DISCOVERY CROSSING
PUBLIC INFRASTRUCTURE PLAN

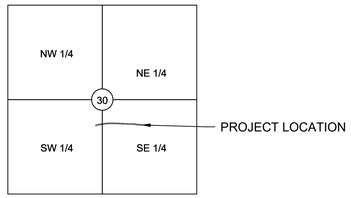
DISCOVERY CROSSING AT DISCOVERY PARK

LEE'S SUMMIT, JACKSON COUNTY, MO

SECTION 30, T48N, R31W

DATE: 9/12/25

LOCATION MAP
SECTION 30, TOWNSHIP 48N, RANGE 31W
JACKSON COUNTY, MISSOURI
SCALE=NTS



WATERSHED: LITTLE CEDAR CREEK - LITTLE BLUE RIVER

DISTURBED AREA: 12.60 AC

LEGAL DESCRIPTION:

DISCOVERY PARK CROSSING, FINAL PLAT, TRACT B (2.48 AC)

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

UTILITY CONTACTS:

WATER UTILITIES:
1200 SE HAMBLEN RD
LEE'S SUMMIT, MO 64063
PHONE: (816) 969-1900

STORMWATER:
CITY OF LEE'S SUMMIT, MO
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE: (816) 969-1800

PUBLIC ROADWAY:
CITY OF LEE'S SUMMIT, MO
220 SE GREEN STREET
LEE'S SUMMIT, MO 64063
PHONE: (816) 969-1800

NATURAL GAS:
SPIRE GAS ENERGY
3025 SW CLOVER DRIVE
LEE'S SUMMIT, MO 64082
PHONE: (816) 985-8888

POWER:
EVERGY
1300 SE HAMBLEN RD
LEE'S SUMMIT, MO 64081
PHONE: (816) 347-4320

TELECOMMUNICATIONS:
AT&T
PHONE: 800-286-8313
SPECTRUM
PHONE: 877-772-2253
GOOGLE FIBER
PHONE: 877-454-6959

FEMA FLOOD INFORMATION:

THE ENTIRE SITE IS LOCATED WITHIN ZONE X, "AREAS OF 0.2% ANNUAL CHANGE FLOOD; AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AS DEPICTED ON THE FEMA FLOOD INSURANCE RATE (FIRM) MAP NUMBER 29095C0409G, REVISION DATE JANUARY 20, 2017.

OIL/GAS WELLS:

NO OIL OR GAS WELLS ARE LOCATED WITHIN PROJECT LIMITS. INFORMATION OBTAINED FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES, GEOLOGICAL SURVEY GEOSCIENCES TTECHNICAL RESOURCE ASEESMENT TOOL (GEOSTRAT).

GENERAL NOTES:

1. THE CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS/INSTALLATIONS AND AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID, REFER TO SPECIFICATIONS ALSO.
2. EXISTING INSTALLATIONS (SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER MAINS/LINES, TELEPHONE LINES, POWER LINES, AND UTILITY STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE) ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT THAT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED.
3. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING INSTALLATIONS.
4. ANY DELAY, ADDITIONAL WORK, FEES OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO OR MODIFICATION OF EXISTING INSTALLATIONS BY THE CONTRACTOR OR AFFECTED UTILITY COMPANY SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS/INSTALLATIONS.
6. CROSS-ACCESS RIGHTS THROUGH THE DEVELOPMENT WILL BE CONFERRED BY FINAL PLAT, COVENANTS AND RESTRICTIONS, OR SEPARATE DOCUMENT.
7. PROPOSED DETENTION FACILITIES SHALL BE CONSTRUCTED PRIOR TO THE DEVELOPMENT OF ANY PART OF THE SUBJECT DRAINAGE AREA.

PROJECT SPECIFICATIONS:

THE SPECIFICATIONS FOR THIS PROJECT SHALL BE THE FOLLOWING:

1. MOST CURRENT VERSION OF THE DESIGN AND CONSTRUCTION MANUAL OF THE CITY OF LEE'S SUMMIT, MO.
2. MOST CURRENT VERSION OF THE AMERICAN PUBLIC WORKS ASSOCIATION - KANSAS CITY METRO CHAPTER

THE STANDARD SPECIFICATIONS THROUGH AND INCLUDING THE LATEST AMENDMENTS SHALL BE PART OF THESE PROJECT DRAWINGS AND SPECIFICATIONS AND ARE HEREIN BY REFERENCE. THE MORE STRINGENT OF THESE STANDARD SPECIFICATIONS AND THOSE PREPARED BY THE ENGINEER PREPARING THESE PLANS SHALL GOVERN.

N

1"=400'

400' 0 200' 400'

CIVIL ENGINEER:

OWN, INC.
8455 COLLEGE BLVD
OVERLAND PARK, KS 66210
EMAIL: JBARTZ@WEAREOWN.COM
PHONE: (816) 777-0400

DEVELOPER:

INTRINSIC DEVELOPMENT
3622 ENDEAVOR AVE., STE. 101
COLUMBIA, MO 65201
CONTACT: BRIAN MAENNER
PHONE: (573) 881-0280

ROADWAY DATA:

DESIGN SPEED: 15 MPH
LENGTH OF PROJECT: 1959 LF
ADT: 7877

PREPARED AND SUBMITTED BY:

JEFFREY W. BARTZ, P.E. DATE
MISSOURI P.E. NO. 2012022594

SHEET INDEX

OWN
Engineering beyond.
8455 College Boulevard
Overland Park, KS 66210
816.777.0400
weareown.com
FORMERLY ANDERSON ENGINEERING

A licensed Missouri
Engineering Corporation
COA# 00062

DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

COVER SHEET

SHEET NUMBER

CVR

1 OF 37

STORM SEWER GENERAL NOTES:

1. PIPE LENGTHS SHOWN ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR TO THE CENTER OF TOE OF END SECTION. ALL PIPES SHALL BE FIELD STAKED TO THE CENTER OF THE INSIDE WALL FACE OF THE STRUCTURE.
2. THE DIMENSION FOR ALL STRUCTURES ARE FROM INSIDE FACE OF STRUCTURE TO INSIDE FACE OF STRUCTURE.
3. THE FIRST STRUCTURE DIMENSION SHOWN IS THE "L" DIMENSION AND THE SECOND IS THE "W" DIMENSION (SEE STORM SEWER STRUCTURE DETAILS).
4. LOCATIONS OF NORTHINGS AND EASTINGS SHOWN ARE AS FOLLOWS:
   A. THROATED AREA INLET: CENTER OF STRUCTURE
   B. SETBACK CURB INLET: CENTER OF STRUCTURE
   C. MODIFIED CURB INLET: CENTER OF STRUCTURE ALONG TOP OF CURB AT INLET
   D. END SECTIONS: CENTER OF TOE OF END SECTION
5. STORM SEWER PIPE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
   A. HIGH DENSITY POLYETHYLENE (HDPE) MEETING THE REQUIREMENTS FOR TEST METHODS, DIMENSIONS, AND MARKINGS FOUND IN AASHTO M294 AND ASTM F2306. JOINTS SHALL BE WATER TIGHT REINFORCED BELL & GASKETED SPIGOT TYPE.
6. ALL PIPE SHALL BE PLACED IN TRENCH CONDITIONS. PLACE A MINIMUM OF 2 FEET OF FILL OVER PROPOSED PIPE BEFORE TRENCHING AND PIPE INSTALLATION. PROPOSED FILL SHALL BE PLACED IN ACCORDANCE WITH PROJECT REQUIREMENTS.
7. UTILITY LINES AND STRUCTURES IN FILL AREAS BELOW PIPE GRADE SHALL NOT BE CONSTRUCTED UNTIL ALL CONSOLIDATION OF THE FILL IS COMPLETE AND SO APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER.
8. ALL CURB INLETS AND OTHER STRUCTURES SET AT LOW POINTS ARE TO BE SET LEVEL. ALL OTHER CURB INLETS ARE TO BE SET WITH THE GRADE AT THE TOP OF CURB OR PAVEMENT. ALL CURB INLETS SHALL HAVE TOP SLABS SLOPING TOWARD THE PAVEMENT AT A 2% GRADE UNLESS OTHERWISE NOTED.
9. PRECAST STRUCTURES MAY BE USED AT CONTRACTOR'S OPTION. ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED CONCRETE INVERT FROM INVERT IN TO INVERT OUT.
10. ALL REINFORCING STEEL SHALL COMPLY WITH ASTM-615 GRADE 60.
11. THE LIDS OF ALL PRECAST STRUCTURES SHALL BE GROUTED TO THE TOP OF THE WALLS.
12. ALL UNSUITABLE MATERIAL ENCOUNTERED DURING THE INSTALLATION OF STORM SEWER SHALL BE REMOVED AT CONTRACTOR'S EXPENSE.
13. THE CONTRACTOR SHALL EXPOSE EXISTING UTILITIES AT LOCATIONS OF POSSIBLE CONFLICT AND POINTS OF CONNECTION PRIOR TO ANY CONSTRUCTION OF STORM SEWER.

DEMOLITION PLAN GENERAL NOTES

1. EXISTING CONDITIONS SHOWN FOR DEMOLITION ARE CURRENTLY UNDER CONSTRUCTION. CONTRACTOR SHALL COORDINATE WITH ON-SITE CONSTRUCTION CREWS TO MINIMIZE DEMOLITION OF NEWLY COMPLETED INFRASTRUCTURE.

2. CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ALL ITEMS ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT A REQUIRED PART OF THE PROPOSED PROJECT UPON COMPLETION.

3. CONTRACTOR SHALL COORDINATE WITH OWNER ON SALVAGING AND DISPOSAL OF DEMOLISHED/REMOVED ITEMS.

4. CONTRACTOR SHALL PROTECT OFFSITE IMPROVEMENTS (INCLUDING BUT NOT LIMITED TO SIDEWALKS, DRIVES, UTILITIES, CURBS, AND PAVING) SURROUNDING THE PROJECT BOUNDARY FROM DAMAGE DURING DEMOLITION ACTIVITY. ALL PAVEMENT REMOVALS SHALL BE SAWCUT WITH CLEAN FULL DEPTH CUTS ADJACENT TO EXISTING PAVEMENT TO REMAIN. CONTRACTOR SHALL INSTALL AND MAINTAIN PEDESTRIAN AND VEHICULAR TRAFFIC CONTROL SIGNAGE IN COMPLIANCE WITH THE MISSOURI DEPARTMENT OF TRANSPORTATION AND CITY OF LEE'S SUMMIT REQUIREMENTS. CONTRACTOR SHALL NOT OBSTRUCT ACCESS TO EXISTING BUSINESSES.

5. CONTRACTOR SHALL INSTALL SAFETY FENCING SURROUNDING ALL EXCAVATIONS DURING DEMOLITION OF STRUCTURES, AREAS OF HEAVY EQUIPMENT USAGE FOR SITE GRADING AND GRUBBING, TREE REMOVAL AREAS, AND ANY OTHER AREAS WHERE PEDESTRIAN OR VEHICULAR TRAFFIC MAY ENCROACH. THIS FENCING SHALL BE INSTALLED NO LATER THAN THE END OF EACH WORKING DAY. CONTRACTOR SHALL REPAIR AND MAINTAIN FENCING IN AN ORDERLY MANNER. CONTRACTOR MAY RE-USE FENCING MATERIALS AFTER ALL DEMOLITION ACTIVITIES HAVE BEEN COMPLETED FOR THAT AREA OF WORK.

GRADING PLAN GENERAL NOTES:

1. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS.
2. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED (GREEN SPACES) SHALL BE FINISH GRADED WITH A MINIMUM OF SIX INCHES OF TOPSOIL.
3. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
4. EXISTING GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS. PROPOSED GRADE CONTOURS SHOWN AT 1 FOOT INTERVALS.
5. HAUL OFF AND MATERIAL IMPORT SHALL NOT BE AN EXCLUDED ITEM IN THE BASE BID. ALL EXCAVATION SHALL BE CONSIDERED NON-CLASSIFIED. NO ADDITIONAL PAYMENT WILL BE MADE FOR ROCK EXCAVATION OR BLASTING.
6. ALL DISTURBED AREAS ARE TO RECEIVE TOPSOIL (6"), SEED/SOD, MULCH AND WATER UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED. RE-SEEDING SHALL BE REQUIRED.
7. WITHIN FORTY-EIGHT HOURS PRIOR TO ANY ASPHALT OR CONCRETE PAVING, THE SUBGRADE SHALL BE PROOF-ROLLED WITH A FULLY LOADED TANDEM WHEEL DUMP TRUCK AND OBSERVED BY THE ON-SITE GEOTECHNICAL ENGINEER. AREAS OF THE SUBGRADE WITH EXCESSIVE RUTTING AND/OR PUMPING SHALL BE RE-WORKED OR REMOVED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. FLY ASH OR GRANULAR MATERIAL MAY BE ADDED BY THE CONTRACTOR (AS APPROVED BY THE ON-SITE GEOTECHNICAL ENGINEER) TO STABILIZE THE SUBGRADE.
8. REFERENCE GEOTECHNICAL REPORT FOR BUILDING PAD PREPARATION.
9. CONTRACTOR SHALL OPERATE UNDER THE TERMS AND PERMITS INCLUDED IN THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT AND PERMITTED THROUGH THE STATE OF MISSOURI. CONTRACTOR SHALL EMPLOY A QUALIFIED PERSON TO CONDUCT REGULAR INSPECTIONS OF THE SITE EROSION CONTROL MEASURES AND DOCUMENT SUCH INSPECTIONS IN THE SWPPP DOCUMENT MAINTAINED BY THE CONTRACTOR.
10. THE CONTRACTOR SHALL ADHERE ALL TERMS & CONDITIONS AS OUTLINED IN THE PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH THE CONSTRUCTION ACTIVITIES AS ISSUED BY CITY OF LEE'S SUMMIT, MO AND THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (MDNR).

GENERAL EROSION & SEDIMENTATION NOTES:

A. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING, THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
E. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.
I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
L. ALL STORM WATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
M. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 7 DAYS, SHALL BE TEMPORARILY STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN.
O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE. ONLY USE INGRESS/EGRESS LOCATIONS AS PROVIDED.
P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
Q. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
R. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
T. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.

EROSION & SEDIMENTATION CONTROL MAINTENANCE

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING OR DETERIORATION.
2. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
3. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
4. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.

UTILITY NOTES:

1. UTILITY CONSTRUCTION SHALL COMPLY WITH THE STANDARD SPECIFICATIONS, CODES AND DETAILS OF THE CITY OF LEE'S SUMMIT, MISSOURI AND ALL LOCAL UTILITY PROVIDERS.
2. OPEN CUTTING OF EXISTING STREETS IS PROHIBITED, ALL PROPOSED UTILITY STREET CROSSINGS SHALL BE BORED UNDER STREETS UNLESS NOTED OTHERWISE.
3. THE INFORMATION SHOWN ON THESE PLANS CONCERNING THE TYPE AND LOCATION OF UNDERGROUND UTILITIES IS NOT GUARANTEED TO BE ACCURATE OF ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES FOR FIELD LOCATIONS OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY EXCAVATION AND FOR MAKING HIS OWN VERIFICATION AS TO TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO. CONTRACTOR SHALL CONTACT THE UTILITY LOCATION SERVICE A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION TO FIELD LOCATE UTILITIES.
4. IF DURING THE COURSE OF CONTRACTOR COORDINATION WITH ANY UTILITY THE NEED FOR AN EASEMENT IS REQUIRED CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY.
5. CONTRACTOR TO INSTALL PROTECTIVE SLEEVES IN FOOTINGS IF NECESSARY FOR UTILITY CONNECTION WITH BUILDING. SEE STRUCTURAL AND MEP PLANS.
6. CONTRACTOR SHALL CONTACT POWER PROVIDER TO INSPECT ELECTRIC CONDUIT INSTALLATION PRIOR TO BACKFILLING.
7. ROOF DRAINS, POOL DRAINS, GUTTERS, AND DOWNSPOUTS SHALL NOT CONNECT TO SANITARY SEWER!
8. THE CONTRACTOR IS OBLIGATED TO INSPECT FOR EXISTING CONDITIONS/INSTALLATIONS AND AVAILABLE INFORMATION PRIOR TO SUBMITTING A BID, REFER TO SPECIFICATIONS ALSO.
9. EXISTING INSTALLATIONS (SUCH AS WATER MAINS/LINES, GAS MAINS/LINES, SEWER MAINS/LINES, TELEPHONE LINES, POWER LINES, AND UTILITY STRUCTURES IN THE VICINITY OF THE WORK TO BE DONE) ARE INDICATED ON THE DRAWINGS ONLY TO THE EXTENT THAT SUCH INFORMATION HAS BEEN MADE AVAILABLE TO OR DISCOVERED BY THE ENGINEER IN PREPARING THE DRAWINGS. THERE IS NO GUARANTEE AS TO THE ACCURACY OR COMPLETENESS OF SUCH INFORMATION, AND ALL RESPONSIBILITY FOR THE ACCURACY AND COMPLETENESS THEREOF IS EXPRESSLY DISCLAIMED.
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR LOCATING ALL EXISTING INSTALLATIONS.
11. ANY DELAY, ADDITIONAL WORK, FEES OR EXTRA COST TO THE CONTRACTOR CAUSED BY OR RESULTING FROM DAMAGE TO OR MODIFICATION OF EXISTING INSTALLATIONS BY THE CONTRACTOR OR AFFECTED UTILITY COMPANY SHALL NOT CONSTITUTE A CLAIM FOR EXTRA WORK, ADDITIONAL PAYMENT OR DAMAGES.
12. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONSTRUCTION PRIOR TO SUBMITTING HIS BID. NO EXTRAS WILL BE PAID DUE TO UNANTICIPATED EXISTING CONDITIONS/INSTALLATIONS.

GENERAL SIDEWALK & SIDEWALK RAMP NOTES

1. POSITIVE FLOW LINE DRAINAGE SHALL BE MAINTAINED THROUGH THE PEDESTRIAN ACCESS ROUTE (PAR). NO PONDING SHALL BE PRESENT IN THE PAR. ANY VERTICAL LIP THAT OCCURS AT THE FLOW LINE SHALL NOT BE GREATER THAN ¼ INCH.

2. TURNING SPACE SHALL BE LOCATED ANYWHERE THE PAR CHANGES DIRECTION, AND IF THE APPROACHING WALK IS INVERSE GRADE.

3. THE MAXIMUM CROSS SLOPE REQUIREMENTS FOR PERPENDICULAR CURB RAMPS AND BLENDED TRANSITIONS ADJACENT TO PEDESTRIAN STREET CROSSINGS ARE AS FOLLOWS:
   AT YIELD OR STOP CONTROL - 2%;
   WITHIN YIELD OR STOP CONTROL, OR WITH TRAFFIC SIGNALS - 5%;
   AT MIDBLOCK - NO GREATER THAN THE STREET GRADE;

4. WHEN NOT ADJACENT TO PEDESTRIAN STREET CROSSINGS, PAR AND RAMP CROSS-SLOPE 1% DESIRED, 2% MAXIMUM.

5. CONTRACTION JOINTS SHALL BE CONSTRUCTED ALONG ALL GRADE BREAKS AND AT THE TOP OF CONCRETE FLARES ADJACENT TO WALKABLE SURFACES.

6. ALL GRADE BREAKS WITHIN THE PAR SHALL BE PERPENDICULAR TO THE PATH OF TRAVEL.

7. ALL RAMP TYPES SHOULD HAVE A MINIMUM OF 3' RAMP LENGTH.

8. DETECTIBLE WARNINGS SHALL CONTINUOUSLY EXTEND FOR A MINIMUM OF 24" IN THE PATH OF TRAVEL. DETECTABLE WARNING TO COVER THE ENTIRE WIDTH OF SIDEWALK AND SHARED-USE PATHS. ARC LENGTH OF RADIAL DETECTABLE WARNINGS SHALL NOT BE GREATER THAN 20 FEET.

9. RECTANGULAR DETECTABLE WARNINGS SHALL BE SETBACK 2" MINIMUM TO 9" MAXIMUM FROM BACK OF CURB. RADIAL DETECTABLE WARNINGS SHALL BE SETBACK 2" MINIMUM TO 6" MAXIMUM FROM THE BACK OF CURB.

10. LONGITUDINAL JOINT SPACING TO MATCH WITH OF SIDEWALK (4' MIN.).

11. ISOLATION JOINTS SHALL BE PLACED WHERE WALK ABUTS DRIVEWAYS AND SIMILAR STRUCTURES, AND 250' CENTERS MAX.

12. SIDEWALK RAMPS SHALL BE LENGTHENED AS NEEDED TO PROVIDE COMPLIANT SLOPE (8.33% MAX.) BUT NEED NOT EXCEED 15' REGARDLESS OF RESULTING SLOPE.

13. NO CASTING OR UTILITY BOXES SHALL BE ALLOWED IN RAMPS OR TURNING SPACES. CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING UTILITY BOXES AND COORDINATING WITH UTILITIES TO OBTAIN RAMP AND SIDEWALK COMPLIANCE.

14. NEWLY CONSTRUCTED EXTERIOR ACCESSIBLE ROUTES SHALL NOT EXCEED 5% SLOPE IN THE DIRECTION OF TRAVEL OR 2% CROSS-SLOPE. WALKING SURFACES EXCEEDING 5% SLOPE IN THE DIRECTION OR TRAVEL OF CHANGES IN ELEVATION GREATER THAN 1/4" UNBEVELED OR 1/2" BEVELED MUST HAVE RAMPS COMPLYING WITH ICC A117.7 - 2009 AND 2010 ADA STANDARD SECTIONS 405.

GENERAL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT THE PLANS IN THEIR POSSESSION AR THE MOST CURRENT VERSION ISSUED, AND PRESENT ON SITE AT ALL TIME. CURRENT PLANS PREPARED BY OWN, INC. MAY BE OBTAINED AT THE DIRECTION OF THE OWNER. DIRECT REQUESTS TO OWN, INC. MAY REQUIRE ADDITIONAL AUTHORIZATIONS, AGREEMENTS, AND/OR FEES. PLEASE CONTACT THE ENGINEER FOR MORE INFORMATION.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DEVIATIONS FROM THESE PLANS UNLESS WRITTEN APPROVAL FROM ENGINEER, OWNER, AND DEVELOPER.

3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, MATERIALS, AND EQUIPMENT REQUIRED TO COMPLETE THE WORK SHOWN IN THE PLANS.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES, AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.

6. THE CONTRACTOR SHALL NOT ENGAGE IN ACTIVITIES THAT MAY ENCROACH ON WATERS OF THE U.S., INCLUDING WETLANDS, UNTIL ANY NECESSARY PERMITS MAY BE OBTAINED. THE CONTRACTOR SHALL REVIEW AND COMPLY WITH ALL CONDITIONS DESCRIBED IN THE PERMIT.

7. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONDITIONS OF THE JOB SITE, THE SAFETY OF ALL PERSONS INCLUDING VISITORS AND THE GENERAL PUBLIC, AND PROPERTY DURING PERFORMANCE OF THE WORK.
8. PRIOR TO COMMENCEMENT OF WORK THE CONTRACTOR SHALL NOTIFY AND COORDINATE WITH ALL UTILITY COMPANIES AND OBTAIN ANY RELEVANT INFORMATION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNERS AND/OR SECTION CORNERS DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
10. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ADJACENT PROPERTIES AND SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE DURING CONSTRUCTION. THE CONTRACTOR IS ALSO RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITIES.
11. PRIOR TO MOVING OFF THE JOB THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER TO PERFORM A FINAL WALK-THROUGH OF THE CONSTRUCTION SITE.

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

GENERAL NOTES

SHEET NUMBER

C050

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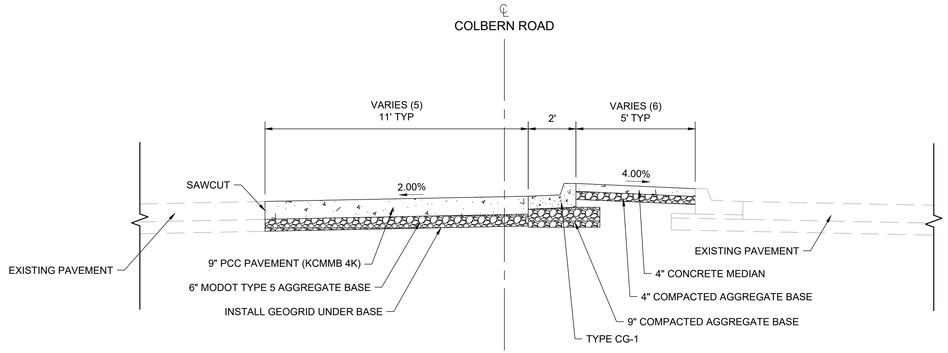


TYPICAL SECTION - COLBERN RD
STA. 94+07.75 TO 97+07.83

NOTES:

(1) WIDTH VARIES 0 FEET TO 11 FEET FROM STATION 89+68.30 TO STATION 90+70.34.

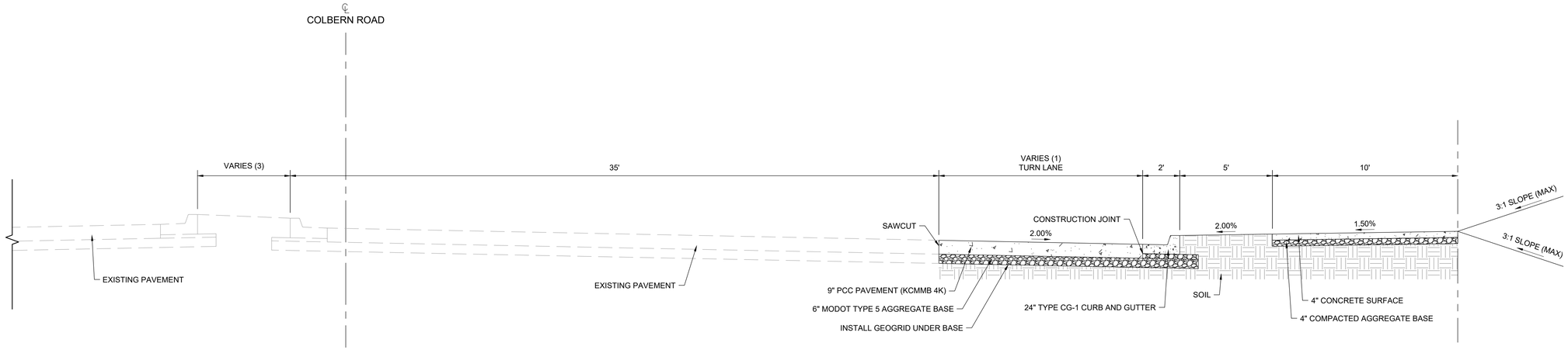
(2) WIDTH VARIES 0 FEET TO 11 FEET FROM STATION 95+53.52 TO STATION 98+54.24.

(3) REMOVE MEDIAN AND CURB FROM STATION 92+74.80 TO STATION 93+09.78. RECONSTRUCT MEDIAN AND CURB AT STATION 92+74.80.

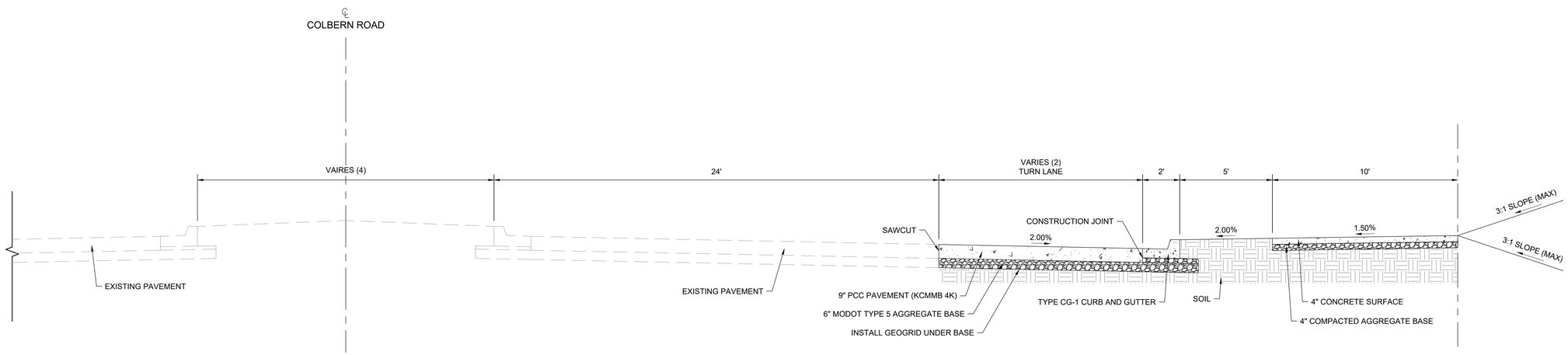
(4) REMOVE MEDIAN FROM STATION 93+54.71 TO STATION 97+07.83. CONSTRUCT MEDIAN FROM STATION 94+05.24 TO 97+07.83. WIDTH VARIES FROM 5 FEET TO 16 FEET FROM STATION 96+07.32 TO STATION 97+07.83.

(5) WIDTH VARIES 0 FEET TO 11 FEET FROM STATION 96+07.32 TO STATION 97+07.83

(6) WIDTH VARIES 5 FEET TO 16 FEET FROM STATION 96+07.32 TO STATION 97+07.83



TYPICAL SECTION - COLBERN RD
STA. 89.38.63 TO 92.74.80



TYPICAL SECTION - COLBERN RD
STA. 94+05.24 TO 98.54.24

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
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CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

TYPICAL ROAD SECTIONS

SHEET NUMBER

C051

3 OF 37

NE COLBERN RD

EX. R/W

EX. 111' R/W

EX. 15' WATERLINE EASEMENT

EX. 12" C900 PVC WATERMAIN

EX. 30' SANITARY SEWER EASEMENT

N81° 10' 09"W
100.72'

N88° 00' 43"W
153.04'

N88° 00' 43"W
100.10'

L=676.360, R=1947.000

EX. 20' GAS EASEMENT

EX. 20' WATERLINE EASEMENT

EX. NATURAL GAS LINE

EX. PROPERTY LINE

EX. OVERHEAD COMMUNICATIONS LINE

EX. SEDIMENT TRAP

N88° 00' 43"W
534.70'

EX. SEDIMENT TRAP

EX. 180' R/W

NE DOUGLAS ST

S01° 30' 09"W
280.00'

EX. OVERHEAD POWER LINE

S57° 31' 37"W
133.88'

N01° 36' 54"E
2643.38'

S64° 30' 42"W
395.93'

EX. ½ MODOT R/W
310'

EX. SEDIMENT TRAP

S63° 05' 07"W
254.50'

EX. ½ MODOT R/W
295'

S69° 50' 14"W
208.83'

EX. ½ MODOT R/W
190'

S72° 07' 40"W
311.30'

I-470 CENTERLINE (FOR REFERENCE ONLY)

EX. ½ MODOT R/W
180'

EX. ½ MODOT R/W
180'

LEGEND

- PROPERTY BOUNDARY
- EASEMENT / SETBACK
- EX. STORM SEWER
- SAN — EX. SANITARY SEWER
- W — EX. WATER LINE
- P — EX. UNDERGROUND POWER
- OHP — EX. OVERHEAD POWER
- T — EX. UNDERGROUND COMM
- OHT — EX. OVERHEAD COMM
- G — EX. GAS LINE
- 000 — EX. MAJOR CONTOUR
- 000 — EX. MINOR CONTOUR
- EX. STORM SEWER STRUCTURE
- EX. SANITARY SEWER MANHOLE
- EX. SIGN
- EX. GUY WIRE
- EX. POWER POLE
- EX. FIRE HYDRANT
- EX. WATER VALVE
- SLC — EX. TRAFFIC SIGNAL CONTROL
- EM — EX. ELECTRIC METER
- TP — EX. UNDERGROUND COMM BOX
- GM — EX. GAS METER
- FOV — EX. FIBER VAULT
- EX. TRAFFIC SIGNAL

DEMOLITION KEY NOTES:

1. FULL DEPTH SAWCUT EXISTING PAVEMENT AND/OR CURB
2. DEMOLISH AND REMOVE EXISTING CURB & GUTTER
3. DEMOLISH AND REMOVE EXISTING SIDEWALK
4. REMOVE AND REPLACE EXISTING STORM PIPE, RE: STORM SEWER PLANS
5. REMOVE AND RESPONSIBLY DISPOSE OF STORM SEWER END SECTION
6. REMOVE EXISTING STORM STRUCTURE

NOTE: CONTRACTOR TO VERIFY EXISTING CONDITIONS AND COORDINATE WITH ADJACENT PROJECTS WHEREVER POSSIBLE.

* SCALE MAY AFFECT THE SIZE OF SURVEY SYMBOLS IN PLAN, BUT SHAPE WILL BE RETAINED

N

1"=60'

60' 0 30' 60'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

EXISTING CONDITIONS & DEMOLITION PLAN

SHEET NUMBER

C100

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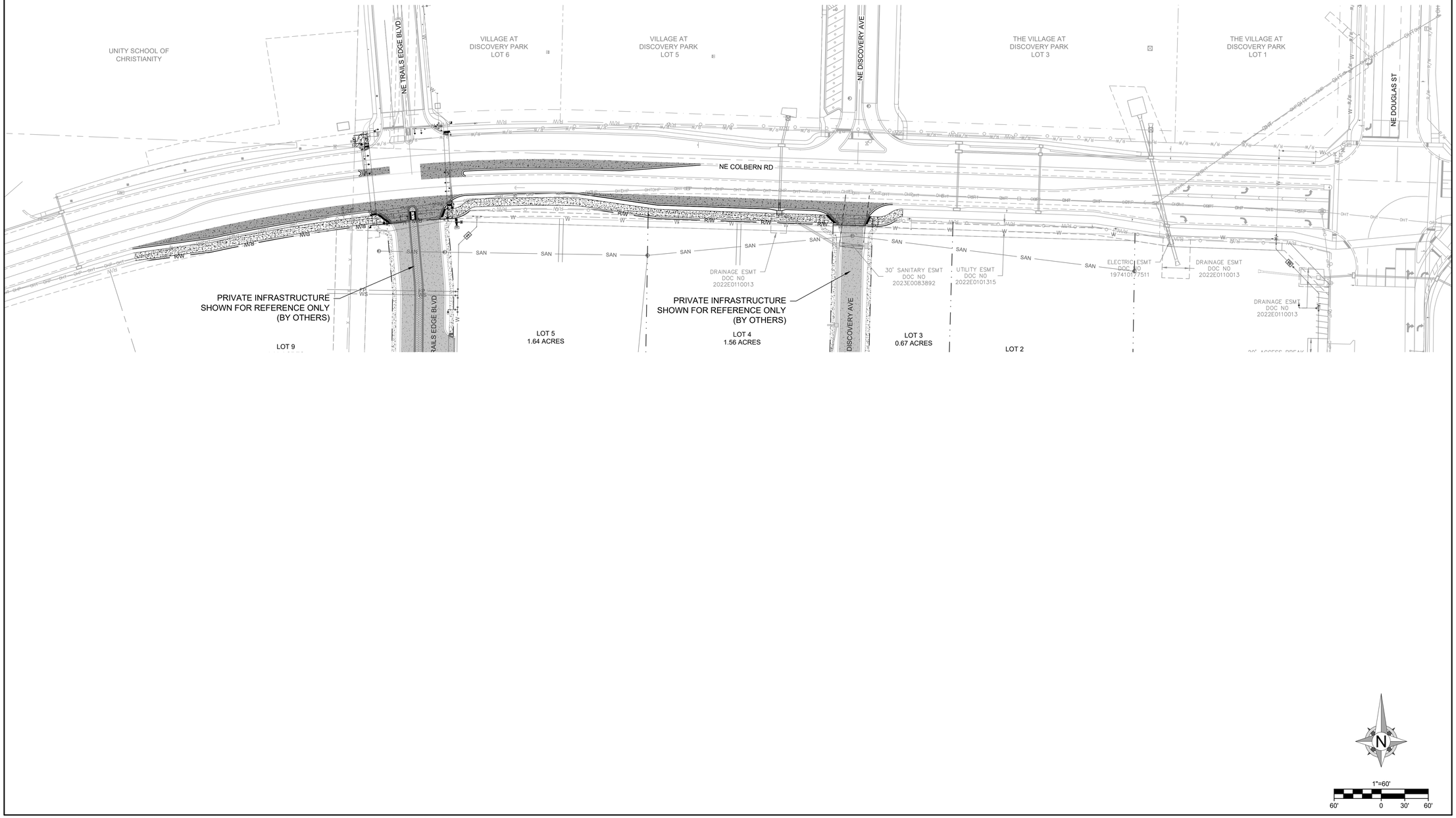

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
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JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

GENERAL LAYOUT

SHEET NUMBER

C101

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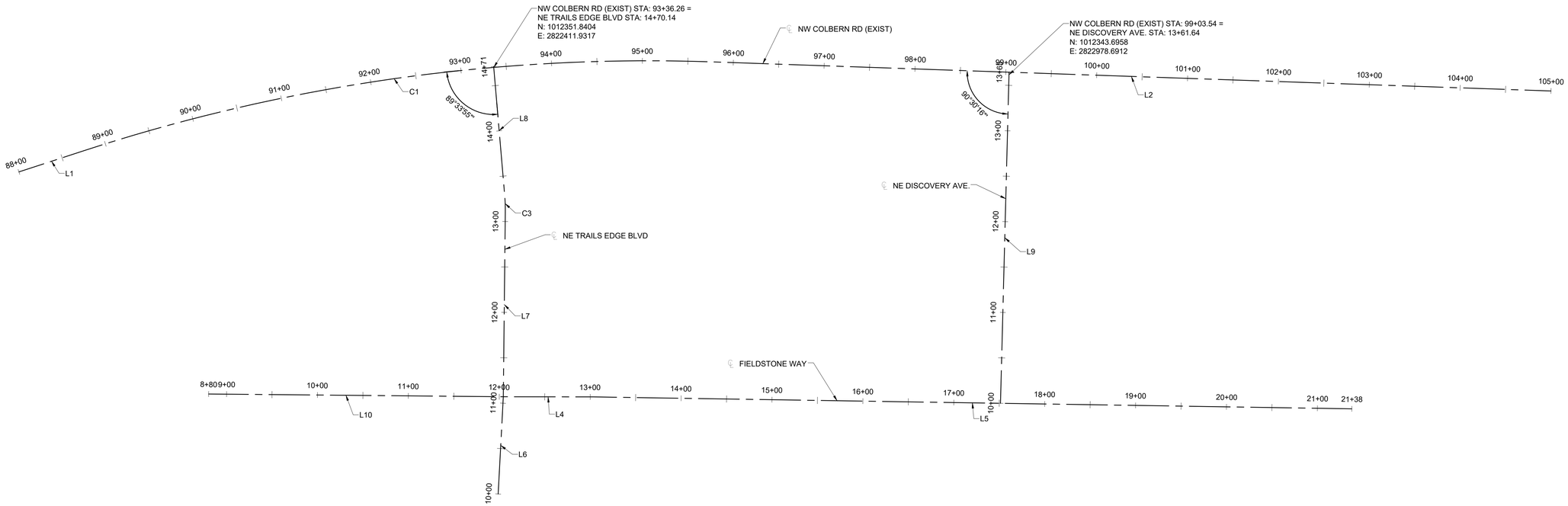
CONTROL INFORMATION:

NW COLBERN RD (EXIST)									
SEGMENT #		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD DIRECTION	DELTA	TANGENT	RADIUS
L1		88+00.00	1012236.8123	2821889.6350	75.455	N71° 54' 30.20"E			
C1	PC= PI= PT=	88+75.45	1012260.2438	2821961.3592	700.912	N81° 56' 53.55"E	020° 04' 47"	354.09	2000.000
L2		95+76.37	1012357.9176	2822651.8153	923.634	S88° 00' 43.09"E			

FIELDSTONE WAY									
SEGMENT #		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD DIRECTION	DELTA	TANGENT	RADIUS
L10		8+80.28	1011992.4104	2822098.3259	324.162	S89° 27' 48.91"E			
L4		12+04.44	1011989.3756	2822422.4739	98.608	S89° 54' 30.10"E			
L5		13+03.05	1011989.2179	2822521.0821	834.807	S89° 05' 59.89"E			

NE TRAILS EDGE BLVD									
SEGMENT #		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD DIRECTION	DELTA	TANGENT	RADIUS
L6		10+00.00	1011882.3998	2822416.8281	107.125	N03° 01' 15.83"E			
L7		11+07.12	1011989.3756	2822422.4739	202.967	N00° 37' 01.59"E			
C3	PC= PI= PT=	13+10.09	1012192.3306	2822424.6599	19.235	N02° 08' 16.95"W	005° 30' 37"	9.62	200.000
L8		13+29.33	1012211.5443	2822423.9426	141.817	N04° 53' 35.49"W			

NE DISCOVERY AVE.									
SEGMENT #		STATION	NORTHING	EASTING	LENGTH	LINE/CHORD DIRECTION	DELTA	TANGENT	RADIUS
L9		10+00.00	1011982.1756	2822969.3529	364.514	N01° 29' 01.17"E			



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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
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FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

ALIGNMENT DATA

SHEET NUMBER

C200

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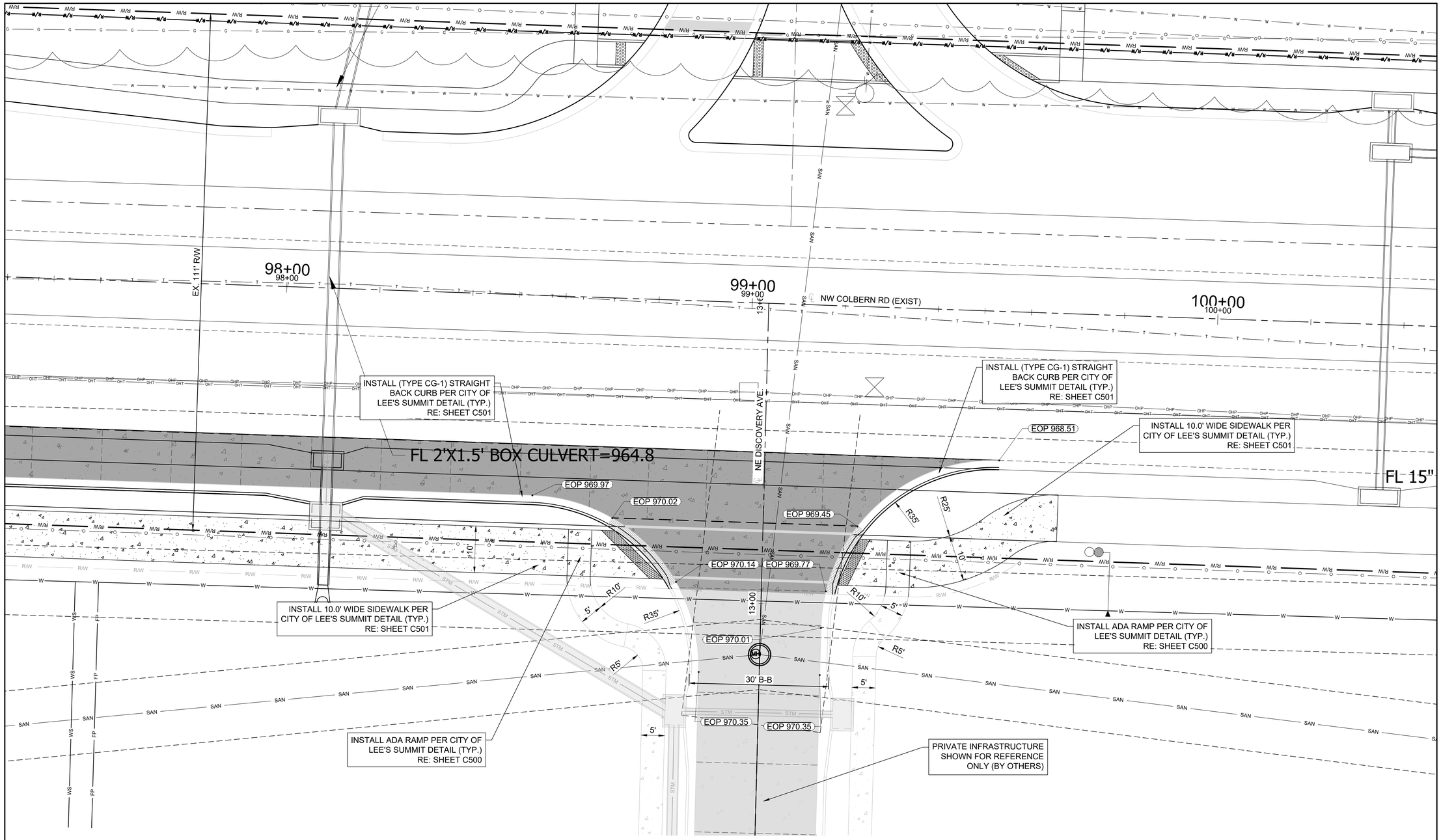

INTERSECTION OF NE DISCOVERY AVE & NW COLBERN RD

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. BUILDING SETBACK
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=10'

10' 0 5' 10'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

INTERSECTION DETAILS 1

SHEET NUMBER

C201

7 OF 37

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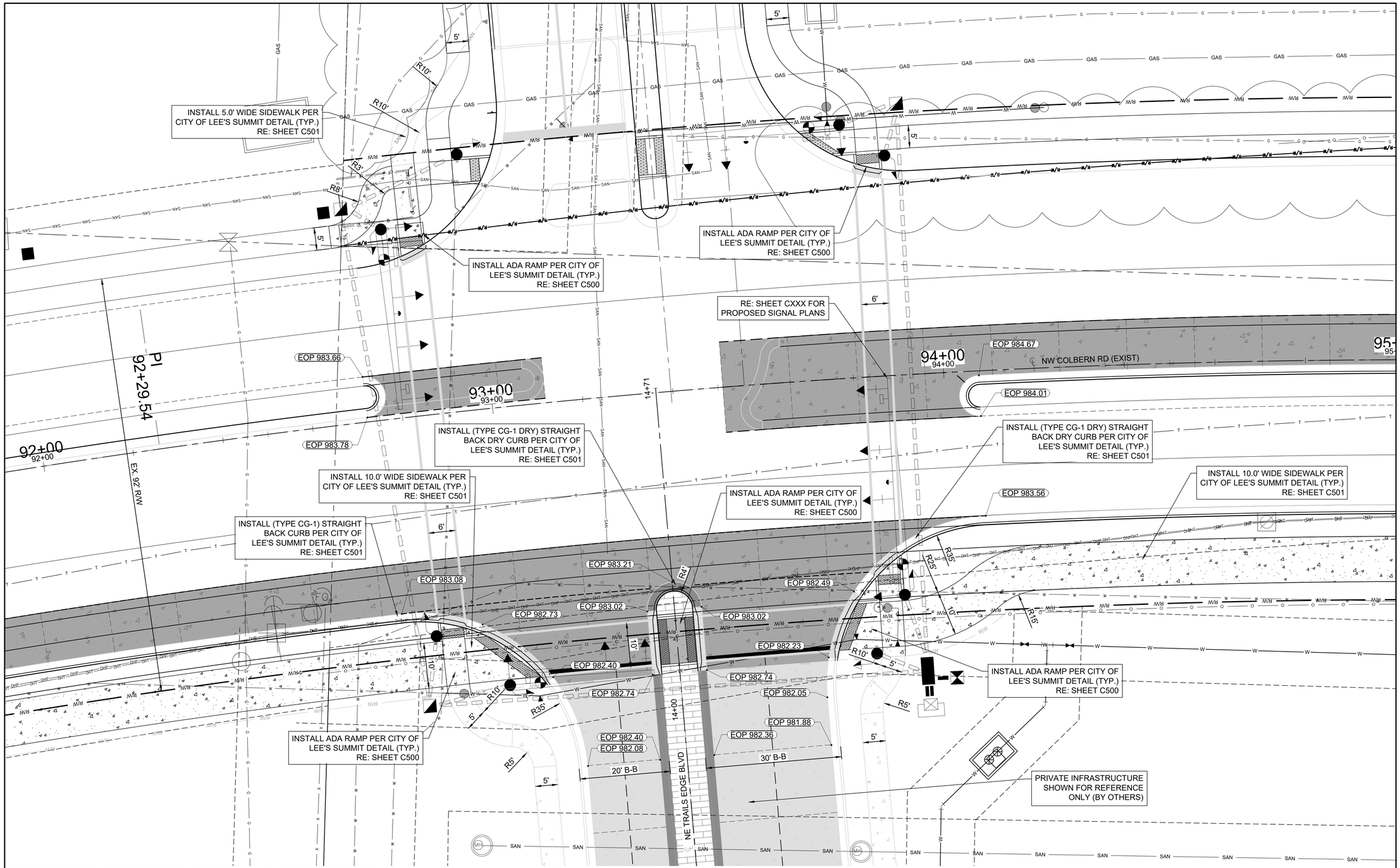

INTERSECTION OF NE TRAILS EDGE BLVD & NW COLBERN RD

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=10'

10' 0 5' 10'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

INTERSECTION DETAILS 2

SHEET NUMBER

C202

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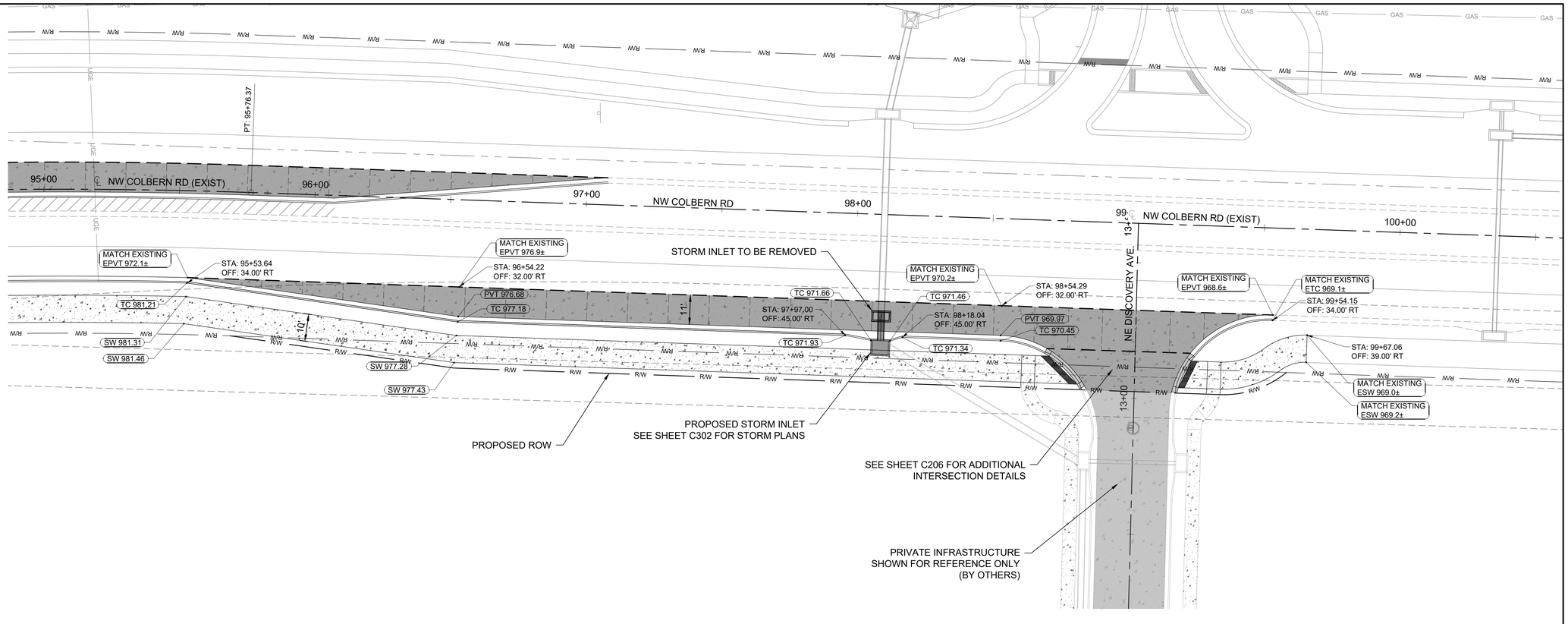

TURN LANE AT INTERSECTION OF NE DISCOVERY AVE & NW COLBERN RD

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY (R/W)
- PROP. UTILITY EASEMENT
- PROP. LOT LINE
- PROP. SANITARY SEWER (SAN)
- PROP. SANITARY SEWER (STM)
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=20'

20' 0 10' 20'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
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PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

TURN LANE DETAILS 1

SHEET NUMBER

C203

9 OF 37

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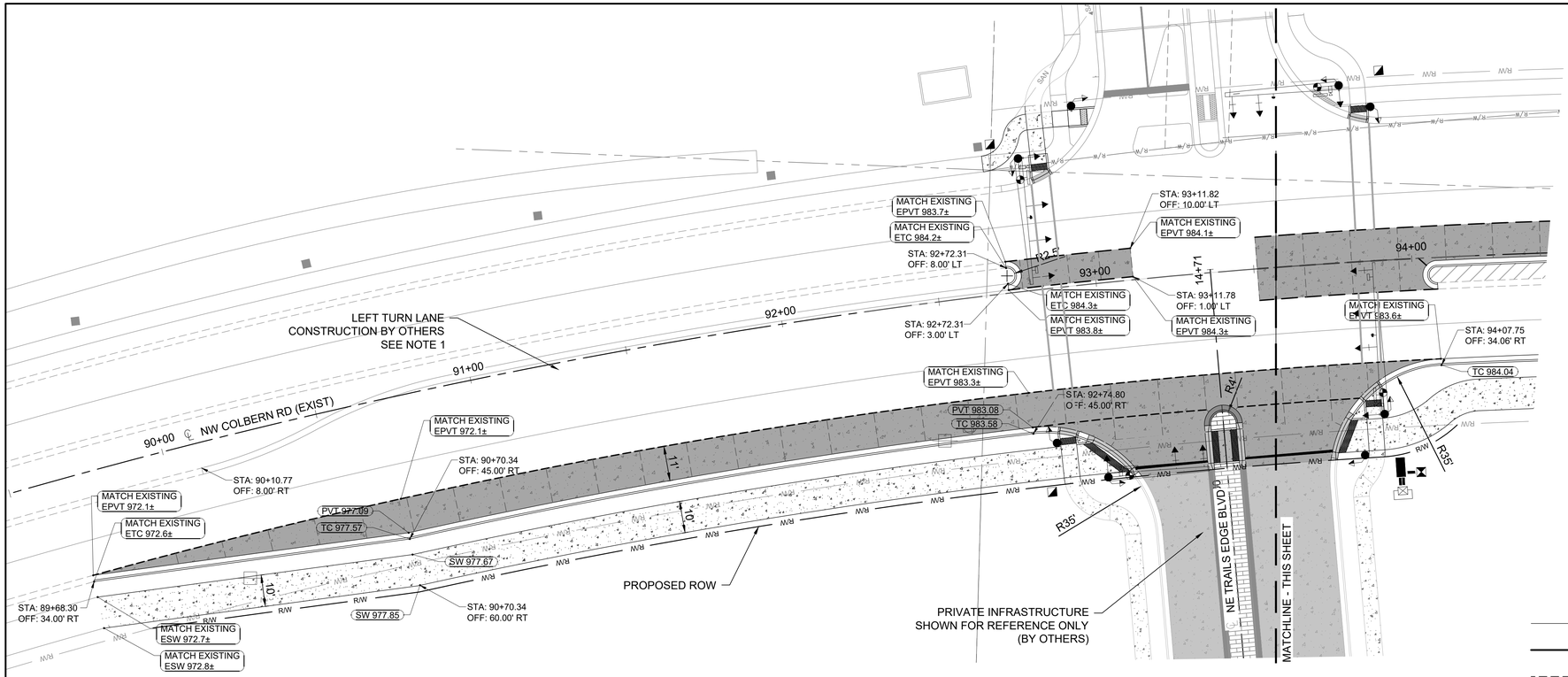


EASTBOUND RIGHT TURN LANE AT INTERSECTION
OF NE TRAILS EDGE BLVD & NW COLBERN RD

NOTES:

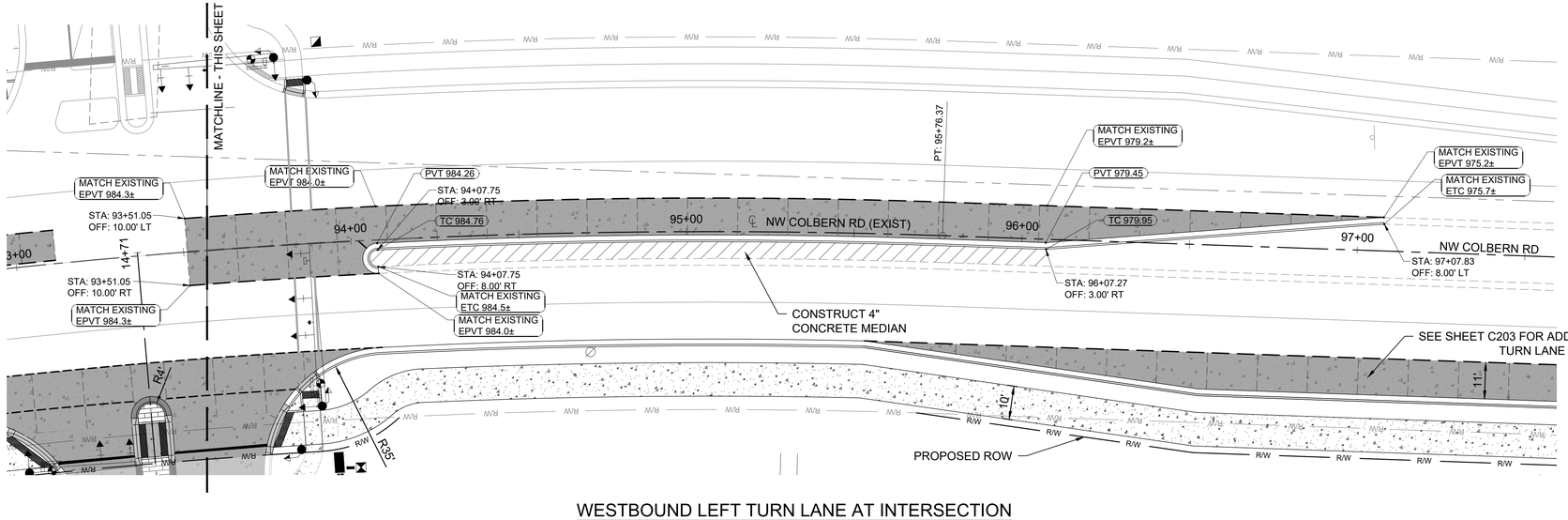
1. EASTBOUND LEFT TURN LANE CONSTRUCTION BY OTHERS. REFER TO PLANS PREPARED BY OLSSON DATED 10/24/2023 TITLED "COLBERN ROAD AND DOUGLAS STREET PUBLIC ROAD IMPROVEMENTS".

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB



WESTBOUND LEFT TURN LANE AT INTERSECTION
OF NE TRAILS EDGE BLVD & NW COLBERN RD

1"=20'
20' 0 10' 20'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
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PROFESSIONAL ENGINEER

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SHEET TITLE

TURN LANE DETAILS 2

SHEET NUMBER

C204

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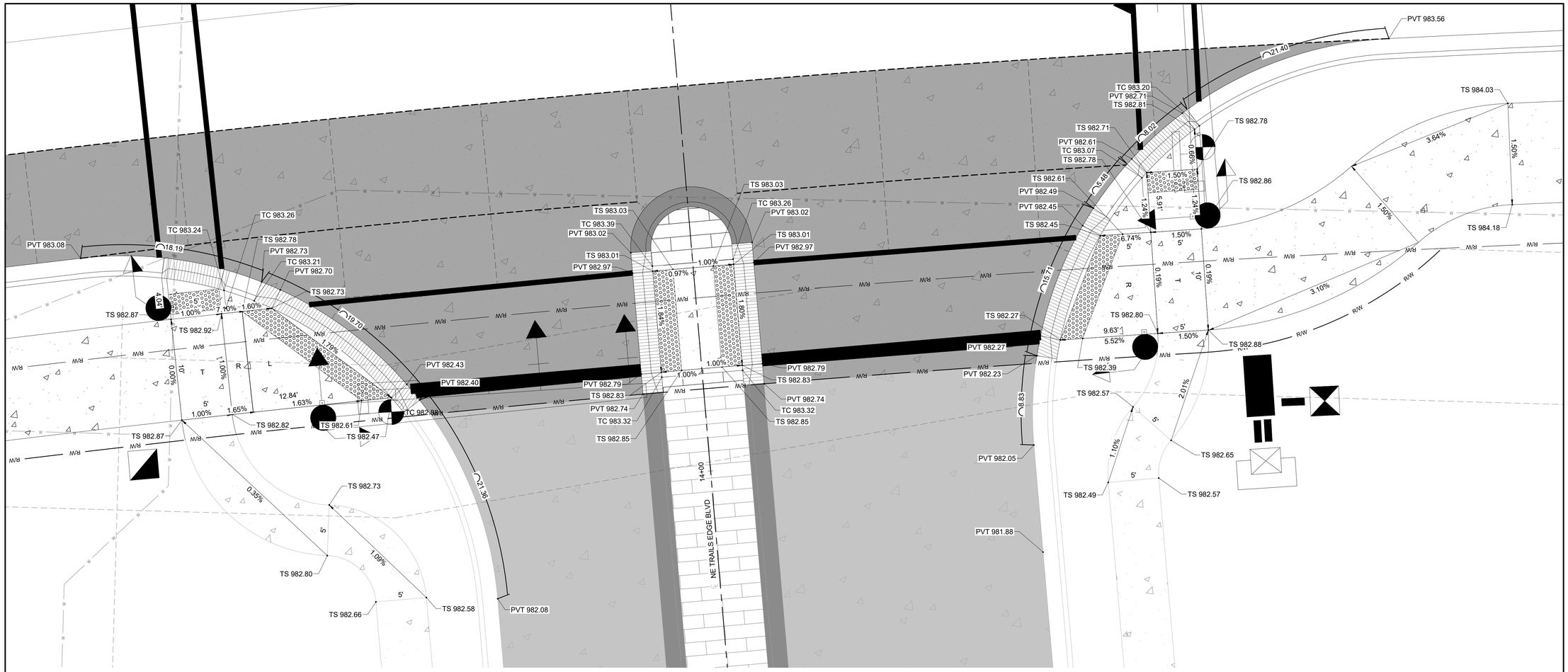

INTERSECTION OF NE TRAILS EDGE BLVD & NW COLBERN RD ADA RAMP DETAILS (SOUTH SIDE OF NW COLBERN RD)

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. BUILDING SETBACK
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=5'

5' 0 2.5' 5'

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PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

SIDEWALK ADA RAMP DETAILS 5

SHEET NUMBER

C205

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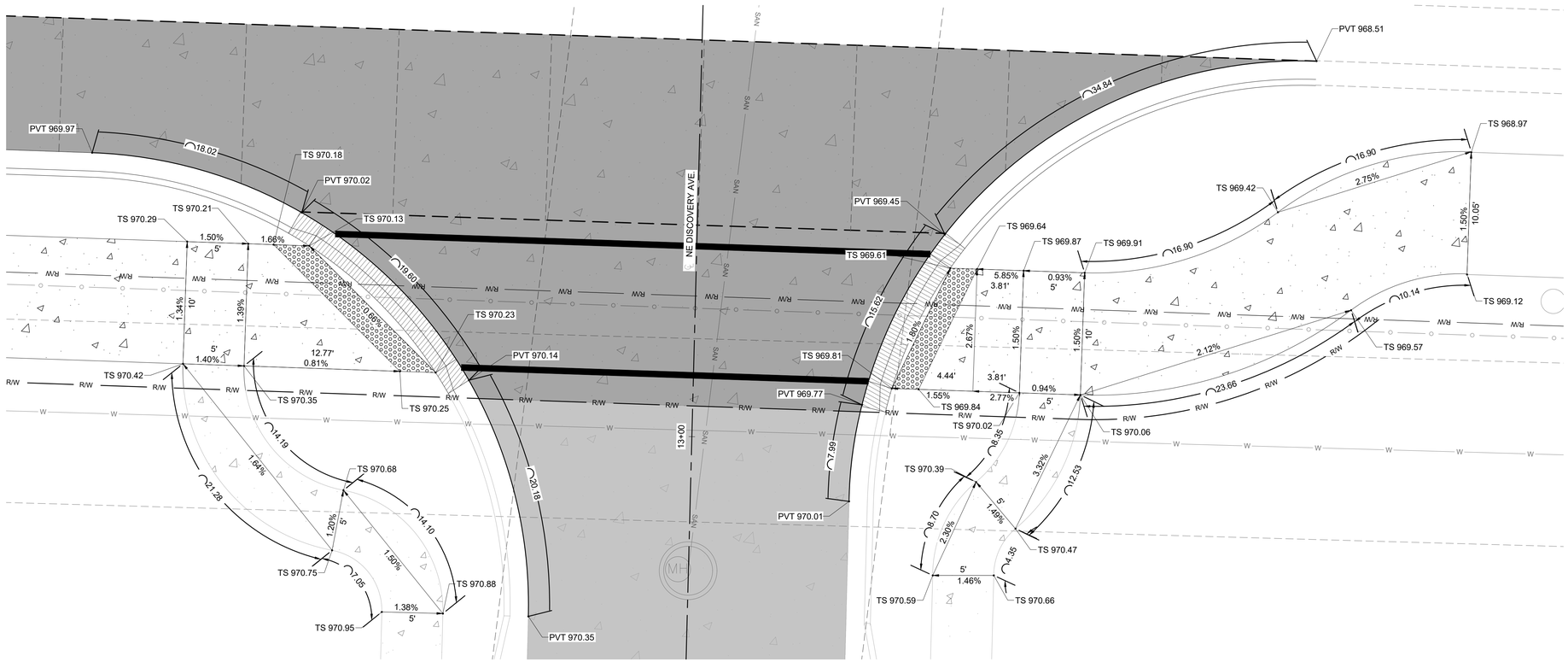

INTERSECTION OF NE DISCOVERY AVE & NW COLBERN RD ADA RAMP DETAILS

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=5'

5' 0 2.5' 5'

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COA# 00062

DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

SIDEWALK ADA RAMP DETAILS 6

SHEET NUMBER

C206

12 OF 37

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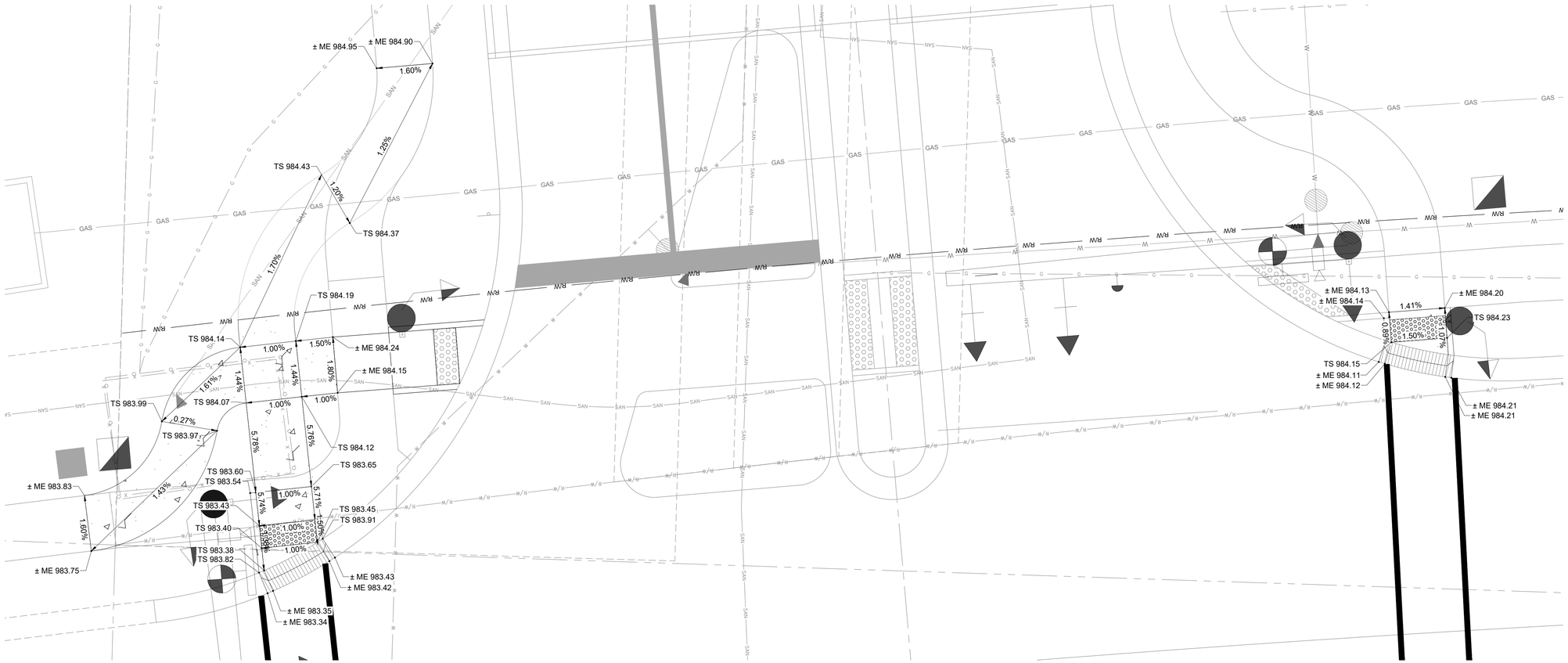

INTERSECTION OF NE TRAILS EDGE BLVD & NW COLBERN RD ADA RAMP DETAILS (NORTH SIDE OF NW COLBERN RD)

LEGEND

- PROP. STREET CENTERLINE
- PROP. RIGHT-OF-WAY
- PROP. UTILITY EASEMENT
- PROP. LOT LINE
- PROP. SANITARY SEWER
- PROP. SANITARY SEWER
- PROP. STREET PAVEMENT
- PROP. 5' SIDEWALK

EOP = EDGE OF PAVEMENT

B-B = BACK OF CURB TO BACK OF CURB

N

1"=5'

5' 0 2.5' 5'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

SIDEWALK ADA RAMP DETAILS 7

SHEET NUMBER

C207

13 OF 37

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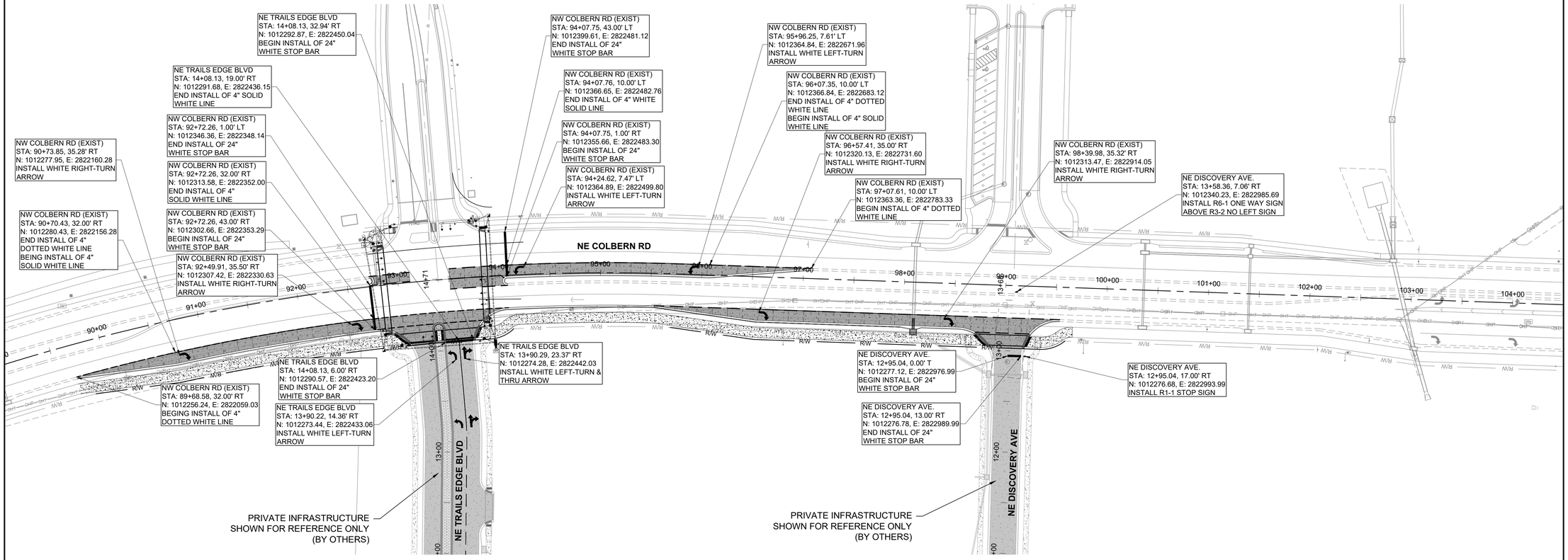

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

STRIPING & SIGNAGE PLAN

SHEET NUMBER

C208

14 OF 37

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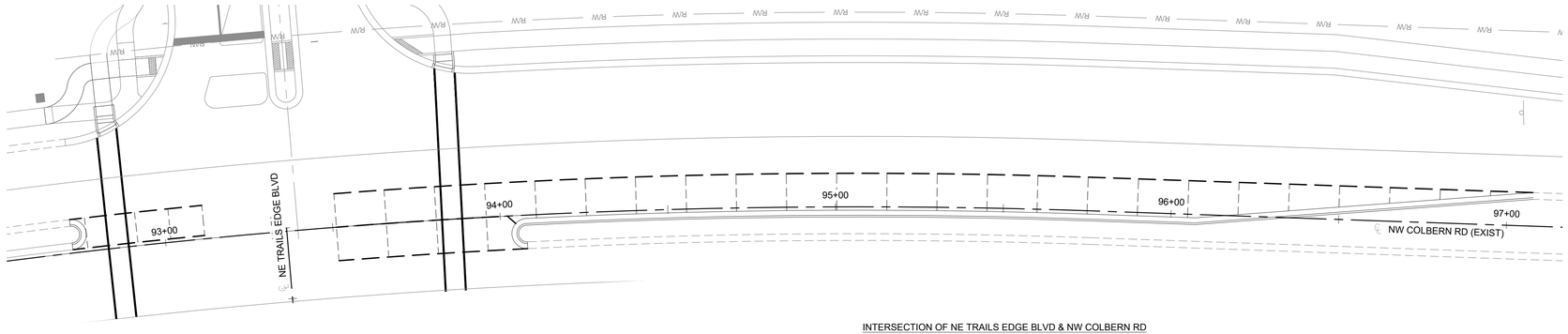
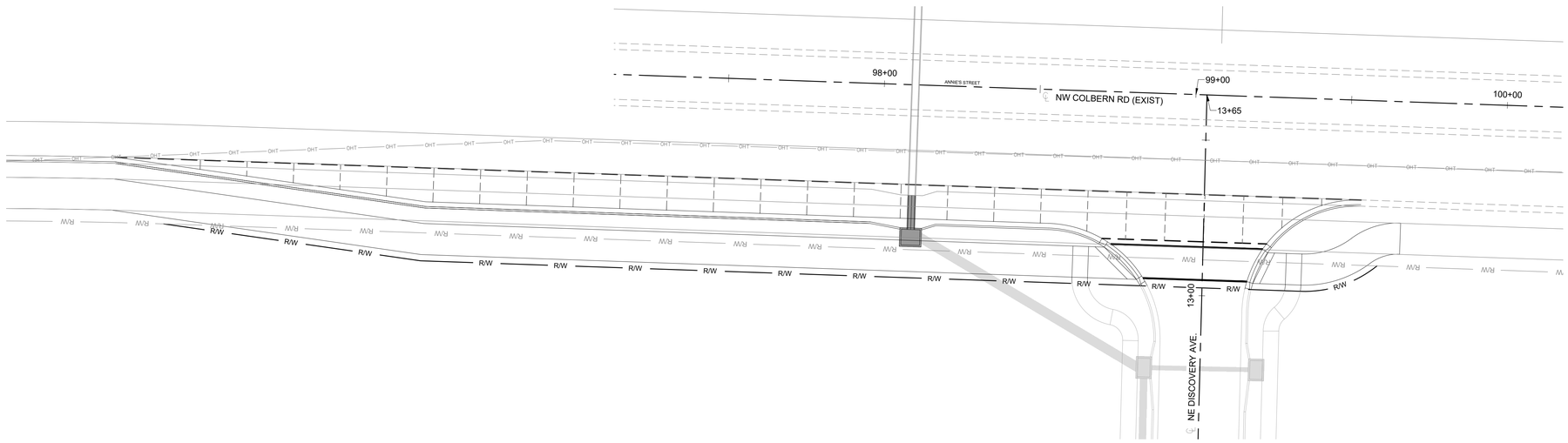
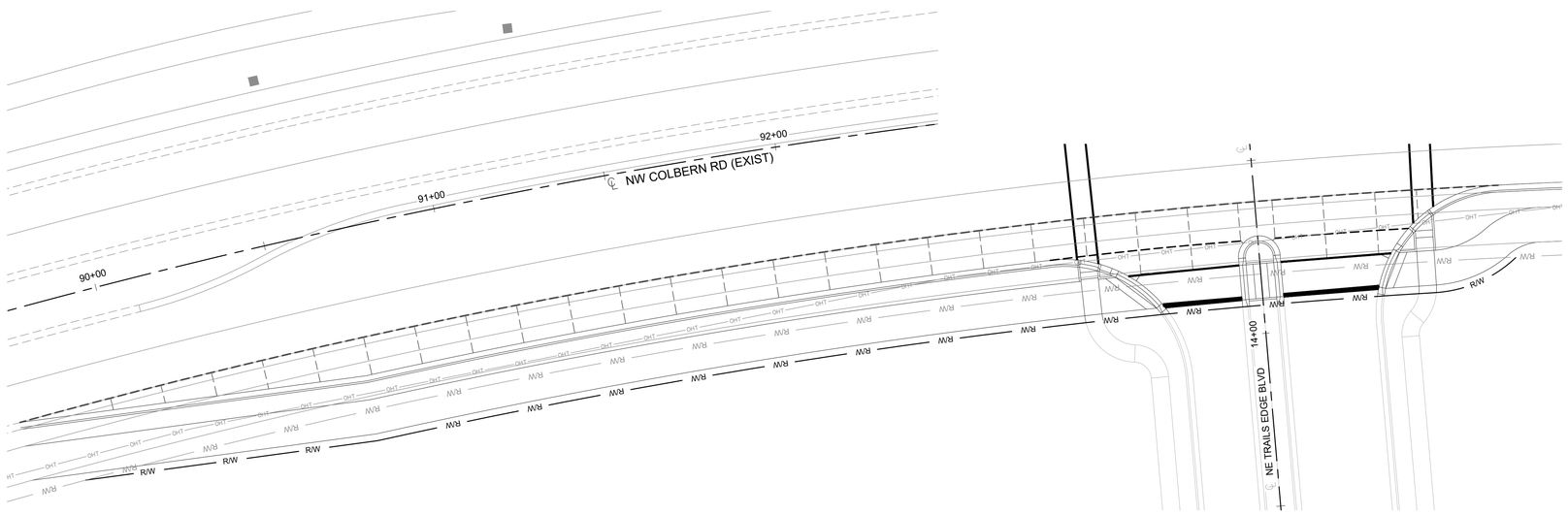


INTERSECTION OF NE TRAILS EDGE BLVD & NW COLBERN RD



INTERSECTION OF NE DISCOVERY AVE & NW COLBERN RD



INTERSECTION OF NE DISCOVERY AVE & NW COLBERN RD

LEGEND

LONGITUDINAL TIED JOINT

TRANSVERSE CONTRACTION JOINT

ISOLATION JOINT

NOTES:

1. ALTERNATE JOINT LAYOUTS ARE POSSIBLE. THE CONTRACTOR MAY PROPOSED AN ALTERNATE LAYOUT. IF SO, THE CONTRACTOR SHALL SUBMIT THE ALTERNATE DESIGN TO THE ENGINEER FOR APPROVAL NO LESS THAN 10 DAYS PRIOR TO PAVING.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATION AND SEQUENCING OF ALL CONSTRUCTION JOINTS. LONGITUDINAL CONSTRUCTION JOINTS SHALL NOT BE CONSTRUCTED IN DRIVE LANES.

N

1"=20'

20' 0 10' 20'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

CONSTRUCTION JOINT PLAN

SHEET NUMBER

C209

15 OF 37

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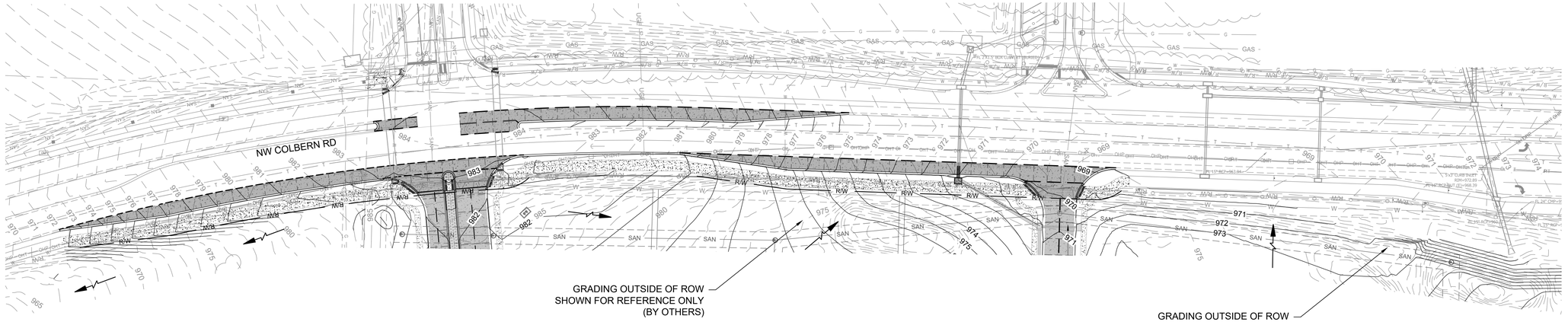
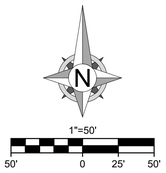
LEGEND

1335	EXISTING GRADE LINES
1335	PROPOSED NEW GRADE LINES
	DRAINAGE ARROW

NOTE: REFER TO INTERSECTION AND SIDEWALK RAMP DETAIL SHEETS FOR DETAILED SPOT GRADING





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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

GRADING PLAN

SHEET NUMBER

C300

16 OF 37

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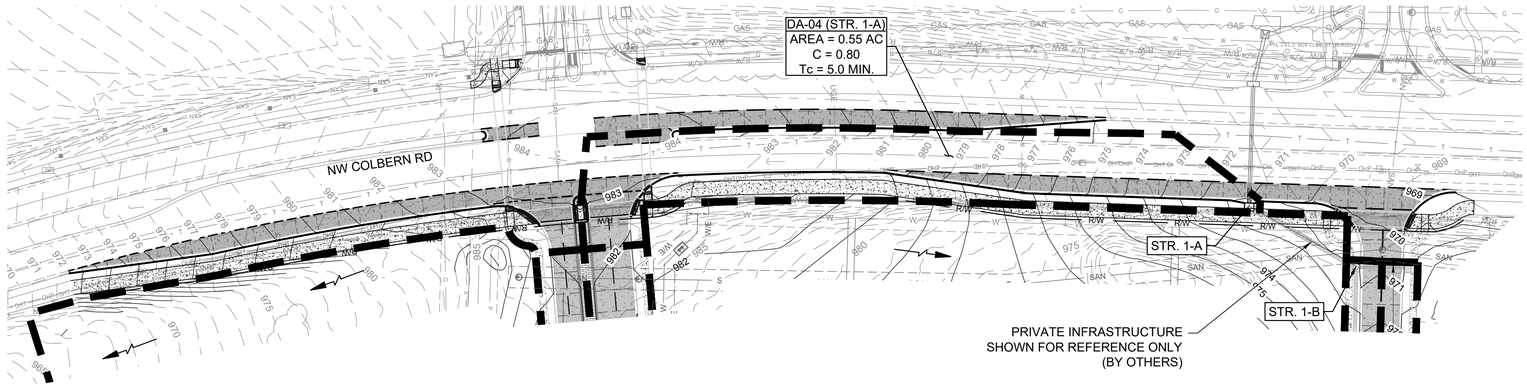

LEGEND

- 1335 — EXISTING GRADE LINES
- 1335 — PROPOSED NEW GRADE LINES
- DRAINAGE AREA BOUNDARY
- OFFSITE DRAINAGE BOUNDARY
- 000 — STORM SEWER STRUCTURE NUMBER
- DRAINAGE ARROW
- DA-0 (STR. X) / AREA = 0.00 AC / C = 0.00 / Tc = 5.0 MIN. — DRAINAGE AREA ID (OUTFALL), RATIONAL "C" RUNOFF COEFFICIENT, TIME OF CONCENTRATION

N

1"=50'

50' 0 25' 50'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

DRAINAGE MAP

SHEET NUMBER

C301

17 OF 37

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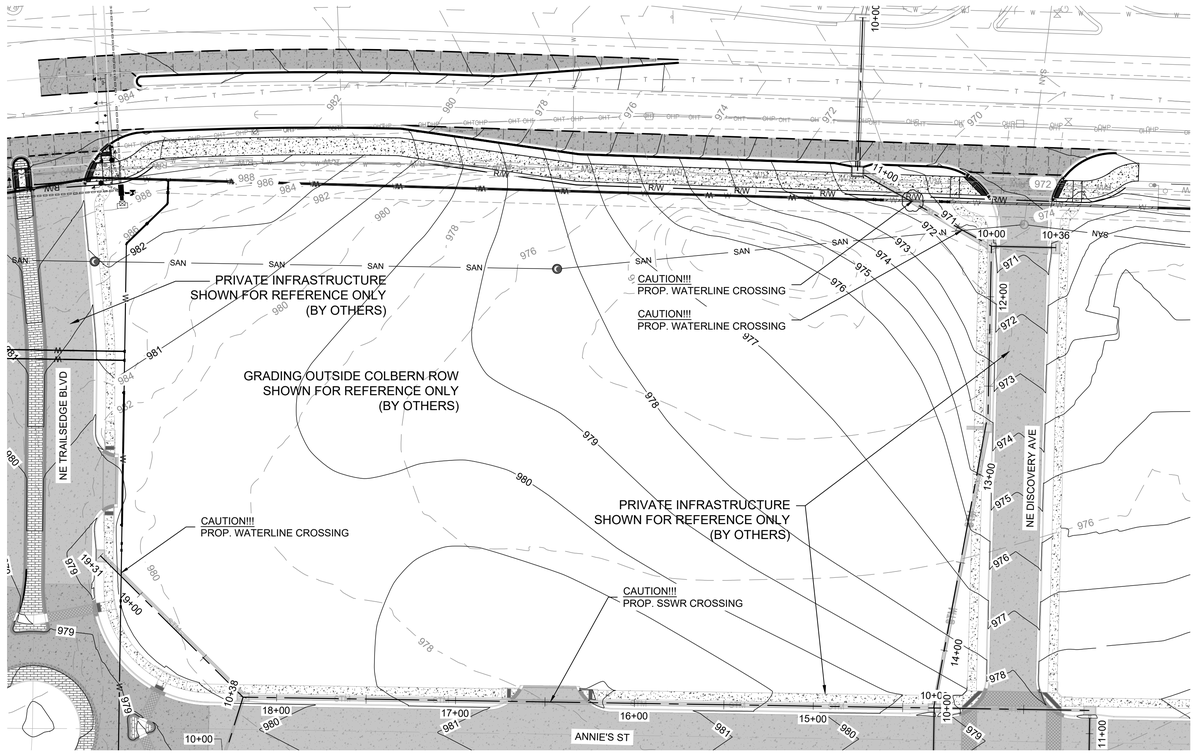

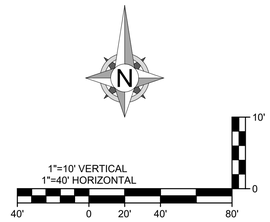

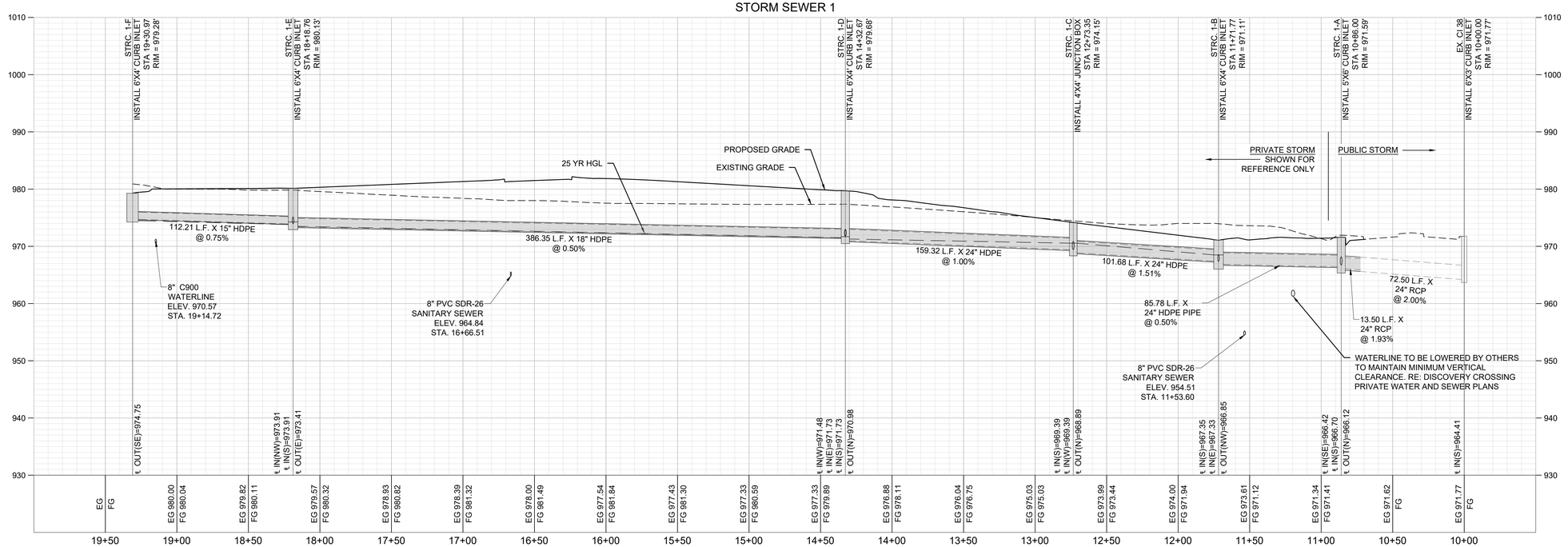

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
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FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

STORM SEWER PLAN & PROFILE (LINE 1)

SHEET NUMBER

C302

18 OF 37

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Discovery Crossing - Zone 2 Infrastructure 10-yr Storm Summary

LineID	DnStrmLine No.	RunoffCoeff	DrainageArea	IncrCxA	TotalArea	Tc	iSys	InletTime	IncrQ	TotalRunoff	InvertUp	InvertDn	LineLength	LineSlope	LineSize	n-valuePipe	FlowRate	CapacityFull	VelAve	HGLUp	HGLDn	EGLUp	EGLDn	GutterDepth	GutterSlope	QBypass	GutterSpread
		(C)	(ac)		(ac)	(min)	(in/hr)	(min)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(cfs)	(ft)
EX-1-A	Outfall	0.81	0.00	0.00	1.96	13.1	5.34	5.0	0.00	8.48	965.86	964.41	72.500	2.00	24	0.013	27.53	31.99	9.18	967.68	966.23	968.99	967.54	....	....	....	....
DS-1-A	1	0.81	0.55	0.45	1.96	13.1	5.34	5.0	3.27	8.48	966.12	965.86	12.999	2.00	24	0.013	27.53	31.99	9.18	967.94	967.68	969.25	968.99	0.19	0.035	0.68	8.00
DS-1-B	2	0.81	0.17	0.14	1.41	12.8	5.39	5.0	1.01	6.16	966.85	966.42	86.009	0.50	24	0.012	16.22	17.32	6.27	968.38	967.96	969.00	968.57	0.13	0.030	0.00	5.11
DS-1-C	3	0.81	0.00	0.00	1.12	12.5	5.45	5.0	0.00	4.94	968.89	967.35	101.683	1.51	24	0.012	15.00	30.15	5.59	970.29	969.47	970.92	969.82	....	....	....	....
DS-1-D	4	0.81	0.12	0.10	1.12	11.0	5.72	5.0	0.71	5.19	970.98	969.39	159.318	1.00	24	0.012	5.19	24.48	4.11	971.78	970.29	972.08	970.59	0.13	0.014	0.00	5.18
DS-1-E	5	0.81	0.12	0.10	0.46	6.8	6.77	5.0	0.71	2.52	973.41	971.48	386.348	0.50	18	0.012	2.52	8.04	3.92	974.01	972.06	974.24	972.28	0.14	0.011	0.00	5.45
DS-5-A	6	0.81	0.12	0.10	0.12	5.0	7.35	5.0	0.71	0.71	975.60	973.91	37.540	4.50	15	0.012	0.71	14.84	4.49	975.93	974.10	976.05	974.21	0.14	0.011	0.00	5.45
DS-1-F	6	0.81	0.22	0.18	0.22	5.0	7.35	5.0	1.31	1.31	974.75	973.91	112.213	0.75	15	0.012	1.31	6.05	3.61	975.20	974.31	975.37	974.47	0.19	Sag	0.00	8.11
DS-4-A	5	0.81	0.12	0.10	0.12	5.0	7.35	5.0	0.71	0.71	974.64	971.73	36.002	8.08	15	0.012	0.71	19.89	5.20	974.97	971.89	975.09	972.01	0.13	0.014	0.00	5.18
DS-3-A	5	0.81	0.19	0.15	0.42	5.5	7.16	5.0	1.13	2.43	973.37	971.73	87.004	1.88	15	0.012	2.43	9.60	5.25	973.99	972.16	974.24	972.41	0.16	0.010	0.00	6.72
DS-3-B	10	0.81	0.23	0.19	0.23	5.0	7.35	5.0	1.37	1.37	974.23	973.87	36.001	1.00	15	0.012	1.37	7.00	3.87	974.69	974.24	974.86	974.42	0.18	0.010	0.00	7.25
DA-06	4	0.81	0.00	0.00	0.00	5.0	0.00	5.0	10.06	0.00	969.51	969.39	11.789	1.02	18	0.012	10.06	11.48	6.93	970.73	970.48	971.39	971.14	....	....	....	....
DS-2-A	3	0.81	0.12	0.10	0.12	5.0	7.35	5.0	0.71	0.71	967.51	967.33	35.977	0.50	15	0.012	0.71	4.95	0.58	969.47	969.47	969.48	969.47	0.12	0.030	0.00	4.39
DA-05	2	0.81	0.00	0.00	0.00	5.0	0.00	5.0	8.99	0.00	967.00	966.70	21.421	1.40	18	0.012	8.99	13.46	5.95	968.16	967.94	968.74	968.52	....	....	....	....
DS-6-B	Outfall	0.81	0.02	0.02	0.22	11.2	5.69	5.0	0.12	1.01	970.50	968.90	92.298	1.73	18	0.012	1.01	14.98	2.93	970.88	969.28	971.01	969.41	0.07	0.018	0.00	1.98
DS-6-C	15	0.81	0.18	0.15	0.18	5.0	7.35	5.0	1.07	1.07	973.50	970.83	84.269	3.17	15	0.012	1.07	12.45	4.65	973.91	971.08	974.06	971.23	0.13	0.031	0.00	5.20
DS-7-A	15	0.81	0.02	0.02	0.02	5.0	7.35	5.0	0.12	0.12	971.25	969.25	35.995	5.56	15	0.012	0.12	16.49	0.90	971.38	970.88	971.43	970.88	0.06	0.031	0.00	1.65

Discovery Crossing - Zone 2 Infrastructure 100-yr Storm Summary

LineID	DnStrmLine No.	RunoffCoeff	DrainageArea	IncrCxA	TotalArea	Tc	iSys	InletTime	IncrQ	TotalRunoff	InvertUp	InvertDn	LineLength	LineSlope	LineSize	n-valuePipe	FlowRate	CapacityFull	VelAve	HGLUp	HGLDn	EGLUp	EGLDn	GutterDepth	GutterSlope	QBypass	GutterSpread
		(C)	(ac)		(ac)	(min)	(in/hr)	(min)	(cfs)	(cfs)	(ft)	(ft)	(ft)	(%)	(in)		(cfs)	(cfs)	(ft/s)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft/ft)	(cfs)	(ft)
EX-1-A	Outfall	0.81	0.00	0	1.96	10.7	8.40	5.0	0.00	13.34	965.86	964.41	72.500	2.00	24	0.013	46.78	31.99	14.91	969.37	966.38	972.81	969.85	....	....	....	....
DS-1-A	1	0.81	0.55	0.45	1.96	10.6	8.40	5.0	4.59	13.34	966.12	965.86	12.999	2.00	24	0.013	46.78	31.99	14.89	970.44	969.88	973.89	973.33	0.21	0.035	1.45	9.14
DS-1-B	2	0.81	0.17	0.14	1.41	10.5	8.45	5.0	1.42	9.65	966.85	966.42	86.009	0.50	24	0.012	27.31	17.32	8.69	976.20	975.13	977.37	976.30	0.15	0.030	0.00	5.89
DS-1-C	3	0.81	0.00	0	1.12	10.3	8.50	5.0	0.00	7.71	968.89	967.35	101.683	1.51	24	0.012	25.37	30.15	8.08	979.37	978.28	980.38	979.29	....	....	....	....
DS-1-D	4	0.81	0.12	0.1	1.12	9.3	8.78	5.0	1.00	7.97	970.98	969.39	159.318	1.00	24	0.012	7.97	24.48	2.54	980.55	980.38	980.65	980.48	0.15	0.014	0.00	5.97
DS-1-E	5	0.81	0.12	0.1	0.46	6.2	9.81	5.0	1.00	3.65	973.41	971.48	386.348	0.50	18	0.012	3.65	8.04	2.07	981.10	980.70	981.17	980.77	0.16	0.011	0.00	6.27
DS-5-A	6	0.81	0.12	0.1	0.12	5.0	10.31	5.0	1.00	1.00	975.60	973.91	37.540	4.50	15	0.012	1.00	14.84	0.82	981.22	981.21	981.23	981.22	0.16	0.011	0.00	6.27
DS-1-F	6	0.81	0.22	0.18	0.22	5.0	10.31	5.0	1.84	1.84	974.75	973.91	112.213	0.75	15	0.012	1.84	6.05	1.50	981.29	981.21	981.32	981.24	0.23	Sag	0.00	10.17
DS-4-A	5	0.81	0.12	0.1	0.12	5.0	10.31	5.0	1.00	1.00	974.64	971.73	36.002	8.08	15	0.012	1.00	19.89	0.82	980.71	980.70	980.72	980.71	0.15	0.014	0.00	5.97
DS-3-A	5	0.81	0.19	0.15	0.42	5.4	10.15	5.0	1.59	3.45	973.37	971.73	87.004	1.88	15	0.012	3.45	9.60	2.81	980.91	980.70	981.04	980.82	0.18	0.010	0.00	7.70
DS-3-B	10	0.81	0.23	0.19	0.23	5.0	10.31	5.0	1.92	1.92	974.23	973.87	36.001	1.00	15	0.012	1.92	7.00	1.57	981.12	981.10	981.16	981.14	0.20	0.010	0.00	8.30
DA-06	4	0.81	0.00	0	0.00	5.0	0.00	5.0	17.66	0.00	969.51	969.39	11.789	1.02	18	0.012	17.66	11.48	9.99	980.67	980.38	982.22	981.93	....	....	....	....
DS-2-A	3	0.81	0.12	0.1	0.12	5.0	10.31	5.0	1.00	1.00	967.51	967.33	35.977	0.50	15	0.012	1.00	4.95	0.82	978.28	978.28	978.29	978.29	0.13	0.030	0.00	5.09
DA-05	2	0.81	0.00	0	0.00	5.0	0.00	5.0	15.78	0.00	967.00	966.70	21.421	1.40	18	0.012	15.78	13.46	8.93	975.54	975.13	976.78	976.37	....	....	....	....
DS-6-B	Outfall	0.81	0.02	0.02	0.22	9.4	8.75	5.0	0.17	1.56	970.50	968.90	92.298	1.73	18	0.012	1.56	14.98	3.31	970.97	969.37	971.14	969.54	0.08	0.018	0.00	2.43
DS-6-C	15	0.81	0.18	0.15	0.18	5.0	10.31	5.0	1.50	1.50	973.50	970.83	84.269	3.17	15	0.012	1.50	12.45	5.13	973.99	971.12	974.17	971.30	0.15	0.031	0.00	5.99
DS-7-A	15	0.81	0.02	0.02	0.02	5.0	10.31	5.0	0.17	0.17	971.25	969.25	35.995	5.56	15	0.012	0.17	16.49	1.00	971.41	970.97	971.46	970.97	0.07	0.031	0.00	2.07

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

STORMWATER CALCULATIONS 1

SHEET NUMBER

C304

19 OF 37

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Drainage Area Design Table (10-yr)						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
1A	0.55	0.81	5.00	7.35	1.00	3.27
1B	0.17	0.81	5.00	7.35	1.00	1.01
1D	0.12	0.81	5.00	7.35	1.00	0.71
1E	0.12	0.81	5.00	7.35	1.00	0.71
1F	0.22	0.81	5.00	7.35	1.00	1.31
2A	0.12	0.81	5.00	7.35	1.00	0.71
3A	0.19	0.81	5.00	7.35	1.00	1.13
3B	0.23	0.81	5.00	7.35	1.00	1.37
4A	0.12	0.81	5.00	7.35	1.00	0.71
5A	0.12	0.81	5.00	7.35	1.00	0.71
6B	0.02	0.81	5.00	7.35	1.00	0.12
6C	0.18	0.81	5.00	7.35	1.00	1.07
7A	0.02	0.81	5.00	7.35	1.00	0.12

Drainage Area Design Table (100-yr)						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
1A	0.55	0.81	5	10.32	1.25	5.75
1B	0.17	0.81	5	10.32	1.25	1.78
1D	0.12	0.81	5	10.32	1.25	1.25
1E	0.12	0.81	5	10.32	1.25	1.25
1F	0.22	0.81	5	10.32	1.25	2.30
2A	0.12	0.81	5	10.32	1.25	1.25
3A	0.19	0.81	5	10.32	1.25	1.99
3B	0.23	0.81	5	10.32	1.25	2.40
4A	0.12	0.81	5	10.32	1.25	1.25
5A	0.12	0.81	5	10.32	1.25	1.25
6B	0.02	0.81	5	10.32	1.25	0.21
6C	0.18	0.81	5	10.32	1.25	1.88
7A	0.02	0.81	5	10.32	1.25	0.21

DA-05 (Future Conditions)				
	10-YR	25-YR	50-YR	100-YR
K	1.00	1.10	1.20	1.25
C	0.81	0.81	0.81	0.81
i	7.35	8.53	9.40	10.32
A	1.51	1.51	1.51	1.51
Q	8.99	11.48	13.80	15.78
Note: Assumed future Tc = 5 min.				

DA-06 (Future Conditions)				
	10-YR	25-YR	50-YR	100-YR
K	1.00	1.10	1.20	1.25
C	0.81	0.81	0.81	0.81
i	7.35	8.53	9.40	10.32
A	1.69	1.69	1.69	1.69
Q	10.06	12.84	15.44	17.66
Note: Assumed future Tc = 5 min.				

Inlet Design Table (10-yr)								
Inlet	Throat Height	Orifice Coeff.	Depth at Lip of Curb opening	Inlet Length	Inlet Capacity	80% Inlet Capacity	Peak Flow	Bypass
	(ft)		(ft)	(ft)	(cfs)	(cfs)	(cfs)	(cfs)
1A	0.83	0.67	1.17	6.00	29.07	23.25	3.27	0.00
1B	0.83	0.67	1.17	6.00	29.07	23.25	1.01	0.00
1D	0.83	0.67	1.17	6.00	29.07	23.25	0.71	0.00
1E	0.83	0.67	1.17	6.00	29.07	23.25	0.71	0.00
1F	0.83	0.67	1.17	6.00	29.07	23.25	1.31	0.00
2A	0.83	0.67	1.17	6.00	29.07	23.25	0.71	0.00
3A	0.83	0.67	1.17	6.00	29.07	23.25	1.13	0.00
3B	0.83	0.67	1.17	6.00	29.07	23.25	1.37	0.00
4A	0.83	0.67	1.17	6.00	29.07	23.25	0.71	0.00
5A	0.83	0.67	1.17	6.00	29.07	23.25	0.71	0.00
6B	0.83	0.67	1.17	6.00	29.07	23.25	0.12	0.00
6C	0.83	0.67	1.17	6.00	29.07	23.25	1.07	0.00
7A	0.83	0.67	1.17	6.00	29.07	23.25	0.12	0.00
Note: Max. inlet capacity calulations completed per APWA 5600, Fiture 5604-21, pg. 61.								

Inlet Design Table (100-yr)								
Inlet	Throat Height	Orifice Coeff.	Depth at Lip of Curb opening	Inlet Length	Inlet Capacity	80% Inlet Capacity	Peak Flow	Bypass
	(ft)		(ft)	(ft)	(cfs)	(cfs)	(cfs)	(cfs)
1A	0.83	0.67	1.17	6.00	29.07	23.25	5.75	0.00
1B	0.83	0.67	1.17	6.00	29.07	23.25	1.78	0.00
1D	0.83	0.67	1.17	6.00	29.07	23.25	1.25	0.00
1E	0.83	0.67	1.17	6.00	29.07	23.25	1.25	0.00
1F	0.83	0.67	1.17	6.00	29.07	23.25	2.30	0.00
2A	0.83	0.67	1.17	6.00	29.07	23.25	1.25	0.00
3A	0.83	0.67	1.17	6.00	29.07	23.25	1.99	0.00
3B	0.83	0.67	1.17	6.00	29.07	23.25	2.40	0.00
4A	0.83	0.67	1.17	6.00	29.07	23.25	1.25	0.00
5A	0.83	0.67	1.17	6.00	29.07	23.25	1.25	0.00
6B	0.83	0.67	1.17	6.00	29.07	23.25	0.21	0.00
6C	0.83	0.67	1.17	6.00	29.07	23.25	1.88	0.00
7A	0.83	0.67	1.17	6.00	29.07	23.25	0.21	0.00
Note: Max. inlet capacity calulations completed per APWA 5600, Fiture 5604-21, pg. 61.								

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

STORMWATER CALCULATIONS 2

SHEET NUMBER

C305

20 OF 37

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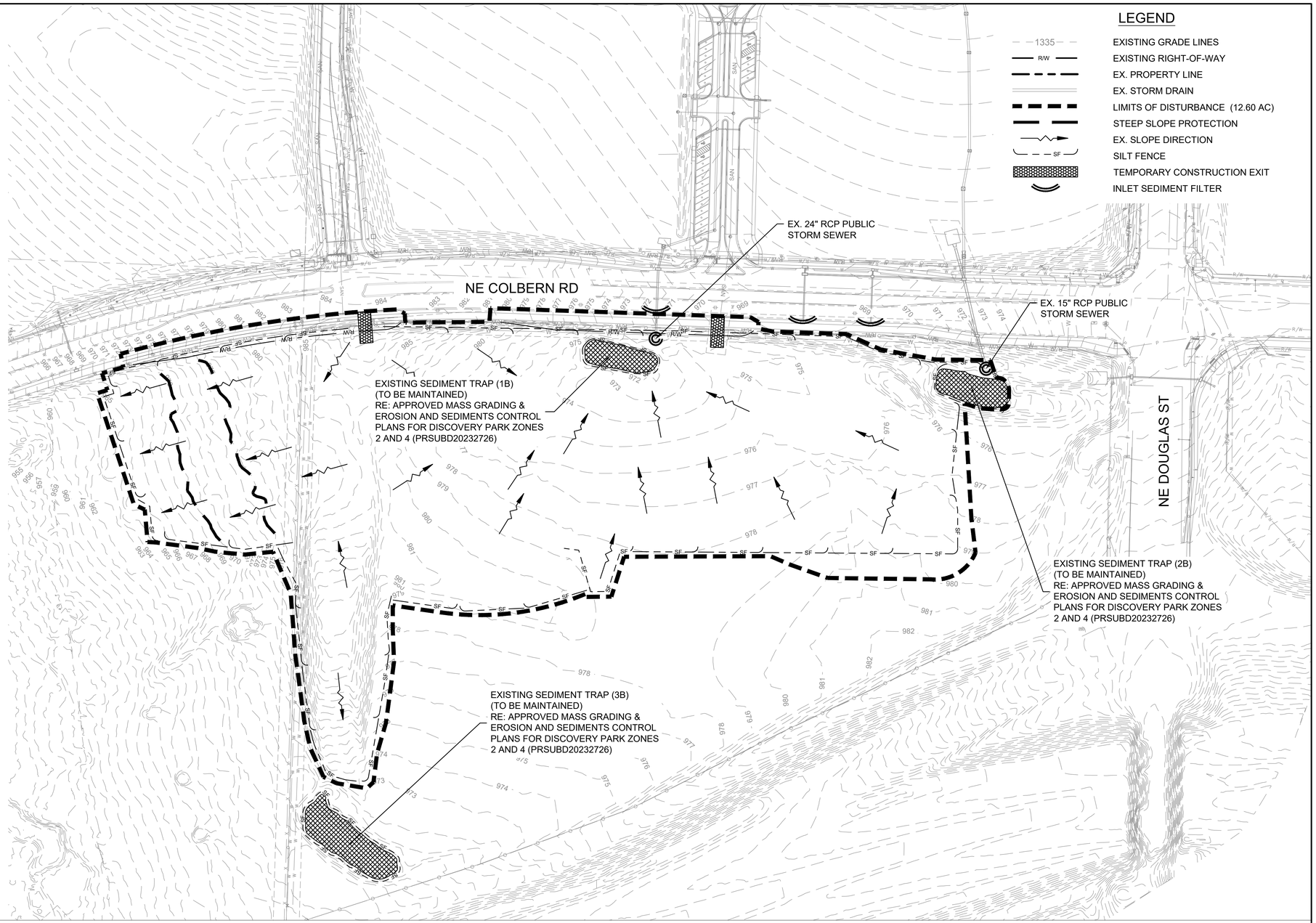
GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FENDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATER OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OF DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOATATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATER OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURED PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS POSSIBLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOD, TOCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IS IS CARRIED OFF THE SITE. ONLY USED INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTR5ACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.



LEGEND

- 1335 — EXISTING GRADE LINES
- R/W — EXISTING RIGHT-OF-WAY
- EX. PROPERTY LINE
- EX. STORM DRAIN
- LIMITS OF DISTURBANCE (12.60 AC)
- STEEP SLOPE PROTECTION
- EX. SLOPE DIRECTION
- SF — SILT FENCE
- TEMPORARY CONSTRUCTION EXIT
- INLET SEDIMENT FILTER

EROSION CONTROL & MAINTENANCE PLAN NOTES:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVISED AND BARRIERS SHALL BE REPAIRED OR REPLACED IN THEY SHOWN SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP D4RESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION CONTROL FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGNS OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABLIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT AREA IN THE AREA TO BE GRADED SHALL BE REMOVED
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF GRADING OPERATIONS, ALONG WITH RE-ACTIVATING OF AN EXISTING SEDIMENT TRAP. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. MAINTAIN/RECONSTRUCT EXISTING SEDIMENT TRAPS. EXCAVATE EXISTING SEDIMENT AS NEEDED TO REESTABLISH MIN. CLEANOUT VOLUME. REFINFORCE SEDIMENT TRAP WITH SILT FENCE AS NEEDED.
2. INSTALL CONSTRUCTION VEHICLE ENTRANCE AND INSTALL PERIMETER SILT FENCE AND INLET PROTECTION TO EXISTING INLETS SURROUNDING THE LIMITS OF DISTURBANCE.
3. INSTALL WATTLES/BIODEGRADABLE LOG STEEP SLOPE PROTECTION AS SHOWN ON PLANS.
4. CONTRACTOR TO CONSTRUCT/MAINTAIN STORMWATER MANAGEMENT FACILITIES, SPECIFICALLY THOSE FEATURES RELATED TO DETENTION, PRIOR TO ANY LAND DISTURBANCE OF THE SITE AND PRIOR TO THE CONSTRUCTION OF ANY OTHER SITE DEVELOPMENT WORK AS NOT TO EFFECT DOWNSTREAM NEIGHBORS WITH UNDETAINED STORMWATER DISCHARGE.
5. AS GRADING OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE INTERMEDIATE EROSION CONTROL PLAN.

N

1"=80'

80' 0 40' 80'

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SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

EROSION CONTROL 1

SHEET NUMBER

C400

21 OF 37

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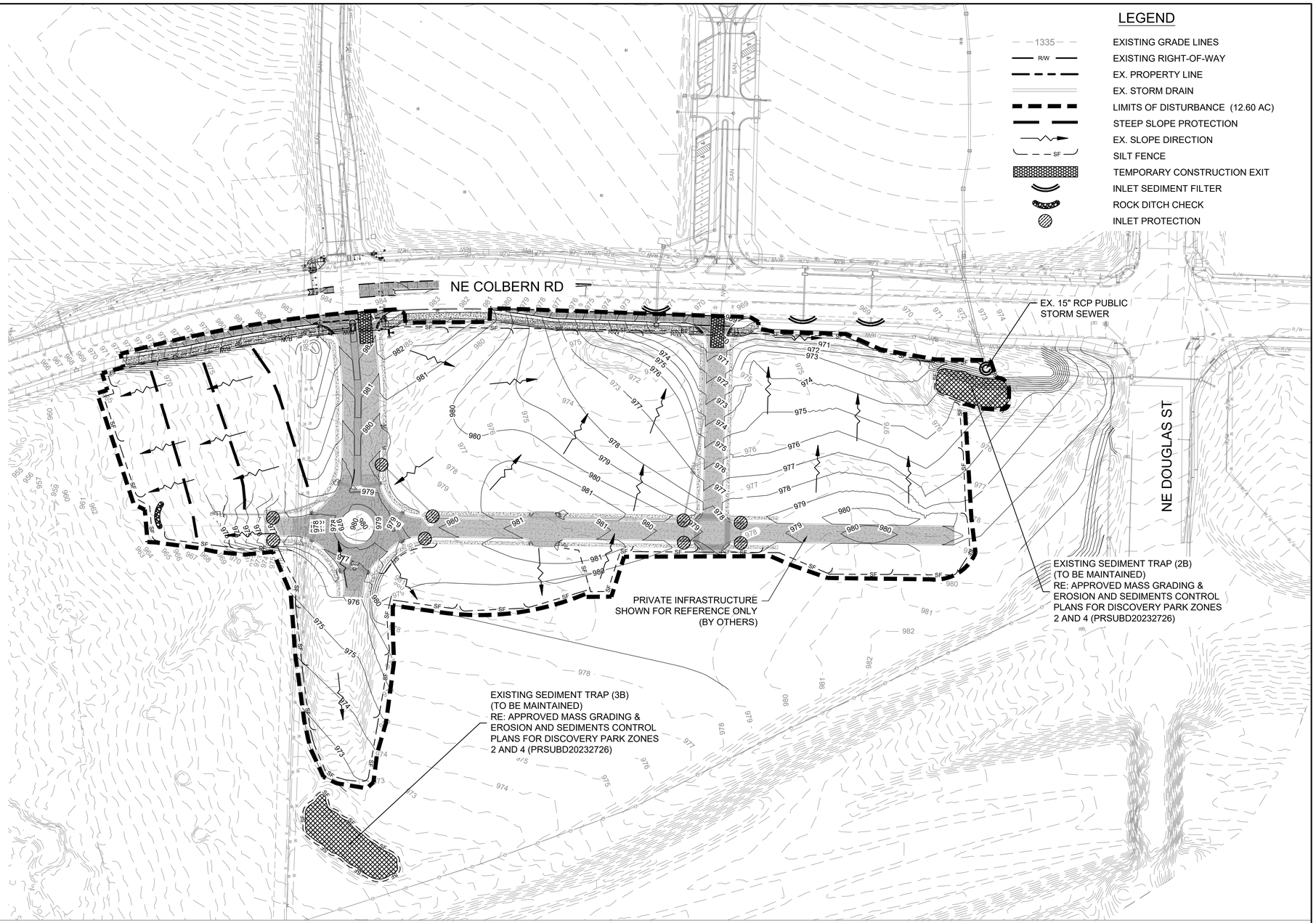
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOATATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORM WATER DISCHARGE INTO DRAINAGE DITCHES OR WATER OF THE STATE.
12. ALL STORM WATER POLLUTION PREVENTION MEASURED PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS POSSIBLE.
13. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY WILL BE STOPPED FOR AT LEAST 14 DAYS, SHALL BE TEMPORARILY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS FROM THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS.
14. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE STABILIZED. THESE AREAS SHALL BE STABILIZED NO LATER THAN 21 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. STABILIZATION MAY CONSIST OF SEED, SOD, TOCK, PAVEMENT, STRUCTURE OR OTHER NON-ERODIBLE COVER.
15. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION ENTRANCES IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IS IS CARRIED OFF THE SITE. ONLY USED INGRESS/EGRESS LOCATIONS AS PROVIDED.
16. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
17. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DETENTION POND AND ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. SLOPES CONSISTING OF TOPSOIL, CLAY, OR SILT SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
20. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE.
21. CONTR5ACTOR RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE. PONDING OF WATER WILL NOT BE ALLOWED ON SITE. IF NECESSARY, CONTRACTOR TO PROVIDE TEMPORARY SWALES OR PUMPING IN LOW POINT SUMP CONDITIONS UNTIL THE INSTALLATION OF STORM SEWER.



LEGEND

- EXISTING GRADE LINES
- EXISTING RIGHT-OF-WAY
- EX. PROPERTY LINE
- EX. STORM DRAIN
- LIMITS OF DISTURBANCE (12.60 AC)
- STEEP SLOPE PROTECTION
- EX. SLOPE DIRECTION
- SILT FENCE
- TEMPORARY CONSTRUCTION EXIT
- INLET SEDIMENT FILTER
- ROCK DITCH CHECK
- INLET PROTECTION

EROSION CONTROL & MAINTENANCE PLAN NOTES:

ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. AT A MINIMUM, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS FOR GOOD HOUSEKEEPING, SPILL CONTROL AND EROSION AND SEDIMENT CONTROL AS SPECIFIED IN THE KANSAS CITY METROPOLITAN CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION SECTION 2150.
2. INLET PROTECTION DEVISED AND BARRIERS SHALL BE REPAIRED OR REPLACED IN THEY SHOWN SIGNS OF UNDERMINING OR DETERIORATION.
3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP D4RESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
7. DRAINAGE SWALES WITH SLOPES STEEPER THAN 15% SHALL BE INSPECTED AFTER EACH RAINFALL EVENT. THESE CHANNELS AND SLOPES SHOULD BE TREATED WITH EROSION CONTROL FABRIC. IF THE CHANNELS OR SLOPES SHOW ANY SIGNS OF FAILURE, COORDINATE WITH THE ENGINEER TO DEVELOP A PLAN TO RE-STABLIZE THE FAILED AREA.

GRADING NOTES:

1. ALL TREES OUTSIDE OF LIMITS OF DISTURBANCE SHALL REMAIN. ONLY THOSE TREES WITHIN LIMITS OF DISTURBANCE THAT AREA IN THE AREA TO BE GRADED SHALL BE REMOVED
2. ALL TOPSOIL, VEGETATION, ROOT STRUCTURES, AND DELETERIOUS MATERIALS SHALL BE STRIPPED FROM THE GROUND SURFACE PRIOR TO THE PLACEMENT OF EMBANKMENTS. CONTRACTOR SHALL OBTAIN THE ON-SITE GEOTECHNICAL REPRESENTATIVE'S ACCEPTANCE OF THE EXISTING GROUND SURFACE MATERIALS AND THE PROPOSED FILL MATERIAL PRIOR TO THE PLACEMENT OF FILL.
3. ALL PROPOSED CONTOUR LINES AND SPOT ELEVATIONS SHOWN ARE FINISH GRADE ELEVATIONS. CONTRACTOR SHALL ACCOUNT FOR PAVEMENT DEPTHS, BUILDING PADS, TOPSOIL, ETC. WHEN GRADING THE SITE.
4. ALL DISTURBED AREAS THAT SHALL BE FINISH GRADED WITH A MINIMUM OF FOUR INCHES OF TOPSOIL.
5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF FINISHING MASS GRADING ACTIVITIES, BUILDING CONSTRUCTION, PARKING LOT PAVING, PROPOSED SERVICE LINE UTILITY INSTALLATION, AND STORM SEWERS. WORK SHALL BE CONDUCTED AS FOLLOWS:

1. FINISH ANY MASS GRADING AND/OR STEEP SLOPE STABILIZATION ACTIVITIES THAT WERE NOT COMPLETED IN PHASE I.
2. BEGIN INSTALLING UNDERGROUND INFRASTRUCTURE STARTING WITH SANITARY SEWER, FOLLOWED BY STORM SEWER, THEN WATER LINE. REFERNCE APPROVED WATER & SANITARY INFRASTRUCTURE PLANS FOR DISCOVERT CROSSING FOR MORE DETAIL ON UNDERGROUND INFRASTRUCTURE INSTALLATION. INSTALL INLET PROTECTION AND SLOPE INTERRUPT SILT FENCE ONCE PIPE BACKFILLING HAS BEEN COMPLETED.
3. AS PIPE INSTALLATION OPERATIONS ARE COMPLETED, AREAS TO REMAIN INACTIVE FOR MORE THAN 14 DAYS SHALL BE STABILIZED WITH SEED AND COMPOST MULCH AND/OR STEEP SLOPE PROTECTION. SEE FINAL STABILIZATION PLAN.
4. AS STORM SEWER INFRASTRUCTURE IS COMPLETED, INLET PROTECTION SHALL BE INSTALLED TO PROTECT EXISTING STORM SEWER INFRASTRUCTURE FROM HIGHLY CONCENTRATED DISCHARGE FLOWS.
5. ALL PHASE I AND PHASE II EROSION CONTROL MEASURES SHALL CONTINUE BEING REGULARLY INSPECTED AND MAINTAINED UNTIL FINAL STABILIZATION OF AT LEAST 70% OF THE DISTURBED SURFACE HAS BEEN MET THROUGH TEMPORARY SEEDING.
6. PHASE 1 EROSION CONTROL BMPS MAY BE REMOVED UPON COMPLETION OF PAVING ACTIVITIES.

N

1"=80'

80' 0 40' 80'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

EROSION CONTROL 2

SHEET NUMBER

C401

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GENERAL NOTES:

1. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THIS DRAWING ("EROSION CONTROL"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS ("SWPPP"), PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
2. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OR NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
3. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DIRECTED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
4. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FENDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
5. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATER OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
6. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OF DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOATATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
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12. ALL STORM WATER POLLUTION PREVENTION MEASURED PRESENTED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS POSSIBLE.
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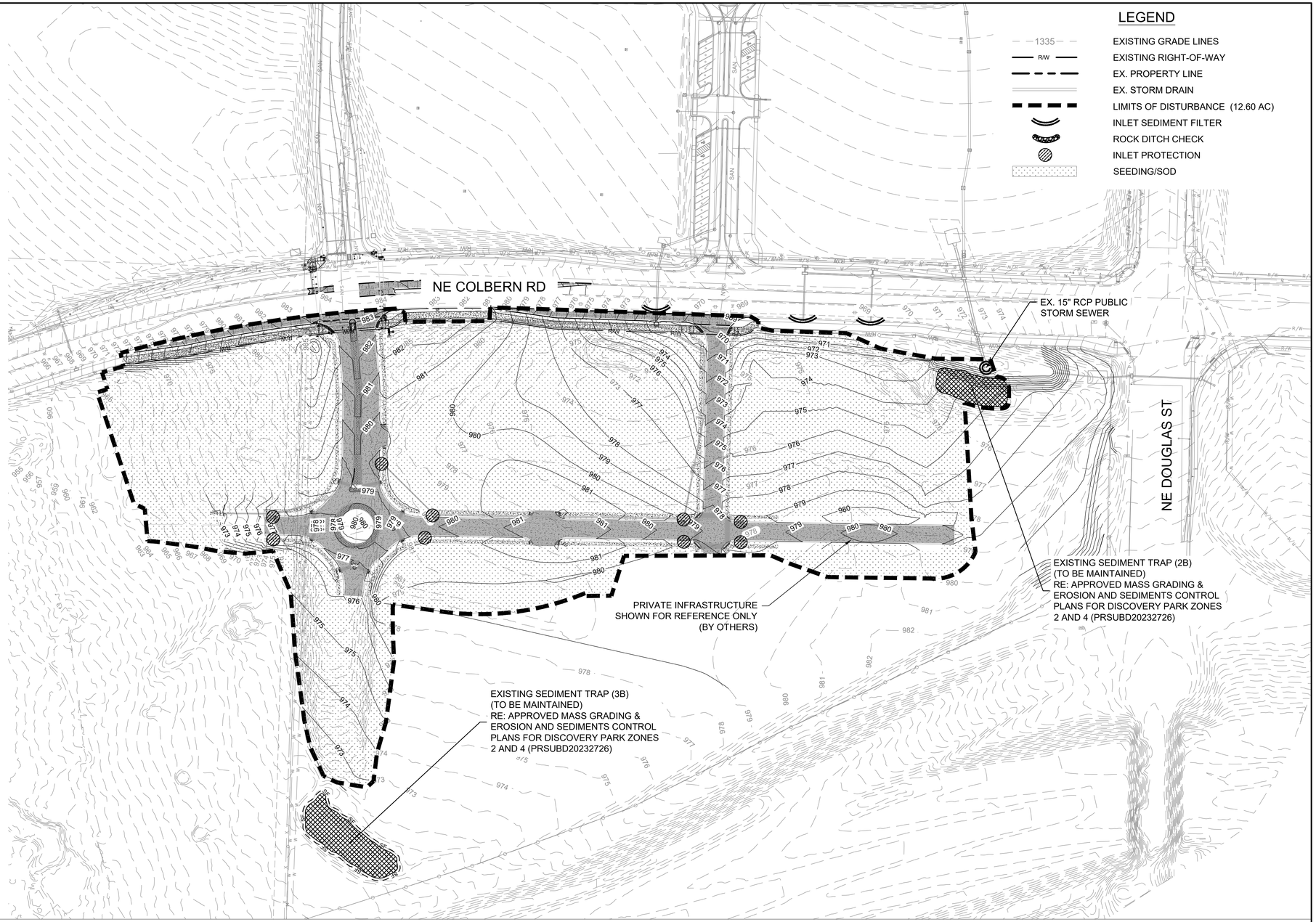

LEGEND

- 1335 — EXISTING GRADE LINES
- R/W — EXISTING RIGHT-OF-WAY
- EX. PROPERTY LINE
- EX. STORM DRAIN
- LIMITS OF DISTURBANCE (12.60 AC)
- INLET SEDIMENT FILTER
- ROCK DITCH CHECK
- INLET PROTECTION
- SEEDING/SOD

EROSION CONTROL & MAINTENANCE PLAN NOTES:

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3. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED, AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
4. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHED ONE-THIRD THE HEIGHT OF THE SILT FENCE.
5. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP D4RESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
6. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.
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5. FINISHED GRADES SHALL NOT BE STEEPER THAN 3:1.
6. ALL GRADING WORK SHALL BE CONSIDERED UNCLASSIFIED. NO ADDITIONAL PAYMENTS SHALL BE MADE FOR ROCK EXCAVATION. CONTRACTOR SHALL SATISFY HIMSELF AS TO ANY ROCK EXCAVATION REQUIRED TO ACCOMPLISH THE IMPROVEMENTS SHOWN HEREIN.

SEQUENCE OF CONSTRUCTION:

SITE IMPROVEMENTS CONSIST OF PAVING STREETS, RE-ESTABLISHING GROUNDCOVER VEGETATION, DEACTIVATING SEDIMENT TRAP 4B, REMOVING SILT FENCE, AND REMOVING INLET PROTECTION. WORK SHALL BE COMPLETED IN THE SEQUENCE AS FOLLOWS:

1. REMOVE CONSTRUCTION ENTRANCE/EXIT AS ROADS ARE PAVED.
2. INSTALL CURB, ROAD PAVEMENT, AND REQUIRED SIDEWALKS. ADJUST SILT FENCE AS NECESSARY TO PREVENT MUD AND SILT FROM FLOWING LONG DISTANCES.
3. SEED AND/OR SOD ALL DISTURBED AREAS ONCE FINISHED GRADE HAS BEEN ACHIEVED. MAINTAIN SILT FENCE AND INLET PROTECTION UNTIL VEGETATIVE COVER HAS BEEN ESTABLISHED OVER 70% OF THE TOTAL DISTURBED AREA.
4. AS ALL DISTURBED AREAS ARE STABLIXED WITH VEGETATIVE COVER, STORM SEWER INLET PROTECTION, SILT FENCE, AND SEDIMENT TRAP CAN BE REMOVED UPON CITY INSPECTION AND APPROVAL. ENSURE ENTIRE SITE IS STABLIZED PRIOR TO DEACTIVATION ON EROSION CONTROL.

N

1"=80'

80' 0 40' 80'

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

EROSION CONTROL 3

SHEET NUMBER

C402

23 OF 37

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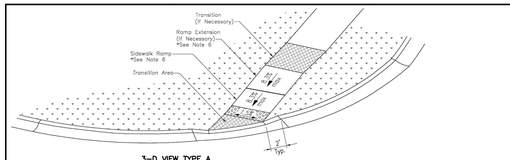
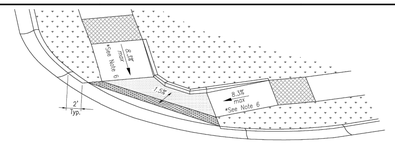


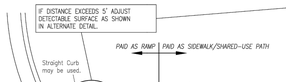
3-D VIEW TYPE A
SIDEWALK/SHARED-USE RAMP

LEGEND

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



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

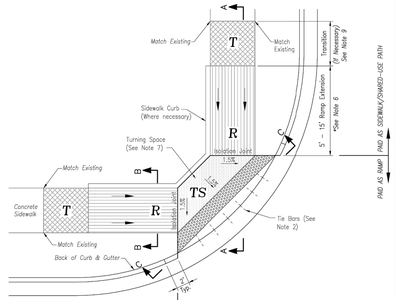


ALTERNATE DETECTABLE SURFACE LAYOUT

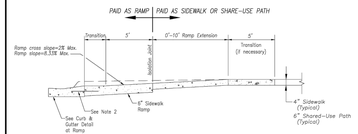
TYPE A SIDEWALK/SHARED-USE RAMP
Not to Scale

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

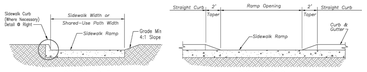
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL 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).



TYPE B SIDEWALK/SHARED-USE RAMP
Not to Scale



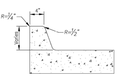
SECTION A–A



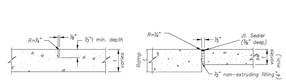
SECTION B–B

SECTION C–C

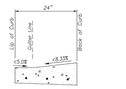
TYPE A & B SIDEWALK RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

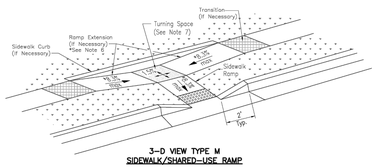


JOINT DETAILS
Not to Scale

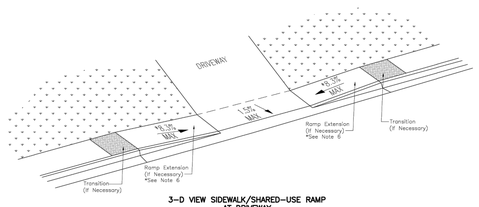


CURB & GUTTER DETAIL AT RAMP
Not to Scale

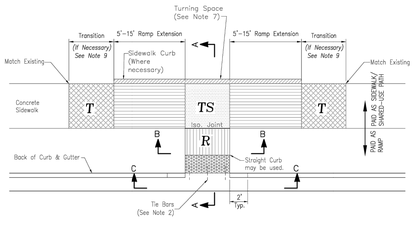
GEN-3A



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



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



TYPE M SIDEWALK/SHARED-USE RAMP
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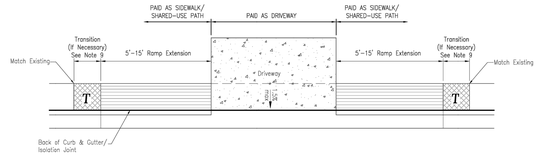
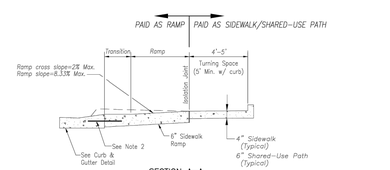


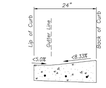
SIDEWALK/SHARED USE RAMP AT DRIVEWAY WITH ADJOINING CURB



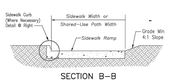
SECTION A–A

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

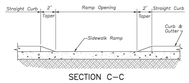
1. CURB RAMP OPENING, NOT INCLUDING FLARES, SHALL MATCH EXISTING SIDEWALK WIDTH AND OPENING SHALL BE AT LEAST 48" WIDE.
2. USE 18" LONG #4 EPOXY COATED TIE BARS @ 24" O.C. EMBED TIE BARS 9" IN EACH DIRECTION.
3. ALL RAMPS, SIDEWALKS, SHARED-USE PATHS SUBGRADE MUST BE OF STABLE, COMPACTED EARTH AND SHALL 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).



CURB & GUTTER DETAIL AT RAMP
Not to Scale

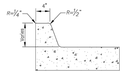


SECTION B–B



SECTION C–C

TYPE M SIDEWALK RAMP
Not to Scale



SIDEWALK CURB DETAIL
Not to Scale

LEGEND

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

GEN-3B

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: ADA RAMP RETROFIT DETAIL

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

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Engineering beyond.
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Overland Park, KS 66210
816.777.0400
weareown.com
FORMERLY ANDERSON ENGINEERING

A licensed Missouri Engineering Corporation
COA# 00062

DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE
SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE
ADA RAMP DETAILS

SHEET NUMBER
C500
24 OF 37

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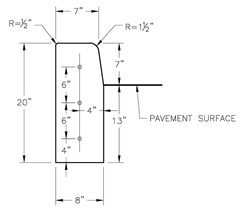
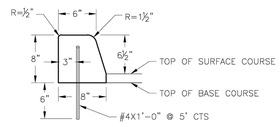
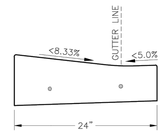


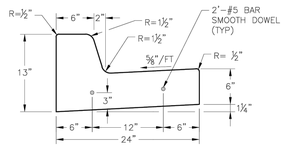
STRAIGHT CURB
(TYPE C-1)



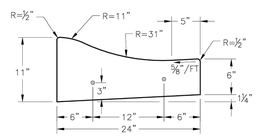
DOWELLED CURB
(TYPE DC)



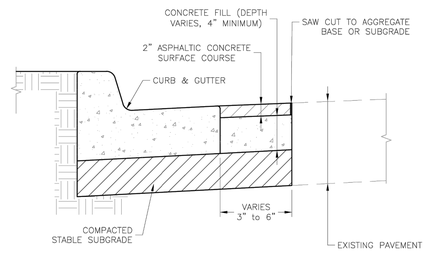
CURB & GUTTER DETAIL AT RAMP
(ADA SLOPE REQUIREMENTS)



STRAIGHT BACK CURB & GUTTER
(TYPE CG-1)



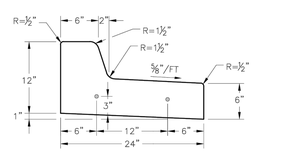
ROLL BACK CURB & GUTTER
(TYPE CG-2)



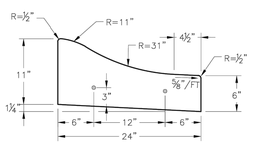
CURB REPLACEMENT DETAIL

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.



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

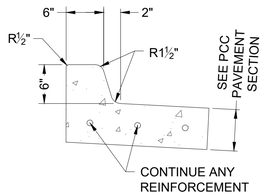


ROLL BACK DRY CURB & GUTTER
(TYPE CG-2 DRY)

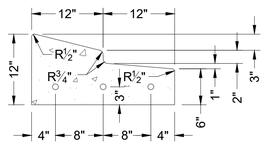
Project:	STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Client Name:	CURB & GUTTER DETAIL
Drawn By: MJF	
Checked By: DL	
Date: 08/2023	
Proj. #:	

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

GEN-4



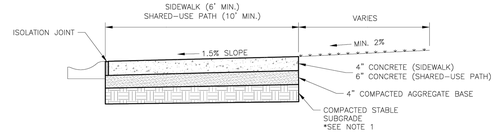
INTEGRAL CURB FOR ROUND-A-BOUT PCC PAVEMENT
NOT TO SCALE



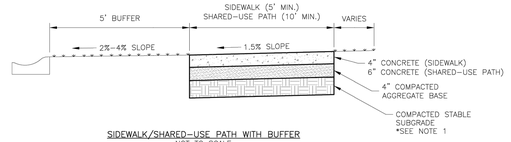
MOUNTABLE CURB DETAIL
NOT TO SCALE

CURB & GUTTER NOTES

1. ¾" ISOLATION JOINTS AT ALL POINTS OF TANGENCY AND AT 150' MAX INTERVALS. JOINTS SHALL BE FIXED WITH SMOOTH DOWELS, ⅝" DIA. X 2' LENGTH, CENTERED ON JOINT, GREASED, AND WRAPPED ON ONE END WITH EXPANSION TUBES.
2. 1" DEEP JOINTS SHALL BE INSTALLED AT APPROXIMATELY 10' INTERVALS. THESE JOINTS SHALL PASS ACROSS THE ENTIRE CURB SECTION.
3. FIX DOWEL BARS WITH BAR SUPPORT.
4. DEPTH OF CURB SHALL BE A MINIMUM OF 8" THROUGH HANDICAP ACCESS RAMP.



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

SIDEWALK/SHARED-USE PATH DETAIL

Date: 08/2023	
Drawn By: MJF	
Checked By: DL	

GEN-2

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

CURB & SIDEWALK DETAILS

SHEET NUMBER

C501

25 OF 37

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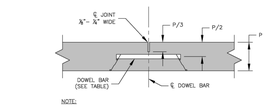
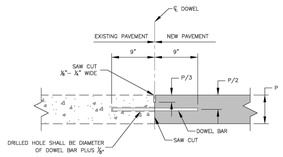


NOTE:

TRANSVERSE CONTRACTION JOINTS FOR CONCRETE PAVEMENT OR BASE WIDENING SHALL MATCH EXISTING JOINTS.

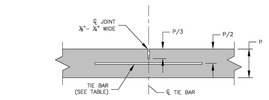
1 TRANSVERSE CONTRACTION JOINT



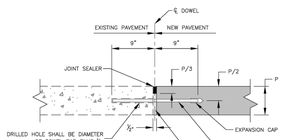
NOTES:

- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

3 TRANSVERSE CONSTRUCTION JOINT



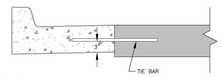
2 LONG. CONTRACTION/CONSTRUCTION JOINT



NOTES:

- DOWEL BARS SHALL BE SMOOTH REINFORCING BARS.
- DOWEL BARS SHALL BE BONDED INTO THE EXISTING PAVEMENT.
- BONDING FOR DOWEL BARS SHALL BE EPOXY OR POLYESTER BONDING AGENTS.
- THE PORTION OF THE DOWEL OUTSIDE THE HOLE SHALL BE COATED WITH AN APPROVED LUBRICANT.

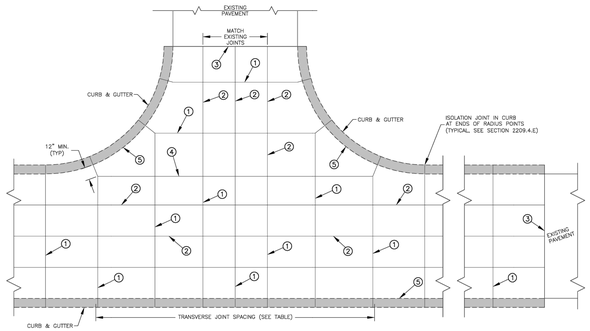
4 TRANSVERSE ISOLATION JOINT



NOTE:

- JOINT NOT NEEDED IF CURB & GUTTER IS MONOLITHICALLY POURED.

5 LONG. CONSTRUCTION JOINT (CURB & GUTTER)



JOINT SPACING/INTERSECTION DETAIL

TABLE

PCCP THICKNESS (P)	DOWEL SIZE	TIE BAR SIZE	DOWEL SPACING	TIE BAR SPACING	MAX. TRAN. SPACING	MAX. LONG. SPACING
6"	N/A	#5 x 30"	N/A	30" CTRS.	12'	12'
7"	1" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	14'	14'
8"	1 ⅛" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	14'
≥9"	1 ⅛" x 18"	#5 x 30"	12" CTRS.	30" CTRS.	15'	15'

GENERAL NOTES:

- THE FINAL POSITION OF ALL DOWELS AND TIE BARS SHALL BE PERPENDICULAR TO THE PLANE OF THE JOINT AND PARALLEL TO THE SURFACE OF THE PAVEMENT AND PARALLEL TO EACH OTHER.
- ALL DOWELS & TIE BARS SHALL BE EPOXY COATED.
- TIE BARS SHALL BE PLACED AT MIDDEPTH OF SLAB ON LONGITUDINAL JOINTS.
- TIE BARS SHALL BE PLACED AT 12 INCHES FROM TRANSVERSE JOINTS.
- PANEL LENGTH TO WIDTH RATIO SHALL NOT EXCEED 1.25 TO 1.
- DOWEL BASKET SHIPPING WIRE SHALL NOT BE CUT.
- CONTRACTOR SHALL SUBMIT PROJECT SPECIFIC JOINTING PLAN AT LEAST TWO WEEKS BEFORE PAVING OPERATIONS.
- IN ACCORDANCE WITH 2208.4.D, ALL JOINTS SHALL BE SEALED, INCLUDING CURB & GUTTER.

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: TYPICAL PAVEMENT JOINT DETAILS

Drawn By: MJF
Checked By: GMB
Date: 08/2023
Proj. #:

GEN-10

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FORMERLY ANDERSON ENGINEERING

A licensed Missouri Engineering Corporation COA# 00062

DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

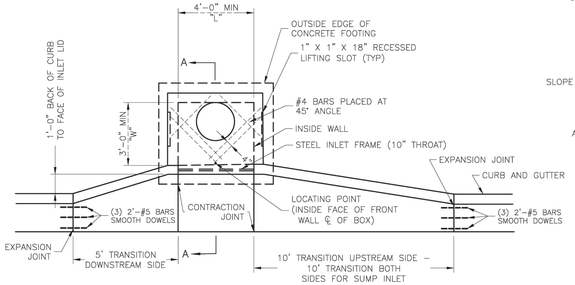
SHEET TITLE

PAVEMENT JOINT DETAILS

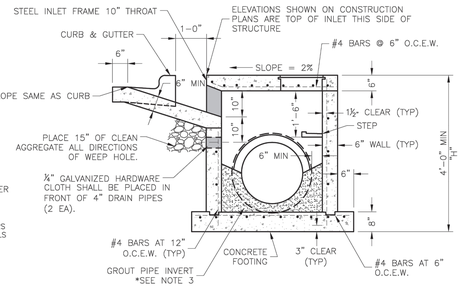
SHEET NUMBER

C502

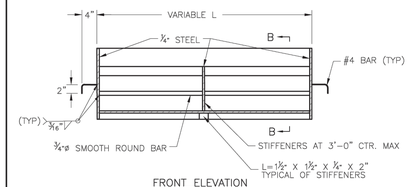
26 OF 37



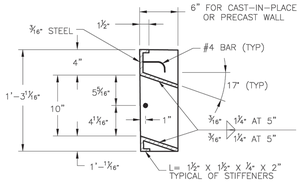
PLAN VIEW



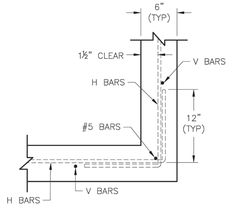
SECTION A–A



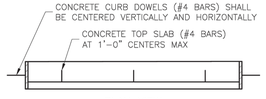
FRONT ELEVATION



SECTION B–B



WALL CORNER DETAIL



PLAN VIEW

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

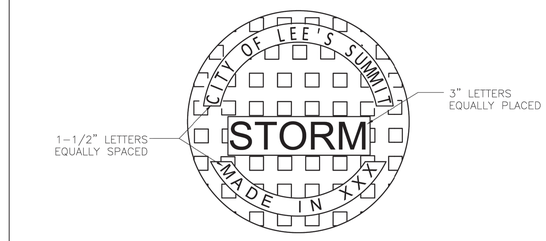
GENERAL NOTES:
1. THE FIRST DIMENSION LISTED IN THE CONSTRUCTION NOTES IS THE "L" DIMENSION. THE SECOND DIMENSION IS THE "W" DIMENSION.
2. FLOW LINES LISTED ON THE PROJECT PLANS ARE LISTED AT THE INSIDE FACE OF THE WALL.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. LOCATE MH RING AND COVER ON BLANK WALL IF POSSIBLE.
5. STEPS SHALL BE SPACED AT 1'–4" O.C. VERTICALLY ON BLANK WALL IF POSSIBLE.
6. BEVEL ALL EXPOSED EDGES WITH ¾"CHAMFER OR ½" TOOLED EDGE.
7. ON–GRADE INLETS SHALL CONFORM TO THE STREET GRADE AND SUMP INLETS SHALL BE LEVEL.
8. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON–SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
9. LIFTING RINGS SHALL BE REMOVED AND SEALED WITH NON–SHRINKABLE GROUT
10. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.

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

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

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

STM-1



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

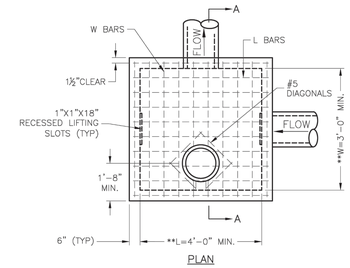
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCT LIST.

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

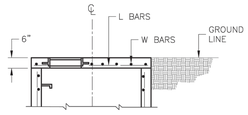
STORM MANHOLE COVER DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

STM-6



PLAN

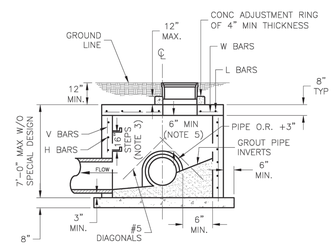


SLAB TOP ALTERNATE FOR JUNCTION BOX (SHALLOW)

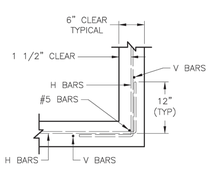
** INCREASE IN MULTIPLES OF 6" (7'–0") MAX WITHOUT SPECIAL DESIGN. (SEE PROJECT PLANS FOR DETAILS)

REINFORCING

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



SECTION A–A



WALL CORNER DETAIL

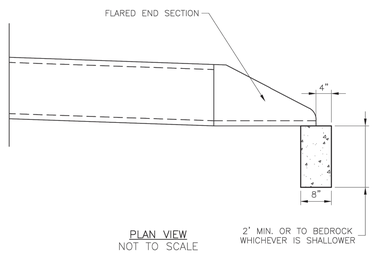
GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE ¾" CHAMFER STRIP OR ½" R EDGER TOOL ON ALL EXPOSED CONCRETE CORNERS.
3. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 4' ON BLANK WALL IF POSSIBLE.
4. BOXOUTS WILL NOT BE ALLOWED TO PROJECT THROUGH THE CORNERS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

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

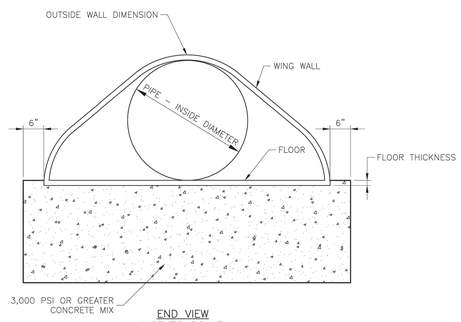
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Sheet Name: JUNCTION BOX DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

STM-3



PLAN VIEW
NOT TO SCALE



END VIEW
NOT TO SCALE

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

FLARED END SECTION SUPPORT DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

STM-5

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COA# 00062

DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

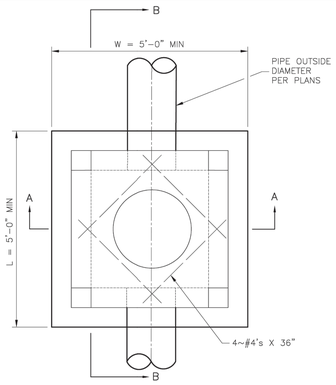
SHEET TITLE

STORM SEWER DETAILS 1

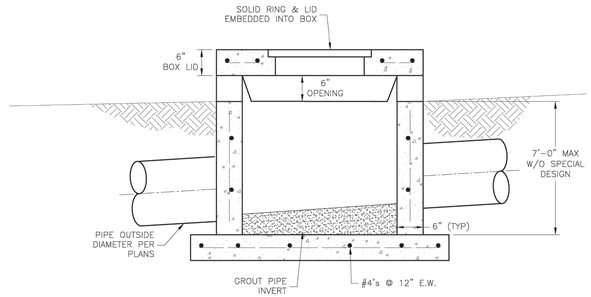
SHEET NUMBER

C503

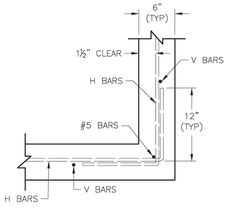
27 OF 37



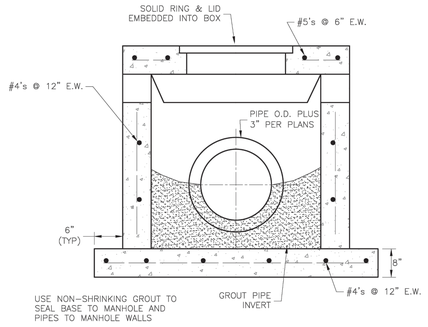
PLAN VIEW



SECTION B–B



WALL CORNER DETAIL



SECTION A–A

GENERAL NOTES:

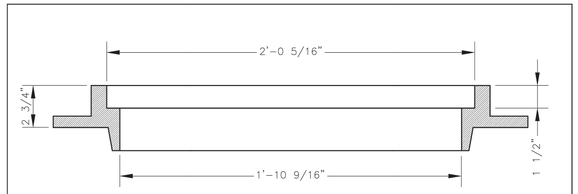
1. LOCATE RING AND COVER OVER OUTLET ON BLANK WALL.
2. USE ¾" CHAMFER ON ALL EXPOSED CONCRETE CORNERS.
3. FLOOR OF INLET GROUTED AND SHAPED TO MATCH PIPE INVERT TO PROVIDE SMOOTH FLOW.
4. STEPS REQUIRED AT 16" O.C. WHEN DEPTH FROM TOP OF CASTING TO INVERT EXCEEDS 3' ON BLANK WALL IF POSSIBLE.
5. BOXOUTS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

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

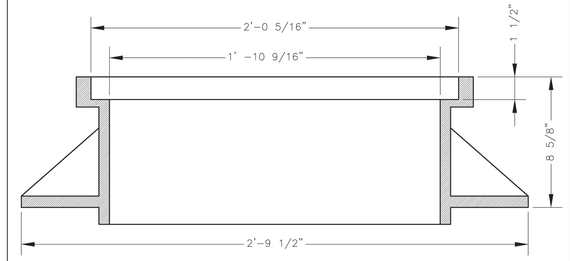
Project: STANDARD DETAILS CITY OF LEE'S SUMMIT, MO LEE'S SUMMIT, JACKSON COUNTY, MO
Detail Name: FIELD INLET DETAIL

Drawn By: MJF
Checked By: DL
Date: 05/2021
Proj. #:

STM-2



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



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

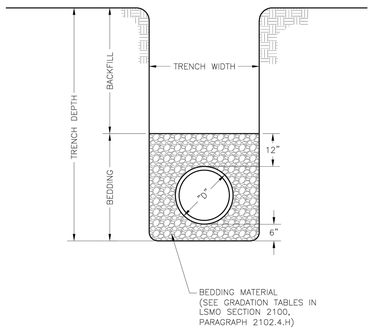
*COVER AND FRAME MODEL INFORMATION REFER TO THE STORMWATER APPROVED PRODUCTS LIST.

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

STORM MANHOLE FRAME DETAIL

Date: 05/2021
Drawn By: MJF
Checked By: DL

DWG-7



NOTES:

1. FOR TRENCHING AND PAVEMENT PATCHING REPAIRS WITHIN EXISTING OR FUTURE STREETS SEE STANDARD DETAIL GEN–5.
2. EXCAVATION DEPTH, SLOPES, SHORING, AND STOCKPILE LOCATIONS SHALL COMPLY WITH OSHA REGULATIONS.

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

PIPE BEDDING DETAIL

Date: 08/2023
Drawn By: MJF
Checked By: GMB

GEN-6

OWN
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8455 College Boulevard
Overland Park, KS 66210
816.777.0400
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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

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DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

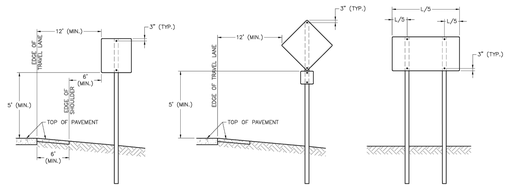
SHEET TITLE

STORM SEWER DETAILS 2

SHEET NUMBER

C504

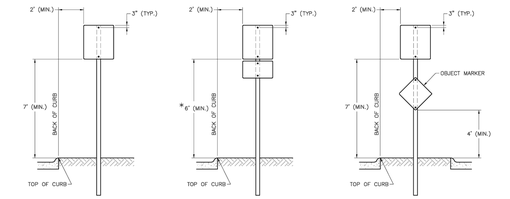
28 OF 37



SIGN INSTALLATION FOR NON-CURBED STREET

SIGN INSTALLATION WITH AUXILIARY SIGN FOR NON-CURBED STREET

SIGN INSTALLATION WITH TWO SIGN POSTS



SIGN INSTALLATION FOR CURBED STREET

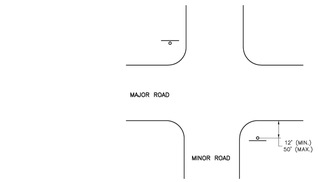
SIGN INSTALLATION WITH AUXILIARY SIGN FOR CURBED STREET

SIGN INSTALLATION FOR RAISED MEDIANS

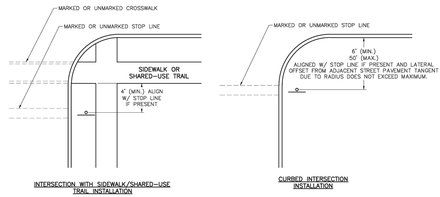
SIGN MOUNTING DETAILS

NOTES:

1. GENERALLY, THE SIGN MOUNTING HEIGHT SHOULD NOT BE MORE THAN 1' GREATER THAN THE MINIMUM MOUNTING HEIGHT.
2. *THE HEIGHT TO THE BOTTOM OF A SIGN WHEN IT IS LOCATED IN A PEDESTRIAN WALKWAY OR EXTENDS INTO A WALKWAY SHALL BE A MINIMUM OF 80 INCHES ABOVE THE WALKWAY.



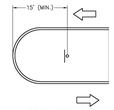
NON-CURBED INTERSECTION INSTALLATION



INTERSECTION WITH SIDEWALK/SHARED-USE TRAIL INSTALLATION

CURBED INTERSECTION INSTALLATION

CONTROL SIGN LOCATION



TYPICAL MEDIAN SIGN LOCATION

MEDIAN SIGN LOCATION

NOTES:

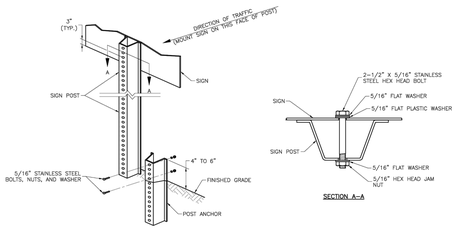
1. A 4" P.V.C. SLEEVE SHALL BE INSTALLED IN NEW CONCRETE MEDIANS AT EACH LOCATION WHERE A SIGN IS TO BE INSTALLED.
2. FOR EXISTING CONCRETE MEDIANS, A 4" HOLE SHALL BE CORED INTO THE CONCRETE.

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: SIGN MOUNTING DETAILS

Drawn By: BWC
Checked By: MP
Date: 01/2020
Proj. #:

SN-1



SECTION A-A

U-STEEL POST DETAILS

NOTES:

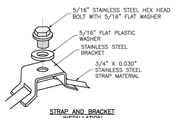
1. SPLICE SHALL BE POSITIONED ENTIRELY BETWEEN FINISHED GRADE LINE AND 18" ABOVE FINISHED GRADE LINE. ONLY ONE SPLICE WILL BE ALLOWED PER POST.
2. U-STEEL POST SHALL BE 3 LB./FT., GALVANIZED ACCORDING TO ASTM A123.
3. U-STEEL POST CAN BE USED FOR INSTALLATION OF SIGNS WITH AN AREA OF LESS THAN 2.5 SQUARE FEET.
4. ALL POSTS SHALL BE EMBEDDED A MINIMUM OF 3 FEET.

PERMANENT SIGNING GENERAL NOTES:

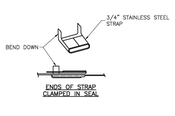
1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
2. THE CONTRACTOR IS RESPONSIBLE FOR AVOIDING ANY AND ALL UTILITIES WHEN INSTALLING SIGN POSTS, WHETHER THE UTILITY IS INDICATED ON THE PLANS OR NOT.
3. ALL WORKMANSHIP AND MATERIALS SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE PUBLIC WORKS DEPARTMENT OF THE CITY OF LEE'S SUMMIT.
4. THE CONTRACTOR SHALL STAKE THE LOCATION OF ALL SIGN POSTS TO BE INSTALLED. THE CITY INSPECTOR SHALL INSPECT THE STAKING PRIOR TO INSTALLATION. MINOR RELOCATION TO AVOID CONFLICTS MAY BE ALLOWED WITH THE APPROVAL OF THE CITY TRAFFIC ENGINEER.
5. SIGNS SHOWN TO BE INSTALLED ON THE SIDE OF METAL POLES SHALL BE MOUNTED WITH STAINLESS STEEL STRAPS OR WING BRACKETS AS DETAILED. NO SIGNS ARE TO BE INSTALLED ON WOOD POLES. SEE TRAFFIC SIGNAL STANDARD DRAWINGS FOR THE INSTALLATION OF SIGNS ON MAST ARMS.
6. ALL POST MOUNTED SIGNS SHALL BE INSTALLED WITH BREAKAWAY ANCHORS ACCORDING TO THE STANDARD DRAWINGS.
7. ALL EXISTING SIGNS WILL BE USED IN PLACE DURING CONSTRUCTION AND PROTECTED FROM DAMAGE UNLESS OTHERWISE INDICATED IN THE PLANS. IF THE CONTRACTOR DAMAGES ANY EXISTING SIGN OR POSTS DURING CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED TO REPLACE THE DAMAGED MATERIALS WITH NEW SIGNS OR POSTS AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND STORING ANY SIGNS THAT ARE TO BE REINSTALLED ON THE PROJECT. ALL EQUIPMENT SHALL BE REINSTALLED IN GOOD CONDITION.
8. EXISTING PERMANENT SIGNS AND POSTS REMOVED BY THE CONTRACTOR FOR CONSTRUCTION PURPOSES WHICH ARE NOT TO BE REINSTALLED SHALL BE DELIVERED TO THE CITY'S PUBLIC WORKS MAINTENANCE FACILITY (1971 SE HAMBLEN ROAD). THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND STORING EQUIPMENT IN GOOD CONDITION AND IS FULLY RESPONSIBLE FOR THE EQUIPMENT UNTIL IT IS DELIVERED.
9. ALL STOP, YIELD, OR STREET NAME SIGNS SHALL BE MAINTAINED IN A CONSPICUOUS LOCATION FOR THE DRIVING PUBLIC. ALL STOP AND YIELD SIGNS REMOVED FOR CONSTRUCTION PURPOSES CAN BE TEMPORARILY ERECTED IN REFLECTORIZED DRUMS (NO LESS THAN 7 FEET ABOVE THE PAVEMENT SURFACE) UNTIL THEY CAN BE REINSTALLED. ANY TEMPORARY STOP OR YIELD SIGN INSTALLATION TO BE LEFT IN PLACE OVERNIGHT WILL REQUIRE PRIOR APPROVAL FROM THE CITY INSPECTOR.

SQUARE STEEL POST INSTALLATION SEQUENCE:

1. SIGN POST ANCHOR DRIVEN PARTIALLY INTO THE GROUND USING A DRIVE CAP WITH A SLEDGE OR POWER EQUIPMENT.
2. ANCHOR SLEEVE SLIPPED OVER ANCHOR AND DRIVE INTO THE GROUND TOGETHER WITH THE SIGN POST ANCHOR.
3. INSERT SIGN POST INTO THE POST ANCHOR AND BOLT IN PLACE.



STRAP AND BRACKET INSTALLATION

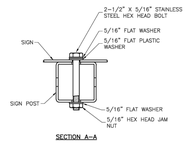


ENDS OF STRAP CLAMPED IN SEAL

STRAP TYPE SIGN SUPPORT DETAILS

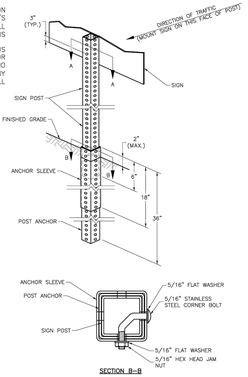
NOTES:

1. SIGNS ON METAL POLES SHALL BE ATTACHED WITH TWO BRACKETS AND STAINLESS STEEL BANDS.
2. HOLES IN SIGN FOR ATTACHMENT TO THE MOUNTING BRACKETS SHALL BE OFFSET A MINIMUM OF 2 INCHES FROM THE EDGE OF THE SIGN.
3. HOLES IN SIGN SHALL BE LOCATED SUCH THAT THE SIGN IS LEVEL.
4. ALL STRAP, BRACKET, AND SEAL MATERIALS SHOULD BE TYPE 201 STAINLESS STEEL.



SECTION A-A

CORNER BOLT



SECTION B-B

SQUARE STEEL POST DETAILS

NOTES:

1. SQUARE STEEL SIGN POSTS AND BREAK-AWAY ANCHOR SHALL CONSIST OF THE FOLLOWING MATERIALS:
   SIGN POST – 14 GA. 2" X 2" SQUARE STEEL POST
   POST ANCHOR – 12 GA. 2 ¼" X 2 ¼" X 36" SQUARE STEEL POST
   ANCHOR SLEEVE – 12 GA. 2 ⅜" X 2 ⅜" X 18" SQUARE STEEL POST
2. 14 GA. POSTS MUST MEET A CERTIFIED MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. IN ALL INSTALLATIONS THE FIRST HOLE ABOVE THE FINISHED GRADE LINE ON THE SIGN POST, ANCHOR, AND ANCHOR SLEEVE MUST BE IN LINE FOR THE INSERTION OF THE CORNER BOLT.
4. THE MAXIMUM AREA FOR ONE SIGN POST IS 9.0 SQUARE FEET. A SIGN OR COMBINATION OF SIGNS WITH AN AREA GREATER THAN 9.0 SQUARE FEET WILL REQUIRE TWO POSTS. ALSO, SIGNS WITH A WIDTH GREATER THAN OR EQUAL TO 48" (NOT INCLUDING 36" X 36" DIAMOND SHAPED SIGNS) WILL REQUIRE TWO POSTS.

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: POST DETAILS

Drawn By: BWC
Checked By: MP
Date: 01/2020
Proj. #:

SN-2

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION

PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

SIGN POST & MOUNTING DETAILS

SHEET NUMBER

C505

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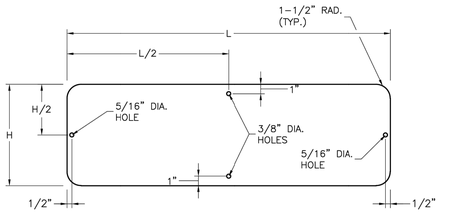
STANDARD ABBREVIATION LISTS

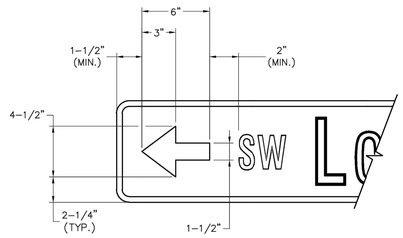
NAMED STREETS	
AVENUE	Ave
BOULEVARD	Blvd
CIRCLE	Cir
CREEK	Cr
COURT	Ct
CROSSING	Xing
DRIVE	Dr
HIGHWAY	Hwy
LANE	Ln
PARKWAY	Pkwy
PLACE	Pl
ROAD	Rd
STREET	St
TERRACE	Ter
TRAIL	Trl
WAY	Way

NUMBERED STREETS	
FIRST	ST
SECOND	ND
THIRD	RD
FOURTH TO TENTH	TH

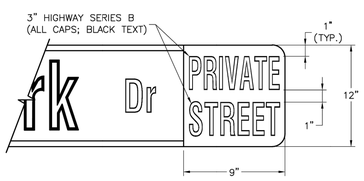


STREET NAME SIGN BLANK DETAILS

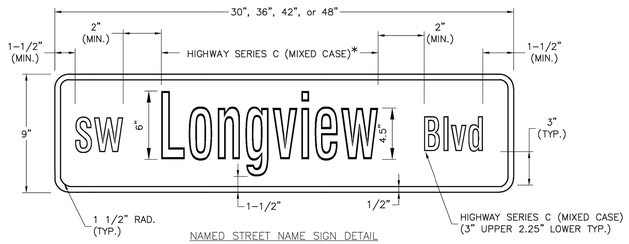
FOR MOUNTING ON SQUARE STEEL POSTS



ARROW DETAIL



PRIVATE STREET TAG DETAIL

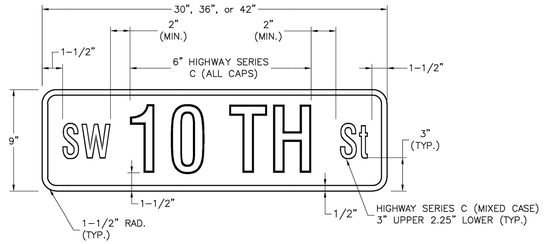


NAMED STREET NAME SIGN DETAIL

* USE HIGHWAY SERIES B (MIXED CASE) IN LIEU OF SERIES C IF NECESSARY TO FIT TEXT ON A 36" SIGN BLANK.

STREET NAME SIGN FACE DETAILS

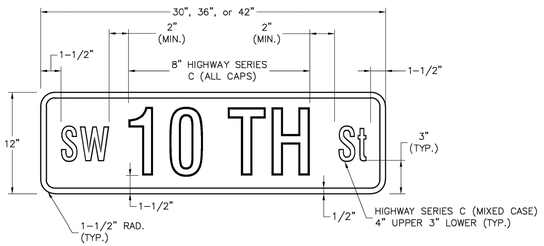
POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH



NUMBERED STREET NAME SIGN DETAIL

STREET NAME SIGN FACE DETAILS

POST MOUNTED 2-LANE ALL SPEEDS AND MULTI-LANE UNDER 40 MPH



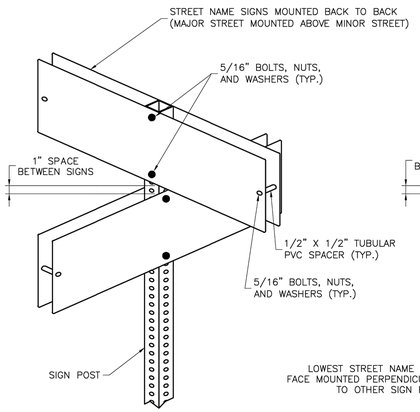
NUMBERED STREET NAME SIGN DETAIL

STREET NAME SIGN FACE DETAILS

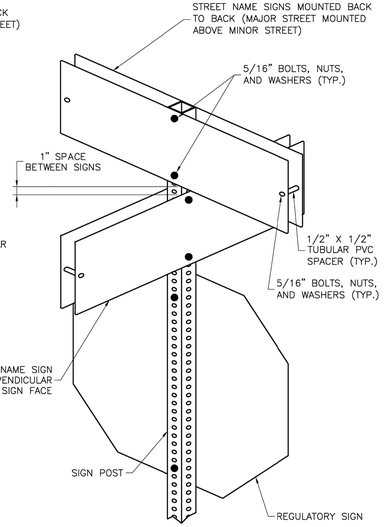
POST MOUNTED MULTI-LANE GREATER THAN 40 MPH

NOTES:

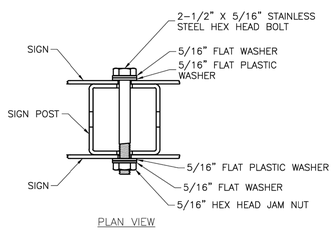
1. FOR ALL STREET NAME SIGNS, THE LEGEND SHALL BE WHITE AND THE BACKGROUND SHALL BE GREEN.
2. ARROWS SHALL BE ADDED TO STREET NAME SIGNS WHERE THE NAME OF A STREET CHANGES AT AN INTERSECTION. STREET NAME SIGNS WITH ARROWS ARE TO BE INSTALLED ON EACH SIDE OF THE INTERSECTION TO INDICATE THE CHANGE IN NAMES. ARROWS SHALL BE WHITE.
3. THE "PRIVATE STREET" TAG SHOULD BE ADDED TO THE END OF STREET NAME SIGNS TO INDICATE WHERE A STREET THAT IS OUTSIDE THE RIGHT-OF-WAY INTERSECTS A PUBLIC STREET. THE BACKGROUND FOR THE "PRIVATE STREET" TAG SHALL BE YELLOW.
4. MULTI-LANE IS DEFINED AS HAVING 2 LANES OR MORE IN EACH DIRECTION, EXCLUDING TURN LANES.
5. OVERHEAD SIGN DETAILS MAY BE FOUND ON THE SIGNAL HEAD MOUNTING DETAIL.



SIGNS INSTALLED SEPARATELY



SIGNS INSTALLED WITH OTHER SIGNS



PLAN VIEW

SQUARE STEEL POST MOUNTING DETAILS

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: STREET NAME SIGN DETAILS

Drawn By: BWC
Checked By: MP
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Proj. #:

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

STREET NAME SIGN DETAILS

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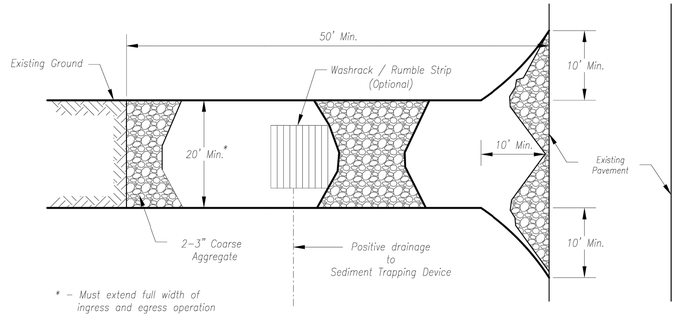
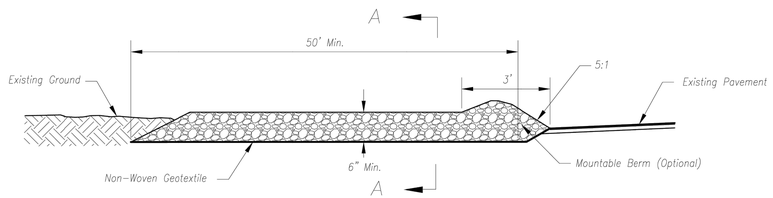


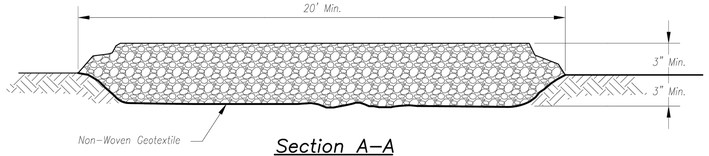
Plan View

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.

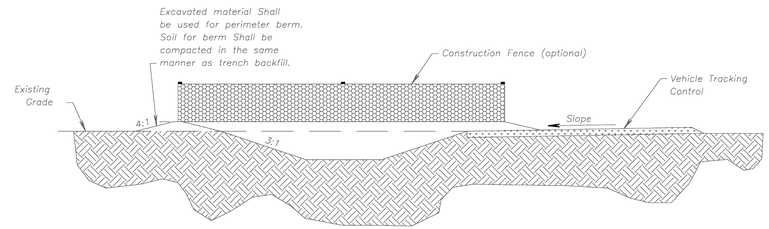
CONSTRUCTION ENTRANCE

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 APWA American Public Works Association

KANSAS CITY METRO CHAPTER

CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT

STANDARD DRAWING NUMBER ESC-01

ADOPTED: 10/24/2016

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE

CONSTRUCTION ENTRANCE DETAILS

SHEET NUMBER

C507

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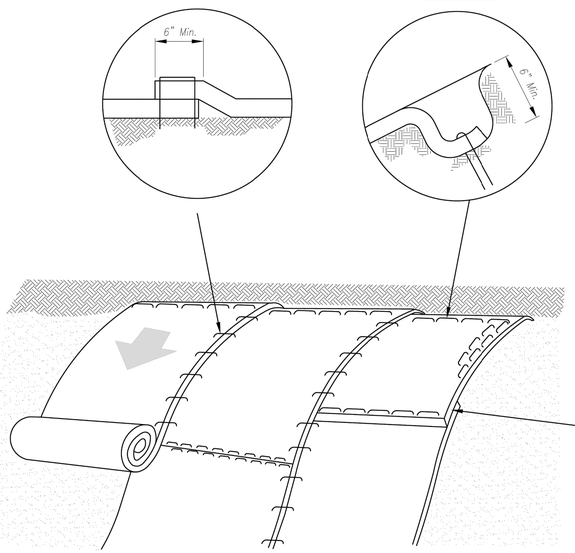


Longitudinal Seam

Anchor Slot

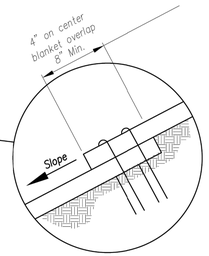
Installation on Slopes

General Notes:

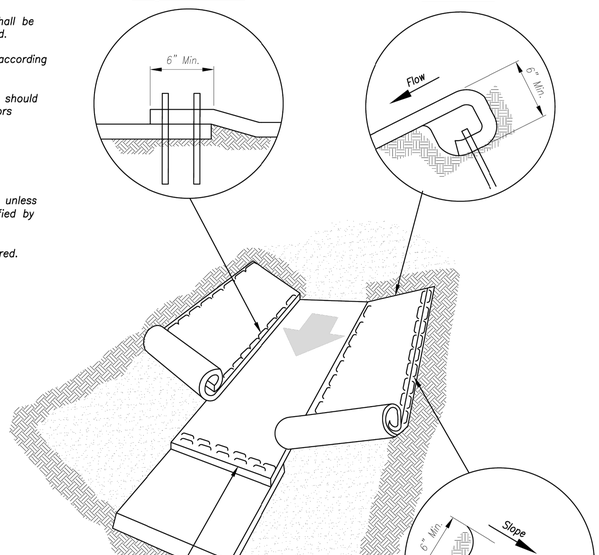
1. *APWA Specifications 2150 and Design Guidance 5100 shall be referenced to select type of blanket or mat to be used.*
2. *Typical anchors and pattern/spacing shall be installed according to the manufacturers instructions.*
3. *LONGITUDINAL SEAMS: The edges of the blanket or mat should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.*

Maintenance:

1. *Torn or degraded product shall be repaired or replaced, unless such degradation is within the functional longevity specified by the manufacturer.*
2. *Edges or seams that are loose or frayed shall be secured.*

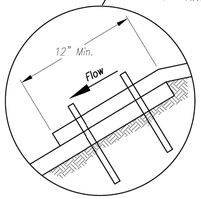


Splice Seam

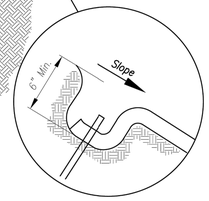


Longitudinal Seam

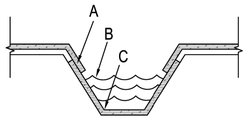
Anchor Fold



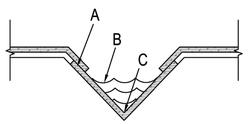
Splice Seam



Edge Anchor



Trapezoidal Channel



V Channel

Notes for Installation in Channels:

1. *Erosion Control Blankets and TRMs shall be laid in the direction of the flow, with the first course at the centerline of channel, where applicable. In order for the mat to be in contact with the soil, lay the mat loosely, avoiding stretching.*
2. *ANCHOR FOLD: The top of the mat should be folded under, buried and secured with wood or other approved anchors placed 6 inches apart. The top edge of the mat should be buried in a slot 6 inches wide x 6 inches deep, anchored in the bottom of the slot, backfilled, and the mat folded over the top as shown in detail.*
3. *SPLICE SEAM: When splices are necessary, overlap end a minimum of 12 inches in direction of water flow. Stagger splice seams.*
4. *CHECK SLOTS: Establish check slots transverse to slope every 30 feet. The slots should be 6 inches wide x 6 inches deep. The mat shall be cut to a length 12 inches beyond the slot. The top of the downstream mat shall be slotted in, secured and buried similar to the edge anchor fold. The upstream mat shall then cover the slot and be anchored as shown.*
5. *EDGE ANCHORS: Lay outside edge of mat into trench at top of the slope and anchor.*
6. *TERMINUS: The bottom edge of the mat shall be anchored.*

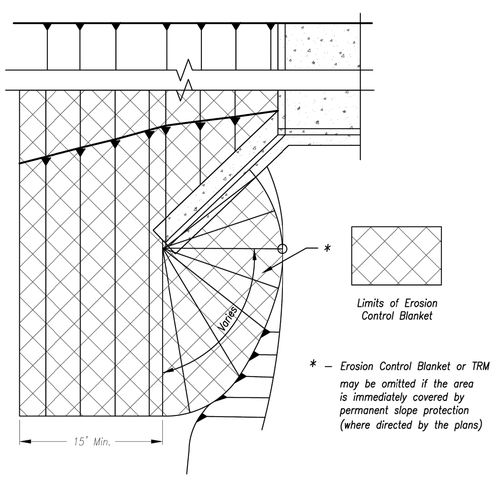
Critical Points:

A – *Overlaps and seams;*

B – *Projected water line;*

C – *Channel bottom / side slope vertices;*

Installation in Channels



Partial Box Culvert Plan

Not to Scale

Limits of Erosion Control Blanket

* – *Erosion Control Blanket or TRM may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans)*

Installation Around Culvert Slope

Notes for Installation on Slopes:

1. *Erosion Control Blankets and TRMs shall be laid in the direction of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.*
2. *ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.*
3. *SPLICE SEAM: When splices are necessary, overlap end a minimum of 8 inches in direction of water flow. Stagger splice seams.*
4. *TERMINAL FOLD: The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.*

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

AMERICAN PUBLIC WORKS ASSOCIATION

Kansas City Metro Chapter APWA AMERICAN PUBLIC WORKS ASSOCIATION

KANSAS CITY METRO CHAPTER

EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS

STANDARD DRAWING NUMBER ESC-02

ADOPTED: 10/24/2016

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DISCOVERY CROSSING AT DISCOVERY PARK- PUBLIC INFRASTRUCTURE

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ISSUED BY:
LICENSE NO: ____

SHEET TITLE

STEEP SLOPE PROTECTION DETAILS

SHEET NUMBER

C508

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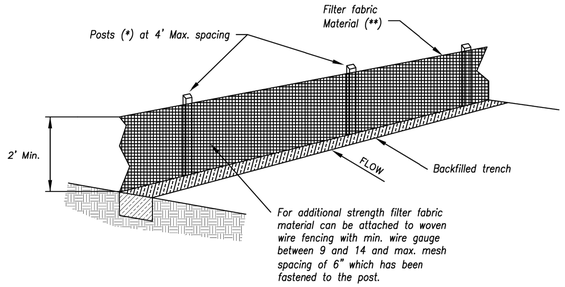
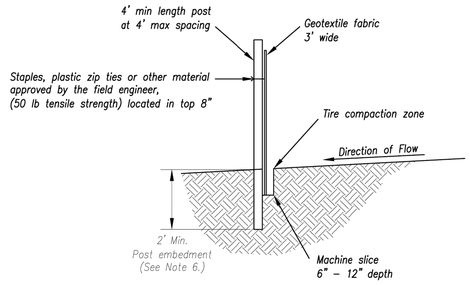




(*) POSTS

- MIN. LENGTH 4'
- HARDWOOD 1 3/16" x 1 3/16"
- NO.2 SOUTHERN PINE 2 3/8" x 2 3/8"
- STEEL 1.33 LB/FT

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

SILT FENCE DETAILS
Not to Scale

Notes:

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

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ⅓ the height of silt fence.
2. Repair as necessary to maintain function and structure.

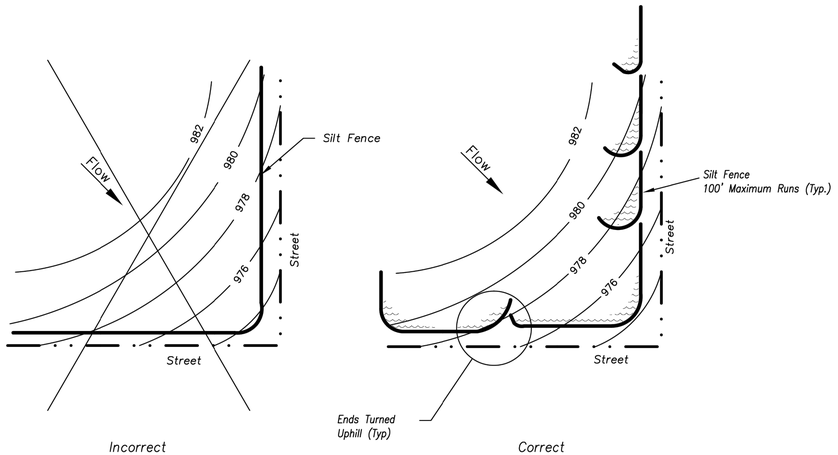
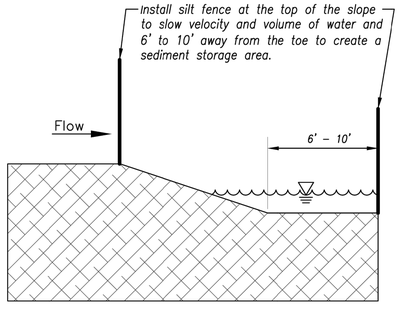
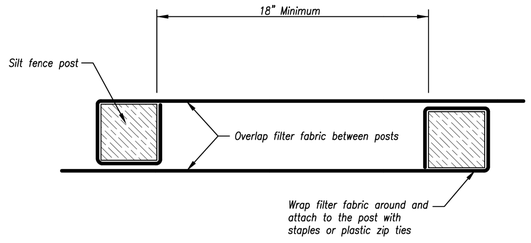


Figure A

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

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE
SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

NO.	DESCRIPTION	DATE
1	CITY COMMENTS	09/12/2025

DRAWING INFORMATION
PROJECT NO: 24KC10016
DRAWN BY: JGD
CHECK BY: JWB
ISSUED DATE: 9/12/25
FIELD BOOK:

STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE
SILT FENCE DETAILS

SHEET NUMBER
C509
33 OF 37

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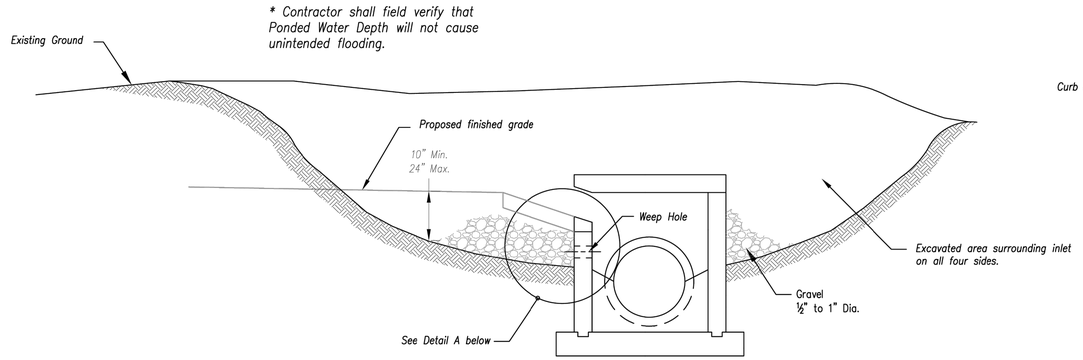
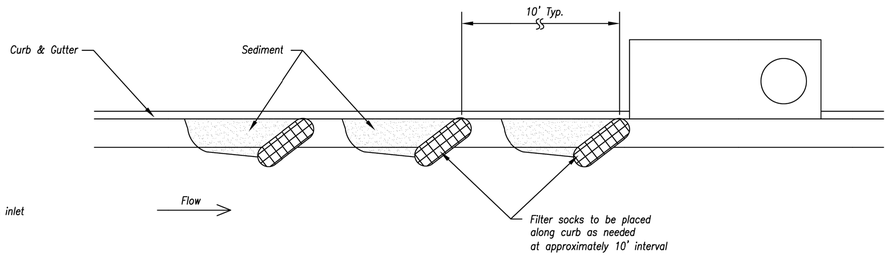
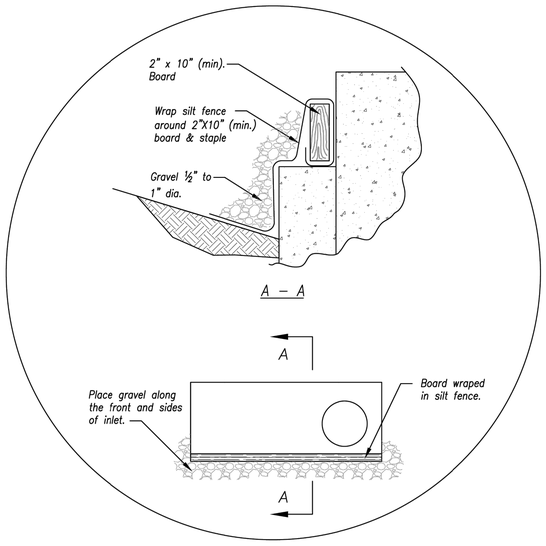




On Grade Curb Inlet Protection



Detail A

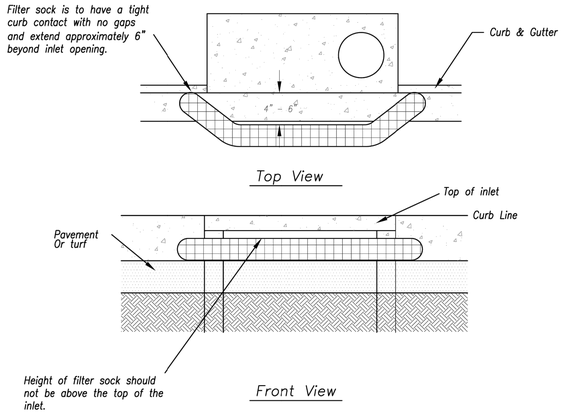
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

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

Maintenance:

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



Sump Inlet Sediment Filter

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

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

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Kansas City Metro Chapter APWA American Public Works Association

KANSAS CITY METRO CHAPTER

CURB INLET PROTECTION

STANDARD DRAWING NUMBER ESC-06

ADOPTED: 10/24/2016

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

REVISIONS

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STATE OF MISSOURI
JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO: ——

SHEET TITLE

CURB INLET PROTECTION DETAILS

SHEET NUMBER

C510

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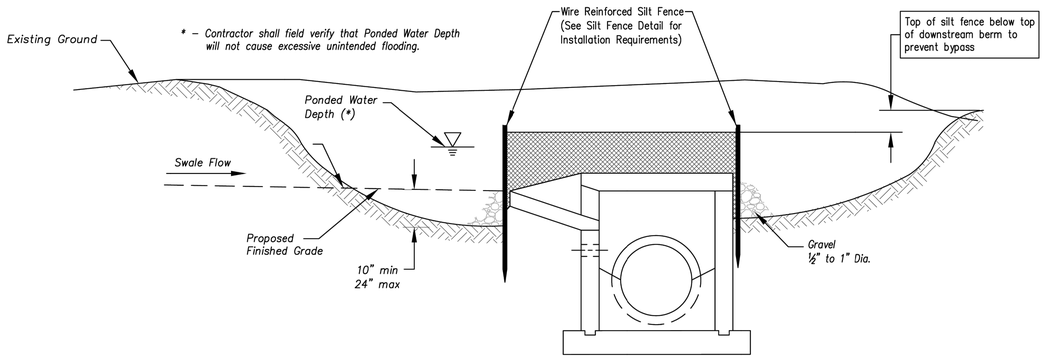
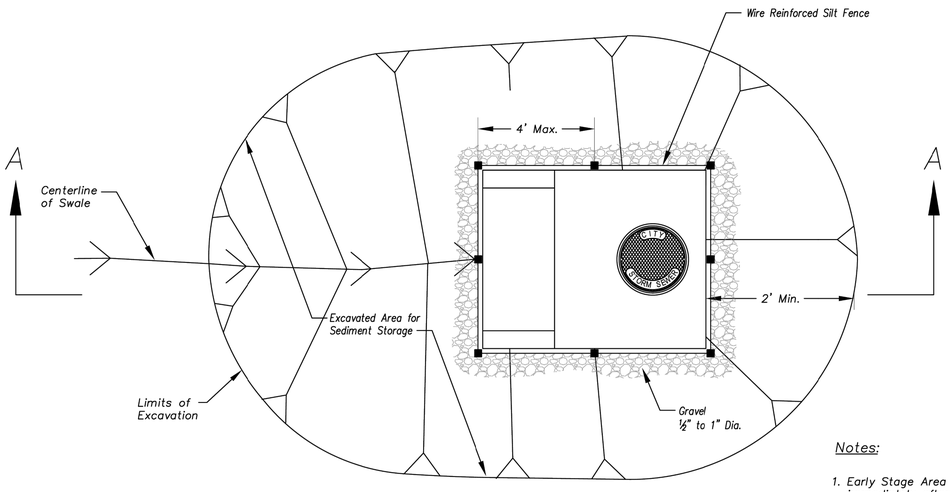
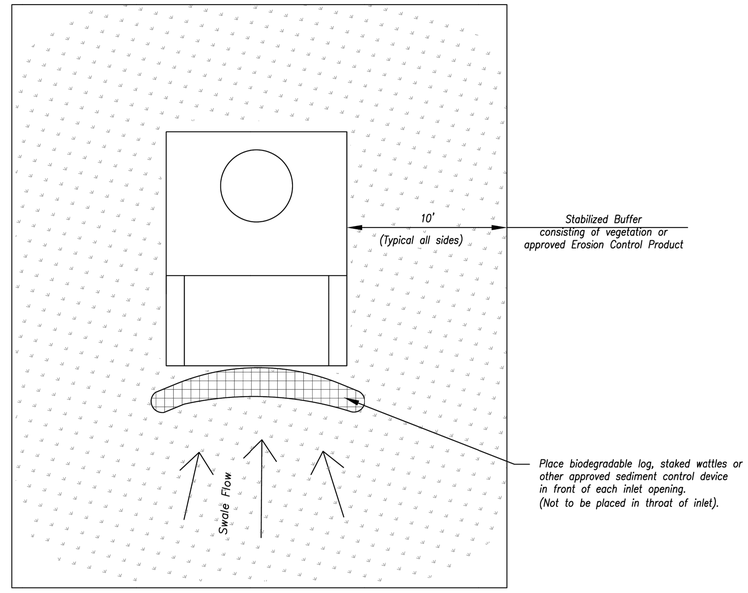


Section A–A
Not to Scale



Plan
Not to Scale

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



Plan
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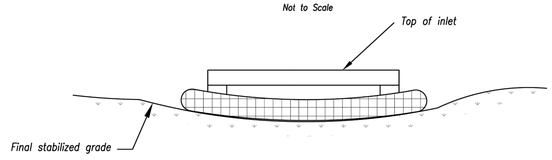

Front View

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

Notes:

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

Maintenance:

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

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

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

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE
SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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JEFFREY W. BARTZ
NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO:

SHEET TITLE
AREA INLET PROTECTION DETAILS

SHEET NUMBER
C511
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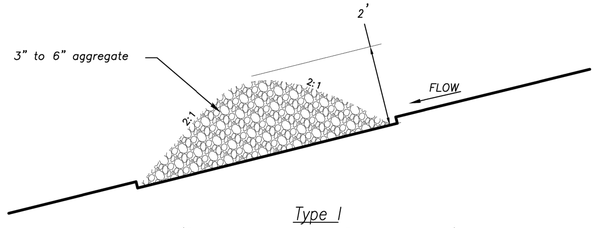
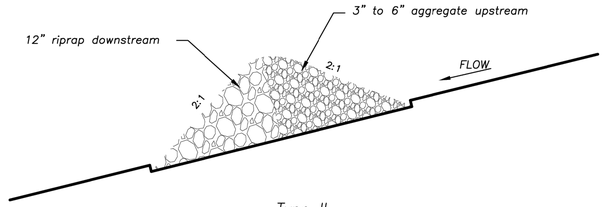


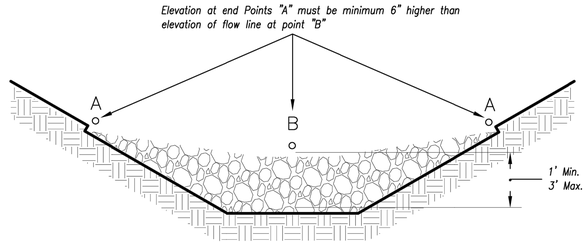
Type I
(2 Acres or less of Drainage Area)
Not to Scale



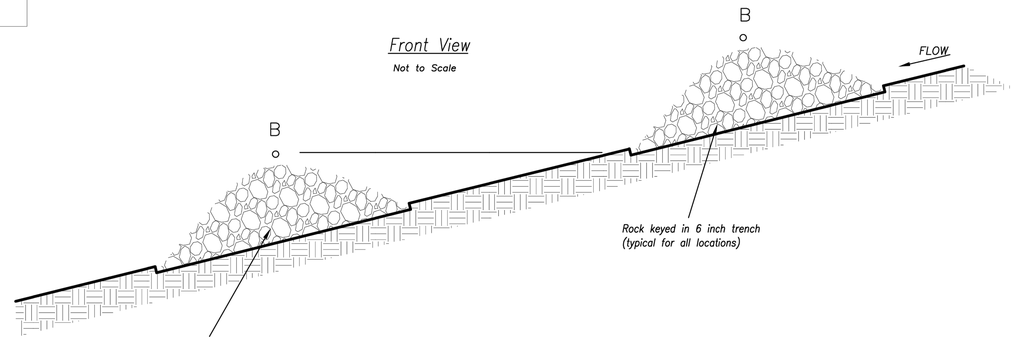
Type II
(2-10 Acres of Drainage Area)
Not to Scale

ROCK DITCH CHECK

Temporary Rock Ditch Check Spacing	
Ditch Centerline Slope (%)	Spacing Interval (Feet)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
Note: Use this spacing only for Rock Ditch Checks.	



Front View
Not to Scale



Spacing Between Check Dams (all types)
Not to Scale

Notes:

1. Rock check dams shall be used only for drainage areas less that 10 acres unless approved by the City Engineer.
2. Use rock checks only in situations where the ditch slope exceeds 6%.

Maintenance:

1. Remove and dispose of sediment deposits when the deposit approaches ½ the height of the ditch check.
2. Replace and reshape 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

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ROCK DITCH CHECKS

STANDARD DRAWING NUMBER ESC-10

ADOPTED: 10/24/2016

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DISCOVERY CROSSING AT DISCOVERY PARK-PUBLIC INFRASTRUCTURE

SW OF THE INTERSECTION OF NE COLBERN RD & NE DOUGLAS RD
LEE'S SUMMIT, MO

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NUMBER PE-2012022594
PROFESSIONAL ENGINEER

ISSUED BY:
LICENSE NO: ——

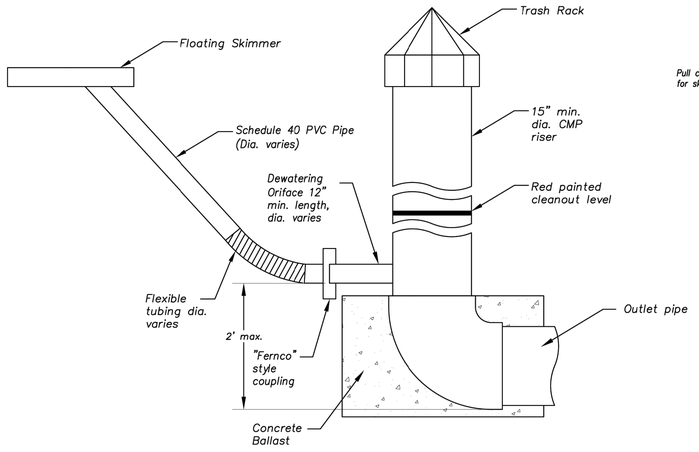
SHEET TITLE

ROCK DITCH CHECK DETAILS

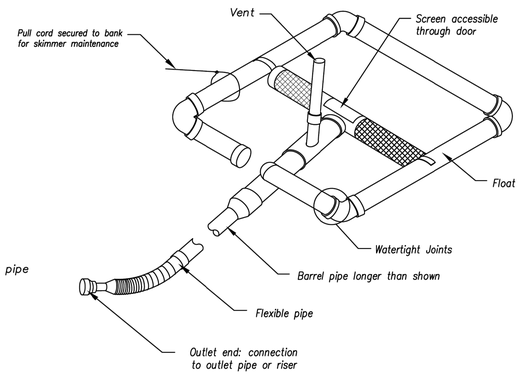
SHEET NUMBER

C512

36 OF 37

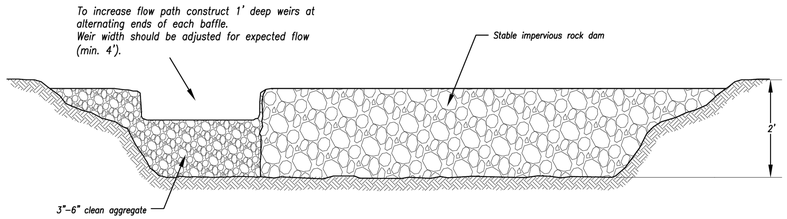


PRINCIPAL SPILLWAY DETAIL

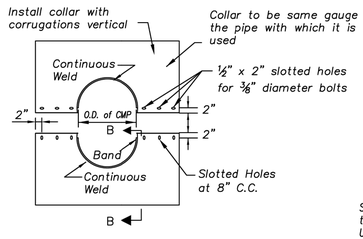


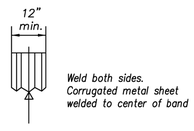
SKIMMER DETAIL (Typ.) *

* Designer to provide specific details per application (e.g. pipe sizes, screen sizes, perforation, etc.) as required.



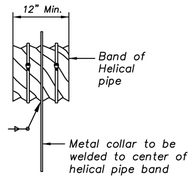
Option A – Rock with Weir



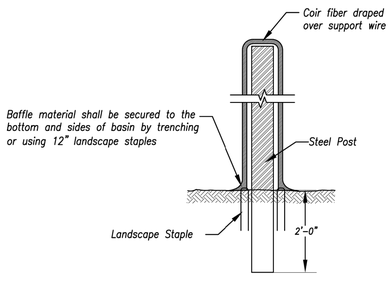


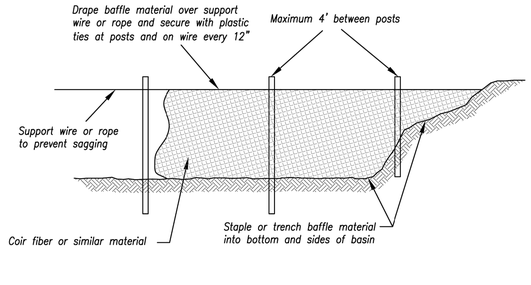
SECTION B–B

Size and spacing of slotted openings shall be the same as shown for CM collar.
Use rods and lugs to clamp bands securely to pipe.

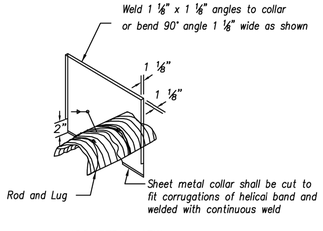


PARTIAL ELEVATION

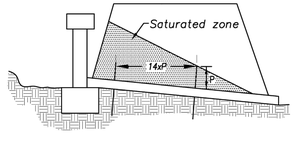




Option B – Coir Fiber Material



ISOMETRIC VIEW



ANTI–SEEPAGE COLLAR LOCATIONS

Anti–Seepage Collar Notes:

1. Connections between the anti–seepage collar and the barrel must be watertight.
2. P = projection distance. Sized as required to achieve at least a 10% increase in seepage length.
3. 14xP = Max. spacing between collars.
4. Collars shall generally be placed in the middle third of the embankment, and within the saturated zone.
5. All materials to be in accordance with construction material specifications.
6. When specified on the plans, coating of collars shall be in accordance with construction material specifications.
7. Unassembled collars shall be marked by painting or tagging to identify matching pairs.
8. The lap between the two half sections and between the pipe and connecting band shall be caulked with asphalt mastic at the time of installation.
9. Each collar shall be furnished with two (2) ½" diameter rods with standard tank lugs for connecting the collars to the pipe.
10. For bands and collars, modification of the details shown may be used providing equal water tightness is maintained and detailed drawings are Submitted and approved by the Engineer prior to delivery.
11. Two other types of anti–seep collars are:
    a. Corrugated metal, similar to above, except shop welded to a 4 ft. section of the pipe and connected to the pipe with connecting bands.
    b. Concrete, 6 inches thick, formed around the pipe with #3 rebar spaced 15".

CORRUGATED METAL ANTI–SEEPAGE COLLAR DETAIL

Not to Scale

BAFFLE DETAILS

Not to Scale

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

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SEDIMENT BASIN - DETAILS

STANDARD DRAWING NUMBER ESC-12

ADOPTED: 10/24/2016

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LICENSE NO: ——

SHEET TITLE

SEDIMENT BASIN DETAILS

SHEET NUMBER

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