

SECTION 23, TOWNSHIP 47 N., RANGE 32 W.
IN LEE'S SUMMIT, JACKSON COUNTY, MO



BENCHMARK

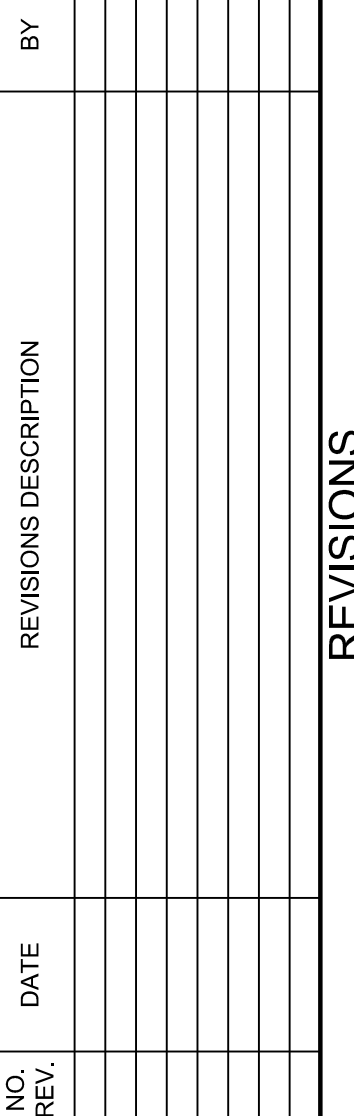
INTERSECTION OF S.W. LADDERBACK DRIVE AND S.W. OLD PORT ROAD, N.E. QUADRANT FIRE HYDRANT TOP FLANGE BOLT EASTERN MOST WITH "X"
CHISEL ON TOP.
ELEV = 982.73

ACCEPTED:

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CIVIL ENGINEER
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FAX: 816.587.1393

REVIEW BY:

CITY OF LEE'S SUMMIT, MISSOURI



LEE'S SUMMIT, MO

SHEET
C101

DWG: F:\2018\0501-1000\018-0847\40-Design\AutoCAD\Final Plans\Storm_34x22\C_GEN01_80847.dwg

GENERAL NOTES:

1. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO THE LEE'S SUMMIT, MISSOURI DESIGN AND CONSTRUCTION MANUAL AS ADOPTED BY ORDINANCE 5813. WHERE DISCREPANCIES EXIST BETWEEN THESE PLANS AND THE DESIGN AND CONSTRUCTION MANUAL, THE DESIGN AND CONSTRUCTION MANUAL SHALL PREVAIL.
2. ALL MANHOLES, CATCH BASINS, UTILITY VALVES, AND METER PITS TO BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
3. ALL SIGNS (I.E. STREET NAME AND STOP SIGNS) SHALL BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE CITY OF LEE'S SUMMIT, DESIGN AND CONSTRUCTION MANUAL, PRIOR TO SUBSTANTIAL COMPLETION. REFER TO SHEET C114 FOR SIGNAGE DETAILS.
4. THE ASPHALTIC CONCRETE SURFACES ON ALL PERMITTED STREETS SHALL BE VIRGIN MATERIAL.
5. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTROL DOWNSTREAM EROSION AND SILTATION DURING ALL PHASES OF CONSTRUCTION. EROSION CONTROL PLANS AND PROCEDURES SHALL BE IN PLACE PRIOR TO ANY EXCAVATION.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ROCK ELEVATIONS AT 25 FOOT (MAXIMUM) INTERVALS WHERE ENCOUNTERED, AND FURNISHING THIS INFORMATION TO THE DESIGN ENGINEER FOR USE ON "AS-BUILT" PLANS.
7. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATIONS OF ALL EXISTING UTILITIES.
8. NO SUBSURFACE EXPLORATION FOR THE DETERMINATION OF AND/OR THE LOCATION OF EXISTING ROCK HAS BEEN MADE.
9. CONTRACTOR SHALL PROVIDE EARTHWORK AND MATERIAL TESTING TO COMPLY WITH THE STANDARD SPECIFICATIONS OF THE PUBLIC WORKS DEPARTMENT OR AS REQUIRED BY THE CITY'S FIELD REPRESENTATIVE.
10. CONTRACTOR MUST CONTACT PUBLIC WORKS INSPECTIONS AT 816-969-1827 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES.
11. P.O.S= PROPOSED OPEN SPACE.

ALL NOTES REFERENCED ON THIS PLAN SHEET MAY HAVE APPLICATIONS TO EVERY FACET OF THE CONSTRUCTION PLANS. THE NOTE HEADINGS OR TITLES ARE TO BE USED AS A GENERAL GUIDE TO APPLICABLE SITUATIONS.

SITE DISTURBANCE NOTES:

- THE INTENT OF THIS EROSION CONTROL PLAN IS TO ASSIST THE CONTRACTOR IN HIS RESPONSIBILITY TO PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT AND LABOR NECESSARY TO CONTROL EROSION, SILTATION AND DISCHARGES OF SOIL MATERIAL (SEDIMENT) INTO DOWNSTREAM SYSTEMS OR RECEIVING CHANNELS. THIS SHALL BE REQUIRED DURING ALL PHASES OF CONSTRUCTION AND UNTIL SUITABLE GROUND COVER IS ESTABLISHED FOR ALL DISTURBED AREAS. IF ANY METHOD OF CONTROL FAILS, THE CONTRACTOR SHALL NOTIFY THE OWNER IMMEDIATELY, SO THAT THE OWNER OR HIS AGENT CAN REVIEW THE CONTRACTOR'S PROPOSED METHOD OF REPAIR.

THIS PLAN INDICATES THE CRITICAL AREA(S) OF CONCERN AND THESE AREA(S) WILL BE CONTROLLED AS A MINIMUM. THE CONTROL MAY CONSIST OF TEMPORARY CONTROL MEASURES AS SHOWN ON THE PLANS OR ORDERED BY THE OWNER DURING THE LIFE OF THE CONTRACT TO CONTROL EROSION OR WATER POLLUTION, THROUGH THE USE OF BERMS, DIKES, DAMS, SEDIMENT BASINS, FIBER MATS, NETTING, STRAW BALES, GRAVEL, MULCHES, GRASSES, SLOPE DRAINS, DIVERSION SWALES OR OTHER EROSION CONTROL DEVICES OR METHODS. THE OWNER HAS THE AUTHORITY TO LIMIT THE SURFACE AREA OF ERODIBLE EARTH MATERIAL EXPOSED BY THE CONSTRUCTION OPERATIONS AND TO DIRECT THE CONTRACTOR TO PROVIDE IMMEDIATE PERMANENT OR TEMPORARY POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS OR OTHER WATER COURSES, LAKES, PONDS, OR OTHER AREAS OF WATER IMPOUNDMENT OR CONVEYANCES.

- THE TEMPORARY POLLUTION CONTROL PROVISIONS CONTAINED HEREIN SHALL BE COORDINATED WITH ANY PERMANENT EROSION CONTROL FEATURES SPECIFIED ELSEWHERE IN THE CONTRACT TO THE EXTENT PRACTICAL TO ASSURE ECONOMICAL, EFFECTIVE AND CONTINUOUS EROSION CONTROL THROUGHOUT THE CONSTRUCTION AND POST CONSTRUCTION PERIOD.

2. THIS SEDIMENTATION CONTROL PLAN MAKES USE OF THE FOLLOWING APPLICATIONS:
- | | |
|-------------------------------------|-------------------------------------|
| ☒ | PRESERVATION OF EXISTING VEGETATION |
| ☒ | SEDIMENT BARRIERS |
| ☒ | SEDIMENT TRAPS |
| ☒ | INLET PROTECTION |
| ☐ | OUTLET PROTECTION |
| ☐ | SOIL RETAINING SYSTEMS |
| ☐ | SLOPE DRAINS |
| ☐ | SUBSURFACE DRAINS |

PHYSICAL DESCRIPTION OF EACH SPECIFIC SEDIMENT CONTROL DEVICE TO BE UTILIZED IS CALLED OUT ON THE PLANS WITH INSTALLATION PROCEDURES, CONSTRUCTION SPECIFICATIONS AND MAINTENANCE ARRANGEMENT AS CALLED FOR ON THE DETAIL SHEET. IN ADDITION TO THE MEASURES SPECIFIED, THE FOLLOWING GENERAL PRACTICES SHALL BE ADHERED TO WHEN APPLICABLE.

- A) CLEARING AND GRUBBING WITHIN 50' OF A DEFINED DRAINAGE COURSE SHOULD BE AVOIDED WHEN POSSIBLE. WHERE CHANGES TO A DEFINED DRAINAGE COURSE OCCUR, WORK SHOULD BE DELAYED UNTIL ALL MATERIALS AND EQUIPMENT NECESSARY TO PROTECT AND COMPLETE THE DRAINAGE CHANGE ARE ON SITE. CHANGES SHALL BE COMPLETED AS QUICKLY AS POSSIBLE ONCE THE WORK HAS BEEN INITIATED. THE AREA IMPACTED BY THE CONSTRUCTION ACTIVITIES SHALL BE REVEGETATED OR PROTECTED FROM EROSION AS SOON AS POSSIBLE. AREAS WITHIN 50' OF A DEFINED DRAINAGE WAYS SHOULD BE RECONTOURED AS NEEDED OR OTHERWISE PROTECTED WITHIN FIVE (5) WORKING DAYS AFTER GRADING HAS CEASED.
- B) WHERE SOIL DISTURBING ACTIVITIES CEASE IN AN AREA FOR MORE THAN 14 DAYS, THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES. IF THE SLOPE OF THE AREA IS GREATER THAN 3:1 OR IF THE SLOPE IS GREATER THAN 3% AND GREATER THAN 150 FEET IN LENGTH, THEN THE DISTURBED AREAS SHALL BE PROTECTED FROM EROSION BY STABILIZING THE AREA WITH MULCH OR OTHER SIMILARLY EFFECTIVE EROSION CONTROL MEASURES IF ACTIVITIES CEASE FOR MORE THAN SEVEN (7) DAYS.
- C) EXISTING VEGETATION SHALL BE PRESERVED TO THE EXTENT AND WHERE PRACTICAL. IN NO CASE SHALL DISTURBED AREAS REMAIN WITHOUT VEGETATIVE GROUND COVER FOR A PERIOD IN EXCESS OF 60 DAYS.
- D) ADDITIONAL SITE MANAGEMENT PRACTICES WHICH SHALL BE ADHERED TO DURING THE CONSTRUCTION PROCESS SHALL INCLUDE:

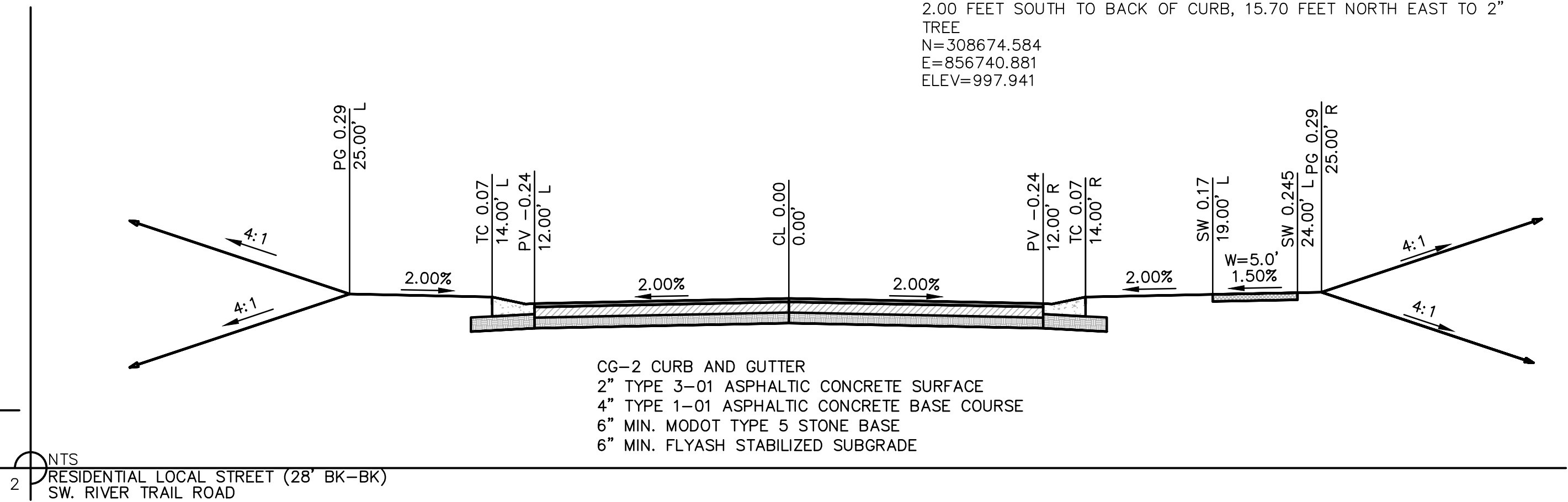
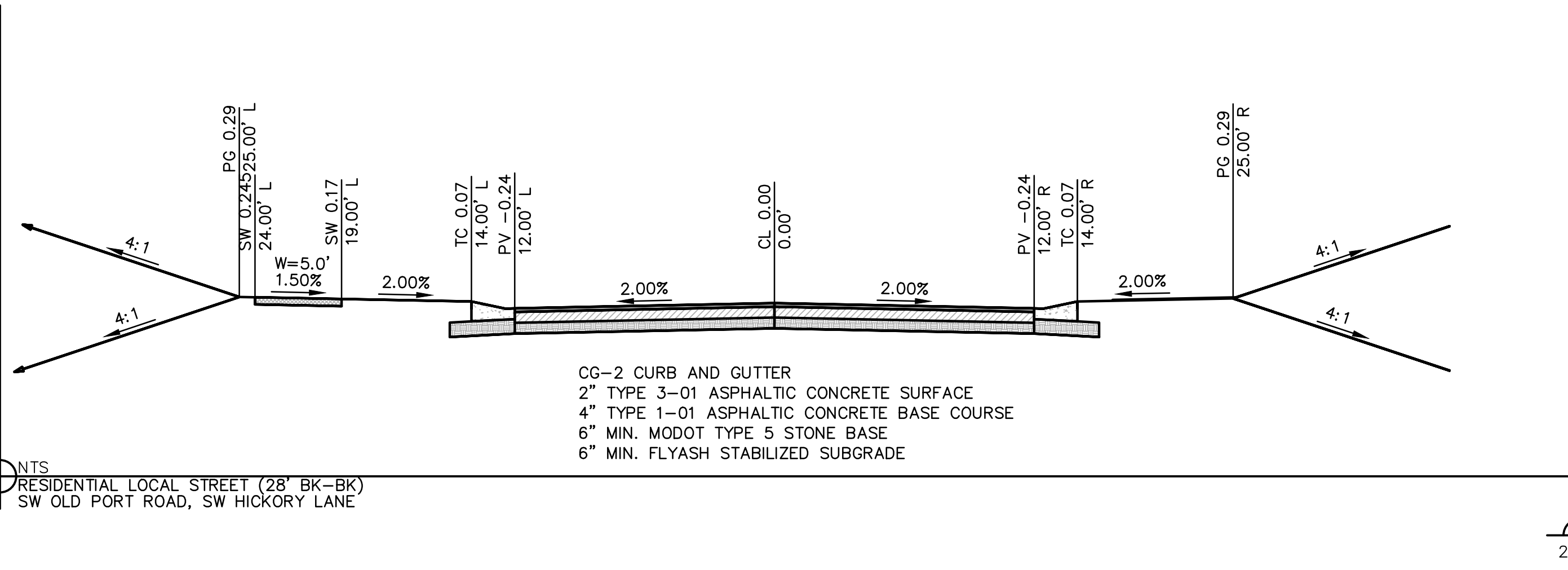
SOLID AND HAZARDOUS WASTE MANAGEMENT INCLUDING PROVIDING TRASH CONTAINERS AND REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE SUCH AS BUILDING MATERIAL, PRODUCT/MATERIAL SHIPPING WASTE, FOOD CONTAINERS AND CUPS, AND PROVIDING CONTAINERS FOR THE PROPER DISPOSAL OF WASTE PAINTS SOLVENTS, AND CLEANING COMPOUNDS.

PROVISIONS OF PORTABLE TOILETS FOR PROPER DISPOSAL OF SANITARY SEWAGE.

STORAGE OF CONSTRUCTION MATERIALS AWAY FROM DRAINAGE COURSES AND LOW AREAS.

INSTALLATION OF CONTAINMENT BERMS AND USE OF DRIP PANS AT PETROLEUM PRODUCT AND LIQUID STORAGE TANKS AND CONTAINERS.

3. ALL DISTURBED AREAS SHALL BE SEEDED, FERTILIZED AND MULCHED, OR SODDED, IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY AND GOOD ENGINEERING PRACTICES. THIS SHALL BE COMPLETED WITHIN FOURTEEN (14) DAYS AFTER COMPLETING THE WORK, IN ANY AREA. IF THIS IS OUTSIDE OF THE SEEDING PERIOD, SILT BARRIERS OR OTHER SIMILARLY EFFECTIVE MEASURES SHALL BE PROVIDED UNTIL SUCH TIME THAT THE AREAS CAN BE SEEDED.
4. THE CONSTRUCTION COVERED BY THESE PLANS SHALL CONFORM TO ALL CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY THE REVIEWING GOVERNING AGENCY. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING ALL ADDITIONAL STANDARDS, SPECIFICATIONS OR REQUIREMENTS WHICH ARE REQUIRED BY GOVERNING AGENCIES (INCLUDING LOCAL, STATE AND FEDERAL AUTHORITIES) HAVING JURISDICTION OVER THE WORK PROPOSED BY THESE CONSTRUCTION DRAWINGS.
5. ALL EROSION CONTROL MEASURES, TEMPORARY OR PERMANENT, REQUIRE MAINTENANCE TO PRESERVE THEIR EFFECTIVENESS. ALL EROSION CONTROL DEVICES SHALL BE INSPECTED IMMEDIATELY AFTER EACH HEAVY RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHOULD BE MADE IMMEDIATELY. ALL COSTS ASSOCIATED WITH THE REPAIR WORK INCLUDING RELATED INCIDENTALS WILL BE THE CONTRACTOR'S RESPONSIBILITY AND SHALL BE INCLUDED IN THE CONTRACTOR'S BID FOR THE PROPOSED WORK.



ESTIMATE OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	AS-BUILT
STREET				
1	EXCAVATION	C.Y.	25350	
2	EMBANKMENT	C.Y.	22276	
3	2" MILL & OVERLAY	S.F.	627	
4	8" ASPHALT PAVEMENT	S.Y.	3865	
5	CONCRETE CURB & GUTTER (CG-2)	L.F.	2721	
6	STOP SIGNS	EA.	3	
7	STREET NAME SIGNS	EA.	6	
8	4' WIDE CONCRETE SIDEWALK	L.F.	284	
STORM				
9	STD. CURB INLET (5'x3' INSIDE)	EA.	7	
10	STD. MANHOLE (4' DIA)	EA.	3	
11	STD. FIELD INLET (4'x4' INSIDE)	EA.	4	
12	15" HDPE	L.F.	551	
13	24" HDPE	L.F.	725	
14	CONNECTION TO EXISTING STRUCTURE	EA.	1	
LAND DISTURBANCE				
15	INLET PROTECTION	EA.	22	
16	SILT FENCE	L.F.	3080	
17	VEHICLE TRACKING CONTROL	EA.	1	
18	TREE CLEARING	AC.	0.3	
19	ROCK CHECK DAM	EA.	10	

SUMMARY OF QUANTITIES AS INDICATED ABOVE AND ANY QUANTITIES AS SHOWN WITHIN THE PLANS HAVE BEEN PROVIDED FOR PERMITTING PURPOSES ONLY AND ARE NOT INTENDED FOR USE IN PREPARATION OF CONTRACT DOCUMENTS. QUANTITIES INTENDED FOR, BUT NOT LIMITED TO, THE PREPARATION OF PROPOSALS AND BID DOCUMENTS SHALL BE INDEPENDENTLY EVALUATED BY THE ESTIMATING PARTY BASED UPON THE CONTENTS OF THESE PLANS.

LEGEND

E CTV OH	EXISTING CABLE TV, OVERHEAD
E CTV	EXISTING CABLE TV, UNDERGROUND
CTV OH	PROPOSED CABLE TV, OVERHEAD
CTV	PROPOSED CABLE TV, UNDERGROUND
F CTV OH	FUTURE CABLE TV, OVERHEAD
F CTV	FUTURE CABLE TV, UNDERGROUND
F FO OH	EXISTING FIBER OPTIC, OVERHEAD
F FO	EXISTING FIBER OPTIC, UNDERGROUND
FO OH	PROPOSED FIBER OPTIC, OVERHEAD
FO	PROPOSED FIBER OPTIC, UNDERGROUND
F FO OH	FUTURE FIBER OPTIC, OVERHEAD
F FO	FUTURE FIBER OPTIC, UNDERGROUND
F FP	EXISTING FIRE PROTECTION SYSTEM LINE
FP	PROPOSED FIRE PROTECTION SYSTEM LINE
F FP	FUTURE FIRE PROTECTION SYSTEM LINE
F FL	EXISTING FUEL LINE
FL	PROPOSED FUEL LINE
F FL	FUTURE FUEL LINE
F G	EXISTING NATURAL GAS LINE
G	PROPOSED NATURAL GAS LINE
F G	FUTURE NATURAL GAS LINE
E TEL OH	EXISTING TELEPHONE LINE, OVERHEAD
E TEL	EXISTING TELEPHONE LINE, UNDERGROUND
TEL OH	PROPOSED TELEPHONE LINE, OVERHEAD
TEL	PROPOSED TELEPHONE LINE, UNDERGROUND
F TEL OH	FUTURE TELEPHONE LINE, OVERHEAD
F TEL	FUTURE TELEPHONE LINE, UNDERGROUND
E EOH	EXISTING POWER/ELECTRIC LINE, OVERHEAD
EE	EXISTING POWER/ELECTRIC LINE, UNDERGROUND
E OH	PROPOSED POWER/ELECTRIC LINE, OVERHEAD
E	PROPOSED POWER/ELECTRIC LINE, UNDERGROUND
F EOH	FUTURE POWER/ELECTRIC LINE, OVERHEAD
FE	FUTURE POWER/ELECTRIC LINE, UNDERGROUND
ESS	EXISTING SANITARY SEWER
SS	PROPOSED SANITARY SEWER
FSS	FUTURE SANITARY SEWER
ESL	EXISTING STEAM LINE
SL	PROPOSED STEAM LINE
FSL	FUTURE STEAM LINE
EST	EXISTING STORM SEWER
ST	PROPOSED STORM SEWER
FST	FUTURE STORM SEWER
EW	EXISTING WATER LINE
W	PROPOSED WATER LINE
FW	FUTURE WATER LINE

CONTROL POINT ELEVATION:

CP#200 - 3" I.B. CONTROL CAP
LOCATED AT INTERSECTION OF S.W. RIVER TRAIL ROAD AND S.W. LADDER
BACK DRIVE, GO NORTH TO END OF STREET WEST SIDE OF ROAD 6.30
FEET EAST TO END OF BACK OF CURB.
N=308941.491
E=855593.297
ELEV=982.37

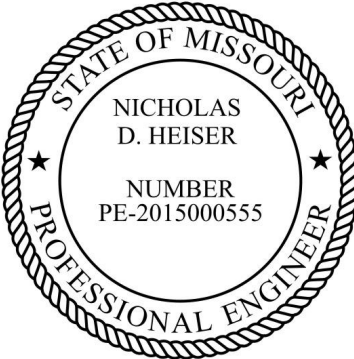
CP #22- 8" I.B. CONTROL CAP
LOCATED AT INTERSECTION OF S.W. LADDERBACK DRIVE AND S.W. OLD
PORT ROAD. GO NORTH TO BACK SIDE OF HOUSE #2400 ON WEST SIDE
OF ROAD, 3.00 FEET EAST TO BACK OF CURB, 7.70 FEET NORTH TO FIRE
HYDRANT CL 14.20 FEET WEST TO SECTIONALIZER S.E. CORNER
N=308566.672
E=855581.894
ELEV=983.47

CP#202 - 3" I.B. CONTROL CAP
LOCATED AT INTERSECTION OF S.W. EAGLE VIEW DRIVE AND S.W. DEER
RUN ROAD S.W. QUADRANT OF INTERSECTION. GO 6.50 FEET WEST TO CL
OF MAILBOX, 2.50 FEET SOUTH TO SIDEWALK, 4.00 FEET NORTH TO BACK
OF CURB, 8.00 FEET SOUTH EAST TO CL MANHOLE.
N=308014.383
E=856347.385
ELEV=977.09

CP #203 - 3" I.B. CONTROL CAP
LOCATED AT INTERSECTION OF S.W. DEER RUN ROAD AND S.W. RIVER
TRAIL ROAD NORTH EAST QUADRANT GO 14.80 FEET WEST TO LIGHTPOLE,
2.00 FEET SOUTH TO BACK OF CURB, 15.70 FEET NORTH EAST TO 2"
TREE
N=308674.584
E=856740.881
ELEV=997.941

OLSSON[®]
ASSOCIATES

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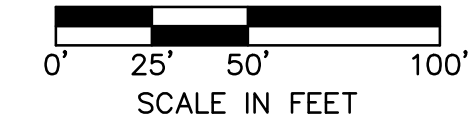
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GENERAL NOTES STREET & STORM & EROSION CONTROL PLANS	
EAGLE CREEK SIXTEENTH PLAT	20
LEE'S SUMMIT, MO	

drawn by: B.P.K
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

SHEET
C102

USER: bkoleci

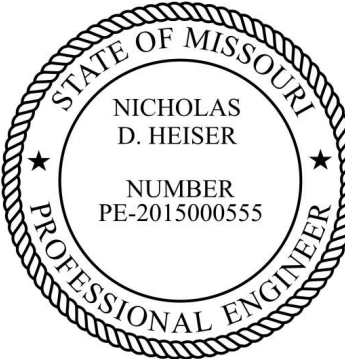


drawn by: _____ B.P.K.
checked by: _____ N.D.H.
designed by: _____ B.P.K.
QA/QC by: _____ M.G.D.
project no.: _____ 018-0847
date: _____ 2018.04.20

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GENERAL LAYOUT STREET & STORM & EROSION CONTROL PLANS	EAGLE CREEK SIXTEENTH PLAT	2018
LEE'S SUMMIT, MO		



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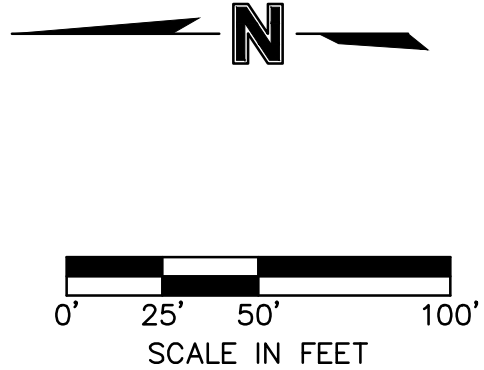
GENERAL NOTES:

1. CONTRACTOR SHALL ADHERE TO THE "DESIGN AND CONSTRUCTION MANUAL" SECTION 2100 AS ADOPTED BY THE CITY OF LEE'S SUMMIT (LATEST EDITION), FOR EXCAVATION AND EMBANKMENT WORK WITHIN THE PROPOSED RIGHT-OF-WAY.
2. AREAS OF CONSTRUCTION SHALL BE STRIPPED OF ALL VEGETATION, ORGANIC MATTER AND TOPSOIL TO A DEPTH AS RECOMMENDED BY GEOTECHNICAL ENGINEER AND OR TESTING AGENCY. SOILS REMOVED DURING SITE STRIPPING SHOULD BE EVALUATED TO DETERMINE IF PORTIONS OF THE TOPSOIL STRATUM MAY BE UTILIZED AS STRUCTURAL FILL WITHIN PAVEMENT AREAS. ANY MATERIAL NOT DEEMED AS SUITABLE FILL MATERIAL BY THE GEOTECHNICAL ENGINEER AND OR TESTING AGENCY SHALL BE REMOVED FROM THE JOB SITE BY THE CONTRACTOR AT HIS EXPENSE.
3. CONTRACTOR SHALL ADHERE TO THE SITE PREPARATION AND STRUCTURAL FILL RECOMMENDATIONS AS CALLED OUT IN THE GEOTECHNICAL REPORT AND ENGINEERING EVALUATION AS PROVIDED BY THE GEOTECHNICAL ENGINEER.
4. ALL EMBANKMENT OUTSIDE OF RIGHT-OF-WAY SHOULD BE PLACED IN CONTROLLED LIFTS HAVING A MAXIMUM LOOSE LIFT THICKNESS OF 8". EMBANKMENT SHOULD BE COMPACTED TO A MINIMUM OF 95% OF THE MATERIALS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D-698 (STANDARD PROCTOR COMPACTION). MOISTURE CONTENT OF THE FILL AT THE TIME OF COMPACTION SHALL BE WITHIN A RANGE OF -0 TO +4 PERCENT OF OPTIMUM MOISTURE CONTENT.

EARTHWORK QUANTITIES		
LOCATION	CUT (C.Y.)	FILL (C.Y.)
STREET	2250	2922
SITE	23100	19354
TOTAL	25350	22276

- EARTHWORK QUANTITIES NOTES:
1. EARTHWORK QUANTITIES BASED ON FINISHED GRADE SURFACE AND DO NOT INCLUDE ADJUSTMENTS FOR TOPSOIL AND SHRINKAGE.
 2. EARTHWORK QUANTITIES DO NOT TAKE INTO CONSIDERATION EXCAVATION, REMOVAL AND DISPOSAL OF MATERIAL DEEMED UNSUITABLE BY A GEOTECHNICAL ENGINEER. THE EARTHWORK CONTRACTOR IS RESPONSIBLE FOR EXCAVATION, REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL AND FOR REPLACING IT WITH SUITABLE MATERIAL.

LEGEND	
-100-	EXISTING INDEX CONTOURS
-100	EXISTING INTERMEDIATE CONTOURS
-100	PROPOSED INDEX CONTOURS
-100	PROPOSED INTERMEDIATE CONTOURS



drawn by: B.P.K.
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

SHEET
C104

STREET & STORM & EROSION CONTROL PLANS

EAGLE CREEK
SIXTEENTH PLAT

LEE'S SUMMIT, MO

NO. REV.

DATE

REVISIONS DESCRIPTION

BY

REVISIONS

STATE OF MISSOURI
NICHOLAS D. HEISER
NUMBER
PE-2015000555
PROFESSIONAL ENGINEER

MOLSSON
ASSOCIATES

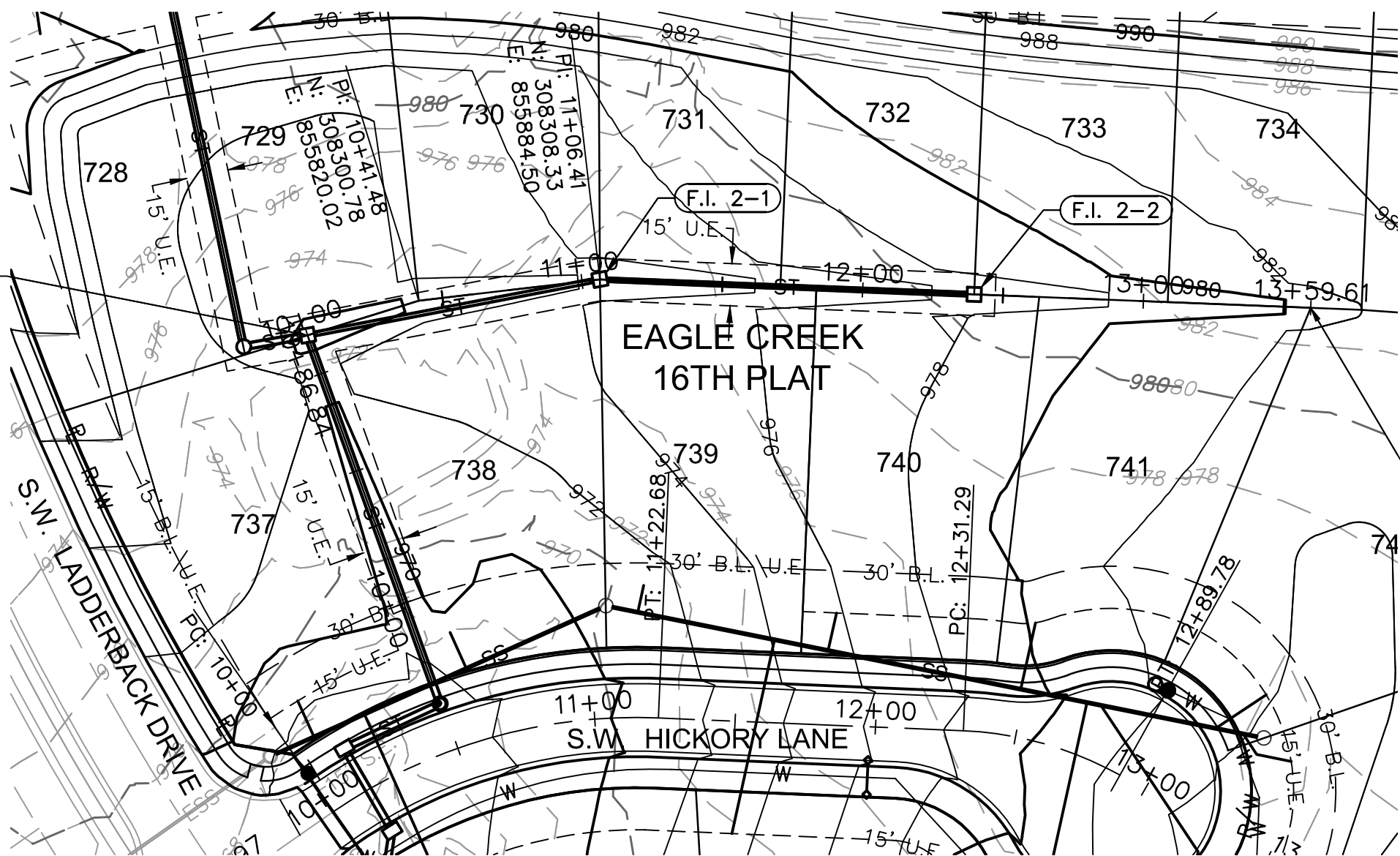
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STA.: 12+10.00 (E)
SWALE 1
N: 308617.6162
E: 855922.59
=END CONSTRUCTION



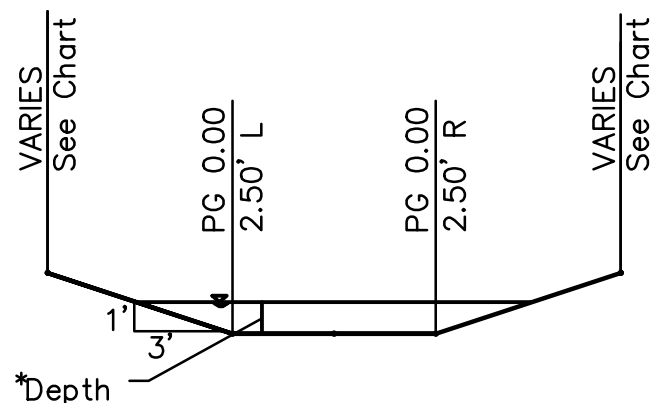
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SWALE 2
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E: 855780.40
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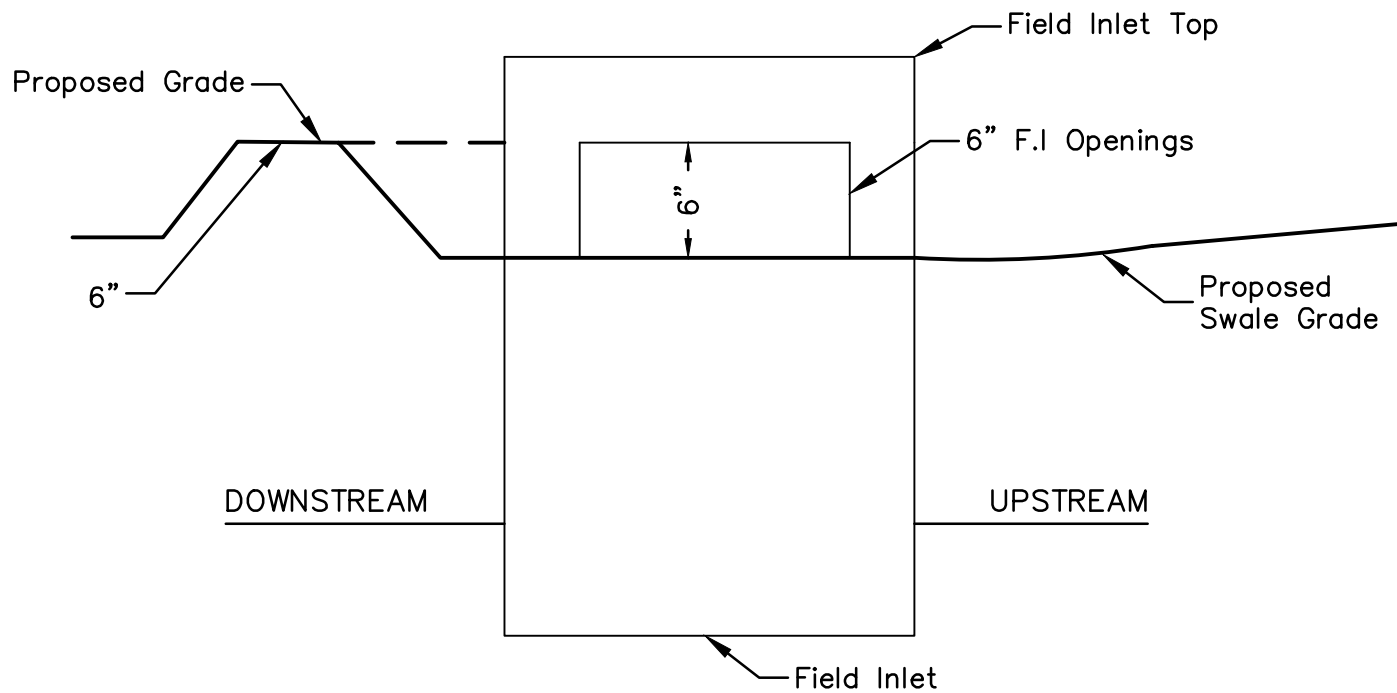
STA.: 13+59.61 (E)
SWALE 2
N: 308298.2229
E: 856137.51
=END CONSTRUCTION

SWALE DESIGN TABLE (100-YEAR RETURN FREQUENCY)													
SECTION DATA								RESULTS					
SECTION	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft2)	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)
A-A	0.03	3.00%	1.35	3:1	3:1	5	7.70	0.35	2.12	3.64	7.21	7.10	0.56
B-B	0.03	3.17%	1.29	3:1	3:1	5	5.86	0.29	1.70	3.44	6.83	6.74	0.47
C-C	0.03	3.17%	1.22	3:1	3:1	5	3.42	0.22	1.25	2.75	6.39	6.32	0.34
D-D	0.03	3.17%	1.24	3:1	3:1	5	4.01	0.24	1.37	2.92	6.52	6.44	0.37

SWALE GRADING NOTES:
1. CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.
2. AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES AT CONTRACTOR'S EXPENSE IF ABOVE REQUIREMENTS ARE NOT MET.

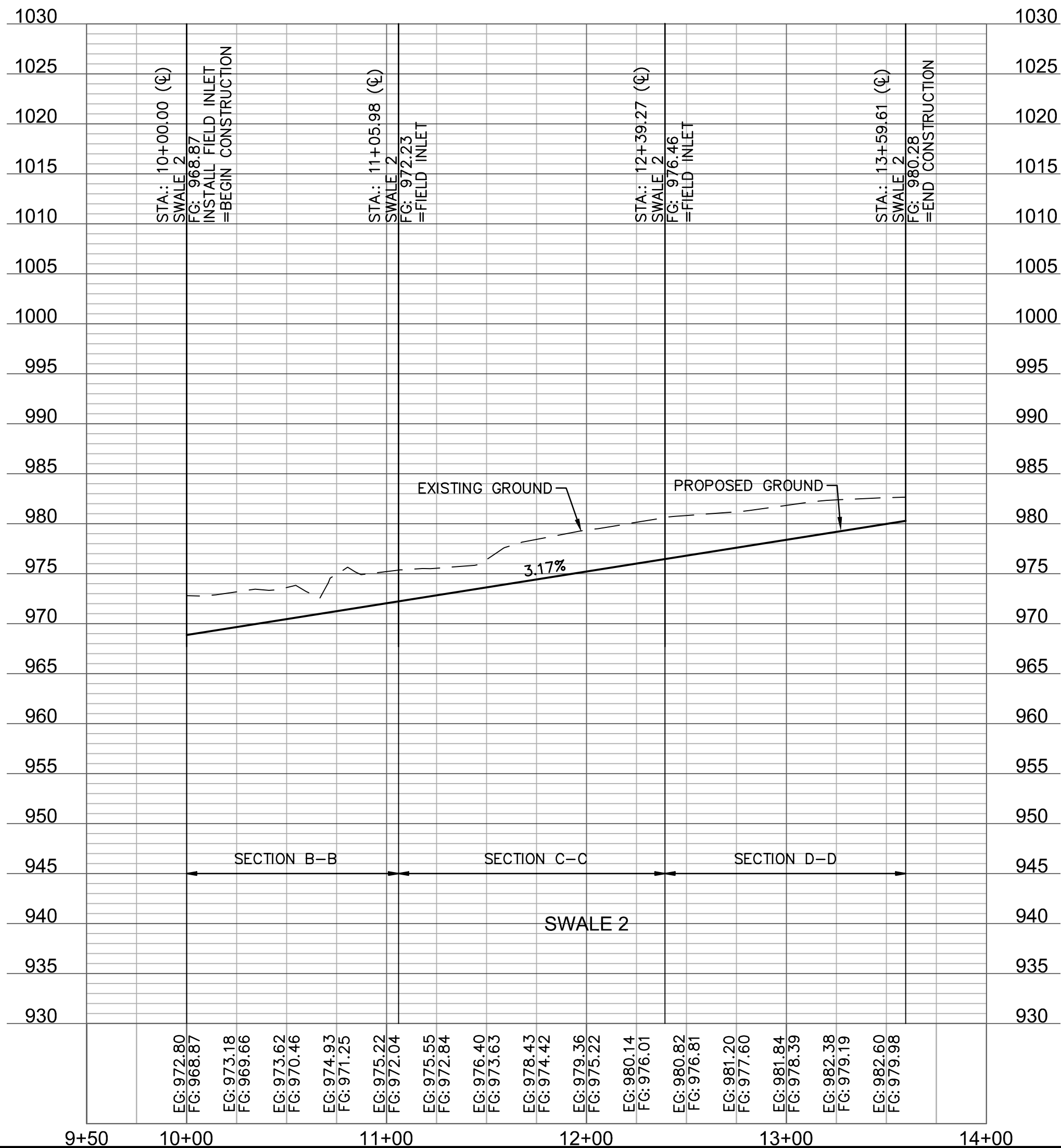
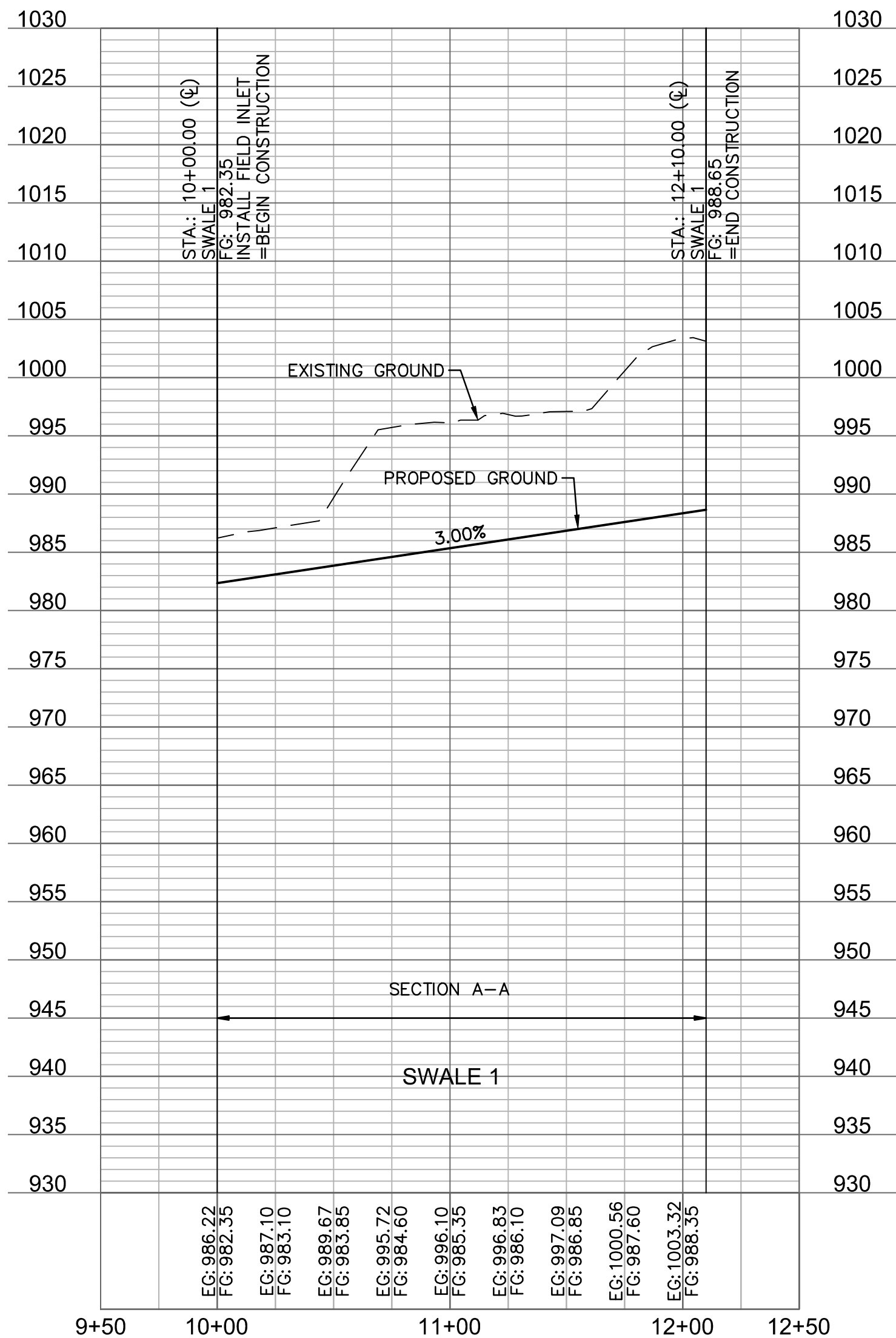
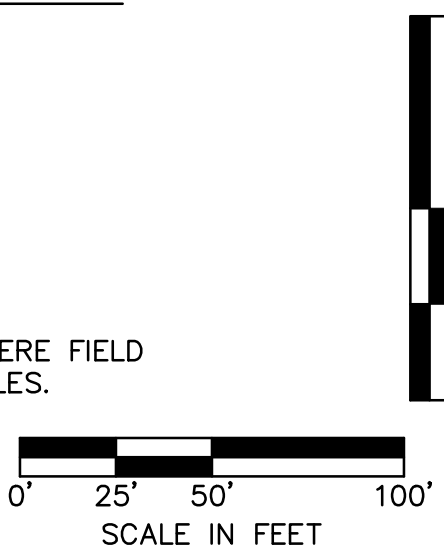


Swale Typical Section
*See table for swale depth
NTS



F.I. SUMP DETAIL
NOT TO SCALE

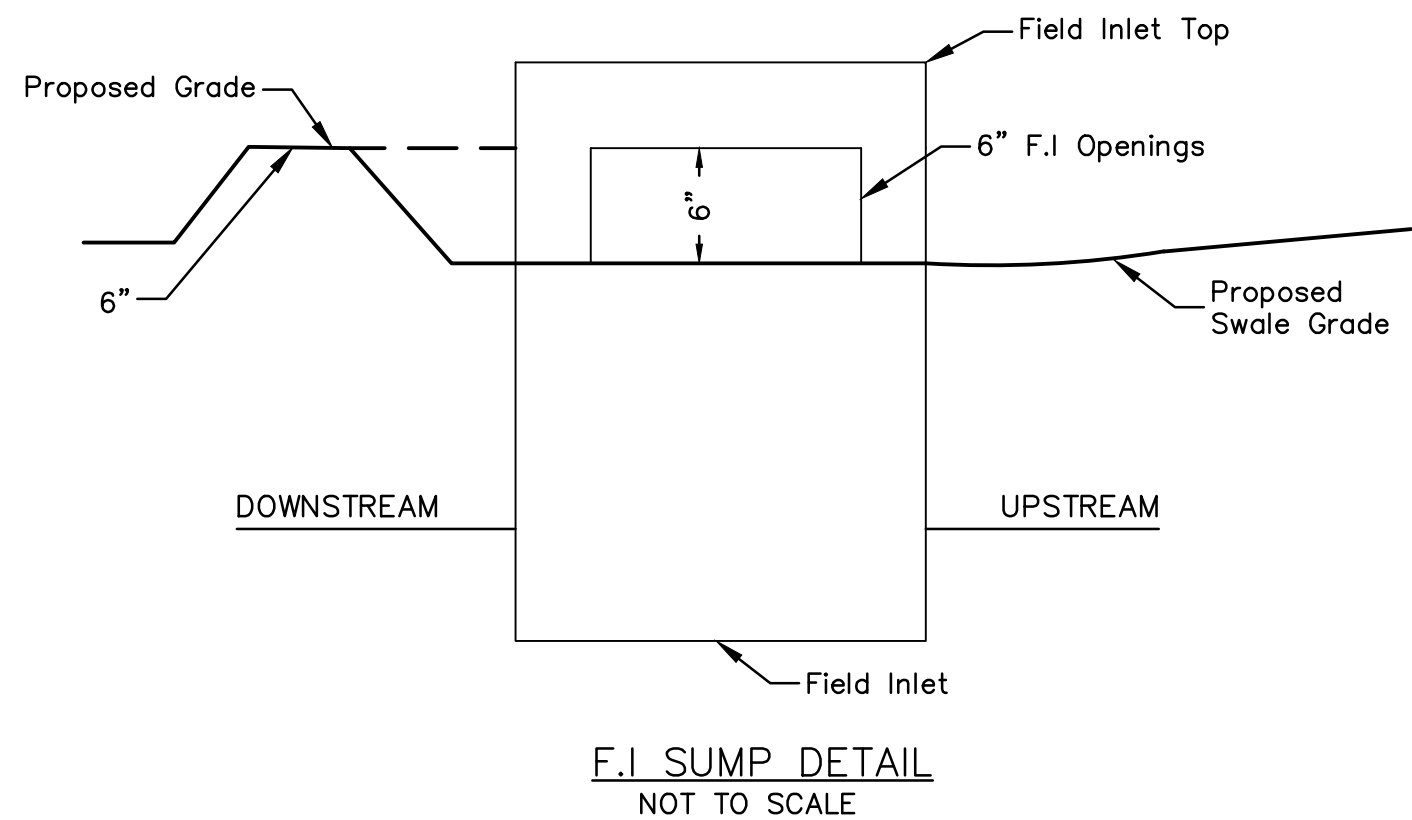
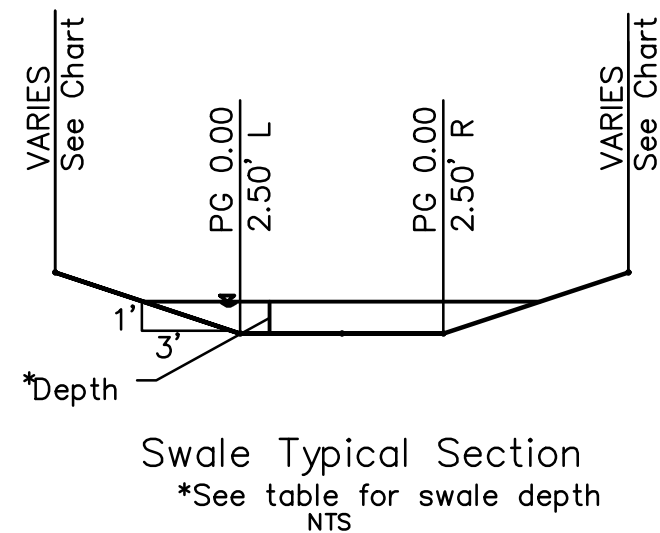
NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED ON GRADE WITHIN SWALES.



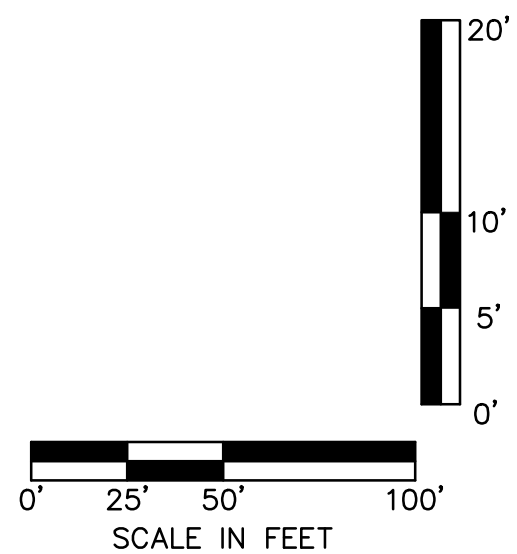
dwg

SWALE GRADING NOTES:

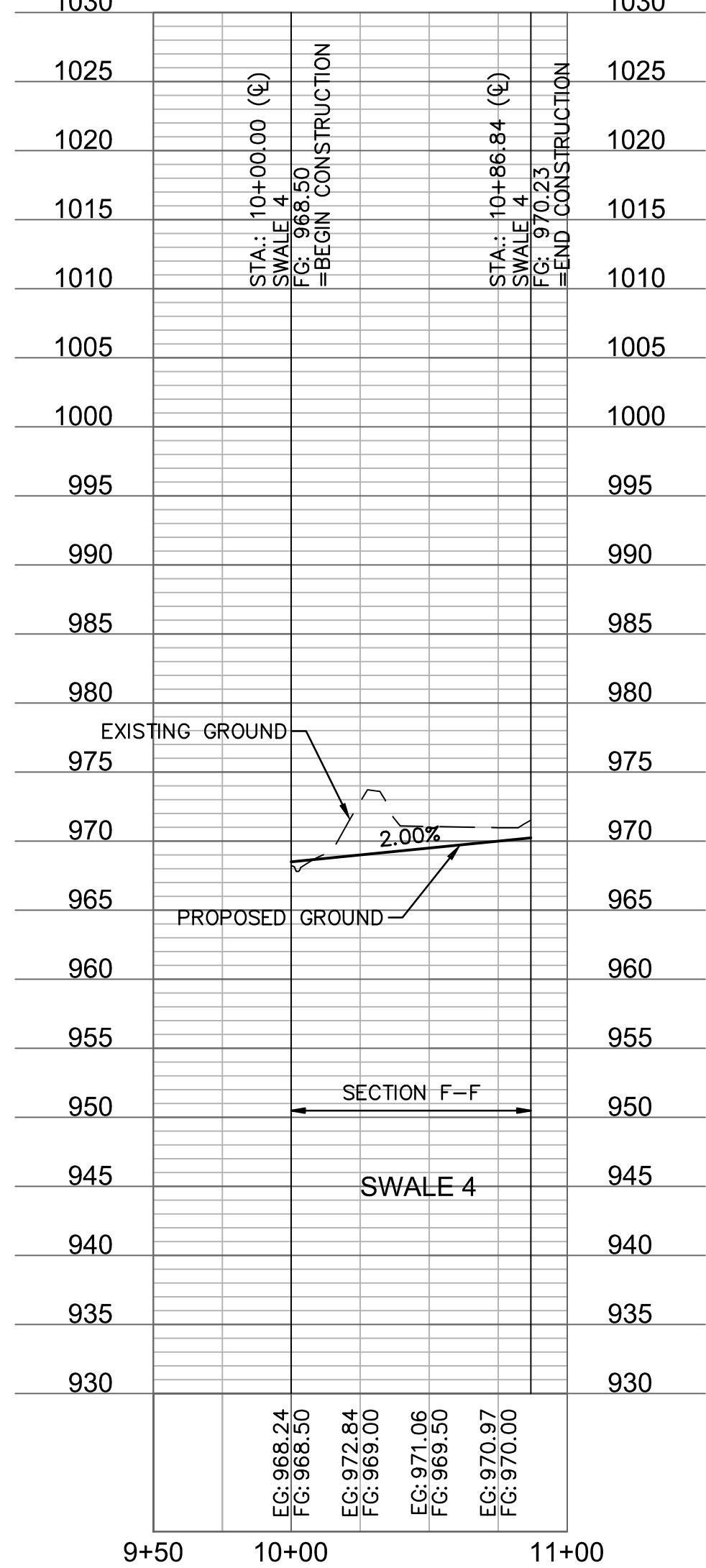
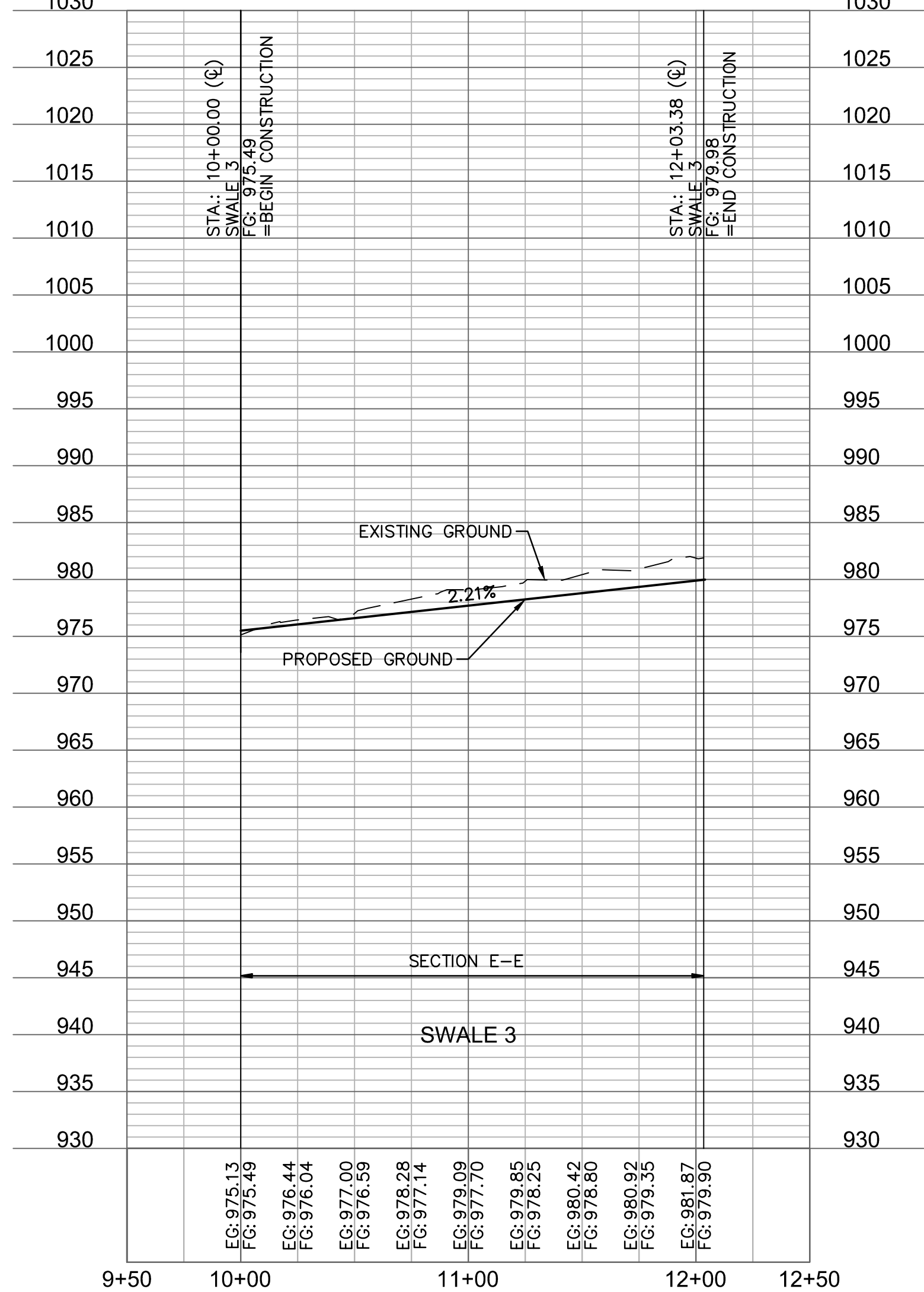
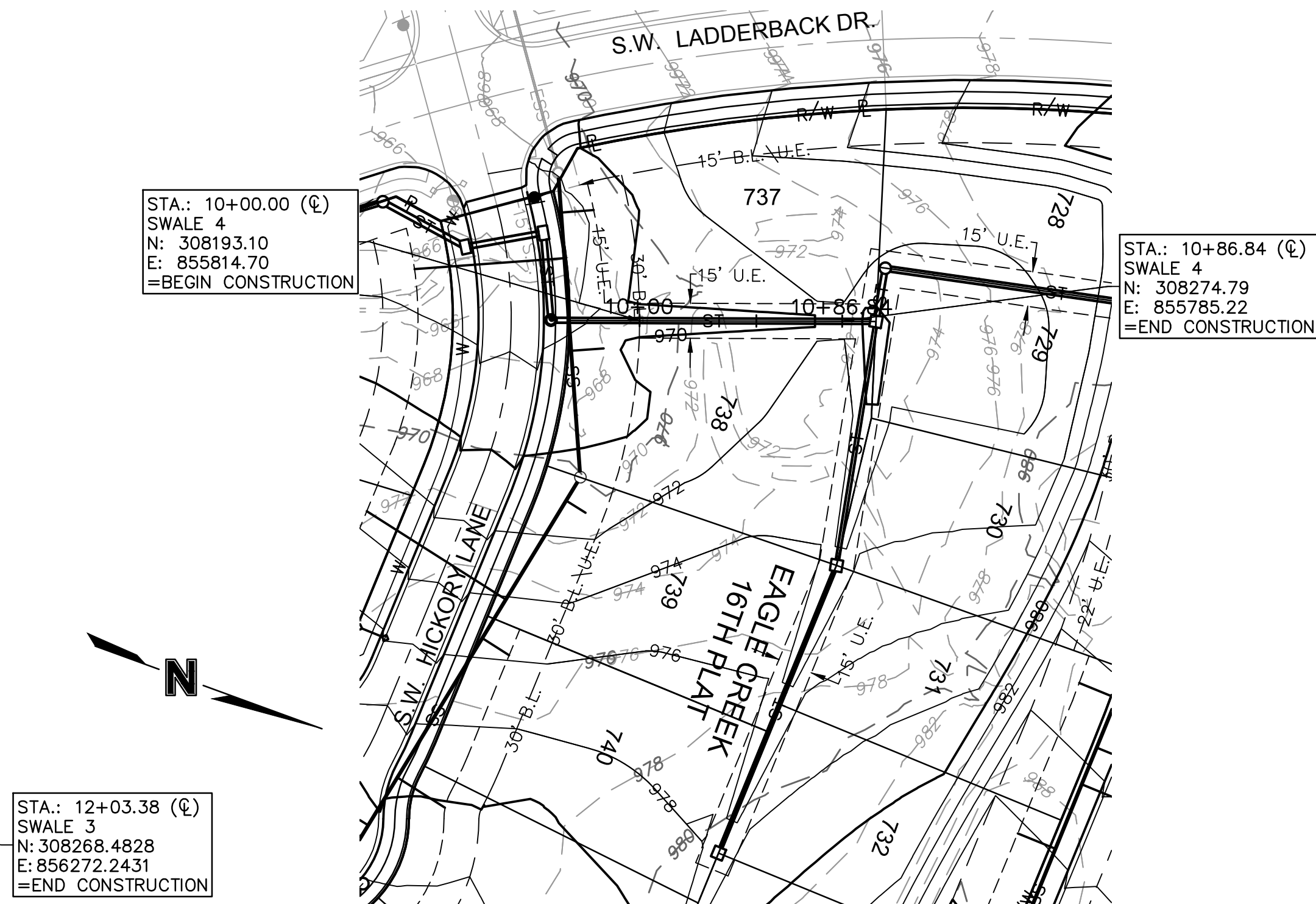
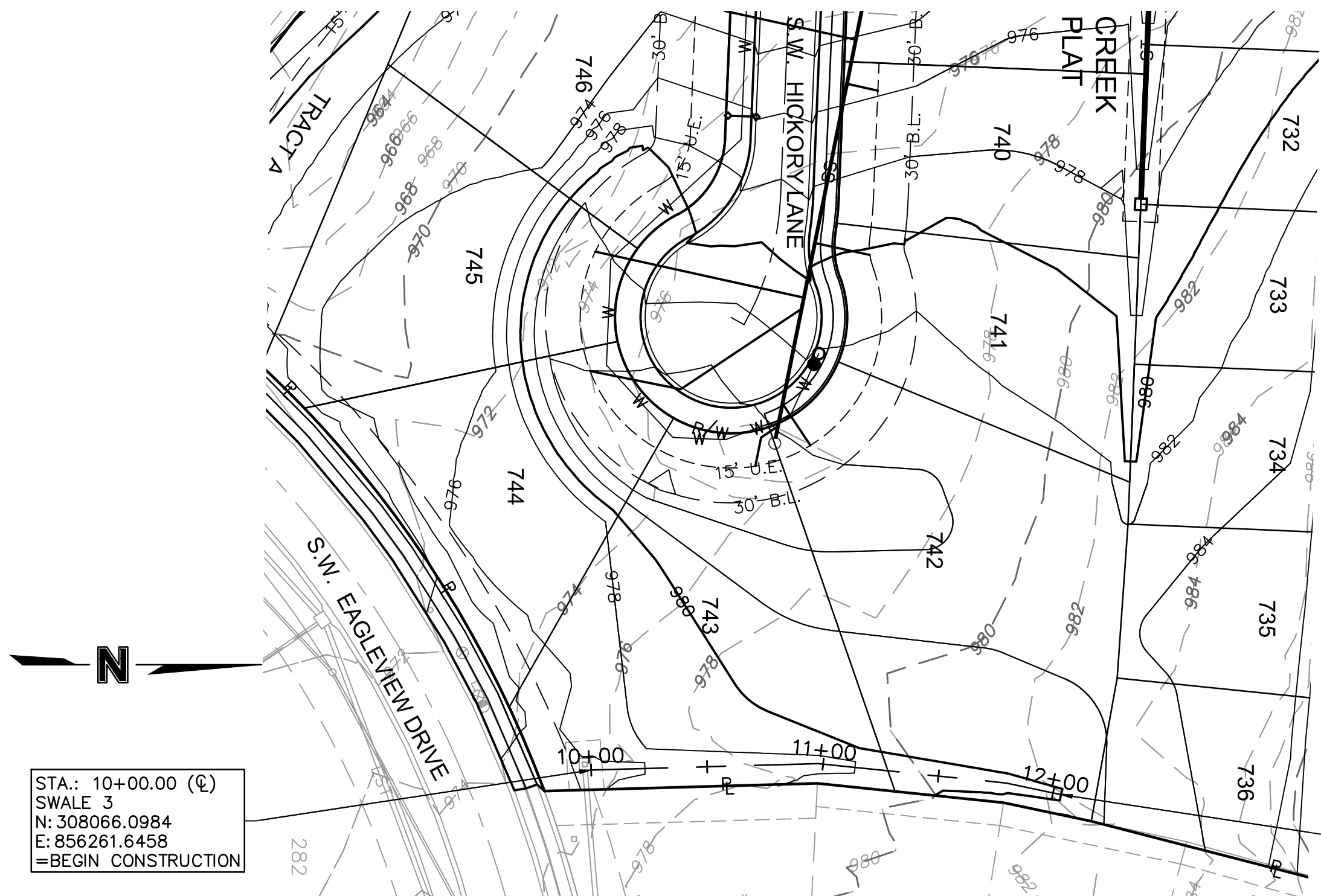
1. CONTRACTOR SHALL CONSTRUCT SWALES WITH MINIMUM SLOPE, WIDTH AND DEPTH AS SHOWN IN THE SWALE DESIGN TABLES.
2. CONTRACTOR SHALL CONSTRUCT ENTIRE DEPTH OF SWALES WITHIN THE RECORDED SURFACE DRAINAGE EASEMENTS AS SHOWN ON THE PLANS.
3. AS-BUILT SURVEY IS REQUIRED/APPROVED BY CITY FOR ALL SWALES AND PRIOR TO APPROVAL FOR ANY BUILDING FOUNDATION PERMIT. CONTRACTOR SHALL BE REQUIRED TO REGRADE SWALES AT CONTRACTOR'S EXPENSE IF ABOVE REQUIREMENTS ARE NOT MET.



NOTE: INCLUDE SUMP PER ABOVE DETAIL WHERE FIELD INLETS ARE LOCATED ON GRADE WITHIN SWALES.

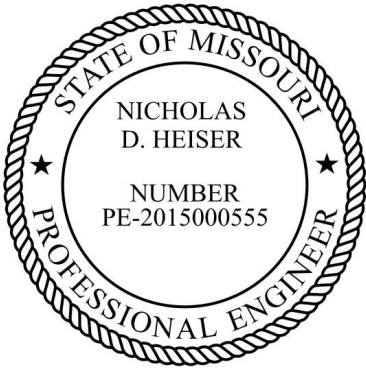


SWALE DESIGN TABLE (100-YEAR RETURN FREQUENCY)														
SECTION DATA									RESULTS					
SECTION	Mannings Coefficient	Channel Slope (%)	Swale Depth (ft)	Left Side Slope (H:V)	Right Side Slope (H:V)	Bottom Width (ft)	Discharge (cfs)	Water Depth (ft)	Flow Area (ft ²)	Velocity (ft/sec)	Wetted Perimeter (ft)	Top Width (ft)	Specific Energy (ft)	Shear Stress (lbs/ft ²)
E-E	0.03	2.21%	1.41	3:1	3:1	5	8.75	0.41	2.55	3.43	7.59	7.46	0.59	0.46
F-F	0.03	2.00%	1.4	3:1	3:1	5	8.78	0.40	2.48	3.34	7.53	7.40	0.57	0.41



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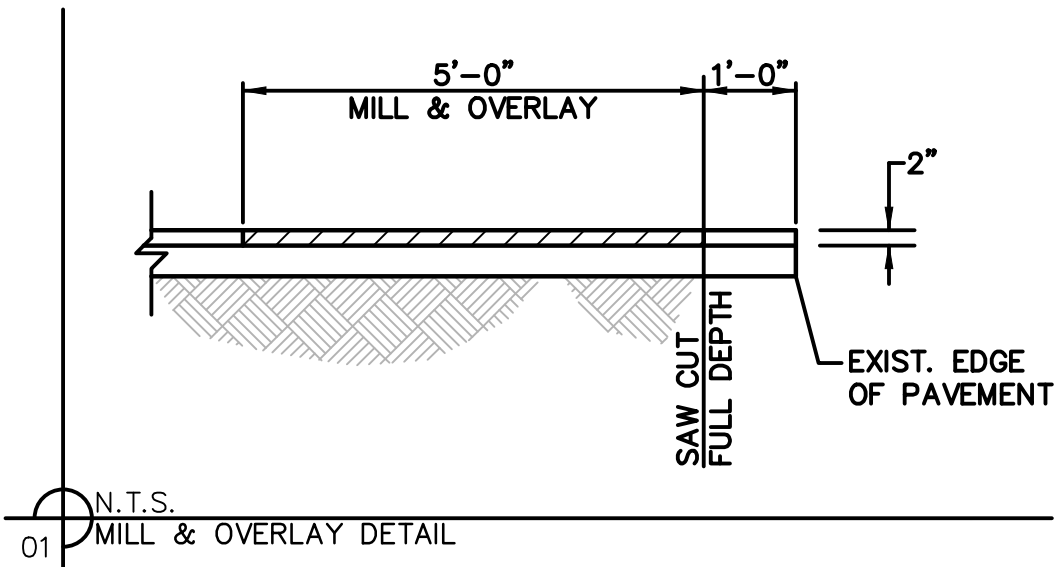
SWALE PLAN & PROFILE STREET & STORM & EROSION CONTROL PLANS	EAGLE CREEK SIXTEENTH PLAT	2018
LEE'S SUMMIT, MO		

drawn by: B.P.K
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

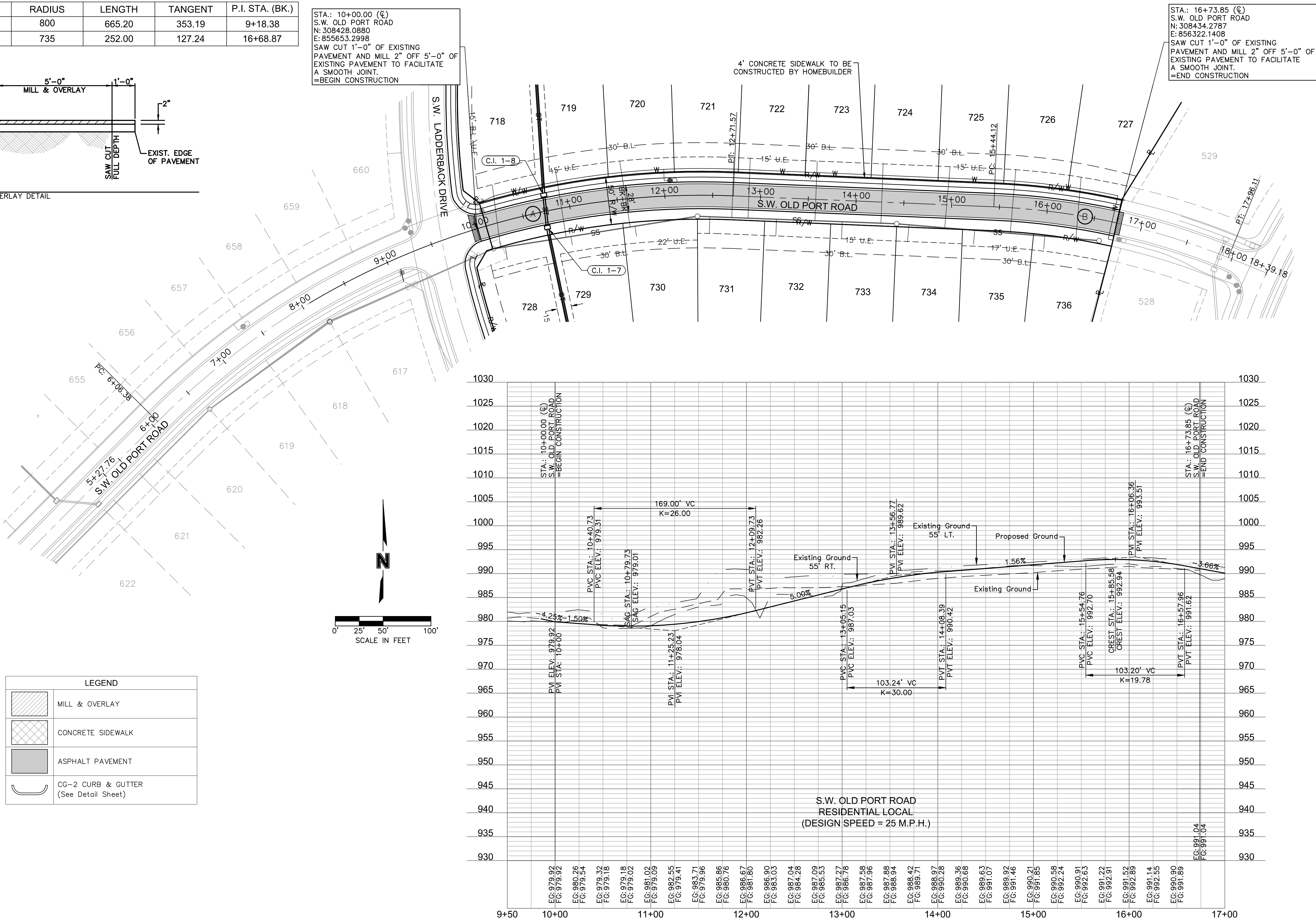
SHEET
C106



CURVE	RADIUS	LENGTH	TANGENT	P.I. STA. (BK.)
A	800	665.20	353.19	9+18.38
B	735	252.00	127.24	16+68.87

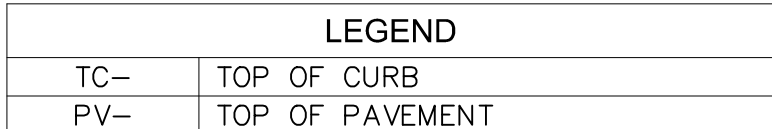


STA.: 10+00.00 (C)
S.W. OLD PORT ROAD
N: 308428.0880
E: 855653.2998
SAW CUT 1'-0" OF EXISTING
PAVEMENT AND MILL 2" OFF 5'-0" OF
EXISTING PAVEMENT TO FACILITATE
A SMOOTH JOINT.
=BEGIN CONSTRUCTION

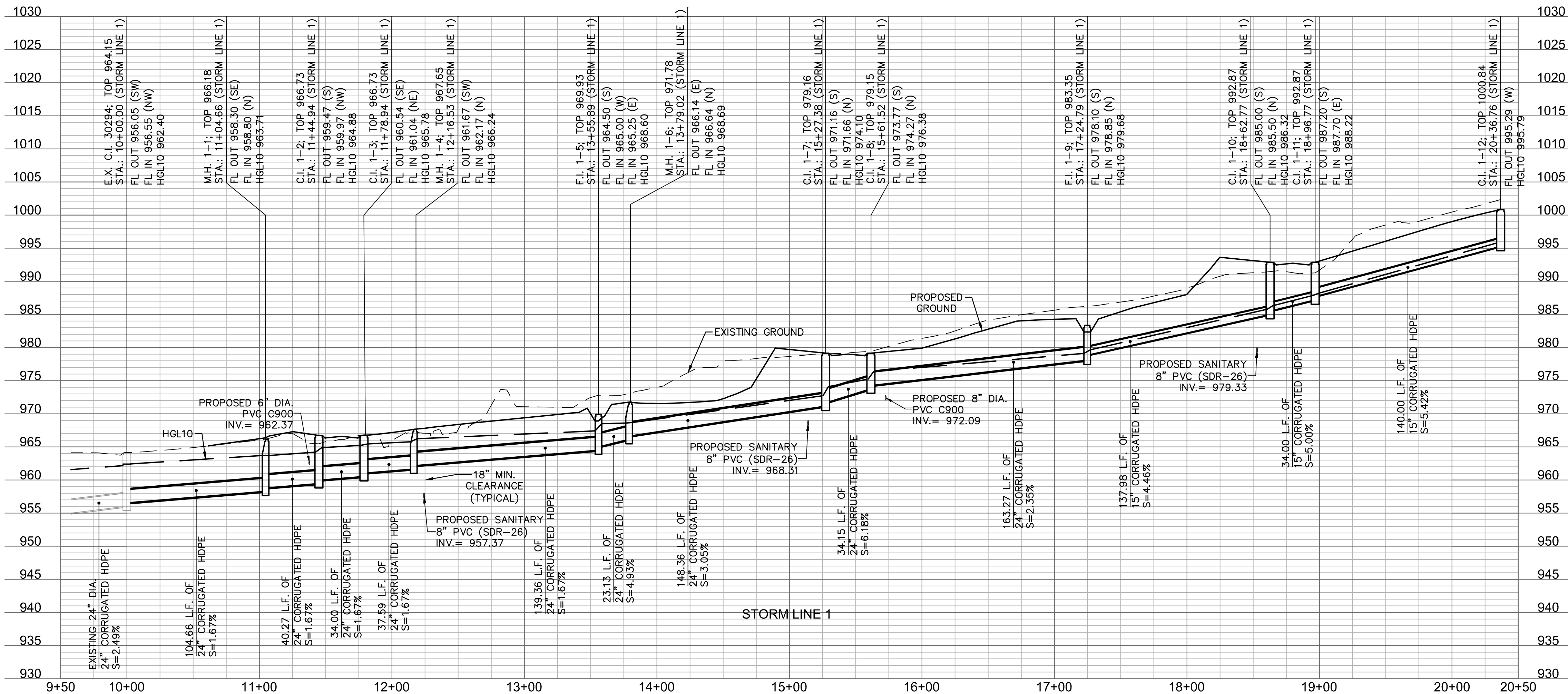
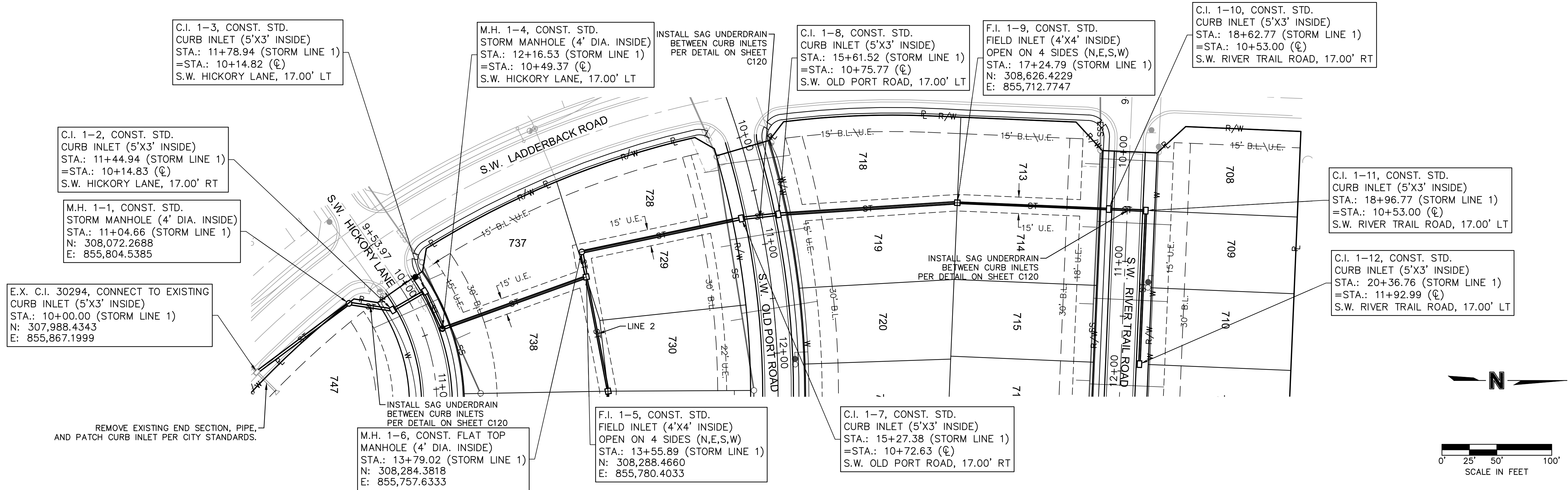


LEGEND	
	MILL & OVERLAY
	CONCRETE SIDEWALK
	ASPHALT PAVEMENT
	CG-2 CURB & GUTTER (See Detail Sheet)

DWG: F:\2018\0501-1000\018



SHEET
C110



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STATE OF MISSOURI
NICHOLAS D. HEISER
NUMBER
PE-2015000555

PROFESSIONAL ENGINEER

STORM SEWER PLAN & PROFILE
STREET & STORM & EROSION CONTROL PLANS

EAGLE CREEK
SIXTEENTH PLAT

LEE'S SUMMIT, MO

drawn by: B.B.K.
checked by: N.D.H.
designed by: B.B.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

2018

SHEET
C111

NO. REV.

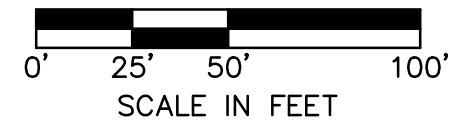
DATE

REVISIONS DESCRIPTION

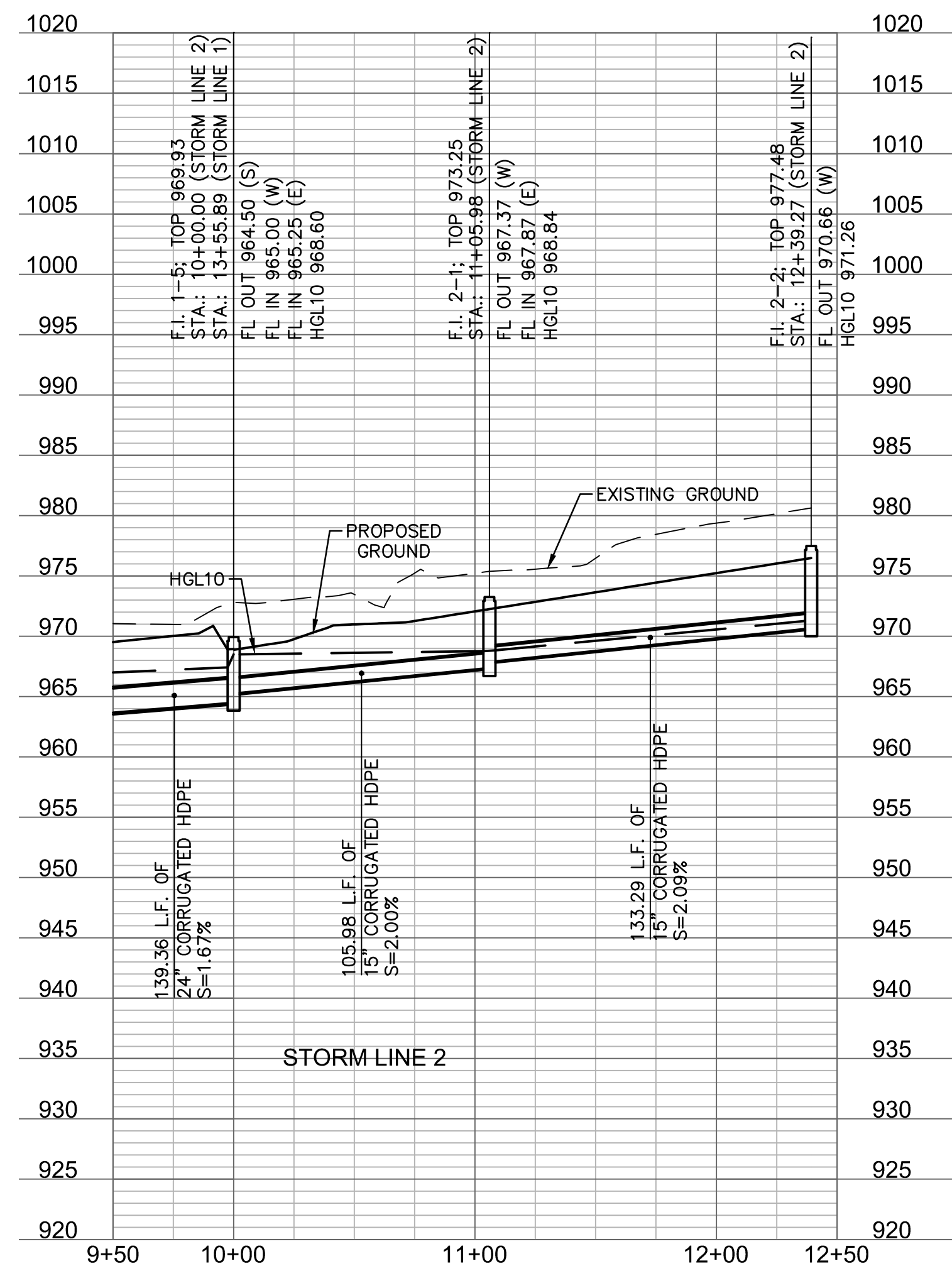
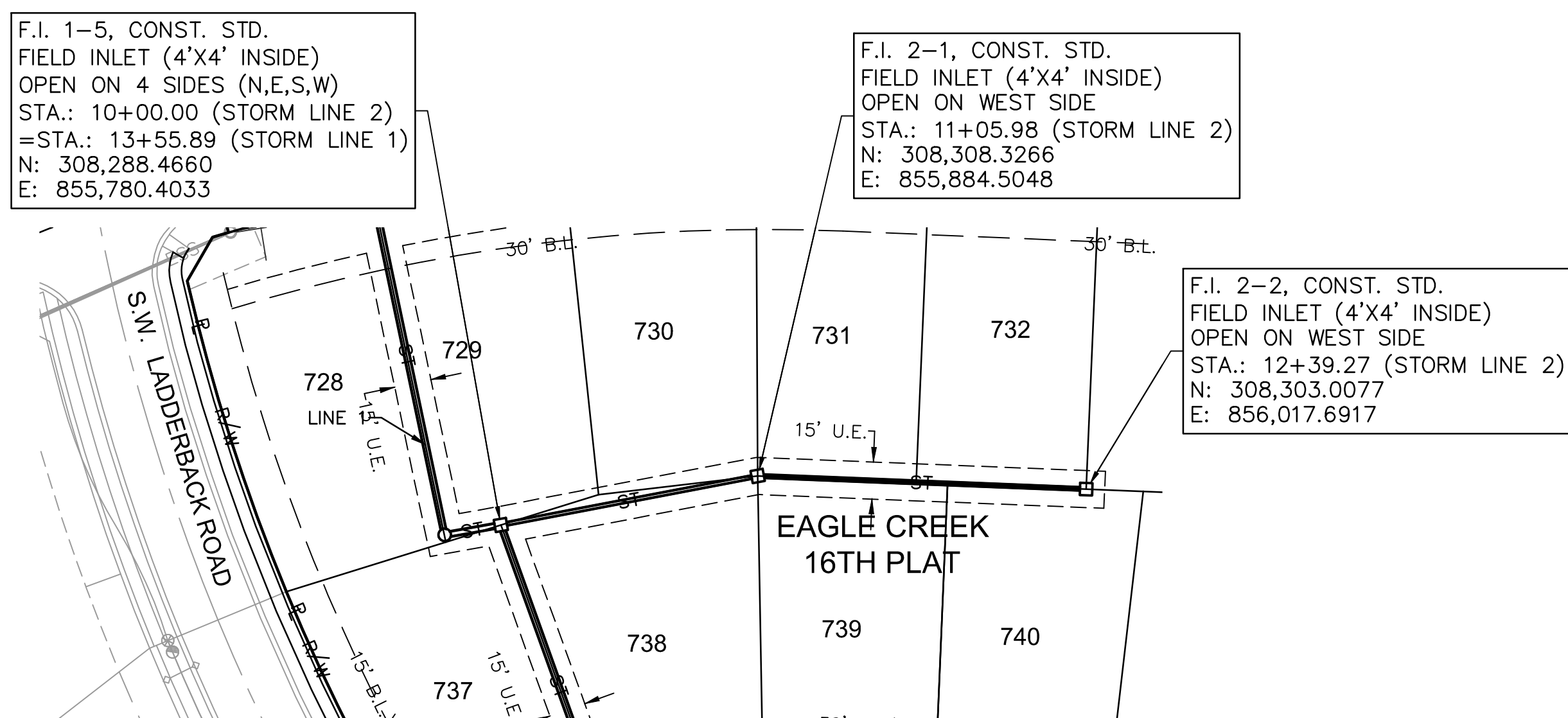
BY

REVISIONS

USER: bkoleci



NOTE: CONTRACTOR SHALL FILL AND COMPACT TO 95% STANDARD DENSITY TO A POINT 18" MINIMUM ABOVE THE TOP OF PIPE PRIOR TO EXCAVATION FOR THE PIPE.



drawn by: B.P.K.
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

SHEET
C112

STORM SEWER PLAN & PROFILE
STREET & STORM & EROSION CONTROL PLANS

EAGLE CREEK
SIXTEENTH PLAT

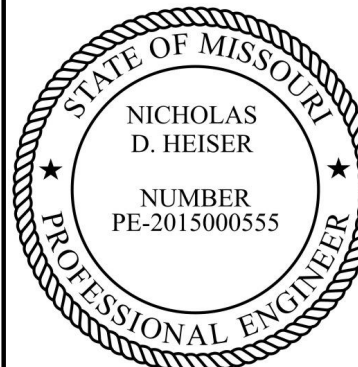
LEE'S SUMMIT, MO

2018

REVISIONS

BY

REVISIONS DESCRIPTION



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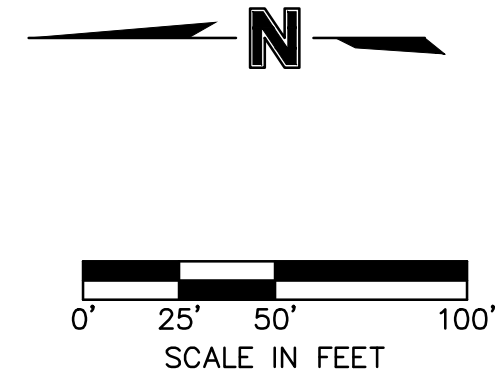
USER: bkoleci



NOTES:

1. INDIVIDUAL LOT OWNERS SHALL NOT CHANGE OR OBSTRUCT THE DRAINAGE FLOW LINES OR PATHS ON THE LOTS, AS SHOWN ON THE MASTER DRAINAGE PLAN, UNLESS SPECIFIC APPLICATION IS MADE AND APPROVED BY THE CITY ENGINEER.
2. PLAT IS LOCATED IN ZONE X, "AREAS OUTSIDE THE 1-PERCENT ANNUAL CHANCE FLOODPLAINS, AREAS OF 1-PERCENT ANNUAL CHANCE SHEET FLOW FLOODING WHERE THE AVERAGE DEPTHS ARE LESS THAN 1 FOOT, AREAS OF 1-PERCENT ANNUAL CHANCE STREAM FLOODING WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 SQUARE MILE, OR AREAS PROTECTED FROM THE 1-PERCENT ANNUAL CHANCE FLOOD BY LEVEES. NO BASE FLOOD ELEVATIONS OR DEPTHS ARE SHOWN WITHIN THIS ZONE"
3. PLAT IS LOCATED OUTSIDE OF ANY REQUIRED BUFFER ZONES FOR NATURAL STREAMS.

LEGEND	
	FINISHED INDEX CONTOURS
	FINISHED INTERMEDIATE CONTOURS
	RIDGE LINE
	DRAINAGE AREA
	RUNOFF COEFFICIENT
	STORM STRUCTURE NUMBER

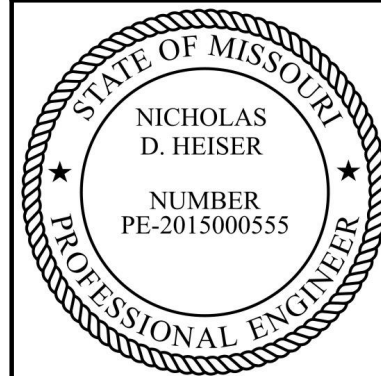


DRAINAGE PLAN STREET & STORM & EROSION CONTROL PLANS

EAGLE CREEK
SIXTEENTH PLAT

LEE'S SUMMIT, MO

2018

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DWG: F:\2018\0501-1000\018-0847\40-Design\AutoCAD\Final Plans\Sheets\GNCV\01_Street & Storm_34x22\C_TAB01_80847.dwg
DATE: Apr 20, 2018 8:36am
USER: bkoleci

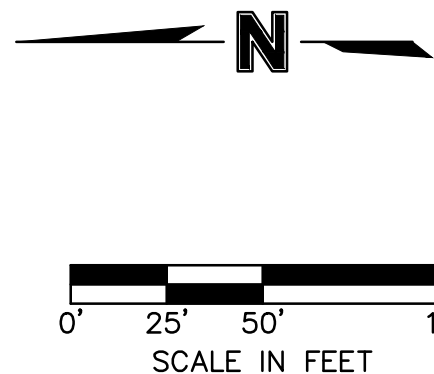
Inlet Design Table													
10 Year Return Frequency													
Inlet ID	Inlet Location	Peak Flow	Upstream Bypass	Total Flow	Clogging Factor	Inlet Capacity	Sag Inlet Capacity (Note 1)	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-3(L)	SAG	1.00	...	...	...	...	...	...	...	...	0.10	5.20	...
C.I. 1-3(R)	SAG	1.86	...	...	...	...	...	...	...	...	0.17	8.41	...
E.X. C.I. 30294	SAG	3.34	0.00	3.34	0.80	19.40	15.52	3.34	0.00	100.00%	...	...	...
C.I. 1-2	SAG	1.87	0.00	1.87	0.80	19.40	15.52	1.87	0.00	100.00%	...	...	...
C.I. 1-3	SAG	4.09	0.00	4.09	0.80	19.40	15.52	4.09	0.00	100.00%	...	...	...
F.I. 1-5	SAG	3.34	0.00	3.34	0.80	18.67	14.93	3.34	0.00	100.00%	...	...	0.16
C.I. 1-7	SAG	2.47	0.00	2.47	0.80	23.28	18.63	2.47	0.00	100.00%	...	...	...
C.I. 1-8	SAG	8.62	0.00	8.62	0.80	23.28	18.63	8.62	0.00	100.00%	...	...	...
F.I. 1-9	SAG	4.39	0.00	4.39	0.80	18.67	14.93	4.39	0.00	100.00%	...	...	0.19
C.I. 1-10	GRADE	1.70	0.00	1.70	1.00	1.25	1.25	0.45	73.44%	0.12	6.07	...	...
C.I. 1-11	GRADE	0.56	0.91	1.48	1.00	1.13	1.13	0.35	76.42%	0.12	5.76	...	...
C.I. 1-12	GRADE	2.52	0.00	2.52	1.00	1.60	1.60	1.60	0.91	63.72%	0.14	7.04	...
F.I. 1-2	SAG	1.95	0.00	1.95	1.80	97.00	174.60	1.95	0.00	100.00%	...	...	0.11
F.I. 2-2	SAG	2.29	0.00	2.29	2.80	208.71	584.39	2.29	0.00	100.00%	...	...	0.12
Notes: 1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical capacity to 80% capacity, as required per APWA Section 5600. Both theoretical capacity and reduced capacity are shown. 2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage of flow captured after the capacity has been reduced to 80% of theoretical capacity.													

Drainage Area Design Table						
10 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-3(L)	0.27	0.51	5.36	7.24	1.00	1.00
C.I. 1-3(R)	0.52	0.51	6.07	7.04	1.00	1.86
E.X. C.I. 30294	1.02	0.51	8.49	6.41	1.00	3.34
C.I. 1-2(L)	0.33	0.51	5.05	7.34	1.00	1.25
C.I. 1-2(R)	0.00	0.51	5.00	7.35	1.00	0.00
C.I. 1-2(B)	0.17	0.51	5.00	7.35	1.00	0.62
C.I. 1-2	0.50	0.51	5.05	7.34	1.00	1.87
C.I. 1-3(L)	0.27	0.51	5.36	7.24	1.00	1.00
C.I. 1-3(R)	0.52	0.51	6.07	7.04	1.00	1.86
C.I. 1-3(B)	0.35	0.51	5.00	7.35	1.00	1.32
C.I. 1-3	1.14	0.51	6.07	7.04	1.00	4.09
F.I. 1-5	0.89	0.51	5.00	7.35	1.00	3.34
C.I. 1-7(L)	0.54	0.51	8.09	6.51	1.00	1.80
C.I. 1-7(R)	0.03	0.51	5.00	7.35	1.00	0.10
C.I. 1-7(B)	0.17	0.51	5.00	7.35	1.00	0.65
C.I. 1-7	0.74	0.51	8.09	6.51	1.00	2.47
C.I. 1-8(L)	0.49	0.51	6.59	6.89	1.00	1.72
C.I. 1-8(R)	1.89	0.51	10.63	5.95	1.00	5.75
C.I. 1-8(B)	0.46	0.51	5.28	7.27	1.00	1.70
C.I. 1-8	2.84	0.51	10.63	5.95	1.00	8.62
F.I. 1-9	1.17	0.51	5.00	7.35	1.00	4.39
C.I. 1-10	0.51	0.51	8.02	6.53	1.00	1.70
C.I. 1-11	0.15	0.51	5.00	7.35	1.00	0.56
C.I. 1-12	0.77	0.51	8.49	6.41	1.00	2.52
F.I. 2-1	0.52	0.51	5.00	7.35	1.00	1.95
F.I. 2-2	0.61	0.51	5.00	7.35	1.00	2.29

STORM SEWER DESIGN CALCULATION (10-YR)																	
Upstream Structure	Downstream Structure	Line Length (ft)	Upstream Invert (ft)	Downstream Invert (ft)	Pipe Slope (%)	Pipe Size (in)	Manning's n	Total Flow (cfs)	Upstream Velocity (ft/s)	Downstream Velocity (ft/s)	Pipe Capacity (cfs)	Upstream Depth (ft)	Downstream Depth (ft)	Upstream Struct. HGL (ft)	Downstream Struct. HGL (ft)	Upstream Top Elev. (ft)	
EX. C.I. 32931	EX. F.E.S. EX. C.I. 32931	60.293	954.73	953.78	1.58	24	0.01	37.54	12.06	11.99	36.91	1.94**	1.97	956.67 j	955.75	964.13	
EX. C.I. 30294	EX. C.I. 30294	42.218	956.05	955.13	2.18	24	0.01	36.14	11.50	11.51	43.40	2.00	2.00	962.22	961.58	964.15	
MH 1-1	MH 1-1	104.665	958.30	956.55	1.67	24	0.01	32.80	10.44	10.44	38.02	2.00	2.00	963.71	962.40	966.18	
C.I. 1-2	MH 1-1	40.273	959.47	958.80	1.66	24	0.01	32.80	10.44	10.44	37.92	2.00	2.00	964.21	963.71	966.73	
C.I. 1-3	C.I. 1-2	34.002	960.54	959.97	1.68	24	0.01	30.93	9.85	9.85	38.07	2.00	2.00	965.26	964.88	966.73	
MH. 1-4	C.I. 1-3	37.586	961.67	961.04	1.68	24	0.01	27.04	8.61	8.61	38.07	2.00	2.00	965.78	965.46	967.65	
F.I. 1-5	MH. 1-4	139.359	964.50	962.17	1.67	24	0.01	27.04	8.61	8.61	38.02	2.00	2.00	967.42	966.24	969.89	
MH. 1-6	F.I. 1-5	23.133	966.14	965.00	4.93	24	0.01	19.46	6.19	6.20	65.27	2.00	2.00	968.60	968.50	970.17	
C.I. 1-7	MH. 1-6	148.357	971.16	966.64	3.05	24	0.01	19.46	7.29	6.20	51.32	1.58**	2.00	972.74 j	968.69	979.16	
C.I. 1-8	C.I. 1-7	34.146	973.77	971.66	6.18	24	0.01	16.99	6.80	5.41	73.09	1.48**	2.00	975.25 j	974.10	979.15	
F.I. 1-9	C.I. 1-8	163.268	978.10	974.27	2.35	24	0.01	8.37	5.13	2.66	45.03	1.03**	2.00	979.13 j	976.38	983.35	
C.I. 1-10	F.I. 1-9	137.977	985.00	978.85	4.46	15	0.01	3.98	4.75	4.60	17.72	0.81**	0.83	985.81 j	979.68	992.87	
C.I. 1-11	C.I. 1-10	34.000	987.20	985.50	5.00	15	0.01	2.73	4.13	3.21	18.77	0.66**	0.82	987.86 j	986.32	992.87	
C.I. 1-12	C.I. 1-11	139.998	995.29	987.70	5.42	15	0.01	1.60	3.48	3.29	19.55	0.50**	0.52	995.79 j	988.22	1000.84	
F.I. 1-2	C.I. 1-12	105.979	967.37	965.25	2.00	15	0.01	4.24	3.46	3.46	11.87	1.25	1.25	968.77	968.50	973.25	
F.I. 2-2	F.I. 2-1	133.293	970.66	967.87	2.09	15	0.01	2.29	3.90	2.24	12.15	0.60**	0.97	971.26 j	968.84	977.84	
Notes: j - Line contains hyd. jump; ** - critical depth																	

Inlet Design Table													
100 Year Return Frequency													
Inlet ID	Inlet Location	Peak Flow	Upstream Bypass	Total Flow	Clogging Factor	Inlet Capacity	Sag Inlet Capacity (Note 1)	Captured Flow	Bypass Flow	Inlet Efficiency (Note 2)	Gutter Depth	Gutter Spread	Ponding Depth
		(cfs)	(cfs)	(cfs)		(cfs)	(cfs)	(cfs)	(cfs)	(%)	(ft)	(ft)	(ft)
C.I. 1-3(L)	SAG	1.76	...	...	...	...	...	...	...	...	0.13	6.42	...
C.I. 1-3(R)	SAG	3.11	...	...	...	...	...	...	...	...	0.20	10.21	...
E.X. C.I. 30294	SAG	5.88	0.00	5.88	0.80	19.40	15.52	5.88	0.00	100.00%	...	...	...
C.I. 1-2	SAG	3.28	0.00	3.28	0.80	19.40	15.52	3.28	0.00	100.00%	...	...	...
C.I. 1-3	SAG	6.86	0.00	6.86	0.80	19.40	15.52	6.86	0.00	100.00%	...	...	...
F.I. 1-5	SAG	5.86	0.00	5.86	0.80	18.67	14.93	5.86	0.00	100.00%	...	...	0.23
C.I. 1-7	SAG	4.35	0.00	4.35	0.80	23.28	18.63	4.35	0.00	100.00%	...	...	...
C.I. 1-8	SAG	15.24	0.00	15.24	0.80	23.28	18.63	15.24	0.00	100.00%	...	...	...
F.I. 1-9	SAG	7.70	0.00	7.70	0.80	18.67	14.93	7.70	0.00	100.00%	...	...	0.28
C.I. 1-10	GRADE	2.99	0.00	2.99	1.00	1.76	1.76	1.76	1.23	58.94%	0.15	7.51	...
C.I. 1-11	GRADE	0.99	2.34	3.33	1.00	1.86	1.86	1.86	1.47	55.83%	0.16	7.82	...
C.I. 1-12	GRADE	4.44	0.00	4.44	1.00	2.10	2.10	2.10	2.34	47.23%	0.17	8.71	...
F.I. 2-1	SAG	3.42	0.00	3.42	1.80	97.00	174.60	3.42	0.00	100.00%	...	...	0.16
F.I. 2-2	SAG	4.01	0.00	4.01	2.80	208.71	584.39	4.01	0.00	100.00%	...	...	0.18
Notes: 1. Inlet capacity at sag location has been reduced by a clogging factor of 0.80, reducing theoretical capacity to 80% capacity, as required per APWA Section 5600. Both theoretical capacity and reduced capacity are shown. 2. Inlet efficiency shown in the tables is Captured Flow/Total Flow, denoting the actual percentage of flow captured after the capacity has been reduced to 80% of theoretical capacity.													

Drainage Area Design Table						
100 Year Return Frequency						
Inlet ID	Drainage Area	C	Tc	i	K	Peak Flow
	(ac)		(min)	(in/hr)		(cfs)
C.I. 1-3(L)	0.27	0.51	5.36	10.17	1.25	1.76
C.I. 1-3(R)	0.52	0.51	7.32	9.44	1.25	3.11
E.X. C.I. 30294	1.02	0.51	8.49	9.05	1.25	5.88
C.I. 1-2(L)	0.33	0.51	5.05	10.30	1.25	2.19
C.I. 1-2(R)	0.00	0.51	5.00	10.32	1.25	0.00
C.I. 1-2(B)	0.17	0.51	5.00	10.32	1.25	1.10
C.I. 1-2	0.50	0.51	5.05	10.30	1.25	3.28
C.I. 1-3(L)	0.27	0.51	5.36	10.17	1.25	1.76
C.I. 1-3(R)	0.52	0.51	7.32	9.44	1.25	3.11
C.I. 1-3(B)	0.35	0.51	5.00	10.32	1.25	2.31
C.I. 1-3	1.14	0.51	7.32	9.44	1.25	6.86
F.I. 1-5	0.89	0.51	5.00	10.32	1.25	5.86
C.I. 1-7(L)	0.54	0.51	8.09	9.18	1.25	3.17
C.I. 1-7(R)	0.03	0.51	5.00	10.32	1.25	0.18
C.I. 1-7(B)	0.17	0.51	5.00	10.32	1.25	1.15
C.I. 1-7	0.74	0.51	8.09	9.18	1.25	4.35
C.I. 1-8(L)	0.49	0.51	6.59	9.70	1.25	3.03
C.I. 1-8(R)	1.89	0.51	10.63	8.41	1.25	10.16
C.I. 1-8(B)	0.46	0.51	5.28	10.21	1.25	2.98
C.I. 1-8	2.84	0.51	10.63	8.41	1.25	15.24
F.I. 1-9	1.17	0.51	5.00	10.32	1.25	7.70
C.I. 1-10	0.51	0.51	8.02	9.20	1.25	2.99
C.I. 1-11	0.15	0.51	5.00	10.32	1.25	0.99
C.I. 1-12	0.77	0.51	8.49	9.05	1.25	4.44
F.I. 2-1	0.52	0.51	5.00	10.32	1.25	3.42
F.I. 2-2	0.61	0.51	5.00	10.32	1.25	4.01

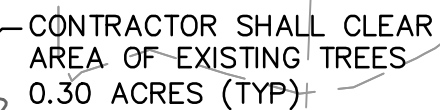


RMBOE – REAR MINIMUM BUILDING OPENING ELEVATION
FMBOE – FRONT MINIMUM BUILDING OPENING ELEVATION

Lot	Rear Left MBOE	Rear Right MBOE	Front Left MBOE	Front Right MBOE
708	989.72	995.44	987.94	993.66
709	995.44	999.64	993.66	997.86
710	999.64	1003.40	997.86	1001.62
711	1003.40	1005.60	1001.62	1003.82
712	1005.60	1006.50	1003.82	1004.72
713	984.62	985.35	-	-
714	986.72	984.62	-	-
715	984.62	992.33	-	-
716	990.92	988.82	-	-
717	996.02	990.92	-	-
718	982.50	981.72	980.72	979.94
719	981.72	982.50	979.94	980.72
720	987.15	987.76	-	-
721	990.78	991.48	-	-
722	995.80	990.78	-	-
723	997.68	998.07	995.90	996.29
724	998.07	999.00	996.29	997.22
725	999.00	999.46	997.22	997.68
726	999.46	999.08	997.68	997.30
727	999.08	998.17	997.30	996.39
728	974.26	977.09	-	-
729	972.39	974.07	-	-
730	974.45	972.39	-	-
731	976.45	974.41	-	-
732	978.64	976.45	-	-
733	980.83	978.64	-	-
734	984.14	980.81	-	-
735	983.43	982.52	-	-
736	982.33	983.43	-	-
737	972.40	971.14	970.62	968.44
738	970.22	972.77	968.44	970.90
739	972.77	977.07	970.90	975.29
740	977.07	981.45	975.29	979.67
741	981.45	984.70	979.67	982.92
742	984.70	986.47	982.92	984.69
743	986.47	987.69	984.69	985.91
744	974.13	971.36	-	-
745	971.36	972.19	-	-
746	972.39	971.10	-	-
747	971.10	965.50	-	-

MBOE elevations have been provided per lot lines, facing the lot from the street. Interpolation will be allowed between the right and left side MBOE's provided, depending on the location of the lowest opening on the proposed structure.

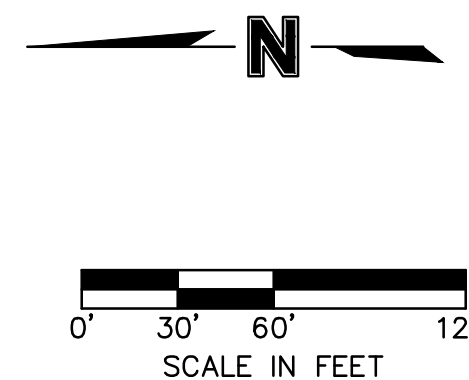
USER: bkoleci



- PRIOR TO ANY CLEARING OR OTHER
CONSTRUCTION ACTIVITIES
CONTRACTOR SHALL INSTALL SILT
FENCING TO CONTROL EROSION AND
SILT. FENCING TO BE INSTALLED PER
APWA DETAIL. (TYP.)

—PROPOSED CURB INLET PROTECTION
DEVICE TO BE INSTALLED PER APWA
DETAIL ESC-06. (TYP.)

— PRIOR TO ANY CLEARING OR
OTHER CONSTRUCTION
ACTIVITIES CONTRACTOR SHALL
RE-CONSTRUCT EXISTING
TEMPORARY SEDIMENT TRAP
PER TABLE ON THIS SHEET



NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

TEMPORARY SEDIMENT TRAP	1
POND AND PRINCIPAL SPILLWAY DATA:	
DAM TOP ELEVATION	975.00
EMERGENCY SPILLWAY ELEVATION	974.00
WET STORAGE VOLUME ELEVATION	972.26
CLEANOUT ELEVATION	971.85
DRY BOTTOM ELEVATION	971.00
VOL. REQ'D @ 134CY/ACRE	344.38
VOL. PROVIDED BELOW OUTLET CREST (CY	529.27

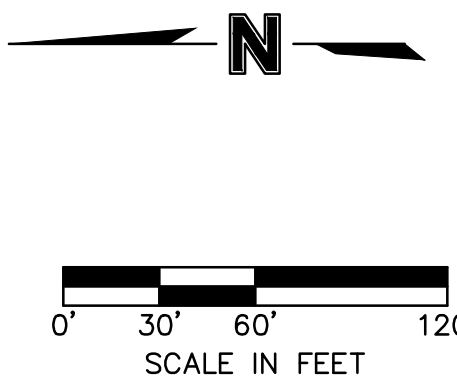
PHASE 1	
 SF 	SILT FENCE
 << 	TEMPORARY DIVERSION BERM
	TEMPORARY STONE CONSTRUCTION ENTRANCE

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EROSION CONTROL PLAN - PHASE 1 STREET & STORM & EROSION CONTROL PLANS	2018
EAGLE CREEK SIXTEENTH PLAT	
LEE'S SUMMIT, MO	

drawn by: B.P.K
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

USER: bkoleci



NOTE:
THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

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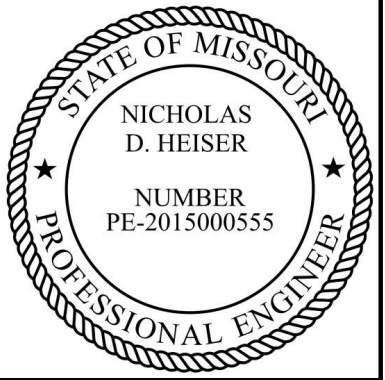
EROSION CONTROL PLAN - PHASE 2 STREET & STORM & EROSION CONTROL PLANS	
EAGLE CREEK SIXTEENTH PLAT	
LEE'S SUMMIT, MO	2018

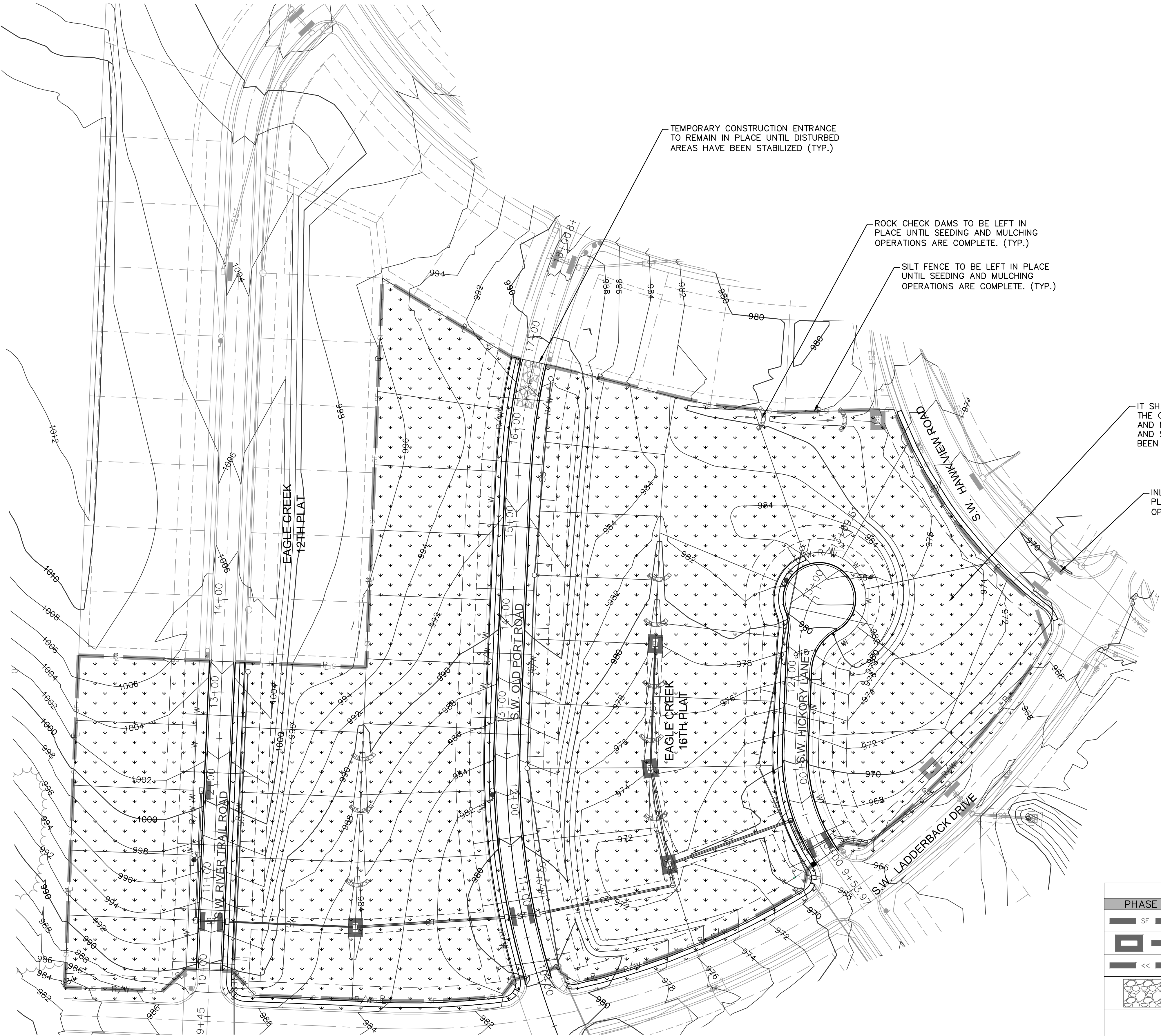
drawn by: B.P.K
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

SHEET
C117

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TEMPORARY CONSTRUCTION ENTRANCE
TO REMAIN IN PLACE UNTIL DISTURBED
AREAS HAVE BEEN STABILIZED (TYP.)

ROCK CHECK DAMS TO BE LEFT IN
PLACE UNTIL SEEDING AND MULCHING
OPERATIONS ARE COMPLETE. (TYP.)

SILT FENCE TO BE LEFT IN PLACE
UNTIL SEEDING AND MULCHING
OPERATIONS ARE COMPLETE. (TYP.)

IT SHALL BE THE RESPONSIBILITY OF
THE CONTRACTOR TO PROVIDE SEED
AND MULCH TO PREVENT EROSION
AND SILTATION ONCE TRACT A HAS
BEEN CLEARED AND GRADED.

INLET PROTECTION TO BE LEFT IN
PLACE UNTIL SEEDING AND MULCHING
OPERATIONS ARE COMPLETE (TYP.)

GENERAL NOTES:

SEED & MULCH NOTES:
SEEDING SHALL BE DONE BEFORE THE PROPOSED SEEDBED
BECOMES ERODED, CRUSTED OVER,OR DRIED OUT AND SHALL NOT
BE DONE WHEN THE GROUND IS FROZEN, OR COVERED WITH
SNOW. THE SEED SHALL COMPLY WITH THE REQUIREMENTS OF THE
MISSOURI SEED LAW AND THE FEDERAL SEED ACT. ALSO, IT
SHALL CONTAIN NO SEED OF ANY PLANT ON THE FEDERAL
NOXIOUS WEED LIST. OTHER WEED SEED SHALL NOT EXCEED ONE
PERCENT BY WEIGHT OF MIX.

SEED & FERTILIZER RATE:
MIX I - RYE GRASS / BLUE GRASS -----100 LBS. PER. ACRE
MIX II - TALL FESCUE / BLUE GRASS -----195 LBS. PER ACRE
LIME -----2000 LBS. PER ACRE
(50 LBS. PER 1000 SQ. FT.)
FERTILIZER -----800 TO 1200 LBS.
PER ACRE (25 LBS. PER 1000 SQ. FT.)

DURING THE DATES DECEMBER 15TH THROUGH MAY 31 ALL LIME,
FERTILIZER, SEED, AND MULCH SHALL BE APPLIED TO FINISHED
SLOPES OF DISTURBED AREAS. DURING THE MONTHS OF JUNE,
JULY, OCTOBER, AND NOVEMBER 1ST THROUGH DECEMBER 15TH,
LIME, FERTILIZER, SEED, AND MULCH SHALL BE APPLIED AT THE
FOLLOWING RATES:
LIME - 100 % OF SPECIFIED QUANTITY
FERTILIZER - 75 % OF THE SPECIFIED QUANTITY
SEED - 50 % OF THE SPECIFIED QUANTITY
MULCH - 100 % OF THE SPECIFIED QUANTITY
MULCH SHALL BE VEGETATIVE TYPE, CEREAL STRAW FROM STALKS
OF OATS, RYE, OR BARLEY, OR APPROVED EQUAL. THE STRAW
SHALL BE FREE OF PROHIBITED WEED SEED AND RELATIVELY FREE
OF ALL OTHER NOXIOUS AND UNDESIRABLE SEED. MULCH SHALL
BE APPLIED AT THE RATE OF 2 TONS PER ACRE, (70 TO 90
LBS. PER 1000 SQ. FT.). MULCH SHALL BE EMBEDDED BY A
MULCH ANCHORING TOOL OR DISK TYPE ROLLER HAVING FLAT
SERRATED DISKS SPACED NOT MORE THAN 10 INCHES APART AND
CLEANING SCRAPERS SHALL BE PROVIDED.

THE SITE DISTURBANCE PLANS INDICATES THE FINAL PLACEMENT
OF EROSION CONTROL DEVICES. THE CONTRACTOR(S) MAY
PROCEED WITH THE CONSTRUCTION PRIOR TO THE FINAL
PLACEMENT OF THESE DEVICES BY PROVIDING ADDITIONAL DEVICES
TO CONTROL EROSION ON THEIR ITEMS OF WORK. THESE DEVICES
SHALL BE MAINTAINED UNTIL THE FINAL DEVICES ARE IN PLACE.

LEGEND			
PHASE 1	PHASE 2	PHASE 3	
			SILT FENCE
			STORM DRAIN INLET PROTECTION
			TEMPORARY DIVERSION BERM
			TEMPORARY STONE CONSTRUCTION ENTRANCE
			SEED AND MULCH
			ROCK CHECK DAMS

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STATE OF MISSOURI
NICHOLAS
D. HEISER
NUMBER
PE-2015000555
PROFESSIONAL ENGINEER

EROSION CONTROL PLAN - PHASE 3
STREET & STORM & EROSION CONTROL PLANS

EAGLE CREEK
SIXTEENTH PLAT

LEE'S SUMMIT, MO

BY

NO. REV.

DATE

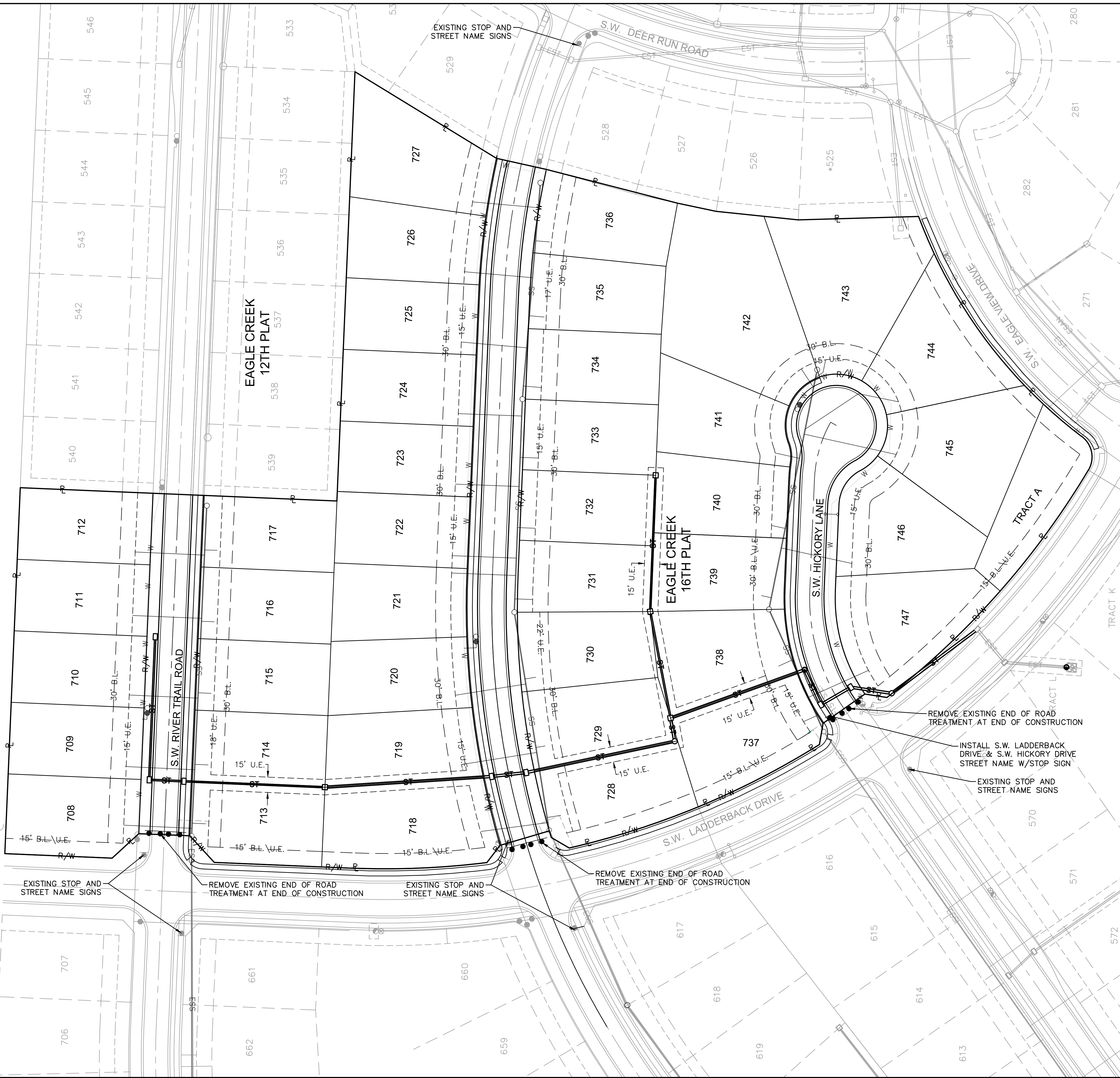
REVISIONS DESCRIPTION

2018

drawn by: B.P.K.
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

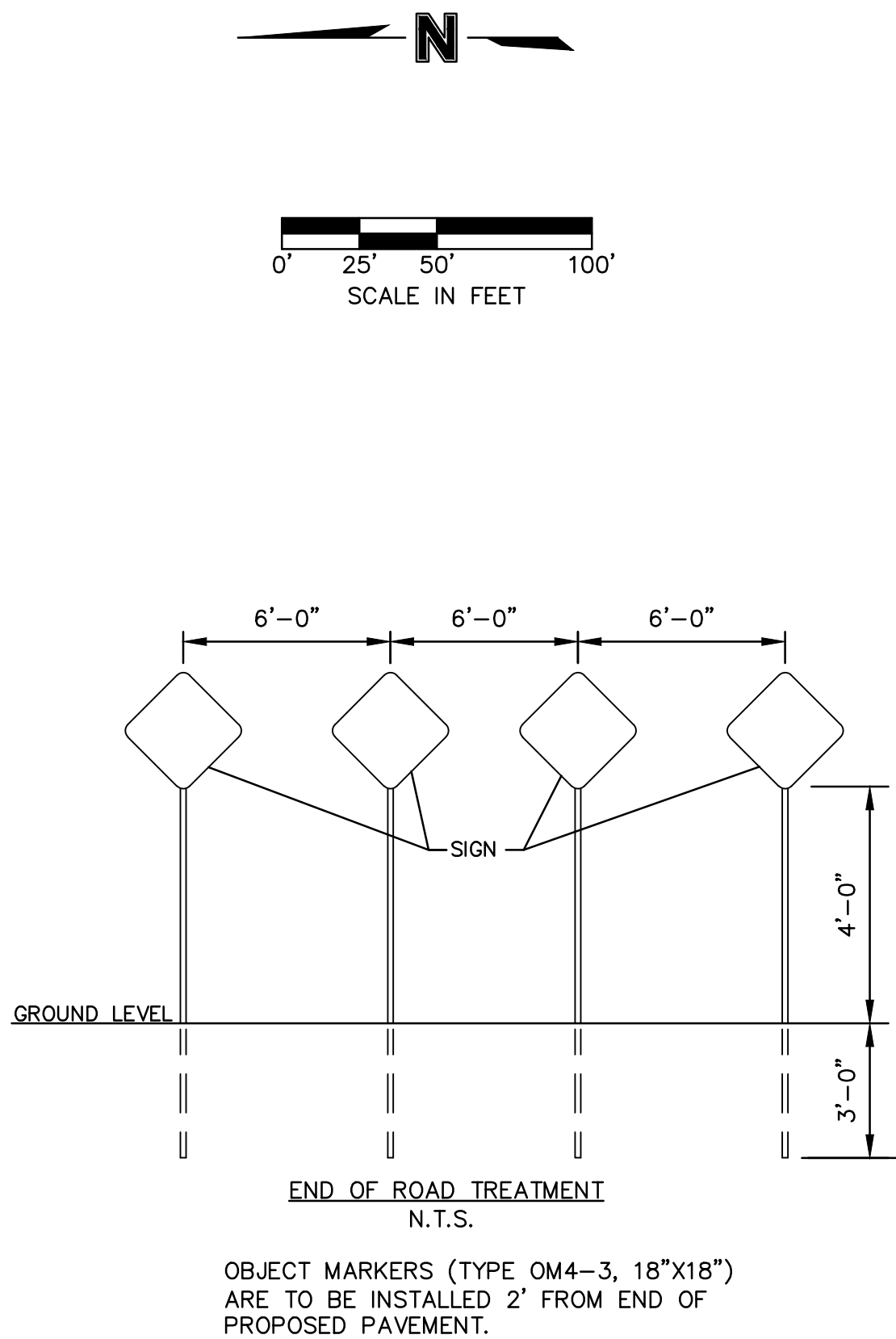
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USER: bkoleci



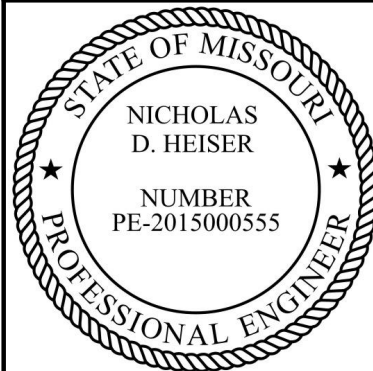
PLAN NOTES:

1. ALL TEMPORARY TRAFFIC CONTROL AND DETOUR SIGNS SHALL BE PLACED ON BREAKAWAY SIGN POSTS.
2. SIGNS SHALL BE INSTALLED PER MUTCD STANDARDS AND GUIDELINES



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SIGNAGE PLAN STREET & STORM & EROSION CONTROL PLANS	EAGLE CREEK SIXTEENTH PLAT	2018
LEE'S SUMMIT, MO		

drawn by: B.P.K
checked by: N.D.H.
designed by: B.P.K.
QA/QC by: M.G.D.
project no.: 018-0847
date: 2018.04.20

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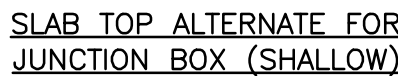


(IN ROCK OR SOIL)

UNDERGROUND PIPE INSTALLATION FOR STORM SEWER LINES

N.T.S.

1. BACKFILL SHALL BE JOB EXCAVATED MATERIAL FREE FROM DEBRIS AND STONES COMPACTED TO 90% OF MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D698. BACKFILL UNDER PAVEMENT (EXISTING OR PROPOSED), SHALL BE FLOWABLE FILL.
2. TRENCH BANKS MAY BE CUT BACK ON SLOPES IN ACCORDANCE WITH CURRENT OSHA REGULATIONS, BUT ONLY IN AREAS WHERE THE INCREASED TRENCH WIDTH WILL NOT INTERFERE WITH SURFACE FEATURES. SLOPES MUST NOT EXTEND BELOW TOP OF BEDDING.
3. MINIMUM AND MAXIMUM WIDTHS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATION AS APPROVED ON ENGINEERING PLANS.



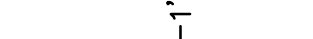
REINFORCING		
BARS	BAR SIZE	SPACING (IN.)
H	4	12
V	4	12
L	5	6
W	5	6

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



WALL CORNER DETAIL

- GENERAL NOTES:
1. LOCATE RING AND COVER ON BLANK WALL.
2. USE $\frac{3}{4}$ " CHAMFER STRIP OR $\frac{1}{2}$ " 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.
6. PRECAST LIDS SHALL BE PINNED, SEALED WITH NON-SHRINKABLE GROUT AND REMOVABLE FOR FUTURE MAINTENANCE.
7. REINFORCING OF COVERS IN STREETS REQUIRE SPECIAL DESIGN.
8. FOR RING AND COVER SEE THE STORMWATER APPROVED PRODUCT LIST.



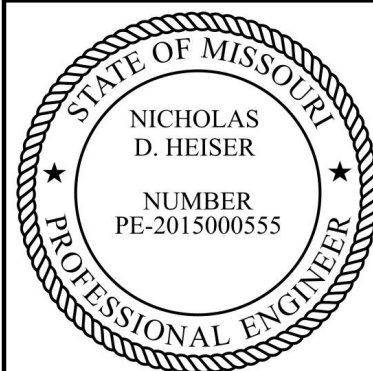
N.T.S.

- NOTES:**
1. Where Pipe Underdrains are used, all Underdrain Outlet Pipes shall be solid wall with watertight joints. All Outlets Pipes shall be tied into the nearest storm sewer inlets at roadway sag locations as indicated in the street profile.
 2. All Underdrain Pipes shall be installed at a minimum slope of 1%.
 3. Underdrain Pipes shall be installed with the perforations placed down.
 4. Blanket Underdrain Aggregate, Pipe Underdrain Aggregate, Pipe Underdrain, Edge Underdrain and Outlet Pipe shall conform to City of Lee's Summit Specifications.
 5. Overlap geotextile at top of trench a minimum of 12".



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STORM DETAIL	2018
STREET & STORM & EROSION CONTROL PLANS	
EAGLE CREEK SIXTEENTH PLAT	
LEE'S SUMMIT, MO	

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