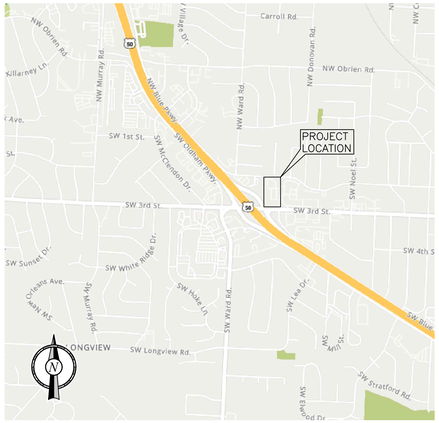
FINAL DEVELOPMENT PLANS FOR

QUIKTRIP STORE No. 0183R

1001 SW Blue Parkway

Lee's Summit, Jackson County, Missouri

SW 1/4, S6 - T47N - R31W



VICINITY MAP
N.T.S.

GENERAL NOTES:

1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR SHALL 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. ANY CONSTRUCTION OBSERVATION BY THE ENGINEER OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES, IN, ON OR NEAR THE CONSTRUCTION SITE.
2. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL NECESSARY PERMITS HAVE BEEN OBTAINED FROM THE GOVERNING AGENCIES AND COORDINATING ALL GOVERNING AGENCY INSPECTIONS REQUIRED THROUGHOUT THE DURATION OF THE PROJECT.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES, RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED. REFERENCE SITE WORK SPECIFICATIONS.
4. CONTRACTOR IS TO REMOVE AND DISPOSE OF ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
5. THE CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR DAMAGE TO ADJACENT PROPERTIES AND NEW CONSTRUCTION IN PLACE DURING THE CONSTRUCTION PHASES OF THIS PROJECT. ANY DISTURBED IMPROVEMENTS SHALL BE REPLACED IN KIND AT THE CONTRACTORS EXPENSE.
6. ANY QUANTITIES PROVIDED ON THESE PLANS ARE FOR GENERAL REFERENCE PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITIES REQUIRED FOR CONSTRUCTION.
7. THE EXISTING FEATURES SHOWN ON THESE PLANS ARE THOSE NOTED IN THE FIELD AND THOSE TAKEN FROM RECORD DRAWINGS. THERE IS NO GUARANTEE THAT ALL FEATURES (ABOVE OR BELOW GROUND) ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING FEATURES PRIOR TO BIDDING THE PROJECT.
8. THE CONTRACTOR SHALL LOCATE ALL UTILITIES PRIOR TO BEGINNING CONSTRUCTION BY CONTACTING THE LOCAL UTILITY COMPANIES AND/OR UTILIZING THE LOCAL ONE-CALL SYSTEM. ANY DAMAGE DONE TO EXISTING UTILITIES (THAT ARE TO REMAIN IN PLACE) DURING CONSTRUCTION OPERATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY AND REPAIRED AT THE CONTRACTOR'S EXPENSE.
9. ALL SITE WORK FOR THIS PROJECT SHALL MEET OR EXCEED THE OWNERS CONTRACT DOCUMENTS AND SPECIFICATIONS. ALL WORK SHALL MEET OR EXCEED THE RELEVANT UTILITY COMPANIES AND REGULATORY AGENCIES, CONTRACT DOCUMENTS AND SPECIFICATIONS. ALL WORK WITHIN PUBLIC AND STATE RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE GOVERNING AGENCIES STANDARDS AND SPECIFICATIONS.
10. TRAFFIC CONTROL SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), CURRENT EDITION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE PROPER TRAFFIC CONTROL IS IN PLACE FOR EACH PHASE OF CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR PROPERLY MAINTAINING TRAFFIC CONTROL DEVICES THROUGHOUT THE DURATION OF THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL PLANS TO THE CITY AND DEPARTMENT OF TRANSPORTATION AS REQUIRED.

WETLANDS NOTICE:

ANY DEVELOPMENT, EXCAVATION, CONSTRUCTION, OR FILLING IN A U.S. CORPS OF ENGINEERS DESIGNATED WETLAND IS SUBJECT TO LOCAL, STATE AND FEDERAL APPROVALS. THE CONTRACTOR SHALL COMPLY WITH ALL PERMIT REQUIREMENTS AND/OR RESTRICTIONS AND ANY VIOLATION WILL BE SUBJECT TO FEDERAL PENALTY. THE CONTRACTOR SHALL HOLD THE OWNER/ DEVELOPER, THE ENGINEER AND THE LOCAL GOVERNING AGENCIES HARMLESS AGAINST SUCH VIOLATION.

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 THE ENGINEER NOR ITS PERSONNEL CAN OR DO WARRANT THESE DESIGNS OR PLANS AS CONSTRUCTED EXCEPT IN THE SPECIFIC CASES WHERE THE ENGINEER INSPECTS AND CONTROLS THE PHYSICAL CONSTRUCTION ON A CONTEMPORARY BASIS AT THE SITE.

NOTICE TO BIDDERS:

ALL QUESTIONS REGARDING THE PREPARATION OF THE GENERAL CONTRACTOR'S BID SHALL BE DIRECTED TO THE OWNER'S CONSTRUCTION REPRESENTATIVE. SUBCONTRACTORS MUST DIRECT THEIR QUESTIONS THROUGH THE GENERAL CONTRACTOR. THE CONSULTING ARCHITECT AND/OR THE CONSULTING ENGINEER SHALL NOT BE CONTACTED DIRECTLY WITHOUT PRIOR AUTHORIZATION FROM THE OWNER/DEVELOPER.

FLOOD CERTIFICATION:

THIS PROPERTY LIES IN ZONE "X", AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP FOR THE JACKSON COUNTY, MISSOURI AND INCORPORATED AREAS, COMMUNITY PANEL NUMBER 29095C0417G EFFECTIVE DATE JANUARY 20, 2017.

BENCHMARKS:

BM-60 *ELEV=996.63*
TBM 60 CHSL SQUARE, N: 999912.698, E: 2819227.744
SET CHISELED SQUARE ON THE FRONT/CENTER FACE OF A CONCRETE STORM BOX, +/- 210' WEST OF THE CENTERLINE OF BLUE PARKWAY

BM-61 *ELEV=1009.71*
TBM 61 CHSL SQUARE, N: 999524.652, E: 2819418.237
SET CHISELED SQUARE 8.55' SOUTH OF THE NORTH NOSE OF A CONCRETE ISLAND IN BLUE PARKWAY

NOTE:
CONSTRUCTION STAKING SURVEYOR SHALL VERIFY HORIZONTAL & VERTICAL CONTROLS PRIOR TO COMMENCING PROJECT STAKING ACTIVITIES.

PROJECT BENCHMARKS WILL BE DEMOLISHED. THE CONTRACTOR IS RESPONSIBLE FOR SETTING NEW CONSTRUCTION BENCHMARKS PRIOR TO THE START OF DEMOLITION.

SURVEYOR'S SUGGESTED LEGAL DESCRIPTION:

Lot 1 and Lot 2, REPLAT OF QUIKTRIP BLUE PARKWAY – LOTS 1 AND 2, a subdivision in the City of Lee's Summit, Jackson County, Missouri, according to the recorded plat thereof. Containing 114,747.592 square feet (2.634 Acres) more or less.

MUNICIPAL/UTILITY CONTACT LIST:

CITY
LEE'S SUMMIT
220 SE GREEN ST
LEE'S SUMMIT, MO 64063
816-969-1000

MAYOR
BILL BAIRD
220 SE GREEN ST
816-969-1010
wbaird@cityofls.net

CITY MANAGER'S OFFICE
816-969-1010

CITY CLERK
816-969-1007

PUBLIC WORKS
816-969-1800

DEVELOPMENT SERVICES
816-969-1200

CHIEF OF POLICE
TRAVIS FORBES
816-969-7390

MoDOT
DAVE McDANIEL
TRAFFIC SPECIALIST
600 NE COLBERN ROAD
LEE'S SUMMIT, MO 64086
816-585-8703
david.mcdaniel@modot.mo.gov

WATER/SEWER
WATER UTILITIES SERVICE CENTER
1200 SE HAMBLEN ROAD
LEE'S SUMMIT, MO 64081
816-969-1900

PROJECT CONTACT LIST:

SURVEYOR OF RECORD
JOSH DOUGHAN, PLS
McCLURE ENGINEERING CO.
11250 CORPORATE AVE
LENEXA, KS 66219
TEL: (515) 964-1229
CELL: (515) 505-4106
jdoughan@mecresults.com

ENGINEER OF RECORD
CONNOR HOLMAN, P.E.
MIDWEST DESIGN GROUP
P.O. BOX 860015
SHAWNEE, KS 66286-0015
CELL: (913) 787-0183
connor@mdg-kc.com

DEVELOPER/OWNER
TARA LIMBACH
RE PROJECT MANAGER
QUIKTRIP CORPORATION
5725 FOXRIDGE DRIVE
MISSION, KS 66202
TEL: (913) 905-2070
CELL: (816) 729-1393
tlimbach@quiktrip.com

QT CIVIL PROJECT MANAGER
TRAVIS WUNCSH
QUIKTRIP CORPORATION
CORPORATE OFFICE
4705 SOUTH 129TH E AVE
TULSA, OK 74134-7008
TEL: (918) 994-3545
twunsch@quiktrip.com

LEGEND:

DESCRIPTION	PROPOSED	EXISTING
STORM 12" & UP		
STORM <12"	ST	st
UNDER CURB/PAVEMENT DRAIN	UCP	
STORM SEWER CLEANOUT	CO	CO
CURB INLET	CI	CI
JUNCTION BOX	JB	JB
GRATE INLET	GI	GI
WATER	WTR	wtr
FIRE HYDRANT	FH	FH
WATER METER	W	W
WATER VALVE		
OVERHEAD ELECTRICAL	OHE	ohe
UNDERGROUND ELECTRICAL	UGE	uge
POWER POLE	PP	PP
PUBLIC STREET LIGHT POLE	LP	LP
OVERHEAD TELEPHONE	OHT	oht
UNDERGROUND TELEPHONE	UGT	ugt
TELEPHONE MANHOLE	TELE MH	TELE MH
FIBER OPTIC CABLE	UFOC	ufoc

DESCRIPTION	PROPOSED	EXISTING
QT SINGLE LIGHT FIXTURE		
QT DOUBLE LIGHT FIXTURE		
SANITARY SEWER	SS	ss
SANITARY SEWER MANHOLE	SSMH	SSMH
SANITARY SEWER CLEANOUT	CO	CO
GAS	GAS	gas
BENCHMARK		
FENCE	//	//
PROPERTY LINE		
CONCRETE CURB AND GUTTER		
MOUNTABLE CURB W/ RADIUS PROTECTOR		
PARKING SPACE INDICATOR	#	
MULTIPLE PRODUCT AUTO DISPENSER WITH CANOPY COLUMN & BOLLARDS		
LANDSCAPE BED	LS	
ELECTRICAL TRANSFORMER	TFR	
FUEL SYSTEM TRANSITION SUMP		

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C030	DEMOLITION PLAN
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C102	VEHICLE TRACKING (WB-50)
C110	OVERALL GRADING PLAN
C111	GRADING PLAN
C112	BUILDING AND DETAILED GRADING PLAN
C113	CANOPY AND DETAILED GRADING PLAN
C114	SW BLUE PKWY DETAILED GRADING PLAN
C115	SW 2ND ST DETAILED GRADING PLAN
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C521	PAVING DETAILS
C522	PAVING DETAILS
C523	PAVING DETAILS
C524	PAVING DETAILS
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C550	CITY STANDARD DETAILS
C551	CITY STANDARD DETAILS
L100	LANDSCAPE PLAN
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L500	LANDSCAPE DETAILS
L510	IRRIGATION DETAILS SHEET 1
L511	IRRIGATION DETAILS SHEET 2

ASSOCIATED CIVIL PLANS

PUBLIC IMPROVEMENT PLANS - MDG
SWPPP - MDG

CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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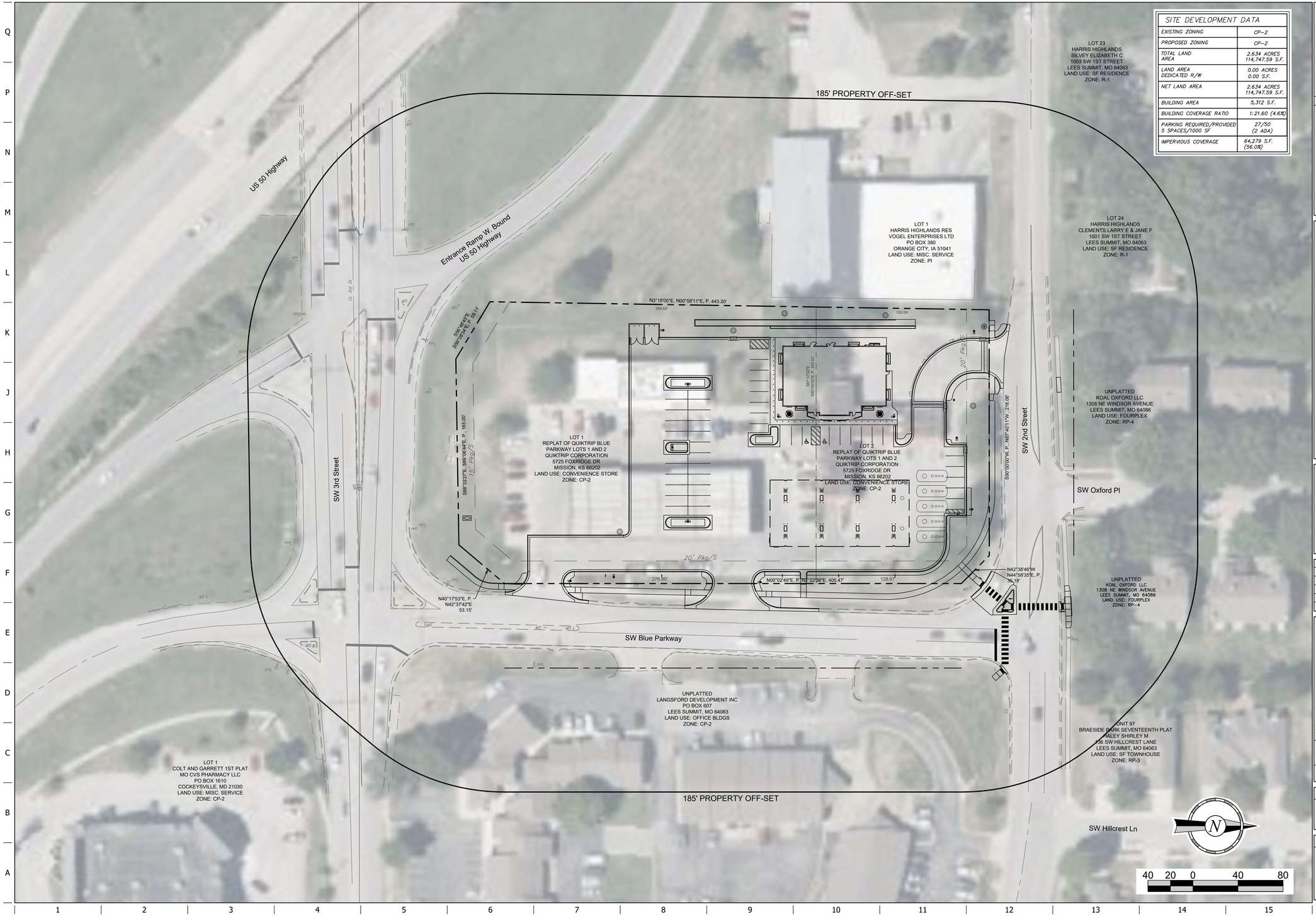
PROTOTYPE:	P-118
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DRAWN BY:	CSH
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REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
C001

FILE LOCATION:\\DESKTOP-HIMC8QB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Cover USER:dshol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM



SITE DEVELOPMENT DATA	
EXISTING ZONING	CP-2
PROPOSED ZONING	CP-2
TOTAL LAND AREA	2.634 ACRES 114,747.59 S.F.
LAND AREA DEDICATED R/W	0.00 ACRES 0.00 S.F.
NET LAND AREA	2.634 ACRES 114,747.59 S.F.
BUILDING AREA	5,312 S.F.
BUILDING COVERAGE RATIO	1:21.60 (4.6%)
PARKING REQUIRED/PROVIDED 5 SPACES/1000 SF	27/50 (2 ADA)
IMPERVIOUS COVERAGE	64,279 S.F. (56.0%)

CONNOR S. HOLMAN
NUMBER PE-2021004777
STATE OF MISSOURI
PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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Kansas City
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Shawnee, KS 66286-0015
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QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
OVERALL SITE PLAN

SHEET NUMBER:
C010

FILE LOCATION:\\DESKTOP-HNC8GB\Civil 3D Projects\QT\83 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Overall Plan Layout USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM

PER THE MDNR WELL INSTALLATION SECTION DRILLING INFORMATION MAP DATABASE, THERE ARE NO OIL AND GAS WELLS ONSITE.

COLORED UTILITIES SHOWN HAVE BEEN FIELD VERIFIED BY THE S.U.E. CONSULTANT. REFER TO S.U.E. PLAN FOR FURTHER DETAILS.

DEMOLITION HAS BEEN PERFORMED ON THE CAR WASH LOT TO BRING THE SITE DOWN TO SLAB/FINISH GRADE. FOOTINGS, LIGHT POLE BASES, ETC. WILL REQUIRE REMOVAL.

DEMOLITION LEGEND

- EX CONCRETE PAVEMENT /SIDEWALK REMOVAL
- EX ASPHALT PAVEMENT REMOVAL
- EX BUILDING DEMOLITION
- LIMITS OF DISTURBANCE (LOD)

DEMOLITION NOTES:

1. THE DEMOLITION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL CITY, COUNTY, STATE AND FEDERAL PERMITS REQUIRED TO COMPLETE THE DEMOLITION WORK.
2. THE EXISTING FEATURES SHOWN ON THESE PLANS ARE THOSE NOTED IN THE FIELD AND THOSE TAKEN FROM RECORD DRAWINGS. THERE IS NO GUARANTEE THAT ALL FEATURES (BOTH ABOVE AND BELOW GROUND) ARE SHOWN ON THE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RAZING AND REMOVAL OF THE EXISTING STRUCTURES (IF APPLICABLE), RELATED UTILITIES, PAVING, AND ANY OTHER EXISTING IMPROVEMENTS AS NOTED AND/OR NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS. REFER TO SITE WORK SPECIFICATIONS.
4. THE CONTRACTOR IS TO REMOVE AND DISPOSE OF (OFF-SITE) ALL DEBRIS, RUBBISH AND OTHER MATERIALS RESULTING FROM PREVIOUS AND CURRENT DEMOLITION OPERATIONS. DISPOSAL WILL BE IN ACCORDANCE WITH ALL LOCAL, STATE AND/OR FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS. ANY HAZARDOUS MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE ENVIRONMENTAL LAWS, AS REQUIRED. REFER TO ENVIRONMENTAL REPORT. CONTRACTOR TO CONTACT QT ENVIRONMENTAL COMPLIANCE ENGINEER WITH DISPOSAL PLAN, AS REQUIRED.
5. THE CONTRACTOR SHALL PROVIDE PROPER PROTECTION OF EXISTING FEATURES THAT ARE TO REMAIN TO THE SATISFACTION OF THE OWNER AND GOVERNING AGENCIES. ANY EXISTING FEATURES DAMAGED DURING THE COURSE OF DEMOLITION/CONSTRUCTION SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
6. THE CONTRACTOR SHALL PROVIDE A FULL DEPTH SAW CUT WHERE PAVEMENT DEMOLITION ABUTS PAVEMENT THAT REMAINS IN PLACE. WHERE NEW PAVEMENT IS TO BE PLACED ADJACENT TO THIS SAW CUT, THE SAW CUT EDGE IS TO BE PROTECTED UNTIL NEW PAVEMENT IS PLACED. IN THE EVENT THE SAW CUT BECOMES DAMAGED THE CONTRACTOR SHALL PROVIDE A NEW SAW CUT TO ESTABLISH A "CLEAN" EDGE FOR THE NEW PAVEMENT TO ABUT.
7. REFER TO EROSION CONTROL PLANS FOR EROSION CONTROL MEASURES THAT CAN BE INSTALLED PRIOR TO PERFORMING DEMOLITION OPERATIONS (I.E. PERIMETER SEDIMENT FENCE).
8. ALL EXISTING TREES AND LANDSCAPING WITHIN THE CONSTRUCTION LIMITS ARE TO BE REMOVED.
9. EXISTING STORM PIPE CONNECTIONS TO BE REMOVED FROM PUBLIC MAIN STORM SYSTEMS SHALL BE PLUGGED PER GOVERNING AGENCY'S STANDARD SPECIFICATIONS.

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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QuikTrip No. 0183R

1001 SW BLUE PARKWAY
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REVIEWED BY: TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
DEMOLITION PLAN

SHEET NUMBER:
C030

FILE LOCATION:\\DESKTOP-HIMC8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Demo USER:rdehol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM

SITE NOTES:

1. REFER TO SIGNAGE PLAN FOR DIRECTIONAL SITE SIGNAGE DETAILS.
2. ALL DIMENSIONS SHOWN ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
3. REFER TO CONTRACT SPECIFICATIONS FOR STRIPING DETAILS.
4. THE MAXIMUM CROSS SLOPE ON ALL PROPOSED SIDEWALKS, INCLUDING PUBLIC AND PRIVATE SIDEWALK DRIVEWAY CROSSINGS, IS 1.5%.
5. REFER TO ELECTRICAL PLANS FOR SITE LIGHTING, SECURITY CAMERA AND SIGNAGE WIRING DETAILS.
6. REFERENCE PHOTOMETRIC SITE PLAN (C160) FOR SITE LIGHTING DETAILS. LIGHT POLE LOCATIONS CAN BE SCALED FROM DRAWINGS OR STAKED BY CONSTRUCTION STAKING CONTRACTOR.
7. UNDERGROUND STORAGE TANKS ARE TO BE STAKED USING THE FUEL PLANS (BY CORE STATES). TANK EXCAVATION LIMITS SHALL BE STAKED USING THE FUEL INSTALLER'S SHORING DIMENSIONS. ENGINEER TO PROVIDE FINISH GRADE ELEVATIONS AT SHORING CORNERS IF REQUIRED. THE CONTRACTOR SHALL NOTIFY THE FIRE DEPARTMENT FOR STORAGE TANK AND FUEL LINE INSPECTIONS AS REQUIRED.
8. OUTSIDE TABLE INSTALLATION SHALL CONFORM TO MANUFACTURER SPECIFICATIONS.
9. REGULATORY SIGNAGE SHALL CONFORM TO M.U.T.C.D.
10. LOW VOLTAGE POLES ARE TO BE INSTALLED AS INDICATED ON THE SECURITY PLAN. REFER TO SECURITY PLAN FOR FINAL LOW VOLTAGE POLE LOCATIONS.
11. ALL IMPROVEMENTS WITHIN PUBLIC RIGHT OF WAY SHALL BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY SPECIFICATIONS.
12. REFER TO STRUCTURAL PLANS FOR ALL BOLLARD INSTALLATION DETAILS.
13. LANDSCAPE WALLS SHALL BE ALLAN BLOCK MODULAR WALLS, AB CLASSIC COLLECTION, ANTIQUE BRONZE COLOR (OR APPROVED EQUAL). WALLS SHALL BE INSTALLED PER MANUFACTURER SPECIFICATIONS.

SITE LEGEND

- BOUNDARY LINE
- CONCRETE CURB AND GUTTER
- MOUNTABLE CURB W/RADIUS PROTECTOR
- 7 — PARKING SPACE INDICATOR
- AREA LIGHT
- MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMN AND BOLLARDS
- TFR — TRANSFORMER
- FUEL SYSTEM ACCESS MANWAY

Entrance Ramp W. Bound
US 50 Highway

SW 3rd Street

SW Blue Parkway

SW 2nd Street

SW Oxford Pl

CL 3rd St

90' ROW VARIES

75' ROW

6"W CONCRETE SPILLWAY CHANNEL RE: C120

RELOCATED GUY WIRE RE: C150

6" SS SERVICE RE: C151

IRRIGATION STUB W/ ELEC CONDUIT RE: C150

30" MAXIMUM HEIGHT MODULAR WALL RE: NOTE 13, C112

TELE SERVICE RE: C150

PROP 8' TEMPORARY CONSTRUCTION & GRADING ESMT

PAD-MOUNT TRANSFORMER RE: C150

30'X15' WATER ESMT BY REPLAT

5' CONC. RADIUS PROTECTOR AT DRIVES (TYP) RE: PAVING

DOUBLE TRASH ENCLOSURE RE: ARCH

16' Water/E Bk I-318, Pg 386 TO BE VACATED

PROP 15' SS/E BY REPLAT

8" SS MAIN EXTENTION RE: SS IMPROVEMENT PLANS

15' U/E Bk. I-66, Pg. 457 TO BE VACATED

Abutter's Rights Bk I-89, Pg 534

15' Pkg/S

20' Pkg/S

GREASE INTERCEPTOR RE: C151

ELEC EQUIP W/ METER RE: ELEC

TELE SERVICE RE: C150

G3SE-FGR (P-116) STORE NO.: 0183R 5,312 S.F. (OUTER DIMENSION) BLDG. HT.= 20'-0"

EMERGENCY EXIT ONLY

BOLLARDS RE: C132

10' U/E

ADA TABLE

ADA SIGNAGE RE: L11-C510 CL-60-F

IDB-20

OUTDOOR TABLE RE: A1-C500

LOW VOLTAGE POLE RE: NOTE 10

DOMESTIC & IRRIGATION WATER SERVICES/METERS RE: C150

HYDROBLOCK TRENCH DRAIN RE: C120

REPLACE SIDEWALK AS REQUIRED FOR WATER SERVICE CONNECTION

SITE LIGHTING (TYP) RE: C160

RELOCATED 8" SS MAIN RE: SS IMPROVEMENT PLANS

ADA PARKING W/ VAN STALL RE: L6-C510

TRANSITION SUMP (TYP) RE: FUEL

FUEL CANOPY RE: CANOPY

ESO RE: FUEL

ADA DISPENSERS W/ ADA SIGNAGE RE: FUEL

CANOPY BOLLARDS RE: STRUCTURAL PLANS & L11-C523

CANOPY ROOF DRAIN RE: C120

IDC-20

IDC-20s

Ped & Veh/R Bk I-3067, Pg 901 TO BE VACATED

PROP 20' SS/E BY REPLAT

(2) 4" SCH40 PVC IRRIGATION CONDUIT (TYP) RE: IRRIGATION

(5) NO PARKING SIGNS

QT HORIZONTAL MONUMENT SIGN, MV-E2PG-CC-49 W/ BRICK BASE 12'H X 5'-5 1/2"W X 49SF

INTEGRAL SIDEWALK/WALL RE: PAVING

CONC. RADIUS PROTECTOR (TYP) RE: PAVING

6" FH ASSEMBLY RE: C150

PARKING LOT CURB RAMP RE: A1-C510

RUT PROTECTOR RE: PAVING

5' SIDEWALK PER CITY SPECS RE: C550 SHEETS

PEDESTRIAN CROSSING SIGN PER MUTCD (W11-2 & W16-7P)

RECONSTRUCTED ISLAND. PROP PED RAMPS TO MEET PROWAG.

RECONSTRUCTED ASPHALT PER CITY SPECS

PEDESTRIAN CROSSING SIGNS PER MUTCD (W11-2 & W16-7P)

PROP PED RAMPS TO MEET PROWAG

PROP PED CROSSING PVMT MARKING PER CITY SPECS RE: C550 SHEETS

EXIST STOP SIGN

EXIST 4' SIDEWALK

5' SIDEWALK PER CITY SPECS RE: C550 SHEETS

AIR STATION W/ COVERED BOLLARD RE: F1-C510 & STRUCTURAL

AUTO TANKS W/ SLURRY CAP RE: FUEL & A11-C500

15' SW Bell/E Bk I-2838, Pg 149 TO BE VACATED

Storm JB Top=995.18 E 12"RCP(S)=991.66 E 12"RCP(W)=991.53 E 12"RCP(E)=991.43

Storm JB Top=995.69 E 12"RCP(W)=992.05 E 12"RCP(E)=992.05

Curb Inlet Top=996.49 E 12"RCP(W)=992.29 E 12"RCP(E)=992.19

Storm MH Top=997.59 E 12"RCP(S)=993.81 E 12"RCP(W)=993.51 E 12"RCP(E)=993.44

Curb Inlet Top=998.17 E 12"RCP(W)=994.25 E 12"RCP(SE)=993.15

Storm MH Top=1009.04 E 12"RCP(E)=1005.49 E 12"RCP(N)=1005.34

Storm JB Top=1009.06 Surveyor Cannot Open Lid

Curb Inlet Top=1009.21 E 12"RCP(W)

Curb Inlet Top=1007.93 E 12"RCP(S)=1003.56 E 12"RCP(N)=1000.07

SSMH Top=1006.55 E 8"VCP(E)=998.55 E 8"VCP(W)=998.36

Curb Inlet Top=999.86 E 12"RCP(W)=995.06 E 12"RCP(S)=994.86 E 18"RCP(E)=Silt Filled

Curb Inlet Top=1000.45 E 18"RCP(W)=993.00 E 18"RCP(NE)=992.90

Curb Inlet Top=998.78 E 18"RCP(SW)=992.73 E 18"RCP(N)=992.63

Curb Inlet Top=998.88 E 18"RCP(S)=992.08 E 18"RCP(N)=991.98

Elec & Comm/E Bk I-2895, Pg 41

30 15 0 30 60

CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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DIVISION:	02
VERSION:	001
DESIGNED BY:	CSH
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REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

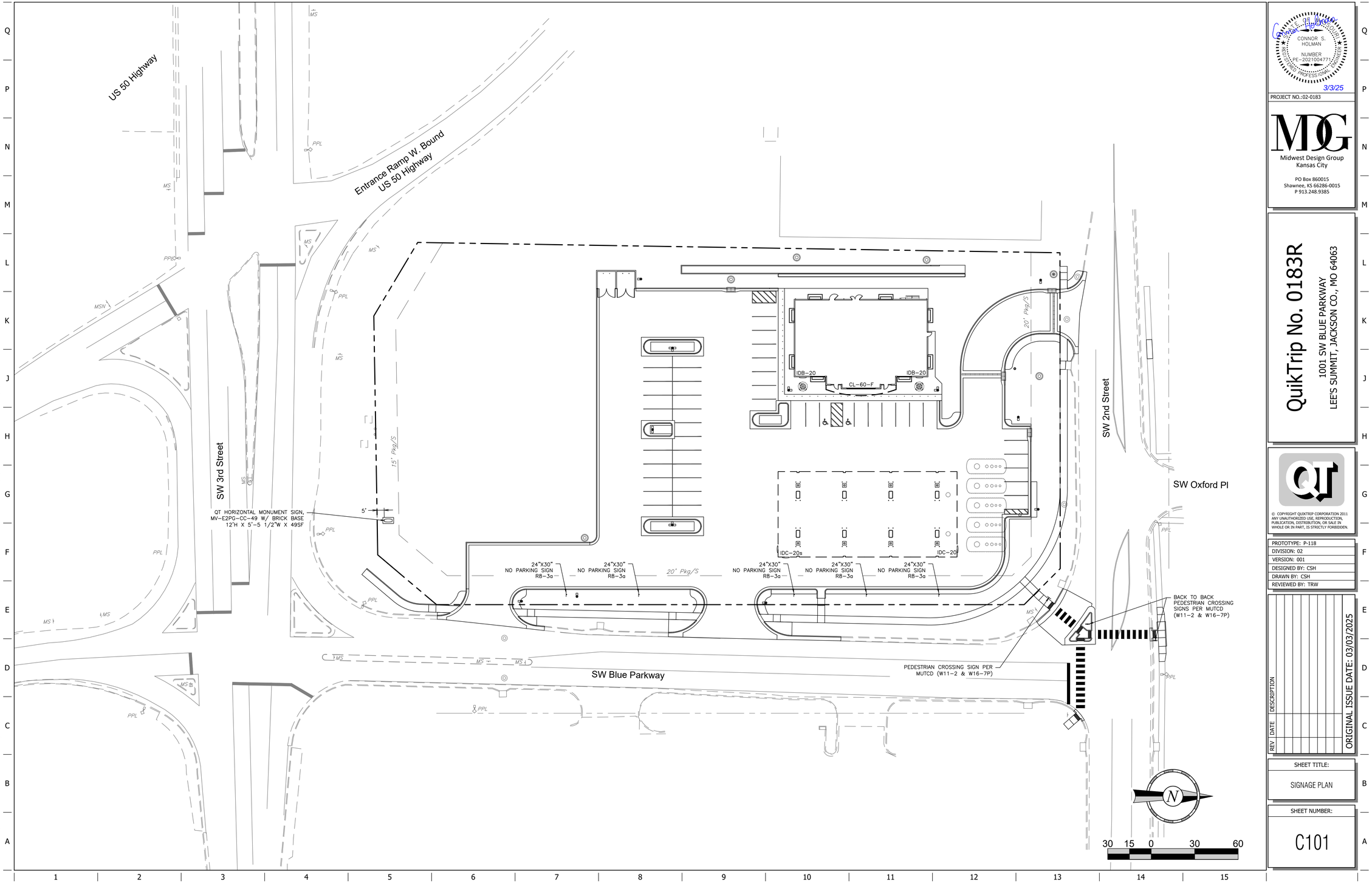
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SITE PLAN

SHEET NUMBER:

C100

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FILE LOCATION:\\DESKTOP-HIMO8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Signage USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM

Connor S. Holman 3/3/25

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER

PROJECT NO.:02-0183

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REV	DATE	DESCRIPTION

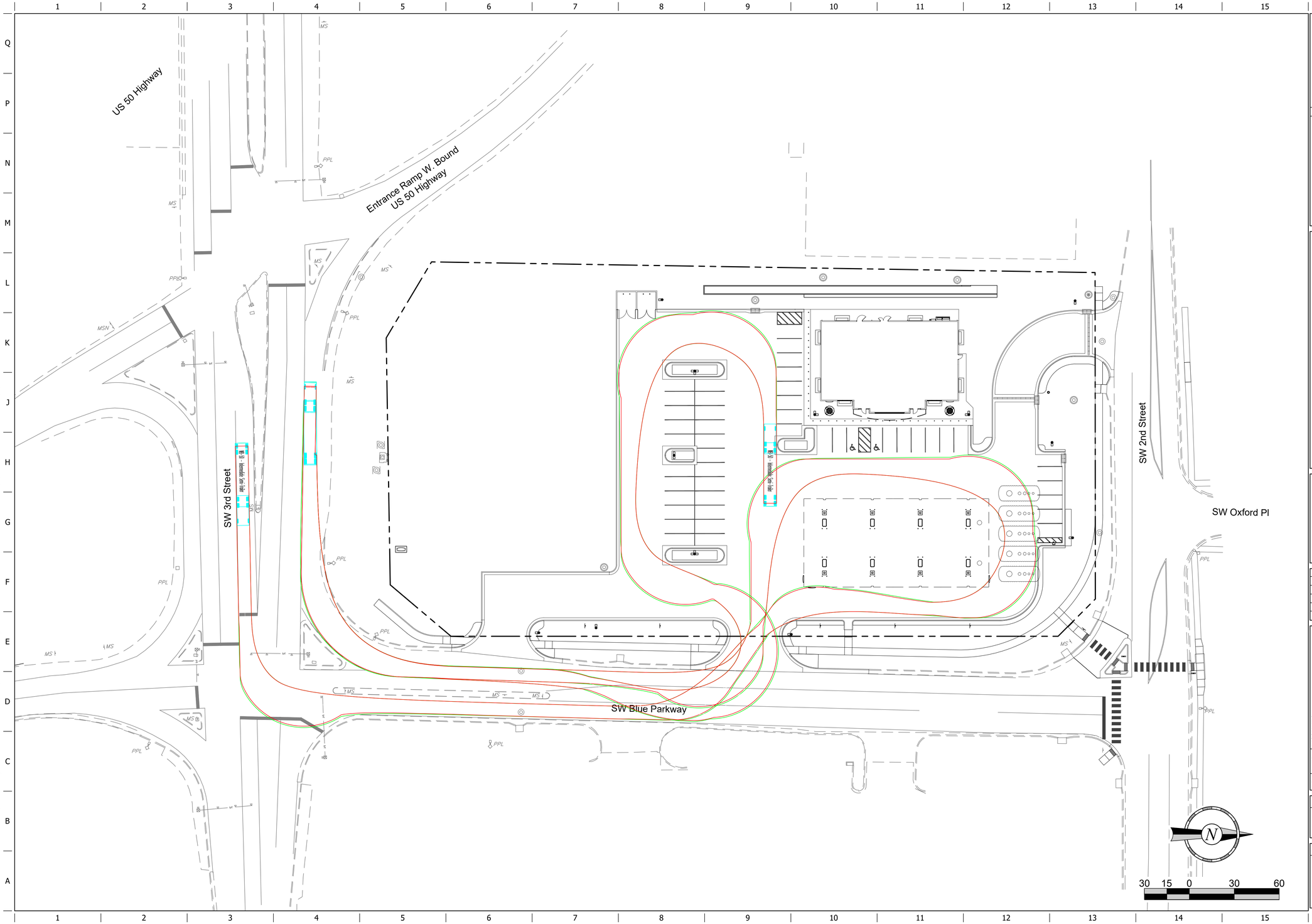
ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:

SIGNAGE PLAN

SHEET NUMBER:

C101



FILE LOCATION:\\DESKTOP-HIMC8QB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Vehicle Tracking USER:dakol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM

CONNOR S. HOLMAN
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SHEET TITLE:
VEHICLE TRACKING (WB-50)

SHEET NUMBER:
C102

VERTICAL CURVE AT GRADE BREAK NOTES

1. TO AVOID ANY DEFINED CRESTS OR SUMPS, "GRADE BREAKS" SHALL BE CONSTRUCTED AS A "VERTICAL CURVE". SURVEYOR & CONTRACTOR SHALL CONFER WITH QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION STAKING OR CONCRETE PLACEMENT RELATIVE TO ANY GRADE BREAKS.

2. GRADE TRANSITIONS IN THE CURB LINE SHOULD NOT BE SHARP. VERTICAL CURVES SHOULD BE CONSTRUCTED TO SOFTEN THE ABRUPT CHANGE IN GRADE. THE VERTICAL CURVE SHALL BE APPROXIMATED BY SPOT ELEVATIONS IN 10' INCREMENTS ON THE GRADING PLAN. ABSOLUTE CHANGE IN GRADE SHALL NOT EXCEED 4%, THIS HOLDS FOR BOTH CRESTS AND SUMPS IN THE CURB AND GUTTER.

GRADING NOTES

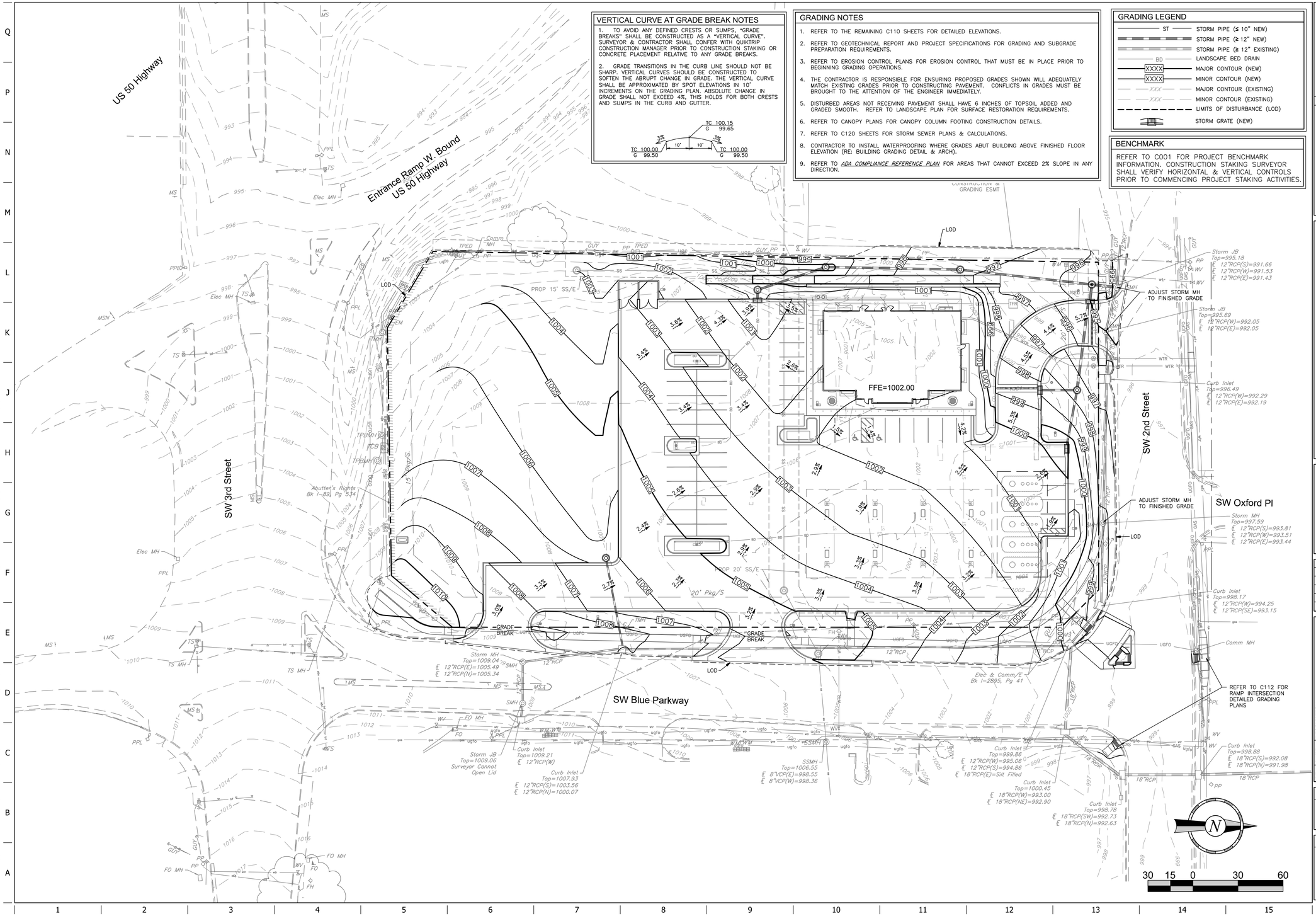
1. REFER TO THE REMAINING C110 SHEETS FOR DETAILED ELEVATIONS.
2. REFER TO GEOTECHNICAL REPORT AND PROJECT SPECIFICATIONS FOR GRADING AND SUBGRADE PREPARATION REQUIREMENTS.
3. REFER TO EROSION CONTROL PLANS FOR EROSION CONTROL THAT MUST BE IN PLACE PRIOR TO BEGINNING GRADING OPERATIONS.
4. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING PROPOSED GRADES SHOWN WILL ADEQUATELY MATCH EXISTING GRADES PRIOR TO CONSTRUCTING PAVEMENT. CONFLICTS IN GRADES MUST BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.
5. DISTURBED AREAS NOT RECEIVING PAVEMENT SHALL HAVE 6 INCHES OF TOPSOIL ADDED AND GRADED SMOOTH. REFER TO LANDSCAPE PLAN FOR SURFACE RESTORATION REQUIREMENTS.
6. REFER TO CANOPY PLANS FOR CANOPY COLUMN FOOTING CONSTRUCTION DETAILS.
7. REFER TO C120 SHEETS FOR STORM SEWER PLANS & CALCULATIONS.
8. CONTRACTOR TO INSTALL WATERPROOFING WHERE GRADES ABUT BUILDING ABOVE FINISHED FLOOR ELEVATION (RE: BUILDING GRADING DETAIL & ARCH).
9. REFER TO *ADA COMPLIANCE REFERENCE PLAN* FOR AREAS THAT CANNOT EXCEED 2% SLOPE IN ANY DIRECTION.

GRADING LEGEND

- ST — STORM PIPE (≤ 10" NEW)
- STORM PIPE (≥ 12" NEW)
- STORM PIPE (≥ 12" EXISTING)
- BD — LANDSCAPE BED DRAIN
- XXXX — MAJOR CONTOUR (NEW)
- XXXX — MINOR CONTOUR (NEW)
- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)
- LIMITS OF DISTURBANCE (LOD)
- STORM GRATE (NEW)

BENCHMARK

REFER TO C001 FOR PROJECT BENCHMARK INFORMATION. CONSTRUCTION STAKING SURVEYOR SHALL VERIFY HORIZONTAL & VERTICAL CONTROLS PRIOR TO COMMENCING PROJECT STAKING ACTIVITIES.



CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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SHEET TITLE:
OVERALL GRADING PLAN

SHEET NUMBER:
C110

FILE LOCATION:\\DESKTOP-HHMO8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Grading USER:akhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM

BENCHMARK

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GRADING LEGEND

- ST — STORM PIPE (≤ 10" NEW)
- STORM PIPE (≥ 12" NEW)
- STORM PIPE (≥ 12" EXISTING)
- BD — LANDSCAPE BED DRAIN
- CD — BACK OF CURB DRAIN
- XXXX — MAJOR CONTOUR (NEW)
- XXXX — MINOR CONTOUR (NEW)
- XXX — MAJOR CONTOUR (EXISTING)
- XXX — MINOR CONTOUR (EXISTING)
- LIMITS OF DISTURBANCE (LOD)
- TC XXXX.XX / G XXXX.XX — TOP OF CURB ELEVATION (NEW) / GUTTER ELEVATION (NEW)
- FG XXXX.XX — FINISHED GRADE ELEVATION (NEW)
- TI/TC XXXX.XX / GRATE XXXX.XX — TOP OF INLET/TOP OF CURB (NEW) / GRATE ELEVATION (NEW)
- STORM GRATE (NEW)

Entrance Ramp W. Bound US 50 Highway

GRADING ESMT

REFER TO C112 FOR 6'W CONCRETE SPILLWAY CHANNEL AND MODULAR WALL DETAILED GRADING PLAN

LOD

A10-C112

TC 1003.64 G 1003.14
TC 1003.11 G 1002.61
TI/TC 1000.90 GRATE 1000.40
TC 1003.45 G 1002.95
TC 1002.55 G 1002.05
TC 1002.48 G 1001.98
TC 1003.70 G 1003.20
TC 1002.52 G 1002.02
TC 1003.74 G 1003.24
TC 1002.79 G 1002.29
TC 1003.67 G 1003.17
TC 1005.54 G 1005.04
TC 1004.26 G 1003.76
TC 1004.61 G 1004.11
TC 1004.23 G 1003.73
TC 1004.82 G 1004.32
TC 1004.24 G 1003.74
TC 1004.84 G 1004.34
TC 1004.35 G 1003.85
TC 1004.77 G 1004.27
TC 1004.43 G 1003.93
TC 1005.66 G 1005.16
TC 1005.07 G 1004.57
TC 1005.03 G 1004.53
TC 1005.83 G 1005.33
TC 1005.07 G 1004.57
TC 1005.86 G 1005.36
TC 1005.26 G 1004.76
TC 1005.82 G 1005.32
TC 1006.48 G 1005.98
TC 1006.66 G 1006.16
TC 1008.58 G 1008.08
TC 1009.24 G 1008.74
TC 1008.31 G 1007.81
TC 1006.84 G 1006.34
TC 1006.11 G 1005.61
TC 1005.46 G 1004.96

FFE=1002.00

TC 995.89 G 995.39
TC 997.52 G 997.02
TC 996.49 G 995.99
TC 997.52 G 997.02
TC 999.15 G 998.65
TC 998.55 G 998.05
TI/TC 998.80 GRATE 998.30
TC 1000.03 G 999.53
TC 1000.68 G 1000.18
TC 1000.37 G 999.87
TC 1000.39 G 999.89
TC 1000.13 G 999.63
TC 1001.09 G 1000.59
TC 1001.38 G 1000.88
TC 1000.43 G 999.93
TI/TC 1000.13 GRATE 999.63

REFER TO C115 FOR SW 2ND STREET DETAILED GRADING PLANS

SW 2nd Street

A1-C112

A1-C113

PROP 15' SS/E

PROP 20' SS/E

GRADE BREAK

Storm MH
Top=1009.04
E 12"RCP(E)=1005.49
E 12"RCP(N)=1005.34

SW Blue Parkway

REFER TO C114 FOR SW BLUE PARKWAY DETAILED GRADING PLANS

Elec & Comm/E Bk I-2895, Pg 41

Rights Pg 534

20 10 0 20 40

CONNOR S. HOLMAN
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3/3/25

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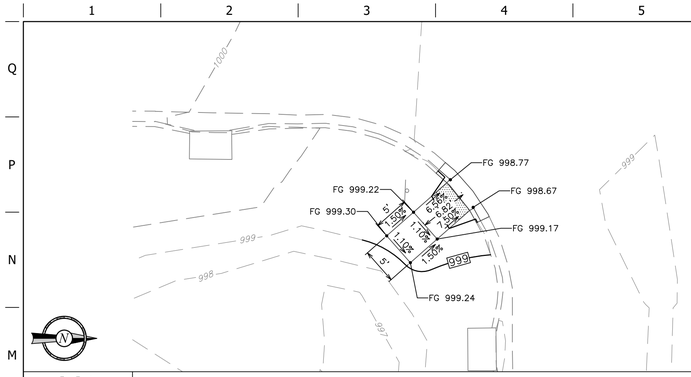
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DESIGNED BY:	CSH
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REVIEWED BY:	TRW

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		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
GRADING PLAN

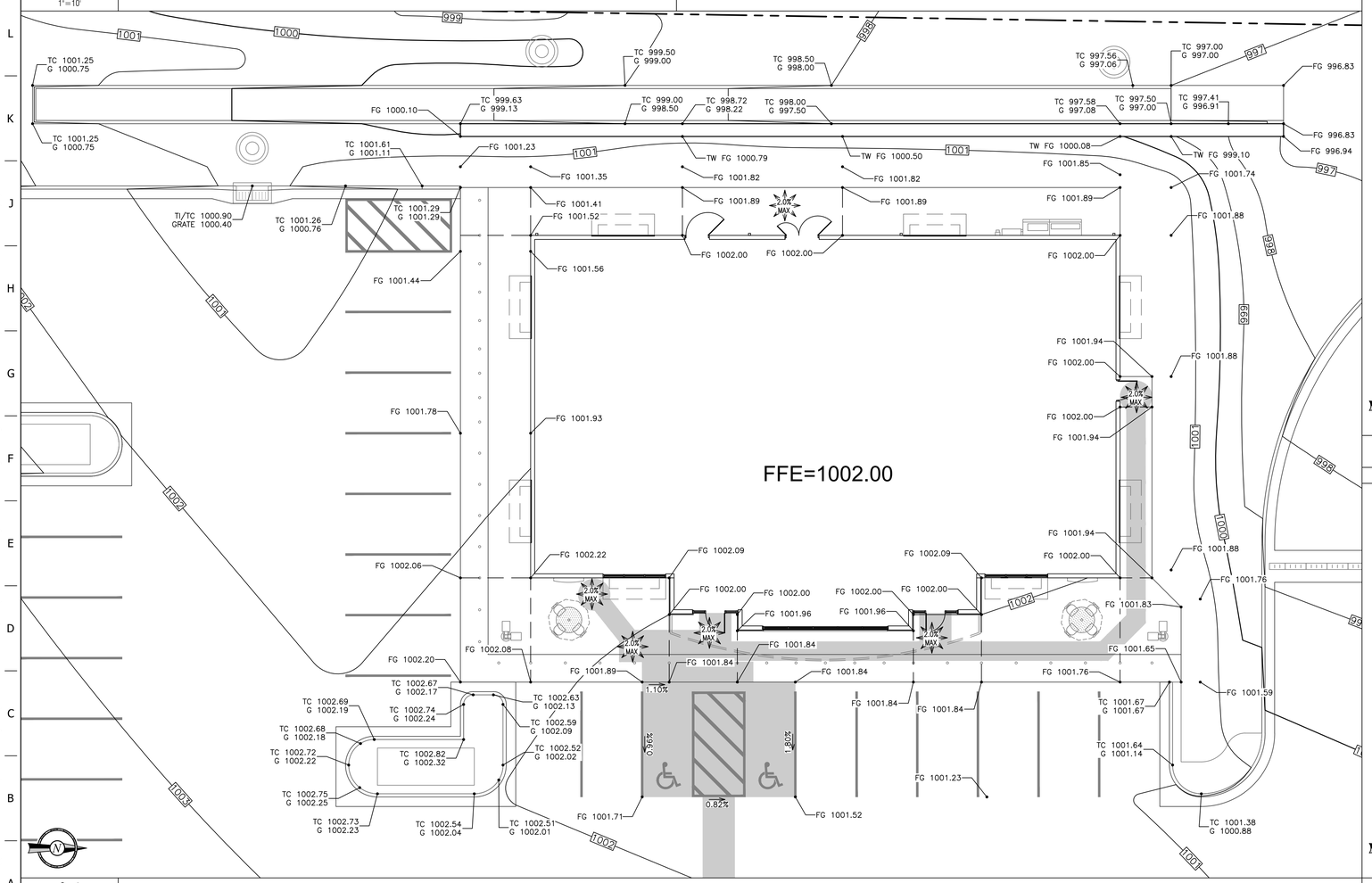
SHEET NUMBER:
C111

FILE LOCATION:\\DESKTOP-HIMC8GB\Civil 3D Projects\QT\183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Grading (2) USER:akhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM



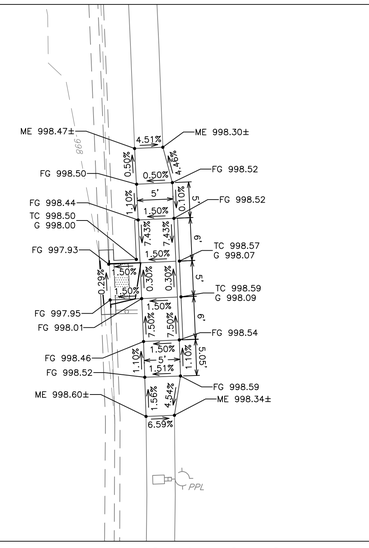
M1 SW BLUE PKWY & SW 2ND ST SE RAMP GRADING DETAIL

1"=10'



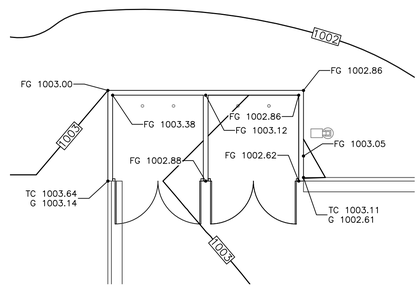
A1 BUILDING ISLAND GRADING DETAIL

1"=10'



F10 SW BLUE PKWY & SW 2ND ST NORTH RAMP G.D.

1"=10'



A10 DOUBLE TRASH ENCLOSURE GRADING DETAIL

1"=10'

LEGEND

- XXXX MAJOR CONTOUR (NEW)
- XXXX MINOR CONTOUR (NEW)
- TC XXXX.XX / G XXXX.XX — TOP OF CURB ELEVATION (NEW) / GUTTER ELEVATION (NEW)
- FG XXXX.XX — FINISHED GRADE ELEVATION (NEW)
- TI/TC XXXX.XX / GRATE XXXX.XX — TOP OF INLET/TOP OF CURB (NEW) / GRATE ELEVATION (NEW)
- QT ADA COMPLIANCE AREAS (RE: ADA COMPLIANCE REFERENCE PLAN)

BENCHMARK

REFER TO C001 FOR PROJECT BENCHMARK INFORMATION. CONSTRUCTION STAKING SURVEYOR SHALL VERIFY HORIZONTAL & VERTICAL CONTROLS PRIOR TO COMMENCING PROJECT STAKING ACTIVITIES.

CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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1001 SW BLUE PARKWAY
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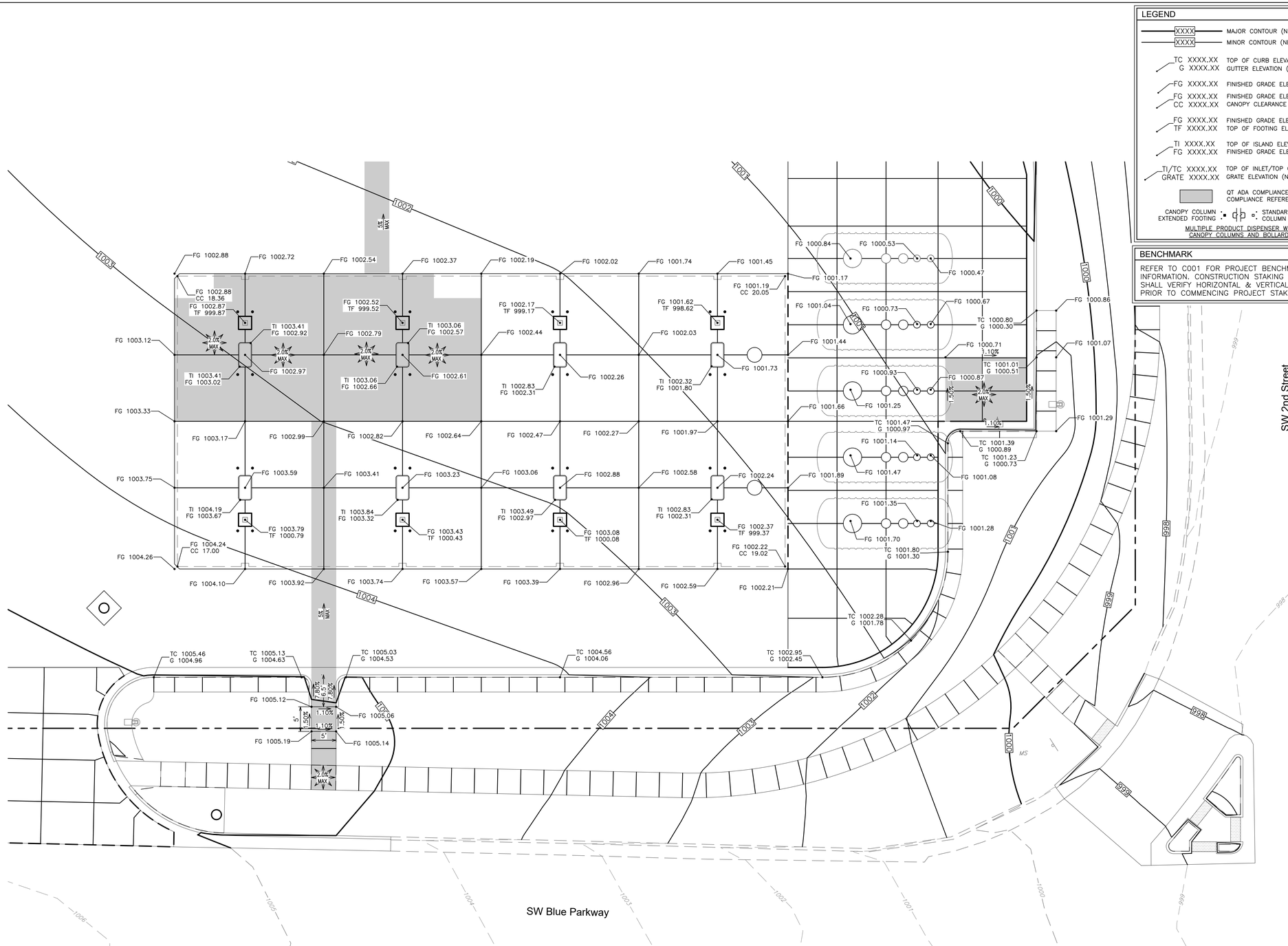
REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
BUILDING AND DETAILED GRADING PLAN

SHEET NUMBER:
C112

FILE LOCATION:\\DESKTOP-HMC8GBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Bldg Grading USER:cskhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM



LEGEND

- XXXX — MAJOR CONTOUR (NEW)
- XXXX — MINOR CONTOUR (NEW)
- TC XXXX.XX / G XXXX.XX — TOP OF CURB ELEVATION (NEW) / GUTTER ELEVATION (NEW)
- FG XXXX.XX — FINISHED GRADE ELEVATION (NEW)
- FG XXXX.XX / CC XXXX.XX — FINISHED GRADE ELEVATION (NEW) / CANOPY CLEARANCE ELEVATION (NEW)
- FG XXXX.XX / TF XXXX.XX — FINISHED GRADE ELEVATION (NEW) / TOP OF FOOTING ELEVATION (NEW)
- TI XXXX.XX / FG XXXX.XX — TOP OF ISLAND ELEVATION (NEW) / FINISHED GRADE ELEVATION (NEW)
- TI/TC XXXX.XX / GRATE XXXX.XX — TOP OF INLET/TOP OF CURB (NEW) / GRATE ELEVATION (NEW)
- QT ADA COMPLIANCE AREAS (RE: ADA COMPLIANCE REFERENCE PLAN)
- CANOPY COLUMN EXTENDED FOOTING — STANDARD CANOPY COLUMN FOOTING

MULTIPLE PRODUCT DISPENSER WITH CANOPY COLUMNS AND BOLLARDS

BENCHMARK

REFER TO C001 FOR PROJECT BENCHMARK INFORMATION. CONSTRUCTION STAKING SURVEYOR SHALL VERIFY HORIZONTAL & VERTICAL CONTROLS PRIOR TO COMMENCING PROJECT STAKING ACTIVITIES.

CONNOR S. HOLMAN
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STATE OF KANSAS
REGISTERED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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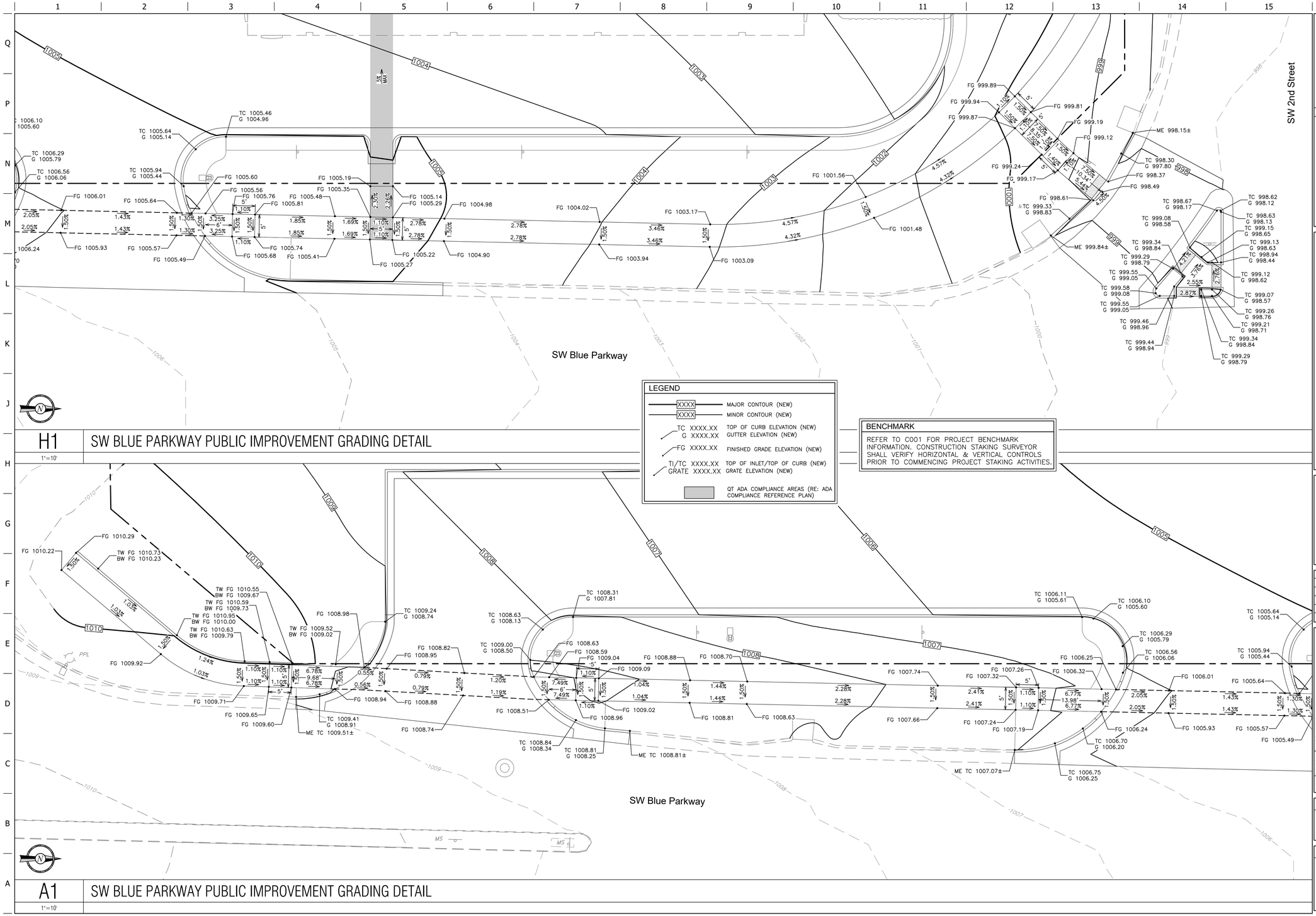
SHEET TITLE:
CANOPY AND DETAILED GRADING PLAN

SHEET NUMBER:
C113

A1
1"=10'

FUEL CANOPY, USTs, AIR STATION, AND PEDESTRIAN ACCESS RAMP GRADING DETAIL

FILE LOCATION:\\DESKTOP-HMC8GBR\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Canopy Grading USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:24 PM



H1 SW BLUE PARKWAY PUBLIC IMPROVEMENT GRADING DETAIL
1"=10'

A1 SW BLUE PARKWAY PUBLIC IMPROVEMENT GRADING DETAIL
1"=10'

CONNOR S. HOLMAN
NUMBER PE-2021004777
STATE OF KANSAS
REGISTERED PROFESSIONAL ENGINEER
3/3/25

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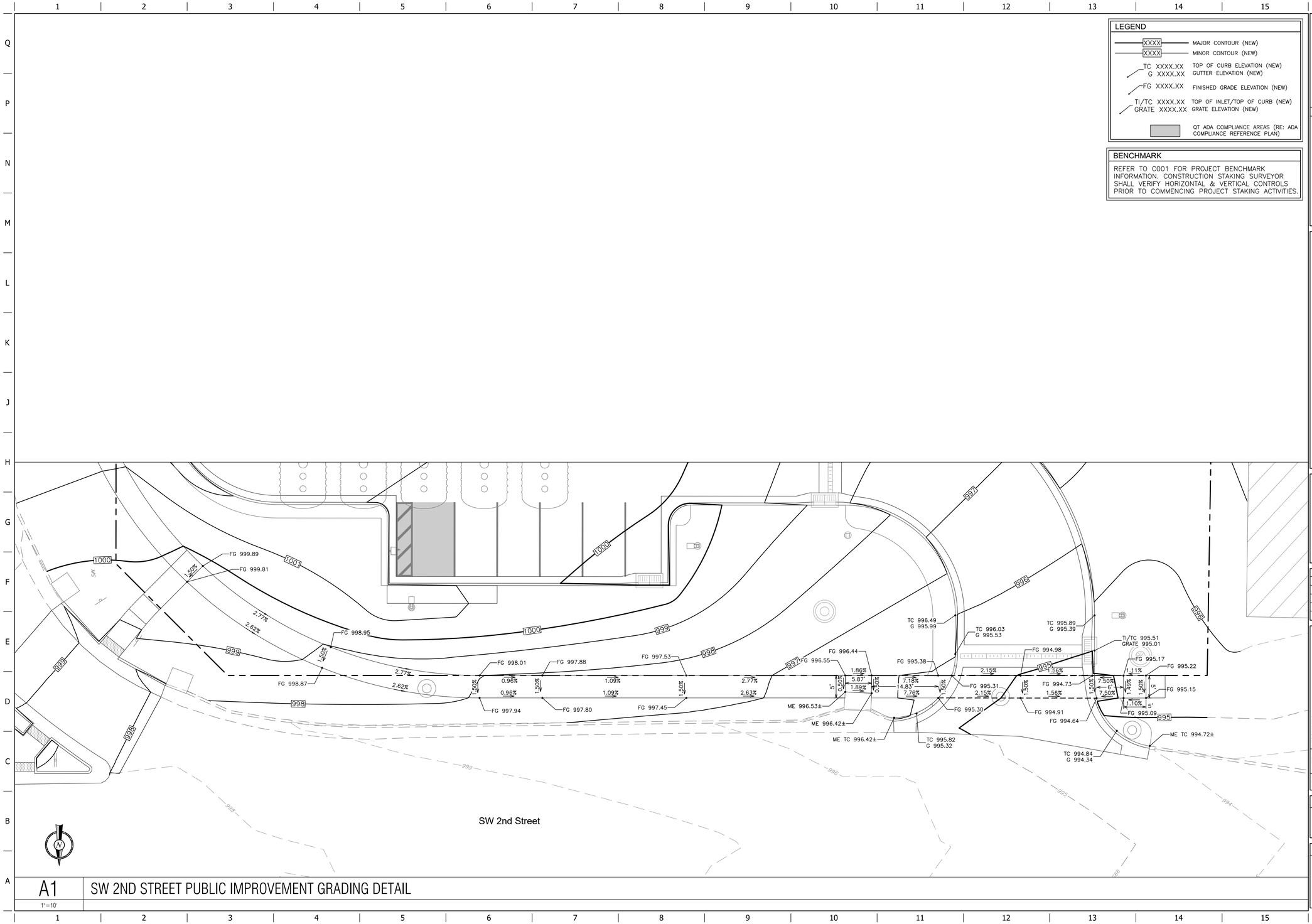
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		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
SW BLUE PKWY DETAILED GRADING PLAN

SHEET NUMBER:
C114

FILE LOCATION:\\DESKTOP-HIM2BGB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Detailed Grading USER:dskol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM



A1 SW 2ND STREET PUBLIC IMPROVEMENT GRADING DETAIL

1"=10'

Connor S. Holman 3/3/25

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER

PROJECT NO.:02-0183

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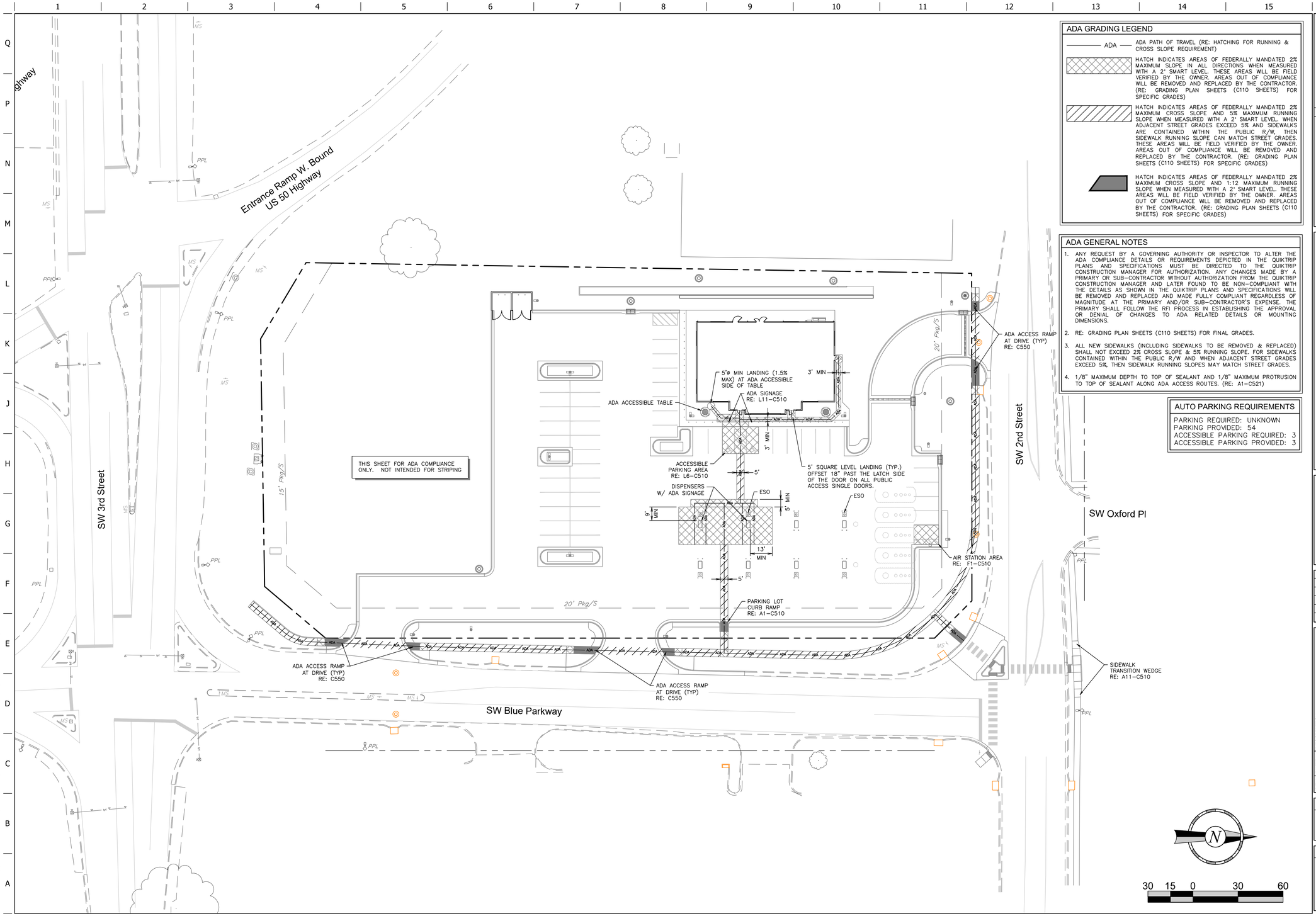
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SHEET TITLE:
SW 2ND ST DETAILED GRADING PLAN

SHEET NUMBER:
C115

FILE LOCATION:\\DESKTOP-HIMC8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Detailed Grading (2) USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM



ADA GRADING LEGEND

- ADA — ADA PATH OF TRAVEL (RE: HATCHING FOR RUNNING & CROSS SLOPE REQUIREMENT)
- HATCH INDICATES AREAS OF FEDERALLY MANDATED 2% MAXIMUM SLOPE IN ALL DIRECTIONS WHEN MEASURED WITH A 2' SMART LEVEL. THESE AREAS WILL BE FIELD VERIFIED BY THE OWNER. AREAS OUT OF COMPLIANCE WILL BE REMOVED AND REPLACED BY THE CONTRACTOR. (RE: GRADING PLAN SHEETS (C110 SHEETS) FOR SPECIFIC GRADES)
- HATCH INDICATES AREAS OF FEDERALLY MANDATED 2% MAXIMUM CROSS SLOPE AND 5% MAXIMUM RUNNING SLOPE WHEN MEASURED WITH A 2' SMART LEVEL. WHEN ADJACENT STREET GRADES EXCEED 5% AND SIDEWALKS ARE CONTAINED WITHIN THE PUBLIC R/W, THEN SIDEWALK RUNNING SLOPE CAN MATCH STREET GRADES. THESE AREAS WILL BE FIELD VERIFIED BY THE OWNER. AREAS OUT OF COMPLIANCE WILL BE REMOVED AND REPLACED BY THE CONTRACTOR. (RE: GRADING PLAN SHEETS (C110 SHEETS) FOR SPECIFIC GRADES)
- HATCH INDICATES AREAS OF FEDERALLY MANDATED 2% MAXIMUM CROSS SLOPE AND 1:12 MAXIMUM RUNNING SLOPE WHEN MEASURED WITH A 2' SMART LEVEL. THESE AREAS WILL BE FIELD VERIFIED BY THE OWNER. AREAS OUT OF COMPLIANCE WILL BE REMOVED AND REPLACED BY THE CONTRACTOR. (RE: GRADING PLAN SHEETS (C110 SHEETS) FOR SPECIFIC GRADES)

ADA GENERAL NOTES

1. ANY REQUEST BY A GOVERNING AUTHORITY OR INSPECTOR TO ALTER THE ADA COMPLIANCE DETAILS OR REQUIREMENTS DEPICTED IN THE QUIKTRIP PLANS AND SPECIFICATIONS MUST BE DIRECTED TO THE QUIKTRIP CONSTRUCTION MANAGER FOR AUTHORIZATION. ANY CHANGES MADE BY A PRIMARY OR SUB-CONTRACTOR WITHOUT AUTHORIZATION FROM THE QUIKTRIP CONSTRUCTION MANAGER AND LATER FOUND TO BE NON-COMPLIANT WITH THE DETAILS AS SHOWN IN THE QUIKTRIP PLANS AND SPECIFICATIONS WILL BE REMOVED AND REPLACED AND MADE FULLY COMPLIANT REGARDLESS OF MAGNITUDE AT THE PRIMARY AND/OR SUB-CONTRACTOR'S EXPENSE. THE PRIMARY SHALL FOLLOW THE RFI PROCESS IN ESTABLISHING THE APPROVAL OR DENIAL OF CHANGES TO ADA RELATED DETAILS OR MOUNTING DIMENSIONS.
2. RE: GRADING PLAN SHEETS (C110 SHEETS) FOR FINAL GRADES.
3. ALL NEW SIDEWALKS (INCLUDING SIDEWALKS TO BE REMOVED & REPLACED) SHALL NOT EXCEED 2% CROSS SLOPE & 5% RUNNING SLOPE. FOR SIDEWALKS CONTAINED WITHIN THE PUBLIC R/W AND WHEN ADJACENT STREET GRADES EXCEED 5%, THEN SIDEWALK RUNNING SLOPES MAY MATCH STREET GRADES.
4. 1/8" MAXIMUM DEPTH TO TOP OF SEALANT AND 1/8" MAXIMUM PROTRUSION TO TOP OF SEALANT ALONG ADA ACCESS ROUTES. (RE: A1-C521)

AUTO PARKING REQUIREMENTS

PARKING REQUIRED: UNKNOWN
PARKING PROVIDED: 54
ACCESSIBLE PARKING REQUIRED: 3
ACCESSIBLE PARKING PROVIDED: 3

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

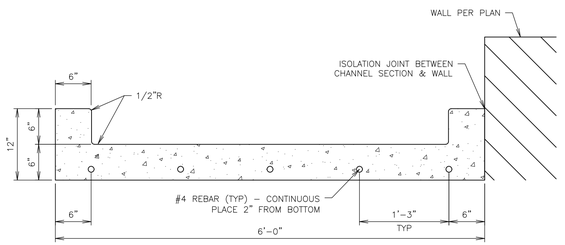
SHEET TITLE:
ADA COMPLIANCE REFERENCE PLAN

SHEET NUMBER:
C116

FILE LOCATION:\\DESKTOP-HMC8GBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:ADA USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM

STORM SEWER NOTES:

1. GAS CANOPY INSTALLER SHALL INSTALL THE CANOPY COLUMN DRAIN PIPE AND OVERFLOW FITTING. THE STORM WATER INSTALLER SHALL CONNECT THEIR PIPING TO THE GAS INSTALLER'S OVERFLOW FITTING.
2. PRIVATE STORM SEWER PIPE AND TRENCHING SHALL CONFORM TO CONTRACT SPECIFICATIONS.
3. PRIOR TO THE CONSTRUCTION OF, OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, OR ANY OTHER ELEVATION SENSITIVE UTILITY, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTIONS AND ALL UTILITY CROSSINGS. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. THE ENGINEER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER IS NOT NOTIFIED OF A DESIGN CONFLICT.
4. CARE MUST BE TAKEN WHEN INSTALLING THE BUILDING ROOF DRAINAGE SYSTEMS TO AVOID UTILITY/FUEL CROSSING CONFLICTS, BUILDING FOOTINGS, AND BOLLARDS. UTILITY CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING ALL FITTINGS REQUIRED FOR INSTALLATION. ROOF DRAINAGE LAYOUT SHOWN IS SCHEMATIC AND DOES NOT REPRESENT ALL FITTINGS REQUIRED FOR CONSTRUCTION.
5. STORM SEWER STRUCTURES ON-GRADE ARE TO MATCH GRADE. ELEVATION CALLOUTS ARE TO CENTER OF STRUCTURE. STRUCTURES ON GRADE ARE TO BE CAST IN PLACE AS NECESSARY.
6. ALL STORM SEWER CLEANOUTS ARE TO BE 4" DIAMETER UNLESS OTHERWISE NOTED. REFER TO C500 & PROJECT SPECIFICATIONS FOR DETAILS.
7. ALL EXTERIOR PVC STORM PIPE SHALL BE SDR35 WITH WATERTIGHT FITTINGS.
8. REFER TO REMAINING C120 SHEETS FOR STORM SEWER PROFILES AND DETENTION DETAILS.
9. REFER TO C540 SHEETS FOR STORM SEWER CONSTRUCTION DETAILS.
10. RCP STORM SEWER PIPE SHALL BE CLASS III (WALL B).
11. TRENCH DRAINS SHALL BE 12" HYDROBLOCK TRENCH DRAINS. NO SUBSTITUTIONS ARE ALLOWED. REFER TO C540 SHEETS FOR DETAILS.
12. ALL TRENCH DRAIN LENGTHS ARE SCHEMATIC AND ARE SUBJECT TO CHANGE PER MANUFACTURER. MANUFACTURER TO MINIMIZE TRENCH DRAIN LENGTH ADJUSTMENTS TO AVOID PLAN CONFLICTS.
13. ALL TRENCH DRAIN RUNS SHALL RECEIVE MAINTENANCE SECTIONS AT 50' MAXIMUM INTERVALS AND/OR PER MANUFACTURER RECOMMENDATIONS.
14. REFER TO THE LANDSCAPE PLANS FOR LANDSCAPE BED DRAIN INSPECTION PORT DETAILS.



CONCRETE SPILLWAY CHANNEL SECTION

DRAINAGE CALCULATIONS TO SPILLWAY CHANNEL
A=27,357 SF (0.628 AC)
IMPERVIOUS AREA=21,872 SF
PERVIOUS AREA=5,485 SF
c=0.78
100 YR I=12.60*1.25=15.75 IN/HR
Q=ciA=0.78*15.75*0.628
Q=7.71 CFS

SPILLWAY CHANNEL CAPACITY CALCULATIONS
CHANNEL WIDTH (W)=5 FEET
CHANNEL HEIGHT (H)=0.5 FEET
MIN SLOPE (S)=0.009 FT/FT
n=0.013

MANNING'S CHANNEL FLOW EQUATION
Q=(1.49/n)*[((W*H)^(5/3))/((W+2H)^(2/3))]*S^(1/2)
Q=15.17 CFS

STORM SEWER LEGEND

ST	STORM PIPE (< 10" NEW)
BD	LANDSCAPE BED DRAIN
CD	BACK OF CURB DRAIN
	STORM PIPE (> 12" NEW)
	STORM PIPE (> 12" EXISTING)
XXXX	MAJOR CONTOUR (NEW)
XXXX	MINOR CONTOUR (NEW)
XXX	MAJOR CONTOUR (EXISTING)
XXX	MINOR CONTOUR (EXISTING)
	STORM GRATE (NEW)
	STORM SEWER JUNCTION BOX/MH

Entrance Ramp W. Bound US 50 Highway
SW 3rd Street
SW Blue Parkway
SW 2nd Street
SW Oxford Pl
LATERAL A
LATERAL B
LATERAL C
LATERAL D
LAT B
LAT C
6'W CONCRETE SPILLWAY CHANNEL (SEE DETAIL & CAPACITY CALCULATIONS THIS SHEET)
PROP 15" SS/E
PROP 20 FL 8"PVC=998.50
GRADING ESMT
20' Pkg/S
Abutter's Rights Bk I-89, Pg 534
Elec & Comm/E Bk I-2805, Pg 41
4" PVC ROOF DRAIN (TYP)
8" PVC BUILDING ROOF DRAIN @ 0.50% MIN
INSTALL ALL ROOF DRAIN LINES AS REQUIRED TO AVOID BLDG & BOLLARD FOOTINGS
FFE=1002.00
4" PVC BUILDING CANOPY ROOF DRAIN @ 0.5% MIN
INTERNAL AWNING DRAIN RE: PLUMBING
CONNECT LANDSCAPE BED DRAIN TO ROOF DRAIN
8" PVC CANOPY ROOF DRAIN @ 0.5% MIN
LANDSCAPE BED DRAIN (TYP) RE: L100
4" CLEANOUT TOP=1003.17± FL 8"PVC=998.50
4" PVC CANOPY DRAIN (TYP)
4" CLEANOUT TOP=1002.27± FL 8"PVC=997.60
12" HYDROBLOCK TRENCH DRAIN RE: C122
Storm JB Top=995.18 E 12"RCP(S)=991.66 E 12"RCP(W)=991.53 E 12"RCP(E)=991.43
Storm JB Top=995.69 E 12"RCP(W)=992.05 E 12"RCP(E)=992.05
Curb Inlet Top=996.49 E 12"RCP(W)=992.29 E 12"RCP(E)=992.19
Storm MH Top=997.59 E 12"RCP(S)=993.81 E 12"RCP(W)=993.51 E 12"RCP(E)=993.44
Curb Inlet Top=998.17 E 12"RCP(W)=994.25 E 12"RCP(SE)=993.15
Comm MH
Curb Inlet Top=998.88 E 18"RCP(S)=992.08 E 18"RCP(N)=991.98
Curb Inlet Top=999.86 E 12"RCP(W)=995.06 E 12"RCP(S)=994.86 E 18"RCP(E)=Silt Filled
Curb Inlet Top=1000.45 E 18"RCP(W)=993.00 E 18"RCP(NE)=992.90
Curb Inlet Top=998.78 E 18"RCP(SW)=992.73 E 18"RCP(N)=992.63
Storm MH Top=1009.04 E 12"RCP(E)=1005.49 E 12"RCP(N)=1005.34
Storm JB Top=1009.06 Surveyor Cannot Open Lid
Curb Inlet Top=1009.21 E 12"RCP(W)
Curb Inlet Top=1007.93 E 12"RCP(S)=1003.56 E 12"RCP(N)=1000.07
SSMH Top=1006.55 E 8"VCP(E)=998.55 E 8"VCP(W)=998.36
Elec MH
TS MH
FO MH
TPED MH
TPBMH
FCB
Comm MH
TMH
SMH
FH
30 15 0 30 60

CONNOR S. HOLMAN
NUMBER PE-2021004777
STATE OF MISSOURI
REGISTERED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

MDG
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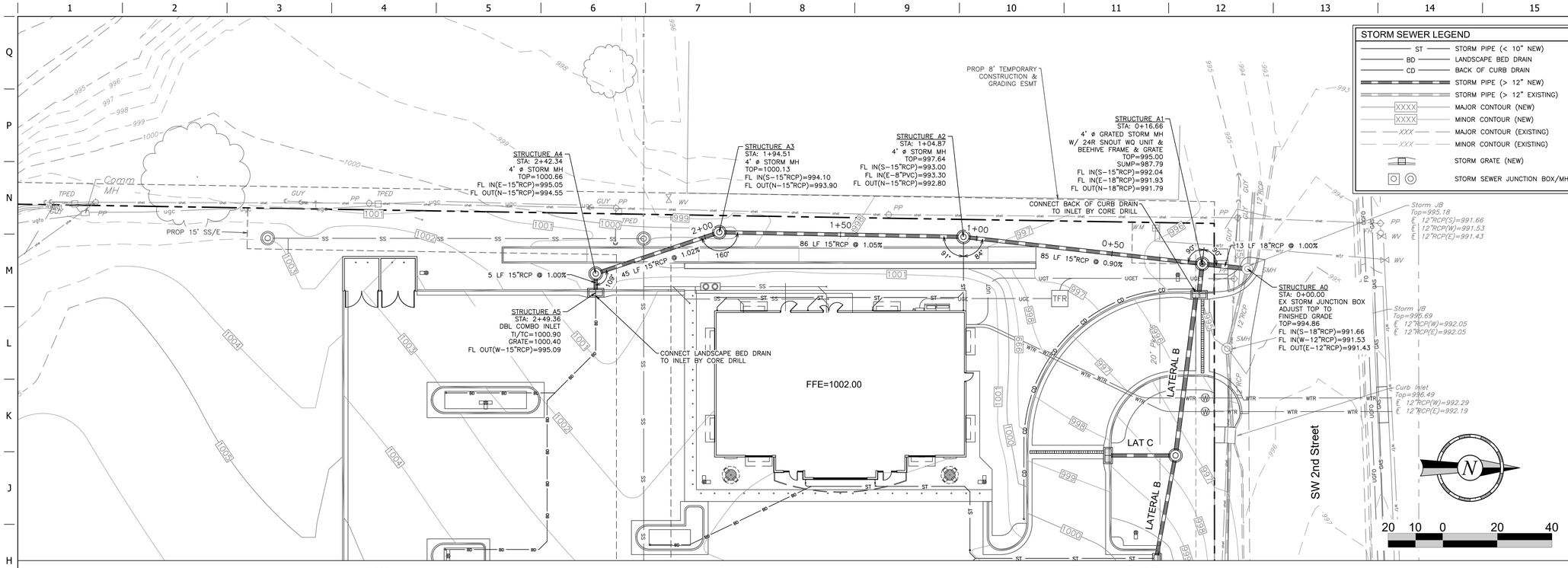
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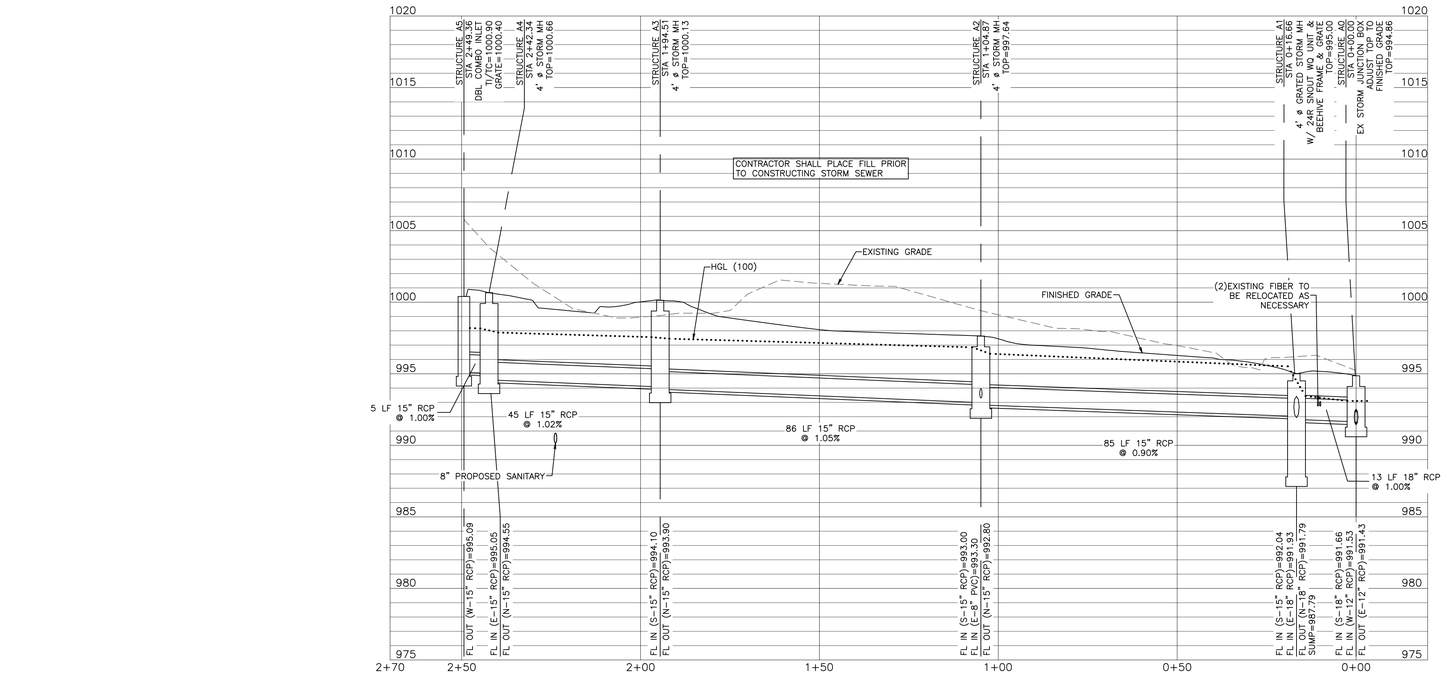
REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
OVERALL STORM SEWER PLAN

SHEET NUMBER:
C120

FILE LOCATION:\\DESKTOP-HMO8GBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Storm USER:dshol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM





STORM LATERAL A PROFILE

1"=20' HORZ
1"=5' VERT

CONNOR S. HOLMAN
NUMBER PE-2021004777
STATE OF KANSAS
PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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QuikTrip No. 0183R

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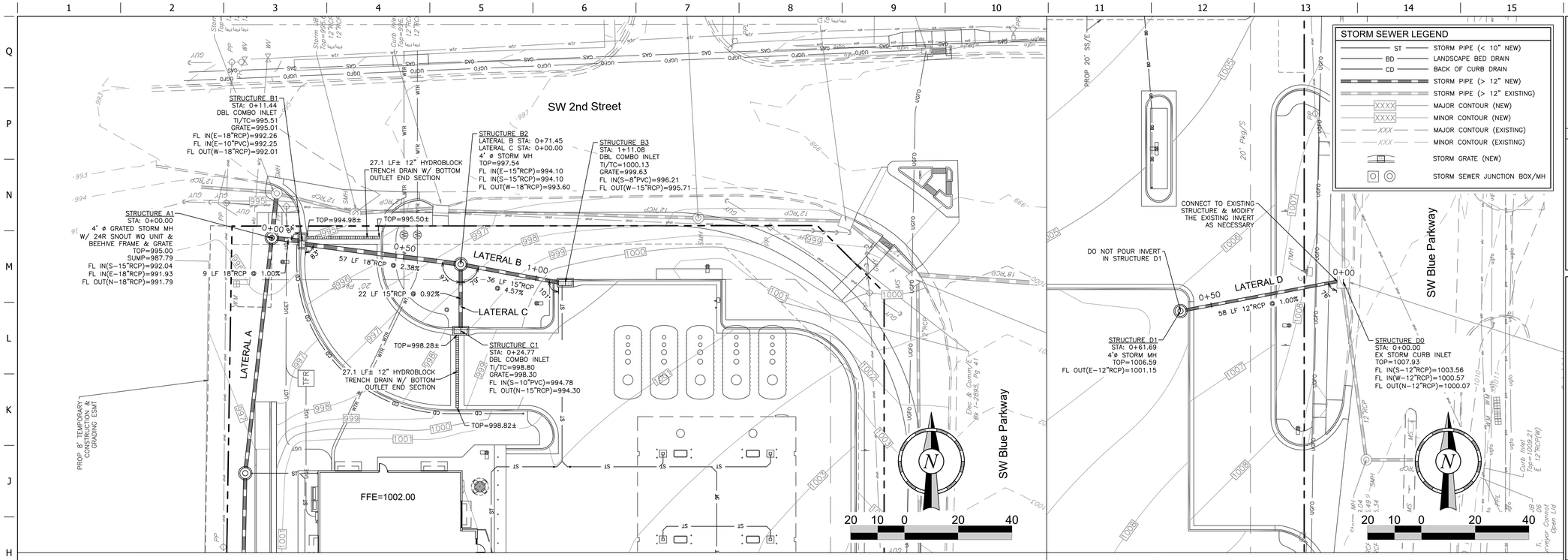
REV	DATE	DESCRIPTION

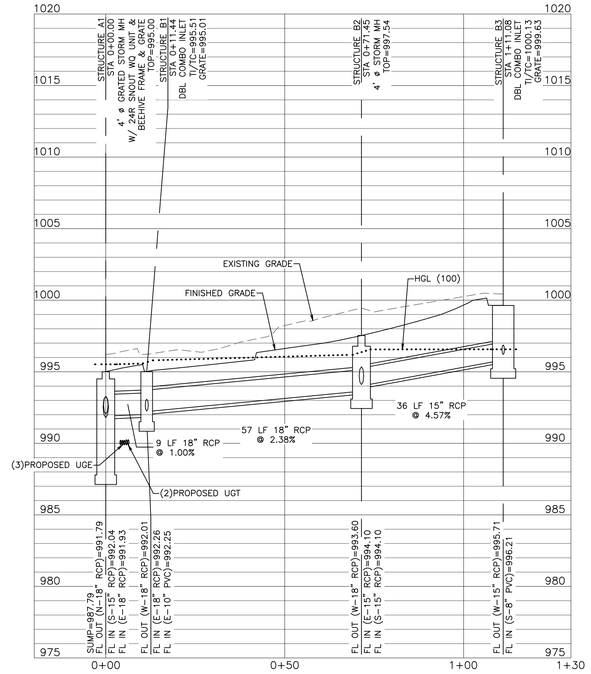
ORIGINAL ISSUE DATE: 03/03/2025

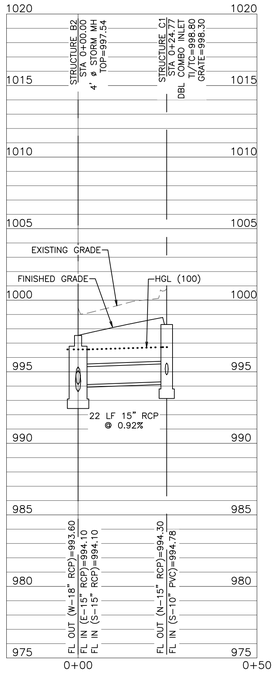
SHEET TITLE:
STORM LATERAL A
PLAN & PROFILE

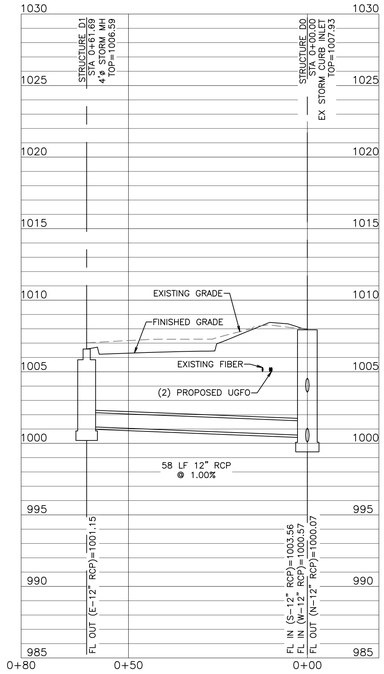
SHEET NUMBER:
C121

FILE LOCATION:\\DESKTOP-HMC8GBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Storm (2) USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM









1"=20' HORZ
1"=5' VERT

CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
STORM LATERAL B & C
PLAN & PROFILE

SHEET NUMBER:
C122

FILE LOCATION:\\DESKTOP-HMC8GBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Storm (3) USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM

STORM SEWER PIPE CALCULATIONS

HYDRAULIC GRADE LINE COMPUTATIONS - 100-YEAR STORM (Tc = 5 MIN)

Line	Size	Type of Pipe	Q	Upstream										Downstream									Line Slope	Full Pipe Capacity	JL Coeff	Minor Loss
				Invert Elev	HGL Elev	Upstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf	Len	Invert Elev	HGL Elev	Downstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf			
	(in)		(cfs)	(ft)	(ft)		(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)			(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(cfs)	(K)	(ft)
A1-A0	18	RCP	16.72	991.79	993.44	995.00	1.71	1.50	1.77	9.46	1.39	994.84	2.535	12.88	991.66	993.10	994.86	1.70	1.44	1.74	9.59	1.43	994.53	2.208	1.01	10.55	1.49	2.07
A2-A1	15	RCP	6.60	992.80	996.40	997.64	3.59	1.25	1.23	5.38	0.45	996.85	1.044	84.38	992.04	995.52	995.00	1.71	1.25	1.23	5.38	0.45	995.97	1.045	0.90	6.13	1.00	0.45
A3-A2	15	RCP	5.39	993.90	997.45	1000.13	4.98	1.25	1.23	4.40	0.30	997.75	0.698	85.97	993.00	996.85	997.64	3.39	1.25	1.23	4.40	0.30	997.15	0.698	1.05	6.61	0.38	0.11
A4-A3	15	RCP	5.46	994.55	997.88	1000.66	4.86	1.25	1.23	4.45	0.31	998.19	0.715	44.22	994.10	997.56	1000.13	4.78	1.25	1.23	4.45	0.31	997.87	0.716	1.02	6.51	0.95	0.29
A5-A4	15	RCP	5.47	995.09	998.20	1000.40	4.06	1.25	1.23	4.46	0.31	998.51	0.717	4.00	995.05	998.17	1000.66	4.36	1.25	1.23	4.46	0.31	998.48	0.717	1.00	6.46	1.00	0.31
B1-A1	18	RCP	9.34	992.01	995.58	995.01	1.50	1.50	1.77	5.28	0.43	996.02	0.791	8.35	991.93	995.52	995.00	1.57	1.50	1.77	5.29	0.43	995.95	0.791	0.96	10.28	0.50	0.22
B2-B1	18	RCP	8.69	993.60	996.19	997.54	2.44	1.50	1.77	4.92	0.38	996.56	0.684	56.39	992.26	995.80	995.01	1.25	1.50	1.77	4.92	0.38	996.18	0.685	2.38	16.19	0.99	0.37
B3-B2	15	RCP	3.31	995.71	996.57	999.71	2.75	0.86	0.91	3.66	0.21	996.78	0.387	34.00	994.10	996.56	997.54	2.19	1.25	1.23	2.70	0.11	996.67	0.263	4.74	14.05	1.47	0.31
C1-B2	15	RCP	5.60	994.30	996.72	998.30	2.75	1.25	1.23	4.56	0.32	997.05	0.751	21.73	994.10	996.56	997.54	2.19	1.25	1.23	4.56	0.32	996.88	0.751	0.92	6.20	1.00	0.32

HYDRAULIC GRADE LINE COMPUTATIONS - 10-YEAR STORM (Tc = 5 MIN)

Line	Size	Type of Pipe	Q	Upstream										Downstream									Line Slope	Full Pipe Capacity	JL Coeff	Minor Loss
				Invert Elev	HGL Elev	Upstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf	Len	Invert Elev	HGL Elev	Downstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf			
	(in)		(cfs)	(ft)	(ft)		(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)			(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(cfs)	(K)	(ft)
A1-A0	18	RCP	10.85	991.79	993.07	995.00	1.71	1.28	1.60	6.76	0.71	993.78	1.002	12.88	991.66	992.92	994.86	1.70	1.26	1.59	6.84	0.73	993.65	1.021	1.01	10.55	1.49	1.06
A2-A1	15	RCP	4.31	992.80	994.50	997.64	3.59	1.25	1.23	3.51	0.19	994.70	0.446	84.38	992.04	994.13	995.00	1.71	1.25	1.23	3.52	0.19	994.32	0.446	0.90	6.13	1.00	0.19
A3-A2	15	RCP	3.56	993.90	994.92	1000.13	4.98	1.02	1.07	3.33	0.17	995.09	0.308	85.97	993.00	994.70	997.64	3.39	1.25	1.23	2.90	0.13	994.83	0.304	1.05	6.61	0.38	0.07
A4-A3	15	RCP	3.62	994.55	995.32	1000.66	4.86	0.77	0.79	4.58	0.33	995.64	0.000	44.22	994.10	994.98	1000.13	4.78	0.88	0.79	3.91	0.33	995.31	0.000	1.02	6.51	0.95	0.00
A5-A4	15	RCP	3.63	995.09	995.86	1000.40	4.06	0.77	0.79	4.58	0.33	996.19	0.000	4.00	995.05	995.72	1000.66	4.36	0.67	0.67	5.42	0.33	996.05	0.000	1.00	6.46	1.00	0.00
B1-A1	18	RCP	6.09	992.01	994.16	995.01	1.50	1.50	1.77	3.44	0.18	994.34	0.336	8.35	991.93	994.13	995.00	1.57	1.50	1.77	3.45	0.18	994.31	0.336	0.96	10.28	0.50	0.09
B2-B1	18	RCP	5.69	993.60	994.52	997.54	2.44	0.92	1.14	5.01	0.39	994.91	0.609	56.39	992.26	994.25	995.01	1.25	1.50	1.14	3.22	0.16	994.41	0.294	2.38	16.19	0.99	0.00
B3-B2	15	RCP	2.18	995.71	996.30	999.71	2.75	0.59	0.57	3.84	0.23	996.53	0.000	34.00	994.10	994.52	997.54	2.19	0.42	0.36	6.03	0.23	994.75	0.000	4.74	14.05	1.47	0.00
C1-B2	15	RCP	3.72	994.30	995.08	998.30	2.75	0.78	0.80	4.63	0.33	995.41	0.000	21.73	994.10	994.80	997.54	2.19	0.70	0.70	5.27	0.33	995.13	0.000	0.92	6.20	1.00	0.00

HYDRAULIC GRADE LINE COMPUTATIONS - 2-YEAR STORM (Tc = 5 MIN)

Line	Size	Type of Pipe	Q	Upstream										Downstream									Line Slope	Full Pipe Capacity	JL Coeff	Minor Loss
				Invert Elev	HGL Elev	Upstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf	Len	Invert Elev	HGL Elev	Downstream Structure Top Elev	Pipe Cover	Depth	Area	Vel	Vel Head	EGL Elev	Sf			
	(in)		(cfs)	(ft)	(ft)		(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(ft)	(ft)	(ft)			(ft)	(ft)	(sqft)	(ft/s)	(ft)	(ft)	(%)	(%)	(cfs)	(K)	(ft)
A1-A0	18	RCP	7.28	991.79	992.83	995.00	1.71	1.04	1.31	5.55	0.48	993.31	0.000	12.88	991.66	992.58	994.86	1.70	0.92	1.13	6.44	0.48	993.06	0.000	1.01	10.55	1.49	0.71
A2-A1	15	RCP	2.93	992.80	993.49	997.64	3.59	0.69	0.69	4.24	0.28	993.77	0.000	84.38	992.04	992.83	995.00	1.71	0.79	0.69	3.56	0.28	993.11	0.000	0.90	6.13	1.00	0.00
A3-A2	15	RCP	2.45	993.90	994.53	1000.13	4.98	0.63	0.61	3.99	0.25	994.77	0.000	85.97	993.00	993.53	997.64	3.39	0.53	0.49	4.98	0.25	993.77	0.000	1.05	6.61	0.38	0.00
A4-A3	15	RCP	2.51	994.55	995.18	1000.66	4.86	0.63	0.63	4.02	0.25	995.44	0.000	44.22	994.10	994.64	1000.13	4.78	0.54	0.51	4.96	0.25	994.89	0.000	1.02	6.51	0.95	0.00
A5-A4	15	RCP	2.52	995.09	995.73	1000.40	4.06	0.64	0.63	4.02	0.25	995.98	0.000	4.00	995.05	995.59	1000.66	4.36	0.54	0.51	4.94	0.25	995.84	0.000	1.00	6.46	1.00	0.25
B1-A1	18	RCP	4.11	992.01	992.79	995.01	1.50	0.78	0.92	4.46	0.31	993.10	0.000	8.35	991.93	992.83	995.00	1.57	0.90	0.92	3.70	0.31	993.14	0.000	0.96	10.28	0.50	0.00
B2-B1	18	RCP	3.88	993.60	994.35	997.54	2.44	0.75	0.89	4.37	0.30	994.65	0.000	56.39	992.26	992.79	995.01	1.25	0.53	0.55	7.02	0.30	993.08	0.000	2.38	16.19	0.99	0.00
B3-B2	15	RCP	1.50	995.71	996.19	999.71	2.75	0.48	0.44	3.41	0.18	996.38	0.000	34.00	994.10	994.38	997.54	2.19	0.28	0.20	7.46	0.18	994.56	0.000	4.74	14.05	1.47	0.00
C1-B2	15	RCP	2.58	994.30	994.94	998.30	2.75	0.64	0.64	4.05	0.26	995.20	0.000	21.73	994.10	994.66	997.54	2.19	0.56	0.54	4.82	0.26	994.92	0.000	0.92	6.20	1.00	0.26

STORM SEWER INLET CALCULATIONS

Storm Sewer Inlet Calculations (100-Yr Storm Event)

Label	Inlet Drainage Area (acres)	Inlet C	Total Inlet Intensity (in/h)	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Total Rational Flow to Inlet (cfs)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Spread / Top Width (ft)	Gutter Depth (ft)	Hydraulic Grade Line (In) (ft)
A1	0.19	0.45	12.57	995.00	991.79	1.07	100	1.07	0.00	8.60	0.17	993.44
A5	0.50	0.87	12.57	1000.40	995.09	5.47	100	5.47	0.00	18.06	0.37	998.20
B1	0.09	0.71	12.57	995.01	992.01	0.80	55	2.02	1.65	8.22	0.18	995.58
B3	0.13	0.90	12.57	999.71	995.71	1.47	100	1.47	0.00	7.18	0.16	996.57
C1	0.53	0.84	12.57	998.30	994.30	5.60	49	2.72	2.87	9.23	0.20	996.72

Storm Sewer Inlet Calculations (10-Yr Storm Event)

Label	Inlet Drainage Area (acres)	Inlet C	Total Inlet Intensity (in/h)	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Total Rational Flow to Inlet (cfs)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Spread / Top Width (ft)	Gutter Depth (ft)	Hydraulic Grade Line (In) (ft)
A1	0.19	0.45	8.34	995.00	991.79	0.71	100	0.71	0.00	6.79	0.14	993.07
A5	0.50	0.87	8.34	1000.40	995.09	3.63	100	3.63	0.00	13.60	0.28	995.86
B1	0.09	0.71	8.34	995.01	992.01	0.53	63	1.39	0.82	6.76	0.15	994.16
B3	0.13	0.90	8.34	999.71	995.71	0.98	100	0.98	0.00	5.32	0.12	996.30
C1	0.53	0.84	8.34	998.30	994.30	3.72	55	2.04	1.68	7.89	0.17	995.08

Storm Sewer Inlet Calculations (2-Yr Storm Event)

Label	Inlet Drainage Area (acres)	Inlet C	Total Inlet Intensity (in/h)	Elevation (Ground) (ft)	Elevation (Invert) (ft)	Total Rational Flow to Inlet (cfs)	Capture Efficiency (Calculated) (%)	Flow (Captured) (cfs)	Flow (Total Bypassed) (cfs)	Spread / Top Width (ft)	Gutter Depth (ft)	Hydraulic Grade Line (In) (ft)
A1	0.19	0.45	5.79	995.00	991.79	0.49	100	0.49	0.00	5.54	0.11	992.83
A5	0.50	0.87	5.79	1000.40	995.09	2.52	100	2.52	0.00	10.54	0.22	995.73
B1	0.09	0.71	5.79	995.01	992.01	0.37	71	0.98	0.41	5.64	0.12	992.79
B3	0.13	0.90	5.79	999.71	995.71	0.68	100	0.68	0.00	4.05	0.09	996.19
C1	0.53	0.84	5.79	998.30	994.30	2.58	61	1.56	1.02	6.86	0.15	994.94

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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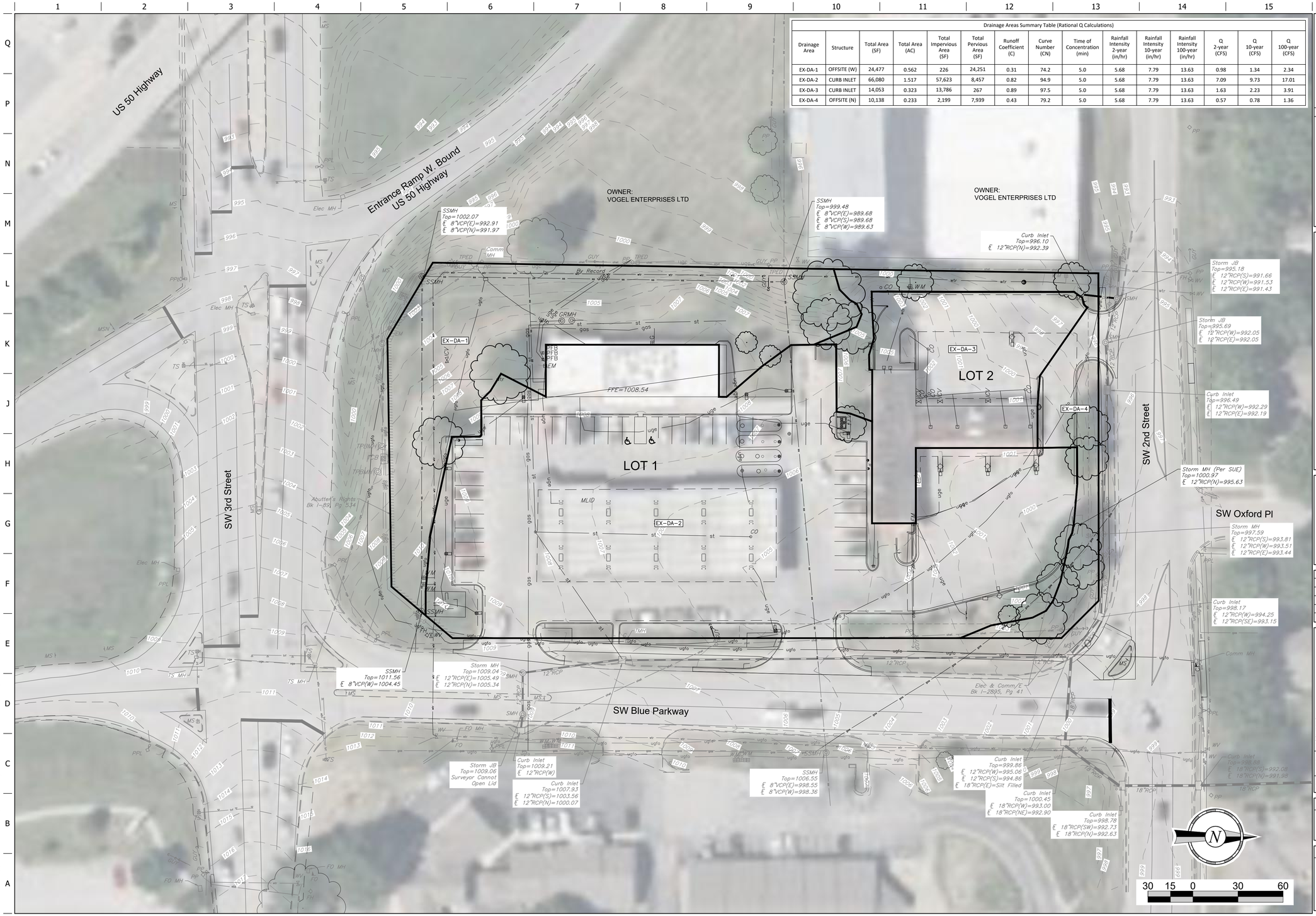
REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
STORM SEWER CALCULATIONS

SHEET NUMBER:
C123

FILE LOCATION:\\DESKTOP-HMC8GBI\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Storm Calcs USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM



Drainage Areas Summary Table (Rational Q Calculations)														
Drainage Area	Structure	Total Area (SF)	Total Area (AC)	Total Impervious Area (SF)	Total Pervious Area (SF)	Runoff Coefficient (C)	Curve Number (CN)	Time of Concentration (min)	Rainfall Intensity 2-year (in/hr)	Rainfall Intensity 10-year (in/hr)	Rainfall Intensity 100-year (in/hr)	Q 2-year (CFS)	Q 10-year (CFS)	Q 100-year (CFS)
EX-DA-1	OFFSITE (W)	24,477	0.562	226	24,251	0.31	74.2	5.0	5.68	7.79	13.63	0.98	1.34	2.34
EX-DA-2	CURB INLET	66,080	1.517	57,623	8,457	0.82	94.9	5.0	5.68	7.79	13.63	7.09	9.73	17.01
EX-DA-3	CURB INLET	14,053	0.323	13,786	267	0.89	97.5	5.0	5.68	7.79	13.63	1.63	2.23	3.91
EX-DA-4	OFFSITE (N)	10,138	0.233	2,199	7,939	0.43	79.2	5.0	5.68	7.79	13.63	0.57	0.78	1.36

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ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:

PRE-DEVELOPED DRAINAGE AREA MAP

SHEET NUMBER:

C124

FILE LOCATION:\\DESKTOP-HHM26QB\Civil 3D Projects\QT1183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Pre Dev Map USER:dakol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM

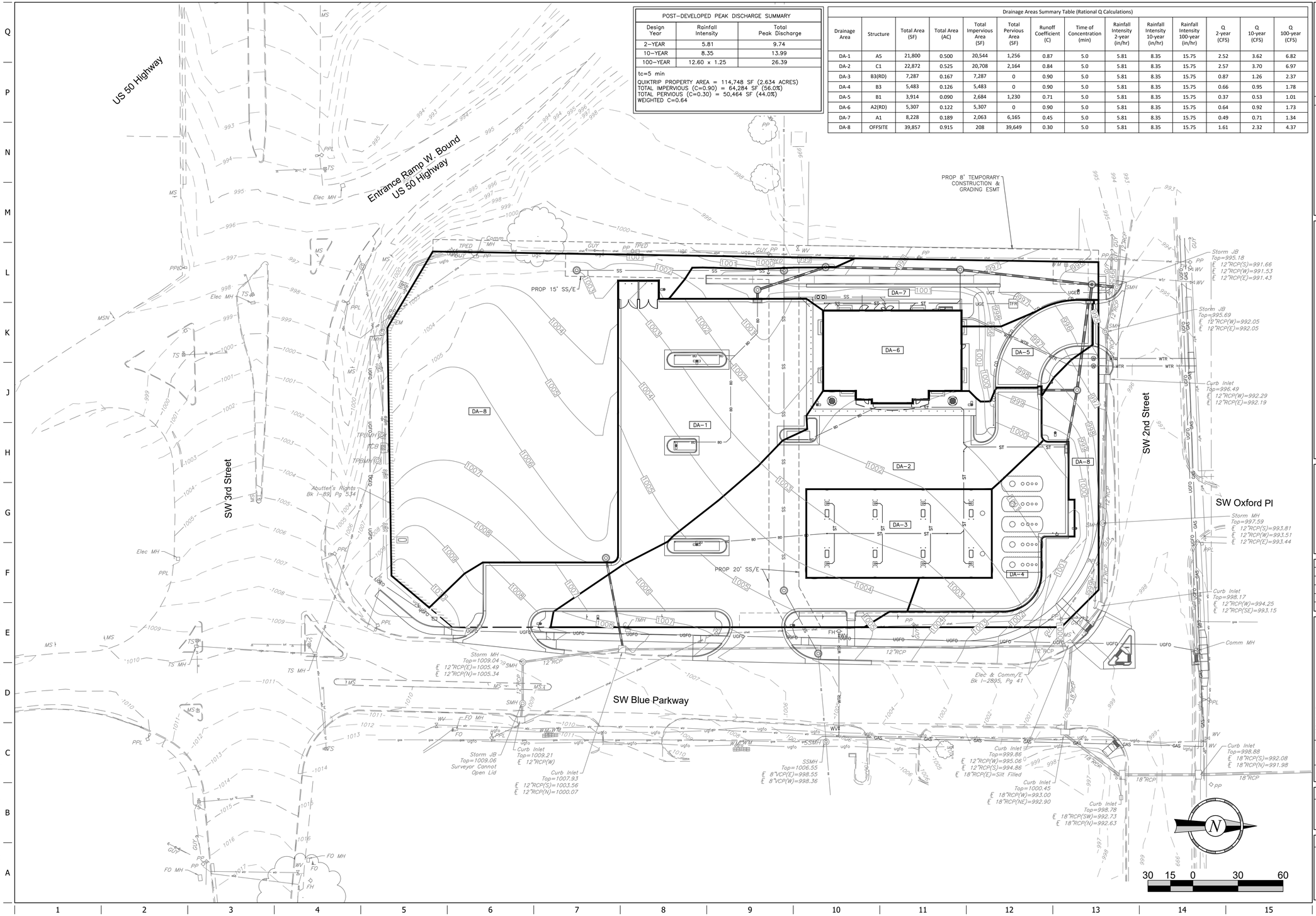
POST-DEVELOPED PEAK DISCHARGE SUMMARY		
Design Year	Rainfall Intensity	Total Peak Discharge
2-YEAR	5.81	9.74
10-YEAR	8.35	13.99
100-YEAR	12.60 x 1.25	26.39

tc=5 min

QUIKTRIP PROPERTY AREA = 114,748 SF (2.634 ACRES)
TOTAL IMPERVIOUS (C=0.90) = 64,284 SF (56.0%)
TOTAL PERVIOUS (C=0.30) = 50,464 SF (44.0%)
WEIGHTED C=0.64

Drainage Areas Summary Table (Rational Q Calculations)

Drainage Area	Structure	Total Area (SF)	Total Area (AC)	Total Impervious Area (SF)	Total Pervious Area (SF)	Runoff Coefficient (C)	Time of Concentration (min)	Rainfall Intensity 2-year (in/hr)	Rainfall Intensity 10-year (in/hr)	Rainfall Intensity 100-year (in/hr)	Q 2-year (CFS)	Q 10-year (CFS)	Q 100-year (CFS)
DA-1	A5	21,800	0.500	20,544	1,256	0.87	5.0	5.81	8.35	15.75	2.52	3.62	6.82
DA-2	C1	22,872	0.525	20,708	2,164	0.84	5.0	5.81	8.35	15.75	2.57	3.70	6.97
DA-3	B3(RD)	7,287	0.167	7,287	0	0.90	5.0	5.81	8.35	15.75	0.87	1.26	2.37
DA-4	B3	5,483	0.126	5,483	0	0.90	5.0	5.81	8.35	15.75	0.66	0.95	1.78
DA-5	B1	3,914	0.090	2,684	1,230	0.71	5.0	5.81	8.35	15.75	0.37	0.53	1.01
DA-6	A2(RD)	5,307	0.122	5,307	0	0.90	5.0	5.81	8.35	15.75	0.64	0.92	1.73
DA-7	A1	8,228	0.189	2,063	6,165	0.45	5.0	5.81	8.35	15.75	0.49	0.71	1.34
DA-8	OFFSITE	39,857	0.915	208	39,649	0.30	5.0	5.81	8.35	15.75	1.61	2.32	4.37



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REVIEWED BY:	TRW

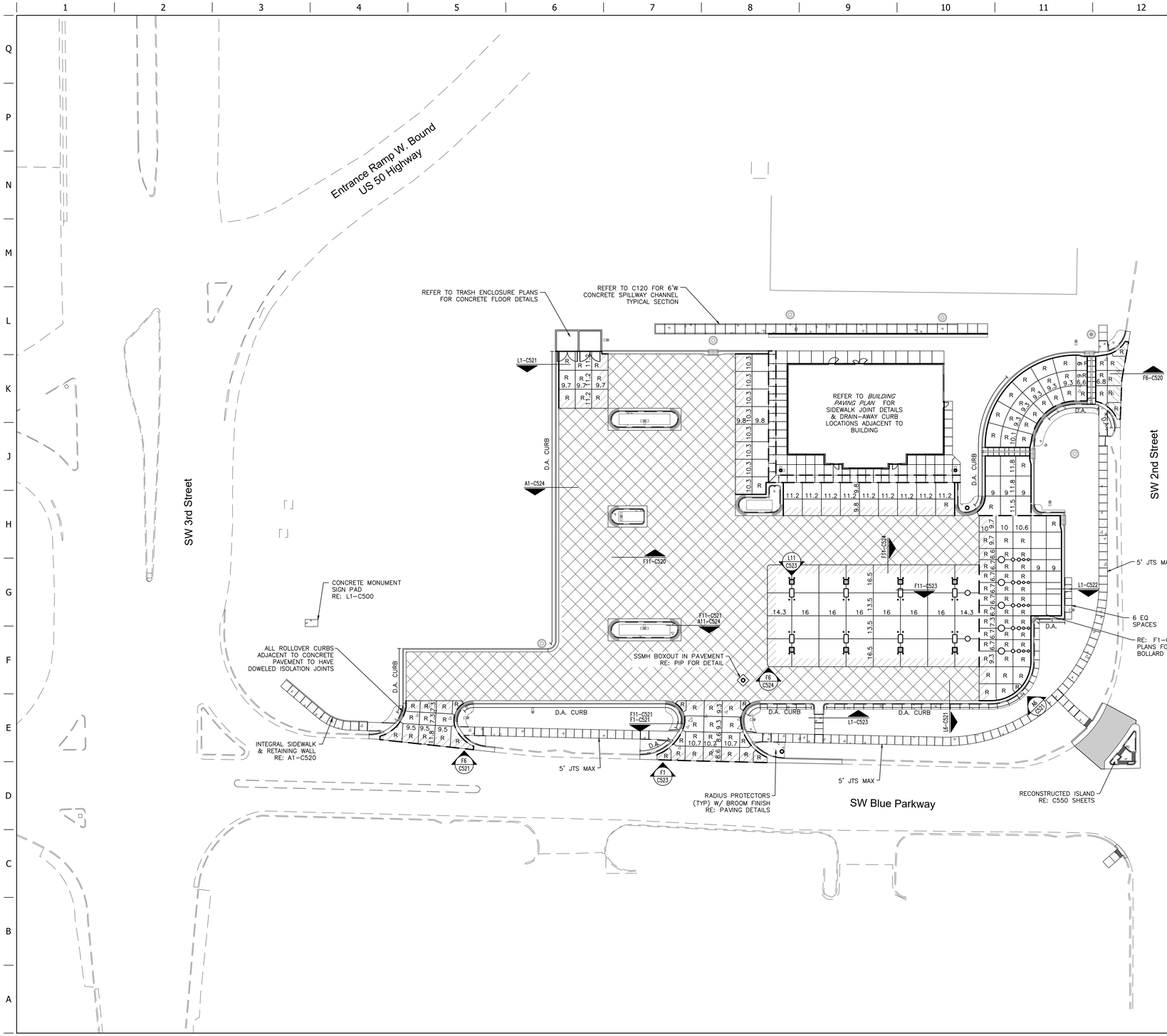
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SHEET TITLE:
POST-DEVELOPED DRAINAGE AREA MAP

SHEET NUMBER:
C125

FILE LOCATION:\\DESKTOP-HIMG8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Post Dev Map USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM



PAVING LEGEND

- ISOLATION – DOWEL
- ISOLATION – NO DOWEL
- CONSTRUCTION – DOWEL
- CONTRACTION – DOWEL
- CONTRACTION – NO DOWEL
- THICKENED EDGE
- "DRAIN-AWAY CURB" OR "D.A." — DRAIN AWAY CURB
- R — REINFORCED PANEL
- RADIUS PROTECTOR WITH BROOM FINISH
- MOUNTABLE CURB
- SECTION DETAIL
- BLOWUP DETAIL

1 DURING CONSTRUCTION, CONTRACTION JOINTS SHALL BE REPLACED BY CONSTRUCTION JOINTS AS DETERMINED AND AGREED UPON BY THE GC AND QT CONSTRUCTION MANAGER BASED ON THE PROJECT SCHEDULE FOR CONCRETE PAVING PLACEMENT. CONSTRUCTION JOINTS SHALL BE CONSTRUCTED PER THE CONSTRUCTION JOINT PAVING DETAIL(S) LOCATED IN THE C520 SHEETS.

PAVEMENT HATCHING LEGEND

- KCMMB ASPHALTIC CONCRETE
- CONCRETE
- CONCRETE SIDEWALK RADIUS PROTECTORS
- 8" KCMMB CONCRETE PER CITY SPECIFICATIONS
- KCMMB ASPHALTIC CONCRETE PER CITY SPECIFICATIONS

ASPHALT PAVING NOTES

1. REFER TO *BUILDING PAVING PLAN* FOR ADDITIONAL PAVING NOTES.
2. REFER TO SPECIFICATIONS FOR QT ASPHALT REQUIREMENTS.
3. PARKING LOT 2' CURB AND GUTTER SHALL BE CONSTRUCTED USING PORTLAND CEMENT.
4. CONTRACTOR TO APPLY TACK COAT TO THE VERTICAL FACE OF ALL CONCRETE PAVEMENT AND CONCRETE CURB & GUTTER PRIOR TO ASPHALT PLACEMENT.

30 15 0 30 60

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LICENSED PROFESSIONAL ENGINEER
3/3/25

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ASPHALT PAVING PLAN

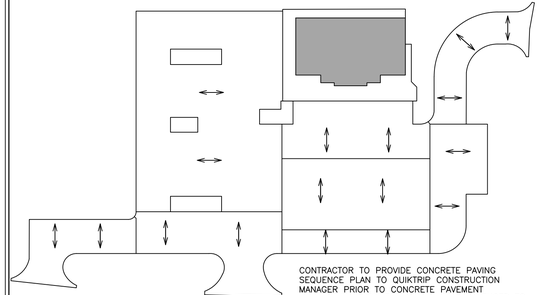
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FILE LOCATION:\\DESKTOP-HMC8GBI\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Paving (Concrete) USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:25 PM

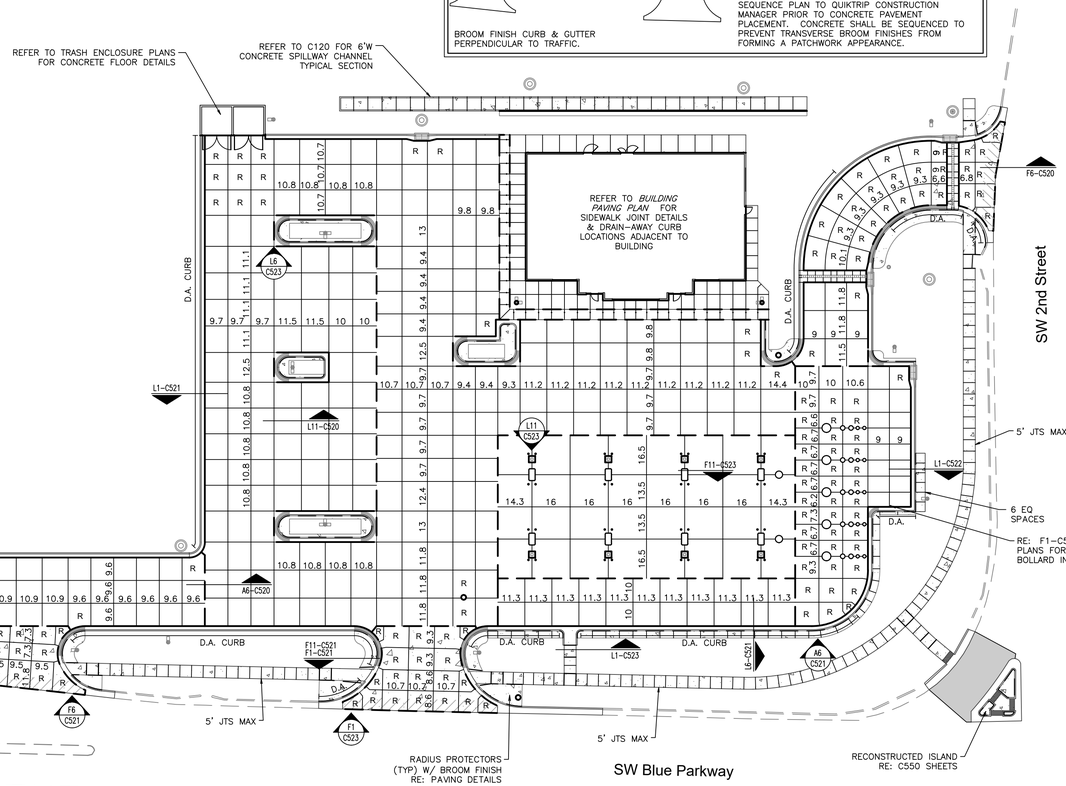
CONCRETE PAVEMENT BROOM FINISH DIRECTION EXHIBIT

SCALE: NONE



BROOM FINISH CURB & GUTTER PERPENDICULAR TO TRAFFIC.

CONTRACTOR TO PROVIDE CONCRETE PAVING SEQUENCE PLAN TO QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONCRETE PAVEMENT PLACEMENT. CONCRETE SHALL BE SEQUENCED TO PREVENT TRANSVERSE BROOM FINISHES FROM FORMING A PATCHWORK APPEARANCE.



PAVING LEGEND

	ISOLATION – DOWEL
	ISOLATION – NO DOWEL
	CONSTRUCTION – DOWEL
	CONTRACTION – DOWEL
	CONTRACTION – NO DOWEL
	THICKENED EDGE
"DRAIN-AWAY CURB" OR "D.A."	DRAIN AWAY CURB
R	REINFORCED PANEL
	RADIUS PROTECTOR WITH BROOM FINISH
	MOUNTABLE CURB
X# – X##	SECTION DETAIL
X# / X##	BLOWUP DETAIL

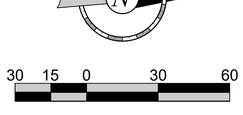
1 DURING CONSTRUCTION, CONTRACTION JOINTS SHALL BE REPLACED BY CONSTRUCTION JOINTS AS DETERMINED AND AGREED UPON BY THE GC AND QT CONSTRUCTION MANAGER BASED ON THE PROJECT SCHEDULE FOR CONCRETE PAVING PLACEMENT. CONSTRUCTION JOINTS SHALL BE CONSTRUCTED PER THE CONSTRUCTION JOINT PAVING DETAIL(S) LOCATED IN THE C520 SHEETS.

PAVEMENT HATCHING LEGEND

	CONCRETE
	CONCRETE SIDEWALK RADIUS PROTECTORS
	8" KCMMB CONCRETE PER CITY SPECIFICATIONS
	KCMMB ASPHALTIC CONCRETE PER CITY SPECIFICATIONS

MISCELLANEOUS PAVING NOTES:

1. REFER TO *BUILDING PAVING PLAN* FOR MISCELLANEOUS PAVING NOTES.



30 15 0 30 60

CONNOR S. HOLMAN
NUMBER PE-2021004771
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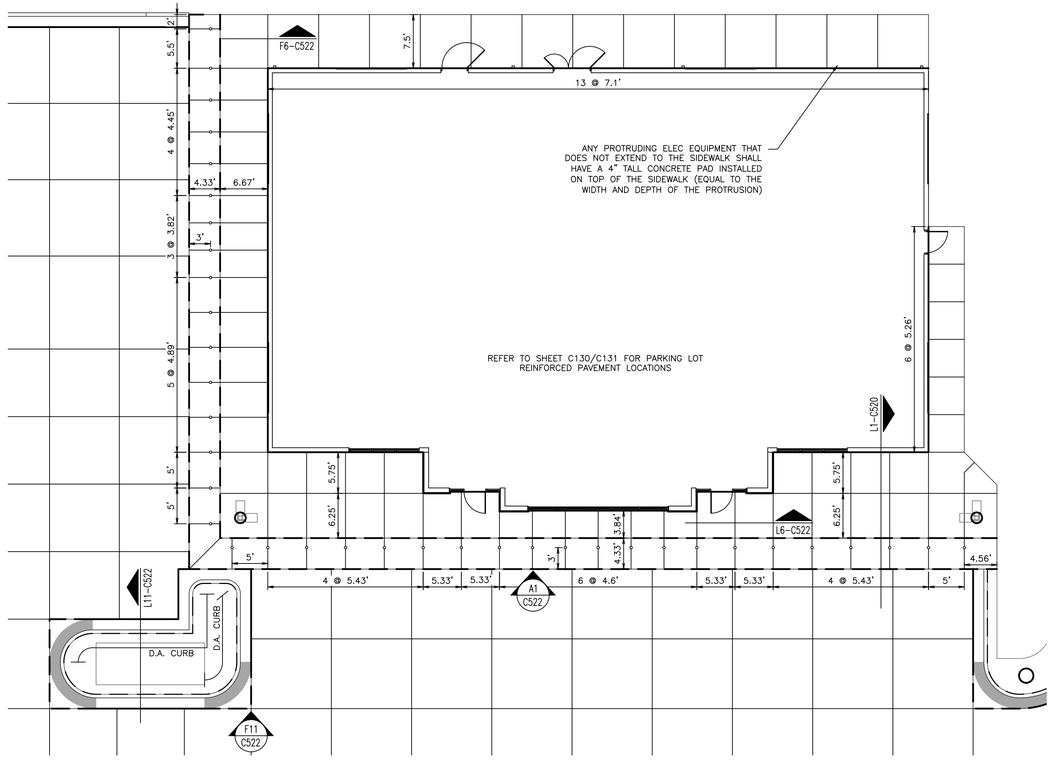
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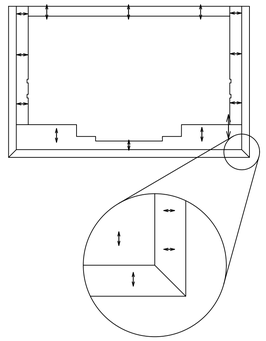
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CONCRETE PAVING PLAN (ALTERNATE)

SHEET NUMBER:
C131

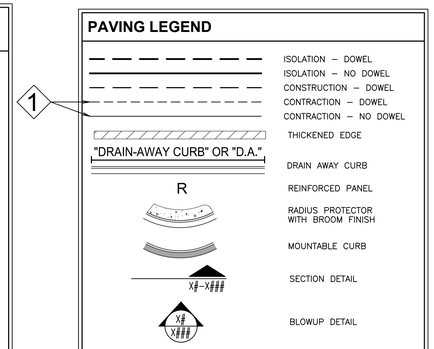


BUILDING SIDEWALK BROOM FINISH DIRECTION EXHIBIT

SCALE: NONE



PAVING LEGEND



1 DURING CONSTRUCTION, CONTRACTION JOINTS SHALL BE REPLACED BY CONSTRUCTION JOINTS AS DETERMINED AND AGREED UPON BY THE GC AND QT CONSTRUCTION MANAGER BASED ON THE PROJECT SCHEDULE FOR CONCRETE PAVING PLACEMENT. CONSTRUCTION JOINTS SHALL BE CONSTRUCTED PER THE CONSTRUCTION JOINT PAVING DETAIL(S) LOCATED IN THE C520 SHEETS.

MISCELLANEOUS PAVING NOTES:

1. REFER TO C520 SHEETS FOR PAVING DETAILS.
2. DURING CONSTRUCTION, CONTRACTION JOINTS SHALL BE REPLACED WITH CONSTRUCTION JOINTS AS DETERMINED AND AGREED UPON BY THE GC AND QT CONSTRUCTION MANAGER BASED ON THE PROJECT SCHEDULE FOR CONCRETE PAVING PLACEMENT. CONSTRUCTION JOINTS SHALL BE CONSTRUCTED PER CONSTRUCTION JOINT DETAILS. (RE: C520 SHEETS).
3. REFERENCE ADA COMPLIANCE REFERENCE PLAN FOR JOINT LOCATIONS WITHIN ADA LOCATIONS THAT MUST COMPLY WITH JOINT SEALANT PLACEMENT TOLERANCES DETAILED IN *PAVING JOINT – SEALANT TOLERANCE DETAIL.*
4. REFER TO CONTRACT DOCUMENTS FOR PAVING SPECIFICATIONS. PRIVATE ASPHALTIC CONCRETE SHALL BE KCMMB MIX DESIGN PER CITY SPECIFICATIONS. CONCRETE DRIVE APPROACHES SHALL BE 8" KCMMB CONCRETE PER CITY SPECIFICATIONS.
5. PUBLIC SIDEWALK IMMEDIATELY ADJACENT TO (WITHIN 8' MIN.) QUIKTRIP ENTRANCES SHALL BE CONSTRUCTED USING 8" CONCRETE.
6. TRANSITION STRIPS: THE CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTING A STRAIGHT EDGE WHERE NEW APPROACHES AND NEW CURB & GUTTER MEET EXISTING STREETS. IF A STRAIGHT EDGE CAN NOT BE ACHIEVED ALONG ASPHALT STREETS TO THE SATISFACTION OF THE OWNER. THE CONTRACTOR SHALL MILL A MINIMUM OF 2" (2' WIDE) OF EXISTING ASPHALT STREET FOR CONCRETE FORM PLACEMENT. THE MILLED ASPHALT AREA SHALL THEN BE REPLACED WITH ASPHALTIC SURFACE MATERIAL IN ACCORDANCE WITH GOVERNING AGENCY SPECIFICATIONS. WHERE NEW CONCRETE IS TO BE PLACED ADJACENT TO EXISTING CONCRETE PAVEMENT, THE CONTRACTOR SHALL SAWCUT (FULL DEPTH) ALONG THE CONSTRUCTION EDGE.
7. REFER TO PROJECT SPECIFICATIONS FOR CONCRETE FINISHING DETAILS.
8. REFER TO THE ELECTRICAL, IRRIGATION AND SECURITY PLANS FOR ALL CONDUIT LOCATIONS THAT MUST BE IN PLACE PRIOR TO PLACING PAVEMENT.
9. TO AVOID ANY DEFINED CRESTS OR SUMPS, "GRADE BREAKS" SHALL BE CONSTRUCTED AS A "VERTICAL CURVE". SURVEYOR AND CONTRACTOR SHALL CONFER WITH QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION STAKING OR CONCRETE PLACEMENT RELATIVE TO ANY GRADE BREAKS.
10. THE MAXIMUM CROSS SLOPE ON ALL PROPOSED SIDEWALKS, INCLUDING SIDEWALK DRIVEWAY CROSSINGS, IS 2%.
11. OUTSIDE TABLE STAINLESS STEEL ANCHORING SYSTEMS ARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS PRIOR TO FRONT SIDEWALK PLACEMENT.
12. WHEN PLAN GRADES DEPICT RUNOFF TO BE DIRECTED AWAY FROM THE CURB, USE DRAIN AWAY CURB ALTERNATE. (RE: PAVING DETAILS)
13. REFER TO CANOPY PLANS FOR CANOPY COLUMN FOOTING CONSTRUCTION DETAILS.
14. CONTRACTOR TO PROVIDE CONCRETE PAVING SEQUENCE PLAN TO QUIKTRIP CONSTRUCTION MANAGER PRIOR TO CONCRETE PAVEMENT PLACEMENT. CONCRETE SHALL BE SEQUENCED TO PREVENT TRANSVERSE BROOM FINISHES FROM FORMING A PATCHWORK APPEARANCE.



10 5 0 10 20

CONNOR S. HOLMAN
NUMBER PE-2021004771
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
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QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:

BUILDING PAVING PLAN

SHEET NUMBER:

C132

FILE LOCATION:\\DESKTOP-HMC8GBI\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Paving (Bldg) USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:26 PM

EROSION CONTROL LEGEND

- 840 — MAJOR CONTOUR (EXISTING)
- 839 — MINOR CONTOUR (EXISTING)
- SF — SILT FENCE
- LIMITS OF DISTURBANCE (LOD)
- INLET PROTECTION
- TEMPORARY CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT STATION

PROJECT NARRATIVE (PHASE 1):

THIS PROJECT THE CONSTRUCTION OF A NEW QUIKTRIP FACILITY WITH FUEL OFFERING. THE PROJECT IS BEING CONSTRUCTED ON AN UNDEVELOPED PROPERTY. THE NEW QUIKTRIP FACILITY WILL INCLUDE THE CONSTRUCTION OF A CONVENIENCE STORE WITH AN AUTO FUEL CANOPY (INCLUDING ASSOCIATED UTILITY SERVICES).

THE CONTRACTOR IS TO PREVENT EROSION & SEDIMENT FROM ENTERING PUBLIC RIGHT OF WAY (INCLUDING PUBLIC STORM SEWER SYSTEMS) AND ADJACENT PRIVATE PROPERTY. SEDIMENT MUST BE REMOVED FROM ADJACENT PROPERTY AND PUBLIC/PRIVATE STREETS IMMEDIATELY.

THIS PHASE IS INTENDED TO SHOW THE EXISTING SITE PRIOR TO ANY DEMOLITION ACTIVITIES AND THE EROSION AND SEDIMENT CONTROL MEASURES THAT MUST BE IN PLACE PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITIES.

REFER TO C500 SHEETS FOR EROSION CONTROL DETAILS & STAND ALONE SWPPP DOCUMENT FOR BMP SPECIFICATIONS.

ACREAGE SUMMARY

TOTAL DISTURBED = 2.96 ACRES

EROSION & SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	BMP PLAN REF. NO.	BMP DESCRIPTION	INSTALL STAGE:
A– PRIOR TO LAND DISTURBANCE/DEMOLITION ACTIVITIES	1	TEMPORARY CONSTRUCTION ENTRANCE	A & B
	2	SILT FENCE	VARIES
B– IMMEDIATELY AFTER DEMOLITION/SITE GRADING	3	INLET SEDIMENT FILTER	A & C
C– IMMEDIATELY AFTER STORM SEWER INSTALLATION	4	CONCRETE WASH OUT STATION	B
D– PAVEMENT, BUILDING & CANOPY CONSTRUCTION	N/A	SODDING	E
E– FINAL SURFACE RESTORATION SODDING/LANDSCAPING LAND DISTURBANCE PERMIT CLOSURE			

REFER TO STAND ALONE SWPPP FOR ADDITIONAL EROSION & SEDIMENT CONTROL DETAILS & SPECIFICATIONS

Entrance Ramp W. Bound US 50 Highway

SW 3rd Street

SW Blue Parkway

SW 2nd Street

SW Oxford Pl

CONTRACTOR TO INSTALL ADDITIONAL INLET PROTECTION DOWNSTREAM OF THE PROJECT, AS NECESSARY

CONTRACTOR TO UTILIZE EXISTING PAVED APPROACH FOR CONSTRUCTION ENTRANCE UNTIL PAVEMENT REMOVAL IS NECESSARY

SSMH Top=1002.07 ℄ 8"VCP(E)=992.91 ℄ 8"VCP(N)=991.97

SSMH Top=999.48 ℄ 8"VCP(E)=989.68 ℄ 8"VCP(S)=989.68 ℄ 8"VCP(W)=989.63

Curb Inlet Top=996.10 ℄ 12"RCP(N)=992.39

Storm JB Top=995.18 ℄ 12"RCP(S)=991.66 ℄ 12"RCP(W)=991.53 ℄ 12"RCP(E)=991.43

Storm JB Top=995.69 ℄ 12"RCP(W)=992.05 ℄ 12"RCP(E)=992.05

Curb Inlet Top=996.49 ℄ 12"RCP(W)=992.29 ℄ 12"RCP(E)=992.19

Storm MH (Per SUE) Top=1000.97 ℄ 12"RCP(N)=995.63

Storm MH Top=997.59 ℄ 12"RCP(S)=993.81 ℄ 12"RCP(W)=993.51 ℄ 12"RCP(E)=993.44

Curb Inlet Top=998.17 ℄ 12"RCP(W)=994.25 ℄ 12"RCP(SE)=993.15

Comm MH

Curb Inlet Top=998.88 ℄ 18"RCP(S)=992.08 ℄ 18"RCP(N)=991.98

Curb Inlet Top=999.86 ℄ 12"RCP(W)=995.06 ℄ 12"RCP(S)=994.86 ℄ 18"RCP(E)=Silt Filled

Curb Inlet Top=1000.45 ℄ 18"RCP(W)=993.00 ℄ 18"RCP(NE)=992.90

Curb Inlet Top=998.78 ℄ 18"RCP(SW)=992.73 ℄ 18"RCP(N)=992.63

Storm MH Top=1009.04 ℄ 12"RCP(E)=1005.49 ℄ 12"RCP(N)=1005.34

SSMH Top=1011.56 ℄ 8"VCP(W)=1004.45

Storm JB Top=1009.06 Surveyor Cannot Open Lid

Curb Inlet Top=1009.21 ℄ 12"RCP(W)

Curb Inlet Top=1007.93 ℄ 12"RCP(S)=1003.56 ℄ 12"RCP(N)=1000.07

SSMH Top=1006.55 ℄ 8"VCP(E)=998.55 ℄ 8"VCP(W)=998.36

Elec & Comm/E Bk I–2895, Pg 41

Abutter's Rights Bk I–89, Pg 534

FFE=1008.54

30 15 0 30 60

CONNOR S. HOLMAN
NUMBER PE-2021004777
STATE OF MISSOURI
PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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SHEET TITLE:
EROSION CONTROL PLAN PHASE 1

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C140

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EROSION CONTROL LEGEND

- XXXX — MAJOR CONTOUR (PROPOSED)
- XXXX — MINOR CONTOUR (PROPOSED)
- 840 — MAJOR CONTOUR (EXISTING)
- 839 — MINOR CONTOUR (EXISTING)
- SF — SILT FENCE
- LIMITS OF DISTURBANCE (LOD)
- INLET PROTECTION
- TEMPORARY CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT STATION

PROJECT NARRATIVE (PHASE 2):

THIS PROJECT THE CONSTRUCTION OF A NEW QUIKTRIP FACILITY WITH FUEL OFFERING. THE PROJECT IS BEING CONSTRUCTED ON AN UNDEVELOPED PROPERTY. THE NEW QUIKTRIP FACILITY WILL INCLUDE THE CONSTRUCTION OF A CONVENIENCE STORE WITH AN AUTO FUEL CANOPY (INCLUDING ASSOCIATED UTILITY SERVICES).

THE CONTRACTOR IS TO PREVENT EROSION & SEDIMENT FROM ENTERING PUBLIC RIGHT OF WAY (INCLUDING PUBLIC STORM SEWER SYSTEMS) AND ADJACENT PRIVATE PROPERTY. SEDIMENT MUST BE REMOVED FROM ADJACENT PROPERTY AND PUBLIC/PRIVATE STREETS IMMEDIATELY.

THIS PHASE IS INTENDED TO SHOW THE EROSION & SEDIMENT CONTROL MEASURES THAT MUST BE INSTALLED AND MAINTAINED AFTER ROUGH GRADING, AND STORM SEWER CONSTRUCTION, BUT BEFORE FINAL GRADING AND PAVING IS COMPLETED.

REFER TO C500 SHEETS FOR EROSION CONTROL DETAILS & STAND ALONE SWPPP DOCUMENT FOR BMP SPECIFICATIONS.

ACREAGE SUMMARY

TOTAL DISTURBED = 2.96 ACRES

EROSION & SEDIMENT CONTROL STAGING CHART

PROJECT STAGE	BMP PLAN REF. NO.	BMP DESCRIPTION	INSTALL STAGE:
A– PRIOR TO LAND DISTURBANCE/DEMOLITION ACTIVITIES	1	TEMPORARY CONSTRUCTION ENTRANCE	A & B
	2	SILT FENCE	VARIES
B– IMMEDIATELY AFTER DEMOLITION/SITE GRADING	3	INLET SEDIMENT FILTER	A & C
C– IMMEDIATELY AFTER STORM SEWER INSTALLATION	4	CONCRETE WASH OUT STATION	B
D– PAVEMENT, BUILDING & CANOPY CONSTRUCTION	N/A	SODDING	E
E– FINAL SURFACE RESTORATION SODDING/LANDSCAPING LAND DISTURBANCE PERMIT CLOSURE			

REFER TO STAND ALONE SWPPP FOR ADDITIONAL EROSION & SEDIMENT CONTROL DETAILS & SPECIFICATIONS

CONTRACTOR TO INSTALL ADDITIONAL INLET PROTECTION DOWNSTREAM OF THE PROJECT, AS NECESSARY

CONTRACTOR TO PROVIDE EROSION CONTROL FOR TRENCH DRAIN, AS REQUIRED (TYP)

Entrance Ramp W. Bound US 50 Highway

SW 3rd Street

SW 2nd Street

SW Blue Parkway

SW Oxford Pl

Storm JB
Top=995.18
E 12"RCP(S)=991.66
E 12"RCP(W)=991.53
E 12"RCP(E)=991.43

Storm JB
Top=995.69
E 12"RCP(W)=992.05
E 12"RCP(E)=992.05

Curb Inlet
Top=996.49
E 12"RCP(W)=992.29
E 12"RCP(E)=992.19

Storm MH
Top=997.59
E 12"RCP(S)=993.81
E 12"RCP(W)=993.51
E 12"RCP(E)=993.44

Curb Inlet
Top=998.17
E 12"RCP(W)=994.25
E 12"RCP(SE)=993.15

Curb Inlet
Top=998.88
E 18"RCP(S)=992.08
E 18"RCP(N)=991.98

Curb Inlet
Top=999.86
E 12"RCP(W)=995.06
E 12"RCP(S)=994.86
E 18"RCP(E)=Silt Filled

Curb Inlet
Top=1000.45
E 18"RCP(W)=993.00
E 18"RCP(NE)=992.90

Curb Inlet
Top=998.78
E 18"RCP(SW)=992.73
E 18"RCP(N)=992.63

Storm MH
Top=1009.04
E 12"RCP(E)=1005.49
E 12"RCP(N)=1005.34

Storm JB
Top=1009.06
Surveyor Cannot Open Lid

Curb Inlet
Top=1009.21
E 12"RCP(W)

Curb Inlet
Top=1007.93
E 12"RCP(S)=1003.56
E 12"RCP(N)=1000.07

SSMH
Top=1006.55
E 8"VCP(E)=998.55
E 8"VCP(W)=998.36

30 15 0 30 60

CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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EROSION CONTROL PLAN PHASE 2

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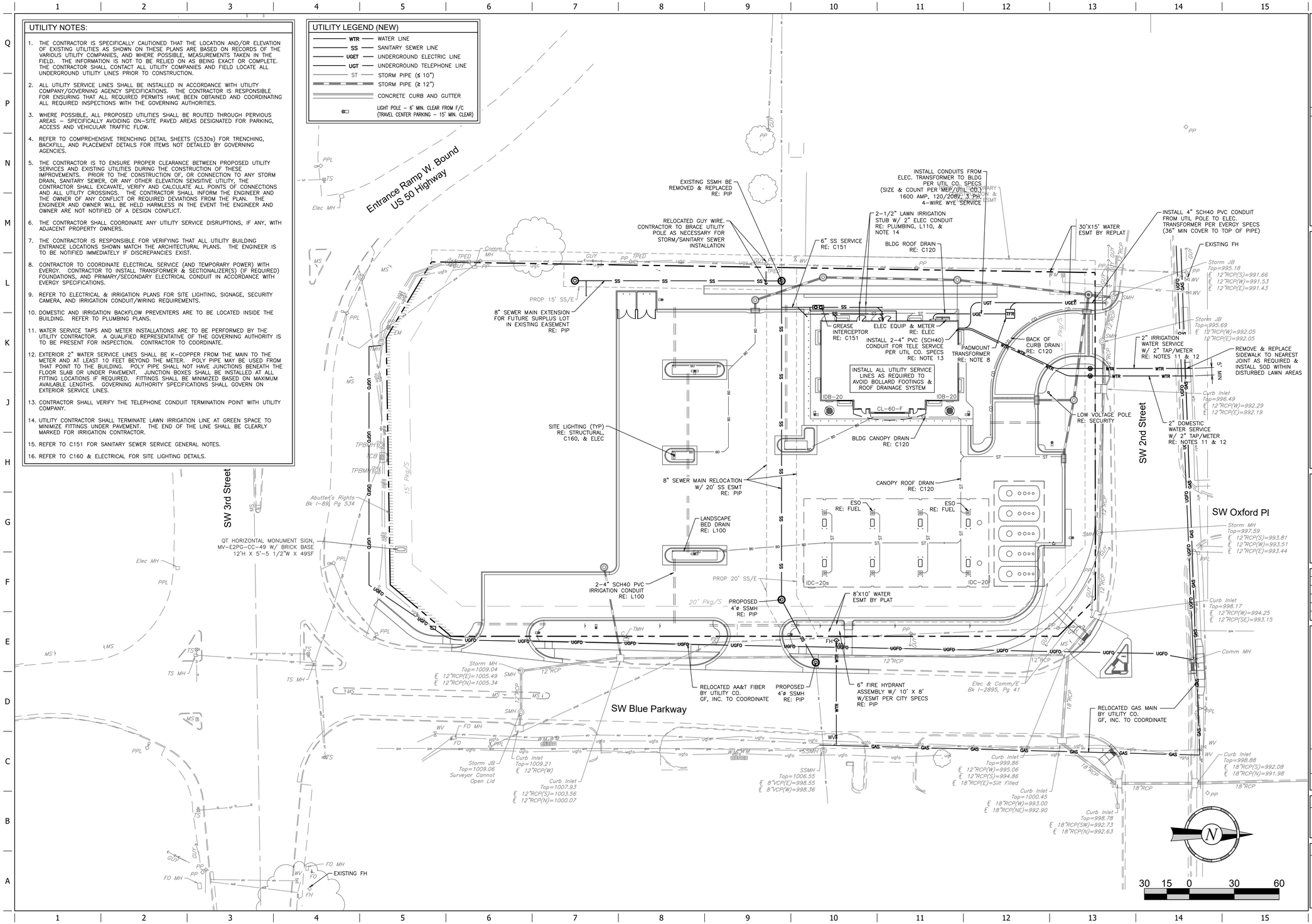
FILE LOCATION:\\DESKTOP-HHMO8GB\Civil 3D Projects\QT\183 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Erosion PH 2 USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:26 PM

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE 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 SHALL CONTACT ALL UTILITY COMPANIES AND FIELD LOCATE ALL UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION.
2. ALL UTILITY SERVICE LINES SHALL BE INSTALLED IN ACCORDANCE WITH UTILITY COMPANY/GOVERNING AGENCY SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND COORDINATING ALL REQUIRED INSPECTIONS WITH THE GOVERNING AUTHORITIES.
3. WHERE POSSIBLE, ALL PROPOSED UTILITIES SHALL BE ROUTED THROUGH PERVIOUS AREAS – SPECIFICALLY AVOIDING ON–SITE PAVED AREAS DESIGNATED FOR PARKING, ACCESS AND VEHICULAR TRAFFIC FLOW.
4. REFER TO COMPREHENSIVE TRENCHING DETAIL SHEETS (C530s) FOR TRENCHING, BACKFILL, AND PLACEMENT DETAILS FOR ITEMS NOT DETAILED BY GOVERNING AGENCIES.
5. THE CONTRACTOR IS TO ENSURE PROPER CLEARANCE BETWEEN PROPOSED UTILITY SERVICES AND EXISTING UTILITIES DURING THE CONSTRUCTION OF THESE IMPROVEMENTS. PRIOR TO THE CONSTRUCTION OF, OR CONNECTION TO ANY STORM DRAIN, SANITARY SEWER, OR ANY OTHER ELEVATION SENSITIVE UTILITY, THE CONTRACTOR SHALL EXCAVATE, VERIFY AND CALCULATE ALL POINTS OF CONNECTIONS AND ALL UTILITY CROSSINGS. THE CONTRACTOR SHALL INFORM THE ENGINEER AND THE OWNER OF ANY CONFLICT OR REQUIRED DEVIATIONS FROM THE PLAN. THE ENGINEER AND OWNER WILL BE HELD HARMLESS IN THE EVENT THE ENGINEER AND OWNER ARE NOT NOTIFIED OF A DESIGN CONFLICT.
6. THE CONTRACTOR SHALL COORDINATE ANY UTILITY SERVICE DISRUPTIONS, IF ANY, WITH ADJACENT PROPERTY OWNERS.
7. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL UTILITY BUILDING ENTRANCE LOCATIONS SHOWN MATCH THE ARCHITECTURAL PLANS. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF DISCREPANCIES EXIST.
8. CONTRACTOR TO COORDINATE ELECTRICAL SERVICE (AND TEMPORARY POWER) WITH EVERGY. CONTRACTOR TO INSTALL TRANSFORMER & SECTIONALIZER(S) (IF REQUIRED) FOUNDATIONS, AND PRIMARY/SECONDARY ELECTRICAL CONDUIT IN ACCORDANCE WITH EVERGY SPECIFICATIONS.
9. REFER TO ELECTRICAL & IRRIGATION PLANS FOR SITE LIGHTING, SIGNAGE, SECURITY CAMERA, AND IRRIGATION CONDUIT/WIRING REQUIREMENTS.
10. DOMESTIC AND IRRIGATION BACKFLOW PREVENTERS ARE TO BE LOCATED INSIDE THE BUILDING. REFER TO PLUMBING PLANS.
11. WATER SERVICE TAPS AND METER INSTALLATIONS ARE TO BE PERFORMED BY THE UTILITY CONTRACTOR. A QUALIFIED REPRESENTATIVE OF THE GOVERNING AUTHORITY IS TO BE PRESENT FOR INSPECTION. CONTRACTOR TO COORDINATE.
12. EXTERIOR 2" WATER SERVICE LINES SHALL BE K–COPPER FROM THE MAIN TO THE METER AND AT LEAST 10 FEET BEYOND THE METER. POLY PIPE MAY BE USED FROM THAT POINT TO THE BUILDING. POLY PIPE SHALL NOT HAVE JUNCTIONS BENEATH THE FLOOR SLAB OR UNDER PAVEMENT. JUNCTION BOXES SHALL BE INSTALLED AT ALL FITTING LOCATIONS IF REQUIRED. FITTINGS SHALL BE MINIMIZED BASED ON MAXIMUM AVAILABLE LENGTHS. GOVERNING AUTHORITY SPECIFICATIONS SHALL GOVERN ON EXTERIOR SERVICE LINES.
13. CONTRACTOR SHALL VERIFY THE TELEPHONE CONDUIT TERMINATION POINT WITH UTILITY COMPANY.
14. UTILITY CONTRACTOR SHALL TERMINATE LAWN IRRIGATION LINE AT GREEN SPACE TO MINIMIZE FITTINGS UNDER PAVEMENT. THE END OF THE LINE SHALL BE CLEARLY MARKED FOR IRRIGATION CONTRACTOR.
15. REFER TO C151 FOR SANITARY SEWER SERVICE GENERAL NOTES.
16. REFER TO C160 & ELECTRICAL FOR SITE LIGHTING DETAILS.

UTILITY LEGEND (NEW)

- WTR — WATER LINE
- SS — SANITARY SEWER LINE
- UGET — UNDERGROUND ELECTRIC LINE
- UGT — UNDERGROUND TELEPHONE LINE
- ST — STORM PIPE (≤ 10")
- STORM PIPE (≥ 12")
- CONCRETE CURB AND GUTTER
- LIGHT POLE – 6' MIN. CLEAR FROM F/C (TRAVEL CENTER PARKING – 15' MIN. CLEAR)



CONNOR S. HOLMAN
NUMBER PE–2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

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OVERALL UTILITY PLAN

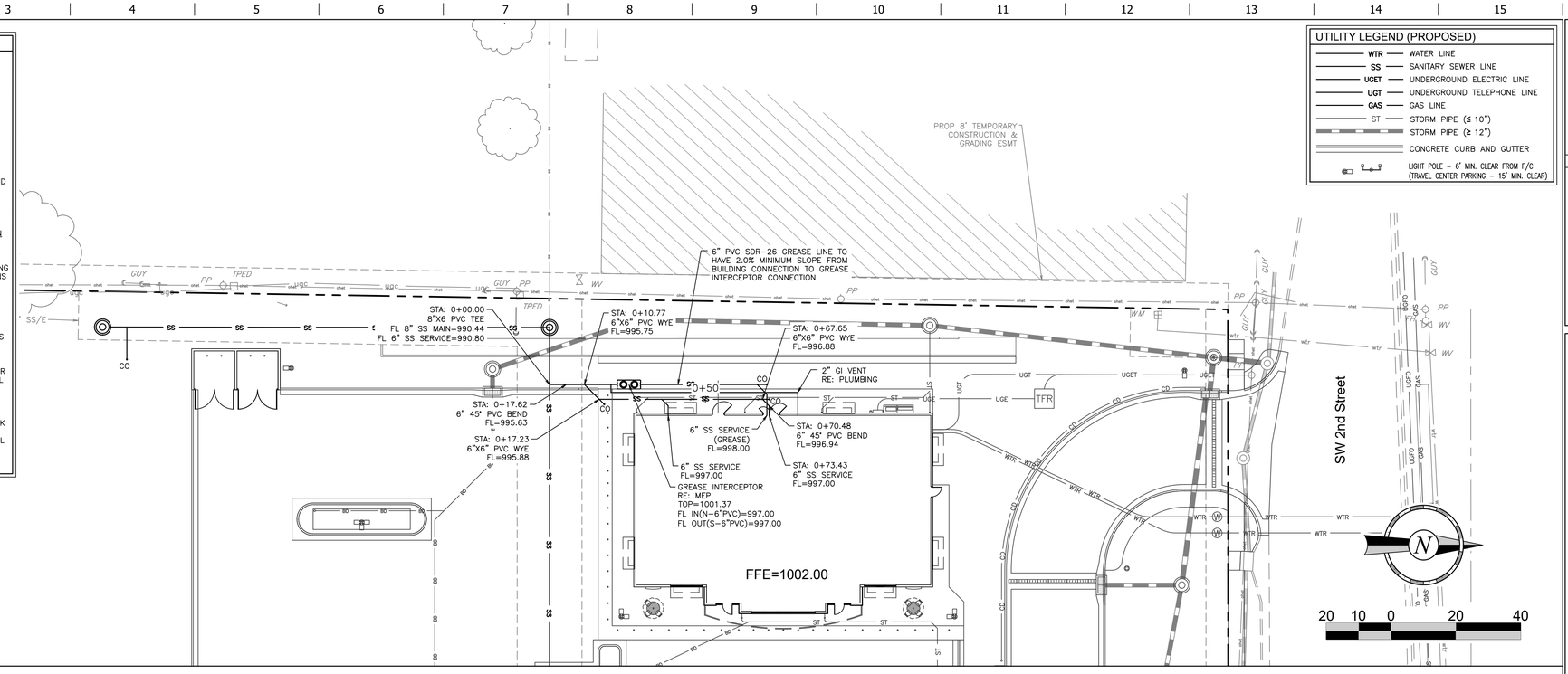
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C150

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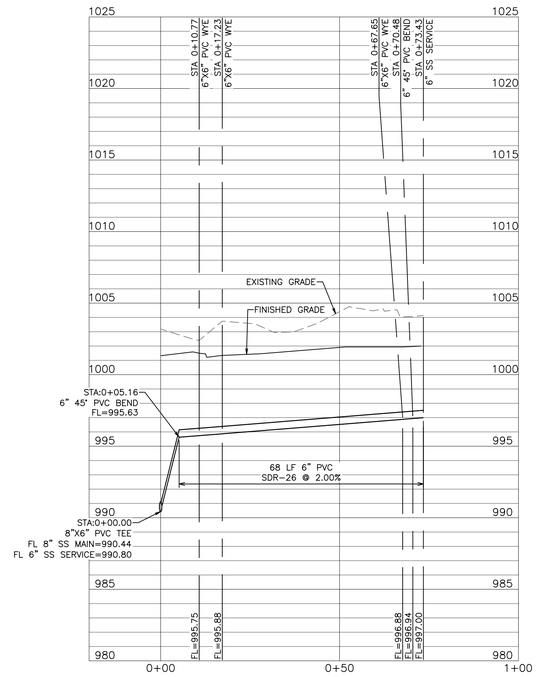
SANITARY SEWER SERVICE NOTES:

1. REFER TO C150 FOR ADDITIONAL UTILITY NOTES.
2. THE CONTRACTOR IS TO ENSURE PROPER CLEARANCE BETWEEN PROPOSED SEWER SERVICES AND EXISTING/PROPOSED UTILITIES DURING THE CONSTRUCTION OF THESE IMPROVEMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL REQUIRED PERMITS HAVE BEEN OBTAINED AND COORDINATING ALL REQUIRED INSPECTIONS WITH THE CITY/UTILITY COMPANIES.
4. SANITARY SEWER SERVICE LINE SHALL BE SDR 26 PVC WITH 36" MINIMUM COVER. SANITARY SEWER SERVICE IS TO BE CONSTRUCTED IN ACCORDANCE WITH GOVERNING AGENCY REGULATIONS. 4" SANITARY SEWER CLEANOUTS ARE TO BE INSTALLED AT ALL POINTS OF DEFLECTION ALONG THE SERVICE AND AS NOTED. THE PLUMBING CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING THE NECESSARY PERMITS.
5. CONTRACTOR TO INSTALL NECESSARY FITTINGS REQUIRED TO ENLARGE 4" SANITARY SEWER SERVICE LINES TO 6" SANITARY SEWER SERVICE LINES IMMEDIATELY OUTSIDE BUILDING FOUNDATION WALLS.
6. GREASE INTERCEPTOR SHALL CONFORM TO GOVERNING AGENCY SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING ACCESS MANHOLES TO FINISH GRADE. REFER TO PLUMBING PLANS FOR GREASE INTERCEPTOR DETAILS.
7. EXTERIOR GREASE SANITARY SEWER LINES ARE TO BE 6" SDR26. CONTRACTOR TO ENLARGE 4" GREASE LINES TO 6" IMMEDIATELY OUTSIDE BUILDING FOUNDATION WALLS.
8. ALL SANITARY SEWER CLEANOUTS ARE TO BE 4" DIAMETER UNLESS OTHERWISE NOTED. REFER TO PROJECT SPECIFICATIONS FOR MANUFACTURER INFORMATION.
9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT ALL SEWER BUILDING ENTRANCE LOCATIONS SHOWN MATCH THE ARCHITECTURAL PLANS. THE ENGINEER IS TO BE NOTIFIED IMMEDIATELY IF DISCREPANCIES EXIST.
10. CONNECTION OF PIPES OF DIFFERENT MATERIALS SHALL BE MADE USING A MISSION FLEX-SEAL ARC COUPLING, FERNCO STRONGBACK RC COUPLING (OR APPROVED EQUAL) TO PROVIDE A PERMANENT AND WATERTIGHT CONNECTION WHICH INCLUDES A STAINLESS STEEL SOLID WALL THAT WILL WITHSTAND THE HYDROSTATIC TEST PRESSURE AND PREVENT THE OFFSET OF THE JOINT WITHIN THE COUPLING.



UTILITY LEGEND (PROPOSED)

WTR	WATER LINE
SS	SANITARY SEWER LINE
UGET	UNDERGROUND ELECTRIC LINE
UGT	UNDERGROUND TELEPHONE LINE
GAS	GAS LINE
ST	STORM PIPE (≤ 10")
	STORM PIPE (≥ 12")
	CONCRETE CURB AND GUTTER
	LIGHT POLE – 6' MIN. CLEAR FROM F/C (TRAVEL CENTER PARKING – 15' MIN. CLEAR)



SANITARY SERVICE PROFILE

1"=20' HORZ
1"=5' VERT

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3/3/25

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VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
SANITARY SERVICE PLAN & PROFILE

SHEET NUMBER:
C151

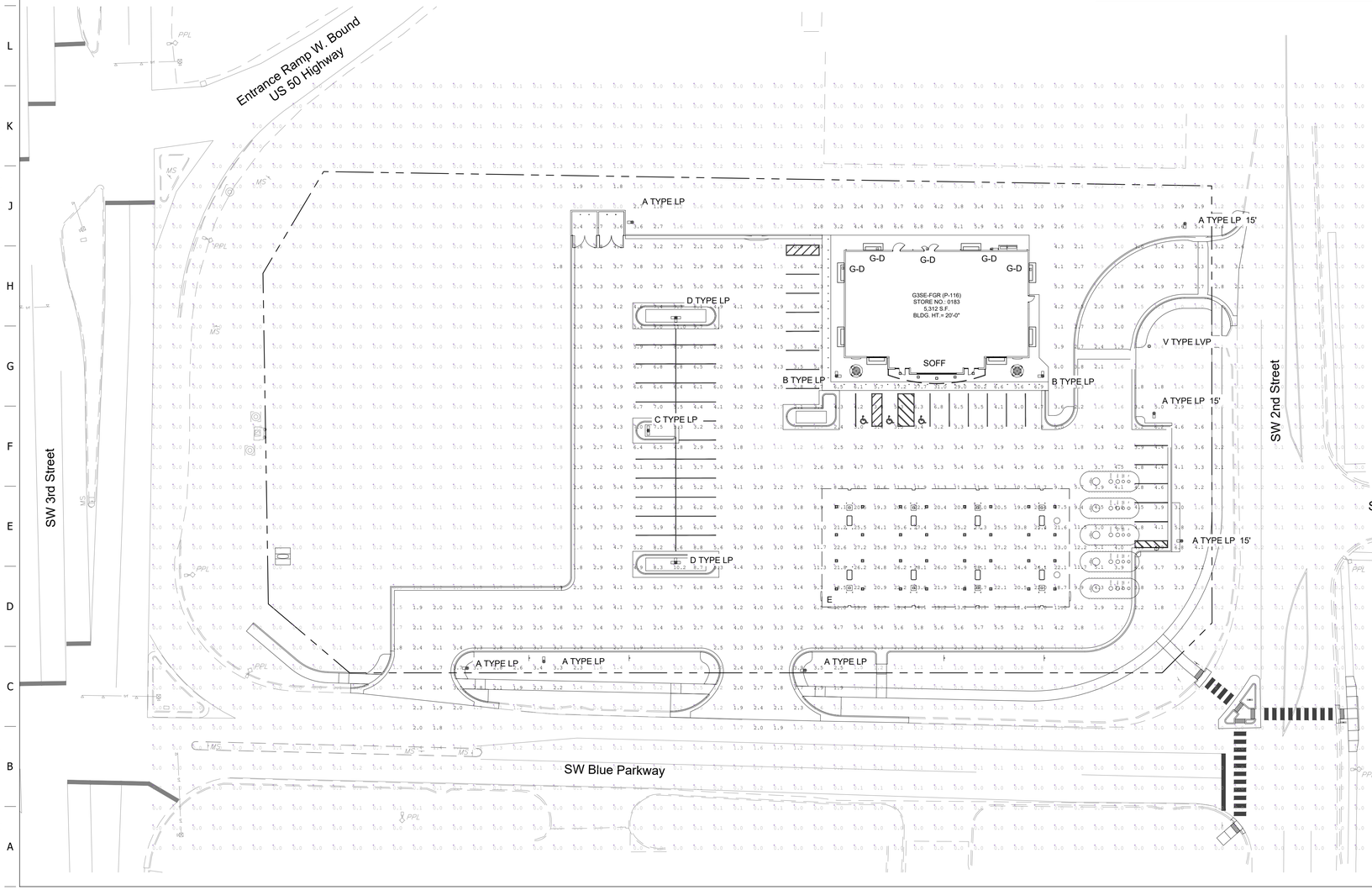
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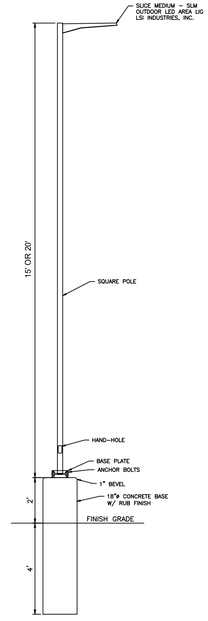
NOTE:
ILLUMINANCE (FC)
AVERAGE = 3.51
MAXIMUM = 29.2
MINIMUM = 0.1
AVG/MIN RATIO = 35.20
MAX/MIN RATION = 292.00

NOTE:
ALL LIGHT FIXTURES ARE FULLY SHIELDED.

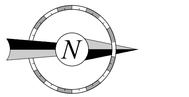
LUMINAIRE SCHEDULE

	SYMBOL	LABEL	QTY	ARRANGEMENT	MOUNTING HEIGHT	LUMENS PER LAMP	LLF	DESCRIPTION	TOTAL WATTS
		A	07	SINGLE	15'-20'	12,591	0.90	SLM-LED-12L-SIL-FT-40-70-CRI	93.1
		B	02	2 @ 90°	20'	12,591	0.90	SLM-LED-12L-SIL-FT-40-70-CRI	93.1
		C	01	2 @ 180°	20'	12,591	0.90	SLM-LED-12L-SIL-FT-40-70-CRI	93.1
		D	02	3 @ 90°	20'	12,591	0.90	SLM-LED-12L-SIL-FT-40-70-CRI	93.1
		E	32	SINGLE	15' TO 19'	12,793	0.50	CRUS-SC-SS-40	83.6
		SOFF	05	SINGLE	10' TO 12'	6,041	0.90	XSPS-S-LED-VHO-NW-DFL	48.7
		G-D	05	SINGLE	12'	6,275	0.90	XWM-3-LED-06-40	54.0
		V	01	SINGLE	15'	12,591	0.90	LOW VOLTAGE POLE	93.1





LIGHT STANDARD
NOT TO SCALE



30 15 0 30 60

PROJECT NO.:02-0183

CRUX
TECHNOLOGY + SECURITY SOLUTIONS
800.685.6440
www.cruxsolutions.com

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
DIVISION:	02
VERSION:	001
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DRAWN BY:	CSH
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REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
PHOTOMETRIC SITE PLAN

SHEET NUMBER:
C160

FILE LOCATION:\\DESKTOP-HMC8OBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 Photometric.dwg TAB NAME:Photometric USER:akhol SAVED:3/3/2025 9:31 AM PLOTTED:3/3/2025 1:26 PM

UTILITY COMPANY	CONTACT	EMAIL	PHONE NUMBER	ADDRESS
AT&T	CHARLES PEDERSEN	CP861N@ATT.COM	816-813-3667	2121 E 63RD STREET, KANSAS CITY, MO 64130
BLUEBIRD NETWORKS	MIKE SANDERS	MIKE.SANDERS@BLUEBIRDNETWORK.COM	816-517-1876	9201 WARD PARKWAY, SUITE 300, KANSAS CITY, MO 64114
CITY OF LEE'S SUMMIT	KRISTI GAWRON	KRISTI.GAWON@CITYOFLS.NET	816-969-1923	1200 SE HAMBLEN ROAD, LEE'S SUMMIT, MO 64081
EVERGY	PHILLIP INGRAM	PHILLIP.INGRAM@EVERGY.COM	816-896-3098	1710 PASEO BLVD, KANSAS CITY, MO 64108
MODOT KANSAS CITY DISTRICT	MISSOURI DEPT. OF TRANSPORTATION	KCMICROFILM@MODOT.MO.GOV	816-863-7822	600 NE COLBERN RD, LEE'S SUMMIT, MO 64086
SPECTRUM	CHRISTINA HURKMANS	CHRISTINA.HURKMANS@CCISYSTEMS.COM	800-338-9299	105 KENT STREET, IRON MOUNTAIN, MI 49801
SPIRE MO WEST	LARISSA WELLS	LARISSA.WELLS@SPIREENERGY.COM	816-207-7021	3025 SE CLOVER DR, LEE'S SUMMIT, MO 64082
UNITE PRIVATE NETWORKS	SAM VOHSEN	UPNGIS@UPNFIBER.COM	816-814-9768	120 W 12TH ST, FLOOR 11, KANSAS CITY, MO 64105

LEGEND

- ELECTRIC POLE W/ RISER
- LIGHT POLE
- ELECTRIC POLE
- ELECTRIC CABINET
- ELECTRIC MANHOLE
- GUY WIRE
- ELECTRIC SIGN
- ELECTRIC FEATURE
- ELECTRIC HANDHOLE
- ELECTRIC METER
- FIBER OPTIC MARKER
- FIBER OPTIC RISER
- FIBER OPTIC HANDHOLE
- CABLE TV PEDESTAL
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- GAS METER
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- STORM DRAIN MANHOLE
- STORM DRAIN CLEANOUT
- STORM DRAIN INLET
- WASTEWATER MANHOLE
- WASTEWATER CLEANOUT
- VENT
- UNKNOWN SURFACE FEATURE
- CONTROL POINT
- CONTINUATION MARK
- TEST HOLE

OVERHEAD LINES

- OE1 — OVERHEAD ELECTRIC/FIBER OPTIC/CABLE TV/TELEPHONE/TELEPHONE - LIBERTY UTILITIES (A.K.A. EVERGY)/UNKNOWN/SPECTRUM/AT&T/AT&T
- OE2 — OVERHEAD ELECTRIC/FIBER OPTIC/CABLE TV/FIBER OPTIC - LIBERTY UTILITIES (A.K.A. EVERGY)/UNKNOWN/SPECTRUM/SPECTRUM
- OE3 — OVERHEAD ELECTRIC - LIBERTY UTILITIES (A.K.A. EVERGY)
- OFOC1 — OVERHEAD FIBER OPTIC - AT&T

QUALITY LEVEL B

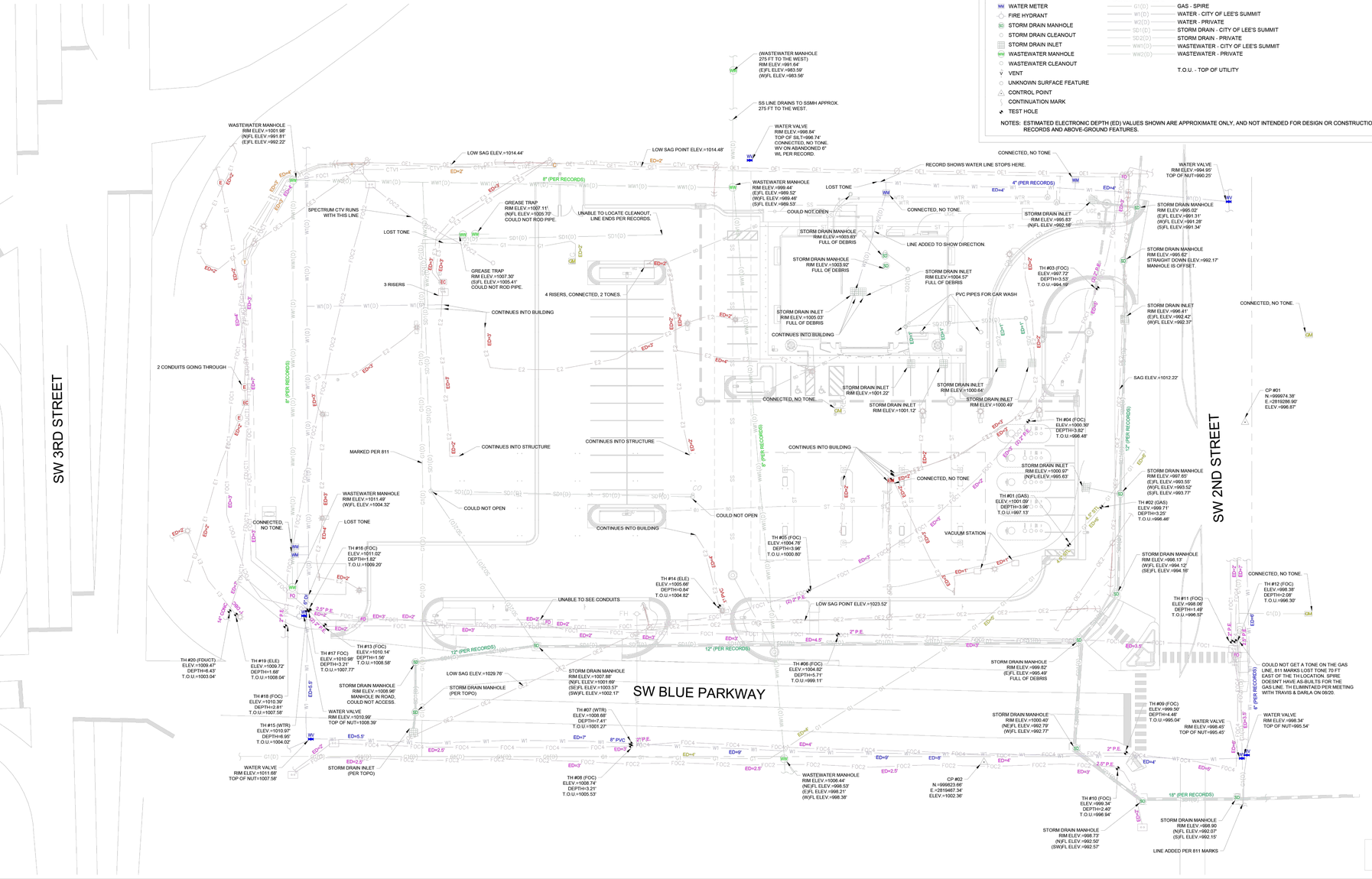
- E1 — ELECTRIC - MISSOURI DEPARTMENT OF TRANSPORTATION
- E2 — ELECTRIC - PRIVATE
- E3 — ELECTRIC - LIBERTY UTILITIES (A.K.A. EVERGY)
- FOC1 — FIBER OPTIC - AT&T
- FOC2 — FIBER OPTIC - UNITE PRIVATE NETWORKS
- FOC3 — FIBER OPTIC - SPECTRUM
- FOC4 — FIBER OPTIC - BLUEBIRD NETWORKS
- FDUCT1 — FIBER OPTIC DUCT - AT&T
- CTV1 — CABLE TV - SPECTRUM
- T1 — TELEPHONE - AT&T
- G1 — GAS - SPIRE
- W1 — WATER - CITY OF LEE'S SUMMIT
- SD2 — STORM DRAIN - CITY OF LEE'S SUMMIT

QUALITY LEVEL D

- G1(D) — GAS - SPIRE
- W1(D) — WATER - CITY OF LEE'S SUMMIT
- W2(D) — WATER - PRIVATE
- SD1(D) — STORM DRAIN - CITY OF LEE'S SUMMIT
- SD2(D) — STORM DRAIN - PRIVATE
- WW1(D) — WASTEWATER - CITY OF LEE'S SUMMIT
- WW2(D) — WASTEWATER - PRIVATE

T.O.U. - TOP OF UTILITY

NOTES: ESTIMATED ELECTRONIC DEPTH (ED) VALUES SHOWN ARE APPROXIMATE ONLY, AND NOT INTENDED FOR DESIGN OR CONSTRUCTION USE. QUALITY LEVEL D LINE WORK IS BASED ON AVAILABLE RECORDS AND ABOVE-GROUND FEATURES.



CobbFendley
Texas Registration No. 274

QuikTrip No. 0183

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LEE'S SUMMIT, JACKSON CO., MO 64063

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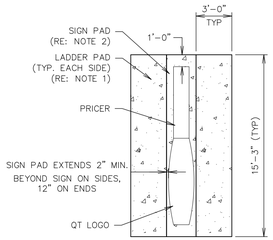
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VERSION: 01
DESIGNED BY: EA
DRAWN BY: PH
REVIEWED BY: TEH

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 9/17/2024

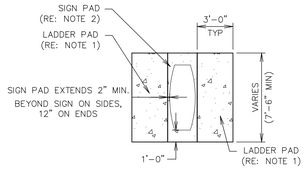
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S.U.E. PLAN

SHEET NUMBER:
C170

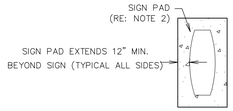
1. 4" THICK X 4000 P.S.I. CONCRETE LADDER PAD W/6"X6" 10 GA. W.W.F. PLACED LEVEL, MID-DEPTH (TYPICAL)
2. 4" THICK X 4000 P.S.I. CONCRETE SIGN PAD W/6"X6" 10 GA. W.W.F. PLACED LEVEL, MID-DEPTH (TYPICAL)
3. CAULK CONSTRUCTION JOINT BETWEEN SIGN AND LADDER PADS.
4. FOR QT SIGN PAD PLACEMENT, RE: SITE PLAN FOR SITE SPECIFIC SIGNAGE.



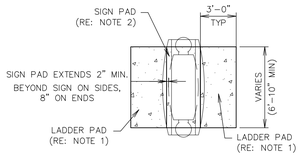
QT HORIZONTAL SIGN



QT VERTICAL SIGN



QT VERTICAL SIGN W/ ELECTRIC PRICER
(LADDER PADS OMITTED)



QT POLE SIGN

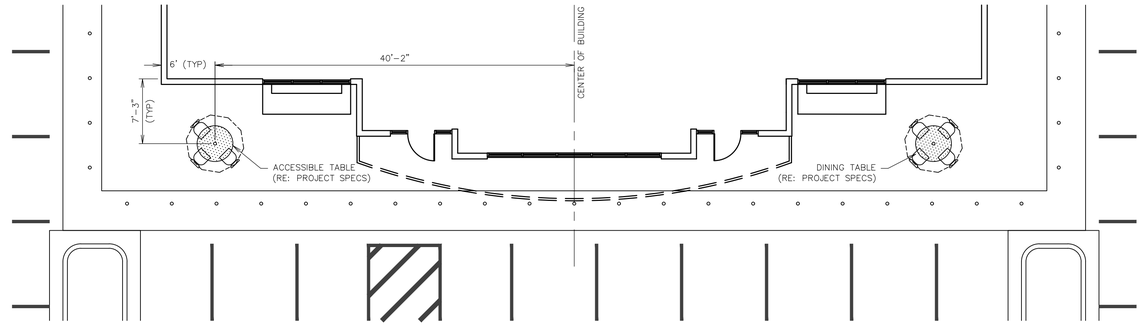
L1 GEN III SIGN PAD DETAIL

NTS | SN: SD015A005

F1 NOT USED

NTS | SN:

TABLES ARE QT SUPPLIED, GC INSTALLED



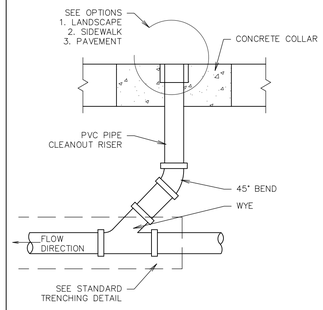
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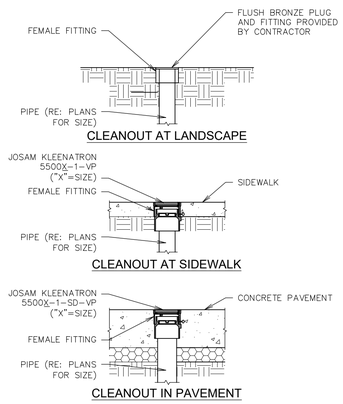
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F6 NOT USED

NTS | SN:

NOTE:
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STORM SEWER CO'S TO BE WATER TIGHT

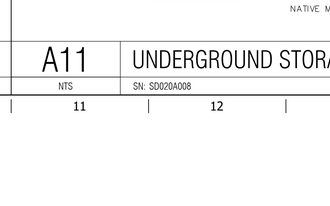


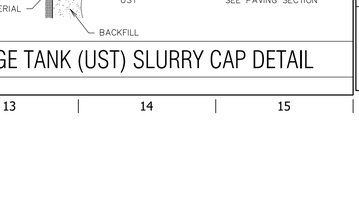


L11 CLEANOUT SECTION DETAIL

NTS | SN: SD016B007

NOTE:
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STORM SEWER CO'S TO BE WATER TIGHT

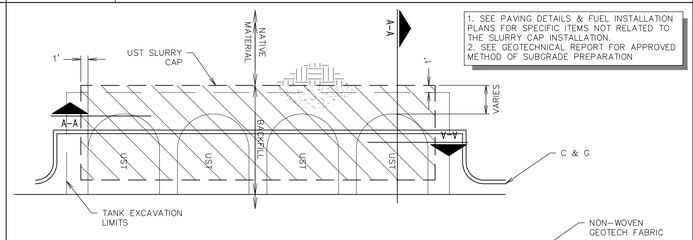


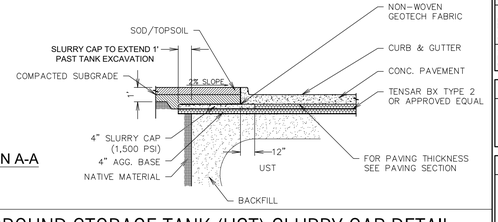


F11 CLEANOUT SECTION DETAIL (ASPHALT)

NTS | SN: SD016A007

1. SEE PAVING DETAILS & FUEL INSTALLATION PLANS FOR SPECIFIC ITEMS NOT RELATED TO THE SLURRY CAP INSTALLATION.
2. SEE GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION





SECTION A-A

A11 UNDERGROUND STORAGE TANK (UST) SLURRY CAP DETAIL

NTS | SN: SD020A008

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
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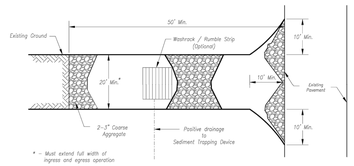
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DIVISION:	02
VERSION:	001
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REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

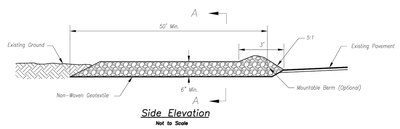
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MISCELLANEOUS SITE DETAILS

SHEET NUMBER:
C500

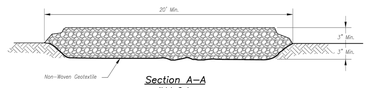
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Plan View
Not to Scale



Side Elevation
Not to Scale



Section A-A
Not to Scale

Notes for Construction Entrance:

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

Maintenance for Construction Entrance:

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

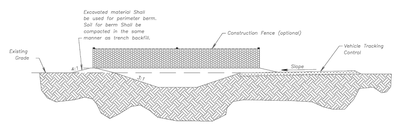
CONSTRUCTION ENTRANCE

Notes for Concrete Washout:

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

Maintenance for Concrete Washout:

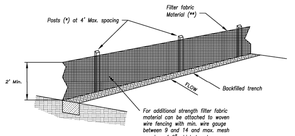
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface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



CONCRETE WASHOUT

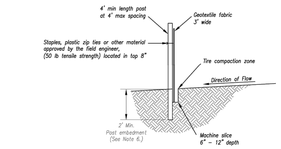
Construction Entrance modified from 2015 Overland Park Standard Details for Erosion and Sediment Control; Concrete Washout modified from 2009 City of Great Bend Standard Drawings.

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



(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ¾" x 1 ¾"
- NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"
- STEEL 1.33 LB/FT

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



SILT FENCE DETAILS
Not to Scale

Notes:

1. In order to contain water, the ends of the silt fence must be turned uphill (Figure A).
2. Long perimeter runs of silt fence must be limited to 1,320'. Runs should be broken up into several smaller segments to minimize water concentrations (Figure A).
3. Long slopes should be broken up with intermediate rows of silt fence to slow runoff velocities.
4. Attach fabric to upstream side of post.
5. Install posts a minimum of 2' into the ground.
6. Trenching will only be allowed for small or difficult installation, where slicing machine cannot be reasonably used.

Maintenance:

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

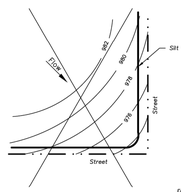
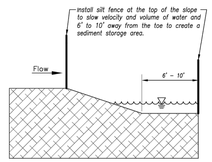
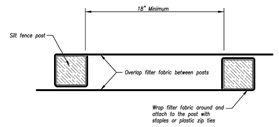


Figure A

SILT FENCE LAYOUT
Not to Scale

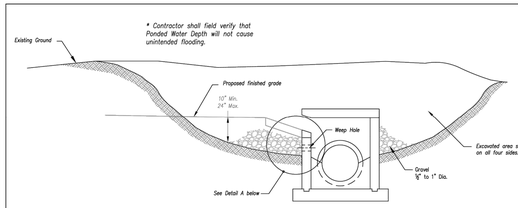


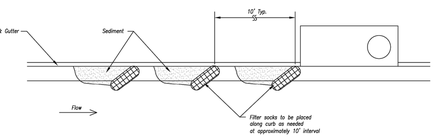


JOINING FENCE SECTIONS
Not to Scale

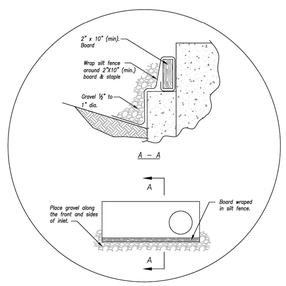
Modified from 2015 Overland Park Standard Details for Erosion and Sediment Control.

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



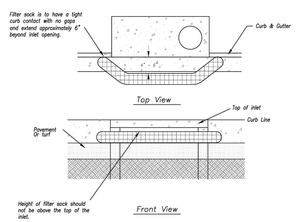


On Grade Curb Inlet Protection



Detail A

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



Sump Inlet Sediment Filter

Notes:

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

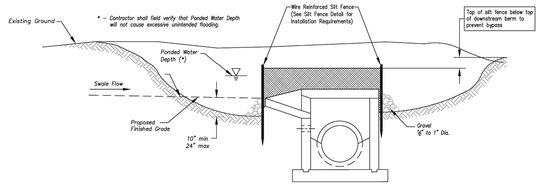
Maintenance:

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

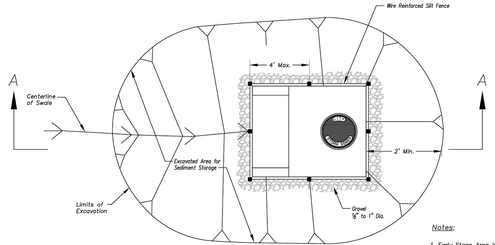
LATE STAGE CURB INLET
(After Pouring Curb and Inlet Throat)

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

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



Section A–A
Not to Scale

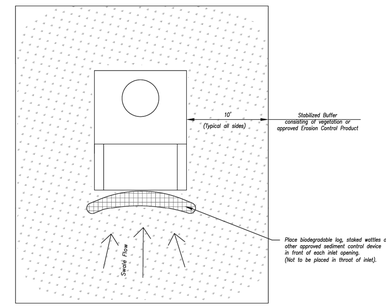


Plan
Not to Scale

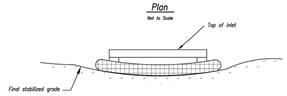
Notes:

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

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



Plan
Not to Scale



Front View

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

Maintenance:

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

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

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

APWA STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
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QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
EROSION CONTROL DETAILS

SHEET NUMBER:
C501

FILE LOCATION: \\DESKTOP-HMO8QBV\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 DETAILS MISC. SITE.dwg TAB NAME:SITE DETAIL SHEET 2 USER:dkhol
SAVED:2/23/2025 10:43 AM PLOTTED:3/3/2025 1:27 PM

FILE LOCATION: \\DESKTOP-HIMC8QB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 DETAILS ADA.dwg TAB NAME: ADA Detail Sheet 1 USER:Connor SAVED:1/21/2025 10:44 AM PLOTTED:3/3/2025 1:27 PM

L1 NOT USED

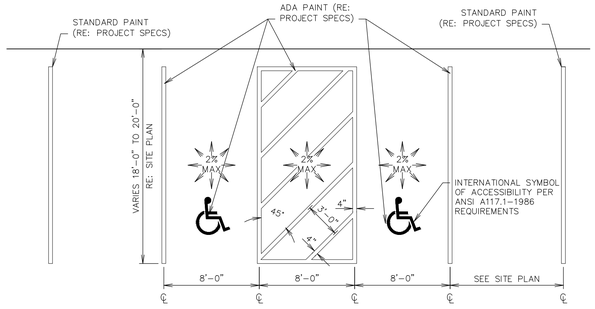
NTS | SN:

L6 DOUBLE STALL ADA PARKING STRIPING DETAIL

NTS | SN: AD001A009

1. RE: SITE PLAN FOR LOCATION OF ADA PARKING SPACES AND ACCESS AISLE IN RELATIONSHIP TO THE DOOR LOCATION. (THIS DETAIL IS FOR STRIPING LAYOUT ONLY)

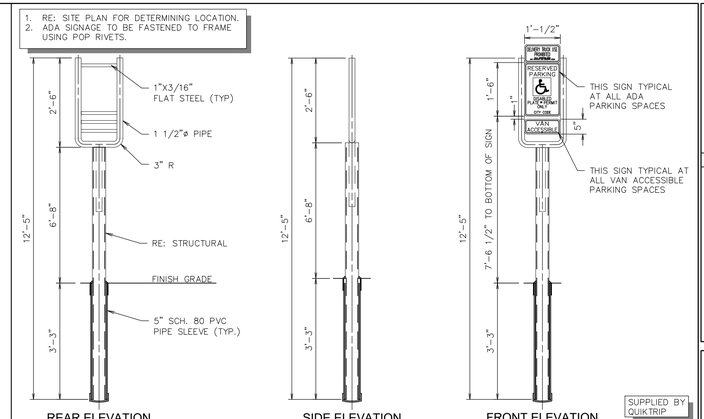
NOTE: ADA STALLS (INCLUDING AISLES) SHALL BE YELLOW, ALL OTHER PARKING STALL LINES SHALL BE WHITE. ADA SYMBOL SHALL BE WHITE ON BLUE BACKGROUND



L11 ADA SIGN IN BOLLARD

NTS | SN: AD003C0011

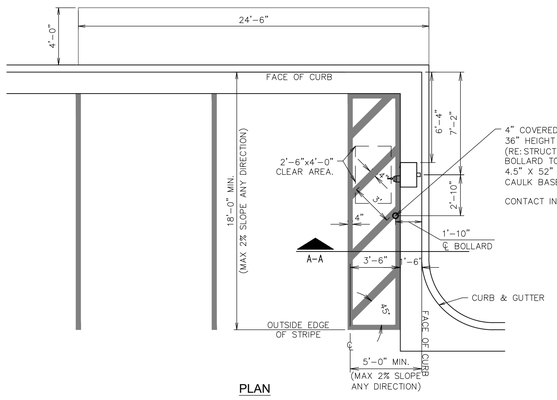
1. RE: SITE PLAN FOR DETERMINING LOCATION.
2. ADA SIGNAGE TO BE FASTENED TO FRAME USING POP RIVETS.



SUPPLIED BY QUIKTRIP

F1 AIR SERVICE INSTALL PLAN (RIGHT HAND INSTALL)

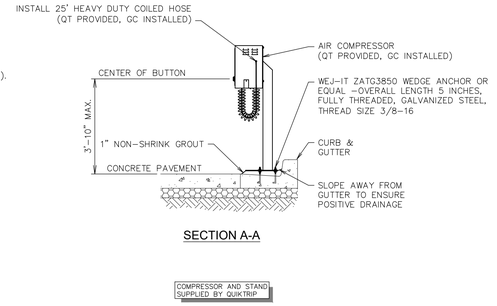
NTS | SN: AD004A016



4" COVERED STRUCTURAL BOLLARD (QT PROVIDED)
36" HEIGHT ABOVE FINISHED GRADE.
(RE: STRUCT FOR BOLLARD INSTALL).
BOLLARD TO BE COVERED WITH ENCORE COMMERCIAL PRODUCTS INC.
4.5" X 52" YELLOW SLEEVE, CUT TO FIT ONSITE (CONTRACTOR PROVIDED).
CAULK BASE W/MASTERSEAL SL-2 POLYURETHANE SEALANT.

CONTACT INFO: WWW.POSTGUARD.COM OR 1-866-737-8900.

PLAN



SECTION A-A

COMPRESSOR AND STAND SUPPLIED BY QUIKTRIP

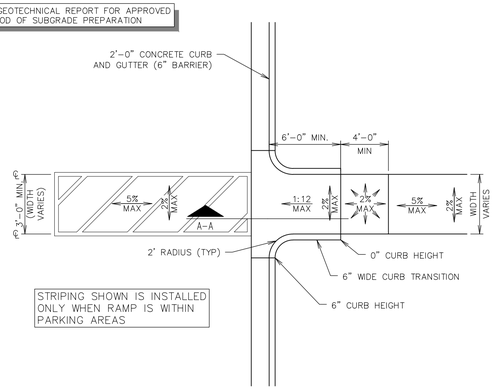
F11 NOT USED

NTS | SN:

A1 PARKING LOT CURB RAMP @ ADA CROSSING

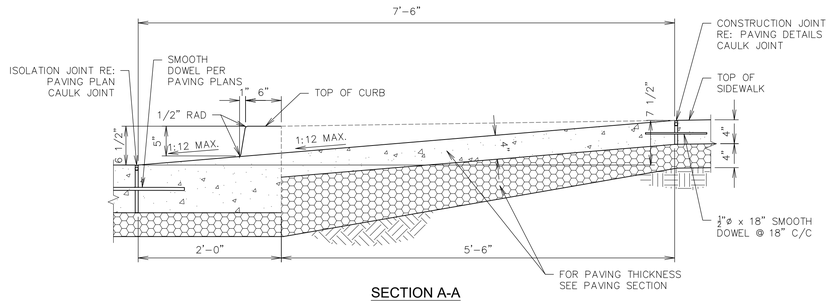
NTS | SN: AD012A007

RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION



STRIPING SHOWN IS INSTALLED ONLY WHEN RAMP IS WITHIN PARKING AREAS

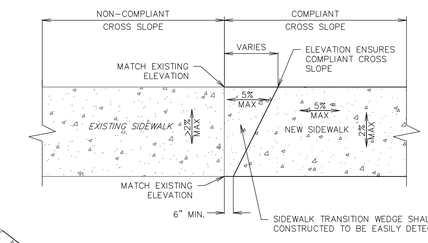
RE: AHJ SPEC'S FOR WORK IN R-O-W



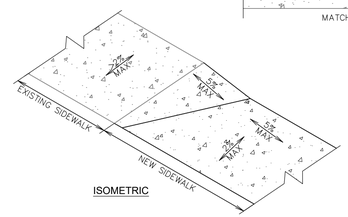
SECTION A-A

A11 SIDEWALK TRANSITION WEDGE DETAIL

NTS | SN: AD013A002



PLAN



ISOMETRIC

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City

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Shawnee, KS 66286-0015
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QuikTrip No. 0183R
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DRAWN BY:	CSH
REVIEWED BY:	TRW

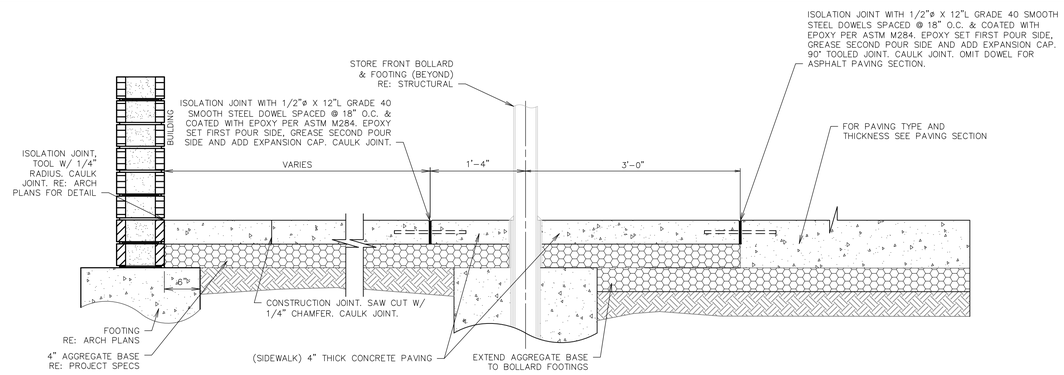
REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE: ADA DETAILS

SHEET NUMBER: C510

FILE LOCATION: \\DESKTOP-HMO8GB1\Civil 3D Projects\QT1183 Lee's Summit, MO\02-0183 DETAILS PAVING.DWG TAB NAME:Paving Detail Sheet 1 USER:dkhol SAVED:3/3/2025 12:21 PM PLOTTED:3/3/2025 1:27 PM

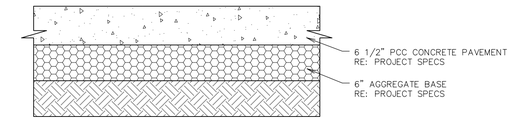
RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION



L1 PAVING SECTION THROUGH SITE AT BUILDING

SN:PD001C015

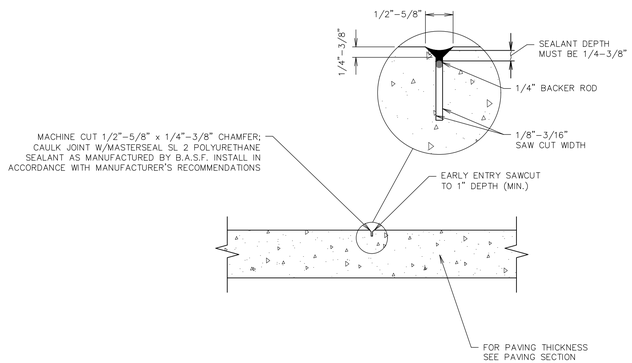
RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION



PAVEMENT SECTION HAS BEEN DESIGNED BY PROJECT GEOTECHNICAL ENGINEER. CONTRACTOR TO CONFIRM PAVEMENT SECTION & SUBGRADE PREPARATION REQUIREMENTS WITH GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION.

L11 CONCRETE PAVING SECTION 2 - STORE SIDE

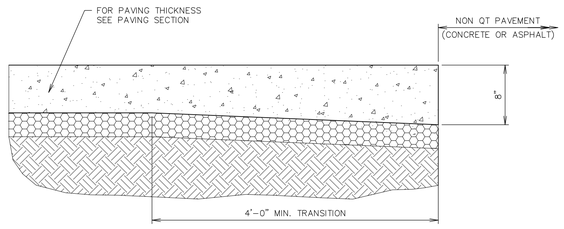
NTS | SN: PD055B005



F1 PAVING JOINT - CONTRACTION

NTS | SN: PD007A013

USE WHERE QT CONCRETE EDGE ABUTS EXISTING PAVING SECTION BY OTHERS.

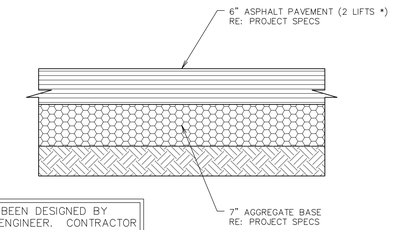


F6 THICKENED EDGE SECTION

NTS | SN: PD008A008

1.SEE TABLE LOCATED IN QT ASPHALT SPECS UNDER PART 2 FOR BASE AND SURFACE COURSE.

2.SEE GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION

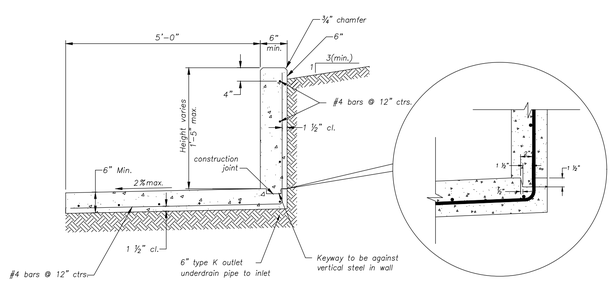


PAVEMENT SECTION HAS BEEN DESIGNED BY PROJECT GEOTECHNICAL ENGINEER. CONTRACTOR TO CONFIRM PAVEMENT SECTION & SUBGRADE PREPARATION REQUIREMENTS WITH GEOTECHNICAL REPORT PRIOR TO CONSTRUCTION.

* THE OPTION OF ALL WEAR COURSE LIFTS OR COMBINATION OF WEAR AND BASE COURSE LIFTS IS AT THE DISCRETION OF THE CONTRACTOR AND THEIR SPECIFIC STAGING PLAN. MINIMUM WEAR COURSE THICKNESS IS 3".

F11 ASPHALT PAVING SECTION 4 - STORE SIDE

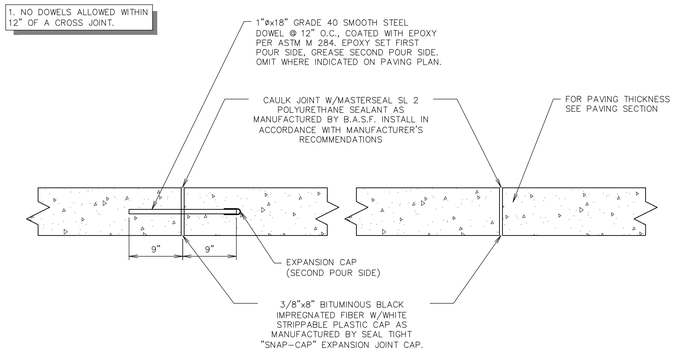
NTS | SN: PD055F005



A1 INTEGRAL SIDEWALK & RETAINING WALL DETAIL

SCALE: NTS

1. NO DOWELS ALLOWED WITHIN 12" OF A CROSS JOINT.



DOWEL SECTION

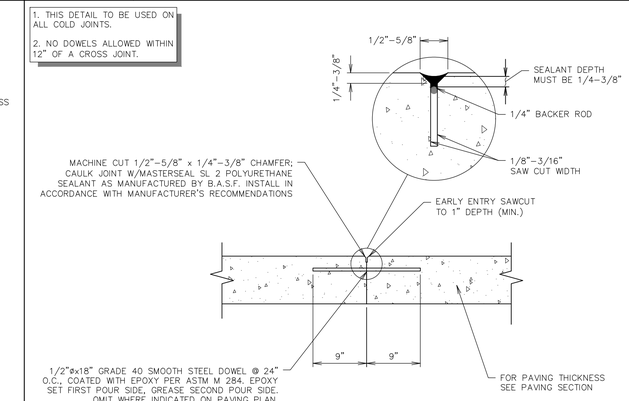
NON-DOWEL SECTION

A6 PAVING JOINT - ISOLATION

NTS | SN: PD005A011

1. THIS DETAIL TO BE USED ON ALL COLD JOINTS.

2. NO DOWELS ALLOWED WITHIN 12" OF A CROSS JOINT.



A11 PAVING JOINT - CONSTRUCTION

NTS | SN: PD006A010

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

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VERSION:	001
DESIGNED BY:	CSH
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REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

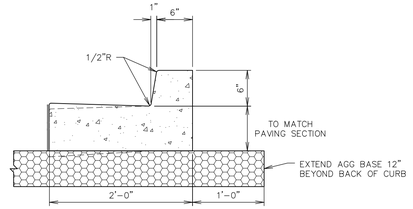
SHEET TITLE:

PAVING DETAILS

SHEET NUMBER:

C520

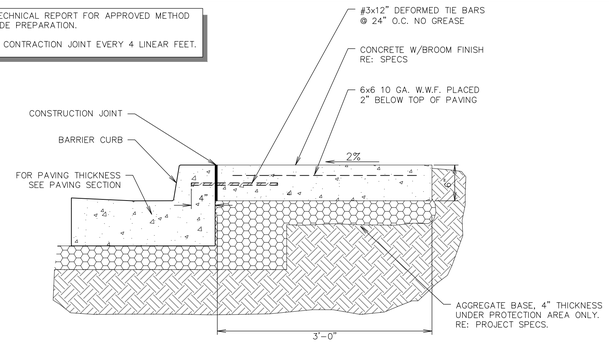
RE: AHJ SPEC'S FOR WORK IN R-O-W



L1 CURB DETAIL - BARRIER

NTS | SN: PD009A016

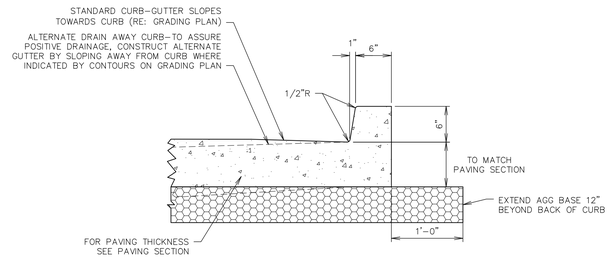
1. RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION.
2. PROVIDE CONTRACTION JOINT EVERY 4 LINEAR FEET.



L6 RUT PROTECTOR SECTION

NTS | SN: PD060A005

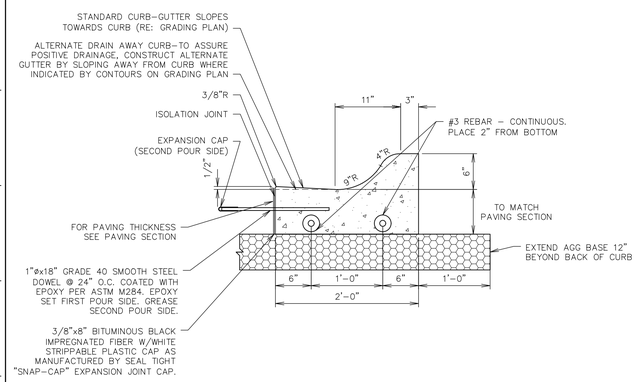
NOTE: PAVEMENT SLOPES AWAY FROM CURB AT TANKS. RE:GRADING PLAN



ONLY USED AS SPECIFICALLY SHOWN ON PLAN OR AT QT REP DISCRETION

L11 MONOLITHIC CURB DETAIL - BARRIER

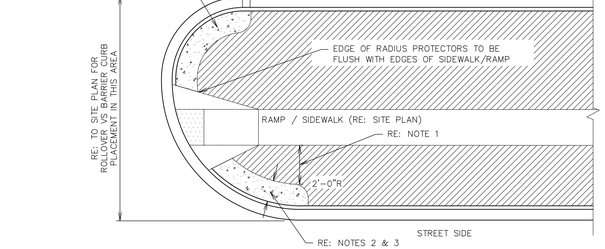
NTS | SN: PD009B016



F1 CURB DETAIL - ROLLOVER / MOUNTABLE

NTS | SN: PD010A014

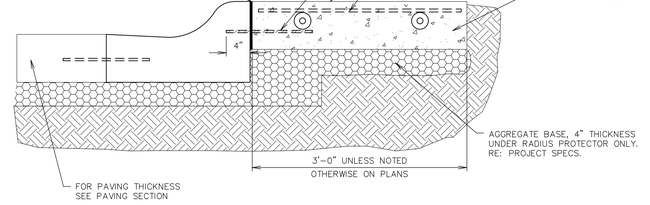
1. IF DISTANCE TO SIDEWALK IS LESS THAN 2', PLACE PROTECTOR TO SIDEWALK.
2. TOOLED CONTRACTION JOINTS TO BE ADDED @ 5' C/C (MAX.), MATCH CURB JOINTS WHEN POSSIBLE.
3. 5' ON EXTERIOR DRIVES, 3' ON INTERIOR.



F6 RADIUS PROTECTOR PLAN

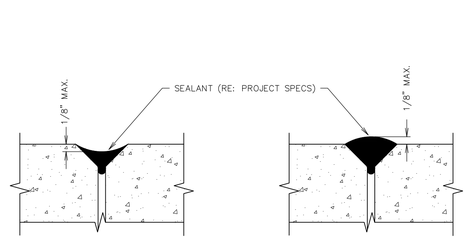
NTS | SN: PD016A006

RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION



F11 STANDARD RADIUS PROTECTOR SECTION

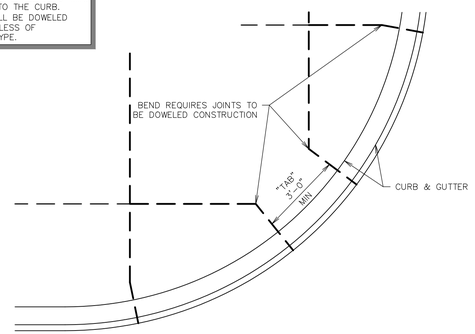
NTS | SN: PD017A013



A1 PAVING JOINT - SEALANT TOLERANCE DETAIL

NTS | SN: PD042A003

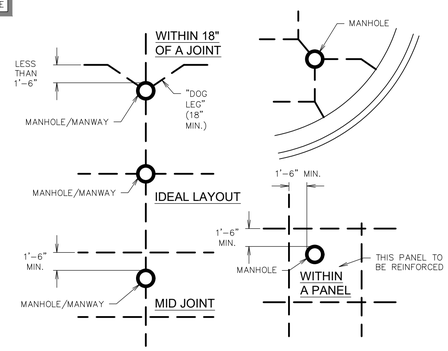
1. "DOG LEGS" SHALL BE 3' MIN.
2. "TAB" PORTION OF SLAB SHALL BE 3' MIN.
3. "DOG LEG" TO BE 90° TO THE CURB.
4. "DOG LEG" JOINTS SHALL BE DOWELED CONSTRUCTION REGARDLESS OF REMAINDER OF JOINT TYPE.



A6 TYPICAL JOINT LAYOUT - AT RADIUS AND ANGLES

NTS | SN: PD019A007

FUEL MANWAYS DO NOT USE ISOLATION JOINTS, UTILITY MANHOLE STRUCTURES USE ISOLATION JOINT AT MANHOLE



A11 TYPICAL MANHOLE / FUEL MANWAY JOINT LAYOUTS

NTS | SN: PD021A003

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

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DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

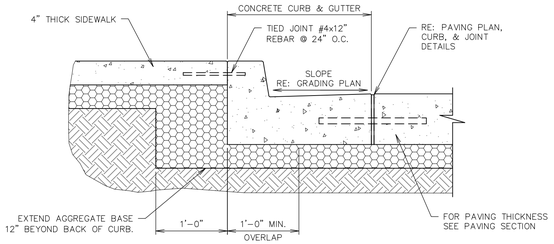
SHEET TITLE:
PAVING DETAILS

SHEET NUMBER:
C521

FILE LOCATION: \\DESKTOP-HMC8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 DETAILS PAVING.DWG TAB NAME:Paving Detail Sheet 2 USER:dkhol SAVED:3/3/2025 12:21 PM PLOTTED:3/3/2025 1:27 PM

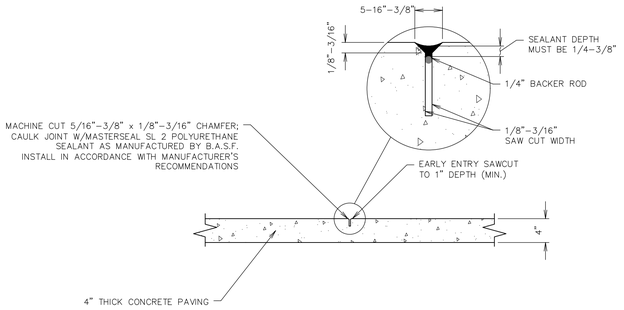
RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION.

RE: AHJ SPEC'S FOR WORK IN R-O-W



L1 SIDEWALK SECTION ABUTTING CURB & GUTTER

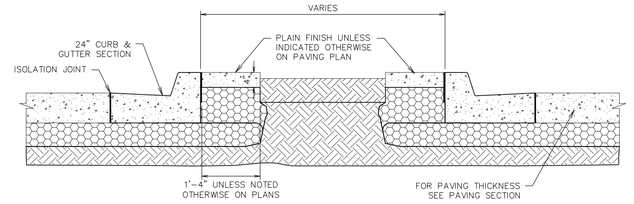
NTS | SN: PD002E010



L6 BUILDING SIDEWALK JOINT - CONTRACTION

NTS | SN: PD061A004

RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION

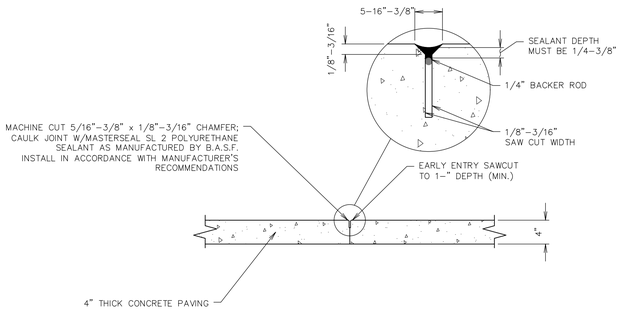


L11 ISLAND SECTION A-A-LANDSCAPED ISLAND

NTS | SN: PD024B009

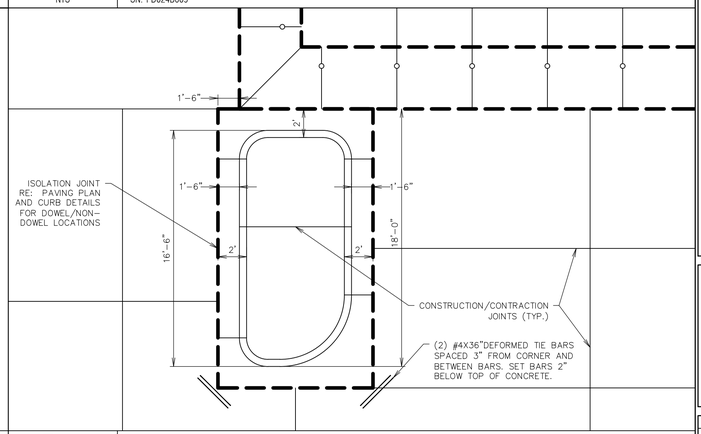
F1 NOT USED

NTS | SN:



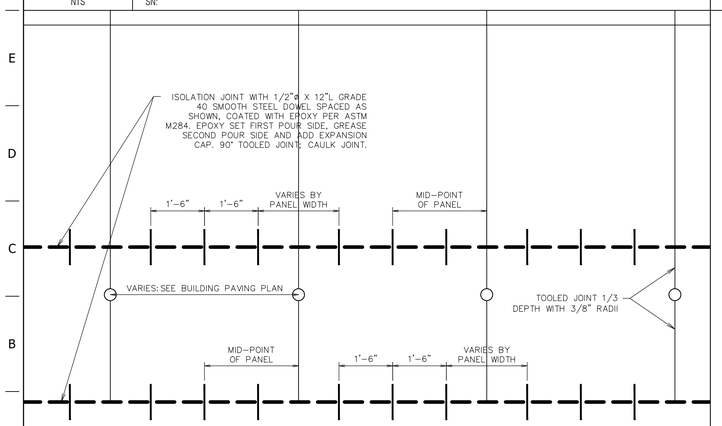
F6 BUILDING SIDEWALK JOINT - CONSTRUCTION

NTS | SN: PD061B004



F11 TYPE A ISLAND JOINT DETAIL

NTS | SN: PD035A014



A1 DOWELED EXPANSION JOINTS AT BOLLARD PAVEMENT SECTION

NTS | SN: PD036A004

A6 NOT USED

NTS | SN:

A11 NOT USED

NTS | SN:

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

Midwest Design Group Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
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VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:

PAVING DETAILS

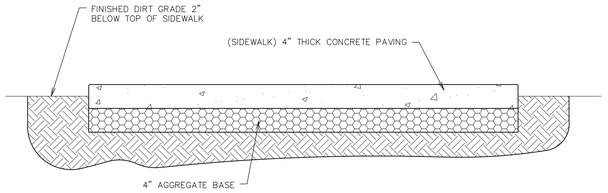
SHEET NUMBER:

C522

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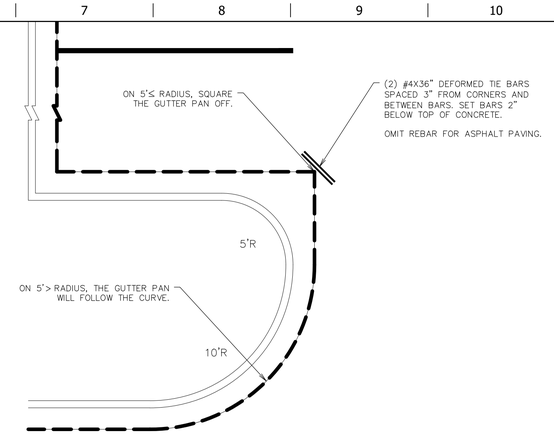
RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION.

RE: AHJ SPEC'S FOR WORK IN R-O-W



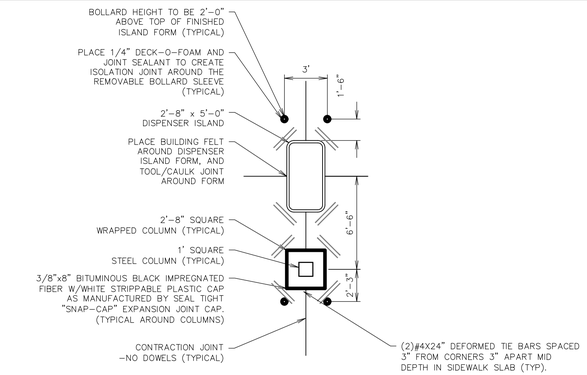
L1 SIDEWALK SECTION

NTS | SN: PD057A003



L6 GUTTER PAN RADIUS DETAIL

NTS | SN: PD070A004

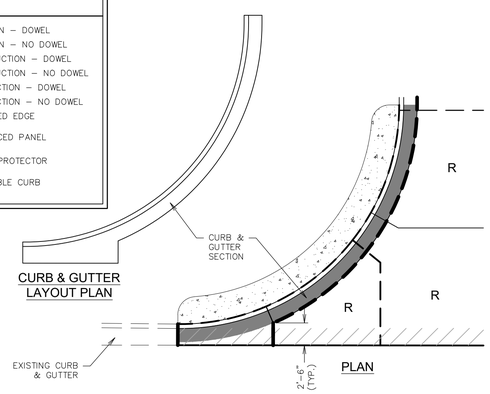


L11 GAS ISLAND JOINTING - (G3S DS WRAPPED)

NTS | SN: PD077B004

PAVING LEGEND

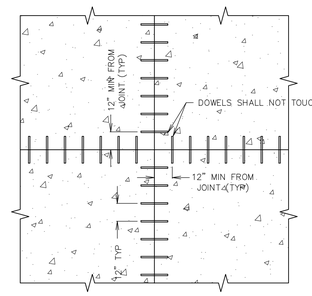
- ISOLATION – DOWEL
- ISOLATION – NO DOWEL
- CONSTRUCTION – DOWEL
- CONSTRUCTION – NO DOWEL
- CONTRACTION – DOWEL
- CONTRACTION – NO DOWEL
- THICKENED EDGE
- R — REINFORCED PANEL
- RADIUS PROTECTOR
- MOUNTABLE CURB



F1 CURB DETAIL - DRIVE ENTRANCE

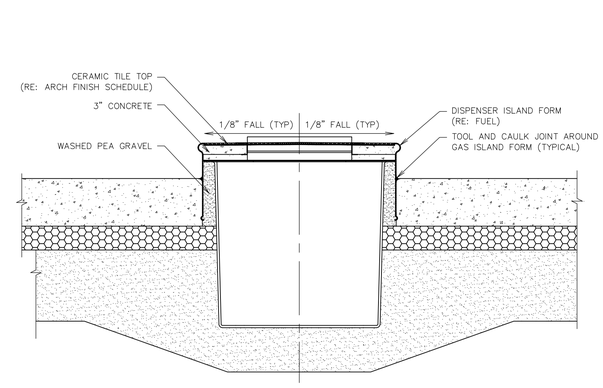
NTS | SN: PD043A004

1. 1"ø18" SMOOTH STEEL DOWEL BARS @ 12" O.C., EPOXY COATED.
2. NOT REINFORCED EXCEPT WHEN PANELS WITH LENGTH TO WIDTH RATIO EXCEEDS 1.50, THEN #3 REBAR @ 24" O.C. BOTH WAYS, 2" CLEAR FROM TOP OF SLAB.
3. IF ADJACENT JOINT DOES NOT LINE UP (TEE JOINT) OMIT DOWELS ON THAT SIDE OF PANEL.
4. DOWEL BASKET WIRES SHALL NOT CROSS JOINTS. CROSS WIRES MUST BE CUT AND REMOVED PRIOR TO POUR.



F6 DOWEL - JOINT SEPARATION DETAIL

NTS | SN: PD046A002



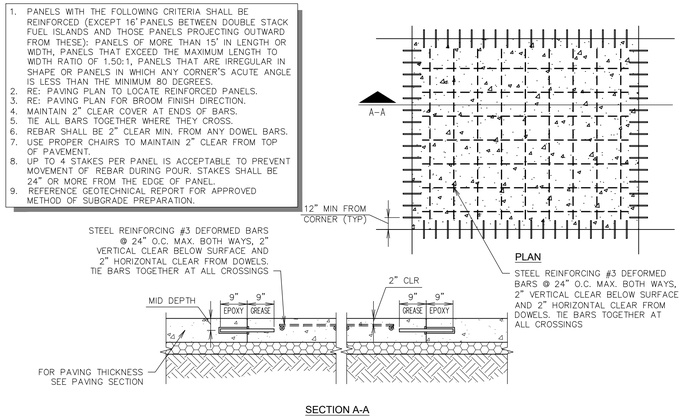
F11 DISPENSER ISLAND FORM - CONCRETE FILL & JOINTING DETAIL

NTS | SN: PD047A003

A1 NOT USED

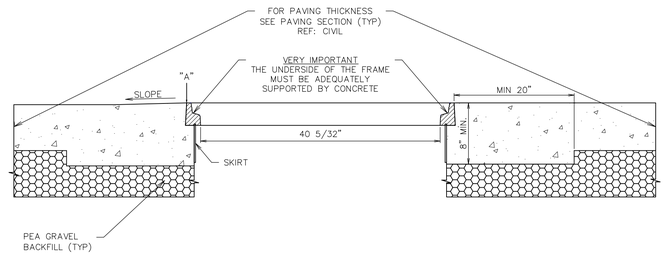
NTS | SN:

1. PANELS WITH THE FOLLOWING CRITERIA SHALL BE REINFORCED (EXCEPT 16' PANELS BETWEEN DOUBLE STACK FUEL ISLANDS AND THOSE PANELS PROJECTING OUTWARD FROM THESE); PANELS OF MORE THAN 15' IN LENGTH OR WIDTH, PANELS THAT EXCEED THE MAXIMUM LENGTH TO WIDTH RATIO OF 1.50:1, PANELS THAT ARE IRREGULAR IN SHAPE OR PANELS IN WHICH ANY CORNER'S ACUTE ANGLE IS LESS THAN THE MINIMUM 80 DEGREES.
2. RE: PAVING PLAN TO LOCATE REINFORCED PANELS.
3. RE: PAVING PLAN FOR BROOM FINISH DIRECTION.
4. MAINTAIN 2" CLEAR COVER AT ENDS OF BARS.
5. TIE ALL BARS TOGETHER WHERE THEY CROSS.
6. REBAR SHALL BE 2" CLEAR MIN. FROM ANY DOWEL BARS.
7. USE PROPER CHAIRS TO MAINTAIN 2" CLEAR FROM TOP OF PAVEMENT.
8. UP TO 4 STAKES PER PANEL IS ACCEPTABLE TO PREVENT MOVEMENT OF REBAR DURING POUR. STAKES SHALL BE 24" OR MORE FROM THE EDGE OF PANEL.
9. REFERENCE GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION.



A6 PAVEMENT REINFORCING DETAIL (DOWELED)

NTS | SN: PD003A013



A11 FIBERLITE LID DETAIL

NTS | SN: PD071A003

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
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DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE: PAVING DETAILS

SHEET NUMBER: C523

FILE LOCATION: \\DESKTOP-HIMC8QB\Civil 3D Projects\QT1R3 Lee's Summit, MO\02-0183 DETAILS PAVING.DWG TAB NAME:Paving Detail Sheet 4 USER:dkhol SAVED:3/3/2025 12:21 PM PLOTTED:3/3/2025 1:27 PM

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L1 NOT USED

NTS | SN:

L6 NOT USED

NTS | SN:

L11 NOT USED

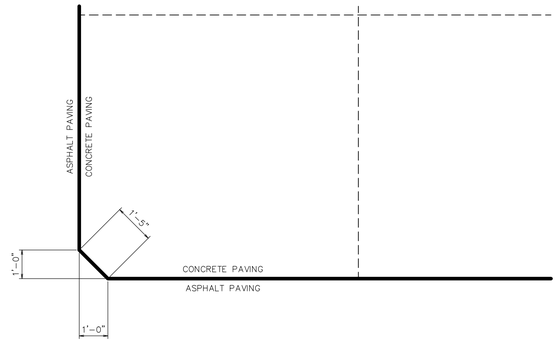
NTS | SN:

F1 NOT USED

NTS | SN:

F6 CONCRETE APRON CORNER DETAIL (ASPHALT PAVING ONLY)

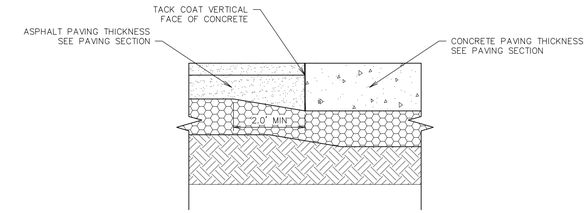
NTS | SN: PD079A001



F11 ASPHALT TO CONCRETE TRANSITION PAVING SECTION

NTS | SN: PD073A004

RE: GEOTECHNICAL REPORT FOR APPROVED METHOD OF SUBGRADE PREPARATION

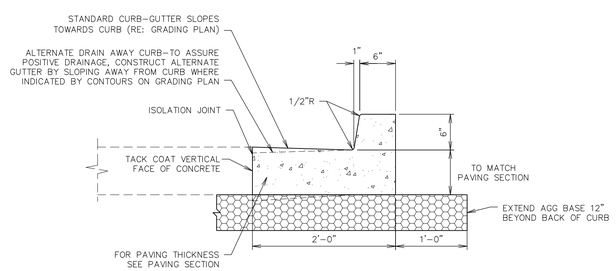


NOTE: BASE & SURFACE COURSE SPECIFICATION ARE MARKET SPECIFIC REFER TO ASPHALT PAVING SPECIFICATION

A1 CURB DETAIL - BARRIER ASPHALT

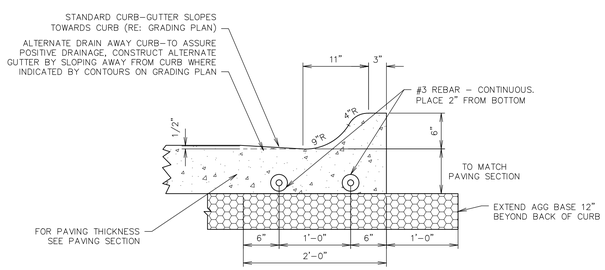
NTS | SN: PD009C016

RE: AHJ SPEC'S FOR WORK IN R-O-W



A6 MONOLITHIC CURB DETAIL - ROLLOVER / MOUNTABLE

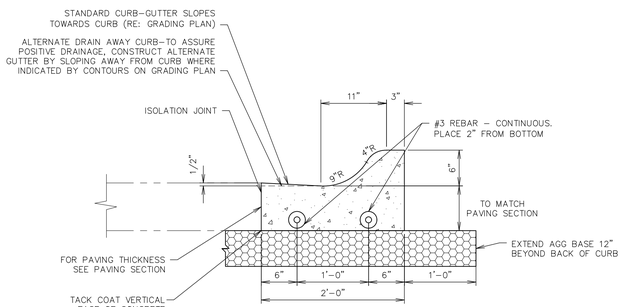
NTS | SN: PD010B014



ONLY USED AS SPECIFICALLY SHOWN ON PLAN OR AT QT REP DISCRETION

A11 CURB DETAIL - ROLLOVER / MOUNTABLE ASPHALT

NTS | SN: PD010C014



QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

Midwest Design Group
Kansas City

PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:

PAVING DETAILS

SHEET NUMBER:

C524

L1 NOT USED

NTS | SN:

L6 NOT USED

NTS | SN:

L11 BUILDING OR CANOPY DRAINAGE TRENCH SECTION (PAVED)

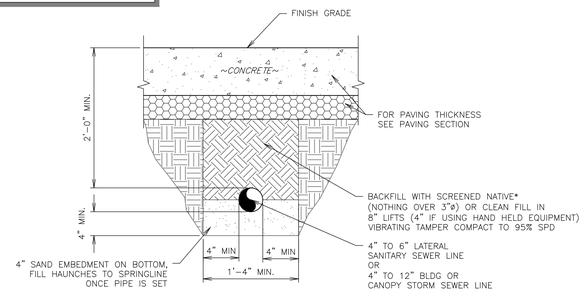
NTS | SN: TD006A006

EXTEND 18" BEYOND BACK OF CURB (OUTSIDE OF ALL PAVED AREAS) BEFORE TRANSITIONING TO NON-PAVED TRENCH DETAIL.

MIN. DRAIN PIPE CLEARANCE MAY BEGIN @ 1'-0" FROM T.O.P. TO FINISH GRADE IF CONDITIONS WARRANT DUE TO GRADES, ROCK, ETC.

RE. PROJECT SPECS FOR GRADATION TABLE.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.



F1 BUILDING OR CANOPY DRAINAGE TRENCH SECTION (NON PAVED)

NTS | SN: TD007A003

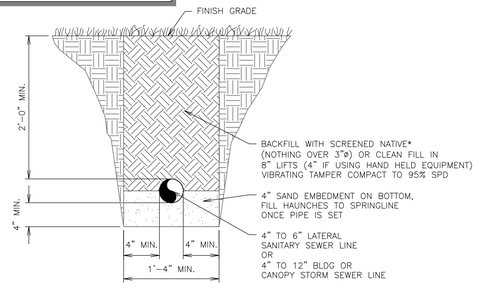
TRENCH MATERIAL SHALL CONSIST OF DRY, ROCK-FREE DIRT.

MIN. DRAIN PIPE CLEARANCE MAY BEGIN @ 1'-0" FROM T.O.P. TO FINISH GRADE IF CONDITIONS WARRANT DUE TO GRADES, ROCK, ETC.

UNDER PAVEMENT, CURB, & FRENCH DRAIN PIPE MUST BE TAKEN TO STORM STRUCTURE, OR TO SURFACE DRAINAGE SWALE.

SEE GRADING PLAN FOR LOCATION BEFORE TRANSITION TO NON PAVED TRENCH SECTION.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.



F6 NOT USED

NTS | SN:

F11 PRIMARY ELECTRICAL & TELEPHONE CONDUIT TRENCH SECTION (PAVED)

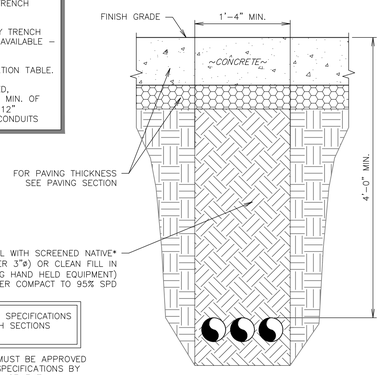
NTS | SN: TD010A006

EXTEND 18" BEYOND BACK OF CURB (OUTSIDE OF ALL PAVED AREAS) BEFORE TRANSITIONING TO NON-PAVED TRENCH DETAIL.

ALWAYS ATTEMPT TO RUN UTILITY TRENCH OUTSIDE OF PAVED AREA WHEN AVAILABLE – RE: PLAN SHEETS

RE. PROJECT SPECS FOR GRADATION TABLE.

IF CONDUITS ARE TO BE STACKED, UPPERMOST CONDUIT TO REMAIN MIN. OF 4'-0" BELOW GRADE WITH MIN. 12" VERTICAL CLEARANCE BETWEEN CONDUITS



NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.

A1 PRIMARY ELECTRICAL & TELEPHONE CONDUIT TRENCH SECTION (NON PAVED)

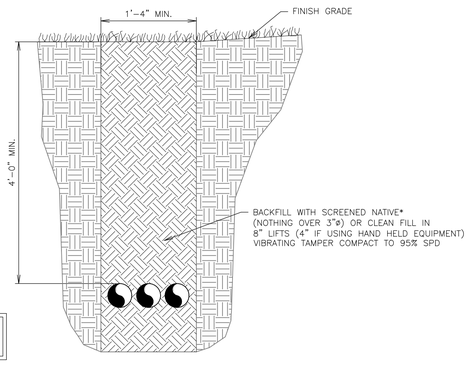
NTS | SN: TD011A004

TRENCH MATERIAL SHALL CONSIST OF DRY, ROCK-FREE DIRT.

ALWAYS ATTEMPT TO RUN UTILITY TRENCH OUTSIDE OF PAVED AREA WHEN AVAILABLE – RE: PLAN SHEETS

IF CONDUITS ARE TO BE STACKED, UPPERMOST CONDUIT TO REMAIN MIN. OF 4'-0" BELOW GRADE WITH MIN. 12" VERTICAL CLEARANCE BETWEEN CONDUITS

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.



NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.

A6 1" Ø OR SMALLER ELECTRICAL CONDUIT TRENCH SECTION (PAVED)

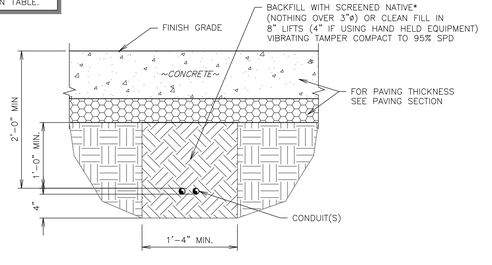
NTS | SN: TD012A006

EXTEND 18" BEYOND BACK OF CURB (OUTSIDE OF ALL PAVED AREAS) BEFORE TRANSITIONING TO NON-PAVED TRENCH DETAIL.

ALWAYS ATTEMPT TO RUN UTILITY TRENCH OUTSIDE OF PAVED AREA WHEN AVAILABLE – RE: PLAN SHEETS

RE. PROJECT SPECS FOR GRADATION TABLE.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.



NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.

A11 1" Ø OR SMALLER ELECTRICAL CONDUIT TRENCH SECTION (UNPAVED)

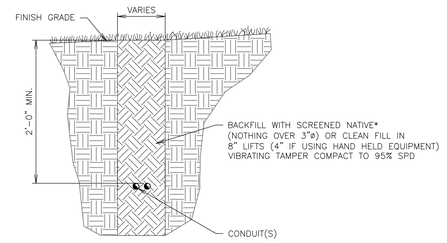
NTS | SN: TD013A004

TRENCH MATERIAL SHALL CONSIST OF DRY, ROCK-FREE DIRT.

ALWAYS ATTEMPT TO RUN UTILITY TRENCH OUTSIDE OF PAVED AREA WHEN AVAILABLE – RE: PLAN SHEETS

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.

NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.



QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City

PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
DIVISION:	02
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DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

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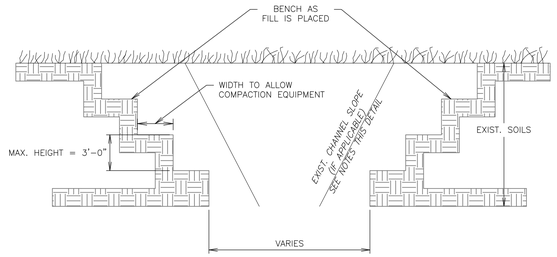
SHEET TITLE:
COMPREHENSIVE TRENCHING DETAILS

SHEET NUMBER:
C530

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EXISTING CHANNEL EXCAVATION NOTES:
1. MUCK TO SUITABLE SOIL OR BEDROCK (SEE QT REP).

2. #57 STONE WITH FILTER FABRIC AT BOTTOM OF FINISHED CHANNEL – TO BE PLACED IF BEDROCK IS ENCOUNTERED.



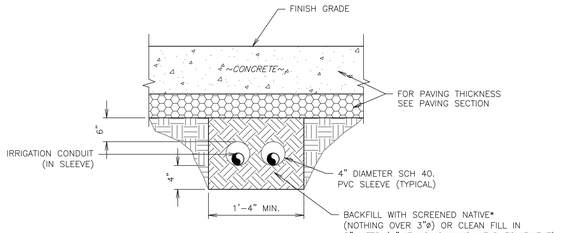
L1 EXCAVATION BENCHING DETAIL

NTS | SN: TD014A003

EXTEND THIS SECTION 5' BEYOND BACK OF CURB (OUTSIDE EDGE OF DRIVE)

RE. PROJECT SPECS FOR GRADATION TABLE.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.

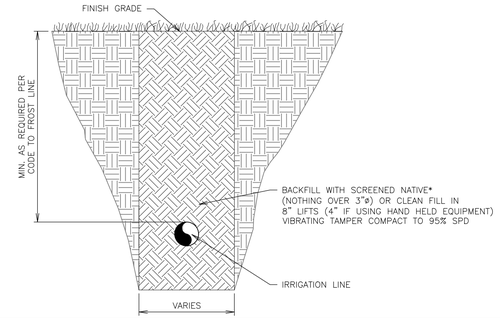


L6 TYPICAL IRRIGATION PIPING TRENCH SECTION (PAVED)

NTS | SN: TD015A007

TRENCH MATERIAL SHALL CONSIST OF DRY, ROCK-FREE DIRT.

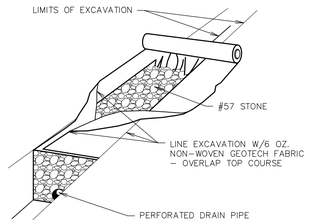
* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.



L11 TYPICAL IRRIGATION PIPING TRENCH SECTION (NON PAVED)

NTS | SN: TD016A003

GEOTECH FABRIC LINED TRENCH SHALL BE UTILIZED WITH A "PERFORATED" DRAIN DETAIL, SUCH AS A FRENCH DRAIN OR BACK OF CURB DRAIN.



F1 GEOTECH FABRIC IN SUB-SURFACE DRAIN

NTS | SN: TD017A003

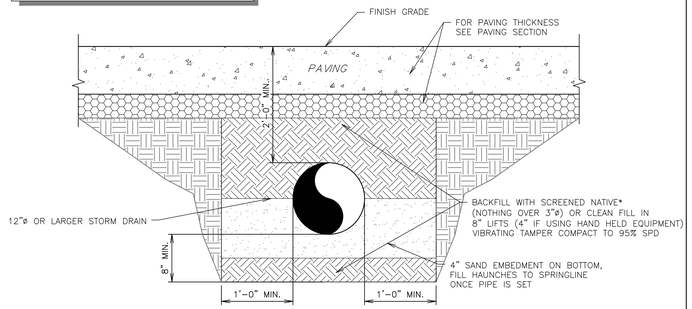
EXTEND 18" BEYOND BACK OF CURB (OUTSIDE OF ALL PAVED AREAS) BEFORE TRANSITIONING TO NON-PAVED TRENCH DETAIL.

MIN. DRAIN PIPE CLEARANCE MAY BEGIN @ 1'-0" FROM T.O.P. TO FINISH GRADE IF CONDITIONS WARRANT DUE TO GRADES, ROCK, ETC.

RE. PROJECT SPECS FOR GRADATION TABLE

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.

NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.



F6 12" DIAMETER OR LARGER STORM DRAIN (PAVED)

NTS | SN: TD018A002

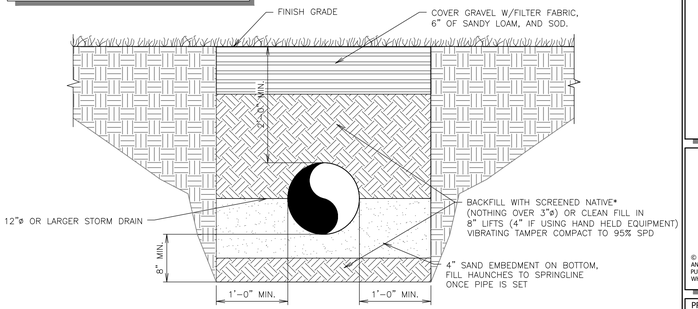
EXTEND 18" BEYOND BACK OF CURB (OUTSIDE OF ALL PAVED AREAS) BEFORE TRANSITIONING TO NON-PAVED TRENCH DETAIL.

MIN. DRAIN PIPE CLEARANCE MAY BEGIN @ 1'-0" FROM T.O.P. TO FINISH GRADE IF CONDITIONS WARRANT DUE TO GRADES, ROCK, ETC.

RE. PROJECT SPECS FOR GRADATION TABLE.

* SCREENED NATIVE MATERIAL MUST BE APPROVED FOR USE PER THE PROJECT SPECIFICATIONS BY THE ONSITE CMT PRIOR TO PLACEMENT.

NOTE: GOVERNING AGENCY SPECIFICATIONS REGARDING UTILITY TRENCH SECTIONS SHALL GOVERN.



F11 12" DIAMETER OR LARGER STORM DRAIN (NON PAVED)

NTS | SN: TD018B002

A1 NOT USED

NTS | SN:

A6 NOT USED

NTS | SN:

A11 NOT USED

NTS | SN:

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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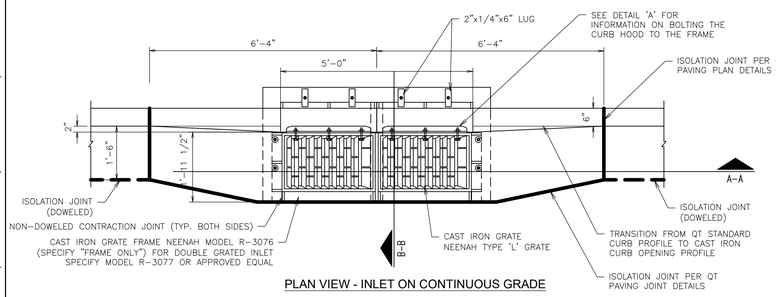
PROTOTYPE:	P-118
DIVISION:	02
VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
COMPREHENSIVE TRENCHING DETAILS

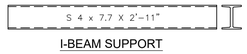
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C531

FILE LOCATION:\\DESKTOP-HIMC8GB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 DETAILS TRENCHING.dwg TAB NAME:Trenching Details Sheet 2 USER:Connor SAVED:11/8/2024 1:10 PM PLOTTED:3/3/2025 1:27 PM

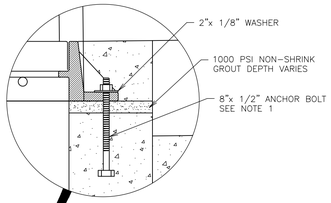


PLAN VIEW - INLET ON CONTINUOUS GRADE

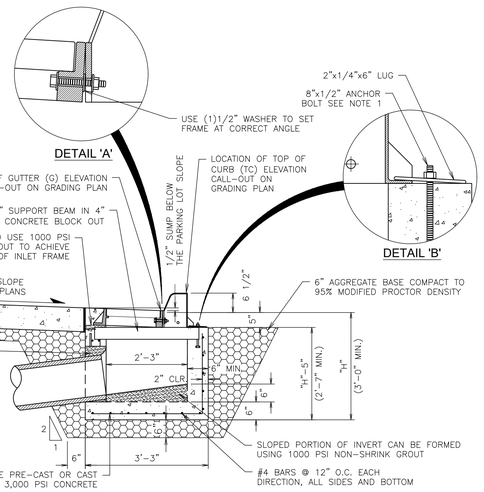
1. CONTRACTOR CAN SUBSTITUTE HILTI DRILLED BOLT SYSTEM FOR ANCHOR BOLT SET IN CONCRETE FOR EASE OF CONSTRUCTION
2. 12" PIPE IS THE MINIMUM PIPE SIZE ACCEPTED BY QUIKTRIP. PIPE TYPE MAY VARY BY REGION AND MUNICIPALITY. IF HYDRAULICS REQUIRES A LARGER PIPE, DEPTH OF THE INLET MAY NEED TO BE INCREASED. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF PIPE TO THE BOTTOM OF INLET BE LESS THAN 6".
3. AT TIMES MORE THAN ONE PIPE MAY PENETRATE INTO A CATCH BASIN. WHEN THIS OCCURS THE OUTLET PIPE IS TO BE SET AT THE INVERT ELEVATION AND ALL OTHER PIPES ARE TO BE SET A MINIMUM OF 2" HIGHER. AT NO TIME SHALL THE CLEARANCE FROM THE TOP OF THE HIGHEST/LARGEST PIPE TO THE BOTTOM OF THE FRAME BE LESS THAN 6".
4. UNDER CURB AND UNDER PAVEMENT DRAIN DETAILS ARE SHOWN ON "DRAINAGE AND UTILITY TRENCH DETAILS SHEETS" INLCUDED WITH THIS SET OF PLANS. THIS DOES NOT APPLY TO THE ARIZONA DIVISION.
5. EXTERIOR SURFACES TO BE PAINTED BLACK, RE: SPECS.



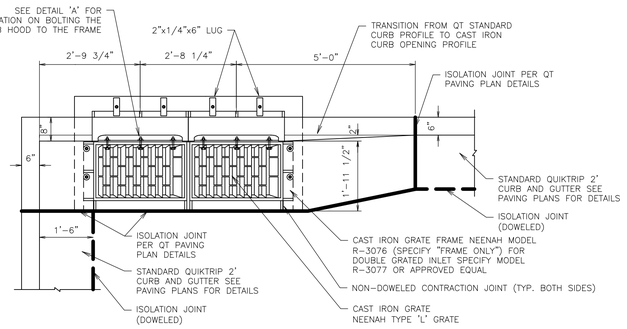
I-BEAM SUPPORT



SECTION A-A



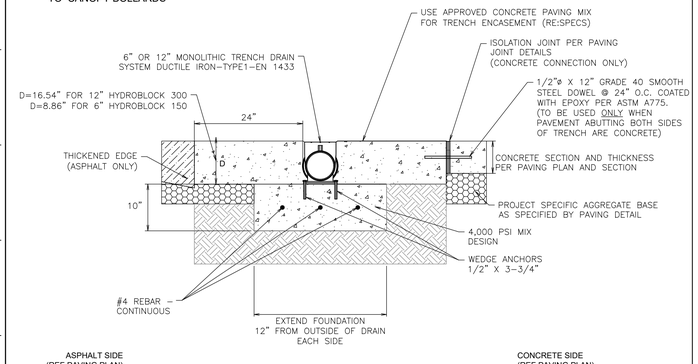
SECTION B-B



PLAN VIEW - INLET IN 90° PARKING

F1	CATCH BASIN INLET DETAIL (DOUBLE)
NTS	SN: DD001B010

NOTE: ACCESS GRATE REQUIRED EVERY 30'-50'. REFER TO CANOPY PAVING PLAN FOR WIDTH REQUIREMENTS WHEN ADJACENT TO CANOPY BOLLARDS



A1	HYDROTECH HYDROBLOCK ADA TRENCH DRAIN
NTS	SN: DD030A004

A6	NOT USED
NTS	SN:

A11	NOT USED
NTS	SN:

HydroTec™ Sioux Chief

HydroBlock 300 System Ductile Iron Channel/Grate / F900 / ADA

Product Specifications

Part No.:
865-HB12ADA00FA

Load Class:
F900 (198,000 lbs) according EN 1433
Certified by MPA-HB (independent laboratories)

Material:
Ductile Iron GJS-500-7

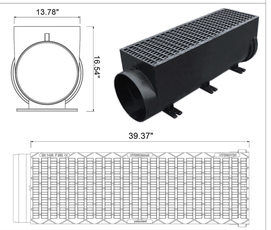
Weight:
247.00 lbs (112.0 kg)

Surface:
Pedestrian Slot Design (0.47" x 1.10")
Slip-resistant design.

Water intake:
130.00 sq/in (839 cm²)

Locking:
One piece trench drain with no loose parts. Outlet sections are locked by 4 stainless steel screws.

Use:
This channel is developed to be installed in areas with high dynamic forces. HydroBlock is qualified as "Type I" according EN 1433.



Outlet Sections

Bottom Outlet Part No.: 865-HB12ADA005BFA

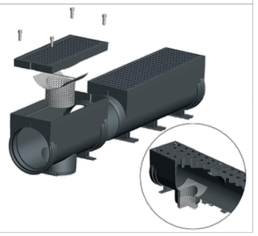


System Specifications

HydroBlock 300:
The channel section is made of ductile iron and certified to EN 1433 Load Class F900 and is qualified as TYPE I. The gasket connection ensures a fast, watertight installation.

Bottom Outlet (865-HB12ADA005BFA):
Outlet section length is 29.53" (3/4 m). Outlets are recommended at least every 75ft as inspection points to the channel run.
It is connected to the ground pipe by a 10" pipe.

Debris screen:
Debris screen is made from galvanized steel and is designed to reduce leaves and other large objects from entering the drain pipe.



QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

MDG
Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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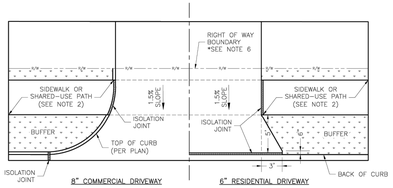
PROTOTYPE:	P-118
DIVISION:	02
VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 03/03/2025

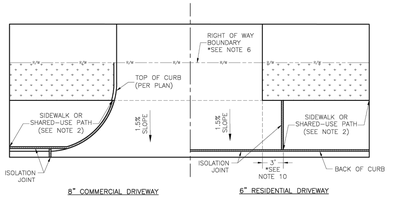
SHEET TITLE:
DRAINAGE DETAILS

SHEET NUMBER:
C540

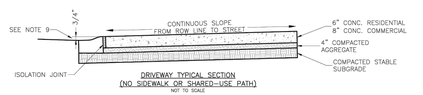
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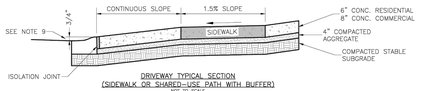
DRIVEWAY WITH BUFFER
NOT TO SCALE



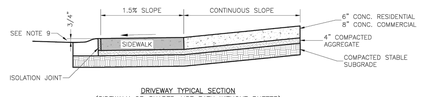
DRIVEWAY WITHOUT BUFFER
NOT TO SCALE



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



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



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

GENERAL NOTES

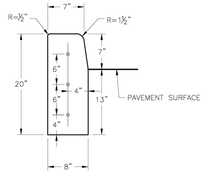
1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. ALL DRIVE APPROACHES SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG). FOR SLOPE REQUIREMENTS WHEN SIDEWALK IS REQUIRED (SEE ADA RAMP RETROFIT DETAIL GEN-3B, SIDEWALK/SHARED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

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

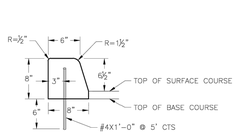
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
DRIVEWAY DETAIL

Drawn By: MW
Checked By: DL
Date: 08/2023
Proj. #:

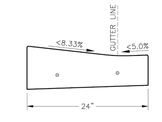
GEN-1



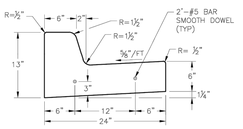
STRAIGHT CURB
(TYPE C-1)



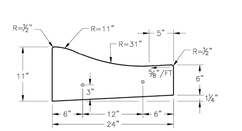
DOWELLED CURB
(TYPE DC)



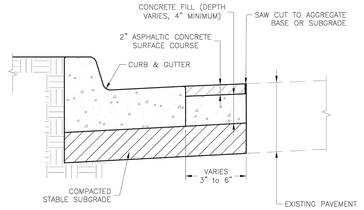
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



ROLL BACK CURB & GUTTER
(TYPE CG-2)



CURB REPLACEMENT DETAIL

GENERAL NOTES

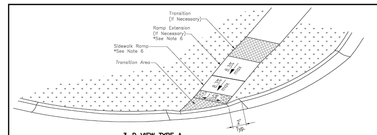
1. ¾" ISOLATION JOINTS WITH 2 (2'-#5 BAR) SMOOTH DOWELS SHALL BE PLACED AT RADIUS POINTS AND AT 150' INTERVALS. THESE DOWEL BARS SHALL BE GREASED AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 3" DEEP CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS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

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

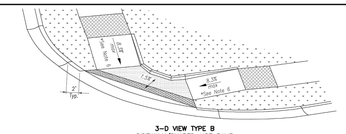
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
CURB & GUTTER DETAIL

Drawn By: MW
Checked By: DL
Date: 08/2023
Proj. #:

GEN-4

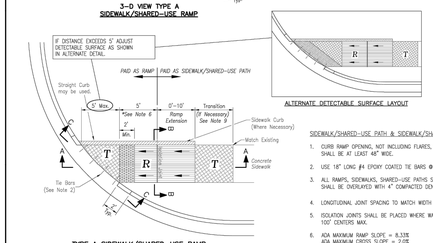


3-D VIEW TYPE A
SIDEWALK/SHARED-USE RAMP

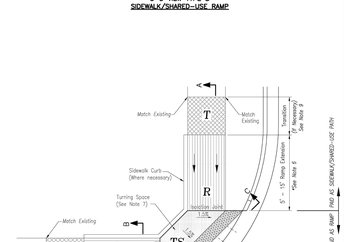


3-D VIEW TYPE B
SIDEWALK/SHARED-USE RAMP

ALTERNATE DETECTABLE SURFACE LAYOUT



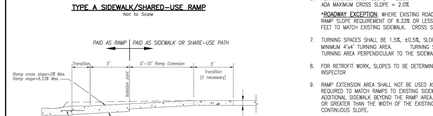
TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale



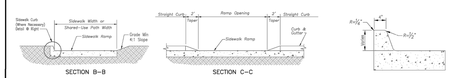
TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 100' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).

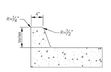


SECTION A–A

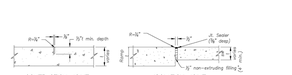


SECTION B–B
SECTION C–C

TYPE A & B SIDEWALK RAMP
Not to Scale

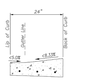


SIDEWALK CURB DETAIL
Not to Scale



CONTRACTION JOINT
ISOLATION JOINT

JOINT DETAILS
Not to Scale



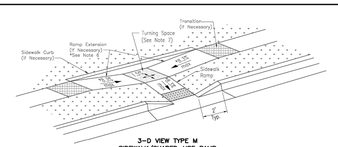
CURB & GUTTER DETAIL AT RAMP
Not to Scale

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

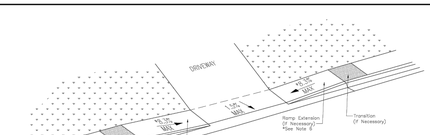
STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
ADA RAMP RETROFIT DETAIL

Drawn By: MW
Checked By: DL
Date: 08/2023
Proj. #:

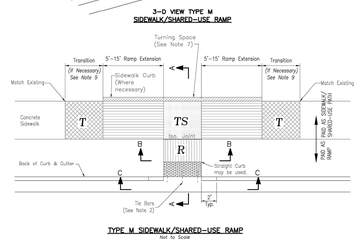
GEN-3A



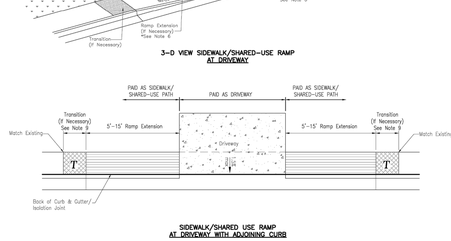
3-D VIEW TYPE M
SIDEWALK/SHARED-USE RAMP



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



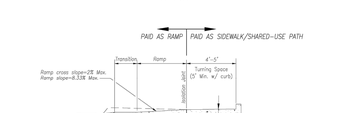
TYPE M SIDEWALK/SHARED-USE RAMP
Not to Scale



SIDEWALK/SHARED USE RAMP
AT DRIVEWAY WITH ADJOINING CURB

SIDEWALK/SHARED-USE PATH & SIDEWALK/SHARED-USE RAMP NOTES:

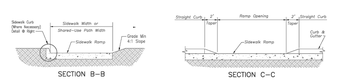
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
4. LONGITUDINAL JOINT SPACING TO MATCH WIDTH OF SIDEWALK.
5. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 100' CENTERS MAX.
6. ADA MAXIMUM RAMP SLOPE = 8.33%
   ADA MAXIMUM CROSS SLOPE = 2.0%
   *ROADWAY EXCEPTION: WHERE EXISTING ROAD PROFILE GRADE DOES NOT ALLOW RAMP TO MEET RAMP SLOPE REQUIREMENT OF 8.33% OR LESS, THE RAMP SHALL BE EXTENDED TO A LENGTH OF 15 FEET TO MATCH EXISTING SIDEWALK. CROSS SLOPE OF RAMP SHALL BE 1.5%, ±0.5%.
7. TURNING SPACES SHALL BE 1.5%, ±0.5%, SLOPE IN ANY DIRECTION. TURNING SPACES SHALL HAVE A MINIMUM 4'x4' TURNING AREA. TURNING SPACES, WITH A SIDEWALK CURB, SHALL HAVE A 5' TURNING AREA PERPENDICULAR TO THE SIDEWALK CURB.
8. FOR RETROFIT WORK, SLOPES TO BE DETERMINED IN FIELD BY CONTRACTOR AND APPROVED BY CITY INSPECTOR
9. RAMP EXTENSION AREA SHALL NOT BE USED AS TRANSITION TO EXISTING SIDEWALK. ANY TRANSITIONS REQUIRED TO MATCH RAMPS TO EXISTING SIDEWALK SHALL REQUIRE REMOVAL AND REPLACEMENT OF ADDITIONAL SIDEWALK BEYOND THE RAMP AREA. SIDEWALK TRANSITION LENGTH SHALL BE EQUAL TO OR GREATER THAN THE WIDTH OF THE EXISTING SIDEWALK. RAMP EXTENSIONS SHALL BE A CONTINUOUS SLOPE.
10. ALL SIDEWALK AND RAMP CONSTRUCTION SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).



SECTION A–A

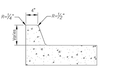


CURB & GUTTER DETAIL AT RAMP
Not to Scale

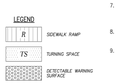


SECTION B–B
SECTION C–C

TYPE M SIDEWALK RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale



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

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

Drawn By: MW
Checked By: DL
Date: 08/2023
Proj. #:

GEN-3B

CITY STANDARD DETAILS

PROJECT NO.:02-0183

MG
Midwest Design Group
Kansas City

PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE: P-118
DIVISION: 02
VERSION: 001
DESIGNED BY: CSH
DRAWN BY: CSH
REVIEWED BY: TRW

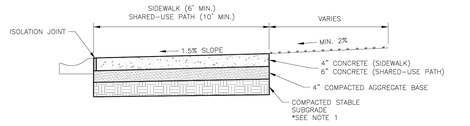
REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

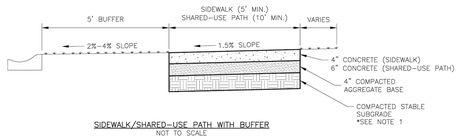
SHEET TITLE:
CITY STANDARD DETAILS

SHEET NUMBER:
C550

FILE LOCATION: \\DESKTOP-HMC8GBI\Civil 3D Projects\Q1183 Lee's Summit, MO\02-0183 DETAILS CITY.dwg TAB NAME:1 USERJonathon Smith SAVED:1/28/2025 11:11 AM PLOTTED:3/3/2025 1:28 PM



SIDEWALK/SHARED-USE PATH WITHOUT BUFFER
NOT TO SCALE

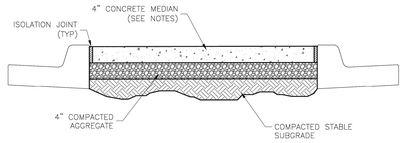


SIDEWALK/SHARED-USE PATH WITH BUFFER
NOT TO SCALE

GENERAL NOTES:

1. SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. 1.5% CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.
3. KCMMB 4K CONCRETE MIX SHALL BE REQUIRED FOR ALL SIDEWALKS/SHARED-USE PATHS.
4. ALL SIDEWALK/SHARED-USE PATHS SHALL MEET CURRENT PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES (PROWAG).
5. AN ISOLATION JOINT SHALL BE PLACED AT A MAXIMUM OF 100 FT. CONSTRUCTION JOINTS SHALL BE PLACED THE SAME WIDTH OF SIDEWALK/SHARED-USE PATHS, BUT NO GREATER THAN 10 FT.
6. AN ISOLATION JOINT SHALL BE PLACED WHERE THE SIDEWALK/SHARED-USE PATHS MEETS A RESIDENTIAL DRIVEWAY.
7. SHARED-USE PATHS WIDTH SHALL BE 10 FT. WIDE.
8. SIDEWALK/SHARED-USE PATHS FINISHING SHALL BE FULL BROOM FINISH OR AS DIRECTED BY CITY INSPECTOR.
9. WHITE CURING COMPOUND MUST BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

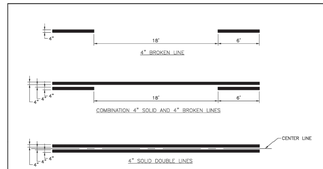
LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 08/2023 Drawn By: MJF Checked By: DL
SIDEWALK/SHARED-USE PATH DETAIL	GEN-2



GENERAL NOTES

1. SUBGRADE SHALL BE STABLE, COMPACTED EARTH AND SHALL BE OVERLAYED WITH 4" COMPACTED DENSE GRADED AGGREGATE BASE.
2. JOINT AT BACK OF CURB LINE SHALL BE AN ISOLATION JOINT.
3. KCMMB 4K CONCRETE MIX WITH RED/BROWN COLOR IS REQUIRED FOR ALL MEDIANS.
4. ALL MEDIANS SHALL HAVE THE RUNNING BOND PATTERN STAMPED INTO THE CONCRETE.
5. CLEAR CURING COMPOUND SHALL BE APPLIED UNIFORMLY TO THE CONCRETE SURFACE IMMEDIATELY AFTER FINAL FINISHING.

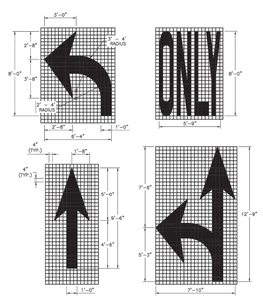
LEE'S SUMMIT MISSOURI PUBLIC WORKS ENGINEERING DIVISION | 220 SE GREEN STREET | LEE'S SUMMIT, MO 64063	Date: 08/2023 Drawn By: MJF Checked By: GMB
MEDIAN REPLACEMENT DETAIL	GEN-11



TYPICAL LINE DETAILS

NOTES:

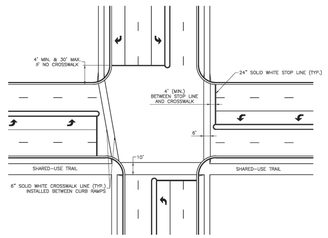
1. ALL EDGE LINE, CENTER LINE, AND LANE LINE PAVEMENT MARKINGS SHALL BE 4" WIDE UNLESS OTHERWISE NOTED.
2. EDGE LINES SHALL BE CONTINUOUS SOLID WHITE OR YELLOW LINES. RIGHT SIDE EDGE LINES SHALL BE SOLID WHITE. MEDIAN OR LEFT SIDE EDGE LINES ON DIVIDED ROADWAYS ARE TO BE SOLID YELLOW. EDGE LINES AND CENTER LINES SHALL BE CONTINUOUS ACROSS DRIVEWAYS.



ARROW AND SYMBOL DETAILS

NOTES:

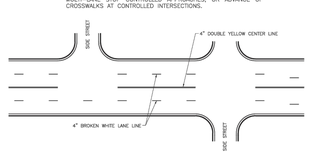
1. ALL ARROW AND SYMBOL MARKINGS SHALL BE WHITE, AND SHALL BE CENTERED IN THEIR RESPECTIVE TRAFFIC LANES.
2. RIGHT-TURN AND COMBINATION RIGHT-TURN/STRAIGHT ARROWS ARE REVERSE OF ARROWS SHOWN.



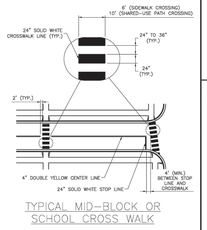
TYPICAL INTERSECTION MARKINGS

NOTES:

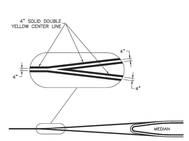
1. TRANSVERSE CROSSWALK LINES SHALL BE INSTALLED SUCH THAT THE DISTANCE BETWEEN LINES IS AT LEAST 6 FEET OR 10 FEET.
2. STOP LINES ARE REQUIRED AT SIGNALIZED INTERSECTIONS, ON MULTI-LANE STOP CONTROLLED APPROACHES, OR ADVANCE OF CROSSWALKS AT CONTROLLED INTERSECTIONS.



TYPICAL MARKINGS FOR FOUR-LANE UNDIVIDED ROADWAY



TYPICAL MID-BLOCK OR SCHOOL CROSS WALK



TYPICAL MEDIAN NOSE CENTER LINE DETAIL

PAVEMENT MARKING GENERAL NOTES:

1. ALL PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. ALL WORDS AND SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS PRINTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.
3. PAVEMENT MARKINGS, EITHER TEMPORARY OR PERMANENT AS APPROVED BY THE ENGINEER, SHALL BE PLACED ON ANY ROADWAY OPEN TO TRAFFIC.
4. PAVEMENT MARKINGS THAT DO NOT COMPLY WITH THE STANDARDS AS MANDATED SHALL BE MODIFIED OR REMOVED. REMOVALS SHALL NOT LEAVE THE ROAD SURFACE SCARRED WITH AN IMAGE THAT MISLEADS TRAFFIC. ANY EXCESS DAMAGE OR SCARRING OF PAVEMENT SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
5. THE PROPOSED PERMANENT MARKINGS SHALL BE LAID OUT BY THE CONTRACTOR IN ADVANCE OF THE MARKING INSTALLATION. MARKINGS SHALL NOT BE APPLIED UNTIL THE LAYOUT HAS BEEN APPROVED BY THE CITY TRAFFIC ENGINEER.
6. CENTER LINES SHALL BE MARKED ON ALL UNDIVIDED ARTERIAL STREETS, AND ANY OTHER UNDIVIDED STREET WITH MORE THAN TWO LANES AND/OR A SPEED LIMIT OF 30 MPH OR MORE.
7. EDGE LINES SHALL BE MARKED ON ALL NON-CURBED STREETS.

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

Project: STANDARD DETAILS
CITY OF LEE'S SUMMIT, MO
LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: ROADWAY MARKING DETAILS

Drawn By: BMC
Checked By: MP
Date: 01/2025
Proj. #:

PM-1

CITY STANDARD DETAILS

PROJECT NO.:02-0183

Midwest Design Group
Kansas City

PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
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VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
CITY STANDARD DETAILS

SHEET NUMBER:
C551

FILE LOCATION: \\DESKTOP-HIM2BQB\Civil 3D Projects\QT183 Lee's Summit, MO\02-0183 DETAILS CITY.dwg TAB NAME: 2 USER: Jonathon Smith SAVED: 1/28/2025 11:11 AM PLOTTED: 3/3/2025 1:28 PM

LANDSCAPE NOTES:

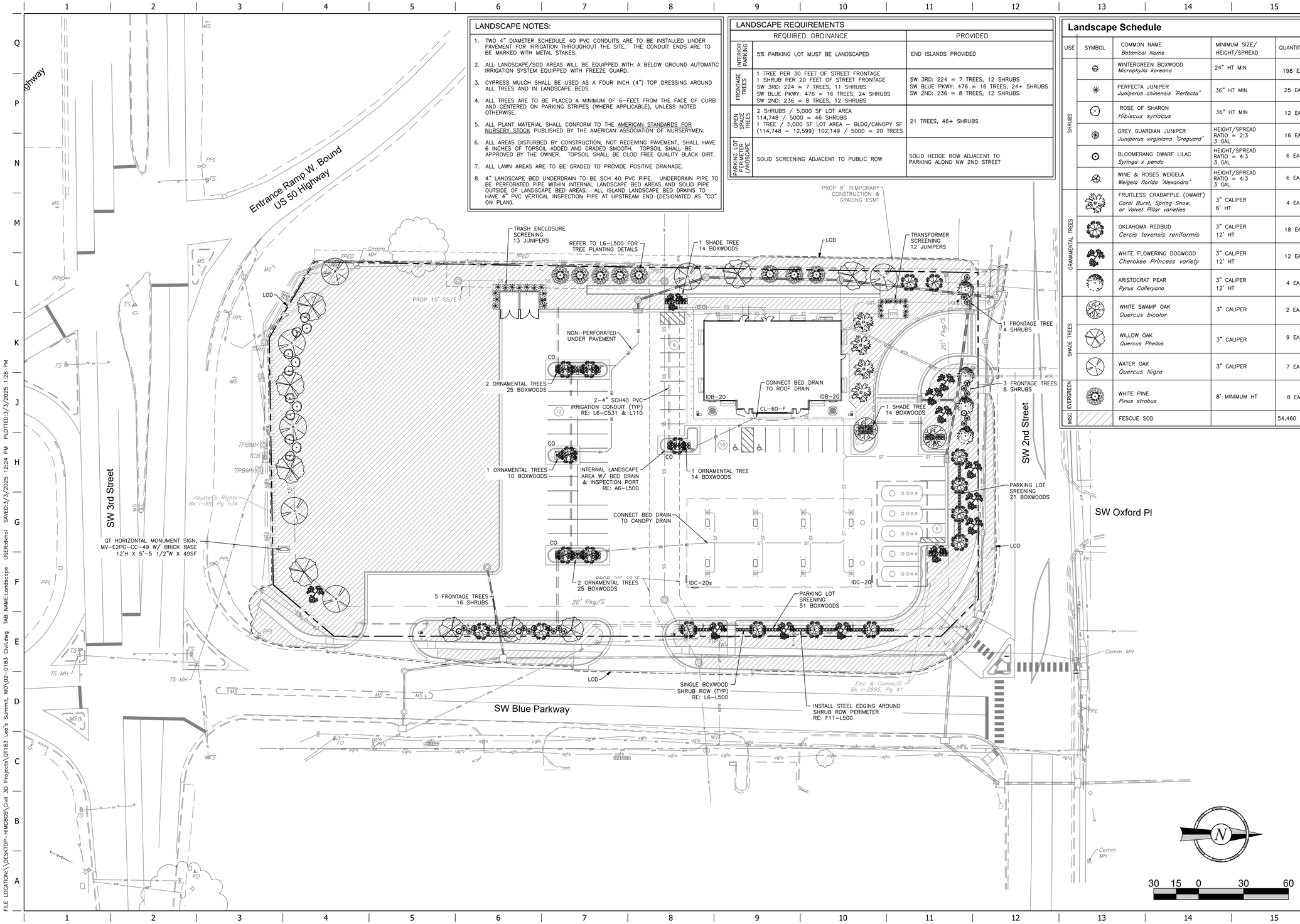
1. TWO 4" DIAMETER SCHEDULE 40 PVC CONDUITS ARE TO BE INSTALLED UNDER PAVEMENT FOR IRRIGATION THROUGHOUT THE SITE. THE CONDUIT ENDS ARE TO BE MARKED WITH METAL STAKES.
2. ALL LANDSCAPE/SOD AREAS WILL BE EQUIPPED WITH A BELOW GROUND AUTOMATIC IRRIGATION SYSTEM EQUIPPED WITH FREEZE GUARD.
3. CYPRESS MULCH SHALL BE USED AS A FOUR INCH (4") TOP DRESSING AROUND ALL TREES AND IN LANDSCAPE BEDS.
4. ALL TREES ARE TO BE PLACED A MINIMUM OF 6-FEET FROM THE FACE OF CURB AND CENTERED ON PARKING STRIPES (WHERE APPLICABLE), UNLESS NOTED OTHERWISE.
5. ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN STANDARDS FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
6. ALL AREAS DISTURBED BY CONSTRUCTION, NOT RECEIVING PAVEMENT, SHALL HAVE 6 INCHES OF TOPSOIL ADDED AND GRADED SMOOTH. TOPSOIL SHALL BE APPROVED BY THE OWNER. TOPSOIL SHALL BE CLOD FREE QUALITY BLACK DIRT.
7. ALL LAWN AREAS ARE TO BE GRADED TO PROVIDE POSITIVE DRAINAGE.
8. 4" LANDSCAPE BED UNDERDRAIN TO BE SCH 40 PVC PIPE. UNDERDRAIN PIPE TO BE PERFORATED PIPE WITHIN INTERNAL LANDSCAPE BED AREAS AND SOLID PIPE OUTSIDE OF LANDSCAPE BED AREAS. ALL ISLAND LANDSCAPE BED DRAINS TO HAVE 4" PVC VERTICAL INSPECTION PIPE AT UPSTREAM END (DESIGNATED AS "CO" ON PLAN).

LANDSCAPE REQUIREMENTS

	REQUIRED ORDINANCE	PROVIDED
INTERIOR PARKING	5% PARKING LOT MUST BE LANDSCAPED	END ISLANDS PROVIDED
FRONTAGE TREES	1 TREE PER 30 FEET OF STREET FRONTAGE 1 SHRUB PER 20 FEET OF STREET FRONTAGE SW 3RD: 224 = 7 TREES, 11 SHRUBS SW BLUE PKWY: 476 = 16 TREES, 24 SHRUBS SW 2ND: 236 = 8 TREES, 12 SHRUBS	SW 3RD: 224 = 7 TREES, 12 SHRUBS SW BLUE PKWY: 476 = 16 TREES, 24+ SHRUBS SW 2ND: 236 = 8 TREES, 12 SHRUBS
OPEN SPACE TREES	2 SHRUBS / 5,000 SF LOT AREA 114,748 / 5000 = 46 SHRUBS 1 TREE / 5,000 SF LOT AREA - BLDG/CANOPY SF (114,748 - 12,599) 102,149 / 5000 = 20 TREES	21 TREES, 46+ SHRUBS
PARKING LOT PERIMETER LANDSCAPE	SOLID SCREENING ADJACENT TO PUBLIC ROW	SOLID HEDGE ROW ADJACENT TO PARKING ALONG NW 2ND STREET

Landscape Schedule

USE	SYMBOL	COMMON NAME *Botanical Name*	MINIMUM SIZE/ HEIGHT/SPREAD	QUANTITIES
SHRUBS		WINTERGREEN BOXWOOD *Microphylla koreana*	24" HT MIN	198 EA.
		PERFECTA JUNIPER *Juniperus chinensis 'Perfecta'*	36" HT MIN	25 EA.
		ROSE OF SHARON *Hibiscus syriacus*	36" HT MIN	12 EA.
		GREY GUARDIAN JUNIPER *Juniperus virginiana 'Greguard'*	HEIGHT/SPREAD RATIO = 2:3 3 GAL	16 EA.
		BLOOMERANG DWARF LILAC *Syringa x penda*	HEIGHT/SPREAD RATIO = 4:3 3 GAL	6 EA.
		WINE & ROSES WEIGELA *Weigela florida 'Alexandra'*	HEIGHT/SPREAD RATIO = 4:3 3 GAL	6 EA.
ORNAMENTAL TREES		FRUITLESS CRABAPPLE (DWARF) *Coral Burst, Spring Snow, or Velvet Pillar varieties*	3" CALIPER 6' HT	4 EA.
		OKLAHOMA REDBUD *Cercis texensis reniformis*	3" CALIPER 12' HT	18 EA.
		WHITE FLOWERING DOGWOOD *Cherokee Princess variety*	3" CALIPER 12' HT	12 EA.
		ARISTOCRAT PEAR *Pyrus Calleryana*	3" CALIPER 12' HT	4 EA.
SHADE TREES		WHITE SWAMP OAK *Quercus bicolor*	3" CALIPER	2 EA.
		WILLOW OAK *Quercus Phellos*	3" CALIPER	9 EA.
		WATER OAK *Quercus Nigra*	3" CALIPER	7 EA.
EVERGREEN		WHITE PINE *Pinus strobus*	8' MINIMUM HT	8 EA.
MISC		FESCUE SOD		54,460 S.F.



CONNOR S. HOLMAN
NUMBER PE-2021004777
LICENSED PROFESSIONAL ENGINEER
3/3/25

PROJECT NO.:02-0183

Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R

1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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PROTOTYPE:	P-118
DIVISION:	02
VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

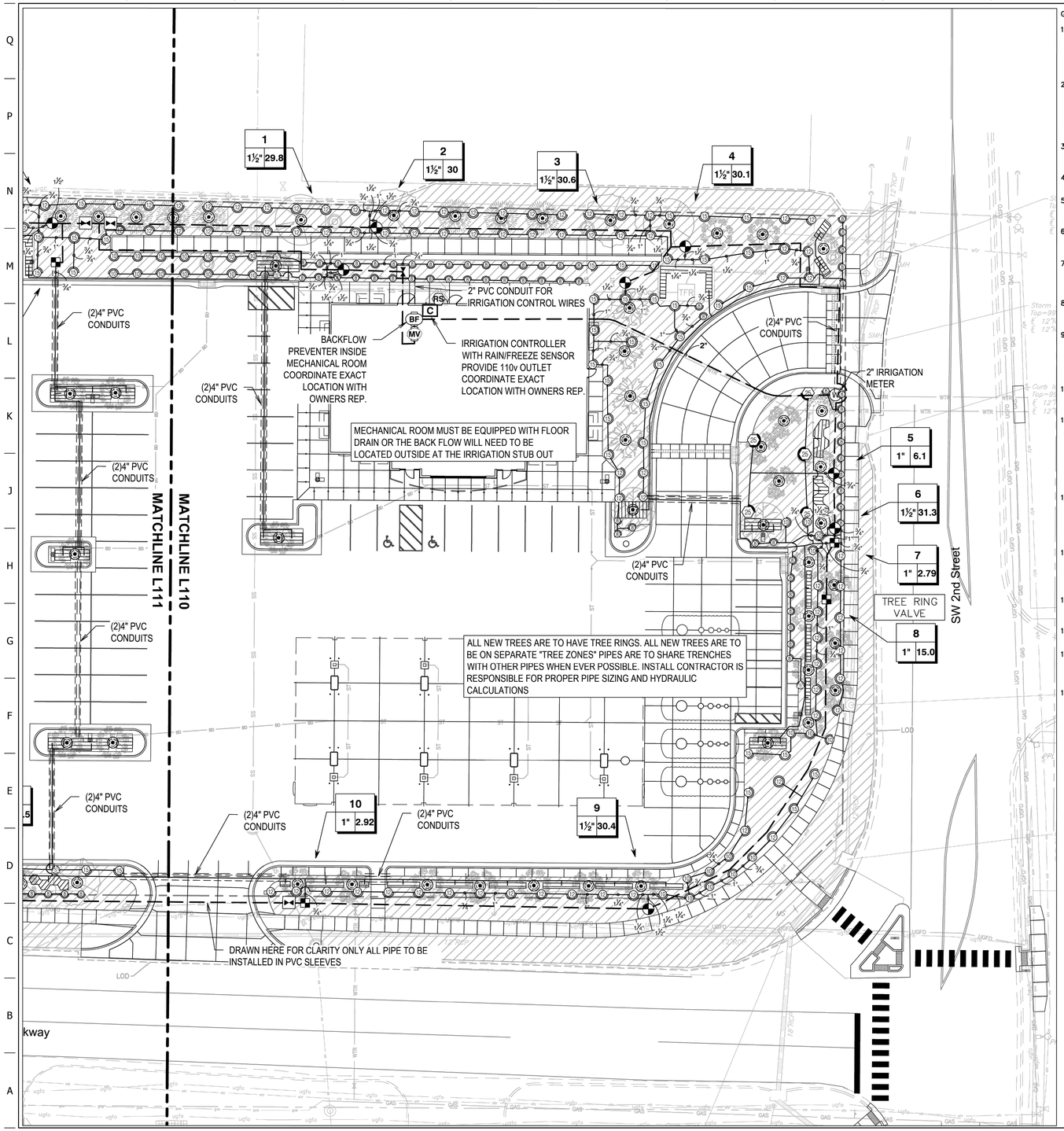
REV	DATE	DESCRIPTION

ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
L100

FILE LOCATION:\\DESKTOP-HMC8GB\Civil 3D Projects\QT\83 Lee's Summit, MO\02-0183 Civil.dwg TAB NAME:Landscape USER:dkhol SAVED:3/3/2025 12:24 PM PLOTTED:3/3/2025 1:28 PM



GENERAL NOTES

1. THIS DESIGN WAS PREPARED BY IRRIGATION DESIGN AND CONSULTING, BASED SOLELY ON THE DRAWINGS AND INFORMATION PROVIDED BY THE OWNER, AND HOLDS NO RESPONSIBILITY FOR ACCURACY OR THAT INFORMATION OR FOR ANY INSTALL OR WARRANTIES. INSTALL CONTRACTOR IS SOLELY RESPONSIBLE FOR PROPER INSTALL AND FUNCTION OF THE IRRIGATION SYSTEM.
2. THE IRRIGATION DESIGN IS CONCEPTUAL AND DIAGRAMMATIC. THE INTENT OF THE DRAWINGS IS TO SHOW THE GENERAL LAYOUT AND LOGIC OF THE SYSTEM. SCALED MEASUREMENTS MAY NOT BE ACCURATE. ACTUAL LOCATIONS AND QUANTITIES OF PIPE AND FITTINGS MAY VERY DUE TO FIELD ADJUSTMENTS FOR EXISTING CONDITIONS AND OTHER OBSTRUCTIONS TO PROVIDE THE PROPER AND INTENDED COVERAGE.
3. FOR CLARITY SOME LINES AND OBJECTS MAY APPEAR TO BE OUT OF PLACE. IT SHOULD BE UNDERSTOOD THAT ALL IRRIGATION PIPE AND EQUIPMENT IS TO BE PLACED IN THE LANDSCAPE AREAS.
4. FLOW RATES ARE ESTIMATED AND AS SUCH WILL VARY IF ALTERATIONS ARE MADE BY CONTRACTOR,
5. INSTALL CONTRACTOR WILL ASSUME ALL RESPONSIBILITY FOR FLOW, PIPE SIZING HYDRAULIC CALCULATIONS, INSTALL, ADJUSTMENTS AND WARRANTIES.
6. CONTRACTOR IS RESPONSIBLE FOR PROPER NOZZLE ADJUSTMENT SO AS NOT TO OVER SPRAY OR WATER ANY SIDEWALKS, PARKING AREAS, OR ANY OTHER NON PERVIOUS AREAS.
7. TREE RINGS ARE TO BE ON SEPARATE "TREE ZONES". WHEN POSSIBLE PIPE IS TO BE RUN IN TRENCHES WITH OTHER PIPE. IRRIGATION INSTALL CONTRACTOR IS RESPONSIBLE FOR PROPER PIPE SIZING FOR TREE ZONES.
8. CONTRACTOR SHALL INSTALL ALL EQUIPMENT AS PER MANUFACTURE'S CURRENT SPECIFICATIONS AND IN ACCORDANCE WITH ALL LAWS AND CODES THAT GOVERN LEE'S SUMMIT, MO.
9. EXACT STATIC WATER PRESSURE IS UNKNOWN AT TIME OF THE DESIGN CONTRACTOR SHALL CAREFULLY VERIFY A MINIMUM DYNAMIC WATER PRESSURE OF 65psi WITH A FLOW OF 35gpm AT THE WATER METER LOCATION PRIOR TO INSTALLATION. CONTRACTOR SHALL NOTIFY ARCHITECT IF WATER PRESSURE IS LESS THAN OR SIGNIFICANTLY HIGHER THAN NOTED.
10. CONTRACTOR WILL COORDINATE EXACT LOCATIONS OF WATER METER, BACK FLOW PREVENTER, CONTROLLER AND CLIMATE SENSORS WITH THE ARCHITECT AND GENERAL CONTRACTOR.
11. WHEN TRENCHING UNDER THE DRIP LINE OF EXISTING TREES EXTREME CARE MUST BE GIVEN TO AVOID ROOT DAMAGE. IF AT ALL POSSIBLE AVOID TRENCHING INSIDE THE DRIP LINE BY GOING AROUND THE TREE RATHER THAN UNDER IT. IF TRENCHING MUST OCCUR UNDER THE DRIP LINE, USE EITHER TUNNELING OR HAND-DIGGING METHODS RATHER MECHANICAL TRENCHER. MINIMIZE THE IMPACTS OF ROOT SEVERING BY AVOIDING CONSTRUCTION DURING HOT, DRY WEATHER, KEEPING TREES WELL WATERED BEFORE AND AFTER DIGGING AND COVERING ROOTS WITH SOIL OR MULCH AS SOON AS POSSIBLE.
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14. ALL SLEEVES WILL BE SCH40 AND MUST BE A MINIMUM OF TWO PIPE SIZES LARGER THAN THE COLLECTIVE SIZES OF ALL PIPES TO BE PLACED IN SLEEVE
15. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFYING PROPER LOCATION AND SIZING OF SLEEVES BEFORE CONSTRUCTION BEGINS.
16. IRRIGATION INSTALL CONTRACTOR SHALL PLAN A CONTINGENCY PLAN FOR A BOOSTER PUMP IN IN ADVANCE IN THE EVENT THAT ONE BECOMES NECESSARY SO AS TO NOT SLOW OR POSTPONE CONSTRUCTION COMPLETION.
17. IRRIGATION INSTALLER SHALL COORDINATE AS-BUILT ZONE SHEET (SEE QT CONSTRUCTION MANAGER) WITH WEATHERMATIC (AARON@OKLHOMALANDSCAPE.COM) AS REQUIRED FOR COMMISSION OF THE IRRIGATION SYSTEM.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
EST LCS HCS CST SST	Rain Bird 1806-U-PRS 15 Strip Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	13
Q T H F	Rain Bird 1806-U-PRS U8 Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	67
Q T H F	Rain Bird 1806-U-PRS U10 Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	29
Q T H F H2 F	Rain Bird 1806-U-PRS U12 Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	86
Q T H F H2 F	Rain Bird 1806-U-PRS U15 Series Turf Spray 6in. Pop-Up Sprinkler with Co-Molded Wiper Seal. Side and Bottom Inlet. 1/2in. NPT Female Threaded Inlet. Pressure Regulating.	40

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
H	Rain Bird 5004-PC-MPR 25 Turf Rotor, 4in. Pop-Up, Plastic Riser, Matched Precipitation Rotor (MPR nozzle). Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige.	5
H	Rain Bird 5004-PC-MPR 35 Turf Rotor, 4in. Pop-Up, Plastic Riser, Matched Precipitation Rotor (MPR nozzle). Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige.	39

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird XCZ-100-LC 1" Wide Flow Drip Control Kit, for Light Commercial Uses. 1in. PEB Valve, with 1in. Pressure Regulating 40psi Basket Filter. 0.3-20 GPM.	5
	Netafim TLDL-09-12 Drip Ring	76
	Area to Receive Dripline Netafim TLDL-04-12 Techline Pressure Compensating Landscape Dripline. 0.4 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. Surface and Sub Surface Installations. UV Resistant.	1,231 lf

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Rain Bird PEB 1-1/2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	11
	Rain Bird PEB 1" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	5
	Landscape Products Inc. BBV Full Port Brass Ball Valve. Suitable for a full range of liquids and gases in residential and commercial applications. Sized to fit mainline.	5
MV	Rain Bird PEB 1-1/2" Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration.	1
BF	Zurn 975XL 1-1/2" Reduced Pressure Backflow device	1
C	Weathermatic SL9648TW SmartLine 48-zone 2-wire controller, internal 120VAC/230VAC transformer, large backlit LCD display, Multi-station simultaneous operation. (Supplied by QT and installed by contrctor)	1
RS	Weathermatic SLWS Wireless Weather Sensor for ET Based Watering, 900mhz - 1500ft. line of site range	1
W	Water Meter 2"	1
	Irrigation Lateral Line: PVC Schedule 40 3/4"	3,687 lf
	Irrigation Lateral Line: PVC Schedule 40 1"	498.7 lf
	Irrigation Lateral Line: PVC Schedule 40 1 1/4"	283.8 lf
	Irrigation Lateral Line: PVC Schedule 40 1 1/2"	68.2 lf
	Irrigation Lateral Line: PVC Schedule 40 2"	5.1 lf
	Irrigation Mainline: PVC Schedule 40 2"	1,790 lf
	Pipe Sleeve: PVC Schedule 40 4" Sleeves	950.7 lf

Valve Callout

Valve Number
Valve Flow
Valve Size

CRITICAL ANALYSIS

Generated:	2025-03-01 13:19
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	2"
Flow Available	70.55 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	65 PSI
Elevation Change:	5.00 ft
Service Line Size:	2"
Length of Service Line:	20 ft
Pressure Available:	62 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	31.25 GPM
Flow Available at POC:	70.55 GPM
Residual Flow Available:	39.3 GPM
Critical Station:	19
Design Pressure:	35 PSI
Friction Loss:	2.92 PSI
Fittings Loss:	0.29 PSI
Elevation Loss:	0 PSI
Loss through Valve:	3.69 PSI
Pressure Req. at Critical Station:	41.9 PSI
Loss for Fittings:	0 PSI
Loss for Main Line:	2.24 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	13.4 PSI
Loss for Master Valve:	3.69 PSI
Loss for Water Meter:	0.69 PSI
Critical Station Pressure at POC:	61.9 PSI
Pressure Available:	62 PSI
Residual Pressure Available:	0.1 PSI

EXACT STATIC PRESSURE WAS UNKNOWN AT TIME OF DESIGN. IRRIGATION INSTALL CONTRACTOR MUST VERIFY A DYNAMIC PRESSURE OF 65PSI WITH A FLOW OF 35GPM AT THE STUB OUT. IF PRESSURE IS LOWER OR EXCESSIVELY HIGHER CONTRACTOR MUST CONTACT OWNERS REPRESENTATIVE PRIOR TO ANY CONSTRUCTION TO DETERMINE IF A BOOSTER PUMP OR DESIGN REVISIONS ARE NECESSARY.

N

20 10 0 20 40

1" = 20'

MATTHEW McFARLING
Certified Irrigation Designer
CID
IRRIGATION ASSOCIATION
120659

DATE SIGNED: 02/28/2025
PROJECT NO.:02-0183

Irrigation Design & Consulting LLC
Email:contactusaprrigationplan.com
Website: www.irrigationplan.com
Phone: (918) 215-4010

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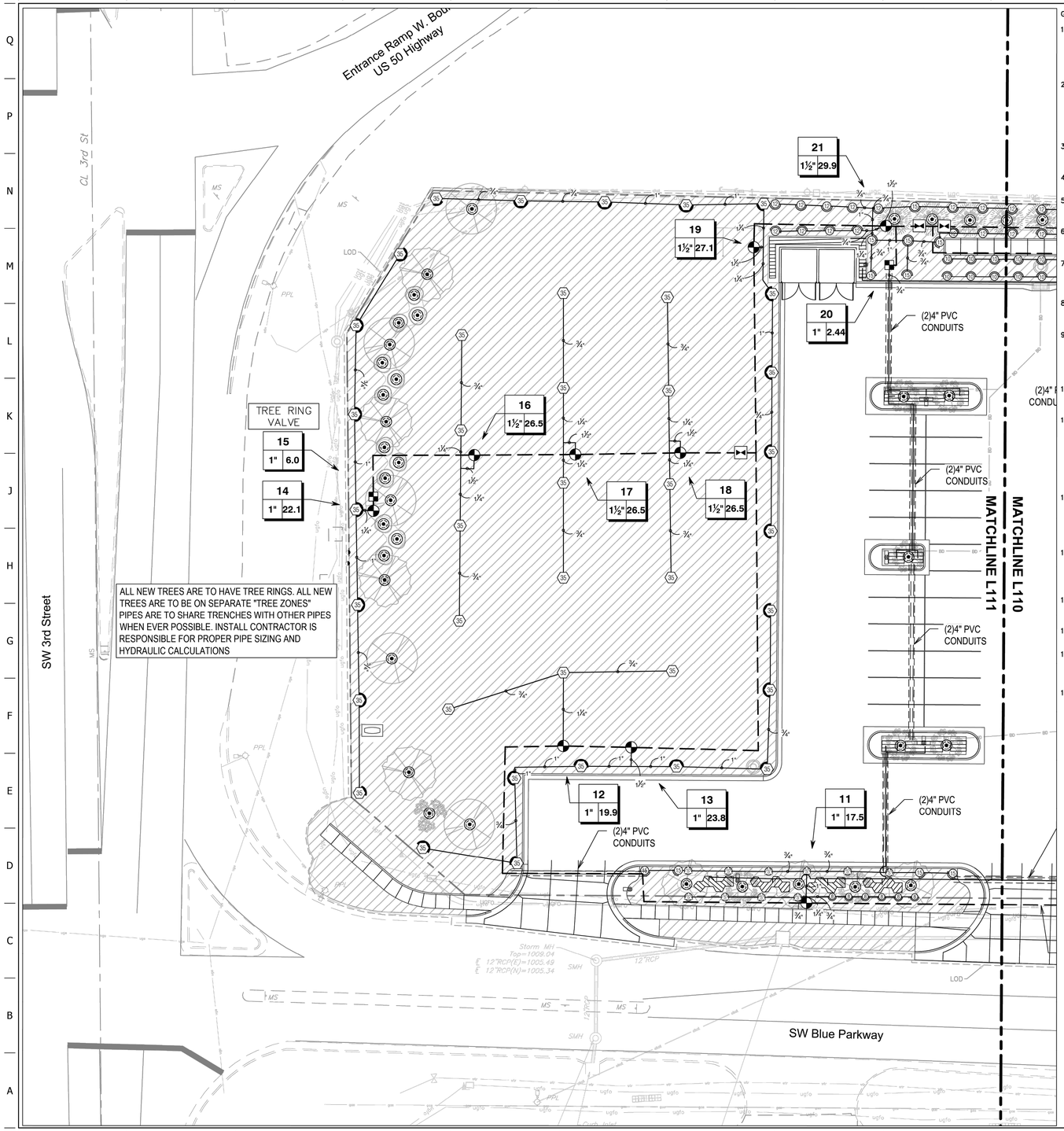
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PROTOTYPE: P-118
DIVISION: 02
VERSION: 001
DESIGNED BY: MCM
DRAWN BY: MCM
REVIEWED BY:

REV	DATE	DESCRIPTION
		ORIGINAL ISSUE DATE: 02/24/2025

SHEET TITLE:
IRRIGATION PLAN
SHEET 1

SHEET NUMBER:
L110



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1. THIS DESIGN WAS PREPARED BY IRRIGATION DESIGN AND CONSULTING, BASED SOLELY ON THE DRAWINGS AND INFORMATION PROVIDED BY THE OWNER, AND HOLDS NO RESPONSIBILITY FOR ACCURACY OR THAT INFORMATION OR FOR ANY INSTALL OR WARRANTIES. INSTALL CONTRACTOR IS SOLELY RESPONSIBLE FOR PROPER INSTALL AND FUNCTION OF THE IRRIGATION SYSTEM.
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CRITICAL ANALYSIS

Generated:	2025-03-01 13:19
P.O.C. NUMBER: 01	
Water Source Information:	
FLOW AVAILABLE	
Water Meter Size:	2"
Flow Available	70.55 GPM
PRESSURE AVAILABLE	
Static Pressure at POC:	65 PSI
Elevation Change:	5.00 ft
Service Line Size:	2"
Length of Service Line:	20 ft
Pressure Available:	62 PSI
DESIGN ANALYSIS	
Maximum Station Flow:	31.25 GPM
Flow Available at POC:	70.55 GPM
Residual Flow Available:	39.3 GPM
Critical Station:	19
Design Pressure:	35 PSI
Friction Loss:	2.92 PSI
Fittings Loss:	0.29 PSI
Elevation Loss:	0 PSI
Loss through Valve:	3.69 PSI
Pressure Req. at Critical Station:	41.9 PSI
Loss for Fittings:	0 PSI
Loss for Main Line:	2.24 PSI
Loss for POC to Valve Elevation:	0 PSI
Loss for Backflow:	13.4 PSI
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Pressure Available:	62 PSI
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IRRIGATION SCHEDULE
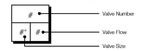
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SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
20	Rain Bird 5004-PC-MPR 25 Turf Rotor, 4in. Pop-Up, Plastic Riser, Matched Precipitation Rotor (MPR nozzle). Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige.	5
35	Rain Bird 5004-PC-MPR 35 Turf Rotor, 4in. Pop-Up, Plastic Riser, Matched Precipitation Rotor (MPR nozzle). Arc and Radius as per Symbol. 25 ft=red, 30 ft=green, 35ft=beige.	39

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	Area to Receive Dripline Netafim TLDL-04-12 Techline Pressure Compensating Landscape Dripline. 0.4 GPH emitters at 12" O.C. Dripline laterals spaced at 12" apart, with emitters offset for triangular pattern. Surface and Sub Surface Installations. UV Resistant.	1,231 lf

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	Irrigation Lateral Line: PVC Schedule 40 3/4"	3,687 lf
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	Irrigation Mainline: PVC Schedule 40 2"	1,790 lf
	Pipe Sleeve: PVC Schedule 40 4" Sleeves	950.7 lf

Valve Callout



MATTHEW McFARLING
Certified Irrigation Designer
CID
IRRIGATION ASSOCIATION
120659
DATE SIGNED: 02/28/2025
PROJECT NO.:02-0183

Irrigation Design & Consulting LLC
Email:contactus@irrigationplan.com
Website: www.irrigationplan.com
Phone: (918) 215-4010

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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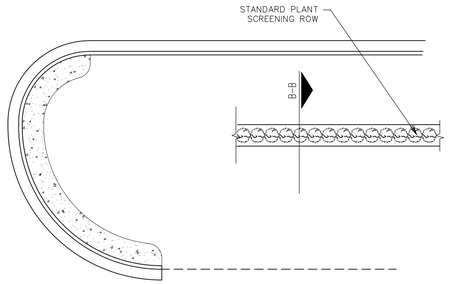
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		ORIGINAL ISSUE DATE: 02/24/2025

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IRRIGATION PLAN
SHEET 2

SHEET NUMBER:
L111

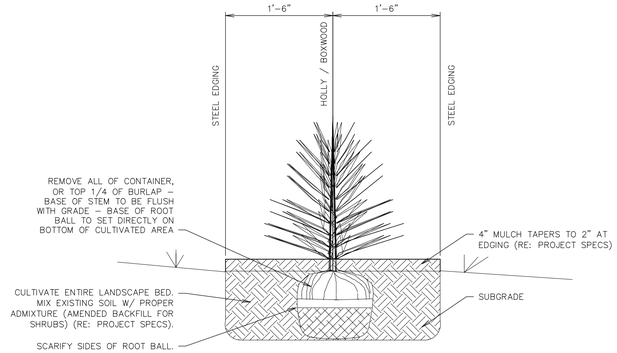
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1" = 20'

STEEL EDGING DOES NOT SEPARATE SCREENING ROWS FROM STANDARD BEDS



L1 SINGLE SHRUB SCREENING BED

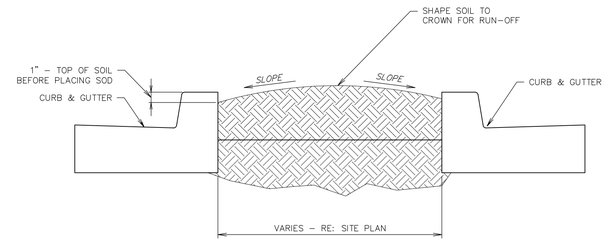
NTS | SN: LD025A001



L6 SINGLE SHRUB SCREENING SECTION B-B

NTS | SN: LD026A001

NOTE: SLOPE ON LAWN AREAS NOT TO EXCEED 3:1 UNLESS NOTED OTHERWISE (RE: GRADING PLAN)

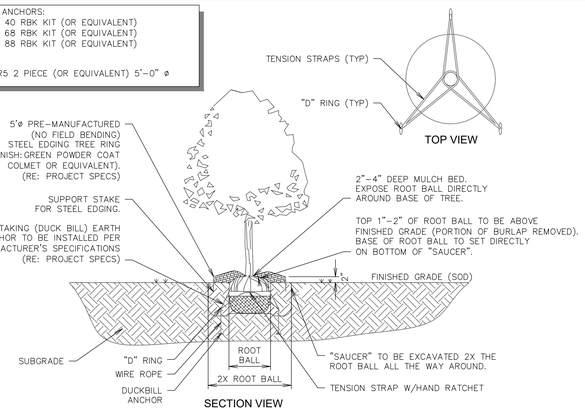


L11 TYPICAL LAWN SECTION

NTS | SN: LD007A002

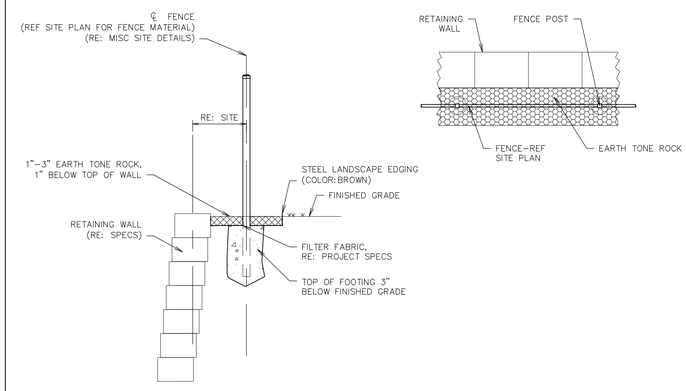
DUCK BILL EARTH ANCHORS:
2"TREES – MODEL 40 RBK KIT (OR EQUIVALENT)
3"TREES – MODEL 68 RBK KIT (OR EQUIVALENT)
6"TREES – MODEL 88 RBK KIT (OR EQUIVALENT)

TREE RING KITS:
ALL TREES – 141R5 2 PIECE (OR EQUIVALENT) 5'-0" ø



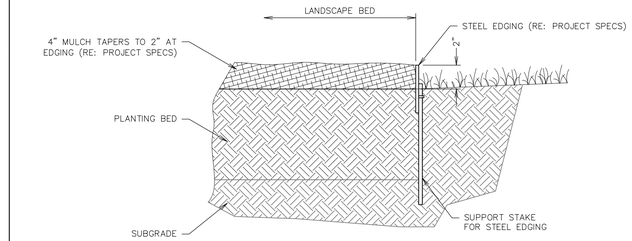
F1 TREE PLANTING DETAIL - DUCKBILL

NTS | SN: LD008B007



F6 LS EDGING ADJACENT TO WALL GUARDRAIL DETAIL

NTS | SN: LD024A009



F11 LANDSCAPE STEEL EDGING DETAIL

NTS | SN: LD006A004

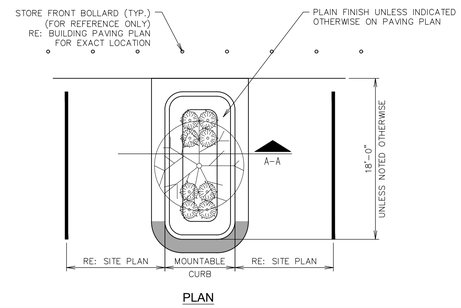
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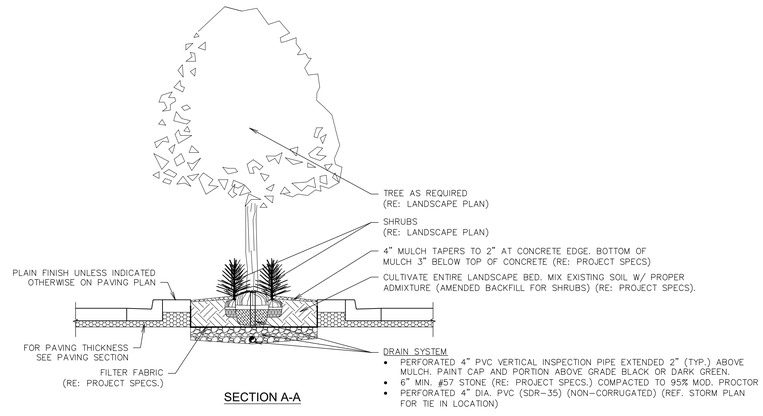
NTS | SN:

RE: LANDSCAPE PLAN FOR SHRUB PLACEMENT AND QUANTITY.

LANDSCAPE PARKING ISLANDS ARE TO BE IRRIGATED WITH A DRIP LINE SYSTEM. A SPRAY OR ROTARY HEAD SPRINKLER SYSTEM IS NOT AN ACCEPTABLE IRRIGATION METHOD FOR LANDSCAPE PARKING ISLANDS. (RE: PROJECT SPECS.)

RE: STORM PLAN TO DETERMINE IF USE OF LANDSCAPE BED DRAIN PIPE IS REQUIRED





A6 PARKING ISLAND W/ SHRUBS & TREE LANDSCAPE DETAIL (W/ RADIUS PROTECTOR)

NTS | SN: LD011A012

QUIKTRIP STANDARD DETAILS

PROJECT NO.:02-0183

Midwest Design Group
Kansas City
PO Box 860015
Shawnee, KS 66286-0015
P 913.248.9385

QuikTrip No. 0183R
1001 SW BLUE PARKWAY
LEE'S SUMMIT, JACKSON CO., MO 64063

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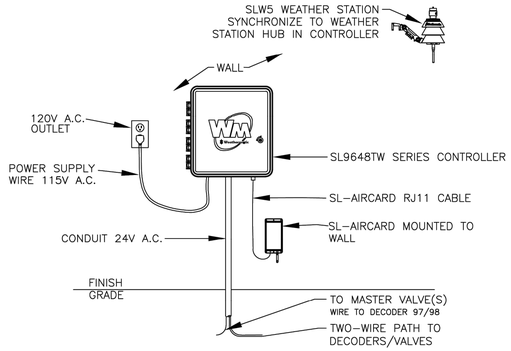
PROTOTYPE:	P-118
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VERSION:	001
DESIGNED BY:	CSH
DRAWN BY:	CSH
REVIEWED BY:	TRW

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		ORIGINAL ISSUE DATE: 03/03/2025

SHEET TITLE:
LANDSCAPE DETAILS

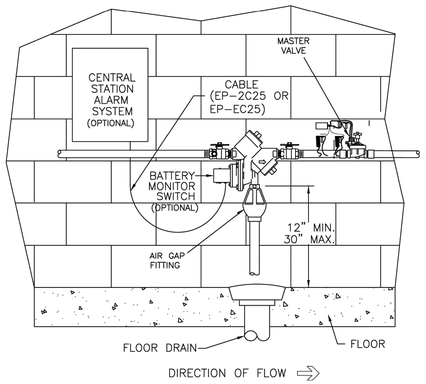
SHEET NUMBER:
L500

FILE LOCATION: \\DESKTOP-HMO8GB\Civil 3D Projects\QT\83 Lee's Summit, MO\02-0183 DETAILS LS.dwg TAB NAME:LS Detail Sheet 1 USER:dkhol SAVED:3/3/2025 8:56 AM PLOTTED:3/3/2025 1:29 PM



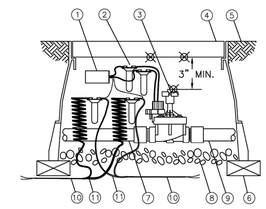
L1 SmartWire Controller SL9648TW with SLW5 & Aircard

SN:



L6 REDUCED PRESSURE PRINCIPLE ASSEMBLY

SN:

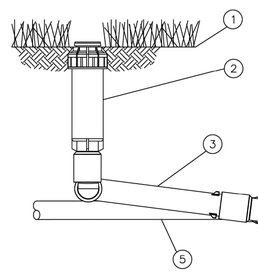


1. FIELD DECODER: WEATHERMATIC SLDEC1 2–WIRE DECODER
2. DRY SPLICE WIRE CONNECTOR (1 OF 4)
3. RAIN BIRD PEB SERIES REMOTE CONTROL VALVE
4. 12–INCH VALVE BOX WITH COVER
5. FINISH GRADE OR TOP OF MULCH
6. BRICK (1 OF 4)
7. PVC MAINLINE PIPE
8. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
9. PVC LATERAL PIPE
10. TWO–WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR SL9600 CONTROLLER)
11. COMMUNICATION WIRE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR SL9600 CONTROLLER)

NOTES:
1. MAXIMUM LENGTH OF SECONDARY WIRE PATH (14 AWG) FROM FIELD DECODER TO SOLENOID IS 100 FEET.
2. PLACE 3 FEET OF EXTRA WIRE IN EVERY VALVE BOX FOR EASIER SERVICING.

L11 RAIN BIRD PEB SERIES CONTROL VALVE

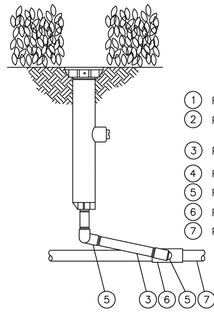
SN:



1. FINISH GRADE
2. ROTOR POP–UP SPRINKLER: RAIN BIRD 3500/5000/6500
3. PRE–FABRICATED SWING JOINT:
4. PVC SCH 40 TEE OR ELL
5. LATERAL PIPE

F1 RAIN BIRD 5000 SERIES POP–UP ROTOR HEAD

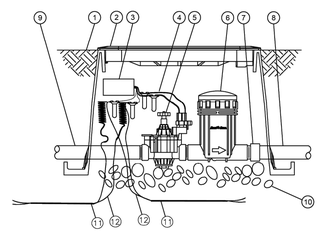
SN:



1. FINISH GRADE/TOP OF MULCH
2. POP–UP SPRAY SPRINKLER: RAIN BIRD 1806–PRS
3. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
4. PVC SCH 40 ELL
5. PVC SCH 40 STREET ELL
6. PVC SCH 40 TEE OR ELL
7. PVC LATERAL PIPE

F6 RAIN BIRD 1806 SERIES POP–UP SPRAY HEAD

SN:

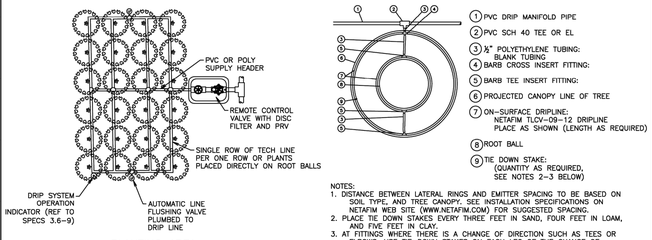


1. FINISH GRADE/TOP OF MULCH
2. VALVE BOX WITH COVER
3. WEATHERMATIC SLDEC1 2–WIRE DECODER
4. WATERPROOF CONNECTION
5. REMOTE CONTROL VALVE: RAIN BIRD 100–PEB (INCLUDED IN XCZ–100–PRB–LC KIT)
6. PRESSURE REGULATING BASKET FILTER: RAIN BIRD PRB–100 (INCLUDED IN XCZ–100–PRB–LC KIT)
7. PVC SCH 40 FEMALE ADAPTOR
8. LATERAL PIPE
9. MAINLINE PIPE
10. 3–INCH MINIMUM DEPTH OF 3/4–INCH WASHED GRAVEL
11. TWO–WIRE CABLE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR SL9600 CONTROLLER)
12. COMMUNICATION WIRE TO NEXT DEVICE (FIELD DECODER, SENSOR DECODER, LINE SURGE PROTECTOR OR SL9600 CONTROLLER)

NOTES:
1. MAXIMUM LENGTH OF SECONDARY WIRE PATH (14 AWG) FROM FIELD DECODER TO SOLENOID IS 100 FEET.
2. PLACE 3 FEET OF EXTRA WIRE IN EVERY VALVE BOX FOR EASIER SERVICING.

F11 RAIN BIRD XCZ–100–PRB–LC DRIP KIT/RAIN BIRD XCZ–150–PRB–COM DRIP KIT

SN:



TLCV–04–12 ON SURFACE DRIP LINE PLANTING AREAS

1. PVC DRIP MANIFOLD PIPE
2. PVC SCH 40 TEE OR EL
3. ½" POLYETHYLENE TUBING: BLANK TUBING
4. BARB CROSS INSERT FITTING:
5. BARB TEE INSERT FITTING:
6. PROJECTED CANOPY LINE OF TREE
7. ON–SURFACE DRIPLINE: NETAFIM TLCV–09–12 DRIPLINE PLACE AS SHOWN (LENGTH AS REQUIRED)
8. ROOT BALL
9. TIE DOWN STAKE: (QUANTITY AS REQUIRED, SEE NOTES 2–3 BELOW)

NOTES:
1. DISTANCE BETWEEN LATERAL RINGS AND EMITTER SPACING TO BE BASED ON SOIL TYPE, AND TREE CANOPY. SEE INSTALLATION SPECIFICATIONS ON NETAFIM WEB SITE (WWW.NETAFIM.COM) FOR SUGGESTED SPACING.
2. PLACE TIE DOWN STAKES EVERY THREE FEET IN SAND, FOUR FEET IN LOAM, AND FIVE FEET IN CLAY.
3. AT FITTINGS WHERE THERE IS A CHANGE OF DIRECTION SUCH AS TEES OR ELBOWS, USE TIE–DOWN STAKES ON EACH LEG OF THE CHANGE OF DIRECTION.

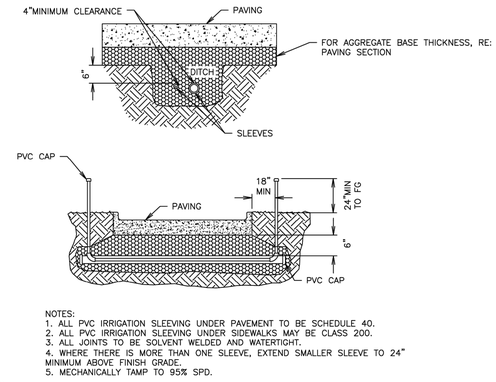
TREE RING

TLCV–09–12 ON SURFACE DRIP LINE AROUND TREES

NOTE:
1. RECOMMENDED MINIMUM FILTRATION: 120 MESH
2. PRESSURE AT FLUSH VALVE SHALL BE MIN 14.5 PSI
3. 2 PSI CHECK VALVE (MAX 4.6' OF WATER (ELEVATION CHANGE))
4. REFER TO MAXIMUM LENGTH OF A SINGLE LATERAL CHART

A1 NETAFIM DRIP IRRIGATION

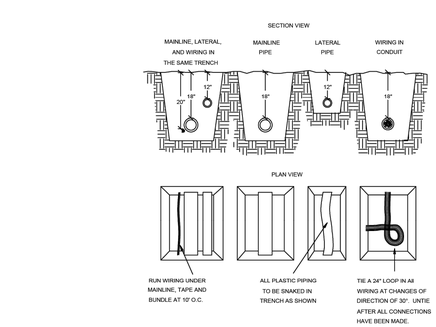
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NOTES:
1. ALL PVC IRRIGATION SLEEVING UNDER PAVEMENT TO BE SCHEDULE 40.
2. ALL PVC IRRIGATION SLEEVING UNDER SIDEWALKS MAY BE CLASS 200.
3. ALL JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
4. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND SMALLER SLEEVE TO 24" MINIMUM ABOVE FINISH GRADE.
5. MECHANICALLY TAMP TO 95% SPD.

A6 IRRIGATION SLEEVING

SN:



NOTE:
SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SCHEDULE 40

A11 PIPE & WIRE TRENCHING

SN:

MATTHEW McFARLING
CERTIFIED IRRIGATION DESIGNER
CID
IRRIGATION ASSOCIATION
120659

DATE SIGNED: 02/28/2025

PROJECT NO.:02-0183

Irrigation Design & Consulting LLC
Email:contactus@irrigationplan.com
Website: www.irrigationplan.com
Phone: (918) 215-4010

QuikTrip No. 0183R

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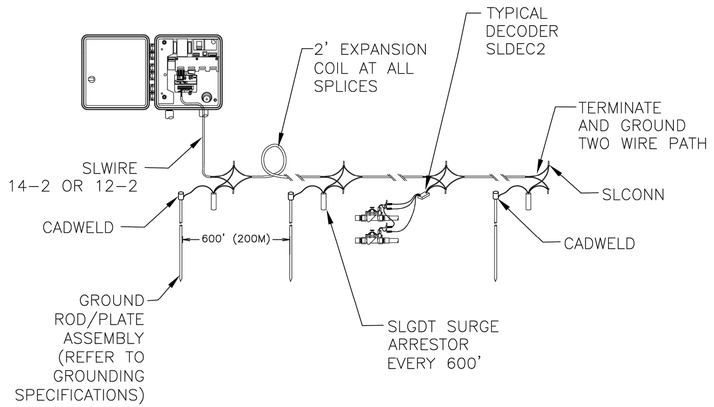
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REVIEWED BY:	

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		ORIGINAL ISSUE DATE: 02/24/2025

SHEET TITLE:
IRRIGATION DETAILS
SHEET 1

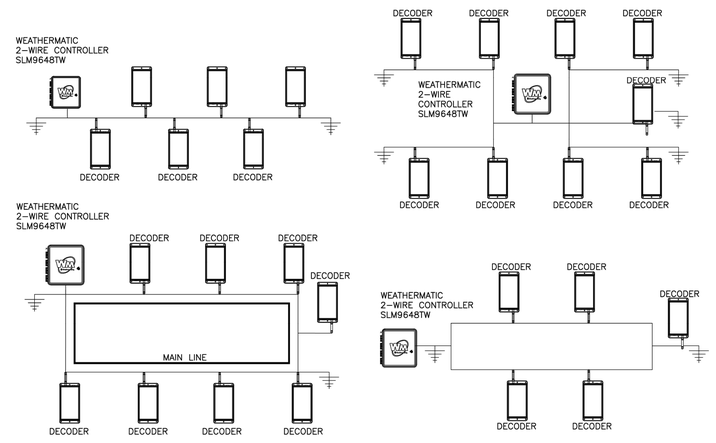
SHEET NUMBER:
L510

Two-wire irrigation details:



J1 | SYSTEM REQUIREMENTS

NTS | SN:



J7 | SMARTWIRE WIRE PATH LAYOUT

NTS | SN:

STRAIGHT LINE CONFIGURATION, I.E. WIRE DISTANCE TO FURTHEST DECODER, NO LOOP:

Wire Size (Guage)	#18	#16	#14	#12
Wire Length (ft)	1,000	2,000	4,000	6,000
Wire Length (m)	300	600	1,200	1,800

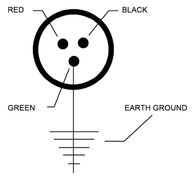
LOOP CONFIGURATION, I.E. WIRE DISTANCE TO THE FURTHEST DECODER IN THE LOOP:

Wire Size (Guage)	#18	#16	#14	#12
Wire Length (ft)	2,000	4,000	10,000	10,000
Wire Length (m)	600	1,200	3,000	3,000

MAXIMUM TOTAL WIRE PATH LENGTH IS 10,000 FEET (3,000 M).

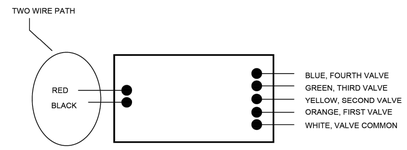
E1 | Wire Sizing

NTS | SN:



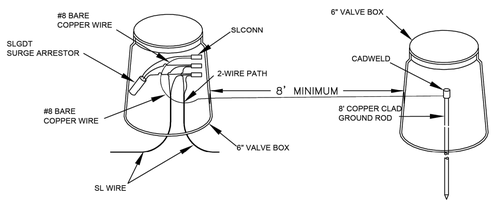
E5 | SLGDT SCHEMATIC

NTS | SN:



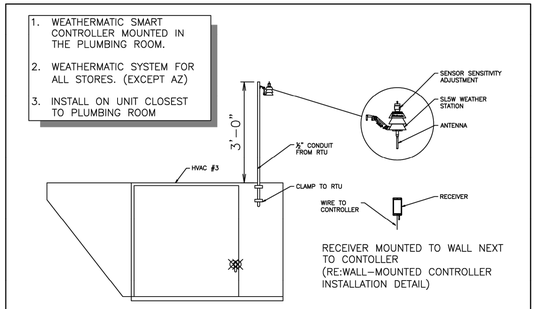
E9 | DECODER SCHEMATIC

NTS | SN:



A1 | GROUNDING DETAIL

NTS | SN:



A5 | HVAC #3 IRRIGATION SENSOR – ELEVATION

NTS | SN:

A9 | NOT USED

NTS | SN:

Two-wire notes:

NOTES:

1. Specific wire polarity is required. Maintain red and black wire polarity throughout installation.
2. Maintain independent wire path for each controller. No splicing or joining wire paths for multiple controls.
3. Up to three independent wire paths may be run for each SLM9648TW.
4. Maximum distance from SLDEC decoders to remote control valve not to exceed 100' (30,5m).
5. Each 2-wire run may be laid out in straight run, complete loop, star, or combination layouts as shown in details. Always terminate and ground each leg of the wire path using manufacturer's recommended grounding methods.
6. Use a continuous loop wire path whenever possible to provide the best communication and power path for the system. Looping provides a redundant path for the power and signal allowing the system to continue operation in the event the wire path is cut.
7. Mark each zone number on the SLDEC decoder. For multi-valve decoders record the zone in order of wire color code: orange, yellow, green, and blue.
8. Mark all zone numbers and decoder locations on the as-built plan for final submittal.
9. Secure all Red and Black 2-wire connections using only manufacturer's supplied SLCONN aluminum connectors and grease filled waterproof connectors.
10. All remote control valve wire splices shall be secured using an encapsulated, gel-filled waterproof wire connector suitable for direct burial and installed according to manufacturer's specifications.
11. Use SmartWire SLWIRE cable supplied by Weathermatic sprinkler division of Telsco Industries to comply with the following specifications:

    a. Conductors must be soft drawn, annealed, solid copper conforming to ASTM 33.

    b. Conductor insulation must be 4/64-inch thick polyvinyl chloride (PVC) conforming to UL #493.

    c. The two insulated conductors laid in parallel and encased in a single outer jacket of 3/64-inch thick, high-density, sunlight resistant polyethylene conforming to ICEA S-61-402 and NEMA WC5, having a minimum wall thickness of .045-inch.

    d. The two conductors must be color-coded: normally one conductor red and the other black. Both conductors shall be the same size.

    e. The following brands meet the above specifications for direct burial cable: Weathermatic SLWIRE12; Weathermatic SLWIRE14.
12. Wire sizing and maximum distance shall not exceed manufacturer's recommendations to avoid voltage loss and insure proper operation of the system.
13. All 2-wire paths under hardscape surfaces shall be sleeved and include no splices of the 2-wire path within 5' of sleeves. Secure a 2' (0,6m) expansion loop in the two-wire path at each change of direction and entry and exit of sleeve locations during wire installation. Release the expansion loops prior to direct burial.
14. Install one SLGDT surge arrestor at the following locations along the 2-wire path: within 25' (7.5m) of each controller, the farthest distance on the 2-wire path from the controller, every 600' along the wire path, at any independent branch termination greater than 50' (15m) from than main 2-wire path.
15. Connect each SLGDT to an 8' copper clad UL approved grounding round or other approved grounding method to obtain 12 ohms or less resistance. Use CADWELD TM permanent welded, low-resistance connection to assure best grounding performance. Consult ASIC specification 100-2002 for additional grounding specifications for appropriate for local soil conditions.
16. Use care in stripping all wire connections to avoid damage to the 2-wire shield and red and black wire path. Remove and discard any damaged 2-wire sections and repair using two SLCONN splice kits.
17. Use expansion coils on the red and black wires at each decoder installation. No expansion coils are necessary for the SLGDT.
18. Adhere to all local and national building and electrical codes.

Scale: Not to Scale

MATTHEW McFARLING
Certified Irrigation Designer
CID
IRRIGATION ASSOCIATION
120659

DATE SIGNED: 02/28/2025

PROJECT NO.:02-0183

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QuikTrip No. 0183R

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SHEET TITLE:

IRRIGATION DETAILS
SHEET 2

SHEET NUMBER:

L511