

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(00)420	1	13

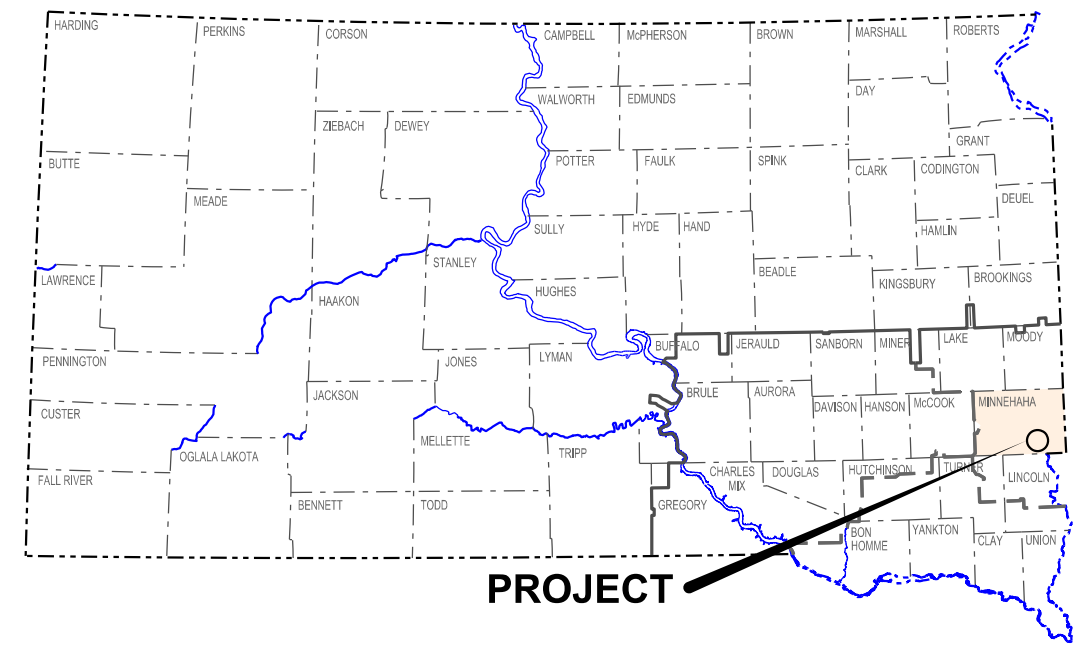
Plotting Date: 10/08/2015

STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED
PROJECT NH 0100(00)420
HIGHWAY 100
MINNEHAHA COUNTY

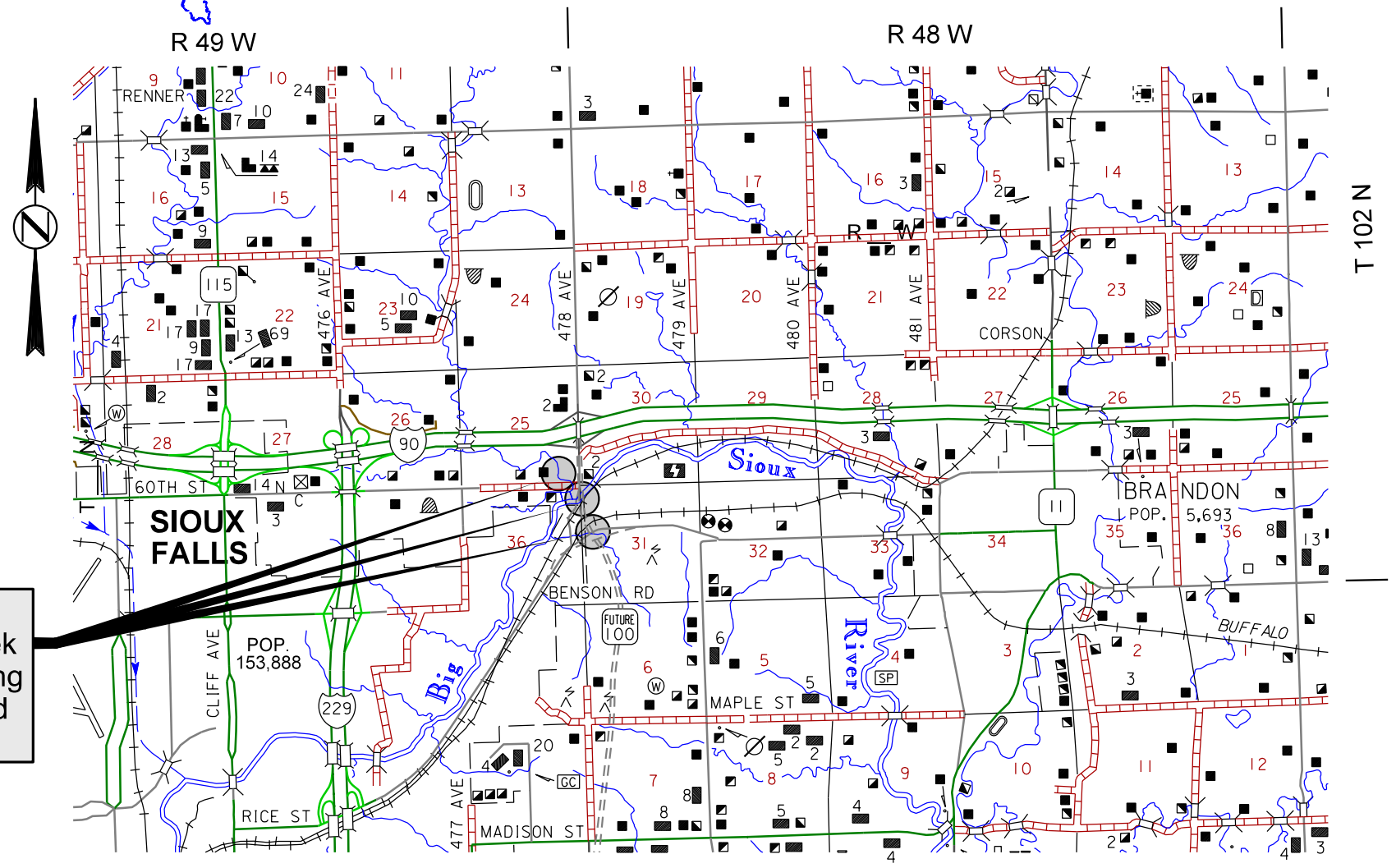
CLEARING & MINOR GRADING
 TO PROVIDE ACCESS
 PCN 05D7

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PROJECT



PROJECT
 Future 60th St at Slip Up Creek
 Future Hwy 100 at RR Crossing
 Future Hwy 100 at Rice St and
 Big Sioux River

STORM WATER PERMIT
 Receiving Waters:
 Area Disturbed:
 Slip Up Creek - 0.4 Acre
 Big Sioux River - 4.6 Acres
 Total Project Area: 5.7 Acres
 Latitude: 43.60 (Google Maps)
 Longitude: -96.65 (Google Maps)

PLOT SCALE - 1" = 7000'

PLOTTED FROM - IRSE12105

FILE - ... \PRJ\MINN@MIN\BRAD\TTL05D7.DGN

ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
100E0020	Clear and Grub Tree	20	Each
100E0100	Clearing	Lump Sum	LS
110E1690	Remove Sediment	4.0	CuYd
110E1700	Remove Silt Fence	750	Ft
250E0020	Incidental Work, Grading	Lump Sum	LS
634E0010	Flagging	20.0	Hour
634E0110	Traffic Control Signs	106	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
730E0204	Type C Permanent Seed Mixture	97	Lb
732E0100	Mulching	10.5	Ton
734E0154	12" Diameter Erosion Control Wattle	1,800	Ft
734E0602	Low Flow Silt Fence	2,950	Ft
734E0610	Mucking Silt Fence	200	CuYd
734E0620	Repair Silt Fence	750	Ft
734E0630	Floating Silt Curtain	950	Ft
998E0100	Railroad Protective Insurance	Lump Sum	LS

SPECIFICATIONS

Standard Specifications for Roads and Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

ENVIRONMENTAL COMMITMENTS

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES

COMMITMENT B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

COMMITMENT E: STORM WATER

Construction activities constitute 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT:

<http://www.sddot.com/business/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:

<http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

COMMITMENT H: WASTE DISPOSAL SITE

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

Construction and/or demolition debris may not be disposed of within the Public ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for 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 Project 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 and/or 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 and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the Public 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 Public 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.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC 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 artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow 30 Days from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

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.

RAILROAD CROSSING

The Contractor is to coordinate work with the Railroad Company regarding any work to be done adjacent to the railroad tracks and give a 30 day notice to the Railroad Company in advance of required flagging dates. See Special Provision for Working on Railroad Company Right of Way.

RESTRICTED WORK AREA

The Contractor's work limits shall be confined to the area within the existing right-of-way for parcel A8 until the late summer of 2016. The Engineer will notify the Contractor of the date when work outside of the existing right-of-way may proceed.

CLEARING

Locations as described in these plans shall be cleared of all trees, tree branches, tree stumps, brush, vegetation and debris then bladed and leveled to the satisfaction of the Engineer. Lumps and clods over 3 inches in diameter shall be broken up.

Removal of trees will be to the satisfaction of the Engineer. Removed trees shall become the property of the Contractor for disposal. Removed trees may not be disposed of on the project or on adjacent property, but shall be disposed of in accordance with the Waste Disposal Site note.

Clearing will be paid for at the contract lump sum price for Clearing. Payment shall be full compensation for labor and equipment necessary to clear the area according to these plans and to smooth ground irregularities. The clearing limits and access will be staked by the Engineer. The SDDOT Geotechnical Engineering Activity shall be notified prior to commencement of clearing activities to assist with the staking of clearing limits and access roads. The Geotechnical Engineering Activity will be available for inspection of each site during construction to assure clearing and incidental grading is completed satisfactorily to allow access by truck mounted drilling equipment.

1. Site A: Access will be obtained off of Rice Street and from the north on the future Highway 100 alignment.
2. Site B: Access will be obtained from the south on the future Highway 100 alignment and off of N Timberline Avenue. Grading (Benching) may be required in order to allow access at this location. Not all trees will be removed from the location on the north side of the railroad. Trees requiring removal at this location will be staked by the Engineer and paid for at the contract unit price per each for Clear and Grub Tree. There is an estimated 20 trees to be removed at this location.
3. Site C: Access will be obtained off of N Timberline Avenue within the clearing limits. The Contractor shall not clear trees or grade within delineated wetland or stream areas. Silt fence shall be installed around the existing wetland and streams in the vicinity prior to any clearing and grading work.
4. Site D: Access will be obtained off of E 60th Street and from N Timberline Avenue of the future 60th Street alignment.

INCIDENTAL WORK, GRADING

Incidental Work, Grading shall consist of the grading (benching) required to obtain access to Site B as well as any grading needed to obtain access into Site A, Site C and Site D.

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16	32
W20-7	FLAGGER (symbol)	2	48" x 48"	16	32
W21-5	SHOULDER WORK	2	48" x 48"	16	32
G20-2	END ROAD WORK	2	36" x 18"	5	10
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					106

MYCORRHIZAL INOCULUM

Mycorrhizal inoculum shall consist of mycorrhizal fungi spores and mycorrhizal fungi-infected root fragments in a solid carrier. The carrier may include organic materials, calcinated clay, or other materials consistent with application and good plant growth. The supplier shall provide certification of the fungal species claimed and the live propagule count. The inoculum shall include the following fungal species:

- | | |
|--------------------------------|------------------------------|
| <i>Glomus intraradices</i> 25% | <i>Glomus mosseae</i> 25% |
| <i>Glomus aggregatu</i> 25% | <i>Glomus etunicatum</i> 25% |

All seed shall be inoculated by the seed supplier with a minimum of 100,000 live propagules of mycorrhizal fungi per acre. Cost for inoculating the seed shall be incidental to the contract unit price per pound for Type C Permanent Seed Mixture.

The mycorrhizal inoculum shall be as shown below or an approved equal:

<u>Product</u>	<u>Manufacturer</u>
MycoApply	Mycorrhizal Applications, Inc. Grants Pass, OR Phone: 1-866-476-7800 http://www.mycorrhizae.com/

PERMANENT SEEDING AND MULCHING

The areas to be seeded and mulched include all disturbed areas resulting from the work required by this contract.

Type C Permanent Seed Mixture shall consist of the following:

Grass Species	Variety	Pure Live Seed (PLS) (Pounds/Acre)
Western Wheatgrass	Arriba, Flintlock, Rodan, Rosana	16
Canada Wildrye	Mandan	2
Total:		18

The areas to be seeded and mulched are estimated at 5.2 acres.

EROSION CONTROL WATTLE

Erosion control wattles for restraining the flow of runoff and sediment shall be installed at locations determined by the Engineer during construction. Refer to Standard Plate 734.06 for details.

The Contractor shall provide certification that the erosion control wattles do not contain noxious weed seeds.

Erosion control wattles shall remain on the project to decompose.

The erosion control wattle provided shall be from the approved product list. The approved product list for erosion control wattle may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

TABLE OF 12" EROSION CONTROL WATTLE

Location	Quantity (Ft)
Field Determined	1800
Total:	1800

LOW FLOW SILT FENCE

The low flow silt fence fabric provided shall be from the approved product list. The approved product list for low flow silt fence may be viewed at the following internet site:

<http://sddot.com/business/certification/products/Default.aspx>

Low flow silt fence shall be placed at the locations that will minimize siltation of adjacent streams, lakes, dams, or drainage areas as determined by the Engineer during construction. Refer to Standard Plate 734.04 for details.

TABLE OF LOW FLOW SILT FENCE

Location	Quantity (Ft)
Site A	750
Site B	370
Site C	310
Site D	480
Site E	540
Additional Quantity	500
Total:	2,950

MUCKING SILT FENCE

Mucking silt fence shall consist of removing muck trapped by the silt fence and spreading the material evenly over the adjacent area to conform to the existing grade.

REMOVE SILT FENCE

Silt fence shall be removed when vegetation is established. Some or all of the silt fence may be left on the project until vegetation is established.

FLOATING SILT CURTAIN

Floating silt curtains shall be installed at locations noted in the table and at locations determined by the Engineer during construction.

The Contractor shall determine the water depth and other waterway characteristics such as stream flow velocity and seek technical advice from the manufacturer before ordering the floating silt curtain so that the floating silt curtain installed is the correct type for the individual sites.

The Contractor shall install the floating silt curtain according to the manufacturer's installation instructions or as directed by the Engineer.

The Contractor shall maintain the floating silt curtains for the duration of the project to ensure continuous protection of the waterway.

A list of known manufacturers of floating silt curtain is shown below for informational purpose. Contractors may also use Engineer approved floating silt curtain from manufacturers that are not included in the list.

ABASCO, LLC
Houston, TX
Phone: 1-800-242-7745
www.abasco.net

Aer-Flo, Inc.
Bradenton, FL
Phone: 1-800-823-7356
www.aerflo.com

American Boom and Barrier Corp.
Cape Canaveral, FL
Phone: 1-800-843-2110
www.abbcoboom.com

ENVIRO-USA, LLC
Cocoa, FL
Phone: 1-321-222-9551
www.enviro-usa.com

Elastec/American Marine, Inc.
Carmi, IL
Phone: 1-618-382-2525
www.turbiditycurtains.com

Geo-Synthetics, LLC (GSI)
Waukesha, WI
Phone: 1-800-444-5523
www.geosynthetics.com

Parker Systems, Inc.
Chesapeake, VA
Phone: 1-866-472-7537
www.parkersystemsinc.com

TABLE OF FLOATING SILT CURTAIN

Location	Quantity (Ft)
Site C	300
Site D	350
Site E	300
Total:	950

STORM WATER POLLUTION PREVENTION PLAN CHECKLIST

(The numbers right of the title headings are **reference numbers** to the GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES)

SITE DESCRIPTION (4.2 1)

- **Project Limits: See Title Sheet (4.2 1.b)**
- **Project Description: See Title Sheet (4.2 1.a.)**
- **Site Map(s): See Title Sheet and Plans (4.2 1.f. (1)-(6))**
- **Major Soil Disturbing Activities** (check all that apply)
 - Clearing and grubbing
 - Excavation/borrow
 - Grading and shaping
 - Filling
 - Cutting and filling
 - Other (describe):
- **Total Project Area 5.7 Acres (4.2 1.b.)**
- **Total Area To Be Disturbed 5.2 Acres (4.2 1.b.)**
- **Existing Vegetative Cover (%) 70%**
- **Soil Properties:** Classification (4.2 1. d.)
- **Name of Receiving Water Body/Bodies (4.2 1.e.)**

ORDER OF CONSTRUCTION ACTIVITIES (4.2 1.c.)

(Stabilization measures shall be initiated as soon as possible, but in no case later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Initiation of final or temporary stabilization may exceed the 14-day limit if earth disturbing activities will be resumed within 21 days.)

- **Install perimeter protection where runoff sheets from the site.**
- **Clearing and grubbing.**
- **Stabilize disturbed areas.**
- **Reseed areas disturbed by removal activities.**

EROSION AND SEDIMENT CONTROLS (4.2 2.a.(1)(a)-(f))

(Check all that apply)

- **Stabilization Practices (See Detail Plan Sheets)**
 - Temporary Seeding (Cover Crop Seeding)
 - Permanent Seeding
 - Sodding
 - Planting (Woody Vegetation for Soil Stabilization)
 - Mulching (Grass Hay or Straw)
 - Hydraulic Mulch (Wood Fiber Mulch)
 - Soil Stabilizer
 - Bonded Fiber Matrix
 - Erosion Control Blankets or Mats
 - Vegetation Buffer Strips
 - Roughened Surface (e.g. tracking)
 - Dust Control
 - Other:
- **Structural Temporary Erosion and Sediment Controls**
 - Silt Fence
 - Floating Silt Curtain
 - Straw Bale Check
 - Temporary Berm
 - Temporary Slope Drain
 - Straw Wattles or Rolls
 - Turf Reinforcement Mat
 - Rip Rap
 - Gabions

- Rock Check Dams
- Sediment Traps/Basins
- Inlet/Outlet Protection
- Surface Inlet Protection (Area Drain)
- Curb Inlet Protection
- Stabilized Construction Entrances
- Entrance/Exit Equipment Tire Wash
- Interceptor Ditch
- Concrete Washout Facility
- Temporary Diversion Channel
- Work Platform
- Temporary Water Barrier
- Temporary Water Crossing
- Other:

➤ Wetland Avoidance

Will construction and/or erosion and sediment controls impinge on regulated wetlands? Yes No If yes, the structural and erosion and sediment controls have been included in the total project wetland impacts and have been included in the 404 permit process with the USACE.

➤ Storm Water Management (4.2 2.b., (1) and (2))

Storm water management will be handled by temporary controls outlined in "EROSION AND SEDIMENT CONTROLS" above, and any permanent controls needed to meet permanent storm water management needs in the post construction period. Permanent controls will be shown on the plans and noted as permanent.

➤ Other Storm Water Controls (4.2 2.c., (1) and (2))

▪ Waste Disposal

All liquid waste materials will be collected and stored in sealed metal containers approved by the project engineer. All trash and construction debris from the site will be deposited in the approved containers. Containers will be serviced as necessary, and the trash will be hauled to an approved disposal site or licensed landfill. All onsite personnel will be instructed in the proper procedures for waste disposal, and notices stating proper practices will be posted in the field office. The general Contractor's representative responsible for the conduct of work on the site will be responsible for seeing waste disposal procedures are followed.

▪ Hazardous Waste

All hazardous waste materials will be disposed of in a manner specified by local or state regulations or by the manufacturer. Site personnel will be instructed in these practices, and the individual designated as the Contractor's on-site representative will be responsible for seeing that these practices are followed.

▪ Sanitary Waste

Portable sanitary facilities will be provided on all construction sites. Sanitary waste will be collected from the portable units in a timely manner by a licensed waste management Contractor or as required by any local regulations.

- Sediment basins and traps will be checked. Sediment will be removed when depth reaches approximately 50 percent of the structure's capacity, and at the conclusion of the construction.
- Check dams will be inspected for stability. Sediment will be removed when depth reaches ½ the height of the dam.
- All seeded areas will be checked for bare spots, washouts, and vigorous growth free of significant weed infestations.
- Inspection and maintenance reports will be prepared on form DOT 298 for each site inspection, this form will also be used to document changes to the SWPPP. A copy of the completed inspection form will be filed with the SWPPP documents.
- The SDDOT Project Engineer and Contractor's Erosion Control Supervisor are responsible for inspections. Maintenance, repair activities are the responsibility of the Contractor. The SDDOT Project Engineer will complete the inspection and maintenance reports and distribute copies per the distribution instructions on DOT 298.

NON-STORM WATER DISCHARGES (3.0)

The following non-storm water discharges are anticipated during the course of this project (check all that apply).

- Discharges from water line flushing.
- Pavement wash-water, where no spills or leaks of toxic or hazardous materials have occurred.
- Uncontaminated ground water associated with dewatering activities.

MATERIALS INVENTORY (4.2. 2.c.(2))

The following materials or substances are expected to be present on the site during the construction period. These materials will be handled as noted under the headings "EROSION AND SEDIMENT CONTROLS" and "SPILL PREVENTION" (check all that apply).

- Concrete and Portland Cement
- Detergents
- Paints
- Metals
- Bituminous Materials
- Petroleum Based Products
- Cleaning Solvents
- Wood
- Cure
- Texture
- Chemical Fertilizers
- Other:

MAINTENANCE AND INSPECTION (4.2 3. and 4.2 4.)

➤ Maintenance and Inspection Practices

- Inspections will be conducted at least one time per week and after a storm event of 0.50 inches or greater.
- All controls will be maintained in good working order. Necessary repairs will be initiated within 24 hours of the site inspection report.
- Silt fence will be inspected for depth of sediment and for tears in order to ensure the fabric is securely attached to the posts and that the posts are well anchored. Sediment buildup will be removed from the silt fence when it reaches 1/3 of the height of the silt fence.

SPILL PREVENTION (4.2 2.c.(2))

➤ **Material Management**

▪ Housekeeping

- Only needed products will be stored on-site by the Contractor.
- Except for bulk materials the contractor will store all materials under cover and in appropriate containers.
- Products must be stored in original containers and labeled.
- Material mixing will be conducted in accordance with the manufacturer's recommendations.
- When possible, all products will be completely used before properly disposing of the container off-site.
- The manufacturer's directions for disposal of materials and containers will be followed.
- The Contractor's site superintendent will inspect materials storage areas regularly to ensure proper use and disposal.
- Dust generated will be controlled in an environmentally safe manner.
- Vegetation areas not essential to the construction project will be preserved and maintained as noted on the plans.

▪ Hazardous Materials

- Products will be kept in original containers unless the container is not resealable.
- Original labels and material safety data sheets will be retained in a safe place to relay important product information.
- If surplus product must be disposed of, manufacturer's label directions for disposal will be followed.
- Maintenance and repair of all equipment and vehicles involving oil changes, hydraulic system drain down, de-greasing operations, fuel tank drain down and removal, and other activities which may result in the accidental release of contaminants will be conducted on an impervious surface and under cover during wet weather to prevent the release of contaminants onto the ground.
- Wheel wash water will be collected and allowed to settle out suspended solids prior to discharge. Wheel wash water will not be discharged directly into any storm water system or storm water treatment system.
- Potential pH-modifying materials such as: bulk cement, cement kiln dust, fly ash, new concrete washings, concrete pumping, residuals from concrete saw cutting (either wet or dry), and mixer washout waters will be collected on site and managed to prevent contamination of storm water runoff.

➤ **Product Specific Practices (6.8)**

▪ Petroleum Products

All on-site vehicles will be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products will be stored in tightly sealed containers which are clearly labeled.

▪ Fertilizers

Fertilizers will be applied only in the amounts specified by the SDDOT. Once applied, fertilizers will be worked into the soil to limit the exposure to storm water. Fertilizers will be stored in an enclosed area. The contents of partially used fertilizer bags will be transferred to sealable containers to avoid spills.

▪ Paints

All containers will be tightly sealed and stored when not required for use. The excess will be disposed of according to the manufacturer's instructions and any applicable state and local regulations.

▪ Concrete Trucks

Contractors will provide designated truck washout facilities on the site. These areas must be self-contained and not connected to any storm water outlet of the site. Upon completion of construction, the area at the washout facility will be properly stabilized.

➤ **Spill Control Practices (4.2 2 c.(2))**

In addition to the previous housekeeping and management practices, the following practices will be followed for spill prevention and cleanup if needed.

- For all hazardous materials stored on site, the manufacturer's recommended methods for spill cleanup will be clearly posted. Site personnel will be made aware of the procedures and the locations of the information and cleanup supplies.
- Appropriate cleanup materials and equipment will be maintained by the Contractor in the materials storage area on-site. As appropriate, equipment and materials may include items such as brooms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for cleanup purposes.
- All spills will be cleaned immediately after discovery and the materials disposed of properly.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- After a spill a report will be prepared describing the spill, what caused it, and the cleanup measures taken. The spill prevention plan will be adjusted to include measures to prevent this type of spill from reoccurring, as well as clean up instructions in the event of reoccurrences.
- The Contractor's site superintendent, responsible for day-to-day operations, will be the spill prevention and cleanup coordinator. The Contractor is responsible for ensuring that the site superintendent has had appropriate training for hazardous materials handling, spill management, and cleanup.

➤ **Spill Response (4.2 2 c.(2))**

The primary objective in responding to a spill is to quickly contain the material(s) and prevent or minimize migration into storm water runoff and conveyance systems. If the release has impacted on-site storm water, it is critical to contain the released materials on-site and prevent their release into receiving waters. If a spill of pollutants threatens storm water or surface water at the site, the spill response procedures outlined below must be implemented in a timely manner to prevent the release of pollutants.

- The Contractor's site superintendent will be notified immediately when a spill or the threat of a spill is observed. The superintendent will assess the situation and determine the appropriate response.
- If spills represent an imminent threat of escaping erosion and sediment controls and entering receiving waters, personnel will be directed to respond immediately to contain the release and notify the superintendent after the situation has been stabilized.
- Spill kits containing appropriate materials and equipment for spill response and cleanup will be maintained by the Contractor at the site.

- If oil sheen is observed on surface water (e.g. settling ponds, detention ponds, swales), action will be taken immediately to remove the material causing the sheen. The Contractor will use appropriate materials to contain and absorb the spill. The source of the oil sheen will also be identified and removed or repaired as necessary to prevent further releases.

- If a spill occurs the superintendent or the superintendent's designee will be responsible for completing the spill reporting form and for reporting the spill to SD DENR.

- Personnel with primary responsibility for spill response and clean up will receive training by the Contractor's site superintendent or designee. The training must include identifying the location of the spill kits and other spill response equipment and the use of spill response materials.

- Spill response equipment will be inspected and maintained as necessary to replace any materials used in spill response activities.

SPILL NOTIFICATION

In the event of a spill, the Contractor's site superintendent will make the appropriate notification(s), consistent with the following procedures:

- A release or spill of a regulated substance (includes petroleum and petroleum products) must be reported to DENR immediately **if any one of the following** conditions exists:

- The discharge threatens or is in a position to threaten the waters of the state (surface water or ground water).
- The discharge causes an immediate danger to human health or safety.
- The discharge exceeds 25 gallons.
- The discharge causes a sheen on surface water.
- The discharge of any substance that exceeds the ground water quality standards of ARSD (Administrative Rules of South Dakota) chapter 74:51:01.
- The discharge of any substance that exceeds the surface water quality standards of ARSD chapter 74:51:01.
- The discharge of any substance that harms or threatens to harm wildlife or aquatic life.
- The discharge of crude oil in field activities under SDCL (South Dakota Codified Laws) chapter 45-9 is greater than 1 barrel (42 gallons).

To report a release or spill, call DENR at 605-773-3296 during regular office hours (8 a.m. to 5 p.m. Central time). To report the release after hours, on weekends or holidays, call State Radio Communications at 605-773-3231. Reporting the release to DENR does not meet any obligation for reporting to other state, local, or federal agencies. Therefore, the responsible person must also contact local authorities to determine the local reporting requirements for releases. DENR recommends that spills also be reported to the National Response Center at (800) 424-8802.

CONSTRUCTION CHANGES (4.4)

When changes are made to the construction project that will require alterations in the temporary erosion controls of the site, the Storm Water Pollution Prevention Plan (SWPPP) will be amended to provide appropriate protection to disturbed areas, all storm water structures, and adjacent waters. The SDDOT Project Engineer will modify the SWPPP plan (DOT 298) and drawings to reflect the needed changes. Copies of changes will be routed per DOT 298. Copies of forms and the SWPPP will be retained in a designated place for review over the course of the project.

CERTIFICATIONS

➤ **Certification of Compliance with Federal, State, and Local Regulations**

The Storm Water Pollution Prevention Plan (SWPPP) for this project reflects the requirements of all local municipal jurisdictions for storm water management and sediment and erosion control as established by ordinance, as well as other state and federal requirements for sediment and erosion control plans, permits, notices or documentation as appropriate.

➤ **South Dakota Department of Transportation**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Authorized Signature (See the General Permit, Section 6.9.1.C.)

➤ **Prime Contractor**

This section is to be executed by the General Contractor after the award of the contract. This section may be executed any time there is a change in the Prime Contractor of the project.

I certify under penalty of law that this document and all attachments will be revised or maintained under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Authorized Signature

CONTACT INFORMATION

➤ **Contractor Information:**

- Prime Contractor Name: _____
- Contractor Contact Name: _____
- Address: _____
- _____
- City: _____ State: _____ Zip: _____
- Office Phone: _____ Field: _____
- Cell Phone: _____ Fax: _____

➤ **Erosion Control Supervisor**

- Name: _____
- Address: _____
- _____
- City: _____ State: _____ Zip: _____
- Office Phone: _____ Field: _____
- Cell Phone: _____ Fax: _____

➤ **SDDOT Project Engineer**

- Name: _____
- Business Address: _____
- Job Office Location: _____
- City: _____ State: _____ Zip: _____
- Office Phone: _____ Field: _____
- Cell Phone: _____ Fax: _____

➤ **SD DENR Contact Spill Reporting**

- Business Hours Monday-Friday (605) 773-3296
- Nights and Weekends (605) 773-3231

➤ **SD DENR Contact for Hazardous Materials.**

- (605) 773-3153

➤ **National Response Center Hotline**

- (800) 424-8802.

EASEMENT OWNERSHIP TABLE

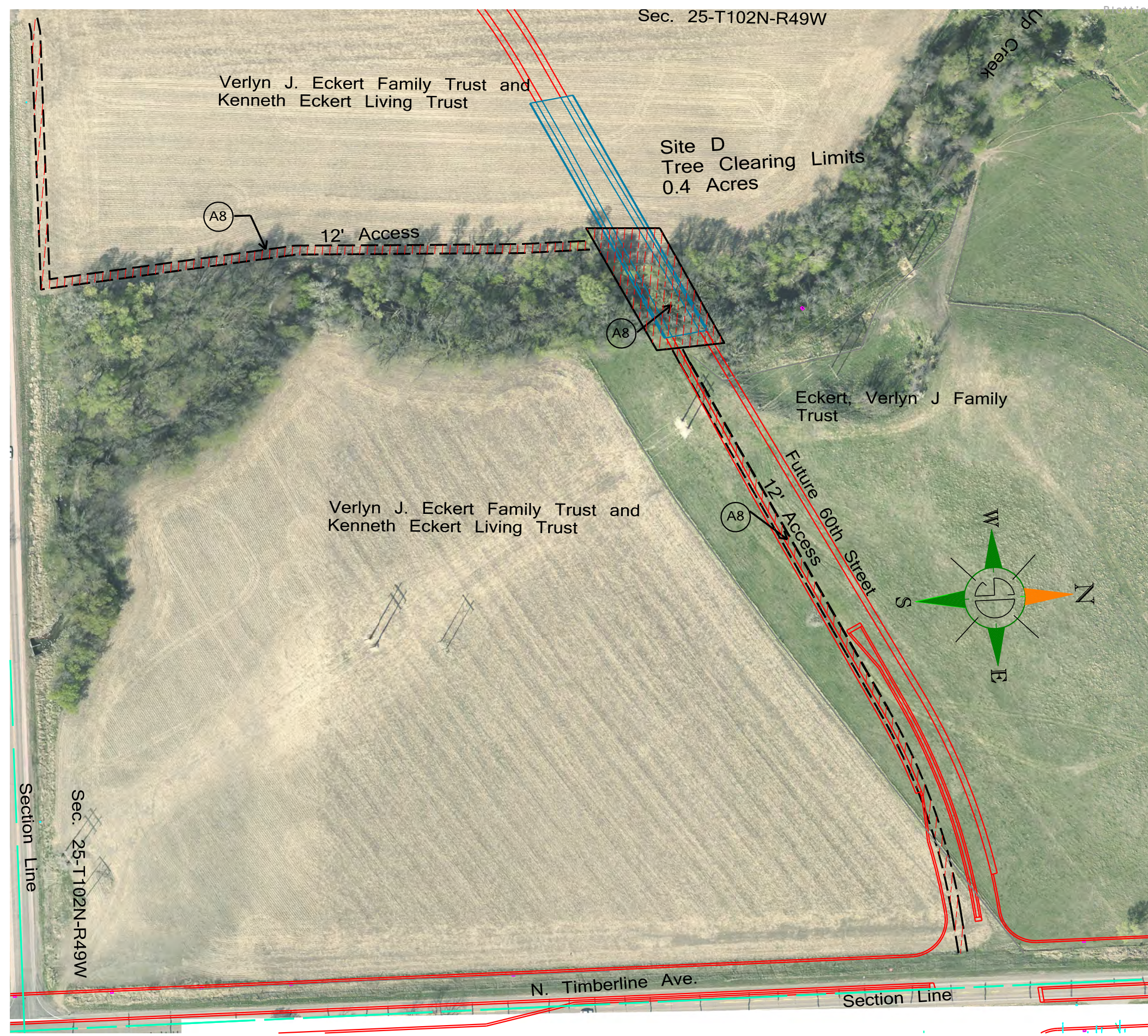
PARCEL	CLEARING SITE / LOCATION	SIDE	TYPE	PURPOSE	AREA	OWNER	DESCRIPTION
A1	Site A / North of Rice Street			Access	0.08 Acre	Northern States Power	Government Lot 2 of the Northwest Quarter (NW1/4), Except the Right-of-Way of the Ellis and Eastern Railway and Except the Right-of-Way of the Burlington Northern Santa Fe Railway and Except that Part of Government Lot 2 Lying Between the Burlington Northern Santa Fe Railway Right of Way and the Ellis and Eastern Railway Right of Way, All in Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A1	Site A / Between Rice Street and Ellis and Eastern Railroad			Clearing	1.3 Acres	Northern States Power	Government Lot 2 of the Northwest Quarter (NW1/4), Except the Right-of-Way of the Ellis and Eastern Railway and Except the Right-of-Way of the Burlington Northern Santa Fe Railway and Except that Part of Government Lot 2 Lying Between the Burlington Northern Santa Fe Railway Right of Way and the Ellis and Eastern Railway Right of Way, All in Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A1C	Site B / South of BNSF Railroad			Clearing	0.05 Acre	Northern States Power	The Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) Lying South and East of the Burlington Northern Santa Fe Railroad right of way and north and west of the Ellis & Eastern Railroad right of way; all in Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota.
A1C	Site A / Between Rice Street and Ellis and Eastern Railroad			Clearing	0.02 Acre	Northern States Power	The Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) lying south and east of the Ellis & Eastern Railroad right of way, all in Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota.
A2A	Site A / South of Ellis and Eastern Railroad Tracks			Clearing	0.2 Acre	Ellis and Eastern Company	Ellis and Eastern Railroad Land in the Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A2	Site A / South of Ellis and Eastern Railroad Tracks			Clearing	0.6 Acre	Ellis and Eastern Company	Ellis and Eastern Railroad Land in the Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A2	Site A / North of Ellis and Eastern Railroad Tracks			Clearing	0.1 Acre	Ellis and Eastern Company	Ellis and Eastern Railroad Land in Government Lot 2 of the Northwest Quarter (NW1/4) of Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A2A	Site A / North of Ellis and Eastern Railroad Tracks			Clearing	0.3 Acre	Ellis and Eastern Company	Ellis and Eastern Railroad Land in the Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A1C	Site A / North of Ellis and Eastern Railroad Tracks			Clearing	0.08	Northern States Power	The Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) Lying South and East of the Burlington Northern Santa Fe Railroad right of way and north and west of the Ellis & Eastern Railroad right of way; in Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota.
A2	Site A / North of Ellis and Eastern Railroad Tracks			Access	0.04 Acre	Ellis and Eastern Company	Ellis and Eastern Railroad Land in Government Lot 2 of the Northwest Quarter (NW1/4) of Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A3	Site B / Between Ellis and Eastern Railroad and BNSF Railroad			Access	0.2 Acre	United States of America (WAPA)	That Part of Government Lot 2 Lying Between the Burlington Northern Santa Fe Railway Right-of-Way and the Ellis and Eastern Railway Right-of-Way, All in Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota

EASEMENT OWNERSHIP TABLE

A1C	Site A and B / Between Ellis and Eastern Railroad and BNSF Railroad off of N. Timberline Ave.			Access	0.2 Acre	Northern States Power	The Southeast Quarter of the Northeast Quarter (SE1/4NE1/4) Lying South and East of the Burlington Northern Santa Fe Railroad right of way and north and west of the Ellis & Eastern Railroad right of way; in Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota.
A3	Site B / South of BNSF Railroad			Clearing	0.5 Acre	United States of America (WAPA)	That Part of Government Lot 2 Lying Between the Burlington Northern Santa Fe Railway Right-of-Way and the Ellis and Eastern Railway Right-of-Way, All in Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A7	Site B / South of BNSF Railroad Tracks			Clearing	0.2 Acre	Burlington Northern Sante Fe Railway	BNSF Railroad Land in Northeast Quarter of the Northeast Quarter (NE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A7A	Site B / South of BNSF Railroad Tracks			Clearing	0.1 Acre	Burlington Northern Sante Fe Railway	BNSF Railroad Land in Government Lot 2 of the Northwest Quarter (NW1/4) of Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A7A	Site B / North of BNSF Railroad Tracks			Clearing	0.1 Acre	Burlington Northern Sante Fe Railway	BNSF Railroad Land in Government Lot 2 of the Northwest Quarter (NW1/4) of Section 31, Township 102 North, Range 48 West of the 5th P.M., Minnehaha County, South Dakota
A1B	Site B / North of BNSF Railroad Tracks			Clearing	0.1 Acre	Northern States Power	Govt. Lot 2 - Northwest Quarter (NW1/4) of Section 31, lying North and West of the Burlington Northern Santa Fe Railroad right of way, All in Township 102 North, Range 48 West of the 5thP.M., Minnehaha County, South Dakota
A7	Site B / North of BNSF Railroad Tracks			Clearing	0.2 Acre	Burlington Northern Sante Fe	BNSF Railroad Land in Northeast Quarter of the Northeast Quarter (NE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A7	Site B / North of BNSF Railroad Tracks			Access	0.2 Acre	Burlington Northern Sante Fe	BNSF Railroad Land in Northeast Quarter of the Northeast Quarter (NE1/4NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota
A5	Site C			Clearing	0.2 Acre	Hasvold, Angela	Tract 4 in the East Half of the Northeast Quarter (E1/2NE1/4) of Section 36, Township 102 North, Range 49 West of the 5th P.M., Minnehaha County, South Dakota.
A1B	Site C			Clearing	0.5 Acre	Northern States Power	Govt. Lot 2 - Northwest Quarter (NW1/4) of Section 31, lying North and West of the Burlington Northern Santa Fe Railroad right of way, All in Township 102 North, Range 48 West of the 5thP.M., Minnehaha County, South Dakota
A8	Site D / South Access			Access	0.3 Acre	Verlyn J. Eckert Family Trust and Kenneth Eckert Living Trust	The South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M., Minnehaha County, South Dakota, lying South of the Interstate Highway, except the West Half of the Southwest Quarter (W1/2SW1/4 thereof except Lindemann Tract 1 in the South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M. Minnehaha County South Dakota
A8	Site D			Clearing	0.4 Acre	Verlyn J. Eckert Family Trust and Kenneth Eckert Living Trust	The South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M., Minnehaha County, South Dakota, lying South of the Interstate Highway, except the West Half of the Southwest Quarter (W1/2SW1/4 thereof except Lindemann Tract 1 in the South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M. Minnehaha County South Dakota
A8	Site D / East Access			Access	0.2 Acre	Verlyn J. Eckert Family Trust and Kenneth Eckert Living Trust	The South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M., Minnehaha County, South Dakota, lying South of the Interstate Highway, except the West Half of the Southwest Quarter (W1/2SW1/4 thereof except Lindemann Tract 1 in the South Half (S1/2) of Section 25, Township 102 North, Range 49 West of the 5 th P.M. Minnehaha County South Dakota

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH 0100(00)420	11	13

Plotting Date: 08/06/2015

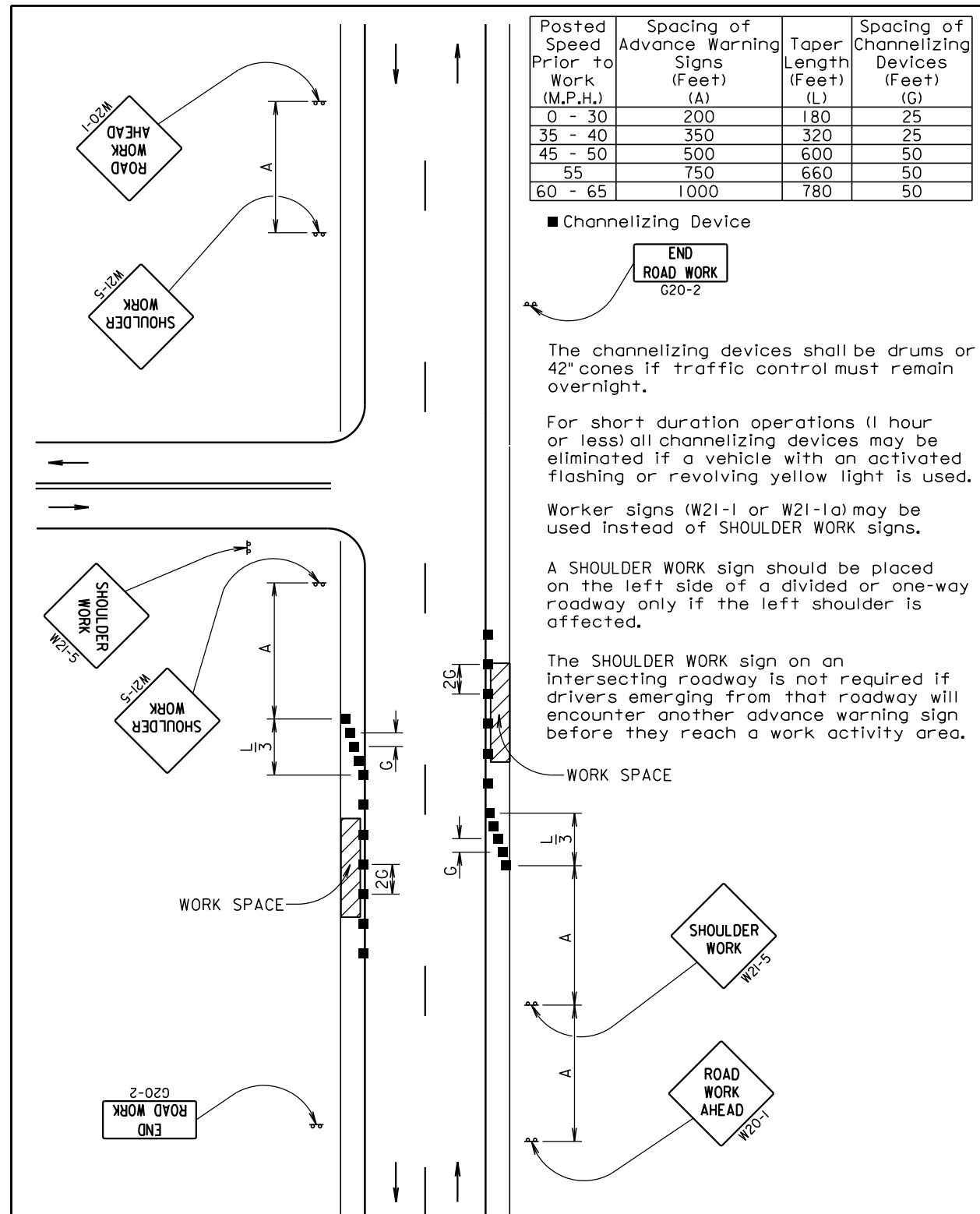


PLOT SCALE - 1:140

PLOTTED FROM - TRSE12105

PLOT NAME - 3

FILE - ... \PRJ\MINN02\W\BRAD\SHEET 10.DGN



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)	Taper Length (Feet) (L)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	200	180	25
35 - 40	350	320	25
45 - 50	500	600	50
55	750	660	50
60 - 65	1000	780	50

■ Channelizing Device



The channelizing devices shall be drums or 42" cones if traffic control must remain overnight.

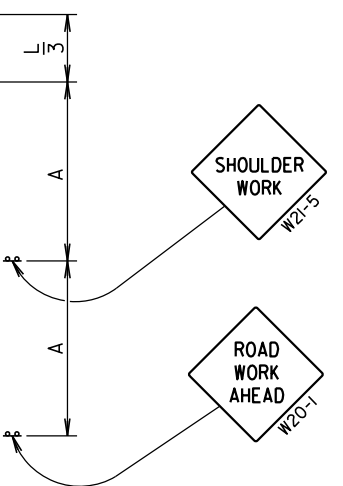
For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

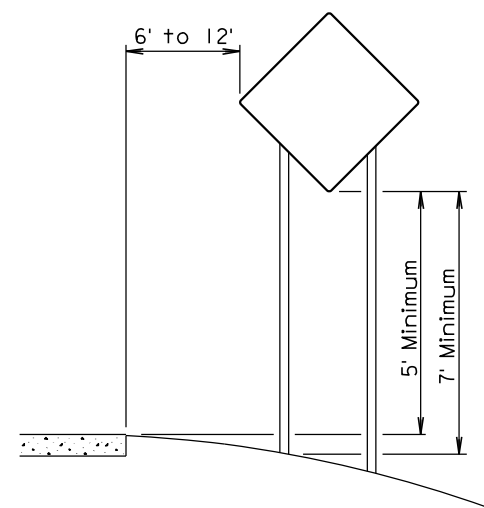
A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

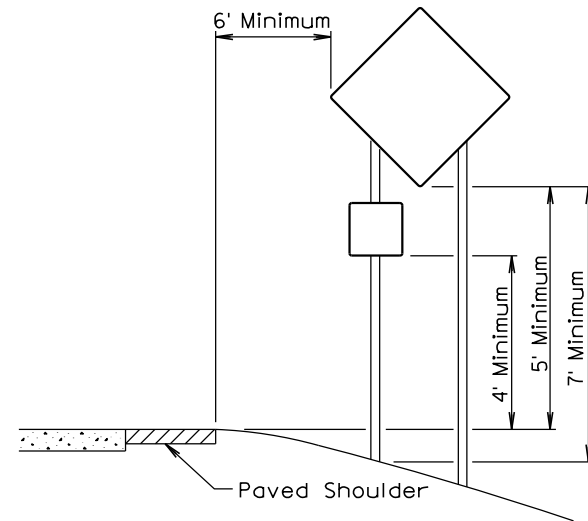
WORK SPACE



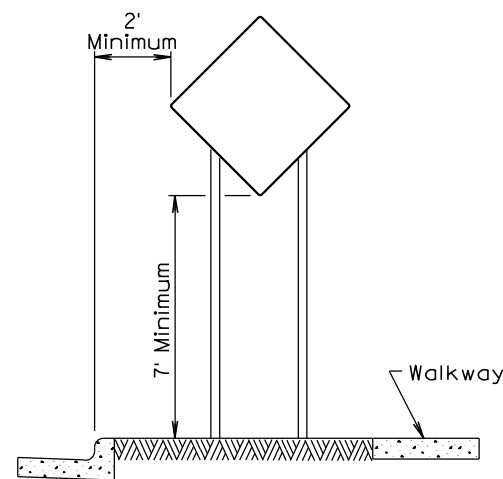
September 22, 2014



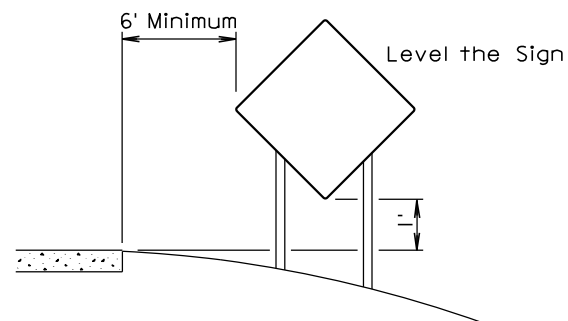
RURAL DISTRICT



RURAL DISTRICT WITH
SUPPLEMENTAL PLATE



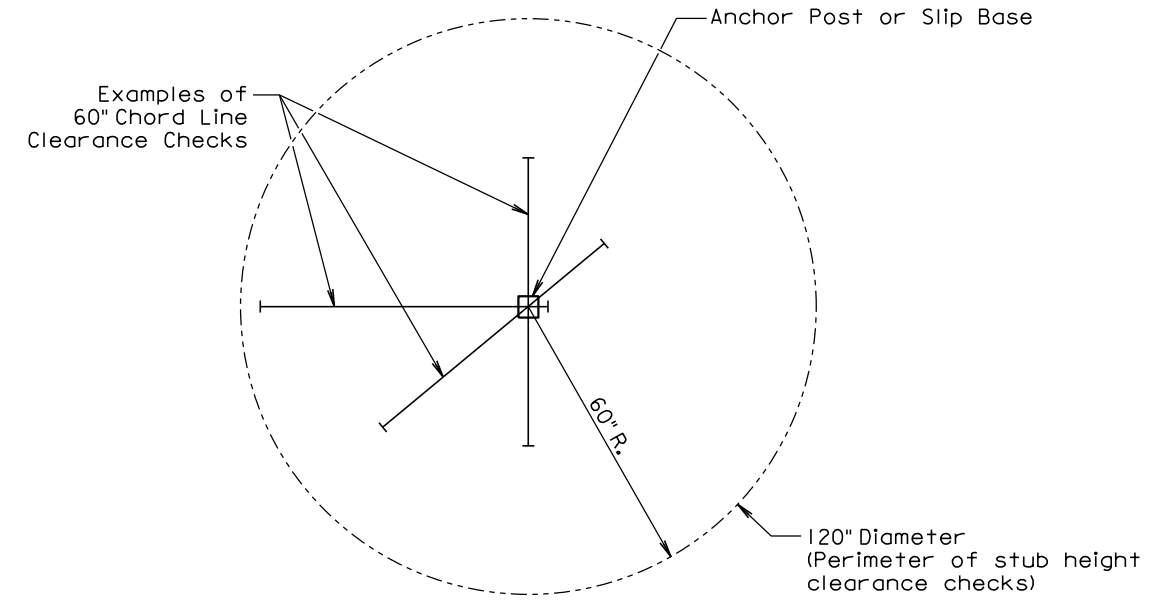
URBAN DISTRICT



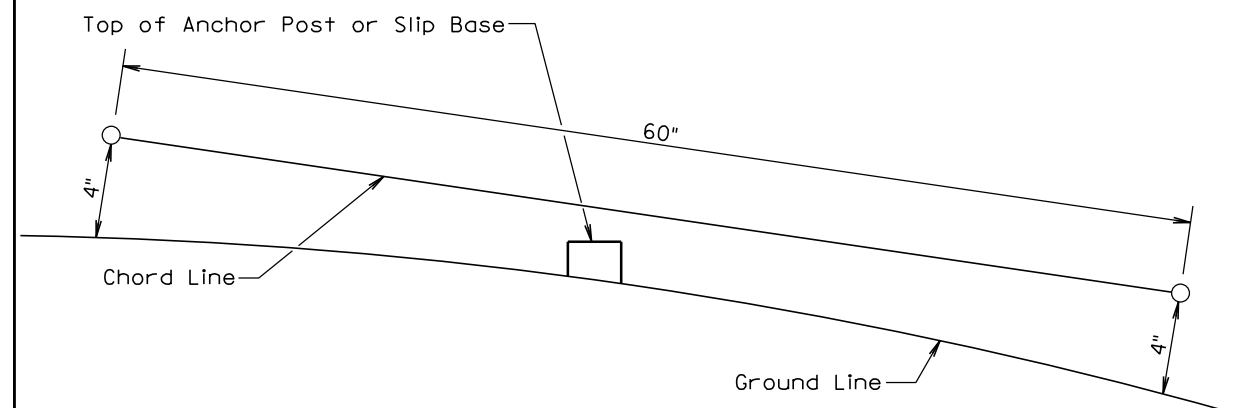
RURAL DISTRICT
3 DAY MAXIMUM

February 14, 2011

Published Date: 1st Qtr. 2014	S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 1st Qtr. 2014	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1