



## AIRPORT

**DATE:** October 3, 2016

**FROM:** Gregory B. Haug, Airport Director 

**ITEM:** Agenda item for October 11, 2016, Northern Improvement Company (NIC) Change Order

### REQUEST

Consider Change order 4 to Northern Improvement Company (NIC) June 15, 2016 agreement for Maverick Avenue Reconstruction and Terminal Boulevard Rehabilitation

### BACKGROUND INFORMATION

Maverick Avenue reconstruction and Terminal Boulevard rehabilitation are substantially complete and are in service. Change Order 4 adds drainage structures and a sign mounting and adds additional time until June 15, 2017 to complete the work if weather prevents completion of the work this fall. The extended completion time requires Board approval. In reviewing the existing conditions on the west and east sides of the Quick Turn Around (QTA) facility west entrance, the drainage structures do not allow proper grading of this area to allow access for maintenance of inslopes and ditch. As a result, a 48-inch manhole will be installed to tie the existing storm sewer together and allow the grading of this area with slopes that can be maintained more readily. Once this is completed, two 15-inch Reinforced Concrete Pipe (RCP) and one 4-inch Poly Vinyl Chloride (PVC) pipe will be extended to tie into the 48-inch manhole. The Contractor shall reinstall two of the salvaged 15-inch Reinforced Concrete End Section (RCES) with trash guards and dispose of the other 15-inch RCES. The Contractor shall remove and salvage the existing concrete headwall, and place it in storage at a location determined by the Owner. Note that the mobilization amount is broken into two pieces. The \$660 of additional mobilization will be paid if the work on Change Order 3 and 4 cannot be completed at the same time. The proposed cost of \$12,565.60 appears to be reasonable, allowable and we plan to recover costs in Passenger Facility Charge (PFC) #7.

### RECOMMENDED CITY COMMISSION ACTION

Approve Change Order 4 to NIC June 15, 2016 agreement.

## **STAFF CONTACT INFORMATION**

Greg Haug, Airport Director, 701-355-1808, [ghaug@bismarcknd.gov](mailto:ghaug@bismarcknd.gov)

### **Enclosures**

1. Change Order #4

# CONTRACT CHANGE ORDER FORM

## DEPARTMENT

Contract between the City of Bismarck and NORTHERN IMPROVEMENT COMPANY

Contract Number: 2016-25 Change Order Number: #4

AP6, AIP57, NONAIP57, MATB

Project/Subproject: \_\_\_\_\_ Original Contract Amt: \$829,479.50

Project Description: CHANGE ORDER #4: MAVERICK AVENUE RECONSTRUCTION & TERMINAL BLVD REHAB.

Previous Contract Amount: \$841,287.37

Change Order Amount: \$12,565.60 NEW TOTAL: \$853,852.97

Original Contract Date: JUNE 15, 2016 Change in Contract Timeline: +244 DAYS (JUNE 15, 2017)

Within Project Scope: (Y) / N\*

Within Project Funding: (Y) / N\*\*

*\*If not within project scope, attach description of change in scope for Board approval.*

*\*\*If not within project funding, attach revised Project Budget for Board approval.*

## Type of Change Order

Non Design-related Change Order: These change orders include unforeseen conditions, code-related issues, and building inspector changes.

Design-related Change Order: These change orders include unforeseen conditions that affect the appearance, layout, functionality, dimensions, and/or quality of the project.

Emergency Field Condition Change Orders: These change orders include any condition that causes an emergency situation where safety or other immediate losses may occur.

Other: (describe) \_\_\_\_\_

Project Manager Signature: (<\$15,000) \_\_\_\_\_ Date \_\_\_\_\_

Department Head Signature: (<\$25,000) \_\_\_\_\_ Date \_\_\_\_\_

## ADMINISTRATION

City Administrator Signature: (<\$50,000) \_\_\_\_\_ Date \_\_\_\_\_

Add to Commission Consent Agenda

## COMMISSION APPROVAL

Commission Approval Date: \_\_\_\_\_

Attach minutes for Commission Approval

## FISCAL

Comments: \_\_\_\_\_  
Signature Date Completed

**TO ALL DEPARTMENTS:** Please attach a copy of the change order

**Change Order No. 4**

Date September 30, 2016



Airport Name Bismarck Airport  
 Location Bismarck, ND  
 Contract Description Maverick Avenue Reconstruction and Terminal Boulevard Rehabilitation & Miscellaneous Items  
 Contract Date June 15, 2016

AIP Project # Future AIP Project  
 KLJ Project # 1516700  
 Owner's Project # APG.AIP57.Non-AIP57.MATB 600-620-603-6630-200

**Owner**  
 City of Bismarck  
 PO Box 991  
 Bismarck, ND 58502-0991

**Contractor**  
 Northern Improvement Company  
 PO Box 1254  
 Bismarck, ND 58502

**Engineer**  
 KLJ  
 4585 Coleman Street  
 Bismarck, ND 58503

General Reason for Change (quantify and explain details in sections 2 and 3)  
 CO 4-1 through 4-6 - Adjust Existing Drainage  
 CO 4-7 - Install Sign Foundation

	AIP	Non-AIP	Total
Total Contract Amount Prior to this Change Order	\$ 841,287.37	\$ -	\$ 841,287.37
Change Resulting from this Change Order	12,565.60	-	12,565.60
Total Contract Amount After this Change Order	\$ 853,852.97	\$ -	\$ 853,852.97

Calendar Days	
Completion date prior to this Change Order	October 14, 2016
Change resulting from this Change Order	244
Revised completion date from this Change Order	June 15, 2017

Change Order approved by:

Date \_\_\_\_\_

\_\_\_\_\_  
KLJ

Date \_\_\_\_\_

\_\_\_\_\_  
Northern Improvement Company

Date \_\_\_\_\_

\_\_\_\_\_  
City of Bismarck

Summary of Changes

Airport Name Bismarck Airport  
 Location Bismarck, ND  
 AIP Project # Future AIP Project  
 Contractor Northern Improvement Company

Change Order No. 4  
 Section 2

KLJ Project # 1516700

Item #	Spec #	Item	Quantities			Unit	Unit Price	Revised Cost	Changed Cost
			Planned	Revised	Change				
<b>Schedule 1, Division 1 - Maverick Avenue Reconstruction</b>									
1	202	Removal of Bituminous Surfacing	436			S.Y.	\$ 12.40	\$ -	\$ -
2	202	Removal and Salvage of Bituminous Surfacing	3,964			S.Y.	3.80	-	-
3	202	Removal of Pipe, All Types & Sizes	104			L.F.	22.40	-	-
4	202	Removal of Concrete Pavement	4			S.Y.	56.10	-	-
5	202	Removal of Manhole	1			Each	897.60	-	-
6	203	Common Excavation - Type A	1,042			C.Y.	33.10	-	-
7	203	Topsoil	355	375	20	C.Y.	33.10	12,412.50	662.00
8	216	Water	117			M Gal.	5.50	-	-
9	251	Seeding Class III	0.58	0.60	0.02	Acre	6,380.00	3,828.00	127.60
10	253	Hydraulic Mulch	0.58	0.60	0.02	Acre	6,380.00	3,828.00	127.60
11	261	Fiber Rolls 12-Inch	90			L.F.	11.00	-	-
12	302	Aggregate Base Course CL. 5	2,025			C.Y.	65.90	-	-
13	302	Subcut Gravel	35			C.Y.	50.00	-	-
14	401	Tack Coat	552			Gal.	1.90	-	-
15	411	Milling Pavement Surface (1.5-3 Inch Depth)	27			S.Y.	30.80	-	-
16	430	Commercial Grade Hot Mix Asphalt	1,690			Ton	119.30	-	-
17	430	PG 58-28 Asphalt Cement	110			Ton	0.00	-	-
18	Local	Temporary Access Roads	1			L.S.	28,470.00	-	-
19	708	Off-Pavement Inlet Protection-Special	8			Each	636.40	-	-
20	709	Geosynthetic Material Type R1	6,076			S.Y.	2.90	-	-
21	714	Pipe Polyethylene Corr Perf 4-Inch Drain	2,275			L.F.	15.80	-	-
22	714	Pipe Polyethylene Solid 4-Inch	57			L.F.	15.10	-	-
23	714	Pipe Conc. Reinf. 15-Inch CL III - Storm Drain	115	150	35	L.F.	78.80	11,820.00	2,758.00
24	714	End Section - Conc. Reinf. 15-Inch	1			Each	1,107.00	-	-
25	722	Manhole 48-Inch	2	3	1	Each	3,186.00	9,558.00	3,186.00
26	722	Adjust Manhole	8			Each	537.10	-	-
27	722	Replace Manhole Casting	1			Each	567.00	-	-
28	748	Curb & Gutter-Type I	9			L.F.	91.80	-	-
29	748	Valley Gutter	4			S.Y.	270.00	-	-
30	754	Flat Sheet for Signs - Type XI Refl Sheeting	15.50			S.F.	16.20	-	-
31	754	Steel Galv. Posts - Telescoping Perforated Tube	70			L.F.	15.30	-	-
32	754	Reset Sign Panel	9			Each	37.80	-	-
33	754	Reset Sign Support	9			Each	86.40	-	-
34	754	Delineators - Type D with steel post	34			Each	81.00	-	-
35	754	Remove and Reset Delineators	11			Each	59.40	-	-
36	754	Remove and Salvage Existing Sign	1			Each	43.20	-	-
37	762	Permanent Pavement Markings	1,025			S.F.	1.40	-	-
38	F-162	Temporary 8-Foot Chain-Link Fence	136			L.F.	52.40	-	-
39	Local	Traffic Control	1			L.S.	52,850.00	-	-
40	Local	Mobilization	1			L.S.	103,279.20	-	-
<b>TOTAL SCHEDULE 1, DIVISION 1</b>								<b>\$ 41,446.50</b>	<b>\$ 6,861.20</b>

Airport Name Bismarck Airport  
 Location Bismarck, ND  
 AIP Project # Future AIP Project  
 Contractor Northern Improvement Company

Change Order No. 4  
 Section 2

KLJ Project # 1516700

Item #	Spec #	Item	Quantities			Unit	Unit Price	Revised Cost	Changed Cost
			Planned	Revised	Change				
<b>Schedule 1, Division 2 - Terminal Boulevard Rehabilitation</b>									
1	202	Removal and Salvage of Bituminous Surfacing (2-Inch Depth)	1,290			S.Y.	\$ 5.20	\$ -	\$ -
2	401	Tack Coat	64			Gal.	1.90	-	-
3	421	Asphalt Emulsion for Microsurfacing	5,659			Gal.	4.60	-	-
4	421	Aggregate for Microsurfacing Type II	170			Ton	379.50	-	-
5	430	Commercial Grade Hot Mix Asphalt	157			Ton	157.40	-	-
6	430	PG 58-28 Asphalt Cement	10			Ton	0.00	-	-
7	762	Permanent Pavement Markings	3,033			S.F.	1.40	-	-
8	Plan Notes	Crack Sealing	3,750			L.F.	0.90	-	-
<b>TOTAL SCHEDULE 1, DIVISION 2</b>								\$ -	\$ -
<b>Change Order 1 - Cirrus Street Rehabilitation</b>									
CO 1-1	421	Asphalt Emulsion for Microsurfacing	366			Gal.	\$ 4.60	\$ -	\$ -
CO 1-2	421	Aggregate for Microsurfacing Type II	11			Ton	379.50	-	-
CO 1-3	762	Permanent Pavement Markings	60			S.F.	1.40	-	-
CO 1-4	Plan Notes	Crack Sealing	350			L.F.	0.90	-	-
<b>TOTAL CHANGE ORDER 1</b>								\$ -	\$ -
<b>Change Order 2</b>									
CO 2-1	722	Revise Manhole #1 and #2 Casting and Cover	1			Each	\$ 578.77	\$ -	\$ -
<b>TOTAL CHANGE ORDER 2</b>								\$ -	\$ -
<b>Change Order 3</b>									
CO 3-1	722	Additional Inlet	1			L.S.	\$ 4,972.00	\$ -	\$ -
<b>TOTAL CHANGE ORDER 3</b>								\$ -	\$ -
<b>Change Order 4</b>									
CO 4-1	CO	Remove & Reset Existing 15-Inch RCES with Existing Trash Guard	-	2	2	Each	\$ 440.00	\$ 880.00	\$ 880.00
CO 4-2	CO	Remove & Dispose of Existing 15-Inch RCES with Existing Trash Guard	-	1	1	Each	379.50	379.50	379.50
CO 4-3	CO	Remove & Salvage Existing Concrete Headwall	-	1	1	Each	247.50	247.50	247.50
CO 4-4	CO	Pipe PVC 4-Inch (Match Existing Pipe Class)	-	8	8	L.F.	25.30	202.40	202.40
CO 4-5	Local	Mobilization	-	1	1	L.S.	2,620.00	2,620.00	2,620.00
CO 4-6	Local	Mobilization if Change Order 3 and 4 Aren't Completed at Same Time	-	1	1	L.S.	660.00	660.00	660.00
CO 4-7	CO	Install Sign Foundation	-	1	1	L.S.	715.00	715.00	715.00
<b>TOTAL CHANGE ORDER 4</b>								\$ 5,704.40	\$ 5,704.40
<b>TOTAL AIP CHANGE</b>								\$ 47,150.90	\$ 12,565.60
<b>TOTAL NON-AIP CHANGE</b>									
<b>TOTAL CHANGE</b>								\$ 47,150.90	\$ 12,565.60

NOTE: The items highlighted above in tan are items that are funded 100 percent non-AIP and 0 percent AIP.

## Explanation of Changes

Airport Name	Bismarck Airport	Change Order No. 4
Location	Bismarck, ND	Section 3
AIP Project #	Future AIP Project	KLJ Project # 1516700
Contractor	Northern Improvement Company	

### Item No. CO 4-1 - 4-6

#### Description

Adjust Existing Drainage

#### Reason for Change

In reviewing the existing conditions on the west and east sides of the QTA facility west entrance, the drainage structures do not allow proper grading of this area to allow access for maintenance of inslopes and ditch. As a result, a 48-inch manhole will be installed to tie the existing storm sewer together and allow the grading of this area with slopes that can be maintained more readily. Once this is completed, two 15-inch RCP and one 4-inch PVC pipe will be extended to tie into the 48-inch manhole. The Contractor shall reinstall two of the salvaged 15-inch RCES with trash guards as shown, and dispose of the other 15-inch RCES. The Contractor shall remove and salvage the existing concrete headwall, and place it in storage at a location determined by the Owner. Note that the mobilization amount is broken into two pieces. The \$660 of additional mobilization will be paid if the work on Change Order 3 and 4 cannot be completed at the same time.

The proposed cost appears to be allowable, allocable and reasonable.

### Item No. CO 4-7

#### Description

Install Sign Foundation

#### Reason for Change

As part of the project, existing signs were removed and salvaged to complete the grading on the project. One of the signs requiring removal requires installation of concrete foundations. The Contractor shall pour the concrete foundations as shown in the detail attached to this change order. The cost will be to install the concrete foundations, reinstall the sign by securing the existing sign to the foundations, and all work necessary to complete the work in an acceptable manner.

The proposed cost appears to be allowable, allocable and reasonable.

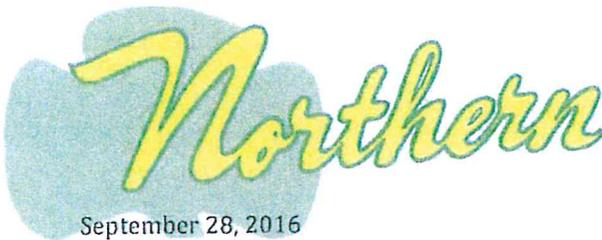
### Item No.

#### Description

Request for Time Extension

#### Reason for Change

The Contractor has requested that the completion date for the project be extended to June 15, 2017. See letter attached to this change order for further information.



Home Office  
 Fargo, North Dakota  
 4000-12<sup>th</sup> Avenue North  
 58102-2910  
 PO Box 2846  
 58108-2846  
 Phone 701-277-1225  
 Fax 701-277-1516

Office  
 Bismarck, North Dakota  
 PO Box 1254  
 58502-1254  
 Phone 701-223-6695  
 Fax 701-224-0937

Office  
 Dickinson, North Dakota  
 PO Box 1035  
 58602-1035  
 Phone 701-225-5197  
 Fax 701-225-0207

# IMPROVEMENT COMPANY

Thomas M<sup>C</sup>Cormick, President/CEO  
 Steve M<sup>C</sup>Cormick, Executive Vice-President

September 28, 2016

Mr. Tom Neigum, P.E.  
 Kadrmas Lee & Jackson  
 4585 Coleman St.  
 P.O. Box 1157  
 Bismarck, ND 58502

RE: **Bismarck Airport - Maverick Ave**  
**KLJ #1516700/NIC #16246**  
**Change Order #4**

Dear Tom,

As per your request and information provided, we submit the following:

Item	Description	Quantity	Unit Price	Total
7	Topsoil	20 cy	\$ 33.10	\$ 662.00
9	Seeding Cl III	0.02 ac	\$ 6,380.00	\$ 127.60
10	Mulch	0.02 ac	\$ 6,380.00	\$ 127.60
23	15" RCP	35 lf	\$ 78.80	\$ 2,758.00
25	48" MH	1 ea	\$ 3,186.00	\$ 3,186.00
40	Mobilization	1 ls	\$ 3,280.00	\$ 3,280.00
CO 4-1	Remove & Reset 15" RCES	2 ea	\$ 440.00	\$ 880.00
CO 4-2	Remove & Dispose 15" RCES	1 ea	\$ 379.50	\$ 379.50
CO 4-3	Remove & Salvage Headwall	1 ea	\$ 247.50	\$ 247.50
CO 4-4	4" PVC	8 lf	\$ 25.30	\$ 202.40
<b>Estimated Total</b>				<b>\$ 11,850.60</b>

- \* Price does not include survey. Survey by KLJ.
- \* The mobilization item is a combination of mobilizing equipment for the underground (\$600.00), and seed/mulching (\$250.00), Project Superintendent (\$1,000.00), Project Manager (\$500.00), office overhead (\$200.00), Northern Improvement overhead (\$230.00—\$2,300.00 @ 10%), and cleanup (\$500.00), for a total of \$3,280.00.
- \* The original project was substantially completed on September 21, 2016. Change Order #3 and Change Order #4 (if approved) need to be completed. If Change Order #3 and Change Order #4 can be constructed at the same time, we can deduct \$600.00 from the Mobilization Item (#40) above. Contingent upon approvals, shop drawing and approvals, production of materials, weather, and workload, we are concerned about completion in 2016. We will endeavor to complete the work by the end of October; however, we are requesting a completion date of June 15, 2017.
- \* Additionally, we are requesting the retainage be reduced to the absolute minimum. The original project, Change Order #1, Change Order #2, and additional ditch grading were completed by September 21, 2016. The remainder of the work (Change Order #3 and #4) are due to design changes. We do not feel it is fair to hold the project retainage due to Change Order #3 and Change Order #4.

Very Truly Yours,

  
 NORTHERN IMPROVEMENT COMPANY  
 Bradley A. Ballweber  
 VP/Treasurer/Area Manager

cc: Brent Theurer - KLJ  
 Don Weisz - Weisz & Sons  
 Ryan Holen - Weisz & Sons  
 Bruce Thompson - NIC

[www.nicnd.com](http://www.nicnd.com)

**Highway - Heavy - Municipal Contractor**

We are an Equal Opportunity Employer



# WEISZ & SONS INC CONTRACTORS

Bismarck, ND • 701-258-9770

Proposal Submitted to: Northern Improvement Company Attn: Brad Ballweber	Phone 701-223-6695	Date: September 23, 2016
Job Name: Maverick Ave. – Change Order #4	Job Location: Bismarck, North Dakota	

**Additional Items of work:**

• Topsoil	20 C.Y. @ \$33.10	662.00
• Pipe Conc. Reinf. 15-Inch CL III – Storm Drain	35 LF @ \$73.00	2,555.00
• Manhole 48-Inch	1 Each @ \$2,950.00	2,950.00
• Mobilization	1 L.S. @ \$2,300.00	2,300.00

**CHANGE ORDER #4**

• Remove & Reset Existing 15-Inch RCES with Existing Trash Guard	2 Each @ \$400.00	800.00
• Remove & Dispose of Existing 15-Inch RCES with Existing Trash Guard	1 Each @ \$345.00	345.00
• Remove & Salvage Existing Concrete Headwall	1 Each @ \$225.00	225.00
• Pipe PVC 4-Inch (Match Existing Pipe Class)	8 LF @ \$23.00	<u>184.00</u>

**TOTAL PRICE: \$10,021.00**

Note: Work can begin as soon as 5 to 7 days after manhole shop drawing approval.

All material is guaranteed to be as specified. All work to be completed in a workmanlike manner according to standard practices. Any alteration or deviation from above specifications involving extra costs will be executed only upon written orders and will become an extra charge over and above the estimate. All agreements contingent upon strikes, accidents, or delays beyond our control. Owner to carry all necessary insurance. Our workers are fully covered by Workman's Compensation Insurance. Weisz and Sons is an ECCS qualified contractor.

By Don Weisz Date 9-23-16

(Note: This proposal may be withdrawn by us if not accepted within 30 days.)

Acceptance of Proposal, the above price, specification and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payments will be made as outlined above.

Authorized Signature \_\_\_\_\_ Date \_\_\_\_\_



Home Office  
Fargo, North Dakota  
4000-12<sup>th</sup> Avenue North  
58102-2910  
PO Box 2846  
58108-2846  
Phone 701-277-1225  
Fax 701-277-1516

Office  
Bismarck, North Dakota  
PO Box 1254  
58502-1254  
Phone 701-223-6695  
Fax 701-224-0937

Office  
Dickinson, North Dakota  
PO Box 1035  
58602-1035  
Phone 701-225-5197  
Fax 701-225-0207

## IMPROVEMENT COMPANY

Thomas M<sup>C</sup>Cormick, President/CEO  
Steve M<sup>C</sup>Cormick, Executive Vice-President

September 26, 2016

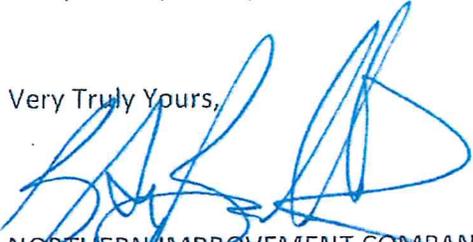
Mr. Tom Neigum, P.E.  
Kadrmass Lee & Jackson  
4585 Coleman St.  
P.O. Box 1157  
Bismarck, ND 58502

RE: Bismarck Airport – Maverick Ave  
KLJ #1516700/NIC #16246  
Concrete Sign Foundation

Dear Tom,

Please find enclosed a letter from Ms. Heather Kautz, Project Manager, 3D Specialties regarding the cost to install the concrete foundation to reset the "Exit" sign on Maverick Avenue. If acceptable, please process a Change Order in the amount of \$715.00 (\$650.00 + \$65.00).

Very Truly Yours,



NORTHERN IMPROVEMENT COMPANY  
Bradley A. Ballweber  
VP/Treasurer/Area Manager

cc: Brent Theurer - KLJ  
Heather Kautz - 3D  
Bruce Thompson – NIC





1720 12th Street South • PO Box 62 • Bismarck, ND 58502-0062  
800-726-4064 • Office 701-223-0828 • Fax 701-223-3140  
Email sales@dakotafence.com

September 26, 2016

Northern Improvement  
PO Box 1254  
Bismarck ND 58502

RE: Bismarck Airport Maverick Ave & Terminal Blvd Repair

To Whom It May Concern:

The following is our price for 3D Specialties to set 2 new concrete bases for the reinstallation of the Exit signs on the east end of Maverick Avenue on the north side of the road. Concrete bases to be ~~12"x48"~~  
18"x48"

Lump Sum Total - \$ 650.00

Sincerely,

A handwritten signature in black ink that reads "Heather Kautz". The signature is written in a cursive style with a long horizontal stroke extending to the right.

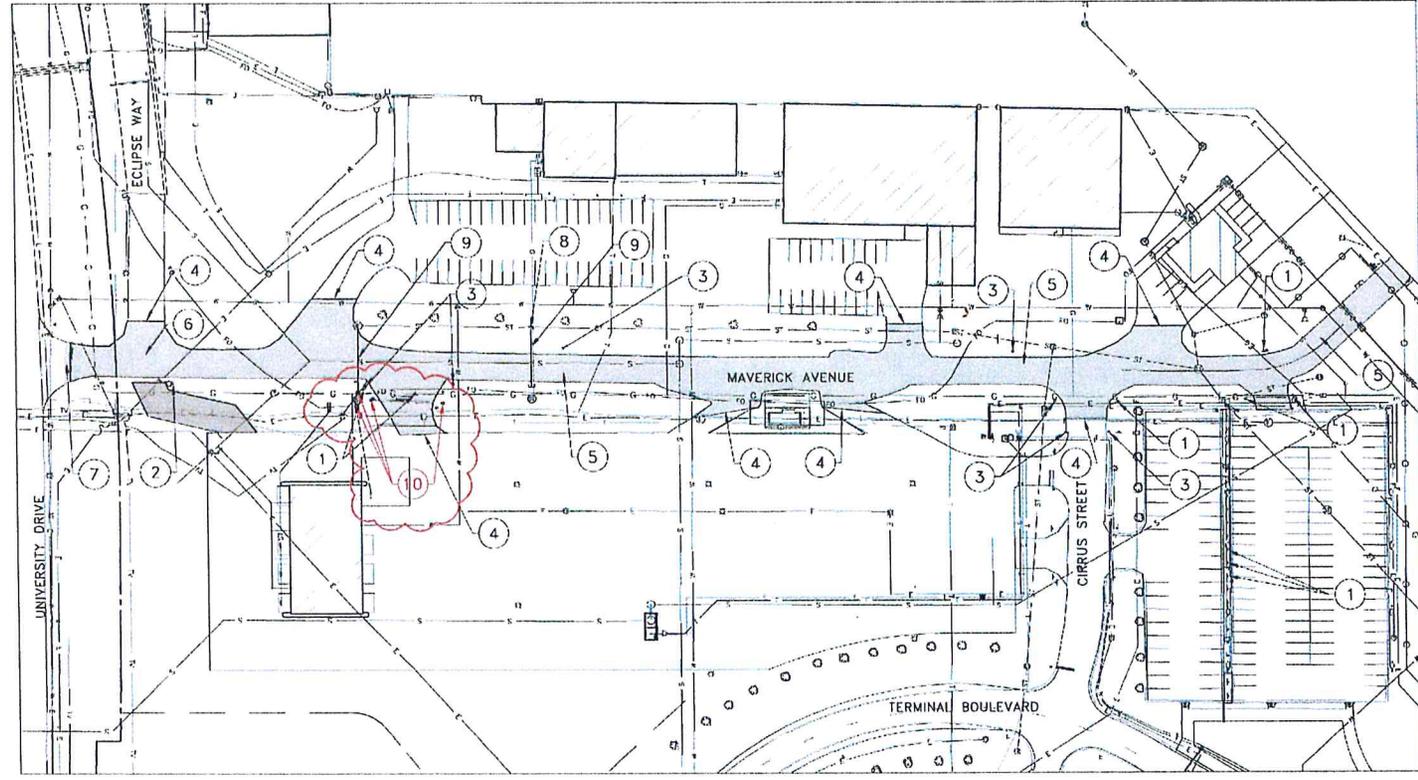
Heather Kautz



Equal Opportunity Employer

NOTE: UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

NOTE: SOME QUANTITIES ARE PAY ITEMS AND SOME ARE INCIDENTAL TO OTHER PROJECT COSTS. REFER TO THE PROJECT MANUAL FOR DETAILED INFORMATION.



REMOVAL QUANTITIES - MAVERICK AVENUE

- ① 754 - RESET SIGN SUPPORT - 9 EACH
  - ② 754 - REMOVE AND SALVAGE EXISTING SIGN - 1 EACH
  - ③ 754 - REMOVE AND RESET DELINEATORS - 11 EACH
  - ④ 202 - SAW BITUMINOUS SURFACING (FULL DEPTH) - INCIDENTAL
  - ⑤ 202 - REMOVE AND SALVAGE OF BITUMINOUS SURFACING (FULL DEPTH) - 3,984 S.Y.
  - ⑥ 202 - REMOVAL OF BITUMINOUS SURFACING - 436 S.Y.
  - ⑦ 411 - MILLING PAVEMENT SURFACE (1.5-3 INCH DEPTH) - 27 S.Y.
  - ⑧ 202 - REMOVAL OF MANHOLE - 1 EACH
  - ⑨ 202 - REMOVAL OF PIPE, ALL TYPES & SIZES - 105 LF
  - ⑩ 202 - REMOVE AND SALVAGE 3 15" RCS & 1 CONCRETE HEADWALL (REUSE 2 15" RCS & CONTRACTOR DISPOSE OF 1 15" RCS (RETURN CONCRETE HEADWALL TO OWNER))
- SEE SHEET E1 - ELECTRICAL REMOVAL PLAN FOR REMOVAL OF ELECTRICAL ITEMS

PRELIMINARY  
NOT FOR  
CONSTRUCTION

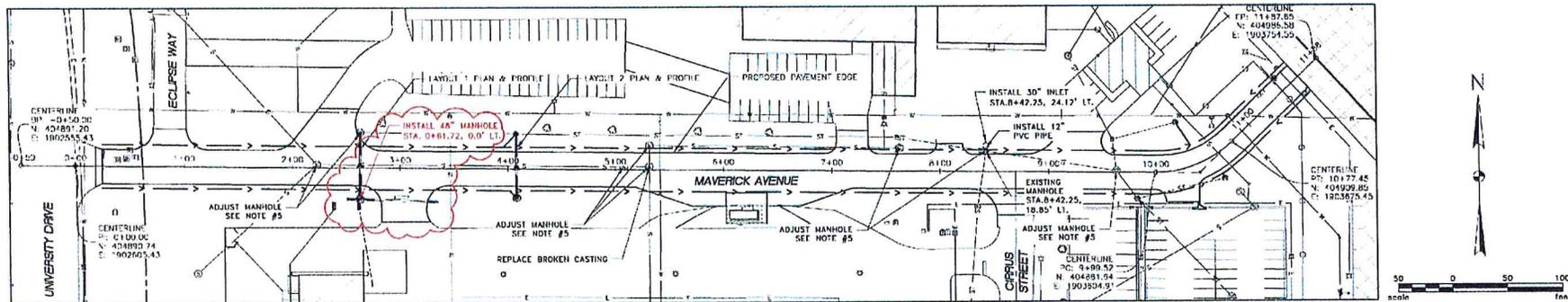
**MAVERICK AVE. RECONSTRUCTION & TERMINAL BLD. REHABILITATION**  
 BISMARCK AIRPORT - CITY OF BISMARCK (OWNER)  
 BISMARCK, NORTH DAKOTA  
 CHANGE ORDER #4 09/19/2016 CAS

MAVERICK AVENUE  
 DEMOLITION PLAN

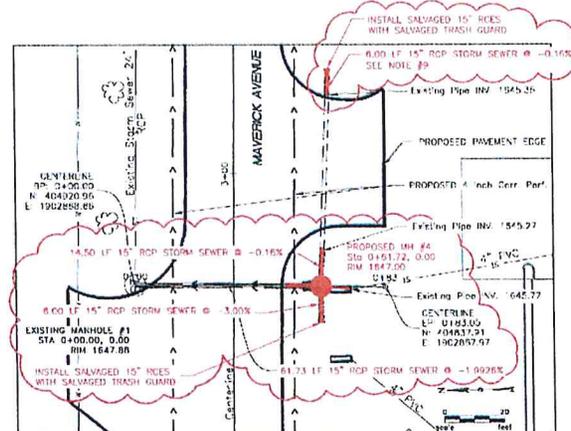
DATE	03/25/2016
BY	SBW
PROJECT NUMBER	1516700
ISSUE	03/25/2016

SHEET  
**11R**

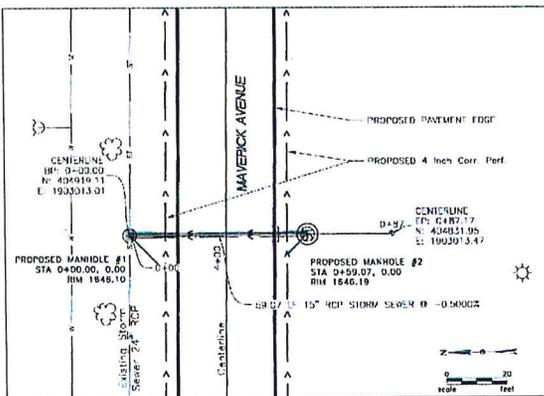
NOTE: UTILITY LOCATIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.



OVERALL LAYOUT



LAYOUT 1 PLAN & PROFILE



LAYOUT 2 PLAN & PROFILE

Pipe Table					
Pipe No.	From Structure	To Structure	Size (in)	Slope (%)	Length (ft)
P1	Existing MH #1	15" RCP	15 RCP	-1.995	55.84
P2	Proposed MH #1	Proposed MH #2	15 RCP	-0.500	59.07
P3 (E)	Proposed MH #4	Existing MH	12 PVC	TBD	4.00
P4 (E)	Proposed MH #4	Existing Pipe	15 RCP	-0.1600	14.50
P5 (W)	Proposed MH #4	End Section	15 RCP	3.0000	6.00
P6 (E)	Existing Pipe	End Section	15 RCP	0.1600	6.00
P7 (N)	Proposed MH #4	15" RCP	15 RCP	1.9925	6.00
P8 (S)	Proposed MH #4	4" PVC	4 PVC	TBD	6.00

Structure Table				
Manhole No.	Proposed MH #1	Proposed MH #2	Proposed Inlet	Proposed MH #4
Station	0+00.00	0+59.07	8+42.25	0+61.72
Offset	CL	CL	24.12 Lt	0.0 Lt
T.B.C.	NA	NA	NA	NA
Rim Elevation	1646.10	1646.10	TBD	1644.20
Top P.C. Section	TBD	TBD	TBD	TBD
Invert N		1643.93		1644.89
Invert NW	1643.44	1644.93 (4")		1645.25
Invert S	1643.64		TBD	1644.89
Invert SW	1644.44 (4")			1645.25
Invert W	1643.64		TBD	TBD
Length P.C. Section	TBD	TBD	TBD	TBD
Slur Type	40"CB	40"CB	30"CB	40"CB
Casting	EJW 1040A Inlet	EJW 1040A Solid	See Note 8	EJW 1040A Inlet

Estimated Quantities		
Spec No	Storm Sewer Items	Quantity
714	15 inch RCP Cl. III Pipe	150 L.F.
714	15 inch RC End Section Cl. III Pipe W/Trash Guard	1 EA
714	Manhole 48 Inch	3 EA
714	Inlet 30 Inch	1 EA
714	12 Inch SDR35 Pipe	4 L.F.
714	4 Inch PVC Pipe	8 L.F.
714	Reinforced Salvaged 15" RCES with Salvaged Trash Guard	
722	Adjust Manhole	2 EA
748	Replace Manhole Casing (NEENAH R2554 W/Solid Cover or Equal)	8 EA
		1 EA

- Notes:
- Inverts listed are to the center of the inlet.
  - Offsets are to the center of the inlet.
  - New manholes shall have 2" surging.
  - New manholes shall have gouted flow line after installed.
  - For manhole casting adjustment, the Contractor shall replace any broken existing rings and re-control casing on manhole prior to making final adjustment to proposed grade.
  - Prior to any construction, the Contractor shall field verify existing elevations. Any changes or adjustments required shall be brought to the attention of the Engineer prior to construction.
  - New storm manholes shall be class 2 with three adjusting rings and EJW 1040A With inlet or solid grates as shown or approved equal.
  - For proposed inlet, reuse existing frame and inlet grate.
  - Add 6" of 15" RCP storm sewer pipe and recontrol end section.

PRELIMINARY  
NOT FOR  
CONSTRUCTION

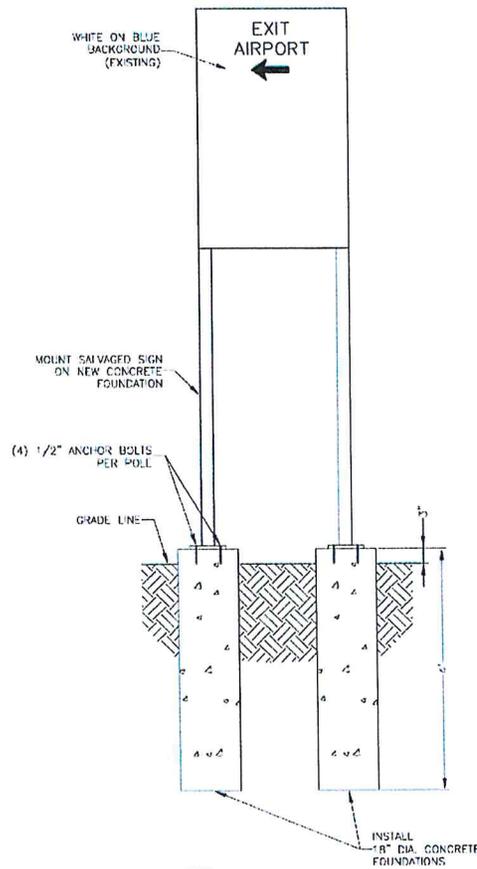
MAVERICK AVE RECONSTRUCTION & TERMINAL BLDG. REHABILITATION  
BISMARCK AIRPORT - CITY OF BISMARCK (OWNER)  
BISMARCK, NORTH DAKOTA

MAVERICK AVENUE  
STORM SEWER  
PLAN & PROFILE

DRAWN BY  
BRT  
CHECKED BY  
JUN  
PROJECT NUMBER  
1518700  
LAST REVISED DATE  
09/16/2016

SHEET  
21R3

© KLJ 2016



**NOTES**

1. VERIFY FINAL SIGN LOCATIONS AND ALIGNMENT WITH THE ENGINEER.

**INFORMATION SIGN DETAILS**

**PRELIMINARY**  
NOT FOR  
CONSTRUCTION



**MAVERICK AVE. RECONSTRUCTION & TERMINAL BLDG. REHABILITATION**  
BISMARCK AIRPORT - CITY OF BISMARCK (OWNER)  
BISMARCK, NORTH DAKOTA  
CHANGE ORDER #4 09/27/2016 CAS

**MAVERICK AVENUE  
SIGNAGE DETAILS**

DESIGNED	SWW
DRAWN	BRT
PROJECT NUMBER	1516700
DATE REVISED	09/27/2016

SHEET  
**38a**