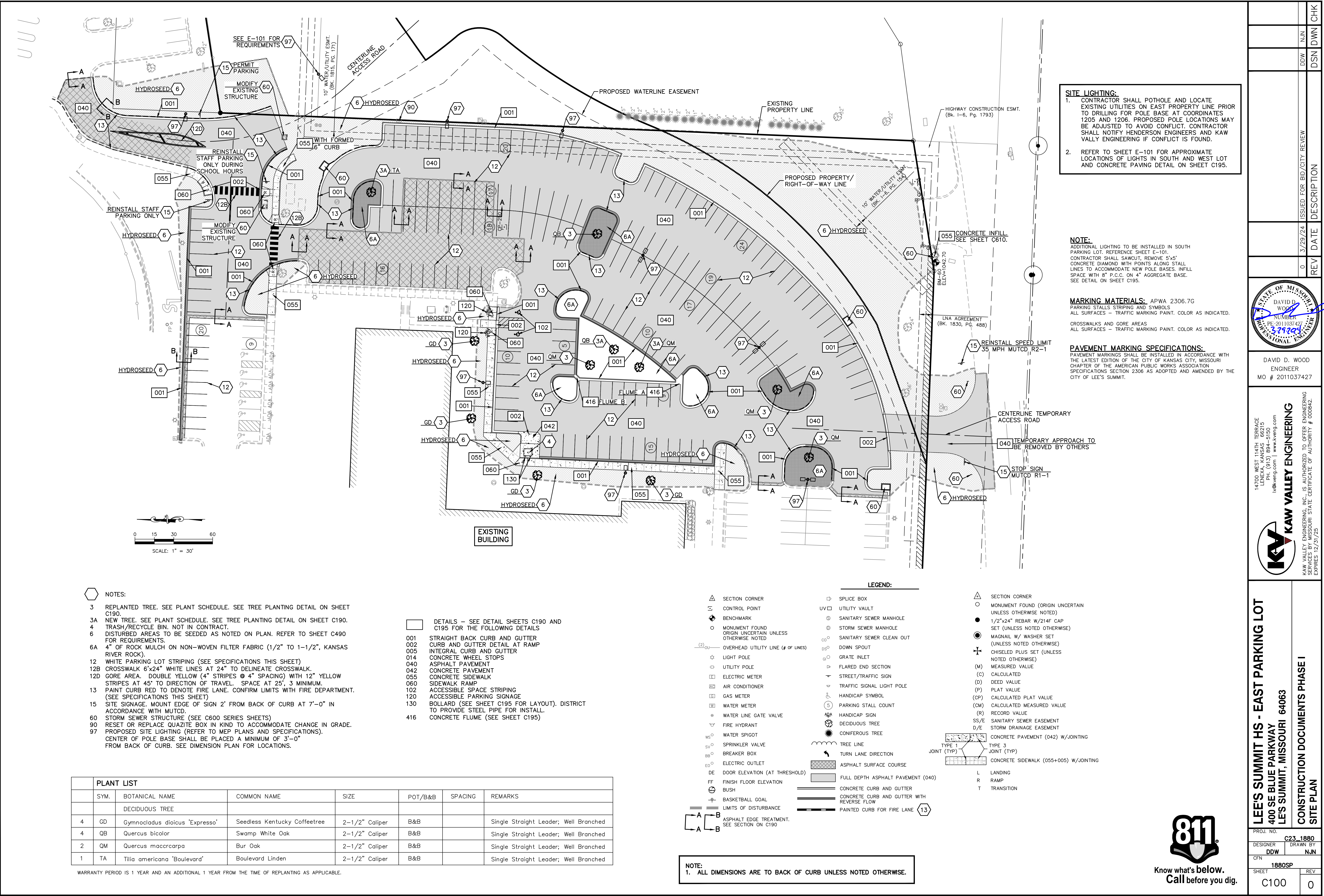
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT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

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 IS 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.**

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.









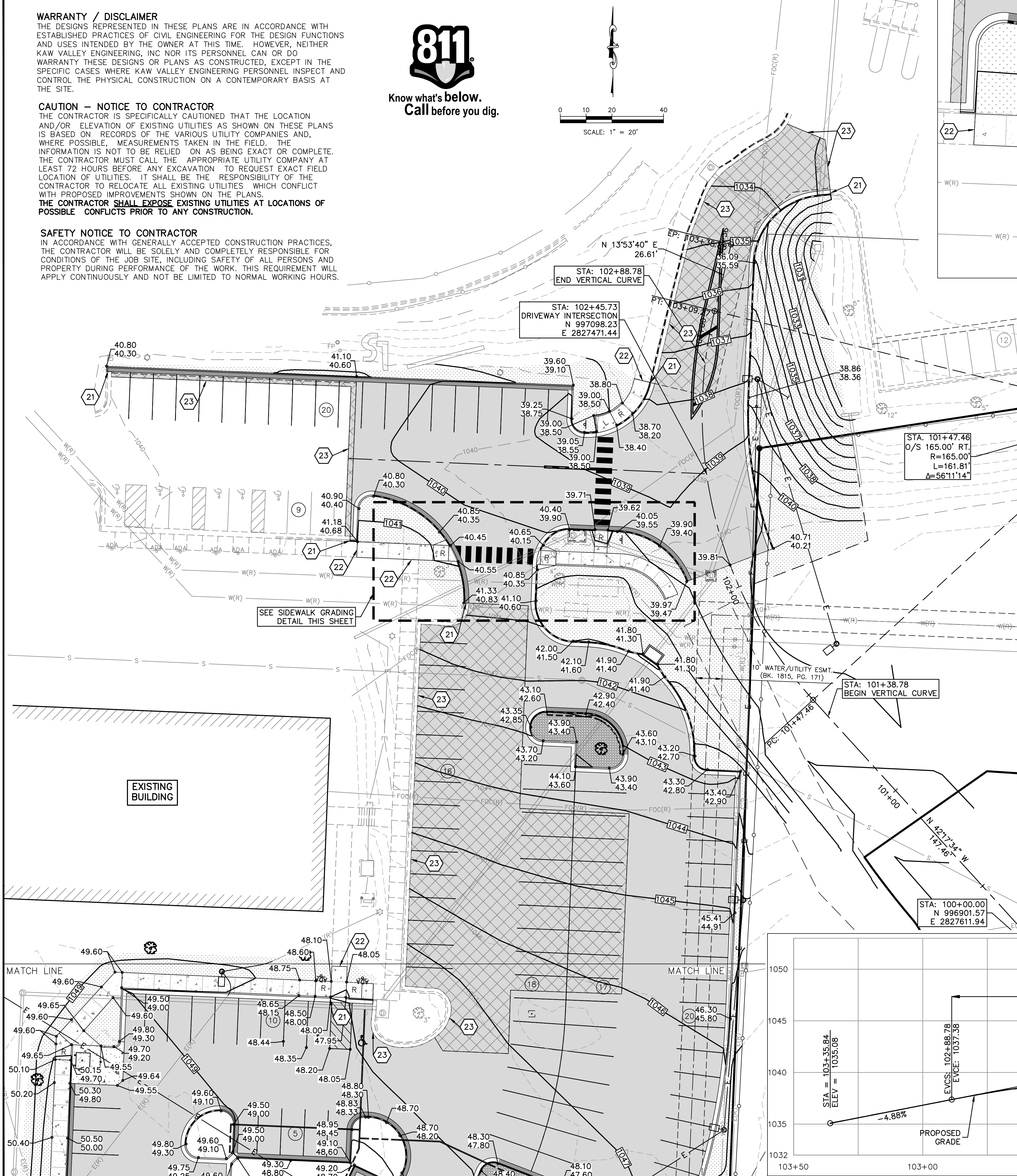
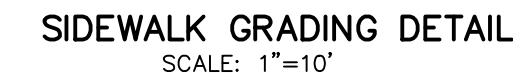
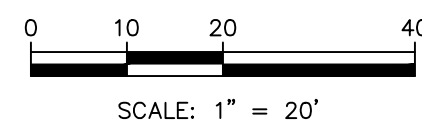
- THIS DRAWING SHALL NOT BE UTILIZED BY ANY PERSON, FIRM, OR CORPORATION IN WHOLE OR IN PART WITHOUT THE SPECIFIC PERMISSION OF KAW VALLEY ENGINEERING, INC.











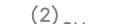



































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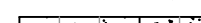
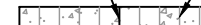


THE CONTRACTORS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE AVAILABLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE USED FOR EXCAVATION OR COMPLETE. THE CONTRACTOR 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 CONSTRUCTION. **THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.**

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.



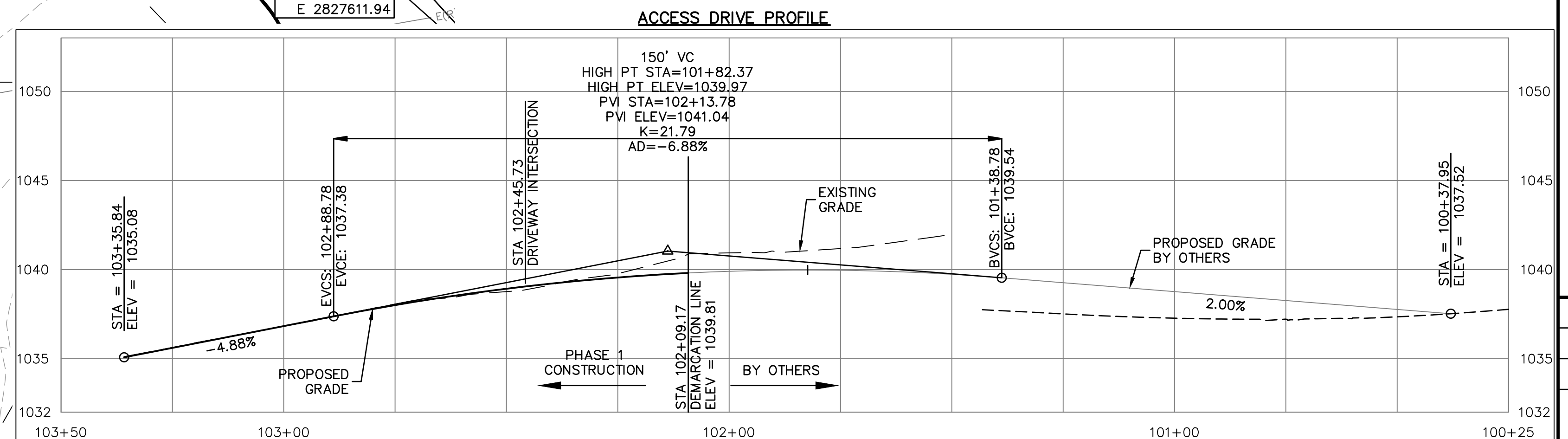
LEGEND:

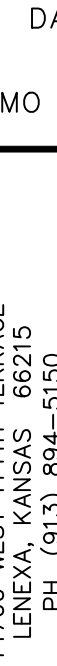

|   |  |   |   |
|---|--|---|---|
|    | SECTION CORNER   |    | SPLICE BOX                                    |
|    | CONTROL POINT  |    | UTILITY VAULT                                 |
|    | BENCHMARK  |    | SANITARY SEWER MANHOLE                        |
|    | MONUMENT FOUND<br>ORIGIN UNCERTAIN UNLESS<br>OTHERWISE NOTED |    | STORM SEWER MANHOLE                           |
|    | OVERHEAD UTILITY LINE (# OF LINES)                           |    | SANITARY SEWER CLEAN OUT                      |
|    | LIGHT POLE   |    | DOWN SPOUT                                    |
|    | UTILITY POLE   |    | GRATE INLET                                   |
|    | ELECTRIC METER   |    | FLARED END SECTION                            |
|    | AIR CONDITIONER  |    | STREET/TRAFFIC SIGN                           |
|    | GAS METER  |    | TRAFFIC SIGNAL LIGHT POLE                     |
|    | WATER METER  |    | HANDICAP SYMBOL                               |
|    | WATER LINE GATE VALVE  |    | PARKING STALL COUNT                           |
|    | FIRE HYDRANT   |    | HANDICAP SIGN                                 |
|    | WATER SPIGOT   |    | DECIDUOUS TREE                                |
|    | SPRINKLER VALVE  |    | CONIFEROUS TREE                               |
|    | BREAKER BOX  |    | TREE LINE                                     |
|    | ELECTRIC OUTLET  |    | TURN LANE DIRECTION                           |
|    | DOOR ELEVATION (AT THRESHOLD)                                |    | ASPHALT SURFACE COURSE                        |
|  | FINISH FLOOR ELEVATION                                       |  | FULL DEPTH ASPHALT PAVEMENT (040)             |
|  | BUSH   |  | CONCRETE CURB AND GUTTER                      |
|  | BASKETBALL GOAL  |  | CONCRETE CURB AND GUTTER WITH<br>REVERSE FLOW |
|  | LIMITS OF DISTURBANCE  |  | PAINTED CURB FOR FIRE LANE                    |

|   |   |
|---|---|
|  | SECTION CORNER  |
|  | MONUMENT FOUND (ORIGIN UNCERTAIN<br>UNLESS OTHERWISE NOTED) |
|  | 1/2" x 24" REBAR W/214F CAP<br>SET (UNLESS NOTED OTHERWISE) |
|  | MAGNAIL W/ WASHER SET<br>(UNLESS NOTED OTHERWISE)           |
|  | CHISELED PLUS SET (UNLESS<br>NOTED OTHERWISE)               |
| (M)   | MEASURED VALUE  |
| (C)   | CALCULATED  |
| (D)   | DEED VALUE  |
| (P)   | PLAT VALUE  |
| (CP)  | CALCULATED PLAT VALUE                                       |
| (CM)  | CALCULATED MEASURED VALUE                                   |
| (R)   | RECORD VALUE  |
| SS/E  | SANITARY SEWER EASEMENT                                     |
| D/E   | STORM DRAINAGE EASEMENT                                     |
|  | CONCRETE PAVEMENT (042) W/Jointing                          |
|  | CONCRETE SIDEWALK (055+005) W/Jointing                      |
|  | JOINT TYPE 1 (TYP)  |
|  | JOINT TYPE 3 (TYP)  |
| L   | LANDING   |
| R   | RAMP  |
| T   | TRANSITION  |

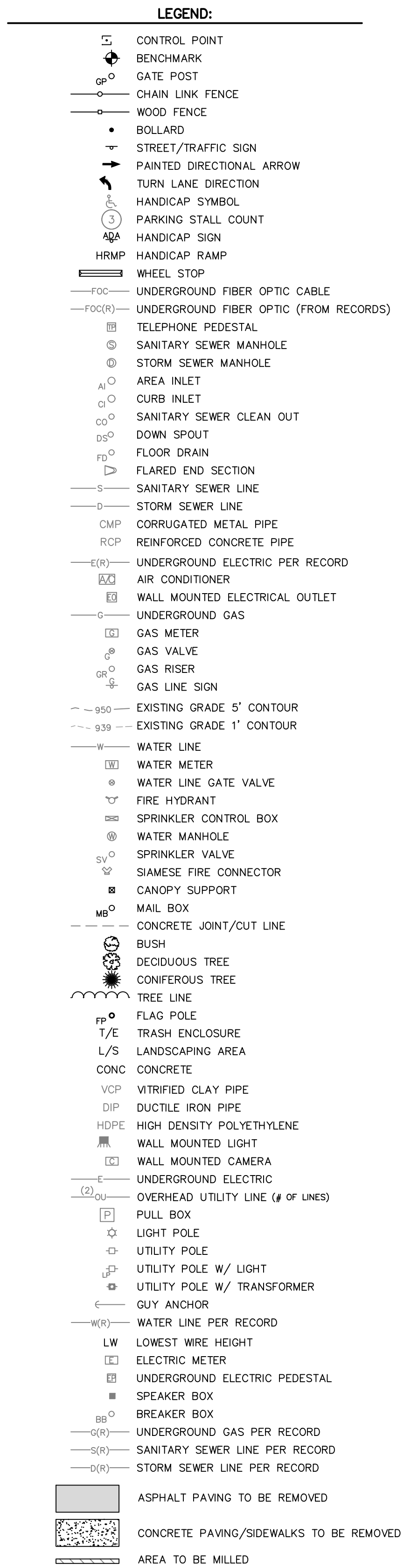
21 MATCH EXISTING CURB ELEVATION.  
22 MATCH EXISTING SIDEWALK ELEVATION.  
23 MATCH EXISTING PAVEMENT ELEVATION.  
24 TRANSITION FROM ZERO HEIGHT CURB TO  
FULL HEIGHT CURB

1. REFER TO SHEET C495 FOR PERMANENT SEEDING/STABILIZATION REQUIREMENTS.
2. REFER TO APWA STANDARD ESC DRAWINGS FOR ADDITIONAL DETAILS AND SPECIFICATIONS.





|   |  |     |  |     |         |        |                            |           |
|---|--|-----|--|-----|---------|--------|----------------------------|-----------|
| LEE'S SUMMIT HS - EAST PARKING LOT<br>400 SE BLUE PARKWAY<br>LEE'S SUMMIT, MISSOURI 64063   | CONSTRUCTION DOCUMENTS PHASE I<br>GRADING PLAN - NORTH |     | C310   | 0   | SHEET   | 1800GP | C23.1880                   | PROJ. NO. |
|   | DWG  | NUN |  |     |         |        |                            | DESIGNER  |
| KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842.<br>EXPIRES 12/31/25   |  |     |  |     |         |        |                            |           |
|  <b>KAW VALLEY ENGINEERING</b><br>KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842.<br>EXPIRES 12/31/25 |  |     | DAVID D. WOOD<br>ENGINEER<br>MO # 2011037427 |     |         |        |                            |           |
|    |  |     | 0  | REV | 3/29/24 | DATE   | ISSUED FOR BID/CITY REVIEW | DWG       |
|   |  |     | 0  | REV | 3/29/24 | DATE   | ISSUED FOR BID/CITY REVIEW | DSN       |
|   |  |     | 0  | REV | 3/29/24 | DATE   | ISSUED FOR BID/CITY REVIEW | DWN       |
|   |  |     | 0  | REV | 3/29/24 | DATE   | ISSUED FOR BID/CITY REVIEW | CHK       |





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

|  |  |  |  |          |     |         |                            |     |     |     |
|--|--|--|--|----------|-----|---------|----------------------------|-----|-----|-----|
| 14700 WEST 114TH TERRACE<br>LINCOLN, MISSOURI 65050<br>PH. (313) 894-5150<br>lkweng.com   www.lkweng.com |  |    |  | 0        | REV | 3/29/24 | ISSUED FOR BID/CITY REVIEW | DDW | JUN | CHK |
| DAVID D. WOOD<br>ENGINEER<br>MO # 2011037427   |  |  <b>KAW VALLEY ENGINEERING</b><br>KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842.<br>EXPIRES 12/31/25 |  |          |     |         |                            |     |     |     |
| PROJ. NO.  |  | C23-1880   |  |          |     |         |                            |     |     |     |
| DESIGNER   |  | DDW  |  | DRAWN BY |     | NJN     |                            |     |     |     |
| CFN  |  |  |  |          |     |         |                            |     |     |     |
| SHEET  |  | 1880DEMO   |  |          |     |         |                            |     |     |     |
| C400   |  |  |  | REV      |     |         |                            |     |     |     |
| 0  |  |  |  |          |     |         |                            |     |     |     |



| KVE   | Design Storm (years) | Overland Flow |                      |               |                        |                      |                      |                              |            |                                 |                            | System Flow            |                    |                               |                              |                 |                                   | Node Condition            | Node                   | Pipe Design            |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |
|---|----------------------|---------------|----------------------|---------------|------------------------|----------------------|----------------------|------------------------------|------------|---------------------------------|----------------------------|------------------------|--------------------|-------------------------------|------------------------------|-----------------|-----------------------------------|---------------------------|------------------------|------------------------|---------------|------------|-------------------|-----------------------|----------------------|------------------------|-------------|------------|-------------------|--------------------------|--------------------------|-----------------|---------------------------|-----------------------------|-------------------------|---------------------------|
|   |                      | Structure     | Downstream Structure | Pipe          | Tributary Area, A (ac) | Impervious Area (ac) | Runoff Coefficient C | Antecedent Precipitation (K) | A x C (ac) | Time of Concentration, Tc (min) | Rainfall Intensity (in/hr) | Tributary Runoff (cfs) | Total Area, A (ac) | Summation of Inlet A x C (ac) | Antecedent Precipitation (K) | System Tc (min) | System Rainfall Intensity (in/hr) |                           |                        | System Discharge (cfs) | Pipe Material | Pipe Shape | Pipe Size, D (in) | Manning's Coefficient | Upstream Invert (ft) | Downstream Invert (ft) | Length (ft) | Pipe Slope | Design Flow (cfs) | Full Flow Capacity (cfs) | Full Flow Velocity (fps) | Flow Time (sec) | Upstream Crown Elevations | Downstream Crown Elevations | Upstream Depth of Cover | Downstream Depth of Cover |
| Lee's Summit East Parking Lot - Phase I Private Storm Sewer | 10-year              | A3            | A2                   | A3 - A2       | 0.41                   | 0.41                 | 0.90                 | 1                            | 0.37       | 5.0                             | 7.4                        | 2.7                    | 0.41               | 0.37                          | 1                            | 5.0             | 7.4                               | 2.7                       | Non Setback Curb Inlet | HDPE                   | Circular      | 15         | 0.012             | 1042.70               | 1041.30              | 131.0                  | 1.07%       | 2.7        | 7.2               | 5.9                      | 22.2                     | 1044.0          | 1042.6                    | 2.8                         | 3.0                     | 1,046.70                  |
|   | 100-year             |               |                      |               |                        |                      |                      | 1.25                         |            |                                 | 10.3                       | 4.8                    |                    |                               | 1.25                         |                 | 10.3                              | 4.8                       |                        |                        |               |            |                   |                       |                      |                        | 4.8         |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   | 10-year              | A2            | A1                   | A2 - A1       | 1.00                   | 0.89                 | 0.83                 | 1                            | 0.83       | 5.0                             | 7.4                        | 6.1                    | 1.41               | 1.20                          | 1                            | 5.2             | 7.3                               | 8.8                       | Non Setback Curb Inlet | HDPE                   | Circular      | 18         | 0.012             | 1040.80               | 1039.90              | 84.0                   | 1.07%       | 8.8        | 11.8              | 6.7                      | 12.6                     | 1042.3          | 1041.4                    | 3.2                         | 0.6                     | 1,045.50                  |
|   | 100-year             |               |                      |               |                        |                      |                      | 1.25                         |            |                                 | 10.3                       | 10.8                   |                    |                               | 1.25                         |                 | 10.2                              | 15.4                      |                        |                        |               |            |                   |                       |                      |                        | 15.4        |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   |                      |               |                      |               |                        |                      |                      |                              |            |                                 |                            |                        |                    |                               |                              |                 |                                   |                           |                        |                        |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   | 10-year              | B2            | B1                   | B2 - B1       | 0.59                   | 0.19                 | 0.49                 | 1                            | 0.29       | 5.0                             | 7.4                        | 2.1                    | 0.59               | 0.29                          | 1                            | 5.0             | 7.4                               | 2.1                       | Temporary Culvert      | RCP                    | Circular      | 15         | 0.013             | 1040.00               | 1039.20              | 72.0                   | 1.11%       | 2.1        | 6.8               | 5.5                      | 13.0                     | 1041.3          | 1040.5                    | 0.0                         | 0.0                     |                           |
|   | 100-year             |               |                      |               |                        |                      |                      | 1.25                         |            |                                 | 10.3                       | 3.8                    |                    |                               | 1.25                         |                 | 10.3                              | 3.8                       |                        |                        |               |            |                   |                       |                      |                        | 3.8         |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   |                      |               |                      |               |                        |                      |                      |                              |            |                                 |                            |                        |                    |                               |                              |                 |                                   |                           |                        |                        |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   | 10-year              |               |                      |               |                        |                      |                      |                              |            |                                 |                            |                        |                    |                               |                              |                 |                                   |                           |                        |                        |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   | 100-year             |               |                      |               |                        |                      |                      |                              |            |                                 |                            |                        |                    |                               |                              |                 |                                   |                           |                        |                        |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |
|   | 10-year              | C1#17010      | C1                   | C1#17010 - C1 | 0.18                   | 0.14                 | 0.77                 | 1                            | 0.14       | 5.3                             | 7.3                        | 1.0                    | 0.92               | 0.63                          | 1                            | 7.0             | 6.8                               | 4.3                       | Existing Curb Inlet    | HDPE                   | Circular      | 15         | 0.012             | 1038.65               | 1033.50              | 175.5                  | 2.93%       | 4.3        | 12.0              | 9.8                      | 18.0                     | 1039.9          | 1034.8                    | 8.6                         | 7.0                     | 1,048.46                  |
|   | 100-year             |               |                      |               |                        |                      |                      | 1.25                         |            |                                 | 10.2                       | 1.8                    |                    |                               | 1.25                         |                 | 9.6                               | 7.5                       |                        |                        |               |            |                   |                       |                      |                        |             | 7.5        |                   |                          |                          |                 |                           |                             |                         |                           |
| 10-year   | C1                   | JB#17519      | C1 - JB#17519        | 0.56          | 0.51                   | 0.85                 | 1                    | 0.47                         | 5.0        | 7.4                             | 3.5                        | 1.48                   | 1.10               | 1                             | 7.1                          | 6.8             | 7.5                               | Non Setback Curb Inlet    | HDPE                   | Circular               | 15            | 0.012      | 1033.50           | 1032.36               | 37.9                 | 3.01%                  | 7.5         | 12.1       | 9.9               | 3.8                      | 1034.8                   | 1033.6          | 7.0                       | 7.6                         | 1,041.80                |                           |
| 100-year  |                      |               |                      |               |                        |                      | 1.25                 |                              |            | 10.3                            | 6.1                        |                        |                    | 1.25                          |                              | 9.5             | 13.2                              |                           |                        |                        |               |            |                   |                       |                      |                        | 13.2        |            |                   |                          |                          |                 |                           |                             |                         |                           |
| 10-year   | JB#17519             | AI #17454     | JB#17519 - AI #17454 |               |                        |                      |                      |                              |            |                                 |                            | 1.78                   | 1.37               | 1                             | 7.2                          | 6.7             | 9.3                               | Junction Box (Adjust Rim) | HDPE                   | Circular               | 18            | 0.012      | 1031.93           | 1024.90               | 133.8                | 5.25%                  | 9.3         | 26.1       | 14.8              | 9.1                      | 1033.4                   | 1026.4          | 7.8                       | 1.9                         | 1,041.20                |                           |
| 100-year  |                      |               |                      |               |                        |                      |                      |                              |            |                                 |                            |                        |                    | 1.25                          |                              | 9.5             | 16.3                              |                           |                        |                        |               |            |                   |                       |                      |                        | 16.3        |            |                   |                          |                          |                 |                           |                             |                         |                           |
| 10-year   | AI#17454             | AI #17454     | AI#17454 - AI #17454 | 0.16          | 0.00                   | 0.30                 | 1                    | 0.05                         |            |                                 |                            |                        |                    |                               |                              |                 |                                   |                           |                        |                        |               |            |                   |                       |                      |                        |             |            |                   |                          |                          |                 |                           |                             |                         |                           |

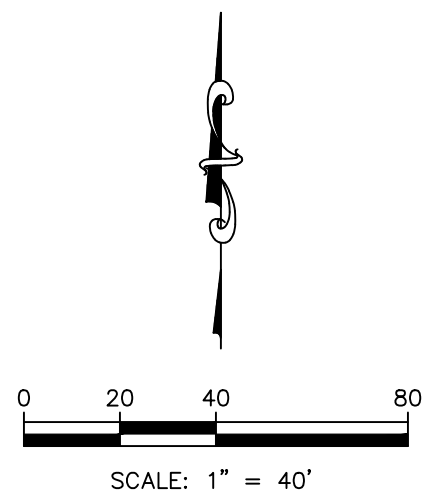
|                 |          |                    |          |                                      |      |      |      |      |      |     |      |     |
|-----------------|----------|--------------------|----------|--------------------------------------|------|------|------|------|------|-----|------|-----|
| Upstream System | 10-year  | Upstream C#17010   | C#17010  | Upstream C#17010 - C#17010           | 0.74 | 0.45 | 0.66 | 1    | 0.49 | 7.0 | 6.8  | 3.3 |
|                 | 100-year |                    |          |                                      |      |      |      | 1.25 |      |     | 9.6  | 5.9 |
|                 | 10-year  | Upstream System JB | JB#17159 | Upstream System JB #17159 - JB#17159 | 0.30 | 0.30 | 0.90 | 1    | 0.27 | 5.2 | 7.3  | 2.0 |
|                 | 100-year | #17159             |          |                                      |      |      |      | 1.25 |      |     | 10.2 | 3.5 |
|                 | 10-year  | C#10386            | A#17454  | C#10386 - A#17454                    | 0.74 | 0.54 | 0.74 | 1.5  | 0.55 | 6.2 | 7.0  | 5.7 |
|                 | 100-year |                    |          |                                      |      |      |      | 1.75 |      |     | 9.8  | 9.4 |

| Time of Concentration |                      |                      |                        |                 |                      |                |     |       |                  |     |                   |                             |               |
|-----------------------|----------------------|----------------------|------------------------|-----------------|----------------------|----------------|-----|-------|------------------|-----|-------------------|-----------------------------|---------------|
| Structure             | Pipe                 | Design Storm (years) | Tributary Area, A (ac) | Impervious Area | Runoff Coefficient C | Total Distance | D1  | Slope | Inlet Time (min) | D2  | Travel Time (min) | Time of Concentration (min) | Notes         |
| A3                    | A3 - A2              | 10-year<br>100-year  | 0.41                   | 0.41            | 0.90                 | 210            | 100 | 1.8   | 3.0              | 110 | 0.2               | 3.1                         | 5 Min Minimum |
| A2                    | A2 - A1              | 10-year<br>100-year  | 1.00                   | 0.89            | 0.83                 | 255            | 100 | 2.0   | 3.8              | 155 | 0.3               | 4.1                         | 5 Min Minimum |
|                       |                      |                      |                        |                 |                      |                |     |       |                  |     |                   |                             |               |
| B2                    | B2 - B1              | 10-year<br>100-year  |                        |                 |                      |                |     |       |                  |     |                   |                             |               |
|                       |                      |                      |                        |                 |                      |                |     |       |                  |     |                   |                             |               |
| C1#17010              | C1#17010 - C1        | 10-year<br>100-year  | 0.18                   | 0.14            | 0.77                 | 130            | 100 | 1.5   | 5.2              | 30  | 0.1               | 5.3                         |               |
| C1                    | C1 - JB#17519        | 10-year<br>100-year  | 0.56                   | 0.51            | 0.85                 | 330            | 100 | 1.5   | 4.0              | 230 | 0.4               | 4.4                         | 5 Min Minimum |
| JB#17519              | JB#17519 - AI #17454 | 10-year<br>100-year  |                        |                 |                      |                |     |       |                  |     |                   |                             |               |
| AI#17454              | AI#17454 - AI #17454 | 10-year<br>100-year  | 0.16                   | 0.00            | 0.30                 | 120            | 100 | 8.0   | 7.2              | 20  | 0.0               | 7.2                         |               |

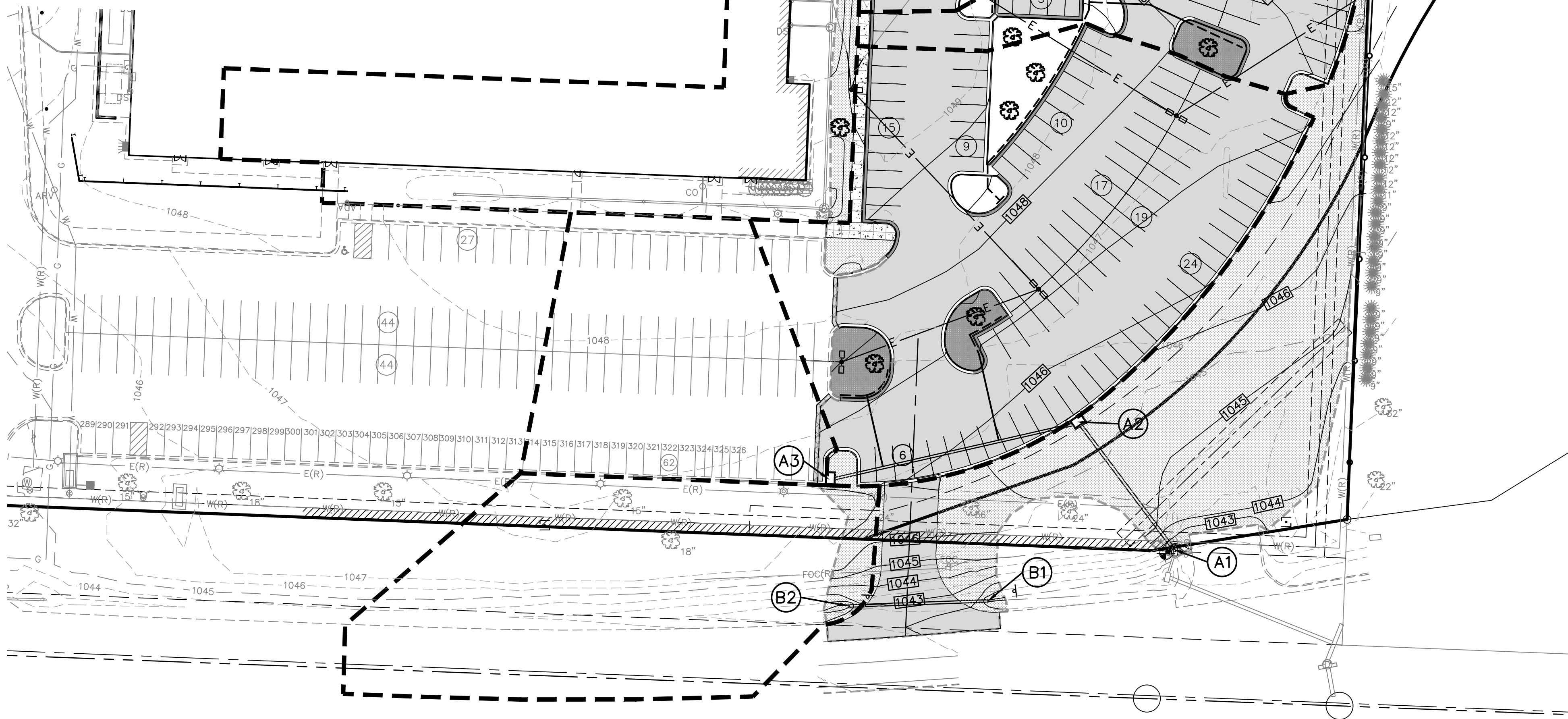
THE DESIGNS REPRESENTED IN THESE PLANS ARE IN ACCORDANCE WITH ESTABLISHED PRACTICES OF CIVIL ENGINEERING FOR THE DESIGN FUNCTIONS AND USES INTENDED BY THE OWNER AT THIS TIME. HOWEVER, NEITHER KAW VALLEY ENGINEERING, INC NOR ITS PERSONNEL CAN OR DO WARRANTY THESE DESIGNS OR PLANS AS CONSTRUCTED, EXCEPT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

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.

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.



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



|  |  |  |  |
|--|--|--|--|
| <b>LEE'S SUMMIT HS - EAST PARKING LOT</b><br>400 SE BLUE PARKWAY<br>LEE'S SUMMIT, MISSOURI 64063 |  | <b>CONSTRUCTION DOCUMENTS PHASE I</b><br>DRAINAGE AREA MAP |  |
| PROJ. NO. <b>C23-1880</b>  |  | DRAWN BY <b>NJN</b>  |  |
| DESIGNER <b>DDW</b>  |  | CFN  |  |
| SHEET <b>1880DAM</b>   |  | REV  |  |
| <b>C600</b>  |  | <b>0</b>   |  |



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.

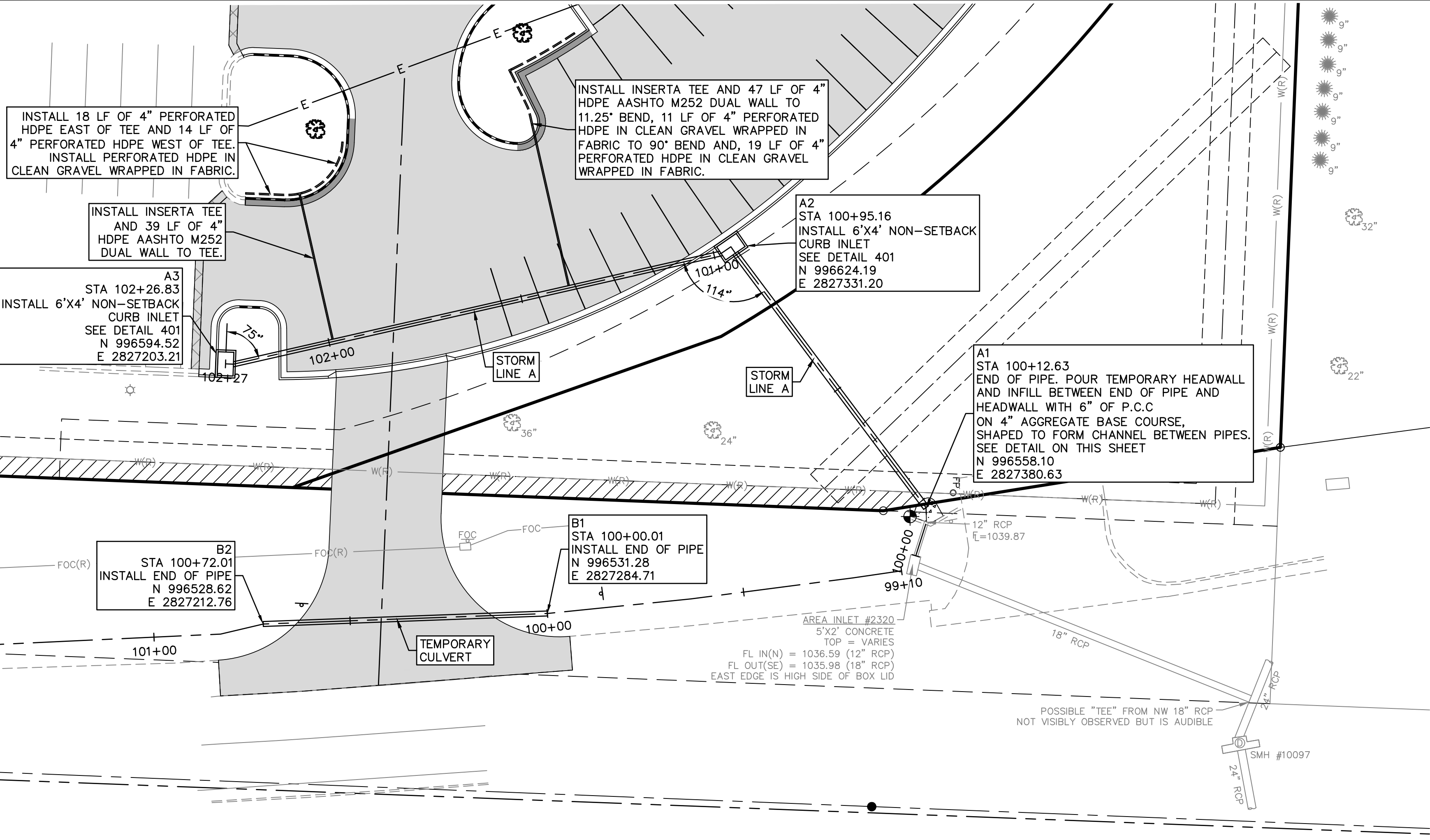
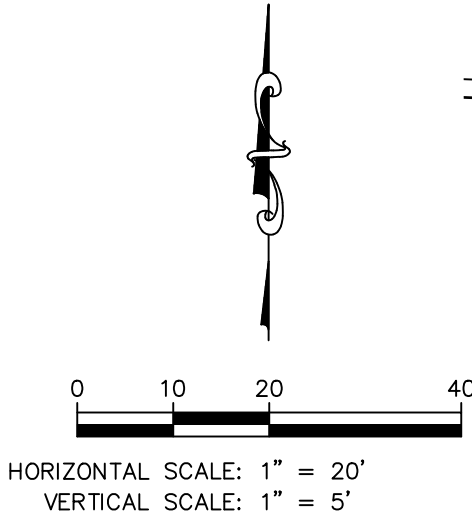
CAUTION -- NOTICE TO CONTRACTOR

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.

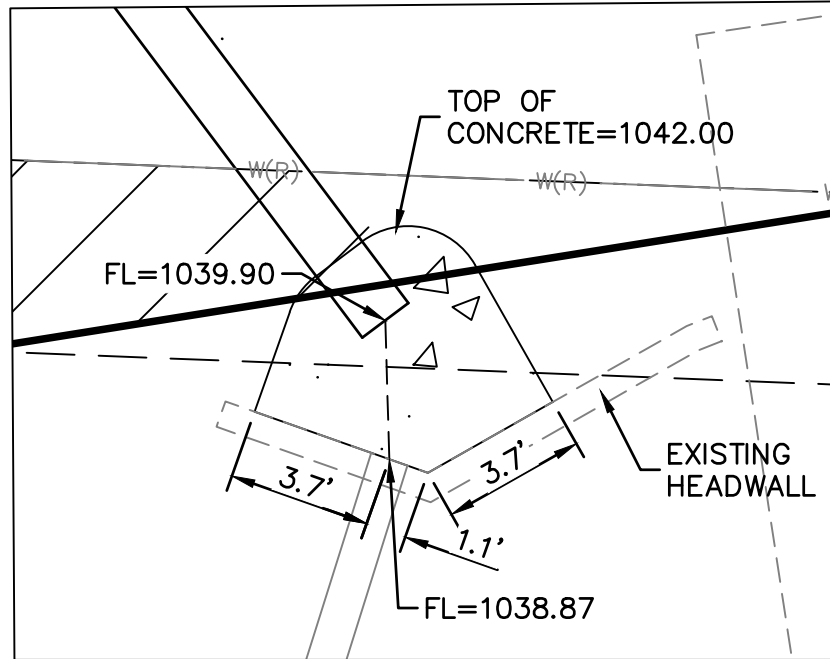
DETAILS SEE SHEET C690

- 401 NON-SETBACK CURB INLET  
402 JUNCTION BOX/GRATE INLET

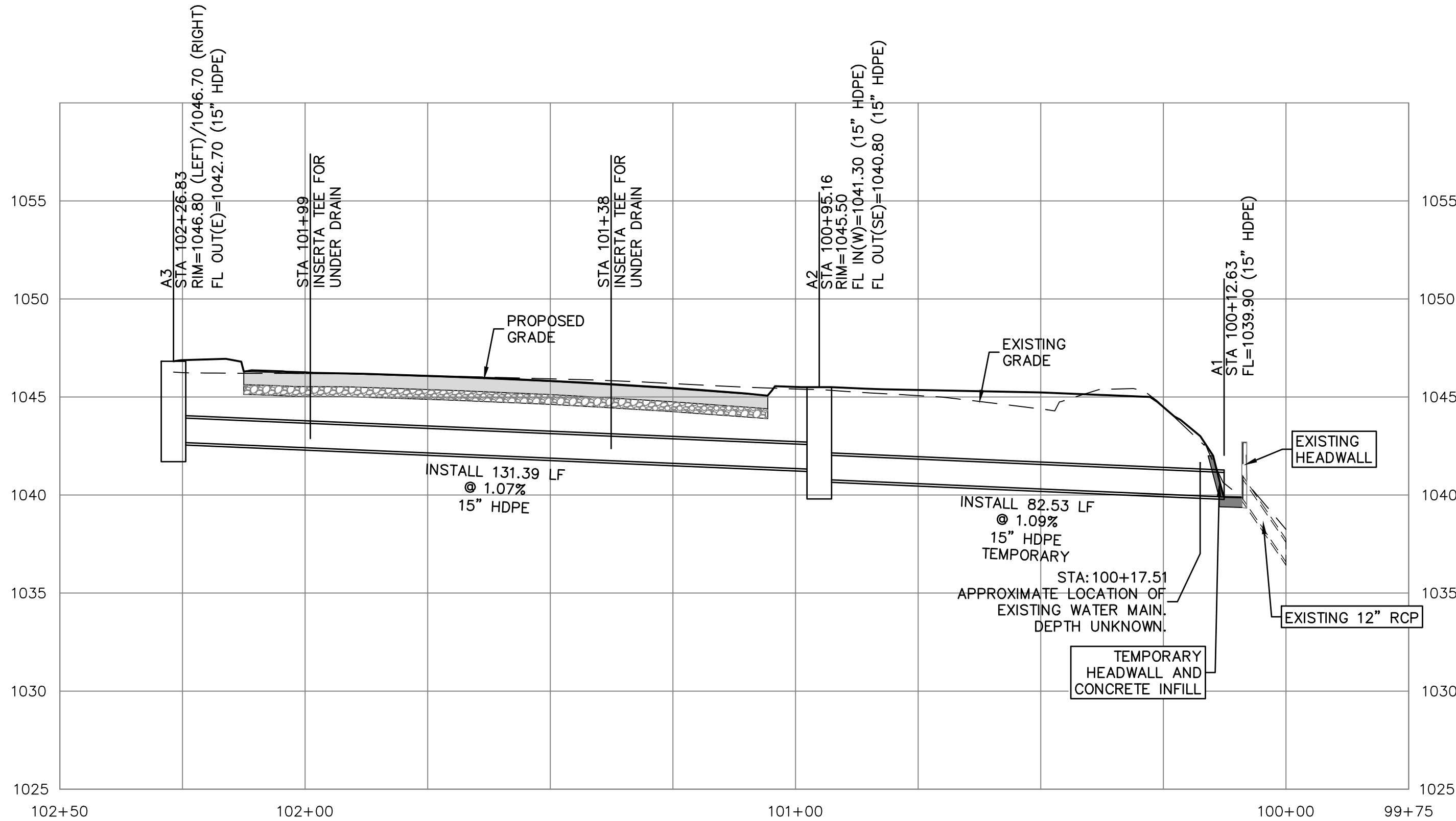


PRIVATE STORM SEWER LINES A AND B PLAN

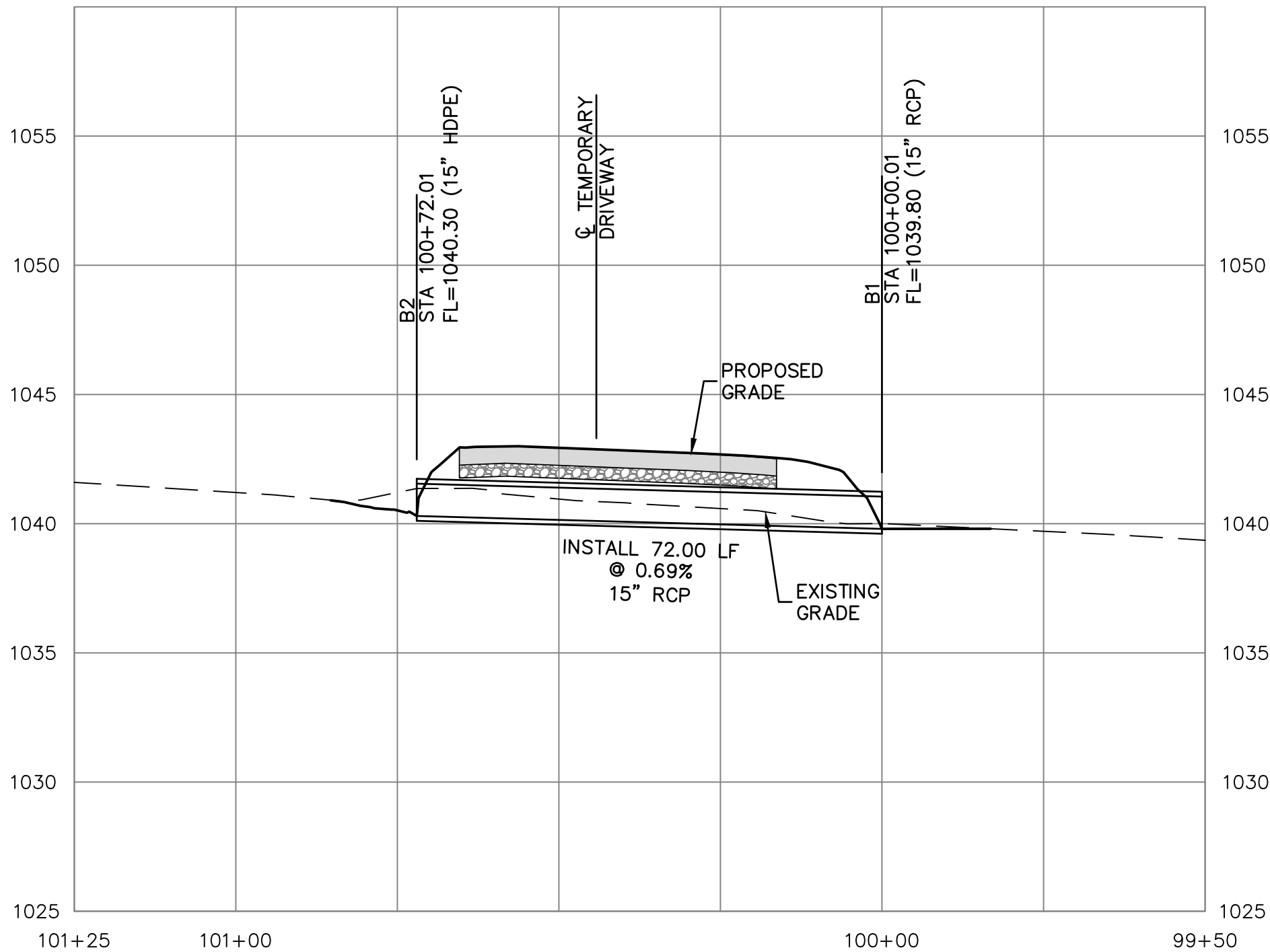
- STORM SEWER CONSTRUCTION NOTES:**
- ALL WORK SHALL BE COMPLETED IN ACCORDANCE WITH SECTION 2600 STORM SEWER OF THE KANSAS CITY METRO CHAPTER OF APWA SPECIFICATIONS AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT, MISSOURI STANDARD SPECIFICATIONS. REFERENCE APWA SPECIFICATION SECTION 2102.4 FOR EXCAVATION, TRENCHING AND BACKFILLING FOR PIPE AND STORM STRUCTURES. ALL EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED. REFER TO THE PROJECT GEOTECHNICAL REPORT AND SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS. COMPACTION TESTS SHALL BE TAKEN EVERY 150' (PER LIFT), AT EACH PAVEMENT CROSSING (PER LIFT) AND AT LOCATIONS DESIGNATED BY THE CITY INSPECTOR OR OWNER'S TESTING AGENCY. ALL TRENCH BACKFILL WHICH DOES NOT MEET THE REQUIRED DENSITY SHALL BE RE-EXCAVATED AND RE-COMPACTED UNTIL THE REQUIRED DENSITY IS OBTAINED. COPIES OF ALL COMPACTION TEST REPORTS SHALL BE PROVIDED TO THE ENGINEER.
  - PIPE FOR SEWER CONSTRUCTION SHALL CONFORM TO SECTION 2602 UNLESS NOTED OTHERWISE.
  - A MINIMUM OF 18" COVER SHALL BE PROVIDED PRIOR TO AND MAINTAINED AFTER INSTALLATION OF STORM SEWER.
  - ALL COORDINATES FOR CURB INLETS ARE TO THE MIDDLE OF THE INSIDE FRONT FACE. ALL COORDINATES FOR PVC STRUCTURES AND CONCRETE YARD INLETS ARE TO THE CENTER OF THE STRUCTURE.
  - ALL JUNCTION BOXES/AREA INLETS HAVE ONE COORDINATE PROVIDED AT THE CENTER OF STRUCTURE. SEE PLAN FOR CLARIFICATION. ORIENT STRUCTURES PARALLEL TO ADJACENT CURB, BUILDING OR WALL FACE, UNLESS NOTED OTHERWISE.
  - RIM ELEVATION IS PROVIDED AT COORDINATE, UNLESS NOTED OTHERWISE. CONTRACTOR TO ADJUST ELEVATION OF RIM AS REQUIRED TO MATCH SLOPE OF ADJACENT CURB LINE. REFER TO GRADING PLAN (C300 SERIES SHEETS).
  - ALL EXISTING UTILITIES INDICATED ON THE DRAWING ARE ACCORDING TO THE BEST INFORMATION AVAILABLE TO THE ENGINEER; HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. UTILITIES DAMAGED THROUGH THE NEGLIGENCE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF SAME SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THEIR EXPENSE.
  - ALL BACKFILL SHALL BE COMPACTED TO 95 PERCENT STANDARD DENSITY AT OPTIMUM MOISTURE.
  - ALL EXCAVATION BENEATH THE STREETS AND PARKING LOTS FOR DRAINAGE PIPE LESS THAN 4'-0" IN DIAMETER SHALL BE BACKFILLED WITH AGGREGATE TO FOUR FEET (4') PAST BACK OF CURB IN ACCORDANCE WITH APWA SPECIFICATIONS SECTION 2102.4J.
  - RELOCATION OF ANY WATER LINE, SEWER LINE OR SERVICE LINE THEREOF REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE AT THEIR EXPENSE.
  - IF PRECAST STORM STRUCTURES ARE TO BE USED ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HAVE THEM APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF THE STRUCTURES. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.
  - ALL HDPE PIPE JOINTS SHALL BE WATER TIGHT.
  - SEE LANDSCAPE PLAN BED PIPE DETAIL ON SHEET C690.



TEMPORARY HEADWALL AND CONCRETE INFILL DETAIL



PRIVATE STORM SEWER LINE A PROFILE



PRIVATE STORM SEWER LINE B PROFILE

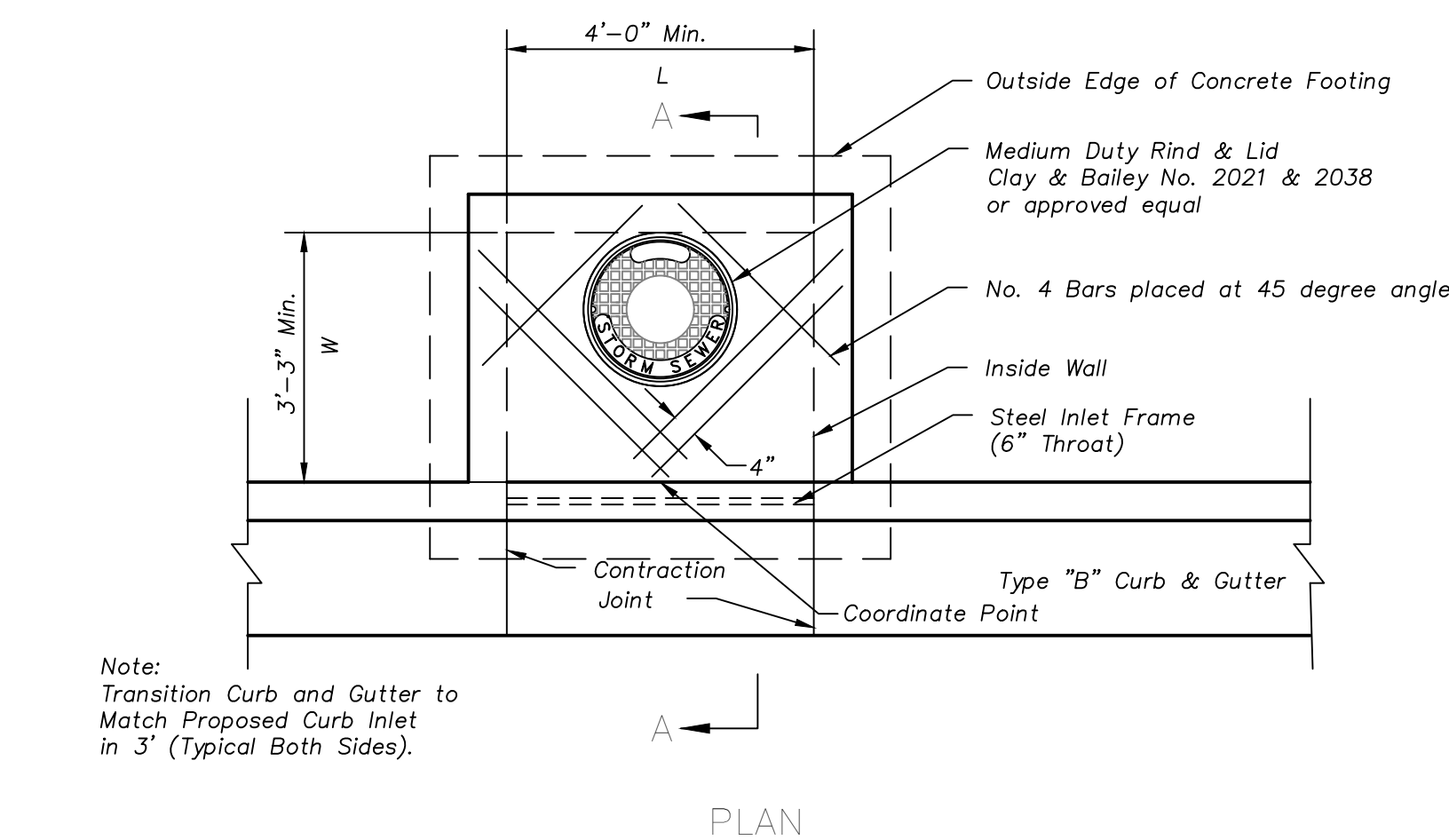
\*CONTRACTOR MAY ADJUST LENGTH TO USE STOCK LAYING LENGTHS

|  |          |          |      |          |     |
|--|----------|----------|------|----------|-----|
| PROJ. NO.  | C23_1880 | DESIGNER | DDW  | DRAWN BY | NJN |
| CFN  | 1880DPP  | SHEET    | C610 | REV      | 0   |
| LEE'S SUMMIT HS - EAST PARKING LOT<br>400 SE BLUE PARKWAY<br>LEE'S SUMMIT, MISSOURI 64063<br>CONSTRUCTION DOCUMENTS PHASE I<br>STORM SEWER PLAN AND PROFILE  |          |          |      |          |     |
| DAVID D. WOOD<br>ENGINEER<br>MO # 2011037427   |          |          |      |          |     |
| KAW VALLEY ENGINEERING<br>14700 WEST 114TH TERRACE<br>LENEXA, KANSAS 66215<br>PH: (913) 894-5150<br>www.kawvalley.com<br>KAW VALLEY ENGINEERING, INC. IS AUTHORIZED TO OFFER ENGINEERING SERVICES BY MISSOURI STATE CERTIFICATE OF AUTHORITY # 000842.<br>EXPIRES 12/31/25 |          |          |      |          |     |
| STATE OF MISSOURI<br>DAVID D. WOOD<br>PE-2011037427<br>379224<br>PROFESSIONAL ENGINEER   |          |          |      |          |     |
| 811<br>Know what's below.<br>Call before you dig.  |          |          |      |          |     |









## NON-SETBACK CURB INLET

USE STEEL INLET FRAME WITH 6" THROAT  
PARKING LOTS ONLY

### JUNCTION BOX YARD INLETS AND CURB INLET NOTES

## GENERAL

1. ALL FORM WORK STRUCTURES SHALL BE PRE-CAST OR POURED IN PLACE. IF PRE-CAST STRUCTURES ARE USED FOR PUBLICLY FINANCED, MAINTAINED OR ADMINISTERED CONSTRUCTION, THE TOPS SHALL BE POURED IN PLACE AND THE WALL STEEL SHALL BE LEFT EXPOSED TO A HEIGHT 2" BELOW THE FINISH TOP ELEVATION, OR AS DIRECTED BY THE CITY ENGINEER.
2. PRE-CAST SHOP DRAWINGS ARE TO BE APPROVED BY THE ENGINEER.
3. DO NOT SCALE THESE DRAWINGS FOR DIMENSIONS OR CLEARANCES. ANY QUESTIONS REGARDING DIMENSIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONSTRUCTION.
4. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION. THE CONCRETE THICKNESS AND REINFORCEMENT SHOWN IS FOR BOXES WITH ("L" < "W") AND ("W" < "L") LESS THAN OR EQUAL TO 48" FOR BOXES WITH EITHER OF THE DIMENSIONS GREATER THAN 48". A SPECIAL DESIGN IS REQUIRED. PRECASTER SHALL PROVIDE DESIGN CALCULATIONS FOR DEEP STRUCTURES TO ENGINEER PRIOR TO CONSTRUCTING BOX.

CONCRETE

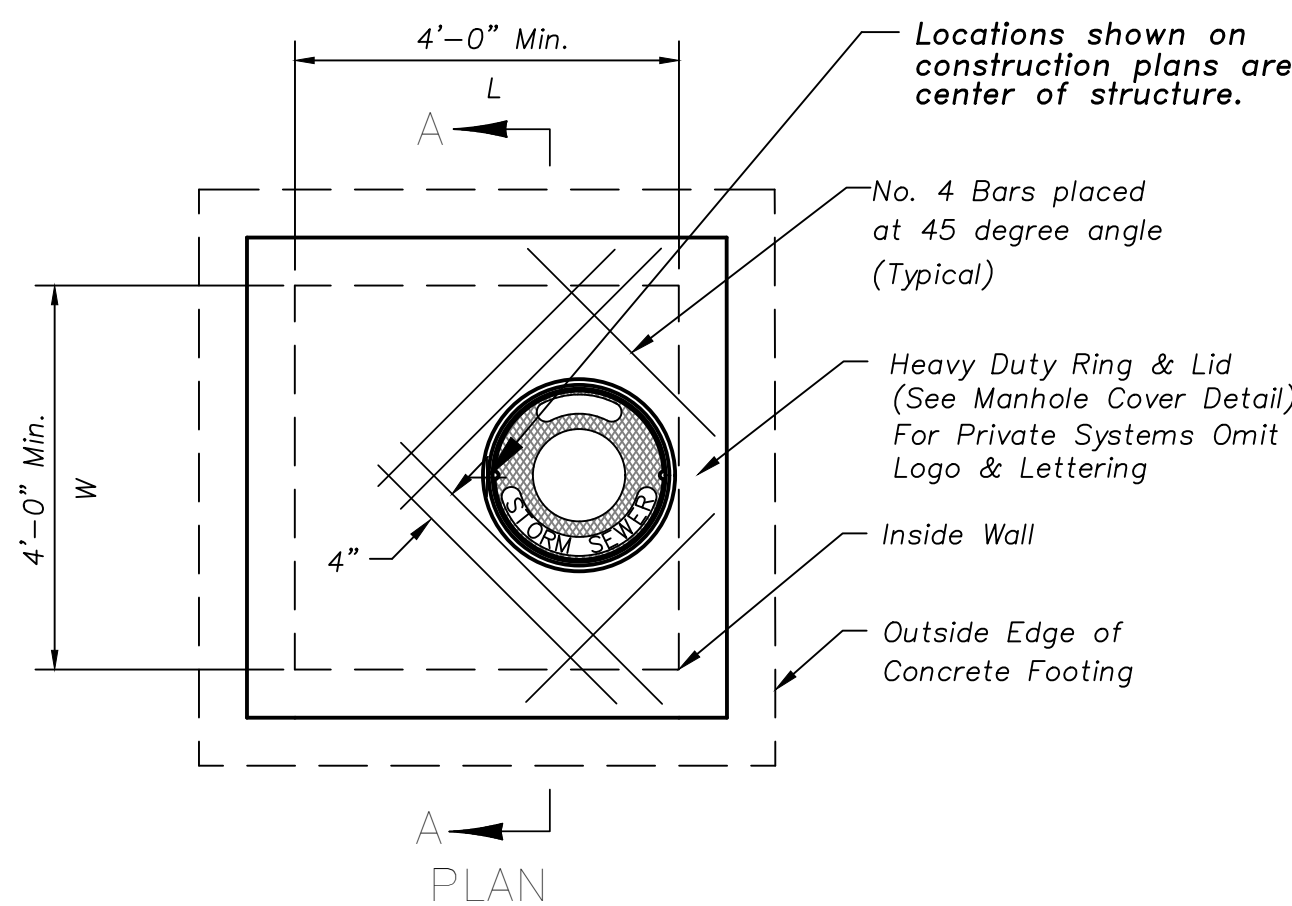
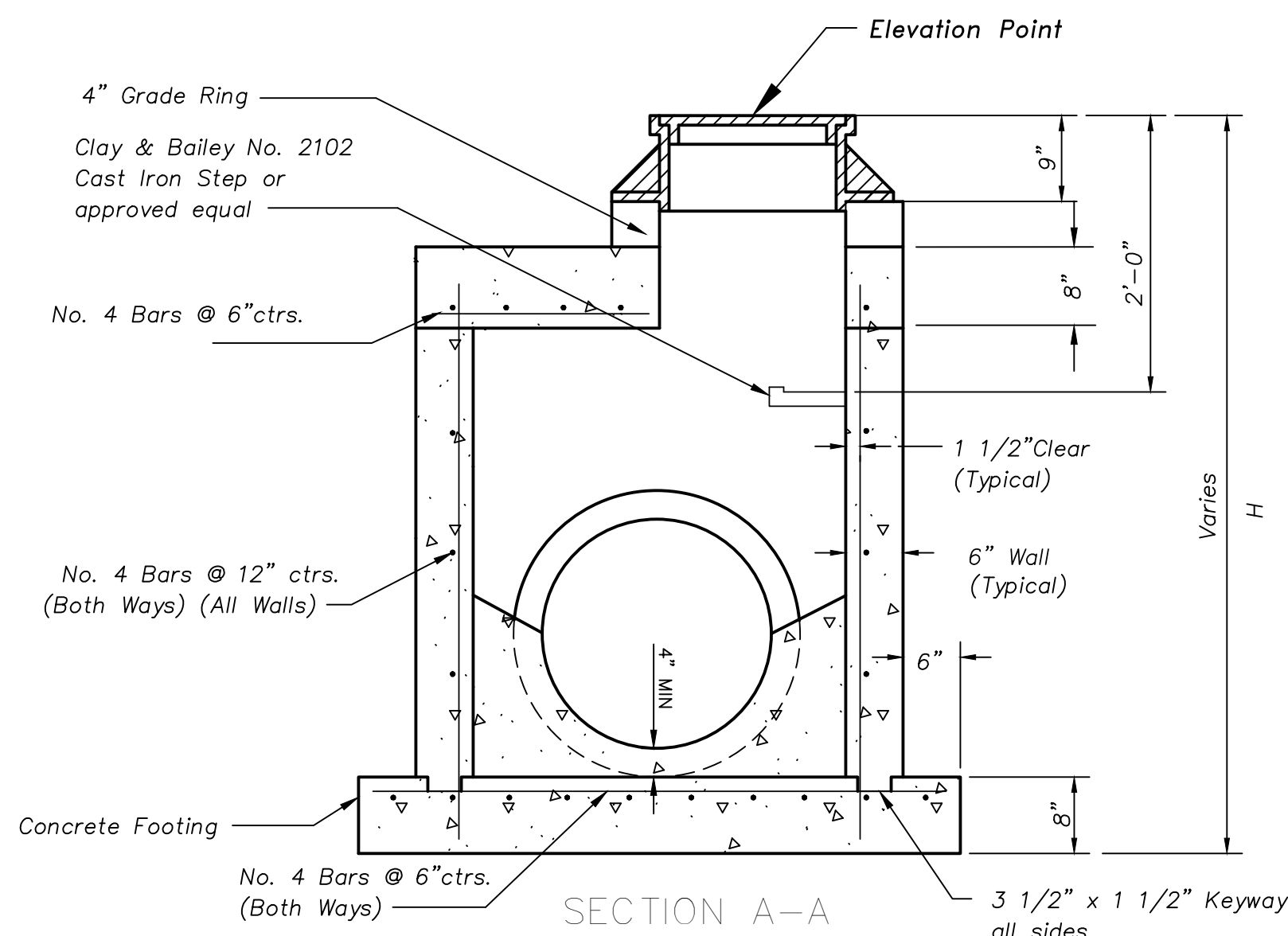
5. CONCRETE USED IN THIS WORK SHALL BE CLASS "A" CONCRETE (AE) THROUGHOUT, AND SHALL MEET THE REQUIREMENTS OF THE KANSAS CITY METROPOLITAN CHAPTER OF THE APCA TECHNICAL SPECIFICATIONS.
6. CONCRETE CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF STANDARD SPECIFICATIONS FOR MCIB, LATEST EDITION, EXCEPT AS MODIFIED IN THE APCA TECHNICAL SPECIFICATIONS.
7. INLET FLOORS SHALL BE SHAPED WITH NON-REINFORCED CONCRETE INVERTS TO PROVIDE SMOOTH FLOW.
8. BEVEL ALL EXPOSED EDGES WITH  $\frac{3}{4}$ " TRIANGULAR MOLDING.
9. 8" SOLID CONCRETE BLOCK OR BRICK MAY BE USED IN WALLS IN LIEU OF POURED CONCRETE WHERE NEITHER "H"+"L" NOR "H"+"W" (IN FEET) EXCEED FOURTEEN. BLOCK OR BRICK MAY BE USED IN ANY BOX WHERE "H" IS 5' OR LESS.
10. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE CONSTRUCTION SHALL BE OBTAINED FROM QUARRIES AND BEDS DESIGNATED BY THE MISSOURI DEPARTMENT OF TRANSPORTATION TO MEET DURABILITY REQUIREMENTS OF KANSAS CITY METROPOLITAN CHAPTER OF THE APCA TECHNICAL SPECIFICATIONS.

## REINFORCING STEEL

11. REINFORCING STEEL SHALL BE NEW BILLET, MINIMUM GRADE 60 AS PER ASTM A615, AND SHALL BE BENT COLD.
12. ALL DIMENSIONS RELATIVE TO REINFORCING STEEL ARE TO CENTERLINE OF BARS. 2" CLEARANCE SHALL BE PROVIDED THROUGHOUT UNLESS NOTED OTHERWISE. TOLERANCE OF  $\pm \frac{1}{8}$ " SHALL BE PERMITTED.
13. ALL LAP SPICES NOT SHOWN SHALL BE A MINIMUM OF 40 BAR DIAMETERS IN LENGTH.
14. ALL REINFORCING STEEL SHALL BE SUPPORTED ON FABRICATED STEEL BAR SUPPORTS @ 3'-0" MAXIMUM SPACING.
15. ALL DOWELS SHALL BE ACCURATELY PLACED AND SECURELY TIED IN PLACE PRIOR TO PLACEMENT OF BOTTOM SLAB CONCRETE. STICKING OF DOWELS INTO FRESH OR PARTIALLY HARDENED CONCRETE WILL NOT BE ACCEPTABLE.

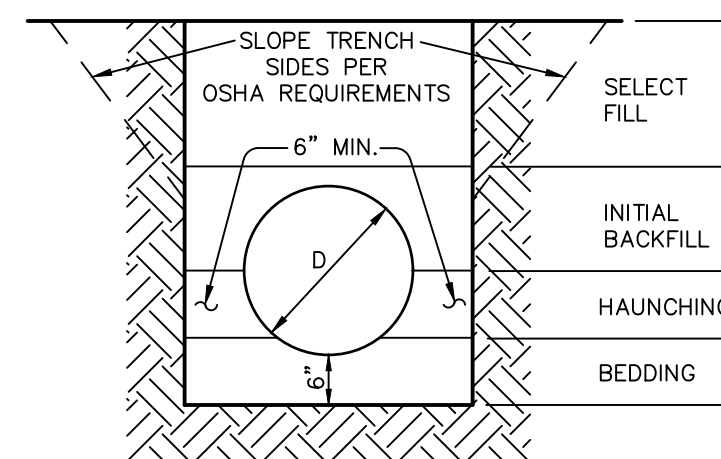
## CONSTRUCTION

16. THE BOTTOM SLAB SHALL BE AT LEAST 24 HOURS OLD BEFORE PLACING SIDEWALL CONCRETE. ALL SIDEWALL FORMS SHALL REMAIN IN PLACE A MINIMUM OF 24 HOURS AFTER SIDEWALLS ARE POURED BEFORE REMOVAL, AND AFTER REMOVAL SHALL BE IMMEDIATELY TREATED WITH MEMBRANE CURING COMPOUND.
17. PIPE CONNECTIONS TO PRE-CAST STRUCTURES SHALL HAVE A MINIMUM OF 6" OF CONCRETE AROUND THE ENTIRE PIPE WITHIN 2' OF THE STRUCTURE.
18. MATERIAL SELECTION AND COMPACTION REQUIREMENTS FOR BACKFILL AROUND STRUCTURES SHALL BE AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE APWA TECHNICAL SPECIFICATIONS.



## JUNCTION BOX

402

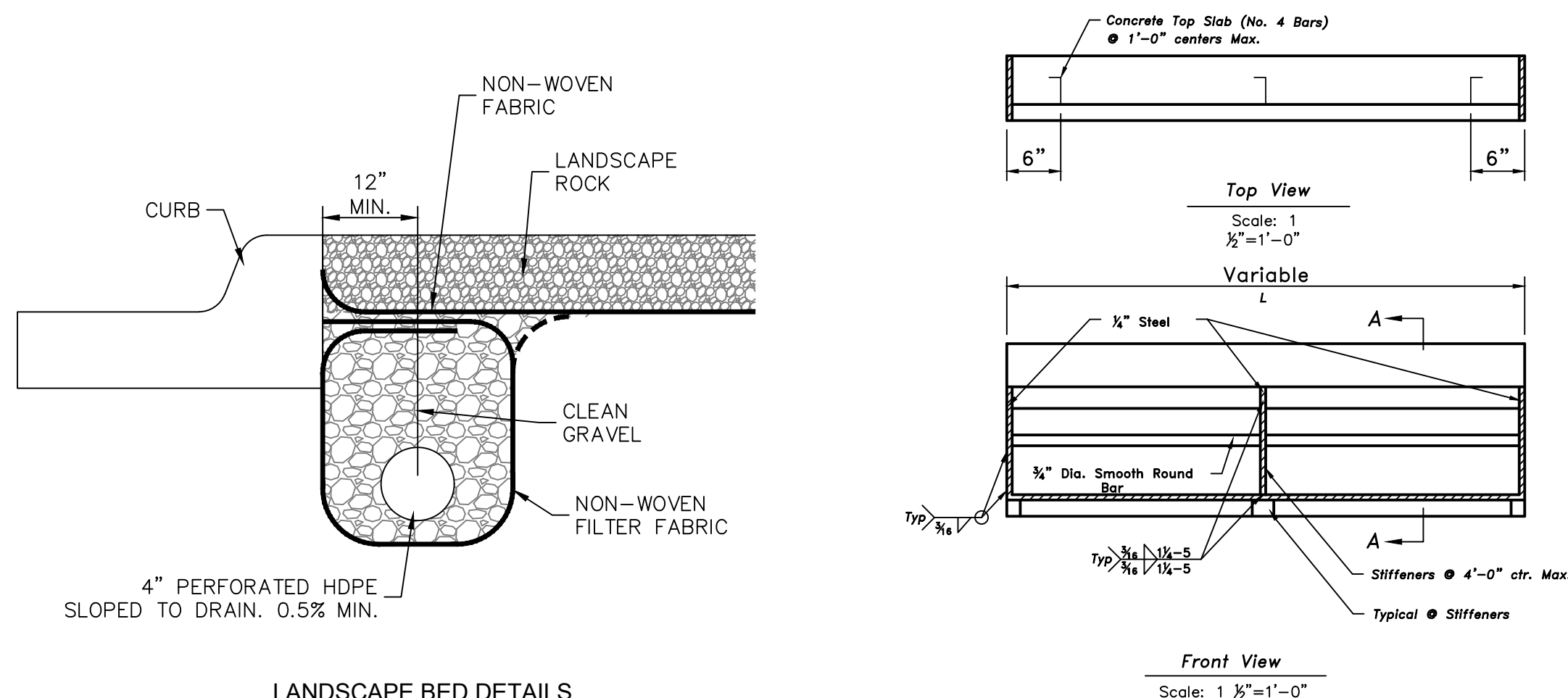


FLEXIBLE PIPE: INCLUDES CORRUGATED METAL PIPE. CORRUGATED POLYETHELENE PIPE AND/OR POLYVINYL CHLORIDE PIPE.

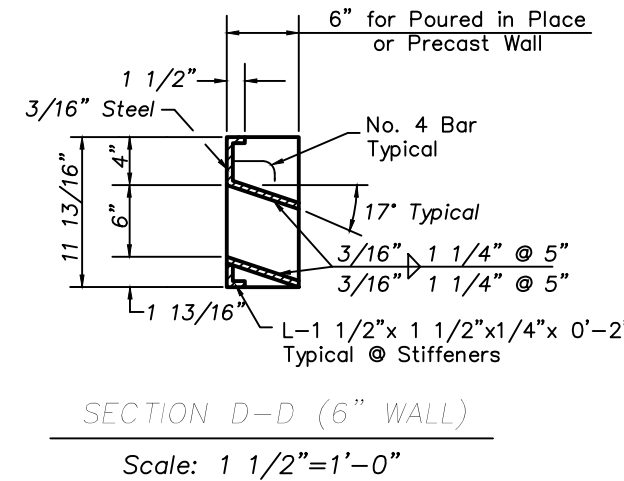
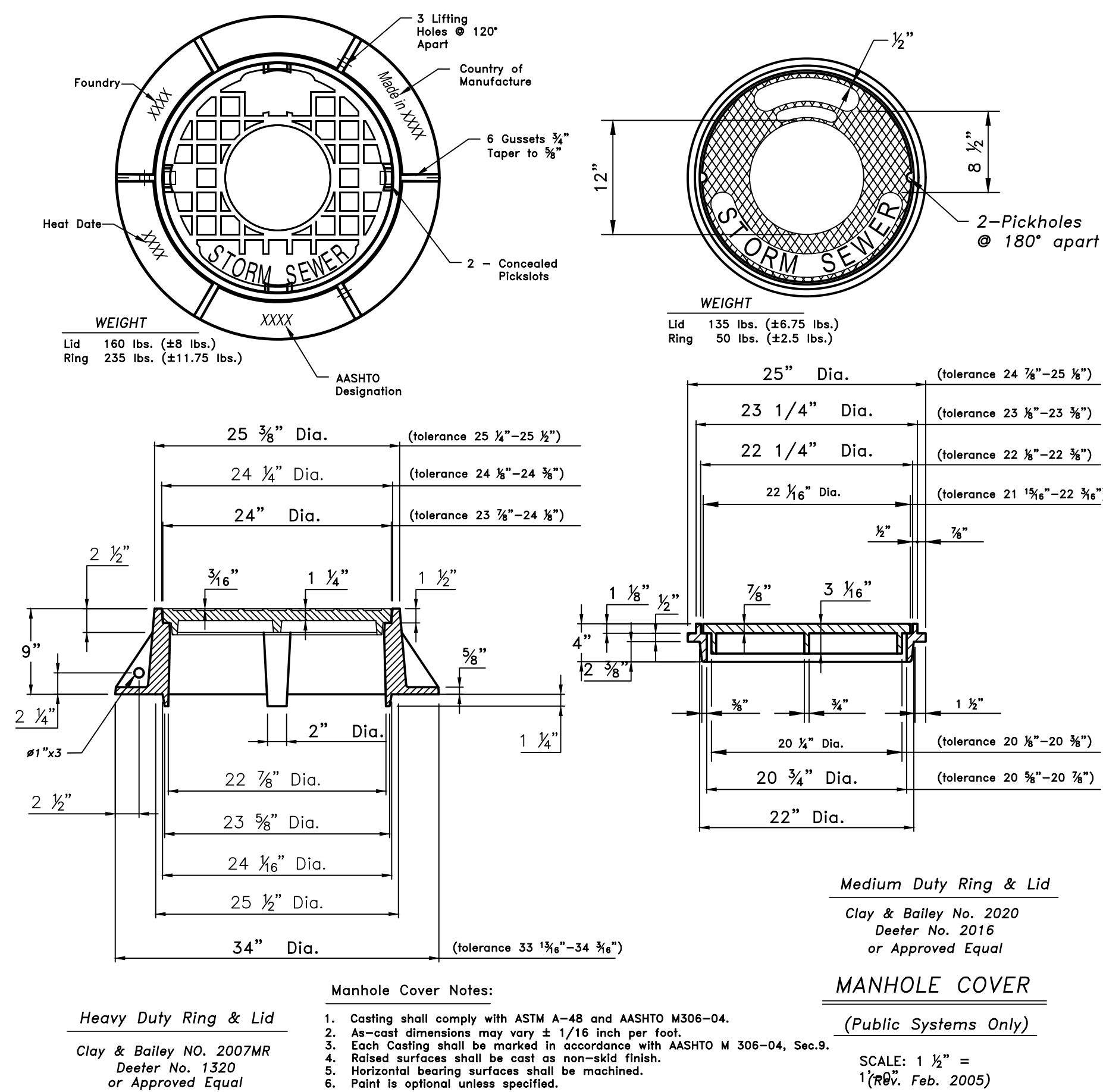
1. BEDDING SHALL BE COMPACTED CRUSHED STONE AND SHALL BE SHAPED TO THE BOTTOM OF THE PIPE.
2. HAUNCHING AND INITIAL BACKFILL MATERIAL SHALL BE CLASS I OR II (REF. ASTM D2321) GRANULAR MATERIAL AND SHALL BE COMPACTED TO 95% STANDARD PROCTOR.

## TRENCH AND BEDDING DETAILS

REFER TO KANSAS CITY METROPOLITAN  
CHAPTER OF APWA SPECIFICATIONS SECTION  
2102.4



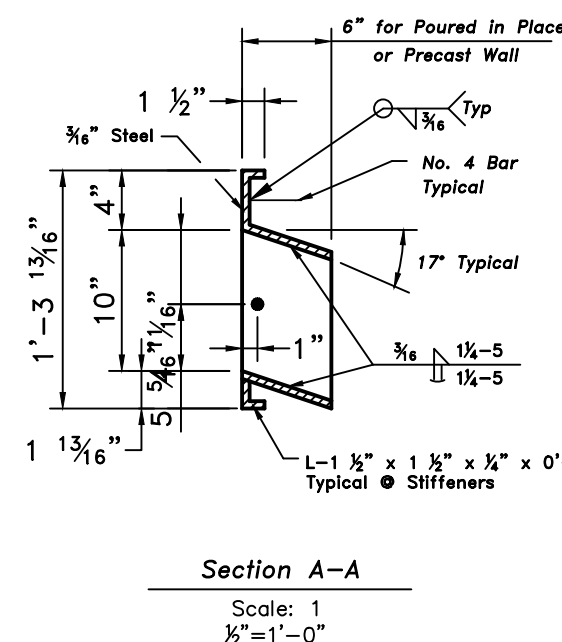
## LANDSCAPE BED DETAILS



- Notes: 1. All Welds shall be performed in accordance with appropriate AWS Specifications & Procedures.  
2. All Welds on Exposed Surfaces shall be dressed so as to provide a pleasing finished appearance.  
3. The Entire Frame shall be Hot Dip Zinc in Accordance ASTM A-123

### STEEL INLET FRAME (6" AND 10" THROAT)

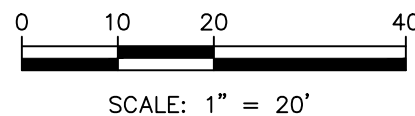
USE 6" WITH NON-SETBACK CURB INLET/AREA INLET  
USE 10" WITH SETBACK CURB INLET











- 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.





ALL DISTURBED AREAS SHALL BE PREPPED FOR SEEDING IN ACCORDANCE WITH CITY ADOPTED APWA CRITERIA. THE SITE DISTURBANCE PERMIT SHALL BE MAINTAINED IN AN OPEN STATUS UNTIL FINAL ACCEPTANCE PER CITY ADOPTED APWA SECTION 2407

THIS EROSION CONTROL PLAN HAS BEEN PLACED IN THE CITY'S FILE FOR THIS PROJECT. THE PLAN APPEARS TO FULFILL THE MISSOURI DEPARTMENT OF NATURAL RESOURCES TECHNICAL CRITERIA AND THE CRITERIA FOR EROSION CONTROL AND REQUIREMENTS OF THE CITY. I UNDERSTAND THAT ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED IF UNFORESEEN EROSION PROBLEMS ARISE OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL RUN WITH THE LAND AND BE THE OBLIGATION OF THE LAND OWNER UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED OR VOIDED.

- ROUGH GRADE SITE TO PROPOSED SUBGRADE.
- INSTALL UTILITIES: CONDUITS FOR SITE LIGHTING.
- PLACE AGGREGATE BASE FOR PARKING AREAS.
- INSTALL CURB FOR PARKING AREAS.
- INSTALL PAVING BASE COURSE.
- INSTALL ADDITIONAL EROSION CONTROL MEASURES AT TOES OF SLOPE ADJACENT TO CURB LINE AS APPROPRIATE.
- COMPLETE FINAL GRADING AND HYDROSEED AND LANDSCAPE PERIMETER AREAS (ESTABLISH VEGETATION).
- INSTALL SURFACE COURSE ON PARKING LOT.
- FINAL SITE CLEANUP.
- MAINTAIN EROSION CONTROL MEASURES UNTIL SITE IS STABILIZED.
- INSPECT AND RESEED REMAINING DISTURBED AREAS, WASHOUTS, ETC.
- REMOVE SEDIMENT BUILDUP, RESEED AND STABILIZE AS EROSION CONTROL MEASURES ARE REMOVED.

1. THE CONSTRUCTION AREA SHALL BE CLEARED, GRUBBED, AND STRIPPED OF TOPSOIL AND ORGANIC MATTER FROM ALL AREAS TO BE OCCUPIED BY BUILDING AND PAVING. TOPSOIL FOR REPLACEMENT ON SLOPES MAY BE STOCKPILED ON THE 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. CONSULT WITH SCHOOL DISTRICT FOR APPROVED LOCATIONS FOR STOCKPILE AREAS DURING CONSTRUCTION. ANY UNAUTHORIZED STOCKPILE SHALL BE REMOVE/RELOCATED AT THE CONTRACTORS' EXPENSE.

2. OFF-SITE SOIL MATERIAL FOR USE UNDER THE PAVEMENT SECTION SHALL HAVE A PLASTICITY INDEX OF 25 OR LESS, A LIQUID LIMIT OF 45 OR LESS AND CONTAIN NO ROCK LARGER THAN THREE INCHES. OFF-SITE FILL MATERIAL SHALL BE APPROVED BY THE OWNER'S TESTING AGENCY PRIOR TO BRINGING ON SITE.

3. AREAS TO RECEIVE FILL SHALL BE SCARIFIED AND THE TOP 12-INCH DEPTH COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698 WITH A MOISTURE CONTENT OF  $\pm 3\%$  OF OPTIMUM FOR SOILS WITH A LIQUID LIMIT OF LESS THAN 40 AND 0 TO  $\pm 4\%$  FOR SOILS WITH A LIQUID LIMIT GREATER THAN 40. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED. NO ROCK LARGER THAN THREE INCHES IN ANY DIMENSION NOR ANY SHALE SHALL BE PLACED IN THE TOP 24 INCHES OF EMBANKMENT.

4. THE PARKING AREAS SHALL BE EXCAVATED AS REQUIRED TO TREAT THE SOILS AND ALLOW THE PLACEMENT OF GRANULAR BASE. REFER TO THE TYPICAL PAVING SECTIONS ON SHEET C190. GRANULAR FILL MATERIAL SHALL BE MADE IN LIFTS NOT TO EXCEED EIGHT INCHES DEPTH COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 698. GRANULAR MATERIALS WITH >15% FINES SHALL BE COMPACTED AT A MOISTURE CONTENT OF -3 TO 3% OF OPTIMUM. ANY UNSUITABLE AREAS SHALL BE UNDERCUT AND REPLACED WITH SUITABLE MATERIAL BEFORE ANY FILL MATERIAL CAN BE APPLIED.

5. ON-SITE HIGH PLASTICITY CLAYS UNDER PAVED AREAS SHALL BE TREATED WITH 5% TYPE PORTLAND 1/2 CEMENT BY WEIGHT. REFER TO PROJECT GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION.

6. AREAS THAT ARE TO BE CUT TO SUBGRADE LEVELS SHALL BE PROOF ROLLED WITH A LOADED DUMP TRUCK OR SIMILAR APPROVED CONSTRUCTION EQUIPMENT TO DETECT UNSUITABLE SOIL CONDITIONS.

7. IN ALL AREAS OF EXCAVATION, IF UNSUITABLE SOIL CONDITIONS ARE ENCOUNTERED, THE OWNER'S ENGINEER SHALL RECOMMEND TO THE OWNER THE METHODS OF UNDERCUTTING AND REPLACEMENT OF PROPERLY COMPACTED, APPROVED FILL MATERIAL. ALL PROOFROLLING AND UNDERCUTTING SHOULD BE PERFORMED DURING A PERIOD OF DRY WEATHER.

8. ALL EXCAVATIONS SHALL BE CONSIDERED AS UNCLASSIFIED. REFER TO THE GEOTECHNICAL REPORT.

9. ALL DISTURBED SLOPES ARE TO BE 3:1 OR FLATTER.

10. ALL SLOPES DISTURBED SHALL BE HYDROSEEDING OR LANDSCAPED AS NOTED ON THE SITE PLAN.

11. ALL SLOPES AND AREAS DISTURBED BY CONSTRUCTION SHALL BE GRADED SMOOTH AND A MINIMUM OF FOUR INCHES OF TOPSOIL APPLIED. IF ADEQUATE TOPSOIL IS NOT AVAILABLE ON-SITE, THE CONTRACTOR SHALL PROVIDE TOPSOIL, APPROVED BY THE OWNER, AS NEEDED. THE AREA SHALL THEN HYDROSEED, FERTILIZED, MULCHED, WATERED AND MAINTAINED UNTIL HARDY GRASS GROWTH IS ESTABLISHED IN ALL AREAS. ANY AREAS DISTURBED FOR ANY REASON SHALL BE CORRECTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. SEE GENERAL NOTE 1.

12. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS.
13. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES DURING THE CONSTRUCTION PHASES OF THIS PROJECT. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES TO THE ADJACENT PROPERTIES OCCURRING DURING THE CONSTRUCTION PHASES OF THIS PROJECT.

14. IT IS NOT THE DUTY OF THE ENGINEER OR THE OWNER TO REVIEW THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE AT ANY TIME DURING CONSTRUCTION.

15. REFERENCE THE LEE'S SUMMIT HIGH SCHOOL ADDITIONS GEOTECHNICAL REPORT DATED JUNE 12, 2020 (CFS PROJECT 20-1075) PREPARED BY CFS ENGINEERS FOR ADDITIONAL INFORMATION.

|  |  |   |  |
|--|--|---|--|
| <b>LEE'S SUMMIT HS - EAST PARKING LOT</b><br>400 SE BLUE PARKWAY<br>LEE'S SUMMIT, MISSOURI 64063 |  | <b>CONSTRUCTION DOCUMENTS PHASE II</b><br><b>GRADING &amp; EROSION CONTROL PLAN PH II</b> |  |
| PROJ. NO. <b>C23-1880</b>  |  | DRAWN BY <b>NUN</b>   |  |
| DESIGNER <b>DDW</b>  |  | CHECKED <b>NUN</b>  |  |
| CFN <b>1880GP-Phil</b>   |  | REV <b>0</b>  |  |
| SHEET <b>C300</b>  |  | DATE <b>3/29/24</b>   |  |
| ISSUED FOR BID/CITY REVIEW   |  | DESCRIPTION   |  |
| DDW  |  | DSN   |  |
| DSN  |  | CHK   |  |

NOTES:

21 MATCH EXISTING CURB ELEVATION.

23 MATCH EXISTING PAVEMENT ELEVATION.

NOTE:  
1. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.

☐ FOR THE FOLLOWING DETAILS REFER TO THE KC  
METROPOLITAN CHAPTER ADOPTED DIVISION III APWA  
STANDARD DRAWINGS FOR EROSION AND SEDIMENT CONTROL  
(2017 VERSION) ON SHEETS C190.

ESC-03 SEDIMENTATION FENCE  
ESC-04 STRAW WATTLE

1. REFER TO SHEET C190 FOR PERMANENT SEEDING/STABILIZATION REQUIREMENTS.
2. REFER TO APWA STANDARD ESC DRAWINGS FOR ADDITIONAL DETAILS AND SPECIFICATIONS.
3. SILT FENCE (ESC-03) AND STRAW WATTLES (ESC-04) MAY BE REMOVED AFTER UPHILL SLOPES ARE HYDROSEEDING.

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.


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.


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 CONTRACTOR IS NOT TO BE RESPONSIBLE FOR BEING CONTACTED OR COMPLETELY LOCATED BY ANY UTILITY COMPANY. THE CONTRACTOR SHALL 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 THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICTS PRIOR TO ANY CONSTRUCTION.





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


**LEGEND (CONTINUED)**

 **22.9** SPOT ELEVATION (ADD 900),  
TOP OF PAVEMENT

 **23.6** TOP OF CURB (ADD 900)  
**23.1** FLOWLINE OF CURB (ADD 900)

 FLOW DIRECTION

 FINISHED 1' CONTOUR INTERVALS,  
TOP OF PAVEMENT

 SWALE

LP LOW POINT  
HP HIGH POINT  
LOC LIP OF CURB

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