

ST. CLAIR COUNTY, ILLINOIS
CONSTRUCTION PLANS
FOR



ILLINOIS PROJECT BLV - 4061
A. I. P. PROJECT 3-17-0146-029-2011

MIKE APRON EXPANSION

BASE BID - 430' X 300'
ADDITIVE ALTERNATE 1 - 445' X 80'

NOVEMBER 28, 2011

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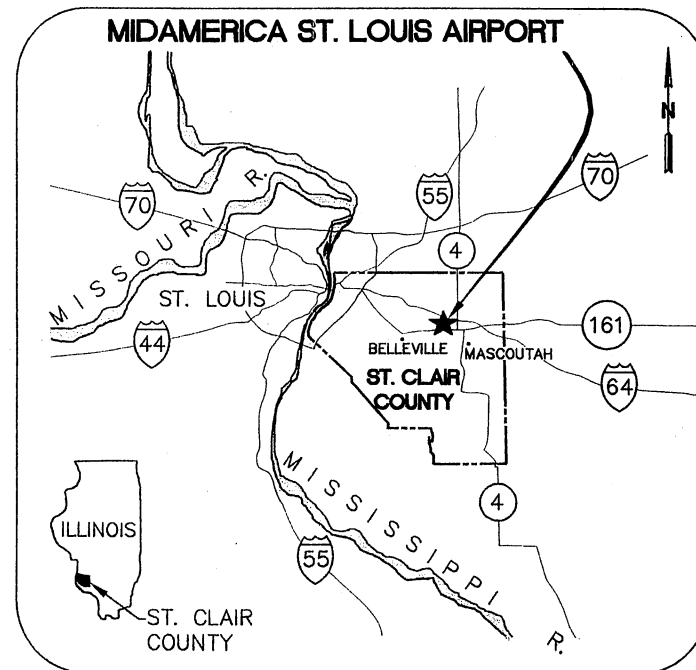
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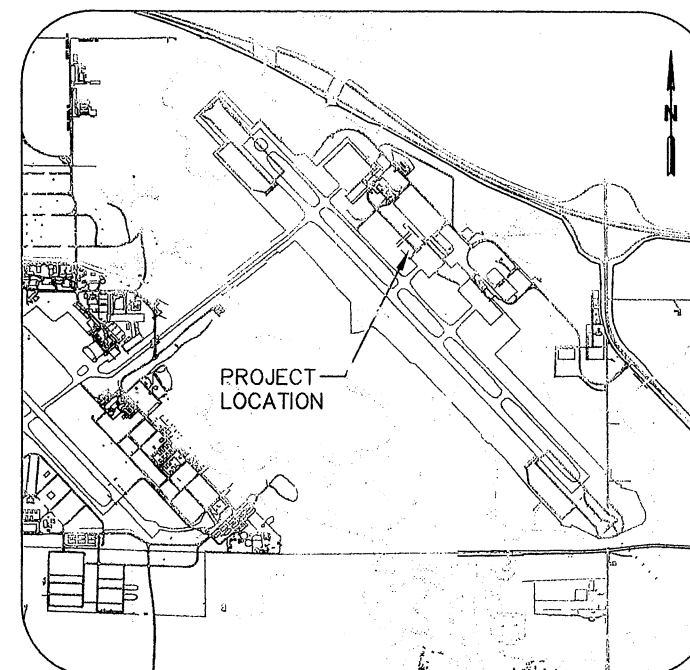
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LOCATION MAP



SITE PLAN

811 Know what's below.
Call before you dig.
J.U.L.I.E.
JOINT UTILITY LOCATING
INFORMATION FOR EXCAVATORS
www.illinois1call.com

THE LOCATION, SIZE AND TYPE OF MATERIAL OF EXISTING UNDERGROUND UTILITIES INDICATED ON THE PLANS IS NOT REPRESENTED AS BEING ACCURATE, SUFFICIENT OR COMPLETE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ACTUAL LOCATIONS OF ALL SUCH FACILITIES, INCLUDING SERVICE CONNECTIONS TO UNDERGROUND UTILITIES. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES OF HIS OPERATIONAL PLANS, OBTAIN FROM RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION AND ASSISTANCE RELATIVE TO THE LOCATION OF THEIR FACILITIES AND THE WORKING SCHEDULE OF THE COMPANIES FOR REMOVAL OR ADJUSTMENT WHERE REQUIRED. IN THE EVENT AN UNEXPECTED UTILITY INTERFERENCE IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY COMPANY OF JURISDICTION AND THE ONE-CALL NOTICE SYSTEM. THE ENGINEER SHALL ALSO BE IMMEDIATELY NOTIFIED. ANY SUCH UTILITY OR SERVICES SHALL BE RESTORED TO SERVICE AT ONCE AND PAID FOR BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

CALL J.U.L.I.E. FOR UTILITY INFORMATION AT 811.

CALL J.U.L.I.E.
BEFORE EXCAVATING
1-800-892-0123

ST. CLAIR COUNTY
MASCOUTAH TOWNSHIP
TOWNSHIP: 1 NORTH TOWNSHIP: 1 NORTH
RANGE: 7 WEST RANGE: 6 WEST
SECTION(S): 1, 12 SECTION(S): 7

ST. CLAIR COUNTY
PUBLIC BUILDING COMMISSION
AIRPORT SPONSOR
APPROVED *[Signature]*
CHAIRMAN, PUBLIC BUILDING COMMISSION
DATE 11/22/11

11/28/11
BRIAN W. GARKIE
062-058921
LICENSED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS
Brian W. Garkie
Exp. 11/30/13

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500
CMT
CRAWFORD MURPHY & TILLY, INC.
CONSULTING ENGINEERS
■ AURORA, IL ■ CHICAGO, IL ■ COLUMBUS, OH
■ EDWARDSVILLE, IL ■ INDIANAPOLIS, IN ■ PEORIA, IL
■ ROCKFORD, IL ■ SPRINGFIELD, IL ■ ST. LOUIS, MO
SUBMITTED BY *Brian W. Garkie*
DATE November 28, 2011
CMT JOB NUMBER 10098-01

BASE BID

ITEM	DESCRIPTION	UNIT	QUANTITY
AR108108	1/C #8 5 KV UG CABLE	LF	1,025
AR108602	3/C #2 630 V UG CABLE	LF	354
AR108606	3/C #6 630 V UG CABLE	LF	70
AR108706	1/C #6 COUNTERPOISE	LF	1,014
AR110202	2" PVC DUCT, DIRECT BURY	LF	692
AR110501	1-WAY CONC. ENCASED DUCT	LF	305
AR110502	2-WAY CONCRETE ENCASED DUCT	LF	295
AR110503	3-WAY CONCRETE ENCASED DUCT	LF	38
AR110610	ELECTRICAL HANDHOLE	EA	2
AR125415	MITL-BASE MOUNTED	EA	4
AR125565	SPLICE CAN	EA	3
AR125962	RELOCATE BASE MOUNTED LIGHT	EA	3
AR150510	ENGINEER'S FIELD OFFICE	LS	1
AR150520	MOBILIZATION	LS	1
AR152410	UNCLASSIFIED EXCAVATION	CY	7,969
AR155540	BY-PRODUCT LIME	TON	383
AR155612	SOIL PROCESSING-12"	SY	15,195
AR156510	SILT FENCE	LF	1,400
AR156511	DITCH CHECK	EA	7
AR156531	EROSION CONTROL BLANKET	SY	3,000
AR209609	CRUSHED AGG. BASE COURSE- 9"	SY	15,933
AR209611	CRUSHED AGGREGATE BASE COURSE- 11"	SY	469
AR302611	ASPHALT TREATED PERMEABLE SUBBASE	SY	14,704
AR302630	A TPS TEST SECTION	EA	1
AR401610	BITUMINOUS SURFACE COURSE	TON	152
AR401650	BITUMINOUS PAVEMENT MILLING	SY	2,317
AR403610	BITUMINOUS BASE COURSE	TON	152
AR501509	9" PCC PAVEMENT	SY	1,075
AR501516	16" PCC PAVEMENT	SY	13,333
AR501530	PCC TEST BATCH	EA	1
AR602510	BITUMINOUS PRIME COAT	GAL	6,151
AR603510	BITUMINOUS TACK COAT	GAL	162
AR620520	PAVEMENT MARKING-WATERBORNE	SF	1,433
AR620525	PAVEMENT MARKING-BLACK BORDER	SF	1,883
AR701524	24" RCP, CLASS IV	LF	533
AR701536	36" RCP, CLASS IV	LF	407
AR701900	REMOVE PIPE	LF	68
AR705526	6" PERFORATED UNDERDRAIN W/SOCK	LF	1,578
AR705635	UNDERDRAIN COLLECTION STRUCTURE	EA	7
AR705640	UNDERDRAIN CLEANOUT	EA	8
AR751540	MANHOLE 4'	EA	2
AR752424	PRECAST REINFORCED CONC. FES 24"	EA	2
AR752436	PRECAST REINFORCED CONC. FES 36"	EA	1
AR752900	REMOVE END SECTION	EA	2
AR770508	8" SANITARY SEWER	LF	132
AR770515	15" SANITARY SEWER	LF	341
AR770704	SANITARY MANHOLE 4'	EA	1
AR801971	4' X 20' TRENCH DRAIN	EA	1
AR801972	8" VALVE & ACTUATOR	EA	1
AR801973	CONTROL SWITCHES	LS	1
AR801974	REMOVE FUMIGATION FACILITY	LS	1
AR801975	REINSTALL FUMIGATION FACILITY	LS	1
AR801976	AIRCRAFT NOSE TETHER ANCHOR	EA	2
AR801977	TYPE TC - 2-#12, 1-#12 GND, 600V	LF	495
AR801978	TYPE TC - 7-#14, 600V	LF	495
AR801979	BASIN SPILLWAY MODIFICATIONS	LS	1
AR901510	SEEDING	AC	4.9
AR904510	SODDING	SY	410
AR908510	MULCHING	AC	4.4

ADDITIVE ALTERNATE 1

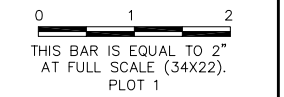
ITEM	DESCRIPTION	UNIT	QUANTITY
AS108108	1/C #8 5 KV UG CABLE	LF	176
AS108706	1/C #6 COUNTERPOISE	LF	979
AS110202	2" PVC DUCT, DIRECT BURY	LF	80
AS110501	1-WAY CONC. ENCASED DUCT	LF	145
AS110502	2-WAY CONCRETE ENCASED DUCT	LF	379
AS110610	ELECTRICAL HANDHOLE	EA	1
AS125415	MITL-BASE MOUNTED	EA	1
AS125565	SPLICE CAN	EA	2
AS152410	UNCLASSIFIED EXCAVATION	CY	3,737
AS155540	BY-PRODUCT LIME	TON	144
AS155612	SOIL PROCESSING-12"	SY	5,713
AS156510	SILT FENCE	LF	200
AS209609	CRUSHED AGG. BASE COURSE- 9"	SY	5,534
AS209611	CRUSHED AGGREGATE BASE COURSE- 11"	SY	116
AS302611	ASPHALT TREATED PERMEABLE SUBBASE	SY	5,764
AS401650	BITUMINOUS PAVEMENT MILLING	SY	48
AS501509	9" PCC PAVEMENT	SY	1,875
AS501516	16" PCC PAVEMENT	SY	3,556
AS602510	BITUMINOUS PRIME COAT	GAL	2,120
AS620520	PAVEMENT MARKING-WATERBORNE	SF	258
AS620525	PAVEMENT MARKING-BLACK BORDER	SF	299
AS705526	6" PERFORATED UNDERDRAIN W/SOCK	LF	414
AS705635	UNDERDRAIN COLLECTION STRUCTURE	EA	1
AS705640	UNDERDRAIN CLEANOUT	EA	2
AS801976	AIRCRAFT NOSE TETHER ANCHOR	EA	2
AS901510	SEEDING	AC	0.9
AS904510	SODDING	SY	248
AS908510	MULCHING	AC	0.9

EARTHWORK SUMMARY

CROSS SECTIONS	CUT (CY)	FILL (CY)	ADJUSTED* FILL (CY)
ADD ALT 1	11,706	2,505	2,880
BASE BID	7,969	2,384	2,739
NET	3,737	121	141

*A SHRINKAGE FACTOR OF 15% HAS BEEN ASSUMED. THE FINAL CONTRACT QUANTITY USED FOR UNCLASSIFIED EXCAVATION SHALL BE THE TOTAL AMOUNT OF CUT IN ACCORDANCE WITH ITEM 152.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

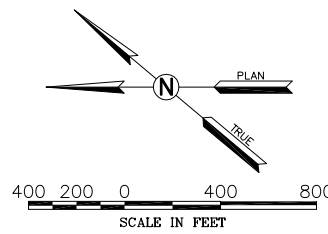
CMT
CRAWFORD, MURPHY & TILLY, INC.
CONSULTING ENGINEERS

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PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 02_QUANTITIES.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

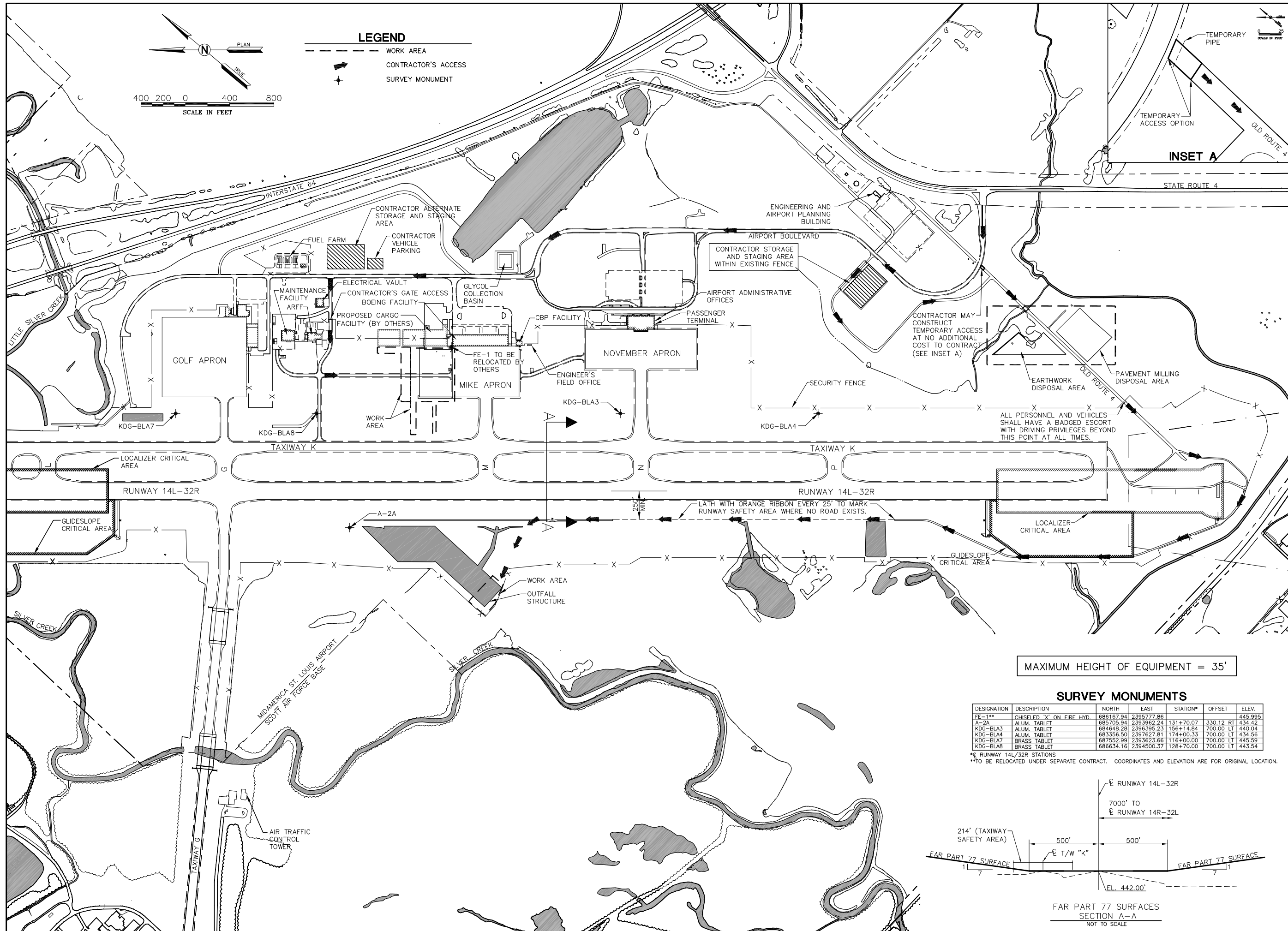
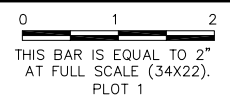
**SUMMARY OF
QUANTITIES**



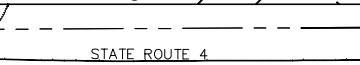
LEGEND

- WORK AREA
- > CONTRACTOR'S ACCESS
- + SURVEY MONUMENT

REVISIONS		
NUMBER	BY	DATE



INSET A

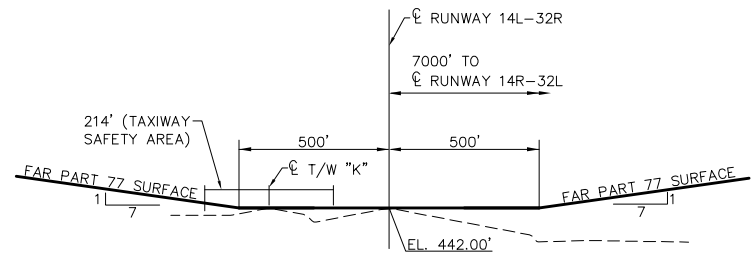


MAXIMUM HEIGHT OF EQUIPMENT = 35'

SURVEY MONUMENTS

DESIGNATION	DESCRIPTION	NORTH	EAST	STATION*	OFFSET	ELEV.
FE-1**	CHISELED "X" ON FIRE HYD.	686167.84	2395777.86			445.995
A-2A	ALUM. TABLET	683705.94	2393962.24	131+70.07	330.12 RT	434.42
KDG-BLA3	ALUM. TABLET	684648.28	2396395.23	156+14.84	700.00 LT	440.04
KDG-BLA4	ALUM. TABLET	683356.50	2397627.81	174+00.33	700.00 LT	434.56
KDG-BLA7	BRASS TABLET	687552.99	2393623.66	116+00.00	700.00 LT	445.59
KDG-BLA8	BRASS TABLET	686634.16	2394500.37	128+70.00	700.00 LT	443.54

* RUNWAY 14L/32R STATIONS
 ** TO BE RELOCATED UNDER SEPARATE CONTRACT. COORDINATES AND ELEVATION ARE FOR ORIGINAL LOCATION.



FAR PART 77 SURFACES
 SECTION A-A
 NOT TO SCALE

**MIDAMERICA ST. LOUIS AIRPORT
 ST. CLAIR COUNTY, ILLINOIS**

MIKE APRON EXPANSION

ONE MEMORIAL DRIVE, SUITE 500
 ST. LOUIS, MO 63102
 (314) 436-5500



**IL PROJECT, BLV-4061
 AIP PROJ. 3-17-0146-029-2011**

FILE: 03_SITE.dwg
 DESIGN BY: LEW
 DRAWN BY: ASA
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: NOVEMBER 28, 2011
 JOB No: 10098-01

SITE PLAN

GENERAL

- 1. THE CONTRACTOR AND ALL SUBCONTRACTORS SHALL FOLLOW THE REQUIREMENTS OF THE AIRPORT'S APPROVED CONSTRUCTION SAFETY AND PHASING PLAN (CSPP), FAA AC 150/5370-2F, AND ALL AIRPORT SAFETY AND SECURITY REQUIREMENTS.
2. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SUBMIT TO THE AIRPORT FOR APPROVAL A SAFETY PLAN COMPLIANCE DOCUMENT (SPCD) IN ACCORDANCE WITH FAA AC 150/5370-2F. NO CONSTRUCTION ACTIVITY SHALL BEGIN UNTIL THE AIRPORT HAS APPROVED THE SPCD.
3. THE CSPP COVERS OPERATIONAL SAFETY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INDIVIDUAL SAFETY OF HIS/HER PERSONNEL AND MEETING OSHA REQUIREMENTS.
4. A MINIMUM OF 10 DAYS PRIOR TO THE PRECONSTRUCTION MEETING THE CONTRACTOR SHALL PROVIDE A LIST OF SUBCONTRACTORS AND MATERIAL SUPPLIERS.
5. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL SIGN THE SWPPP CERTIFICATION STATEMENT.
6. ALL CONTRACTOR COSTS ASSOCIATED WITH THE REQUIREMENTS LISTED ON THIS SHEET SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A SPECIFIC PAY ITEM IS PROVIDED.

1. COORDINATION

- 1. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL ATTEND A PRECONSTRUCTION CONFERENCE WITH THE AIRPORT, ENGINEER, AND ILLINOIS DIVISION OF AERONAUTICS (IDA). THE COST OF PREPARING FOR AND ATTENDING THE PRECONSTRUCTION CONFERENCE SHALL BE INCIDENTAL TO THE CONTRACT.
2. ON OR BEFORE THE PRECONSTRUCTION CONFERENCE, THE CONTRACTOR SHALL SUBMIT A PROPOSED SCHEDULE FOR THE PROJECT. THE SCHEDULE SHALL INCLUDE A START AND COMPLETION DATE FOR EACH ITEM OF WORK. THE SCHEDULE SHALL BE UPDATED ON A WEEKLY BASIS. ALL COSTS ASSOCIATED WITH THE SCHEDULE SHALL BE INCIDENTAL TO THE CONTRACT.
3. DURING CONSTRUCTION THE CONTRACTOR SHALL ATTEND A WEEKLY COORDINATION MEETING WITH THE AIRPORT STAFF AND ENGINEER. ALL COSTS ASSOCIATED WITH ATTENDING THE WEEKLY MEETING SHALL BE INCIDENTAL TO THE CONTRACT.
4. CONSTRUCTION OF A CARGO FACILITY LOCATED ADJACENT TO THE MIKE APRON WORK AREA WILL BE ONGOING DURING THE MIKE APRON EXPANSION WORK. THE MIKE APRON EXPANSION CONTRACTOR SHALL FAMILIARIZE HIS/HERSELF WITH THE CARGO FACILITY WORK AND SHALL COORDINATE HIS/HER CONSTRUCTION OPERATIONS WITH THE AIRPORT AND THE CARGO FACILITY DESIGN/BUILD CONTRACTOR, IMPACT STRATEGIES. ANY DISPUTE BETWEEN CONTRACTORS IN REGARDS TO SEQUENCE OF CONSTRUCTION OR CONCURRENT WORK IN OVERLAPPING PROJECTS AREAS SHALL BE SETTLED BY THE AIRPORT WITH NO ADDITIONAL COST TO THE CONTRACT.

2. PHASING

- 1. TOTAL CONTRACT TIME SHALL BE 130 CALENDAR DAYS FOR THE BASE BID WITH AN ADDITIONAL 30 DAYS IF ADDITIVE ALTERNATE 1 IS AWARDED.
2. PHASING SHALL BE AS NOTED BELOW AND AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN (CAP) SHEET.

PHASE 1 NOTES

- 1. PHASE 1 SHALL CONSIST OF CONSTRUCTING THE 9" PCC PAVEMENT (BASE BID) AND ANY UTILITIES LOCATED UNDER THE 9" PCC PAVEMENT (BASE BID) ALONG WITH THE MODIFICATIONS REQUIRED TO THE EMERGENCY SPILLWAY OF THE SEDIMENT BASIN.
2. ALL WORK IN PHASE 1 SHALL BE COMPLETED BEFORE STARTING THE PHASE 2 WORK.
3. CONSTRUCTION OF A REFRIGERATED AIR CARGO FACILITY (BY OTHERS) ADJACENT TO THE PHASE 1 WORK AREA INCLUDES CONSTRUCTION OF 9" PCC PAVEMENT THAT WILL CONNECT TO THE PHASE 1 WORK. THE CONSTRUCTION OF THIS PAVEMENT MAY TAKE PLACE BEFORE, DURING OR AFTER THE PHASE 1 WORK. THE CONTRACTOR SHALL COORDINATE HIS/HER WORK WITH THE AIRPORT, THE CARGO FACILITY PAVING CONTRACTOR AND IMPACT STRATEGIES. NO CALENDAR DAYS WILL BE CHARGED FOR ANY DELAYS THAT ARE A DIRECT CAUSE BY THE CARGO FACILITY CONTRACTOR. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED DUE TO DELAYS CAUSED BY THE CARGO FACILITY WORK. ANY DISPUTES BETWEEN CONTRACTORS WILL BE SETTLED BY THE AIRPORT AT NO ADDITIONAL COST TO THE CONTRACT.

PHASE 2 NOTES

- 1. PHASE 2 SHALL CONSIST OF ALL WORK NOT DIRECTLY ASSOCIATED WITH THE 9" PCC BASE BID PAVEMENT AND THE EMERGENCY SPILLWAY WORK.
2. WORK IN PHASE 2 SHALL NOT BEGIN UNTIL AFTER COMPLETION OF PHASE 1.

3. AREAS AND OPERATIONS AFFECTED BY THE CONSTRUCTION ACTIVITY

- 1. ALL RUNWAYS, TAXIWAYS AND APRONS SHALL BE KEPT OPEN TO AIRCRAFT TRAFFIC DURING CONSTRUCTION EXCEPT AS NOTED ON THE PHASING PLAN.
2. WHEN CONFLICTS ARISE BETWEEN CONSTRUCTION ACTIVITIES AND AIRCRAFT OPERATIONS AND SAFETY, AIRCRAFT OPERATIONS AND SAFETY SHALL TAKE PRECEDENCE AND SHALL GOVERN. FINAL AUTHORITY IN THE APPROVAL OF CONSTRUCTION SEQUENCING LIES WITH THE AIRPORT.
3. ALL CONSTRUCTION TRAFFIC SHALL IMMEDIATELY YIELD TO ONCOMING AIRCRAFT AT ALL TIMES.

4. PROTECTION OF NAVIGATION AIDS (NAVAIDS)

- 1. THE CONTRACTOR SHALL REMAIN CLEAR OF THE ILS CRITICAL AREAS AND OTHER NAVAIDS FACILITIES AT ALL TIMES.

5. CONTRACTOR ACCESS

- 1. CONTRACTOR ACCESS SHALL BE AS NOTED BELOW AND AS SHOWN ON THE SITE PLAN AND CONSTRUCTION ACTIVITY PLAN SHEETS.
2. THE CONTRACTOR IS TO ACCESS THE SITE USING THE GATE LOCATED AT THE PUBLIC SAFETY OFFICE (BUILDING 8849). THIS GATE IS COMMONLY REFERRED TO AS THE "ARFF GATE".
3. CERTAIN CONTRACTOR EMPLOYEES SHALL OBTAIN A MIDAMERICA ST. LOUIS AIRPORT ACCESS MEDIA IDENTIFICATION BADGE. THIS CONSISTS OF FILLING OUT ALL NECESSARY PAPERWORK, FINGERPRINTING, ATTENDING AND PASSING A 2-HOUR TRAINING CLASS CONCERNING SAFETY AND SECURITY AT THE AIRPORT. CONTRACTOR EMPLOYEES MUST MEET CERTAIN BACKGROUND CHECK CRITERIA AND THE CONTRACTOR MUST MAKE CERTAIN CERTIFICATION ABOUT EACH EMPLOYEE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINGERPRINTING COSTS (CURRENTLY \$75.00 PER INDIVIDUAL). ALL COSTS ASSOCIATED WITH OBTAINING THE IDENTIFICATION BADGE SHALL BE BORNE BY THE CONTRACTOR.
4. ALL CONTRACTOR EMPLOYEES WHO ARE DESIGNATED AS DRIVERS FOR THE CONTRACTOR WITHIN THE AIRFIELD OPERATIONS AREA (AOA) SHALL ALSO ATTEND AND PASS THE MIDAMERICA ST. LOUIS AIRPORT DRIVERS TRAINING PROGRAM. THE DURATION IS APPROXIMATELY TWO HOURS. ONLY THOSE INDIVIDUALS WHO RECEIVE THIS DESIGNATION WILL BE PERMITTED TO OPERATE VEHICLES OR EQUIPMENT ON MIDAMERICA ST. LOUIS AIRPORT (BLV). ALL COSTS ASSOCIATED WITH THE DRIVER TRAINING PROGRAM SHALL BE BORNE BY THE CONTRACTOR.
5. DRIVERS OF TRUCKS CONTAINING MATERIAL DELIVERIES (AGGREGATE, CONCRETE, ETC.) NEED NOT OBTAIN AN AIRPORT MEDIA ID BADGE BUT SHALL BE REQUIRED TO SUBMIT THEIR NAME, DRIVER'S LICENSE NUMBER, TRUCK LICENSE PLATE NUMBER AND NAME OF TRUCKING COMPANY TO THE PRIME CONTRACTOR PRIOR TO ENTERING THE JOBSITE. WHILE INSIDE THE AOA, THE TRUCK DRIVERS SHALL BE ESCORTED BY THE CONTRACTOR.
6. CONTRACTOR WORK CREWS MUST MAINTAIN RADIO CONTACT WITH THE AIR TRAFFIC CONTROL TOWER (ATCT) AT ALL TIMES WHEN INSIDE THE AIRPORT OPERATIONS AREA (AOA). MIDAMERICA ST. LOUIS AIRPORT SHALL SUPPLY THE CONTRACTOR WITH APPROPRIATE RADIO(S).
7. THE STORAGE AND STAGING AREA WILL BE IN THE AREA ACROSS FROM THE DEPARTMENT OF ENGINEERING AND PLANNING (BUILDING 9768). THIS AREA IS ENCLOSED BY A FENCE AND IS OUTSIDE THE AOA FENCE. AN ALTERNATE LOCATION WILL BE SOUTHEAST (SOUTH) OF THE FUEL FARM ON THE NORTHEAST (EAST) SIDE OF THE PUBLIC ACCESS ROAD. THIS AREA IS OUTSIDE OF THE AOA FENCE AND HAS NO FENCING AROUND IT.
8. ACCESS TO THE EARTHWORK AND PAVEMENT MILLING DISPOSAL AREAS SHALL BE AS SHOWN ON THE SITE PLAN.
9. THE CONTRACTOR SHALL KEEP A RECORD OF THE NAMES OF ALL EMPLOYEES ENTERING THE JOB SITE ON A DAILY BASIS. A RECORD OF EACH SUBCONTRACTOR ENTERING THE JOB SITE SHALL ALSO BE KEPT BY THE CONTRACTOR.
10. WHEN THE CONTRACTOR IS NOT WORKING, EQUIPMENT SHALL BE STORED AT THE STAGING AREA OR WITHIN THE WORK AREA LIMITS (SEE NOTE 11).
11. THE CONTRACTOR WILL BE PERMITTED TO STORE EQUIPMENT AND MATERIALS ONLY AT THE LOCATIONS SHOWN. PARKED EQUIPMENT AND MATERIAL STOCKPILES SHALL NOT PENETRATE SURFACES DEFINED BY F.A.R. TITLE 14 PART 77 - OBJECTS AFFECTING NAVIGABLE AIRSPACE. SEE SECTION A-A ON THE SITE PLAN SHEET.
12. ALL CONSTRUCTION TRAFFIC OPERATING ON, OR CROSSING RUNWAYS, TAXIWAYS AND APRONS OPEN TO AIRCRAFT TRAFFIC SHALL BE UNDER CONTROL BY A FLAGMAN OR ESCORT IN RADIO CONTACT WITH THE ATCT. THE CONTRACTOR SHALL PROVIDE HIS OWN FLAGMEN.
13. THE CONTRACTOR SHALL THOROUGHLY CLEAN ALL CONSTRUCTION AREAS AND HAUL ROUTES WHICH WILL BE OPENED TO AIR TRAFFIC TO THE SATISFACTION OF AIRPORT OPERATIONS OR THE ENGINEER. A POWER BROOM AND OPERATOR SHALL BE ON SITE AT ALL TIMES WHEN ACTIVE PAVEMENTS ARE UTILIZED FOR CONSTRUCTION TRAFFIC.
14. ALL PAVEMENTS, DRIVES OR ANY OTHER AREAS UTILIZED BY THE CONTRACTOR FOR HAUL ROADS OR STORAGE AREAS SHALL BE MAINTAINED AND REPAIRED TO THE SAME CONDITION OR BETTER THAN THEY WERE PRIOR TO BEGINNING CONSTRUCTION. NO ADDITIONAL COMPENSATION WILL BE MADE TO THE CONTRACTOR FOR THIS WORK.
15. ALL VEHICLE AND EQUIPMENT OPERATORS USED BY THE CONTRACTOR SHALL BE PROPERLY TRAINED BY THE CONTRACTOR.
16. THE CONTRACTOR SHALL NOTIFY THE AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) FACILITY IF CONSTRUCTION ACTIVITY WILL REQUIRE THE BLOCKAGE OF EMERGENCY ACCESS TO THE AIRPORT.

6. WILDLIFE MANAGEMENT

- 1. THE CONTRACTOR SHALL NOTIFY AIRPORT OPERATIONS OR THE ENGINEER IF ANY WILDLIFE IS SEEN ENTERING THE AIRPORT.
2. CONTRACTOR ACCESS GATES SHALL REMAIN CLOSED WHEN THE CONTRACTOR IS NOT WORKING.
3. THE CONTRACTOR SHALL DISPOSE OF ALL TRASH INCLUDING FOOD SCRAPS IN APPROVED CONTAINERS.

7. FOREIGN OBJECT DEBRIS (FOD) MANAGEMENT

- 1. THE CONTRACTOR SHALL PICK UP ANY FOREIGN OBJECT DEBRIS (FOD) SEEN ON THE AIRFIELD PAVEMENTS.
2. THE CONTRACTOR SHALL SECURE ALL LOOSE ITEMS FROM VEHICLES PRIOR TO DRIVING ON AIRFIELD PAVEMENTS.

8. HAZARDOUS MATERIALS (HAZMAT) MANAGEMENT

- 1. THE CONTRACTOR SHALL DEVELOP A HAZMAT MANAGEMENT PLAN AND KEEP COPIES ON THE JOBSITE OF MATERIAL SAFETY DATA SHEETS (MSDS) FOR ALL MATERIALS HANDLED ON THE JOBSITE.

9. NOTIFICATION OF CONSTRUCTION ACTIVITIES

- 1. THE CONTRACTOR SHALL PROVIDE A 24 HOUR EMERGENCY CONTACT PERSON AND PHONE NUMBER.
2. THE CONTRACTOR SHALL GIVE A MINIMUM OF 72 HOURS NOTICE TO AIRPORT OPERATIONS PRIOR TO CLOSING ANY PAVEMENTS SO THAT PROPER NOTAMS MAY BE ISSUED BY THE AIRPORT.
3. FOR ANY EQUIPMENT USED BY THE CONTRACTOR WITH A HEIGHT GREATER THAN 35', THE CONTRACTOR SHALL PROVIDE TO THE AIRPORT THE TYPE OF EQUIPMENT, TOTAL HEIGHT, AND LOCATION WHERE THE EQUIPMENT WILL BE USED. THE AIRPORT WILL SUBMIT FAA FORM 7460-1 TO THE FAA FOR AN AIRSPACE STUDY. NO EQUIPMENT WITH A HEIGHT GREATER THAN 35' SHALL BE USED UNTIL A DETERMINATION FROM FAA IS RECEIVED.
4. IN THE EVENT OF AN EMERGENCY, THE CONTRACTOR SHALL CALL 911.
5. CONTACTS FOR THIS PROJECT ARE AS LISTED BELOW.

PUBLIC SAFETY

RICK CSUTORAS - CHIEF OF PUBLIC SAFETY (618) 566-5225

ENGINEERING & PLANNING

DAN TRAPP, P.E. - AIRPORT ENGINEER (618) 566-5322

AIRPORT MAINTENANCE

BRIAN GIESEKING - MAINTENANCE SUPERVISOR (618) 566-5211

ENGINEER

BRIAN GARKIE, P.E. - PROJECT ENGINEER (314) 571-9070

LUKE WOJCICKI, E.I. - RESIDENT ENGINEER (314) 393-1709

10. INSPECTION REQUIREMENTS

- 1. THE CONTRACTOR SHALL INSPECT THE JOBSITE DAILY TO ENSURE COMPLIANCE WITH THE CSPP. THE CHECKLIST FOUND IN APPENDIX 3 OF FAA AC 150/5370-2F MAY BE USED TO AID IN THE INSPECTIONS.
2. THE CONTRACTOR SHALL ATTEND A FINAL INSPECTION OF EACH PHASE WORK AREA PRIOR TO OPENING THE AREA TO AIRPORT OPERATIONS.

11. UNDERGROUND UTILITIES

- 1. IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAKE HIS OWN FIELD INVESTIGATION TO DETERMINE THE EXACT LOCATION OF THE UNDERGROUND UTILITIES AT CRITICAL POINTS. THE LOCATION OF UNDERGROUND UTILITIES AS INDICATED ON THE PLANS HAS BEEN OBTAINED FROM EXISTING RECORDS. NEITHER THE OWNER NOR THE ENGINEER ASSUMES ANY RESPONSIBILITY IN RESPECT TO THE ACCURACY, COMPLETENESS OR SUFFICIENCY OF THE INFORMATION.
2. BEFORE INITIATING ANY DIGGING, DRILLING OR EXCAVATING ON THE AIRPORT PROPERTY, THE CONTRACTOR SHALL CALL J.U.L.I.E. AND CONTACT THE LOCAL FAA OFFICE TO ARRANGE FOR UTILITY LOCATES. SEE SECTION 50-17 OF THE SPECIAL PROVISIONS FOR UTILITY CONTACT INFORMATION.

12. PENALTIES

- 1. NONCOMPLIANCE BY THE CONTRACTOR WITH AIRPORT RULES AND REGULATIONS OR FAILURE TO COMPLY WITH THE AIRPORT'S APPROVED CSPP AND THE CONTRACTOR'S APPROVED SPCD MAY RESULT IN FINES AS ALLOWED BY LAW.

13. SPECIAL CONDITIONS

- 1. ADJACENT CONSTRUCTION MAY IMPACT THE OPERATIONS OF THE CONTRACTOR. SEE THE COORDINATION NOTES FOR ADDITIONAL INFORMATION.

14. RUNWAY AND TAXIWAY VISUAL AIDS

- 1. NO RUNWAY OR TAXIWAY CLOSURES ARE REQUIRED FOR THIS PROJECT. IF ANY RUNWAY OR TAXIWAY CLOSURES ARE REQUESTED BY THE CONTRACTOR AND APPROVED BY THE AIRPORT, THE CONTRACTOR SHALL USE MARKING, LIGHTING AND SIGNS THAT FOLLOWING THE REQUIREMENTS OF FAA AC 150/5370-2F.
2. BARRICADES SHALL BE USED ON THE MIKE APRON AS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET.

15. MARKING AND SIGNS FOR ACCESS ROUTES

- 1. BARRICADES AND SIGNS SHALL BE USED ALONG THE CONTRACTOR'S ACCESS ROUTE AS DETAILED ON THIS SHEET AND THE CONSTRUCTION ACTIVITY PLAN SHEET.

16. HAZARD MARKING AND LIGHTING

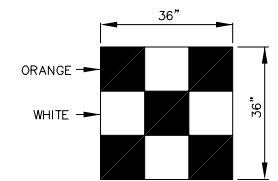
- 1. THE CONTRACTOR SHALL FURNISH, ERECT, AND MAINTAIN MARKINGS AND ASSOCIATED LIGHTING OF OPEN TRENCHES, EXCAVATIONS, TEMPORARY STOCKPILES, AND HIS/HER CONSTRUCTION EQUIPMENT.
2. ALL CONSTRUCTION EQUIPMENT SHALL BE FLAGGED AND/OR LIGHTED IN ACCORDANCE WITH FAA ADVISORY CIRCULAR 150/5370-2F AND 150/5210-5C AT ALL TIMES WHILE OPERATING ON AIRPORT PROPERTY. THE MAXIMUM EQUIPMENT HEIGHT IS 25'.
3. BARRICADES SHALL BE PLACED AT THE LOCATIONS SHOWN ON THE CONSTRUCTION ACTIVITY PLAN SHEET OR AS DIRECTED BY THE ENGINEER. THE AIRPORT WILL SUPPLY UP TO FIFTY (50) LOW PROFILE LIGHTED BARRICADES FOR USE DURING THE PROJECT. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF THE BARRICADES INCLUDING BATTERY REPLACEMENT FOR THE LIGHTS. IF ADDITIONAL LOW PROFILE BARRICADES ARE NEEDED, THE CONTRACTOR SHALL SUPPLY THE ADDITIONAL LOW PROFILE BARRICADES AT NO ADDITIONAL COST TO THE CONTRACT. UPON COMPLETION OF THE PROJECT, THE CONTRACTOR WILL RETAIN POSSESSION OF ANY ADDITIONAL BARRICADES SUPPLIED BY THE CONTRACTOR. THE BARRICADES SUPPLIED BY THE AIRPORT SHALL REMAIN PROPERTY OF THE AIRPORT AND SHALL BE RETURNED IN LIKE CONDITION WITH AN ALLOWANCE FOR NORMAL WEAR AND TEAR AS DETERMINED BY THE ENGINEER. ANY DAMAGED BARRICADES SHALL BE REPLACED BY THE CONTRACTOR WITH NEW BARRICADES OF SIMILAR TYPE AND DESIGN AT NO ADDITIONAL COST TO THE CONTRACT.
4. THE CONTRACTOR SHALL INSPECT THE BARRICADES ONCE DURING EACH WORK DAY TO INSURE PROPER PLACEMENT AND PROPER OPERATION OF THE RED LIGHTS.

17. PROTECTION

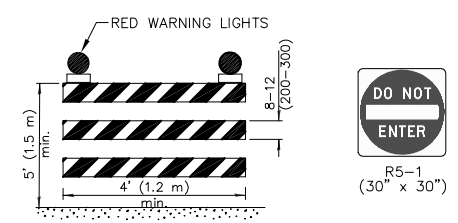
- 1. NO WORK SHALL BE PERFORMED/REQUIRED INSIDE OF THE RUNWAY 14L-32R SAFETY AREA WHICH EXTENDS 250' FROM THE RUNWAY CENTERLINE.
2. NO WORK SHALL BE PERFORMED/REQUIRED INSIDE OF AN AN ACTIVE TAXIWAY SAFETY AREA WHICH EXTENDS 107' FROM THE TAXIWAY CENTERLINE.
3. ANY WORK INSIDE AN ACTIVE TAXIWAY OBJECT FREE AREA SHALL BE PERFORMED SO THAT A 5' CLEARANCE IS MAINTAINED BETWEEN EQUIPMENT AND MATERIALS AND ANY PART OF AN AIRCRAFT INCLUDING WINGTIP OVERHANG. NO EQUIPMENT, MATERIALS OR PERSONNEL SHALL BE ALLOWED TO GET CLOSER THAN 129' FROM AN ACTIVE TAXIWAY CENTERLINE.

18. OTHER LIMITATIONS ON CONSTRUCTION

- 1. IF, DURING CONSTRUCTION, AN EMERGENCY IS DECLARED BY THE AIRPORT, THE CONTRACTOR SHALL IMMEDIATELY CLEAR THE PAVEMENT OF ALL VEHICLES, PERSONNEL AND EQUIPMENT.
2. BROKEN CONCRETE, BROKEN ASPHALT, AND OTHER MISCELLANEOUS DEBRIS SHALL BE DISPOSED OF OFF AIRPORT PROPERTY, UNLESS OTHERWISE SPECIFIED.

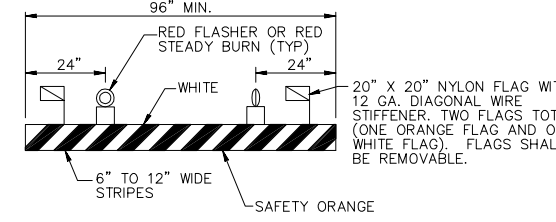
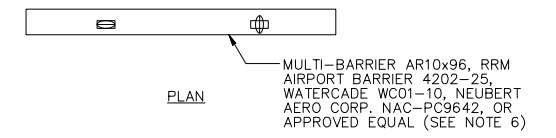


CONSTRUCTION EQUIPMENT AND TRUCK SIGNAL FLAG NOT TO SCALE



TYPE III BARRICADE NOT TO SCALE

ATTACH 30" x 30" R5-1 "DO NOT ENTER" SIGN TO FRONT OF EACH BARRICADE (INCIDENTAL TO CONTRACT) IDOT STANDARD 701901-02



- BARRICADE NOTES:
1. FLASHER OR STEADY BURN LIGHTS SHALL BE BATTERY OR SOLAR POWER OPERATED. LENS SHALL BE RED AND BE ABLE TO ROTATE 90°.
2. FACING OF BARRICADE SHALL BE COVERED WITH REFLECTIVE TAPE OR PAINT.
3. BARRICADES TO BE PLACED WITH A MAXIMUM OF 20' SPACING CENTER TO CENTER ALONG OPERATIONAL PAVEMENT ADJACENT TO CONSTRUCTION AS DIRECTED BY THE RESIDENT ENGINEER. ALTERNATE FLASHER OR STEADY BURN LENSES SO THAT EVERY OTHER LENS IS ROTATED 90°.
4. FLASHER OR STEADY BURN LIGHTS SHALL BE SECURED TO THE BARRICADES, AS APPROVED BY THE RESIDENT ENGINEER.
5. BARRICADES SHALL BE OF LOW MASS, EASILY COLLAPSIBLE UPON CONTACT WITH AN AIRCRAFT OR ANY OF ITS COMPONENTS, AND WEIGHTED TO AVOID BEING BLOWN OVER.
6. BARRICADES SHALL BE OF A COMMERCIAL DESIGN.
7. THE AIRPORT WILL SUPPLY UP TO FIFTY (50) LOW PROFILE BARRICADES WITH BATTERY POWERED RED LIGHTS.

LOW PROFILE LIGHTED BARRICADE NOT TO SCALE

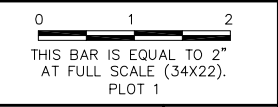
Table with columns: NUMBER, BY, DATE. Includes a graphic scale bar showing 0, 1, 2 units. Text: THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). PLOT 1

MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, ILLINOIS MIKE APRON EXPANSION

ONE MEMORIAL DRIVE, SUITE 500 ST. LOUIS, MO 63102 (314) 436-5500
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IL PROJECT, BLV-4061 AIP PROJ. 3-17-0146-029-2011

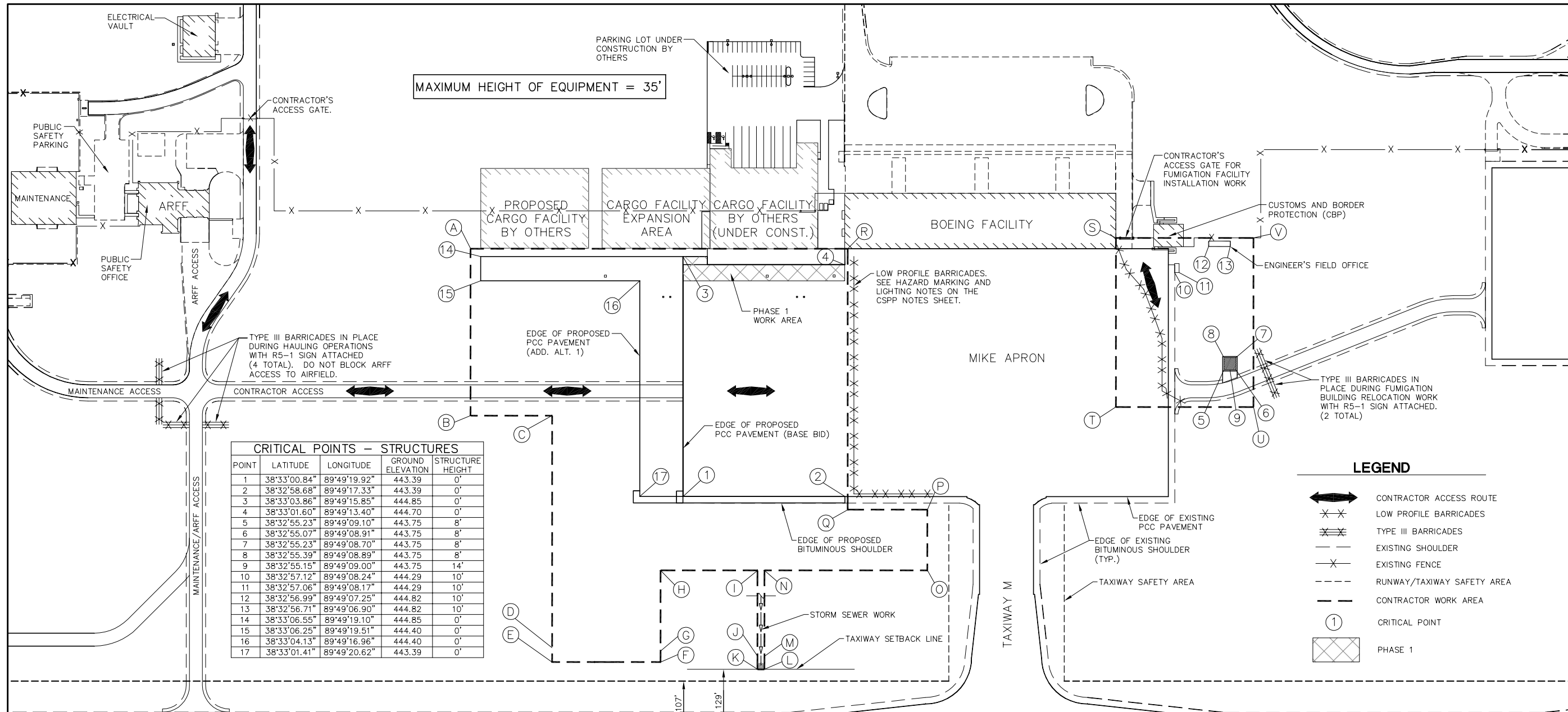
Table with project details: FILE: 04-CSPP.dwg, DESIGN BY: LEW, DRAWN BY: ASA, CHECKED BY: MJD/CET, APPROVED BY: BWG, DATE: NOVEMBER 28, 2011, JOB No: 10098-01

REVISIONS		
NUMBER	BY	DATE
△	BWG	3/4/11



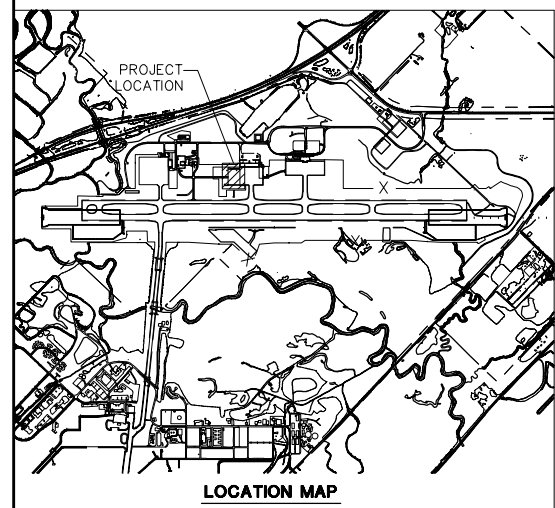
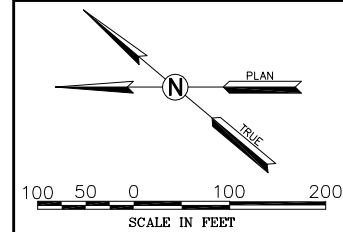
MIDAMERICA ST. LOUIS AIRPORT ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION



CRITICAL POINTS - STRUCTURES				
POINT	LATITUDE	LONGITUDE	GROUND ELEVATION	STRUCTURE HEIGHT
1	38°33'00.84"	89°49'19.92"	443.39	0'
2	38°32'58.68"	89°49'17.33"	443.39	0'
3	38°33'03.86"	89°49'15.85"	444.85	0'
4	38°33'01.60"	89°49'13.40"	444.70	0'
5	38°32'55.23"	89°49'09.10"	443.75	8'
6	38°32'55.07"	89°49'08.91"	443.75	8'
7	38°32'55.23"	89°49'08.70"	443.75	8'
8	38°32'55.39"	89°49'08.89"	443.75	8'
9	38°32'55.15"	89°49'09.00"	443.75	14'
10	38°32'57.12"	89°49'08.24"	444.29	10'
11	38°32'57.06"	89°49'08.17"	444.29	10'
12	38°32'56.99"	89°49'07.25"	444.82	10'
13	38°32'56.71"	89°49'06.90"	444.82	10'
14	38°33'06.55"	89°49'19.10"	444.85	0'
15	38°33'06.25"	89°49'19.51"	444.40	0'
16	38°33'04.13"	89°49'16.96"	444.40	0'
17	38°33'01.41"	89°49'20.62"	443.39	0'

LEGEND	
	CONTRACTOR ACCESS ROUTE
	LOW PROFILE BARRICADES
	TYPE III BARRICADES
	EXISTING SHOULDER
	EXISTING FENCE
	RUNWAY/TAXIWAY SAFETY AREA
	CONTRACTOR WORK AREA
	CRITICAL POINT
	PHASE 1



CRITICAL POINTS - EQUIPMENT				
POINT	LATITUDE	LONGITUDE	GROUND ELEVATION	MAX. EQUIP. HEIGHT
A	38°33'06.79"	89°49'19.13"	444.00	35'
B	38°33'04.68"	89°49'21.96"	443.13	35'
C	38°33'04.00"	89°49'20.66"	443.51	35'
D	38°33'00.67"	89°49'24.59"	441.00	35'
E	38°33'00.49"	89°49'24.83"	433.18	35'
F	38°32'59.05"	89°49'23.09"	434.74	35'
G	38°32'59.19"	89°49'22.90"	441.00	35'
H	38°33'00.20"	89°49'21.54"	442.35	35'
I	38°32'58.91"	89°49'19.98"	442.35	35'
J	38°32'57.83"	89°49'21.44"	441.00	35'
K	38°32'57.67"	89°49'21.66"	434.82	35'
L	38°32'57.57"	89°49'21.55"	434.92	35'
M	38°32'57.74"	89°49'21.33"	441.00	35'
N	38°32'58.82"	89°49'19.87"	442.38	35'
O	38°32'56.65"	89°49'17.25"	441.12	35'
P	38°32'57.42"	89°49'16.23"	442.79	35'
Q	38°32'58.48"	89°49'17.51"	442.90	35'
R	38°33'01.77"	89°49'13.08"	444.83	35'
S	38°32'58.34"	89°49'08.59"	444.80	35'
T	38°32'56.20"	89°49'11.46"	443.87	35'
U	38°32'54.37"	89°49'09.25"	444.82	35'
V	38°32'56.51"	89°49'06.39"	445.74	35'

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 05_CAP.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

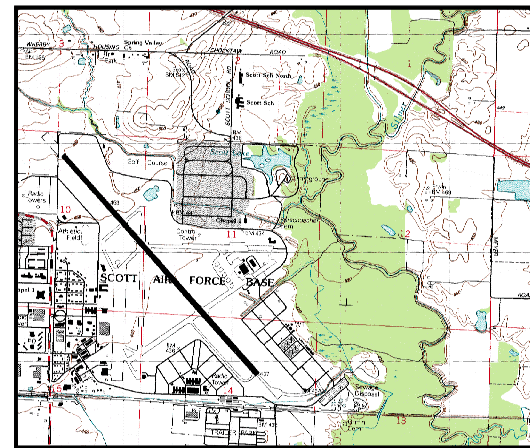
**CONSTRUCTION
ACTIVITY PLAN**

SHEET 5 OF 89 SHEETS

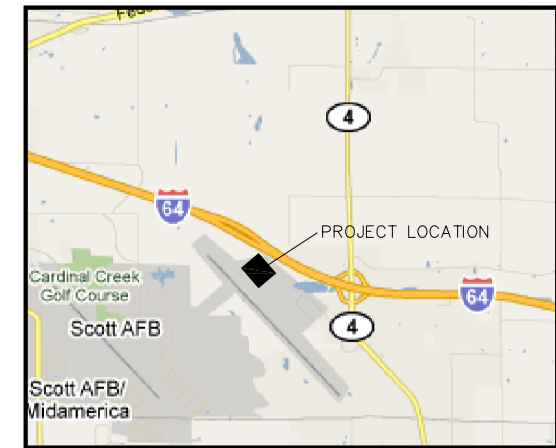
GENERAL EROSION & SEDIMENT CONTROL NOTES

- A. THE STORMWATER POLLUTION PREVENTION PLAN IS COMPRISED OF THESE DRAWINGS ("SITE MAPS"), THE STANDARD DETAILS, ATTACHMENTS INCLUDED IN SPECIFICATIONS, PLUS THE PERMIT AND ALL SUBSEQUENT REPORTS AND RELATED DOCUMENTS.
- B. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORMWATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN AND THE STATE OF ILLINOIS NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM GENERAL PERMIT (NPDES PERMIT) AND BECOME FAMILIAR WITH THEIR CONTENTS.
- C. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- D. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL FOR PRACTICE, AS APPLICABLE CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
- E. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
- F. CONTRACTOR SHALL MINIMIZE CLEARING TO THE MAXIMUM EXTENT PRACTICAL OR AS REQUIRED BY THE GENERAL PERMIT.
- G. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
- H. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED. ENSURE VEHICLE TIRES ARE CLEANED OFF BEFORE EXITING SITE.
- I. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
- J. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
- K. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. CONTAINERS TO BE EMPTIED AND REMOVED REGULARLY. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- L. ALL STORMWATER POLLUTION PREVENTION MEASURES PRESENTED ON THIS PLAN, AND IN THE STORMWATER POLLUTION PREVENTION PLAN, SHALL BE INITIATED AS SOON AS PRACTICABLE.
- M. ALL DENUDED AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE (UNLESS CONSTRUCTION ACTIVITY WILL RESUME ON THAT PORTION OF THE SITE WITHIN 14 DAYS), MUST BE STABILIZED TEMPORARILY WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING OR BLANKETS AS SHOWN ON THE SITE MAP.
- N. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED. THESE AREAS SHALL BE SEEDED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.
- O. IF THE ACTION OF VEHICLES TRAVELING OVER THE GRAVEL CONSTRUCTION EXITS IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF DIRT OR MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLES ENTER A PUBLIC ROAD. IF WASHING IS USED, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- P. ALL MATERIALS SPILLED, DROPPED, WASHED, OR INTO STORM DRAINS MUST BE REMOVED IMMEDIATELY.
- Q. CONTRACTORS OR SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT IN THE DITCH AND DOWNSTREAM DETENTION BASIN ALONG WITH ANY SEDIMENT THAT MAY HAVE COLLECTED IN THE STORM SEWER DRAINAGE SYSTEMS IN CONJUNCTION WITH THE STABILIZATION OF THE SITE.
- R. ON-SITE & OFF-SITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES. STOCKPILE AND BORROW AREA LOCATIONS SHALL BE NOTED ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH THE GENERAL PERMIT REQUIREMENTS.
- S. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION.
- T. DUE TO GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION.
- U. SEE SITE PLAN FOR PERMANENT AND TEMPORARY SIGNAGE.
- V. GENERAL CONTRACTOR IS TO DESIGNATE/IDENTIFY AREAS ON THE SITE MAPS, INSIDE OF THE LIMITS OF DISTURBANCE, FOR WASTE DISPOSAL AND DELIVERY AND MATERIAL STORAGE.
- W. REFER TO THE SWPPP FOR REPORTABLE SPILL QUANTITIES OF PETROLEUM PRODUCTS AND/OR HAZARDOUS WASTES.

NPDES PERMIT NO. ILR100304



USGS QUADRANGLE MAP
1"=3000'



LOCATION MAP
1"=5000'

STAGE 1 SEQUENCE OF CONSTRUCTION

1. STAGE 1 CONSISTS OF THE INITIAL GROUND DISTURBANCE AND CONSTRUCTION OF THE APRON EXPANSION.
2. INSTALL SILT FENCE AND SILT DIKE DITCH CHECKS.
3. REMOVE TOPSOIL WITHIN PROPOSED WORK AREAS.
4. INSPECT/STABILIZE/SUPPLEMENT ALL BMPs.
5. COMMENCE GRADING, SUBSURFACE DRAINAGE AND UTILITIES.
6. PERMANENT SEED AND MULCH DISTURBED AREAS THAT ARE NOT TO BE PAVED AND ARE AT FINAL GRADE.
7. TEMPORARY SEED AND MULCH DISTURBED AREAS THAT WILL SIT IDLE FOR MORE THAN 14 DAYS.
8. COMPLETE PHASE 1 PAVING.
9. INSPECT/STABILIZE/SUPPLEMENT ALL BMPs.
10. INSTALL SOD ALONG EDGE OF PAVEMENT WHERE NO ADDITIONAL PAVEMENT WILL BE CONSTRUCTED AND WATER AS NEEDED.

STAGE 2 SEQUENCE OF CONSTRUCTION

1. STAGE 2 CONSISTS OF THE COMPLETION OF THE APRON EXPANSION.
2. INSTALL SILT FENCE AND SILT DIKE DITCH CHECKS.
3. REMOVE ANY REMAINING TOPSOIL WITHIN PROPOSED WORK AREAS.
4. INSPECT/STABILIZE/SUPPLEMENT ALL BMPs.
5. COMPLETE GRADING, SUBSURFACE DRAINAGE AND UTILITIES.
6. INSTALL EROSION CONTROL BLANKET.
7. SEED AND MULCH DISTURBED AREAS THAT ARE NOT TO BE PAVED.
8. SEED AND MULCH EARTHWORK DISPOSAL AREA.
9. COMPLETE PAVING.
10. INSPECT/STABILIZE/SUPPLEMENT ALL BMPs.
11. INSTALL SOD ALONG EDGE OF PAVEMENT AND WATER AS NEEDED.
12. COMPLETE REMAINING WORK
13. OVERSEED DISTURBED TURF AREAS THAT DO NOT MEET THE ACCEPTANCE REQUIREMENTS OF ITEM 901.

STAGE 2 NOTES

1. STOCKPILE AREA ALSO TO BE SEEDED AND MULCHED.
2. CONTRACTOR IS RESPONSIBLE FOR ALL SITE MAINTENANCE UNTIL THE SITE IS TURNED OVER. THIS INCLUDES MOWING WHERE VEGETATION HAS BEGUN TO GROW BEFORE SUBSTANTIAL COMPLETION.

LEGEND

	440	EXISTING CONTOUR
	440	PROPOSED CONTOUR
		EXISTING STORM SEWER
		EXISTING GLYCOL DISPOSAL
		EXISTING UNDERDRAIN
		PROPOSED STORM SEWER
		PROPOSED GLYCOL DISPOSAL
		PROPOSED UNDERDRAIN
		EXISTING ELECTRIC LINE
		SILT FENCE, SEE EROSION CONTROL DETAILS 1
		LIMITS OF DISTURBANCE
		WATERSHED DELINEATION
		USDA SCS SOIL NUMBER (RUMA SILT LOAM) RUNOFF "C" VALUE ≈ 0.30
		SILT DIKE DITCH CHECK, SEE EROSION CONTROL DETAILS 1
		AREA TO BE SEEDED
		AREA TO RECEIVE SODDING
		EROSION CONTROL BLANKET, SEE EROSION CONTROL DETAILS 2
		SLOPE ARROW

OWNER:
ST. CLAIR COUNTY PUBLIC BUILDING COMMISSION
#10 PUBLIC SQUARE
BELLEVILLE, IL 62222
618-277-6600

SITE OPERATOR/GENERAL CONTRACTOR:

SUPERINTENDENT:

ACREAGE SUMMARY

TOTAL DISTURBED AREA = 9 AC

BMP MAINTENANCE NOTES

ALL MEASURES STATED ON THIS EROSION AND SEDIMENT CONTROL PLAN, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE GENERAL CONTRACTOR'S SITE SUPERINTENDENT AND CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
3. SILT FENCES SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN IT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
4. THE CONSTRUCTION EXITS SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION EXITS AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. PRIOR TO LEAVING THE SITE, ALL VEHICLES SHALL BE CLEANED OF DEBRIS. ANY DEBRIS AND/OR SEDIMENT REACHING THE PUBLIC STREET SHALL BE CLEANED IMMEDIATELY BY A METHOD OTHER THAN FLUSHING.

SOIL EROSION/SEDIMENTATION CONTROL OPERATION TIME SCHEDULE

NOTE: GENERAL CONTRACTOR TO COMPLETE TABLE WITH THEIR SPECIFIC PROJECT SCHEDULE

CONSTRUCTION SEQUENCE	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	JAN
TEMPORARY CONSTRUCTION EXITS																								
TEMPORARY CONTROL MEASURES																								
SEDIMENT CONTROL BASINS																								
STRIP & STOCKPILE TOPSOIL																								
ROUGH GRADE																								
STORM FACILITIES																								
SITE CONSTRUCTION																								
PERMANENT CONTROL STRUCTURES																								
FOUNDATION / BUILDING CONSTRUCTION																								
FINISH GRADING																								
LANDSCAPING/SEED/FINAL STABILIZATION																								

1) CONTRACTOR SHALL UPDATE THE TABLE BY SHADING OR DATING THE APPLICABLE ACTIVITIES AS PROJECT PROGRESSES.
2) TIME SCHEDULE MUST COINCIDE WITH SEQUENCE OF CONSTRUCTION.

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

MIKE APRON EXPANSION



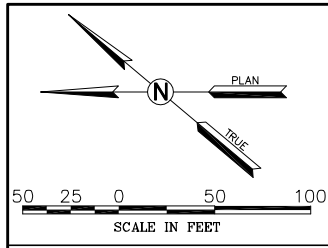
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 06_EROSION_CONTROL_NOTES.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

EROSION CONTROL NOTES



SEE EROSION CONTROL NOTES SHEET FOR LEGEND, TOPO MAP AND ADDITIONAL REQUIREMENTS.

STORMWATER OUTFLOW
ULTIMATELY FLOWS TO SILVER CREEK
APPROXIMATELY 8100 FEET NORTHWEST
OF SITE.

CARGO FACILITY
BY OTHERS
(UNDER CONST.)

BOEING FACILITY

CBP

MIKE APRON

SILT FENCE
(ADDITIVE ALTERNATE 1)

491B2

491B2

491B2

491B2

APPROXIMATE LIMITS
OF PROPOSED APRON
(ADDITIVE ALTERNATE 1)

APPROXIMATE LIMITS
OF PROPOSED APRON
(BASE BID)

LIMITS OF DISTURBANCE

SILT DIKE DITCH CHECK

SILT DIKE DITCH CHECK

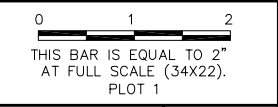
STORMWATER OUTFLOW
ULTIMATELY FLOWS TO SILVER CREEK
APPROXIMATELY 2400 FEET SOUTH.

LIMITS OF DISTURBANCE

48" CONC.
W/ END SECTION

TAXIWAY K

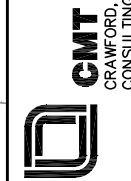
REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

MIKE APRON EXPANSION

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



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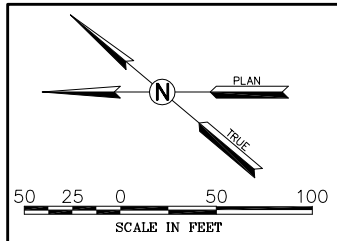
**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 07_EROSION_1.dwg
DESIGN BY: LEW
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APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**EROSION CONTROL
PLAN STAGE 1**

SHEET 7 OF 89 SHEETS

STAGE 1 EROSION AND SEDIMENTATION CONTROL PLAN / SITE MAP



SEE EROSION CONTROL NOTES SHEET FOR LEGEND, TOPO MAP AND ADDITIONAL REQUIREMENTS.

STORMWATER OUTFLOW
ULTIMATELY FLOWS TO SILVER CREEK
APPROXIMATELY 8100 FEET NORTHWEST
OF SITE.

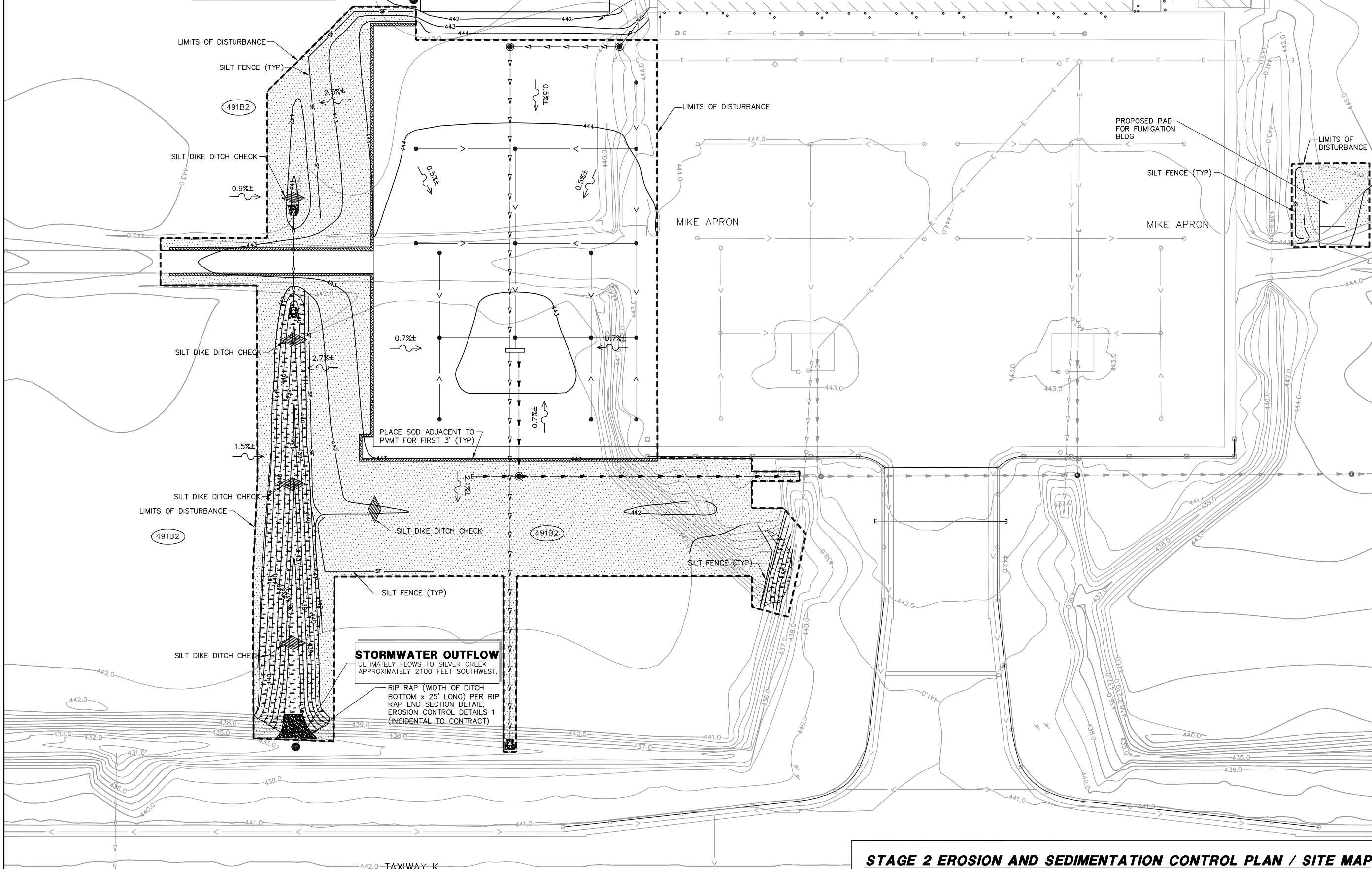
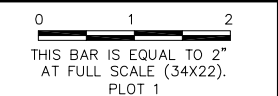
CARGO FACILITY
BY OTHERS
(UNDER CONST.)

BOEING FACILITY

CBP

DISTURBED AREA IS COVERED AS PART OF
THE CARGO FACILITY PROJECT (BY OTHERS)

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

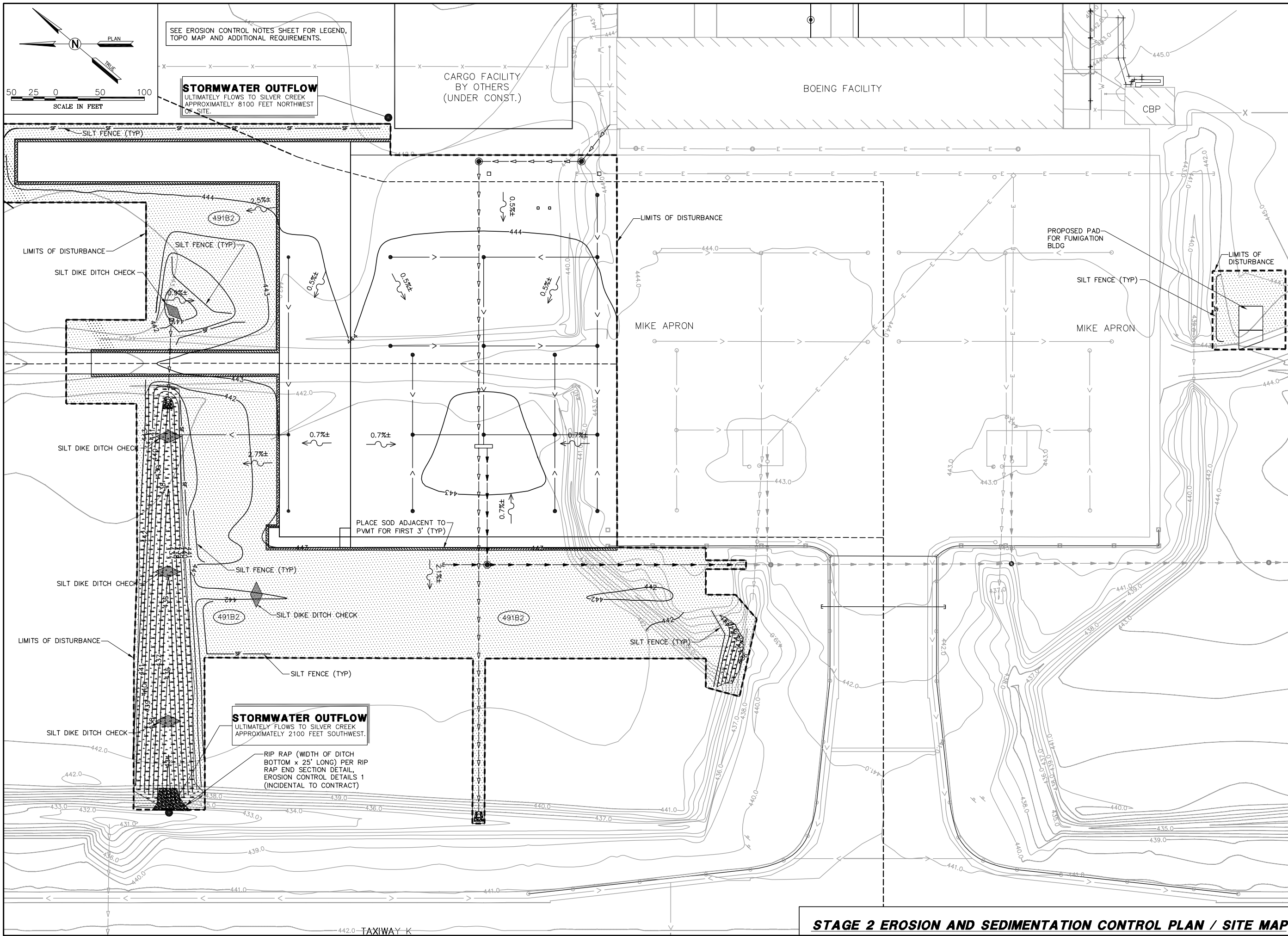
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AIP PROJ. 3-17-0146-029-2011**

FILE: 08_EROSION_2BB.dwg
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APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
EROSION CONTROL PLAN STAGE 2 BASE BID
SHEET 8 OF 89 SHEETS

STAGE 2 EROSION AND SEDIMENTATION CONTROL PLAN / SITE MAP



REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
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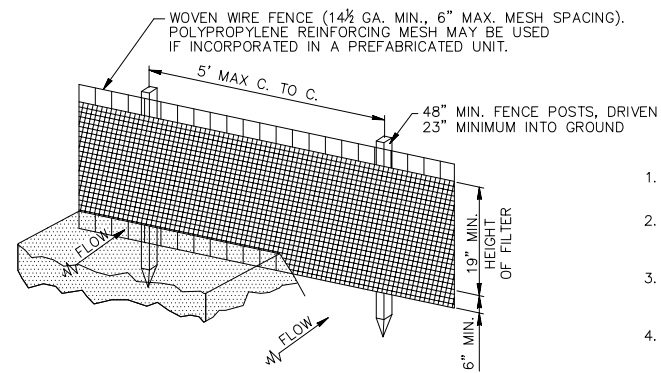
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**IL PROJECT, BLY-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 09_EROSION_2AA.dwg
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DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
EROSION CONTROL PLAN STAGE 2 ADD. ALT. 1
SHEET 9 OF 89 SHEETS

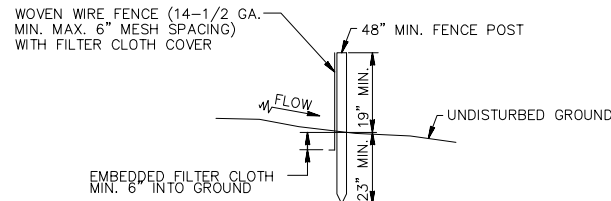
STAGE 2 EROSION AND SEDIMENTATION CONTROL PLAN / SITE MAP



PERSPECTIVE VIEW

NOTES:

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" MIN. AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE. MAINTENANCE, WHICH INCLUDES THE REPLACEMENT OF DAMAGED FENCE SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE EROSION CONTROL FENCE.



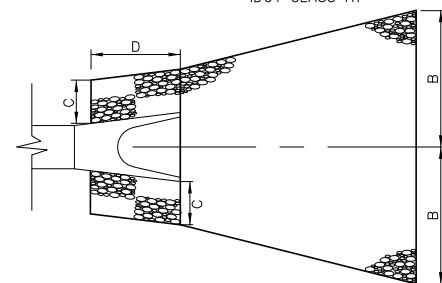
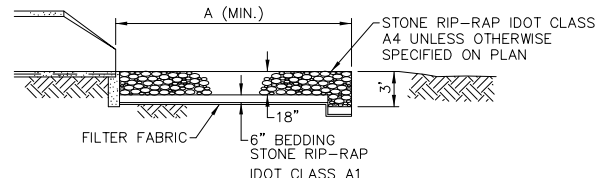
SECTION
SILT FENCE DETAIL
N.T.S.

POSTS: STEEL EITHER T OR U TYPE OR 2" HARDWOOD

FENCE: WOVEN WIRE, 14-1/2 GA. 6" MAX MESH OPENING POLYPROPYLENE MESH, IF INCORPORATED IN PREFAB UNIT.

FILTER CLOTH: FILTER X, MIRAF1100X, STABILINKA T140N OR EQUAL

PREFABRICATED UNIT: GEOFAB ENVIROFENCE, GSI SILT FENCE WITH REINFORCING MESH OR EQUAL.



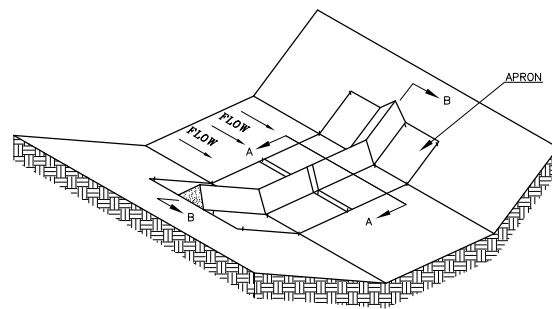
PLAN VIEW

INSIDE DIAMETER STORM SEWER (IN.)	MIN. DIMENSION (FT)			
	A	B	C	D
12" thru 24"	15	4	1.5	4
27" thru 30"	18	5	2.0	6
36" thru 48"	22	6	2.5	8
54" thru 60"	25	7	3.0	10

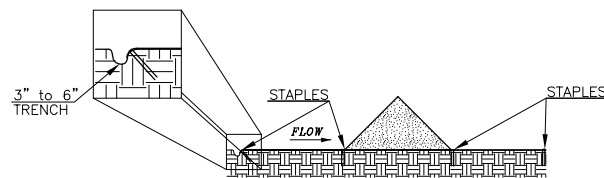
MAINTENANCE NOTES:

1. INSPECT RIP RAP AFTER STORM EVENTS FOR STONE DISPLACEMENT AND FOR EROSION AT THE SIDES AND ENDS OF THE APRON.
2. TAKE NEEDED REPAIRS IMMEDIATELY; USE APPROPRIATE SIZE STONE, AND DO NOT PLACE THEM ABOVE FINISHED GRADE.
3. THE ENGINEER SHALL DETERMINE THE FINAL RIP-RAP CONFIGURATION IN THE FIELD.
4. COST OF RIP-RAP SHALL BE INCIDENTAL TO FLARED END SECTION WORK.

RIP RAP AT END SECTIONS
N.T.S.

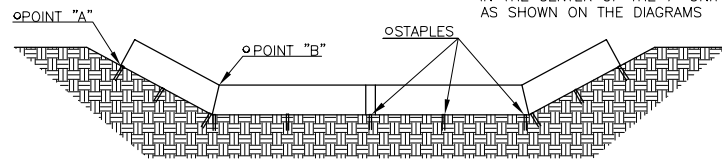


SILT DIKE UNIT
CUT SECTION



DETAIL A-A

STAPLES SHALL BE PLACED WHERE THE UNITS OVERLAP AND IN THE CENTER OF THE 7' UNIT AS SHOWN ON THE DIAGRAMS



DIKE SECTION
DETAIL B-B

POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

SILT DIKE DITCH CHECK
N.T.S.

REVISIONS		
NUMBER	BY	DATE



THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). PLOT 1

MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 10-11_EC_DETAILS.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

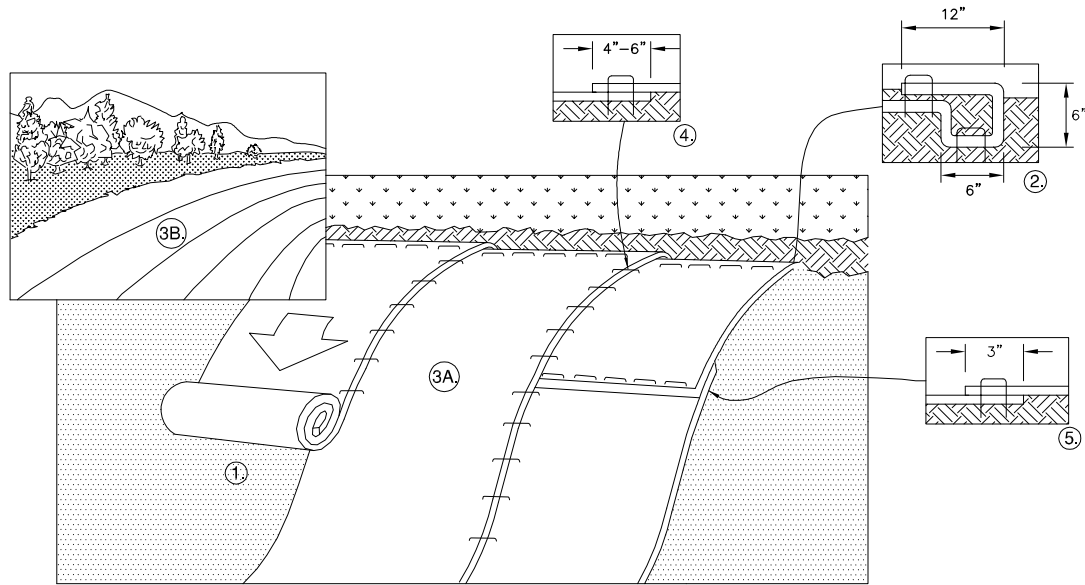
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

EROSION CONTROL DETAILS 1

SHEET 10 OF 89 SHEETS



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE. BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS PER MANUFACTURES RECOMMENDATION.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH MINIMUM 6" OVERLAP. TO ENSURE PROPER SEAM ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET BEING INSTALLED ON TOP) EVEN WITH THE SEAM STITCH ON THE PREVIOUSLY INSTALLED BLANKET.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE BLANKET WIDTH.
6. PLACE STAPLES/STAKES PER MANUFACTURE RECOMMENDATION FOR THE APPROPRIATE SLOPE BEING APPLIED.

NOTES:

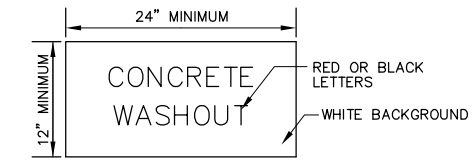
1. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

EROSION CONTROL BLANKET

N.T.S.

CONCRETE WASHOUT AREA NOTES:

1. IF THE CONTRACTOR CHOOSES TO WASHOUT THE CHUTE OF ANY CONCRETE TRUCK, AN APPROVED WASHOUT AREA SHALL BE CONSTRUCTED NEAR THE CONTRACTOR'S STAGING AREA.
2. THE WASHOUT AREA SHALL CONSIST OF A TEMPORARY PIT THAT IS LARGE ENOUGH TO CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS FROM WASHOUT.
3. THE WASHOUT PIT SHALL BE LINED WITH 10 MIL POLYETHYLENE TO CONTROL SEEPAGE. THE LINING SHALL BE SEAMLESS WITH NO HOLES OR PUNCTURES.
4. ONLY WASHOUT OF CHUTES WILL BE PERMITTED ONSITE. TRUCK DRUMS AND BEDS SHALL BE WASHED OUT OFFSITE AT AN APPROVED LOCATION.
5. A SIGN SHALL BE POSTED AT THE WASHOUT LOCATION. SEE DETAIL THIS SHEET.
6. PRIOR TO FINAL COMPLETION OF THE PROJECT THE CONTRACTOR SHALL REMOVE THE WASHOUT PIT, GRADE THE AREA BACK TO ITS ORIGINAL GROUND LINE, AND RESTORE ANY DISTURBED TURF TO THE SATISFACTION OF THE ENGINEER.
7. ALL COSTS ASSOCIATED WITH CONSTRUCTING, MAINTAINING, REMOVING, AND RESTORING THE TEMPORARY WASHOUT PIT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.



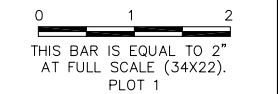
CONCRETE WASHOUT SIGN

N.T.S.

NOTES:

1. LETTERS SHALL BE A MINIMUM OF 2" WIDE AND 3" TALL.
2. SIGN SHALL BE CONSTRUCTED OF A RIGID MATERIAL SUCH AS METAL, PLYWOOD, OR OUTDOOR SIGN BOARD.
3. SIGN SHALL BE PLACED IN A VISIBLE LOCATION NEAR THE APPROVED WASHOUT AREA.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

MIKE APRON EXPANSION

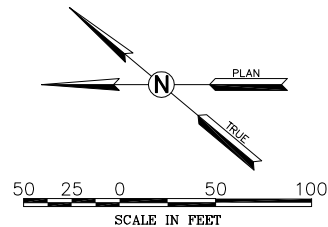
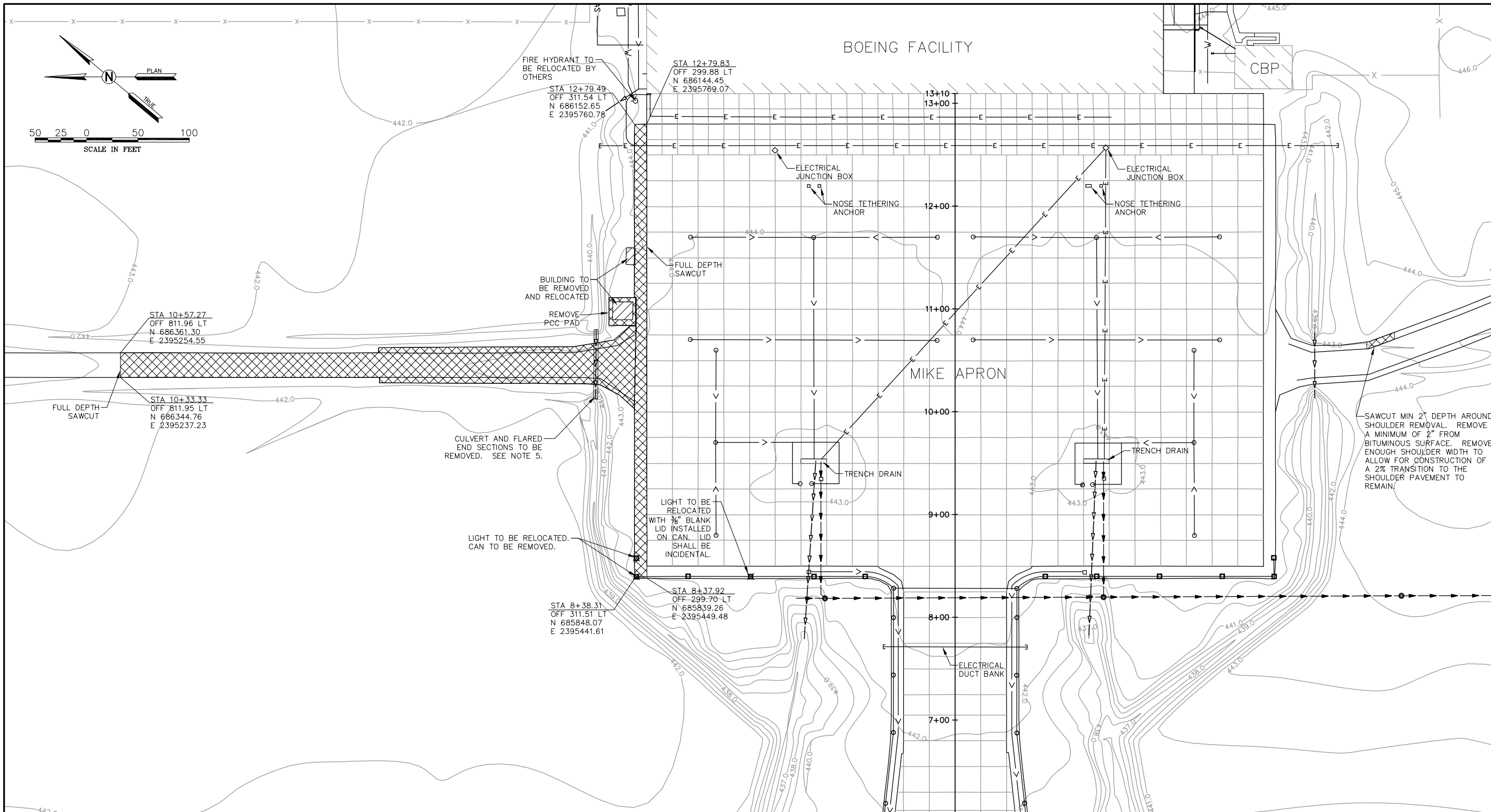
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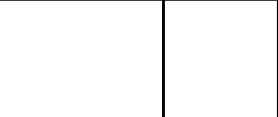
**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 10-11_EC_DETAILS.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011

JOB No: 10098-01
**EROSION
CONTROL
DETAILS 2**



REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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(314) 436-5500

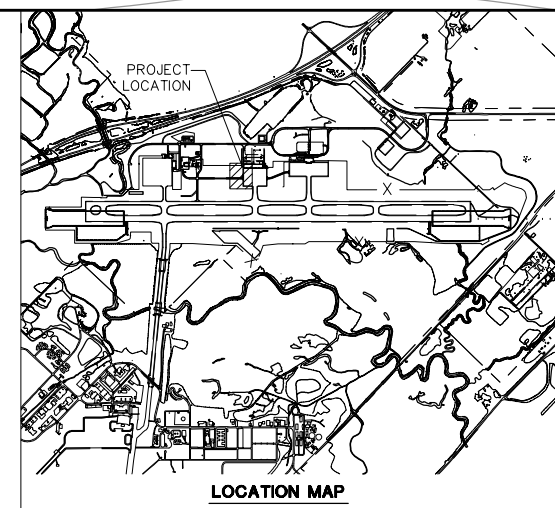
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

LEGEND	
— E — E —	EXISTING ELECTRIC LINE
— ▾ ▾ ▾ ▾ —	EXISTING STORM SEWER
— ▸ ▸ ▸ ▸ —	EXISTING GLYCOL DISPOSAL
— > > > > —	EXISTING UNDERDRAIN
□	EXISTING LED TAXIWAY EDGE LIGHT
○	EXISTING INCANDESCENT TAXIWAY EDGE LIGHT
▨	DEMOLITION AREA: PAVEMENT
▧	STRUCTURE REMOVAL

- DEMOLITION NOTES**
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
 - CONTRACTOR SHALL PROTECT PORTLAND CEMENT CONCRETE AND ASPHALT PAVEMENT AND SHOULDER PAVEMENTS THAT ARE OUTSIDE THE DEMOLITION AREA ADJACENT TO SPECIFIED PAVEMENT REMOVAL. CONTRACTOR SHALL REPAIR ANY DAMAGE TO ADJACENT PAVEMENT AT HIS/HER OWN EXPENSE AS DIRECTED BY THE ENGINEER.
 - EXISTING ELECTRICAL ITEMS SHOWN TO BE REMOVED SHALL NOT BE REMOVED IF THE ITEMS ARE REQUIRED FOR THE OPERATION OF EXISTING EQUIPMENT. THE ENGINEER SHALL BE NOTIFIED IF SUCH ITEMS ARE ENCOUNTERED.
 - THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY "JUMPER" CONNECTIONS TO KEEP ALL CIRCUITS ADJACENT TO ACTIVE PAVEMENTS OPERATING BETWEEN DEMOLITION AND CONSTRUCTION OF NEW EDGE LIGHTING SYSTEMS.
 - THE 24" REINFORCED CONCRETE PIPE (RCP) AND FLARED END SECTIONS (FES) TO BE REMOVED MAY BE REUSED FOR THE RCP AND FES INSTALLATIONS UNDER THE SERVICE ROAD IF THE EXISTING RCP SEGMENTS AND END SECTIONS ARE MAINTAINED IN A CONDITION THAT SATISFIES THE APPLICABLE SPECIFICATION. ANY REUSED PIPE SEGMENTS OR END SECTIONS WILL BE PAID FOR UNDER THE RESPECTIVE NEW PIPE OR END SECTION PAY ITEM.
 - PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES SHOWN ON EROSION CONTROL PHASE 1 ARE TO BE INSTALLED.
 - SEE PROPOSED IMPROVEMENTS SHEET FOR BASELINE CONTROL DATA.



FILE: 12_DEMO.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

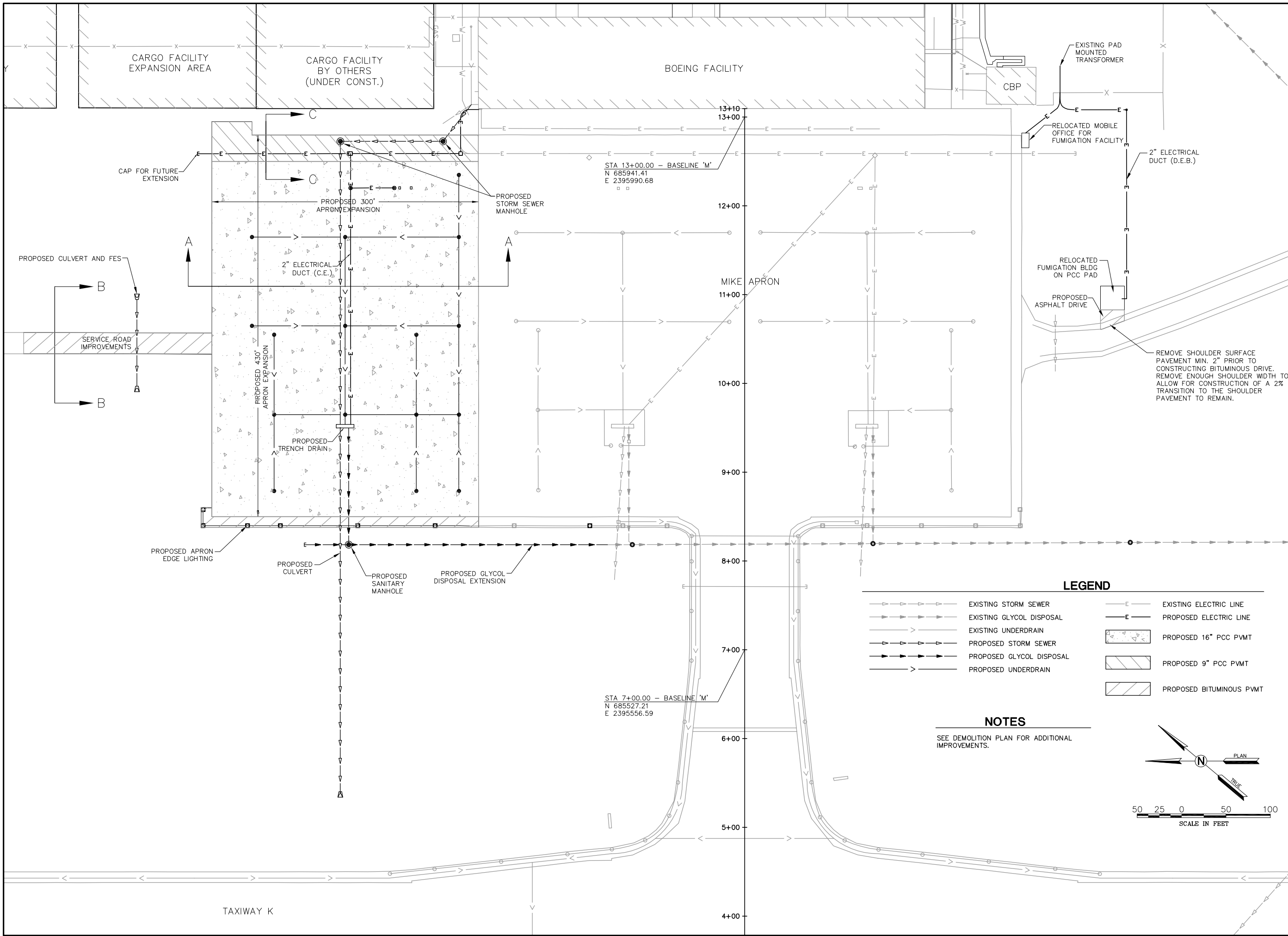
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DATE: NOVEMBER 28, 2011

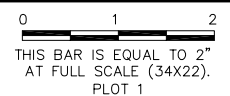
JOB No: 10098-01

**DEMOLITION
PLAN**

SHEET 12 OF 89 SHEETS



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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
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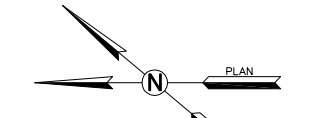
**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

LEGEND

	EXISTING STORM SEWER		EXISTING ELECTRIC LINE
	EXISTING GLYCOL DISPOSAL		PROPOSED ELECTRIC LINE
	EXISTING UNDERDRAIN		PROPOSED 16" PCC PVMT
	PROPOSED STORM SEWER		PROPOSED 9" PCC PVMT
	PROPOSED GLYCOL DISPOSAL		PROPOSED BITUMINOUS PVMT
	PROPOSED UNDERDRAIN		

NOTES

SEE DEMOLITION PLAN FOR ADDITIONAL IMPROVEMENTS.



FILE: 13_PROP_IMPROVE.dwg

DESIGN BY: LEW

DRAWN BY: ASA

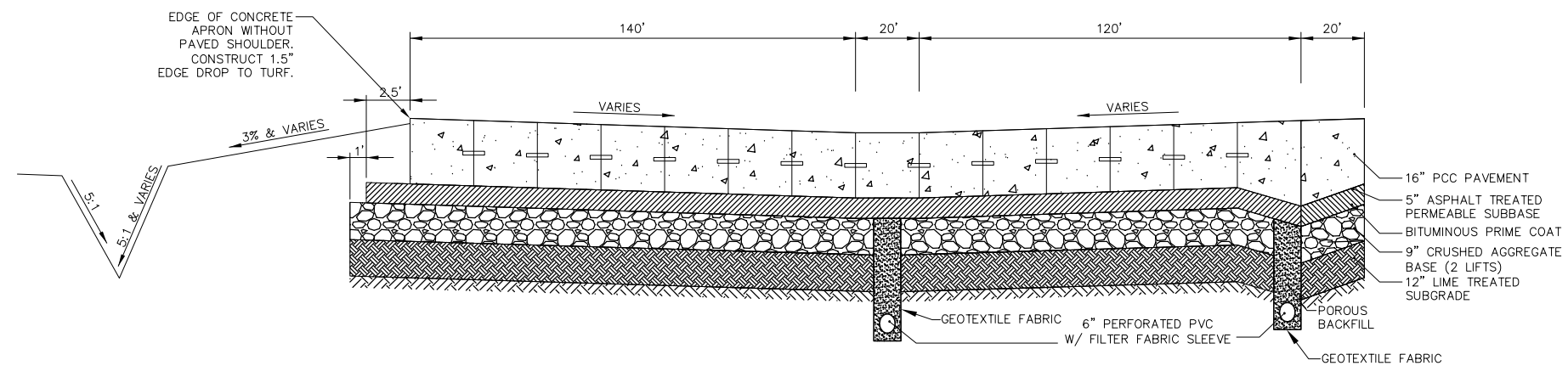
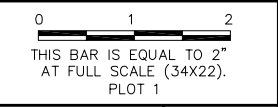
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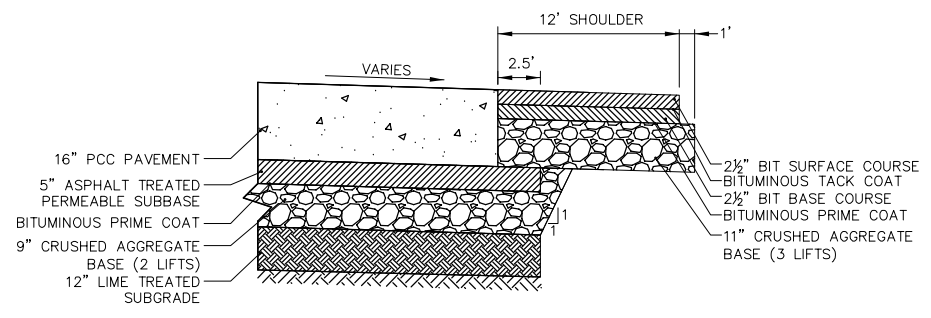
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JOB No: 10098-01

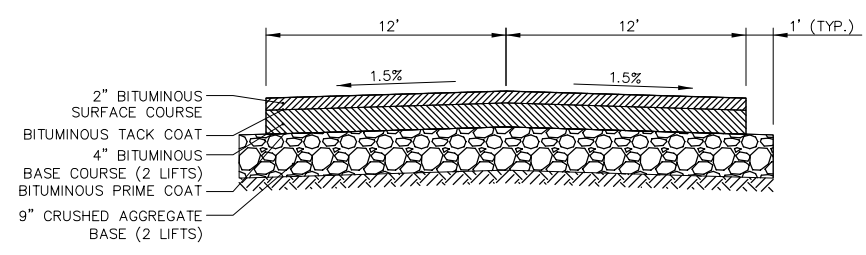
REVISIONS		
NUMBER	BY	DATE



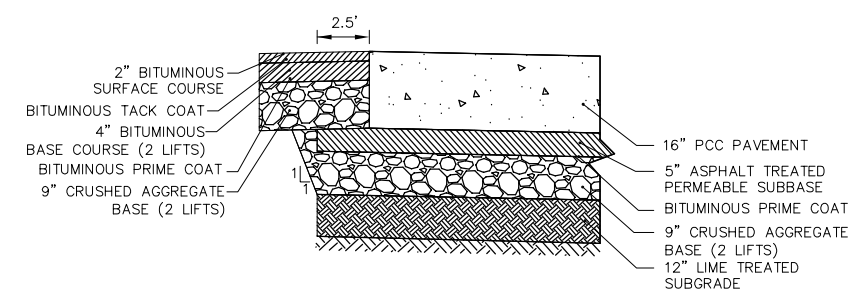
(A) APRON TYPICAL SECTION
NOT TO SCALE



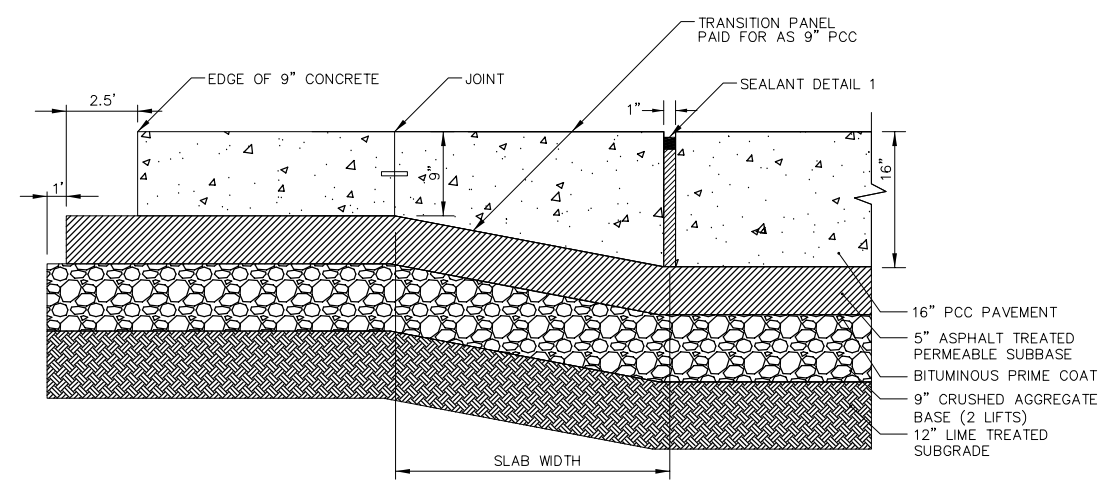
TYPICAL SECTION AT SHOULDER
NOT TO SCALE



(B) SERVICE ROAD TYPICAL SECTION
NOT TO SCALE



TYPICAL SECTION AT SERVICE ROAD AT CONNECTION TO APRON
NOT TO SCALE



(C) THICKENED EDGE AT 9\"/>

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



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PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 14_TYP_SECT.dwg

DESIGN BY: LEW

DRAWN BY: ASA

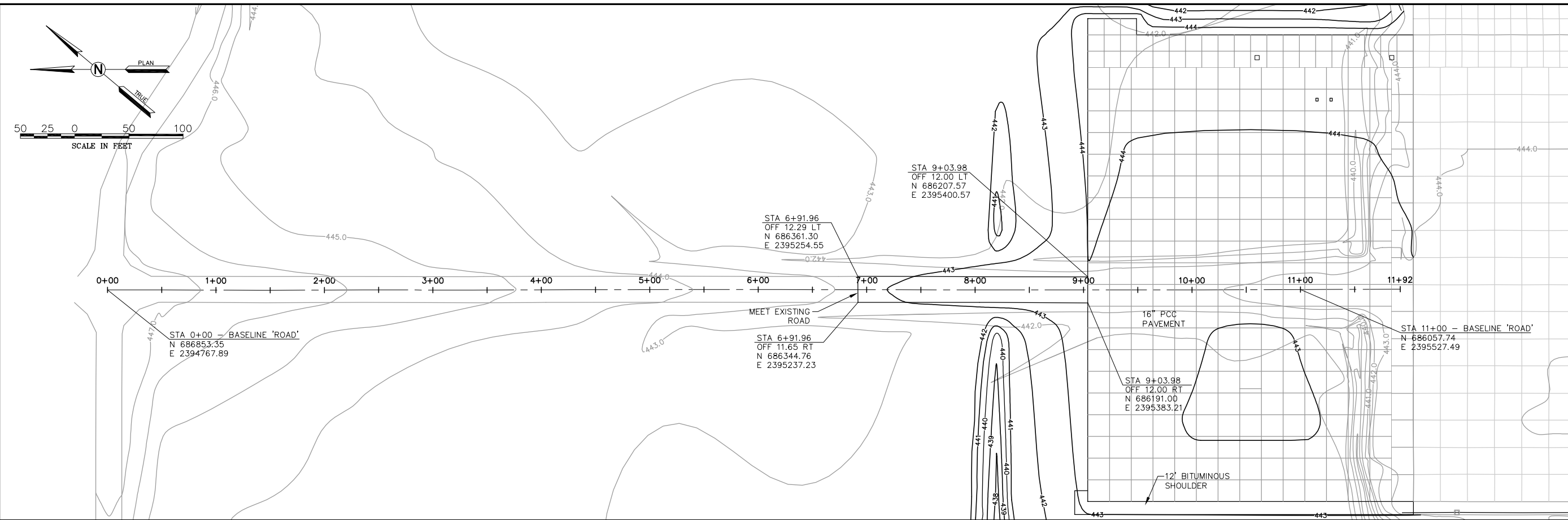
CHECKED BY: MJD/CET

APPROVED BY: BWG

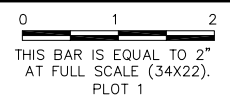
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**TYPICAL
SECTIONS**

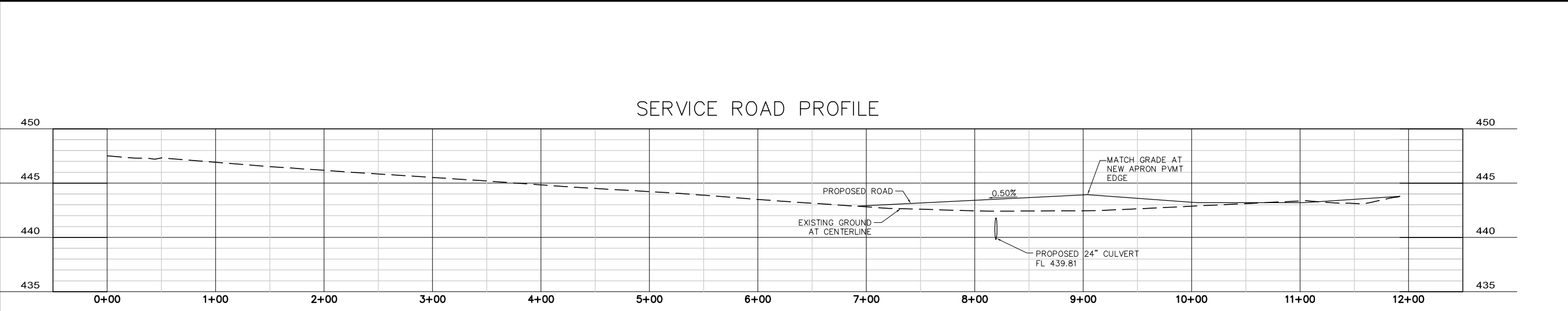


REVISIONS		
NUMBER	BY	DATE



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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 14_ROAD_PLAN_PROF.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**SERVICE ROAD
PLAN AND
PROFILE**

SHEET 15 OF 89 SHEETS

CARGO FACILITY EXPANSION AREA

CARGO FACILITY BY OTHERS (UNDER CONST.)
FFE = 445.08

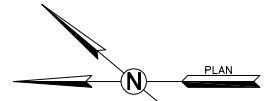
BOEING FACILITY

GAS

PAVING GRADES BY OTHERS (TYP.)

REVISIONS		
NUMBER	BY	DATE

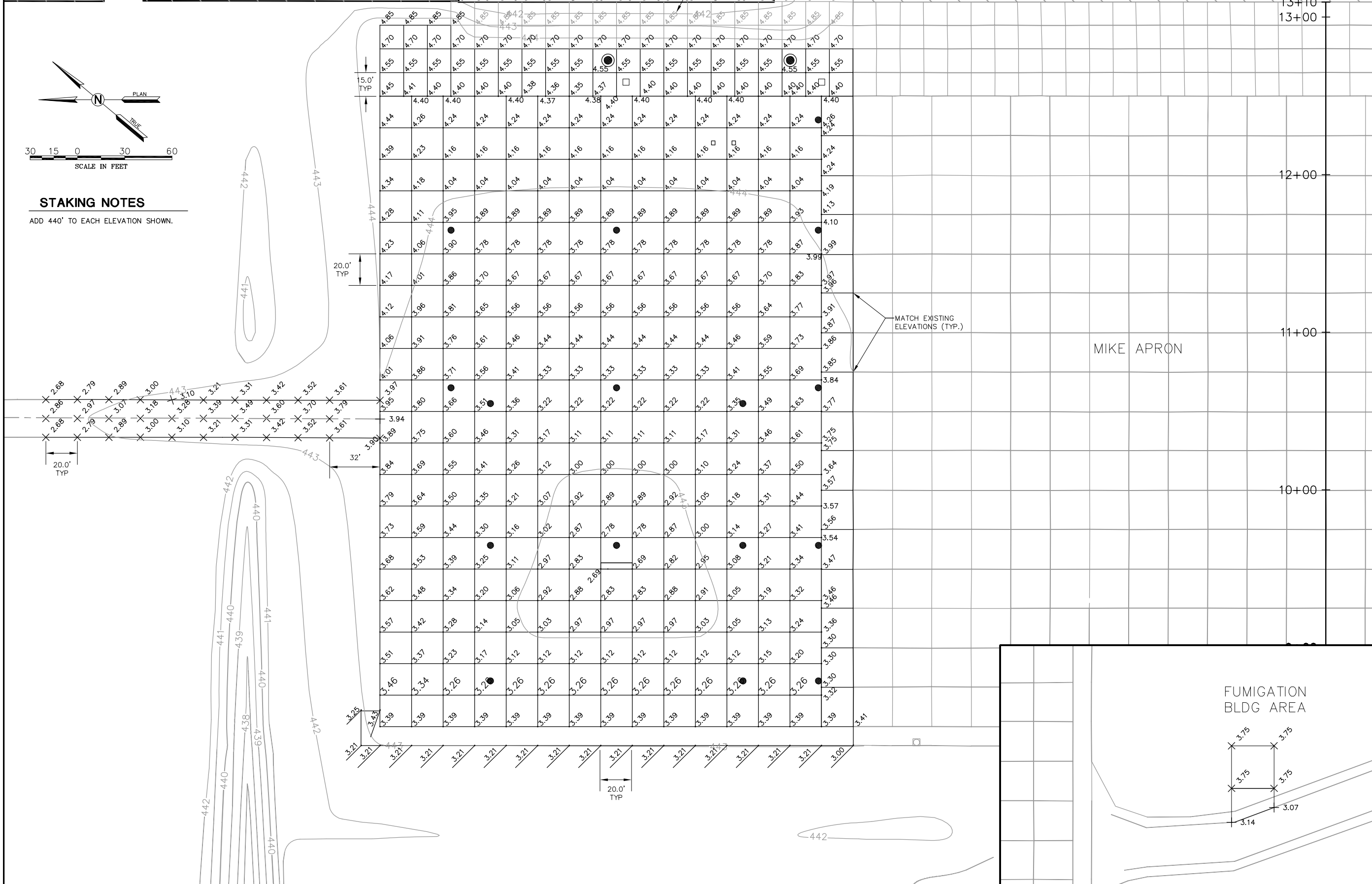
0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1



30 15 0 30 60
SCALE IN FEET

STAKING NOTES

ADD 440' TO EACH ELEVATION SHOWN.



MATCH EXISTING ELEVATIONS (TYP.)

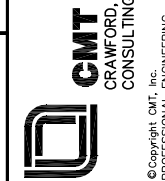
MIKE APRON

FUMIGATION BLDG AREA

**MIDAMERICA ST. LOUIS AIRPORT
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IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 16_STAKING.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

STAKING PLAN

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
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**MIKE APRON EXPANSION
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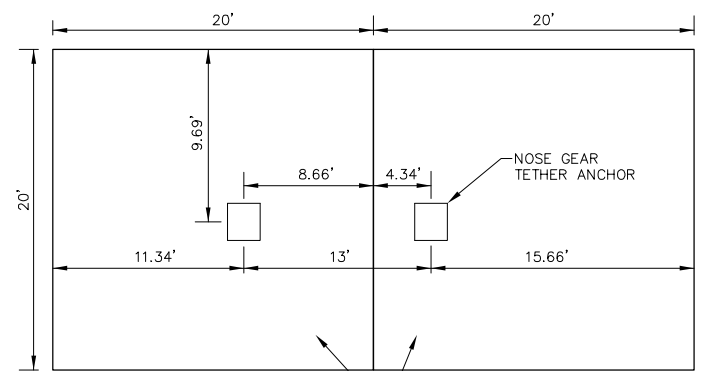
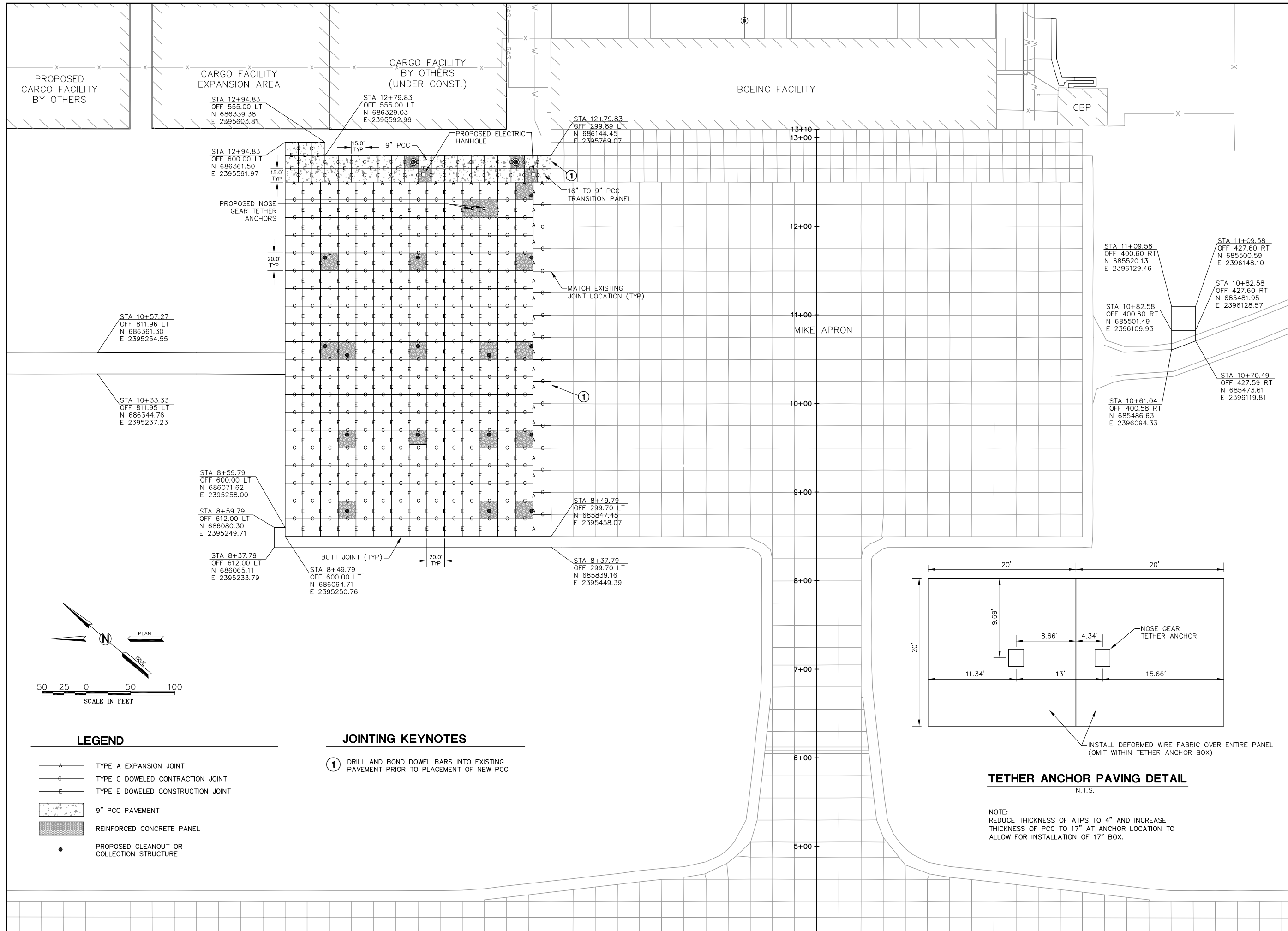
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

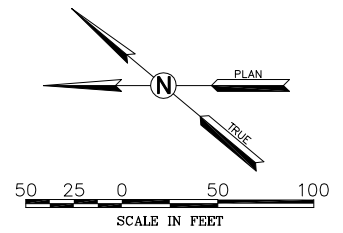
FILE: 17_JOINTING.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

JOINTING PLAN



TETHER ANCHOR PAVING DETAIL
N.T.S.

NOTE:
REDUCE THICKNESS OF ATPS TO 4" AND INCREASE THICKNESS OF PCC TO 17" AT ANCHOR LOCATION TO ALLOW FOR INSTALLATION OF 17" BOX.



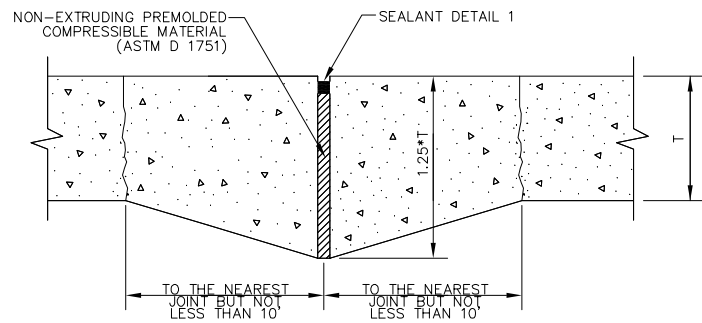
LEGEND

—A—	TYPE A EXPANSION JOINT
—C—	TYPE C DOWELED CONTRACTION JOINT
—E—	TYPE E DOWELED CONSTRUCTION JOINT
	9" PCC PAVEMENT
	REINFORCED CONCRETE PANEL
•	PROPOSED CLEANOUT OR COLLECTION STRUCTURE

JOINTING KEYNOTES

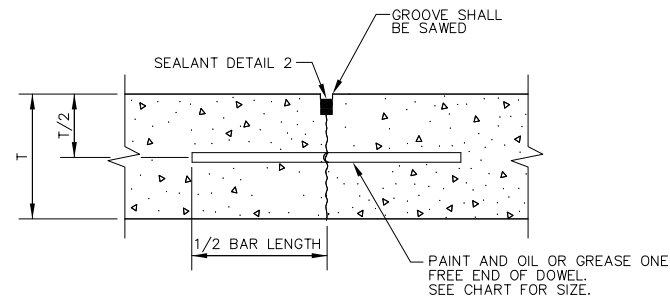
①	DRILL AND BOND DOWEL BARS INTO EXISTING PAVEMENT PRIOR TO PLACEMENT OF NEW PCC
---	--

EXPANSION JOINTS



TYPE A - THICKENED EDGE
NOT TO SCALE

CONTRACTION JOINTS



TYPE C - DOWELED
NOT TO SCALE

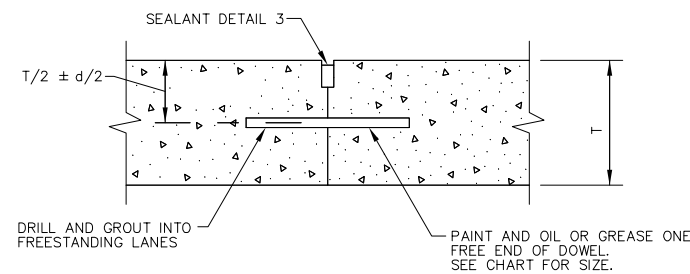
JOINTING NOTES

- ALL EDGES OF NEW SLABS, FREE STANDING OR CLOSURE, SHALL BE EDGED WITH AN APPROVED TOOL HAVING A RADIUS OF $\frac{1}{4}$ " TO FACILITATE SAWING OF THE SEALANT RESERVOIR.
- THE INITIAL SAW CUT FOR ALL TRANSVERSE CONTRACTION JOINTS SHALL BE SAWED AS SOON AS POSSIBLE AFTER PLACEMENT OF THE PAVEMENT.
- ALL DOWEL BARS IN TRANSVERSE JOINTS SHALL BE SECURELY HELD IN PLACE BY MEANS OF A DOWEL BAR ASSEMBLY WHICH WILL INSURE THAT THEY REMAIN PARALLEL TO THE PAVEMENT LANES. SHOP DRAWING SUBMITTAL OF THE DOWEL BAR ASSEMBLIES SHALL BE MADE PRIOR TO INSTALLATION.
- ALL REINFORCEMENT AND/OR FABRIC SHALL BE SECURELY HELD IN PLACE BY SUPPORT PINS OR OTHER APPROVED METHODS TO PREVENT SHIFTING DURING & AFTER CONCRETE PLACEMENT.
- TYPE E DOWELED CONSTRUCTION JOINT SHALL BE INSTALLED FOR ALL LONGITUDINAL JOINTS AND WHERE PAVING OPERATIONS ARE DELAYED OR STOPPED.

REVISIONS		
NUMBER	BY	DATE

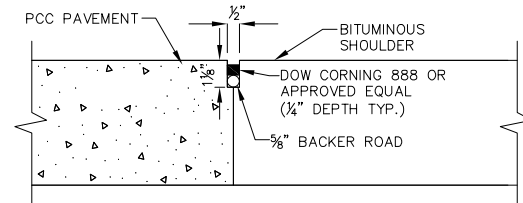
0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

CONSTRUCTION JOINTS

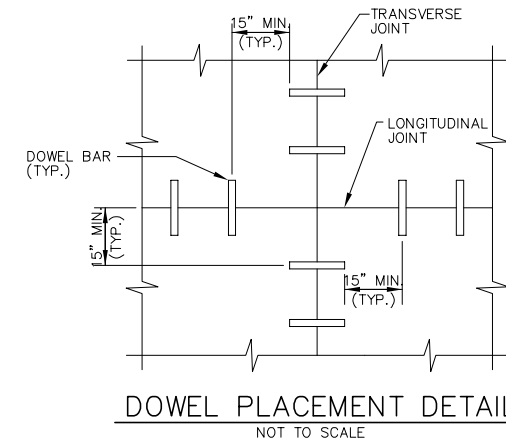


TYPE E - DOWELED
NOT TO SCALE

PCC-BITUMINOUS TRANSITION

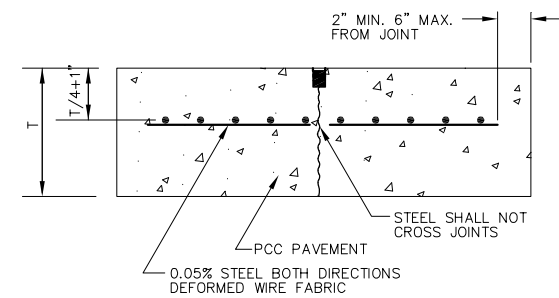


BUTT JOINT DETAIL AT SHOULDER
NOT TO SCALE



DOWEL PLACEMENT DETAIL
NOT TO SCALE

REINFORCED PANELS



ODD SHAPED PANEL REINFORCEMENT
NOT TO SCALE

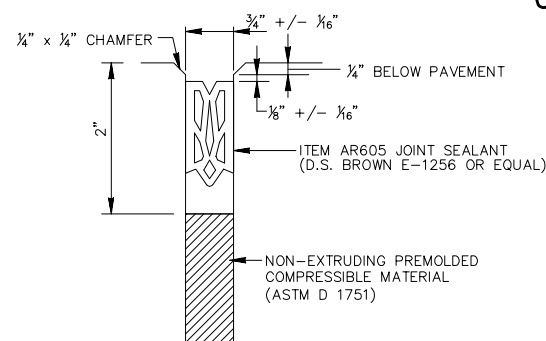
THICKNESS	SUGGESTED MINIMUM FABRIC SIZE
4"	6 x 6 - W1.2 x W1.2 OR 4 x 4 - W0.9 x W0.9
6"	6 x 6 - W2.1 x W2.1 OR 4 x 4 - W1.2 x W1.2
8"	6 x 6 - W2.5 x W2.5 OR 4 x 4 - W2.1 x W2.1
10"	6 x 6 - W3.5 x W3.5 OR 4 x 4 - W2.1 x W2.1
12"	6 x 6 - W4 x W4 OR 4 x 4 - W2.5 x W2.5
14"	6 x 6 - W4.5 x W4.5 OR 4 x 4 - W3 x W3
16"	6 x 6 - W5 x W5 OR 4 x 4 - W3.5 x W3.5

DOWEL BAR SIZES

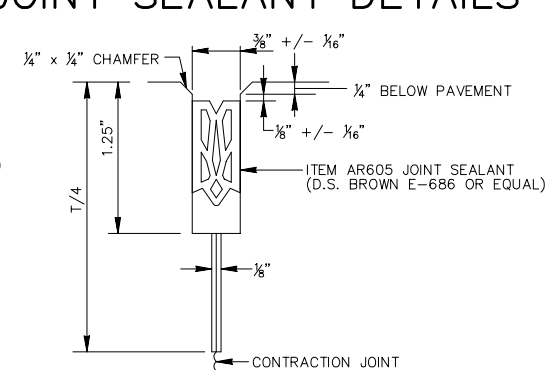
THICKNESS OF SLAB	DIAMETER	LENGTH	SPACING
6-7 IN	$\frac{3}{4}$ IN	18 IN	12 IN
8-12 IN	1 IN	19 IN	12 IN
13-16 IN	$1\frac{1}{4}$ IN	20 IN	15 IN
17-20 IN	$1\frac{1}{2}$ IN (1)	20 IN	18 IN
21-24 IN	2 IN (1)	24 IN	18 IN

(1) DOWELS NOTED MAY BE A SOLID BAR OR HIGH-STRENGTH PIPE. HIGH STRENGTH PIPE DOWELS MUST BE PLUGGED ON EACH END WITH A TIGHT-FITTING PLASTIC CAP OR WITH BITUMINOUS OR MORTAR MIX.

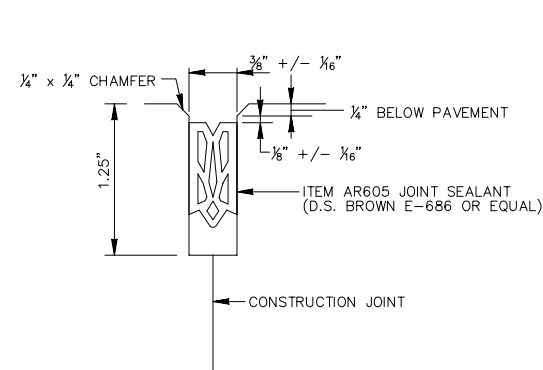
JOINT SEALANT DETAILS



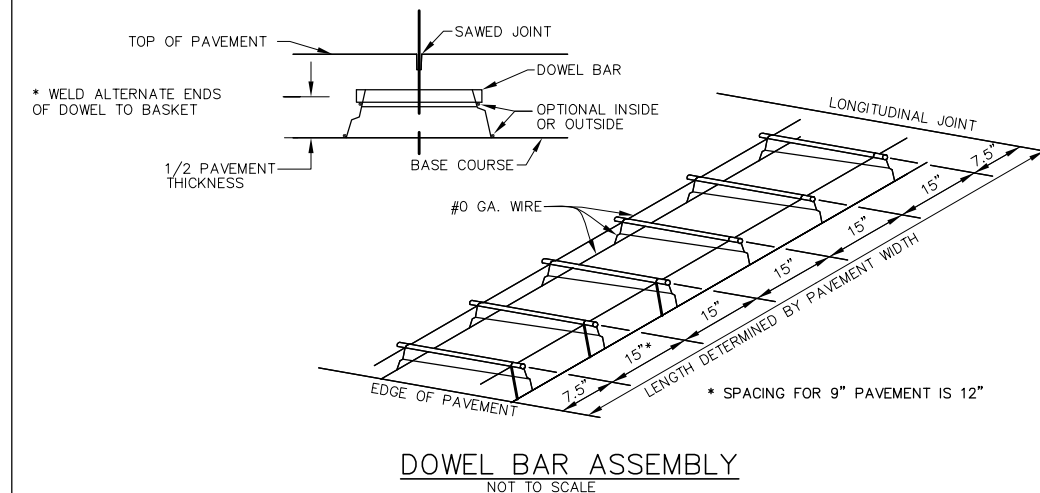
JOINT SEALANT DETAIL 1
NOT TO SCALE



JOINT SEALANT DETAIL 2
NOT TO SCALE



JOINT SEALANT DETAIL 3
NOT TO SCALE



DOWEL BAR ASSEMBLY
NOT TO SCALE

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**MIKE APRON EXPANSION
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**IL PROJECT, BLY-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 18_JOINT_DETAILS.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

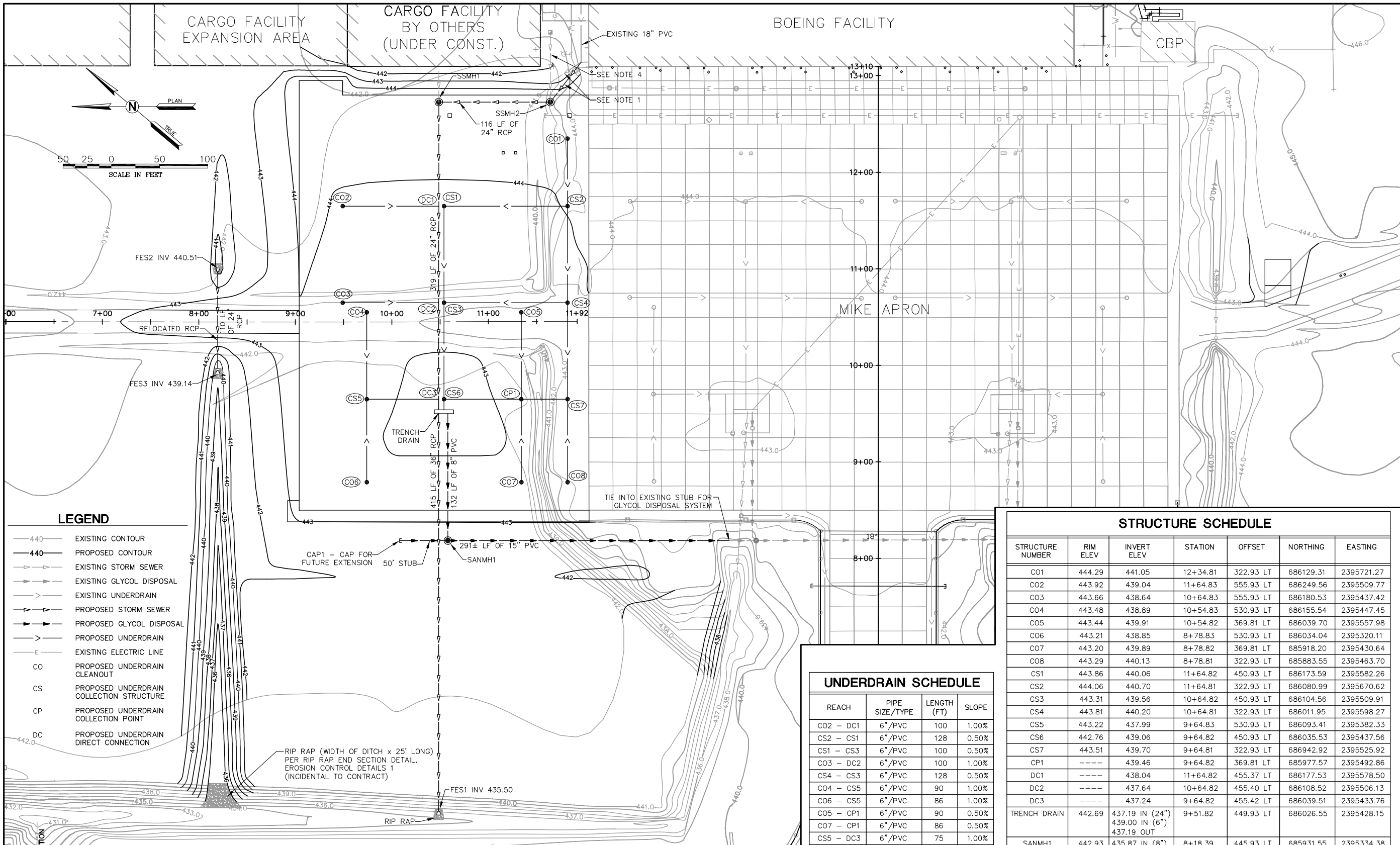
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**JOINTING
DETAILS**

SHEET 18 OF 89 SHEETS



LEGEND

- 440 — EXISTING CONTOUR
- 440 — PROPOSED CONTOUR
- — — EXISTING STORM SEWER
- — — EXISTING GLYCOL DISPOSAL
- — — EXISTING UNDERDRAIN
- — — PROPOSED STORM SEWER
- — — PROPOSED GLYCOL DISPOSAL
- — — PROPOSED UNDERDRAIN
- — — EXISTING ELECTRIC LINE
- CO — PROPOSED UNDERDRAIN CLEANOUT
- CS — PROPOSED UNDERDRAIN COLLECTION STRUCTURE
- CP — PROPOSED UNDERDRAIN COLLECTION POINT
- DC — PROPOSED UNDERDRAIN DIRECT CONNECTION

- NOTES:**
- REMOVE APPROX 38 LF OF 24" PVC BETWEEN CONNECTION WITH 18" PVC AND EXISTING OUTLET. REPLACE PIPE BEGINNING AT CONNECTION POINT WITH 18" PVC TO ELEVATION AND SLOPE SHOWN ON PLANS. THE CONTRACTOR MAY REUSE THE EXISTING PIPE IF IN GOOD CONDITION AS DETERMINED BY THE ENGINEER. IF PCC PAVING BY OTHERS IS ALREADY COMPLETE AT THE TIME OF THE ISSUANCE OF THE NTP, THIS WORK SHALL BE REDUCED TO EXTENDING AND CONNECTING THE ALREADY RELOCATED 24" PVC TO THE PROPOSED STORM SEWER MANHOLE. THIS WORK SHALL BE INCIDENTAL TO STORM SEWER MANHOLE INSTALLATION REGARDLESS OF THE AMOUNT OF WORK COMPLETED BY OTHERS.
 - COLLECTION POINTS CONSIST OF A 4-WAY PVC FITTING AND SHALL BE CONSIDERED INCIDENTAL TO THE UNDERDRAIN WORK.
 - DIRECT CONNECTIONS SHALL BE CONSIDERED INCIDENTAL TO THE UNDERDRAIN WORK.
 - PIPE UNDER CONSTRUCTION BY OTHERS. IF PIPE IS ALREADY IN PLACE, VERIFY ELEVATION IN FIELD AND CONNECT TO THE MANHOLE.
 - THE EXISTING GROUND MAY BE LOWERED IN PROPOSED CUT AREAS PRIOR TO THE START OF CONSTRUCTION DUE TO EARTHWORK OPERATIONS ADJACENT TO THIS PROJECT. IF THE EXISTING GROUND DOES CHANGE, THE GROUND WILL BE SURVEYED BY THE ENGINEER PRIOR TO THE START OF GRADING OPERATIONS FOR THIS CONTRACT AND THE EXISTING GROUND LINE ON THE CROSS SECTIONS WILL BE UPDATED.

GLYCOL COLLECTION AND STORM SEWER SCHEDULE

REACH	PIPE SIZE/TYPE	LENGTH FOR PAYMENT (FT)	LENGTH W/ FES (FT)	SLOPE
TRENCH DRAIN - SANMH1	8"/PVC	132	---	1.00%
SANMH1 - EXISTING STUB	15"/PVC	291	---	0.31%
TRENCH DRAIN - FES1	36"/RCP	407	415	0.41%
FES2 - FES3	24"/RCP	98	110	1.25%
SSMH2 - SSMH1	24"/RCP	116	---	0.97%
SSMH1 - TRENCH DRAIN	24"/RCP	319	---	0.40%
CAP1 - SANMH1	15"/PVC	50	---	0.30%
18" PVC - SSMH2	24"/PVC	53	---	3.37%

UNDERDRAIN SCHEDULE

REACH	PIPE SIZE/TYPE	LENGTH (FT)	SLOPE
CO2 - DC1	6"/PVC	100	1.00%
CS2 - CS1	6"/PVC	128	0.50%
CS1 - CS3	6"/PVC	100	0.50%
CO3 - DC2	6"/PVC	100	1.00%
CS4 - CS3	6"/PVC	128	0.50%
CO4 - CS5	6"/PVC	90	1.00%
CO6 - CS5	6"/PVC	86	1.00%
CO5 - CP1	6"/PVC	90	0.50%
CO7 - CP1	6"/PVC	86	0.50%
CS5 - DC3	6"/PVC	75	1.00%
CP1 - CS6	6"/PVC	80	0.50%
CS3 - CS6	6"/PVC	100	0.50%
CO1 - CS2	6"/PVC	70	0.50%
CS2 - CS4	6"/PVC	100	0.50%
CS4 - CS7	6"/PVC	100	0.50%
CS7 - CP1	6"/PVC	48	0.50%
CO8 - CS7	6"/PVC	86	0.50%
CS6 - TRENCH DRAIN	6"/PVC (NON-PERF)*	11	0.50%

*NOTE: PROVIDE 6" DUCTILE IRON PIPE (DIP) PENETRATION AT TRENCH DRAIN WALL. COST OF DIP PENETRATION AND 11 LF OF NON-PERFORATED PVC SHALL BE INCLUDED UNDER ITEM AR705526 - 6" PERFORATED UNDERDRAIN W/SOCK.

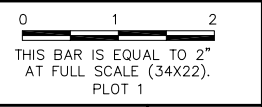
STRUCTURE SCHEDULE

STRUCTURE NUMBER	RIM ELEV	INVERT ELEV	STATION	OFFSET	NORTHING	EASTING
CO1	444.29	441.05	12+34.81	322.93 LT	686129.31	2395721.27
CO2	443.92	439.04	11+64.83	555.93 LT	686249.56	2395509.77
CO3	443.66	438.64	10+64.83	555.93 LT	686180.53	2395437.42
CO4	443.48	438.89	10+54.83	530.93 LT	686155.54	2395447.45
CO5	443.44	439.91	10+54.82	369.81 LT	686039.70	2395557.98
CO6	443.21	438.85	8+78.83	530.93 LT	686034.04	2395320.11
CO7	443.20	439.89	8+78.82	369.81 LT	685918.20	2395430.64
CO8	443.29	440.13	8+78.81	322.93 LT	685883.55	2395463.70
CS1	443.86	440.06	11+64.82	450.93 LT	686173.59	2395582.26
CS2	444.06	440.70	11+64.81	322.93 LT	686080.99	2395670.62
CS3	443.31	439.56	10+64.82	450.93 LT	686104.56	2395509.91
CS4	443.81	440.20	10+64.81	322.93 LT	686011.95	2395598.27
CS5	443.22	437.99	9+64.83	530.93 LT	686093.41	2395382.33
CS6	442.76	439.06	9+64.82	450.93 LT	686035.53	2395437.56
CS7	443.51	439.70	9+64.81	322.93 LT	686942.92	2395525.92
CP1	---	439.46	9+64.82	369.81 LT	685977.57	2395492.86
DC1	---	438.04	11+64.82	455.37 LT	686177.53	2395578.50
DC2	---	437.64	10+64.82	455.40 LT	686108.52	2395506.13
DC3	---	437.24	9+64.82	455.42 LT	686039.51	2395433.76
TRENCH DRAIN	442.69	437.19 IN (24") 439.00 IN (6") 437.19 OUT	9+51.82	449.93 LT	686026.55	2395428.15
SANMH1	442.93	435.87 IN (8") 433.77 IN (15") 433.67 OUT	8+18.39	445.93 LT	685931.55	2395334.38
EX STUB	---	432.78±	8+18.36±	155± LT**	---	---
SSMH1	444.55	438.62 IN 438.52 OUT	12+72.63	455.34 LT	686251.93	2395656.52
FES1	---	435.50	5+34.02	455.43 LT	685742.11	2395122.08
FES2	---	440.51	11+00.71	684.43 LT	686298.98	2395373.98
FES3	---	439.14	9+90.71	684.43 LT	686223.05	2395294.39
SSMH2	444.57	440.23 IN (24") 441.85 IN (12") 439.75 OUT	12+72.62	339.76 LT	686168.31	2395736.30
CAP1	---	433.92	8+18.39	495.93 LT	685967.72	2395299.86

**NOTE: FIELD VERIFY LOCATION OF EXISTING SEWER STUB

REVISIONS

NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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**IL PROJECT, BLV-4061
AIP PROJ. 17-0146-029-2011**

FILE: 19_GRADING.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

GRADING AND DRAINAGE PLAN

SHEET 19 OF 89 SHEETS

REVISIONS		
NUMBER	BY	DATE

0 1 2
 THIS BAR IS EQUAL TO 2'
 AT FULL SCALE (34X22).
 PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
 ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
 BASE BID**

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**IL PROJECT: BLV-4061
 AIP PROJ. 3-17-0146-029-2011**

FILE: 20_SPILLWAY.dwg
 DESIGN BY: LEW
 DRAWN BY: ASA
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: NOVEMBER 28, 2011
 JOB No: 10098-01

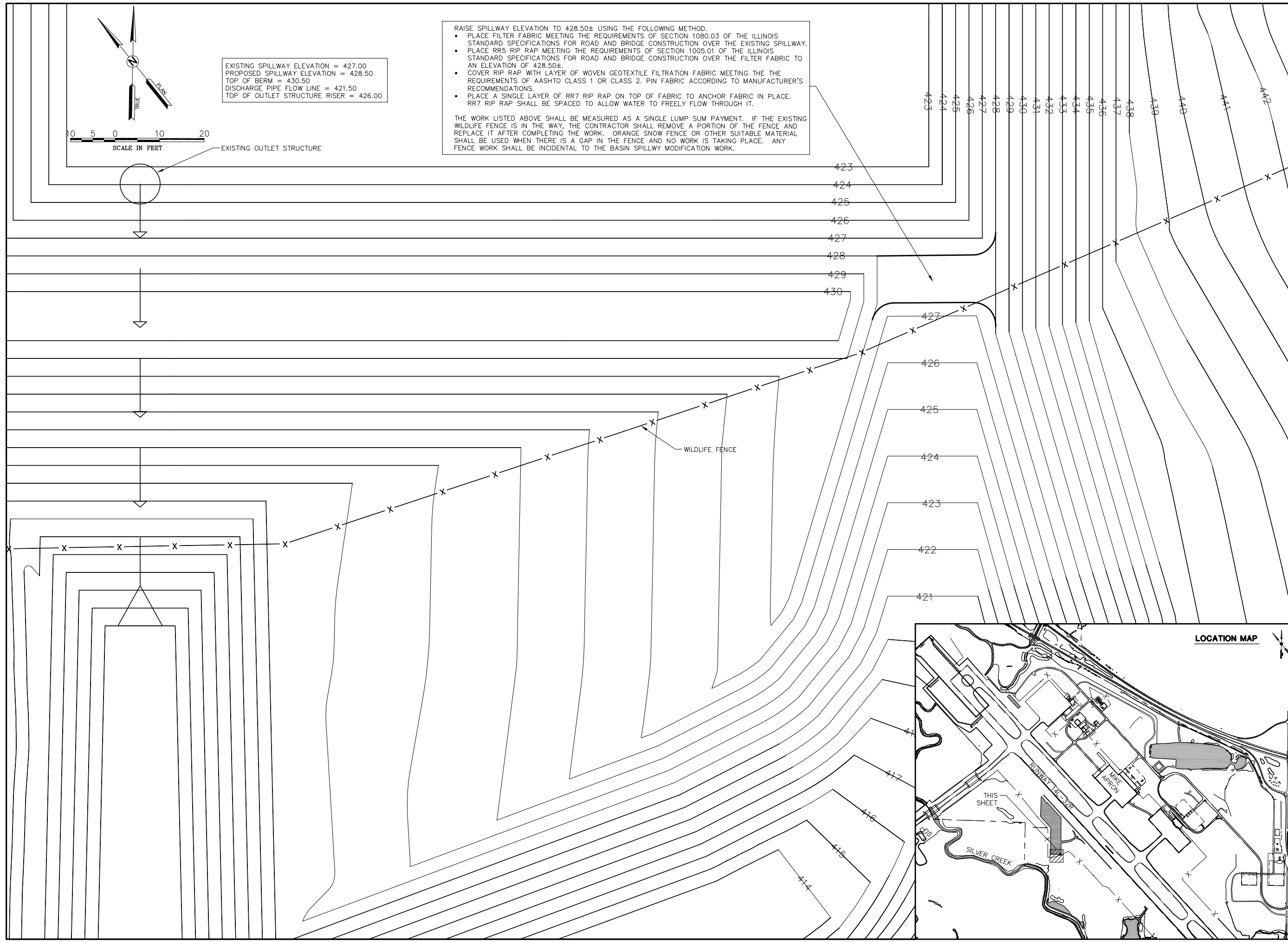
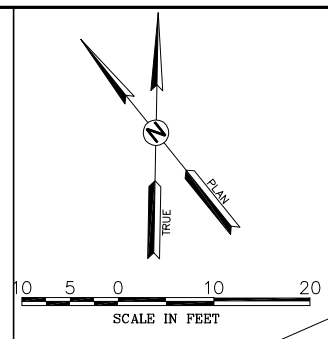
**Basin Spillway
 Modifications**

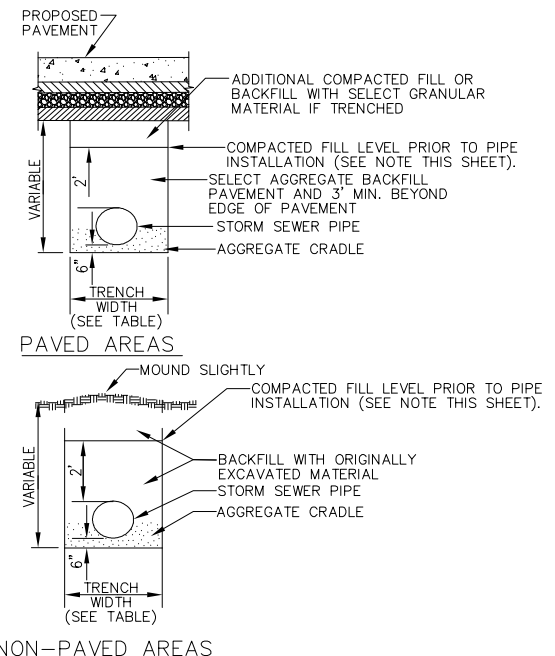
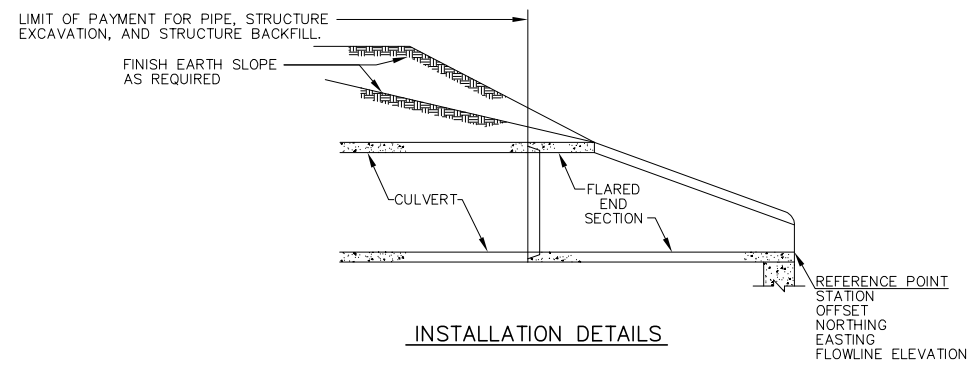
RAISE SPILLWAY ELEVATION TO 428.50± USING THE FOLLOWING METHOD.

- PLACE FILTER FABRIC MEETING THE REQUIREMENTS OF SECTION 1080.03 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OVER THE EXISTING SPILLWAY.
- PLACE RR5 RIP RAP MEETING THE REQUIREMENTS OF SECTION 1005.01 OF THE ILLINOIS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OVER THE FILTER FABRIC TO AN ELEVATION OF 428.50±.
- COVER RIP RAP WITH LAYER OF WOVEN GEOTEXTILE FILTRATION FABRIC MEETING THE THE REQUIREMENTS OF AASHTO CLASS 1 OR CLASS 2. PIN FABRIC ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- PLACE A SINGLE LAYER OF RR7 RIP RAP ON TOP OF FABRIC TO ANCHOR FABRIC IN PLACE. RR7 RIP RAP SHALL BE SPACED TO ALLOW WATER TO FREELY FLOW THROUGH IT.

THE WORK LISTED ABOVE SHALL BE MEASURED AS A SINGLE LUMP SUM PAYMENT. IF THE EXISTING WILDLIFE FENCE IS IN THE WAY, THE CONTRACTOR SHALL REMOVE A PORTION OF THE FENCE AND REPLACE IT AFTER COMPLETING THE WORK. ORANGE SNOW FENCE OR OTHER SUITABLE MATERIAL SHALL BE USED WHEN THERE IS A GAP IN THE FENCE AND NO WORK IS TAKING PLACE. ANY FENCE WORK SHALL BE INCIDENTAL TO THE BASIN SPILLWAY MODIFICATION WORK.

EXISTING SPILLWAY ELEVATION = 427.00
 PROPOSED SPILLWAY ELEVATION = 428.50
 TOP OF BERM = 430.50
 DISCHARGE PIPE FLOW LINE = 421.50
 TOP OF OUTLET STRUCTURE RISER = 426.00

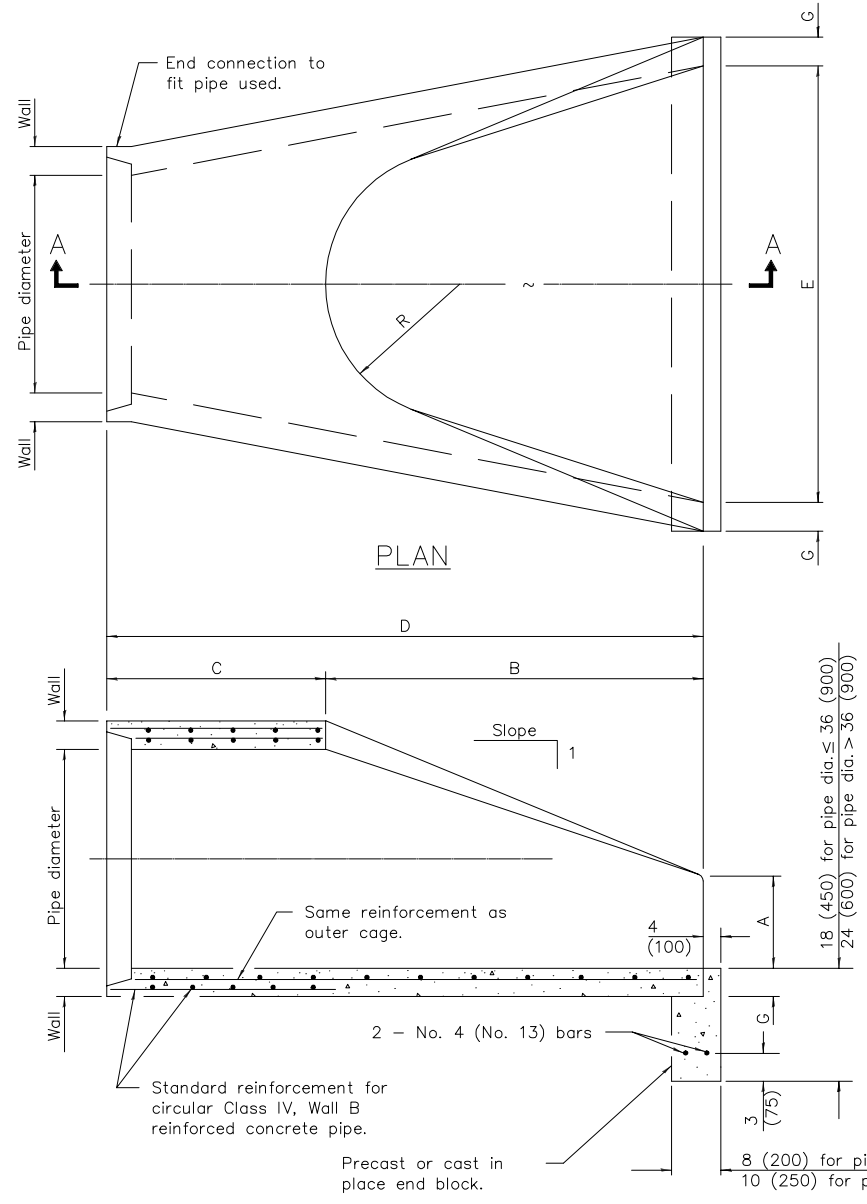




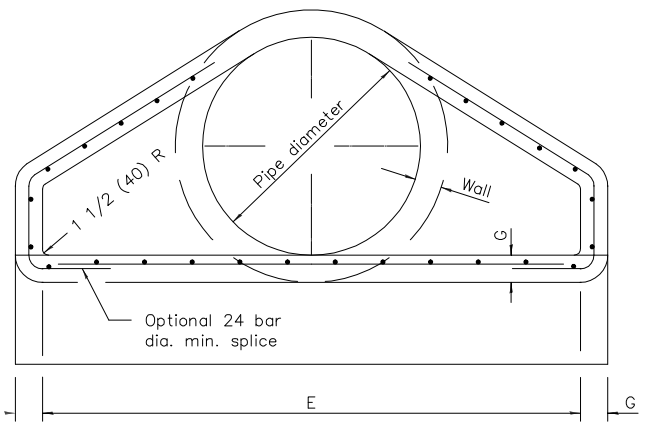
INSIDE DIAMETER OF SEWER (INCHES)	MAXIMUM TRENCH WIDTH
6	3'-2"
8	3'-2"
10	3'-2"
12	3'-4"
15	3'-6"
18	3'-10"
21	4'-4"
24	4'-8"
27	4'-11"
30	5'-3"
33	6'-0"
36	6'-4"
42	6'-11"
48	7'-6"
54	8'-7"
60	9'-2"
66	9'-9"
72	10'-4"
78	10'-11"
84	11'-6"
90	12'-1"
96	12'-8"
102	13'-3"
108	13'-10"

NOTE: CONTRACTOR SHALL COMPACT FILL 2' ABOVE PROPOSED TOP OF PIPE ELEVATION PRIOR TO EXCAVATION OF PIPE TRENCH. BACKFILL PAVED AREAS WITH SELECT GRANULAR MATERIAL 2' ABOVE THE TOP OF PIPE. BACKFILL NON-PAVED AREAS WITH ORIGINALLY EXCAVATED FILL.

STORM SEWER TRENCH DETAILS
N.T.S.



SECTION A-A



END VIEW

GENERAL NOTES

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).
All dimensions are in inches (millimeters) unless otherwise shown.

PIPE DIA.	APPROX. QTY. lbs. (kg)	WALL	A	B	C	D	E	G	R	APPROX. SLOPE
12 (300)	530 (240)	2 (51)	4 (102)	24 (610)	4'-0 7/8" (1.241 m)	6'-0 7/8" (1.851 m)	24 (610)	2 (51)	9 (229)	1:2.4
15 (375)	740 (335)	2 1/4 (64)	6 (152)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	30 (762)	3 (76)	11 (280)	1:2.4
18 (450)	990 (450)	2 1/2 (64)	9 (229)	27 (686)	3'-10" (1.168 m)	6'-1" (1.854 m)	36 (914)	2 1/2 (64)	12 (305)	1:2.4
21 (525)	1280 (580)	2 3/4 (70)	9 (229)	35 (889)	3'-10" (1.168 m)	6'-1" (1.854 m)	36 (914)	2 3/4 (70)	13 (330)	1:2.4
24 (600)	1520 (690)	3 (76)	9 1/2 (241)	33 (840)	3'-7 1/2" (1.105 m)	6'-1 1/2" (1.867 m)	4'-0" (1.219 m)	3 (76)	14 (356)	1:2.5
27 (675)	1930 (875)	3 1/4 (83)	10 1/2 (267)	4'-0" (1.219 m)	25 1/2 (648)	6'-1 1/2" (1.867 m)	4'-6" (1.372 m)	3 1/4 (83)	14 1/2 (368)	1:2.4
30 (750)	2190 (995)	3 1/2 (89)	12 (305)	4'-6" (1.375 m)	19 3/4 (502)	6'-1 3/4" (1.874 m)	5'-0" (1.524 m)	3 1/2 (89)	15 (381)	1:2.5
33 (825)	3200 (1450)	3 3/4 (95)	13 1/2 (343)	4'-10 1/2" (1.486 m)	39 1/4 (997)	8'-1 3/4" (2.483 m)	5'-6" (1.676 m)	3 3/4 (95)	17 1/2 (445)	1:2.5
36 (900)	4100 (1860)	4 (102)	15 (381)	5'-3" (1.6 m)	34 3/4 (883)	8'-1 3/4" (2.483 m)	6'-0" (1.829 m)	4 (102)	20 (508)	1:2.5
42 (1050)	5380 (2440)	4 1/2 (114)	21 (533)	5'-3" (1.6 m)	35 (889)	8'-2" (2.489 m)	6'-6" (1.981 m)	4 1/2 (114)	22 (559)	1:2.5
48 (1200)	6550 (2970)	5 (127)	24 (610)	6'-0" (1.829 m)	26 (660)	8'-2" (2.489 m)	7'-0" (2.134 m)	5 (127)	22 (559)	1:2.5
54 (1350)	8240 (3740)	5 1/2 (140)	27 (686)	5'-5" (1.651 m)	35 (889)	8'-4" (2.54 m)	7'-6" (2.286 m)	5 1/2 (140)	24 (610)	1:2.0
60 (1500)	8730 (3960)	6 (152)	35 (889)	5'-0" (1.524 m)	39 (991)	8'-3" (2.515 m)	8'-0" (2.438 m)	5 (127)	*	1:1.9
66 (1650)	10710 (4860)	6 1/2 (165)	30 (762)	6'-0" (1.829 m)	27 (686)	8'-3" (2.515 m)	8'-6" (2.591 m)	5 1/2 (140)	*	1:1.7
72 (1800)	12520 (5680)	7 (178)	36 (914)	6'-6" (1.981 m)	21 (533)	8'-3" (2.514 m)	9'-0" (2.743 m)	6 (152)	*	1:1.8
78 (1950)	14770 (6700)	7 1/2 (191)	36 (914)	7'-6" (2.286 m)	21 (533)	9'-3" (2.819 m)	9'-6" (2.896 m)	6 1/2 (165)	*	1:1.8
84 (2100)	18160 (8240)	8 (203)	36 (914)	7'-6 1/2" (2.299 m)	21 (533)	9'-3 1/2" (2.832 m)	10'-0" (3.048 m)	6 1/2 (165)	*	1:1.6

* Radius as furnished by manufacturer

PRECAST REINFORCED
CONCRETE FLARED
END SECTION
STANDARD 542301-03

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION
BASE BID

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
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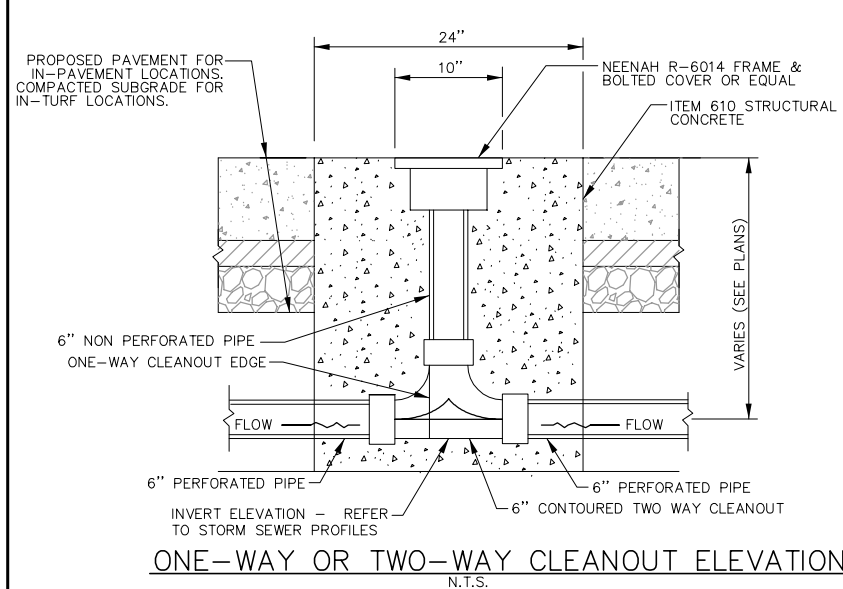
IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 21-23_DRAINAGE_DETAILS.dwg

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DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

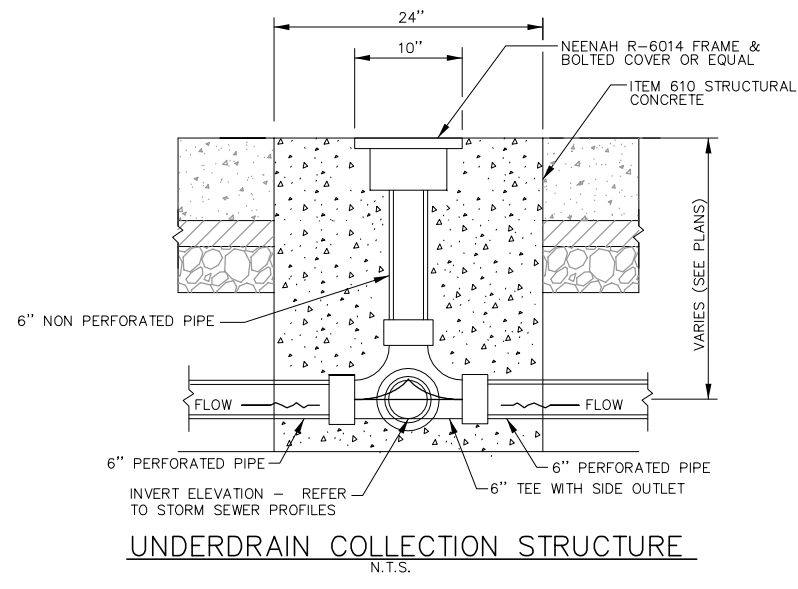
DRAINAGE
DETAILS 1

SHEET 21 OF 89 SHEETS



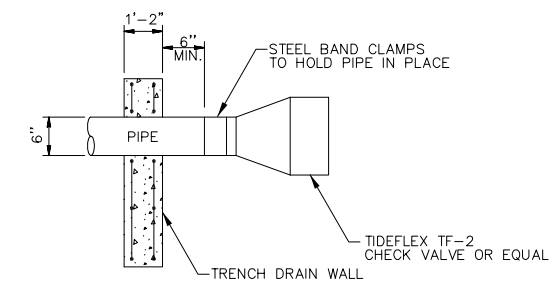
UNDERDRAIN CLEANOUT NOTES

- SEQUENCE OF CONSTRUCTION/PLACEMENT OF CLEANOUTS SHALL BE AS FOLLOWS:
 - PAVE ASPHALT
 - CORE THROUGH ASPHALT
 - SET CLEANOUT WITH PCC COLLAR
 - PAVE CONCRETE APRON
- FINISHED GRADE OF CLEANOUTS AND COLLECTION STRUCTURES SHALL BE AT OR JUST BELOW PCC PAVEMENT SURFACE ELEVATION. ANY STRUCTURE EXTENDING ABOVE THE FINISHED PCC PAVEMENT ELEVATION SHALL BE ADJUSTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.



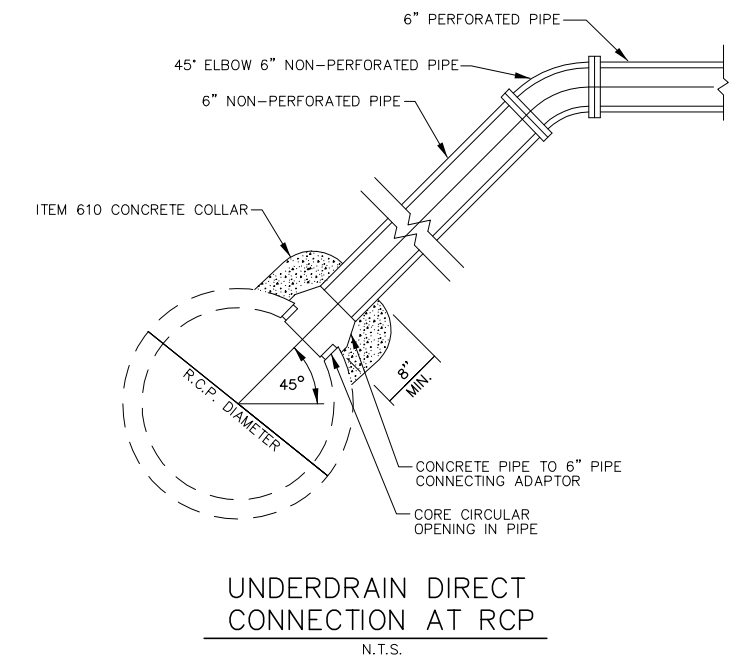
UNDERDRAIN COLLECTION STRUCTURE NOTES

- SEQUENCE OF CONSTRUCTION/PLACEMENT OF CLEANOUTS SHALL BE AS FOLLOWS:
 - PAVE ASPHALT
 - CORE THROUGH ASPHALT
 - SET CLEANOUT WITH PCC COLLAR
 - PAVE CONCRETE APRON
- FINISHED GRADE OF CLEANOUTS AND COLLECTION STRUCTURES SHALL BE AT OR JUST BELOW PCC PAVEMENT SURFACE ELEVATION. ANY STRUCTURE EXTENDING ABOVE THE FINISHED PCC PAVEMENT ELEVATION SHALL BE ADJUSTED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT.

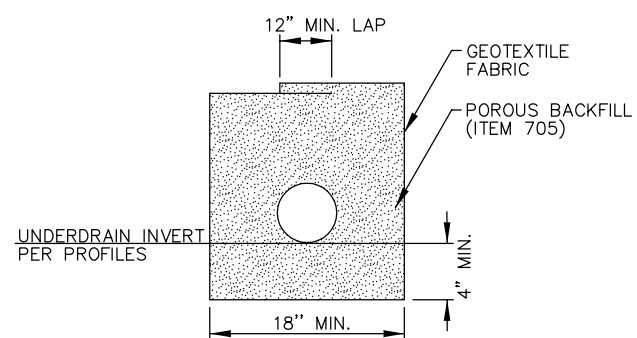


UNDERDRAIN BACKFLOW DETAIL
N.T.S.

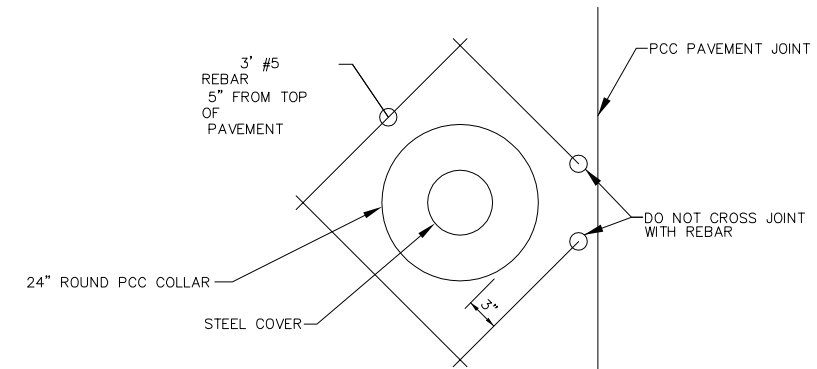
NOTE: CHECK VALVE SHALL BE INCIDENTAL TO UNDERDRAIN WORK.



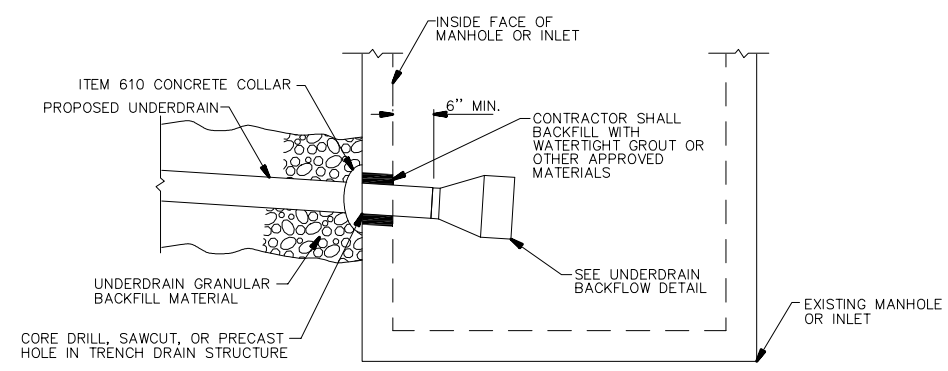
UNDERDRAIN DIRECT CONNECTION AT RCP
N.T.S.



UNDERDRAIN TRENCH DETAIL
N.T.S.



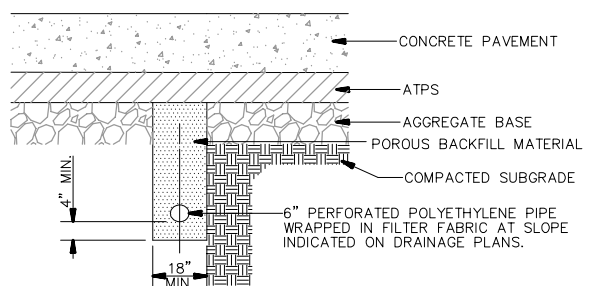
UNDERDRAIN PLAN VIEW
N.T.S.



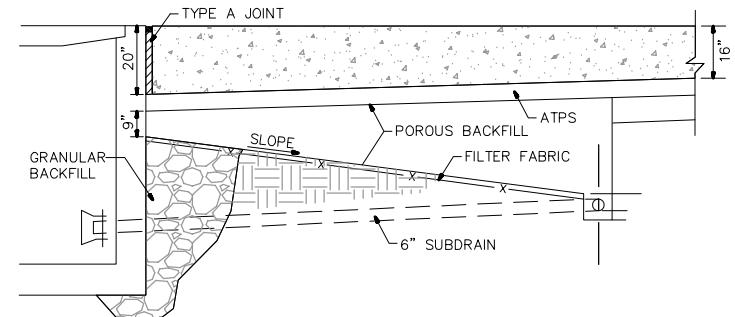
DIRECT CONNECTION DETAIL
N.T.S.

DIRECT CONNECTION NOTES

- HOLE IN STRUCTURE SHALL BE AT LEAST 1" WIDER THAN UD PIPE.
- FILL SPACE BETWEEN UNDERDRAIN AND STRUCTURE WITH NON-SHRINK GROUT OR ITEM 610 PCC COLLAR.

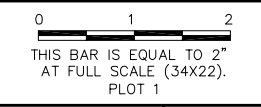


UNDERDRAIN DETAIL
N.T.S.



SUBDRAIN DETAIL AT TRENCH DRAIN
N.T.S.

REVISIONS		
NUMBER	BY	DATE



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ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 21-23_DRAINAGE_DETAILS.dwg

DESIGN BY: LEW

DRAWN BY: ASA

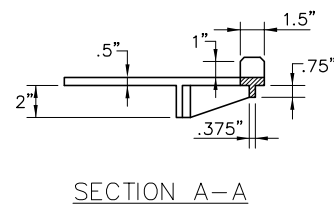
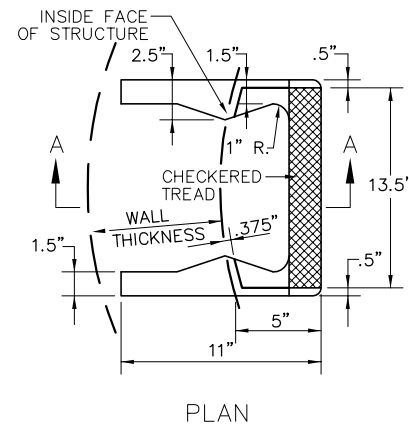
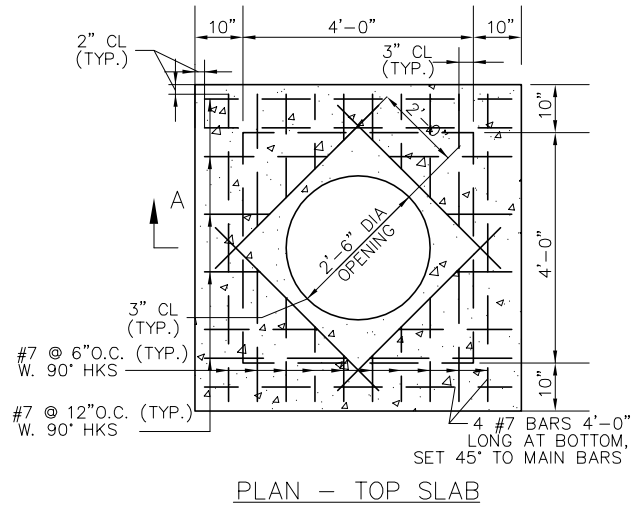
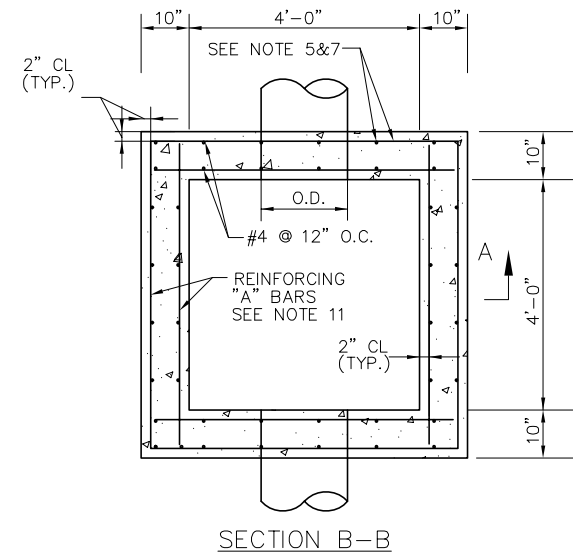
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APPROVED BY: BWG

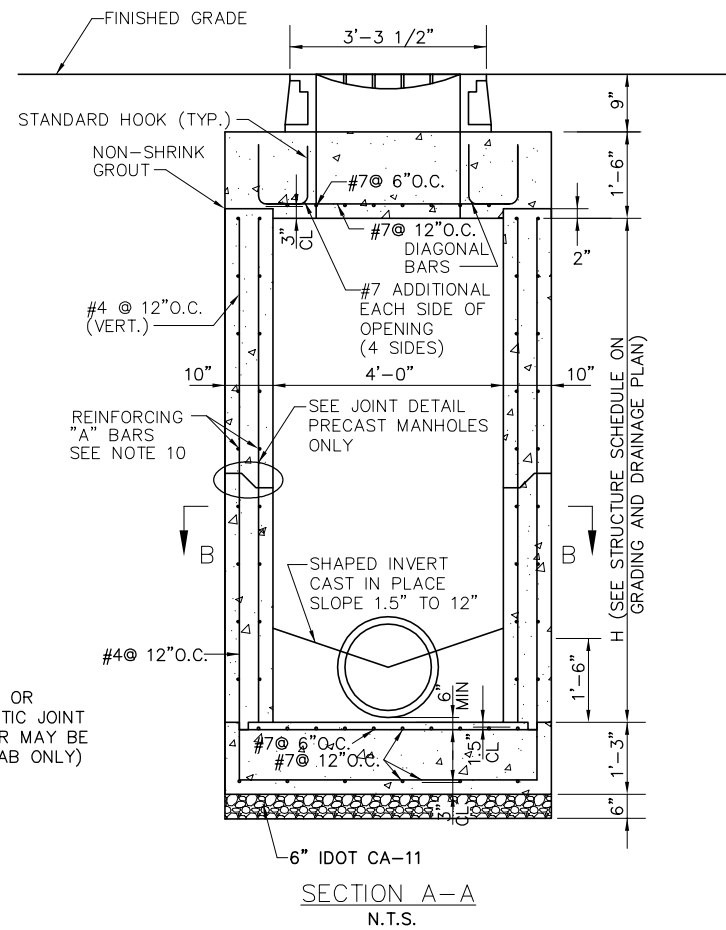
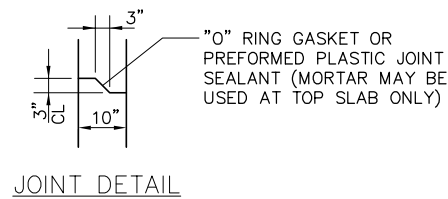
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**DRAINAGE
DETAILS 2**



CAST IRON STEPS
N.T.S.



STORM SEWER MANHOLE
N.T.S.

NOTES:

1. FRAME WITH COVER SHALL BE NEENAH R-3492-A WITH LEGEND "STORM."
2. ALL MANHOLE COVERS SHALL BE BOLTED TO THE FRAME WITH STAINLESS STEEL BOLTS.
3. OPENINGS IN THE WALLS FOR THE PIPE SHALL BE CAST-IN OR CUT CLEANLY WITHOUT PERCUSSION TO A MAXIMUM DIAMETER OF O.D. ±3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE SEALED WITH MORTAR OR OTHER APPROVED METHOD.
4. WHERE A PIPE PASSES THROUGH A WALL 2 ADDITIONAL "A" BARS SHALL BE PLACED ABOVE, BELOW, AND TO EACH SIDE OF THE OPENING. VERTICAL "A" BARS SHALL EXTEND A MINIMUM OF 2'-0" ABOVE AND BELOW THE EDGES OF THE OPENING. THE ADDITIONAL REINFORCING SHALL BE PLACED AT BOTH THE INSIDE AND OUTSIDE LAYER OF REINFORCING.
5. WHEN LIFTING THE PRE-CAST MANHOLE, A BAR SHALL BE PLACED HORIZONTALLY THROUGH THE LIFTING HOLES, PROVIDED AT THE TIME OF MANUFACTURE, THE LIFTING DEVICES SHALL BE PLACED ONLY ON THAT BAR. THE BAR AND HOLES SHALL BE APPROVED BY THE ENGINEER. THE LIFTING HOLES SHALL BE FILLED WITH GROUT AFTER THE MANHOLE IS IN POSITION.
6. SPLICE LENGTHS REQUIRED FOR REINFORCING BARS: #4 BAR, 1'-4"; #5 BAR, 1'-8"; #6 BAR, 2'-0"; #7 BAR, 2'-6".
7. JOINT AND WATERSTOP ARE AN OPTION FOR CAST-IN PLACE MANHOLES ONLY. PRE-CAST MANHOLES SHALL NOT BE JOINTED AT THIS LOCATION.
8. CONCRETE STRENGTH AT 28 DAYS SHALL BE A MINIMUM OF 4,000 PSI FOR CAST-IN PLACE MANHOLES, 5,000 PSI FOR PRECAST MANHOLES.
9. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
10. REINFORCING "A" BARS SHALL BE #5 @ 12".
11. CAST IRON STEPS SHALL BE NEENAH R-1982-1 FOR STRAIGHT WALLS, OR APPROVED EQUAL.
12. MANHOLE TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE PER MANHOLE SHALL INCLUDE THE FRAME, GRATES, AND STEPS IN PLACE AND COMPLETE PER UNIT.
13. THE CONTRACTOR IS REQUIRED TO SUBMIT MANUFACTURER'S SHOP DRAWING SHOWING DETAILS AND DESIGN CALCULATIONS FOR APPROVAL PRIOR TO INSTALLATION. (SEE SPECS - ITEM 751) SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER.
14. THIS MANHOLE FRAME REQUIRES AIRPORT LOADING TO CONFORM WITH AC 150/5320-6E. THIS IS 50,000 LBS PER TIRE LOAD SPREAD OVER 235 SQUARE INCHES. CASTINGS ARE TO SUPPORT 100,000 LBS WHEEL LOADS WITH 250 PSI TIRE PRESSURE. ALL OTHER INLETS, FRAMES, AND GRATES SHALL BE DESIGNED TO WITHSTAND AASHTO HS20-44 HIGHWAY LOADING.

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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BASE BID**

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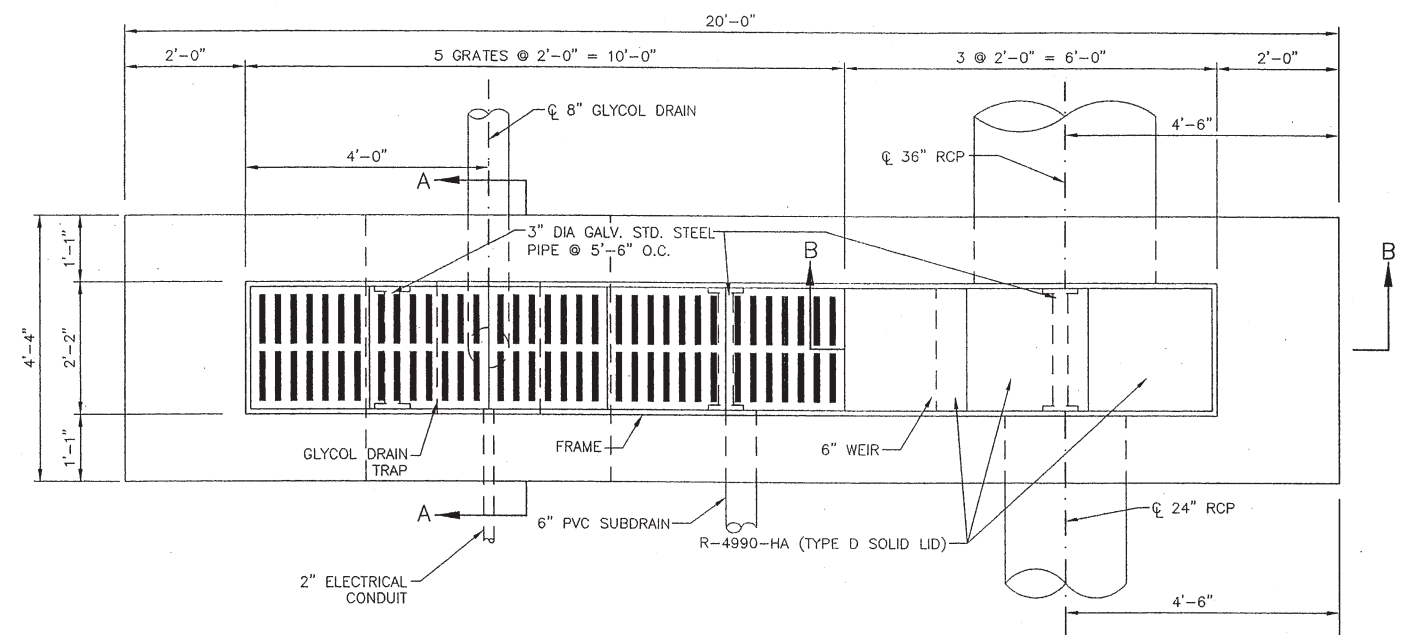
**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

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DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

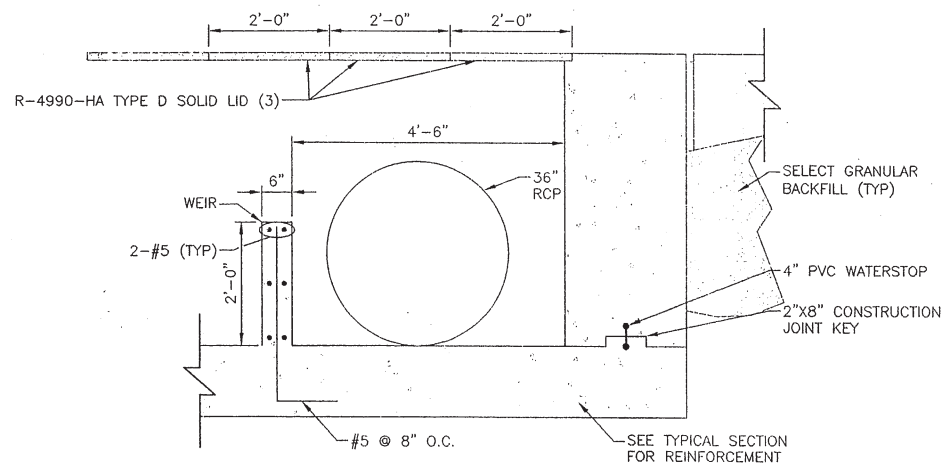
**DRAINAGE
DETAILS 3**

REVISIONS		
NUMBER	BY	DATE

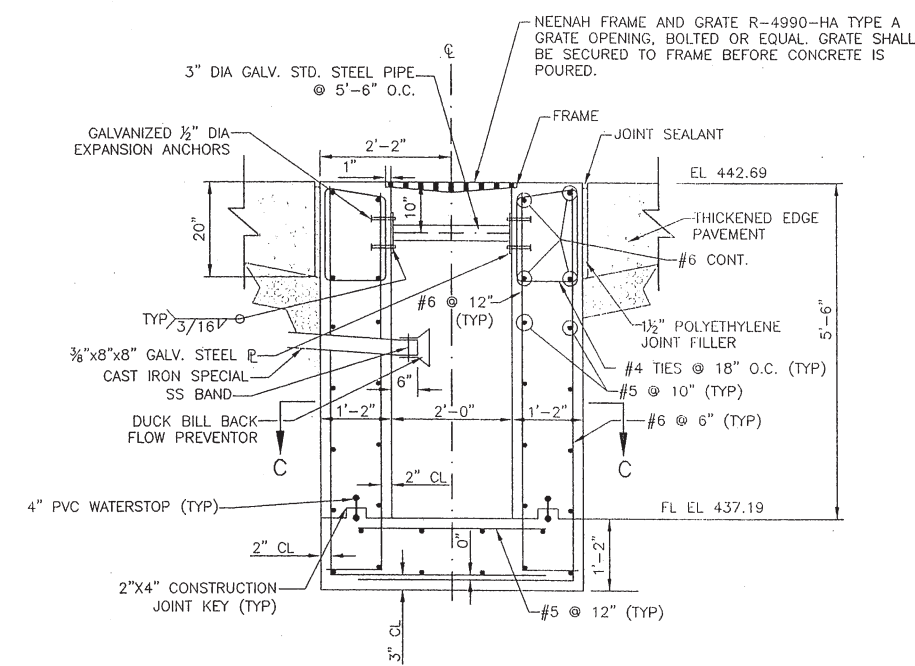
0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). PLOT 1



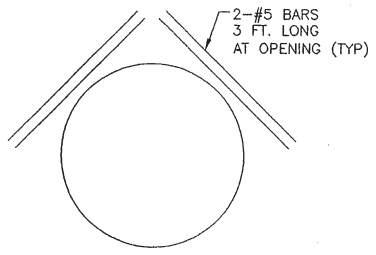
20' TRENCH DRAIN GRATE LAYOUT
N.T.S.



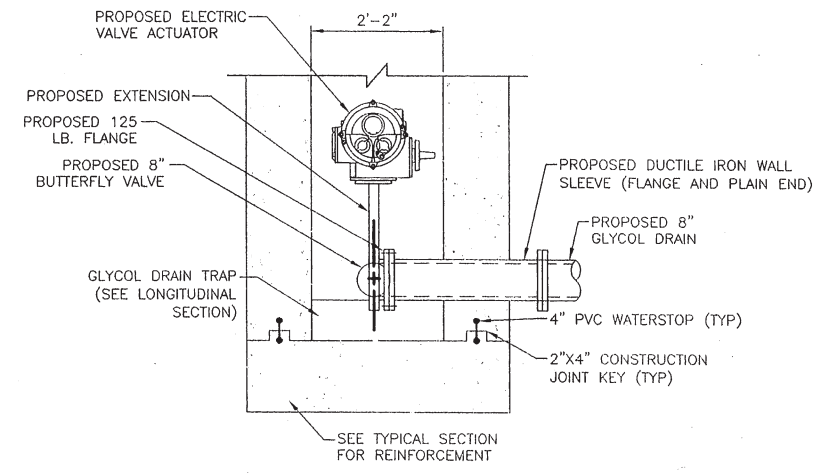
PART SECTION B-B
N.T.S.



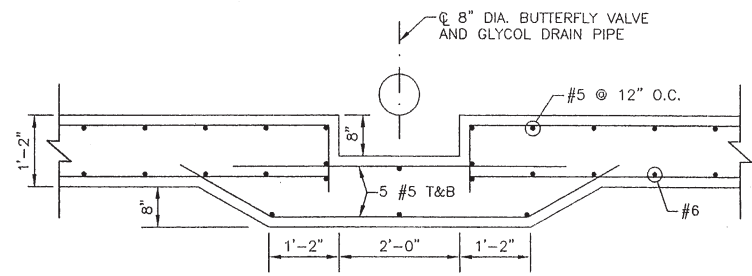
20' TRENCH DRAIN TYPICAL SECTION
N.T.S.



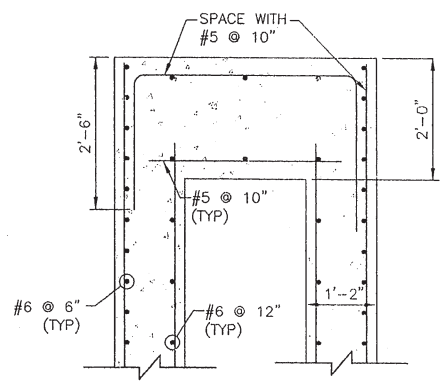
TYPICAL PIPE PENETRATION DETAIL
N.T.S.



PART SECTION A-A
N.T.S.



PART LONGITUDINAL SECTION THROUGH GLYCOL DRAIN TRAP
N.T.S.



PART SECTION C-C
N.T.S.

- NOTES:
1. CAST IN PLACE CONCRETE SHALL HAVE A MINIMUM 14 DAY COMPRESSIVE STRENGTH OF 3500 PSI.
 2. ALL REINFORCEMENT SHALL BE ASTM A615 GRADE 60.
 3. REINFORCING BARS SHALL BE CUT AND/OR FIELD BENT AT ALL PIPE OPENINGS TO MAINTAIN 1" CLEARANCE FROM PIPES.
 4. MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE 1/2" UNLESS OTHERWISE SHOWN.
 5. ALL CONCRETE, REINFORCING STEEL, EXCAVATION, BACKFILL, DUCTILE IRON FRAME AND GRATE, STEEL PIPES AND PLATES, ANCHORS, WATERSTOPS, JOINT FILLER AND JOINT SEALANT NECESSARY TO CONSTRUCT THE TRENCH DRAIN SHALL BE INCLUDED IN THE COST OF 4'X20' TRENCH DRAIN (EACH).
 6. FIELD VERIFY ALL SIZES AND LOCATIONS PRIOR TO CONSTRUCTION/INSTALLATION OF STRUCTURES AND PIPES.

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FILE: 24_TRENCH_DRAIN_DETAILS.dwg

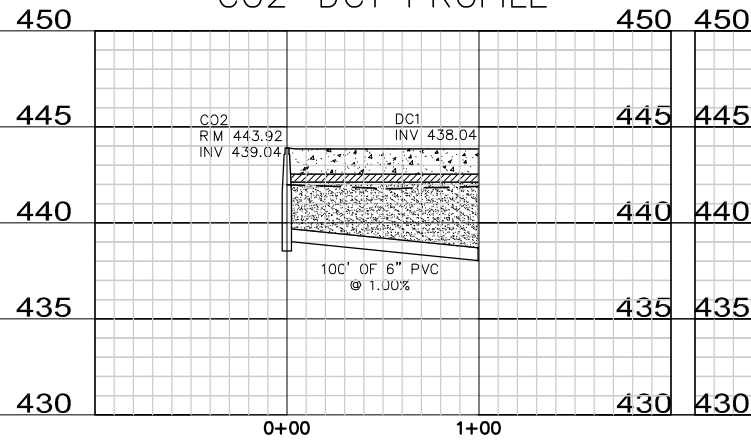
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DRAWN BY: AJK
CHECKED BY: REB
APPROVED BY: REB
DATE: NOVEMBER 28, 2011
JOB No: 10098-01



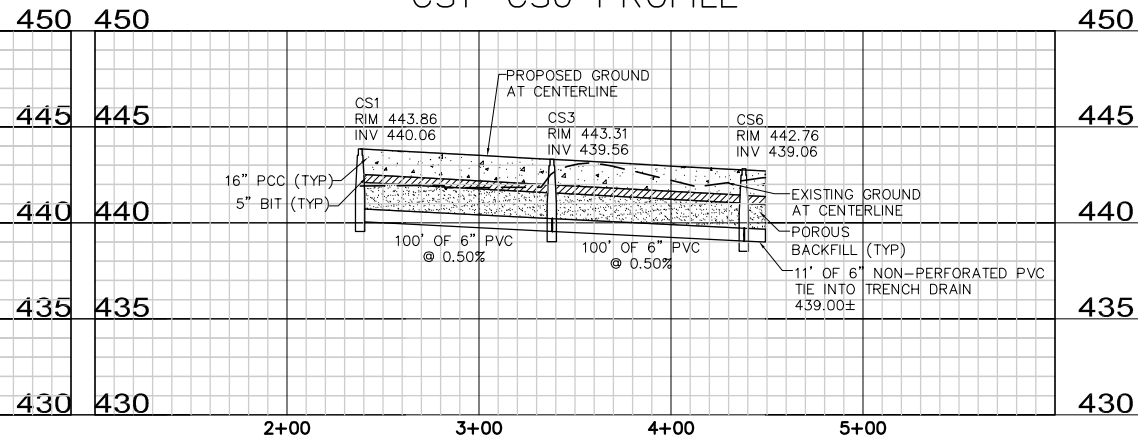
22 NOV 2011
EXP: 30 NOV 2012

TRENCH DRAIN
DETAILS

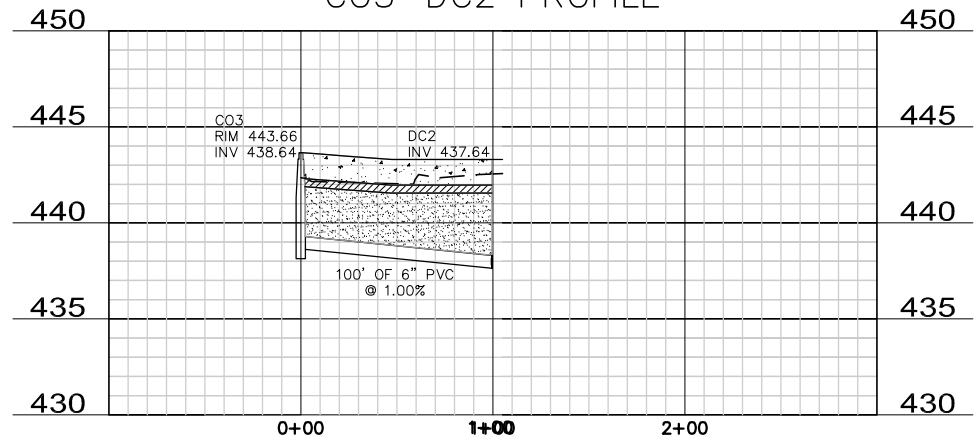
C02-DC1 PROFILE



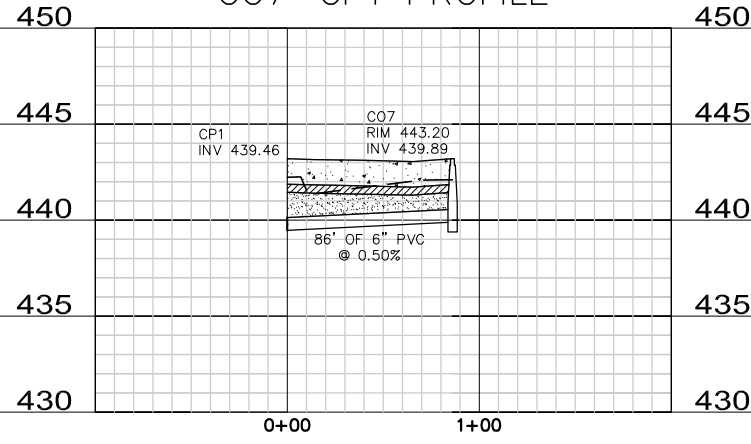
CS1-CS6 PROFILE



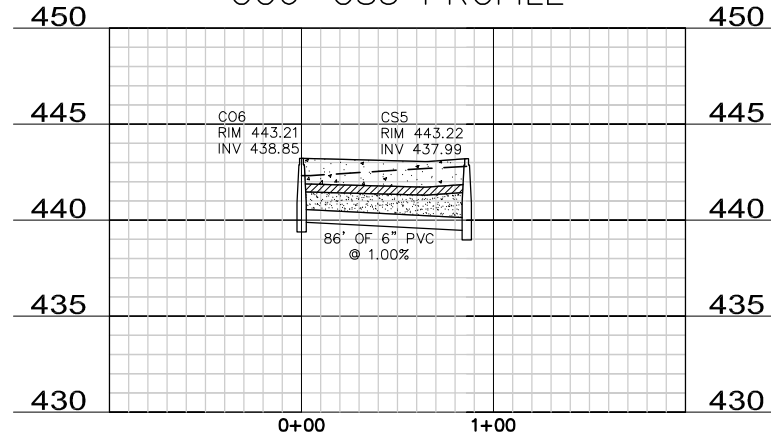
C03-DC2 PROFILE



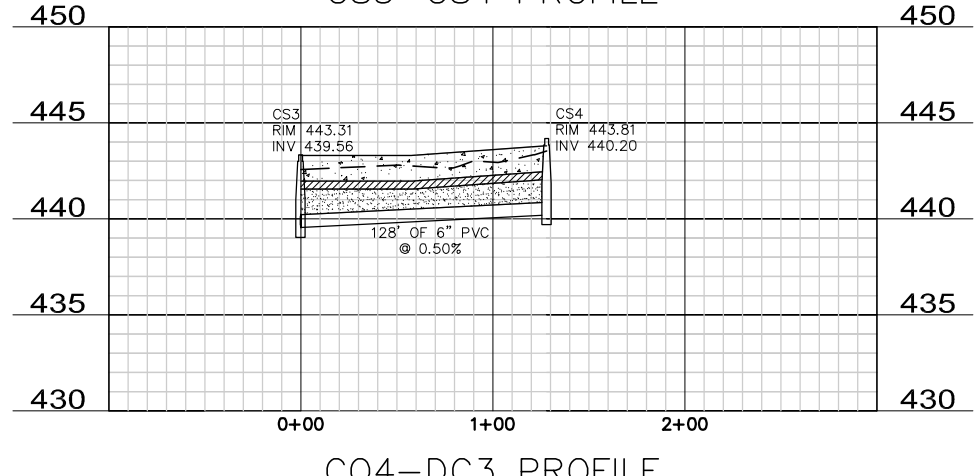
C07-CP1 PROFILE



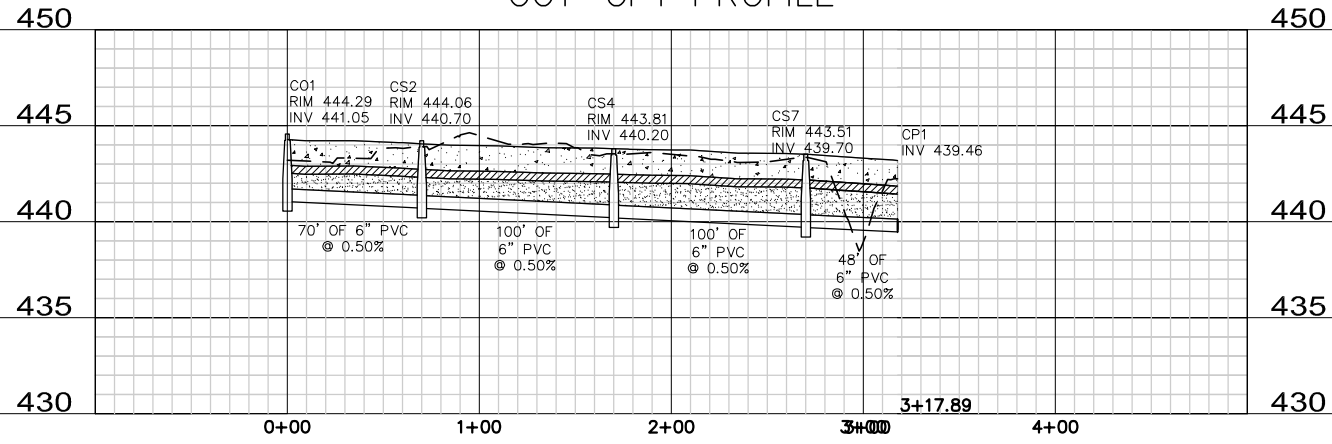
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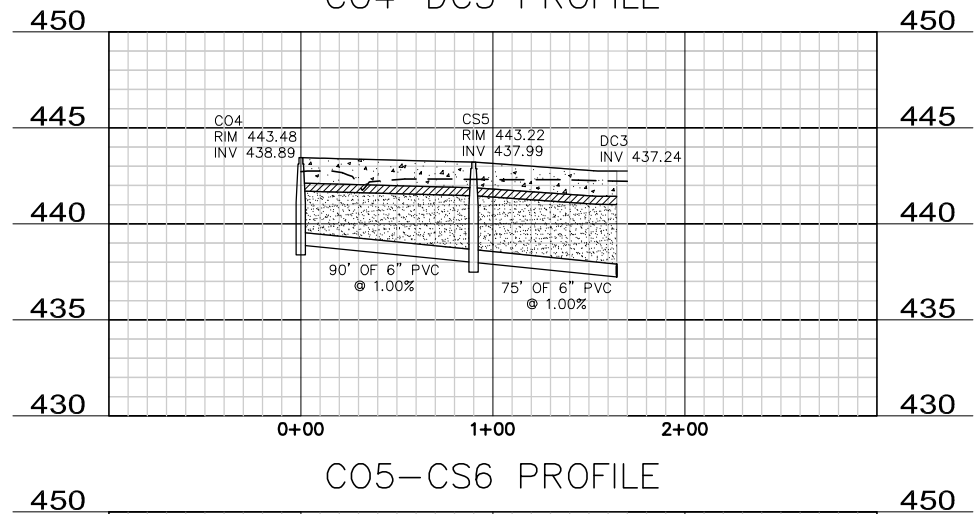
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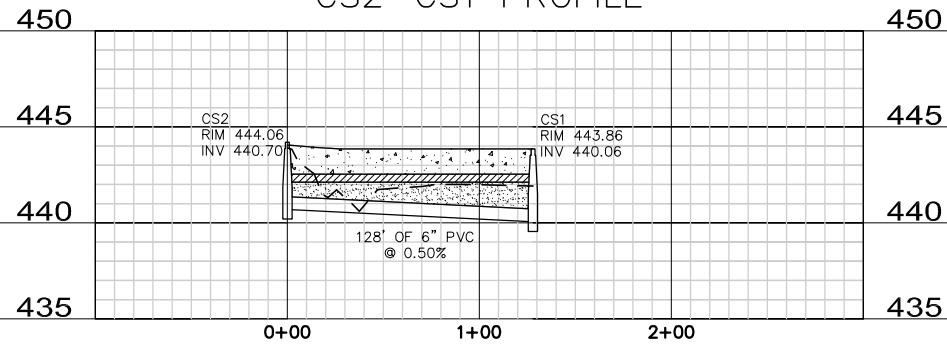
C01-CP1 PROFILE



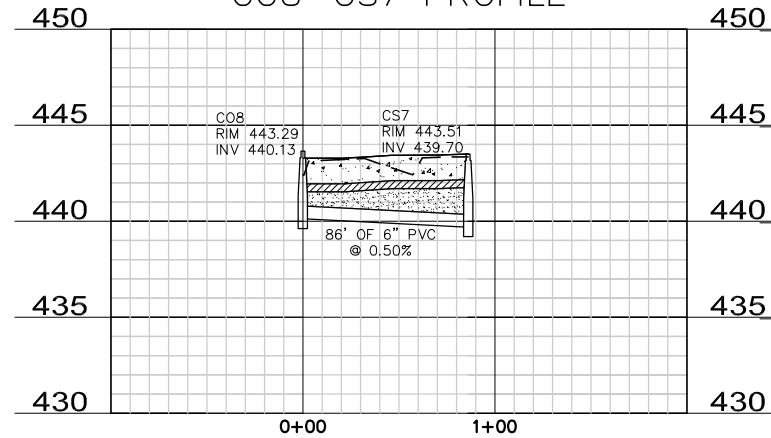
C04-DC3 PROFILE



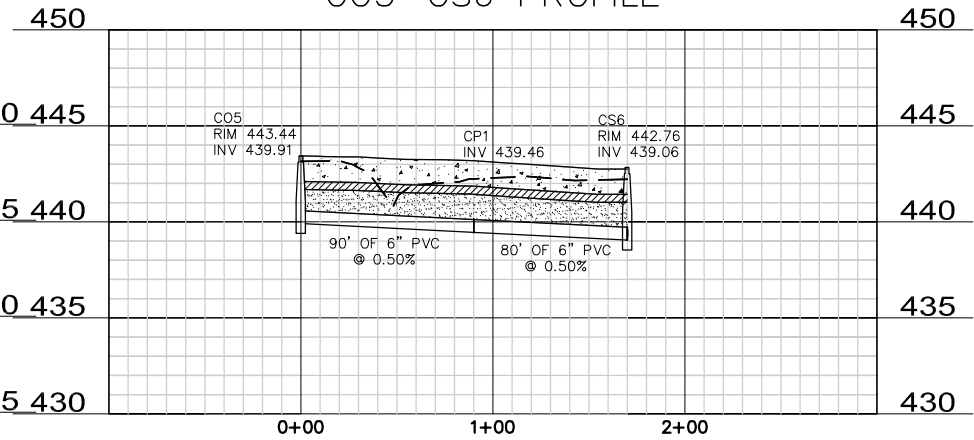
CS2-CS1 PROFILE



C08-CS7 PROFILE



C05-CS6 PROFILE



REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 25-26_PROFILES.dwg

DESIGN BY: LEW

DRAWN BY: ASA

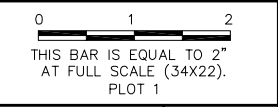
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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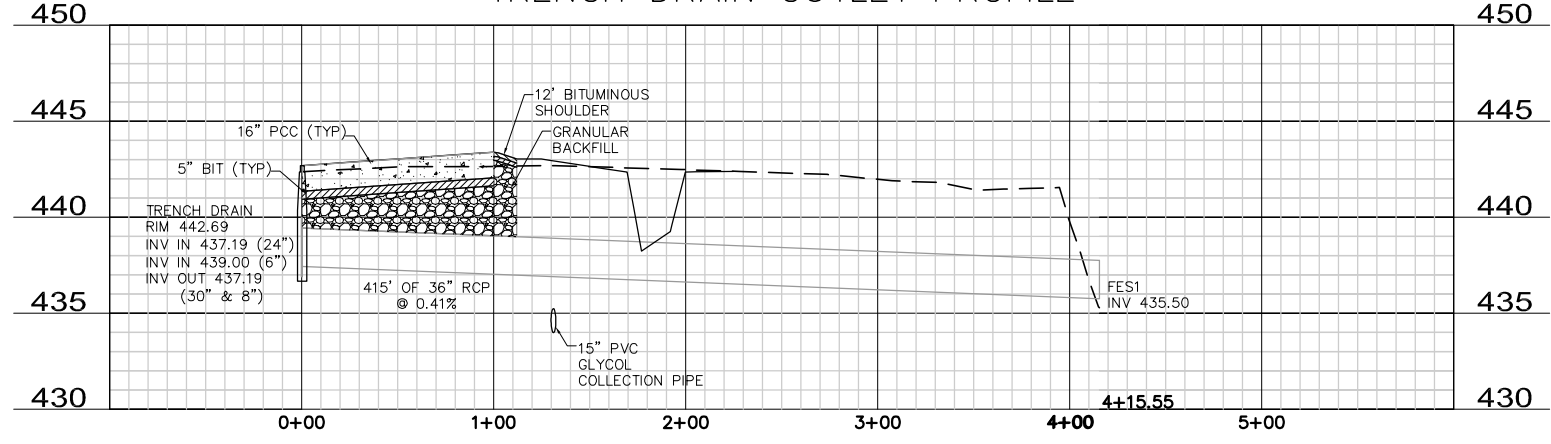
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

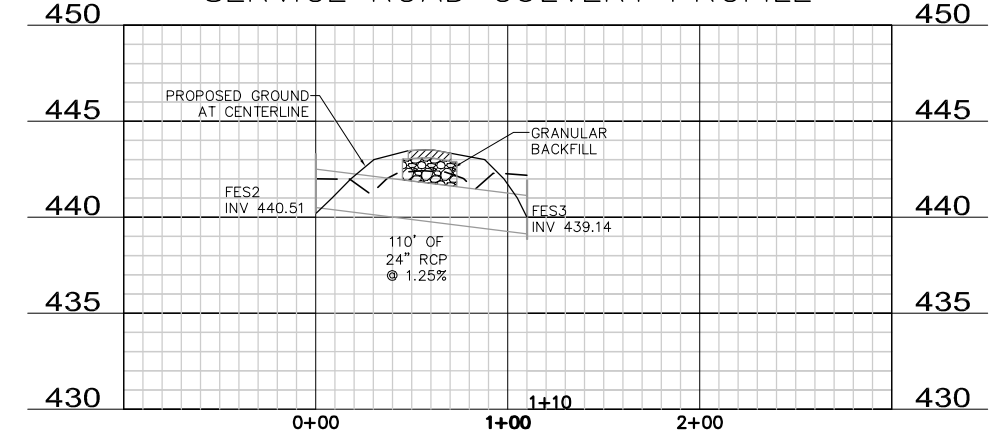
FILE: 25-26_PROFILES.dwg
 DESIGN BY: LEW
 DRAWN BY: ASA
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: NOVEMBER 28, 2011
 JOB No: 10098-01

**STORM SEWER
PROFILES**

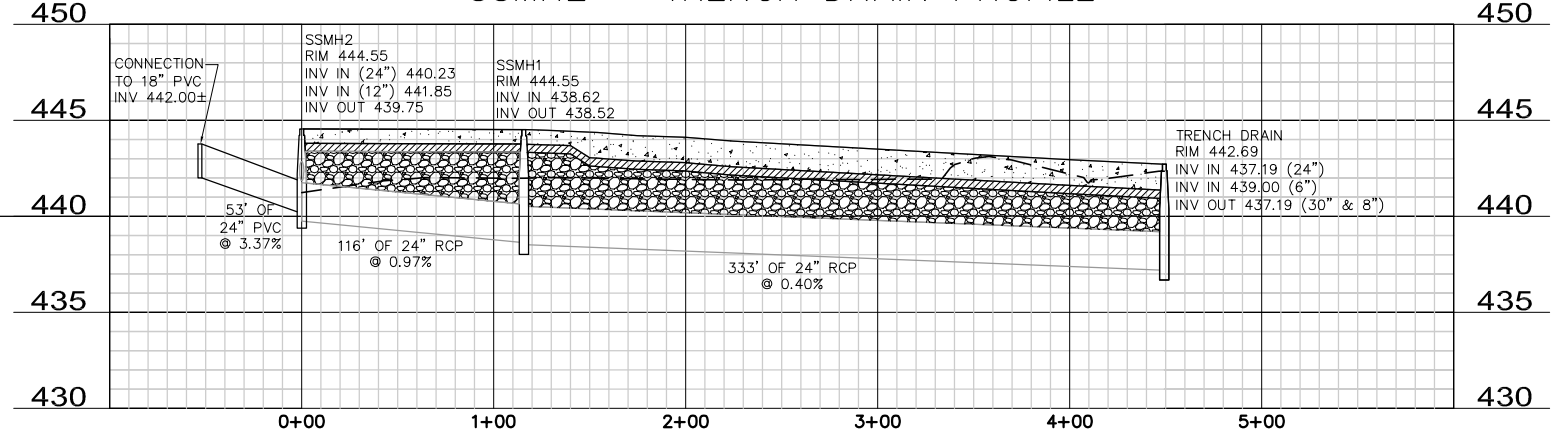
TRENCH DRAIN OUTLET PROFILE



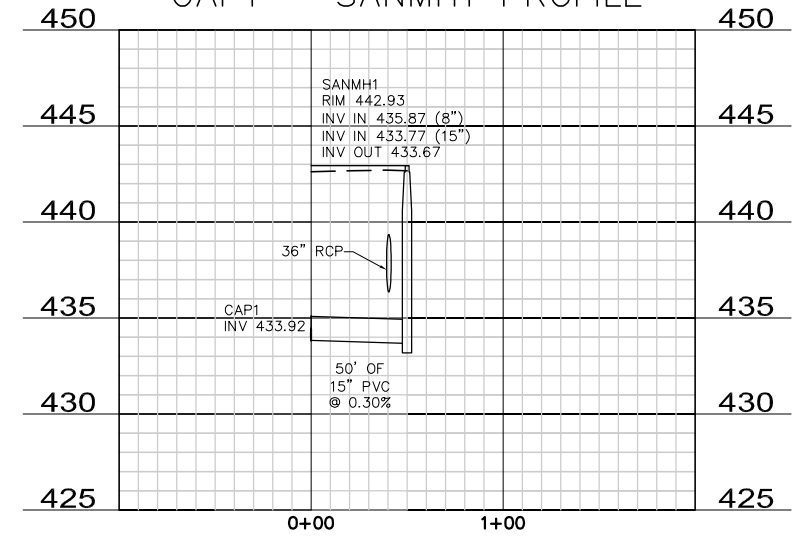
SERVICE ROAD CULVERT PROFILE



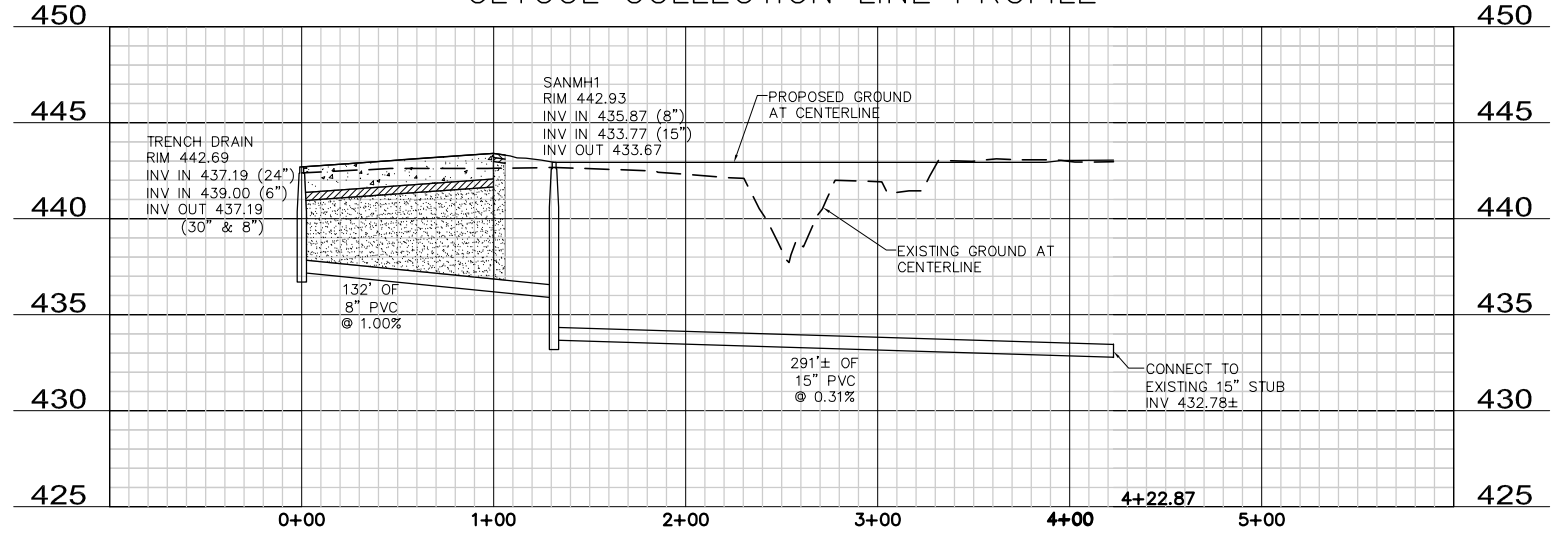
SSMH2 - TRENCH DRAIN PROFILE



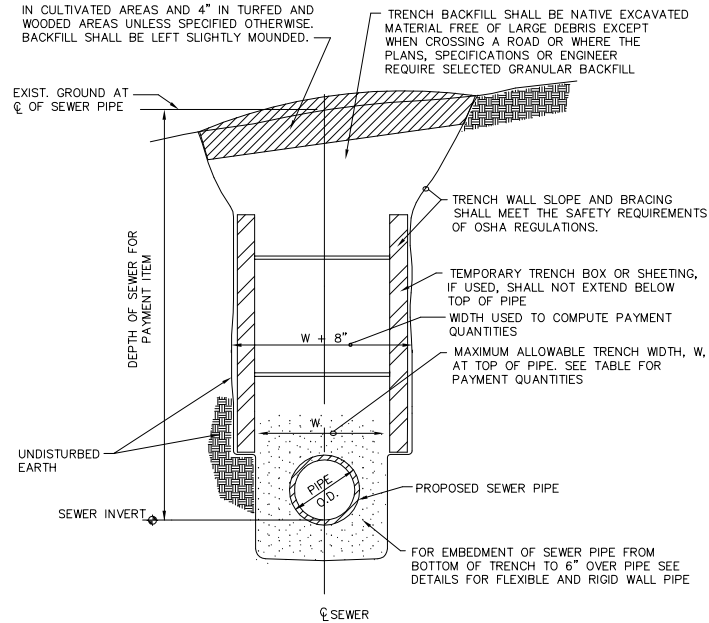
CAP1 - SANMH1 PROFILE



GLYCOL COLLECTION LINE PROFILE

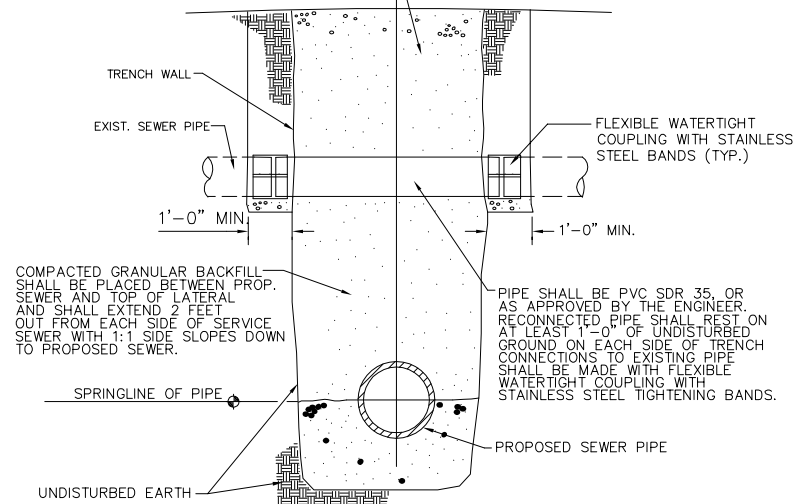


IN CULTIVATED AREAS AND AREAS DESIGNATED IN PLANS, SPECIFICATIONS OR BY ENGINEER, TOPSOIL SHALL BE STRIPPED AND STOCKPILED SEPARATELY. STRIPPING THICKNESS SHALL BE 12" IN CULTIVATED AREAS AND 4" IN TURFED AND WOODED AREAS UNLESS SPECIFIED OTHERWISE. BACKFILL SHALL BE LEFT SLIGHTLY MOUNDED.



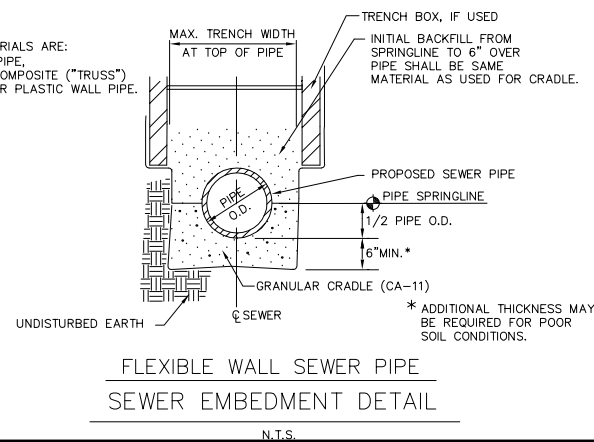
TYPICAL SEWER INSTALLATION
N.T.S.

BACKFILL AND SURFACE RESTORATION ABOVE SERVICE SEWER SHALL BE AS SPECIFIED IN PROFILE OF PROPOSED SEWER.

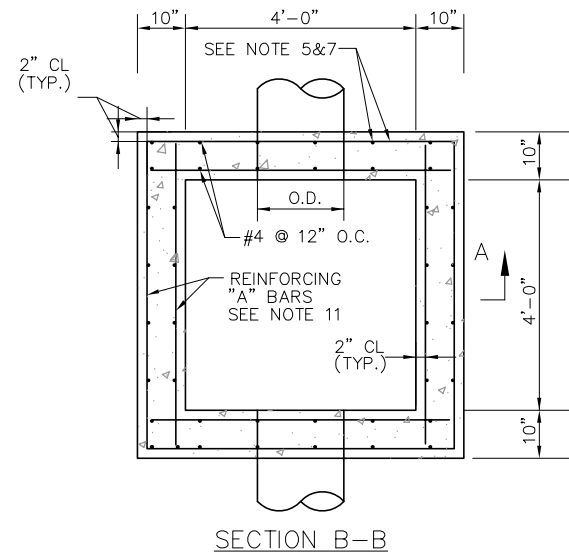


*RECONNECTION OF SERVICE SEWER, FIELD TILE, OR LATERAL PIPE ACROSS TRENCH
N.T.S.

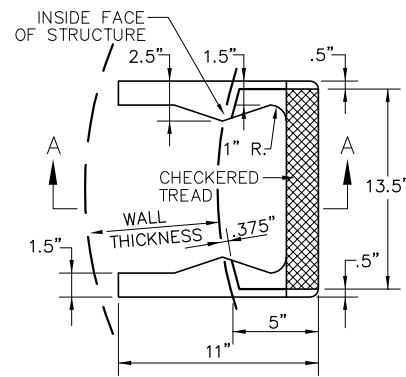
NOTES:
1. FLEXIBLE PIPE MATERIALS ARE:
P.V.C. SOLID WALL PIPE,
A.B.S. AND P.V.C. COMPOSITE ("TRUSS")
PIPE AND ALL OTHER PLASTIC WALL PIPE.



FLEXIBLE WALL SEWER PIPE
SEWER EMBEDMENT DETAIL
N.T.S.



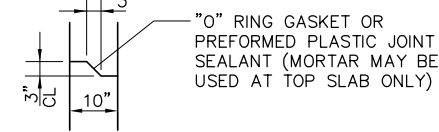
SECTION B-B



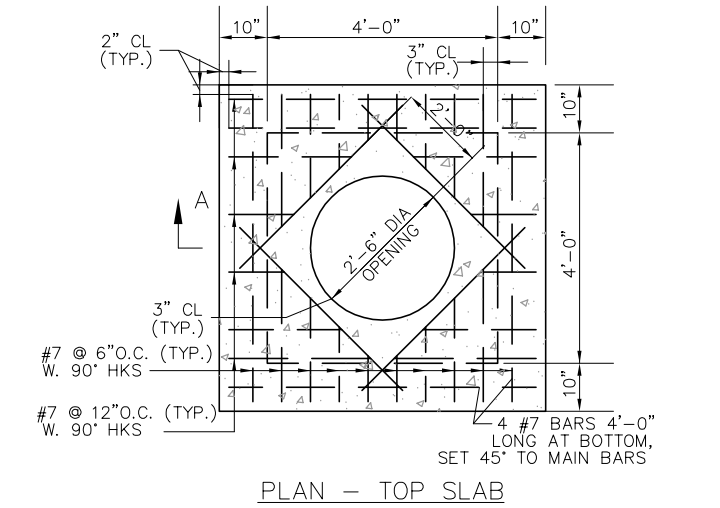
PLAN

SECTION A-A

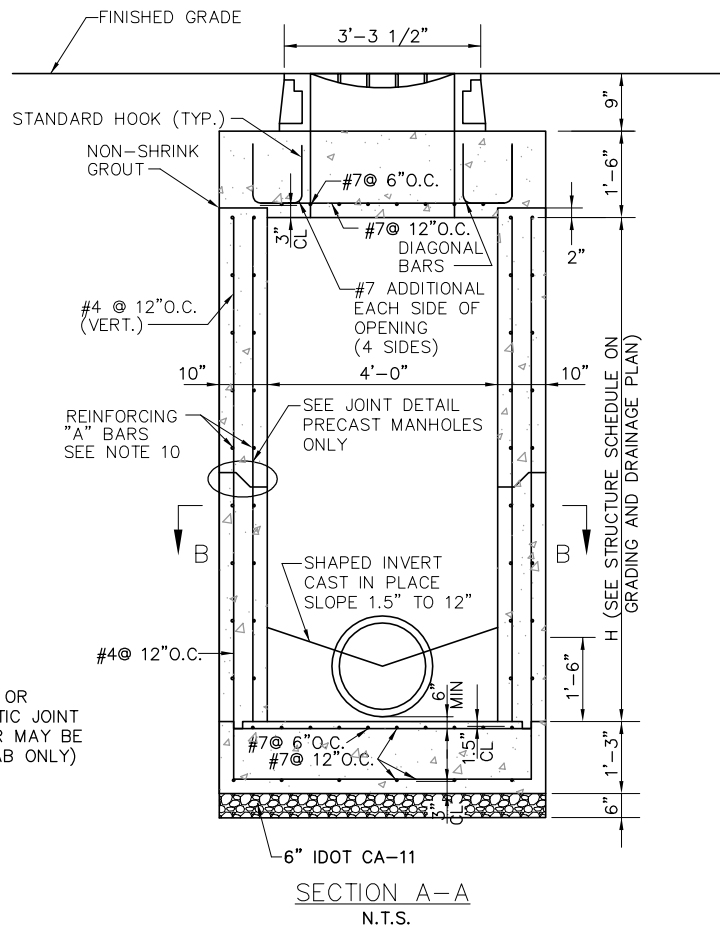
CAST IRON STEPS
N.T.S.



JOINT DETAIL



PLAN - TOP SLAB



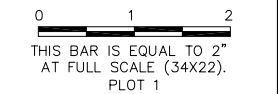
SECTION A-A
N.T.S.

MANHOLE
N.T.S.

NOTES:

- FRAME WITH COVER SHALL BE NEENAH R-3492-A WITH LEGEND "ADFW." SHALL BE GASKET SEALED FOR WATERTIGHT APPLICATION.
- ALL MANHOLE COVERS SHALL BE BOLTED TO THE FRAME WITH STAINLESS STEEL BOLTS.
- OPENINGS IN THE WALLS FOR THE PIPE SHALL BE CAST-IN OR CUT CLEANLY WITHOUT PERCUSSION TO A MAXIMUM DIAMETER OF O.D. ±3". THE SPACE BETWEEN PIPE AND WALL SHALL THEN BE SEALED WITH AN ELASTOMERIC SEAL, OR OTHER APPROVED METHOD.
- WHERE A PIPE PASSES THROUGH A WALL 2 ADDITIONAL "A" BARS SHALL BE PLACED ABOVE, BELOW, AND TO EACH SIDE OF THE OPENING. VERTICAL "A" BARS SHALL EXTEND A MINIMUM OF 2'-0" ABOVE AND BELOW THE EDGES OF THE OPENING. THE ADDITIONAL REINFORCING SHALL BE PLACED AT BOTH THE INSIDE AND OUTSIDE LAYER OF REINFORCING.
- WHEN LIFTING THE PRE-CAST MANHOLE, A BAR SHALL BE PLACED HORIZONTALLY THROUGH THE LIFTING HOLES, PROVIDED AT THE TIME OF MANUFACTURE, THE LIFTING DEVICES SHALL BE PLACED ONLY ON THAT BAR. THE BAR AND HOLES SHALL BE APPROVED BY THE ENGINEER. THE LIFTING HOLES SHALL BE FILLED WITH GROUT AFTER THE MANHOLE IS IN POSITION.
- SPLICE LENGTHS REQUIRED FOR REINFORCING BARS: #4 BAR, 1'-4"; #5 BAR, 1'-8"; #6 BAR, 2'-0"; #7 BAR, 2'-6".
- JOINT AND WATERSTOP ARE AN OPTION FOR CAST-IN PLACE MANHOLES ONLY. PRE-CAST MANHOLES SHALL NOT BE JOINTED AT THIS LOCATION.
- CONCRETE STRENGTH AT 28 DAYS SHALL BE A MINIMUM OF 4,000 PSI FOR CAST-IN PLACE MANHOLES, 5,000 PSI FOR PRECAST MANHOLES.
- REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
- REINFORCING "A" BARS SHALL BE #5 @ 12".
- PLASTIC MAGNETIC 3" WIDE DETECTABLE TAPE REQUIRED ABOVE ALL CONDUITS, DUCTS AND DUCTBANKS NOT INSTALLED UNDER PAVEMENT.
- THE BACKFILL ABOVE THE CONDUIT SHALL BE AS DEFINED IN SPECIFICATION SECTION 110.
- CAST IRON STEPS SHALL BE NEENAH R-1982-1 FOR STRAIGHT WALLS, OR APPROVED EQUAL.
- MANHOLE TO BE CONSTRUCTED OF STRUCTURAL P.C. CONCRETE. THE CONTRACT UNIT PRICE PER INLET SHALL INCLUDE THE FRAME, GRATES, AND STEPS IN PLACE AND COMPLETE PER UNIT.
- THE CONTRACTOR IS REQUIRED TO SUBMIT MANUFACTURER'S SHOP DRAWING SHOWING DETAILS AND DESIGN CALCULATIONS FOR APPROVAL PRIOR TO INSTALLATION. (SEE SPECS - ITEM 770700) SHOP DRAWINGS SHALL BE SEALED BY A REGISTERED PROFESSIONAL STRUCTURAL ENGINEER.
- THIS MANHOLE FRAME REQUIRES AIRPORT LOADING TO CONFORM WITH AC 150/5320-6E. THIS IS 50,000 LBS PER TIRE LOAD SPREAD OVER 235 SQUARE INCHES. CASTINGS ARE TO SUPPORT 100,000 LBS WHEEL LOADS WITH 250 PSI TIRE PRESSURE. ALL OTHER INLETS, FRAMES, AND GRATES SHALL BE DESIGNED TO WITHSTAND AASHTO HS20-44 HIGHWAY LOADING.
- TESTING OF MANHOLES. ALL MANHOLES IN THE SYSTEM SHALL BE TESTED AS DETAILED IN THE SPECIFICATIONS.

REVISIONS		
NUMBER	BY	DATE



MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION
BASE BID

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

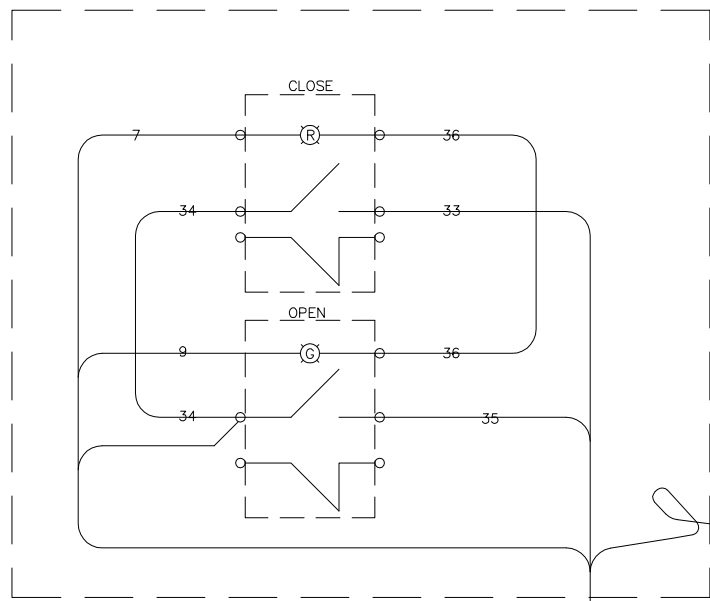
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CONSULTING ENGINEERS
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PROFESSIONAL ENGINEERING - 184-00613

IL PROJECT, BLY-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 27_GLYCOL_MH-DETAILS.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011

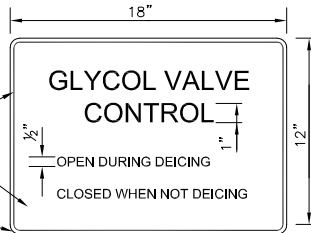
JOB No: 10098-01
GLYCOL
COLLECTION
DETAILS 1
SHEET 27 OF 89 SHEETS

SANITARY SEWER DETAILS
(SND1)



CONTROL STATION BILL OF MATERIALS				
ITEM NO.	QTY	UNIT	DESCRIPTION	PART NUMBER
1	1	EA	DIECAST NEMA 4/13 BOX	AB-800T-2TZ
2	1	EA	MOMENTARY PUSHBUTTON GREEN ILLUMINATED - GUARDED	AB-800T-QAH24G
3	1	EA	MOMENTARY PUSHBUTTON RED ILLUMINATED - GUARDED	AB-800T-QAH24R
4	1	EA	LEGEND PLATE "OPEN"	AB-800T-X531
5	1	EA	LEGEND PLATE "CLOSED"	AB-800T-X502

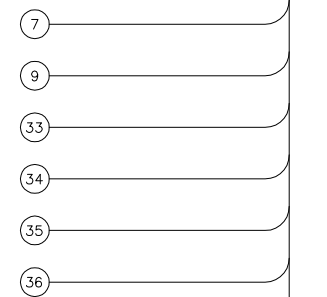
CONTROL STATION - LAMP ILLUMINATED WHEN VALVE IS FULL OPEN OR FULL CLOSED. NO LIGHT WHEN VALVE MOVING.



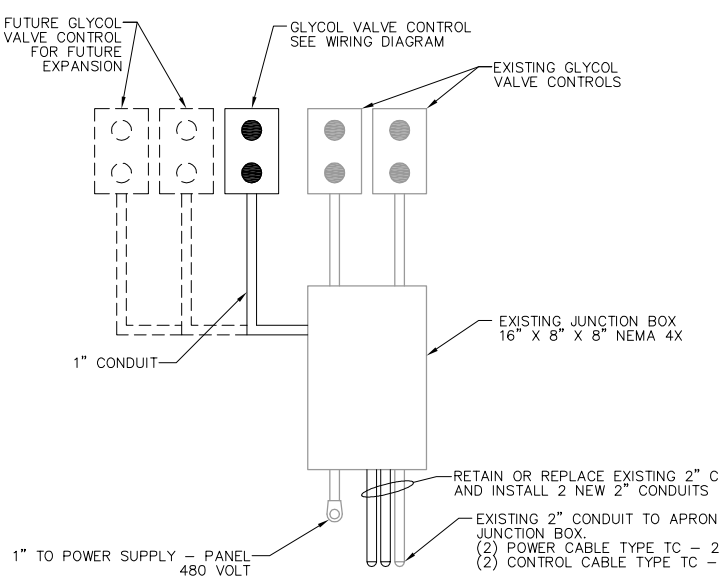
- SIGN NOTES:**
- SIGN SHALL BE 0.08 GA. ALUMINUM ALLOY. SHEET LETTERING COLOR SHALL BE RED.
 - ATTACH SIGN TO BUILDING WALL ABOVE CONTROL PANEL AND SWITCHES.
 - COST OF SIGN SHALL BE INCIDENTAL TO THE GLYCOL CONTROL SWITCH WORK.

GLYCOL SIGN DETAIL
N.T.S.

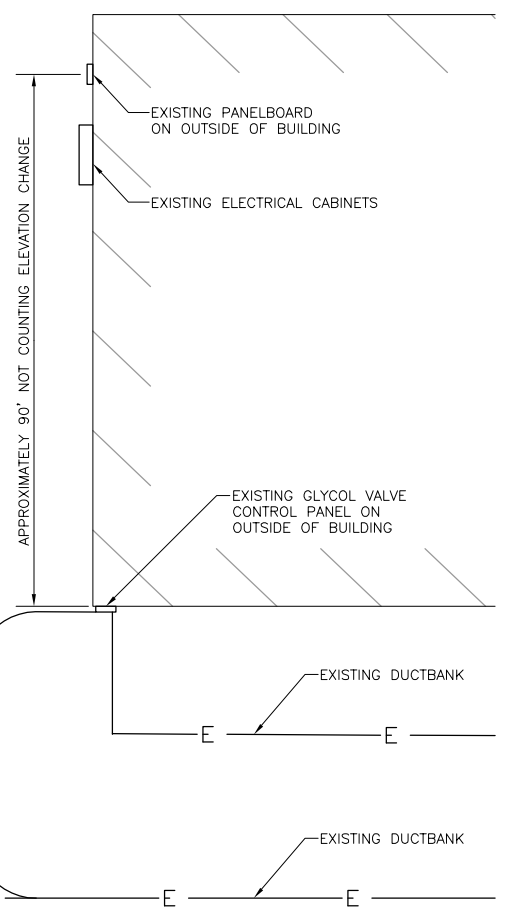
TERMINATE ROTORK TERMINAL NO'S INDICATED.



CONTROL STATION WIRING DIAGRAM
N.T.S.

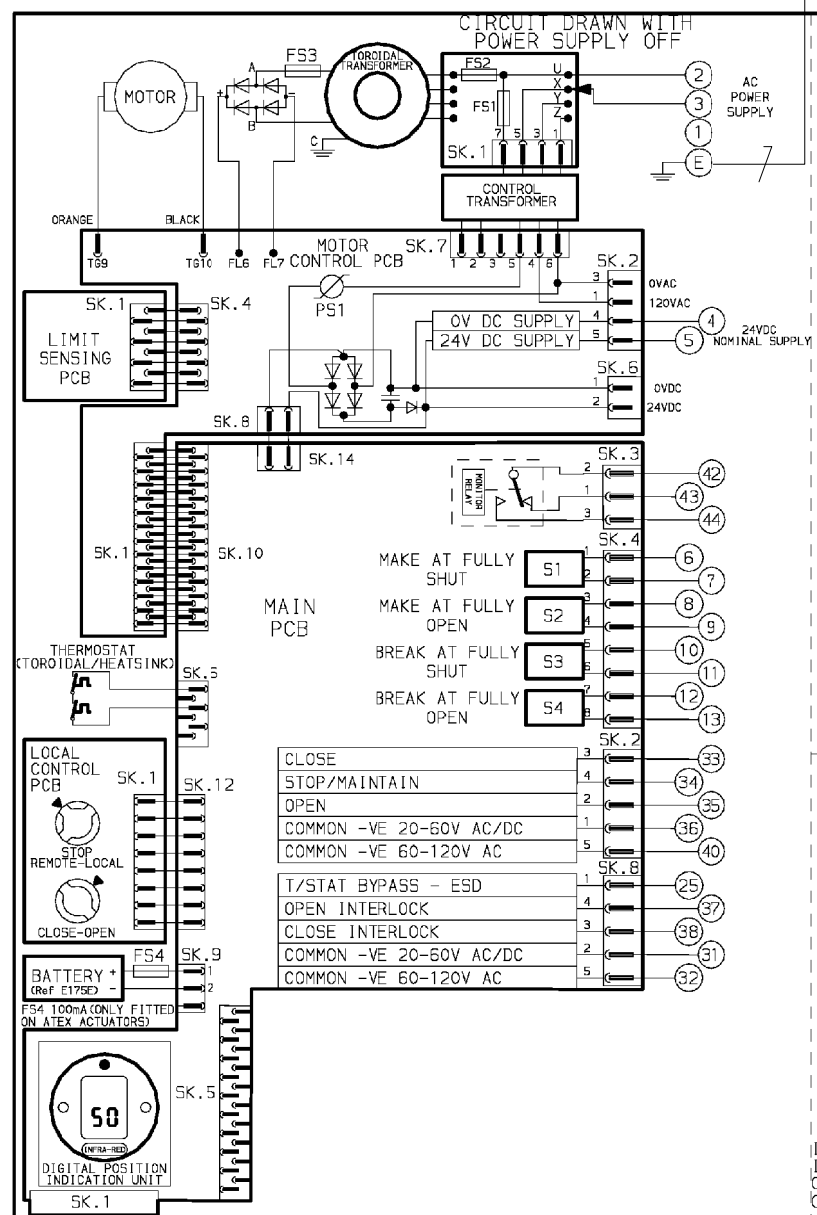
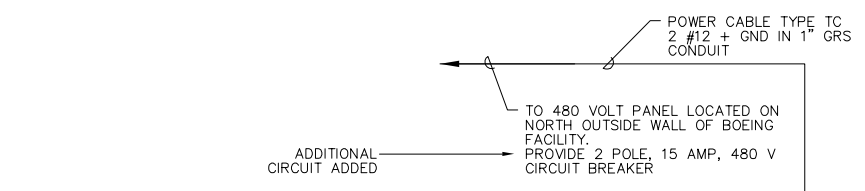


CONTROL PANEL DETAIL
N.T.S.



PARTIAL BOEING FACILITY FLOOR PLAN
N.T.S.

- NOTES:**
- THE LOCATION OF THE EXISTING PANELBOARD IS APPROXIMATE ONLY. NO ADDITIONAL COMPENSATION SHALL BE ALLOWED FOR EXTRA LABOR OR MATERIALS REQUIRED TO COMPLETE THIS WORK DUE TO ENCOUNTERED CONDITIONS BEING DIFFERENT FROM WHAT IS SHOWN.



FOR TYPICAL REMOTE CONTROL DETAILS SEE DOCUMENT RWS300

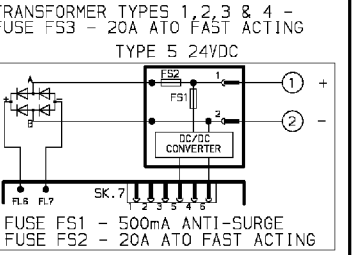
TRANSFORMER TAPPING OPTIONS

TYPE 1			TYPE 2		
TAP	NOM	RANGE	TAP	NOM	RANGE
X	100	80-120	X	200	180-240
Y	110	88-132	Y	230	184-276
Z	120	96-144	Z	270	216-324

TYPE 3			TYPE 4		
TAP	NOM	RANGE	TAP	NOM	RANGE
X	380	304-456	X	480	384-576
Y	400	320-480	Y	575	460-690
Z	415	332-498	Z	690	552-828

TRANSFORMER TYPES 1, 2, 3 & 4 - FUSE FS3 - 20A ATO FAST ACTING

TYPE 5 24VDC



ALL TRANSFORMER TYPES - PS1 SELF RESETTING FUSE

NOTE
REFER TO PUBLICATION E175E FOR APPROVED FUSES FS1, FS2 AND FS3.

MAX EXTERNAL LOAD ON TERMINALS 4 & 5 TO BE SW.

CONTROL SIGNAL THRESHOLD VOLTAGES TO BE MINIMUM "ON" 20V AC/DC
MAXIMUM "OFF" = 3V
MINIMUM CONTROL SIGNAL DURATION TO BE 300ms.

CURRENT DRAWN FROM EACH REMOTE CONTROL SIGNAL IS 5mA ON 24V DC OR 12mA ON 120V AC

WIRES ARE IDENTIFIED AT EACH END BY TERMINAL No. OR TAG No.

INDICATION CONTACTS S1-S4 ARE SHOWN IN THEIR DEFAULT CONFIGURATION. CONTACTS MAY BE CONFIGURED FOR ANY OF THE FUNCTIONS DESCRIBED IN E175E

No.	DATE	REVISION DETAILS
02	090903	MTR CONNECTION NOTE REMOVED
	P.J.W	CHECKED T.H

www.rotork.com

ROTORK CONTROLS LTD
BATH, BA1 3JQ
ENGLAND
Tel: 01225-733200

ROTORK CONTROLS INC
ROCHESTER
NY 14624, USA
Tel: 585-328-1550

CONFIG BY PJW
DATE 160703
CHECKED TH
BASE WD 6000-000
JOB No -
M.I.No -

IQT BASIC

CIRCUIT DIAGRAM No -REV
6000-000-02
B1 C1 B2 C2

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT, BLY-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 28_GLYCOL_CONTROL_DETAILS_.dw

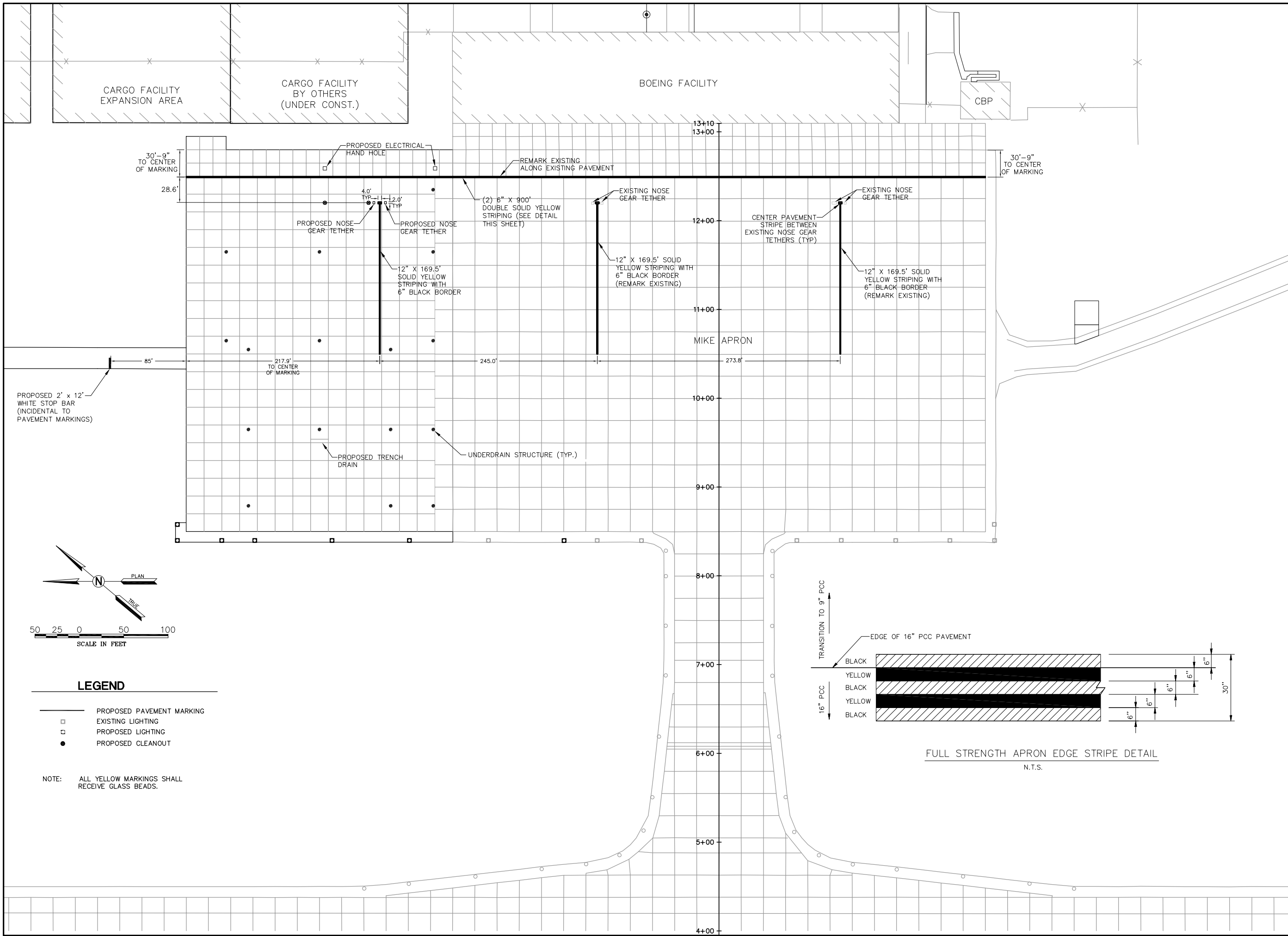
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

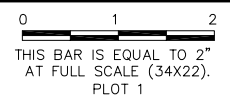
JOB No: 10098-01

**GLYCOL CONTROL
DETAILS 1**

SHEET 28 OF 89 SHEETS



REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

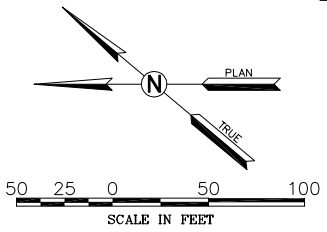
ONE MEMORIAL DRIVE, SUITE 500
 ST. LOUIS, MO 63102
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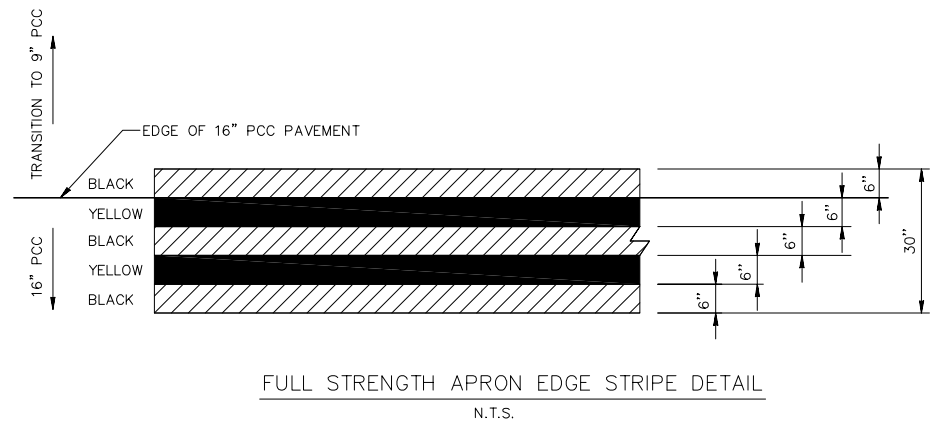
**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 29_MARKING.dwg
 DESIGN BY: LEW
 DRAWN BY: ASA
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: NOVEMBER 28, 2011
 JOB No: 10098-01

**PAVEMENT
MARKING PLAN**
 SHEET 29 OF 89 SHEETS



- LEGEND**
- PROPOSED PAVEMENT MARKING
 - EXISTING LIGHTING
 - PROPOSED LIGHTING
 - PROPOSED CLEANOUT
- NOTE: ALL YELLOW MARKINGS SHALL RECEIVE GLASS BEADS.



REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION
BASE BID

ONE MEMORIAL DRIVE, SUITE 500
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IL PROJECT: BLY-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 30-31_TETHER_DETAILS.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

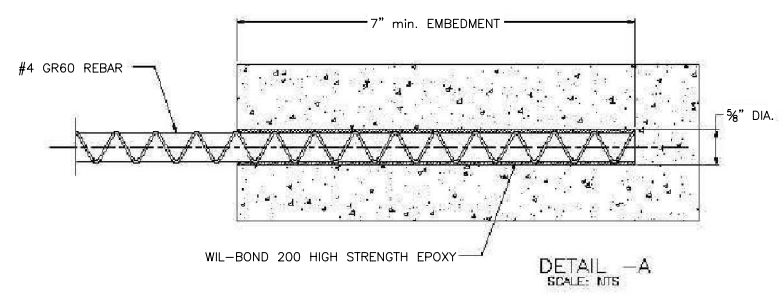
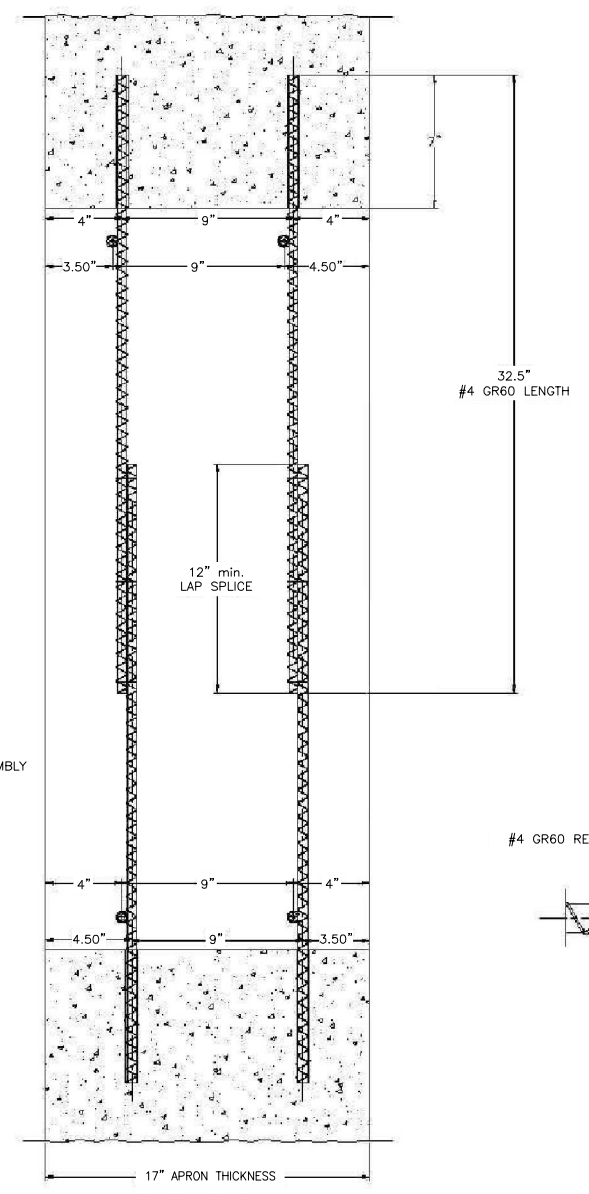
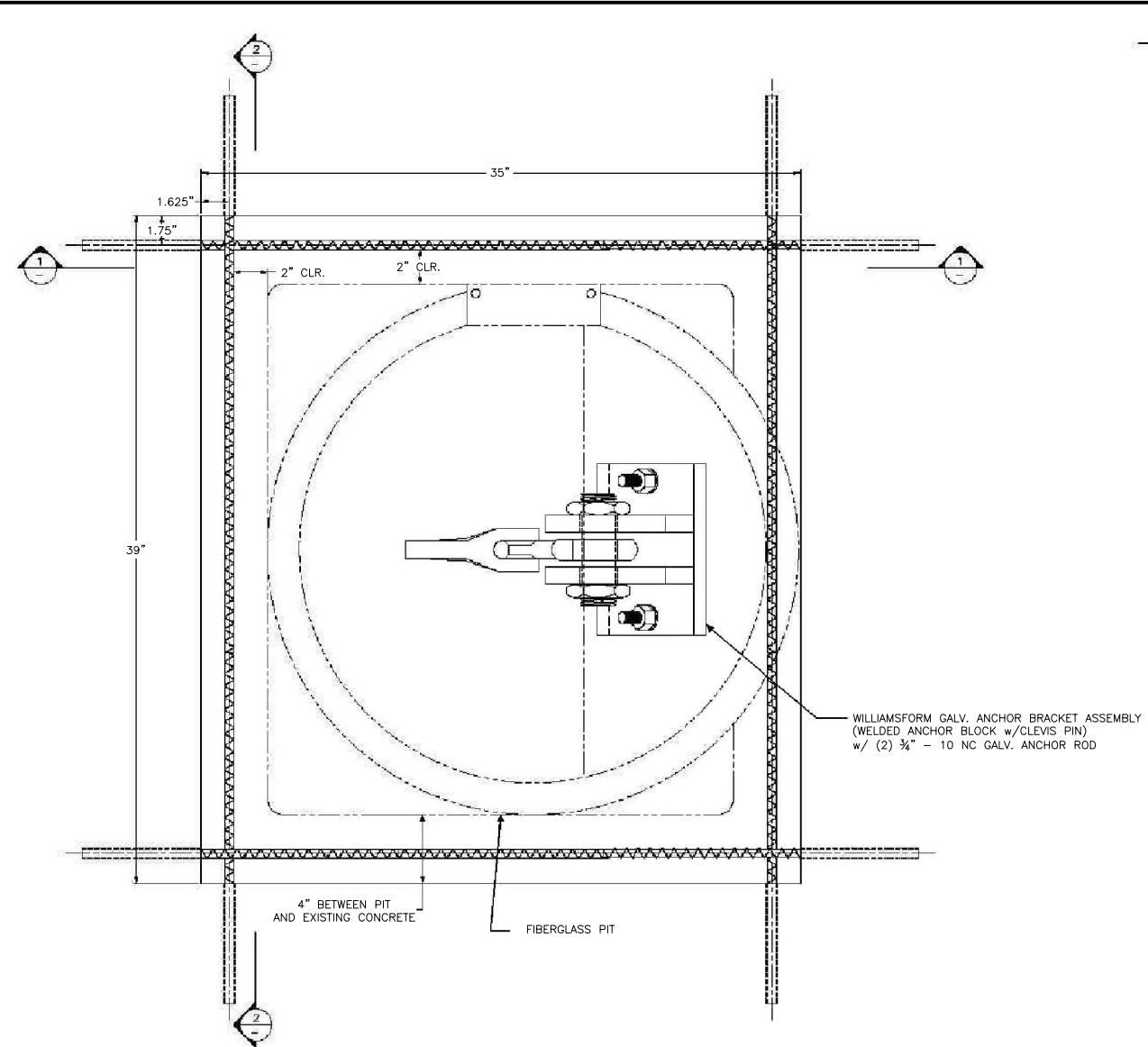
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

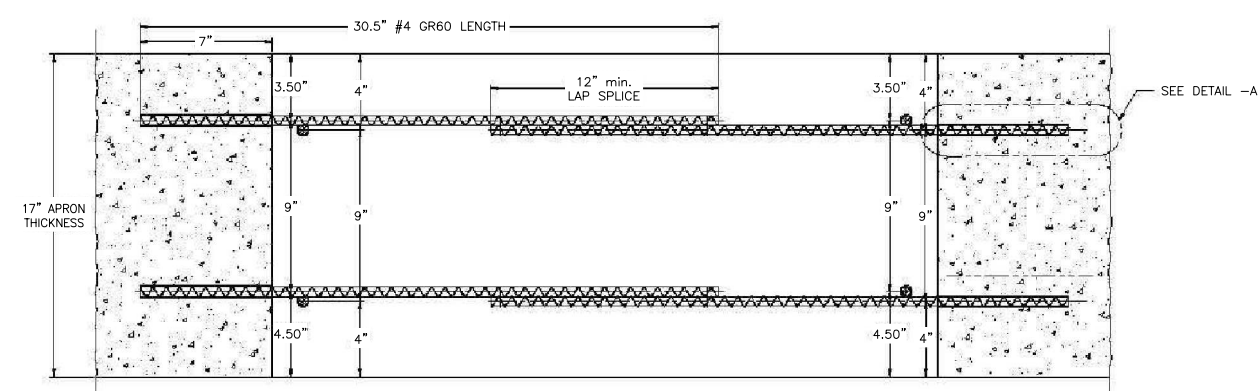
JOB No: 10098-01

NOSE GEAR
TETHER DETAIL 1

SHEET 30 OF 89 SHEETS



DRILL 3/8" DIA. HOLE 7" min. INTO EXISTING APRON. BLOW OUT DUST FROM BOTTOM OF THE HOLE. BRUSH THE HOLE WITH NYLON BRUSH. BLOW OUT DUST AGAIN. THE HOLE SHOULD BE DRY AND CLEAN OF DUST AND DEBRIS.



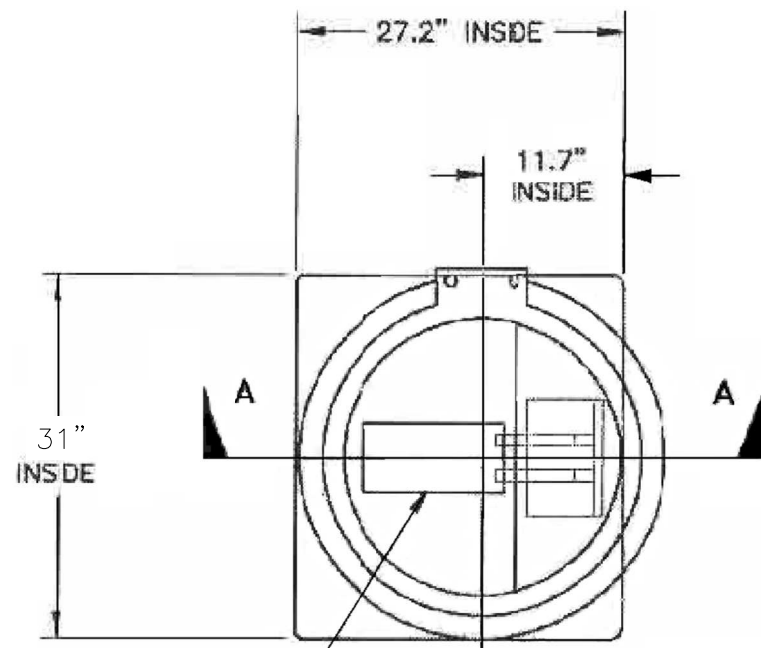
CONTRACTOR SHALL CERTIFY IN WRITING THAT ALL MATERIALS USED CONFORM TO THE BUY AMERICAN REQUIREMENTS. IF ALL MATERIALS DO NOT CONFORM TO BUY AMERICAN, A WAIVER SHALL BE SUBMITTED BY THE CONTRACTOR OR AN ALTERNATE PRODUCT SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.



1710 Cuprite Court
Castle Rock, CO 80108
phone and fax:
720-733-9864

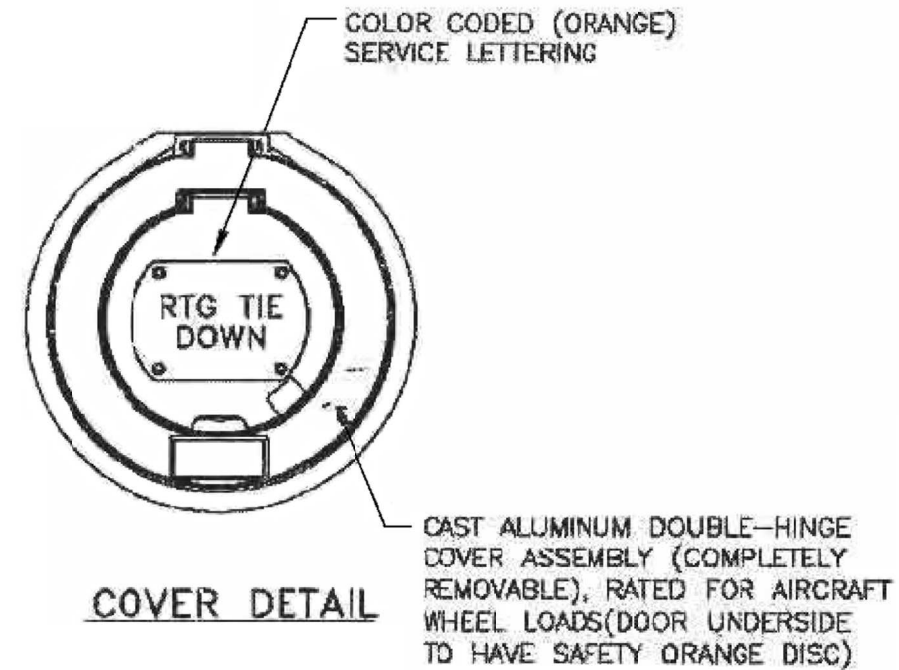
DESIGN BY:	TOM PRINTZ PE
SCALE:	1/4"
DATE:	11-11-08
DRAWN BY:	CAC
SHEET TITLE:	AEI1

CUSTOMER:	AVIATION EQUIPMENT INT'L INC.
PROJECT:	AEI NLG TETHER
LOCATION:	

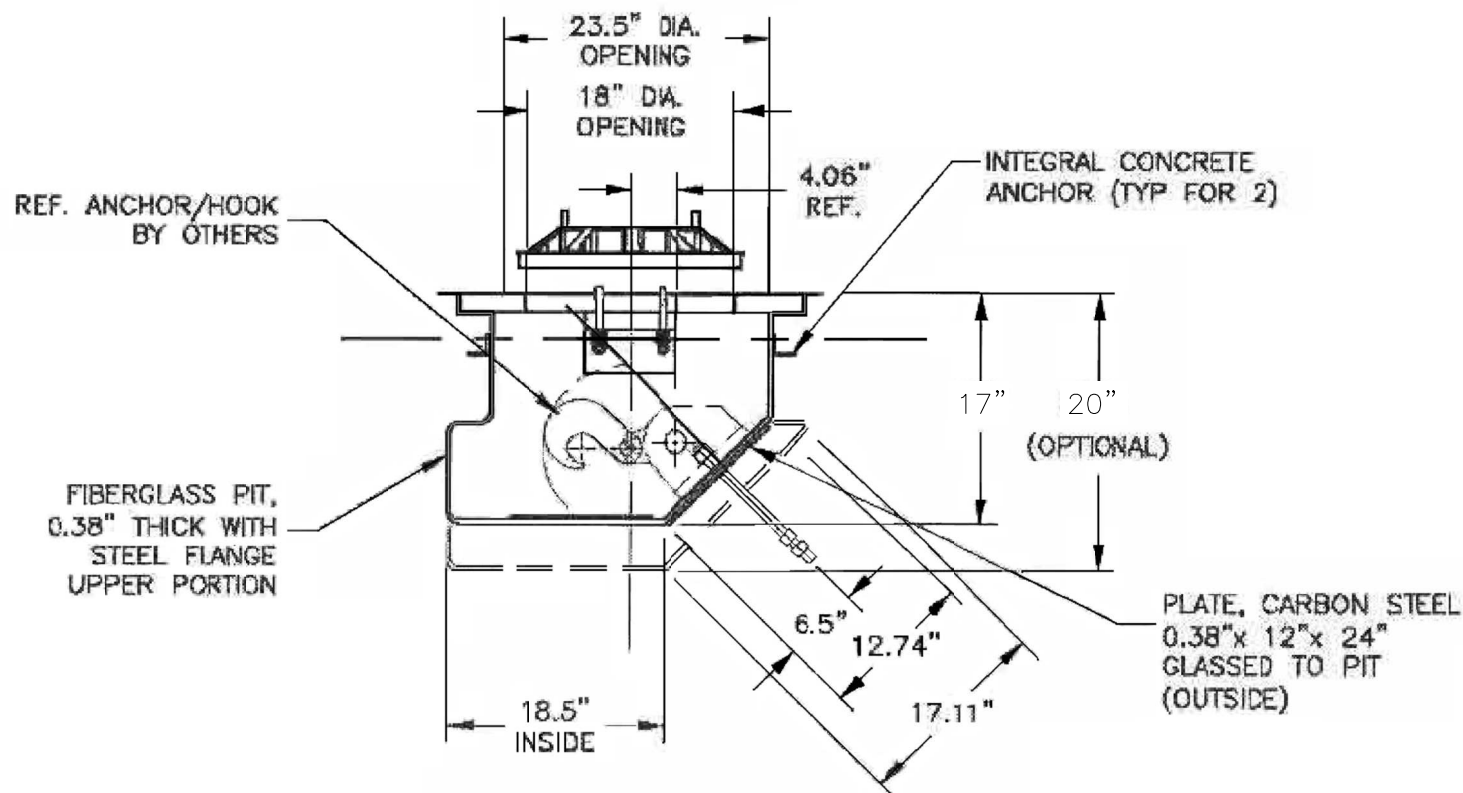


PLATE, CARBON STEEL
0.25"x 6"x 12"
GLASSED TO PIT
(INSIDE)

PLAN VIEW



COVER DETAIL



SECTION A-A

APPROVED _____ SIGNATURE _____

PRINTED NAME _____

COMPANY _____

DATE _____

CONTRACTOR SHALL CERTIFY IN WRITING THAT ALL MATERIALS USED CONFORM TO THE BUY AMERICAN REQUIREMENTS. IF ALL MATERIALS DO NOT CONFORM TO BUY AMERICAN, A WAIVER SHALL BE SUBMITTED BY THE CONTRACTOR OR AN ALTERNATE PRODUCT SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.

NOTE:

1. UNLESS OTHERWISE SPECIFIED, DIMENSIONAL TOLERANCE IS $\pm 0.5"$
2. CONTRACTOR TO VERIFY REQUIREMENT FOR ABOVE-GRADE CROWN ON APRON OR IN HANGAR WITH RESPECT TO CONCRETE JOINT LAYOUT, JACKING POINTS AND OTHER OPERATIONS.
3. CONTRACTOR TO VERIFY COVER SERVICE LETTERING.

AVIATION EQUIPMENT INT'L INC.
T: (949) 364 0119 F: (949) 364 1847
Email: dgrant@aeintl.com

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES.
BRACKETS [] ARE MILLIMETERS.
THREE PLACE DIMENSIONS ARE ± 0.015 .
TWO PLACE DIMENSIONS ARE ± 0.3 .
ONE PLACE DIMENSIONS ARE ± 0.5 .
ANGULAR DIMENSIONS ARE $\pm 0.5^\circ$.

MODEL: **14370-105**

PROJECT: _____
DWG/FILE NAME: = File # _____

JOB NO.: _____ LOT I.D.: _____ QTY: _____ SCALE: N.T.S. DRAWN BY: J.Le SHT 1 OF 1

**PREFABRICATED TIE-DOWN
FIT ASSEMBLY WITH
DOUBLE-HINGE COVER**

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT: BLY-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 30-31_TETHER_DETAILS.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**NOSE GEAR
TETHER DETAIL 2**

SHEET 31 OF 89 SHEETS

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 32_ELECTRICAL_LAYOUT.dwg

DESIGN BY: LEW

DRAWN BY: ASA

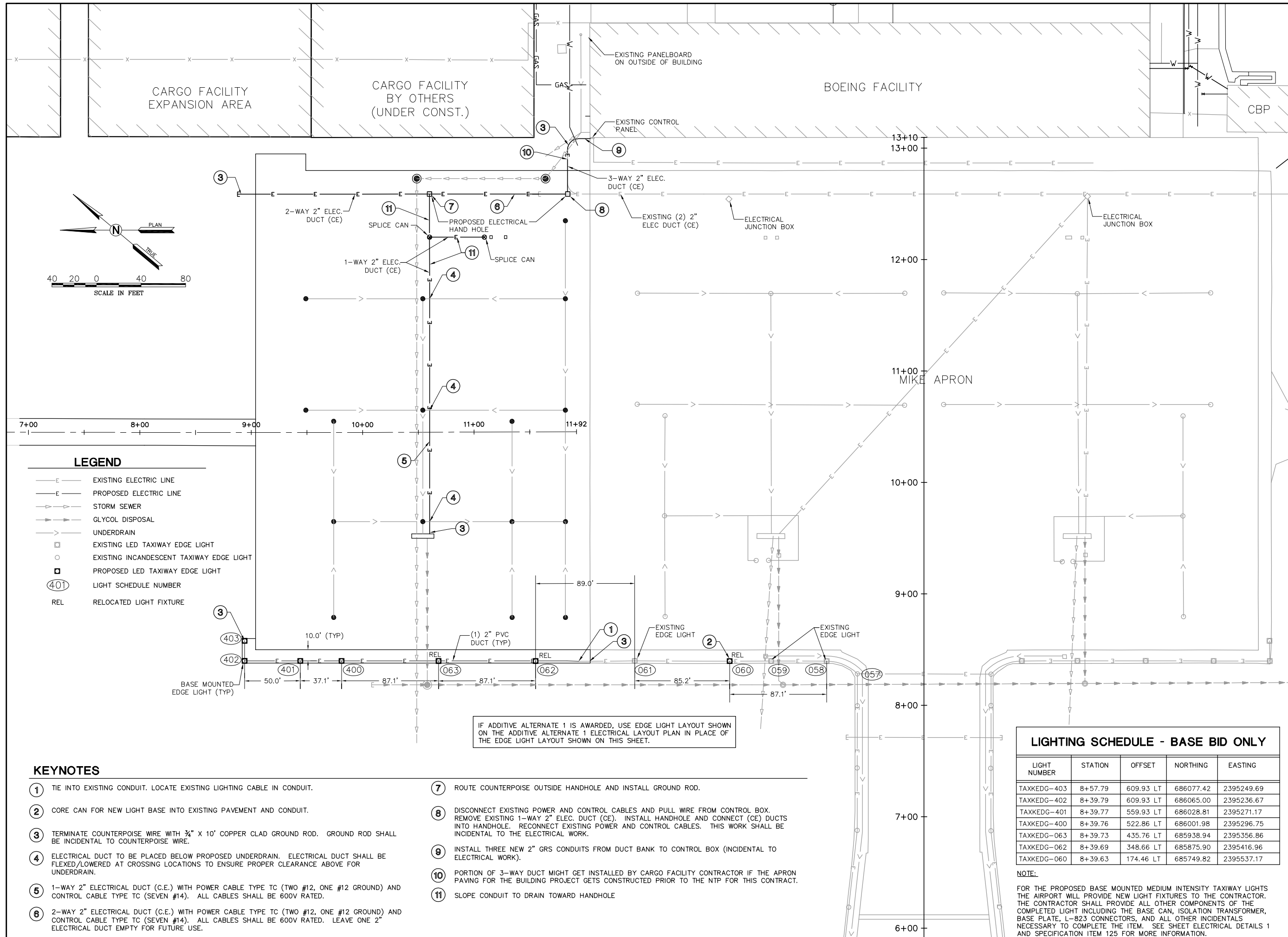
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**ELECTRICAL
LAYOUT PLAN**



LEGEND

- E — EXISTING ELECTRIC LINE
- - - - PROPOSED ELECTRIC LINE
- - - - STORM SEWER
- - - - GLYCOL DISPOSAL
- - - - UNDERDRAIN
- EXISTING LED TAXIWAY EDGE LIGHT
- EXISTING INCANDESCENT TAXIWAY EDGE LIGHT
- PROPOSED LED TAXIWAY EDGE LIGHT
- (401) LIGHT SCHEDULE NUMBER
- REL RELOCATED LIGHT FIXTURE

KEYNOTES

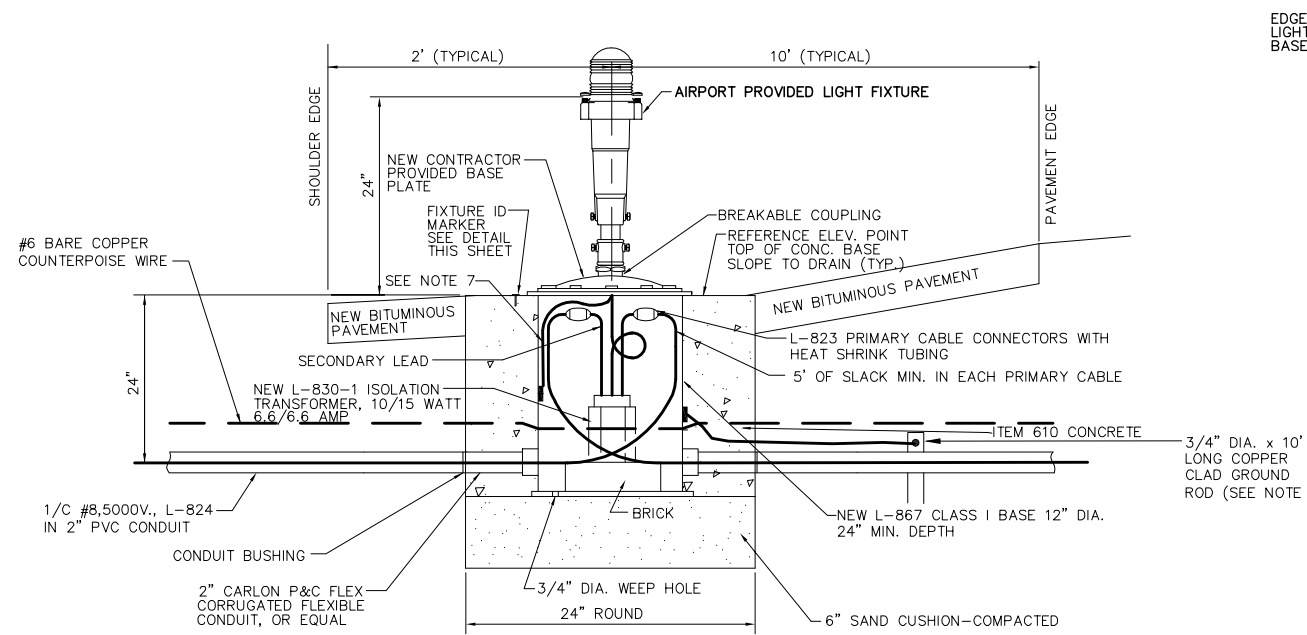
- 1 TIE INTO EXISTING CONDUIT. LOCATE EXISTING LIGHTING CABLE IN CONDUIT.
- 2 CORE CAN FOR NEW LIGHT BASE INTO EXISTING PAVEMENT AND CONDUIT.
- 3 TERMINATE COUNTERPOISE WIRE WITH 3/4" X 10' COPPER CLAD GROUND ROD. GROUND ROD SHALL BE INCIDENTAL TO COUNTERPOISE WIRE.
- 4 ELECTRICAL DUCT TO BE PLACED BELOW PROPOSED UNDERDRAIN. ELECTRICAL DUCT SHALL BE FLEXED/LOWERED AT CROSSING LOCATIONS TO ENSURE PROPER CLEARANCE ABOVE FOR UNDERDRAIN.
- 5 1-WAY 2" ELECTRICAL DUCT (C.E.) WITH POWER CABLE TYPE TC (TWO #12, ONE #12 GROUND) AND CONTROL CABLE TYPE TC (SEVEN #14). ALL CABLES SHALL BE 600V RATED.
- 6 2-WAY 2" ELECTRICAL DUCT (C.E.) WITH POWER CABLE TYPE TC (TWO #12, ONE #12 GROUND) AND CONTROL CABLE TYPE TC (SEVEN #14). ALL CABLES SHALL BE 600V RATED. LEAVE ONE 2" ELECTRICAL DUCT EMPTY FOR FUTURE USE.
- 7 ROUTE COUNTERPOISE OUTSIDE HANDHOLE AND INSTALL GROUND ROD.
- 8 DISCONNECT EXISTING POWER AND CONTROL CABLES AND PULL WIRE FROM CONTROL BOX. REMOVE EXISTING 1-WAY 2" ELEC. DUCT (CE). INSTALL HANDHOLE AND CONNECT (CE) DUCTS INTO HANDHOLE. RECONNECT EXISTING POWER AND CONTROL CABLES. THIS WORK SHALL BE INCIDENTAL TO THE ELECTRICAL WORK.
- 9 INSTALL THREE NEW 2" GRS CONDUITS FROM DUCT BANK TO CONTROL BOX (INCIDENTAL TO ELECTRICAL WORK).
- 10 PORTION OF 3-WAY DUCT MIGHT GET INSTALLED BY CARGO FACILITY CONTRACTOR IF THE APRON PAVING FOR THE BUILDING PROJECT GETS CONSTRUCTED PRIOR TO THE NTP FOR THIS CONTRACT.
- 11 SLOPE CONDUIT TO DRAIN TOWARD HANDHOLE

IF ADDITIVE ALTERNATE 1 IS AWARDED, USE EDGE LIGHT LAYOUT SHOWN ON THE ADDITIVE ALTERNATE 1 ELECTRICAL LAYOUT PLAN IN PLACE OF THE EDGE LIGHT LAYOUT SHOWN ON THIS SHEET.

LIGHTING SCHEDULE - BASE BID ONLY

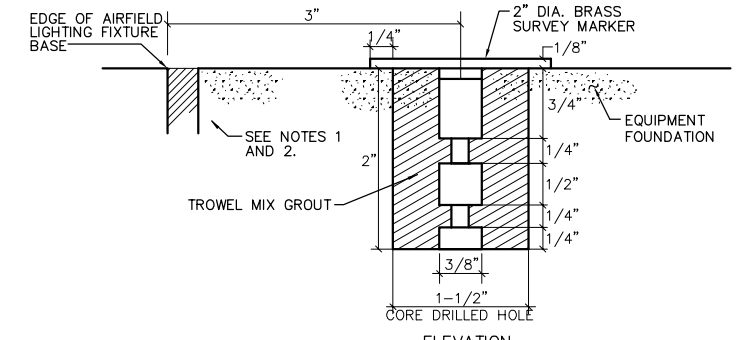
LIGHT NUMBER	STATION	OFFSET	NORTHING	EASTING
TAXKEDG-403	8+57.79	609.93 LT	686077.42	2395249.69
TAXKEDG-402	8+39.79	609.93 LT	686065.00	2395236.67
TAXKEDG-401	8+39.77	559.93 LT	686028.81	2395271.17
TAXKEDG-400	8+39.76	522.86 LT	686001.98	2395296.75
TAXKEDG-063	8+39.73	435.76 LT	685938.94	2395356.86
TAXKEDG-062	8+39.69	348.66 LT	685875.90	2395416.96
TAXKEDG-060	8+39.63	174.46 LT	685749.82	2395537.17

NOTE:
FOR THE PROPOSED BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHTS THE AIRPORT WILL PROVIDE NEW LIGHT FIXTURES TO THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL OTHER COMPONENTS OF THE COMPLETED LIGHT INCLUDING THE BASE CAN, ISOLATION TRANSFORMER, BASE PLATE, L-823 CONNECTORS, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE ITEM. SEE SHEET ELECTRICAL DETAILS 1 AND SPECIFICATION ITEM 125 FOR MORE INFORMATION.

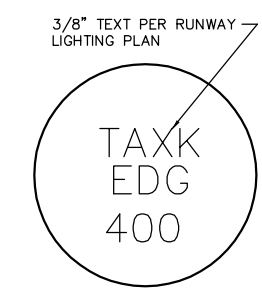


BASE MOUNTED MEDIUM INTENSITY LED LIGHTS
N.T.S.

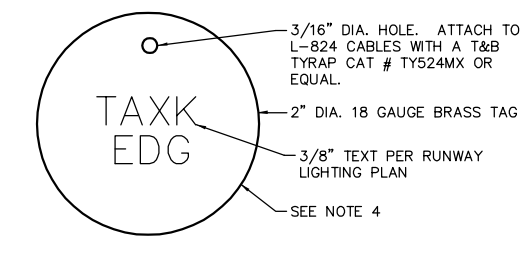
- INSTALL 2" FLEXIBLE CONDUIT BETWEEN CAN AND PVC CONDUIT UNDER PAVED SHOULDER.
- INSTALL 1/C #6 AWG BARE COPPER GROUND JUMPER CONNECTED TO GROUND LUG OUTSIDE BASE CAN AND EXOTHERMICALLY WELD TO TO GROUND ROD.
- NEW TAXIWAY EDGE LIGHT WILL BE PROVIDED BY THE AIRPORT FOR INSTALLATION BY THE CONTRACTOR. THE LIGHT PROVIDED BY THE AIRPORT WILL BE CROUSE-HINDS (8615-T2-B-066-24) WITHOUT ARTIC KIT.
- COPPER CLAD GROUND ROD SHALL BE LOCATED OPPOSITE COUNTERPOISE WIRE WITH RESPECT TO CAN AND THE TWO SEPARATED BY MIN. OF 12". COUNTERPOISE WIRE SHALL NOT BE BONDED TO CAN.
- INSTALL LIGHT AFTER COMPLETION OF NEW BITUMINOUS SHOULDER PAVEMENT BY CORING THROUGH PAVEMENT.
- CONTRACTOR MAY INSTALL AN ADJUSTABLE TWO PIECE CAN AND INSTALL THE BOTTOM HALF PRIOR TO PAVING THE BITUMINOUS SHOULDER. IF THIS METHOD IS USED, THE TOP HALF SHALL BE INSTALLED BY CORING THROUGH THE BITUMINOUS PAVEMENT TO EXPOSE THE BOTTOM HALF.
- ATTACH A #6 AWG STRANDED COPPER 600V WIRE WITH GREEN XHHW INSULATION FROM THE LIGHT FIXTURE TO THE INTERNAL GROUND LUG. PROVIDE 3" OF SLACK TO ALLOW FOR LIGHT REMOVAL FOR ROUTINE MAINTENANCE (INCIDENTAL TO LIGHT INSTALLATION).
- ORIENTATION OF 2" CONDUIT ROTATED 90° FOR CLARITY.



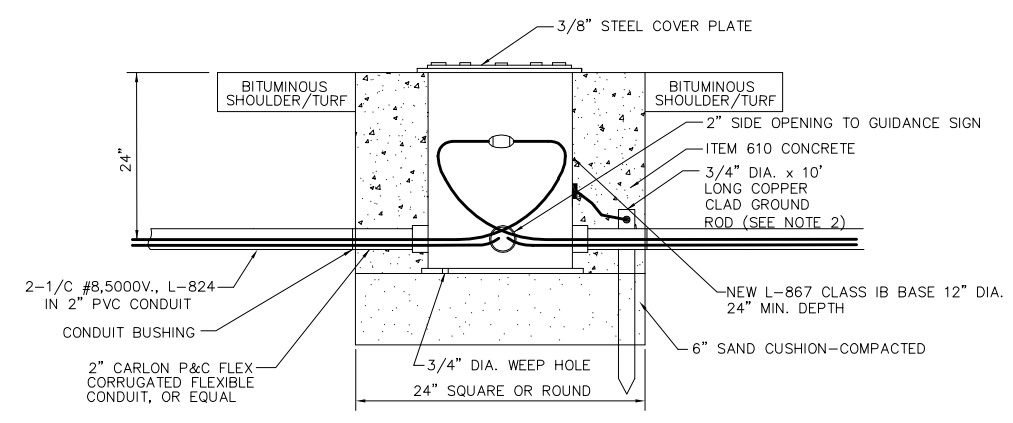
AIRFIELD LIGHTING FIXTURE IDENTIFICATION MARKER
N.T.S.



TOP VIEW AIRFIELD LIGHTING FIXTURE IDENTIFICATION MARKER
N.T.S.

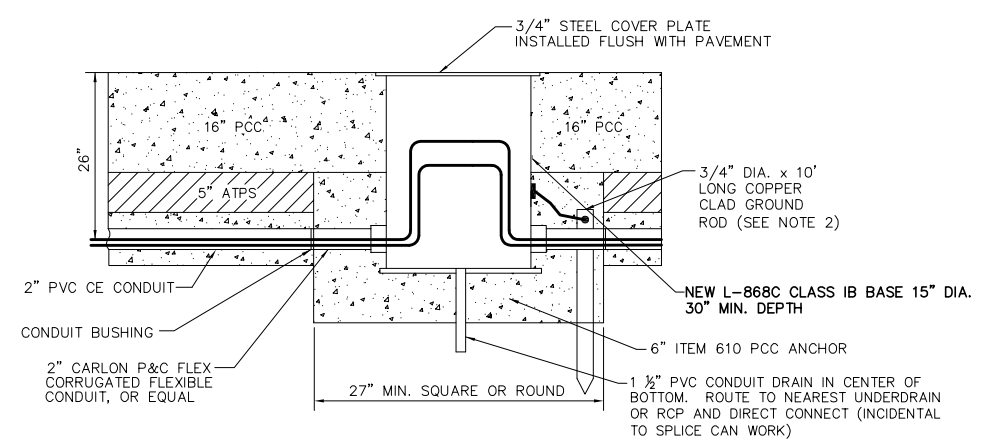


L-824 CABLE IDENTIFICATION TAG
N.T.S.



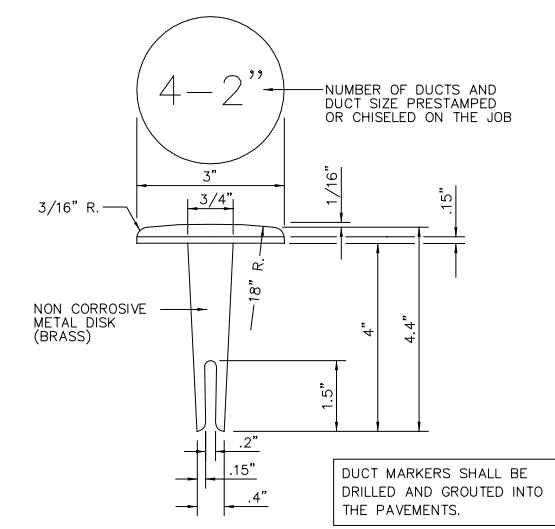
SPLICE CAN DETAIL — IN SHOULDER/TURF
N.T.S.

- INSTALL 2" FLEXIBLE CONDUIT BETWEEN CAN AND PVC CONDUIT UNDER PAVED SHOULDER.
- INSTALL 1/C #6 AWG BARE COPPER GROUND JUMPER CONNECTED TO GROUND LUG OUTSIDE BASE CAN AND EXOTHERMICALLY WELD TO TO GROUND ROD.
- EXTEND CONCRETE BETWEEN CAN AND EDGE OF BITUMINOUS SHOULDER TO REPLACE PAVEMENT REMOVED DURING INSTALLATION OF 2" PVC CONDUIT FOR SIGN BASE.



SPLICE CAN DETAIL — IN PCC PAVEMENT
N.T.S.

- INSTALL 1/C #6 AWG BARE COPPER GROUND JUMPER CONNECTED TO GROUND LUG OUTSIDE BASE CAN AND EXOTHERMICALLY WELD TO TO GROUND ROD.
- CORE THROUGH ATPS AND CONCRETE ENCASED CONDUIT AND SET CAN IN PCC ANCHOR PRIOR TO PAVING 16" PCC PAVEMENT. CHIP AWAY CONCRETE USING HAND METHODS TO MAKE CONNECTION TO PVC CONDUIT WITH FLEXIBLE CONDUIT.
- SEE ELECTRICAL LAYOUT PLAN FOR ORIENTATION OF CONDUIT AND TYPE AND NUMBER OF ELECTRICAL CONDUCTORS.



DUCT MARKER DETAIL
N.T.S.

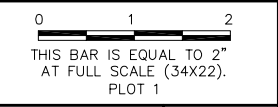
- NEW DUCT MARKER SHALL BE INSTALLED AT ALL DUCTS LOCATIONS PROPOSED AND EXISTING AS SHOWN ON THE CABLING AND DUCT PLAN.

DUCT MARKER DETAIL
N.T.S.

NOTES:

- FOR IDENTIFICATION NUMBERS, SEE ELECTRICAL LAYOUT PLAN. CONTRACTOR SHALL VERIFY NUMBERING WITH AIRPORT PRIOR TO ORDERING MARKERS.
- ALL AIRFIELD LIGHTING EQUIPMENT SHALL BE IDENTIFIED WITH A BRASS SURVEY MARKER. ITEMS REQUIRING ID MARKERS ARE:
JUNCTION BOXES
MANHOLES
TAXIWAY LIGHTS
- L-823 CONNECTORS SHALL BE INSTALLED ON ALL CABLES, IN EACH MANHOLE, BASE CANS, OR OTHER ACCESSIBLE LOCATIONS. L-823 CONNECTORS SHALL BE INSTALLED SO A PORTION OF THE LOOP CAN BE BYPASSED.
- ALL AIRFIELD LIGHTING CIRCUITS SHALL BE IDENTIFIED WITH A BRASS TAG WITH ITS RESPECTIVE CIRCUIT/LOOP NUMBER AT ALL ACCESSIBLE LOCATIONS. ATTACH THE ID TAG TO BOTH CABLES 12" FROM THE L-823 CONNECTORS.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

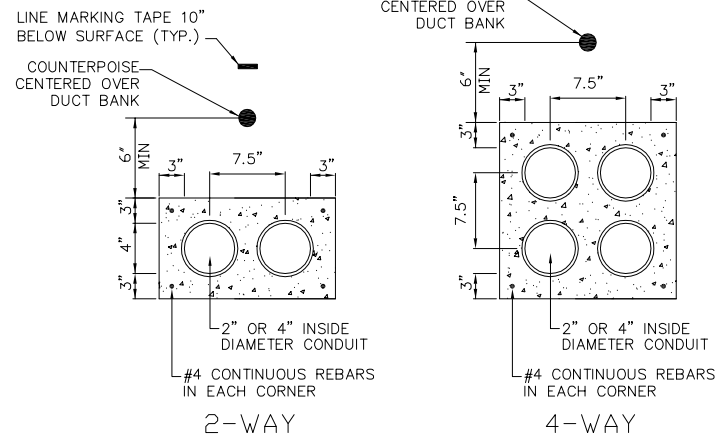
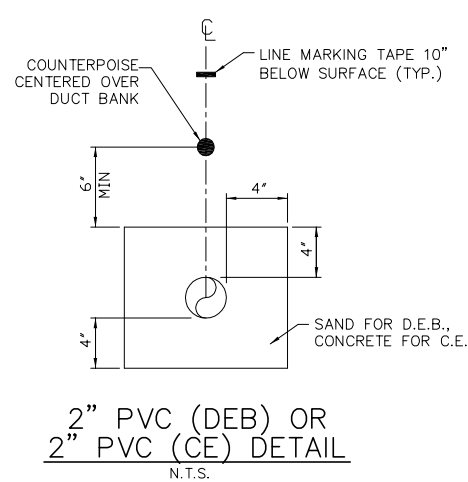
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**ELECTRICAL
DETAILS 1**

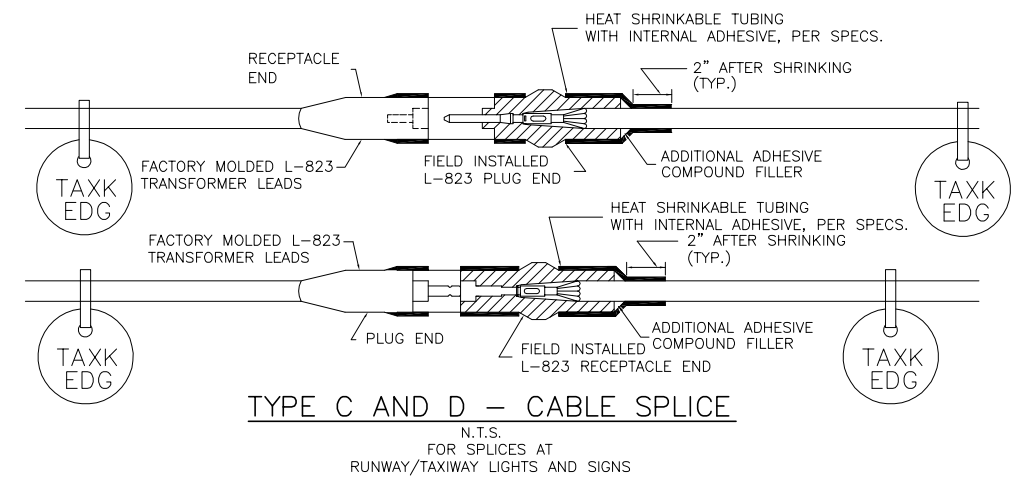
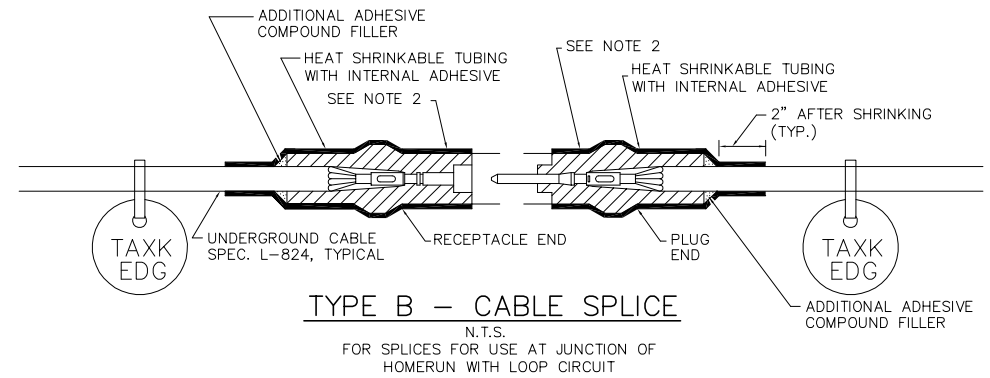
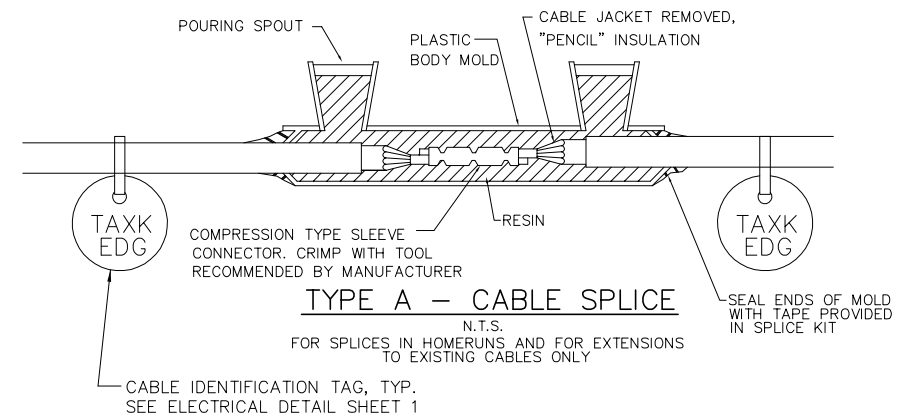
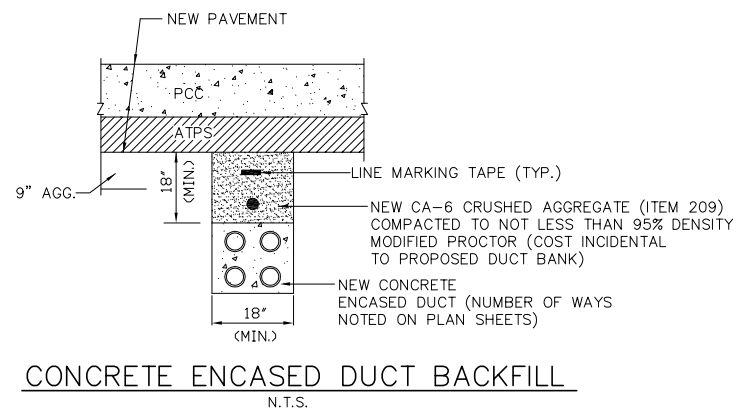
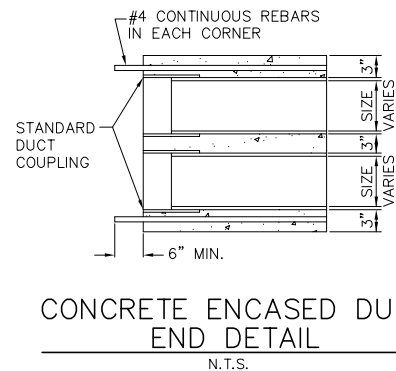


CONCRETE ENCASED DUCT BANKS

N.T.S.

NOTES:

- DIMENSIONS ARE MINIMUM.
- CONCRETE SHALL CONFORM TO ITEM 610.
- ALL CONDUIT SHALL BE SCHEDULE 40 PVC.
- TOP OF CONCRETE ENCASEMENT IN TURF AREAS SHALL NOT BE LESS THAN 24" BELOW FINISHED GRADE.
- SEE ELECTRICAL LAYOUT PLAN FOR CONDUIT DIAMETER.



NOTES

- INSIDE DIAMETER OF CONNECTOR SHALL PROPERLY MATCH THE OUTSIDE DIAMETER OF CABLE.
- WRAP WITH AT LEAST ONE LAYER OF RUBBER OR SYNTHETIC RUBBER TAPE AND ONE LAYER OF PLASTIC TAPE, ONE-HALF LAPPED, EXTENDING AT LEAST 1-1/2 INCHES ON EACH SIDE OF JOINT.
- THE COST OF FURNISHING AND INSTALLING ALL SPLICE MATERIALS SHALL BE INCIDENTAL TO THE ASSOCIATED CABLE ITEMS.
- THE CONTRACTOR SHALL HAVE A MINIMUM OF TWO (2) TYPE A SPLICE KITS ON THE JOB SITE AT ALL TIMES FOR EMERGENCY REPAIRS.

REVISIONS		
NUMBER	BY	DATE

0 1 2

THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). PLOT 1

MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS

MIKE APRON EXPANSION
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IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: LEW

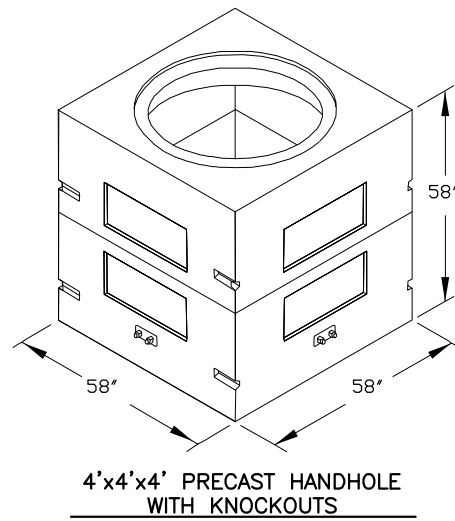
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DATE: NOVEMBER 28, 2011

JOB No: 10098-01

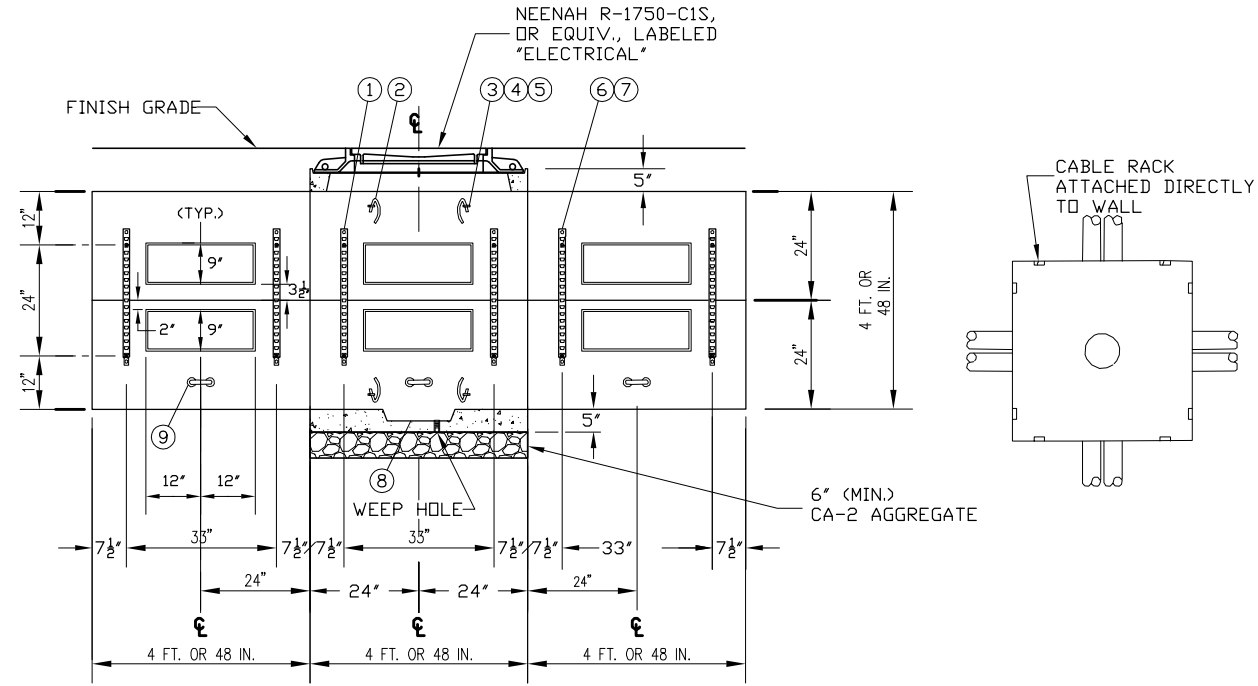


4'x4'x4' PRECAST HANDHOLE WITH KNOCKOUTS

DIMENSIONS

	LENGTH	WIDTH	HEIGHT	THICKNESS
INSIDE	48"	48"	48"	
OUTSIDE	58"	58"	58"	
WALL				5"
ROOF				5"
FLOOR				5"

DUE TO PAVEMENT STRUCTURE THICKNESS ONLY THE BOTTOM KNOCKOUTS WILL BE USED.



HARDWARE PACKAGE			CAST-IN-ITEMS		
ITEM	REQ'D.	DESCRIPTION	ITEM	REQ'D.	DESCRIPTION
1	8	18 HOLE CABLE RACK WITH TAB	2	8	3 FT. BONDING RIBBON
3	8	3/8-16 x 1 PLASTIC BOLT	5	8	3/8-16 PLASTIC INSERT
4	8	BONDING RIBBON CLAMP	7	16	1/2-13 PLASTIC INSERT
6	16	1/2-13 x 2 HEX BOLT	8	1	14 DIA. SUMP
9	4	PULL-IN IRON			

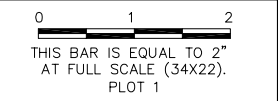
DESIGN DATA

- GROUND WATER LEVEL AT 3'-6" BELOW SURFACE
- DRY EARTH DENSITY 100 LBS./CU. FT.
- SATURATED EARTH DENSITY 120 LBS./ CU. FT.
- LIVE LOAD A.A.S.H.T.O. H-20-SI6 TRUCK
- LIVE LOAD IMPACT 2'-0" 1 = 20%
- EARTH COVER: MIN. 2'-0" - MAX. 5'-0"
- A.S.T.M. C-857-78
- A.C.I. CODE 318-83
- F'c = 4,500 P.S.I.
- Fy = 60,000 P.S.I.

DRAINAGE NOTE:


INSTALL 4" PVC DRAIN PIPE THROUGH SIDE WALL AT INTERIOR FLOOR ELEVATION AND ROUTE TO NEAREST STORM SEWER PIPE, STORM MANHOLE OR DITCH. CONNECTION AT STORM SEWER PIPE OR STORM MANHOLE SHALL BE A DIRECT CONNECTION AS DETAILED ON THE DRAINAGE DETAILS SHEETS. IF 4" PVC DRAIN IS DAYLIGHTED TO A DITCH, THE PIPE SHALL HAVE A CONCRETE HEADWALL FOR PIPE DRAIN IN ACCORDANCE WITH IDOT STANDARD 601101-01. ALL COSTS ASSOCIATED WITH THE ELECTRICAL HANDHOLE DRAIN SHALL BE INCIDENTAL TO THE HANDHOLE INSTALLATION.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**


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AIP PROJ. 3-17-0146-029-2011**

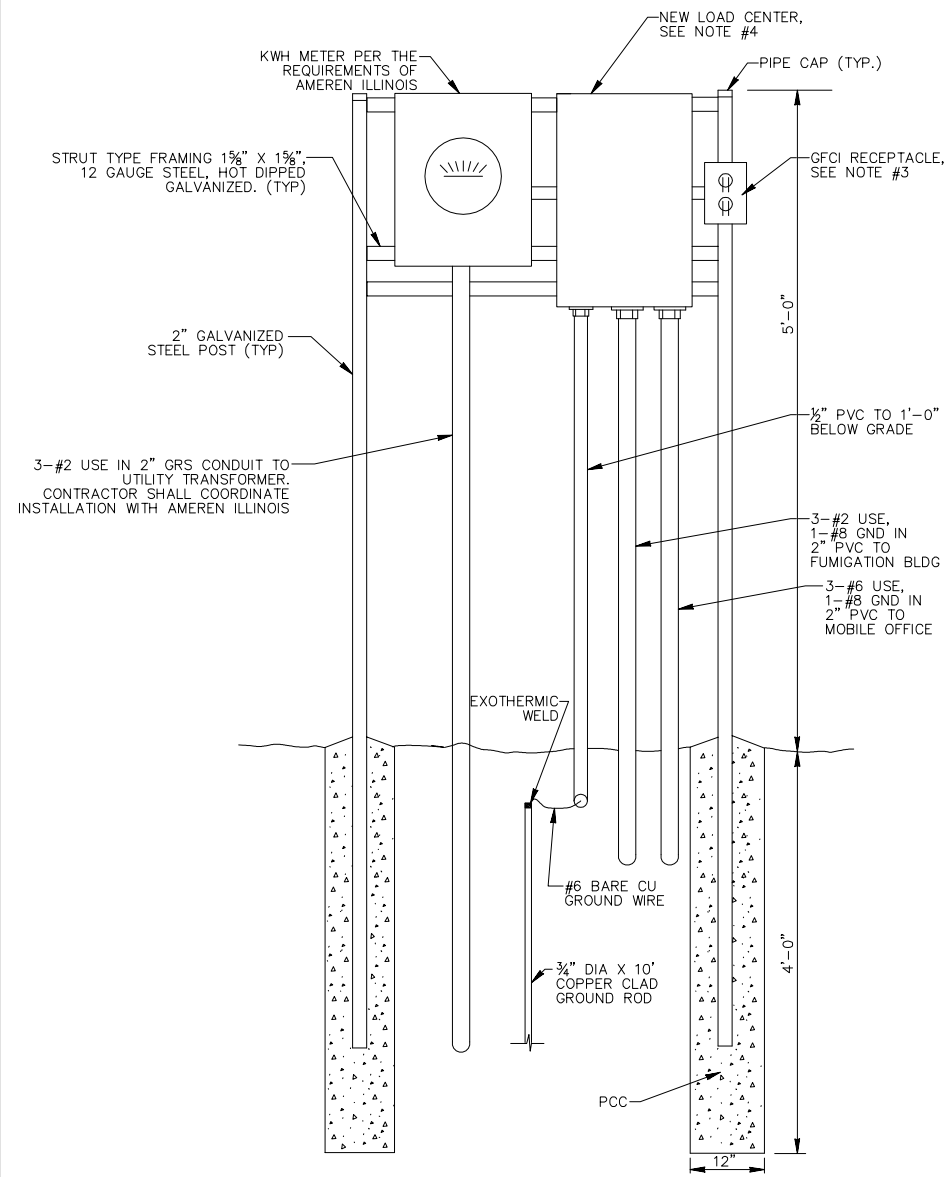
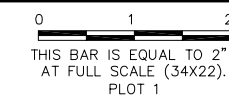
FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**ELECTRICAL
DETAILS 3**

REVISIONS

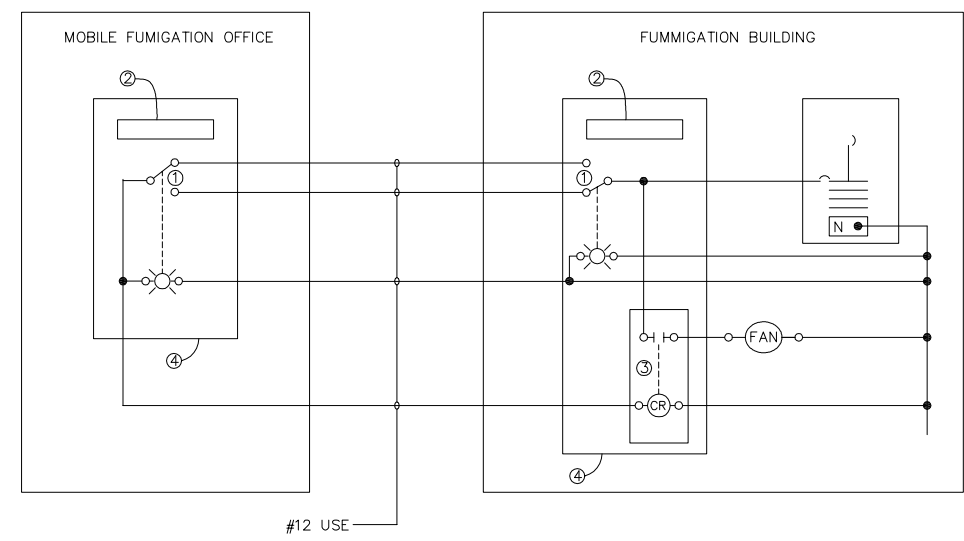
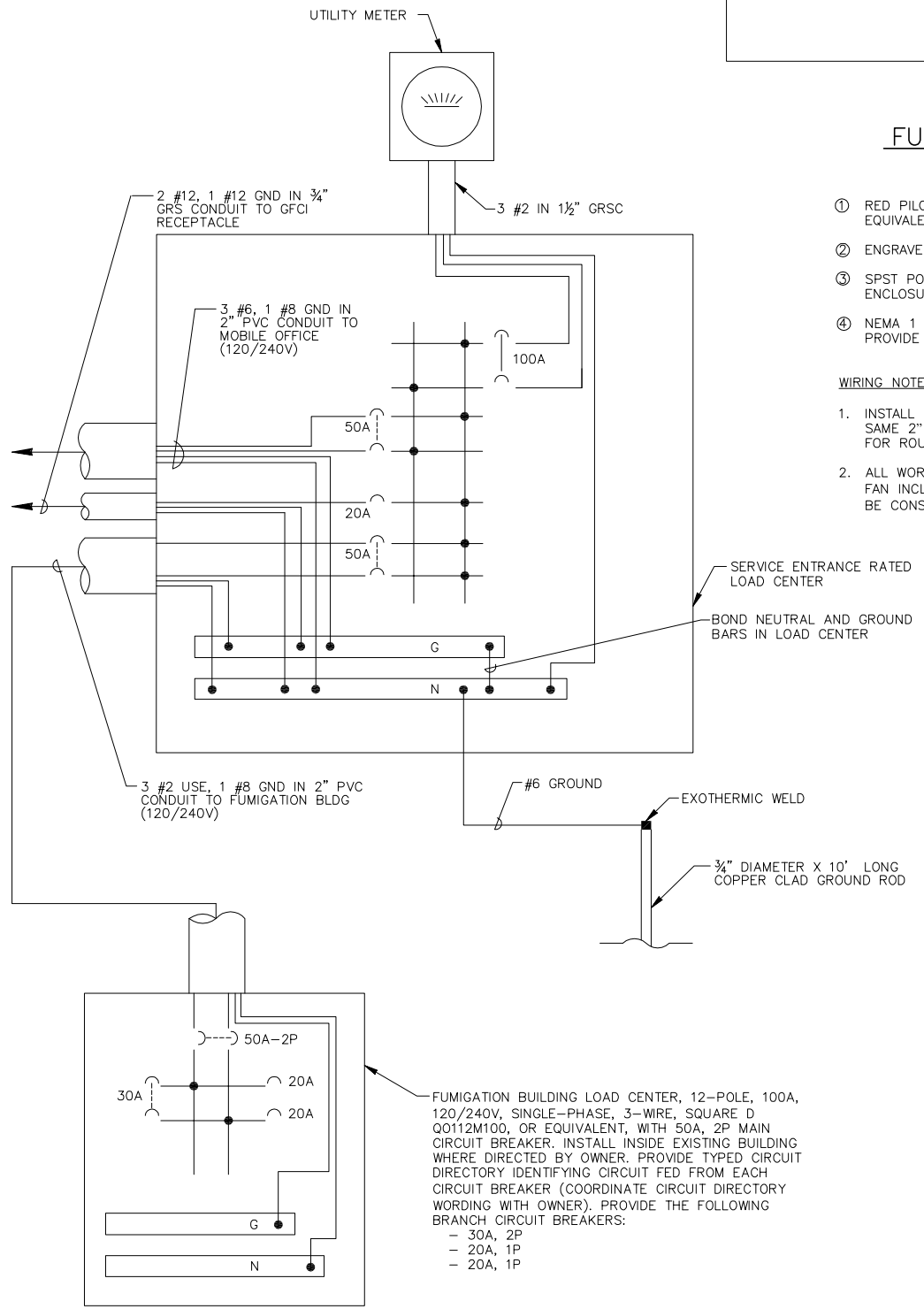
NUMBER	BY	DATE



KWH METER AND LOAD CENTER DETAIL
N.T.S.

NOTES:

- CONTRACTOR SHALL PROVIDE ELECTRICAL CONDUITS IN ACCORDANCE WITH ITEM 110.
- CONCRETE SHALL MEET REQUIREMENTS OF ITEM 610.
- CONTRACTOR SHALL FURNISH AND INSTALL A SPECIFICATION GRADE WEATHER-RESISTANT AND CORROSION-RESISTANT GFCI NEMA 5-20R RECEPTACLE, PASS & SEYMOUR CAT. # 2095DSWRBK, MOUNTED IN FS DEVICE BOX, WITH AN EXTRA-DEEP, SUNLIGHT RESISTANT, PADLOCKABLE, POLYCARBONATE CONSTRUCTION WEATHERPROOF COVER WHICH COMPLIES WITH NEC ARTICLE 406.9B1 (UNITS SHALL REMAIN RAIN TIGHT WHETHER OR NOT A PLUG AND CORD IS INSERTED) TAYMAC MM740C-B, OR EQUIVALENT.
- CONTRACTOR SHALL FURNISH AND INSTALL A UL LISTED SERVICE ENTRANCE RATED LOAD CENTER, 100A, 120/240V, SINGLE-PHASE, 3-WIRE, IN NEMA 3R ENCLOSURE, WITH 100A-2P MAIN CIRCUIT BREAKER, SQUARE D TYPE NQ, OR EQUIVALENT. SEE DETAIL THIS SHEET FOR BRANCH CIRCUIT BREAKERS.
- KWH METER BASE, LOAD CENTER AND OTHER ELECTRICAL EQUIPMENT SHALL MEET THE "BUY AMERICAN" REQUIREMENT.



FUMIGATION BUILDING FAN WIRING

EQUIPMENT NOMENCLATURE

- RED PILOT LIGHTED THREE-WAY TOGGLE SWITCH, 20A, 120V, PASS & SEYMOUR PS20AC2RPL, OR EQUIVALENT, WITH WALLPLATE. SWITCH IS ILLUMINATED WHEN FAN IS "ON".
- ENGRAVED NAMEPLATE READING "FUMIGATION BLDG FAN".
- SPST POWER CONTROL RELAY, SQUARE D CO6V20, OR EQUIVALENT. INSTALL IN NEMA 1 ENCLOSURE WITH TOGGLE SWITCH.
- NEMA 1 ENCLOSURE, SIZED AS REQUIRED TO HOUSE EQUIPMENT. AT FUMIGATION BUILDING, PROVIDE SUBPANEL FOR MOUNTING POWER CONTROL RELAY.

WIRING NOTE

- INSTALL FOUR #12 USE IN SAME 2" PVC AS MOBILE FUMIGATION OFFICE POWER WIRING AND SAME 2" PVC CONDUIT AS FUMIGATION BLDG POWER WIRING. SEE SHEET FUMIGATION BLDG PLAN FOR ROUTING.
- ALL WORK ASSOCIATED WITH THE FUMIGATION BUILDING FAN WIRING FROM THE SUBPANEL TO THE FAN INCLUDING THE #12 WIRE, TOGGLE SWITCH, CONTROL RELAY AND NEMA 1 ENCLOSURE SHALL BE CONSIDERED INCIDENTAL TO THE REINSTALL FUMIGATION FACILITY (AR801975) PAY ITEM.

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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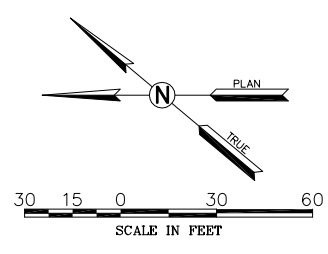
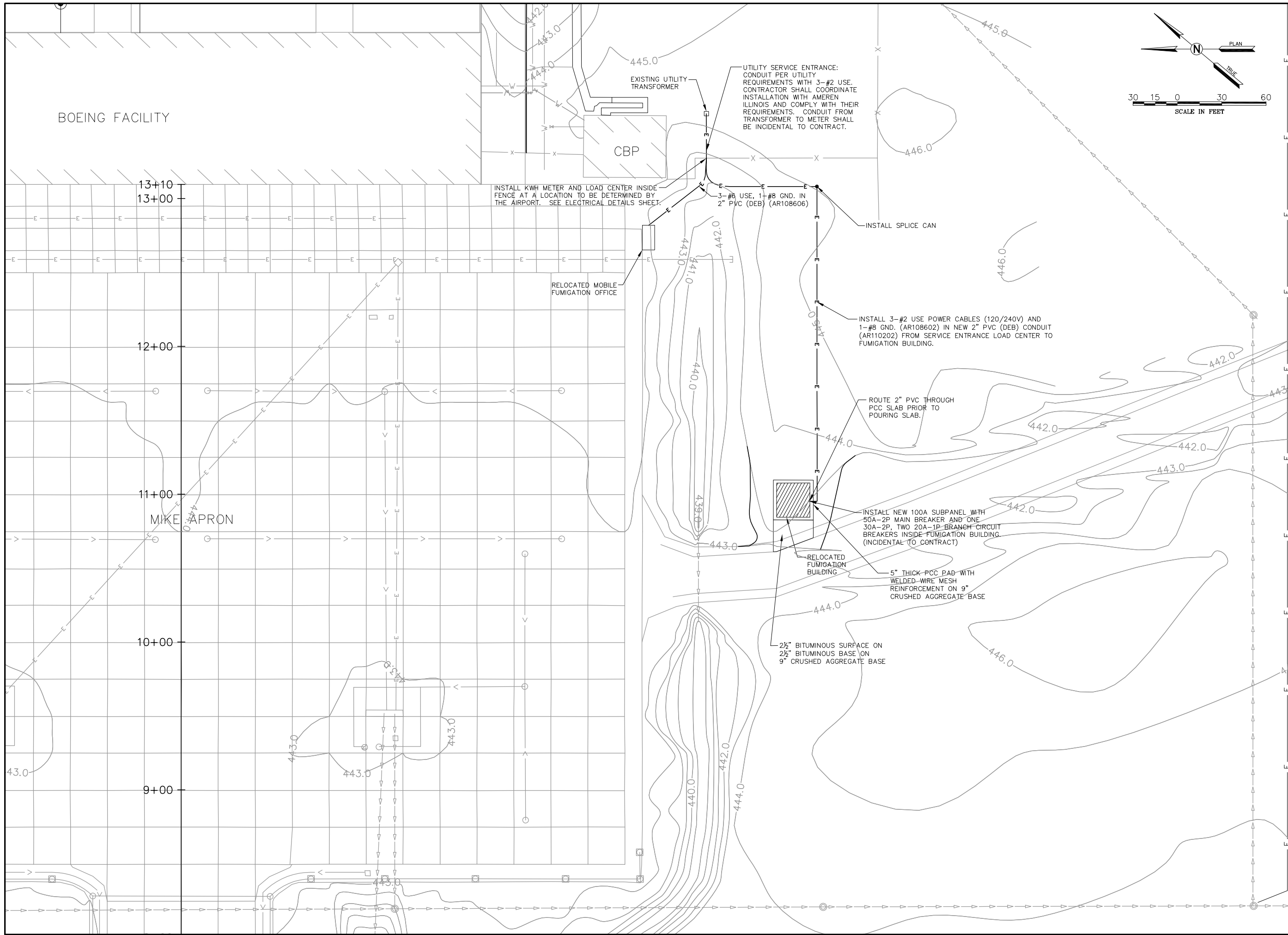


**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 33-36_ELECTRICAL_DETAILS.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**ELECTRICAL
DETAILS 4**



REVISIONS		
NUMBER	BY	DATE

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 37_FUMIGATION.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

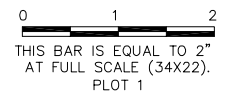
JOB No: 10098-01

**FUMIGATION BLDG
PLAN**

SHEET 37 OF 89 SHEETS



REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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CONSULTING ENGINEERS

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

LEGEND

— SF — SILT FENCE

GENERAL NOTES

1. MAXIMUM SLOPE SHALL NOT EXCEED 4:1
2. MAXIMUM FILL ELEVATION SHALL NOT EXCEED 439.00
3. MAINTAIN EXISTING DRAINAGE PATTERNS
4. PLACEMENT OF SOIL IN DISPOSAL AREAS SHALL NOT BE SUBJECT TO COMPACTION REQUIREMENTS IN ITEM 152. HOWEVER, CONTRACTOR SHALL PLACE SOIL IN 8" LIFTS AND SHALL ROUTE EQUIPMENT OVER EACH LIFT TO ATTAIN COMPACTION.
5. FILL HAS BEEN ADDED SINCE THE EXISTING CONTOUR LINES WERE CREATED. ACTUAL FIELD CONDITIONS MAY VARY FROM WHAT IS SHOWN.
6. STRAW MAY BE SUBSTITUTED FOR THE MULCHING OF THE EARTHWORK DISPOSAL AREA.

SURVEYING NOTE

1. UPON COMPLETION OF THE GRADING WORK, THE CONTRACTOR SHALL SURVEY THE EARTHWORK DISPOSAL AREA BY CROSS SECTIONING EVERY 100' ACROSS THE DISTURBED AREA. EACH CROSS SECTION SHALL INCLUDE GROUND SHOTS EVERY 50' PLUS AT EACH DEFINED BREAK IN GRADE. THE CONTRACTOR SHALL PROVIDE TO THE ENGINEER A TEXT FILE OF THE SURVEY DATA. FOR EACH SURVEY POINT, THE FILE SHALL INCLUDE THE POINT NUMBER, NORTHING, EASTING, AND ELEVATION. THIS SURVEY WORK SHALL BE SUPERVISED BY A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF ILLINOIS AND SHALL BE CONSIDERED INCIDENTAL TO THE GRADING WORK.

**EROSION CONTROL QUANTITIES
(THIS SHEET ONLY)**

ITEM	DESCRIPTION	UNIT	QUANTITY
AR156510	SILT FENCE	LF	447
AR901510	SEEDING	AC	1.7
AR908510	MULCHING	AC	1.7

FILE: 38_EARTHWORK.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

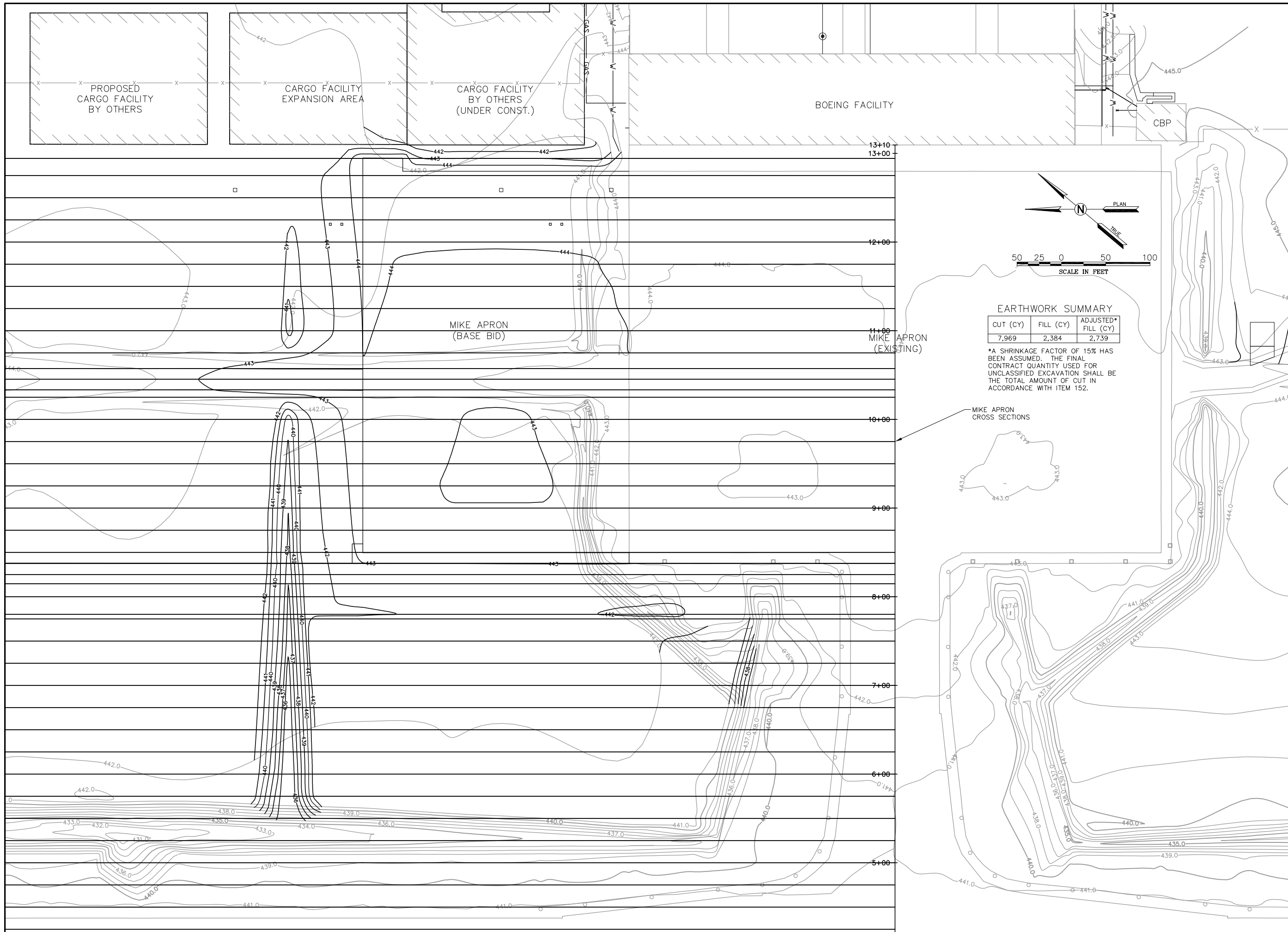
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**EARTHWORK
DISPOSAL AREA**

SHEET 38 OF 89 SHEETS



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 39_XSEC_INDEX.dwg

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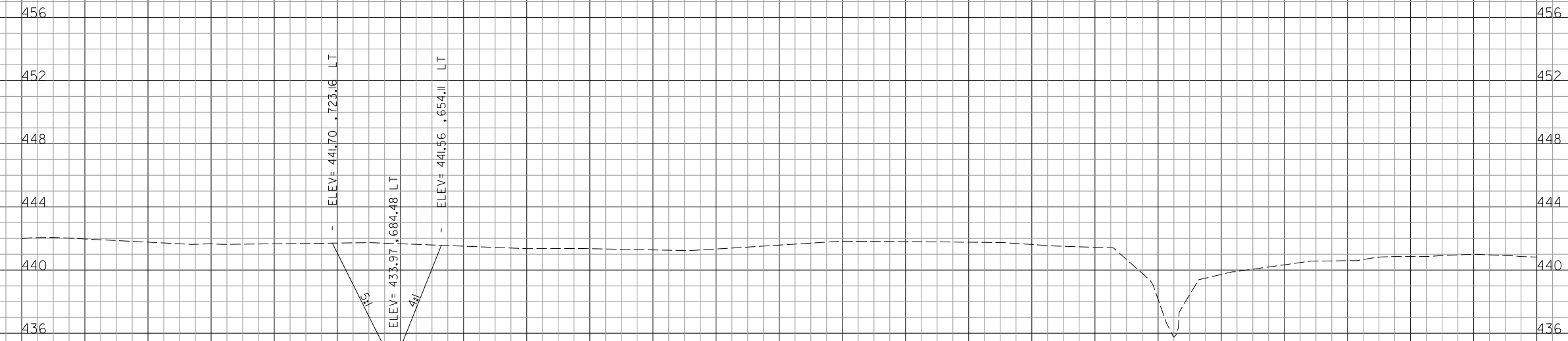
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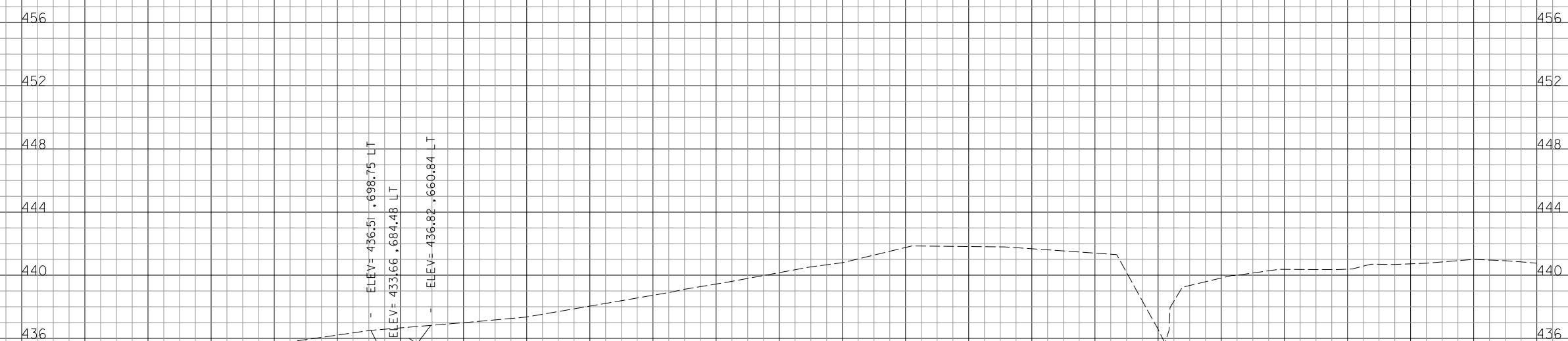
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

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5+75.00
CUT=267 SF FILL=0 SF



5+50.00
CUT=56 SF FILL=0 SF

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\$DATE\$
\$FILE\$

REVISIONS

NUMBER	BY	DATE

0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$

DESIGN BY: LEW

DRAWN BY: LEW

CHECKED BY: CET

APPROVED BY: BWG

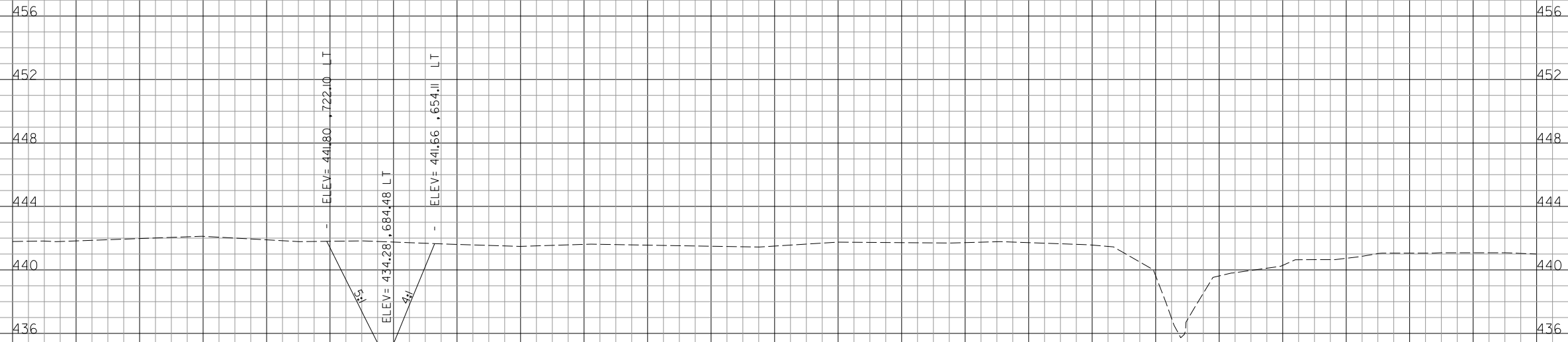
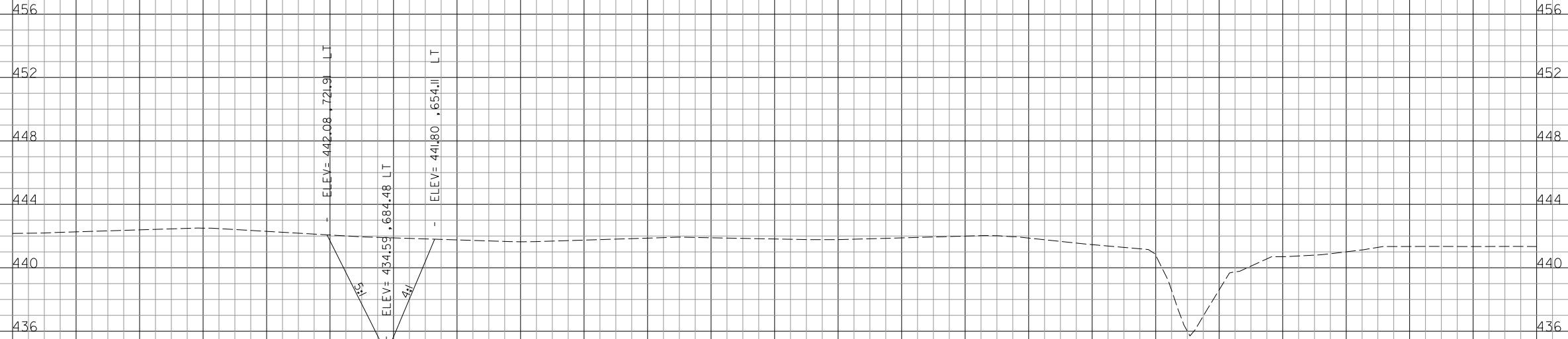
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JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 1 OF 18**

SHEET 40 OF 89 SHEETS

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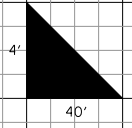
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\$DATE\$
\$FILE\$

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
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PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$

DESIGN BY: LEW

DRAWN BY: LEW

CHECKED BY: CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 2 OF 18**

SHEET 41 OF 89 SHEETS

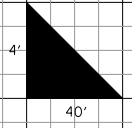
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460 456 452 448 444 440 436

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\$DATE\$
\$FILE\$



REVISIONS		
NUMBER	BY	DATE

0 1 2
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AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

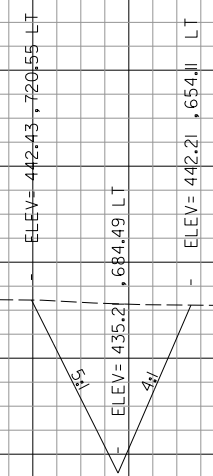
**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

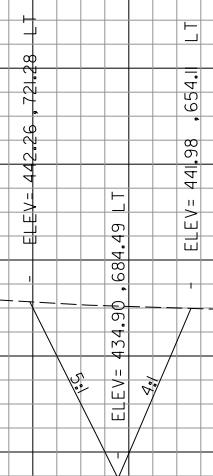
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**



6+75.00
CUT=234 SF FILL=0 SF



6+50.00
CUT=241 SF FILL=0 SF

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 3 OF 18
SHEET 42 OF 89 SHEETS

\$DATE\$
\$FILE\$

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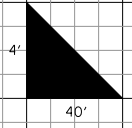
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460 456 452 448 444 440 436

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REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

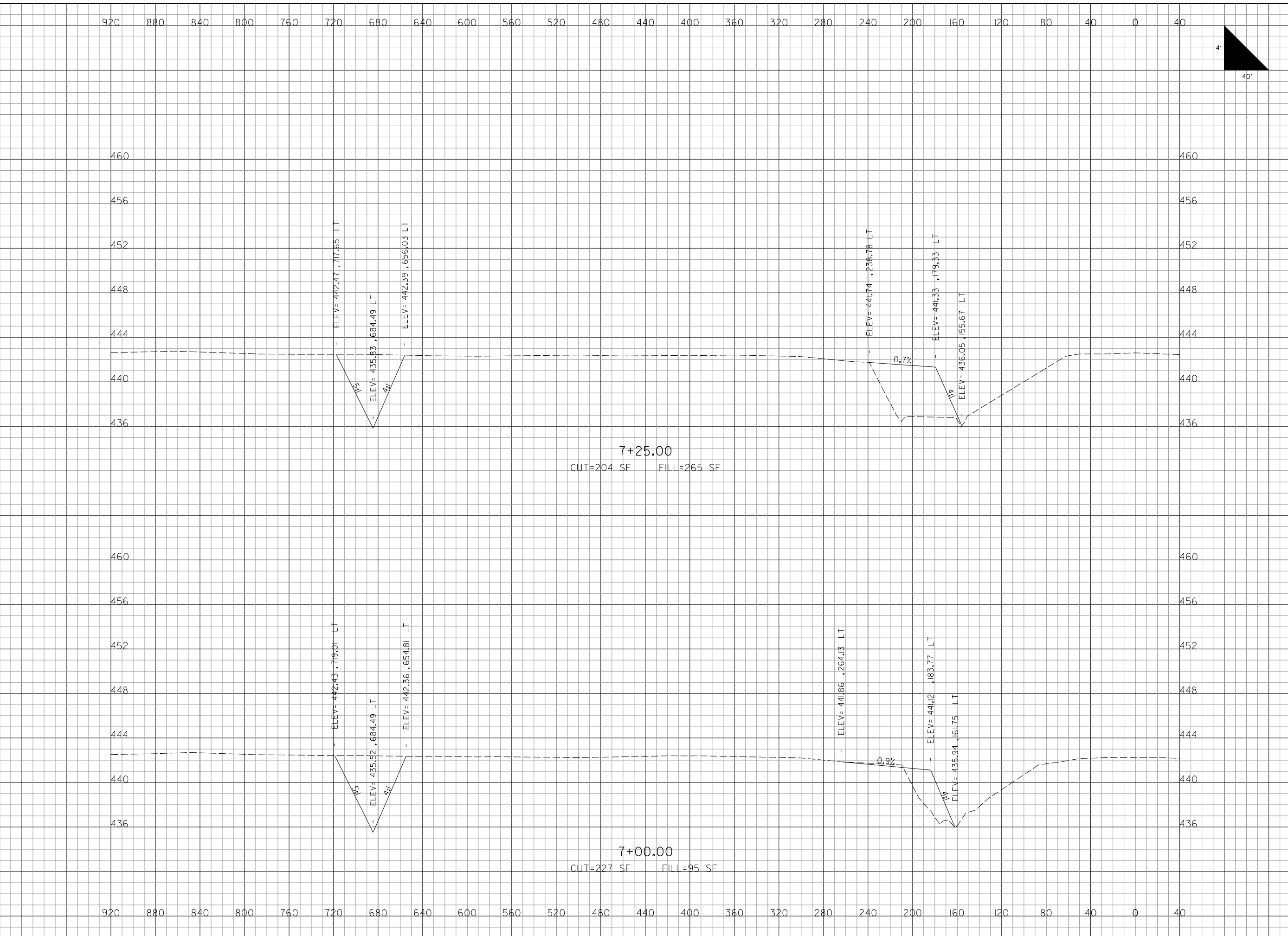
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 4 OF 18
SHEET 43 OF 89 SHEETS



\$DATE\$
\$FILE\$

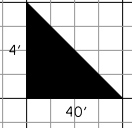
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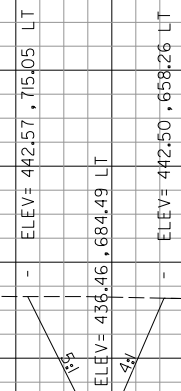
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460 456 452 448 444 440 436



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1



7+75.00
CUT=173 SF FILL=180 SF



7+50.00
CUT=194 SF FILL=251 SF

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILES\$

DESIGN BY: LEW

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CHECKED BY: CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 5 OF 18**

SHEET 44 OF 89 SHEETS

\$DATE\$
\$FILE\$

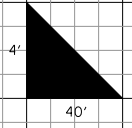
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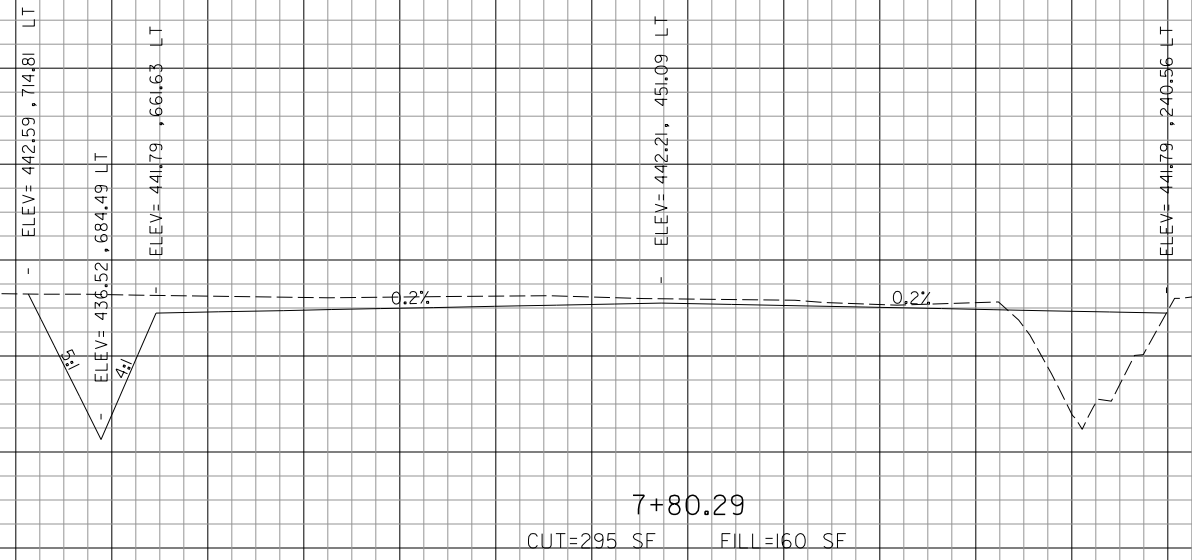
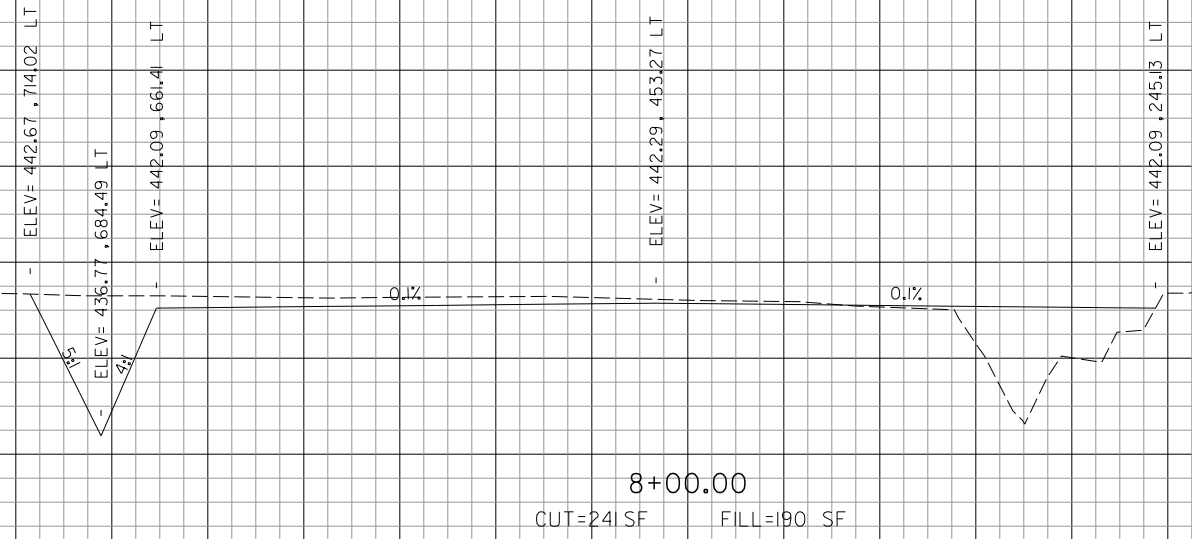
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REVISIONS		
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0 1 2
THIS BAR IS EQUAL TO 2"
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PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
314-436-9500



**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
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APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 6 OF 18
SHEET 45 OF 89 SHEETS

\$DATE\$
\$FILE\$

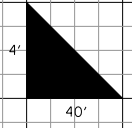
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460 456 452 448 444 440 436



REVISIONS		
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0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

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DESIGN BY: LEW

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APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

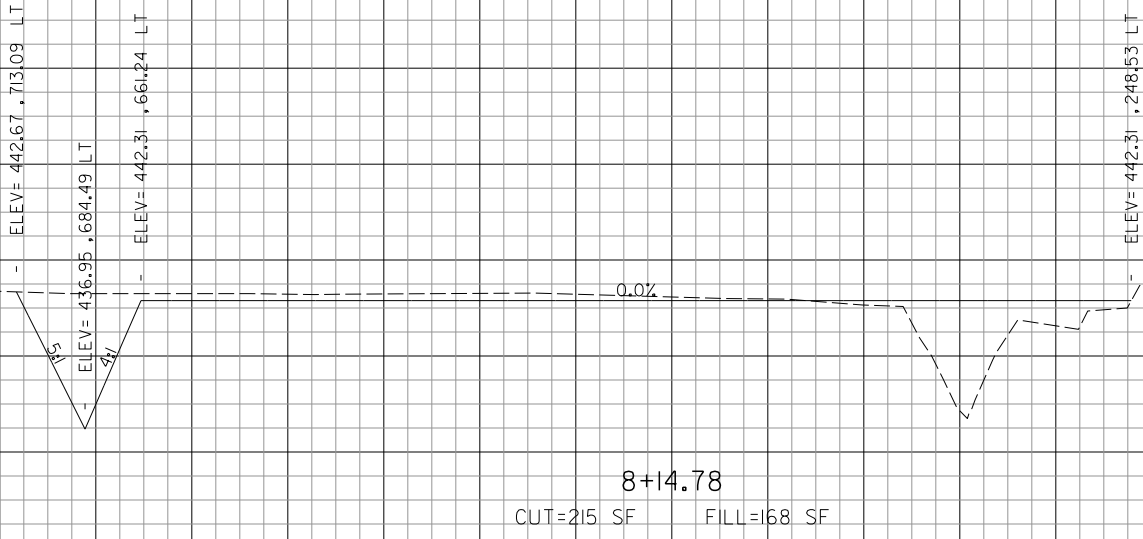
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**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 7 OF 18**

SHEET 46 OF 89 SHEETS



8+25.00
CUT=173 SF FILL=179 SF



8+14.78
CUT=215 SF FILL=168 SF

\$DATE\$
\$FILE\$

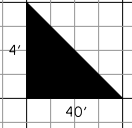
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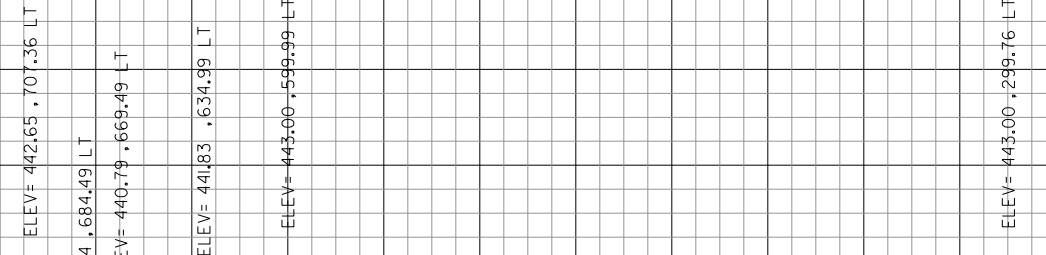
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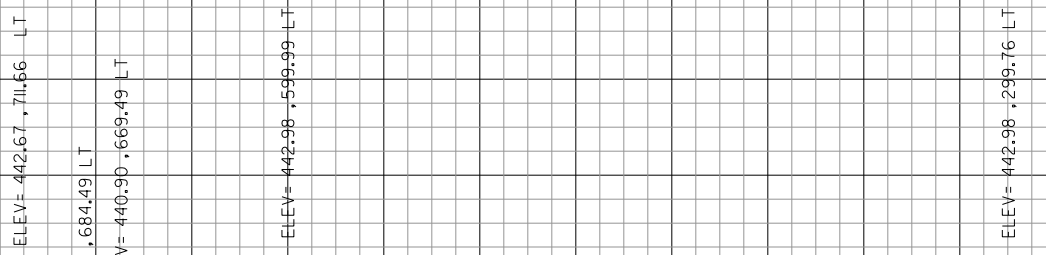


REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1



8+37.78
CUT=448 SF FILL=62 SF



8+37.53
CUT=174 SF FILL=219 SF

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500



**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 8 OF 18**

\$DATE\$
\$FILE\$

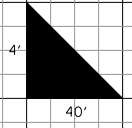
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460 456 452 448 444 440 436



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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

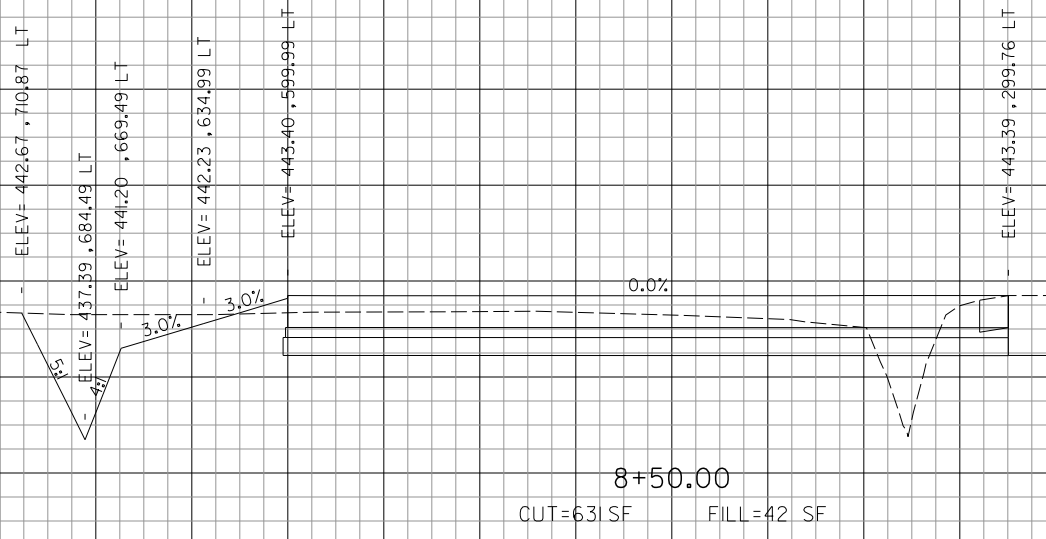
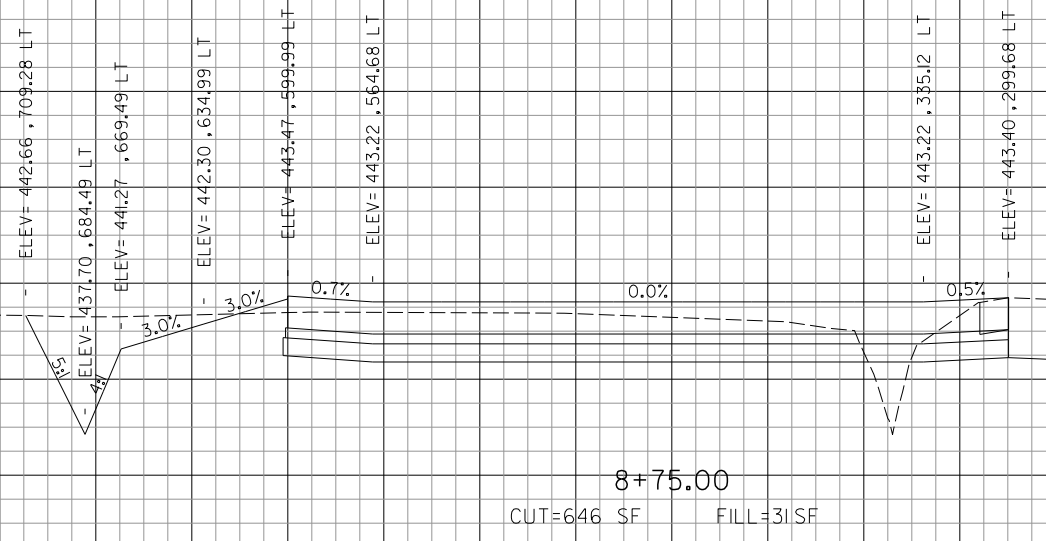
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 9 OF 18
SHEET 48 OF 89 SHEETS



\$DATE\$
\$FILE\$

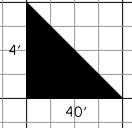
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460 456 452 448 444 440 436



REVISIONS		
NUMBER	BY	DATE

0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$\$

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DRAWN BY: LEW

CHECKED BY: CET

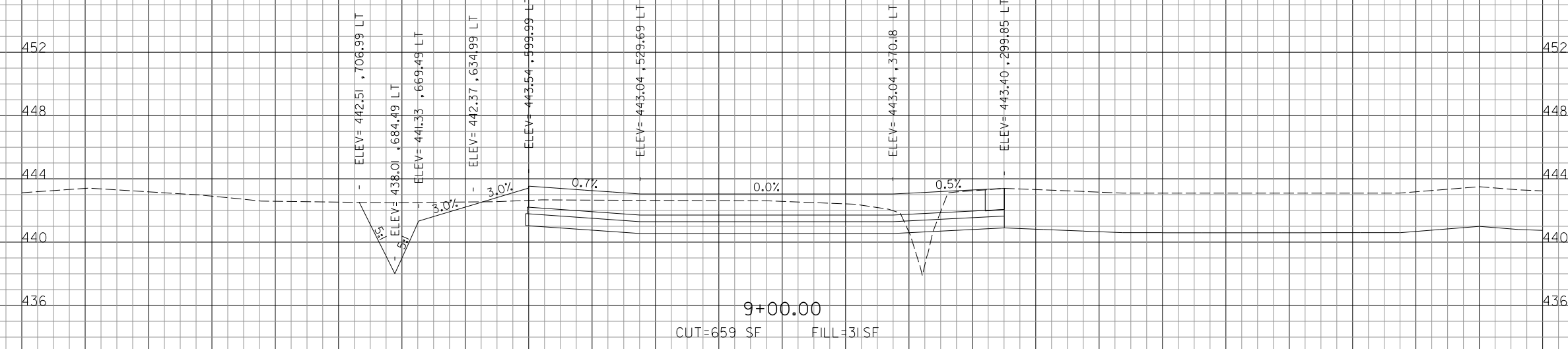
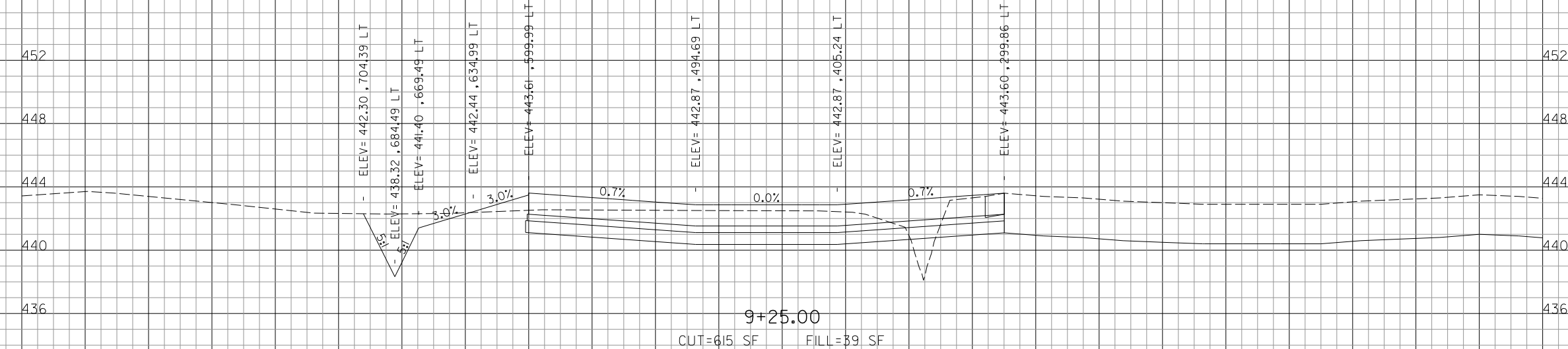
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DATE: NOVEMBER 28, 2011

JOB No: 10098-01

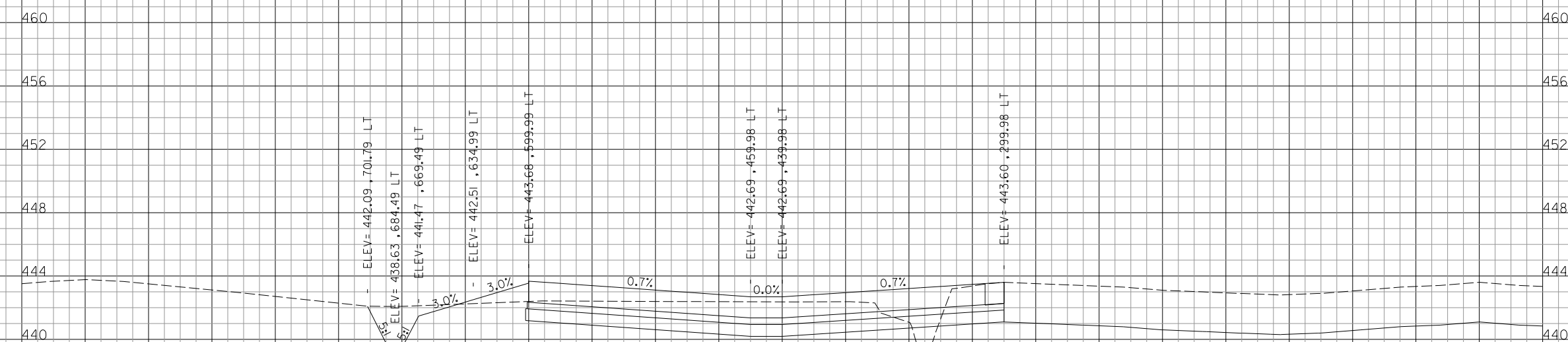
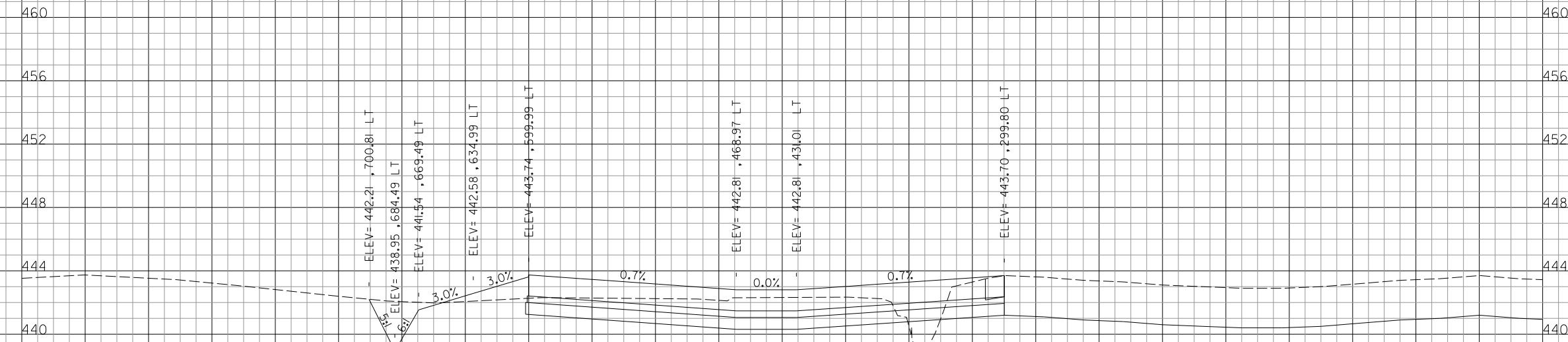
**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 10 OF 18**

SHEET 49 OF 89 SHEETS

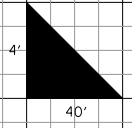


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REVISIONS		
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0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500



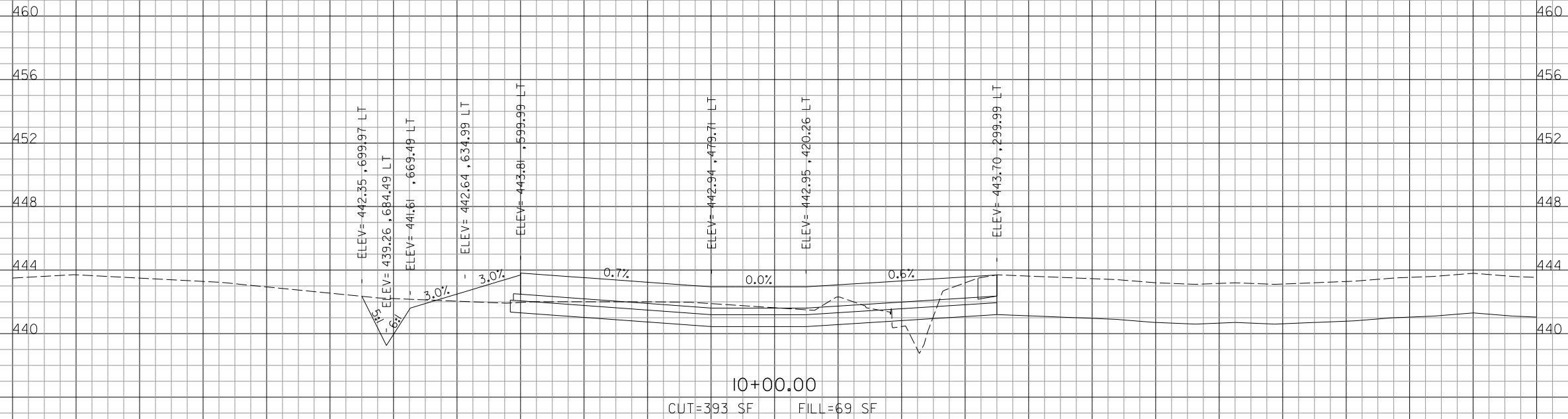
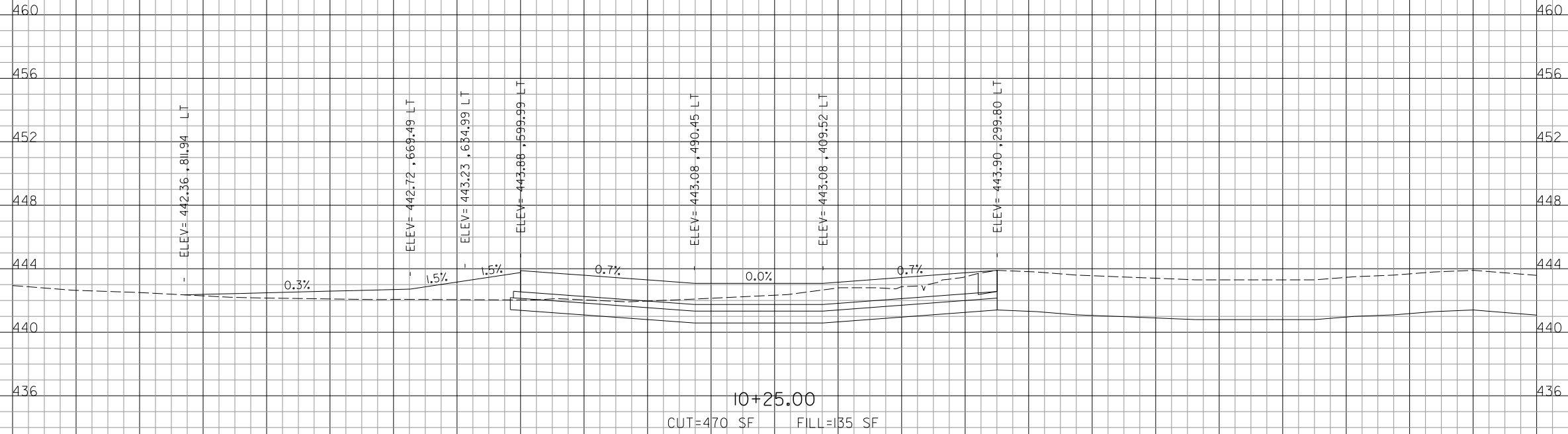
**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

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CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

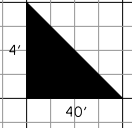
**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 11 OF 18**

\$DATE\$
\$FILE\$

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

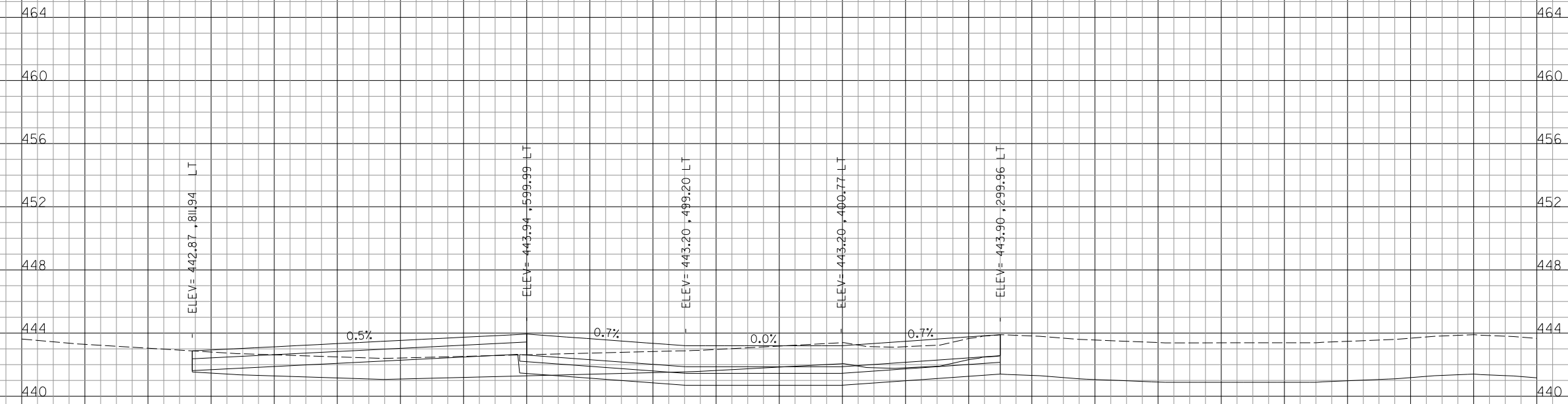
CMT
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CONSULTING ENGINEERS

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PROFESSIONAL ENGINEERING - 000613

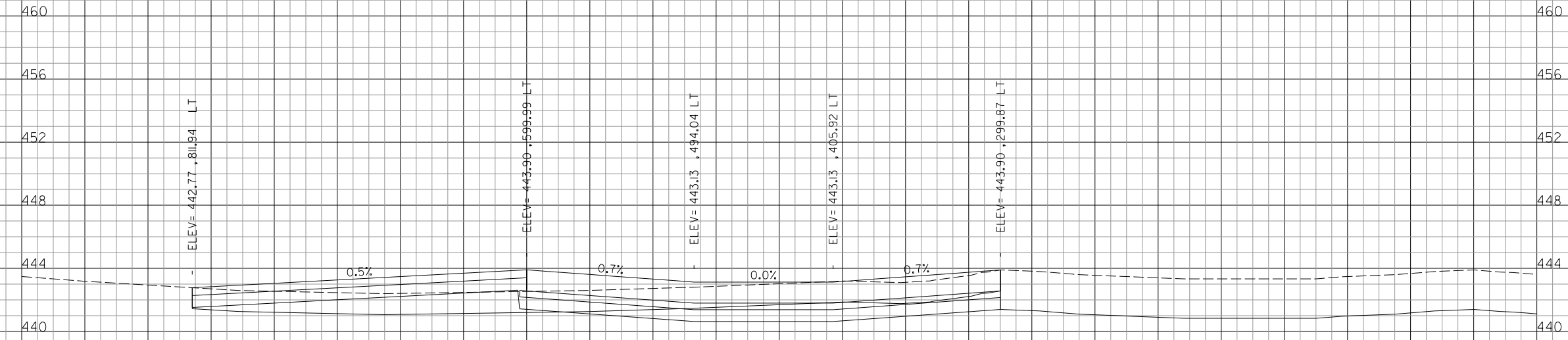
**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 12 OF 18
SHEET 51 OF 89 SHEETS

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40

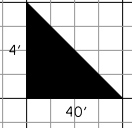


10+45.35
CUT=243 SF FILL=0 SF



10+33.35
CUT=227 SF FILL=1 SF

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILES\$

DESIGN BY: LEW

DRAWN BY: LEW

CHECKED BY: CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 13 OF 18**

\$DATES\$
\$FILES\$

\$DATE\$
\$FILE\$

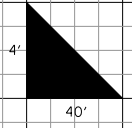
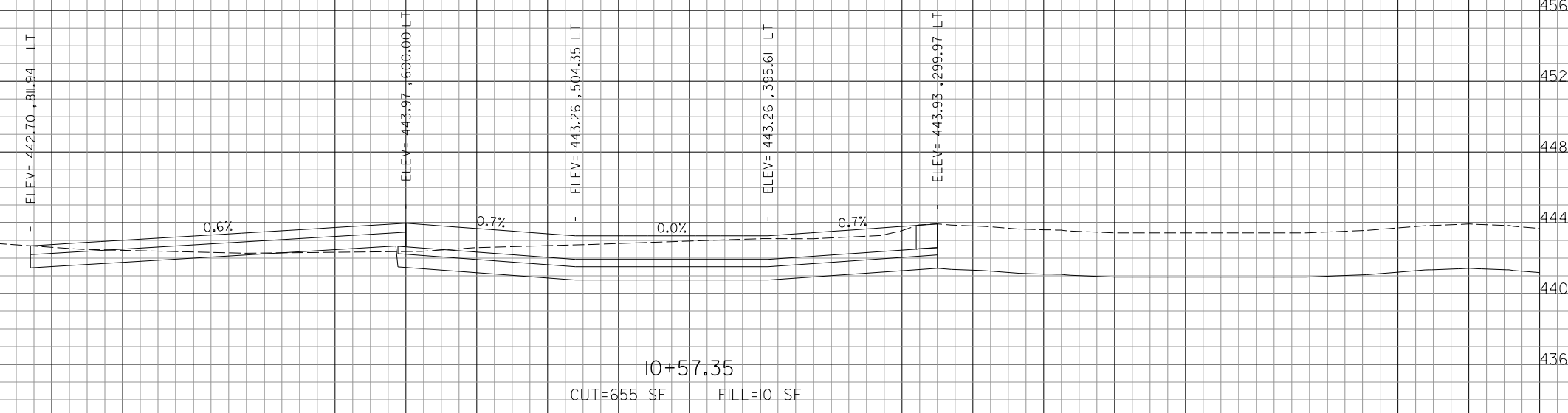
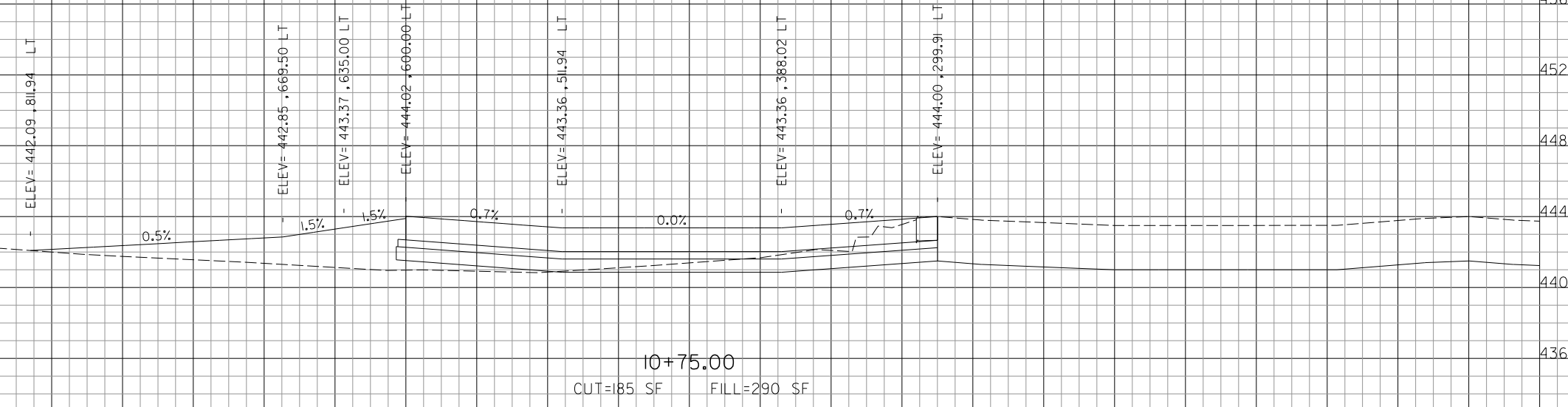
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460 456 452 448 444 440 436

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460 456 452 448 444 440 436



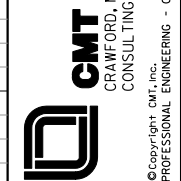
REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500



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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILES\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 14 OF 18**

\$DATE\$
\$FILE\$

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40

460 460

456 456

452 452

448 448

444 444

440 440

436 436

460 460

456 456

452 452

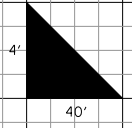
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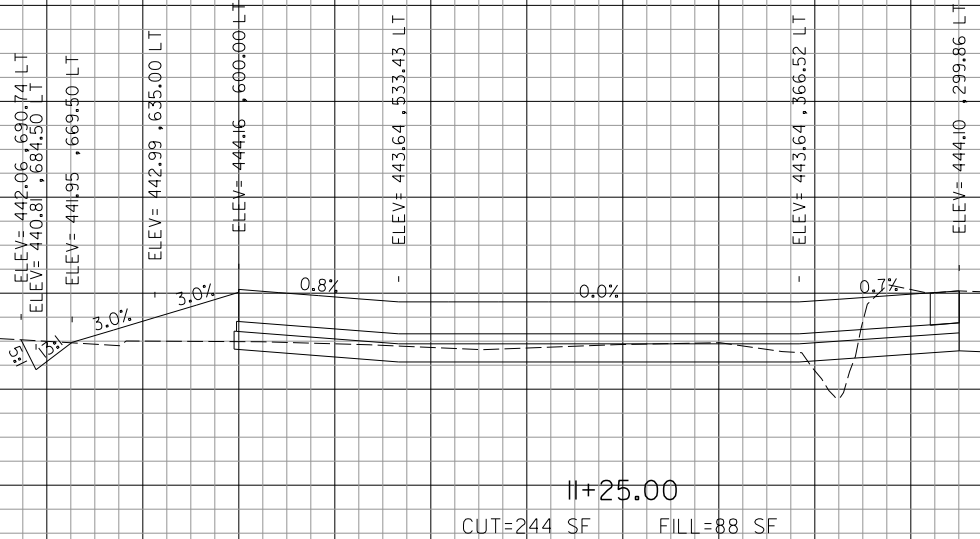
436 436

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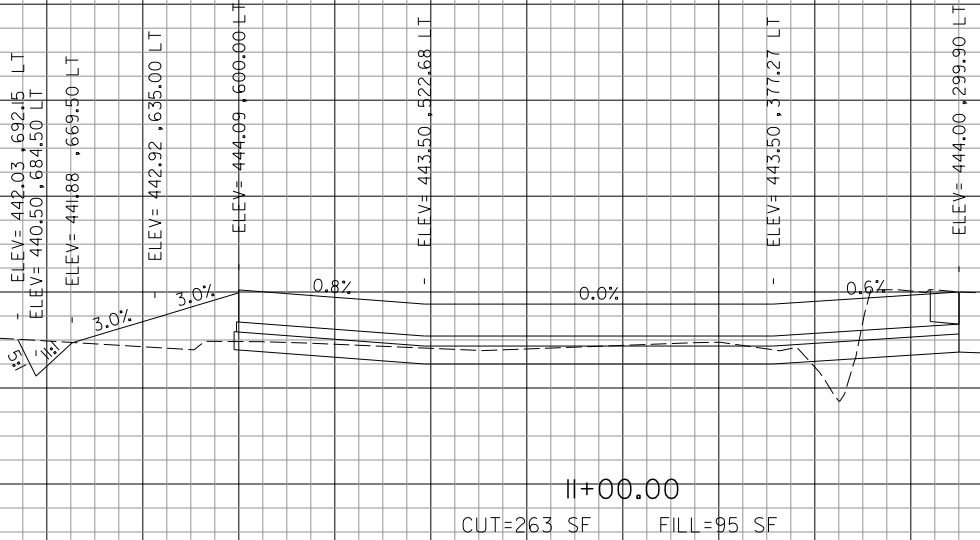


REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1



II+25.00
CUT=244 SF FILL=88 SF



II+00.00
CUT=263 SF FILL=95 SF

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500



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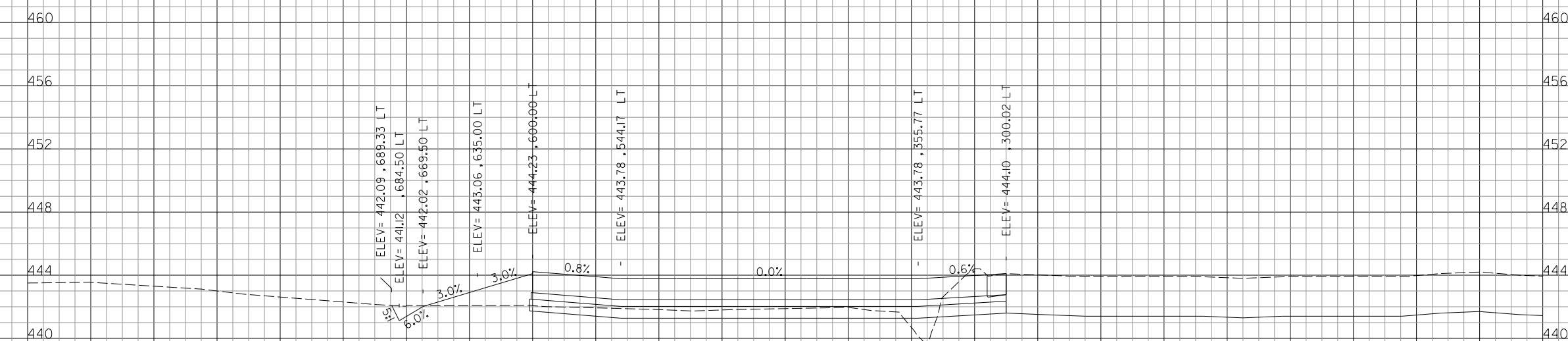
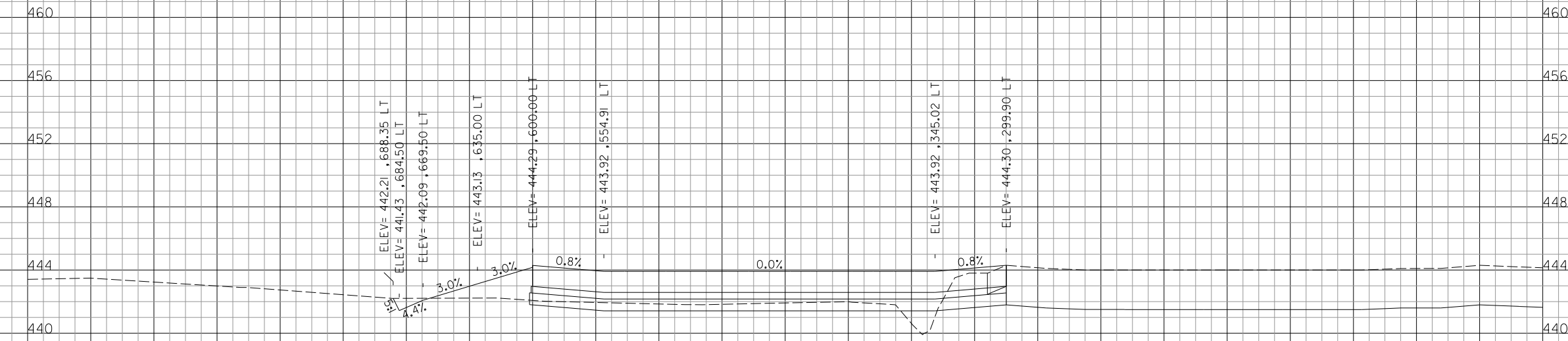
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

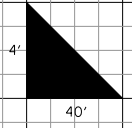
FILE: \$FILES\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 15 OF 18
SHEET 54 OF 89 SHEETS

\$DATE\$
\$FILE\$

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



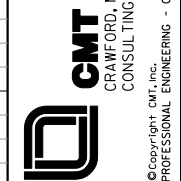
REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

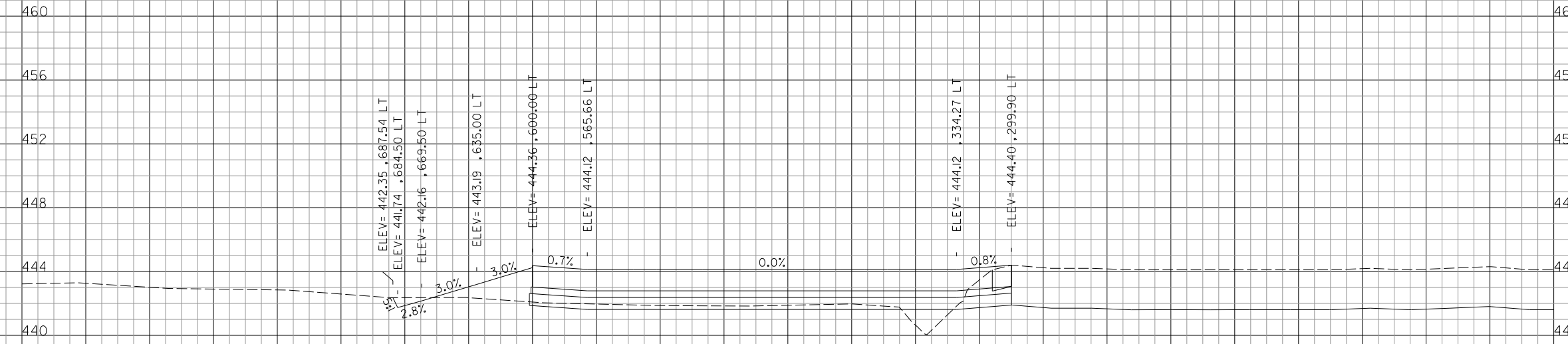
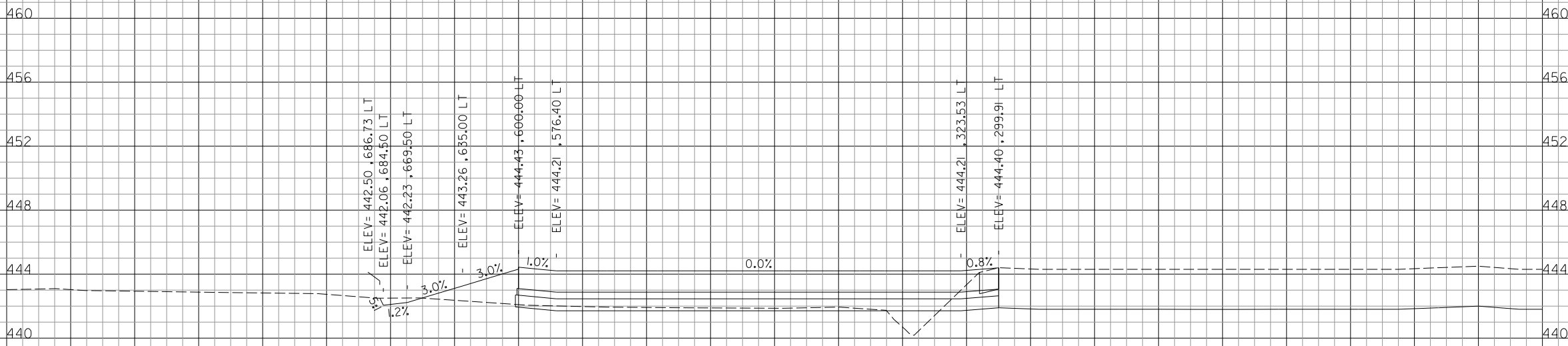


**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

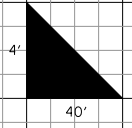
FILE: \$FILES\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 16 OF 18
SHEET 55 OF 89 SHEETS

\$DATE\$
\$FILE\$

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500



**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILES\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**MIKE APRON EXPANSION
CROSS SECTIONS
SHEET 17 OF 18**

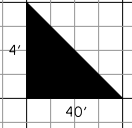
\$DATE\$
\$FILE\$

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460 456 452 448 444 440

460 456 452 448 444 440

920 880 840 800 760 720 680 640 600 560 520 480 440 400 360 320 280 240 200 160 120 80 40 0 40



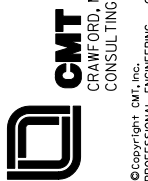
REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
BASE BID**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

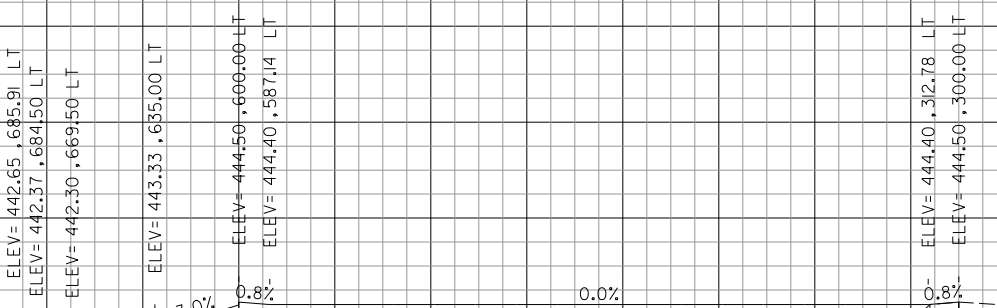
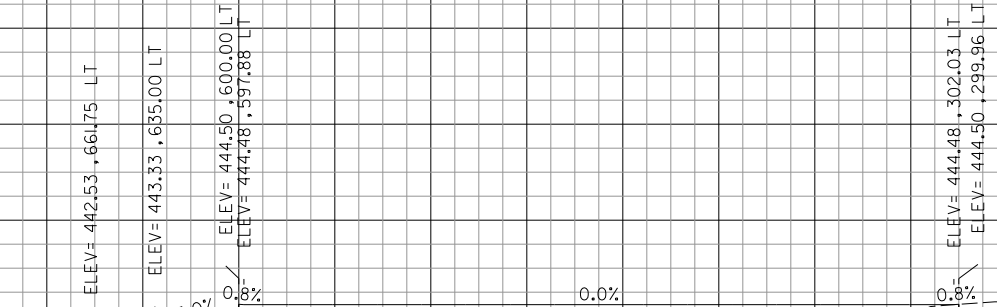


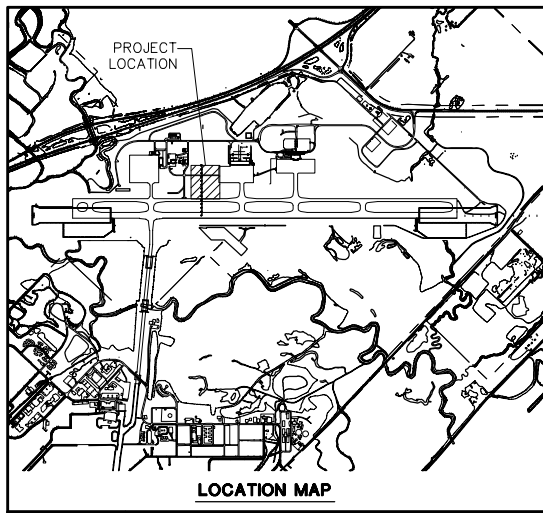
**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
MIKE APRON EXPANSION CROSS SECTIONS SHEET 18 OF 18
SHEET 57 OF 89 SHEETS

12+75.00
CUT=61 SF FILL=99 SF

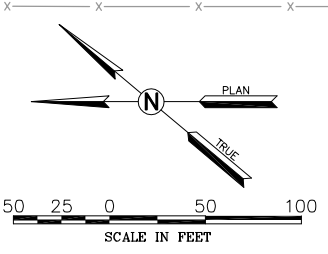
12+50.00
CUT=63 SF FILL=102 SF





LEGEND

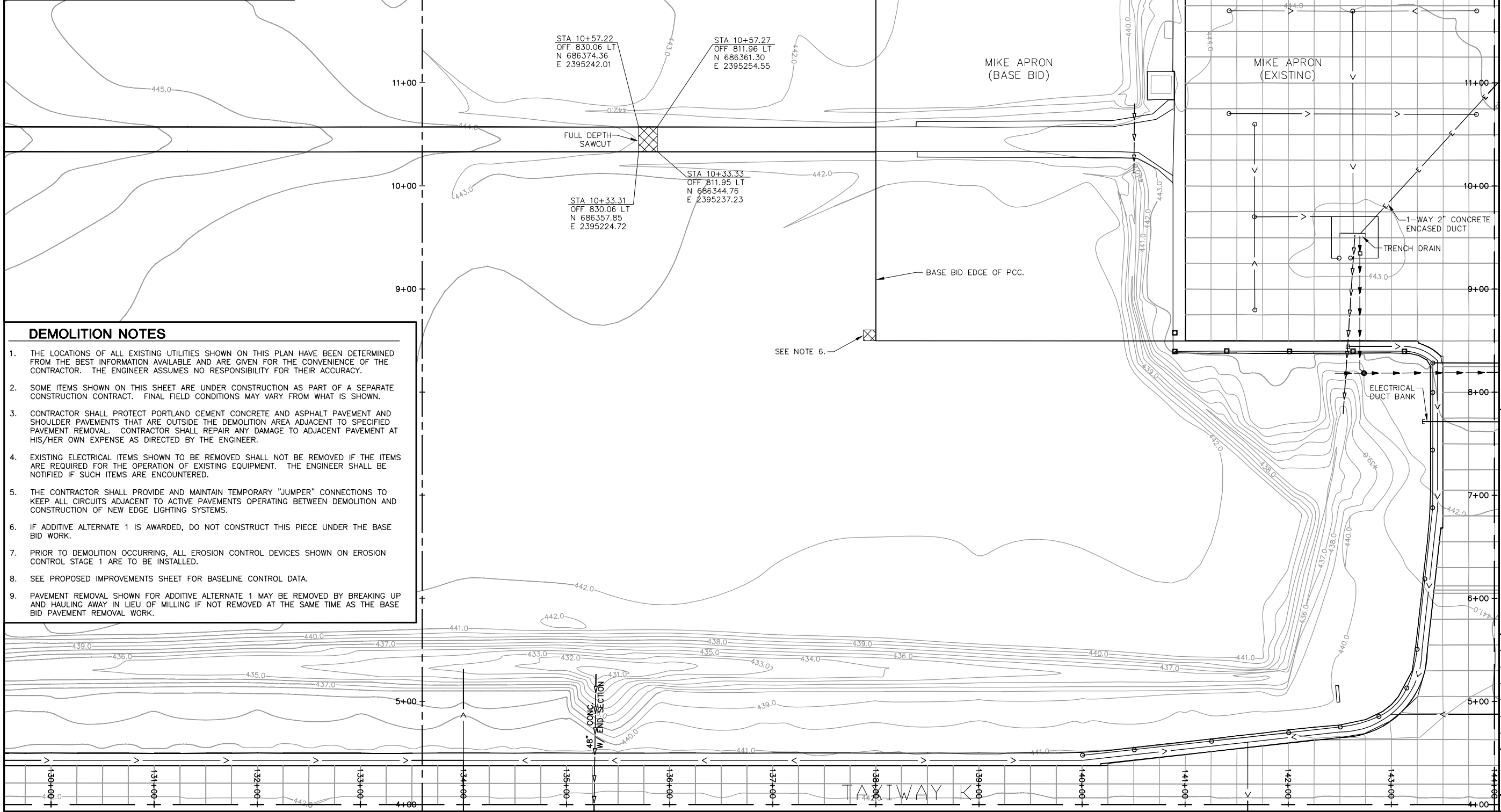
- E— EXISTING ELECTRIC LINE
- ▲— EXISTING STORM SEWER
- ▶— EXISTING GLYCOL DISPOSAL
- >— EXISTING UNDERDRAIN
- EXISTING LED TAXIWAY EDGE LIGHT
- EXISTING INCANDESCENT TAXIWAY EDGE LIGHT
- ▨ DEMOLITION AREA: PAVEMENT



REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2" AT FULL SCALE (34X22). PLOT 1



- DEMOLITION NOTES**
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR ACCURACY.
 - SOME ITEMS SHOWN ON THIS SHEET ARE UNDER CONSTRUCTION AS PART OF A SEPARATE CONSTRUCTION CONTRACT. FINAL FIELD CONDITIONS MAY VARY FROM WHAT IS SHOWN.
 - CONTRACTOR SHALL PROTECT PORTLAND CEMENT CONCRETE AND ASPHALT PAVEMENT AND SHOULDER PAVEMENTS THAT ARE OUTSIDE THE DEMOLITION AREA ADJACENT TO SPECIFIED PAVEMENT REMOVAL. CONTRACTOR SHALL REPAIR ANY DAMAGE TO ADJACENT PAVEMENT AT HIS/HER OWN EXPENSE AS DIRECTED BY THE ENGINEER.
 - EXISTING ELECTRICAL ITEMS SHOWN TO BE REMOVED SHALL NOT BE REMOVED IF THE ITEMS ARE REQUIRED FOR THE OPERATION OF EXISTING EQUIPMENT. THE ENGINEER SHALL BE NOTIFIED IF SUCH ITEMS ARE ENCOUNTERED.
 - THE CONTRACTOR SHALL PROVIDE AND MAINTAIN TEMPORARY "JUMPER" CONNECTIONS TO KEEP ALL CIRCUITS ADJACENT TO ACTIVE PAVEMENTS OPERATING BETWEEN DEMOLITION AND CONSTRUCTION OF NEW EDGE LIGHTING SYSTEMS.
 - IF ADDITIVE ALTERNATE 1 IS AWARDED, DO NOT CONSTRUCT THIS PIECE UNDER THE BASE BID WORK.
 - PRIOR TO DEMOLITION OCCURRING, ALL EROSION CONTROL DEVICES SHOWN ON EROSION CONTROL STAGE 1 ARE TO BE INSTALLED.
 - SEE PROPOSED IMPROVEMENTS SHEET FOR BASELINE CONTROL DATA.
 - PAVEMENT REMOVAL SHOWN FOR ADDITIVE ALTERNATE 1 MAY BE REMOVED BY BREAKING UP AND HAULING AWAY IN LIEU OF MILLING IF NOT REMOVED AT THE SAME TIME AS THE BASE BID PAVEMENT REMOVAL WORK.

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 58_DEMO.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

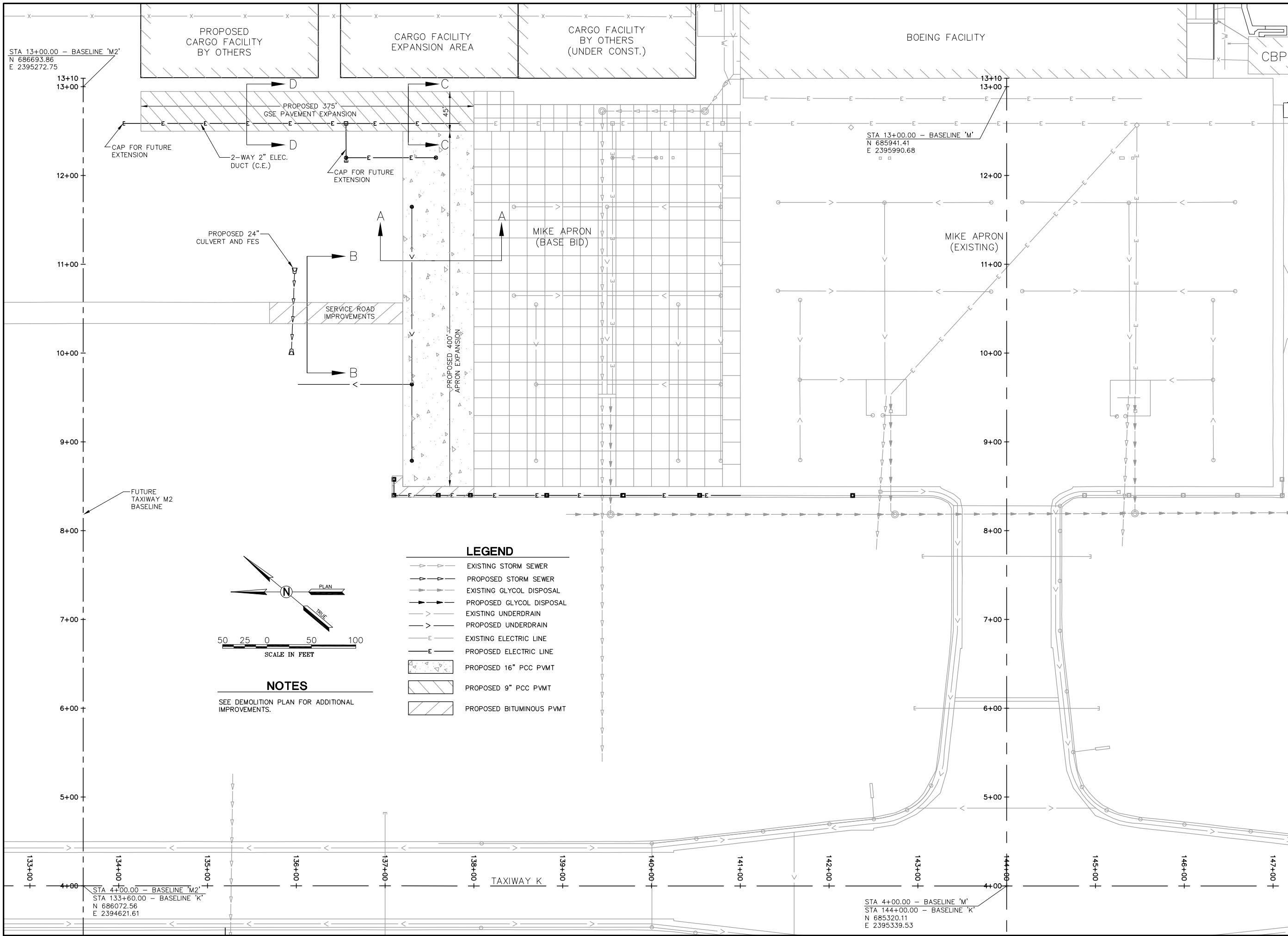
APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

DEMOLITION PLAN

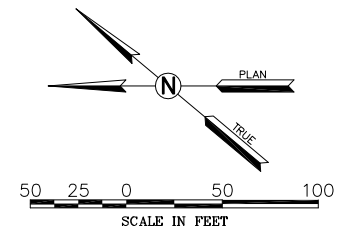
SHEET 58 OF 89 SHEETS



STA 13+00.00 - BASELINE 'M2'
 N 686693.86
 E 2395272.75

STA 13+00.00 - BASELINE 'M'
 N 685941.41
 E 2395990.68

FUTURE TAXIWAY M2
 BASELINE



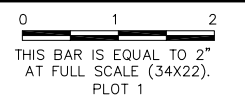
NOTES

SEE DEMOLITION PLAN FOR ADDITIONAL IMPROVEMENTS.

LEGEND

- > EXISTING STORM SEWER
- - -> PROPOSED STORM SEWER
- > EXISTING GLYCOL DISPOSAL
- - -> PROPOSED GLYCOL DISPOSAL
- > EXISTING UNDERDRAIN
- - -> PROPOSED UNDERDRAIN
- E --- EXISTING ELECTRIC LINE
- - - E - - - PROPOSED ELECTRIC LINE
- [Pattern] PROPOSED 16" PCC PVMT
- [Pattern] PROPOSED 9" PCC PVMT
- [Pattern] PROPOSED BITUMINOUS PVMT

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
 ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
 ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT: BLV-4061
 AIP PROJ. 3-17-0146-029-2011**

FILE: 59_PROP_IMPROVE.dwg
 DESIGN BY: LEW
 DRAWN BY: ASA
 CHECKED BY: MJD/CET
 APPROVED BY: BWG
 DATE: NOVEMBER 28, 2011
 JOB No: 10098-01

PROPOSED IMPROVEMENTS

SHEET 59 OF 89 SHEETS

REVISIONS

NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500



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PROFESSIONAL ENGINEERING - 184-00613

**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 60_TYP_SECT.dwg

DESIGN BY: LEW

DRAWN BY: ASA

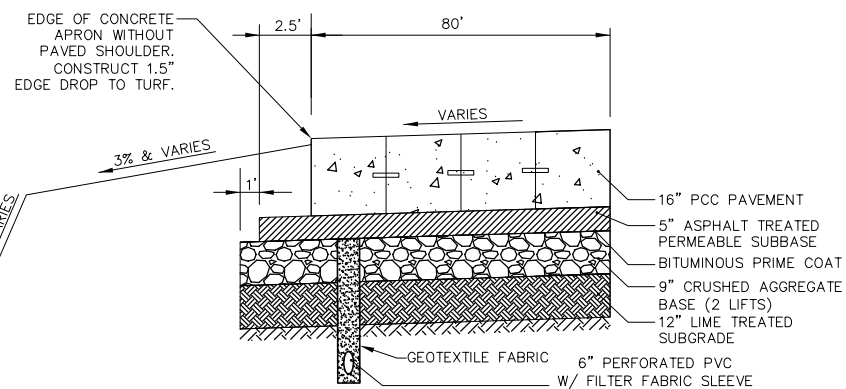
CHECKED BY: MJD/CET

APPROVED BY: BWG

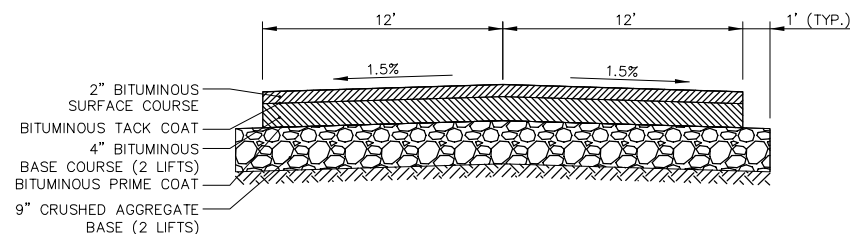
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

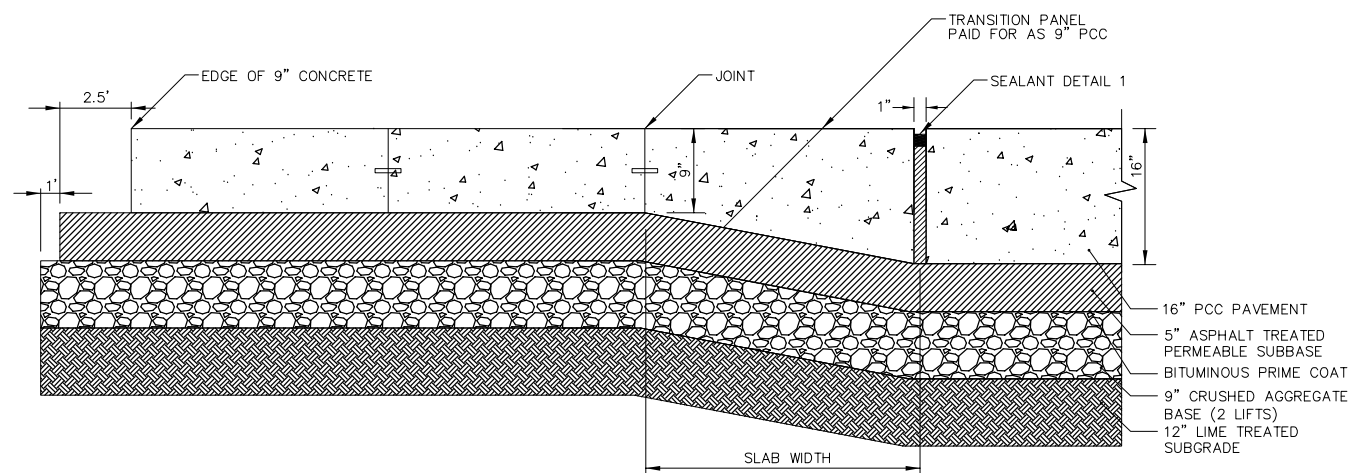
**TYPICAL
SECTIONS**



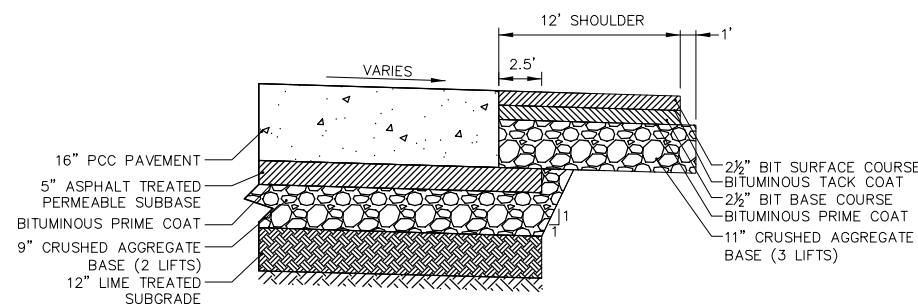
(A) APRON TYPICAL SECTION
NOT TO SCALE



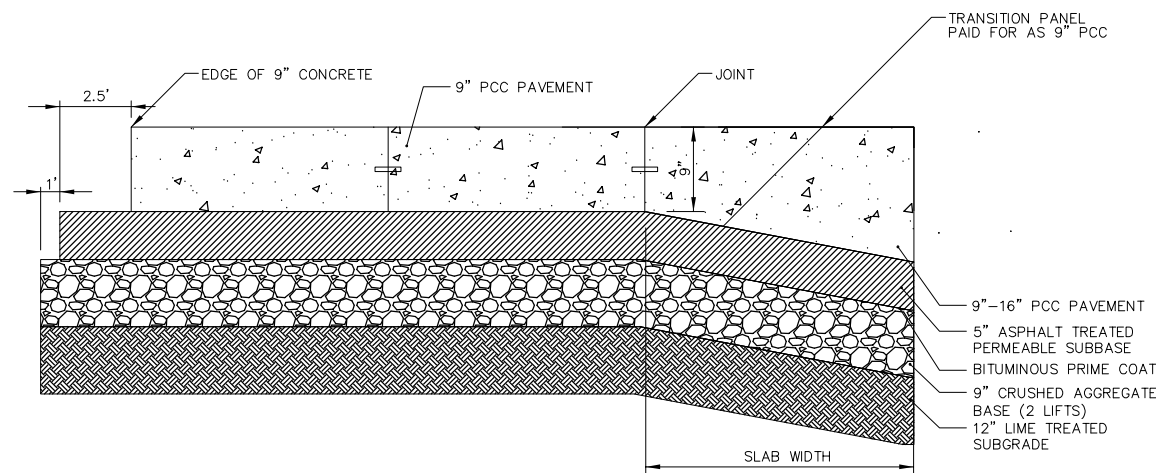
(B) SERVICE ROAD TYPICAL SECTION
NOT TO SCALE



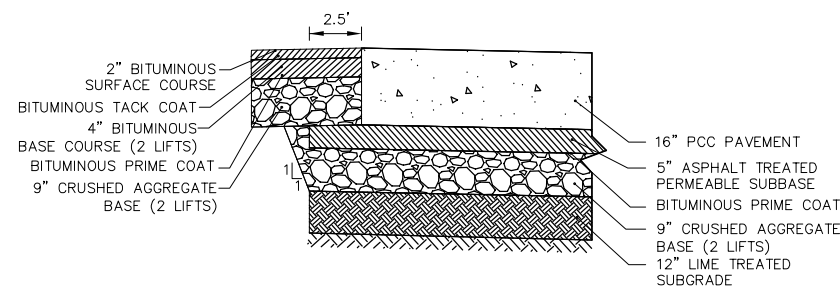
(C) THICKENED EDGE AT 9" PCC
NOT TO SCALE



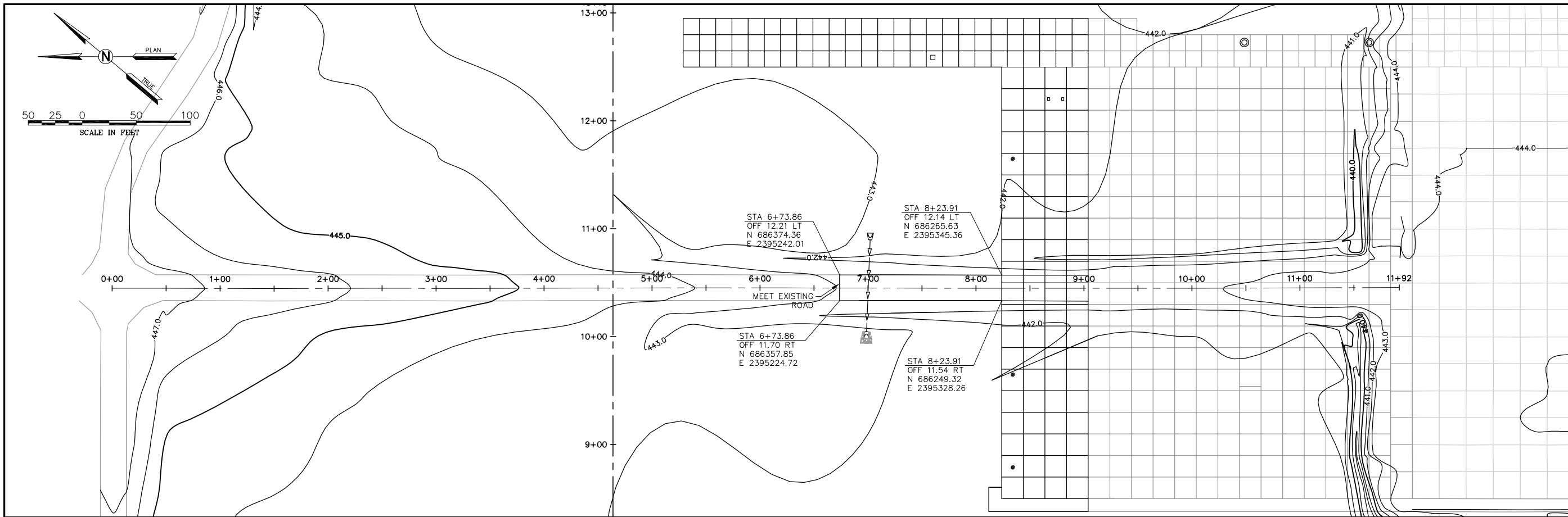
TYPICAL SECTION AT SHOULDER
NOT TO SCALE



(D) THICKENED EDGE AT 9" PCC
NOT TO SCALE



**TYPICAL SECTION AT SERVICE ROAD
AT CONNECTION TO APRON**
NOT TO SCALE

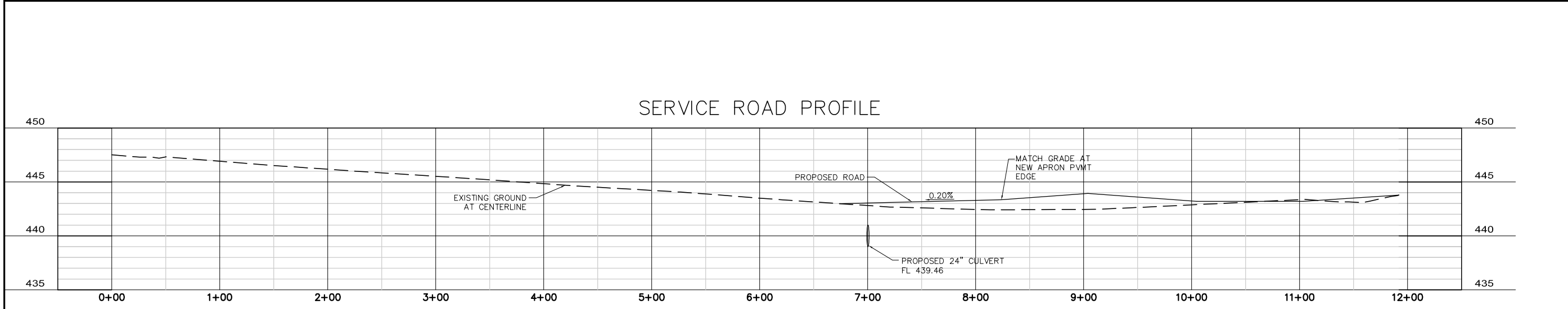


REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**



ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 61_ROAD_PLAN_PROF.dwg

DESIGN BY: LEW

DRAWN BY: ASA

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01

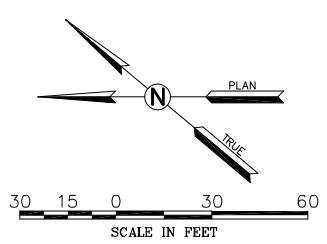
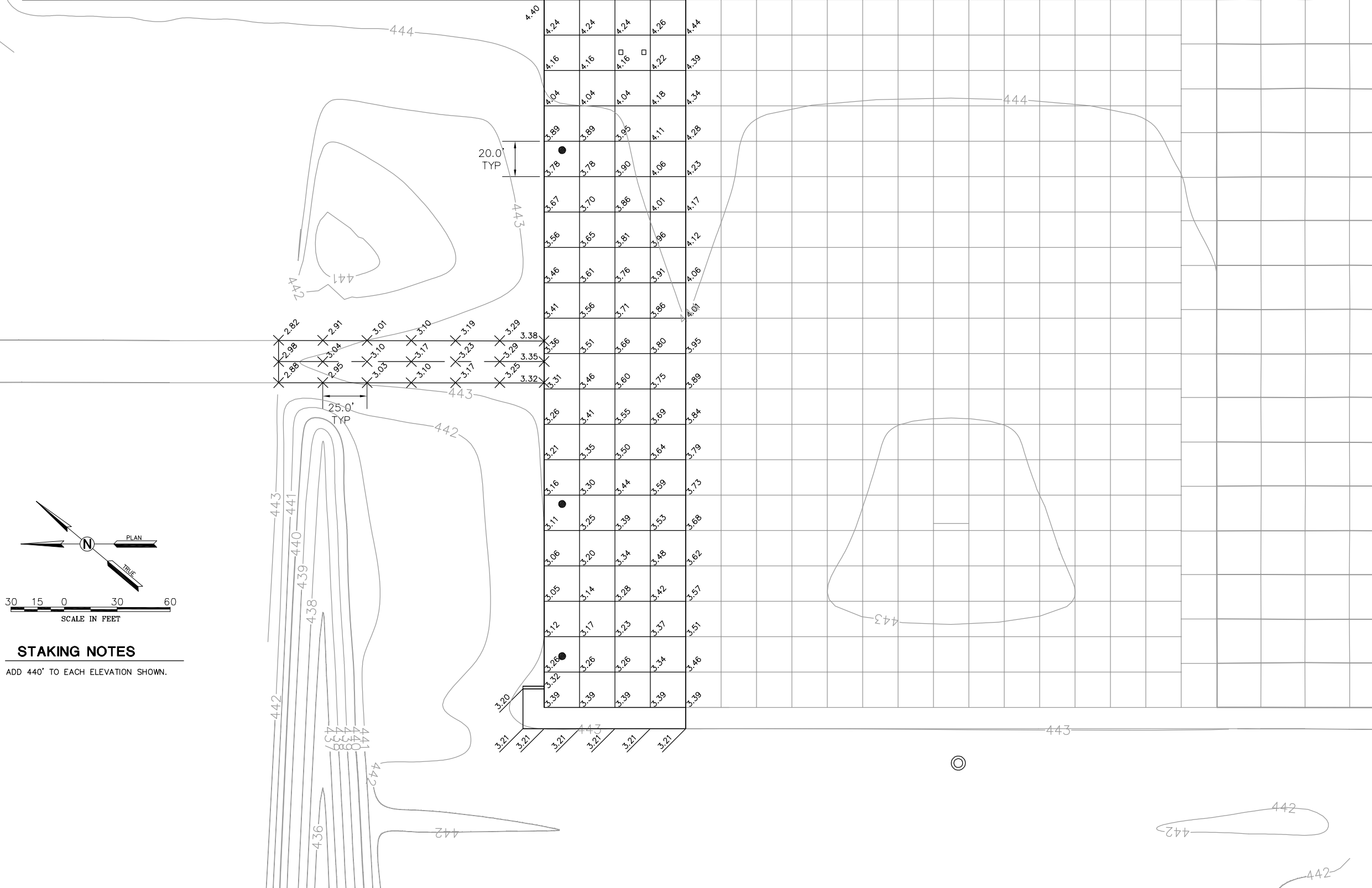
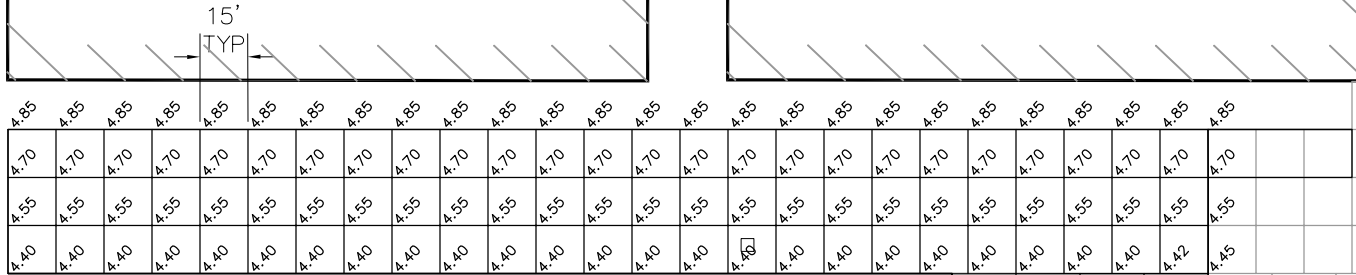
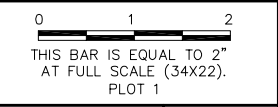
**SERVICE ROAD
PLAN AND
PROFILE**

PROPOSED
CARGO FACILITY
BY OTHERS

CARGO FACILITY
EXPANSION AREA

CARGO FACILITY
BY OTHERS
(UNDER CONST.)
FFE = 445.08

REVISIONS		
NUMBER	BY	DATE



STAKING NOTES
ADD 440' TO EACH ELEVATION SHOWN.

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 63102
(314) 436-5500

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 62_STAKING.dwg

DESIGN BY: LEW

DRAWN BY: ASA

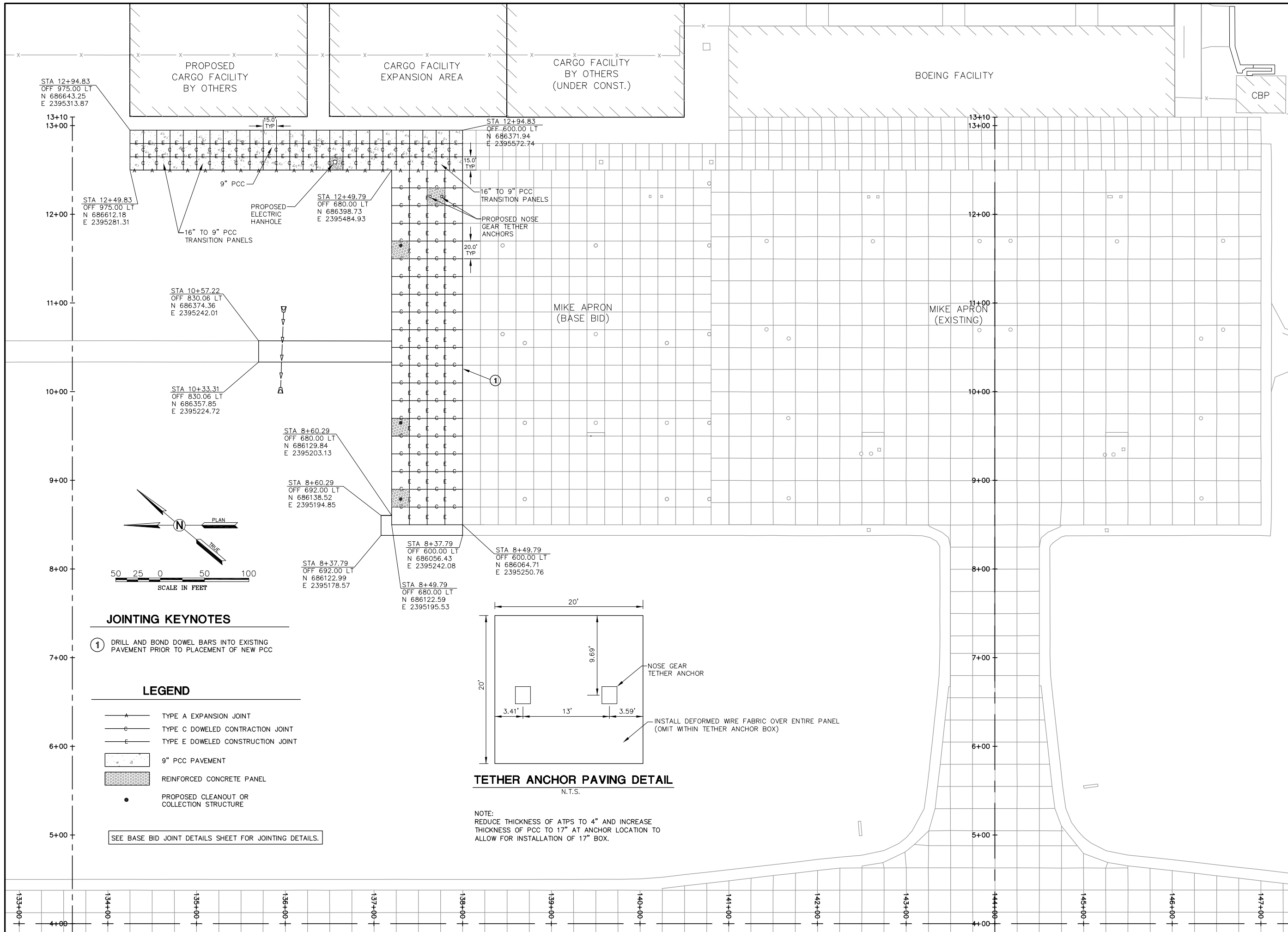
CHECKED BY: MJD/CET

APPROVED BY: BWG

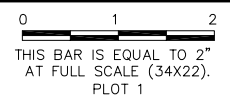
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

STAKING PLAN

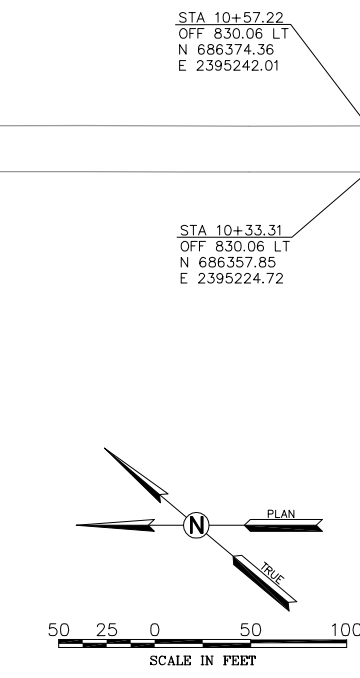


REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**



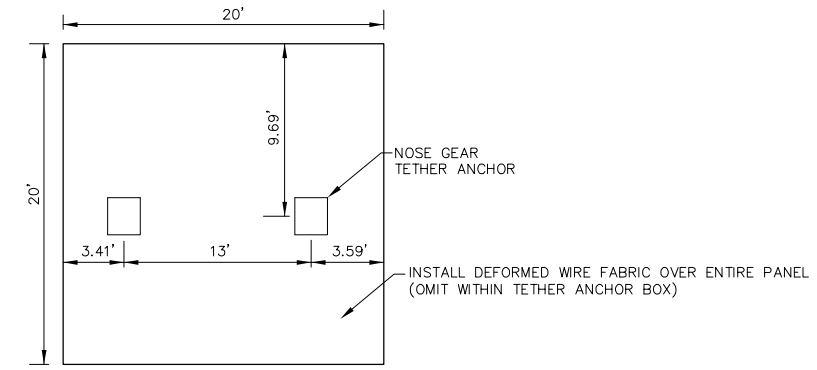
JOINTING KEYNOTES

- ① DRILL AND BOND DOWEL BARS INTO EXISTING PAVEMENT PRIOR TO PLACEMENT OF NEW PCC

LEGEND

- A — TYPE A EXPANSION JOINT
- C — TYPE C DOWELED CONTRACTION JOINT
- E — TYPE E DOWELED CONSTRUCTION JOINT
- 9" PCC PAVEMENT
- REINFORCED CONCRETE PANEL
- PROPOSED CLEANOUT OR COLLECTION STRUCTURE

SEE BASE BID JOINT DETAILS SHEET FOR JOINTING DETAILS.



TETHER ANCHOR PAVING DETAIL
N.T.S.

NOTE:
REDUCE THICKNESS OF ATPS TO 4" AND INCREASE THICKNESS OF PCC TO 17" AT ANCHOR LOCATION TO ALLOW FOR INSTALLATION OF 17" BOX.

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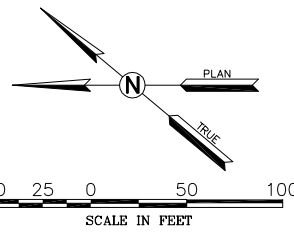
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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 63_JOINTING.dwg

DESIGN BY:	LEW
DRAWN BY:	ASA
CHECKED BY:	MJD/CET
APPROVED BY:	BWG
DATE:	NOVEMBER 28, 2011
JOB No:	10098-01



LEGEND

- 440 — EXISTING CONTOUR
- 440 — PROPOSED CONTOUR
- > — EXISTING STORM SEWER
- > — PROPOSED STORM SEWER
- > — EXISTING GLYCOL DISPOSAL
- > — PROPOSED GLYCOL DISPOSAL
- > — EXISTING UNDERDRAIN
- > — PROPOSED UNDERDRAIN
- E — EXISTING ELECTRIC LINE
- CO PROPOSED UNDERDRAIN CLEANOUT
- CS PROPOSED UNDERDRAIN COLLECTION STRUCTURE
- CP PROPOSED UNDERDRAIN COLLECTION POINT
- DC PROPOSED UNDERDRAIN DIRECT CONNECTION

- NOTES:**
- COLLECTION POINTS CONSIST OF A 4-WAY PVC FITTING AND SHALL BE CONSIDERED INCIDENTAL TO THE UNDERDRAIN WORK.
 - DIRECT CONNECTIONS SHALL BE CONSIDERED INCIDENTAL TO THE UNDER DRAIN WORK.
 - CONSTRUCT CONCRETE HEADWALL FOR PIPE DRAIN IN ACCORDANCE WITH IDOT STANDARD 601101-01 (INCIDENTAL TO UNDERDRAIN WORK).
 - THE EXISTING GROUND MAY CHANGE PRIOR TO THE START OF CONSTRUCTION DUE TO EARTHWORK OPERATIONS ADJACENT TO THIS PROJECT. IF THE EXISTING GROUND DOES CHANGE, THE GROUND WILL BE SURVEYED BY THE ENGINEER PRIOR TO THE START OF GRADING OPERATIONS FOR THIS CONTRACT AND THE EXISTING GROUND LINE ON THE CROSS SECTIONS WILL BE UPDATED.

SEE BASE BID DRAINAGE DETAILS SHEETS FOR DRAINAGE DETAILS.

STORM SEWER SCHEDULE

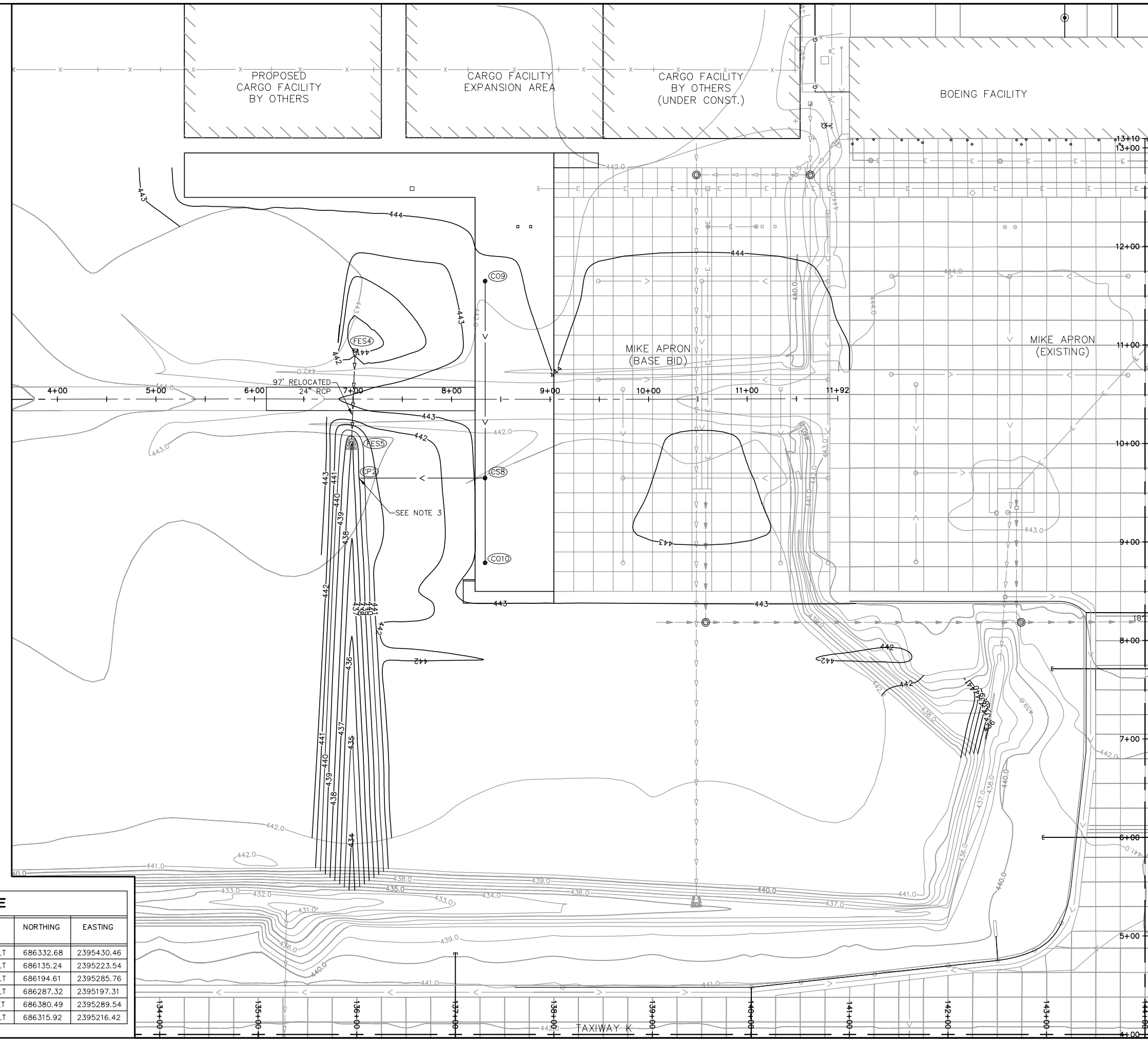
REACH	PIPE SIZE/TYPE	LENGTH FOR PAYMENT (FT)	LENGTH W/ FES (FT)	SLOPE
FES4 - FES5	24"/RCP	85	97	3.09%

UNDERDRAIN SCHEDULE

REACH	PIPE SIZE/TYPE	LENGTH (FT)	SLOPE
CO9 - CS8	6"/PVC	200	0.50%
CS8 - CP2	6"/PVC	128	0.50%
CO10 - CS5	6"/PVC	86	0.50%

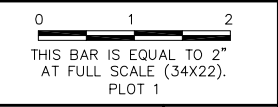
STRUCTURE SCHEDULE

STRUCTURE NUMBER	RIM ELEV	INVERT ELEV	STATION	OFFSET	NORTHING	EASTING
CO9	443.86	440.64	11+64.79	669.82 LT	686332.68	2395430.46
CO10	443.21	440.07	8+78.79	669.82 LT	686135.24	2395223.54
CS8	443.22	439.64	9+64.79	669.82 LT	686194.61	2395285.76
CP2	---	439.00	9+64.79	797.95 LT	686287.32	2395197.31
FES4	---	441.00	10+95.83	801.69 LT	686380.49	2395289.54
FES5	---	438.00	9+98.36	805.45 LT	686315.92	2395216.42



REVISIONS

NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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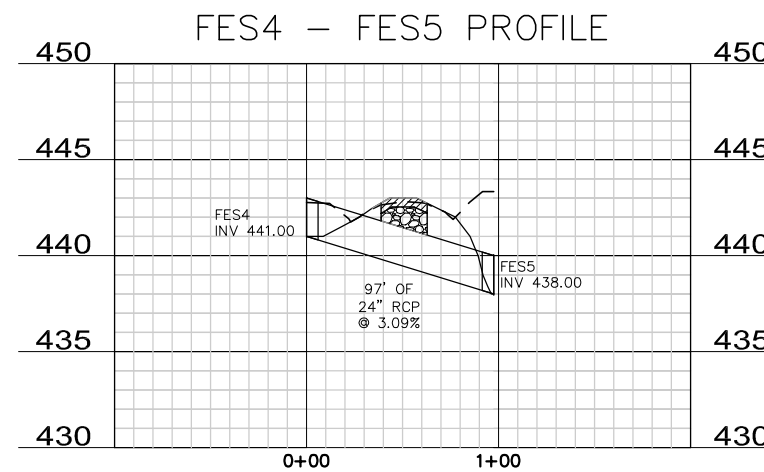
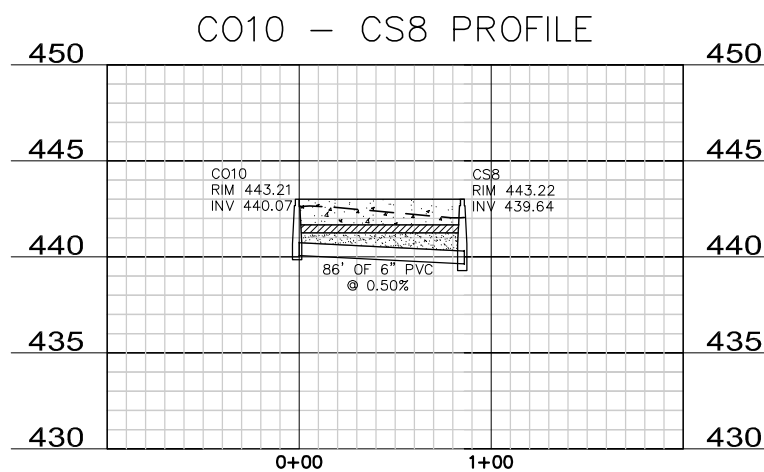
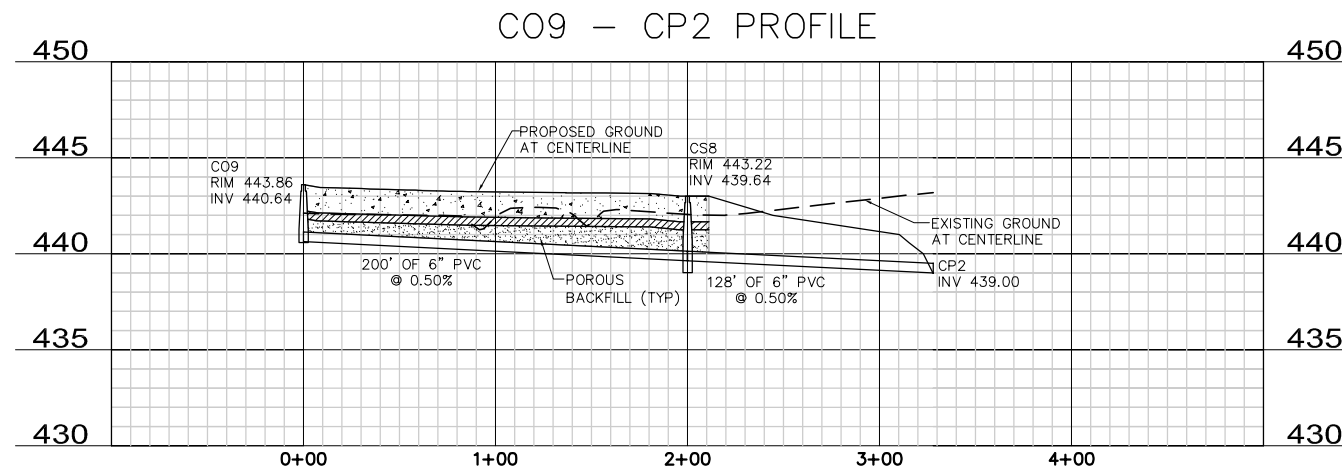
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**IL PROJECT: BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 64_GRADING.dwg

DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**GRADING AND
DRAINAGE PLAN**



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2'
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

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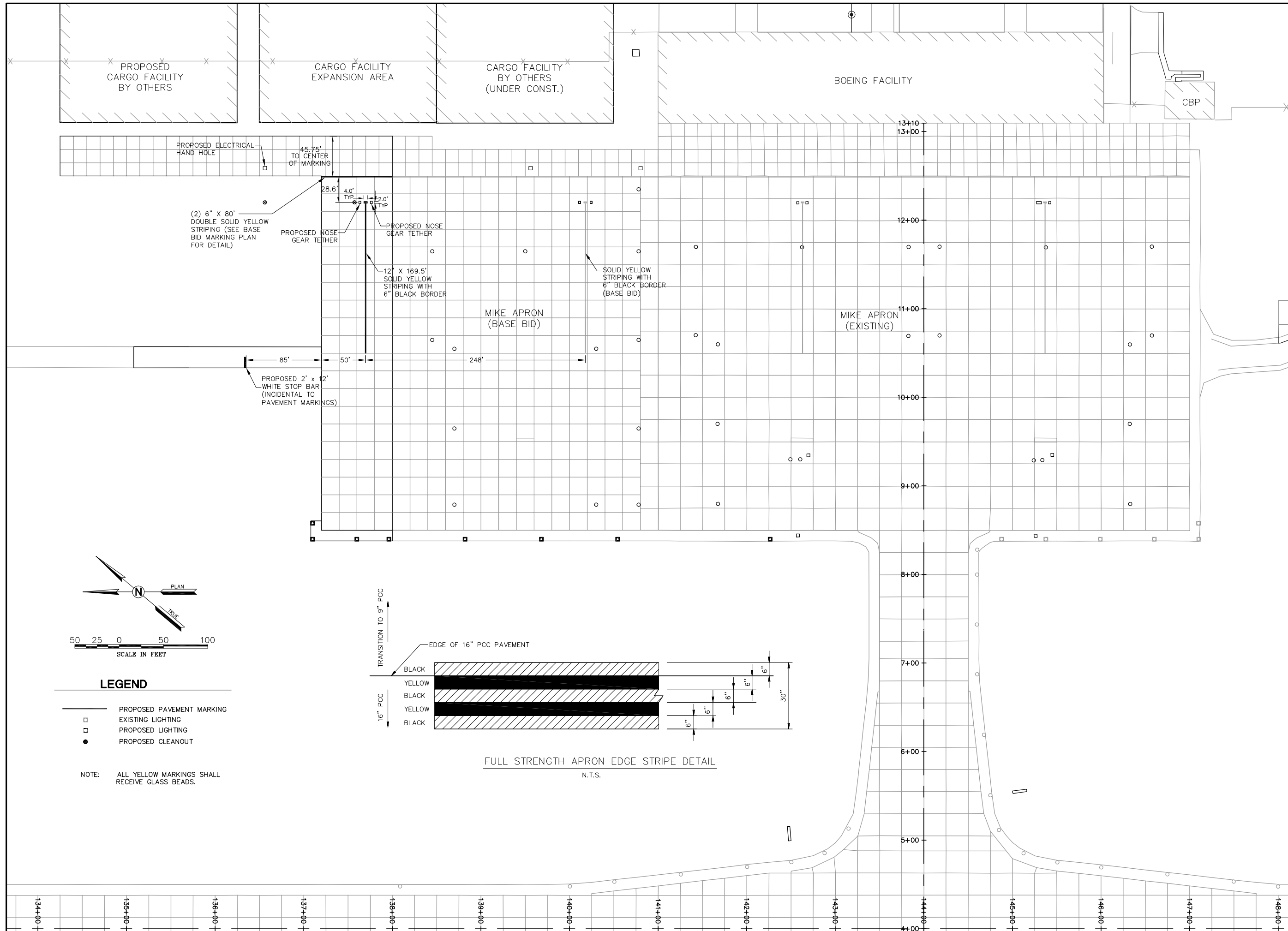
**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 65_PROFILES.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

**DRAINAGE
PROFILES**

REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

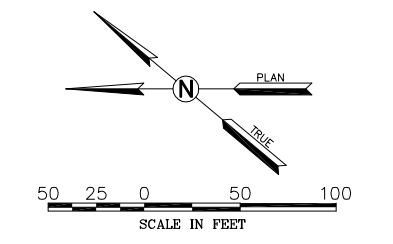
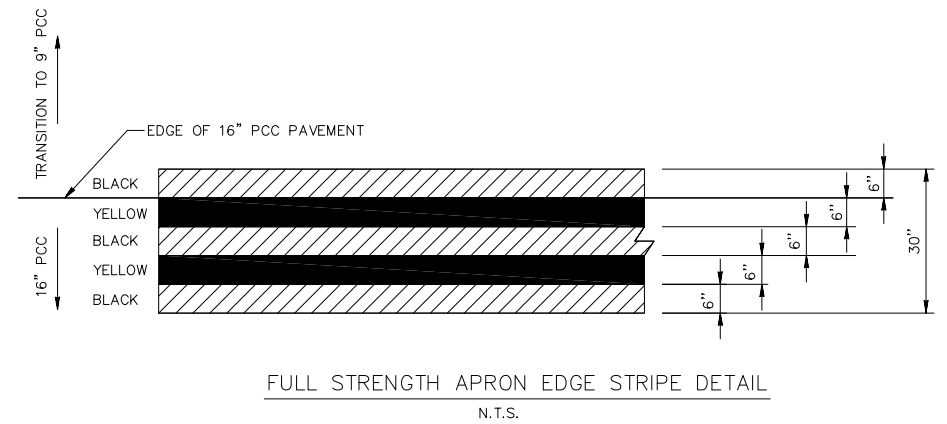
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FILE: 66_MARKING.dwg
DESIGN BY: LEW
DRAWN BY: ASA
CHECKED BY: MJD/CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01

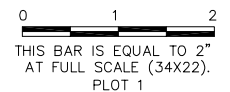


LEGEND

- PROPOSED PAVEMENT MARKING
- EXISTING LIGHTING
- PROPOSED LIGHTING
- PROPOSED CLEANOUT

NOTE: ALL YELLOW MARKINGS SHALL RECEIVE GLASS BEADS.

REVISIONS		
NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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**IL PROJECT, BLV-4061
AIP PROJ. 3-17-0146-029-2011**

FILE: 67_ELECTRICAL_LAYOUT.dwg

DESIGN BY: LEW

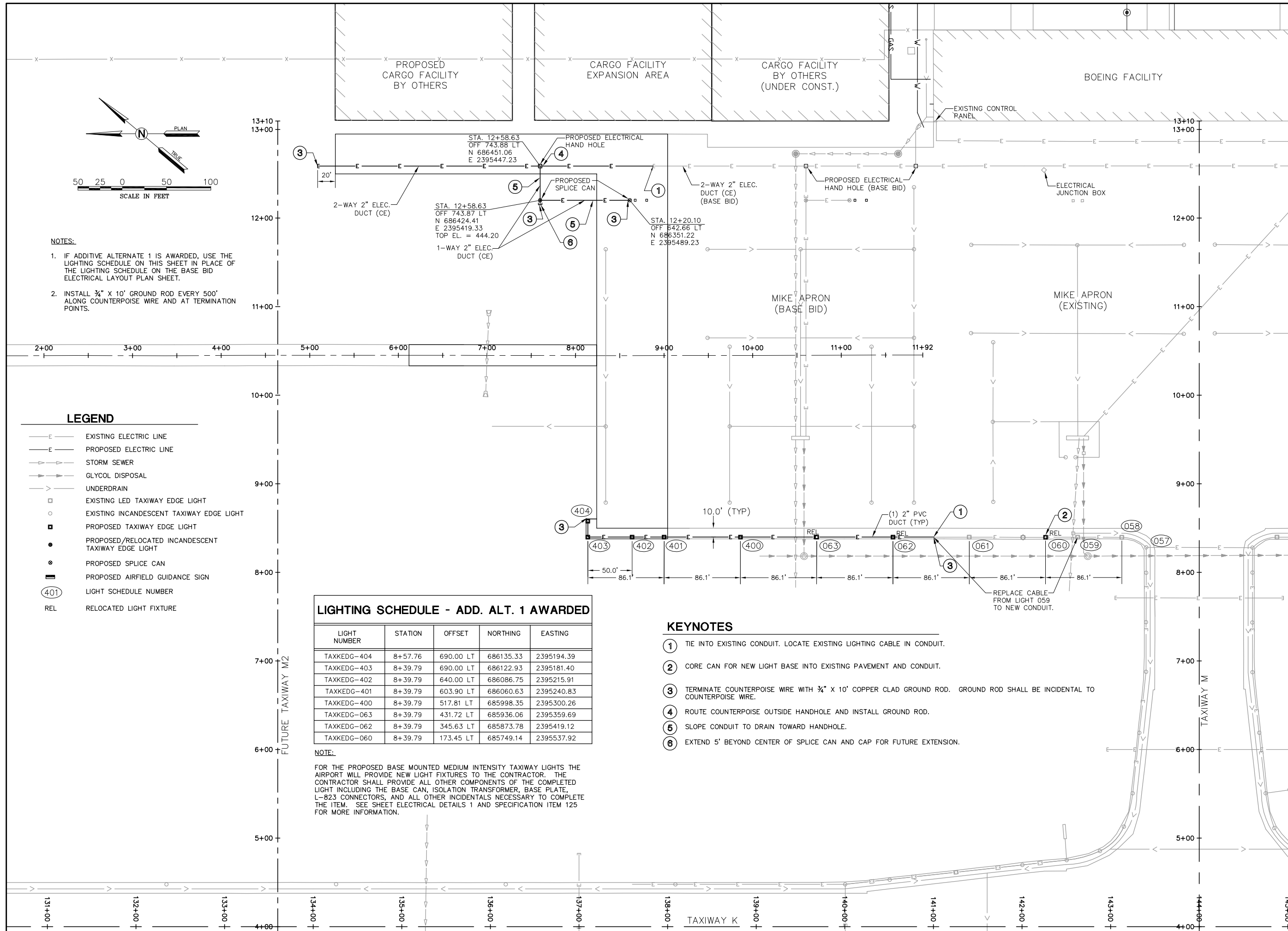
DRAWN BY: ASA

CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

JOB No: 10098-01



NOTES:

- IF ADDITIVE ALTERNATE 1 IS AWARDED, USE THE LIGHTING SCHEDULE ON THIS SHEET IN PLACE OF THE LIGHTING SCHEDULE ON THE BASE BID ELECTRICAL LAYOUT PLAN SHEET.
- INSTALL 3/4" X 10' GROUND ROD EVERY 500' ALONG COUNTERPOISE WIRE AND AT TERMINATION POINTS.

LEGEND

- E — EXISTING ELECTRIC LINE
- E — PROPOSED ELECTRIC LINE
- S — STORM SEWER
- G — GLYCOL DISPOSAL
- U — UNDERDRAIN
- EXISTING LED TAXIWAY EDGE LIGHT
- EXISTING INCANDESCENT TAXIWAY EDGE LIGHT
- PROPOSED TAXIWAY EDGE LIGHT
- PROPOSED/RELOCATED INCANDESCENT TAXIWAY EDGE LIGHT
- ⊙ PROPOSED SPLICE CAN
- PROPOSED AIRFIELD GUIDANCE SIGN
- (401) LIGHT SCHEDULE NUMBER
- REL RELOCATED LIGHT FIXTURE

LIGHTING SCHEDULE - ADD. ALT. 1 AWARDED

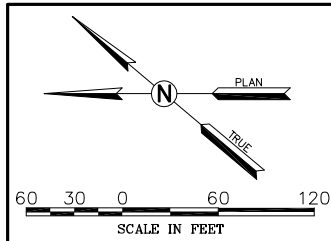
LIGHT NUMBER	STATION	OFFSET	NORTHING	EASTING
TAXKEDG-404	8+57.76	690.00 LT	686135.33	2395194.39
TAXKEDG-403	8+39.79	690.00 LT	686122.93	2395181.40
TAXKEDG-402	8+39.79	640.00 LT	686086.75	2395215.91
TAXKEDG-401	8+39.79	603.90 LT	686060.63	2395240.83
TAXKEDG-400	8+39.79	517.81 LT	685998.35	2395300.26
TAXKEDG-063	8+39.79	431.72 LT	685936.06	2395359.69
TAXKEDG-062	8+39.79	345.63 LT	685873.78	2395419.12
TAXKEDG-060	8+39.79	173.45 LT	685749.14	2395537.92

NOTE:

FOR THE PROPOSED BASE MOUNTED MEDIUM INTENSITY TAXIWAY LIGHTS THE AIRPORT WILL PROVIDE NEW LIGHT FIXTURES TO THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ALL OTHER COMPONENTS OF THE COMPLETED LIGHT INCLUDING THE BASE CAN, ISOLATION TRANSFORMER, BASE PLATE, L-823 CONNECTORS, AND ALL OTHER INCIDENTALS NECESSARY TO COMPLETE THE ITEM. SEE SHEET ELECTRICAL DETAILS 1 AND SPECIFICATION ITEM 125 FOR MORE INFORMATION.

KEYNOTES

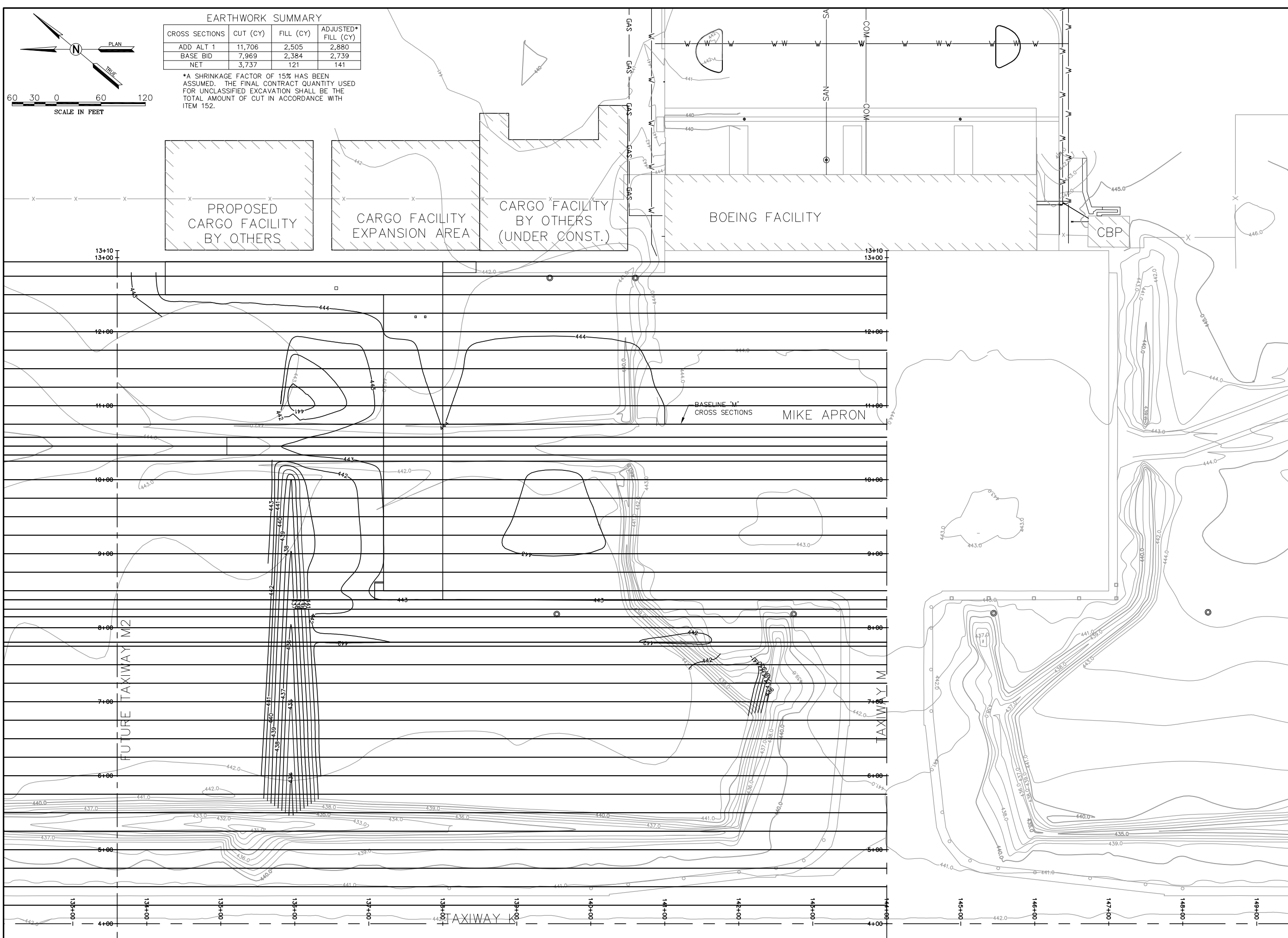
- TIE INTO EXISTING CONDUIT. LOCATE EXISTING LIGHTING CABLE IN CONDUIT.
- CORE CAN FOR NEW LIGHT BASE INTO EXISTING PAVEMENT AND CONDUIT.
- TERMINATE COUNTERPOISE WIRE WITH 3/4" X 10' COPPER CLAD GROUND ROD. GROUND ROD SHALL BE INCIDENTAL TO COUNTERPOISE WIRE.
- ROUTE COUNTERPOISE OUTSIDE HANDHOLE AND INSTALL GROUND ROD.
- SLOPE CONDUIT TO DRAIN TOWARD HANDHOLE.
- EXTEND 5' BEYOND CENTER OF SPLICE CAN AND CAP FOR FUTURE EXTENSION.



EARTHWORK SUMMARY

CROSS SECTIONS	CUT (CY)	FILL (CY)	ADJUSTED* FILL (CY)
ADD ALT 1	11,706	2,505	2,880
BASE BID	7,969	2,384	2,739
NET	3,737	121	141

*A SHRINKAGE FACTOR OF 15% HAS BEEN ASSUMED. THE FINAL CONTRACT QUANTITY USED FOR UNCLASSIFIED EXCAVATION SHALL BE THE TOTAL AMOUNT OF CUT IN ACCORDANCE WITH ITEM 152.



REVISIONS

NUMBER	BY	DATE

0 1 2
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AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

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FILE: 68_XSEC_INDEX.dwg

DESIGN BY: LEW

DRAWN BY: ASA

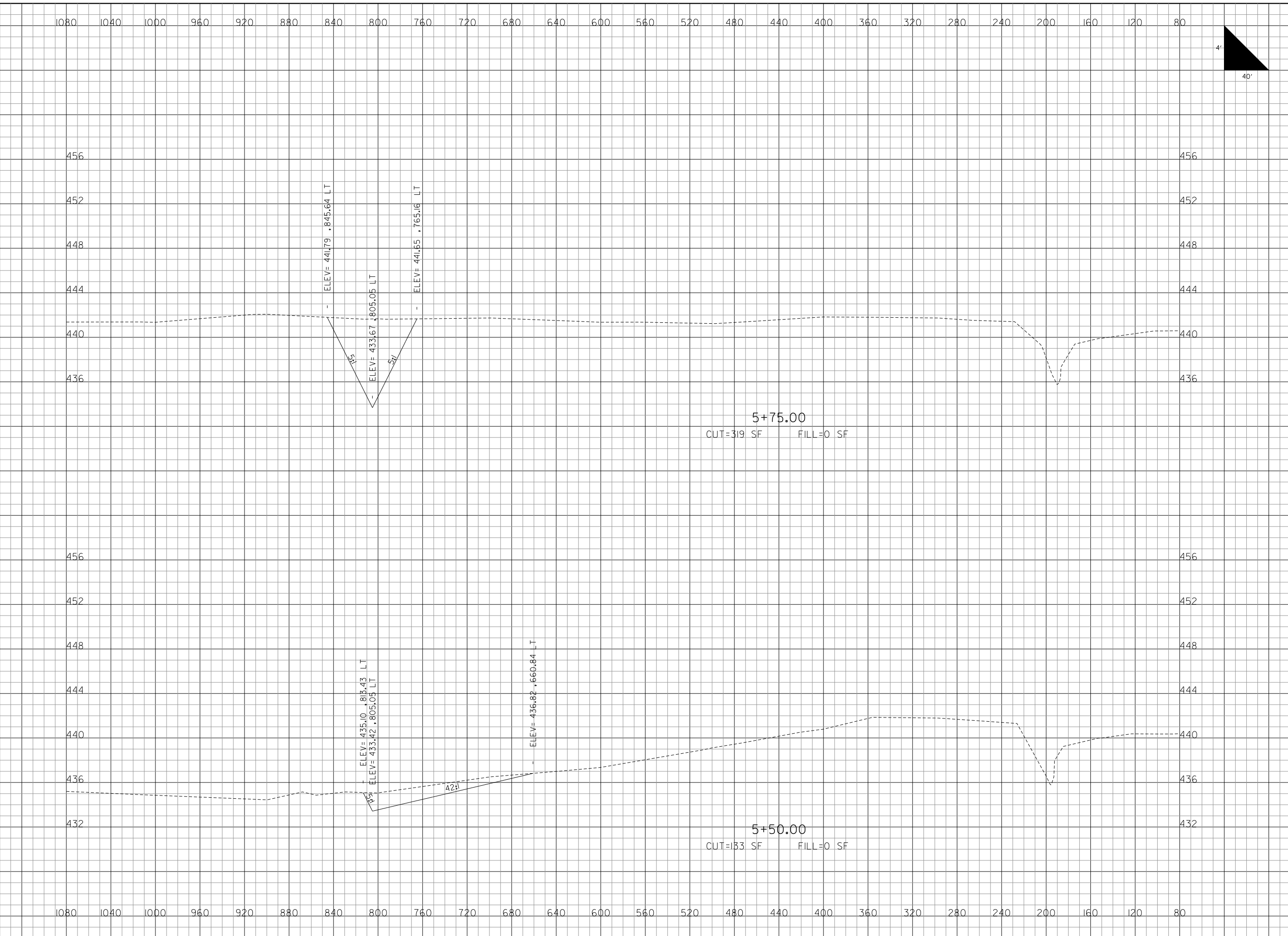
CHECKED BY: MJD/CET

APPROVED BY: BWG

DATE: NOVEMBER 28, 2011

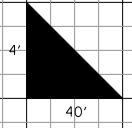
JOB No: 10098-01

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REVISIONS		
NUMBER	BY	DATE

0 1 2
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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

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ADDITIVE ALTERNATE 1**

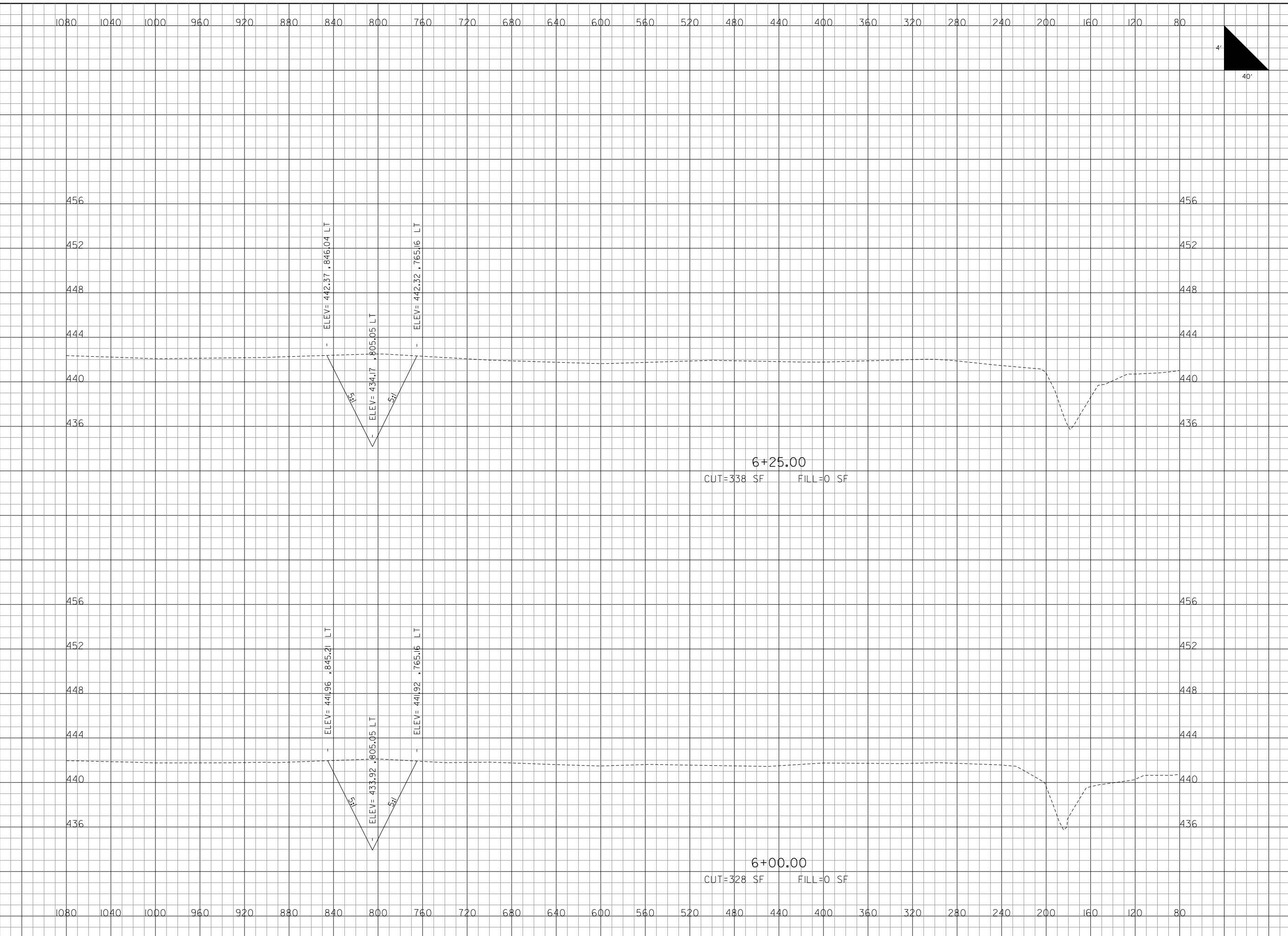
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 1 OF 21
SHEET 69 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
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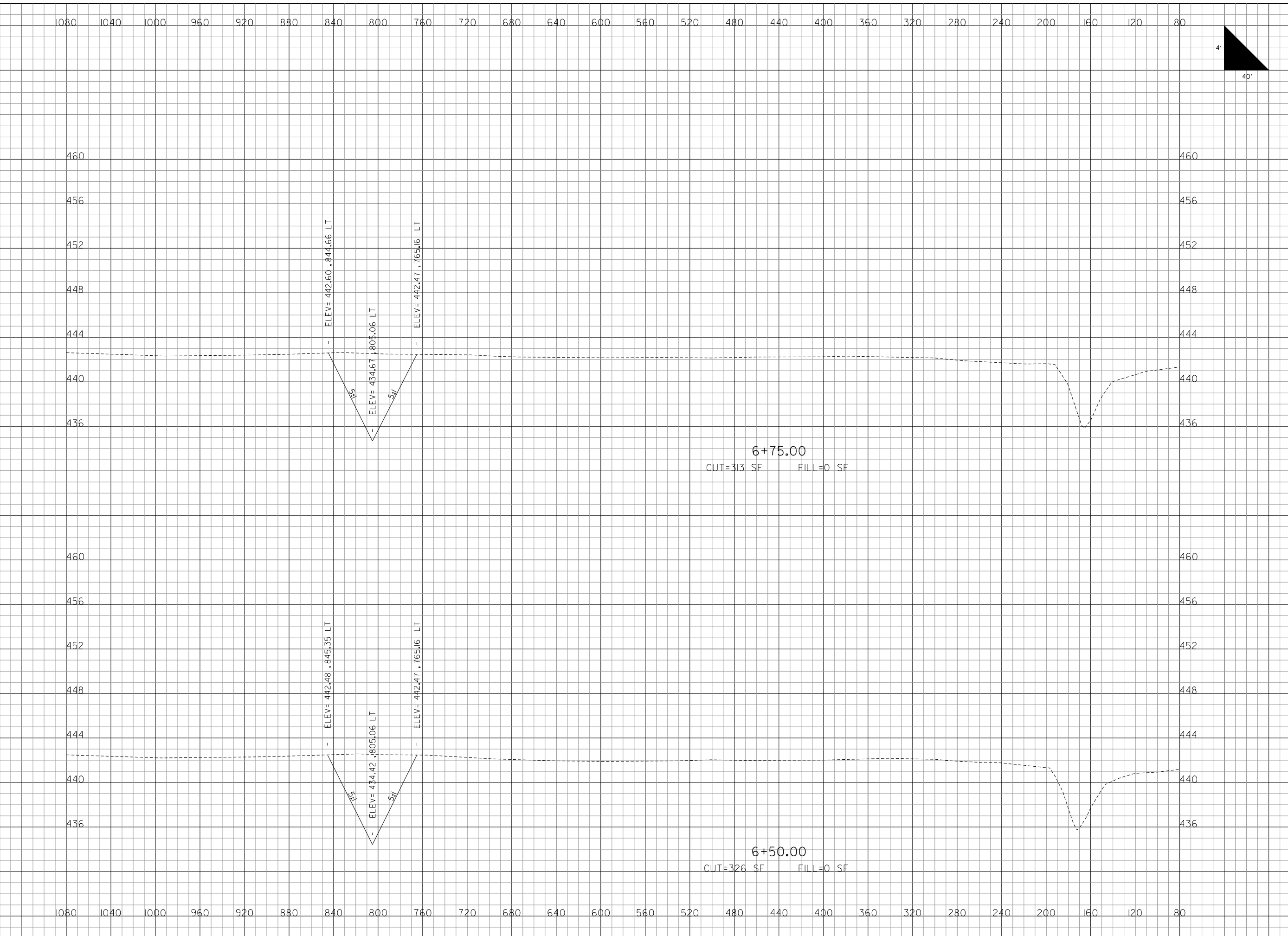
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FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 2 OF 21
SHEET 70 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS		
NUMBER	BY	DATE

0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
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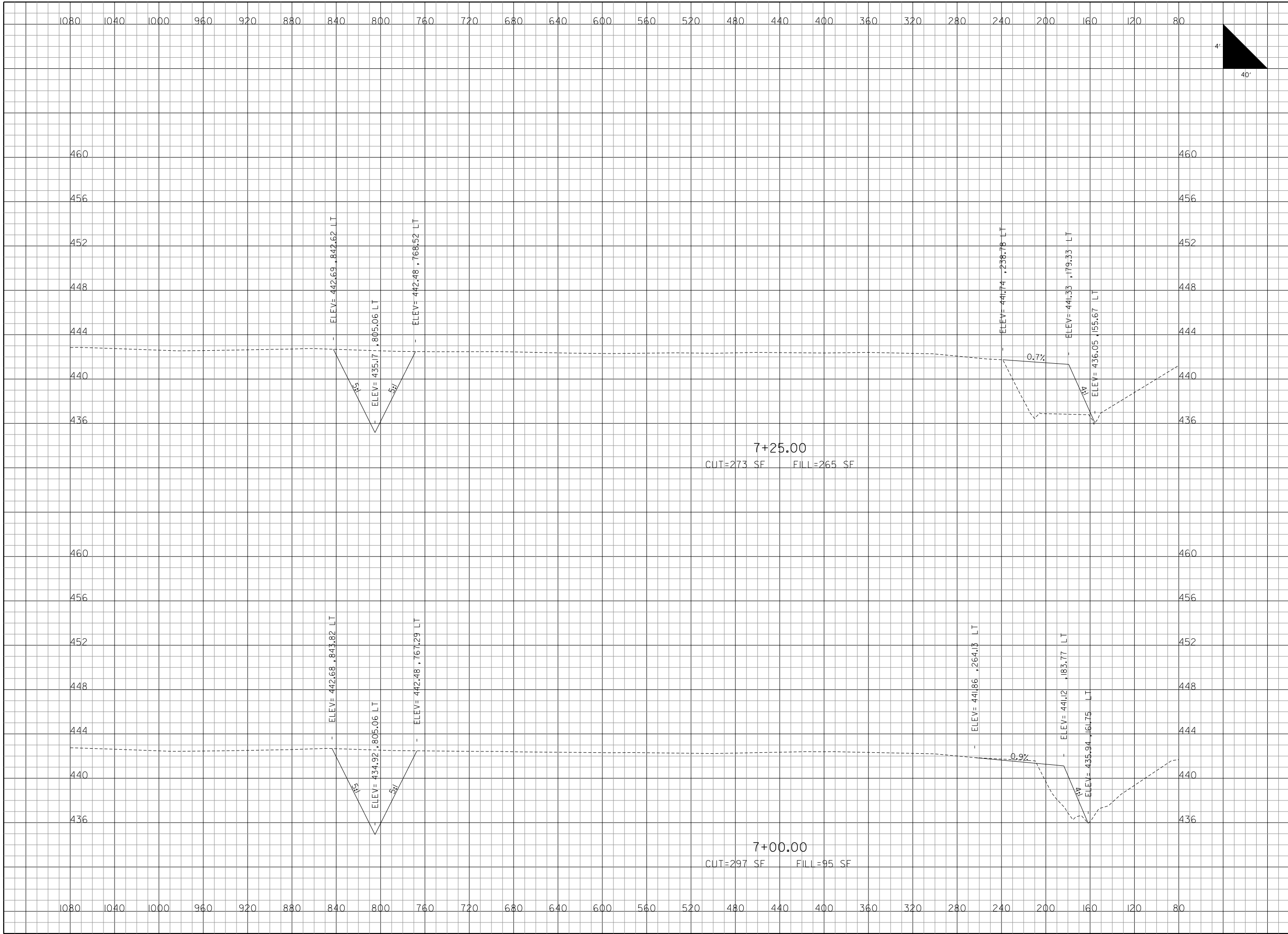
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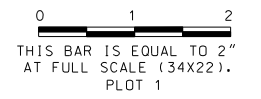
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DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 3 OF 21
SHEET 71 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS

NUMBER	BY	DATE



**MIDAMERICA ST. LOUIS AIRPORT
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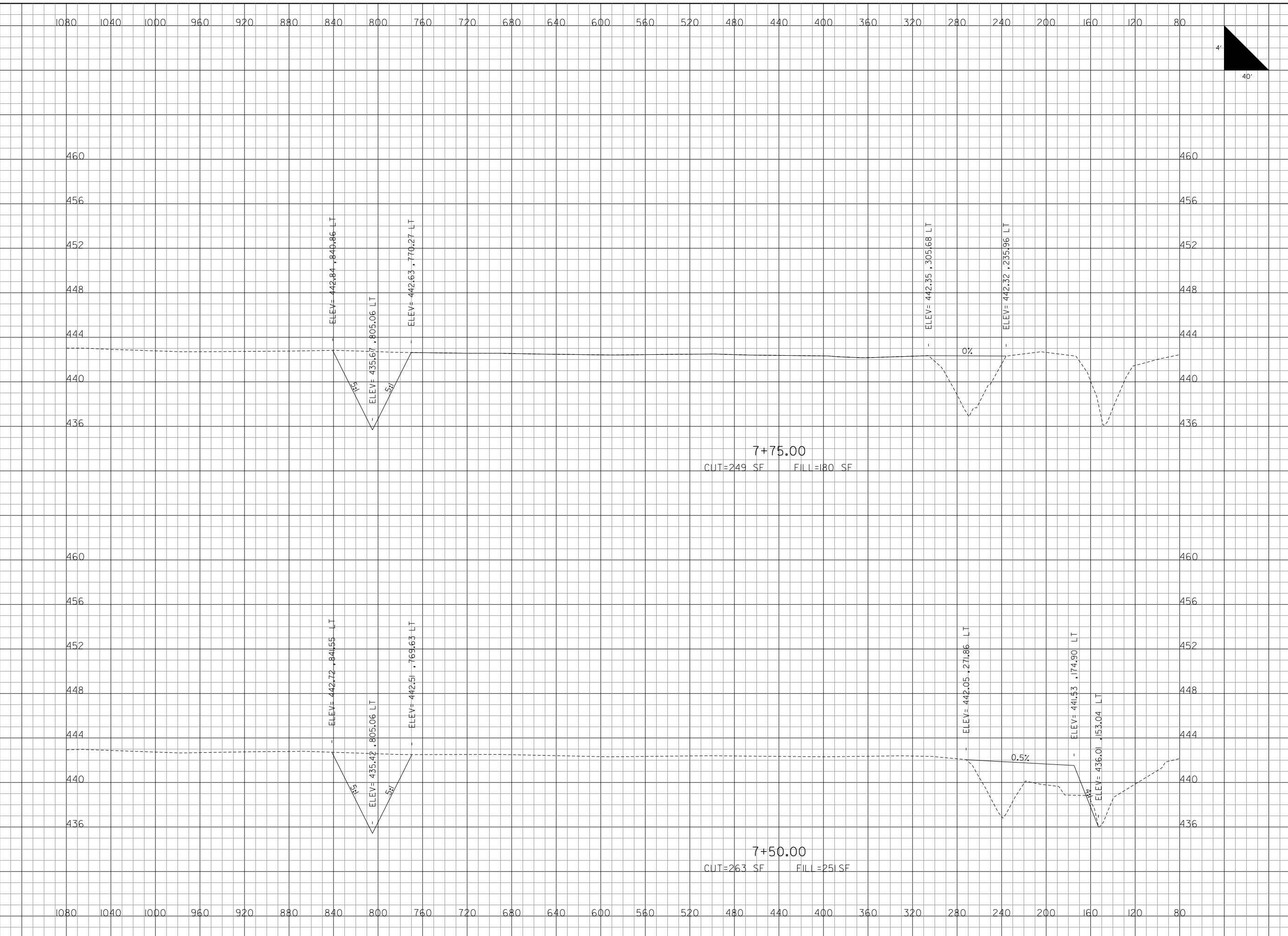
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AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 4 OF 21
SHEET 72 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS

NUMBER	BY	DATE

0 1 2
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PLOT 1

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AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$.

DESIGN BY: LEW

DRAWN BY: LEW

CHECKED BY: CET

APPROVED BY: BWG

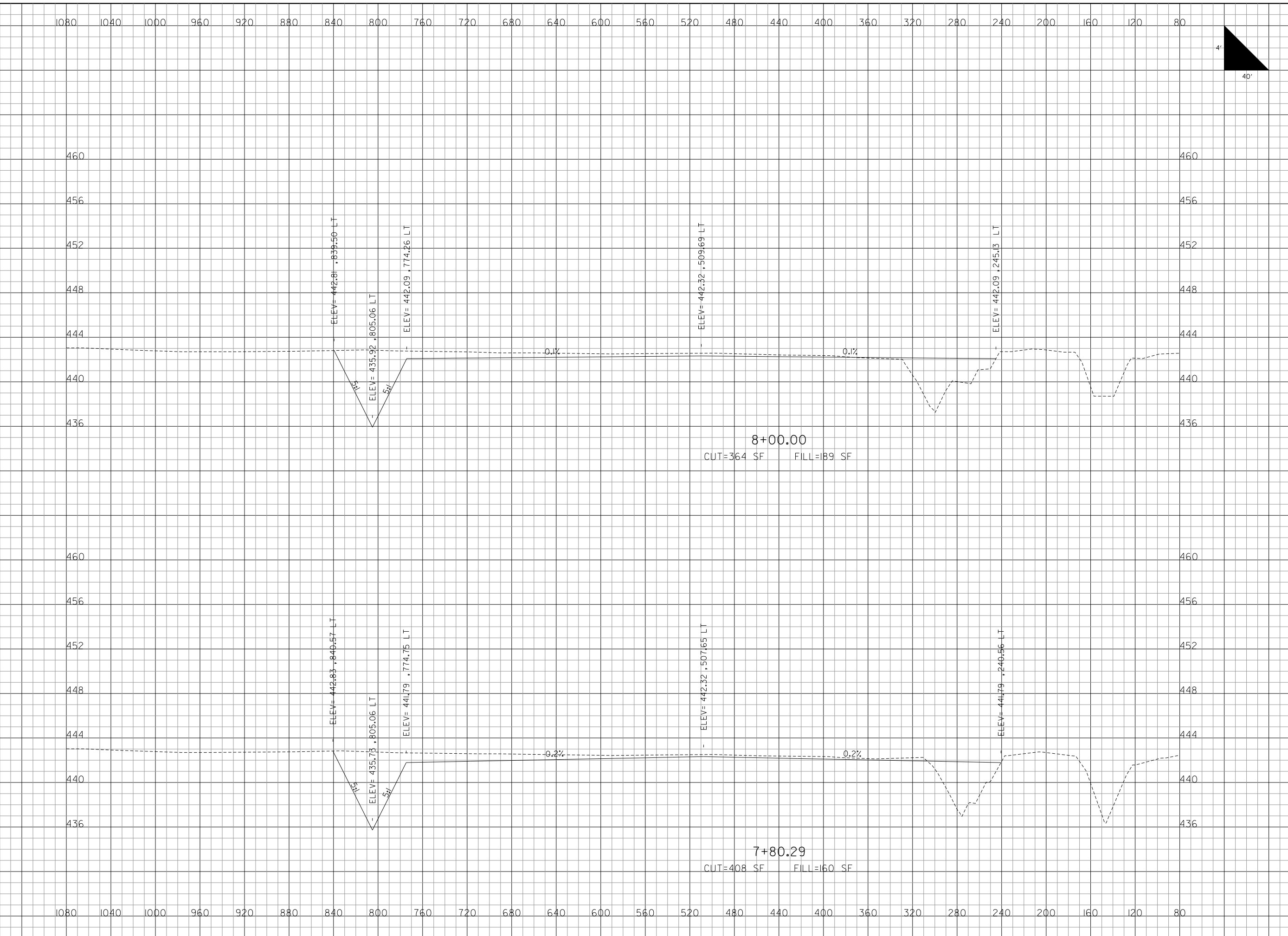
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**ADDITIVE ALTERNATE
CROSS SECTIONS
SHEET 5 OF 21**

SHEET 73 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS

NUMBER	BY	DATE

0 1 2
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$

DESIGN BY: LEW

DRAWN BY: LEW

CHECKED BY: CET

APPROVED BY: BWG

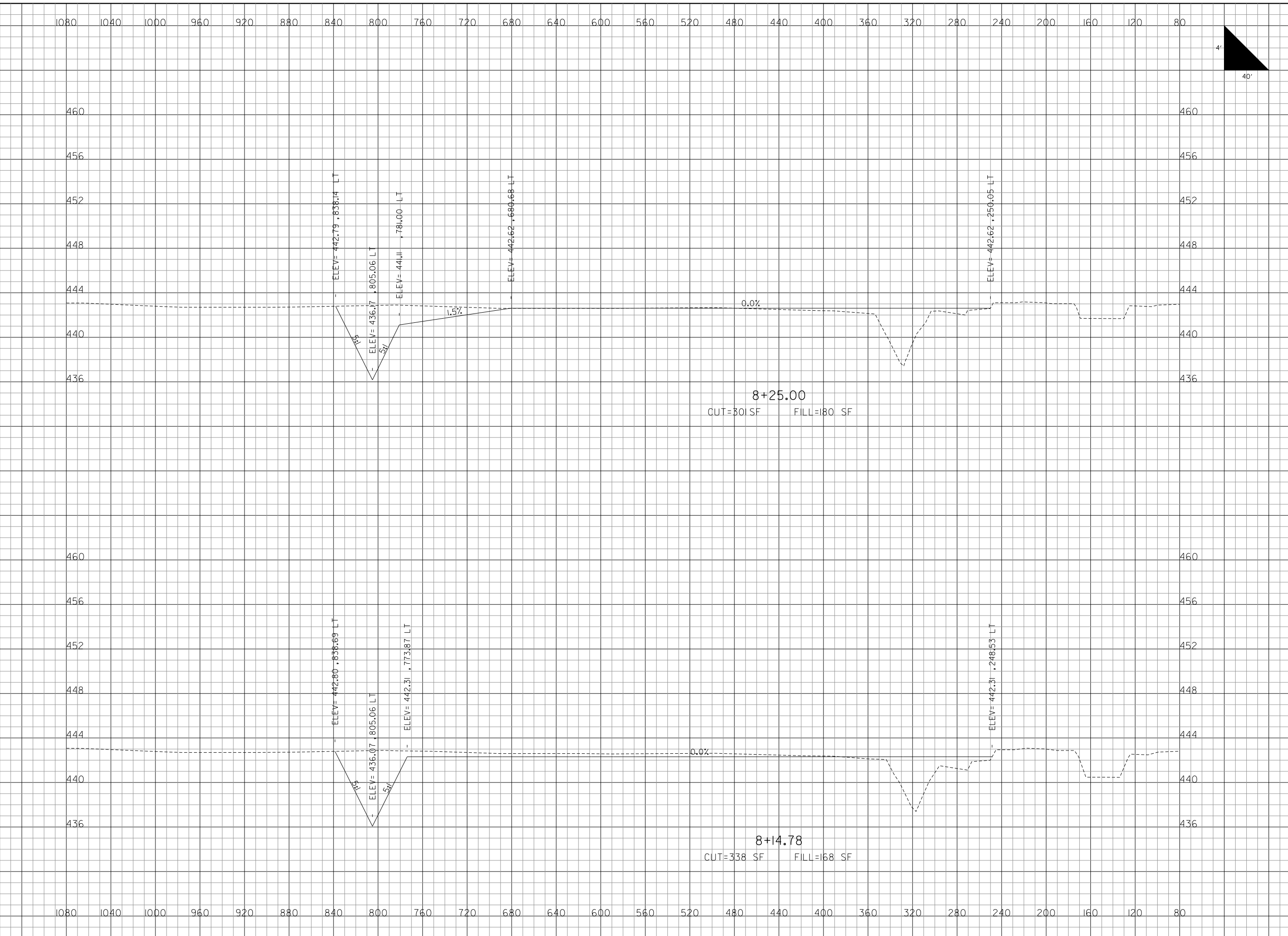
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**ADDITIVE ALTERNATE
CROSS SECTIONS
SHEET 6 OF 21**

SHEET 74 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS		
NUMBER	BY	DATE

0 1 2
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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

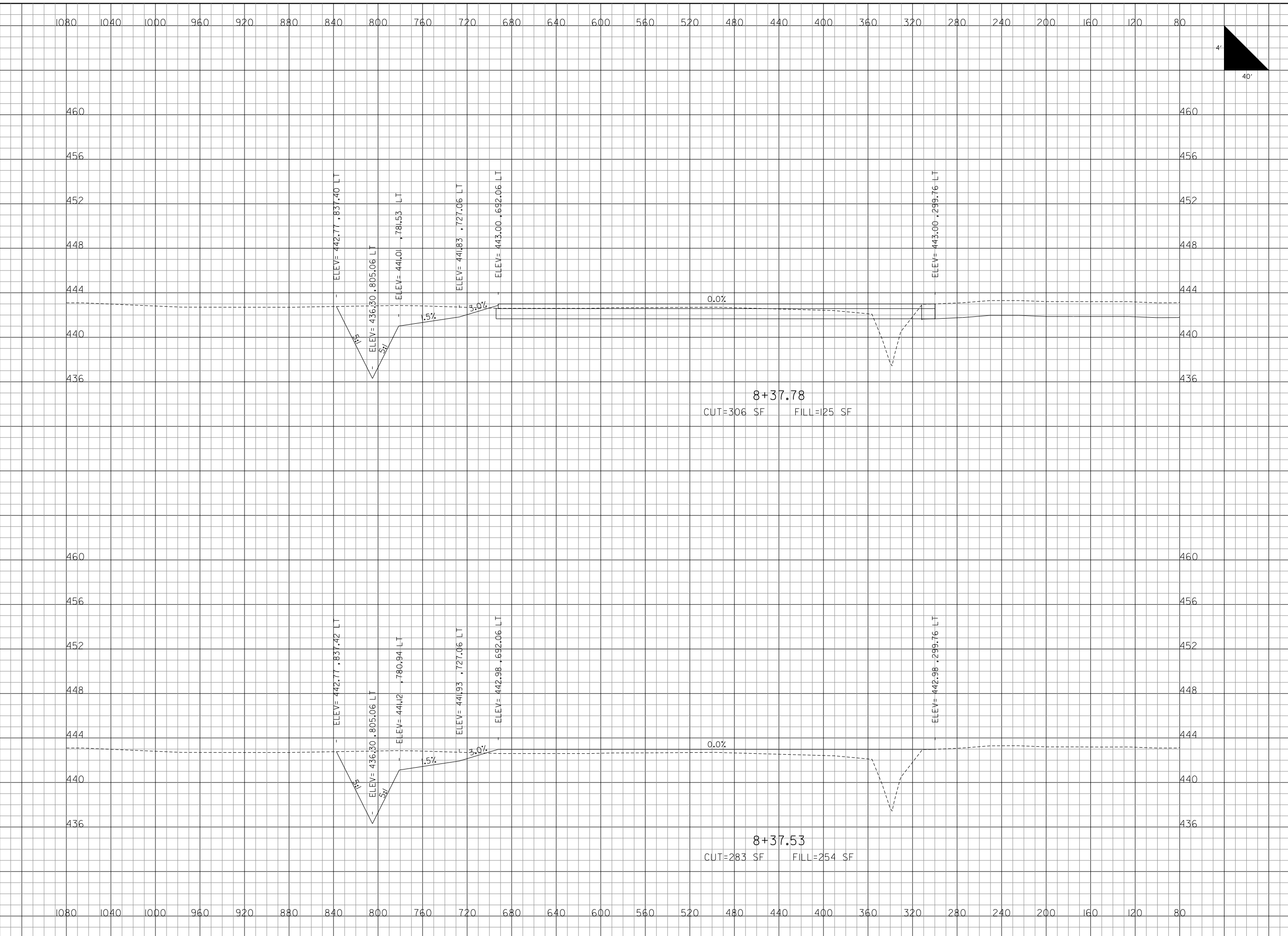
ONE MEMORIAL DRIVE, SUITE 500
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**IL PROJECT: BLV-4061
AIP PROJ: 3-17-0146-029-2011**

FILE: \$FILE\$
DESIGN BY: LEW
DRAWN BY: LEW
CHECKED BY: CET
APPROVED BY: BWG
DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 7 OF 21
SHEET 75 OF 89 SHEETS

\$DATE\$
\$FILE\$



REVISIONS		
NUMBER	BY	DATE

0 1 2
THIS BAR IS EQUAL TO 2"
AT FULL SCALE (34X22).
PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

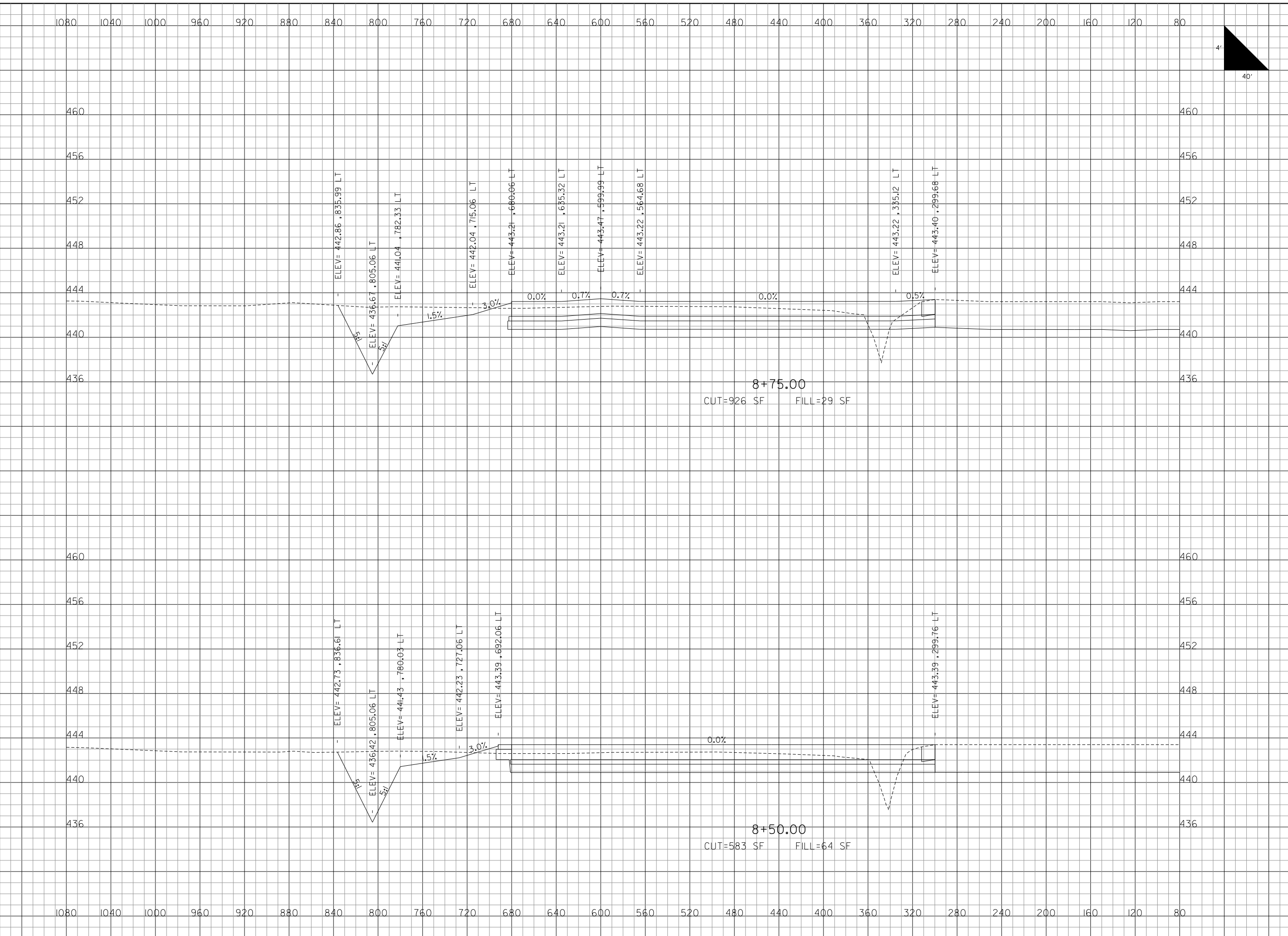
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SHEET 76 OF 89 SHEETS

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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
ST. LOUIS, MO 6302
(314) 436-9500

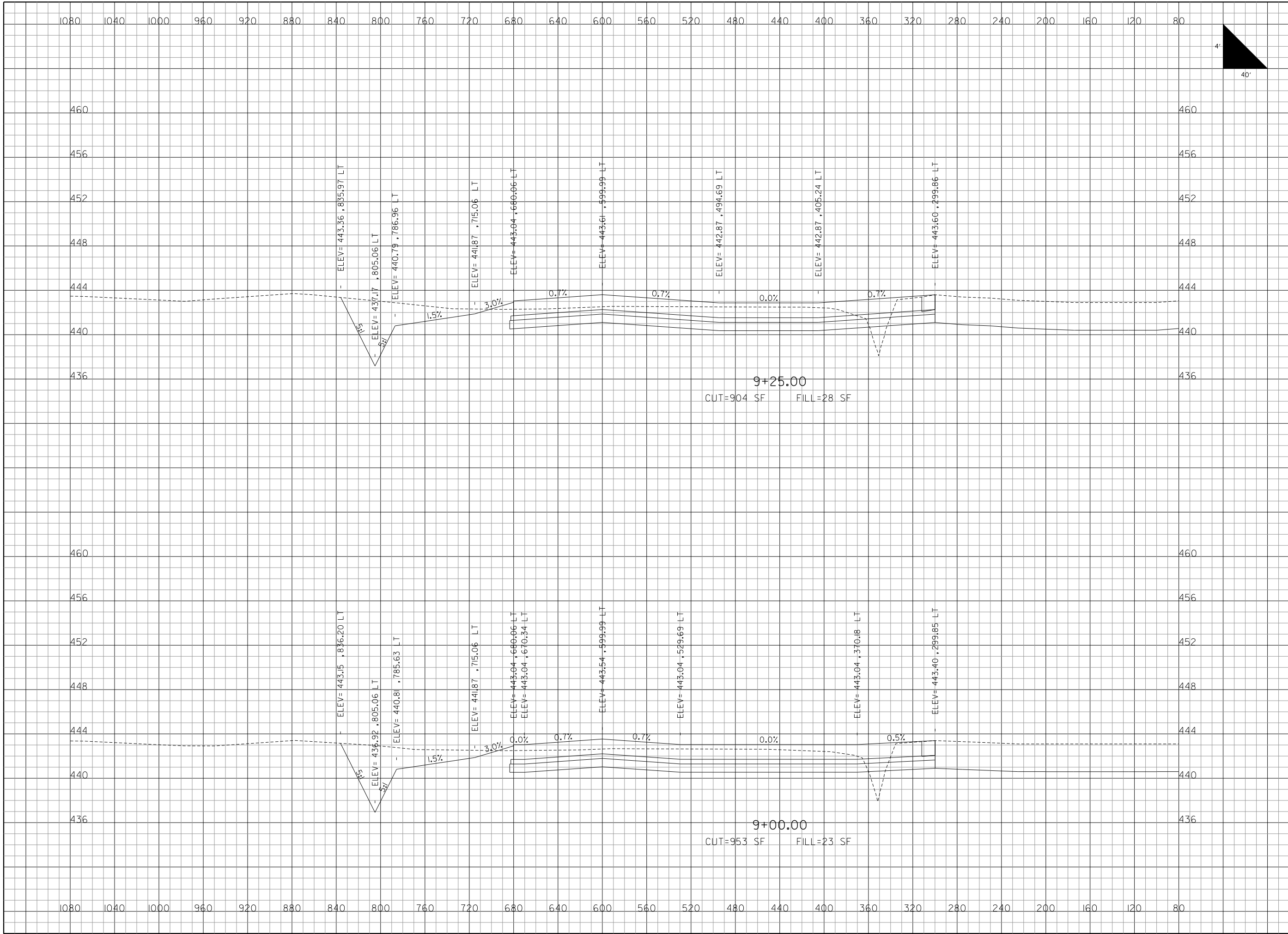
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DATE: NOVEMBER 28, 2011
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 9 OF 21
SHEET 77 OF 89 SHEETS

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ST. CLAIR COUNTY, ILLINOIS**

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ADDITIVE ALTERNATE 1**

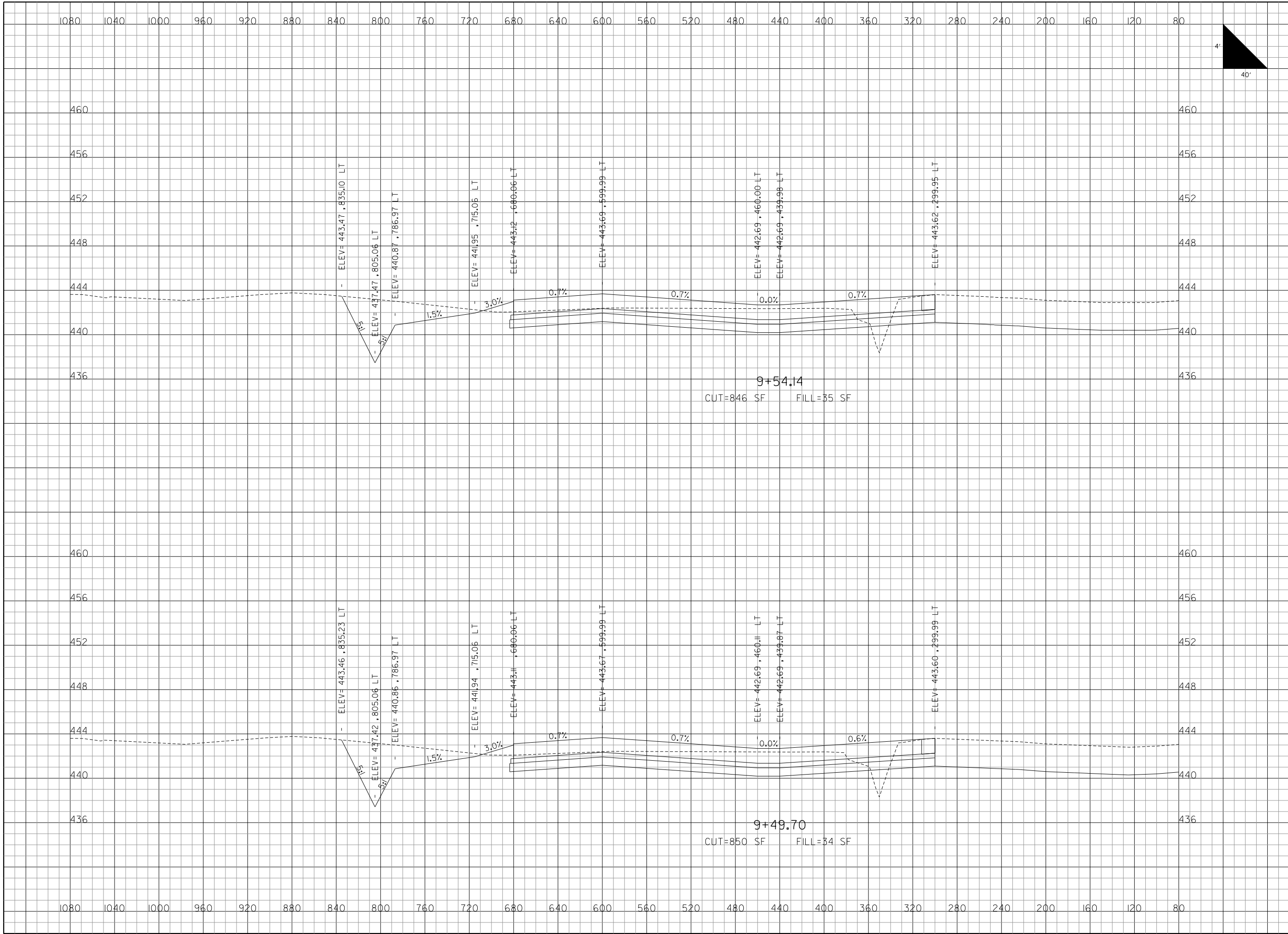
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JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 10 OF 21
SHEET 78 OF 89 SHEETS

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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

ONE MEMORIAL DRIVE, SUITE 500
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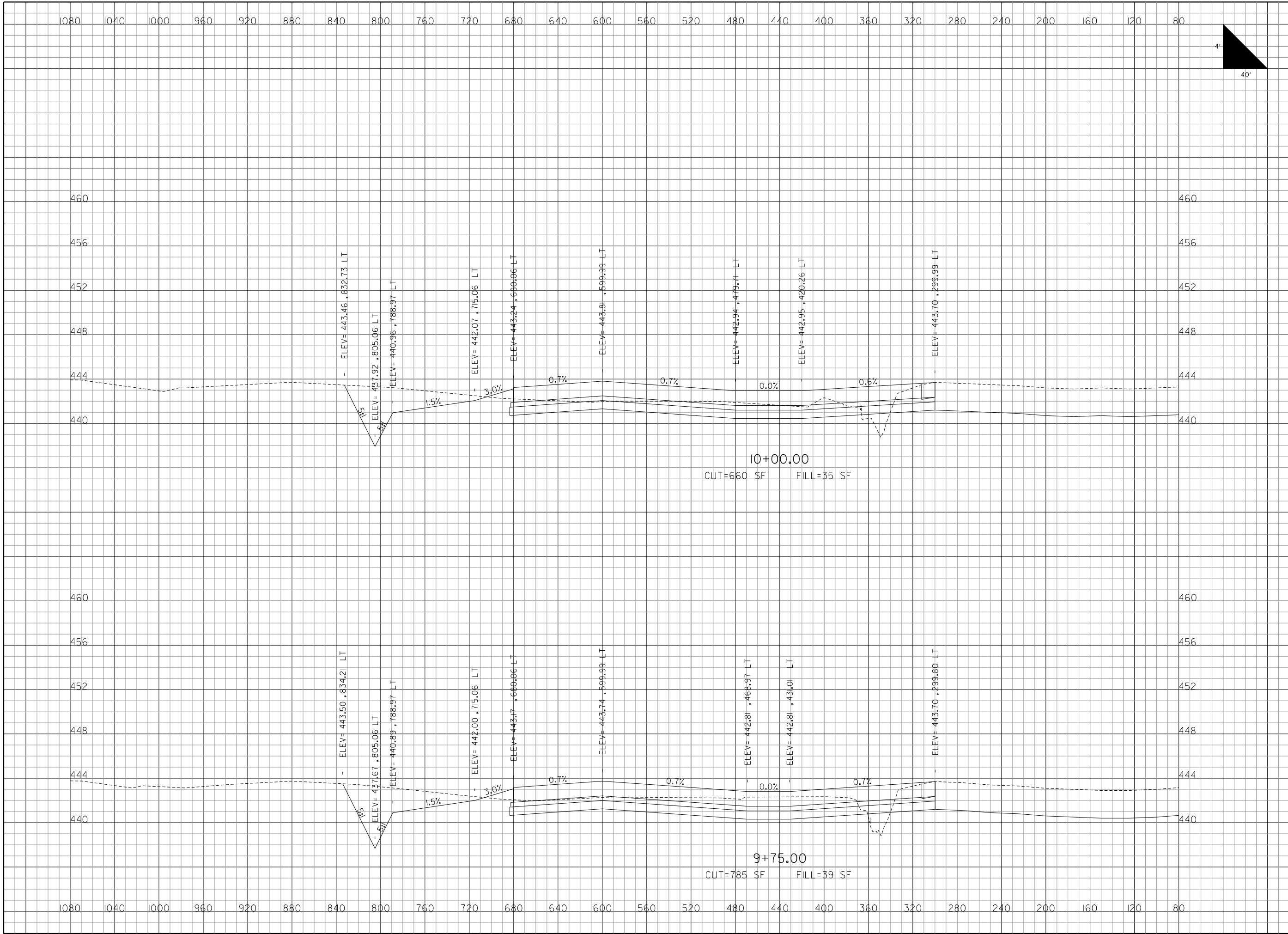


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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 11 OF 21
SHEET 79 OF 89 SHEETS

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**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
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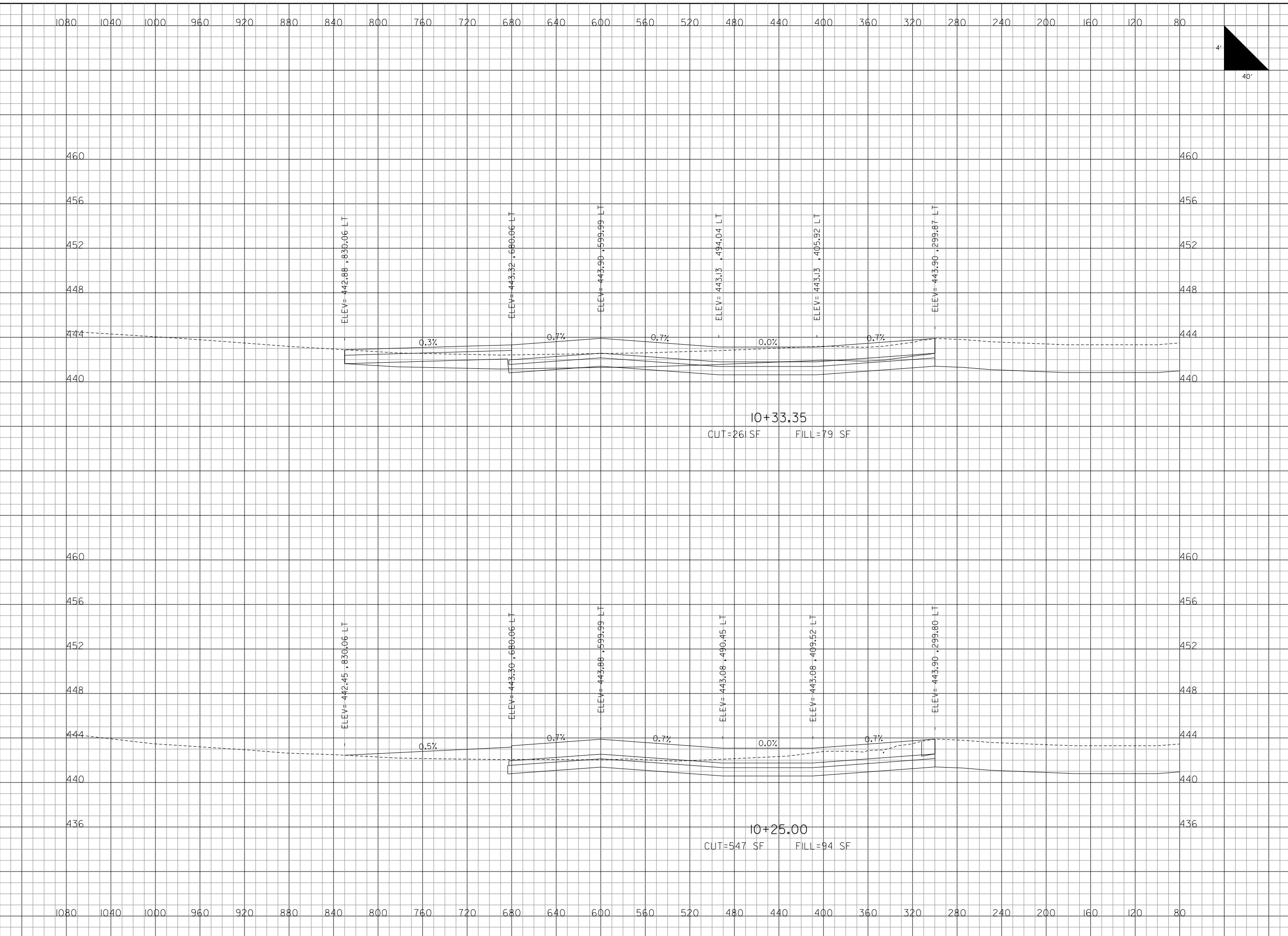
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DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 12 OF 21
SHEET 80 OF 89 SHEETS

\$DATE\$
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PLOT 1

**MIDAMERICA ST. LOUIS AIRPORT
ST. CLAIR COUNTY, ILLINOIS**

**MIKE APRON EXPANSION
ADDITIVE ALTERNATE 1**

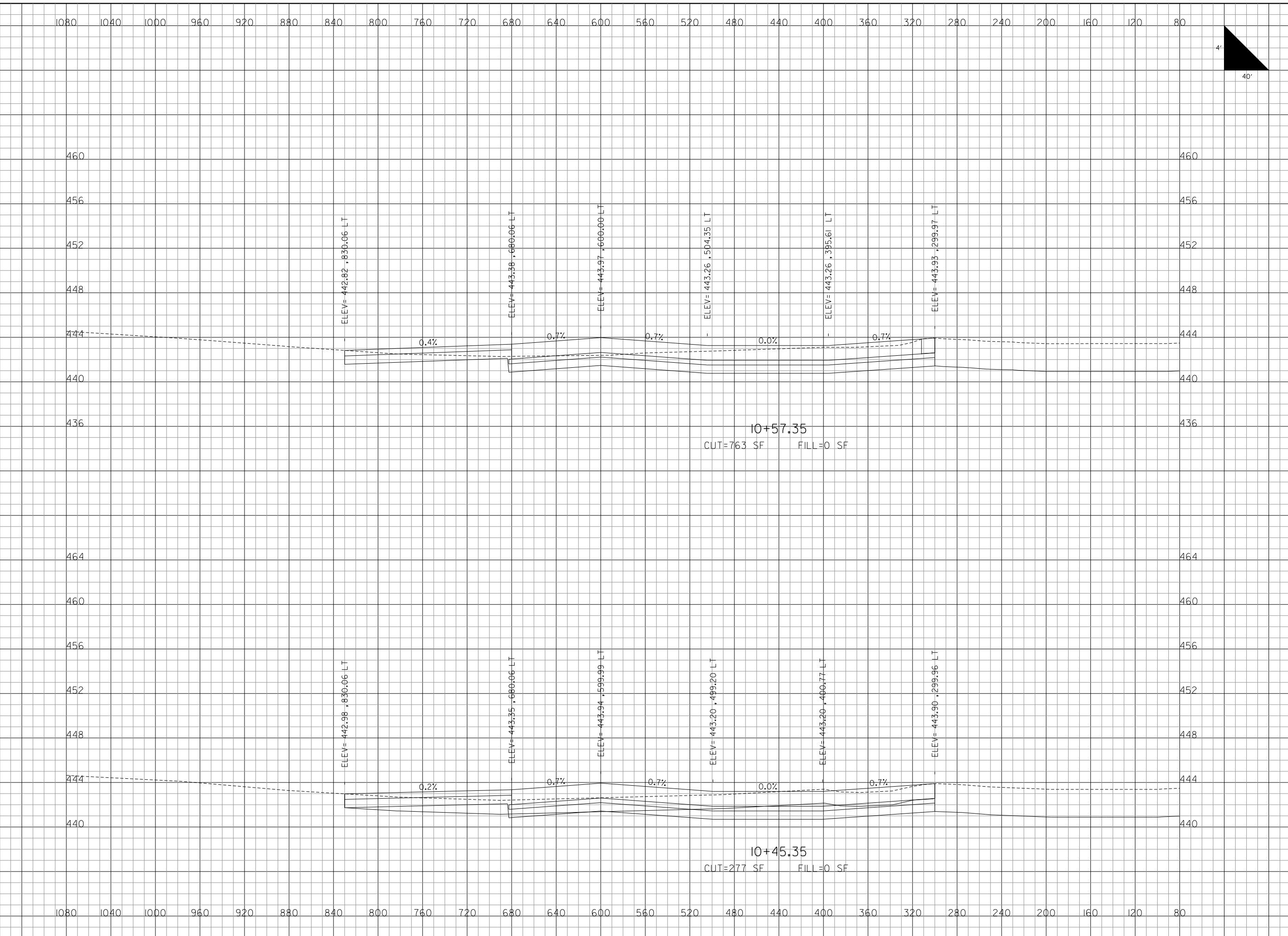
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**IL PROJECT: BLV-4061
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DATE: NOVEMBER 28, 2011
JOB No: 10098-01
ADDITIVE ALTERNATE CROSS SECTIONS SHEET 13 OF 21
SHEET 81 OF 89 SHEETS

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ADDITIVE ALTERNATE 1**

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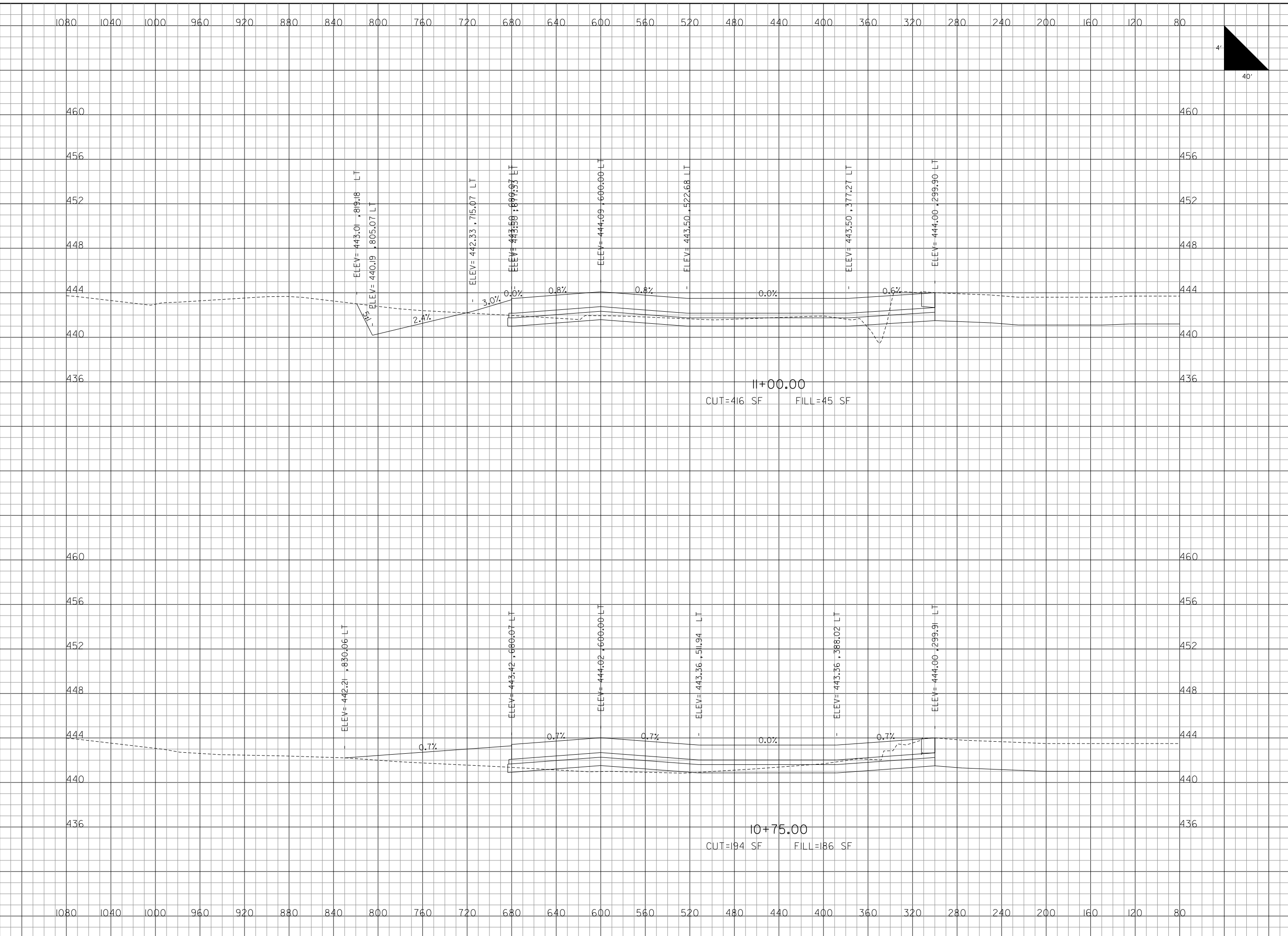
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 14 OF 21
SHEET 82 OF 89 SHEETS

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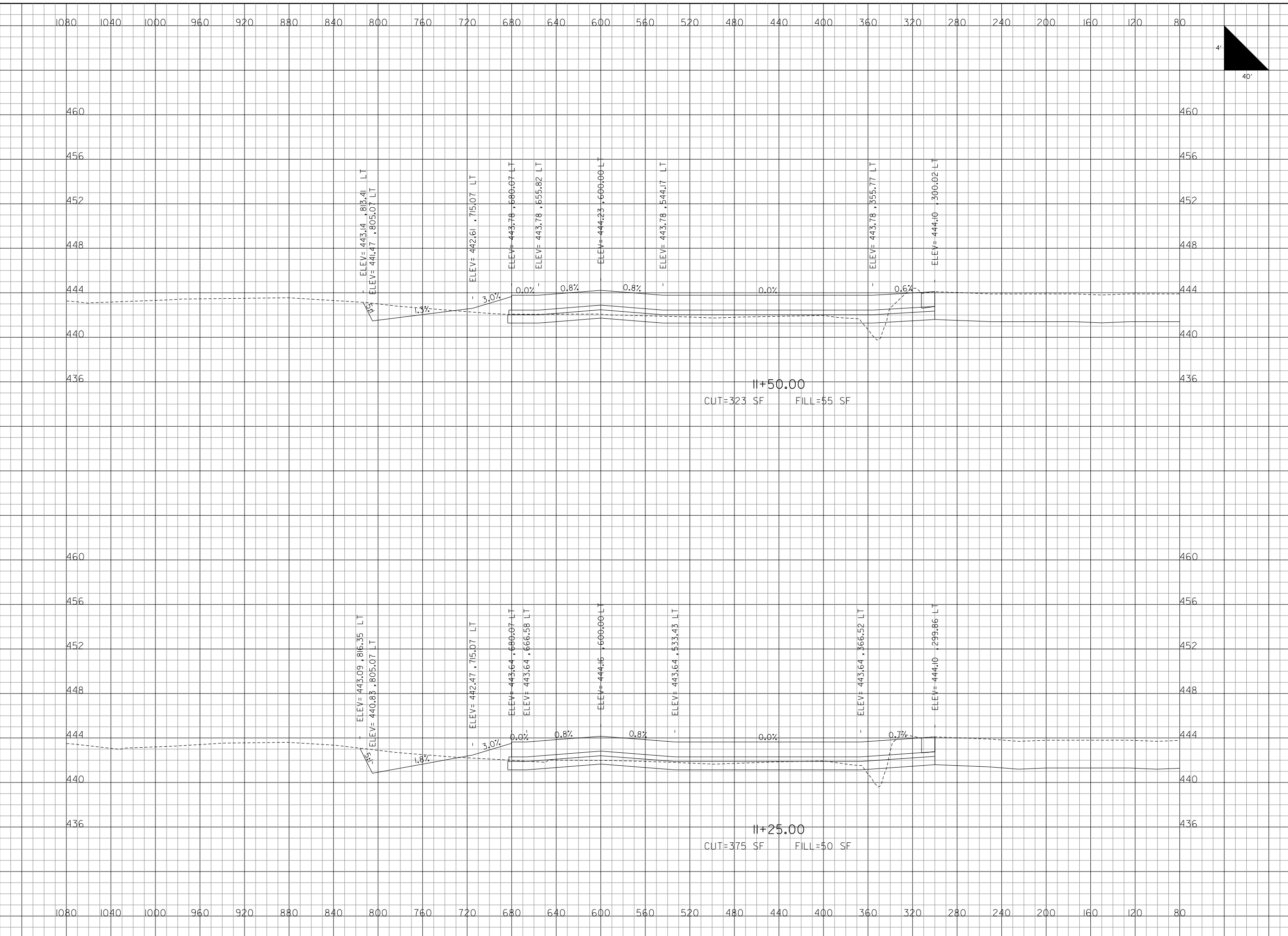
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 15 OF 21
SHEET 83 OF 89 SHEETS

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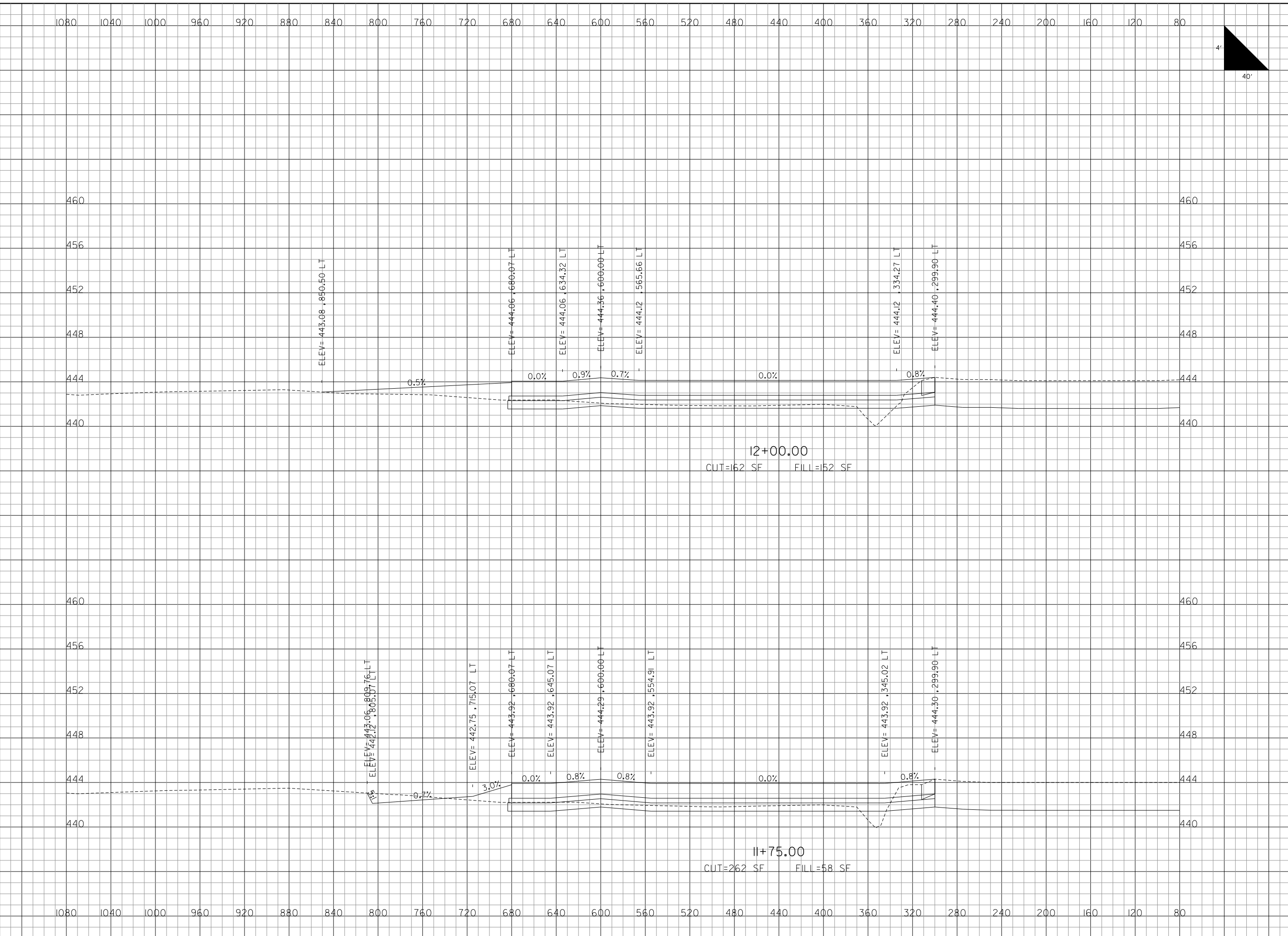
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SHEET 84 OF 89 SHEETS

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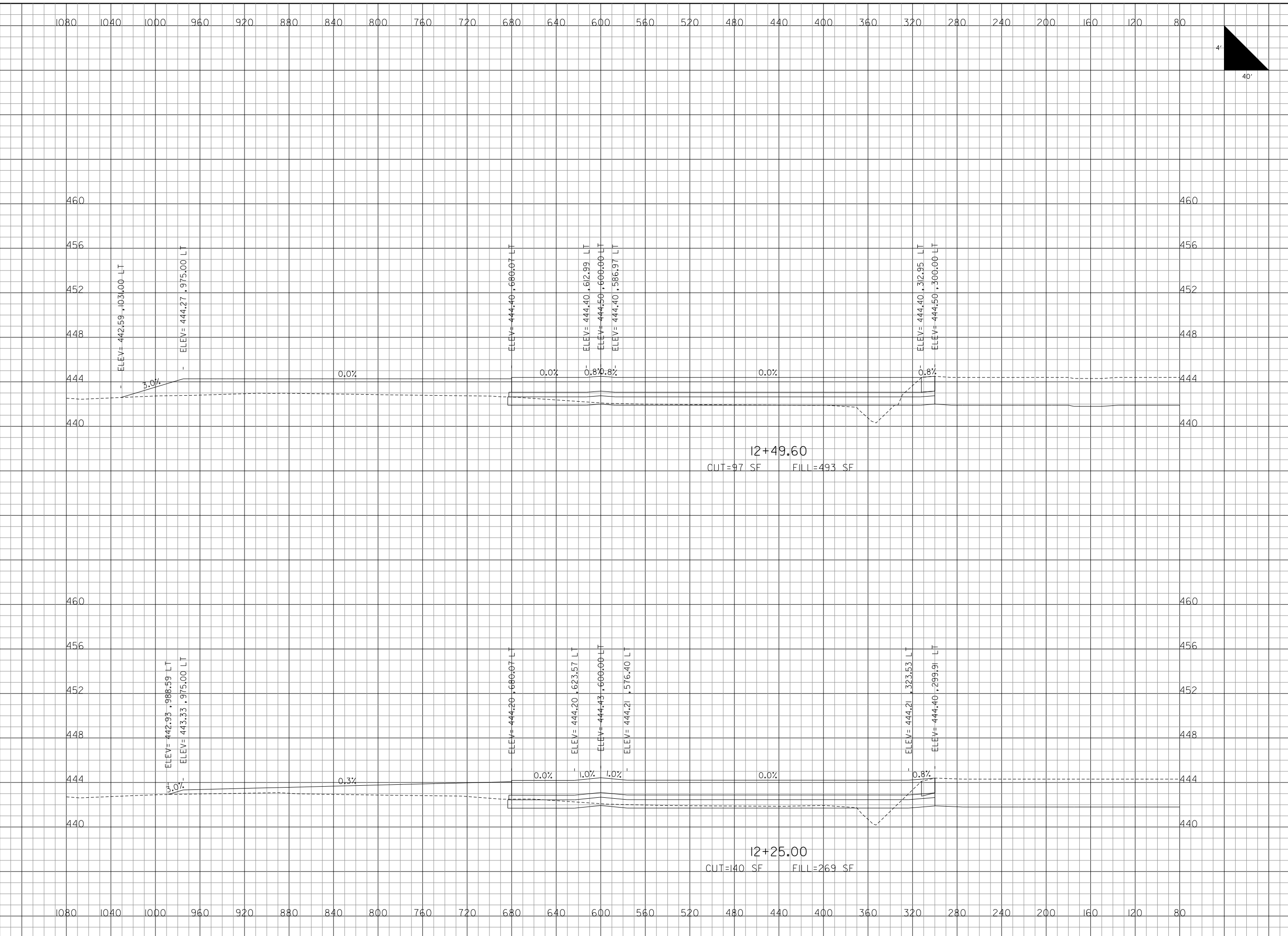
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 17 OF 21
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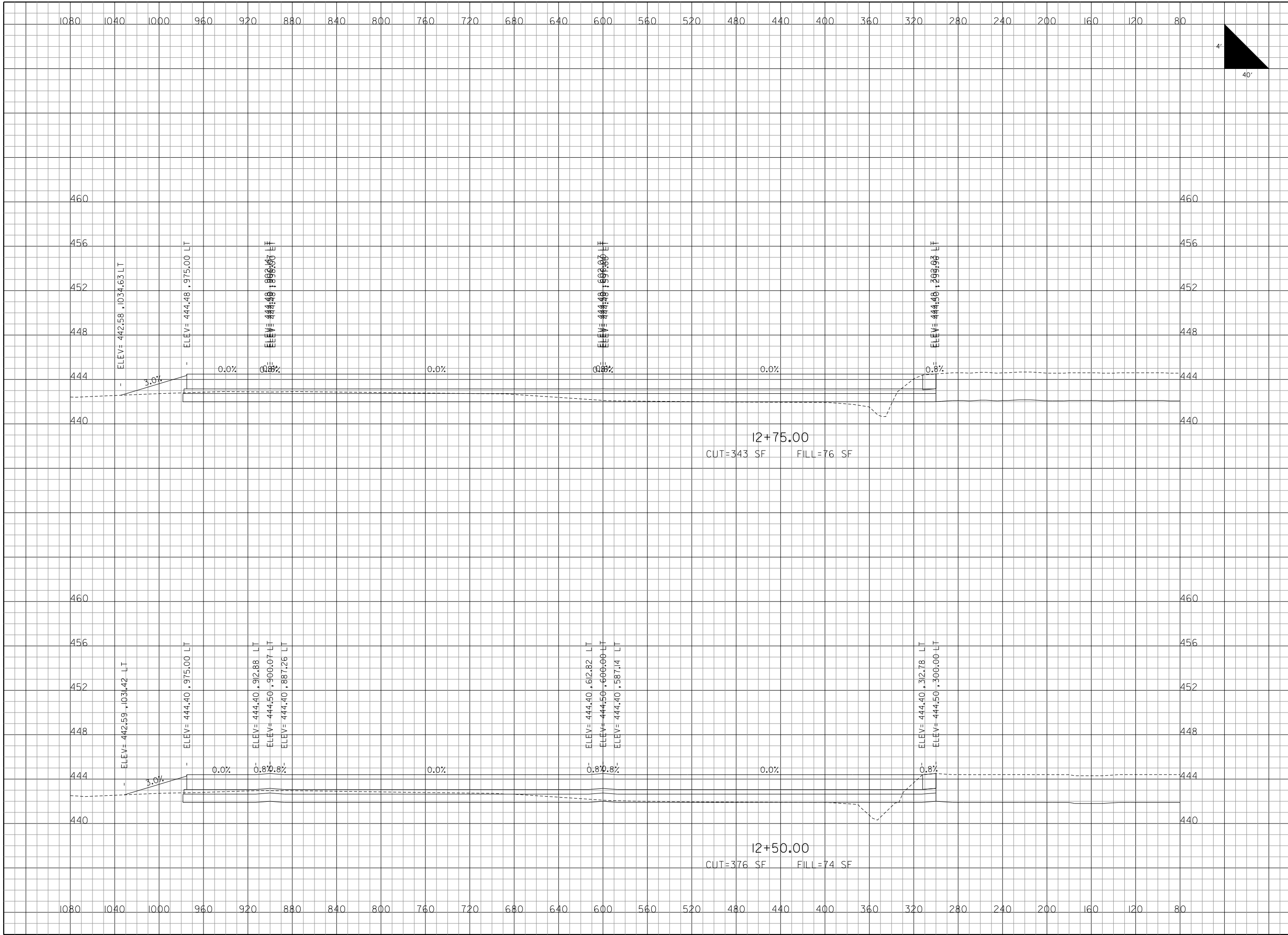
DATE: NOVEMBER 28, 2011

JOB No: 10098-01

**ADDITIVE ALTERNATE
CROSS SECTIONS
SHEET 18 OF 21**

SHEET 86 OF 89 SHEETS

\$DATE\$
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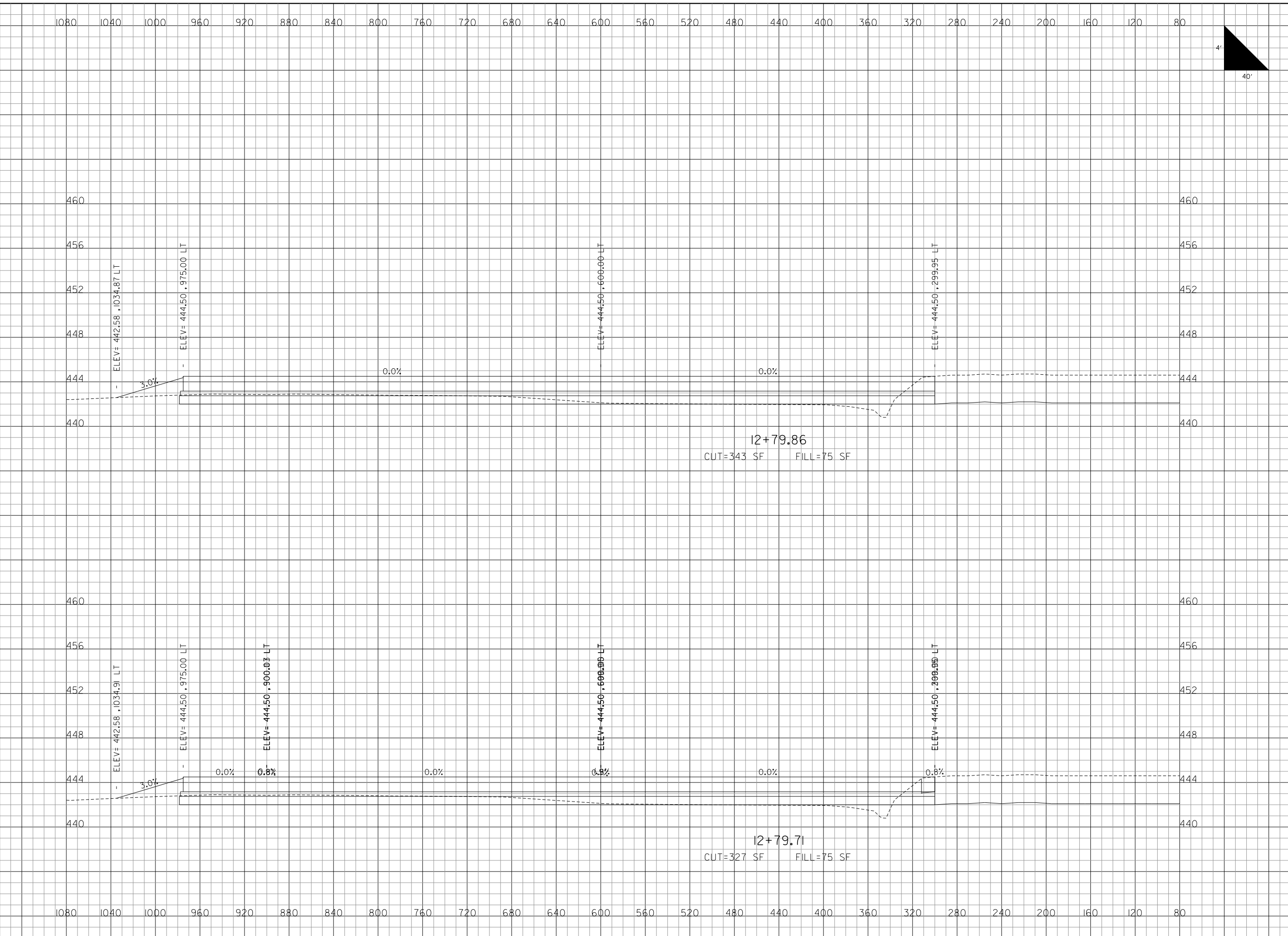
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 19 OF 21
SHEET 87 OF 89 SHEETS

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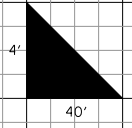
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ADDITIVE ALTERNATE CROSS SECTIONS SHEET 20 OF 21
SHEET 88 OF 89 SHEETS

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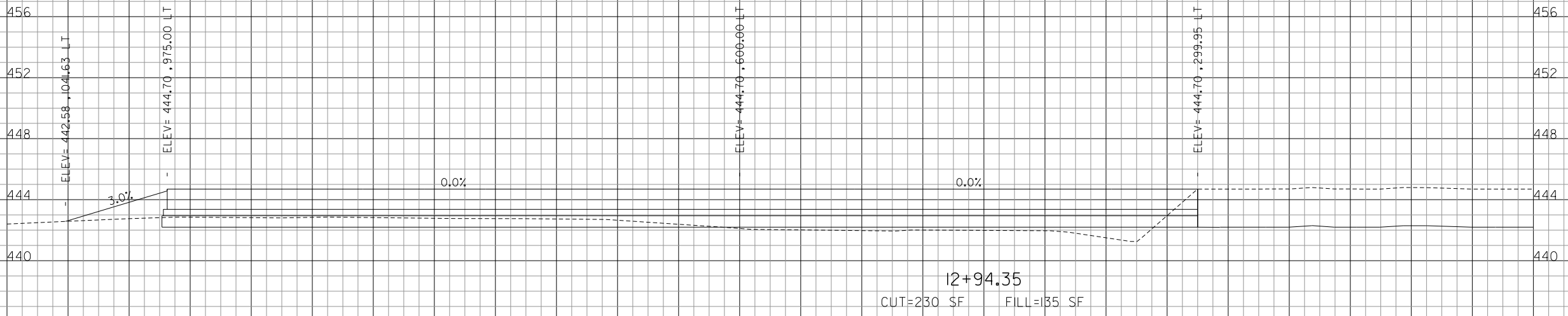
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**ADDITIVE ALTERNATE
CROSS SECTIONS
SHEET 21 OF 21**

SHEET 89 OF 89 SHEETS



\$DATE\$
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