

FOR UTILITY LOCATION PURPOSES, THIS PROJECT IS LOCATED IN THE SOUTH HALF OF FRACTIONAL SECTION 19, TOWNSHIP 5 NORTH, RANGE 9 WEST OF THE THIRD PRINCIPAL MERIDIAN.

AGENCIES KNOWN TO HAVE UNDERGROUND FACILITIES WITHIN THE LIMITS OF THIS IMPROVEMENT ARE SHOWN BELOW (MEMBERS OF JULIE, PHONE (800) 892-0123, ARE INDICATED BY \*).

\* CHARTER COMMUNICATIONS  
508 NIAGARA  
EAST ALTON, IL 62024  
(618) 251-2660

\* CITY OF ALTON  
PUBLIC WORKS DEPARTMENT  
#2 EMMA L. KAUS LANE  
ALTON, IL 62002  
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COLLINSVILLE, IL 62234  
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WATER DEPARTMENT  
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EAST ALTON, IL 62024  
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\* AMEREN CIPS  
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ALTON, IL 62002  
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(618) 463-4041 (ELECTRIC)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS  
FEDERAL AID HIGHWAY

ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
PHASE I

SECTION 05-00001-00-PK  
PROJECT HPP-3162(001)  
LEWIS AND CLARK COMMUNITY COLLEGE  
CITY OF ALTON  
MADISON COUNTY  
JOB C-98-322-06

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	1

FEDERAL AID PROJECT  
\* 05-00001-00-PK  
CONTRACT NO. 97365

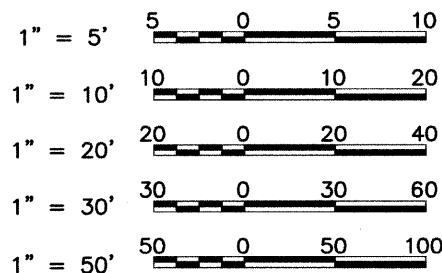
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HIGHWAY STANDARDS

SEE SHEET NO. 2

SCALES

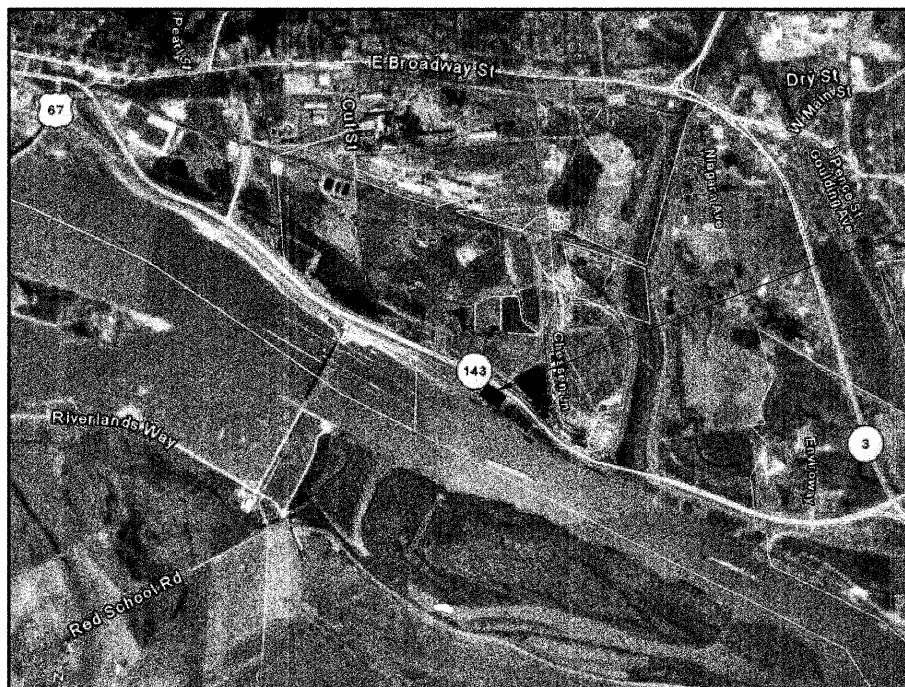


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS THE ABOVE SCALES MAY BE USED.

DESIGN DESIGNATION - 390 (2029) URBAN LOCAL STREET

DESIGN SPEED = 20 M.P.H.

CONTRACT NO. 97365



PROJECT LOCATION

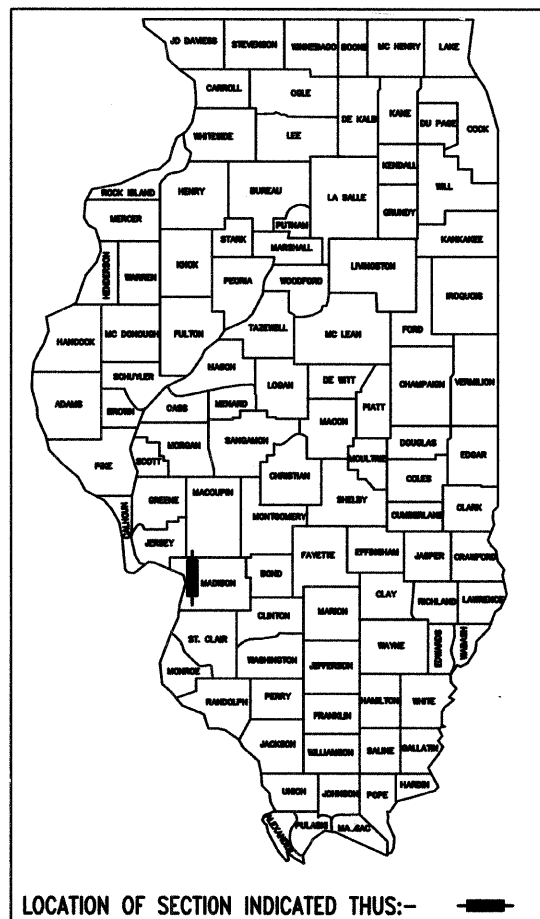
LOCATION MAP

NOT TO SCALE

NET LENGTH OF ROAD "C" / ROAD "D" = 856.00' = 0.162 MILES  
NET LENGTH OF ROAD "A" = 204.31' = 0.039 MILES  
TOTAL NET LENGTH OF PROJECT = 1,060.31' = 0.201 MILES

**LC** LEWIS & CLARK  
COMMUNITY COLLEGE  
5800 GODFREY ROAD    GODFREY, ILLINOIS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
ENGINEERS CONSULTING ENGINEERS AND LAND SURVEYORS  
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10 Central Industrial Drive, Granite City, IL 62040 618/977-8700 E-mail: mail@smsengineers.com



LOCATION OF SECTION INDICATED THUS:-

APPROVED	<i>[Signature]</i> 2/16/09 LOCAL AGENCY REPRESENTATIVE
PASSED	<i>[Signature]</i> 2/16/09 DISTRICT 8 ENGINEER OF LOCAL ROADS & STREETS
APPROVED	<i>[Signature]</i> 2/16/09 MARY C. LAMIE, P.E. DEPUTY DIRECTOR OF HIGHWAYS REGION FIVE ENGINEER STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION



*[Signature]*  
DATE SIGNED 1/16/2009  
EXPIRATION DATE 11/30/2009

**GENERAL NOTES**

- THIS PROJECT SHALL BE CONSTRUCTED ACCORDING TO THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2007 AND THE SPECIAL PROVISIONS OF THE PROJECT CONTRACT.
- EXCEPT WHERE DESIGNATED OTHERWISE, THE LOCATIONS AND/OR DEPTHS OF UNDERGROUND UTILITIES SHOWN HAVE BEEN TAKEN FROM OFFICE RECORD INFORMATION FURNISHED BY THE UTILITY OWNERS AND MUST BE CONSIDERED APPROXIMATE.
- ALL ELEVATIONS REFER TO U.S.G.S. MEAN SEA LEVEL.
- THE CONTRACTOR SHALL BE AWARE THAT THE BUILDING CONTRACTOR IS CURRENTLY ON THE SAME SITE AS THIS PROJECT AND IS WORKING. THE CONTRACTOR SHALL COOPERATE WITH THE BUILDING CONTRACTOR ACCORDING TO ARTICLE 105.08 OF THE STANDARD SPECIFICATIONS SUCH THAT BOTH PROJECTS CAN PROCEED IN A TIMELY MANNER.
- PROPOSED ELEVATIONS SHOWN ON THE PLANS AS ± ARE APPROXIMATE, EXACT ELEVATIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD, IF APPLICABLE, ELEVATIONS SHALL BE DETERMINED PRIOR TO FABRICATION OF THE DRAINAGE STRUCTURES.
- FOR SIMPLICITY, STORM SEWER LENGTHS SHOWN ON THE PLANS ARE FROM CENTER TO CENTER OF STRUCTURES. ACTUAL PIPE REQUIRED WILL BE LESS. MEASUREMENT FOR PAYMENT PURPOSES SHALL BE ACCORDING TO ARTICLE 550.09 OF THE STANDARD SPECIFICATIONS.
- IF A PROTECTIVE COAT IS APPLIED TO THE PAVEMENT, IT SHALL ALSO BE APPLIED TO ALL GUTTER FLAGS, FACE OF CURB, AND MEDIAN SURFACES.

**CONCRETE PAVEMENT NOTES**

- LONGITUDINAL AND TRANSVERSE JOINTS SHALL BE CONSTRUCTED AS SHOWN ON THE PLAN SHEET FOR ROUNDABOUT GEOMETRICS AND JOINTS. SLAB DIMENSIONS SHALL NOT BE LESS THAN 1' WIDE AND SHALL NOT EXCEED 14' IN ANY DIRECTION.
- TRANSVERSE JOINTS IN COMBINATION CONCRETE CURB AND GUTTER SHALL LINE UP WITH PAVEMENT JOINTS AND DOWEL BARS WILL NOT BE REQUIRED. LONGITUDINAL JOINT TIE BARS SHALL BE REQUIRED IN CURB AND GUTTER AS PER THE TYPICAL SECTIONS AND HIGHWAY STANDARD 606001 AND SHALL BE INCLUDED IN THE COST FOR THE CURB AND GUTTER.
- THE PAVEMENT JOINT FOR THE OUTER 55' RADIUS CIRCLE SHALL BE FORMED TO PRODUCE THE TRUE CIRCLE. THIS JOINT SHALL BE CONSTRUCTED AS A LONGITUDINAL CONSTRUCTION JOINT WITH TIE BAR FORMED IN PLACE OR GROUTED IN PLACE OR A LONGITUDINAL KEYED JOINT AS PER HIGHWAY STANDARD 420001.
- LONGITUDINAL AND TRANSVERSE PAVEMENT JOINTS SHALL BE CONSTRUCTED AS LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BAR FORMED IN PLACE OR GROUTED IN PLACE OR LONGITUDINAL KEYED JOINTS OR LONGITUDINAL SAWED JOINTS WITH CONTINUOUS PAVEMENT FABRIC AND NO TIE BAR REQUIRED ALL AS PER HIGHWAY STANDARD 420001.
- IN THE EVENT THAT THE CONTRACTOR HAS DIFFICULTY SAWING LONGITUDINAL JOINTS ON CURVE, THEN THE ENGINEER MAY ALLOW SAW CUTTING ON A STRAIGHT LINE CHORD BETWEEN TRANSVERSE JOINTS.
- DEPENDING ON SCHEDULES, THE PROPOSED CONCRETE PAVEMENT BY OTHERS SOUTH OF THE NGRREC BUILDING MAY OR MAY NOT BE IN PLACE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DRILL AND GROUT #6 TIE BARS IN THE END JOINT AT STATION 2+04.31 ROAD A. THIS WORK SHALL BE INCLUDED IN THE COST FOR THE PAVEMENT.

**SMS SYMBOL LEGEND**

- EXISTING LIGHT POLE - ☒
- EXISTING POWER POLE - ☐
- EXISTING DOWN GUY - ↙
- EXISTING SANITARY MANHOLE TOP - ⊗
- EXISTING GATE POST - ⊕
- EXISTING SIGN - ▽
- EXISTING HANDHOLE - ☒
- EXISTING PIPE BOLLARD - ○
- EXISTING MAST ARM - —
- EXISTING MONITORING WELL - ○
- EXISTING INLET - ☒
- EXISTING WATER METER - Ⓜ
- MONUMENT FOUND - ☒ MON
- PK NAIL FOUND - ☒ PK
- CONTROL POINT - ▲
- TEST PIT - ● T.P.#

- EXISTING CONCRETE SURFACE
- EXISTING BITUMINOUS SURFACE
- EXISTING GRAVEL SURFACE
- EXISTING RIPRAP

**SMS LINETYPE LEGEND**

- EXISTING BRUSH / HEDGE / TREE LINE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING CULVERT
- EXISTING EDGE OF WATER
- EXISTING OVERHEAD ELECTRIC
- EXISTING GUARDRAIL
- EXISTING WATER
- CONSTRUCTION LIMITS

**ABBREVIATIONS**

- T.C. - TOP OF CURB
- E.P. - EDGE OF PAVEMENT
- F.L. - FLOW LINE
- RDMH - RESTRICTED DEPTH MANHOLE
- PRCF - PRECAST REINFORCED CONCRETE FLARED
- F. & G. - FRAME AND GRATE
- O.L. - OPEN LID
- C.L. - CLOSED LID
- SS1 - STORM SEWER TYPE 1
- SS1WMQ - STORM SEWER TYPE 1, WATER MAIN QUALITY PIPE
- PC1 - PIPE CULVERT TYPE 1
- T.B. - TRENCH BACKFILL
- C.L.S.M. - CONTROLLED LOW-STRENGTH MATERIAL
- CUT - EARTH EXCAVATION QUANTITY SHOWN ON CROSS SECTIONS
- FILL - EMBANKMENT QUANTITY SHOWN ON CROSS SECTIONS
- T.P. - TEST PIT

**BENCHMARK INFORMATION**

SITE BENCHMARK:  
CHISELED "D" ON SOUTH END OF CONCRETE ISLAND AT INTERSECTION OF LOCK & DAM WAY AND ILLINOIS ROUTE 143 - ELEVATION = 444.71

**HIGHWAY STANDARDS**

280001-04	606001-04
420001-07	864001-02
420701-02	701001-02
424001-05	701006-03
442201-03	701011-02
542301-02	701301-03
542546-01	701326-03
601001-03	701901-01
602301-02	720001-01
602306-02	720006-02
604001-03	720011-01
604011-04	729001-01
604036-02	780001-02
604066-02	814001-02
	878001-07

**COMMITMENTS**

L.E.D. REQUIREMENTS - SEE SPECIAL PROVISIONS

**SURVEY CONTROL POINTS**

CONTROL POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP #1	5,000.0000	5,000.0000	440.58	SET REBAR
CP #2	5,244.6550	4,242.3150	441.88	SET REBAR
CP #3	5,000.0000	3,868.4100	448.58	SET REBAR
CP #4	5,297.7170	3,240.6050	436.78	SET REBAR
CP #5	5,408.7240	3,544.6420	435.86	SET REBAR
CP #6	4,914.5427	4,454.9350	446.67	PK NAIL SET
CP #7	4,771.8775	4,002.4182	440.46	PK NAIL SET
CP #8	4,899.7430	3,697.3590	446.79	PK NAIL SET
CP #9	4,747.4150	4,331.2770	433.96	PK NAIL SET
CP #10	4,707.2150	4,530.9500	429.72	PK NAIL SET
CP #11	4,664.2400	4,745.3920	426.95	PK NAIL SET

REVISIONS

**SMS ENGINEERS**  
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DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05-00001-00-PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
GENERAL NOTES, LEGEND & CONTROL POINTS

DWG. NO.	LP/AAIC/405829
PHASE	GENERAL NOTES.DWG
REF. BK.	PG. -
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	AS SHOWN
SHEET	2 OF 36

SUMMARY OF QUANTITIES

CODE NO.	CONSTRUCTION TYPE CODE ITEM	J000	
		UNIT	TOTAL QUANTITY
K1005421	SEEDING, SPECIAL	ACRE	0.4
LR420025	PORTLAND CEMENT CONCRETE PAVEMENT 7" (SPECIAL)	SQ YD	1,594
LR420029	PORTLAND CEMENT CONCRETE PAVEMENT 8" (SPECIAL)	SQ YD	381
LR430030	CONCRETE PAVER PAVEMENT	SQ YD	2,496
LR430050	CONCRETE PAVER SIDEWALK	SQ YD	875
XX001060	AGGREGATE BASE COURSE, SPECIAL	SQ YD	1,718
XX001011	BICYCLE RACKS	EACH	1
XX001061	CELLULAR CONFINEMENT SYSTEM	SQ YD	93
XX006974	INLETS, TYPE B, TYPE 3V FRAME AND GRATE, SPECIAL	EACH	3
XX006976	INLETS, TYPE A, TYPE 3V FRAME AND GRATE SPECIAL	EACH	2
X0321905	STORM SEWERS, TYPE 1, WATER MAIN QUALITY PIPE, 12"	FOOT	236
X0323355	POROUS GRANULAR EMBANKMENT, SUBGRADE 12 INCH	SQ YD	1,380
X0325056	FURNISH AND INSTALL POND LINER	SQ YD	1,160
X0350800	BOLLARDS	EACH	3
X8950600	REMOVE AND RELOCATE EXISTING LIGHT STANDARD	EACH	2.0
Z0024478	FLEXIBLE DELINEATORS	EACH	10
Z0036200	PAINT CURB	FOOT	151
Z0051500	REMOVING AND RESETTING STREET SIGNS	EACH	1
Z0062000	SAW CUTTING	FOOT	220
Z0064540	SEEPAGE COLLAR	EACH	1
20100500	TREE REMOVAL, ACRES	ACRE	1.7
20200100	EARTH EXCAVATION	CU YD	9,427
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	50
20201500	SUB-BASE GRANULAR MATERIAL, TYPE B	TON	95
20400800	FURNISHED EXCAVATION	CU YD	200
20800150	TRENCH BACKFILL	CU YD	69
20900110	POROUS GRANULAR BACKFILL	CU YD	5
25000400	NITROGEN FERTILIZER NUTRIENT	POUND	36
25000500	PHOSPHORUS FERTILIZER NUTRIENT	POUND	36
25000600	POTASSIUM FERTILIZER NUTRIENT	POUND	36
25000700	AGRICULTURAL GROUND LIMESTONE	TON	0.8
25001800	SEEDING, CLASS 4 (MODIFIED)	ACRE	0.3
25002014	SEEDING, CLASS 4A (MODIFIED)	ACRE	0.8
25100106	MULCH (SPECIAL)	ACRE	1.2
25100630	EROSION CONTROL BLANKET	SQ YD	1,559
28000250	TEMPORARY EROSION CONTROL SEEDING	POUND	148
28000300	TEMPORARY DITCH CHECKS	EACH	11
28000400	PERIMETER EROSION BARRIER	FOOT	1,371
28000500	INLET AND PIPE PROTECTION	EACH	17
28100205	STONE RIPRAP, CLASS A3	TON	9
28100207	STONE RIPRAP, CLASS A4	TON	133
28100209	STONE RIPRAP, CLASS A5	TON	274
28200200	FILTER FABRIC	SQ YD	4,201
30200650	PROCESSING MODIFIED SOIL 12"	SQ YD	2,530
30201600	FLY ASH	TON	120
31100300	SUB-BASE GRANULAR MATERIAL, TYPE A 4"	SQ YD	21
40201000	AGGREGATE FOR TEMPORARY ACCESS	TON	170
42001200	PAVEMENT FABRIC	SQ YD	2,149
42001300	PROTECTIVE COAT	SQ YD	3,105
42400100	PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH	SQ FT	3,051
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	458
42400800	DETECTABLE WARNINGS	SQ FT	342
44201976	CLASS D PATCHES, TYPE II	SQ YD	9
54200427	PIPE CULVERTS, TYPE 1 RCCP 12"	FOOT	24
54213657	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 12"	EACH	5
54213660	PRECAST REINFORCED CONCRETE FLARED END SECTIONS 15"	EACH	1
54244405	FLUSH INLET BOX FOR MEDIAN, STANDARD 542546	EACH	2
550B0040	STORM SEWERS, CLASS B, TYPE 1 10"	FOOT	5
550B0050	STORM SEWERS, CLASS B, TYPE 1 12"	FOOT	31
55019500	STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV 12"	FOOT	301
55019600	STORM SEWERS, TYPE 1, REINFORCED CONCRETE CULVERT, STORM DRAIN, AND SEWER PIPE, CLASS IV 15"	FOOT	167
59300100	CONTROLLED LOW-STRENGTH MATERIAL	CU YD	2.2
60107600	PIPE UNDERDRAINS 4"	FOOT	1,285
60236200	INLETS, TYPE A, TYPE 8 GRATE	EACH	2
60238700	INLETS, TYPE A, WITH SPECIAL FRAME AND GRATE	EACH	1
60240210	INLETS, TYPE B, TYPE 1 FRAME, OPEN LID	EACH	1
60240320	INLETS, TYPE B, TYPE 15 FRAME AND LID	EACH	1
60240385	INLETS, TYPE B, WITH SPECIAL FRAME AND GRATE	EACH	1
60246540	INLET BOX, SPECIAL	EACH	3
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	303
60604400	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18	FOOT	1,457
60605900	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12	FOOT	151
60606300	COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12	FOOT	214
66400105	CHAIN LINK FENCE, 4'	FOOT	473
66405700	CHAIN LINK GATES, 4' X 10' DOUBLE	EACH	1
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	5
67100100	MOBILIZATION	L SUM	1
70101700	TRAFFIC CONTROL AND PROTECTION	L SUM	1
70103815	TRAFFIC CONTROL SURVEILLANCE	CAL DA	3
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	2,037
72000100	SIGN PANEL - TYPE 1	SQ FT	87.1
72000200	SIGN PANEL - TYPE 2	SQ FT	10
72900100	METAL POST - TYPE A	FOOT	148.5
72900200	METAL POST - TYPE B	FOOT	181.5
78008200	POLYUREA PAVEMENT MARKING TYPE I - LETTERS AND SYMBOLS	SQ FT	212
78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	2,037
78008240	POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	40
78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	97
78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	342

SUMMARY OF QUANTITIES

CODE NO.	CONSTRUCTION TYPE CODE ITEM	J000	
		UNIT	TOTAL QUANTITY
78200300	PRISMATIC CURB REFLECTOR	EACH	26
80300100	LOCATING UNDERGROUND CABLE	FOOT	382
81400205	HEAVY DUTY HAND-HOLE (SPECIAL)	EACH	2
81603035	UNIT DUCT, 600V, 2-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	96
81603045	UNIT DUCT, 600V, 3-1C NO.6, 1/C NO.6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	FOOT	44
81900200	TRENCH AND BACKFILL FOR ELECTRICAL WORK	FOOT	128
87800100	CONCRETE FOUNDATION TYPE A	FOOT	8
XX001836	POROUS GRANULAR EMBANKMENT, SUBGRADE 12 INCH (SLAG)	SQ YD	1,153
XX001837	POROUS GRANULAR EMBANKMENT, BASE 4 INCH (SLAG)	SQ YD	1,153
XX001838	POROUS GRANULAR EMBANKMENT, BEDDING 2 INCH (SLAG)	SQ YD	1,153
XX001839	GEOBLOCK POLYETHYLENE POROUS PAVEMENT SYSTEM	SQ YD	1,666
XX001840	GEOBLOCK 2 POLYETHYLENE POROUS PAVEMENT SYSTEM	SQ YD	52
XX001841	6" WIDE FLUSH CONCRETE BORDER, 8-3/8"	FOOT	2,581
XX001842	6" WIDE FLUSH CONCRETE BORDER, 18"	FOOT	817
XX001843	POROUS GRANULAR EMBANKMENT, BASE 4 INCH	SQ YD	1,380
XX001844	POROUS GRANULAR EMBANKMENT, BEDDING 2 INCH	SQ YD	1,380
XX001845	PORTLAND CEMENT CONCRETE PAVEMENT 7" (SPECIAL, TEXTURED)	SQ YD	174
XX001846	TRENCH BACKFILL (SLAG)	CU YD	59
XX001847	POROUS GRANULAR BACKFILL (SLAG)	CU YD	7
XX001848	BROKEN CONCRETE DUMPED RIPRAP, RR 4	SQ YD	126
XX001849	BROKEN CONCRETE DUMPED RIPRAP, RR 5	SQ YD	261

EARTHWORK SCHEDULE

LOCATION	EARTH EXCAVATION (CUT) (CU. YD.)	EARTH EXCAVATION ADJUSTED FOR SHRINKAGE * (CU. YD.)	EMBANKMENT (FILL) (CU. YD.)	EARTHWORK BALANCE WASTE (+) OR SHORTAGE (-) (CU. YD.)
ROAD C STA. 10+00 TO STA. 12+50	2,124	1,593	1,090	+503
ROAD D STA. 12+50 TO STA. 19+64.86	3,427	2,570	2,804	-234
ROAD A STA. 0+55 TO STA. 2+04.31	343	257	823	-566
LOCK AND DAM WAY STA. 7+05 TO STA. 9+18.89	118	89	99	-10
TOTALS	6,012	4,509	4,816	-
ADJUSTED TOTALS (NOTE 1)	-	2,255	4,816	-2,561
ON SITE EARTH STOCKPILE	3,415	2,561	0	+2,561
PROJECT TOTALS	9,427	4,816	4,816	0

\* SHRINKAGE FACTOR = 25%

- NOTES:
1. HALF OF THE EXCAVATED MATERIALS ARE ASSUMED TO BE SURPLUS GRANULAR MATERIALS THAT CAN NOT BE USED IN THE EMBANKMENT WHERE EARTH MATERIALS ARE REQUIRED. SEE THE SPECIAL PROVISIONS.
  2. 200 CU. YDS. OF FURNISHED EXCAVATION IS INCLUDED IN THIS CONTRACT AND IS ONLY TO BE USED IN THE EVENT THAT THERE IS A SHORTAGE OF ON SITE SUITABLE EMBANKMENT MATERIALS.

REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
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 215 Market Street, P.O. Box E, Alton, IL 61810-0755    E-mail: msa@smsengineers.com  
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 DESIGN FIRM # 184-00992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05-00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 SUMMARY OF QUANTITIES AND SCHEDULES

DWG. NO.  
 LP\A\10\405829  
 PHASE I QUANTITIES.DWG  
 REF. BK. -- PG. --  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: AS SHOWN  
 SHEET 3 OF 36

**STRUCTURAL DESIGN DATA**  
**ACCESS ROADS FOR**  
**NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER**

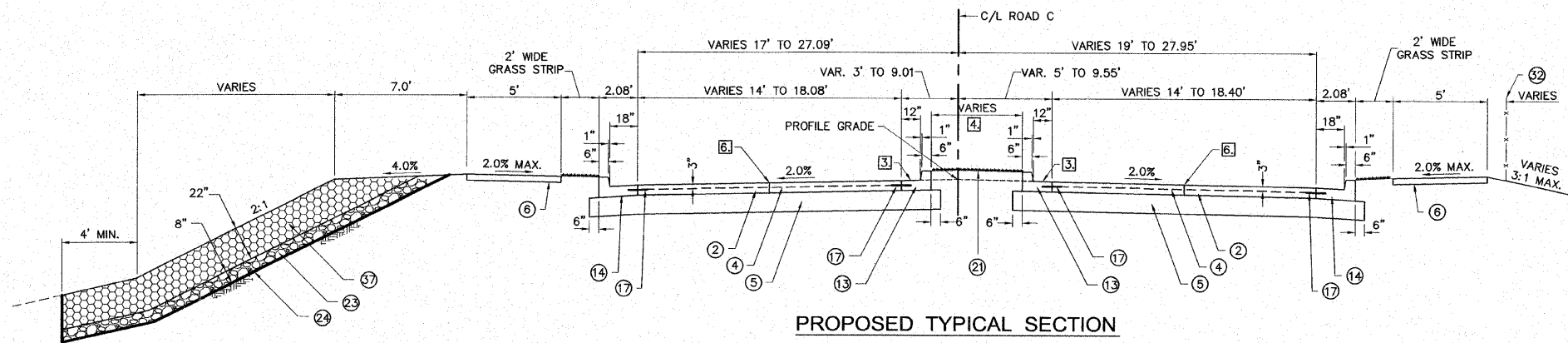
PAVEMENT TYPE: RIGID, NON-REINFORCED JOINTED  
 CLASS OF STREET: CLASS IV  
 DESIGN PERIOD: 20 YEARS  
 TRAFFIC DATA: 2009 ADT = 320  
 2019 ADT = 354 (SDT)  
 2029 ADT = 390  
 STRUCTURAL DESIGN TRAFFIC: 88% P.V. = 312  
 9% S.U. = 32  
 3% M.U. = 10  
 TRAFFIC FACTOR : N/A (CLASS IV ROAD)  
 SHOULDER TYPE: TIED CURB AND GUTTER  
 SUBGRADE SUPPORT RATING: POOR (ASSUMED)  
 OVERLOADS: N/A (CLASS IV ROAD)  
 DESIGN SPECIFIED: SLAB THICKNESS - 7"  
 JOINT SPACING - 12.5'  
 DOWEL BARS - NOT REQUIRED  
 SUBGRADE - FLY ASH MODIFIED SOIL 12"

**PAVING LEGEND**

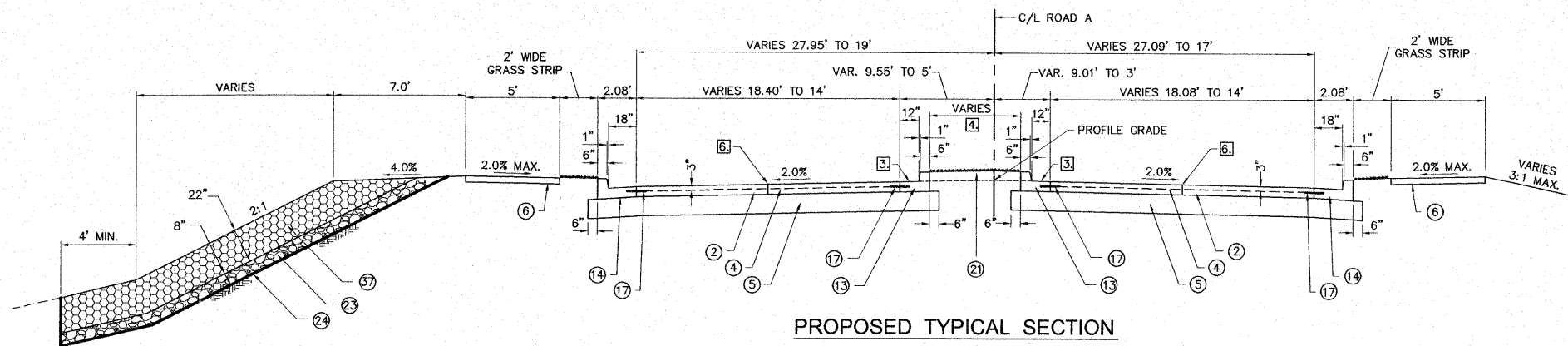
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- ㉛ POROUS GRANULAR BACKFILL
- ㉜ CHAIN LINK FENCE, 4'
- ㉝ POROUS GRANULAR EMBANKMENT, SUBGRADE 12 INCH (SLAG)
- ㉞ POROUS GRANULAR EMBANKMENT, BASE 4 INCH (SLAG)
- ㉟ POROUS GRANULAR EMBANKMENT, BEDDING 2 INCH (SLAG)
- ㊱ POROUS GRANULAR BACKFILL (SLAG)
- ㊲ BROKEN CONCRETE DUMPED RIPRAP, RR5

**TYPICAL SECTION NOTES**

- [1] TIE BARS THAT ARE PLACED IN CONCRETE SHALL BE 30" LONG AT 30" CENTERS. TIE BARS THAT ARE DRILLED AND GROUTED SHALL BE 24" LONG AT 24" CENTERS.
- [2] PROJECT OVERLAPS IDOT ROW ROAD D STA. 13+84.22 TO STA. 14+95.28 AND STA. 16+34.70 TO STA. 17+40.56
- [3] SLOPE GUTTER PAN WITH PAVEMENT
- [4] SEE ROUND ABOUT DETAILS SHEET NO. 21
- [5] CENTER 2' WIDE DITCH BETWEEN SIDEWALK AND BIKE TRAIL SHOULDER.
- [6] SEE CONCRETE PAVEMENT NOTES ON SHEET NO. 2.

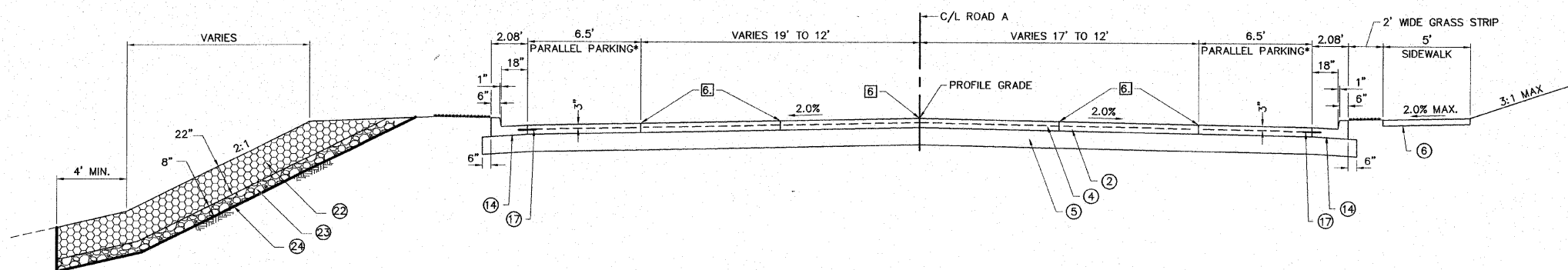


**PROPOSED TYPICAL SECTION**  
**ROAD C**  
 STA. 11+44 TO STA. 11+95  
 SCALE: 1" = 4'



NOTE: PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH ENDS ON THE LEFT AT STA. 0+94.  
 BROKEN CONCRETE DUMPED RIPRAP, RR5 ENDS ON THE LEFT AT STA. 0+94.28

**PROPOSED TYPICAL SECTION**  
**ROAD A**  
 STA. 0+55 TO STA. 1+06  
 SCALE: 1" = 4'



**PROPOSED TYPICAL SECTION**  
**ROAD A**  
 STA. 1+06 TO STA. 2+04.31

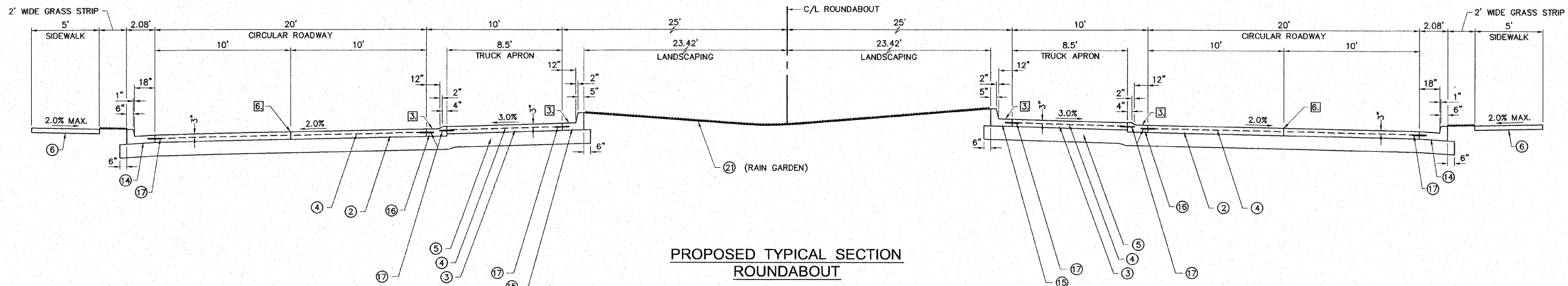
\*PARKING LEFT SIDE: STA. 1+59.61 TO STA. 1+95.23  
 \*PARKING RIGHT SIDE: STA. 1+71.22 TO STA. 2+00.26

REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002, 618/465-0755 E-mail: smss@smssinc.com  
 10 Central Indiana Drive, Carmel, IN 46033, 317/877-4700 E-mail: info@smssinc.com  
 DESIGN FIRM # 184-00992

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 TYPICAL SECTIONS

DWG. NO.  
 PHASE I TYP. SECTS. DWG.  
 REF. BK. - PG. -  
 JOB NO. 405829  
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 SHEET 4 OF 36

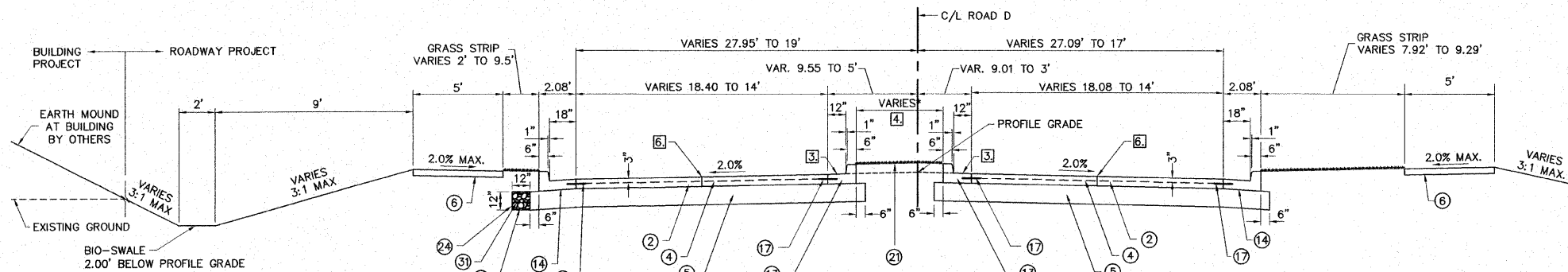


**PROPOSED TYPICAL SECTION  
ROUNDABOUT**

ROAD C - STA. 11+95 TO STA. 12+50  
ROAD A - STA. 0+00 TO STA. 0+55  
ROAD D - STA. 12+50 TO STA. 13+05  
SCALE: 1" = 4'

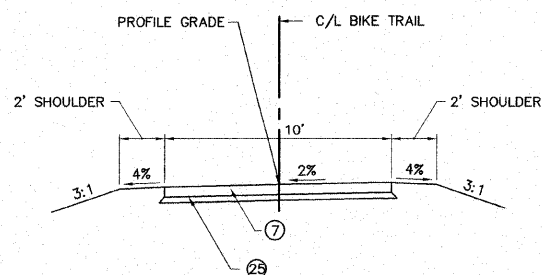
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- ㊲ BROKEN CONCRETE DUMPED RIPRAP, RR5



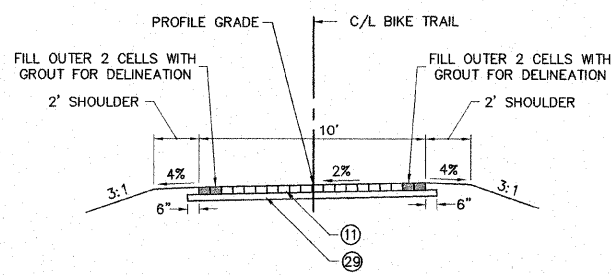
**PROPOSED TYPICAL SECTION  
ROAD D**

STA. 13+05 TO STA. 13+56  
SCALE: 1" = 4'



**TYPICAL SECTION BIKE TRAIL CONNECTION**

STA. 0+00 TO STA. 0+11.03  
SCALE: 1" = 5'



**TYPICAL SECTION BIKE TRAIL CONNECTION**

STA. 0+11.03 TO STA. 0+58.21  
SCALE: 1" = 5'

**TYPICAL SECTION NOTES**

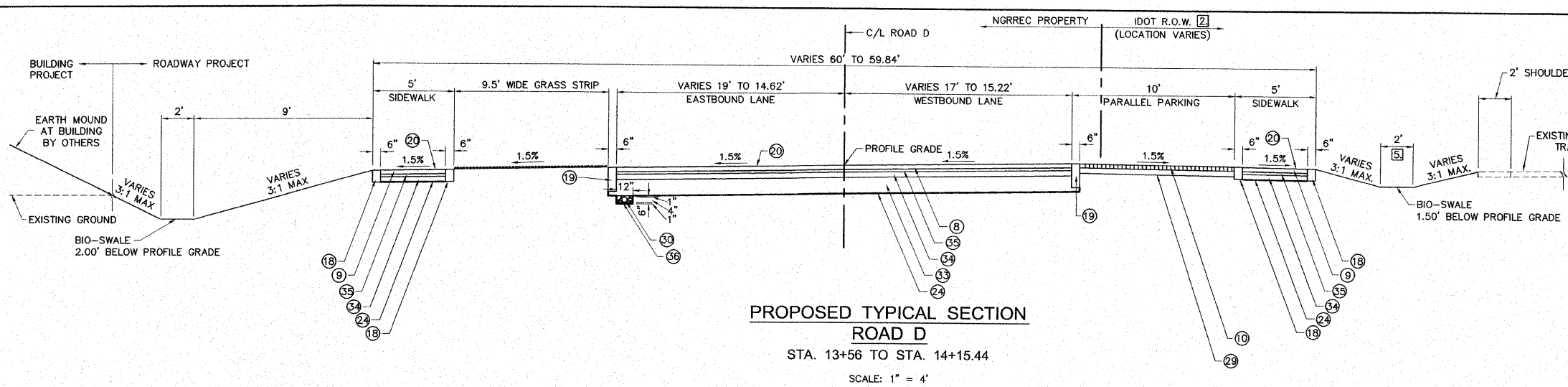
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REVISIONS

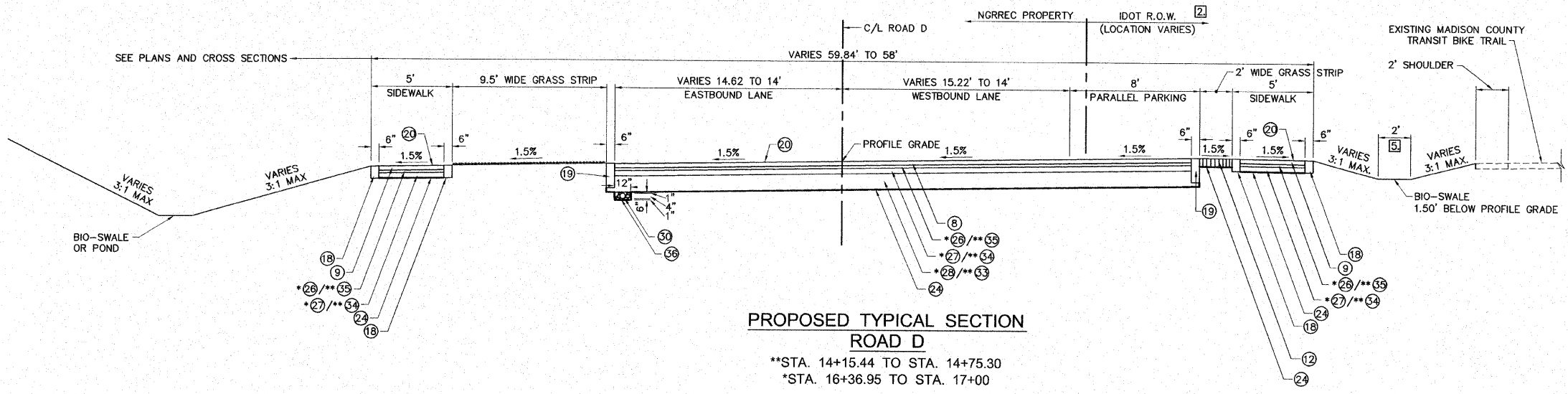
**SMS Sheppard, Morgan & Schwaab, Inc.**  
CONSULTING ENGINEERS AND LAND SURVEYORS  
315 Market Street, 8th Floor, Suite 800, Chicago, IL 60601  
Tel: 312.467.4200 Fax: 312.467.4201 Email: info@smseng.com  
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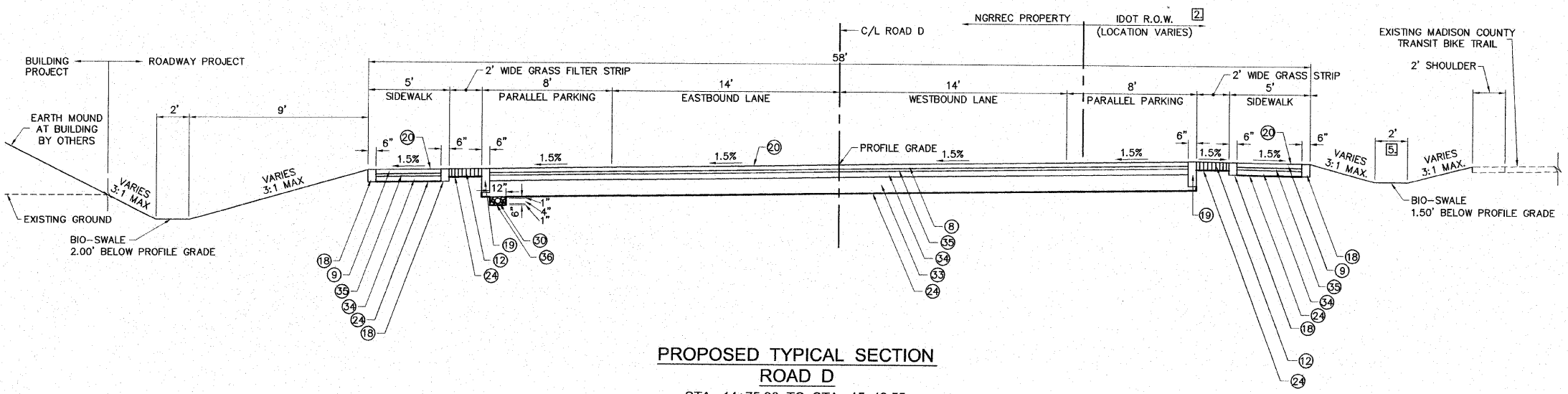
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DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	AS SHOWN
SHEET	5 OF 36



**PROPOSED TYPICAL SECTION  
ROAD D**  
STA. 13+56 TO STA. 14+15.44  
SCALE: 1" = 4'



**PROPOSED TYPICAL SECTION  
ROAD D**  
\*\*STA. 14+15.44 TO STA. 14+75.30  
\*STA. 16+36.95 TO STA. 17+00  
SCALE: 1" = 4'



**PROPOSED TYPICAL SECTION  
ROAD D**  
STA. 14+75.30 TO STA. 15+42.55  
SCALE: 1" = 4'

**PAVING LEGEND**

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**TYPICAL SECTION NOTES**

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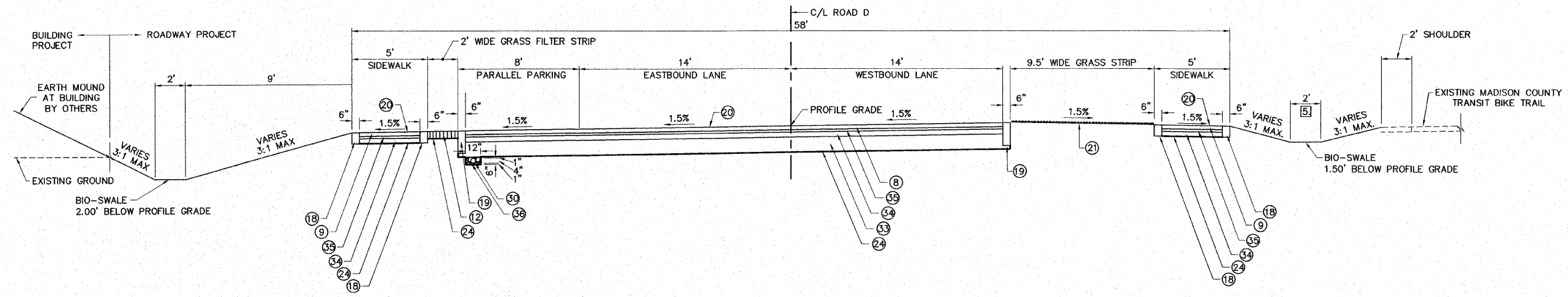
REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
115 Market Street, P.O. Box E, Ames, IL 60002 618-662-9155 E-mail: mail@smsengineers.com  
10 Central Expressway, Suite 200, Schaumburg, IL 60196 630-295-0800 630-295-0801  
DESIGN FIRM # 184-000992

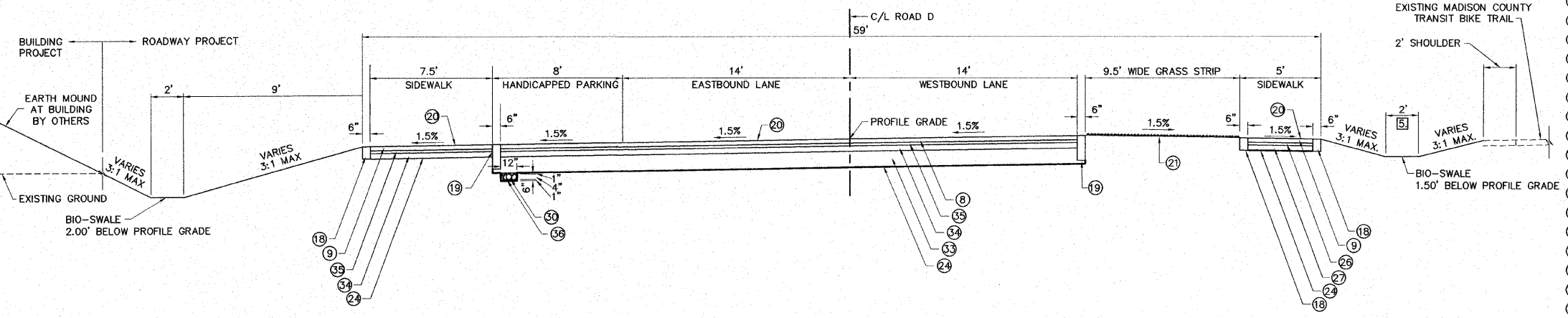
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DWG. NO. PHASE I TYP SECTS.DWG  
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JOB NO. 405829  
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SHEET 6 OF 36

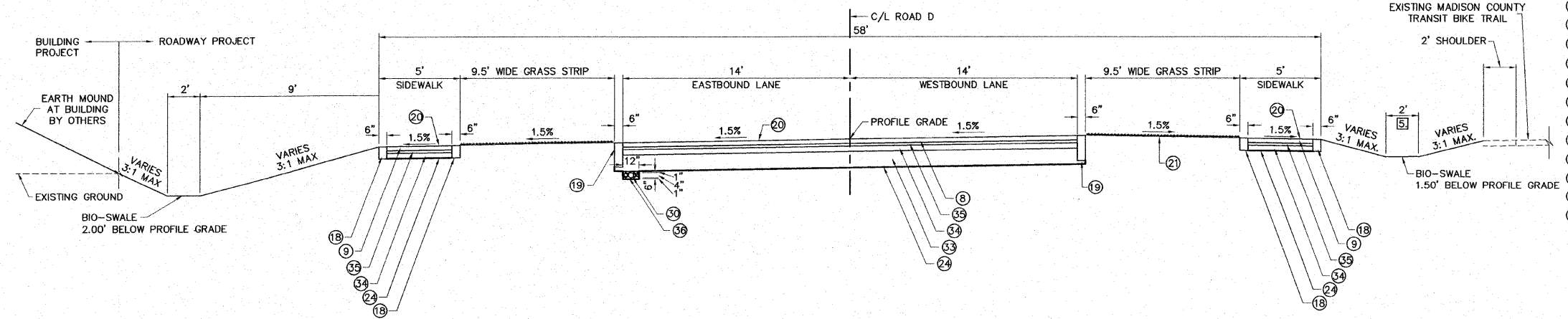
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**PROPOSED TYPICAL SECTION  
ROAD D**  
STA. 15+42.55 TO STA. 15+81.10  
SCALE: 1" = 4'



**PROPOSED TYPICAL SECTION  
ROAD D**  
STA. 15+81.10 TO STA. 16+21.82  
SCALE: 1" = 4'



**PROPOSED TYPICAL SECTION  
ROAD D**  
STA. 16+21.82 TO STA. 16+36.95  
SCALE: 1" = 4'

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- ② PORTLAND CEMENT CONCRETE PAVEMENT 7" (SPECIAL)(SEE NOTE [6]).
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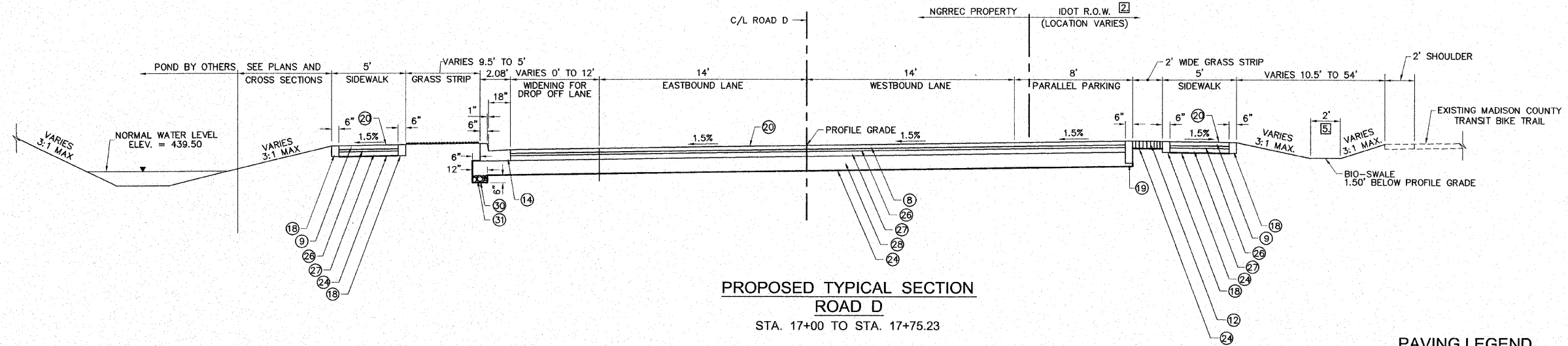
REVISIONS

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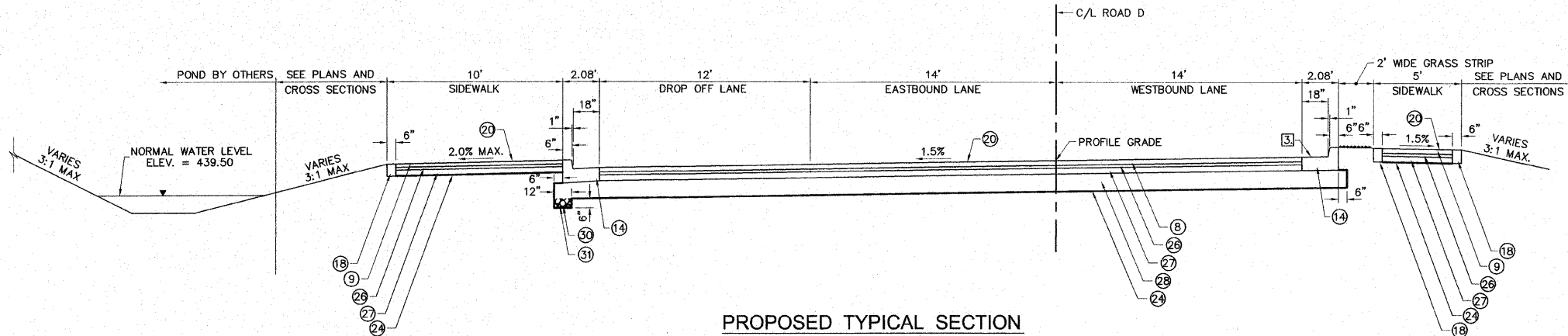
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SHEET	7 OF 36

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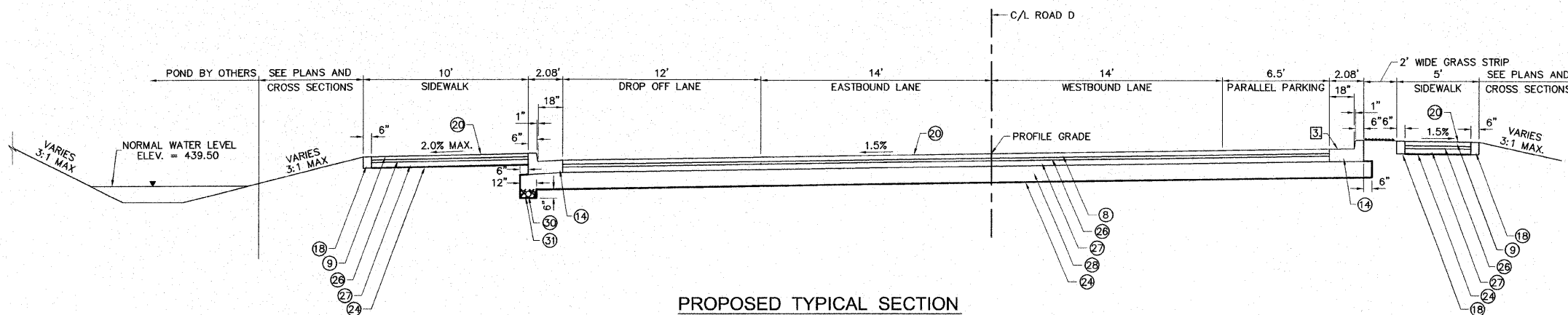
PROPOSED TYPICAL SECTION  
ROAD D  
STA. 17+00 TO STA. 17+75.23

SCALE: 1" = 4'



PROPOSED TYPICAL SECTION  
ROAD D  
STA. 17+75.23 TO STA. 18+42.46

SCALE: 1" = 4'



PROPOSED TYPICAL SECTION  
ROAD D  
STA. 18+42.46 TO STA. 18+75.23

SCALE: 1" = 4'

PAVING LEGEND

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- ㉗ POROUS GRANULAR EMBANKMENT, BASE 4"
- ㉘ POROUS GRANULAR EMBANKMENT, SUBGRADE 12"
- ㉙ AGGREGATE BASE COURSE, SPECIAL (4")
- ㉚ PIPE UNDERDRAINS 4" (SPECIAL)
- ㉛ POROUS GRANULAR BACKFILL
- ㉜ CHAIN LINK FENCE, 4'
- ㉝ POROUS GRANULAR EMBANKMENT, SUBGRADE 12 INCH (SLAG)
- ㉞ POROUS GRANULAR EMBANKMENT, BASE 4 INCH (SLAG)
- ㉟ POROUS GRANULAR EMBANKMENT, BEDDING 2 INCH (SLAG)
- ㊱ POROUS GRANULAR BACKFILL (SLAG)
- ㊲ BROKEN CONCRETE DUMPED RIPRAP, RR5

TYPICAL SECTION NOTES

- [1] TIE BARS THAT ARE PLACED IN CONCRETE SHALL BE 30" LONG AT 30" CENTERS. TIE BARS THAT ARE DRILLED AND GROUTED SHALL BE 24" LONG AT 24" CENTERS.
- [2] PROJECT OVERLAPS IDOT ROW ROAD D STA. 13+84.22 TO STA. 14+95.28 AND STA. 16+34.70 TO STA. 17+40.56
- [3] SLOPE GUTTER PAN WITH PAVEMENT
- [4] SEE ROUND ABOUT DETAILS SHEET NO. 21
- [5] CENTER 2' WIDE DITCH BETWEEN SIDEWALK AND BIKE TRAIL SHOULDER.
- [6] SEE CONCRETE PAVEMENT NOTES ON SHEET NO. 2.

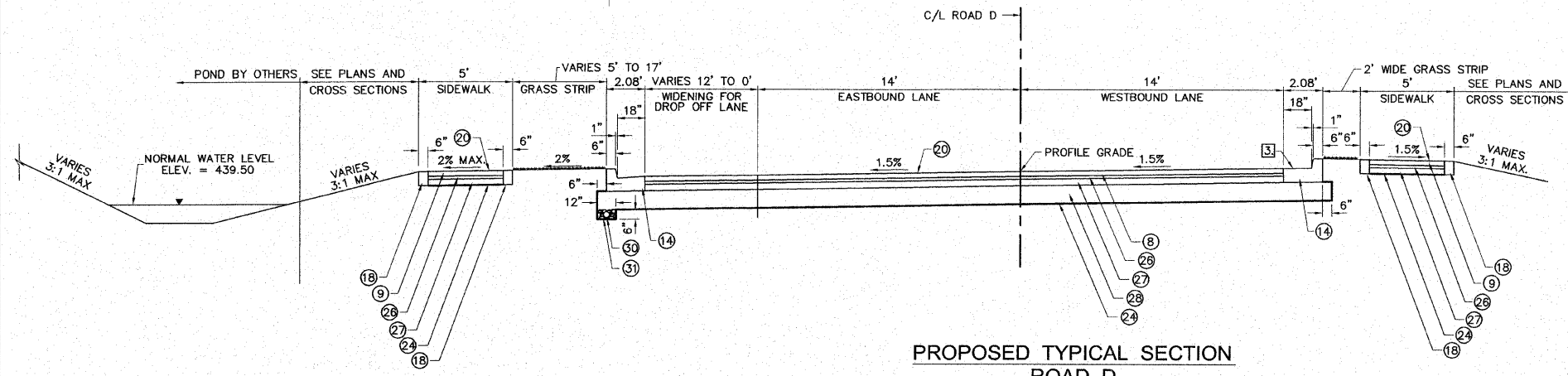
REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
215 Mark Street, P.O. Box E, Alton, IL 62002, 618-463-5755, E-mail: [msm@smsengineers.com](mailto:msm@smsengineers.com)  
10 Central Industrial Drive, Geneva City, IL 62040, 618-977-9700, E-mail: [info@smsengineers.com](mailto:info@smsengineers.com)  
DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
TYPICAL SECTIONS

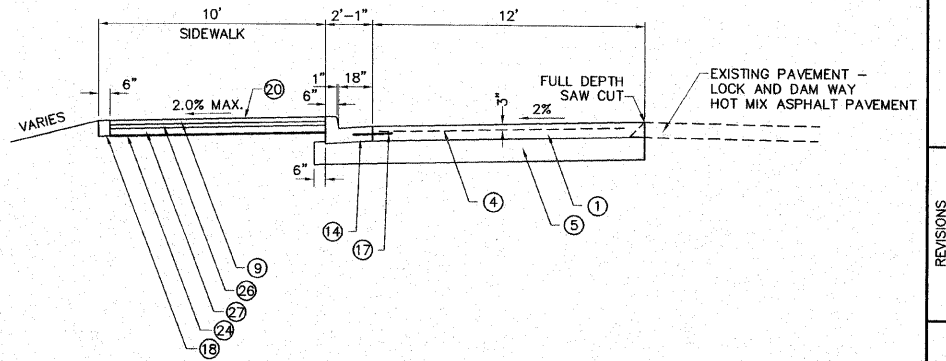
DWG. NO.	PHASE I TYP. SECTS.DWG
REF. BK.	PG. -
JOB NO.	405829
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	AS SHOWN
SHEET	8 OF 36





PROPOSED TYPICAL SECTION  
ROAD D  
STA. 18+75.23 TO STA. 19+18.35

SCALE: 1" = 4'



PROPOSED TYPICAL SECTION  
WIDENING FOR BUS STOP ON LOCK AND DAM WAY

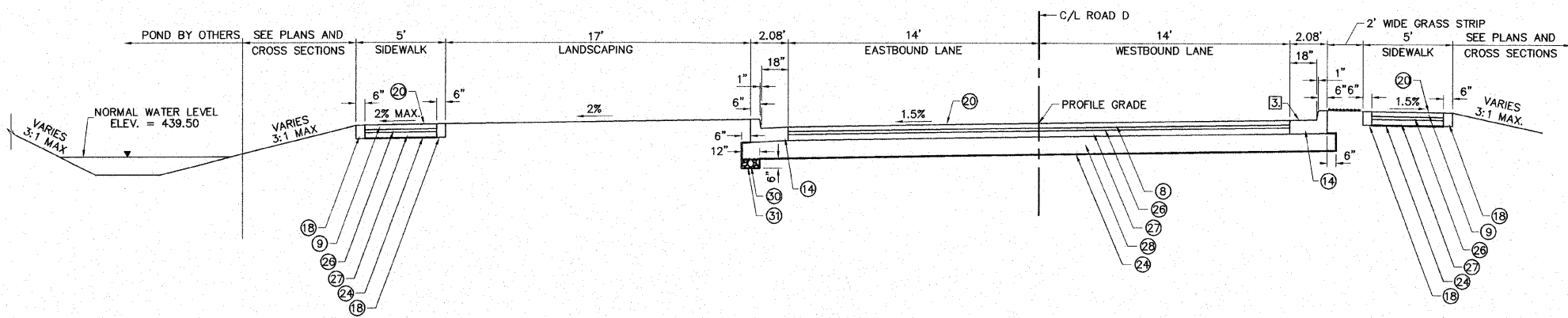
STA. 6+97.02 TO STA. 9+18.89  
SCALE: 1" = 4'

PAVING LEGEND

- 1 PORTLAND CEMENT CONCRETE PAVEMENT 8" (SPECIAL)(SEE NOTE [6]).
- 2 PORTLAND CEMENT CONCRETE PAVEMENT 7" (SPECIAL)(SEE NOTE [6]).
- 3 PORTLAND CEMENT CONCRETE PAVEMENT 7" (SPECIAL, TEXTURED)(SEE NOTE [6]).
- 4 PAVEMENT FABRIC, TYPE A
- 5 PROCESSING MODIFIED SOIL 12"
- 6 PORTLAND CEMENT CONCRETE SIDEWALK 4 INCH
- 7 PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH
- 8 CONCRETE PAVER PAVEMENT (3-1/8")
- 9 CONCRETE PAVER SIDEWALK (2-3/8")
- 10 GEOFLOCK POLYETHYLENE POROUS PAVEMENT SYSTEM, (1.97")
- 11 GEOFLOCK 2 POLYETHYLENE POROUS PAVEMENT SYSTEM, (1.18")
- 12 CELLULAR CONFINEMENT SYSTEM (6")
- 13 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12
- 14 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.18
- 15 COMBINATION CONCRETE CURB AND GUTTER, TYPE B-9.12
- 16 COMBINATION CONCRETE CURB AND GUTTER, TYPE M-2.12
- 17 DRILL AND GROUT #6 TIE BARS (SEE NOTE [1])
- 18 6" WIDE FLUSH CONCRETE BORDER, 8-3/8"
- 19 6" WIDE FLUSH CONCRETE BORDER, 18"
- 20 POROUS GRANULAR CAPPING MATERIAL
- 21 SEEDING, CLASS 4A
- 22 STONE RIPRAP, CLASS A5
- 23 BEDDING MATERIAL
- 24 FILTER FABRIC
- 25 SUB-BASE GRANULAR MATERIAL, TYPE A 4"
- 26 POROUS GRANULAR EMBANKMENT, BEDDING 2"
- 27 POROUS GRANULAR EMBANKMENT, BASE 4"
- 28 POROUS GRANULAR EMBANKMENT, SUBGRADE 12"
- 29 AGGREGATE BASE COURSE, SPECIAL (4")
- 30 PIPE UNDERDRAINS 4" (SPECIAL)
- 31 POROUS GRANULAR BACKFILL
- 32 CHAIN LINK FENCE, 4'
- 33 POROUS GRANULAR EMBANKMENT, SUBGRADE 12 INCH (SLAG)
- 34 POROUS GRANULAR EMBANKMENT, BASE 4 INCH (SLAG)
- 35 POROUS GRANULAR EMBANKMENT, BEDDING 2 INCH (SLAG)
- 36 POROUS GRANULAR BACKFILL (SLAG)
- 37 BROKEN CONCRETE DUMPED RIPRAP, RR5

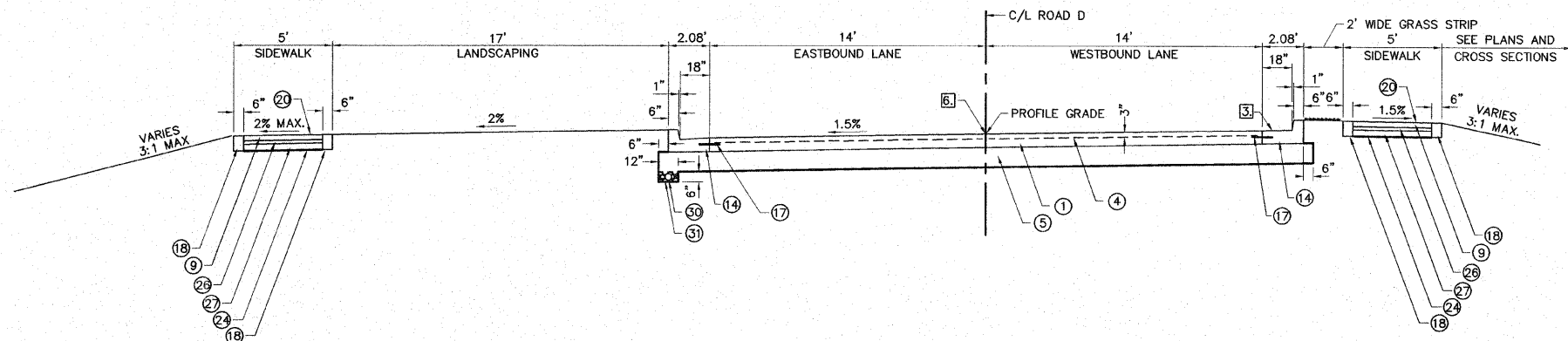
TYPICAL SECTION NOTES

- 1 TIE BARS THAT ARE PLACED IN CONCRETE SHALL BE 30" LONG AT 30" CENTERS. TIE BARS THAT ARE DRILLED AND GROUTED SHALL BE 24" LONG AT 24" CENTERS.
- 2 PROJECT OVERLAPS IDOT ROW ROAD D STA. 13+84.22 TO STA. 14+95.28 AND STA. 16+34.70 TO STA. 17+40.56
- 3 SLOPE GUTTER PAN WITH PAVEMENT
- 4 SEE ROUND ABOUT DETAILS SHEET NO. 21
- 5 CENTER 2' WIDE DITCH BETWEEN SIDEWALK AND BIKE TRAIL SHOULDER.
- 6 SEE CONCRETE PAVEMENT NOTES ON SHEET NO. 2.



PROPOSED TYPICAL SECTION  
ROAD D

STA. 19+18.35 TO STA. 19+64.86  
SCALE: 1" = 4'



PROPOSED TYPICAL SECTION  
ROAD D

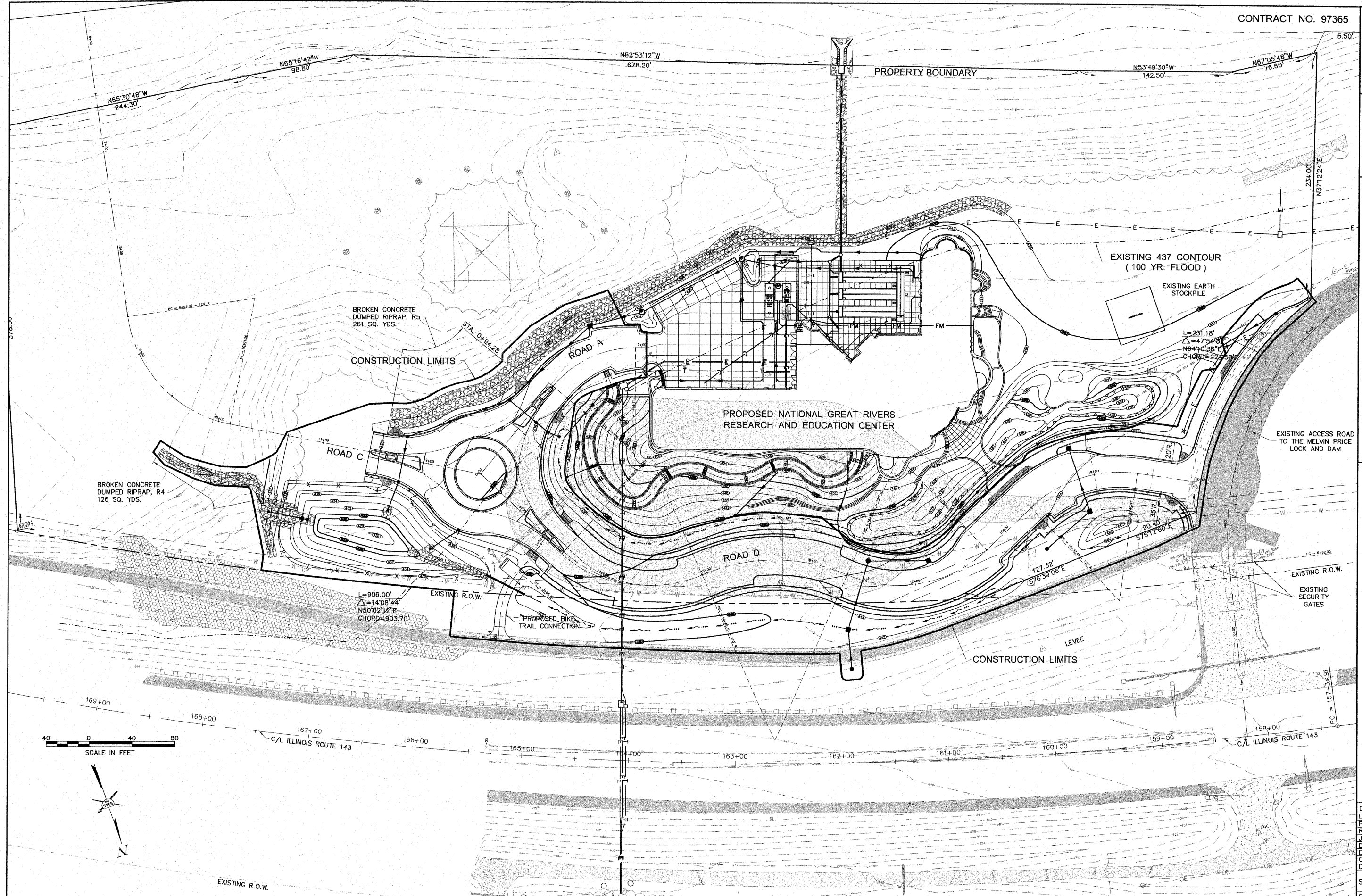
STA. 19+64.86 TO STA. 20+00  
SCALE: 1" = 4'

REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
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10 Central Industrial Drive, Granite City, IL 62040, 618/977-8700, E-mail: mail@smengineers.com  
DESIGN FIRM # 184-000992  
**ENGINEERS**

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05-00001-00-PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
TYPICAL SECTIONS

DWG. NO.
PHASE I TYP. SECTS. DWG.
REF. BK. PG. -
JOB NO. 405829
DSN. BY: DEG
DWN. BY: CAD
CHK. BY: DEG
DATE: SEPT. 8, 2008
SCALE: AS SHOWN
SHEET 9 OF 36



SCALE IN FEET  
0 40 80

NO.	REVISIONS

**SMS ENGINEERS**  
 Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002, 618462-2765 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040, 618877-9700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05 - 00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 OVERALL SITE PLAN

DWG. NO.	LP\A\IC 405829\
PHASE I SITE PLAN.DWG	
REF. BK.	PG. -
JOB NO.	
DSN. BY:	DEC
DWN. BY:	CAD
CHK. BY:	DEC
DATE:	SEPT. 8, 2008
SCALE:	1" = 40'
SHEET	10 OF 36

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**DRAINAGE STRUCTURES**

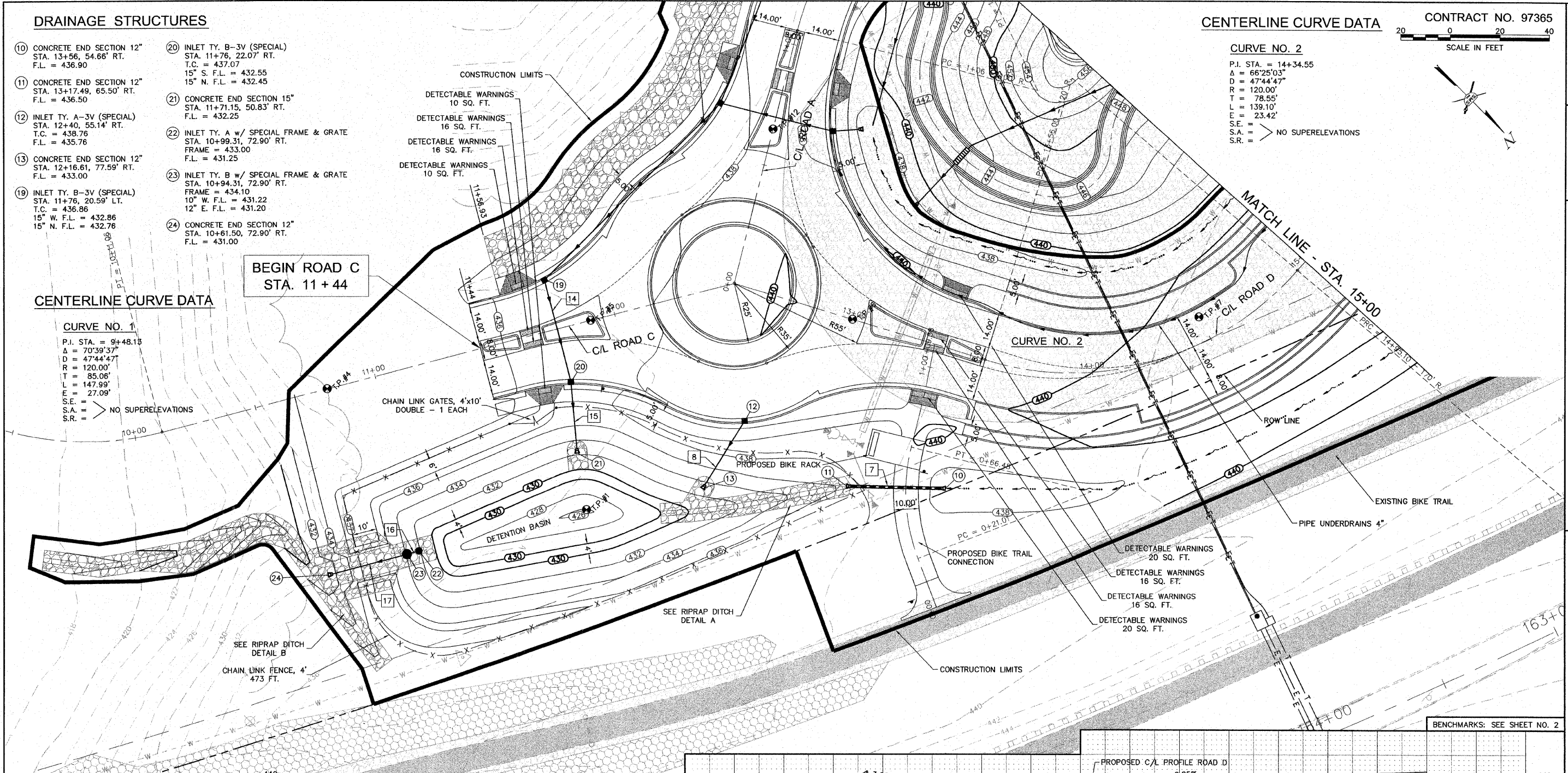
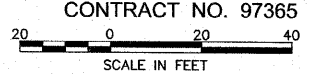
- ⑩ CONCRETE END SECTION 12" STA. 13+56, 54.66' RT. F.L. = 436.90
- ⑪ CONCRETE END SECTION 12" STA. 13+17.49, 65.50' RT. F.L. = 436.50
- ⑫ INLET TY. A-3V (SPECIAL) STA. 12+40, 55.14' RT. T.C. = 438.76 F.L. = 435.76
- ⑬ CONCRETE END SECTION 12" STA. 12+16.61, 77.59' RT. F.L. = 433.00
- ⑰ INLET TY. B-3V (SPECIAL) STA. 11+76, 20.59' LT. T.C. = 436.86 15" W. F.L. = 432.86 15" N. F.L. = 432.76
- ⑭ INLET TY. B-3V (SPECIAL) STA. 11+76, 22.07' RT. T.C. = 437.07 15" S. F.L. = 432.55 15" N. F.L. = 432.45
- ⑮ CONCRETE END SECTION 15" STA. 11+71.15, 50.83' RT. F.L. = 432.25
- ⑯ INLET TY. A w/ SPECIAL FRAME & GRATE STA. 10+99.31, 72.90' RT. FRAME = 433.00 F.L. = 431.25
- ⑰ INLET TY. B w/ SPECIAL FRAME & GRATE STA. 10+94.31, 72.90' RT. FRAME = 434.10 10" W. F.L. = 431.22 12" E. F.L. = 431.20
- ⑳ CONCRETE END SECTION 12" STA. 10+61.50, 72.90' RT. F.L. = 431.00

**CENTERLINE CURVE DATA**

**CURVE NO. 1**  
 P.I. STA. = 9+48.13  
 Δ = 70°39'37"  
 D = 47°44'47"  
 R = 120.00'  
 T = 85.06'  
 L = 147.99'  
 E = 27.09'  
 S.E. =  
 S.A. = NO SUPERELEVATIONS  
 S.R. =

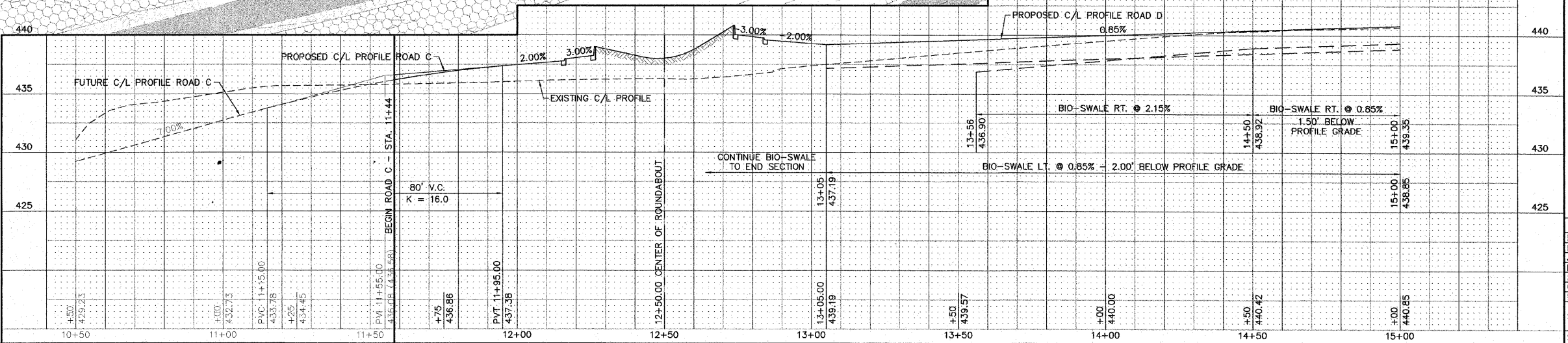
**CENTERLINE CURVE DATA**

**CURVE NO. 2**  
 P.I. STA. = 14+34.55  
 Δ = 66°25'03"  
 D = 47°44'47"  
 R = 120.00'  
 T = 78.55'  
 L = 139.10'  
 E = 23.42'  
 S.E. =  
 S.A. = NO SUPERELEVATIONS  
 S.R. =



**STORM SEWERS**

- ⑦ ⑩ TO ⑪ 24 FT. 12" PCI RCCP @ 1.00% (40 FT. TOTAL END SECT. TO END SECT.) TRENCH BACKFILL 2.9 CU. YDS.
- ⑧ ⑫ TO ⑬ 24 FT. 12" SSI, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 8.63% (32 FT. TOTAL TO END SECT.) TRENCH BACKFILL 1.3 CU. YDS.
- ⑭ ⑰ TO ⑱ 43 FT. 15" SSI, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.49% TRENCH BACKFILL 10.2 CU. YDS.
- ⑮ ⑲ TO ⑳ 23 FT. 15" SSI, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.87% (15 FT. TOTAL TO END SECT.) TRENCH BACKFILL 2.8 CU. YDS.
- ⑯ ⑳ TO ㉑ 5 FT. 10" SSB1 (PVC SDR 35) @ 0.60% CLSM 0.9 CU. YDS.
- ⑰ ㉒ TO ㉓ 25 FT. 12" SSI, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.61% (33 FT. TOTAL TO END SECT.) CLSM 1.3 CU. YDS.



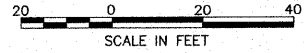
REVISIONS


**SMS** Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002, 618/462-9765, E-mail: sms@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040, 618/977-8700, E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05 - 00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 PLAN AND PROFILE - ROAD C AND ROAD D

DWG. NO. PHASE I RDWY P-P.DWG  
 REF. BK. - PG. -  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: 1" = 20' H.  
 1" = 5' V.  
 SHEET 11 OF 36

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**CENTERLINE CURVE DATA**

**CURVE NO. 3**

P.I. STA. = 15+69.10  
 $\Delta = 47^{\circ}02'56''$   
 $D = 33^{\circ}42'12''$   
 $R = 170.00'$   
 $T = 74.00'$   
 $L = 139.60'$   
 $E = 15.41'$   
 S.E. =  $\angle$  NO SUPERELEVATIONS  
 S.A. =  $\angle$   
 S.R. =  $\angle$

**CURVE NO. 4**

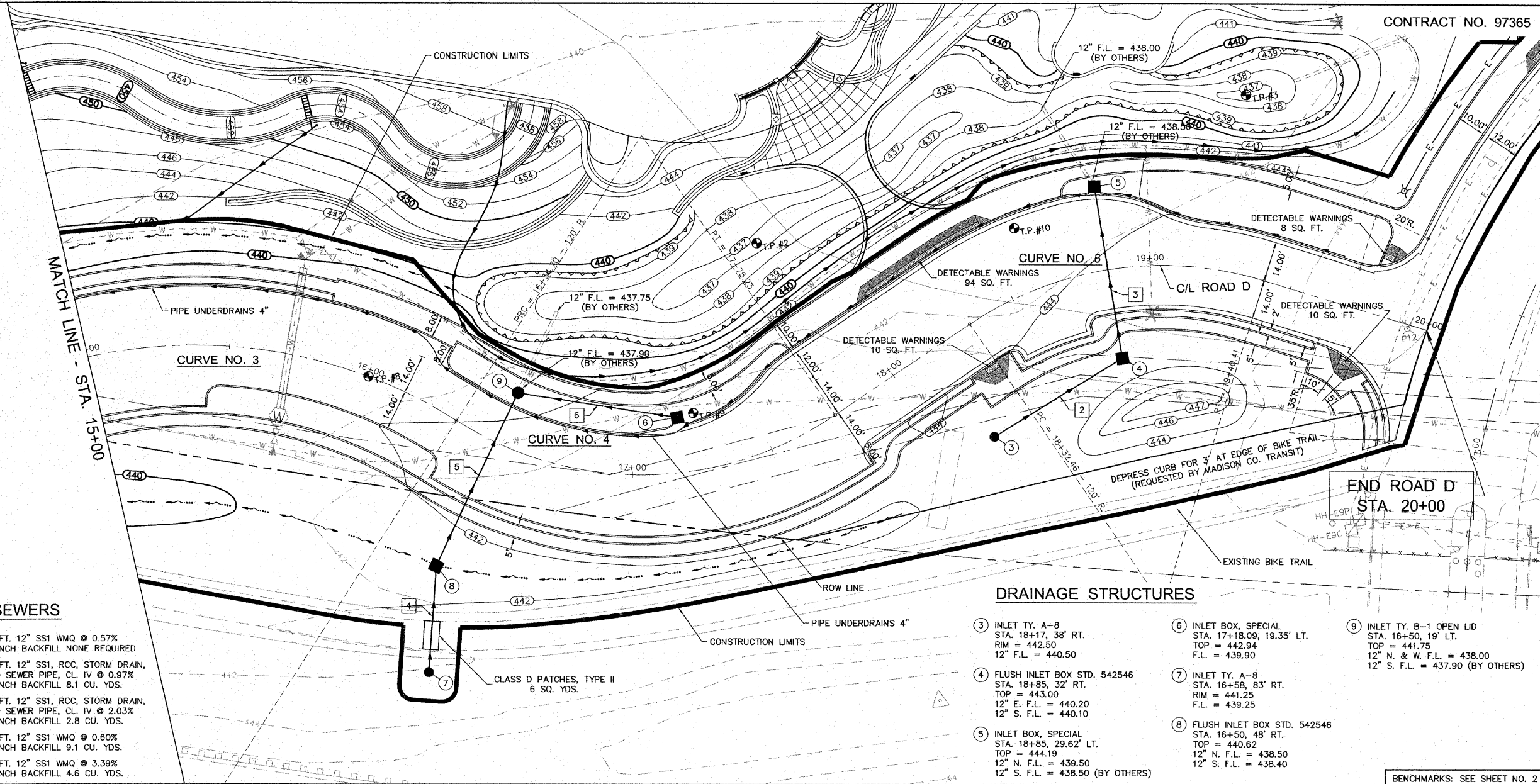
P.I. STA. = 17+14.27  
 $\Delta = 67^{\circ}05'58''$   
 $D = 47^{\circ}44'47''$   
 $R = 120.00'$   
 $T = 79.58'$   
 $L = 140.53'$   
 $E = 23.99'$   
 S.E. =  $\angle$  NO SUPERELEVATIONS  
 S.A. =  $\angle$   
 S.R. =  $\angle$

**CURVE NO. 5**

P.I. STA. = 18+90.39  
 $\Delta = 51^{\circ}32'37''$   
 $D = 47^{\circ}44'47''$   
 $R = 120.00'$   
 $T = 57.94'$   
 $L = 107.95'$   
 $E = 13.25'$   
 S.E. =  $\angle$  NO SUPERELEVATIONS  
 S.A. =  $\angle$   
 S.R. =  $\angle$

**STORM SEWERS**

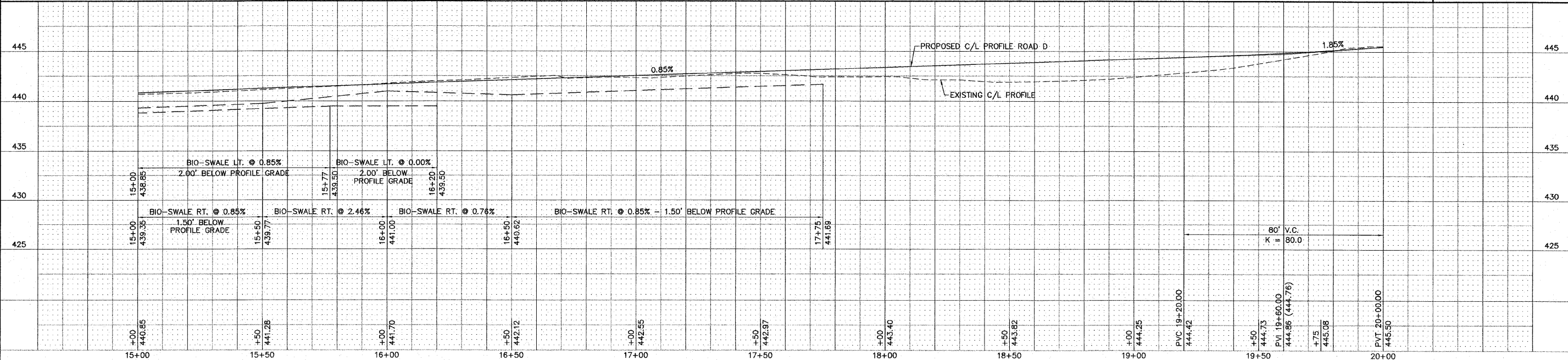
- 2 3 TO 4 53 FT. 12" SS1 WMO @ 0.57%  
TRENCH BACKFILL NONE REQUIRED
- 3 4 TO 5 62 FT. 12" SS1, RCC, STORM DRAIN,  
AND SEWER PIPE, CL. IV @ 0.97%  
TRENCH BACKFILL 8.1 CU. YDS.
- 4 7 TO 8 37 FT. 12" SS1, RCC, STORM DRAIN,  
AND SEWER PIPE, CL. IV @ 2.03%  
TRENCH BACKFILL 2.8 CU. YDS.
- 5 8 TO 9 67 FT. 12" SS1 WMO @ 0.60%  
TRENCH BACKFILL 9.1 CU. YDS.
- 6 6 TO 9 56 FT. 12" SS1 WMO @ 3.39%  
TRENCH BACKFILL 4.6 CU. YDS.



**DRAINAGE STRUCTURES**

- 3 INLET TY. A-8  
STA. 18+17, 38' RT.  
RIM = 442.50  
12" F.L. = 440.50
- 4 FLUSH INLET BOX STD. 542546  
STA. 18+85, 32' RT.  
TOP = 443.00  
12" E. F.L. = 440.20  
12" S. F.L. = 440.10
- 5 INLET BOX, SPECIAL  
STA. 18+85, 29.62' LT.  
TOP = 444.19  
12" N. F.L. = 439.50  
12" S. F.L. = 438.50 (BY OTHERS)
- 6 INLET BOX, SPECIAL  
STA. 17+18.09, 19.35' LT.  
TOP = 442.94  
F.L. = 439.90
- 7 INLET TY. A-8  
STA. 16+58, 83' RT.  
RIM = 441.25  
F.L. = 439.25
- 8 FLUSH INLET BOX STD. 542546  
STA. 16+50, 48' RT.  
TOP = 440.62  
12" N. F.L. = 438.50  
12" S. F.L. = 438.40
- 9 INLET TY. B-1 OPEN LID  
STA. 16+50, 19' LT.  
TOP = 441.75  
12" N. & W. F.L. = 438.00  
12" S. F.L. = 437.90 (BY OTHERS)

BENCHMARKS: SEE SHEET NO. 2



CONTRACT NO. 97365

REVISIONS

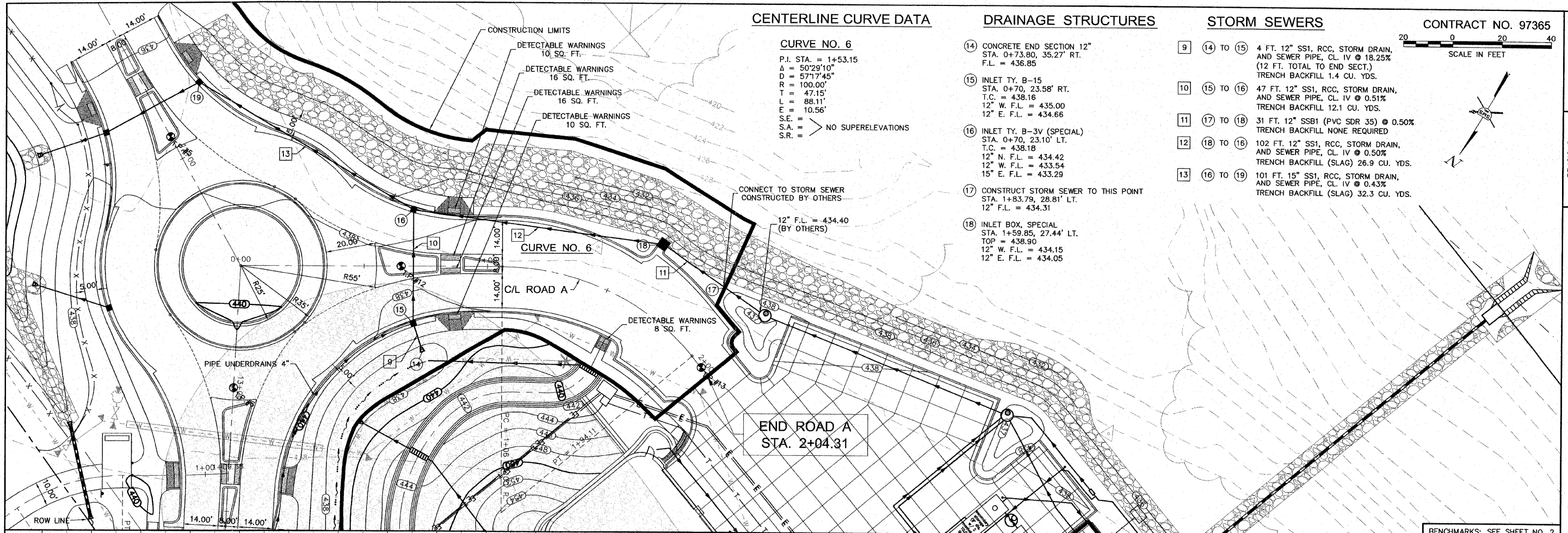
**SMS** Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002 618462-9725 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040 618877-8700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

**ENGINEERS**

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05-00001-00-PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 PLAN AND PROFILE - ROAD D

DWG. NO. PHASE I RDWY P-P-DWG  
 REF. BK. - PG. -  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: 1" = 20' H.  
 1" = 5' V.  
 SHEET 12 OF 36

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**CENTERLINE CURVE DATA**

**CURVE NO. 6**  
 P.I. STA. = 1+53.15  
 $\Delta = 50^{\circ}29'10''$   
 $D = 57'17'45''$   
 $R = 100.00'$   
 $T = 47.15'$   
 $L = 88.11'$   
 $E = 10.56'$   
 S.E. =  
 S.A. =  $>$  NO SUPERELEVATIONS  
 S.R. =

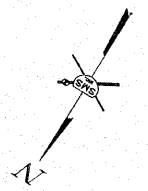
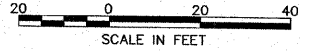
**DRAINAGE STRUCTURES**

- 14 CONCRETE END SECTION 12" STA. 0+73.80, 35.27' RT. F.L. = 436.85
- 15 INLET TY. B-15 STA. 0+70, 23.58' RT. T.C. = 438.16 12" W. F.L. = 435.00 12" E. F.L. = 434.66
- 16 INLET TY. B-3V (SPECIAL) STA. 0+70, 23.10' LT. T.C. = 438.18 12" N. F.L. = 434.42 12" W. F.L. = 433.54 15" E. F.L. = 433.29
- 17 CONSTRUCT STORM SEWER TO THIS POINT STA. 1+83.79, 28.81' LT. 12" F.L. = 434.31
- 18 INLET BOX, SPECIAL STA. 1+59.85, 27.44' LT. TOP = 438.90 12" W. F.L. = 434.15 12" E. F.L. = 434.05

**STORM SEWERS**

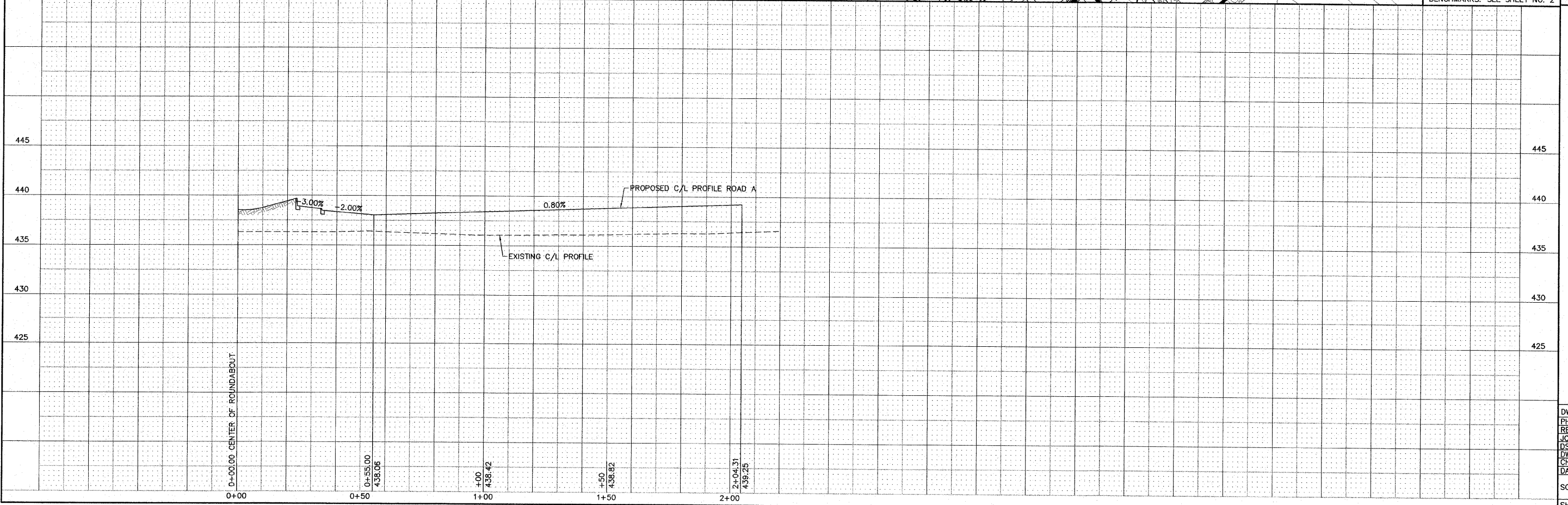
- 9 14 TO 15 4 FT. 12" SS1, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.51% (12 FT. TOTAL TO END SECT.) TRENCH BACKFILL 1.4 CU. YDS.
- 10 15 TO 16 47 FT. 12" SS1, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.51% TRENCH BACKFILL 12.1 CU. YDS.
- 11 17 TO 18 31 FT. 12" SSB1 (PVC SDR 35) @ 0.50% TRENCH BACKFILL NONE REQUIRED
- 12 18 TO 16 102 FT. 12" SS1, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.50% TRENCH BACKFILL (SLAG) 26.9 CU. YDS.
- 13 16 TO 19 101 FT. 15" SS1, RCC, STORM DRAIN, AND SEWER PIPE, CL. IV @ 0.43% TRENCH BACKFILL (SLAG) 32.3 CU. YDS.

CONTRACT NO. 97365



END ROAD A  
 STA. 2+04.31

BENCHMARKS: SEE SHEET NO. 2



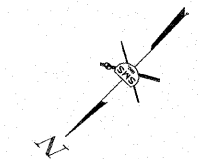
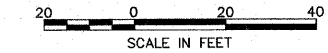
REVISIONS

**SMS ENGINEERS**  
 Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 North Street, P.O. Box E, Alton, IL 62002, 618462-2755, E-mail: mail@smsengineers.com  
 40 Central Industrial Drive, Granite City, IL 62040, 618677-2700, E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05 - 00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 PLAN AND PROFILE - ROAD A

DWG. NO. PHASE I RDWY P-P.DWG  
 REF. BK. PG. -  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: 1" = 20' H.  
 1" = 5' V.  
 SHEET 13 OF 36

CONTRACT NO. 97365



**DRAINAGE STRUCTURES**

- ① INLET TY. A-3V SPECIAL STA. 8+90, 36.14' LT. T.C. = 443.68 12" F.L. = 440.68
- ② CONNECT TO PIPE STUBBED OUT BY OTHERS 12" F.L. = 439.62

**STORM SEWERS**

- ① TO ② 60 FT. 12" SS1 WMO @ 1.76% TRENCH BACKFILL 14.0 CU. YDS.

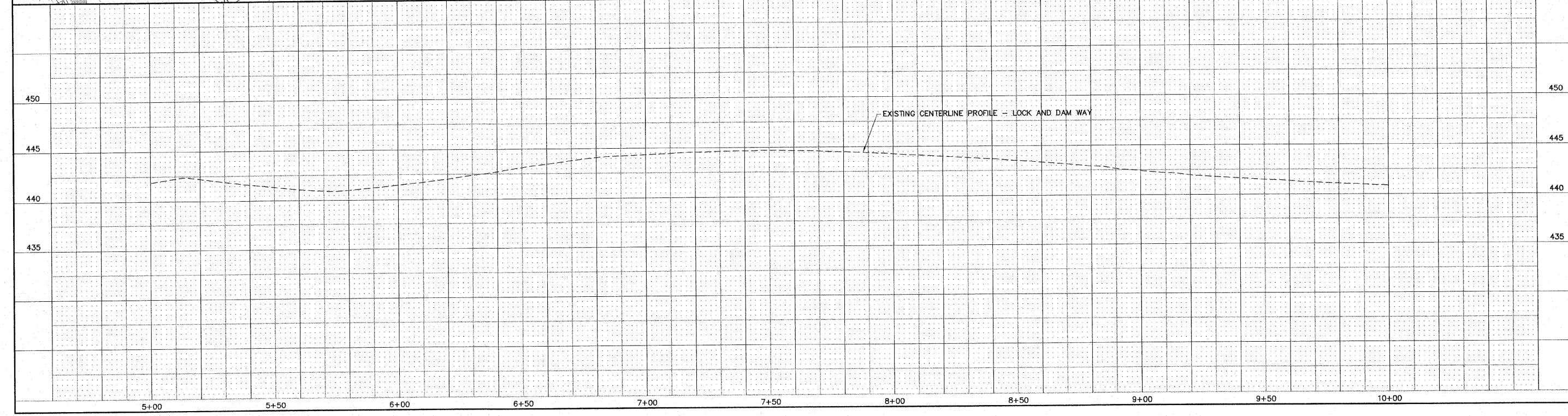
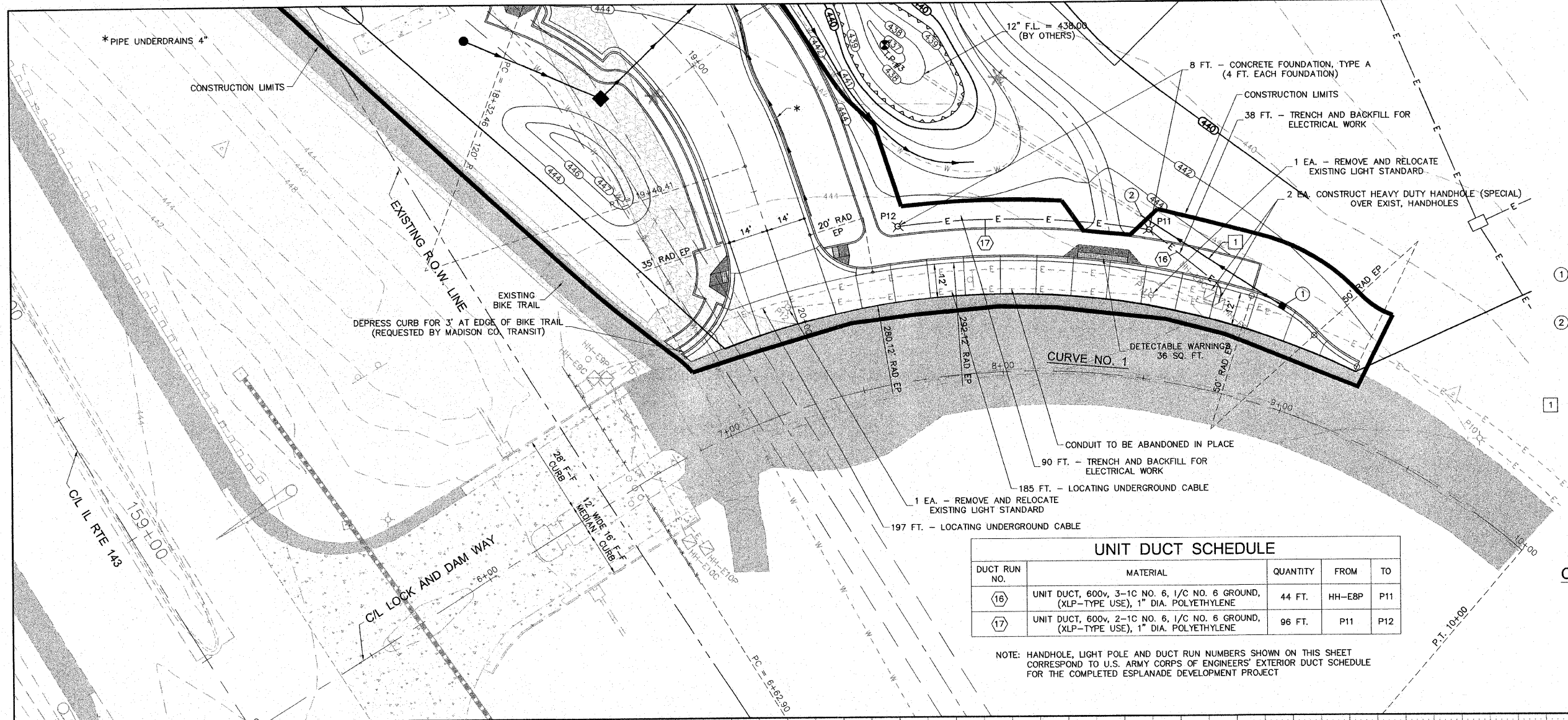
**CENTERLINE CURVE DATA**

**CURVE NO. 1**

P.I. STA. = 8+58.58  
 Δ = 72°53'06"  
 D = 21'37"16"  
 R = 265.00'  
 T = 195.68'  
 L = 337.10'  
 E = 64.42'

DUCT RUN NO.	MATERIAL	QUANTITY	FROM	TO
①⑥	UNIT DUCT, 600v, 3-1C NO. 6, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	44 FT.	HH-E8P	P11
①⑦	UNIT DUCT, 600v, 2-1C NO. 6, 1/C NO. 6 GROUND, (XLP-TYPE USE), 1" DIA. POLYETHYLENE	96 FT.	P11	P12

NOTE: HANDHOLE, LIGHT POLE AND DUCT RUN NUMBERS SHOWN ON THIS SHEET CORRESPOND TO U.S. ARMY CORPS OF ENGINEERS' EXTERIOR DUCT SCHEDULE FOR THE COMPLETED ESPLANADE DEVELOPMENT PROJECT



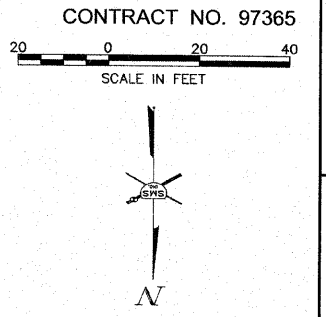
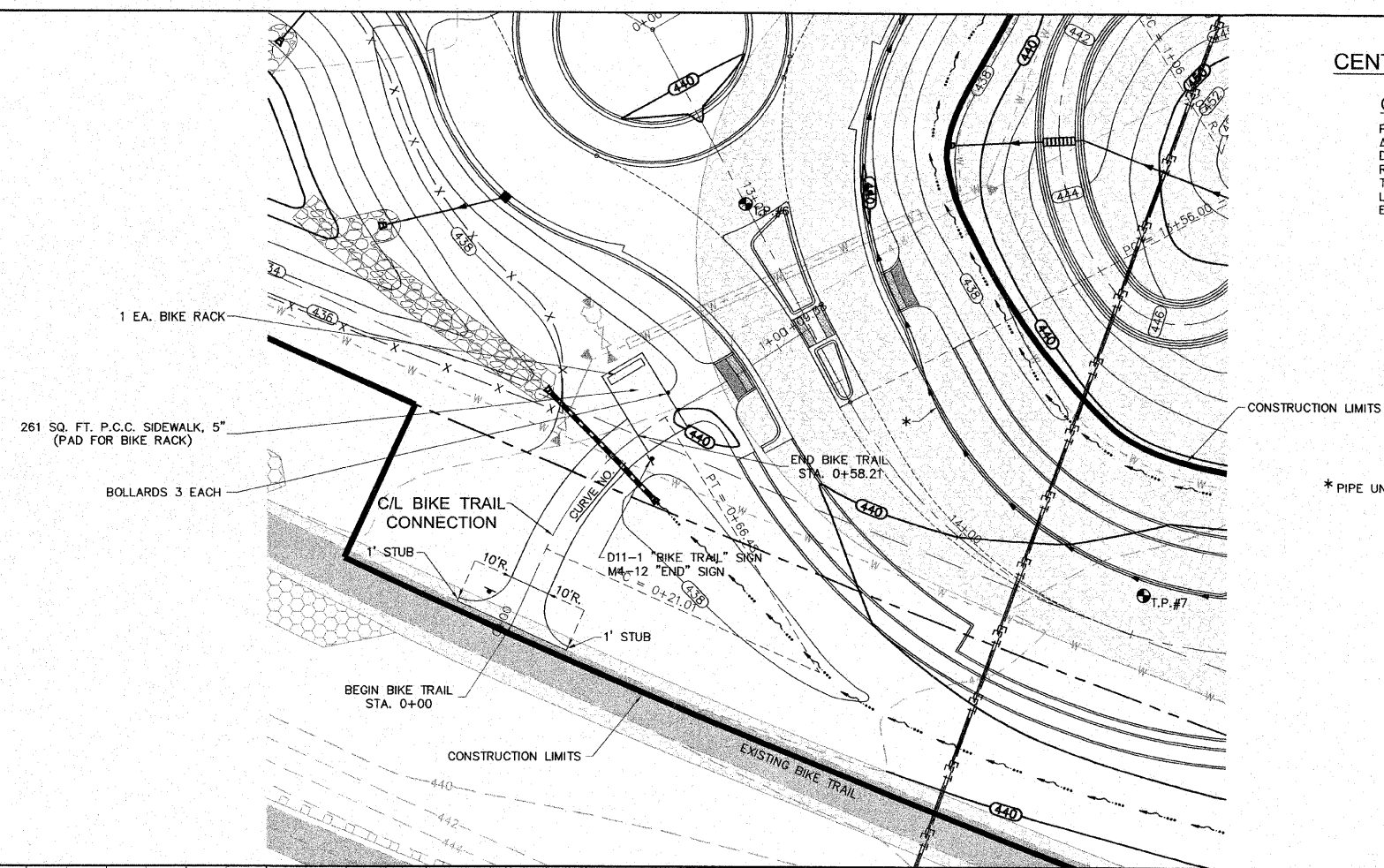
NO.	REVISIONS

**SMS ENGINEERS**  
 Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002 618/462-2755 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040 618/877-8700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

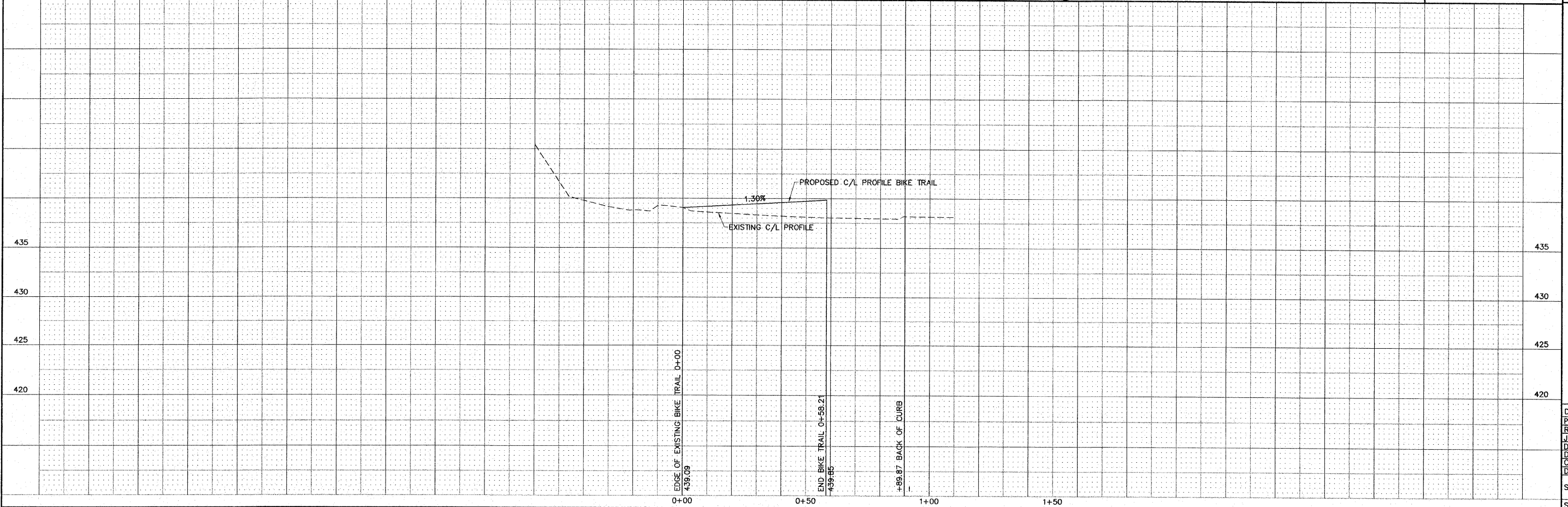
LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05-00001-00-PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 PLAN AND PROFILE - LOCK AND DAM WAY

DWG. NO.	PHASE I L&D WAY P-P.DWG
REF. BK.	PG. -
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	1" = 20' H. 1" = 5' V.
SHEET	14 OF 36

S:\Land Projects\AAC 45525\dwg\Phase 1\Bike Trail P-P.dwg, 11/12/2008 11:35:34 AM, jman, 1:20



BENCHMARKS: SEE SHEET NO. 2

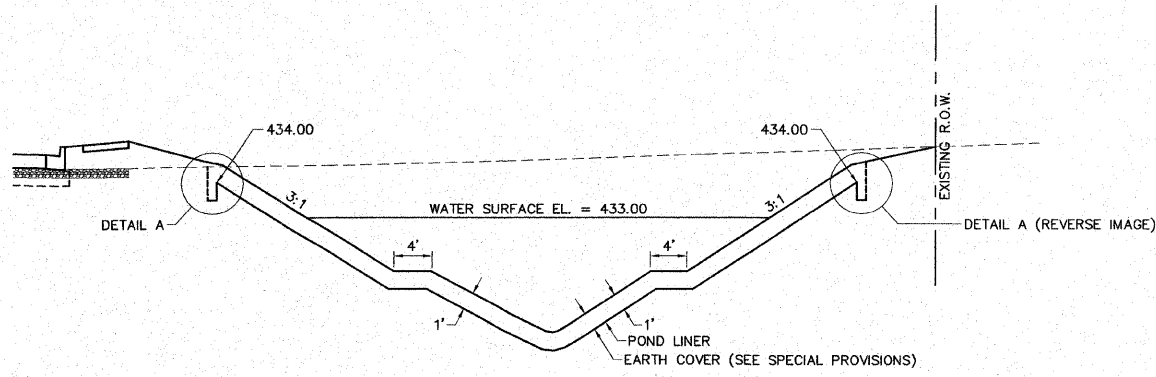


REVISIONS

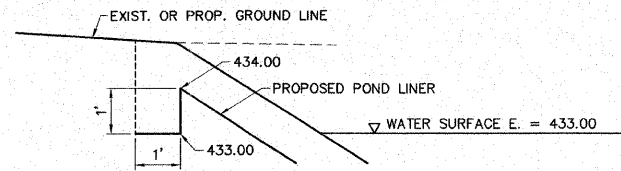

**SMS ENGINEERS**  
 Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002 618462-9755 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040 618877-8700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05 - 00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 PLAN AND PROFILE - BIKE TRAIL CONNECTION

DWG. NO.	PHASE I BIKE TRAIL P-P.DWG
REF. BK.	PG.
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	1" = 20' H. 1" = 5' V.
SHEET	15 OF 36



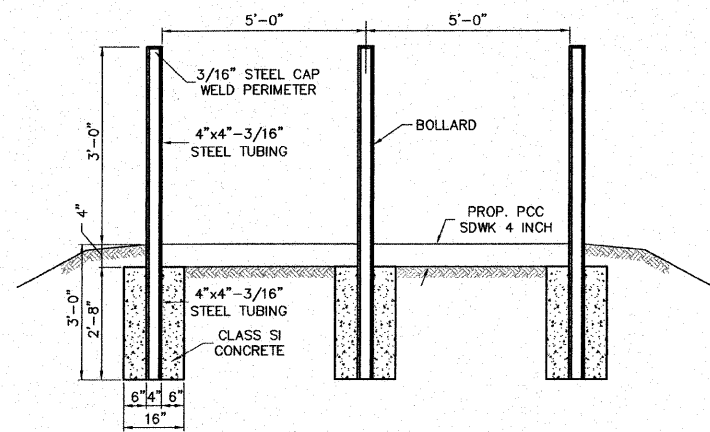
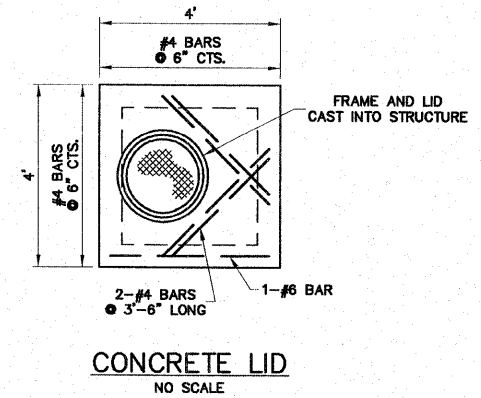
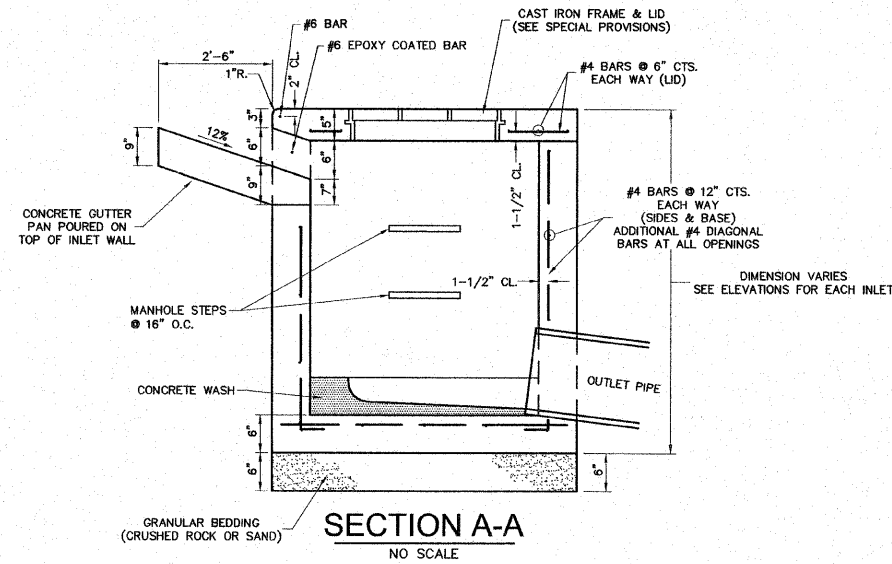
**DETAIL: FURNISH AND INSTALL POND LINER**



**DETAIL A**

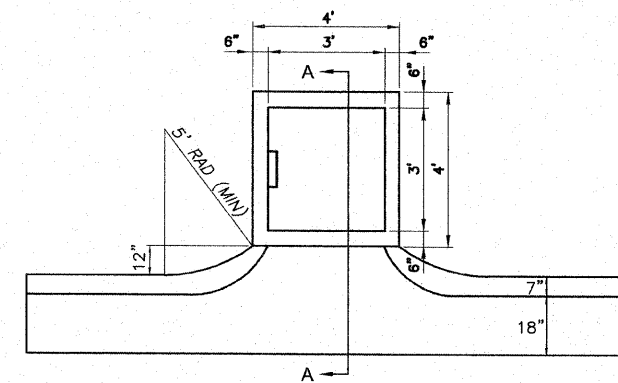
**NOTES**

1. THE POND LINER SHALL BE ANCHORED IN PLACE BY PLACING THE ENDS IN A TRENCH WHICH HAS BEEN EXCAVATED TO ELEV. 433.00.
2. THE TRENCH SHALL BE 1' WIDE.



**DETAIL: BOLLARDS**

NO SCALE



**INLET BOX SPECIAL PLAN**

NO SCALE

REVISIONS

**Sheppard Morgan & Schwaab, Inc.**  
 CONSULTING ENGINEERS & LAND SURVEYORS

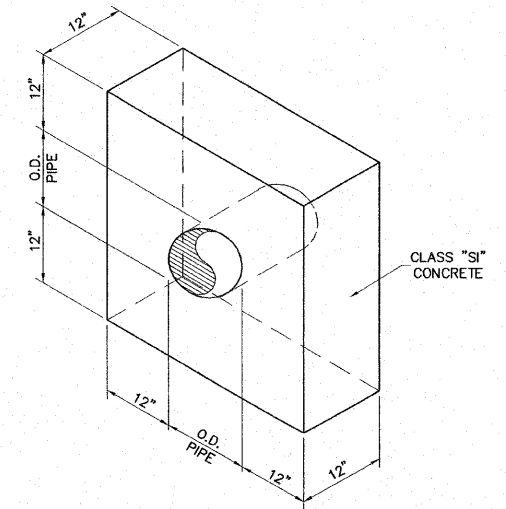
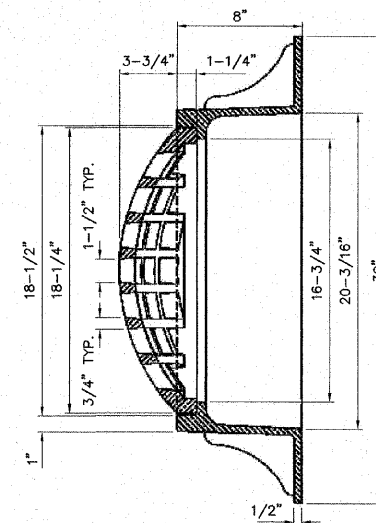
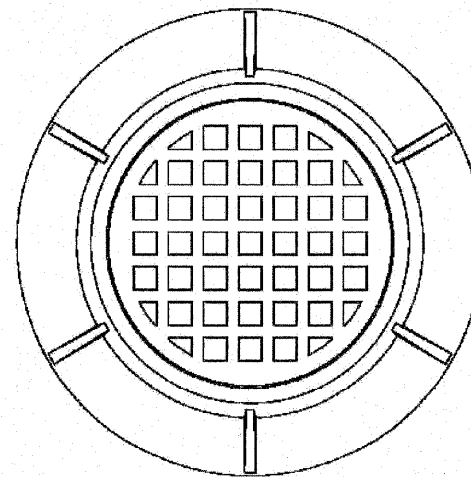
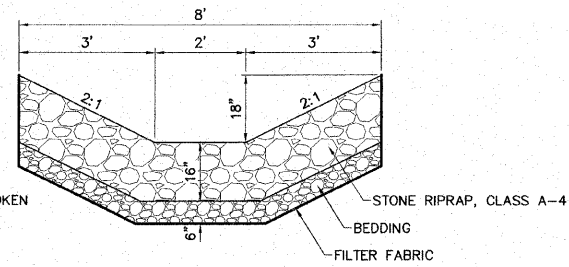
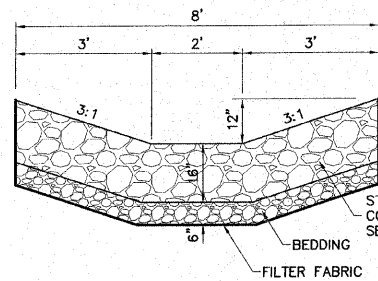
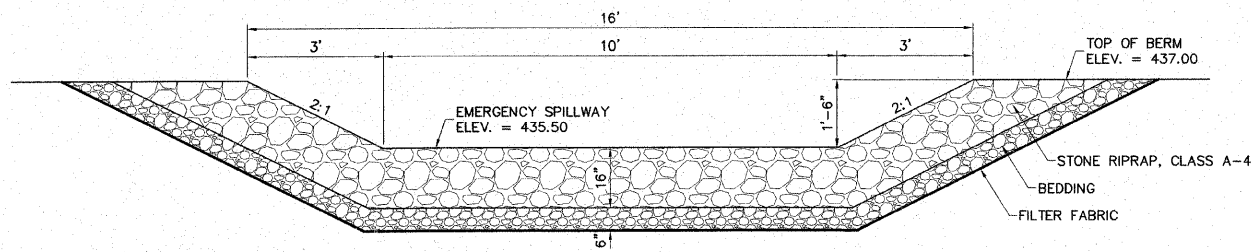
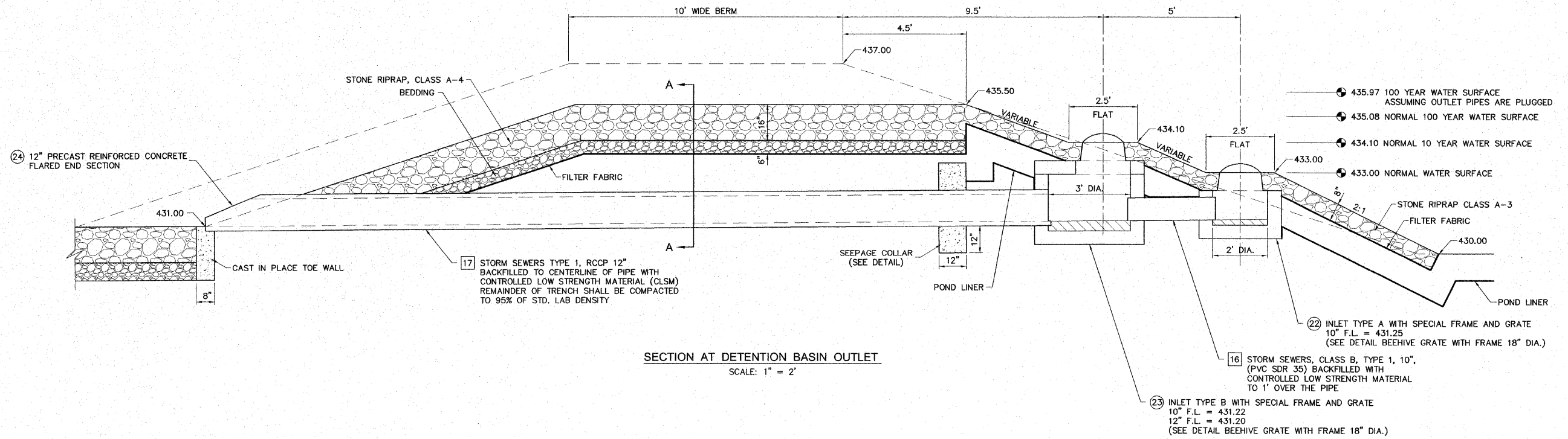
10 Central Industrial Dr  
 Granite City, IL 62040  
 618/977-8700



LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05 - 00001 - 00 - PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 DETAILS OF CONSTRUCTION

DWG. NO.  
 LP\_AAIC\_405829\  
 PHASE 1 DETAILS.DWG  
 REF. BK. - PG. -  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: AS SHOWN  
 SHEET 16 OF 36





NOTES: 1. SQ. FT. OPENING = 0.7  
2. WEIR PERIMETER LINEAL FEET = 4.7







REVISIONS

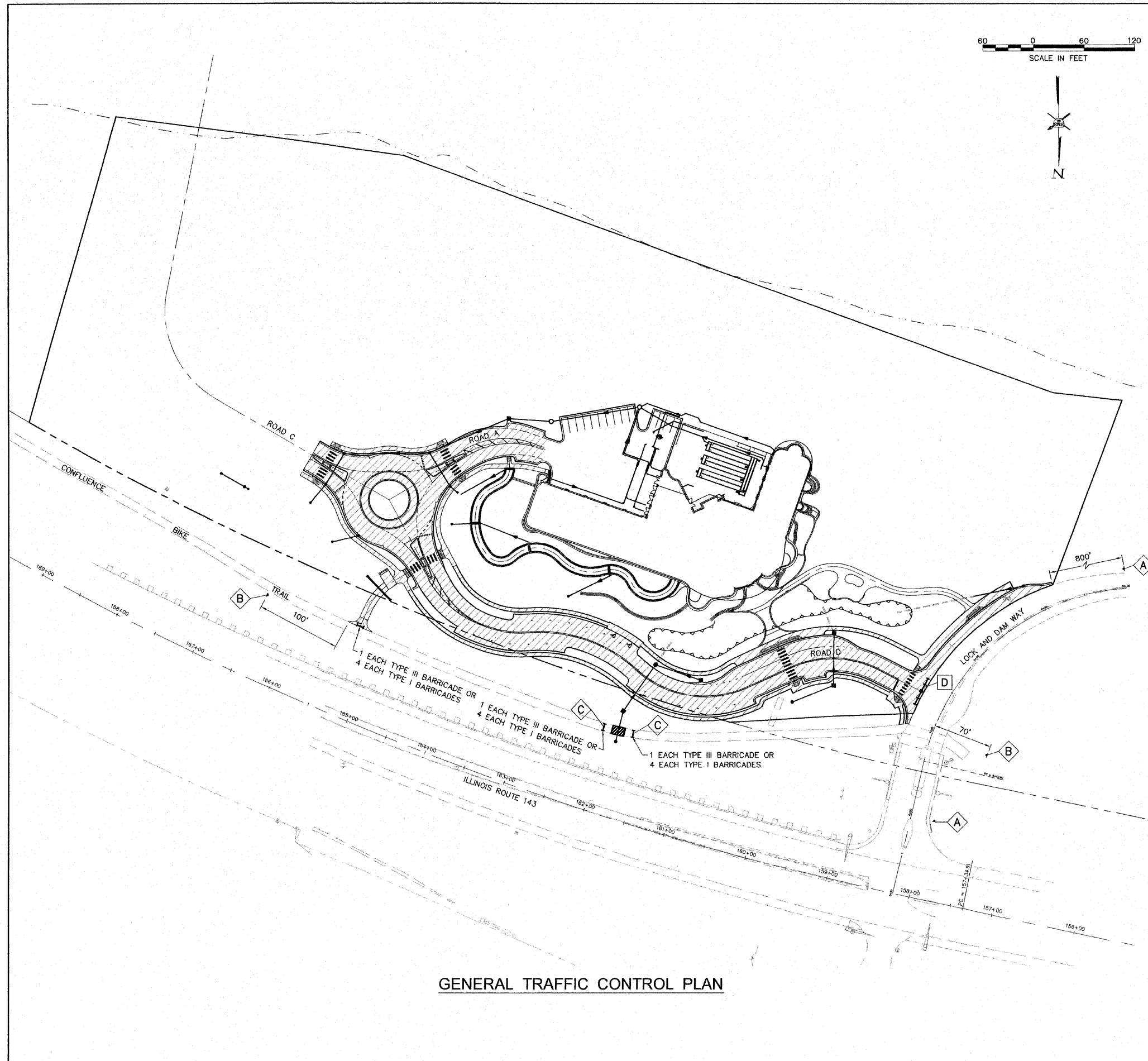
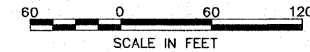
**SMS ENGINEERS**  
Sheppard, Morgan & Schwab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
115 Market Street, P.O. Box 4, Avon, IL 60293 618/462-0755 E-mail: sm@smengr.com  
10 Central National Drive, Central City, IL 62940 618/877-5200 E-mail: ms@smengr.com  
DESIGN FIRM # 184-00092

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
DETAILS OF CONSTRUCTION

DWG. NO. LP\A\IC\405829  
PHASE 1 OVERFLOW.DWG  
REF. BK. - PG. -  
JOB NO. 457111.1  
DSN. BY: DEG  
DWN. BY: CAD  
CHK. BY: DEG  
DATE: SEPT. 8, 2008  
SCALE: AS SHOWN  
SHEET 17 OF 36

TRAFFIC CONTROL LEGEND

-  WORK AREA
-  TYPE III BARRICADE WITH FLASHING LIGHTS
-  SIGN "ROAD CONSTRUCTION AHEAD" W20-1(0) - 48
-  SIGN "CONSTRUCTION AHEAD" 18" DIAMOND, BLACK LETTERS ON ORANGE BACKGROUND, BLACK BORDER
-  SIGN "TRAIL CLOSED" 24"x18", BLACK LETTERS ON WHITE BACKGROUND, BLACK BORDER
-  SIGN "ROAD CLOSED" R11-2 48"x30"



GENERAL NOTES

1. THE ABOVE GENERAL TRAFFIC CONTROL PLAN SHOWS REQUIRED SIGNING AND TRAFFIC CONTROL DEVICES. ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED BELOW AND IN ACCORDANCE WITH THE SPECIFIED HIGHWAY STANDARDS AND THE TRAFFIC CONTROL PLAN IN THE SPECIAL PROVISIONS.
2. ALL HAZARDS WITHIN WORK ZONES OPEN TO TRAFFIC SHALL BE PROTECTED WITH TYPE I BARRICADES WITH FLASHING LIGHTS IF LESS THAN 100' IN LENGTH. IF GREATER THAN 100' IN LENGTH, LIGHTS SHALL BE STEADY BURN.
3. ALL CONSTRUCTION SIGNS SHALL MEET THE REQUIREMENTS OF THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
4. ACCESS ROADS A, C AND D SHALL REMAIN CLOSED DURING THE DURATION OF THE CONTRACT. TRAFFIC CONTROL SHALL BE PROVIDED AS FOLLOWS:
  - A. 4 EACH - TYPE III BARRICADES WITH FLASHING LIGHTS SHALL BE PLACED ACROSS THE ENTRANCE TO ROAD D.
  - B. 1 EACH - "ROAD CLOSED" ATTACHED TO THE TYPE III BARRICADES.
5. LOCK AND DAM WAY SHALL REMAIN OPEN TO TWO-WAY TRAFFIC AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT, EXCEPT DURING THE CONSTRUCTION OF THE WIDENING. DURING THIS TIME TRAFFIC MAY BE REDUCED TO ONE LANE, TWO-WAY OPERATION. TRAFFIC CONTROL SHALL BE PROVIDED FOR LOCK AND DAM WAY, AS FOLLOWS:
  - A. ALL WORK ZONES, DROP OFFS AND HAZARDS ADJACENT TO A TRAFFIC LANE SHALL BE PROTECTED WITH CONES, DRUMS OR BARRICADES AT 25' CENTERS; HOWEVER, NO CONES SHALL BE USED AT NIGHT. DRUMS OR BARRICADES WITH STEADY BURNING LIGHTS SHALL BE USED AT NIGHT.
  - B. STANDARD 701001 - WORKERS PRESENT, BUT GREATER THAN 15 FEET OF THE EDGE OF PAVEMENT.
  - C. STANDARD 701006 - WORKERS PRESENT WITHIN 2 TO 15 FEET OF THE EDGE OF PAVEMENT.
  - D. STANDARD 701011 - WORKERS PRESENT WITHIN 0 TO 15 FEET OF THE EDGE OF PAVEMENT. SIGN SPACING ON THE SOUTHBOUND LANE OF LOCK AND DAM WAY SHALL BE ADJUSTED BY THE ENGINEER.
  - E. STANDARD 701301 - WORKERS PRESENT WITHIN THE CENTERLINE TO A POINT GREATER THAN 24 INCHES FOR A SHORT DURATION.
  - F. STANDARD 701326 - WORKERS PRESENT AND ENCRANCHING ON THE PAVEMENT DURING WIDENING OPERATIONS.
6. THE CONFLUENCE BIKE TRAIL SHALL REMAIN OPEN AT ALL TIMES EXCEPT DURING THE INSTALLATION OF THE 12" STORM SEWER ACROSS THE BIKE TRAIL.
  - A. "CONSTRUCTION AHEAD" SIGNS SHALL BE ERECTED.
  - B. BARRICADES AND "TRAIL CLOSED" SIGNS SHALL BE ERECTED AS SHOWN.
  - C. THE CONTRACTOR SHALL NOTIFY MADISON COUNTY TRANSIT, MR. MARK A. STEYER, P.E., (618) 874-7433, 48 HOURS PRIOR TO CLOSING THE TRAIL.
  - D. THE TRAIL CONNECTOR SHALL BE CLOSED DURING THE DURATION OF THE PROJECT AND BARRICADED AS SHOWN.
7. ILLINOIS ROUTE 143 - ALL LANES SHALL REMAIN OPEN TO TRAFFIC.

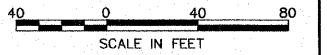
GENERAL TRAFFIC CONTROL PLAN

NO.	REVISIONS

**SMS** Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Marka Street, P.O. Box E, Alton, IL 62002 618462-9725 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Granite City, IL 62040 618877-8700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05-00001-00-PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 TRAFFIC CONTROL PLAN

DWG. NO.	1P\AAIC\405829
PHASE	PHASE I TRAFFIC CONTROL DWG
REF. BK.	PG. 1
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	1" = 60'
SHEET	18 OF 36



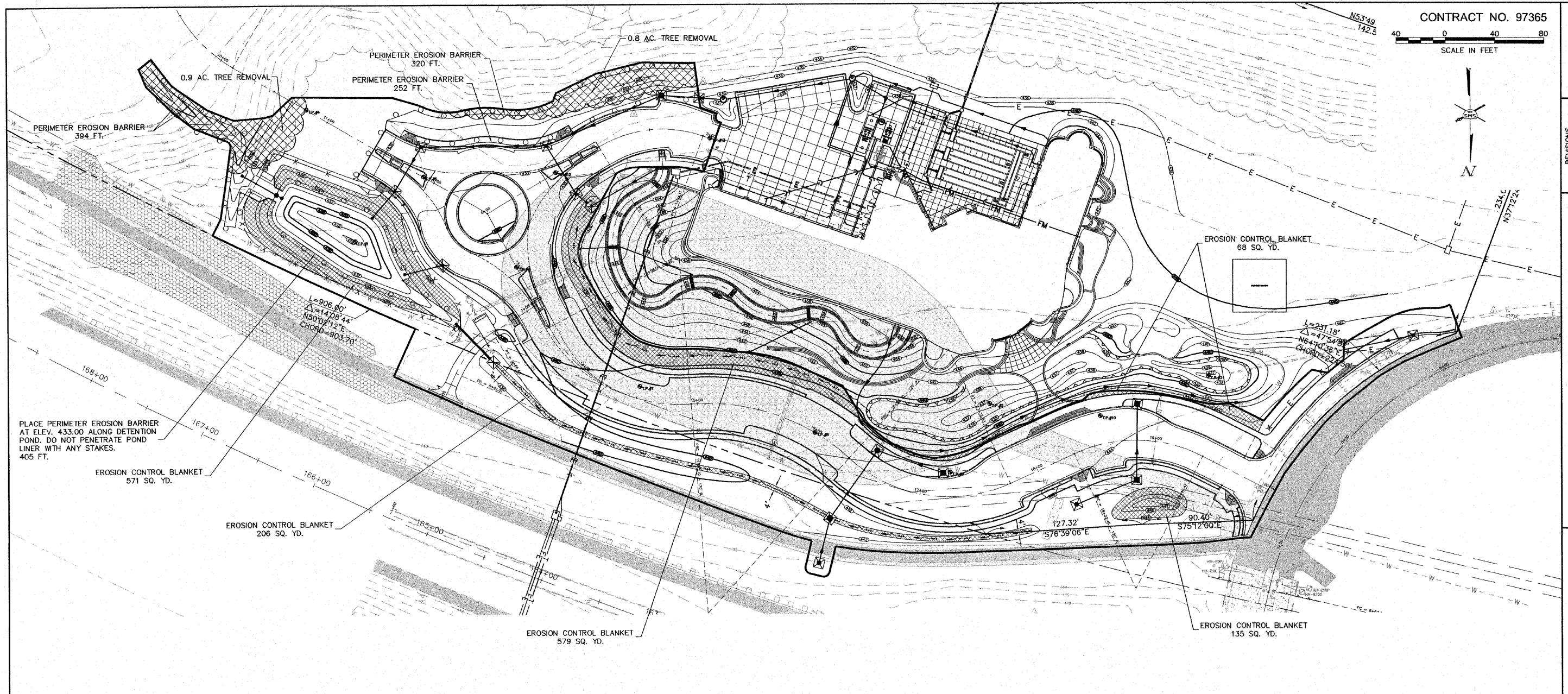
REVISIONS

Sheppard Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS & LAND SURVEYORS  
10 Central Industrial Dr.  
Northgate Center  
Grafton, City, IL 62040  
618/787-8700



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SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
CLEARING AND EROSION CONTROL PLAN

DWG. NO.  
LP\AAIC\405829\  
PHASE 1 CLEARING PLAN.DWG  
REF. BK. - PG. -  
JOB NO. 457111.1  
DSN. BY: DEG  
DWN. BY: CAD  
CHK. BY: DEG  
DATE: SEPT. 8, 2008  
SCALE: 1" = 40'  
SHEET 19 OF 36



PLACE PERIMETER EROSION BARRIER AT ELEV. 433.00 ALONG DETENTION POND. DO NOT PENETRATE POND LINER WITH ANY STAKES. 405 FT.

EROSION CONTROL BLANKET 571 SQ. YD.

EROSION CONTROL BLANKET 206 SQ. YD.

EROSION CONTROL BLANKET 579 SQ. YD.

EROSION CONTROL BLANKET 135 SQ. YD.

EROSION CONTROL BLANKET 68 SQ. YD.

**LEGEND**

- PERIMETER EROSION BARRIER - SILT FILTER FENCE OR OTHER AS APPROVED BY ENGINEER
- INLET AND PIPE PROTECTION
- EROSION CONTROL BLANKET
- TREE REMOVAL

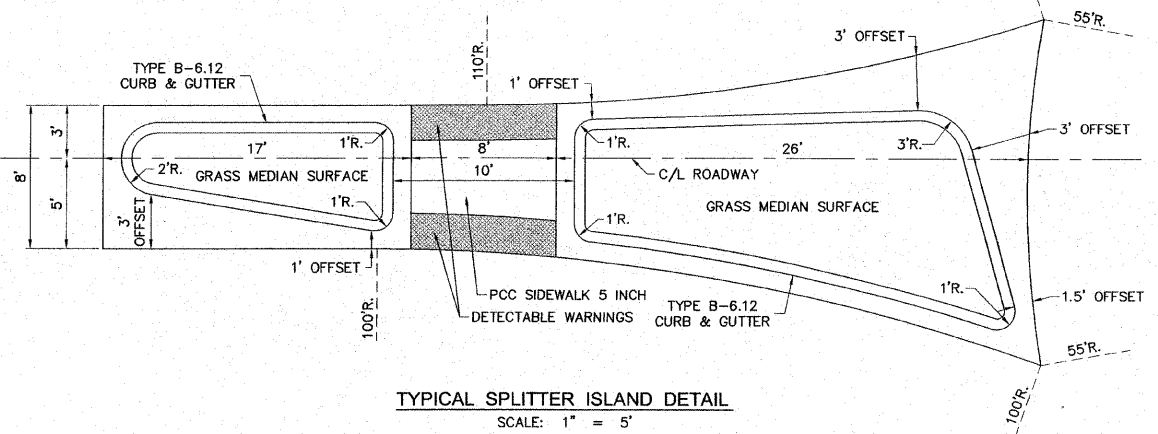
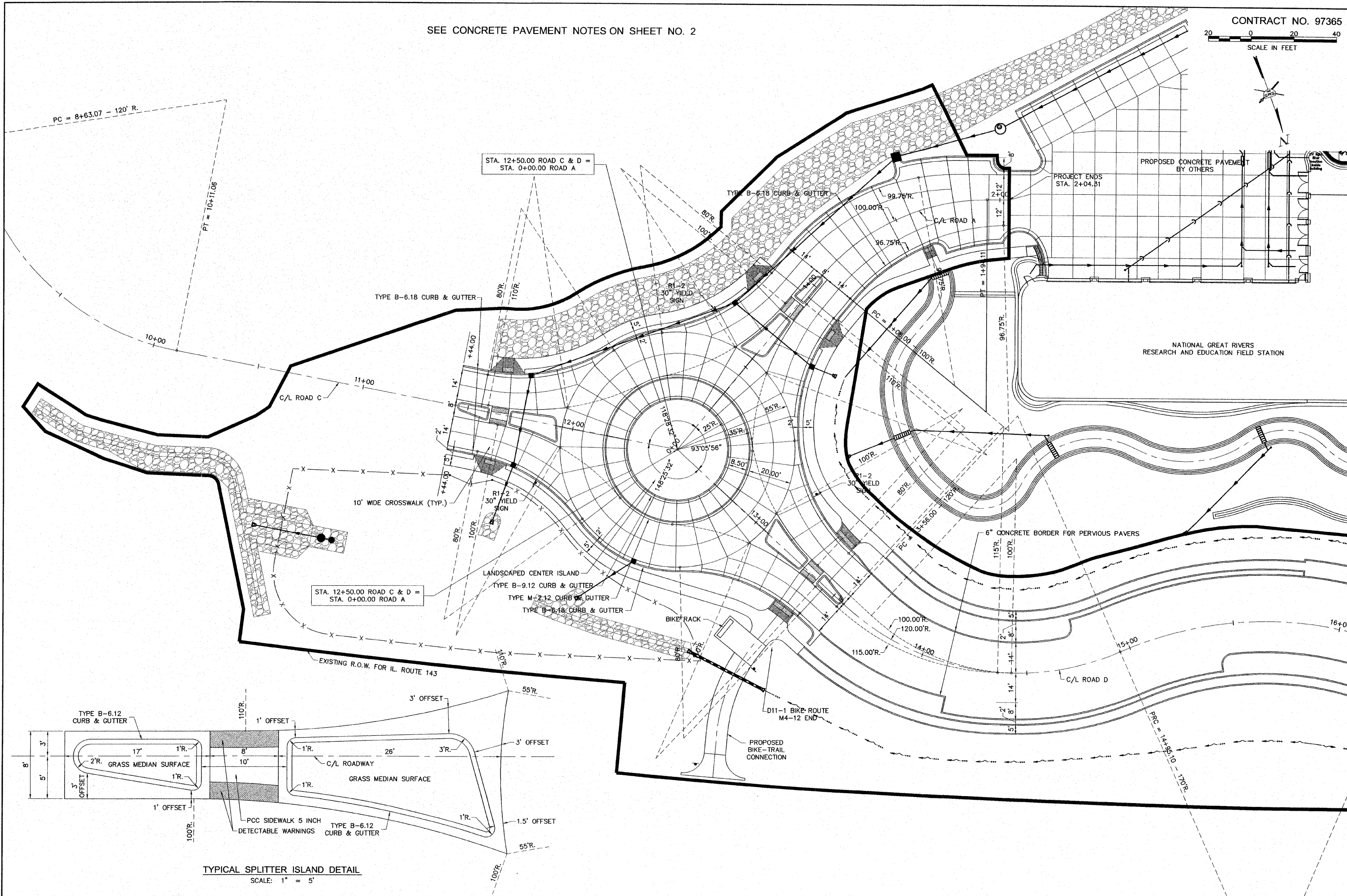
**EROSION CONTROL NOTES**

1. EROSION CONTROL ITEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION 280 OF THE I.D.O.T. STANDARD SPECIFICATIONS.
2. THIS PLAN SHOWS GENERAL LAYOUT OF EROSION CONTROL ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL AND THEREFORE SHALL MONITOR THE SITE AND REPAIR, MAINTAIN OR MODIFY THE EROSION AND SEDIMENT CONTROL MEASURES AS NEEDED TO COMPLY WITH REGULATIONS.
3. THE CONTRACTOR FOR THIS PROJECT SHALL COMPLY WITH THE ILLINOIS E.P.A. NPDES PERMIT NO. ILR10 FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.
4. THIS EROSION CONTROL PLAN SUPPLEMENTS THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) PREPARED FOR THIS PROJECT AND INCLUDED IN THE SPECIFICATIONS.
5. THE CONTRACTOR IS REQUIRED TO RETAIN A COPY OF THE SWPPP ON SITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
6. CONSTRUCTION ENTRANCES SHALL BE STABILIZED WITH CRUSHED STONE TO PREVENT SEDIMENT FROM BEING TRACKED ONTO PUBLIC ROADWAYS. THIS WORK SHALL BE PAID FOR PER TON FOR AGGREGATE FOR TEMPORARY ACCESS. AN ESTIMATED 170 TONS HAS BEEN CALCULATED.
7. N/A
8. TEMPORARY SEEDING AND MULCH SHALL BE COMPLETED IN ACCORDANCE WITH THE SWPPP.
9. CONTRACTOR SHALL INSTALL DITCH CHECKS IN THE FLOW PATHS OF CONCENTRATED STORM WATERS WHERE THERE IS A POTENTIAL FOR EROSION DUE TO CONSTRUCTION SITE ACTIVITIES. DITCH CHECKS SHALL BE PROVIDED PER HWY. STD. 280001 OR OTHER DITCH CHECK MATERIALS ACCEPTABLE TO THE CITY OF ALTON. SPACING OF DITCH CHECKS SHALL DEPEND ON THE HEIGHT OF THE DITCH CHECK AND THE SLOPE OF THE DITCH ACCORDING TO THE FOLLOWING FORMULA:  
$$\text{DITCH CHECK SPACING (FT.)} = \frac{\text{HEIGHT (FT.)}}{\text{SLOPE (FT./FT.)}}$$

THIS SPACING WILL RESULT IN THE TOP ELEVATION OF THE DITCH CHECK BEING EQUAL TO THE DITCH FLOW LINE ELEVATION AT THE NEXT UPSTREAM DITCH CHECK.
10. PERIMETER EROSION BARRIER SHALL BE PLACED ALONG THE UPSLOPE EDGE OF RIPRAP IF BARE SOIL EXISTS AT THE TIME RIPRAP IS PLACED.
11. THE CONTRACTOR SHALL PROVIDE TEMPORARY INLET AND PIPE PROTECTION AT ALL STORM SEWER PIPE AND INLET STRUCTURES AS REQUIRED TO INTERCEPT WATER BORNE SILT AND SEDIMENT AND PREVENT IT FROM ENTERING STORM SEWER SYSTEMS. THIS ITEM MAY CONSIST OF EMBEDDED HAY OR STRAW BALES, SILT FILTER FENCE, SAND BAGS OR OTHER APPROVED METHODS.
12. THE CONTRACTOR MAY USE TEMPORARY SEDIMENT BASINS AS ADDITIONAL EROSION CONTROL MEASURES AT CONCENTRATED FLOW LOCATIONS. A TEMPORARY SEDIMENT BASIN CONSISTS OF AN EXCAVATED BASIN WITH A PERIMETER EROSION BARRIER (SILT FILTER FENCE OR HIGH FLOW SILT FILTER FENCE) ON THE DOWNSTREAM SIDE.
13. AN ESTIMATED 11 TEMPORARY DITCH CHECKS HAVE BEEN CALCULATED FOR USE BY THE RESIDENT ENGINEER. THE ACTUAL AMOUNT SHALL BE DETERMINED BY THE ENGINEER.

SEE CONCRETE PAVEMENT NOTES ON SHEET NO. 2

CONTRACT NO. 97365  
 SCALE IN FEET



TYPICAL SPLITTER ISLAND DETAIL  
 SCALE: 1" = 5'

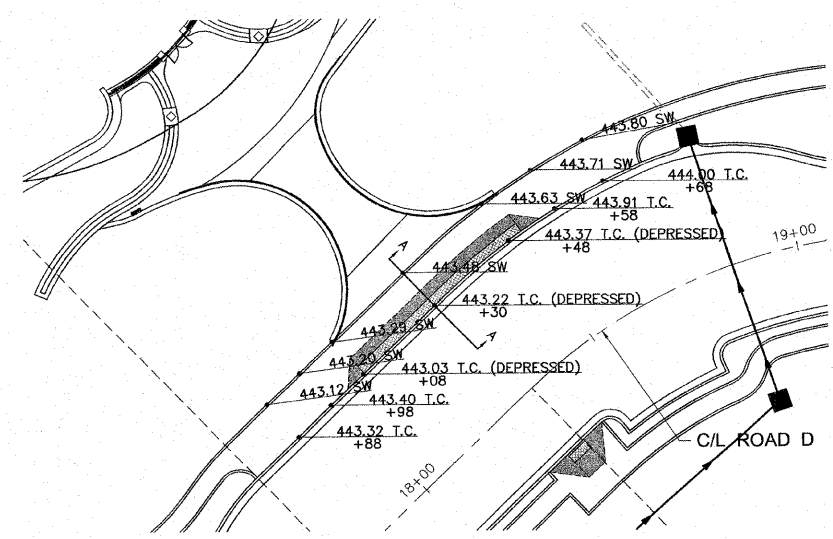
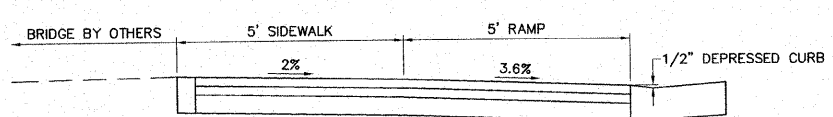
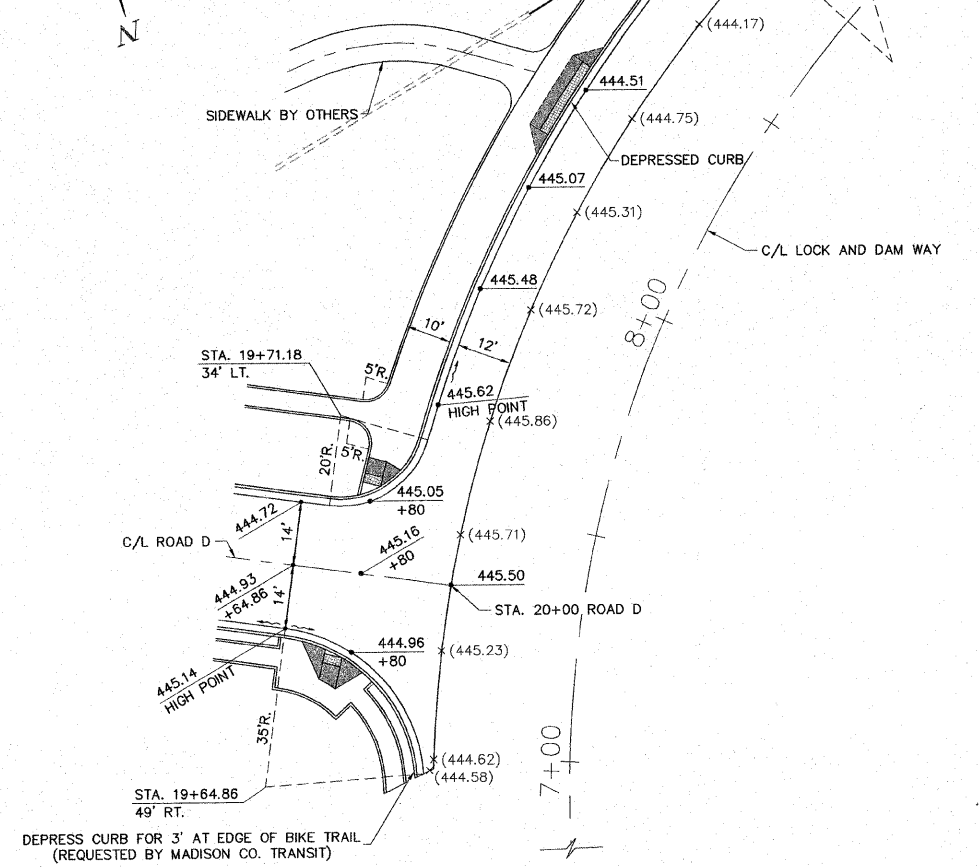
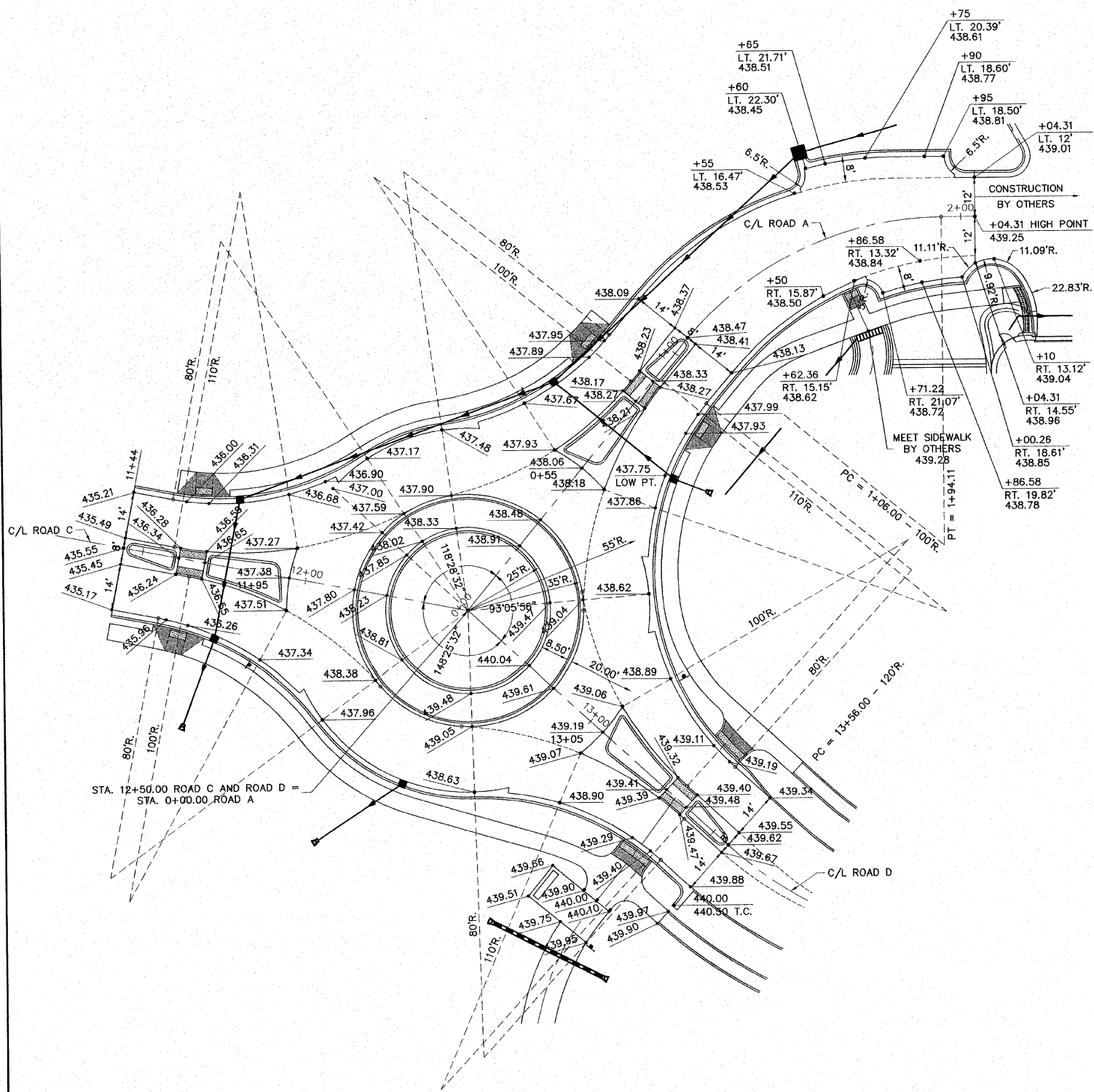
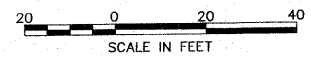
REVISIONS


**SMS ENGINEERS**  
 Sheppard, Morgan & Schwaab, Inc.  
 CONSULTING ENGINEERS AND LAND SURVEYORS  
 215 Market Street, P.O. Box E, Alton, IL 62002 618492-2925 E-mail: mail@smsengineers.com  
 10 Central Industrial Drive, Grantville, IL 62040 618877-5700 E-mail: mail@smsengineers.com  
 DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
 SECTION 05-00001-00-PK  
 ACCESS ROADS FOR THE  
 NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
 ROUNDABOUT GEOMETRICS AND JOINTS

DWG. NO. PHASE I ROUNDABOUT DETAIL.DWG  
 REF. BK. PG. 1  
 JOB NO. 457111.1  
 DSN. BY: DEG  
 DWN. BY: CAD  
 CHK. BY: DEG  
 DATE: SEPT. 8, 2008  
 SCALE: 1" = 20'  
 SHEET 20 OF 36

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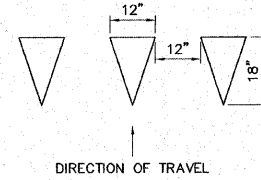


NO.	DESCRIPTION

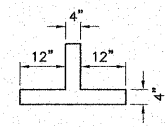
**SMS** Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
215 Market Street, P.O. Box E, Alton, IL 62002 618/462-9765 E-mail: mail@smsengineers.com  
10 Central Industrial Drive, Granite City, IL 62040 618/877-3700 E-mail: mail@smsengineers.com  
DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
SPOT ELEVATIONS

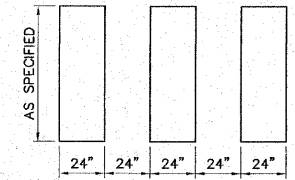
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REF. BK.	PG. -
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAD
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	1" = 20'
SHEET	21 OF 36



TYPICAL YIELD LINE DETAIL  
SCALE: 1" = 2'



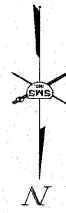
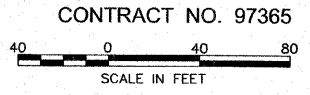
TYPICAL PARKING TEE DETAIL  
SCALE: 1" = 2'



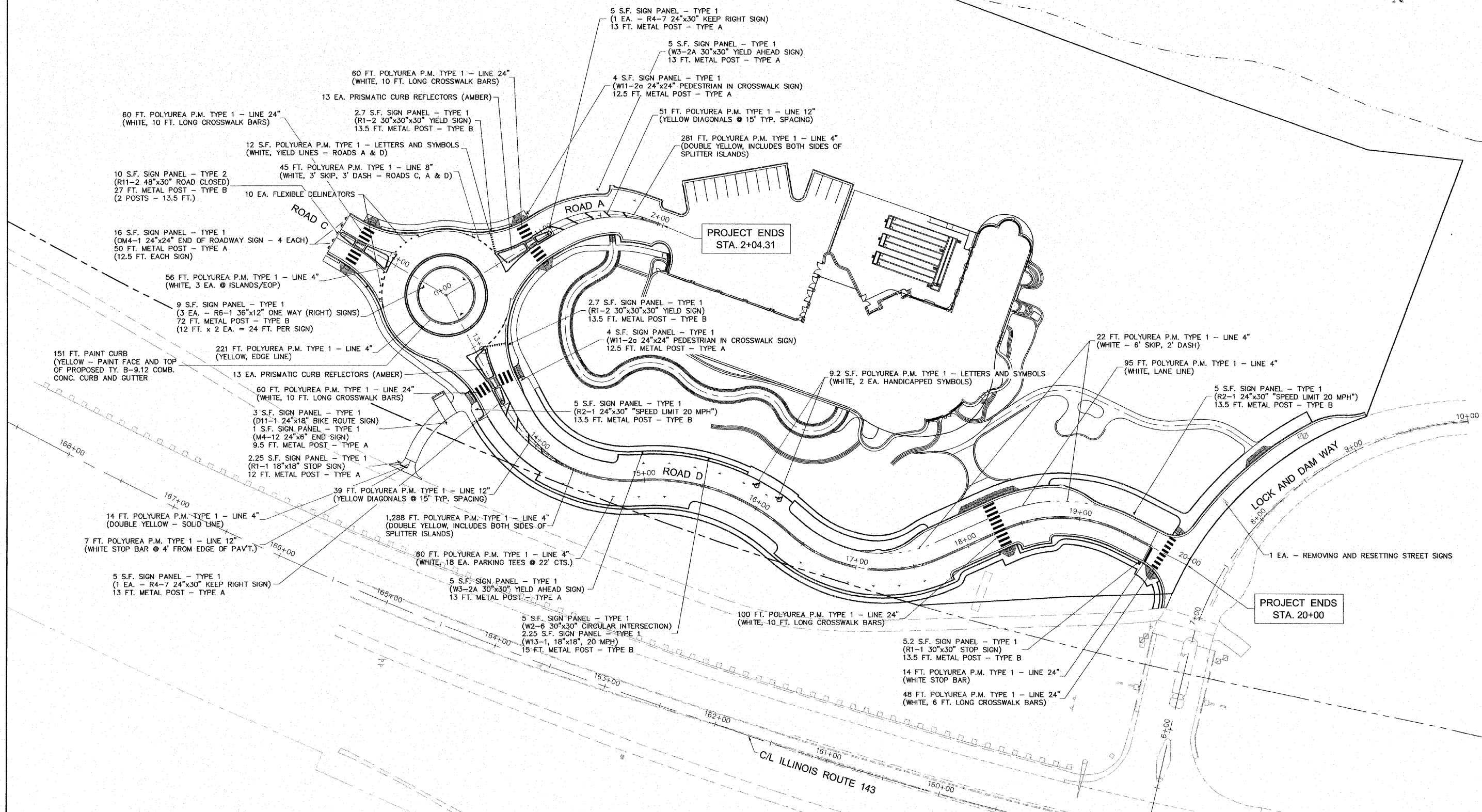
TYPICAL CROSSWALK BARS DETAIL  
SCALE: 1" = 4'

**NOTES**

1. POLYUREA PAVEMENT MARKING TYPE 1 IS ABBREVIATED AS POLYUREA P.M. TYPE 1



REVISIONS



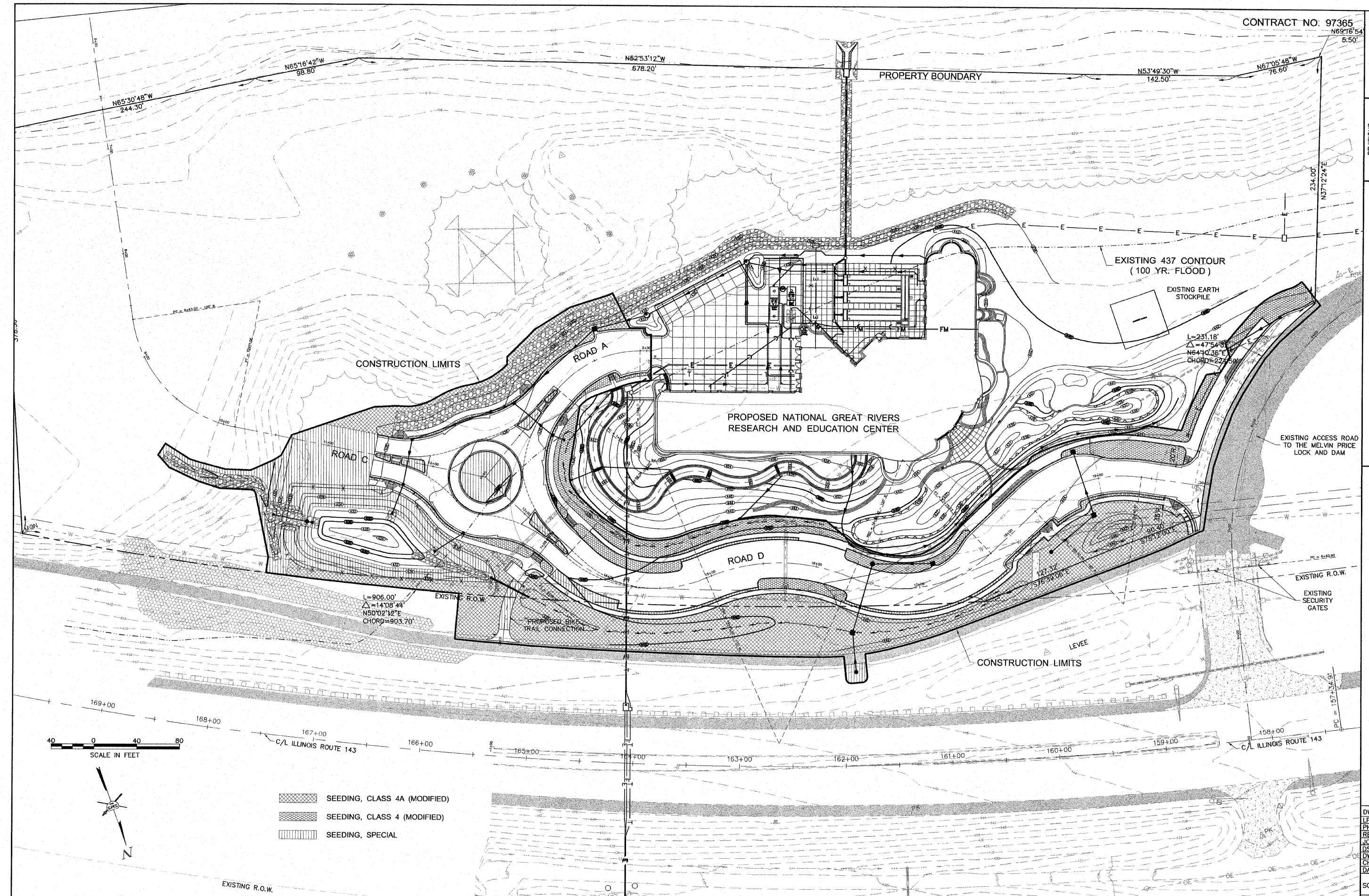
**SMS ENGINEERS**  
Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
215 Market Street, P.O. Box E, Alton, IL 62002 618462-2755 E-mail: mail@smsengineers.com  
10 Central Industrial Drive, Granite City, IL 62040 618677-8700 E-mail: mail@smsengineers.com  
DESIGN FIRM # 184-000992

LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
PAVEMENT MARKING & SIGNING PLAN

DWG. NO.	LP\A\AIC\405829
PHASE I PAVT MARK.DWG	
REF. BK.	PG. -
JOB NO.	457111.1
DSN. BY:	DEG
DWN. BY:	CAO
CHK. BY:	DEG
DATE:	SEPT. 8, 2008
SCALE:	AS SHOWN
SHEET	22 OF 36

S:\Land Projects\A\AIC\405829\dwg\Phase I\Print\Mark.dwg, 2/2/2008 8:21:27 AM, jman, 1:40

CONTRACT NO. 97365  
N69°18'54"  
6.50'



NO.	DESCRIPTION	DATE

**SMS ENGINEERS**  
Sheppard, Morgan & Schwaab, Inc.  
CONSULTING ENGINEERS AND LAND SURVEYORS  
215 Market Street, P.O. Box E, Alton, IL 62002 618462-9755 E-mail: mail@smsengineers.com  
10 Central Industrial Drive, Granite City, IL 62040 618877-8700 E-mail: mail@smsengineers.com  
DESIGN FIRM # 184-000992

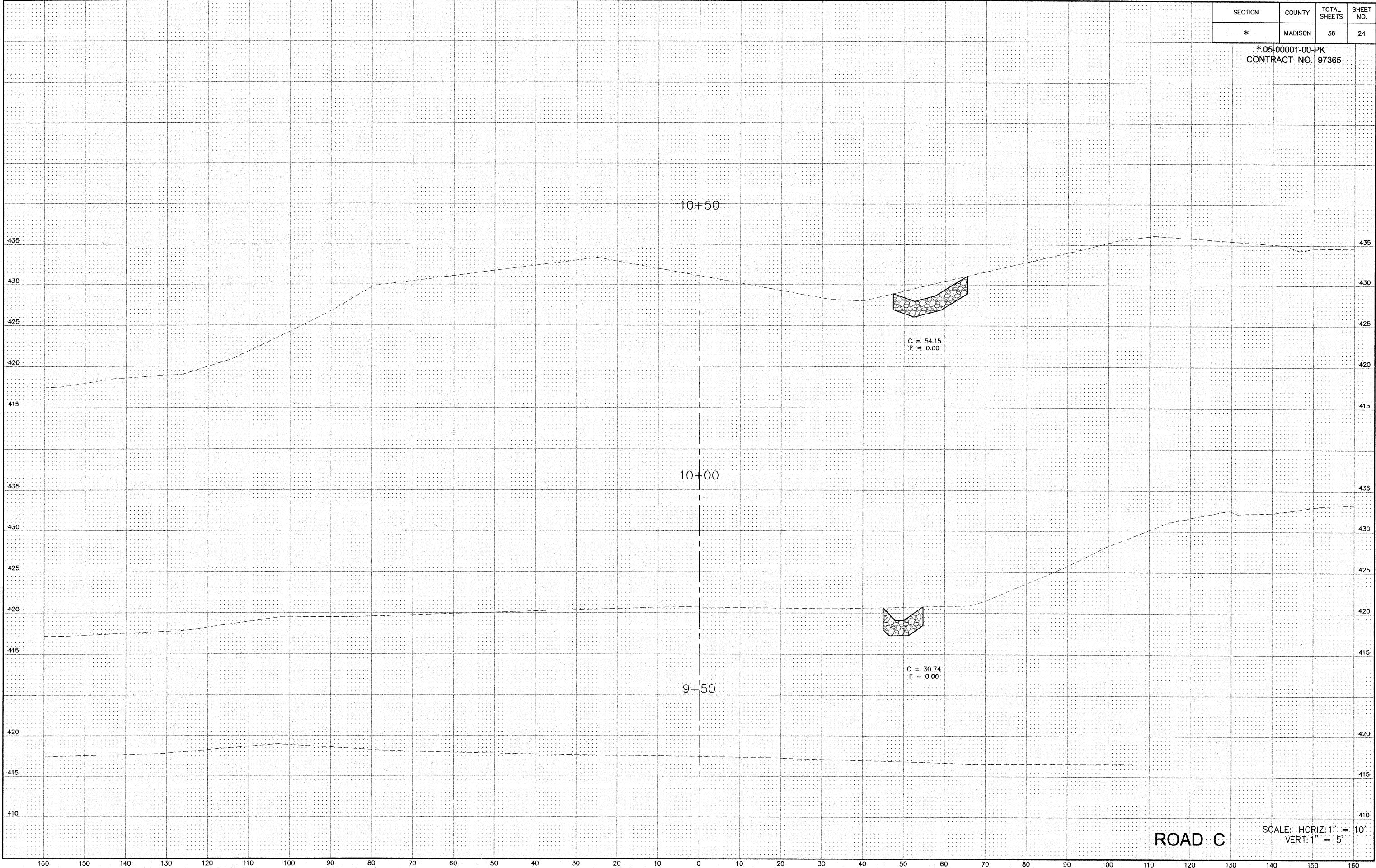
LEWIS & CLARK COMMUNITY COLLEGE  
SECTION 05 - 00001 - 00 - PK  
ACCESS ROADS FOR THE  
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER  
LANDSCAPE PLAN

DWG. NO. LEXVAIC 405829  
PHASE I LANDSCAPE.DWG  
REF. BK. PG. -  
JOB NO. -  
DSN. BY: DEG  
DWN. BY: CAD  
CHK. BY: DEG  
DATE: SEPT. 8, 2008  
SCALE: 1" = 40'  
SHEET 23 OF 36

S:\land Projects\A1C-405829\Phase I Landscape.dwg, 2/2/2008 8:27:48 AM, jman, 1:40

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	24

\*05-00001-00-PK  
CONTRACT NO. 97365



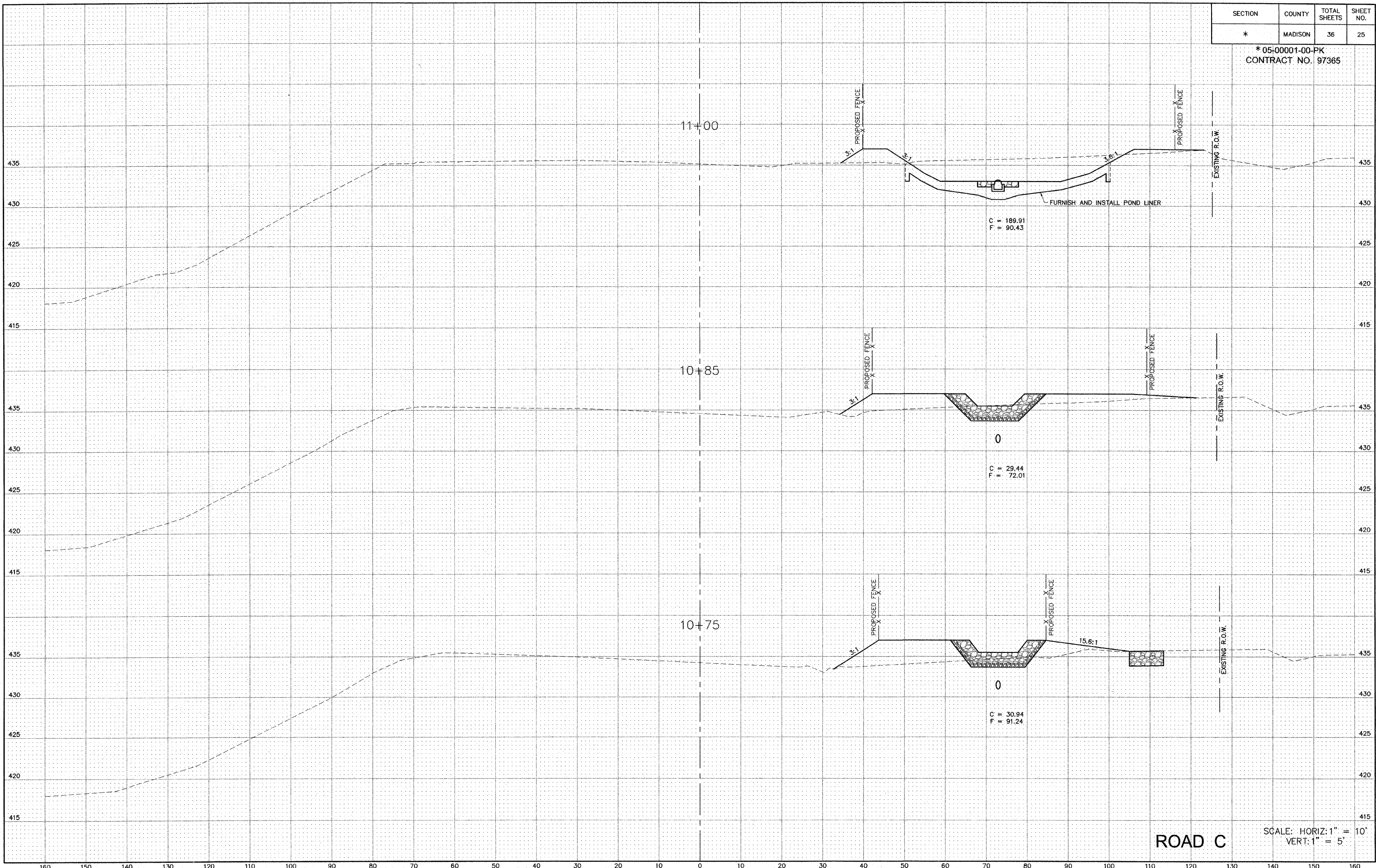
ROAD C

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	25

\*05-00001-00-PK  
CONTRACT NO. 97365

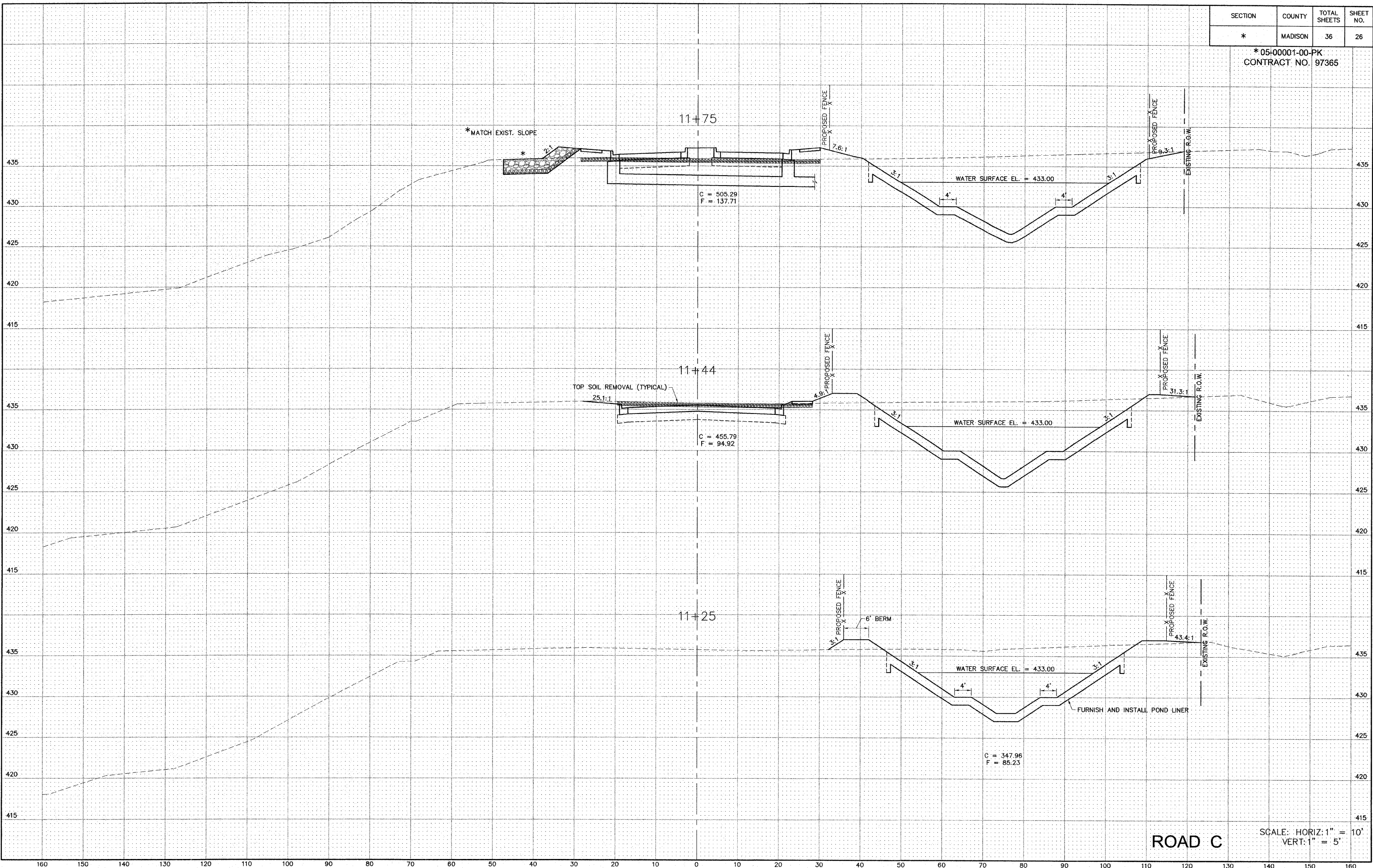


ROAD C

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	26

\*05-00001-00-PK  
CONTRACT NO. 97365



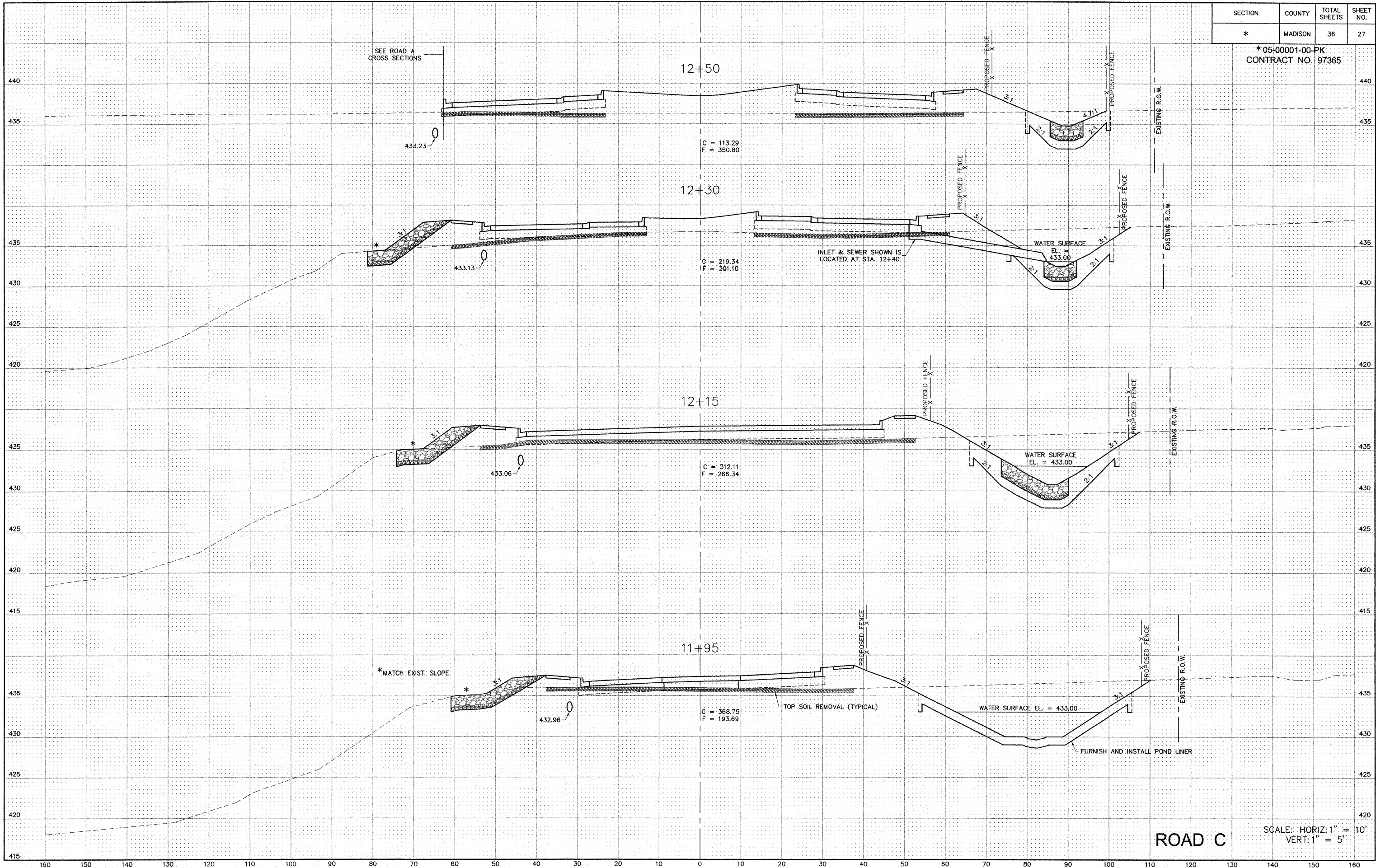
ROAD C

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

S:\Land Projects\AAC 0522\show\Phase I\Raw\Plans\Phase I\Raw\Xsect.dwg, 1/14/2009 11:22:4 AM, jtmn, 1:10

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	27

\*05-00001-00-PK  
CONTRACT NO. 97365

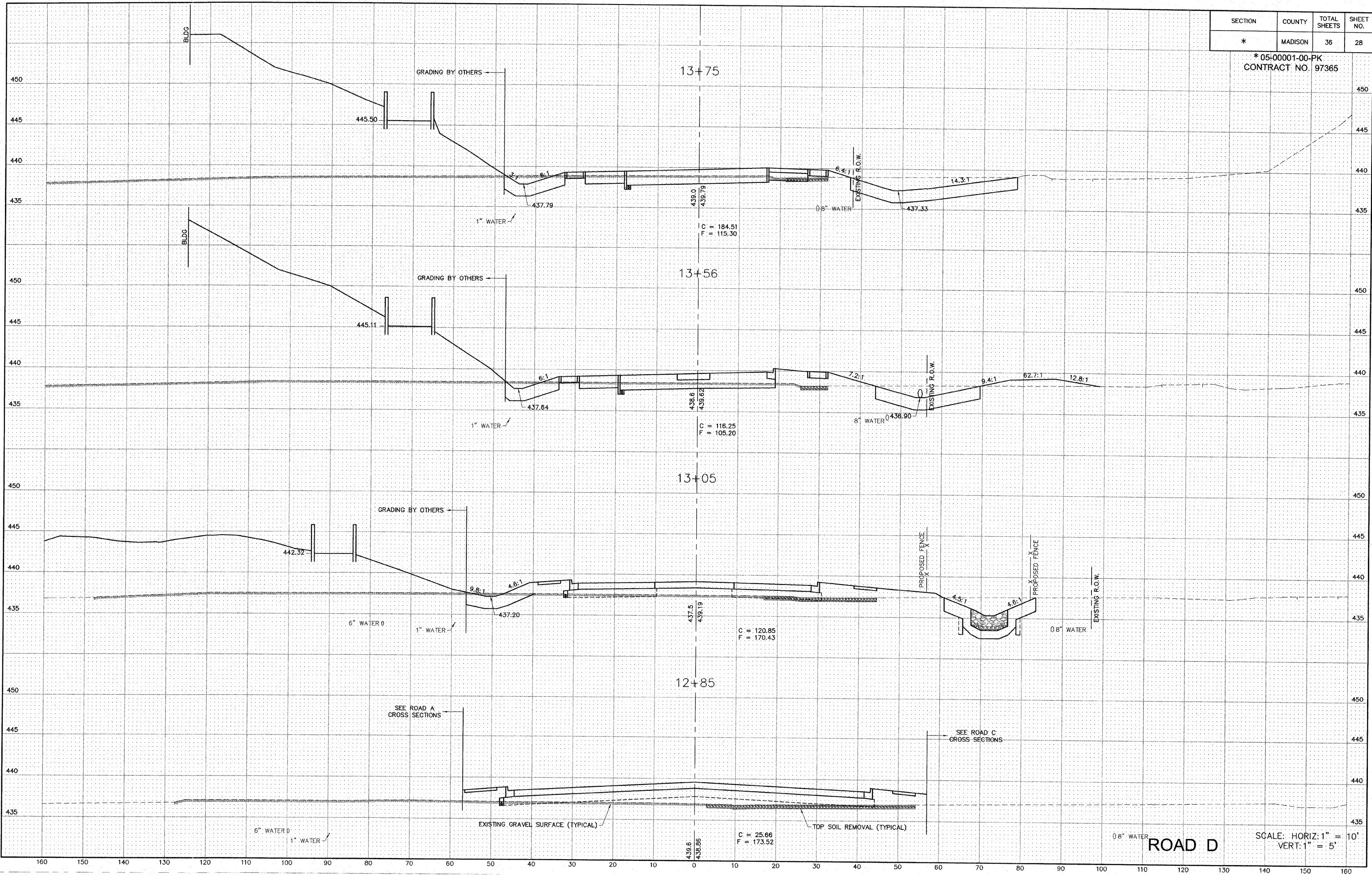


ROAD C

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	28

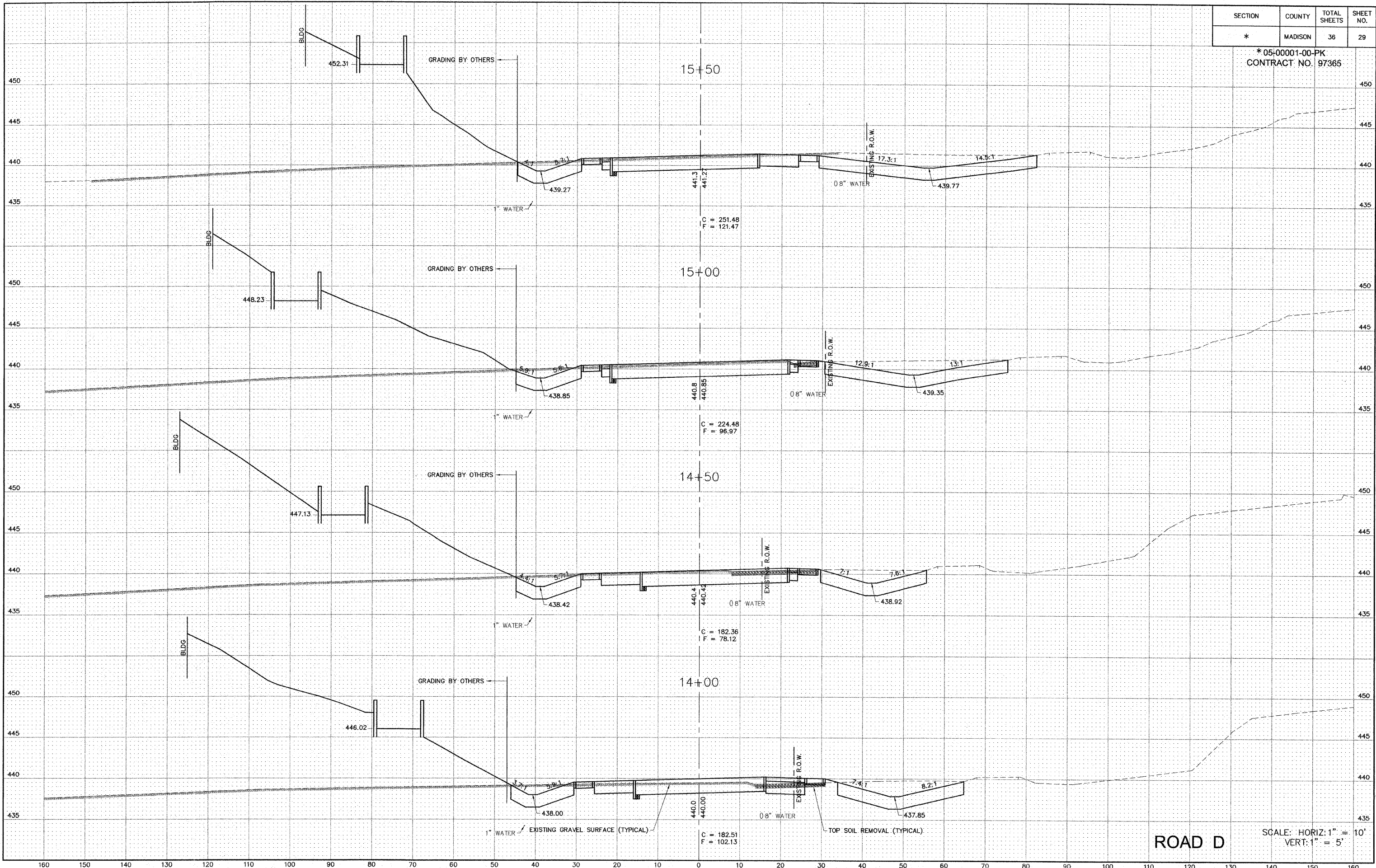
\*05-00001-00-PK  
CONTRACT NO. 97365



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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	29

\* 05-00001-00-PK  
CONTRACT NO. 97365

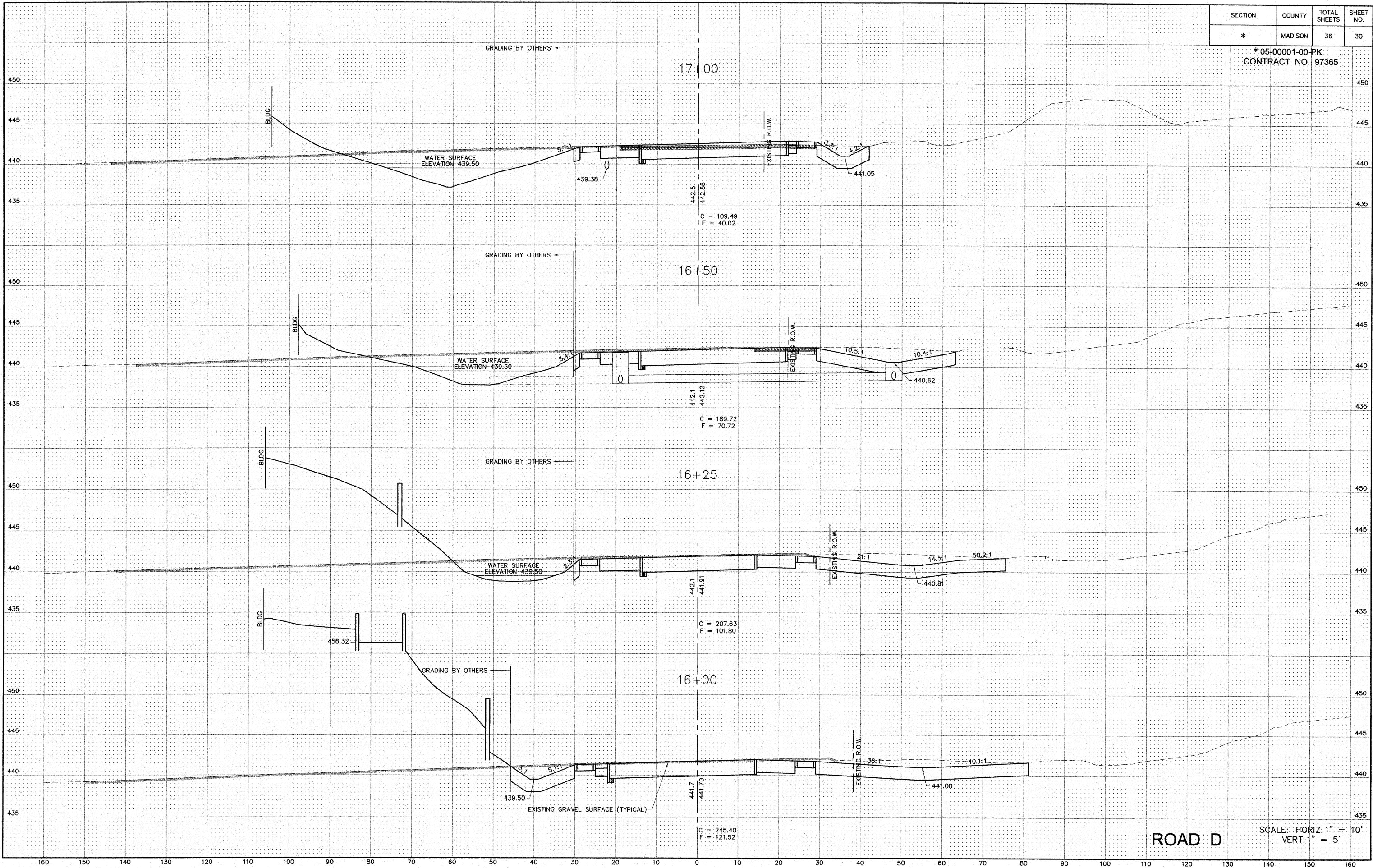


ROAD D

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	30

\* 05-00001-00-PK  
CONTRACT NO. 97365

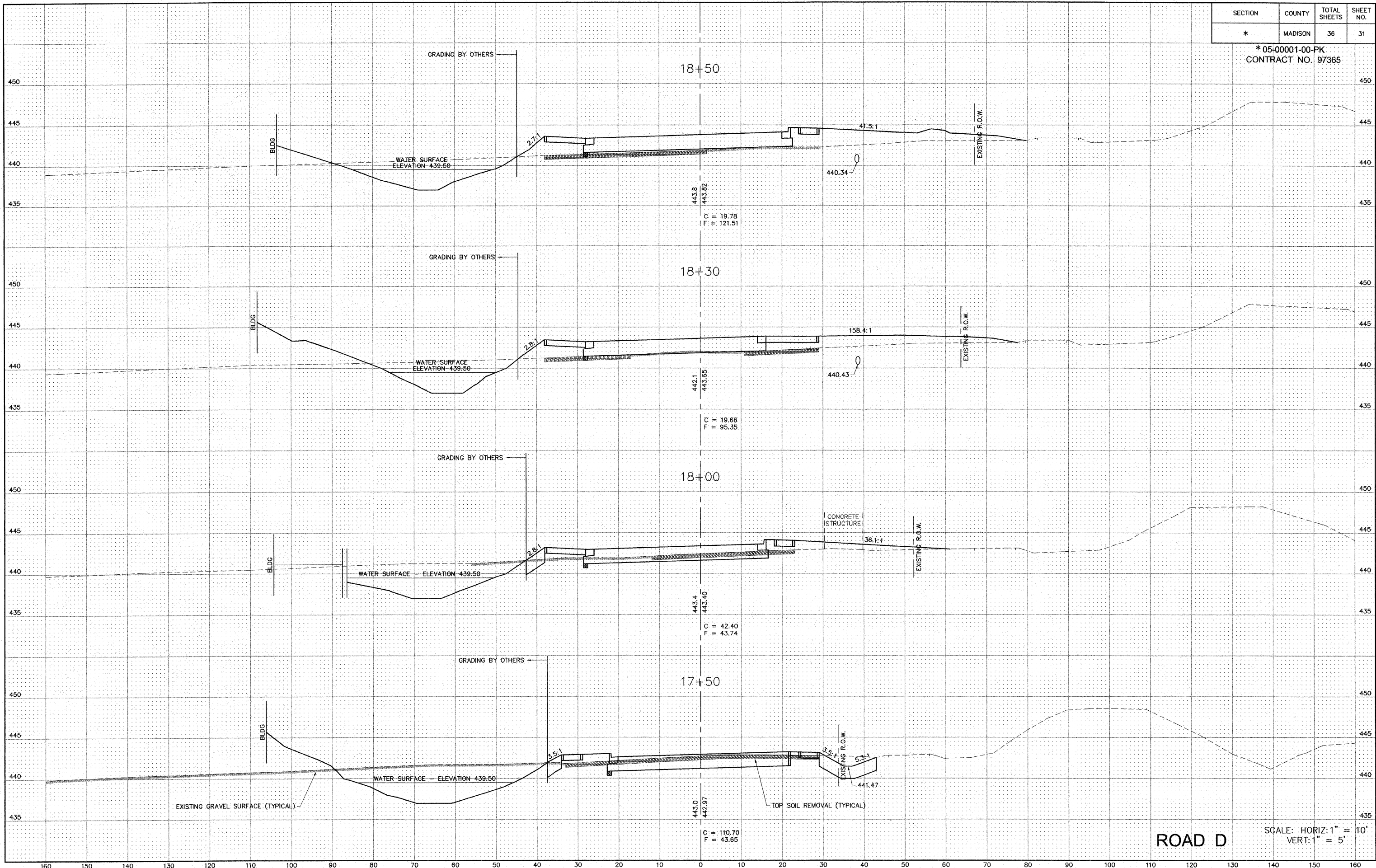


ROAD D

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	31

\* 05-00001-00-PK  
CONTRACT NO. 97365

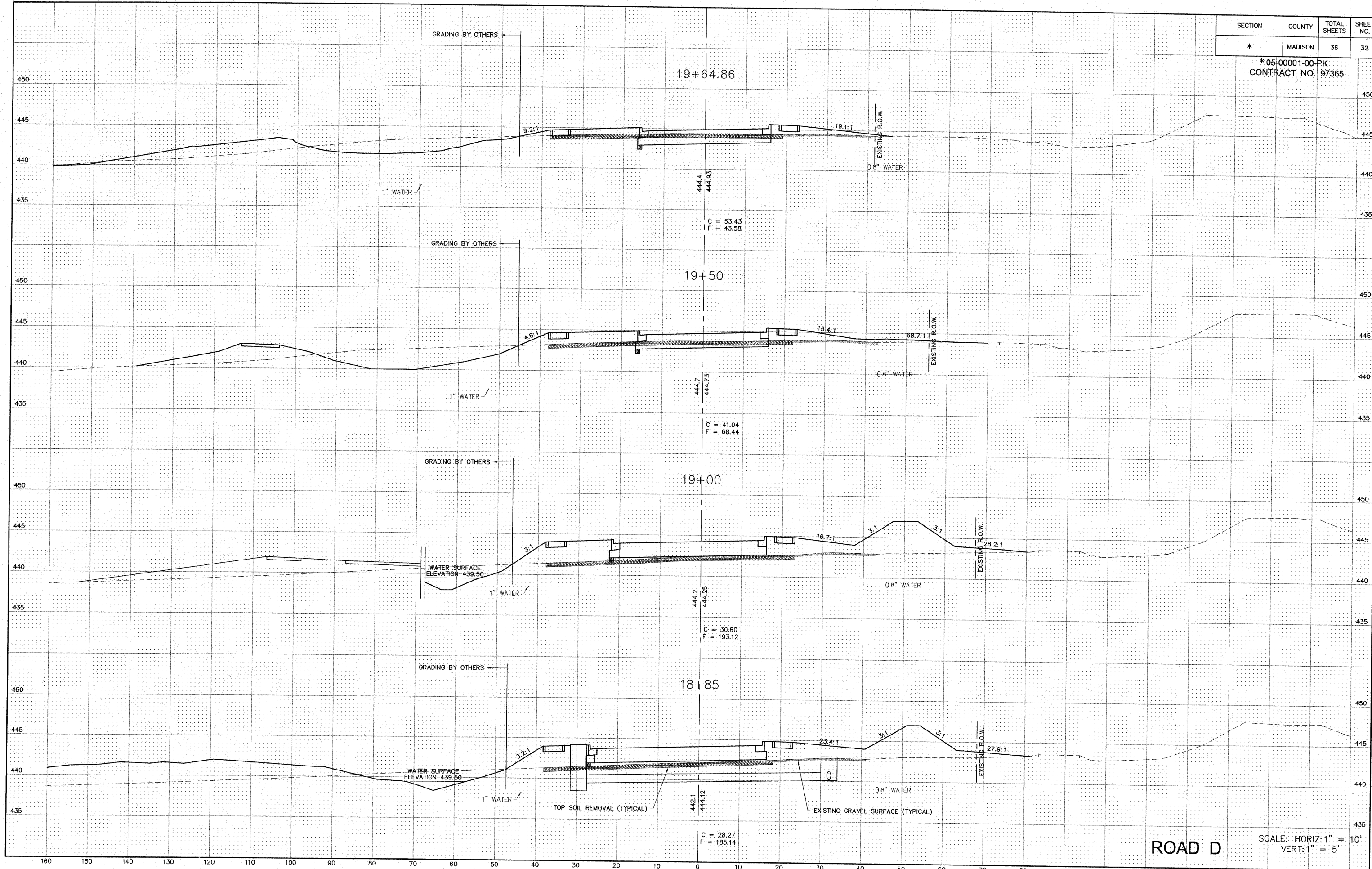


ROAD D

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	32

\*05-00001-00-PK  
CONTRACT NO. 97365



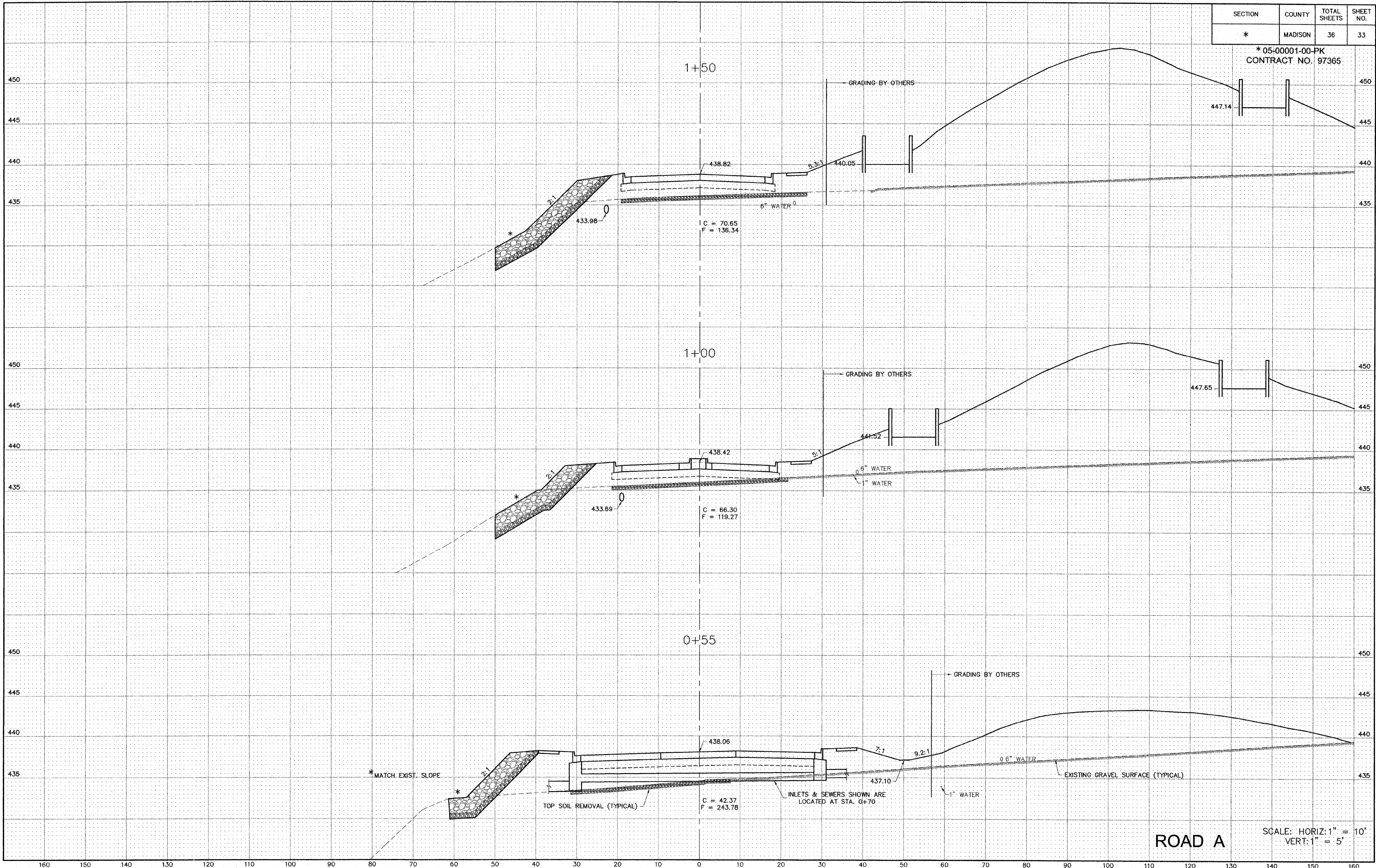
ROAD D  
SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

S:\Land Projects\A\050209\050209.dwg Phase 1 Rowy\Plan\Phase 1 Rowy\Plan.dwg 1/14/2009 11:23:33 AM, Item: 1/10



SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	33

\* 05-00001-00-PK  
CONTRACT NO. 97365



1+50

1+00

0+55

ROAD A

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

C = 70.65  
F = 136.34

C = 66.30  
F = 119.27

C = 42.37  
F = 243.78

INLETS & SEWERS SHOWN ARE  
LOCATED AT STA. 0+70

TOP SOIL REMOVAL (TYPICAL)

EXISTING GRAVEL SURFACE (TYPICAL)

GRADING BY OTHERS

GRADING BY OTHERS

GRADING BY OTHERS

\* MATCH EXIST. SLOPE

433.98

433.89

437.10

438.82

438.42

438.06

5.3:1

5:1

7:1

9.2:1

6" WATER

6" WATER

6" WATER

1" WATER

447.14

447.65

450

445

440

435

450

445

440

435

450

445

440

435

450

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440

435

450

445

440

435

450

445

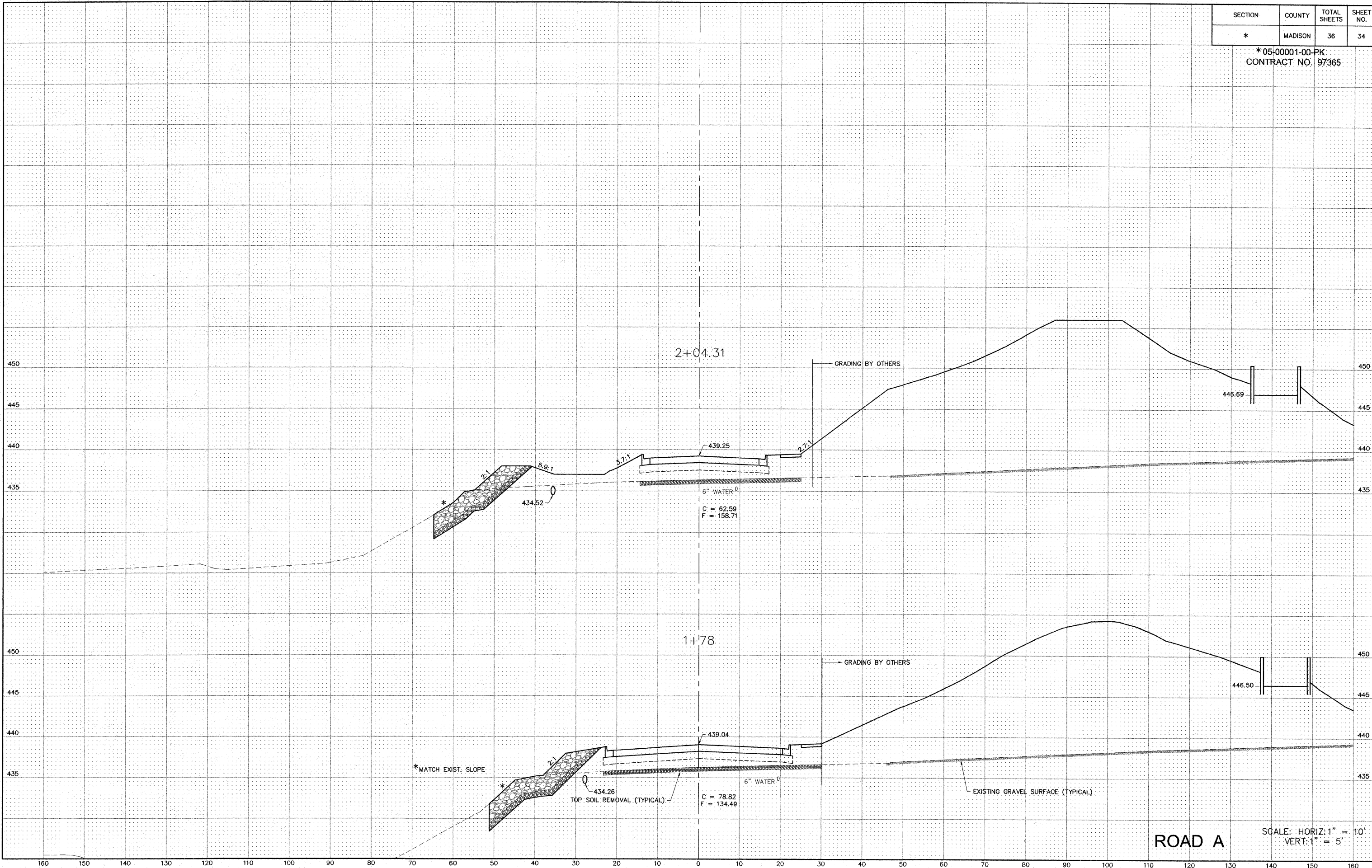
440

435

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SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	34

\*05-00001-00-PK  
CONTRACT NO. 97365

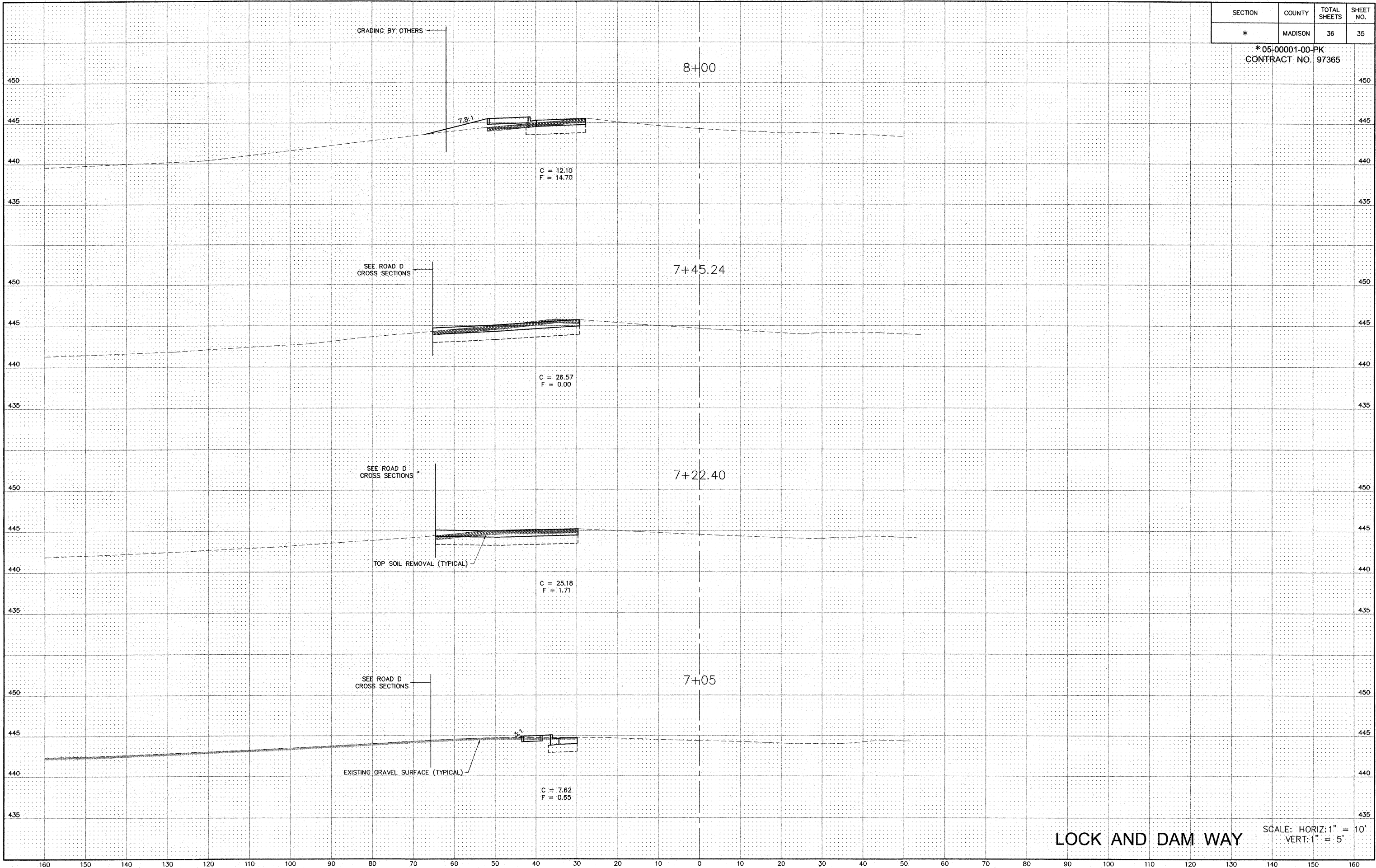


ROAD A

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	35

\* 05-00001-00-PK  
CONTRACT NO. 97365

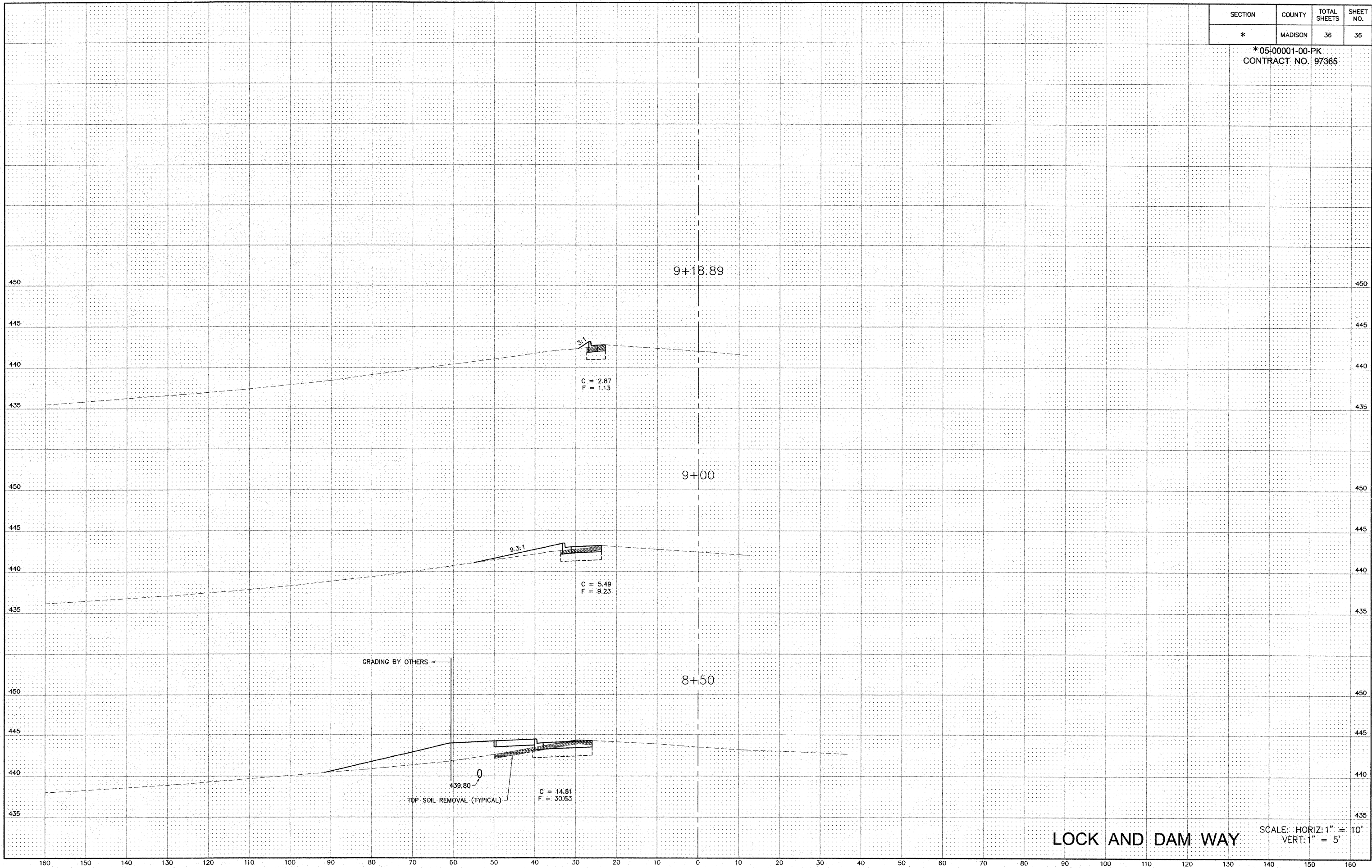


LOCK AND DAM WAY

SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
*	MADISON	36	36

\*05-00001-00-PK  
CONTRACT NO. 97365



LOCK AND DAM WAY  
SCALE: HORIZ: 1" = 10'  
VERT: 1" = 5'