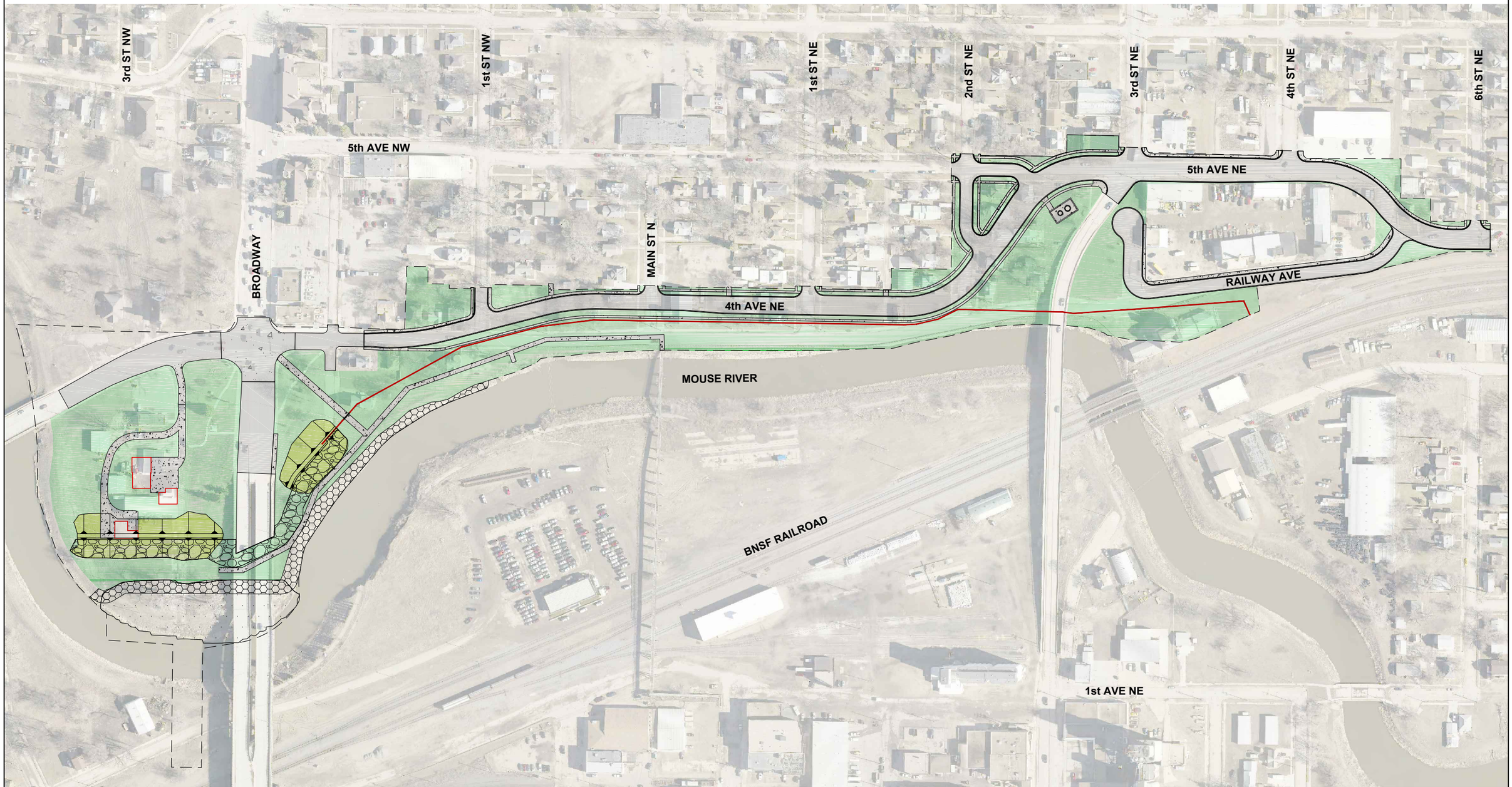


1 -- PLAN: GENERAL PLAN

N

60% DRAFT SUBMITTAL

MREFP PROJECT DATUM:
HORIZONTAL: NORTH DAKOTA STATE PLANE (NAD83), NORTH, US FT
VERTICAL: NAVD 88

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY ENTER NAME, REGISTRATION NUMBER PE-XXXX ON X-XX-XX AND THE ORIGINAL DOCUMENT IS STORED AT XXXX.

CLIENT	10/22/15								
AGENCY	10/22/15								
BID									
CONSTRUCTION									
RELEASED TO/FOR		A	B	C	0	1	2	3	
		DATE RELEASED							

Houston Engineering Inc.
Ph: 701.237.5065

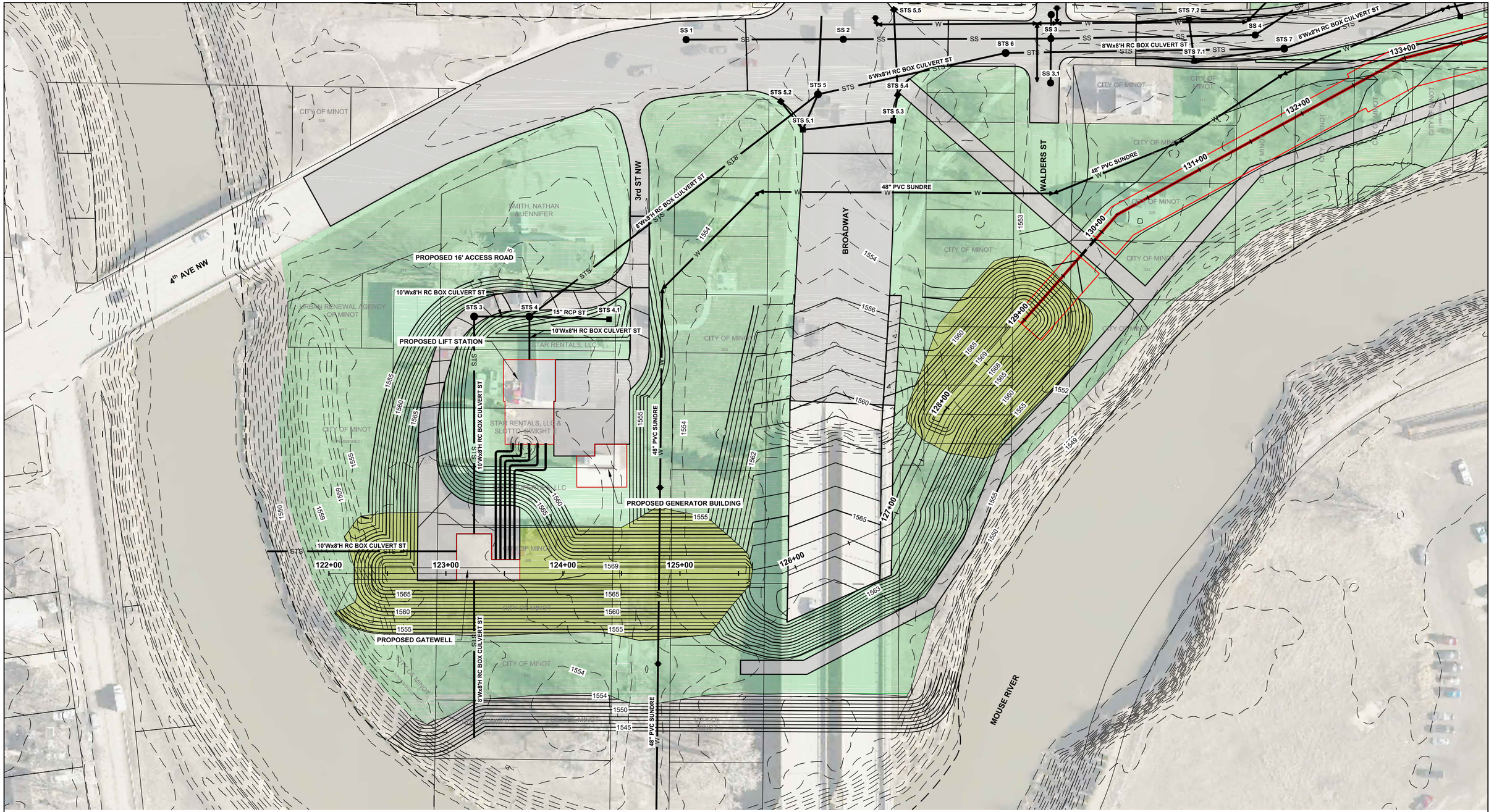
Scale	AS SHOWN
Date	11-03-15
Drawn	KNS
Checked	KAL
Designed	JMW
Approved	JDB

SOURIS RIVER JOINT WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

MOUSE RIVER - PHASE 1
ENHANCED FLOOD PROTECTION PROJECT
GENERAL PLAN

ENG. PROJECT No. 8313-010
CLIENT PROJECT No. 3529-1
EXHIBIT
REV. No. A

CADD USER: Kristen Lotvedt FILE: H:\FARGO\JBN\8300\8313\8313_010\CAD\EXHIBITS\11-9-15 PUBLIC MEETING\G-104 GENERAL PLAN.DWG PLOT SCALE: 1:799.5449 PLOT DATE: 11/5/2015 5:07 PM



1 -- PLAN: STORM SEWER LIFT STATION

Scale: 40 0 40 80 Feet

60% DRAFT SUBMITTAL

MREFP PROJECT DATUM:
HORIZONTAL: NORTH DAKOTA STATE PLANE (NAD83), NORTH, US FT
VERTICAL: NAVD 88

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY ENTER NAME, REGISTRATION NUMBER PE-XXXX ON X-XX-XX AND THE ORIGINAL DOCUMENT IS STORED AT XXXX.

CLIENT	10/22/15							
AGENCY	10/22/15							
BID	-							
CONSTRUCTION	-							
RELEASED TO/FOR	A	B	C	0	1	2	3	
DATE RELEASED								

Houston Engineering Inc.
Ph: 701.237.5065

Scale	AS SHOWN
Date	11-03-15
Drawn	KNS
Checked	KAL
Designed	JMW
Approved	JDB

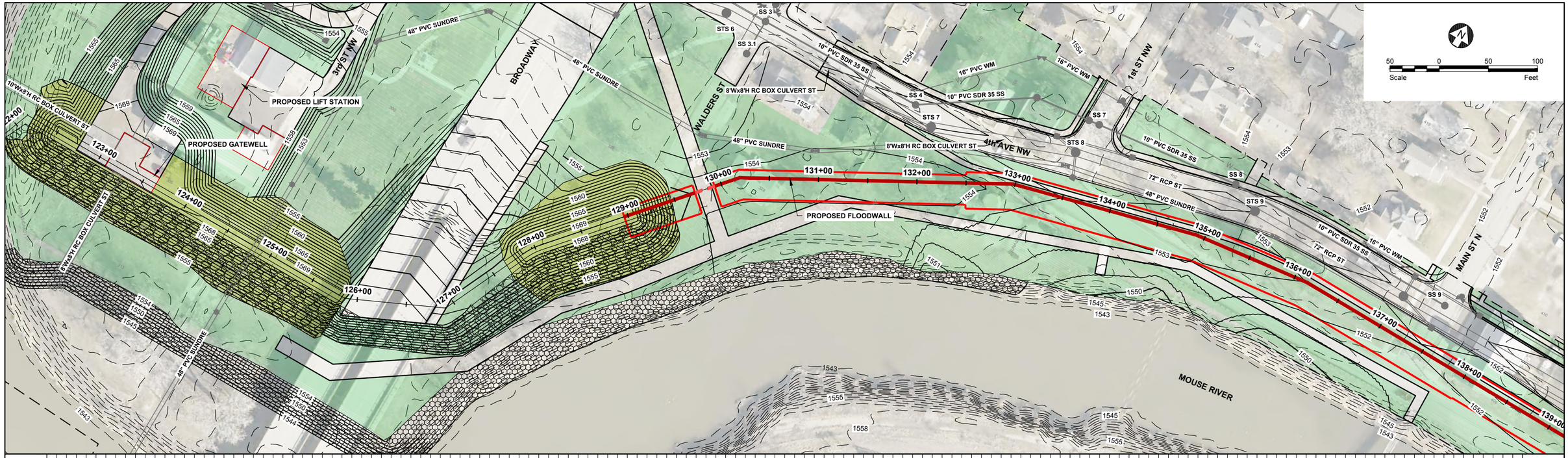
SOURIS RIVER JOINT WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

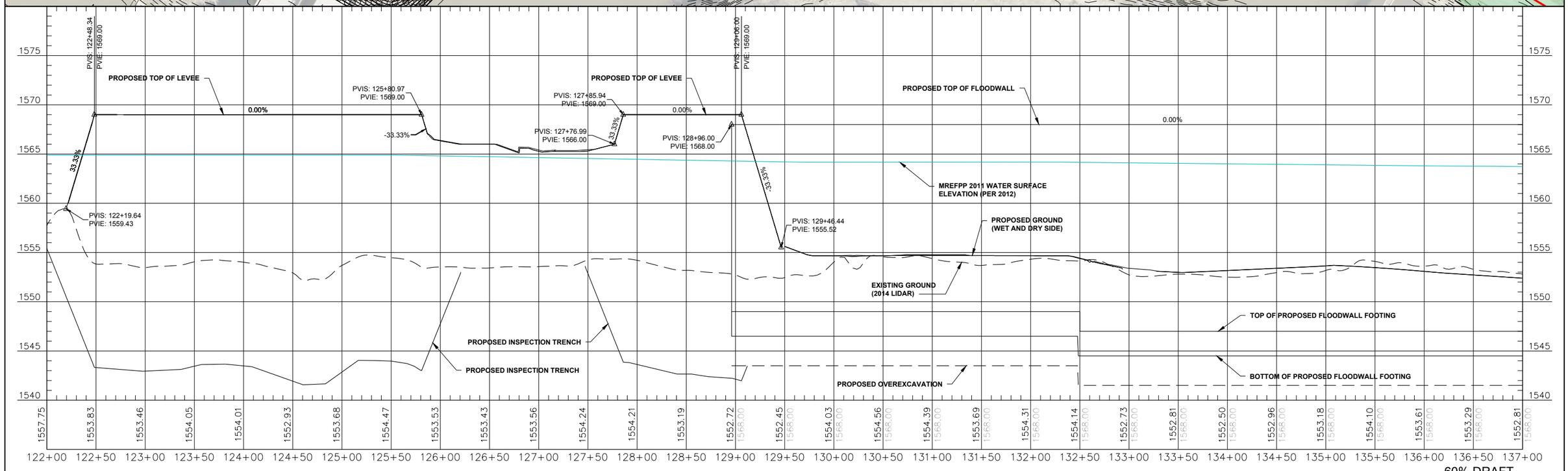
MOUSE RIVER - PHASE 1
ENHANCED FLOOD PROTECTION PROJECT

STORM SEWER PUMP STATION LAYOUT

ENG. PROJECT No. 8313-010
CLIENT PROJECT No. 3529-1
EXHIBIT
REV. No. A

CADD USER: Kristen Lotvedt FILE: H:\FARGO\BN\8300\8313\14_8313_010\CAD\EXHIBITS\11-9-15 PUBLIC MEETING\C-401 STORM SEWER LIFT STATION LAYOUT.DWG PLOT SCALE: 1:799.5449 PLOT DATE: 11/5/2015 5:13 PM





60% DRAFT SUBMITTAL

MREFP PROJECT DATUM:
HORIZONTAL: NORTH DAKOTA STATE PLANE (NAD83), NORTH, US FT
VERTICAL: NAVD 88

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY ENTER NAME, REGISTRATION NUMBER PE-XXXX ON X-XX-XX AND THE ORIGINAL DOCUMENT IS STORED AT XXXX.

CLIENT	10/22/15								
AGENCY	10/22/15								
BID	-								
CONSTRUCTION	-								
RELEASED TO/FOR		A	B	C	0	1	2	3	
		DATE RELEASED							

Houston Engineering Inc.
Ph: 701.237.5065

Scale	AS SHOWN
Date	11-03-15
Drawn	KNS
Checked	KAL
Designed	JMW
Approved	JDB

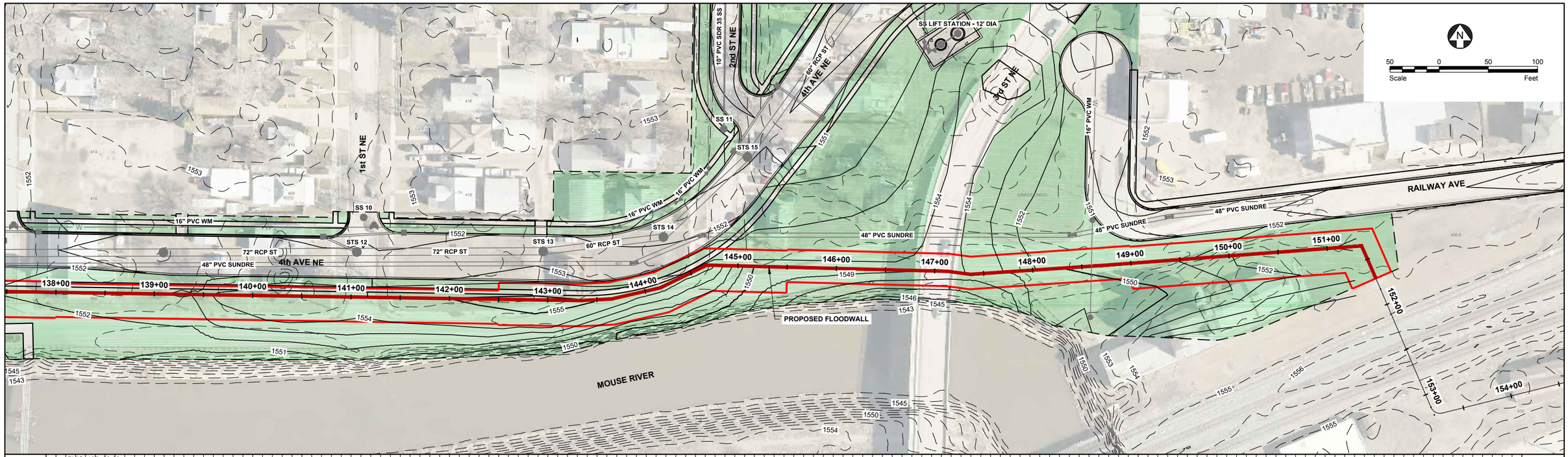
SOURIS RIVER JOINT WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

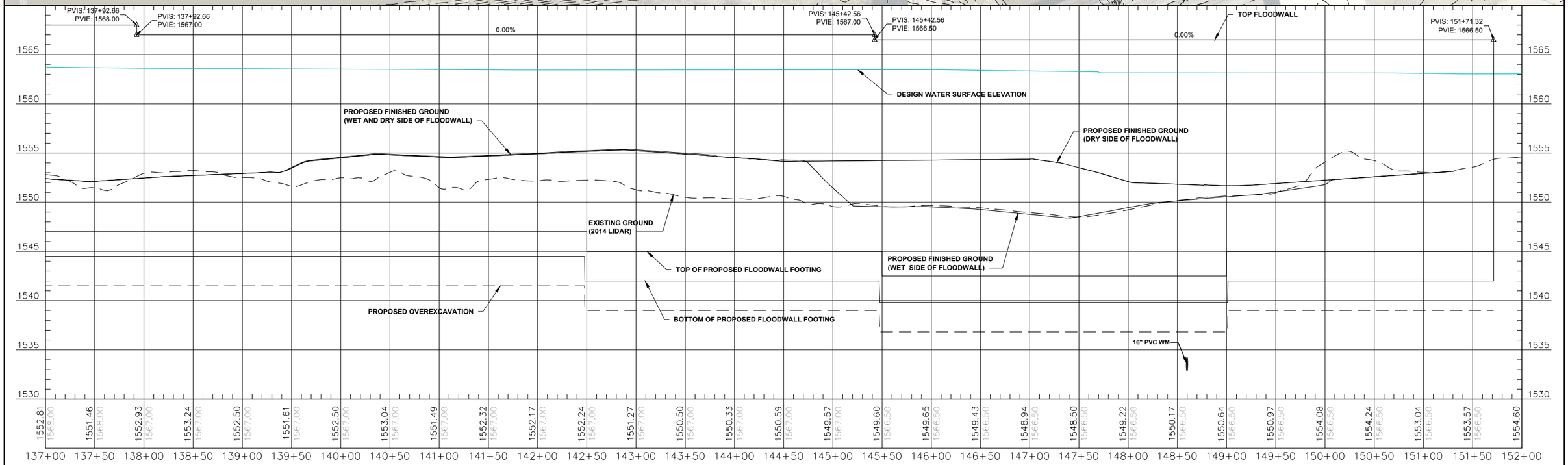
MOUSE RIVER - PHASE 1
ENHANCED FLOOD PROTECTION PROJECT

FLOOD PROTECTION PLAN & PROFILE
STA. 122+00 TO 137+00

ENG. PROJECT No. 8313-010
CLIENT PROJECT No. 3529-1
EXHIBIT
REV. No. A

CADD USER: Kristi Stroud FILE: H:\FARGO\BM80008315\14_8313_010\CAD\EXHIBITS\C-300 FLOOD PROTECTION P&P.DWG PLOT SCALE: 1:799.5449 PLOT DATE: 11/5/2015 1:35 PM





60% DRAFT SUBMITTAL

MREFP PROJECT DATUM:
HORIZONTAL: NORTH DAKOTA STATE PLANE (NAD83), NORTH, US FT
VERTICAL: NAVD 88

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY ENTER NAME, REGISTRATION NUMBER PE-XXXX ON X-XX-XX AND THE ORIGINAL DOCUMENT IS STORED AT XXXX.

		A	B	C	0	1	2	3
CLIENT	10/22/15							
AGENCY	10/22/15							
BID	-							
CONSTRUCTION	-							
RELEASED TO/FOR		DATE RELEASED						

Houston Engineering Inc.
Ph: 701.237.5065

Scale	AS SHOWN
Date	11-03-15
Drawn	KNS
Checked	KAL
Designed	JMW
Approved	JDB

SOURIS RIVER JOINT WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

MOUSE RIVER - PHASE 1
ENHANCED FLOOD PROTECTION PROJECT

FLOOD PROTECTION PLAN & PROFILE
STA. 137+00 TO 152+00

ENG. PROJECT No. 8313-010
CLIENT PROJECT No. 3529-1
EXHIBIT
REV. No. A

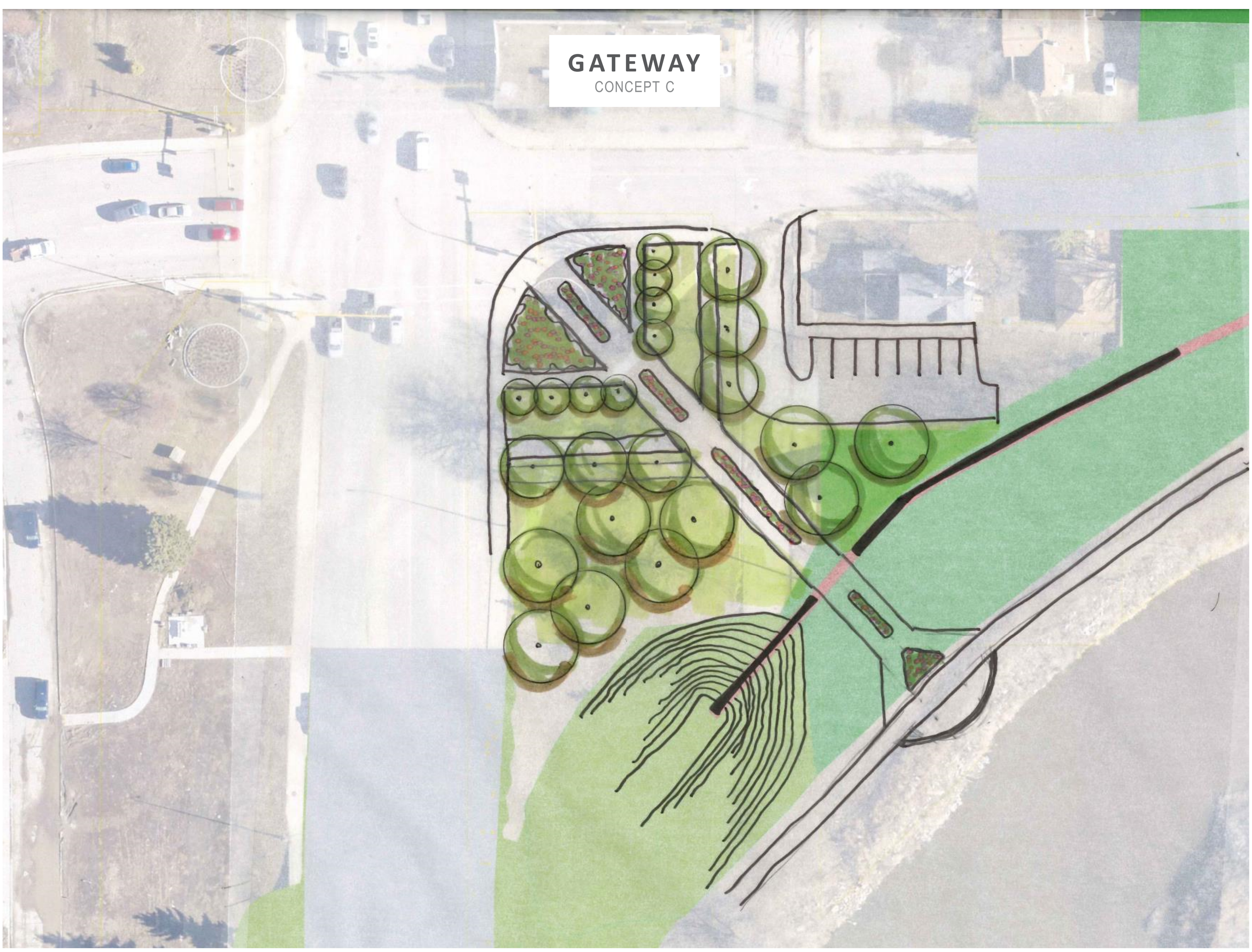
CADD USER: Kristi Stroud FILE: H:\FARGO\JBN\8300\8313\14_8313_010\CAD\EXHIBIT\SC-300 FLOOD PROTECTION P&P.DWG PLOT SCALE: 1:799.5449 PLOT DATE: 11/5/2015 1:40 PM

GATEWAY

CONCEPT A

GATEWAY

CONCEPT C



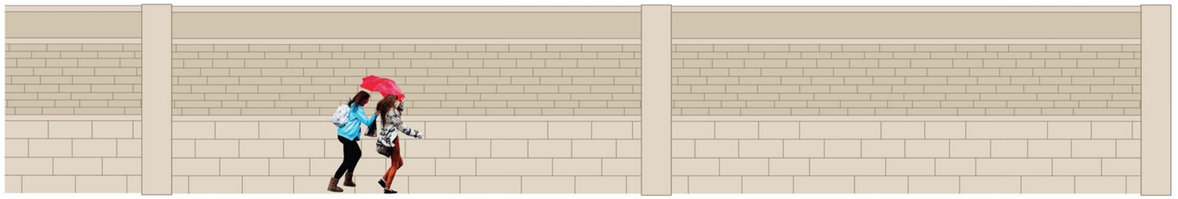
FLOODWALL
CONCEPT A

Formliner Precedent

Local Architecture

Formliner Patterns

Representative Formliner Wall



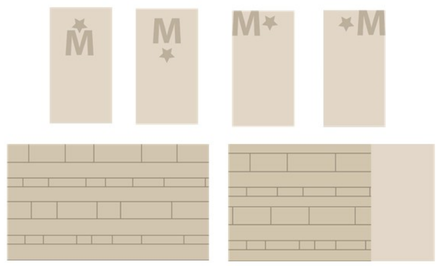
FLOODWALL
CONCEPT B

Formliner Precedent

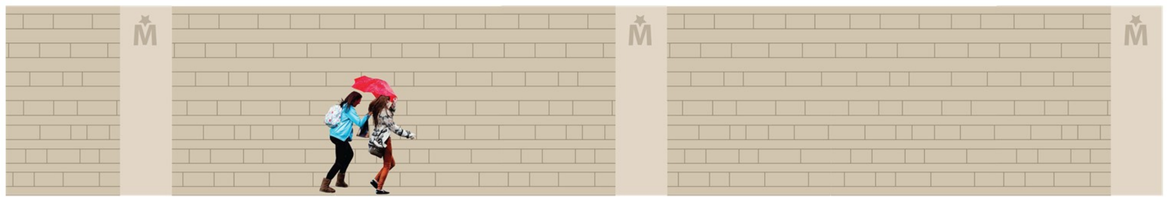
City of Minot Logo

City of Minot

Formliner Patterns



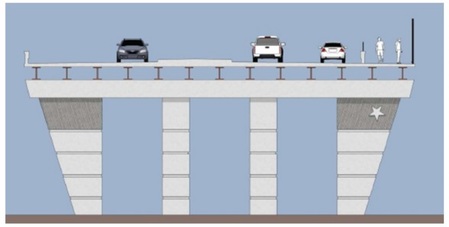
Representative Formliner Wall



FLOODWALL
CONCEPT C

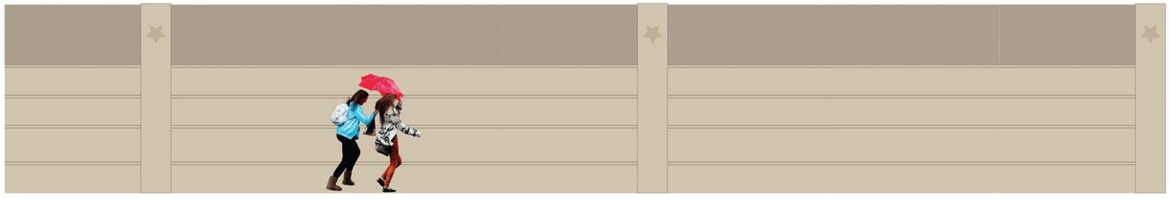
Formliner Precedent

Confluence Bridge Design



Formliner Patterns

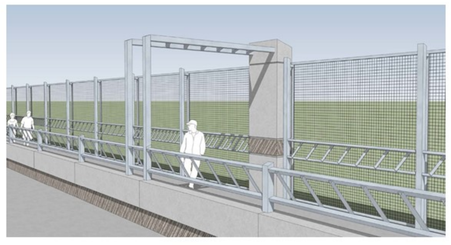
Representative Formliner Wall



FLOODWALL
CONCEPT D

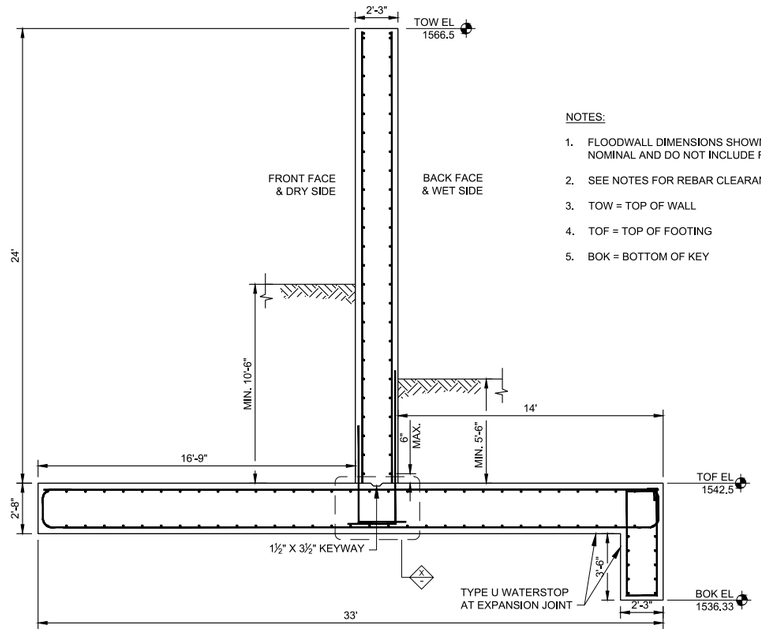
Formliner Precedent

Confluence Bridge Design



Formliner Patterns

Representative Formliner Wall

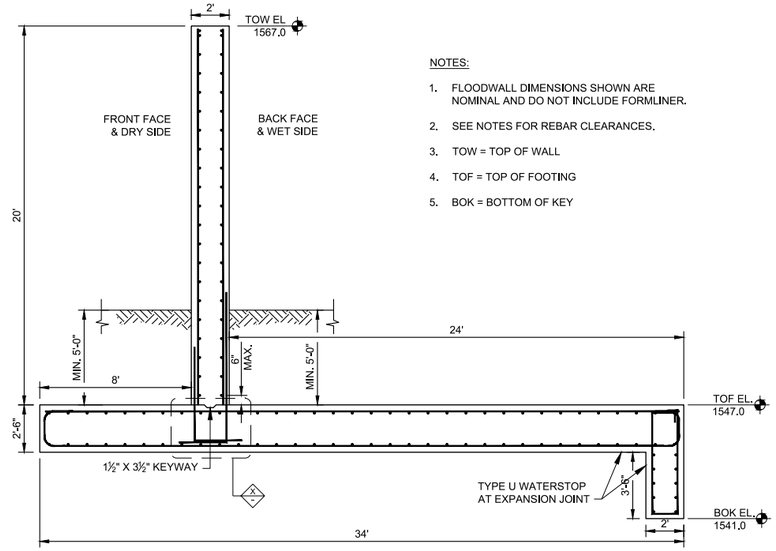


NOTES:

1. FLOODWALL DIMENSIONS SHOWN ARE NOMINAL AND DO NOT INCLUDE FORMLINER.
2. SEE NOTES FOR REBAR CLEARANCES.
3. TOW = TOP OF WALL
4. TOF = TOP OF FOOTING
5. BOK = BOTTOM OF KEY

X WALL REINFORCEMENT SEGMENT A

(STA. 145+50.00 TO STA. 147+00.00)
(STA. 147+50.00 TO STA. 149+00.00)

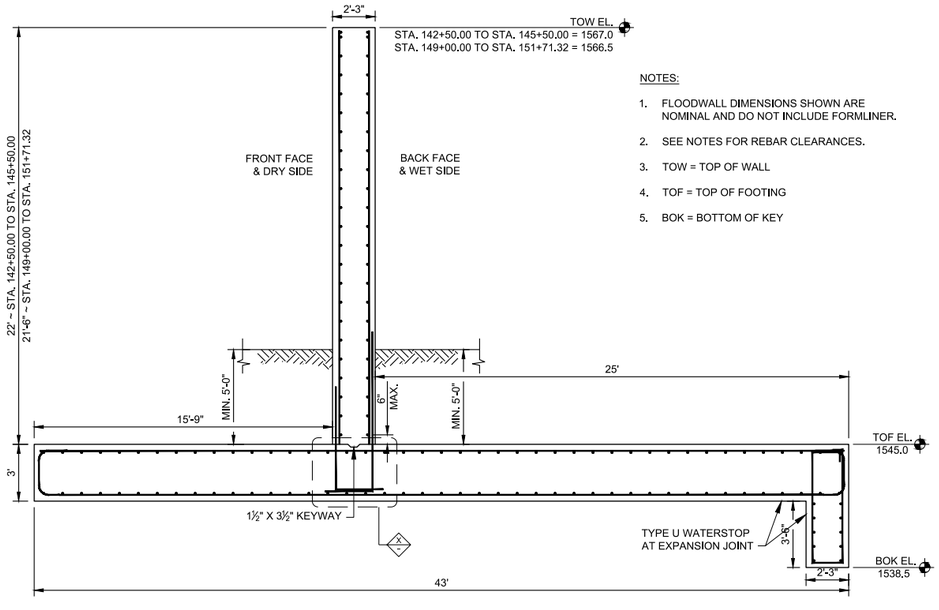


NOTES:

1. FLOODWALL DIMENSIONS SHOWN ARE NOMINAL AND DO NOT INCLUDE FORMLINER.
2. SEE NOTES FOR REBAR CLEARANCES.
3. TOW = TOP OF WALL
4. TOF = TOP OF FOOTING
5. BOK = BOTTOM OF KEY

X WALL REINFORCEMENT SEGMENT C

(STA. 138+00.00 TO STA. 142+50.00)

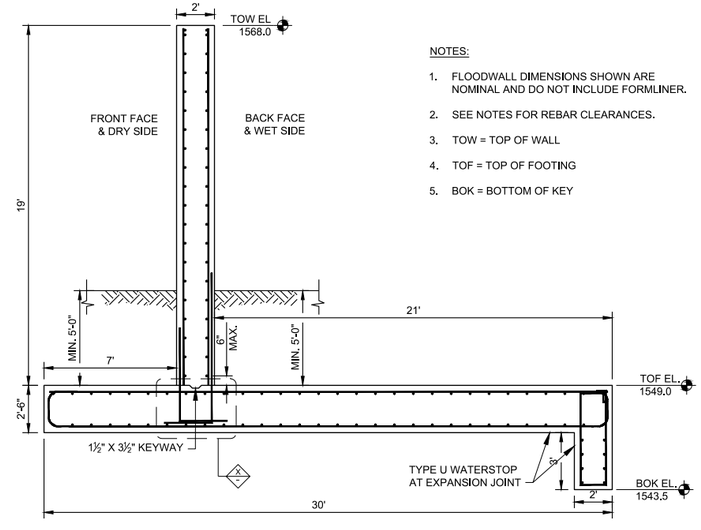


NOTES:

1. FLOODWALL DIMENSIONS SHOWN ARE NOMINAL AND DO NOT INCLUDE FORMLINER.
2. SEE NOTES FOR REBAR CLEARANCES.
3. TOW = TOP OF WALL
4. TOF = TOP OF FOOTING
5. BOK = BOTTOM OF KEY

X WALL REINFORCEMENT SEGMENT B

(STA. 142+50.00 TO STA. 145+50.00)
(STA. 149+00.00 TO STA. 151+71.32)



NOTES:

1. FLOODWALL DIMENSIONS SHOWN ARE NOMINAL AND DO NOT INCLUDE FORMLINER.
2. SEE NOTES FOR REBAR CLEARANCES.
3. TOW = TOP OF WALL
4. TOF = TOP OF FOOTING
5. BOK = BOTTOM OF KEY

X WALL REINFORCEMENT SEGMENT E

(STA. 128+96.00 TO STA. 129+71.91)
(STA. 129+92.91 TO STA. 132+50.00)

MREFP PROJECT DATUM:
HORIZONTAL: NORTH DAKOTA STATE PLANE (NAD83), NORTH, US FT
VERTICAL: NAVD 88

NO.	BY	CHK.	APP.	DATE	REVISION DESCRIPTION

THIS DOCUMENT WAS ORIGINALLY ISSUED AND SEALED BY ENTER NAME, REGISTRATION NUMBER PE-XXXX ON X-XX-XX AND THE ORIGINAL DOCUMENT IS STORED AT XXXX.

CLIENT	10/22/15							
AGENCY	10/22/15							
BID	-							
CONSTRUCTION	-							
RELEASED TO/FOR	A	B	C	0	1	2	3	
	DATE RELEASED							

Houston Engineering Inc.
Ph: 701.237.5065

Scale	AS SHOWN
Date	11-03-15
Drawn	JER
Checked	KAL
Designed	LJB
Approved	JLM

SOURIS RIVER JOINT
WATER RESOURCE BOARD
MINOT, NORTH DAKOTA

MOUSE RIVER - PHASE 1
ENHANCED FLOOD PROTECTION PROJECT

FLOODWALL SECTION

ENG. PROJECT No.	8313-010
CLIENT PROJECT No.	3529-1
EXHIBIT	REV. No. A

CADD USER: Kristi Stroud FILE: H:\FARGO\BN\83006313\14_8313_010\CAD\EXHIBITS\11-9-15 PUBLIC MEETING\FLOODWALL DETAILS FOR PRESENTATION.DWG PLOT SCALE: 1:799.5449 PLOT DATE: 11/6/2015 7:44 AM