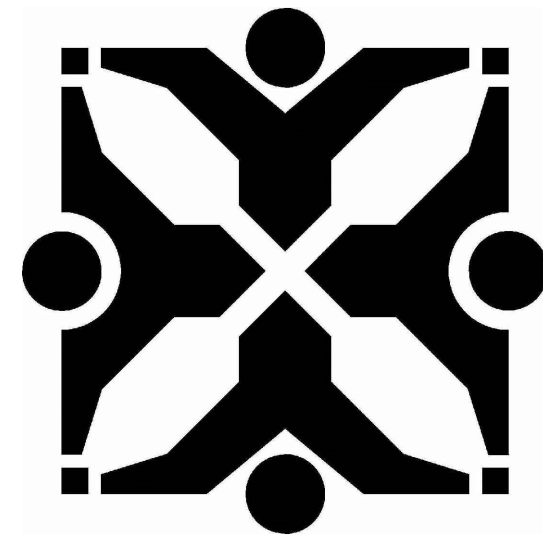
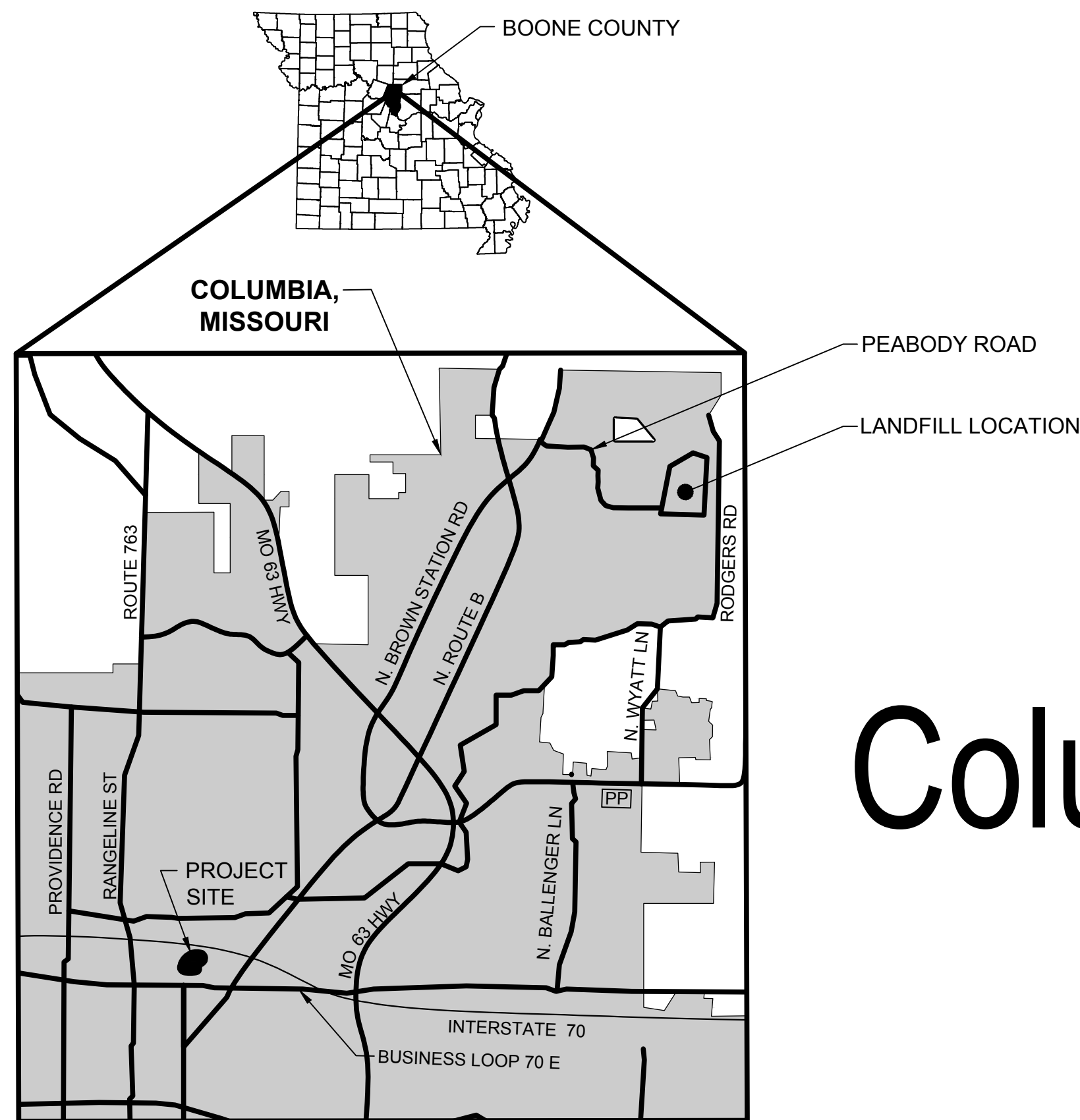


City of Columbia, Missouri

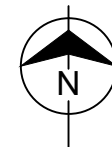
Water & Light Department



Columbia Municipal Power Plant More's Lake Restoration



BOONE COUNTY,
1501 BUSINESS LOOP 70 E
COLUMBIA, MO 65201



LOCATION MAP
NOT TO SCALE

October 2016
93647

INDEX OF SHEETS

SHEET #	SHEET TITLE
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C003	RESTORATION GRADING PLAN
C004	RESTORATION PLAN
C005	RESTORATION EROSION CONTROL PLAN
C006	CROSS SECTIONS
C007	DETAILS

UTILITY COMPANIES:

TELEPHONE
CENTURYTEL 625 CHERRY
STREET
COLUMBIA, MO 65205
573-886-3500

NATURAL GAS
AMEREN UE
210 ORR STREET
COLUMBIA, MO 65201
573-239-6165 (N OF I-70)
573-876-3030 (S OF I-70)

CABLE TELEVISION
MEDIACOM
901 N. COLLEGE AVENUE
COLUMBIA, MO 65201
573-443-1536 EXT 354

LOCATES
MISSOURI ONE CALL INC.
1022 B NORTHEAST DRIVE
JEFFERSON CITY, MO 65109
1-800-344-7483

WATER
CITY OF COLUMBIA
P.O. BOX 6015 WATER & LIGHT
DEPARTMENT
COLUMBIA, MO 65205
573-874-7301

ELECTRIC
CITY OF COLUMBIA
P.O. BOX 6015
WATER & LIGHT DEPARTMENT
COLUMBIA, MO 65205
573-874-7301

SANITARY SEWER
CITY OF COLUMBIA
P.O. BOX 6015
PUBLIC WORKS DEPARTMENT
COLUMBIA, MO 65205
573-874-7250

ELECTRIC (COUNTY)
BOONE ELECTRIC
COOPERATIVE 1413 RANGE
LINE STREET COLUMBIA, MO
65201 573-449-4181 EXT 231



9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165



City of Columbia, Missouri
Water & Light Department

No.	Date	By	Revision
A	10/7/16	BW	30% DESIGN

File No.	Des.	B. WEIS	Sheet
Scale: none	Dwn.	K. ANDRIST	1 of 10
Date: 9/30/16	Chk.	C. SNIDER	

MORE'S LAKE
RESTORATION

Approved By

Brian C. Weis, P.E.
Civil
License No. PE-2011000962

Director of Public Works

Date

GENERAL NOTES:

1. THE PROJECT SITE IS LOCATED AT 1313 LAKEVIEW AVE, COLUMBIA, BOONE COUNTY, MISSOURI 65201.
2. THE LOCATIONS OF UTILITIES SHOWN HAVE BEEN DETERMINED FROM AVAILABLE INFORMATION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE DRAWINGS AND TO PROTECT THEM FROM DAMAGE. WHERE A UTILITY IS ABANDONED OR REQUIRES TO BE PROTECTED THE CONTRACTOR SHALL PROVIDE PROTECTION OF THE UTILITY THAT AT LEAST MEETS THE REQUIREMENTS OF THE UTILITY COMPANY. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR, REPLACEMENT OR ANY OTHER CHARGES RELATED TO EXISTING UTILITIES IN CONJUNCTION WITH THE EXECUTION OF THIS WORK. PRIOR TO ANY EXCAVATION THE CONTRACTOR SHALL CALL MISSOURI ONE CALL SYSTEM AT 1-800-DIG-RITE (1-800-344-7483) WITH SUITABLE NOTICE FOR THEIR LOCATING AND MARKING OF UTILITIES.
3. THE CITY OF COLUMBIA, MISSOURI AND BURNS AND MCDONNELL ENGINEERING COMPANY, INC. (ENGINEER) SHALL BE LISTED AS ADDITIONAL NAMED INSURED BY THE CONTRACTOR.
4. THE CONTRACT DRAWINGS REPRESENT THE FINISHED WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MEANS AND METHODS OF CONSTRUCTION. CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT, MATERIALS, AND TOOLS NECESSARY TO COMPLETELY PERFORM THE WORK IN SAFE, EXPEDITIOUS, AND WORKMAN LIKE MANNER. COORDINATE SCHEDULE OF THE WORK WITH THE OWNER. CONTRACTOR SHALL INSTALL EQUIPMENT AND MATERIALS PER MANUFACTURERS RECOMMENDATIONS UNLESS NOTED OTHERWISE. THE CONTRACTOR ACCEPTS FULL RESPONSIBILITY FOR PROPER HANDLING AND INSTALLATION OF EQUIPMENT AND MATERIALS.
5. CONTRACTOR SHALL UNDERTAKE ALL NECESSARY MEASURES TO ENSURE SAFETY OF ALL PERSONS AND STRUCTURES AT THE SITE AND ADJACENT TO THE SITE. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CLAIMS RESULTING FROM HIS/HER ACTIONS AND ACTIVITIES. VISITS TO THE SITE BY OWNER OR THE ENGINEER SHALL NOT RELIEVE THE CONTRACTOR OF SUCH RESPONSIBILITY.
6. THE CONTRACTOR SHALL ACCEPT FULL RESPONSIBILITY FOR EQUIPMENT AND MATERIALS THROUGH PROJECT COMPLETION. CONTRACTOR SHALL STORE EQUIPMENT AND MATERIALS IN A SECURE LOCATION (ON OR OFF-SITE).
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER SAFEGUARDING OF THE INSTALLATION AND MATERIALS AND EQUIPMENT STORED ON THE SITE TO PREVENT THEFT, VANDALISM OR DAMAGE.
8. CONTRACTOR SHALL MINIMIZE DISTURBANCES TO ADJACENT PROPERTIES THAT ARE NOT THE PROPERTY OF THE OWNER.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS REQUIRED TO PERFORM THE WORK. CONTACT CITY OF COLUMBIA PUBLIC WORKS 573-874-7250. CONTRACTOR TO PROVIDE CERTIFICATES OF INSURANCE AND OTHER DOCUMENTATION REQUIRED BY THE JURISDICTIONAL AGENCY BEFORE PERFORMING THE WORK.
10. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA.
11. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
12. THESE NOTES AND OTHER DRAWING NOTES CONTAINED HERewith ARE PROVIDED TO MEET SPECIFIC REQUIREMENTS AND TO SUPPLEMENT THE CONTRACT DOCUMENTS. THESE NOTES NEITHER REPLACE NOR OVERRIDE THE PROVISIONS AND REQUIREMENTS OF THE CONTRACT DOCUMENTS.
13. THESE DRAWINGS SHALL BE USED IN CONJUNCTION WITH ANY SHOP DRAWINGS PROVIDED BY SUPPLIERS. ALL SHOP DRAWINGS PROVIDED BY OTHERS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO THE FABRICATION OF MATERIAL OR THE PURCHASE OF NON-RETURNABLE STOCK. DIMENSIONAL REVIEW IS THE CONTRACTOR'S RESPONSIBILITY.
14. UNKNOWN SITUATIONS OR CONDITIONS NOT COVERED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ENGINEER AND MANUFACTURERS SPECIALISTS MAY BE AVAILABLE FOR CONSULTATION. THE PRESENCE OF THE ENGINEER OR THE MANUFACTURERS REPRESENTATIVE AT THE PROJECT SITE DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR A PROPER INSTALLATION.
15. ALL DIMENSIONS, ELEVATIONS, AND CONDITIONS SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR AND ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE AFFECTED PART OF WORK. CONTRACTOR SHALL NOT BASE CONSTRUCTION QUANTITIES FROM THE CONTRACT DRAWINGS.
16. THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF/HERSELF WITH THE EXISTING CONDITIONS BEFORE SUBMITTING HIS/HER BID. SCALING FROM THE DRAWINGS IS PROHIBITED.
17. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR CALLED FOR ON THE CONTRACT DRAWINGS OR SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN OR CALLED FOR, SUBJECT TO THE APPROVAL OF THE ENGINEER.
18. ALL WORK SHALL BE DONE TO THE LINES, SLOPES, THICKNESS, AND GRADES INDICATED IN THE CONTRACT DRAWINGS. ALL ESTABLISHED MONUMENTS, BENCHMARKS, REFERENCE POINTS, STAKES, AND OTHER CENTRAL POINTS SHALL BE CAREFULLY PRESERVED BY THE CONTRACTOR. CONTRACTOR SHALL NOTIFY OWNER IN WRITING OF BENCHMARKS, REFERENCE LINES, OR OTHER CONTROL POINTS WHICH MAY HAVE BEEN DISTURBED OR WHICH APPEAR TO BE OFF LINE OR GRADE.

GENERAL NOTES (CONT.):

19. ONCE THE WORK HAS BEEN STARTED, THE CONTRACTOR SHALL COMPLETE THE INSTALLATION WITHOUT ANY INTERRUPTIONS.
20. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POTABLE WATER AND TEMPORARY SANITARY FACILITIES FOR CONTRACTOR'S PERSONNEL. CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR INSTALLING AND REMOVING ANY REQUIRED TEMPORARY UTILITY CONNECTIONS.
21. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL, MANAGEMENT, STORAGE, LOADING, AND DISPOSAL OF CONSTRUCTION DEBRIS. CONTRACTOR SHALL DISPOSE OF PER APPLICABLE LOCAL, STATE, AND FEDERAL REGULATIONS.
22. SUBSTITUTIONS: EQUIPMENT OF GREATER OR LARGER POWER, DIMENSIONS, CAPACITIES, AND RATINGS MAY BE FURNISHED PROVIDED SUCH PROPOSED EQUIPMENT IS APPROVED BY ENGINEER IN WRITING AND CONNECTING ELECTRICAL AND MECHANICAL SERVICES, CIRCUIT BREAKERS, CONDUITS, MOTORS AND EQUIPMENT SPACES SHALL BE INCREASED AS REQUIRED. NO ADDITIONAL COSTS WILL BE APPROVED FOR THESE INCREASES IF LARGER EQUIPMENT IS APPROVED.
23. SUBMITTALS: SUBMIT MATERIAL AND PRODUCT DATA, WARRANTIES, INSTALLATION, AND AS-BUILT CONSTRUCTION DOCUMENTS TO THE ENGINEER. CONTRACTOR SHALL FORWARD MATERIAL MANIFESTS TO THE ENGINEER. CONTRACTOR SHALL PREPARE AND SUBMIT TO ENGINEER A DUST CONTROL PLAN TO IDENTIFY AND DOCUMENT STRATEGIES FOR IMPLEMENTING PREVENTATIVE ACTIONS FOR APPROVAL PRIOR TO STARTING WORK. CONTRACTOR SHALL IMPLEMENT DUST CONTROL PROCEDURES IN ACCORDANCE WITH APPROVED PLAN.
24. TESTING: TEST ALL PIPE MATERIALS AND EQUIPMENT AS SPECIFIED OR PER MANUFACTURER'S RECOMMENDATIONS IN THE PRESENCE OF THE ENGINEER.
25. UPON REQUEST ENGINEER WILL PROVIDE ELECTRONIC DRAWINGS (AUTOCAD VERSION 2014) TO BIDDING CONTRACTORS AS A SECONDARY REFERENCE FOR BID PREPARATION. ELECTRONIC DRAWINGS ARE NOT PART OF THE CONTRACT DOCUMENTS. NO QUESTIONS REGARDING ELECTRONIC DRAWINGS WILL BE ALLOWED DURING BIDDING. THE ELECTRONIC DRAWINGS ARE FOR REFERENCE PURPOSES ONLY. USE OF THE ELECTRONIC DRAWINGS FOR CONSTRUCTION PURPOSES SHALL BE AT THE CONTRACTOR'S RISK.

CIVIL NOTES:

1. SURVEY WORK: TO ACCURATELY DETERMINE LOCATIONS AND ELEVATIONS SURVEYING SHALL BE PERFORMED DURING THE COURSE OF CONSTRUCTION BY PROFESSIONAL LICENSED SURVEYOR REGISTERED IN THE STATE OF MISSOURI. SURVEYOR SHALL PREPARE AND SUBMIT A BRIEF SURVEY WORK PLAN. SURVEY GRID SHALL ALIGN WITH ESTABLISHED SITE COORDINATE SYSTEM. SURVEYOR SHALL BE RETAINED AND COMPENSATED BY CONTRACTOR. CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO COMMENCING SURVEY WORK. CONTRACTOR SHALL ESTABLISH A UNIFORM GRID OVER THE PROJECT AREA NOT TO EXCEED 50 FEET BETWEEN GRID POINTS. IN ADDITION, ESTABLISH GRID POINTS, AS A MINIMUM, AT THE TOP, MID-POINT, AND BASE OF ALL SIDE SLOPES WITHIN THE LINER PLACEMENT AREA. THE CONTRACTOR SHALL BE REQUIRED TO PERFORM A SURVEY AND DETERMINE VERTICAL ELEVATIONS TO THE NEAREST 0.1 FOOT FOR THE FOLLOWING SURFACES:
 - A. EXISTING GRADE BEFORE COMMENCING WORK.
 - B. TOP OF REMEDIATED SURFACE.
 - C. TOP OF PIPING AT 50 FOOT INTERVALS AND END INVERTS.
 - D. CENTERLINE ALIGNMENT OF SIDEWALKS AND FENCING AT A MIN. OF 25 FOOT INTERVALS.
 - E. CORNERS OF PAVEMENT.
 - F. TOP OF ALL FINAL GRADES.
 - G. ALL BURIED PIPING, STRUCTURES, AND ELECTRICAL CONDUIT.
 - H. GROUNDWATER WELLS AT GROUND SURFACE, TOP OF PIPE, AND TOP OF CASING.
2. THE SURVEYS SHALL BE THE BASIS FOR PAYMENT FOR NON-LUMP SUM LINE ITEMS AND SHALL BE CONDUCTED BY AN INDEPENDENT THIRD PARTY. SURVEYOR SHALL SEAL ALL WORK PRODUCTS. DIGITAL TERRAIN MODELS USED FOR CALCULATIONS SHALL BE SUBMITTED TO ENGINEER FOR QUANTITY VERIFICATION.
3. CONTRACTOR SHALL SUBMIT AS-BUILT DRAWINGS OR OTHER NECESSARY DOCUMENTATION TO ENGINEER INDICATING FINAL VERTICAL ELEVATIONS, HORIZONTAL LOCATIONS, AND INVERTS OF ALL COMPONENTS OF THE WORK. CONTRACTOR SHALL PROVIDE NEATLY RED-MARKED DRAWINGS IDENTIFYING ANY MODIFICATIONS TO THE CONTRACT DOCUMENTS AND INDICATING CONFORMANCE TO THE CONTRACT DOCUMENTS.
4. HORIZONTAL AND VERTICAL CONTROL POINTS SHALL BE ESTABLISHED BY CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SURVEY INFORMATION DURING CONSTRUCTION STAKING. COMPARE THESE ELEVATIONS WITH ELEVATIONS SHOWN HEREIN AND REVIEW WITH ENGINEER.
5. PARKING LOT AND TRAILS SHALL BE PROOFROLLED AS A SINGLE-PASS OPERATION WITH CONVENTIONAL COMPACTION EQUIPMENT DURING SUBGRADE PREPARATION AND PRIOR TO PLACEMENT OF THE AGGREGATE SURFACE COURSE. SOFT SPOTS SHALL BE OVER EXCAVATED, BACKFILLED, AND COMPACTED WITH SUITABLE MATERIAL.
6. CONTRACTOR SHALL RESTORE ALL DISTURBED AREAS AS SPECIFIED.

Scale For Microfitting
Millimeters
Inches

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NO.	DATE	BY	CKD	DESCRIPTION
A	10/7/16			30% REVIEW



9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
LICENSEE NO. 000165

date	OCTOBER 2016	detailed	K. ANDRIST
designed	B. WEIS	checked	C. SNIDER



City of Columbia
Utilities Department
BOONE COUNTY, MO

MORE'S LAKE RESTORATION

GENERAL NOTES

project	93647	contract	-
drawing	G001	rev.	A
sheet	2 of 10	sheets	
file	2_93647_G001 GENERAL NOTES.dwg		

Chris Snider, P.E.
Civil
PE-2005 001043

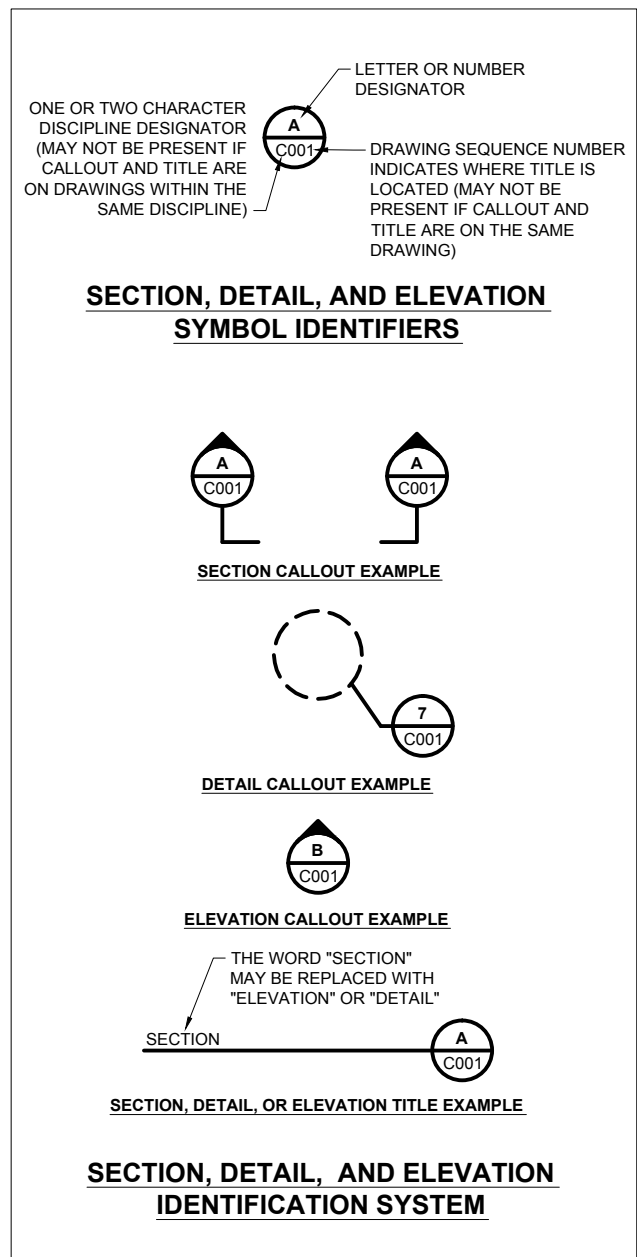
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ABBREVIATIONS

ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	NPTF	NATIONAL PIPE THREAD FEMALE
C	CENTERLINE	O.C.	ON CENTER
CCR	COAL COMBUSTION RESIDUALS	OZ	OUNCE
CM	CENTIMETER	P	PIEZOMETER
CO	CLEANOUT	PS	PUMP STATION
COR.	CORNER	PSI	POUND PER SQUARE INCH
CS	CONDENSATE SUMP	PVC	POLYVINYL CHLORIDE
DIA.	DIAMETER	R	RANGE
DWG.	DRAWING	RCP	REINFORCED CONCRETE PIPE
E	EASTING	RD	ROAD
EL.	ELEVATION	S	SOUTH
EW	EXTRACTION WELL	S.S.	STAINLESS STEEL
FML	FLEXIBLE MEMBRANE LINER	SDR	STANDARD DIMENSION RATIO
FT.	FEET	STD.	STANDARD
GCL	GEOSYNTHETIC CLAY LINER	SEC	SECOND
GP	GAS PROBE	SY	SQUARE YARD
GPM	GALLONS PER MINUTE	T	TOWNSHIP
HDPE	HIGH DENSITY POLYETHYLENE	TC	TERRACE CHANNEL
HGL	HORIZONTAL GAS LINE	TP	TRAVERSE POINTS
HHWR	HEATING HOT WATER RETURN	TYP.	TYPICAL
HHWS	HEATING HOT WATER SUPPLY	W	WEST
HIL	HORIZONTAL INJECTION LINE	W/	WITH
HW	HEADWELL		
HWL	HIGH WATER LEVEL		
HWY	HIGHWAY		
I.D.	INSIDE DIAMETER		
LB	POUNDS		
LC	LEACHATE COLLECTION LINE		
LCS	LEACHATE COLLECTION SYSTEM		
LD	LETDOWN		
LLDPE	LINEAR LOW DENSITY POLYETHYLENE		
LFG	LANDFILL GAS		
LG.	LONG		
MIL	MILLI-INCH		
MIN.	MINIMUM		
MO	MISSOURI		
MODOT	MISSOURI DEPARTMENT OF TRANSPORTATION		
MSW	MUNICIPAL SOLID WASTE		
N	NORTHING, NORTH		
NO.	NUMBER		
NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM		
NPT	NATIONAL PIPE THREAD		

LEGEND

●	EXISTING POWER POLE
□	EXISTING LFG MONITORING PROBES
⊕	EXISTING GROUNDWATER MONITORING WELLS
◀	EXISTING PIEZOMETERS
⊕	EXISTING LFG EXTRACTION WELLS
⊕	PROPOSED LFG EXTRACTION WELLHEADS
MH-1 •	EXISTING MANHOLE
CS-1 •	EXISTING CONDENSATE SUMP
⊗	HORIZONTAL LFG WELLHEAD
△	SURVEY TRAVERSE POINTS
⊙	NPDES OUTFALLS
⊙	LFG LEACHATE SYSTEM GAS WELLS
CO ◦	CLEANOUT
⊗	FEED WATER APPLICATION PORT
▲	TEMPERATURE AND MOISTURE SENSOR
⊖	TRAFFIC SIGN
— E — E —	PROPERTY LINE
-----	CELL BOUNDARY
-----	PERMITTED WASTE BOUNDARY
— FM — FM —	FORCEMAIN
----- W -----	UNDERGROUND WATER LINE
=====	GEOMEMBRANE
XXXXXXXXXXXX	GEOTEXTILE FABRIC
— G — G —	LANDFILL GAS PIPING
— C — C —	LEACHATE COLLECTION LINE
— SS — SS —	SANITARY SEWER LINE
— D — D —	DRAINAGE TERRACE
~~~~~	GEOCOMPOSITE
— E — E —	ELECTRICAL CONDUIT/CABLE
=====	EXISTING CONTOURS
=====	PROPOSED CONTOURS
[Pattern]	SAND
[Pattern]	COMPACTED SOIL LINER
[Pattern]	NOMINALLY COMPACTED SOIL
[Pattern]	GRANULAR ACCESS ROAD
[Pattern]	1" TO 3" DIA. GRANULAR DRAINAGE MATERIAL OR WASHED STONE
[Pattern]	PREPARED SUBGRADE OR SOIL BACKFILL MATERIAL
[Pattern]	VEGETATIVE SOIL OR TOPSOIL
[Pattern]	RIPRAP
[Pattern]	MSW
[Pattern]	BENTONITE SEAL



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**BURNS MEDONNELL**  
 9400 WARD PARKWAY  
 KANSAS CITY, MO 64114  
 816-333-9400  
 LICENSEE NO. 000165

date	OCTOBER 2016	detailed	K. ANDRIST
designed	B. WEIS	checked	C. SNIDER

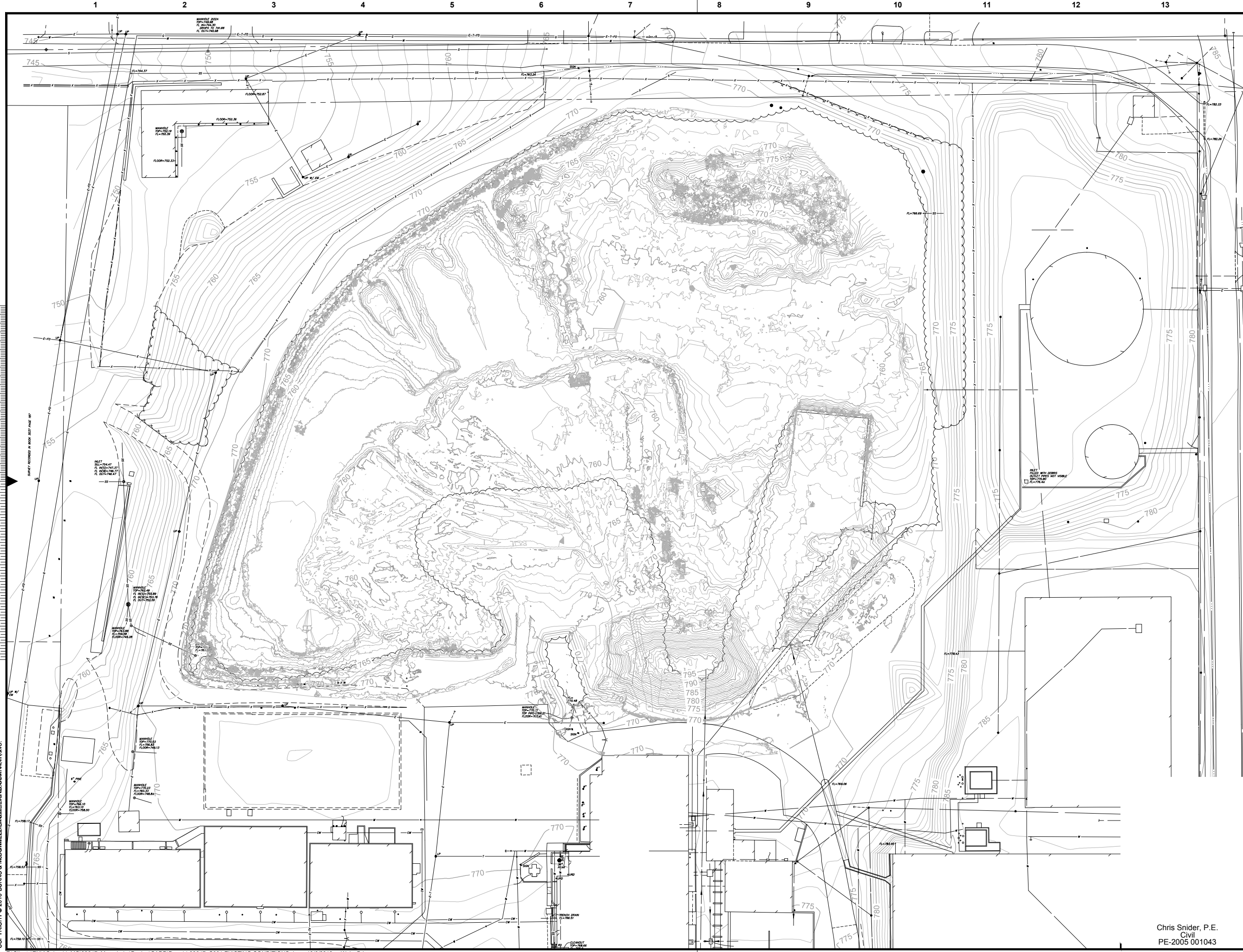
**City of Columbia**  
 Utilities Department  
 BOONE COUNTY, MO

**MORE'S LAKE RESTORATION**

LEGEND & ABBREVIATIONS

project	93647	contract	-
drawing	<b>G002</b>	rev.	<b>A</b>
sheet	3	of	10
sheet	3	of	10
file	3 93647_G002 LEGEND & ABBREVIATIONS.dwg		

Chris Snider, P.E.  
 Civil  
 PE-2005 001043



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Millimeters

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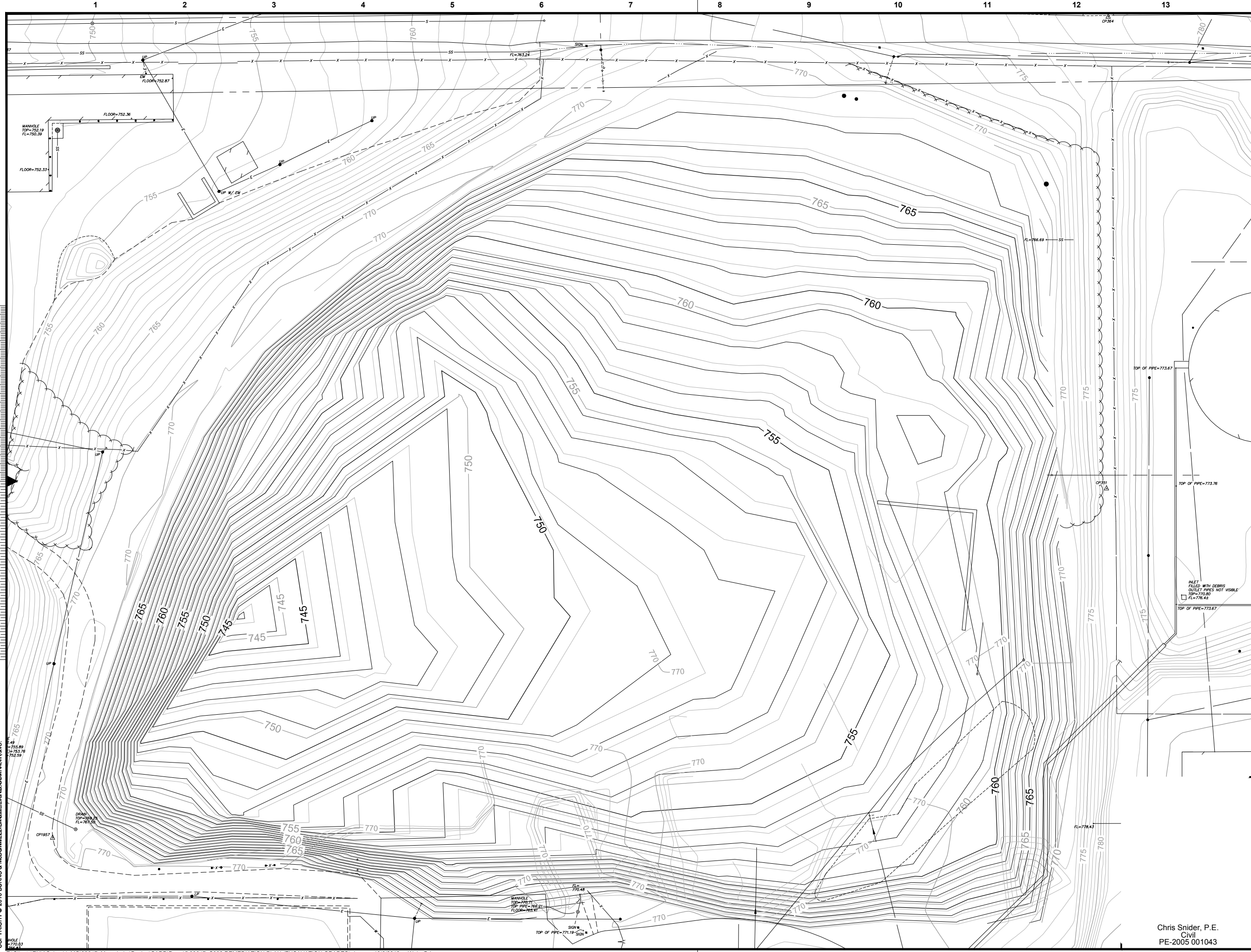
date	OCTOBER 2016	detailed	K. ANDRIST
designed	B. WEIS	checked	C. SNIDER

**City of Columbia**  
Utilities Department  
BOONE COUNTY, MO

**MORE'S LAKE RESTORATION**  
EXISTING CONDITIONS

project	93647	contract	
drawing	<b>C001</b>	rev.	<b>A</b>
sheet	4	of	10 sheets
file	4 93647_C001 EXISTING CONDITIONS.dwg		

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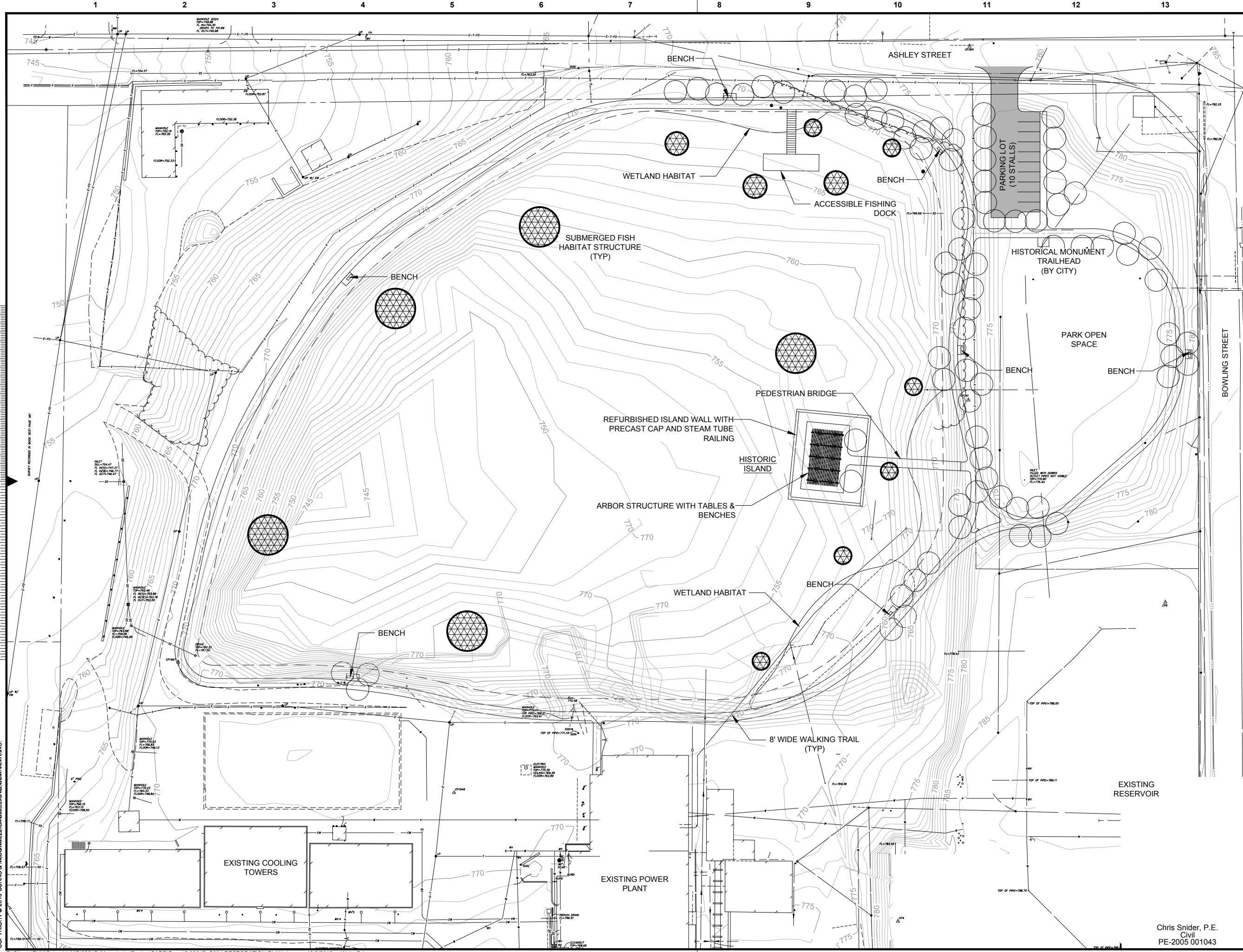
City of Columbia  
Utilities Department  
BOONE COUNTY, MO

**MORE'S LAKE RESTORATION**  
REMEDATION PLAN (EXCAVATION GRADES)

project	93647	contract	-
drawing	<b>C002</b>		rev. <b>A</b>

sheet	5	of	10	sheets
file	5 93647_C002 REMEDIATION PLAN (EXCAVATION GRADES).dwg			

Chris Snider, P.E.  
Civil  
PE-2005 001043



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Inches

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date	OCTOBER 2016	detailed	K. ANDRIST
designed	B. WEIS	checked	C. SNIDER

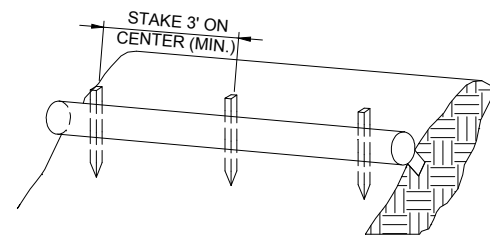
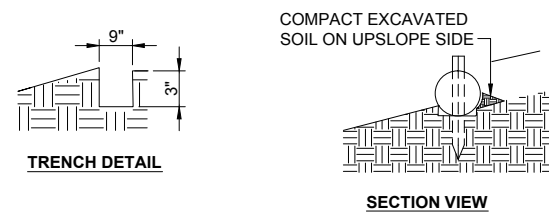
  
**City of Columbia**  
Utilities Department  
BOONE COUNTY, MO

**MORE'S LAKE RESTORATION**  
RESTORATION PLAN

project	93647	contract	-
drawing	<b>C004</b>	rev.	<b>A</b>
sheet	7	of	10 sheets
file	7 93647_C004 RESTORATION PLAN.dwg		

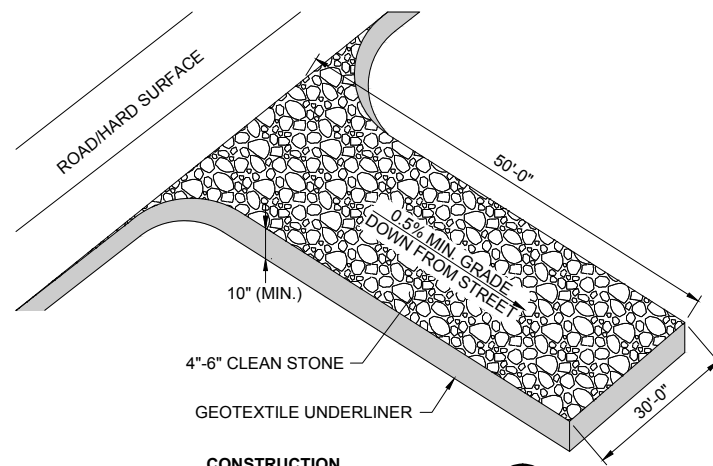
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NO.	DATE	BY	CKD	DESCRIPTION
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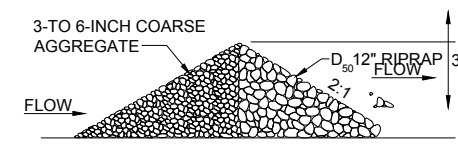
**1**  
C005  
NOT TO SCALE

- NOTES:**
- EXCAVATE A 2"-3" DEEP X 9" WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UPSLOPE FROM THE ANCHOR TRENCH.
  - PLACE THE WATTLE IN THE TRENCH SO THAT IT CONTOURS TO THE SOIL SURFACE. COMPACT SOIL FROM THE EXCAVATED TRENCH AGAINST THE WATTLE ON THE UPHILL SIDE. ADJACENT WATTLES SHOULD TIGHTLY ABUT.
  - SECURE THE WATTLE WITH 18"-24" STAKES EVERY 3'-4" AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE WATTLE LEAVING AT LEAST 2"-3" OF STAKE EXTENDING ABOVE THE WATTLE. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

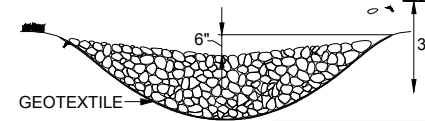


**2**  
C005  
NOT TO SCALE

- NOTES:**
- CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT TRUCKS LEAVING THE CONSTRUCTION SITE DO NOT TRACK DIRT/MUD ONTO PUBLIC STREET.
  - WASHING TIRES PRIOR TO LEAVING SITE MAY BE NECESSARY TO REMOVE DIRT/MUD FROM TRUCKS. THE CONTRACTOR IS RESPONSIBLE FOR IMPOUNDING AND DISPOSING OF ANY WASH WATER USED.
  - ALL VEHICLES LEAVING SITE SHALL EXIT USING THE CONSTRUCTION EXIT.



**SECTION VIEW**  
NOT TO SCALE

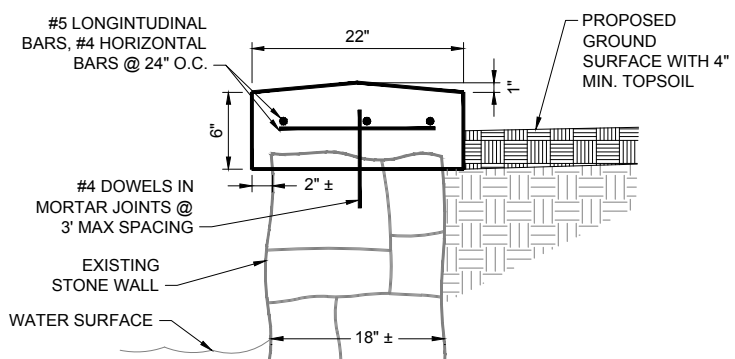


**ELEVATION VIEW**  
NOT TO SCALE

**3**  
C005  
NOT TO SCALE

- NOTES:**
- CHECK DAMS SHOULD BE CHECKED FOR SEDIMENT ACCUMULATION AFTER EACH STORM EVENT OF 1/2-INCH OR GREATER. SEDIMENT SHOULD BE REMOVED WHEN IT REACHES ONE HALF OF THE ORIGINAL HEIGHT OF THE DAM.
  - REGULAR INSPECTIONS SHOULD BE MADE TO ENSURE THAT THE CENTER OF THE DAM IS LOWER THAN THE EDGES. EROSION CAUSED BY HIGH FLOWS AROUND THE EDGES OF THE DAM SHOULD BE CORRECTED.

Scale For Microfining  
Millimeters  
Inches



**4**  
C004  
NOT TO SCALE



9400 WARD PARKWAY  
KANSAS CITY, MO 64114  
816-333-9400  
LICENSEE NO. 000165

date	OCTOBER 2016	detailed	K. ANDRIST
designed	B. WEIS	checked	C. SNIDER



City of Columbia  
Utilities Department  
BOONE COUNTY, MO

**MORE'S LAKE RESTORATION**

DETAILS

project	93647	contract	-
drawing	<b>C007</b>	rev.	<b>A</b>
sheet	10 of 10	sheets	
file	10_93647_C007_DETAILS.dwg		

Chris Snider, P.E.  
Civil  
PE-2005 001043

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