BRIDGE AND APPROACHES - CCS

LETTING DATE: DECEMBER 15, 2015

PROJECT NO. BRM-1710(610)--8N-88

CITY OF CRESTON

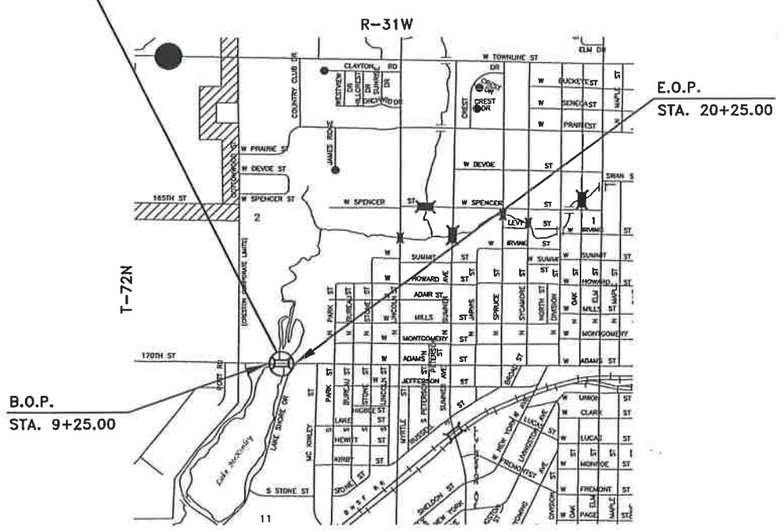
STANDARD ROAD PLANS
STANDARD ROAD PLANS ARE LISTED ON SHEET _.

SECTION 404 PERMIT AND CONDITIONS	281-1 10-15-13
CONSTRUCT THIS PROJECT ACCORDING TO THE REQUIREMENTS OF U.S. ARMY CORPS OF ENGINEERS NATIONWIDE PERMIT ___, PERMIT NO. _____-____. A COPY OF THIS PERMIT IS AVAILABLE FROM THE IOWA DOT WEBSITE (http://envpermits.iowadot.gov/CMEPortalENV/Home.aspx). THE U.S. ARMY CORPS OF ENGINEERS RESERVES THE RIGHT TO VISIT THE SITE WITHOUT PRIOR NOTICE.	

UTILITY CONTACTS

COMPANY	UTILITY	CONTACT	PHONE #
ALLIANT ENERGY	GAS/ELECTRIC	LAURA BARR	319-286-1315
CRESTON, CITY OF	SANITARY/WATER	STEVE GREEN	641-782-5817
WINDSTREAM COMMUNICATIONS	PHONE	JOEL SCHROEDER	800-289-1901
MEDIACOM	CABLE	MARK MCARDLE	712-314-1312

B.O.P. STA. 9+25.00
E.O.P. STA. 20+25.00
STATION 16+85.00
PROPOSED 70'-0 x 32'-0 CONTINUOUS CONCRETE SLAB BRIDGE WITH 10'-0 BIKE PATH 30° SKEW, LT. AHEAD
FHWA NO. 002720



PROJECT LOCATION

1/8 MI. 0 1/8 MI. 1/4 MI.

N

IOWA DEPARTMENT OF TRANSPORTATION

Highway Division

PLANS OF PROPOSED IMPROVEMENT ON THE

URBAN ROAD SYSTEM

UNION COUNTY

CITY OF CRESTON

PROJECT NO. BRM-1710(610)--8N-88

BRIDGE AND APPROACHES - CCS

IN THE CITY OF CRESTON, ON W ADAMS ST, OVER MCKINLEY LAKE

REFER TO THE PROPOSAL FORM FOR LIST OF APPLICABLE SPECIFICATIONS.

THIS PROJECT IS COVERED BY THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2. THE CONTRACTOR SHALL CARRY OUT THE TERMS AND CONDITIONS OF GENERAL PERMIT NO. 2 AND THE STORM WATER POLLUTION PREVENTION PLAN WHICH IS A PART OF THESE CONTRACT DOCUMENTS. REFER TO SECTION 2602 OF THE STANDARD SPECIFICATIONS FOR ADDITIONAL INFORMATION.

MILEAGE SUMMARY

	LOCATION	LIN.FT.	MILES
	ADAMS ST. STA. 9+25.00 TO STA. 20+25.00	1100.00	0.2083
	LAKE SHORE DR. STA. 100+00 TO STA. 102+23.88	223.88	0.0424
	BRIDGE AT STA. 16+85.00	70.96	0.0134
	TOTAL NET LENGTH OF GRADING & PCC PAVING	1,252.92	0.2373

ADAMS ST.: 2012, TRAFFIC COUNT = 1100 V.P.D.

DRAWING APPROVAL

ALL SHOP DRAWINGS AND FALSEWORK DRAWINGS THAT REQUIRE APPROVAL SHALL BE SUBMITTED TO AND APPROVED BY THE CONTRACTOR, WHO SHALL STAMP, CERTIFY OR PROVIDE OTHER SUCH EVIDENCE ON THE DRAWINGS THAT THEY HAVE RECEIVED CONTRACTOR APPROVAL. THE APPROVED DRAWINGS SHALL THEN BE SUBMITTED TO CALHOUN-BURNS AND ASSOCIATES, INC., FOR REVIEW AND APPROVAL.

ADDRESS : 1500 30TH STREET
WEST DES MOINES, IOWA 50266
TELEPHONE : (515) 224-4344
FAX : (515) 224-1385

SHOP DRAWINGS SHALL BE INDEPENDENT DRAWINGS WITH ADEQUATE DIMENSIONING FOR FABRICATION OF INDIVIDUAL PIECES OF EACH COMPONENT. PHOTOCOPIES OF PLAN DRAWINGS AND NON-CONTRACTOR APPROVED PLANS WILL BE REJECTED.

THESE DRAWINGS SHALL NOT BE SENT TO IOWA D.O.T. OFFICE OF BRIDGES AND STRUCTURES.

IOWA ONE CALL
1-800-292-8989
www.iowaonecall.com
811 Know what's below. Call before you dig.

TOTAL SHEETS
_

PROJECT NO. BRM-1710(610)--8N-88
FHWA NO. 002720
CITY ID. ADAMS ST. BRIDGE

INDEX OF SHEETS

1. TITLE SHEET
2. SITUATION PLAN
3.-4. PLAN AND PROFILE - ADAMS ST.
5. PLAN AND PROFILE - LAKESHORE DR.

IOWA DEPARTMENT OF TRANSPORTATION STANDARDS REQUIRED

STANDARD	LATEST REVISION
P10L	04-13

THESE SHEETS MAY BE OBTAINED AT THE ELECTRONIC REFERENCE LIBRARY WEBSITE. http://www.iowadot.gov/erl/index.html

INDEX OF SEALS

SHEET NO.	NAME	TYPE
-	-	-

LICENSED PROFESSIONAL ENGINEER LOWELL G. MILLER 14850 IOWA

I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA.

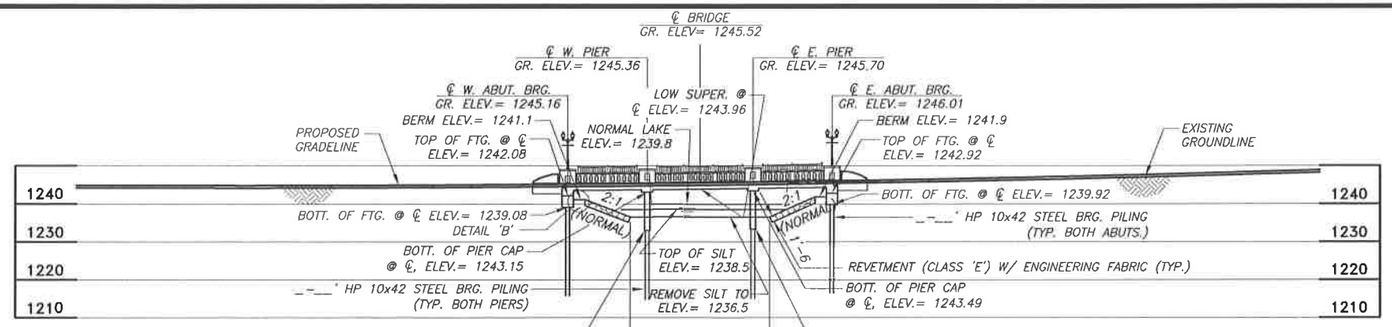
PRELIMINARY DATE

LOWELL G. MILLER, P.E.

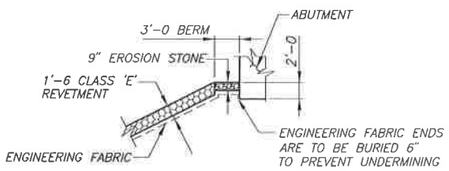
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2014.

PAGES OR SHEETS COVERED BY THIS SEAL:

BENCH MARK: R.R. SPIKE IN P.P. S.E. OF BRIDGE, STA. 17+48, 27' RT., ELEV. = 1243.59

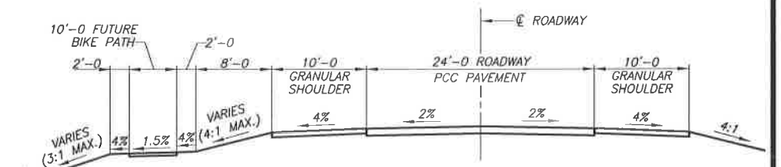


LONGITUDINAL SECTION ALONG ℄ ROADWAY



DETAIL 'B'

NOTE: PLACE REVETMENT ON BERM AT DRIP EDGE OF DECK



TYPICAL APPROACH SECTION

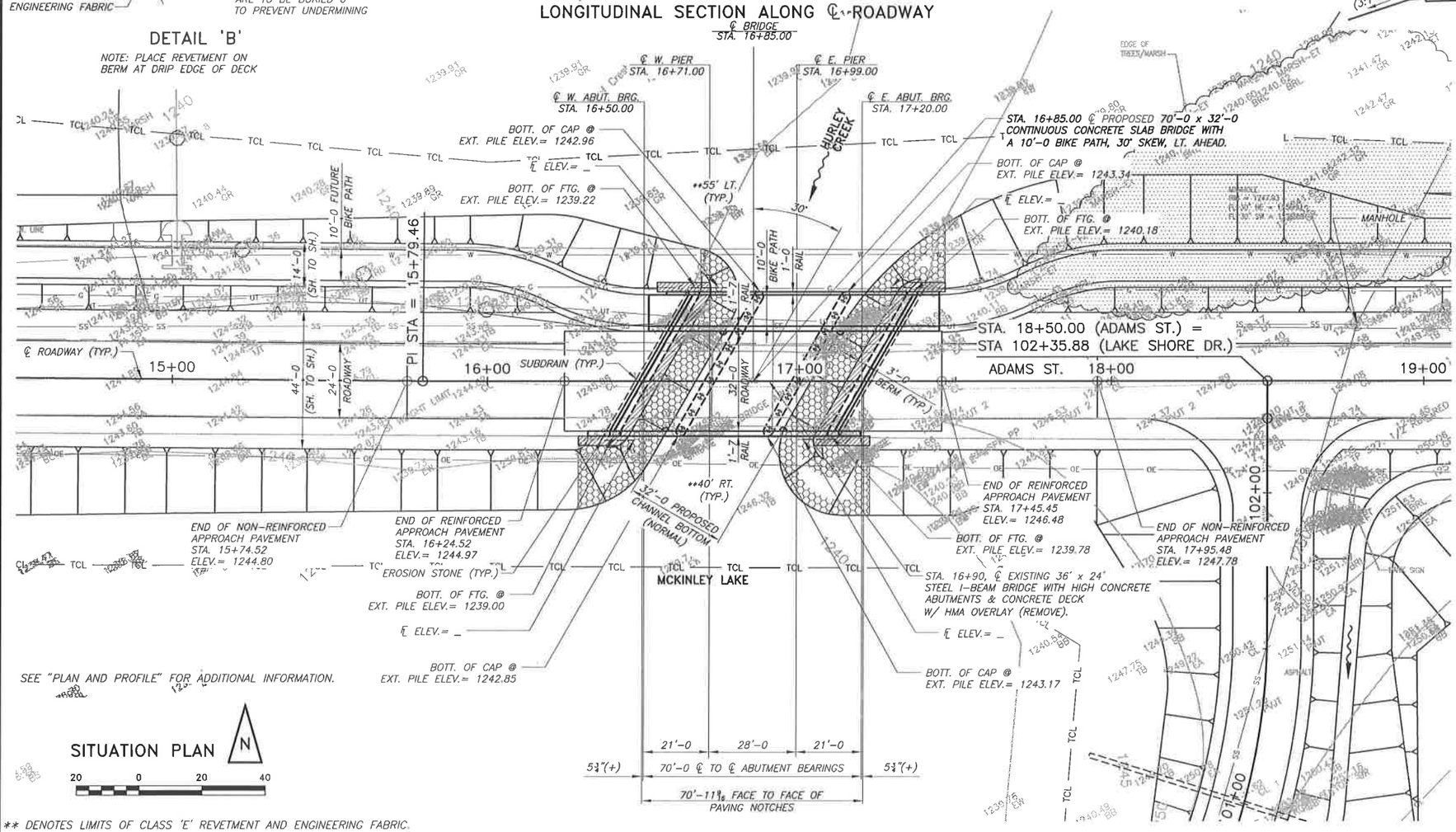
(LOOKING EAST)

V.P.I. STA. 17+25.00
ELEV.= 1244.53
L.V.C.= 350'
K= 98.31
M.O.= 1.5575'
S.S.D.= 425'
50 MPH DESIGN

VPC
STA. 15+50.00
ELEV.= 1244.81

VPT
STA. 19+00.00
ELEV.= 1250.48

PROPOSED GRADE



SEE "PLAN AND PROFILE" FOR ADDITIONAL INFORMATION.

SITUATION PLAN

N

20 0 20 40

** DENOTES LIMITS OF CLASS 'E' REVETMENT AND ENGINEERING FABRIC.

LOCATION

CITY OF CRESTON
UNION COUNTY
T-72N, R-31W
SECTION 11
DOUGLAS TOWNSHIP
OVER MCKLINEY LAKE/HURLEY CREEK

HYDRAULIC DATA

DRAINAGE AREA = 2.8 SQ. MI.
NORMAL LAKE ELEV. = 1239.8
SPILLWAY ELEV. = 1239.8
Q10 = 1,430 C.F.S. STAGE ELEV. = 1243.7(1)
Q50 = 2,090 C.F.S. STAGE ELEV. = 1245.1(1)
Q100 = 2,470 C.F.S. STAGE ELEV. = 1245.4(1)
Q500 = 3,320 C.F.S. STAGE ELEV. = 1245.9(1)
(1) ELEVATIONS FROM 1982 FLOOD INSURANCE STUDY PER CITY, MCKINLEY LAKE HAS MINIMAL ELEVATION FLUCTUATION AND WATER HAS NOT BEEN OVER THE ROAD.
EXT. H.W. ELEV. = UNKOWN

70'-0 x 32'-0 CONTINUOUS CONCRETE SLAB BRIDGE WITH 10'-0 BIKE PATH

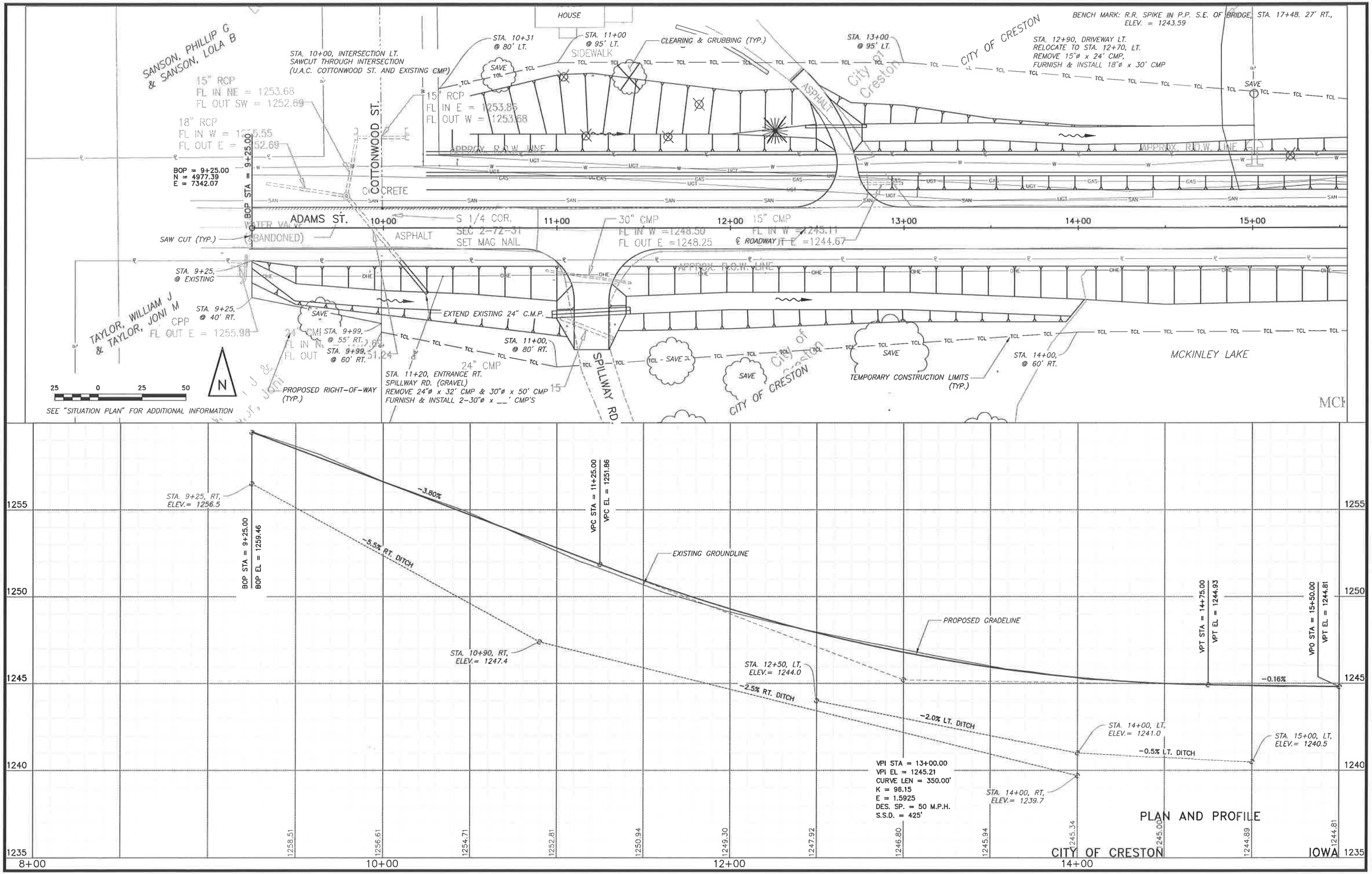
INTEGRAL ABUTMENTS
21'-0 END SPANS

MONOLITHIC PIERS
28'-0 INTERIOR SPAN

SITUATION PLAN

STATION 16+85.00
30° SKEW, LT. AHEAD

CITY OF CRESTON
IOWA



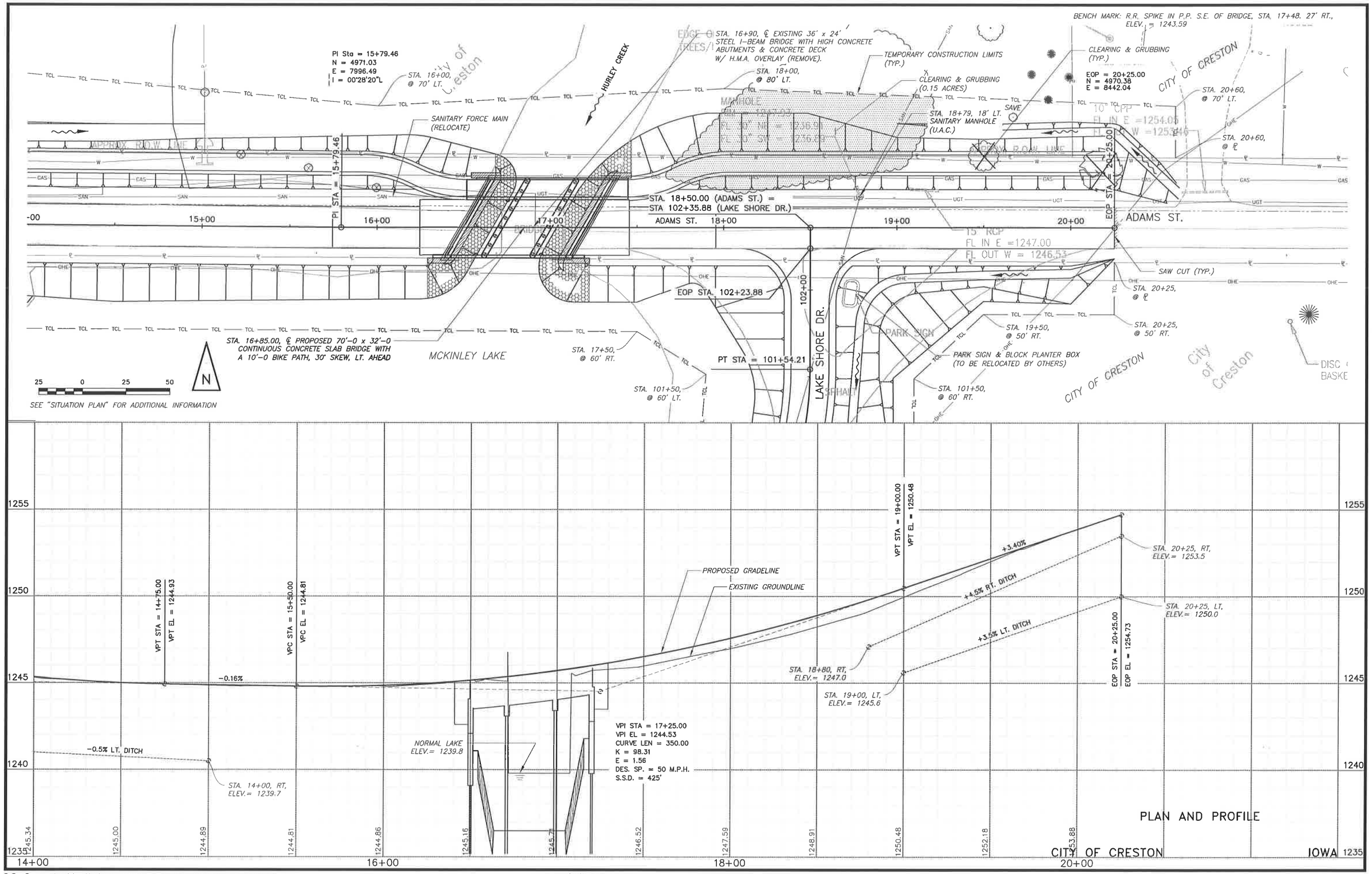
CALHOUN-BURNS & ASSOCIATES, INC. CONSULTING ENGINEERS
WEST DES MOINES, IOWA 50266 (515)224-4344

JOB NO. 2014128

DESIGNED BY : __
DRAWN BY : __
CHECKED BY : __

CITY OF CRESTON

PROJECT NO. BRM-1710-(610)--8N-88



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CITY OF CRESTON

PROJECT NO. BRM-1710-(610)--8N-88

SHEET 4 OF 5

BENCH MARK: R.R. SPIKE IN P.P. S.E. OF BRIDGE, STA. 17+48. 27' RT., ELEV. = 1243.59

PI Sta = 101+17.01
N = 4850.85
E = 8266.86
I = 21°34'36"L

EOP = 102+23.88
N = 4958.64
E = 8267.02

STA. 101+50, @ 60' LT.

TEMPORARY CONSTRUCTION LIMITS (TYP.)

MCKINLEY LAKE

BOP = 100+00.00
N = 4742.11
E = 8223.67

STA. 100+00, @ 30' LT.

LAKESHORE DR.

BOP STA = 100+00.00

VPC STA = 100+78.90

PT STA = 101+54.21

EOP STA = 102+23.88

STA. 18+50.00 (ADAMS ST.) = STA. 102+35.88 (LAKE SHORE DR.)

100+00

101+00

102+00

19+00

℄ ROADWAY

CIRCULAR
Da = 28°38'52"
Dc = 28°57'18"
T = 38.11
R = 200.00
L = 75.32
C = 74.87
E = 3.60
M = 3.53

25 0 25 50

SEE "SITUATION PLAN" FOR ADDITIONAL INFORMATION

STA. 100+00, @ 40' RT.

STA. 101+00, @ 70' RT.

STA. 101+50, @ 60' RT.

PARK SIGN & BLOCK PLANTER BOX (TO BE RELOCATED BY OTHERS

STA. 101+00, ROADWAY PIPE
15"ø x __' CMP (REMOVE)
FURNISH & INSTALL NEW
18"ø X __' CMP
U.S. ℄ ELEV.=
D.S. ℄ ELEV.=

ADAMS ST.

CITY OF CRESTON

EDGE OF REEDS/MARSH

EDGE OF MARSH

SAVE

VPI STA = 100+90.00
VPI EL = 1251.77
CURVE LEN = 100.00
K = 20.41
E = 0.6125'
DES. SP. = 30 M.P.H.
S.S.D. = 200'

BOP STA = 100+00.00
BOP EL = 1249.75

EXISTING GROUNDLINE

PROPOSED GRADELINE

+2.24%

-2.66%

+2.00%

VPI STA = 102+13.88
VPI EL =1248.47

STA. 100+00, RT. ELEV.= 1249.0

-3.0% RT. DITCH

+1.0% RT. DITCH

STA. 101+00, RT. ELEV.= 1246.0

STA. 102+00, RT. ELEV.= 1247.0

VPC STA = 100+40.00
VPC EL = 1250.65

VPT STA = 101+40.00
VPT EL = 1250.44

EOP STA = 102+23.88
EOP EL = 1248.67

1255
1250
1245
1240
1235

1249.75
1250.85
1251.11
1250.17
1248.84

98+00
100+00
102+00
104+00

PLAN AND PROFILE

CITY OF CRESTON IOWA

CALHOUN-BURNS & ASSOCIATES, INC. CONSULTING ENGINEERS
WEST DES MOINES, IOWA 50266 (515)224-4344

JOB NO. 2014128

DESIGNED BY : -
DRAWN BY : -
CHECKED BY : -

CITY OF CRESTON

PROJECT NO. BRM-1710-(610)--8N-88

SHEET 5 OF 5