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| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | I | 109 |

2024 PAVED ROAD REPAIR

PRAIRIE BAND POTAWATOMI NATION

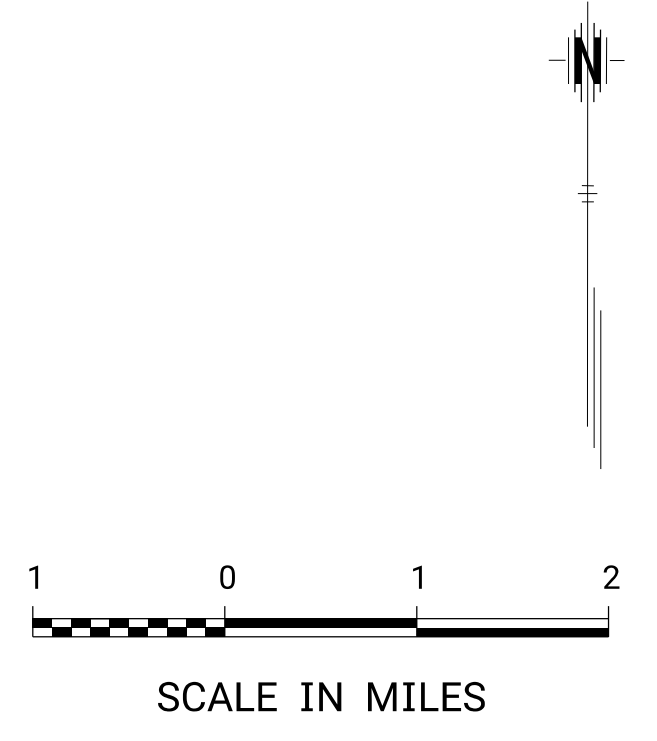
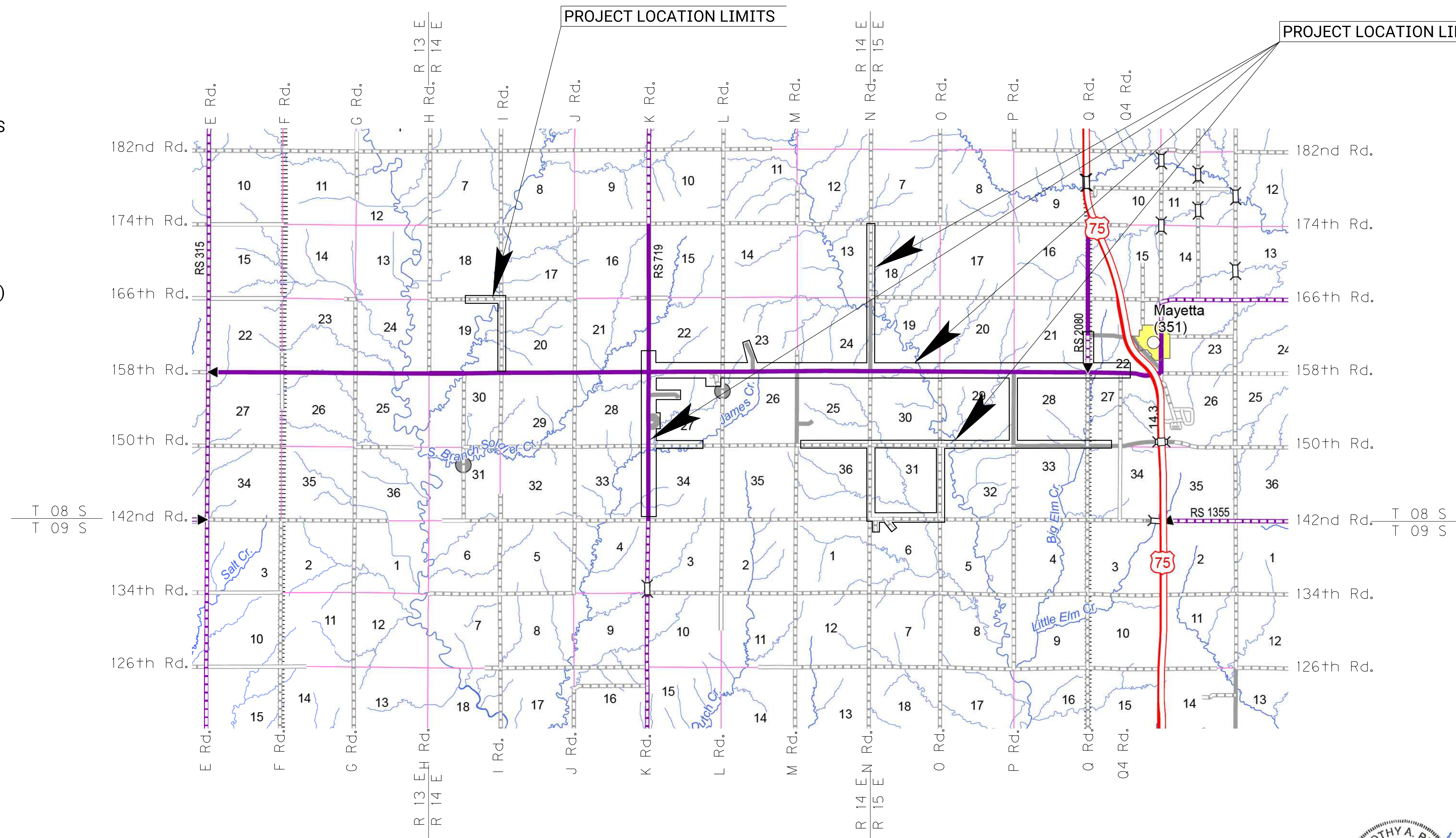
JACKSON COUNTY, KANSAS

- MILLING
- ASPHALT PATCHING
- ASPHALT OVERLAY
- CULVERT REPAIR
- CONCRETE BRIDGE APPROACH PAVEMENT

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| DATE | BY | F&T |
| | SURVEYED | |
| | CADD TECHNICIAN | |
| | DESIGNED | |
| | SQUAD | |



NOTE: THE LATEST EDITION OF KANSAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR STATE ROAD AND BRIDGE CONSTRUCTION, ALONG WITH ANY ADDENDUMS, SHALL BE UTILIZED FOR THIS PROJECT

CONVENTIONAL SIGNS

| | | | |
|---------------------------------|-------|--------------------------|-------|
| COUNTY LINE | ..... | CENTER LINE OF PROJECT | ..... |
| CITY LIMITS | ..... | TERRACE | ..... |
| STATE OR NATIONAL LINE | ..... | CULVERTS | ..... |
| TOWNSHIP, SECTION or GRANT LINE | ..... | DROP INLET & STORM SEWER | ..... |
| PROPERTY LINE | ..... | ACCESS CONTROL | ..... |
| HIGHWAY FENCE | ..... | POWER POLE | ..... |
| EXISTING FENCE | ..... | TELEPHONE POLE | ..... |
| GUARDRAIL | ..... | MARSH | ..... |
| CONSTRUCTION LIMITS | ..... | HEDGE | ..... |
| RIGHT OF WAY LINE | ..... | TREES | ..... |
| TRAVELED WAY | ..... | PROFILE ELEVATION | ..... |
| RAILROADS | ..... | STREAM or CREEK | ..... |



RECOM. FOR APPROVAL-DATE

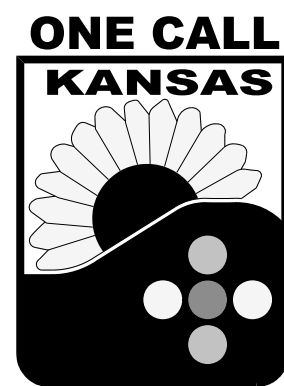
PLANS PREPARED BY
FINNEY & TURNIPSEED
 TRANSPORTATION AND CIVIL ENGINEERING, L.L.C.
 TOPEKA, KANSAS

PRAIRIE BAND POTAWATOMI NATION

Drawn By : CAM
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 File : Title Sheet 2024 M&O.dgn

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**KANSAS ONE-CALL:
1-800-DIG-SAFE
(1-800-344-7233)**



Protect yourselves and your property against underground utility damage and liability.

Find out where the underground utility lines might be buried before you dig.

Anyone digging in Kansas must call before digging. The person who is doing the work is responsible for calling KOC. If the owner contracts with a professional excavator to do the excavation then the professional excavator is responsible for calling KOC.

You (the digger) will need to provide information about the work site when you call. This is a FREE service.

CALL BEFORE YOU DIG
IT'S THE LAW.
[Chapter 66.--PUBLIC UTILITIES
Article 18.--UTILITY DAMAGE PREVENTION]

NON-EMERGENCY UTILITY OWNER CONTACTS

Water

Jackson County Rural Water District #3
411 New York Avenue
Holton, KS 66436
Doug Savage
(785)851-0088
Kyle Ingels
(785)364-7578
rwdmgr@giantcomm.net

Water

Pottawatomie County Rural Water District #4
6005 Camp Creek Road
Belvue, KS 66407
Office: (785)456-7935
Cell: (785)456-4184
rwd4pt@gmail.com

Prairie Band Potawatomi Nation- Fiber Optic, Sewer, Water

16281 Q Road
Mayetta, KS 66509
Shawn Kelly
(785)260-1205

Giant Communication

418 West 5th St.
Holton, KS 66436
Travis Peek
(785)851-1134

GENERAL NOTES

SPECIFICATIONS:

Specifications for this project shall be the Kansas Department of Transportation Standard Specifications for State Road and Bridge Construction where applicable, City of Topeka Curb & Gutter Standards, and the Special Provisions.

SAW CUTS:

All saw cuts, both partial and full depth are subsidiary to other items of the Contract. This includes any saw cut required to remove existing pavement or patches

ASPHALTIC CONCRETE:

All asphalt for Asphaltic Concrete shall meet requirements of the Special Provisions. All tack oil shall meet KDOT requirements for SS-1HP.

ASPHALT PAVEMENT PATCHING:

All asphalt for Asphaltic Concrete shall meet requirements of the Special Provisions listed in Attached G. Asphalt patches shall be constructed in accordance with the Special Provisions. This bid item shall be measured and paid for by the square yard. Minimum patch thickness shall be 7 inches below final grade.

ASPHALTIC CONCRETE OVERLAY:

The designated paved roads shall receive an Asphaltic Concrete Overlay as detailed on the plans and in the Special Provisions. This overlay shall be paid for by the square yard of Asphaltic Concrete Overlay complete and in place.

ASPHALT SHOULDERS:

Asphalt shoulders shall be paid by the bid item " 6" Asphaltic Concrete (Shoulder)" by the square yard complete and in place. Minimum thickness shall be 6".

AGGREGATE BASE (AB-3)(6"):

The bid item "Aggregate Base(AB-3)(6")" shall be bid by the square yard KDOT Standard Specifications and shall include the placement of this material where designated and as directed by the Engineer. Excavation and compaction for this bid item is subsidiary.

SURFACING MATERIAL (AB-3):

The bid item "Surfacing Material (AB-3) shall be bid by the ton and shall include the placement of this material at existing gravel driveways full width and a maximum of 10' long to transition to new asphaltic overlay. Excavation and compaction for this bid item is subsidiary.

PROCTOR FOR VARIOUS MATERIALS:

The Contractor shall be responsible for acquiring a Standard Proctor for the existing in-situ soil, existing AB-3 material and new AB-3 material for the Aggregate Base. These proctors shall be subsidiary to other items in the Contract.

CROSS ROAD PIPE AND ENTRANCE PIPE:

Excavation to remove the damaged portion of the pipe and compaction over the replaced segments of pipe is subsidiary to the bid items "Cross Road Pipe(*) (ACSP)" and "Entrance Pipe (*) (ACSP)." If the proposed length of pipe is to be longer than the existing, that material shall be paid in compaction and/or surfacing material (AB-3).

TYPE II-P INLET REPAIR :

The bid item "Type II-P Inlet Repair", Each, shall include removal and replacement of the existing top and grate and removal and replacement of adjoining curb and gutter. Contractor shall use caution during removal to prevent damage to existing inlet box. Any damage caused by the Contractor shall be repaired, to the satisfaction of the Engineer, at no expense to the PBP. The new inlet top shall be precast to the dimensions as detailed. Bid item shall include 5'-0" curb and gutter on both sides of the box as detailed. Excavation and backfill around the existing top for access shall be included in the bid item. Bid item shall include all labor, materials and incidentals necessary to complete the work as detailed or as directed by the Engineer.

REMOVAL OF EXISTING STRUCTURES:

The bid item "Removal of Existing Structures" shall include the removal of designated existing structures and all structure elements that conflict with new construction. This item shall be paid for by the Lump Sum.

PERMANENT SIGNS (Varies):

This bid item shall include supplying and placement of the permanent signs and posts as indicated on the drawings. The bid item "Permanent Signs (Varies)" shall be paid for by each complete and in place. Engineer shall verify the final location prior to installation.

PERMANENT PAVEMENT MARKINGS:

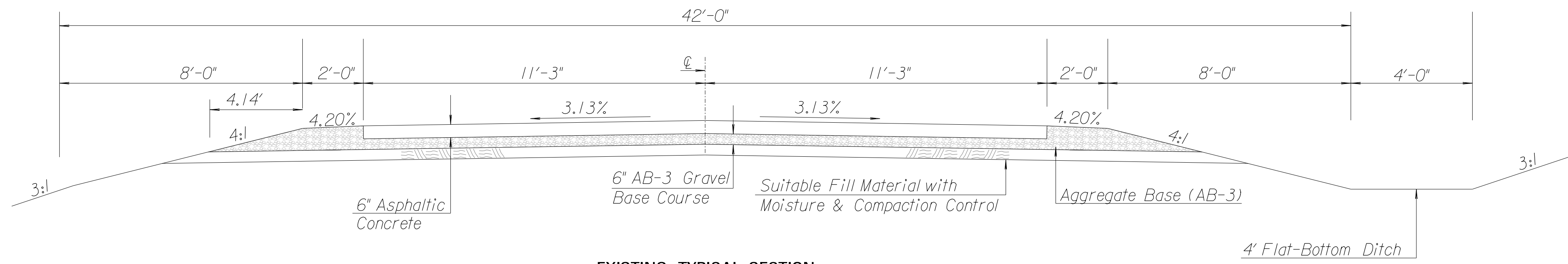
All the permanent pavement markings shall be installed prior to any new pavement being reopened to traffic, unless approved by the Engineer.

ACCESS DURING CONSTRUCTION:

The contractor shall provide access to residents that live adjacent to roads under construction. Sequencing of the patch work shall be done in way to allow this. If there is a patch in front of an entrance that is large enough to block access, the contractor shall put down surfacing material (AB-3) to allow access adjacent to the entrance. This material shall then be used in other locations after the original access and entrance are restored. All the work, time, labor, removal & relocation of materials, and other incidentals shall be subsidiary to the bid item "Surfacing Materials (AB-3)."

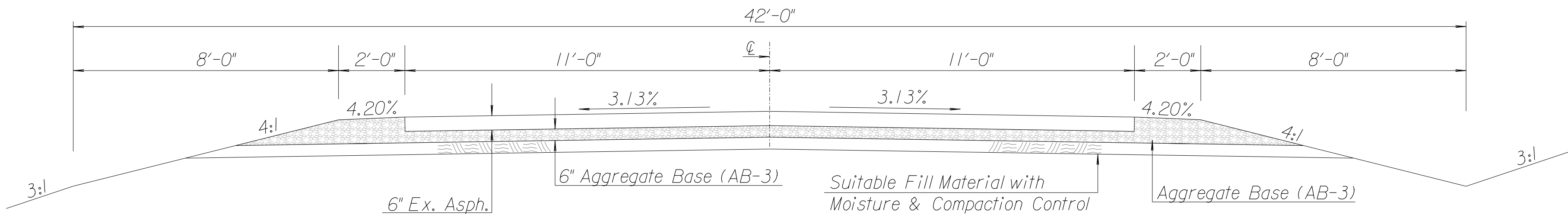
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| PRAIRIE BAND POTAWATOMI NATION | | | |
| GENERAL NOTES | | | |
| DESIGNED | DETAILED | QUANTITIES | |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | |

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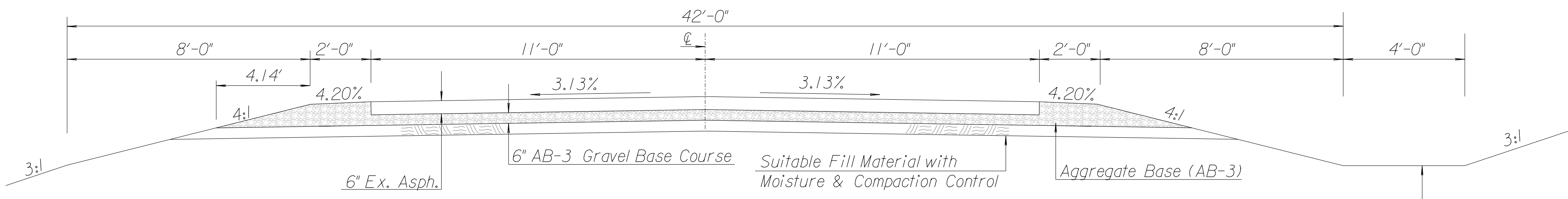


EXISTING TYPICAL SECTION
142nd Rd. - N to O

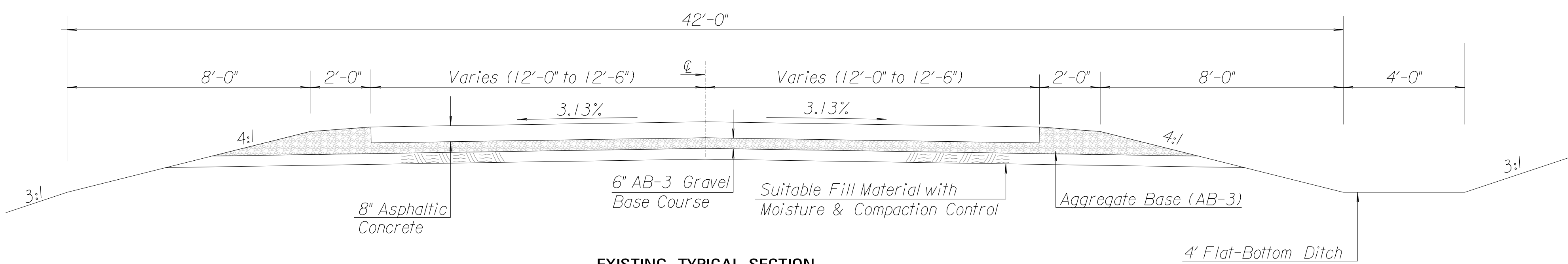
NOTE: Actual depths vary. See borings on plan sheets for more details.



EXISTING TYPICAL SECTION
N Rd. - 158th to 166th
P Rd. - 150th to 158th
Q Rd. - 158th to 162nd



EXISTING TYPICAL SECTION
I Rd. - 158th to 166th
K Rd. - 142nd to 150th
N Rd. - 142nd to 150th

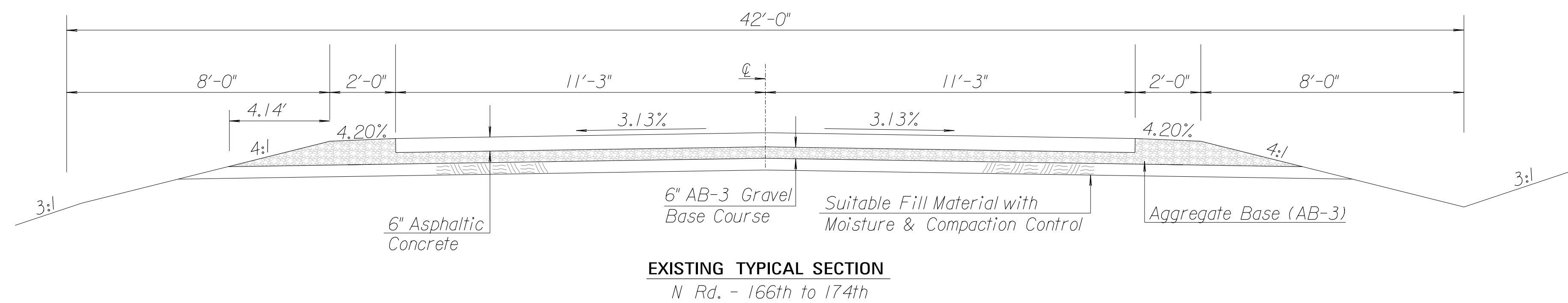
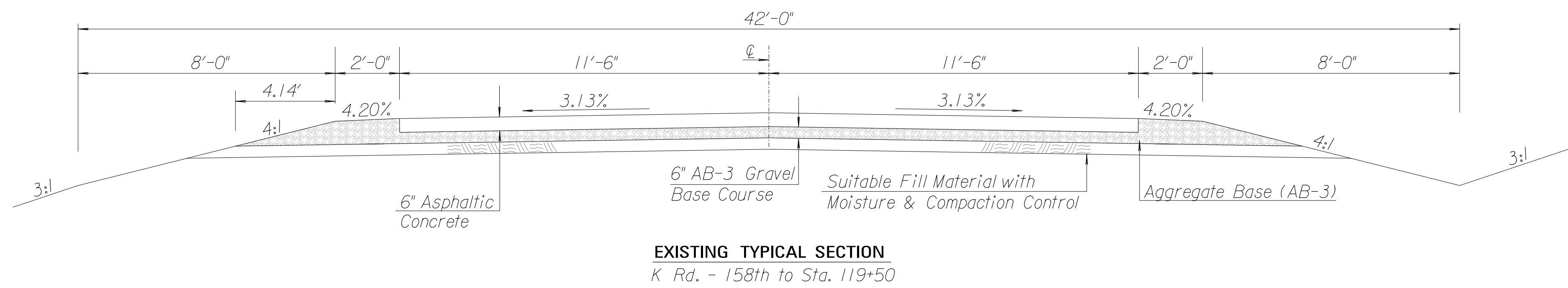
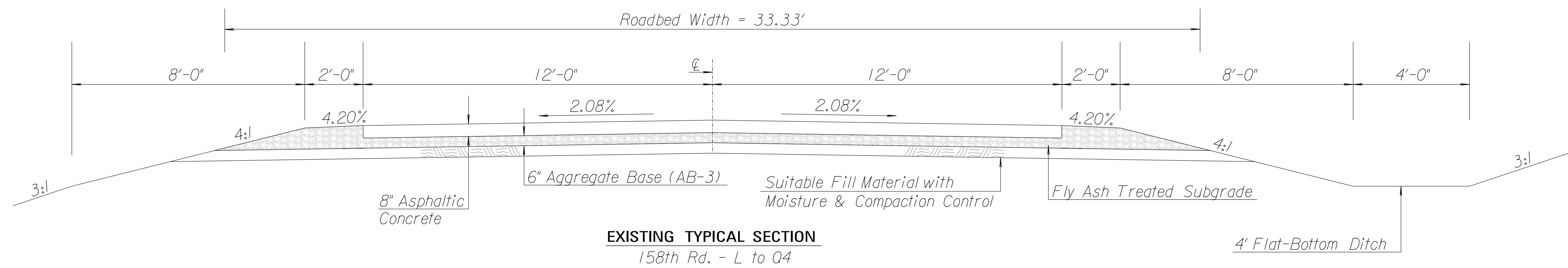
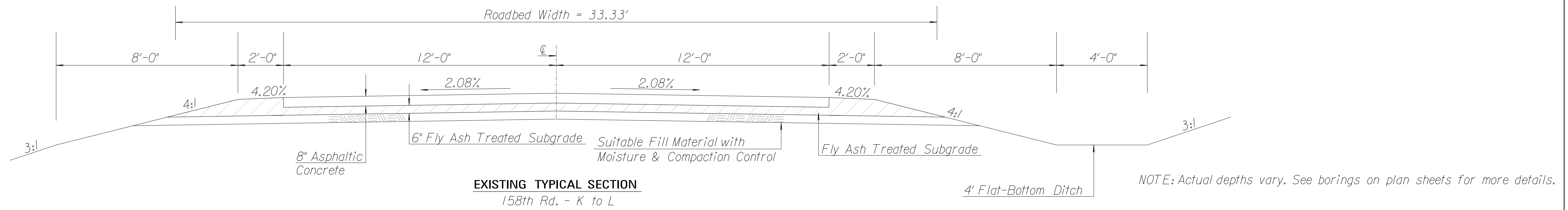


EXISTING TYPICAL SECTION
K Rd. - 150th to 158th

 Aggregate Base (AB-3)

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| PRAIRIE BAND POTAWATOMI NATION | | | |
| EXISTING TYPICAL SECTIONS | | | |
| DESIGNED | DETAILED | QUANTITIES | |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | |

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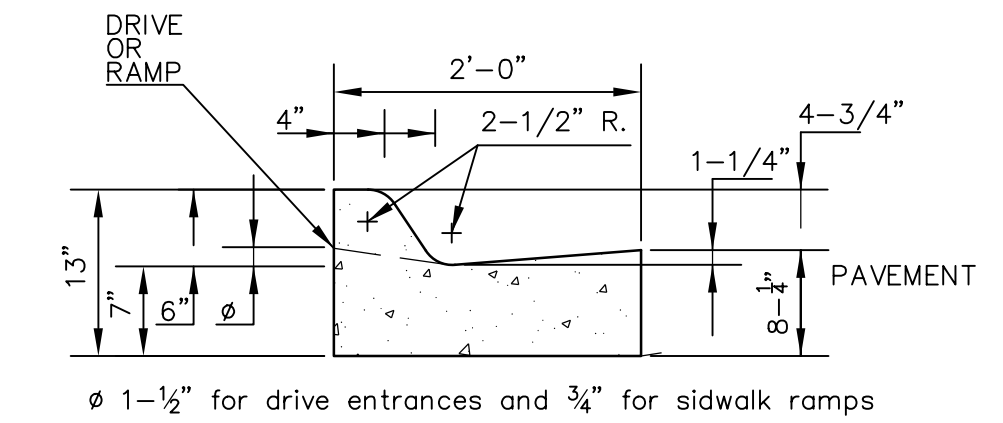
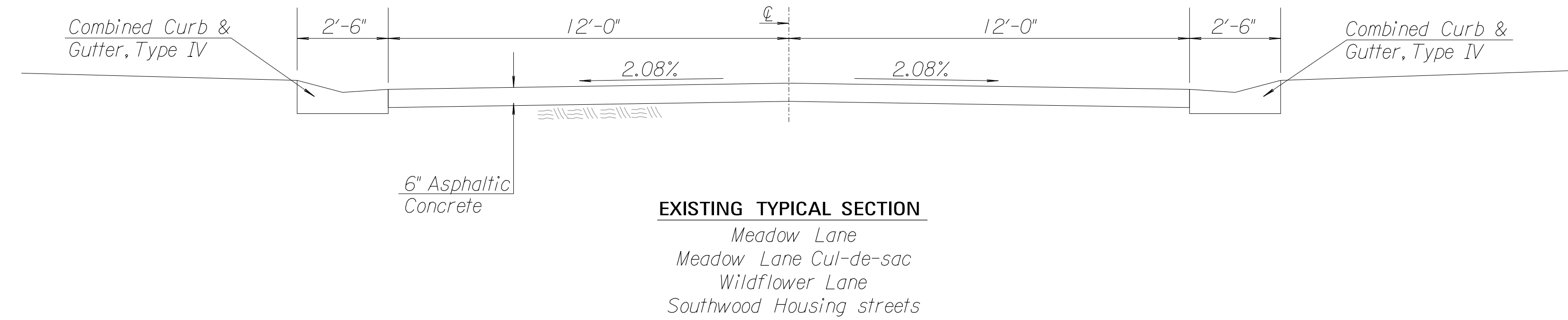
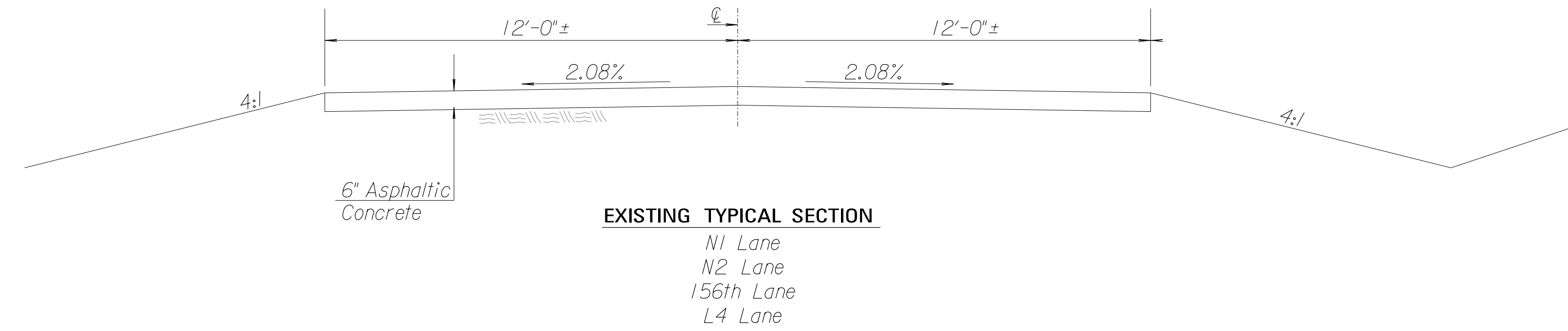
 Aggregate Base (AB-3)

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| PRAIRIE BAND POTAWATOMI NATION | | | |
| EXISTING TYPICAL SECTIONS | | | |
| DESIGNED | DETAILED | QUANTITIES | |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | |

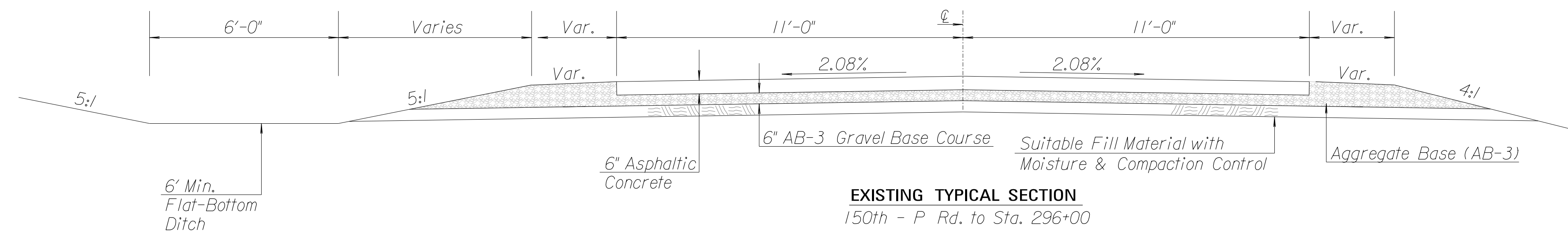
Drawn By : J. HARRINGTON
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NOTE: Actual depths vary. See borings on plan sheets for more details.

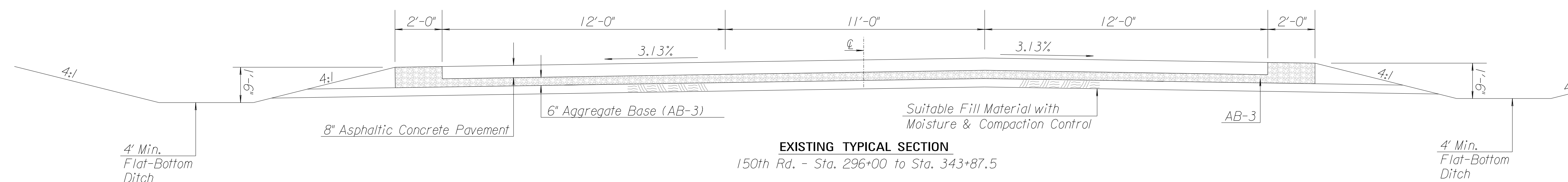


EXISTING TYPICAL CURB SECTION
 Along Entrances 150th Rd. - Sta. 266+00 to Sta. 298+00
 (not to scale)



Fly Ash treated Subgrade

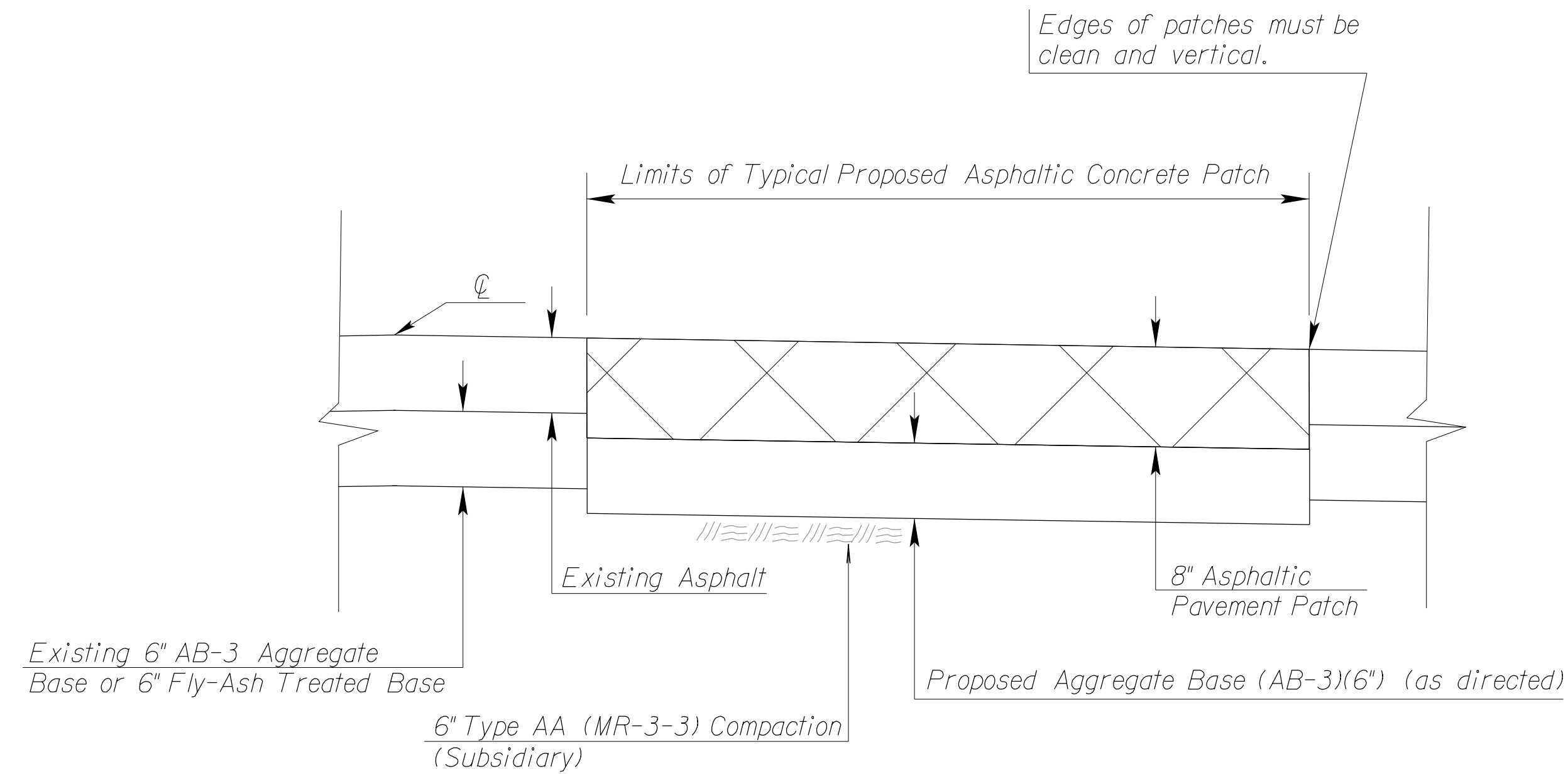
Aggregate Base (AB-3)



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| PRAIRIE BAND POTAWATOMI NATION | | | |
| EXISTING TYPICAL SECTIONS | | | |
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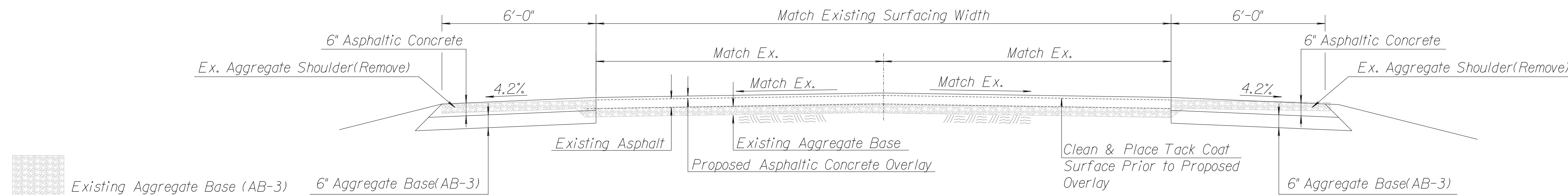


NOTE: Aggregate Base (AB-3)(6") is required where surface deformation is visible or if the existing base is determined to have absorbed moisture and has fallen out of optimum range. The Project Engineer shall have the full discretion to determine any aggregate base to be removed and replaced. No inadequate base shall be left in place.

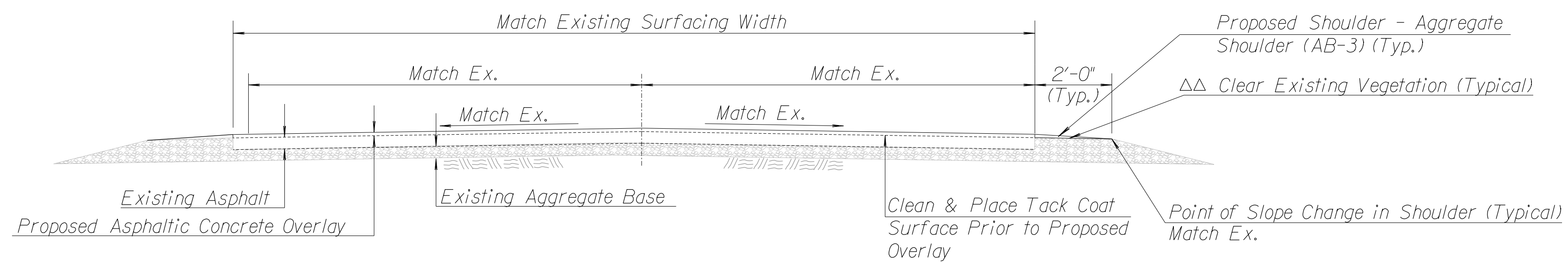
NOTE: The base lifts shall be 4" and 4" and the surface of the 8 inches shall be flush with adjacent existing pavement on each end. This will allow the surface lift to be aligned with the overlay areas of existing pavement. The materials for full width replacement shall be paid the same as the patching bid items.

NOTE: The Contractor shall obtain a proctor for the Aggregate Base (AB-3)(6") Material. The material shall then be placed and compacted to 95% of dry density with +/-3% optimum moisture. After compaction, the base shall be given a minimum of 24 hours, with a day of full sun and no rain, before any asphalt shall be placed on the base. If there is rain or the base absorbs moisture, then additional curing time may be needed. All compaction, cure time, labor, equipment, and other incidentals shall be SUBSIDIARY to the bid item "Aggregate Base (AB-3)(6")" and paid for by square yard of surface area placed in the field.

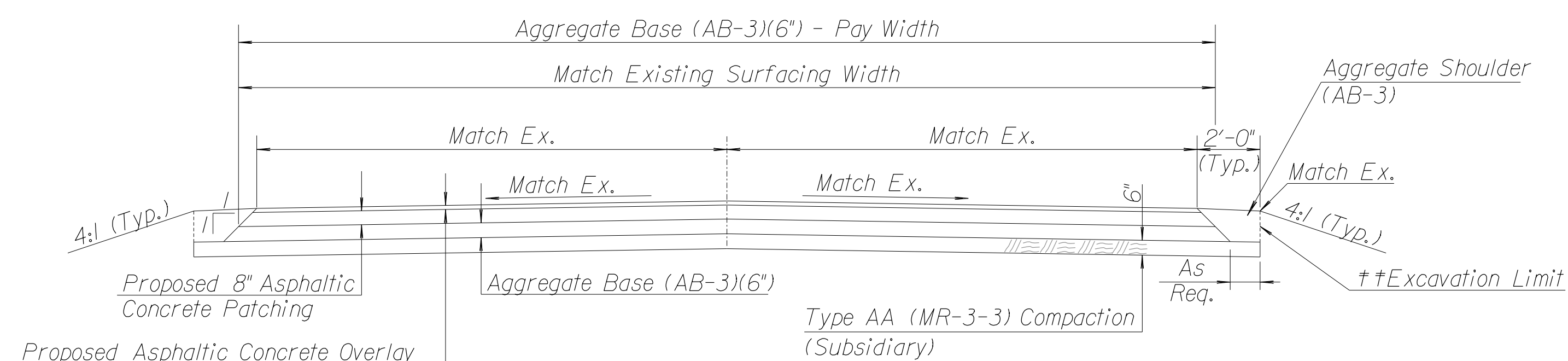
PROPOSED TYPICAL SECTION- ASPHALTIC CONCRETE PATCHING



PROPOSED TYPICAL SECTION - ASPHALTIC CONCRETE OVERLAY WITH ASPHALTIC CONCRETE SHOULDERS



PROPOSED TYPICAL SECTION - ASPHALTIC CONCRETE OVERLAY



PROPOSED TYPICAL - FULL WIDTH REPLACEMENT

NOTE: Where full depth patches are of a length that the existing road profile cannot be maintained by matching each existing end of the patch, surveyed shots obtaining location and elevation shall be taken and stakes placed where they can be referenced during construction. This work shall be paid for as "Contractor Construction Staking."

△△ Clear Existing Vegetation on the existing edge of asphalt and existing gravel shoulder to the point of slope change. The existing vegetation shall be removed including the roots and any soil on the surface that is not existing aggregate surfacing material. This work is SUBSIDIARY to the bid item "Clearing & Grubbing."

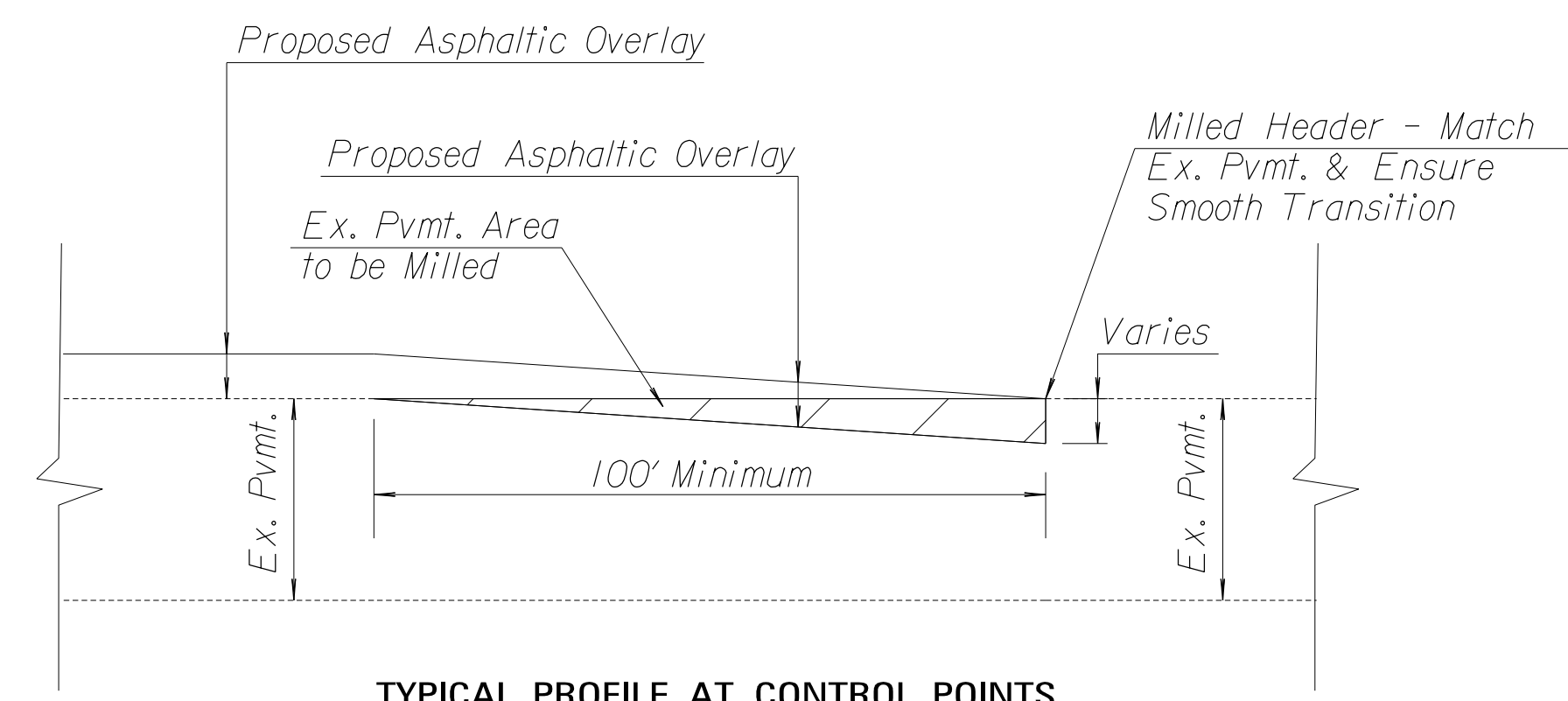
NOTE: For proposed shoulder, place Aggregate Shoulder (AB-3) material to match the surface of the proposed overlay and match the existing ground 2' perpendicular from the edge of the proposed pavement. Each linear foot of lane is estimated to be 0.013 Tons of Aggregate Shoulder (AB-3).

†† The existing rock shoulder material shall be removed as required to place the proposed materials and compact the soil material below. It shall then be recompact back in the original location. The proctor obtained from the proposed AB-3 material shall be referenced to compact the existing material to 95% dry density and +/-3% optimum moisture. If there is major differences in the soil mechanics, the Contractor shall obtain a proctor for the existing shoulder material. All work, material, labor, time, and other incidentals required to remove and recompact the existing shoulder material shall be SUBSIDIARY to other bid items.

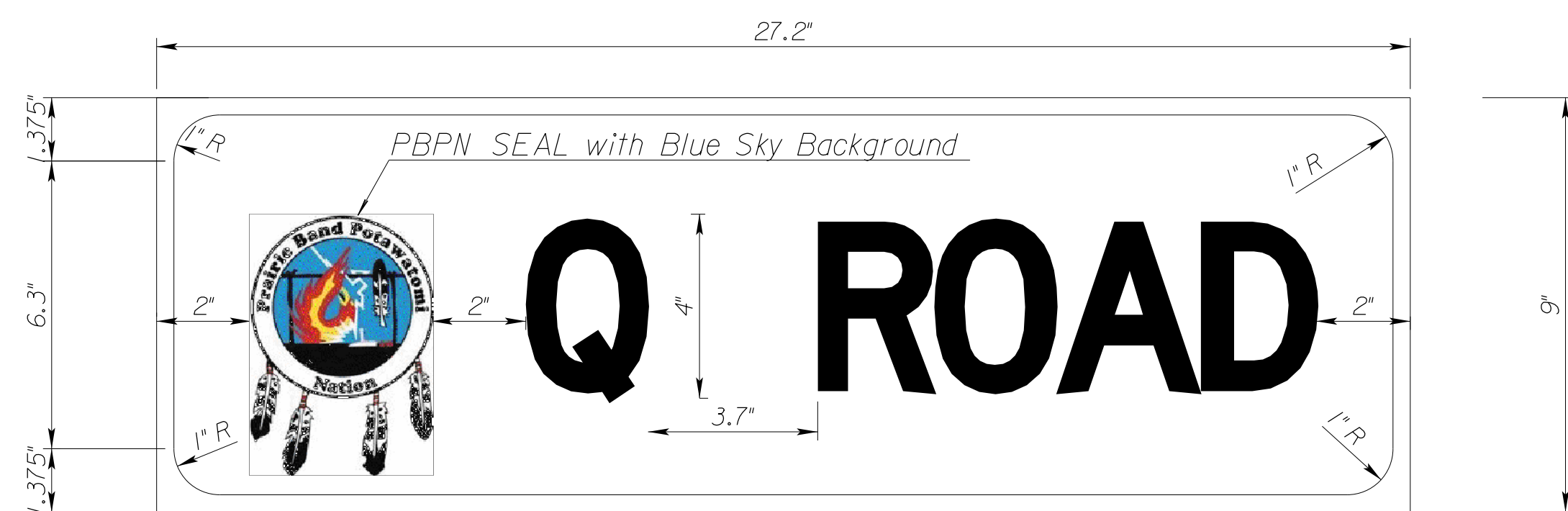
Drawn By : J. HARRINGTON
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| PRAIRIE BAND POTAWATOMI NATION | | | |
| PROPOSED TYPICAL SECTIONS | | | |
| DESIGNED DESIGN CK. | DETAILED DETAIL CK. | QUANTITIES QUAN. CK. | |

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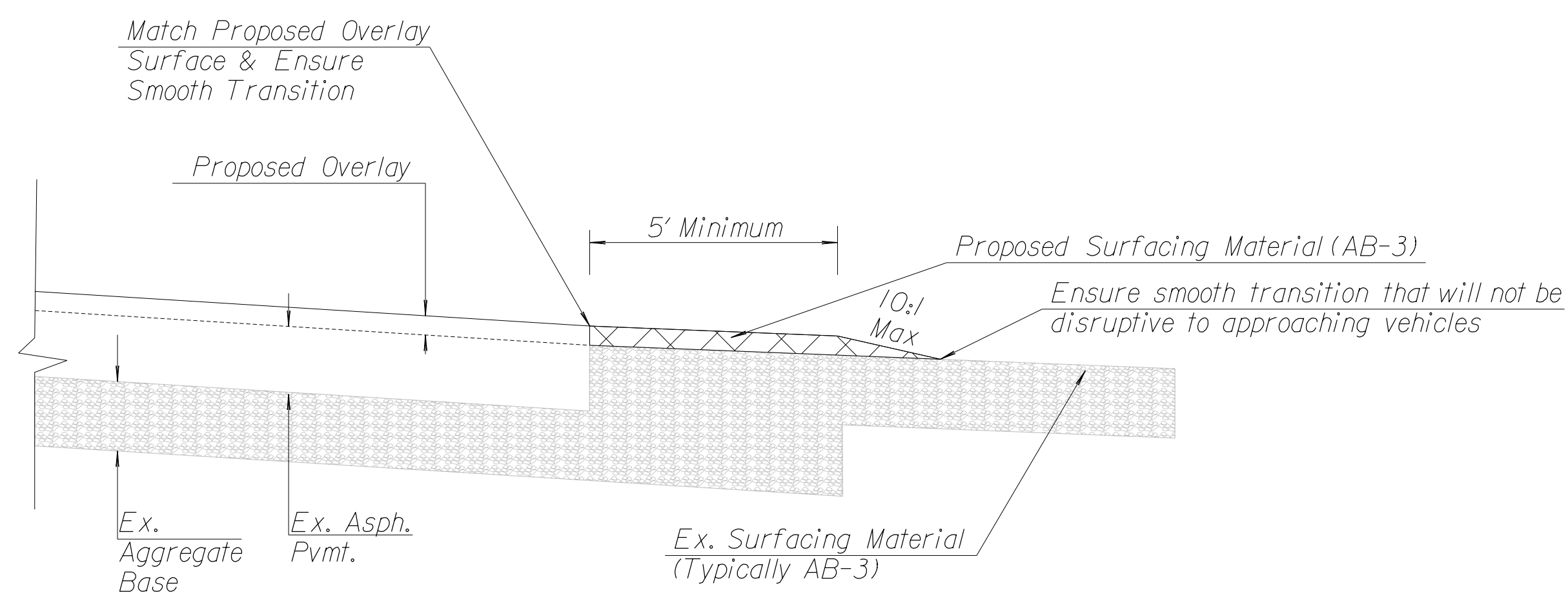
NOTE: The full width of pavement shall be milled. The dimensions shown are typical, see plan sheets in case of variations. For field variations at time of construction, the Contractor shall have approval from the On-Site Representative or Project Engineer. Milling shall be paid in square yards of surface area measured in place. Disposal of the asphalt millings shall be SUBSIDIARY to the bid item "Milling."



NOTE: Lettering shall be colored white in upper case. Background color of sign shall be green.

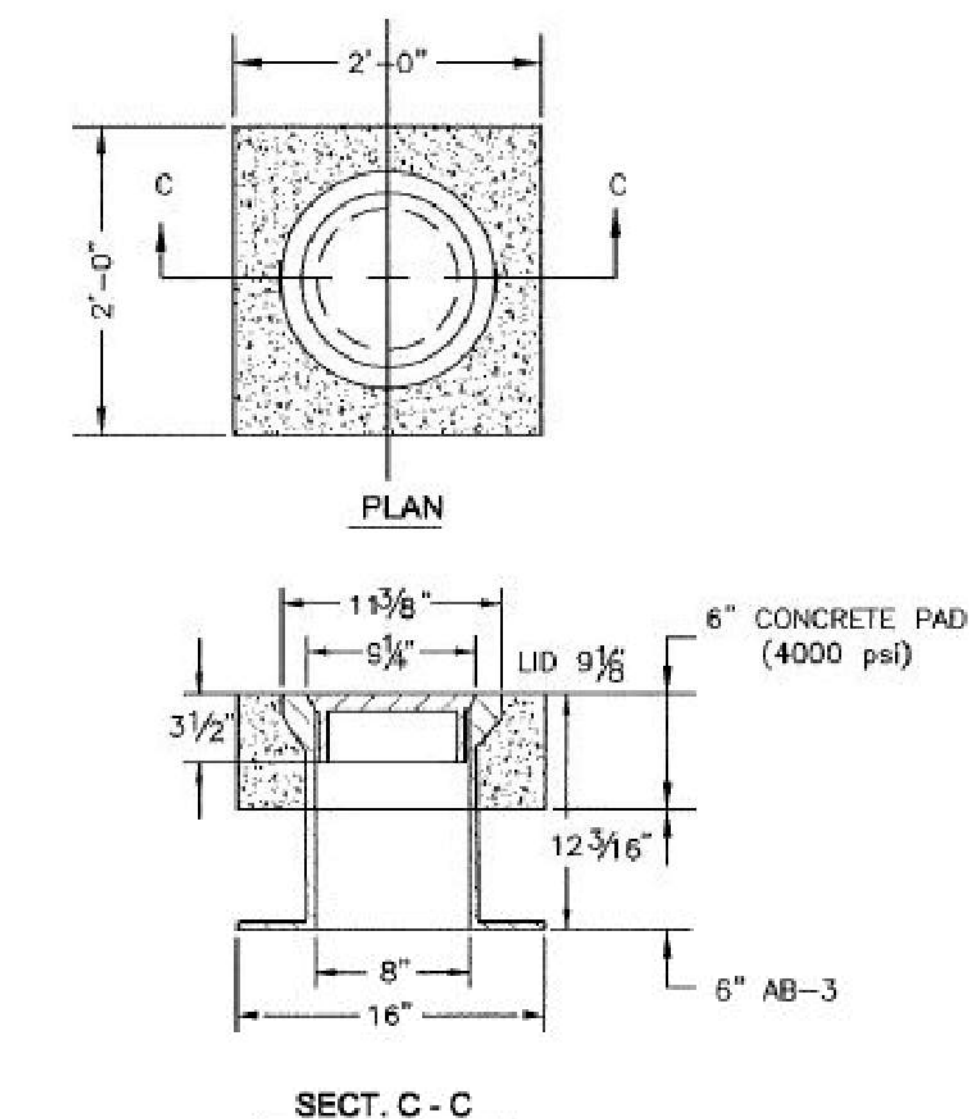
NOTE: Sign length shall vary depending on how many letters are required to spell out the street name.

TYPICAL PERMANENT STREET SIGN



TYPICAL SECTION MATCHING ADJACENT GRAVEL APPROACH, DRIVEWAY, OR ENTRANCE

NOTE: The full width of the adjacent approach, driveway, or entrance shall be covered uniformly. Longer transitions may be needed for steeper approaches. For field variations at the time of construction, the Contractor shall have approval from the On-Site Representative or Project Engineer. The typical existing field entrance is estimated to require 2 tons for a smooth transition onto the overlay. Larger than typical entrances and road approaches shall have estimated amounts noted on the plan sheets. Surfacing Material (AB-3) shall be paid in tons placed.



MONUMENT BOX DETAILS

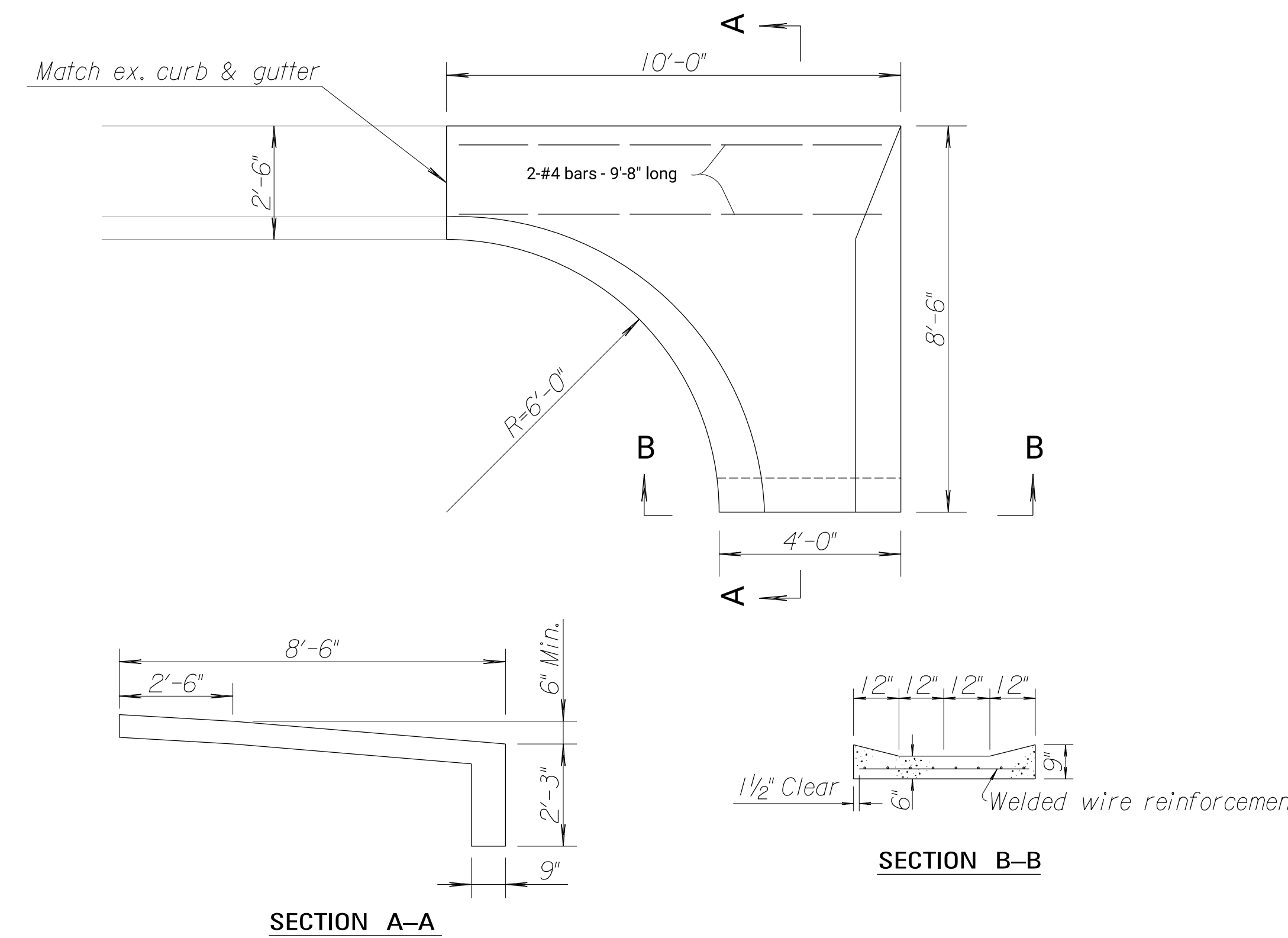
COMBINED WEIGHT 95 LBS.
CLAY AND BAILEY MFG. CO.
NO. 2193 OR EQUAL
Lid shall have utility designation omitted.

NOTE: AFTER ASPHALT IS COMPLETED, SAW CUT A 2'x2' SECTION AT EACH 1/4 SECTION AND SECTION CORNER, INSTALL MONUMENT BOX AND POUR 6" CONCRETE PAD AS SHOWN ABOVE.

NOTE: KDOT specifications in Section 802 shall be followed when setting monument boxes. This includes Land Survey Reference Reports marked as "Notice of Endangerment Activity" that shall be submitted to the Kansas Historical Society, Jackson County Surveyor, & Prairie Band Potawatomi Nation. Copies shall be provided to the Project Engineer.

Contractor will provide a cast iron monument box. The brand and model of monument box shall be submitted to the Project Engineer and Approved Prior to Construction. Additionally, the areas where no boxes exist have a surface marker and may have existing monument such as a rebar or RR spike below the existing pavement. Care shall be taken to preserve the location and condition of these monuments or a new monument will need to be placed in the same location.

All work, materials, time, labor, services, and other incidentals required to complete the stated and shown work shall be paid for by the bid items "Contractor Construction Staking" and "Monument Boxes."



SECTION A-A

SECTION B-B

Flume Inlets shall be paid for by unit price per each. Reinforcing steel & welded wire reinforcement are subsidiary to Flume Inlet.

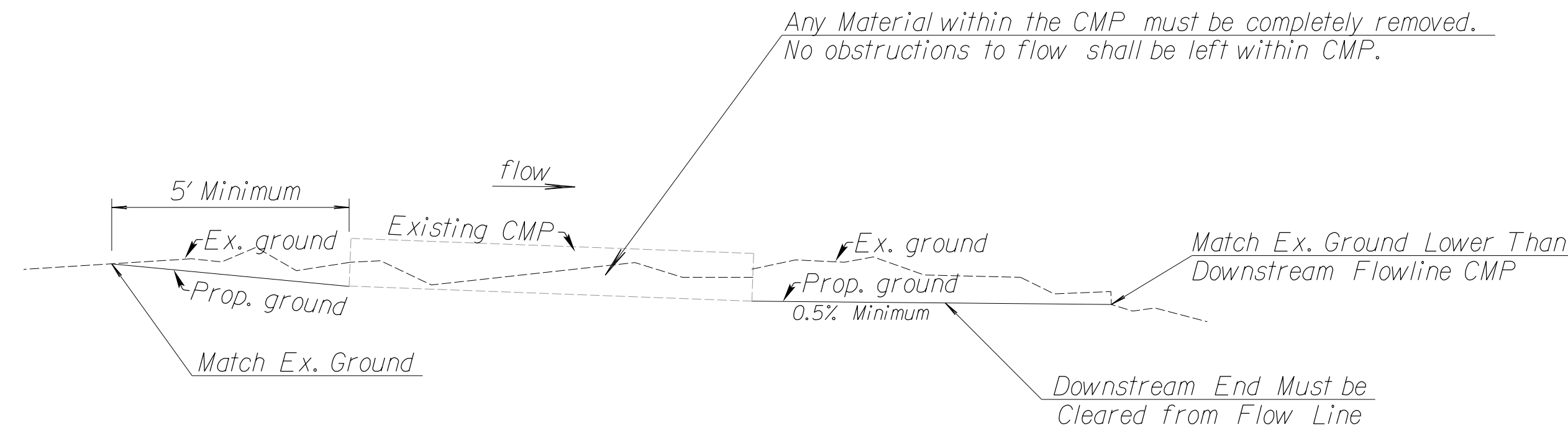
The entire area of the Flume Inlet shall be placed monolithic and struck off with a minimum thickness of 6 inches. Concrete Grade 3.0 (AE) shall be used in Flume Inlet. All exposed edges shall be finished with an edging tool.

FLUME INLET (CONCRETE)

Drawn By : J. HARRINGTON
File : Typical Section 2024.dgn

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| PRAIRIE BAND POTAWATOMI NATION | | | |
| TYPICAL DETAILS-MISCELLANEOUS I | | | |
| DESIGNED DESIGN CK. | DETAILED DETAIL CK. | QUANTITIES QUAN. CK. | |

| CONCRETE ENTRANCE DIMENSIONS | | | | | | | | | | | | |
|--|-----------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|----------|----------|--------|--------|
| Entrance Location Station, Side (All on K Rd.) | W feet | Pt. A Sta., Offset | Pt. B Sta., Offset | Pt. C Sta., Offset | Pt. D Sta., Offset | Pt. E Sta., Offset | Pt. F Sta., Offset | ∠ A | ∠ B | ∠ C | Rad. A | Rad. B |
| 58+22.42, Rt. | 22.0 | 57+74.83, 12.00' | 58+60.88, 12.00' | 57+98.98, 44.97' | 58+22.25, 43.15' | 57+98.98, 44.97' | 58+20.23, 50.66' | 75°-00' | 105°-00' | 75°-00' | 25' | 40' |
| 71+38.13, Lt. | 30.0 | 71+78.13, 11.50' | 70+98.13, 11.50' | 71+53.13, 38.00' | 71+23.13, 38.00' | 71+53.13, 38.00' | 71+23.13, 38.00' | 90°-00' | 90°-00' | 90°-00' | 25' | 25' |
| 74+79.98, Lt. | 28.0 | 75+17.36, 11.75' | 74+39.29, 11.75' | 74+92.39, 37.17' | 74+64.27, 39.33' | 74+92.24, 40.54' | 74+64.27, 39.33' | 92°-28' | 87°-32' | 92°-28' | 25' | 25' |
| 76+89.05, Rt. | 26.5 | 76+50.84, 12.00' | 77+27.25, 12.00' | 76+75.80, 37.01' | 77+02.30, 36.99' | 76+75.80, 37.01' | 77+02.30, 36.99' | 90°-00' | 86°-35' | 86°-32' | 25' | 25' |
| 81+97.70, Rt. | 18.5 | 81+63.48, 12.00' | 82+31.92, 12.00' | 81+88.45, 37.38' | 82+06.95, 37.65' | 81+88.45, 37.38' | 82+06.95, 37.65' | 90°-00' | 87°-26' | 88°-03' | 25' | 25' |
| 82+71.70, Rt. | 18.5 | 82+37.50, 12.00' | 83+05.87, 12.00' | 82+62.45, 37.38' | 82+80.95, 36.48' | 82+62.45, 37.38' | 82+80.95, 36.48' | 90°-00' | 87°-27' | 85°-22' | 25' | 25' |
| 85+60.99, Rt. | 22.0 | 85+28.12, 12.00' | 85+93.81, 12.00' | 85+49.99, 26.39' | 85+72.00, 26.28' | 85+49.99, 26.39' | 85+72.00, 26.28' | 90°-00' | 61°-01' | 60°-44' | 25' | 25' |
| 88+42.89, Rt. | 25.3 | 88+11.59, 12.50' | 88+87.95, 12.50' | 88+36.31, 34.44' | 88+63.82, 44.66' | 88+38.98, 49.17' | 88+63.82, 44.66' | 100°-17' | 79°-59' | 103°-53' | 25' | 25' |
| 94+51.78, Rt. | 22.4 | 93+97.97, 12.00' | 94+72.08, 12.00' | 94+16.25, 41.61' | 94+50.19, 26.42' | 94+16.25, 41.61' | 94+35.84, 52.43' | 61°-18' | 113°-56' | 61°-06' | 20' | 25' |



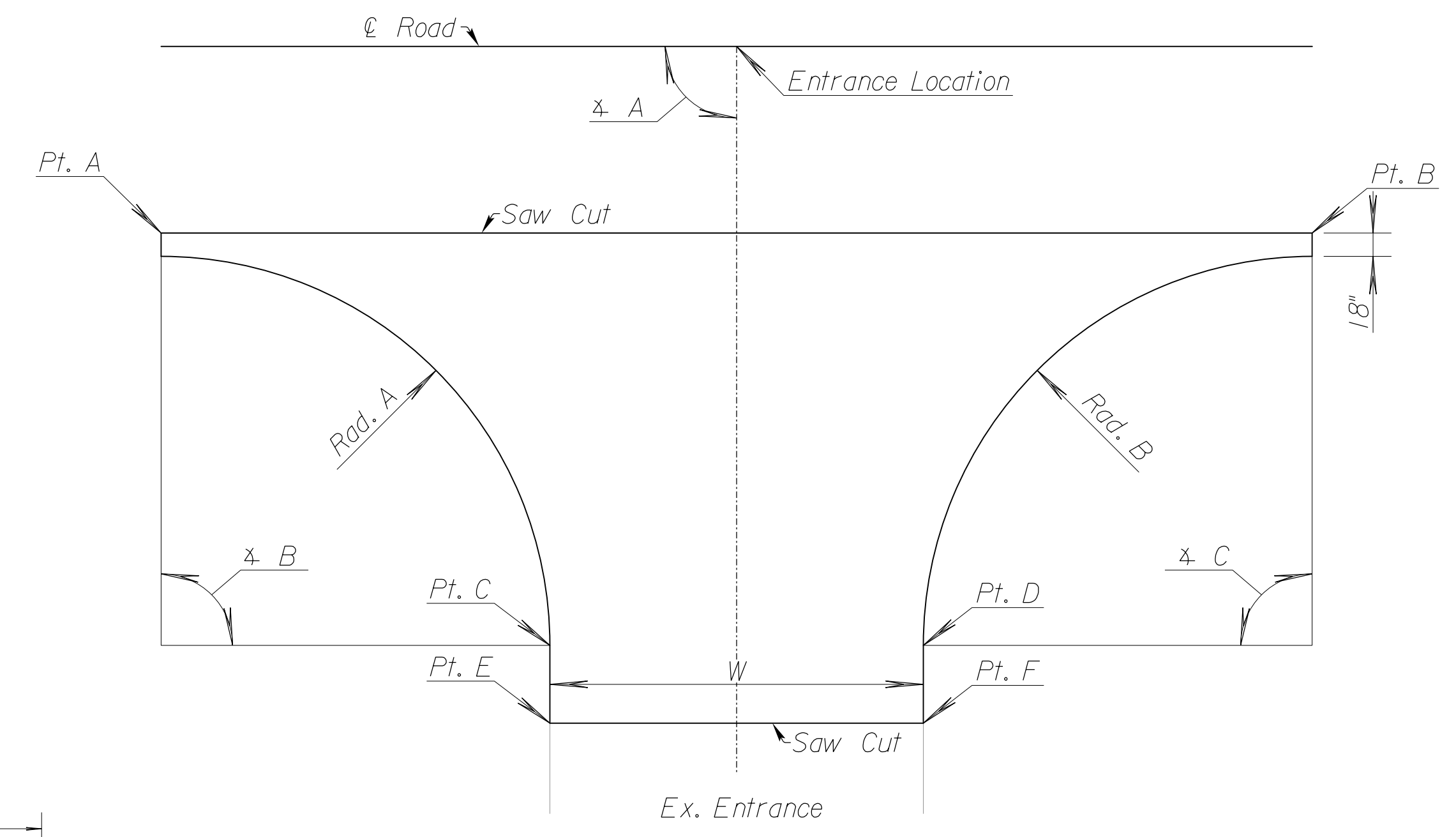
CLEAN EXISTING STRUCTURES & GRADE DITCH TO DRAIN

NOTE: The work shown above is the minimum required excavation for each pipe that is called to be cleaned and each ditch called to be graded to drain. See plan sheets for details at specific locations.

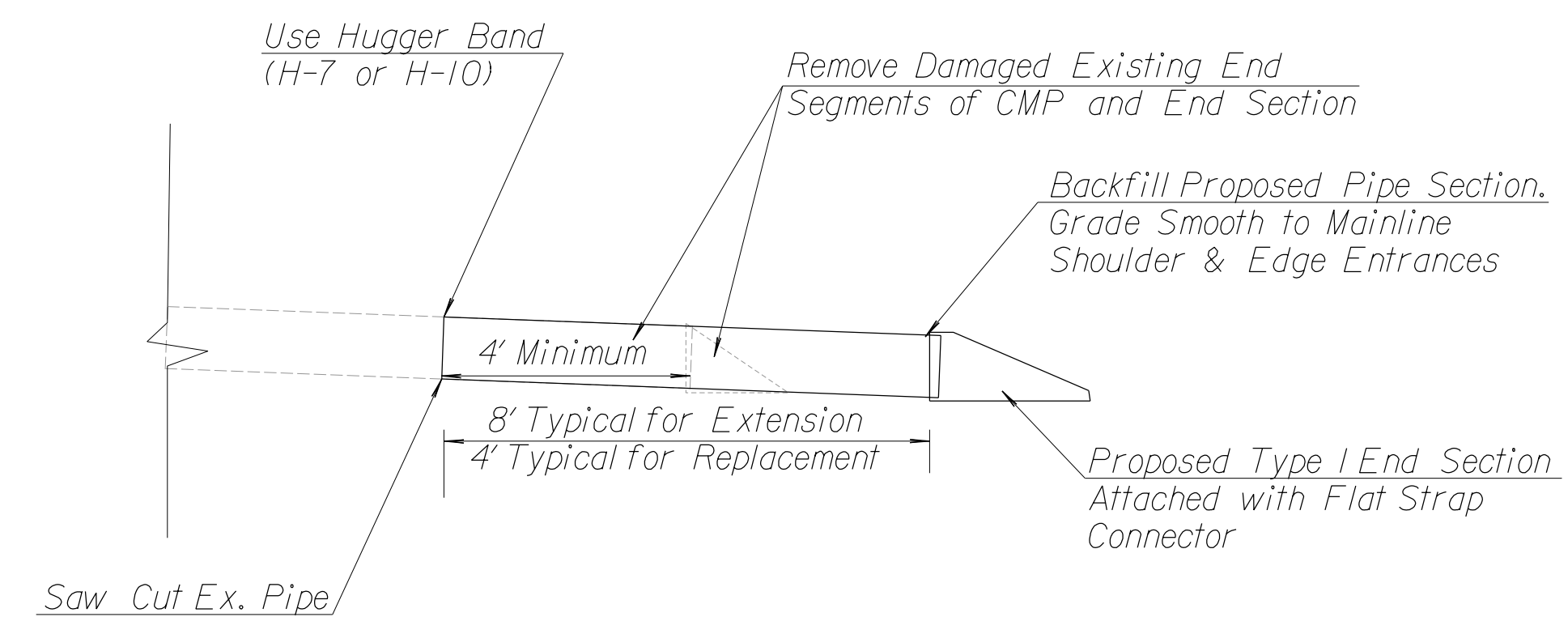
NOTE: All vegetated areas that are disturbed shall receive temporary seeding & mulching within 2 weeks of the disturbance. At the end of the project, permanent seeding shall be placed with mulch & fertilizer. See standard details.

NOTE: All materials, time, tools, and other incidentals to complete the shown and stated work shall be paid for by the bid items "Clean Existing Structures" and "Common Excavation." The excavation is estimated in the plans. The final pay quantity shall be what is measured in place. Pipe material type and sizes are specified in the plan sheets, but all shall be paid Each with the bid item "Cleaning Existing Structures."

NOTE: A Ditch Check (Non-Rock) shall be placed downstream of all areas where ditch work and cleaning of structures occurs. See standard details.

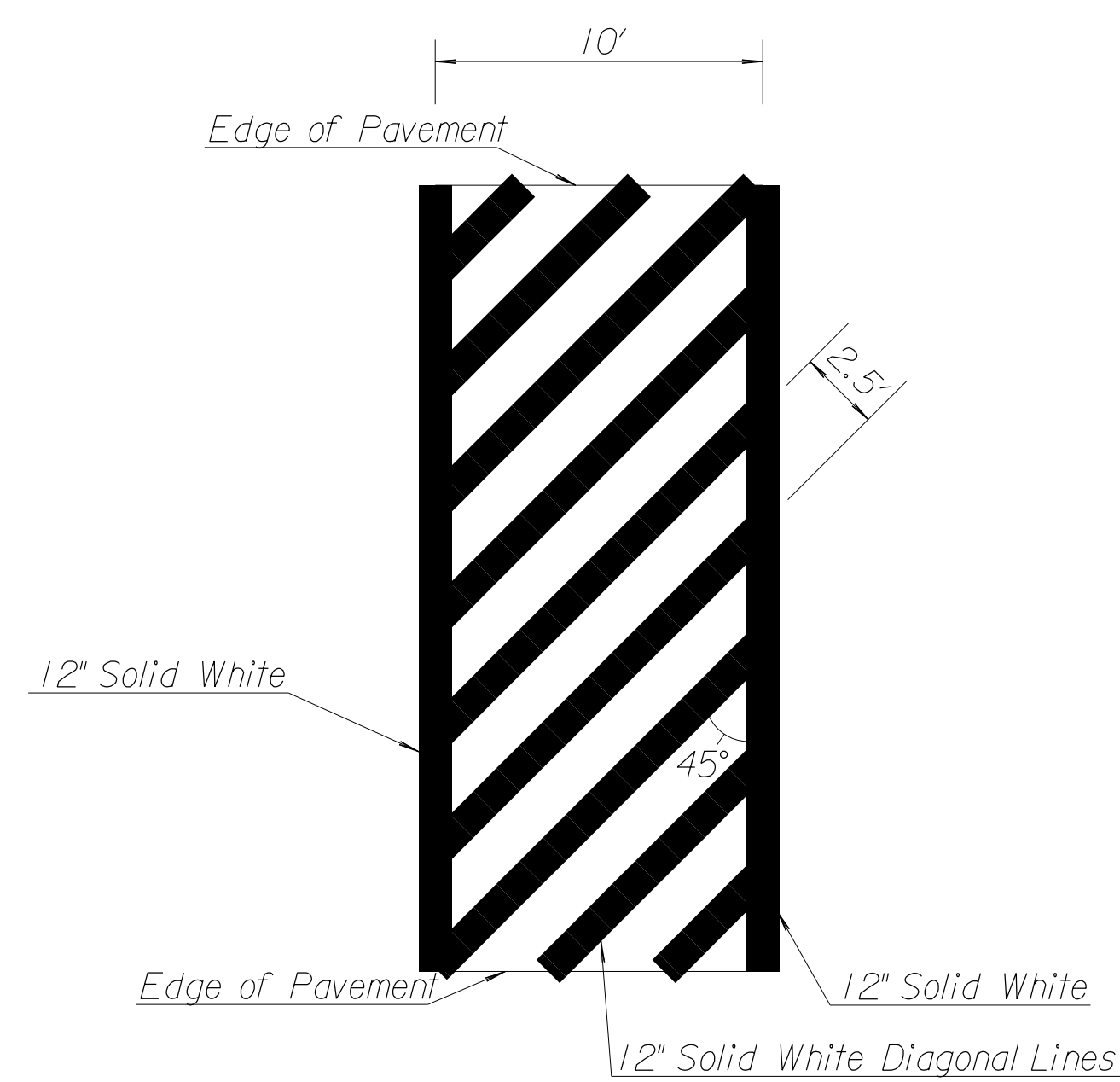


TYPICAL 8" REINFORCED CONCRETE ENTRANCE



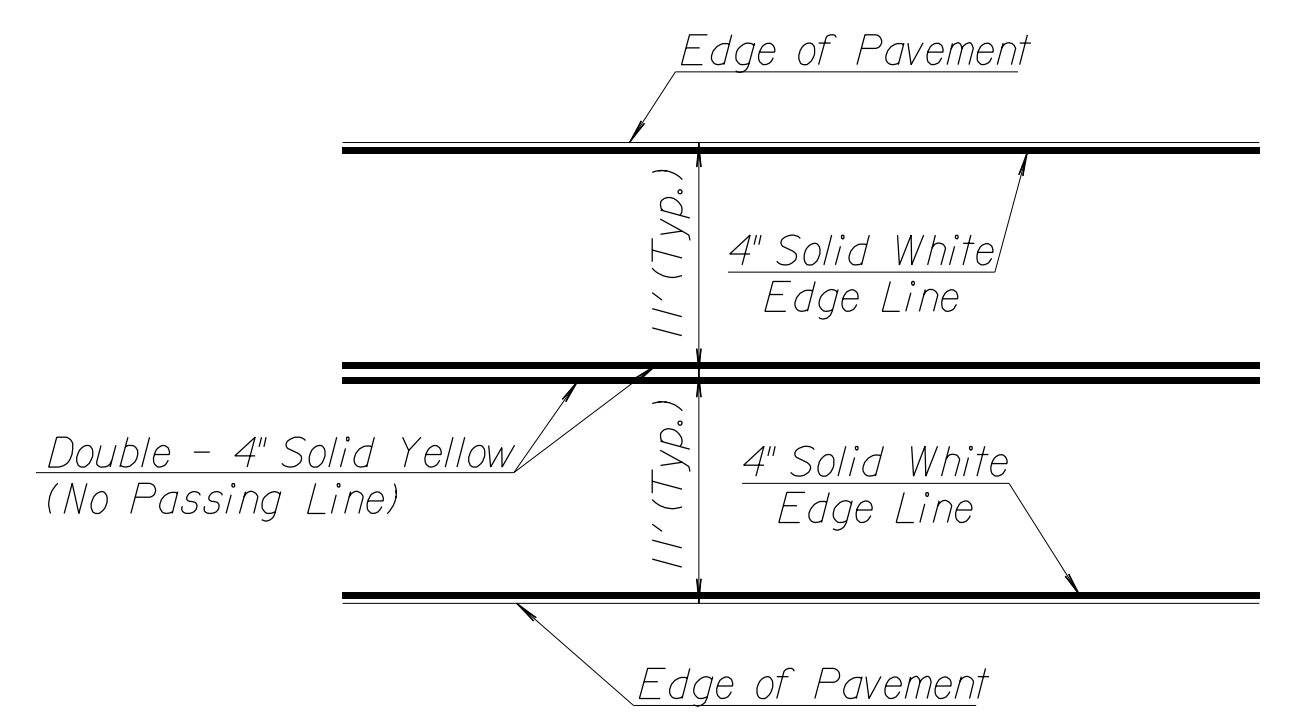
TYPICAL CMP EXTENSION

NOTE: Saw cuts & hugger bands shall be **SUBSIDIARY** to other bid items.
NOTE: See KDOT Standard RD660 for additional CMP information.



TYPICAL CROSS WALK FOR BIKE ROUTE PAVEMENT MARKINGS

NOTE: Each Typical Cross Walk Marking for the Bike Route is estimated to have a total of 144 Linear Feet of 12 inch Solid White Pavement Marking



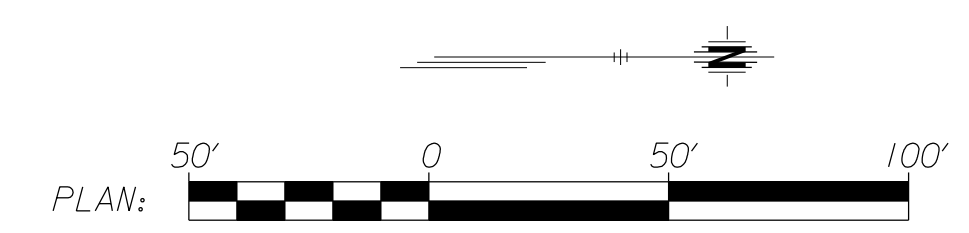
TYPICAL TWO LANE PAVEMENT MARKINGS

NOTE: No edge lines required through intersections.

Drawn By : J. HARRINGTON
File : Typical Section 2024.dgn

| | | | |
|----------------------------------|------------------------|-------------------------|--|
| PRAIRIE BAND POTAWATOMI NATION | | | |
| TYPICAL DETAILS-MISCELLANEOUS II | | | |
| DESIGNED DESIGN CK. | DETAILED DETAIL CK. | QUANTITIES QUAN. CK. | |

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 9 | 109 |



@ P.O.T. = 44+98.38
 1.) Not Set (Office Location)
 2.) N: 370,847.88 , E: 1,910,051.43

 @ P.I. = 45+30.00
 1.) Not Set (Office Location)
 2.) N: 370,879.49 , E: 1,910,050.81

S.E. Corner Sec. 19, T8S, R14E
 1.) Found Bar at Surface of Asphalt 36.26° N.E.
 2.) Top End 30" CMP 40.15° N.W.
 3.) Top End 30" CMP
 4.) N: 370,847.95 , E: 1,910,053.51

Remove & Replace South 10' of 24" CMP with 10'x24" (ACSP) with End Section.
 Clean Existing 24" CMP.
 Grade Ditch to Drain (3 yd.³)

Construct Asphaltic Concrete Patching (typical)

Place Surfacing Material (AB-3)

Existing R/W= Sta. 55+00.00, 37.98' Lt.
N: 371,848.55
E: 1,909,993.60

USA (Trust) for the PBPB Trust 130
6085 158th Rd.
Mayetta KS, 66509
E/2 of Sec. 30 T8S R14E

Johnston, Brandy & Jennifer
16133 I Rd. Mayetta KS, 66509
Tract in SE/4 Sec. 19 T8S R14E

Mill Header & Match Existing Asphalt (151 yd.³)

Bausch, Barbara; TR
0 I Rd.
Mayetta KS, 66509
Large Tract in Sec. 29 T8S R14E

Remove ex. 48"x30" CMP.
Construct 48"x30" CRP(RCP) with 2-30" End Sections(RCP).
Grade Ditch to Drain, Each End (5 yd.³). See Drainage Details.

Remove 28"x18" CMP.
Construct 28"x18" Entrance Pipe(ACSP) with 2-18" End Section(ACS).
Grade Ditch to Drain (3 yd.³)

Place Surfacing Material (AB-3)

① Existing R/W= Sta. 15+46.79, 51.68' Lt. @
N: 370,895.26
E: 1,909,998.81

② Existing R/W= Sta. 16+50.00, 37.93' Lt. @
N: 370,998.72
E: 1,910,010.50

Prairie Band Potawatomi Nation Tribal Fee 255
0 I Rd. Mayetta KS, 66509
Large Tract in Sec. 20 T8S R14E

Existing R/W= Sta. 69+50, 43.07' Lt.
N: 373,298.17
E: 1,909,959.76

Construct Asphaltic Concrete Patching (typical)

Johnston, Brandy & Jennifer
16133 I Rd. Mayetta KS, 66509
Tract in SE/4 Sec. 19 T8S R14E

Clean Existing 18" CMP
Grade 4' Ditch to Drain, Each End (11 yd.³)

Existing R/W= Sta. 68+50, 38.06' Lt.
N: 373,198.28
E: 1,909,966.75

Place Surfacing Material (AB-3)

Existing R/W= Sta. 66+00, 56.95' Lt.
N: 372,950.22
E: 1,910,066.70

Place Surfacing Material (AB-3)

2" Asphaltic Concrete Overlay

Remove Existing Shoulder Material Where Unsuitable or Out of Compaction Requirements (12 yd.³ Excavation)
Place New Rock Shoulder with Surfacing Material (AB-3) (25 Tons)

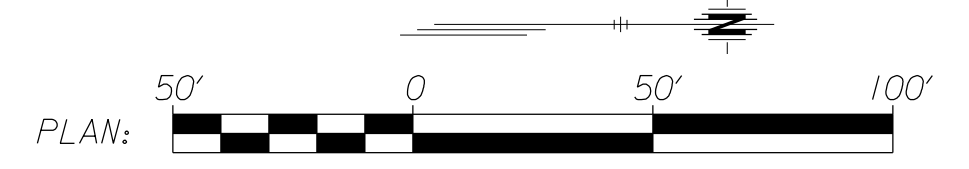
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 IRd.- 158th Rd. to 166th Rd.

E. 1/4 Corner Sec. 19, T8S, R14E = @ Sta. 71+40.91, 8.65' Rt.
 1.) Found Bar with Cap in Monument Box (Bartlett & West CLS 14)
 2.) N: 373,490.06 , E: 1,910,007.68

@ P.I. = 73+98.73
 1.) Not Set (Office Location)
 2.) N: 373,747.66 , E: 1,909,993.92

@ P.I. = 74+23.66
 1.) Not Set (Office Location)
 2.) N: 373,772.58 , E: 1,909,993.42

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 10 | 109 |

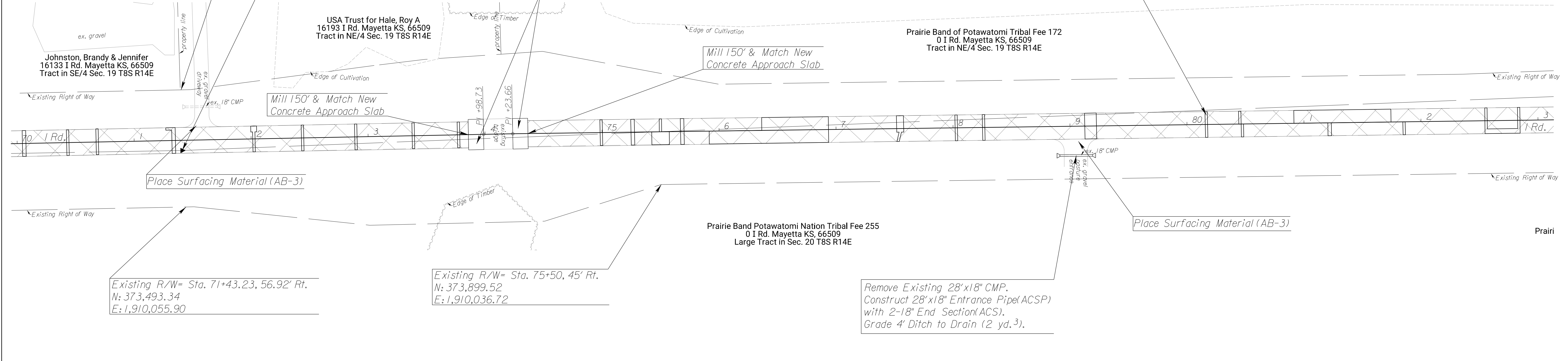


Existing R/W = Sta. 71+42.02, 43.08' Lt.
 N: 373,489.05
 E: 1,909,955.96

Install Monument Box in Concrete Pavement.
 (New Monument Box)

Construct 26'-0" x 13'-0" (Type B)
 Concrete Pavement (10" Unif.) (AE) (Br. App.)

Construct Asphaltic
 Concrete Patching (typical)



Existing R/W = Sta. 71+43.23, 56.92' Rt.
 N: 373,493.34
 E: 1,910,055.90

Existing R/W = Sta. 75+50, 45' Rt.
 N: 373,899.52
 E: 1,910,036.72

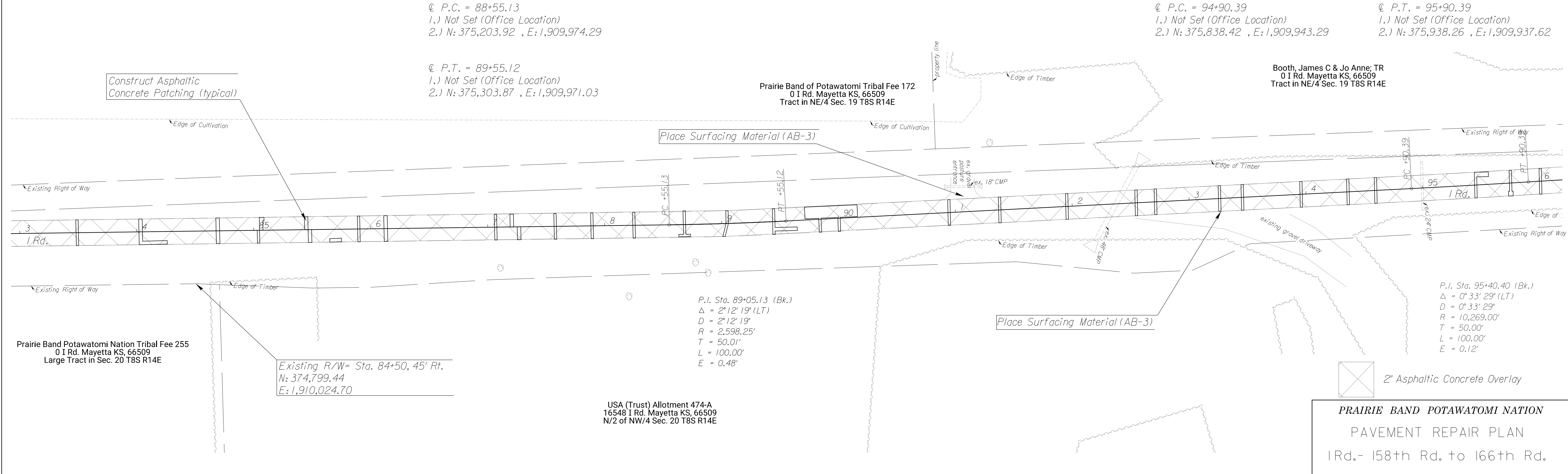
Remove Existing 28'x18' CMP.
 Construct 28'x18' Entrance Pipe (ACSP)
 with 2-18" End Section (ACS).
 Grade 4' Ditch to Drain (2 yd.³).

@ P.C. = 88+55.13
 1.) Not Set (Office Location)
 2.) N: 375,203.92 , E: 1,909,974.29

@ P.C. = 94+90.39
 1.) Not Set (Office Location)
 2.) N: 375,838.42 , E: 1,909,943.29

@ P.T. = 95+90.39
 1.) Not Set (Office Location)
 2.) N: 375,938.26 , E: 1,909,937.62

@ P.T. = 89+55.12
 1.) Not Set (Office Location)
 2.) N: 375,303.87 , E: 1,909,971.03



Existing R/W = Sta. 84+50, 45' Rt.
 N: 374,799.44
 E: 1,910,024.70

P.I. Sta. 89+05.13 (Bk.)
 $\Delta = 2^\circ 12' 19"$ (LT)
 $D = 2^\circ 12' 19"$
 $R = 2,598.25'$
 $T = 50.01'$
 $L = 100.00'$
 $E = 0.48'$

P.I. Sta. 95+40.40 (Bk.)
 $\Delta = 0^\circ 33' 29"$ (LT)
 $D = 0^\circ 33' 29"$
 $R = 10,269.00'$
 $T = 50.00'$
 $L = 100.00'$
 $E = 0.12'$

2" Asphaltic Concrete Overlay

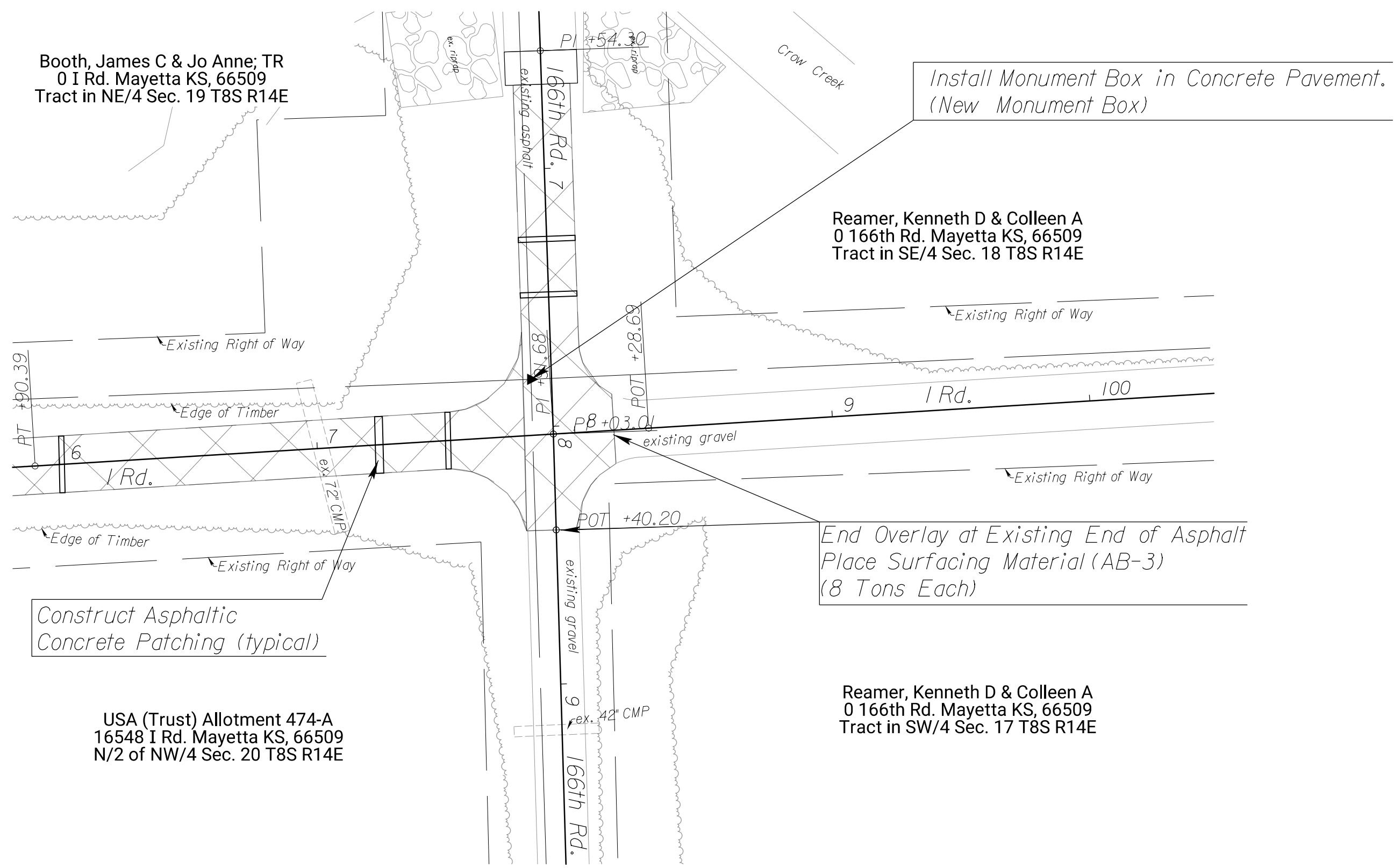
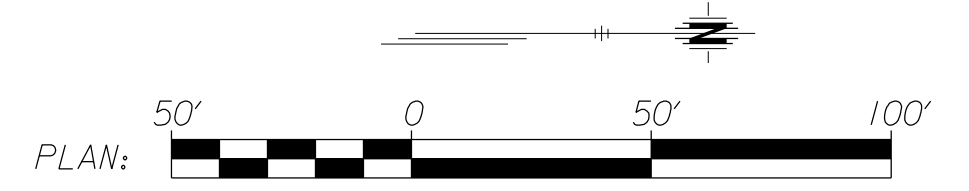
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 IRd.- I58th Rd. to I66th Rd.

@ P.I. = 97+91.68
 1.) Not Set (Office Location)
 2.) N: 376,139.17 , E: 1,909,925.23

@ P.O.T. = 98+28.69
 1.) Not Set (Office Location)
 2.) N: 376,176.10 , E: 1,909,922.95

N.E. Corner Sec. 19, T8S, R14E=@ Sta. 97+84.31, 21.70' Lt.
 1.) Found Bar with Cap in Monument Box (Bartlett & West CLS 14)
 2.) N: 376,130.47 , E: 1,909,904.02

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | II | 109 |




 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 169th Rd. - 158th Rd. to 166th Rd.

K Rd. $\text{C.P.O.T.} = 10+00$
 1.) Not set (office location)
 2.) N: 360,508.29 , E: 1,920,817.46

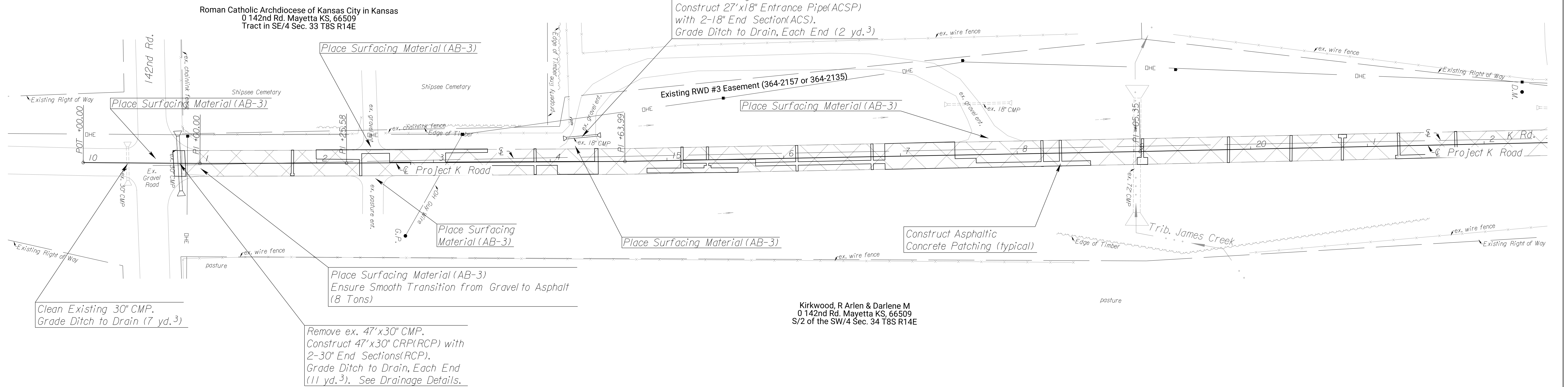
K Rd. $\text{C.P.I.} = 11+00$
 1.) Not set (office location)
 2.) N: 360,608.29 , E: 1,920,817.46

USA (Trust) Tribal Trust 241
 14381 K Rd. Mayetta KS, 66509
 Tract in SE/4 Sec. 33 T8S R14E

K Rd. $\text{C.P.I.} = 14+63.99$
 1.) Not set (office location)
 2.) N: 360,972.26 , E: 1,920,813.30

K Rd. $\text{C.P.I.} = 19+05.35$
 1.) Not set (office location)
 2.) N: 361,413.47 , E: 1,920,801.81

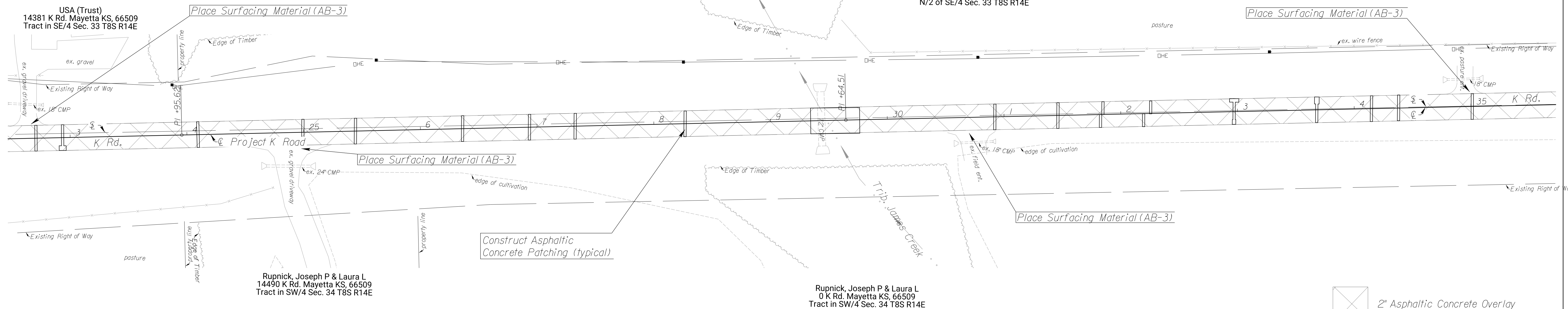
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 12 | 109 |



K Rd. $\text{C.P.I.} = 23+95.62$
 1.) Not set (office location)
 2.) N: 361,903.53 , E: 1,920,787.76

K Rd. $\text{C.P.I.} = 29+64.51$
 1.) Not set (office location)
 2.) N: 362,472.18 , E: 1,920,771.10

Thomas N Berry & Company
 0 K Rd. Mayetta KS, 66509
 N/2 of SE/4 Sec. 33 T8S R14E



Rupnick, Joseph P & Laura L
 14490 K Rd. Mayetta KS, 66509
 Tract in SW/4 Sec. 34 T8S R14E

Rupnick, Joseph P & Laura L
 0 K Rd. Mayetta KS, 66509
 Tract in SW/4 Sec. 34 T8S R14E

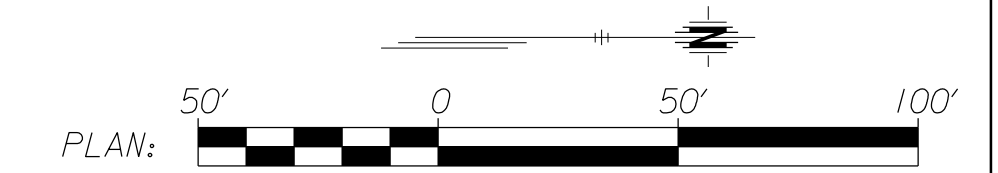
2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 K Rd.- 142th Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 13 | 109 |

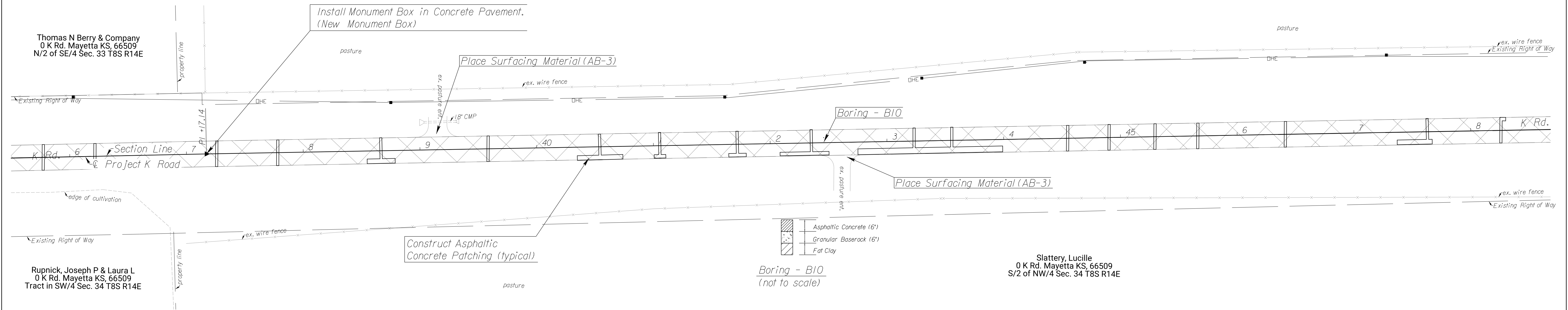
E 1/4 Cor. Sec. 33, T8S, R14E = \odot P.I. at Sta. 37+17.14
 1.) Found bar in monument box
 2.) N: 363,224.50 , E: 1,920,749.68

K Rd. \odot P.I. = 37+17.14
 1.) Not set (office location)
 2.) N: 363,224.50 , E: 1,920,749.68



USA (Trust) Tribal Trust 219
 0 K Rd. Mayetta KS, 66509
 E/2 of NE/4 Sec. 33 T8S R14E

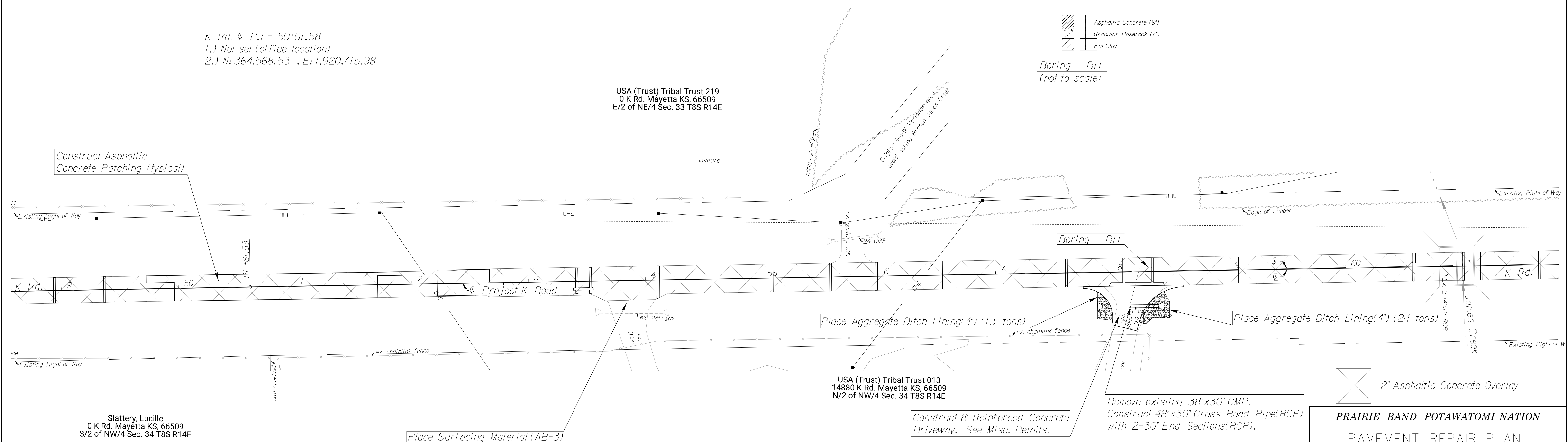
Slattery, Lucille
 0 K Rd. Mayetta KS, 66509
 S/2 of NW/4 Sec. 34 T8S R14E



K Rd. \odot P.I. = 50+61.58
 1.) Not set (office location)
 2.) N: 364,568.53 , E: 1,920,715.98

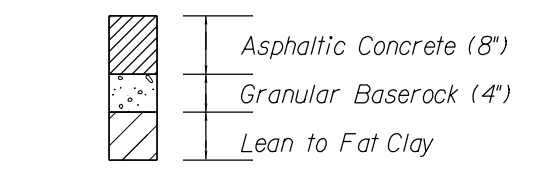
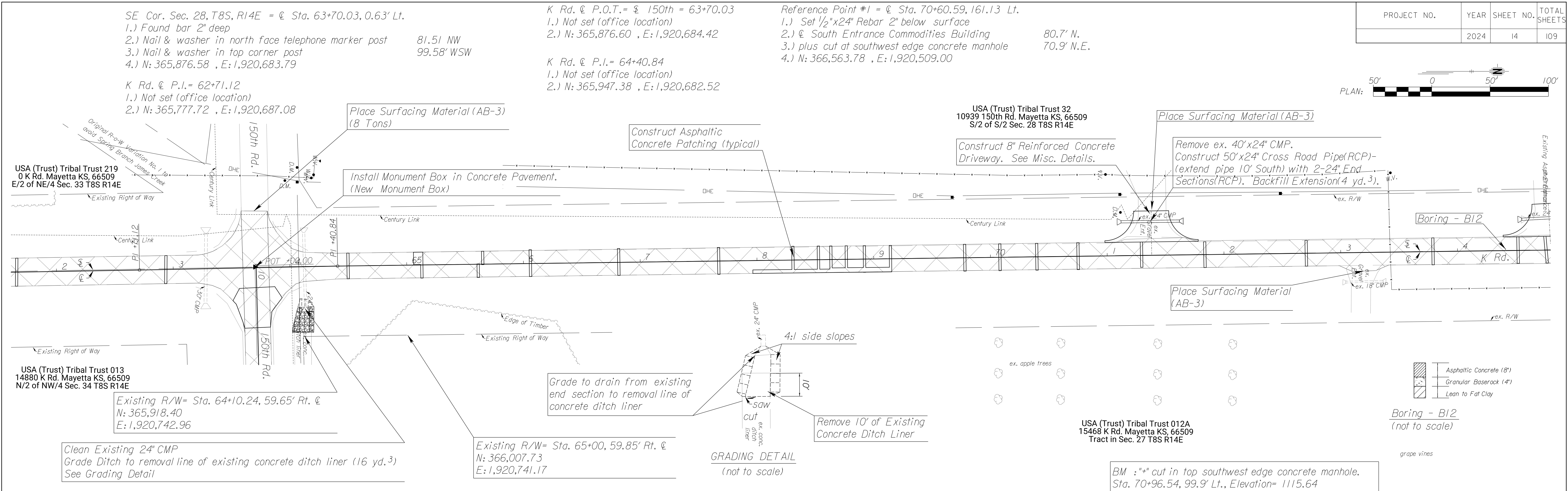
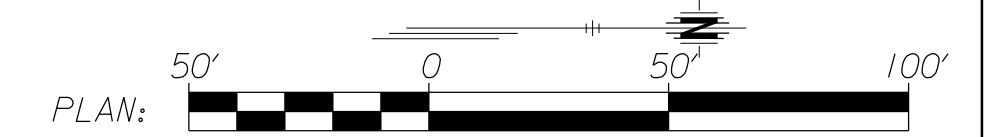
Boring - B11
 (not to scale)

Asphaltic Concrete (9")
 Granular Base Rock (7")
 Fat Clay



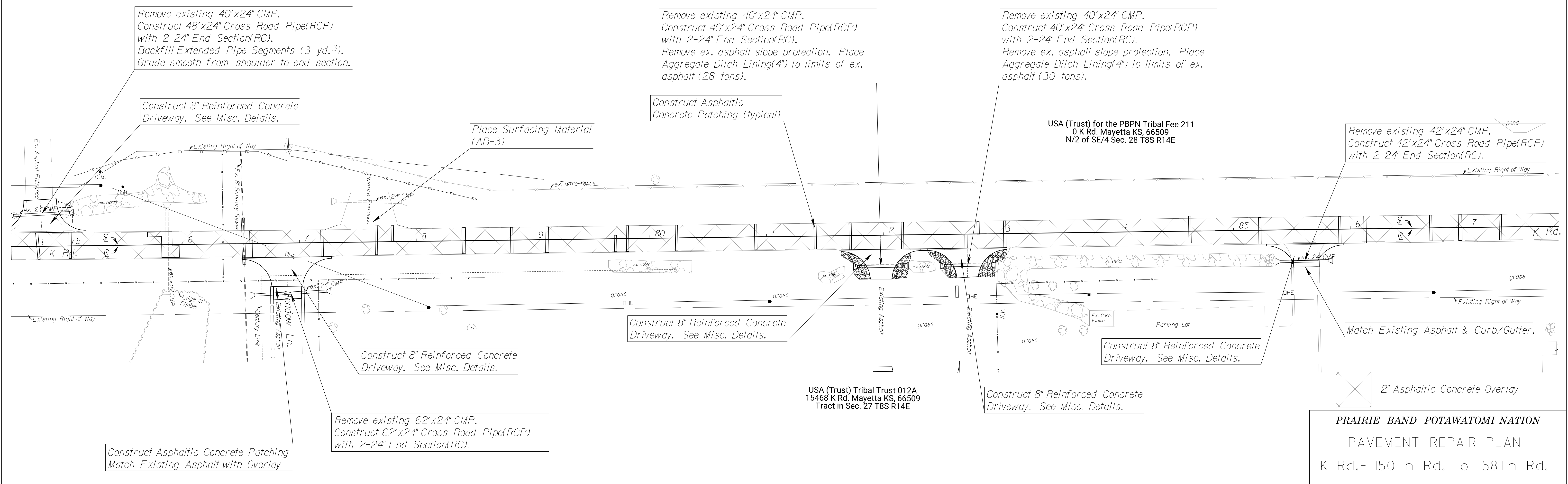
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 K Rd.- 142th Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 14 | 109 |



Boring - BI2
(not to scale)

grape vines



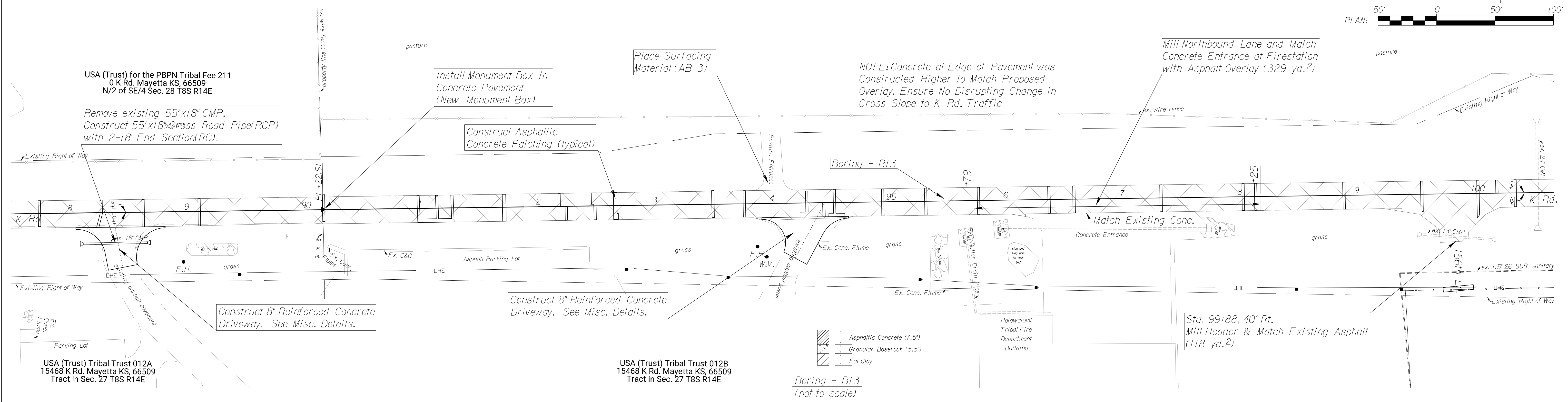
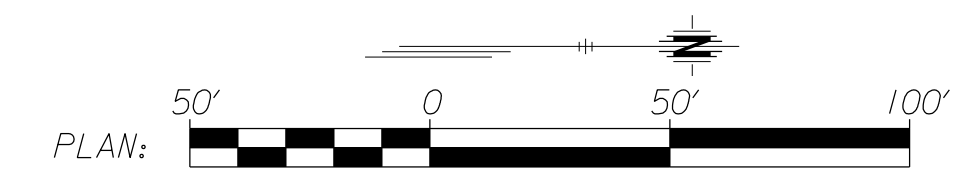
PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
K Rd.- 150th Rd. to 158th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 15 | 109 |

K Rd. $\text{C.P.I.} = 90+22.91$
 1.) Not set (office location)
 2.) N: 368,528.93 , E: 1,920,630.79

E 1/4 Cor. Sec. 28, T8S, R14E = $\text{C. Sta. } 90+22.87, 0.32' \text{ Lt.}$
 1.) Found bar 3" below surface
 2.) Mag nail in north face power pole 62.58 E
 3.) Nail & bottle cap in top fence post 43.55' W
 4.) N: 368,528.89 , E: 1,920,630.47

USA (Trust) Allotment 481 (A, B, & C)
 0 K Rd. Mayetta KS, 66509
 Large Tract in NE/4 of Sec. 28 T8S R14E

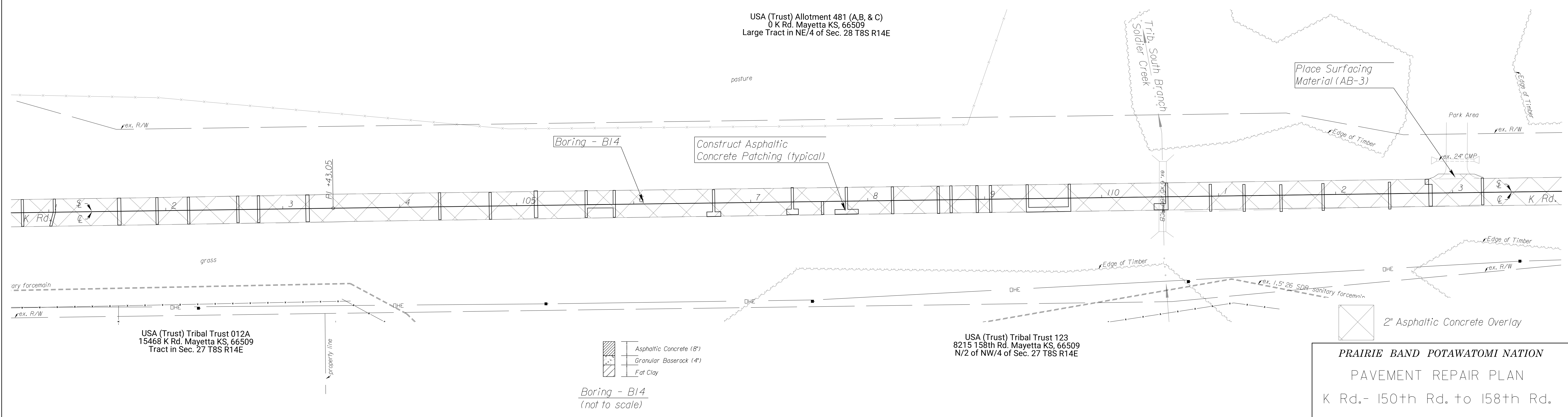


Asphaltic Concrete (7.5')
 Granular Baserock (5.5')
 Fat Clay

Boring - B13
 (not to scale)

K Rd. $\text{C.P.I.} = 103+43.05$
 1.) Nail & Washer at Surface of Existing Asphalt
 2.) N: 369,848.78 , E: 1,920,603.01

USA (Trust) Allotment 481 (A, B, & C)
 0 K Rd. Mayetta KS, 66509
 Large Tract in NE/4 of Sec. 28 T8S R14E



Asphaltic Concrete (8')
 Granular Baserock (4')
 Fat Clay

Boring - B14
 (not to scale)

USA (Trust) Tribal Trust 012A
 15468 K Rd. Mayetta KS, 66509
 Tract in Sec. 27 T8S R14E

USA (Trust) Tribal Trust 123
 8215 158th Rd. Mayetta KS, 66509
 N/2 of NW/4 of Sec. 27 T8S R14E

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 K Rd.- 150th Rd. to 158th Rd.

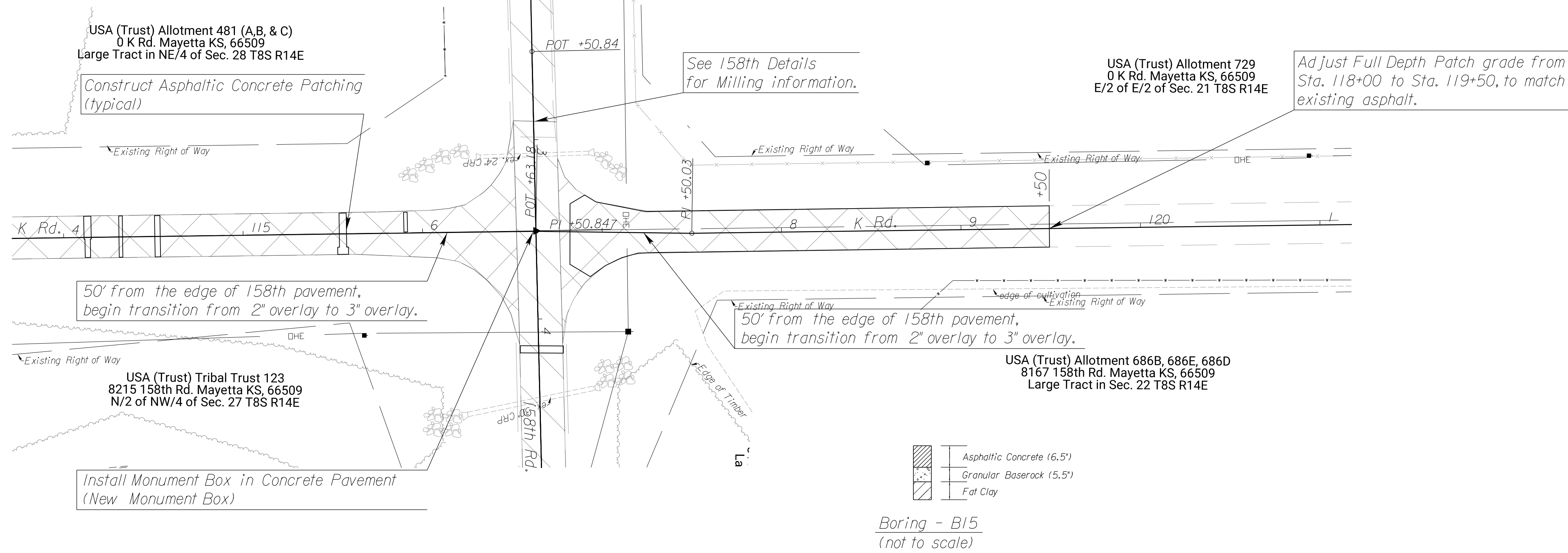
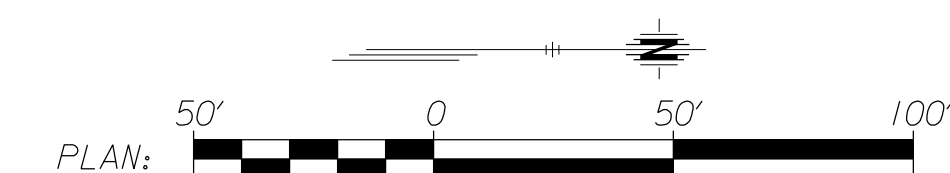
SE Cor. Sec. 21, T8S, R14E = @ Sta. 116+63.18, 0.24' Lt.
 1.) Found bar 0.3' below surface
 2.) N: 371,168.62 , E: 1,920,575.60

K Rd. @ P.O.T. = @ 150th = Sta. 116+63.18
 1.) Not set (office location)
 2.) N: 371,168.63 , E: 1,920,575.84

@ P.I. = 117+50.03
 1.) not set (office location)
 2.) N: 371,255.48 , E: 1,920,576.36

@ P.I. = 143+00.93
 1.) not set (office location)
 2.) N: 373,805.86 , E: 1,920,525.12

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 16 | 109 |



PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 K Rd.- 158th Rd. to Sta. 119+50

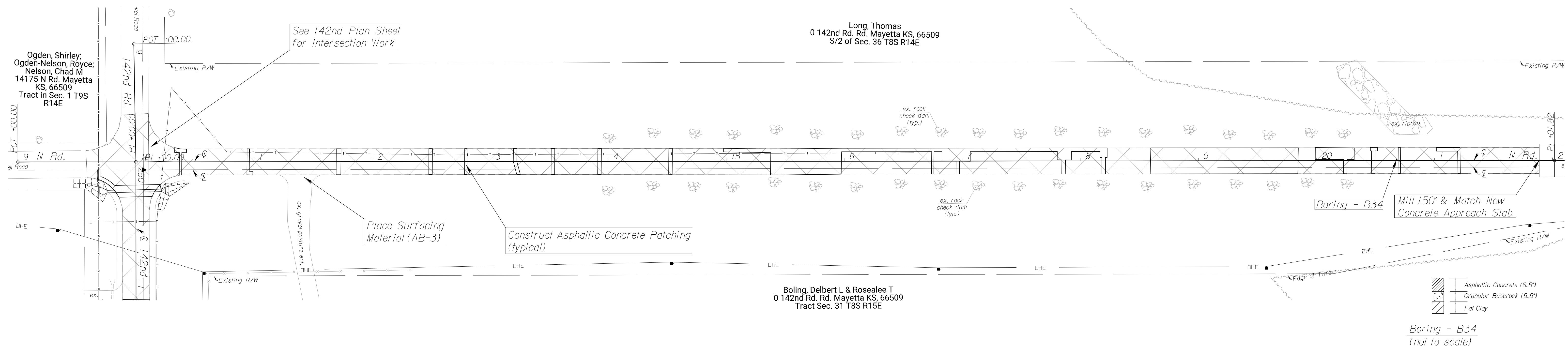
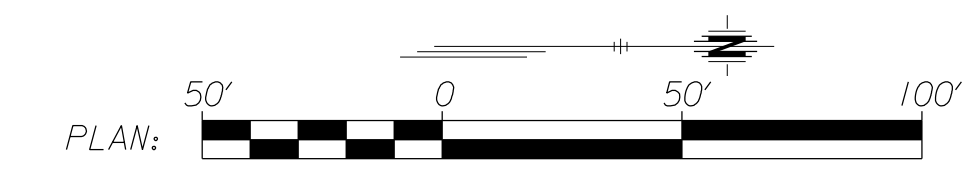
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 17 | 109 |

@ P.O.T. = Sta. 9+00
 1.) Not Set (office location)
 2.) N: 360,953.44 , E: 1,936,666.43

SE Cor. Sec. 36, T8S, R14E = @ Sta. 10+06.42, 6.73' Rt.
 1.) Found bar in monument box
 2.) N: 361,059.98 , E: 1,936,670.83

@ P.I. = Sta. 10+00
 1.) Not Set (office location)
 2.) N: 361,053.42 , E: 1,936,664.24

@ P.I. = Sta. 22+01.82
 1.) Not Set (office location)
 2.) N: 362,254.95 , E: 1,936,637.94



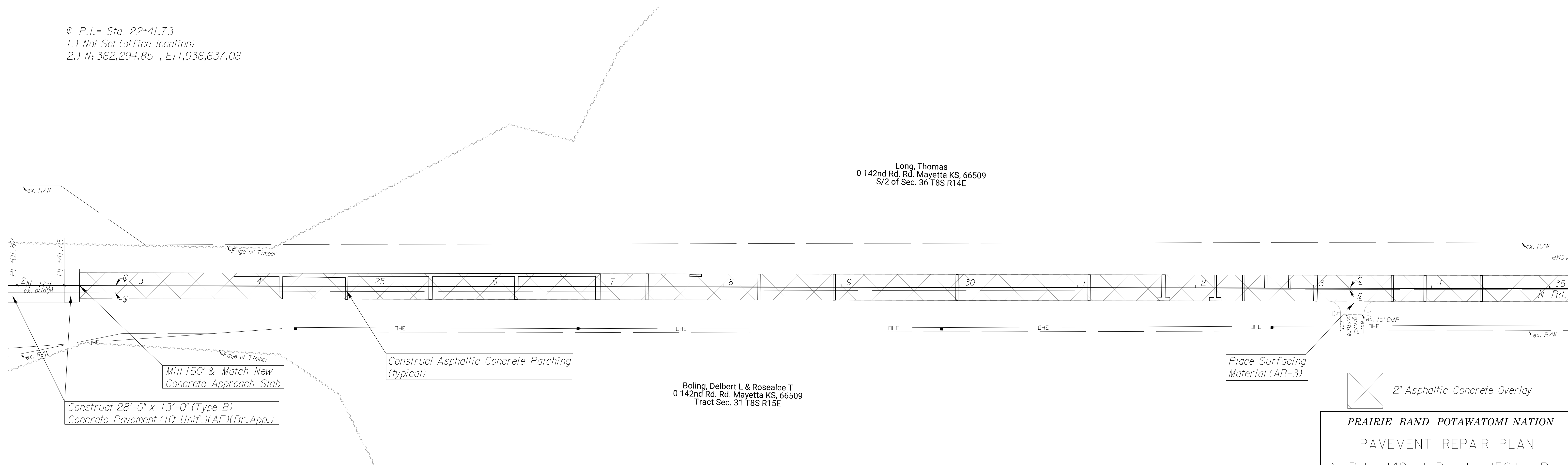
| | |
|--|---------------------------|
| | Asphaltic Concrete (6.5') |
| | Granular Baserock (5.5') |
| | Fat Clay |

Boring - B34
(not to scale)

@ P.I. = Sta. 22+41.73
 1.) Not Set (office location)
 2.) N: 362,294.85 , E: 1,936,637.08

Long, Thomas
 0 142nd Rd. Rd. Mayetta KS, 66509
 S/2 of Sec. 36 T8S R14E

Boling, Delbert L & Rosealee T
 0 142nd Rd. Rd. Mayetta KS, 66509
 Tract Sec. 31 T8S R15E



| | |
|--|-------------------------------|
| | 2" Asphaltic Concrete Overlay |
|--|-------------------------------|

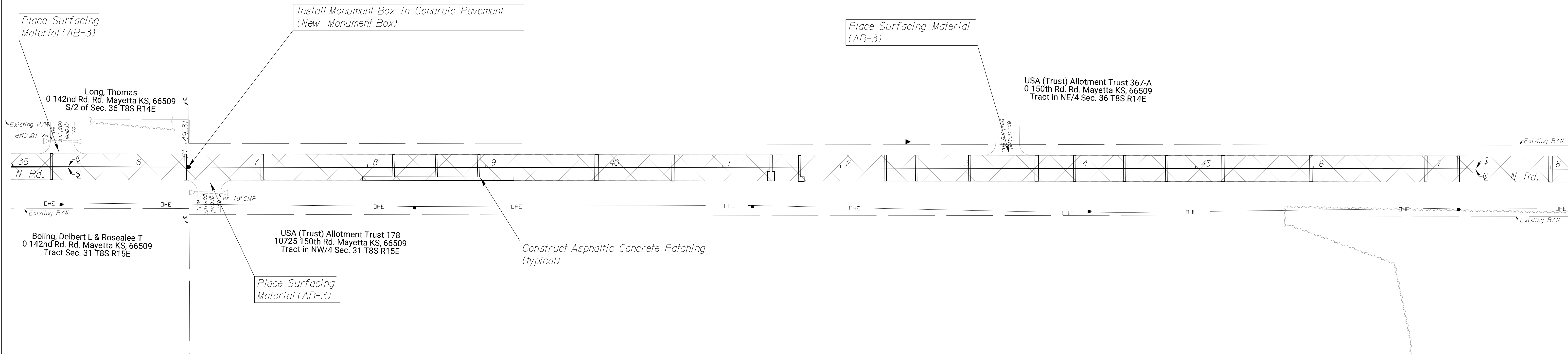
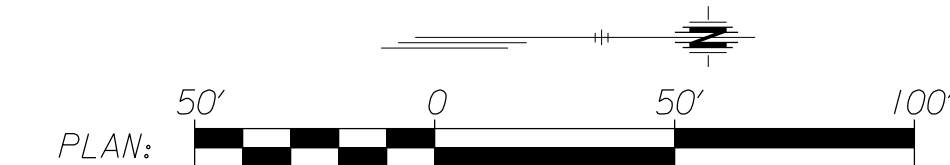
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- 142nd Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 18 | 109 |

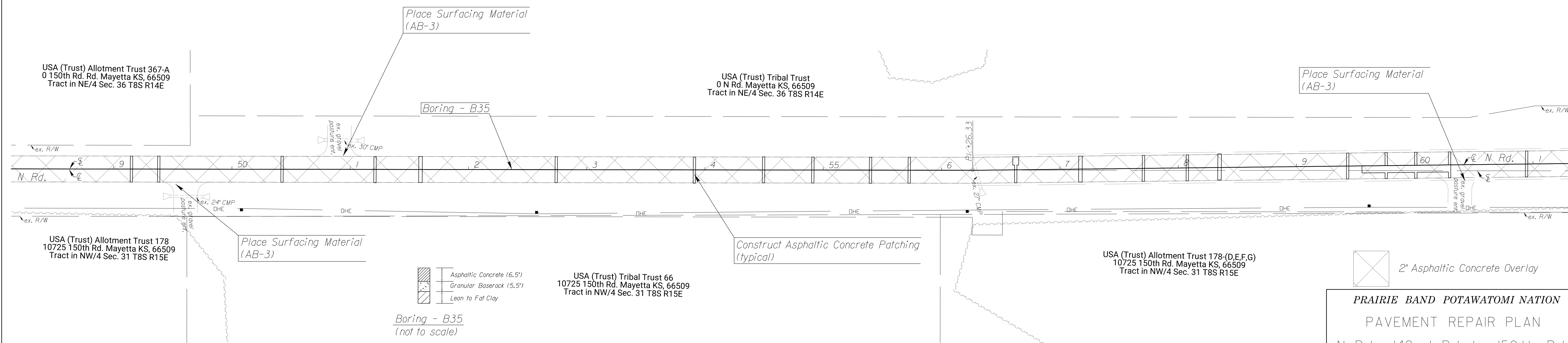
℄ P.I. = Sta. 36+49.31
 1.) Not Set (office location)
 2.) N: 363,702.18 , E: 1,936,610.53

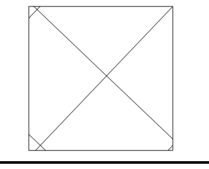
E 1/4 Cor. Sec. 36, T8S, R14E = ℄ P.I. at Sta. 36+49.31
 1.) Found bar in monument box
 2.) N: 363,701.45 , E: 1,936,610.50

Reference Point No. 1 = ℄ Sta. 42+56.42, 22.3' Lt.
 1.) Set bar 2" below vegetated surface
 2.) West edge asphalt pavement 11.4' E.
 3.) ℄ field entrance (Sta. 43+40) 84.1' N
 4.) N: 364,308.74 , E: 1,936,576.48

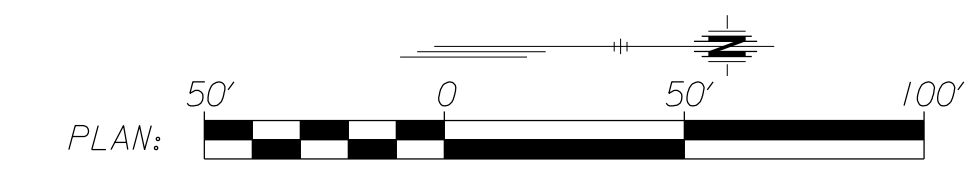


℄ P.I. = Sta. 56+26.33
 1.) Not Set (office location)
 2.) N: 365,678.83 , E: 1,936,572.18



 2" Asphaltic Concrete Overlay
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd. - 142nd Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 19 | 109 |



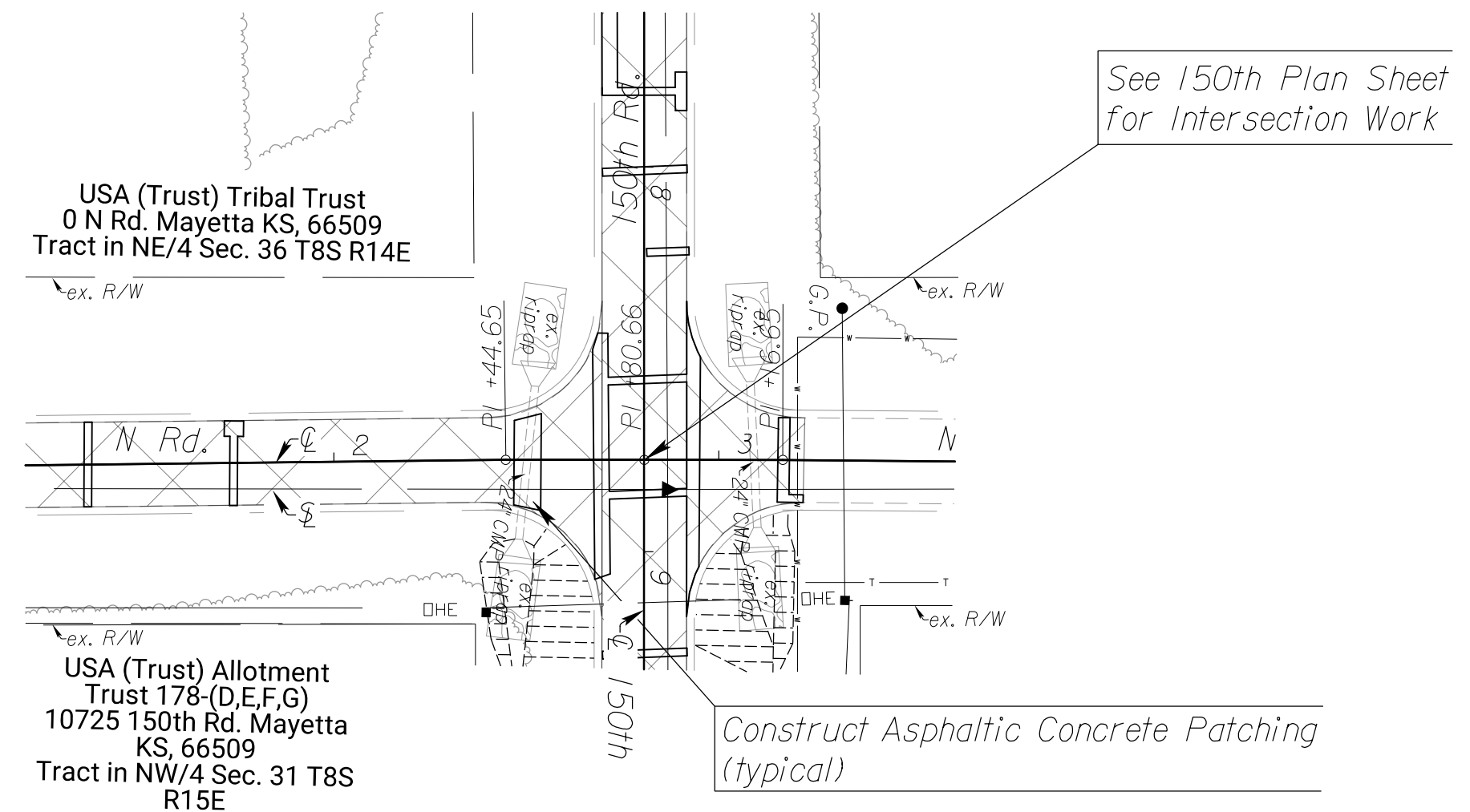
@ P.I. = Sta. 62+44.65
 1.) Not Set (office location)
 2.) N: 366,296.83 , E: 1,936,552.26

 @ P.I. = Sta. 62+80.66
 1.) Not Set (office location)
 2.) N: 366,332.83 , E: 1,936,551.52

 @ P.I. = Sta. 63+16.65
 1.) Not Set (office location)
 2.) N: 366,368.82 , E: 1,936,550.78

@ P.C. = Sta. 70+38.31
 1.) Not Set (office location)
 2.) N: 367,090.43 , E: 1,936,542.47

 @ P.T. = Sta. 70+97.45
 1.) Not Set (office location)
 2.) N: 367,149.56 , E: 1,936,541.44



P.I. Sta. 168+77.63 (Bk.)
 $\Delta = 0^{\circ} 05' 15''$ (RT)
 $D = 0^{\circ} 01' 45''$
 $R = 196,170.59'$
 $T = 149.79'$
 $L = 299.58'$
 $E = 0.06'$



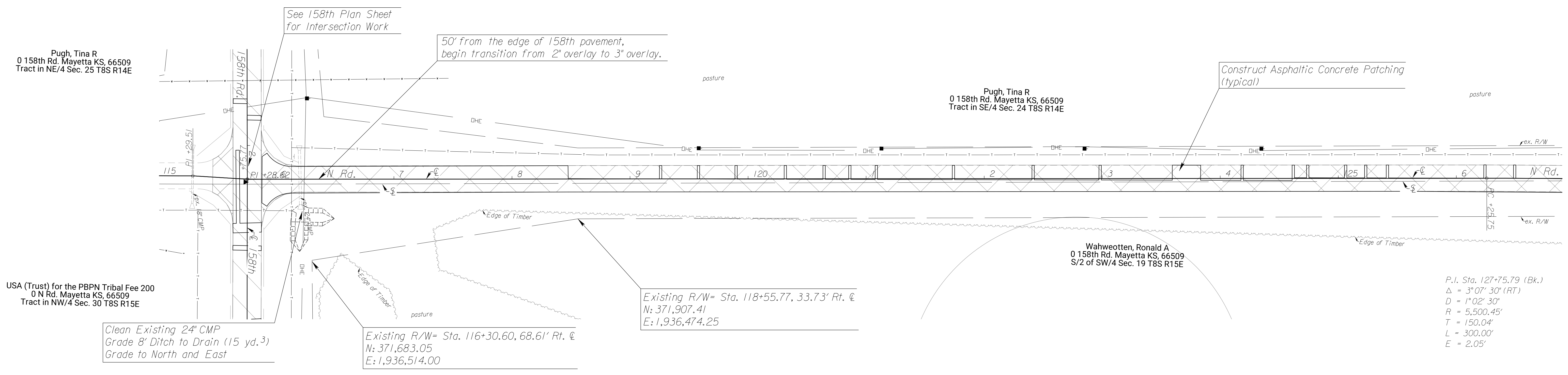
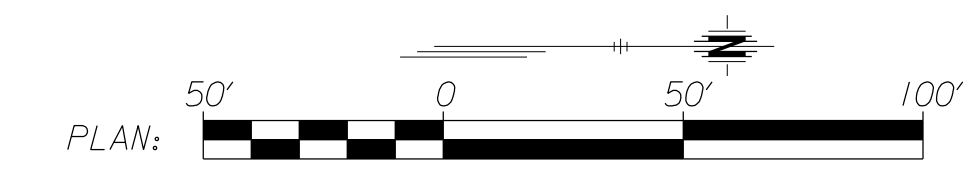
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- 142nd Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 20 | 109 |

@ P.I. = Sta. 115+29.51
 1.) Not Set (office location)
 2.) N: 371,580.53 , E: 1,936,444.68

@ P.I. = Sta. 115+75.77
 1.) Not Set (office location)
 2.) N: 371,626.75 , E: 1,936,446.59

@ P.C. = Sta. 126+25.75
 1.) Not Set (office location)
 2.) N: 372,676.48 , E: 1,936,423.86



P.I. Sta. 127+75.79 (Bk.)
 Δ = 3°07'30" (RT)
 D = 1°02'30"
 R = 5,500.45'
 T = 150.04'
 L = 300.00'
 E = 2.05'

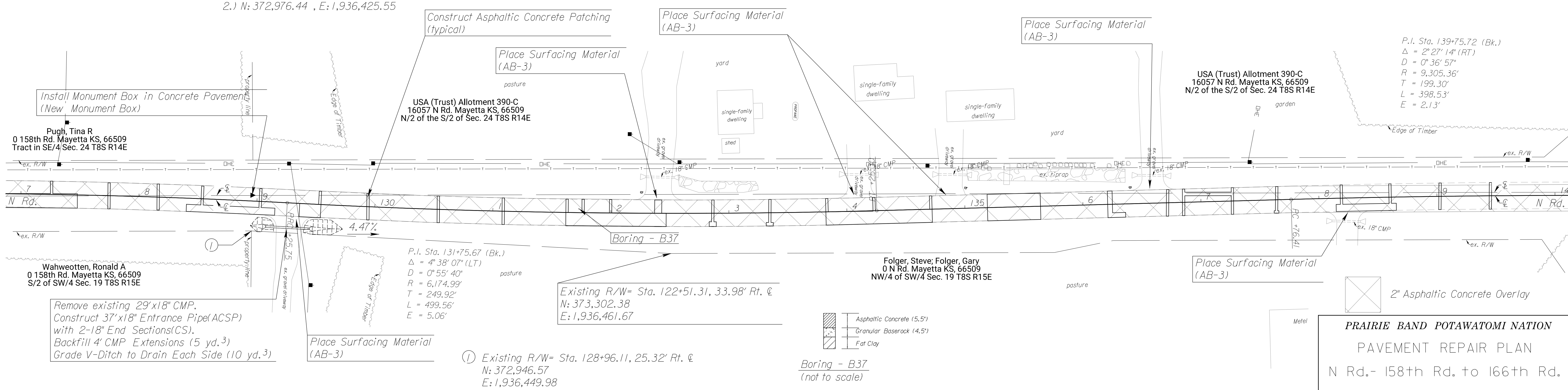
S.E. 1/16 Cor. Sec. 24, T8S, R14E = @ Sta. 128+95.81, 4.88' Lt.
 1.) Found bar with cap (Steve Willet) at surface pavement
 2.) End 18" CMP 49.0' S.S.W.
 3.) N: 372,946.57 , E: 1,936,419.77

@ P.T. = Sta. 134+25.30
 1.) Not Set (office location)
 2.) N: 373,475.85 , E: 1,936,421.77

@ P.C. = Sta. 137+76.41
 1.) Not Set (office location)
 2.) N: 373,826.56 , E: 1,936,404.92

@ P.R.C. = Sta. 129+25.75
 1.) Not Set (office location)
 2.) N: 372,976.44 , E: 1,936,425.55

P.I. Sta. 139+75.72 (Bk.)
 Δ = 2°27'14" (RT)
 D = 0°36'57"
 R = 9,305.36'
 T = 199.30'
 L = 398.53'
 E = 2.13'



- Asphaltic Concrete (5.5')
- Granular Base Rock (4.5')
- Fat Clay

2" Asphaltic Concrete Overlay
 Metal

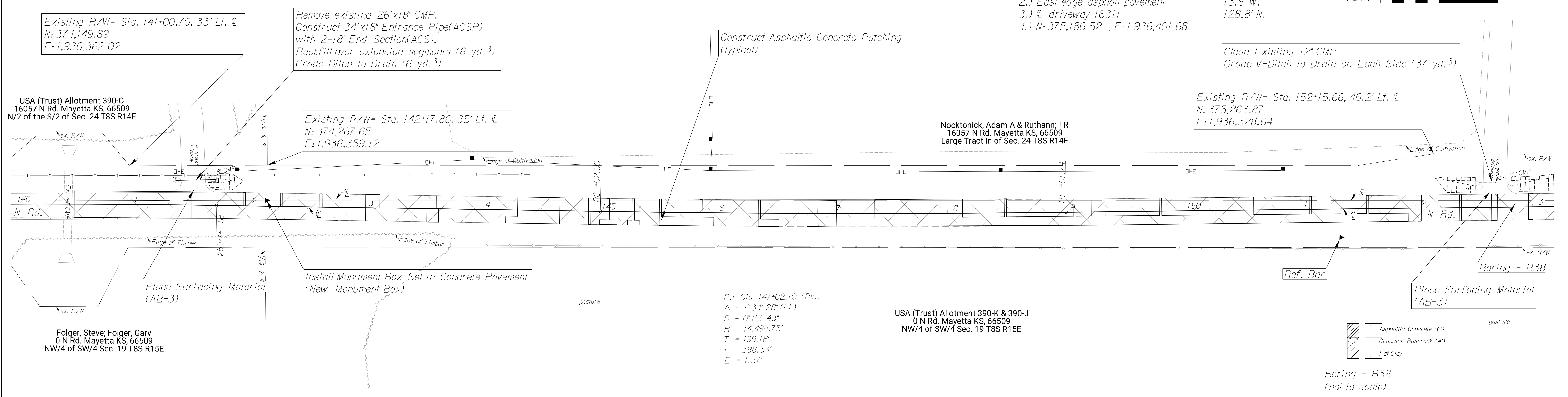
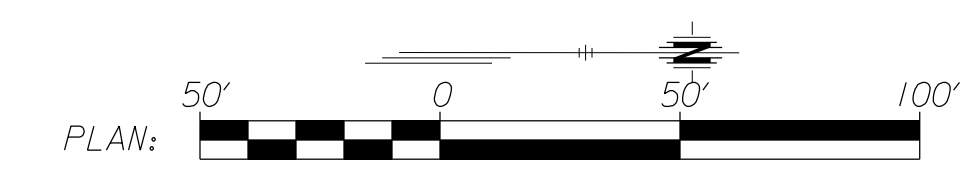
PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
 N Rd. - 158th Rd. to 166th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 21 | 109 |

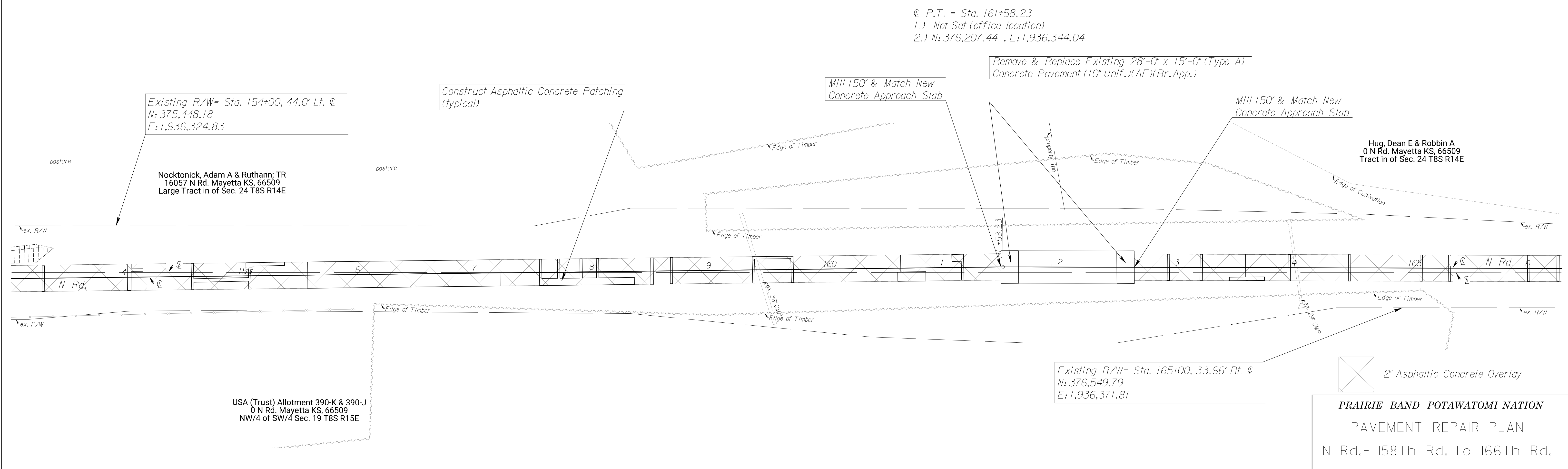
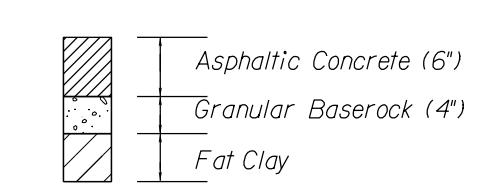
@ P.T. = Sta. 141+74.94 E 1/4 Cor. Sec. 24, T8S, R14E = @ Sta. 142+17.70, 5.0' Lt.
 1.) Not Set (office location) 1.) Found bar with cap at surface pavement
 2.) N: 374,224.92 , E: 1,936,394.33 2.) South end 18" CMP 49.0' S.S.W.
 3.) N: 374,267.65 , E: 1,936,389.12

@ P.C. = Sta. 145+02.90 @ P.T. = Sta. 149+01.24
 1.) Not Set (office location) 1.) Not Set (office location)
 2.) N: 374,552.87 , E: 1,936,392.63 2.) N: 374,951.12 , E: 1,936,385.09

Reference Point No. 2 = Sta. 151+35.97, 24.27' Rt.
 1.) Set bar 2" below surface 13.6' W.
 2.) East edge asphalt pavement 128.8' N.
 3.) @ driveway 16311
 4.) N: 375,186.52 , E: 1,936,401.68

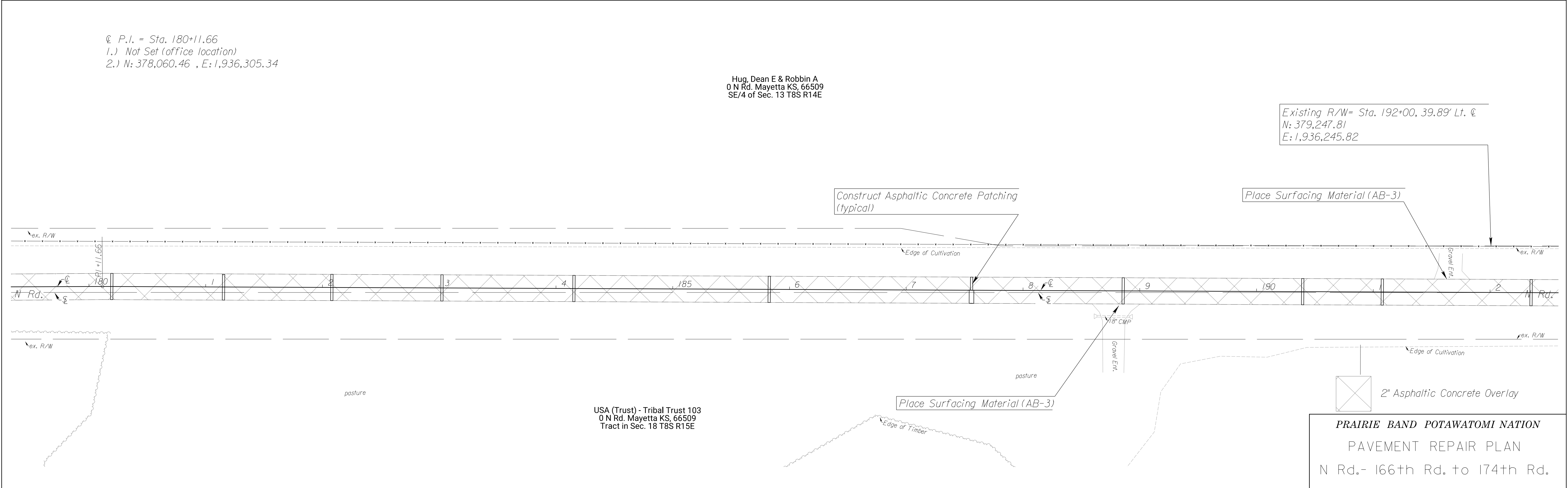
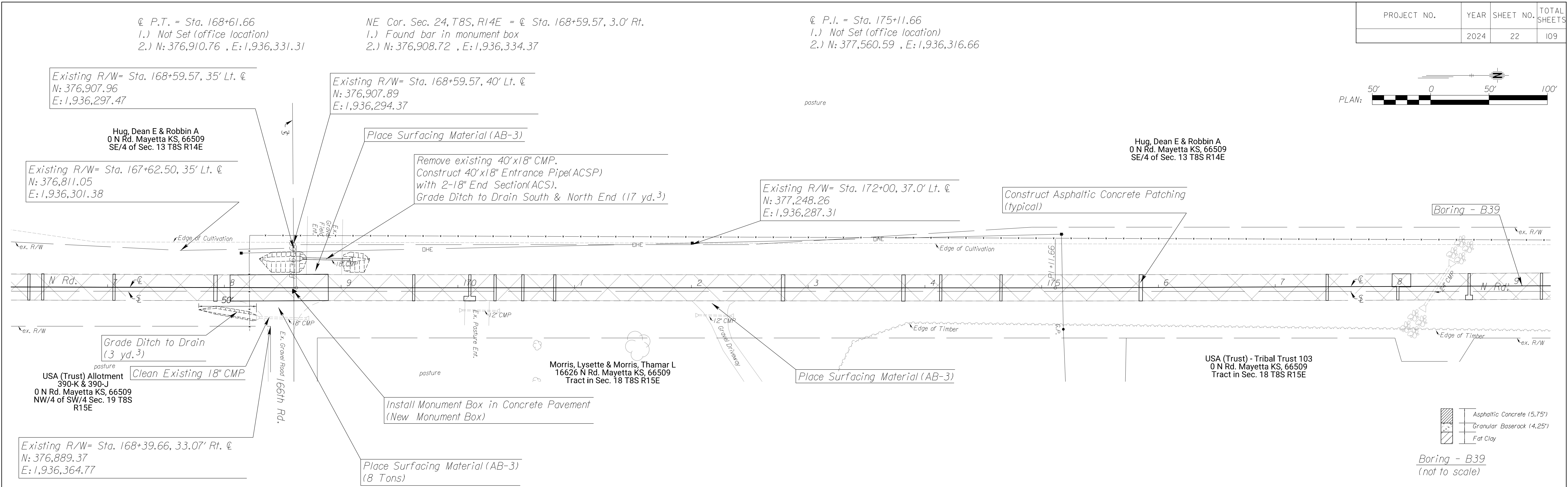
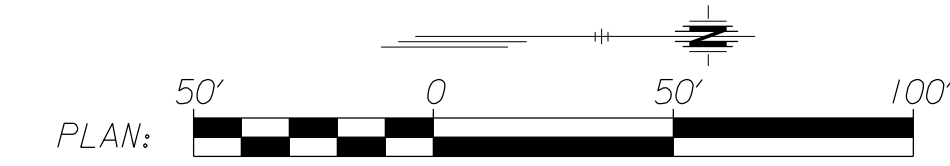


P.I. Sta. 147+02.10 (Bk.)
 $\Delta = 1^{\circ} 34' 28''$ (LT)
 $D = 0^{\circ} 23' 43''$
 $R = 14,494.75'$
 $T = 199.18'$
 $L = 398.34'$
 $E = 1.37'$



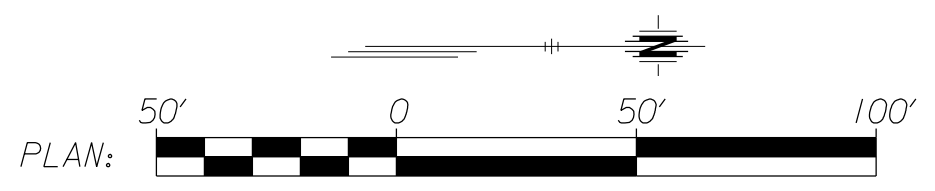
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- 158th Rd. to 166th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 22 | 109 |



PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- 166th Rd. to 174th Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 23 | 109 |



E 1/4 Cor. Sec. 13, T8S, R14E = \odot Sta. 195+01.24, 1.2' Lt.
 1.) Found bar in monument box
 2.) N: 379,549.82, E: 1,936,279.56

\odot P.I. = Sta. 194+98.59
 1.) Not Set (office location)
 2.) N: 379,547.19, E: 1,936,280.77

Hug, Dean E & Robbin A
 0 N Rd. Mayetta KS, 66509
 SE/4 of Sec. 13 T8S R14E

USA (Trust) Allotment 218 (H.E. & I)
 10236 170th Rd. Mayetta KS, 66509
 Tract in Sec. 13 T8S R14E

Place Surfacing Material (AB-3)
 Widen South Shoulder around Radius
 to Match Proposed End CMP

Remove existing 28"x18" CMP.
 Construct 36"x18" Cross Road Pipe(RCP)
 with 2-18" End Section(RC).
 Backfill extensions(4 yd.³)
 Grade Ditch to Drain (9 yd.³)

Place Surfacing Material (AB-3)
 (8 Tons)

Construct Asphaltic Concrete Patching
 (typical)

Place Surfacing Material (AB-3)

Place Surfacing Material (AB-3)

Install Monument Box in Concrete Pavement
 (New Monument Box)

USA (Trust) - Tribal Trust 153
 17090 N Rd. Mayetta KS, 66509
 Tract in Sec. 18 T8S R15E

USA (Trust) - Tribal Trust 153
 17090 N Rd. Mayetta KS, 66509
 Tract in Sec. 18 T8S R15E

② Existing R/W = Sta. 194+80.83, 41.08' Lt. \odot
 N: 379,528.76
 E: 1,936,239.99

③ Existing R/W = Sta. 195+20.92, 41.13' Lt. \odot
 N: 379,568.75
 E: 1,936,239.23

Place Surfacing Material (AB-3)

USA (Trust) Allotment 218 (H.E. & I)
 10236 170th Rd. Mayetta KS, 66509
 Tract in Sec. 13 T8S R14E

Wilson, Lynn D & Barbara A; TR
 0 174th Rd. Mayetta KS, 66509
 NE/4 of NE/4 of Sec. 13 T8S R14E

Construct Asphaltic Concrete Patching
 (typical)

Place Surfacing Material (AB-3)

Place Surfacing Material (AB-3)

USA (Trust) - Tribal Trust 153
 17090 N Rd. Mayetta KS, 66509
 Tract in Sec. 18 T8S R15E

Existing R/W = Sta. 207+00, 40.44' Rt. \odot
 N: 380,749.14
 E: 1,936,298.87

Existing R/W = Sta. 208+17.12, 40.60' Rt. \odot
 N: 380,866.25
 E: 1,936,296.85

Clean Existing 12" CMP
 Grade V-Ditch to Drain South Side (3 yd.³)

Boring - B40

Place Surfacing Material (AB-3)

USA (Trust) Allotment 215
 174th Rd. Mayetta KS, 66509
 Tract in Sec. 18 T8S R15E

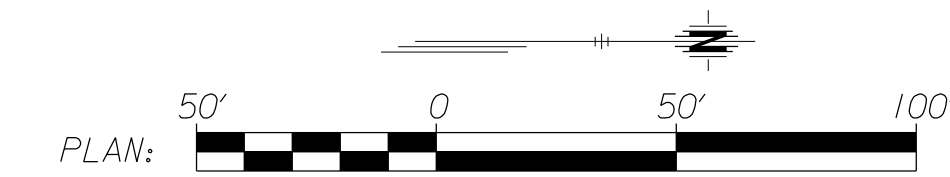
- Asphaltic Concrete (6")
- Granular Base rock (6")
- Lean to Fat Clay

Boring - B40
 (not to scale)

2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- I66th Rd. to I74th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 24 | 109 |



@ P.O.T. = Sta. 223+07.85
 1.) Not Set (office location)
 2.) N: 382,355.96 , E: 1,936,228.54

USA (Trust) Allotment 218 (H,E, & I)
 10236 170th Rd. Mayetta KS, 66509
 Tract in Sec. 13 T8S R14E

Construct Asphaltic Concrete Patching (typical)

Phillip, David W & Annetta
 0 N Rd. Mayetta KS, 66509
 Tract in Sec. 12 T8S R14E

USA (Trust) Allotment 215
 174th Rd. Mayetta KS, 66509
 Tract in Sec. 18 T8S R15E

Whitlock, Robert V & Josette P
 17410 N Rd. Mayetta KS, 66509
 Tract in Sec. 7 T8S R15E

Sta. 201+05
 Match Existing End Asphalt
 Place Surfacing Material (AB-3)
 (7 Tons)

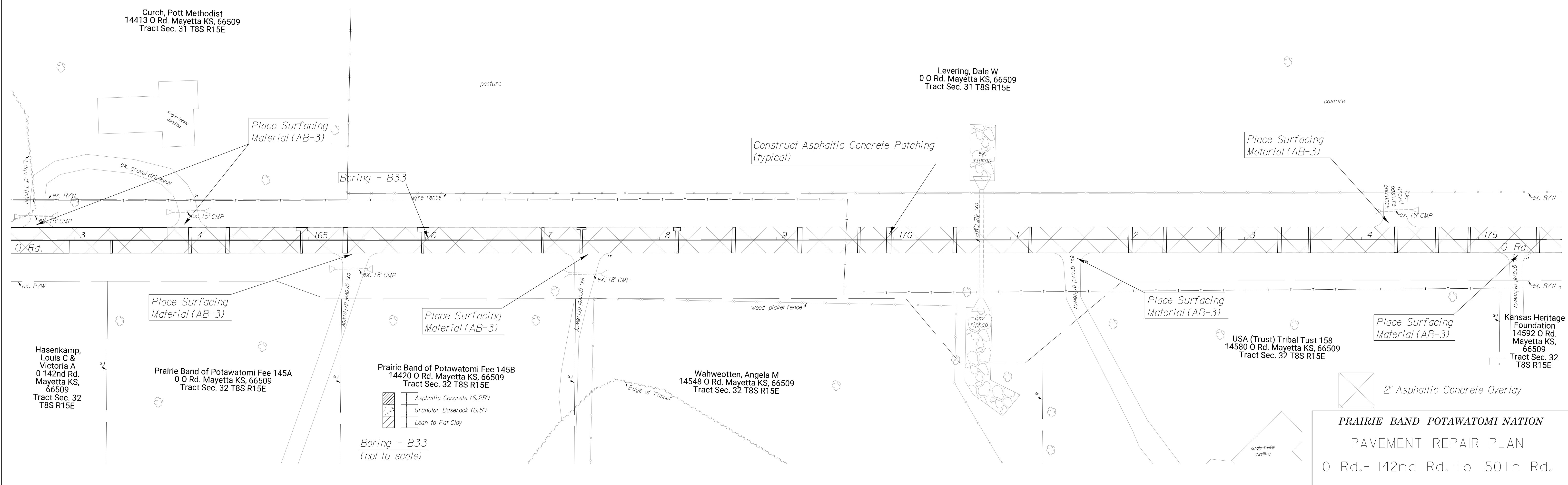
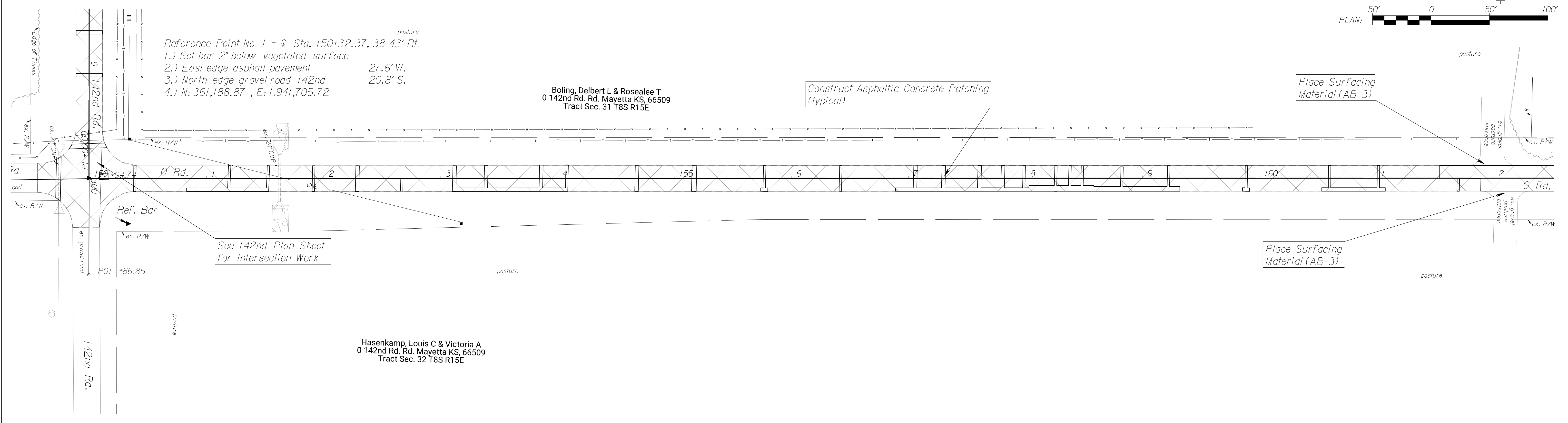
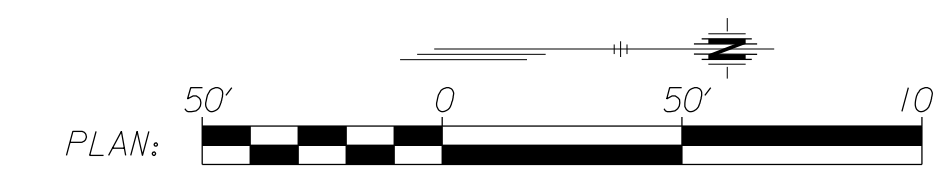
 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 N Rd.- I66th Rd. to I74th Rd.

@ P.O.T. = Sta. 149+00
 1.) Not Set
 2.) N: 361,055.16 , E: 1,941,671.61
 @ P.I. = Sta. 150+00
 1.) Not Set
 2.) N: 361,155.09 , E: 1,941,667.95

S.W. Corner Section 31, T-8-S, R-15-E = Sta. 149+99.45, 0.56' Lt.
 1.) Found bar in monument box 142nd & O Intersection
 2.) N: 361,154.52 , E: 1,941,667.40

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 25 | 109 |



Boring - B33
(not to scale)

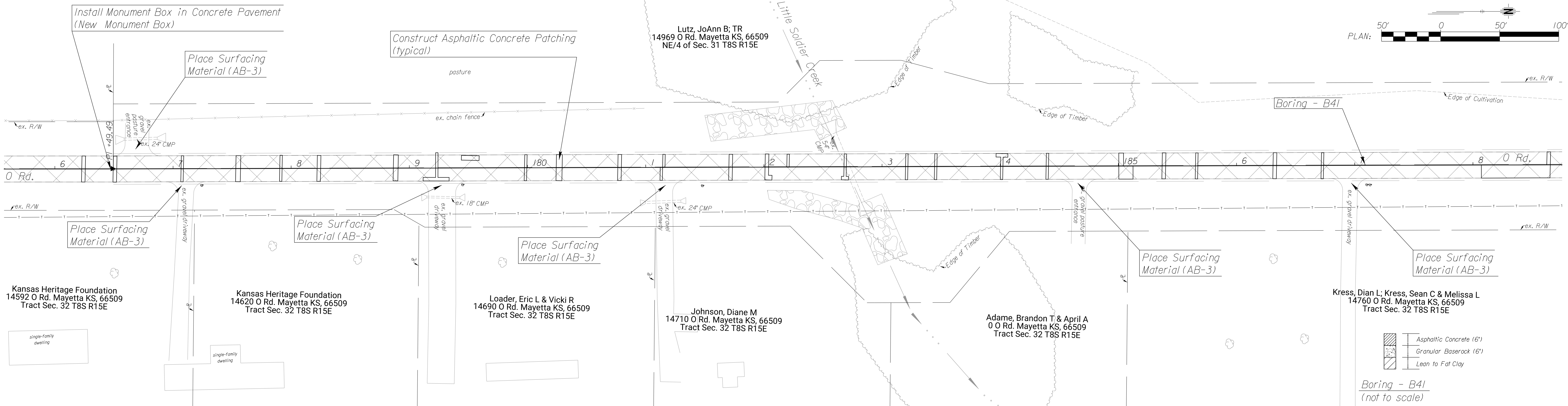
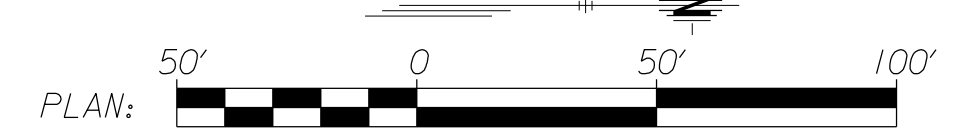
| | |
|--|----------------------------|
| | Asphaltic Concrete (6.25') |
| | Granular Base/rock (6.5') |
| | Lean to Fat Clay |

2" Asphaltic Concrete Overlay
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 O Rd. - 142nd Rd. to 150th Rd.

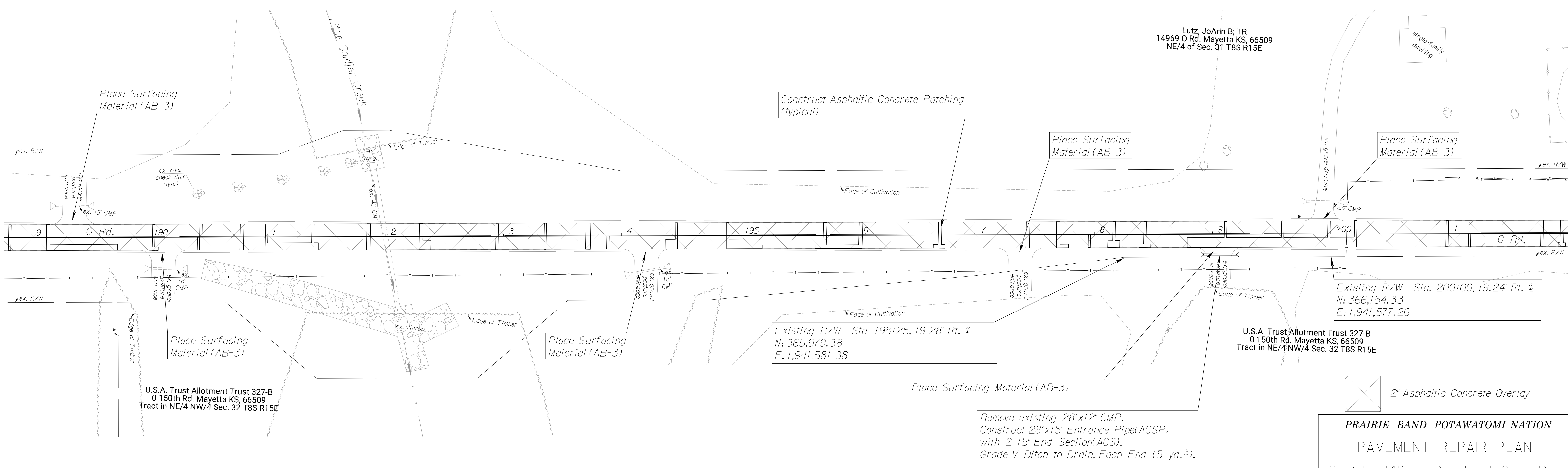
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 26 | 109 |

@ P.I. = Sta. 176+49.49
 1.) Not Set
 2.) N: 363,804.01 , E: 1,941,612.91

East 1/4 Corner Section 31, T-8-S, R-15-E= Sta. 176+48.75, 0.27' Lt.
 1.) Found bar in monument box
 2.) N: 363,803.26 , E: 1,941,612.65



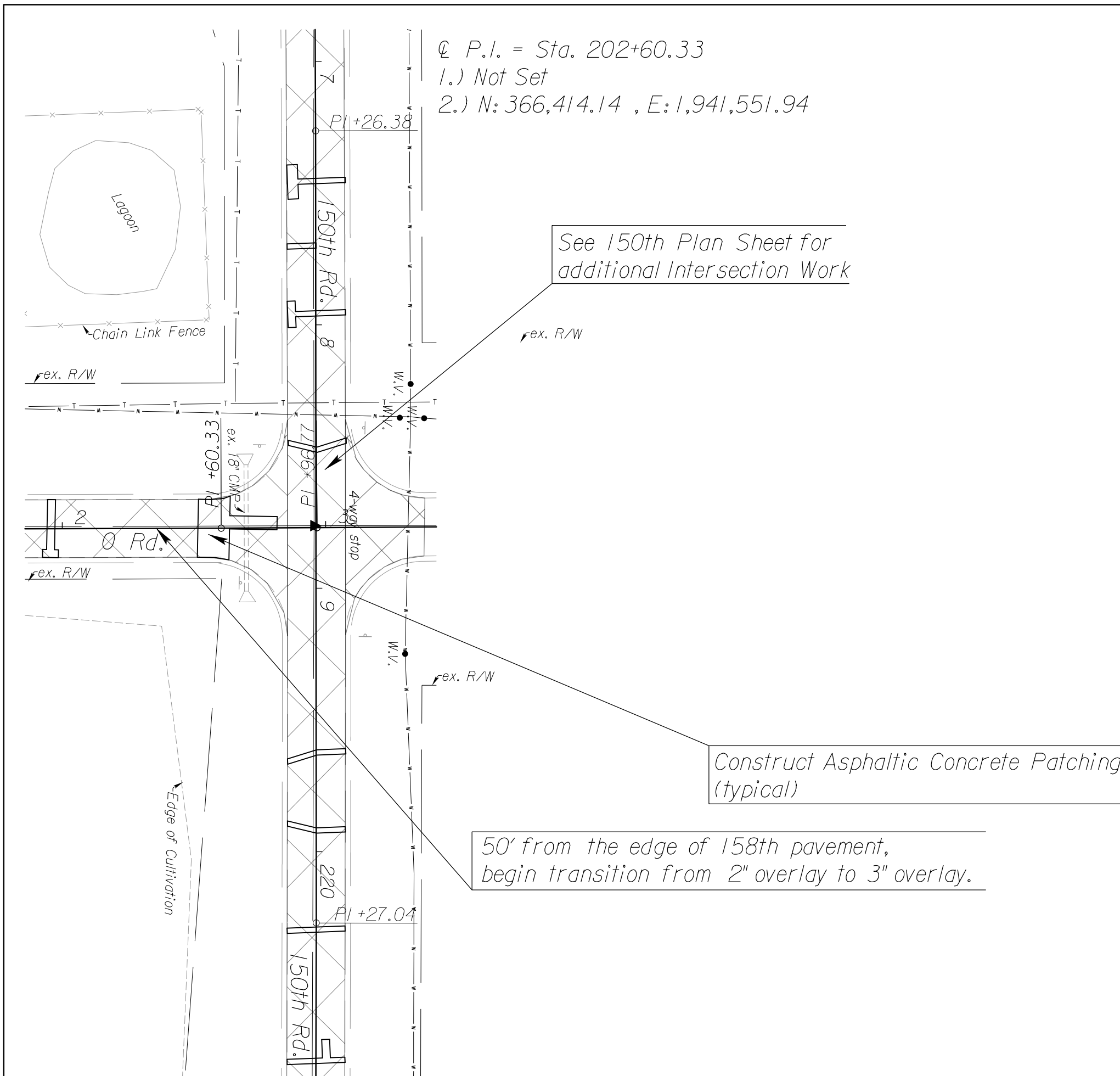
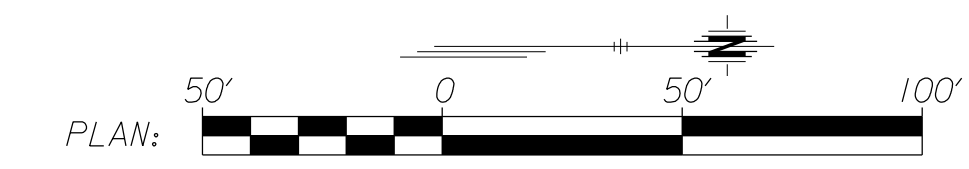
- [Hatched Box] Asphaltic Concrete (6")
 - [Dotted Box] Granular Base/rock (6")
 - [Solid Box] Lean to Fat Clay
- Boring - B41
(not to scale)



- [Cross-hatched Box] 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 0 Rd.- 142nd Rd. to 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 27 | 109 |



@ P.I. = Sta. 202+60.33
 1.) Not Set
 2.) N: 366,414.14 , E: 1,941,551.94

@ P.I. = Sta. 202+96.77
 1.) Not Set
 2.) N: 366,450.56 , E: 1,941,550.97

See 150th Plan Sheet for additional Intersection Work

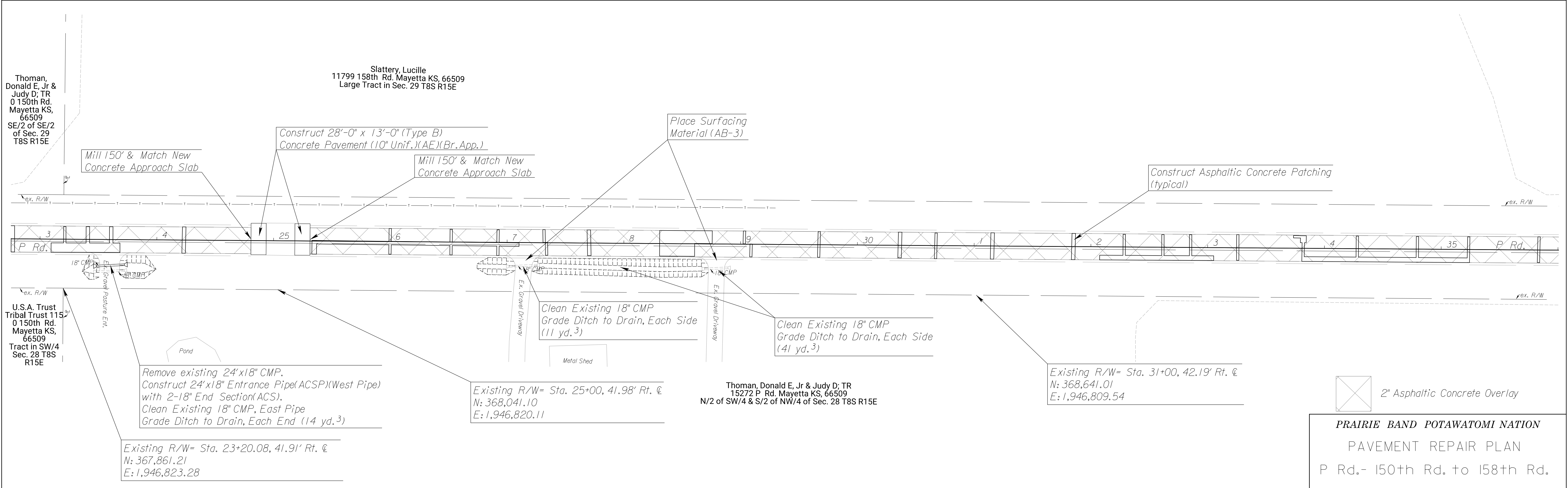
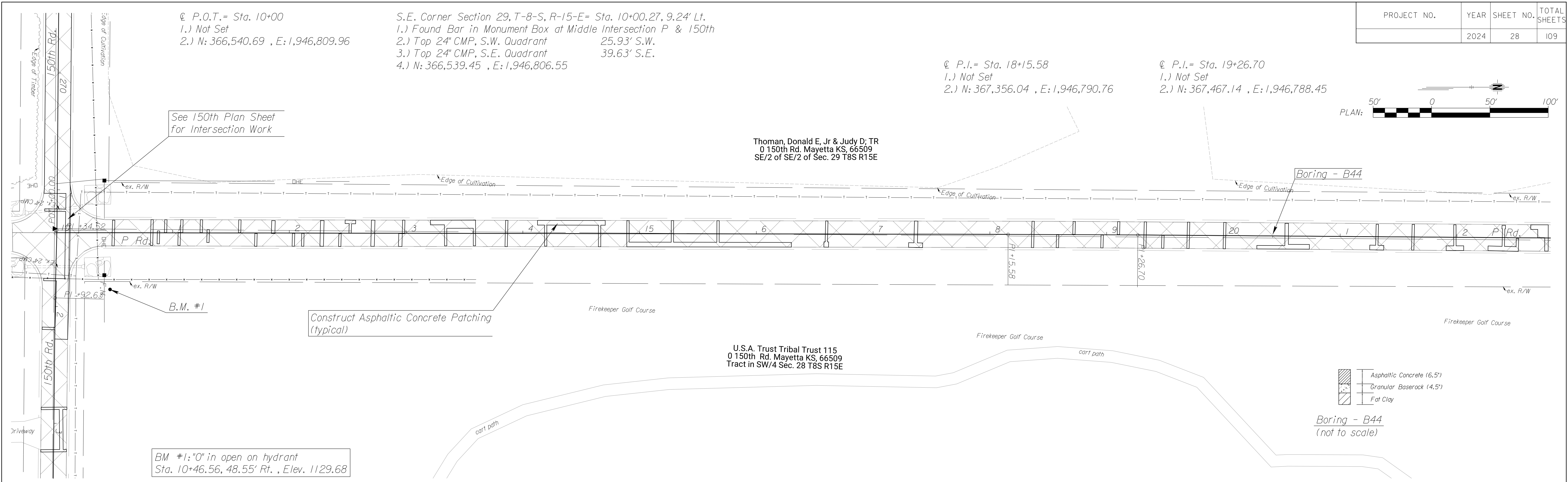
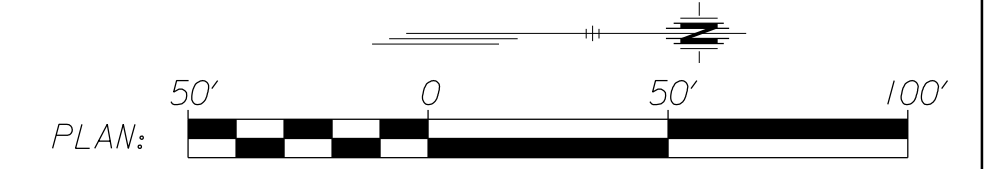
Construct Asphaltic Concrete Patching (typical)

50' from the edge of 158th pavement, begin transition from 2" overlay to 3" overlay.


 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 0 Rd.- 150th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 28 | 109 |

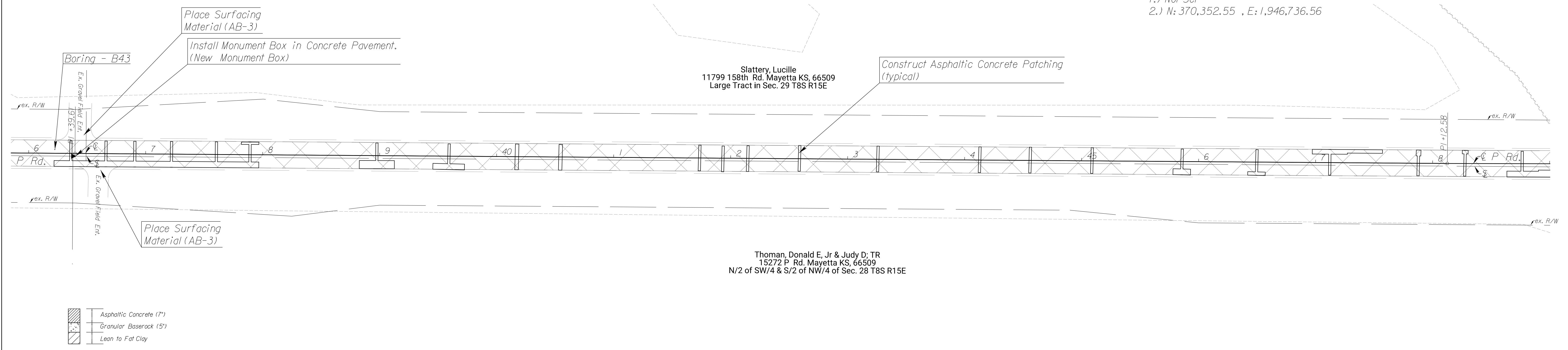
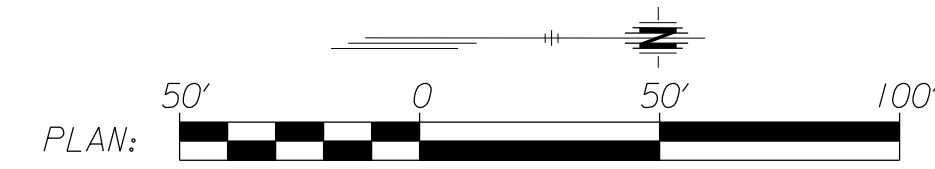


PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 P Rd. - 150th Rd. to 158th Rd.

@ P.I. = Sta. 36+39.61
 1.) Not Set
 2.) N: 369,179.77 , E: 1,946,757.65

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 29 | 109 |

@ P.I. = Sta. 48+12.58
 1.) Not Set
 2.) N: 370,352.55 , E: 1,946,736.56



Asphaltic Concrete (7")
 Granular Baserock (5")
 Lean to Fat Clay

Boring - B43
 (not to scale)

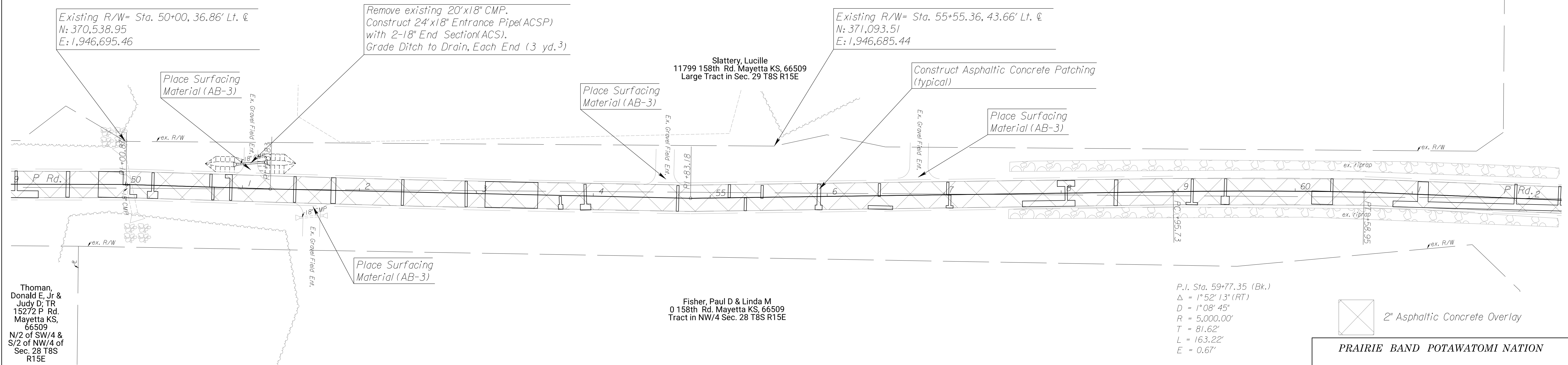
@ P.I. = Sta. 51+00.87
 1.) Not Set
 2.) N: 370,540.79 , E: 1,946,732.29

@ P.I. = Sta. 51+23.83
 1.) Not Set
 2.) N: 370,663.75 , E: 1,946,733.01

@ P.I. = Sta. 54+83.18
 1.) Not Set
 2.) N: 371,023.09 , E: 1,946,731.88

@ P.C. = Sta. 58+95.73
 1.) Not Set
 2.) N: 371,435.33 , E: 1,946,715.76

@ P.T. = Sta. 60+58.95
 1.) Not Set
 2.) N: 371,598.50 , E: 1,946,712.05



P.I. Sta. 59+77.35 (Bk.)
 $\Delta = 1^\circ 52' 13" (RT)$
 $D = 1^\circ 08' 45"$
 $R = 5,000.00'$
 $T = 81.62'$
 $L = 163.22'$
 $E = 0.67'$

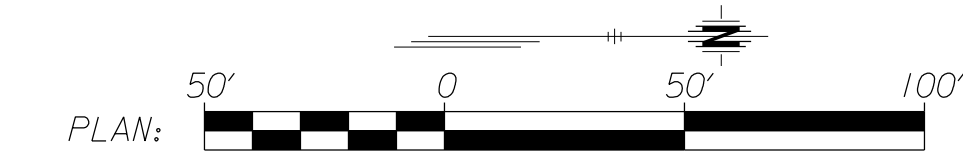
2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 P Rd.- 150th Rd. to 158th Rd.

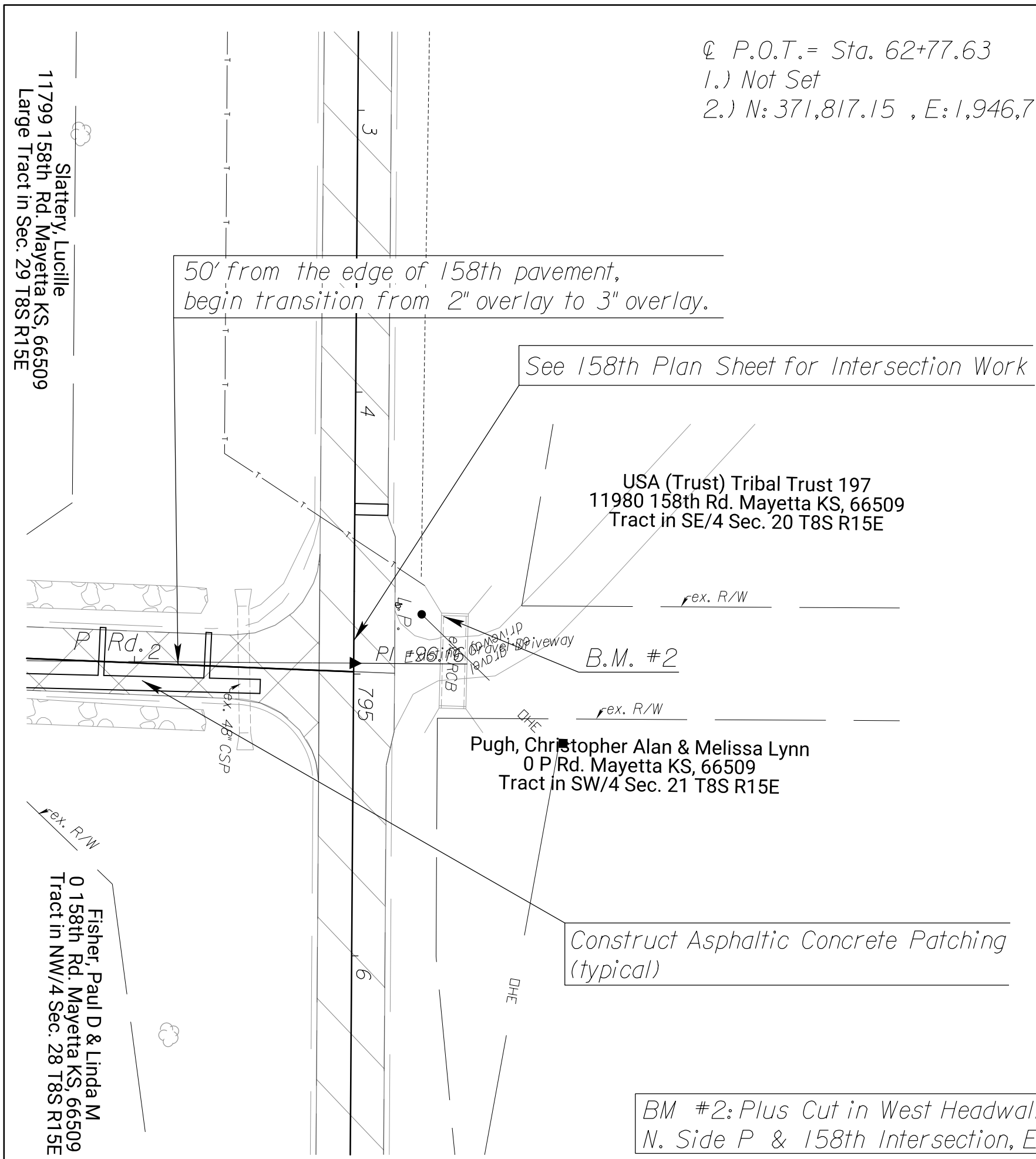
Thoman,
 Donald E, Jr &
 Judy D; TR
 15272 P. Rd.
 Mayetta KS,
 66509
 N/2 of SW/4 &
 S/2 of NW/4 of
 Sec. 28 T8S
 R15E

Fisher, Paul D & Linda M
 0 158th Rd. Mayetta KS, 66509
 Tract in NW/4 Sec. 28 T8S R15E

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 30 | 109 |



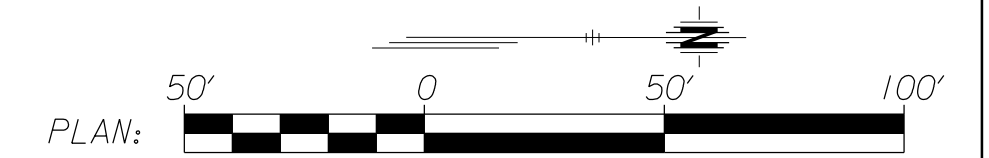
@ P.O.T. = Sta. 62+77.63
 1.) Not Set
 2.) N: 371,817.15 , E: 1,946,715.41




 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 P Rd.- 150th Rd. to 158th Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 31 | 109 |



NE Cor. Sec. 28, T8S, R15E = @ Sta. 62+39.33, 5.81' Lt.
 1.) Found bar 3" below surface
 2.) N: 371,922.11 , E: 1,951,992.92
 @ P.I. Sta. 62+40.48
 1.) Not Set (Office Location)
 2.) N: 371,923.35 , E: 1,951,998.71

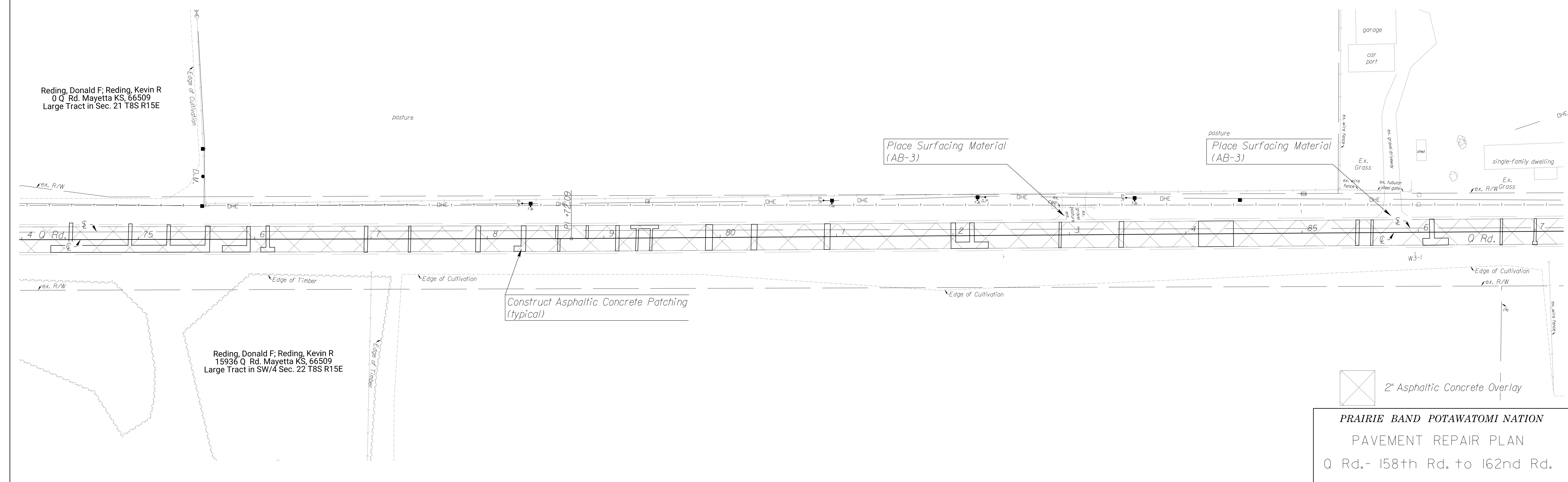
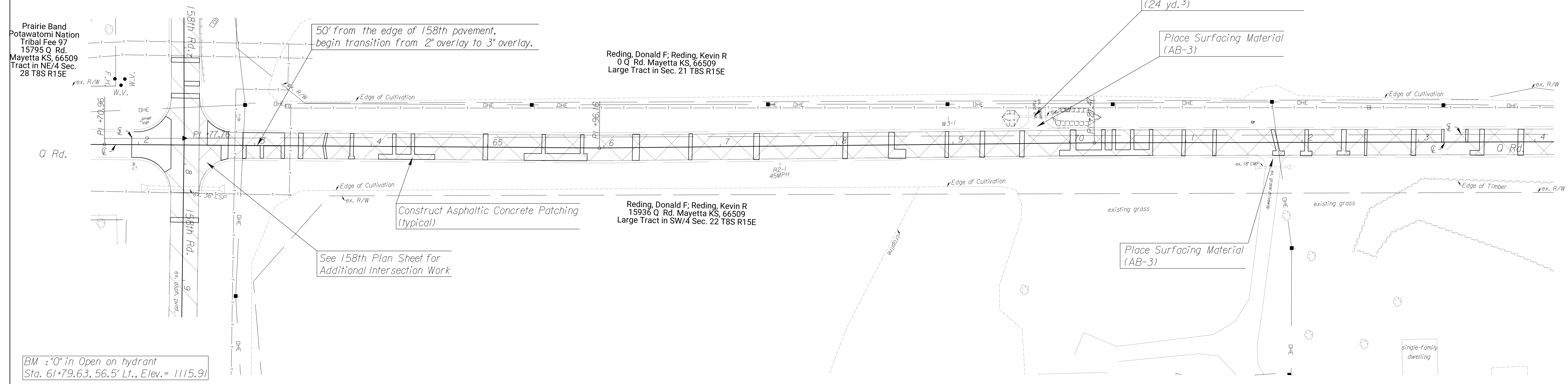
@ P.I. Sta. 65+96.16
 1.) Not Set (Office Location)
 2.) N: 372,279.00 , E: 1,951,994.42

@ P.I. Sta. 70+21.47
 1.) Not Set (Office Location)
 2.) N: 372,704.12 , E: 1,951,981.79

Prairie Band
 Potawatomi Nation
 Tribal Fee 97
 15795 Q Rd.
 Mayetta KS, 66509
 Tract in NE/4 Sec.
 28 T8S R15E

Reding, Donald F; Reding, Kevin R
 0 Q Rd. Mayetta KS, 66509
 Large Tract in Sec. 21 T8S R15E

Reding, Donald F; Reding, Kevin R
 15936 Q Rd. Mayetta KS, 66509
 Large Tract in SW/4 Sec. 22 T8S R15E



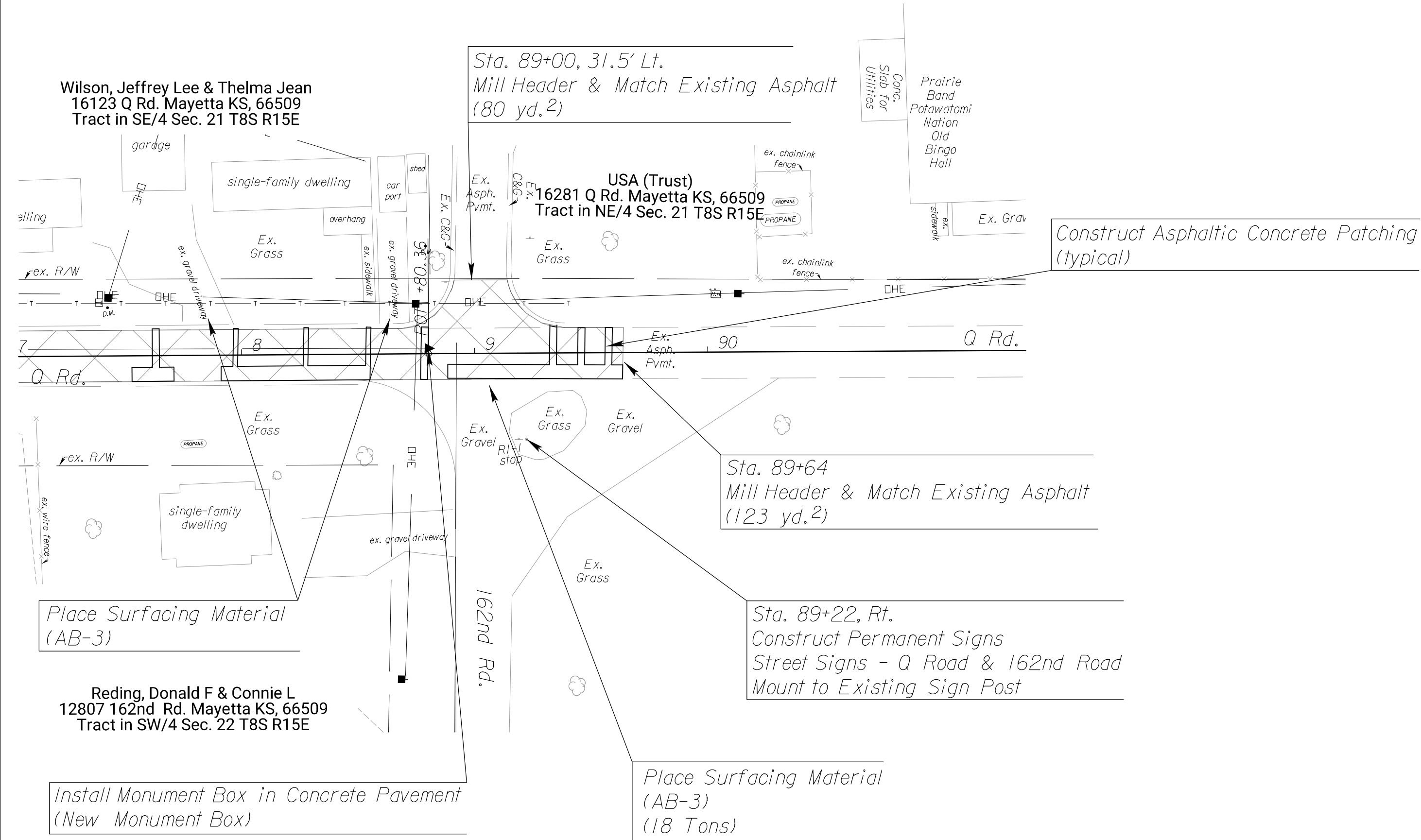
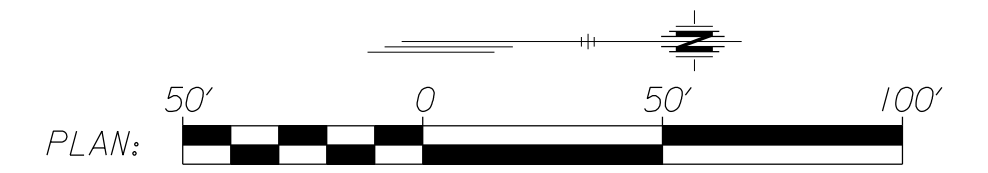
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 Q Rd.- 158th Rd. to 162nd Rd.

℄ P.I. Sta. 88+80.35
 1.) Not Set (Office Location)
 2.) N: 374,562.45 , E: 1,951,936.65

W 1/4 Cor. Sec. 22, T8S, R15E = ℄ Sta. 88+80.36, 2.25' Lt.
 1.) Found bar at surface
 2.) N: 374,562.15 , E: 1,951,934.40

℄ P.I. Sta. 90+00.00
 1.) Not Set (Office Location)
 2.) N: 374,682.04 , E: 1,951,933.69

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 32 | 109 |



 2" Asphaltic Concrete Overlay

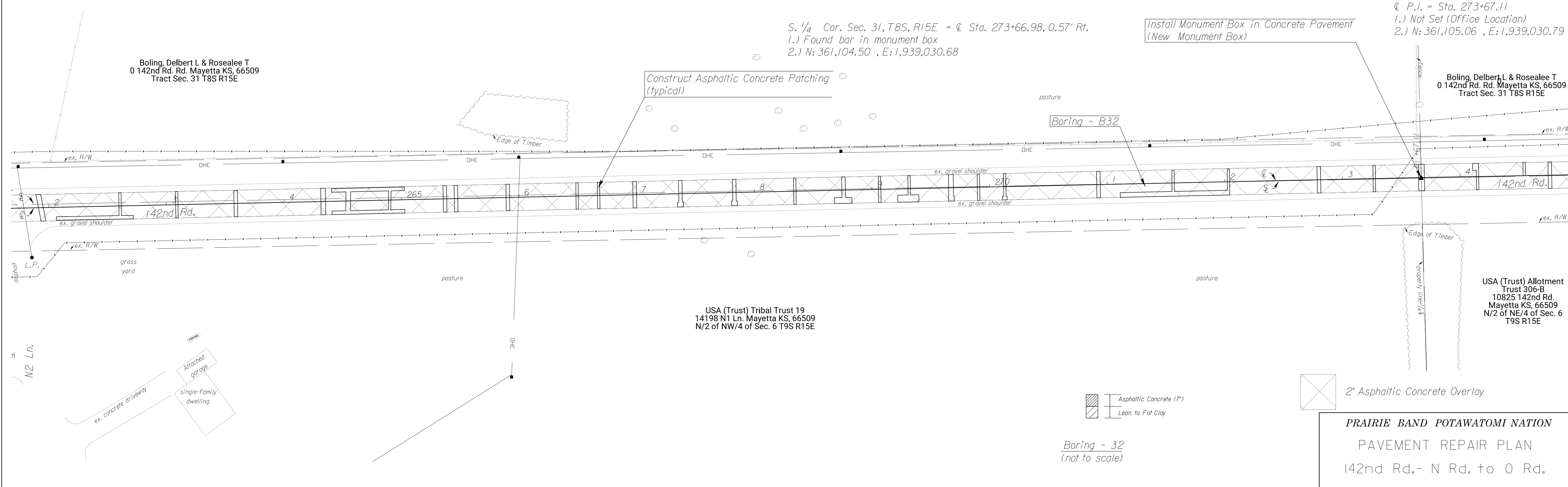
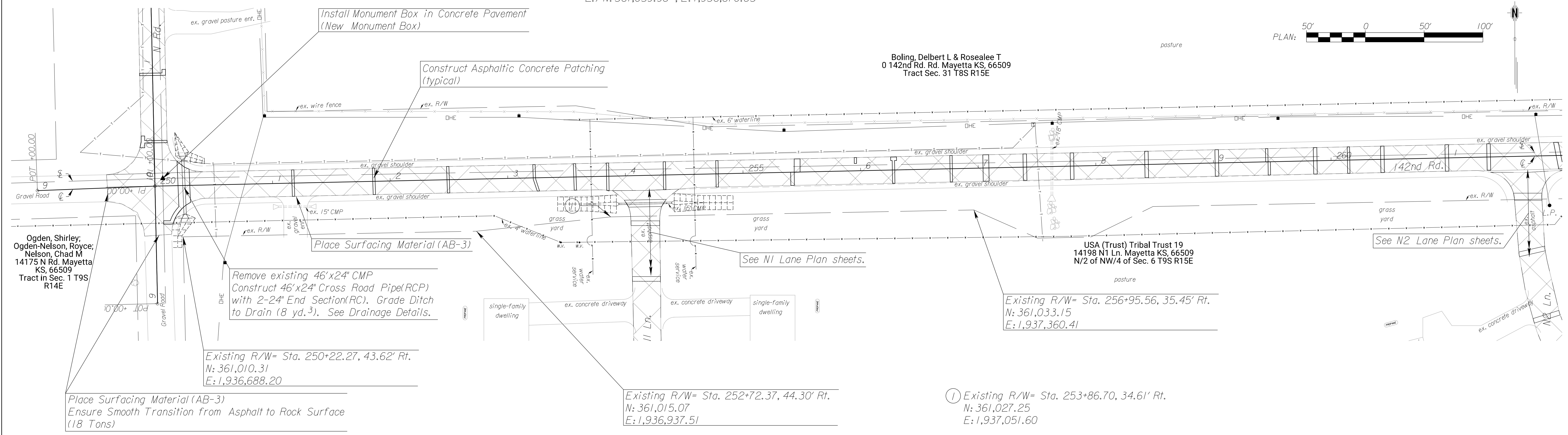
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 Q Rd.- 158th Rd. to 162nd Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 33 | 109 |

@ P.O.T. = Sta. 250+00
 1.) Not Set (Office Location)
 2.) N: 361,053.42 , E: 1,936,664.24

S.W. Cor. Sec. 31, T8S, R15E = @ Sta. 250+06.84, 6.42' Lt.
 1.) Found bar in monument box
 2.) N: 361,059.98 , E: 1,936,670.83

Boling, Delbert L & Rosealee T
 0 142nd Rd. Rd. Mayetta KS, 66509
 Tract Sec. 31 T8S R15E



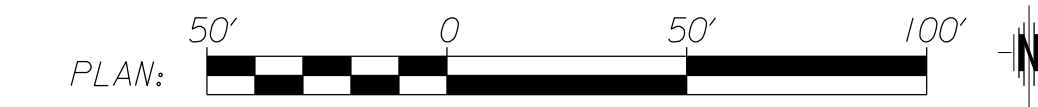
Asphaltic Concrete (7")
 Lean to Fat Clay

2" Asphaltic Concrete Overlay

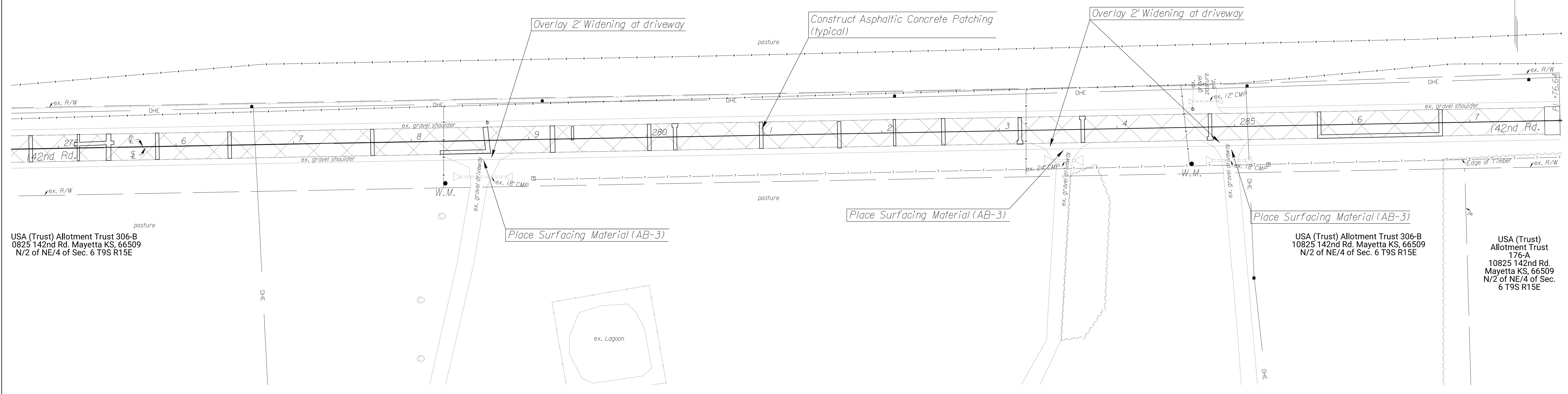
Boring - 32
(not to scale)

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 142nd Rd.- N Rd. to 0 Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 34 | 109 |



Boling, Delbert L & Rosealee T
 0 142nd Rd. Rd. Mayetta KS, 66509
 Tract Sec. 31 T8S R15E



USA (Trust) Allotment Trust 306-B
 0825 142nd Rd. Mayetta KS, 66509
 N/2 of NE/4 of Sec. 6 T9S R15E

USA (Trust) Allotment Trust 306-B
 10825 142nd Rd. Mayetta KS, 66509
 N/2 of NE/4 of Sec. 6 T9S R15E

USA (Trust) Allotment Trust 176-A
 10825 142nd Rd. Mayetta KS, 66509
 N/2 of NE/4 of Sec. 6 T9S R15E

℄ P.I. = Sta. 287+76.64
 1.) Not Set (Office Location)
 2.) N: 361,131.00 , E: 1,940,440.08

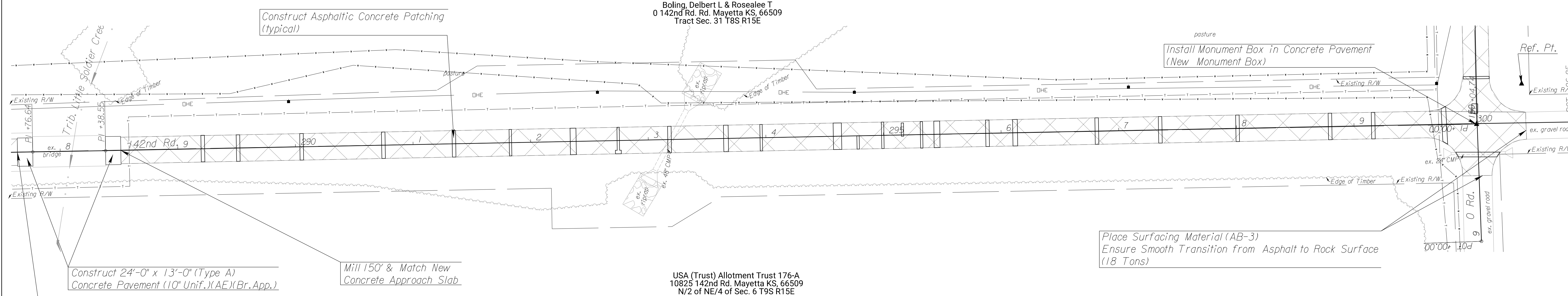
℄ P.I. = Sta. 288+38.55
 1.) Not Set (Office Location)
 2.) N: 361,132.03 , E: 1,940,501.98

S.E. Cor. Sec. 31, T8S, R15E = ℄ Sta. 300+04.19, 0.56' Rt.
 1.) Found bar in monument box
 2.) N: 361,154.52 , E: 1,941,667.40

℄ P.O.T. = Sta. 300+04.74
 1.) Not Set (Office Location)
 2.) N: 361,155.09 , E: 1,941,667.95

Reference Point No. 1
 1.) Set bar 2" below vegetated surface
 2.) East edge asphalt pavement 27.6' W.
 3.) North edge gravel road 142nd 20.8' S.
 4.) N: 361,188.87 , E: 1,941,705.72

Boling, Delbert L & Rosealee T
 0 142nd Rd. Rd. Mayetta KS, 66509
 Tract Sec. 31 T8S R15E



Mill 150' & Match New
 Concrete Approach Slab

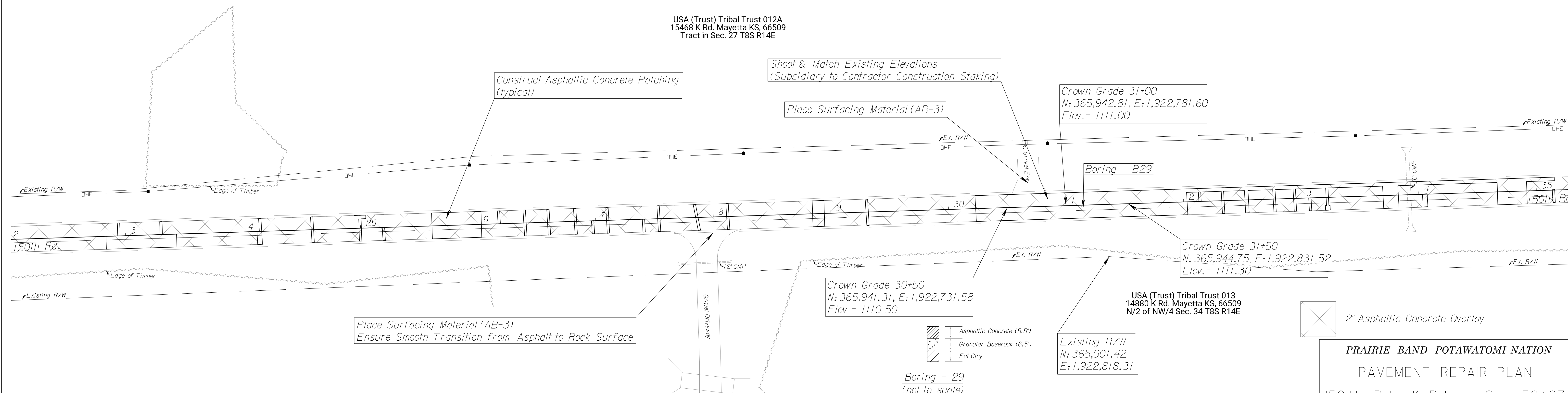
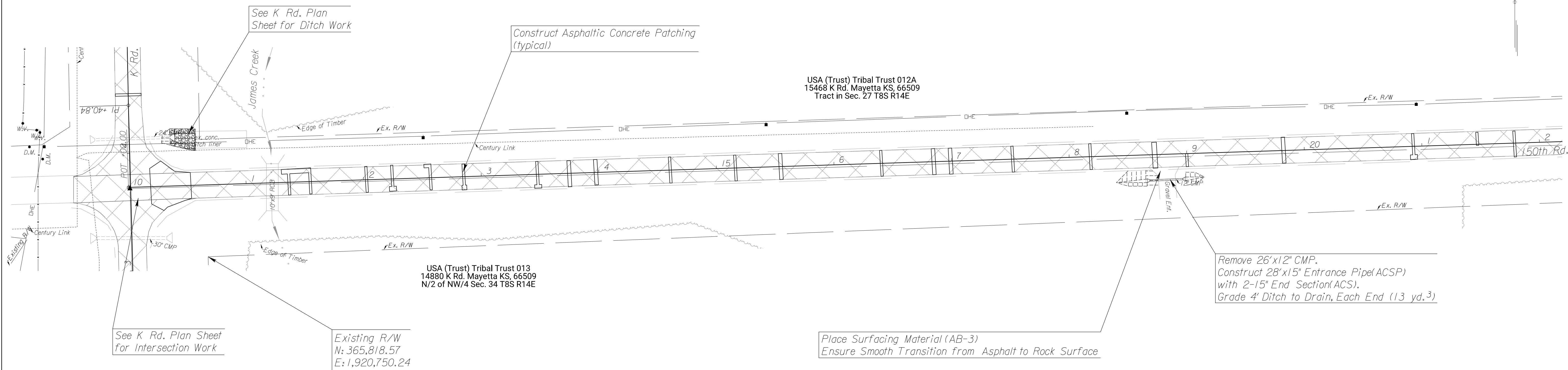
USA (Trust) Allotment Trust 176-A
 10825 142nd Rd. Mayetta KS, 66509
 N/2 of NE/4 of Sec. 6 T9S R15E

2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 142nd Rd.- N Rd. to 0 Rd.

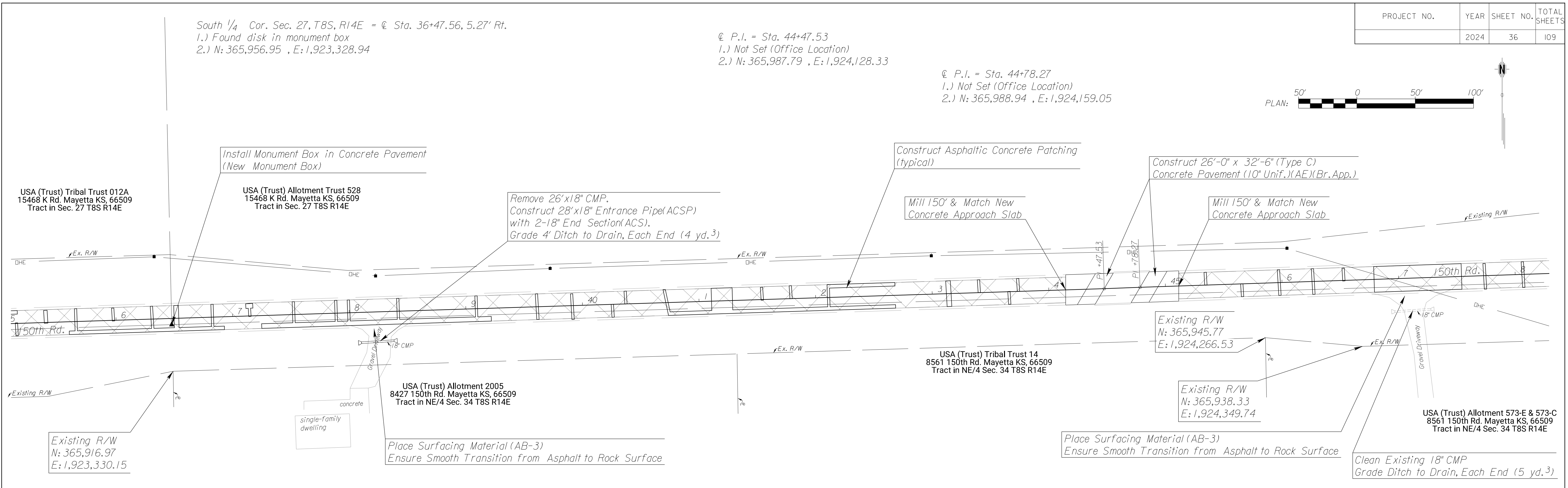
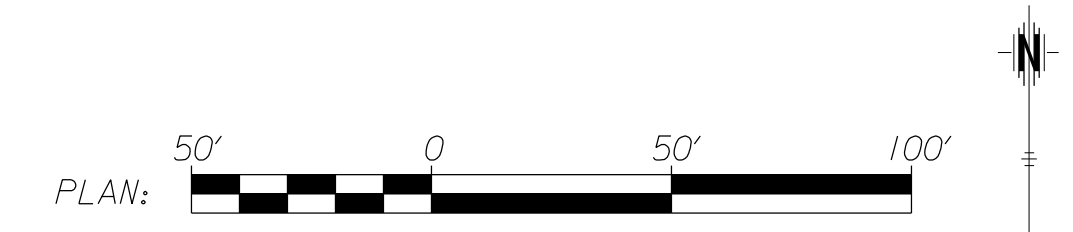
@ P.O.T. = Sta. 10+00
 1.) Not Set (Office Location)
 2.) N: 365,877.60 , E: 1,920,682.56

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 35 | 109 |



PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- K Rd. to Sta 50+97

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 36 | 109 |



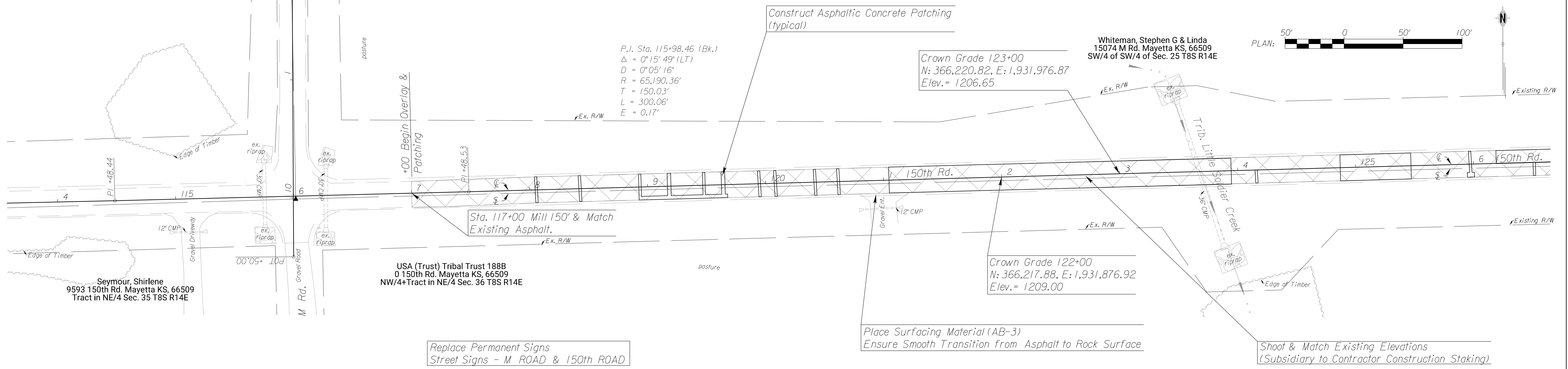
 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- K Rd. to Sta 50+97

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 37 | 109 |

@ P.I. = Sta. 114+48.44
 1.) Not Set (Office Location)
 2.) N: 366,199.27 , E: 1,931,125.66

@ P.I. = Sta. 117+48.53
 1.) Not Set (Office Location)
 2.) N: 366,206.86 , E: 1,931,425.62

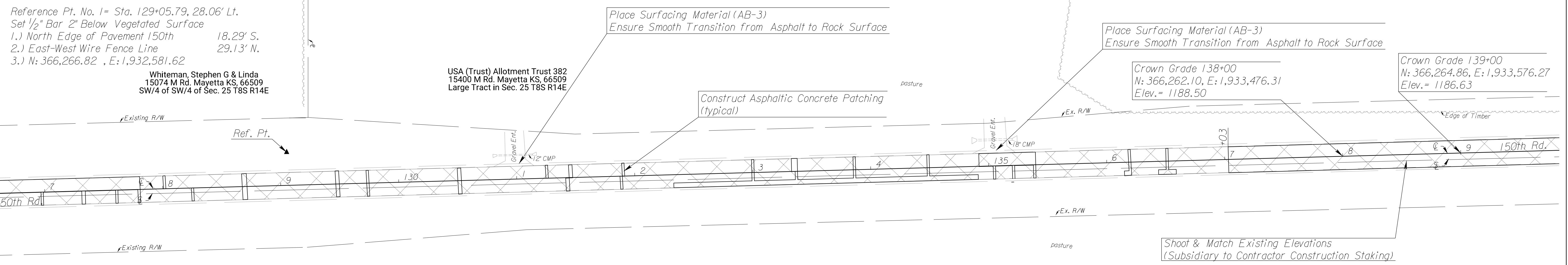


Reference Pt. No. 1 = Sta. 129+05.79, 28.06' Lt.
 Set 1/2" Bar 2" Below Vegetated Surface
 1.) North Edge of Pavement 150th 18.29' S.
 2.) East-West Wire Fence Line 29.13' N.
 3.) N: 366,266.82 , E: 1,932,581.62

Whiteman, Stephen G & Linda
 15074 M Rd. Mayetta KS, 66509
 SW/4 of SW/4 of Sec. 25 T8S R14E

USA (Trust) Allotment Trust 382
 15400 M Rd. Mayetta KS, 66509
 Large Tract in Sec. 25 T8S R14E

USA (Trust) Tribal Trust 188B
 0 150th Rd. Mayetta KS, 66509
 NW/4+Tract in NE/4 Sec. 36 T8S R14E



 2" Asphaltic Concrete Overlay

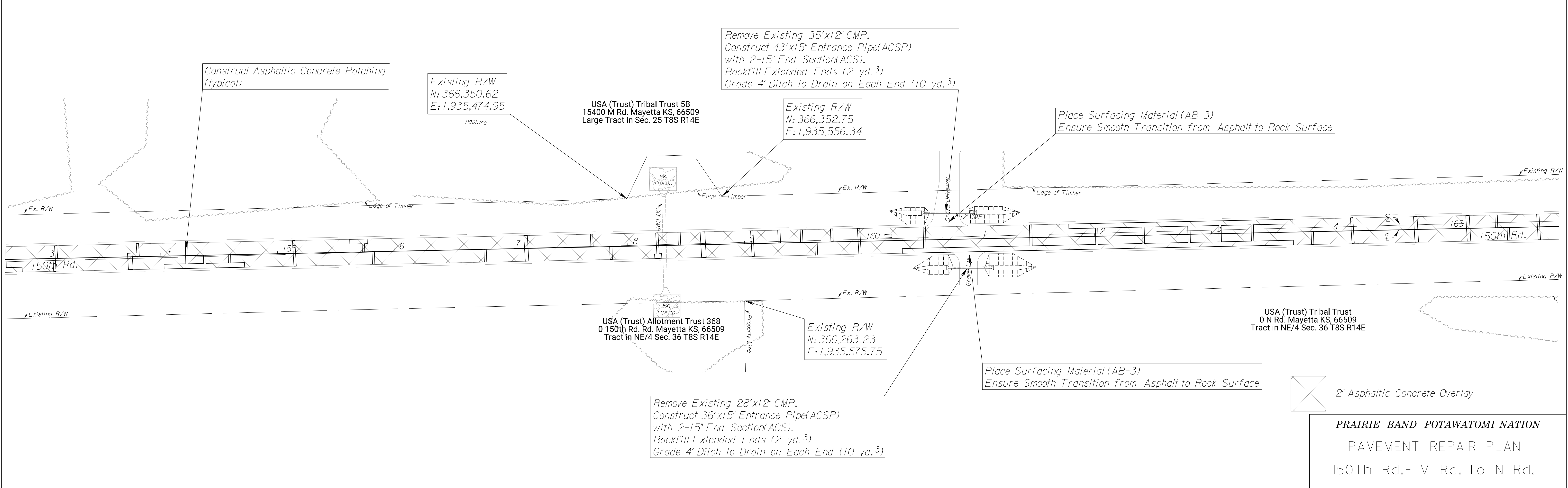
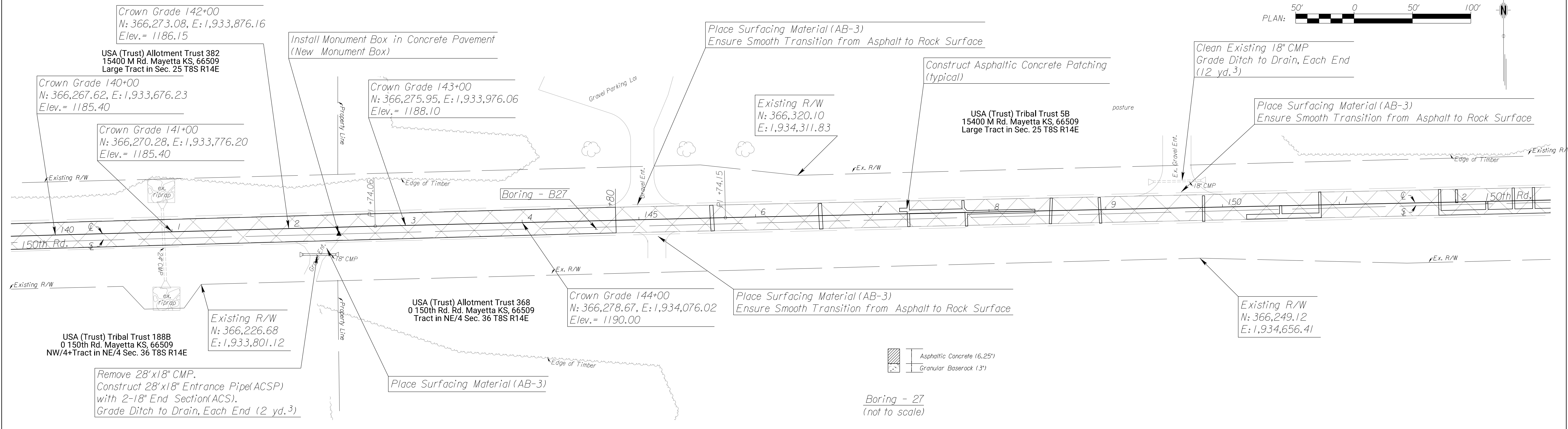
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- M Rd. to N Rd.

South 1/4 Corner Sec. 25, T8S, R14E = Sta. 142+42.75, 5.87' Rt.
 1.) Found Disk in Monument Box
 2.) N: 366,269.78, E: 1,933,919.01

℄ P.I. = Sta. 142+74.06
 1.) Not Set (Office Location)
 2.) N: 366,276.51, E: 1,933,950.15

℄ P.I. = Sta. 145+74.15
 1.) Not Set (Office Location)
 2.) N: 366,283.84, E: 1,934,250.06

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 38 | 109 |



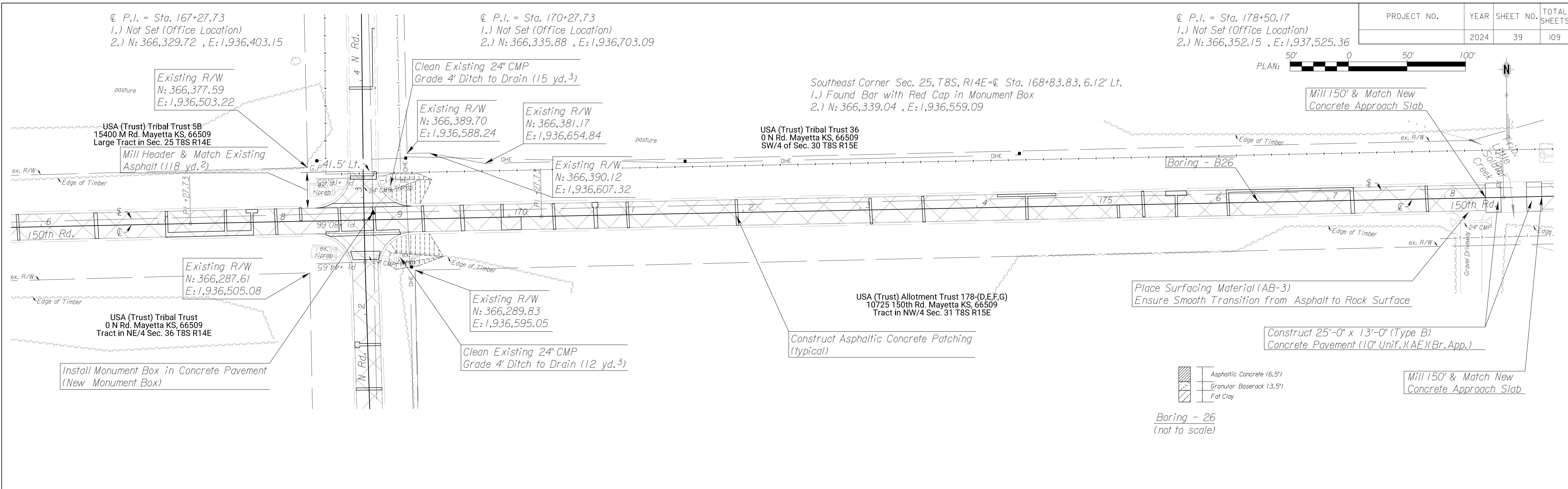
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- M Rd. to N Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 39 | 109 |

@ P.I. = Sta. 167+27.73
 1.) Not Set (Office Location)
 2.) N: 366,329.72 , E: 1,936,403.15

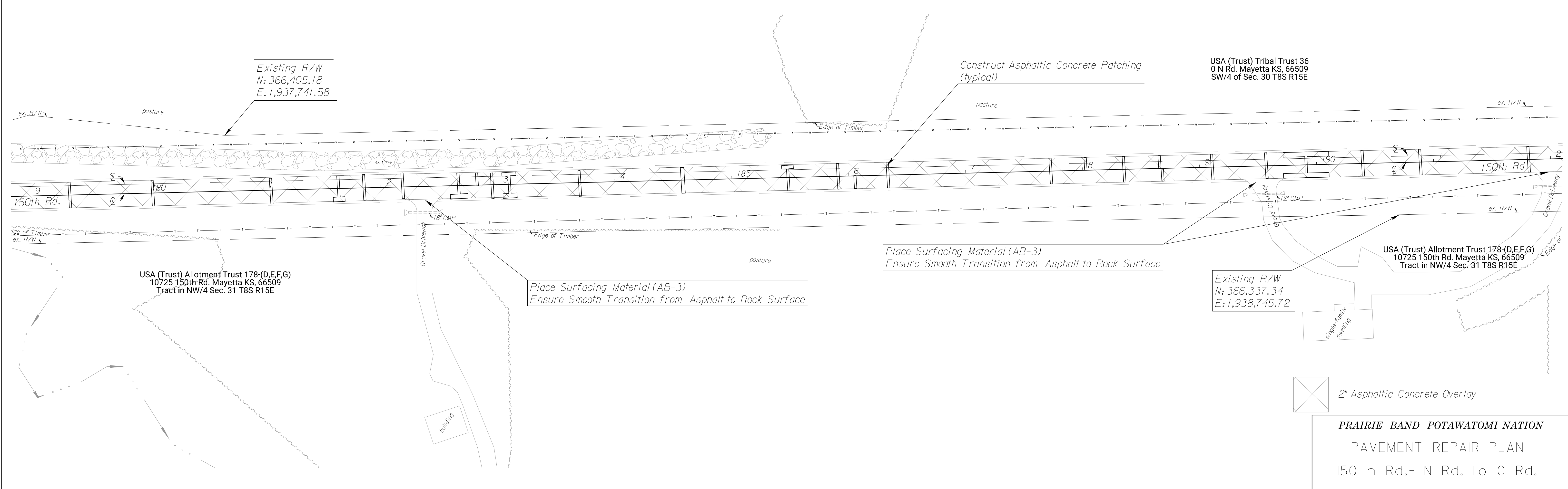
@ P.I. = Sta. 170+27.73
 1.) Not Set (Office Location)
 2.) N: 366,335.88 , E: 1,936,703.09

@ P.I. = Sta. 178+50.17
 1.) Not Set (Office Location)
 2.) N: 366,352.15 , E: 1,937,525.36



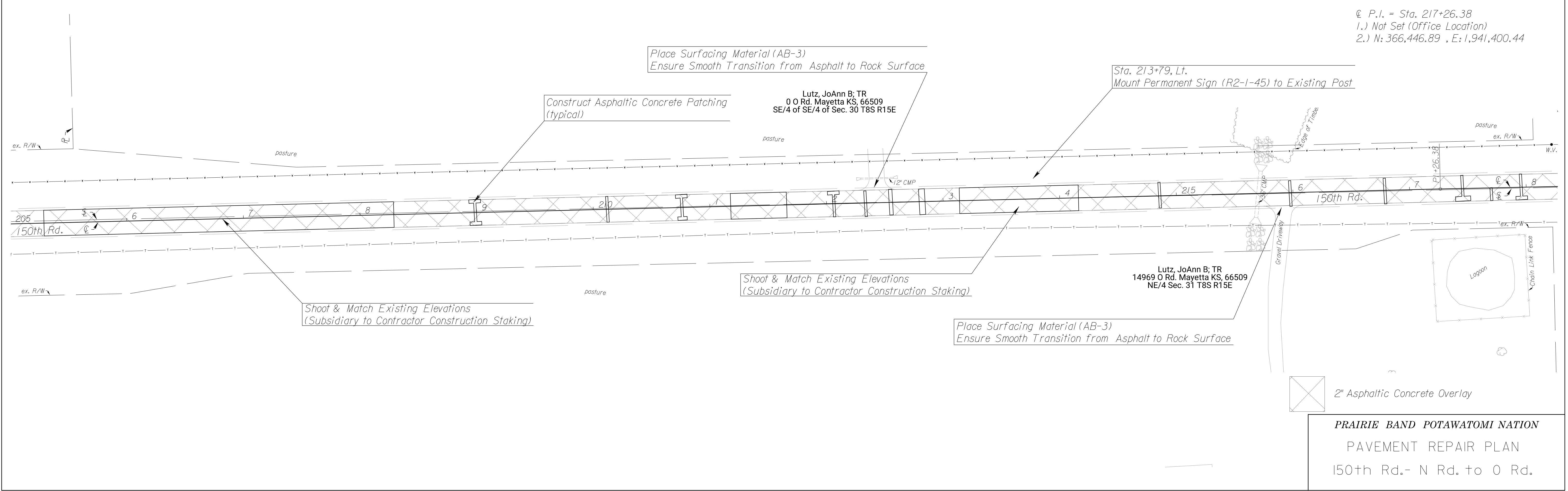
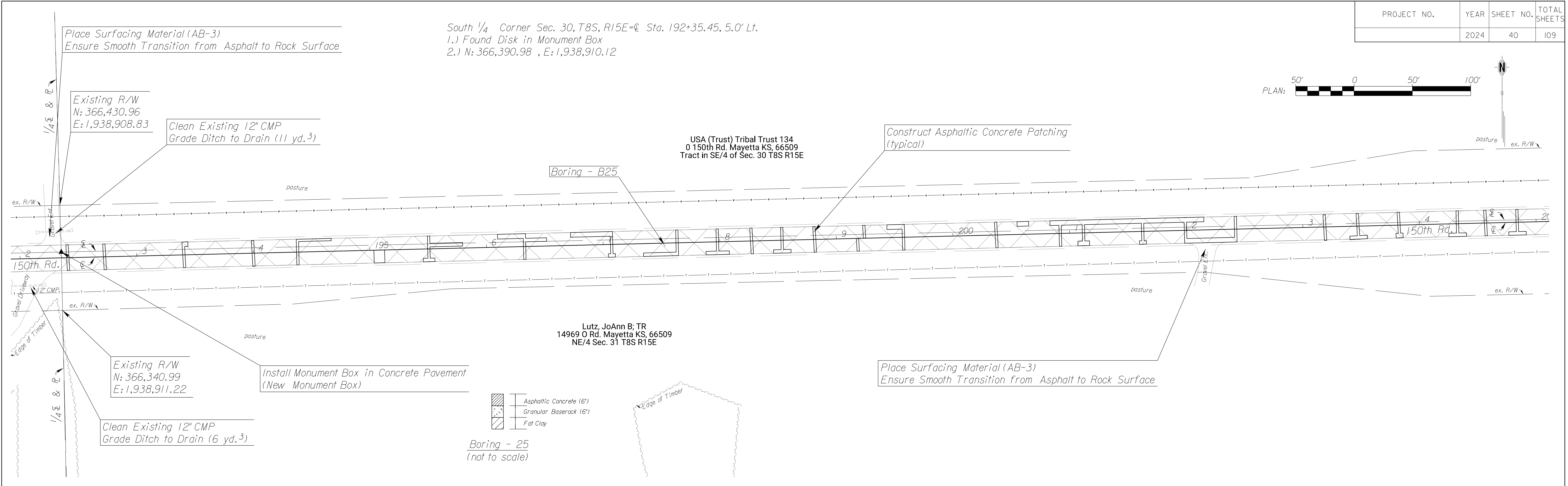
- Asphaltic Concrete (6.5')
- Granular Baserock (3.5')
- Fat Clay

Boring - 26
 (not to scale)



PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- N Rd. to 0 Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 40 | 109 |



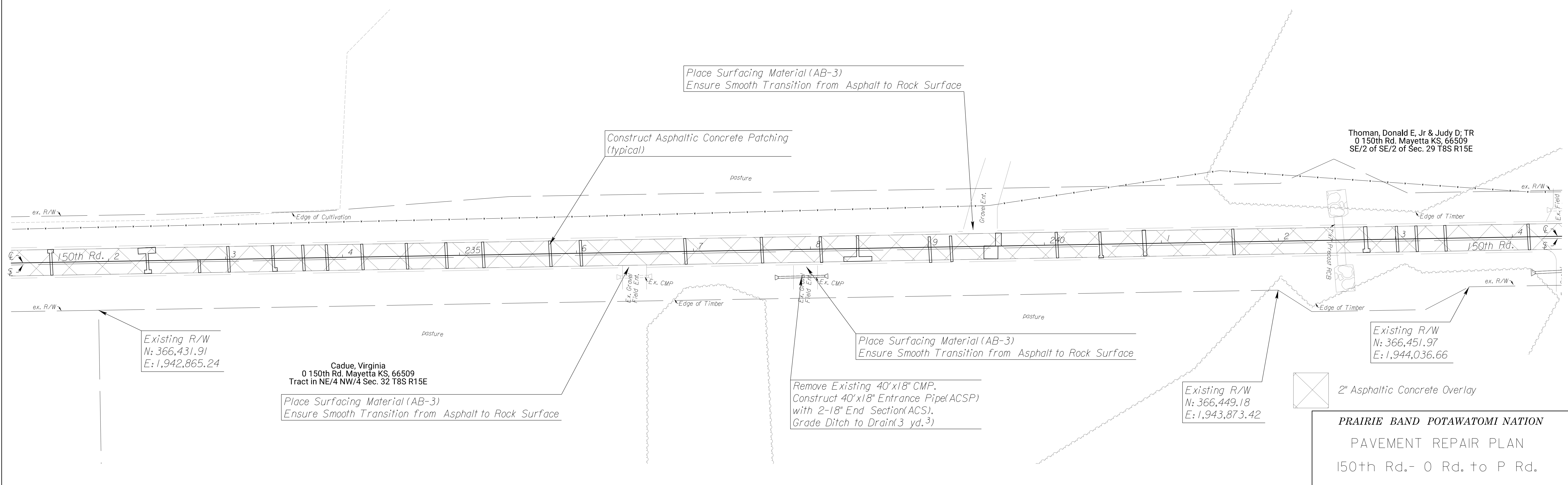
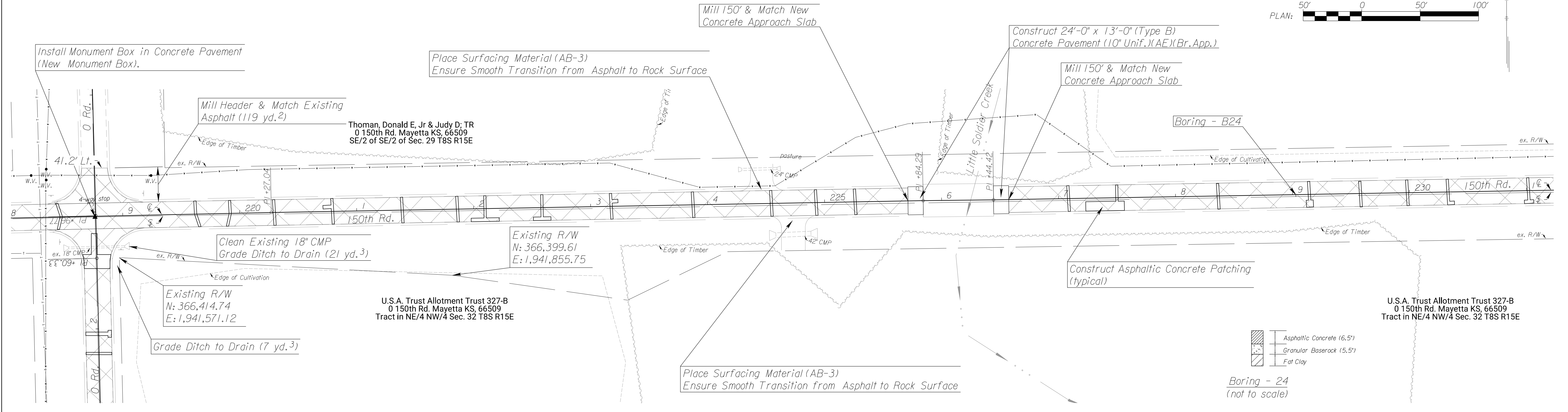
℄ P.I. = Sta. 220+27.04
 1.) Not Set (Office Location)
 2.) N: 366,453.30 , E: 1,941,701.03

Southeast Corner Sec. 30, T8S, R15E=℄ Sta. 218+76.28, 0.70' Rt.
 1.) Found bar in Monument Box
 2.) N: 366,449.39 , E: 1,941,550.30

℄ P.I. = Sta. 225+84.29
 1.) Not Set (Office Location)
 2.) N: 366,463.45 , E: 1,942,258.17

℄ P.I. = Sta. 226+44.42
 1.) Not Set (Office Location)
 2.) N: 366,464.13 , E: 1,942,318.29

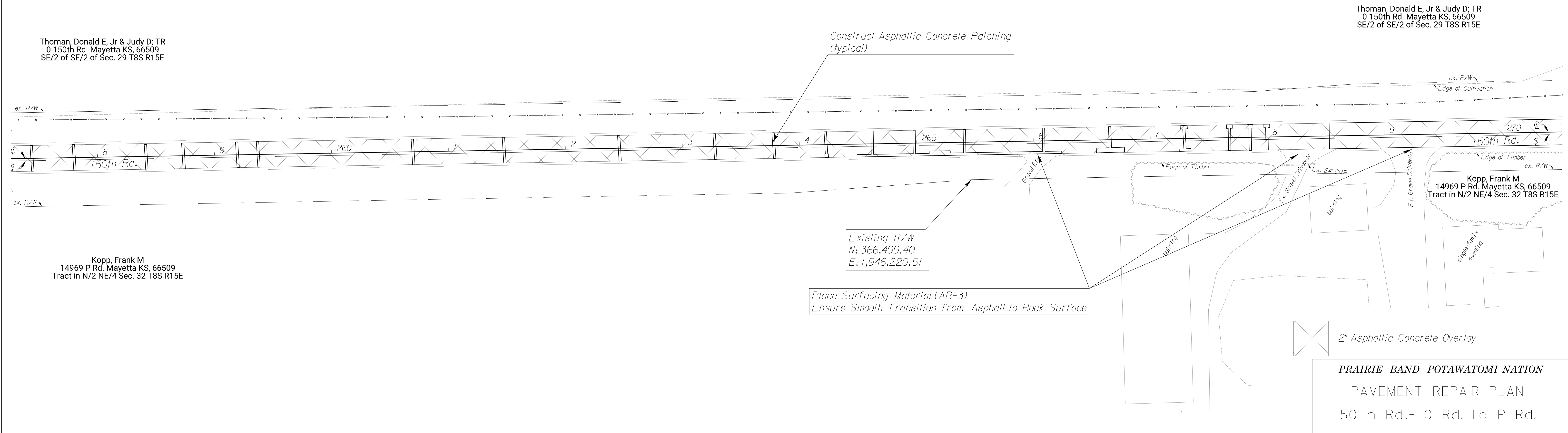
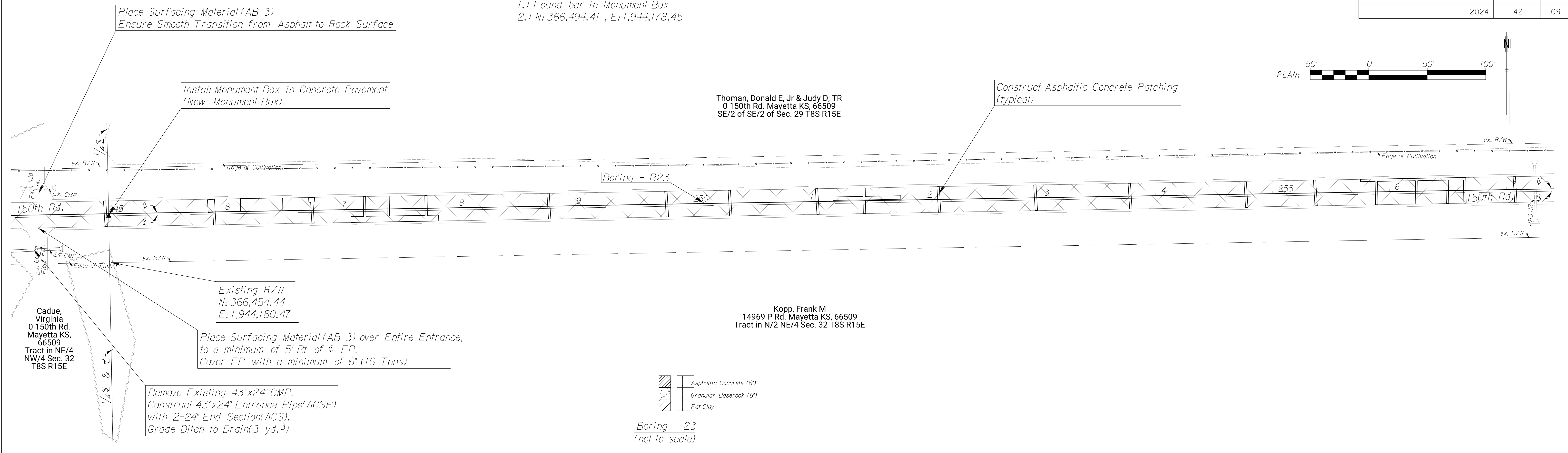
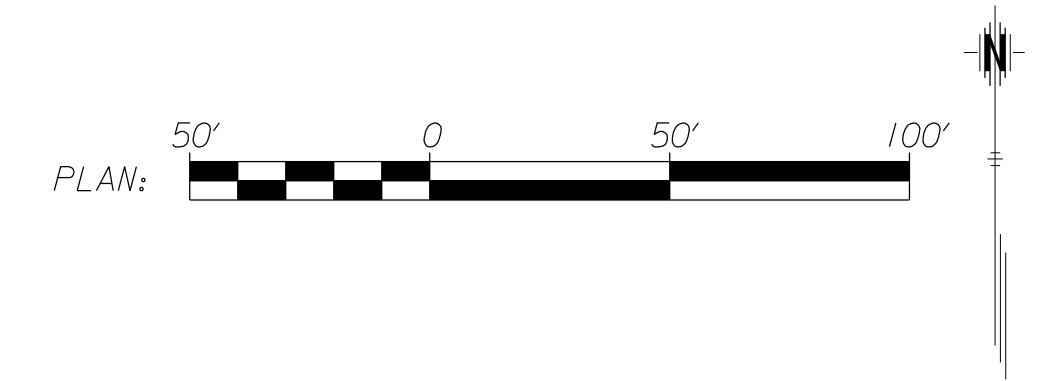
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 41 | 109 |



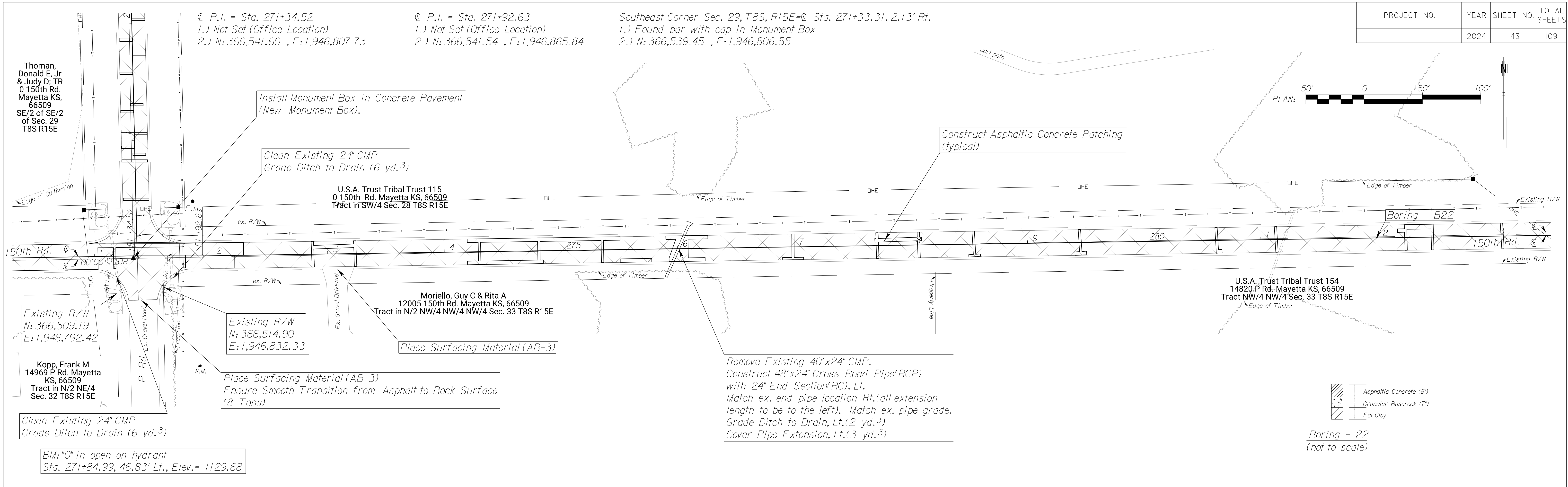
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- 0 Rd. to P Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 42 | 109 |

South 1/4 Corner Sec. 29, T8S, R15E = ϕ Sta. 245+04.82, 1.82' Rt.
 1.) Found bar in Monument Box
 2.) N: 366,494.41, E: 1,944,178.45

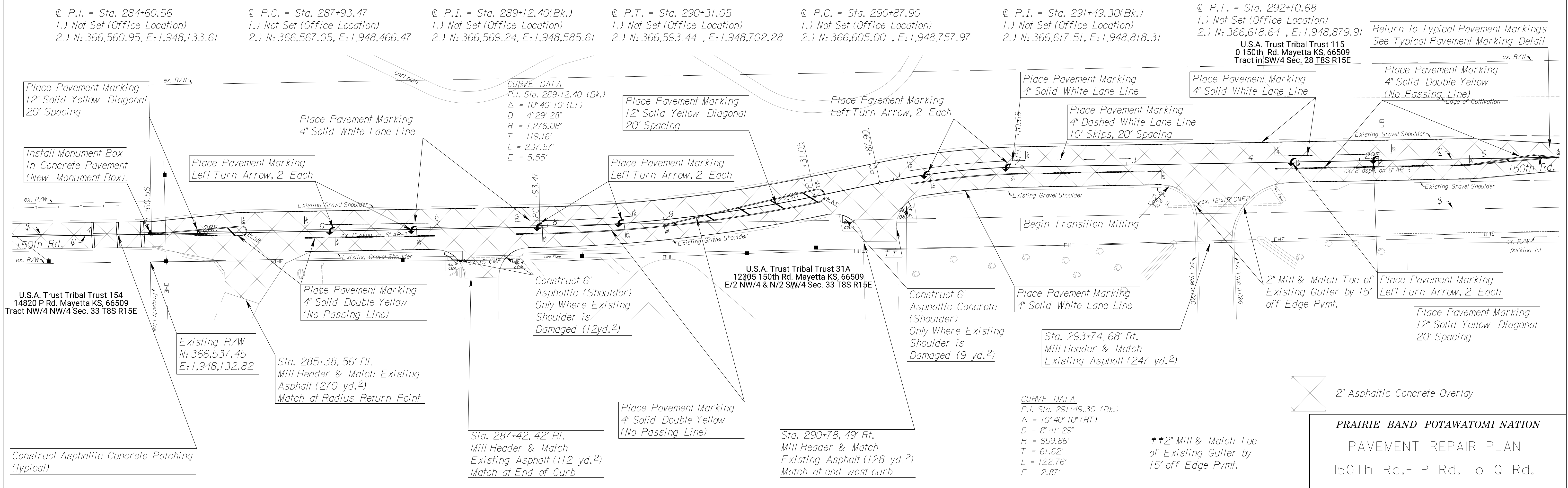


| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 43 | 109 |



- Asphaltic Concrete (8")
- Granular Base/rock (7")
- Fat Clay

Boring - 22
(not to scale)

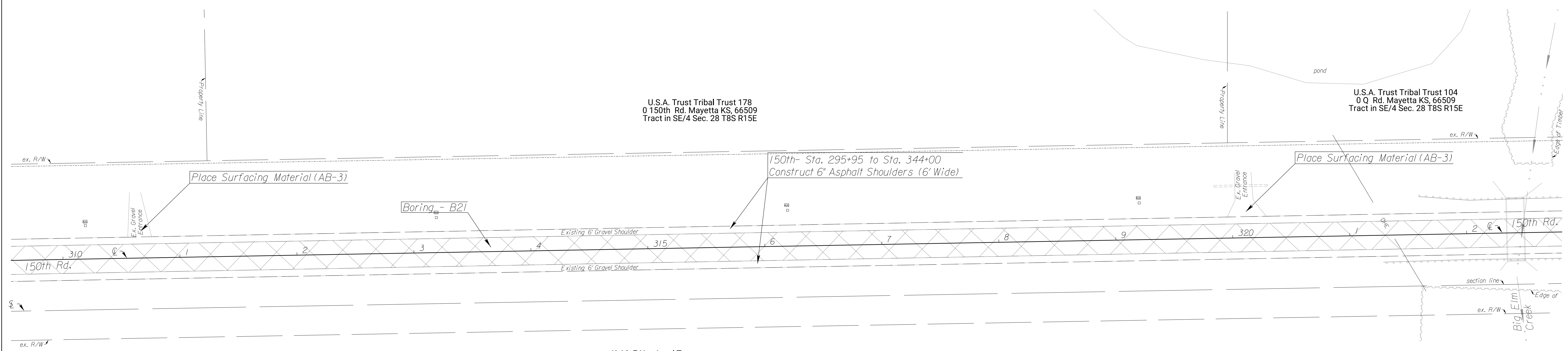
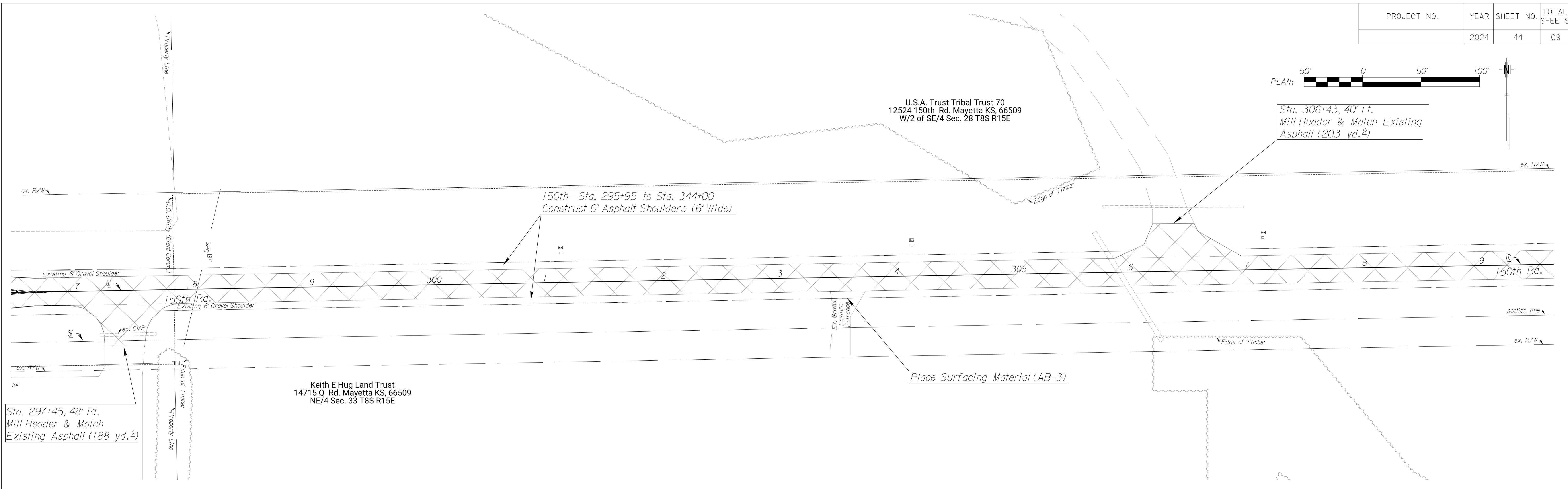


CURVE DATA
P.I. Sta. 291+49.30 (Bk.)
Δ = 10° 40' 10" (RT)
D = 8' 41' 29"
R = 659.86'
T = 61.62'
L = 122.76'
E = 2.87'

2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
150th Rd.- P Rd. to Q Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 44 | 109 |



- Asphaltic Concrete (11.5')
- Granular Base/rock (6.5')
- Fat Clay

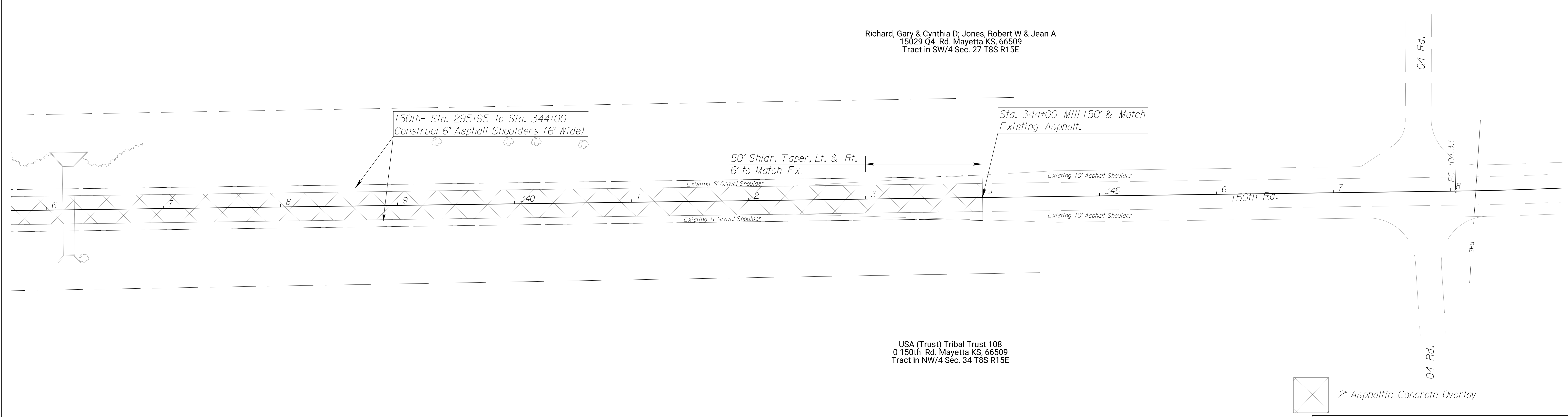
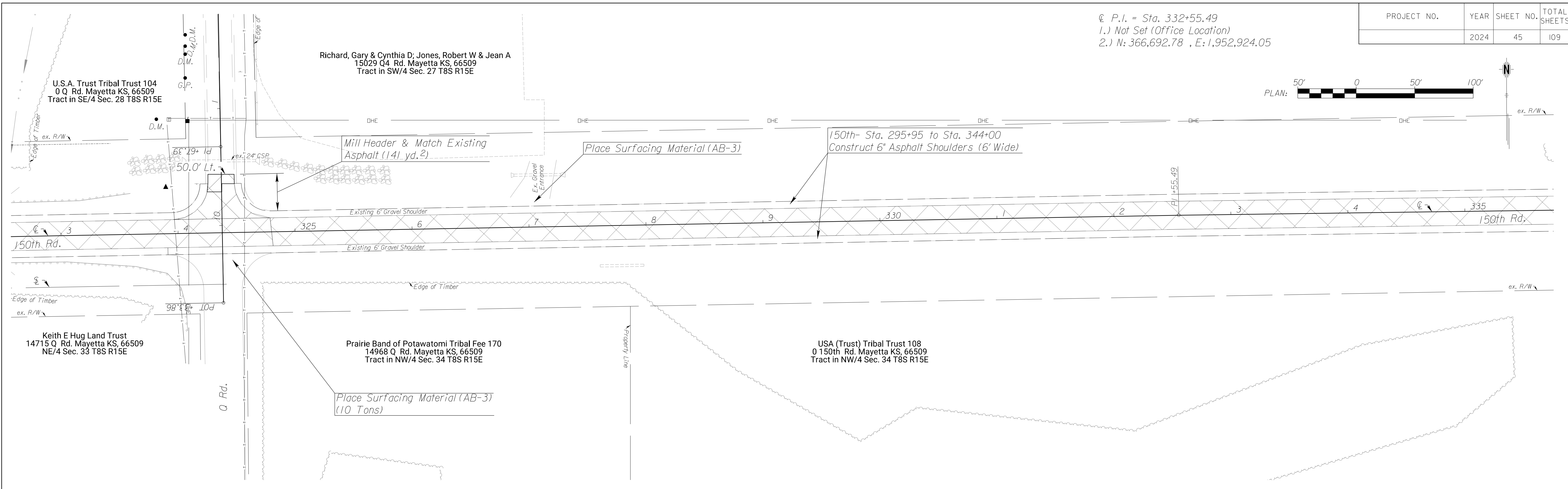
Boring - 21
(not to scale)

2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
150th Rd.- P Rd. to Q Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 45 | 109 |

@ P.I. = Sta. 332+55.49
 1.) Not Set (Office Location)
 2.) N: 366,692.78 . E: 1,952,924.05



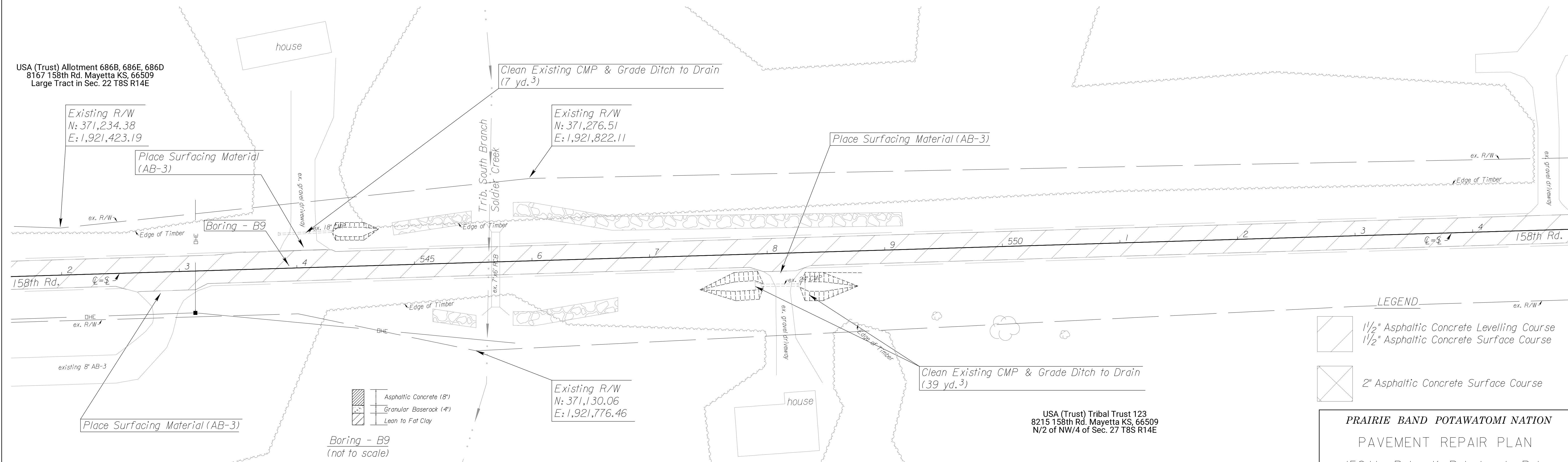
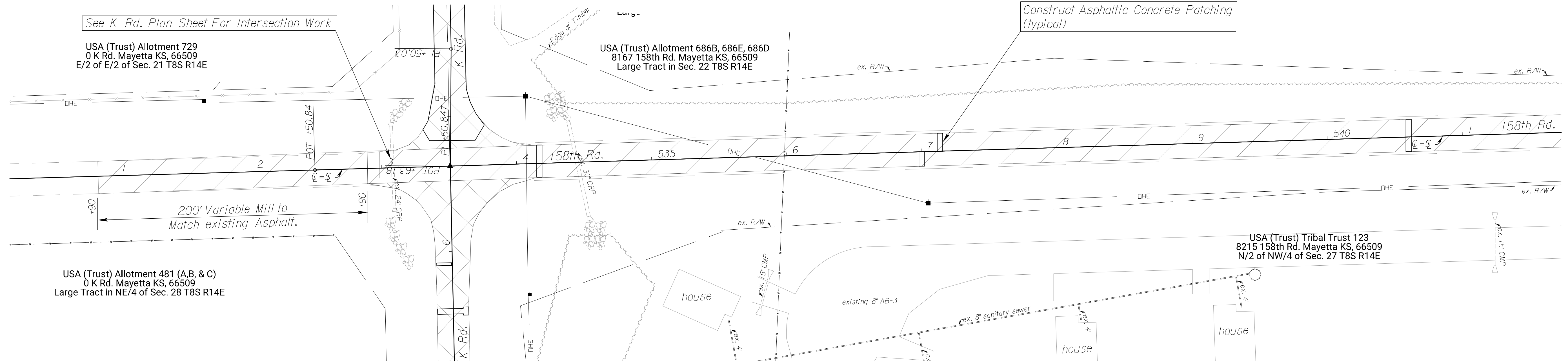
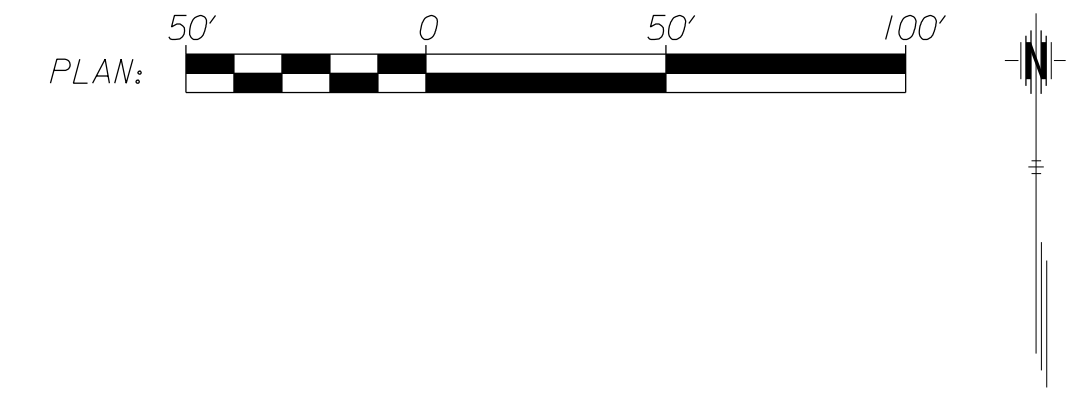
 2" Asphaltic Concrete Overlay

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 150th Rd.- Q Rd. to Sta 344+00

℄ P.O.T. Sta. 532+50.84
 1.) Not Set
 2.) N: 371,165.70 , E: 1,920,475.64

SE Cor. Sec. 21, T8S, R14E= ℄ P.I. at Sta. 533+50.84
 1.) Found bar 0.3' below surface
 2.) N: 371,168.62 , E: 1,920,575.60

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 46 | 109 |



LEGEND

| | |
|--|--|
| | 1 1/2" Asphaltic Concrete Levelling Course |
| | 1 1/2" Asphaltic Concrete Surface Course |
| | 2" Asphaltic Concrete Surface Course |

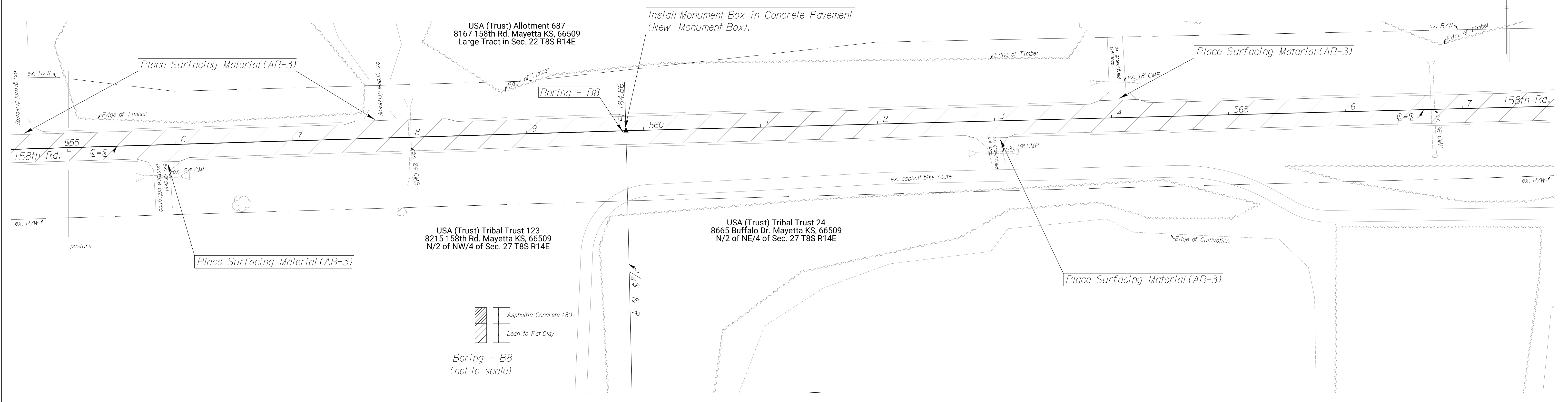
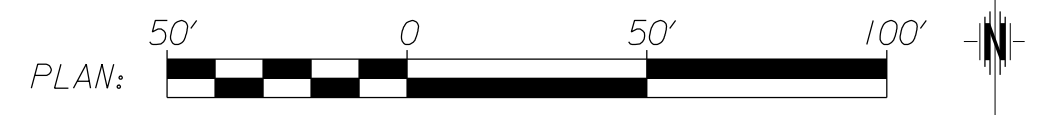
Asphaltic Concrete (8")
 Granular Base/rock (4")
 Lean to Fat Clay

Boring - B9
 (not to scale)

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- K Rd. to L Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 47 | 109 |

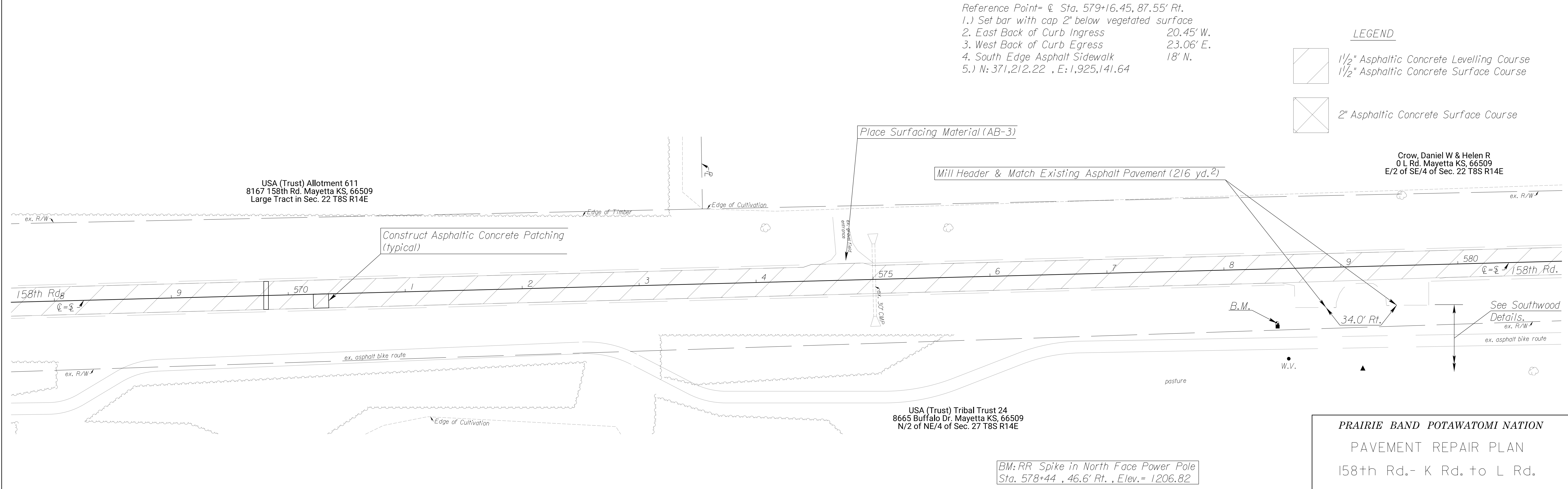
South 1/4 Cor. Sec. 22, T8S, R14E= C.P.I. at Sta. 559+84.86
 1.) Found bar with cap (CLS 307) 0.3' below surface
 2.) N: 371,248.58 , E: 1,923,208.40



Reference Point= C Sta. 579+16.45, 87.55' Rt.
 1.) Set bar with cap 2" below vegetated surface
 2. East Back of Curb Ingress 20.45' W.
 3. West Back of Curb Egress 23.06' E.
 4. South Edge Asphalt Sidewalk 18' N.
 5.) N: 371,212.22 , E: 1,925,141.64

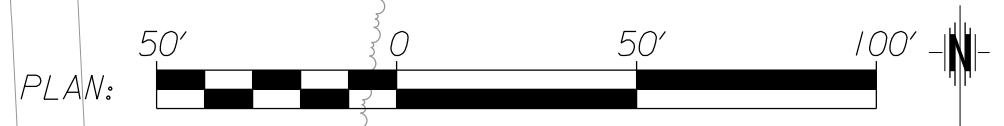
LEGEND

- 1 1/2" Asphaltic Concrete Levelling Course
- 1 1/2" Asphaltic Concrete Surface Course
- 2" Asphaltic Concrete Surface Course



PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- K Rd. to L Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 48 | 109 |



NW Cor. Sec. 26, T8S, R14E, @ P.I. at Sta. 586+28.88
 1.) Found bar with cap 2" below asphalt surface
 2. Top 24" CMP S.E. quadrant L & 158th 57.32' S.E.
 3. Top 30" CMP N.E. quadrant L & 158th 54.70' N.E.
 4. North Edge Asphalt Sidewalk 65.66' S.
 5.) N: 371,318.60 , E: 1,925,851.50

Crow, Daniel W & Helen R
 0 L Rd. Mayetta KS, 66509
 E/2 of SE/4 of Sec. 22 T8S R14E

Install Monument Box in Concrete Pavement
 (New Monument Box)

Existing R/W
 N: 371,427.82
 E: 1,925,877.31

Match Existing Edge of Asphalt
 Place Surfacing Material (AB-3)(10 tons)

Lawson, Donald O & Nancy H
 8860 158th Rd. Mayetta KS, 66509
 W/2 of SW/4 of Sec. 23 T8S R14E

Clean Existing 30" CMP
 Grade Ditch to Drain, East End (12 yd.³)

Existing R/W
 N: 371,365.82
 E: 1,925,921.17

Existing R/W
 N: 371,390.54
 E: 1,926,070.46

Place Surfacing Material (AB-3)

158th Rd.

158th Rd.

Place Crosswalk for Bike Route
 See Typical Detail

Clean Existing 24" CMP
 Grade Ditch to Drain, East End (8 yd.³)

Shenk, James H & Marjean A; TR
 0 158th Rd. Mayetta KS, 66509
 N/2 of NW/4 of Sec. 26 T8S R14E

Construct Asphaltic Concrete Patching
 (typical)

Mill Header & Match Existing Asphalt Pavement (122 yd.²)

Mill Header & Place Variable Asphaltic Overlay Transition to Asphalt Sidewalk.
 Match Existing Asphalt at 10' from edge pvmt. L Rd., Each Side (24 yd.²)

Place Surfacing Material
 (AB-3)

BM: "0" in Open on Hydrant
 Sta. 586+90, 75' Rt., Elev. = 1188.68

USA (Trust) Tribal Trust 24
 8665 Buffalo Dr. Mayetta KS, 66509
 N/2 of NE/4 of Sec. 27 T8S R14E

Lawson, Donald O & Nancy H
 8860 158th Rd. Mayetta KS, 66509
 W/2 of SW/4 of Sec. 23 T8S R14E

Construct Asphaltic Concrete Patching
 (typical)

Place Crosswalk for Bike Route
 See Typical Detail

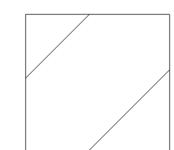
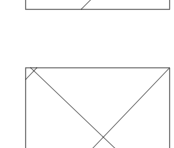
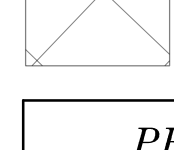
USA (Trust) Tribal Trust 8 & 17
 15860 L4 Ln. Mayetta KS, 66509
 Large Tract in Sec. 23 T8S R14E

158th Rd.

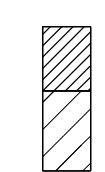
158th Rd.

Mill Header & Place Variable Asphaltic Overlay Transition to Asphalt Sidewalk
 Match Existing Asphalt at 10' from edge pvmt. 158th Rd., Each Side (24 yd.²)

LEGEND

-  1 1/2" Asphaltic Concrete Levelling Course
-  1 1/2" Asphaltic Concrete Surface Course
-  2" Asphaltic Concrete Surface Course

Shenk, James H & Marjean A; TR
 0 158th Rd. Mayetta KS, 66509
 N/2 of NW/4 of Sec. 26 T8S R14E

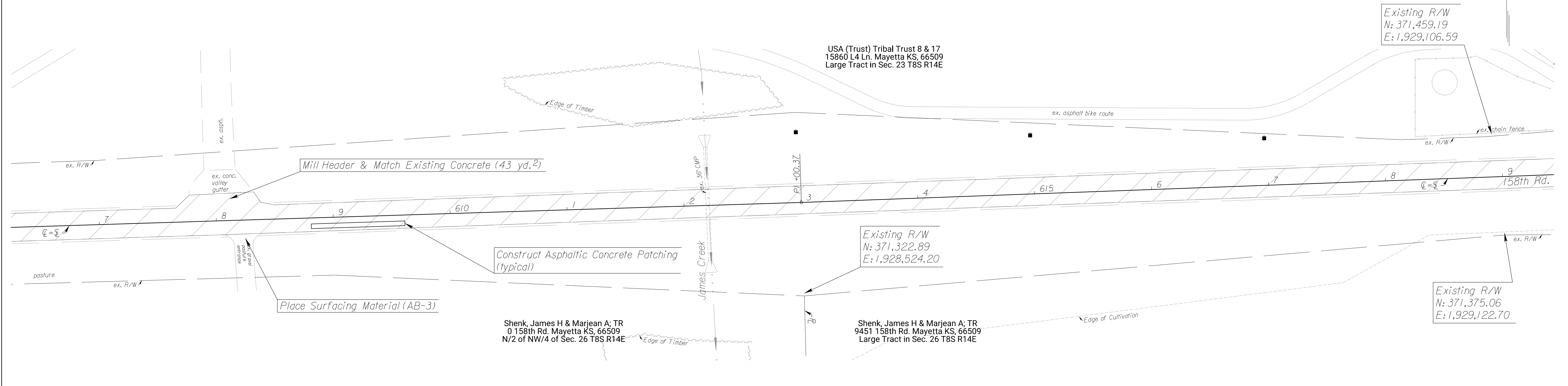
 Asphaltic Concrete (8")
 Lean to Fat Clay

Boring - B7
 (not to scale)

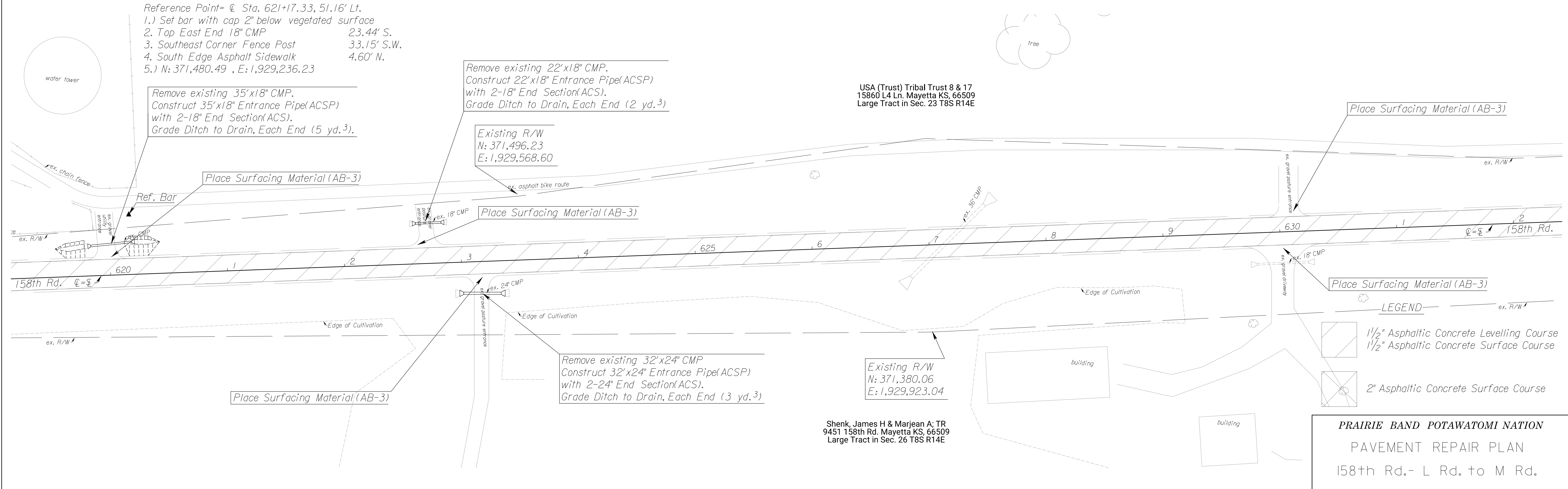
PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- L Rd. to M Rd.

℄ P.I. Sta. 613+00.37
 1.) Not Set
 2.) N: 371,402.85 , E: 1,928,521.66

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 49 | 109 |



- Reference Point= ℄ Sta. 621+17.33, 51.16' Lt.
 1.) Set bar with cap 2' below vegetated surface
 2. Top East End 18" CMP 23.44' S.
 3. Southeast Corner Fence Post 33.15' S.W.
 4. South Edge Asphalt Sidewalk 4.60' N.
 5.) N: 371,480.49 , E: 1,929,236.23



LEGEND

| | |
|--|--|
| | 1 1/2" Asphaltic Concrete Levelling Course |
| | 1 1/2" Asphaltic Concrete Surface Course |
| | 2" Asphaltic Concrete Surface Course |

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- L Rd. to M Rd.

Southeast Corner Sec. 23, T8S, R14E = \odot Sta. 639+59.85
 1.) #4 rebar & cap (BG - RLS 387) flush with asphalt
 2.) On \odot 158th
 3.) N: 371,499.57 , E: 1,931,179.36

\odot P.I. Sta. 639+63.77
 1.) Not Set
 2.) N: 371,501.34 , E: 1,931,183.24

Mill Header & Place Variable Asphaltic Overlay Transition to Asphalt Sidewalk
 Match Existing Asphalt at 10' from edge pvt. 158th Rd., Each Side (24 yd.²)

Grade 10' Ditch (35 yd.³)
 Construct Aggregate Ditch Lining(6")(.33 tons).

Place Surfacing Material (AB-3)
 (9 Tons)

Construct Asphaltic Concrete Patching
 (typical)



USA (Trust) Tribal Trust 8 & 17
 15860 L4 Ln. Mayetta KS, 66509
 Large Tract in Sec. 23 T8S R14E

USA (Trust) Tribal Trust 102
 0 158th Rd. Mayetta KS, 66509
 N/2 of NW/4 Sec. 25 T8S R14E

Shenk, James H & Marjean A; TR
 9451 158th Rd. Mayetta KS, 66509
 Large Tract in Sec. 26 T8S R14E

Existing R/W
 N: 371,440.52
 E: 1,931,121.64

Match Existing \odot
 U.S. Elev.=1182.54

BM : "0" in Open on Hydrant
 Sta. 639+25.54, 92.32' Rt., Elev.= 1193.21

Install Monument Box in Concrete Pavement
 (New Monument Box)

641+69. Rt.
 Construct Permanent Sign (R2-1-55) & Post

Sta. 639+64 Mill Header & Match
 Existing Asphalt (226 yd.²)

Sta. 637+88, Rt.
 Mount Permanent Sign (D11-1) to Existing Post

Streeter, Randy M & Donnett R
 15928 M Rd. Mayetta KS, 66509
 SW/4 of SW/4 Sec. 24 T8S R14E

Chavez, Michael Leo & Jeanne F
 0 158th Rd. Mayetta KS, 66509
 SE/4 of SW/4 Sec. 24 T8S R14E

Place Surfacing Material (AB-3)

Construct Asphaltic Concrete Patching
 (typical)

Remove existing 73"x24" CMP
 Construct 73"x24" Cross Road Pipe(RCP)
 with 2-24" End Section(RC).

USA (Trust) Tribal Trust 102
 0 158th Rd. Mayetta KS, 66509
 N/2 of NW/4 Sec. 25 T8S R14E

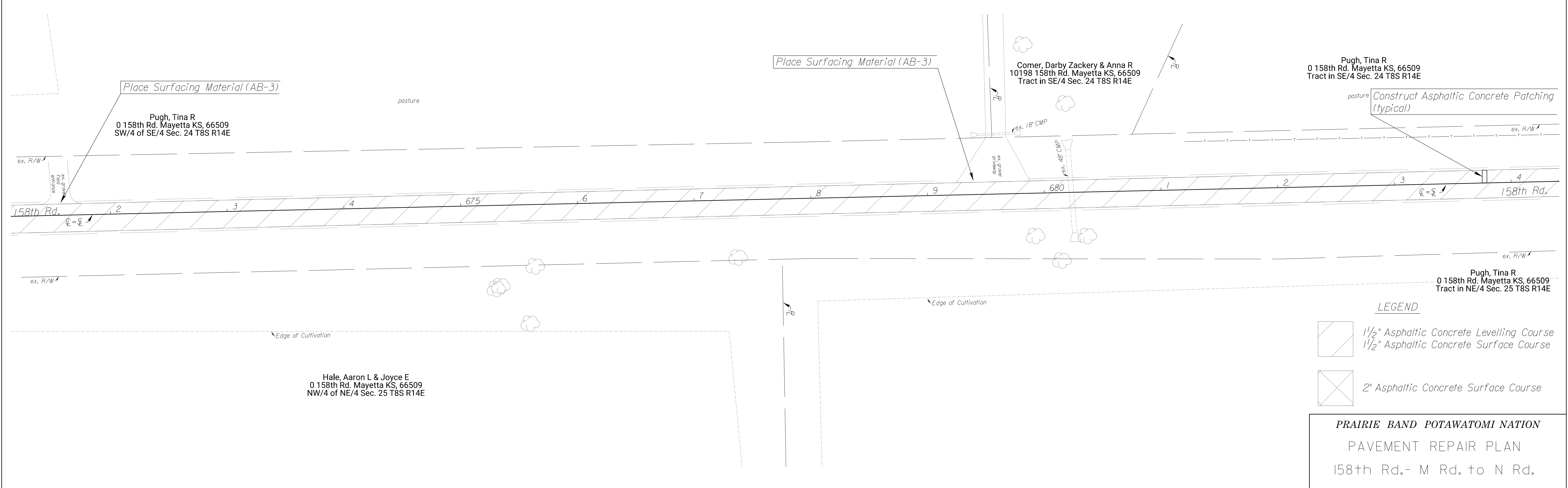
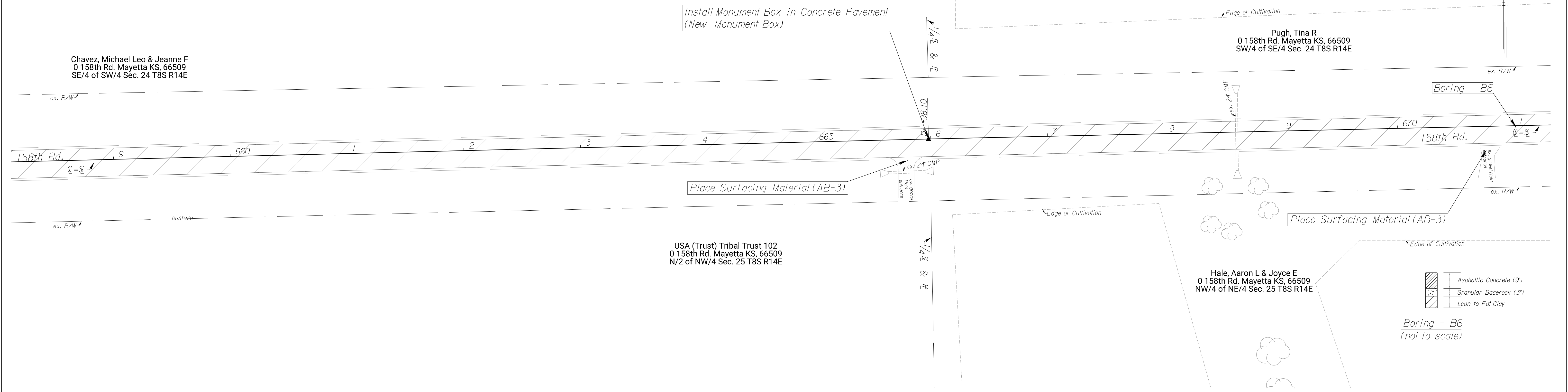
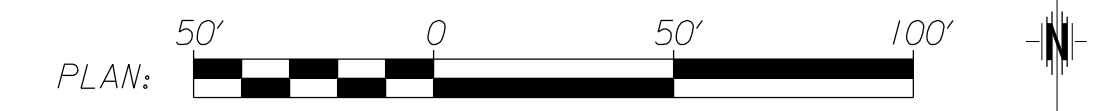
LEGEND

- 1 1/2" Asphaltic Concrete Levelling Course
- 1 1/2" Asphaltic Concrete Surface Course
- 2" Asphaltic Concrete Surface Course

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- M Rd. to N Rd.

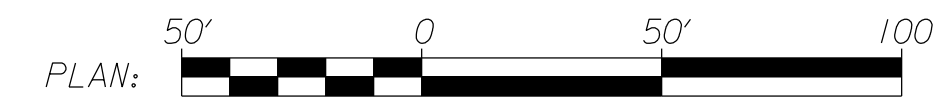
South 1/4 Corner Sec. 24, T8S, R14E = \angle P.I. Sta. 665+98.10
 1.) #4 rebar & cap (BG - RLS 387) flush with asphalt
 2.) N: 371,567.13 , E: 1,933,816.81

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 51 | 109 |

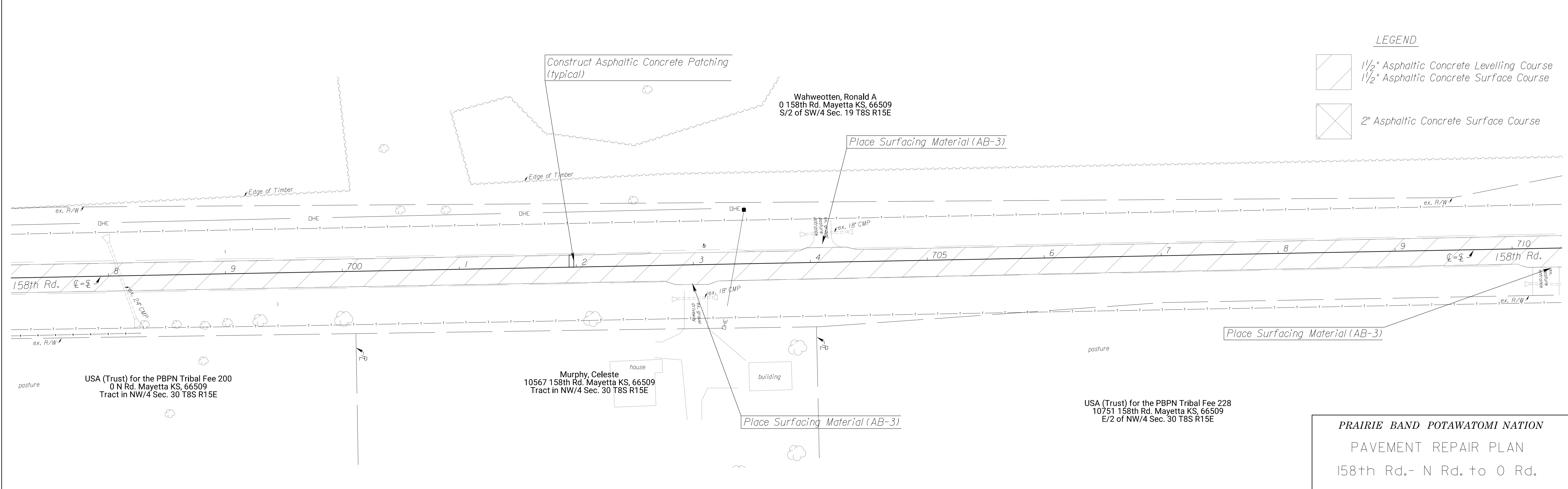
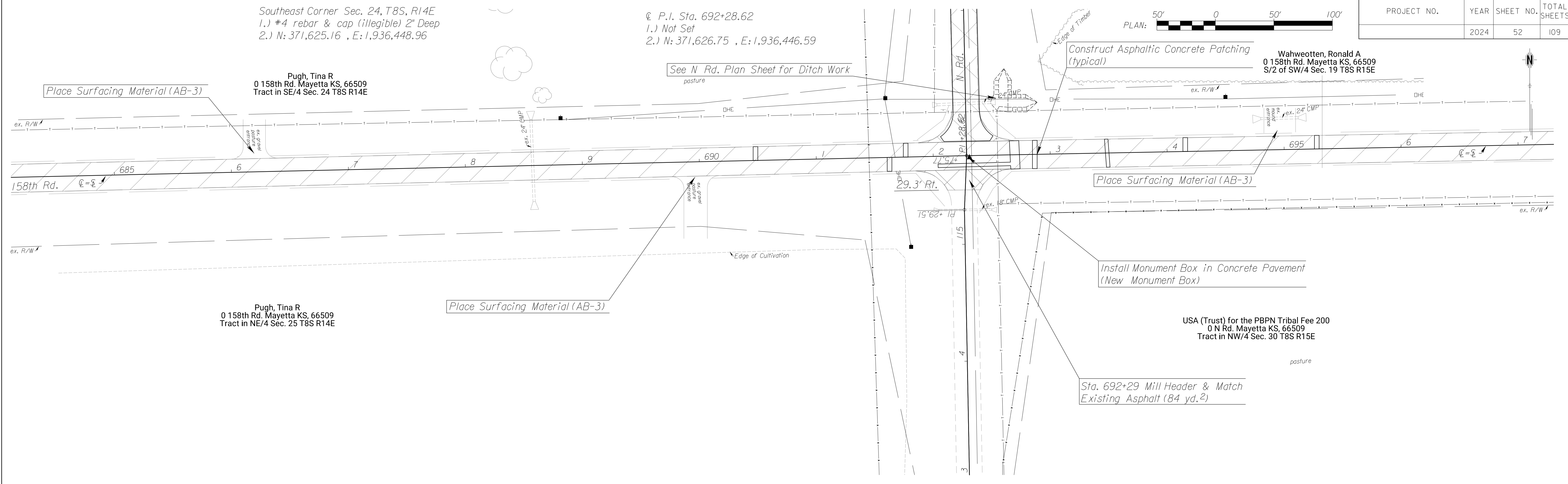


Southeast Corner Sec. 24, T8S, R14E
 1.) #4 rebar & cap (illegible) 2" Deep
 2.) N: 371,625.16 , E: 1,936,448.96

℄ P.I. Sta. 692+28.62
 1.) Not Set
 2.) N: 371,626.75 , E: 1,936,446.59



| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 52 | 109 |



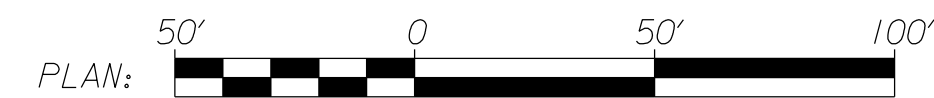
LEGEND

- 1 1/2" Asphaltic Concrete Levelling Course
1 1/2" Asphaltic Concrete Surface Course
- 2" Asphaltic Concrete Surface Course

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- N Rd. to 0 Rd.

Southeast Corner Sec. 24, T8S, R14E
 1.) #4 rebar w/ aluminum cap (illegible) 0.3' Deep
 2.) N: 371,670.62 , E: 1,938,792.93

℄ P.I. Sta. 715+84.66
 1.) Not Set
 2.) N: 371,672.29 , E: 1,938,802.20



| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 53 | 109 |

Wahweotten, Ronald A
 0 158th Rd. Mayetta KS, 66509
 S/2 of SW/4 Sec. 19 T8S R15E

Install Monument Box in Concrete Pavement
 (New Monument Box)

Construct Asphaltic Concrete Patching
 (typical)

USA (Trust) Allotment 356-82
 0 166th Rd. Mayetta KS, 66509
 Large Tract in SE/4 Sec. 19 T8S R15E

Place Surfacing Material (AB-3)

Place Surfacing Material (AB-3)

Place Surfacing Material (AB-3)

USA (Trust) Tribal Trust 96
 0 158th Rd. Mayetta KS, 66509
 Tract in NE/4 Sec. 30 T8S R15E

Hinds, Denise
 10855 158th Rd. Mayetta KS, 66509
 Tract in NE/4 Sec. 30 T8S R15E

USA (Trust) for the PBPB Tribal Fee 228
 10751 158th Rd. Mayetta KS, 66509
 E/2 of NW/4 Sec. 30 T8S R15E

USA (Trust) Allotment 356-82
 0 166th Rd. Mayetta KS, 66509
 Large Tract in SE/4 Sec. 19 T8S R15E

Construct 28'-0" x 13'-0" (Type A)
 Concrete Pavement (10" Unif.)(AE)(Br.App.)

Mill 200' & Match New
 Concrete Approach Slab

Mill 200' & Match New
 Concrete Approach Slab

Place Surfacing Material (AB-3)

Place Surfacing Material (AB-3)

Ramage, Hunter D G
 11020 158th Rd. Mayetta KS, 66509
 Tract in SE/4 Sec. 19 T8S R15E

Boring - B5

Furlow, Amanda
 11190 158th Rd. Mayetta KS, 66509
 Tract in SE/4 Sec. 19 T8S R15E

158th Rd.

158th Rd.

Hinds, Denise
 10855 158th Rd. Mayetta KS, 66509
 Tract in NE/4 Sec. 30 T8S R15E

USA (Trust) Tribal Trust 96
 0 158th Rd. Mayetta KS, 66509
 Tract in NE/4 Sec. 30 T8S R15E

Place Surfacing Material (AB-3)

- Asphaltic Concrete (18")
- Granular Baserock (4")
- Lean to Fat Clay

Boring - B5
 (not to scale)

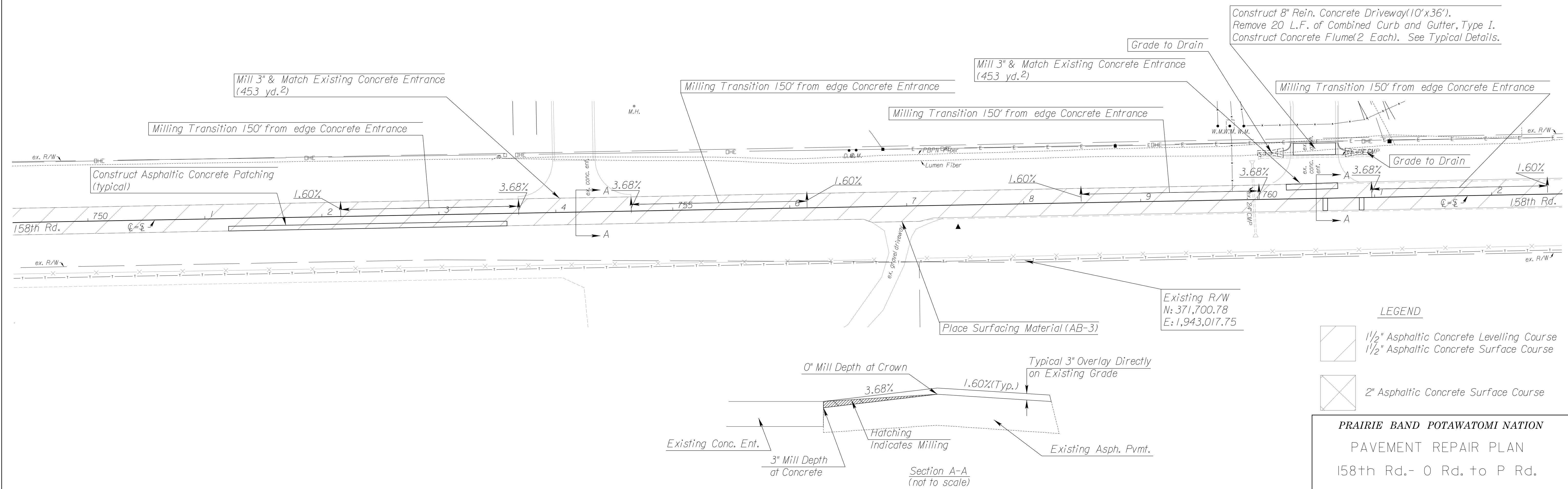
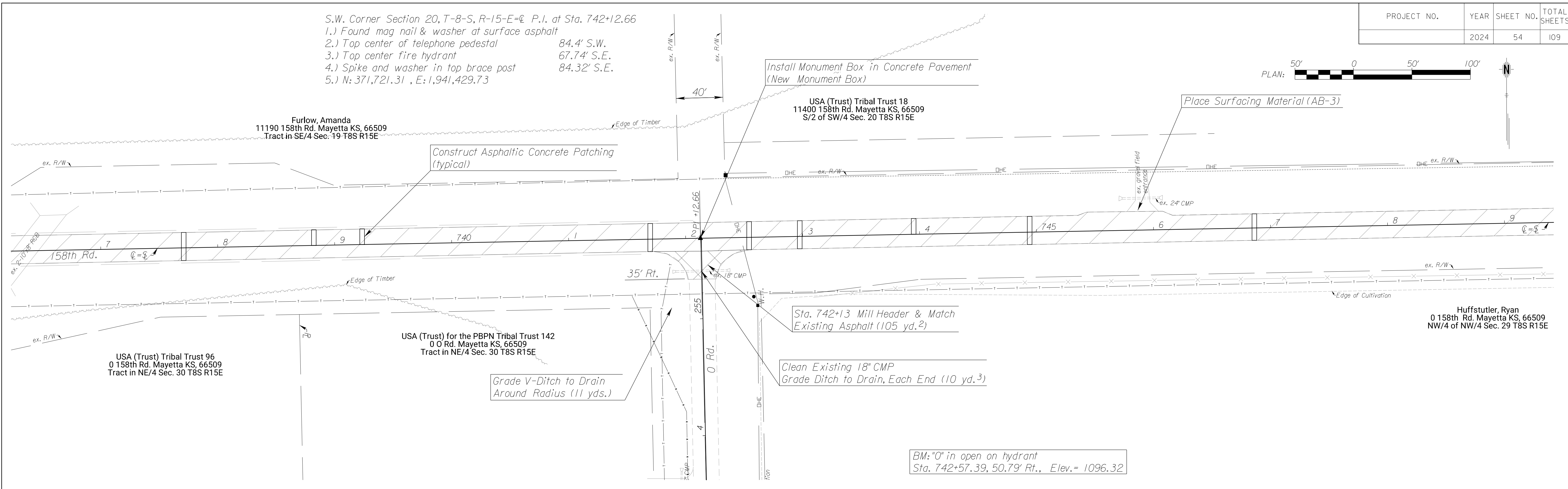
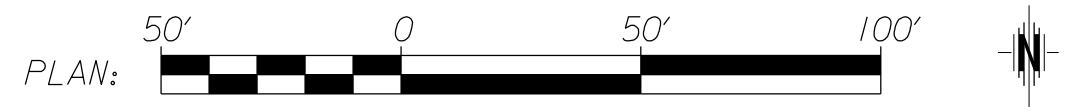
LEGEND

- 1 1/2" Asphaltic Concrete Levelling Course
- 1 1/2" Asphaltic Concrete Surface Course
- 2" Asphaltic Concrete Surface Course

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- N Rd. to 0 Rd.

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 54 | 109 |

S.W. Corner Section 20, T-8-S, R-15-E=℄ P.I. at Sta. 742+12.66
 1.) Found mag nail & washer at surface asphalt 84.4' S.W.
 2.) Top center of telephone pedestal 67.74' S.E.
 3.) Top center fire hydrant 67.74' S.E.
 4.) Spike and washer in top brace post 84.32' S.E.
 5.) N: 371,721.31 , E: 1,941,429.73



LEGEND

| | |
|--|--|
| | 1 1/2" Asphaltic Concrete Levelling Course 1 1/2" Asphaltic Concrete Surface Course |
| | 2" Asphaltic Concrete Surface Course |

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- 0 Rd. to P Rd.

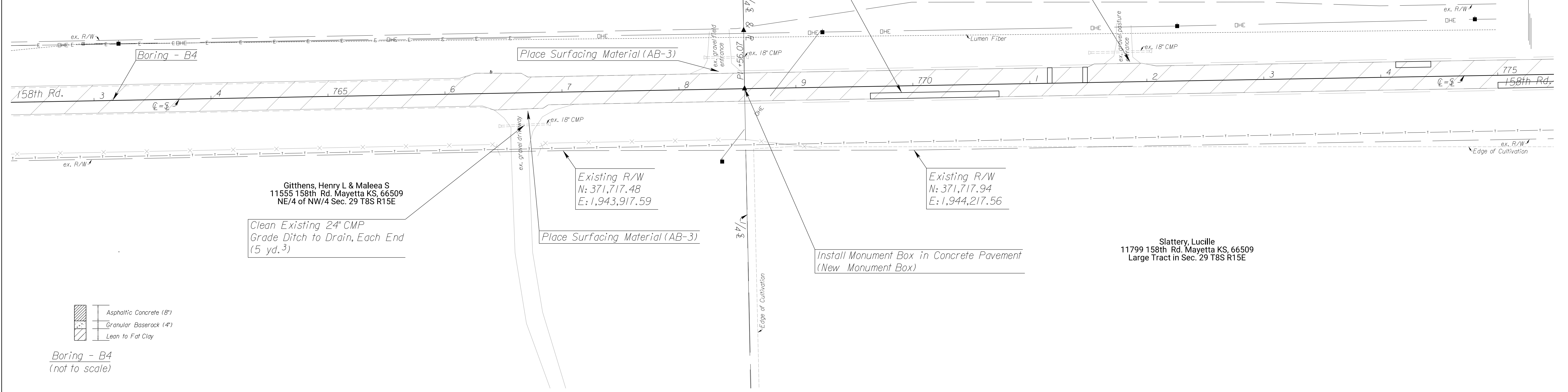
| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 55 | 109 |



USA (Trust)
11400 158th Rd. Mayetta KS, 66509
S/2 of SW/4 Sec. 20 T8S R15E

USA (Trust) for the Prairie Band Potawatomi Nation
0 158th Rd. Mayetta KS, 66509
Tract in SE/4 Sec. 20 T8S R15E

South 1/4 Corner Sec. 20, T8S, R15E = \odot P.I. at Sta. 768+56.07
1.) Found railroad spike, 3" below asphalt
2. Nail and washer in top corner post
3. Nail and washer in top corner post
4. 1/2" bar with plastic cap, illegible
5.) N: 371,770.37 , E: 1,944,072.69

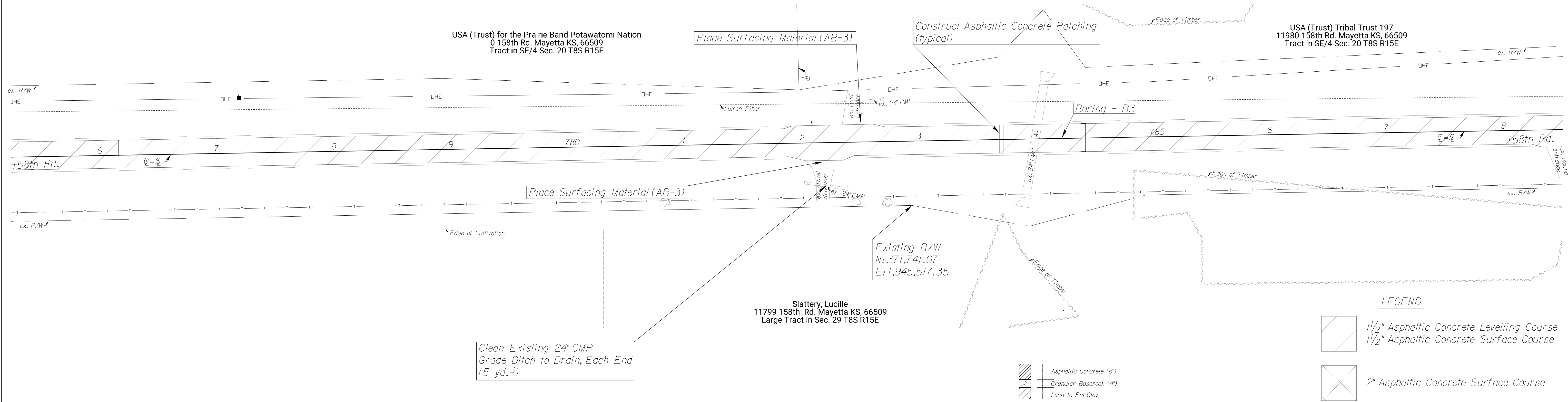


Asphaltic Concrete (8")
Granular Baserock (4")
Lean to Fat Clay

Boring - B4
(not to scale)

USA (Trust) for the Prairie Band Potawatomi Nation
0 158th Rd. Mayetta KS, 66509
Tract in SE/4 Sec. 20 T8S R15E

USA (Trust) Tribal Trust 197
11980 158th Rd. Mayetta KS, 66509
Tract in SE/4 Sec. 20 T8S R15E



LEGEND

1 1/2" Asphaltic Concrete Levelling Course
1 1/2" Asphaltic Concrete Surface Course

2" Asphaltic Concrete Surface Course

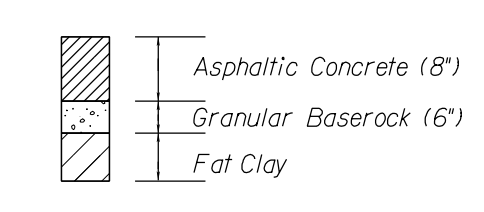
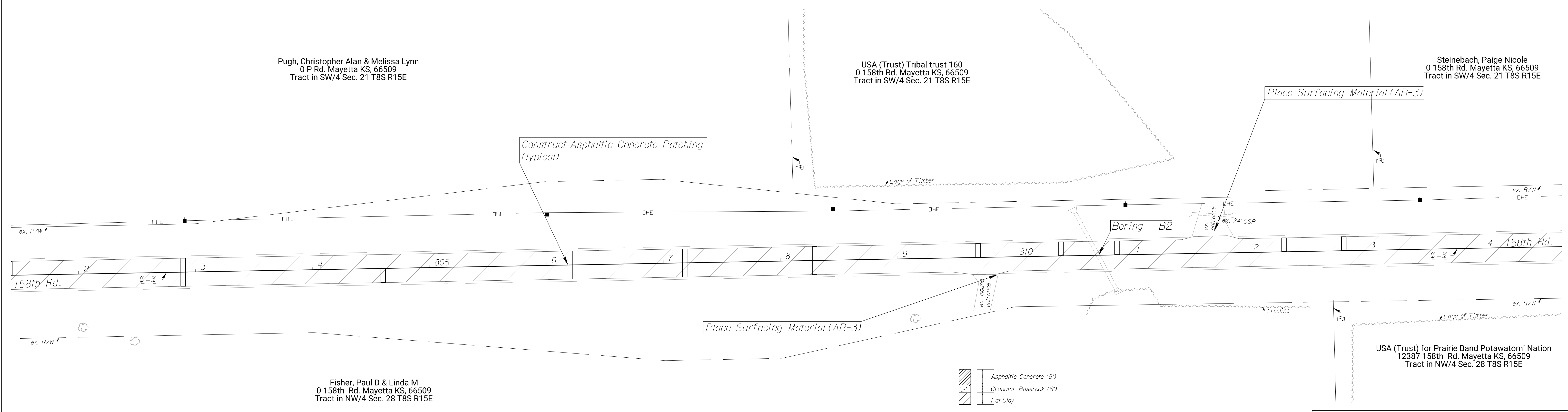
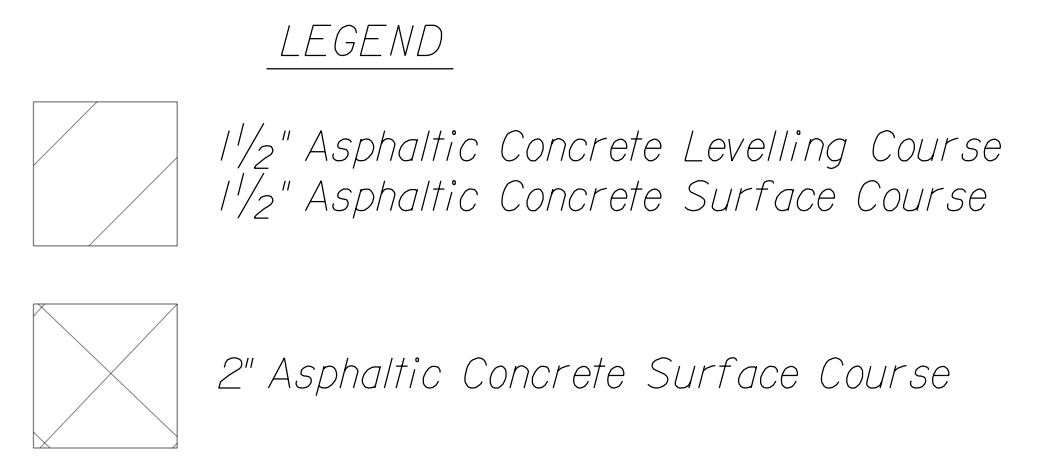
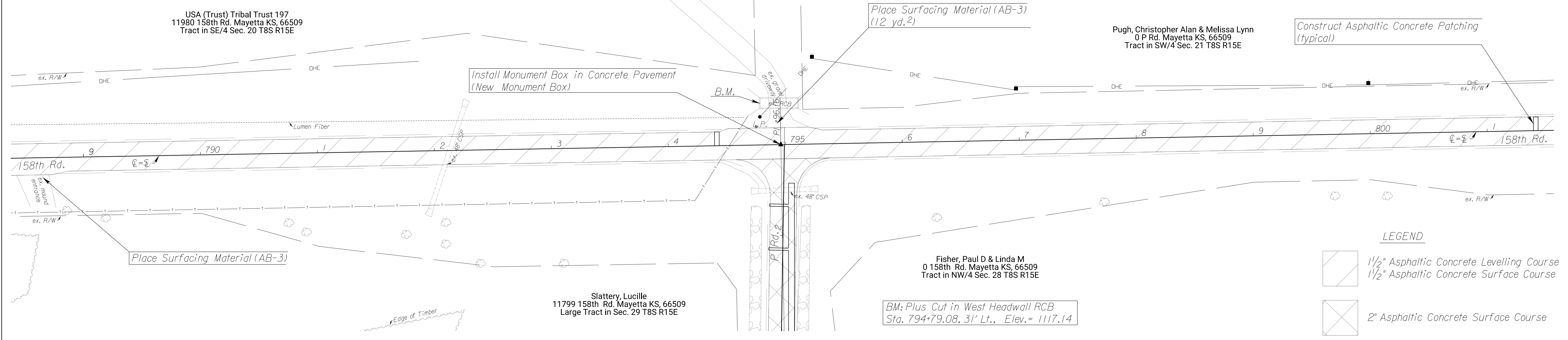
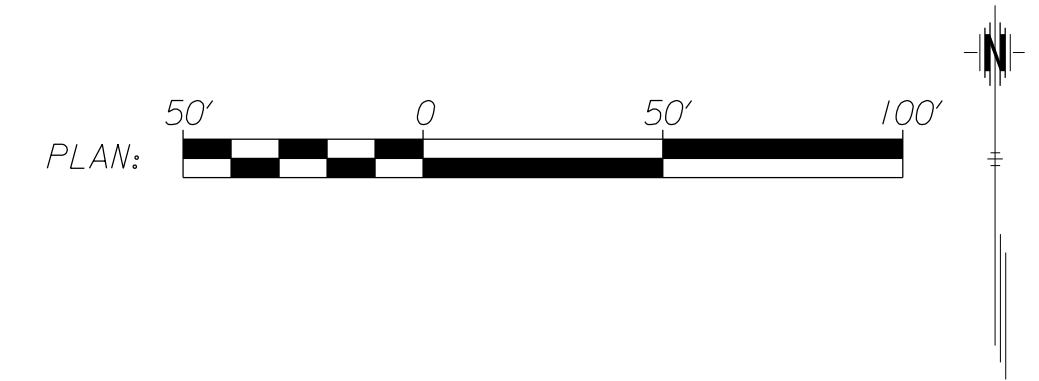
Asphaltic Concrete (8")
Granular Baserock (4")
Lean to Fat Clay

Boring - B3
(not to scale)

PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
158th Rd.- 0 Rd. to P Rd.

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 56 | 109 |

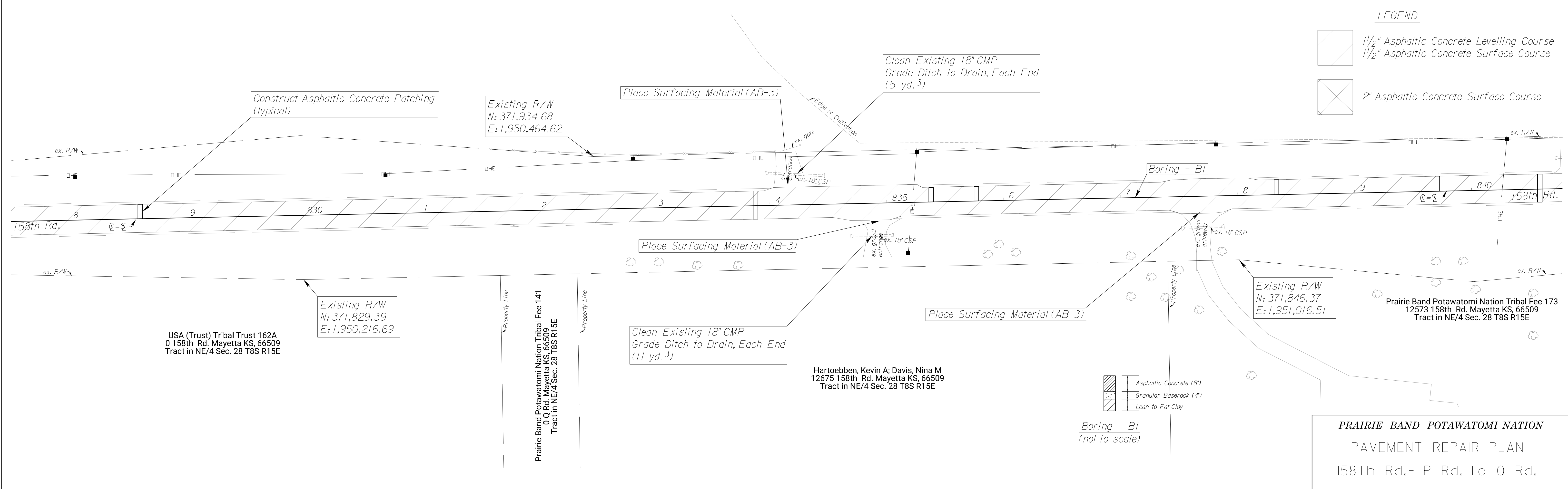
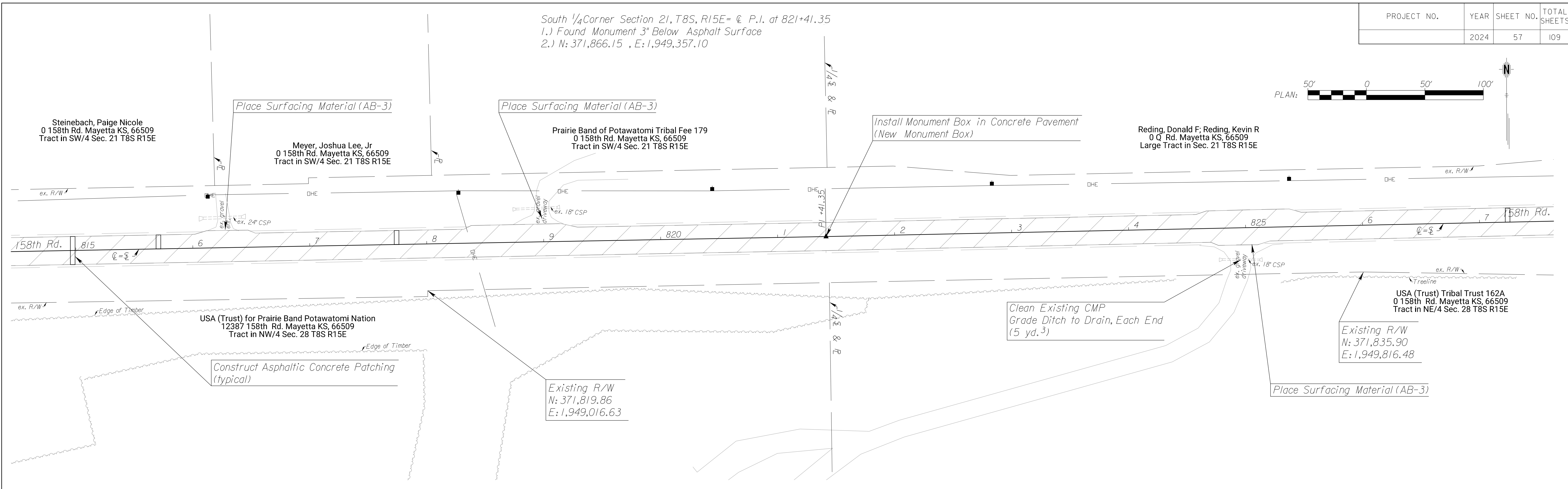
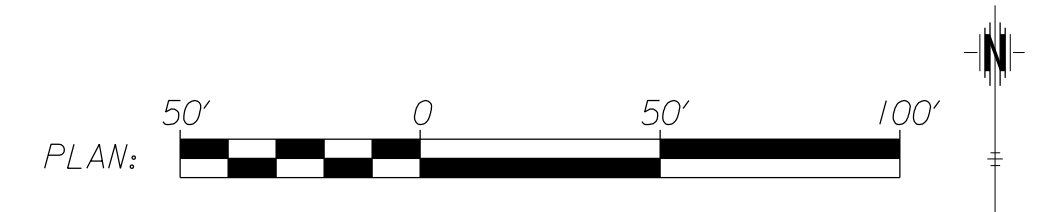
N.E. Corner Section 29, T8S, R15E= @ P.I. at Sta. 794+96.16
 1.) Found RR Spike 2" Below Asphalt Surface
 2.) Plus Cut in West Headwall of RCB 39.47' N.N.W.
 3.) @ P Rd. 3.0' E.
 4.) On @ 158th Rd.
 5.) N: 371,817.34 , E: 1,946,712.36



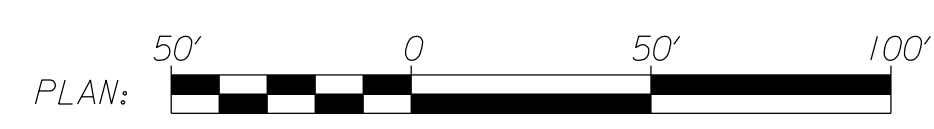
Boring - B2
 (not to scale)

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- P Rd. to Q Rd.

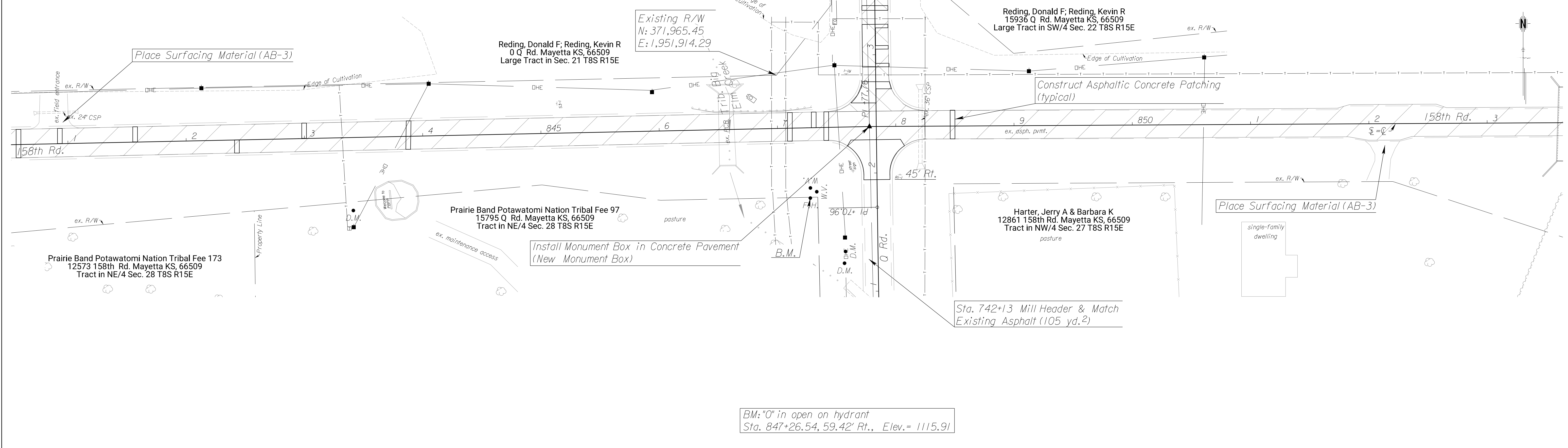
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 57 | 109 |



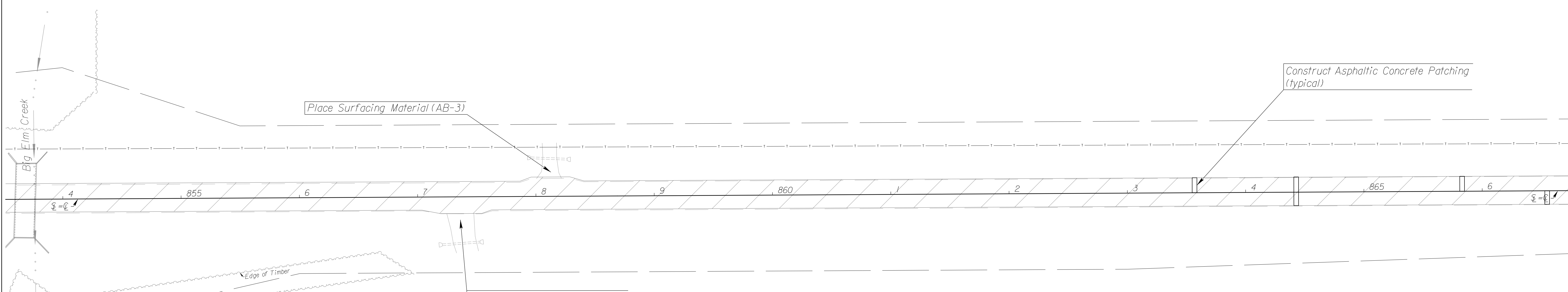
Southeast Corner Section 21, T8S, R15E = \emptyset P.I. at Sta. 847+77.76
1.) Found bar 3" Below Asphalt Surface
2.) N: 371,922.11 , E: 1,951,992.92



| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 58 | 109 |



BM: "0" in open on hydrant
Sta. 847+26.54, 59.42' Rt., Elev. = 1115.91



LEGEND

| | |
|--|--|
| | 1 1/2" Asphaltic Concrete Levelling Course 1 1/2" Asphaltic Concrete Surface Course |
| | 2" Asphaltic Concrete Surface Course |

PRAIRIE BAND POTAWATOMI NATION
PAVEMENT REPAIR PLAN
158th Rd.- Q Rd. to Sta 879+00

North 1/4 Corner Section 27, T8S, R15E = \odot P.I. at Sta. 871+33.92
 1.) Found Bar 1" Below Asphalt Surface
 2.) Set Mag Nail in Asphalt Pavement
 3.) \odot Q4 Rd.
 4.) On \odot 158th Rd.
 5.) N: 371,935.19 . E: 1,954,349.04

Reding, Donald F; Reding, Kevin R
 15936 Q Rd. Mayetta KS, 66509
 Large Tract in SW/4 Sec. 22 T8S R15E

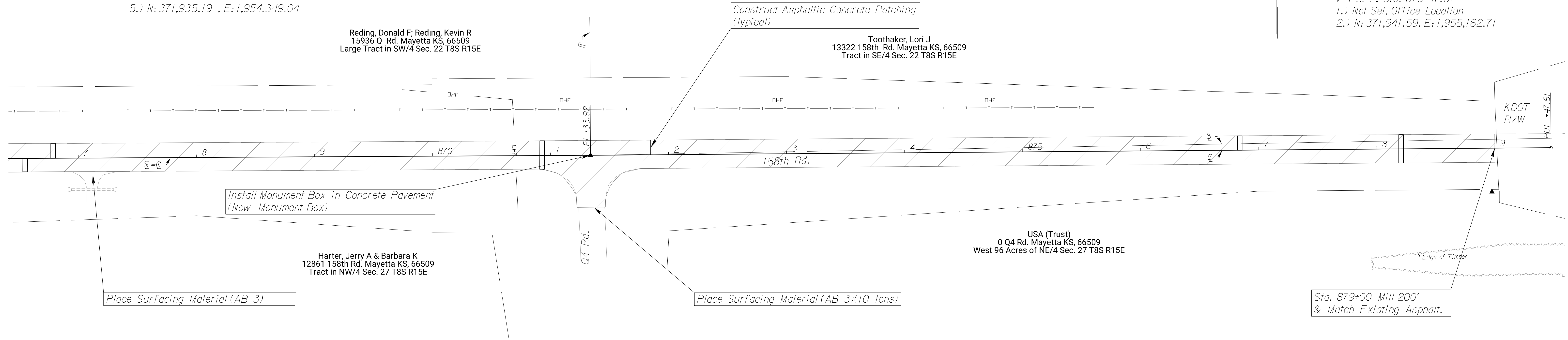
Toothaker, Lori J
 13322 158th Rd. Mayetta KS, 66509
 Tract in SE/4 Sec. 22 T8S R15E

Harter, Jerry A & Barbara K
 12861 158th Rd. Mayetta KS, 66509
 Tract in NW/4 Sec. 27 T8S R15E

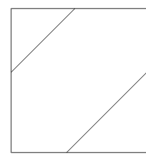

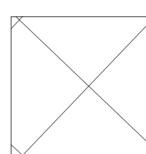
USA (Trust)
 0 Q4 Rd. Mayetta KS, 66509
 West 96 Acres of NE/4 Sec. 27 T8S R15E

| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 59 | 109 |

\odot P.O.T. Sta. 879+47.61
 1.) Not Set, Office Location
 2.) N: 371,941.59, E: 1,955,162.71

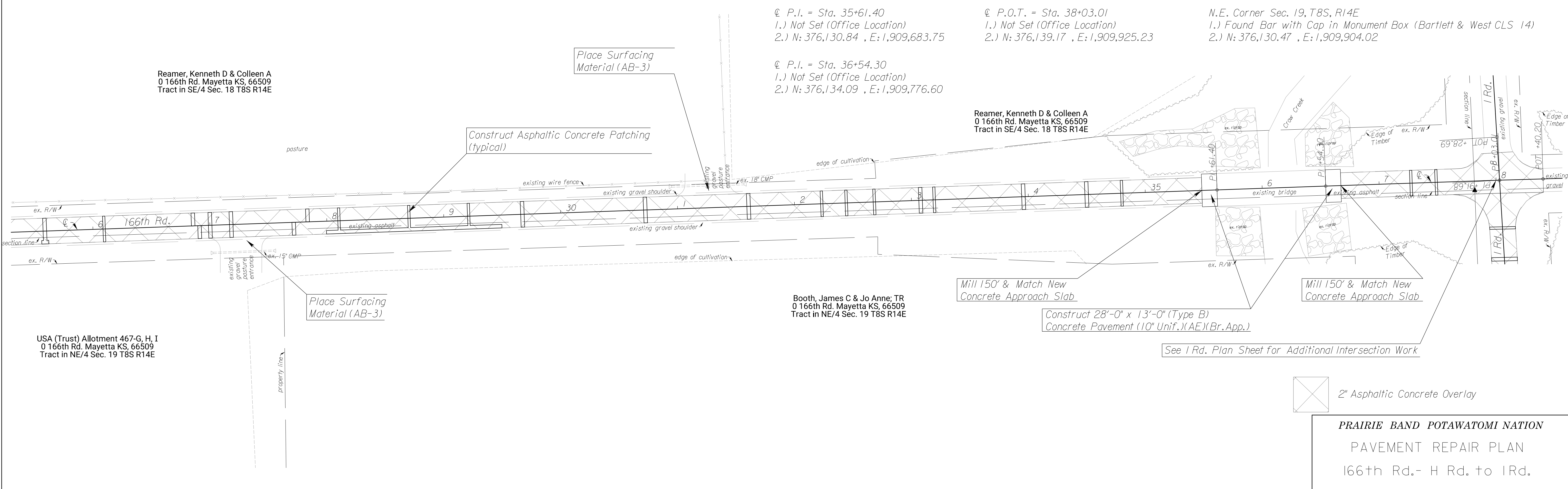
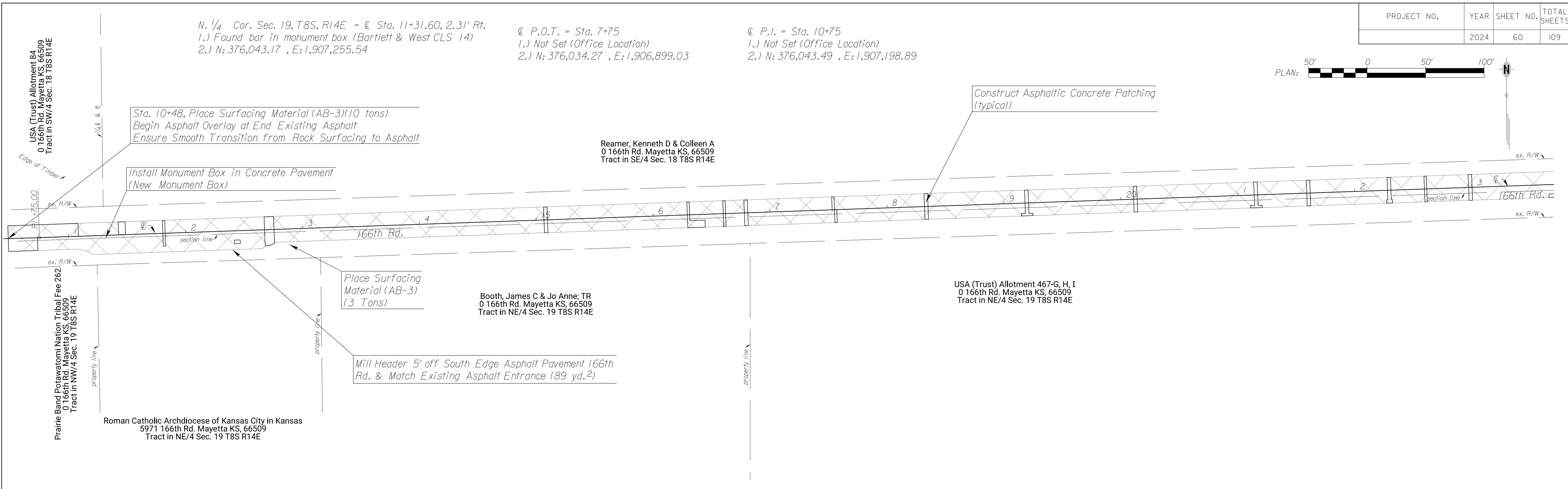


LEGEND

-  1 1/2" Asphaltic Concrete Levelling Course
-  1 1/2" Asphaltic Concrete Surface Course
-  2" Asphaltic Concrete Surface Course

PRAIRIE BAND POTAWATOMI NATION
 PAVEMENT REPAIR PLAN
 158th Rd.- Q Rd.- to Sta 879+00

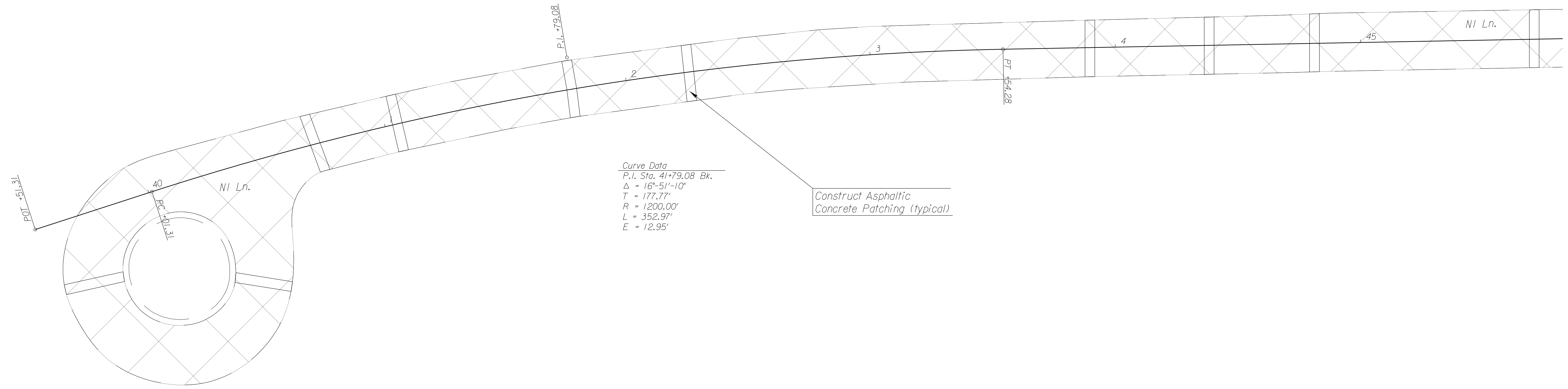
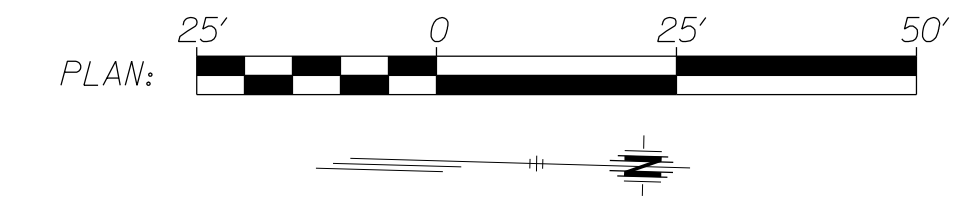
| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 60 | 109 |



P.O.T. Sta. 39+51.31
 1. Not Set, Office Location
 2. Coord.: N 360,027.67, E 1,937,166.01

P.I. Sta. 41+79.08
 1. Not Set, Office Location
 2. Coord.: N 360,244.37, E 1,937,095.87

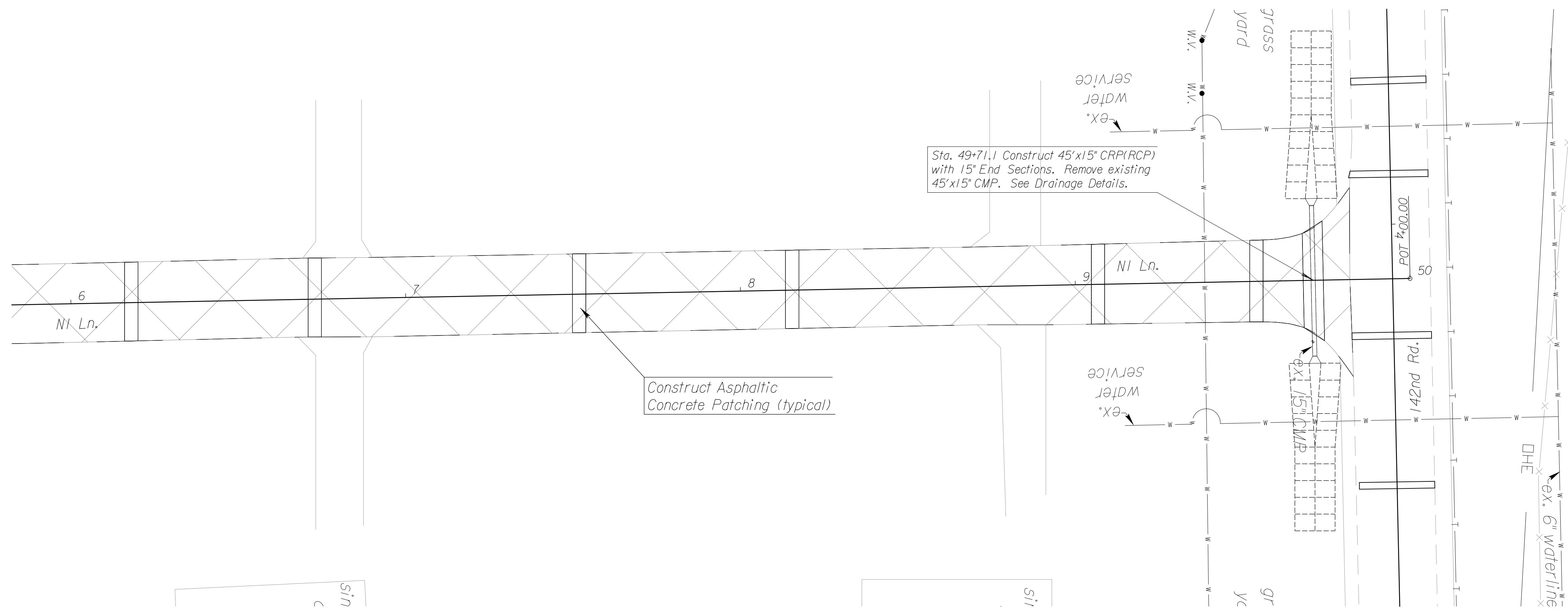
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 61 | 109 |



Curve Data
 P.I. Sta. 41+79.08 Bk.
 $\Delta = 16^{\circ}51'10''$
 $T = 177.77'$
 $R = 1200.00'$
 $L = 352.97'$
 $E = 12.95'$

Construct Asphaltic
 Concrete Patching (typical)

P.O.T. Sta. 50+00.00
 1. Not Set, Office Location
 2. Coord.: N 361,067.71, E 1,937,080.34



Sta. 49+71.1 Construct 45'x15' CRP(RCP) with 15' End Sections. Remove existing 45'x15' CMP. See Drainage Details.

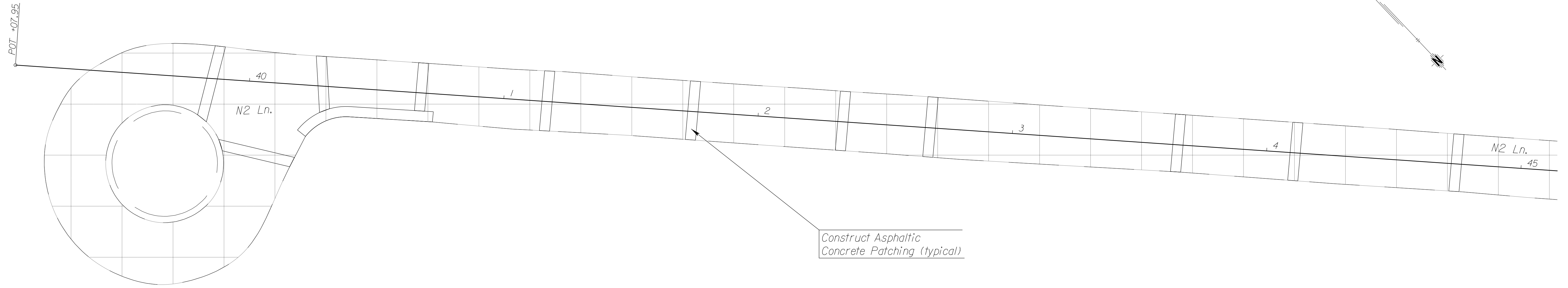
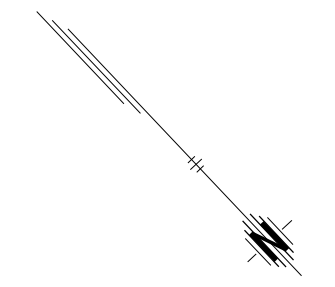
Construct Asphaltic
 Concrete Patching (typical)

LEGEND
 1 1/2" Mill and Asphaltic Overlay

PRAIRIE BAND POTAWATOMI NATION
 PLAN
 N1 LANE

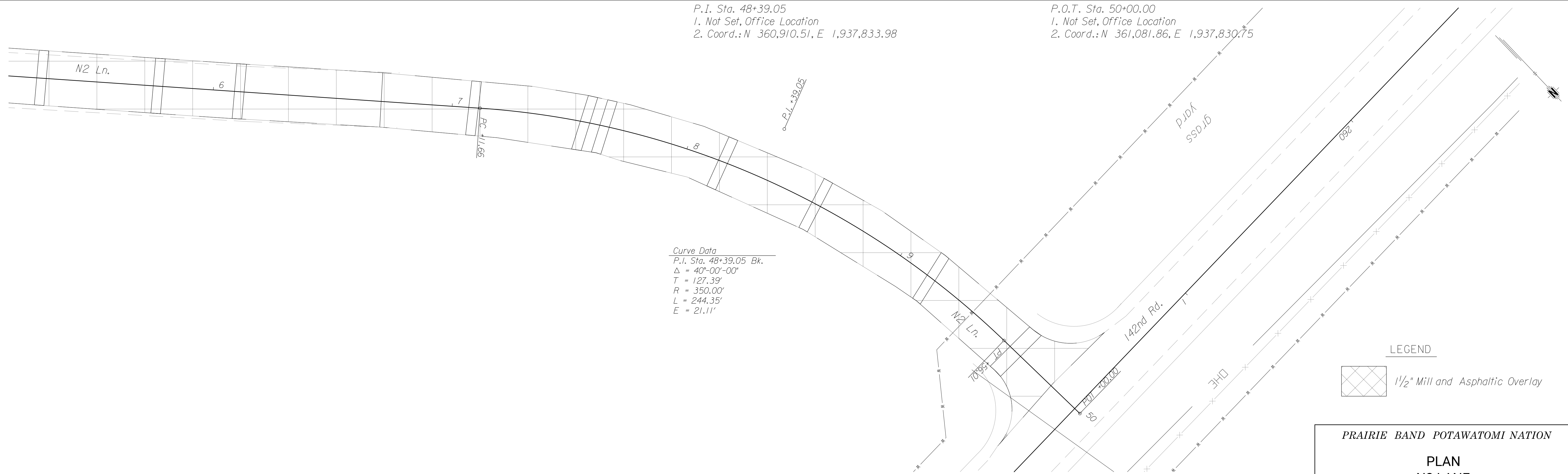
P.O.T. Sta. 39+07.95
 1. Not Set, Office Location
 2. Coord.: N 360,208.66, E 1,938,445.82

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 62 | 109 |



P.I. Sta. 48+39.05
 1. Not Set, Office Location
 2. Coord.: N 360,910.51, E 1,937,833.98

P.O.T. Sta. 50+00.00
 1. Not Set, Office Location
 2. Coord.: N 361,081.86, E 1,937,830.75



Curve Data
 P.I. Sta. 48+39.05 Bk.
 $\Delta = 40^{\circ}-00'-00''$
 $T = 127.39'$
 $R = 350.00'$
 $L = 244.35'$
 $E = 21.11'$

LEGEND

1 1/2" Mill and Asphaltic Overlay

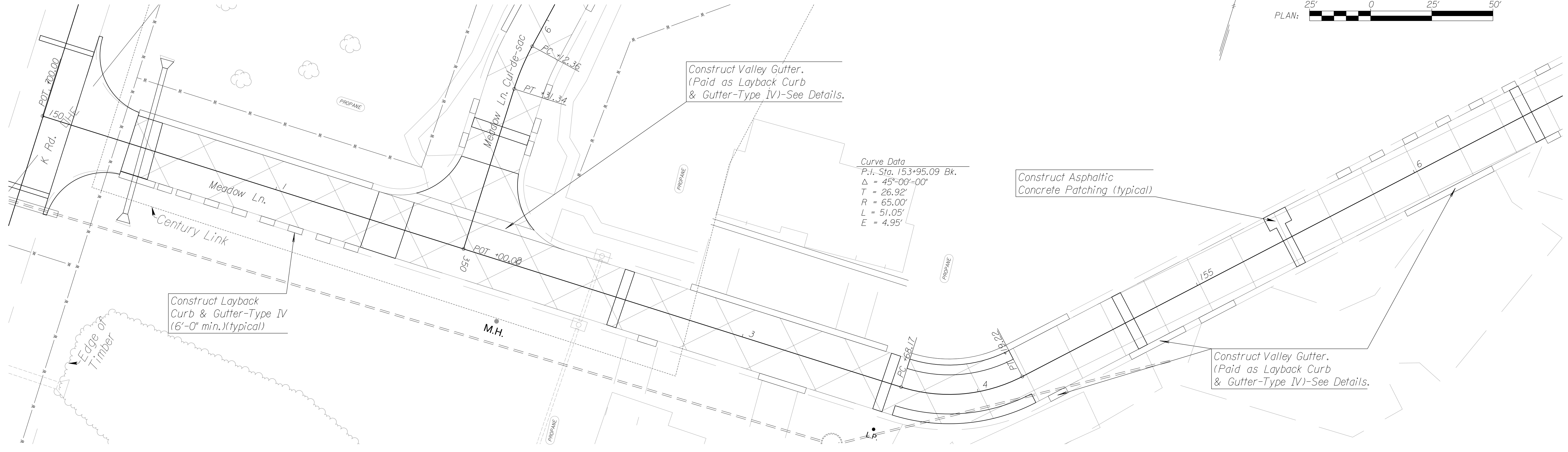
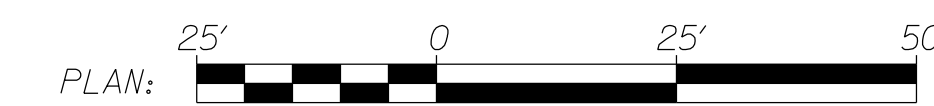
PRAIRIE BAND POTAWATOMI NATION

PLAN
 N2 LANE

P.O.T. Sta. 150+00.00
 1. Not Set, Office Location
 2. Coord.: N 367,195.33, E 1,920,657.24

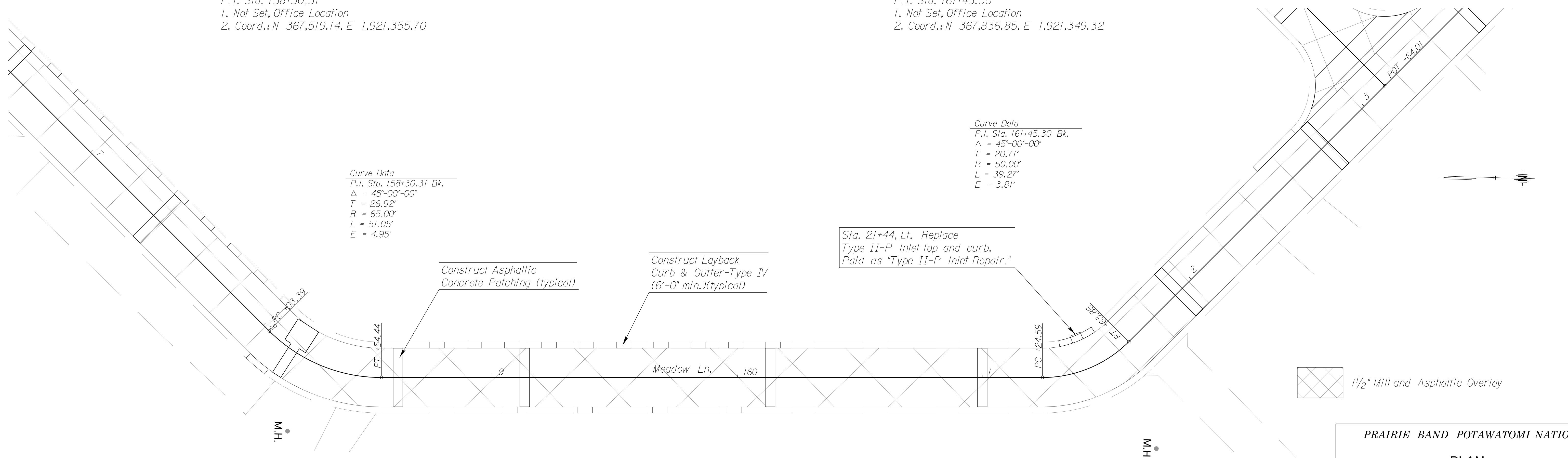
P.I. Sta. 153+95.09
 1. Not Set, Office Location
 2. Coord.: N 367,203.26, E 1,921,052.25

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 63 | 109 |



P.I. Sta. 158+30.31
 1. Not Set, Office Location
 2. Coord.: N 367,519.14, E 1,921,355.70

P.I. Sta. 161+45.30
 1. Not Set, Office Location
 2. Coord.: N 367,836.85, E 1,921,349.32

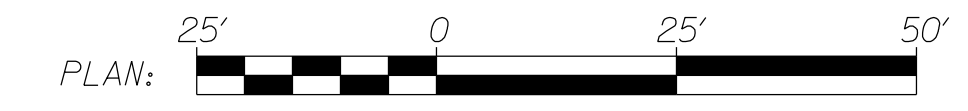


PRAIRIE BAND POTAWATOMI NATION
 PLAN
 MEADOW LANE

P.I. Sta. 164+85.26
 1. Not Set, Office Location
 2. Coord.: N 368,073.87, E 1,921,102.60

P.O.T. Sta. 169+45.37
 1. Not Set, Office Location
 2. Coord.: N 368,064.58, E 1,920,639.79

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 64 | 109 |



 1/2" Mill and Asphaltic Overlay

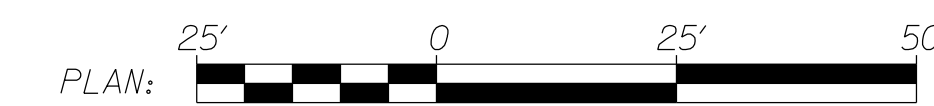
PRAIRIE BAND POTAWATOMI NATION
 PLAN
 MEADOW LANE

P.O.T. Sta. 347+46.38
 1. Not Set, Office Location
 2. Coord.: N 367,450.09, E 1,920,865.81

P.I. Sta. 349+21.88
 1. Not Set, Office Location
 2. Coord.: N 367,277.12, E 1,920,836.17

P.O.T. Sta. 350+00.00
 1. Not Set, Office Location
 2. Coord.: N 367,198.95, E 1,920,837.74

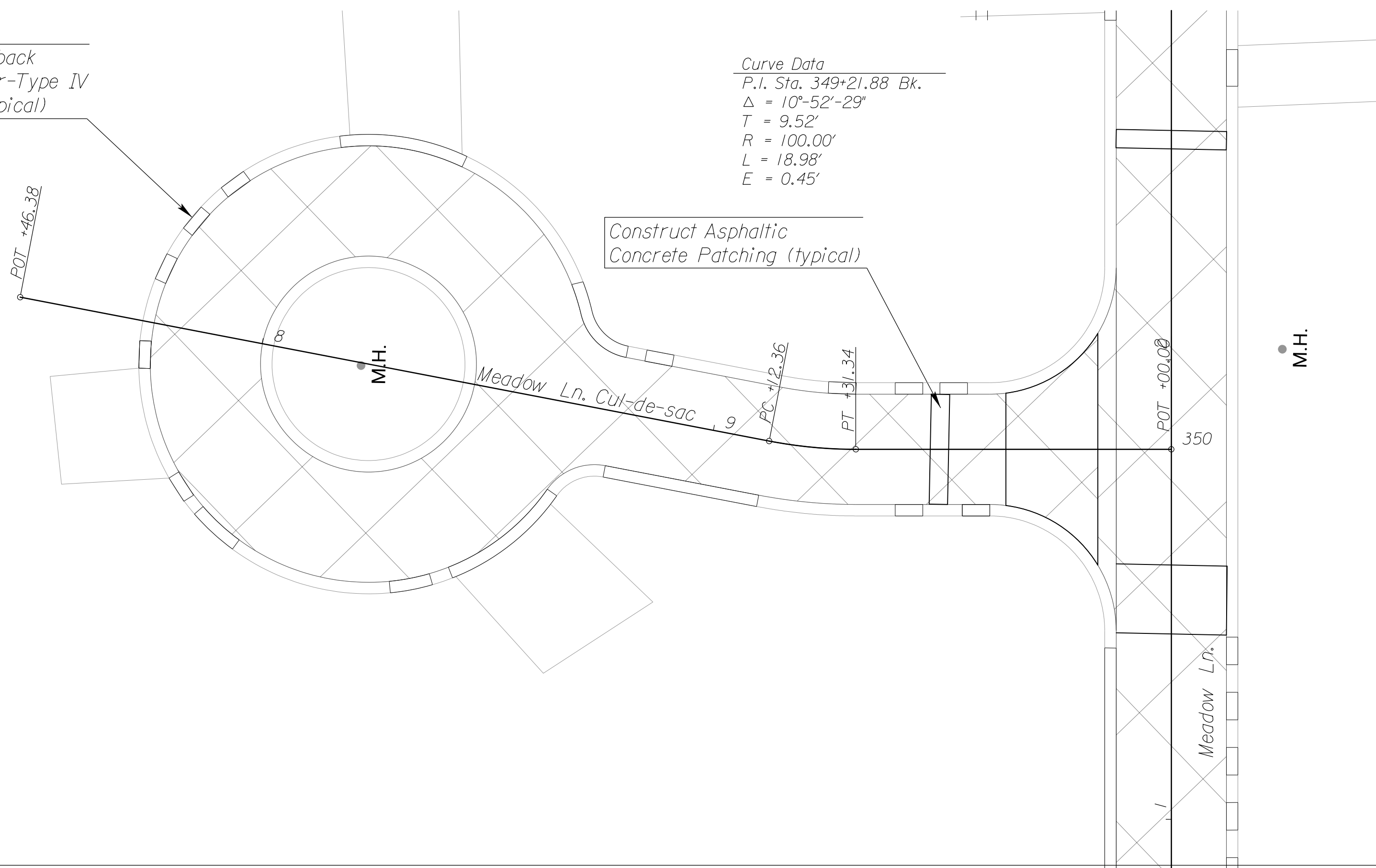
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 65 | 109 |



Construct Layback
 Curb & Gutter-Type IV
 (6'-0" min.)(typical)

Curve Data
 P.I. Sta. 349+21.88 Bk.
 $\Delta = 10^{\circ}-52'-29''$
 $T = 9.52'$
 $R = 100.00'$
 $L = 18.98'$
 $E = 0.45'$

Construct Asphaltic
 Concrete Patching (typical)



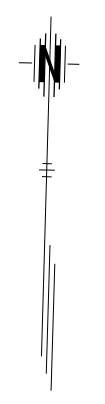
 1/2" Mill and Asphaltic Overlay

PRAIRIE BAND POTAWATOMI NATION
 PLAN
 MEADOW LANE CUL-DE-SAC

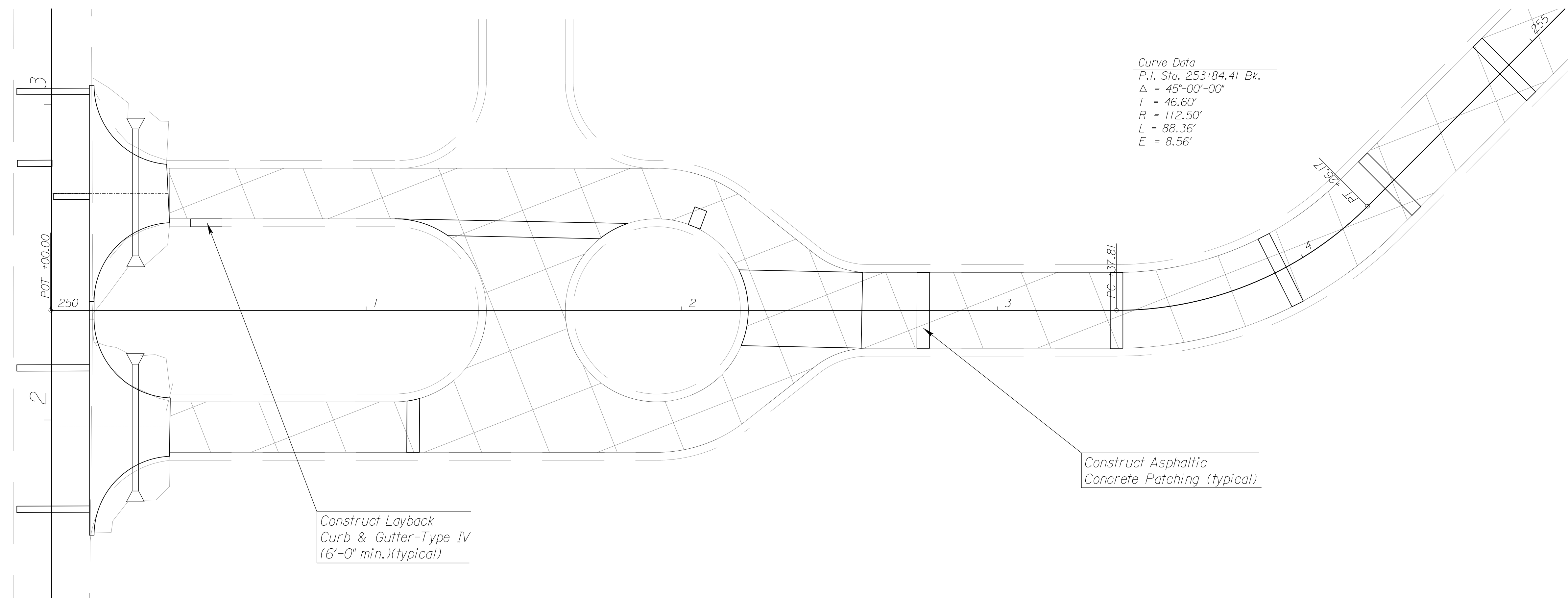
P.O.T. Sta. 250+00.00
 1. Not Set, Office Location
 2. Coord.: N 367,740.88, E 1,920,646.29

P.I. Sta. 253+84.41
 1. Not Set, Office Location
 2. Coord.: N 367,748.59, E 1,921,030.62

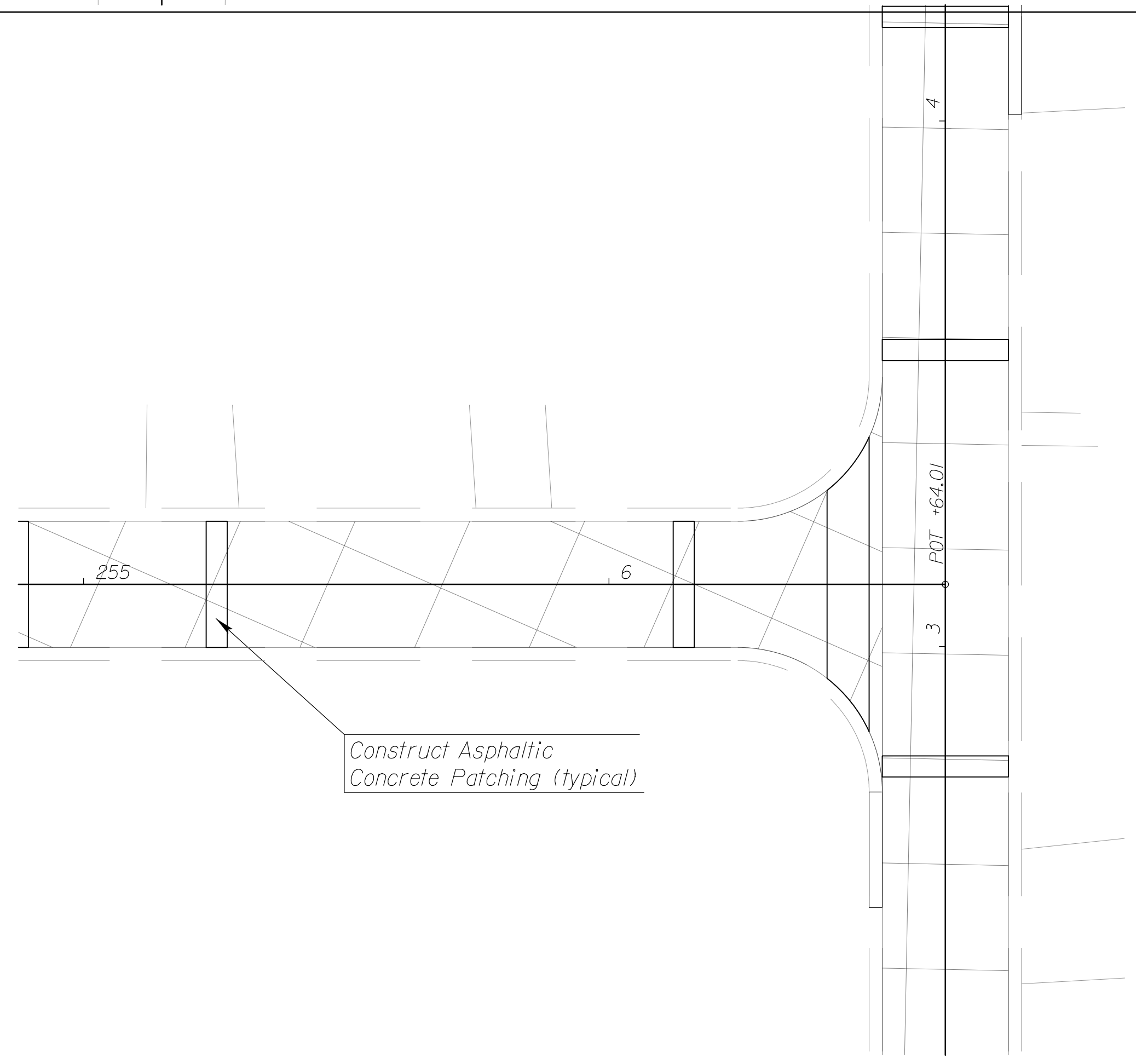
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 66 | 109 |



Curve Data
 P.I. Sta. 253+84.41 Bk.
 $\Delta = 45^{\circ}-00'-00''$
 $T = 46.60'$
 $R = 112.50'$
 $L = 88.36'$
 $E = 8.56'$



P.O.T. Sta. 256+64.01
 1. Not Set, Office Location
 2. Coord.: N 367,953.71, E 1,921,227.68



 1/2" Mill and Asphaltic Overlay

PRAIRIE BAND POTAWATOMI NATION
 PLAN
 WILDFLOWER LANE

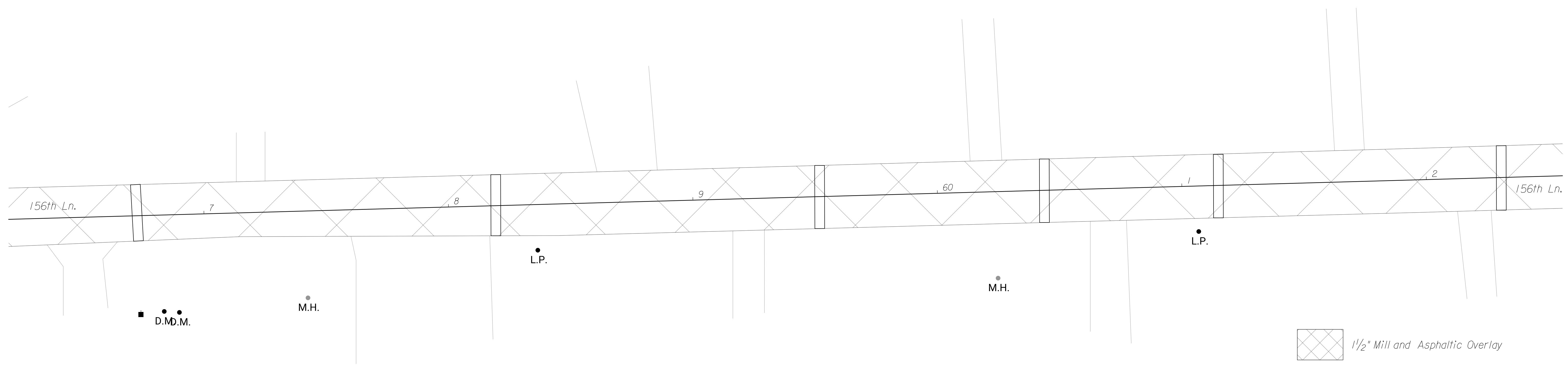
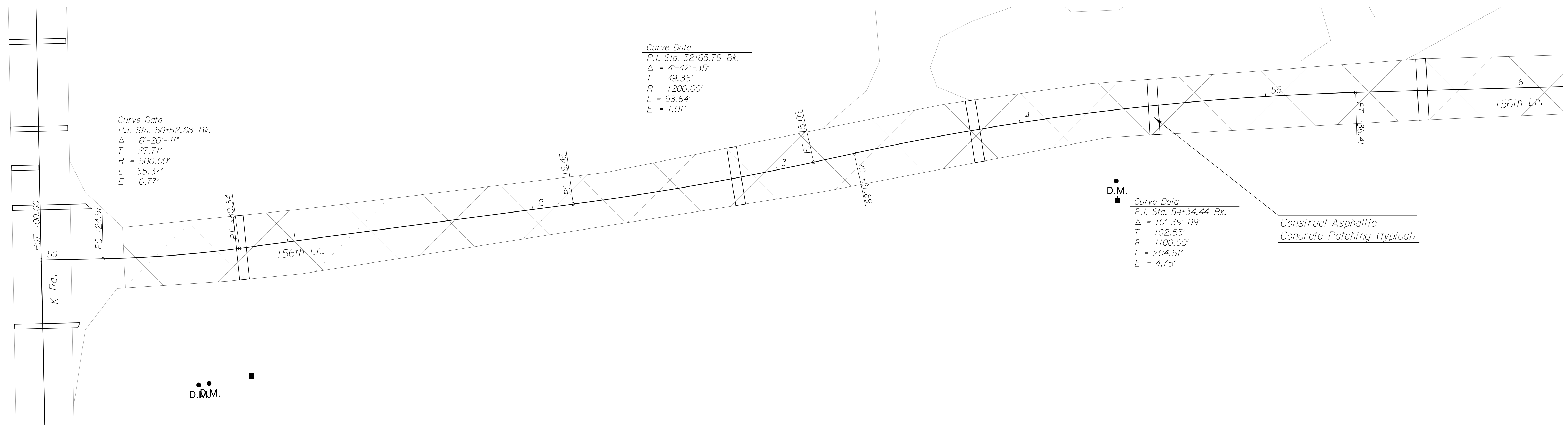
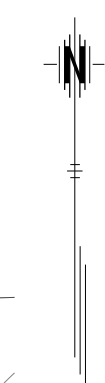
P.O.T. Sta. 50+00.00
1. Not Set, Office Location
2. Coord.: N 369,494.87, E 1,920,610.46

P.I. Sta. 50+52.68
1. Not Set, Office Location
2. Coord.: N 369,495.98, E 1,920,663.13

P.I. Sta. 52+65.79
1. Not Set, Office Location
2. Coord.: N 369,523.99, E 1,920,874.457

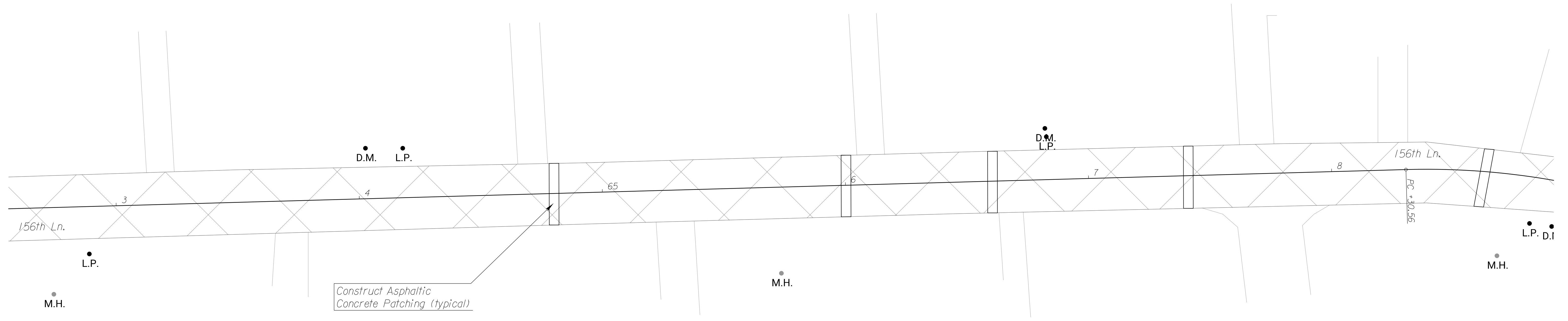
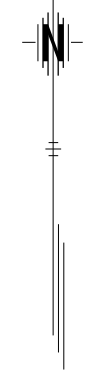
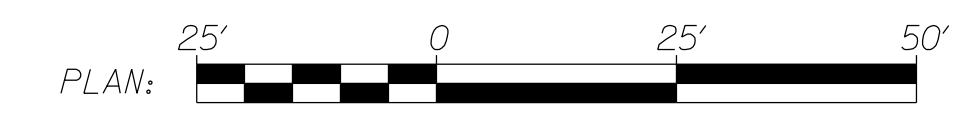
P.I. Sta. 54+34.44
1. Not Set, Office Location
2. Coord.: N 369,559.82, E 1,921,039.31

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 67 | 109 |



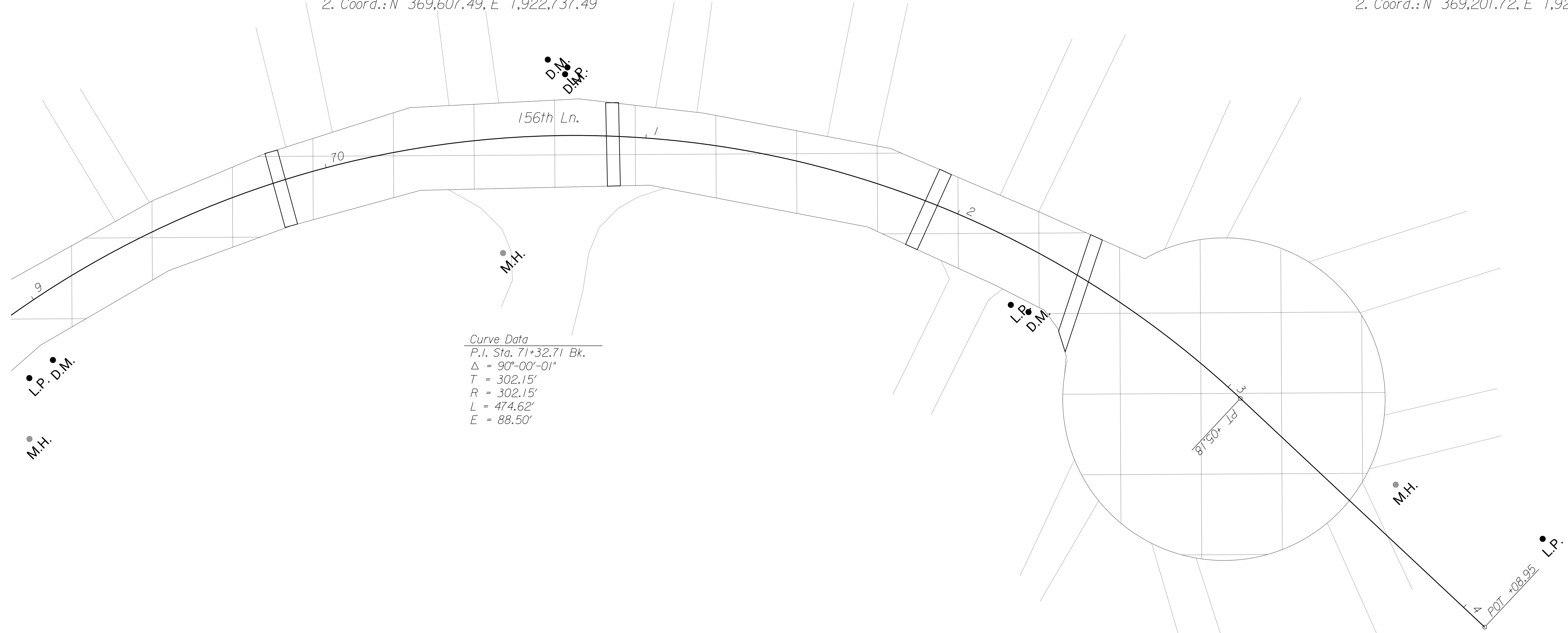
PRAIRIE BAND POTAWATOMI NATION
PLAN
156TH LANE

| | | | |
|-------------|------|-----------|--------------|
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| | 2024 | 68 | 109 |



P.I. Sta. 71+32.71
 1. Not Set, Office Location
 2. Coord.: N 369,607.49, E 1,922,737.49

P.O.T. Sta. 74+08.95
 1. Not Set, Office Location
 2. Coord.: N 369,201.72, E 1,922,748.88

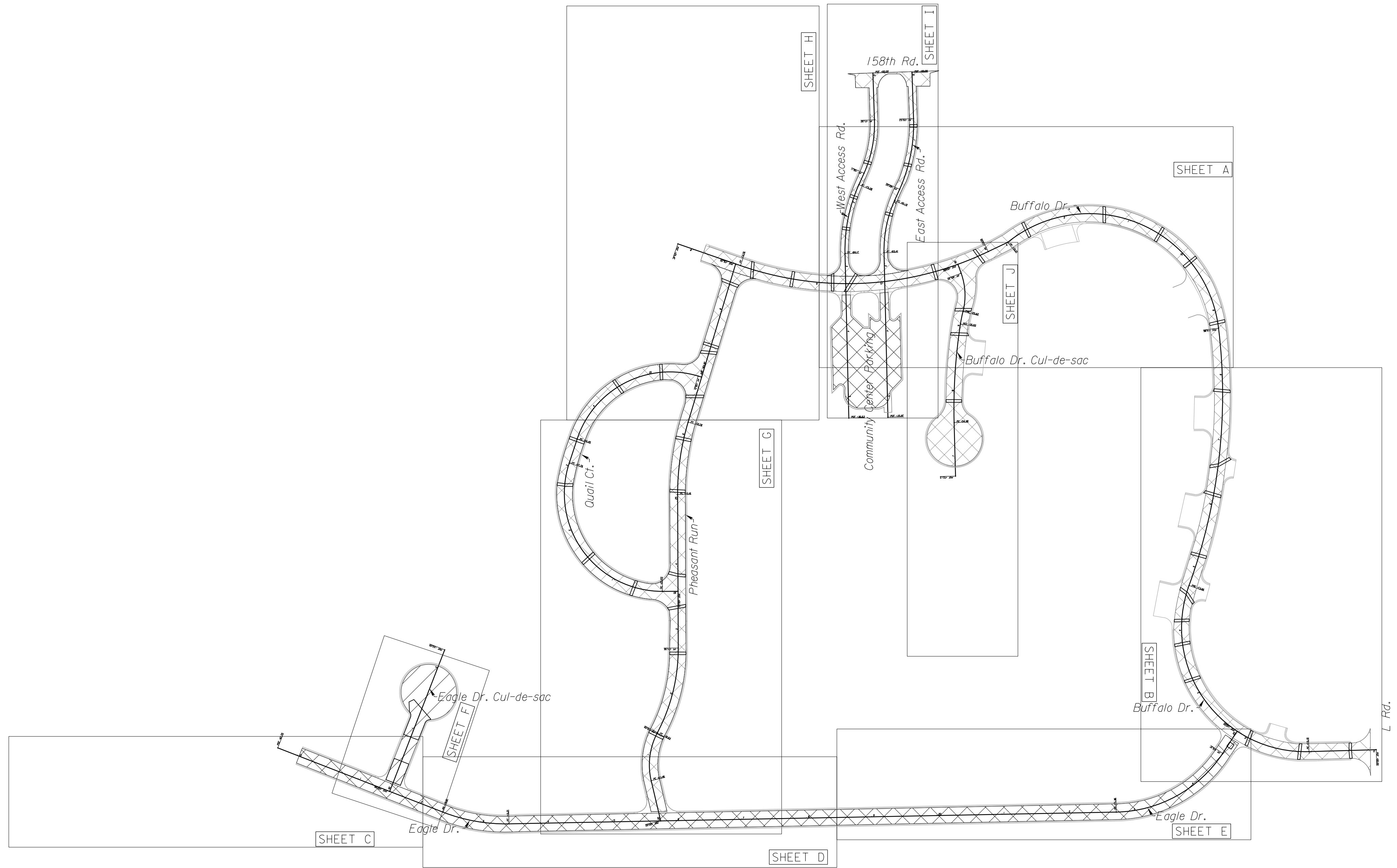
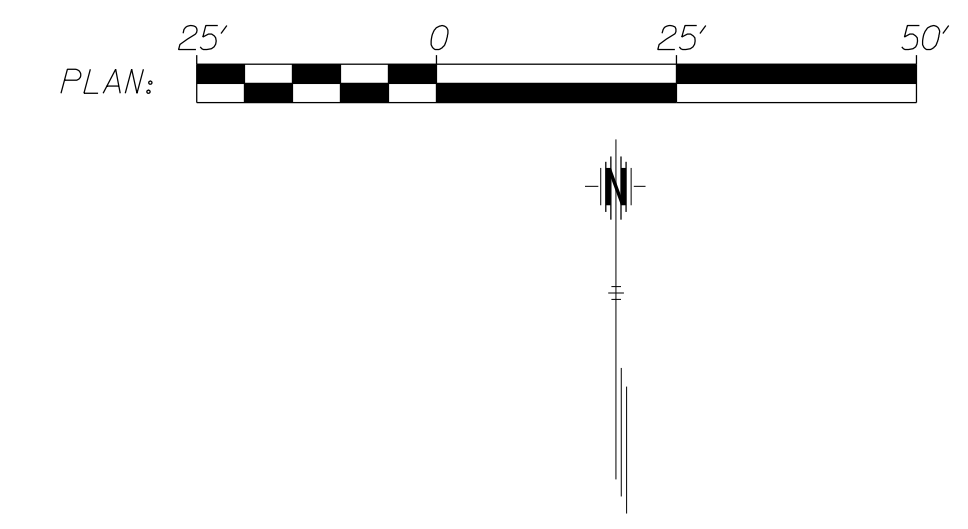


Curve Data
 P.I. Sta. 71+32.71 Bk.
 $\Delta = 90^{\circ}-00'-01''$
 $T = 302.15'$
 $R = 302.15'$
 $L = 474.62'$
 $E = 88.50'$



 1/2" Mill and Asphaltic Overlay

PRAIRIE BAND POTAWATOMI NATION
 PLAN
 156TH LANE

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 69 | 109 |



LEGEND

-  Patching and 2" Asphaltic Overlay
-  Patching and 1 1/2" Milling and Asphaltic Overlay

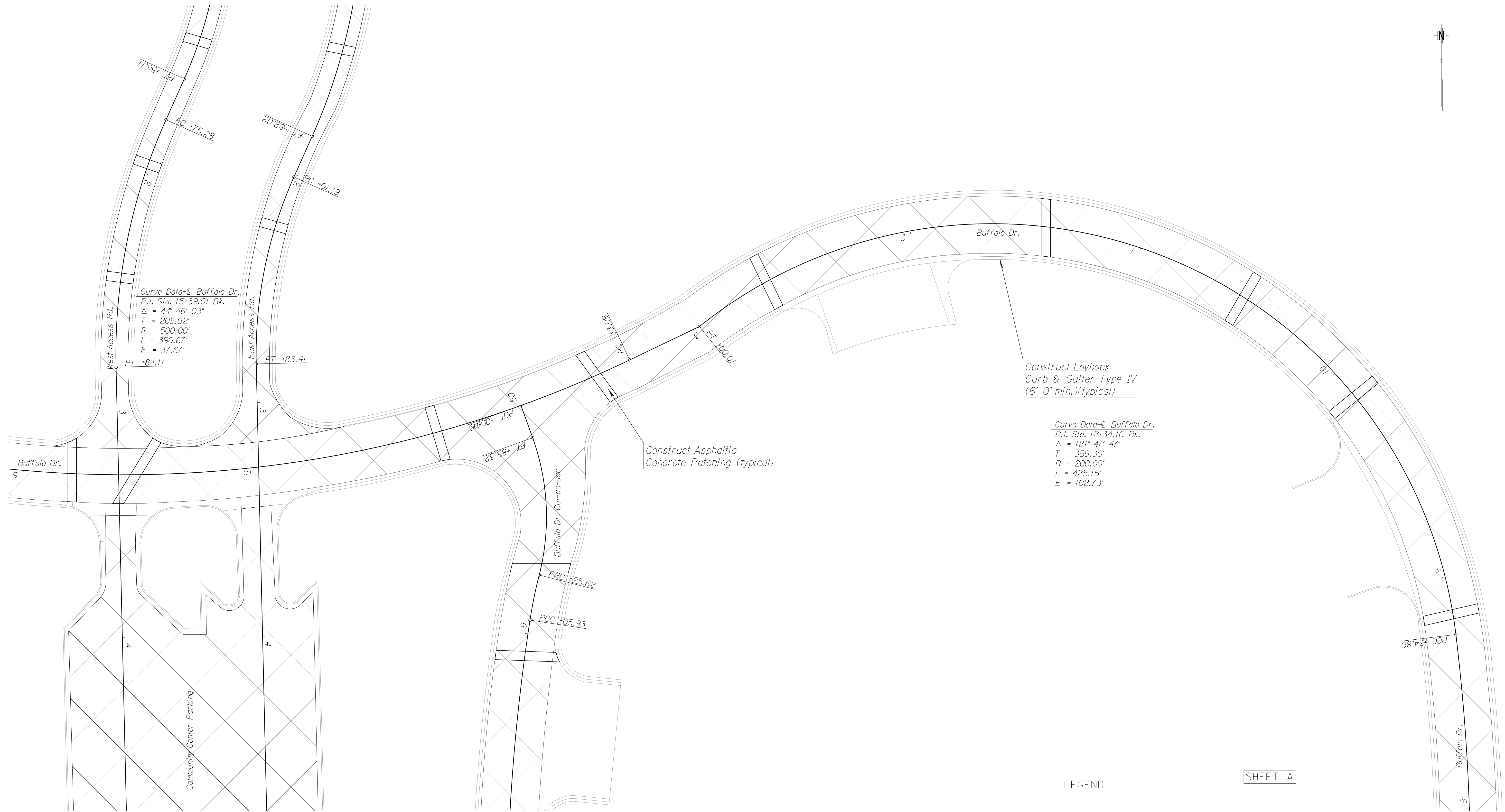
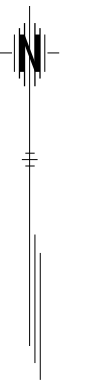
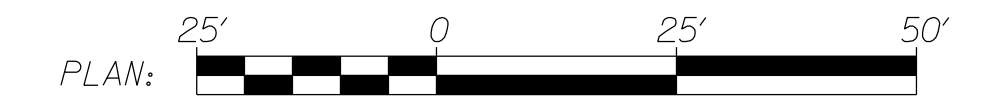
PRAIRIE BAND POTAWATOMI NATION
OVERVIEW PLAN
SOUTHWOOD HOUSING

P.I. Sta. 15+39.01 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,923.75, E 1,925,101.64

P.I. Sta. 13+00.01 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 371,027.09, E 1,925,317.15

P.I. Sta. 12+34.16 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 371,251.94, E 1,925,597.40

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 70 | 109 |



Curve Data-@ Buffalo Dr.
 P.I. Sta. 15+39.01 Bk.
 $\Delta = 44^\circ-46'-03''$
 $T = 205.92'$
 $R = 500.00'$
 $L = 390.67'$
 $E = 37.67'$

Curve Data-@ Buffalo Dr.
 P.I. Sta. 12+34.16 Bk.
 $\Delta = 121^\circ-47'-47''$
 $T = 359.30'$
 $R = 200.00'$
 $L = 425.15'$
 $E = 102.73'$

LEGEND

- Patching and 2" Asphaltic Overlay
- Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET A

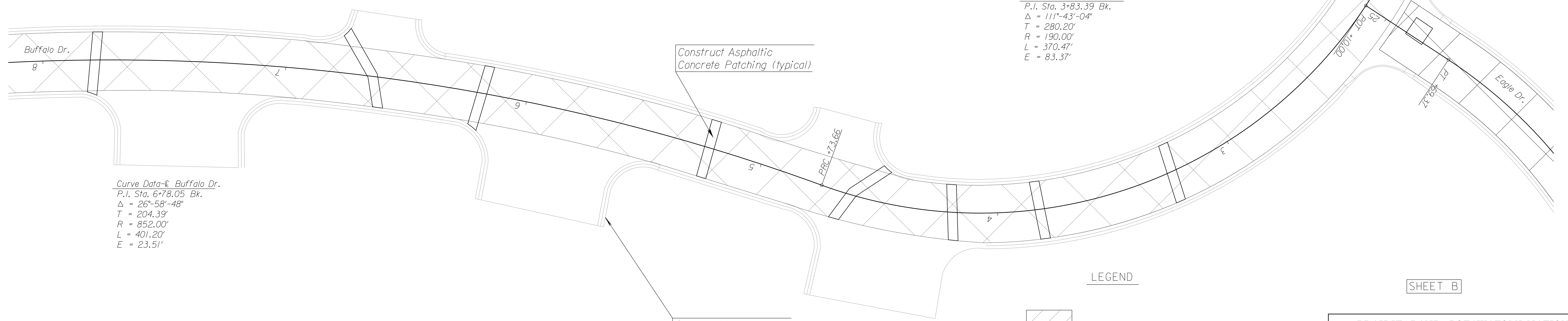
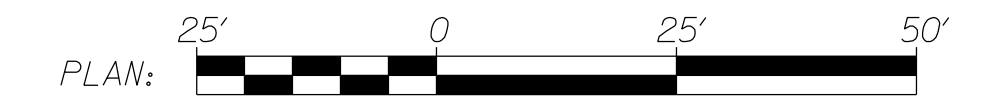
PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Buffalo Dr. - Sta. 8+00 to Sta. 16+00

P.I. Sta. 6+78.05 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,692.38, E 1,925,665.55

P.I. Sta. 3+83.39 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,237.12, E 1,925,499.53

P.O.T. Sta. 0+00.00 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,248.38, E 1,925,882.75

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 71 | 109 |



Curve Data-@ Buffalo Dr.
 P.I. Sta. 3+83.39 Bk.
 $\Delta = 111^{\circ}-43'-04''$
 $T = 280.20'$
 $R = 190.00'$
 $L = 370.47'$
 $E = 83.37'$

Curve Data-@ Buffalo Dr.
 P.I. Sta. 6+78.05 Bk.
 $\Delta = 26^{\circ}-58'-48''$
 $T = 204.39'$
 $R = 852.00'$
 $L = 401.20'$
 $E = 23.51'$

LEGEND

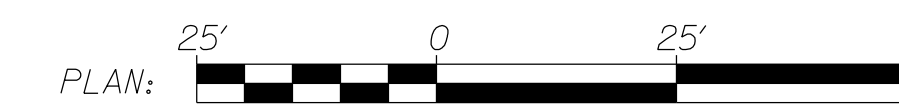
- Patching and 2" Asphaltic Overlay
- Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET B

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Buffalo Dr. - Sta. 0+00 to Sta. 8+00

P.O.T. Sta. 9+67.70 - @ Eagle Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,251.10, E 1,924,197.11

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 72 | 109 |



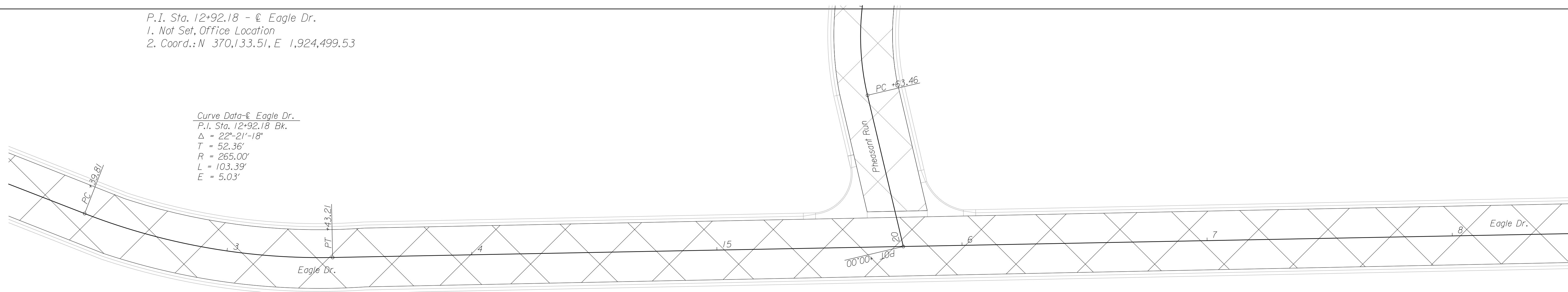
Construct Layback
Curb & Gutter-Type IV
(6'-0" min.)(typical)

Construct Valley Gutter.
(Paid as Layback Curb
& Gutter-Type IV)-See Details.

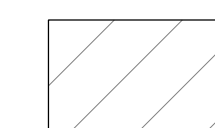
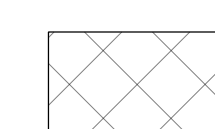
SHEET C

P.I. Sta. 12+92.18 - @ Eagle Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,133.51, E 1,924,499.53

Curve Data-@ Eagle Dr.
 P.I. Sta. 12+92.18 Bk.
 $\Delta = 22^{\circ}21'18''$
 $T = 52.36'$
 $R = 265.00'$
 $L = 103.39'$
 $E = 5.03'$



LEGEND

-  Patching and 2" Asphaltic Overlay
-  Patching and 1 1/2" Milling and Asphaltic Overlay

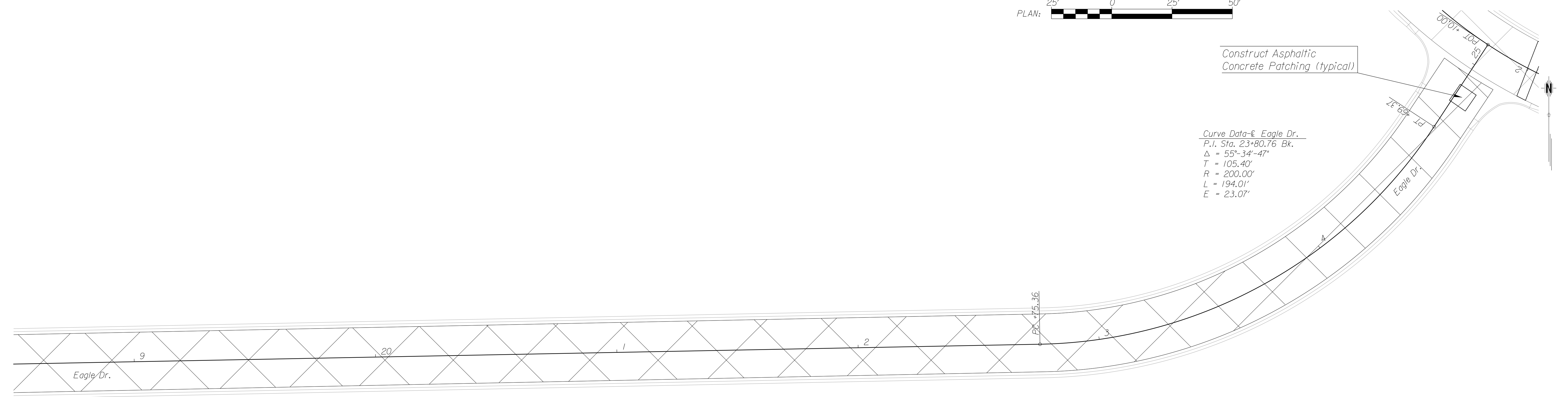
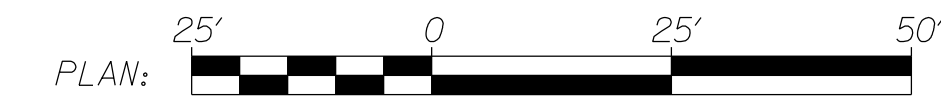
SHEET D

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Eagle Dr. - Sta. 10+00 to Sta. 18+50

P.I. Sta. 23+80.76 - @ Eagle Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,154.60, E 1,925,589.25

P.O.T. Sta. 25+10.00 - @ Eagle Dr.
 1. Not Set, Office Location
 2. Coord.: N 370,276.64, E 1,925,669.45

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 73 | 109 |



Construct Asphaltic
 Concrete Patching (typical)

Curve Data-@ Eagle Dr.
 P.I. Sta. 23+80.76 Bk.
 $\Delta = 55^{\circ}34'47''$
 $T = 105.40'$
 $R = 200.00'$
 $L = 194.01'$
 $E = 23.07'$

SHEET E

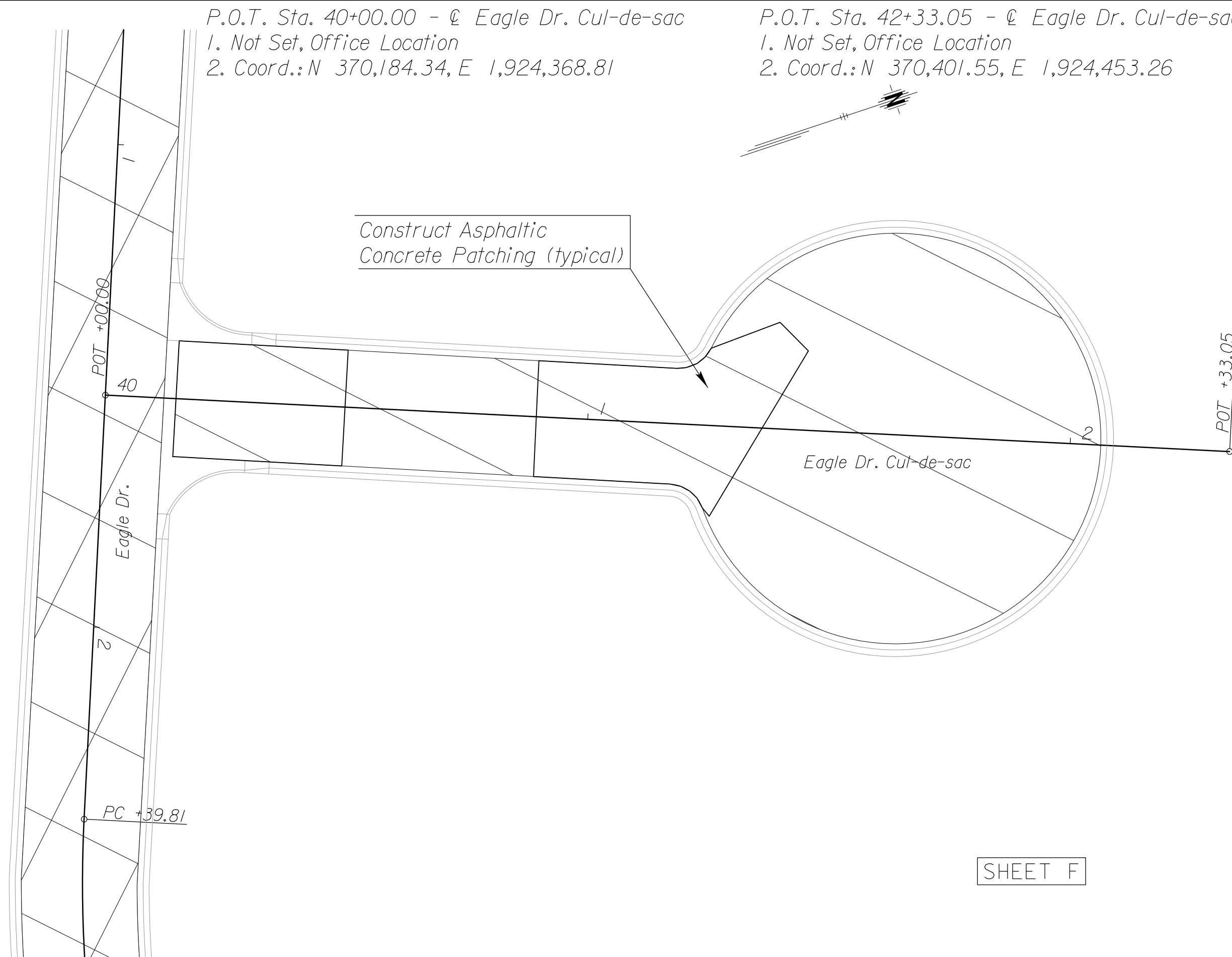
P.O.T. Sta. 40+00.00 - @ Eagle Dr. Cul-de-sac
 1. Not Set, Office Location
 2. Coord.: N 370,184.34, E 1,924,368.81

P.O.T. Sta. 42+33.05 - @ Eagle Dr. Cul-de-sac
 1. Not Set, Office Location
 2. Coord.: N 370,401.55, E 1,924,453.26

P.O.T. Sta. 46+72.13-@ Buffalo Dr. Cul-de-sac
 1. Not Set, Office Location
 2. Coord.: N 370,668.18, E 1,925,237.12

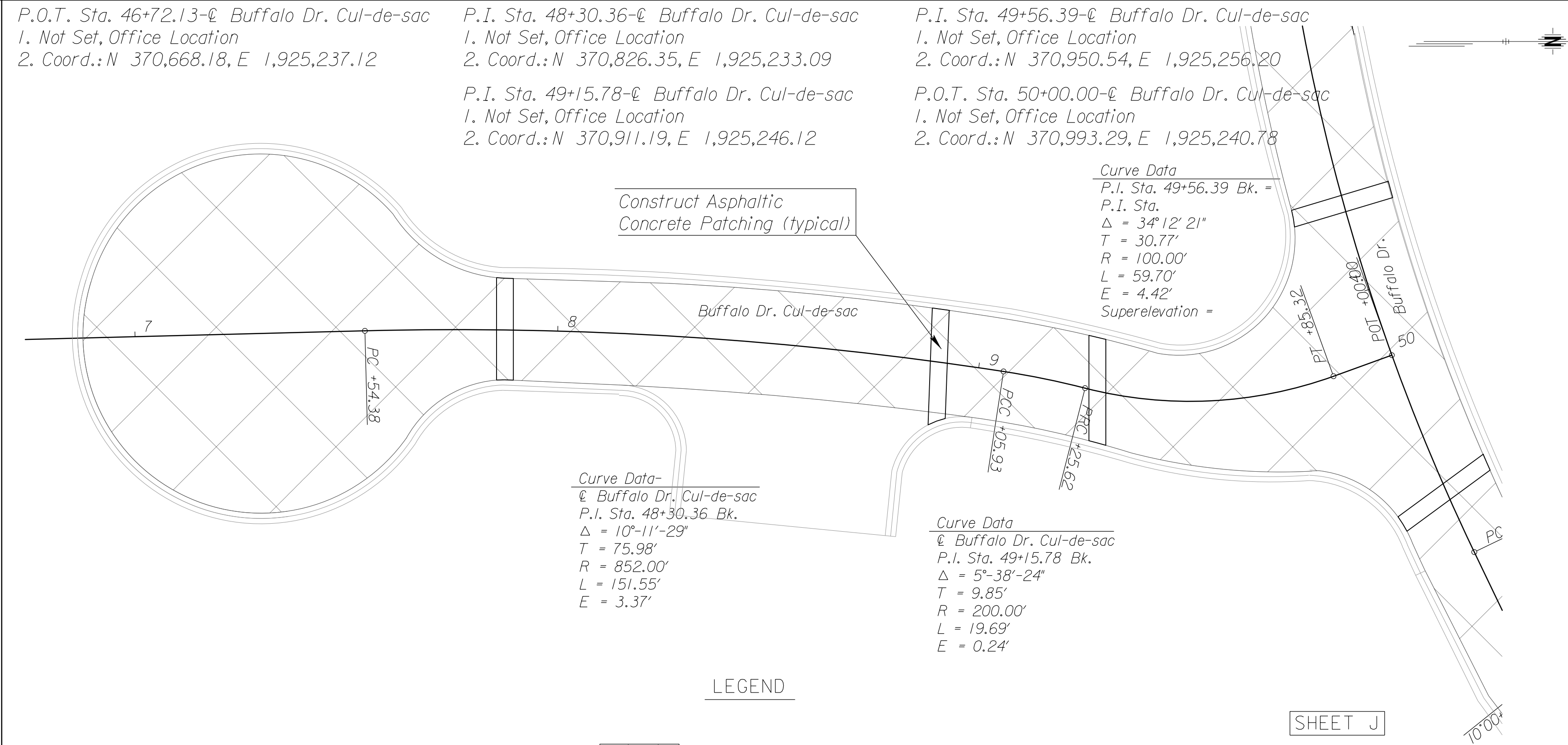
P.I. Sta. 48+30.36-@ Buffalo Dr. Cul-de-sac
 1. Not Set, Office Location
 2. Coord.: N 370,826.35, E 1,925,233.09

P.I. Sta. 49+56.39-@ Buffalo Dr. Cul-de-sac
 1. Not Set, Office Location
 2. Coord.: N 370,950.54, E 1,925,256.20



Construct Asphaltic
 Concrete Patching (typical)

Eagle Dr. Cul-de-sac



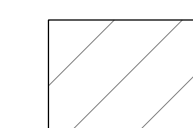
Construct Asphaltic
 Concrete Patching (typical)

Buffalo Dr. Cul-de-sac

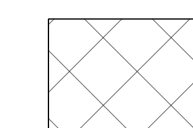
Curve Data-
 @ Buffalo Dr. Cul-de-sac
 P.I. Sta. 48+30.36 Bk.
 $\Delta = 10^{\circ}11'29''$
 $T = 75.98'$
 $R = 852.00'$
 $L = 151.55'$
 $E = 3.37'$

Curve Data
 @ Buffalo Dr. Cul-de-sac
 P.I. Sta. 49+15.78 Bk.
 $\Delta = 5^{\circ}38'24''$
 $T = 9.85'$
 $R = 200.00'$
 $L = 19.69'$
 $E = 0.24'$

LEGEND



Patching and 2" Asphaltic Overlay



Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET J

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Eagle Dr. - Sta. 18+50 to Sta. 25+00
 Eagle Dr. Cul-de-sac
 Buffalo Dr. Cul-de-sac

P.O.T. Sta. 20+00.00 - @ Pheasant Run
 1. Not Set, Office Location
 2. Coord.: N 370,139.03, E 1,924,784.67

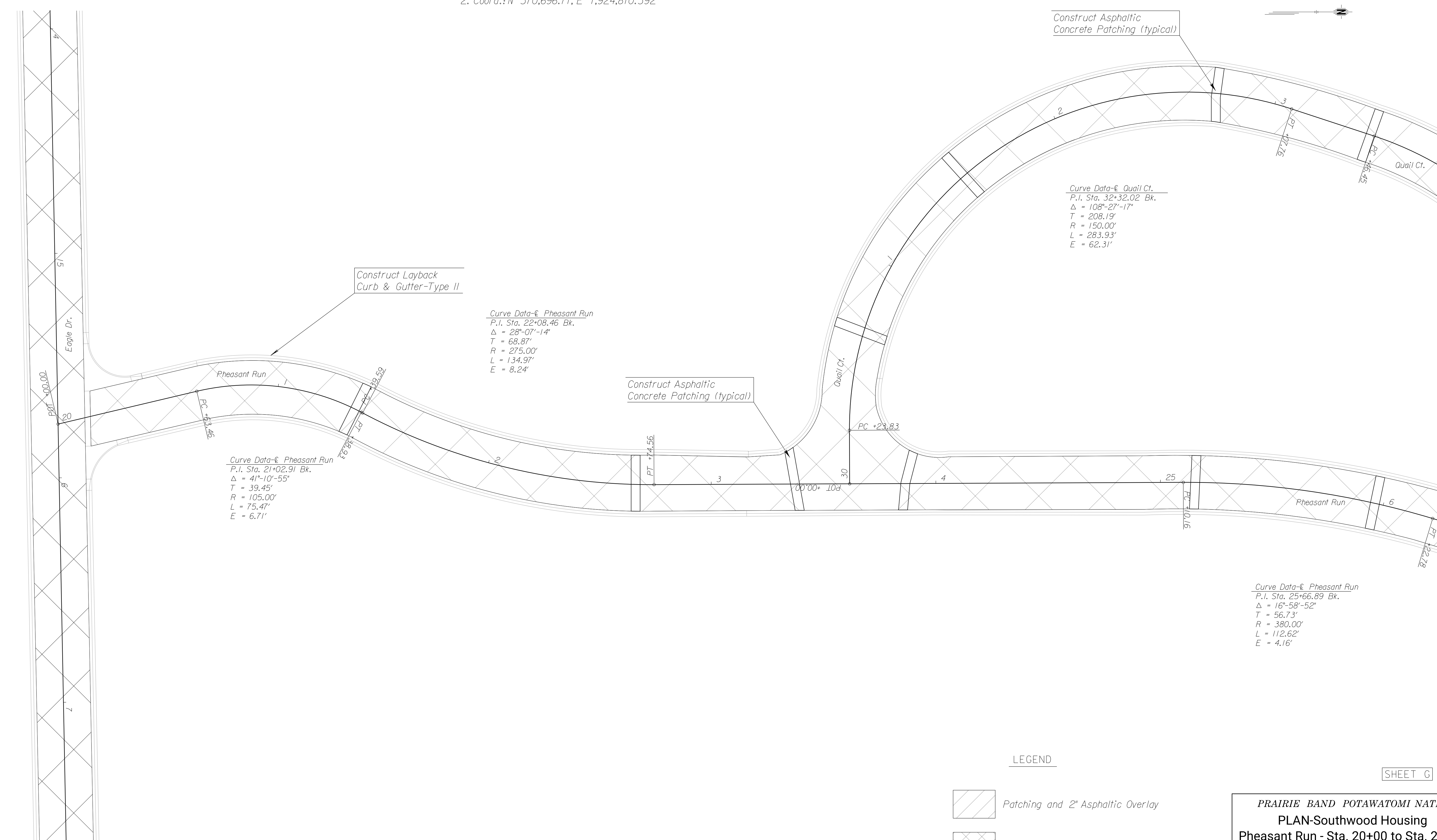
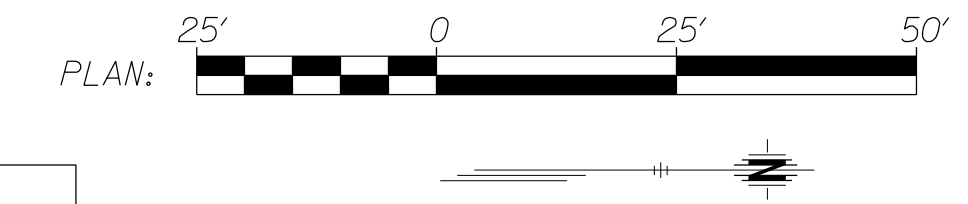
P.I. Sta. 21+02.91 - @ Pheasant Run
 1. Not Set, Office Location
 2. Coord.: N 370,239.18, E 1,924,760.98

P.I. Sta. 22+08.46 - @ Pheasant Run
 1. Not Set, Office Location
 2. Coord.: N 370,335.51, E 1,924,811.93

P.O.T. Sta. 30+00.00 - @ Quail Ct.
 1. Not Set, Office Location
 2. Coord.: N 370,491.47, E 1,924,811.27

P.I. Sta. 32+32.02 - @ Quail Ct.
 1. Not Set, Office Location
 2. Coord.: N 370,490.48, E 1,924,579.25

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 74 | 109 |



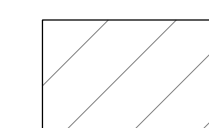
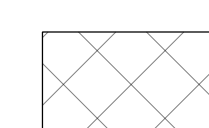
Curve Data-@ Pheasant Run
 P.I. Sta. 21+02.91 Bk.
 $\Delta = 41^{\circ}-10'-55''$
 $T = 39.45'$
 $R = 105.00'$
 $L = 75.47'$
 $E = 6.71'$

Curve Data-@ Pheasant Run
 P.I. Sta. 22+08.46 Bk.
 $\Delta = 28^{\circ}-07'-14''$
 $T = 68.87'$
 $R = 275.00'$
 $L = 134.97'$
 $E = 8.24'$

Curve Data-@ Quail Ct.
 P.I. Sta. 32+32.02 Bk.
 $\Delta = 108^{\circ}-27'-17''$
 $T = 208.19'$
 $R = 150.00'$
 $L = 283.93'$
 $E = 62.31'$

Curve Data-@ Pheasant Run
 P.I. Sta. 25+66.89 Bk.
 $\Delta = 16^{\circ}-58'-52''$
 $T = 56.73'$
 $R = 380.00'$
 $L = 112.62'$
 $E = 4.16'$

LEGEND

-  Patching and 2" Asphaltic Overlay
-  Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET G

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Pheasant Run - Sta. 20+00 to Sta. 26+25
 Quail Ct. - Sta. 30+00 to Sta. 33+75

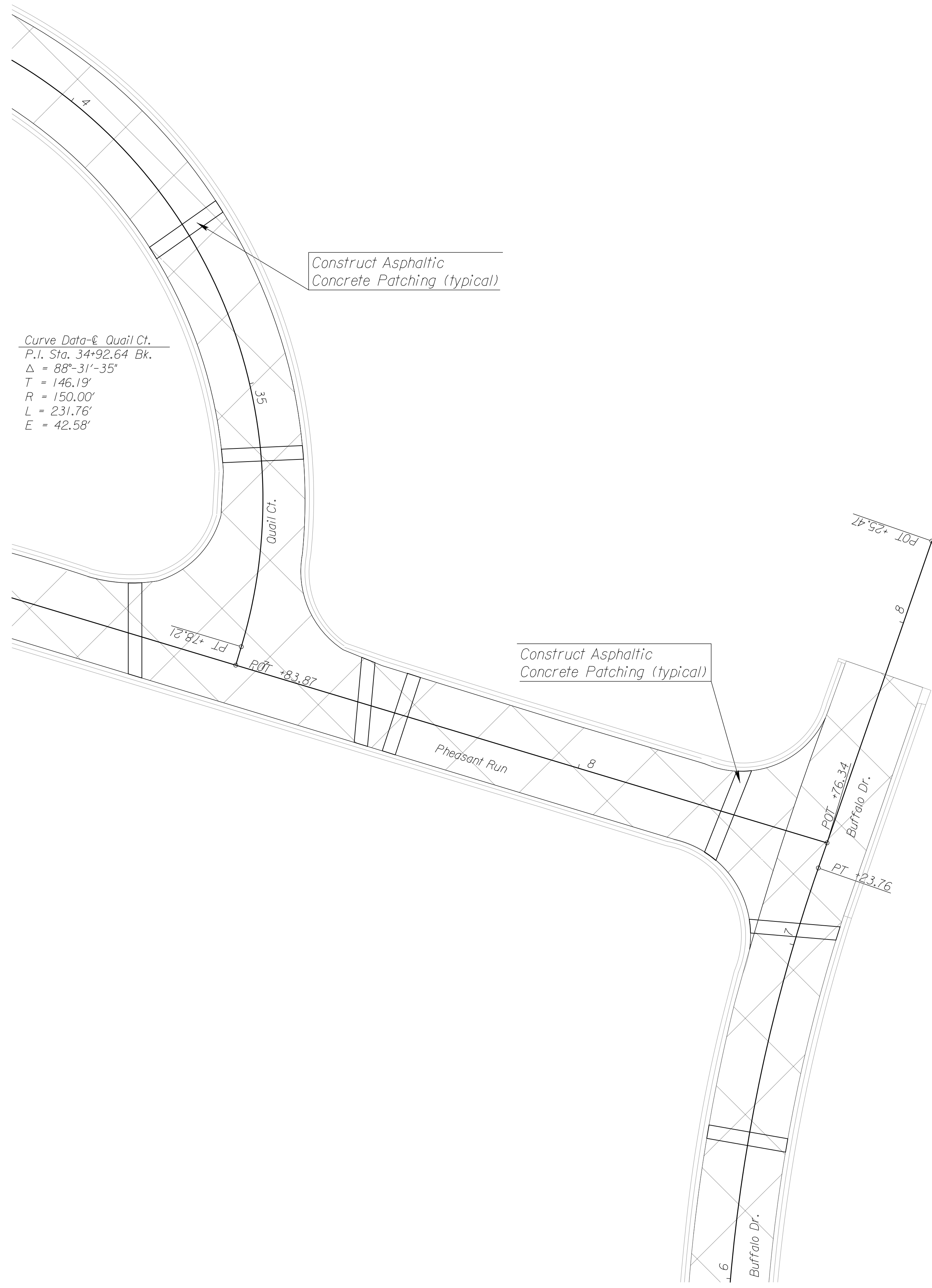
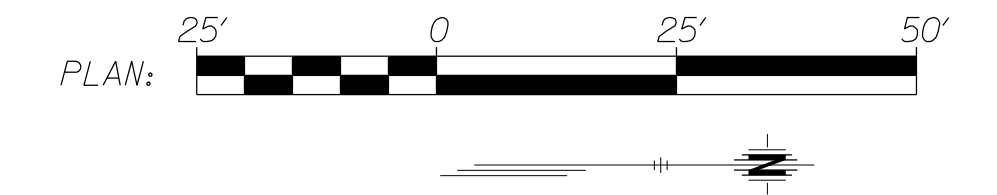
P.I. Sta. 34+92.64 - @ Quail Ct.
 1. Not Set, Office Location
 2. Coord.: N 370,863.86, E 1,924,702.09

P.O.T. Sta. 35+83.87 - @ Quail Ct.
 1. Not Set, Office Location
 2. Coord.: N 370,820.13, E 1,924,847.51

P.O.T. Sta. 28+76.34 - @ Pheasant Run
 1. Not Set, Office Location
 2. Coord.: N 370,993.85, E 1,924,899.74

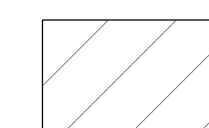
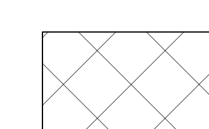
P.O.T. Sta. 18+25.47 - @ Buffalo Dr.
 1. Not Set, Office Location
 2. Coord.: N 371,024.65, E 1,924,811.04

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 75 | 109 |



Curve Data-@ Quail Ct.
 P.I. Sta. 34+92.64 Bk.
 $\Delta = 88^{\circ}-31'-35''$
 $T = 146.19'$
 $R = 150.00'$
 $L = 231.76'$
 $E = 42.58'$

LEGEND

-  Patching and 2" Asphaltic Overlay
-  Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET H

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 Pheasant Run - Sta. 26+25 to Sta. 28+75
 Quail Ct. - Sta. 33+75 to Sta. 35+75
 Buffalo Dr. - Sta. 16+00 to Sta. 18+00

P.O.T. Sta. 5+36.63 - @ West Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 370,757.30, E 1,925,073.39

P.O.T. Sta. 5+35.87 - @ East Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 370,758.70, E 1,925,133.37

P.I. Sta. 2+30.64 - @ West Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,065.04, E 1,925,066.22

P.I. Sta. 2+42.99 - @ East Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,052.88, E 1,925,126.53

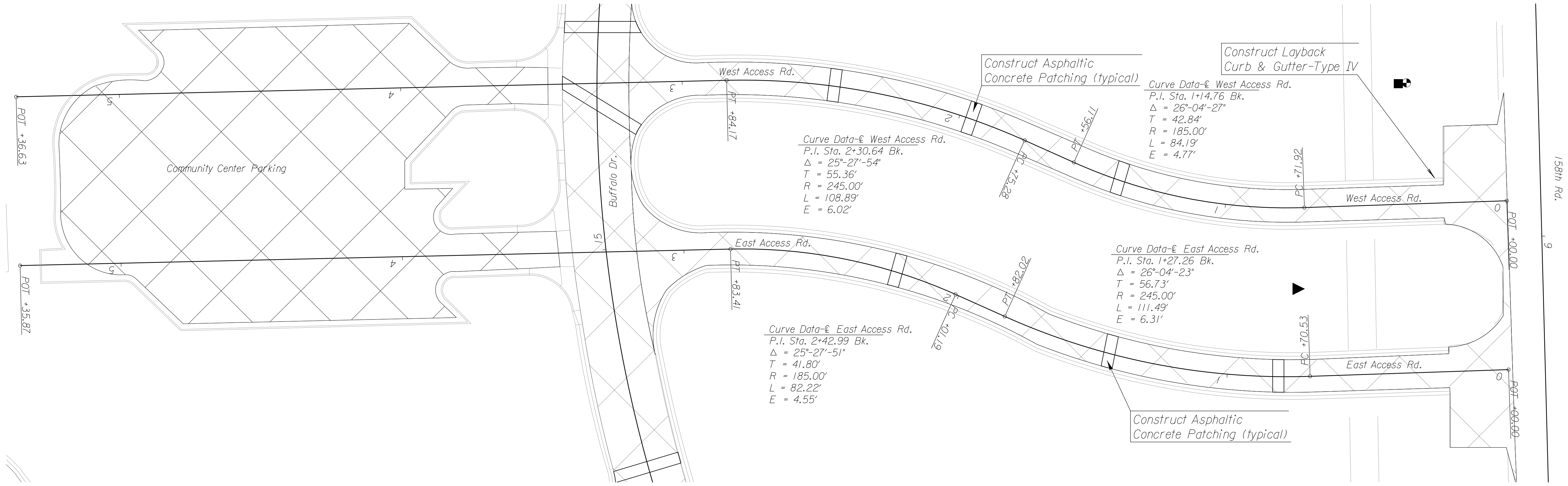
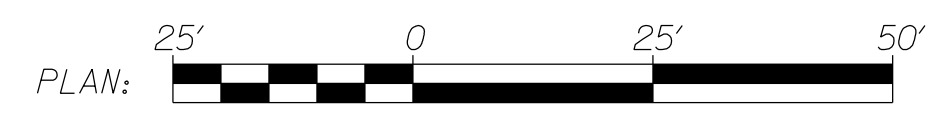
P.I. Sta. 1+14.76 - @ West Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,172.15, E 1,925,114.21

P.I. Sta. 1+27.26 - @ East Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,160.29, E 1,925,174.64

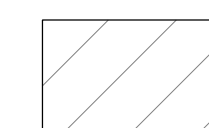
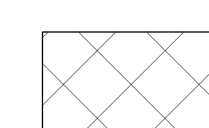
P.O.T. Sta. 0+00.00 - @ West Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,286.84, E 1,925,110.32

P.O.T. Sta. 0+00.00 - @ East Access Rd.
 1. Not Set, Office Location
 2. Coord.: N 371,287.48, E 1,925,170.33

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 76 | 109 |



LEGEND

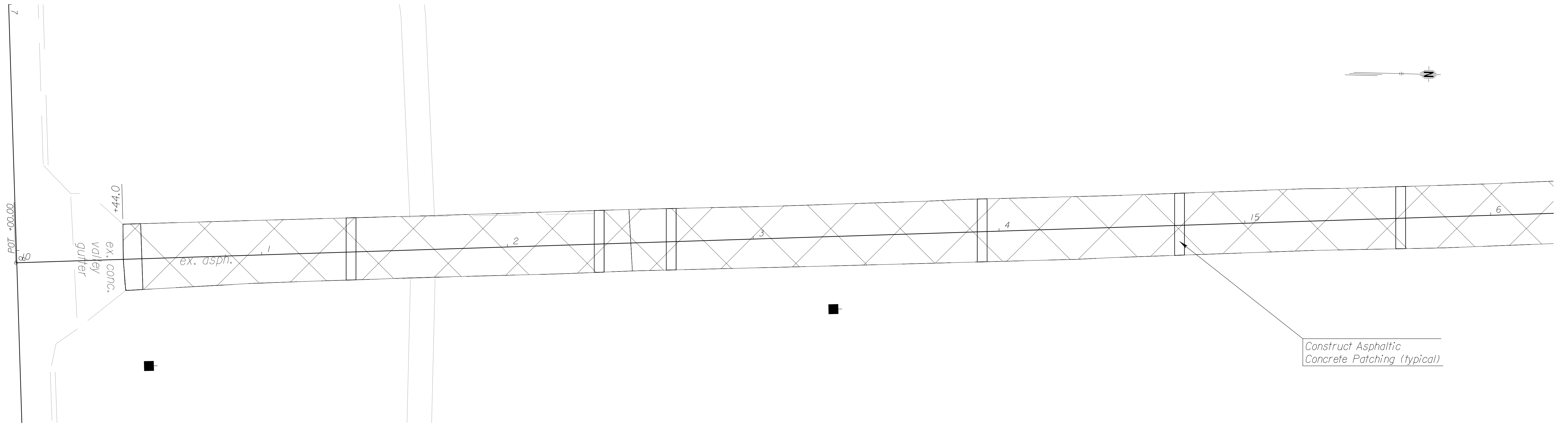
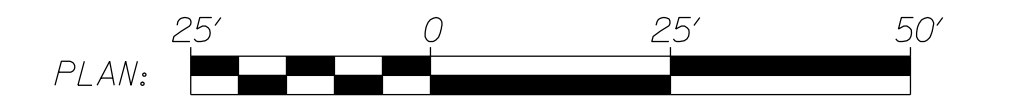
-  Patching and 2" Asphaltic Overlay
-  Patching and 1 1/2" Milling and Asphaltic Overlay

SHEET I

PRAIRIE BAND POTAWATOMI NATION
 PLAN-Southwood Housing
 West Access Rd.
 East Access Rd.
 Community Center Parking Lot

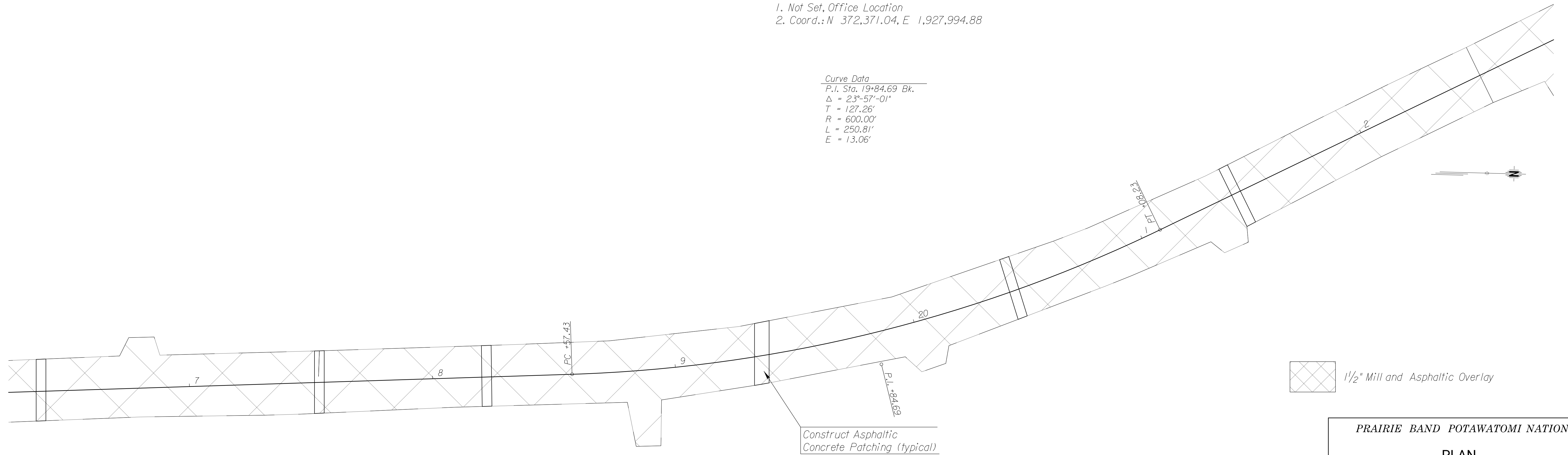
P.O.T. Sta. 10+00.00
 1. Not Set, Office Location
 2. Coord.: N 371,386.86, E 1,928,026.53

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 77 | 109 |



P.I. Sta. 19+84.69
 1. Not Set, Office Location
 2. Coord.: N 372,371.04, E 1,927,994.88

Curve Data
 P.I. Sta. 19+84.69 Bk.
 $\Delta = 23^{\circ}57'01''$
 $T = 127.26'$
 $R = 600.00'$
 $L = 250.81'$
 $E = 13.06'$

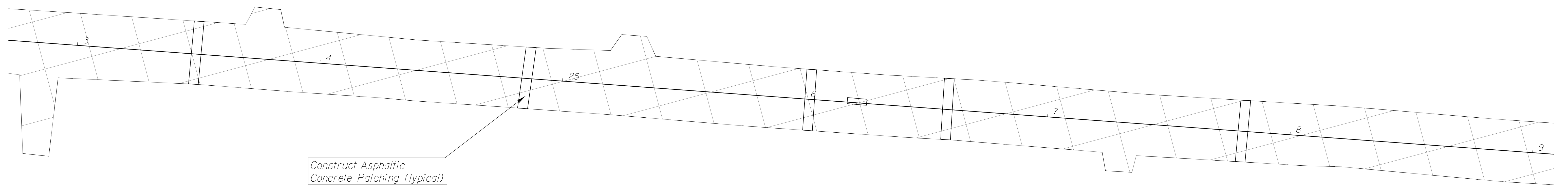
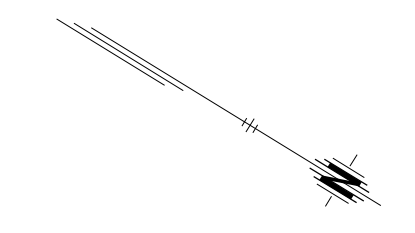


 1/2" Mill and Asphaltic Overlay

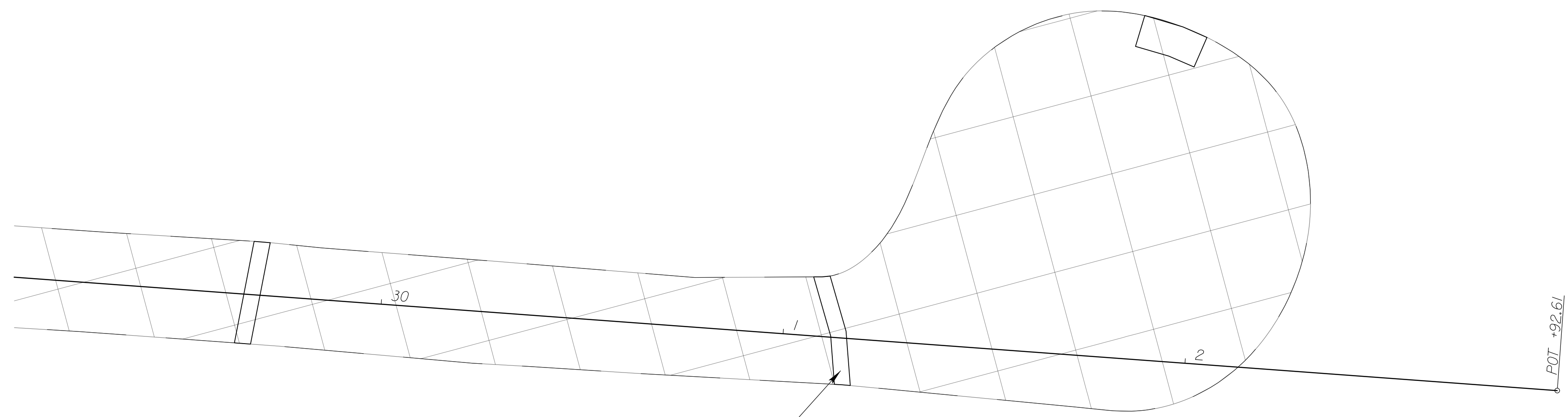
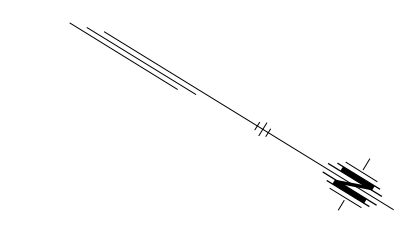
PRAIRIE BAND POTAWATOMI NATION

PLAN
 L4 LANE

| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 78 | 109 |



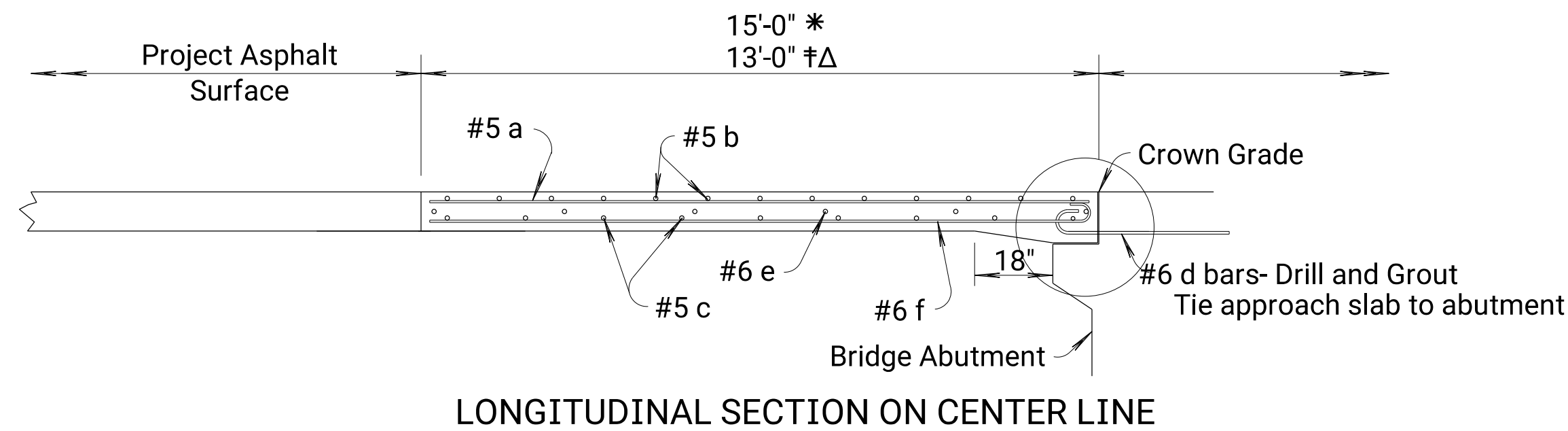
P.O.T. Sta. 32+92.61
 1. Not Set, Office Location
 2. Coord.: N 373,552.01, E 1,927,424.17



1/2" Mill and Asphaltic Overlay

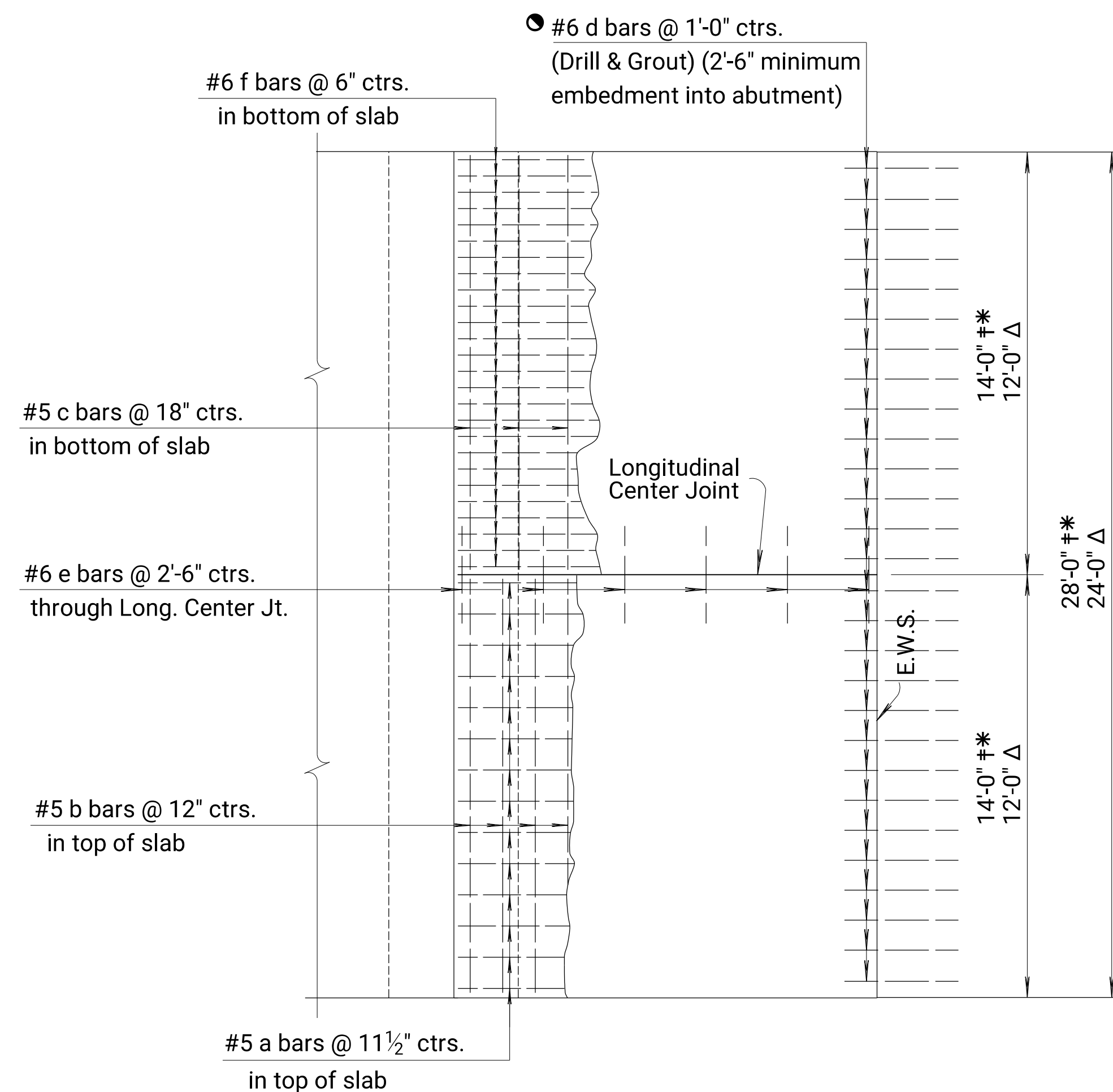
PRAIRIE BAND POTAWATOMI NATION
 PLAN
 L4 LANE

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 79 | 109 |

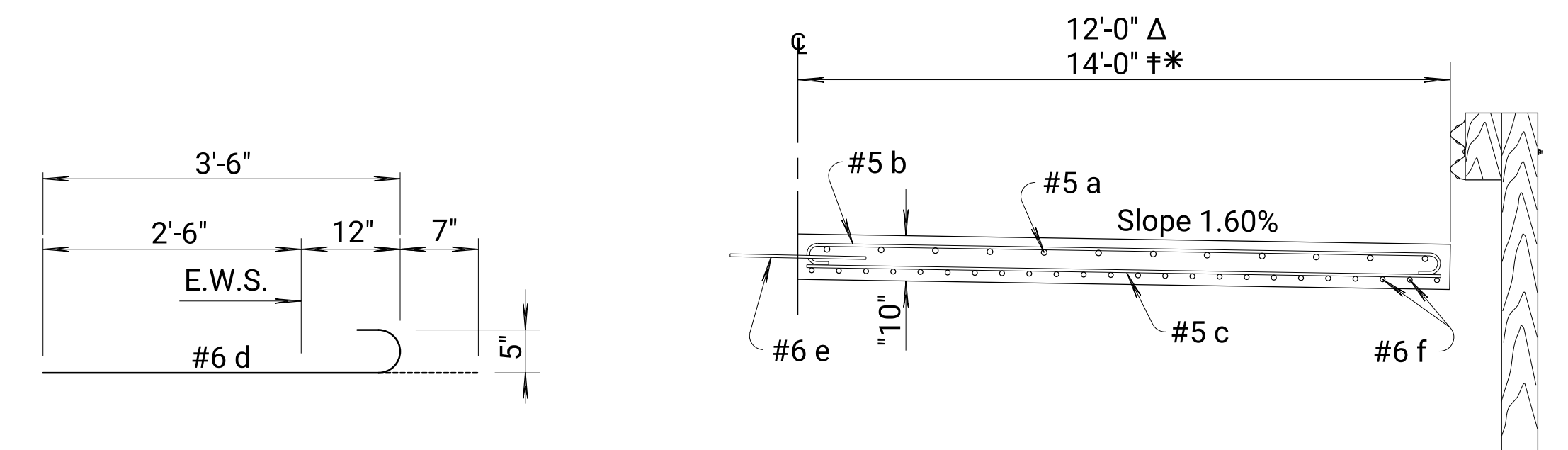


GENERAL NOTE
 Special Concrete Bridge Approach shall be paid for as Sq. Yds. of Concrete Pavement (10" Unif.)(AE)(Br. App.)(Type A) and includes all work, including excavation and removal and all materials required to construct the approach slab as shown on this sheet.
 At the Contractor's option #4x3'-0" tie bars @ 15" centers may be substituted for the #6 e bars at 2'-6" centers.
 All reinforcing steel shall be epoxy coated.
 See Standard Drawing RD711 for details of joints.
 Clearance from the face of concrete for all reinforcing steel shall be 2 inches.
 Standard reinforcing bar hooks in accordance with the latest ACI specifications shall be used throughout.

Note to Designer: The designer shall be responsible for designating pavement thickness and computing reinforcing steel and concrete quantities and dimensions necessary to complete this sheet.



Drill and grout #6 bars into the existing bridge abutment. Take care not to hit any existing reinforcing steel. Use a KDOT approved epoxy grouting material.



NOTE: All bid items to be paid in accordance with KDOT Standard Specifications.

Note: Quantities listed for one approach slab only. Two required per bridge. Reinforcing steel and joint lengths shown for information only.

Note: All dimensions are out to out on bars unless noted otherwise.

† 158th Road (Sta. 727+27.90) (28'x13')
 * N Road (Sta.161+71.40) (28'x15')
 Δ 142nd Road (Sta. 287+76.6) (24'x13')

PLAN FOR NORMAL APPROACH
(No Scale)

"D" Thickness = Thickness of Project Concrete Pavement (10" minimum).

| † BILL OF MATERIALS-158th Road (Sta. 727+27.90) | | | | | | | | | |
|---|--------|---------|---|--------|-------|---|-------|---------------|--|
| NORMAL APPROACH | | | | | | | | | |
| Bar No. | a | b | c | d | e | f | | | |
| | 30 | 28 | | 18 | 28 | | 6 | 56 | |
| Size | #5 | #5 | | #5 | #6 | | #6 | #6 | |
| Length | 12'-8" | 14'-10" | | 13'-8" | 4'-1" | | 3'-0" | 13'-4" | |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | | | | | | | | 2,406 lbs. | |
| Concrete Pavement (10" Unif.)(AE) | | | | | | | | 40.4 Sq. Yds. | |
| Drilling & Grouting | | | | | | | | 28 Each | |

| * BILL OF MATERIALS-N Road (Sta.161+71.40) | | | | | | | | | |
|---|--------|---------|---|--------|-------|---|-------|---------------|--|
| NORMAL APPROACH | | | | | | | | | |
| Bar No. | a | b | c | d | e | f | | | |
| | 30 | 32 | | 20 | 28 | | 7 | 56 | |
| Size | #5 | #5 | | #5 | #6 | | #6 | #6 | |
| Length | 14'-8" | 14'-10" | | 13'-8" | 4'-1" | | 3'-0" | 15'-4" | |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | | | | | | | | 2,732 lbs. | |
| Concrete Pavement (10" Unif.)(AE) | | | | | | | | 46.7 Sq. Yds. | |
| Drilling & Grouting | | | | | | | | 28 Each | |

| Δ BILL OF MATERIALS-142nd Road (Sta. 287+76.6) | | | | | | | | | |
|--|--------|---------|---|--------|-------|---|-------|---------------|--|
| NORMAL APPROACH | | | | | | | | | |
| Bar No. | a | b | c | d | e | f | | | |
| | 26 | 28 | | 18 | 24 | | 6 | 48 | |
| Size | #5 | #5 | | #5 | #6 | | #6 | #6 | |
| Length | 12'-8" | 12'-10" | | 11'-8" | 4'-1" | | 3'-0" | 13'-4" | |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | | | | | | | | 2,073 lbs. | |
| Concrete Pavement (10" Unif.)(AE) | | | | | | | | 34.7 Sq. Yds. | |
| Drilling & Grouting | | | | | | | | 24 Each | |

BENDING DIAGRAMS

| | | | | |
|-----|----------|-------------------------------------|--------|--------|
| 9 | 9-09-09 | Revised Reinforcing Steel listing | S.W.K. | J.O.B. |
| 8 | 5-14-09 | Revised General Note | S.W.K. | J.O.B. |
| 7 | 10-30-08 | Added guardrail post detail at curb | S.W.K. | J.O.B. |
| 6 | 11-07-07 | Revised pavement slope to percent | S.W.K. | J.O.B. |
| NO. | DATE | REVISIONS | BY | APP'D |

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE APPROACH PAVEMENT ADJACENT TO ASPHALT SURFACE (TYPE A) Concrete Slab Bridge

RD715

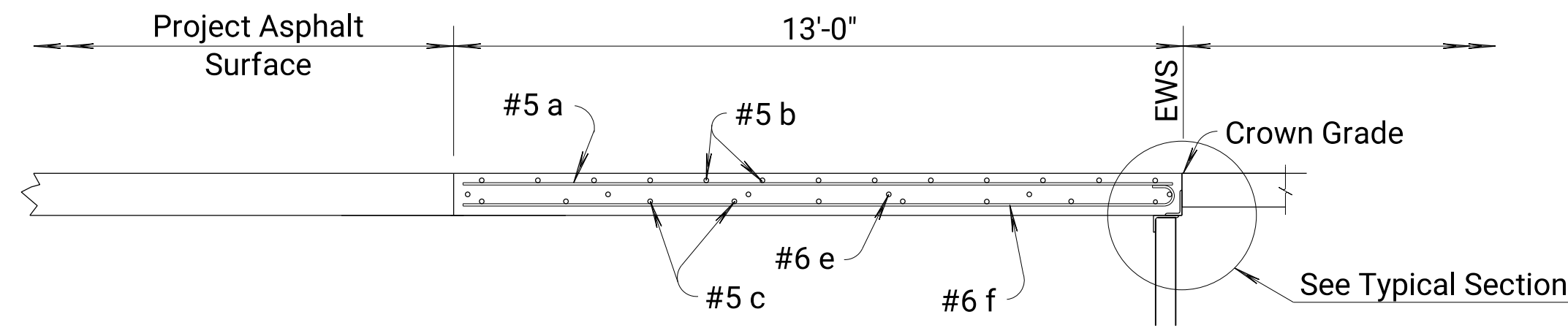
| | | |
|---------------|------------|------------------------|
| FHWA APPROVAL | 6-9-09 | APP'D. James O. Brewer |
| DESIGNED | DETAILED | QUANTITIES |
| DESIGN CK. | DETAIL CK. | QUAN. CK. |
| | | TRACED Bowser |
| | | TRACE CK. King |

Drawn By : CAM
 Plotted :6/19/2024 2:38:36 PM
 Approach Slab.dgn

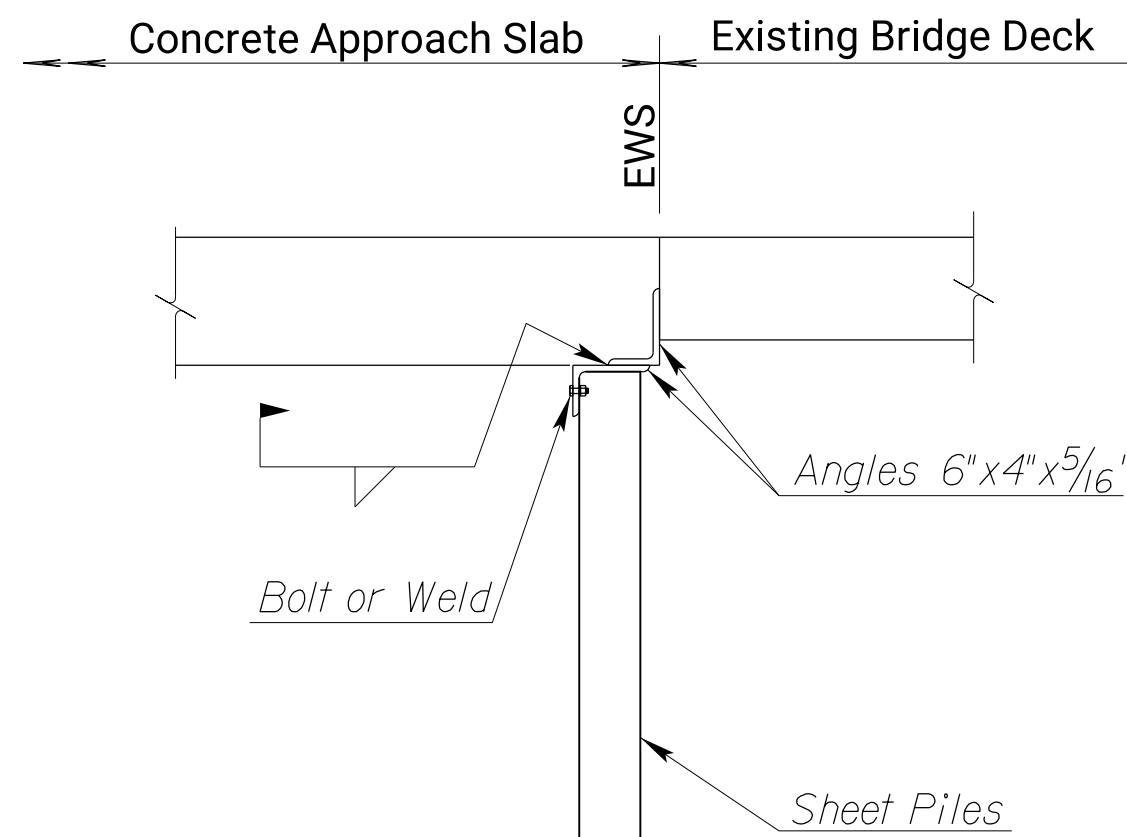
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 80 | 109 |

GENERAL NOTE

Special Concrete Bridge Approach shall be paid for as Sq. Yds. of Concrete Pavement (10" Unif.)(AE)(Br. App.)(Type B) and includes all work, including excavation and removal and all materials required to construct the approach slab as shown on this sheet.
 At the Contractor's option #4x3'-0" tie bars @ 15" centers may be substituted for the #6 e bars at 2'-6" centers.
 All reinforcing steel shall be epoxy coated.
 See Standard Drawing RD711 for details of joints.
 Clearance from the face of concrete for all reinforcing steel shall be 2 inches.
 Standard reinforcing bar hooks in accordance with the latest ACI specifications shall be used throughout.



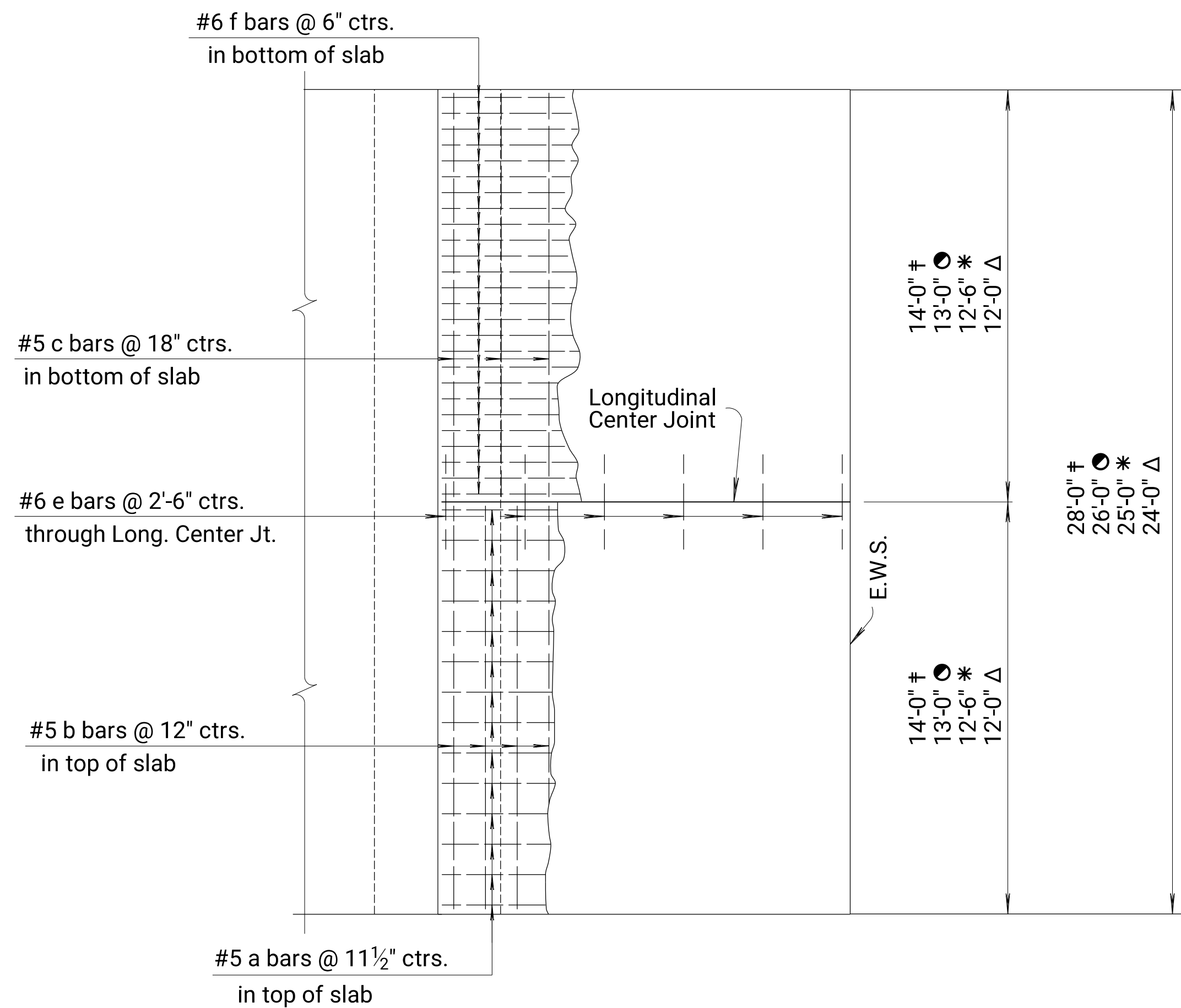
LONGITUDINAL SECTION ON CENTER LINE



TYPICAL SECTION

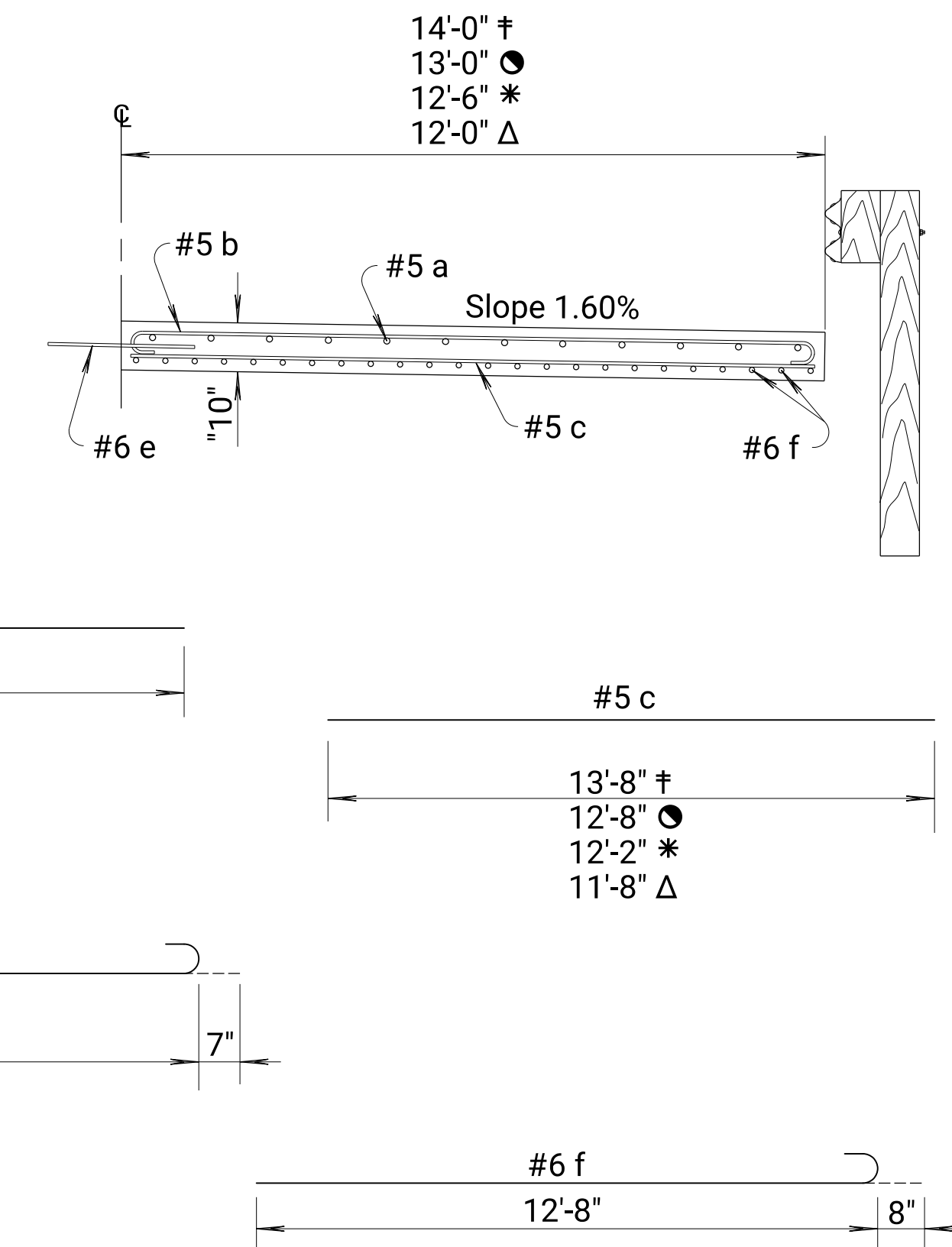
CONSTRUCTION SEQUENCE

1. Cutoff existing sheet piling 10" below top of bridge deck.
2. Connect 6"x4"x⁵/₁₆" angle to top of existing sheet pile wall with bolts or welds.
3. Connect 6"x4"x⁵/₁₆" angles by welding to each other with top angle vertical leg flush against edge of bridge deck.



PLAN FOR NORMAL APPROACH
(No Scale)

"D" Thickness = Thickness of Project Concrete Pavement (10" minimum).



BENDING DIAGRAMS

NOTE: All bid items to be paid in accordance with KDOT Standard Specifications.

Note: Quantities listed for one approach slab only. Two required per bridge. Reinforcing steel and joint lengths shown for information only.

| † BILL OF MATERIALS - N Road (Sta. 22+01.80) P Road (Sta. 24+93.65) 166th Road (Sta. 35+61.40) (28'x13') | |
|---|------------------------------------|
| NORMAL APPROACH | |
| Bar No. | a b c e f |
| Size | #5 #5 #5 #6 #6 |
| Length | 12'-8" 14'-10" 13'-8" 3'-0" 13'-4" |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | 2,235 lbs. |
| ∠ 6"x4"x ⁵ / ₁₆ " | 56 Lin. Ft. |
| Concrete Pavement (10" Unif.)(AE) | 40.4 Sq. Yds. |

| ● BILL OF MATERIALS - I Road (Sta. 73+97.50) (26'x13') | |
|---|------------------------------------|
| NORMAL APPROACH | |
| Bar No. | a b c e f |
| Size | #5 #5 #5 #6 #6 |
| Length | 12'-8" 13'-10" 12'-8" 3'-0" 13'-4" |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | 2,080 lbs. |
| ∠ 6"x4"x ⁵ / ₁₆ " | 52 Lin. Ft. |
| Concrete Pavement (10" Unif.)(AE) | 37.6 Sq. Yds. |

| * BILL OF MATERIALS - 150th Rd (Sta. 178+50.20) (25'x13') | |
|--|-----------------------------------|
| NORMAL APPROACH | |
| Bar No. | a b c e f |
| Size | #5 #5 #5 #6 #6 |
| Length | 12'-8" 13'-4" 12'-2" 3'-0" 13'-4" |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | 2,016 lbs. |
| ∠ 6"x4"x ⁵ / ₁₆ " | 50 Lin. Ft. |
| Concrete Pavement (10" Unif.)(AE) | 36.1 Sq. Yds. |

| Δ BILL OF MATERIALS - 150th Rd (Sta. 225+84.29) (24'x13') | |
|--|------------------------------------|
| NORMAL APPROACH | |
| Bar No. | a b c e f |
| Size | #5 #5 #5 #6 #6 |
| Length | 12'-8" 12'-10" 11'-8" 3'-0" 13'-4" |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | 1,926 lbs. |
| ∠ 6"x4"x ⁵ / ₁₆ " | 48 Lin. Ft. |
| Concrete Pavement (10" Unif.)(AE) | 34.7 Sq. Yds. |

Note: All dimensions are out to out on bars unless noted otherwise.

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|----------|-------------------------------------|--------|--------|
| 9 | 9-09-09 | Revised Reinforcing Steel listing | S.W.K. | J.O.B. |
| 8 | 5-14-09 | Revised General Note | S.W.K. | J.O.B. |
| 7 | 10-30-08 | Added guardrail post detail at curb | S.W.K. | J.O.B. |
| 6 | 11-07-07 | Revised pavement slope to percent | S.W.K. | J.O.B. |

KANSAS DEPARTMENT OF TRANSPORTATION

RD715

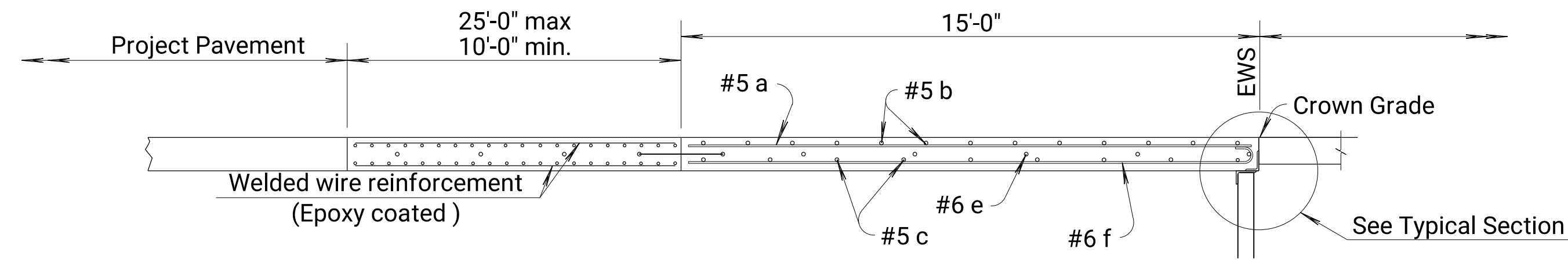
CONCRETE BRIDGE APPROACH PAVEMENT
ADJACENT TO ASPHALT SURFACE
(TYPE B) Steel Beam Bridge

| | | | |
|------------|--------|------------|-----------------|
| DESIGNED | 6-9-09 | APP'D | James O. Brewer |
| DETAIL CK. | | QUANTITIES | TRACED Bowser |
| DESIGN CK. | | QUAN. CK. | TRACE CK. King |

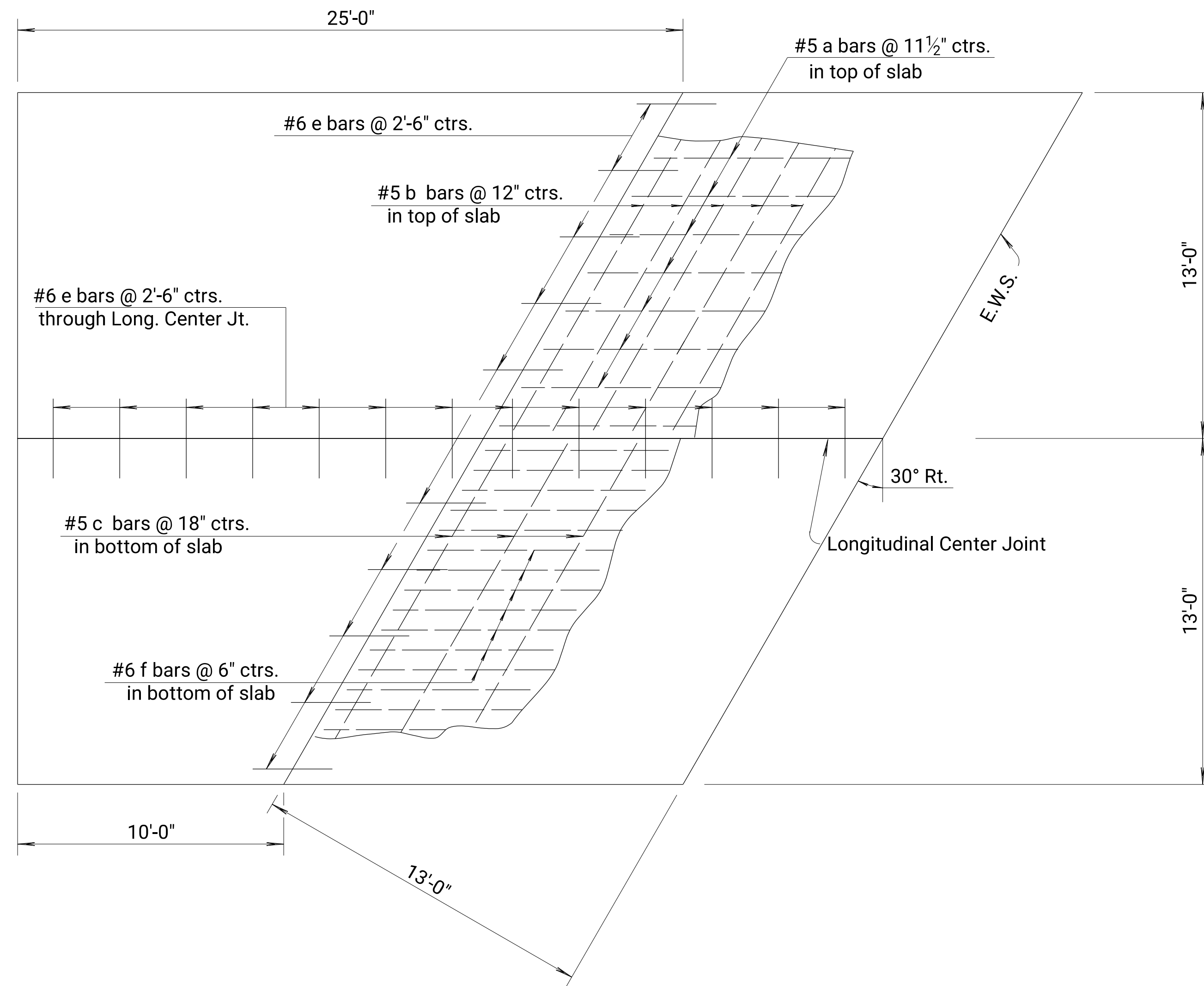
Note to Designer: The designer shall be responsible for designating pavement thickness and computing reinforcing steel and concrete quantities and dimensions necessary to complete this sheet.

Drawn By: CAM
Approach Slab.dgn
Plotted 6/19/2024 2:38:37 PM

| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 81 | 109 |

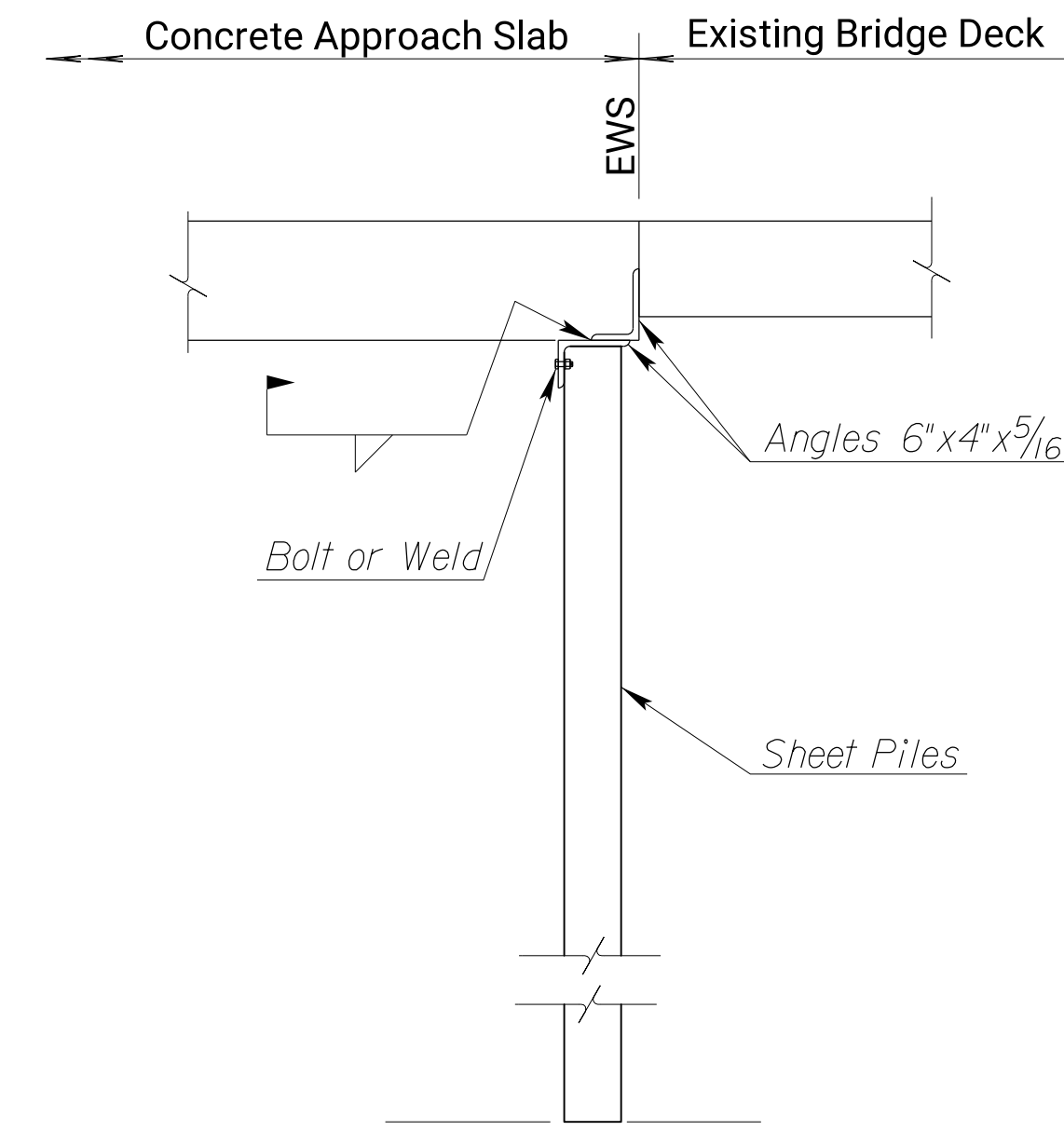


LONGITUDINAL SECTION ON CENTER LINE



PLAN FOR NORMAL APPROACH
(No Scale)

"D" Thickness = Thickness of Project Concrete Pavement (10" minimum).



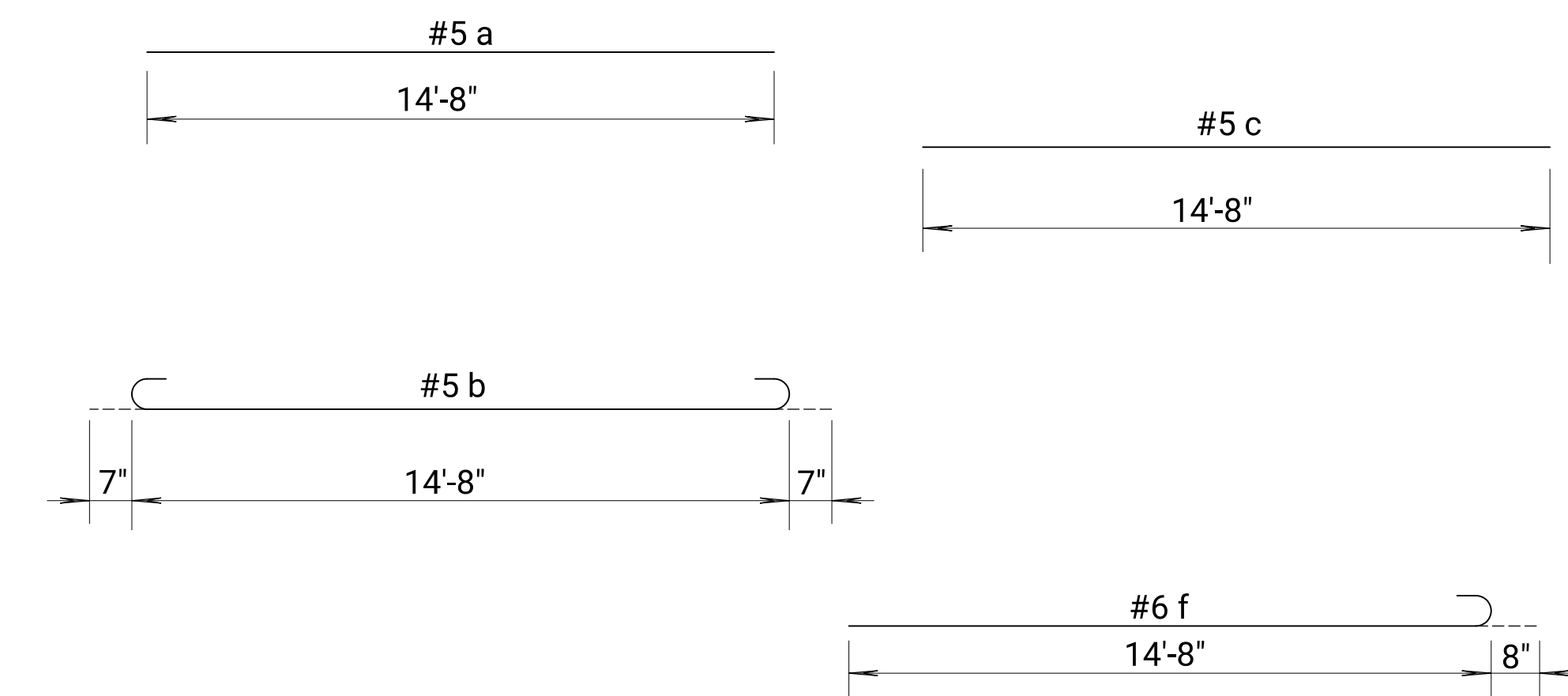
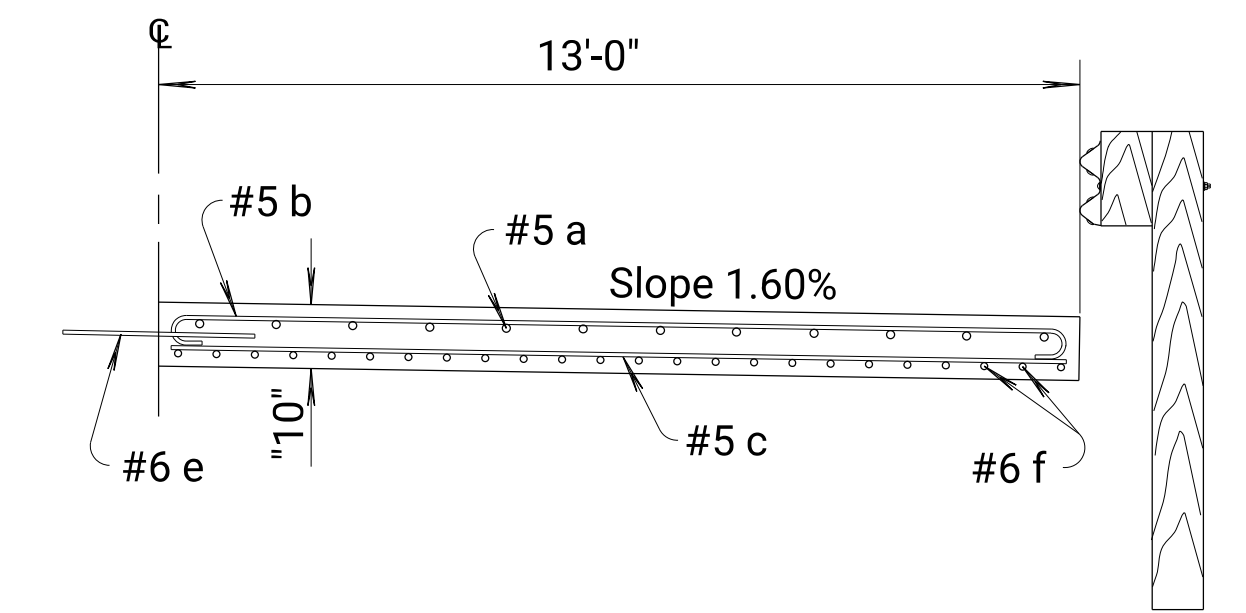
TYPICAL SECTION

CONSTRUCTION SEQUENCE

1. Cutoff existing sheet piling 10" below top of bridge deck.
2. Connect 6"x4"x⁵/₁₆" angle to top of existing sheet pile wall with bolts or welds.
3. Connect 6"x4"x⁵/₁₆" angles by welding to each other with top angle vertical leg flush against edge of bridge deck.

NOTE: All bid items to be paid in accordance with KDOT Standard Specifications.

GENERAL NOTE
 Special Concrete Bridge Approach shall be paid for as Sq. Yds. of Concrete Pavement (10" Unif.)(AE)(Br. App.)(Type C) and includes all work, including excavation and removal and all materials required to construct the approach slab as shown on this sheet.
 At the Contractor's option #4x3'-0" tie bars @ 15" centers may be substituted for the #6 e bars at 2'-6" centers.
 All reinforcing steel shall be epoxy coated.
 See Standard Drawing RD711 for details of joints.
 Clearance from the face of concrete for all reinforcing steel shall be 2 inches.
 Standard reinforcing bar hooks in accordance with the latest ACI specifications shall be used throughout.



BENDING DIAGRAMS

Note: Quantities listed for one approach slab only. Two required per bridge. Reinforcing steel and joint lengths shown for information only.

BILL OF MATERIALS - 150th Road (Sta. 44+47.53)

| NORMAL APPROACH | | | | | |
|---|--------|---------|--------|-------|---------------|
| Bar No. | a | b | c | e | f |
| 28 | 28 | 18 | 25 | 52 | |
| Size | #5 | #5 | #5 | #6 | #6 |
| Length | 14'-8" | 15'-10" | 12'-8" | 3'-0" | 15'-4" |
| Reinforcing Steel (Grade 60) (Epoxy Coated) | | | | | 2,439 lbs. |
| ∠ 6"x4"x ⁵ / ₁₆ " | | | | | 60 Lin. Ft. |
| Concrete Pavement (10" Unif.)(AE) | | | | | 93.9 Sq. Yds. |

Note: All dimensions are out to out on bars unless noted otherwise.

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|----------|-------------------------------------|--------|--------|
| 9 | 9-09-09 | Revised Reinforcing Steel listing | S.W.K. | J.O.B. |
| 8 | 5-14-09 | Revised General Note | S.W.K. | J.O.B. |
| 7 | 10-30-08 | Added guardrail post detail at curb | S.W.K. | J.O.B. |
| 6 | 11-07-07 | Revised pavement slope to percent | S.W.K. | J.O.B. |

KANSAS DEPARTMENT OF TRANSPORTATION

CONCRETE BRIDGE APPROACH PAVEMENT
 ADJACENT TO ASPHALT SURFACE
 (TYPE C) Steel Beam Bridge (30° Skew)

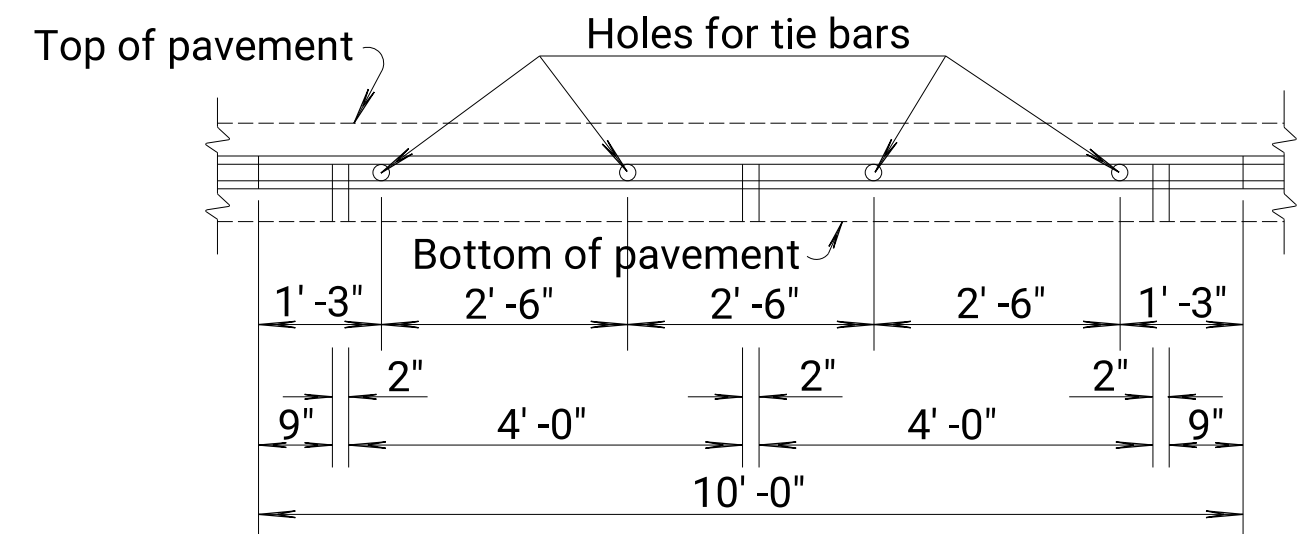
| | | | | |
|------------|------------|------------------------|-----------|--------|
| DESIGNED | 6-9-09 | APP'D. James O. Brewer | TRACED | Bowser |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACE CK. | King |

Note to Designer: The designer shall be responsible for designating pavement thickness and computing reinforcing steel and concrete quantities and dimensions necessary to complete this sheet.

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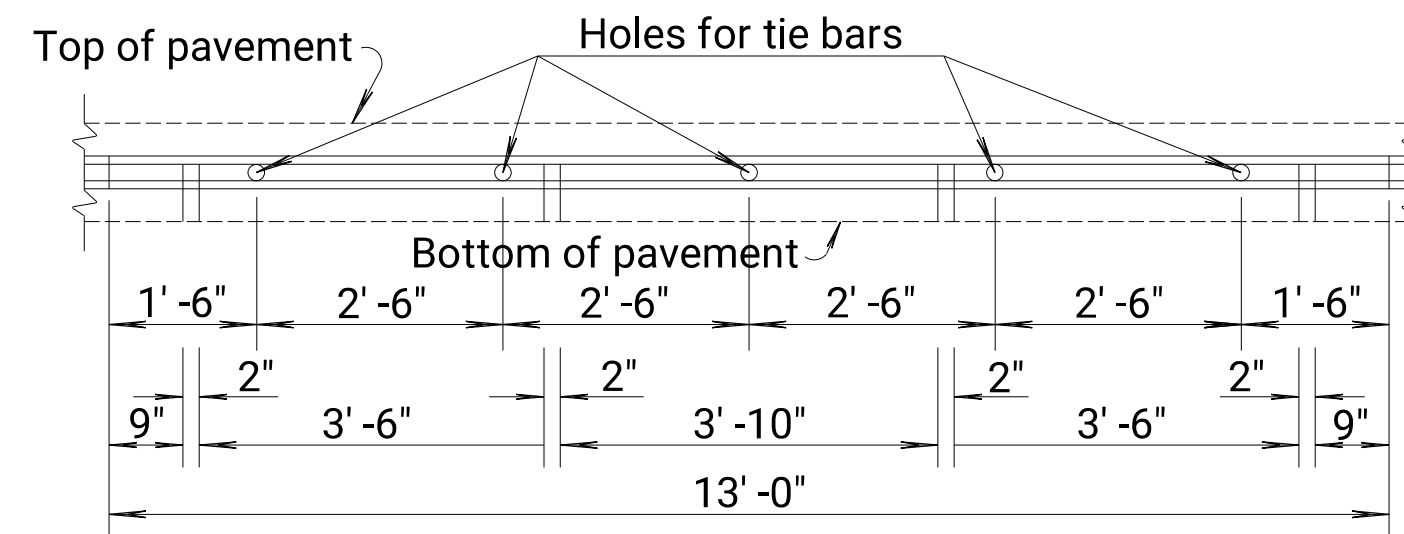
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Approach Slab.dgn

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 82 | 109 |



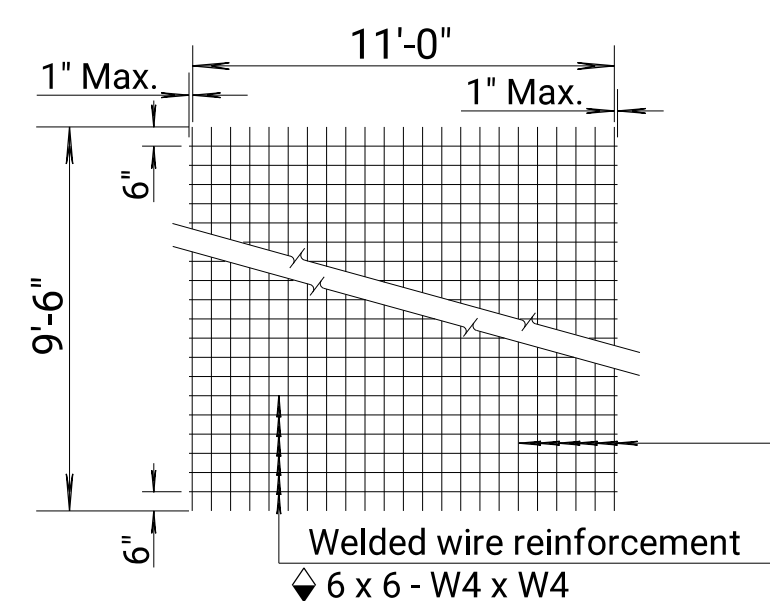
To be used only against forms. Shall not extend through contraction joints.

METAL STRIP FOR LONGITUDINAL CONSTRUCTION JOINT (10'-0")



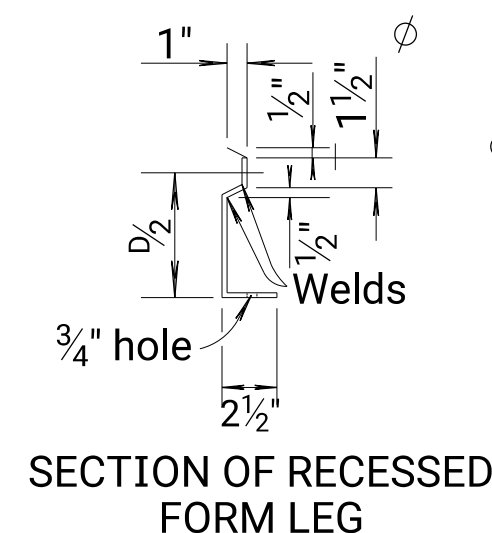
To be used only against forms. Shall not extend through contraction joints.

METAL STRIP FOR LONGITUDINAL CONSTRUCTION JOINT (13'-0")



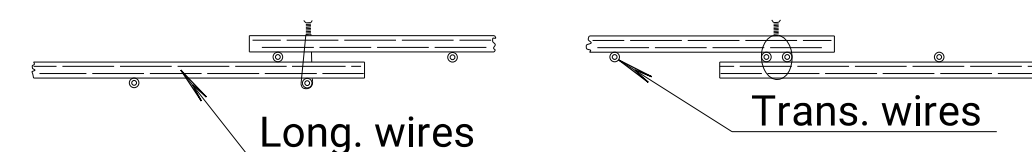
TYPICAL SHEET OF WELDED WIRE REINFORCEMENT FOR SPECIAL BRIDGE APPROACH PAVEMENT

Note: Epoxy coated #3 bars longitudinally @ 12" ctrs. & #3 bars transversely @ 18" ctrs. may be substituted for each layer of epoxy coated welded wire reinforcement.



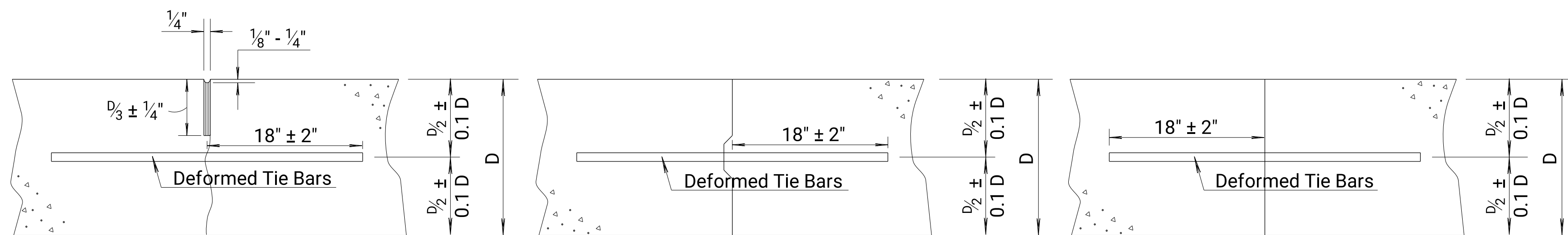
SECTION OF RECESSED FORM LEG

Ø Snap-in leg or other approved designs may be used in lieu of welded leg.



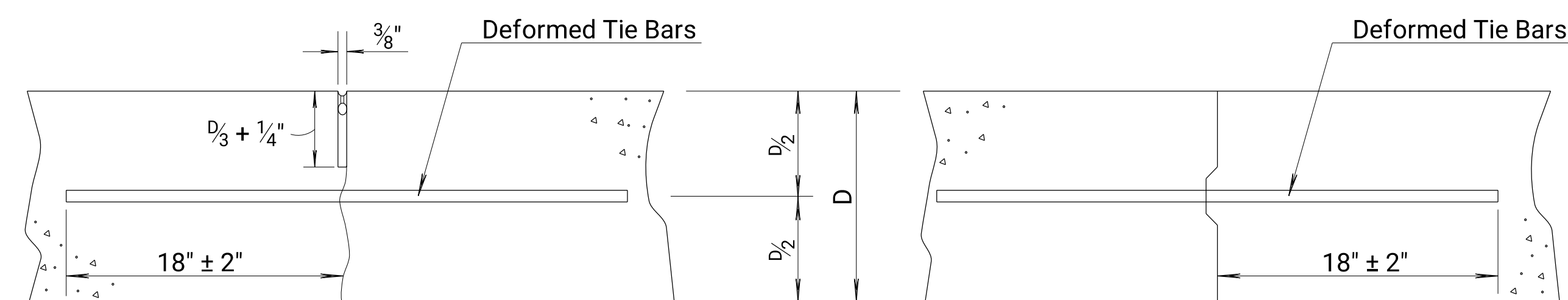
DETAIL OF LAP FOR WELDED WIRE REINFORCEMENT

The lap shall extend beyond the first transverse or bag wire of each sheet. The sheet shall be wired securely at the edges and at intervals not to exceed 2'-6" for the full width of the sheet. Approximate weight of welded wire reinforcement = 58 lbs. per 100 sq. ft. Other methods for fastening the sheets of welded wire reinforcement at the laps may be used with the approval of the Engineer.



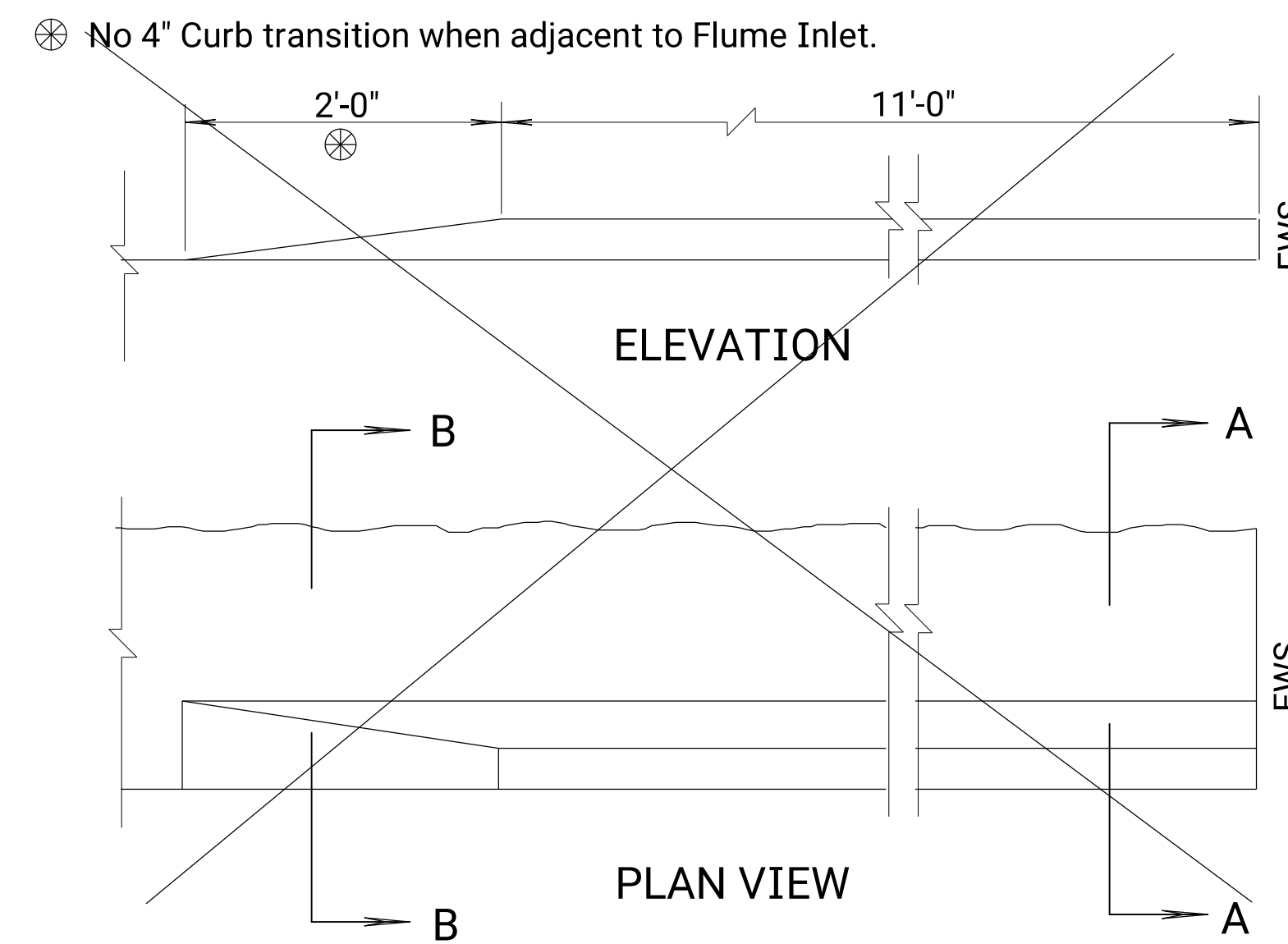
LONGITUDINAL JOINTS

Note: For longitudinal construction joints the contractor has the option of using either the keyed or butt type. Place deformed tie bars mid-depth of the shoulder.



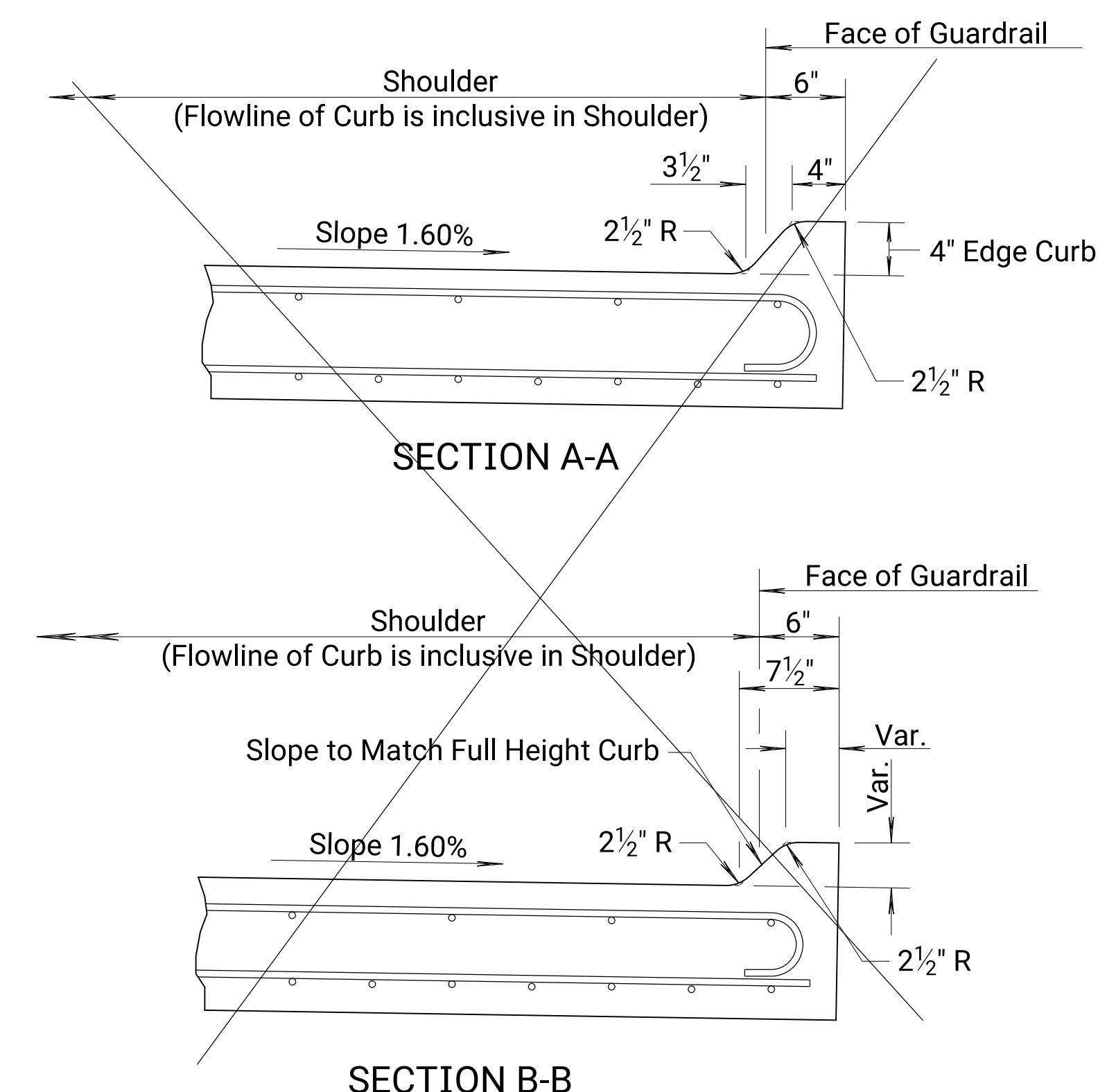
TRANSVERSE JOINTS

Note: A construction joint is required when the concrete placement has been interrupted for a substantial length of time or at the end of a day's placement.



4" EDGE CURB DETAIL

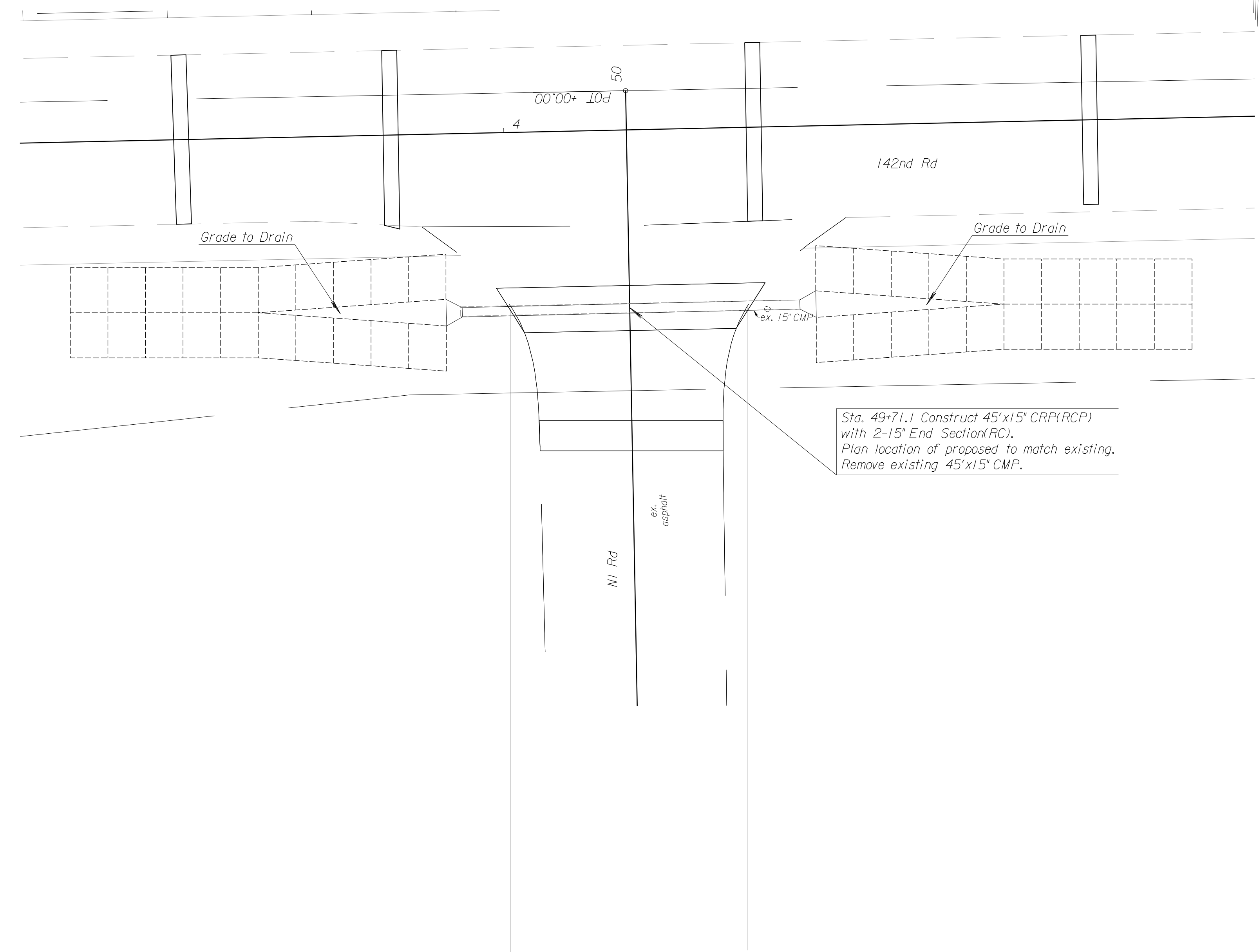
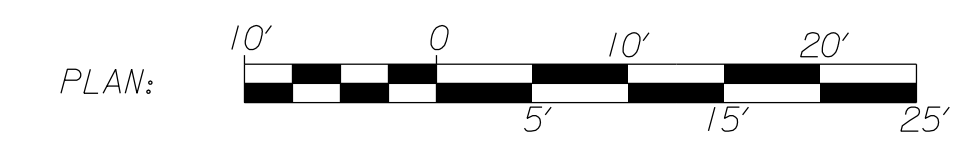
GENERAL NOTES
 All work shall be done in conformity with the Standard Specifications applicable to the project.
 The cost of all bars and joint material shown on this sheet is to be included in the bid price for Concrete Pavement.
 At each planned transverse joint location, a 4 to 6 inch wide strip of the pavement surface shall be protected from the texturing operation to provide a transverse textureless surface centered over the joint sawcut.
 All sawed joints on this project shall be filled with sealant in accordance with Standard Specifications.
 The 4 inch edge curb shall be constructed integral with the approach slab shoulder.
 All materials and work required for this construction shall be Subsidiary to the concrete approach slab.
 Tie bars shall be evenly spaced along the length of the slab and no tie bars shall be within 12" of contraction joint.



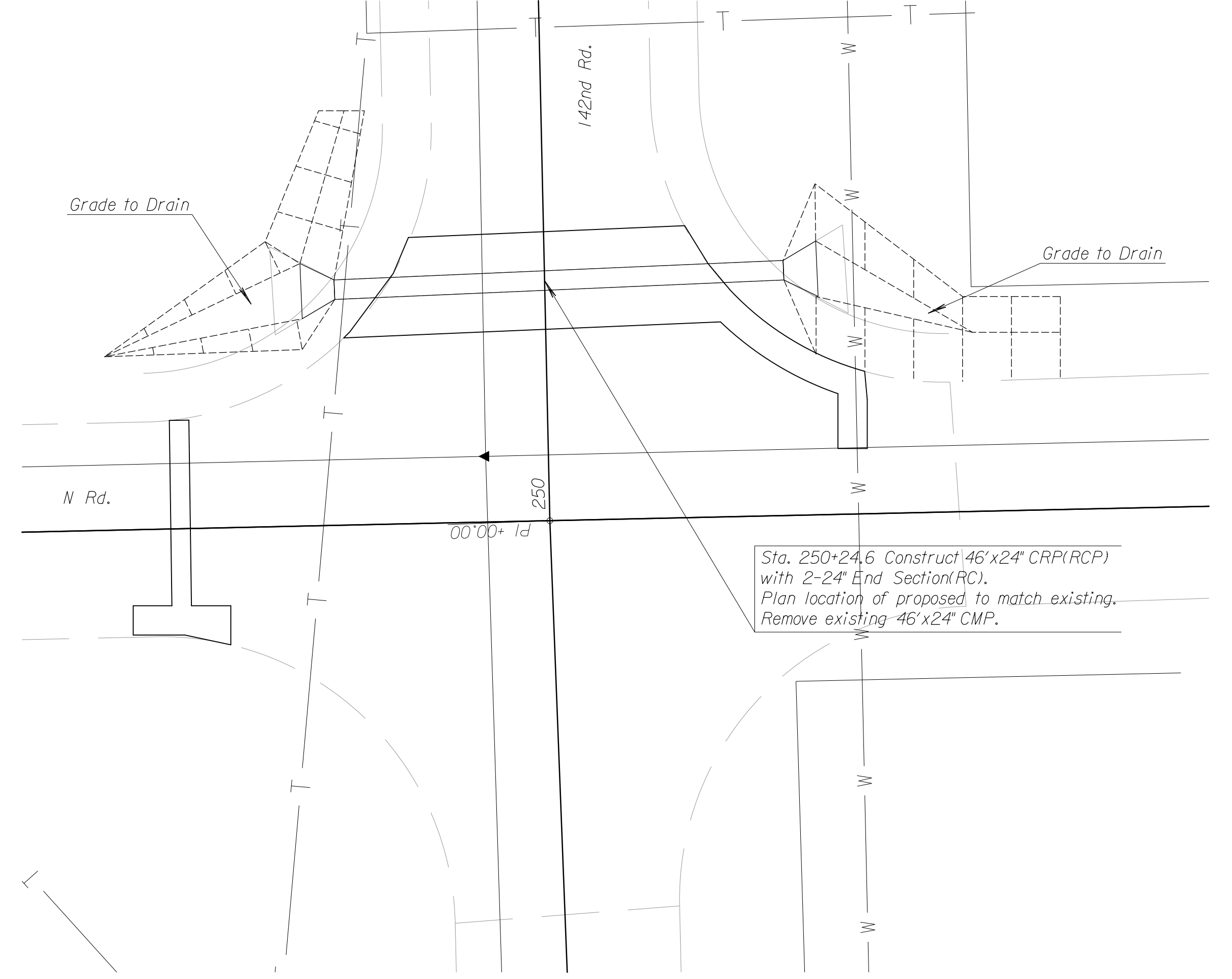
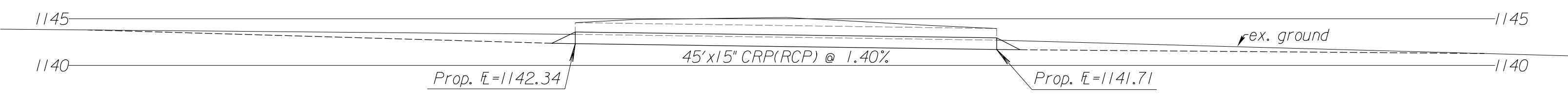
| NO. | DATE | REVISIONS | BY | APPD |
|-----|----------|--|--------|--------|
| 13 | 5-17-13 | Revised Note, Longitudinal Joints | S.W.K. | J.O.B. |
| 12 | 5-14-09 | Pres. Relief Jt. to RD712/tie bar lab. | S.W.K. | J.O.B. |
| 11 | 10-23-08 | Revised Sec. A-A and Sec. B-B | S.W.K. | J.O.B. |
| 10 | 10-3-07 | Add. manufacturer jt. size recom'd. | S.W.K. | J.O.B. |

| KANSAS DEPARTMENT OF TRANSPORTATION | | | |
|---|------------|-----------------------|----------------|
| MISCELLANEOUS DETAILS FOR CONCRETE BRIDGE APPROACH PAVEMENT | | | |
| RD711 | | | |
| FHWA APPROVAL | 10-23-13 | APPD. James O. Brewer | |
| DESIGNED | DETAILED | QUANTITIES | TRACED Bowser |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACE CK. King |

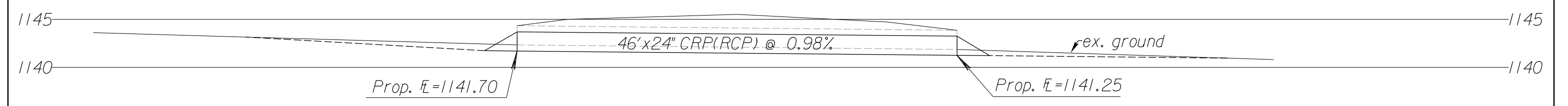
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 83 | 109 |



Sta. 49+71.1 Construct 45'x15' CRP(RCP) with 2-15' End Section(RC). Plan location of proposed to match existing. Remove existing 45'x15' CMP.

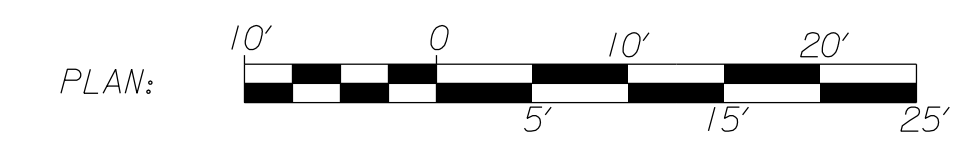


Sta. 250+24.6 Construct 46'x24' CRP(RCP) with 2-24' End Section(RC). Plan location of proposed to match existing. Remove existing 46'x24' CMP.



PRAIRIE BAND POTAWATOMI NATION
DRAINAGE DETAILS

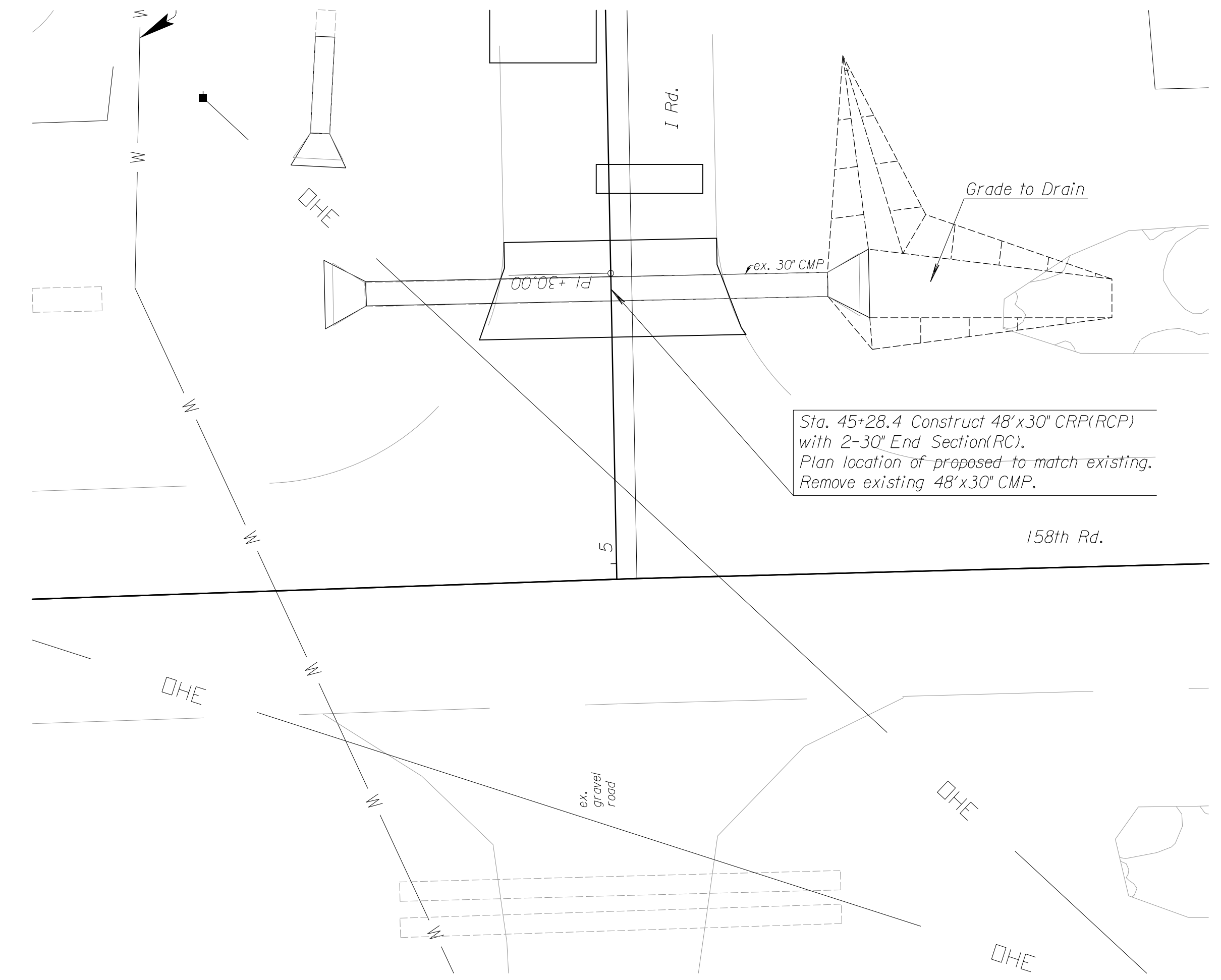
| PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|-------------|------|-----------|--------------|
| | 2024 | 84 | 109 |



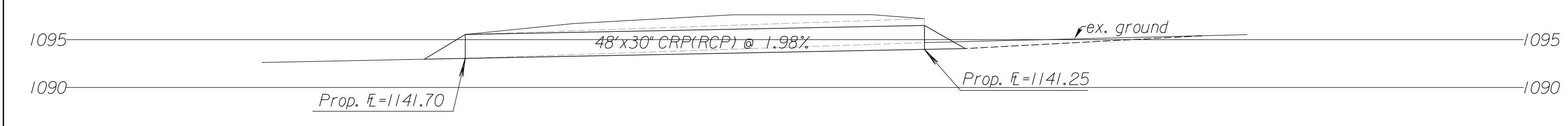
DRAINAGE NOTES:

Pipe replacements:
 When replacing 12" CMP with 15" ACSP, top of opening of the new pipe shall match the top of opening of the existing pipe. Grade to drain at each end.
 New pipes shall match the plan location and elevation of existing pipes unless otherwise noted. Any changes to location or grade have been noted on the plan notes, or in the Drainage Details. Any deviation from the plans in location or elevation of the pipes shall be approved by the Engineer.
 Pipe replacements for entrances shall be coordinated with the landowner, to minimize disruption.

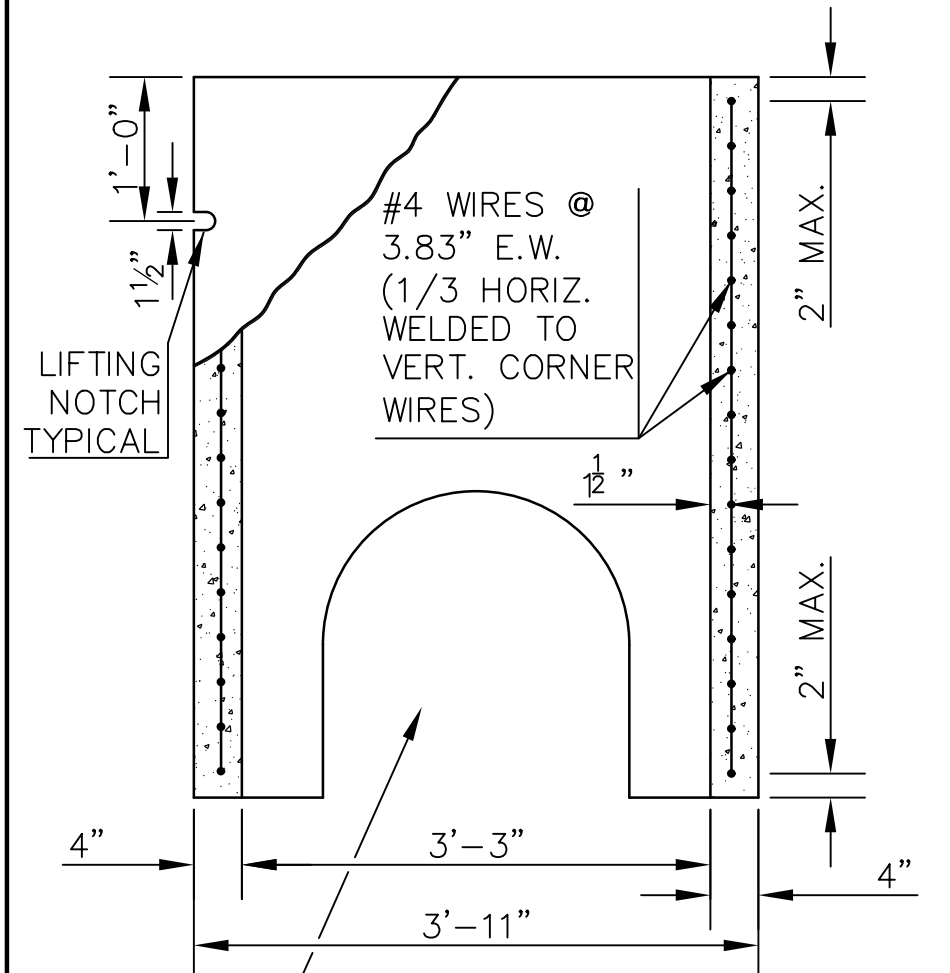
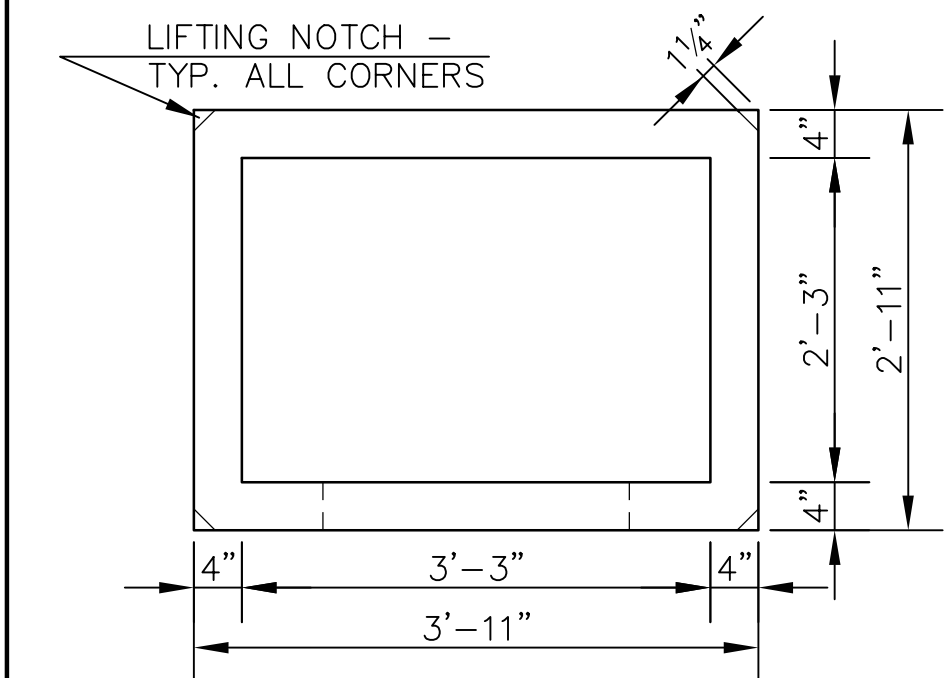
Pipe Extensions:
 Pipe extension shall include excavation, materials, labor, and incidentals required to complete the extension as noted. Existing pipe must be excavated, cut to the specified removal line, and the new pipe connected with the appropriate sized band. This work shall be included in the various bid items of "Pipe".



Sta. 45+28.4 Construct 48"x30" CRP(RCP) with 2'-30" End Section(RC). Plan location of proposed to match existing. Remove existing 48"x30" CMP.

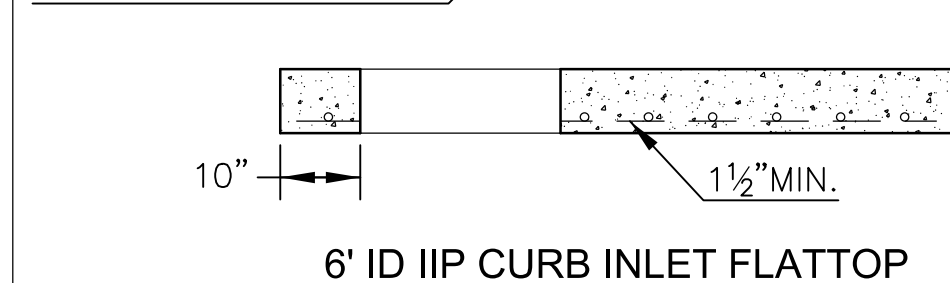
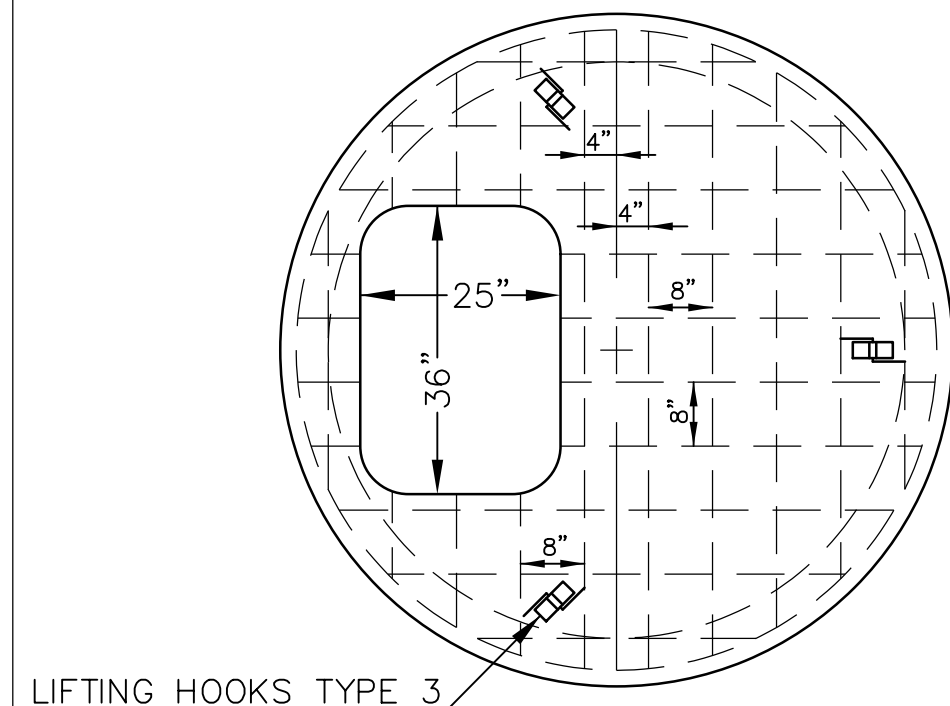


PRAIRIE BAND POTAWATOMI NATION
 DRAINAGE DETAILS

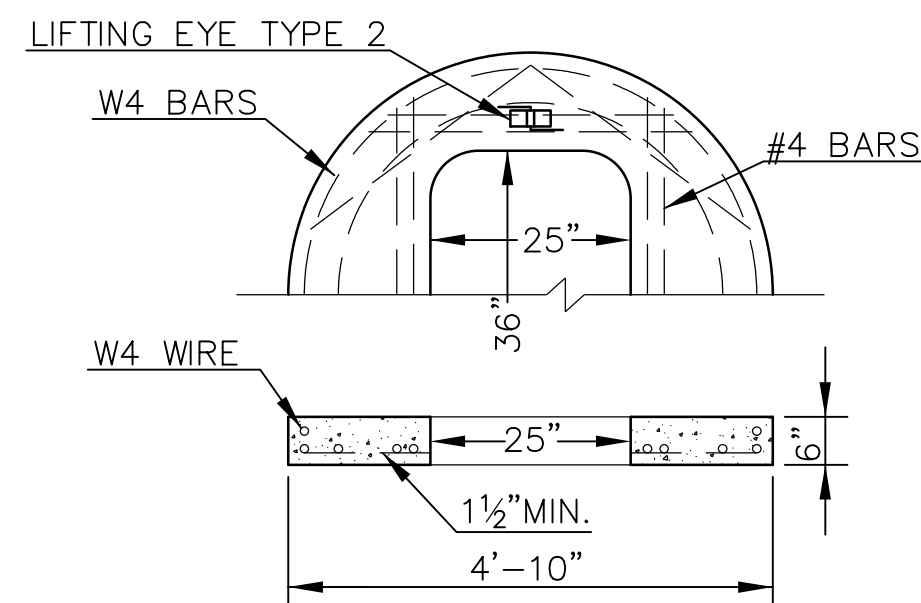


PRECAST INLET BOX RISER

NOTE: PIPE BLOCKOUT VARIES WITH PIPE SIZE, MATERIAL AND ALIGNMENT AND SHALL ALLOW 3" CLEAR FROM PIPE TO WALL



6' ID IIP CURB INLET FLATTOP



4' ID IIP CURB INLET FLATTOP

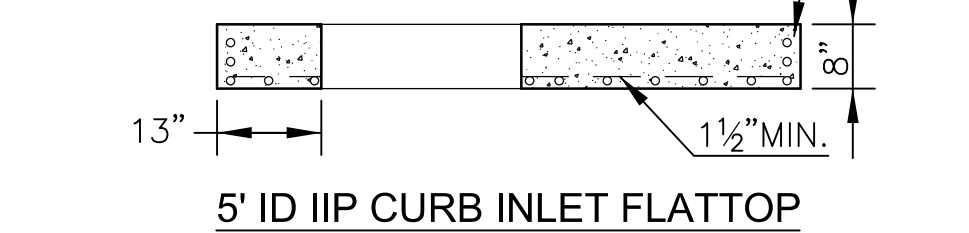
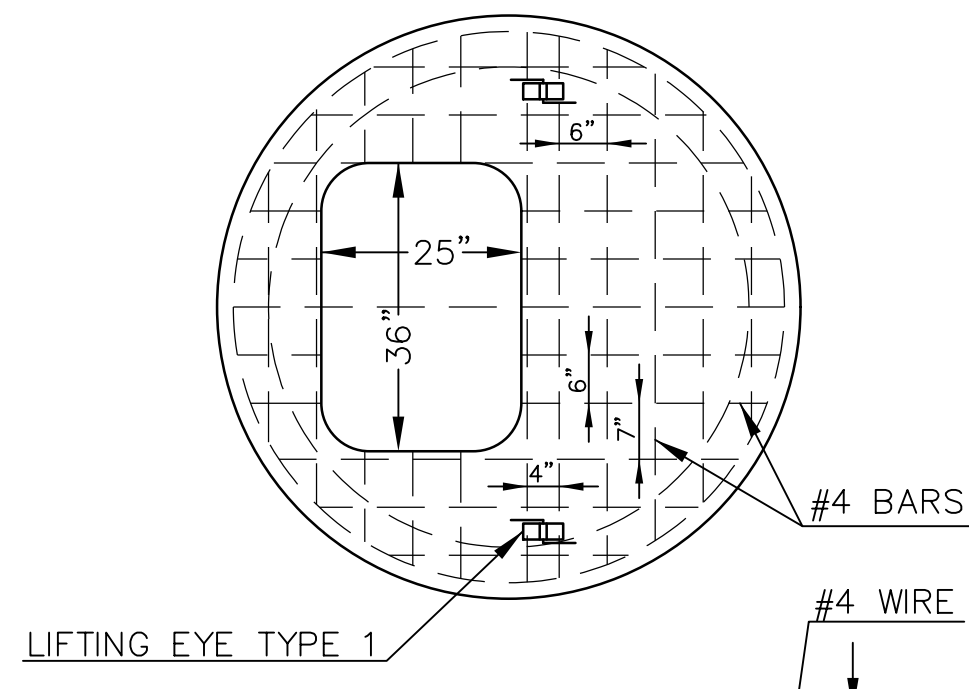
PRECAST INLET MANHOLE TOP NOTES

1. ALL REINFORCING SHALL BE #4 BARS EXCEPT AS NOTED
2. ALL CLEARANCE SHALL BE 1-1/2" EXCEPT AS NOTED

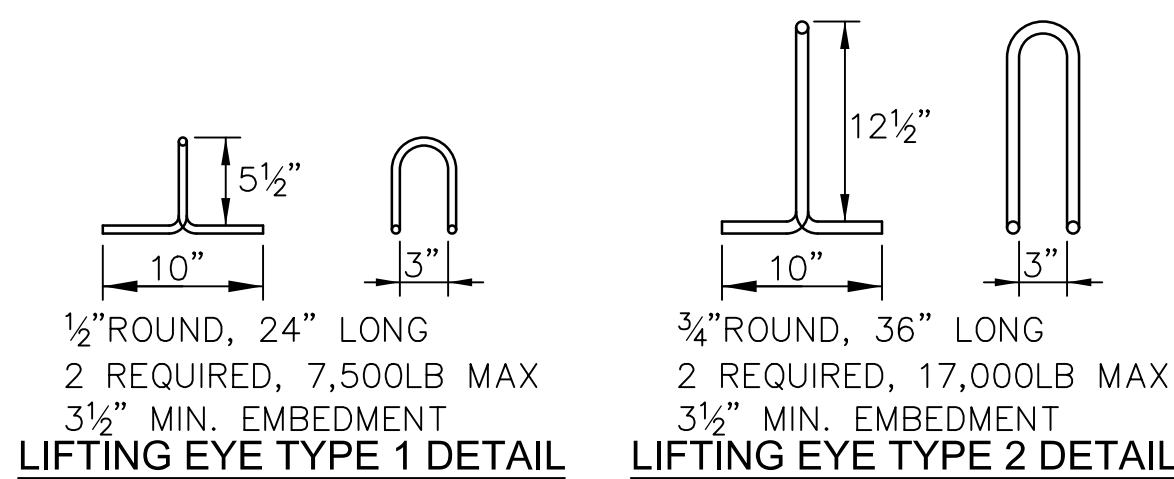
PRECAST INLET MANHOLE RISER NOTES

1. ALL MANHOLE RISER SECTIONS SHALL CONFORM TO A.S.T.M. 478-80.
2. ALL MANHOLE CONSTRUCTION SHALL BE WATERTIGHT.
3. STEPS SHALL BE PS1-PF OR PS2-PF AS MANUFACTURED BY M.A. INDUSTRIES INC. OF APPROVED EQUAL AND SHALL BE PLACED TO PROVIDE EASY ACCESS TO MANHOLE AT 16" O.C. MAX. WHILE MAINTAINING VERT. ALIGNMENT.

PRECAST INLET MANHOLE RISER & TOP

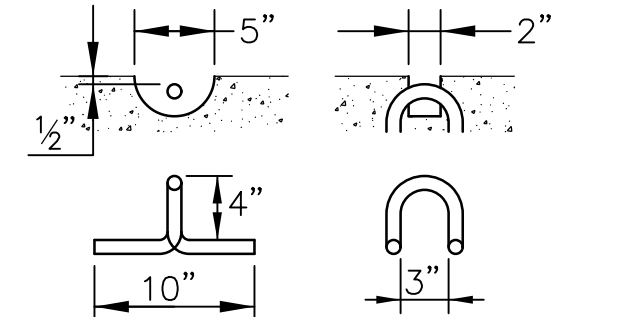


5' ID IIP CURB INLET FLATTOP

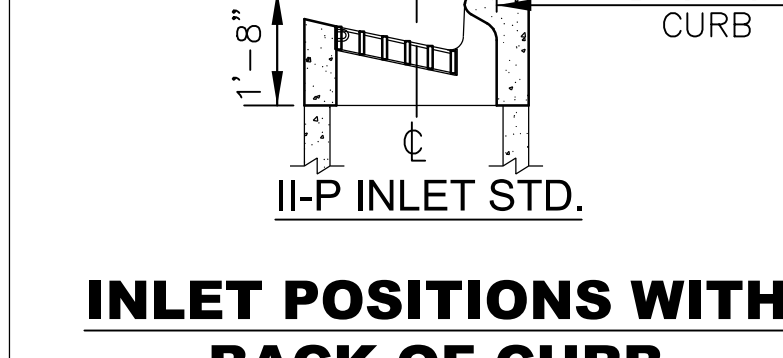
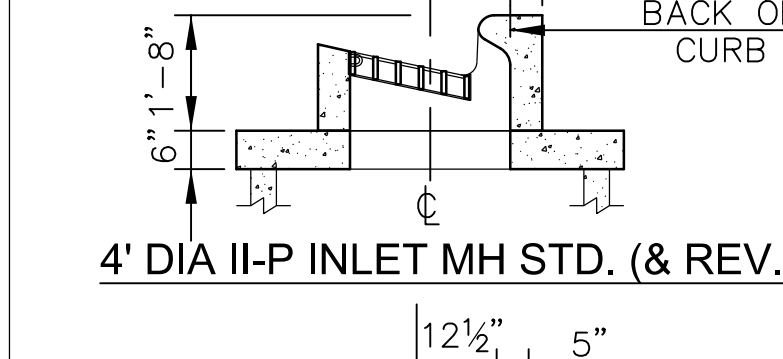
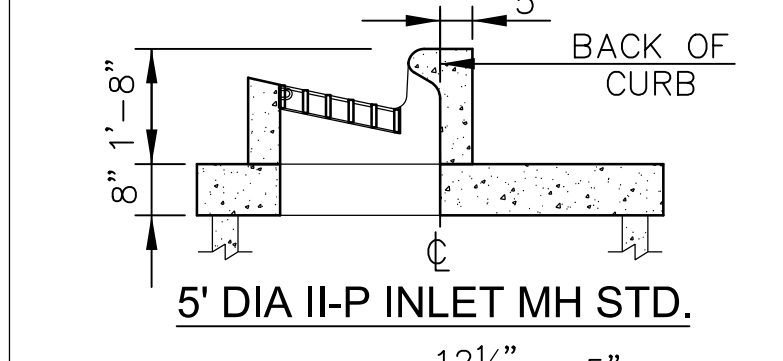
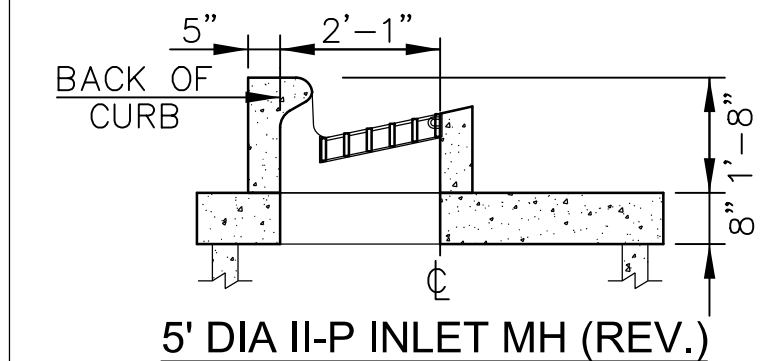
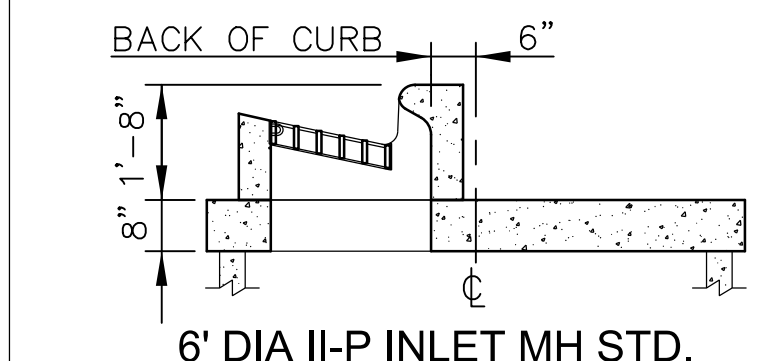
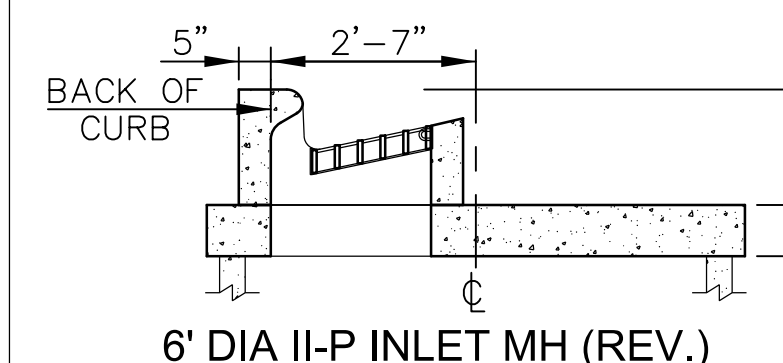


LIFTING EYE TYPE 1 DETAIL

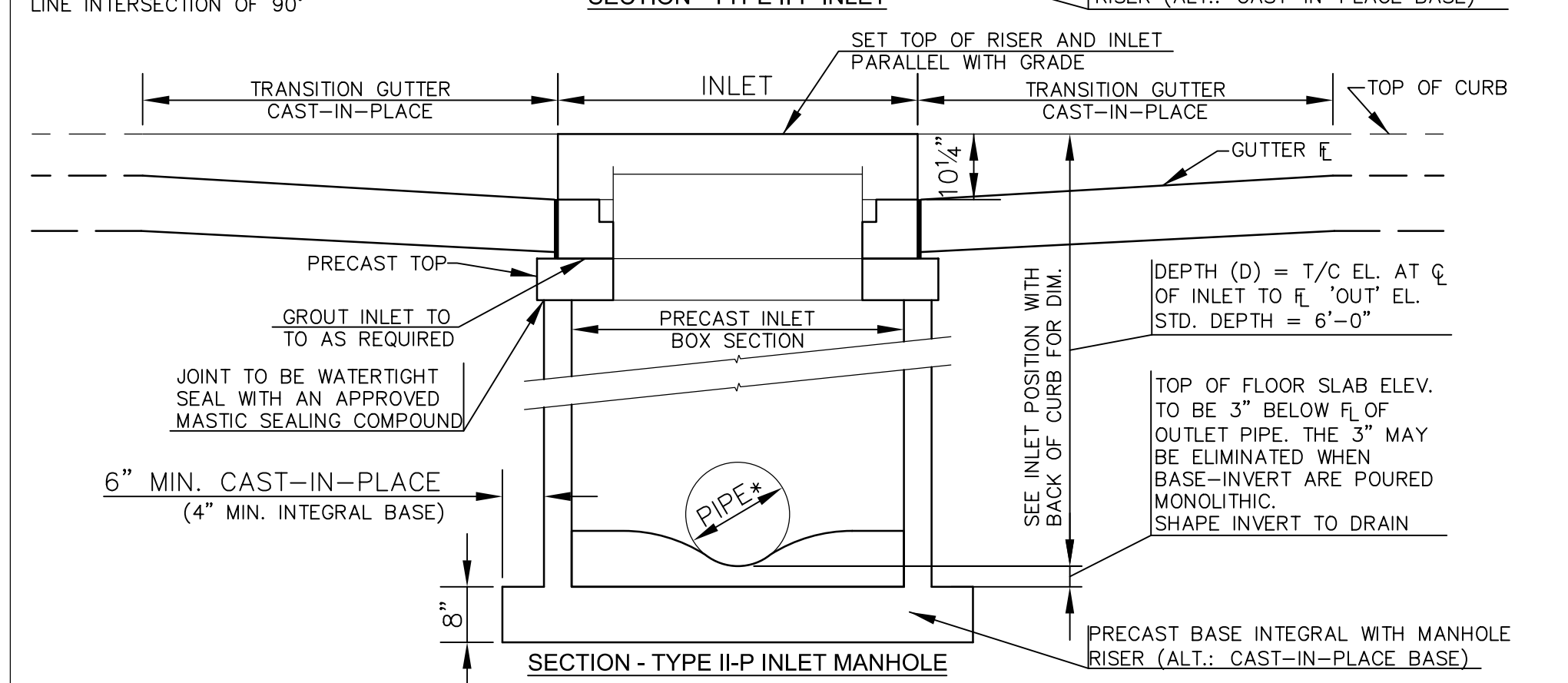
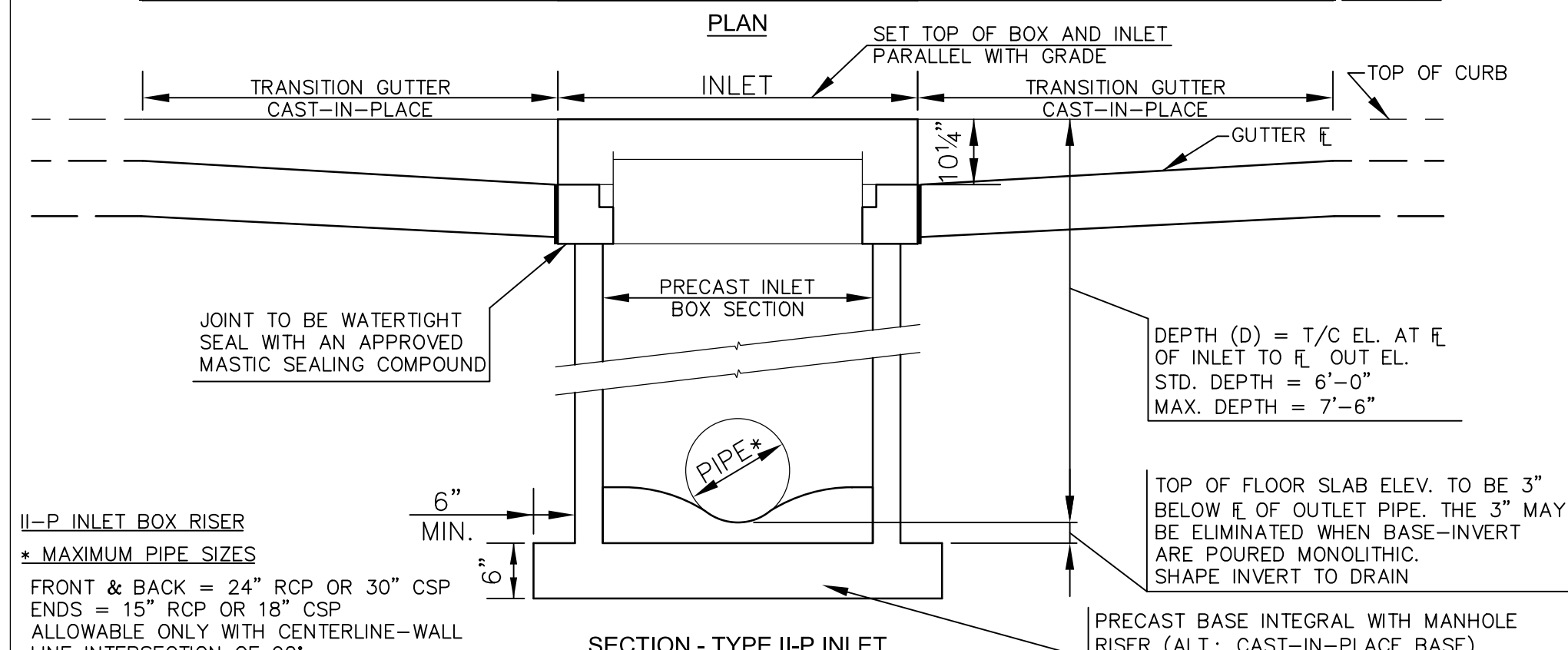
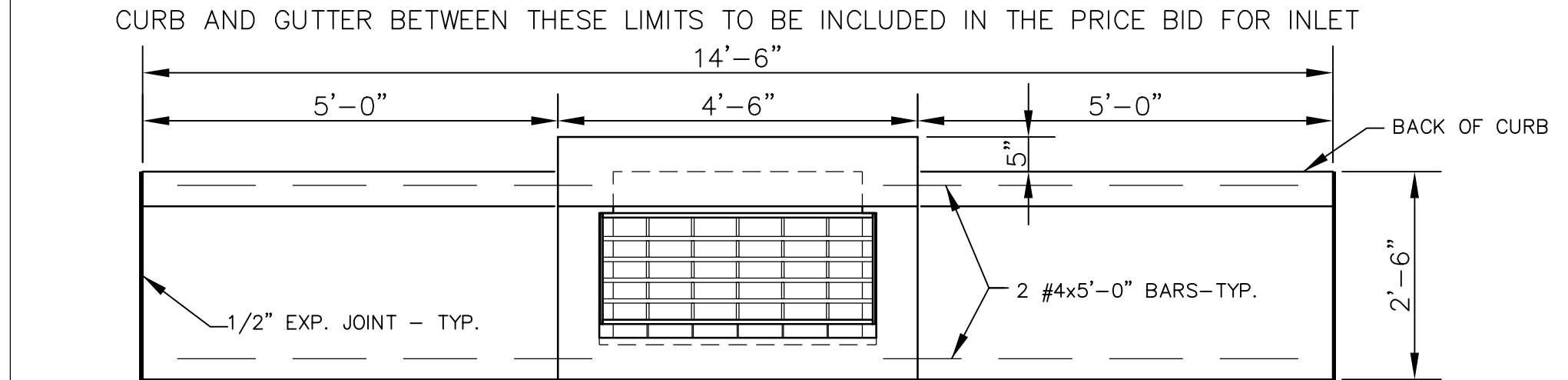
LIFTING EYE TYPE 2 DETAIL



LIFTING HOOK TYPE 3 DETAIL



INLET POSITIONS WITH BACK OF CURB

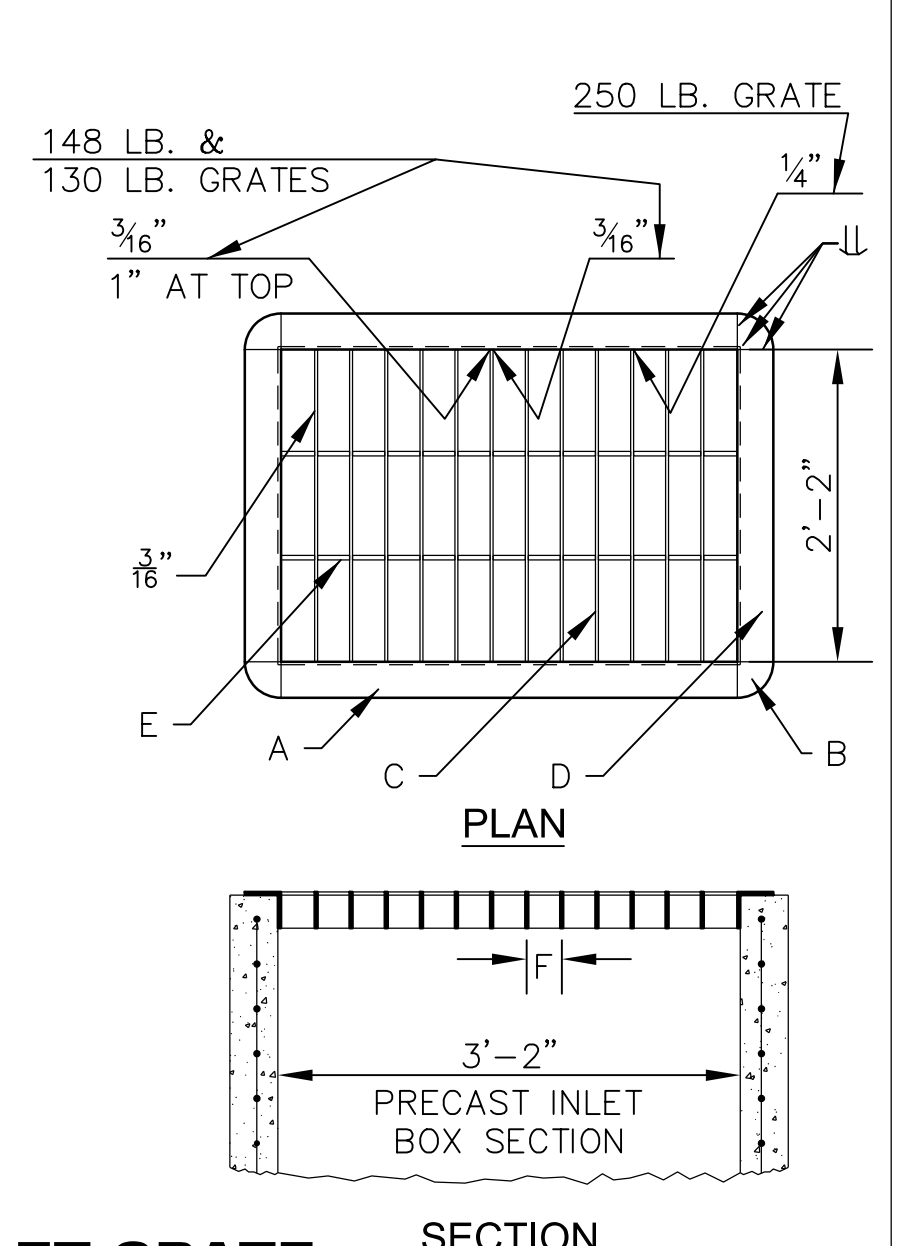


NOTE: THE BOTTOM SECTION OF ALL CAST-IN-PLACE MANHOLES AND PRECAST MANHOLES NOT BUILT MONOLITHICALLY WITH THE BASE SHALL BE SET INTO A STEEL REINFORCED (#4 @ 12" E.W.) CONCRETE BASE (4,000 PSI) A MINIMUM OF 4 INCHES. IN THIS CASE, THE BASE THICKNESS SHALL BE INCREASED BY 4 INCHES.

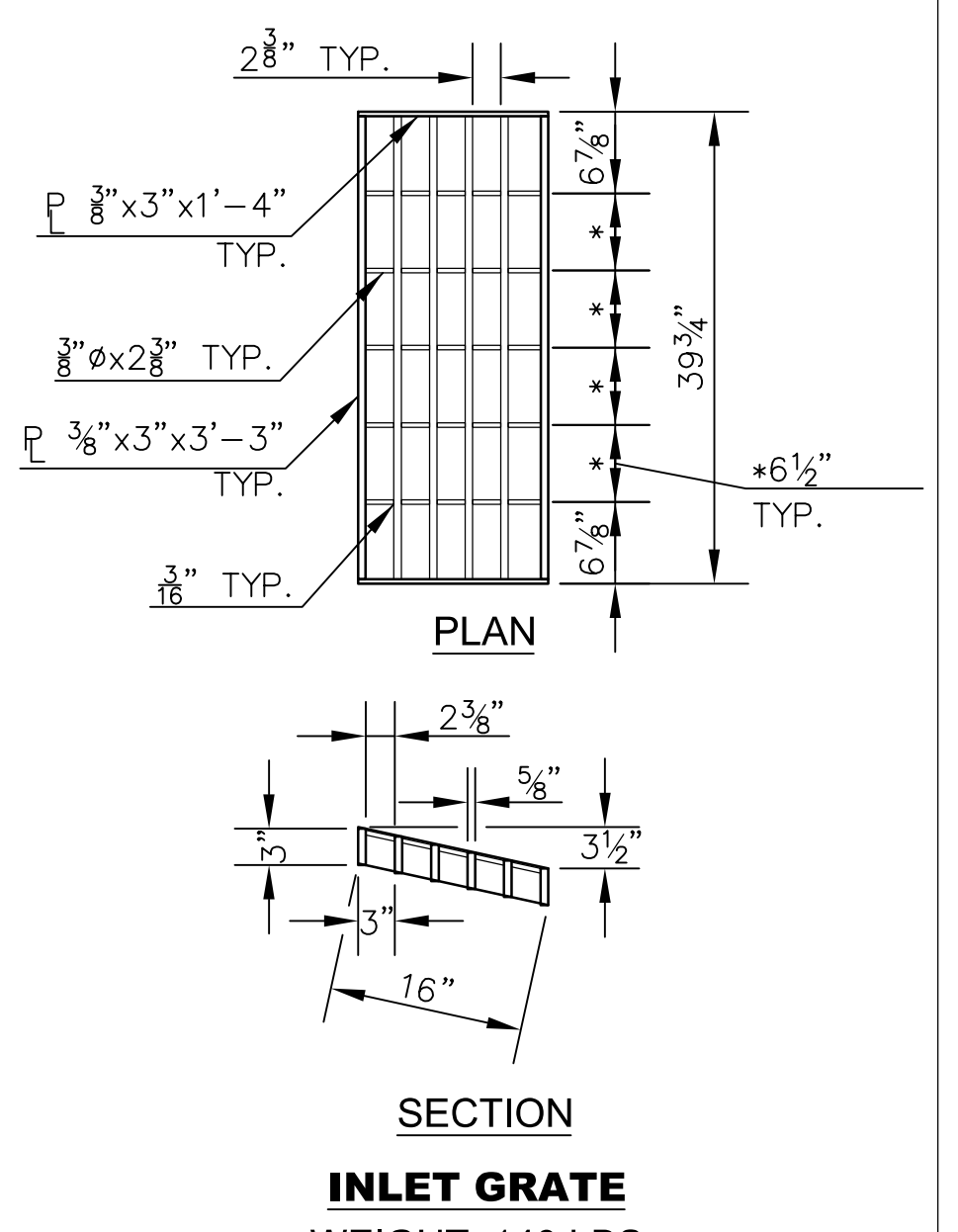
| 148 LB. PEDESTRIAN GRATE | |
|--------------------------|--------------------------------------|
| A | 2 EA. 1/2" x 3' x 3' - 1 1/2" |
| B | 4 EA. 1/2" x 3' x 0' - 3" |
| C | 25 EA. 1/2" x 2' x 2' - 1 1/2" |
| D | 2 EA. 1/2" x 3' x 2' - 1 1/2" |
| E | 52 EA. P 3/8" x 1 1/2' x 0' - 1 1/2" |
| F | 1 - 7/8" O.C. |

| 250 LB. TRAFFIC GRATE | |
|-----------------------|--------------------------------|
| A | 2 EA. 1/2" x 3' x 3' - 1 1/2" |
| B | 4 EA. 1/2" x 3' x 0' - 3" |
| C | 12 EA. 1/2" x 3' x 2' - 1 1/2" |
| D | 2 EA. 1/2" x 3' x 2' - 1 1/2" |
| E | 26 EA. P 3/8" x 0' - 2 1/2" |
| F | 2 1/2" O.C. |

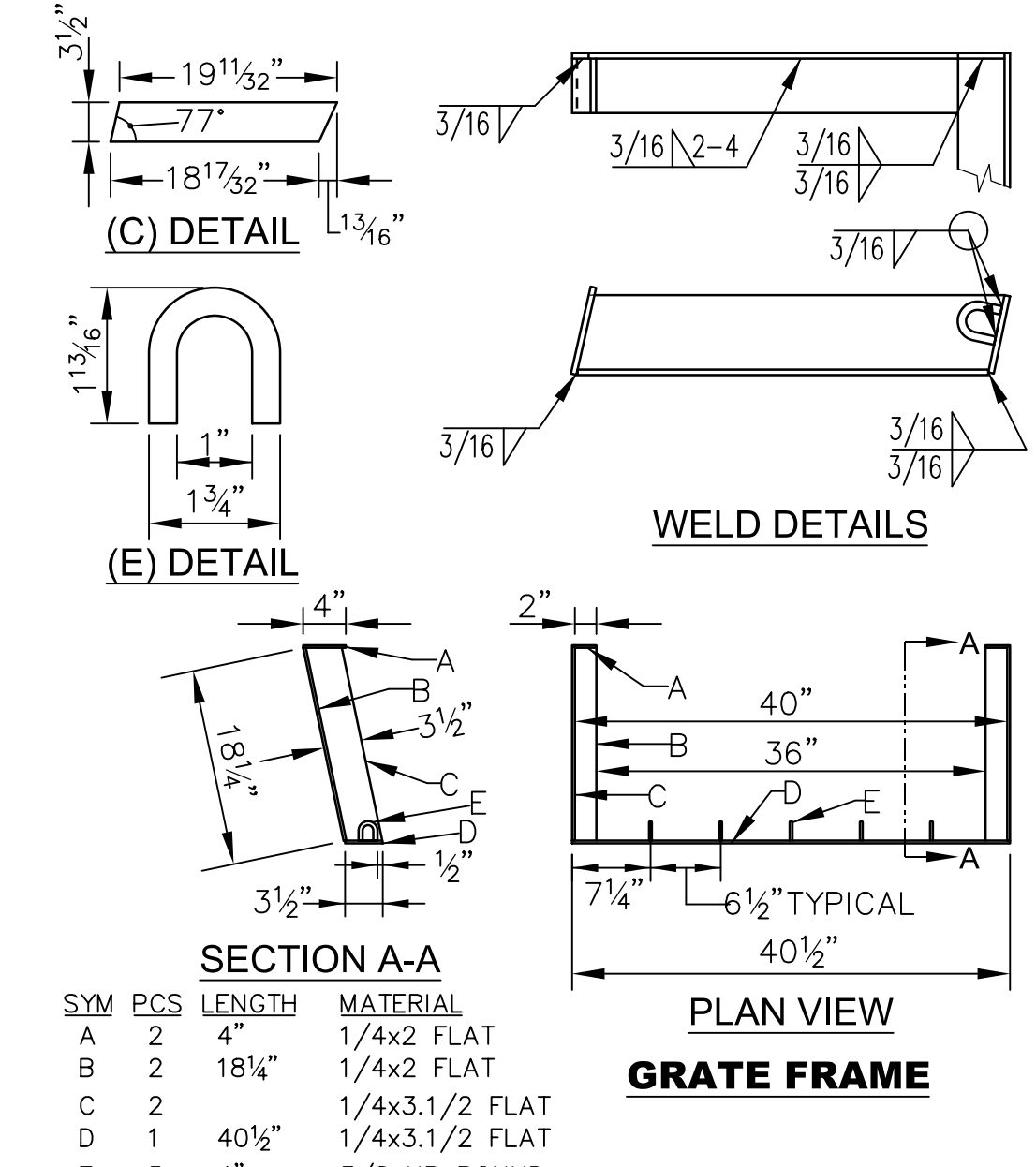
| 130 LB. YARD GRATE | |
|--------------------|--------------------------------|
| A | 2 EA. 1/2" x 3' x 3' - 1 1/2" |
| B | 4 EA. 1/2" x 3' x 0' - 3" |
| C | 12 EA. 1/2" x 3' x 2' - 1 1/2" |
| D | 2 EA. 1/2" x 3' x 2' - 1 1/2" |
| E | 26 EA. P 3/8" x 0' - 2 1/2" |
| F | 2 1/2" O.C. |



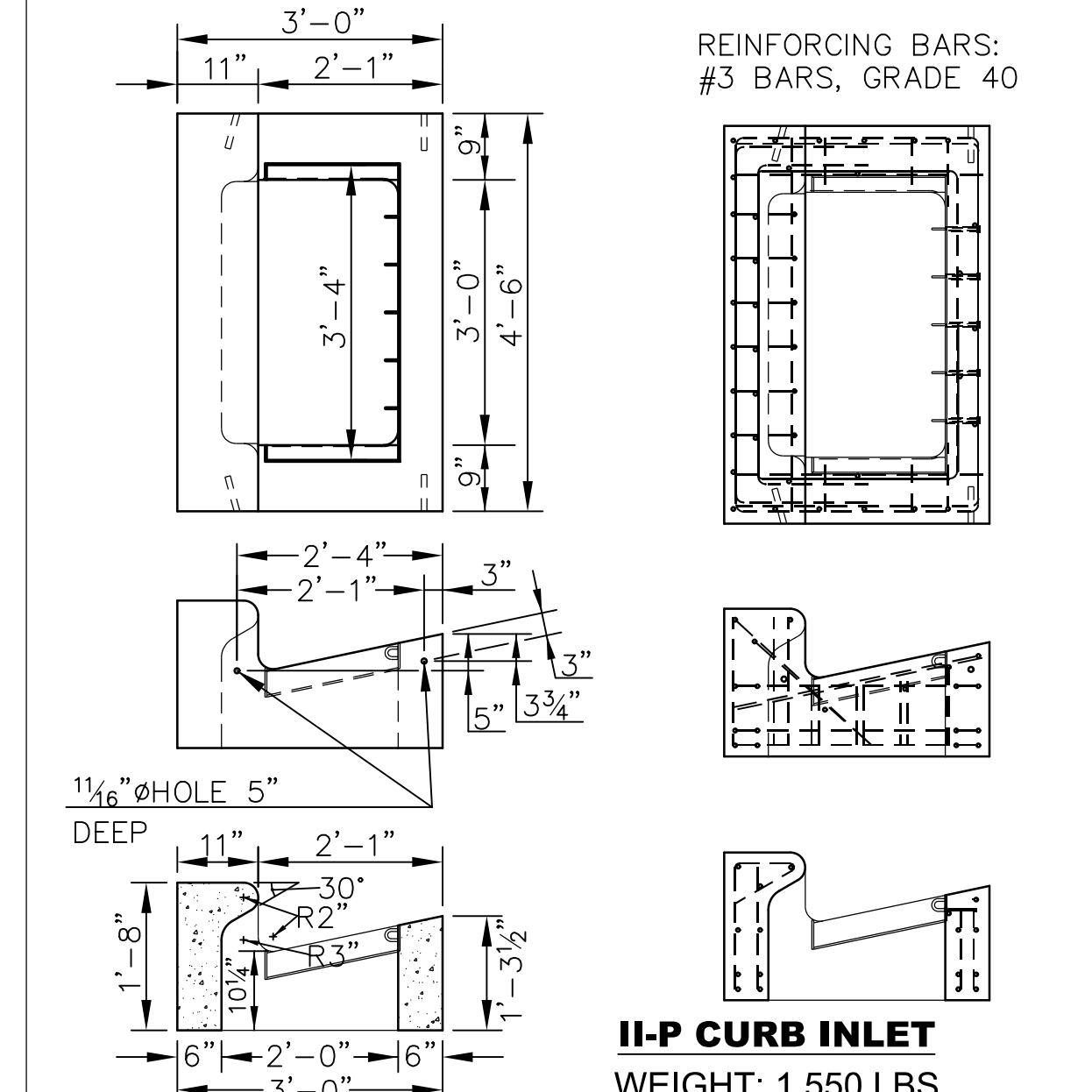
AREA INLET GRATE



INLET GRATE
WEIGHT: 140 LBS



| SYM | PCS | LENGTH | MATERIAL |
|-----|-----|---------|----------------|
| A | 2 | 4" | 1/4x2 FLAT |
| B | 2 | 18 1/4" | 1/4x2 FLAT |
| C | 2 | | 1/4x3.1/2 FLAT |
| D | 1 | 40 1/2" | 1/4x3.1/2 FLAT |
| E | 5 | 4" | 3/8 HR ROUND |

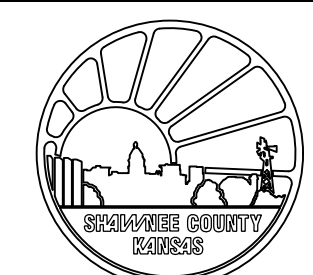


II-P CURB INLET
WEIGHT: 1,550 LBS

- REINFORCING BARS: #3 BARS, GRADE 40
- NOTES:
1. CAST IN PLACE CONC. SHALL BE 4000PSI.
 2. PRECAST CONC. SHALL BE 4000 PSI.
 3. REINFORCING WIRE SHALL CONFORM TO ASTM A82.
 4. REINFORCING BARS SHALL CONFORM TO ASTM A615.
 5. GROUT ALL PIPES IN PLACE.
 6. GRATES & FRAMES SHALL BE ASTM A36 STEEL COATED WITH BITUMASTIC BLACK SOLUTION (COAL TAR BASE) AS MANUFACTURED BY KOPPERS OR APPROVED EQUAL.
 7. THE INLET TOP SHALL SIT SQUARELY ON TOP OF THE INLET BOTTOM SECTION. THE INLET WALLS SHALL NOT BE OFFSET MORE THAN ONE INCH BETWEEN TOP AND BOTTOM SECTIONS.
 8. MAXIMUM PIPE INTRUSION INTO STRUCTURE IS 6". UNIQUE STRUCTURES MIGHT REQUIRE ADDITIONAL ANALYSIS. ENGINEER APPROVAL REQUIRED.

| NO. | DATE: | REVISION | BY: | APP'D |
|-----|-----------|--|-----|-------|
| 3 | June 2018 | Added maximum pipe intrusion note | DHS | JVH |
| 2 | Dec. 2009 | Mod. dim at Inl. Pos. & added 7.to NOTES | DHS | SB |
| 1 | Feb. 2008 | Update | DHS | SB |

DRAWN BY: *rm/mc*
APP'D BY: *R. C. ...*



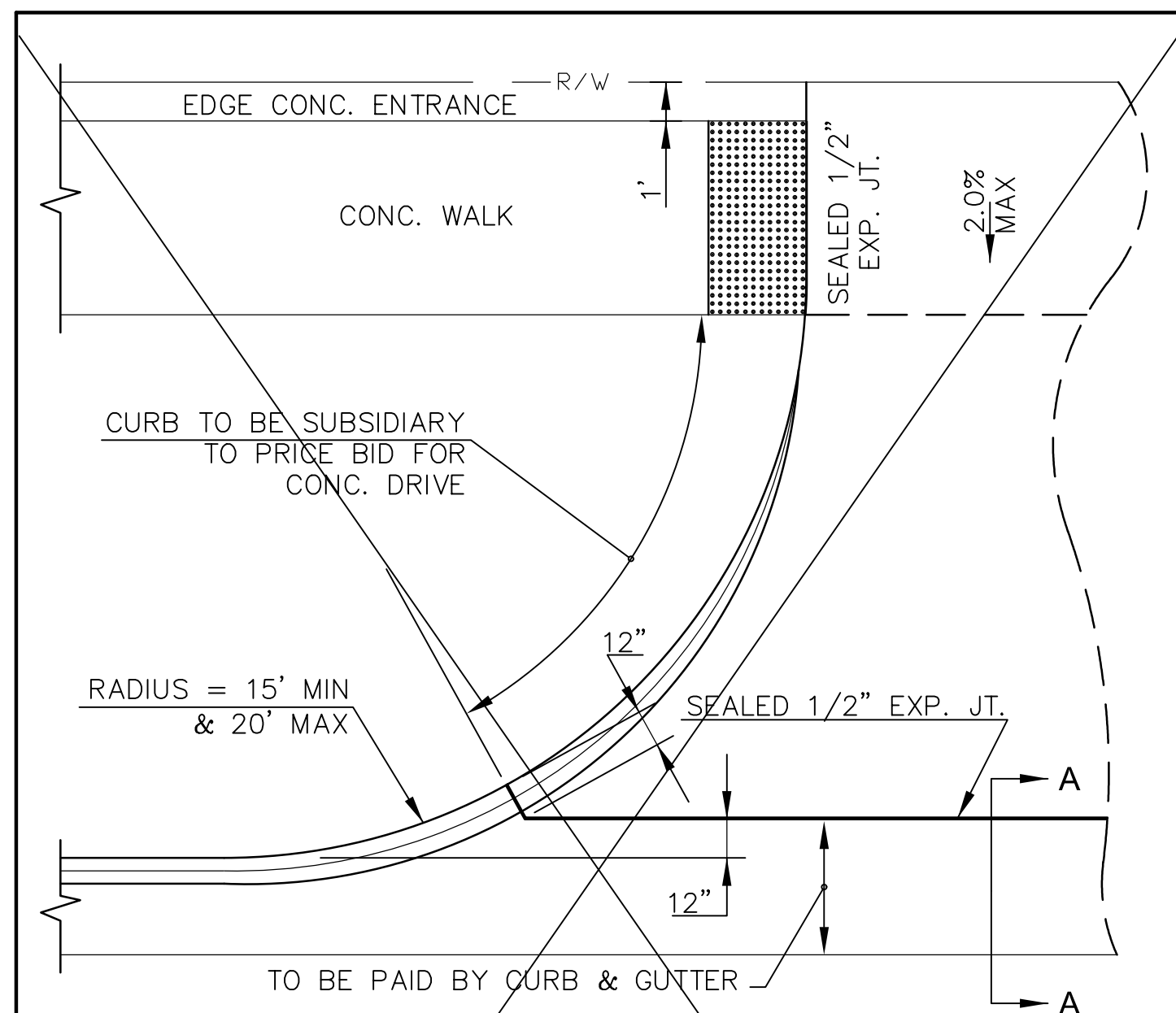
SHAWNEE COUNTY, KANSAS
PUBLIC WORKS DEPARTMENT
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702

TOPEKA
Public Works
ENGINEERING
620 SE MADISON St. • 2nd Floor • TOPEKA, KS 66607
Phone: (785) 368-3842 • Fax: (785) 368-3851

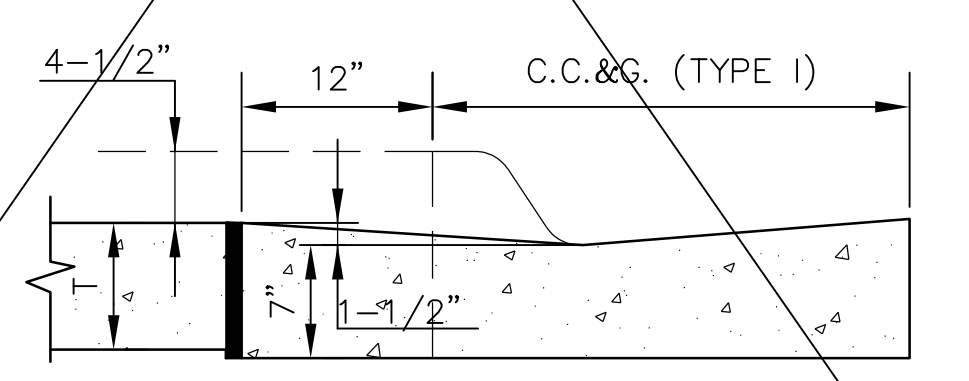
STANDARD DETAILS

TYPE II-P INLET
(PRECAST)
(DT-011)

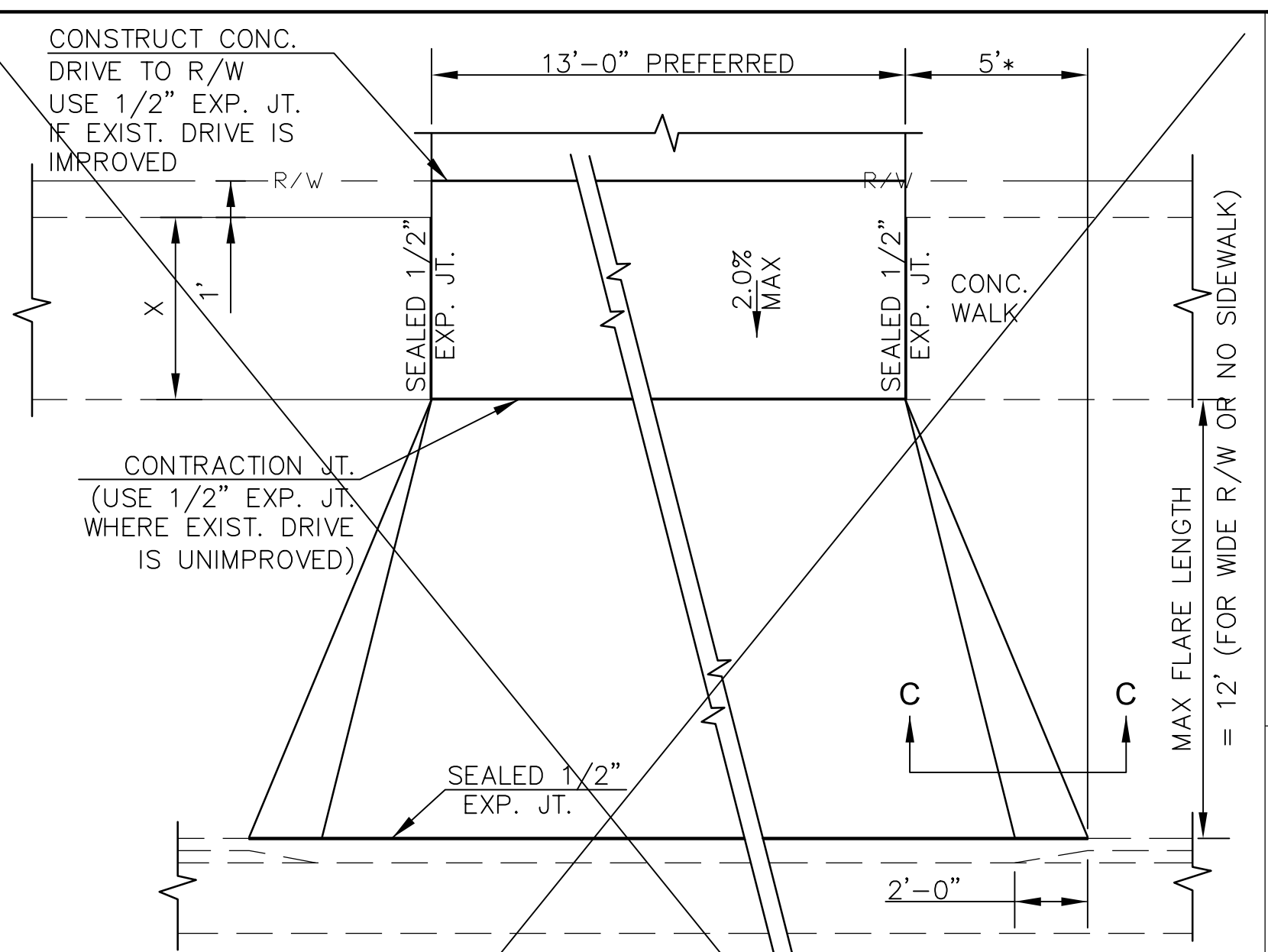
DATE: _____
SHEET: _____
PROJ.: _____



COMMERCIAL DRIVE APPROACH

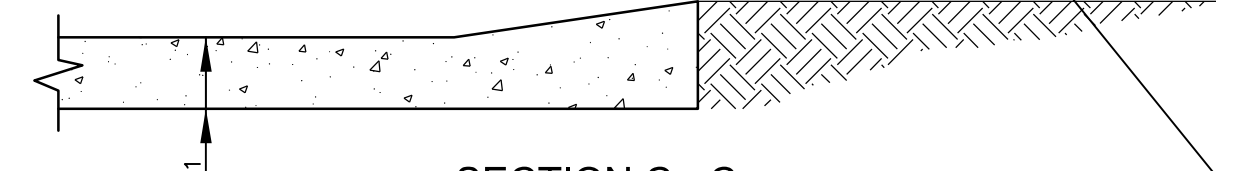


SECTION A - A
T=8" NON-REINFORCED FOR COMMERCIAL DRIVE, ALLEY APPROACH, AND SIDEWALK IN DRIVE ENTRANCE.

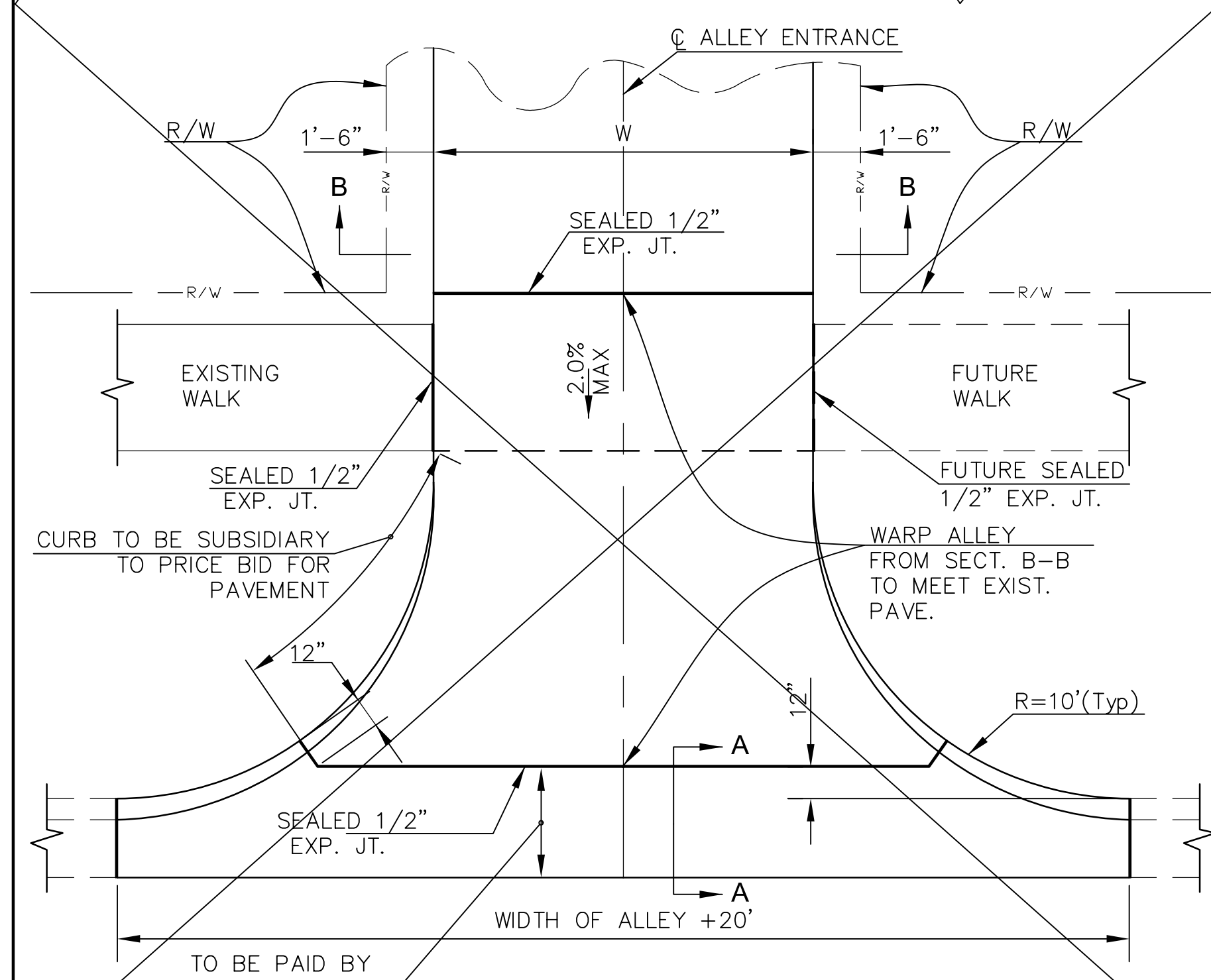


TYPICAL PRIVATE DRIVE APPROACH

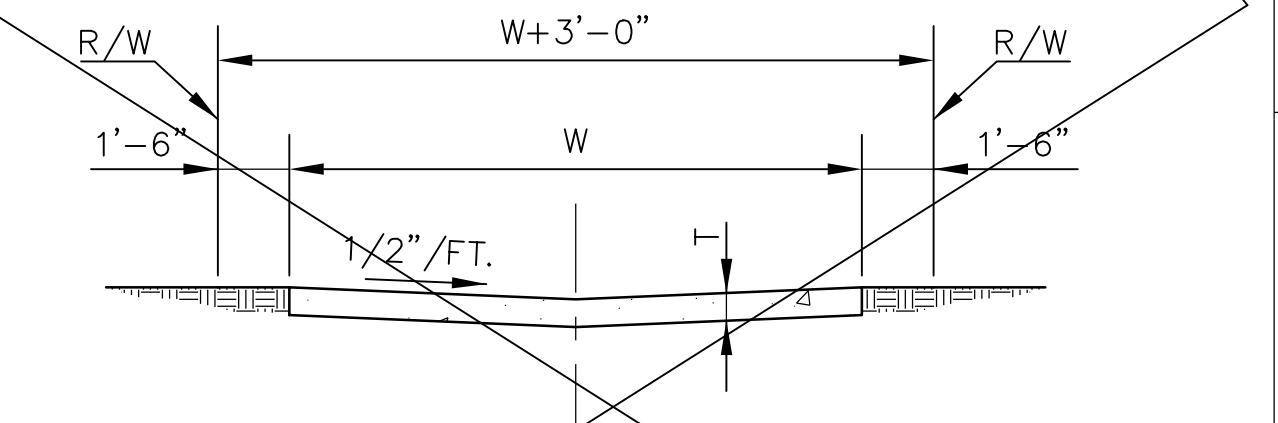
CONSTRUCT CONC. DRIVE TO R/W USE 1/2" EXP. JT. IF EXIST. DRIVE IS IMPROVED
CONTRACTION JT. (USE 1/2" EXP. JT. WHERE EXIST. DRIVE IS UNIMPROVED)
"X" = 5'-0" ON PRINCIPAL ARTERIAL, MINOR ARTERIALS AND COLLECTORS
"X" = 4'-0" ON SUB-COLLECTORS AND LOCALS



SECTION C - C
T1=6" FOR RESIDENTIAL DRIVE APPROACH AND SIDEWALK IN DRIVE ENTRANCE

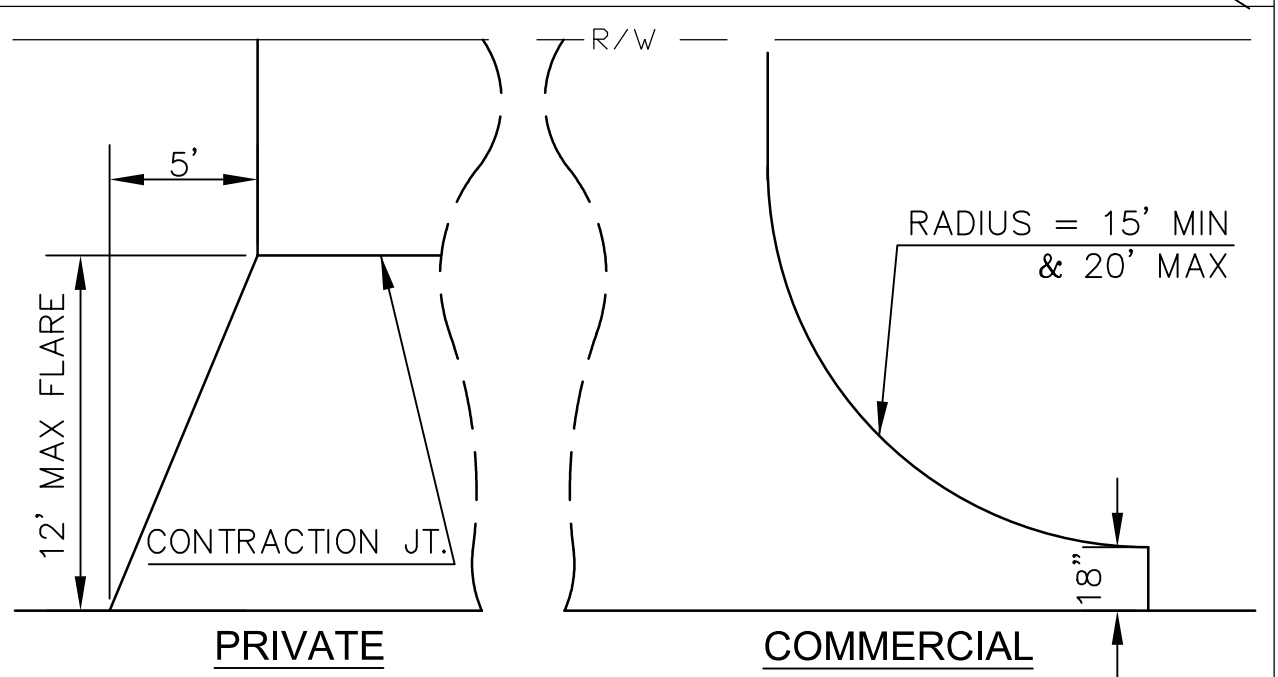


ALLEY APPROACH

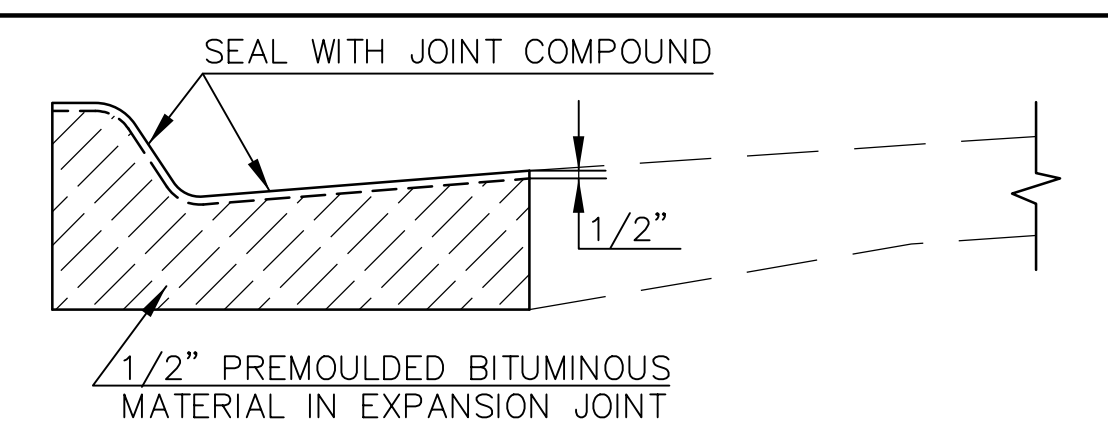


SECTION B - B

NOTES:
1. T=7" REINFORCED CONCRETE
2. WIDTH OF W WILL BE USED THROUGHOUT ON ALL ALLEY PAVING PROJECTS.
3. ALLEY RETURNS SHALL BE THE SAME THICKNESS AS THE ADJACENT STREET THICKNESS.
4. 1/2" EXP. JOINT AT EACH END OF ALLEY RETURN.

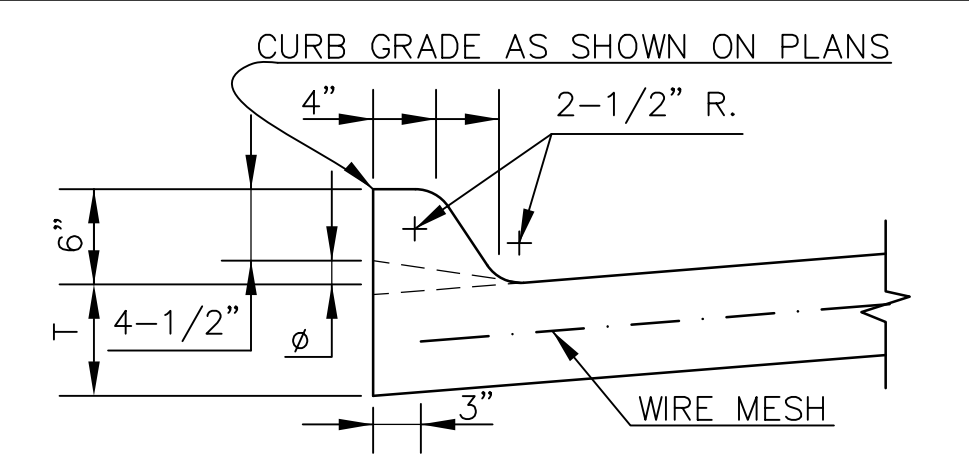


DRIVE APPROACHES ON AN UNIMPROVED ROADWAY

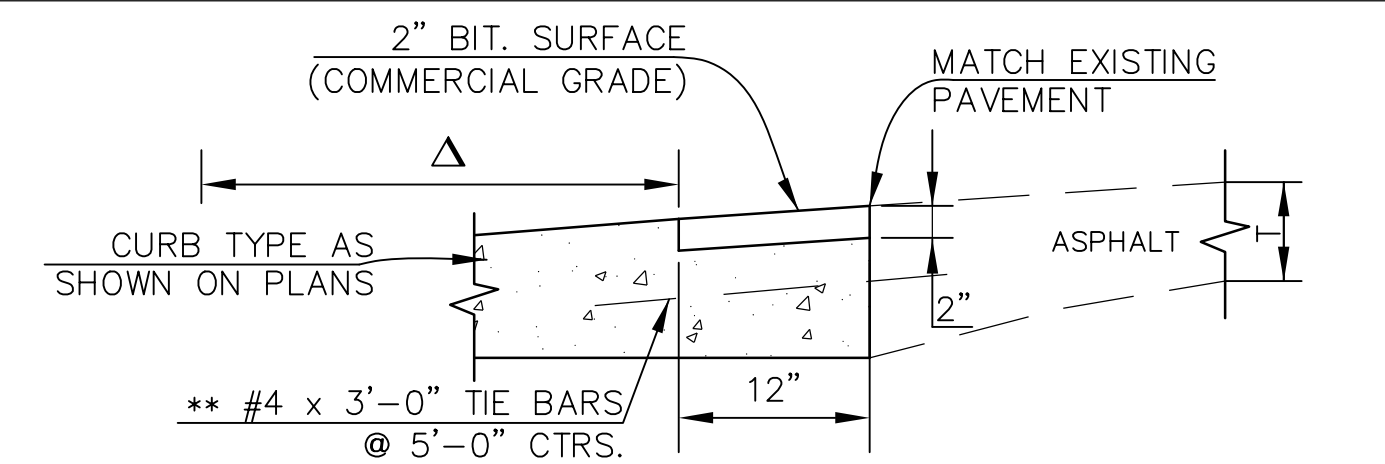


CURB AND GUTTER EXPANSION JOINT DETAILS

NOTES:
1. 1/2" EXPANSION JOINTS TO BE PLACED AT THE END OF ALL INTERSECTION RETURNS.
2. SAND IS NOT AN APPROVED FILL OR SUBGRADE MATERIAL.
3. ALL EXPANSION JOINTS SHALL BE SEALED WITH APPROVED MATERIAL.

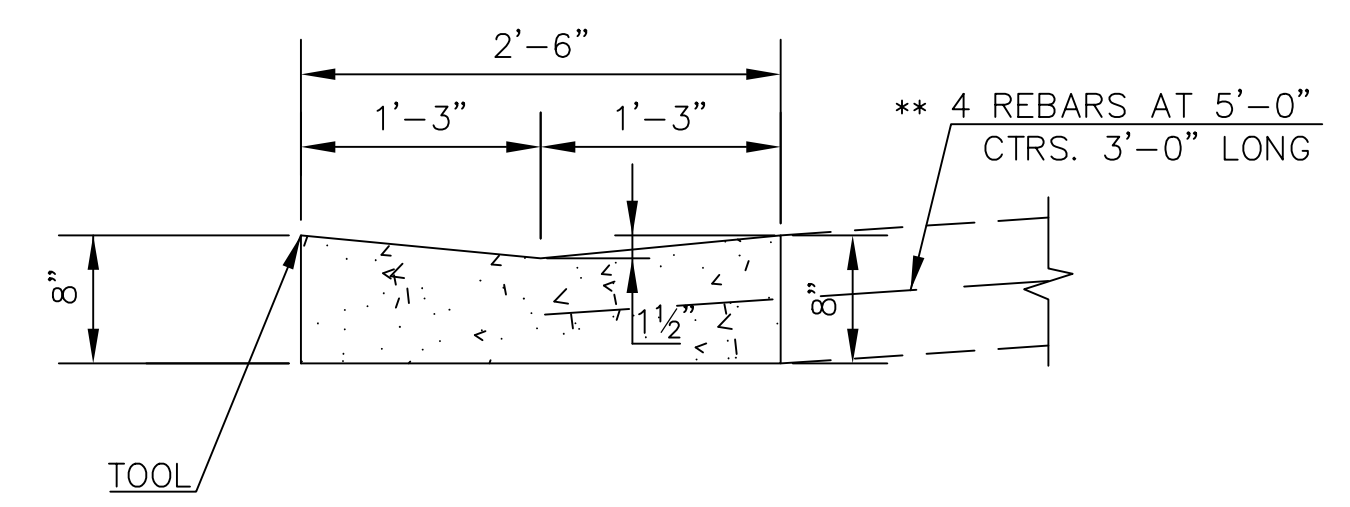


6" INTEGRAL CURB



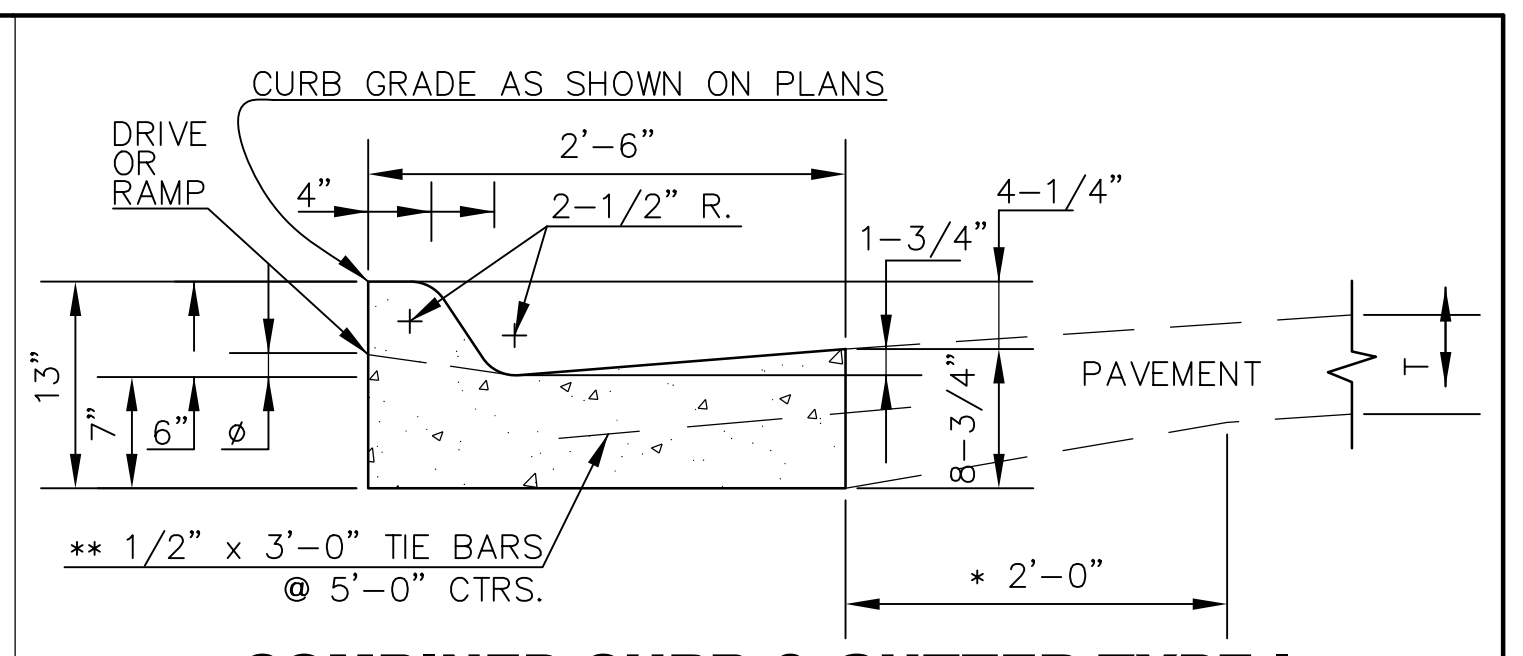
CC&G (MODIFIED)

NOTE: CURB AND GUTTER ABUTTING EXISTING ASPHALT
Δ DIMENSION IS FROM BACK OF CURB TO TOE, SEE APPROPRIATE DETAIL FOR CURB TYPE AS SHOWN ON PLANS

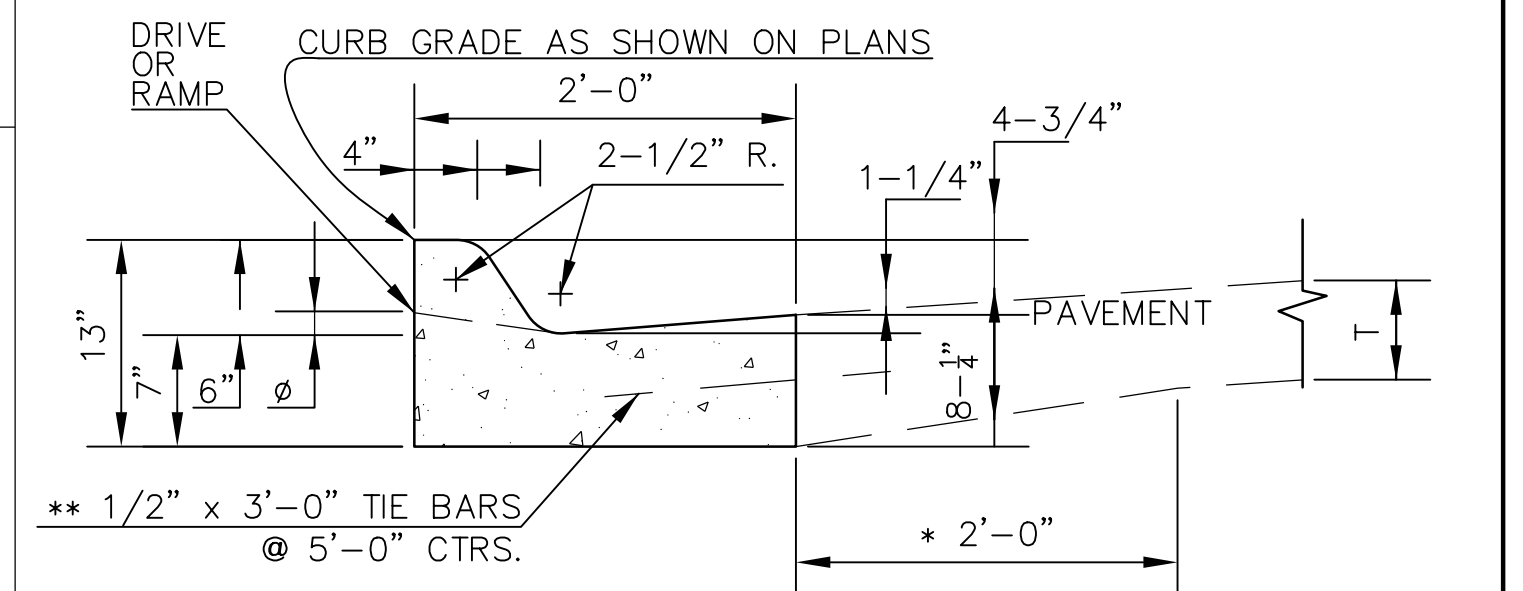


VALLEY GUTTER

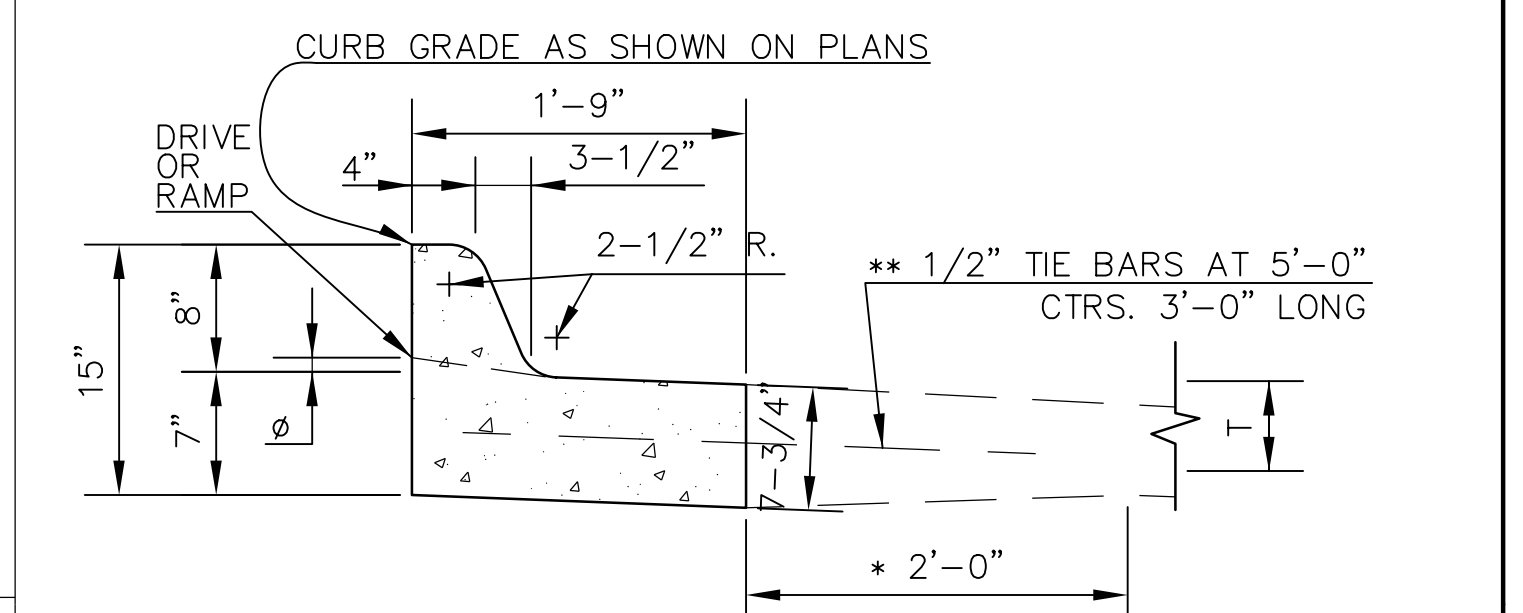
NOTE: VALLEY GUTTER TO BE PAID AS "COMBINED CURB AND GUTTER, TYPE IV."



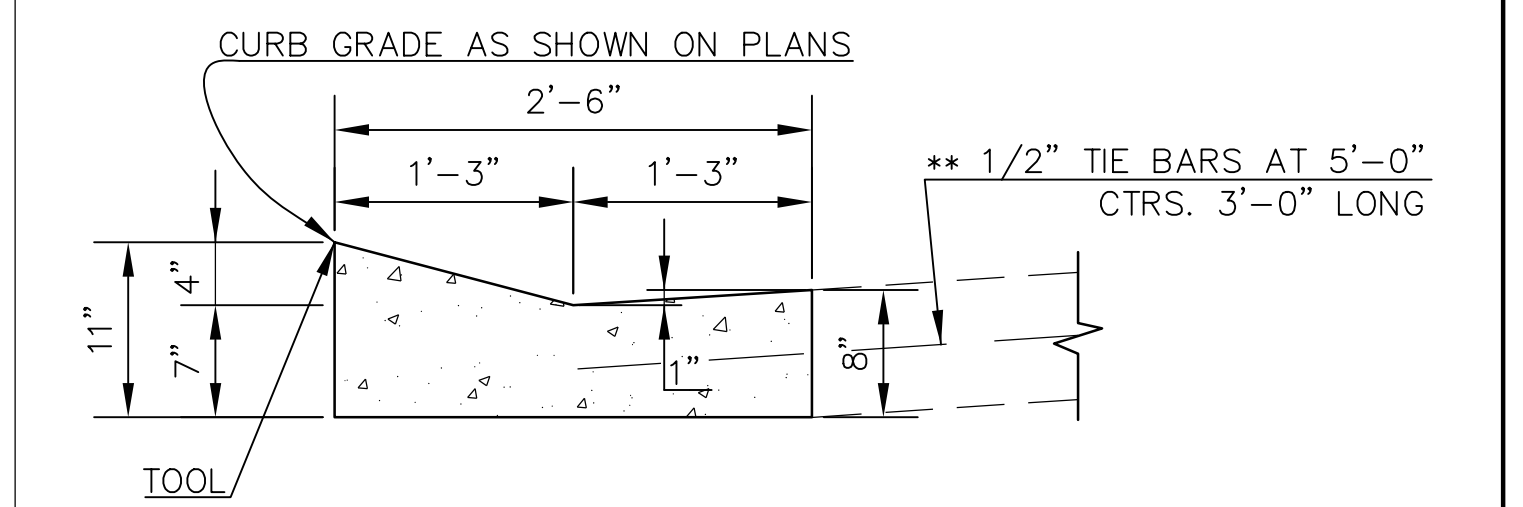
COMBINED CURB & GUTTER-TYPE I



COMBINED CURB & GUTTER-TYPE II



COMBINED CURB & GUTTER-TYPE III



LAYBACK CURB & GUTTER-TYPE IV

NOTES:
1. USE OF LAYBACK CURB AND GUTTER IS RESTRICTED TO STREET CLASSIFICATION OF SUB-COLLECTOR AND LOCAL. LAYBACK CURB AND GUTTER SHALL NOT BE USED IN INTERSECTION CURB RETURNS.
2. FOR CURB AND GUTTER ABUTTING EXISTING ASPHALT, REFER TO CC&G MODIFIED DETAIL.

* THE CONTRACTOR HAS THE OPTION OF MAINTAINING OR TRANSITIONING AS SHOWN AT NO ADDITIONAL COST.

**THE TIE BARS MAY BE ELIMINATED WITH ASPHALTIC CONCRETE PAVEMENT CONSTRUCTION.

Ø 1-1/2" FOR DRIVE ENTRANCES AND 3/4" FOR SIDEWALK RAMP

| | | | | |
|-----|------------|--|-----|-------|
| 5 | March 2013 | C&G payment @ alley appr. & bars to " | DHS | SB |
| 4 | Dec. 2012 | Changed to tie bar from rebar | DHS | SB |
| 3 | March 2010 | Eliminated keyed jt. at Com. Drive Appr. | DHS | SB |
| 2 | Dec. 2009 | Added Dr. Appr. on Unimpr. Rdwy., added flare verbage, mod. S/W x-slope & remv. keyed joints from C & G. | DHS | SB |
| 1 | Feb. 2008 | Mod. Com. Dr. & Alley Appr. | DHS | SB |
| NO. | DATE: | REVISION | BY: | APP'D |



SHAWNEE COUNTY, KANSAS PUBLIC WORKS DEPARTMENT
1515 NW SALINE
TOPEKA, KS 66618
(785) 233-7702



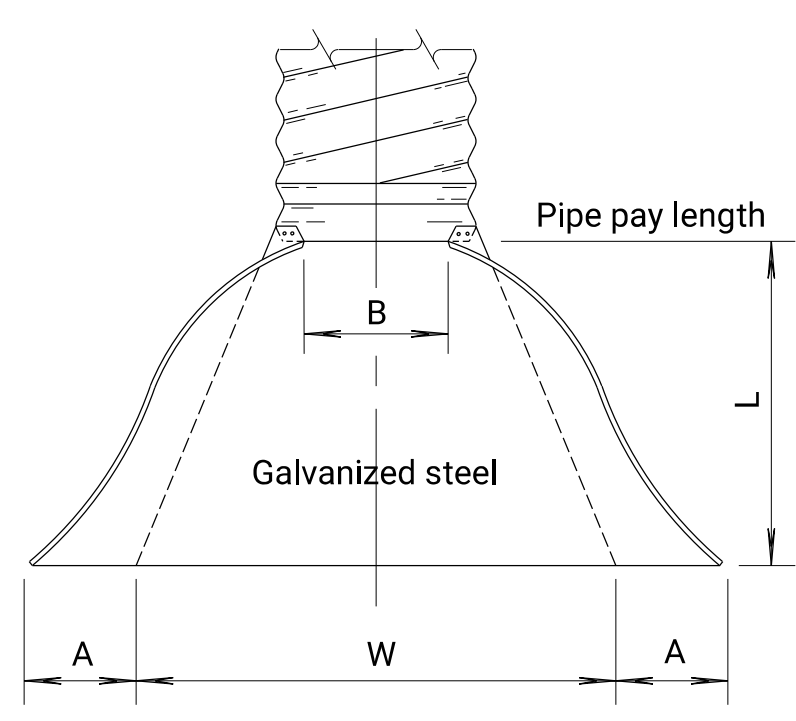
STANDARD DETAILS

CURB & GUTTER AND APPROACH DETAILS
(DT-003)

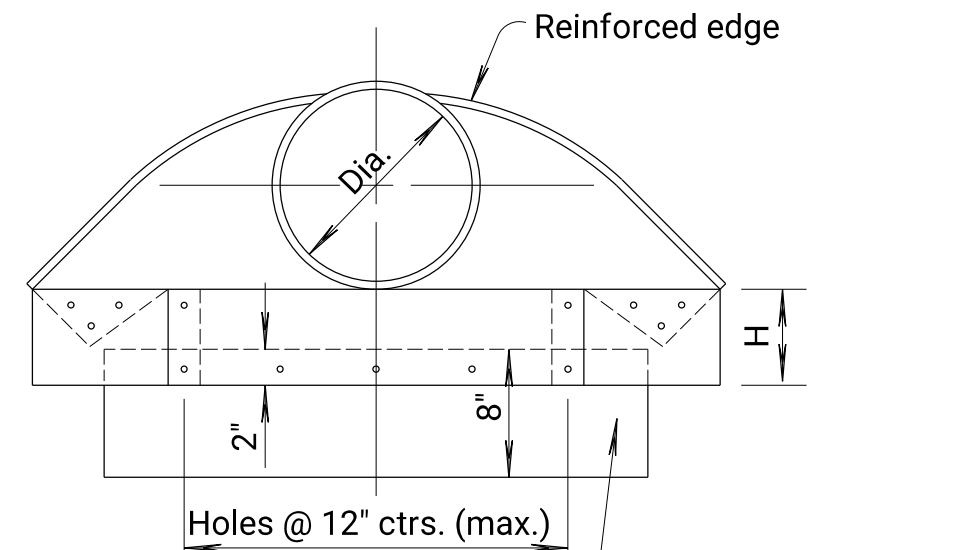
DATE:
SHEET:
PROJ.:

| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 87 | 109 |

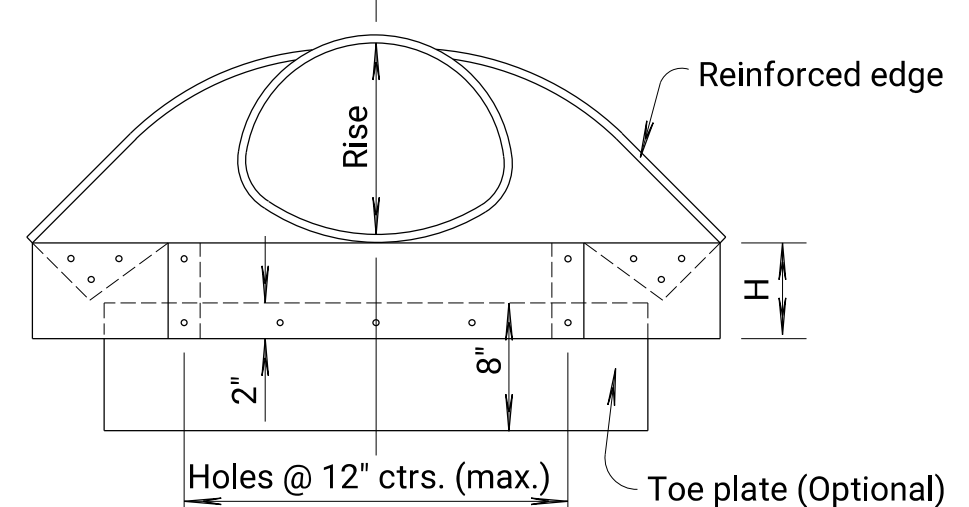
Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCP, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume I (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.



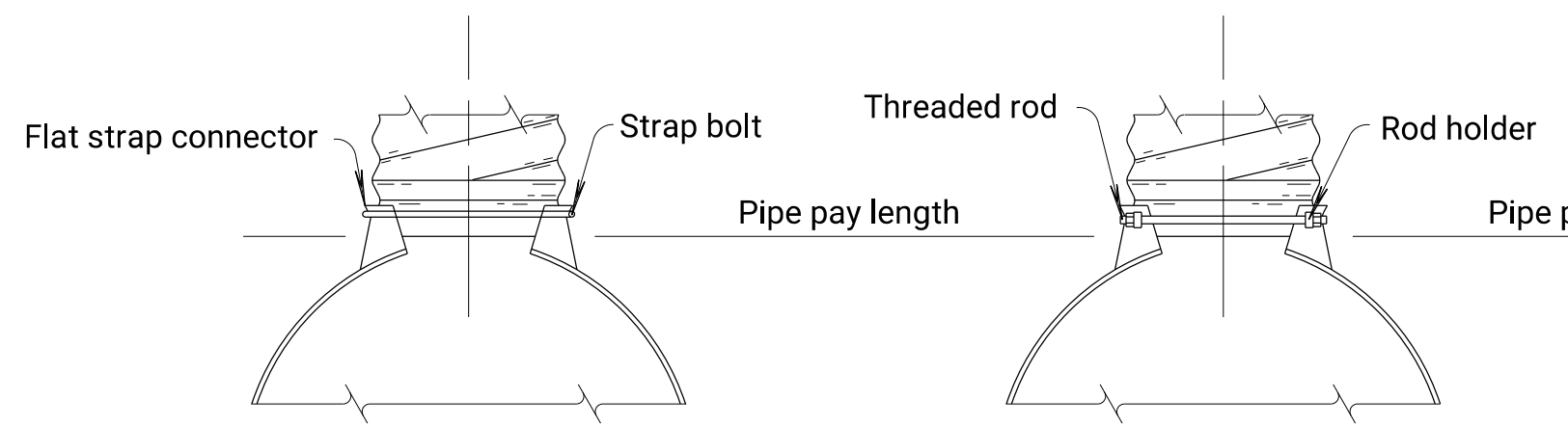
PLAN
(Illustrated with Type #3 Connection)



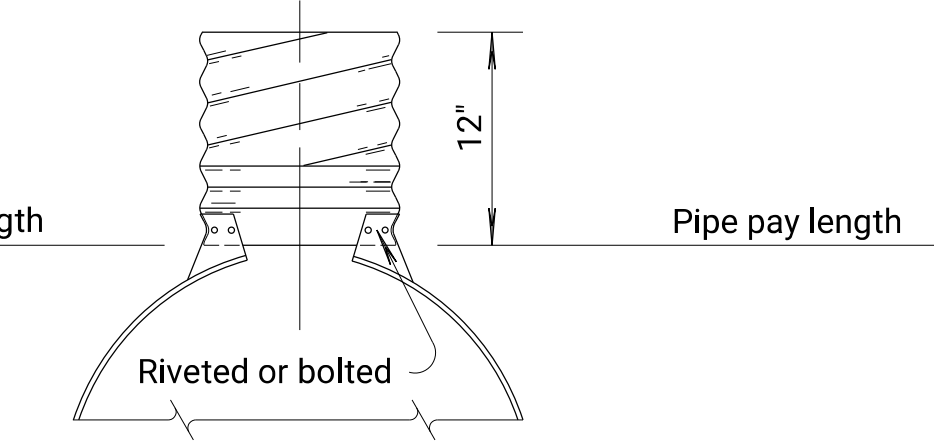
FRONT
Toe plate (Optional) (Same gauge as apron)



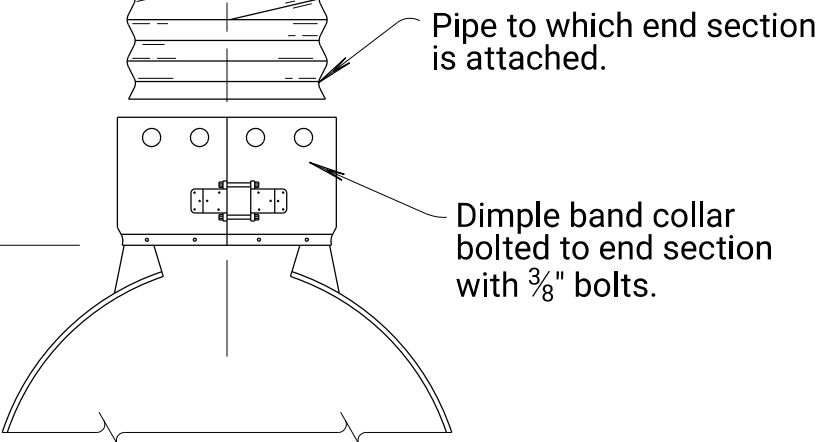
FRONT
Toe plate (Optional) (Same gauge as apron)



TYPE 1 Available in sizes 12" through 24" only.
TYPE 2 Available in sizes 30" and 36" Round and 17"x13" through 57"x38" Pipe-Arches.

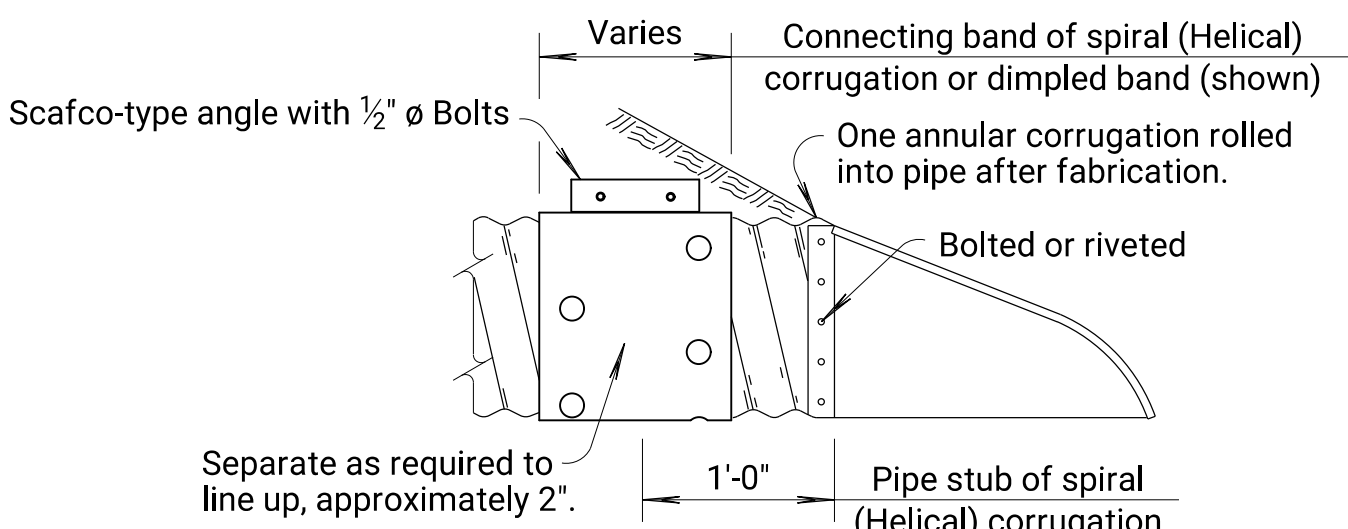


TYPE 3 Available in sizes 42" through 96" Round and 60"x46" through 81"x59" Pipe-Arches.



TYPE 5 Available for all Round and equivalent Pipe-Arch sizes, (Type 1 and Type 2 connections are recommended for the smaller sizes with annular ends).

Note: Type 3 connection may be furnished instead of Type 1 or Type 2 for smaller round or arch pipe.



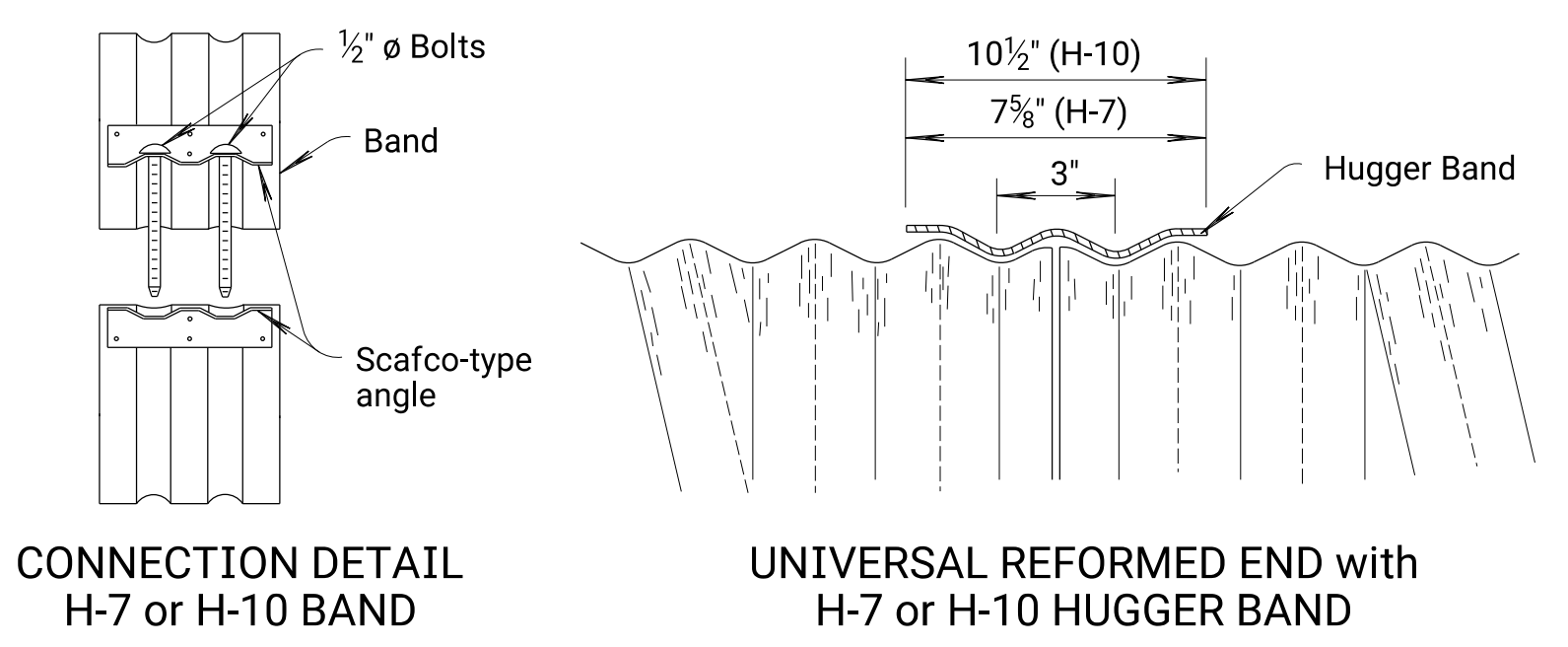
SPIRAL (HELICAL) CORRUGATION
For all sizes of round and arch culvert pipes having Spiral (Helical) corrugations, the end sections and connecting bands shall be as shown above.

| Thickness CSP/ACSP | Thickness CAP | Gauge |
|--------------------|---------------|--------|
| 0.064" | 0.060" | 16 ga. |
| 0.079" | 0.075" | 14 ga. |
| 0.109" | 0.105" | 12 ga. |
| 0.138" | 0.135" | 10 ga. |
| 0.168" | 0.164" | 8 ga. |

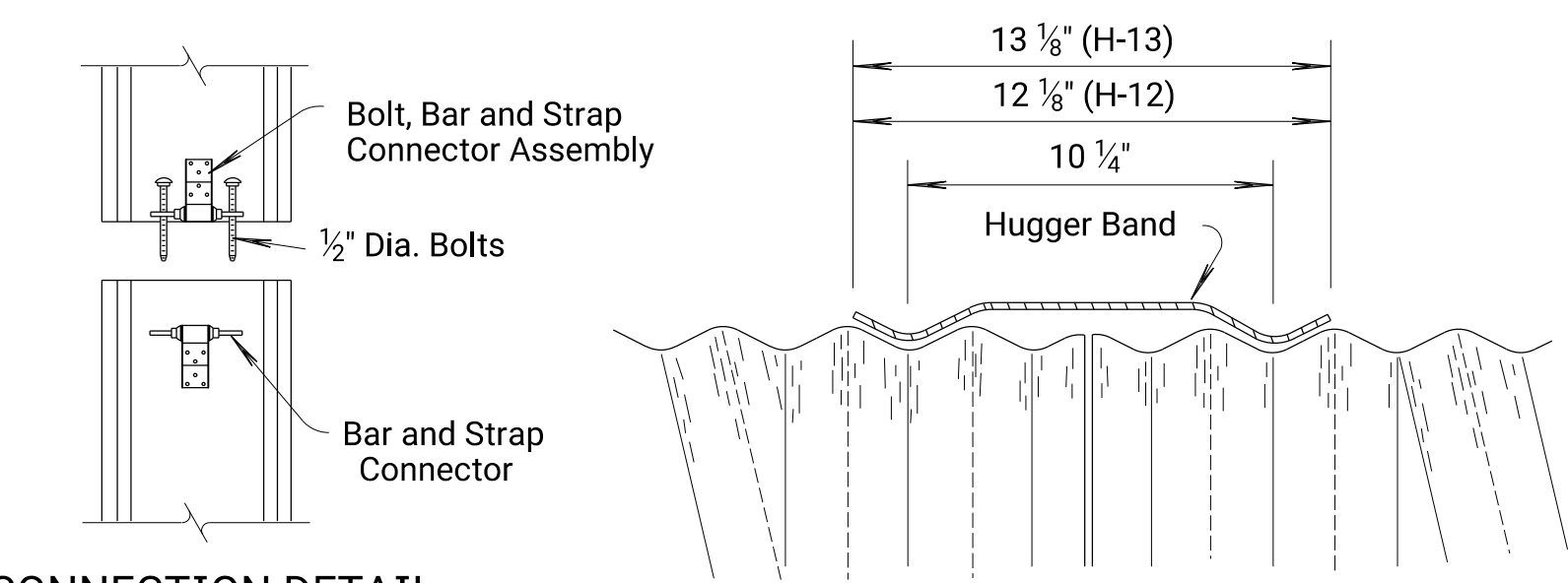
| Pipe Dia. (In.) | CS, ACS or CA Gauge | Dimensions in Inches | | | | | Approx. Slope |
|-----------------|---------------------|----------------------|----------|----------|---------|----------|---------------|
| | | A (min.) | B (max.) | H (min.) | L (±2") | W (min.) | |
| 12" | 16 | 5 | 7 | 6 | 21 | 22 | 2 1/2: 1 |
| 15" | 16 | 6 | 8 | 6 | 26 | 28 | 2 1/2: 1 |
| 18" | 16 | 7 | 10 | 6 | 31 | 34 | 2 1/2: 1 |
| 21" | 16 | 8 | 12 | 6 | 36 | 40 | 2 1/2: 1 |
| 24" | 16 | 9 | 13 | 6 | 41 | 46 | 2 1/2: 1 |
| 30" | 14 | 11 | 16 | 8 | 51 | 55 | 2 1/2: 1 |
| 36" | 14 | 13 | 19 | 9 | 60 | 70 | 2 1/2: 1 |
| 42" | 12 | 15 | 25 | 10 | 69 | 82 | 2 1/2: 1 |
| 48" | 12 | 17 | 29 | 12 | 78 | 88 | 2 1/2: 1 |
| 54" | 12 | 17 | 33 | 12 | 84 | 100 | 2 1/2: 1 |
| 60" | 12/10 | 17 | 36 | 12 | 87 | 112 | 2: 1 |
| 66" | 12/10 | 17 | 39 | 12 | 87 | 118 | 2: 1 |
| 72" | 12/10 | 17 | 44 | 12 | 87 | 120 | 2: 1 |
| 78" | 12/10 | 17 | 48 | 12 | 87 | 130 | 1 1/2: 1 |
| 84" | 12/10 | 17 | 52 | 12 | 87 | 136 | 1 1/2: 1 |
| 90" | 12/10 | 17 | 58 | 12 | 87 | 142 | 1 1/2: 1 |
| 96" | 12/10 | 17 | 58 | 12 | 87 | 144 | 1 1/2: 1 |

| Bid Designation Sq. Ft. | Nom. W.W. Area Sq. Ft. | Pipe Arch Span & Rise | Dimensions in Inches 2 3/8" x 1/2" Corrugations | | | | | Dimensions in Inches 3" x 1" or 5" x 1" Corr. | | | | | Approx. Slope | | |
|-------------------------|------------------------|-----------------------|---|----------|----------|----------|---------|---|---------------------|----------|----------|----------|---------------|----------|----------|
| | | | CS, ACS or CA Gauge | A (min.) | B (max.) | H (min.) | L (±2") | W (min.) | CS, ACS or CA Gauge | A (min.) | B (max.) | H (min.) | | L (±2") | W (min.) |
| 1.0 | 1.1 | 17" x 13" | 16 | 5 | 9 | 6 | 20 | 28 | | | | | | 2 1/2: 1 | |
| 1.5 | 1.6 | 21" x 15" | 16 | 6 | 11 | 6 | 24 | 34 | | | | | | 2 1/2: 1 | |
| 2.0 | 2.2 | 24" x 18" | 16 | 7 | 12 | 6 | 28 | 40 | | | | | | 2 1/2: 1 | |
| 2.5 | 2.9 | 28" x 20" | 16 | 7 | 16 | 6 | 32 | 46 | | | | | | 2 1/2: 1 | |
| 3.0 or 4.0 | 4.5 | 35" x 24" | 14 | 9 | 16 | 6 | 39 | 58 | | | | | | 2 1/2: 1 | |
| 5.0 or 6.0 | 6.5 | 42" x 29" | 14 | 11 | 18 | 7 | 46 | 73 | | | | | | 2 1/2: 1 | |
| 7.0 or 8.5 | 8.9 | 49" x 33" | 12 | 12 | 21 | 9 | 53 | 82 | | | | | | 2 1/2: 1 | |
| 10.0 or 11.0 | 11.7 | 53" x 41" | | | | | | | 12 | 17 | 26 | 12 | 63 | 88 | 2: 1 |
| 10.0 or 11.0 | 11.6 | 57" x 38" | 12 | 16 | 26 | 12 | 62 | 88 | | | | | | | 2: 1 |
| 12.5 or 14.0 | 15.6 | 60" x 46" | | | | | | | 12 | 17 | 36 | 12 | 70 | 100 | 2: 1 |
| 12.5 or 14.0 | 14.7 | 64" x 43" | 12 | 17 | 30 | 12 | 69 | 100 | | | | | | | 2: 1 |
| 16.5 | 19.3 | 66" x 51" | | | | | | | 12/10 | 17 | 36 | 12 | 70 | 112 | 1 1/2: 1 |
| 16.5 | 18.1 | 71" x 47" | 12/10 | 17 | 36 | 12 | 77 | 112 | | | | | | | 1 1/2: 1 |
| 21.0 | 23.2 | 73" x 55" | | | | | | | 12/10 | 17 | 36 | 12 | 77 | 124 | 1 1/2: 1 |
| 21.0 | 21.9 | 77" x 52" | 12/10 | 17 | 36 | 12 | 77 | 124 | | | | | | | 1 1/2: 1 |
| 25.0 | 27.4 | 81" x 59" | | | | | | | 12/10 | 17 | 44 | 12 | 77 | 136 | 1 1/2: 1 |
| 25.0 | 26.0 | 83" x 57" | 12/10 | 17 | 44 | 12 | 77 | 130 | | | | | | | 1 1/2: 1 |
| 32.0 | 32.1 | 87" x 63" | | | | | | | 12/10 | 17 | 44 | 12 | 77 | 136 | 1 1/2: 1 |
| 36.0 | 37.0 | 95" x 67" | | | | | | | 12/10 | 17 | 44 | 12 | 87 | 160 | 1 1/2: 1 |
| 42.0 | 42.4 | 103" x 71" | | | | | | | 12/10 | 17 | 44 | 12 | 87 | 172 | 1 1/2: 1 |
| 47.0 | 48.0 | 112" x 75" | | | | | | | 12/10 | 17 | 44 | 12 | 87 | 172 | 1 1/2: 1 |

(Information listed in these tables are nominal and may vary by manufacturer.)



DETAILS FOR H-7 HUGGER BAND (12" thru 36") or H-10 HUGGER BAND (12" thru 120")



DETAILS FOR H-12 or H-13 HUGGER BAND

| Pipe Dia. Inches | Minimum Gauge of Round Pipe | | | | |
|------------------|-----------------------------|---------------|---------------|---------------------|---------------|
| | 2 3/8" x 1/2" Corr. | 3" x 1" Corr. | 5" x 1" Corr. | 2 3/8" x 1/2" Corr. | 3" x 1" Corr. |
| | CSP or ACSP | CSP or ACSP | CSP or ACSP | CAP | CAP |
| 12" | 14 | | | 16 | |
| 15" | 14 | | | 16 | |
| 18" | 14 | | | 16 | |
| 21" | 14 | | | 16 | |
| 24" | 14 | | | 16 | |
| 30" | 14 | | | 14 | |
| 36" | 14 | | | 14 | 16 |
| 42" | 14 | | | 12 | 16 |
| 48" | 12 | 14 | 16 | 14 | 16 |
| 54" | 12 | 14 | 16 | 14 | 16 |
| 60" | 10 | 14 | 16 | 14 | 16 |
| 66" | 10 | 14 | 16 | 14 | 16 |
| 72" | 10 | 14 | 16 | 14 | 16 |
| 78" | 8 | 14 | 14 | 14 | 14 |
| 84" | 8 | 14 | 14 | 14 | 14 |
| 90" | | 14 | 14 | 14 | 14 |
| 96" | | 12 | 12 | 12 | 12 |
| 102" | | 12 | 12 | 12 | 12 |
| 108" | | 12 | 12 | 12 | 12 |
| 114" | | 12 | 12 | 12 | 12 |
| 120" | | 10 | 10 | 10 | 10 |

| Bid Designation Sq. Ft. | Pipe Dimension Span & Rise | Sq. Ft. | Equiv. Round Pipe Diameter | Minimum Gauge of Arch Pipe | | | | |
|-------------------------|----------------------------|---------|----------------------------|----------------------------|---------------|---------------|---------------------|---------------|
| | | | | 2 3/8" x 1/2" Corr. | 3" x 1" Corr. | 5" x 1" Corr. | 2 3/8" x 1/2" Corr. | 3" x 1" Corr. |
| | | | | CSP or ACSP | CSP or ACSP | CSP or ACSP | CAP | CAP |
| 1.0 | 17" x 13" | 1.1 | 15" | 14 | | | 16 | |
| 1.5 | 21" x 15" | 1.6 | 18" | 14 | | | 16 | |
| 2.0 | 24" x 18" | 2.2 | 21" | 14 | | | 16 | |
| 2.5 | 28" x 20" | 2.9 | 24" | 14 | | | 14 | |
| 3.0 or 4.0 | 35" x 24" | 4.5 | 30" | 14 | | | 14 | |
| 5.0 or 6.0 | 42" x 29" | 6.5 | 36" | 14 | | | 12 | |
| 7.0 or 8.5 | 49" x 33" | 8.9 | 42" | 14 | | | 12 | |
| 10.0 or 11.0 | 53" x 41" | 11.7 | 48" | | 14 | | | |
| 10.0 or 11.0 | 57" x 38" | 11.6 | 48" | 12 | | | 10 | |
| 12.5 or 14.0 | 60" x 46" | 15.6 | 54" | | 14 | | | 14 |
| 12.5 or 14.0 | 64" x 43" | 14.7 | 54" | 12 | | | 10 | |
| 16.5 | 66" x 51" | 19.3 | 60" | | 14 | | | 14 |
| 16.5 | 71" x 47" | 18.1 | 60" | 10 | | | 8 | |
| 21.0 | 73" x 55" | 23.2 | 66" | | 14 | | | 14 |
| 21.0 | 77" x 52" | 21.9 | 66" | 8 | | | | |
| 25.0 | 81" x 59" | 27.4 | 72" | | 14 | 12 | | 12 |
| 25.0 | 83" x 57" | 26.0 | 72" | 8 | | | | |
| 32.0 | 87" x 63" | 32.1 | 78" | | 12 | 12 | | 12 |
| 36.0 | 95" x 67" | 37.0 | 84" | | 12 | 12 | | 12 |
| 42.0 | 103" x 71" | 42.4 | 90" | | 12 | 12 | | 10 |
| 47.0 | 112" x 75" | 48.0 | 96" | | 12 | 12 | | 8 |
| 54.0 | 117" x 79" | 54.2 | 102" | | 10 | 10 | | |
| 60.0 | 128" x 83" | 60.5 | 108" | | 10 | 10 | | |
| 67.0 | 137" x 87" | 67.4 | 114" | | 10 | 10 | | |
| 74.0 | 142" x 91" | 74.5 | 120" | | 8 | 8 | | |

GENERAL NOTE for METAL PIPE
 Culvert "Type" listed may be CSP, ACSP, CAP, RCP, PVCP & PEP within guidelines of KDOT Pipe Policy for geographic location. More than one pipe "Type" may be acceptable for a design location with allowable types listed for each site. There shall be no payment for gain in pipe length due to fit of pipe at connecting band. When Hugger Bands are used, the H-7 Hugger Band may be used on circular pipes 36" diameter and smaller or pipe arches 42" x 29" and smaller. The H-10 Hugger Band may be used on 12" thru 120" pipe. The H-12 or H-13 Hugger Band are for pipe sizes larger than 36" diameter or 42" x 29" arch pipe. Pipe gauge listed in the tables on this sheet are minimum for E=750 p.s.i. soil. Pipe gauge will be determined for each site based on the Design Manual Volume I- Part C Fill Height Tables and shall be listed in the Pipe Culvert Summary. Gauges shown on this Standard Drawing are KDOT minimum and may not be industry minimum gauge. In geographic areas that allow CSP (24" or smaller arched or round pipe) for entrance and side road installation with less than 3,000 AADT, 16 gauge ACSP may be substituted for 14 gauge CSP. Aluminum or aluminized pipes or end sections shall be coated with an asphaltic paint when in contact with fresh concrete in accordance with the Standard Specifications.

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|---------|--|--------|--------|
| 4 | 9-10-09 | Rev. Round and Arch tables, add. Alum. | S.W.K. | J.O.B. |
| 3 | 1-20-09 | Rev. Round Pipe Gauges | S.W.K. | J.O.B. |
| 2 | 4-18-08 | Rev. layout, details, tables and notes | S.W.K. | J.O.B. |
| 1 | 4-27-98 | Added pipe corrugation option note | R.J.S. | J.O.B. |

KANSAS DEPARTMENT OF TRANSPORTATION

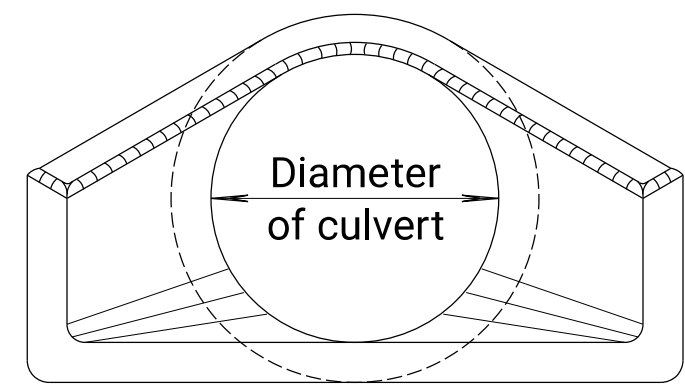
METAL END SECTION FOR ROUND & ARCH METAL CULVERTS (TYPE I) & PIPE GAUGE TABLES

RD660

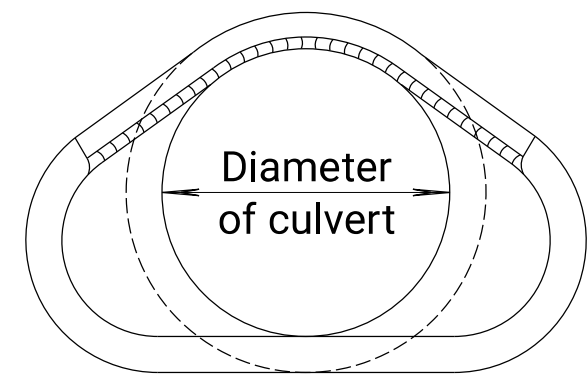
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|---------------|------------|--------------------------|
| FHWA APPROVAL | 12-16-09 | APP'D. James O. Brewer |
| DESIGNED | QUANTITIES | TRACED Bowser |
| DESIGN CK. | DETAIL CK. | QUAN. CK. TRACE CK. King |

| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 88 | 109 |

Note to Designer: KDOT Pipe Policy provides guidance in identifying the prohibited and/or restricted uses of CSP, ACSP, PEP, PVCPC, CAP & RCP. Provide end sections of the same type and coating as the pipe. Exceptions to this are noted in the Standard Specifications. Refer to the KDOT Design Manual, Volume I (Part C), Road Section, "Elements of Drainage & Culvert Design" for structural pipe design information which includes: corrugations, sizes, gauges, maximum/minimum fill heights and classes of pipe.

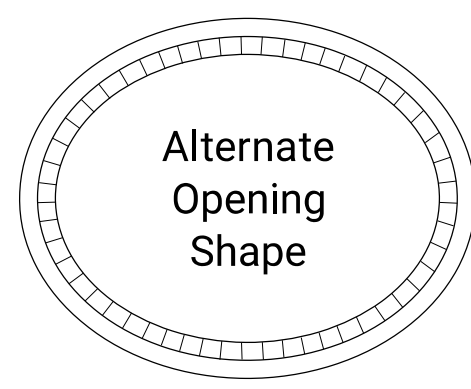


END ELEVATION (TYPE I)

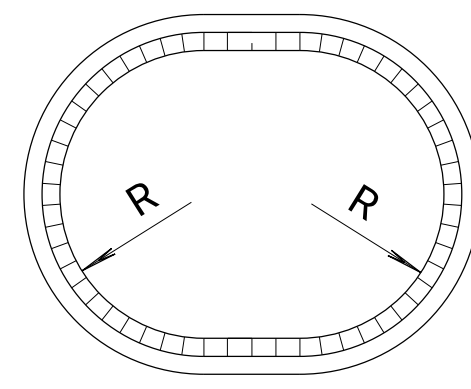


SECTION A-A

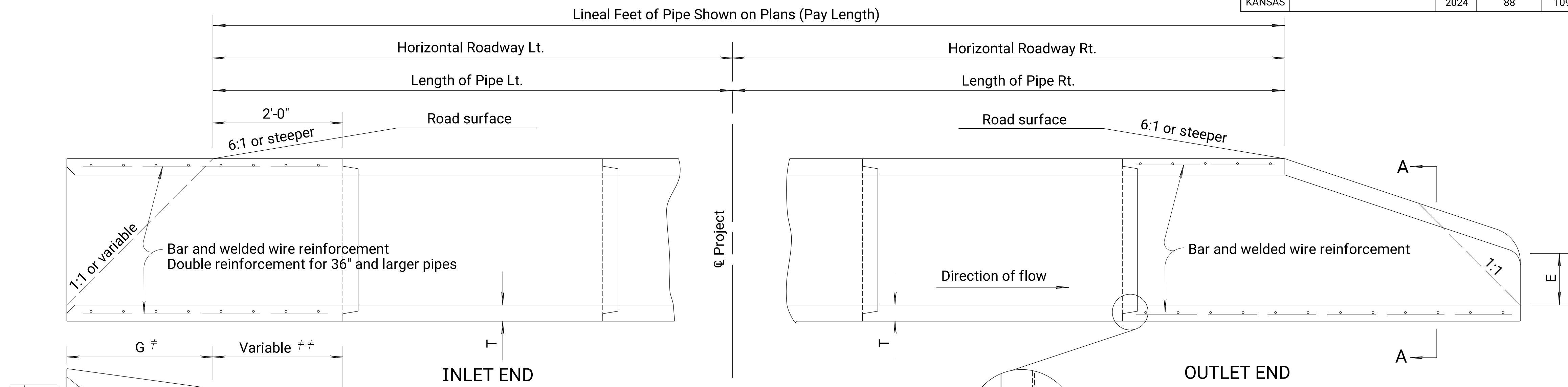
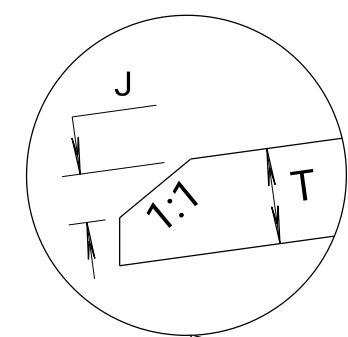
Showing rounding of inside edge of end section.



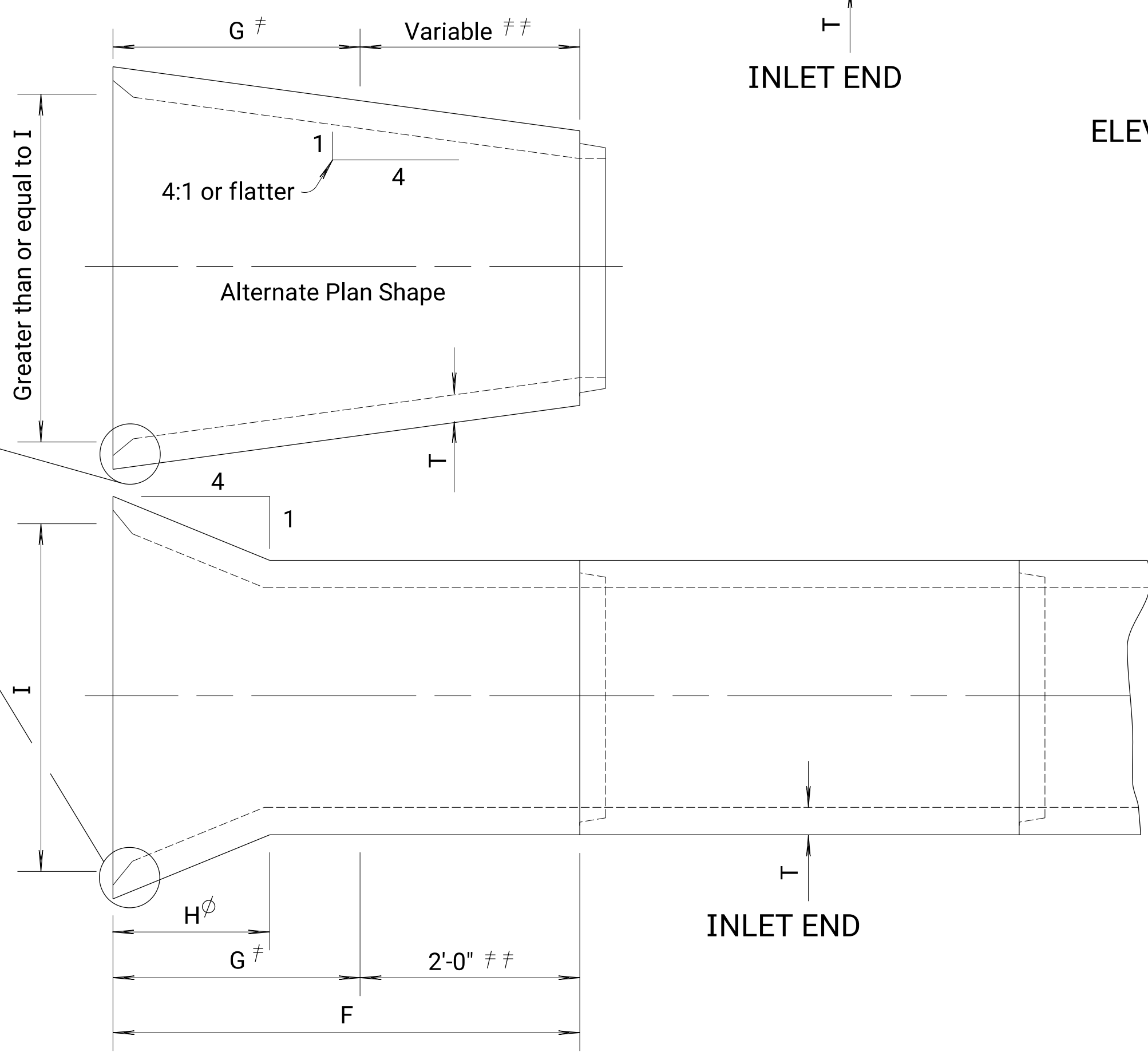
Alternate Opening Shape



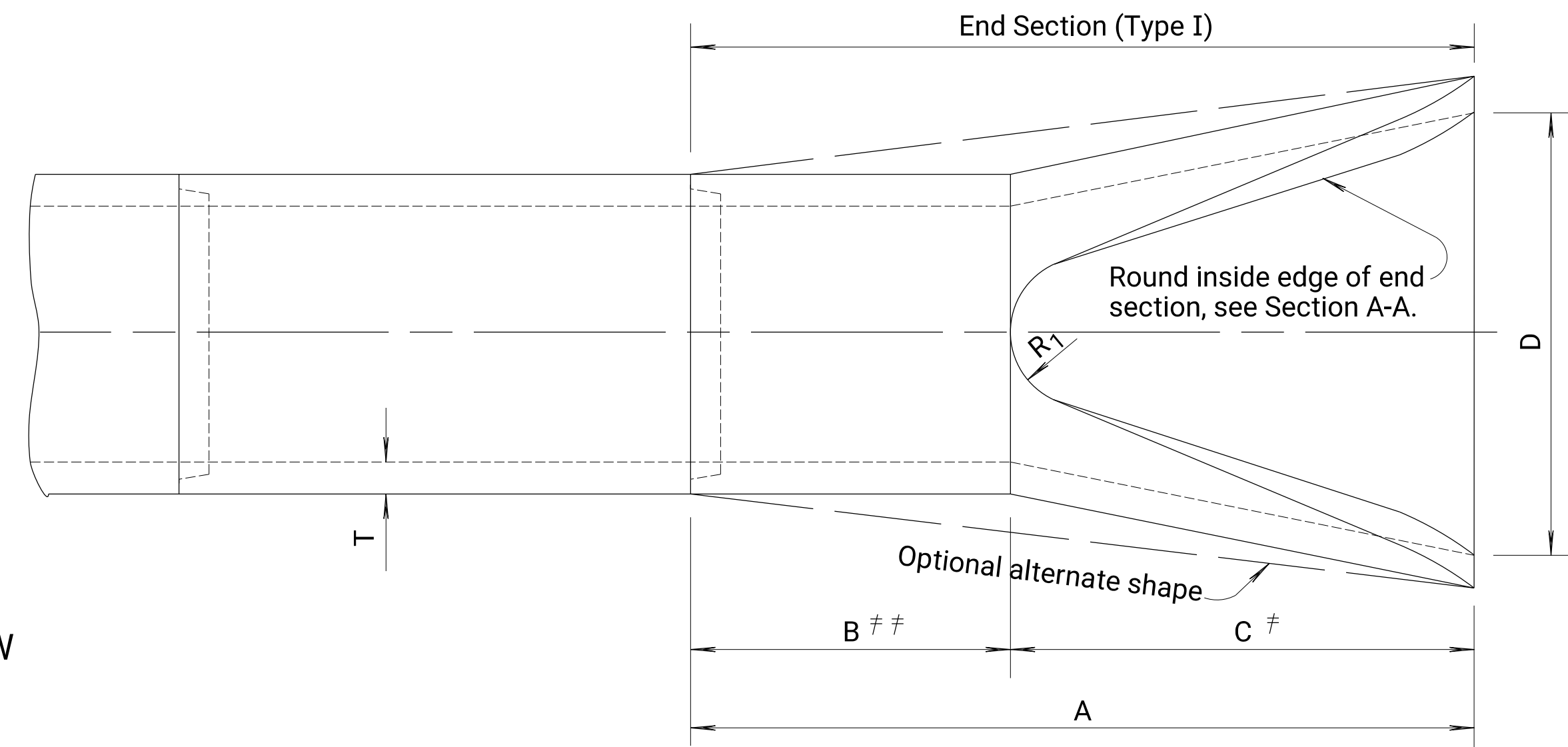
END ELEVATION (TYPE III)



ELEVATION SECTION



PLAN VIEW



OUTLET END

Note: There shall be no payment for gain in length due to joint fit tolerance.

- ∅ Transition to round pipe.
- ‡ Paid for as separate item of End Section, except when structures shall bid as alternates. In that case End Sections shall be subsidiary to bid item. "Drainage Structure No. ".
- ‡‡ Included in pay length of pipe.
- * Minimum waterway area is calculated at the inside of the bevel.

| Diam. | A | B‡ | C‡ | D | E | R: | Slope | T |
|-------|-----------|------------|-----------|--------|--------|----|--------|--------|
| 12" | 6'-0 7/8" | 4'-0 7/8" | 2'-0" | 2'-0" | 4" | 9 | 3:1 | 2" |
| 15" | 6'-1" | 3'-10" | 2'-3" | 2'-6" | 6" | 11 | 3:1 | 2 1/4" |
| 18" | 6'-1" | 3'-10" | 2'-3" | 3'-0" | 9" | 12 | 3:1 | 2 1/2" |
| 24" | 6'-1 1/2" | 2'-6" | 3'-7 1/2" | 4'-0" | 9 1/2" | 14 | 3:1 | 3" |
| 30" | 6'-1 3/4" | 1'-7 3/4" | 4'-6" | 5'-0" | 1'-0" | 15 | 3:1 | 3 1/2" |
| 36" | 8'-1 3/4" | 2'-10 3/4" | 5'-3" | 6'-0" | 1'-3" | 20 | 3:1 | 4" |
| 42" | 8'-2" | 2'-11" | 5'-3" | 6'-6" | 1'-9" | 22 | 3:1 | 4 1/2" |
| 48" | 8'-2" | 2'-2" | 6'-0" | 7'-0" | 2'-0" | 22 | 3:1 | 5" |
| 54" | 8'-2 1/4" | 2'-9 1/4" | 5'-5" | 7'-6" | 2'-3" | 24 | 2.4:1 | 5 1/2" |
| 60" | 8'-3" | 3'-3" | 5'-0" | 8'-0" | 2'-11" | 24 | 2:1 | 6" |
| 72" | 8'-3" | 1'-9" | 6'-6" | 9'-0" | 3'-0" | 24 | 1.86:1 | 7" |
| 84" | 9'-3 1/2" | 1'-9" | 7'-6 1/2" | 10'-0" | 3'-0" | 24 | 1.6:1 | 8" |

| Diam. | Min. W.W.* Area Sq. Ft. | F | G | H | I | J | K | R | T |
|-------|-------------------------|------------|------------|------------|-------|--------|-------|-------|--------|
| 24" | 4.5 | 4'-3" | 2'-3" | 1'-5 1/8" | 2'-8" | 1 1/2" | 8" | 1'-0" | 3" |
| 30" | 7.0 | 4'-9 1/2" | 2'-9 1/2" | 1'-9 1/2" | 3'-4" | 2" | 10" | 1'-3" | 3 1/2" |
| 36" | 10.1 | 5'-4" | 3'-4" | 2'-1 1/2" | 4'-0" | 2" | 1'-0" | 1'-6" | 4" |
| 42" | 13.7 | 5'-10 1/2" | 3'-10 1/2" | 2'-5 7/8" | 4'-8" | 2 1/2" | 1'-2" | 1'-9" | 4 1/2" |
| 48" | 17.9 | 6'-5" | 4'-5" | 2'-10 1/8" | 5'-4" | 3" | 1'-4" | 2'-0" | 5" |
| 54" | 22.7 | 6'-11 1/2" | 4'-11 1/2" | 3'-2 1/2" | 6'-0" | 3 1/2" | 1'-6" | 2'-3" | 5 1/2" |
| 60" | 28.0 | 7'-6" | 5'-6" | 3'-6 7/8" | 6'-8" | 4" | 1'-8" | 2'-6" | 6" |
| 72" | 40.3 | 8'-7" | 6'-7" | 4'-3 5/8" | 8'-0" | 5" | 2'-0" | 3'-0" | 7" |
| 84" | 54.8 | 9'-8" | 7'-8" | 5'-0 3/8" | 9'-4" | 6" | 2'-4" | 3'-6" | 8" |

Dimensions for alternate shapes shall be equal to or greater than those shown in the table, unless otherwise shown.

Plotted : 6/19/2024 2:38:46 PM
Drawn By : CAM
File : rd662.dgn

| | | | | |
|-----|----------|--------------------------------|--------|--------|
| 02 | 04-18-08 | Added ref. to KDOT Pipe Policy | S.W.K. | J.O.B. |
| 01 | 04-05-05 | Revised reinforcement callout | S.W.K. | J.O.B. |
| NO. | DATE | REVISIONS | BY | APPD |

KANSAS DEPARTMENT OF TRANSPORTATION
CONCRETE END SECTIONS FOR CONCRETE PIPES TYPE I & SIDE TAPERED INLET SECTION (TYPE III)
RD662

| | | | |
|---------------|------------|------------|-----------------|
| FHWA APPROVAL | 06-27-08 | APPD. | James O. Brewer |
| DESIGNED | DETAILED | QUANTITIES | TRACED |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACE CK. |

| SUMMARY OF QUANTITIES | | | | | | | | | | | | | | |
|------------------------------------|--------------------------------------|------------------------------------|--|--|--|---|-----------------------------------|-----------------------------------|------------------|---|--|--|--|--------------------------|
| LOCATION | Asphaltic Concrete Patching Sq. Yds. | Aggregate Base (AB-3)(6") Sq. Yds. | 2" Asphaltic Concrete Overlay Sq. Yds. | 1.5" Asphaltic Concrete Overlay Sq. Yds. | 1.5" Asphaltic Concrete Leveling Course Sq. Yds. | 6" Asphaltic Concrete (Shoulder) Sq. Yds. | △△ Surfacing Material (AB-3) Tons | † †Aggregate Shoulder (AB-3) Tons | Milling Sq. Yds. | Combined Curb and Gutter (Type IV) Lin. Ft. | Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type A) Sq. Yds. | Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type B) Sq. Yds. | Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type C) Sq. Yds. | Drilling & Grouting Each |
| 142nd Road - N Road to O Road | 1,394 | 1,394 | 13,048 | | | | 44 | 125 | 1,208 | | 69.4 | | | 48 |
| 150th Road - K Road to Sta. 50+97 | 1,840 | 1,840 | 10,057 | | | | 10 | 102 | 1,266 | | | | 187.8 | |
| 150th Road - M Road to N Road | 4,093 | 4,093 | 12,652 | | | | 20 | 128 | 122 | | | | | |
| 150th Road - N Road to O Road | 2,371 | 2,371 | 12,184 | | | | 18 | 124 | 981 | | | 72.2 | | |
| 150th Road - O Road to P Road | 1,837 | 1,837 | 12,756 | | | | 44 | 128 | 981 | | | 69.4 | | |
| 150th Road - P Road to Q Road | 497 | 497 | 16,524 | | | 3,644 | 20 | 279 | 1,285 | | | | | |
| 150th Road - Q Road to Sta. 344+00 | 30 | 30 | 5,090 | | | 2,660 | 6 | 151 | 400 | | | | | |
| 158th Road - K Road to L Road | 71 | 71 | | 14,664 | 14,664 | | 28 | 129 | 216 | | | | | |
| 158th Road - L Road to M Road | 46 | 46 | | 14,365 | 14,365 | | 23 | 133 | 91 | | | | | |
| 158th Road - M Road to N Road | 76 | 76 | | 14,031 | 14,031 | | 14 | 131 | | | | | | |
| 158th Road - N Road to O Road | 112 | 112 | | 13,177 | 13,177 | | 22 | 119 | 266 | 80.8 | | | | 56 |
| 158th Road - O Road to P Road | 378 | 378 | | 14,283 | 14,283 | | 28 | 134 | 453 | | | | | |
| 158th Road - P Road to Q Road | 215 | 215 | | 14,422 | 14,422 | | 18 | 134 | 168 | | | | | |
| 158th Road - Q Road to Sta. 879+00 | 65 | 65 | | 8,428 | 8,428 | | 18 | 41 | | | | | | |
| 166th Road - H Road to I Road | 750 | 750 | 6,419 | | | | 16 | 65 | 1,070 | | | 80.8 | | |
| I Road - 158th Road to 166th Road | 1,525 | 1,525 | 12,901 | | | | 36 | 155 | 1,144 | | | 75.2 | | |
| K Road - 142nd Road to 150th Road | 2,123 | 2,123 | 13,285 | | | 35 | 38 | 130 | 63 | | | | | |
| K Road - 150th Road to 158th Road | 1,418 | 1,418 | 14,191 | | | 54 | 10 | 128 | 581 | | | | | |
| K Road - 158th Road to Sta. 119+50 | 800 | 800 | 13,544 | | | | | 135 | 258 | | | | | |
| N Road - 142nd Road to 150th Road | 1,700 | 1,700 | 12,845 | | | | 16 | 132 | 979 | | | 80.8 | | |
| N Road - 158th Road to 166th Road | 4,900 | 4,900 | 12,983 | | | | 20 | 131 | 1,000 | 93.4 | | | | 56 |
| N Road - 166th Road to 174th Road | 980 | 980 | 13,102 | | | | 33 | 131 | | | | | | |
| O Road - 142nd Road to 150th Road | 2,100 | 2,100 | 12,069 | | | | 40 | 125 | 735 | | | | | |
| P Road - 150th Road to 158th Road | 2,116 | 2,116 | 13,155 | | | | 16 | 133 | 1,002 | | | 80.8 | | |
| Q Road - 158th Road to 162nd Road | 1,350 | 1,350 | 6,757 | | | | 12 | 67 | 203 | | | | | |
| N1 Lane | 190 | 190 | | 3,107 | | | | | 3,107 | | | | | |
| N2 Lane | 250 | 250 | | 3,146 | | | | | 3,146 | | | | | |
| L4 Lane | 260 | 260 | | 6,961 | | | | | 6,961 | | | | | |
| Meadow Lane | 320 | 320 | | 4,137 | | | | | 4,137 | 800 | | | | |
| Meadow Lane Cul-De-Sac | 90 | 90 | | 920 | | | | | 920 | 220 | | | | |
| Wildflower Lane | 360 | 360 | | 2,170 | | | | | 2,170 | 10 | | | | |
| 156th Lane | 240 | 240 | | 6,992 | | | | | 6,992 | | | | | |
| Eagle Dr. | 65 | 65 | | 3,981 | | | | | 3,981 | 27 | | | | |
| Eagle Dr. Cul-de-sac | 240 | 240 | | 917 | | | | | 917 | | | | | |
| Buffalo Dr. | 250 | 250 | | 4,752 | | | | | 4,752 | 25 | | | | |
| Buffalo Dr. Cul-de-sac | 35 | 35 | | 1,274 | | | | | 1,274 | | | | | |
| Pheasant Run | 100 | 100 | | 2,306 | | | | | 2,306 | 25 | | | | |
| Quail Ct. | 65 | 65 | | 1,555 | | | | | 1,555 | | | | | |
| West Access Rd. | 15 | 15 | | 518 | | | | | 518 | 6 | | | | |
| East Access Rd. | 10 | 10 | | 518 | | | | | 518 | | | | | |
| Community Center Parking Lot | - | - | | 1,505 | | | | | 1,505 | | | | | |
| Totals | 35,277 | 35,277 | 213,562 | 138,129 | 93,370 | 6,393 | 550 | 4,262 | 59,231 | 1,113 | 244 | 459 | 188 | 160 |

△△ Estimated quantity for adjacent driveways, entrances, & approaches.

†† Estimated quantity for shoulders

TACK COAT:

A tack coat of SS-1HP shall be provided between each lift of all base courses and surface courses and under the first lift of base or surface courses when they are placed on an existing asphalt when so ordered by the Engineer and at the rate designated by the Engineer. Quantities are included for these tacks calculated at the rate of 0.05 gal. /sq. yd.

| RATES OF APPLICATION | | |
|----------------------|-------------|---------------------------------|
| RATE | UNIT | ITEM |
| 145 | lbs/cu. ft. | HMA- Commercial Grade (Class A) |
| 156 | lbs/cu. ft. | Aggregate Base (AB-3) |
| 156 | lbs/cu. ft. | Surfacing Material (AB-3) |
| | | |
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| 8" CONCRETE DRIVEWAY | | |
|----------------------------|--------------------|---------|
| LOCATION | QUANTITY (sq. ft.) | REMARKS |
| K Road, Sta. 58+22.42, Rt. | 1,285 | |
| K Road, Sta. 71+38.13, Lt. | 1,151 | |
| K Road, Sta. 74+79.98, Lt. | 1,226 | |
| K Road, Sta. 76+89.05, Rt. | 1,004 | |
| K Road, Sta. 81+97.70, Rt. | 815 | |
| K Road, Sta. 82+71.70, Rt. | 810 | |
| K Road, Sta. 85+60.99, Rt. | 678 | |
| K Road, Sta. 88+42.89, Rt. | 1,231 | |
| K Road, Sta. 94+51.78, Rt. | 1,264 | |
| 158th Rd. Sta. 760+50, Lt. | 360 | |
| TOTAL | 9,824 | |

| RECAPITULATION OF QUANTITIES | | |
|---|----------|---------|
| ITEM | UNIT | TOTAL |
| 2" Asphaltic Concrete Overlay | Sq. Yds. | 213,562 |
| 1.5" Asphaltic Concrete Overlay | Sq. Yds. | 138,129 |
| 1.5" Asphaltic Concrete Leveling Course | Sq. Yds. | 93,370 |
| Asphaltic Concrete Patching | Sq. Yds. | 35,277 |
| 6" Asphaltic Concrete (Shoulder) | Sq. Yds. | 6,393 |
| Aggregate Base (AB-3)(6") | Sq. Yds. | 35,277 |
| Surfacing Material (AB-3) | Tons | 550 |
| Aggregate Shoulder (AB-3) | Tons | 4,262 |
| Milling | Sq. Yds. | 59,231 |
| Combined Curb and Gutter (Type IV) | Lin. Ft. | 1,113 |
| 8" Reinforced Concrete Driveway | Sq. Ft. | 9,824 |
| Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type A) | Sq. Yds. | 244 |
| Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type B) | Sq. Yds. | 459 |
| Conc. Pvmt. (10" Unif.)(AE) (Br. App.) (Type C) | Sq. Yds. | 188 |
| Drilling and Grouting | Each | 160 |
| Water (Aggregate Base)(Set Price) | Mgal | 1 |

SUMMARY OF QUANTITIES (Surfacing)

| DESIGNED TAR DESIGN CK. | DETAILED TAR DETAIL CK. | QUANTITIES TAR QUAN,CK. |
|-------------------------|-------------------------|-------------------------|
| | | |

**Removal of Existing Structure
(For Information Only)**

I Road-Sta. 45+28.1, ☉ - Remove 48'x30" CMP & End Sections
I Road-Sta. 45+55.0, Lt. - Remove South 10' of 24" CMP & End Section
I Road-Sta. 46+84.3, Lt. - Remove 28'x18" CMP & End Sections
I Road-Sta. 79+05.0, Rt. - Remove 28'x18" CMP & End Sections
K Road-Sta. 10+82.4, ☉ - Remove 47'x30" CMP & End Sections
K Road-Sta. 14+27.4, Lt. - Remove 27'x18" CMP & End Sections
K Road-Sta. 64+08, Rt. - Remove 120 ft.² of Concrete Flume
K Road-Sta. 74+79.4, Rt. - Remove 40'x24" CMP & End Sections
K Road-Sta. 76+92.0, Rt. - Remove 62'x24" CMP & End Sections
K Road-Sta. 81+97.6, Rt. - Remove 40'x24" CMP & End Sections
K Road-Sta. 82+72.0, Rt. - Remove 40'x24" CMP & End Sections
K Road-Sta. 85+60.3, Rt. - Remove 42'x24" CMP & End Sections
K Road-Sta. 88+45.2, Rt. - Remove 55'x18" CMP & End Sections
N Road-Sta. 129+27.0, Rt. - Remove 29'x18" CMP & End Sections
N Road-Sta. 141+57.0, Lt. - Remove 26'x18" CMP & End Sections
N Road-Sta. 168+87.2, Lt. - Remove 40'x18" CMP & End Sections
N Road-Sta. 194+98.7, Lt. - Remove 28'x18" CMP & End Sections
O Road-Sta. 199+06.2, Rt. - Remove 28'x12" CMP & End Sections
P Road-Sta. 23+60.4, Rt. - Remove 24'x18" CMP & End Sections
P Road-Sta. 51+06.3, Lt. - Remove 24'x18" CMP & End Sections
142nd Road-Sta. 250+24.6, ☉ - Remove 46'x24" CMP & End Sections
150th Road-Sta. 18+82.0, Rt. - Remove 26'x12" CMP & End Sections
150th Road-Sta. 38+23.7, Rt. - Remove 26'x18" CMP & End Sections
150th Road-Sta. 142+25.5, Rt. - Remove 28'x18" CMP & End Sections
150th Road-Sta. 160+75.8, Lt. - Remove 35'x12" CMP & End Sections
150th Road-Sta. 160+92.8, Rt. - Remove 28'x12" CMP & End Sections
150th Road-Sta. 217+92.0, Rt. - Remove 40'x18" CMP & End Sections
150th Road-Sta. 244+40.5, Rt. - Remove 43'x24" CMP & End Sections
150th Road-Sta. 276+00.8, ☉ - Remove 48'x24" CMP & End Sections
158th Road-Sta. 620+01.4, Lt. - Remove 35'x18" CMP & End Sections
158th Road-Sta. 622+72.8, Lt. - Remove 22'x18" CMP & End Sections
158th Road-Sta. 623+17.0, Rt. - Remove 32'x24" CMP & End Sections
158th Road-Sta. 649+16.7, ☉ - Remove 73'x24" CMP & End Sections

Any structure or item not specifically listed that interferes with new construction shall be removed. This work is subsidiary to the bid item Removal of Existing Structures.

| MONUMENT BOX | | |
|----------------------------|-----------------|---------|
| LOCATION | QUANTITY (EACH) | REMARKS |
| I Road-Sta. 71+40.91, Rt. | 1 | New Box |
| I Road-Sta. 97+84.31, Lt. | 1 | New Box |
| K Road-Sta. 37+17.14 | 1 | New Box |
| K Road-Sta. 63+70.03, Lt. | 1 | New Box |
| K Road-Sta. 90+22.87, Lt. | 1 | New Box |
| K Road-Sta. 116+63.18, Lt. | 1 | New Box |
| N Road-Sta. 36+49.31 | 1 | New Box |
| N Road-Sta. 128+95.81, Lt. | 1 | New Box |
| N Road-Sta. 142+17.70, Lt. | 1 | New Box |
| N Road-Sta. 168+59.57, Rt. | 1 | New Box |
| O Road-Sta. 76+49.49 | 1 | New Box |
| N Road-Sta. 195+01.24, Lt. | 1 | New Box |
| P Road- Sta. 36+37.85, Rt. | 1 | New Box |
| Q Road- Sta. 88+80.36, Lt. | 1 | New Box |
| 142nd- Sta. 250+06.84, Lt. | 1 | New Box |
| 142nd- Sta. 273+66.98, Rt. | 1 | New Box |
| 142nd- Sta. 300+04.19, Rt. | 1 | New Box |
| 150th- Sta. 36+47.56, Rt. | 1 | New Box |
| 150th- Sta. 142+42.75, Rt. | 1 | New Box |
| 150th- Sta. 168+83.83, Lt. | 1 | New Box |
| 150th- Sta. 192+35.45, Lt. | 1 | New Box |
| 150th- Sta. 218+76.28, Rt. | 1 | New Box |
| 150th- Sta. 245+04.82, Rt. | 1 | New Box |
| 150th- Sta. 271+33.31, Rt. | 1 | New Box |
| 150th- Sta. 284+60, Lt. | 1 | New Box |
| 158th- Sta. 559+84.86 | 1 | New Box |
| 158th- Sta. 586+28.88 | 1 | New Box |
| 158th- Sta. 639+64 | 1 | New Box |
| 158th- Sta. 665+98 | 1 | New Box |
| 158th- Sta. 692+29 | 1 | New Box |
| 158th- Sta. 715+85 | 1 | New Box |
| 158th- Sta. 742+12.66 | 1 | New Box |
| 158th- Sta. 768+56.07 | 1 | New Box |
| 158th- Sta. 794+96.16 | 1 | New Box |
| 158th- Sta. 821+41.35 | 1 | New Box |
| 158th- Sta. 847+77.76 | 1 | New Box |
| 158th- Sta. 871+33.92 | 1 | New Box |
| TOTAL | 37 | |

| CLEANING EXISTING STRUCTURES (For Information Only) | | | |
|--|------|----------|-----------|
| LOCATION | SIZE | TYPE | QUANTITY |
| I Road-Sta. 69+39.6, Lt. | 18" | EP(CSP) | 1 |
| K Road-Sta. 10+38.2, ☉ | 30" | CRP(CSP) | 1 |
| K Road-Sta. 64+12.5, ☉ | 24" | CRP(CSP) | 1 |
| N Road-Sta. 116+20.4, ☉ | 24" | CRP(CSP) | 1 |
| N Road-Sta. 152+66.5, Lt. | 12" | EP(CSP) | 1 |
| N Road-Sta. 168+50.0, Rt. | 18" | CRP(CSP) | 1 |
| N Road-Sta. 208+06.1, Rt. | 12" | EP(CSP) | 1 |
| P Road-Sta. 23+60.4, Rt. | 18" | EP(CSP) | 1 |
| P Road-Sta. 27+13.7, Rt. | 18" | EP(CSP) | 1 |
| P Road-Sta. 28+79.3, Rt. | 18" | EP(CSP) | 1 |
| Q Road-Sta. 69+71.4, Lt. | 18" | EP(CSP) | 1 |
| 150th- Sta. 47+11.3, Rt. | 18" | EP(CSP) | 1 |
| 150th- Sta. 149+61.5, Lt. | 18" | EP(CSP) | 1 |
| 150th- Sta. 168+74.8, Lt. | 24" | CRP(CSP) | 1 |
| 150th- Sta. 168+76.9, Rt. | 24" | CRP(CSP) | 1 |
| 150th- Sta. 192+03.2, Rt. | 12" | EP(CSP) | 1 |
| 150th- Sta. 192+30.2, Lt. | 12" | EP(CSP) | 1 |
| 150th- Sta. 218+77.1, Rt. | 18" | CRP(CSP) | 1 |
| 150th- Sta. 271+17.3, ☉ | 24" | CRP(CSP) | 1 |
| 150th- Sta. 271+65.9, ☉ | 24" | CRP(CSP) | 1 |
| 158th Road-Sta. 544+08.5, Lt. | 18" | EP(CSP) | 1 |
| 158th Road-Sta. 548+09.7, Rt. | 24" | EP(CSP) | 1 |
| 158th Road-Sta. 586+37.1, Lt. | 30" | CRP(CSP) | 1 |
| 158th Road-Sta. 586+39.7, Rt. | 24" | CRP(CSP) | 1 |
| 158th Road-Sta. 742.12.9, Rt. | 18" | CRP(CSP) | 1 |
| 158th Road-Sta. 766+67.6, Rt. | 18" | EP(CSP) | 1 |
| 158th Road-Sta. 782+26.8, Rt. | 24" | EP(CSP) | 1 |
| 158th Road-Sta. 824+95.5, Rt. | 18" | EP(CSP) | 1 |
| 158th Road-Sta. 834+22.1, Lt. | 18" | EP(CSP) | 1 |
| 158th Road-Sta. 834+87.0, Rt. | 18" | EP(CSP) | 1 |
| TOTAL | | | 30 |

| EARTHWORK | | | | | | | |
|--------------------|----------------|------|-----------|-----|----------------------|------------------------|-----------------------|
| STATION to STATION | EXCAVATION | | | | COMPACTION | | |
| | COMMON | | ROCK | | CONTR. FURN. CU.YDS. | TYPE AA MR-3-3 CU.YDS. | TYPE A MR-5-5 CU.YDS. |
| | CU.YDS. | VMF | CU.YDS. | VMF | | | |
| I Rd.: | | | | | | | |
| 158th to 166th | 36 | 0.75 | | | | 0 | |
| K Rd.: | | | | | | | |
| 142nd to 150th | 22 | 0.75 | | | | 0 | |
| 150th to 158th | 22 | 0.75 | 18 | | | 3 | |
| N Rd.: | | | | | | | |
| 142nd to 150th | 0 | 0.75 | | | | 0 | |
| 158th to 166th | 45 | 0.75 | | | | 5 | |
| 166th to 174th | 12 | 0.75 | | | | 4 | |
| O Rd.: | | | | | | | |
| 142nd to 150th | 5 | 0.75 | | | | 0 | |
| P Rd.: | | | | | | | |
| 150th to 158th | 17 | 0.75 | | | | 0 | |
| Q Rd.: | | | | | | | |
| 158th to 162nd | 24 | 0.75 | | | | 0 | |
| 142nd Rd.: | | | | | | | |
| N to O | 8 | 0.75 | | | | 0 | |
| 150th Rd.: | | | | | | | |
| K to L | 22 | 0.75 | | | | 0 | |
| M to N | 34 | 0.75 | | | | 4 | |
| N to O | 44 | 0.75 | | | | 0 | |
| O to P | 40 | 0.75 | | | | 0 | |
| P to Q | 1,231 | 0.75 | | | | 3 | |
| Q to End | 873 | 0.75 | | | | 0 | |
| 158th Rd.: | | | | | | | |
| K to L | 46 | 0.75 | | | | 0 | |
| L to M | 65 | 0.75 | | | | 0 | |
| M to N | 0 | 0.75 | | | | 0 | |
| N to O | 11 | 0.75 | | | | 0 | |
| O to P | 20 | 0.75 | | | | 0 | |
| P to Q | 21 | 0.75 | | | | 0 | |
| Q to End | 0 | 0.75 | | | | 0 | |
| 166th Rd.: | | | | | | | |
| H to I | 0 | 0.75 | | | | 0 | |
| TOTALS | † 2,598 | | 18 | | | 19 | |

†Includes 2,573 yd³ to be wasted.

SUMMARY OF QUANTITIES

| | | | |
|------------|------------|------------|--|
| DESIGNED | DETAILED | QUANTITIES | |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | |

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 91 | 109 |

| DRAINAGE STRUCTURES | | | | | | | | | | | | | | |
|-------------------------------|------|-----------------|-----------------------------------|-----------------------------------|-----------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|
| LOCATION | SIZE | TYPE | ENTRANCE PIPE (15")(ACSP) LIN. FT | ENTRANCE PIPE (18")(ACSP) LIN. FT | ENTRANCE PIPE (24")(ACSP) LIN. FT | CROSS ROAD PIPE (18")(RCP) LIN. FT | CROSS ROAD PIPE (24")(RCP) LIN. FT | CROSS ROAD PIPE (30")(RCP) LIN. FT | END SECTION (15")(ACS) EACH | END SECTION (18")(ACS) EACH | END SECTION (24")(ACS) EACH | END SECTION (18")(RC) EACH | END SECTION (24")(RC) EACH | END SECTION (30")(RC) EACH |
| I Road-Sta. 45+28.1, € | 30" | Cross Road Pipe | | | 10 | | | 48 | | | | | | 2 |
| I Road-Sta. 45+55.0, Lt. | 24" | Entrance Pipe | | | | | | | | 1 | | | | |
| I Road-Sta. 46+84.3, Lt. | 18" | Entrance Pipe | | 28 | | | | | | 2 | | | | |
| I Road-Sta. 79+05.0, Rt. | 18" | Entrance Pipe | | 28 | | | | | | 2 | | | | |
| K Road-Sta. 10+82.4, € | 30" | Cross Road Pipe | | | | | | 47 | | | | | | 2 |
| K Road-Sta. 14+27.4, Lt. | 18" | Entrance Pipe | | 27 | | | | | | 2 | | | | |
| K Road-Sta. 58+15.3, Rt. | 30" | Cross Road Pipe | | | | | | 48 | | | | | | |
| K Road-Sta. 71+37.2, Lt. | 24" | Cross Road Pipe | | | | | 50 | | | | | | 2 | |
| K Road-Sta. 74+79.4, Rt. | 24" | Cross Road Pipe | | | | | 48 | | | | | | 2 | |
| K Road-Sta. 76+92.0, Rt. | 24" | Cross Road Pipe | | | | | 62 | | | | | | 2 | |
| K Road-Sta. 81+97.6, Rt. | 24" | Cross Road Pipe | | | | | 40 | | | | | | 2 | |
| K Road-Sta. 82+72.0, Rt. | 24" | Cross Road Pipe | | | | | 40 | | | | | | 2 | |
| K Road-Sta. 85+60.3, Rt. | 24" | Cross Road Pipe | | | | | 42 | | | | | | 2 | |
| K Road-Sta. 88+45.2, Rt. | 18" | Cross Road Pipe | | | | 55 | | | | | | 2 | | |
| N Road-Sta. 129+27.0, Rt. | 18" | Entrance Pipe | | 37 | | | | | | 2 | | | | |
| N Road-Sta. 141+57.0, Lt. | 18" | Entrance Pipe | | 34 | | | | | | 2 | | | | |
| N Road-Sta. 168+87.2, Lt. | 18" | Entrance Pipe | | 40 | | | | | | 2 | | | | |
| N Road-Sta. 194+98.7, Lt. | 18" | Cross Road Pipe | | | | 36 | | | | | | 2 | | |
| O Road-Sta. 199+06.2, Rt. | 15" | Entrance Pipe | 28 | | | | | | 2 | | | | | |
| P Road-Sta. 23+60.4, Rt. | 18" | Entrance Pipe | | 24 | | | | | | 2 | | | | |
| P Road-Sta. 51+06.3, Lt. | 18" | Entrance Pipe | | 24 | | | | | | 2 | | | | |
| 142nd Road-Sta. 250+24.6, € | 24" | Cross Road Pipe | | | | | 46 | | | | | | 2 | |
| 150th Road-Sta. 18+82.0, Rt. | 15" | Entrance Pipe | 28 | | | | | | 2 | | | | | |
| 150th Road-Sta. 38+23.7, Rt. | 18" | Entrance Pipe | | 28 | | | | | | 2 | | | | |
| 150th Road-Sta. 142+25.5, Rt. | 18" | Entrance Pipe | | 28 | | | | | | 2 | | | | |
| 150th Road-Sta. 160+75.8, Lt. | 15" | Entrance Pipe | 43 | | | | | | | 2 | | | | |
| 150th Road-Sta. 160+92.8, Rt. | 15" | Entrance Pipe | 36 | | | | | | | 2 | | | | |
| 150th Road-Sta. 217+92.0, Rt. | 18" | Entrance Pipe | | 40 | | | | | | 2 | | | | |
| 150th Road-Sta. 244+40.5, Rt. | 24" | Entrance Pipe | | | 43 | | | | | | 2 | | | |
| 150th Road-Sta. 276+00.8, € | 24" | Cross Road Pipe | | | | | 48 | | | | | | 1 | |
| 158th Road-Sta. 620+01.4, Lt. | 18" | Entrance Pipe | | 35 | | | | | | 2 | | | | |
| 158th Road-Sta. 622+72.8, Lt. | 18" | Entrance Pipe | | 22 | | | | | | 2 | | | | |
| 158th Road-Sta. 623+17.0, Rt. | 24" | Entrance Pipe | | | 32 | | | | | | 2 | | | |
| 158th Road-Sta. 649+16.7, € | 24" | Cross Road Pipe | | | | | 73 | | | | | | 2 | 2 |
| Contingencies | | | 50 | 50 | 30 | 25 | 50 | 25 | 2 | 4 | 2 | 2 | 4 | |
| TOTALS | | | 185 | 445 | 115 | 116 | 499 | 168 | 10 | 30 | 7 | 6 | 21 | 8 |

| RECAPITULATION OF ROAD QUANTITIES | | |
|---|----------|----------|
| ITEM | QUANTITY | UNIT |
| Contractor Construction Staking | L.S. | Lump Sum |
| Field Office and Laboratory (Type A) | L.S. | Lump Sum |
| Mobilization | L.S. | Lump Sum |
| Cleaning Existing Structures | L.S. | Lump Sum |
| Clearing & Grubbing | L.S. | Lump Sum |
| Removal of Existing Structure | L.S. | Lump Sum |
| Rock Excavation | 18 | Cu. Yds. |
| Common Excavation | 2,598 | Cu. Yds. |
| Compaction of Earthwork (Type A) (MR-3-3) | 19 | Cu. Yds. |
| Water (Grading) (Set Price) | 1 | MGal |
| Cross Road Pipe (18")(RCP) | 116 | Lin. Ft. |
| Cross Road Pipe (24")(RCP) | 499 | Lin. Ft. |
| Cross Road Pipe (30")(RCP) | 168 | Lin. Ft. |
| Entrance Pipe (15")(ACSP) | 185 | Lin. Ft. |
| Entrance Pipe (18")(ACSP) | 445 | Lin. Ft. |
| Entrance Pipe (24")(ACSP) | 115 | Lin. Ft. |
| End Section (18")(RC) | 6 | Each |
| End Section (24")(RC) | 21 | Each |
| End Section (30")(RC) | 8 | Each |
| End Section (15")(ACS) | 10 | Each |
| End Section (18")(ACS) | 30 | Each |
| End Section (24")(ACS) | 7 | Each |
| Flume Inlet(Concrete) | 2 | Each |
| Aggregate Ditch Lining(4") | 87 | Tons |
| Aggregate Ditch Lining(6") | 80 | Tons |
| Type II-P Inlet Repair | 1 | Each |
| Monument Box | 37 | Each |
| Permanent Signs (Varies) | 7 | Each |

For Surfacing Quantities See Sheet No. 89
For Temporary Erosion and Pollution Control Quantities See Sheet No. 96
For Seeding Quantities See Sheet No. 101
For Pavement Marking Quantities See Sheet No. 93
For Traffic Control Quantities See Sheet No. 109

NOTE: Contingencies to be used as needed for damaged existing pipe & extensions. Use shall be at the discretion of the project engineer.

| FLUME INLET(CONCRETE) | | |
|--------------------------|-----------------|---------|
| LOCATION | QUANTITY (EACH) | REMARKS |
| K Road, Sta. 760+31, Lt. | 1 | |
| K Road, Sta. 760+67, Lt. | 1 | |
| TOTAL | 2 | |

| AGGREGATE DITCH LINING(4") | | |
|----------------------------|-----------------|---------|
| LOCATION | QUANTITY (tons) | REMARKS |
| K Road, Sta. 57+95, Rt. | 13 | |
| K Road, Sta. 58+40, Rt. | 24 | |
| K Road, Sta. 81+80, Rt. | 13 | |
| K Road, Sta. 82+15, Rt. | 11 | |
| K Road, Sta. 82+55, Rt. | 13 | |
| K Road, Sta. 82+90, Rt. | 13 | |
| TOTAL | 87 | |

| AGGREGATE DITCH LINING(6") | | |
|------------------------------|-----------------|---------|
| LOCATION | QUANTITY (tons) | REMARKS |
| K Road., Sta. 64+12, Rt. | 30 | |
| 158th Road, Sta. 639+20, Rt. | 50 | |
| TOTAL | 80 | |

| TYPE II-P INLET REPAIR | | |
|------------------------------|-----------------|---------|
| LOCATION | QUANTITY (Each) | REMARKS |
| Meadow Lane, Sta. 21+44, Lt. | 1 | |
| TOTAL | 1 | |

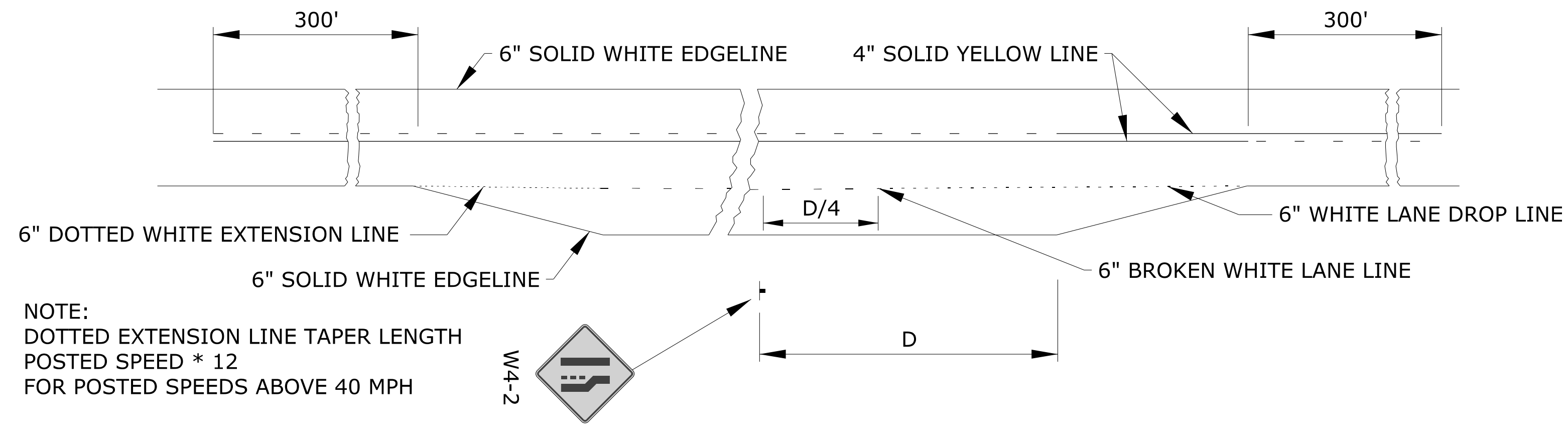
| PERMANENT SIGNS (VARIES) | | | |
|-----------------------------|--------------------------------------|-----------------|---|
| Sign Type | Location | Quantity (Each) | Remarks |
| Street Sign "Q ROAD" | Q Road - Sta. 89+22, 37' Rt. | 1 | Mount on Existing Sign Post |
| Street Sign "162 ROAD" | Q Road - Sta. 89+22, 37' Rt. | 1 | Mount on Existing Sign Post |
| Street Sign "M ROAD" | 150th & M Intersection (SW Quadrant) | 1 | Requires New Post |
| Street Sign "150th ROAD" | 150th & M Intersection (SW Quadrant) | 1 | Requires New Post |
| 45mph Speed Limit (R2-1-45) | 150th- Sta. 213+79, Lt. | 1 | Mount on Existing Sign Post |
| Bike Route (D11-2) | 158th- Sta. 637+88, Rt. | 1 | Mount on Existing Sign Post |
| 55mph Speed Limit (R2-1-55) | 158th- Sta. 641+69, Rt. | 1 | Remove Damaged Sign & Post, Install New |
| TOTAL | | 7 | |

| SUMMARY OF QUANTITIES | | |
|-----------------------|------------|------------|
| DESIGNED | DETAILED | QUANTITIES |
| DESIGN CK. | DETAIL CK. | QUAN. CK. |
| | | |

Drawn By : CAM Plotted : 6/19/2024 2:38:49 PM
File : Summary of Quantities.dgn

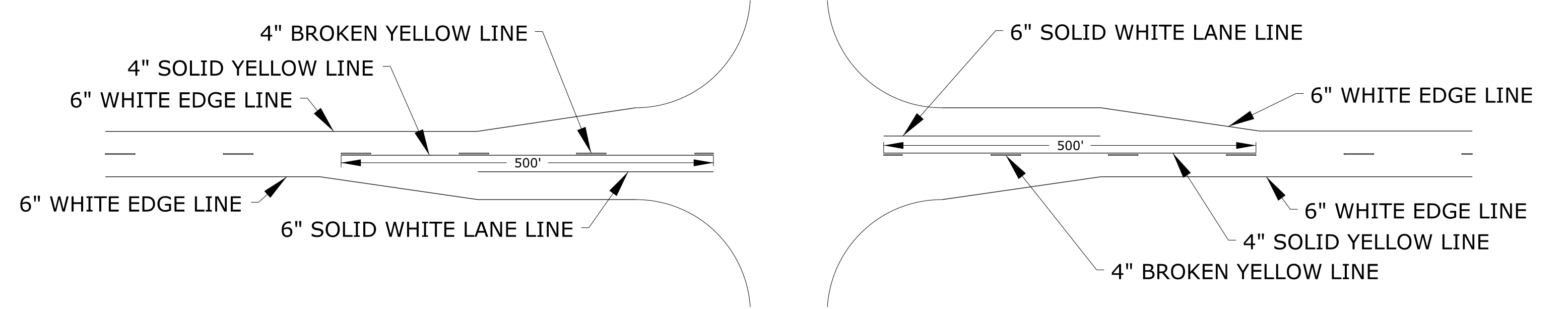
NOTE:
ALL PAVEMENT MARKINGS SHALL BE BROKEN AT CROSS ROADS.

FOR HIGHWAY JUNCTIONS THE NO PASSING ZONE WILL EXTEND 1000' FROM INTERSECTION.

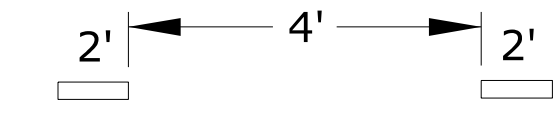


NOTE:
DOTTED EXTENSION LINE TAPER LENGTH
POSTED SPEED * 12
FOR POSTED SPEEDS ABOVE 40 MPH

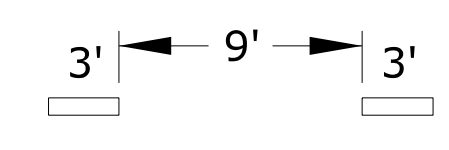
TYPICAL MARKING FOR AUXILIARY PASSING LANE



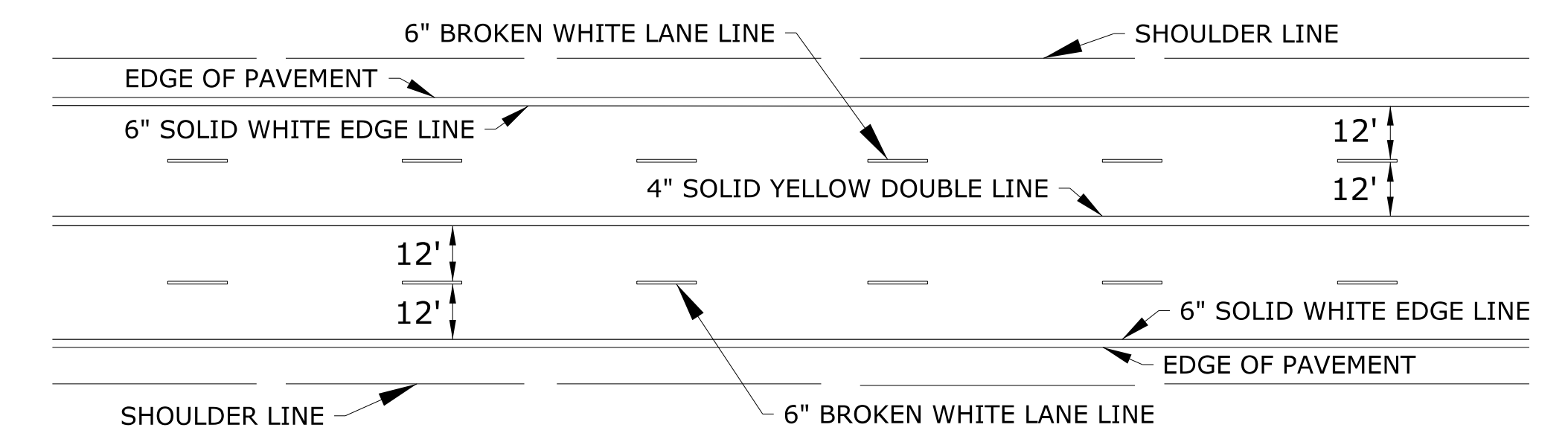
TYPICAL ROAD JUNCTION MARKINGS WITH BYPASS LANES



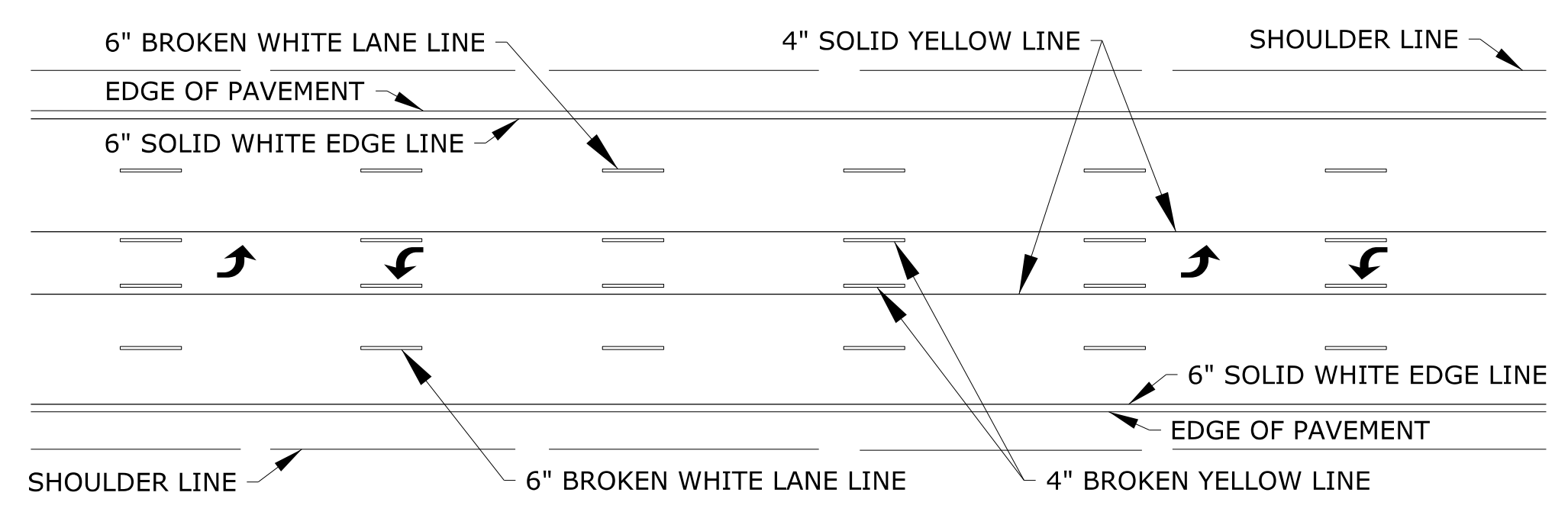
TYPICAL SPACING FOR DOTTED EXTENSION LINES, UNLESS OTHERWISE NOTED ON PLANS.



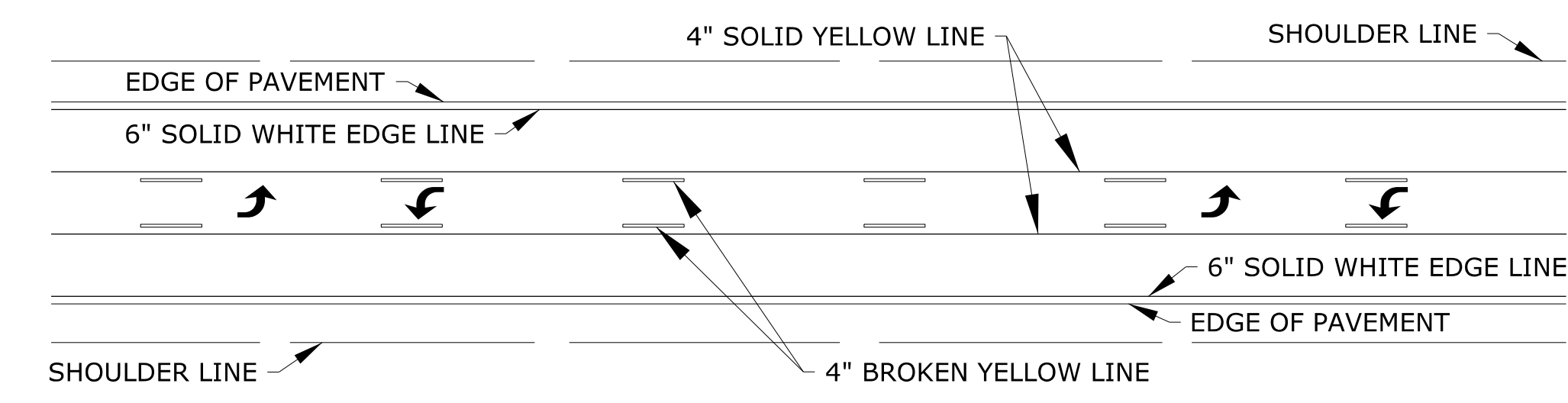
TYPICAL SPACING FOR LANE DROP, UNLESS OTHERWISE NOTED ON PLANS.



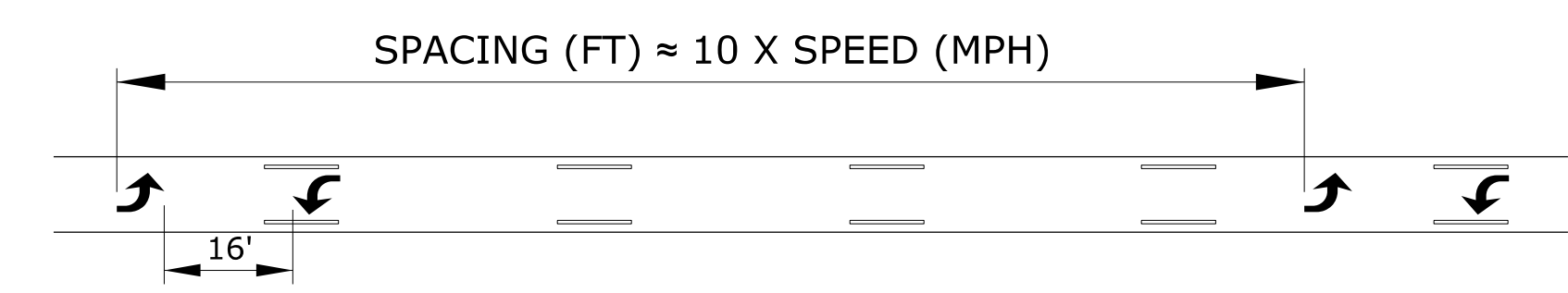
TYPICAL MARKINGS FOR FOUR LANE ROADWAY



TWO-WAY LEFT TURN DETAIL FOR FIVE LANE ROADWAY

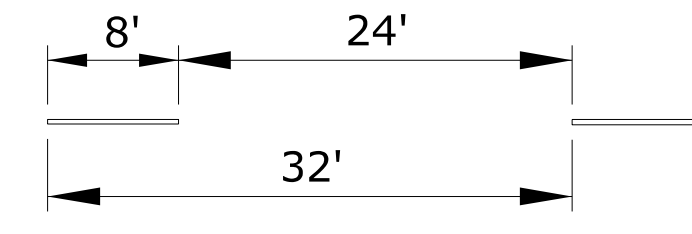


TWO-WAY LEFT TURN DETAIL FOR THREE LANE ROADWAY

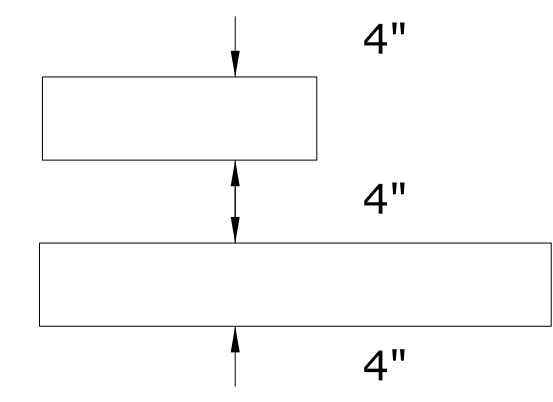


TWO-WAY LEFT TURN ARROW SPACING DETAIL

NOTE:
IF ARROWS ARE USED SPACE THE ARROWS AS SHOWN IN THE SPACING DETAIL.



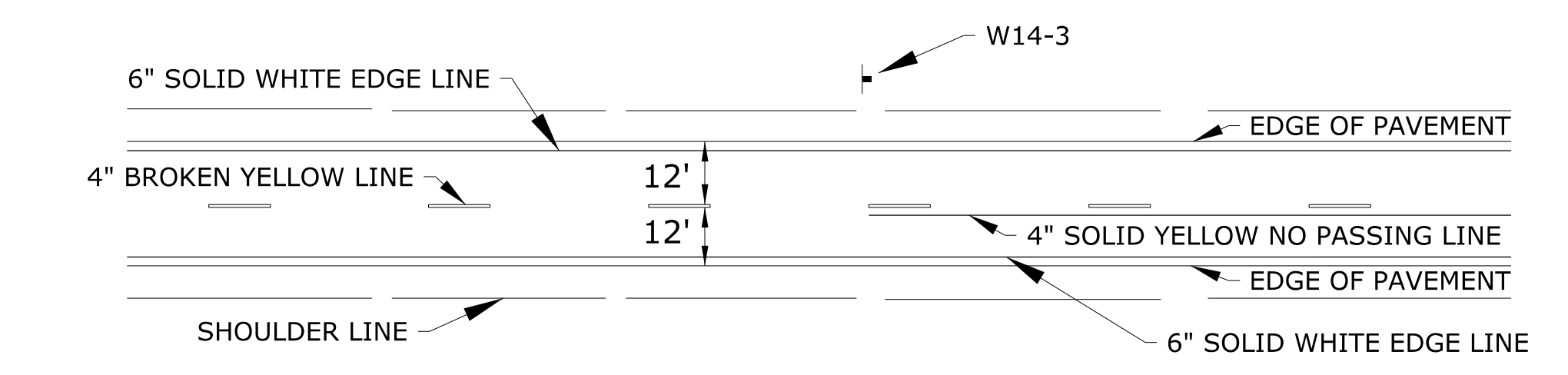
TYPICAL SPACING FOR BROKEN LINES UNLESS OTHERWISE NOTED ON PLANS



TYPICAL SPACING FOR NO PASSING LINES UNLESS OTHERWISE NOTED ON PLANS

NOTE:
LONGITUDINAL PAVEMENT MARKING LINES SHALL BE OFFSET A MINIMUM OF 2" FROM LONGITUDINAL PAVEMENT JOINTS.

NOTE:
ON NON I, US, AND K ROUTES, 4" EDGE LINES MAY BE INSTALLED. 6" EDGE LINES ARE NOT REQUIRED ON NON I, US, AND K ROUTES.



TYPICAL TWO LANE MARKINGS

Drawn By : CAM
 File : Pvmr Marking.dgn
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 \$\$KDOTGRP\$\$

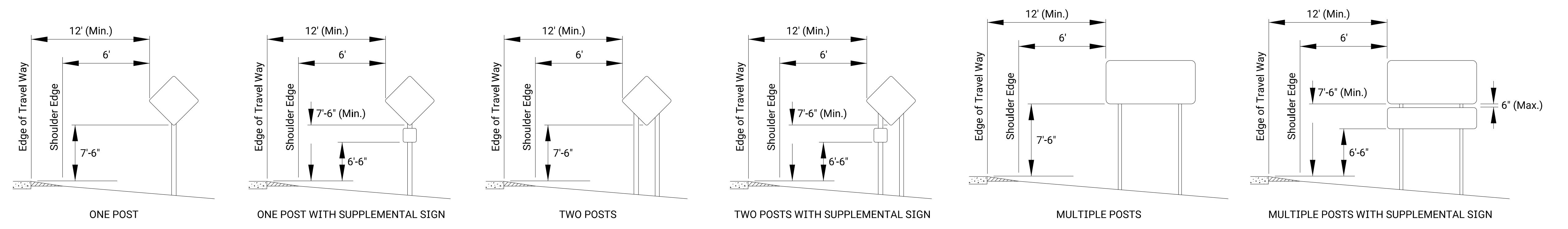
| NO. | DATE | REVISIONS | BY | APPD |
|-----|---------|--|--------|--------|
| 3 | 5/25/12 | Added Dotted Extension and Lane Drop Lines | B.A.H. | B.D.G. |
| 2 | 9/20/05 | Removed Aux. Passing Lane Dotted Ext. Line | J.F.F. | B.D.G. |
| 1 | 7/26/05 | New FHWA Approval Date | J.F.F. | B.D.G. |

KANSAS DEPARTMENT OF TRANSPORTATION
TYPICAL PAVEMENT MARKING DETAILS FOR UNDIVIDED ROADWAYS

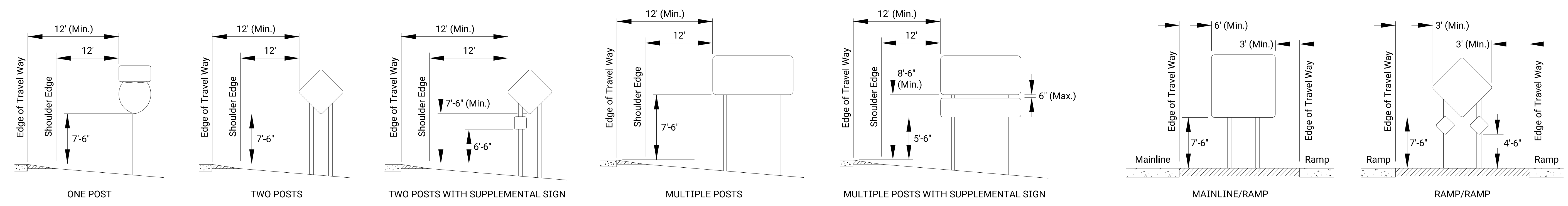
TE308

| | | | |
|---------------|-----------|------------|----------------|
| FHWA APPROVAL | 5/25/2012 | APPD | Brian D. Gower |
| DESIGNED | J.F.F. | DETAILED | J.F.F. |
| DESIGN CK. | B.D.G. | DETAIL CK. | B.D.G. |
| | | QUANTITIES | TRACED |
| | | QUAN. CK. | TRACE CK. |

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 94 | 109 |

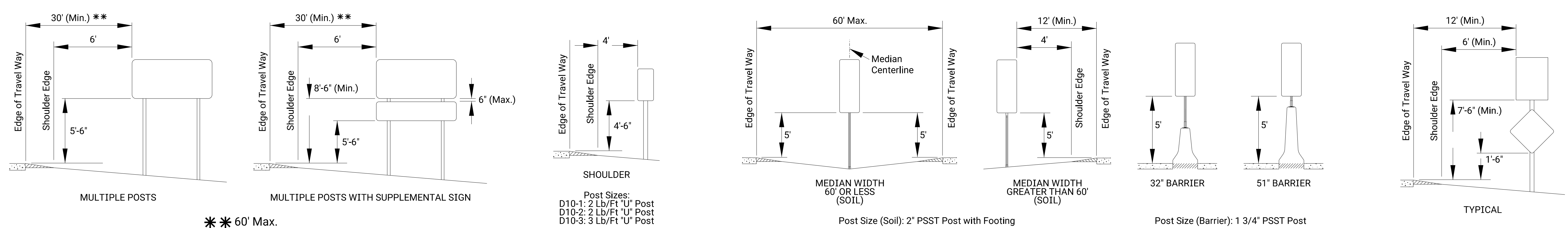


RAMP AND EXPRESSWAY INTERSECTIONS



MAINLINE - SHOULDER MOUNT

HIGHWAY GORES

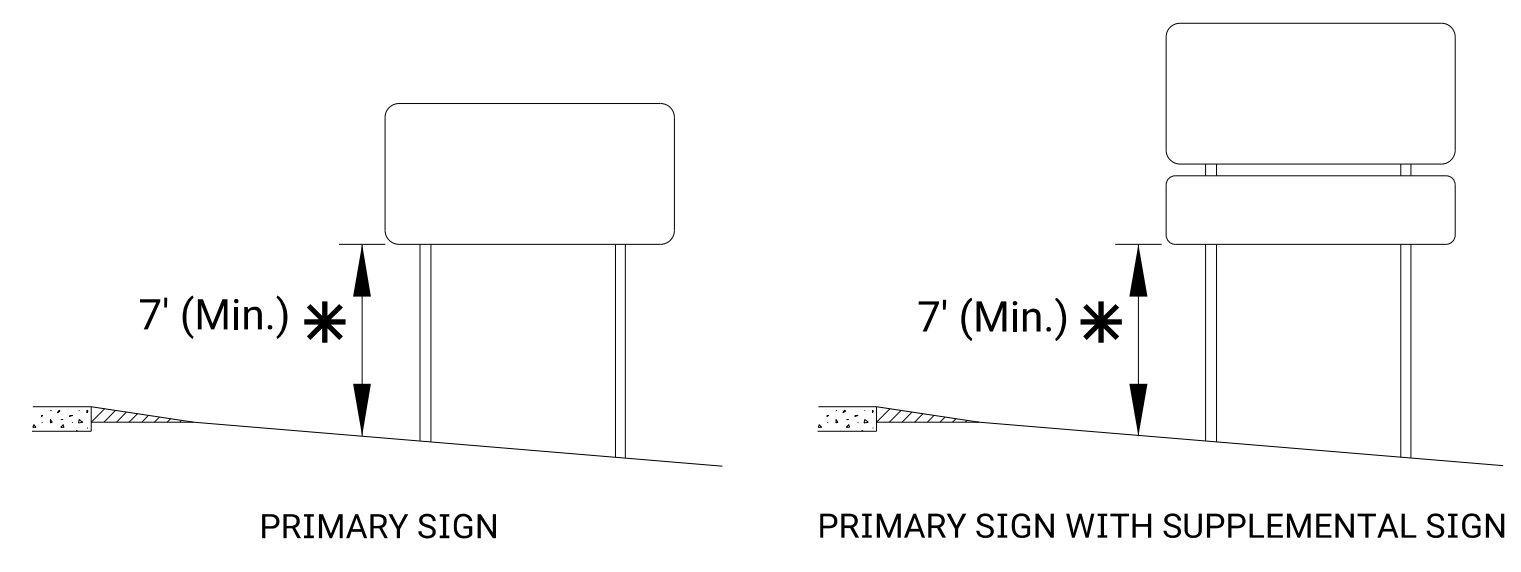


MAINLINE - OFFSET MOUNT

MILE POSTS

INTERMEDIATE REFERENCE MARKERS

ADOPT A HIGHWAY



***NOTE:** Measured from the nearest point between the sign and the groundline.

GROUND CLEARANCE FOR STEEL BEAM POSTS

The "Edge of Travel Way" is the edge line or the edge of driving lane.

The outer edge of the mainline sign shall be a minimum of 10' from the right of way line. The outer edge of the ramp sign shall not extend beyond the right of way line.

A minimum lateral clearance of 6' from pavement edge where lateral offsets are limited may be used.

When signs are behind guard rail, the near edge of the sign shall not extend beyond the back side of the guard rail and the nearest sign post shall be a minimum of 5' from the face of the guard rail. Shoulder mounted signs shall not be located between 100' in advance of and 50' beyond the nose of the guard rail.

The gore sign shall be installed in the paved gore area. The edges of the gore sign shall not extend beyond the shoulder edge. The minimum distance from the centerline of the posts to the back of the paved gore area is 2'.

Both the mounting height and ground clearance minimum dimensions are to be met for steel beam post installations.

NOTES

Signs may be moved laterally or longitudinally if it will improve visibility of the sign or other signs or if it will protect the sign more.

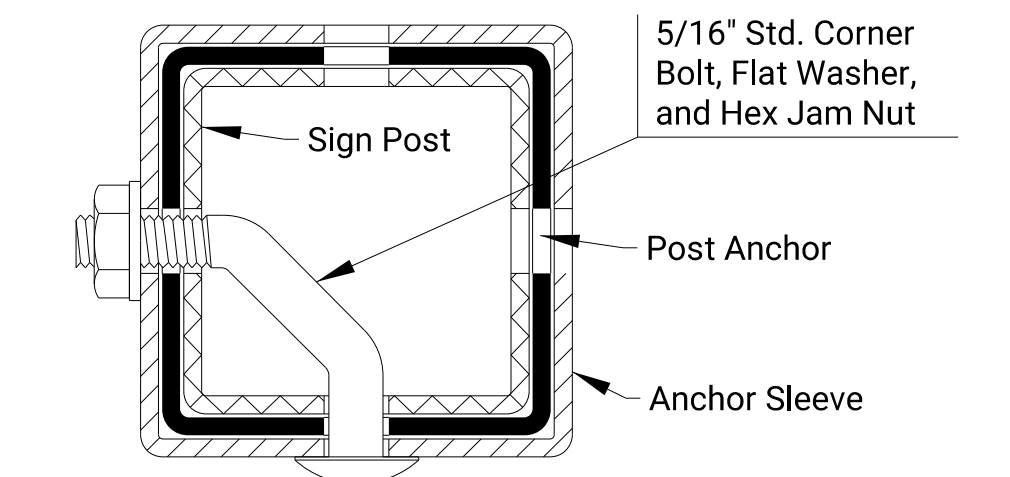
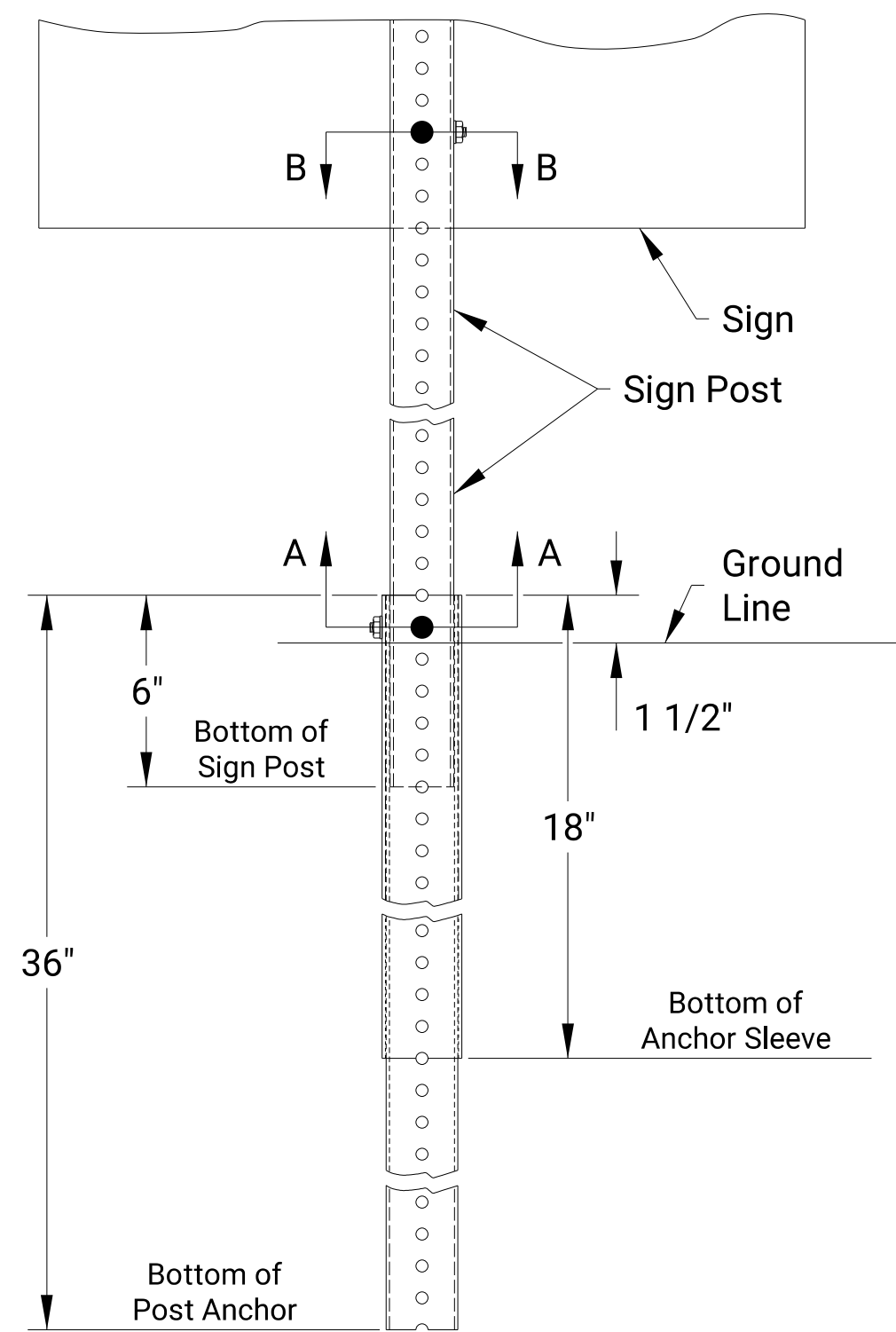
The maximum allowable longitudinal adjustments are:

- Advance guide: 1320'
- Supplemental guide: 1320'
- Motorist service: 1320'
- Exit direction: 100'
- Mileage: 2640'
- Merge: 50'
- Mainline signs within an interchange: 50'
- Milepost or intermediate reference marker: 50'
- Ramp: 50'

If any sign with a distance or mileage is longitudinally adjusted, the distance or mileage shall be checked and modified as needed.

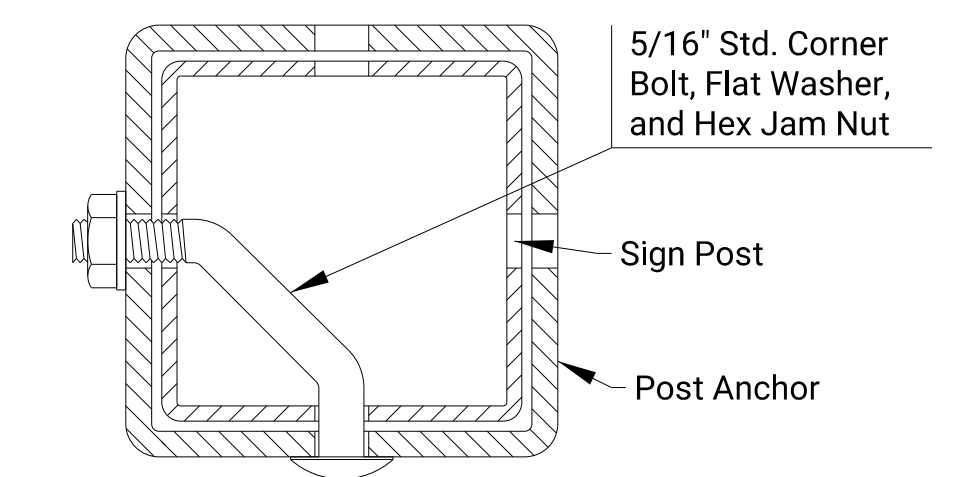
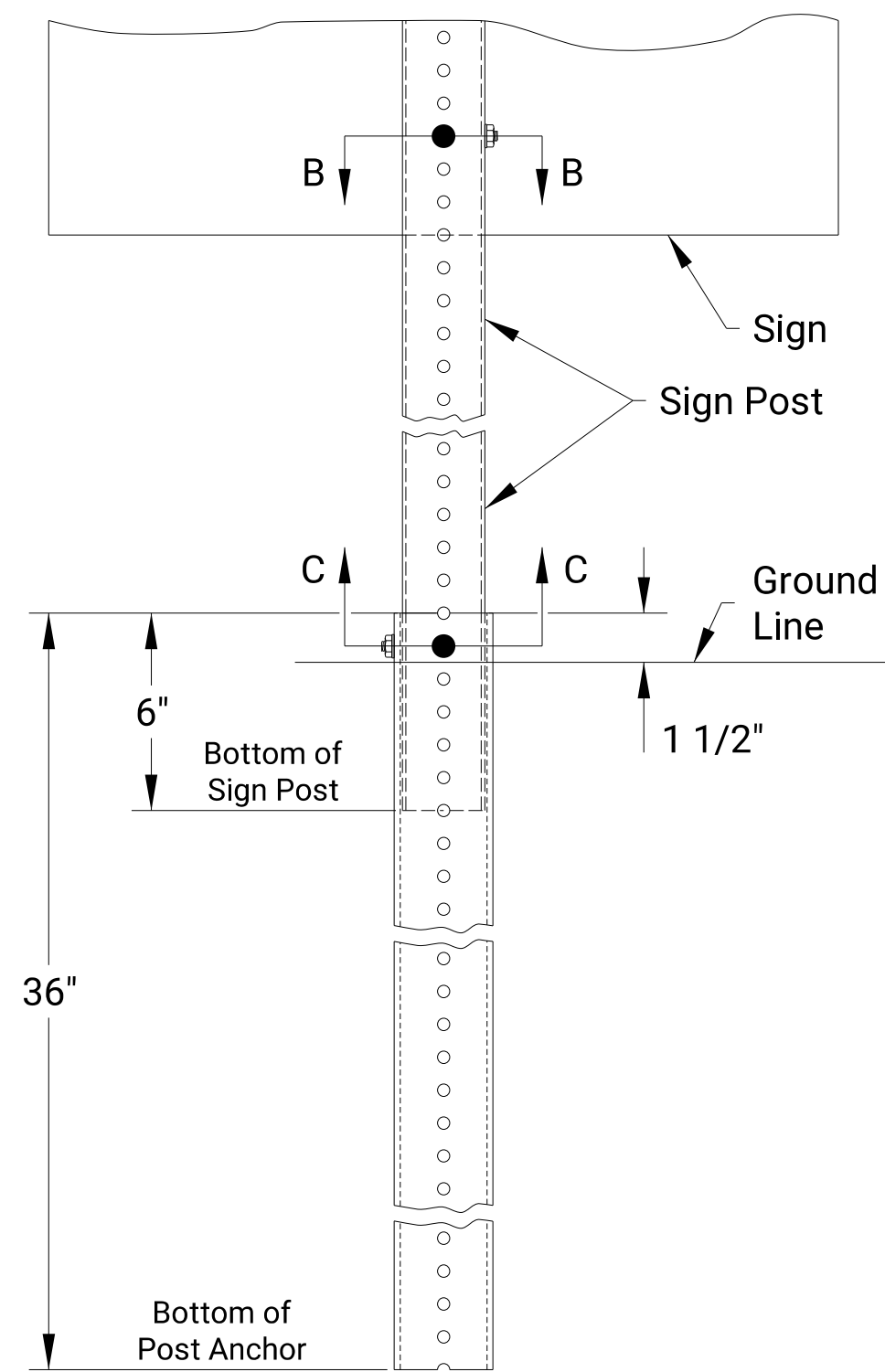
The minimum spacing between signs are:
 Mainline guide sign to mainline guide sign: 800'
 Mainline guide sign to regulatory, warning, route marker sign: 400'
 Ramp sign to ramp sign: 100'

| | | | | |
|---|--------|------------|----------------|-----------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| MOUNTING HEIGHT & LATERAL OFFSET FOR FREEWAYS AND EXPRESSWAYS | | | | |
| TE406 | | | | |
| 10/01/2019 | | | | |
| DESIGNED | D.D.G. | APPD | Eric W. Nichol | |
| DESIGNED | D.D.G. | QUANTITIES | | TRACED |
| DESIGN CK. | E.W.N. | QUAN. CK. | | TRACE CK. |



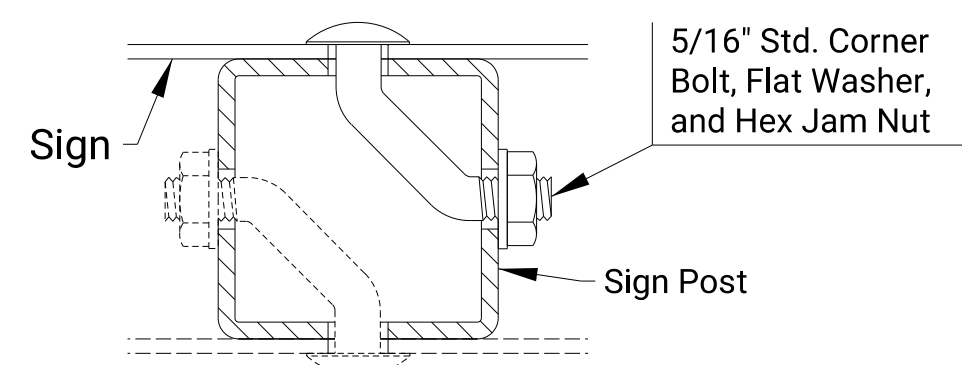
SECTION A-A

1 3/4", 2", OR 2 1/4" PSST SIGN POST



SECTION C-C

2 1/2" PSST SIGN POST



SECTION B-B

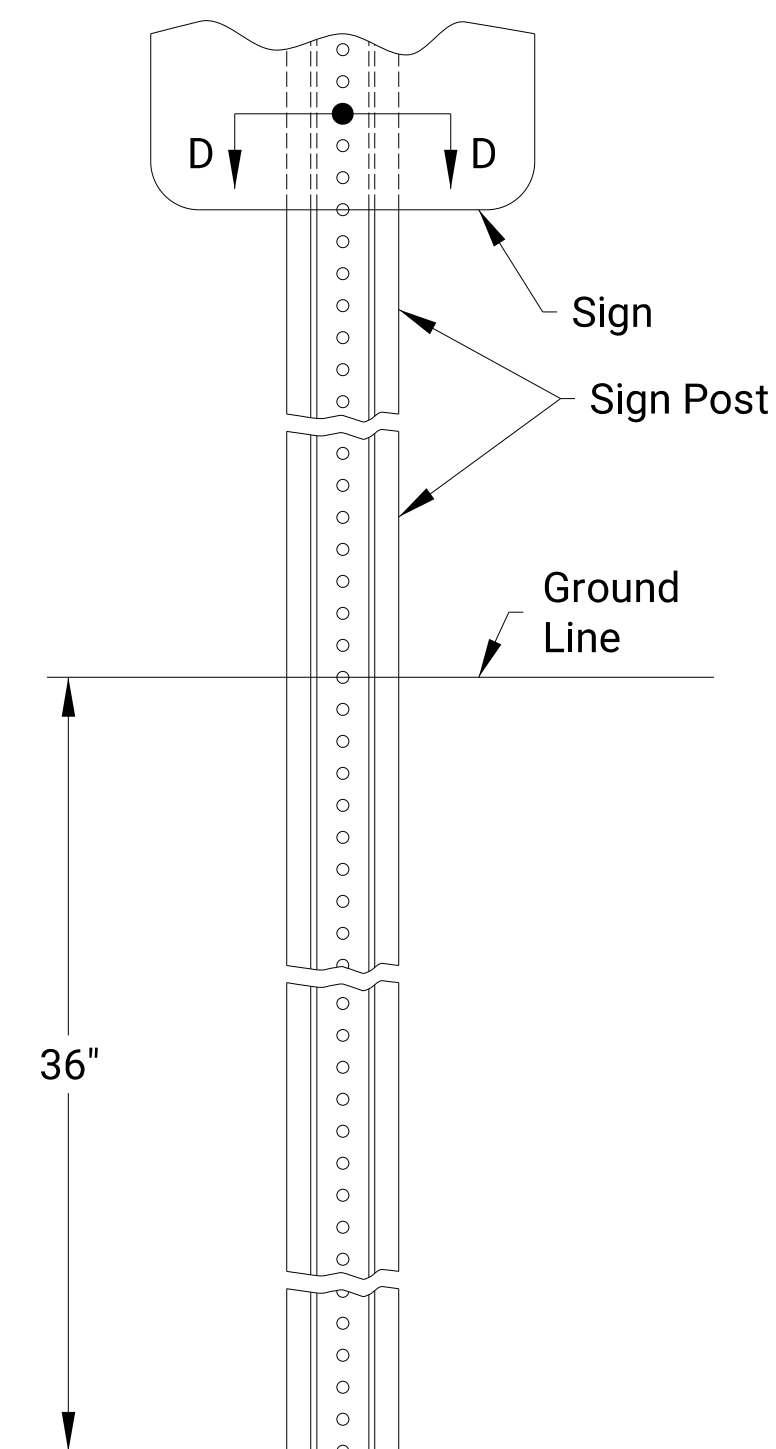
| MATERIALS TABLE FOR SIGN POST AND FOOTING | | |
|---|--------------------------|--------------------------|
| SIGN POST 12 GA. OR 14 GA. | FOOTING | |
| | POST ANCHOR | ANCHOR SLEEVE |
| 1 3/4" X 1 3/4" | 2" X 2" X 12 GA. | 2 1/4" X 2 1/4" X 12 GA. |
| 2" X 2" | 2 1/4" X 2 1/4" X 12 GA. | 2 1/2" X 2 1/2" X 12 GA. |
| 2 1/4" X 2 1/4" | 2 1/2" X 2 1/2" X 12 GA. | 3" X 3" X 7 GA. |
| 2 1/2" X 2 1/2" | 3" X 3" X 7 GA. | Not Required |

NOTE: 14 ga. posts must meet a certified minimum yield strength of 60,000 p.s.i.

INSTALLATION PROCEDURES

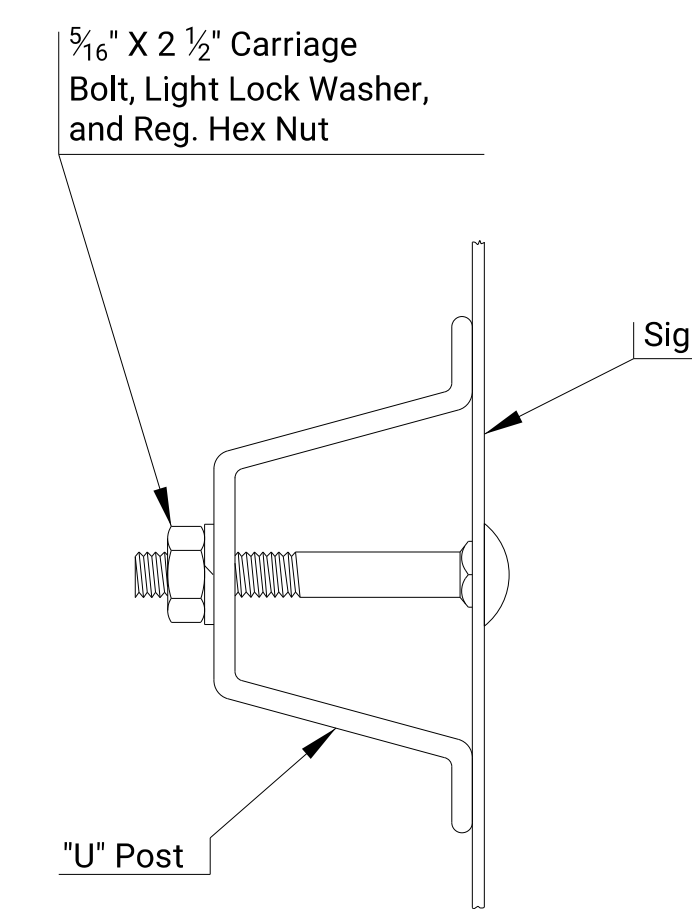
1. Plumb and drive post anchor into the ground 18", if anchor sleeve is required, or to the specified height above the ground line.
2. Install anchor sleeve (if required) on the post anchor and align the first holes above the ground line. Plumb and drive post anchor with anchor sleeve into the ground to the specified height above the ground line.
3. Install sign post into the post anchor.

PERFORATED SQUARE STEEL TUBE POST (PSST)

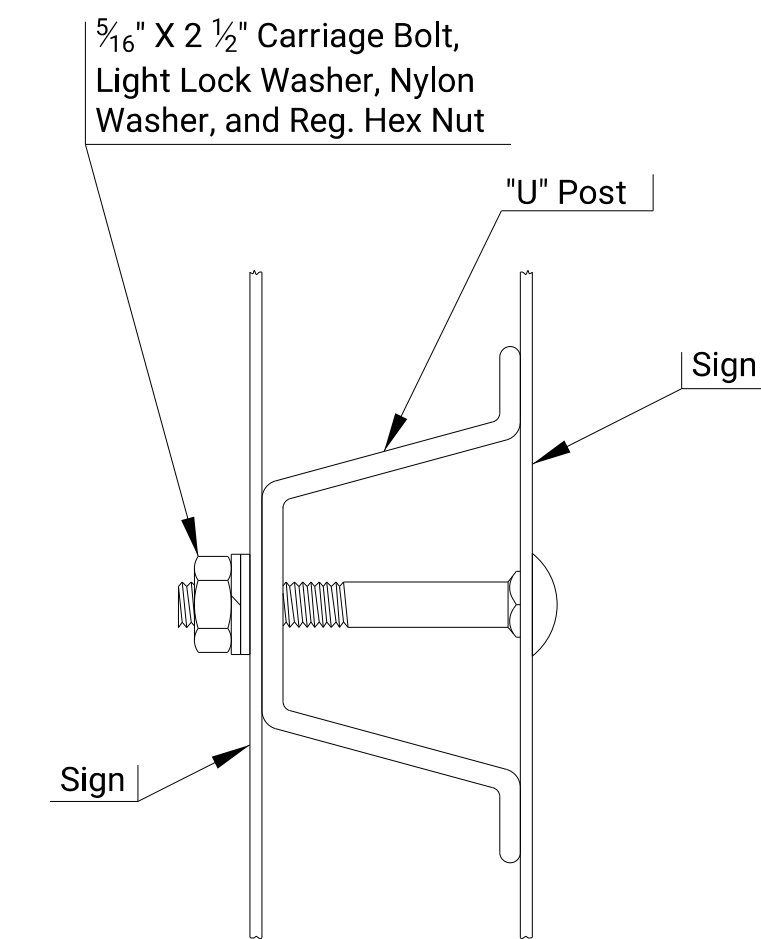


TYPICAL

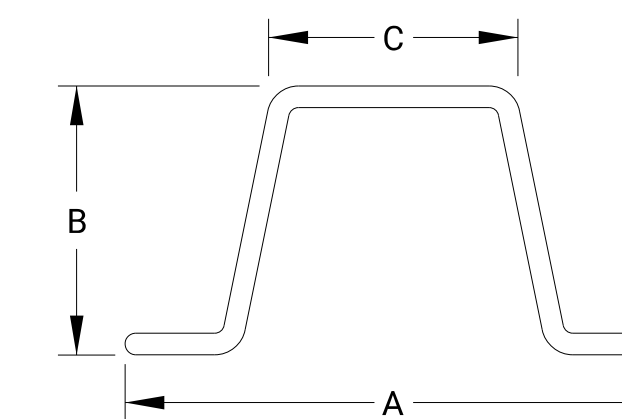
STEEL "U" POST



SECTION D-D
(TYPICAL)



SECTION D-D
(BACK TO BACK)



| DIM. | 2 LBS/FT | 3 LBS/FT |
|------|----------|----------|
| A | 3 1/8" | 3 1/2" |
| B | 1 17/32" | 1 3/4" |
| C | 1 1/4" | 1 5/8" |

(Dimensions are nominal)

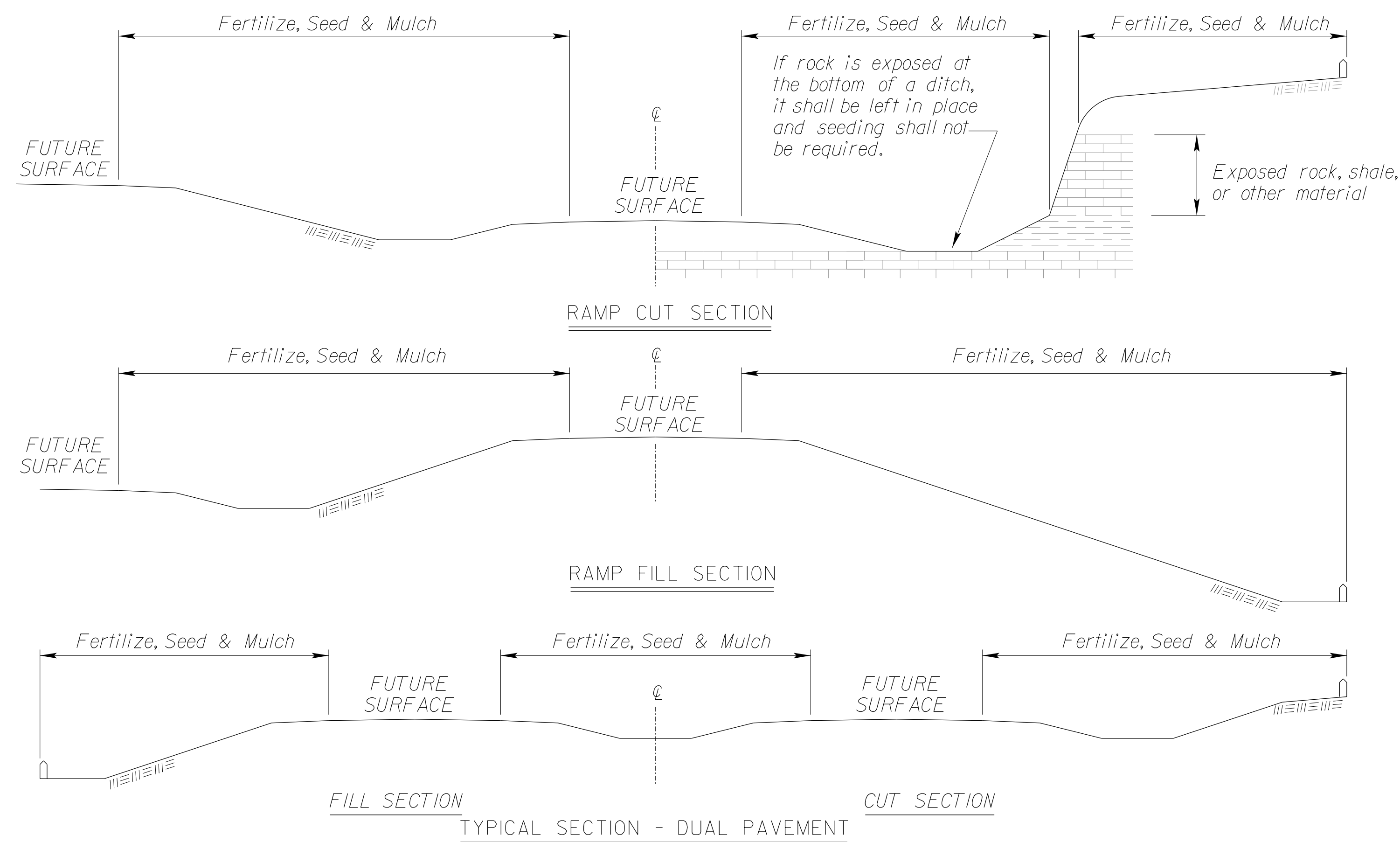
"U" POST

| NO. | DATE | REVISIONS | BY | APPD |
|-----|------|-----------|----|------|
| | | | | |

KANSAS DEPARTMENT OF TRANSPORTATION
DETAILS FOR PERFORATED
SQUARE STEEL TUBE POSTS (PSST)
AND STEEL "U" POSTS

TE466 10/01/19

| | | | |
|---------------|------------|------------|----------------|
| FHWA APPROVAL | 10/01/2019 | APPD | Eric W. Nichol |
| DESIGNED | D.D.G. | DETAILED | D.D.G. |
| DESIGN CK. | E.W.N. | DETAIL CK. | E.W.N. |
| | | QUANTITIES | TRACED |
| | | QUAN. CK. | TRACE CK. |



FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P₂O₅, K₂O listed in Summary of Quantities will be acceptable.

- * - N = Nitrogen Rate of Application
- ** - P₂O₅ = Phosphorous Rate of Application
- *** - K₂O = Potassium Rate of Application

The Contractor will be required to finish areas of excavation, borrow and embankment in accordance with the specifications. Areas that require installation or construction of temporary water pollution control items will be finished in reasonable close conformity to the alignment, grade and cross section shown on the plans or as established by the Engineer.

CLT = Construction Limit Tract. This area is defined by the entire disturbed area of the project that requires seeding and erosion control measures to be placed. Any impervious areas (i.e. pavement, gravel, riprap, etc.) shall not be included in this measurement.

Slope = Defined by the area of the project that requires Class 1 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

Channel = Defined by the area of the project that requires Class 2 erosion control material to be placed. This area shall be seeded using the Soil Erosion Mix prior to placement of the material. Drilling seed is preferred, however, broadcasting is acceptable if drilling is not possible.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded, and mulched. Soil preparation shall conform to the Standard Specifications.

Temporary seeding shall be done during any time of the year that the soil can be cultivated. After the temporary seeding has been completed on the entire project, permanent seeding shall be done during the normal seeding season.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching materials is generally as follows:

$1\frac{3}{4} - 2\frac{1}{4}$ Tons per Acre = $1\frac{1}{2}$ " loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

SUMMARY OF SEEDING / EROSION CONTROL QUANTITIES

| P.L.S. RATE / ACRE | | ACRES | | BID ITEM | QUANTITY | UNIT |
|--------------------|-------|-------|-------|-------------------------------------|----------|-------|
| CLT | SL/CH | CLT | SL/CH | | | |
| 150 | | 3.0 | 0.25 | Temporary Fertilizer (15 - 30 - 15) | 488 | LB |
| 20 | | 3.0 | | Temporary Seed (Canada Wildrye) | 60 | LB |
| 45 | | 3.0 | | Temporary Seed (Grain Oats) | 135 | LB |
| 45 | | 3.0 | | Temporary Seed (Sterile Wheatgrass) | 135 | LB |
| | 109.9 | | 0.25 | Soil Erosion Mix | 28 | LB |
| | | | | Erosion Control (Class 1, Type C) | 1,200 | SQ YD |
| | | | | Erosion Control (Class 2, Type Y) | | SQ YD |
| | | | | Sediment Removal (Set Price) | | CU YD |
| | | | | Synthetic Sediment Barrier | | LF |
| | | | | Temporary Berm (Set Price) | | LF |
| | | | | Temporary Ditch Check (Rock) | 100 | CU YD |
| | | | | Temporary Inlet Sediment Barrier | | EACH |
| | | | | Temporary Sediment Basin | | CU YD |
| | | | | Temporary Slope Drain | | LF |
| | | | | Temporary Stream Crossing | | EACH |
| | | | | Biodegradable Log (9') | | LF |
| | | | | Biodegradable Log (12') | | LF |
| | | | | Biodegradable Log (20') | 250 | LF |
| | | | | Filter Sock (18') | 500 | LF |
| | | | | Geotextile (Erosion Control) | | SQ YD |
| | | | | Silt Fence | 500 | LF |
| | | | | SWPPP Design † | | LS |
| | | | | SWPPP Inspection † | | EACH |
| | | | | Water Pollution Control Manager † | | EACH |
| 900 lbs / acre | | | | Mulch Tacking Slurry | | LB |
| 2 tons / acre | | | | Mulching | 9.0 | TON |
| | | | | Water (Erosion Control) (Set Price) | | MGAL |

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. See Permanent Seeding Summary of Seeding Quantities sheet LA850 for further details.

Geotextile (Erosion Control) shall be removed prior to placement of permanent slope protection.

Regreen and Quick Guard are the approved sterile wheatgrass products.

† If the total disturbed area of the project, not just the seeding area, is 1 acre or more, then these bid items must be included.

**** List size of material.

The amount of mulch and mulch tacking slurry in the bid quantities is estimated. (Acres of Seeding X 1.5 X 2 Tons/Acre). The estimated quantity includes mulching associated with both temporary and permanent seeding operations. The total mulch and mulch tacking slurry required shall be determined in the field. The bid item for mulching and mulch tacking slurry shall be paid for according to the Standard Specifications.

Quantities for all erosion control items are estimated to give full flexibility for compliance with the NPDES permit. Final quantities will be determined in the field.

SOIL EROSION MIX

| PLS RATE | NAME | QTY (lb) |
|----------|--------------------------------------|----------|
| 0.5 | Blue Grama Grass Seed (Lovington) | 0.13 |
| 4.5 | Buffalograss Seed (Treated) | 1.13 |
| 45 | Perennial Ryegrass Seed | 11.25 |
| 2.6 | Prairie Junegrass Seed | 0.65 |
| 6.3 | Side Oats Grama Grass Seed (El Reno) | 1.58 |
| 45 | Tall Fescue (Endophyte Free) | 11.25 |
| 6 | Western Wheatgrass Seed (Barton) | 1.5 |
| 109.9 | | 27.5 |

The Soil Erosion Mix is to be placed under the Class 1 and/or Class 2 erosion control material.

The Soil Erosion Mix consists of the Shoulder Area of the Permanent Seed Mix used on the project.

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|----------|------------------|-----|-------|
| 3 | 08/03/20 | Added Note | MRD | ML |
| 2 | 12/01/17 | Revised Standard | MRD | SHS |
| 1 | 06/01/17 | Revised Standard | MRD | SHS |

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

| | | | | |
|------------|-----|------------|----------------|------------------|
| LA852A | | | | |
| DESIGNED | MRD | 1/26/2018 | MRD QUANTITIES | Scott H. Shields |
| DESIGN CK. | SHS | DETAIL CK. | SHS | CADD CK. |

Std. Base File: Plot Location: \$UNIT\$
 Plotted By: CAM File: Erosion Stds.dgn
 Plot Date: 6/19/2024 2:38:53 PM

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 97 | 109 |

| Erosion Control (Class 1, Type C) | |
|--|---------------------|
| PIPE LOCATION | QUANTITY (Sq. Yds.) |
| I Road-Sta. 45+28.1, € | 30 |
| I Road-Sta. 45+55.0, Lt. | 30 |
| I Road-Sta. 46+84.3, Lt. | 30 |
| I Road-Sta. 79+05.0, Rt. | 30 |
| K Road-Sta. 10+82.4, € | 30 |
| K Road-Sta. 14+27.4, Lt. | 30 |
| K Road-Sta. 74+79.4, Rt. | 30 |
| K Road-Sta. 76+92.0, Rt. | 30 |
| K Road-Sta. 81+97.6, Rt. | 30 |
| K Road-Sta. 82+72.0, Rt. | 30 |
| K Road-Sta. 85+60.3, Rt. | 30 |
| K Road-Sta. 88+45.2, Rt. | 30 |
| N Road-Sta. 129+27.0, Rt. | 30 |
| N Road-Sta. 141+57.0, Lt. | 30 |
| N Road-Sta. 168+87.2, Lt. | 30 |
| N Road-Sta. 194+98.7, Lt. | 30 |
| O Road-Sta. 199+06.2, Rt. | 30 |
| P Road-Sta. 23+60.4, Rt. | 30 |
| P Road-Sta. 51+06.3, Lt. | 30 |
| 142nd Road-Sta. 250+24.6, € | 30 |
| 150th Road-Sta. 18+82.0, Rt. | 30 |
| 150th Road-Sta. 38+23.7, Rt. | 30 |
| 150th Road-Sta. 142+25.5, Rt. | 30 |
| 150th Road-Sta. 160+75.8, Lt. | 30 |
| 150th Road-Sta. 160+92.8, Rt. | 30 |
| 150th Road-Sta. 217+92.0, Rt. | 30 |
| 150th Road-Sta. 244+40.5, Rt. | 30 |
| 150th Road-Sta. 276+00.8, € | 30 |
| 158th Road-Sta. 620+01.4, Lt. | 30 |
| 158th Road-Sta. 622+72.8, Lt. | 30 |
| 158th Road-Sta. 623+17.0, Rt. | 30 |
| 158th Road-Sta. 649+16.7, € | 30 |
| TOTAL Erosion Control(Class 1, Type C)= 960 SQ. YDS. | |

NOTE: The quantity shown for each pipe location accounts for the amount required to cover both ends of the pipe.

Std. Base File: la852a-ec.dgn
 Plotted By: CAM
 File: Erosion Stds.dgn
 Plot Date: 6/19/2024 2:38:53 PM
 Plot Location: \$/UNIT \$

| 4 | | | | |
|--|-----------|------------|------------------|------------|
| 3 | | | | |
| 2 | | | | |
| 1 | | | | |
| NO. | DATE | REVISIONS | BY | APP'D |
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| EROSION CONTROL SEEDING-SODDING | | | | |
| LA852A-EC | | | | |
| F.H.W.A. APPROVAL | 1/04/2006 | APP'D | Scott H. Shields | |
| DESIGNED | MRM | DETAILED | MRM | QUANTITIES |
| DESIGN CK. | SHS | DETAIL CK. | SHS | QUAN. CK. |
| | | | TRACED | MRM |
| | | | TRACE CK. | SHS |

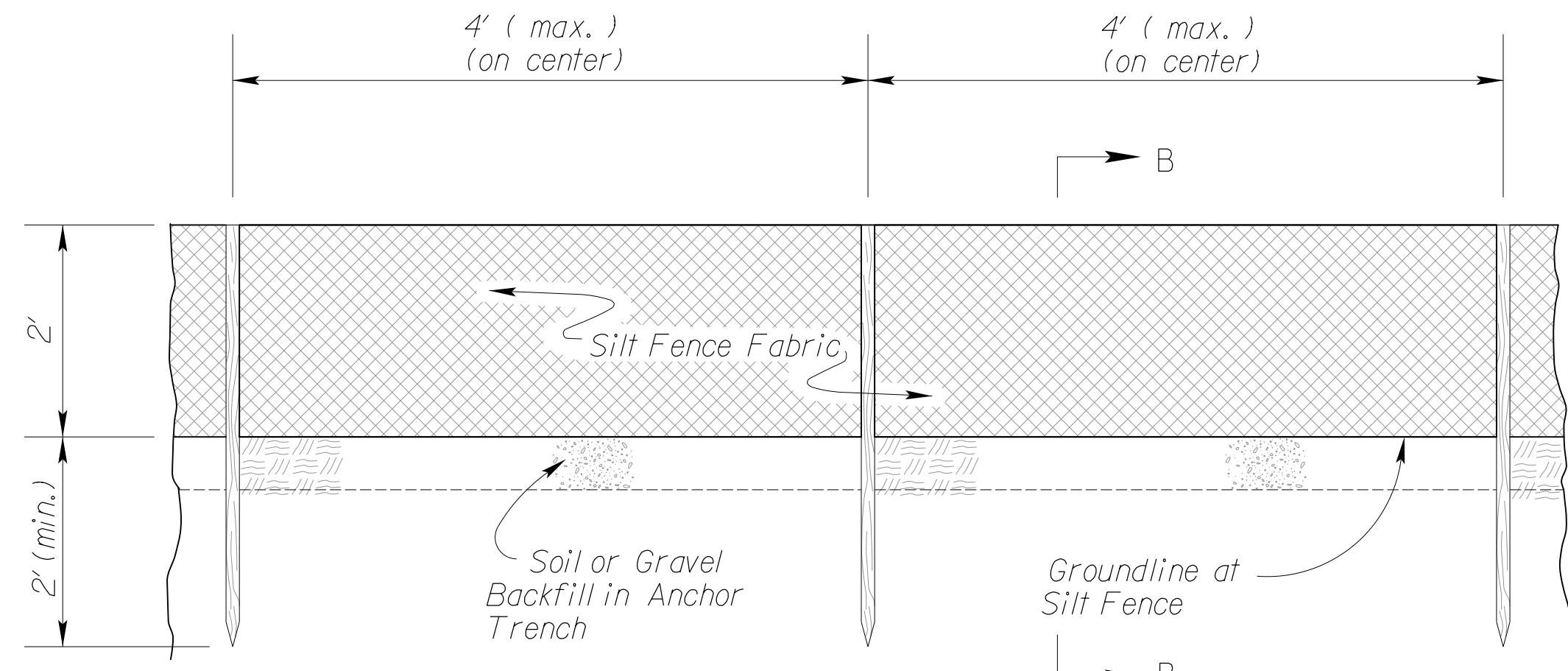
INSTALLATION NOTES

SILT FENCE:

- Stakes shall be 4' (min.) long and of one of the following materials:
 - Hardwood - 1 3/16" x 1 3/16";
 - Southern Pine (No. 2) - 2 5/8" x 2 5/8";
 - Steel U, T, L, or C Section - 1.25 lbs. per 1'-0"; or
 - Synthetic - same strength as wood stakes.
- Cross pieces shall be of same material as stakes.
- Attach fence fabric securely on 6" centers (max.).
- Use of high flow material is acceptable.
- Refer to plan sheets to estimate the length of silt fence required.

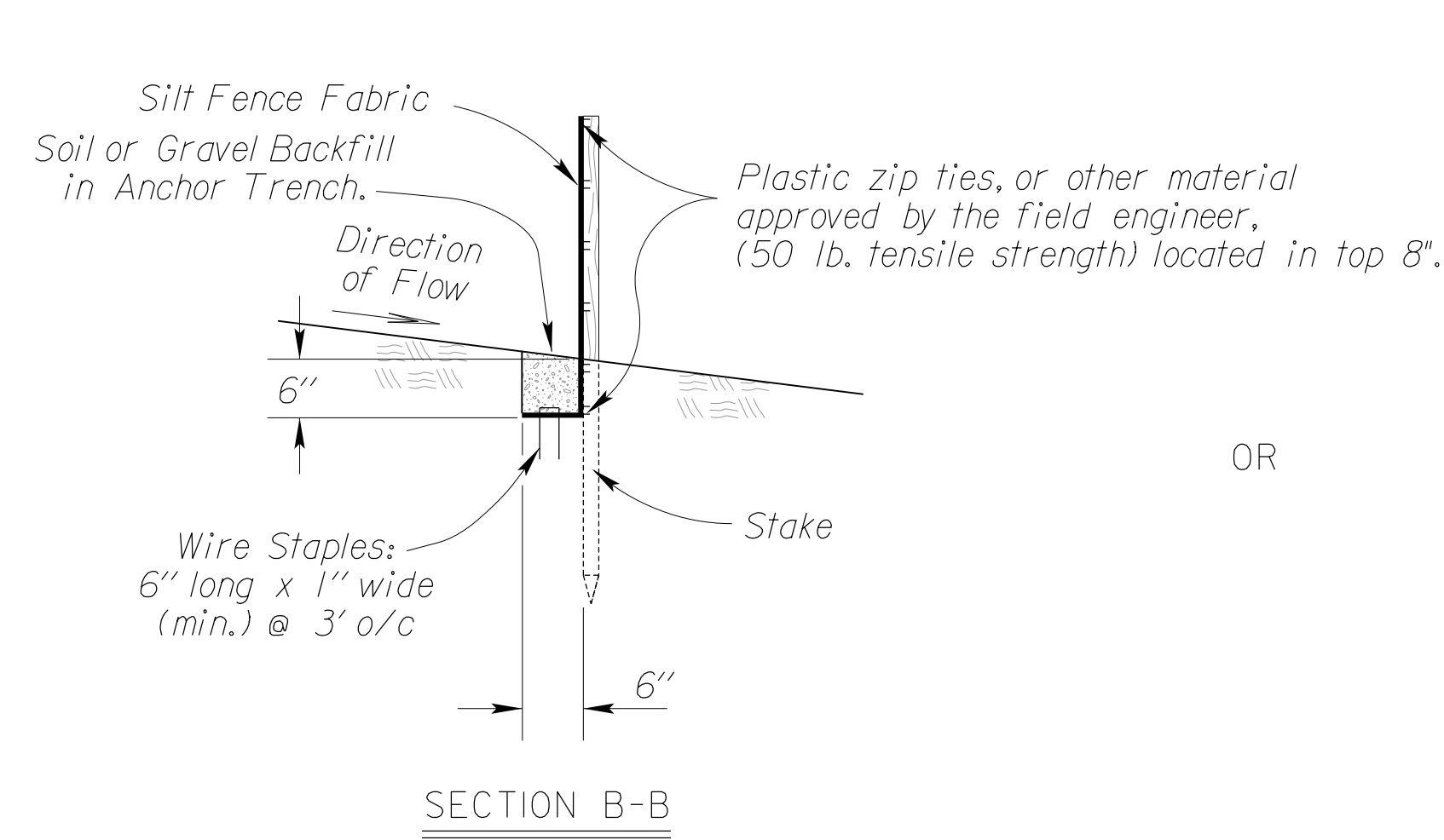
BIODEGRADABLE LOG BARRIERS

- Place biodegradable logs tightly together.
- Wood stakes shall be 2" x 2" (nom.).
- Wire staples shall be 6" long x 1" wide (min.) and placed on 4' (max.) centers.
- Refer to plan sheets to estimate length of biodegradable log barriers required.
- Logs should be keyed into the ground at a minimum of 25% of its height.
- Length of stakes should be 2 times the height of the log at a minimum.



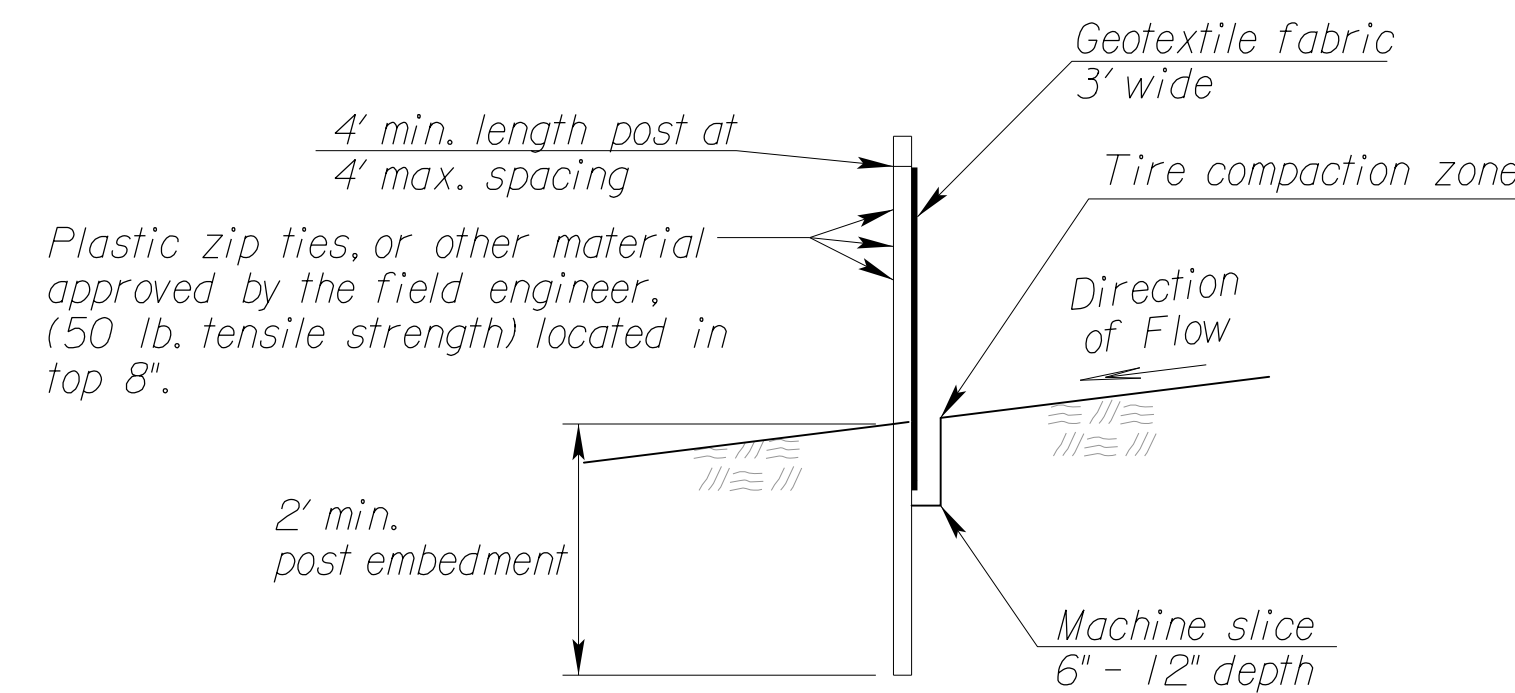
TYPICAL ELEVATION

SILT FENCE SLOPE BARRIER
NO SCALE



SECTION B-B

OR



SECTION B-B

Biodegradable Logs, Straw Wattles & Sediment Logs

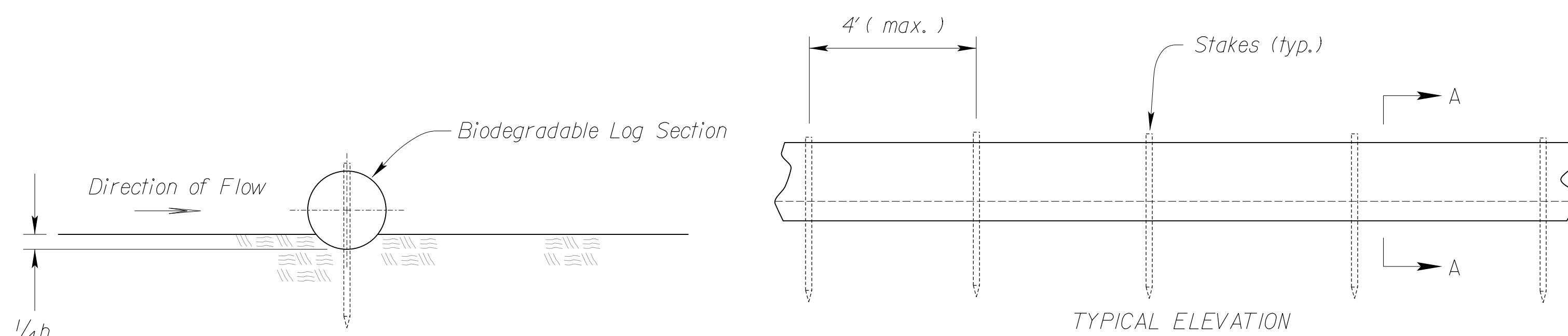
| | | PRODUCT | | |
|----------------|---------|--|--|--|
| | | 9" Sediment Log & 9" Straw Wattle (ft) | 12" Sediment Log & 12" Straw Wattle (ft) | 20" Sediment Log & 20" Straw Wattle (ft) |
| Slope Gradient | ≤ 4H:1V | 40 | 60 | 80 |
| | 3H:1V | 30 | 45 | 60 |
| | 2H:1V | 20 | 30 | 40 |
| | 1H:1V | 10 | 15 | 20 |

| BIODEGRADABLE LOG MATERIAL | | |
|----------------------------|---------------|--|
| | LOW FLOW | HIGH FLOW |
| 9" | Straw/Compost | Excelsior / Wood Chips / Coconut Fiber |
| 12" | Straw/Compost | Excelsior / Wood Chips / Coconut Fiber |
| 18"-20" | Straw/Compost | Excelsior / Wood Chips / Coconut Fiber |

9" and 12" material should only be used in areas which have been seeded and mulched. 20" material should be used in all other areas. Deviations should be approved by the Field Engineer.

GENERAL NOTES

- The slope barriers shall be placed along contour lines, with a short section turned upgrade at each end of the barrier. The maximum length of the slope barrier shall not exceed 250 feet, and the barrier ends need to be staggered.
- At culverts, the Silt Fence shall be placed over the culvert, not through the streambed flowline.
- Barriers damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired immediately by Contractor at no additional cost to KDOT.
- Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.



SECTION A - A

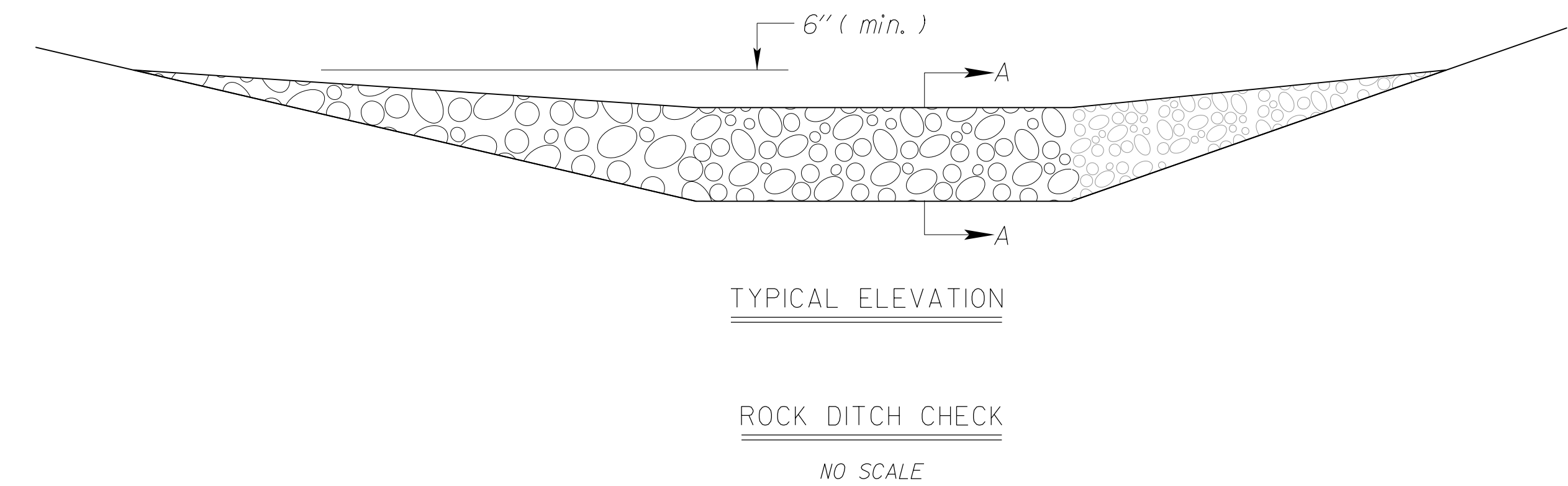
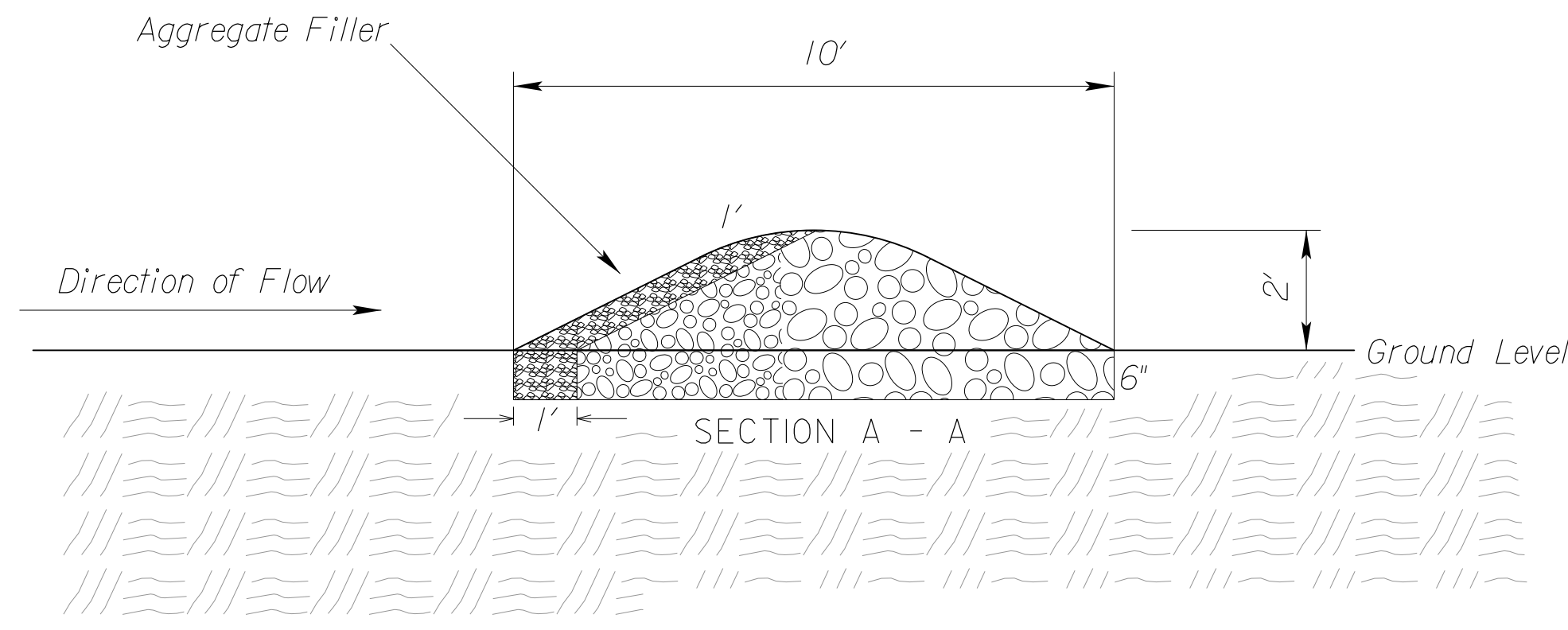
TYPICAL ELEVATION

BIODEGRADABLE LOG SLOPE BARRIER
NO SCALE

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|---------|------------------|-----|-------|
| 1 | 6/01/13 | Revised Standard | MRM | SHS |
| 2 | 3/01/13 | Revised Standard | MRM | SHS |
| 1 | 9/01/10 | Revised Standard | MRM | SHS |

| KANSAS DEPARTMENT OF TRANSPORTATION | | | |
|---|-----|------------|--------------------------|
| TEMPORARY EROSION AND POLLUTION CONTROL | | | |
| SILT FENCE SLOPE BARRIERS | | | |
| BIODEGRADABLE LOG SLOPE BARRIERS | | | |
| LA852D | | | |
| DESIGNED | MRM | 5/14/2013 | APP'D Scott H. Shields |
| DESIGN CK. | SHS | DETAIL CK. | CADD QUANTITIES CADD CK. |

Std. Base File: Plot Location: \$UNIT/\$
 Plotted By: CAM File: Erosion Sids.dgn
 Plot Date: 6/19/2024 2:38:54 PM



| TEMPORARY ROCK DITCH CHECK SPACING | |
|------------------------------------|-------------------------|
| DITCH Q. SLOPE (%) | SPACING INTERVAL (FEET) |
| 5.0 | 60 |
| 6.0 | 50 |
| 7.0 | 43 |
| 8.0 | 36 |
| 9.0 | 33 |
| 10.0 | 29 |

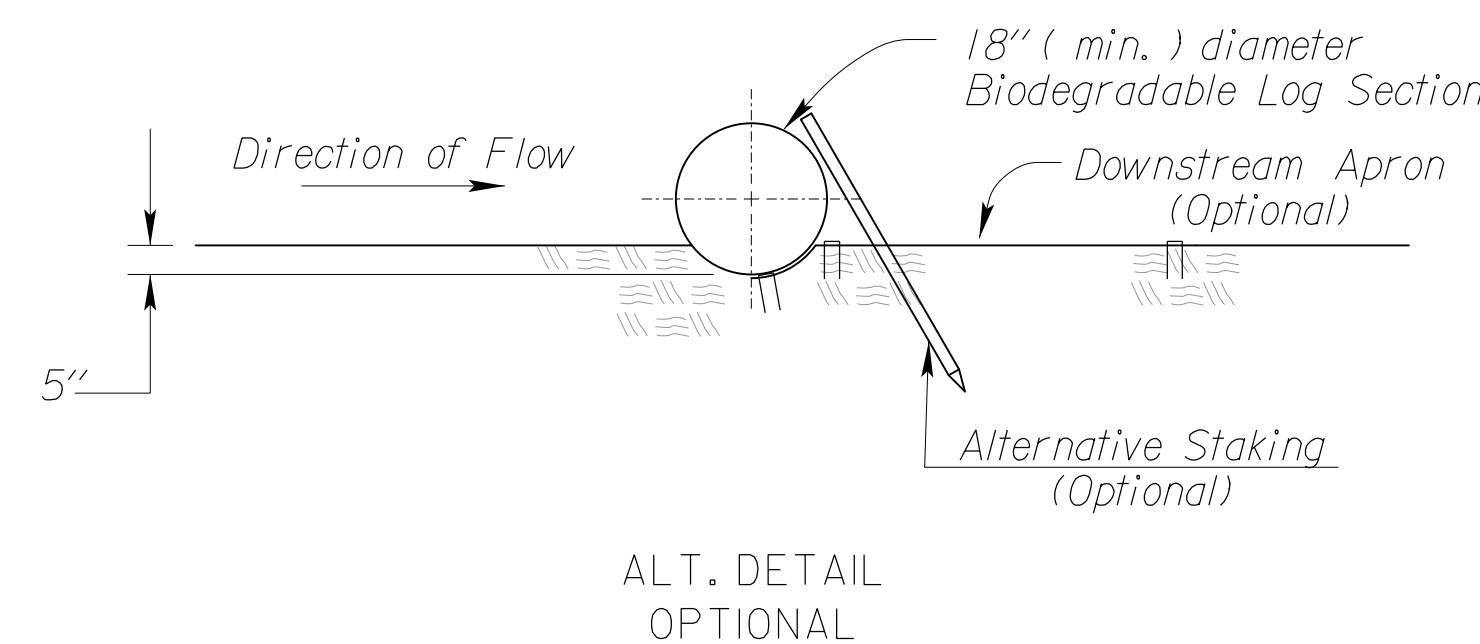
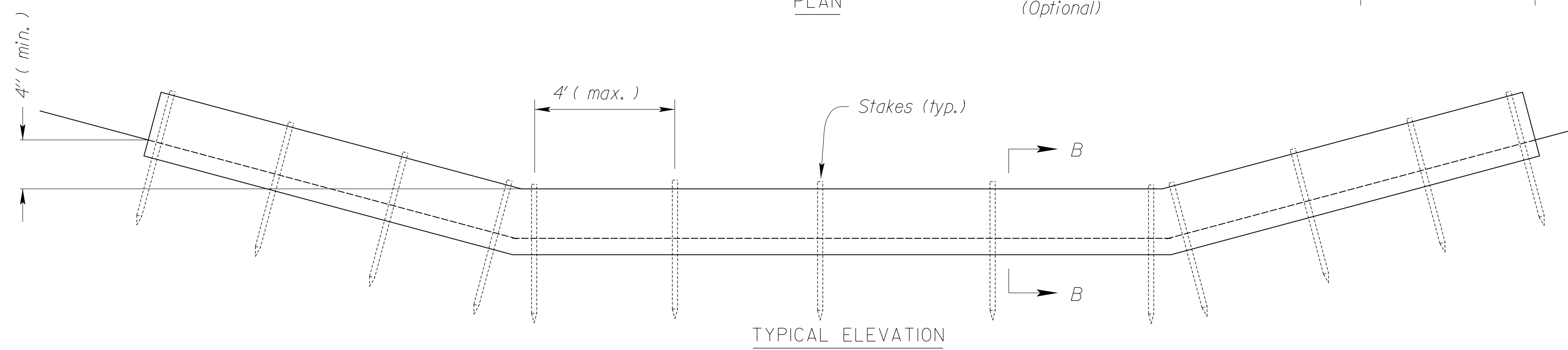
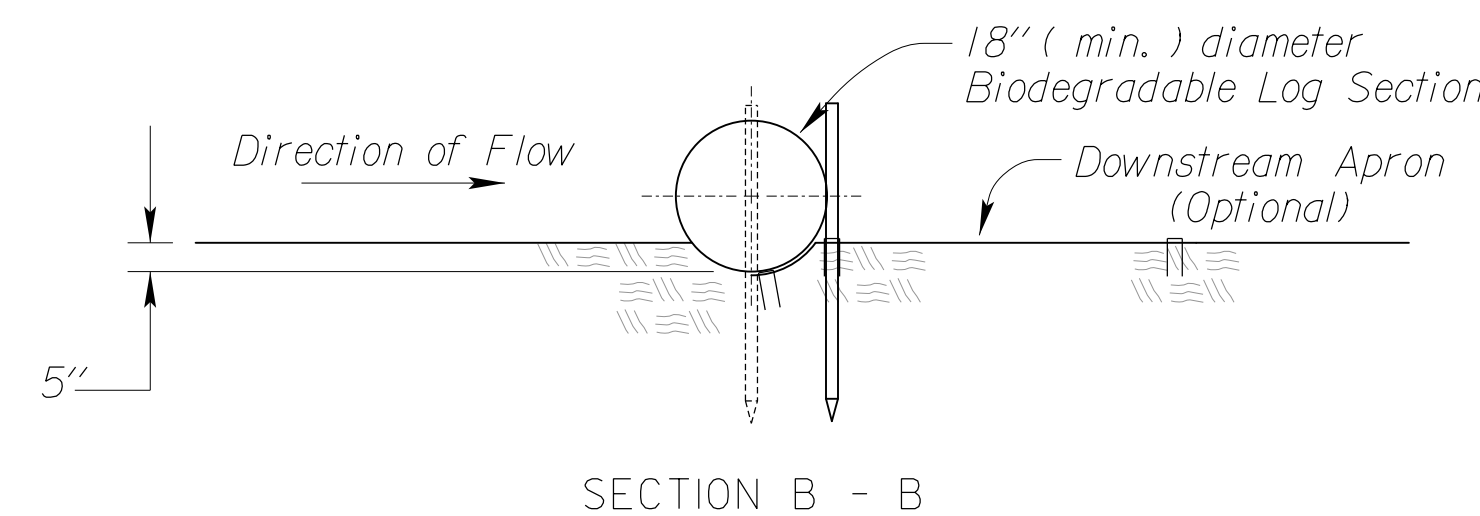
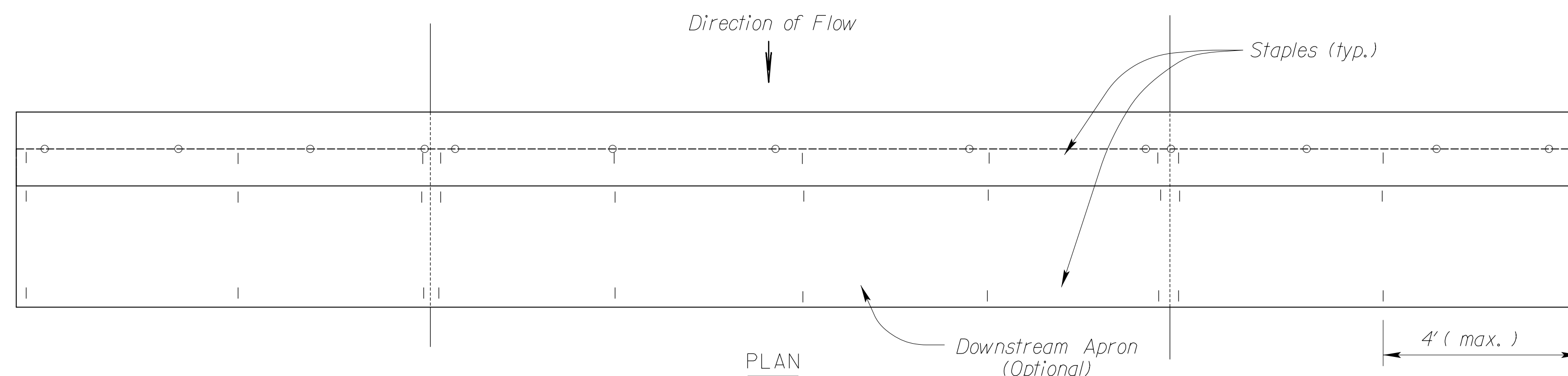
NOTE: Use this spacing for Rock Ditch Checks only.

ROCK DITCH CHECK NOTES

1. Rock shall be clean aggregate, D50-6" and aggregate filler.
2. Place rock in such manner that water will flow over, not around ditch check.
3. Do not use rock ditch checks in clear zone.
4. Excavation: The ditch area shall be reshaped to fill any eroded areas. Prior to placement of the rock, the ditch shall be excavated to the dimensions of the Rock Ditch Check and to a minimum depth of 6" (150mm). After placement of the rock, backfill and compact any over-excavated soil to ditch grade. This work shall be subsidiary to the bid item Temporary Ditch Check (Rock).
5. Aggregate excavated on site may be used as an alternate to the 6" rock, if approved by the Engineer.
6. The Engineer may approve the use of larger aggregates for the downstream portion of the check when conditions warrant their use.
7. When the use of larger rock is approved, D50-6" rock will be placed between the larger aggregate and the aggregate filler.
8. Aggregate filler will be placed on the upstream face of the ditch check. Aggregate filler will comply with Filter Course Type I, Division 1114.

BIODEGRADABLE LOG DITCH CHECK NOTES

1. Use as many biodegradable log sections as necessary to ensure water does not flow around end of ditch check.
2. Overlap sections a minimum of 18".
3. Stakes shall be wood or steel according to Section 2114 of the Standard Specifications. Length of stakes shall be a minimum of 2 x the diameter of the log.
4. Use Erosion Control (Class 1) (Type C) as the downstream apron when required.
5. A downstream apron is required when directed by the Engineer. Apron material will be paid at the contract unit price.
6. Each log or sock (except compost filter socks) should be keyed into the ground at a minimum of 25% of its height. Compost filter socks should be placed on smooth prepared ground with no gaps between the sock and soil.



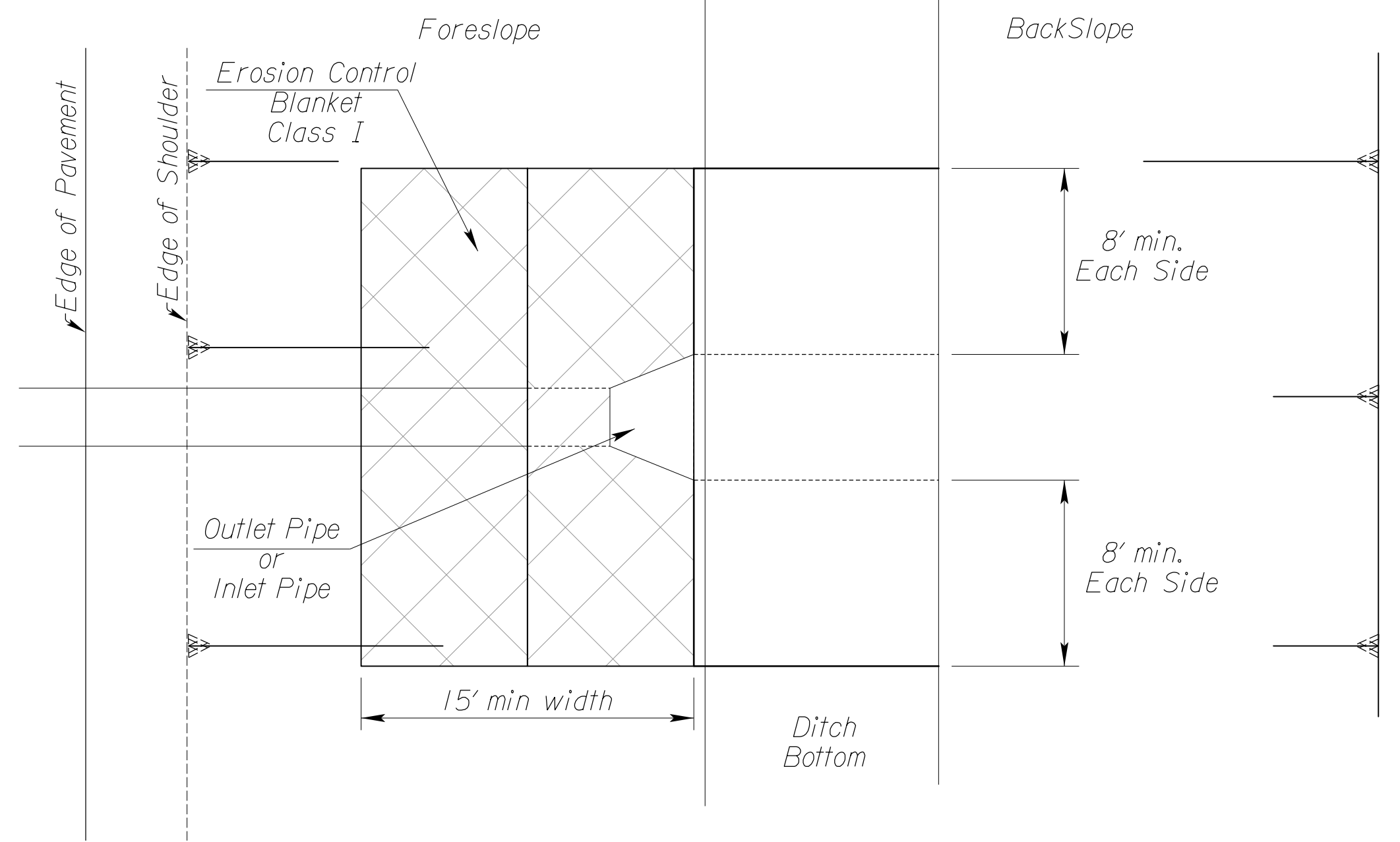
BIODEGRADABLE LOG DITCH CHECK
OR Filter Sock Ditch Check
NO SCALE

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|----------|------------------|-----|-------|
| 3 | 11/19/20 | Revised Standard | ML | ML |
| 2 | 8/10/16 | Revised Standard | RAA | SHS |
| 1 | 10/21/15 | Revised Standard | RAA | SHS |

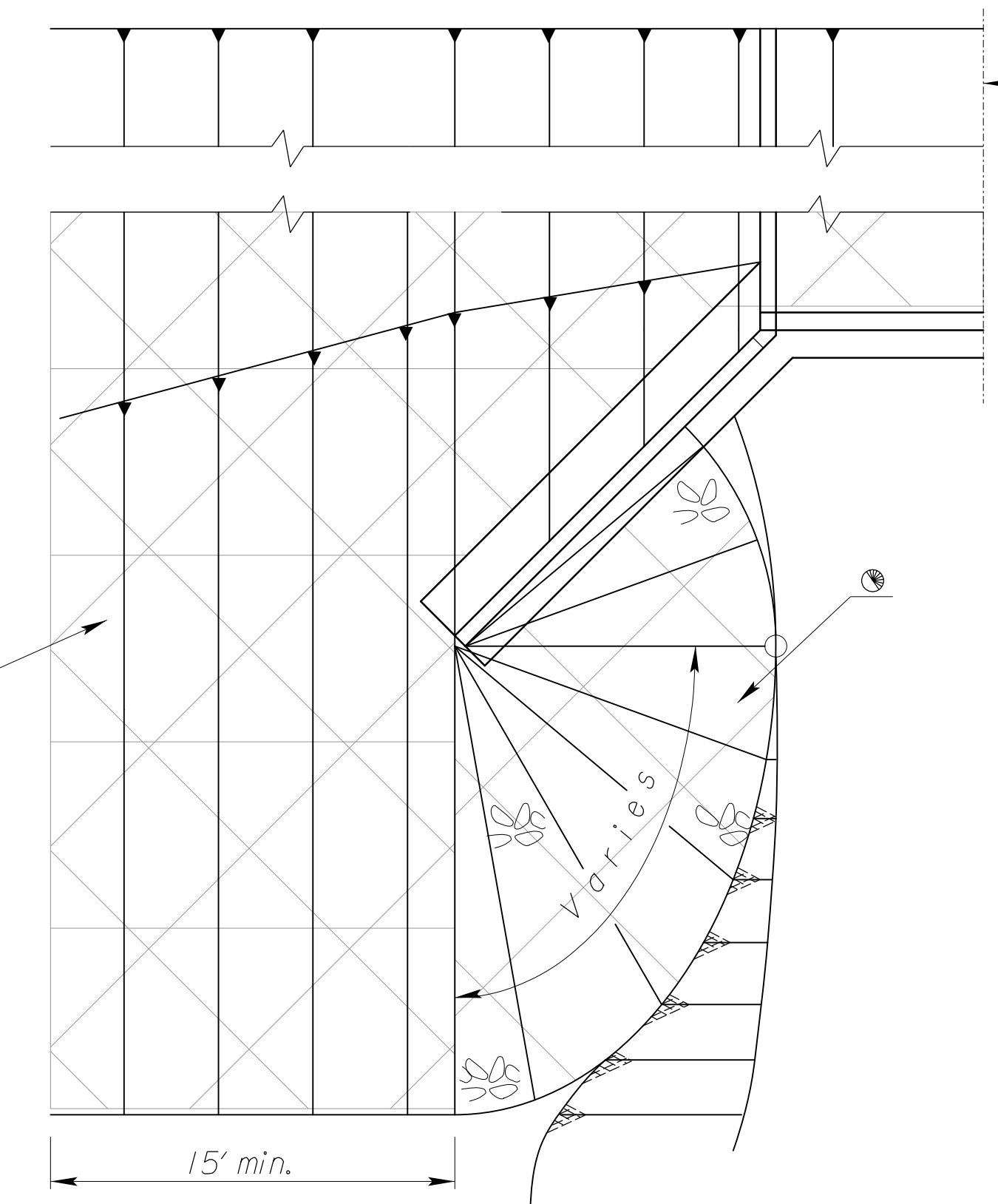
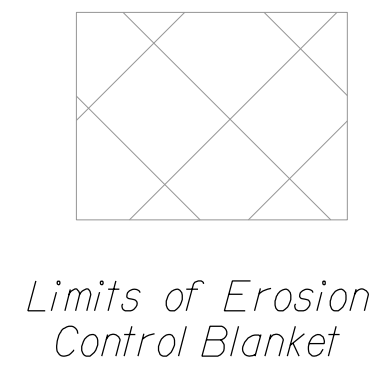
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
|---|----|------------|------------|-------------|
| TEMPORARY EROSION AND POLLUTION CONTROL | | | | |
| ROCK DITCH CHECKS | | | | |
| BIODEGRADABLE LOG DITCH CHECKS | | | | |
| LA852G | | | | |
| DESIGNED | ML | DATE | 11/19/2020 | APP'D |
| DESIGN CK. | ML | DETAIL CK. | ML | QUAN. CK. |
| | | | | Mervin Lare |
| | | | | RAA |
| | | | | RAA |

Std. Base File: la852g.dgn
 Plotted By: CAM
 File: Erosion Sids.dgn
 Plot Location: \$UNIT\$/
 Plot Date: 6/19/2024 2:38:54 PM

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 100 | 109 |



PARTIAL PLAN PIPE



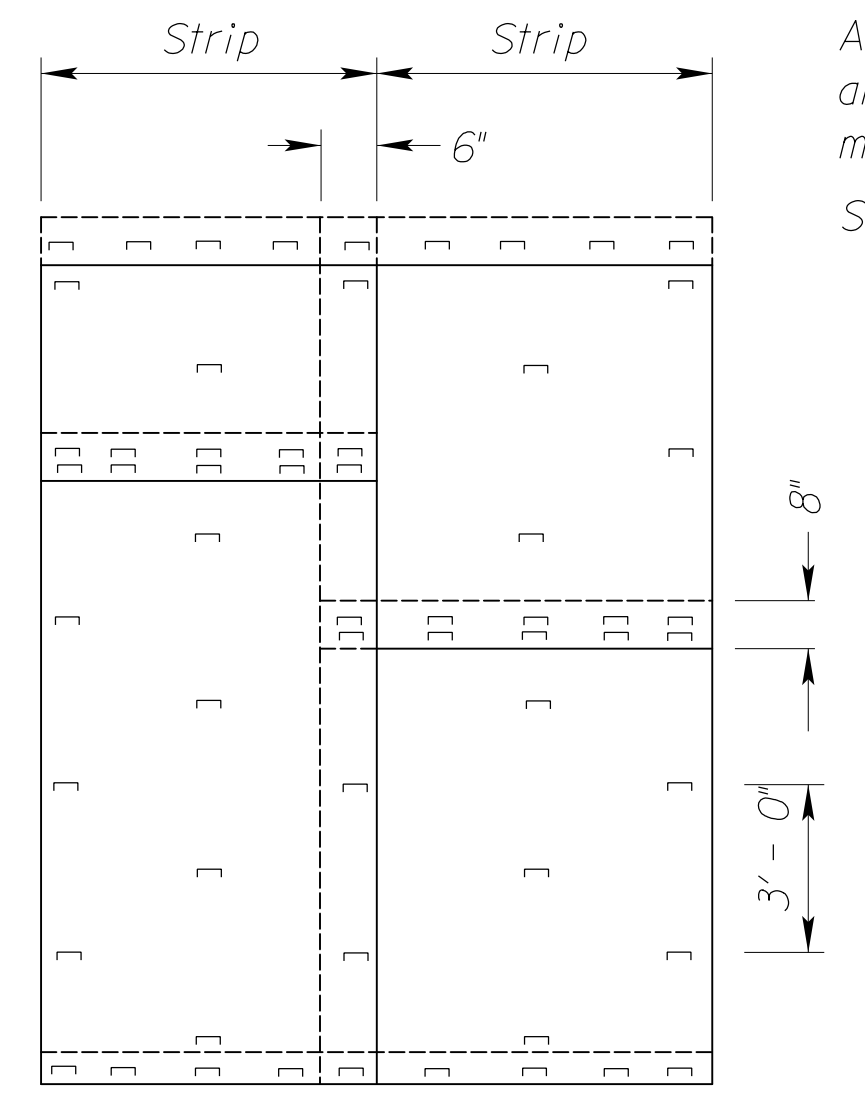
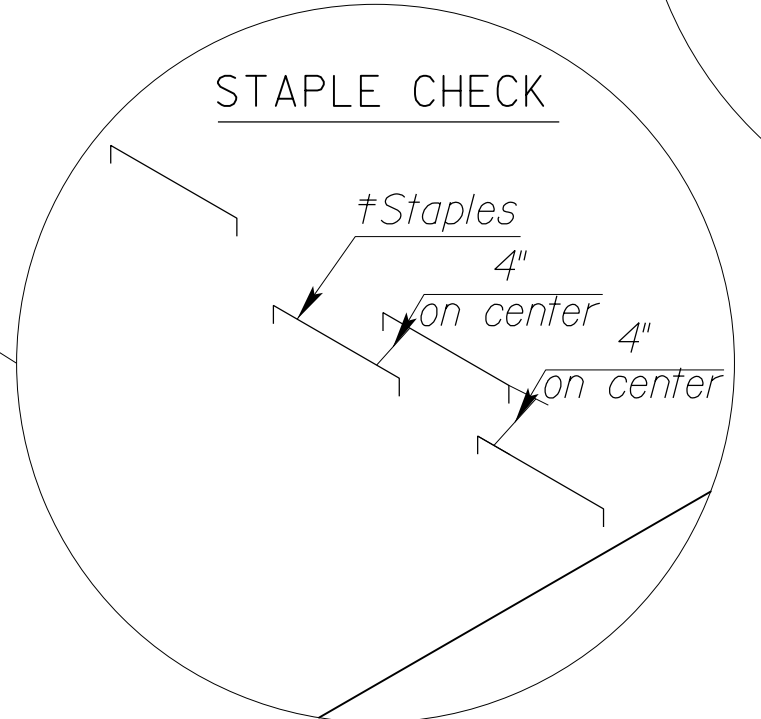
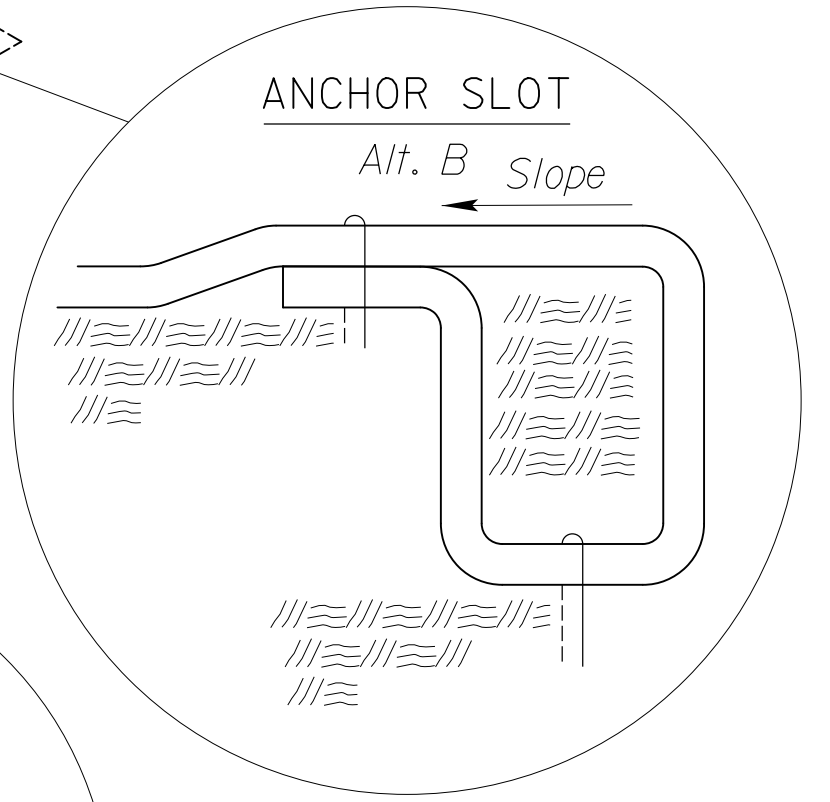
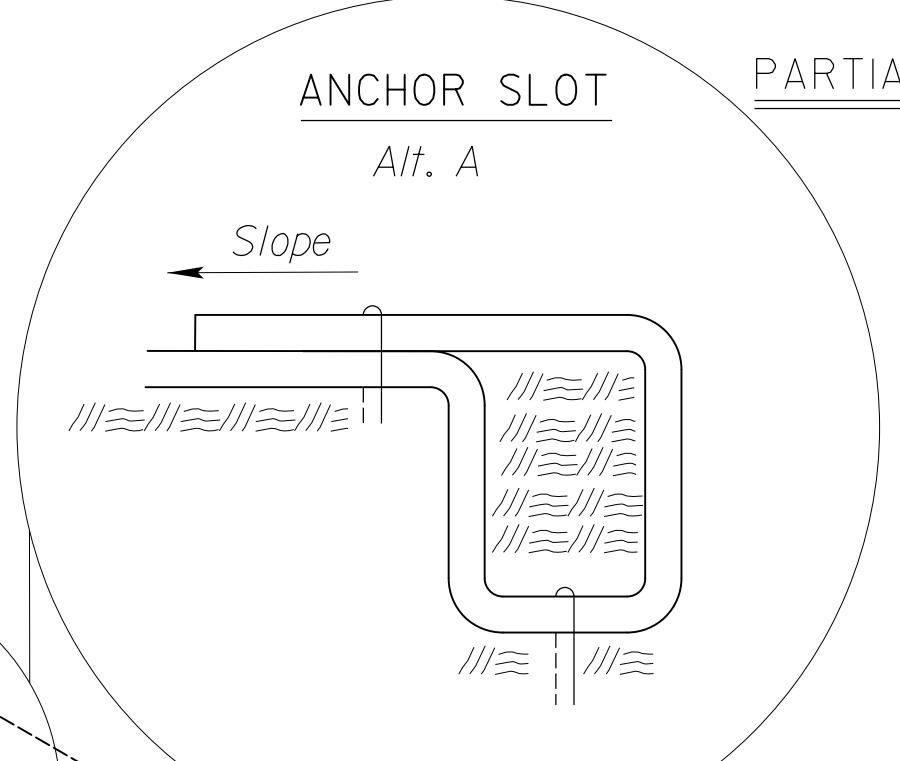
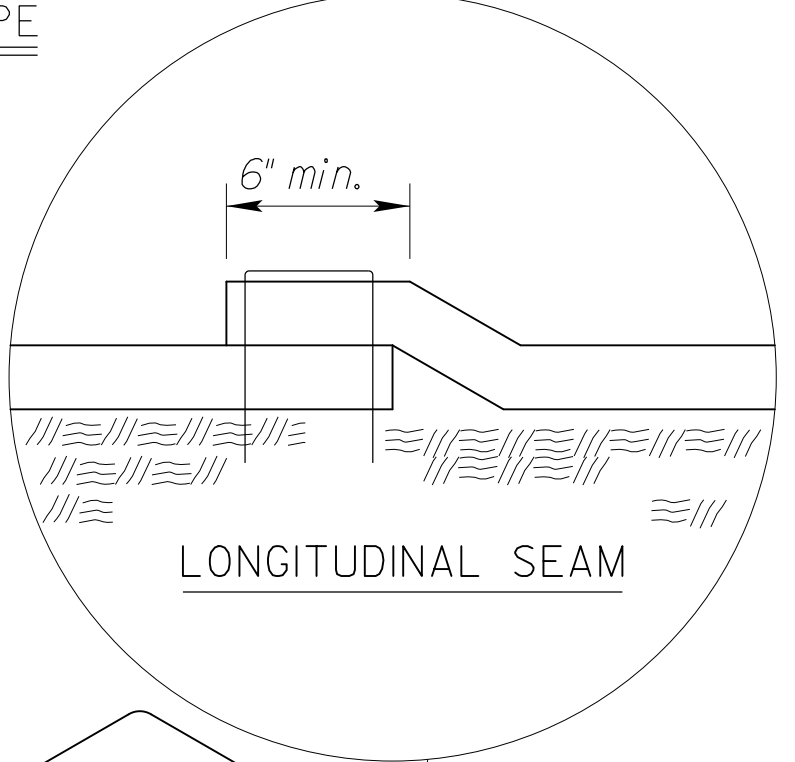
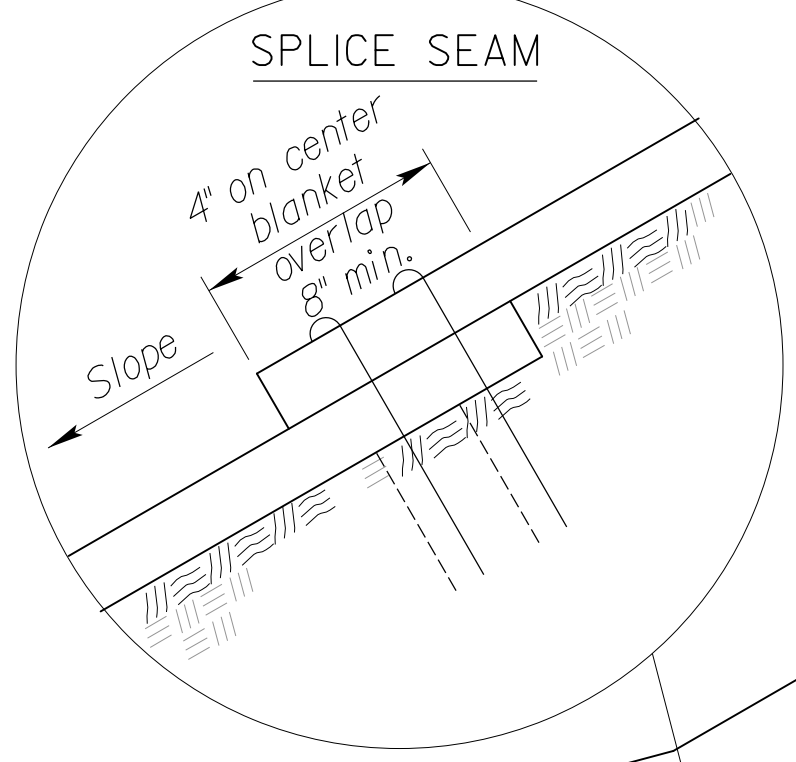
PARTIAL PLAN BOX CULVERT

INSTALLATION DETAILS FOR EROSION CONTROL CLASS I

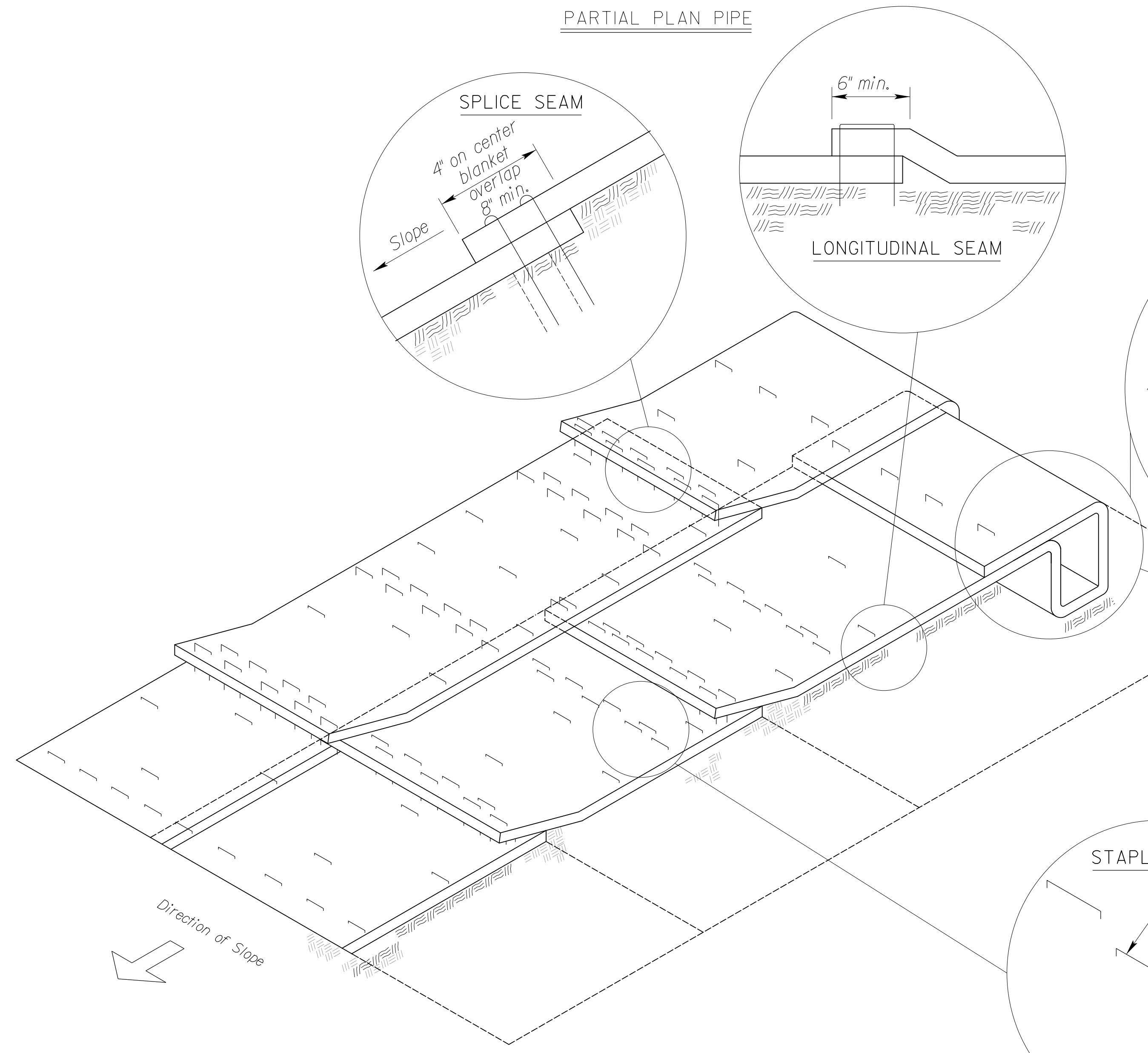
Erosion Control Blankets shall be laid loosely in the direction of the slope, beginning at the bottom of the slope. In order for blanket to be in contact with the soil, lay blanket loosely, avoiding stretching.

- ANCHOR SLOTS:** The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
- LONGITUDINAL SEAMS:** The edges of the blanket should overlap each other a minimum of 6 inches, with anchors catching the edges of both blankets.
- SPLICE SEAM:** When splices are necessary, overlap a minimum of 8 inches in direction of water flow. Stagger splice seams.
- TERMINAL FOLD:** The bottom edge of the blanket shall be turned under a minimum of 4 inches, then anchored in place with anchors 9 inches apart.
- TYPICAL ANCHORS:** Anchor design shall be as recommended by the manufacturer.
- STAPLE CHECK:** Establish Staples in 2 rows 4" on center apart. Staple Checks - shall be 30' apart.

⊙ Erosion Control Class I may be omitted if the area is immediately covered by permanent slope protection (where directed by the plans).



NOTE: Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards. Single post ring and shank staple is acceptable.



Std. Base File: la855.dgn
 Plotted By: CAM
 File: Erosion Sids.dgn
 Plot Date: 6/19/2024 2:38:54 PM
 Plot Location: \$UNIT\$/

| NO. | DATE | REVISIONS | BY | APP'D |
|-----|---------|------------------|-----|-------|
| 4 | 3/01/15 | Revised Standard | RAA | SHS |
| 3 | 2/23/15 | Revised Standard | RAA | SHS |
| 2 | 9/15/14 | Revised Standard | MRM | SHS |
| 1 | 9/10/07 | Revised Standard | MRM | SHS |

| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
|--|------------|-----------|----------|------------------|
| INSTALLATION DETAIL EROSION CONTROL CLASS I SLOPE PROTECTION | | | | |
| LA855 | | | | |
| DESIGNED | RAA | 3/10/2015 | APP'D | Scott H. Shields |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | CADD CK. | RAA |

GRASS & WILDFLOWER SEEDING SEASONS

| COOL SEASON GRASSES | WARM SEASON GRASSES & WILDFLOWERS |
|--|-----------------------------------|
| February 15 thru April 20 August 15 thru September 30 | November 15 thru June 1 |
| SPECIES | SPECIES |
| Bluegrasses | Bermuda Grass |
| Brome Grasses | Big Bluestem |
| Canada Wildrye | Blue Grama |
| Fescues | Buffalo Grass |
| Prairie Junegrass | Indiangrass |
| Ryegrasses | Little Bluestem |
| Sterile Wheatgrass | Sand Bluestem |
| Tall Dropseed | Sand Dropseed |
| Western Wheatgrass | Sand Lovegrass |
| | Side Oats Grama |
| | Switchgrass |
| | Wildflower Mixes |

If rock is exposed at bottom of a ditch, it shall be left in place and seeding shall not be required.

Exposed rock, shale, or other material

Fertilize, Seed & Mulch

SURFACED AREA and (if any) Stabilized Shoulders

SURFACED AREA

SHOULDER MIX

OTHER MIX (includes wildflowers)

When the area to be seeded is 1 acre or more, if Cool Season grasses are mixed with Warm Season grasses, seed the area during the Warm Season.

When the area to be seeded is less than 1 acre, seed the area any time of the year.

GENERAL NOTES

The entire disturbed area, excepting the paved or surfaced areas, steep rocky slopes and areas of undisturbed native sod or other desirable vegetation shall be fertilized (limed when required), seeded and mulched. Soil preparation shall conform to the Standard Specifications except as noted below.

All borrow areas shown on the plans are to be fertilized, seeded, and mulched. However, operation in borrow areas where crops are growing may be omitted when requested by the owner.

If temporary cover has provided stable slopes with no erosion, seed the permanent grasses into the existing cover. If there has been erosion that requires repair prior to seeding, then it may be necessary to regrade the area, resulting in bare ground.

FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P₂O₅, K₂O listed in Summary of Seeding Quantities will be acceptable.

MULCHING: Mulch shall be spread uniformly over all disturbed areas and punched in the soil, unless otherwise noted on the plans. The rate of application per acre, thickness in place, for the mulching material is generally as follows:

1 3/4 - 2 1/4 Tons per Acre = 1 1/2" loose depth spread uniformly over acre.

Agricultural products, such as native prairie hay, used for mulching and erosion control practices, excluding wood based mulch, shall meet the North American Weed Free Forage Standards.

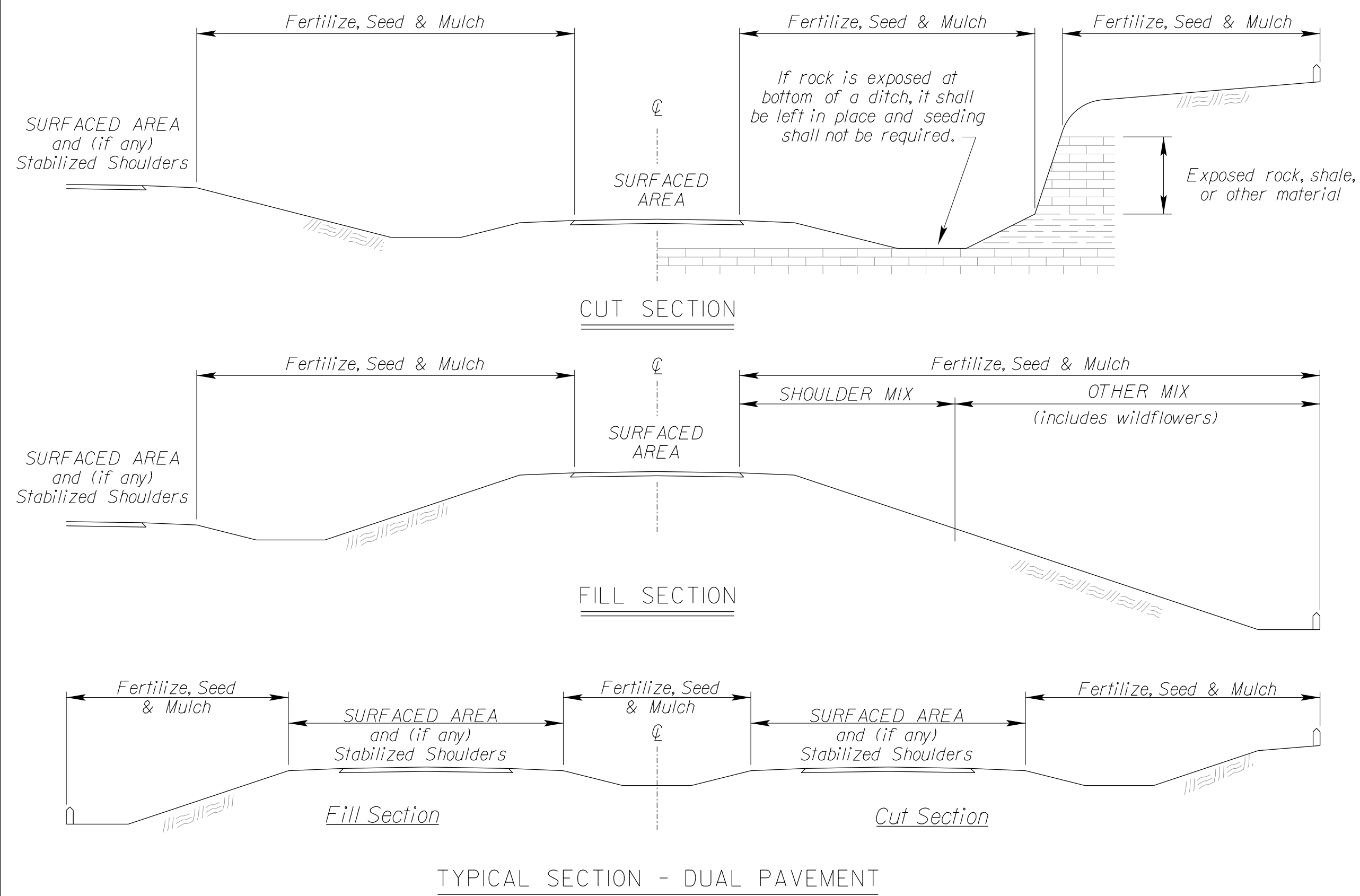
Other vegetative mulches are acceptable only with the Engineer's concurrence.

The above rate is a guide. It will be at the discretion of the Engineer to determine what rate is sufficient for adequate protection of newly seeded areas.

SODDING SEASONS

| COOL SEASON GRASSES | WARM SEASON GRASSES |
|---|-------------------------|
| March 1 thru April 15 September 1 thru November 15 | May 15 thru September 1 |
| SPECIES | SPECIES |
| Bluegrass Sod | Buffalo Grass Sod |
| Fescue Sod | |

If the soil is workable, the Engineer may allow placement of sod between November 15 and March 1. If sod is placed during this time, maintain the sod until 20 days after the beginning of the spring sodding season.



NATIVE WILDFLOWER MIX 1

| PLS RATE | NAME | QTY (lb) |
|----------|----------------------------|----------|
| 0.3 | Butterfly Milkweed | |
| 0.3 | Common Milkweed | |
| 0.3 | Black Eyed Susan | |
| 0.5 | Blanket Flower | |
| 0.5 | False Sunflower | |
| 0.5 | Lance-Leaf Coreopsis | |
| 0.2 | Maximilian Sunflower | |
| 0.1 | New England Aster | |
| 0.2 | Pinnate Prairie Coneflower | |
| 0.2 | Plains Coreopsis | |
| 0.3 | Purple Coneflower | |
| 0.3 | Upright Prairie Coneflower | |
| 0.3 | Dames Rocket | |
| 0.3 | Lemon Mint | |
| 0.2 | Pitcher Sage | |
| 0.2 | Wild Bergamot | |
| 1.0 | Illinois Bundleflower | |
| 0.2 | Common Evening Primrose | |
| 0.1 | Hoary Verbena | |
| 0.8 | Purple Prairie Clover | |
| 0.3 | Roundhead Lespedeza | |
| 3.0 | Showy Partridge Pea | |
| 0.2 | White Prairie Clover | |
| 10.3 | Total (lb) | |

NATIVE WILDFLOWER MIX 2

| PLS RATE | NAME | QTY (lb) |
|----------|----------------------------|----------|
| 0.3 | Butterfly Milkweed | |
| 0.3 | Black Eyed Susan | |
| 0.5 | Black Sampson Coneflower | |
| 1.0 | Blanket Flower | |
| 0.2 | Maximilian Sunflower | |
| 0.2 | Plains Coreopsis | |
| 0.2 | Upright Prairie Coneflower | |
| 0.2 | Western Yarrow | |
| 0.3 | Lemon Mint | |
| 0.4 | Pitcher Sage | |
| 1.5 | Illinois Bundleflower | |
| 0.2 | Common Evening Primrose | |
| 1.0 | Blue Wild Indigo | |
| 0.4 | Leadplant | |
| 0.4 | Purple Prairie Clover | |
| 0.3 | White Prairie Clover | |
| 7.4 | Total (lb) | |

Package and deliver the wildflower seed separately from the grass seed mix. Package and deliver the Tall Drop Seed separately from the grass seed and the wildflower mix. Place the grass seed (except Tall Drop Seed) in the large seed box and drill (cover) seed 1/8" - 1/4". Place the wildflower seed in a separate seed box and drill (cover) seed 1/16" maximum. Place the Tall Drop Seed in a separate (third) seed box and place the seed (using the seed drill) on the soil surface.

OPTION: Broadcast Tall Drop Seed on the soil surface.

SUMMARY OF SEEDING QUANTITIES

| P.L.S. RATE/ACRE | | ACRES | | BID ITEM | QUANTITY | UNIT |
|------------------|-------|-------|-------|--------------------------------------|----------|------|
| SHLDR | OTHER | SHLDR | OTHER | | | |
| 200 | | 3.0 | | Fertilizer (13-13-13) | 600 | LB |
| 0.5 | | 3.0 | | Seed (Lovington Blue Grama Grass) | 1.5 | LB |
| 4.5 | | 3.0 | | Seed (Treated Buffalograss) | 13.5 | LB |
| 45 | | 3.0 | | Seed (Perennial Ryegrass) | 13.5 | LB |
| 2.6 | | 3.0 | | Seed (Prairie Junegrass) | 7.8 | LB |
| 6.3 | | 3.0 | | Seed (El Reno Side Oats Grama Grass) | 18.9 | LB |
| 45 | | 3.0 | | Seed (Fescue)(Tall)(Endophyte-Free) | 135 | LB |
| 6 | | 3.0 | | Seed (Barton Western Wheatgrass) | 18.0 | LB |
| | | | | Mulching * | | |

SHLDR = Seeded with the Shoulder Mix. Typically 15 feet for 2-lane roads and 30 feet for 4-lane roads. Includes outside roadsides, turfed portions of shoulders, and turfed portion of the median.

OTHER = Seeded with the "Other" Mix. Designated as all other turf areas, except the Shoulder. Usually includes a Native Wildflower Mix.

NOTE: Projects less than 1 acre shall be bid as "Seeding" by the lump sum. All disturbed areas shall be seeded, fertilized and mulched at the listed rate per acre. The acres are estimated.

Refer to the Standard Specifications, Division 900, Section 904 'Seeding', and Section 907 'Sodding', for the seeding and sodding seasons.

* See LA852A for mulching quantity. The quantity of mulch is estimated (Acres of Seeding X 1.5 X 2 Tons/Acre). The total mulch required shall be determined in the field. The bid item for mulching shall be paid for according to the Standard Specifications.

| 2 | 11/25/20 | Updated Seeding / Sodding Periods Charts | MRD | ML |
|-----|----------|--|-----|-------|
| 1 | 08/03/20 | Revised Standard | MRD | SHS |
| NO. | DATE | REVISIONS | BY | APP'D |

KANSAS DEPARTMENT OF TRANSPORTATION

PERMANENT SEEDING SUMMARY OF SEEDING QUANTITIES

| | | | | | |
|------------|-----|------------|-----|------------|-------------|
| LA850 | | 05/06/2019 | | APP'D | Mervin Lore |
| DESIGNED | MRD | DETAILED | MRD | QUANTITIES | CADD |
| DESIGN CK. | | DETAIL CK. | | QUAN. CK. | CADD CK. |

Std. Base File:
Plotted By: CAM
File: Erosion Sids.dgn
Plot Date: 6/19/2024 2:39:12 PM

| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 102 | 109 |

1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.

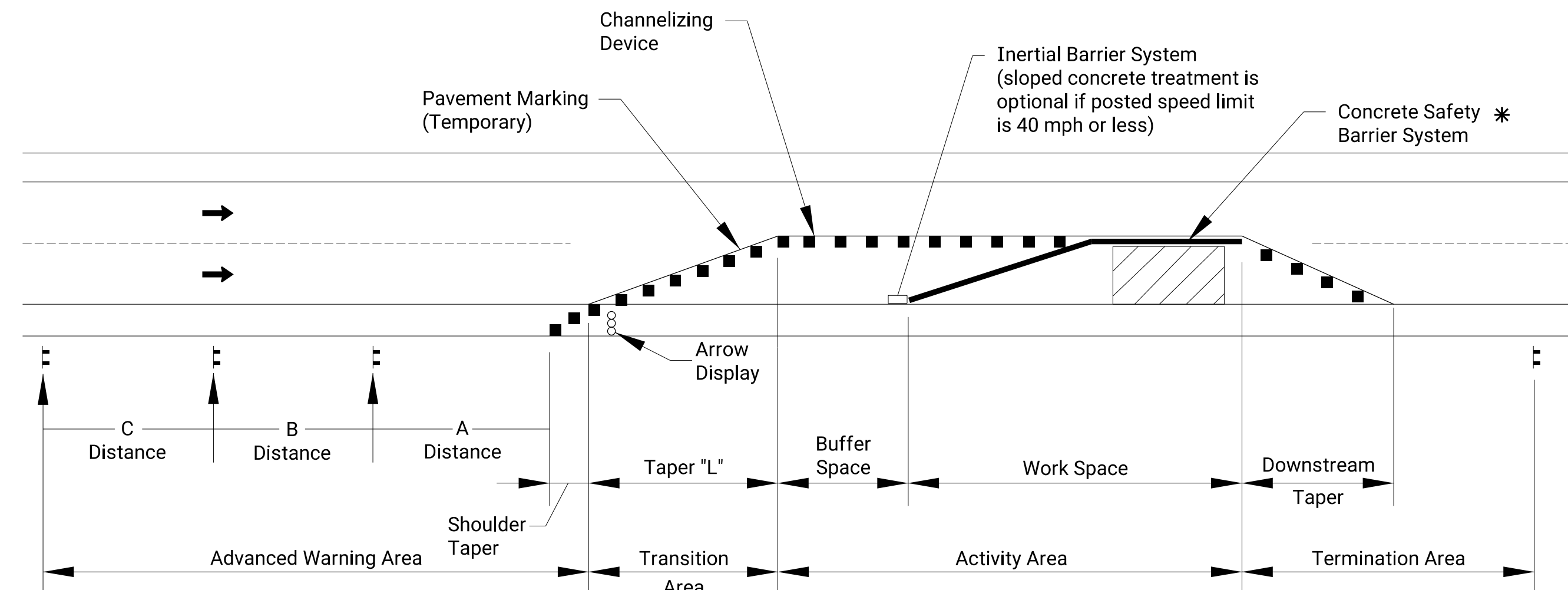
2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.

4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.

5) When the driving surface open to traffic is milled or is a temporary surface made of loose material, or when directed by the engineer a W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) sign shall be used on mainline approaches. This sign should be placed a "C" distance after the W20-1 (Road Work Ahead) sign. A W8-15p motorcycle plaque shall be used to supplement the W8-15 or W8-7 signs. All signs shall be displayed as long as the condition is present.

6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-1179 or 785-296-1183.



TYPICAL WORK ZONE COMPONENTS

* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Minimum advance warning sign spacing (in feet):

| SPEED (MPH) * | A | B | C |
|--------------------------|------|------|------|
| URBAN (40 MPH OR LOWER) | 100 | 100 | 100 |
| URBAN (45 MPH OR HIGHER) | 350 | 350 | 350 |
| RURAL (55 MPH OR LOWER) | 500 | 500 | 500 |
| RURAL (60 MPH OR HIGHER) | 750 | 750 | 750 |
| EXPRESSWAY/FREEWAY | 1000 | 1500 | 2640 |

* Posted speed prior to work starting
 The minimum spacing between signs shall be no less than 100', unless directed by the engineer.
 The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

Taper Formulas:

$L = WS$ for speeds of 45 MPH or more

$L = WS^2/60$ for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet
 S = Numerical value of posted speed prior to work starting in MPH
 W = Width in offset feet

Shifting Taper = $1/2 L$
 Shoulder Taper = $1/3 L$

Channelizer Placement:

- The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.
- The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
- Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
- Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
- Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

Buffer Space

| SPEED (MPH) * | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 |
|---------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| LENGTH (ft) | 115 | 155 | 200 | 250 | 305 | 360 | 425 | 495 | 570 | 645 | 730 | 820 |

* Posted speed prior to work starting

Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space. See typical work zone components above.

| NO. | DATE | REVISIONS | BY | APPD |
|-----|----------|-------------------------------|--------|--------|
| 02 | 03-13-18 | W8-15p usage changed to Shall | R.W.B. | E.K.G. |
| 01 | 08-18-15 | Channelizer spacing info | R.W.B. | K.E. |

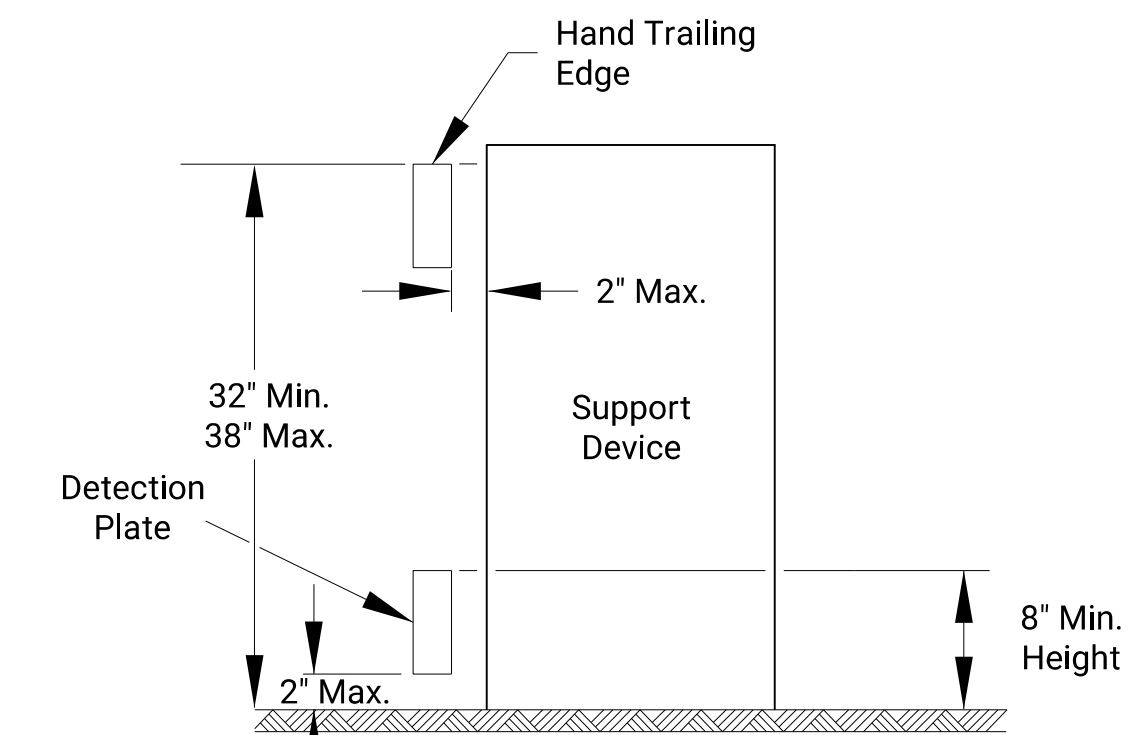
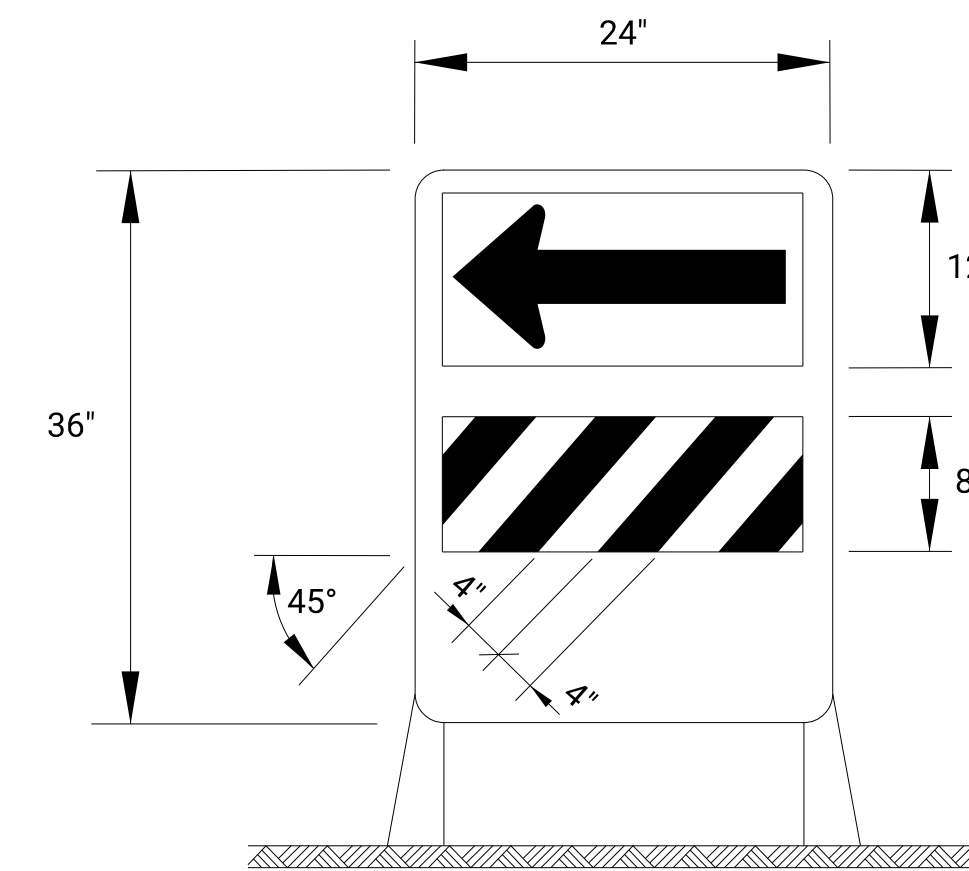
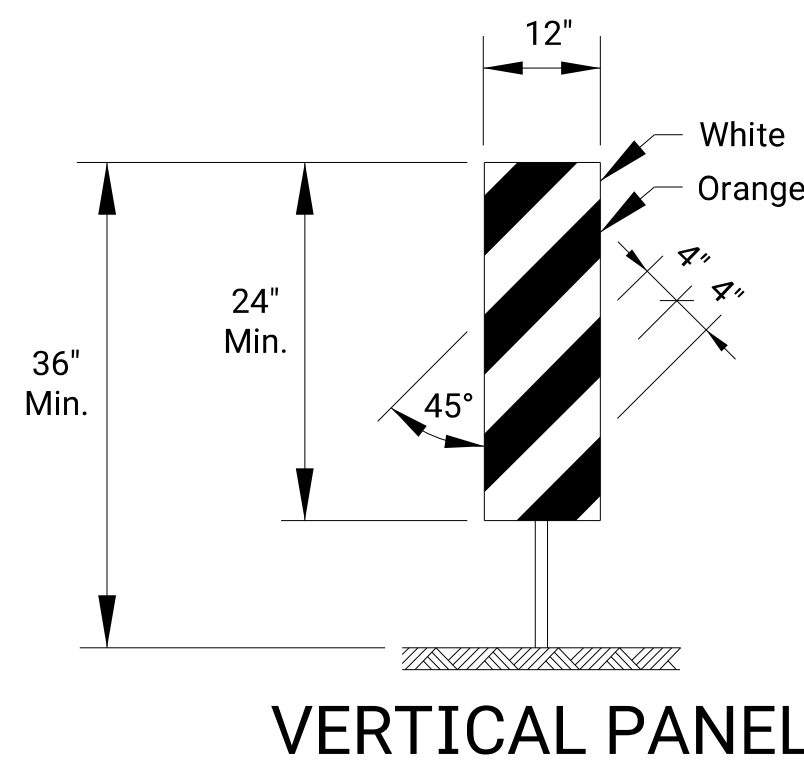
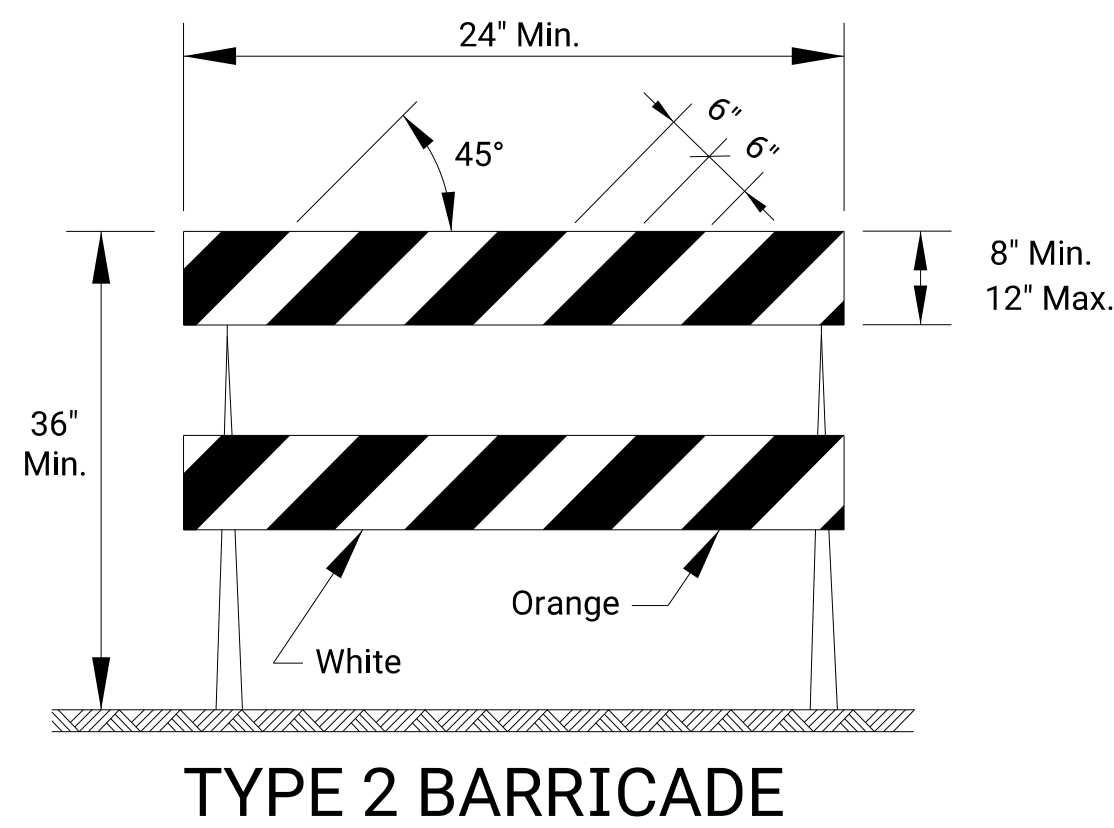
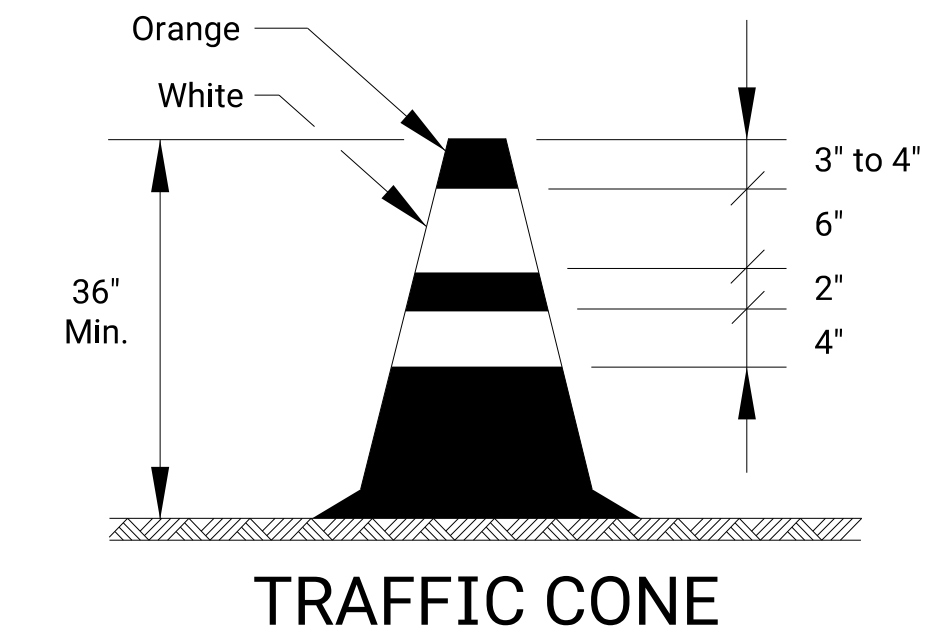
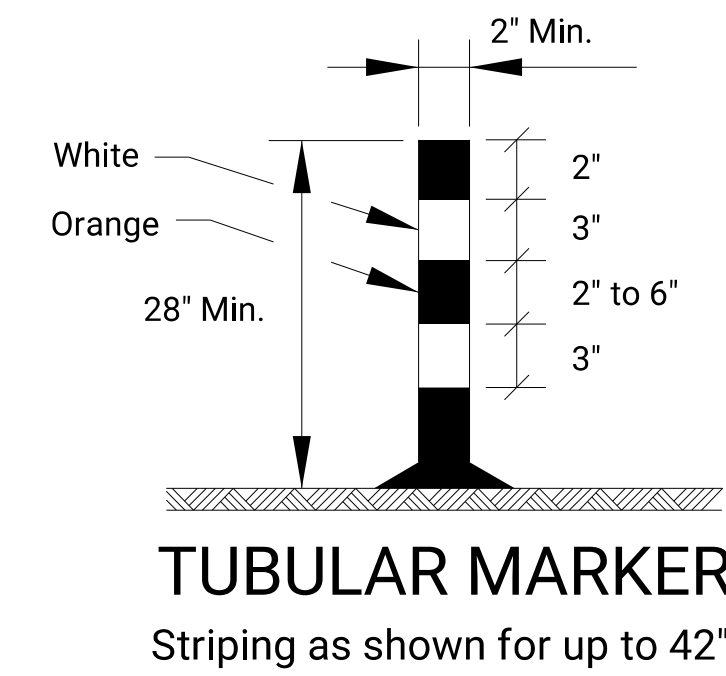
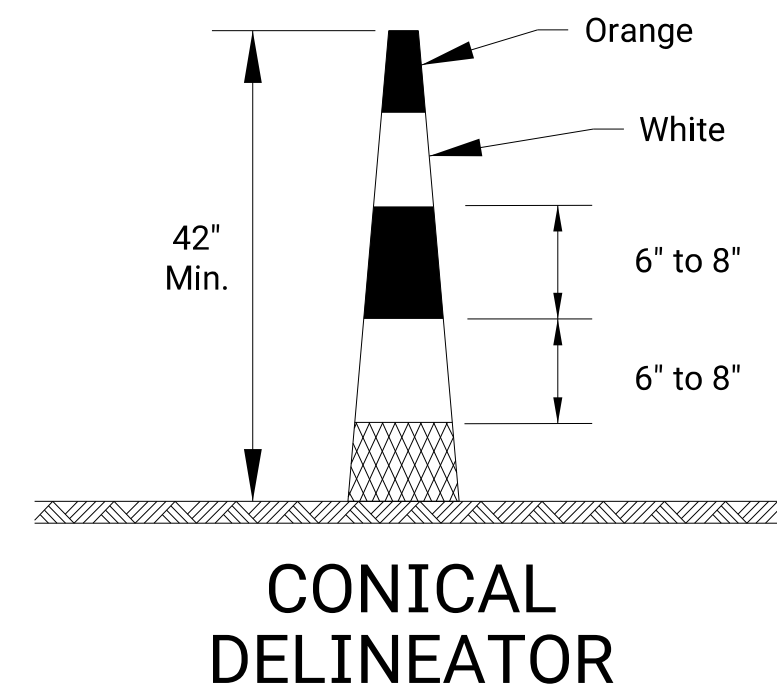
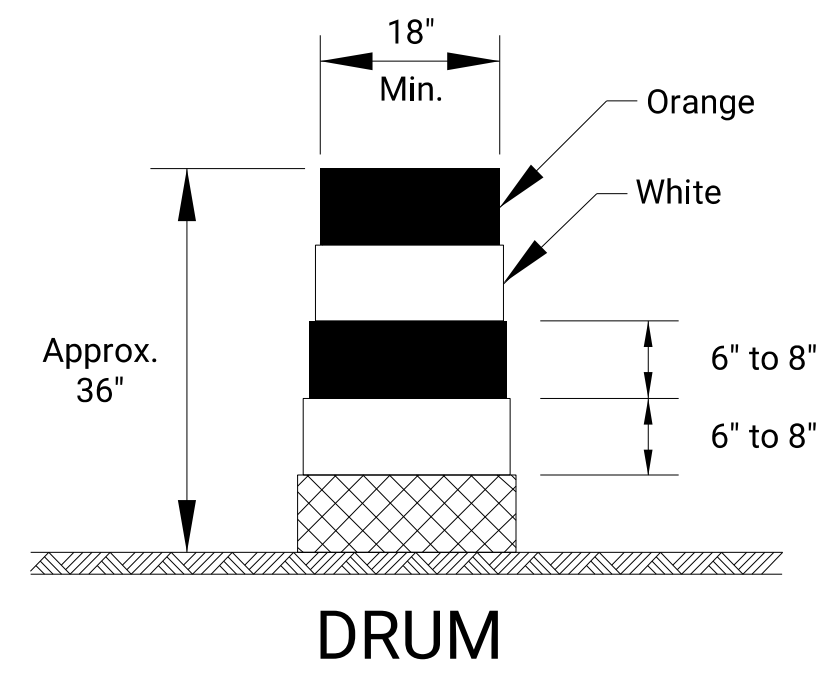
KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL GENERAL NOTES

TE700

| DESIGNED | B.A.H. | DETAILED | R.W.B. | QUANTITIES | TRACED |
|------------|--------|------------|--------|------------|-----------|
| DESIGN CK. | | DETAIL CK. | | QUAN. CK. | TRACE CK. |

APPROVAL Eric Koehler



For rails less than 36" long, 4" wide stripes may be used. All stripes shall slope downward to the traffic side for channelization.

The stripes shall slope downward to the traffic side for channelization.

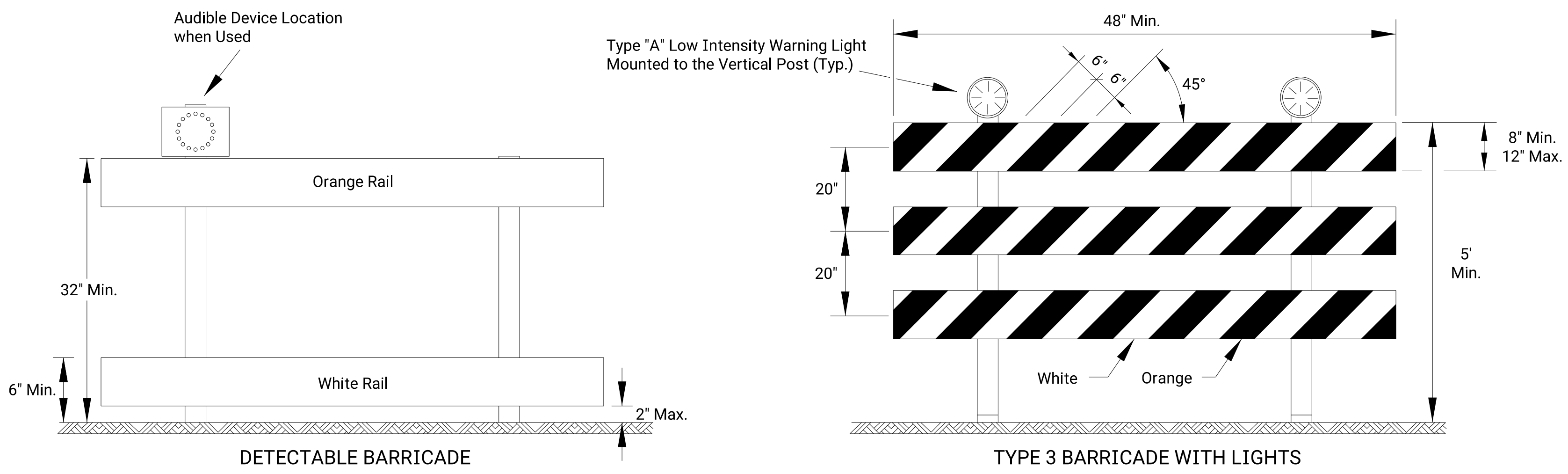
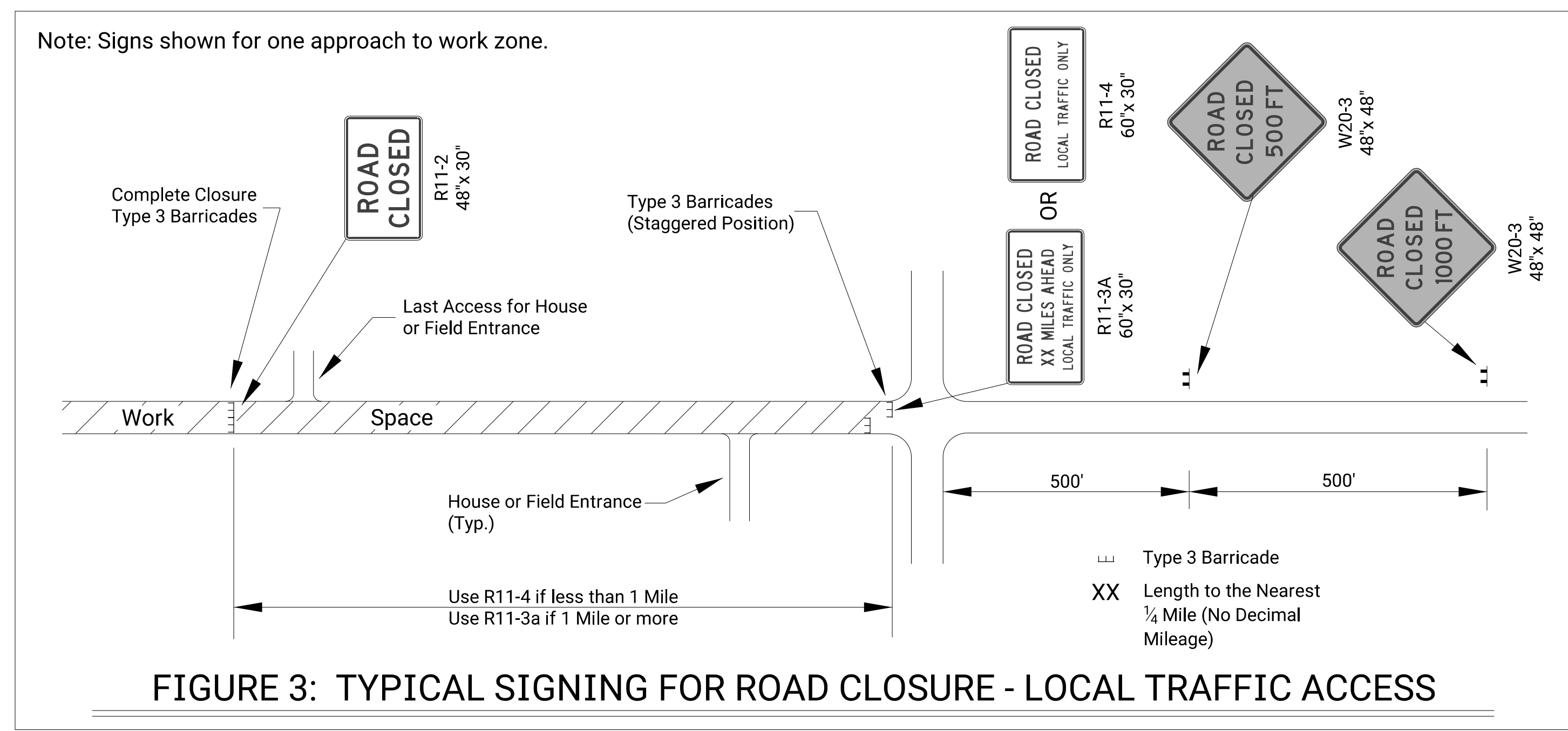
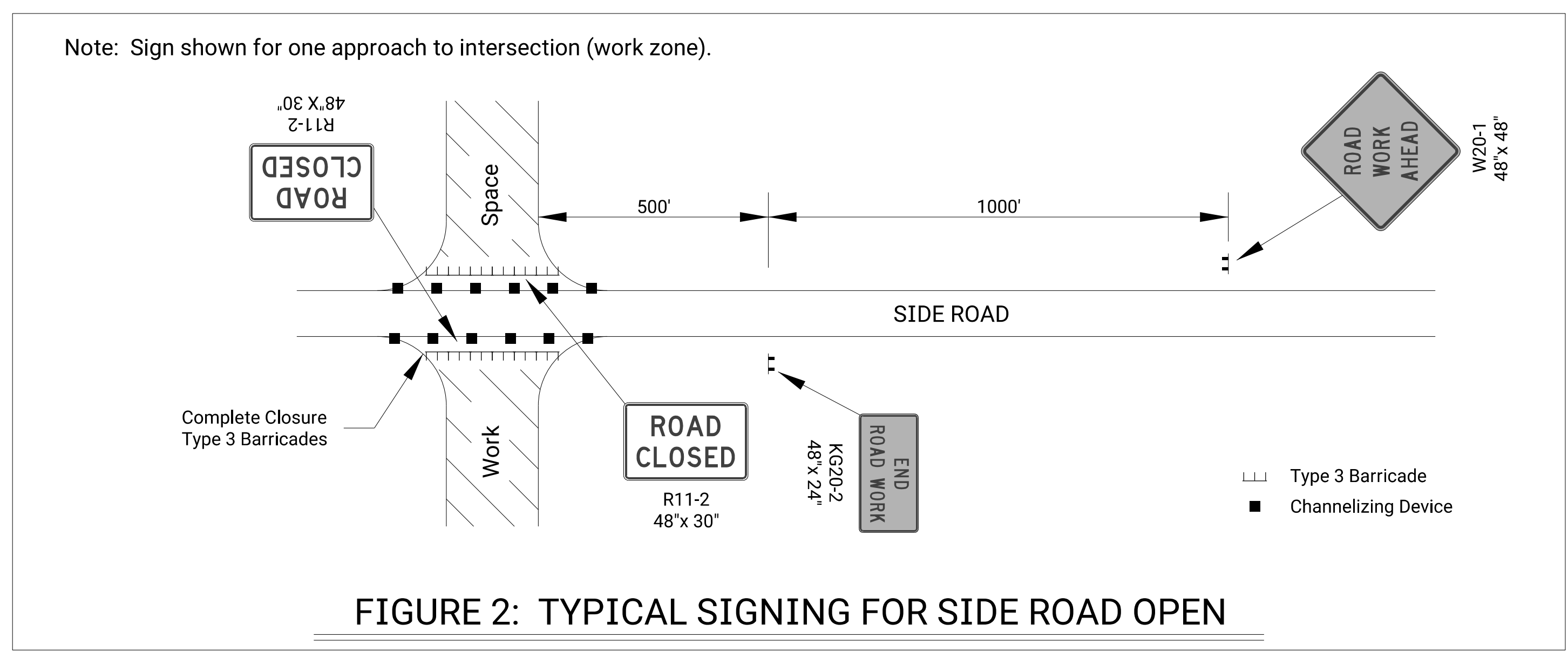
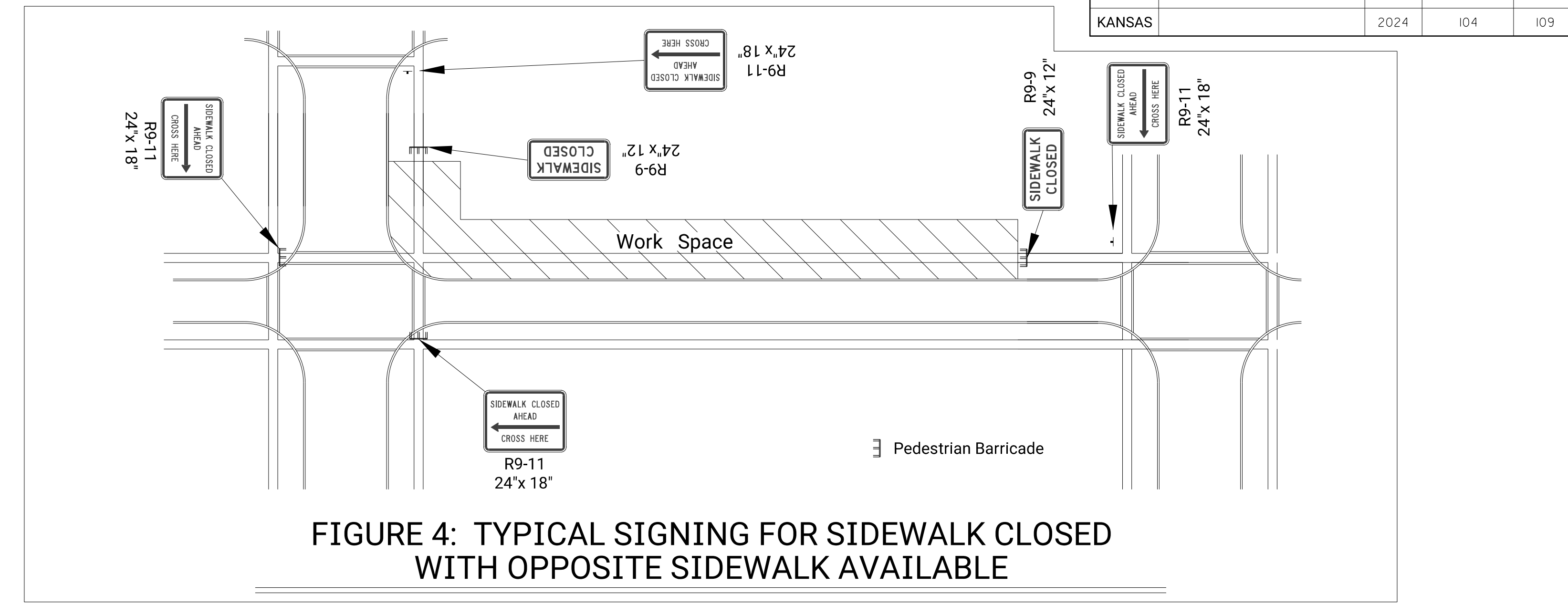
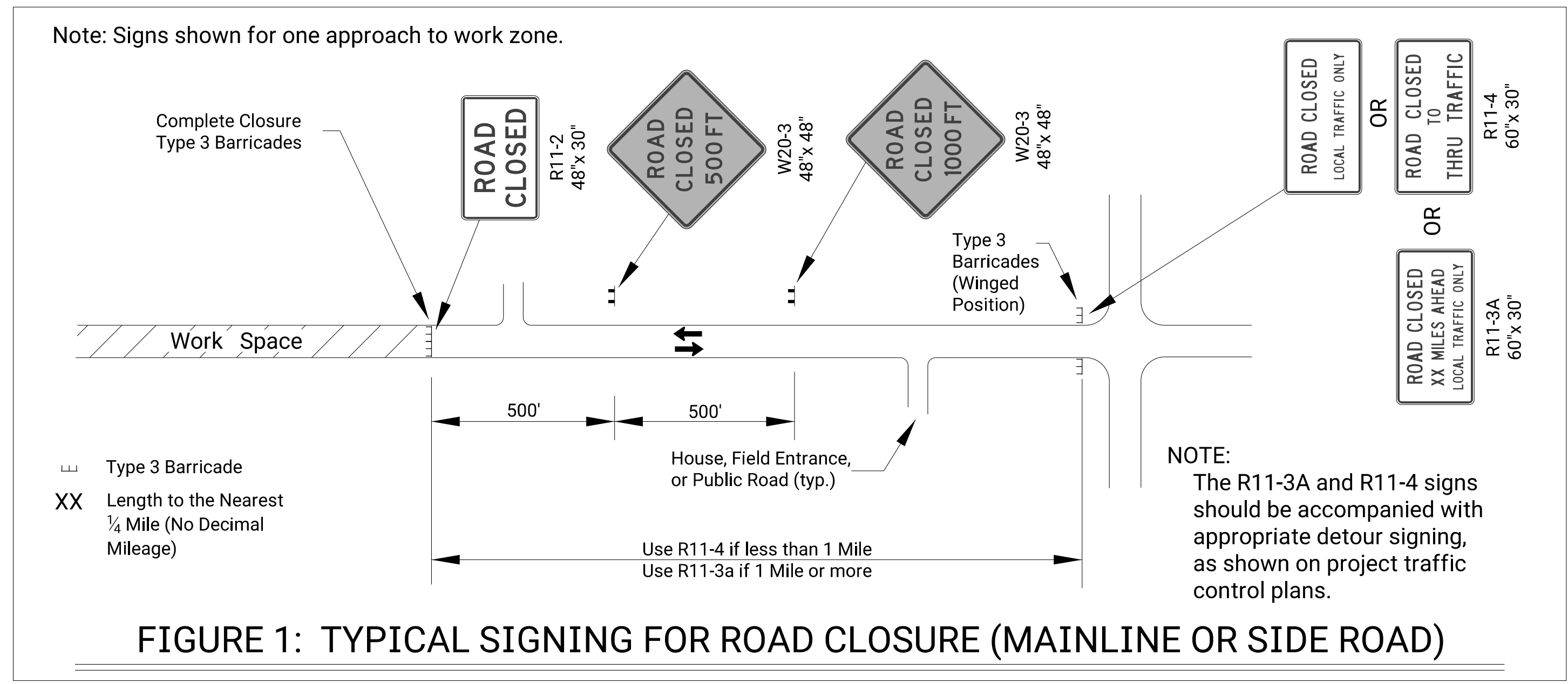
The stripes shall slope downward in the direction traffic is to pass. The direction indicator barricade shall be used in series to direct the motorist into the intended lane of travel.

1. Support device shall not project beyond the detection plate into the pathway.
2. Hand trailing edges and detection plates are optional for continuous walls.
3. Interconnect pedestrian channelizers to prevent displacement and to provide continuous guidance through or around work.
4. Alternate pathways shall be firm, stable, and slip resistant.
5. Treat height differentials > 1/2" in the surfaces of alternate paths with a firm, stable, and slip resistant temporary ramp having a slope of 12:1 or flatter and having a width equal to the alternate path.
6. Use alternating orange/white on interconnected devices.

| Item | Location | | | | | | | | | | |
|----------|-------------------------------|-------------|-------------------|----------|--------|-------|--------------|-------------------|-----------------|-------|--|
| | | Cross-overs | Shoofly Divisions | Tangents | Tapers | Ramps | Head to Head | Object Identifier | Lead-in Devices | Gores | |
| Portable | Drums | Yes | Yes | Yes | Yes | Yes | (1) | Yes | Yes | Yes | |
| | Conical Delineators | Yes | Yes | Yes | Yes | Yes | (1) | Yes | Yes | Yes | |
| | Vertical Panels | (2) | (2) | (2) | (2) | (2) | (1,2) | Yes | (2) | (2) | |
| | Direction Indicator Barricade | No | No | No | Yes | No | No | No | No | No | |
| | Type 2 Barricade | (2) | (2) | (2) | (2) | No | No | Yes | No | No | |
| Fixed | Traffic Cones | No | No | (4) | (4) | (4) | No | (4) | (4) | (4) | |
| | Tubular Markers | (3) | (3) | (3) | No | (3) | Yes | No | Yes | Yes | |
| | Vertical Panels | (3) | (3) | (3) | (3) | (3) | (3) | Yes | (2,3) | (2) | |

- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) The stripes shall slope downward to the traffic side for channelization.
- (3) May be used upon the approval of the engineer.
- (4) Daytime operations only.

| NO. | DATE | REVISIONS | BY | APPD |
|---|------------|-----------|--------|-------------------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| TRAFFIC CONTROL CHANNELIZING DEVICES | | | | |
| TE702 | | | | |
| FHWA APPROVAL | | 06-01-15 | APPD. | Kristina Ericksen |
| DESIGNED | L.E.R. | DETAILED | R.W.B. | QUANTITIES |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACED | TRACE CK. |



1. Support device shall not project beyond the detection plate into the pathway.
2. Barricades shall be used to close the entire width of the pathway.
3. Do not use warning lights on pedestrian barricades.
4. Do not use warning lights on audible devices.

Approved signs mounted on Type 3 barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

ROAD CLOSED GENERAL NOTES

As shown in Figure 1, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) or R11-4 (ROAD CLOSED LOCAL TRAFFIC ONLY or ROAD CLOSED TO THRU TRAFFIC) sign shall be used with Type 3 barricades (winged position), placed on the shoulders of roadway.

As shown in Figure 3, when local traffic must be allowed access into the work zone, Type 3 barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type 3 barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway.

The R11-4 (ROAD CLOSED TO THRU TRAFFIC or ROAD CLOSED LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is less than 1 mile.

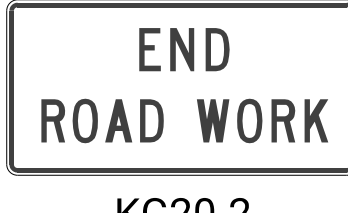



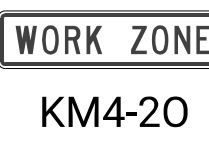

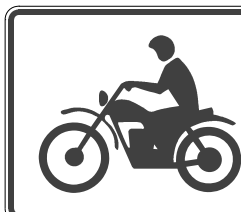




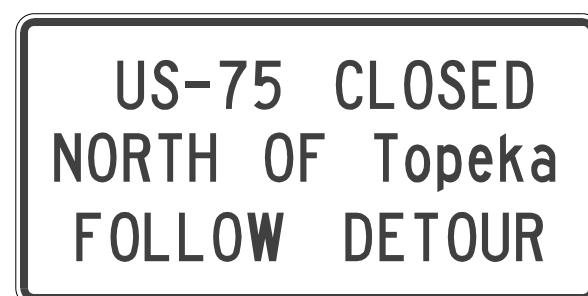
The R11-3a (ROAD CLOSED # MILES AHEAD LOCAL TRAFFIC ONLY) sign shall be used when the distance to the point of complete closure of the roadway is 1 mile or greater.

The words "BRIDGE OUT" (or BRIDGE CLOSED) may be substituted for the words "ROAD CLOSED" on the R11-3a or R11-4 sign where applicable.

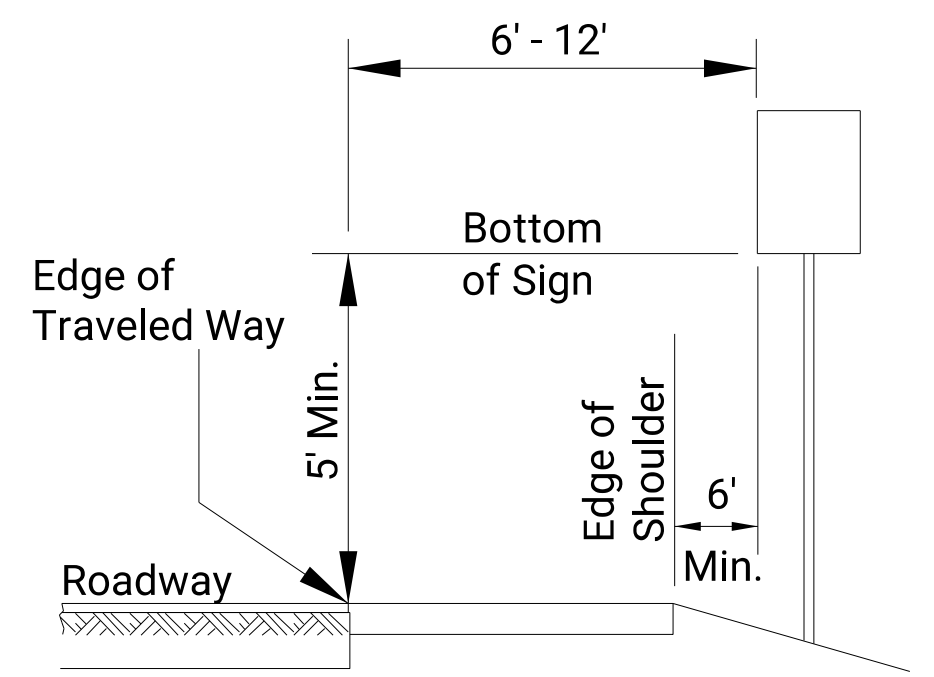
Drawn By: CAM
 File: TrafficControl.dgn
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| NO. | DATE | REVISIONS | BY | APPD |
|-------------------------------------|-----------------|------------|-------------------|------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| TRAFFIC CONTROL CLOSURES | | | | |
| TE704 | | | | |
| FHWA APPROVAL | 06-01-15 | APPD. | Kristina Erickson | |
| DESIGNED B.A.H. | DETAILED R.W.B. | QUANTITIES | TRACED | |
| DESIGN CK. | DETAIL CK. | QUAN.CK. | TRACE CK. | |

SIGN LAYOUT INFORMATION

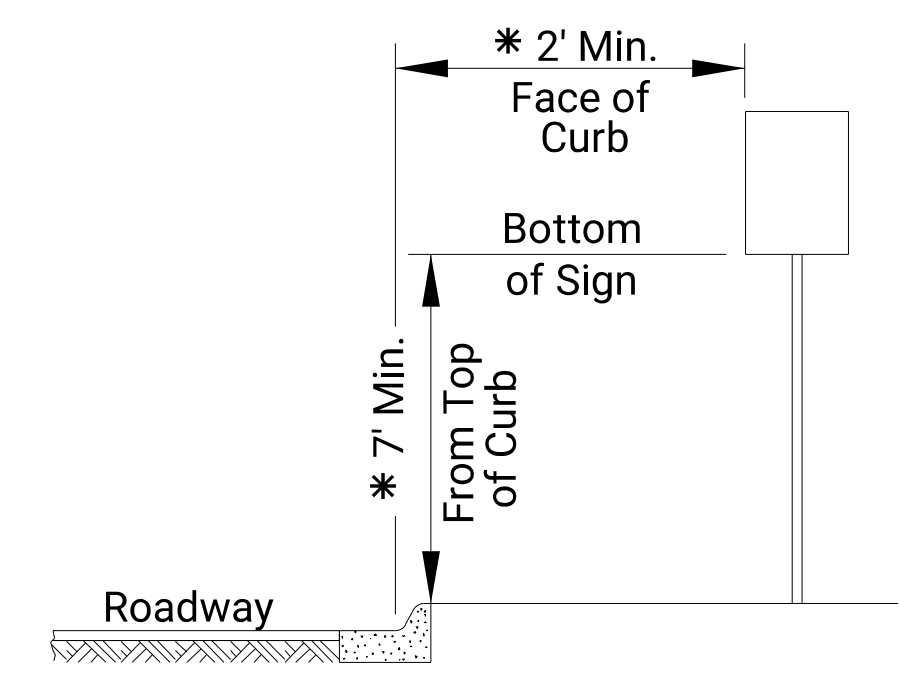
| | | | | |
|--|---|---|---|--|
|  END ROAD WORK KG20-2 | Std. Size Expwy/Freeway 6" C 48"x 24" |  GROOVED PAVEMENT W8-15 | Std. Size Expwy/Freeway 8" D 48"x 48" | |
|  WAIT FOR PILOT CAR KG20-5 | Std. Size Expwy/Freeway 6" C 48"x 24" |  LOOSE GRAVEL W8-7 | Std. Size Expwy/Freeway 8" D 48"x 48" | |
|  WORK ZONE KM4-20 | Std. Size Expwy/Freeway 3" C 24"x 6" | Std. Size Expwy/Freeway 6" C 48"x 12" | | |
|  NEXT X MILES W7-3a | Mileage to be Determined by the Engineer. | |  W8-15p | Std. Size Expwy/Freeway 30"x 24" |
|  W8-17 | Std. Size Expwy/Freeway 48"x 48" |  UNEVEN LANES W8-11 | Std. Size Expwy/Freeway 8" D 48"x 48" | |
|  SHOULDER DROP-OFF W8-17P (Optional) | Std. Size Expwy/Freeway 30"x 24" | | | |
|  NB US-75 CLOSED FOLLOW DETOUR SP-01 (Special Sign) | Std. Size 6" C | Expwy/Freeway 10" D | | |
|  US-75 CLOSED NORTH OF TOPEKA FOLLOW DETOUR SP-02 (Special Sign) | Std. Size Uppercase: 6" C Lowercase: 4.5" C | Expwy/Freeway Uppercase: 10" D Lowercase: 8" D | | |

All city names and street names on special signs and destination signs must have upper and lower case letters.



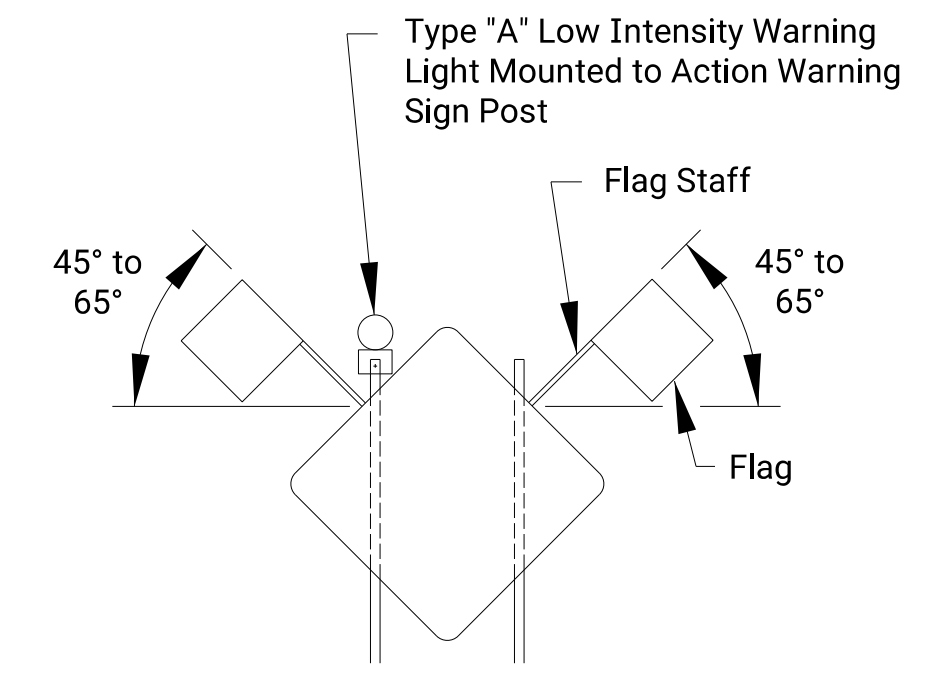
RURAL

- 1) Ground-mounted signs shall be mounted at a minimum height of 5' measured from the bottom of sign to the near edge of the pavement.
- 2) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- 3) The height of the secondary sign mounted below another sign may be 4' measured from the bottom of the sign to the near edge of the pavement. Signs shall not overlap each other.



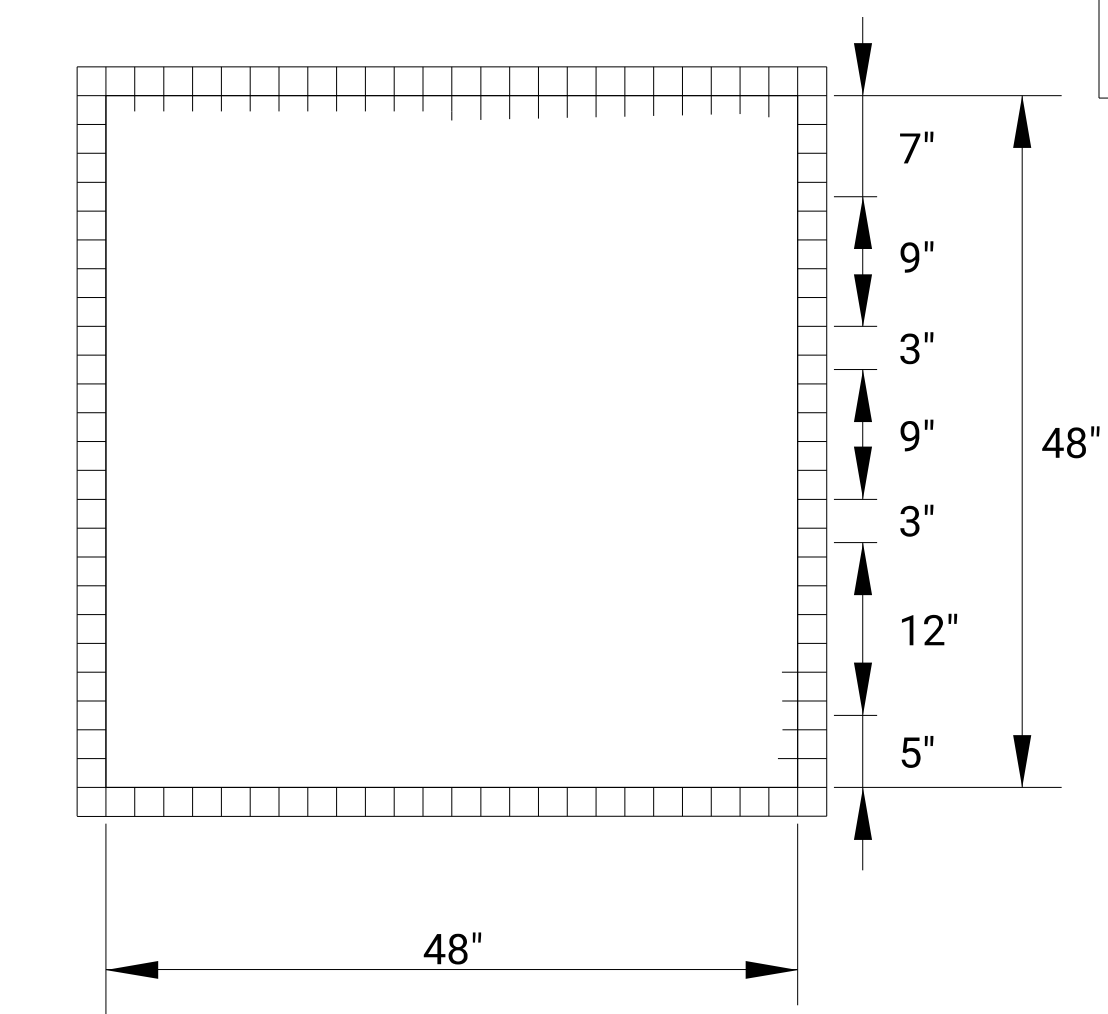
URBAN

- 1) Signs shall be mounted at a minimum height of 7' measured from the bottom of sign to the near edge of the pavement.
- 2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.
- 3) Signs mounted lower than 7' should not project more than 4" into pedestrian facilities.
- 4) The height from of the secondary sign mounted below another sign may be 6' measured from the bottom of sign to the near edge of the pavement. Signs shall not overlap each other.
- 5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.
- * 6) Pedestrian detour signing shall be a minimum of 2' measured from the top of the pedestrian pathway to the bottom of the sign and shall not protrude into the walkway nor shall it project beyond the back of curb.

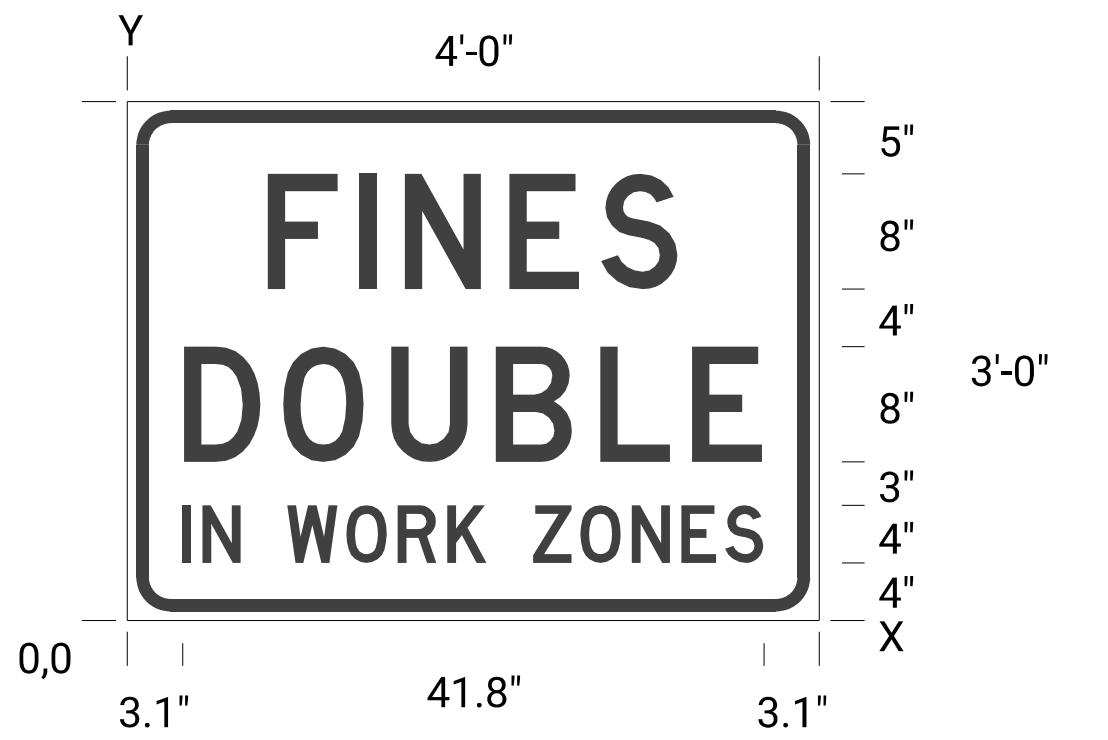


When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

- In the case of hitting rock when driving posts
1. Shift the sign location. Do not violate minimum sign spacing.
 2. With the engineer's approval, use acceptable alternative sign stands.



KI-104a



KI-105a

| | |
|----------------|--|
| Sign Number | GIVE EM A BRAKE |
| Width x Height | 4'-0" x 4'-0" |
| Border Width | 1.0" |
| Corner Radius | 4.0" |
| Stripe Width | 3.0" |
| Mounting | Ground |
| Background | Type: Non-Reflective Color: Black |
| Legend/Border | Type: Reflective Color: White |
| Legend Font | Dutch 801 Roman SWC 25 Degree Slant |
| Stripes | Type: Reflective Color: Orange |

| | |
|----------------|--------------------------------------|
| Sign Number | FINES DOUBLE |
| Width x Height | 4'-0" x 3'-0" |
| Border Width | 0.9" |
| Corner Radius | 3.0" |
| Mounting | Ground |
| Background | Type: Reflective Color: White |
| Legend/Border | Type: Non-Reflective Color: Black |

Dimensions in inches

Spacings are to start of next letter

| Y FONT | LETTER SPACINGS | | | | | | | | | | | | | HT LEN | | |
|--------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------|-----|------|
| 23.0 D | F | I | N | E | S | | | | | | | | | 8.0 | | |
| | 9.7 | 6.4 | 3.2 | 7.3 | 6.4 | 5.4 | 9.7 | | | | | | | 28.6 | | |
| 11.0 D | D | O | U | B | L | E | | | | | | | | 8.0 | | |
| | 3.9 | 6.9 | 7.5 | 7.3 | 6.4 | 4.9 | 3.9 | | | | | | | 40.3 | | |
| 4.0 D | I | N | W | O | R | K | Z | O | N | E | S | | | 4.0 | | |
| | 3.1 | 1.6 | 2.7 | 3.2 | 4.3 | 3.8 | 3.6 | 2.8 | 3.2 | 3.4 | 3.8 | 3.6 | 3.2 | 2.7 | 3.1 | 41.8 |

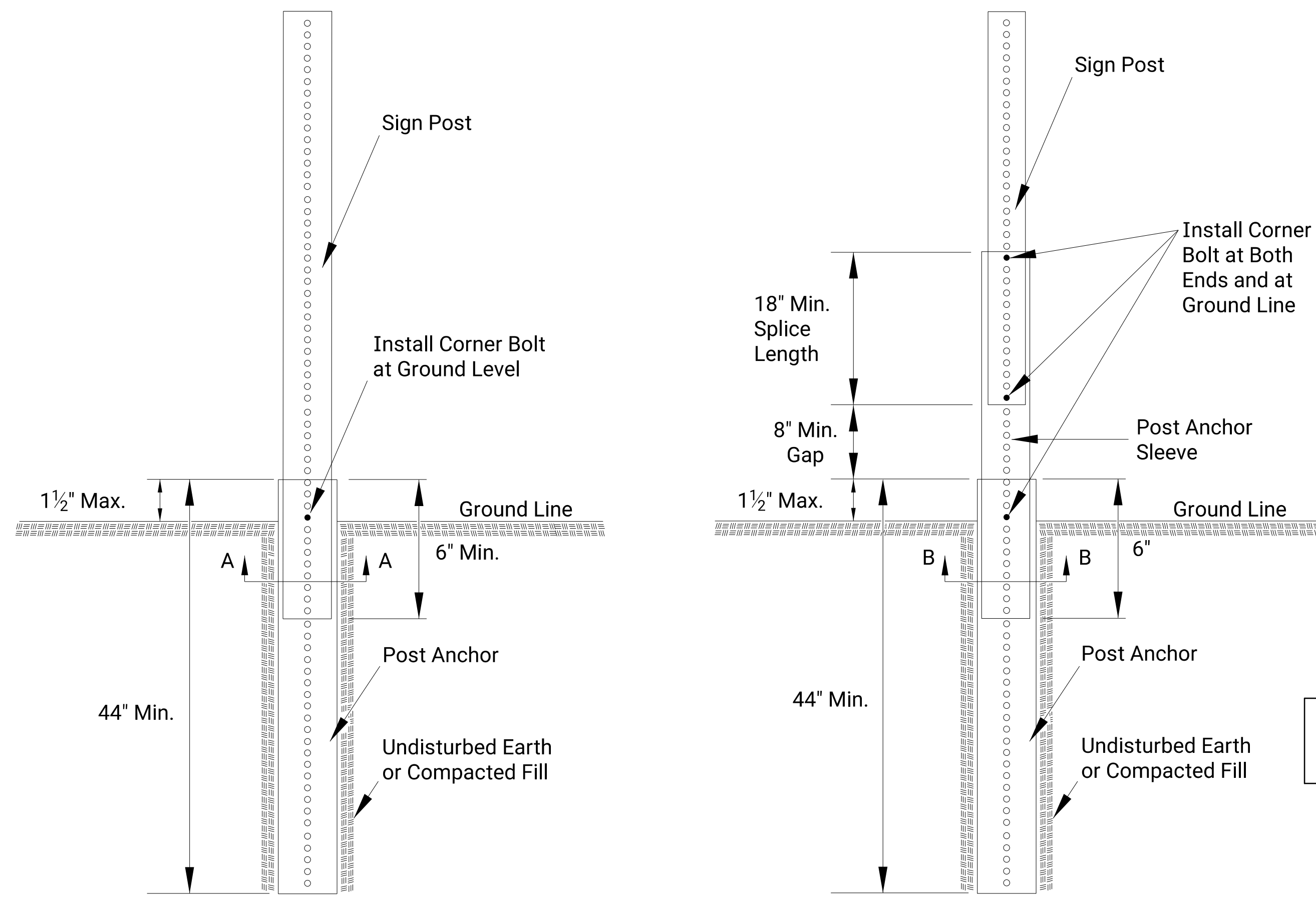
Notes:

- Typically, there are two sets of informational signs installed per project: one for each direction of traffic.
- Install signs a minimum of 500' in advance of the road work ahead sign. The engineer may designate a more appropriate location if conditions dictate.
- The informational signs are not to interfere with the traffic control signs for the project.

| | | | |
|---|------------|-----------|-------------------------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | |
| TRAFFIC CONTROL SIGN INFORMATION | | | |
| TE710 | | | |
| DESIGNED | R.W.B. | 06-01-15 | APPD. Kristina Ericksen |
| DETAIL CK. | DETAIL CK. | QUAN. CK. | TRACED |

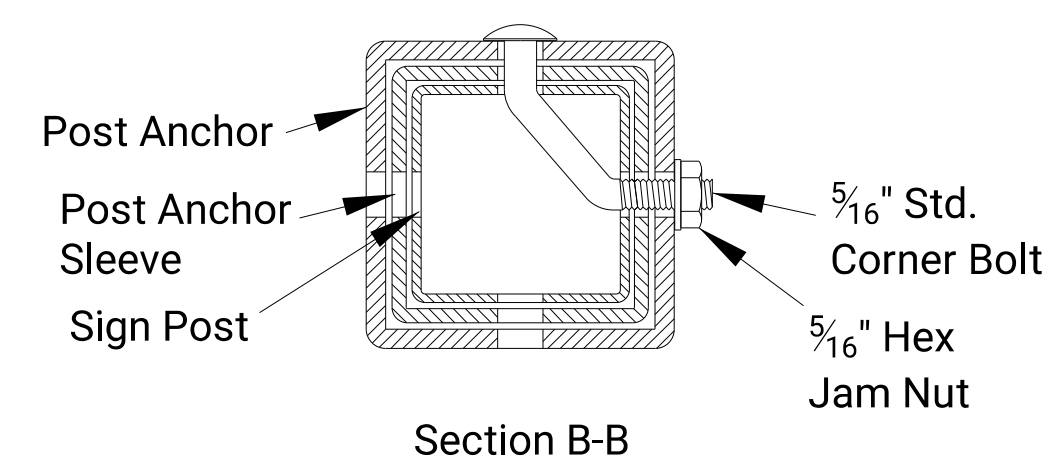
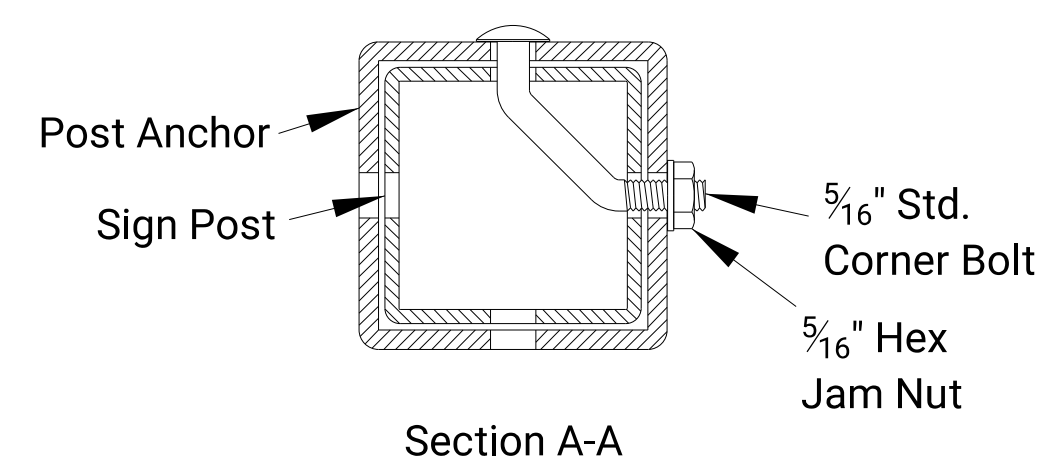
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 106 | 109 |

PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP



P.S.S.T. Detail

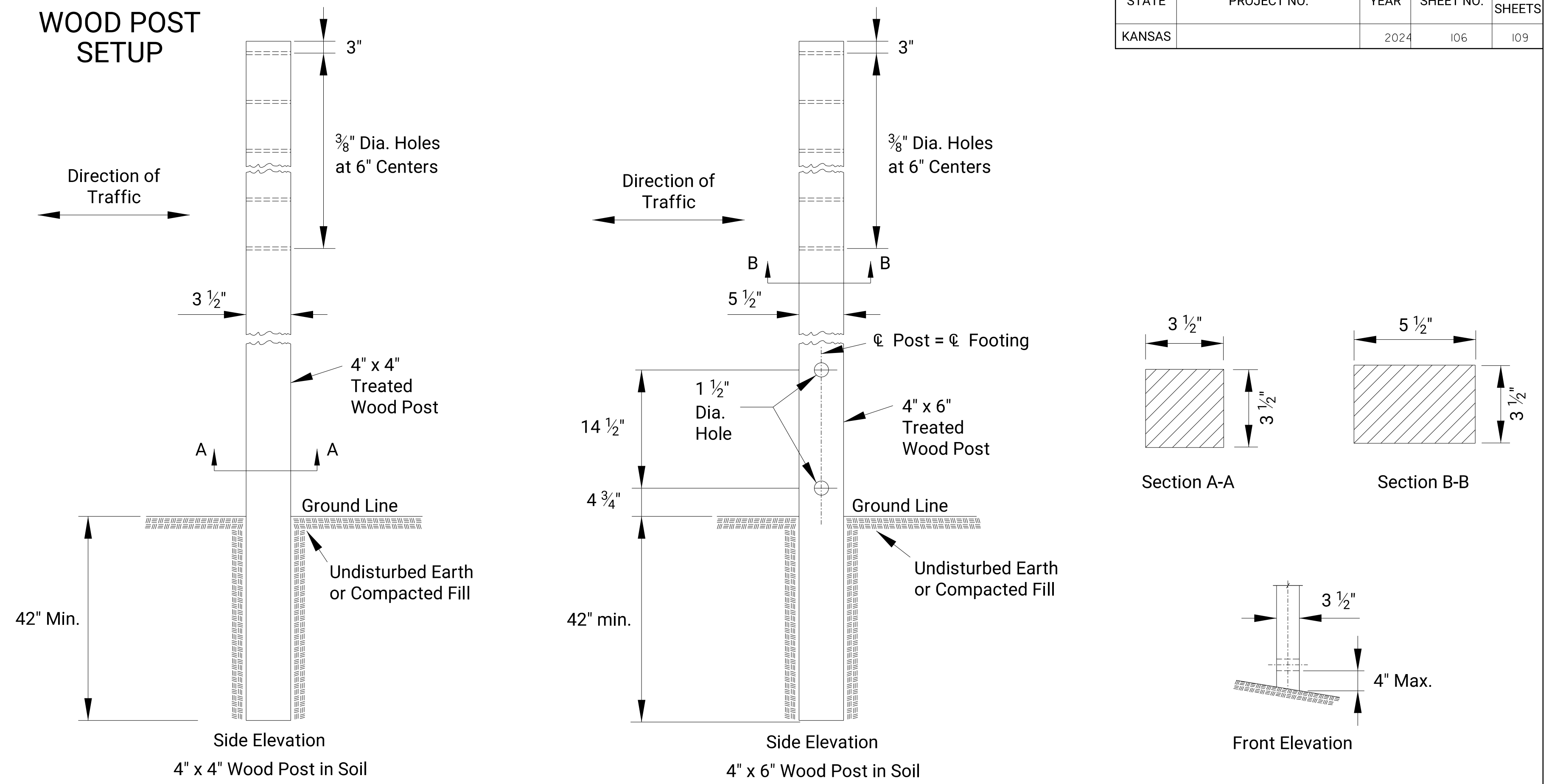
Telescoping P.S.S.T. Detail



Details for 2", 2 1/4", or 2 1/2" sign posts

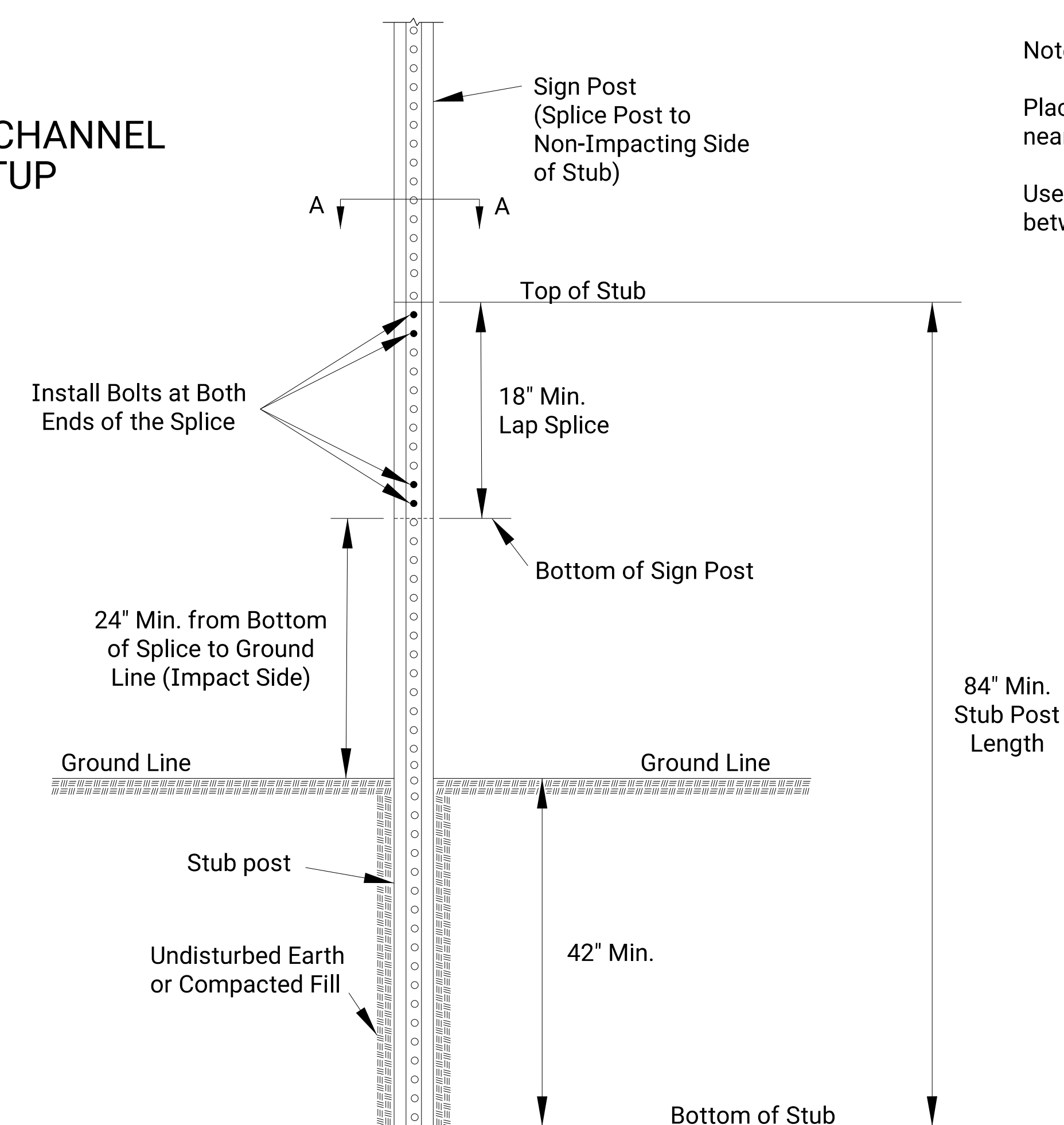
Place bolts in the same corner along each sign post.

WOOD POST SETUP



See TE710 for Additional Details and Requirements

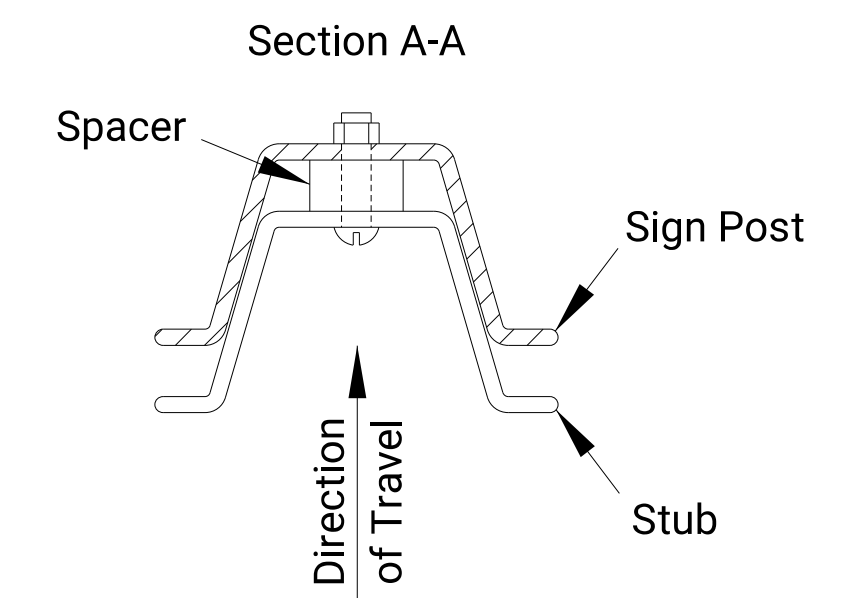
3 LB/F U-CHANNEL SETUP



Notes:

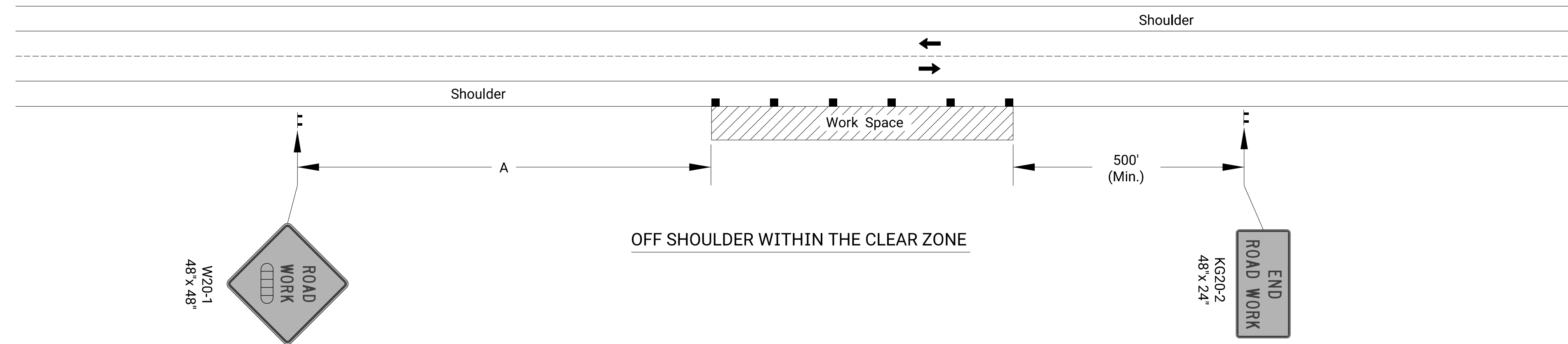
Place two bolts at both ends of the splice through the holes nearest the ends of the splice.

Use manufacturer recommended spacers over the bolts between the spliced pieces of U-Channel.



| NO. | DATE | REVISIONS | BY | APPD |
|-------------------------------------|------------|-----------|------------|-------------------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| TRAFFIC CONTROL SIGN POSTS | | | | |
| TE712 | | | | |
| FHWA APPROVAL | DESIGNED | 06-01-15 | APPD. | Kristina Ericksen |
| B.A.H. | DETAILED | R.W.B. | QUANTITIES | TRACED |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACE CK. | TRACE CK. |

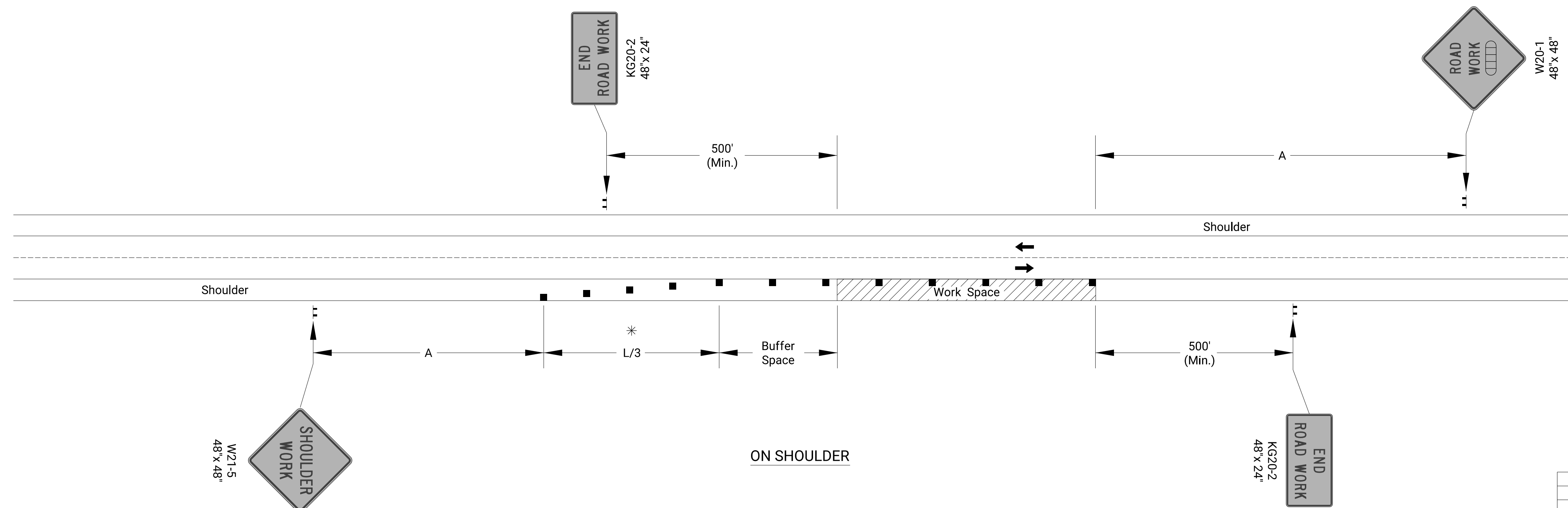
| | | | | |
|--------|-------------|------|-----------|--------------|
| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
| KANSAS | | 2024 | 105 | 109 |



Notes:

No traffic control is required if the Work Space is located outside of the clear zone.

For operations of 60 minutes or less, all signs and channelizing devices may be eliminated if a vehicle with high-intensity rotating, flashing, oscillating, or strobe lights is used.



* Omit taper if paved shoulder is less than 8' wide.

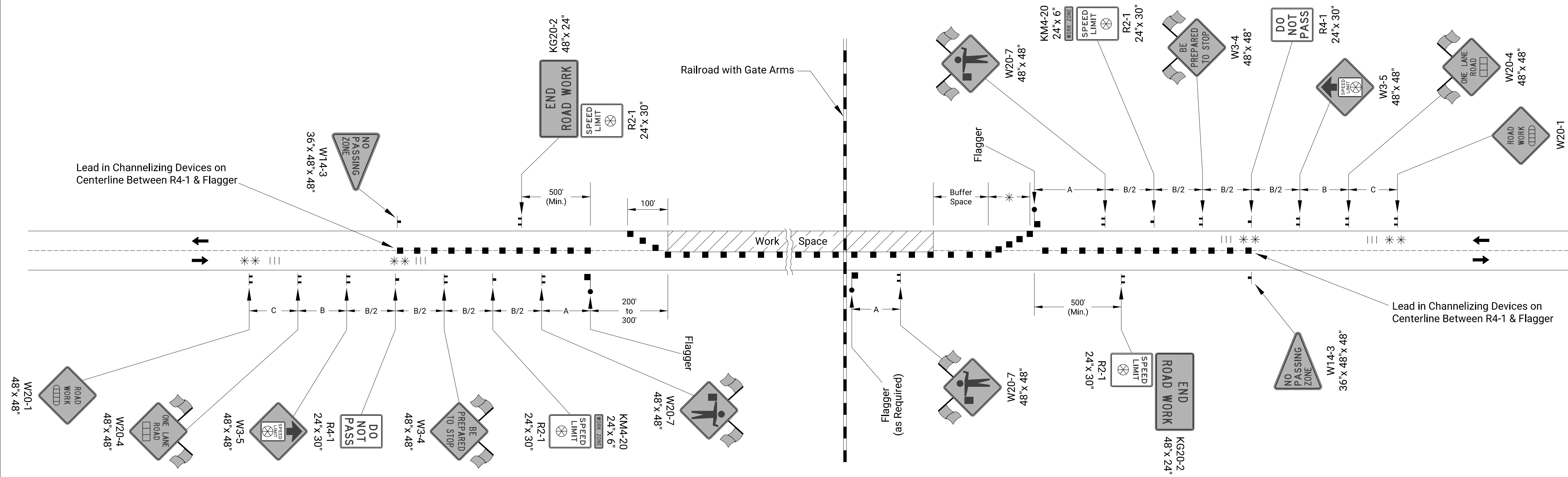
- Channelizing Device
- ◻◻◻◻ Ahead, 1500 ft, or 1 Mile

Drawn By : CAM
 File : TrafficControl.dgn
 Plotted : 6/19/2024 2:39:16 PM

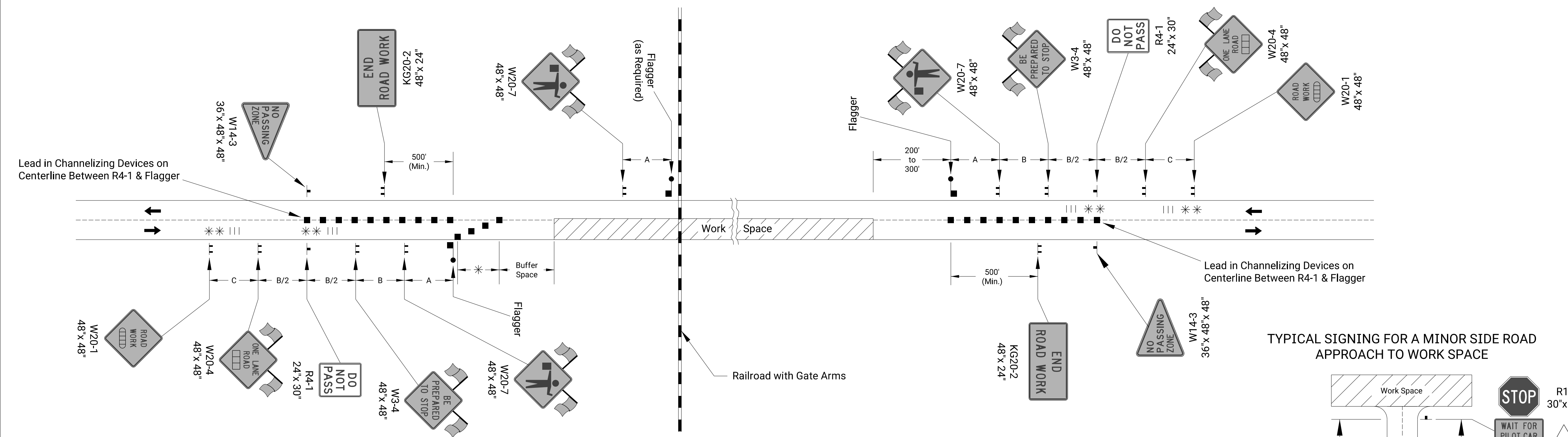
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
|--|------------|-----------|--------|-------------------|
| NO. | DATE | REVISIONS | BY | APPD |
| TRAFFIC CONTROL SHOULDER WORK UNDIVIDED ROADWAY | | | | |
| TE720 | | | | |
| FHWA APPROVAL | | 06-01-15 | APPD. | Kristina Ericksen |
| DESIGNED | L.E.R. | DETAILED | R.W.B. | QUANTITIES |
| DESIGN CK. | DETAIL CK. | QUAN.CK. | TRACED | TRACE CK. |

| STATE | PROJECT NO. | YEAR | SHEET NO. | TOTAL SHEETS |
|--------|-------------|------|-----------|--------------|
| KANSAS | | 2024 | 108 | 109 |

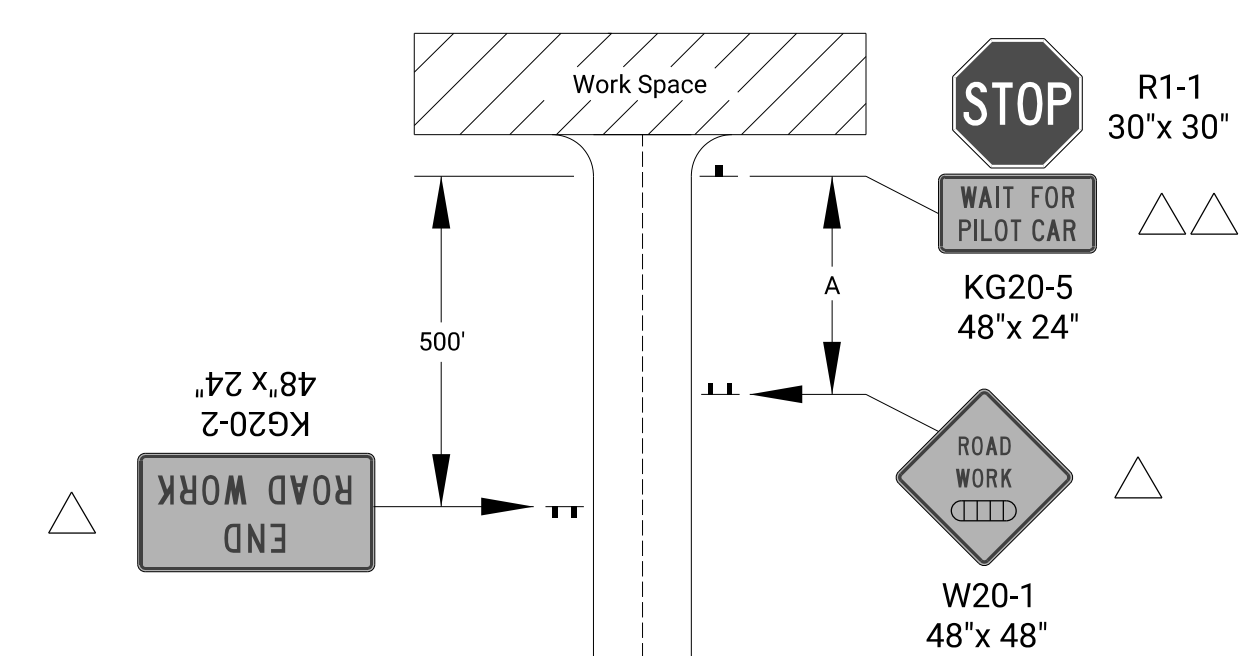
FLAGGER



FLAGGER AND PILOT CAR



TYPICAL SIGNING FOR A MINOR SIDE ROAD APPROACH TO WORK SPACE



USE TE731 FOR FLAGGER OR PILOT CAR ON ROADWAYS WITH CONCRETE SHOULDERS GREATER THAN 8 FT.

Notes:
Trucks hauling material to the project should STOP at the Flagger. After stopping, upon approval of the Engineer, trucks may be allowed to move around the Flagger.

Place a Flagger at all highway and major collector intersections and at-grade railroad intersections with lights and gates in the work space to control traffic crossing the tracks to the left of the gate arm. The need for a Flagger at minor side road intersections shall be determined by the Engineer. Place a W20-7 (Flagger symbol) sign on each side road that is controlled by a Flagger.

Existing signs shall not be covered or removed between Flagger stations.

Temporary rumble strips may be used in lieu of lead in channelizing devices when the roadway is less than or equal to 30' including paved shoulders. When extenuating circumstances exist, the Area Engineer may elect to eliminate both the lead in channelizers and the rumble strips.

* Minimum six (6) channelizers spaced at 20' intervals.

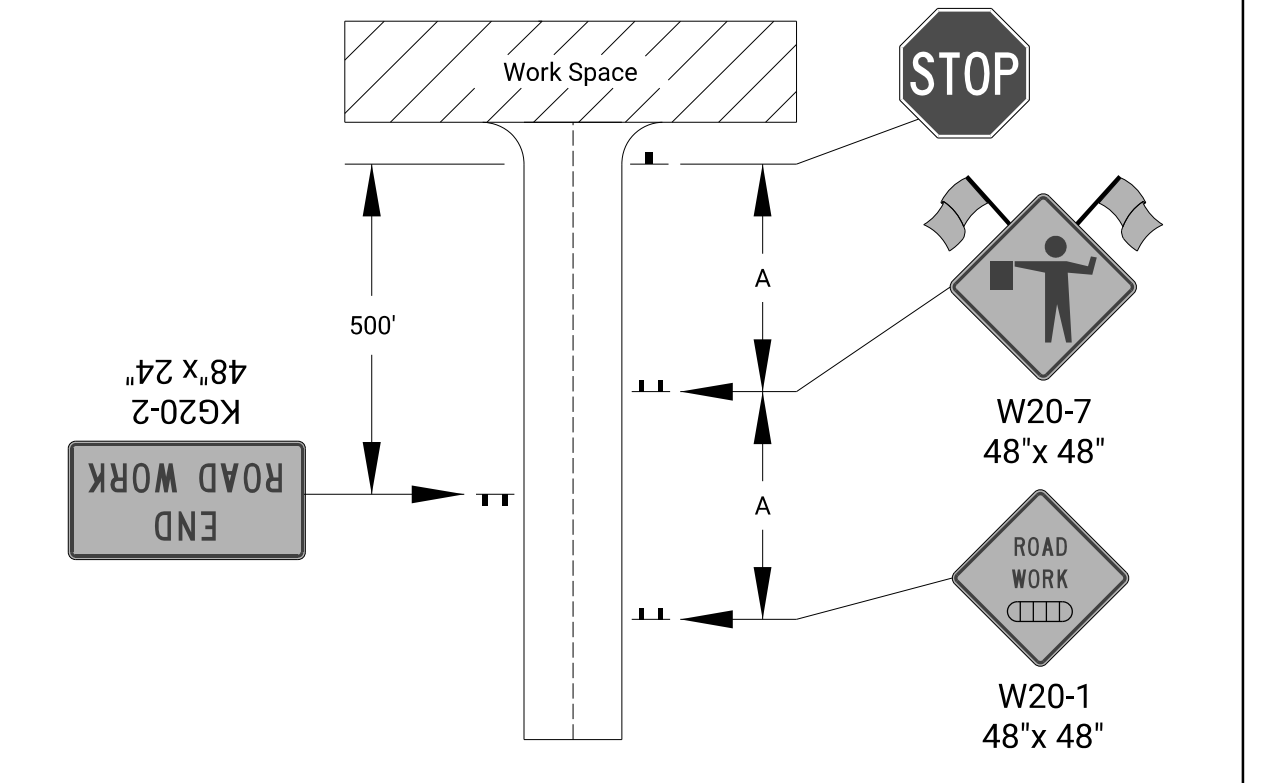
** Optional rumble strips may be placed: One set between the W20-1 and W20-4, and one set between the R4-1 and W3-4, on each approach.

△ Not required on substantial maintenance projects (1R).

△△ The KG20-5 (WAIT FOR PILOT CAR) sign shall be mounted on an approved portable support and not attached to the existing stop sign post.

The KG20-5 sign shall be placed immediately in front of the existing stop sign, a minimum of 6" below the bottom of the stop sign. The sign should be removed or covered when there is no pilot car.

TYPICAL SIGNING FOR HIGHWAY OR MAJOR COLLECTOR APPROACH TO WORK SPACE



Plotted : 6/19/2024 2:39:16 PM
Drawn By : CAM
File : TrafficControl.dgn

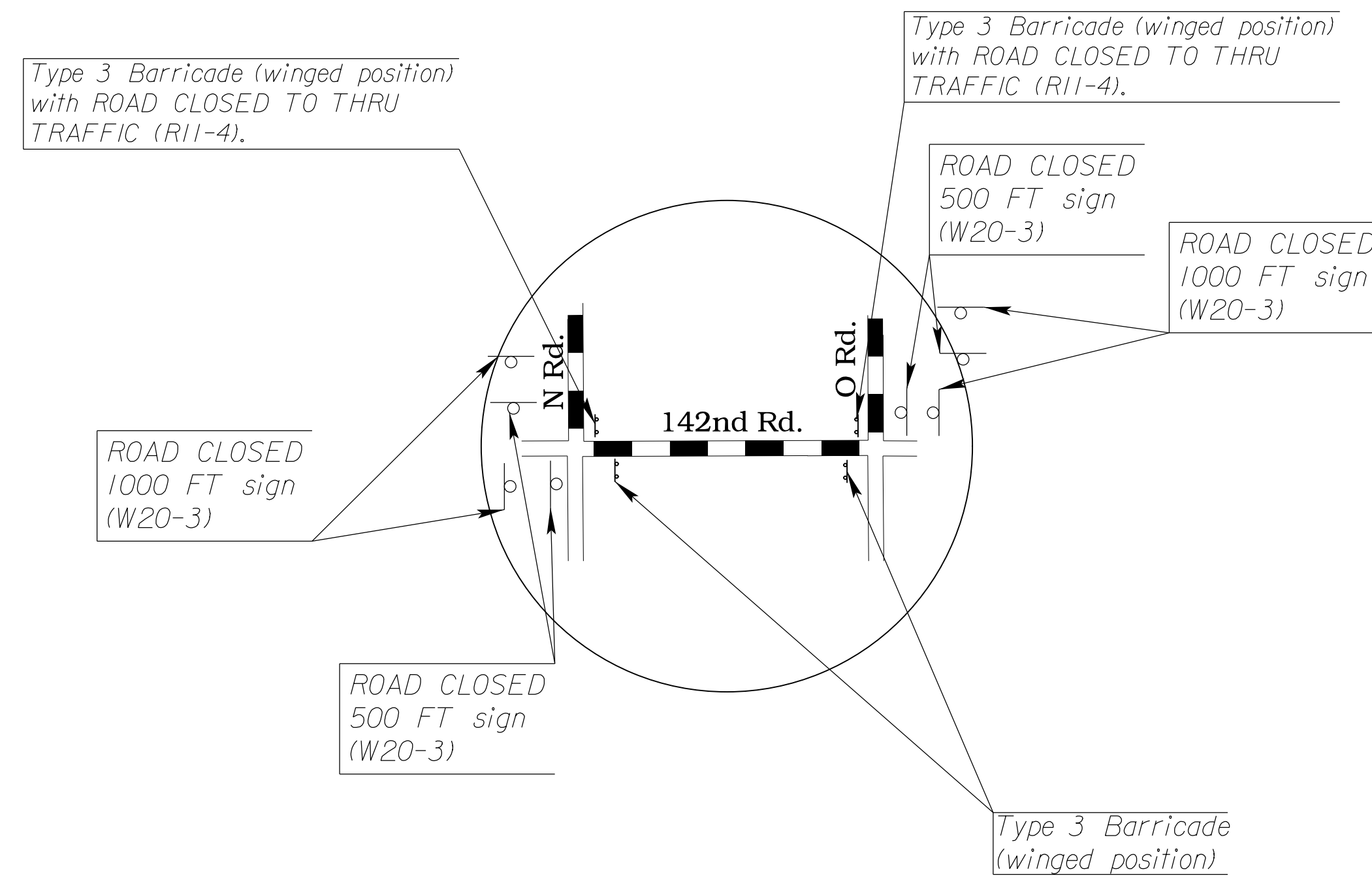
- Channelizing Device
- ▭ Ahead, 1500 ft, or 1 Mile
- ▭ Ahead, 1000 ft, 1500 ft, or 1/2 Mile
- ⊗ Speed to be Determined by the Engineer
- Type "A" Low Intensity Warning Light
- ||| Temporary Portable Rumble Strips

| NO. | DATE | REVISIONS | BY | APPD |
|---|------------|-----------|--------|-------------------|
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | |
| TRAFFIC CONTROL FLAGGER OR PILOT CAR | | | | |
| TE730 | | | | |
| FHWA APPROVAL | | 06-01-15 | | APPD. |
| DESIGNED | B.A.H. | DETAILED | R.W.B. | QUANTITIES |
| DESIGN CK. | DETAIL CK. | QUAN. CK. | TRACED | TRACE CK. |
| | | | | Kristina Erickson |

SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

* QUANTITY MOST USED ON THE PROJECT AT ANY ONE TIME

| Sign No. | Work Zone Signs * | | |
|----------|-------------------|------------|--------------|
| | 0-9.25 | 9.26-16.25 | 16.26 & Over |
| R11-4 | | 16 | |
| W20-1 | | 6 | |
| W20-3 | | 32 | |
| W21-5a | | 8 | |
| W21-5b | | 8 | |
| W20-7 | | 2 | |
| R2-1 | 2 | | |
| KM4-20 | 2 | | |
| W3-4 | | 2 | |
| R4-1 | 2 | | |
| W3-5 | | 2 | |
| W20-4 | | 2 | |
| W14-3 | 2 | | |



EXAMPLE OF ONE MILE ROAD CLOSURE

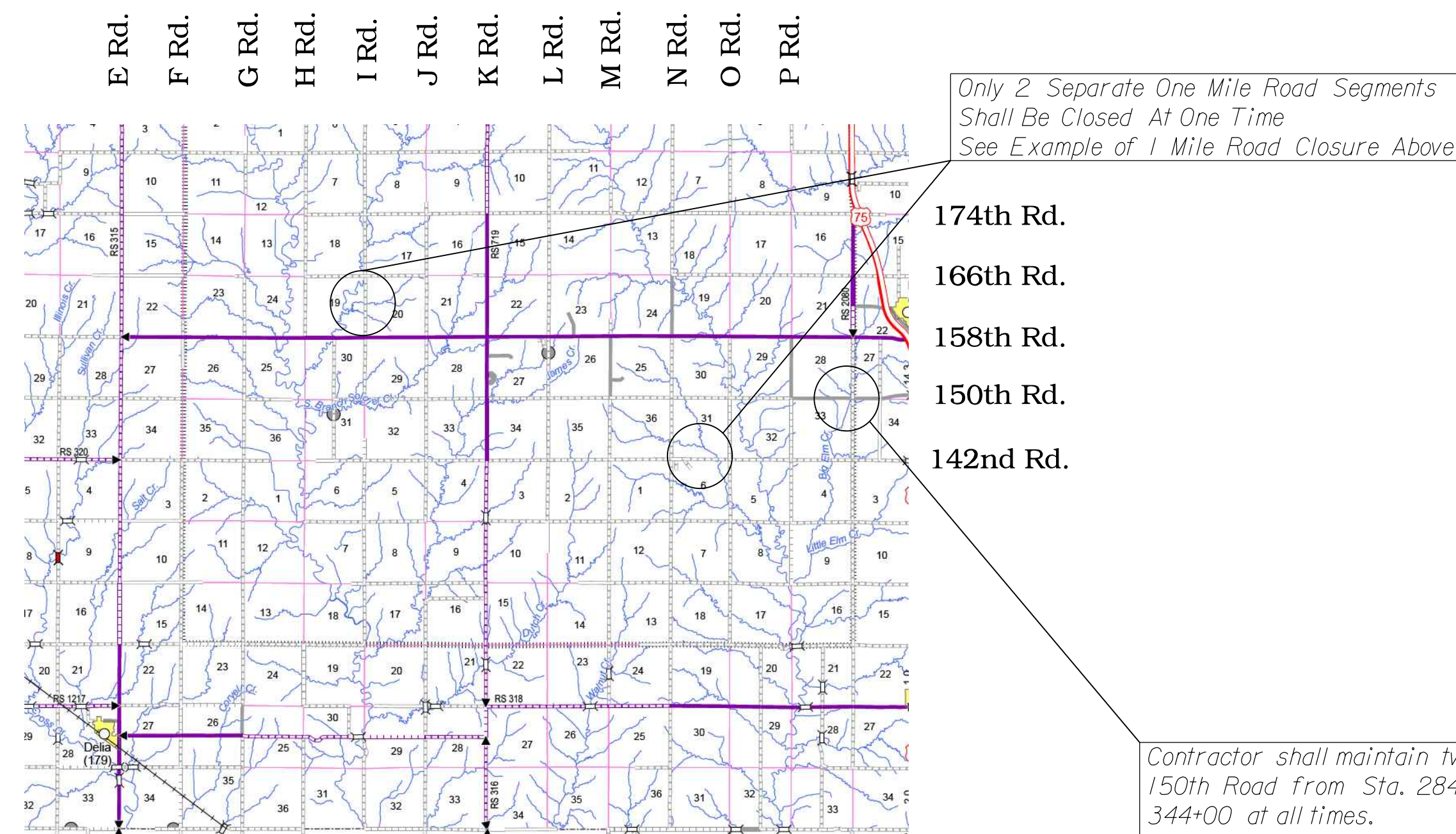
CONSTRUCTION SEQUENCING;

Roads may be closed in 1 mile increments for patching. Segments shall not be consecutive so as to allow access to adjacent properties. Roads into the housing clusters that have only one way in and out shall be done half at a time. The Contractor shall submit for review and approval his sequence of road work. 158th Road shall be the last road to be repaired and resurfaced.

The exception is 150th Road from Sta. 284+00 to Sta. 344+00. Two-way traffic shall be maintained at all times from US-75 to the Casino. At no times shall this roadway be less than two lanes.

Notification shall be given to residents 7 days prior to road closure. The contractor shall not block off access to residents that live adjacent to closed roads. The Type 3 barricades and signs will not be paid for directly but shall be subsidiary to Traffic Control (Lump Sum).

NOTE: Temporary Pavement Markings are to be placed on the final asphalt surface until the permanent pavement markings are placed. The temporary markings shall be yellow 3.3' stripes with 29.5' gap.



LOCATION MAP

Contractor shall maintain two-way traffic on 150th Road from Sta. 284+00 to Sta. 344+00 at all times.

| Recapitulation Of Quantities | | |
|---|----------|--------------|
| Item | Quantity | Unit |
| Work Zone Signs (0 To 9.25 Sq.Ft.) | | Each Per Day |
| Work Zone Signs (9.26 To 16.25 Sq.Ft.) | | Each Per Day |
| Work Zone Signs (16.26 Sq.Ft. & Over) | | Each Per Day |
| Work Zone Barricades (Type 3 - 4' To 12') | | Each Per Day |
| Work Zone Barricades (Pedestrian) | | Each Per Day |
| Channelizer (Fixed) | | Each Per Day |
| Channelizer (Portable) | | Each Per Day |
| Channelizer (Pedestrian) | | Each Per Day |
| Work Zone Warning Light (Type "A" Low Intensity) | | Each Per Day |
| Work Zone Warning Light (Red Type "B" High Intensity) | | Each Per Day |
| Arrow Display | | Each Per Day |
| Portable Changeable Message Sign | | Each Per Day |
| Pavement Marking (Temporary) | | |
| 4" Solid (3.3ft.)(Type I)(Tape or Paint) | 100 | Sta./Line |
| 4" Solid (Type II) | | Sta./Line |
| 4" Broken (8.0') (Type I) | | Sta./Line |
| 4" Broken (8.0') (Type II) | | Sta./Line |
| 4" Broken (3.0') (Type I) | | Sta./Line |
| 4" Broken (3.0') (Type II) | | Sta./Line |
| 4" Dotted Extension (Type I) | | Sta./Line |
| 4" Dotted Extension (Type II) | | Sta./Line |
| Solid (Line Masking Tape) | | Sta./Line |
| Broken (Line Masking Tape) | | Sta./Line |
| Symbol (Type I) | | Each |
| Symbol (Type II) | | Each |
| Flexible Raised Pavement Marker (4" Broken (8.0')) | | Sta./Line |
| Flexible Raised Pavement Marker (4" Broken (3.0')) | | Sta./Line |
| Pavement Marking Removal | | Lin. Ft. |
| Work Zone Sign (Special) (16.25 Sq. Ft. & Less) | | Each |
| Work Zone Sign (Special) (16.26 Sq. Ft. & More) | | Each |
| Rigid Raised Pavement Marker (Type I) | | Each |
| Rigid Raised Pavement Marker (Type II) | | Each |
| Traffic Signal Installation (Temporary) | | Lump Sum |
| Traffic Control (Initial Set Up) | | Lump Sum |
| Flagger (Set Price) | | Hour |
| Traffic Control | Lump Sum | Lump Sum |

| Barricades * | | Channelizing Devices * | | |
|--------------------|------------|------------------------|----------|------------|
| Type 3 (4' To 12') | Pedestrian | Fixed | Portable | Pedestrian |
| 32 | | | 420 | |

| Lighted Devices * | |
|---|----|
| Work Zone Warning Light (Type "A" Low Intensity) | 64 |
| Work Zone Warning Light (Red Type "B" High Intensity) | |
| Arrow Display | |
| Portable Changeable Message Sign | |

| | | | | | |
|---|----------|------------|-------------------|------------|-----------|
| 3 | | | | | |
| 2 | | | | | |
| 1 | | | | | |
| NO. | DATE | REVISIONS | BY | APP'D | |
| KANSAS DEPARTMENT OF TRANSPORTATION | | | | | |
| TRAFFIC CONTROL SUMMARY OF DEVICES RECAPITULATION OF QUANTITIES | | | | | |
| TE795 | | | | | |
| FHWA APPROVAL | 06/01/15 | APP'D | Kristina Ericksen | | |
| DESIGNED | B.A.H. | DETAILED | R.W.B. | QUANTITIES | TRACED |
| DESIGN CK. | | DETAIL CK. | | QUAN. CK. | TRACE CK. |