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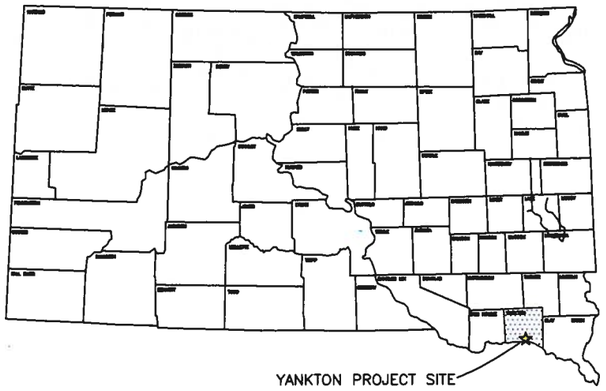
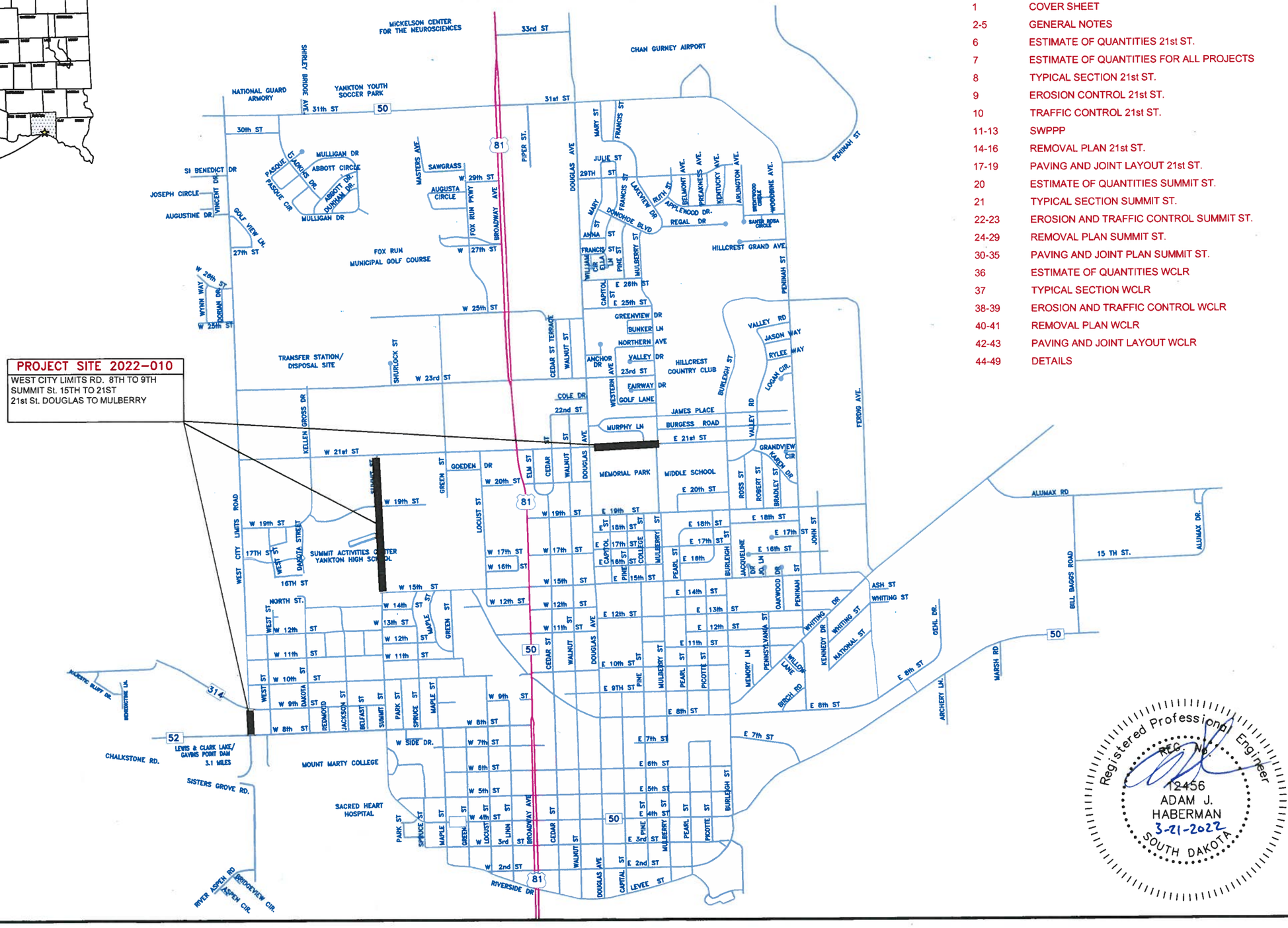
COVER SHEET		

2022-010
WEST CITY LIMITS RD. 8TH TO 9TH
SUMMIT ST 15TH TO 21ST AND
21st St. DOUGLAS TO MULBERRY
STREET RECONSTRUCTION





INDEX OF SHEETS

Registered Professional Engineer
REG. No.
12456
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
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NOTES				

GENERAL NOTES

SPECIFICATIONS TO BE USED

City of Yankton Standard Specifications and the South Dakota Department of Transportation (SDDOT) Standard Specifications for Roads and Bridges most recent Edition and Required Provisions, Supplemental Specifications, and/or Special Provisions as included in the Proposal.

UTILITIES

Location and protection of all underground utilities is the Contractors responsibility. The Contractor will be required to coordinate work with the utility companies. Existing utilities and service lines that coincide with proposed underground main locations are to be located in advance by the contractor such that proposed underground mains can be adjusted to avoid conflict.

Utility locations are coordinated by calling: 1-800-781-7474 or dial 811

SEQUENCE OF OPERATIONS

The Contractor shall use the following sequence of operations that are listed on the traffic control sheets unless an alternate is approved by the Engineer. An alternate sequence must be submitted in writing a minimum of one week prior to the preconstruction meeting.

On Summit St. one lane of traffic to remain open at all time for 19th St. access. On 21st St. all of the asphalt may be removed at once but phase the paving at a minimum of 2 phases.

In order to accommodate school traffic, the contractor will schedule work to minimize Summit Street and 21st Street closures, during the school year. A portion of Summit may be closed, prior to the end of school year, as long as the north entrance, on Summit, is kept open to traffic. 21st Street may not be closed at all during the school year. Both streets should be open to traffic by August 12th, 2022.

Aggregate Base Course will be used in lieu of Service Gravel, as directed by the engineer, to temporarily re-open portions of streets and alleys after the pavement is removed.

ACCEPTANCE TESTING

The City will be responsible for taking the first acceptance test and a backup test if required. All subsequent tests required due to failures will be paid by the Contractor by deducting the cost from the pay request.

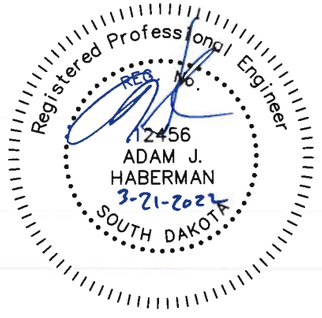
TRAFFIC CONTROL NOTES

TRAFFIC CONTROL

The unit quantity for Traffic Control was determined and based on the proposed sequence of operations. Any change in sequence requested by and primarily for the benefit of the Contractor which increases the quantity, will be at the contractor's expense.

PEDESTRIAN TRAFFIC

The Contractor will be required to maintain pedestrian access during construction. Pedestrian access shall be ADA accessible and shall conform to the most current edition of the Manual on Uniform Traffic Control Devices. Access can either be maintained on concrete sidewalk or on a temporary boardwalk. This work may include but is not limited to, staging sidewalk removal and construction to maintain access, installing safety fence around work areas, with proper detour signage, and / or construction and removal of temporary boardwalk. The Contractor shall determine the actual location of temporary access during construction and shall be approved by the Engineer. Payment for all work and associated materials shall be incidental to the contract lump sum price for "Traffic Control Miscellaneous".



EROSION CONTROL NOTES

DEWATERING AND EROSION CONTROL

Pumping required for the removal of surface water from the work area and/or depressions will be considered incidental to other pay items and not paid for separately. The Contractor shall be responsible for obtaining the required erosion control permits from the South Dakota Department of Environment and Natural Resources.

SITE MAINTENANCE

The Contractor is to keep the project site properly maintained and graded to drain storm water. No standing water is permitted on site. A penalty of $500/day will be assessed each day standing water is not removed from site. All regulations pertaining to Storm Water Pollution Prevention will be enforced. Direct discharge of storm water into the storm sewer system is not acceptable.

SILT FENCE NOTES

1. CONSTRUCTION

The work covered by this section consists of furnishing all labor and equipment and the performance of all operations in connection with the construction, maintenance and removal of the silt fence for the control of siltation on the project, complete and in accordance with the plans and standard plates. The Contractor shall be responsible for accomplishing the required construction work on this project in such a manner as to effectively minimize and control water pollution which might be caused by soil erosion from the project. It is intended that these features be maintained in appropriate functional condition from initial construction stages to final completion of the project.

After rainfall events, the Contractor shall take all necessary precautions to prevent silt from being carried away when water is being pumped off of the project site.

In addition to the details shown in the plans, other provisions for controlling erosion may be incorporated.

2. MATERIALS

A. Steel Fence Posts

The steel line posts for field fence shall have a cross section of one and one-half inches by one and one-half inches. The average weight shall be less than 1.33 pounds per linear foot. Paint for steel fence posts shall be the manufacturers standard paint finish.

B. Silt Fabric

The approved brands of engineering fabrics for silt fence are listed below

Manufacturer/Distributor	Brand Name
Amoco Fabrics & Fibers Co.	Silt Stop
Carthag Mills	FX-325
Linq Industries Fabrics	GTF 400 EO
Mirafi Division of Nocolon	700 XG
Webtec, Inc.	Econofence with netting

3. BACKFILL

All compaction of backfill shall be accomplished with a mechanical tamper or pneumatic tamper. All compacting equipment shall be operated according to the manufacturers recommendations.

4. PAYMENT

Payment shall be based on the lineal foot of silt fence satisfactorily constructed and measured from outside of the end posts. The work completed in accordance with the plans and specifications at the applicable contract price in the bid schedule which price shall constitute full compensation for furnishing all materials, equipment, labor, and tools necessary for completion of the work. The unit price shall also include removing muck from behind the silt fence after rain events and removing the silt fence when it is no longer needed.

VEHICLE TRACKING CONTROL

1. CONSTRUCTION

The work covered by this section consists of furnishing all labor and equipment and the performance of all operations in connection with the construction of temporary vehicle tracking control on the project, complete and in accordance with the plans and standard plates. The Contractor shall be responsible for accomplishing the required construction work on this project in such a manner as to effectively minimize and control water pollution which might be caused by vehicular tracking of soil.
It is intended that these features be maintained in appropriate functional condition whenever vehicles come or go from the construction site where there is dirt exposed.
In addition to the details shown in the plans, other provisions for controlling erosion may be Incorporated. See detail

2. MATERIALS

Aggregate base course shall be used for the temporary vehicular tracking control surface. If necessary 11/2" to 3" rock shall be used for stabilization underneath of the service gravel.

3. LABOR AND EQUIPMENT

All necessary labor and equipment shall be supplied to clean up any dirt or gravel off of the paved roadway surfaces at the end of each day. The contractor shall also remove any service gravel that has dirt mixed in with it from the project site when the tracking control is no longer necessary. Clean service gravel can be incorporated into the base material for the roadbed.

4. PAYMENT

Unit price for "Temporary Vehicle Tracking Control" shall be the amount paid for each site where the engineer requires the use of the temporary vehicle tracking control for however long it is needed. The Contractor will be charged $50.00 for each day that dirt is not cleaned off of the street after it is placed or tracked onto the pavement.

INLET SEDIMENT CONTROL

Refer to Standard Plates on sheet 49

STREET SWEEPING

The contractor shall be responsible for maintaining a clean and well-kept work site. Adjacent streets shall be swept clean of construction debris at the Engineer's request. Street sweeping shall be considered incidental to the project. No separate payment will be made.

REMOVAL NOTES

GENERAL NOTES

The Contractor will be required to raze, remove and dispose of all buildings and foundations, structures, fences, advertising signs, and other obstructions of which any portion are on the right-of-way or Temporary Easements except Utilities and those for which other provisions have been made for removal, in accordance with Section 110 of the Standard Specifications.

The removal and disposal of all buildings, foundations and other obstructions not removed under Incidental Work or on a unit basis shall be considered as subsidiary work to the other Contract Items and no separate payment will be made for their removal and disposal.

REMOVAL OF EXISTING CONCRETE PAVEMENT

Payment for concrete removal is included in the contract unit price per square yard for "Removal of Concrete Pavement". Payment shall be at the contract unit price per square yard, regardless of variations in thickness. Joints shall be sawed wherever existing concrete is to be connected to new construction.

When asphalt is laid over concrete pavement, removal of the asphalt surfacing shall be incidental to the unit price for "Removal of Concrete Pavement".

REMOVAL OF EXISTING ASPHALT PAVEMENT

Payment for asphalt mat removal is included in the contract unit price per square yard for "Removal of Asphalt Concrete". Payment shall be at the contract unit price per square yard, regardless of variations in thickness.

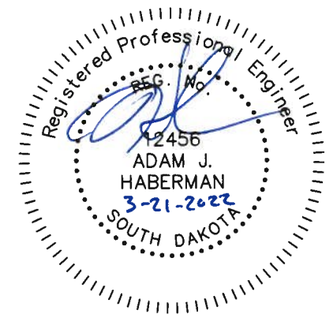
WASTE DISPOSAL SITE

Contractor shall dispose of broken concrete and asphalt generated by this project at the city stockpile site located at 23rd and Kellen Gross Drive. No tipping fee will be assessed to Contractor for broken concrete and asphalt disposed of at this site Concrete and asphalt is to be kept separate from earth material during the removal process. Concrete and asphalt may be mixed.

Asphalt contaminated with soil during the removal process or concrete containing reinforcing steel or contaminated with soil must be disposed of at the Yankton rubble site, 23rd and Kellen Gross Drive. Disposal fees shall be the Contractors responsibility, and considered incidental to other pay items.

The Contractor will be required to use a state permitted solid waste disposal facility. The Contractor can obtain a list of permitted solid waste disposal facilities in the Yankton area or discuss proper disposal of construction and demolition debris by contacting Waste Management Program at 1-(605)-773-3153.

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



UNCLASSIFIED EXCAVATION

Unclassified Excavation will be paid for on a lump sum basis. The bid item for "Unclassified Excavation" shall include removing the existing material to a depth as shown in the typical sections of each Street. Estimated quantities in cubic yards, these estimates are based on the assumption of - - inches as referred to on the typical sections and the Concrete Pavement or Asphalt being removed separately.

Estimate of 2497 cu yds. of removal. Contractor to salvage existing base and haul it to the City Transfer station to be stockpiled. It will be the contractors responsibility to find a location for existing sub-grade material, that needs to be removed

PAVING & RESTORATION NOTES

GEOTEXTILE FABRIC FOR SUBGRADE STABILIZATION

Geotextile fabric shall be installed at locations designated by the engineer underneath the granular base course. The bid item GEOTEXTILE FABRIC has been established to pay for all labor, equipment and material to install the fabric.

Pay quantities for the geotextiles will be paid for at the contract price per square yard in place. Measurement for payment excludes the geotextile used for overlapping as well as seam overlaps. Installation shall be in accordance with the manufacturer's recommendations. Overlap shall be a minimum of 24". The end of the roll shall overlaps shall be 3' min.

The contractor shall not drive equipment directly on top of the geotextile. Should the geotextile be torn or punctured, the damaged area shall be repaired or replaced by the contractor at no expense to the owner. The repair shall consist of a patch of the same type of geotextile a minimum of 3' from the edge of any part of the damaged area. Geotextile fabric shall conform to the requirements listed below. The contractor shall provide a certificate of compliance verifying that the material meets the specification prior to the installation of the fabric.

1. Wide Width Tensile Strength (ASTM D-4595) 3600lb/ft min.
2. Wide Width Tensile Strength at 5% Strain(ASTM D-4595) 1350 lb/ft min.
3. Permittivity (ASTM D-4491) 0.25 sec-1 min.
4. UV Resistance at 500 hours (ASTM D-4355) 70% min.

The City has verified that the following products meet these specifications.

1. Mirafi HP370
2. Propex Getotex 3x3
3. Lumite GTF465

AGGREGATE BASE COURSE

Aggregate Base Course will be supplied by the City of Yankton. Material can be obtained at City stockpile site located at 23rd and Kellen Gross Dr. This material is to be weighed before leaving landfill. The Contractor is to supply his own personnel and equipment to load trucks. Landfill hours are from 8am to 3:45pm. This material to be used under all newly placed concrete /asphalt and to maintain access to intersecting streets and driveways as needed. Unit price shall constitute full compensation for personnel and equipment to load, haul, and place material. Aggregate Base Course shall be compacted to 95% of standard proctor density.

SURFACING THICKNESS DIMENSIONS

Except as hereinafter set forth, plans square yards will be applied even though the thickness may vary from that shown on the plans.

At those locations where material must be placed to achieve a required elevation, plans square yards will not be varied to achieve the required elevation.

8" & 6" NONREINFORCED CONCRETE PAVEMENT

The Coarse Aggregate shall be Crushed Ledge Rock.

The fine aggregates may require screening as determined by the Engineer.

The design mix shall meet a minimum 4000 PSI compressive strength in 28 days.

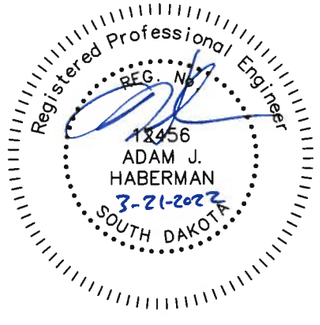
Portland Cement Concrete Pavement shall have a minimum cement content of 600 pounds with a fly ash content of 20 to 25%

In lieu of an automatic subgrader operating from a preset line, a motor grader or other suitable equipment may be used to bring the base course to final grade prior to placement of the concrete.

A construction joint shall be sawed whenever new concrete pavement is placed adjacent to existing concrete pavement.

There will be no direct payment for trimming of the Base Course for PCC pavement. The trimming will be considered incidental to the related items required for PCC pavement. Trimming shall be performed as required by Section 380.3c of the Standard Specifications.

An automated paving machine such as a Bidwell, monolithic or equivalent, shall be required for main line paving. An air or vibratory screed will not be allowed for main line paving.



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NOTES

STEEL BAR INSTALLATION

The Contractor shall install Steel No. 5x24" epoxy coated deformed tie bars into drilled holes in the existing concrete pavement. An epoxy resin adhesive must be used to anchor steel bars in the drilled holes.

The steel bars shall be cut at the specified length by sawing and shall be free from burring or other deformations. Shearing will not be permitted.

Epoxy resin adhesive shall be of the type intended for horizontal applications, and shall conform to the requirements of ASTM C 881, Type 1, Grade 3 (equivalent to AASHTO M235, Type 1, Grade 3).

The diameter of the drilled holes in the existing concrete pavement for the steel bars shall not be less than 1/8 inch nor more than 3/8 inch greater than the overall diameter of the steel bar. Holes drilled into the existing concrete pavement shall be located at mid-depth of the slab and true and normal. The drilled holes shall be blown out with compressed air using a device that will reach to the back of the hole to ensure that all debris or loose material has been removed prior to epoxy injection.

Mix the epoxy resin as recommended by the manufacturer and apply by an injection method approved by the Engineer. If an epoxy pump is utilized, it shall be capable of metering the components at the manufacturers designated rate and be equipped with an automatic shut-off. The pump shall shut off when any of the components are not being metered at the designated rate. Fill the drilled holes 1/3 to 1/2 full of epoxy, or as recommended by the manufacturer, prior to insertion of the steel bar. Care shall be taken to prevent epoxy form running out of the horizontal holes prior to steel bar insertion. Rotate the steel bar during installation to eliminate voids and ensure complete bonding of the bar. Insertion of the bars by the dipping method will not be allowed.

Cost for the epoxy resin adhesive, steel bars, drilling of holes, applying the adhesives, installing the steel bars into the drilled holes and all other items incidental to the installation of the steel bars shall be included in the contract unit price per each for "Install Steel Bar in Concrete Pavement".

CONCRETE JOINT SEALER

Concrete Joint Sealer shall be hot poured elastic joint sealer and shall conform to section 870 of the Standard Specifications. Payment for concrete joint sealer shall be incidental to PCC Pavement and no separate payment shall be made.

4" & 6" CONCRETE SIDEWALK

Concrete sidewalk shall be constructed in accordance with Section 651 of Standard Specifications. Base Course material, two (2) inches thick, shall be placed beneath the sidewalk.

CURING OF CONCRETE

Portland Cement Concrete Pavement, Concrete Curb & Gutter, Sidewalks, Valley Gutters, and Fillets shall be cured. All concrete shall be cured in accordance with section 380.3.M2 of the 2015 SDDOT Standard Specifications for Roads and Bridges except as modified in this note. All concrete shall be cured with a White Pigmented Linseed Oil Base Emulsion Compound when cured using the Impervious Membrane Method. Curing compound material shall be in accordance with section 821.1.

DETECTABLE WARNING PANEL

In order to comply with the Americans with Disabilities Act (ADA), detectable warning panels are to be placed at locations designated in the plan set. Detectable Warnings consist of a composite or polymer type of panel and should be installed into wet concrete. Surface applied products that are applied to cured concrete are not allowed. The detectable warnings shall be a brick red color for application in concrete curb ramps.

Current detectable warning panels approved for use and installation within the public right of way are:

Product	Manufacturer
Armor Tile Modular Paver Series	Engineered Plastics Inc. 300 International Drive, Suite 100 Williamsville, NY 14221 800-682-2525 http://www.armor-tile.com/
Detectable Warning Tile Composite Wet-Set	ADA Solutions, Inc. 323 Andover Street Wilmington, MA 01887 800-372-0519 http://www.adatile.com

Other detectable panels, meeting the necessary requirements may be allowed with written approval from the City Engineer's Office. In no case will the stamping of concrete be allowed as a method of creating the domes on the tactile warning panels.

SALVAGING, STOCKPILING, AND PLACING TOPSOIL

Existing vegetation shall be salvaged, incorporated and placed with the topsoil as far as practicable.

The areas to be covered with topsoil to a depth of +/- 3 inches comprise all newly graded areas. Material shall be free of rock and debris.

The estimated amounts of salvaged topsoil required to cover the designated areas to the specified depth are as follows:

Table of Topsoil	Cu.Yd.
Summit, 21st and WCLR	20

SEEDING

All grass areas disturbed by construction can be seeded using a hand spreader. Mix shall include the required mixture as well as starter fertilizer. Lump sum price will be for all areas disturbed by Contractor. Price shall also include the cost for fertilizer and seed, refer to SD-DOT Standard Specs 2015 Edition section 730. The following will be provided, by the Contractor, for use on the project unless an alternate is approved by the Engineer. Topsoil not seeded within 14 days of being placed shall have the top 2" tilled and regraded prior to seeding.

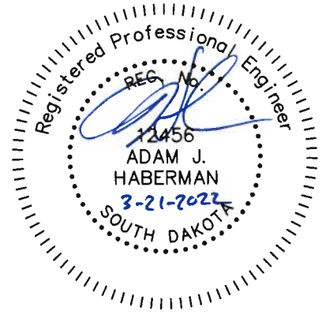
The estimated amount of area to be seeded: 1500 sf

SEED MIXTURE	PURE LIVE SEED/ 1000 FT. SQ.
Kentucky Bluegrass	1 pound
Perennial Rye Grass	1 pound
Park Kentucky Bluegrass	1 pound

PRIVATE SPRINKLER SYSTEM

Private sprinkler systems are located within the construction limits. The City will notify all property owners about the expected construction and the procedures for preparing their systems for construction. When found, the Contractor shall notify the Engineer and take reasonable measures to minimize any damage to the system. It will be the responsibility of the City to pay the property owner's sprinkler contractor directly for repairs. The Contractor will be responsible for any damaged due to the Contractor's negligence.

The Contractor shall notify the Engineer when the sprinkler system can be restored and the City will coordinate with the property owner and sprinkler contractor. The system should be restored before seed or sod placement and the Contractor shall make reasonable accommodations to allow for the homeowner's sprinkler contractor to make final repairs and adjustments.



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QUANTITIES FOR 21ST WCLR AND SUMMIT				

ESTIMATE OF QUANTITIES
FOR 21ST, WCLR AND SUMMIT ST
SCHEDULE I,II AND III

BID ITEM	DESCRIPTION	BID QUANTITY	UNIT
	REMOVALS AND GRADING		
1	MOBILIZATION	1	LS
2	SAW EXISTING CONCRETE	350	LF
3	SAW EXISTING ASPHALT	115	LF
4	REMOVAL OF CONCRETE	352	SY
5	REMOVAL OF ASPHALT	16581	SY
6	REMOVAL OF CURB AND GUTTER	370	LF
7	UNCLASSIFIED EXCAVATION	1	LS
8	UNDERCUTTING	200	CY
9	TOPSOIL	1	LS
10	WATER FOR EMBK. OR GRANULAR MATERIAL	25	K GAL
	EROSION CONTROL		
11	SEEDING	1	LS
12	VEHICLE TRACKING CONTROL	3	EA
13	INLET SEDIMENT CONTROL	13	EA
14	SILT FENCE	120	LF
15	GEOTEXTILE FABRIC	400	SY
	TRAFFIC CONTROL		
16	TRAFFIC CONTROL	2432	UNITS
17	TRAFFIC CONTROL MISC.	1	LS
	SURFACING		
18	6" PCC PAVEMENT	14820	SY
19	8" PCC PAVEMENT	1746	SY
20	4" SIDEWALK	292	SF
21	6" SIDEWALK	929	SF
22	6" CONCRETE FILLET SECTION	985	SF
23	CONCRETE C & G TYPE B66	370	LF
24	6" APPROACH PAVEMENT	398	SF
25	6" AGGREGATE BASE COURSE	12296	SY
26	INSERT STEEL BARS	2036	EA
27	DETECTABLE WARNING PANELS	72	SF

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QUANTITIES				

ESTIMATE OF QUANTITIES
21st ST. DOUGLAS TO MULBERRY
SCHEDULE I

BID ITEM	DESCRIPTION	BID QUANTITY	UNIT
	REMOVALS AND GRADING		
1	MOBILIZATION	1	LS
2	SAW EXISTING CONCRETE	150	LF
3	SAW EXISTING ASPHALT	40	LF
4	REMOVAL OF CONCRETE	200	SY
5	REMOVAL OF ASPHALT	4455	SY
6	REMOVAL OF CURB AND GUTTER	60	LF
7	UNCLASSIFIED EXCAVATION	1	LS
8	UNDERCUTTING	50	CY
9	TOPSOIL	1	LS
10	WATER FOR EMBK. OR GRANULAR MATERIAL	10	K GAL
	EROSION CONTROL		
11	SEEDING	1	LS
12	VEHICLE TRACKING CONTROL	1	EA
13	INLET SEDIMENT CONTROL	1	EA
14	SILT FENCE	60	LF
15	GEOTEXTILE FABRIC	100	SY
	TRAFFIC CONTROL		
16	TRAFFIC CONTROL	1003	UNITS
17	TRAFFIC CONTROL MISC.	1	LS
	SURFACING		
18	6" PCC PAVEMENT	4495	SY
19	6" CONCRETE FILLET SECTION	425	SF
20	CONCRETE C & G TYPE B66	60	LF
21	4" SIDEWALK	292	SF
22	6" SIDEWALK	929	SF
23	6" AGGREGATE BASE COURSE	100	SY
24	INSERT STEEL BARS	612	EA
25	DETECTABLE WARNING PANELS	72	SF

TABLE OF 4" SIDEWALK PLACEMENT

LOCATION	QUANTITY (SF)
3+45 TO 3+73 LT.	112
4+85 TO 5+16	128
6+64 TO 6+77	52
TOTAL	292 (SF)

TABLE OF 6" PCC PAVEMENT

STATION TO STATION	QUANTITY (SY)
0+57 TO 13+15 - 16' LT. TO 16' RT.	4495
TOTAL	4495 (SY)

TABLE OF STEEL BAR INSERTION

LOCATION	QUANTITY (EA)
0+57	20
13+15	20
MAINLINE	572
TOTAL	612 (EA)

TABLE OF REMOVE ASPHALT PAVEMENT

LOCATION	QUANTITY (SY)
MAINLINE (21st. St.)	4455
TOTAL	4455 (SY)

UNCLASSIFIED EXCAVATION DOUGLAS AVE.

CUT 240 Cubic Yds
See Note on sheet 4 (Unclassified Excavation)

TABLE OF 6" VALLEY GUTTER PLACEMENT

LOCATION	QUANTITY (SF)
12+55 TO 12+81 - 18' RT.	250
TOTAL	250 (SF)

TABLE OF 6" SIDEWALK PLACEMENT

LOCATION	QUANTITY (SF)
3+45 TO 3+73 LT.	120
6+03 TO 6+30 LT.	108
9+69 NW COR. MURPHY LN. (1EA) 2X4 DWP	140
10+20 NE COR. MURPHY LN. (1EA) 2X4 DWP	106
12+38 NW COR. (RAMP) (2EA) 2X4 DWP	90
12+95 NE COR. (RAMP) (2EA) 2X4 DWP	80
12+97 SE COR. (RAMP) (2EA) 2X6 DWP	285
TOTAL	929 (SF)

TABLE OF CONCRETE FILLET SECTION

LOCATION	QUANTITY (SF)	RADIUS
NW QUAD 21st & MULBERRY	100	15'
NE QUAD 21st & MULBERRY	125	15'
SE QUAD 21st & MULBERRY	200	20'
TOTAL	425 (SF)	

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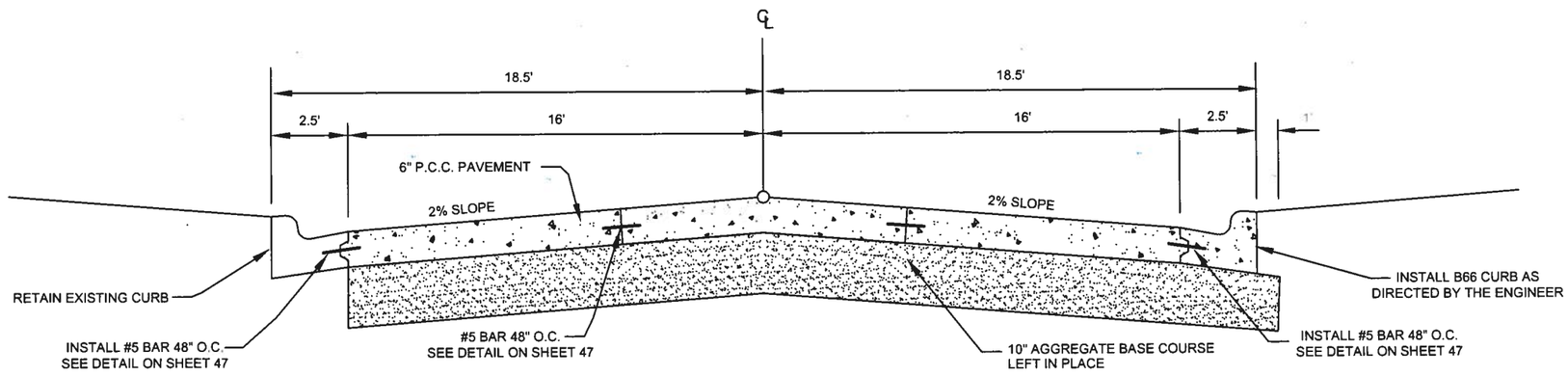
PAVING				

TYPICAL CROSS SECTIONS(n.t.s.) - 21ST. STREET



TYPICAL STREET DETAIL

STA. 0+57 TO 13+15

NOTE: 21st. St. has 12" of existing base course in place.
Remove the 4" of in place asphalt and 2" of in place base course.
Re-compact the remaining 10" of base course

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EROSION CONTROL				

LEGEND

VTC

-VEHICLE TRACKING CONTROL (TYP.)
SEE DETAIL SHEET PLATE # 734.02
-1 USED (WEST END OF PROJECT ON 21ST

-SILT FENCE (TYP.)
SEE SHEET #
60 L.F. USED

PROJECT AREA

-INLET PROTECTION (TYP.)
SEE SHEET # 27
-1 USED AT SOUTHEAST COR. OF DOUGLAS AND 21st St. INTERSECTION

NOTE:
ALL EROSION CONTROL ITEMS SHALL BE MAINTAINED DAILY AND BE KEPT IN FULL FUNCTIONAL CONDITION TO MINIMIZE AND CONTROL SOIL RUN OFF THAT COULD OCCUR DURING THE PROJECT CONSTRUCTION. EROSION CONTROL ITEMS SHALL BE KEPT IN PLACE UNTIL PROJECT COMPLETION.

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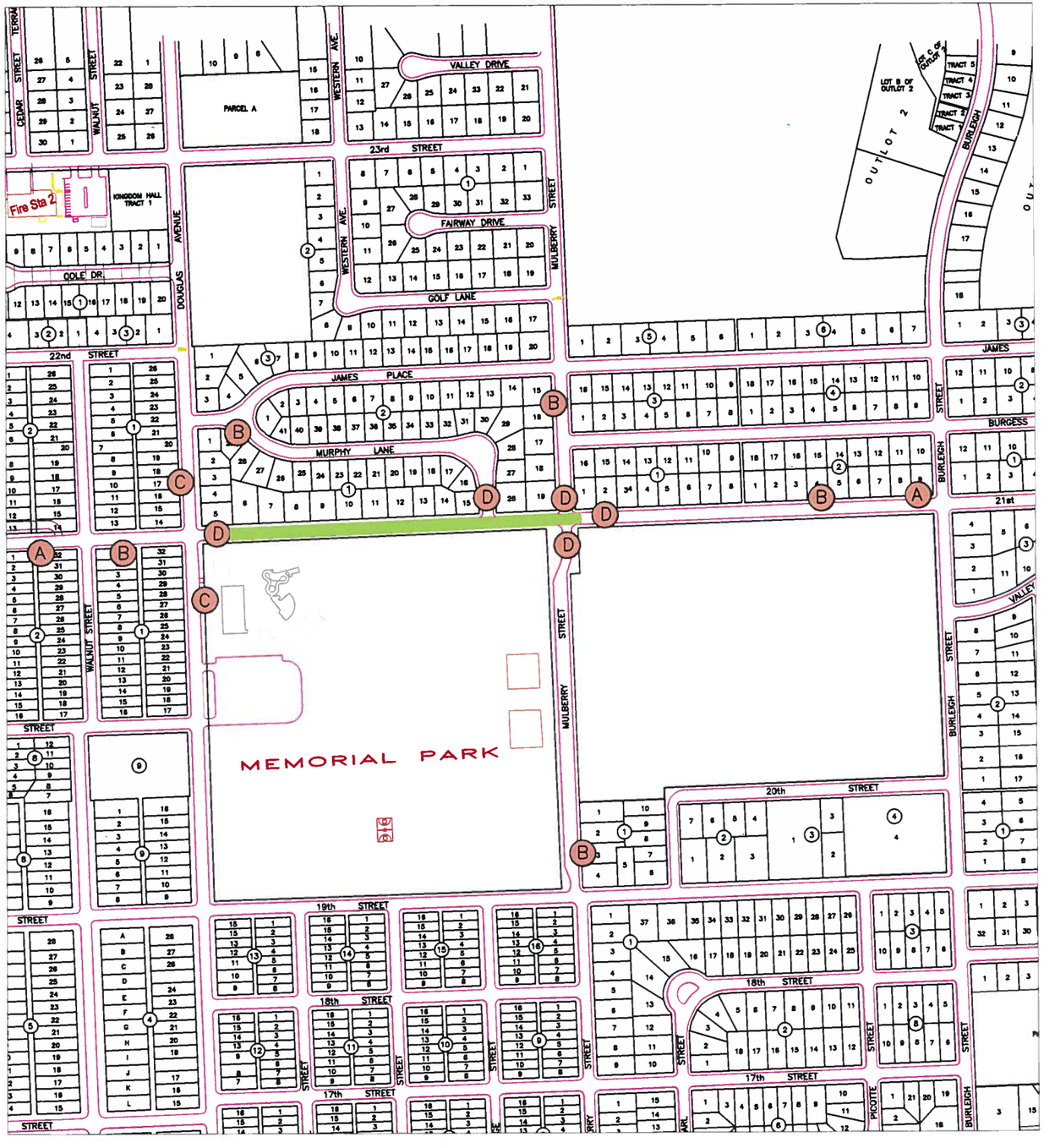
8	S.D.	2022-010	10	49
TRAFFIC CONTROL				



C

R3-1 (24" x 24")

R3-2 (24" x 24")

ALL FIXED LOCATION SIGNS REMAIN IN PLACE UNTIL PERMANENT PAVEMENT MARKING IS COMPLETE.

R11-4 (60" x 30")

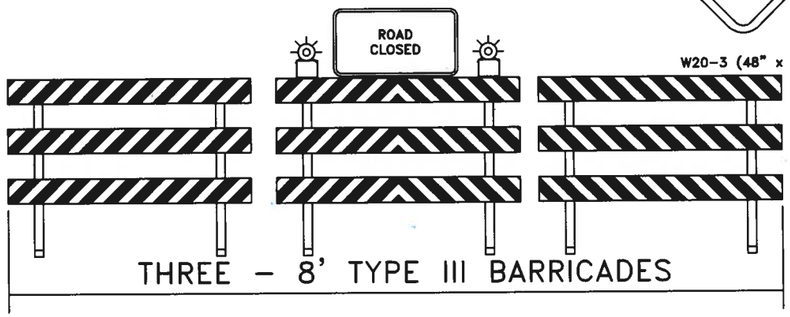
A

W20-1 (48" x 48")

B

W20-3 (48" x 48")

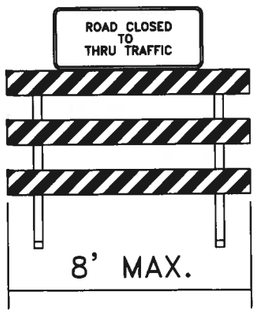
D



FULL ROADWAY CLOSURE

R11-2 (48"x 30")

E



LIST OF OTHER TRAFFIC CONTROLS FOR ROAD CONSTRUCTION		
BID ITEM	DESCRIPTION	QUANTITY
TRAFFIC CONTROL MISC.	TYPE I & II BARRICADES, CONES, VERTICAL PANELS, DRUMS, BARRICADE WARNING LIGHTS, DELINEATORS. WATCHMAN, TUBULAR MARKERS, AND INSTALLATION OF CITY SIGNS.	LUMP SUM

ITEMIZED LIST FOR TRAFFIC CONTROL BID ITEM					
SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	SUB TOTAL
R11-2	48" x 30"	ROAD CLOSED	5	27	135
R3-1	24" x 24"	NO RIGHT TURN (SYMBOL)	1	15	15
R3-2	24" x 24"	NO LEFT TURN (SYMBOL)	1	15	15
W20-1	48" x 48"	ROAD WORK AHEAD	2	34	68
R11-4	60" x 30"	ROAD CLOSED TO THRU TRAFFIC			
		ROAD CLOSED AHEAD	5	34	170
		TYPE III BARRICADES	120 L.F.	5 UNITS/L.F.	600
				TOTAL	1003

PEDESTRIAN TRAFFIC CONTROL
TRAFFIC CONTROL DEVICES FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS SHALL BE PAID FOR UNDER TRAFFIC CONTROL MISC. (SDDOT STANDARD PLATE #634.33 MAY BE USED AS A GUIDE FOR THESE SITUATIONS)

PROJECT AREA

STORM WATER POLLUTION PREVENTION PLAN

*(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** 4.0 acres **(4.2 1.b.)**
- **Total Area To Be Disturbed** .50 acres **(4.2 1.b.)**
- **Existing Vegetative Cover (%)** 25%
- **Soil Properties:** AASHTO Soil Classification **(4.2 1. d.)**
- **Name of Receiving Water Body/Bodies** Missouri River **(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.)

- **Special sequencing requirements** (see sheet).
- **Install stabilized construction entrance(s).**
- **Install perimeter protection where runoff sheets from the site.**
- **Install channel and ditch bottom protection.**
- **Clearing and grubbing.**
- **Remove and store topsoil.**
- **Stabilize disturbed areas.**
- **Install utilities, storm sewers, curb and gutter.**
- **Install inlet and culvert protection after completing storm drainage and other utility installations.**
- **Complete final grading.**
- **Complete final paving and sealing of concrete.**
- **Complete traffic control installation and protection devices.**
- **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 or Permanent Seeding
  - ☐ Sodding
  - ☐ Planting
  - ☒ Mulching (Straw or Cellulose Fiber)
  - ☐ Erosion Control Blankets or Mats
  - ☐ Vegetation Buffer Strips
  - ☐ Roughened Surface (e.g. tracking)
  - ☐ Gabions-Gabion Mattress
  - ☐ Other
- **Structural Temporary Erosion and Sediment Controls**
  - ☒ Silt Fence
  - ☐ Straw Bale Check
  - ☐ Temporary Berm
  - ☐ Temporary Slope Drain
  - ☐ Straw Wattles or Rolls
  - ☐ Diversion Channels/Swales
  - ☐ Channel Liners (TRM)
  - ☐ Stone Rip Rap Sheet
  - ☐ Rock Check Dams
  - ☐ Sediment Traps/Basins
  - ☒ Inlet Protection
  - ☐ Outlet Protection
  - ☐ Surface Inlet Protection
  - ☐ Curb Inlet Protection
  - ☒ Stabilized Construction Entrances
  - ☐ 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 Section 3 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.

❖ 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.

- **Maintenance and Inspection Practices(Continued)**
  - 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.
  - 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 City Engineer and contractor's site superintendent are responsible for inspections. Maintenance, repair activities are the responsibility of the contractor. The City 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

❖ **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, 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 Plans. 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.

➢ **Product Specific Practices (6.8) (Continued)**

- 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 areas on the site. These areas must be self contained and not connected to any storm water outlet of the site. Upon completion of construction washout areas 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 clean up 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 booms, dust pans, mops, rags, gloves, goggles, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for clean up 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 Response (4.2 2 c.(2)) (Continued)**

- 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 reportable spill is a quantity of 25 gallons or more or any spill of oil which: 1) violates water quality standards, 2) produces a "sheen" on a surface water, or 3) causes a sludge or emulsion must be reported immediately to the National Response Center .

➢ Any spill of oil or hazardous substance to waters of the state must be reported immediately by telephone to the SD DENR.

❖ **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 City 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.

➢ City of Yankton

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 6.7.1.C.)

➢ Prime Contractor

This section is to be executed by the General Contractor after the award of the contract and at least 15 days prior to the beginning of construction. 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 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 6.7.1.a .or b.)

❖ CONTACT INFORMATION

➢ Contractor Information:

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

Erosion Control Supervisor

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

➢ City Engineer

- Name: Brad Moser
- Business Address: 416 Walnut
- Job Office Location 416 Walnut
- City: Yankton State: SD Zip: 57078
- Office Phone: 605-668-5255 Field: Cell: 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.

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	14	49
REMOVALS				

DOUGLAS ST.

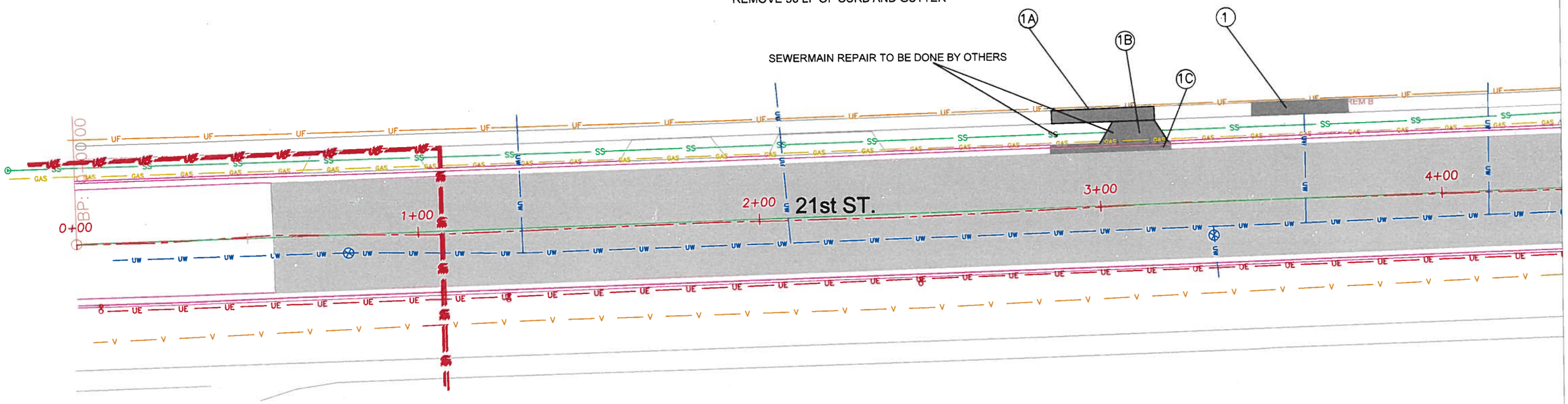
1. STA. 3+45 - 3+73 - 24' LT.
REMOVE 12.5 SY OF CONCRETE SIDEWALK

1A. STA. 2+86 - 3+13 - 24' LT.
REMOVE 13.3 SY OF CONCRETE SIDEWALK

NORTH
SCALE 1"= 30'

1C. STA. 2+85 TO 3+21 - 18' LT.
REMOVE 36 LF OF CURB AND GUTTER

1B. STA. 3+10 - 24' LT.
REMOVE 11.2 SY OF CONCRETE DRIVEWAY



CONCRETE REMOVALS

ASPHALT ST. REMOVALS

Registered Professional Engineer
REG. No.
12456
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	15	49
REMOVALS				

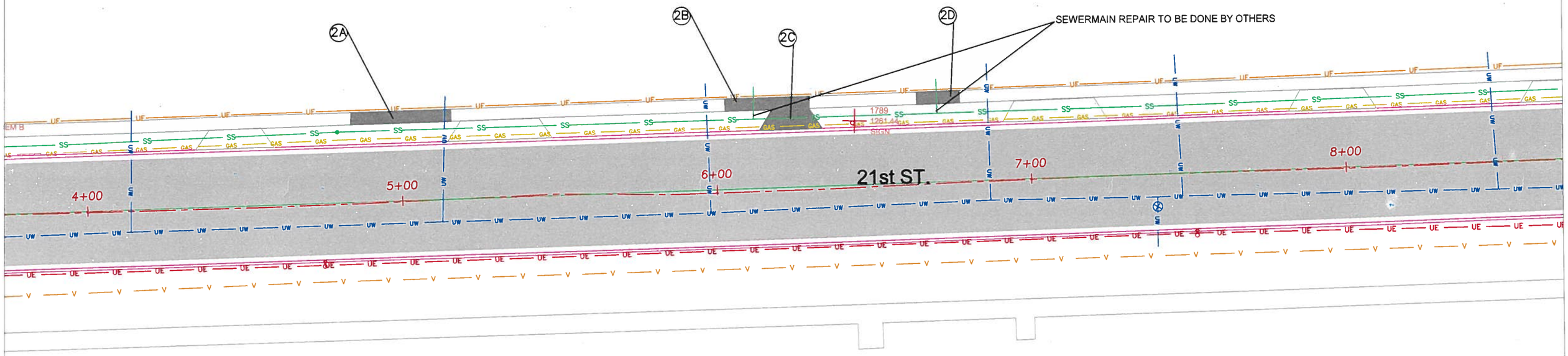
2A. STA. 4+84 TO 5+16 - 24' LT.
REMOVE 14.2 SY OF CONCRETE SIDEWALK

2B. STA. 6+03 TO 6+30 - 24' LT.
REMOVE 12 SY OF CONCRETE SIDEWALK

2C. STA. 6+23 - 20' LT.
REMOVE 8.5 SY OF CONCRETE DRIVEWAY

2D. STA. 6+64 TO 6+77 - 24' LT.
REMOVE 5.8 SY OF CONCRETE SIDEWALK

NORTH
SCALE 1"= 30'



CONCRETE REMOVALS

ASPHALT ST. REMOVALS

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

Registered Professional Engineer
REG. No.
12456
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	16	49
REMOVALS				

NORTH
SCALE 1"= 30'

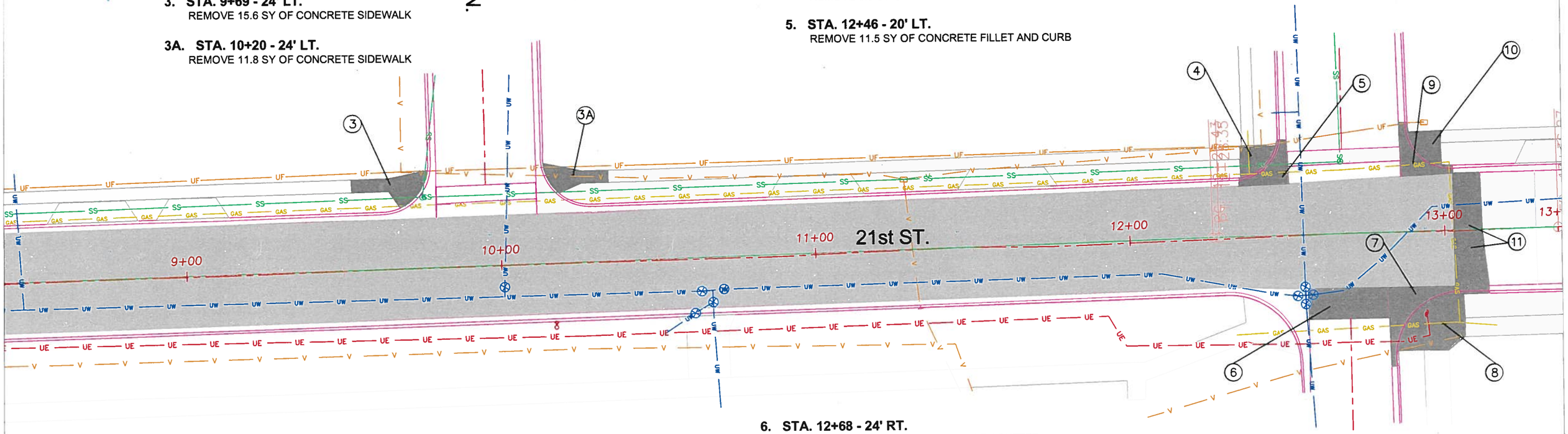
MURPHY LN.

3. **STA. 9+69 - 24' LT.**
REMOVE 15.6 SY OF CONCRETE SIDEWALK

3A. **STA. 10+20 - 24' LT.**
REMOVE 11.8 SY OF CONCRETE SIDEWALK

4. **STA. 12+40 - 24' LT.**
REMOVE 9.6 SY OF CONCRETE SIDEWALK

5. **STA. 12+46 - 20' LT.**
REMOVE 11.5 SY OF CONCRETE FILLET AND CURB



RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

6. **STA. 12+68 - 24' RT.**
REMOVE 27.5 SY OF CONCRETE VALLEY GUTTER

7. **STA. 12+89 - 24' RT.**
REMOVE 24.4 SY OF CONCRETE FILLET AND CURB

8. **STA. 12+96 - 28' RT.**
REMOVE 32 SY OF CONCRETE SIDEWALK

9. **STA. 12+92 - 24' LT.**
REMOVE 13.2 SY OF CONCRETE FILLET AND CURB

10. **STA. 12+95 - 26' LT.**
REMOVE 8.6 SY OF CONCRETE SIDEWALK

11. **STA. 13+07 - LT. & RT. 16'**
REMOVE 37.5 SY OF CONCRETE PAVEMENT

Registered Professional Engineer
REG. No.
12656
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

CONCRETE REMOVALS

ASPHALT ST. REMOVALS

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	17	49
PAVING				

DOUGLAS ST.

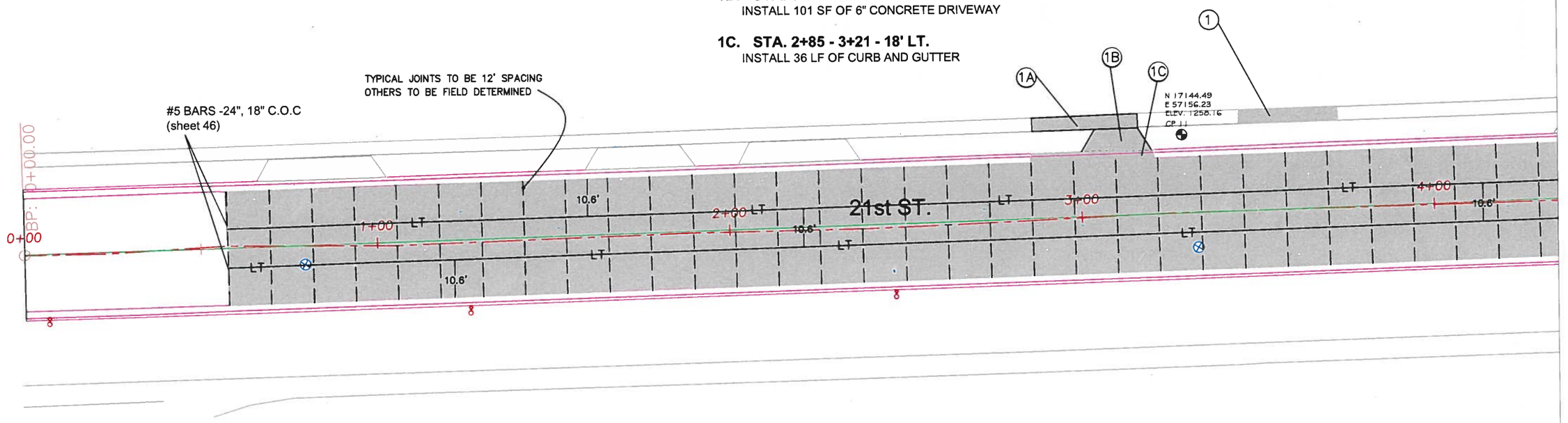
1. STA. 3+45 - 3+73 - 24' LT.
INSTALL 110 SF OF 4" CONCRETE SIDEWALK

1A. STA. 3+45 - 3+73 - 24' LT.
INSTALL 120 SF OF 4" CONCRETE SIDEWALK

1B. STA. 3+45 - 3+73 - 24' LT.
INSTALL 101 SF OF 6" CONCRETE DRIVEWAY

1C. STA. 2+85 - 3+21 - 18' LT.
INSTALL 36 LF OF CURB AND GUTTER

NORTH
SCALE 1"= 30'



NEW PAVEMENT

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L———L———

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT———LT———

TRANSVERSE CONTRACTION JOINT — — — — — —

Registered Professional Engineer
REG. No.
12456
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	18	49
PAVING				

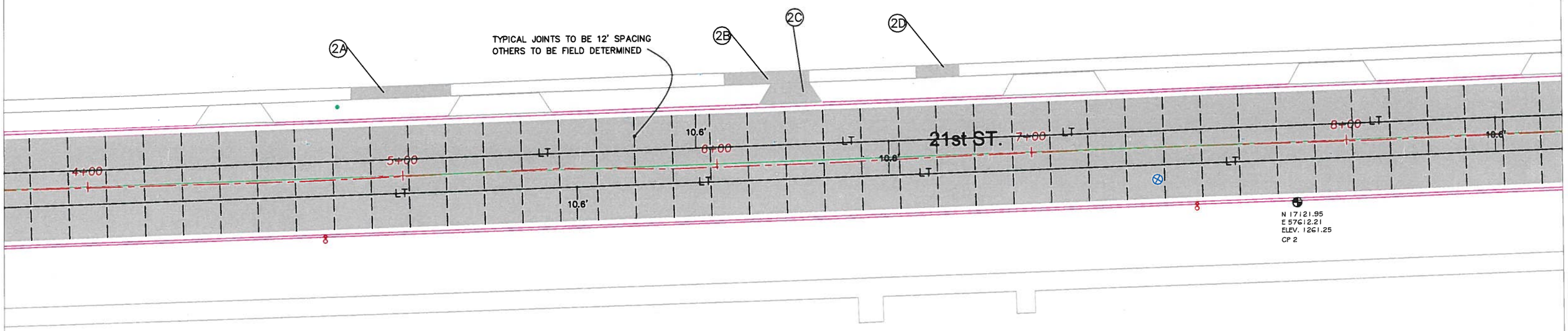
2A. STA. 4+84 TO - 5+16 - 24' LT.
INSTALL 128 SF OF 4" CONCRETE SIDEWALK

2B. STA. 6+03 - 6+30 - 24' LT.
INSTALL 108 SF OF 4" CONCRETE SIDEWALK

2C. STA. 6+23 - 20' LT.
INSTALL 77 SF OF 6" CONCRETE DRIVEWAY

2D. STA. 6+64 - 6+77 - 24' LT.
INSTALL 52 SF OF 4" CONCRETE SIDEWALK

NORTH
SCALE 1"= 30'



NEW PAVEMENT

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L———L———

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT———LT———

TRANSVERSE CONTRACTION JOINT — — — — — —

Registered Professional Engineer
REG. No.
12456
ADAM J.
HABERMAN
3-21-2022
SOUTH DAKOTA

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	19	49
PAVING				

3. STA. 9+69 - 24' LT.
INSTALL 140 SF OF CONCRETE SIDEWALK AND 1 (2X4 DWP)

3A. STA. 10+20 - 24' LT.
INSTALL 106 SF OF 6" CONCRETE SIDEWALK AND 1 (2X4 DWP)

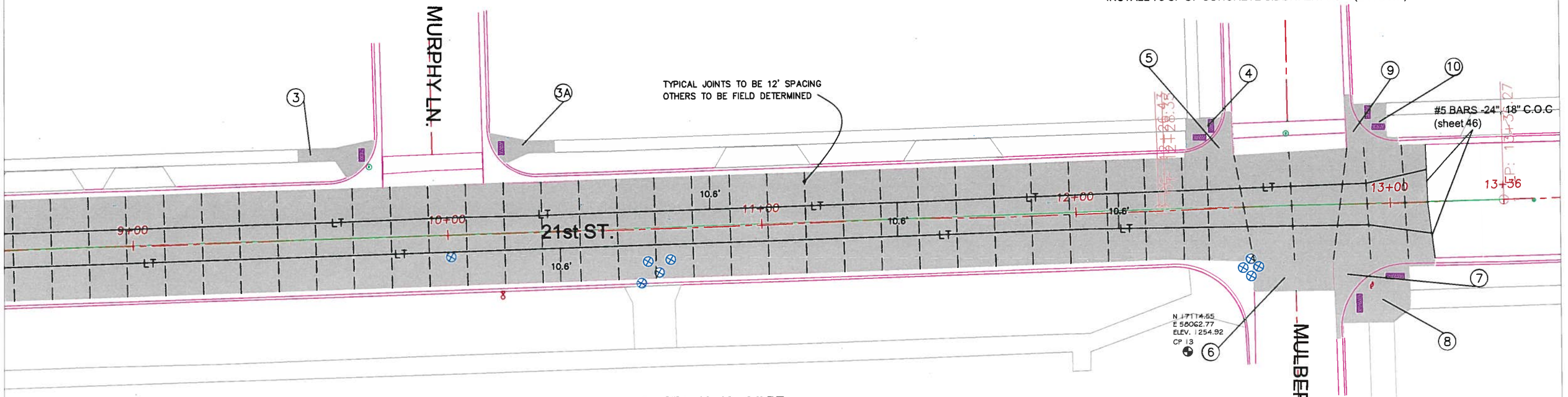
4. STA. 12+40 - 24' LT.
INSTALL 86 SF OF CONCRETE SIDEWALK AND 2 (2X4 DWP)

5. STA. 12+46 - 22' LT.
INSTALL 104 SF OF CONCRETE FILLET

9. STA. 12+92 - 24' LT.
INSTALL 120 SF OF CONCRETE FILLET

NORTH
SCALE 1"= 30'

10. STA. 12+95 - 26' LT.
INSTALL 78 SF OF CONCRETE SIDEWALK AND 2 (2X4 DWP)



6. STA. 12+68 - 24' RT.
INSTALL 248 SF OF CONCRETE VALLEY GUTTER

7. STA. 12+89 - 24' RT.
INSTALL 220 SF OF CONCRETE FILLET

8. STA. 12+96 - 28' RT.
INSTALL 288 SF OF CONCRETE SIDEWALK AND 2 (2X6 DWP)

NEW PAVEMENT

Registered Professional Engineer
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12456
ADAM J.
HABERMAN
3-21-2023
SOUTH DAKOTA

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	20	49
QUANTITIES SCH. II				

ESTIMATE OF QUANTITIES
SUMMIT ST. 15TH TO 21st ST.
SCHEDULE II

BID ITEM	DESCRIPTION	BID QUANTITY	UNIT
	REMOVALS AND GRADING		
1	MOBILIZATION	1	LS
2	SAW EXISTING CONCRETE	200	LF
3	SAW EXISTING ASPHALT	75	LF
4	REMOVAL OF CONCRETE	120	SY
5	REMOVAL OF ASPHALT	10380	SY
6	REMOVAL OF CURB AND GUTTER	270	LF
7	UNCLASSIFIED EXCAVATION	1	LS
8	UNDERCUTTING	150	CY
9	TOPSOIL	1	LS
10	WATER FOR EMBK. OR GRANULAR MATERIAL	10	K GAL
	EROSION CONTROL		
11	SEEDING	1	LS
12	VEHICLE TRACKING CONTROL	1	EA
13	INLET SEDIMENT CONTROL	10	EA
14	SILT FENCE	30	LF
15	GEOTEXTILE FABRIC	250	SY
	TRAFFIC CONTROL		
16	TRAFFIC CONTROL	803	UNITS
17	TRAFFIC CONTROL MISC.	1	LS
	SURFACING		
18	6" PCC PAVEMENT	10325	SY
19	6" CONCRETE FILLET SECTION	560	SF
20	CONCRETE C & G TYPE B66	270	LF
21	6" APPROACH PAVEMENT	110	SF
22	6" AGGREGATE BASE COURSE	10538	SY
23	INSERT STEEL BARS	1204	EA

TABLE OF 6" PCC PAVEMENT

STATION TO STATION	QUANTITY (SY)
0+37 TO 25+77 - 18' LT. TO 18' RT.	10325
TOTAL	10325 (SY)

UNCLASSIFIED EXCAVATION SUMMIT ST.

CUT 1730 Cubic Yds
See Note on sheet 4 (Unclassified Excavation)

TABLE OF 6" VALLEY GUTTER PLACEMENT

LOCATION	QUANTITY (SF)
10+46 TO 11+40 - 18' LT.	730
TOTAL	730 (SF)

TABLE OF CONCRETE FILLET SECTION

LOCATION	QUANTITY (SF)
19 th ST NORTH SIDE (STA 16+63 LT)	200
19 th ST SOUTH SIDE (STA 16+05 LT)	354
TOTAL	554 (SF)

TABLE OF STEEL BAR INSERTION

LOCATION	QUANTITY (EA)
0+36 SOUTH END	22
25+77 NORTH END	22
MAINLINE	1160
TOTAL	1204 (EA)

TABLE OF 6" CONCRETE APPROACH / DRIVEWAY PAVEMENT

LOCATION	REMOVAL QUANTITY EXISTING SURFACE (SY)	REPLACE (6" CONC.) QUANTITY (SF)
12+81 RT.	12 (CONC.)	110
TOTAL	12 (SY)	110 (SF)

TABLE OF REMOVE ASPHALT PAVEMENT

LOCATION	QUANTITY (SY)
MAINLINE (SUMMIT ST.)	10385
TOTAL	10385 (SY)

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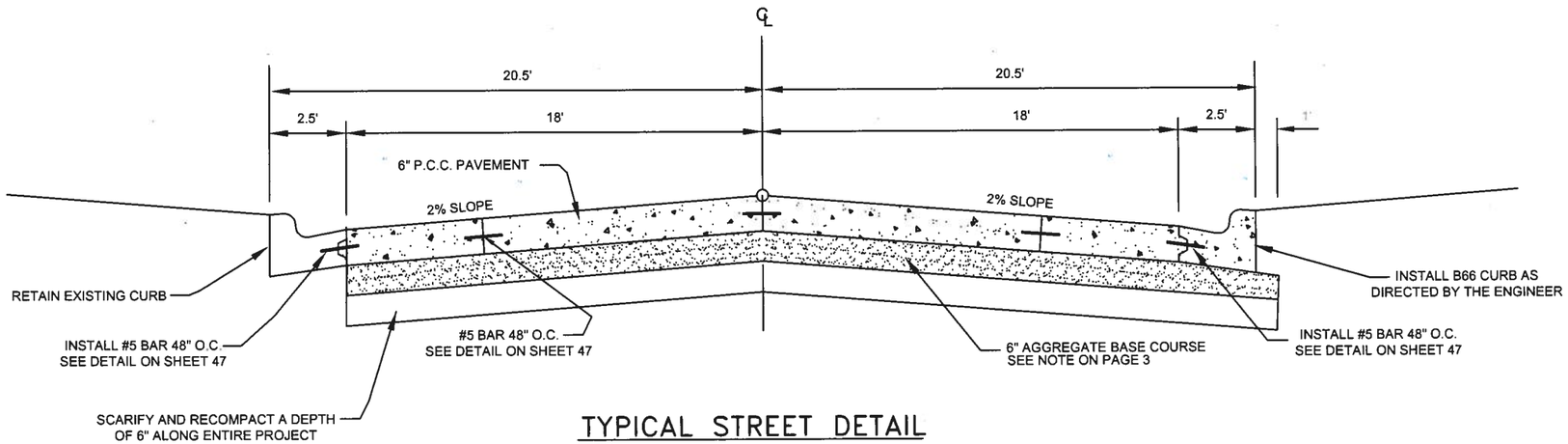
REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022--010	21	49
TYPICAL SECTION				

TYPICAL CROSS SECTIONS(n.t.s.) - SUMMIT STREET



TYPICAL STREET DETAIL

STA 0+37 TO 25+77

NOTE: SUMMIT ST HAS 5 $\frac{1}{2}$ TO 6" OF EXSITING IN PLACE ASPHALT

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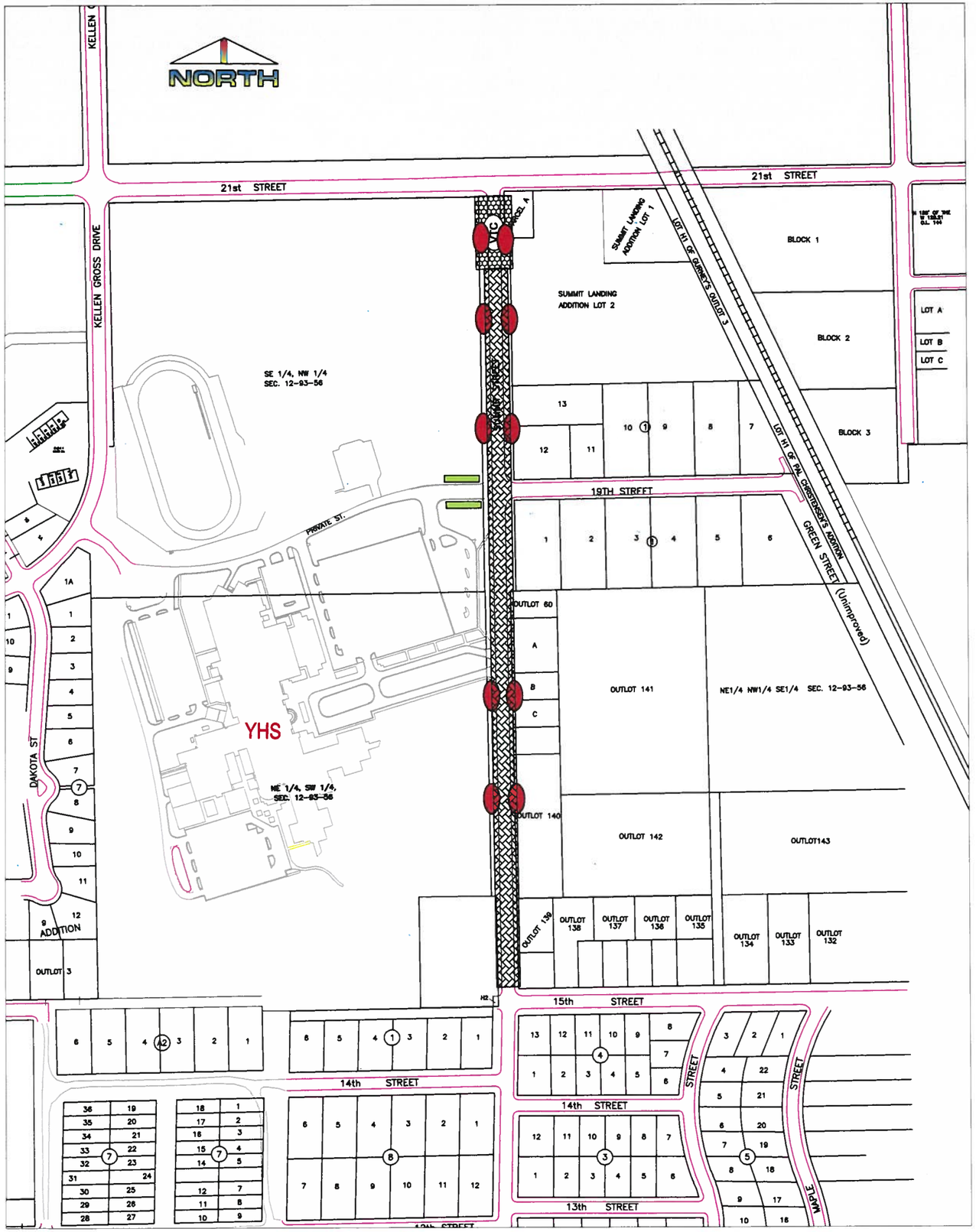
REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	22	49
EROSION CONTROL				



LEGEND

VTC

-VEHICLE TRACKING CONTROL (TYP.)
SEE DETAIL SHEET PLATE # 734.02
-1 USED (NORTH END OF SUMMIT ST.

-SILT FENCE (TYP.)
SEE SHEET #
30 L.F. USED

PROJECT AREA

-INLET PROTECTION (TYP.)
SEE SHEET # 27
-10 USED AT STA 24+43 (2)
STA 21+92 (2)
STA18+40 (2)
STA 9+71 (2)
STA 6+45 (2)

NOTE:
ALL EROSION CONTROL ITEMS SHALL BE MAINTAINED DAILY AND BE KEPT IN FULL FUNCTIONAL CONDITION TO MINIMIZE AND CONTROL SOIL RUN OFF THAT COULD OCCUR DURING THE PROJECT CONSTRUCTION. EROSION CONTROL ITEMS SHALL BE KEPT IN PLACE UNTIL PROJECT COMPLETION.

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REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	1	49
TYPICAL SECTION				

C

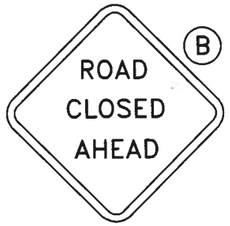
R3-1 (24" x 24")

R3-2 (24" x 24")

ALL FIXED LOCATION SIGNS REMAIN IN PLACE UNTIL PERMANENT PAVEMENT MARKING IS COMPLETE.

R11-4 (60" x 30")

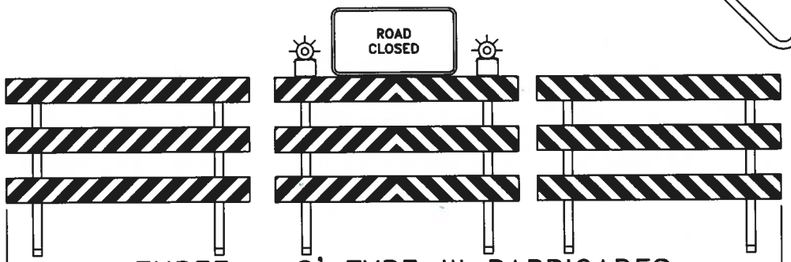
B



A

W20-1 (48" x 48")

D

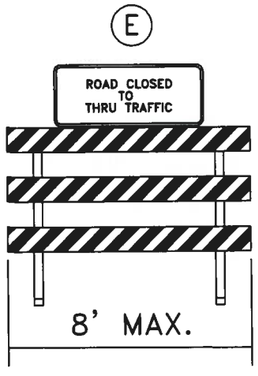


THREE – 8' TYPE III BARRICADES

FULL ROADWAY CLOSURE

R11-2 (48"x 30")

E



LIST OF OTHER TRAFFIC CONTROLS FOR ROAD CONSTRUCTION

BID ITEM	DESCRIPTION	QUANTITY
TRAFFIC CONTROL MISC.	TYPE I & II BARRICADES, CONES, VERTICAL PANELS, DRUMS, BARRICADE WARNING LIGHTS, DELINEATORS. WATCHMAN, TUBULAR MARKERS, AND INSTALLATION OF CITY SIGNS.	LUMP SUM

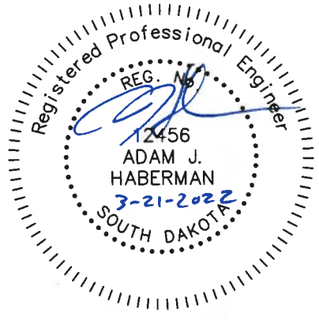
ITEMIZED LIST FOR TRAFFIC CONTROL BID ITEM

SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	SUB TOTAL
R11-2	48" x 30"	ROAD CLOSED	4	27	108
R3-1	24" x 24"	NO RIGHT TURN (SYMBOL)	1	15	30
R3-2	24" x 24"	NO LEFT TURN (SYMBOL)	1	15	15
W20-1	48" x 48"	ROAD WORK AHEAD	4	34	136
R11-4	60" x 30"	ROAD CLOSED AHEAD	1	34	34
		TYPE III BARRICADES	96 L.F.	5 UNITS/L.F.	480
				TOTAL	803

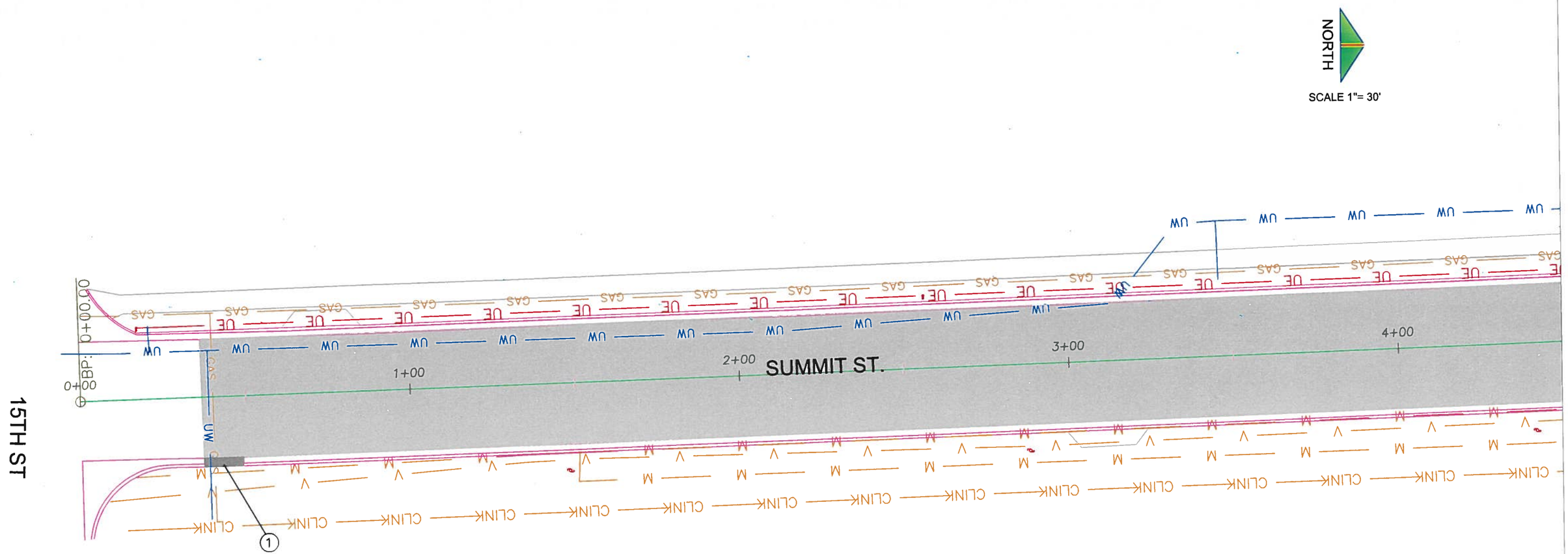
PEDESTRIAN TRAFFIC CONTROL

TRAFFIC CONTROL DEVICES FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS SHALL BE PAID FOR UNDER TRAFFIC CONTROL MISC. (SDDOT STANDARD PLATE #634.33 MAY BE USED AS A GUIDE FOR THESE SITUATIONS)

PROJECT AREA



REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	24	49
REMOVALS				



1. **STA. 0+43 - 18' RT.**
   REMOVE 12 LF OF C & G

SW, DW and CURB REMOVALS

ASPHALT REMOVALS

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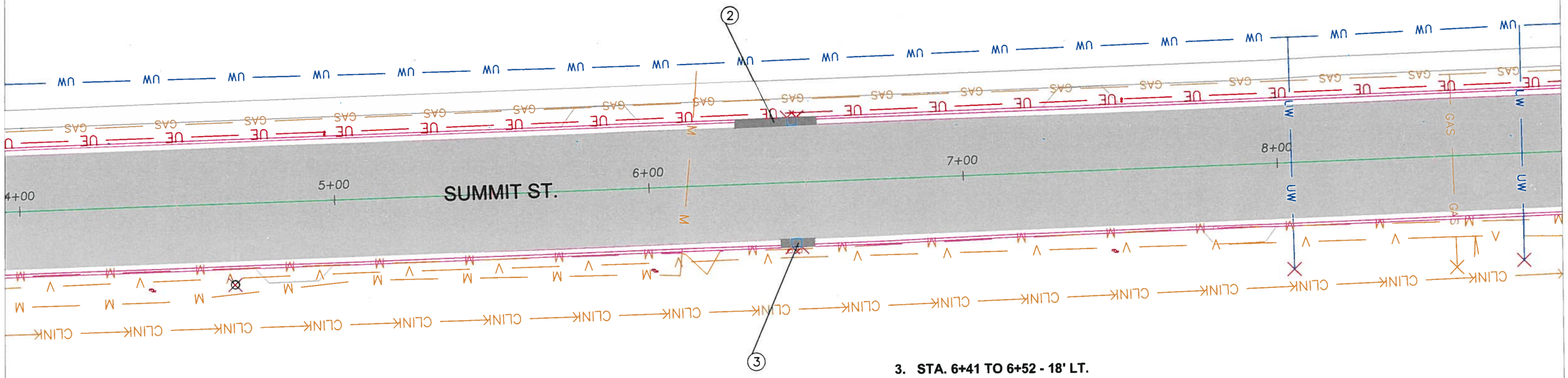
RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022--010	25	49
REMOVALS				

NORTH

SCALE 1"= 30'

2. STA. 6+28 TO 6+54 - 18' LT.
REMOVE 26 LF OF CURB



3. STA. 6+41 TO 6+52 - 18' LT.
REMOVE 11 LF OF CURB

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SW, DW and CURB REMOVALS

ASPHALT REMOVALS

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	26	49
REMOVALS				

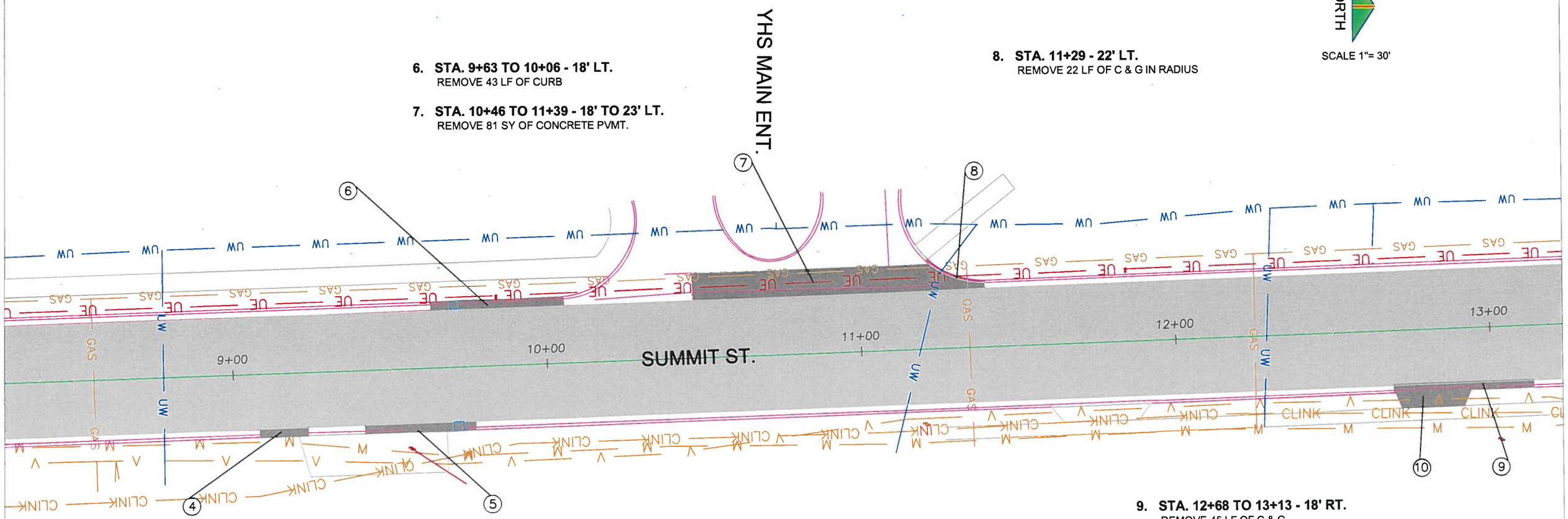
NORTH

SCALE 1"= 30'

6. STA. 9+63 TO 10+06 - 18' LT.
REMOVE 43 LF OF CURB

7. STA. 10+46 TO 11+39 - 18' TO 23' LT.
REMOVE 81 SY OF CONCRETE PVMT.

8. STA. 11+29 - 22' LT.
REMOVE 22 LF OF C & G IN RADIUS



4. STA. 9+08 TO 9+24 - 18' RT.
REMOVE 16 LF OF CURB

5. STA. 9+41 TO 9+77 - 18' RT.
REMOVE 36 LF OF CURB

9. STA. 12+68 TO 13+13 - 18' RT.
REMOVE 45 LF OF C & G

10. STA. 12+80 - 22' RT.
REMOVE 12 SY OF CONCRETE DRIVEWAY

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SW, DW and CURB REMOVALS

ASPHALT REMOVALS

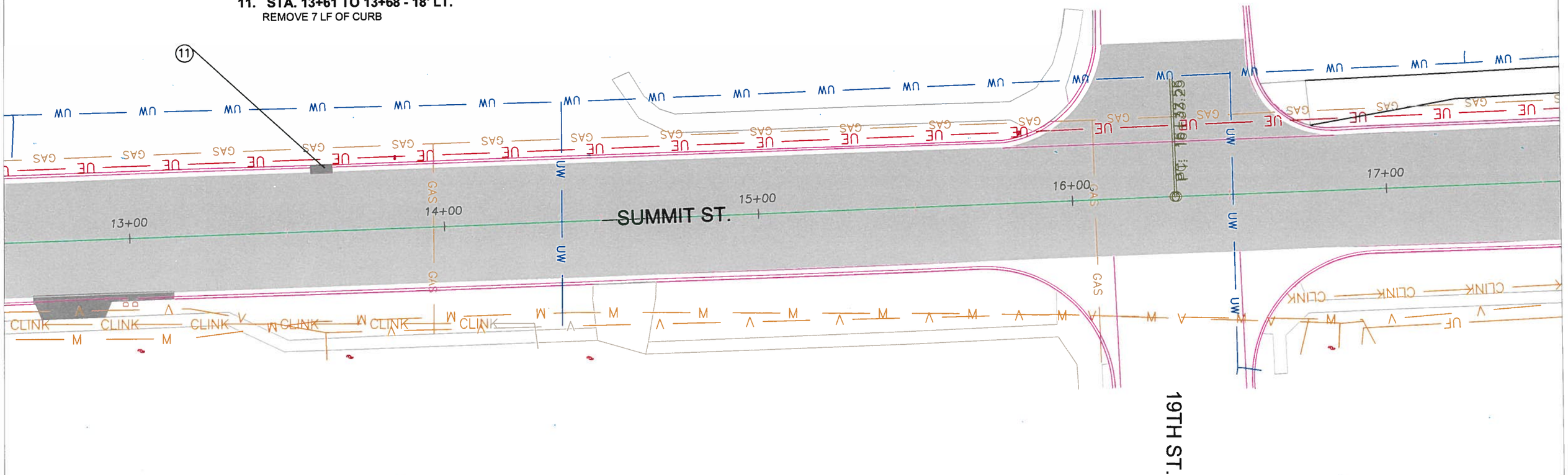
RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	27	49
REMOVALS				

NORTH

SCALE 1"= 30'

11. STA. 13+61 TO 13+68 - 18' LT.
REMOVE 7 LF OF CURB



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SW, DW and CURB REMOVALS

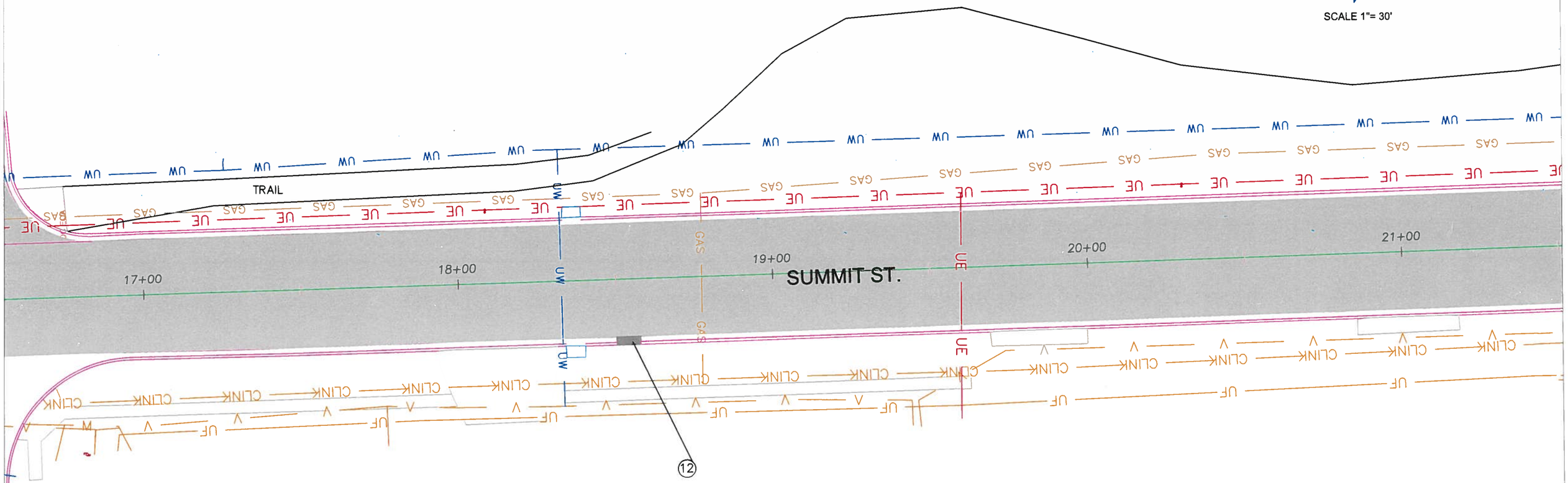
ASPHALT REMOVALS

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	28	49
REMOVALS				

NORTH

SCALE 1"= 30'



12. STA. 18+53 - 18' RT.
REMOVE 8 LF OF CURB

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SW, DW and CURB REMOVALS

ASPHALT REMOVALS

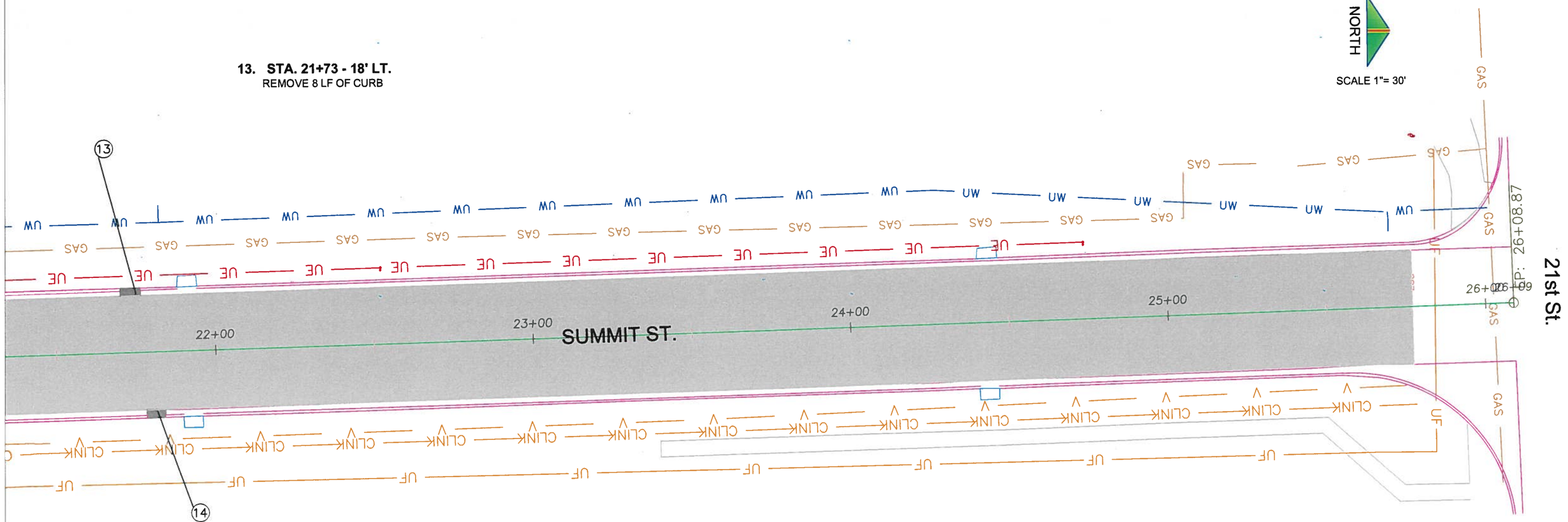
RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	29	49
REMOVALS				

13. STA. 21+73 - 18' LT.
REMOVE 8 LF OF CURB

NORTH

SCALE 1"= 30'



14. STA. 21+80 - 18' RT.
REMOVE 8 LF OF CURB

SW, DW and CURB REMOVALS

ASPHALT REMOVALS

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

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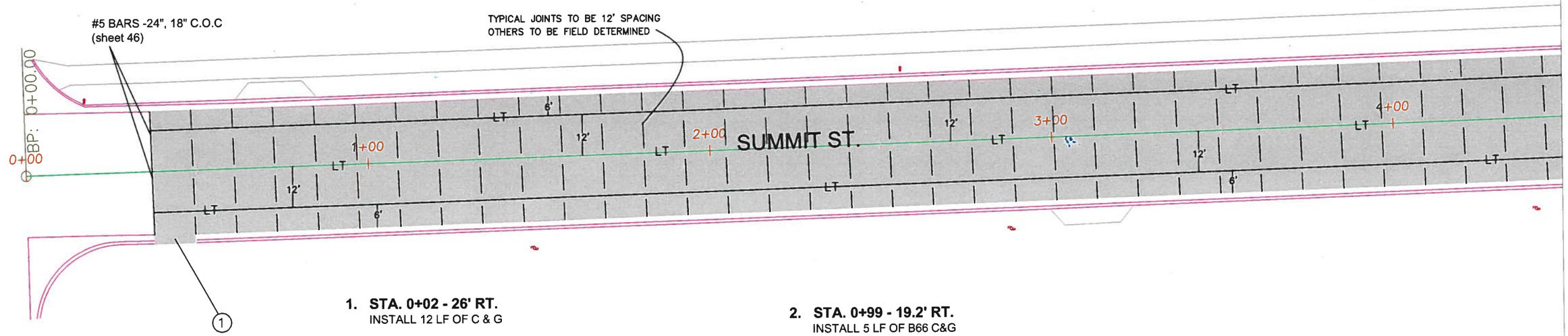
REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	30	49
		PAVING		

NORTH

SCALE 1"= 30'



NEW PAVEMENT

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3-21-2022
SOUTH DAKOTA

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

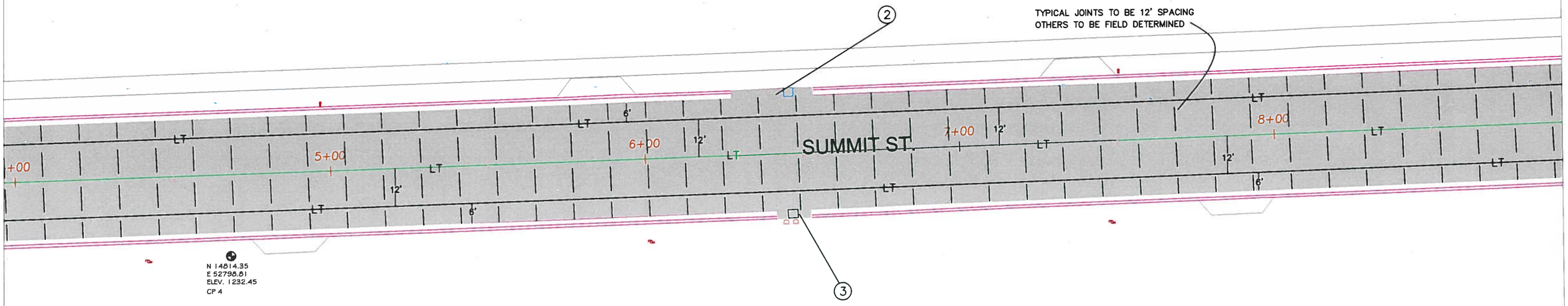
TRANSVERSE CONTRACTION JOINT — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	31	49
PAVING				

NORTH

SCALE 1"= 30'

2. STA. 6+28 TO 6+54 18' LT.
INSTALL 26 LF OF C & G



3. STA. 6+41 TO 6+52 - 18' RT.
INSTALL 11 LF OF B66 C&G

NEW PAVEMENT

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3-21-2022
SOUTH DAKOTA

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	32	49
PAVING				

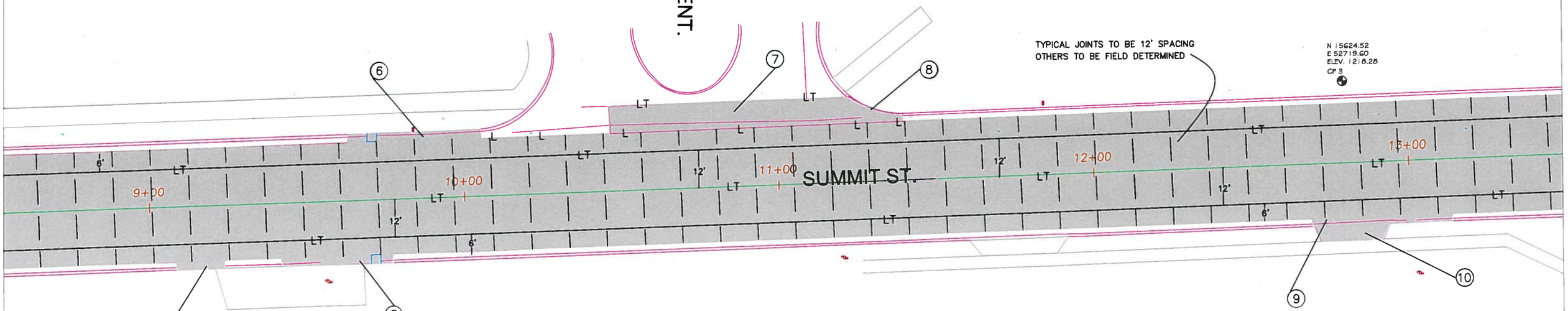
6. STA. 9+63 TO 10+06 18' LT.
INSTALL 43 LF OF B66 C & G

7. STA. 10+46 TO 11+39 18' TO 27' LT.
INSTALL 81 SY OF CONCRETE PVMT.

8. STA. 11+29 - 23' LT.
INSTALL 22 LF OF B66 C & G IN RADIUS

NORTH

SCALE 1"= 30'



4. STA. 9+08 to 9+24 18' RT.
INSTALL 16 LF OF B66 C & G

5. STA. 9+41 TO 9+77 18' RT.
INSTALL 36 LF OF B66 C & G

9. STA. 12+68 TO 13+13 - 18' RT.
INSTALL 45 LF OF B66 C&G

10. STA. 12+80 - 22' RT.
INSTALL 12 SF OF APPROACH PVMT.

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NEW PAVEMENT

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	33	49
PAVING				

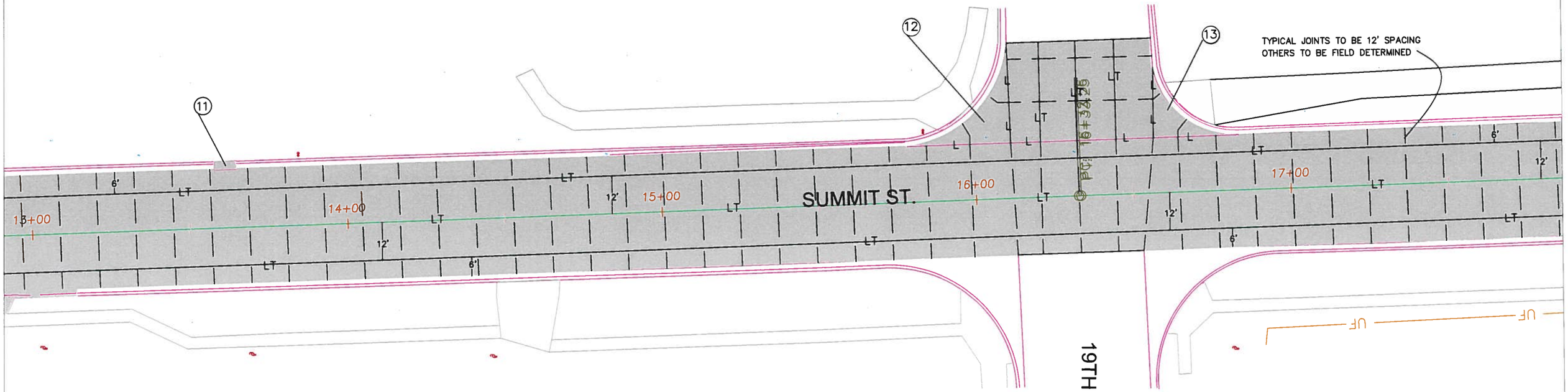
11. STA. 13+65 - 18' LT.
INSTALL 7 LF OF B66 C & G

12. STA. 16+05 - 23' LT.
INSTALL 350 SF OF FILLECT SECTION

13. STA. 16+62 - 23' LT.
INSTALL 180 SF OF FILLECT SECTION

NORTH

SCALE 1"= 30'



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SOUTH DAKOTA

NEW PAVEMENT

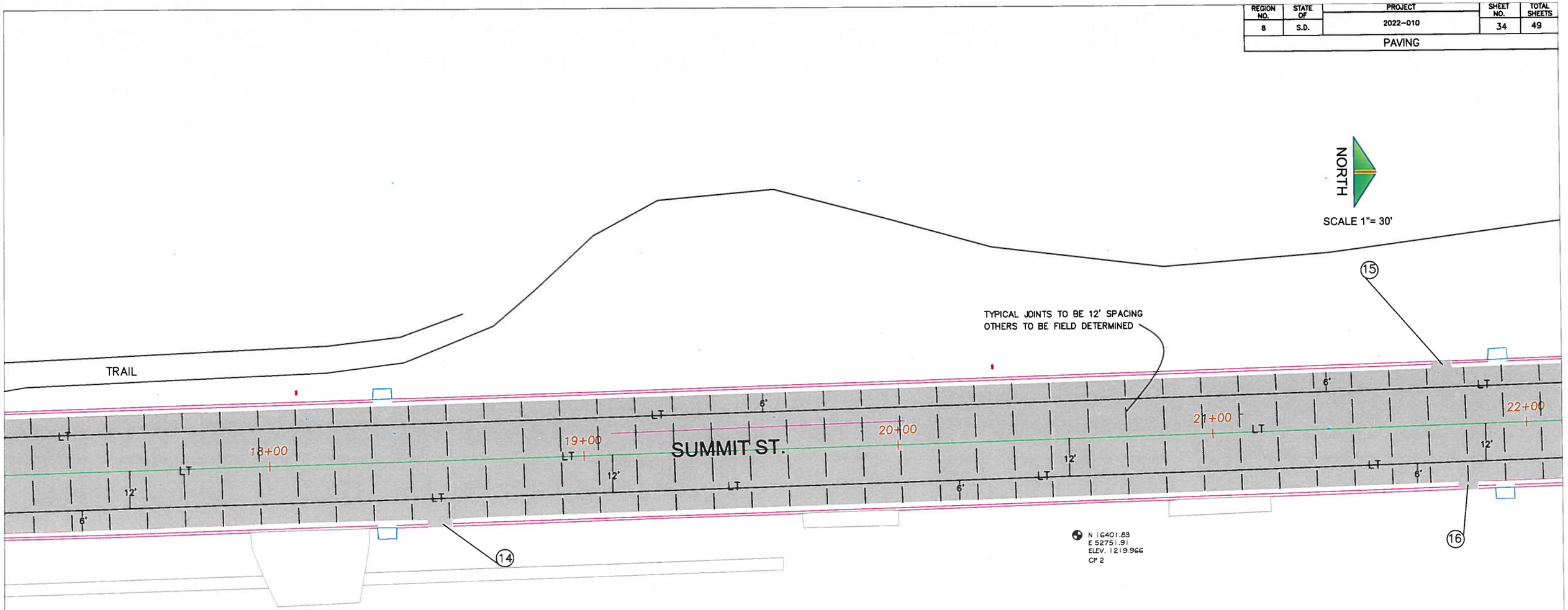
LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	34	49
PAVING				



14. STA. 18+53 - 18' RT.
INSTALL 8 LF OF B66 C & G

15. STA. 21+76 - 18' LT.
INSTALL 7 LF OF B66 C & G

16. STA. 21+80 - 18' RT.
INSTALL 7 LF OF B66 C & G

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NEW PAVEMENT

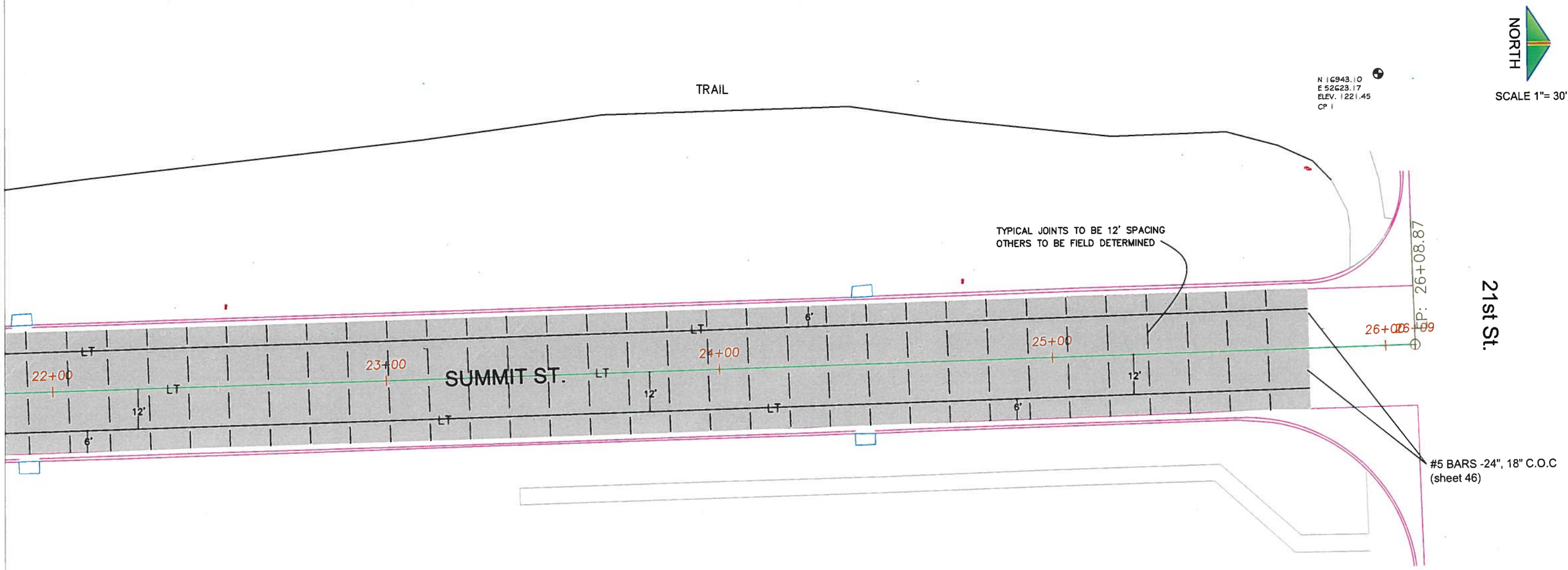
LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022–010	35	49
PAVING				



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NEW PAVEMENT

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS —L———L———

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS —LT———LT———

TRANSVERSE CONTRACTION JOINT — — — — — —

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	36	49
QUANTITIES SCH. III				

ESTIMATE OF QUANTITIES
WEST CITY LIMITS RD 8TH TO 9TH
SCHEDULE III

BID ITEM	DESCRIPTION	BID QUANTITY	UNIT
	REMOVALS AND GRADING		
1	MOBILIZATION	1	LS
2	SAW EXISTING CONCRETE	50	LF
3	REMOVAL OF CONCRETE	32	SY
4	REMOVAL OF ASPHALT	1746	SY
5	REMOVAL OF CURB AND GUTTER	40	LF
6	UNCLASSIFIED EXCAVATION	1	LS
7	UNDERCUTTING	50	CY
8	TOPSOIL	1	LS
9	WATER FOR EMBK. OR GRANULAR MATERIAL	5	K GAL
	EROSION CONTROL		
10	SEEDING	1	LS
11	VEHICLE TRACKING CONTROL	1	EA
12	INLET SEDIMENT CONTROL	2	EA
13	SILT FENCE	30	LF
14	GEOTEXTILE FABRIC	50	SY
	TRAFFIC CONTROL		
15	TRAFFIC CONTROL	626	UNITS
16	TRAFFIC CONTROL MISC.	1	LS
	SURFACING		
17	8" PCC PAVEMENT	1746	SY
18	CONCRETE C & G TYPE B66	40	LF
19	6" APPROACH PAVEMENT	288	SF
20	6" AGGREGATE BASE COURSE	1758	SY
21	INSERT STEEL BARS	220	EA

TABLE OF 8" PCC PAVEMENT

STATION TO STATION	QUANTITY (SY)
0+13 TO 3+80 - 16' LT. TO 16' RT.	1746
TOTAL	1746 (SY)

TABLE OF REMOVE ASPHALT PAVEMENT

LOCATION	QUANTITY (SY)
MAINLINE (WCLR)	1746
TOTAL	1746 (SY)

UNCLASSIFIED EXCAVATION DOUGLAS AVE.

CUT 527 Cubic Yds
See Note on sheet 4 (Unclassified Excavation)

TABLE OF 6" CONCRETE APPROACH / DRIVEWAY PAVEMENT

LOCATION	REMOVAL QUANTITY EXISTING SURFACE (SY)	REPLACE (6" CONC.) QUANTITY (SF)
3+52 RT.	32 (CONC.)	288
TOTAL	32 (SY)	288 (SF)

TABLE OF STEEL BAR INSERTION

LOCATION	QUANTITY (EA)
SOUTH END	26
NORTH END	26
MAINLINE	168
TOTAL	220 (EA)

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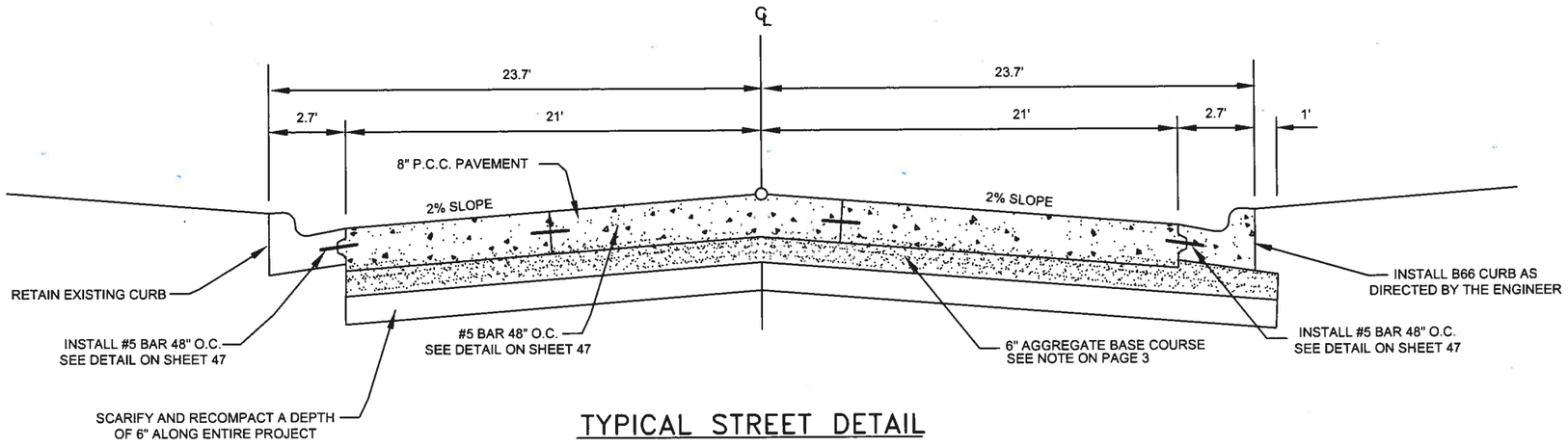
REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	37	49
TYPICAL SECTION				

TYPICAL CROSS SECTIONS(n.t.s.) - WEST CITY LIMITS RD 8TH TO 9TH

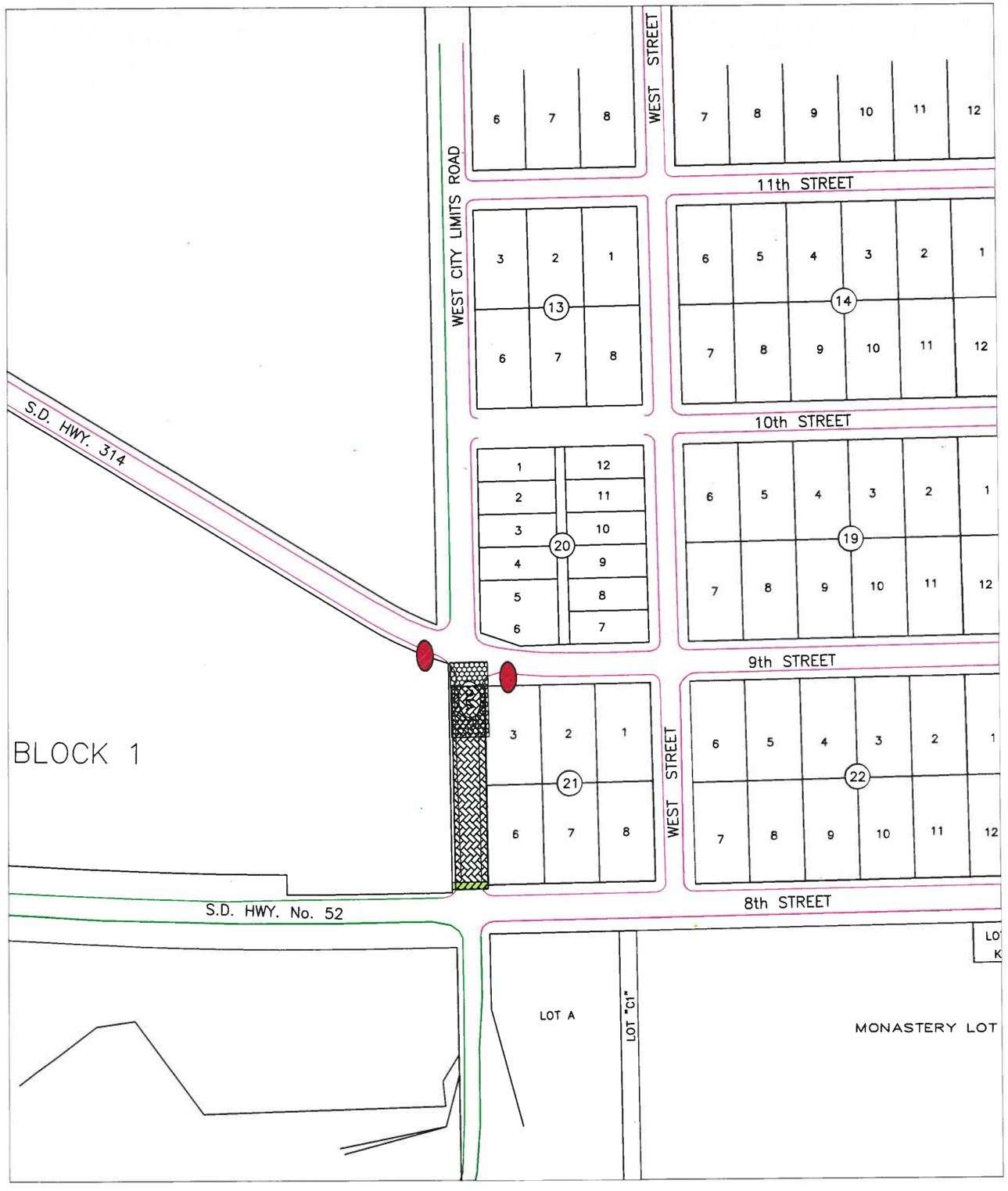


TYPICAL STREET DETAIL

STA. 0+13 TO 3+81

NOTE: WEST CITY LIMITS ROAD HAS 3" OF EXISTING IN PLACE ASPHALT

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	38	49
EROSION CONTROL				



LEGEND

VTC -VEHICLE TRACKING CONTROL (TYP.)
SEE DETAIL SHEET PLATE # 734.02
-1 USED (NORTH END OF WCLR

-SILT FENCE (TYP.)
SEE SHEET #
30 L.F. USED

PROJECT AREA

-INLET PROTECTION (TYP.)
SEE SHEET # 27
-2 USED ALONG 9TH ST 1 EAST AND 1 WEST OF WCLR AND 9TH

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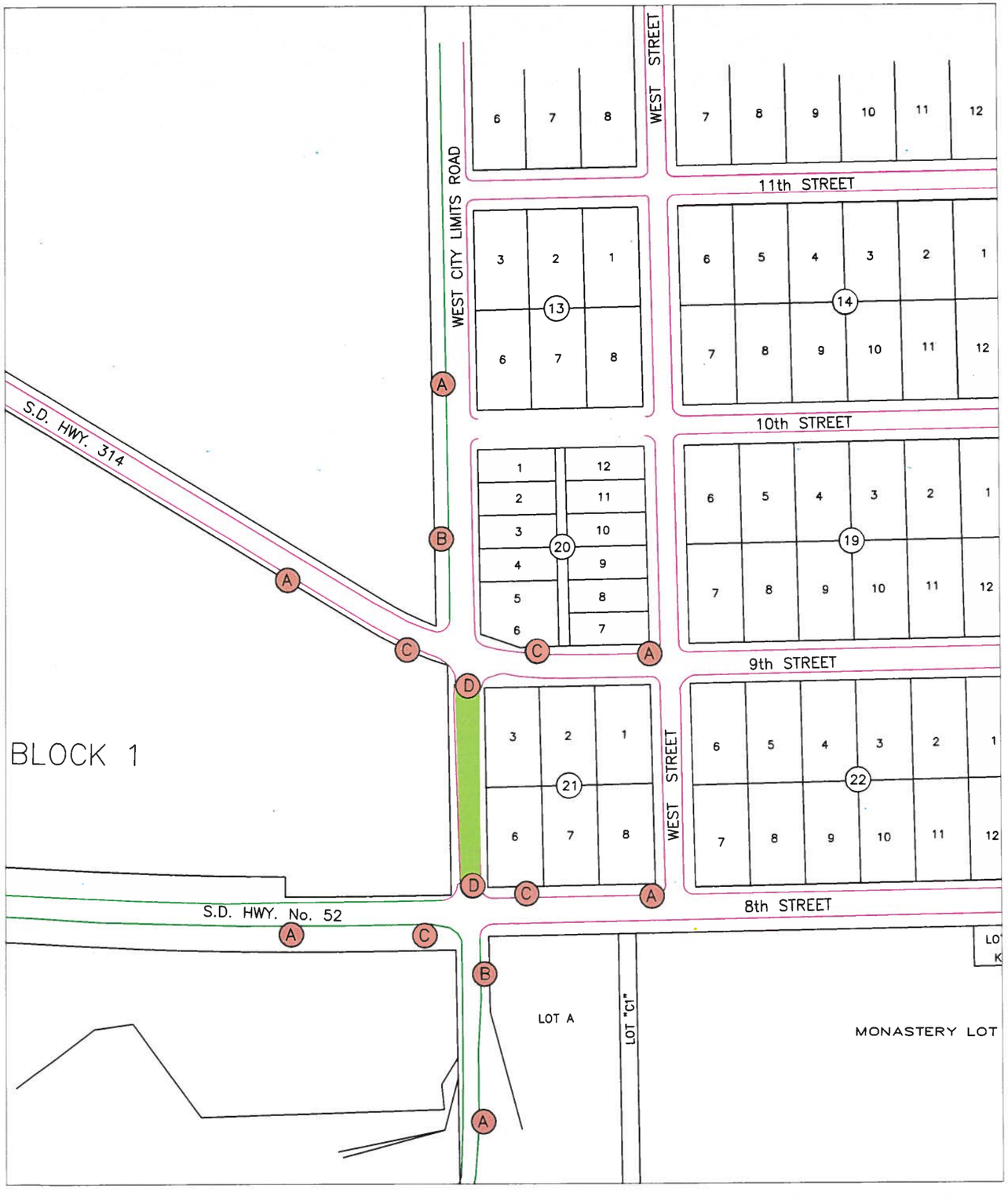
SOUTH DAKOTA

NOTE:
ALL EROSION CONTROL ITEMS SHALL BE MAINTAINED DAILY AND BE KEPT IN FULL FUNCTIONAL CONDITION TO MINIMIZE AND CONTROL SOIL RUN OFF THAT COULD OCCUR DURING THE PROJECT CONSTRUCTION. EROSION CONTROL ITEMS SHALL BE KEPT IN PLACE UNTIL PROJECT COMPLETION.

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	39	49
TRAFFIC CONTROL				



C

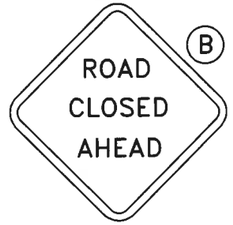
R3-1 (24" x 24")

R3-2 (24" x 24")

ALL FIXED LOCATION SIGNS REMAIN IN PLACE UNTIL PERMANENT PAVEMENT MARKING IS COMPLETE.

R11-4 (60" x 30")

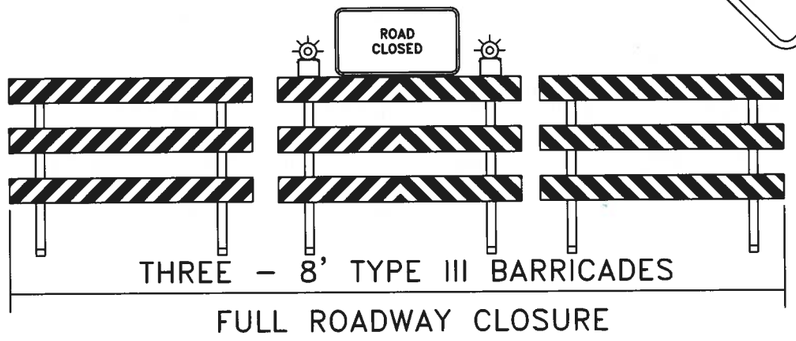
B



A

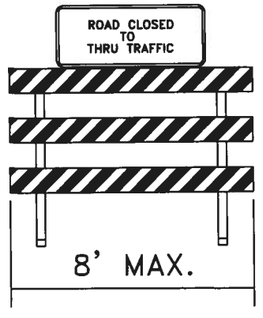
W20-1 (48" x 48")

D



R11-2 (48"x 30")

E

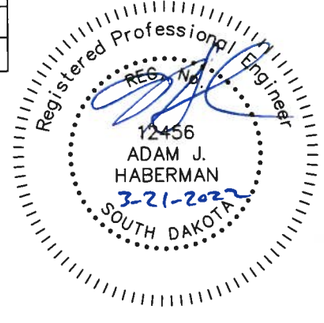


LIST OF OTHER TRAFFIC CONTROLS FOR ROAD CONSTRUCTION		
BID ITEM	DESCRIPTION	QUANTITY
TRAFFIC CONTROL MISC.	TYPE I & II BARRICADES, CONES, VERTICAL PANELS, DRUMS, BARRICADE WARNING LIGHTS, DELINEATORS. WATCHMAN, TUBULAR MARKERS, AND INSTALLATION OF CITY SIGNS.	LUMP SUM

ITEMIZED LIST FOR TRAFFIC CONTROL BID ITEM					
SIGN NUMBER	SIGN SIZE	DESCRIPTION	AMOUNT REQUIRED	UNITS PER AMOUNT	SUB TOTAL
R11-2	48" x 30"	ROAD CLOSED	2	27	54
R3-1	24" x 24"	NO RIGHT TURN (SYMBOL)	2	15	30
R3-2	24" x 24"	NO LEFT TURN (SYMBOL)	2	15	30
W20-1	48" x 48"	ROAD WORK AHEAD	6	34	204
R11-4	60" x 30"	ROAD CLOSED AHEAD	2	30	68
		TYPE III BARRICADES	48 L.F.	5 UNITS/L.F.	240
				TOTAL	626

PEDESTRIAN TRAFFIC CONTROL

TRAFFIC CONTROL DEVICES FOR SIDEWALK CLOSURES AND PEDESTRIAN DETOURS SHALL BE PAID FOR UNDER TRAFFIC CONTROL MISC. (SDDOT STANDARD PLATE #634.33 MAY BE USED AS A GUIDE FOR THESE SITUATIONS)

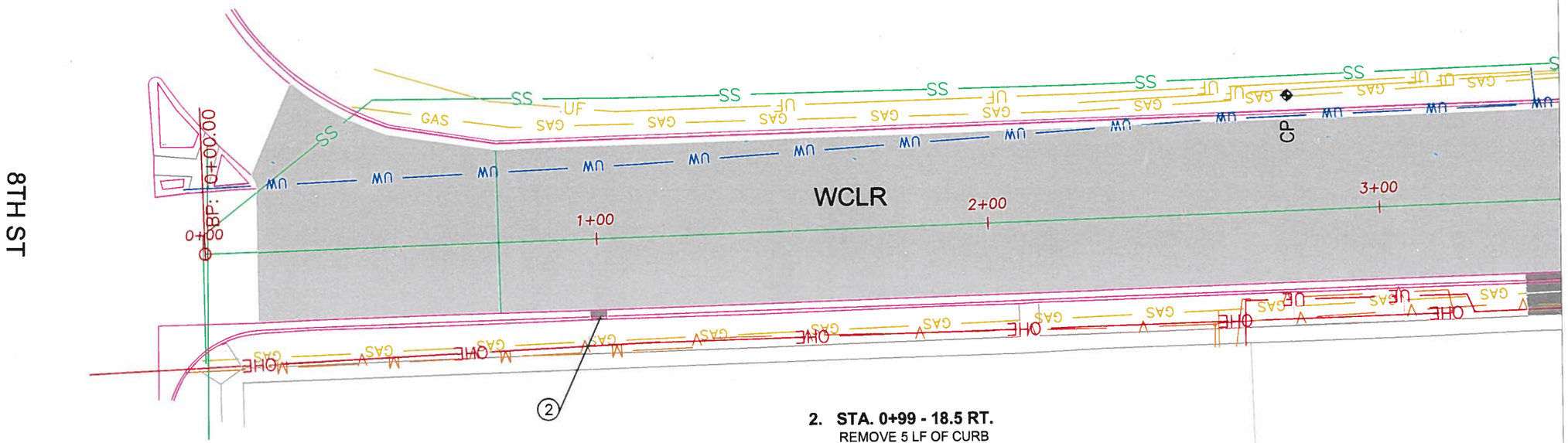


PROJECT AREA

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	40	49
REMOVALS				

NORTH

SCALE 1"= 30'



2. **STA. 0+99 - 18.5 RT.**
REMOVE 5 LF OF CURB

802 WCLR

PARKING LOT

SW AND DW REMOVALS

ASPHALT ST. REMOVALS

RETAIN EXISTING CURB & GUTTER
EXCEPT AREAS DIRECTED BY THE ENGINEER

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REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	41	49
REMOVALS				

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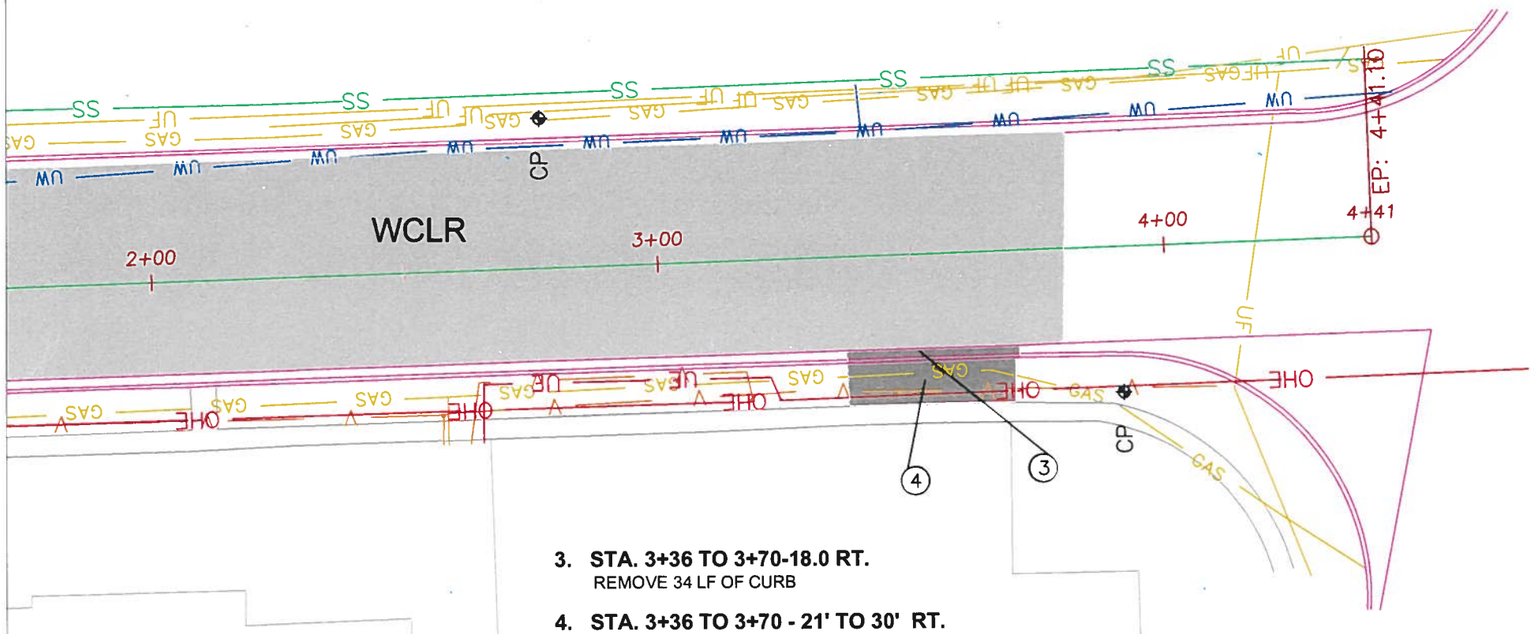
SOUTH DAKOTA

NORTH

SCALE 1"= 30'



3. **STA. 3+36 TO 3+70-18.0 RT.**
REMOVE 34 LF OF CURB

4. **STA. 3+36 TO 3+70 - 21' TO 30' RT.**
REMOVE 31 SY OF EXISTING CONC. APPROACH

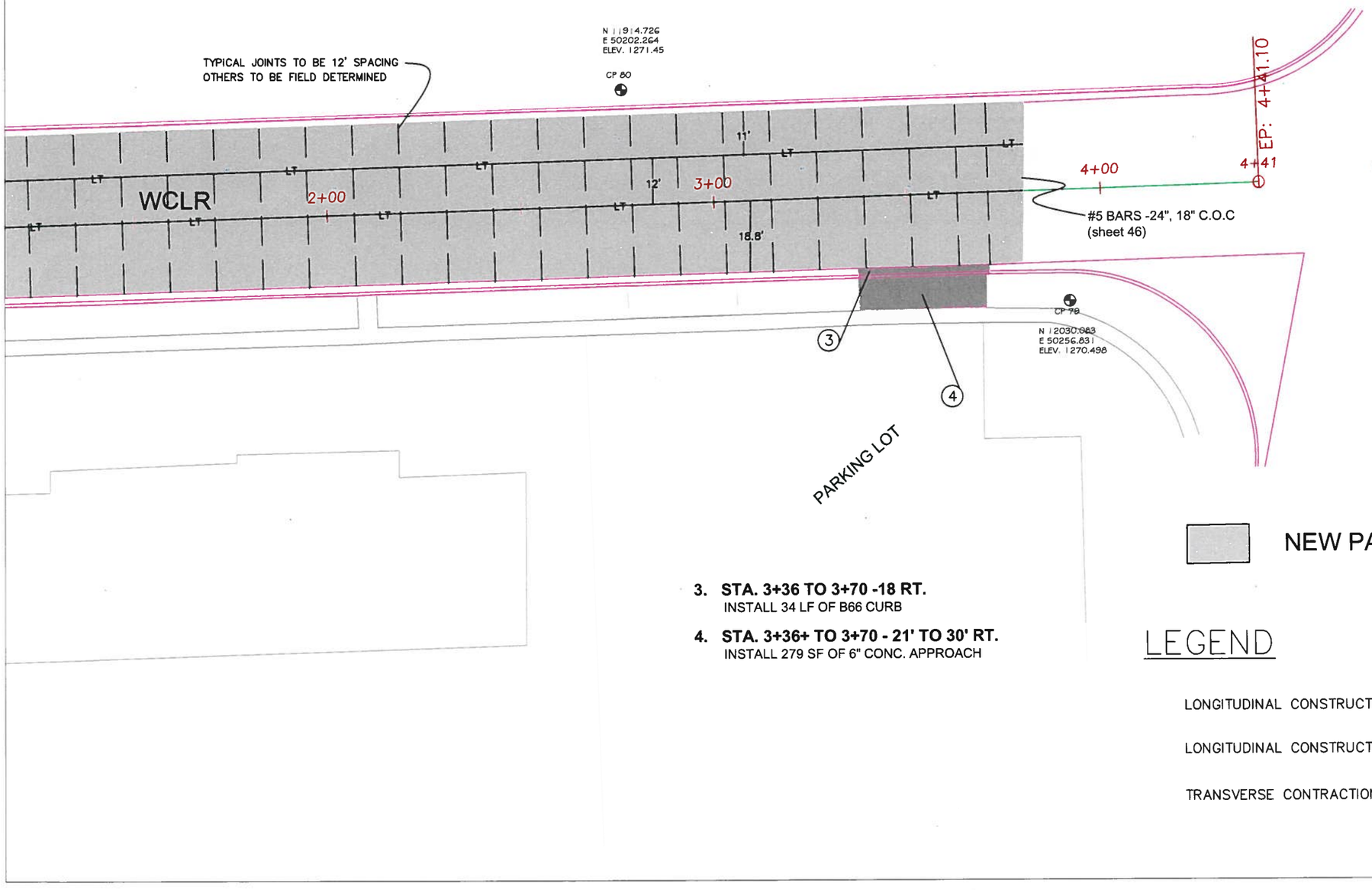
802 WCLR

PARKING LOT

SW AND DW REMOVALS

CONCRETE ST. REMOVALS

REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	43	49
PAVING				



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SOUTH DAKOTA

NEW PAVEMENT

3. **STA. 3+36 TO 3+70 -18 RT.**
   INSTALL 34 LF OF B66 CURB

4. **STA. 3+36+ TO 3+70 - 21' TO 30' RT.**
   INSTALL 279 SF OF 6" CONC. APPROACH

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS ——L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS ——LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — — —

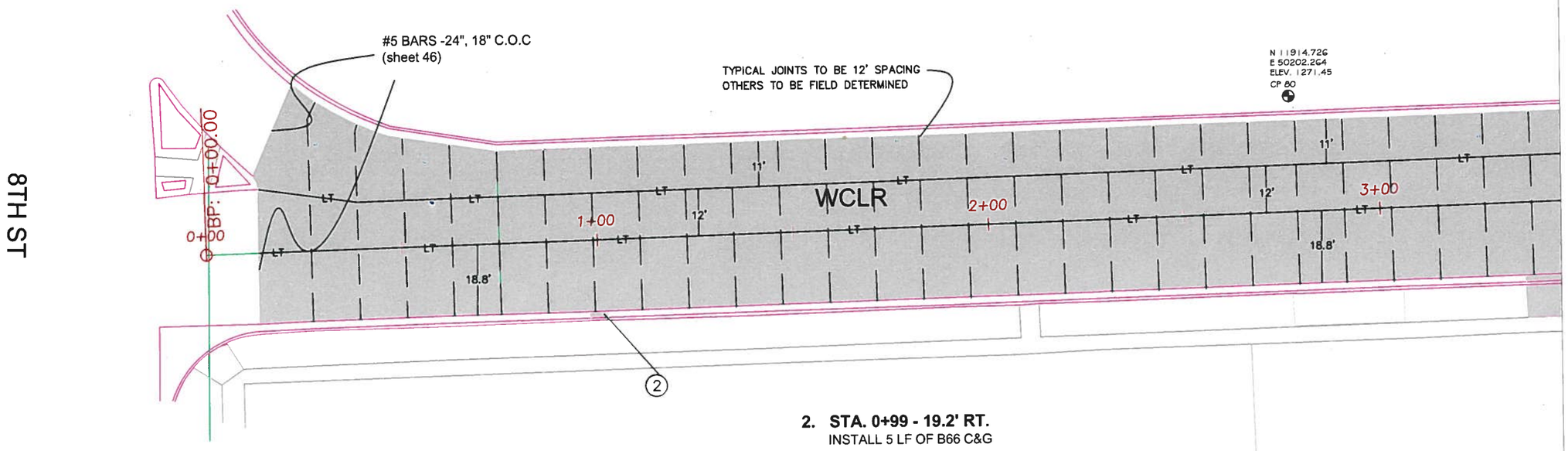
REGION NO.	STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
8	S.D.	2022-010	42	49
PAVING				

NORTH

SCALE 1"= 30'

2. **STA. 1+86 TO 2+56-18.5 RT.**
   INSTALL 70 LF OF B66 CURB

3. **STA. 1+91 TO 2+51-18.5 RT.**
   INSTALL 747 SF OF 6" CONC. APPROACH



2. **STA. 0+99 - 19.2' RT.**
   INSTALL 5 LF OF B66 C&G

NEW PAVEMENT

802 WCLR

PARKING LOT

LEGEND

LONGITUDINAL CONSTRUCTION JOINT WITHOUT TIE BARS ——L——L——

LONGITUDINAL CONSTRUCTION JOINT WITH TIE BARS ——LT——LT——

TRANSVERSE CONTRACTION JOINT — — — — —

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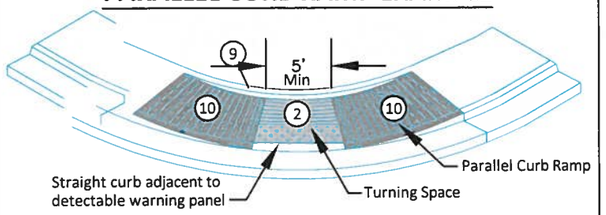
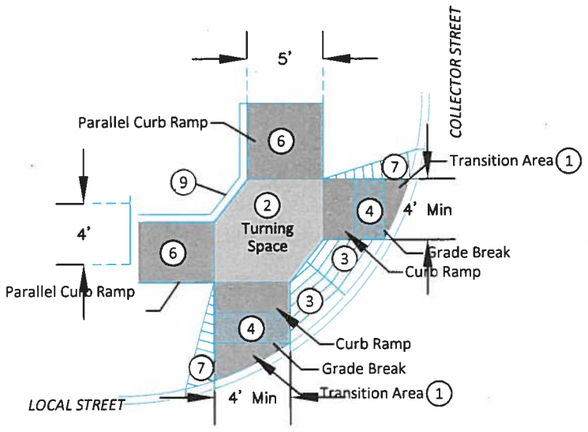
PARALLEL CURB RAMP EXAMPLE

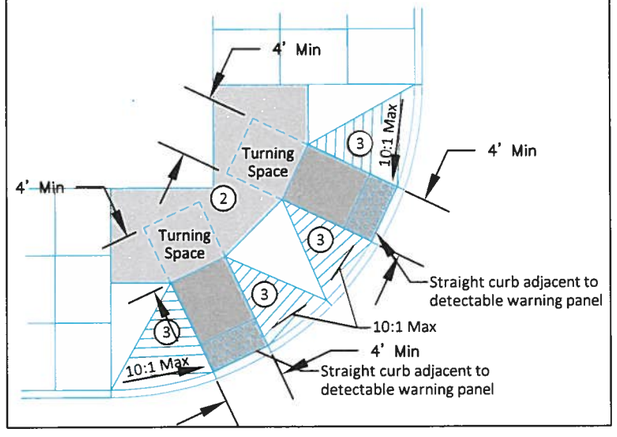


DIRECTIONAL SIDEWALK RAMP EXAMPLE

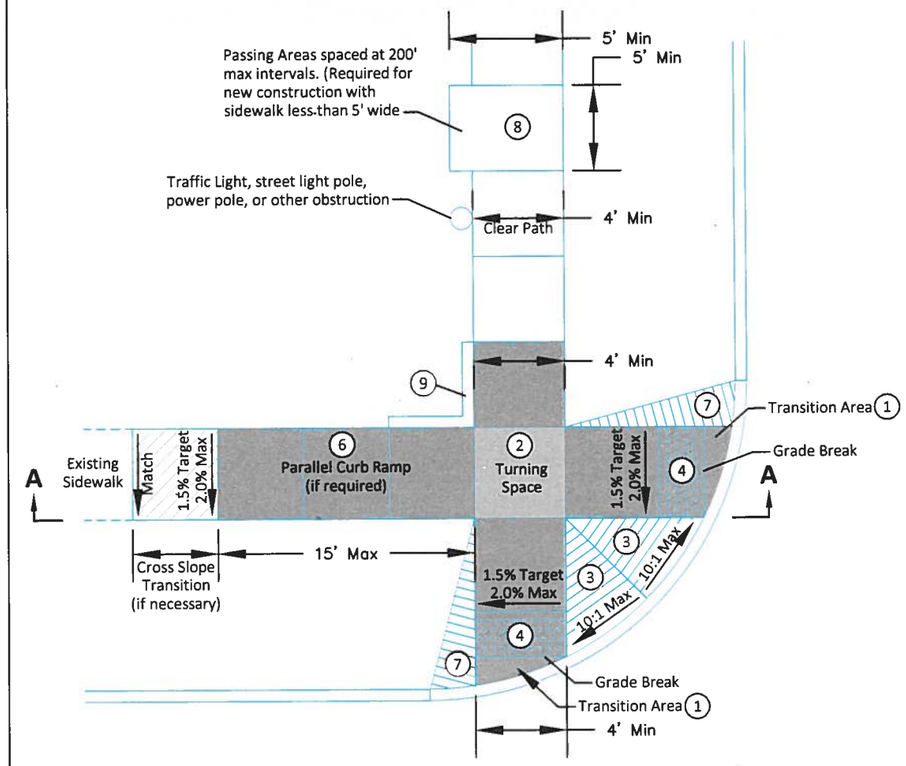
(Typical of a local/collector intersection with a 20' radius)



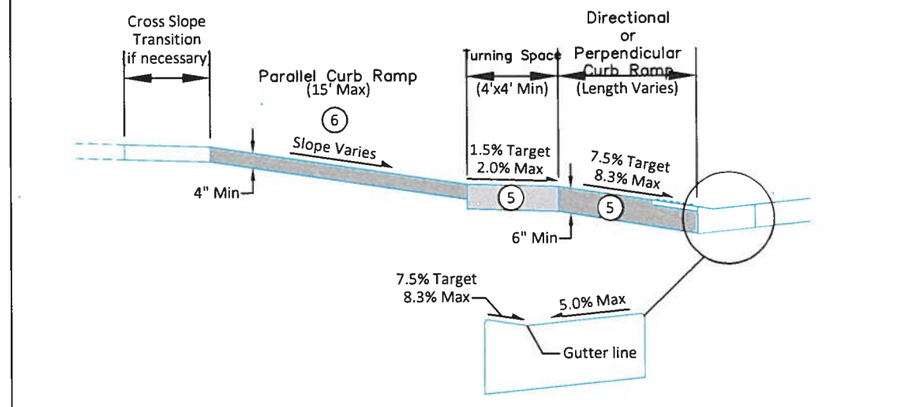
PERPENDICULAR CURB RAMP EXAMPLE



DIRECTIONAL SIDEWALK RAMP EXAMPLE



SECTION A-A



NOTES:

1. Transition from the the 2% maximum cross slope on the ramp and the pedestrian street crossing grade in this area. The maximum cross slope on the pedestrian street crossing (including the fillet or curb and gutter) is 2% on stop or yield controlled legs and 5% on uncontrolled or signalized legs.
2. Minimum 4 feet by 4 feet. Target cross slope of 1.5% with a maximum cross slope of 2.0% in any direction. Where the turning space is confined at the back of sidewalk (example: 6" curb or building), the turning space shall be 4 foot by 5 foot minimum. The 5 foot dimension shall be in the direction of the ramp run. The grade change between the turning space and the curb ramp must be perpendicular to the direction of travel.
3. Areas where the pedestrian circulation path crosses a curb ramp are considered flare sides. The maximum slope of the flare sides is 10%. Full curb height may not be able to be reestablished on flare slopes but as much curb height as possible should be reestablished.
4. Provide a minimum 2 foot width of detectable warning surfaces in the direction of pedestrian travel across the full width of the curb ramp or turning space, exclusive of curbs or flares. Orient domes in the direction of pedestrian travel unless otherwise stated in plans.
5. The concrete in the turning space, curb ramp, and flare slope areas shall be a minimum thickness of 6 inches.
6. If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and turning space due to limited ramp length, provide a parallel ramp to make up the elevation difference between the turning space and the standard sidewalk. This parallel ramp shall not exceed 8.3% slope. However, the length of the ramp is not required to exceed 15 feet, regardless of slope. The minimum sidewalk thickness for the parallel ramp in this area is 4 inches.
7. Install a 2 foot taper when additional sidewalk will not be located adjacent to the curb ramp.
8. Depending on the conditions, a curb up to 6 inches high may need to be installed on the back of the turning space or adjoining sidewalk.
9. The slope of curb ramp and adjacent curb is designed at 7.5% or less but shall not be steeper than 8.3% unless otherwise specified in the plans. The curb ramp is not required to exceed 15 feet, regardless of slope. The cross slope target is 1.5% with a maximum cross slope of 2.0%.

GENERAL NOTES:

The turning space, curb ramp, and detectable warning panel area will be paid for at the contact unit price for the corresponding concrete sidewalk bid item.

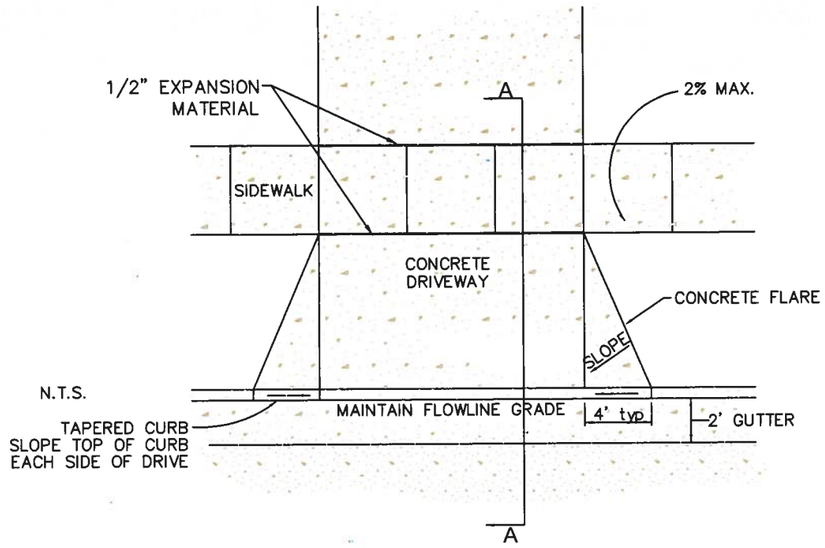
The detectable warning panel shall be measured and paid for to the nearest square foot. Payment shall include all costs for materials, labor, and equipment necessary for the installation of the detectable warning panels.

Revised: December 2016

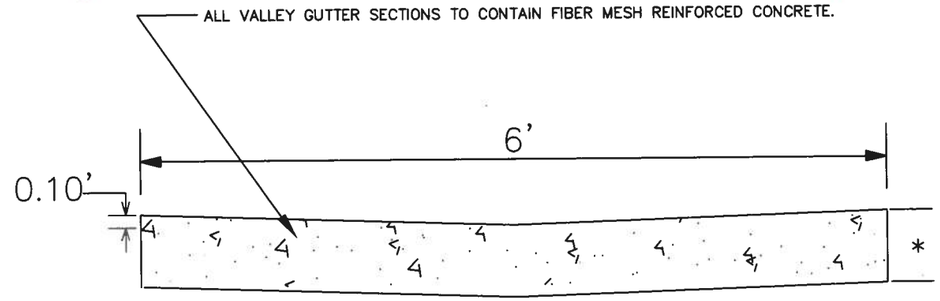
CITY OF SIOUX FALLS
ENGINEERING DIVISION

ACCESSIBLE CURB RAMPS

SPECIFICATION REFERENCE	PLATE NUMBER

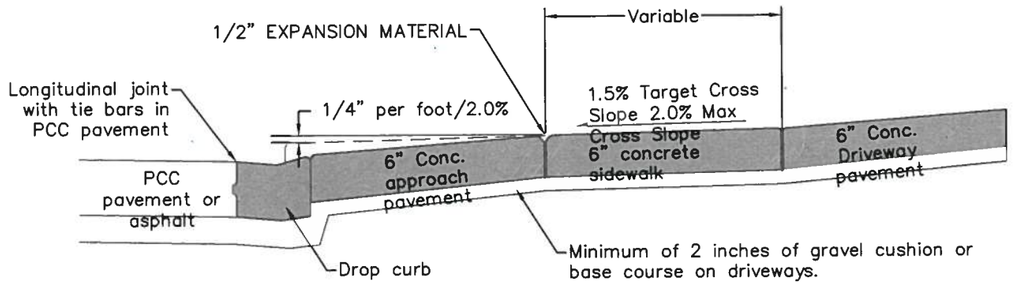


DETAIL FOR CONCRETE FLARES
AND TAPERED CURB AT DRIVEWAYS
N.T.S.

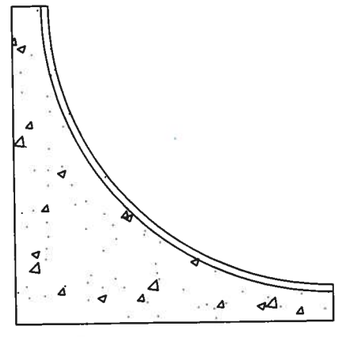


TYPICAL VALLEY GUTTER DETAIL
N.T.S.

* ALL VALLEY GUTTER SECTIONS TO A MINIMUM OF 8" OR THE SAME THICKNESS AS THE ADJOINING CONCRETE PAVING.

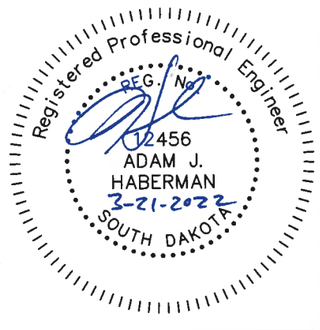


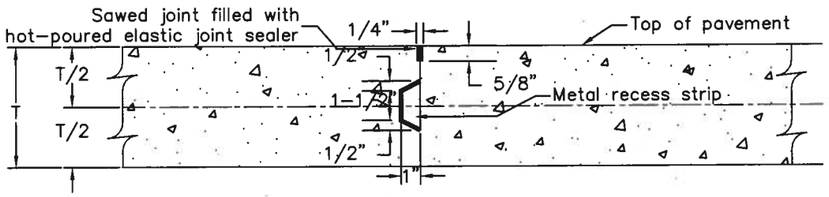
Section View A-A



TYPICAL FILLET SECTION
N.T.S.

All Fillet sections to contain fiber mesh reinforced concrete.

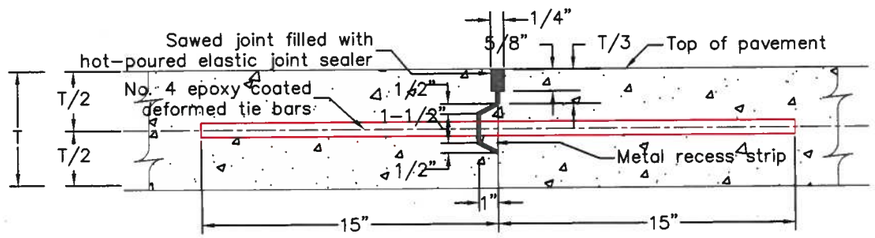




If proposed, approval of alternate designs of the keyway will be considered by the engineer.

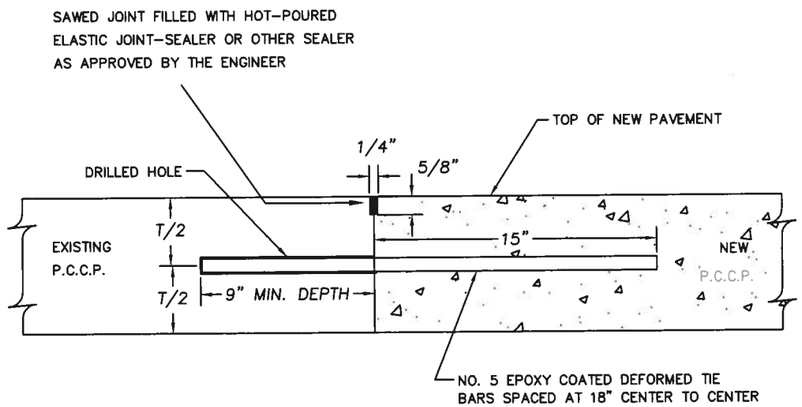
Fillet pavement and adjacent PCC pavement joints shall be keyway construction joints without tie bars.

KEYWAY CONSTRUCTION JOINT WITHOUT TIE BARS



If proposed, approval of alternate designs of the keyway will be considered by the engineer for longitudinal construction joints. The No. 4 epoxy coated deformed tie bars shall be spaced approximately 48" center to center.

KEYWAY CONSTRUCTION JOINT WITH TIE BARS



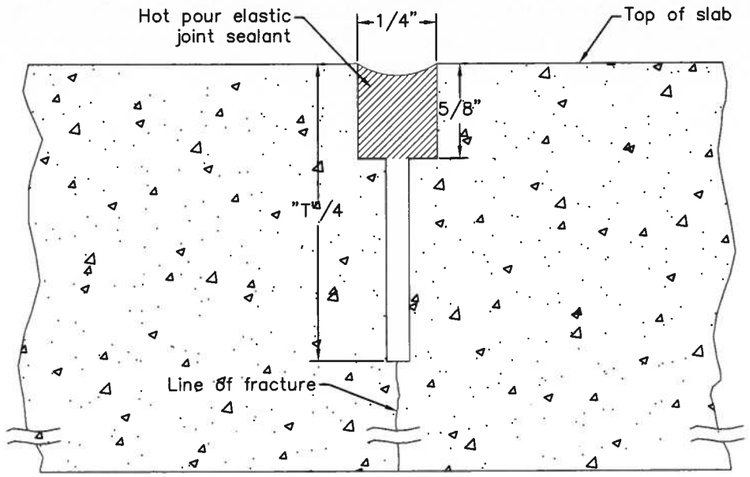
T = PAVEMENT THICKNESS

GENERAL NOTES

THE TIE BAR IS TO BE EMBEDDED A MINIMUM DEPTH OF 9 INCHES INTO THE EXISTING PAVEMENT BY UTILIZING AN EPOXY RESIN ADHESIVE.

PCC PAVEMENT TRANSVERSE JOINTS WITH No. 5 DEFORMED TIE BARS

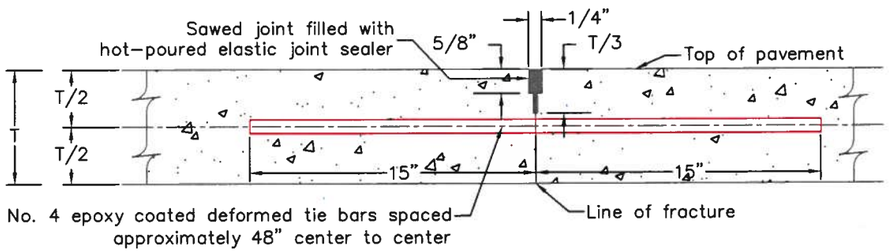
PROJECT	SHEET NO.	TOTAL SHEETS
2022-010	47	49
STANDARD PLATES & DETAILS		



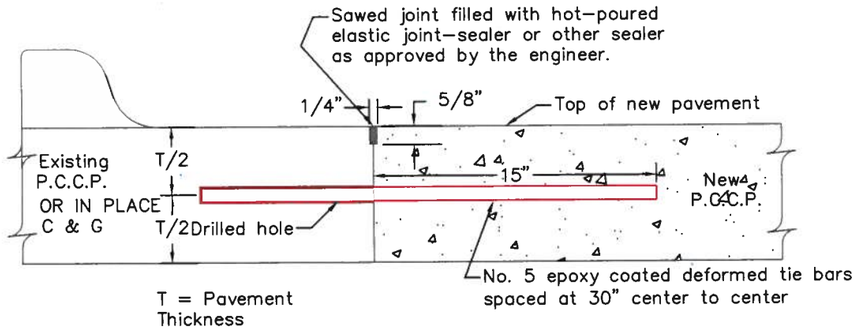
T = Pavement Thickness

The first saw cut to control cracking shall be 1/8"–1/4" wide and a minimum of 1/4 the depth of the pavement. Additional sawing for widening the saw cut to provide the width for the installation of the hot pour elastic joint sealant may be necessary.

TRANSVERSE CONTACTION JOINT



PCC PAVEMENT SAWED LONGITUDINAL JOINTS



T = Pavement Thickness

Note:
The tie bar is to be embedded a minimum depth of 9 inches into the existing pavement by utilizing an epoxy resin adhesive.
Tie bars shall be placed a minimum of 15 inches from existing transverse contraction joints.

LONGITUDINAL CONSTRUCTION JOINTS WITH TIE BARS

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PROJECT	SHEET NO.	TOTAL SHEETS
2022-010	48	49
STANDARD PLATES & DETAILS		

VTC

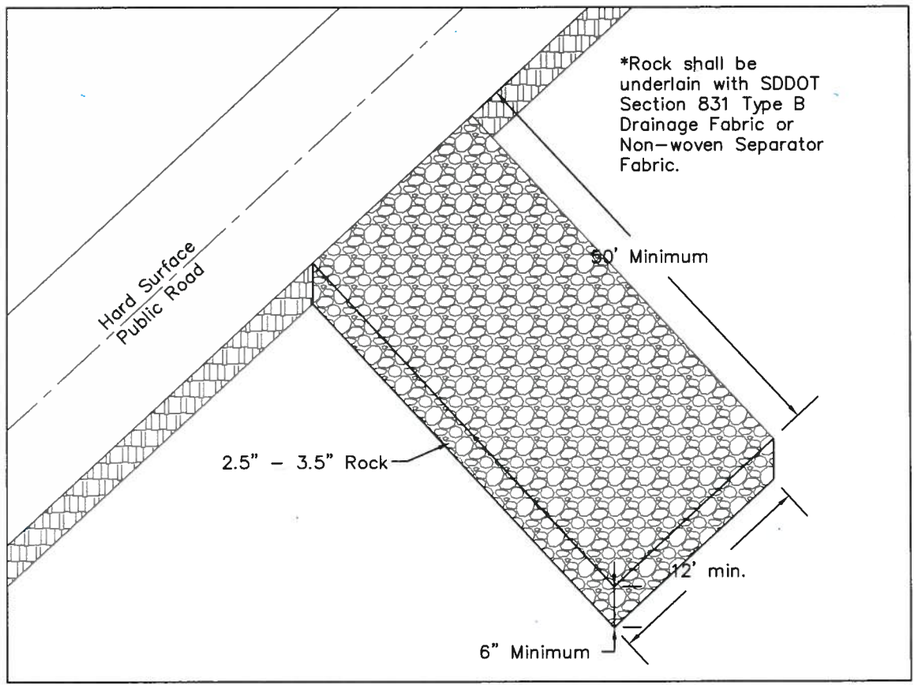
Vehicle Tracking Control

Definition:

A stone stabilized pad located at points of vehicular ingress and egress on a construction site.

Purposes:

To reduce the amount of mud transported onto public roads by motor vehicles or runoff.



Silt Fence

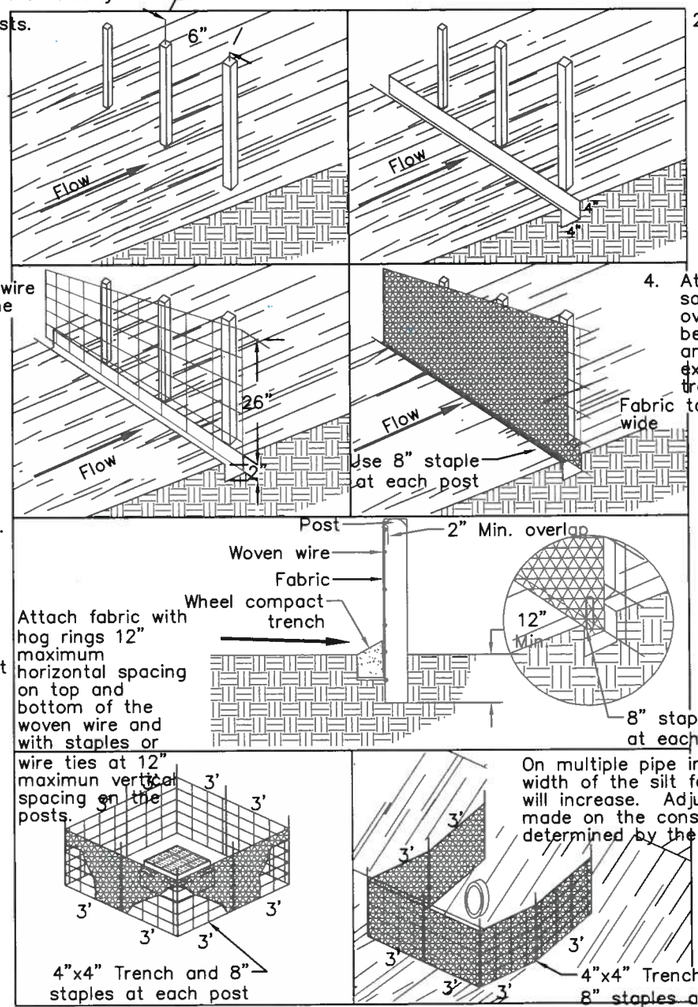
Definition:

A temporary sediment barrier consisting of a filter fabric stretched across and attached to supporting posts and entrenched. The silt fence is a temporary linear barrier constructed of synthetic filter fabric and supported by wooden or steel posts.

Purposes:

1. To intercept and detain small amounts of sediment from disturbed areas during construction operations in order to reduce sediment in runoff from leaving the site.
2. To decrease the velocity of sheet flows and low-to-moderate level concentrated flows.

1. Set posts.
2. Excavate a 4" x 4" trench upslope along the posts.
3. Attach a supporting wire fence to the posts
4. Attach fabric, sandwich fabric overlap between posts and wire and extend into trench.
5. Backfill trench. If rock type soils are encountered, utilize 30 to 40 lb sandbags butted end to end to prevent underflow.



Fence material shall conform to geotextile specifications, Section 831 of SDDOT Standard Specifications for Roads and Bridges, latest edition.

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PROJECT	SHEET NO.	TOTAL SHEETS
2022-010	49	49
STANDARD PLATES & DETAILS		

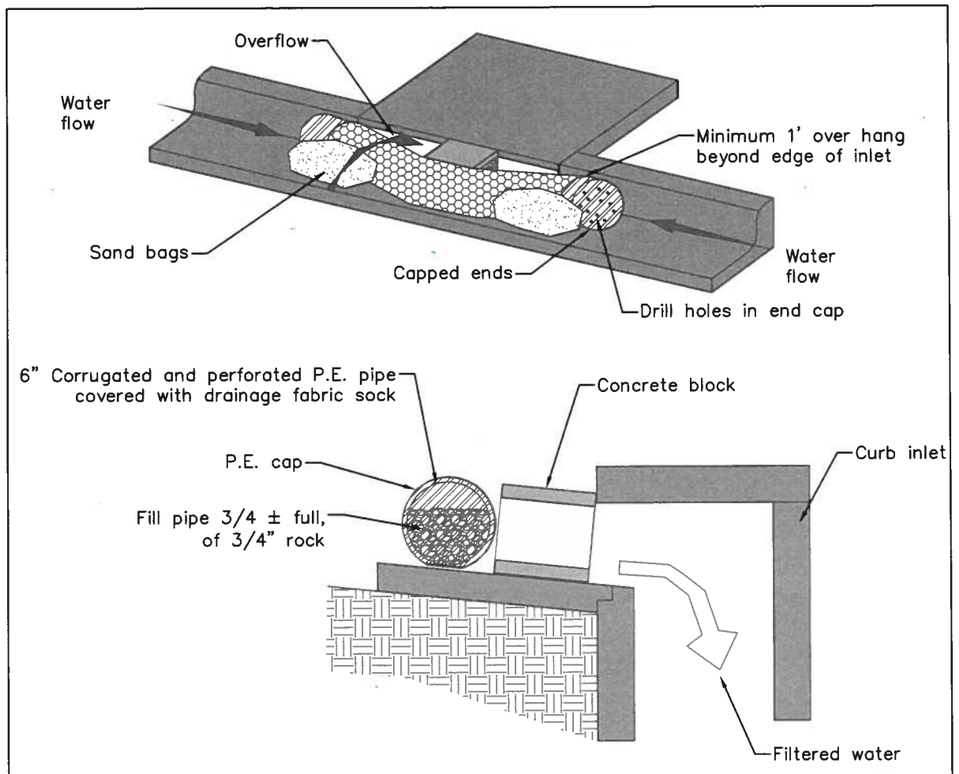
Inlet Protection

Definition:

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet. To be used at sump conditions.

Purposes:

To reduce sediment from entering storm drainage systems prior to permanent stabilization of disturbed areas.



Specific Application:

This method of inlet protection is applicable at curb inlets where ponding in front of the structure is not likely to cause inconvenience or damage to adjacent structures and unprotected areas. Clean out as necessary to prevent blockage of runoff conveyance.

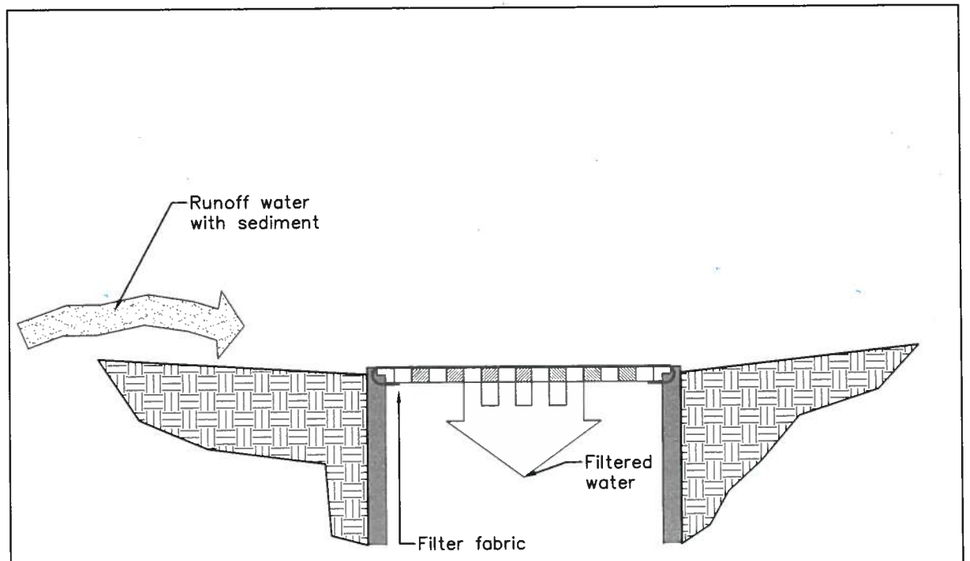
Inlet Protection

Definition:

A sediment filter or an excavated impounding area around a storm drain drop inlet or curb inlet.

Purposes:

To reduce sediment from entering storm drainage systems prior to permanent stabilization of disturbed areas.



Specific Application:

This method of inlet protection is applicable where heavy concentrated flows are expected, but not where ponding around the structure might cause excessive inconvenience or damage to adjacent structures and unprotected areas.

Note: Alternate design could utilize gravel-filled bags.

Drainage and filtration fabric shall conform to Section 831 of SDDOT Standard Specifications for Roads and Bridges, latest edition.

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