MIDWEST CARWASH
LAND DISTURBANCE PLAN

LOT 13, LEMONE-SMITH BUSINESS & RETAIL CENTER, PLAT 8, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI

NOT TO SCALE

LEGEND

- SECTION CORNER
- ALUMINUM MONUMENT
- SET 1/2" REBAR W/LC 114 CAP IN CONCRETE
- FOUND 1/2" REBAR
- FIRE HYDRANT
- WV WATER VALVE
- WM WATER METER
- WMP WATER METER PIT
- GV GAS VALVE
- GM GAS METER
- S SPRINKLER BOX
- S SANITARY SEWER MANHOLE
- S STORM SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- E ELECTRIC BOX
- B BREAKER BOX
- EM ELECTRIC METER
- TRANSFORMER
- POWER POLE
- LPPP POWER POLE/W LIGHT
- GUY WIRE
- LIGHT POLE
- YL YARD LIGHT
- BOREHOLE LOCATION
- —P—OH— OVERHEAD POWER LINE
- —G— GAS LINE
- —P—UG— UNDERGROUND POWER LINE
- —TEL— UNDERGROUND TELEPHONE LINE
- —SS— SANITARY SEWER LINE
- —SD— STORM LINE
- —W— WATER LINE
- T TELEPHONE MANHOLE
- TP TELEPHONE PEDESTAL
- TC TELEPHONE CABINET
- TS TRAFFIC SIGNAL BOX
- TS TRAFFIC SIGNAL POLE
- C CABLE BOX
- F FIBER OPTIC BOX
- TVP TELEVISION PEDESTAL
- TB TELEPHONE BOOTH
- AC AIR CONDITIONING UNIT
- GRATE INLET
- WOOD POST
- BOLLARD
- STEEL POST
- COLUMN
- FP FLAG POLE
- BU BUSH
- SIGN
- TREE

BENCHMARKS

OLSSON BENCH MARK #1: SET CHISELED SQUARE
ELEVATION=1000.20'

PROPERTY DESCRIPTION

LOT 13, LEMONE-SMITH BUSINESS & RAIL CENTER, PLAT 8, A SUBDIVISION IN LEE'S SUMMIT, JACKSON COUNTY, MISSOURI. EXCEPT AND SUBJECT TO: EASEMENTS, RESTRICTIONS AND ASSESSMENTS OF RECORD, AND ALL THE TAXES AND ASSESSMENTS THAT MAY BE LEVIED, IMPOSED OR BECOME PAYABLE HEREAFTER.

MITCH PLEAK, P.E.
CIVIL ENGINEER
MO # PE-2009018764

DATE

N

☐ NOT FOR CONSTRUCTION

☒ REVIEWED FOR CONSTRUCTION

I CERTIFY THAT TO THE BEST OF MY KNOWLEDGE AND ABILITY THAT ALL LAND DISTURBANCE ACTIVITY, CONSTRUCTION, AND DEVELOPMENT ASSOCIATED WITH THIS PROJECT WILL BE DONE PURSUANT TO THIS PLAN

OWNER/DEVELOPER/OPERATOR/CONTRACTOR DATE

CITY APPROVAL

RELEASED FOR CONSTRUCTION DATE

Sheet List Table

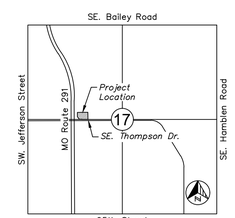
Sheet Number	Sheet Title
LD0.0	COVER SHEET
LD0.1	GENERAL NOTES
LD1.0	PHASE A – EROSION CONTROL PLAN
LD1.1	PHASE B – EROSION CONTROL PLAN
--	ERO DTL
--	ERO DTL (2)

DEVELOPMENT TEAM CONTACT INFORMATION

OWNER/DEVELOPER	
MIDWEST WASH GROUP	JASON BOHNERT MIDWEST WASH GROUP PH: 816-258-0583 JBOHNERT@MIDWESTWASHGROUP.COM
CIVIL ENGINEER	
MITCH PLEAK OLSSON	7301 W 133RD STREET SUITE 200 OVERLAND PARK, KS 66213 PH: 913-381-1170 mpleak@olsson.com

UTILITY AND GOVERNING AGENCY CONTACT INFORMATION

CITY OF LEE'S SUMMIT, MISSOURI	220 SE GREEN LEE'S SUMMIT, MO 64063
CITY HALL	816.969.1000
BUILDING ISPECTIONS	816.969.1200
SPECIAL INSPECTIONS	816.969.1200
BUILDING PERMITS	816.969.1200
LAND DEVELOPMENT DIVISION/INSPECTIONS	816.969.1200
TRAFFIC OPERATIONS	816.969.1800
LEE'S SUMMIT WATER UTILITIES	1200 SE HAMBLEN ROAD LEE'S SUMMIT, MO 64081
LEE'S SUMMIT WATER & SERVICES	816.969.1940
LEE'S SUMMIT PUBLIC WORKS	816.969.1800
SPIRE (MGE)	314.342.0500
EVERGY	8700 EAST FRONT STREET KANSAS CITY, MO 64120 816.471.5275
TELEPHONE SERVICE	
AT&T	816.221.1781
CABLE TELEVISION SERVICE	
SPECTRUM	877.772.2253
GOOGLE FIBER	877.454.6959



Section 17, T47N, R31W
VICINITY MAP
Scale: 1" = 2000'

Property Owner:
Midwest Wash Group, LLC
1362 NW. Windsor Drive
Lee's Summit, MO 64086

Prepared For:
Kadean Construction
Attn: Rob Geist
1821 McGee Street
Kansas City, MO 64108

Prepared By:
Olsson, Inc.
7301 West 133rd Street, Suite 200
Overland Park, KS 66213
Phone: (913) 381-1170
Fax: (913) 381-1174

THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF THE SENATE BILL NUMBER 583, 78TH GENERAL ASSEMBLY OF THE STATE OF MISSOURI. THE BILL REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, & OBTAINING INFORMATION FROM, UTILITY COMPANIES. STATE LAW REQUIRES 48 HOURS ADVANCE NOTICE. CALL 1-800-DIG-RITE.

olsson
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170
www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009018764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

COVER SHEET
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by:	SG
checked by:	BP
approved by:	LM
QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

SHEET
LD0.0

DWG: F:\2022\04001-04500\022-04040\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Land Disturbance\C_TTL01_02204040.dwg USER: bpayne2
DATE: May 08, 2023 5:11pm XREFS: C_PBASE_02204040 C_LD_PTBLK_02204040

GENERAL NOTES:

1. THE EXISTING UTILITY LOCATIONS SHOWN ON THE PLANS ARE APPROXIMATE AND MAY NOT INCLUDE ALL LINES PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE TO CALL "1-800-DIG-RITE", 1(800)344-7483 OR 811 AND COORDINATE FIELD LOCATION OF EXISTING UNDERGROUND UTILITIES PRIOR TO BEGINNING GRADING ACTIVITIES. !!STOP!! CALL BEFORE YOU DIG!!
2. THE CONTRACTOR SHALL NOT CHANGE OR DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE OWNER AND ENGINEER.
3. ALL WORK AND MATERIALS SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER OR THE OWNER'S REPRESENTATIVE.
4. ALL ESTIMATES OF QUANTITIES ARE FOR INFORMATION PURPOSES ONLY. CONTRACTOR AND SUBCONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING ALL QUANTITIES AND FOR BRINGING THE PROJECT TO THE LINES AND GRADES SHOWN HEREIN. CONTRACTOR SHALL PROVIDE ALL WORK AND MATERIALS REQUIRED TO FULFILL THE PLANS IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE EARTHWORK QUANTITIES AND TO ACCOUNT FOR HAUL IN OR HAUL OFF OF MATERIAL AS NECESSARY TO MEET THE LINES AND GRADES OF THE PLANS EVEN IF QUANTITY ESTIMATES ARE SHOWN WITHIN THESE DOCUMENTS. NO ADDITIONAL PAYMENTS WILL BE MADE FOR IMPORT OR EXPORT OF MATERIAL OR FOR ADJUSTMENTS TO QUANTITY ESTIMATES.
5. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE AMERICAN PUBLIC WORKS ASSOCIATION – KANSAS CITY METROPOLITAN CHAPTER (APWA-KC) AND THE CITY OF LEE'S SUMMIT, MO, EXCEPT WHERE SHOWN OTHERWISE. NOTIFY ENGINEER OF DISCREPANCIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS, PAYING ALL FEES AND FOR OTHERWISE COMPLYING WITH ALL APPLICABLE REGULATIONS GOVERNING THE WORK.
7. THE CONTRACTOR SHALL ADHERE TO THE PROVISIONS OF MISSOURI STATE LAW WHICH REQUIRES THAT ANY PERSON OR FIRM DOING EXCAVATION ON PUBLIC RIGHT-OF-WAY DO SO ONLY AFTER GIVING NOTICE TO, AND OBTAINING INFORMATION FROM UTILITY COMPANIES.
8. PRIOR TO COMMENCEMENT OF WORK, THE CONTRACTOR SHALL NOTIFY ALL THOSE COMPANIES WHICH HAVE FACILITIES IN THE NEAR VICINITY OF THE CONSTRUCTION TO BE PERFORMED.
9. THE CONTRACTOR SHALL LIMIT THE REMOVAL OF TREES TO THE LIMITS OF DEMOLITION SHOWN ON THE DEMOLITION PLAN.
10. CLEARING AND GRUBBING OPERATIONS AND DISPOSAL OF ALL DEBRIS THEREFROM SHALL BE PERFORMED BY THE CONTRACTOR IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES.
11. ALL WASTE MATERIAL RESULTING FROM THE PROJECT SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR.
12. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS ARE TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTROL OF SURFACE EROSION DURING CONSTRUCTION AND UNTIL THE OWNER ACCEPTS THE WORK AS COMPLETE. EROSION CONTROL MEASURES INCLUDING, BUT NOT LIMITED TO, THE SILT FENCES AND GRAVEL FILTER BAGS SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE FOR THE DURATION OF THE SITE IMPROVEMENTS.
14. ALL HDPE PIPE SHALL BE ADS (N-12) OR APPROVED EQUAL, AND CONFORM TO AASHTO M294 SPECIFICATIONS. ALL PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
15. IF PRECAST CONCRETE STORM SEWER STRUCTURES ARE TO BE USED ON THIS PROJECT, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND HAVE THEM APPROVED BY THE ENGINEER PRIOR TO FABRICATION OF THE STRUCTURES. FAILURE TO DO SO SHALL BE CAUSE FOR REJECTION.
19. EXISTING TOPSOIL SHALL BE STRIPPED TO A POINT WHERE ALL VEGETATION IS REMOVED. REFER TO CITY STANDARDS.
20. THE CONTRACTOR SHALL, BY HIS OWN INVESTIGATION, AND PRIOR TO COMMENCING WORK, SATISFY HIMSELF AS TO THE SURFACE AND SUBSURFACE CONDITIONS TO BE ENCOUNTERED.
21. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF ALL BOUNDARY CORNERS AND SECTION CORNERS. ANY BOUNDARY CORNER AND/OR SECTION CORNER DISTURBED OR DAMAGED BY CONSTRUCTION ACTIVITIES SHALL BE RESET BY A LAND SURVEYOR LICENSED IN THE STATE OF MISSOURI, AT THE CONTRACTOR'S EXPENSE.
22. NO FEDERALLY OWNED MAILBOX MAY BE DISTURBED. THE CONTRACTOR SHALL GIVE AT LEAST TWENTY-FOUR (24) HOURS ADVANCE NOTICE TO THE MANAGER OF DELIVERY AND COLLECTIONS. TAMPERING WITH FEDERAL MAIL FACILITIES MAY SUBJECT THE CONTRACTOR TO PROSECUTION BY THE FEDERAL GOVERNMENT.
23. THE CONTOUR LINES SHOWN ARE FOR MASS GRADING PURPOSES.
24. EXISTING CONTOURS REPRESENT MASS FINISH GRADE ELEVATIONS.
25. THE CONTRACTOR SHALL FINISH GRADE SLOPES AS SHOWN NO STEEPER THAN 1 FOOT VERTICAL IN 3 FEET HORIZONTAL UNLESS OTHERWISE SHOWN BY CONTOURS OR SPOT ELEVATIONS.
26. THE CONTRACTOR SHALL GRADE LANDSCAPED AREAS TO PROVIDE POSITIVE DRAINAGE IN THE BORROW AREA.
27. THE CONTRACTOR SHALL MAKE HIS OWN ASSUMPTIONS ON THE LOCATION AND CONSISTENCY OF ANY EXISTING ROCK LAYERS UNDERLYING THE PROJECT SITE. ALL ROCK EXCAVATION AND REMOVAL SHALL BE INCLUDED IN THE CONTRACTORS' BID.
28. CONTRACTOR TO FIELD VERIFY ELEVATIONS AND LOCATIONS OF EXISTING UTILITIES AND INFRASTRUCTURE PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN PLANS AND FIELD CONDITIONS.
29. BY ACCEPTING AND UTILIZING ANY ELECTRONIC FILE OF ANY DRAWING, REPORT OR DATA TRANSMITTED BY OLSSON (OLSSON), THE RECIPIENT AGREES FOR ITSELF, ITS SUCCESSORS, ASSIGNS, INSURERS AND ALL THOSE CLAIMING UNDER OR THROUGH IT, THAT BY USING ANY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE, ALL USERS AGREE TO BE BOUND BY THE FOLLOWING TERMS. ALL OF THE INFORMATION CONTAINED IN THIS ELECTRONIC FILE IS THE WORK PRODUCT AND INSTRUMENT OF SERVICE OF OLSSON, WHO SHALL BE DEEMED THE AUTHOR, AND SHALL RETAIN ALL COMMON LAW, STATUTORY LAW AND OTHER RIGHTS, INCLUDING COPYRIGHTS, UNLESS THE SAME HAVE PREVIOUSLY BEEN TRANSFERRED IN WRITING TO THE RECIPIENT. THE INFORMATION CONTAINED IN THE ELECTRONIC FILE IS PROVIDED FOR THE CONVENIENCE OF THE RECIPIENT AND IS PROVIDED IN "AS IS" CONDITION. THE RECIPIENT IS AWARE THAT DIFFERENCES MAY EXIST BETWEEN THE ELECTRONIC FILES AND THE PRINTED HARD-COPY ORIGINAL SIGNED AND SEALED DRAWINGS OR REPORTS. IN THE EVENT OF A CONFLICT BETWEEN THE SIGNED AND SEALED ORIGINAL DOCUMENTS PREPARED BY OLSSON AND THE ELECTRONIC FILES TRANSFERRED HEREWITH, THE SIGNED AND SEALED ORIGINAL DOCUMENTS SHALL GOVERN. OLSSON SPECIFICALLY DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ELECTRONIC FILES. IT SHALL BE THE RECIPIENT'S RESPONSIBILITY TO CONFIRM THE ACCURACY OF THE INFORMATION CONTAINED IN THE ELECTRONIC FILE AND THAT IF ACCURATELY REFLECTS THE INFORMATION NEEDED BY THE RECIPIENT. THE RECIPIENT SHALL NOT RETRANSMIT THE ELECTRONIC FILE, OR ANY PORTION THEREOF, WITHOUT INCLUDING THIS DISCLAIMER AS PART OF ANY SUCH TRANSMISSION. IN ADDITION, THE RECIPIENT AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, TO INDEMNIFY AND HOLD HARMLESS OLSSON, ITS OFFICERS, DIRECTORS, EMPLOYEES AND SUBCONSULTANTS AGAINST ANY AND ALL DAMAGES, LIABILITIES, CLAIMS OR COSTS, INCLUDING REASONABLE ATTORNEY'S AND EXPERT WITNESS FEES AND DEFENSE COSTS, ARISING FROM ANY CHANGES MADE BY ANYONE OTHER THAN OLSSON OR FROM ANY REUSE OF THE ELECTRONIC FILES WITHOUT THE PRIOR WRITTEN CONSENT OF OLSSON.
30. DESIGN PROFESSIONAL SHALL REVIEW SHOP DRAWINGS OR SAMPLES FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPTS ON THE PROJECT AND FOR COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS, AND SHALL NOT EXTEND TO MEANS OR METHODS OF CONSTRUCTION. THE DESIGN PROFESSIONAL'S REVIEW SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ANY VARIATION FROM THE REQUIREMENTS OF THE CONTRACT DOCUMENTS UNLESS CONTRACTOR HAS IN WRITING CALLED DESIGN PROFESSIONAL'S ATTENTION TO EACH SUCH VARIATION AT THE TIME OF SUBMISSION, AND DESIGN PROFESSIONAL HAS GIVEN WRITTEN APPROVAL OF EACH SUCH VARIATION BY SPECIFIC WRITTEN NOTATION THEREOF INCORPORATED INTO OR ACCOMPANYING THE SHOP DRAWING OR SAMPLE; NOR WILL ANY APPROVAL BY THE DESIGN PROFESSIONAL RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS IN SHOP DRAWINGS WITH CONFORMANCE TO CONTRACT DOCUMENTS.
31. GENERAL CONSTRUCTION NOTE REGARDING SEQUENCING OF EROSION CONTROL – ALL PERIMETER SILT FENCE, EARTH DIKES, SEDIMENT BASINS, AND ROCK CONSTRUCTION ENTRANCES WILL BE INSTALLED BEFORE GRADING OPERATIONS BEGIN, EXCEPT THAT SILT FENCE WHICH IS TO BE PLACED ALONG THE BACK OF CURB FOR PROTECTION OF THE STREET. SILT FENCE AND EARTH DIKES THAT ARE PLACED BEFORE GRADING BEGINS WILL BE MAINTAINED BY THE GRADING CONTRACTOR UNTIL ALL UTILITIES ARE IN PLACE. THE SILT FENCE THAT IS PLACED ALONG THE BACK OF THE CURB OR RIGHT -OF-WAY WILL BE INSTALLED IMMEDIATELY AFTER THE CURB IS CONSTRUCTED. EROSION AND SEDIMENTATION CONTROLS ARE TEMPORARY AND MUST BE REMOVED BY THE CONTRACTOR AFTER CONSTRUCTION IS COMPLETE AND THE DISTURBED AREA IS AT LEAST 70% PERMANENTLY VEGETATED.
32. ALL EXTERIOR CONCRETE SHALL BE KCMMB-4K AND HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI, SHALL MEET KCMMB STANDARDS AND SPECIFICATIONS, AND SHALL BE AIR ENTRAINED. FLYASH IS NOT A SUITABLE REPLACEMENT FOR PORTLAND CEMENT.
33. ANY CONTRACTOR BIDDING ANY PORTION OF THIS WORK SHALL HAVE IN HIS OR HER POSSESSION A COMPLETE SET OF CONSTRUCTION DOCUMENTS AND BE FAMILIAR WITH ALL SCOPES OF WORK AND TRADES TO UNDERSTAND THEIR INTERACTIONS.
34. EXISTING TOPSOIL SHALL BE STRIPPED TO A POINT WHERE ALL VEGETATION IS REMOVED. REFER TO THE GEOTECHNICAL REPORT PROVIDED BY OLSSON DATED 01/09/2019 AND ALL ADDENDUMS.
35. SITE PREPARATION, GRADING AND EXCAVATION PROCEDURES SHALL CONFORM TO THE RECOMMENDATIONS AS OUTLINED IN THE GEOTECHNICAL REPORT PREPARED BY OLSSON DATED 01/09/2019 AND ALL ADDENDUMS.

GENERAL UTILITY NOTES

36. INSTALL ALL PIPE LENGTHS, BENDS AND FITTINGS NECESSARY FOR UTILITY CONNECTIONS.
37. CONTRACTOR SHALL VERIFY ALL CROSSING ELEVATIONS AND LOCATIONS, SIZES, AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION OF STORM LINES AND ALL UTILITY SERVICE CONNECTIONS. ANY CONFLICTS SHALL BE MADE KNOWN TO THE ENGINEER AND RESOLVED PRIOR TO CONSTRUCTION.
38. CONTRACTOR TO REPAIR ALL AREA DAMAGED BY CONSTRUCTION TO EXISTING CONDITIONS OR BETTER.
39. THE CONTRACTOR SHALL CONTACT THE CITY;S DEVELOPMENT SERVICES ENGINEERING INSPECTION TO SCHEDULE A PRE-CONSTRUCTION MEETING WITH AN INSPECTOR (816.969.1200) PRIOR TO ANY LAND DISTURBANCE WORK.

DEMOLITION NOTES:

1. CONTRACTOR TO PRESERVE ALL SURVEY CONTROL.
2. CONTRACTOR TO COMPLETE DEMOLITION PER THE INTENT OF THESE PLANS AND PROPOSED IMPROVEMENTS.
3. THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. THE ENGINEER MAKES NO GUARANTEES THAT THE UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE ENGINEER HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. THIS INCLUDES PRIVATE AND PUBLIC UTILITIES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT MISSOURI ONE CALL AT 1-800-344-7483 IN ADVANCE OF ANY EXCAVATION TO COORDINATE UTILITY LOCATIONS.
4. CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER EXISTING LINES NOT OF RECORD OR SHOWN ON THESE PLANS.
5. REMOVAL AND DISPOSAL OF BUSHES AND TREES SMALLER THAN 12" IN DIAMETER SHALL BE CONSIDERED SUBSIDIARY TO THE PRICE BID FOR CLEARING AND GRUBBING.
6. ALL ITEMS REMOVED SHALL BE LEGALLY DISPOSED OFF SITE BY THE CONTRACTOR.
7. DO NOT DISRUPT UTILITY SERVICE TO ADJACENT BUSINESSES OR RESIDENCES WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER.
8. DO NOT DISRUPT TRAFFIC ON ADJACENT PUBLIC STREETS WITHOUT PRIOR WRITTEN APPROVAL BY THE CITY.
9. ALL SIDEWALK AND PAVEMENT TO REMAIN SHALL BE PROTECTED IN PLACE INCLUDING PROTECTION FROM DAMAGE CAUSED BY REMOVAL OF ABUTTING PAVEMENT. CONTRACTOR SHALL SAW CUT WHERE NECESSARY.
10. CONTRACTOR SHALL GIVE NOTICE TO ALL UTILITY COMPANIES REGARDING DISCONNECTION, DEMOLITION, AND REMOVAL OF SERVICE LINES. CAP ALL LINES BEFORE PROCEEDING WITH WORK ON THIS CONTRACT.
11. CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANY CONCERNING PORTIONS OF WORK WHICH MAY BE PERFORMED BY THE UTILITY COMPANIES WORK FORCE AND ANY FEES WHICH ARE TO BE PAID TO THE UTILITY COMPANY FOR THEIR SERVICES.
12. CONTRACTOR SHALL PROTECT THE PUBLIC AT ALL TIME WITH FENCING, BARRICADES, ENCLOSURES, ETC. TO THE BEST PRACTICES AND AS APPROVED BY THE ENGINEER AND THE CITY.
13. DAMAGE TO ALL EXISTING CONDITIONS TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
14. DEMOLITION OF BUILDINGS SHALL INCLUDE THE BUILDING STRUCTURE, PAD, FOOTINGS, FOUNDATIONS, BASEMENT WALLS, BASEMENT FLOORS, TRUCK DOCKS, STEPS, DECKS, ALL ITEMS REMAINING IN BUILDING, ALL BUILDING UTILITY SERVICES, SIDEWALKS, AND BACKFILLING AND RESTORING REMAINING EXCAVATIONS, BASEMENTS AND TRENCHES PER SPECIFICATIONS.
15. ALL LIGHT POLE DEMOLITION SHALL INCLUDE FIXTURES, BASES AND WIRING.
16. ALL UTILITY DEMOLITION SHALL INCLUDE METERS, MANHOLES AND OTHER STRUCTURES ASSOCIATED WITH THE UTILITY SERVICE LINE.

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

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olsson
7301 West 133rd Street, Suite 200
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TEL 913.381.1170
www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN BLEAK
NUMBER PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

GENERAL NOTES
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by:	SG
checked by:	BP
approved by:	LM
QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

SHEET
LD0.1

DWG: F:\2022\04001-04500\022-04040\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Land Disturbance\C_TTL01_02204040.dwg USER: bpayne2
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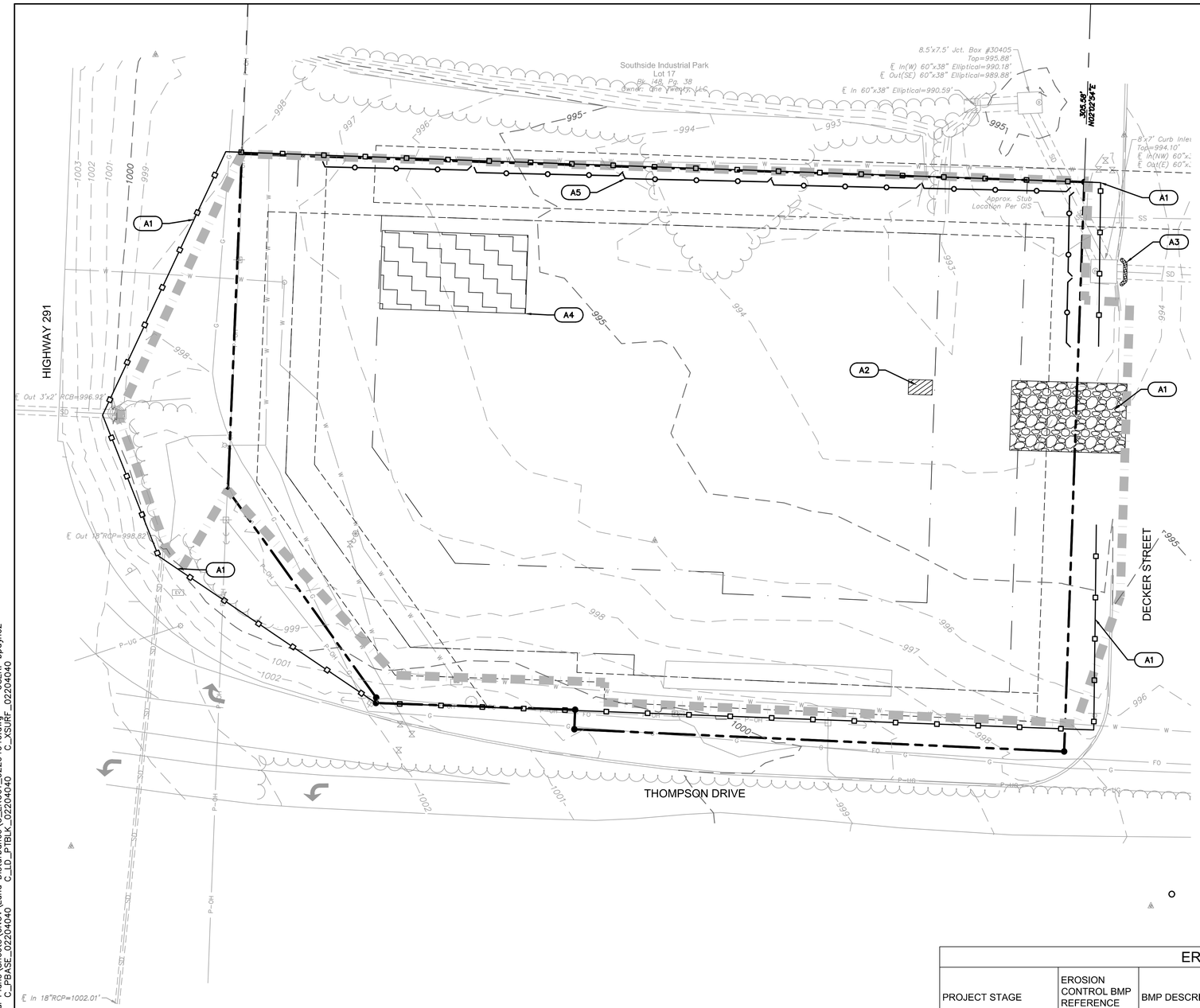

LEGEND

- PROPERTY LINE
- LOT LINE
- 935 — PROPOSED CONTOUR
- 935 — EXISTING CONTOUR
- SEDIMENT FENCE
- LIMITS OF DISTURBANCE (1.35 ACRES)
- TEMPORARY CONCRETE WASHOUT
- TEMPORARY CONSTRUCTION ENTRANCE
- X1 — EROSION CONTROL REFERENCE NUMBER

EROSION CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
	A1	TEMPORARY CONSTRUCTION ENTRANCE	C	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	C	INSTALL AS INDICATED ON PLANS
	A3	EXISTING CURB INLET PROTECTION (CONDITION B)	D	INSTALL AS INDICATED ON PLANS
	A4	STAGING/STOCKPILE AREAS	D	INSTALL AS SHOWN – SEE DETAIL SHEET LD2.0 – LD2.1 FOR SPECIFICS
	A5	SILT FENCE	D	INSTALL AS SHOWN – SEE DETAIL SHEET LD2.0 – LD2.1 FOR SPECIFICS
B – CONSTRUCTION	B1	TEMPORARY EROSION CONTROL BLANKET	N/A	INSTALL AS SHOWN–SLOPES TO BE STABILIZED ONCE FINAL GRADES HAVE BEEN OBTAINED
	B2	CURB INLET PROTECTION (CONDITION A)	D	INSTALL AS INDICATED ON PLANS
	B3	CURB INLET PROTECTION (CONDITION B)	D	INSTALL AS INDICATED ON PLANS
C – FINAL STABILIZATION	C1	SEED, AND STABILIZE ALL DISTURBED AREAS	N/A	FINAL STABILIZATION REQUIRES A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER 100% OF DISTURBED AREA

N

0' 10' 20' 40'
SCALE IN FEET

olsson
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170
www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN PLEAK
NUMBER PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PHASE A - EROSION CONTROL PLAN
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by: SG
checked by: BP
approved by: LM
QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
LD1.0

DWG: F:\2022\04001-04500\022-04040\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Land Disturbance\C_ERO01_02204040.dwg USER: bpayne2
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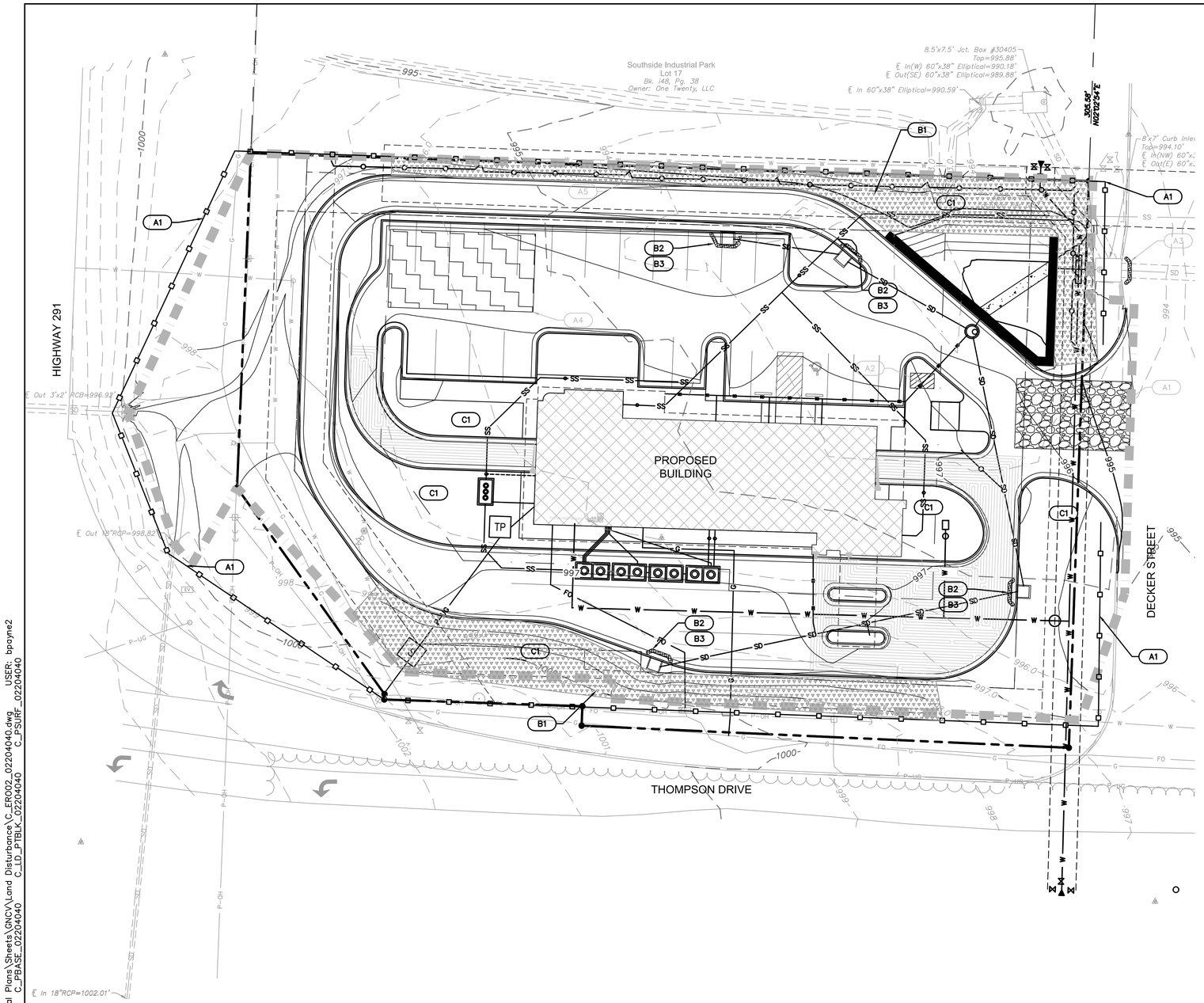

LEGEND

- PROPERTY LINE
- LOT LINE
- 935 — PROPOSED CONTOUR
- 935 — EXISTING CONTOUR
- SEDIMENT FENCE
- LIMITS OF DISTURBANCE (1.35 ACRES)
- TEMPORARY CONSTRUCTION ENTRANCE
- CONCRETE WASHOUT
- STAGING/STOCKPILE AREA
- STABILIZATION. "LANDLOK (S2)" SHALL BE USED OR APPROVED EQUAL. CONTACTOR TO SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL. SEED WITH PERENNIAL SEEDING TO MEET SWPPP REQUIREMENTS. INSTALL PER DETAIL AND MANUFACTURER RECOMMENDATIONS.
- INLET PROTECTION
- X1 — EROSION CONTROL REFERENCE NUMBER

EROSION CONTROL STAGING CHART

PROJECT STAGE	EROSION CONTROL BMP REFERENCE NO.	BMP DESCRIPTION	REMOVE AFTER STAGE	NOTES:
	A1	TEMPORARY CONSTRUCTION ENTRANCE	B	INSTALL AS INDICATED ON PLANS
	A2	CONCRETE WASHOUT	B	INSTALL AS INDICATED ON PLANS
	A3	EXISTING CURB INLET PROTECTION (CONDITION B)	C	INSTALL AS INDICATED ON PLANS
	A4	STAGING/STOCKPILE AREAS	C	INSTALL AS SHOWN – SEE DETAIL SHEET LD2.0 – LD2.1 FOR SPECIFICS
	A5	SILT FENCE	C	INSTALL AS SHOWN – SEE DETAIL SHEET LD2.0 – LD2.1 FOR SPECIFICS
B – CONSTRUCTION	B1	TEMPORARY EROSION CONTROL BLANKET	N/A	INSTALL AS SHOWN–SLOPES TO BE STABILIZED ONCE FINAL GRADES HAVE BEEN OBTAINED
	B2	CURB INLET PROTECTION (CONDITION A)	C	INSTALL AS INDICATED ON PLANS
	B3	CURB INLET PROTECTION (CONDITION B)	C	INSTALL AS INDICATED ON PLANS
C – FINAL STABILIZATION	C1	SEED, AND STABILIZE ALL DISTURBED AREAS	N/A	FINAL STABILIZATION REQUIRES A UNIFORM PERENNIAL VEGETATIVE COVER WITH A DENSITY OF 70% OVER 100% OF DISTURBED AREA

N

0' 10' 20' 40'
SCALE IN FEET

olsson
7301 West 133rd Street, Suite 200
Overland Park, KS 66213-4750
TEL 913.381.1170
www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN BLEAK
NUMBER PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

PHASE B - EROSION CONTROL PLAN
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by: SG
checked by: BP
approved by: LM
QA/QC by: MP
project no.: 22-04040
drawing no.:
date: 22.05.08

SHEET
LD1.1

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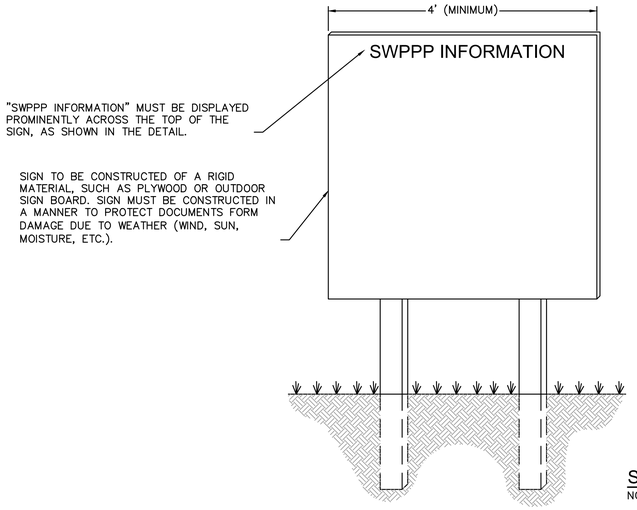


NOTE:

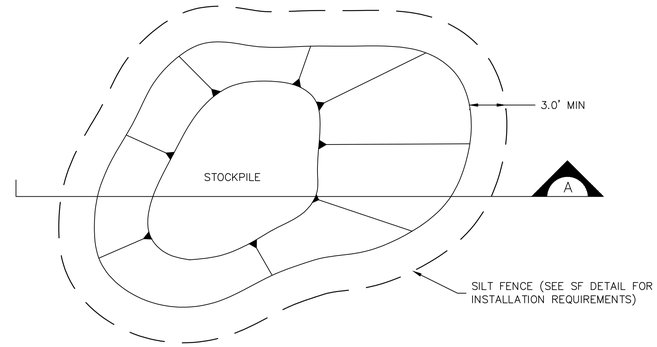
1. THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE ENTRANCE OF SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEW AS TO CAUSE A SAFETY HAZARD.
2. ALL POSTED DOCUMENTS REQUIRED BY THE DEPARTMENT OF NATURAL RESOURCES MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-OF-TERMINATION (NOT) IS FILED FOR THE PERMIT.
3. CONTRACTOR SHALL POST OTHER STORMWATER AND/OR EROSION CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.
4. SIGN SHALL BE LOCATED OUTSIDE PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.
5. CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY OF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN

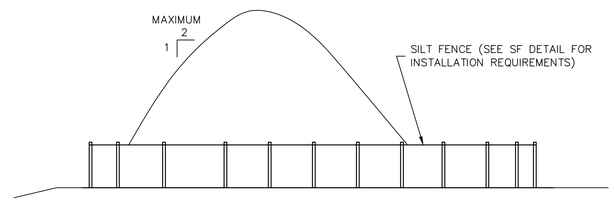
NOT TO SCALE

EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION & SEDIMENT CONTROL MEASURES AND PRACTICES THROUGHOUT THE PROJECT. ANY AND ALL FINES ASSOCIATED WITH EROSION CONTROL VIOLATIONS WILL BE THE CONTRACTOR'S RESPONSIBILITY.
2. EROSION CONTROL IS THE CONTRACTOR'S RESPONSIBILITY. THIS PLAN SHOULD BE USED AS A GUIDE AND REPRESENTS THE MINIMUM EROSION CONTROL DEVICES REQUIRED.
3. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
4. CONTRACTOR IS RESPONSIBLE FOR INSPECTING AND REPAIRING ALL EROSION AND SEDIMENT CONTROL DEVICES AFTER EACH RAINFALL EVENT.
5. THE CONTRACTOR SHALL PROVIDE ANY FURTHER EROSION CONTROL MEASURES IN ADDITION TO THOSE LISTED TO ENSURE THAT SILT WILL NOT LEAVE THE PROJECT CONFINES.
6. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED WITH A HEALTHY STAND OF PERMANENT VEGETATION.
7. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AT COMPLETION OF CONSTRUCTION.
8. THE CONTRACTOR SHALL ENSURE THAT ALL DRAINAGE STRUCTURES, FLUMES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
9. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY STABILIZATION AS REQUIRED.
10. THE CONTRACTOR SHALL LEAVE THE EROSION CONTROL DEVICES AROUND ALL FIELD INLETS AT THE COMPLETION OF THE PROJECT.
11. THE CONTRACTOR SHALL PROVIDE AN INGRESS/EGRESS TRACKING PAD FOR VEHICULAR TRAFFIC AT A LOCATION APPROVED BY THE OWNERS REPRESENTATIVE.
12. ALL EROSION CONTROL DEVICES SHALL CONFORM TO THE APPLICABLE SECTIONS OF THE STANDARD SPECIFICATIONS AND DESIGN CRITERIA OF THE ENGINEERING DIVISION, DEPARTMENT OF PUBLIC WORKS, CITY OF LEE'S SUMMIT, MISSOURI AND THE MISSOURI DEPARTMENT OF HEALTH & ENVIRONMENT, WATER POLLUTION CONTROL DIVISION, MOST CURRENT EDITIONS.
13. AT ANY TIME DURING CONSTRUCTION THE CITY ENGINEER MAY REQUIRE ADDITIONAL EROSION/SILTATION CONTROL MEASURES TO BE INSTALLED IN ORDER TO ADDRESS PROBLEM SITUATIONS OBSERVED ON THE SITE. WHEN REQUIRED SUCH MEASURES SHALL BE INSTALLED WITHIN 48 HOURS OF THE CITY ENGINEER'S VERBAL OR WRITTEN ORDER.
14. PROPOSED CONTOURS SHOWN ARE TO FINISH GRADE AND REFLECT SURFACE ELEVATIONS OF PAVEMENT AND LANDSCAPED AREAS AROUND BUILDINGS. THE CONTRACTOR SHALL ADJUST FOR PAVEMENT AND LANDSCAPED MATERIALS AS REQUIRED.
15. THE CONTRACTOR SHALL PLACE SEED AND TURF REINFORCEMENT EXCELSIOR BLANKETS (OR OTHER APPROVED EQUAL EROSION CONTROL BLANKETS) ON ALL SLOPES 6:1 AND GREATER.
16. SEED ALL DISTURBED AREA PER CITY STANDARDS AND SPECIFICATIONS.



STOCKPILE PROTECTION PLAN



SECTION A

URBAN DRAINAGE AND FLOOD CONTROL DISTRICT
URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN FOR:
   - LOCATION OF STOCKPILES
   - TYPE OF STOCKPILE PROTECTION

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENTS CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INPSECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

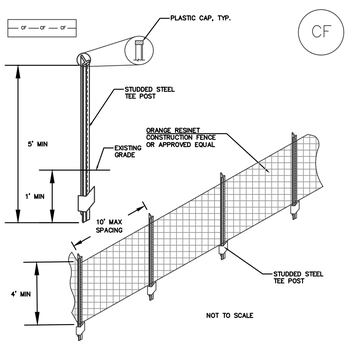
STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROL BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



CF-1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   - LOCATION OF CONSTRUCTION FENCE.

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITES.

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.

4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE AND BOTTOM OF EACH POST.

DESIGN AND INSTALLATION

1. CONSTRUCTION FENCING MUST BE PLASTIC MESH AND SHOULD BE INSTALLED FOLLOWING MANUFACTURE'S RECOMMENDATIONS. SEE DETAIL CF-1 FOR TYPICAL INSTALLATIONS.

2. DO NOT PLACE CONSTRUCTION FENCING IN AREAS WITHIN WORK LIMITS OF MACHINERY.

MAINTENANCE AND REMOVAL

1. INSPECT FENCES FOR DAMAGE; REPAIR OR REPLACE AS NECESSARY.

2. FENCING SHOULD BE TIGHT AND ANY AREAS WITH SLUMPING OR FALLEN POSTS SHOULD BE REINSTALLED.

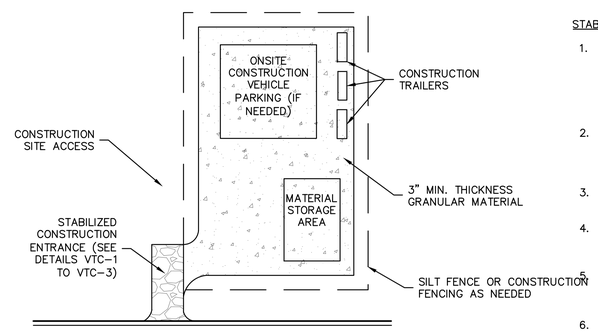
3. FENCING SHOULD BE REMOVED ONCE CONSTRUCTION IS COMPLETE.

4.CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOVEMBER 2010 URBAN DRAINAGE FLOOD CONTROL DISTRICT
URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3



SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   - LOCATION OF STAGING AREA(S)

LOCAL JURISDICTION MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM

2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.

3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.

4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.

5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703. AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITH 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. ROCK SHALL BE REAPPLIED OR REGARDED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE AND UNLOADIN/LOADING OPERATIONS.

6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

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TEL 913.381.1170
www.olsson.com

STATE OF MISSOURI
MITCHELL ALAN BLEAK
NUMBER PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL DETAILS
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by:	SG
checked by:	BP
approved by:	LM
QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

SHEET
LD2.0

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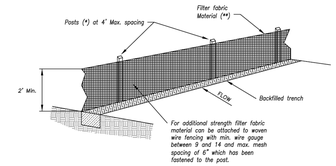
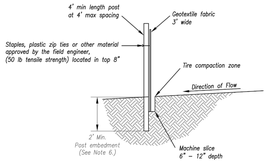


(*) POSTS
- MIN. LENGTH 4'
- HARDWOOD 1 ½" x 1 ½"
- NO.2 SOUTHERN PINE 2 ⅜" x 2 ⅜"
- STEEL 1.33 LB/FT

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



Notes:

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

Maintenance:

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

SILT FENCE DETAILS
Not to Scale

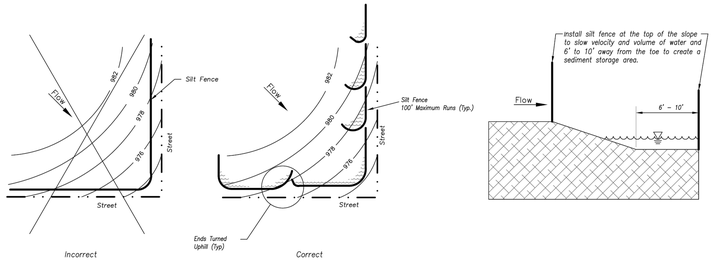
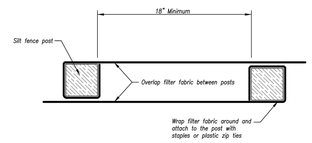


Figure A

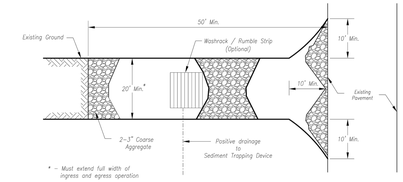
SILT FENCE LAYOUT
Not to Scale



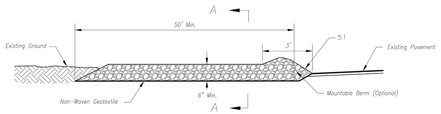
JOINING FENCE SECTIONS
Not to Scale

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

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



Plan View
Not to Scale



Side Elevation
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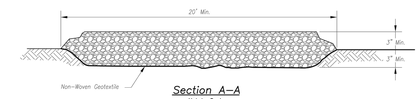


Section A–A
Not to Scale

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.

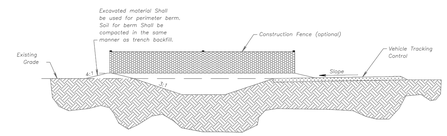
CONSTRUCTION ENTRANCE

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:

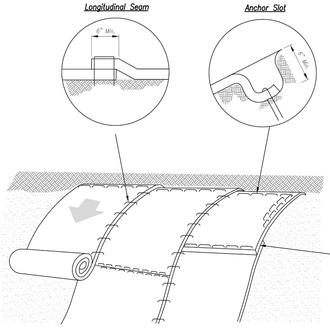
1. Concrete washout materials shall be removed once the materials have filled the washout to approximately 75% full.
2. Concrete washout areas shall be enlarged as necessary to maintain capacity for wasted concrete.
3. Concrete washout water, wasted pieces of concrete and all other debris in the subsurface 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
KANSAS CITY METRO CHAPTER
CONSTRUCTION ENTRANCE AND CONCRETE WASHOUT
STANDARD DRAWING NUMBER ESC-01
ADOPTED: 10/24/2016



Installation on Slopes

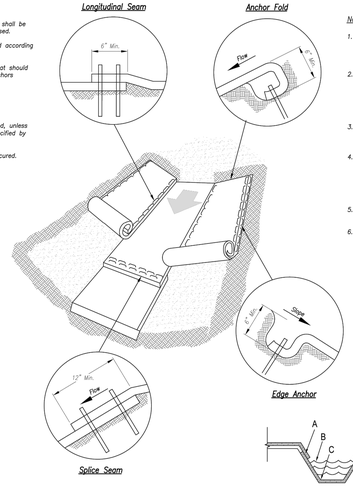
Splice Seam

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.

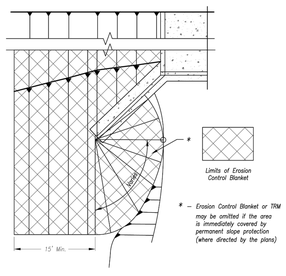


Edge Anchor

Splice Seam

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.



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

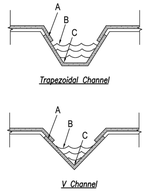
Partial Box Culvert Plan
Not to Scale

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.

Installation in Channels



Trapezoidal Channel

V Channel

Critical Points:

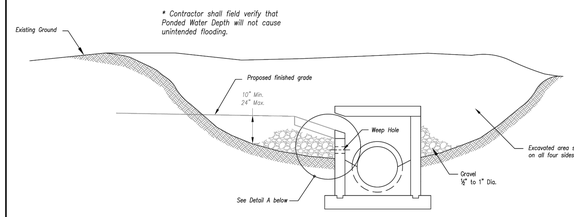
A – Overlaps and seams;

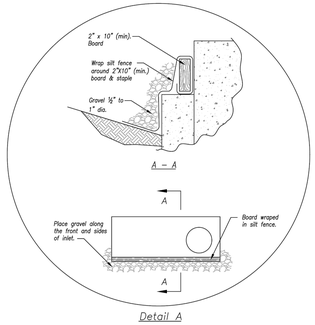
B – Projected water line;

C – Channel bottom / side slope vertices;

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

AMERICAN PUBLIC WORKS ASSOCIATION
Kansas City Metro Chapter
KANSAS CITY METRO CHAPTER
EROSION CONTROL BLANKETS AND TURF REINFORMENT MATS
STANDARD DRAWING NUMBER ESC-02
ADOPTED: 10/24/2016





Detail A

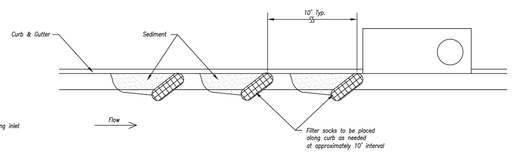
EARLY STAGE CURB INLET
(Open Box and Prior to Pouring Curb and Inlet Throat)

Notes:

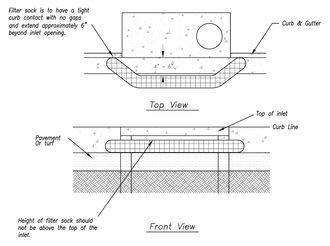
1. Immediately following inlet construction and prior to construction of curb and inlet throat, protect inlet opening by installing 2" X 10" (min.) board wrapped in silt fence. Structures shall have excavated storage area on all four sides to allow settling of sediment (Early Stage Curb Inlet).
2. When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



On Grade Curb Inlet Protection



Sump Inlet Sediment Filter

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

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

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

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STATE OF MISSOURI
MITCHELL ALAN BLEAK
NUMBER PE-2009016764
05-8-23
PROFESSIONAL ENGINEER

REV. NO.	DATE	REVISIONS DESCRIPTION	BY

REVISIONS

EROSION CONTROL DETAILS
LAND DISTURBANCE PLAN

MIDWEST WASH
HWY 291 & THOMPSON DRIVE

LEE'S SUMMIT, MISSOURI

2022

drawn by:	SG
checked by:	BP
approved by:	LM
QA/QC by:	MP
project no.:	22-04040
drawing no.:	
date:	22.05.08

SHEET
LD2.1

DWG: F:\2022\04001-04500\022-04040\40-Design\AutoCAD\Final Plans\Sheets\GNCV\Land Disturbance\C_DTL01_02204040.dwg USER: bpayne2
DATE: May 08, 2023 5:11pm XREFS: C_XBASE_02204040 C_PBASE_02204040 C_LD_PTBLK_02204040