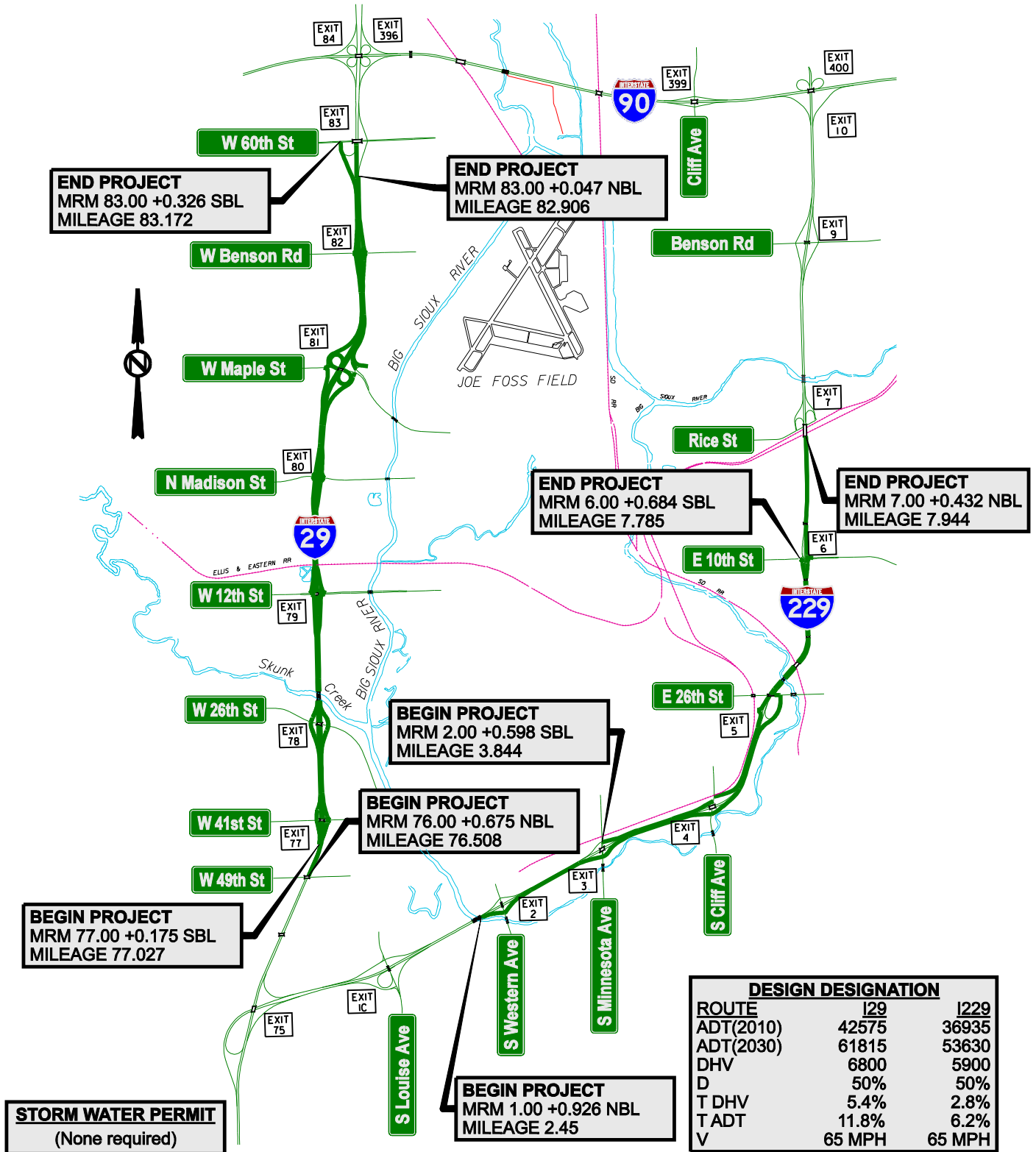


000I-271

MINNEHAHA & LINCOLN COUNTIES

CHAIN LINK FENCE REPAIR

PCN I22V



**000I-271
MINNEHAHA & LINCOLN COUNTIES**

INDEX OF SHEETS

Sheet 1	Layout Map
Sheet 2	Index of Plan Sheets
Sheet 3	Estimate of Quantities
Sheets 4 & 5	Table of Fence Quantities
Sheets 6 to 8	Plan Notes
Sheet 9	Traffic Control
Sheets 10 & 11	Standard Plates

000I-271
MINNEHAHA & LINCOLN COUNTIES

ESTIMATE OF QUANTITIES

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
100E0100	Clearing	Lump Sum	LS
110E0605	Remove Chain Link Fence	1,049	Ft
621E0500	Modify Chain Link Fence	1,049	Ft
621E0520	Reset Chain Link Fence	2,766	Ft
621E0600	Chain Link Fence Post	53	Each
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

**000I-271
MINNEHAHA & LINCOLN COUNTIES**

TABLE OF FENCE QUANTITIES ON I29

LANE	INTERSTATE 29 MRM TO MRM	LOCATION/ DESCRIPTION	REMOVE CHAIN LINK FENCE FT	CHAIN LINK POST EACH	MODIFY CHAINLINK 6' CHAINLINK FENCE TENSION WIRED TOP FT	RESET CHAIN LINK FENCE FT
SB	83.0307 TO 83.326	60th St. On-Ramp	96	10	96	
SB	82.931			2		70
SB	82.918		4	1	4	
SB	82.859					30
SB	82.784	Exit 82 Off-Ramp				40
SB	82.4	Exit 82 Off-Ramp				50
SB	81.489	Exit 81 Off Ramp	4		4	
SB	Madison St.	West Bound Lane				70
SB	80.261	Madison St. On-Ramp	4		4	
SB	80.155	Madison St. On-Ramp	233		233	
SB	79.109	12th St On-Ramp	30	1	30	
SB	79.059	12th St On-Ramp	20		20	
SB	78.956	12th St On-Ramp	20	1	20	
SB	78.924	12th St On-Ramp	20	1	20	
SB	77.718			2		38
SB	77.361					20
SB	77.343	Baymont Inn				40
SB	77.175	Red Roof Inn				50
NB	76.675		30	2	30	
NB	77.307 - 77.284	Pizza Hut				238
NB	77.36	Strip Mall - VanBuskirk				50
NB	77.377	Strip Mall - VanBuskirk				30
NB	77.387	Strip Mall - Francis				20
NB	77.414	Strip Mall - Francis				160
NB	77.447	41st St On-Ramp	3		3	
NB	77.682	Agan Drywall				20
NB	77.88	26th St Off-Ramp	4		4	
NB	77.933 - 77.969	Outback Steakhouse				130
NB	78.037	Carnival Brazilian Grill				220
NB	78.08	Century Theatres				200
NB	78.529					20
NB	79.048	Off-Ramp				30
NB	79.21	Gage Brothers				40
NB	79.25	Gage Brothers				30
NB	79.393	Cadillac of Sioux Falls		1		30
NB	79.743					30
NB	81.74	On-Ramp	121	10	121	
NB	82.295	Benson Road Off-ramp				30
NB	82.723			1		40
NB	83.047	4600 N. Louise Ave.				40
TOTALS:			589	32	589	1766

**000I-271
MINNEHAHA & LINCOLN COUNTIES**

TABLE OF FENCE QUANTITIES ON I229

LANE	INTERSTATE 229 MRM TO MRM	LOCATION/ DESCRIPTION	REMOVE CHAIN LINK FENCE FT	CHAIN LINK POST EACH	MODIFY CHAINLINK 6' CHAINLINK FENCE TENSION WIRED TOP FT	RESET CHAIN LINK FENCE FT
SB	6.684	Stoplite Lounge				60
SB	6.608	304. S. Conklin Apartments				60
SB	6.023	16th St. Dead End				30
SB	5.979					30
SB	5.806		20	1	20	
SB	4.023	707 41st Street				40
SB	3.635	Larsen Electric				80
SB	3.599	Larsen Electric				50
SB	3.568	Auta.com				30
SB	2.598	Achieve				40
NB	1.926	Western Ave OFF Ramp	30	3	30	
NB	1.956	Western Ave OFF Ramp	60	5	60	
NB	2.988	ON Ramp		1		30
NB	3.941	ON Ramp	20		20	
NB	3.981	ON Ramp	170	1	170	
NB	4.023	ON Ramp	70	3	70	
NB	4.04	Acceleration Ramp				20
NB	4.131	Acceleration Ramp		1		40
NB	4.274	Acceleration Ramp	10		10	
NB	4.504	26th Street OFF Ramp		1		20
NB	4.869	26th Street ON Ramp		2		
NB	5.15			1		
NB	5.334	18th Street Bridge				30
NB	5.542	Super 8 Motel	20		20	
NB	5.55	Super 8 Motel	60	2	60	
NB	6.775	8th Street				50
NB	6.805	Cleveland Heights Apartments				50
NB	6.845	Cleveland Heights Apartments				20
NB	6.905	Cleveland Heights Apartments				100
NB	7.039	Brookshire Apartments				90
NB	7.329	Spring Brooke Estates				40
NB	7.432	River Ridge Apts				90
TOTALS:			460	21	460	1000
PROJECT TOTALS:			1049	53	1049	2766

**000I-271
MINNEHAHA & LINCOLN COUNTIES**

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and/or Special Provisions as included in the Proposal.

UTILITIES

The Contractor shall contact the involved utility companies through South Dakota One Call (1-800-781-7474) prior to starting work. It shall be the responsibility of the Contractor to coordinate work with the utility owners to avoid damage to existing facilities.

Utilities are not planned to be affected on this project. If utilities are identified near the improvement area through the SD One Call Process as required by South Dakota Codified Law 49-7A and Administrative Rule Article 20:25, the Contractor shall contact the Project Engineer to determine modifications that will be necessary to avoid utility impacts.

COORDINATION BETWEEN CONTRACTORS

Separate contracts for following have been awarded to other Contractors:

- 000I-271 - PCN I23A, I23B & I23C this contract includes mowing on I229 & I29.
- IM 0293(39)76 – PCN 6186 this contract includes concrete paving on I29 from 26th Street to 57th Street.
- IM 2292(89)0 PCN 01SH & BRF 2292(91)2 PCN 029F these contracts include Epoxy Deck Seals, Joint Modification and PCC Pavement Repair through the section on I229.
- IM 0293(98)76 PCN 032T this contract includes installation of noise walls on I29.

The Contractor shall schedule his work so as not to interfere or hinder the progress of the work being performed by other Contractors on the above-mentioned projects.

HISTORICAL PRESERVATION OFFICE CLEARANCES

To obtain State Historical Preservation Office (SHPO) clearance, a cultural resources survey may need to be conducted by a qualified archaeologist. In lieu of a cultural resources survey, the Contractor could request a records search from Jim Donohue, State Archaeological Research Center (SARC). Provide SARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that no artifacts have been found on the site. The Contractor shall arrange and pay for the cultural resource survey and/or records search.

If any earth disturbing activities occur within the current geographical or historic boundaries of any South Dakota reservation, the Contractor shall obtain Tribal Historical Preservation Office (THPO) clearance. If no THPO exists, the required SHPO clearance shall suffice, with documentation of Tribal contact efforts provided to SHPO.

To facilitate SHPO or THPO responses, the Contractor should submit a records search or cultural resources survey report to the DOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3268). Allow 30 days from the date this information is submitted to the Environmental Engineer for SHPO/THPO approval. The Contractor is responsible for obtaining all required permits and clearances for staging areas, borrow sites, waste disposal sites, and all material processing sites. The Contractor shall provide the required permits and clearances to the Engineer at the preconstruction meeting.

**000I-271
MINNEHAHA & LINCOLN COUNTIES**

WASTE DISPOSAL SITE

The Contractor will be required to furnish a site(s) for the disposal of construction/demolition debris generated by this project.

Construction/demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Highway, Road, and Railway Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction/demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction/demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating No Dumping Allowed.
2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

Cost associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

CLEARING

Prior to installing right-of-way fence, the fence alignment shall be cleared of all trees, tree branches, tree stumps, brush, vegetation, debris, bladed and leveled to the satisfaction of the Engineer. Sod cleared from the fence alignment may be disposed on the interstate ditch back slope. Lumps or clods over 3 inches in diameter shall be broken up.

Clearing will be paid for at the contract lump sum price. Payment shall be full compensation for labor and equipment necessary to clear the entire line for fence and smooth ground irregularities.

RESTORATION OF INSLOPES AND DITCHES

Any slope area or ditch that is rutted or otherwise unduly disturbed during fencing operations shall be restored and seeded by the Contractor, at no expense to the State. Cost for this work shall be incidental to the contract unit prices for the various items.

000I-271
MINNEHAHA & LINCOLN COUNTIES

REMOVE CHAIN LINK FENCE

The Contractor shall remove the existing chain link fence that is to be replaced as designated in the plans and/or as ordered by the Engineer. Chain link fence that is removed will become property of the State and Contractor will be responsible for stockpiling it at Sioux Falls Area Office at a location determined by the Engineer. The posts shall be disposed of by the Contractor.

MODIFY CHAIN LINK FENCE

The Contractor shall straighten any bent posts and install new chain link fabric to the proper elevation and alignment, which will require removal and replacement of fence fasteners, connection to existing fabric, re-stretching the fence and replacement or reconnection of tension wire. This work shall be done to the satisfaction of the Engineer.

Necessary replacement of short segments of damaged or destroyed chain link fence as determined in the field by the Engineer will be paid for under this item. Cost for furnishing and installing new posts, if necessary, shall be as per the notes for CHAIN LINK FENCE POST.

FENCE ALIGNMENT

Where fence is being removed and replaced, fence shall be installed on the same alignment as existing. It shall be the Contractor's responsibility to preserve the fence alignment.

RESET CHAIN LINK FENCE

The Contractor shall straighten any bent post and stretch the existing chain link fabric to the proper elevation and alignment, which will require removal and replacement of fence fasteners and repair/replacement of tension wire if applicable. This work shall be done to the satisfaction of the Engineer.

Necessary replacement of short segments of damaged chain link fence other than fabric as determined in the field by the Engineer will also be paid for under this item. Cost for furnishing and installing new posts, if necessary, shall be as per the notes for CHAIN LINK FENCE POST.

CHAIN LINK FENCE POST

Included in the estimate of quantities are 53 Chain Link Fence Posts for replacement of existing posts that have been damaged within the areas that fence needs to be reset or replaced.

The estimated quantities for Chain Link Fence Post are subject to change during construction. The Contractor will be responsible for ordering the actual quantity of posts necessary to complete the work.

Chain Link Fence Posts will be paid for at the contract unit price per each. Payment will be full compensation for removal of existing posts and concrete footing and furnishing and installing new posts and concrete footings.

GENERAL MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of permanent traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

Cost for traffic control, including signs, shall be included in the contract lump sum price for Traffic Control, Miscellaneous.

**0001-271
MINNEHAHA & LINCOLN COUNTIES**

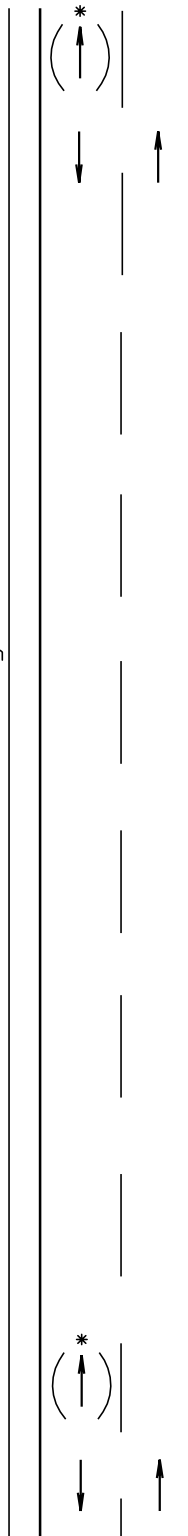
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated shall be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 75	1000



July 1, 2005

Published Date: 1st Qtr. 2011

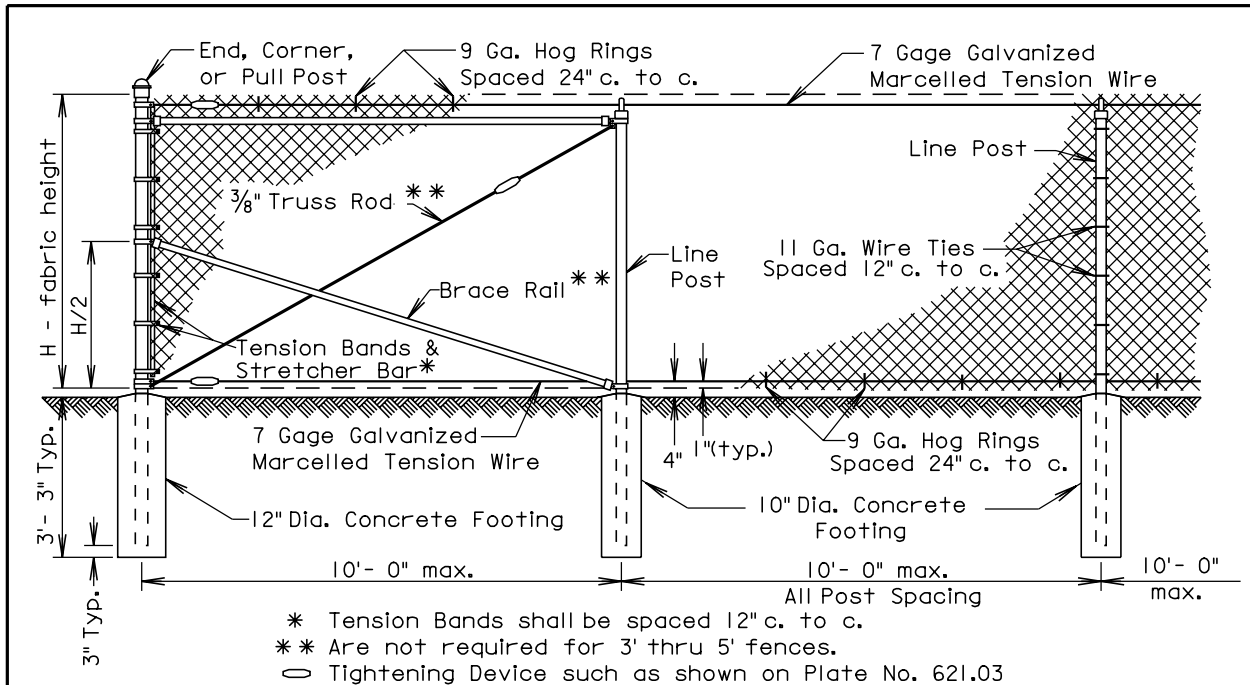
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**GUIDES FOR TRAFFIC CONTROL DEVICES
WORK BEYOND THE SHOULDER**

**PLATE NUMBER
634.01**

Sheet 1 of 1

**0001-271
MINNEHAHA & LINCOLN COUNTIES**



Component	End, Corner & Pull Post		Line Post			Top & Brace Rail	
Type of Fabrication	Round Pipe Nominal	Roll Formed Steel	Round Pipe Nominal	"C" Section	H-Beam Steel	Round Pipe Nominal	Roll Formed Steel
Size	3.00" O. D.	3.5" x 3.5"	2.50" O. D.	1.875"x1.625"	2.25"x1.70"	1.625" O. D.	1.625"x1.25"
Weight (lb. / ft.)	5.79 or 4.64	5.14	3.65 or 3.12	2.34	3.43	2.27 or 1.84	1.35

GENERAL NOTES:

Specific details of manufacture of component parts of the complete fence construction shall be subject to the approval of the Engineer. Commercially available items produced specifically for the use intended shall be used wherever possible in the construction of the fence.

"H" (Height of Fabric) shall be as shown on the Plans. Fabric is available in the the following heights; 36", 42", 48", 60", 72", 84", 96", 108", 120", & 144". Fabric heights 60 inches and under shall be knuckled at both selvages. Fabric heights 72 inches and over shall be knuckled at one selvage and twisted at the other selvage.

Chain Link Fabric shall be 2" mesh, No. 9 gage galvanized wire securely fastened to Tension Wire, Line Post, Rails, Braces and Stretcher Bars spaced as shown hereon.

Fence may be constructed with either Round Pipe, "C" Section, "H" Beam, or roll Formed Steel components as shown in the table above. Line post may be Round Pipe, "C" Section, or "H" Beam. The Corner Post and Rails shall be either Round Pipe or Roll Formed Steel. The type of components used shall have prior approval by the Engineer before construction.

All post shall have a means to securely hold the top tension wire in position and allow for the removal and replacement of a post without damaging the top tension wire.

Where fence must cross small bodies of water (such as drainage areas or ponds) that could freeze during the winter, use 11 gage Hog Rings. Provide only two ties per Tension Wire and Top Rail between line posts.

March 31, 2000

Published Date: 1st Qtr. 2011

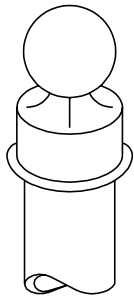
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CHAIN LINK FENCE WITH TENSION WIRED TOP

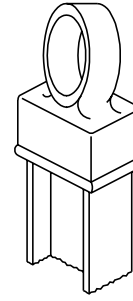
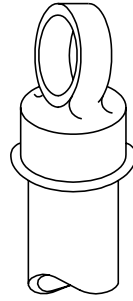
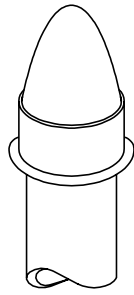
**PLATE NUMBER
621.02**

Sheet 1 of 1

0001-271
MINNEHAHA & LINCOLN COUNTIES

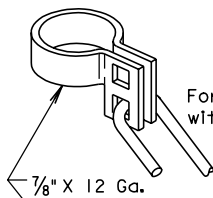


For End, Corner
and Pull Posts

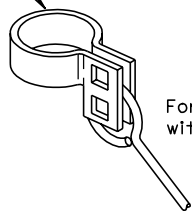


For Line Posts

Typical Post Tops
(Shown for example only)



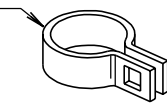
For use
without Bolt



For use
with Bolt

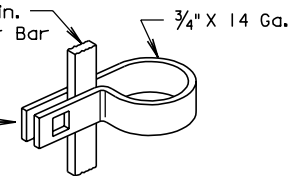
Brace & Truss Bands

$\frac{3}{4}$ " X 12 Ga.



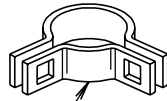
$\frac{1}{4}$ " X $\frac{3}{4}$ " min.
Stretcher Bar

At End
Posts

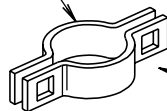
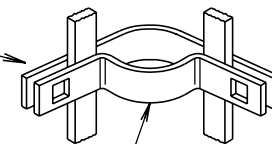


$\frac{3}{4}$ " X 14 Ga.

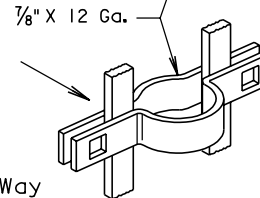
$\frac{7}{8}$ " X 12 Ga.



At Corner
Posts

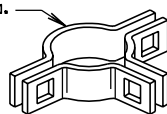


At Line
Pull Posts



$\frac{7}{8}$ " X 12 Ga.

1" X 11 Ga.

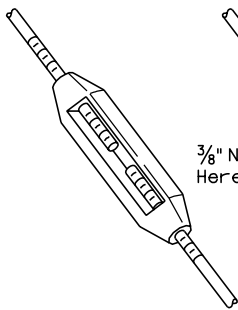


Three Way

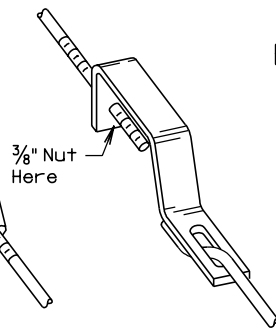
Brace Bands

Tension Bands

NOTE: Bands shall be rectangular for
"C" Section and "H" Beam Posts.

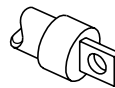


$\frac{3}{8}$ " Turnbuckle

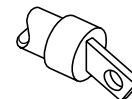


11 Ga. Tightener

Tightening Devices



Straight Tip



Offset Tip

Rail Ends

March 31, 2000

Published Date: 1st Qtr. 2011

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HARDWARE FOR CHAIN LINK FENCE

PLATE NUMBER
621.03

Sheet 1 of 1