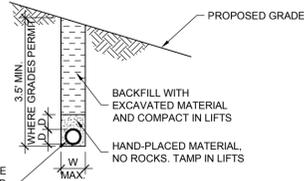


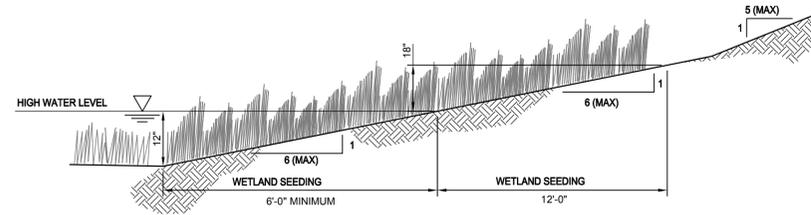
I RISER - TERRACE
NTS

D	W MAX.
4"	24"
8"	24"
10"	24"
12"	36"
18"	36"

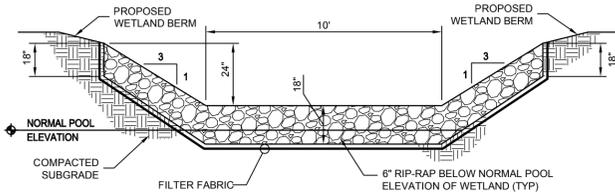
SOLID PIPE (NON-PERFORATED)
SLOPE CONTINUOUSLY TOWARD OUTLET, 2% MIN.



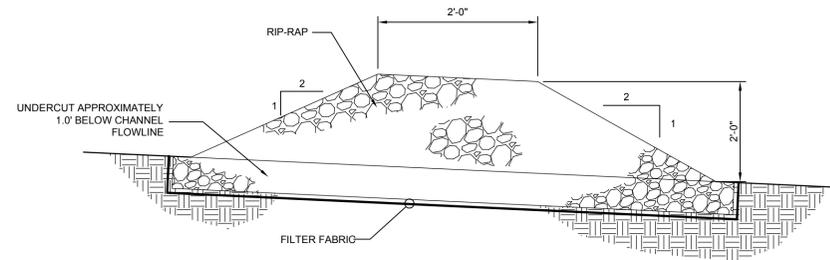
H PIPE - CROSS SECTION
NTS



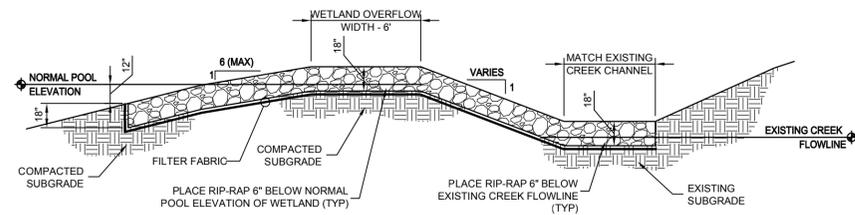
D TYPICAL WETLAND EDGE
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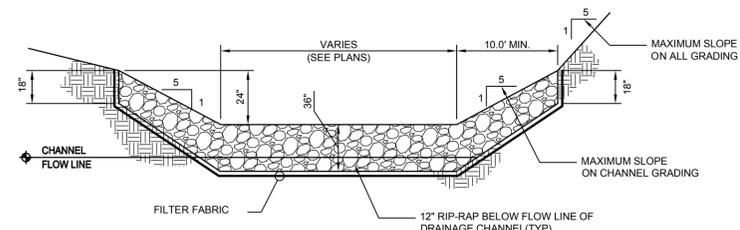
G WETLAND OUTLET - CROSS SECTION
NTS



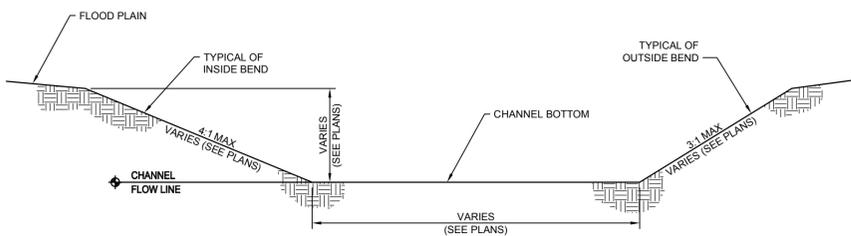
C CHECK DAM - PROFILE
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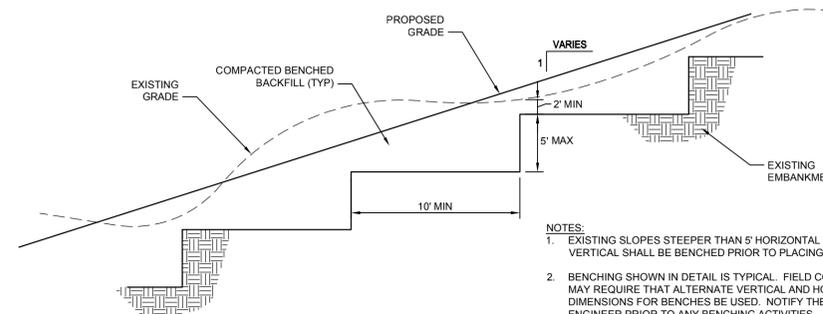
F WETLAND OUTLET - PROFILE
NTS



B CHECK DAM - CROSS SECTION
NTS



E CONSTRUCTED STREAM CHANNEL
NTS



A TYPICAL BENCHING DETAIL
NTS

S-H PROJECT NUMBER: 407136-0

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CHKD. BY: CRB ISSUED: 07-24-2012 REVISED:

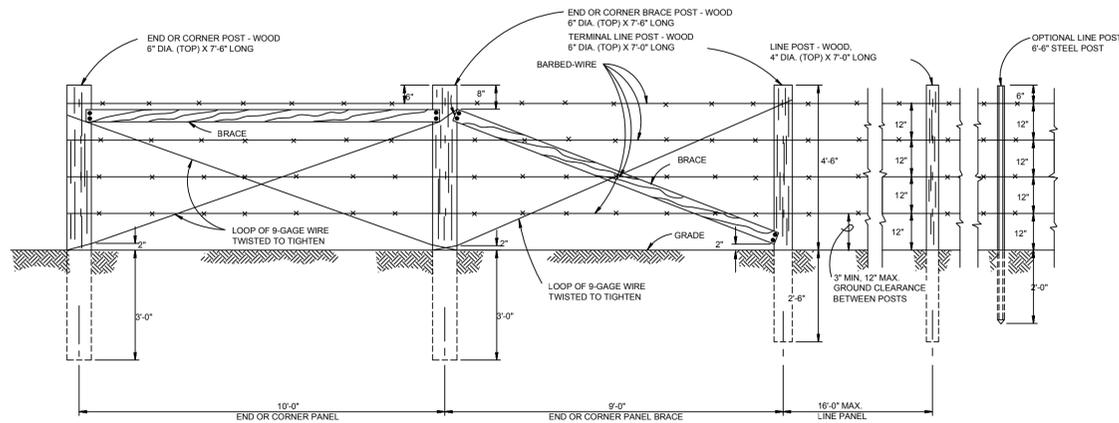
DIVISION OF SOIL CONSERVATION
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HENRY A. WALLACE BUILDING
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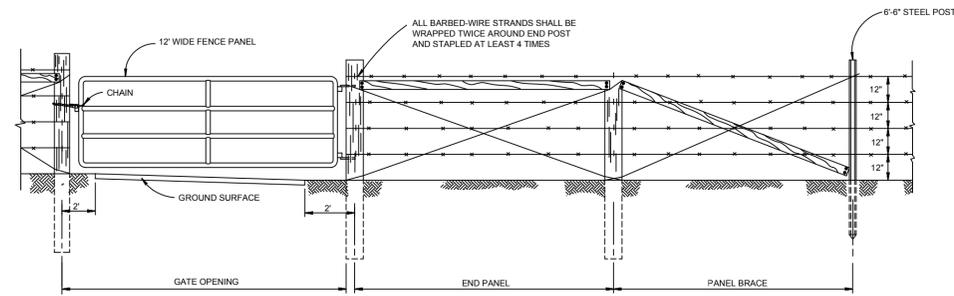
DESIGN BY: CRB DRAWN BY: CWH

JANSSEN
AML RECLAMATION PROJECT

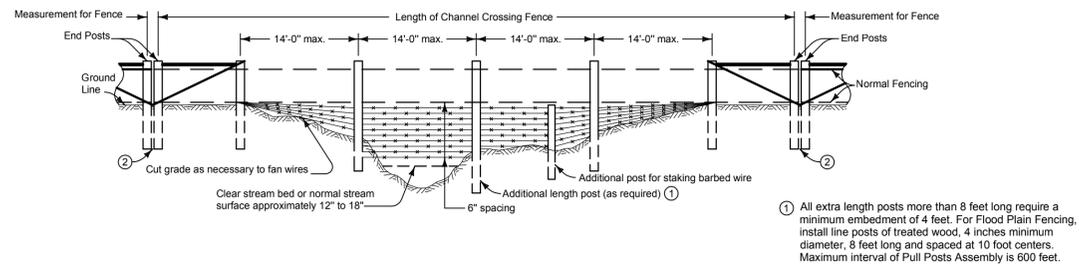
TYPICAL DETAILS



F 4 STRAND BARBED WIRE FENCE
NTS



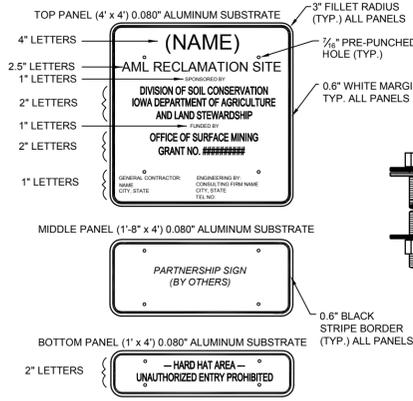
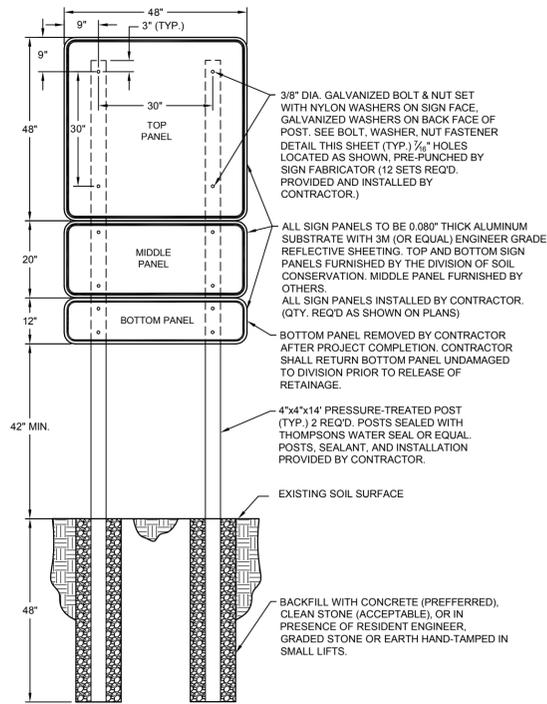
E 12' PANEL GATE
NTS



1 All extra length posts more than 8 feet long require a minimum embedment of 4 feet. For Flood Plain Fencing, install line posts of treated wood, 4 inches minimum diameter, 8 feet long and spaced at 10 foot centers. Maximum interval of Pull Posts Assembly is 600 feet.

2 Provide a minimum of 12 to 15 inches of clear space between adjoining end post installations.

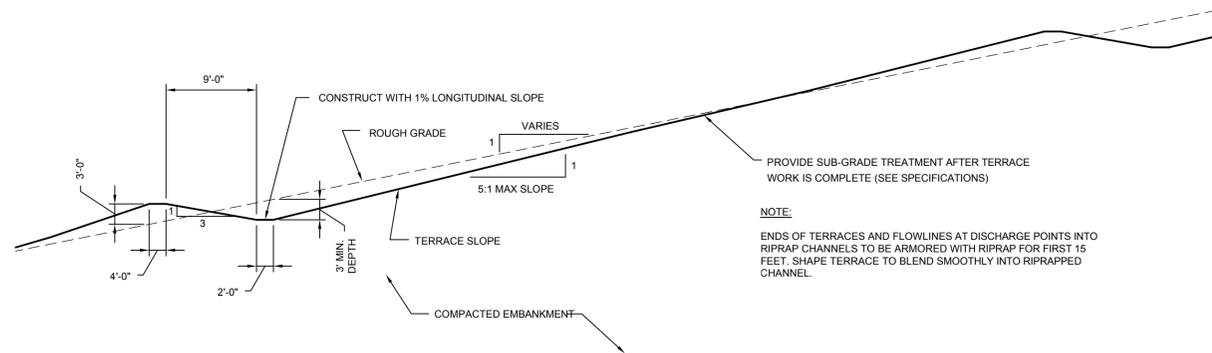
D CHANNEL CROSSING FENCE
NTS



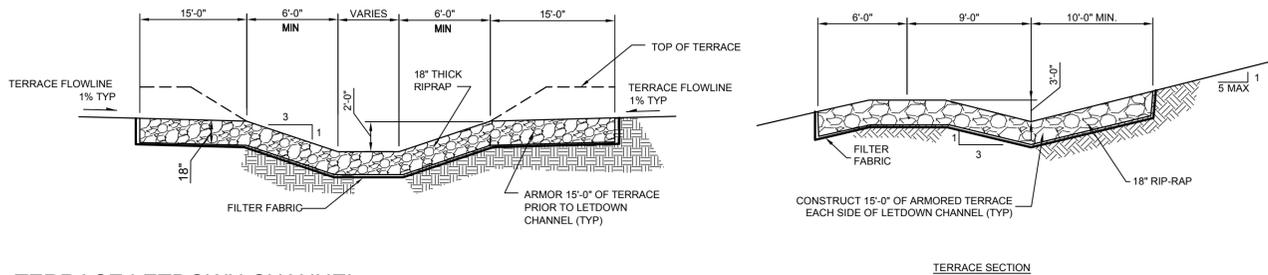
SIGNAGE NOTES:

- LETTERING AND SIGN FABRICATION SHALL BE PERFORMED BY A PROFESSIONAL SIGN MAKER.
- SIGN PANELS SHALL BE COVERED WITH WHITE, 3M ENGINEER GRADE PRISMATIC REFLECTIVE SHEETING SERIES 3430, OR EQUAL, MEETING ASTM D4956 TYPE I. SHEETING SHALL BE APPLIED PER MANUFACTURER'S RECOMMENDATIONS.
- LETTERING SHALL BE BLACK. INK FOR LETTERING SHALL BE 3M SERIES 890N OR EQUAL APPLIED PER MANUFACTURER'S RECOMMENDATIONS.
- LETTERING AND LINE SPACING SHALL BE ADJUSTED TO AVOID INTERFERENCE WITH PRE-PUNCHED HOLES.
- LETTERING AND SHEETING MUST HAVE A MINIMUM 5-YEAR PERFORMANCE WARRANTY AGAINST PEELING AND CRACKING.
- ALL EXPOSED WOOD SHALL BE SEALED WITH THOMPSONS WATER SEAL OR EQUAL MEETING ASTM D-4446-08.
- ALL HARDWARE SHALL BE GALVANIZED OR RUST RESISTANT.
- NYLON AND STEEL WASHERS SHALL BE USED AS SHOWN ON THE BOLT, WASHER, NUT FASTENER DETAIL ABOVE.
- CLEAR UTILITIES WITH IOWA ONE-CALL (800) 292-8989 BEFORE EXCAVATING FOR POSTS.
- SECURE ENGINEERS APPROVAL FOR SIGN LOCATION BEFORE INSTALLATION.
- COSTS FOR POSTS, HARDWARE, WOOD SEALANT AND SIGN INSTALLATION SHALL BE INCIDENTAL TO MOBILIZATION.
- ONE (1) PROJECT SIGN IS REQUIRED, LOCATED AS SHOWN ON PLANS
- SHOP DRAWING OF SIGN INFORMATION AND LAYOUT SHALL BE SUBMITTED TO AND APPROVED BY ENGINEER PRIOR TO FABRICATION.

C PROJECT SIGN
NTS



B DIVERSION TERRACE
NTS



A TERRACE LETDOWN CHANNEL
NTS

S-H PROJECT NUMBER: 407136-0

REVISIONS:

ISSUED: 07-24-2012

CRB

DESIGN BY: CRB

CHKD. BY: CRB

DRAWN BY: CWH

DIVISION OF SOIL CONSERVATION
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AND LAND STEWARDSHIP
HENRY A. WALLACE BUILDING
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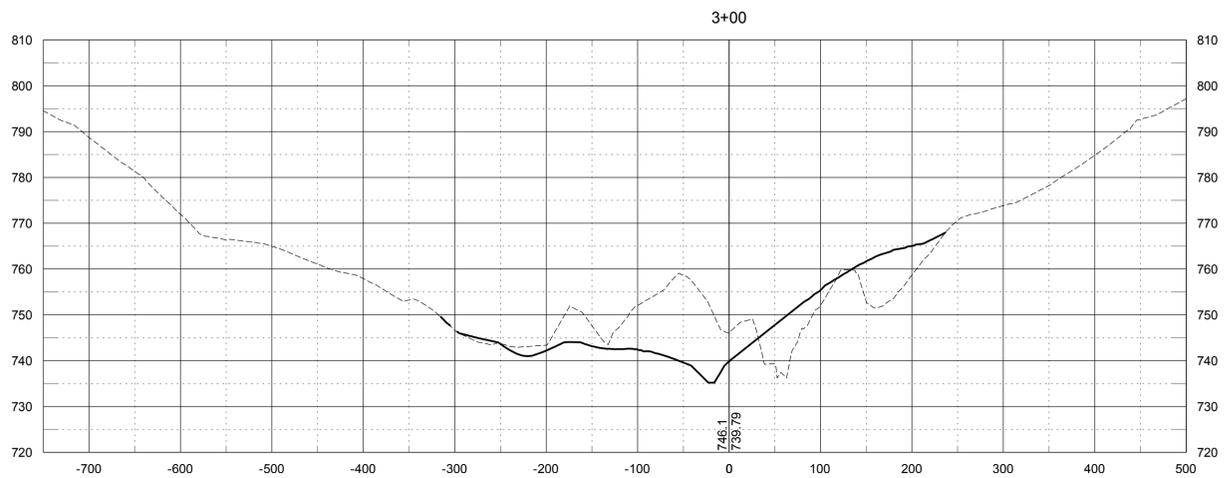
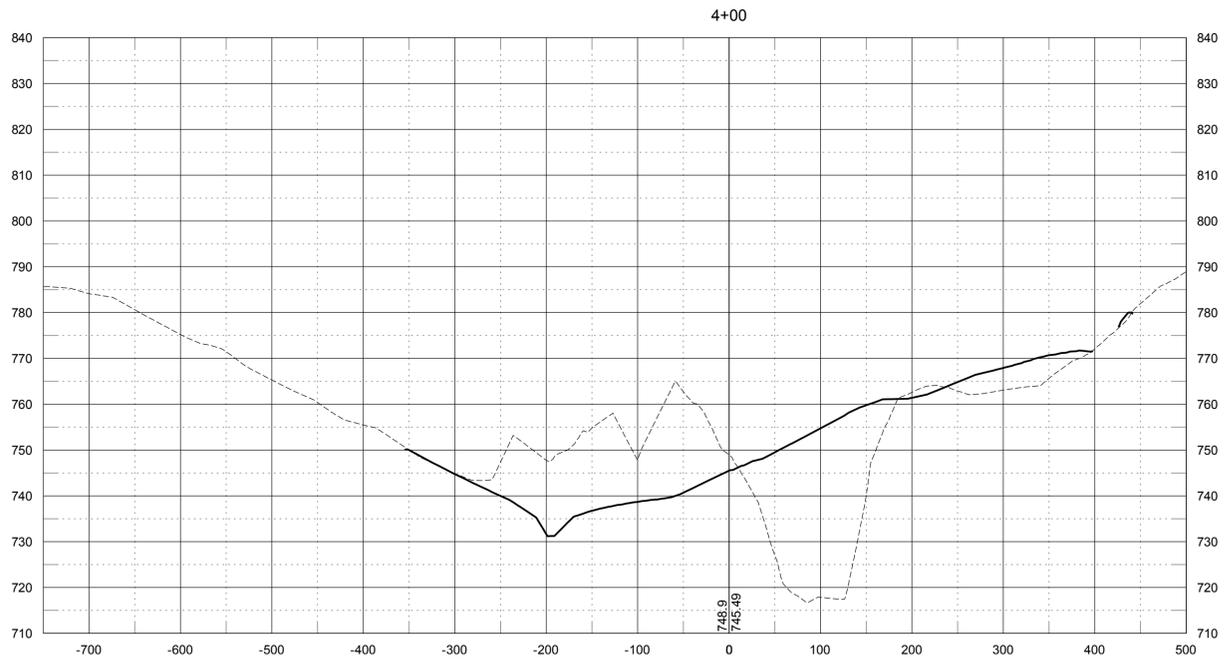
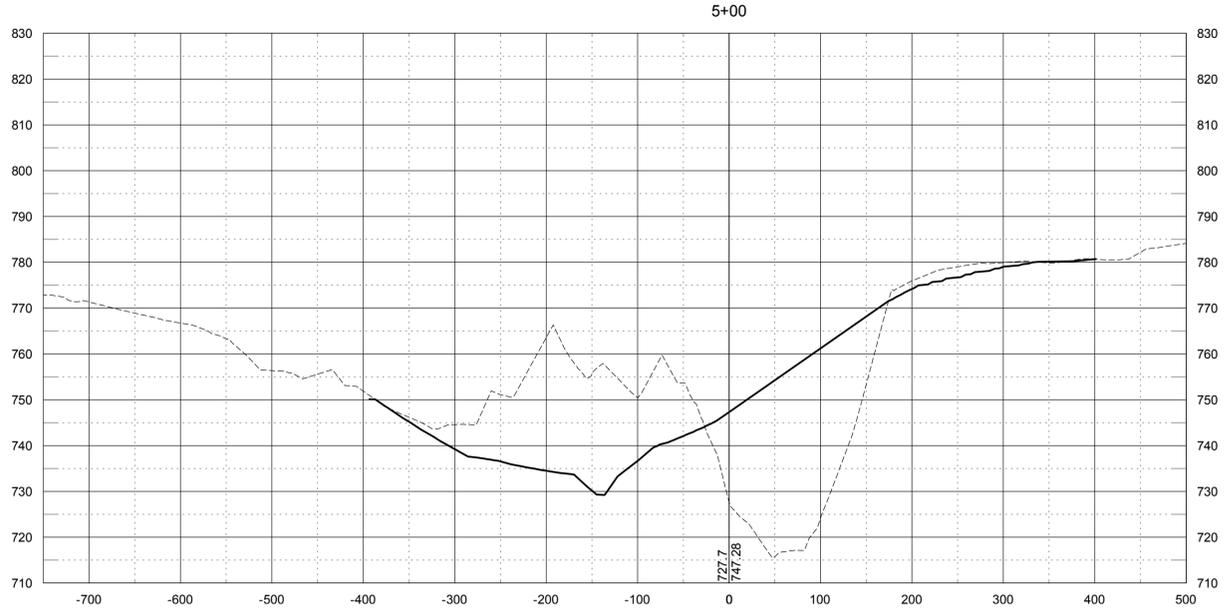
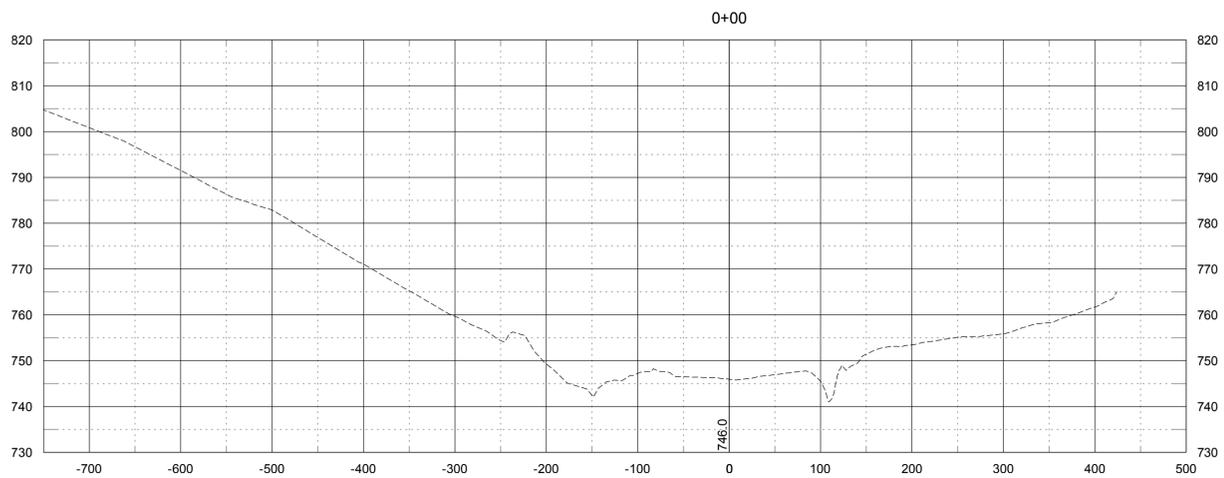
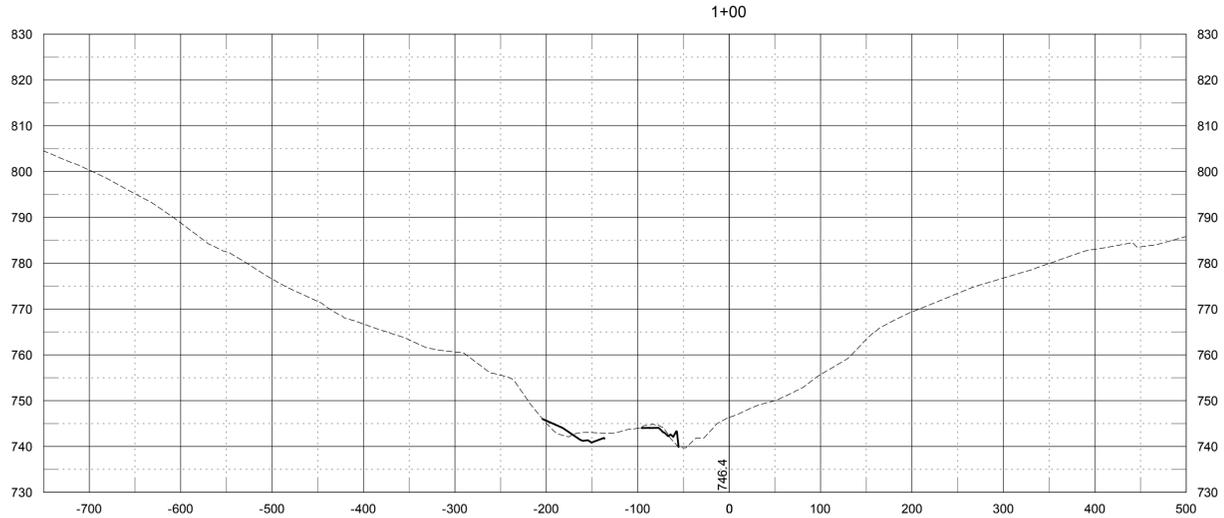
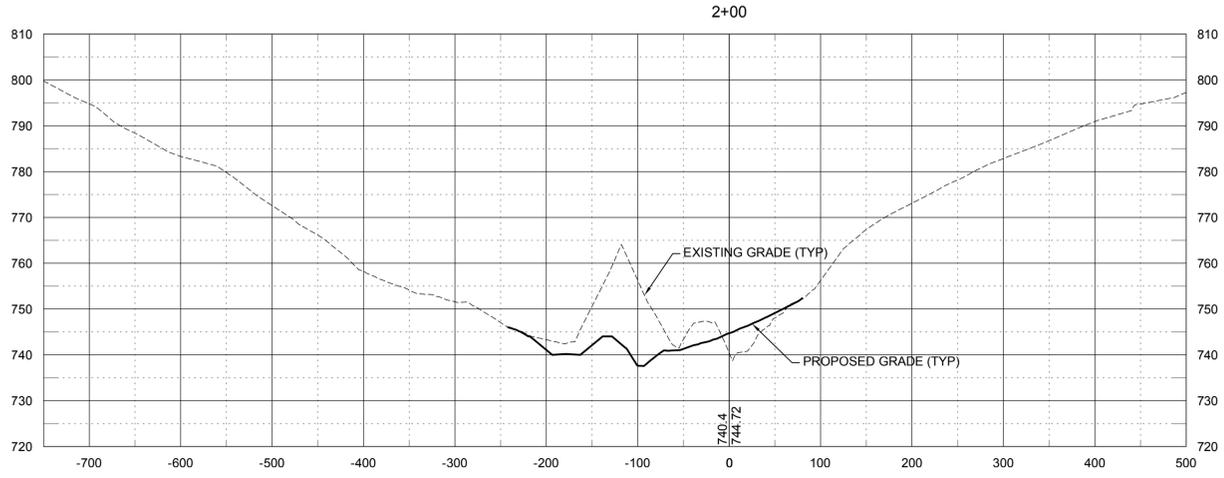
JANSSEN
AML RECLAMATION PROJECT

DETAILS

SHEET
10 OF 17

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CHKD. BY: CRB

ISSUED: 07-24-2012

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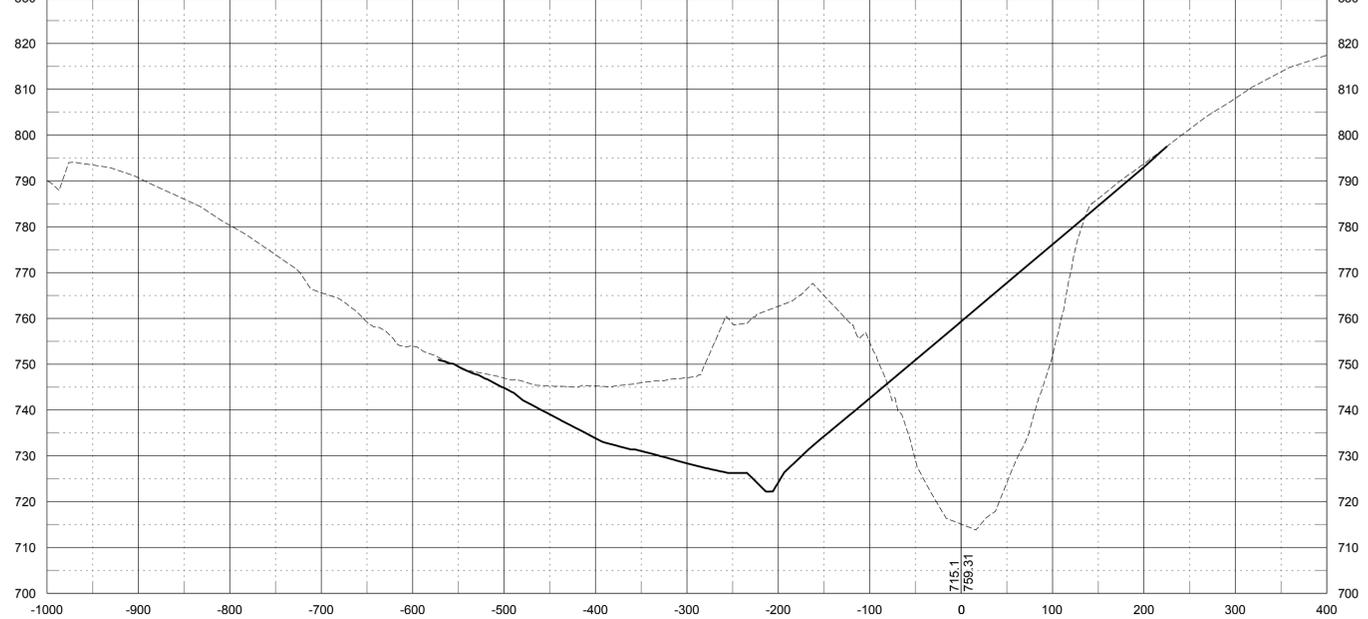
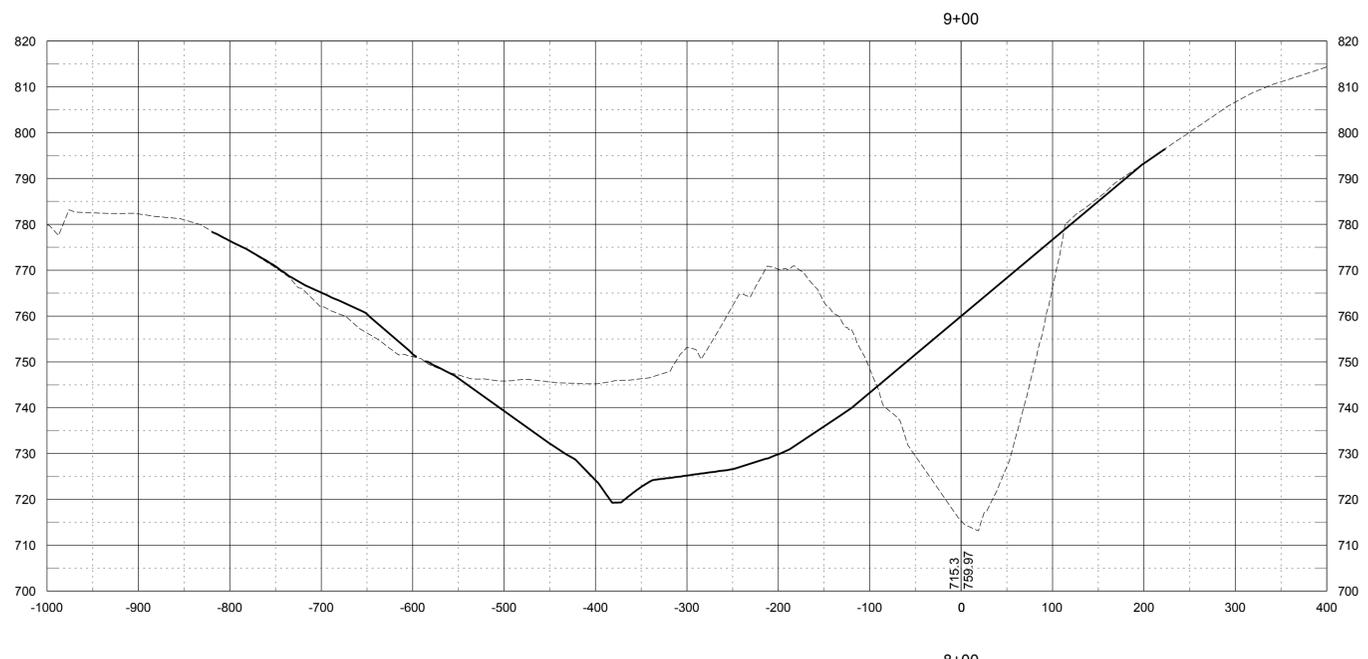
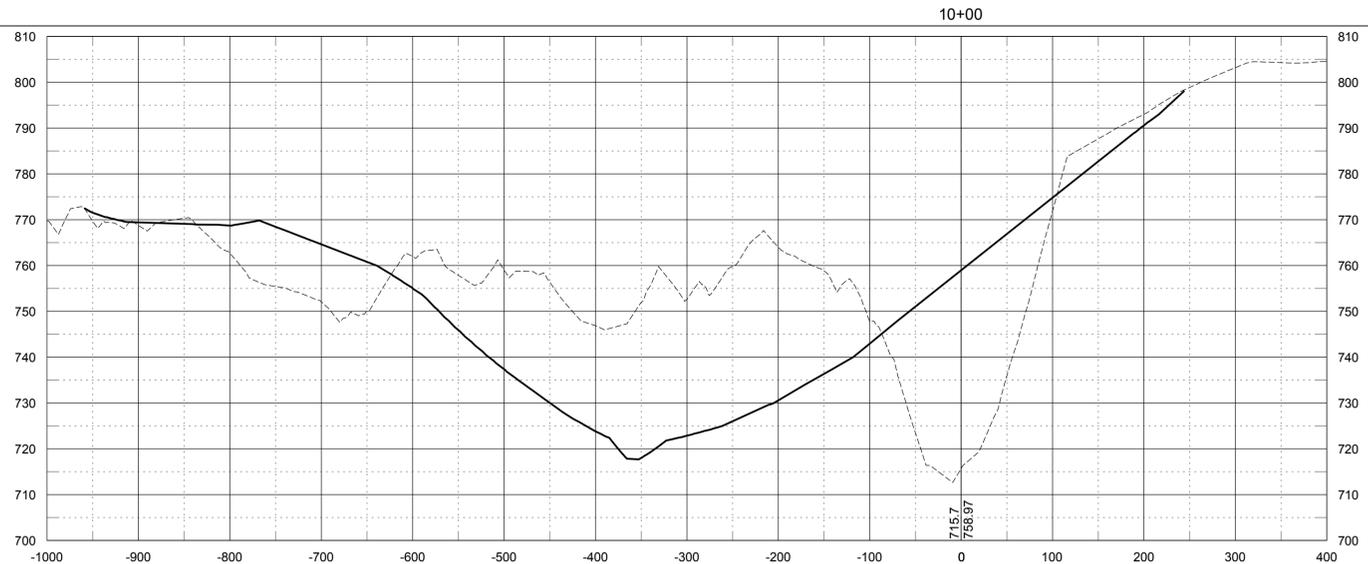
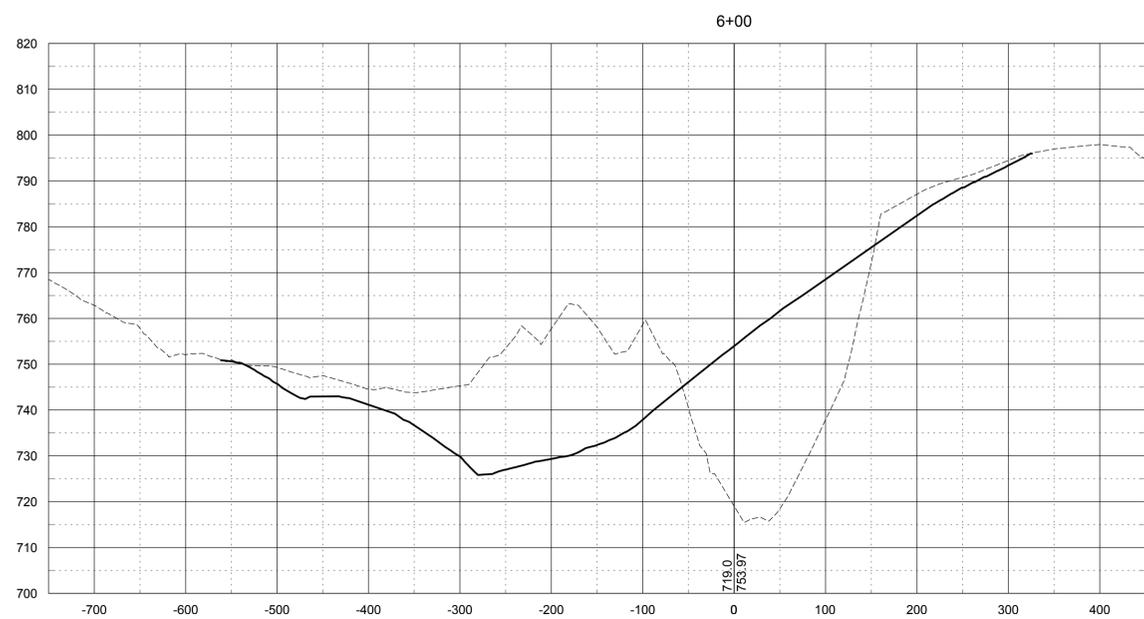
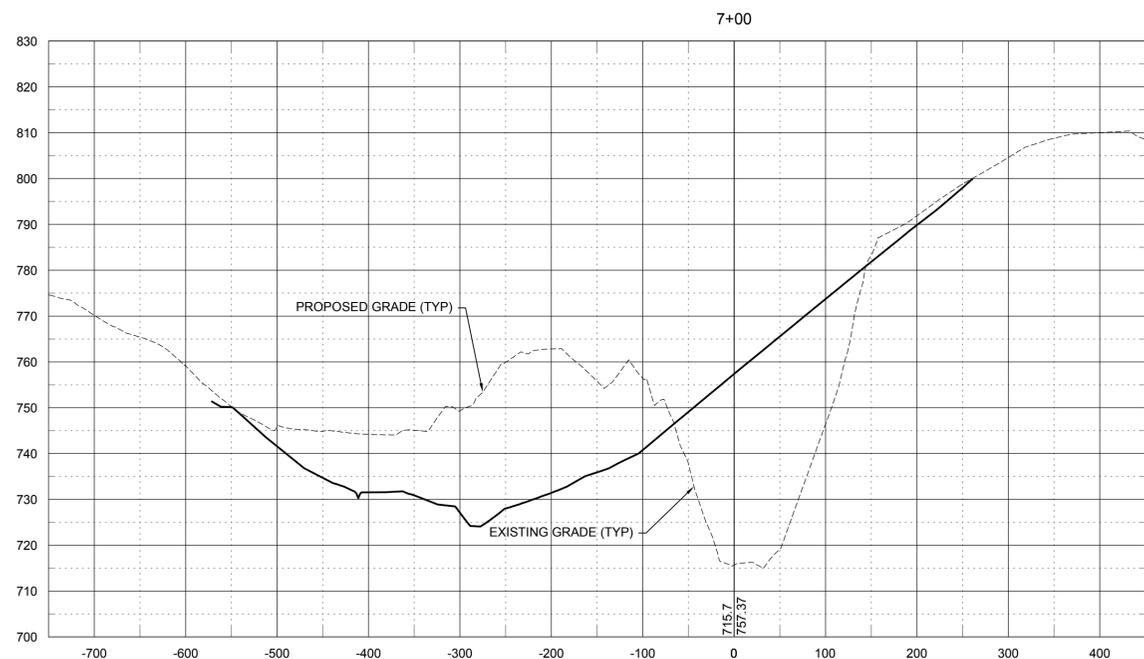
CROSS SECTIONS

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 502 E. 9th STREET, DES MOINES, IOWA 50319
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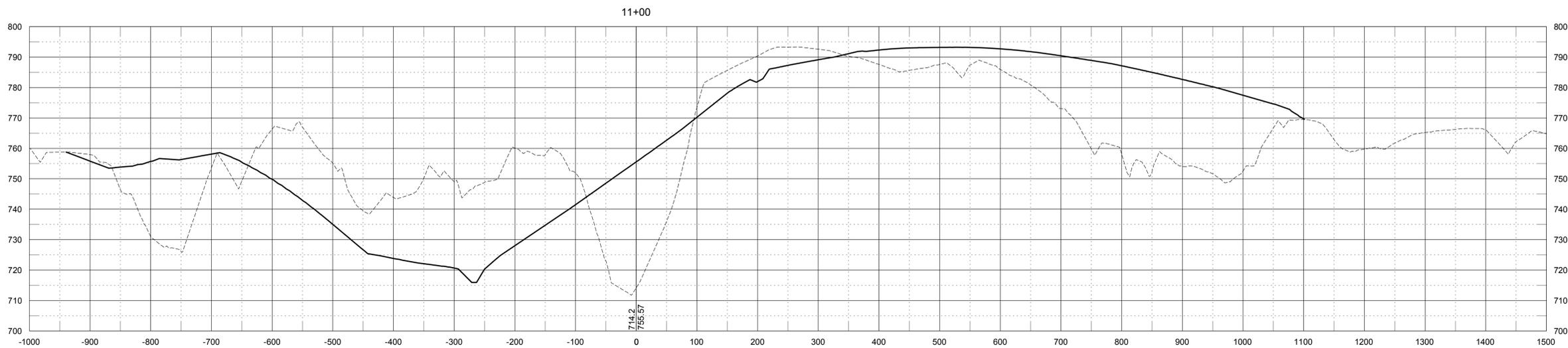
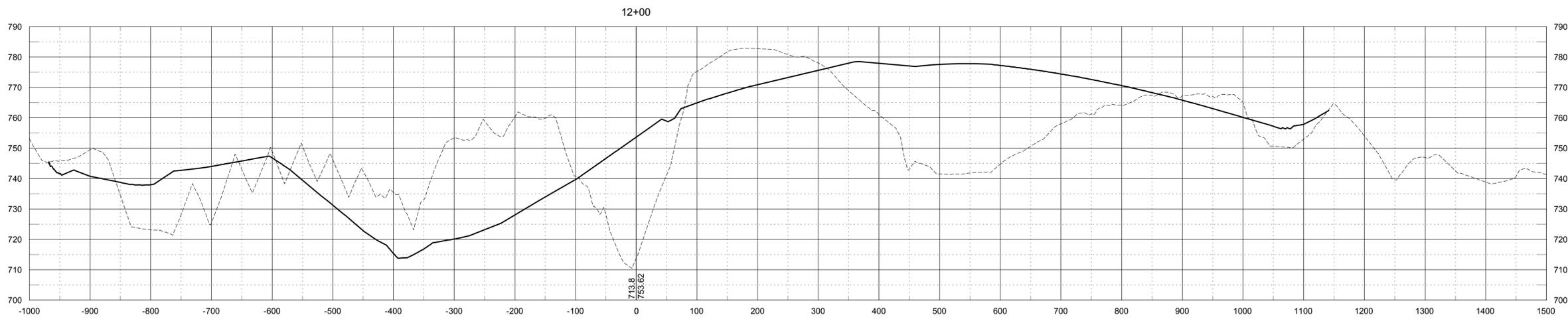
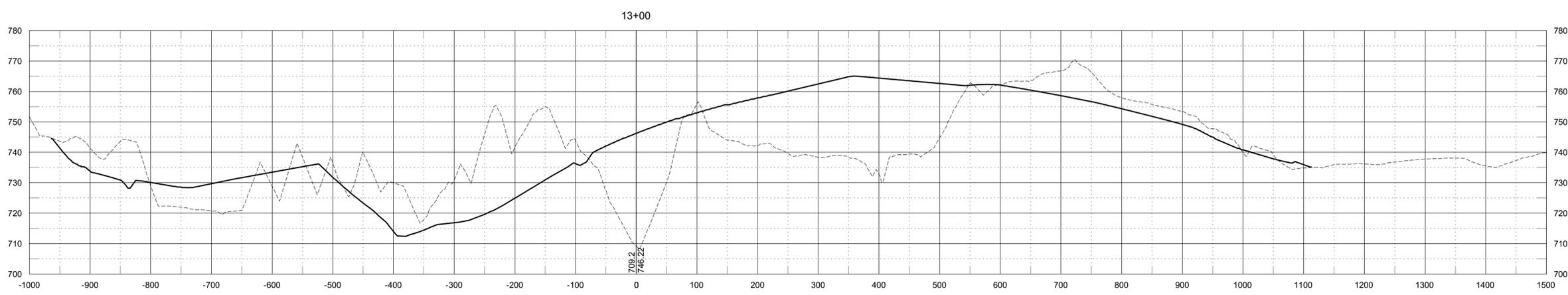
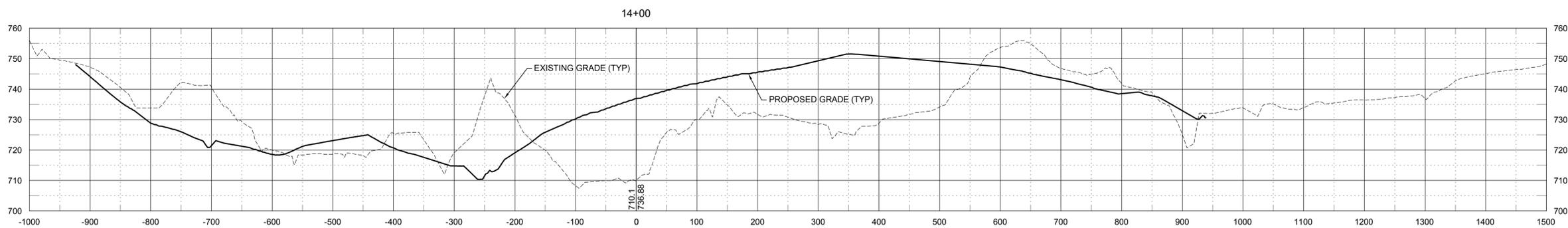
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DESIGN BY: CRB	DRAWN BY: CWH	CHKD. BY: CRB	ISSUED: 07-24-2012	REVISED:	S-H PROJECT NUMBER: 407136-0
<p>JANSSEN AML RECLAMATION PROJECT</p> <p>CROSS SECTIONS</p>			<p>DIVISION OF SOIL CONSERVATION IOWA DEPARTMENT OF AGRICULTURE AND LAND STEWARDSHIP HENRY A. WALLACE BUILDING 502 E. 9th STREET, DES MOINES, IOWA 50319 (515) 281-4246</p>		
			<p>1601 48th St. Suite 200 West Des Moines, Iowa 50266 515.223.8104 fax: 515.223.0622 shive-hattery.com Iowa Illinois Missouri</p>		
<p>SHEET 14 OF 17</p>					

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JANSSEN
 AML RECLAMATION PROJECT

CROSS SECTIONS

SHEET
 15 OF 17

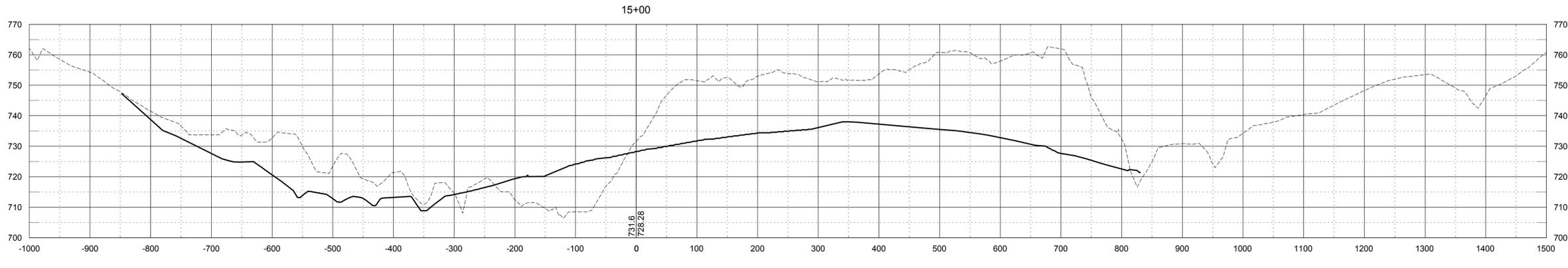
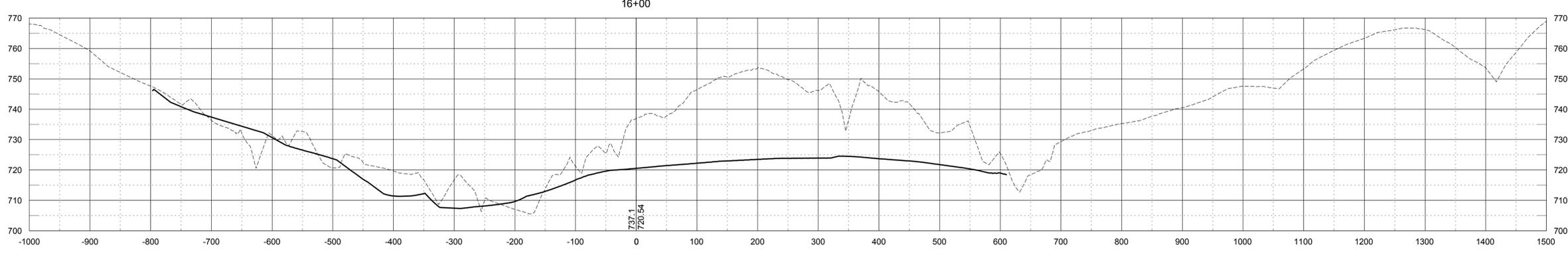
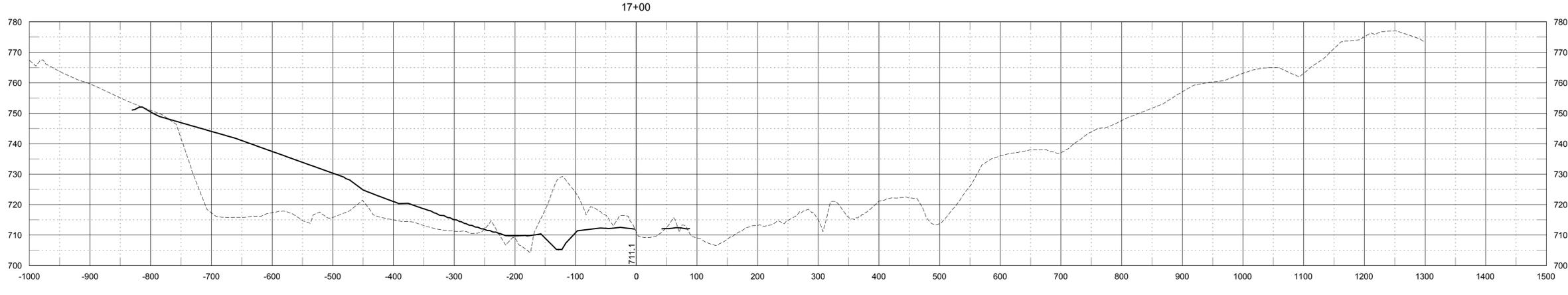
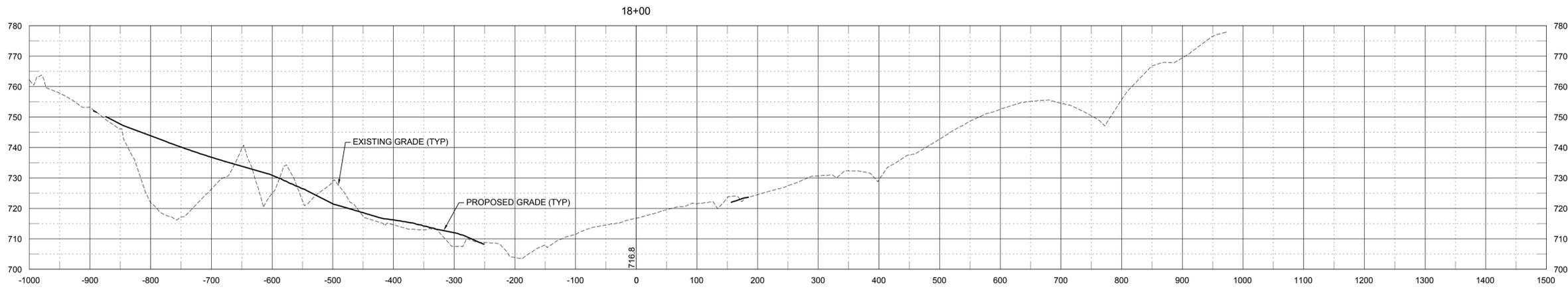


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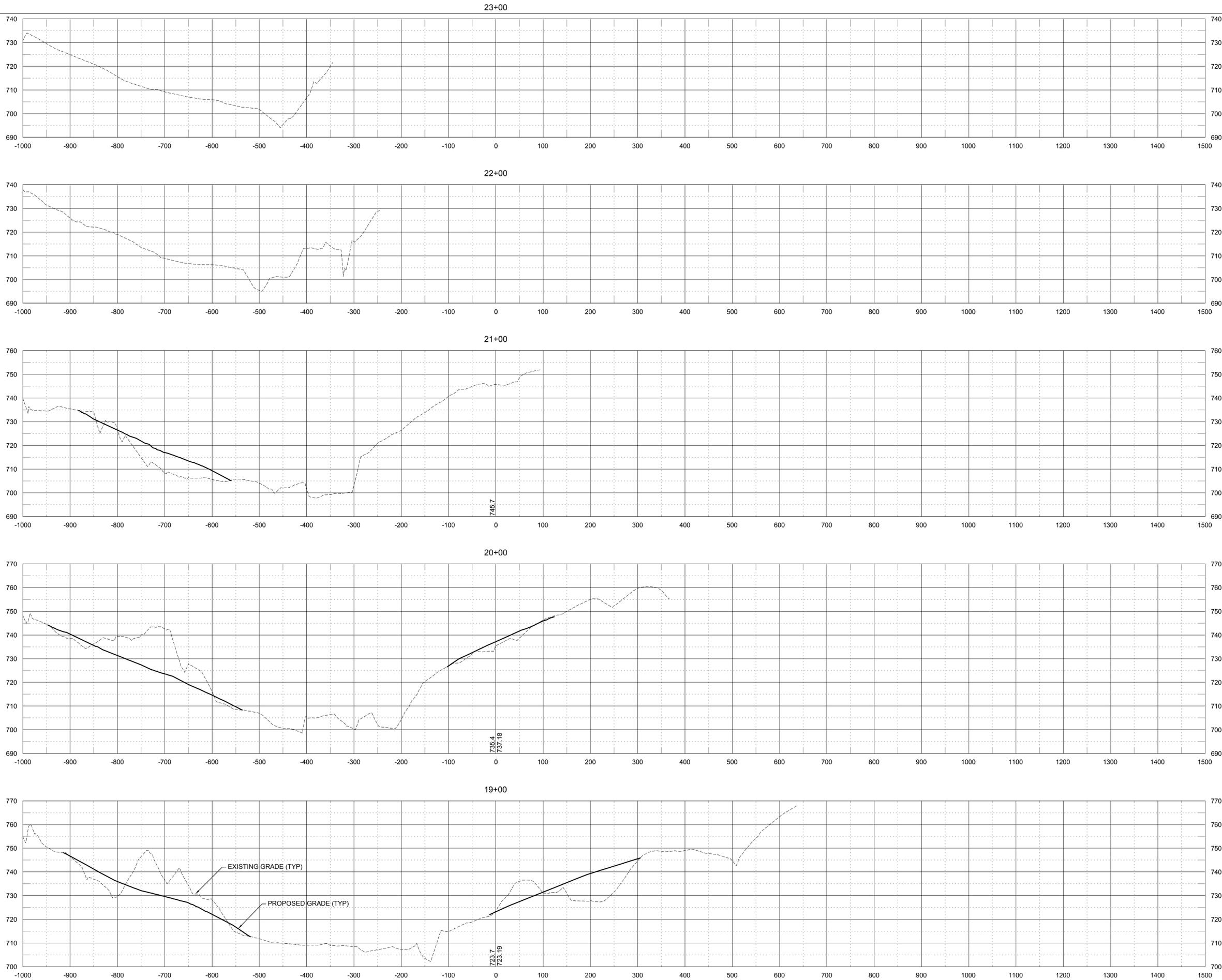
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