

MINUTES
LANCASTER COUNTY BOARD OF COMMISSIONERS
ZOOM MEETING
VIEWING AVAILABLE VIA YOUTUBE AT <https://www.youtube.com/lnktvcity>
COUNTY-CITY BUILDING, ROOM 112
TUESDAY, APRIL 14, 2020
9:00 A.M.

Advance public notice of the Board of Commissioners meeting was posted on the County-City Building bulletin board and the Lancaster County, Nebraska, web site and emailed to the media on April 10, 2020.

Commissioners present: Sean Flowerday, Chair; Rick Vest, Vice Chair; Roma Amundson; Deb Schorr; and Christa Yoakum

Others present: Kerry Eagan, Chief Administrative Officer, Jenifer Holloway, Deputy County Attorney; Dan Nolte, County Clerk, and Monét McCullen, County Clerk's Office

The meeting was called to order at 9:00 a.m., the Pledge of Allegiance was recited and the Chair announced the Open Meetings Act is available at Neb. Rev. Stat. § 84-1401-1414.

1) MINUTES:

- A.** Approval of the minutes of the Board of Commissioners meeting held on Tuesday, April 7, 2020.

MOTION: Schorr moved and Vest seconded approval of the minutes. Schorr, Yoakum, Vest and Flowerday voted yes. Amundson was absent. Motion carried 4-0.

2) CLAIMS:

- A.** Approval of all claims processed through April 14, 2020.

Dan Nolte, Lancaster County Clerk, noted there was an amendment to the claims for payroll for the pay period of March 26, 2020 – April 8, 2020 (Exhibit 1).

MOTION: Schorr moved and Yoakum seconded approval of the claims as amended. Vest, Schorr, Yoakum and Flowerday voted yes. Amundson was absent. Motion carried 4-0.

- 3) CONSENT ITEMS:** These are routine business items that are expected to be adopted without dissent. Any individual item may be removed for special discussion and consideration by a Commissioner or by any member of the public without prior notice. Unless there is an exception, these items will be approved as one with a single vote of the Board of Commissioners. These items are approval of:

- A.** Amendment to contract C-19-0303 with WatchGuard Video using the HGAC Contract No. EF04-19 for Law Enforcement Speed Detection & Video Equipment, (MOU050. The amendment renews the contract from April 1, 2020 through March 31, 2021. The estimated cost to the County is not to exceed \$71,000.) (C-20-0178)

- B. Utility Permit No. 1967 allowing Windstream Nebraska LLC to re-locate existing buried fiber optic facilities at three locations adjacent to Saltillo Road as part of the South Beltway Project. There is no cost to the County. (C-20-0171)
- C. Right-of-way contracts with the following:
 - 1. Virgil Oberg and Janet L Oberg Life Estates, Cheryl L Oberg and Dean L Oberg, Remaindermen, North 84th Street and Agnew Road, in the amount of \$379. (C-20-0174)
 - 2. Wolfe Acres, LLC (attn: Kevin Wolfe), Northwest 27th Street and West Agnew Road, in the amount of \$2,081. (C-20-0175)
 - 3. Maahs Farms, Inc, 1920 Branched Oak Road, in the amount of \$1,957. (C-20-0176)
 - 4. First Nebraska Trust Company, Lincoln, Trustee of the Robert N Sass Irrevocable Trust and Hope J Sass, Trustee of the Hope J Sass Revocable Trust, 706 North 190th Street, in the amount of \$100. (C-20-0177)
 - 5. Bhee Jay Arroyo and Melissa Arroyo, Southwest 23rd Street and Green Acres Boulevard, in the amount of \$415. (C-20-0179)
 - 6. Carl L and Kari L Iske, 4601 Maddie Street, in the amount of \$559. (C-20-0180)
- D. Received and placed on file the following reports:
 - 1. County Clerk for March, 2020
 - 2. Records and Information Management for March, 2020
 - 3. County Attorney's Office for January 2020 - March 2020
 - 4. Sheriff's Office for January 2020 - March 2020
 - 5. Independent auditor's report for Lancaster County for the fiscal year ending June 30, 2019
 - 6. Independent auditor's management letter for Lancaster County for the fiscal year ending June 30, 2019
- E. Setting a public hearing on Tuesday, April 21, 2020, at 9:00 a.m., in Room 112 of the County-City Building, (555 S. 10th Street, Lincoln, Nebraska) regarding the amendment of the Lancaster County General Assistance guidelines.

Commissioner Amundson joined the meeting at 9:15 a.m.

MOTION: Vest moved and Yoakum seconded approval of the consent items. Yoakum, Vest, Schorr, Amundson and Flowerday voted yes. Motion carried 5-0.

4) NEW BUSINESS:

- A. Recommendation from the Purchasing Agent and County Engineer to award a contract from Bid #20-070 to Midwest Infrastructure for Culvert Maintenance 2020 for a total cost of \$689,286.02. (B-20-0070)

Pam Dingman, Lancaster County Engineer, said this contract will focus on the north half of the County and will replace 14 culverts (Exhibit 2). She noted the initial estimate was for \$733,000.

MOTION: Schorr moved and Vest seconded approval of the recommendation.

Vest asked if this was a local company. Dingman confirmed they were and said she believed they were based out of Prairie Home.

ROLL CALL: Amundson, Yoakum, Vest, Schorr and Flowerday voted yes. Motion carried 5-0.

- B.** Professional services agreement between Innerspace Studios, Ltd., and Lancaster County on behalf of the Lancaster County Engineer's Office, for services related to renovation of the property located at 444 Cherrycreek Road, Building C. The cost to the County is not to exceed \$10,000. Work is to be completed on or before April 13, 2021. (C-20-0181)

Dingman said this contract will be for office furniture and is associated with item 4C. This was also included in the Engineering Department's budget.

MOTION: Vest moved and Yoakum seconded approval of the agreement. Schorr, Amundson, Yoakum, Vest and Flowerday voted yes. Motion carried 5-0.

- C.** Professional services agreement with Sinclair Hille Architects to provide architectural services related to the renovation of the property located at 444 Cherrycreek Road, Building C. The cost to the County is \$24,960. Work is to be completed within 12 months of execution. (C-20-0182)

Dingman said this is for architect services and will address a number of issues such as electrical and the Americans with Disabilities Act (ADA) compliance. This money was budgeted in the general fund and is associated with item 4B.

MOTION: Amundson moved and Yoakum seconded approval of the agreement. Vest, Schorr, Amundson, Yoakum and Flowerday voted yes. Motion carried 5-0.

- D.** Addendum to the 2019-2021 Bargaining Agreement between Lancaster County and Fraternal Order of Police, Lodge #77, under County Contract C-19-0713, to amend Article 19 and Article 30 for a temporary period of time. (C-20-0183)

Kristy Board, Deputy Lancaster County Attorney, said the Union and Youth Services Center needed this addendum in place to assist with staffing issues. There was a request to increase compensatory (comp) time during the COVID-19 pandemic. The Youth Services Center was concerned with the staffing requirements of a two to two gender ratio. The addendum will now move their comp time hours from 40 to 80. This will also allow the Youth Services Center to have one male worker and one female worker per shift.

Flowerday supported the one to one gender requirement.

Schorr asked if this would be a temporary solution until the pandemic resolution is rescinded or until the end of the calendar year. Bauer confirmed this will only be temporary. She noted the gender requirement change could possibly help the County when the time comes for contract negotiations if it becomes a positive experience for the Union and Youth Services.

The Chair recessed the meeting at 9:27 a.m., and reconvened at 9:31 a.m.

MOTION: Vest moved and Amundson seconded approval of the addendum. Yoakum, Vest, Schorr, Amundson and Flowerday voted yes. Motion carried 5-0.

- E. Program Agreement with the State of Nebraska Department of Transportation (NDOT) to promote innovative solutions and provide additional funding to accelerate the repair and replacement of deficient bridges on the county road system (Projects C005545810 and C005516825). The total cost is estimated to be \$640,000. NDOT will reimburse the County 55% of the final cost up to \$352,000. (C-20-0184)

Dingman said this agreement is the County Bridge Match Program which is part of the Transportation Innovation Act. This is the second grant under this program that the County has received. The County will join with Saline County to allow for more funding. Bridges R-248 and Y-181 will be funded by the County Bridge Match Program. There will be an interlocal agreement that will need to be approved at a later date and that will also include Bridge R-210. (Exhibit 3)

MOTION: Vest moved and Yoakum seconded approval of the agreement. Amundson, Yoakum, Vest, Schorr, and Flowerday voted yes. Motion carried 5-0.

- F. Contract with Constructors Inc. for paving of South 82nd Street (Project 20-12, Bid 20-046) The work is to be completed on or before August 15, 2020. The cost to the County is \$1,269,723.65. (C-20-0185)

Dingman said this contract will pave three miles on South 82nd Street. (Exhibit 4)

MOTION: Amundson moved and Yoakum seconded approval of the contract. Schorr, Amundson, Yoakum, Vest, and Flowerday voted yes. Motion carried 5-0.

- G. Contract with encompass to provide Office Furniture Supply & Installation - County Assessor. (Bid No. 19-303.) This Contract shall be effective upon execution with terms outlined in Section 7 of the Contract. The cost to the County is not to exceed \$151,934.93. (C-20-0187)

MOTION: Vest moved and Yoakum seconded approval of the contract.

Schorr asked if this was a budgeted item. Rob Ogden, Lancaster County Assessor, clarified this is in the current budget and is scheduled to be completed in the beginning of July, 2020.

ROLL CALL: Vest, Schorr, Amundson, Yoakum and Flowerday voted yes. Motion carried 5-0.

- H. Certification regarding Nebraska Crime Commission Operating Instruction Number 42, Discrimination and Harassment Policy and Complaint Procedures for the Nebraska Crime Commission and Sub-grant Recipients.

MOTION: Schorr moved and Amundson seconded approval of the certification. Yoakum, Vest, Schorr, Amundson and Flowerday voted yes. Motion carried 5-0.

- I. Designation of Tina Collins as Entity Administrator for SAM (Federal Grants)

MOTION: Amundson moved and Yoakum seconded approval of the designation of Tina Collins as entity administrator. Amundson, Yoakum, Vest, Schorr and Flowerday voted yes. Motion carried 5-0.

- J. Temporary alternative housing for essential County employees.

This item was placed on hold.

5) UPDATE ON COVID-19 AND LANCASTER COUNTY RESPONSE

1. Accrual of vacation and sick leave under Emergency Paid Sick Leave and Emergency Family and Medical Leave

Doug McDaniel, Human Resources Director, said this is a request to allow accrual of vacation and sick leave while an employee is out on Emergency Sick Leave or Emergency Family Medical Leave during the pandemic. He noted it is common practice to not allow accrual while out on emergency leave.

Schorr clarified that the Human Resources Department is recommending denial of this item. McDaniel clarified that is correct. Schorr noted this item is not on the agenda for action and the Human Resources Department will continue to not pay the accrual during this time.

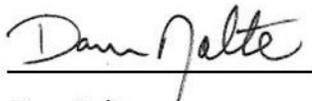
Commissioner Amundson exited the meeting at 9:45 a.m.

6) ANNOUNCEMENTS:

- A. The Lancaster County Board of Commissioners will hold a staff meeting via Zoom on Thursday, April 16, 2020 at 8:30 a.m. (County-City Building, Room 113)
- B. The Lancaster County Board of Commissioners will hold its next regular meeting on Tuesday, April 21, 2020 at 9:00 a.m., via Zoom (County-City Building, Room 112) with the Board of Equalization immediately following.
- C. County Commissioners can be reached at 402-441-7447 or commish@lancaster.ne.gov.
- D. The Lancaster County Board of Commissioners meeting is broadcast live on LNKTv City. For the rebroadcast schedule visit lincoln.ne.gov (keyword: LNKTv). Meetings are also streamed live on LNKTv and can be viewed on YouTube (LNKTvcity).

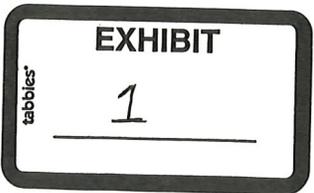
7) ADJOURNMENT

MOTION: Schorr moved and Yoakum seconded to adjourn the Lancaster County Board of Commissioners meeting at 9:46 a.m. Yoakum, Vest, Schorr and Flowerday voted yes. Amundson was absent. Motion carried 4-0.



Dan Nolte
Lancaster County Clerk





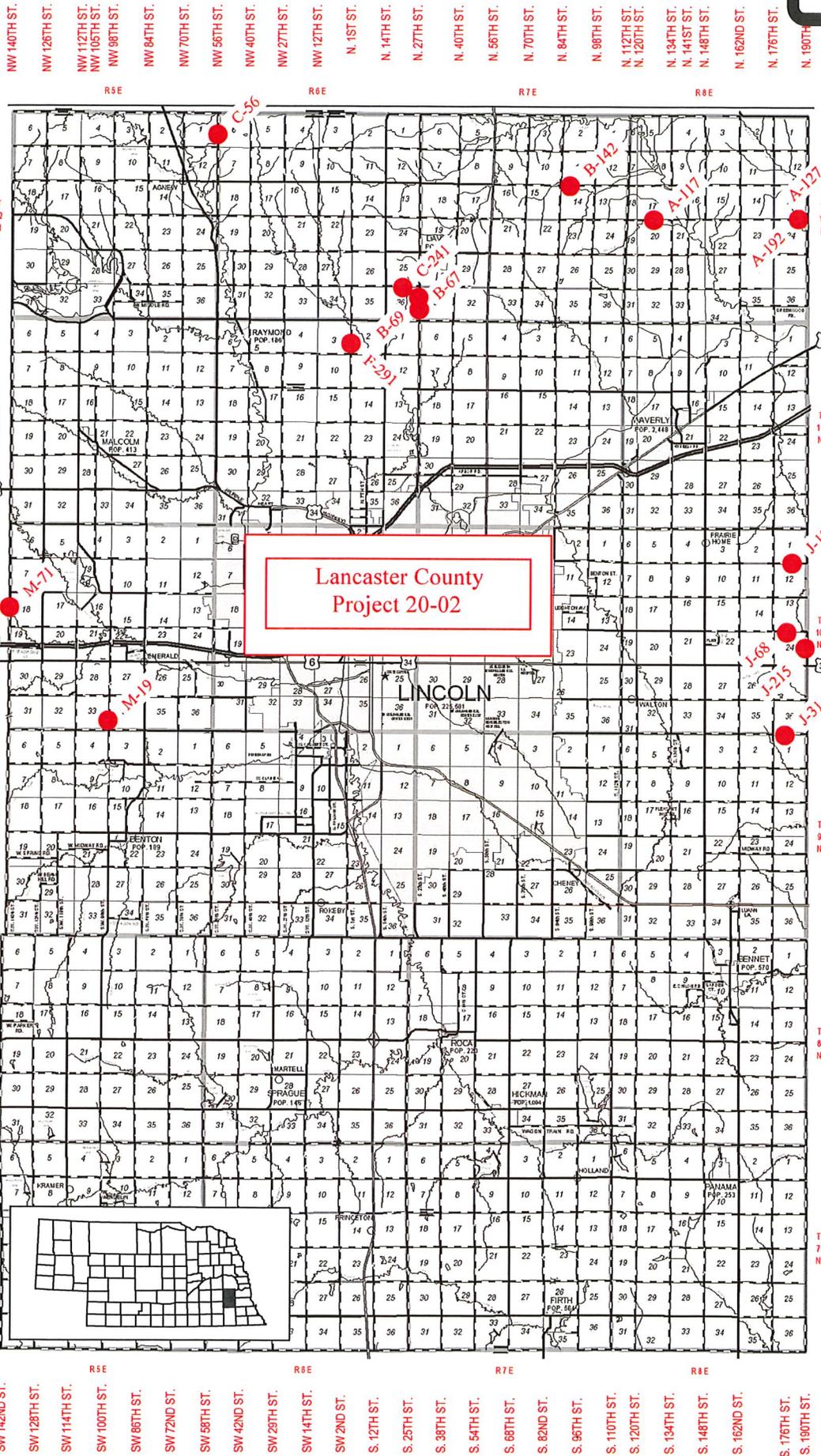
LANCASTER COUNTY PAYROLL DISBURSEMENTS
For the Pay Period March 26, 2020 thru April 8, 2020
Pay Date: April 16, 2020

Gross Pay:	<u>\$ 2,151,560.98</u>
Employer FICA:	<u>\$ 154,709.49</u>
Pension Contribution:	<u>\$ 156,895.67</u>
PEHP Contribution:	<u>\$ 11,475.00</u>
PEHP Payout:	<u>\$ 4,039.96</u>
Group Insurance:	<u>\$ 1,038,227.89</u>

LANCASTER COUNTY, NEBRASKA



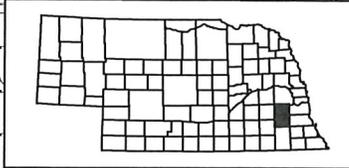
tabbles



- NO SCALE
- W. ASHLAND RD.
- W. LITTLE SALT RD.
- W. AGNEW RD.
- W. ROCK CREEK RD.
- W. DAVEY RD.
- W. BRANCHED OAK RD.
- W. RAYMOND RD.
- W. MILL RD.
- W. WAVERLY RD.
- W. BLUFF RD.
- W. McKELVIE RD.
- W. ALVO RD.
- W. FLETCHER AV.
- W. SUPERIOR ST.
- W. ADAMS ST.
- W. HOLDREGE ST.
- W. 'O' ST.
- W. 'A' ST.
- W. VAN DORN ST.
- W. PIONEERS BLVD.
- W. OLD CHENEY RD.
- W. DENTON RD.
- W. YANKEE HILL RD.
- W. ROKEBY RD.
- W. SALTILLO RD.
- W. BENNET RD.
- W. WITTSTRUCK RD.
- W. ROCA RD.
- W. MARTELL RD.
- W. SPRAGUE RD.
- W. STAGECOACH RD.
- W. PANAMA RD.
- W. OLIVE CREEK RD.
- W. PRINCETON RD.
- W. PELLA RD.
- W. HALLAM RD.
- W. GAGE RD.

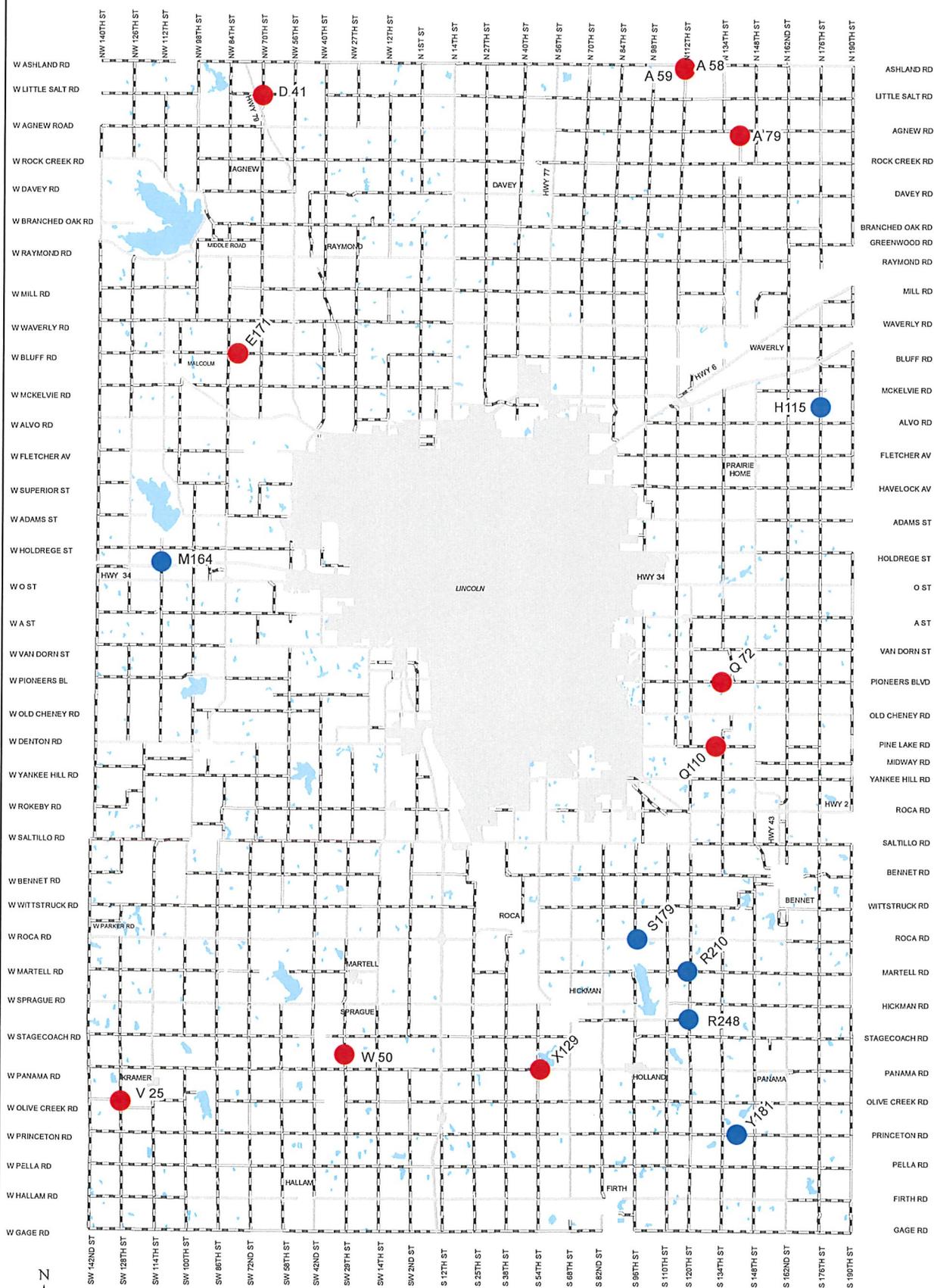
- ASHLAND RD.
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- AGNEW RD.
- ROCK CREEK RD.
- DAVEY RD.
- BRANCHED OAK RD.
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- MILL RD.
- WAVERLY RD.
- BLUFF RD.
- McKELVIE RD.
- ALVO RD.
- FLETCHER AV.
- HAVELOCK AV.
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- VAN DORN ST.
- PIONEERS BLVD.
- OLD CHENEY RD.
- PINE LAKE RD.
- YANKEE HILL RD.
- ROKEBY RD.
- SALTILLO RD.
- BENNET RD.
- WITTSTRUCK RD.
- ROCA RD.
- MARTELL RD.
- HICKMAN RD.
- STAGECOACH RD.
- PANAMA RD.
- OLIVE CREEK RD.
- PRINCETON RD.
- PELLA RD.
- FIRTH RD.
- GAGE RD.

Lancaster County
Project 20-02



F:\Projects\20-02 Culvert Maintenance 2020 (Phase 1)\DWG\20-02 CULVERT MAINTENANCE 2020-CountyProjectMap.dwg Model 2/27/2020 08:54:09

LANCASTER COUNTY CLOSED BRIDGES



Closed Bridges

- Not Funded
- Funded



LANCASTER COUNTY ENGINEERING DEPARTMENT

S. 82ND ST. PAVING
 PROJECT NO. 20-12
 SHEET NO. 4
 PLAN SIZE: ANSI B (11" x 17")

SHEET INDEX

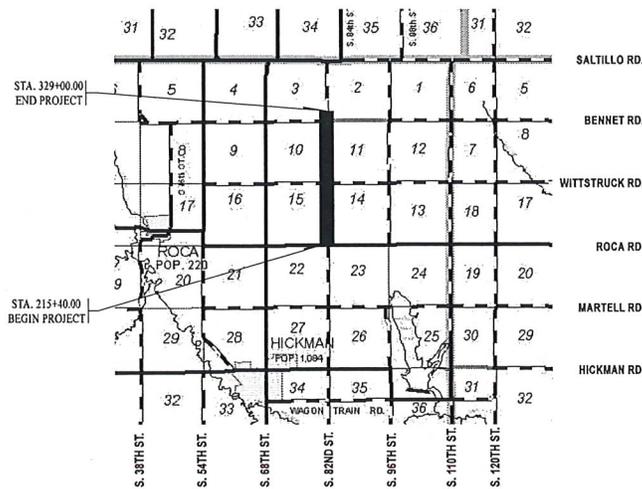
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-T	TYPICAL CROSS SECTIONS
2-S	SUMMARY OF QUANTITIES
2-N1	GENERAL INFORMATION
2-N2	MAILBOX TURNOUT
2-N3	TRAFFIC CONTROL
2-L	INTERSECTION DETAILS
3-11	PLAN & PROFILE SHEETS
12-15	SPECIAL PLAN 2-C (4 SHEETS) SILT CHECKS ALL TYPES

STANDARD PLANS

STANDARD PLAN NO.	DESCRIPTION
502-R1	SILT FENCE DETAILS (2 SHEETS)
920-R7	TRAFFIC CONTROL (3 SHEETS)

**LANCASTER COUNTY ENGINEERING DEPARTMENT
 LANCASTER COUNTY, NEBRASKA
 PLANS FOR CONSTRUCTION
 S. 82ND STREET PAVING
 (ROCA RD. TO 800' NORTH OF BENNET RD.)
 PROJECT NO. 20-12**

THE 2017 EDITION OF THE NEBRASKA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE SPECIAL PROVISIONS APPLY TO THIS PROJECT.



PRIOR TO CONSTRUCTION:
 CALL: 1-800-331-7468 OR 811 FOR LOCATION OF UNDERGROUND TELEPHONE, ELECTRIC, GAS, WATER, CABLEVISION AND CITY OF LANCASTER UTILITIES.
 NOTE: EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND BRANCH STRUCTURES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE, THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS THE RESPONSIBILITY OF THE INDIVIDUAL CONTRACTORS TO EXACTLY LOCATE AND PROTECT EACH EXISTING UTILITY BEFORE AND DURING ACTUAL CONSTRUCTION.



444 CHERRY CREEK ROAD BUILDING C
 LINCOLN, NEBRASKA 68523
 PHONE (402) 441-7691



APPROVED: _____
 PAMELA L. DODDMAN, P.E.
 LANCASTER COUNTY ENGINEER

GROUP 1 - GRADING ITEMS

ITEM	QUANTITY	UNIT
SUBGRADE PREPARATION	114	STA
ROADWAY GRADING	114	STA
PREPARATION OF INTERSECTIONS AND DRIVEWAYS	1263	SY
EARTH SHOULDER CONSTRUCTION	228	STA
CRUSHED ROCK SURFACE COURSE	15	TON
CRUSHED ROCK FOR TEMPORARY SURFACING	400	TON
WATER	3	MGAL
RENTAL OF MOTOR GRADER, FULLY OPERATED	8	HOUR
RENTAL OF LOADER, FULLY OPERATED	8	HOUR
RENTAL OF SKID LOADER, FULLY OPERATED	8	HOUR
RENTAL OF DUMP TRUCK, FULLY OPERATED	8	HOUR

GROUP 5 - LANDSCAPE ITEMS

ITEM	QUANTITY	UNIT
COVER CROP SEEDING	53	ACRE
SEEDING, TYPE 'B'	53	ACRE
MULCH	106	TON
FABRIC SILT FENCE "HIGH POROSITY"	574	LF
SILT CHECK, TYPE WATTLE	120	LF

GROUP 9 - BITUMINOUS ITEMS

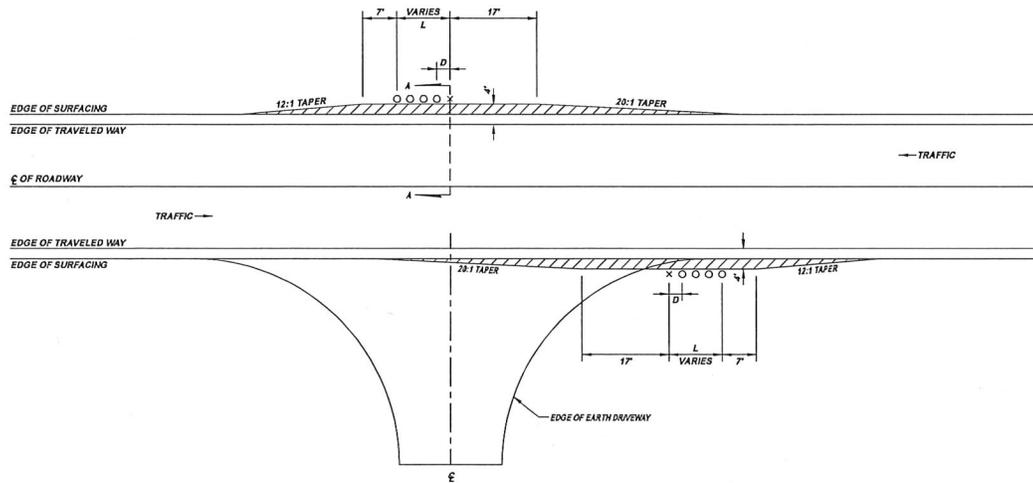
ITEM	QUANTITY	UNIT
REMOVE PAVEMENT	23	SY
SAWING PAVEMENT	35	LF
ASPHALTIC CONCRETE, TYPE SPR	17,640	TON
TACK COAT	11,265	GAL
RUMBLE STRIPS, ASPHALT	222	STA

GROUP 10 - GENERAL ITEMS

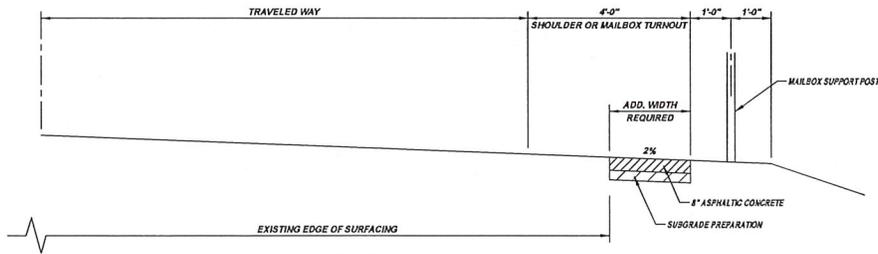
ITEM	QUANTITY	UNIT
BARRICADES, TYPE III	1600	BDAY
FLAGGING	8	DAY
TEMPORARY SIGN DAY	32	SIGN DAY
CONSTRUCTION SIGNS	2030	SIGN DAY
5" WHITE PERMANENT PAVEMENT MARKING PAINT	22,925	LF
5" YELLOW PERMANENT PAVEMENT MARKING PAINT (DASHED CENTERLINE)	7,894	LF
5" YELLOW PERMANENT PAVEMENT MARKING PAINT (NO PASSING ZONE)	3,466	LF
MOBILIZATION	1	I.S.

**SUMMARY OF QUANTITIES**

PROJECT NO.	SHEET NO.
20-12	2-22



MAILBOX TURNOUT AT DRIVEWAY



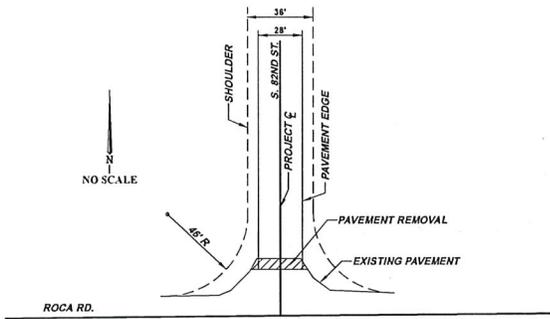
SECTION A-A

- D = 3'-6" FOR U-CHANNEL POST OF 8'-0" FOR LOOP
- L = (NUMBER OF SUPPORT POSTS - 1) x D
- X = FIRST OR ONLY POST LOCATION
- O = MULTIPLE BOX LOCATIONS

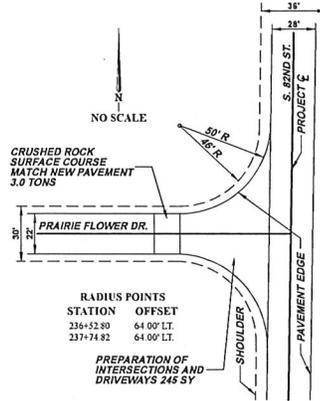


GENERAL INFORMATION

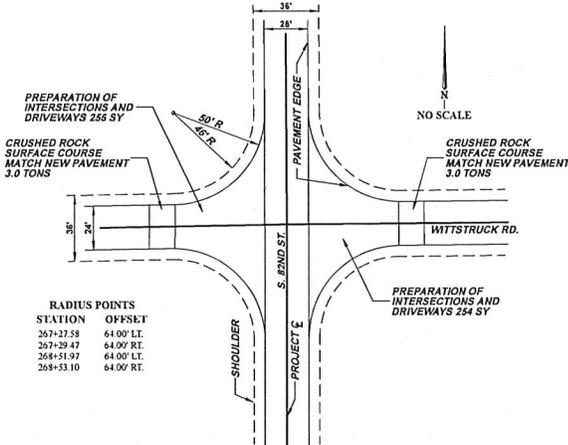
PROJECT NO.	SHEET NO.
20-12	2-1



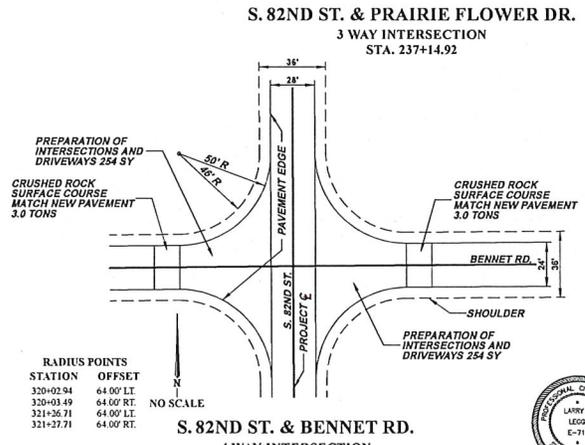
S. 82ND ST. & ROCA RD.
3 WAY INTERSECTION
STA. 215+40.00



S. 82ND ST. & PRAIRIE FLOWER DR.
3 WAY INTERSECTION
STA. 237+14.92



S. 82ND ST. & WITTSTRUCK RD.
4 WAY INTERSECTION
STA. 267+90.87



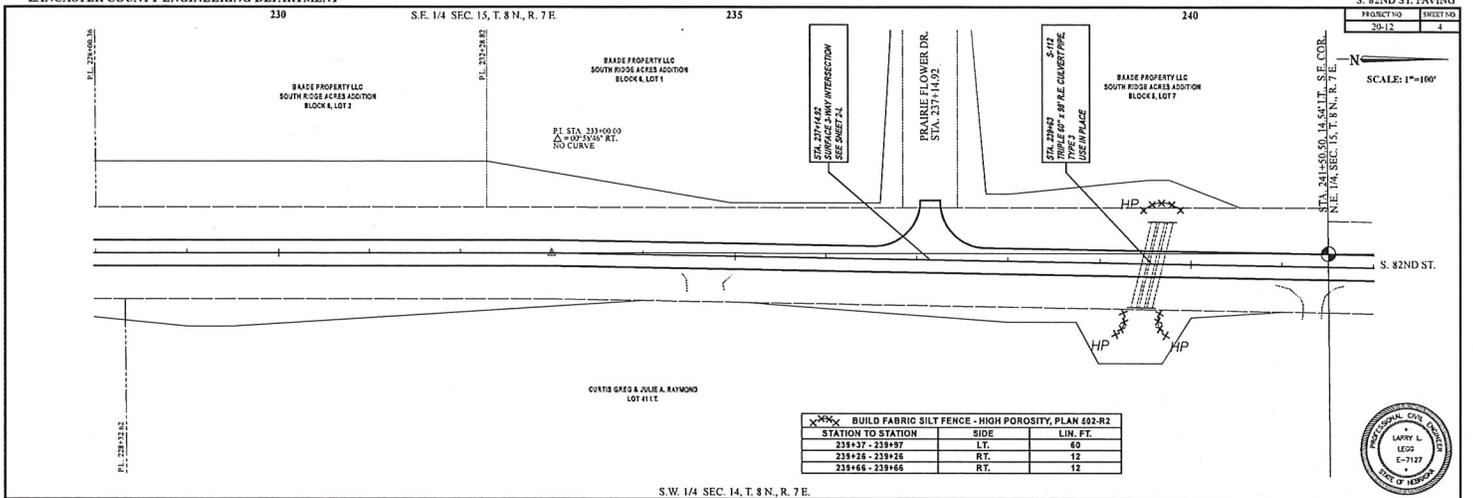
S. 82ND ST. & BENNET RD.
4 WAY INTERSECTION
STA. 320+65.33



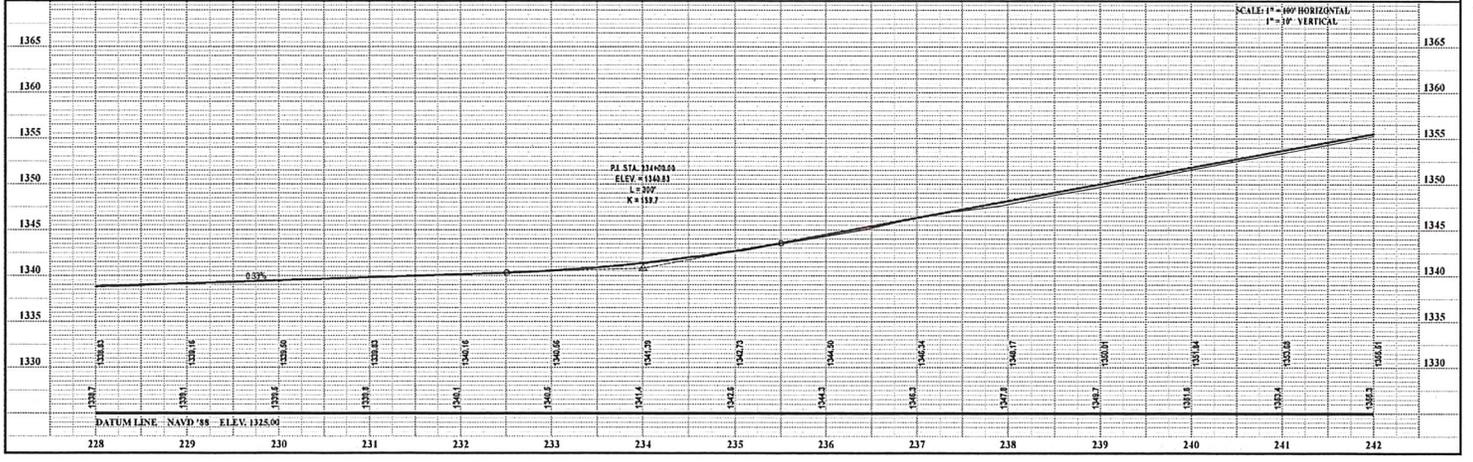
INTERSECTION DETAILS

PROJECT NO.	SHEET NO.
20-12	4

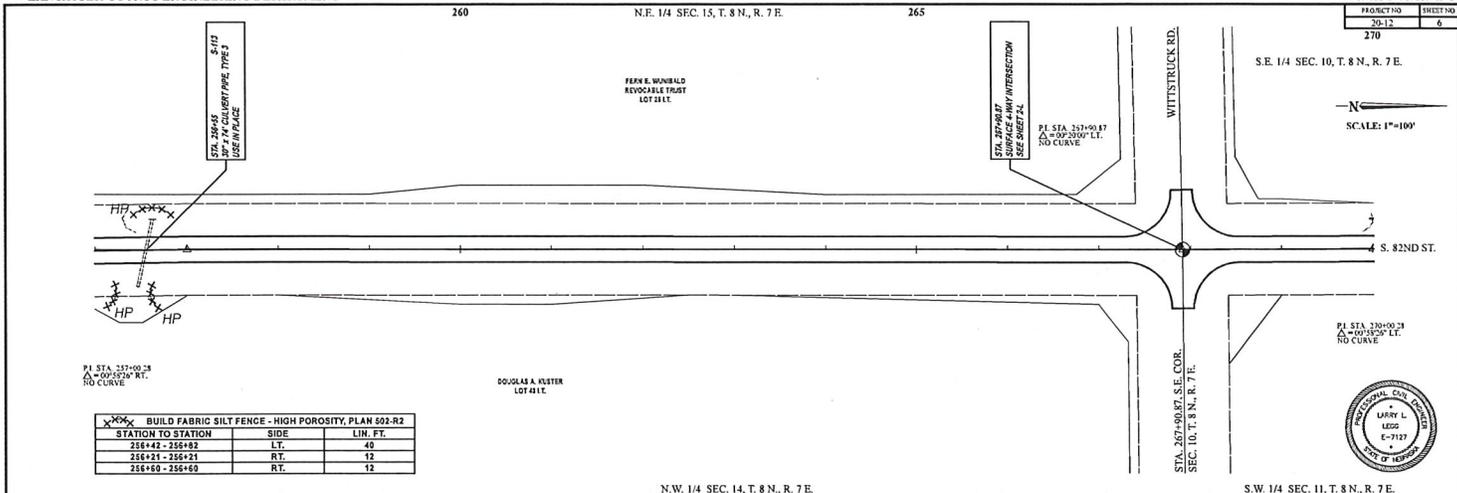
SCALE: 1"=100'



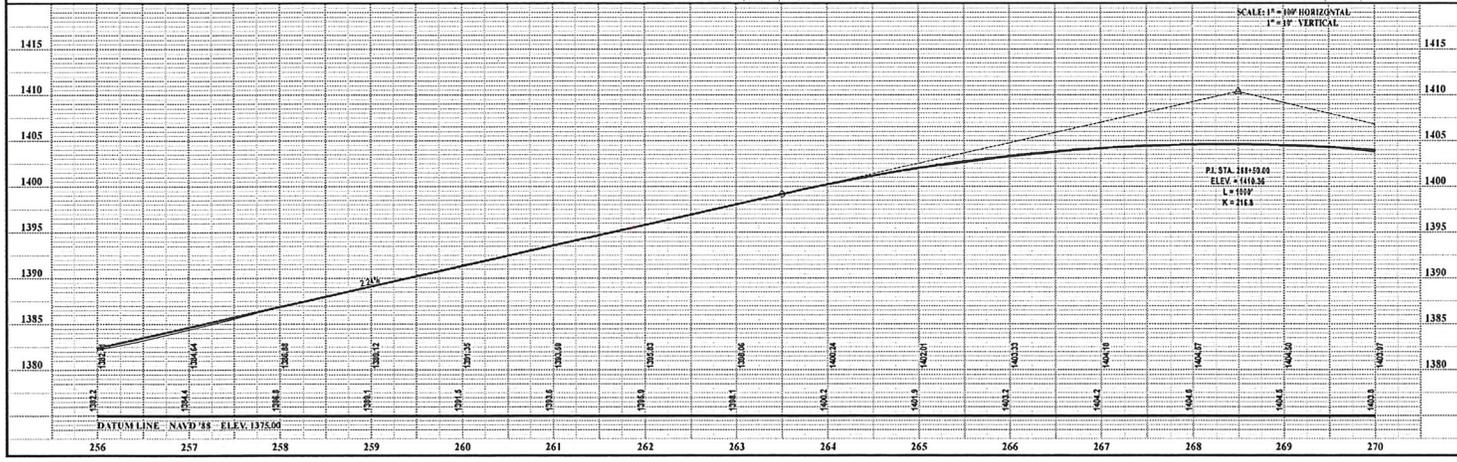
XXX	BUILD FABRIC SILT FENCE - HIGH POROSITY, PLAN 832-R2	
STATION TO STATION	SIDE	LIN. FT.
238+37 - 239+37	LT.	60
239+26 - 239+26	RT.	12
239+66 - 239+66	RT.	12

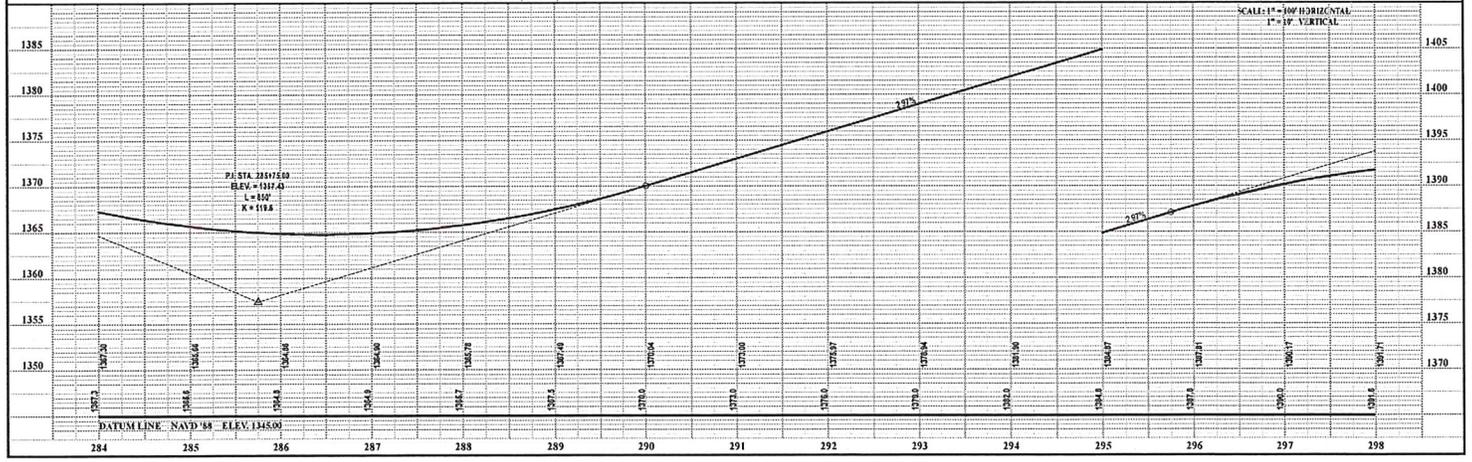
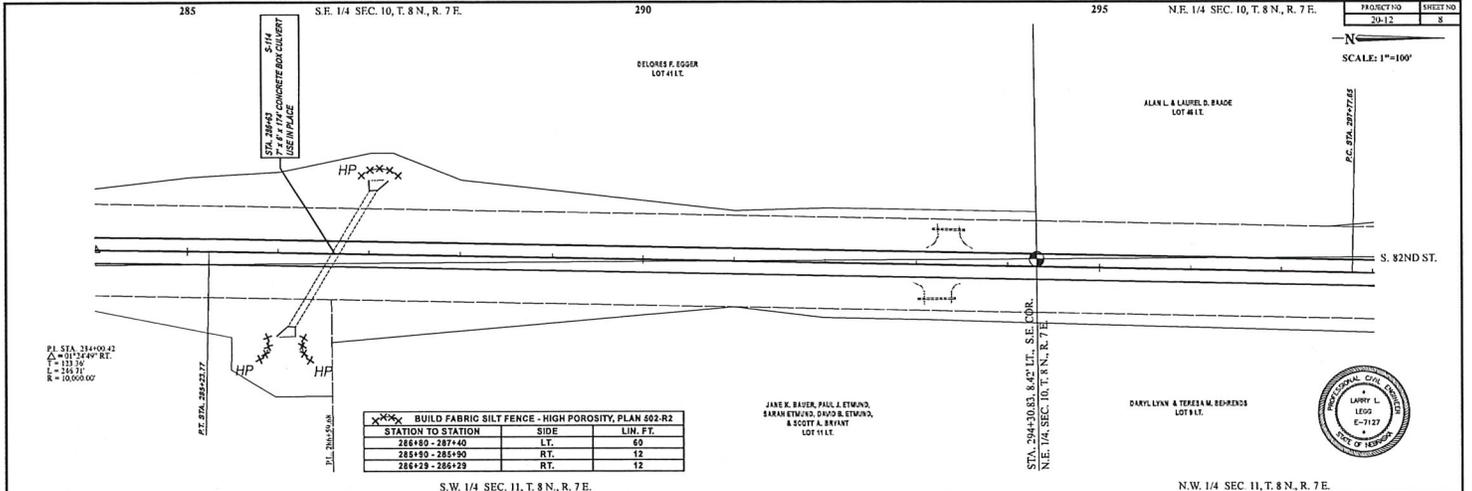


PROJECT NO.	SHEET NO.
20-12	6

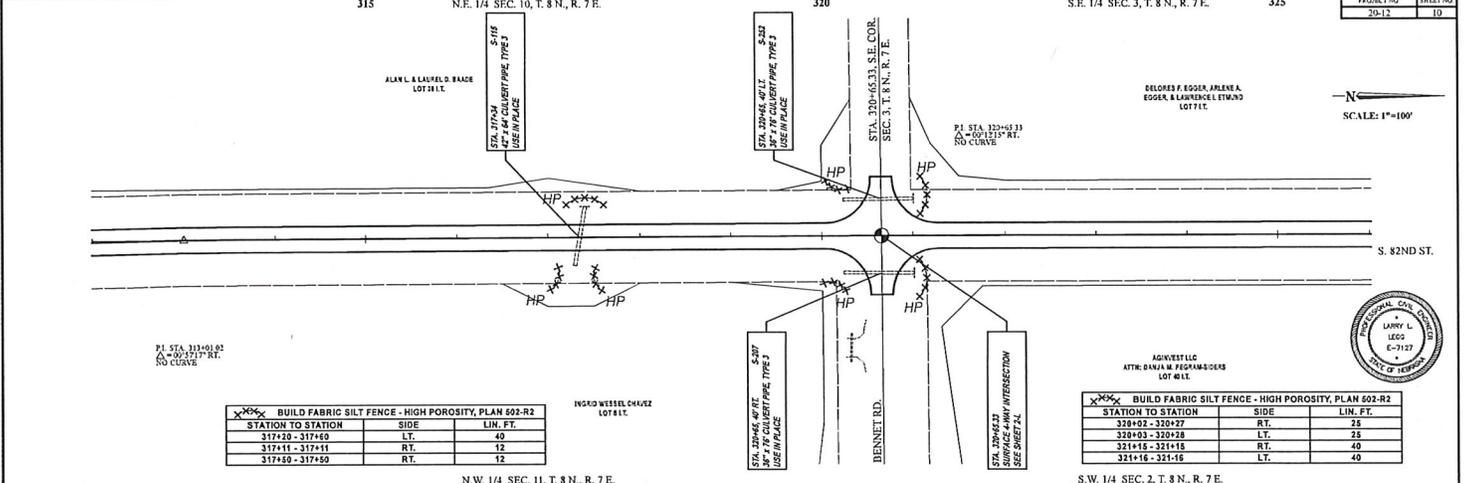


STATION TO STATION	SIDE	LIN. FT.
256+42 - 256+82	L.T.	40
256+21 - 256+21	R.T.	12
256+60 - 256+60	R.T.	12





PROJECT NO.	SHEET NO.
20-12	10

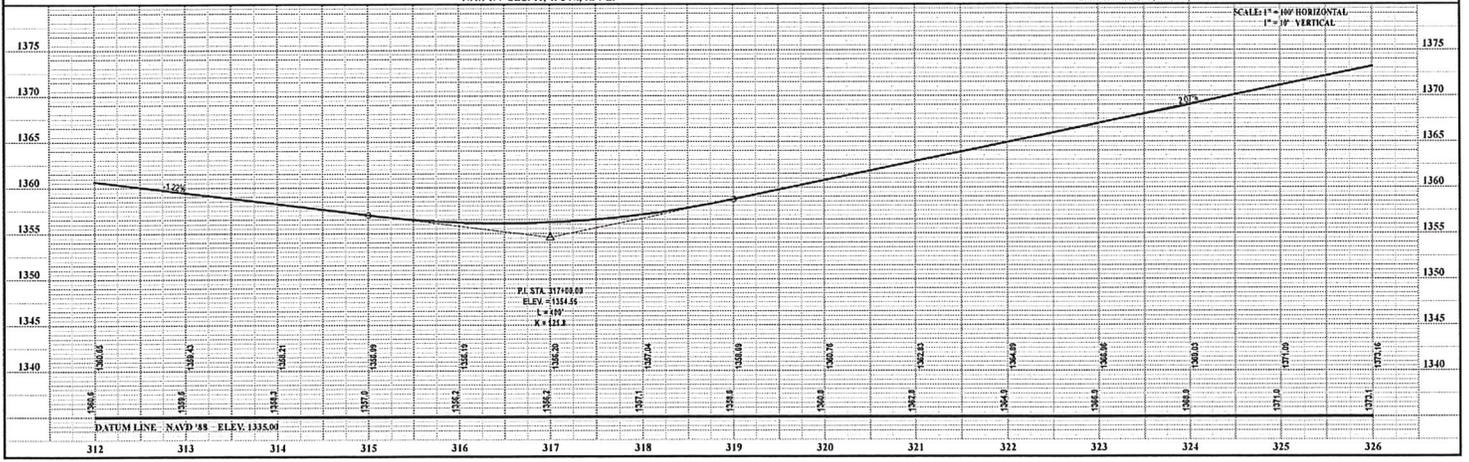


XXXXX BUILD FABRIC SILT FENCE - HIGH POROSITY, PLAN 602-R2

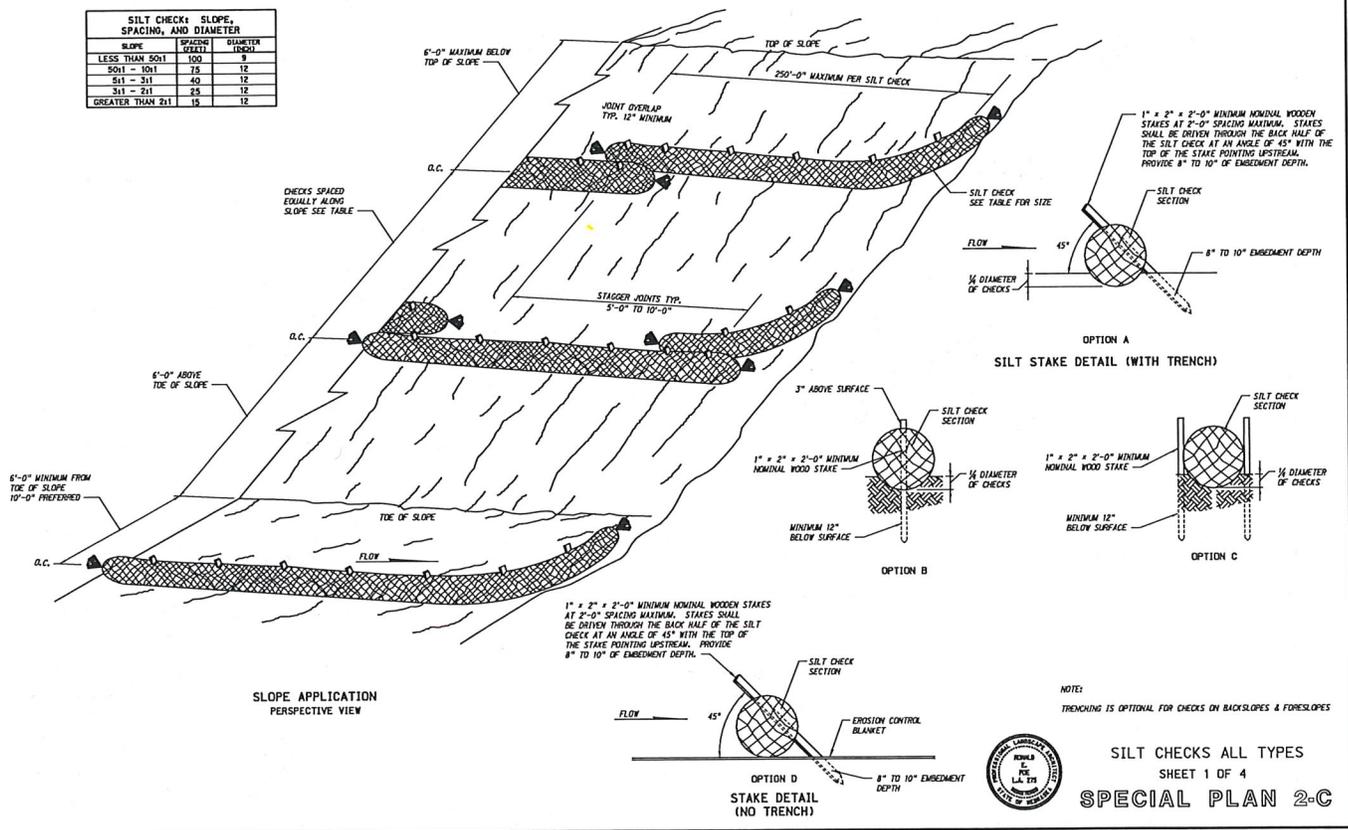
STATION TO STATION	SIDE	LIN. FT.
317+20 - 317+60	LT.	40
317+11 - 317+11	RT.	12
317+50 - 317+50	RT.	12

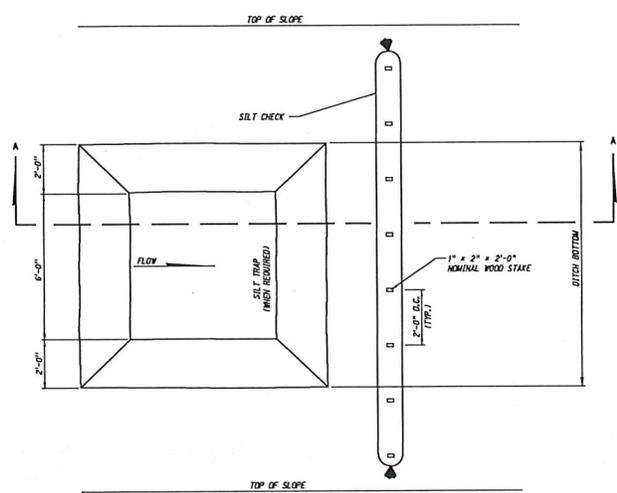
XXXXX BUILD FABRIC SILT FENCE - HIGH POROSITY, PLAN 602-R2

STATION TO STATION	SIDE	LIN. FT.
320+02 - 320+27	RT.	25
320+03 - 320+18	LT.	15
321+15 - 321+15	RT.	40
321+16 - 321+16	LT.	40

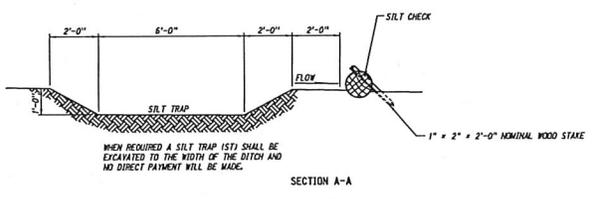


SILT CHECKS: SLOPE, SPACING, AND DIAMETER		
SLOPE	SPACING FEET	DIAMETER (INCH)
LESS THAN 50:1	100	9
50:1 - 10:1	75	12
10:1 - 3:1	40	12
3:1 - 2:1	25	12
GREATER THAN 2:1	15	12



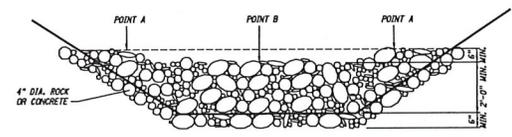


PLAN VIEW
FOR FLAT BOTTOM DITCH

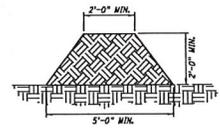


WHEN REQUIRED A SILT TRAP (ST) SHALL BE EXCAVATED TO THE WIDTH OF THE DITCH AND NO DIRECT PAYMENT WILL BE MADE.

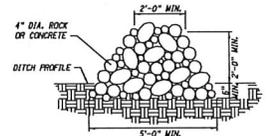
SECTION A-A



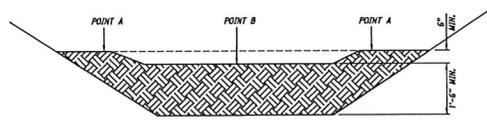
ROCK CHECK
ELEVATION VIEW



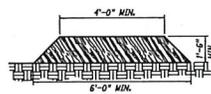
EARTH-SLASH MULCH PERIMETER BERM
CROSS SECTION



ROCK CHECK
CROSS SECTION



EARTH-SLASH MULCH CHECK
ELEVATION VIEW



CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION A



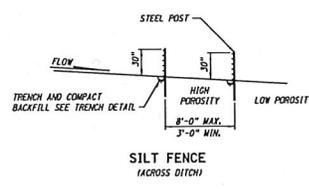
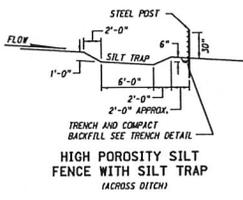
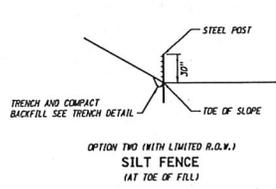
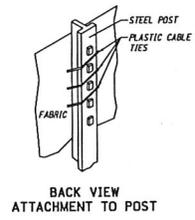
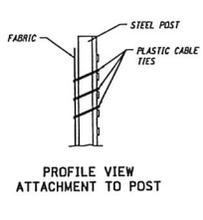
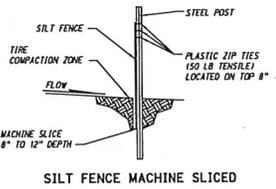
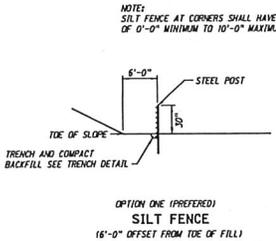
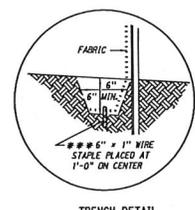
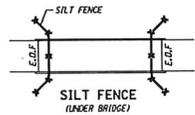
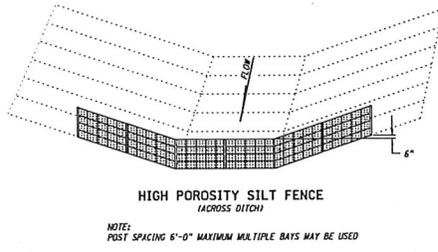
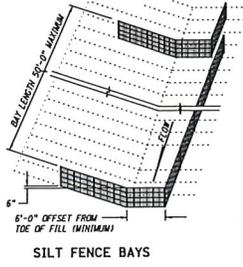
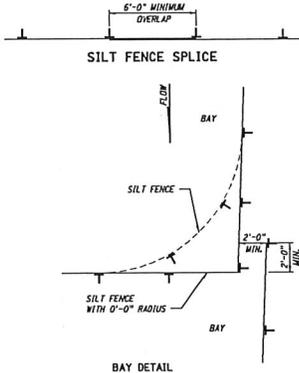
CROSS SECTION
SILT CHECK-SLASH MULCH
OPTION B

SEE STAKING DETAIL, SHEET 1 OF 4

SILT CHECKS ALL TYPES
SHEET 3 OF 4



SPECIAL PLAN 2-C



NOTES:

SILT FENCE SHOULD BE 30" ABOVE GRADE (MAY VARY)

SILT FENCE MINIMUM ROLL WIDTH:
 LOW POROSITY = 42"
 HIGH POROSITY = 42"
 LOW PROFILE = 36"
 COIL SILT FENCE = 36"

STEEL STUCCED 1" LINE POSTS 5'-6" LENGTH 6'-0" MAXIMUM SPACING.

FOR EACH STEEL STUCCED 1" LINE POST, 3 PLASTIC CABLE TIES ARE REQUIRED.

2" x 2" x 6'-0" HEAVY DUTY WOOD STAKES SPACING, 6'-0" MAXIMUM ON CENTER DRIVEN UNTIL FIRM.

R2	JAN 18	NDOR BORDER TO NDOT BORDER
R1	APR 14	STEEL POST INSTALLATION
REV. NO.	DATE	DESCRIPTION OF REVISION

NEBRASKA DEPARTMENT OF TRANSPORTATION
 STANDARD PLAN NO. 502-R2
SILT FENCE DETAILS

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM.


 DATE: _____
 ORIGINAL: DECEMBER 2006
 DATE: _____

1/2

DATE: 27-JAN-2019 13:34 COUNTY: NEBRASKA STATE: NE

CHANNELIZATION DEVICES

THE FUNCTION OF CHANNELIZATION DEVICES IS TO MAINTAIN ROAD SURF OF CONDITIONS CREATED BY WORK ACTIVITIES IN OR NEAR THE TRAVELER'S PATH TO PROTECT WORKERS IN THE TEMPORARY TRAFFIC CONTROL ZONE, AND TO GUIDE DRIVERS AND PEDESTRIANS SAFELY, CHANNELIZATION DEVICES INCLUDE BUT ARE NOT LIMITED TO CONES, TUBULAR POSTS, VERTICAL PANELS, DRUMS, BARRICADES, TRAFFIC LANE DIVIDERS, TEMPORARY RAISED ISLANDS, AND BARRIERS.

DEVICES USED FOR CHANNELIZATION SHOULD PROVIDE FOR SMOOTH AND GRADUAL TRAFFIC MOVEMENT FROM THE LANE TO AVOID, ONTO A BYPASS OR RETURN, OR TO REDUCE THE WIDTH OF THE TRAVELER PATH. THEY MAY ALSO BE USED TO SEPARATE TRAFFIC FROM THE WORK SPACE, PAVEMENT HOOP-OPS, PEDESTRIAN PATHS, OR OPPOSING DIRECTIONS OF TRAFFIC.

CHANNELIZATION DEVICES SHALL MEET THE CRASHWORTHY PERFORMANCE CRITERIA CONTAINED IN THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR MANUAL FOR ASSESSING SAFETY BARRIERS. THEY SHOULD BE CONSTRUCTED AND BALLASTED TO PERFORM IN A PREDICTABLE MANNER WHEN INADVERTENTLY STRUCK BY A VEHICLE. IF STRUCK, THE DEVICE SHOULD YIELD OR BREAK AWAY PROGRESSIVELY OR OTHER DEVIAS FROM THE DEVICE SHOULD NOT PENETRATE THE PASSENGER COMPARTMENT OF THE VEHICLE OR BE A POTENTIAL HAZARD TO WORKERS OR PEDESTRIANS IN THE IMMEDIATE AREA.

SPACING OF CHANNELIZATION DEVICES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE SPEED WHEN USED FOR TRAFFIC CHANNELIZATION, AND A DISTANCE IN FEET OF THREE TIMES THE SPEED WHEN USED FOR TRAFFIC CHANNELIZATION.

SPACING OF CHANNELIZATION DEVICES

SPEED (MPH)	SPACING OF DEVICES (FEET)	
	TAPER	TANGENT
25	25	50
35	35	70
45	45	90
55	55	110
65	65	130
75	75	150

WARNING LIGHTS MAY BE ADDED TO CHANNELIZATION DEVICES IN AREAS WITH FREQUENT FOG, SNOW, OR SEVERE ROADWAY CURVATURE, OR WHERE VISUAL OBSTRUCTIONS ARE PRESENT, EXCEPT FOR THE SIDEWALK FLEETING WARNING LIGHTS. WARNING LIGHTS PLACED ON CHANNELIZATION DEVICES USED IN A SERIES TO CHANNELIZE ROAD USERS SHOULD BE STROBE-LIGHTS.

THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZATION DEVICES SHALL HAVE A SMOOTH, SEALED OVER SURFACE, MEETING THE REQUIREMENTS OF THE ASTM SPECIFICATION BASIS, FOR TYPE IV SHEETING OR TYPE V REARBOARD SHEETING FOR GRATELITE.

COEFFICIENT OF RETROREFLECTION (CD/LUX/M²)

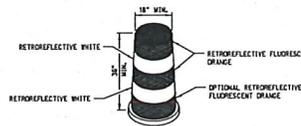
WHITE	ORANGE	RED	YELLOW
250	100	45	170

THE AMERICAN TRAFFIC SAFETY SERVICES ASSOCIATION (ATSSA) "QUALITY GUIDELINES FOR PORTABLE TRAFFIC CONTROL DEVICES" SHALL BE USED AS A VISUAL GUIDE FOR DETERMINING IF A TRAFFIC CONTROL DEVICE OR SIGN IS ACCEPTABLE, HAZARDOUS, OR UNSPECIFIABLE.

THE NAME AND TELEPHONE NUMBER OF THE AGENCY, CONTRACTOR, OR SUPPLIER MAY BE OBTAINED ON THE CHANNELIZATION DEVICE BASE OR SUPPORT, BUT NOT ON THE DEVICE FACE. THE LETTERS AND NUMBERS SHALL BE A NON-REFLECTIVE COLOR AND NOT OVER 1/8 INCH IN TOTAL AREA.

PARTICULAR ATTENTION SHOULD BE GIVEN TO MAINTAINING THE CHANNELIZATION DEVICES TO KEEP THEM CLEAR, VISIBLE, AND PROPERLY POSITIONED. DEVICES SHALL BE REPLACED THAT ARE DAMAGED AND/OR HAVE LOST A SIGNIFICANT AMOUNT OF THEIR RETROREFLECTIVITY AND EFFECTIVENESS.

REFLECTORIZED PLASTIC DRUMS



DESIGN

REFLECTORIZED PLASTIC DRUMS USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE CONSTRUCTED OF LIGHTWEIGHT, PLASTIC, AND DISPOSABLE MATERIALS AND BE A MINIMUM OF 36 INCHES IN HEIGHT AND HAVE A WIDTH OF AT LEAST 18 INCHES, REGARDLESS OF ORIENTATION. THE PREDOMINANT COLOR OF THE DRUM SHALL BE ORANGE. METAL DRUMS SHALL NOT BE USED. THE WRITINGS ON DRUMS SHALL BE HORIZONTAL, SHALL BE CONSPICUOUS, AND SHALL DISPLAY FOUR 6 INCH HIGH BANDS OF RETROREFLECTIVE SHEETING, ALTERNATING FLUORESCENT ORANGE-WHITE-FLUORESCENT ORANGE-WHITE. DRUMS SHALL HAVE CLOSED TOPS THAT WILL NOT ALLOW COLLECTION OF CONSTRUCTION OR OTHER DEBRIS.

APPLICATION

DRUMS ARE MOST COMMONLY USED TO CHANNELIZE OR DELINEATE TRAFFIC FLOW BUT MAY ALSO BE USED INDIVIDUALLY OR IN GROUPS TO MARK SPECIFIC LOCATIONS. DRUMS ARE MOSTLY VISIBLE AND HAVE GOOD TARGET VALUES; THEY GIVE THE APPEARANCE OF BEING FORMIDABLE OBSTACLES AND, THEREFORE, COMMAND THE RESPECT OF ROAD USERS.

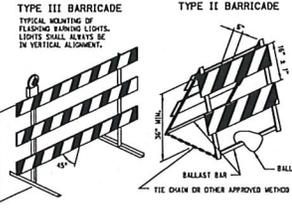
BALLAST SHALL NOT BE PLACED ON TOP OF THE DRUM. DRUMS SHOULD NOT BE WEIGHTED WITH SAND, WATER, OR ANY MATERIAL.

BARRICADES

BARRICADE TYPE	TYPE II	TYPE III
WIDTH OF RAIL	8 INCHES MIN. - 12 INCHES MAX.	8 INCHES MIN. - 12 INCHES MAX.
LENGTH OF RAIL	36 INCHES	8 FEET MIN.
WIDTH OF STRIPS	8 INCHES	8 INCHES
REFLECTIVE SHEETING	TYPE II	TYPE II
NUMBER OF REFLECTORIZED RAIL FACES	4 (TWO EACH DIRECTION)	6 (THREE EACH DIRECTION)

● WHEN LATERAL SPACE IS LIMITED, SOME TYPE III BARRICADES WITH A 4 FOOT LENGTH OF RAIL, MAY BE ALLOWED WHEN APPROVED BY THE ENGINEER.

● WHEN DIMENSIONS ARE PERMISSIBLE WHEN CONSTRUCTED FROM LIMBER.



DESIGN

A BARRICADE IS A PORTABLE OR FIXED DEVICE HAVING TWO OR THREE RAILS WITH APPROPRIATE WARNINGS. IT IS USED TO CONTROL ROAD USERS BY CLOSING, RESTRICTING, OR DELINEATING ALL OR A PORTION OF THE RIGHT-OF-WAY.

BARRICADES SHALL BE ONE OF TWO TYPES, TYPE II OR TYPE III.

STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION ROAD USERS ARE TO PASS. THE STRIPES SHALL BE 6 INCHES WIDE, THE WINDOW RAIL LENGTH FOR A TYPE II BARRICADE IS 36 INCHES.

WHERE BARRICADES EXTEND ENTIRELY ACROSS A ROADWAY, THE STRIPES SHOULD SLOPE DOWNWARD IN THE DIRECTION TOWARD ROAD USERS MOST THREATENED. WHERE BOTH RIGHT AND LEFT TURNING ARE PROVIDED, THE STRIPES MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE OR BARRICADES. THERE NO TURNING ARE INTENDED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.

BARRICADE RAILS SHOULD BE SUPPORTED IN A MANNER THAT WILL ALLOW THEM TO BE SEEN BY THE ROAD USER AND IN A MANNER THAT PROVIDES A STABLE SUPPORT THAT IS NOT EASILY BLOWN OVER OR DISPLACED.

ON HIGH-SPEED ROADWAYS OR IN OTHER SITUATIONS WHERE BARRICADES MAY BE SUSCEPTIBLE TO OVERTURNING IN THE WIND, SANDBAGS SHOULD BE USED FOR BALLASTING. SANDBAGS MAY BE PLACED ON LOWER PARTS OF THE FRAME OR STAYS TO PROVIDE THE REQUIRED BALLAST BUT SHALL NOT BE PLACED ON TOP OF ANY STRIPED RAIL. BARRICADES SHALL NOT BE BALLASTED BY HEAVY OBJECTS SUCH AS ROCKS OR DEBRIS OF CONCRETE.

THE BARRICADE OWNERS NAME, NOT IT'S EXCEED 5 SQUARE INCHES SHALL BE SHOWN ON THE BARRICADE BASE OR SUPPORT BUT NOT ON ITS FACE.

● WHEN LATERAL SPACE IS LIMITED, SOME TYPE III BARRICADES WITH A 4 FOOT LENGTH OF RAIL, MAY BE ALLOWED WHEN APPROVED BY THE ENGINEER.

APPLICATION

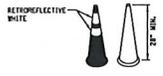
TYPE II BARRICADES ARE INTENDED FOR USE IN SITUATIONS WHERE TRAFFIC IS MAINTAINED THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE. THEY MAY BE USED INDIVIDUALLY OR IN GROUPS TO MARK A SPECIFIC LOCATION, OR THEY MAY BE USED IN A SERIES OF CHANNELIZATION TRAFFIC. ON THE INTERSTATE, FREEWAY AND EXPRESSWAY SYSTEM, TYPE II BARRICADES SHALL NOT BE USED FOR CHANNELIZATION.

TYPE III BARRICADES USED AT A ROAD CLOSURE MAY EXTEND COMPLETELY ACROSS A ROADWAY FROM CURB TO CURB. WHERE PROVISION IS MADE FOR ACCESS OF AUTHORIZED EQUIPMENT AND VEHICLES, THE RESPONSIBILITY FOR THE TYPE III BARRICADES SHOULD BE ASSIGNED TO A PERSON WHO SHALL PROVIDE PROPER CLOSURE AT THE END OF EACH WORK DAY.

WHEN A HIGHWAY IS LEGALLY CLOSED BUT ACCESS MUST STILL BE ALLOWED FOR LOCAL TRAFFIC, THE TYPE III BARRICADES MAY NOT BE EXTENDED COMPLETELY ACROSS A ROADWAY, A SIGN WITH THE APPROPRIATE LEGEND CONCERNING PERMISSIBLE USE BY LOCAL TRAFFIC SHALL BE INSTALLED.

NORMALLY PERMANENT SIGNS MOUNTED ON BARRICADES SHALL BE ERECTED ABOVE THE BARRICADE. THE SIGNS "ROAD CLOSED" OR "ROAD AHEAD" FOR EXAMPLE, CAN EFFECTIVELY BE MOUNTED ABOVE THE BARRICADE THAT CLOSURES THE ROADWAY. TYPE III BARRICADES SHALL BE SUPPLEMENTED WITH A LIGHTING DEVICE UNLESS SPECIFICALLY OMITTED BY THE ENGINEER. DETOUR ARROWS AND LARGE WARNING ARROWS SHOULD BE PLACED ON THE FACE OF BARRICADE.

CONES



DESIGN

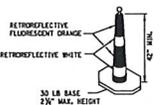
CONES SHALL BE PREDOMINANTLY ORANGE, FLUORESCENT RED-ORANGE, OR FLUORESCENT YELLOW-ORANGE, NOT LESS THAN 28 INCHES IN HEIGHT, AND SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES OR IMPACT. CONES WHEN ALLOWED ON THE INTERSTATE, FREEWAY OR EXPRESSWAY SYSTEM SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.

FOR NIGHTTIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR NIGHTTIME VISIBILITY. RETROREFLECTION OF 28 INCH OR 36 INCH CONES SHALL BE PROVIDED BY A WHITE BAND 4 INCHES WIDE, NO MORE THAN 4 INCHES FROM THE TOP OF THE CONE, AND AN ADDITIONAL 4 INCH WIDE WHITE BAND A MINIMUM OF 2 INCHES BELOW THE 8 INCH BAND.

APPLICATION

STEPS SHOULD BE TAKEN TO ENSURE THAT CONES WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. CONES CAN BE DOUBLED UP TO INCREASE THEIR WEIGHT. SOME CONES ARE CONSTRUCTED WITH BASES THAT CAN BE FILLED WITH BALLAST. OTHERS HAVE COLLECTIBLE SHORT-DURATION MAINTENANCE AND UTILITY BONES. CONES SHALL NOT BE USED FOR LANE CLOSURE TAPERS OR SHOULDS, CONES SMALLER THAN 42 INCHES SHALL NOT BE USED AT NIGHT ON RURAL ROADWAYS, UNLESS SHOWN ON THE PLANS OR AS APPROVED OR DIRECTED BY THE ENGINEER.

42 INCH CONES



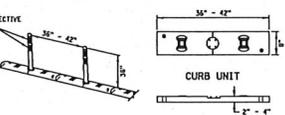
DESIGN

42 INCH CONES SHALL INCLUDE A 30 POUND RUBBER BASE AND DISPLAY FOUR 6 INCH HIGH BANDS OF RETROREFLECTIVE SHEETING, ALTERNATING FLUORESCENT ORANGE-WHITE-FLUORESCENT ORANGE-WHITE.

APPLICATION

WHEN APPROVED BY THE ENGINEER OR SHOWN IN THE PLANS, 42 INCH REFLECTIVE CONES MAY BE USED IN LIEU OF TYPE II BARRICADES OR REFLECTORIZED DRUMS. 42 INCH CONES SHALL NOT BE USED FOR LANE-CLOSURE TAPERS OR SHOULDS. IF A RECTANGULAR BASE IS USED, THE LONG SIDE OF THE BASE SHOULD BE ORIENTED PARALLEL TO THE DIRECTION OF TRAFFIC.

TUBULAR POST AND CURB SYSTEM



DESIGN

TUBULAR POSTS USED IN THE SYSTEM SHALL BE 36 INCHES HIGH AND A MINIMUM OF 2 INCHES WIDE WHEN FACING TRAFFIC. THE TUBULAR POST AND CURB SYSTEM SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING IMPACTING VEHICLES. THE COLOR SHALL BE AS SHOWN IN THE PLANS.

THE TUBULAR POSTS SHALL BE RETROREFLECTIVE. RETROREFLECTION OF TUBULAR POSTS SHALL BE PROVIDED BY TWO 3-INCH WIDE RETROREFLECTIVE BANDS PLACED A MINIMUM OF 2 INCHES FROM THE TOP WITH A MINIMUM OF 8 INCHES BETWEEN THE BANDS. EACH CURB SECTION SHALL CONTAIN ONE RETROREFLECTIVE MARKER FACED EACH DIRECTION OF TRAFFIC. THE COLOR OF THE RETROREFLECTIVE BANDS AND MARKERS SHALL MATCH THE POST/CURB COLOR.

THE CURB SECTIONS SHALL BE CONFIGURED TO ALLOW FOR DRAINAGE FROM THE PAVEMENT SURFACE.

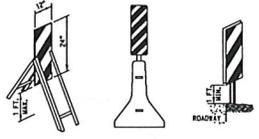
APPLICATION

TUBULAR POST AND CURB SYSTEMS MAY BE USED TO DIVIDE OPPOSING LANES OF TRAFFIC OR TO DIVIDE TRAFFIC LANES TWO TO MORE LANES ARE LEFT OPEN IN THE SAME DIRECTION.

FASTENING THE CURBS TO THE PAVEMENT WITH ANCHOR BOLTS OR OTHER SUITABLE METHODS AS DIRECTED BY THE MANUFACTURER IS REQUIRED TO MINIMIZE THE CHANCE OF BEING MOVED BY TRAFFIC.

TUBULAR POST AND CURB SYSTEMS SHALL BE INSTALLED IN THE LOCATIONS SHOWN IN THE PLANS OR DIRECTED BY THE ENGINEER.

VERTICAL PANELS



DESIGN

RETROREFLECTIVE MATERIAL ON VERTICAL PANELS SHALL BE 8 INCHES HIGH AND AT LEAST 24 INCHES WIDE. THEY SHALL HAVE ALTERNATING ORANGE AND WHITE STRIPES, WHERE THE HEIGHT OF THE RETROREFLECTIVE MATERIAL ON THE VERTICAL PANEL IS MORE THAN 36 INCHES, A PANEL STRIKE WIDTH OF 6 INCHES SHALL BE USED. WHERE THE HEIGHT OF THE RETROREFLECTIVE MATERIAL ON THE VERTICAL PANEL IS 36 INCHES OR LESS, A PANEL STRIKE BOTH OF 6 INCHES SHALL BE USED. IF USED FOR TWO-WAY TRAFFIC, BACK-TO-BACK PANELS SHALL BE USED.

WARNING FOR VERTICAL PANELS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES SLOPING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.

POST MOUNTED VERTICAL PANELS SHALL BE MOUNTED WITH THE BOTTOM A MINIMUM OF 1 FOOT ABOVE THE ROADWAY. VERTICAL PANELS ON A TEMPORARY STAND SHALL BE MOUNTED WITH THE BOTTOM A MINIMUM OF 1 FOOT ABOVE THE ROADWAY.

APPLICATION

WHERE SPACE IS LIMITED VERTICAL PANELS MAY BE USED TO CHANNEL TRAFFIC, DIVIDE OPPOSING LANES OF TRAFFIC, DEVISE TRAFFIC LANES OR REPLACE BARRICADES, WHEN APPROVED BY THE ENGINEER. VERTICAL PANELS MAY BE POST-MOUNTED ALONG THE SIDE OF THE ROADWAY.

TUBULAR POSTS



DESIGN

TUBULAR POSTS SHALL BE PREDOMINANTLY ORANGE, NOT LESS THAN 28 INCHES HIGH, BE A MINIMUM OF 2 INCHES WIDE WHEN FACING TRAFFIC, AND MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING IMPACTING VEHICLES.

TUBULAR POSTS SHALL BE RETROREFLECTIVE. RETROREFLECTION OF TUBULAR POSTS SHALL BE PROVIDED BY TWO 3 INCHES WIDE WHITE BANDS PLACED A MINIMUM OF 2 INCHES FROM THE TOP, WITH A MINIMUM OF 8 INCHES BETWEEN THE BANDS. THE BASE SHALL NOT BE WIDER THAN 12 INCHES OR HIGHER THAN 2 INCHES.

APPLICATION

TUBULAR POSTS HAVE LESS VISIBLE AREA THAN OTHER DEVICES AND SHOULD BE USED ONLY WHERE SPACE RESTRICTIONS DO NOT ALLOW FOR THE USE OF OTHER MORE VISIBLE DEVICES. THEY MAY BE USED EFFECTIVELY TO DIVIDE OPPOSING LANES OF TRAFFIC OR TO DIVIDE TRAFFIC LANES TWO TO MORE LANES ARE LEFT OPEN IN THE SAME DIRECTION.

STEPS SHOULD BE TAKEN TO ASSURE THAT TUBULAR POSTS WILL NOT BE BLOWN OVER OR DISPLACED BY TRAFFIC BY EITHER ATTACHING THEM TO THE PAVEMENT WITH ANCHOR BOLTS OR ADHESIVE, IF A NON-CORROSIONAL ADHESIVE IS USED, IT SHALL BE ATTACHED TO THE PAVEMENT TO ENSURE THAT THE WITH FACING TRAFFIC MEETS THE MINIMUM REQUIREMENTS.

TUBULAR POSTS SHOULD NOT BE USED FOR PEDESTRIAN CHANNELIZATION OR A PEDESTRIAN BARRIERS IN TEMPORARY TRAFFIC CONTROL ZONES ON OR ALONG SIDEWALKS.

REV.	NO.	DATE	DESCRIPTION OF REVISION
01	JAN 18	2000	BORDER TO HOPE BORDER
02	JUN 14	2003	MAJED UPDATE
03	OCT 08	2015	REVISE CHANNELIZATION DEVICES, TAPER
04			
05			
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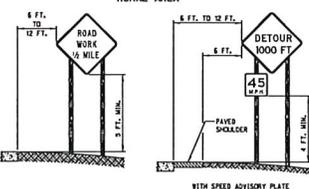
NEBRASKA DEPARTMENT OF TRANSPORTATION
STANDARD PLAN NO. 920-R7
**TRAFFIC CONTROL,
CONSTRUCTION AND MAINTENANCE**

ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM

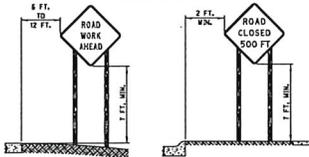
STATE OF NEBRASKA
JAMES A. BOYLE
COMMISSIONER
DATE: OCTOBER 1998

ROADWAY DESIGN DIVISION
 CONVENTS: M075E0250004
 DATE: 22-JAN-2010 13:54
 FILE: 20000007.P001
 SCALE: 1:2000

**ROADSIDE SIGNS
HEIGHT AND LATERAL LOCATION OF SIGNS
RURAL AREA**



URBAN AREA



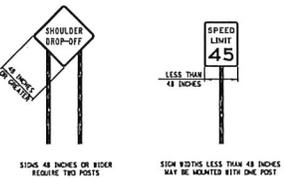
**TYPICAL FIRST SIGN AT
CONSTRUCTION SITE**



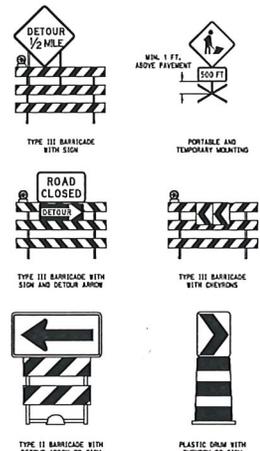
**PORTABLE AND
TEMPORARY MOUNTING**



**TYPICAL SIGN MOUNTINGS
POST MOUNTED**



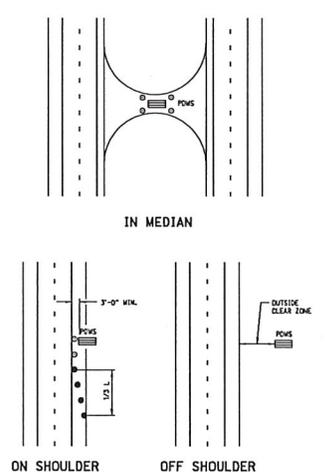
**TYPICAL SIGN MOUNTINGS
OTHER THAN POST MOUNTED**



TEMPORARY SIGN SUPPORTS

ALL "TEMPORARY SIGN" SUPPORTS (BASES) SHALL BE M0HP 300 OR MASH (TL-3) APPROVED.
 "TEMPORARY SIGNS" ARE ALL TEMPORARILY MOUNTED WORK ZONE SIGNS THAT ARE NOT POST MOUNTED IN THE GROUND AT THE TYPICAL 3 FOOT MOUNTING HEIGHT. TEMPORARY SIGNS ARE CONSIDERED M0HP 300 OR MASH CATEGORY 2 DEVICES AND ARE MOUNTED ON TEMPORARY SIGN STANDS. TEMPORARY SIGNS SHALL BE MOUNTED A MINIMUM OF 1 FOOT ABOVE THE GROUND, UNLESS OTHERWISE SPECIFIED TO BE MOUNTED AT A HIGHER HEIGHT.
 TEMPORARY SIGNS AND THEIR SUPPORTS SHALL NOT BE IN PLACE LONGER THAN 3 DAYS. ANY SIGN THAT IS TO BE IN PLACE LONGER THAN 3 DAYS SHALL BE POST MOUNTED OR MOUNTED TO A DRUM, BARRICADE, OR BARRIER, AS REQUIRED BY THE PLANS OR SPECIFICATIONS.

PORTABLE DYNAMIC MESSAGE SIGN DELINEATION



PORTABLE DYNAMIC MESSAGE SIGNS (PDMS)

THE PLACEMENT OF PDMS SHOULD BE IN THE FOLLOWING ORDER:
 WHENEVER POSSIBLE, PDMS SHOULD BE PLACED OFF OF ANY USABLE PORTION OF THE ROADWAY ON THE RIGHT SIDE OF THE ROADWAY, WHEN PLACED OUTSIDE THE CLEAR ZONE OR BEHIND GUARDRAIL OR CONCRETE PROTECTION BARRIERS, DELINEATION IS NOT REQUIRED.
 WHEN FIELD CONDITIONS DO NOT ALLOW FOR THIS PLACEMENT, THE SIGNS MAY BE LOCATED ON THE OUTSIDE SHOULDER OF THE ROADWAY OR WITHIN THE MEDIAN.
 A. A MINIMUM CLEARANCE OF 3 FEET MEASURED HORIZONTALLY FROM THE EDGE OF THE SIGN TO THE EDGE OF THE TRAVELER WAY IS RECOMMENDED.
 B. THE PDMS SHOULD HAVE A MINIMUM MOUNTING HEIGHT OF 7 FEET ON FREEWAYS, EXPRESSWAYS AND IN URBAN AREAS.
 C. ALL OTHER ROAD APPLICATIONS SHOULD HAVE A MINIMUM HEIGHT OF 5 FEET.
 THESE HEIGHTS ARE MEASURED VERTICALLY FROM THE BOTTOM OF THE SIGN TO THE ELEVATION OF THE NEAR EDGE OF THE PAVEMENT.
 REFLECTORIZED PLASTIC DRUMS SHOULD BE USED TO DELINEATE EACH SIGN USING 8 M/S L TAPES. THESE DRUMS SHOULD BE POSITIONED ON THE UPSTREAM END OF THE SIGN TO FORM A TAPER LEADING UP TO THE TRAFFIC SIDE OF THE SIGN. FOR A SIGN LOCATED IN THE MEDIAN, THE SIGN SHOULD BE DELINEATED WITH A 1/2 INCH CONE ON ALL FOUR CORNERS.
 WHEN DEPLOYED, THE SIGN SHALL BE SIGHTED AND ALIGNED WITH APPROACHING TRAFFIC TO INSURE VISIBILITY OF THE MESSAGE. IF MULTIPLE SIGNS ARE USED, THE SIGNS SHOULD BE LOCATED ON THE SAME SIDE OF THE ROAD AND SEPARATED ACCORDING TO PROPER SIGN SPACING.
 WHEN PRACTICAL, PDMS SHOULD NOT BE USED TO REPLACE STATIC SIGNS FOR LONG TERM USAGE (OVER 10 DAYS).
 WHEN PDMS ARE TO BE DEPLOYED FOR LONG PERIODS, SUCH AS INCIDENT MANAGEMENT ROLES, CONCRETE PAVES WITH APPROPRIATE TILE COINGS SHOULD BE CONSTRUCTED FOR THEIR PLACEMENT.
 PDMS NOT ACTIVELY BEING USED IN A CONSTRUCTION OR INCIDENT MANAGEMENT ROLE SHOULD BE REMOVED.
 REFER TO MOOR "THIS GUIDELINES" FOR PROPER PDMS MESSAGE INFORMATION.

NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL MEET THE APPLICABLE STANDARDS AND SPECIFICATIONS PRESCRIBED IN PART 6 OF THE LATEST ADOPTED EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)" AND THE STATE OF NEBRASKA SUPPLEMENT TO THE MUTCD. ALL TRAFFIC CONTROL DEVICES SHALL BE DIMENSIONED AND QUALITY AS SHOWN ACCORDING TO THE TESTING AND ACCEPTANCE GUIDELINES OF THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 350 OR MANUAL FOR ASSESSING SAFETY PROGRAMS (MSP).
- TRAFFIC CONTROL PLANS AND DEVICES SHOULD FOLLOW THE PRINCIPLES SET FORTH, BUT MAY DEVIATE FROM THE TYPICAL DRAWINGS TO ALLOW FOR CONDITIONS AND REQUIREMENTS OF THE PROJECT.
- TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE VIEW OF OTHER TRAFFIC CONTROL DEVICES.
- THE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE USE, AND APPROVE THE LOCATION OF ANY OF THE DEVICES SHOWN IN THESE PLANS.

WORK ZONE SPEED LIMIT NOTES

- WORK ZONE SPEED LIMITS SHALL NOT BE INSTALLED WITHOUT A SPEED ZONE AUTHORIZATION COMPLETED BY THE DEPARTMENT.
- REDUCED SPEED LIMITS SHOULD BE USED ONLY IN THE SPECIFIC PORTION OF THE WORK ZONE WHERE CONDITIONS OR RESTRICTIVE FEATURES ARE PRESENT. HOWEVER, FREQUENT CHANGES IN THE SPEED LIMIT SHOULD BE AVOIDED. THE REDUCTION OF SPEED SHOULD BE DELINEATED SO VEHICLES CAN SAFELY TRAVEL THROUGH THE WORK ZONE WITH A SPEED LIMIT REDUCTION OF NO MORE THAN 10 MPH UNLESS OTHERWISE NOTED IN THE PLANS.
- WORK ZONE SPEED LIMITS SHOWN ARE TYPICAL APPLICATIONS ONLY AND ARE NOT TO BE ASSUMED AS THE SPEED LIMITS REQUIRED FOR THE WORK.
- EXISTING SPEED LIMIT SIGNS SHALL BE REMOVED OR COVERED WHEN A REDUCED WORK ZONE SPEED LIMIT IS IN EFFECT IN THE SAME AREA.
- WORK ZONE SPEED LIMIT SIGNS SHALL BE INSTALLED EVERY MILE THROUGH THE WORK AREA WHEN SPEED ZONE IS REDUCED.
- A SPEED LIMIT SIGN ENDING THE REDUCED SPEED ZONE SHALL BE INSTALLED AT THE END OF EACH ZONE.
- DOUBLE FINES AND REDUCED SPEED ZONE SIGNING ARE NOT REQUIRED FOR SHORT-DURATION WORK LESS THAN 12 HOURS.

TAPER FORMULA

- $S = X \times V$ FOR SPEEDS OF 45 MPH OR MORE
 - $S = \frac{3X^2}{20}$ FOR SPEEDS OF 40 MPH OR LESS
- LEGEND
- TYPE III BARRICADE
 - REFLECTORIZED PLASTIC DRUM OR "C" CONE
 - REFLECTORIZED PLASTIC DRUM OR "C" CONE
 - PORTABLE DYNAMIC MESSAGE SIGN
 - WIDTH OF OFFSET CLEAR ZONE

RT	JUN 18	NOOR BORDER TO MOOT BORDER
RE	JUN 14	2008 MUTC0 UPDATE
RS	OCT 08	REVISE CHANNELIZATION DEVICES, TAPER
REV. NO.	DATE	DESCRIPTION OF REVISION
NEBRASKA DEPARTMENT OF TRANSPORTATION STANDARD PLAN NO. 920-R7		
TRAFFIC CONTROL, CONSTRUCTION AND MAINTENANCE		
ACCEPTED BY FHWA FOR USE ON THE NATIONAL HIGHWAY SYSTEM:		
	DATE	
	ORIGINAL: OCTOBER 1999	