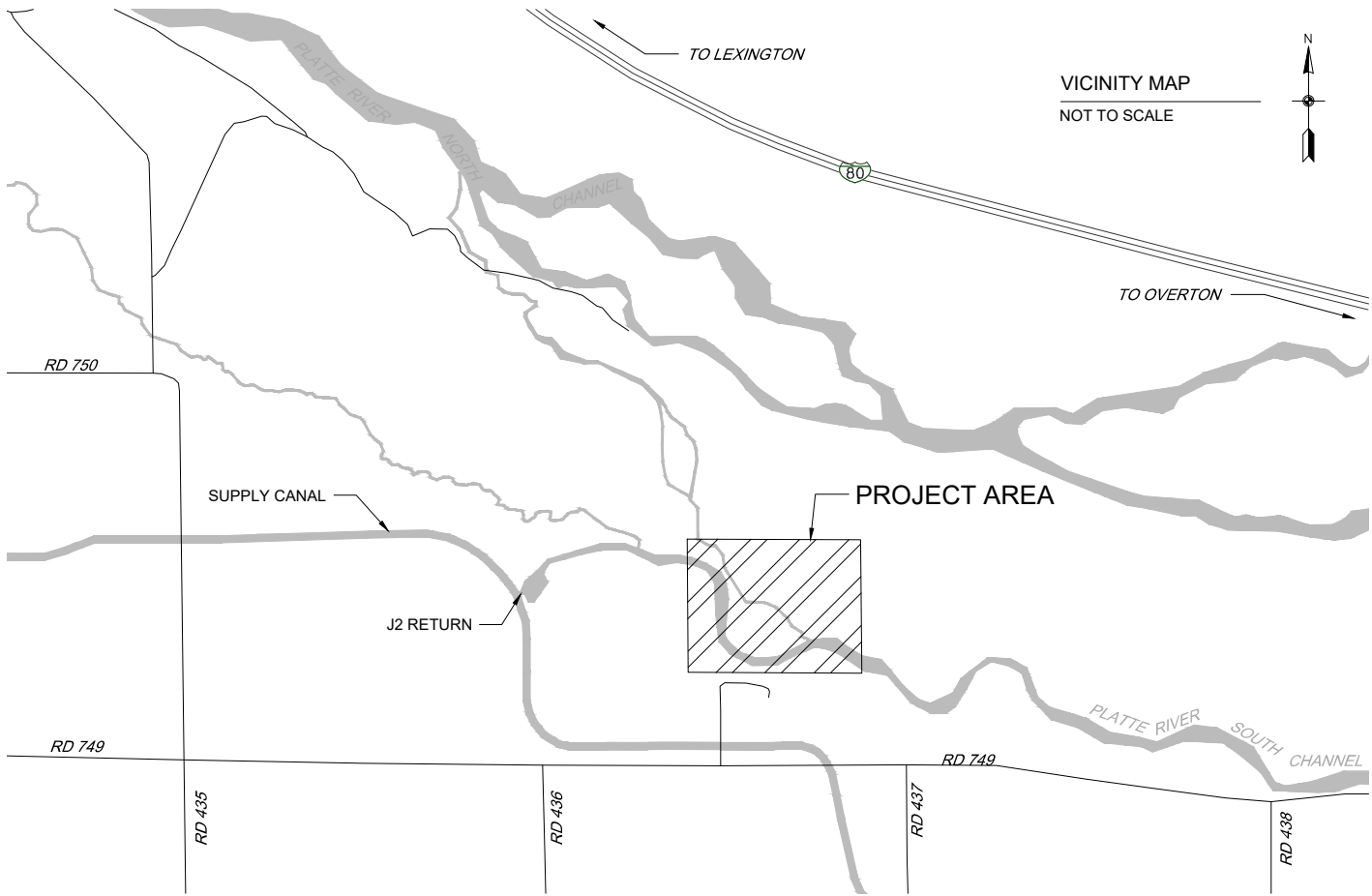




2020 SEDIMENT AUGMENTATION PROJECT



NOTE: CONTRACTOR IS RESPONSIBLE FOR LOCATING BURIED UTILITIES. CONTACT DIGGERS HOTLINE (1-800-331-5666) PRIOR TO ANY EXCAVATION.

FINAL DESIGN

 <p>Headwaters CORPORATION</p> <p>4111 4th Avenue, Suite 6 Kearney, NE 68845 (P) 308-237-5728 (F) 308-237-4651</p>		<p>TAS DESIGNED</p> <p>JUNE 2020</p>		<p>MARK</p>		<p>DATE</p>	
		<p>TAS DRAWN</p> <p>JUNE 2020</p>					
		<p>JB CHECKED</p> <p>JUNE 2020</p>					
		<p>APPROVED</p> <p>_____</p>					

GENERAL NOTES

1.

1'-CONTOUR FROM GREEN LIDAR AND DIGITAL ORTHOPHOTOGRAPHY BY PRRIP, NOVEMBER 2019 REMOTE SENSING SURVEY.
2.

PARCEL DATA IS UNVERIFIED AND FOR REFERENCE ONLY.
3.

ALL MAPPING IS PROJECTED TO NAD 83 STATE PLANE NEBRASKA. UNITS ARE U.S. SURVEY FEET.
4.

ELEVATIONS ARE SHOWN IN FEET RELATIVE TO NAVD88, GEOID 2003, ELLIPSOID GRS80.
5.

ALL STATIONING REFERS TO CENTERLINE OF CONSTRUCTION AND IS THE MEASURED HORIZONTAL DISTANCE.
6.

UNLESS OTHERWISE NOTED, ALL DEMOLISHED MATERIAL SHALL BE REMOVED FROM THE PROJECT SITE AND DISPOSED OF IN A LOCATION APPROVED BY ENGINEER.
7.

LOCATIONS OF EXISTING FEATURES AND UTILITIES SHOWN ARE APPROXIMATE AND SHALL BE FIELD-VERIFIED PRIOR TO CONSTRUCTION. NOTIFICATION TO NEBRASKA 811 (800-331-5666) IS REQUIRED 48 HOURS PRIOR TO ANY EARTHWORK OR SUBSURFACE INVESTIGATION.
8.

TREES AND LAND AREAS OUTSIDE CONSTRUCTION LIMITS SHALL BE PRESERVED AND NO TREE REMOVAL SHALL OCCUR BETWEEN JUNE 1 AND JULY 31. WITHIN CONSTRUCTION FOOTPRINT, TREES TO BE PRESERVED SHALL BE MARKED FOR PROTECTION IN THE FIELD. EXERCISE CARE IN AREAS NOT SO MARKED TO AVOID UNNECESSARY DAMAGE TO NATURAL VEGETATION.
9.

BMPS SHALL BE IMPLEMENTED TO PREVENT WATER POLLUTION DUE TO CONSTRUCTION MATERIALS, METHODS AND EQUIPMENT. CONTRACTOR SHALL SUBMIT SWPPP FOR APPROVAL BY NDEQ.
10.

ALL CONSTRUCTION ACTIVITIES, INCLUDING HAULING, EXCAVATION, STAGING AND STOCKPILING, SHALL BE CONFINED TO AREAS ILLUSTRATED IN THE PLAN SET.
11.

WHOOPING CRANE MIGRATION SEASON OCCURS BETWEEN OCTOBER 1 AND NOVEMBER 15. DURING THIS WINDOW THERE ARE RESTRICTED WORK HOURS WITHIN 0.25 MI OF THE RIVER AND HEAVY EQUIPMENT WILL BE MOVED FROM THE RIVER TO AN UPLAND SITE BEHIND A TREE LINE AT THE END OF EACH WORK DAY IF SUCH FEATURES ARE AVAILABLE. REFER TO DIV 3, SECTION 10 OF BID DOCS FOR SPECIFIC PROTOCOL.

LEGEND

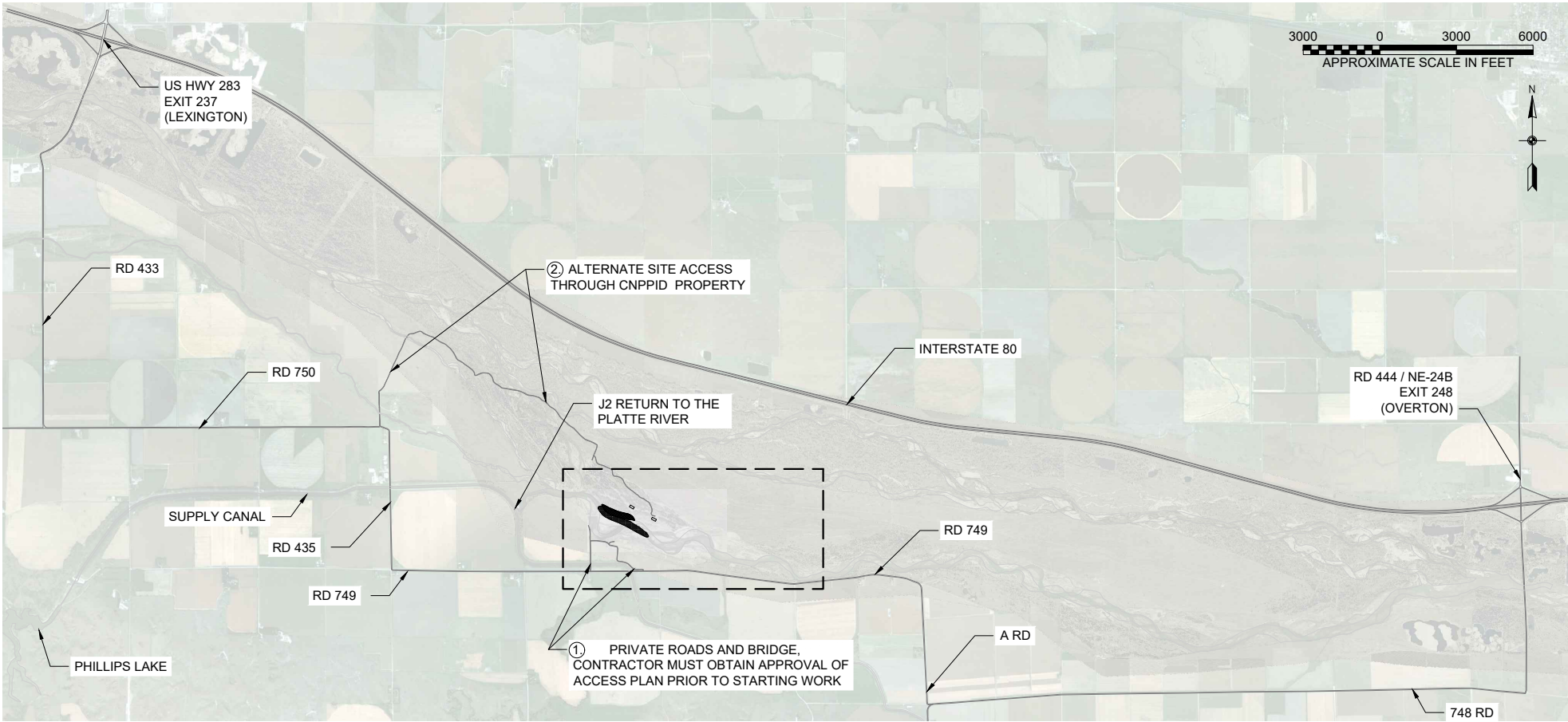
EXISTING FEATURES	PROPOSED FEATURES
<div><div></div><div>EXISTING PAVED ROADWAY</div></div>	<div><div></div><div>PROJECT LIMITS</div></div>
<div><div></div><div>EXISTING UNIMPROVED ROADWAY</div></div>	<div><div></div><div>TEMPORARY ACCESS ROAD</div></div>
<div><div></div><div>EXISTING STRUCTURE</div></div>	<div><div></div><div>STORM DRAIN</div></div>
<div><div></div><div>OVERHEAD POWER</div></div>	<div><div></div><div>CULVERT</div></div>
<div><div></div><div>MAJOR CONTOUR (5')</div></div>	<div><div></div><div>GUARDRAIL</div></div>
<div><div></div><div>MINOR CONTOUR (1')</div></div>	<div><div></div><div>MAJOR CONTOUR (5')</div></div>
<div><div></div><div>BORING</div></div>	<div><div></div><div>MINOR CONTOUR (1')</div></div>
<div><div></div><div>EDGE OF WATER</div></div>	<div><div></div><div>GRADE BREAK AND SLOPE DIRECTION</div></div>
<div><div></div><div>PUBLIC PARCEL</div></div>	<div><div></div><div>EXTENT OF CUT</div></div>
<div><div></div><div>WETLAND BOUNDARY</div></div>	<div><div></div><div>EXTENT OF FILL</div></div>
	<div><div></div><div>RIPRAP</div></div>
	<div><div></div><div>SAND</div></div>
	<div><div></div><div>FILL</div></div>
	<div><div></div><div>EXCAVATE</div></div>
	<div><div></div><div>EXISTING VEGETATION</div></div>

ABBREVIATIONS

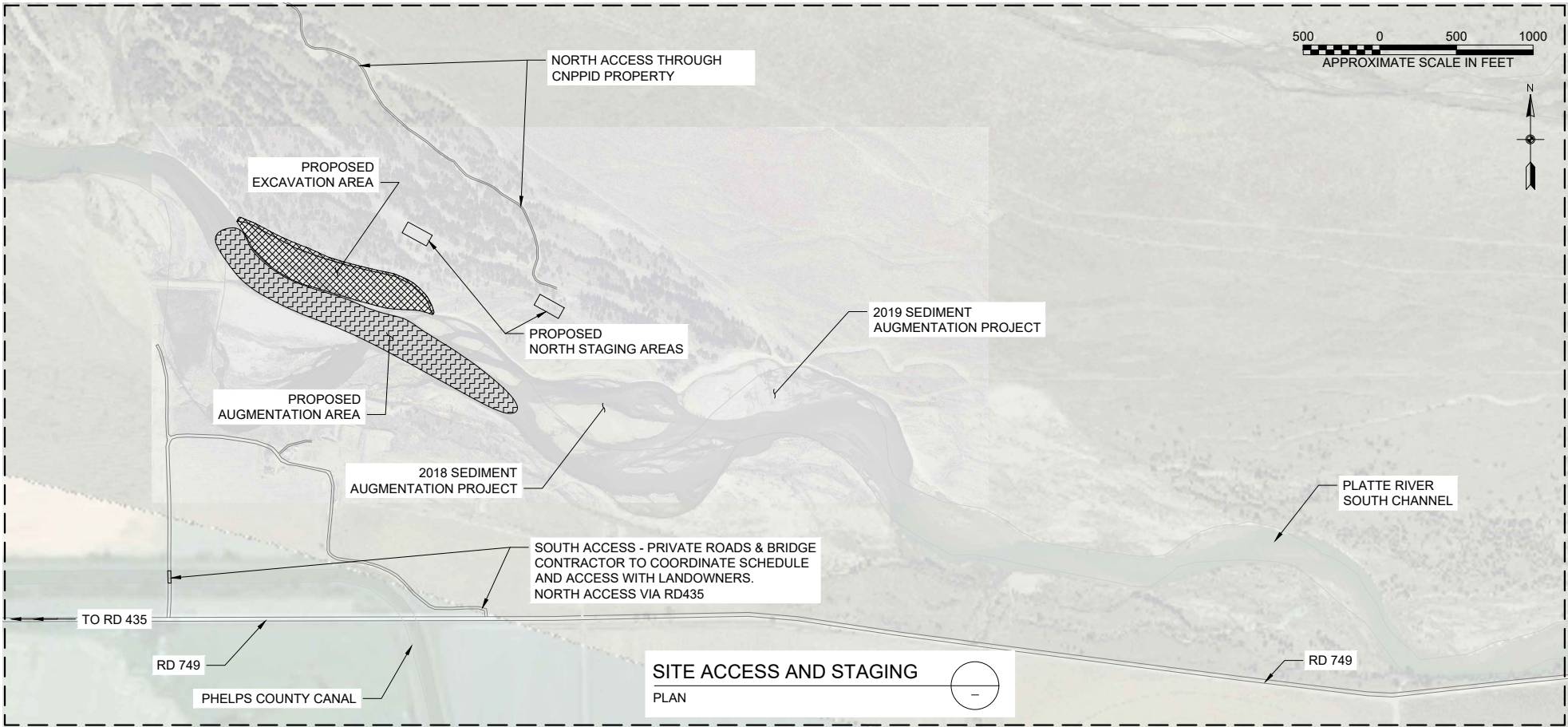
ADDL	ADDITIONAL	NAD	NORTH AMERICAN DATUM
APPROX	APPROXIMATE	NAVD	NORTH AMERICAN VERTICAL DATUM
AVE	AVENUE	N/A	NOT APPLICABLE
BDY	BOUNDARY	NE	NORTHEAST
BLDG	BUILDING	NDEQ	NEBRASKA DEPT OF ENVIRONMENTAL QUALITY
BM	BENCHMARK	NGVD	NATIONAL GEODETIC VERTICAL DATUM 1929
BMP	BEST MANAGEMENT PRACTICE	NOM	NOMINAL
BOB	BASIS OF BEARING	NTS	NOT TO SCALE
CBC	CONCRETE BOX CULVERT	NW	NORTHWEST
CGC	COMMERCIAL GRADE CONCRETE	OH	OVERHEAD
CHAN	CHANNEL	OHW	ORDINARY HIGH WATER
CL	CENTERLINE, CONTROL LINE	PCL	PRIMARY CONTROL LINE
CMP	CORRUGATED METAL PIPE	PERM	PERMANENT
CO	COUNTY	PROP	PROPOSED
COE	US ARMY CORPS OF ENGINEERS	PROT	PROTECT
CONC	CONCRETE	PT	POINT
COR	CONTRACTING OFFICER'S REPRESENTATIVE	RCP	REINFORCED CONCRETE PIPE
CP	CONTROL POINT	RD	ROAD
CY	CUBIC YARD	REQ	REQUIRED
DET	DETAIL	RR	RAILROAD
DBH	DIAMETER AT BREAST HEIGHT	ROW	RIGHT OF WAY
DIA	DIAMETER	S	SOUTH
DS	DOWNSTREAM	SL	SLOPE
E	EAST	SS	SIDE SLOPE
EA	EACH	SE	SOUTHEAST
EG	EXISTING GRADE/GROUND	SF	SQUARE FEET
EL	ELEVATION	ST	STREET
EP	EDGE OF PAVEMENT	STA	STATION
EXC	EXCAVATION	SW	SOUTHWEST
EXIST	EXISTING	SWPPP	STORMWATER POLLUTION PREVENTION PLAN
FG	FINISH GRADE	TCL	TRAIL CONTROL LINE
GRND	GROUND	TEMP	TEMPORARY
HDPE	HIGH DENSITY POLYETHYLENE	THKN	THICKNESS
HMAC	HOT MIX ASPHALT CONCRETE	THLWG	THALWEG
HOR	HORIZONTAL	TOB	TOP OF BANK
INV	INVERT	TYP	TYPICAL
LF	LINEAR FEET	USACE	US ARMY CORPS OF ENGINEERS
LN	LANE	US	UPSTREAM
LWD	LARGE WOODY DEBRIS	VEG	VEGETATION
MATL	MATERIAL	VERT	VERTICAL
MAX	MAXIMUM	W	WEST
MFR	MANUFACTURER	WSE	WATER SURFACE ELEVATION
MIN	MINIMUM		
N	NORTH		

DATE					
DESCRIPTION					
MARK					
JUNE 2020	JUNE 2020	JUNE 2020			
TAS DESIGNED	TAS DRAWN	JB CHECKED			
<div><div><div><div><div></div><div>Headwaters</div><div>CORPORATION</div></div><div><div>4111 4th Avenue, Suite 6</div><div>Kearney, NE 68845</div><div>(P) 308-237-5728</div><div>(F) 308-237-4651</div></div></div></div></div>					
<div><div><div><div>2020 SEDIMENT AUGMENTATION PROJECT</div><div>LEGEND, NOTES AND ABBREVIATIONS</div><div>LEXINGTON, NEBRASKA</div></div></div></div>					
<div><div><div><div></div><div>PLATTER RIVER</div><div>RECOVER THE RIVER'S FUTURE</div></div></div></div>					
PROJECT NO. P20-012					
SHEET IDENTIFICATION: G-02					
SHT NO. 02 OF 06					

FINAL DESIGN



SITE ACCESS
PLAN



SITE ACCESS AND STAGING
PLAN

SHEET INDEX		
SHEET	PLATE	TITLE
GENERAL		
1	G01	COVER SHEET PROJECT VICINITY AND LOCATION
2	G02	LEGEND, NOTES, AND ABBREVIATIONS
3	G03	SHEET INDEX, CONSTRUCTION ACCESS AND STAGING
4	G04	GENERAL CONSTRUCTION PLAN AND SURVEY CONTROL
CIVIL		
5	C01	EXCAVATION PLAN AND PROFILE
6	C02	AUGMENTATION PLAN AND PROFILE

SITE ACCESS NOTES

1. SITE ACCESS THROUGH PRIVATE PROPERTY AND CONTRACTOR TO COORDINATE WITH LANDOWNER/TENNANT PRIOR TO MOBILIZATION OF EQUIPMENT. THE SOUTH ACCESS AREA IS LEASED FOR OPERATION OF A PRIVATE SHOOTING CLUB AND CONTRACTOR MUST COORDINATE WITH TENANT TO AVOID ANY CONFLICT. NAMES AND CONTACT INFO AVAILABLE FOR ALL PARTIES.
2. ALTERNATE (NORTH) SITE ACCESS IS AVAILABLE THROUGH CNPPID PROPERTY. THE LOWER 3/4 MILE IS 4X4 ACCESS ONLY AND ROAD WILL LIKELY NOT ACCOMMODATE SEMI OR TRAILER.

DATE

MARK DESCRIPTION

JUNE 2020

TAS DESIGNED



4111 4th Avenue, Suite 6
Kearney, NE 68845
(P) 308-237-5728
(F) 308-237-4651

JUNE 2020

TAS DRAWN



2020 SEDIMENT AUGMENTATION PROJECT

JUNE 2020

JB CHECKED

SHEET INDEX, CONSTRUCTION ACCESS AND STAGING

—

APPROVED

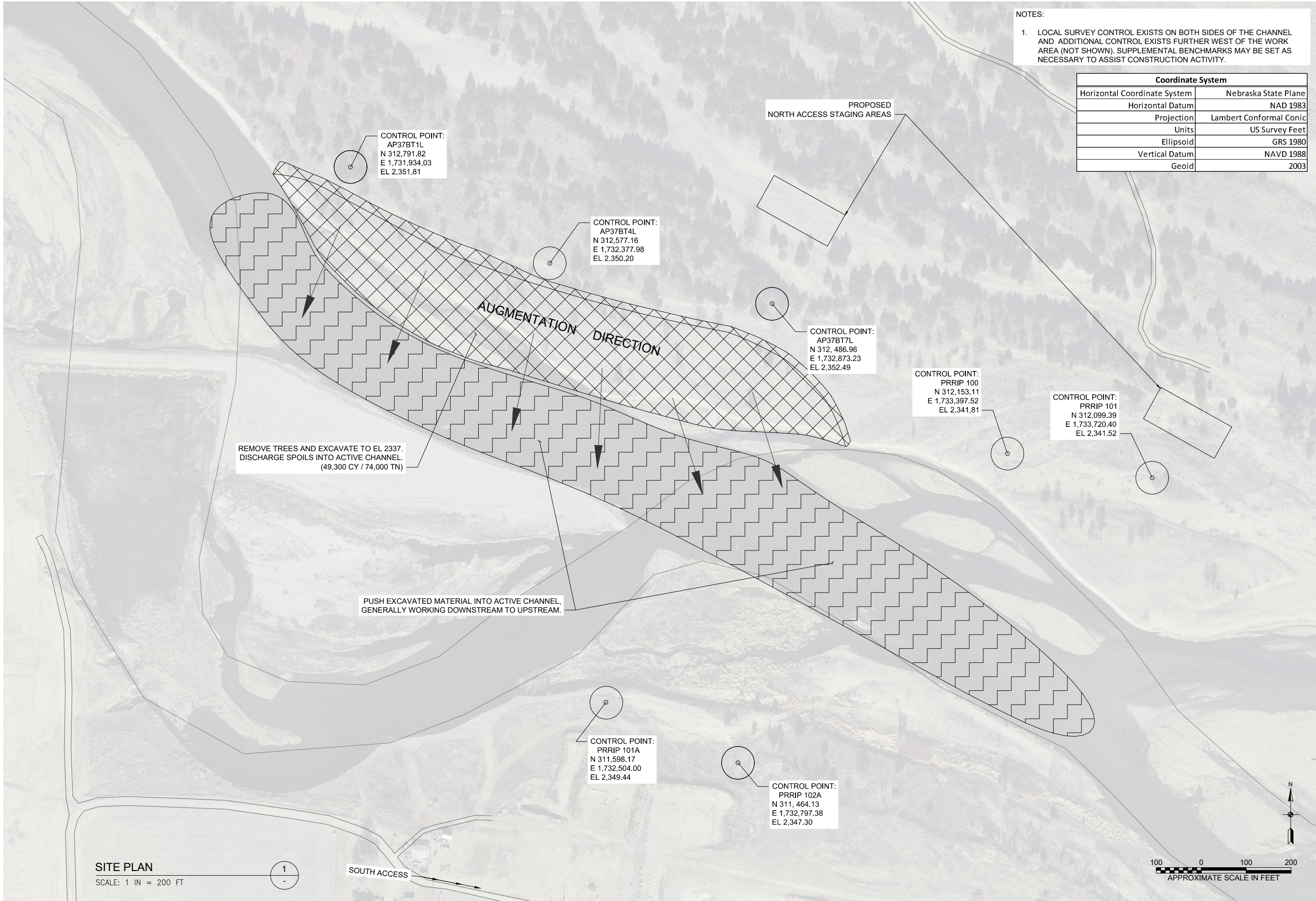
LEXINGTON, NEBRASKA

PROJECT NO.
P20-012

SHEET IDENTIFICATION:
G-03

FINAL DESIGN

SHT NO. 03 OF 06



NOTES:

1. LOCAL SURVEY CONTROL EXISTS ON BOTH SIDES OF THE CHANNEL AND ADDITIONAL CONTROL EXISTS FURTHER WEST OF THE WORK AREA (NOT SHOWN). SUPPLEMENTAL BENCHMARKS MAY BE SET AS NECESSARY TO ASSIST CONSTRUCTION ACTIVITY.

Coordinate System	
Horizontal Coordinate System	Nebraska State Plane
Horizontal Datum	NAD 1983
Projection	Lambert Conformal Conic
Units	US Survey Feet
Ellipsoid	GRS 1980
Vertical Datum	NAVD 1988
Geoid	2003

DATE	DESCRIPTION	DESIGNED	DRAWN	CHECKED	APPROVED
JUNE 2020	TAS	TAS	JB	—	—
JUNE 2020	TAS	TAS	JB	—	—
JUNE 2020	JB	—	—	—	—
—	—	—	—	—	—



4111 4th Avenue, Suite 6
Kearney, NE 68845
(P) 308-237-5728
(F) 308-237-4651



PLATTER RIVER
RECOVERING THE RIVER'S TRUE IDENTITY

2020 SEDIMENT AUGMENTATION PROJECT

GENERAL CONSTRUCTION PLAN
AND SURVEY CONTROL

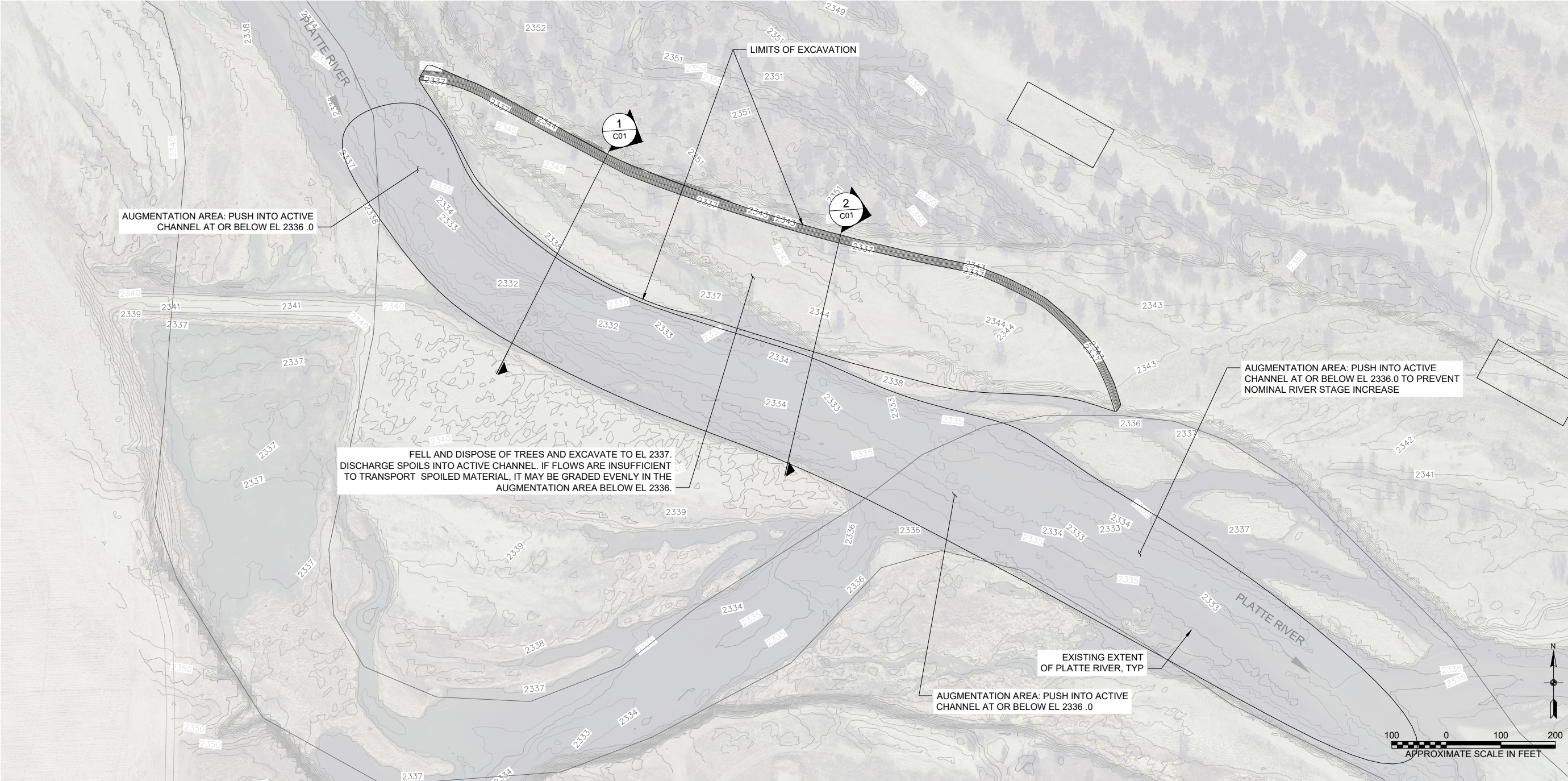
LEXINGTON, NEBRASKA

PROJECT NO.
P20-012

SHEET IDENTIFICATION:
G-04

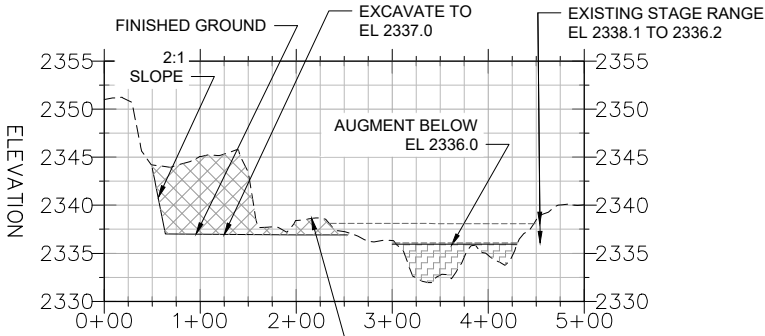
SHT
NO. 04 OF 06

FINAL DESIGN



PILOT CHANNEL - PLAN

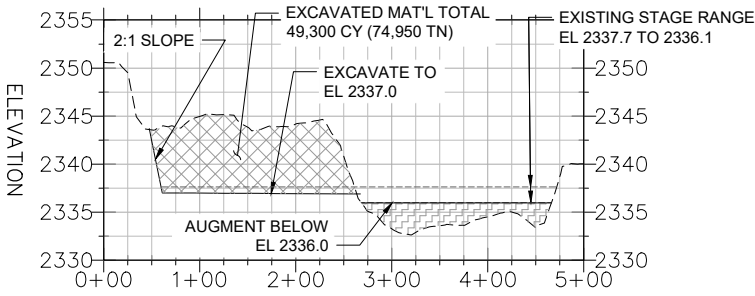
1
-



EXCAVATION - PROFILE

H: 1 IN = 100 FT, V: 1 IN = 10 FT

1
-




EXCAVATION - PROFILE

H: 1 IN = 100 FT, V: 1 IN = 10 FT

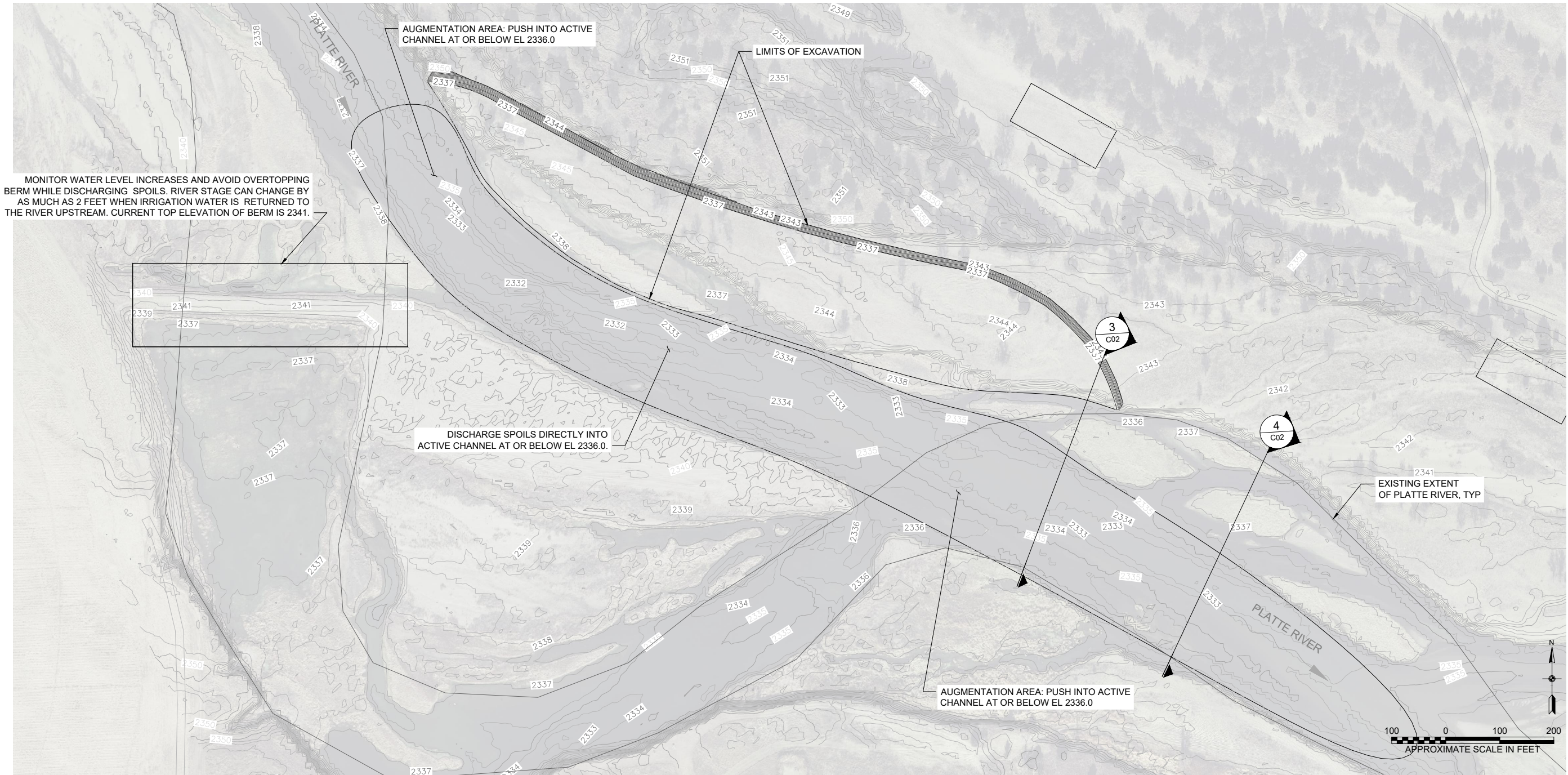
2
-

EXCAVATION NOTES

- ALL WOODY VEGETATION MUST BE REMOVED FROM THE EXCAVATION AREA AND WILL BE PILED OUTSIDE LIMITS AND AWAY FROM THE ACTIVE CHANNEL, BURNED AND BURIED. NO TREES SHALL BE REMOVED BETWEEN JUNE 1 AND JULY 15.
- EXCAVATION TOTALS APPROXIMATELY 49,300 CY ACCORDING TO THE FALL 2019 LIDAR SURVEY. THE EXCAVATION SPOILS SHALL BE DISCHARGED INTO THE ACTIVE CHANNEL UNDER CONDITIONS OF THE EXISTING PERMITS AND PER NOTES ON SHT C02.
- GENERALLY, EARTHWORK AND AUGMENTATION SHOULD BEGIN DOWNSTREAM, WORKING IN AN UPSTREAM DIRECTION. ADJUSTMENT MAY BE NECESSARY TO KEEP SEDIMENT MOVING.
- FINISHED GROUND SHALL BE SMOOTH AND FREE OF LARGE RILLS AND ANY CONTOURING WHICH INHIBITS THE RIVER FROM FLOWING DOWNSTREAM OR ENCOURAGES BANK EROSION OF THE SOUTH BANK.
- THIS PROJECT IS BEING PAID ON PLANSET QUANTITIES AND FINAL GRADE WILL BE CHECKED BY THE PROJECT ENGINEER UPON COMPLETION.

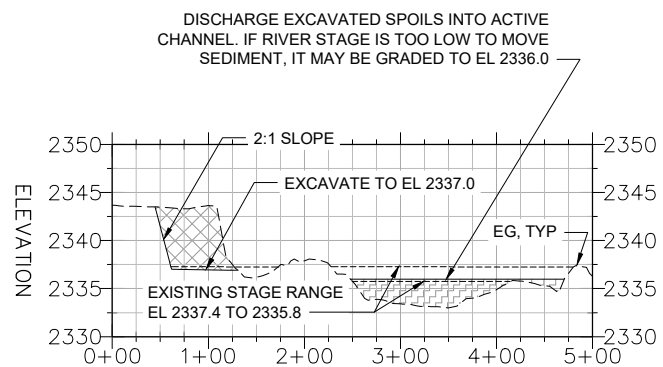
DATE	MARK	DESCRIPTION	JUNE 2020	TAS DESIGNED	JUNE 2020	TAS DRAWN	JUNE 2020	JB CHECKED	APPROVED
<div><div><div>4111 4th Avenue, Suite 6 Kearney, NE 68845 (P) 308-237-5728 (F) 308-237-4651</div></div><div>2020 SEDIMENT AUGMENTATION PROJECT</div><div>EXCAVATION PLAN AND PROFILE</div><div>PLATTE RIVER RECONSTRUCTION AND SEDIMENT AUGMENTATION</div><div>LEXINGTON, NEBRASKA</div></div>									
PROJECT NO. P20-012									
SHEET IDENTIFICATION: C-01									
SHT NO. 05 OF 06									

FINAL DESIGN



PILOT CHANNEL - PLAN

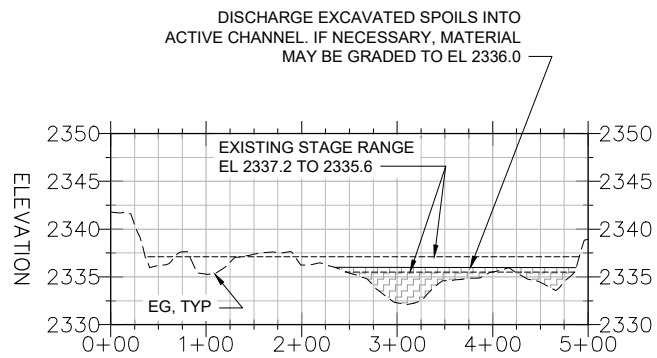
1
-



AUGMENTATION - PROFILE

H: 1 IN = 100 FT, V: 1 IN = 10 FT

3
-



AUGMENTATION - PROFILE

H: 1 IN = 100 FT, V: 1 IN = 10 FT

4
-

AUGMENTATION NOTES

1. AUGMENTATION IS BEST ACHIEVED WORKING DOWNSTREAM TO UPSTREAM (SEE ARROWS) PUSHING SPOILS INTO THE ACTIVE CHANNEL WHEN FLOWS ARE BEING RETURNED. ADJUSTMENT MAY BE NECESSARY TO KEEP SEDIMENT MOVING.
 - 1.1. BASEFLOW IS TYPICALLY 200 TO 600 CFS
 - 1.2. RETURN FLOWS ARE TYPICALLY AN ADDITIONAL 1000 TO 1650 CFS AND ARE DEPENDENT ON PHELPS COUNTY IRRIGATION DEMAND.
 - 1.3. TYPICAL STAGE RANGES ARE SHOWN IN PROFILE VIEWS.
2. IF FLOWS ARE INSUFFICIENT TO TRANSPORT MATERIAL, SPOILS MAY BE GRADED TO EL 2336, PROVIDING THERE IS NO OVERTOPPING RISK TO THE BERM ON RIVER RIGHT. IF EL 2336 HAS BEEN REACHED AND EXCAVATION HAS NOT BEEN COMPLETE, INCREMENTAL ELEVATIONS OR STAGING AREAS MAY BE CLEARED BY THE FIELD ENGINEER TO FACILITATE EXCAVATION.
3. CONTRACTOR WILL MONITOR STAGE DURING AUGMENTATION TO AVOID ADJACENT FLOODING AND EROSION IN THE VICINITY OF THE SOUTH BANK. WHILE TEMPORARY STAGE INCREASE IS INEVITABLE, SUSTAINED INCREASES OF MORE THAN 0.5 FEET MUST BE CLEARED BY THE FIELD ENGINEER.
4. UPON COMPLETION, GRADED AREAS SHALL BE SMOOTH AND FREE OF RILLS AND CONTOURING WHICH PREVENT FLOW IN THE DOWNSTREAM DIRECTION OR INCREASE EROSION OF THE SOUTH BANK.

2020 SEDIMENT AUGMENTATION PROJECT



4111 4th Avenue, Suite 6
Kearney, NE 68845
(P) 308-237-5728
(F) 308-237-4651



PROJECT NO.
P20-012

SHEET IDENTIFICATION:

C-02

SHT
NO. 06 OF 06

FINAL DESIGN

LEXINGTON, NEBRASKA

AUGMENTATION PLAN AND PROFILE

DATE	DESCRIPTION	MARK
JUNE 2020	TAS DESIGNED	
JUNE 2020	TAS DRAWN	
JUNE 2020	JB CHECKED	
	APPROVED	