

PLOT SCALE - 200,000000:1,000000

PLOTTED FROM - TRRC12508

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT 000I-452
INTERSTATE 90
PENNINGTON COUNTY

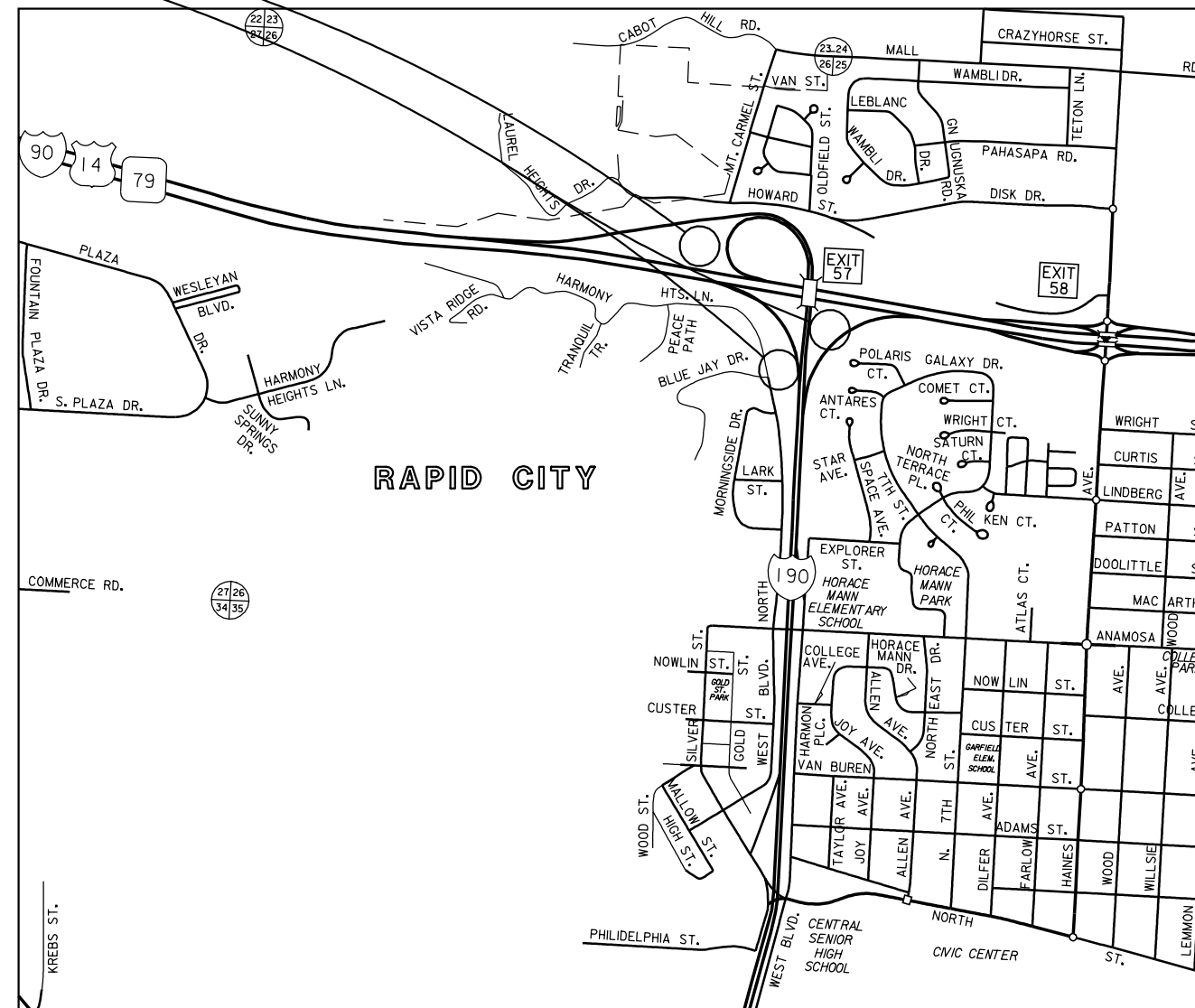
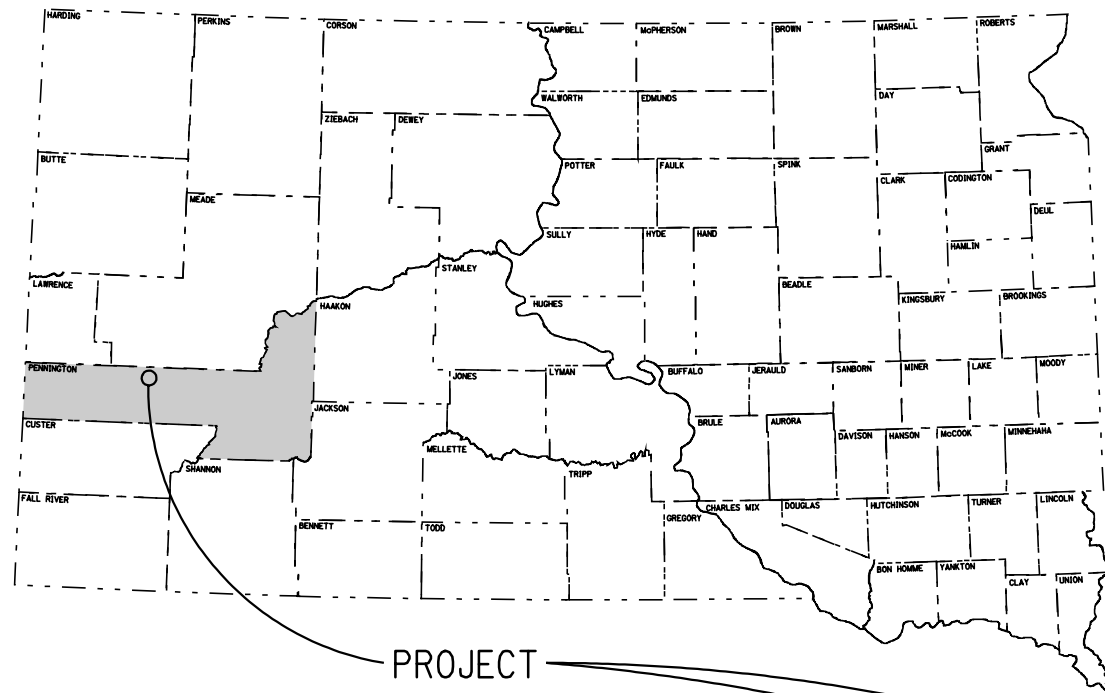
LIGHT TOWER REPAIR
PCN 11H8

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	000I-452	1	4

Plotting Date: 18-MAY-2009

INDEX OF SHEETS

- Sheet No. 1: Title Sheet
- Sheet No. 2: Estimate of Quantities
- Sheet No. 2: Plan Notes and Tables
- Sheet No. 3: Traffic Control
- Sheet No. 4: Tower Layout



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ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
250E0010	Incidental Work	Lump Sum	LS
634E0100	Traffic Control	34	Unit
635E6200	Miscellaneous, Electrical	Lump Sum	LS

SPECIFICATIONS

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

SCOPE OF WORK

Replace broken cable clamps.

Replace power conductor to light ring on High Mast Light Tower.

Install luminaire shields.

The Contractor is strongly encouraged to inspect the site and verify required quantities and tower and luminaire manufacturers prior to bidding.

GENERAL MAINTENANCE OF TRAFFIC

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 bottom of signs on portable or temporary supports shall not be less than seven feet above the pavement in urban areas and one foot above the pavement in rural areas. Portable sign supports may be used as long as the duration is less than 3 days. If the duration is more than 3 days the signs shall be on fixed supports.

INVENTORY OF TRAFFIC CONTROL DEVICES

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	1	34	34
TOTAL UNITS				34	

INCIDENTAL WORK

Incidental work includes, but is not limited to the following:

- 1) The restoration of all disturbed areas to the satisfaction of the Engineer.

MISCELLANEOUS ELECTRICAL

Included in the contract item for Miscellaneous, Electrical are the specified power conductor and all brackets, cable clamps, hardware, labor, and materials required to complete the installation of the power conductor on the designated High Mast Light Tower.

Included in the contract item for Miscellaneous, Electrical are all brackets, hardware, light shields, labor, and materials required to complete the installation of the light shields on the designated luminaires.

POWER CONDUCTOR AND BRACKETS

A new 127-foot long, four conductor, #8 AWG, 600 volt, 0.807-inch diameter power cable shall be installed in tower number T3 to replace the original. The original cable is no longer in the tower and will not require removal.

Plug ends shall match existing receptacles on the tower. Existing ends are Power lock connector 60 amp 600Volt 3pole 4wire Cooper #26414, and plug end #26415

Two new cable clamps will be required to replace damaged units.

The pole manufacturer is Valmont.

Valmont Structures
P.O.Box 358
7002 N. 288th St.
Valley, Nebraska 68064-0358

(402)359-2201

The high mast lowering device manufacturer is Carolina High Mast.

CHM Industries, Inc.
700 E. McLeroy Blvd
Saginaw, TX 76179

(682) 286-0046

The Contractor may contact Jerry Nuber (605-394-4118, Ext 702) at the City of Rapid City with more specific questions regarding the power conductor installation.

LUMINAIRE SHIELDS

For tower T7, two luminaire shields will be required to fit Holophane Test No. 36794 Long and Narrow luminaires.

Holophane
P.O. Box 3004
Newark, OH 43058-3004

(740) 345-9631

Luminaire shields for tower T7 will require the illumination to be cut off at an angle of 12.6 degrees off of vertical and 180 degrees horizontally on the southeast side for both units.

For tower T5, three luminaire shields will be required to fit Holophane Test No. 36794 Long and Narrow luminaires.

Luminaire shields for tower T5 will require the illumination to be cut off at an angle of 28.5 degrees off of vertical and 180 degrees horizontally on the south side for all three units.

SHOP DRAWING AND/OR AS-BUILT DRAWINGS SUBMITTALS

The Contractor shall submit shop drawings and/or as-built drawings for new luminaire shields and brackets in accordance with Section 985 of the Standard Specifications or in Adobe PDF format.

Adobe PDF submittals shall be sent to the following email addresses:

Dan.Martell@state.sd.us

MISCELLANEOUS ELECTRICAL

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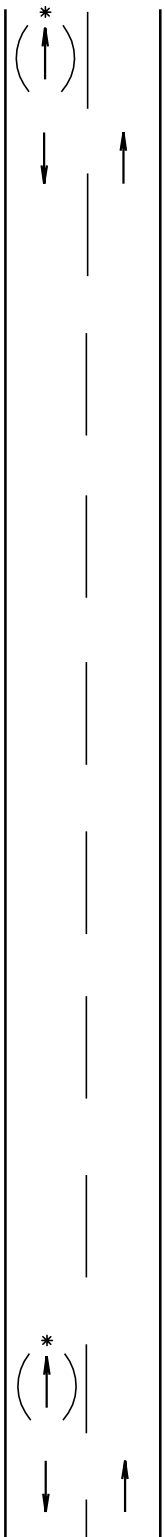
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

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.

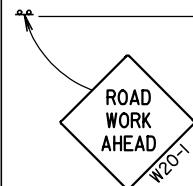
The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* 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: 2nd Qtr. 2009

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

PLATE NUMBER
634.01

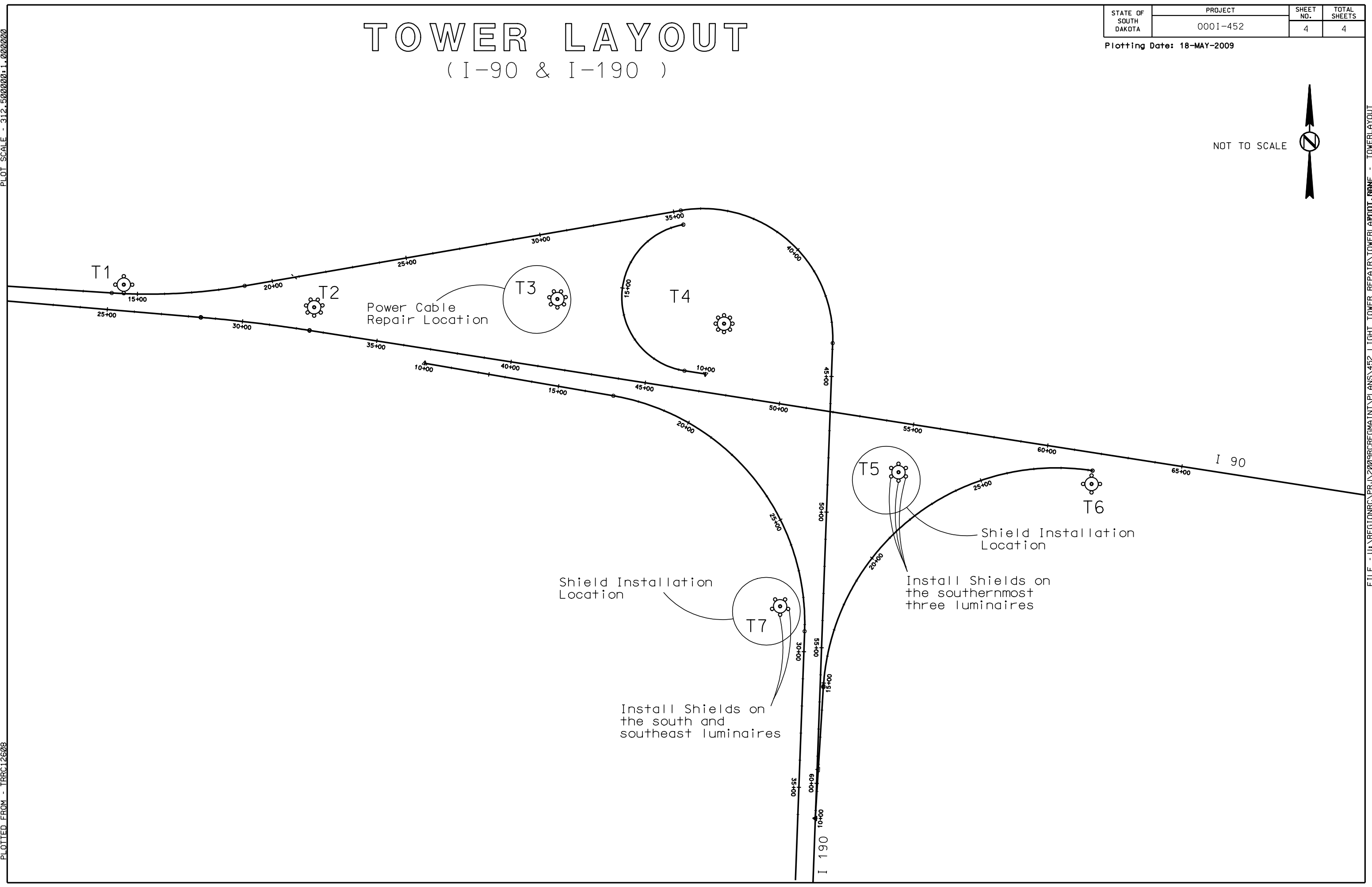
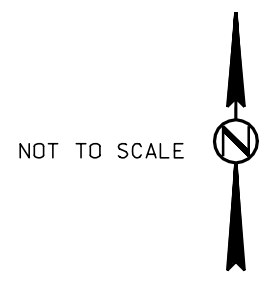
Sheet 1 of 1

TOWER LAYOUT

(I-90 & I-190)

STATE OF SOUTH DAKOTA	PROJECT	SHEET NO.	TOTAL SHEETS
	0001-452	4	4

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PLOT SCALE - 312.500000:1.000000

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