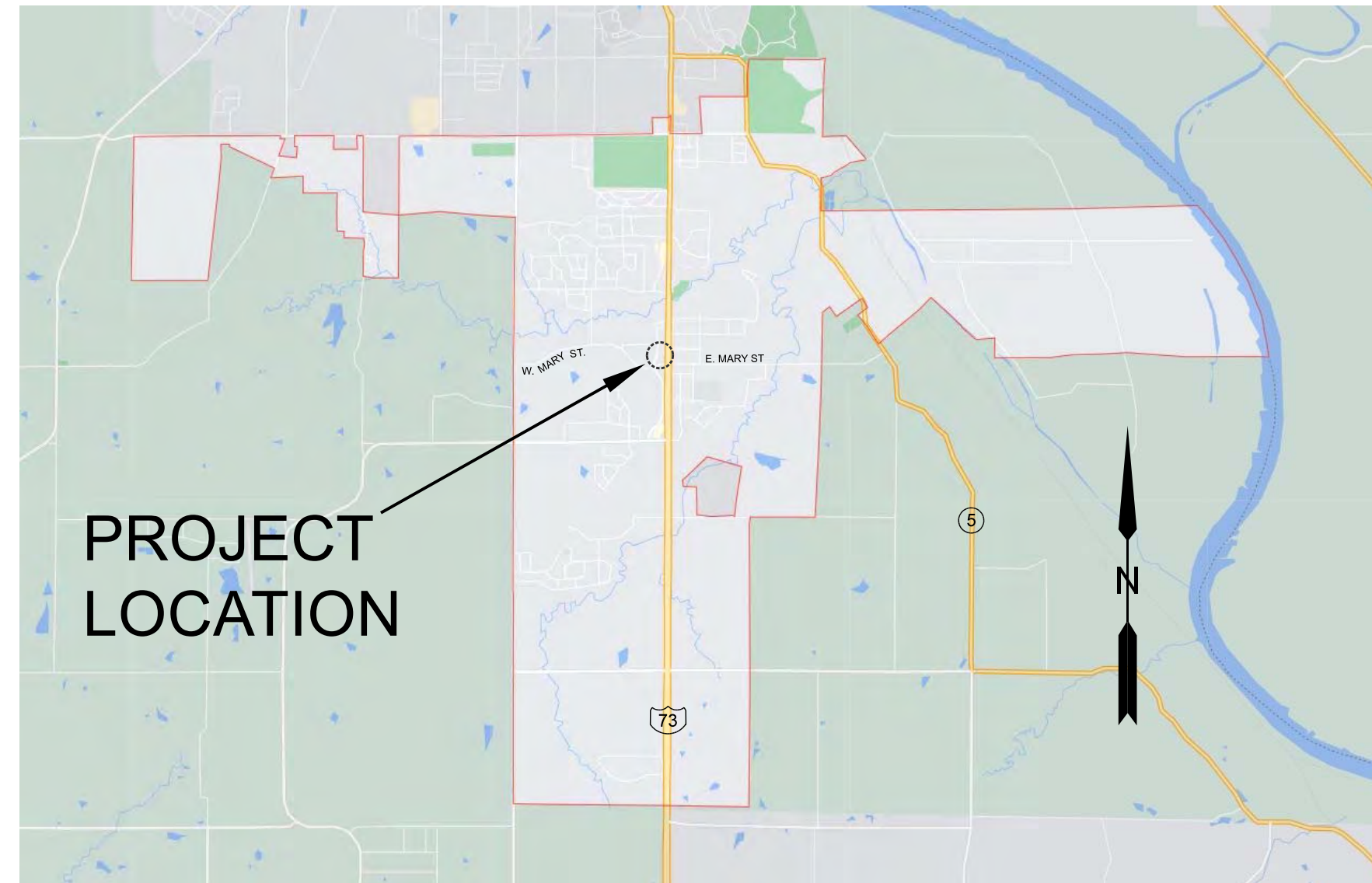


# SITE CONSTRUCTION DRAWINGS

## FOR LANSING FAMILY EYE CENTER LOT 2 LANSING TOWNE CENTER

### LEAVENWORTH COUNTY LANSING, KANSAS SW 1/4, SEC 24, T9N, R22E



**LOCATION MAP**

NOT TO SCALE

## GENERAL NOTES

1. ALL MATERIALS, QUALITY CONTROL, AND CONSTRUCTION METHODS SHALL CONFORM TO APWA STANDARD SPECIFICATIONS, EXCEPT AS NOTED.
2. CONTRACTOR TO VERIFY THE LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO EXCAVATION. THE CONTRACTOR SHALL GIVE 48 HOUR ADVANCE NOTICE TO UTILITY COMPANIES PRIOR TO EXCAVATING WITHIN ANY PUBLIC RIGHT-OF-WAY, AS REQUIRED BY STATE STATUTE.

UTILITIES INVOLVED:	TELEPHONE NUMBER:
KANSAS ONE-CALL	811 OR 800-DIG-SAFE
EVERGY	888-471-5275
LANDEL WATER DISTRICT	913-727-3350
KANSAS GAS SERVICE	888-482-4950 (REPORT EMERGENCY)
AT&T	800-288-2020 (TECH SUPPORT)
SPECTRUM	800-676-4917
CITY OF LANSING	913-727-2400 (PUBLIC WORKS)

THE UTILITY LOCATIONS SHOWN ON THESE PLANS ARE BASED ON FIELD MARKINGS COORDINATED THROUGH THE KANSAS 811 CALL SYSTEM AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE LOCATIONS SHOWN DO NOT CONSTITUTE ACTUAL FIELD LOCATIONS UNLESS SPECIFICALLY NOTED ON THE PLANS. THE ENGINEER DOES NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THESE LOCATIONS NOR FOR ANY ADDITIONAL UTILITIES NOT INDICATED ON THE PLANS. THE CONTRACTOR SHALL CALL THE VARIOUS UTILITY COMPANIES TO VERIFY DEPTH AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

3. LINEAL FOOT MEASUREMENTS SHOWN ON THE PLANS ARE HORIZONTAL MEASUREMENTS NOT SLOPE MEASUREMENTS.
4. NO GEOLOGICAL INFORMATION IS SHOWN ON THESE PLANS.
5. ALL WASTE MATERIALS FROM THIS PROJECT SHALL BE REMOVED FROM THE SITE AND DISPOSED IN PER STATE AND LOCAL REGULATIONS.
6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ADJUST TO GRADE ANY EXISTING OR PROPOSED MANHOLE, JUNCTION BOX OR SPECIAL STRUCTURE, AS REQUIRED.
7. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT THE ADJACENT AND DOWNSTREAM PROPERTY OWNERS FROM STORM WATER, SILT AND EROSION DURING ALL PHASES OF CONSTRUCTION.
8. EROSION CONTROL PLANS AND PROCEDURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION OR GROUND SURFACE DISTURBANCE.
9. DRAINAGE FROM THE PROJECT SITE FLOWS TO SEVENMILE CREEK, A TRIBUTARY OF THE MISSOURI RIVER.
10. PRIOR TO ORDERING PRECAST STRUCTURES, SHOP DRAWINGS SHALL BE SUBMITTED TO THE DESIGN ENGINEER FOR APPROVAL.
11. SUBGRADE SOIL FOR ALL CONCRETE STRUCTURES, REGARDLESS OF THE TYPE OR LOCATION, SHALL BE FIRM, DENSE AND THOROUGHLY COMPACTED AND CONSOLIDATED; SHALL BE FREE FROM MUD AND MUCK; AND SHALL BE SUFFICIENTLY STABLE TO REMAIN FIRM AND INTACT UNDER THE FEET OF THE WORKMEN OR MACHINERY ENGAGED IN SUBGRADE SURFACING, LAYING REINFORCING STEEL, AND DEPOSITING CONCRETE THEREON.
12. COMPACTION WITHIN RIGHT-OF-WAY AREAS SHALL BE AT 95% OF OPTIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST.
13. THE CONTRACTOR SHALL BE REQUIRED TO KEEP ALL UTILITIES WITHIN RIGHT-OF-WAY OPERATIONAL DURING CONSTRUCTION.
14. CONTRACTOR SHALL PROVIDE EARTHWORK AND MATERIAL TESTING TO COMPLY WITH THE REQUIREMENTS OF THE PROJECT.

### ELECTRONIC TRANSMITTAL STATEMENT

THIS DOCUMENT MUST BE COMPARED TO THE ORIGINAL HARD COPY ISSUED AT THE DATE OF THE ORIGINAL SIGNATURE AND SEAL TO ENSURE THE ACCURACY OF THE INFORMATION AND TO FURTHER ENSURE THAT NO CHANGES, ALTERATIONS OR MODIFICATIONS HAVE BEEN MADE. NO RELIANCE SHALL BE MADE ON A DOCUMENT TRANSMITTED BY COMPUTER OR OTHER ELECTRONIC MEANS UNLESS FIRST COMPARED TO THE ORIGINAL SEALED DOCUMENT.



KANSAS 811  
8100 E 22ND ST. N, BLDG 2300  
WICHITA, KS 67226  
CALL 811 OR 1-800-DIG-SAFE

### UTILITY WARNING

THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON THE ABOVE GROUND STRUCTURES AND RECORD DRAWINGS PROVIDED TO THE ENGINEER/SURVEYOR. LOCATIONS OF UNDERGROUND UTILITIES/STRUCTURES MAY VARY FROM LOCATIONS SHOWN HEREON. ADDITIONAL BURIED UTILITIES/STRUCTURES MAY BE ENCOUNTERED. BEFORE EXCAVATIONS ARE BEGUN, CONTACT UTILITY COMPANIES FOR VERIFICATION OF UTILITY TYPE AND FIELD LOCATIONS.

ENGINEER:  
SCHULTE ENGINEERING & CONSULTING, LLC  
DOUG SCHULTE, PE  
21 GATES DR  
PLATTE CITY, MO 64079  
(816) 260-3328

OWNER:  
REDELLE HOLDINGS, LLC  
JONATHAN REDELLE  
2301 10TH AVE  
LEAVENWORTH, KS 66048

SURVEYOR:  
HERRING SURVEY  
JOE HERRING, PLS  
LEAVENWORTH, KS 66048  
(913) 651-3858

### SHEET INDEX

1. TITLE SHEET
2. EXISTING SITE & DEMO
3. SITE LAYOUT
- 4-8. GRADING & DIMENSIONS
9. ROAD LAYOUT & PROFILE
10. STORM LAYOUT & PROFILE
11. SITE UTILITIES
- 12-14. TYPICAL DETAILS
15. EROSION CONTROL PLAN
16. LANDSCAPE PLAN

### PROJECT QUANTITIES:

ITEM	UNIT	QUANTITY	AS-BUILT
CURB & GUTTER	LF	625	
COMMERCIAL ENTRANCE APRON	SF	770	
ENTRANCE ROAD & PARKING LOT PAVEMENT	SF	11,465	
SIDEWALK	SF	2,520	
DUMPSTER ENCLOSURE CONCRETE APRON	SF	300	
* PAVEMENT STRIPING (4" WIDTH) & ADA SYMBOL	LF	530	
6" SANITARY SERVICE W/CLEANOUTS	LF	220	
WATER SERVICE LINE W/METER SET	LF	80	
GAS SERVICE LINE	LF	100	
POWER SERVICE CONNECTION TO TRANSFORMER	LF	250	
18" RCP STORM PIPE	LF	56	
12" HDPE STORM PIPE	LF	268	
12" DROP-IN AREA INLETS	EA	2	
PARKING LOT GRATED AREA INLET	EA	1	
5'X3' CURB INLETS	EA	1	
EROSION CONTROL & SURFACE RESTORATION	LS	----	
** LANDSCAPING	LS	----	

\* - ADA SYMBOL NOT INCLUDED IN LF QUANTITY.

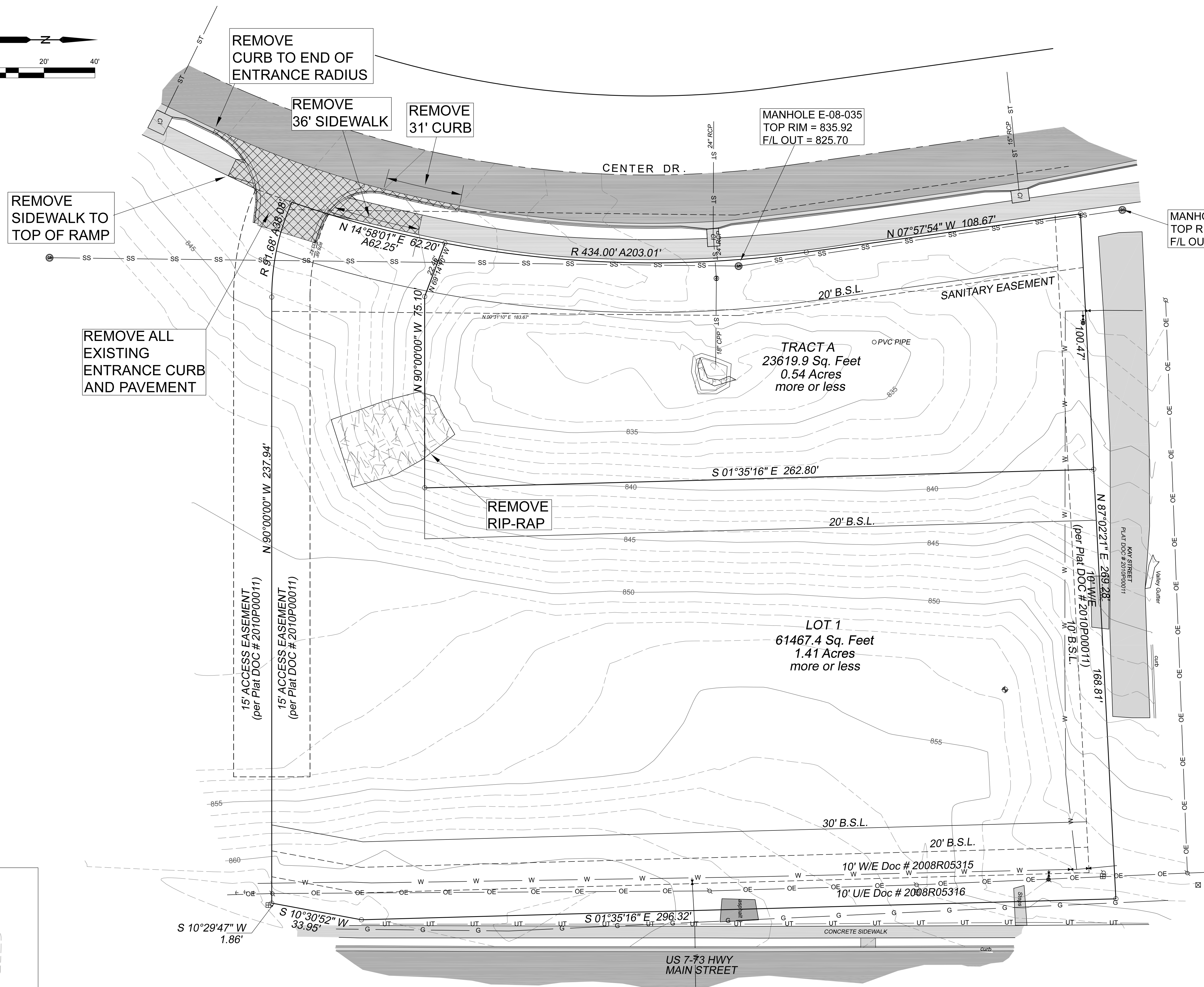
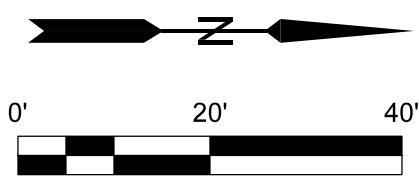


11X17 PRINTS ARE 1/2 SCALE

CLIENT: REDELLE HOLDINGS, LLC LEAVENWORTH, KS	DATE: 11-16-2021	SCALE: AS NOTED
	DRAWN BY: DJS	ELECTRONIC FILE NAME:
	SHT. 1 OF 16	
DRAWING NUMBER: 0		TITLE SHEET

Schulte Engineering & Consulting, LLC  
21 Gates Dr.  
Platte City, MO 64079  
www.schulteengineering.com  
admin@schulteengineering.com  
PHONE: (816) 260-3328

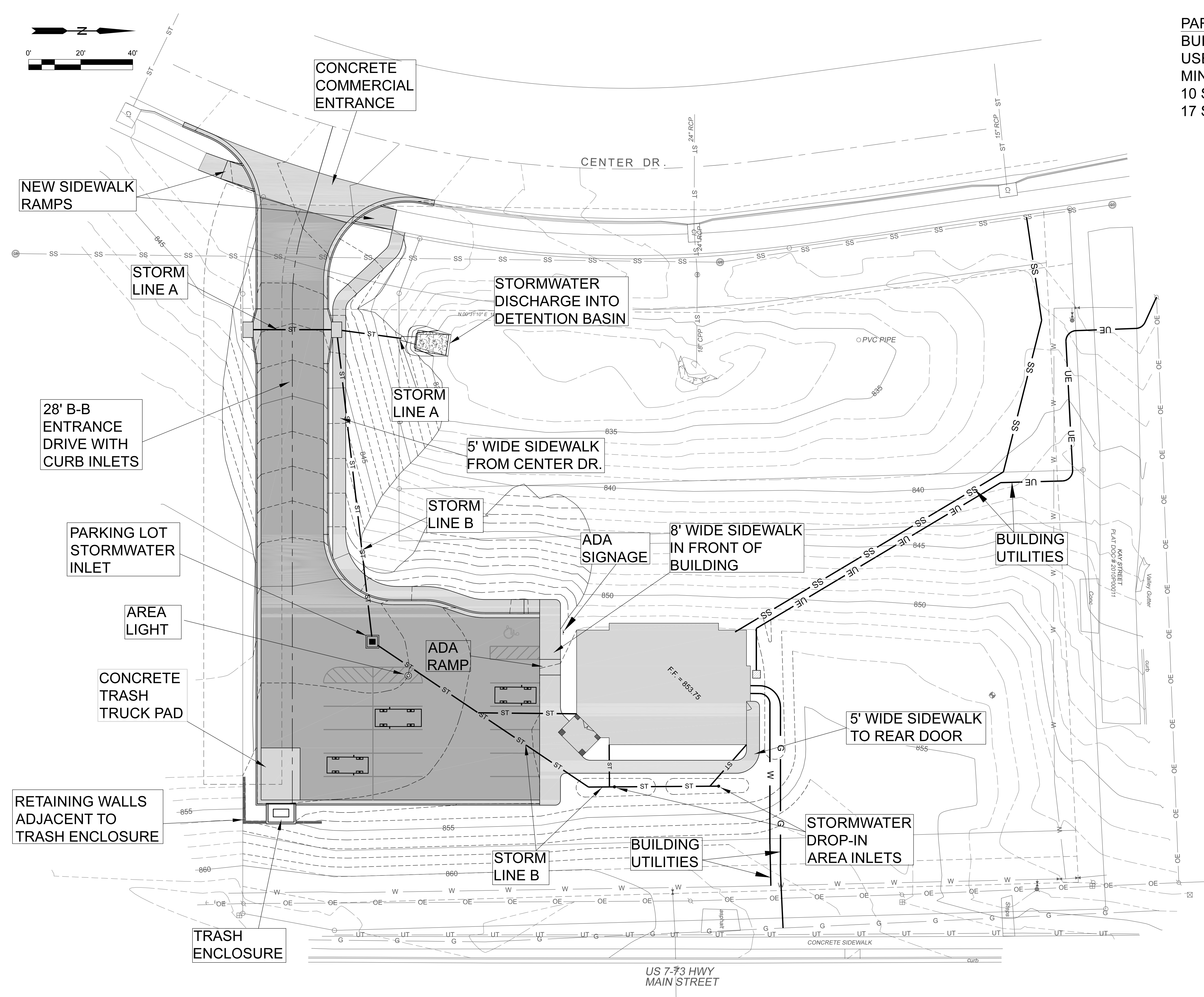
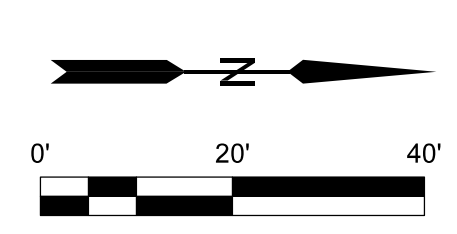
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3	08-08-2022	DJS	WEST RETAINING WALL REMOVED
2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION
1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW



- = DENOTES 1/2" BAR & LC 000120 CAP SET
- = DENOTES CALCULATED CORNER
- = DENOTES FOUND MONUMENT
- M = MEASURED DISTANCE
- R = RECORDED DISTANCE
- ▲ = CONTROL POINT
- ⊕ = ELECTRIC BOX
- ⊕ = TELEPHONE PEDESTAL
- ⊕ = BENCHMARK
- ⊕ = FIRE HYDRANT
- ⊕ = SIGN
- ⊕ = POWER POLE
- ⊕ = BOLLARD
- ⊕ = LIGHT POLE
- ⊕ = TREE
- = MANHOLE
- ▲ = WATER VALVE
- PVC = POLYVINYL CHLORIDE FLEX
- HDPE = CORRUGATED PLASTIC PIPE
- F/L = FLOW LINE
- W — = WATERLINE
- SS — = SANITARY SEWER
- ST — = STORM SEWER
- OE — = OVERHEAD ELECTRIC
- UE — = UNDERGROUND ELECTRIC
- FO — = FIBER OPTIC LINE
- G — = GAS LINE
- UT — = UNDERGROUND TELEPHONE
- = FENCE
- = FENCE (VINYL)
- = TREE LINE
- = CONCRETE
- = ASPHALT
- = RIP-RAP

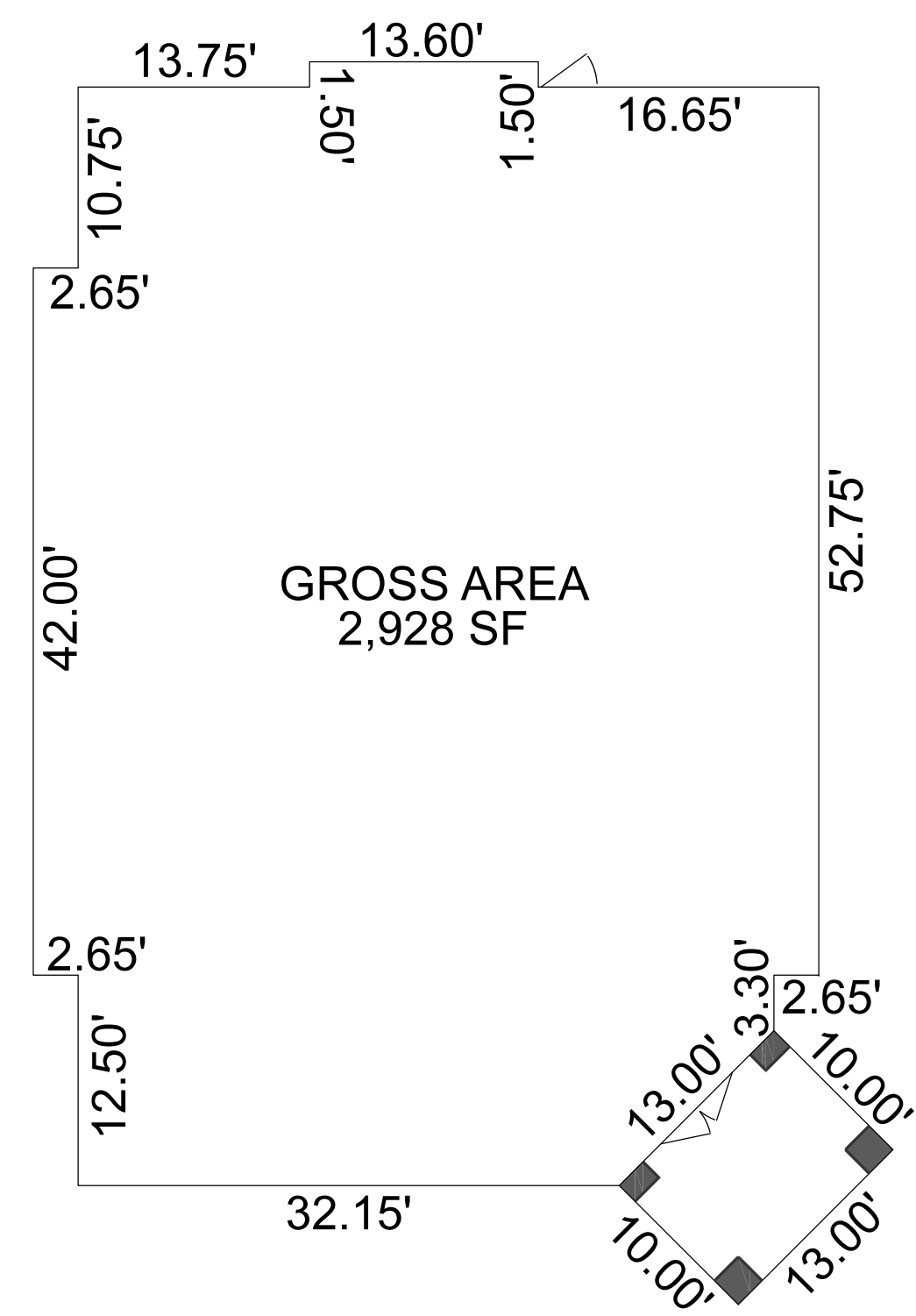
CLIENT: REDDELL HOLDINGS, LLC LEAVENWORTH, KS		DRAWING NUMBER: EXISTING SITE & DEMO	
DRAWN BY: DJIS		DATE: 11-16-2021	SCALE: AS NOTED
PROJECT: LANSING FAMILY EYE CENTER LANSING, KS		SHEET: 2 OF 16	
REV.	DATE	BY	DESCRIPTION
3	08-08-2022	DJIS	WEST RETAINING WALL REMOVED
2	12-21-2021	DJIS	APPROVED FOR CONSTRUCTION
1	11-16-2021	DJIS	SUBMIT FOR CITY REVIEW





**SITE LAYOUT**

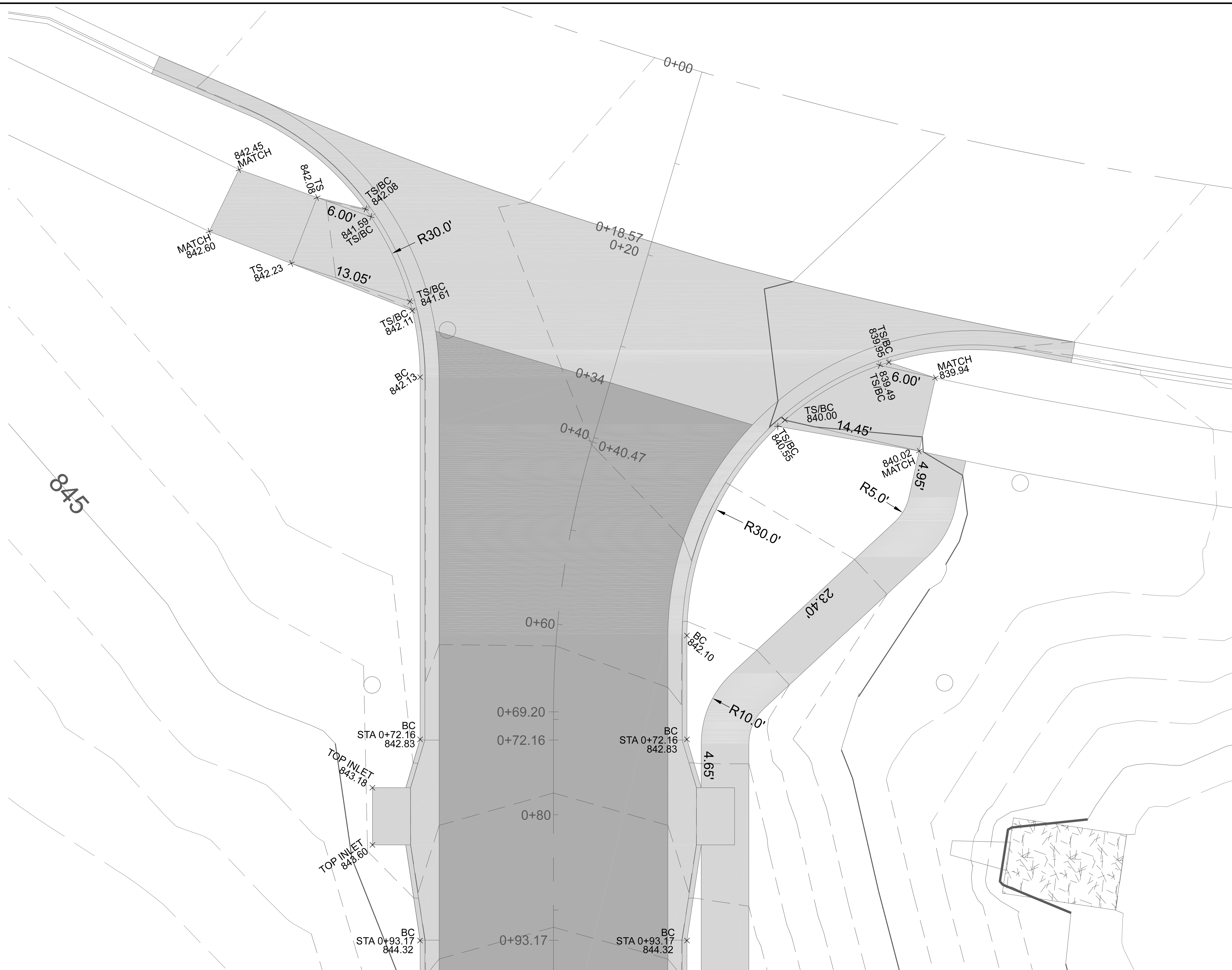
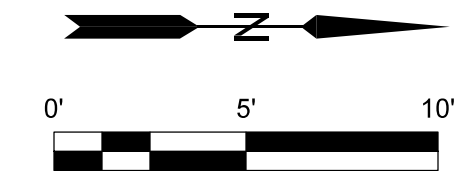
**PARKING CALCULATION**  
 BUILDING GROSS FLOOR AREA: 2,928 S.F.  
 USE: PROFESSIONAL COMMERCIAL/INDUSTRIAL  
 MINIMUM SPACE REQUIREMENT: 1 SPACE PER 300 SF  
 10 SPACES REQ, 1 ADA, 9 REGULAR  
 17 SPACES PROVIDED



**BUILDING DIMENSIONS**

CLIENT: REDDELL HOLDINGS, LLC LEAVENWORTH, KS		DRAWN BY: DJS		DATE: 11-16-2021		SCALE: AS NOTED	
DRAWING NUMBER: 8-8-22		ELECTRONIC FILE NAME:		SHEET: 3 OF 16		SITE LAYOUT	
REV.	0	DATE	11-16-2021	BY	DJS	DESCRIPTION	WEST RETAINING WALL REMOVED APPROVED FOR CONSTRUCTION SUBMIT FOR CITY REVIEW
1		11-16-2021					
2		12-21-2021					
3		08-08-2022					





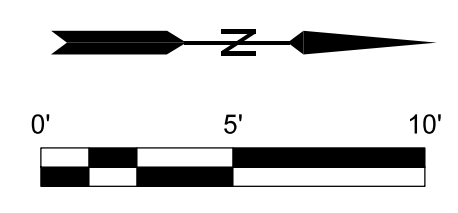
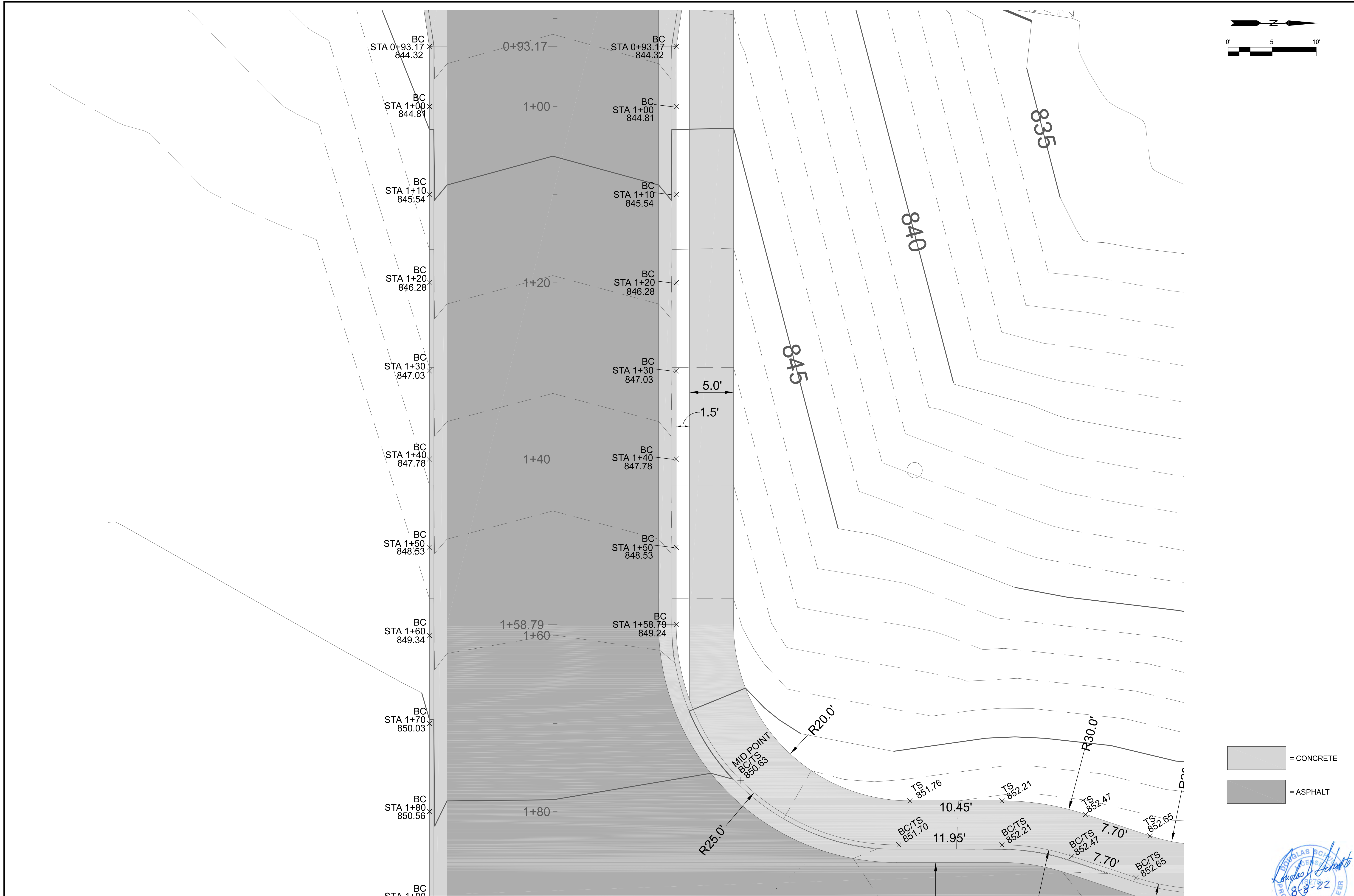
= CONCRETE  
 = ASPHALT



**GRADING & DIMENSIONS**

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DRAWN BY:	DJS	DATE:	11-16-2021	SCALE:	AS NOTED
ELECTRONIC FILE NAME:					
REV.	0	DATE			
1	DJS	11-16-2021	BY:		
2	DJS	12-21-2021	DESCRIPTION	WEST RETAINING WALL REMOVED	
3	DJS	08-08-2022	DESCRIPTION	APPROVED FOR CONSTRUCTION	

Schulte Engineering & Consulting, LLC  
 21 Gates Dr.  
 Leavenworth, KS 66048  
 www.schulteengineering.com  
 admin@schulteengineering.com  
 PHONE: (816) 260-3328

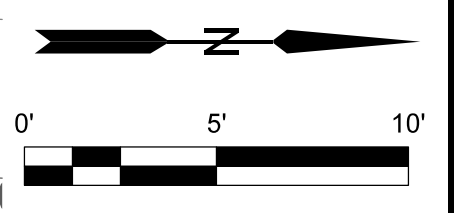
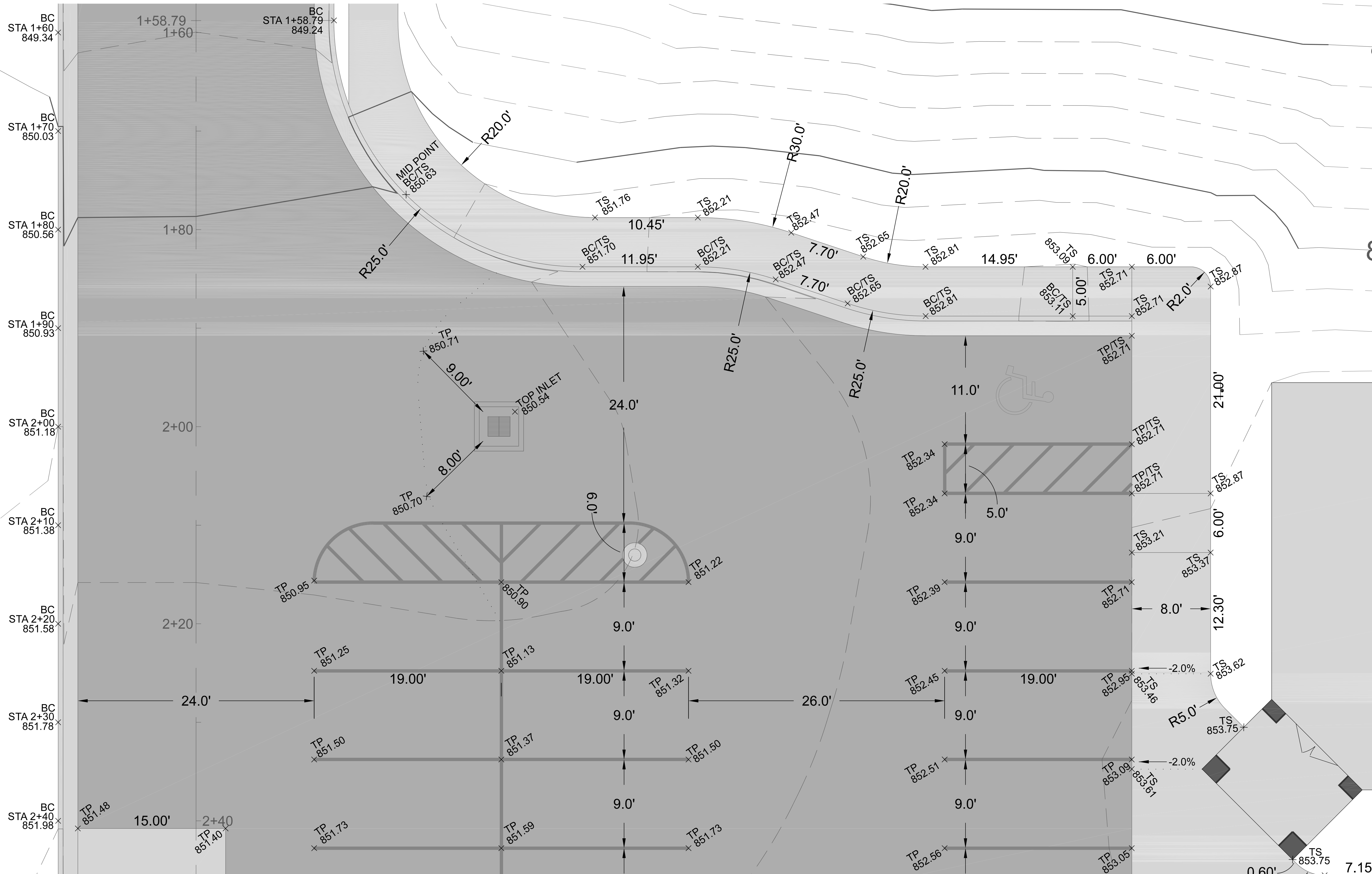


- = CONCRETE
- = ASPHALT



**GRADING & DIMENSIONS**

<b>REDELL HOLDINGS, LLC</b> LEAVENWORTH, KS	CLIENT:	<b>LANSING FAMILY EYE CENTER</b> LANSING, KS	DRAWING NUMBER:	GRADING & DIMENSIONS
DRAWN BY: DJS ELECTRONIC FILE NAME:	DATE: 11-16-2021 SCALE: AS NOTED	DRAWING NUMBER:	sht. 5 of 16	
Schulte Engineering & Consulting, LLC 21 Gates Dr. Peets, Ct www.schulteengineering.com admin@schulteengineering.com PHONE: (816) 260-3328				
WEST RETAINING WALL REMOVED APPROVED FOR CONSTRUCTION	DJS 08-08-2022	SUBMIT FOR CITY REVIEW	DJS 12-21-2021	DJS 11-16-2021
REV.	DATE	BY		



**GRADING & DIMENSIONS**

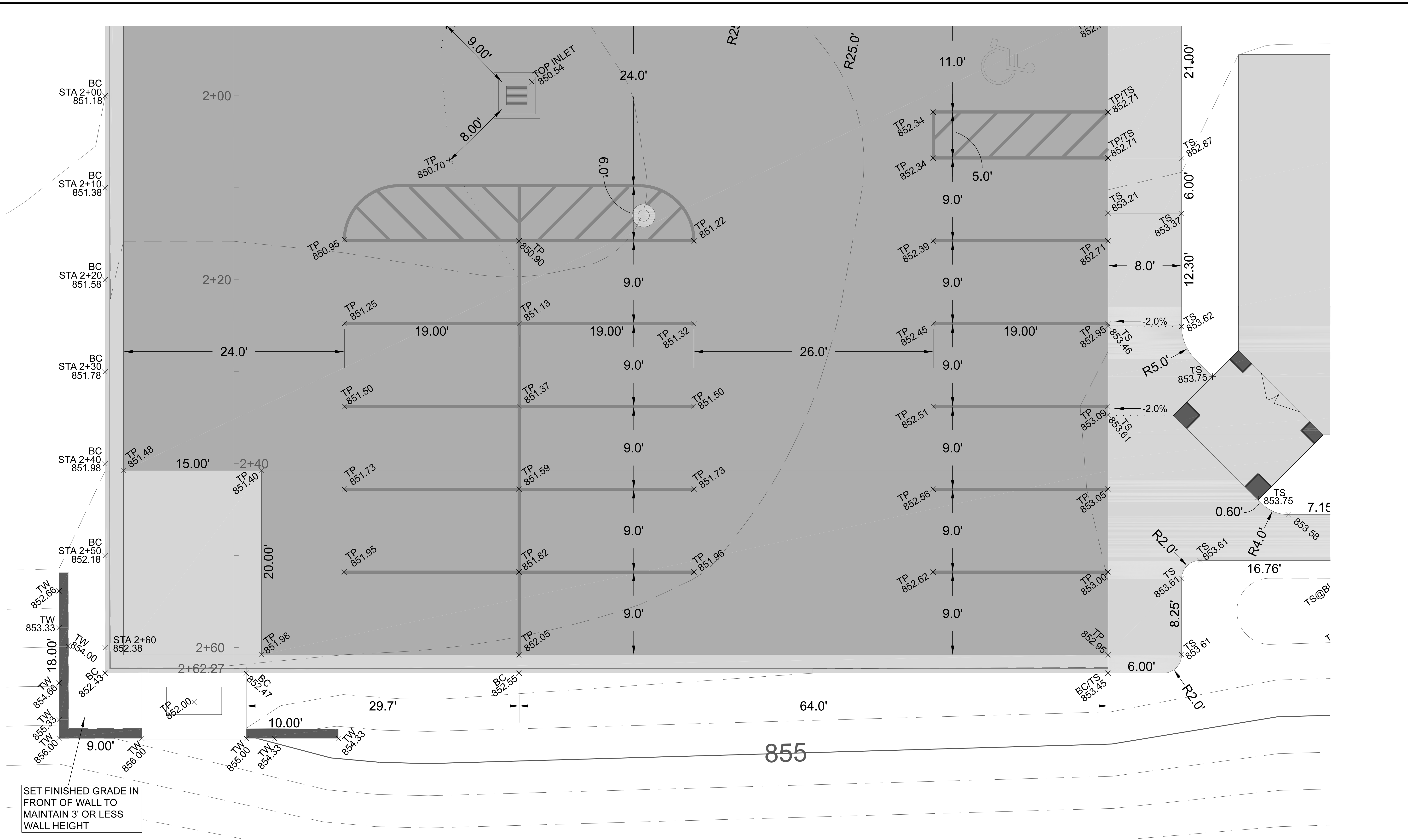
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 = ASPHALT



REV.	3	08-08-2022	DJS	WEST RETAINING WALL REMOVED
	2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION
	1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW
		DATE	BY	DESCRIPTION

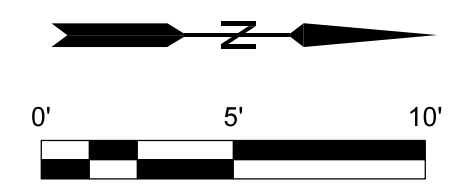
  

CLIENT: REDDELL HOLDINGS, LLC LEAVENWORTH, KS		DRAWN BY: DJS	DATE: 11-16-2021	SCALE: AS NOTED
PROJECT: LANSING FAMILY EYE CENTER LANSING, KS		ELECTRONIC FILE NAME:		
DRAWING NUMBER: 0	GRADING & DIMENSIONS	SHEET: 6	OF: 16	



SET FINISHED GRADE IN FRONT OF WALL TO MAINTAIN 3' OR LESS WALL HEIGHT

### GRADING & DIMENSIONS

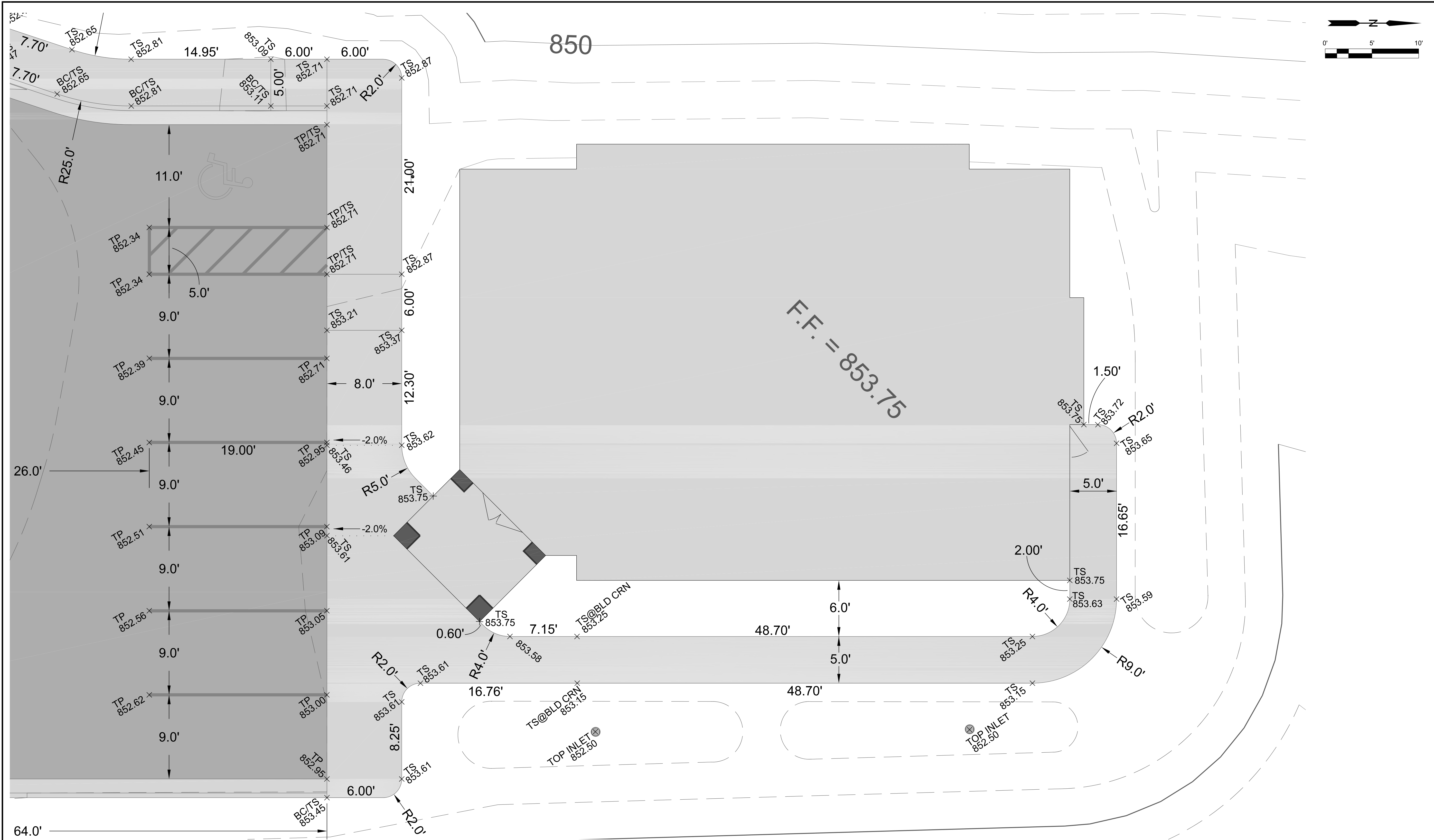


- = CONCRETE
- = ASPHALT



CLIENT:	REDELL HOLDINGS, LLC LEAVENWORTH, KS		
DRAWN BY:	DJS	DATE:	11-16-2021
ELECTRONIC FILE NAME:	SCALE AS NOTED		
DRAWING NUMBER:	GRADING & DIMENSIONS SHT. 7 OF 16		
REV.	0	BY:	DJS
REV.	1	DATE:	11-16-2021
REV.	2	DATE:	12-21-2021
REV.	3	DATE:	08-08-2022
DESCRIPTION	WEST RETAINING WALL REMOVED APPROVED FOR CONSTRUCTION SUBMIT FOR CITY REVIEW		

Schulte Engineering & Consulting, LLC  
 21 Gates Dr.  
 Pitts, Ct  
 www.schulteengineering.com  
 admin@schulteengineering.com  
 PHONE: (816) 260-3328



**GRADING & DIMENSIONS**

- = CONCRETE
- = ASPHALT

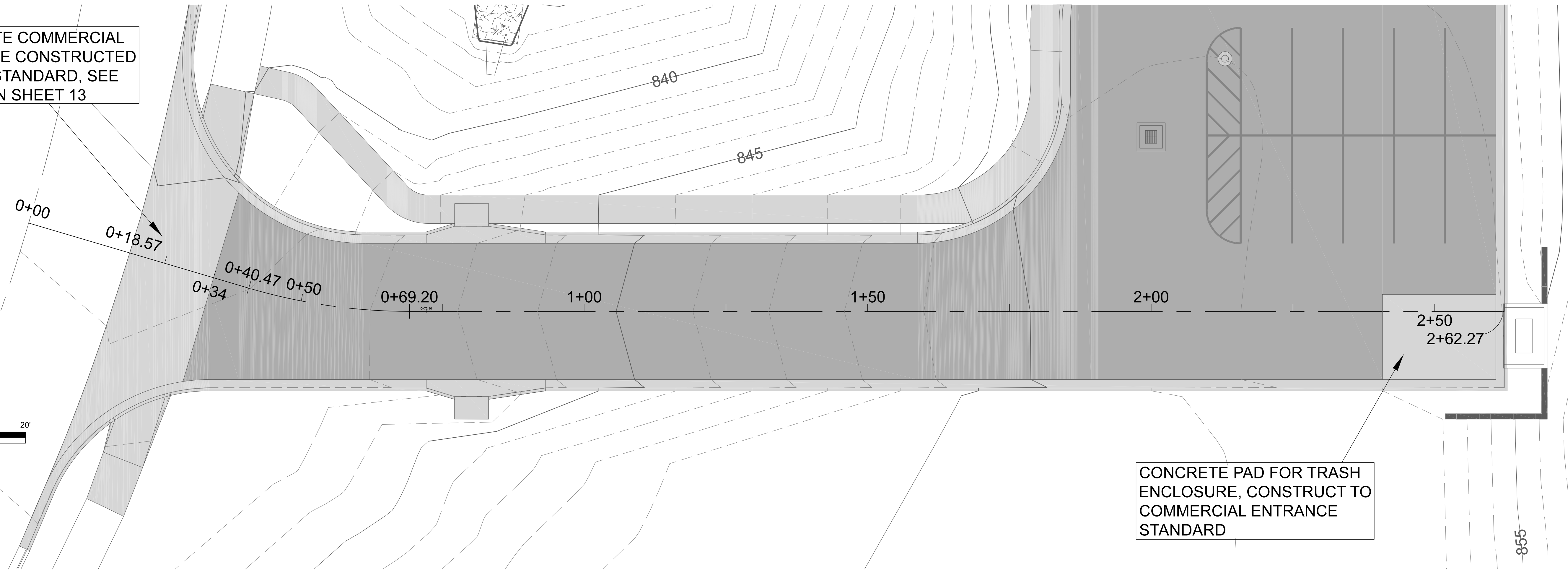
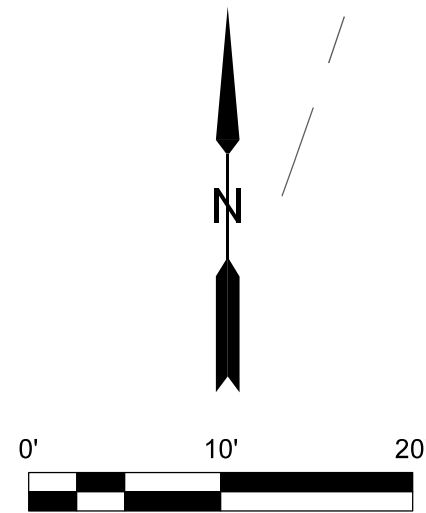


CLIENT:	REDELL HOLDINGS, LLC LEAVENWORTH, KS		
DRAWN BY:	DJS	DATE:	11-16-2021
ELECTRONIC FILE NAME:	SCALE AS NOTED		
DRAWING NUMBER:	GRADING & DIMENSIONS SH. 8 OF 16		
REV.	0	DATE	BY
3	08-08-2022	DJS	WEST RETAINING WALL REMOVED
2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION
1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW
REV.	DATE	BY	DESCRIPTION

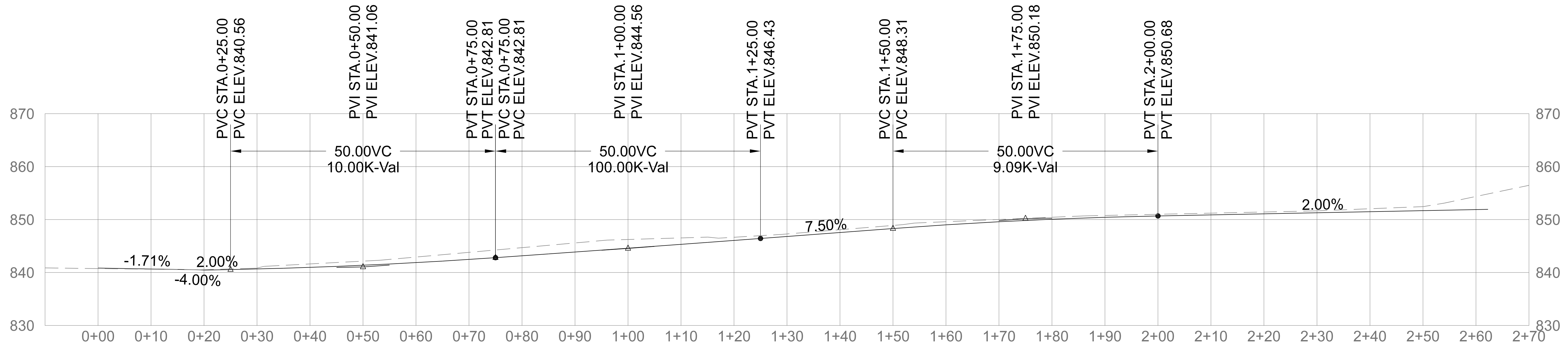
Schulte Engineering & Consulting, LLC  
 21 Galois Dr.  
 P.O. Box 101  
 Leavenworth, KS 66048  
 www.schulteengineering.com  
 admin@schulteengineering.com  
 PHONE: (816) 260-3328



CONCRETE COMMERCIAL ENTRANCE CONSTRUCTED TO CITY STANDARD, SEE DETAIL ON SHEET 13



ENTRANCE ROAD LAYOUT

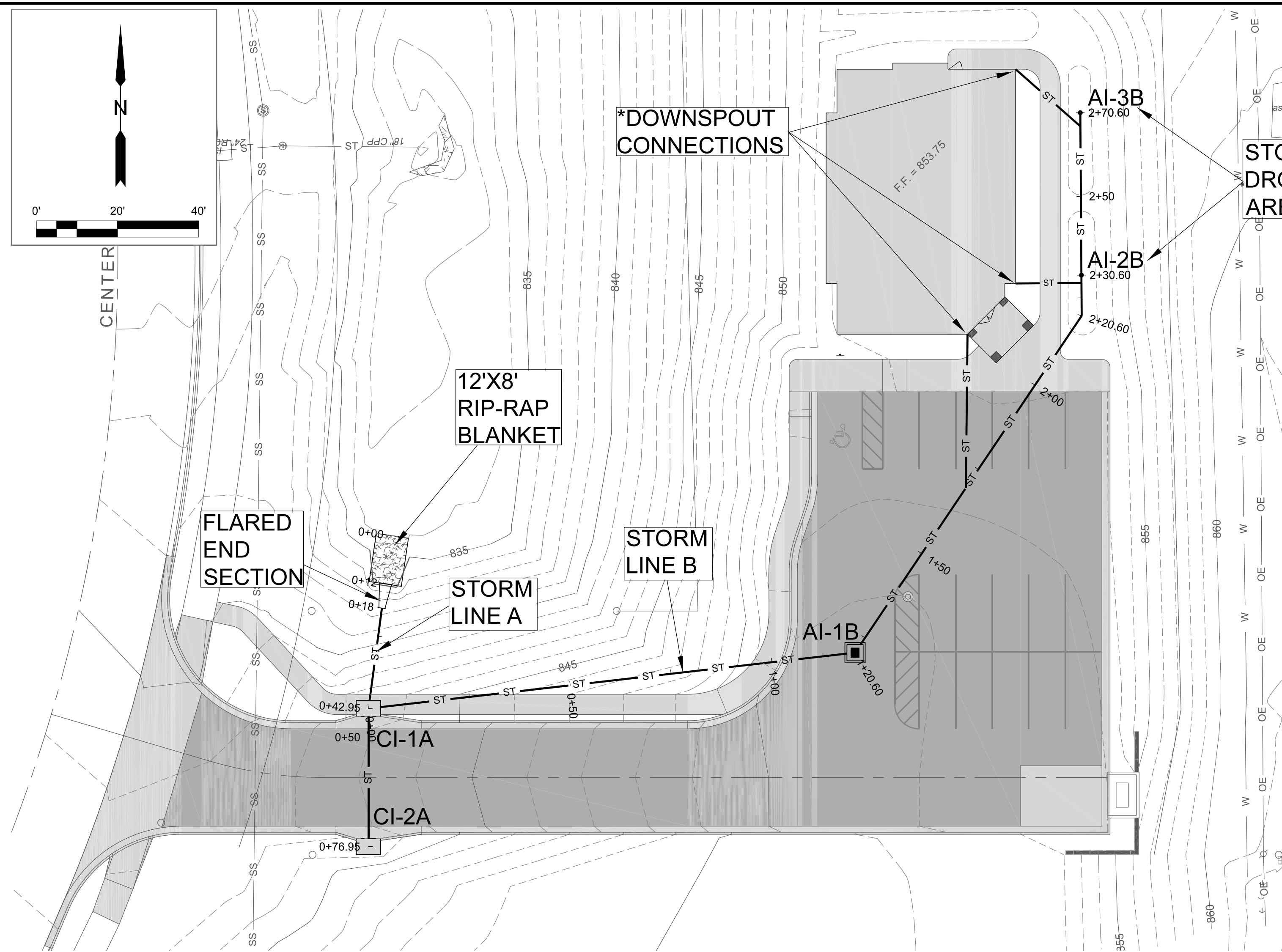


ENTRANCE ROAD PROFILE

VERTICAL: 1"=10'  
HORIZONTAL: 1"=10'

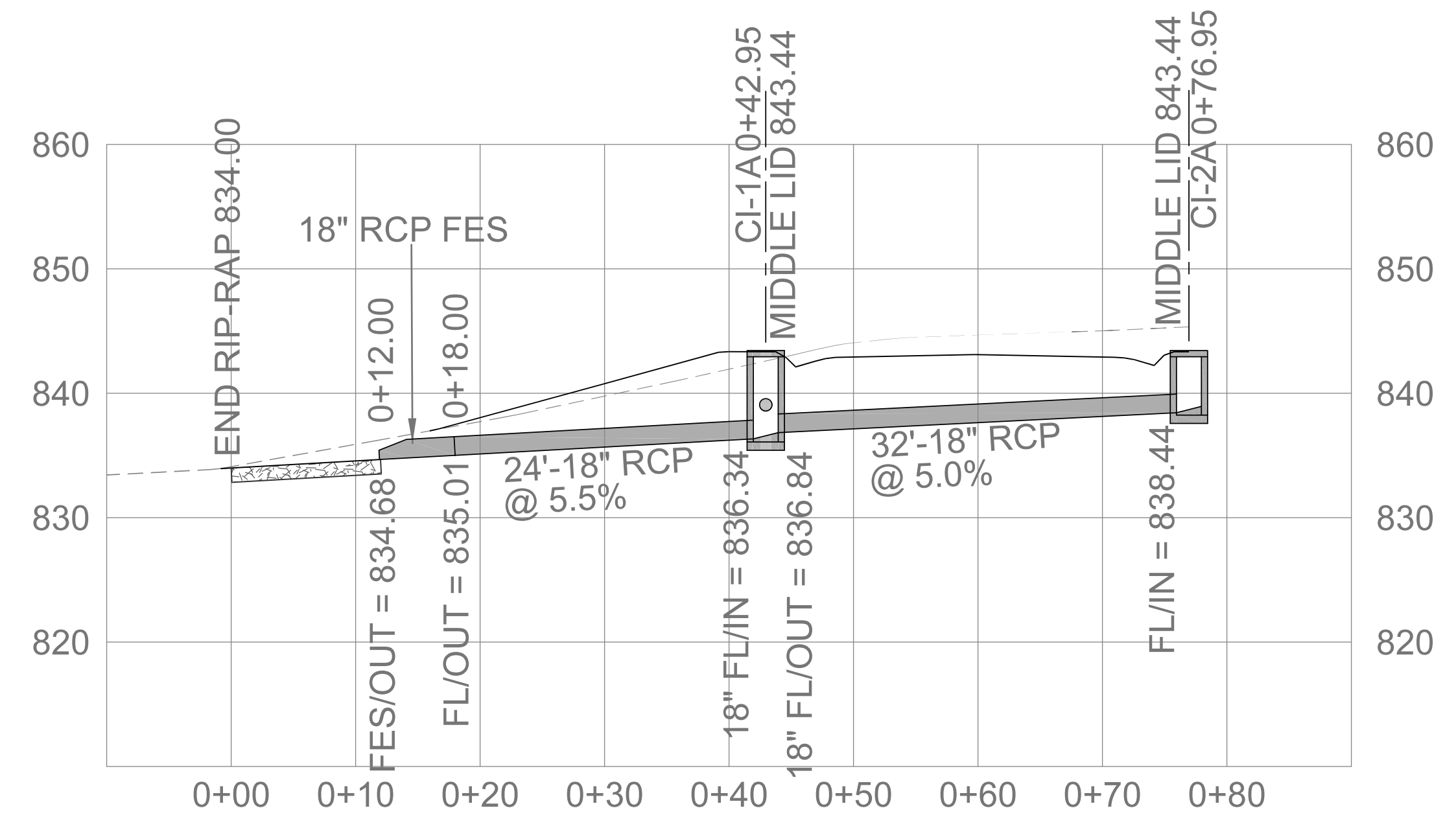


CLIENT: REDDELL HOLDINGS, LLC LEAVENWORTH, KS		DRAWN BY: DJS DATE: 11-16-2021																	
LANSING FAMILY EYE CENTER LANSING, KS		SCALE: AS NOTED																	
ROAD LAYOUT & PROFILE		SHEET 9 OF 16																	
DRAWING NUMBER: 0		ELECTRONIC FILE NAME:																	
Schulte Engineering & Consulting, LLC 21 Gates Dr. Pitts, Ct www.schulteengineering.com admin@schulteengineering.com PHONE: (816) 260-3328		<table border="1"> <thead> <tr> <th>REV.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>08-05-2022</td> <td>DJS</td> <td>WEST RETAINING WALL REMOVED</td> </tr> <tr> <td>2</td> <td>12-21-2021</td> <td>DJS</td> <td>APPROVED FOR CONSTRUCTION</td> </tr> <tr> <td>1</td> <td>11-16-2021</td> <td>DJS</td> <td>SUBMIT FOR CITY REVIEW</td> </tr> </tbody> </table>		REV.	DATE	BY	DESCRIPTION	3	08-05-2022	DJS	WEST RETAINING WALL REMOVED	2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION	1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW
REV.	DATE	BY	DESCRIPTION																
3	08-05-2022	DJS	WEST RETAINING WALL REMOVED																
2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION																
1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW																

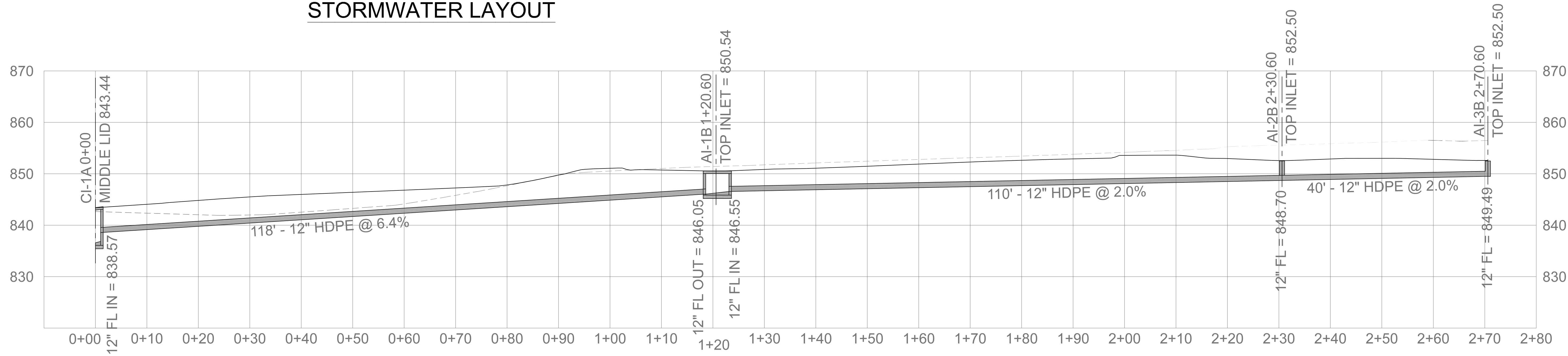


\* - VERIFY DOWNSPOUT LOCATIONS WITH ARCHITECTURAL DRAWINGS

STORMWATER DROP-IN AREA INLETS



STORMWATER LAYOUT

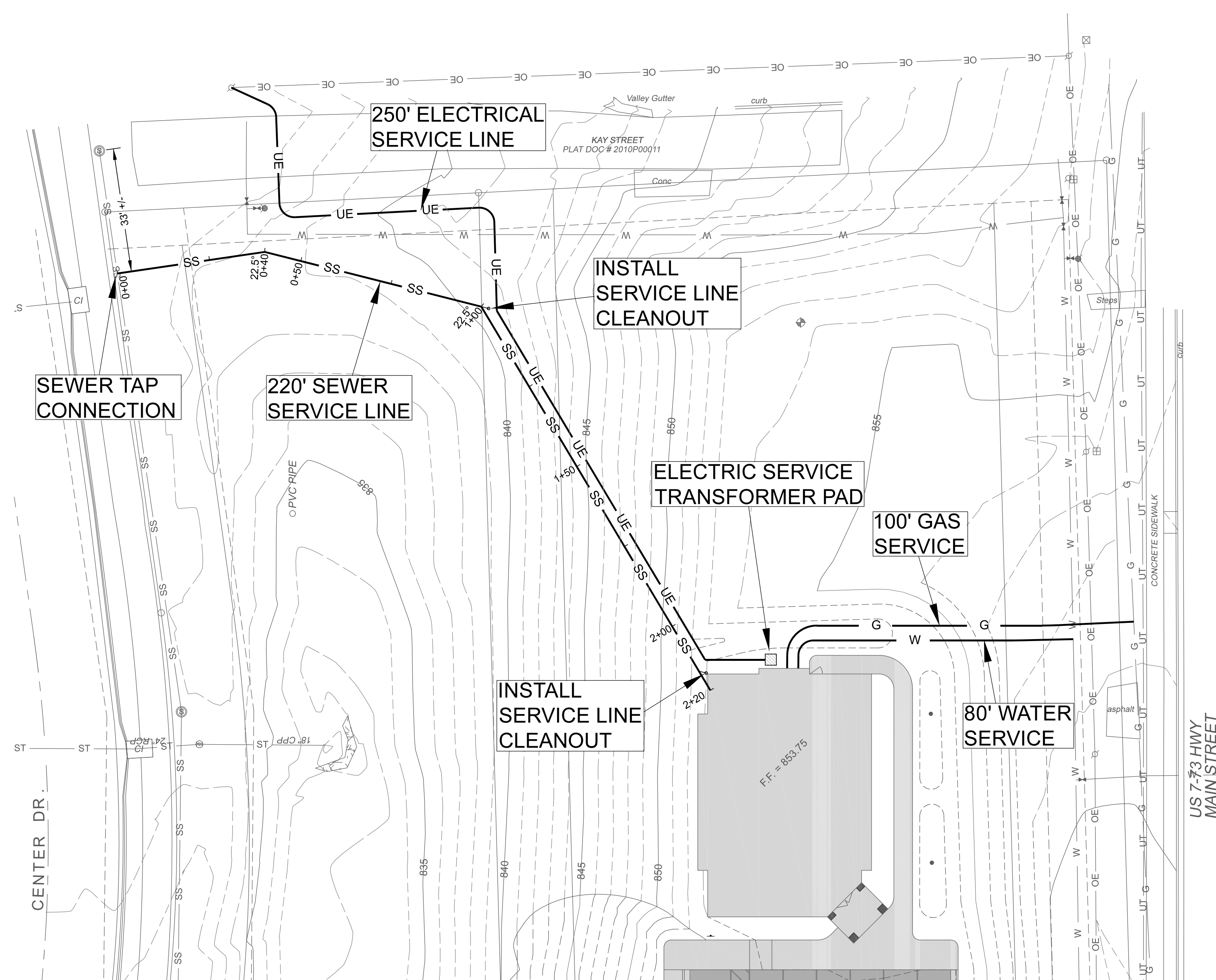
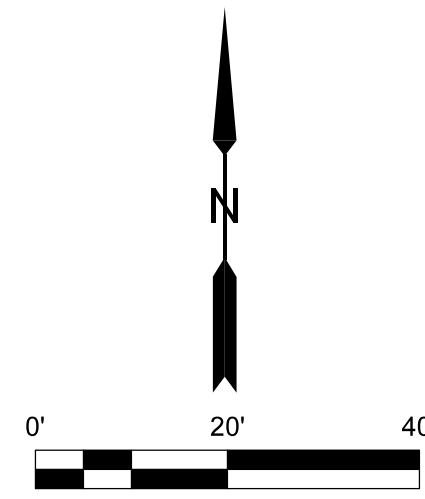


STORM LINE B PROFILE

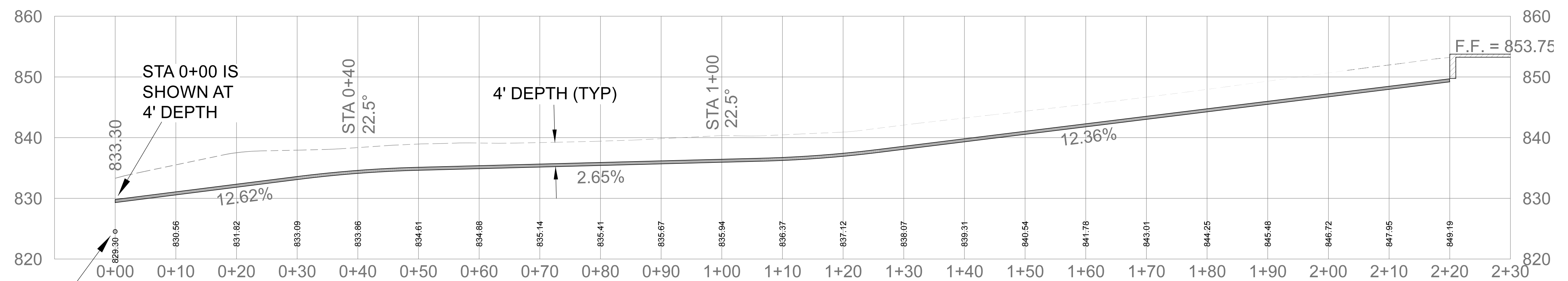
VERTICAL: 1"=10'  
HORIZONTAL: 1"=10'



CLIENT:	REDELL HOLDINGS, LLC LEAVENWORTH, KS		
DRAWN BY:	DJS		
DATE:	11-16-2021		
ELECTRONIC FILE NAME:	SCALE AS NOTED		
REV.	0		
DRAWING NUMBER:	STORM LAYOUT & PROFILE.sht 10 OF 16		
REV.	DATE	BY	DESCRIPTION
3	08-05-2022	DJS	WEST RETAINING WALL REMOVED
2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION
1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW



UTILITY PLAN



SEWER SERVICE PROFILE

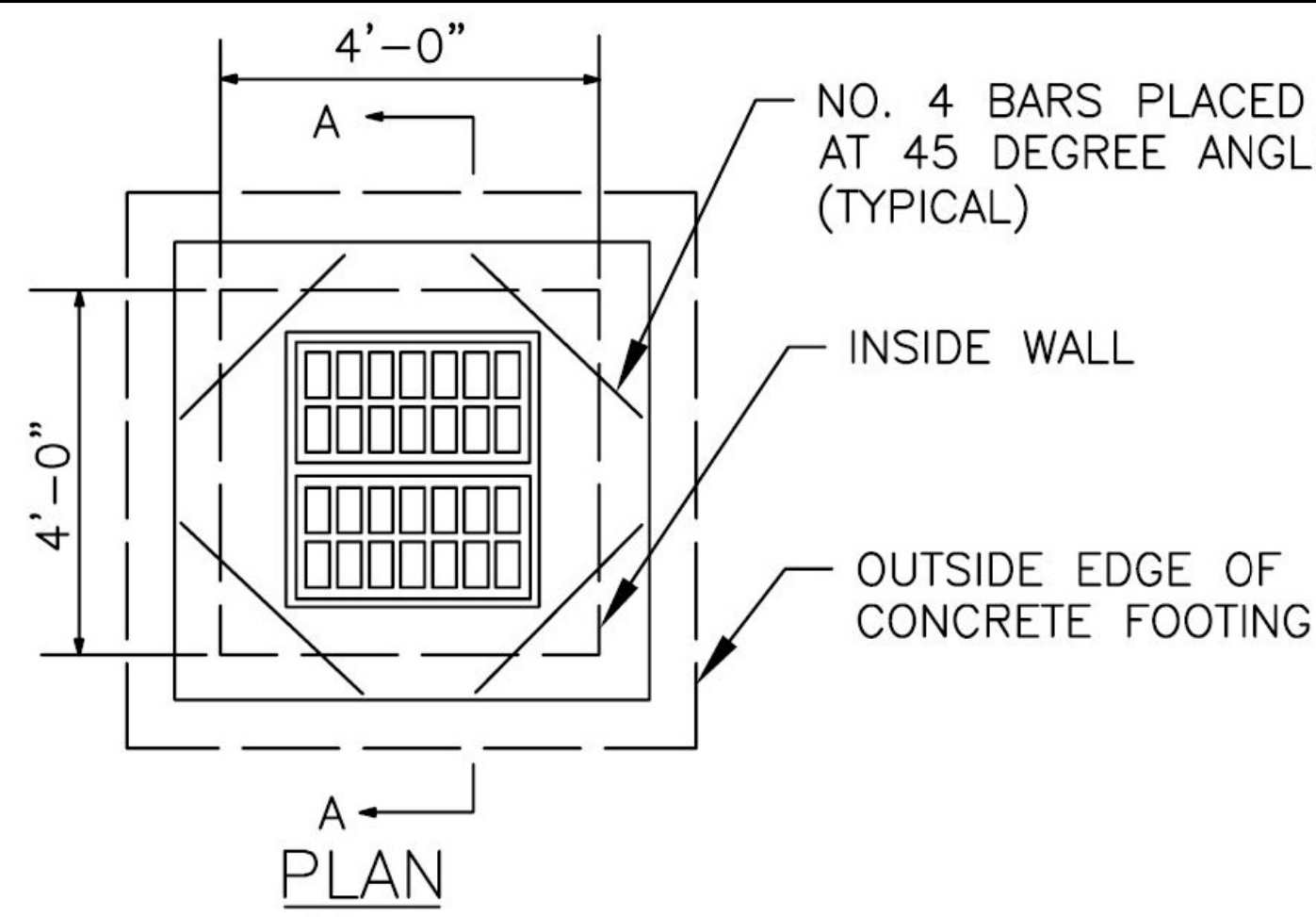
VERTICAL: 1"=10'  
HORIZONTAL: 1"=10'

CALCULATED ELEVATION OF EXISTING SEWER IS 824.20, FIELD VERIFY



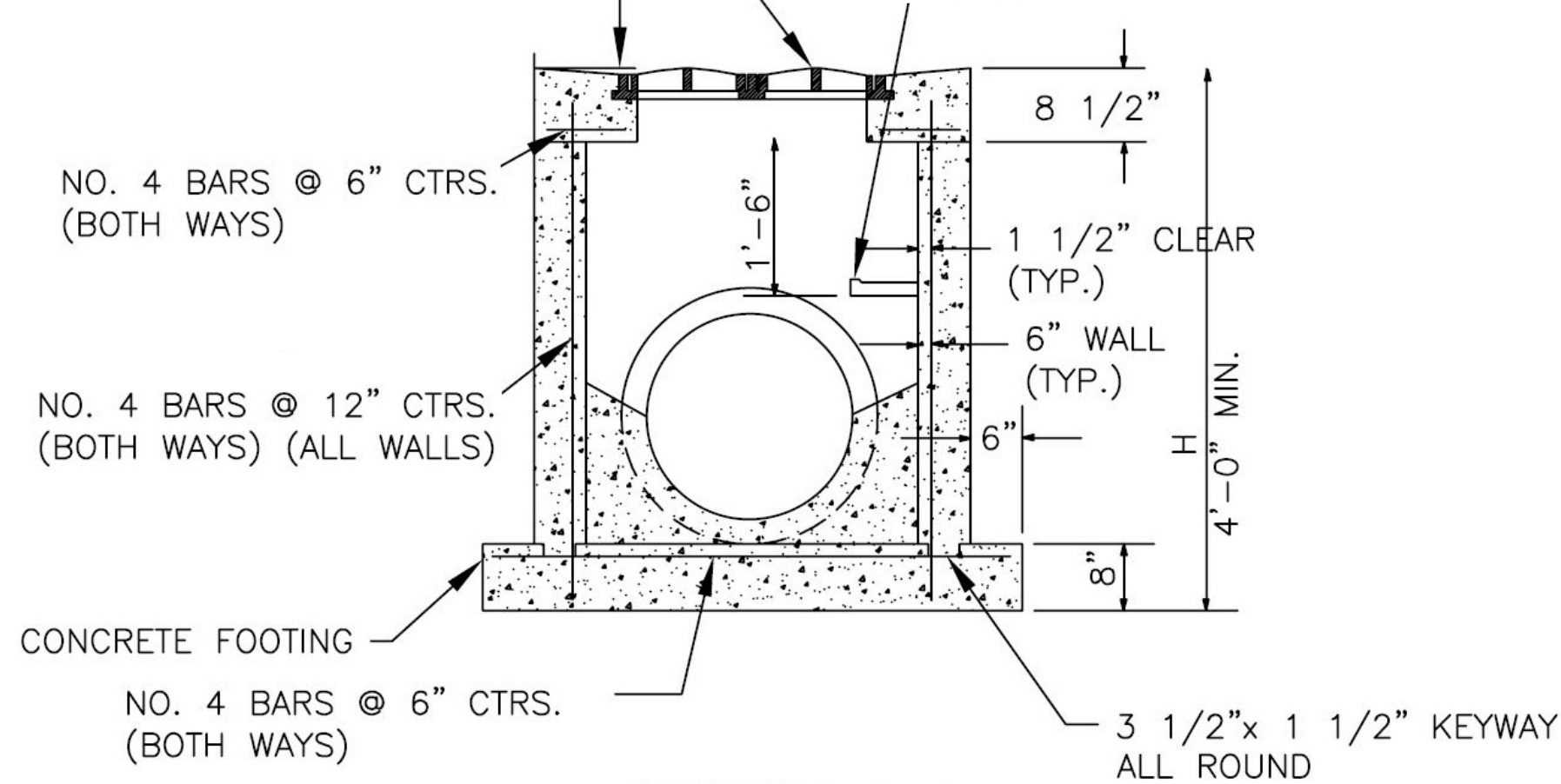
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LANSING FAMILY EYE CENTER LANSING, KS		ELECTRONIC FILE NAME:		PROJECT NUMBER:		SHT. 11 OF 16	
REV.	0	DATE	11-16-2021	DESCRIPTION	WEST RETAINING WALL REMOVED APPROVED FOR CONSTRUCTION SUBMIT FOR CITY REVIEW		

Schulte Engineering & Consulting, LLC  
21 Gates Dr.  
Plymouth, MO 64575  
www.schulteengineering.com  
admin@schulteengineering.com  
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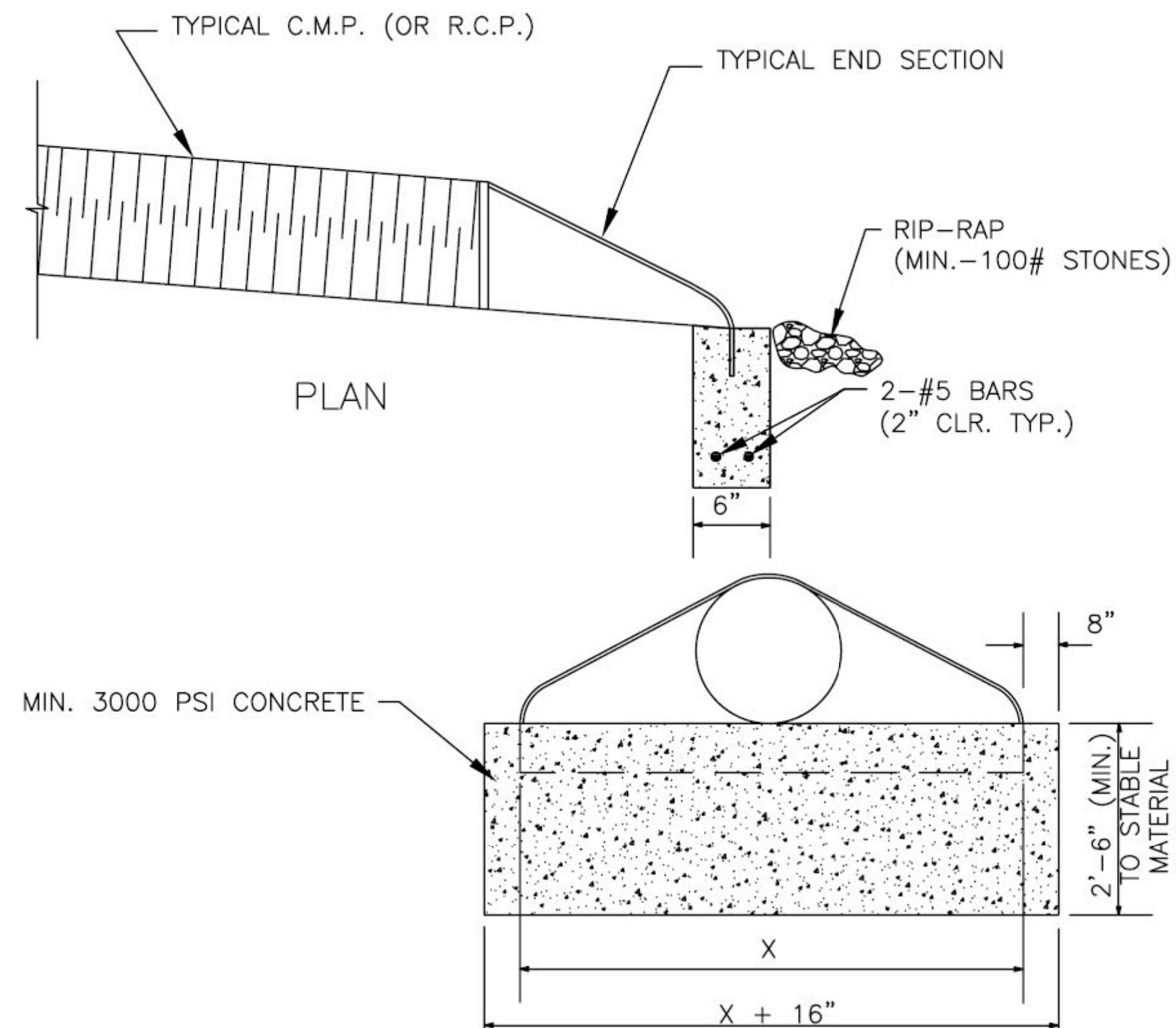


- NOTES:
1. USE CLASS "A" CONCRETE (AE) THROUGHOUT (4000 PSI).
  2. FLOOR OF INLET SHALL BE SHAPED WITH NON-REINFORCED CLASS "A" CONCRETE (AE) INVERT TO PROVIDE SMOOTH FLOW.
  3. CAST IRON STEPS SHALL BE SPACED AT 1'-4" O.C. VERTICALLY.
  4. BEVEL ALL EXPOSED EDGES WITH 3/4" TRIANGULAR MOUNDING.
  5. WALLS MAY EITHER BE POURED IN PLACE OR PRE-CAST.
  6. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE CONSTRUCTION SHALL BE OBTAINED FROM QUARRIES AND BEDS DESIGNATED BY THE KANSAS DEPARTMENT OF TRANSPORTATION AS MEETING DURABILITY REQUIREMENTS OF CLASS 1 OR CLASS 6, AS SHOWN ON FILE IN THE OFFICE OF THE CITY ENGINEER.

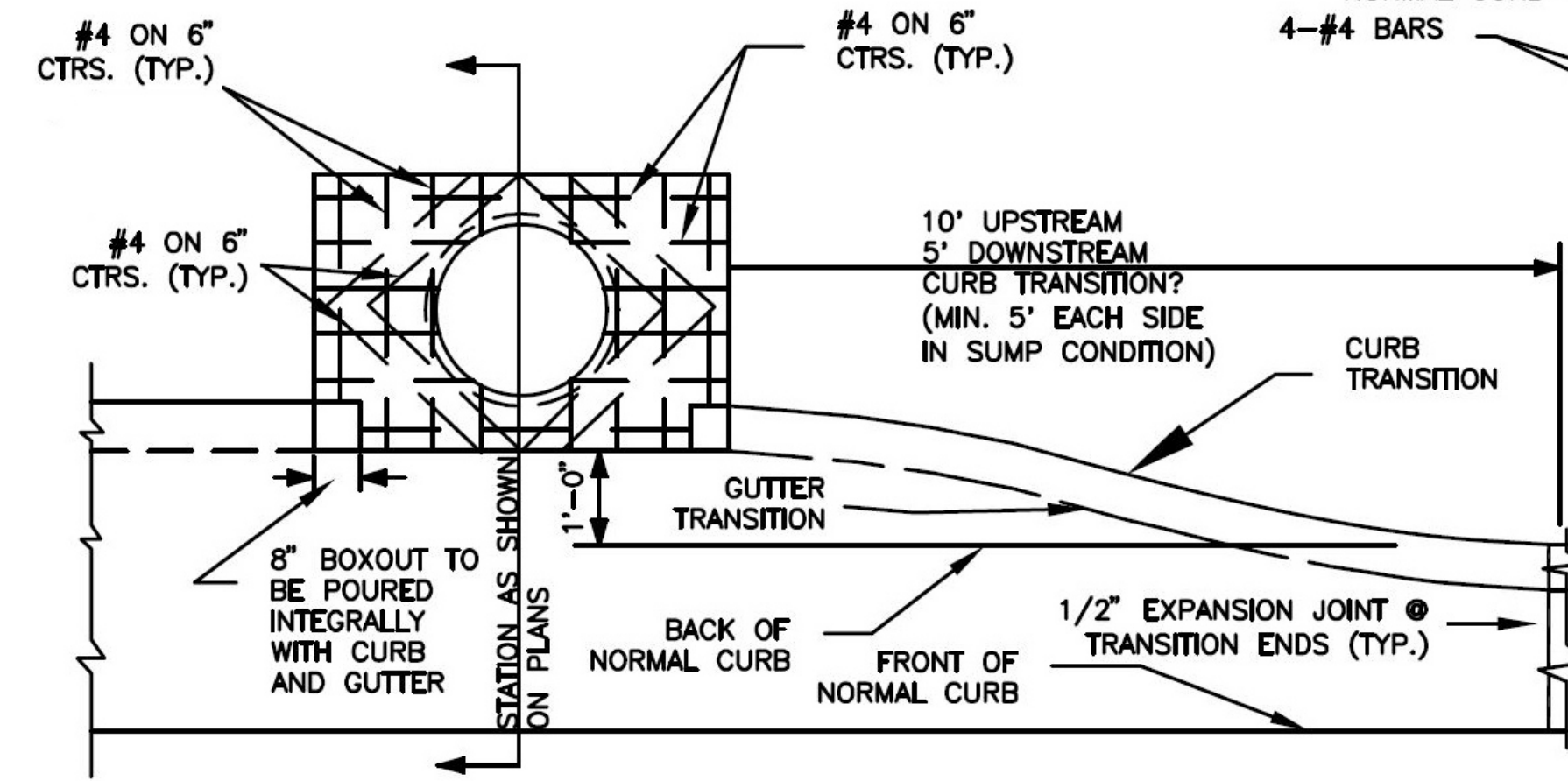
CLAY & BAILEY 2152 GRATE AND 2153 FRAME OR APPROVED EQUAL  
 1/2"  
 CLAY & BAILEY NO. 2102 CAST IRON STEP OR APPROVED EQUAL



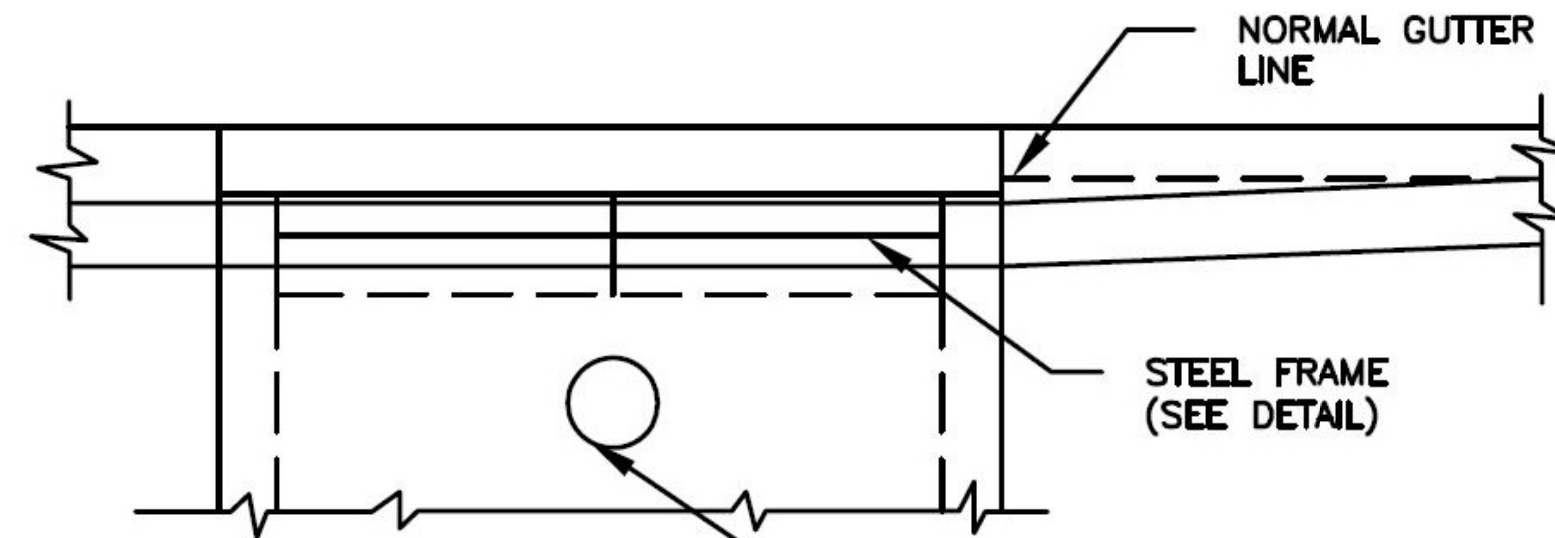
SECTION A-A  
**GRADED INLET**



**FLARED END SECTION**



PLAN VIEW



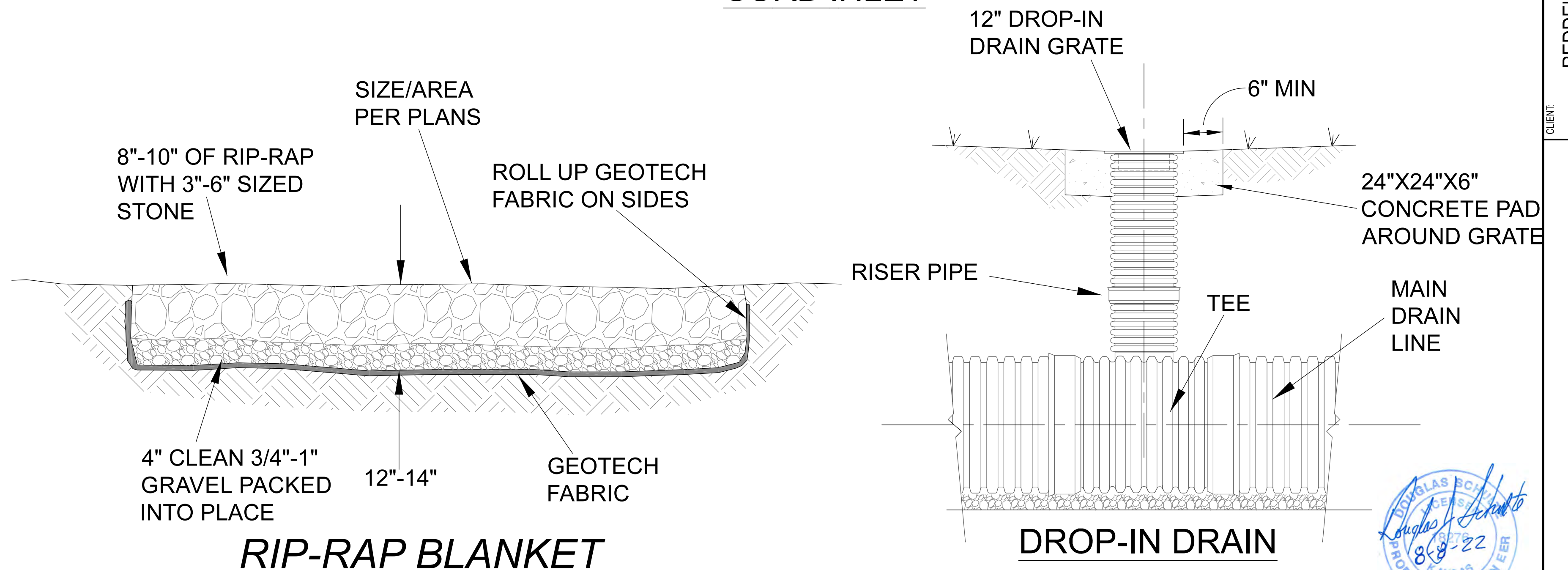
FRONT ELEVATION

4" FARM TILE W/GALVANIZED SCREEN, 18" BELOW FINISHED TOP (STREET SIDE ONLY)  
 3/4" CLEAN AGGREGATE IN ALL DIRECTIONS ISOLATED FROM SOIL BY FILTER FABRIC.

**NOTES:**

1. CONTRACTOR SHALL PROVIDE STEPS SPACED AT 1'-4" O.C. WHERE INLET OR MANHOLE DEPTH IS GRATER THAN 4'-0". STEPS SHALL BE M.A. INDUSTRIES, INC. MODEL PS-2-PF OR APPROVED EQUAL
2. USE OF PRECAST CONCRETE REQUIRES DESIGN ENGINEER'S APPROVAL OF SHOP DRAWINGS.
3. MANHOLE RING AND LID SHALL BE CLAY & BAILEY NO. 2020, OR AN APPROVED EQUAL.
4. SPACER SHALL BE PLACED AT EQUAL INTERVALS ACCORDING TO THE FOLLOWING: L=7'-0", 2 SPACES; L=8'-0", 3 SPACES; L=10'-0", 3 SPACES.
5. THE FIRST DIMENSION IN THE PLAN NOTATIONS REFERS TO THE "L" DIMENSION.
6. THE SECOND DIMENSION IN THE PLAN NOTATIONS REFERS TO THE "W" DIMENSION.
7. "JUNCTION BOX" AS CALLED FOR IN THE PLANS, SHALL BE CONSTRUCTED TO CONFORM, WHERE APPLICABLE, WITH THE DIMENSIONS, THICKNESS AND DETAILS SHOWN.
8. ALL METAL SURFACES SHALL BE GALVANIZED.
9. CURB CONTRACTOR SHALL HAND FORM AND FINISH GUTTER WITHIN THE INLET THROAT TO THE REAR OF FRONT INLET WALL AT THE TIME THE FINISHING OF NORMAL CURB IS ACCOMPLISHED
10. THE INVERT SHALL HAVE A TROWEL FINISH TO SECURE SMOOTH INVERT SLOPING TO OUTLET PIPE
11. OUTLET OR INLET PIPE SHALL BE PLACED AS SPECIFIED OR AS DIRECTED BY THE ENGINEER. REINFORCING STEEL SHALL BE BENT AROUND PIPE.
12. USE KSS CLASS A (4000 PSI) CONCRETE FOR ALL STANDARD CATCH BASINS AND INLETS.
13. STORM SEWER PIPE SHALL BE CUT FLUSH WITH INSIDE WALLS OF INLET.

**CURB INLET**



**RIP-RAP BLANKET**

**DROP-IN DRAIN**

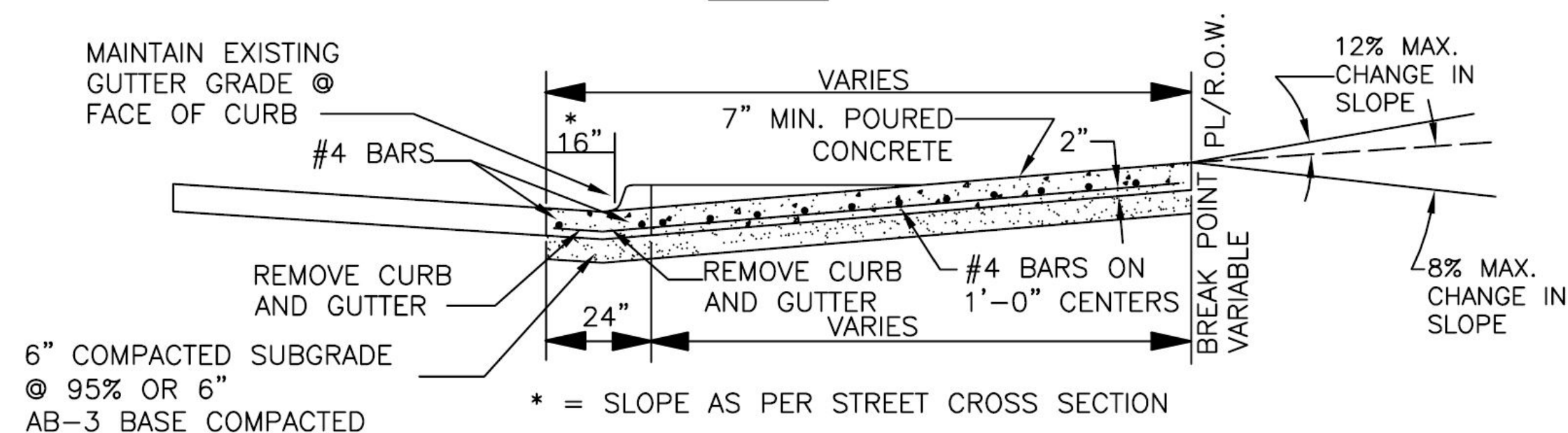
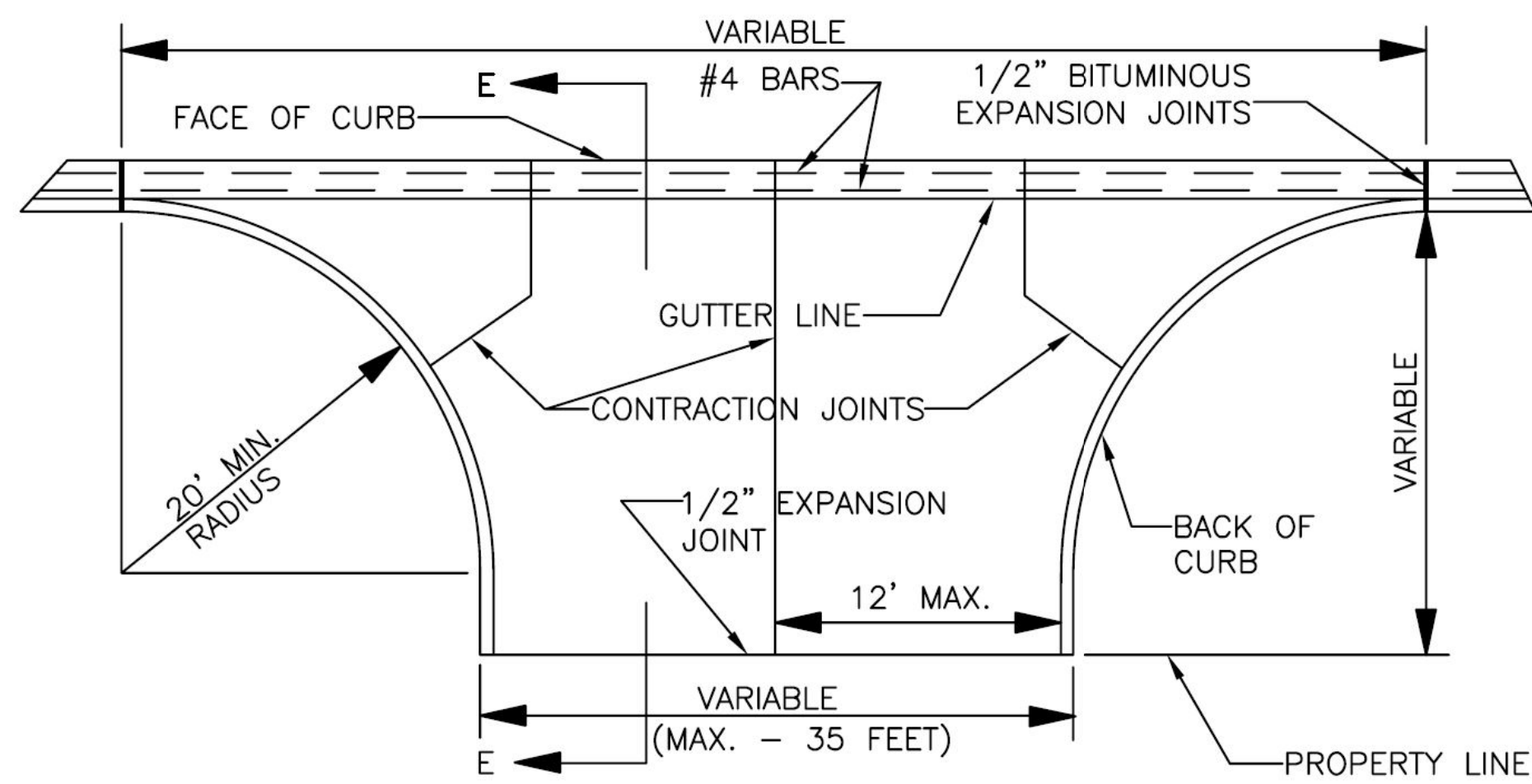
REV.	DATE	BY	DESCRIPTION
3	08-08-2022	DJS	WEST RETAINING WALL REMOVED
2	12-21-2021	DJS	APPROVED FOR CONSTRUCTION
1	11-16-2021	DJS	SUBMIT FOR CITY REVIEW
0			

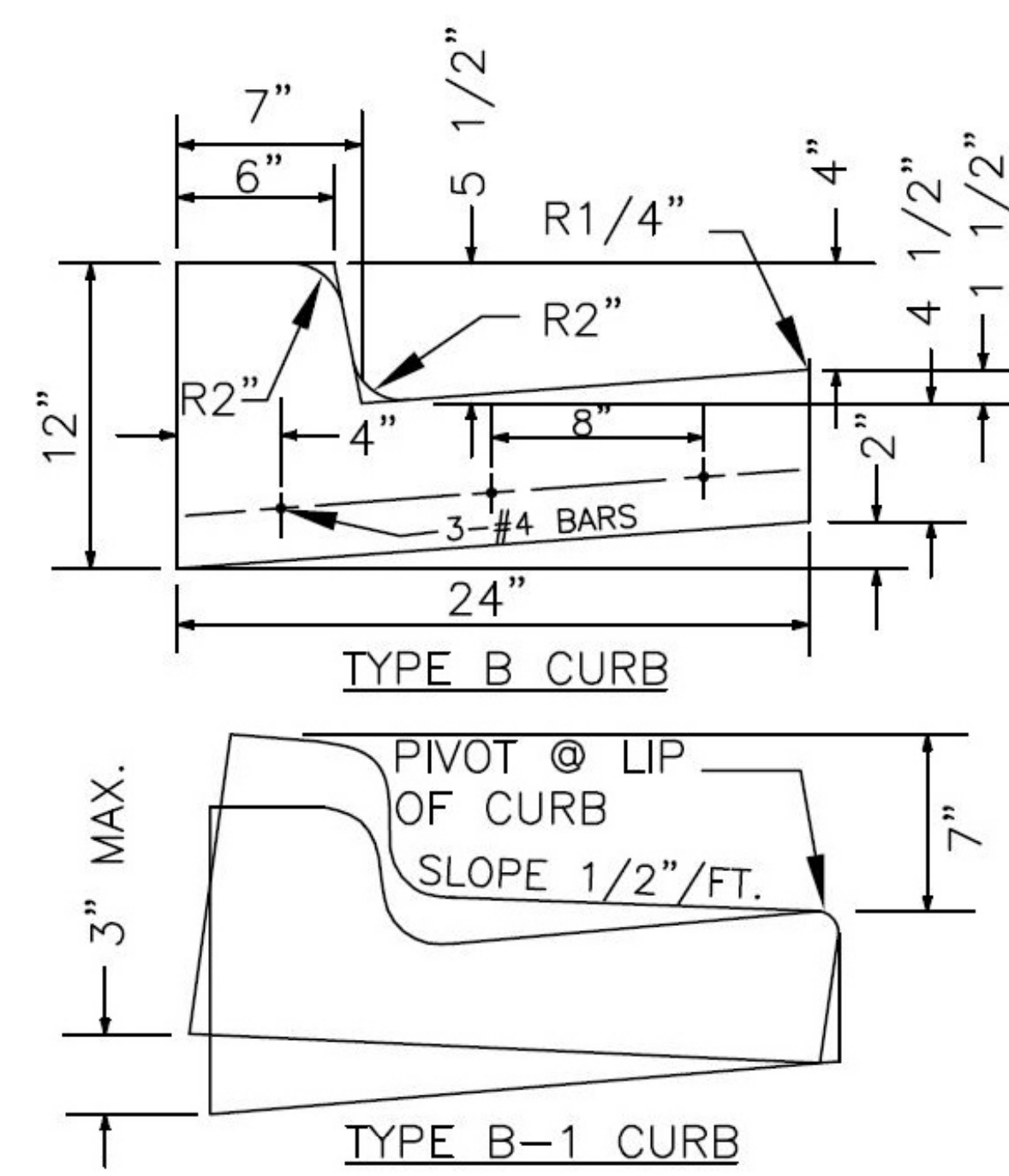
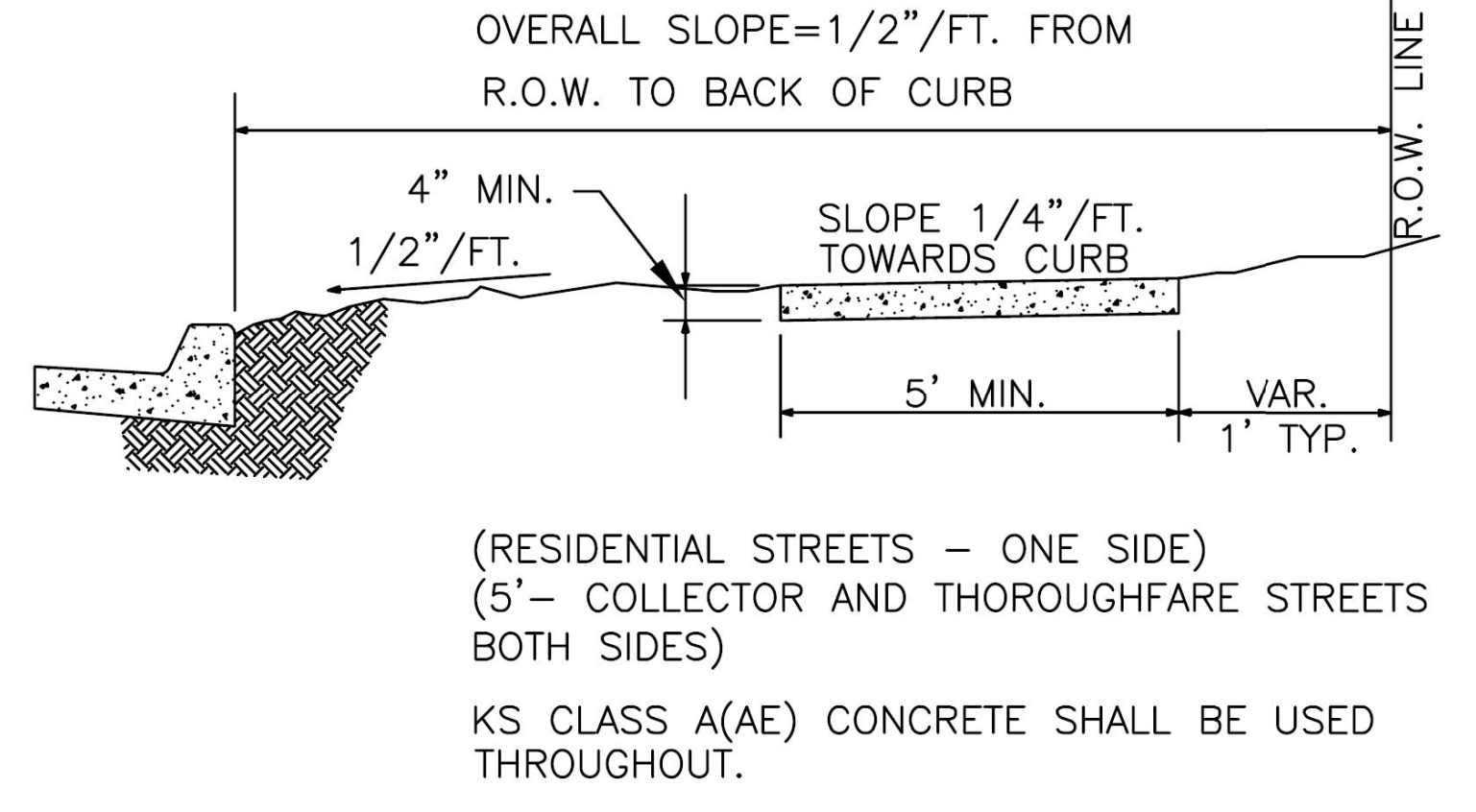
CLIENT:	REDELL HOLDINGS, LLC LEAVENWORTH, KS
DRAWN BY:	DJS
DATE:	11-16-2021
ELECTRONIC FILE NAME:	AS NOTED
DRAWING NUMBER:	TYPICAL DETAILS
SHEET:	12 OF 16

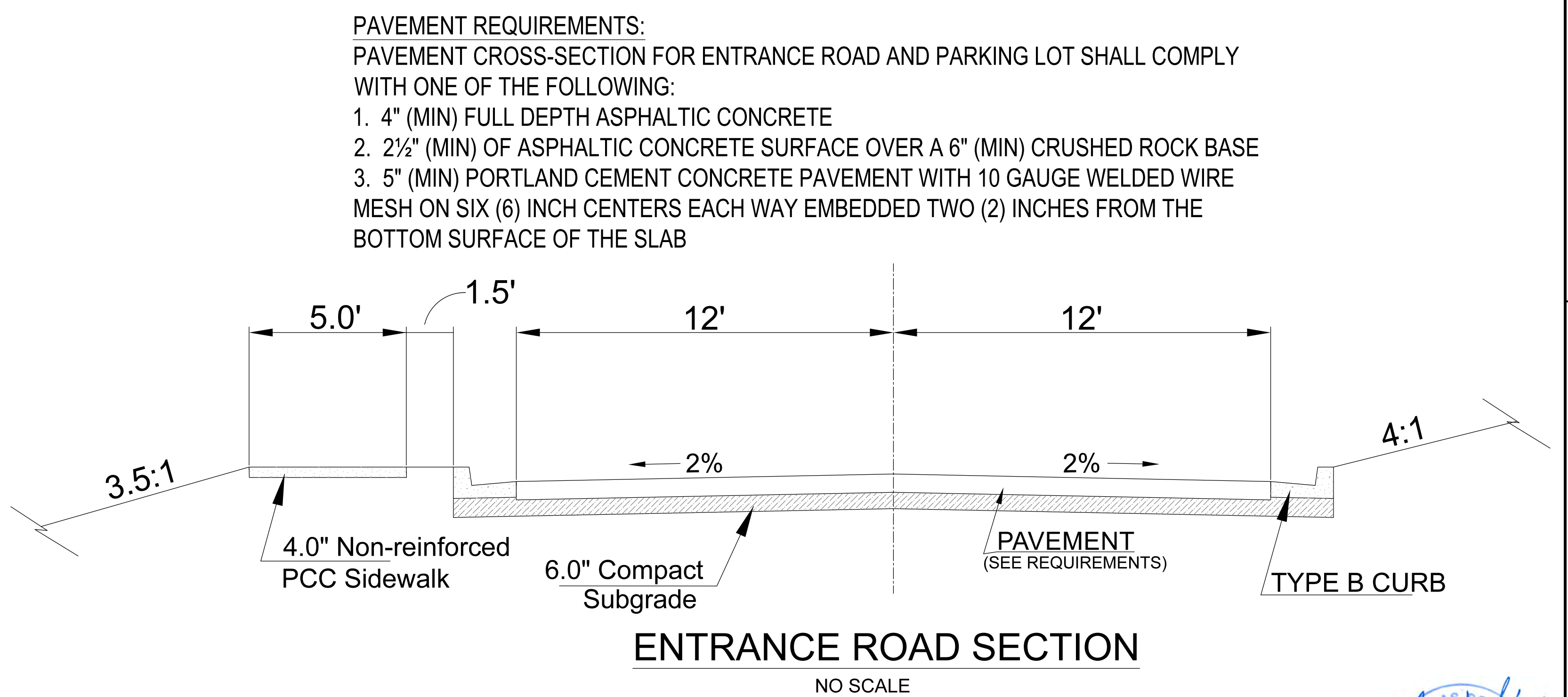
CLIENT:	LANSING FAMILY EYE CENTER LANSING, KS
DATE:	8-8-22
PROFESSOR:	PROFESSIONAL ENGINEER



- NOTES:
1. JOINTS SHALL BE FORMED AT RIGHT ANGLES TO THE ALIGNMENT OF THE SIDEWALK AND TO THE DEPTHS INDICATED BELOW.
  2. THE SIDEWALK SHALL BE MARKED OFF INTO SQUARE STOMES BY CONTRACTION JOINTS. CONTRACTION JOINTS SHALL BE ONE-EIGHTH (1/8) INCH WIDE BY ONE (1) INCH DEEP AND MAY BE FORMED BY TOOLING OR BY USE OF A CONCRETE SAW.
  3. EXPANSION JOINTS SHALL BE FORMED BY A ONE-HALF (1/2) INCH THICK PERFORMED JOINT FILLER, EXTENDING THE FULL DEPTH OF THE SLAB, AND SECURED SO THAT THEY ARE NOT MOVED BY DEPOSITING AND COMPACTING THE CONCRETE AT THESE JOINTS.
  4. EXPANSION JOINTS SHALL BE PLACED WHERE SIDEWALK ABUTS OTHER STRUCTURES AND SHALL NOT BE SPACED MORE THAN 50 FEET APART ON STRAIGHT RUNS FOR HAND LAID SIDEWALKS AND NOT MORE THAN 100 FEET APART ON STRAIGHT RUNS FOR MACHINE LAID SIDEWALKS.



- NOTES:
1. 1/2" PREMOLDED EXPANSION JOINTS SHALL BE PLACED AT POINTS OF CURVATURE, CURB INLETS, AND AT 100' CENTERS. CONTRACTION JOINTS SHALL BE A MIN OF 2" DEEP OR 1/3 TOTAL THICKNESS, A MAX. OF 3/8" WIDE AND PLACED AT 10' INTERVALS EQUALLY SPACED BETWEEN EXPANSION JOINTS. KANSAS CLASS A(AE) CONCRETE SHALL BE USED THROUGHOUT.
  2. ALL CRUSHED STONE USED AS AGGREGATE FOR CONCRETE CONSTRUCTION SHALL BE OBTAINED FROM QUARRIES AND BEDS DESIGNATED BY THE KANSAS DEPARTMENT OF TRANSPORTATION AS MEETING DURABILITY REQUIREMENTS OF CLASS 1 OR CLASS 6.
  3. NEW CURB PLACEMENT SHALL BE DOWELLED TO EXISTING OR PREVIOUS PLACEMENT IN ACCORDANCE WITH REINFORCING AS SHOWN ON THIS SHEET.
  4. REINFORCING NOT REQUIRED WHEN CURB IS PLACED ON ASPHALTIC CONCRETE BASE COURSE (COLLECTOR AND ARTERIAL STREETS).
  5. CONTRACTION JOINTS MUST ALIGN WITH CONCRETE PAVING JOINTS.



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SHEET:	SHT. 13 OF 16
WEST RETAINING WALL REMOVED	DJS
APPROVED FOR CONSTRUCTION	DJS
SUBMIT FOR CITY REVIEW	DJS
DATE	BY
REV.	DATE
DESCRIPTION	
Schulte Engineering & Consulting, LLC 21 Galois Dr. P.O. Box 100 Leavenworth, KS 66048 www.schulteengineering.com admin@schulteengineering.com PHONE: (816) 260-3328	

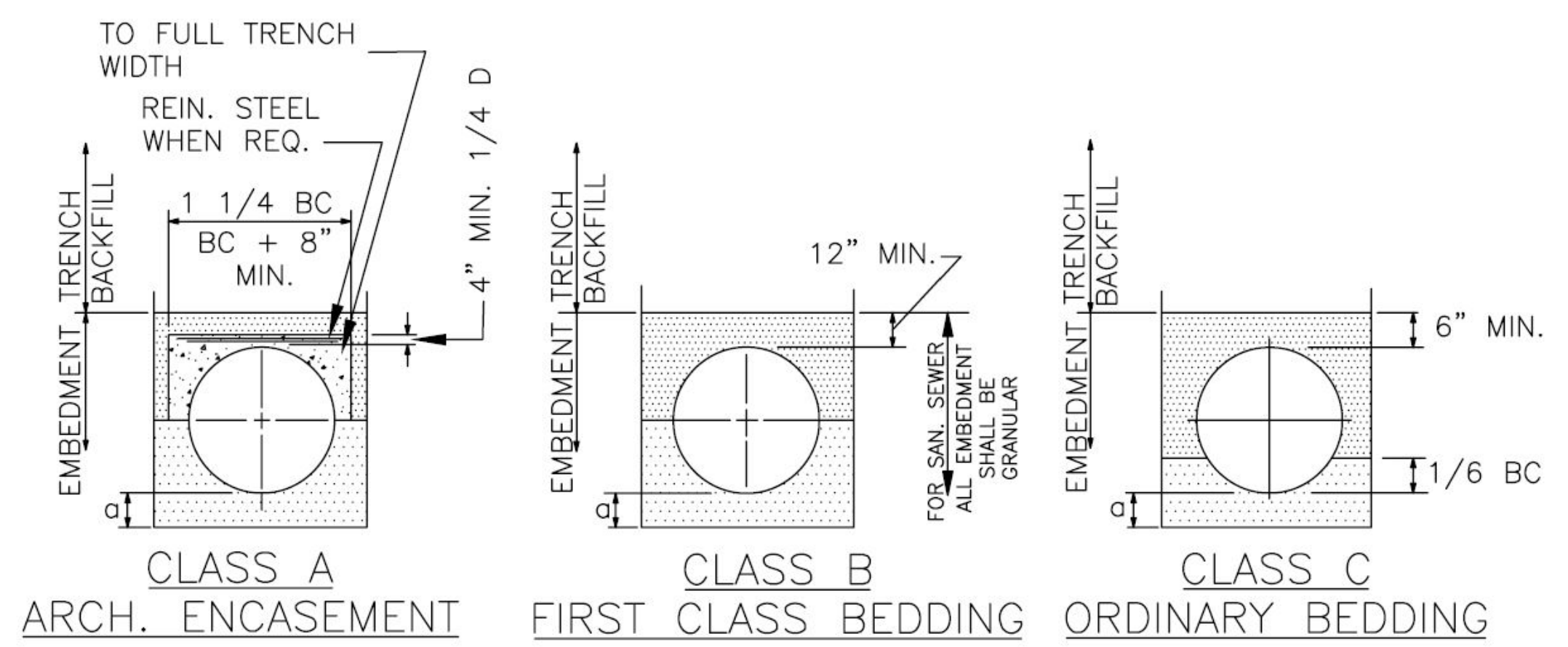


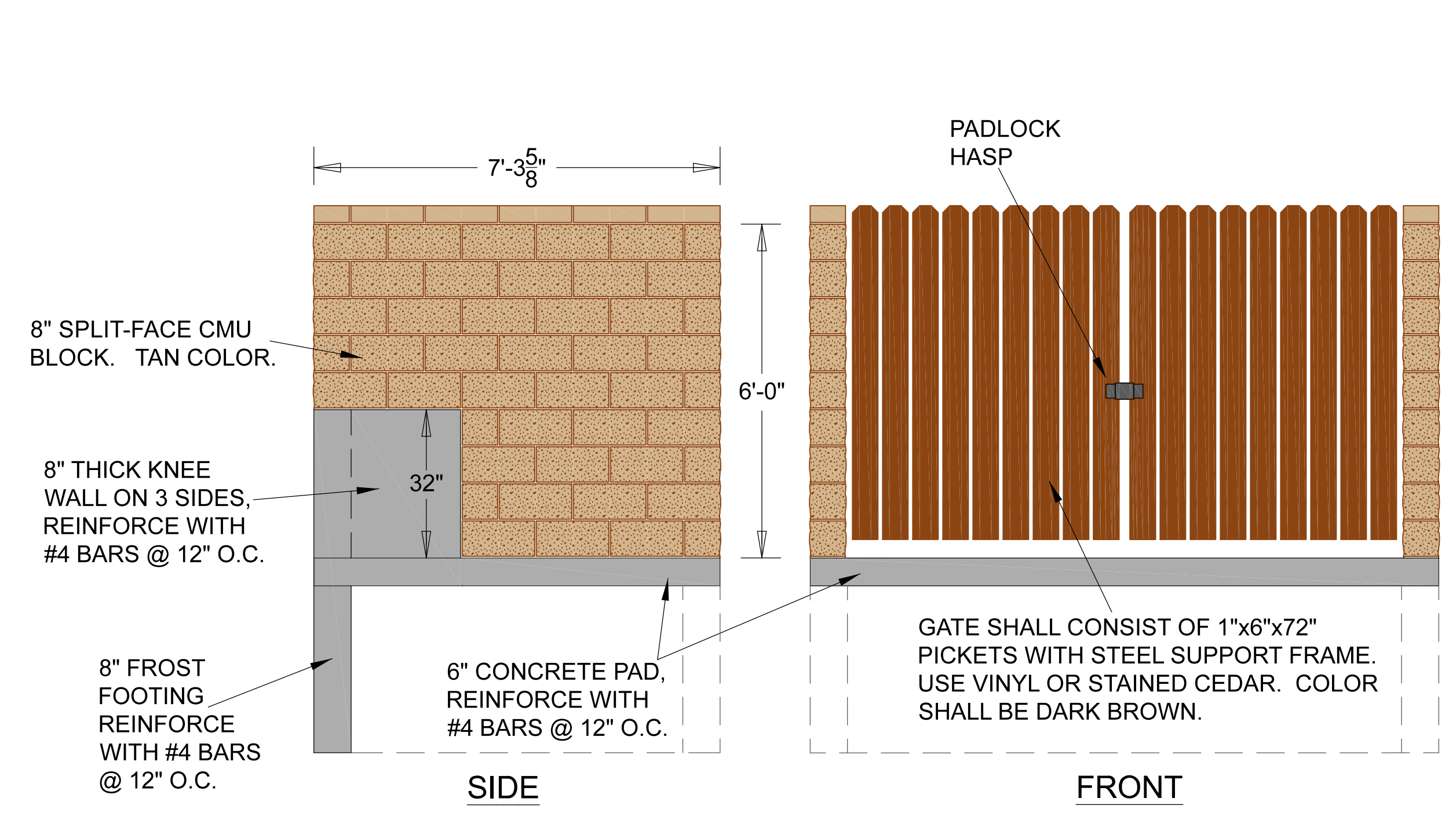
TABLE OF EMBEDMENT DEPTH BELOW PIPE

D	MIN. SOIL	MIN. ROCK
27" AND SMALLER	3"	6"
30" TO 60"	4"	9"
66" AND LARGER	6"	12"

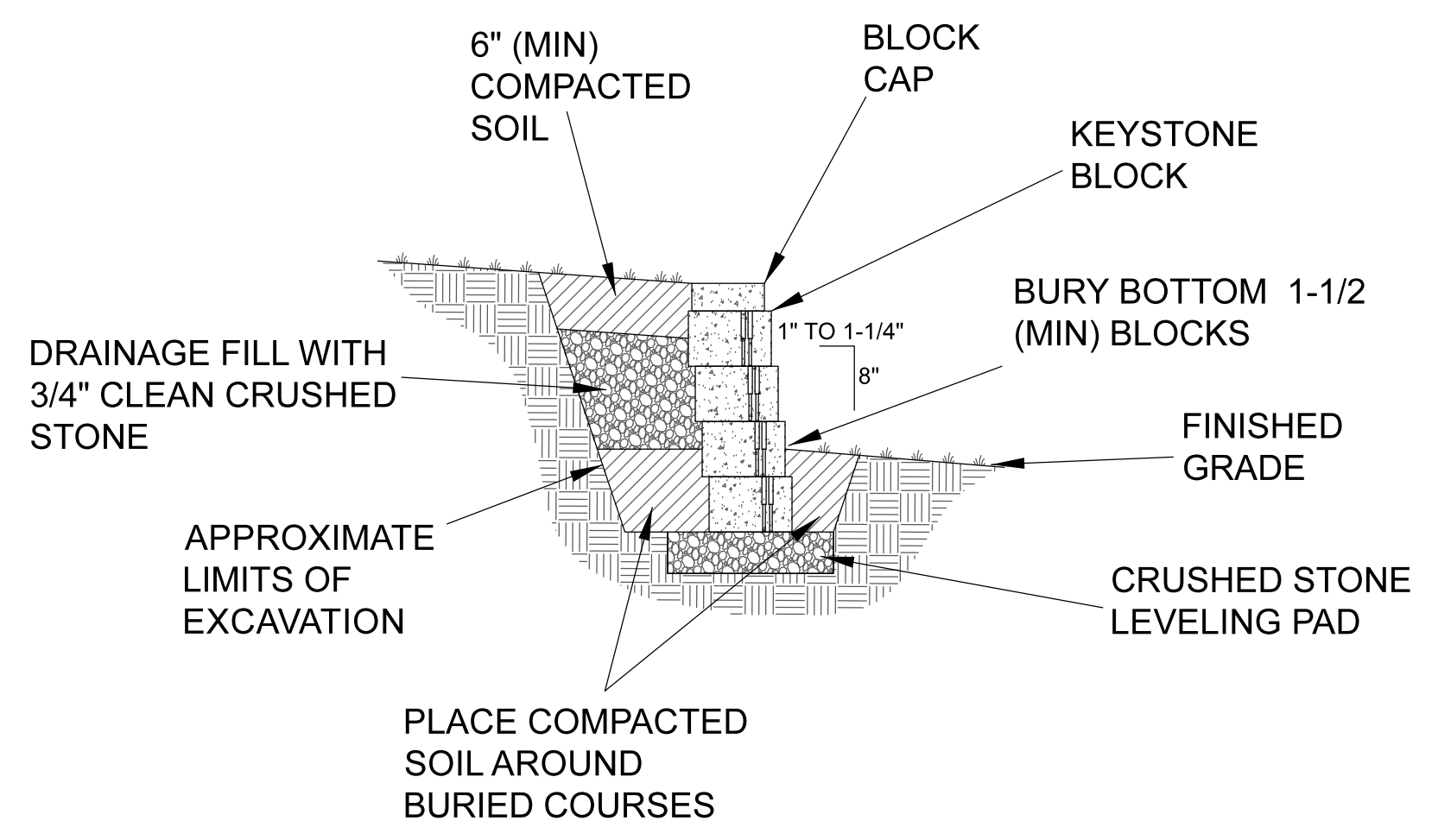
LEGEND  
 BC OUTSIDE DIA. OF PIPE  
 H COVER ABOVE TOP OF PIPE  
 D NOMINAL PIPE SIZE  
 o EMBEDMENT BELOW PIPE  
 [Pattern] HAND PLACED COMPACTED EMBEDMENT  
 [Pattern] GRANULAR EMBEDMENT  
 [Pattern] CONCRETE

NOTES:  
 GRANULAR EMBEDMENT SHALL BE KSS TYPE CA-5, TO BE PLACED IN NOT MORE THAN 6" LAYERS AND COMPACTED.  
 HAND PLACED COMPACTED EMBEDMENT SHALL BE FINELY DIVIDED JOB EXCAVATED MATERIAL FREE FROM DEBRIS, ORGANIC MATERIAL, AND STONES, PLACED IN UNIFORM LAYERS NOT MORE THAN 8" THICK, AND COMPACTED TO THE REQUIREMENTS SPECIFIED IN SECTION 6018 "TRENCH BACKFILL" OF THIS SPEC. GRANULAR EMBEDMENT MAY BE SUBSTITUTED FOR ALL OR PART OF HAND PLACED COMPACTED EMBEDMENT.

**PIPE BEDDING NO PAVEMENT**

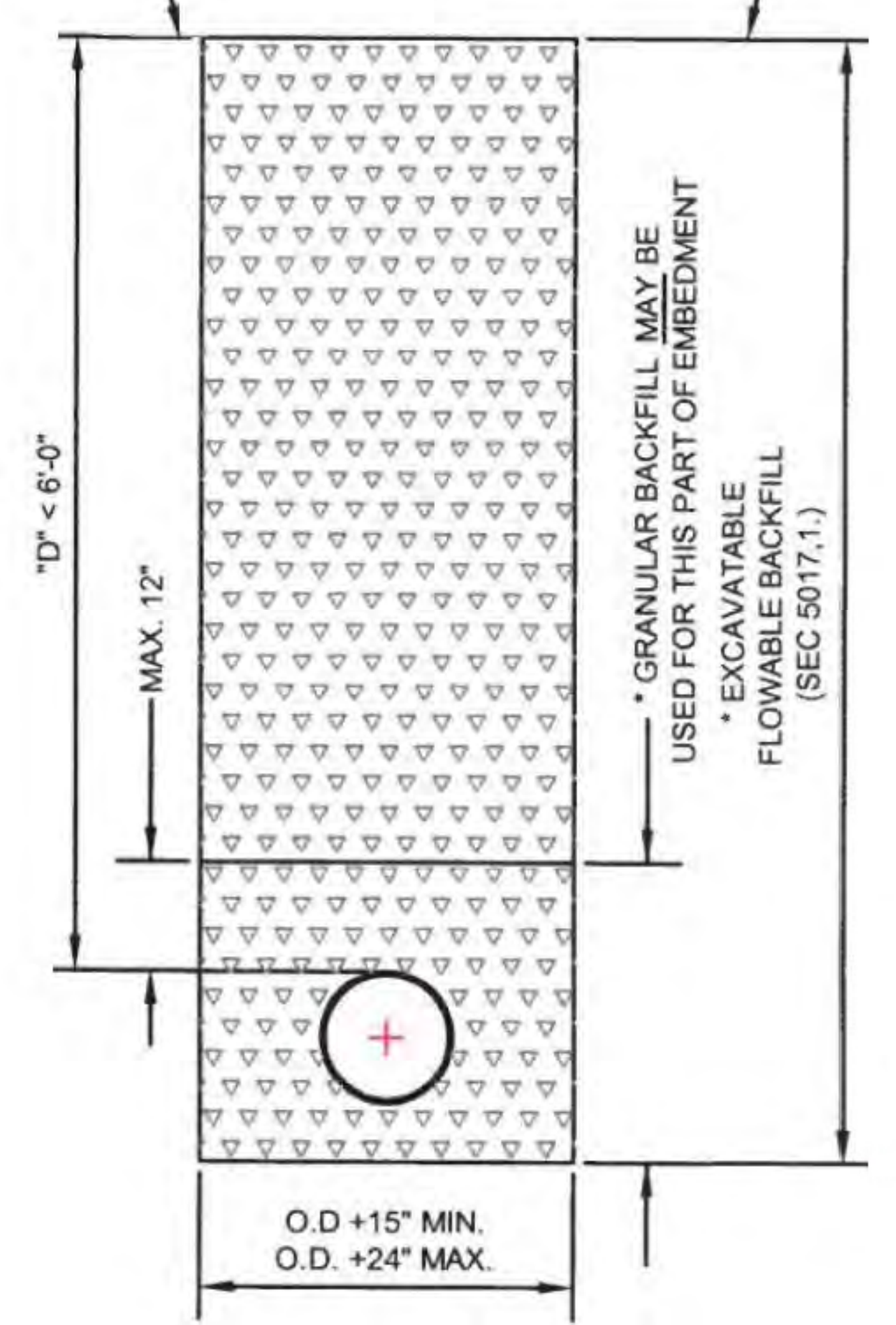


**TRASH ENCLOSURE\*\***  
 \*\* - ENCLOSURE IS SIZED FOR A 2 OR 4 YD DUMPSTER



**RETAINING WALL SECTION**

BOTTOM OF 7" CONCRETE CAP FOR RESOTRATION OF SURFACE ON EXISTING STREETS (SEE S.D. 60-1)  
 FINISH EARTHWORK GRADE OR ORIGINAL GRADE IN FILL SECTIONS IF INSTALLED PRIOR TO ROAD FILL.



**PIPE BEDDING BENEATH PAVEMENT**



12"x18" SIGN, MOUNT ON GLVANIZED POLE, LOCATE SIGN 12" BEHIND SIDEWALK AND CENTER ON PARKING STALL.  
**ADA SIGNAGE**



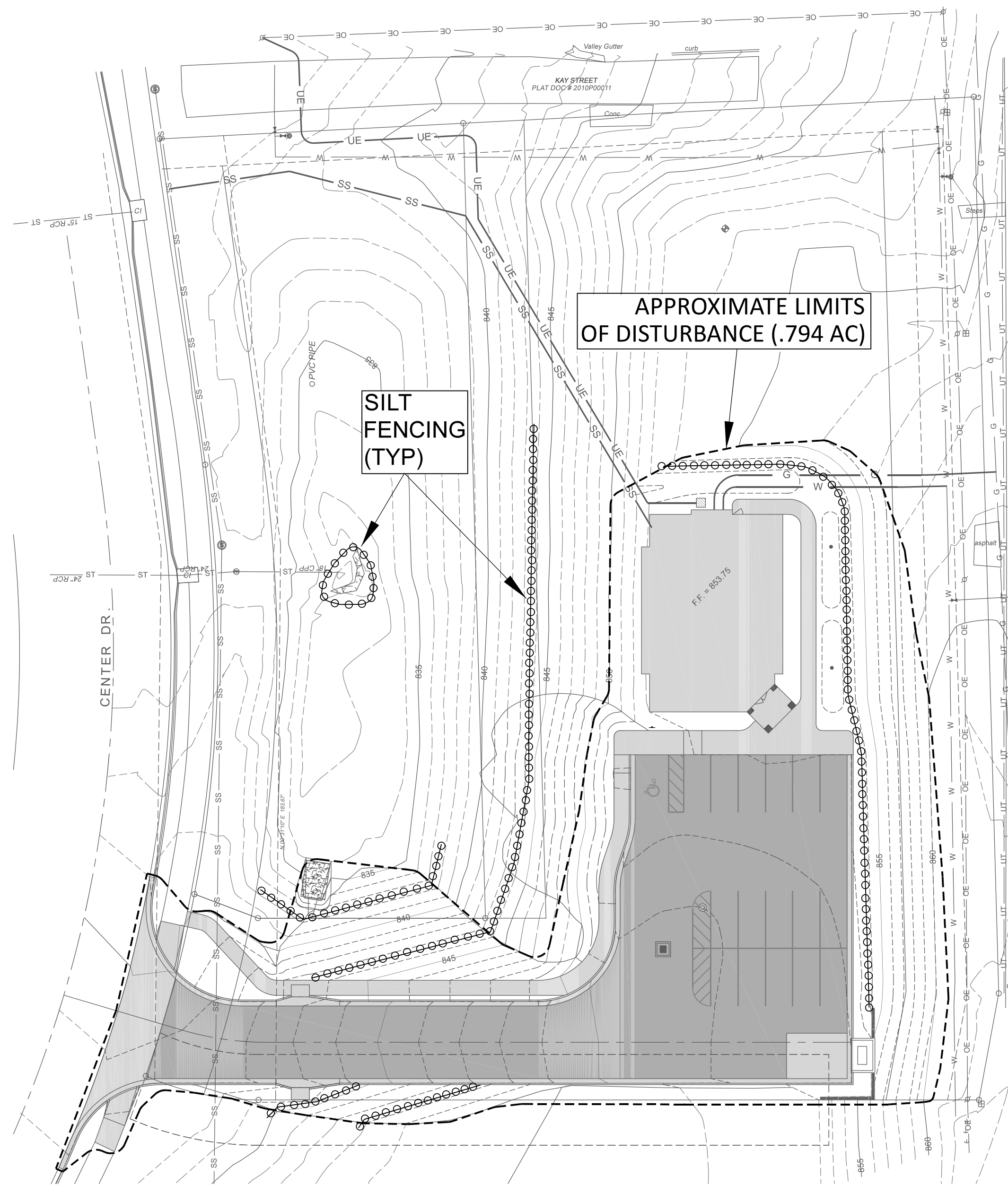
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REV. 0	SHT. 14 OF 16

Schulte Engineering & Consulting, LLC  
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WEST RETAINING WALL REMOVED  
 APPROVED FOR CONSTRUCTION  
 SUBMIT FOR CITY REVIEW

REV. DATE BY DESCRIPTION

3 08-08-2022 DJS  
 2 12-21-2021 DJS  
 1 11-16-2021 DJS



**EROSION CONTROL PLAN**

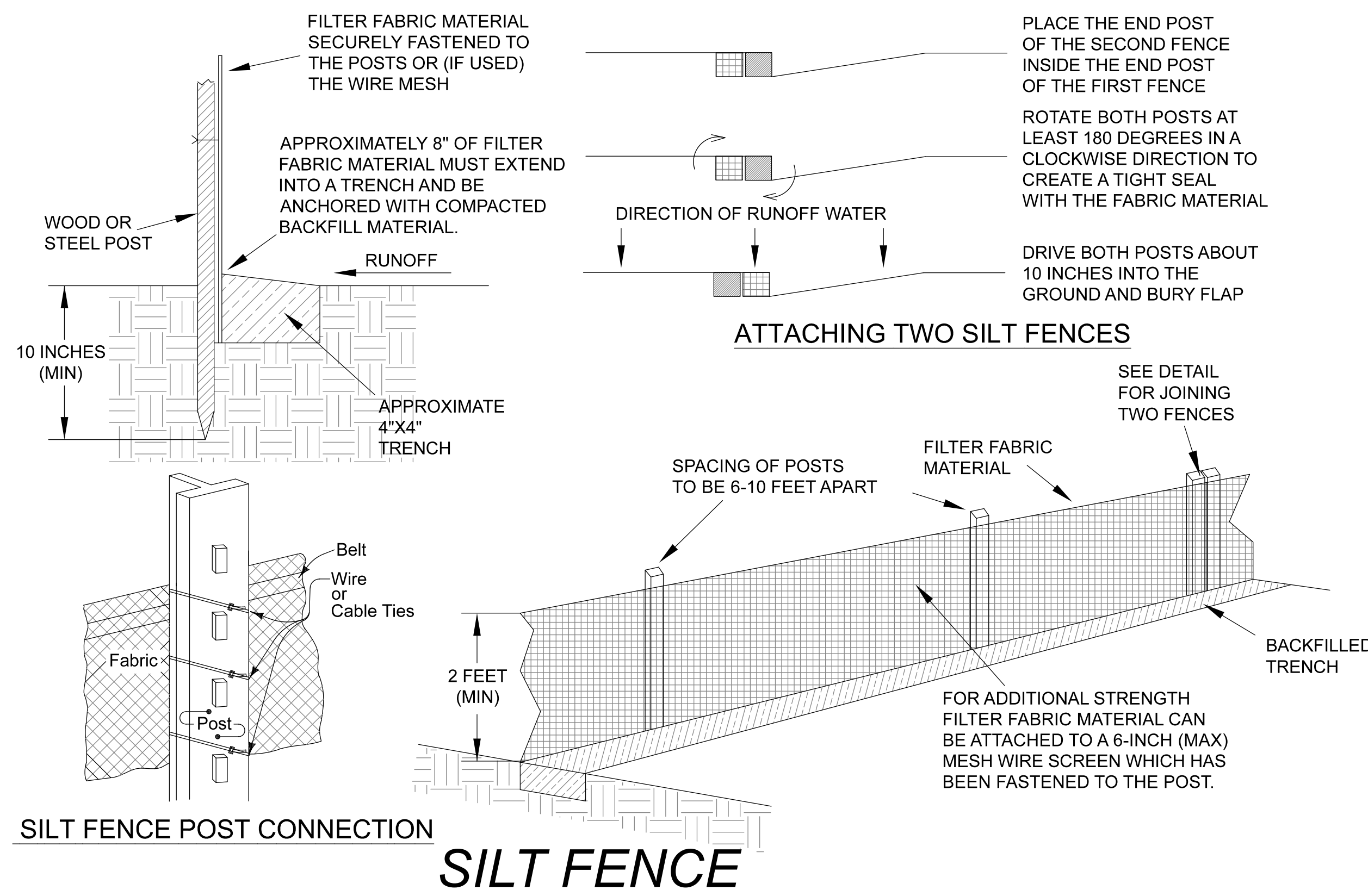
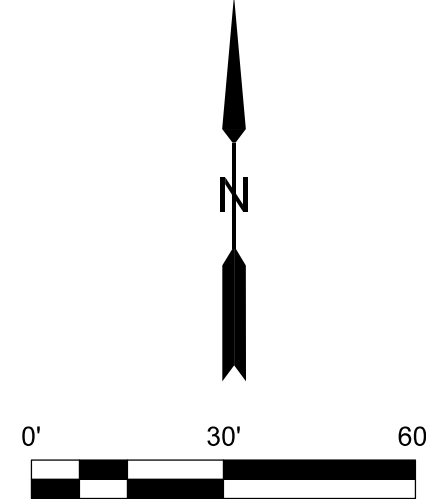
APPROXIMATE TOTAL DISTURBED AREA IS .794 AC

CONCRETE WASHOUT LOCATION TO BE DETERMINED BY DEVELOPER OR GENERAL CONTRACTOR

LOCATE SPILL KIT IN A CENTRAL LOCATION

**LEGEND**

- ○ ○ ○ ○ SILT FENCING
- APPROXIMATE DISTURBANCE LIMITS



- SEEDING**
1. ALL AREAS DISTURBED DURING GRADING OPERATIONS SHALL BE SEEDED, FERTILIZED, AND MULCHED.
  2. ALL SEEDING AND MULCHING SHALL BE COMPLETED AS SOON AS PRACTICALLY POSSIBLE FOLLOWING GRADING OPERATIONS.
  3. MULCH SHALL BE VEGETATIVE TYPE. SEEDING SHALL BE AS FOLLOWS:  
 - OFFSITE: SEEDING OUTSIDE OF LOT 6A SHALL UTILIZE ALTA FESCUE OR KENTUCKY 31 FESCUE (120 LBS/ACRE).  
 - ONSITE: SEEDING WITHIN THE BOUNDARY OF LOT 6A SHALL COMPLY WITH OWNER'S REQUIREMENTS FOR GRASS TYPE.
  4. PERMANENT SEEDING WORK SHALL BE DONE BETWEEN THE DATES OF FEBRUARY 1 AND APRIL 15 FOR SPRING PLANTING.
  5. SOWING SHALL BE ACCOMPLISHED BY USE OF AN APPROVED MECHANICAL SEEDER, DRILL, OR HYDROSEEDING.
  6. FERTILIZER SHALL BE INORGANIC 12-12-12, 13-13-13, OR 10-20-5 GRADE.

- LAND DISTURBANCE GENERAL NOTES**
1. THE INTENT OF THIS LAND DISTURBANCE PLAN IS TO PROVIDE PROTECTION GUIDANCE TO THE CONTRACTOR TO PREVENT THE DISCHARGE OF SOIL MATERIAL INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. ADEQUATE PROTECTION SHALL BE REQUIRED DURING CONSTRUCTION AND REMAIN IN PLACE UNTIL GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE CONTRACTOR SHALL PROVIDE IMMEDIATE REPAIR OR IMPLEMENT AN ALTERNATE MEASURE APPROVED BY THE OWNER.
  2. THIS PLAN OUTLINES THE CRITICAL AREA OF DISTURBANCE TO ESTABLISH THE MINIMUM REQUIREMENT FOR SITE PROTECTION. EROSION CONTROL MEASURES MAY CONSIST OF THOSE INDICATED WITHIN THE PLANS OR ADDITIONAL MEASURES, AS NEEDED, TO CONTROL EROSION ON SITE. THE OWNER HAS THE AUTHORITY TO LIMIT THE DISTURBED SURFACE AREA AND TO DIRECT THE CONTRACTOR TO PROVIDE CONTROL MEASURES.
  3. CLEARING AND GRUBBING WITHIN A DRAINAGE COURSE SHOULD BE AVOIDED IF POSSIBLE. WHERE CHANGES TO A DRAINAGE COURSE OCCUR, WORK SHALL BE COMPLETED AS QUICKLY AS POSSIBLE AND THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE. AREAS WITHIN A DRAINAGE WAY SHOULD BE CONTOURED AND PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.
  4. WHEN SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREA SHALL BE STABILIZED WITH MULCH OR OTHER EROSION CONTROL MEASURES. IF THE SLOPE OF A DISTURBED AREA IS GREATER THAN 3:1, OR GREATER THAN 3% AND EXCEEDING 150 FEET IN LENGTH, THE DISTURBED AREA SHALL BE STABILIZED WITH MULCH OR OTHER EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.
  5. EXISTING VEGETATION SHALL BE PRESERVED WHERE PRACTICAL. NO DISTURBED AREAS SHALL REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.
  6. SLOPES SHOULD BE LEFT IN A ROUGHENED CONDITION DURING GRADING.
  7. CONTROL MEASURES SHALL BE INSTALLED PRIOR TO GRADING WHERE PRACTICAL AND POSSIBLE. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IMMEDIATELY FOLLOWING GRADING OPERATIONS.

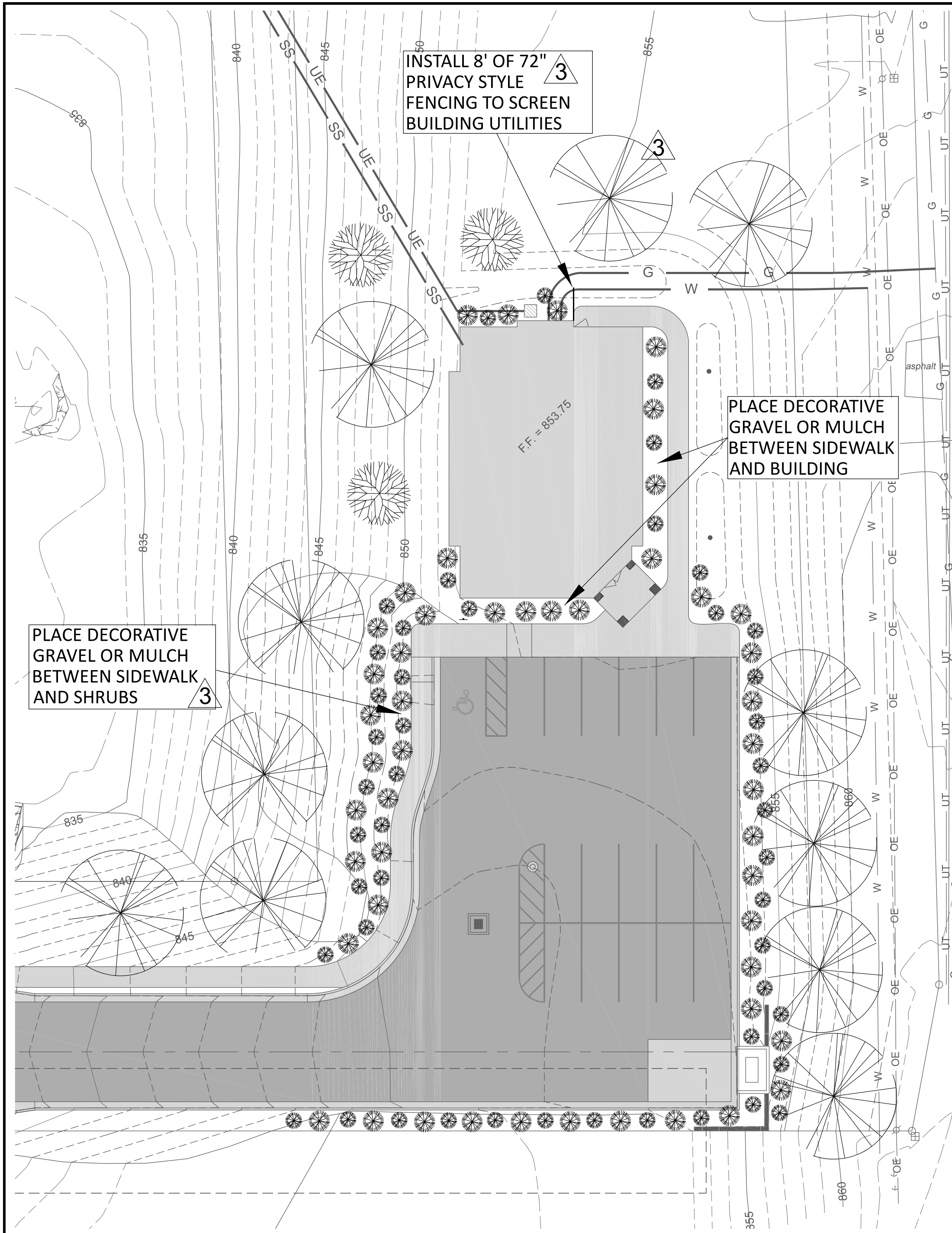
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CLIENT:	REDELL HOLDINGS, LLC LEAVENWORTH, KS
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DATE:	11-16-2021
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DRAWING NUMBER:	EROSION CONTROL
SHEET:	15 OF 16

CLIENT:	LANSING FAMILY EYE CENTER LANSING, KS
DRAWING NUMBER:	EROSION CONTROL
SHEET:	15 OF 16



**LANDSCAPING LAYOUT**

**LANDSCAPING CALCULATIONS:**  
 LOT AREA = 1.41 Ac = 61,420 SF  
 BUILDING FRONTAGE = 66.75 Ft.  
 PARKING SPACES PROVIDED = 17  
 PARKING LOT PERIMETER = 410 Ft.

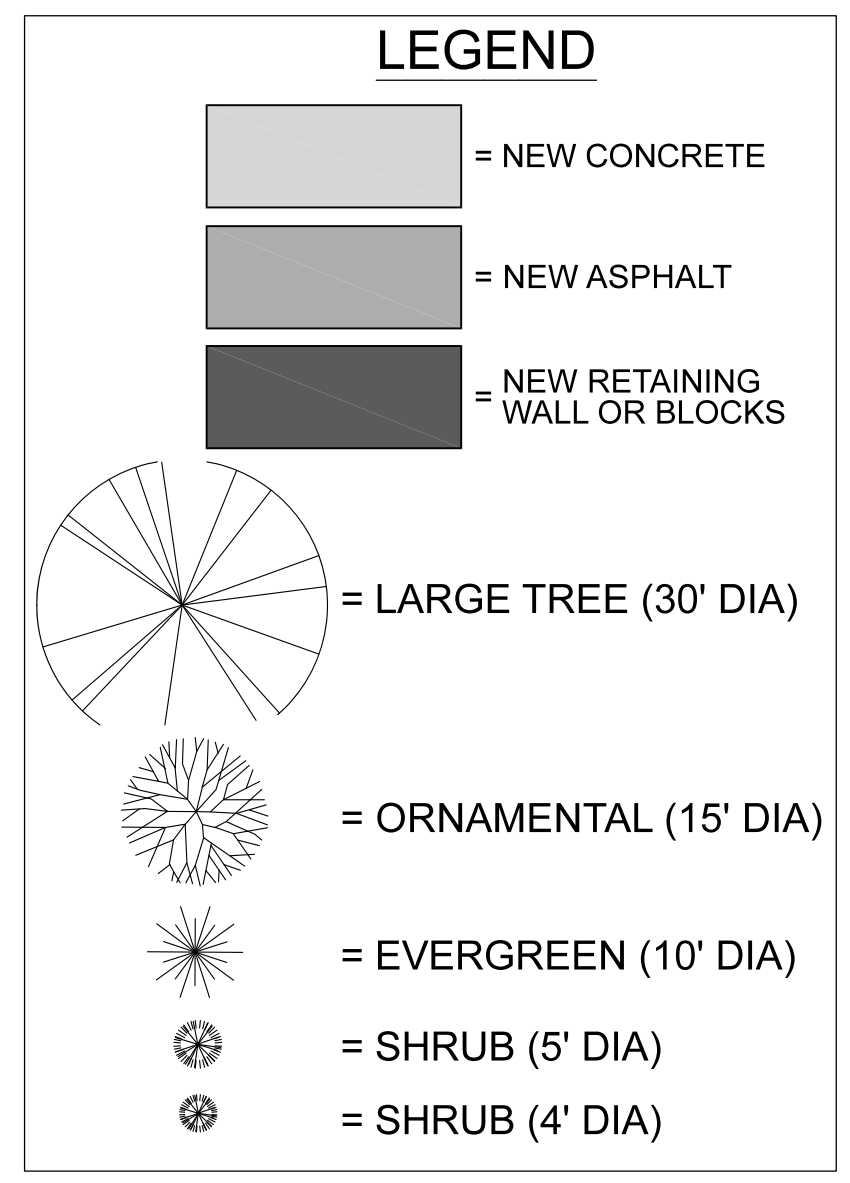
**PLANT REQUIREMENTS (PER TABLE 6-1 OF LAND DEVELOPMENT CODE)**

**LARGE TREES**  
 ROAD FRONTAGE - 2 PER 40' FRONTAGE = 8  
 PARKING - 1 PER 40' PARKING PERIMETER = 11

**ORNAMENTAL TREES**  
 FDN - 1 PER 25' BUILDING FRONTAGE = 3

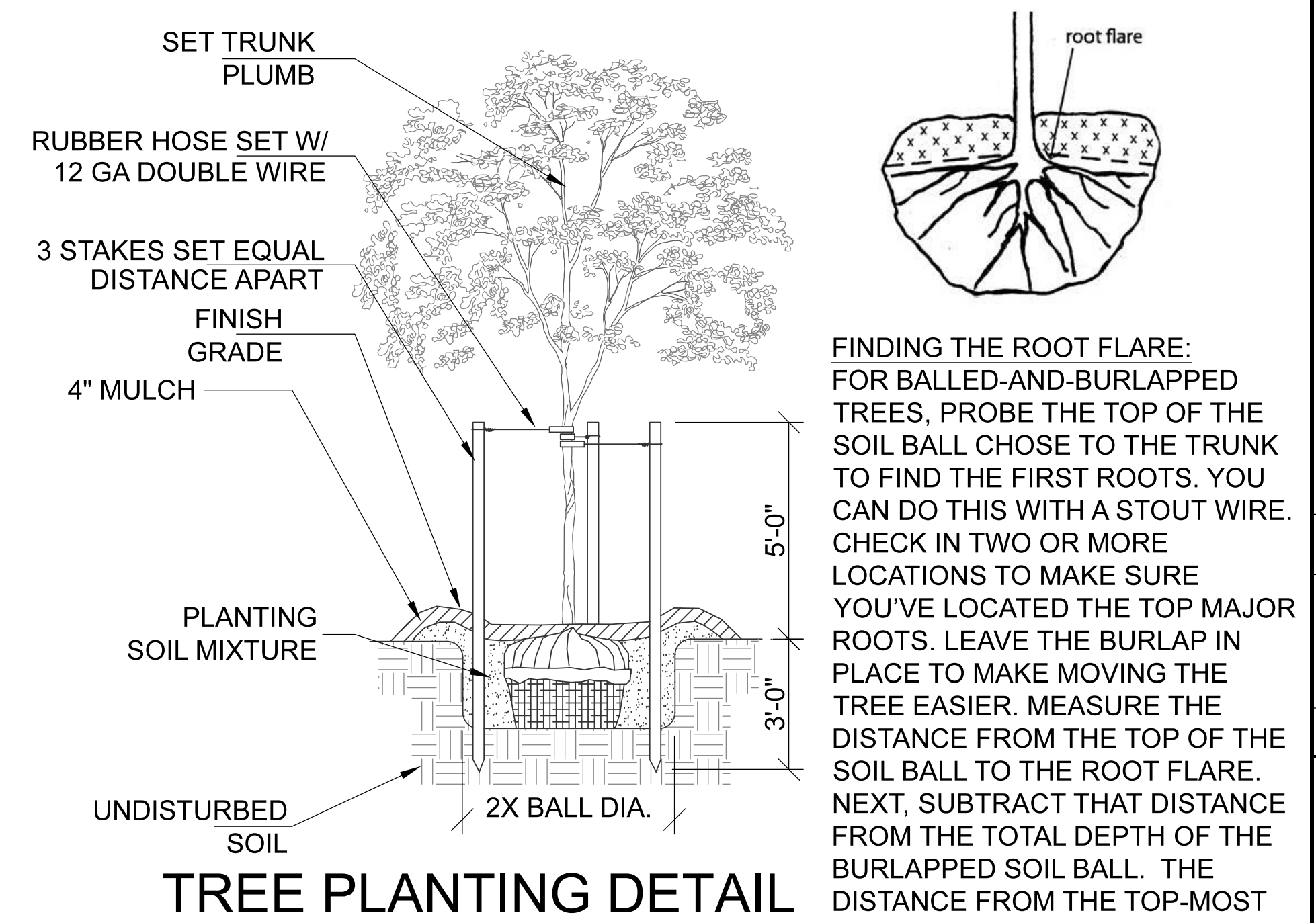
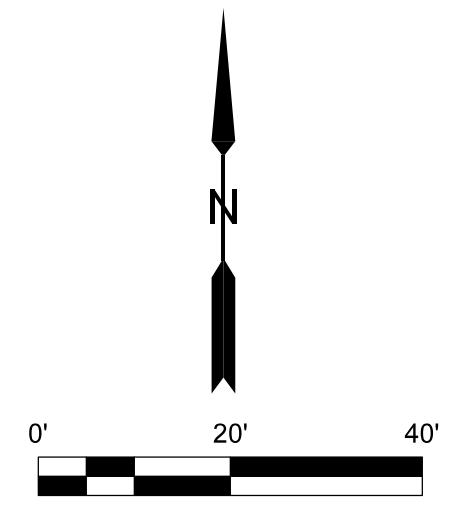
**EVERGREENS**  
 FDN - MAY SUBSTITUTE UP TO 50% OF ORNAMENTAL AT 1 FOR 1  
 PARKING - MAY SUBSTITUTE UP TO 50% OF PERIMETER TREES AT 2 FOR 1

**SHRUBS**  
 FDN - 5 PER 25' BUILDING FRONTAGE = 13  
 PARKING - 5 PER 25' PARKING PERIMETER = 82



**LANDSCAPE NOTES:**

1. LANDSCAPE PLAN IS PREPARED IN COMPLIANCE WITH CITY OF LANSING, KS REQUIREMENTS.
2. TREES / SHRUBS SELECTED FOR PLANTING MUST BE FREE FROM INJURY, DISEASE, PESTS, DEFECTS, ETC. TO ASSURE SURVIVABILITY.
3. ALL TREES TO BE BALLED AND BURLAPED FOR SHIPMENT TO THE SITE.
4. TREES SHALL HAVE A MINIMUM TRUNK DIAMETER OF 2-INCHES AS MEASURED 1-FOOT ABOVE THE GROUND AND HAVE A MINIMUM HEIGHT OF 5 FEET TALL.
5. ALL DISTURBED GROUND TO BE COVERED WITH MULCH, LANDSCAPING, OR SOD.
6. LANDSCAPE CONTRACTOR HAS DESIGN FLEXIBILITY WITH QUANTITIES, LAYOUT, AND SPECIES SELECTION THAT ARE AVAILABLE AT TIME OF CONSTRUCTION. CONSULT WITH OWNER FOR FINAL APPROVAL.
7. PLANTS SHALL MEET OR EXCEED THE QUALITY STANDARDS OF THE AMERICAN ASSOCIATION OF NURSERYMEN AND THE KC NURSERY AND LANDSCAPE ASSOCIATION.
8. PLANTS MUST BE NATIVE OR NATURALIZED SPECIES AND SUITED FOR LEAVENWORTH COUNTY, KS SEASONAL CYCLES.

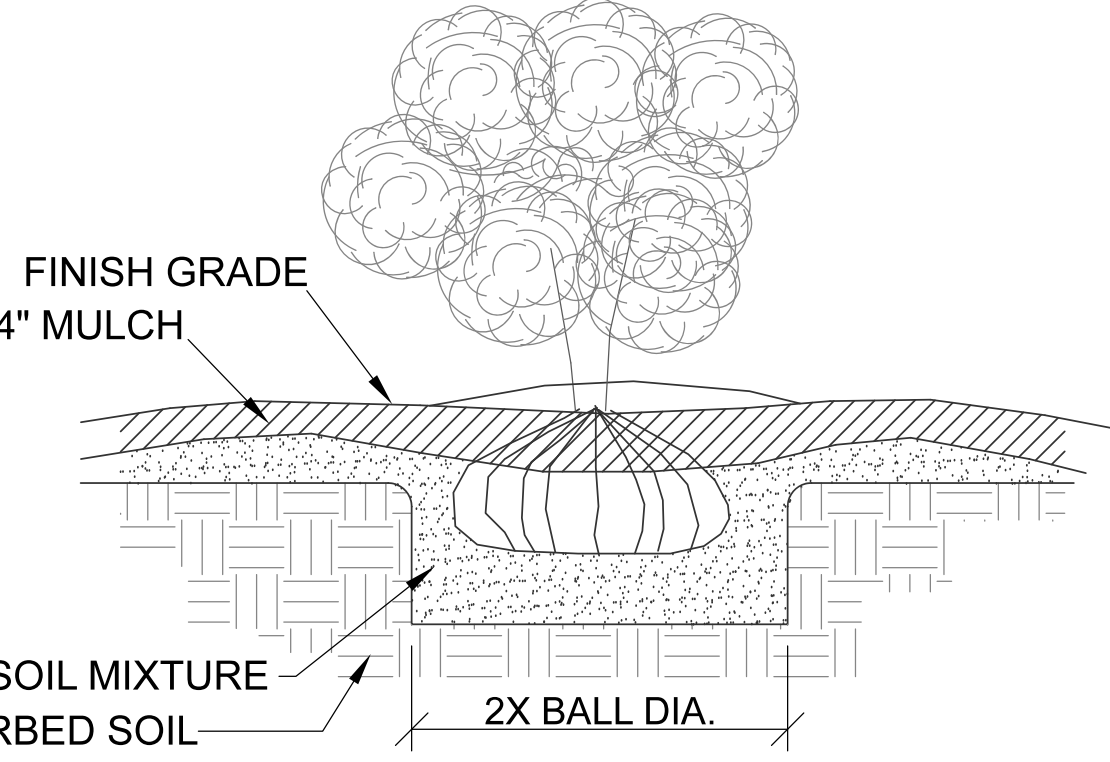


**TREE PLANTING DETAIL**

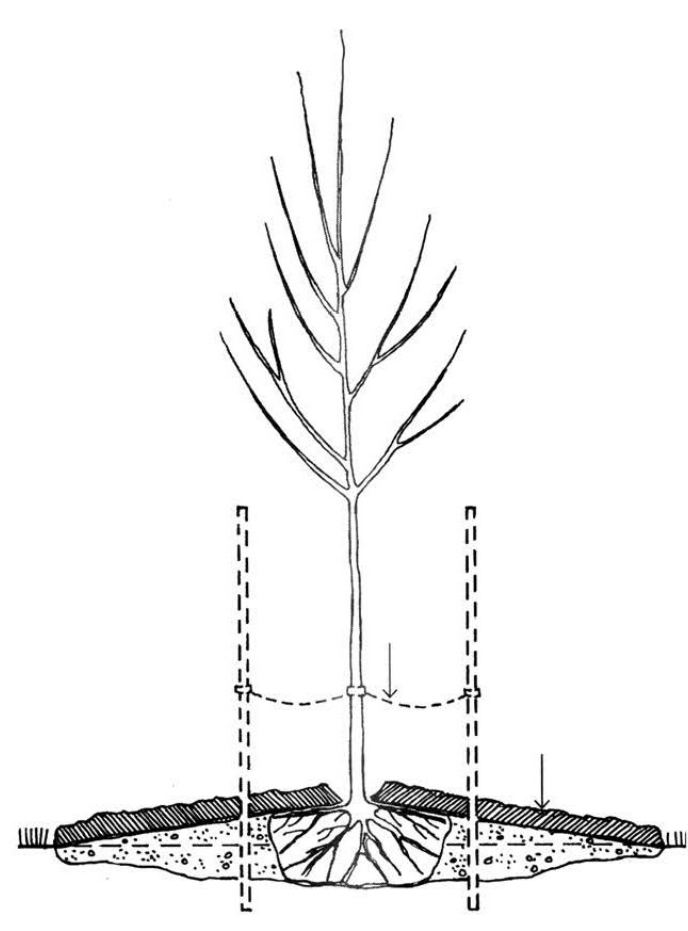
**FINDING THE ROOT FLARE:**  
 FOR BALLED-AND-BURLAPPED TREES, PROBE THE TOP OF THE SOIL BALL CHOSE TO THE TRUNK TO FIND THE FIRST ROOTS. YOU CAN DO THIS WITH A STOUT WIRE. CHECK IN TWO OR MORE LOCATIONS TO MAKE SURE YOU'VE LOCATED THE TOP MAJOR ROOTS. LEAVE THE BURLAP IN PLACE TO MAKE MOVING THE TREE EASIER. MEASURE THE DISTANCE FROM THE TOP OF THE SOIL BALL TO THE ROOT FLARE. NEXT, SUBTRACT THAT DISTANCE FROM THE TOTAL DEPTH OF THE BURLAPPED SOIL BALL. THE DISTANCE FROM THE TOP-MOST BURIED ROOT TO THE BOTTOM OF THE BALL IS THE CORRECT DEPTH TO DIG THE PIT.

**RECOMMENDED SHRUB SPECIES**

- GOLD FLAME SPIREA (SPIRAEA X BUMALDA GOLDFLAME)
- LIMEMOUND SPIREA (SPIRAEA X BUMALDA LIMEMOUND)
- DWARF MAIDEN GRASS (CORTADERIA SELLOANA)
- PAMPAS GRASS (CORTADERIA SELLOANA)
- GOLDEN FORSYTHIA (FORSYTHIA INTERMEDIA)
- BUTTON BUSH (SPECTABILIS)
- EVERGREEN SHRUB (CEPHALANTHUS OCCIDENTALIS)



**SHRUB PLANTING DETAIL**



**COMPACTED SOIL PLANTING DETAIL**

**COMPACTED SOIL PLANTING:**  
 TO TEST FOR COMPACTED SOIL, DO A SIMPLE PERCOLATION TEST. DIG A HOLE 12 INCHES TO 18 INCHES DEEP AND FILL IT WITH WATER. IF THE WATER IS STILL IN THE WHOLE 12 TO 18 HOURS LATER, THEN YOU HAVE COMPACTED OR HEAVY CLAY SOILS.

**ROOTS NEED OXYGEN, SO DIG A WIDE SHALLOW HOLE THREE TO FOUR TIMES THE WIDTH OF THE ROOT BALL OR CONTAINER AND ONLY HALF AS DEEP. MOUND BACKFILL SOIL SLIGHTLY TO THE TOP OF THE ROOT FLARE, COVERING THE ENTIRE EXCAVATION. THIS CREATES A RAISED PLANTING BED, WHICH WILL IMPROVE THE TREE'S PERFORMANCE. SOILS THAT HOLD EXCESSIVE MOISTURE MAY NEED A SUBSURFACE DRAIN TUBE INSTALLED BELOW THE ROOT BALL.**

Common Name	Scientific Name	Height in Feet	Spread in Feet	Flower Color	Fall Color	Soil Moisture	Light Needed	Yearly Growth Rate	Tree Type
Coffeetree, Kentucky	Gymnocladus dioicus	60-75	40-60	Greenish White	Yellow	Average	Full sun	Medium	Large shade tree
Ginkgo	Ginkgo biloba	50-60	30-40	Not showy	Bright yellow	Average	Full sun to light shade	Slow to medium	Large shade tree
Hornbeam, European	Carpinus betulus	40-60	20-40	Red	Yellow-Green	Average	Full sun to light shade	Medium	Large shade tree
Oak, English	Quercus robur	40-60	10-40	Not showy	Brown	Average	Full sun	Medium	Large shade tree
Oak, Northern red	Quercus rubra	60-80	60-80	Not showy	Red	Average	Full sun	Medium to fast	Large shade tree
Oak, scarlet	Quercus coccinea	60-80	30-50	Not showy	Russet to red	Average	Full sun	Medium	Large shade tree
Oak, white	Quercus alba	70-90	50-80	Not showy	Reddish-Purple	Moist to dry	Full sun	Slow	Large shade tree
Alder, European	Alnus glutinosa	40-60	20-30	Red-Brown	Green	Wide range	Full sun to light shade	Fast	Large shade tree
Black gum	Nyssa sylvatica	40-60	20-30	Greenish White	Orange to scarlet	Wide range	Full sun to light shade	Slow	Large shade tree
Honeylocust, thornless	Gleditsia triacanthos var. inermis	30-60	25-50	Not showy	Yellow	Wide range	Full sun	Fast	Large shade tree
Oak, bur	Quercus macrocarpa	70-80	70-80	Not showy	Yellow-Brown	Wide range	Full sun	Slow	Large shade tree
Beech, European	Fagus sylvatica	40-50	15-25	Brown	Yellow-Bronze	Average	Full sun to light shade	Slow	Medium tree
Hophornbeam	Ostrya virginiana	30-40	20-30	Red-Brown	Yellow	Average	Full sun to light shade	Slow	Medium tree
Filbert, Turkish	Corylus colurna	40-50	20-25	Not showy	Yellow to purple to red	Wide range	Full sun	Medium	Medium tree
Hawthorn	Crataegus species	20-30	15-30	White	Scarlet	Average	Full sun to light shade	Medium	Small tree
Lilac, Japanese tree	Syringa reticulata	20-30	15-25	Creamy white	Yellow	Wide range	Full sun	Medium	Small tree
Maple, Tatarian	Acer species	15-20	15-20	Green-White	Red and Reddish-Brown	Wide range	Full sun to light shade	Slow to medium	Small tree
Maple, Shantung	Acer species	20-30	20-25	Green-Yellow	Yellow to red	Wide range	Full sun to light shade	Slow	Small tree

**APPROVED TREE SPECIES**

**TREE PLACEMENT GUIDELINES**

1. SPACE TREES 30 - 50 FEET APART.
2. PLACE TREES NO CLOSER THAN 15 FEET FROM STREET OR AREA LIGHTING.
3. PLACE TREES NO CLOSER THAN 8 FEET FROM A DRIVEWAY.
4. PLACE TREES NO CLOSER THAN 5 FEET FROM A FIRE HYDRANT.
5. PLACE TREES NO CLOSER THAN 5 FEET FROM A STORM BOX, GAS VALVE, WATER VALVE, CABLE BOX, OR ANY OTHER ABOVE GROUND UTILITY.



CLIENT: REDDELL HOLDINGS, LLC LEAVENWORTH, KS  
 DRAWN BY: DJS DATE: 11-16-2021 SCALE: AS NOTED  
 ELECTRONIC FILE NAME: [blank]  
 SHT. 16 OF 16  
 LANDSCAPE PLAN  
 LANSING FAMILY EYE CENTER LANSING, KS  
 Schulte Engineering & Consulting, LLC  
 21 Gates Dr. Pitts City, MO 64573  
 www.schulteengineering.com  
 admin@schulteengineering.com  
 PHONE: (816) 260-3328  
 REV. DATE BY DESCRIPTION  
 3 08-08-2022 DJS WEST RET. WALL REMOVED, MOVE TREE, ADD SCREEN FENCE  
 2 2-25-2022 DJS REVISE LANDSCAPING LAYOUT  
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