PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	1	106

PAVED ROAD RECONSTRUCTION
PRAIRIE BAND POTAWATOMI NATION
JACKSON COUNTY, KANSAS

INDEX OF SHEETS

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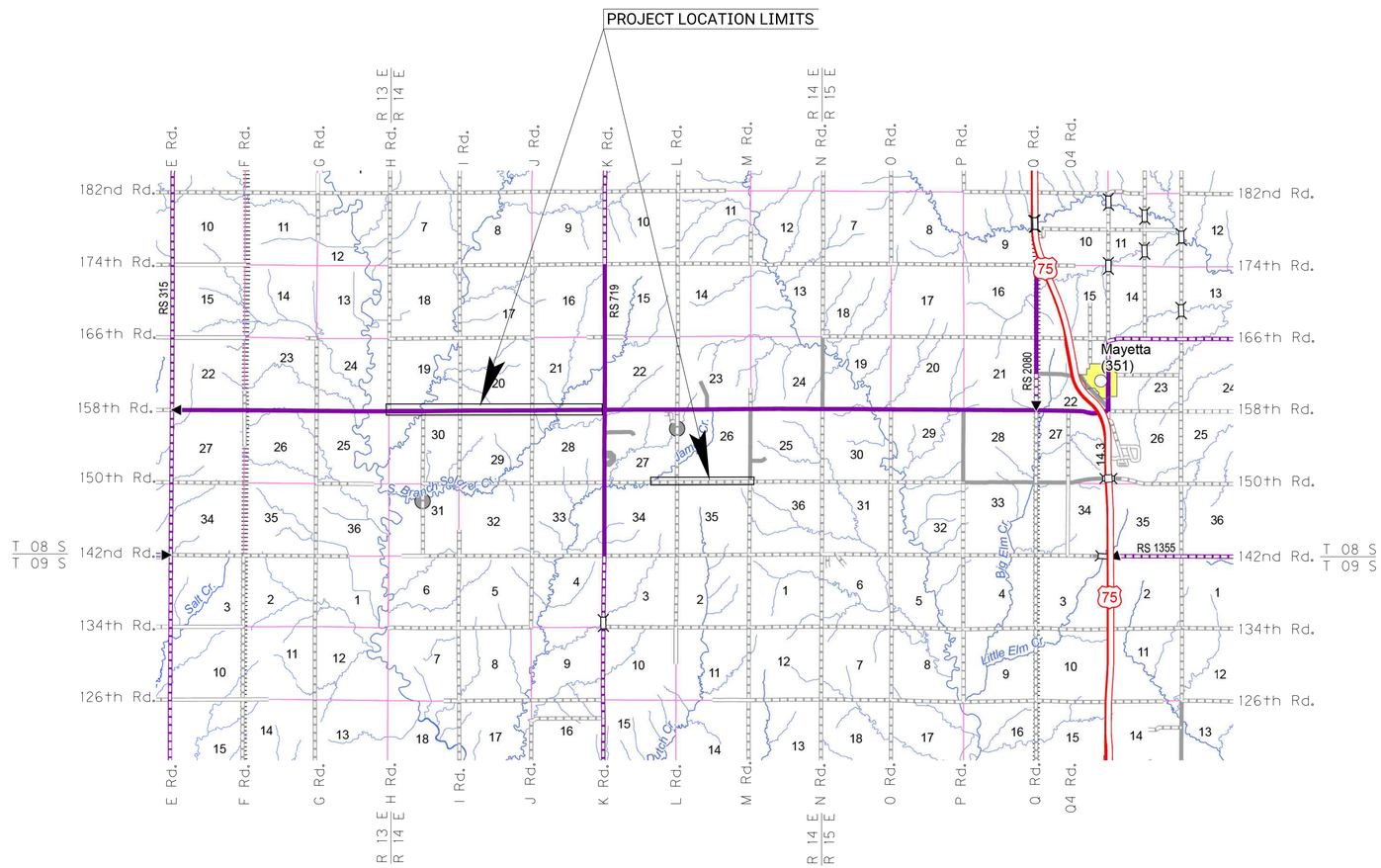
42-55	CROSS SECTIONS (150TH)
56-92	CROSS SECTIONS (158TH)

GRADING
SURFACING (ASPHALT)
SEEDING



SCALE IN MILES

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

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

CONVENTIONAL SIGNS

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

JOSEPH A. HARRINGTON
LICENSED
26027
KANSAS
PROFESSIONAL ENGINEER
3/1/2022

RECOM. FOR APPROVAL-DATE

PRAIRIE BAND POTAWATOMI NATION

		DATE
SURVEYED		2022
CADD TECHNICIAN	JAH	2022
DESIGNED	JAH	2022
SQUAD	JAH	2022

Drawn By : CAM
File : Title Sheet Full Depth Replacement.dgn
Plotted : 9/12/2022 2:03:14 PM

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	2	106

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

ONE CALL KANSAS

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 Savvage
(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 Potowatomi 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 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.

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.

LOCAL ACCESS:
Contractor shall make allowances to supply access to the adjacent properties. Notify all local property owners prior to working in front of their property.

TRASH COLLECTION:
Contractor shall pick up trash from abutting property owners and take it to a centralized location. Coordinate this work with the land owners and trash disposal companies.

REMOVAL OF EXISTING STRUCTURES:
The bid item "Removal of Existing Structures" shall include the removal of existing structures that conflict with new construction. This item shall be paid for by the "Lump Sum".

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.

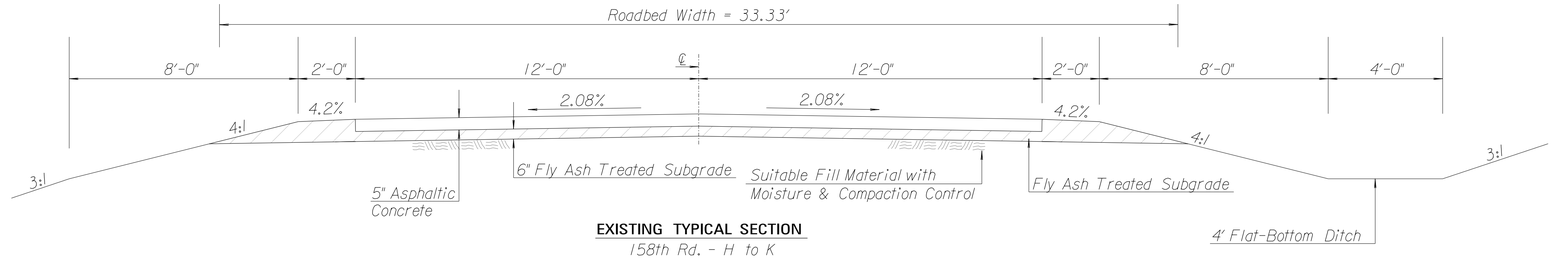
Drawn By : J. HARRINGTON
File : General Notes.dgn

PRAIRIE BAND POTAWATOMI NATION

GENERAL NOTES

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

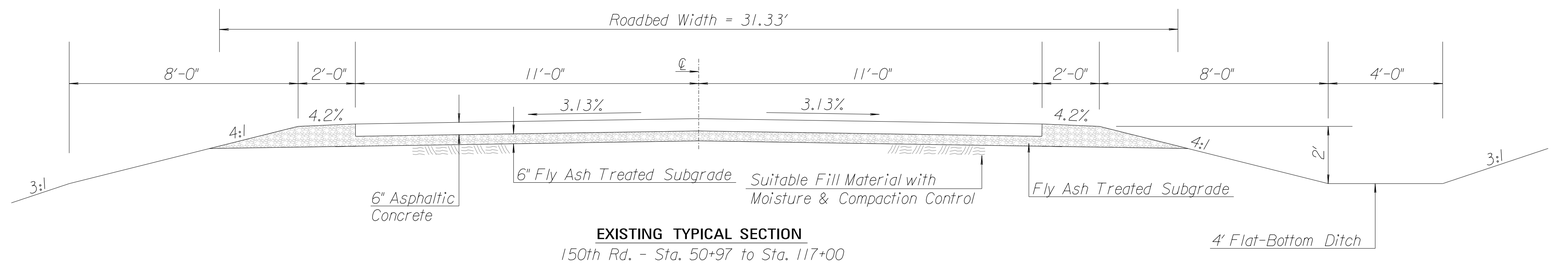
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	3	106



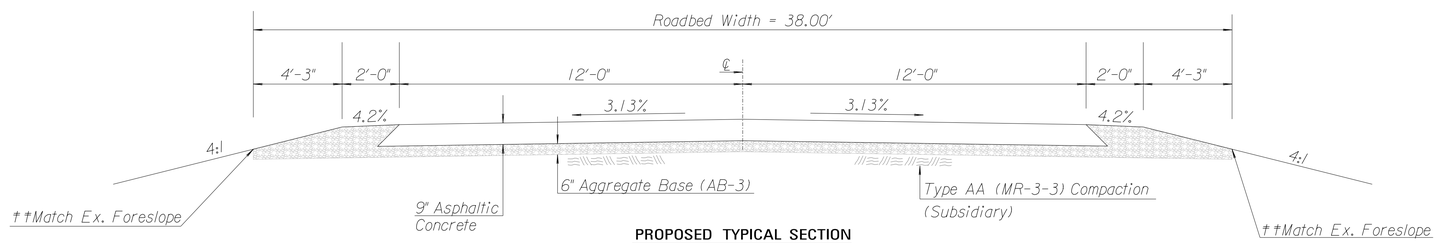
EXISTING TYPICAL SECTION
158th Rd. - H to K

Fly Ash treated Subgrade

Aggregate Base (AB-3)

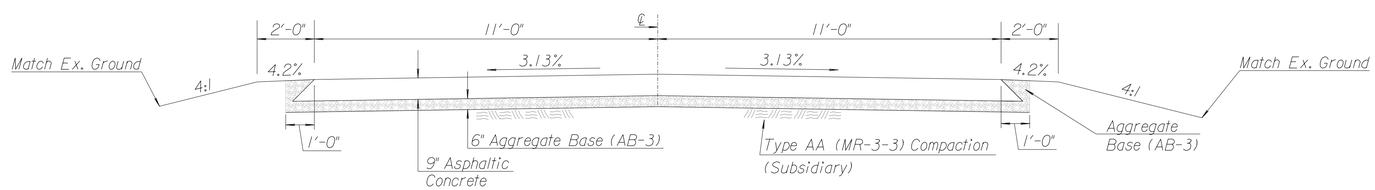


EXISTING TYPICAL SECTION
150th Rd. - Sta. 50+97 to Sta. 117+00



PROPOSED TYPICAL SECTION
158th Rd. - H to K

†† If the proposed elevation at this point is higher than the existing ground, continue the 4:1 till it intercepts with the existing ground.



PROPOSED TYPICAL SECTION
150th Rd. - Sta. 50+97 to Sta. 117+00

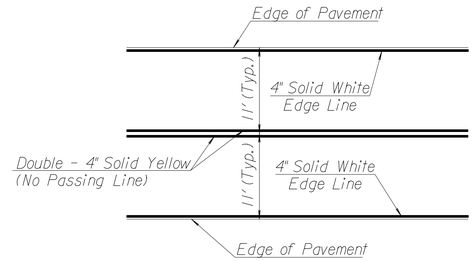
Drawn By : J. HARRINGTON
File : Typical Section.dgn

PRAIRIE BAND POTAWATOMI NATION

TYPICAL SECTIONS

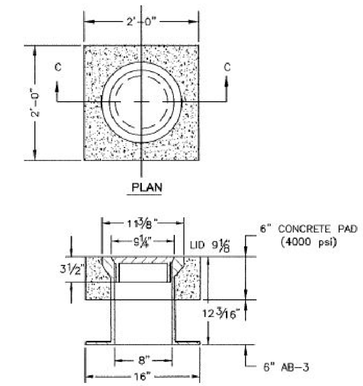
DESIGNED	DETAILED	QUANTITIES	
DESIGN CK.	DETAIL CK.	QUAN.CK.	

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	4	106



TYPICAL TWO LANE PAVEMENT MARKINGS

NOTE: No edge lines required through intersections.



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 Burea of Indian Affairs, Jackson County, & Prairie Band Pottawatomi Nation. Copies shall be provided to the Project Engineer.

NOTE: Where there is existing boxes, the contractor shall salvage and reuse the box and lid for the proposed work. If the existing lid reads "water" the contractor shall grind off the letters flush to the surface of the lid. If the existing box is damaged and determined not fit for use by the Project Engineer, then a new box/lid shall be provided with no additional expense to the owner.

NOTE: Where no boxes exist, the contractor will need to 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 a 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.

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

PRAIRIE BAND POTAWATOMI NATION

TYPICAL DETAILS

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

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

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	5	106

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 4 2 0

℄ P.I. = Sta. 9+99.38
1.) Found Bar Just Below Paved Surface
2.) N: 365,876.58 , E: 1,920,683.79

℄ P.I. = Sta. 44+78.00
1.) Not Set (Office Location)
2.) N: 365,986.95 , E: 1,924,160.67

℄ P.I. = Sta. 52+98.94
1.) Not Set (Office Location)
2.) N: 366,015.46 , E: 1,924,981.11

℄ P.I. = Sta. 53+88.81
1.) Not Set (Office Location)
2.) N: 366,018.21 , E: 1,925,070.94

Reference Bar #1= ℄ Sta. 8+46.49, 692.40' Lt. (908)
1.) Set 5/8" Bar 2" Below Vegetated Surface
2.) In Line with East Face of Commodities Building, to the North 70.9' N.E.
3.) Concrete Manhole to Check Valve
4.) N: 366,563.78 , E: 1,920,509.00
5.) Elevation= 1,114.87

USA (Trust) Allotment Trust 528
15468 K Rd. Mayetta KS, 66509
Tract in Sec. 27 T8S R14E

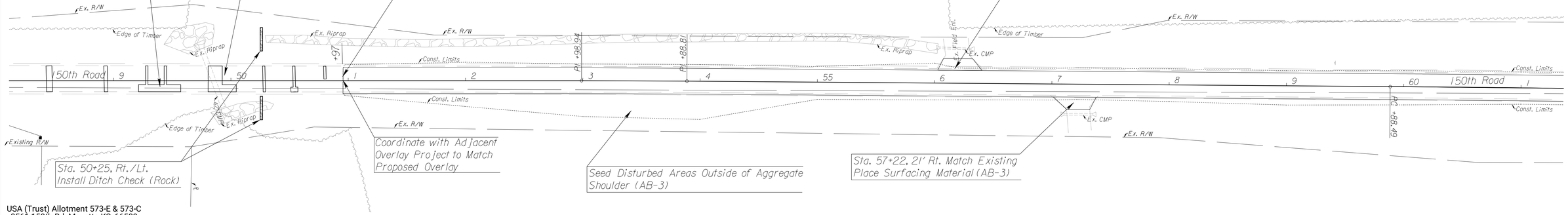
℄ P.C. = Sta. 59+88.49
1.) Not Set (Office Location)
2.) N: 366,034.34 , E: 1,925,670.40

West of Sta. 50+97 to be Done in Separate Project

Set PK Nail-Elev. Loc. Pt. +94.55, 4.48' Lt., Elev.= 1,128.06

Sta. 50+97 Begin Full Depth Replacement Project

Sta. 56+19, 21' Lt. Match Existing Place Surfacing Material (AB-3)



Sta. 50+25, Rt./Lt. Install Ditch Check (Rock)

Coordinate with Adjacent Overlay Project to Match Proposed Overlay

Seed Disturbed Areas Outside of Aggregate Shoulder (AB-3)

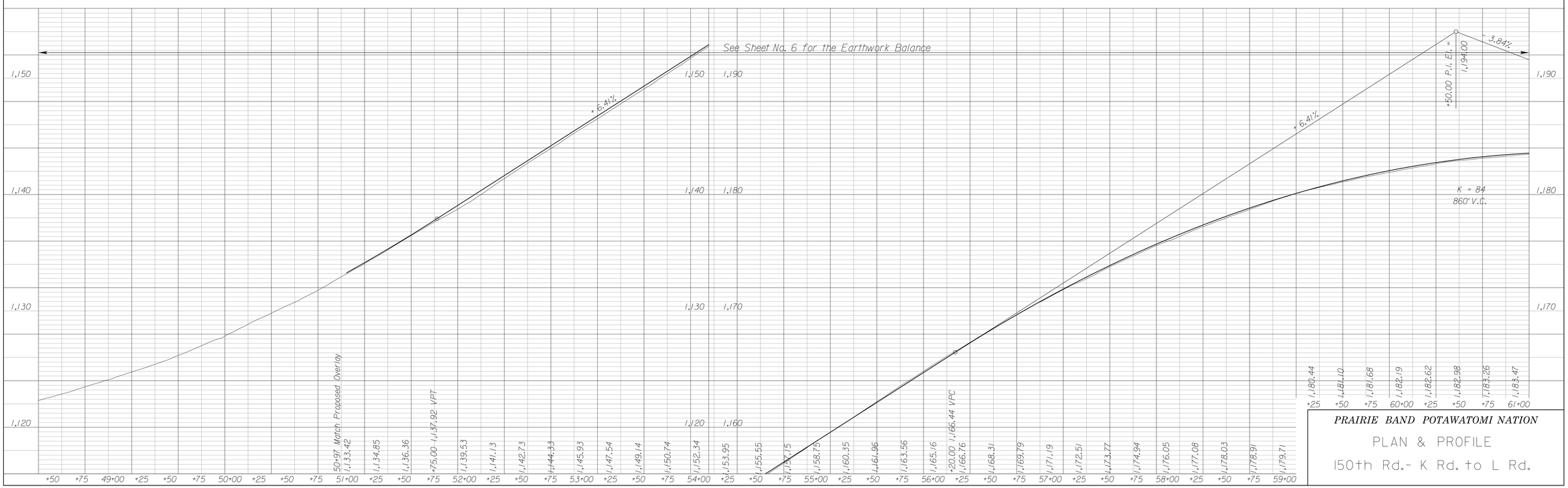
Sta. 57+22, 21' Rt. Match Existing Place Surfacing Material (AB-3)

USA (Trust) Allotment 573-E & 573-C
8561 150th Rd. Mayetta KS, 66509
Tract in NE/4 Sec. 34 T8S R14E

BM 1: Plus Cut in S.W. Edge Concrete Manhole
Sta. 9+07.99, 727.63' Lt., Elev.= 1,115.64

BM 2: Northwest Corner Headwall to RCB
Sta. 11+14.07, 17.27' Lt., Elev.= 1,087.41

Bausch, Dorothy M; TR
0 L Rd. Mayetta KS, 66509
S/2 & NE/4 of NE/4 Sec. 34 T8S R14E



PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

150th Rd.- K Rd. to L Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	6	106

PLAN: 50′ 0 50′ 100′

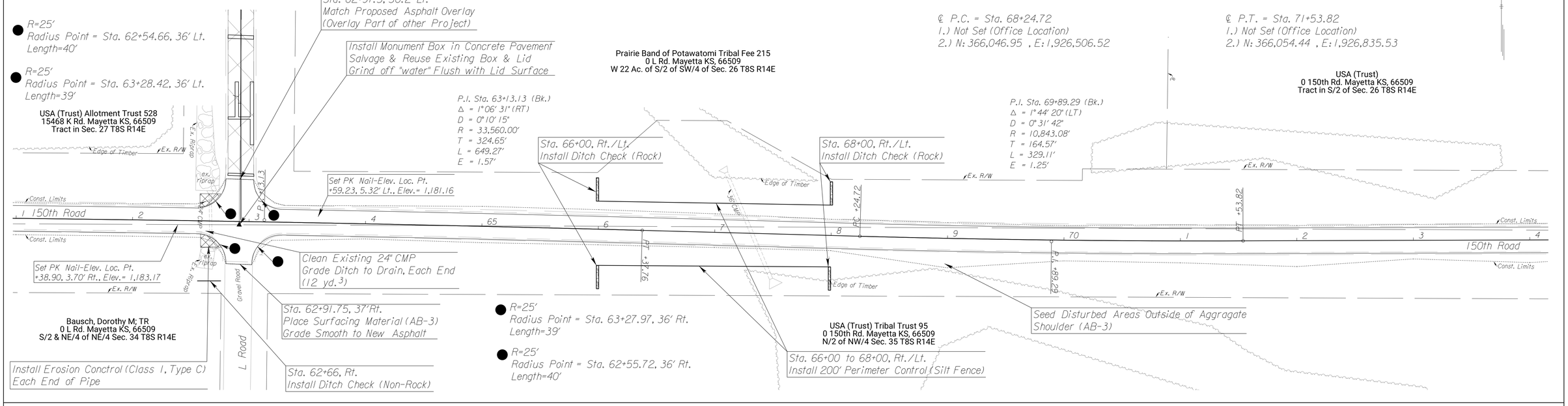
PROFILE: Horiz. same as above
Vert. 0 2 4

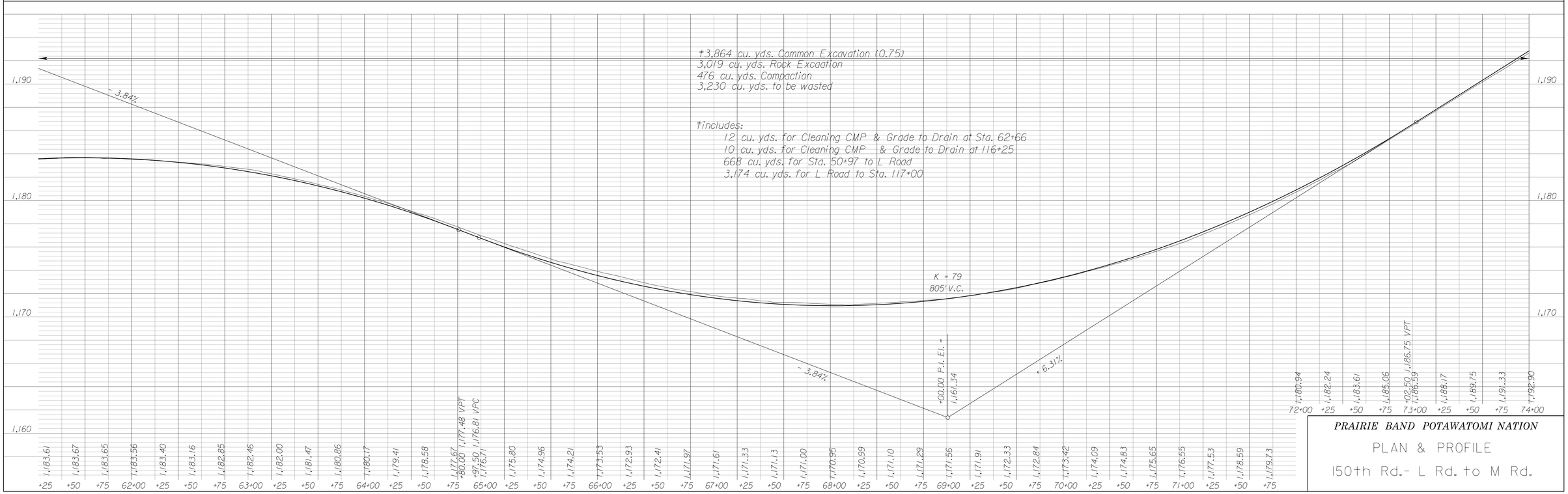
Northeast Corner Sec. 34, T8S, 14E = ℄ Sta. 62+91.61, 2.84′ Rt.
1.) Found Bar w/ 2" Aluminum Cap (Bartlett & West CLS 14) in Monument Box
2.) Found Spike & Bottle Cap Top Gate Post 77.50 N.E.
3.) Found Spike and Bottle Cap Top Corner Post 62.60′ N.E.
4.) Found Spike & Bottle Cap Top Corner Post 68.00′ S.S.W.
5.) N: 366,038.30 , E: 1,925,973.50

℄ P.T. = Sta. 66+37.76
1.) Not Set (Office Location)
2.) N: 366,045.54 , E: 1,926,319.56

℄ P.C. = Sta. 68+24.72
1.) Not Set (Office Location)
2.) N: 366,046.95 , E: 1,926,506.52

℄ P.T. = Sta. 71+53.82
1.) Not Set (Office Location)
2.) N: 366,054.44 , E: 1,926,835.53





PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

150th Rd.- L Rd. to M Rd.

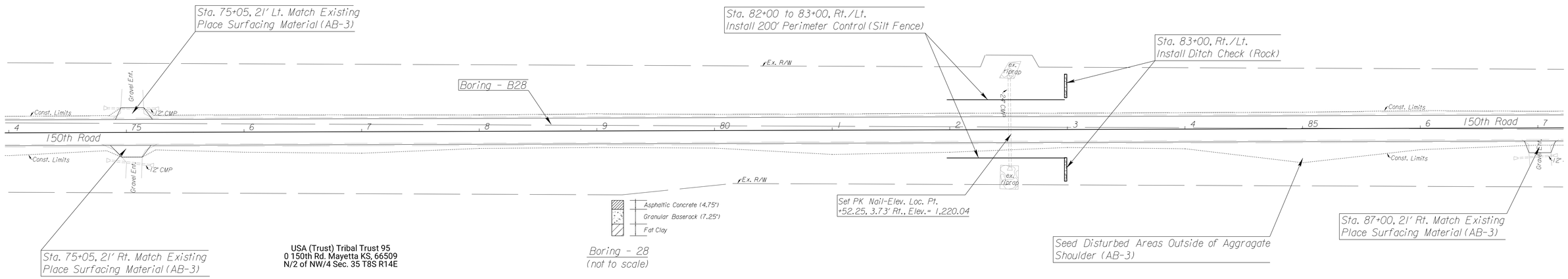
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	7	106

PLAN: 50′ 0 50′ 100′

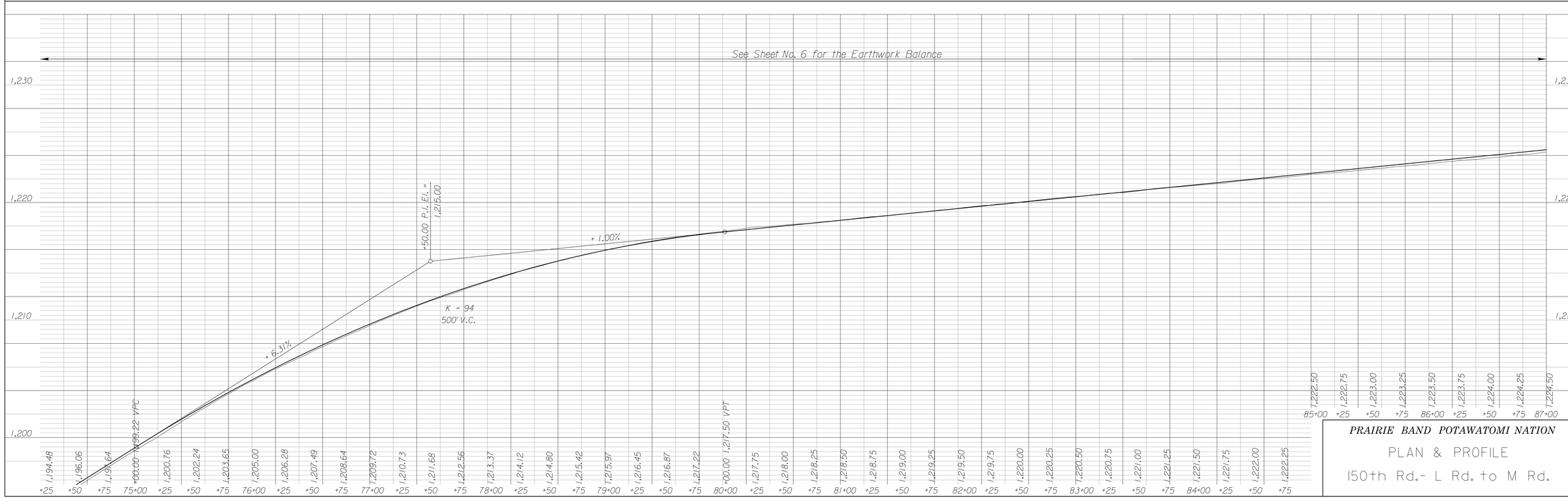
PROFILE: Horiz. same as above
Vert. 0 2′ 4′

N

USA (Trust)
0 150th Rd. Mayetta KS, 66509
Tract in S/2 of Sec. 26 T8S R14E



USA (Trust) Tribal Trust 95
0 150th Rd. Mayetta KS, 66509
N/2 of NW/4 Sec. 35 T8S R14E



PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

150th Rd.- L Rd. to M Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	8	106

South 1/4 Corner Sec. 26, T8S, 14E = ℄ Sta. 89+45.75, 2.86' Rt.
1.) Found Bar w/ 2" Aluminum Cap (Bartlett & West CLS 14) in Monument Box
2.) Set Mag Nail in Asphalt Pavement, Center of East Bound Lane 24.03 N.W.
3.) Set Mag Nail in Asphalt Pavement, Center of East Bound Lane 29.83' N.E.
4.) N: 366,119.52 , E: 1,928,626.28

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 0 2 4

℄ P.C. = Sta. 98+82.28
1.) Not Set (Office Location)
2.) N: 366,157.88 , E: 1,929,562.02

N

Sta. 89+45.75, 2.86' Rt.
Install Monument Box in Concrete Pavement
Salvage & Reuse Existing Box & Lid
Grind off "water" to Lid Surface

Sta. 91+50 to 93+00, Rt./Lt.
Install 300' Perimeter Control (Silt Fence)

USA (Trust)
0 150th Rd. Mayetta KS, 66509
Tract in S/2 of Sec. 26 T8S R14E

Sta. 93+00, Rt./Lt.
Install Ditch Check (Rock)

Ex. R/W
Set PK Nail-Elev. Loc. Pt.
+22.88, 4.35' Lt., Elev.= 1,226.43
Const. Limits
7 150th Road 8 9 90 1 2 3 4 95 6 7 8 9 150th Road 100
Gravel Ent.
12" CMP
ex. riprap
Edge of Timber
UTO 12"
Gravel Ent.
PC+82.28
Seed Disturbed Areas Outside of Aggragate Shoulder (AB-3)
Sta. 97+51, 21' Rt. Match Existing Place Surfacing Material (AB-3)

USA (Trust) Tribal Trust 95
0 150th Rd. Mayetta KS, 66509
N/2 of NW/4 Sec. 35 T8S R14E

USA (Trust) Tribal Trust 166
0 150th Rd. Mayetta KS, 66509
Tract in N/2 of NE/4 Sec. 35 T8S R14E

See Sheet No. 6 for the Earthwork Balance

1,250
1,240
1,230
1,220

+ 1.00%
K = 96
300' V.C.
+50.00 P.I. El. = 1,231.00
+ 4.14%
+00.00 P.I. El. = 1,253.75
K = 83
700' V.C.

+00.00 1,229.50 VPC
+00.00 1,237.20 VPT
+50.00 1,239.27 VPC

1,224.75 1,225.00 1,225.25 1,225.50 1,225.75 1,226.00 1,226.25 1,226.50 1,226.75 1,227.00 1,227.25 1,227.50 1,227.75 1,228.00 1,228.25 1,228.50 1,228.75 1,229.00 1,229.25 1,229.78 1,230.13 1,230.54 1,231.02 1,231.57 1,232.18 1,232.85 1,233.59 1,234.40 1,235.27 1,236.20 1,238.24 1,240.27 1,241.19 1,242.04 1,242.81 1,243.51 1,244.13 1,244.68 1,245.15 1,245.55

+25 +50 +75 88+00 +25 +50 +75 89+00 +25 +50 +75 90+00 +25 +50 +75 91+00 +25 +50 +75 92+00 +25 +50 +75 93+00 +25 +50 +75 94+00 +25 +50 +75 95+00 +25 +50 +75 96+00 +25 +50 +75 97+00 +25 +50 +75

1,245.87 1,246.12 1,246.29 1,246.39 1,246.41 1,246.36 1,246.23 1,246.03 1,245.76
98+00 +25 +50 +75 99+00 +25 +50 +75 100+00

PRAIRIE BAND POTAWATOMI NATION

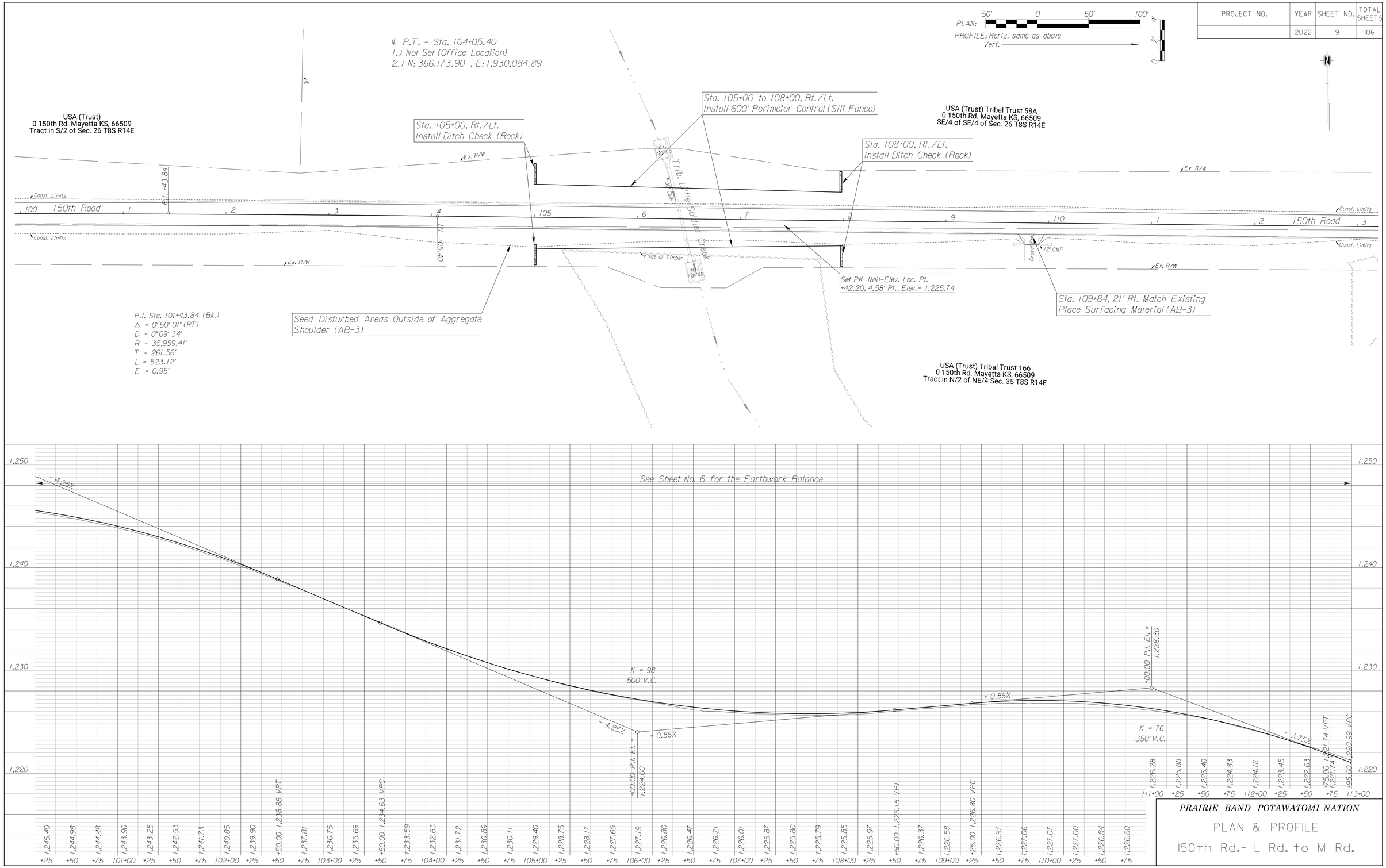
PLAN & PROFILE

150th Rd.- L Rd. to M Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	9	106

PLAN: 50′ 0 50′ 100′

PROFILE: Horiz. same as above
Vert. 4 2 0



PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

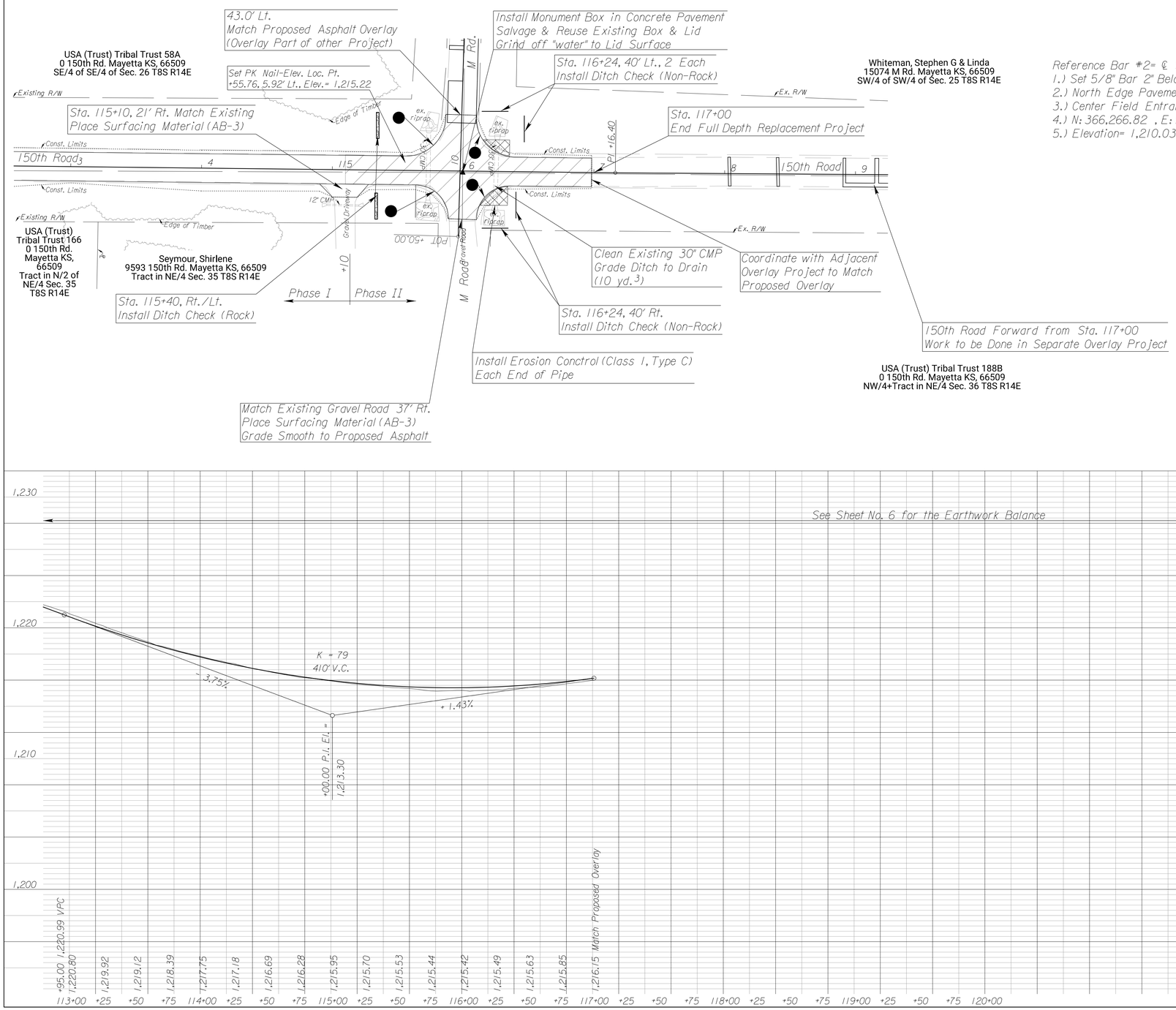
150th Rd.- L Rd. to M Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	10	106

Southwest Corner Sec. 25, T8S, 14E = ℄ Sta. 115+99.70, 2.50′ Rt.
1.) Found 5/8″ x 24″ Bar in Monument Box
2.) Nail & Bottle Cap in Top of Corner Fence Post 78.55′ N.E.
3.) Nail & Washer East Face of Power Pole 61.73′ S.E.
4.) R-o-W Bar with Cap (LPE CLS 63) 49.34′ S.S.E.
5.) N: 366,200.65 , E: 1,931,278.87

℄ P.I. = Sta. 117+16.40
1.) Not Set (Office Location)
2.) N: 366,204.54 , E: 1,931,395.54

PLAN: 50′ 0 50′ 100′
PROFILE: Horiz. same as above
Vert. 0 2 4



Reference Bar #2= ℄ Sta. 129+03.76, 29.37′ Lt. (915)
1.) Set 5/8″ Bar 2″ Below Vegetated Surface
2.) North Edge Pavement 150th Rd. 17′ S.
3.) Center Field Entrance 17′ E.
4.) N: 366,266.82 , E: 1,932,581.62
5.) Elevation= 1,210.03

- R=30′ Radius Point = Sta. 115+56.28, 41′ Lt. Length=46.6′
- R=30′ Radius Point = Sta. 116+39.59, 41′ Lt. Length=47.6′
- R=25′ Radius Point = Sta. 116+35.70, 36′ Rt. Length=39′
- R=25′ Radius Point = Sta. 115+63.96, 36′ Rt. Length=40′

Area Designated for Phase II Construction,
Provides Access for Residents During Phase I

PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

150th Rd.- M Rd. to N Rd.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	11	106

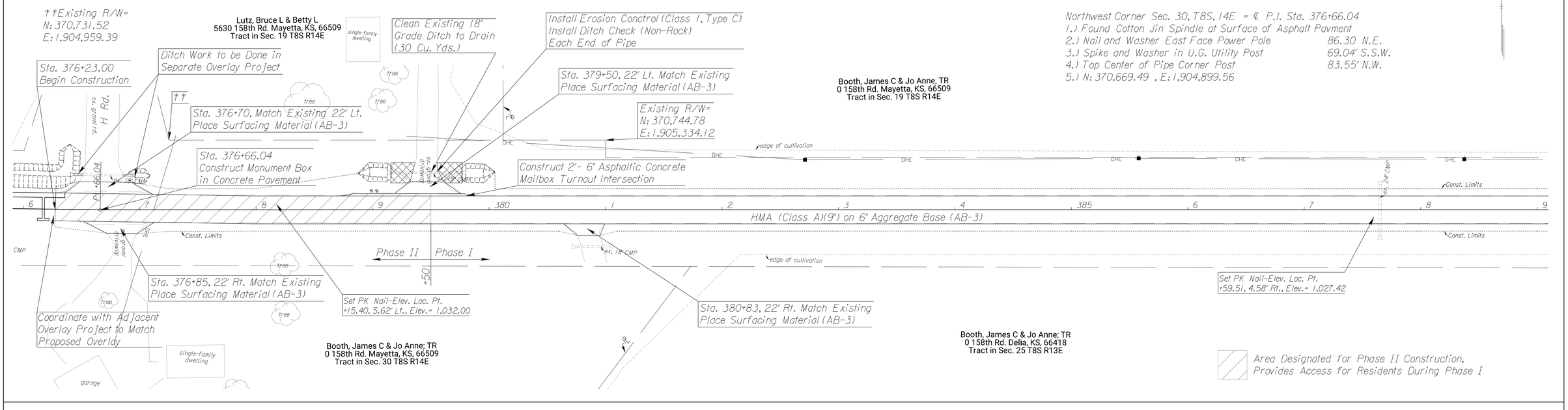
Northwest Corner Sec. 25, T8S, 13E = ℄ P.I. Sta. 323+96.42
1.) Found Cotton Jin Spindle at Surface of Asphalt Pavment
2.) N: 370,572.13 , E: 1,899,630.86

Reference Bar #1= ℄ Sta. 324+39.44, 47.49 Lt. (919)
1.) Set 5/8" Bar 2" Below Vegetated Surface
2.) North Edge Pavement 158th Rd. 35.49 S.
3.) Wire Fence E-W 17.48' N.
4.) N: 370,620.34 , E: 1,899,673.07
5.) Elevation= 1,113.23

North 1/4 Corner Sec. 25, T8S, 13E = ℄ P.I. Sta. 350+40.01
1.) Found Cotton Jin Spindle at Surface of Asphalt Pavment
2.) N: 370,616.28 , E: 1,902,274.07

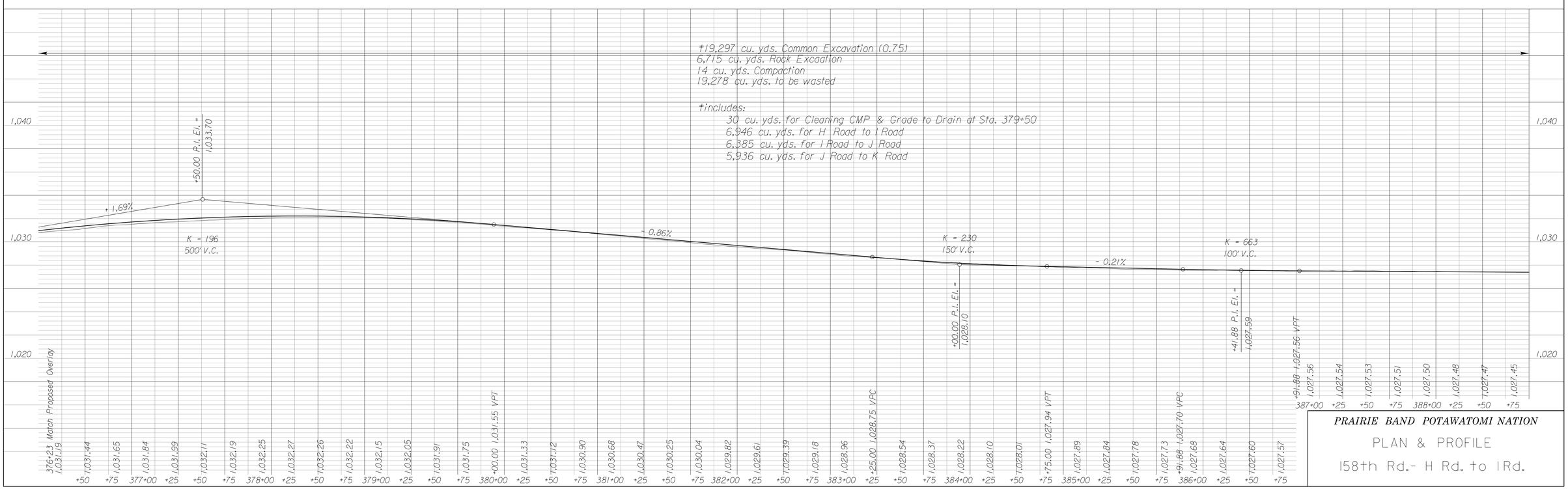
PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 4' 2' 0

Northwest Corner Sec. 30, T8S, 14E = ℄ P.I. Sta. 376+66.04
1.) Found Cotton Jin Spindle at Surface of Asphalt Pavment
2.) Nail and Washer East Face Power Pole 86.30 N.E.
3.) Spike and Washer in U.G. Utility Post 69.04' S.S.W.
4.) Top Center of Pipe Corner Post 83.55' N.W.
5.) N: 370,669.49 , E: 1,904,899.56



‡19,297 cu. yds. Common Excavation (0.75)
6,715 cu. yds. Rock Excavation
14 cu. yds. Compaction
19,278 cu. yds. to be wasted

‡includes:
30 cu. yds. for Cleaning CMP & Grade to Drain at Sta. 379+50
6,946 cu. yds. for H Road to I Road
6,385 cu. yds. for I Road to J Road
5,936 cu. yds. for J Road to K Road



PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

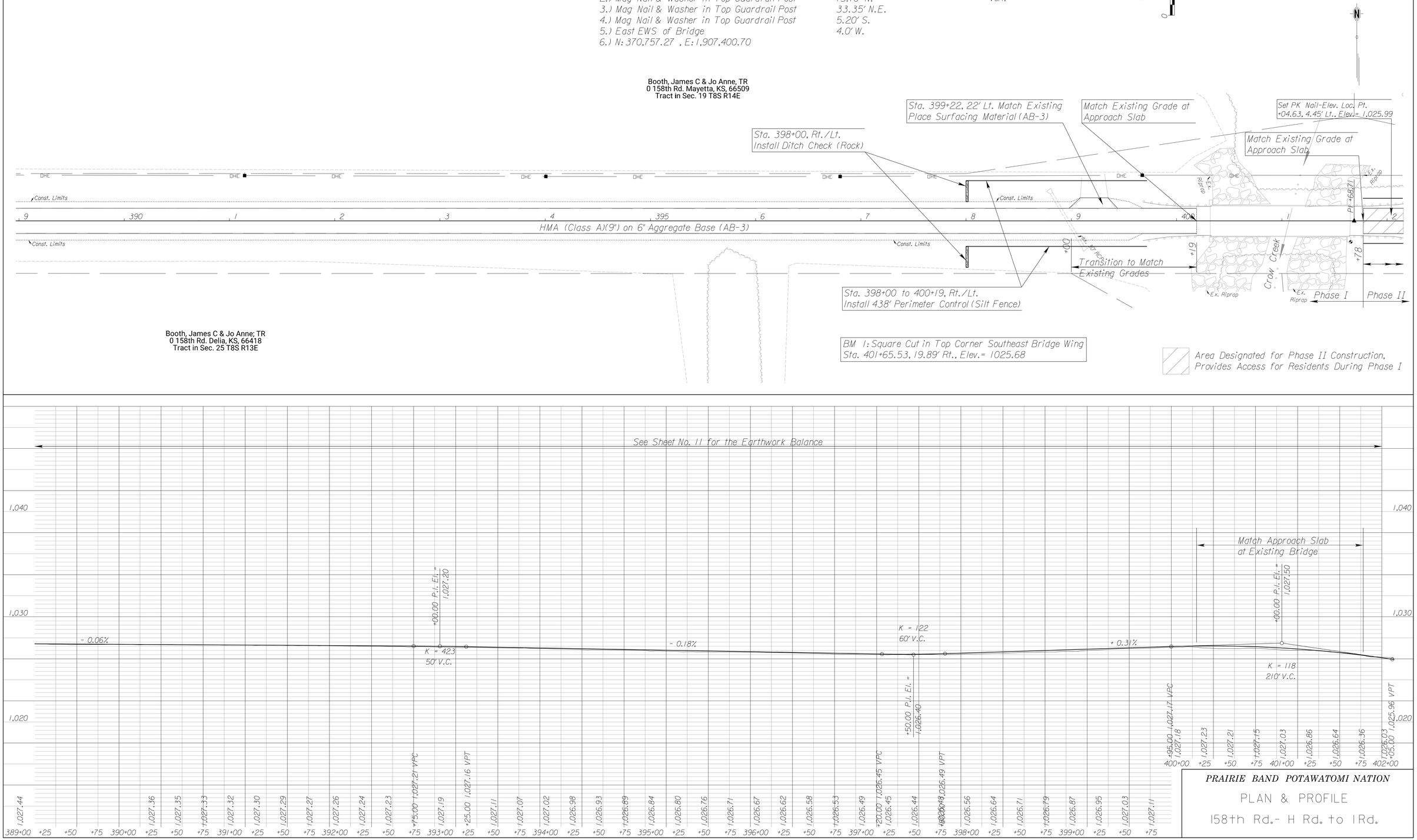
158th Rd.- H Rd. to I Rd.

Sheet No. 11

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	12	106

North 1/4 Corner Sec. 30, T8S, 14E = ℄ P.I. Sta. 401+68.71
1.) Found 1/2" Bar Flush in East Approach Slab
2.) Mag Nail & Washer in Top Guardrail Post 15.10 N.
3.) Mag Nail & Washer in Top Guardrail Post 33.35' N.E.
4.) Mag Nail & Washer in Top Guardrail Post 5.20' S.
5.) East EWS of Bridge 4.0' W.
6.) N: 370,757.27 , E: 1,907,400.70

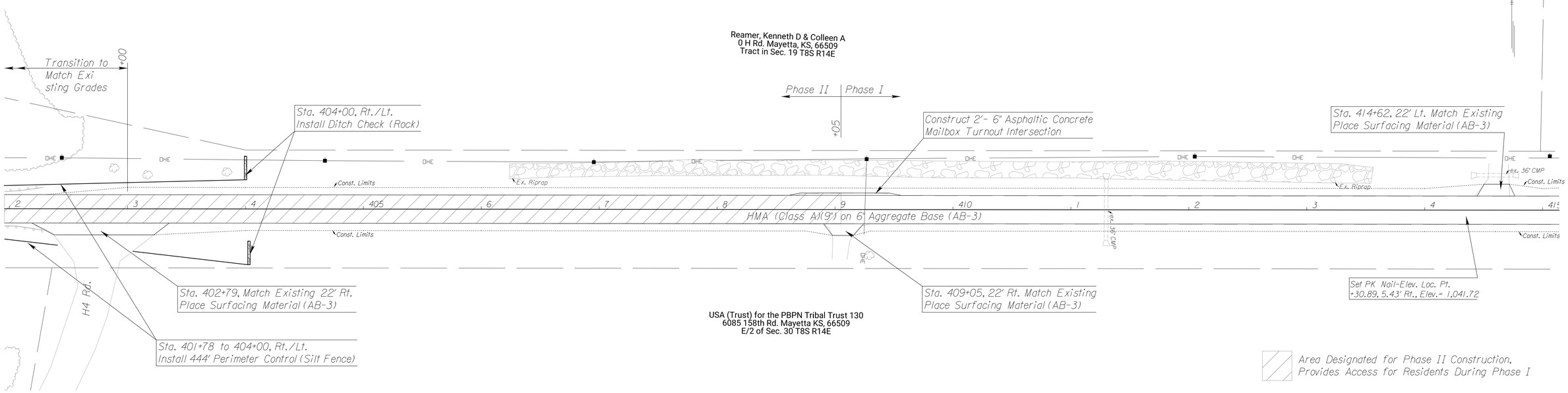
PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 0 2 4

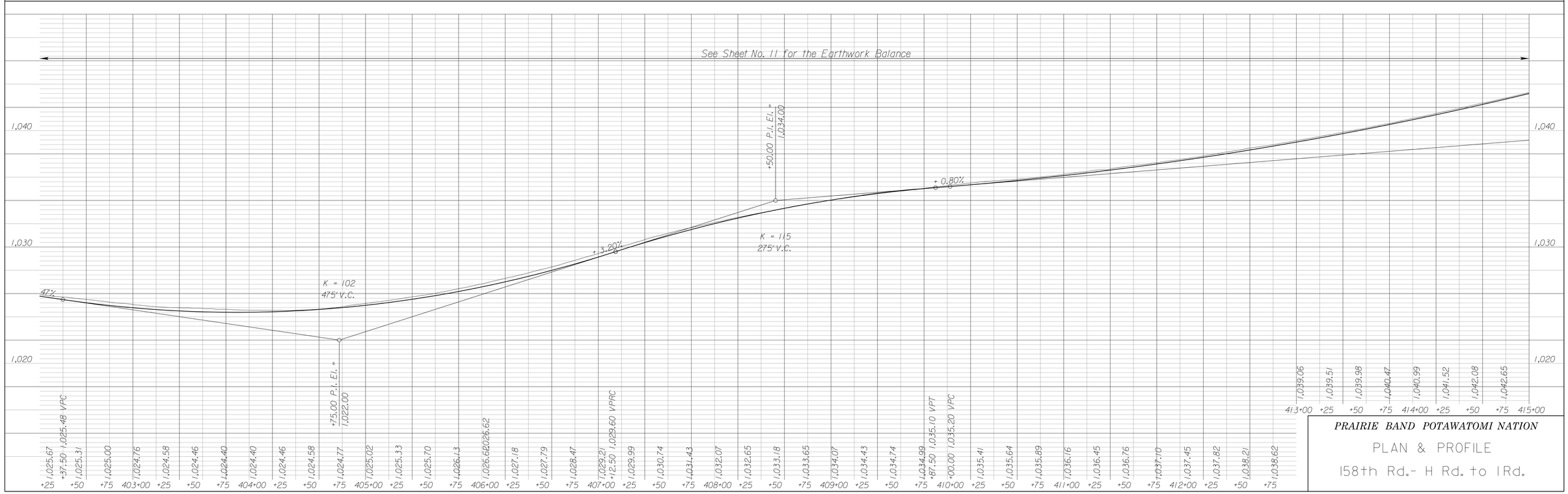


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	13	106

PLAN: 50' 0 50' 100'

PROFILE: Horiz. same as above
Vert. 4 2 0





PRAIRIE BAND POTAWATOMI NATION

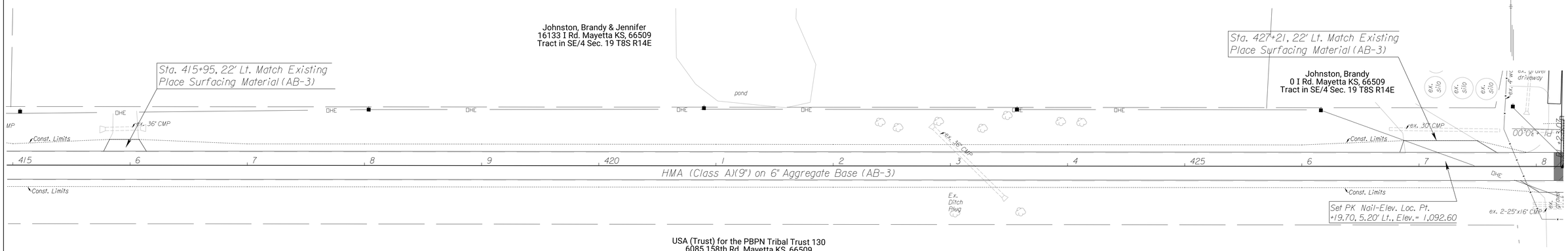
PLAN & PROFILE

158th Rd.- H Rd. to I Rd.

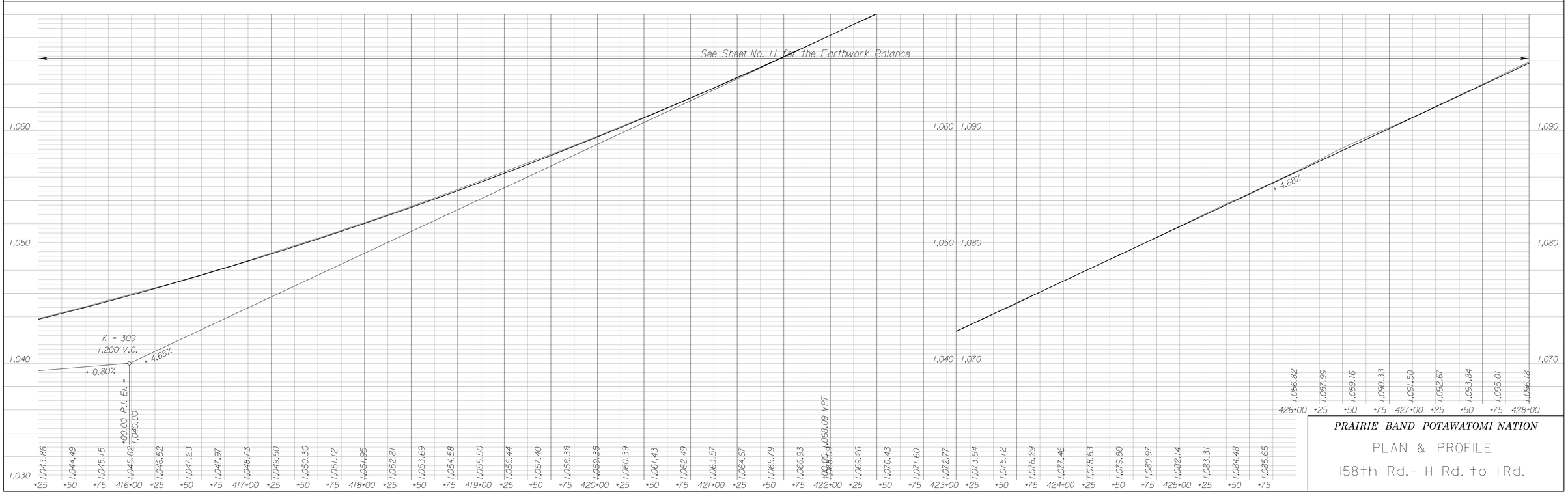
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	14	106

PLAN: 50' 0 50' 100'

PROFILE: Horiz. same as above
Vert. 0 2' 4'



Area Designated for Phase II Construction, Provides Access for Residents During Phase I



PRAIRIE BAND POTAWATOMI NATION

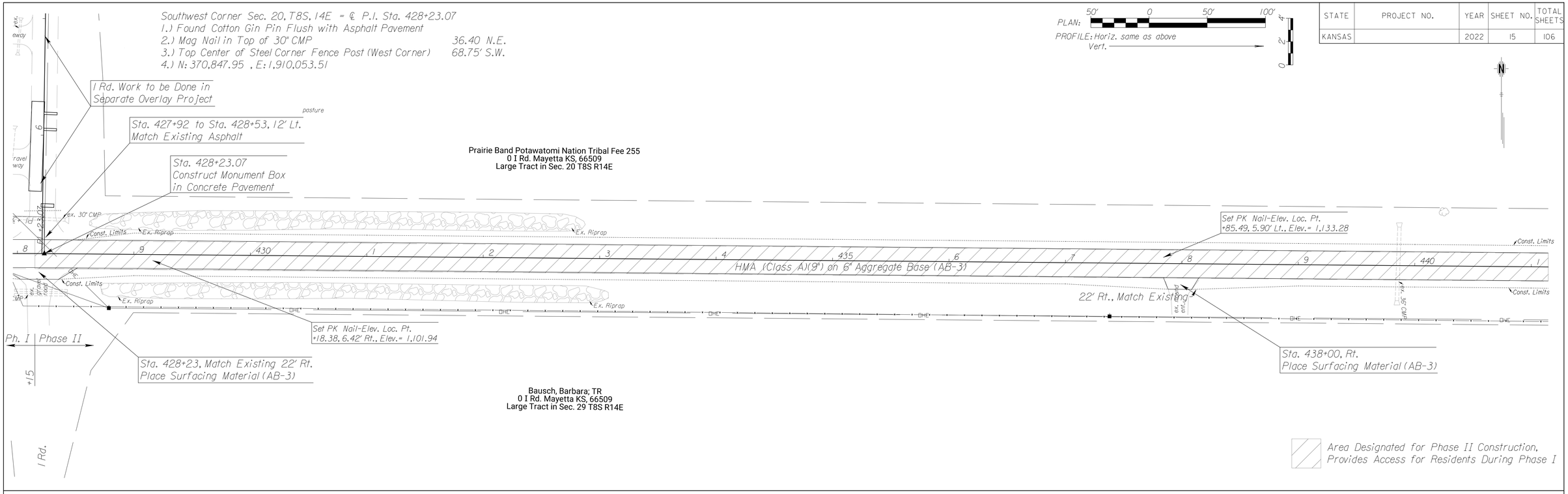
PLAN & PROFILE

158th Rd.- H Rd. to I Rd.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	15	106

PLAN: 50′ 0 50′ 100′

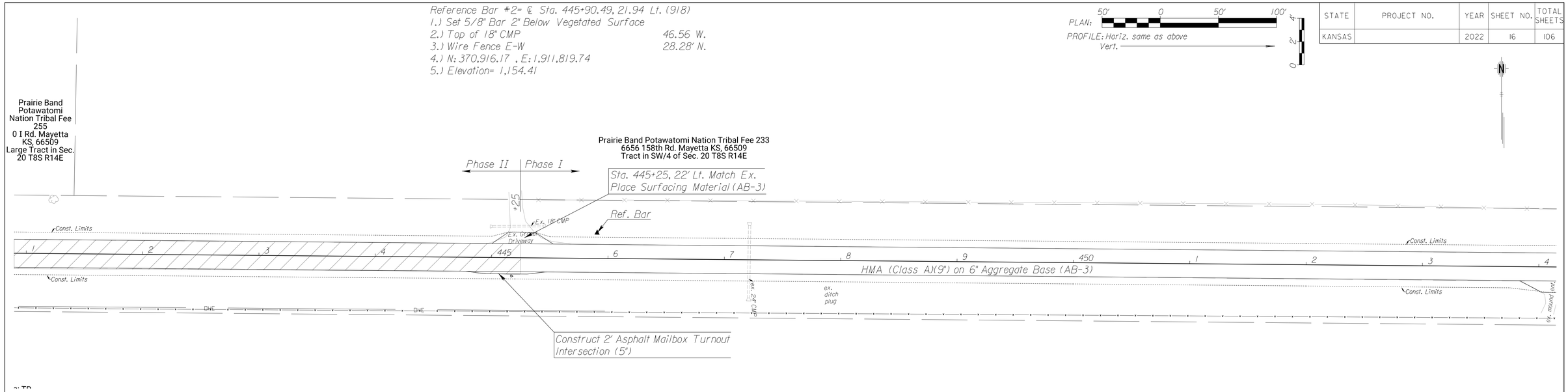
PROFILE: Horiz. same as above
Vert. 4′ 2′ 0

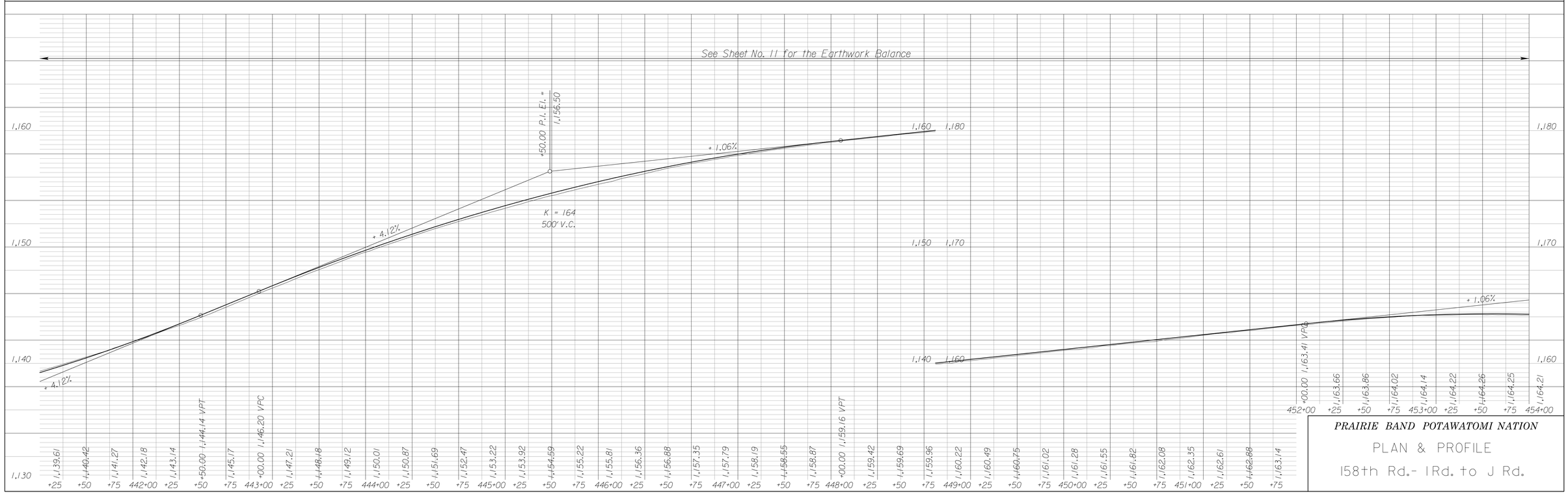


STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	16	106

Reference Bar #2= ℄ Sta. 445+90.49, 21.94 Lt. (918)
1.) Set 5/8" Bar 2" Below Vegetated Surface
2.) Top of 18" CMP 46.56 W.
3.) Wire Fence E-W 28.28' N.
4.) N: 370,916.17 , E: 1,911,819.74
5.) Elevation= 1,154.41

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 4' 2' 0





PRAIRIE BAND POTAWATOMI NATION

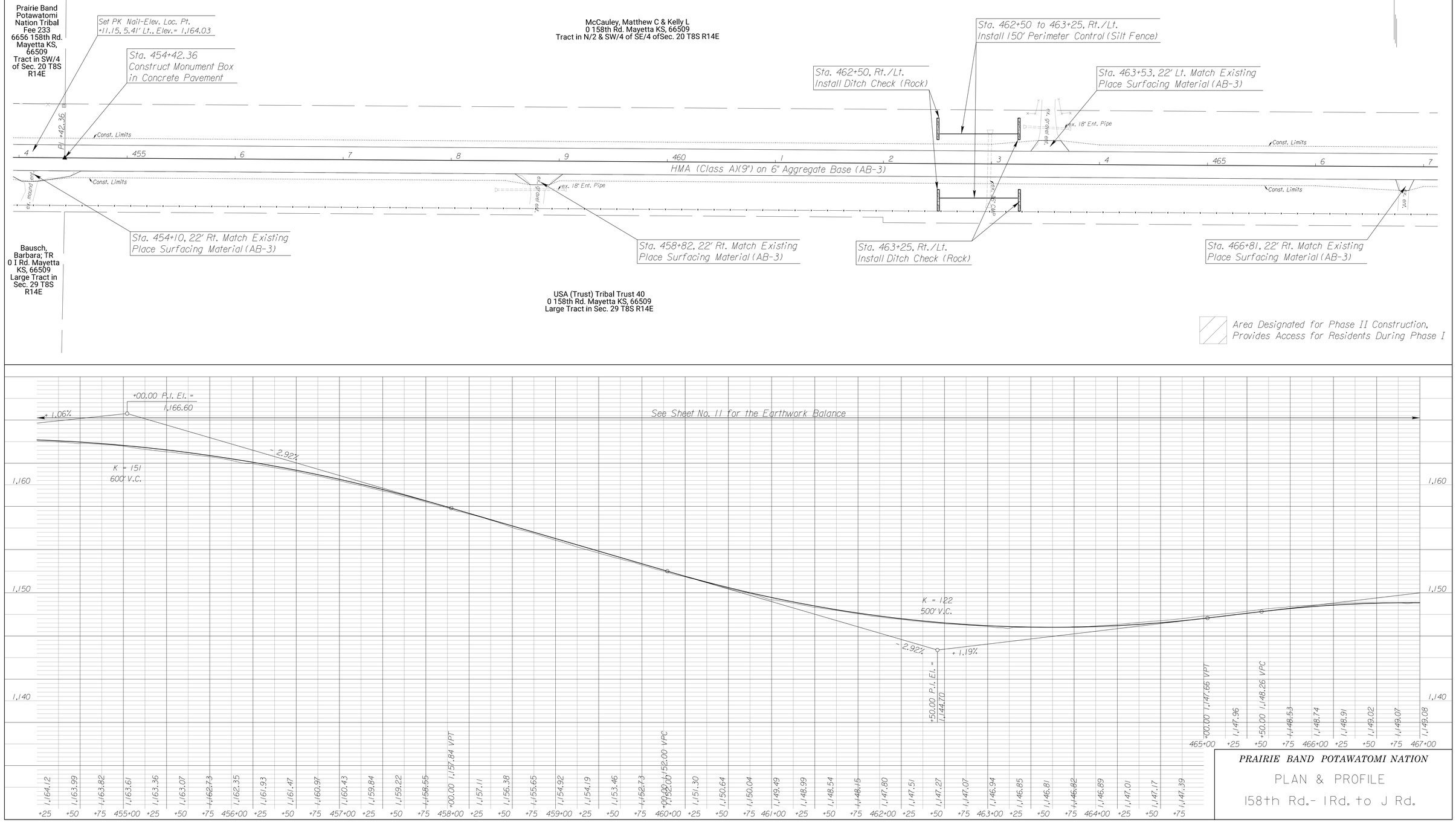
PLAN & PROFILE

158th Rd.- IRd. to J Rd.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	17	106

South 1/4 Corner Sec. 20, T8S, 14E = ℄ P.I. Sta. 454+42.36
1.) Found Cotton Gin Pin Flush with Asphalt Pavement
2.) Found Spike & Bottle Cap in Corner Fence Post 50.60 N.
3.) Found Spike & Bottle Cap in Power Pole 88.7' W.S.W.
4.) Top Center of Steel Corner Fence Post 50.8' S.
5.) N: 370,916.56 , E: 1,912,671.88

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 4' 2' 0



PRAIRIE BAND POTAWATOMI NATION

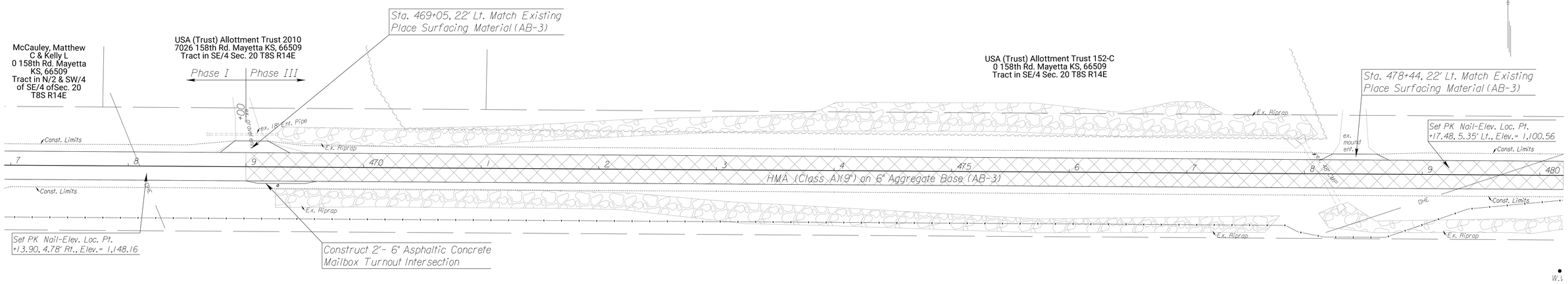
PLAN & PROFILE

158th Rd.- IRd. to J Rd.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	18	106

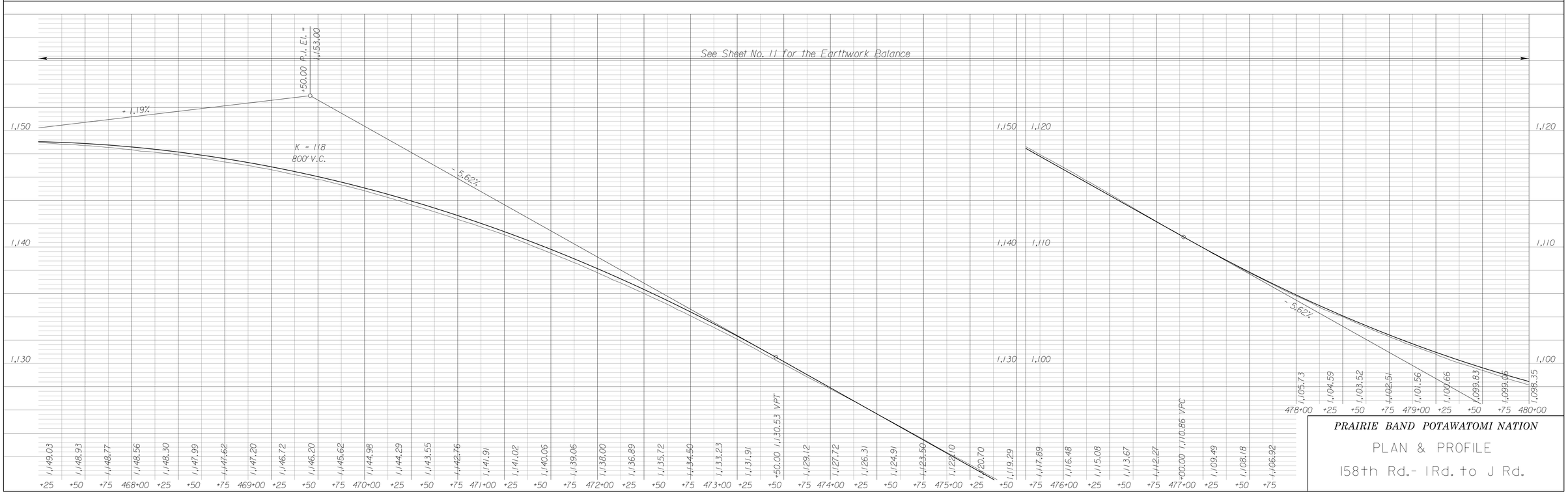
PLAN: 50′ 0 50′ 100′

PROFILE: Horiz. same as above
Vert. 4′ 2′ 0



USA (Trust) Tribal Trust 40
0 158th Rd. Mayetta KS, 66509
Large Tract in Sec. 29 T8S R14E

Area Designated for Phase III Construction, Provides Access for Residents During Phase I & Phase II



PRAIRIE BAND POTAWATOMI NATION

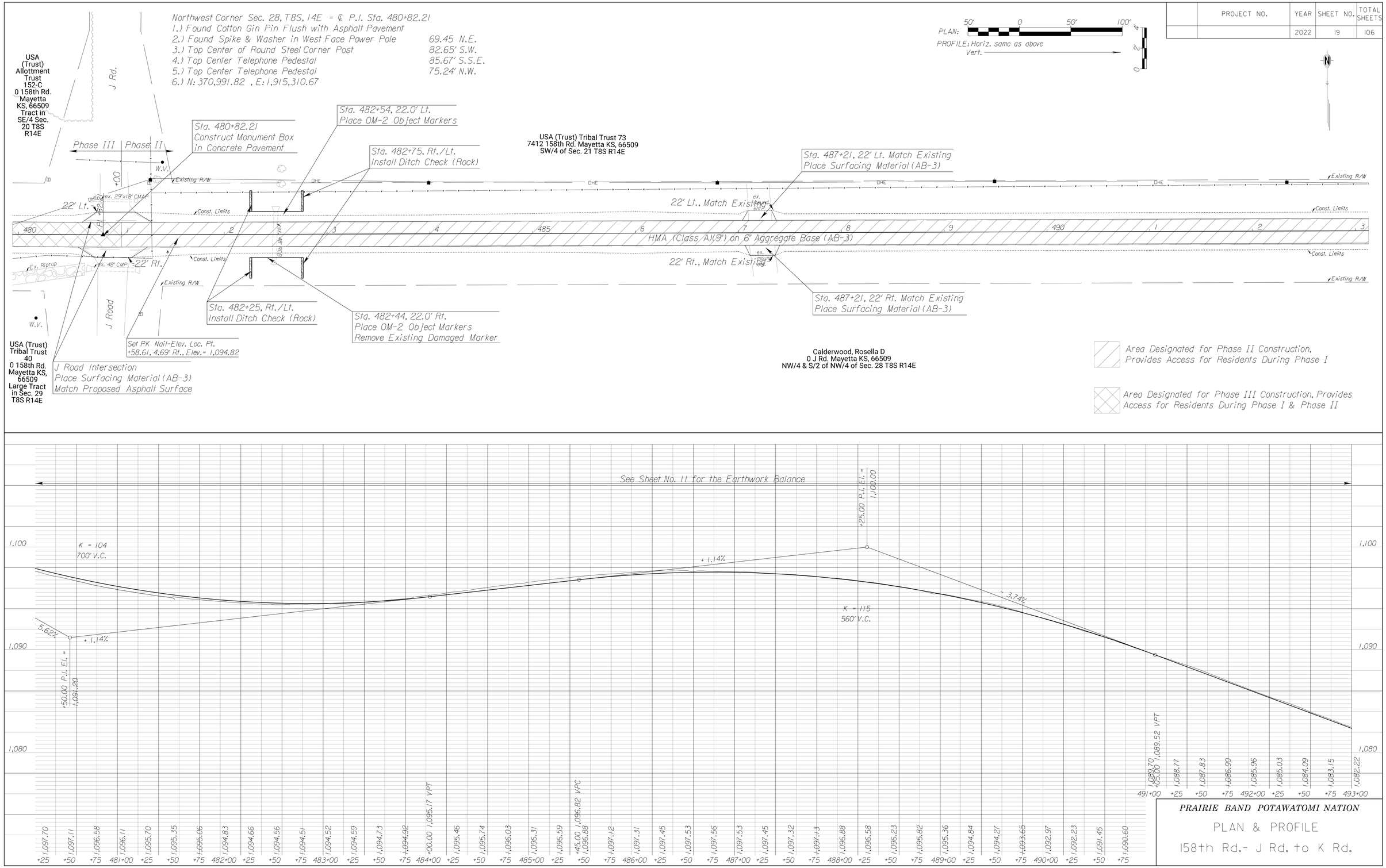
PLAN & PROFILE

158th Rd.- 1Rd. to J Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	19	106

PLAN: 50' 0 50' 100'

PROFILE: Horiz. same as above
Vert. 0 2' 4'



PRAIRIE BAND POTAWATOMI NATION

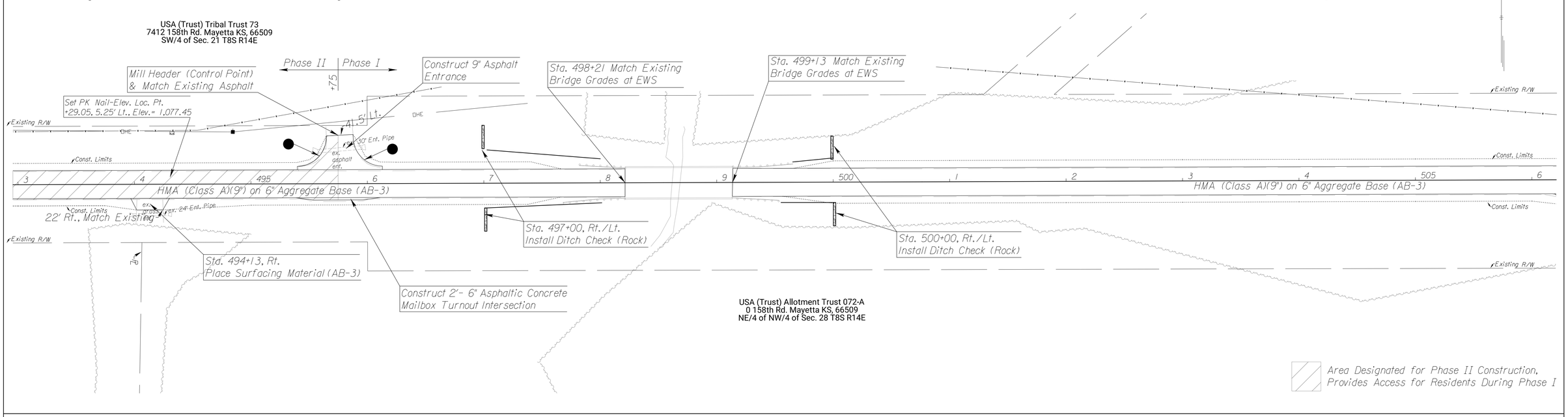
PLAN & PROFILE

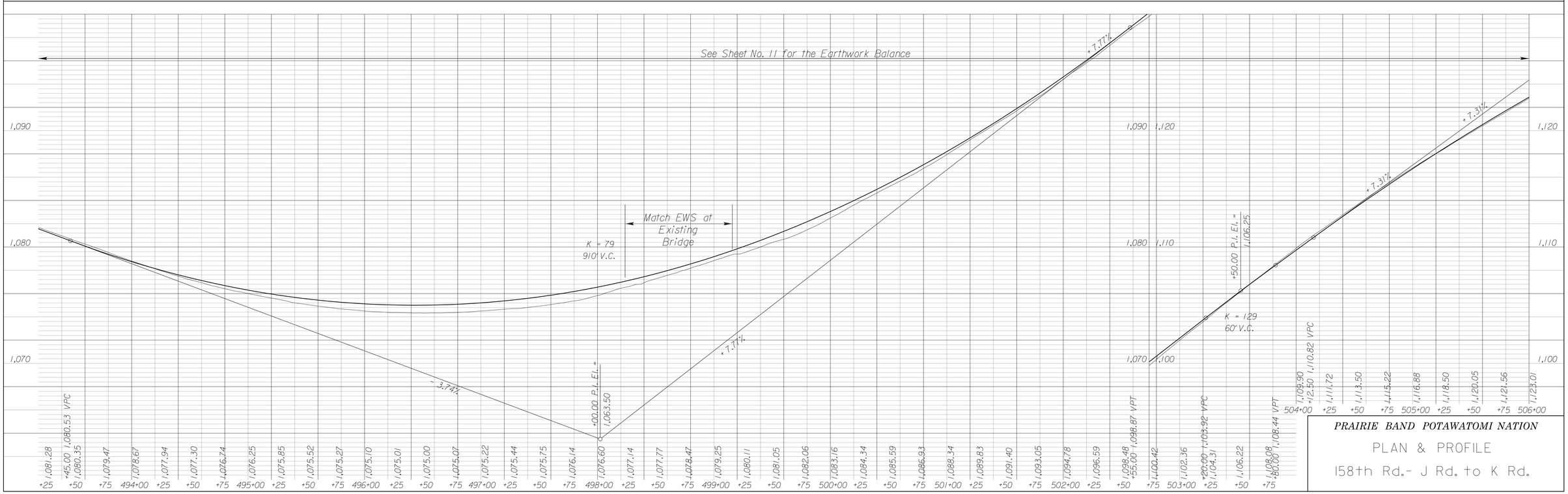
158th Rd.- J Rd. to K Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	20	106

PLAN: 50′ 0 50′ 100′

PROFILE: Horiz. same as above
Vert. 0 2′ 4′





PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

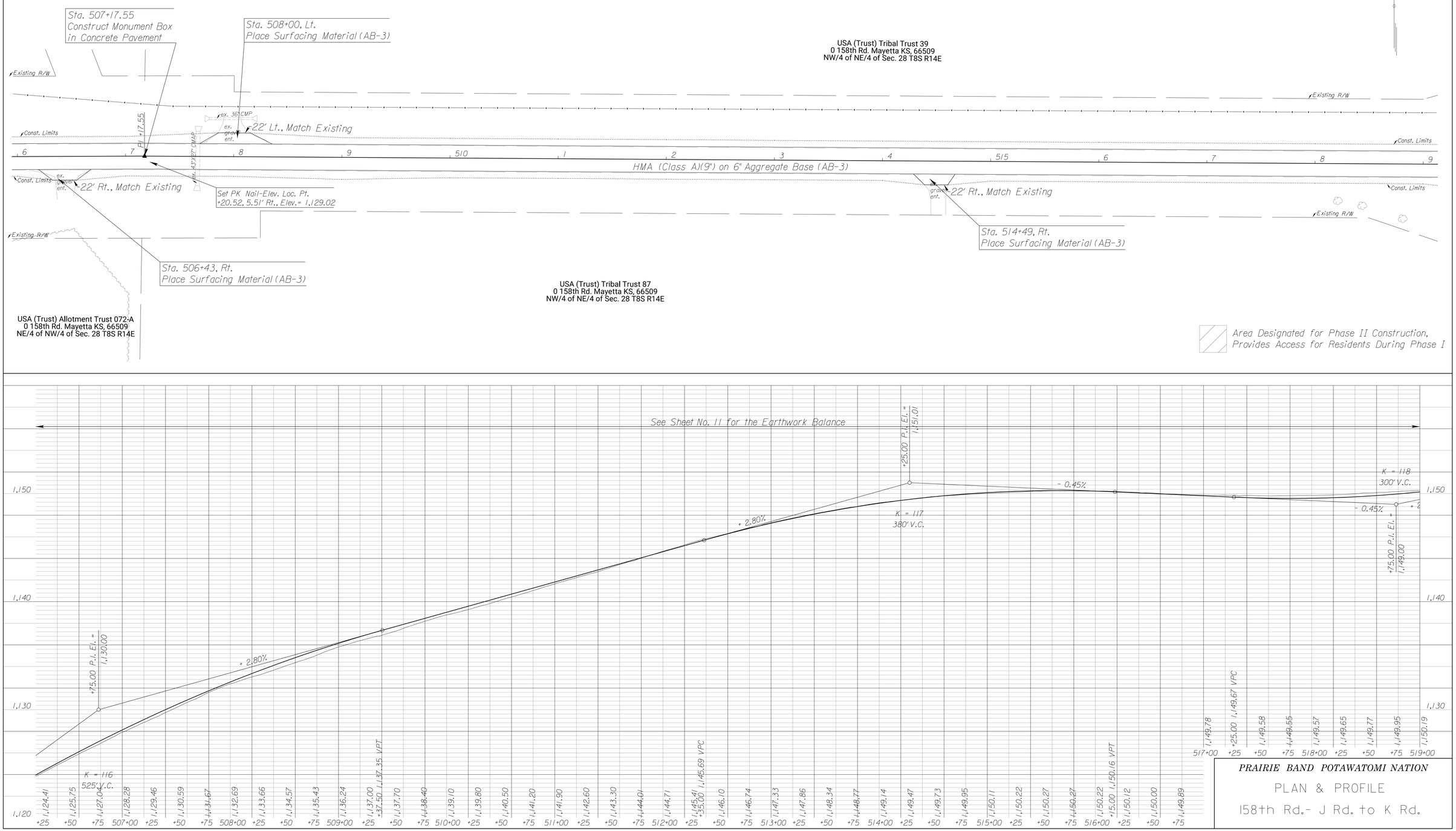
158th Rd.- J Rd. to K Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	21	106

South 1/4 Corner Sec. 21, T8S, 14E = ℄ P.I. Sta. 507+17.55
1.) Found Nail 0.6' Below Asphalt Surface
2.) Set Mag Nail in Top of CMP 56.00 S.E.
3.) Found Spike & Washer in Power Pole 68.30' N.
4.) Found Spike & Washer in Top of Wood Brace Post 87.40' N.E.
5.) N: 371,092.75 , E: 1,917,944.08

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 0 2' 4'

N



PRAIRIE BAND POTAWATOMI NATION

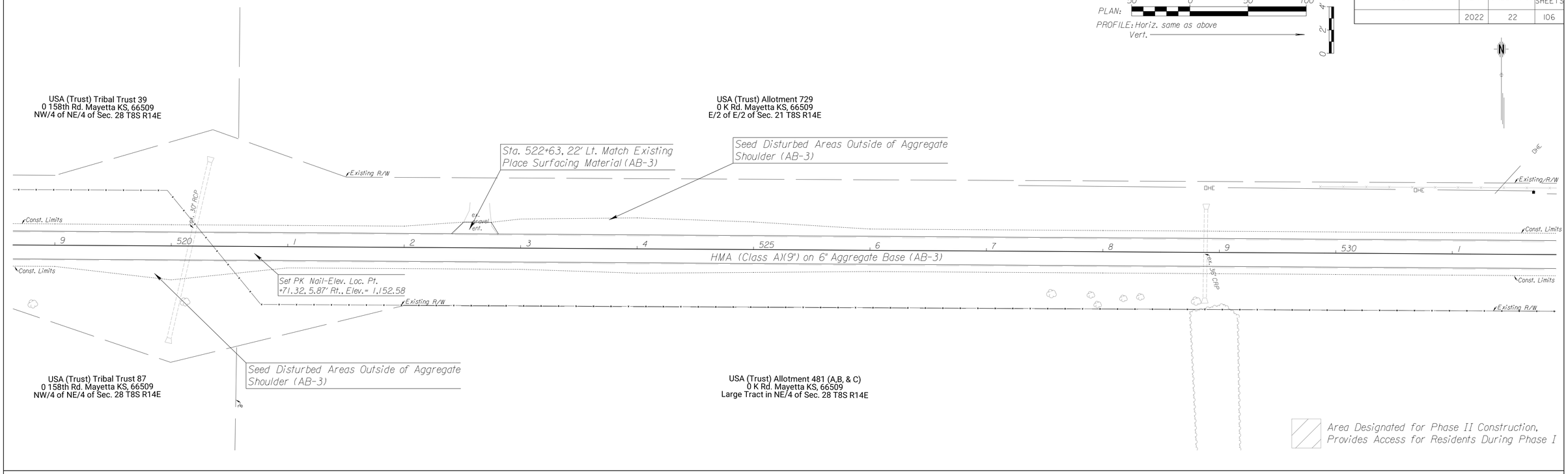
PLAN & PROFILE

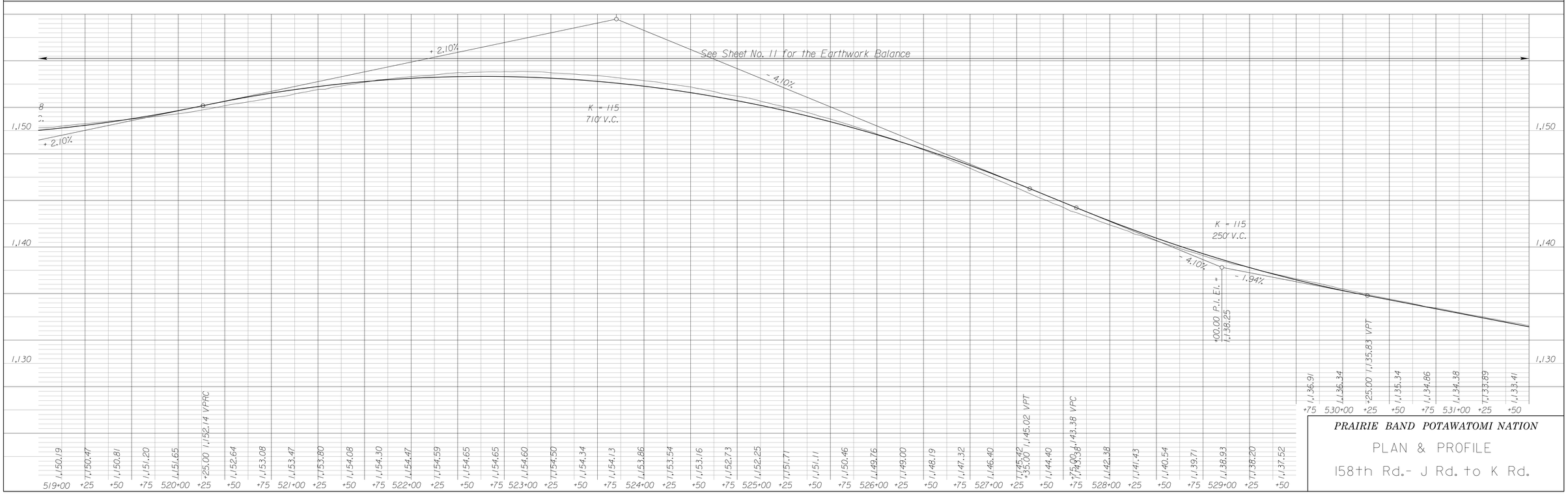
158th Rd.- J Rd. to K Rd.

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	22	106

PLAN: 50′ 0 50′ 100′

PROFILE: Horiz. same as above
Vert. 4 2′ 0





PRAIRIE BAND POTAWATOMI NATION

PLAN & PROFILE

158th Rd.- J Rd. to K Rd.

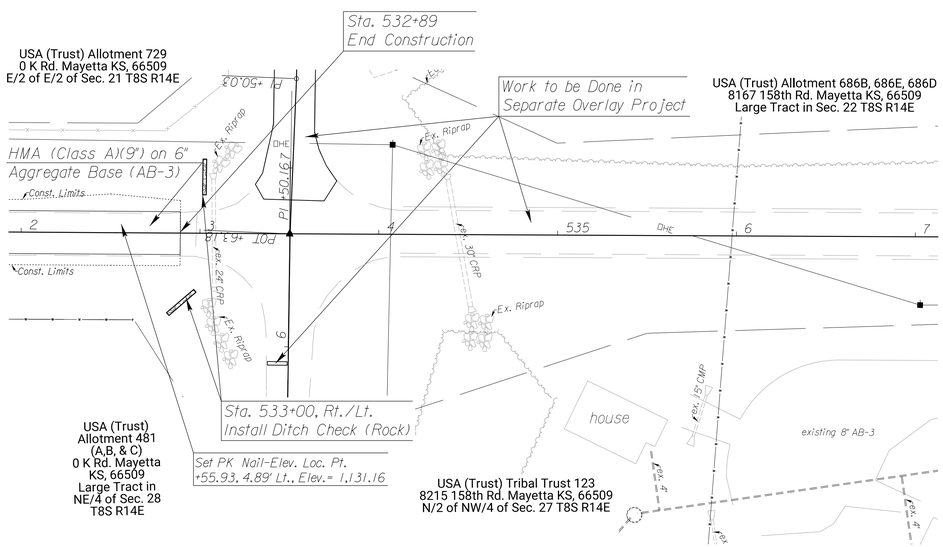
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	23	106

Southeast Corner Sec. 21, T8S, 14E = ℄ P.I. Sta. 533+50.16
1.) Found 1/2" Iron Bar 3" Below Asphalt Surface
2.) Top Center of Steel Fence Brace Post 89.20 N.W.
3.) Found Spike & Washer in SE Face Power Pole 77.70' N.E.
4.) Found Spike & Washer in Top of Corner Fence Post 93.50' N.N.W.
5.) N: 371,168.62 , E: 1,920,575.60

South 1/4 Corner Sec. 22, T8S, 14E = ℄ P.I. Sta. 559+84.18
1.) Found 1/2" Iron Bar w/ Cap 3" Below Asphalt Surface
2.) N: 371,248.58 , E: 1,923,208.40

PLAN: 50' 0 50' 100'
PROFILE: Horiz. same as above
Vert. 4' 2' 0

N



Reference Bar #3= ℄ Sta. 531+50.87, 4,601.01' Rt. (908)
1.) Set 5/8" Bar 2" Below Vegetated Surface
2.) In Line with East Face of Commodities Building, to the North
3.) Concrete Manhole to Check Valve 70.9' N.E.
4.) N: 366,563.78 , E: 1,920,509.00
5.) Elevation= 1,114.87

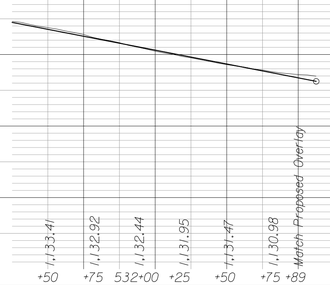
Reference Bar #4= ℄ Sta. 579+16.45, 87.55 Rt. (910)
1.) Set 5/8" Bar 2" Below Vegetated Surface
2.) East Back of Curb 20 W.
3.) West Back of Curb 23' E.
4.) N: 371,212.22 , E: 1,925,141.64
5.) Elevation= 1,205.63

BM 2: Plus Cut in S.W. Edge Concrete Manhole
Sta. 532+12.27, 4,565.60' Rt., Elev.= 1,115.64

BM 3: Railroad Spike in North Face Powerpole
Sta. 578+44.71, 47.82' Rt., Elev.= 1206.66

Area Designated for Phase II Construction,
Provides Access for Residents During Phase I

See Sheet No. 11 for the Earthwork Balance



PRAIRIE BAND POTAWATOMI NATION
PLAN & PROFILE
158th Rd.- J Rd. to K Rd.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	24	106

MONUMENT BOX

LOCATION	QUANTITY (EACH)	REMARKS
150th Rd.-Sta. 62+91.6, Rt.	1	Salvage & Reuse Existing Box, Grind "Water" off Lid
150th Rd.-Sta. 89+45.75, Rt.	1	Salvage & Reuse Existing Box, Grind "Water" off Lid
150th Rd.-Sta. 115+99.7, Rt.	1	Salvage & Reuse Existing Box, Grind "Water" off Lid
158th Rd.-Sta. 428+23.1	1	Will Need New Box
158th Rd.-Sta. 454+42.4	1	Will Need New Box
158th Rd.-Sta. 480+82.2	1	Will Need New Box
158th Rd.-Sta. 507+17.6	1	Will Need New Box
TOTALS	7	

RECAPITULATION OF ROAD QUANTITIES

ITEM	QUANTITY	UNIT
Clearing & Grubbing	L.S.	Lump Sum
Rock Excavation	9,734	Cu. Yds.
Common Excavation	23,161	Cu. Yds.
Compaction of Earthwork (Type A) (MR-5-5)	490	Cu. Yds.
Water (Grading) (Set Price)	1	MGal
Clean Existing Structures	1	Lump Sum
Monument Box	7	Each
Signing Object Marker (Type 2)	2	Each
Mobilization	L.S.	Lump Sum
Contractor Construction Staking	L.S.	Lump Sum

CLEANING EXISTING STRUCTURES

(For Information Only)

LOCATION	SIZE	TYPE	QUANTITY
150th Rd. - 62+66, Rt./Lt.	24"	Cross Road Pipe	1
150th Rd. - 116+25, Rt./Lt.	30"	Cross Road Pipe	1
158 Rd. - 379+50, Lt.	18"	Entrance Pipe	1

OBJECT MARKERS

LOCATION	TYPE	QUANTITY
158 Rd. - 482+44, Rt.	OM-2	1
158 Rd. - 482+54, Lt.	OM-2	1
		2

EARTHWORK

STATION to STATION	EXCAVATION					COMPACTION			THROUGH CUTS NOT SUBGRADED			✳ EMBANKMENT (CU.YDS.)		⚠ PLACE. SELECT SOIL CU.YDS.
	COMMON		ROCK		CONTR. FURN. CU.YDS.	TYPE AA MR-5-5 CU.YDS.	TYPE A MR-5-5 CU.YDS.		COMM. CU.YDS.	TYPE AA CU.YDS.	TYPE A CU.YDS.	INITIAL CONSOL.	SETTLE-MENT	
	CU.YDS.	VMF	CU.YDS.	VMF										
150th Rd.- Sta. 62+66 (Clean CMP)	12	0.75												
150th Rd.- Sta. 50+97 to Sta. 63+00	668	0.75	470			82								
150th Rd.- Sta. 63+00 to Sta. 117+00	3,174	0.75	2,549			394								
150th Rd.- Sta. 116+25 (Clean CMP - Grade to Drain)	10													
SUB-TOTALS	3,864		3,019			476								
158th Rd.- Sta. 376+00 to Sta. 427+50	6,946	0.75	2,057											
158th Rd.- Sta. 379+50 (Clean CMP-Grade to Drain)	30													
158th Rd.- Sta. 427+50 to Sta. 481+50	6,385	0.75	2,387											
158th Rd.- Sta. 481+50 to Sta. 533+00	5,936	0.75	2,271			14								
SUB-TOTALS	19,297	0.75	6,715			14								
TOTALS	†23,161		9,734			490								

†Includes 22,508 yd³ to be wasted.

PRAIRIE BAND POTAWATOMI NATION

SUMMARY OF QUANTITIES

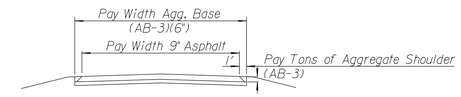
DESIGNED	DETAILED	QUANTITIES	
DESIGN CK.	DETAIL CK.	QUAN.CK.	

Drawn By : CAM Plotted : 9/12/2022 2:03:58 PM
File : Summary of Quantities.dgn

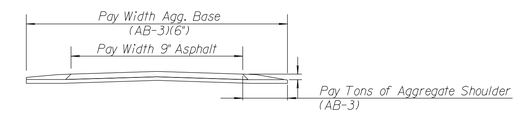
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	25	106

SUMMARY OF QUANTITIES

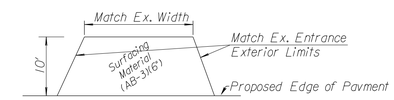
LOCATION	9" Asphaltic Concrete Sq. Yds.	Aggregate Base (AB-3)(6") Sq. Yds.	Aggregate Shoulder (AB-3) Tons	Surfacing Material (AB-3) Tons	6" Asphaltic Concrete Sq. Yds.	Milling Sq. Yds.
150th Rd. - Sta. 50+97 to Sta. 63+28	3,012.5	3,286.9	87.8			
Entrance at Sta. 56+19, Lt.				12.3		
Entrance at Sta. 57+22, Rt.				11.9		
North Approach, L Rd. Intersection	96.7	97.1	2.8			
South Approach, L Rd. Intersection	92.9	96.3	2.9	40.0		
150th Rd. - Sta. 63+28 to Sta. 117+00	13,130.6	14,324.3	392.8			
Entrance at Sta. 75+05, Lt.				9.9		
Entrance at Sta. 75+05, Rt.				10.0		
Entrance at Sta. 87+00, Rt.				9.1		
Entrance at Sta. 97+51, Rt.				11.6		
Entrance at Sta. 109+84, Rt.				7.7		
Driveway at Sta. 115+10, Rt.				11.0		
North Approach, M Rd. Intersection	125.7	136.5	3.4			
South Approach, M Rd. Intersection	92.2	100.7	2.8	40.0		
150TH ROAD TOTALS	16,550.6	18,041.8	492.5	91.5		
158th Rd.- Sta. 376+23 to Sta. 400+19	6,381.3	9,717.1	1,261.5			
North Approach, H Rd. Intersection				40.0		
Driveway at 376+85, Rt.				16.9		
Driveway at 379+50, Lt.				17.0	23.3	
Entrance at 380+83, Rt.				10.4		
Entrance at 399+22, Lt.				14.2		
158th Rd.- Sta. 401+77 to Sta. 428+21	7,050.7	10,722.9	1,392.1			
South Approach, H4 Intersection				40.0		
Driveway at 409+05, Rt.				10.1	18.9	
Entrance at 414+62, Lt.				10.4		
Entrance at 415+95, Lt.				12.0		
Entrance at 427+21, Lt.				28.4		
158th Rd. - Sta. 428+21 to Sta. 480+82	14,029.3	21,336.3	2,769.9			
South Approach, I Rd. Intersection				40.0		
Entrance at 438+00, Rt.				9.9		
Driveway at 445+25, Lt.				14.5	11.6	
Entrance at 454+10, Rt.				19.1		
Entrance at 458+82, Rt.				12.0		
Entrance at 463+53, Lt.				10.5		
Entrance at 466+81, Rt.				5.1		
Driveway at 469+05, Lt.				17.0	11.1	
Entrance at 478+44, Lt.				9.3		
158th Rd. - Sta. 480+82 to Sta. 498+21	4,637.3	7,052.6	915.6			
North Approach, J Rd. Intersection				40.0		
South Approach, J Rd. Intersection				40.0		
Entrance at 487+21, Lt.				10.8		
Entrance at 487+21, Rt.				11.4		
Entrance at 494+13, Rt.				10.9		
Entrance at 495+75, Lt.	122.3	131.2				122.3
158th Rd. - Sta. 499+13 to Sta. 532+89	9,002.7	13,691.6	1,406			
Entrance at 506+43, Rt.				13.9		
Entrance at 508+00, Lt.				18.8		
Entrance at 514+49, Rt.				11.7		
Entrance at 522+63, Lt.				12.5		
158TH ROAD TOTALS	41,223.6	62,651.7	7,745.1	578.8		
PROJECT TOTALS	57,774	80,694	8,238	670	65	122



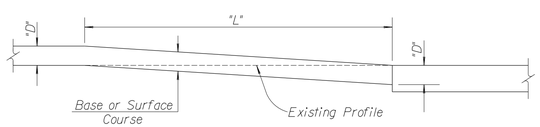
150th Road - Typical Payment Parameters



158th Road - Typical Payment Parameters



Typical Driveway, Entrance, or Gravel Approach



TYPICAL PROFILE AT GRADE CONTROL POINTS

The Contractor shall cut the subgrade in accordance with this profile at all grade control points, i.e.; existing pavements, grade bridges and R.R. crossings, also at changes in thickness of base or surface courses. Corresponding dimensions of "D" and "L" shall be as given in the table below.

The work of cutting the subgrade and disposing of excess excavated material shall be subsidiary to other items in the contract.

TABLE OF DIMENSIONS											
D	L	D	L	D	L	D	L	D	L	D	L
1"	25'	3"	75'	5"	125'	7"	175'	9"	225'	11"	275'
2"	50'	4"	100'	6"	150'	8"	200'	10"	250'	12"	300'

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)		

RECAPITULATION OF QUANTITIES

ITEM				TOTAL	UNIT
9" Asphaltic Concrete				57,774	Sq. Yds.
6" Asphaltic Concrete				65	Sq. Yds.
Aggregate Base (AB-3)(6")				80,694	Sq. Yds.
Aggregate Shoulder (AB-3)				8,238	Tons
Surfacing Material (AB-3)				670	Tons
Milling				122	Sq. Yds.
Water (Aggregate Base)(Set Price)				1	Mgal

PRAIRIE BAND POTAWATOMI NATION

SUMMARY OF QUANTITIES
(Surfacing)

DESIGNED JAH	DETAILED JAH	QUANTITIES JAH
DESIGN CK.	DETAIL CK.	QUAN.CK.

Drawn By : CAM
File : Surfacing Quantities.dgn
Plotted : 9/12/2022 2:03:58 PM

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	26	106

SUMMARY OF PAVEMENT MARKINGS

LOCATION	4" Solid WHITE Edge Line	6" Solid WHITE Edge Line	6" Broken WHITE Lane Line	6" Broken WHITE Lane Line (PCP)	6" Dotted WHITE Extension Line	6" Broken WHITE Lane Drop Line	6" Solid WHITE Lane Line	8" Broken WHITE Lane Drop Line	8" Solid WHITE Gore Line	8" Dotted WHITE Extension Line	12" Solid WHITE Diagonal Line	12" Solid WHITE Chevron Line	12" Solid WHITE Type I Crosswalk Line	24" Solid WHITE Type II Crosswalk Line	24" Solid WHITE Stop Line	4" Solid YELLOW Edge Line	4" Solid YELLOW Double Line	4" Solid YELLOW Line	4" Broken YELLOW Line	6" Solid YELLOW Edge Line	12" Solid YELLOW Diagonal Line
150th Rd. - 50+97 to 62+55	2,316																1,158				
150th Rd. - 63+28 to 115+56	10,456																5,228				
150th Rd. - 116+39 to 117+00	122																61				
158th Rd. - 377+00 to 427+91	10,182																5,091				
158th Rd. - 428+54 to 480+57	10,406																5,203				
158th Rd. - 481+32 to 532+89	10,314																5,157				
TOTALS	43,796																43,796				

RECAPITULATION OF QUANTITIES

ITEMS	TOTAL	UNITS
PAVEMENT MARKING (MULTI-COMPONENT)(WHITE)(4")	43,796	FT
PAVEMENT MARKING (MULTI-COMPONENT)(WHITE)(6")		FT
PAVEMENT MARKING (MULTI-COMPONENT)(WHITE)(8")		FT
PAVEMENT MARKING (MULTI-COMPONENT)(WHITE)(12")		FT
PAVEMENT MARKING (MULTI-COMPONENT)(YELLOW)(4")	43,796	FT
PAVEMENT MARKING (MULTI-COMPONENT)(YELLOW)(6")		FT
PAVEMENT MARKING (MULTI-COMPONENT)(YELLOW)(12")		FT
PAVEMENT MARKING (THERMOPLASTIC)(WHITE)(4")		FT
PAVEMENT MARKING (THERMOPLASTIC)(WHITE)(6")		FT
PAVEMENT MARKING (THERMOPLASTIC)(WHITE)(8")		FT
PAVEMENT MARKING (THERMOPLASTIC)(WHITE)(12")		FT
PAVEMENT MARKING (THERMOPLASTIC)(YELLOW)(4")		FT
PAVEMENT MARKING (THERMOPLASTIC)(YELLOW)(6")		FT
PAVEMENT MARKING (THERMOPLASTIC)(YELLOW)(12")		FT
PAVEMENT MARKING (EPOXY)(WHITE)(4")		FT
PAVEMENT MARKING (EPOXY)(WHITE)(6")		FT
PAVEMENT MARKING (EPOXY)(WHITE)(8")		FT
PAVEMENT MARKING (EPOXY)(WHITE)(12")		FT
PAVEMENT MARKING (EPOXY)(YELLOW)(4")		FT
PAVEMENT MARKING (EPOXY)(YELLOW)(6")		FT
PAVEMENT MARKING (EPOXY)(YELLOW)(12")		FT
PAVEMENT MARKING (INTERSECTION GRADE)(WHITE)(12")		FT
PAVEMENT MARKING (INTERSECTION GRADE)(WHITE)(24")		FT
PAVEMENT MARKING (INTERSECTION GRADE)(YELLOW)(12")		FT
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(WHITE)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(WHITE)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(WHITE)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(WHITE)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(WHITE)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(US-SHIELD)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(K-SHIELD)( )		EACH
PAVEMENT MARKING SYMBOL (INTERSECTION GRADE)(I-SHIELD)( )		EACH
PAVEMENT MARKING (PATTERNED COLD PLASTIC)(WHITE)(6")		FT
PAVEMENT MARKING (PATTERNED COLD PLASTIC)(WHITE)(8")		FT
PAVEMENT MARKING (PATTERNED COLD PLASTIC)(WHITE)(12")		FT
PAVEMENT MARKING REMOVAL		FT

SUMMARY OF WORD & SYMBOL MARKINGS

LOCATION							STOP	ONLY	X-ING	SCHOOL	70	435	24	400	18							
TOTALS																						

NOTE:
WORDS & SYMBOLS SHALL CONFORM TO THE LATEST EDITION OF "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS" PRINTED BY THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION.

PRIOR TO COMMENCEMENT OF PAVEMENT MARKING WORK THE ENGINEER WILL ESTABLISH THE LIMITS FOR "NO PASSING" ZONES. THESE LIMITS SHALL BE USED FOR THE LOCATION OF "NO PASSING" LINES AND FOR THE COMPUTATION OF ACTUAL MARKING QUANTITIES FOR THIS LINE TYPE.

NOTE: FOR SPECIFIC PAVEMENT MARKING DETAILS AND DIMENSIONS SEE PLAN SHEETS

NOTE: ALL TOTALS REFLECT ACTUAL QUANTITY OF PAVEMENT MARKING MATERIALS REQUIRED.

NO.	DATE	REVISIONS	BY	APP'D
2	5/25/12	Added Line Types, Symbols, and Shields	B.A.H.	B.D.G.
1	7/26/05	New FHWA Approval Date	J.F.F.	B.D.G.

KANSAS DEPARTMENT OF TRANSPORTATION

SUMMARY AND RECAPITULATION OF PAVEMENT MARKING QUANTITIES

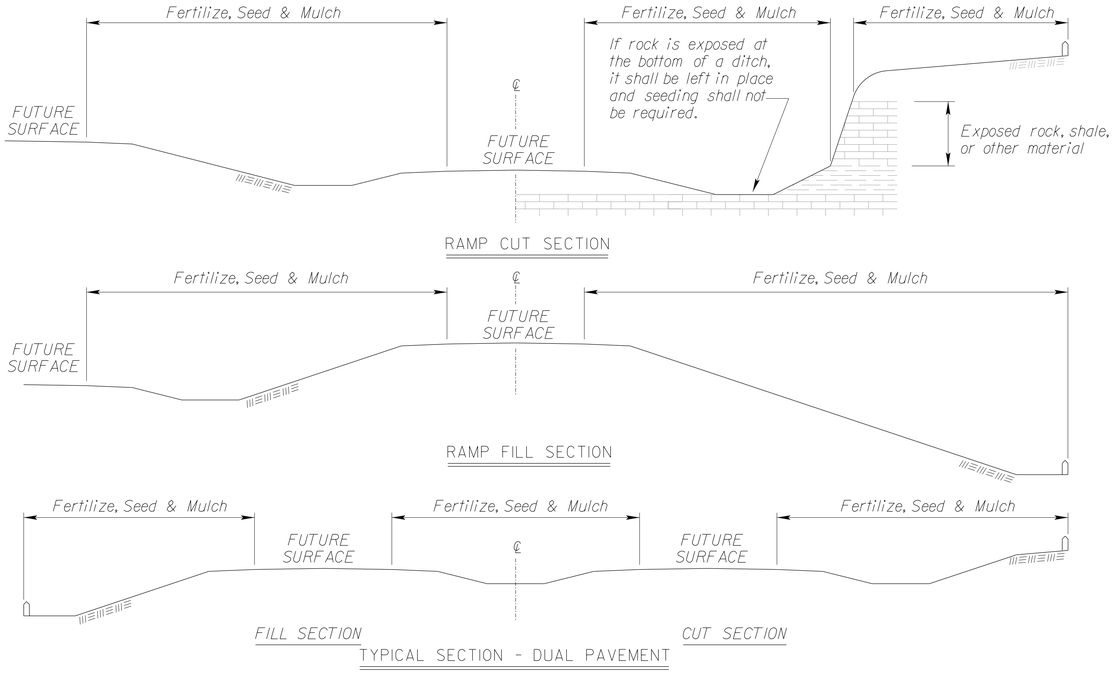
TE311

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

Plotted : 9/12/2022 2:03:59 PM
$$KDOTGRP$$

Drawn By : CAM
File : te311.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	27	106



FERTILIZER: A ratio and application rate that equals or exceeds the required minimum rate per acre of N, P_2O_5, K_2O listed in Summary of Quantities will be acceptable.

* - N = Nitrogen Rate of Application
** - P_2O_5 = Phosphorous Rate of Application
*** - K_2O = 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.

SUMMARY OF SEEDING / EROSION CONTROL QUANTITIES

P.L.S. RATE/ ACRE		ACRES		BID ITEM	QUANTITY	UNIT
CLT	SL/CH	CLT	SL/CH			
150		6.3		Temporary Fertilizer (15 - 30 - 15)	945	LB
20		6.3		Temporary Seed (Canada Wildrye)	126	LB
45		6.3		Temporary Seed (Grain Oats)	284	LB
45		6.3		Temporary Seed (Sterile Wheatgrass)	284	LB
	109.9		0.031	Soil Erosion Mix	3.4	LB
				Erosion Control (Class 1, Type C)	152	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)	482.8	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")	70	LF
				Filter Sock (18")	70	LF
				Geotextile (Erosion Control)		SQ YD
				Silt Fence	2,912	LF
				SWPPP Design †		LS
				SWPPP Inspection †		EACH
				Water Pollution Control Manager †		EACH
900 lbs / acre				Mulch Tacking Slurry	5,670	LB
2 tons / acre				Mulching	18.9	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.

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:

1¾ - 2¼ Tons per Acre = 1½" 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.

SOIL EROSION MIX

PLS RATE	NAME	QTY (lb)
0.5	Blue Grama Grass Seed (Lovington)	0.02
4.5	Buffalograss Seed (Treated)	0.14
45	Perennial Ryegrass Seed	1.40
2.6	Prairie Junegrass Seed	0.08
6.3	Side Oats Grama Grass Seed (El Reno)	0.20
45	Tall Fescue (Endophyte Free)	1.40
6	Western Wheatgrass Seed (Barton)	0.19
109.9	Total (lb)	3.43

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

FHWA APPROVAL		1/26/2018	APP'D		Scott H. Shields
DESIGNED	MRD	DETAILED	MRD	QUANTITIES	CADD
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK.

Std. Base File:
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:00 PM

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	28	106

DITCH CHECK (NON-ROCK)

LOCATION	LENGTH (ft.)
150th Rd. - Sta. 62+66, Rt.	20
150th Rd. - Sta. 116+25, Rt.	40
150th Rd. - Sta. 116+25, Lt.	40
158th Rd. - Sta. 379+15, Lt.	20
158th Rd. - Sta. 379+77, Lt.	20
TOTAL DITCH CHECK (NON-ROCK)= 140 LIN. FT.	

DITCH CHECK (ROCK)

LOCATION	QUANTITY (Cu. Yds.)
150th Rd. - Sta. 50+25, Lt.	14.2
150th Rd. - Sta. 50+25, Rt.	14.2
150th Rd. - Sta. 66+00, Lt.	14.2
150th Rd. - Sta. 66+00, Rt.	14.2
150th Rd. - Sta. 68+00, Lt.	14.2
150th Rd. - Sta. 68+00, Rt.	14.2
150th Rd. - Sta. 83+00, Lt.	14.2
150th Rd. - Sta. 83+00, Rt.	14.2
150th Rd. - Sta. 93+00, Lt.	14.2
150th Rd. - Sta. 93+00, Rt.	14.2
150th Rd. - Sta. 105+00, Lt.	14.2
150th Rd. - Sta. 105+00, Rt.	14.2
150th Rd. - Sta. 108+00, Lt.	14.2
150th Rd. - Sta.108+00, Rt.	14.2
150th Rd. - Sta. 115+40, Rt.	14.2
150th Rd. - Sta. 115+40, Lt.	14.2
158th Rd. - Sta. 398+00, Rt.	14.2
158th Rd. - Sta. 398+00, Lt.	14.2
158th Rd. - Sta. 404+00, Rt.	14.2
158th Rd. - Sta. 404+00, Lt.	14.2
158th Rd. - Sta. 462+50, Rt.	14.2
158th Rd. - Sta. 462+50, Lt.	14.2
158th Rd. - Sta. 463+25, Rt.	14.2
158th Rd. - Sta. 463+25, Lt.	14.2
158th Rd. - Sta. 482+25, Rt.	14.2
158th Rd. - Sta. 482+25, Lt.	14.2
158th Rd. - Sta. 482+75, Rt.	14.2
158th Rd. - Sta. 482+75, Lt.	14.2
158th Rd. - Sta. 497+00, Rt.	14.2
158th Rd. - Sta. 497+00, Lt.	14.2
158th Rd. - Sta. 500+00, Rt.	14.2
158th Rd. - Sta. 500+00, Lt.	14.2
158th Rd. - Sta. 533+00, Rt.	14.2
158th Rd. - Sta. 533+00, Lt.	14.2
TOTAL DITCH CHECK (ROCK)= 482.8 Cu. Yds.	

Erosion Control (Class 1, Type C)

PIPE LOCATION	QUANTITY (Sq. Yds.)
150th Rd. - Sta. 62+66, Rt.	15
150th Rd. - Sta. 62+66, Lt.	15
150th Rd. - Sta. 116+25, Rt.	31
150th Rd. - Sta. 116+25, Lt.	31
158th Rd. - Sta. 379+15, Lt.	30
158th Rd. - Sta. 379+77, Lt.	30
TOTAL Erosion Control (Class 1, Type C)= 152 SQ. YDS.	

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

Perimeter Control (Silt Fence)

LOCATION	QUANTITY (Lin. Ft.)
150th Rd. - Sta. 66+00 to 68+00, Lt.	200
150th Rd. - Sta. 66+00 to 68+00, Rt.	200
150th Rd. - Sta. 82+00 to 83+00, Lt.	100
150th Rd. - Sta. 82+00 to 83+00, Rt.	100
150th Rd. - Sta. 91+50 to 93+00, Lt.	150
150th Rd. - Sta. 91+50 to 93+00, Rt.	150
150th Rd. - Sta. 105+00 to 108+00, Lt.	300
150th Rd. - Sta. 105+50 to 108+00, Rt.	300
158th Rd. - Sta. 398+00 to 400+19, Lt.	219
158th Rd. - Sta. 398+00 to 400+19, Rt.	219
158th Rd. - Sta. 401+78 to 404+00, Lt.	222
158th Rd. - Sta. 401+78 to 404+00, Rt.	222
158th Rd. - Sta. 462+50 to 463+25, Lt.	75
158th Rd. - Sta. 462+50 to 463+25, Rt.	75
158th Rd. - Sta. 482+25 to 482+75, Lt.	50
158th Rd. - Sta. 482+25 to 482+75, Rt.	50
158th Rd. - Sta. 497+00 to 498+00, Lt.	100
158th Rd. - Sta. 497+00 to 498+00, Rt.	100
158th Rd. - Sta. 499+65 to 500+00, Lt.	35
158th Rd. - Sta. 499+55 to 500+00, Rt.	45
TOTAL Perimeter Control (Silt Fence)= 2,912 Lin. Ft.	

Std. Base File: la852a-ec.dgn
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:00 PM

NO.	DATE	REVISIONS	BY	APP'D
4				
3				
2				
1				

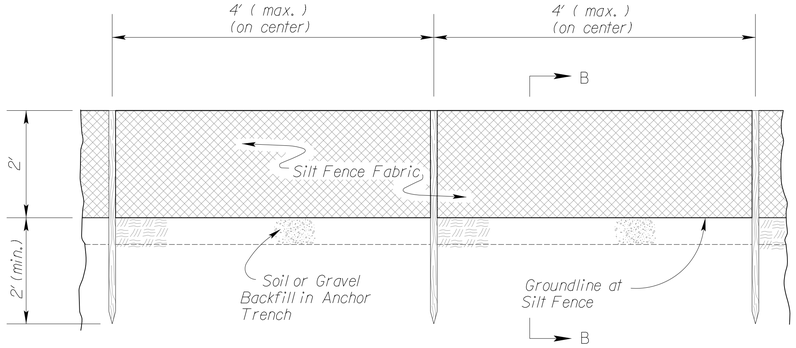
KANSAS DEPARTMENT OF TRANSPORTATION

EROSION CONTROL
SEEDING-SODDING

LA852A-EC

F.H.W.A. APPROVAL		1/04/2006	APP'D	Scott H. Shields	
DESIGNED	MRM	DETAILED	MRM	QUANTITIES	TRACED MRM
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	TRACE CK. SHS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	29	106



TYPICAL ELEVATION

SILT FENCE BARRIER

NO SCALE

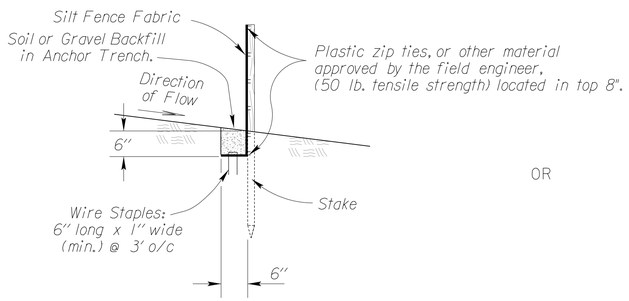
INSTALLATION NOTES

SILT FENCE:

1. Stakes shall be 4' (min.) long and of one of the following materials:
   a. Hardwood - 1 3/16" x 1 3/16";
   b. Southern Pine (No. 2) - 2 5/8" x 2 5/8";
   c. Steel U, T, L, or C Section - .95 lbs. per 1'-0"; or
   d. Synthetic - same strength as wood stakes.
2. Attach fence fabric with 3 zip ties within the top 8" of the fence Alternate attachment methods may be approved by the Engineer on a performance basis.
3. Use of high flow material is acceptable.
4. Refer to plan sheets to estimate the length of silt fence required.

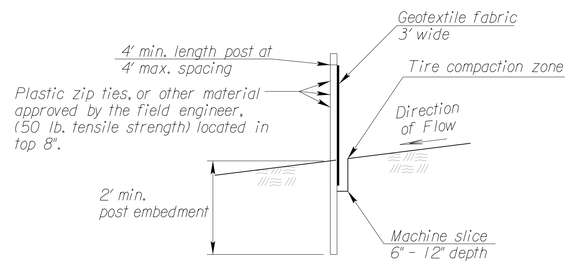
BIODEGRADABLE LOG OR FILTER SOCK

1. Place biodegradable logs or filter sock tightly together minimum overlap of 18".
2. Wood stakes shall be 2" x 2" (nom.).
3. Refer to plan sheets to estimate length of biodegradable log and filter sock required.
4. 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.
5. Length of stakes should be 2 times the height of the log at a minimum with minimum ground embedment equal to the height of the log / sock.



SECTION B-B

OR



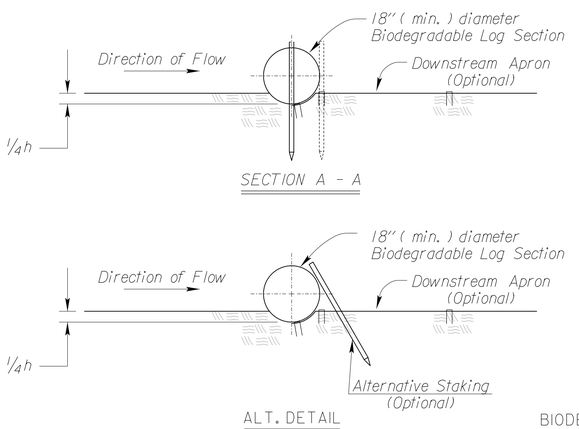
SECTION B-B

Biodegradable Log or Filter Sock Slope Interruptions

		PRODUCT		
		9" Sediment Log or 8" Filter Sock (ft)	12" Sediment Log or 12" Filter Sock (ft)	20" Sediment Log or 18" Filter Sock (ft)
Slope Gradient	≤4H:1V	40	60	80
	3H:1V	30	45	60

Deviations should be approved by the Field Engineer.

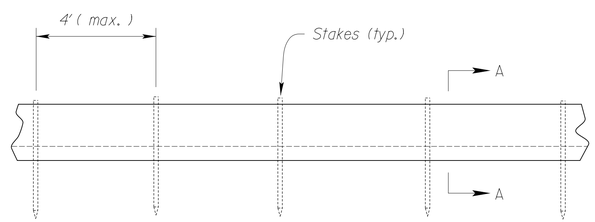
	BIODEGRADABLE LOG MATERIAL	
	LOW FLOW	HIGH FLOW
9"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
12"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber
18"-20"	Straw/Compost	Excelsior / Wood Chips / Coconut Fiber



SECTION A - A

ALT. DETAIL

OPTIONAL



TYPICAL ELEVATION

BIODEGRADABLE LOG SLOPE INTERRUPTIONS

OR Filter Sock

GENERAL NOTES

1) Slope interruptions shall be placed along contour lines, with a short section turned upgrade at each end of the barrier.

2) The maximum length of the slope interruptions shall not exceed 250 feet, and the barrier ends need to be staggered.

3) Interruptions damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired immediately by Contractor at no additional cost to KDOT.

4) 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.

NO.	DATE	REVISIONS	BY	APP'D
3	6/28/16	Revised Standard	RA	SHS
2	3/01/15	Revised Standard	RA	SHS
1	6/01/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

TEMPORARY EROSION AND POLLUTION CONTROL

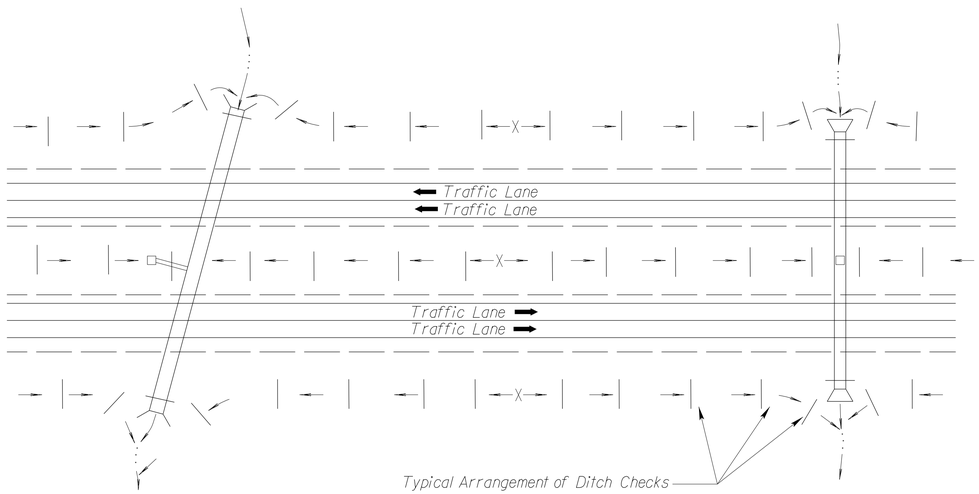
SLOPE INTERRUPTIONS
BIODEGRADABLE LOG / SILT FENCE

LA852D

FHWA APPROVAL		9/14/2016	APP'D		Scott H. Shields
DESIGNED	SHS	DETAILED RA	QUANTITIES		CADD
DESIGN CK.	SHS	DETAIL CK.	QUAN.CK.		CADD CK.

Std. Base File:
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:01 PM

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS			30	



TYPICAL DITCH CHECK LAYOUT PLAN

NO SCALE

20" BIOLOG CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
1.0	125
2.0	60
3.0	40
4.0	30
5.0	25
NOTE: Use this spacing for all except Rock Ditch Checks.	

18" FILTER SOCK CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
1.0	110
2.0	55
3.0	35
4.0	25
5.0	20
NOTE: Use this spacing for all except Rock Ditch Checks.	

GENERAL NOTES

1) The choice of ditch check methods is at the option of the Contractor.

2) Use only rock checks in situations where the ditch slope is 6 percent or greater.

2) Ditch checks damaged by Contractor's negligence, including improper maintenance or lack of maintenance, shall be repaired by Contractor at no extra cost to KDOT.

Std. Base File:
Plotted By: CAM | Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:01 PM

NO.	DATE	REVISIONS	BY	APP'D
3	8/10/16	Revised Standard	RAA	SHS
2	6/28/16	Revised Standard	RAA	SHS
1	6/01/13	Revised Standard	MRM	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

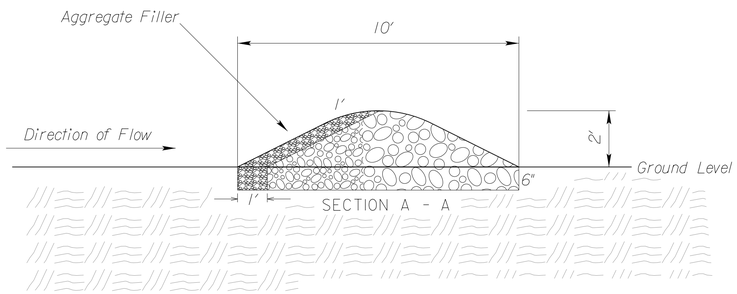
TEMPORARY EROSION AND POLLUTION CONTROL

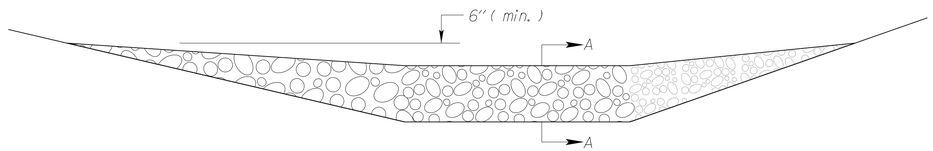
DITCH CHECKS

LA852E

FHWA APPROVAL		9/14/2016	APP'D	Scott H. Shields	
DESIGNED	SHS	DETAILED	RAA	QUANTITIES	CADD RAA
DESIGN CK.	SHS	DETAIL CK.	SHS	QUAN.CK.	CADD CK. SHS

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	31	106





TYPICAL ELEVATION

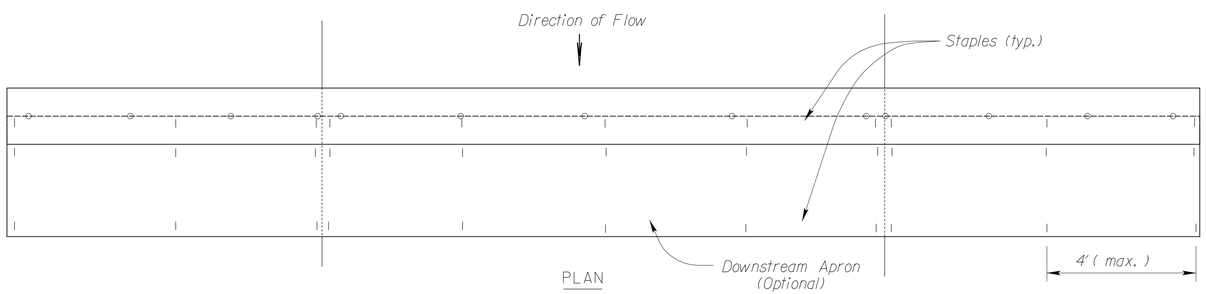
ROCK DITCH CHECK

NO SCALE

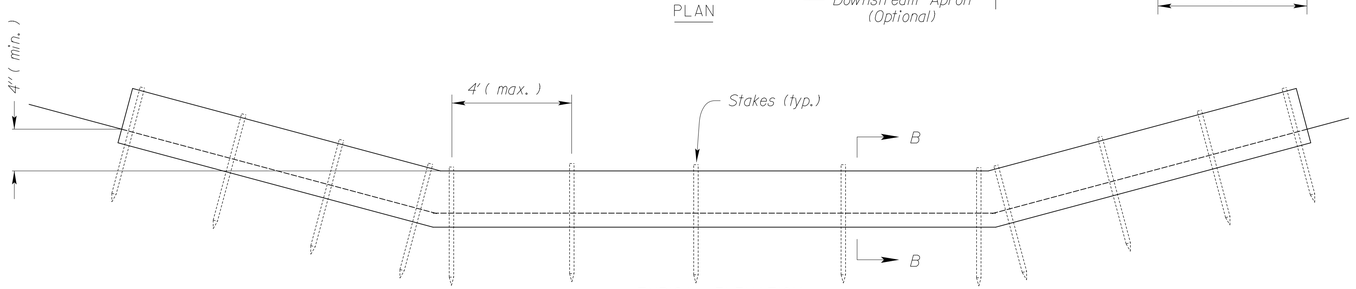
TEMPORARY ROCK DITCH CHECK SPACING	
DITCH ℄ SLOPE (%)	SPACING INTERVAL (FEET)
5.0	60
6.0	50
7.0	43
8.0	36
9.0	33
10.0	29
NOTE: Use this spacing for Rock Ditch Checks only.	

ROCK DITCH CHECK NOTES

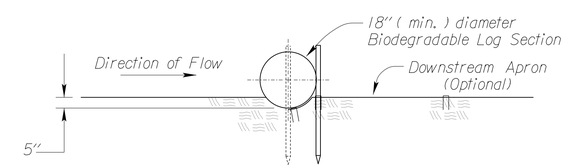
1. Rock shall be clean aggregate, D50-6" and aggregate filler.
2. Place rock in such manner that water will flow over, not around ditch check.
3. Do not use rock ditch checks in clear zone.
4. Excavation: The ditch area shall be reshaped to fill any eroded areas. Prior to placement of the rock, the ditch 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.



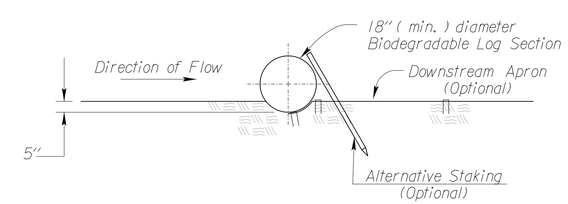
PLAN



TYPICAL ELEVATION



SECTION B - B



ALT. DETAIL
OPTIONAL

BIODEGRADABLE LOG DITCH CHECK

OR Filter Sock Ditch Check

NO SCALE

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.

NO.	DATE	REVISIONS	BY	APP'D
3	11/19/20	Revised Standard	MRD	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

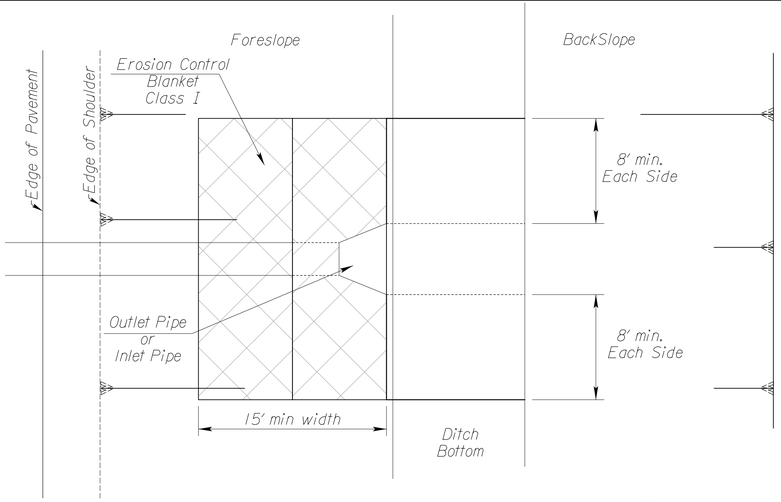
BIODEGRADABLE LOG DITCH CHECKS

LA852G

FHWA APPROVAL		11/19/2020		APP'D		Mervin Lare	
DESIGNED	ML	DETAILED	DK	QUANTITIES		CADD	RAA
DESIGN CK.	ML	DETAIL CK.	ML	QUAN.CK.		CADD CK.	RAA

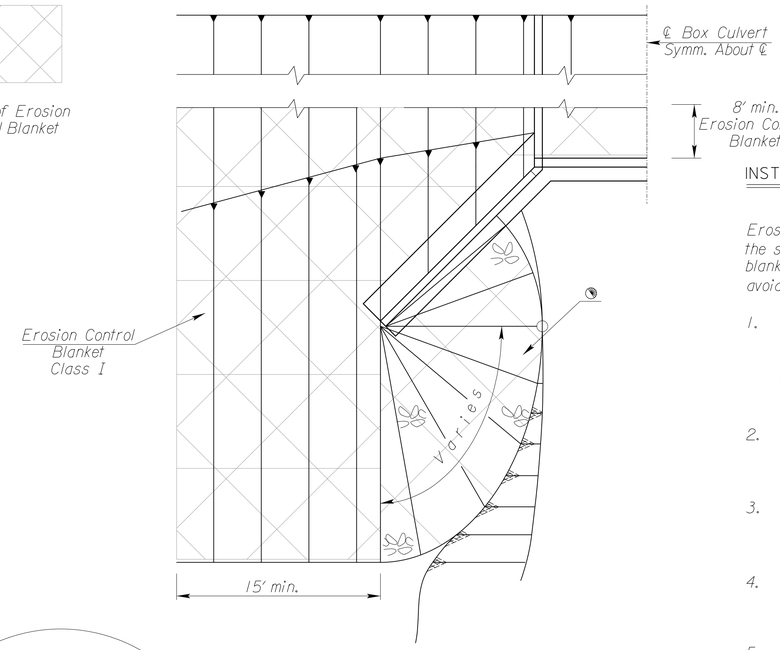
Std. Base File: la852g.dgn
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:01 PM

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	32	106



PARTIAL PLAN PIPE

Limits of Erosion Control Blanket



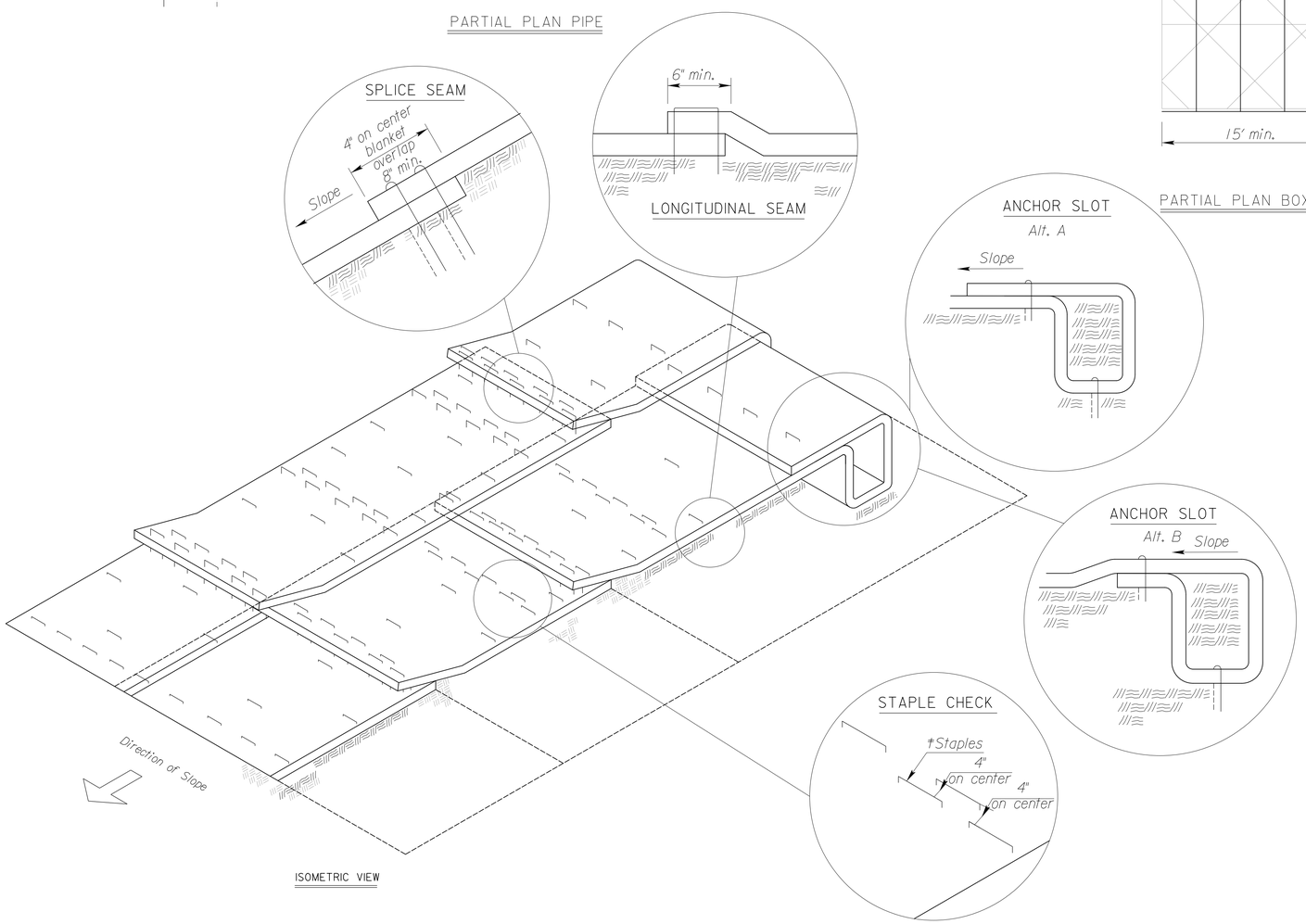
PARTIAL PLAN BOX CULVERT

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

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.

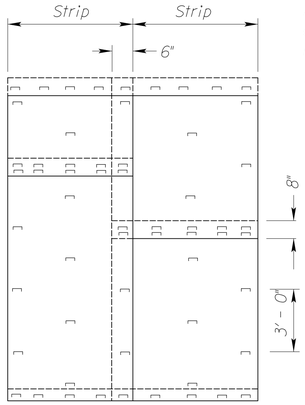
1. ANCHOR SLOTS: The top of the blanket should be "slotted in" at the top of the slope and anchored in place with anchors 6 inches apart. The slots should be 6 inches wide x 6 inches deep with the blanket anchored in the bottom of the slot, then backfilled, tamped and seeded.
2. LONGITUDINAL SEAMS: The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



ISOMETRIC VIEW

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.



PLAN VIEW - ANCHORING DIAGRAM

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

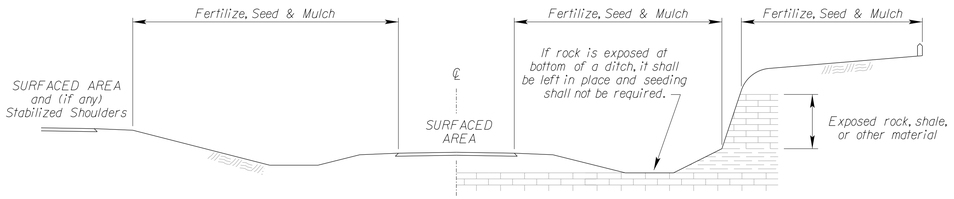
INSTALLATION DETAIL
EROSION CONTROL CLASS I
SLOPE PROTECTION

LA855

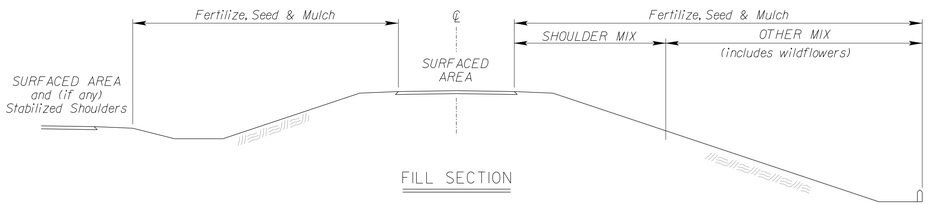
FHWA APPROVAL		3/10/2015	APP'D	Scott H. Shields	
DESIGNED	RAA	DETAILED RAA	QUANTITIES	CADD	RAA
DESIGN CK.		DETAIL CK.	QUAN.CK.	CADD CK.	RAA

Std. Base File: la855.dgn
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:02 PM

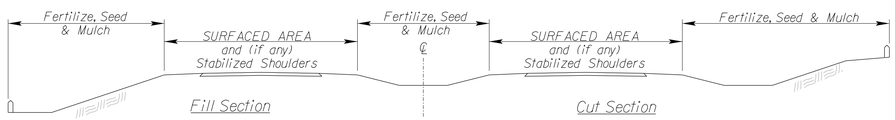
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	33	106



CUT SECTION



FILL SECTION



TYPICAL SECTION - DUAL PAVEMENT

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

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.

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.

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, P_2O_5, K_2O 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:

1¾ - 2¼ Tons per Acre = 1½" 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.

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 SHLDR	OTHER			ACRES SHLDR	OTHER			BID ITEM	QUANTITY	UNIT
200				6.3				Fertilizer (13-13-13)	1,260	LB
0.5				6.3				Seed (Lovington Blue Grama Grass)	3.2	LB
4.5				6.3				Seed (Treated Buffalograss)	28.4	LB
45				6.3				Seed (Perennial Ryegrass)	283.5	LB
2.6				6.3				Seed (Prairie Junegrass)	16.4	LB
6.3				6.3				Seed (El Reno Side Oats Grama Grass)	39.7	LB
45				6.3				Seed (Fescue)(Tall)(Endophyte-Free)	283.5	LB
6				6.3				Seed (Barton Western Wheatgrass)	37.8	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.

NO.	DATE	REVISIONS	BY	APP'D
2	11/25/20	Updated Seeding / Sodding Periods Charts	MRD	ML
1	08/03/20	Revised Standard	MRD	SHS

KANSAS DEPARTMENT OF TRANSPORTATION

PERMANENT SEEDING
SUMMARY OF SEEDING QUANTITIES

LA850

FHWA APPROVAL	05/06/2019	APP'D	Mervin Lare
DESIGNED MRD	DETAILED MRD	QUANTITIES	CADD
DESIGN CK.	DETAIL CK.	QUAN.CK.	CADD CK.

Std. Base File:
Plotted By: CAM
Plot Location: $UNIT$
File: Erosion Stds.dgn
Plot Date: 9/12/2022 2:04:02 PM

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	34	106

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.

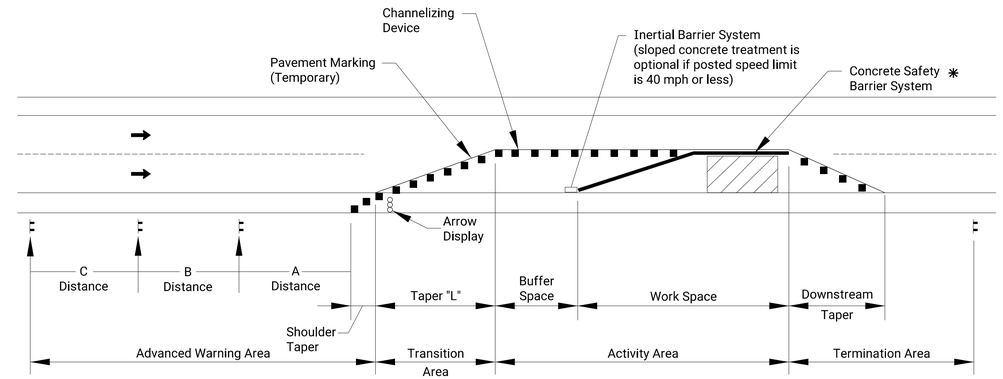
2) Minimum Lane Width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.

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 = Numericial 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:

(1) 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.

(2) 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.

(3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.

(4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.

(5) 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	APP'D
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

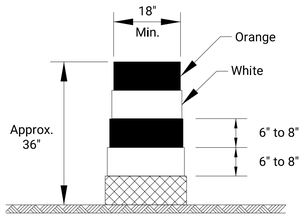
TRAFFIC CONTROL GENERAL NOTES

TE700

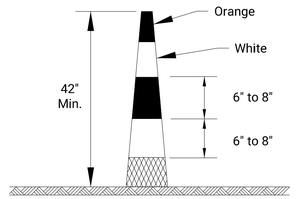
FHWA APPROVAL	03-13-18	APP'D.	Eric Kocher
DESIGNED B.A.H.	DETAILED R.W.B.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN.CK.	TRACE CK.

Plotted : 9/12/2022 2:04:03 PM
Drawn By : CAM
File : TrafficControl.dgn

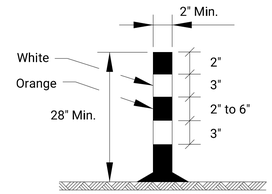
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	35	106



DRUM

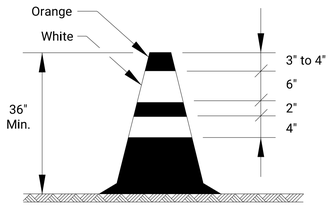


CONICAL DELINEATOR

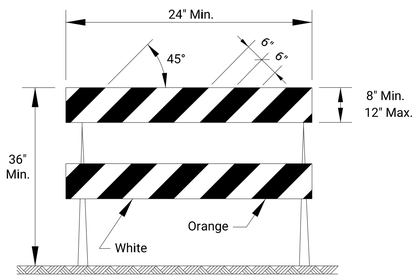


TUBULAR MARKER

Striping as shown for up to 42".

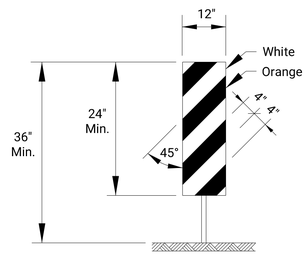


TRAFFIC CONE



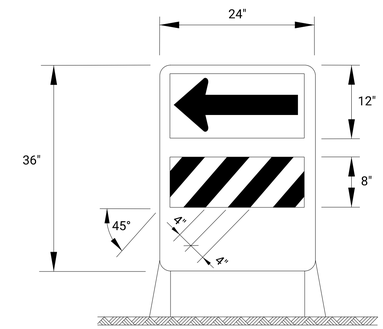
TYPE 2 BARRICADE

For rails less than 36" long, 4" wide stripes may be used.
All stripes shall slope downward to the traffic side for channelization.



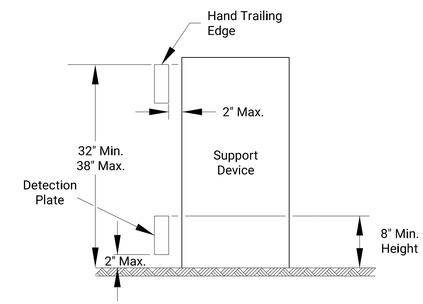
VERTICAL PANEL

The stripes shall slope downward
to the traffic side for channelization.



DIRECTION INDICATOR BARRICADE

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.



PEDESTRIAN CHANNELIZER

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 Diversions	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
	Traffic Cones	No	No	(4)	(4)	(4)	No	(4)	(4)	(4)
Fixed										
	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	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
CHANNELIZING DEVICES

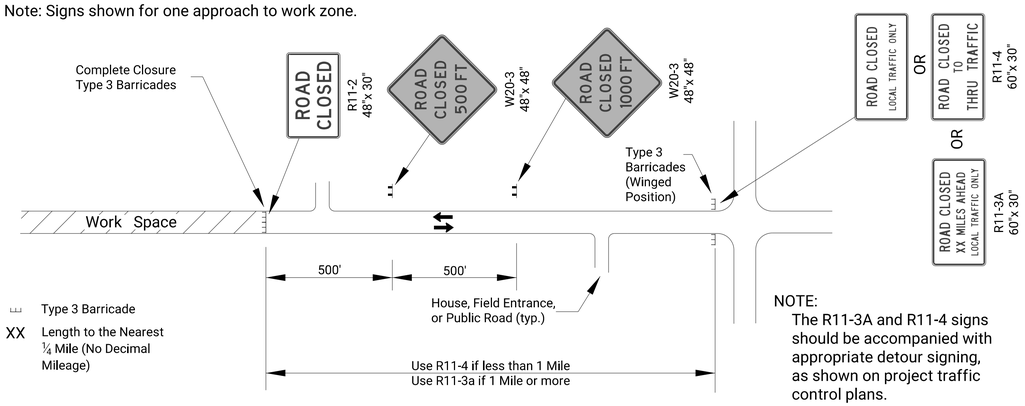
TE702

FHWA APPROVAL		06-01-15	APP'D.		Kristina Ericksen
DESIGNED	L.E.R.	DETAILED R.W.B.	QUANTITIES	TRACED	
DESIGN CK.		DETAIL CK.	QUAN.CK.	TRACE CK.	

Plotted : 9/12/2022 2:04:06 PM
Drawn By : CAM
File : TrafficControl.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	36	106

Note: Signs shown for one approach to work zone.



NOTE:
The R11-3A and R11-4 signs should be accompanied with appropriate detour signing, as shown on project traffic control plans.

FIGURE 1: TYPICAL SIGNING FOR ROAD CLOSURE (MAINLINE OR SIDE ROAD)

Note: Sign shown for one approach to intersection (work zone).

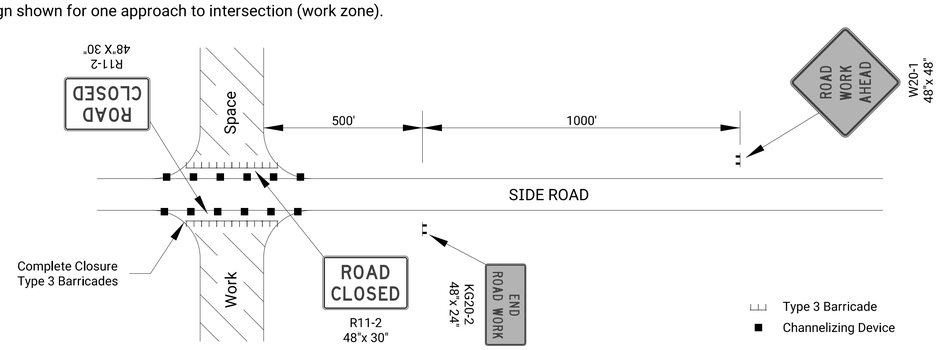


FIGURE 2: TYPICAL SIGNING FOR SIDE ROAD OPEN

Note: Signs shown for one approach to work zone.

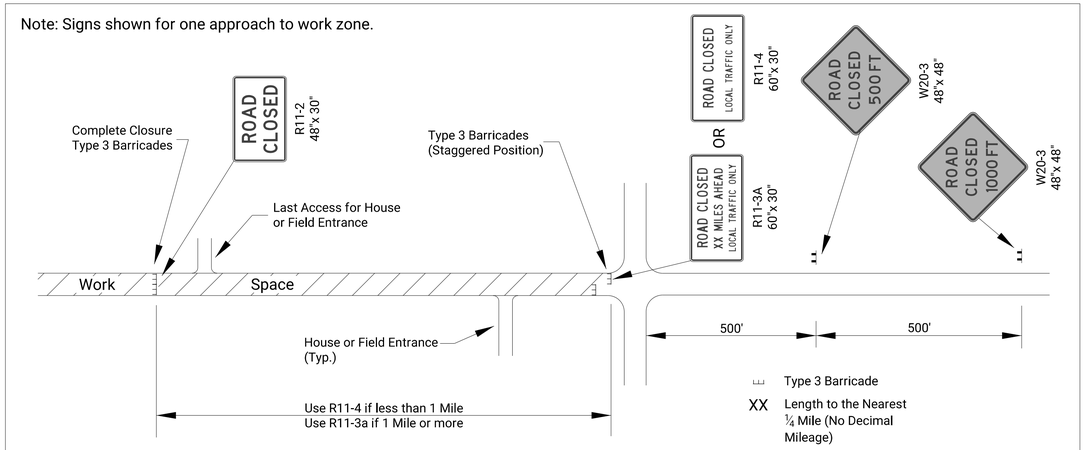


FIGURE 3: TYPICAL SIGNING FOR ROAD CLOSURE - LOCAL TRAFFIC ACCESS

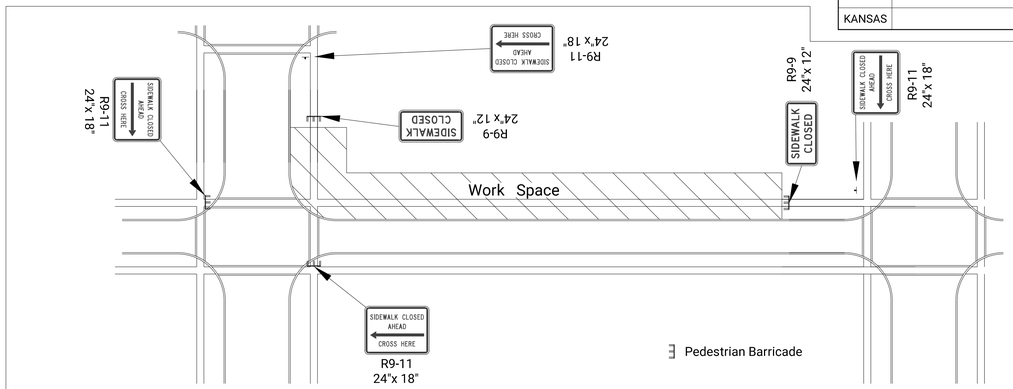
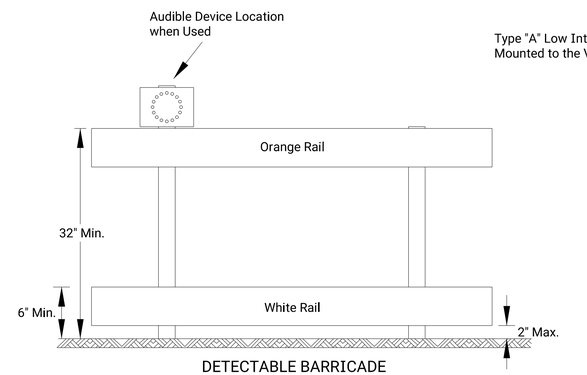
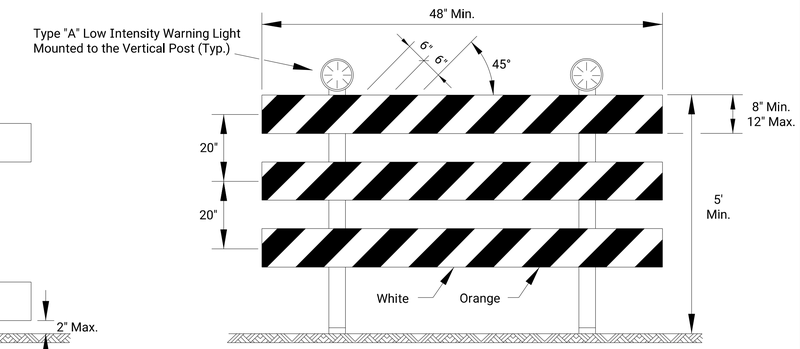


FIGURE 4: TYPICAL SIGNING FOR SIDEWALK CLOSED WITH OPPOSITE SIDEWALK AVAILABLE



DETECTABLE BARRICADE

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.



TYPE 3 BARRICADE WITH LIGHTS

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.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL CLOSURES

TE704

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.

Plotted : 9/12/2022 2:04:16 PM

Drawn By : CAM
File : TrafficControl.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	37	106

SIGN LAYOUT INFORMATION

KG20-2

Std. Size Expwy/Freeway
6" C
48"x 24"

KG20-5

Std. Size Expwy/Freeway
6" C
48"x 24"

KM4-2O

Std. Size
3" C
24"x 6"

Expwy/Freeway
6" C
48"x 12"

W7-3a

Mileage to be Determined by the Engineer.

W8-17

Std. Size Expwy/Freeway
48"x 48"

W8-17P
(Optional)

Std. Size Expwy/Freeway
30"x 24"

W8-15

Std. Size Expwy/Freeway
8" D
48"x 48"

W8-7

Std. Size Expwy/Freeway
8" D
48"x 48"

W8-15p

Std. Size Expwy/Freeway
30"x 24"

W8-11

Std. Size Expwy/Freeway
8" D
48"x 48"

SP-01
(Special Sign)

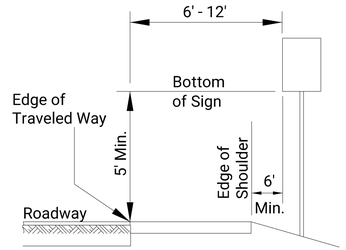
Std. Size
6" C

Expwy/Freeway
10" D

SP-02
(Special Sign)

	Std. Size	Expwy/Freeway
Uppercase:	6" C	10" D
Lowercase:	4.5" C	8" D

All city names and street names on special signs and destination signs must have upper and lower case letters.

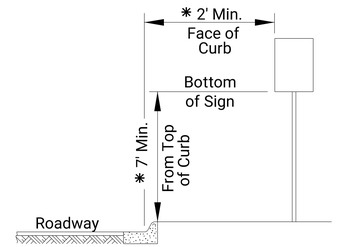


RURAL

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.

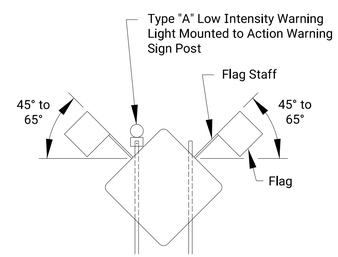
2) Neither portable nor permanent sign supports should be located on sidewalks or areas designated for pedestrian or bicycle traffic.

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.

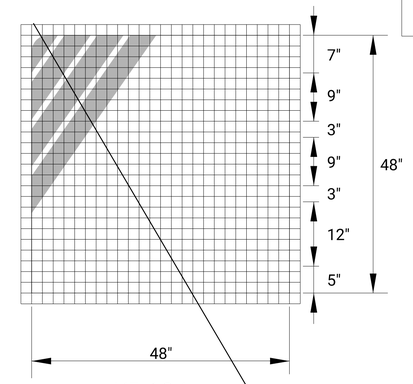
5) Large signs having an area exceeding 50 square feet installed on multiple breakaway posts shall be mounted a minimum of 7' above the ground.

* 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.



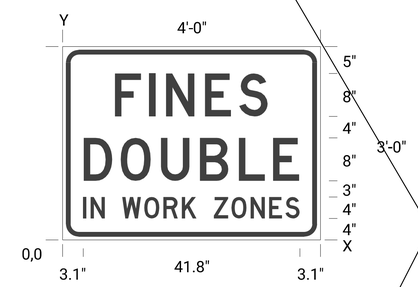
When the sign width is equal to or greater than 9', three or more wood posts may be used with a minimum of 4' between the centerline of each post. All signs less than 9' in width shall use a maximum of two wood posts.

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

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



KI-105a

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

LETTER SPACINGS

Y FONT		F	I	N	E	S										HT LEN
23.0 D																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	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.

NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL
SIGN INFORMATION

TE710

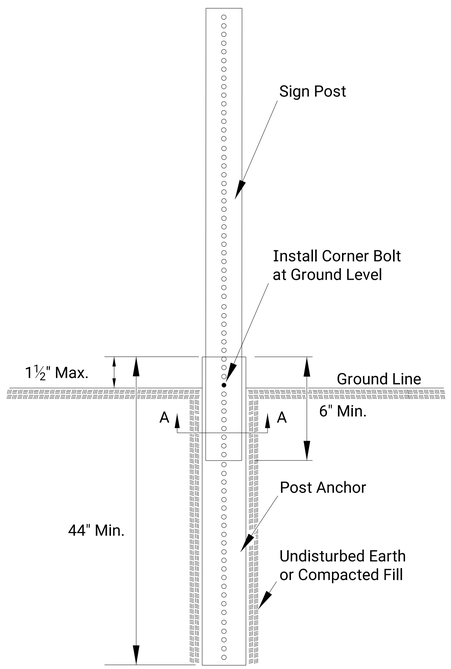
FHWA APPROVAL		06-01-15	APP'D.		Kristina Ericksen
DESIGNED	R.W.B.	DETAILED R.W.B.	QUANTITIES		TRACED
DESIGN CK.		DETAIL CK.	QUAN.CK.		TRACE CK.

Plotted : 9/12/2022 2:04:23 PM

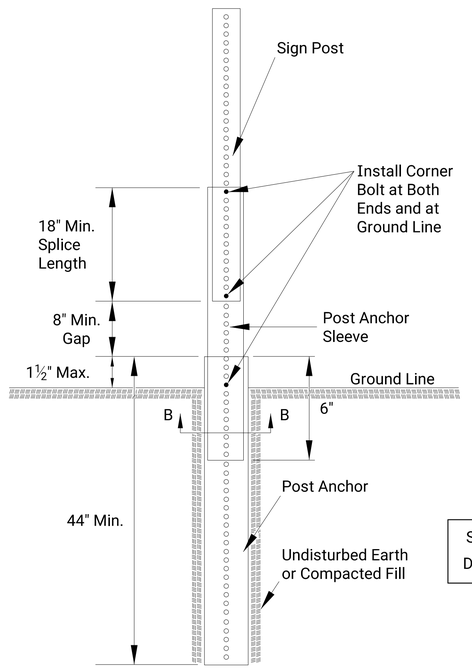
Drawn By : CAM
File : TrafficControl.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	XX-XX XX-XXXX-XX	20XX	38XXX	106XXX

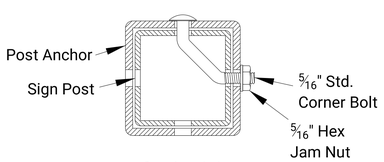
PERFORATED SQUARE STEEL TUBE (P.S.S.T.) POST SETUP



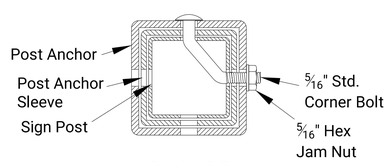
P.S.S.T. Detail



Telescoping P.S.S.T. Detail



Section A-A

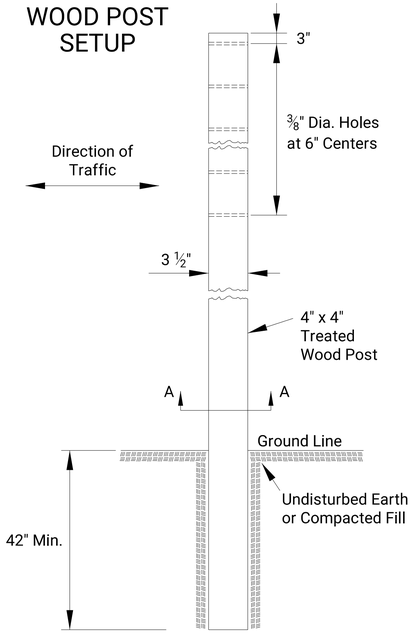


Section B-B

Details for 2", 2 ¼", or 2 ½" sign posts

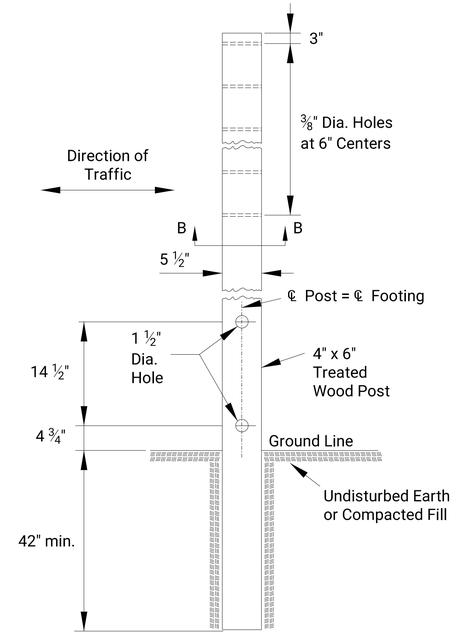
Place bolts in the same corner along each sign post.

WOOD POST SETUP



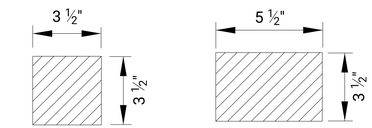
Side Elevation

4" x 4" Wood Post in Soil



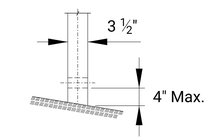
Side Elevation

4" x 6" Wood Post in Soil



Section A-A

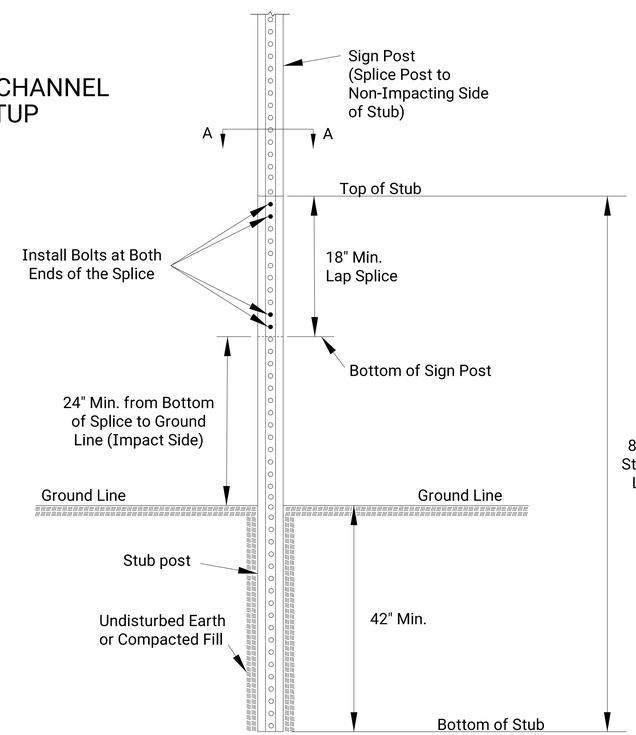
Section B-B



Front Elevation

See TE710 for Additional Details and Requirements

3 LB/F U-CHANNEL SETUP

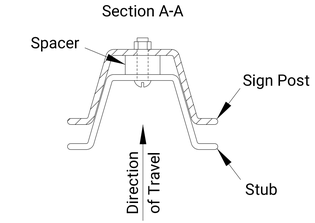


Notes:

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.

Section A-A



NO.	DATE	REVISIONS	BY	APP'D

KANSAS DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL SIGN POSTS

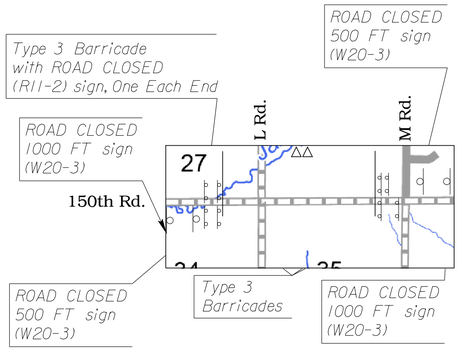
TE712

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.	

Plotted : 9/12/2022 2:04:29 PM

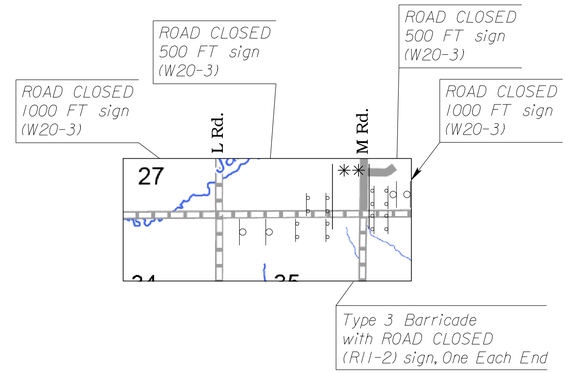
Drawn By : CAM
File : TrafficControl.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	39	106



PHASE I

△△ Phase I - Sta. 50+97 to Sta. 115+00 - Stagger East Row of Barracades to Allow Access to Resident at 9593 150th Rd.



PHASE II

** Phase II - Sta. 115+00 to Sta. 117+00 - Stagger West Row of Barracades to Allow Access to Resident at 9593 150th Rd.

SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

* QUANTITY MOST USED ON THE PROJECT AT ANY ONE TIME

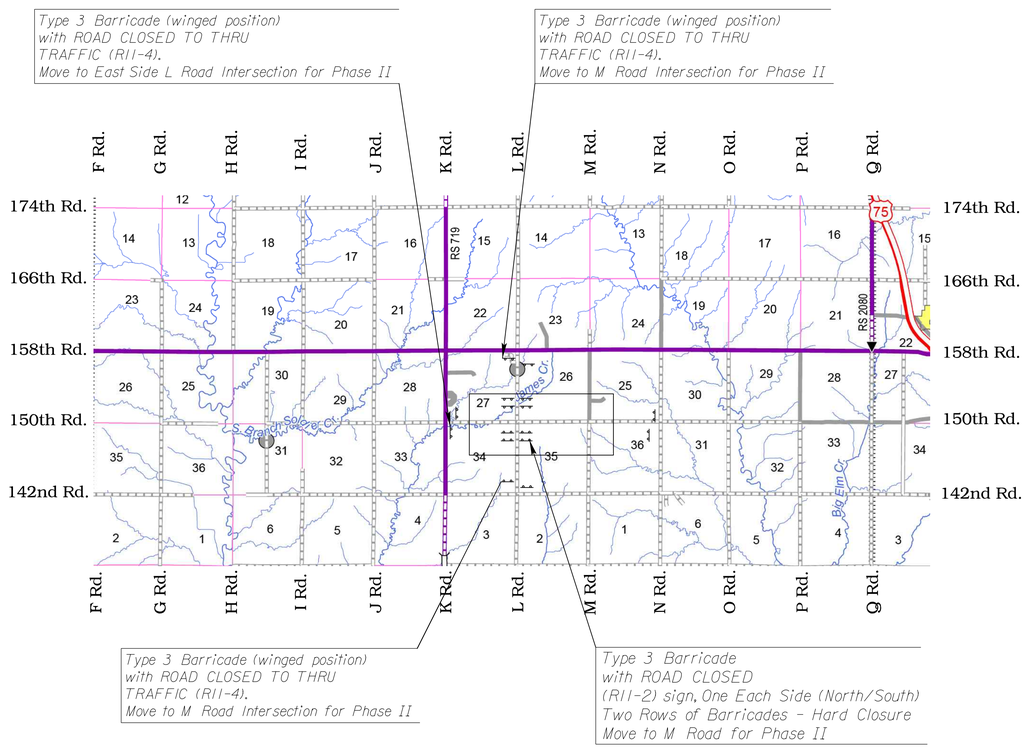
Work Zone Signs *			
Sign No.	Size - Sq.Ft.		
	0-9.25	9.26-16.25	16.26 & Over
R11-2		4	
R11-4		4	
W20-3		8	

Prior to closing the road, the Contractor shall install two Type 3 barricades and signs. One on west end of the project and the other on the east end, both placed at locations visible to motorists. These signs shall be put in place 7 days prior to closing the road. The Type 3 barricades and signs will not be paid for directly but shall be subsidiary to Traffic Control (Lump Sum).

SIGNS BEFORE ROAD CLOSURE
ROAD CLOSED sign (R11-2) with BEGINNING ** sign (I-1)

** Date of Closure

Recapitulation Of Quantities		
Item	Quantity	Unit
Work Zone Signs (O 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 (Type I)		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
Traffic Control	Lump Sum	Lump Sum
Flagger (Set Price)		Hour



LOCATION MAP

Barricades *		Channelizing Devices *		
Type 3 (4' To 12')	Pedestrian	Fixed	Portable	Pedestrian
32				

Lighted Devices *	
Work Zone Warning Light (Type "A" Low Intensity)	24
Work Zone Warning Light (Red Type "B" High Intensity)	
Arrow Display	
Portable Changeable Message Sign	

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

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.

Plotted : 9/12/2022 2:04:36 PM
$$KDOTGRP$$

Drawn By : CAM
File : TrafficControl.dgn

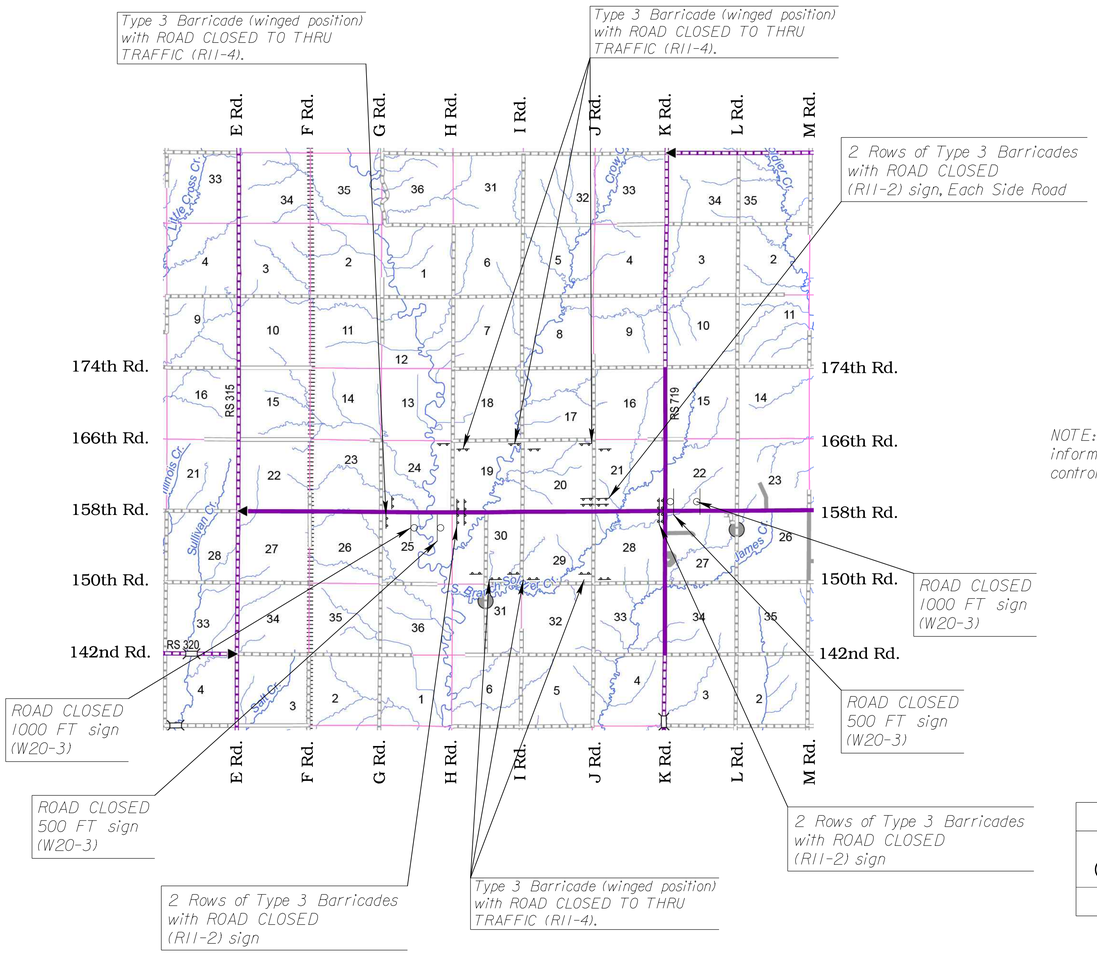
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	40	106

SUMMARY OF TRAFFIC CONTROL DEVICES (EACH PER DAY)

✳ QUANTITY MOST USED ON THE PROJECT AT ANY ONE TIME

Work Zone Signs ✳			
Sign No.	Size - Sq.Ft.		
	0-9.25	9.26-16.25	16.26 & Over
R11-2		8	
R11-4		10	
W20-3		4	
††M4-9L	3		
††M4-9R	3		
†† M4-9	4		
†† M4-L	2		
††M4-8a	2		
†† D-3	20		
††SP-1			4

††See Sign location on 158th Detour Plan Sheet



LOCATION MAP

NOTE: See 158th Detour Plan Sheet for additional information on the detour route and the traffic control devices to direct traffic in that route.

Barricades ✳		Channelizing Devices ✳		
Type 3 (4' To 12')	Pedestrian	Fixed	Portable	Pedestrian
62				

Lighted Devices ✳	
Work Zone Warning Light (Type "A" Low Intensity)	46
Work Zone Warning Light (Red Type "B" High Intensity)	
Arrow Display	
Portable Changeable Message Sign	

Recapitulation Of Quantities		
Item	Quantity	Unit
Work Zone Signs (O 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 (Type I)		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
Traffic Control	Lump Sum	Lump Sum
Flagger (Set Price)		Hour

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

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.

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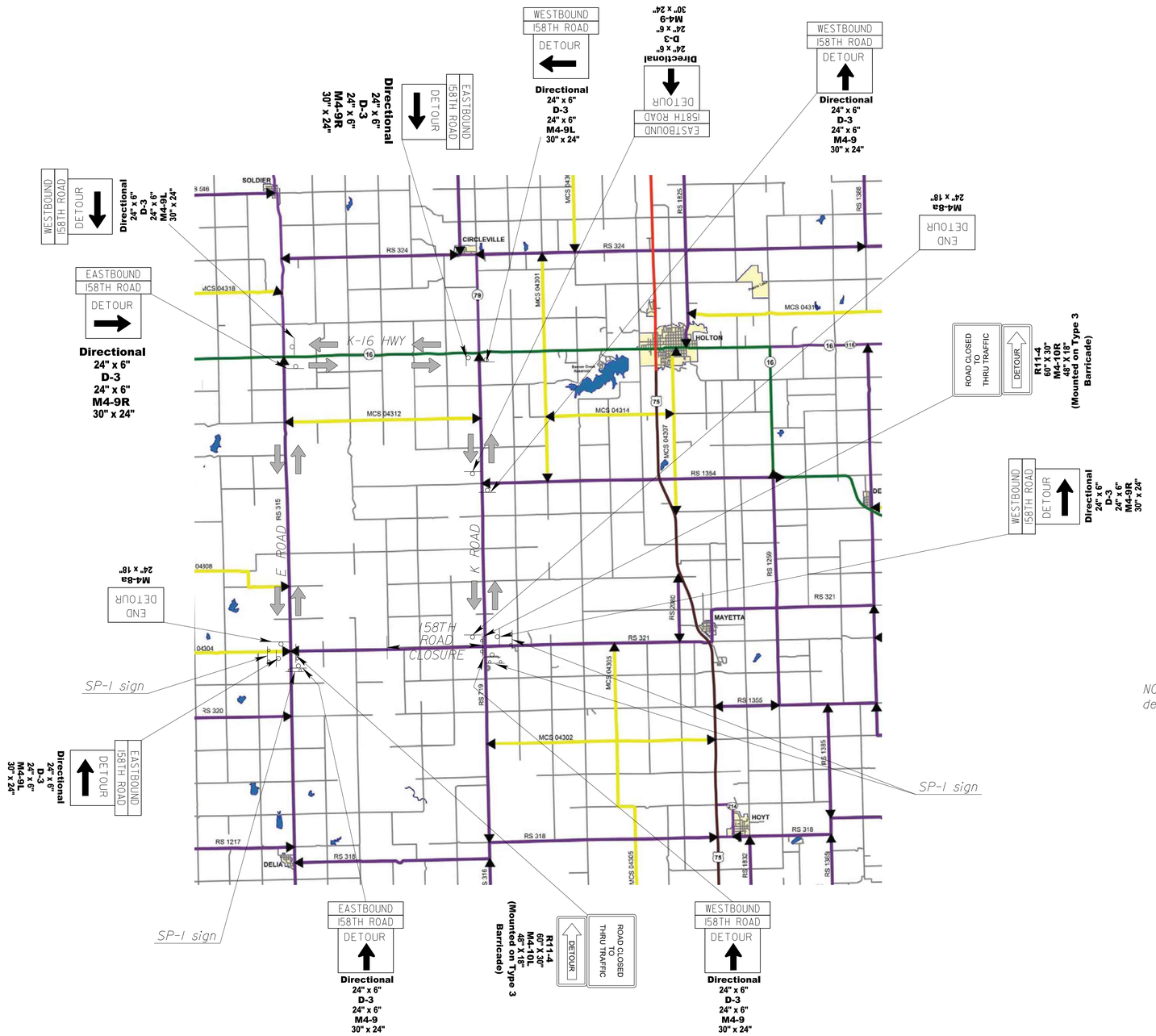
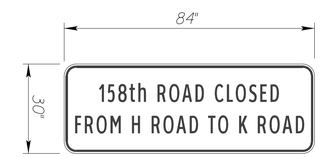
$$KDOTGRP$$

Drawn By : CAM
File : TrafficControl.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	41	106





INFORMATIONAL SIGN
SP-1 (30"x84")

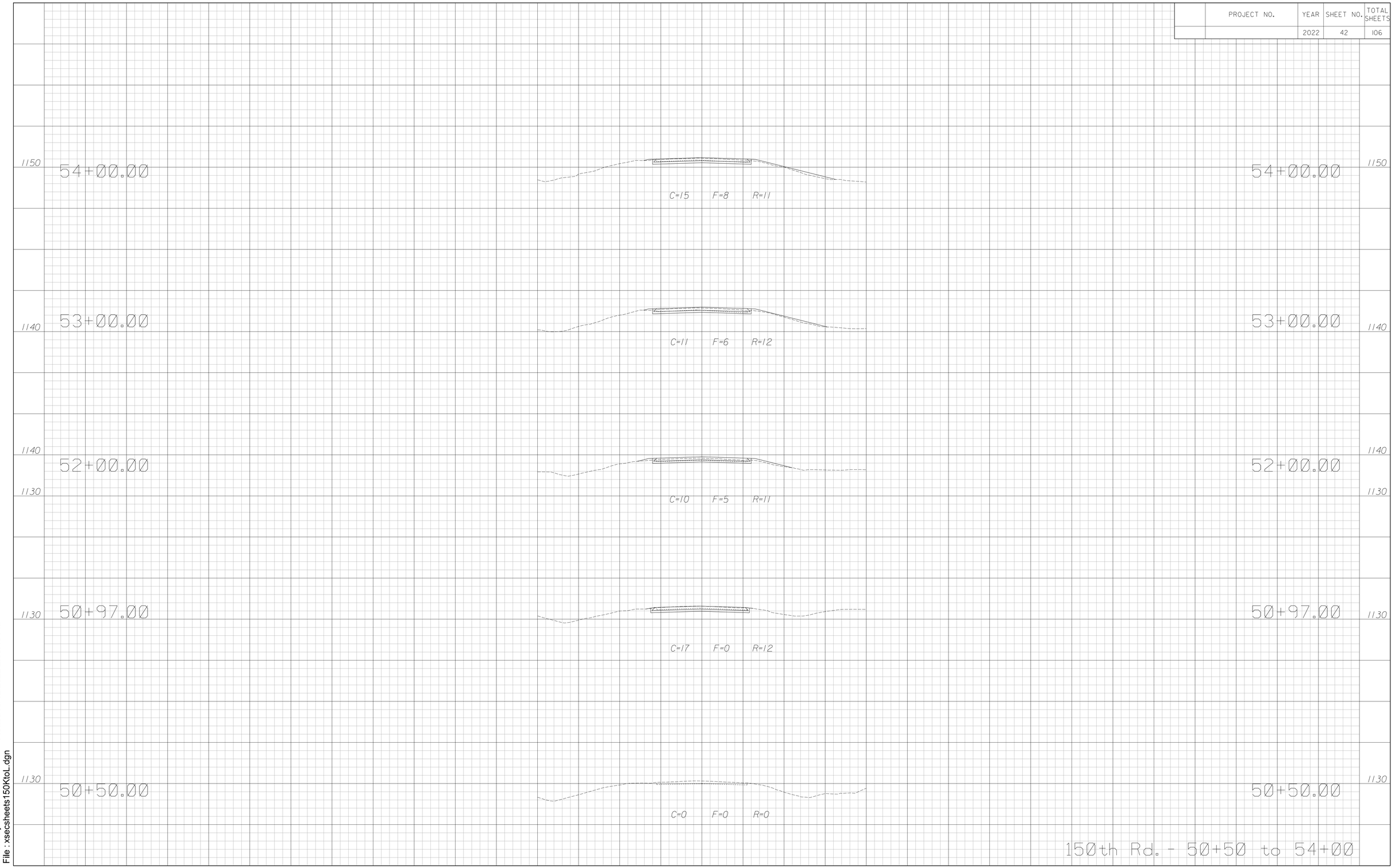
NOTE: See 158th traffic control plan Sheet for additional details on traffic control for the road closure.

9/12/2022
2:06:45 PM
Detour Plan.dgn

158TH ROAD DETOUR PLAN

FINNEY & TURNIPSEED
TRANSPORTATION & CIVIL ENGINEERING, L.L.C.
TOPEKA, KANSAS

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	42	106



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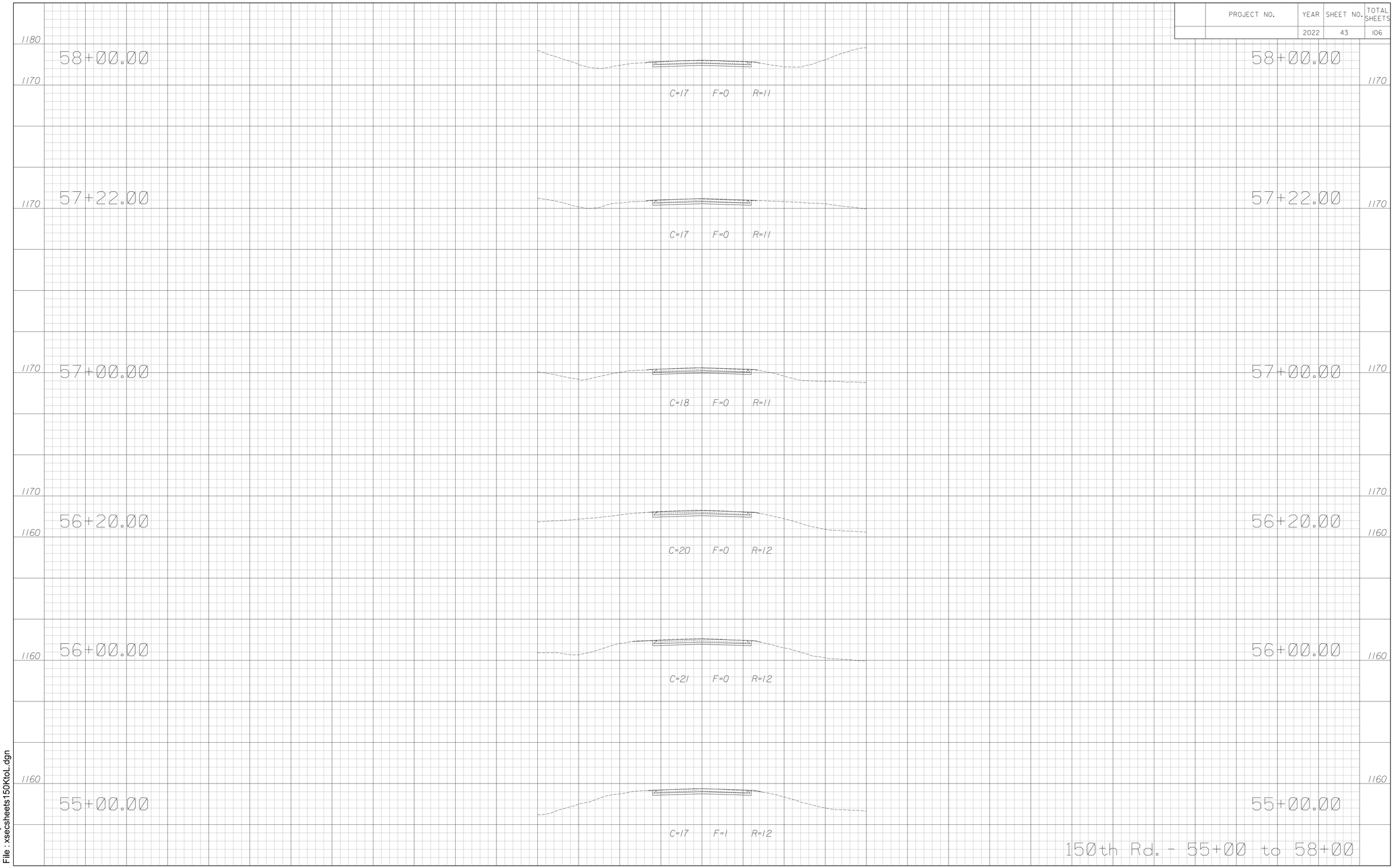
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	43	106



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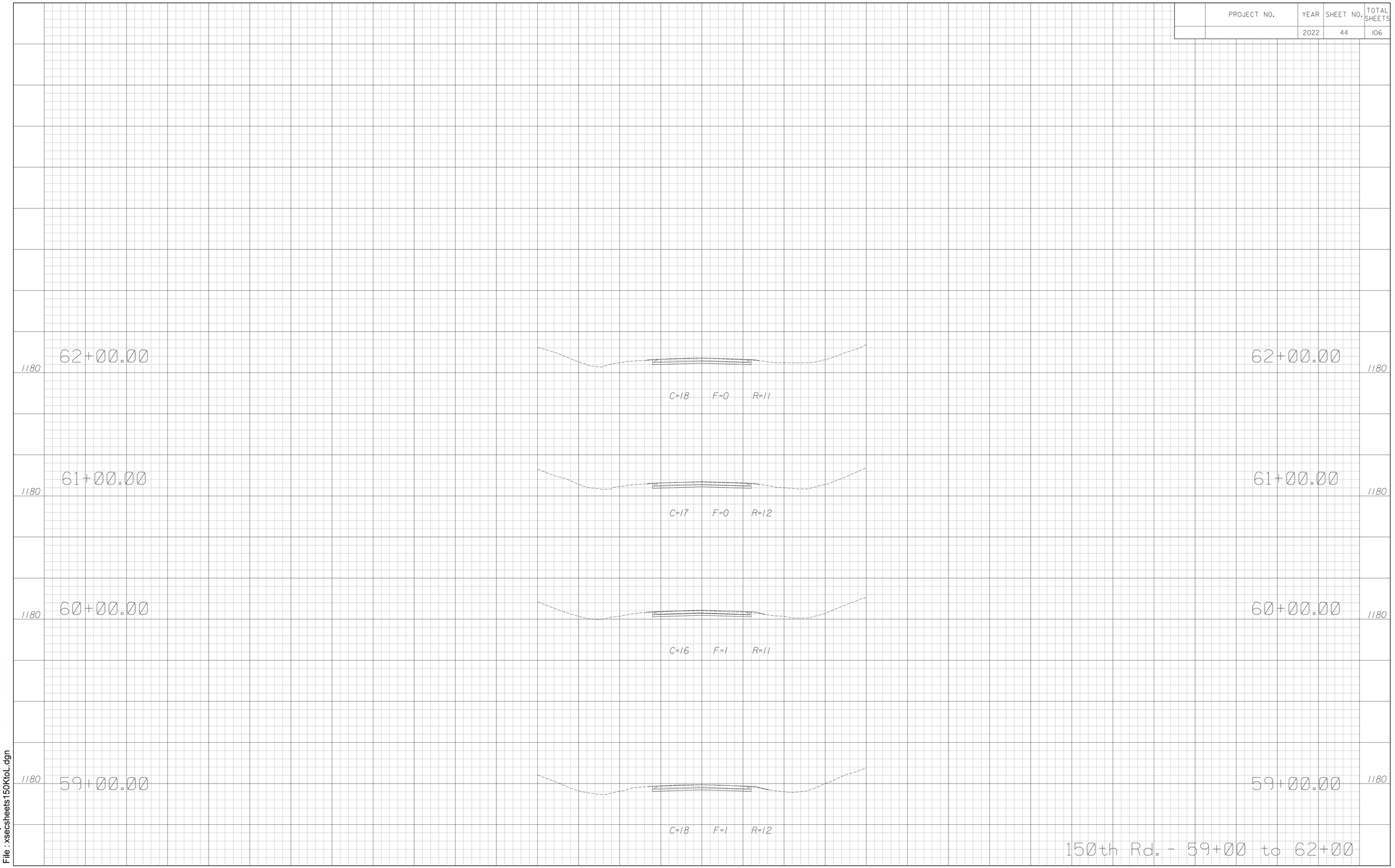
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	44	106



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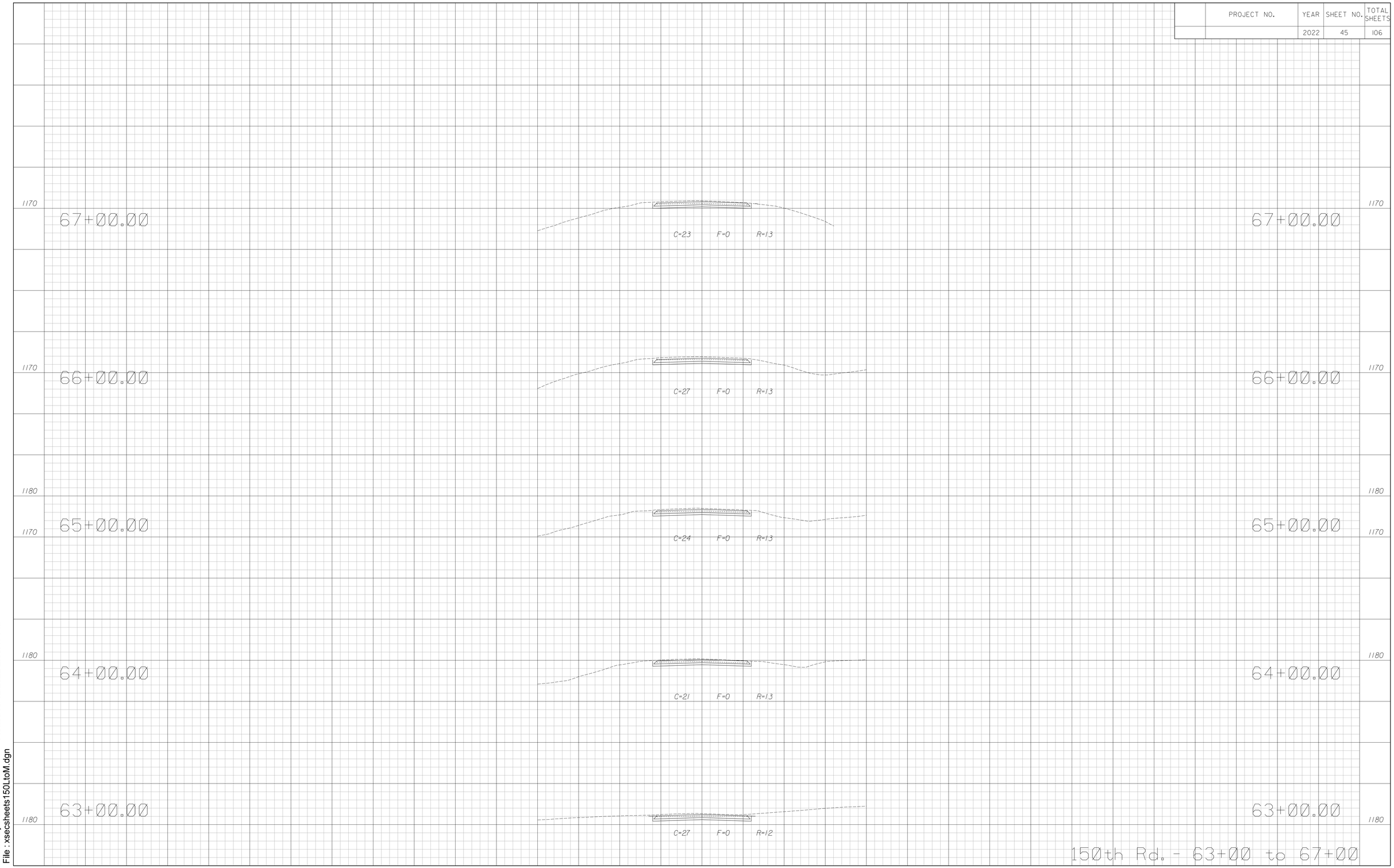
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	45	106



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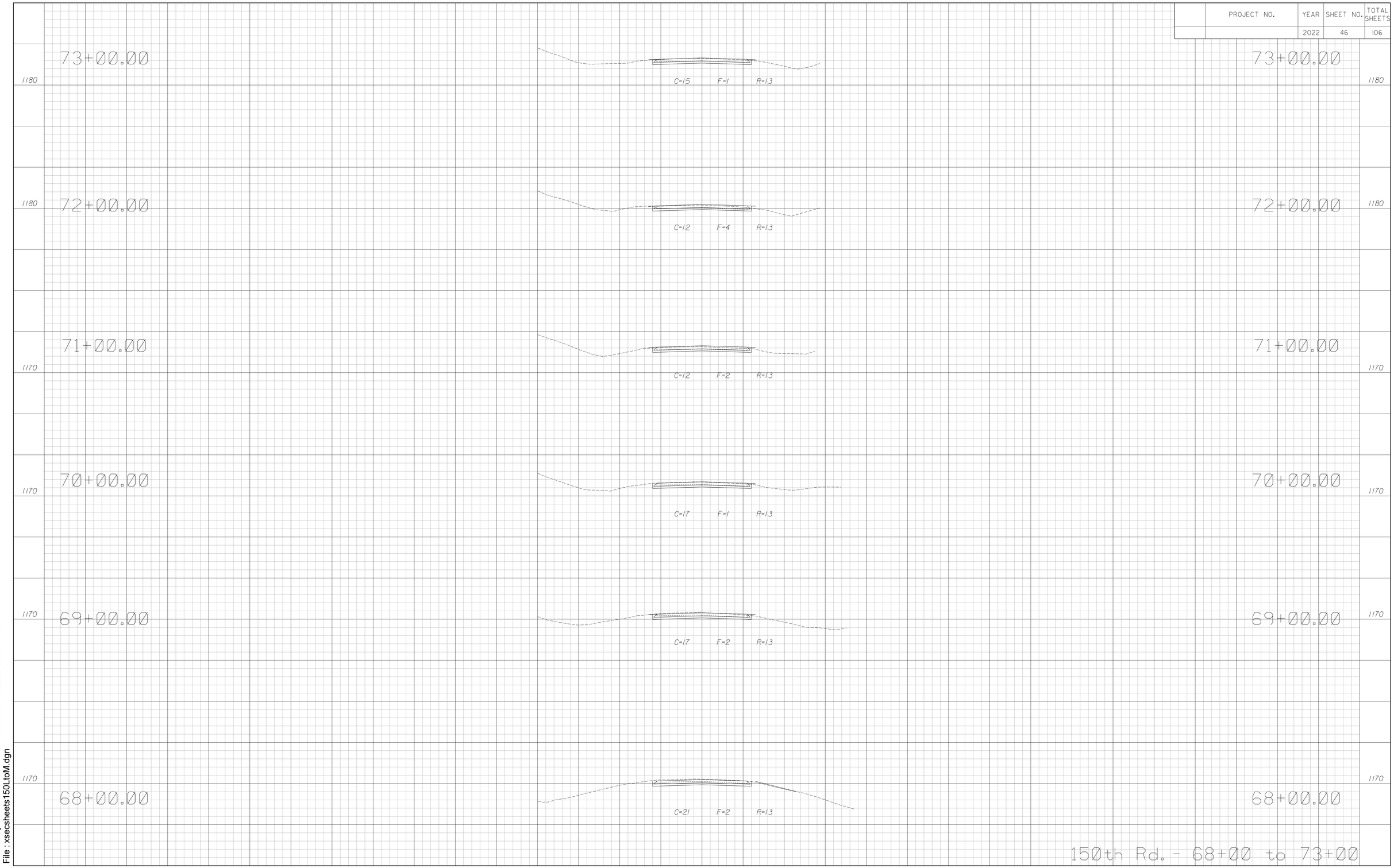
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	46	106



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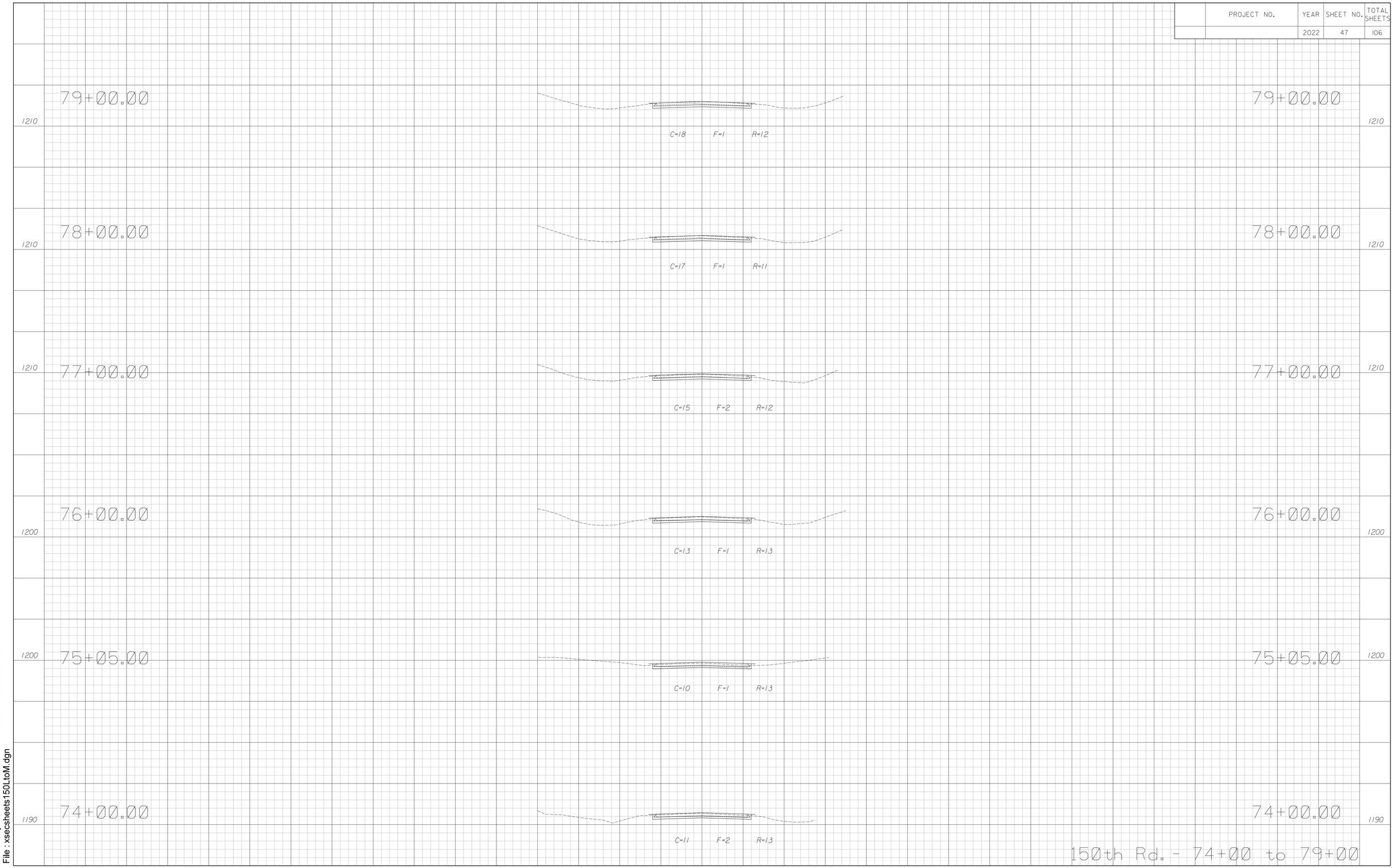
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	47	106



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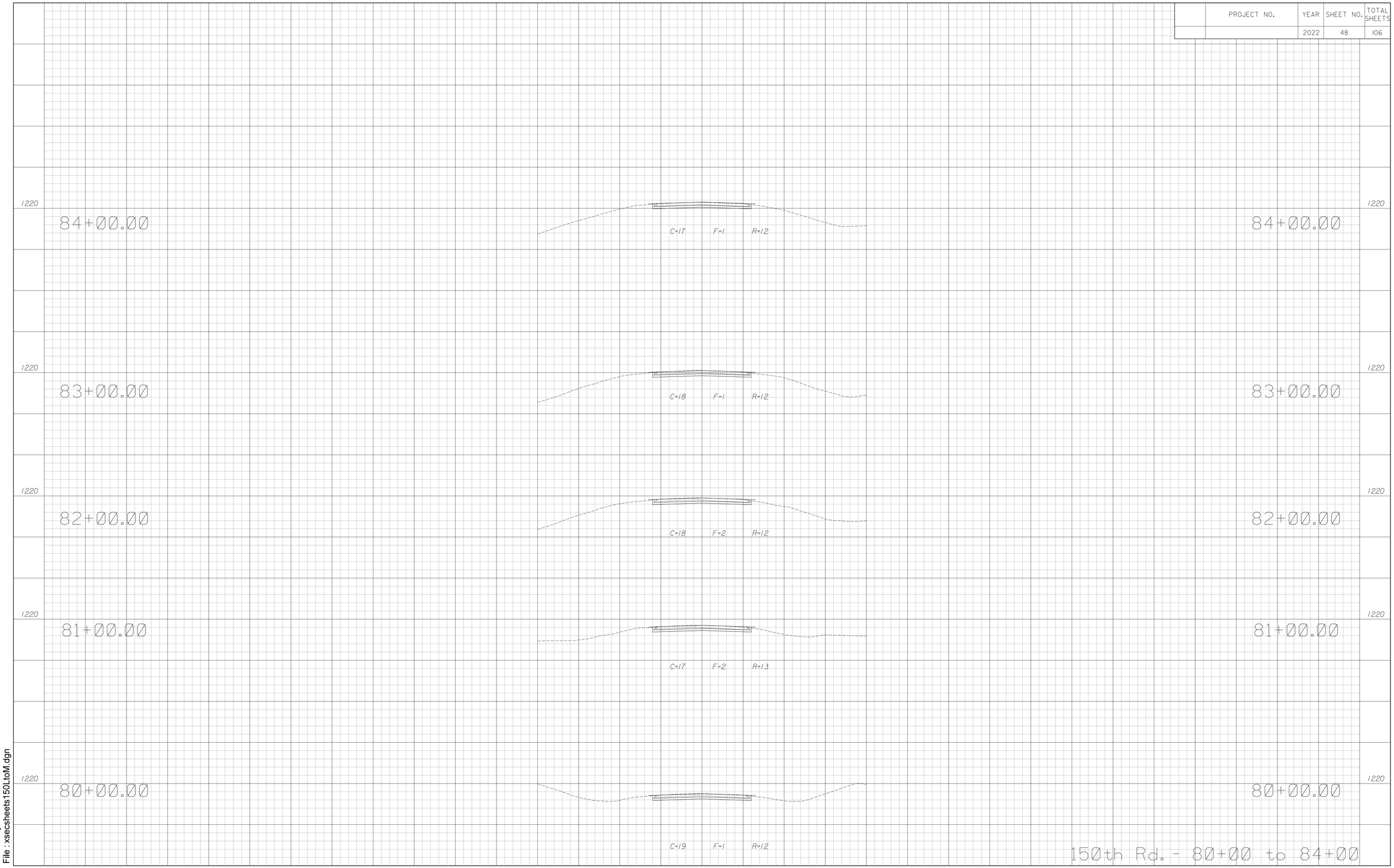
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	48	106



Sheet No. 48

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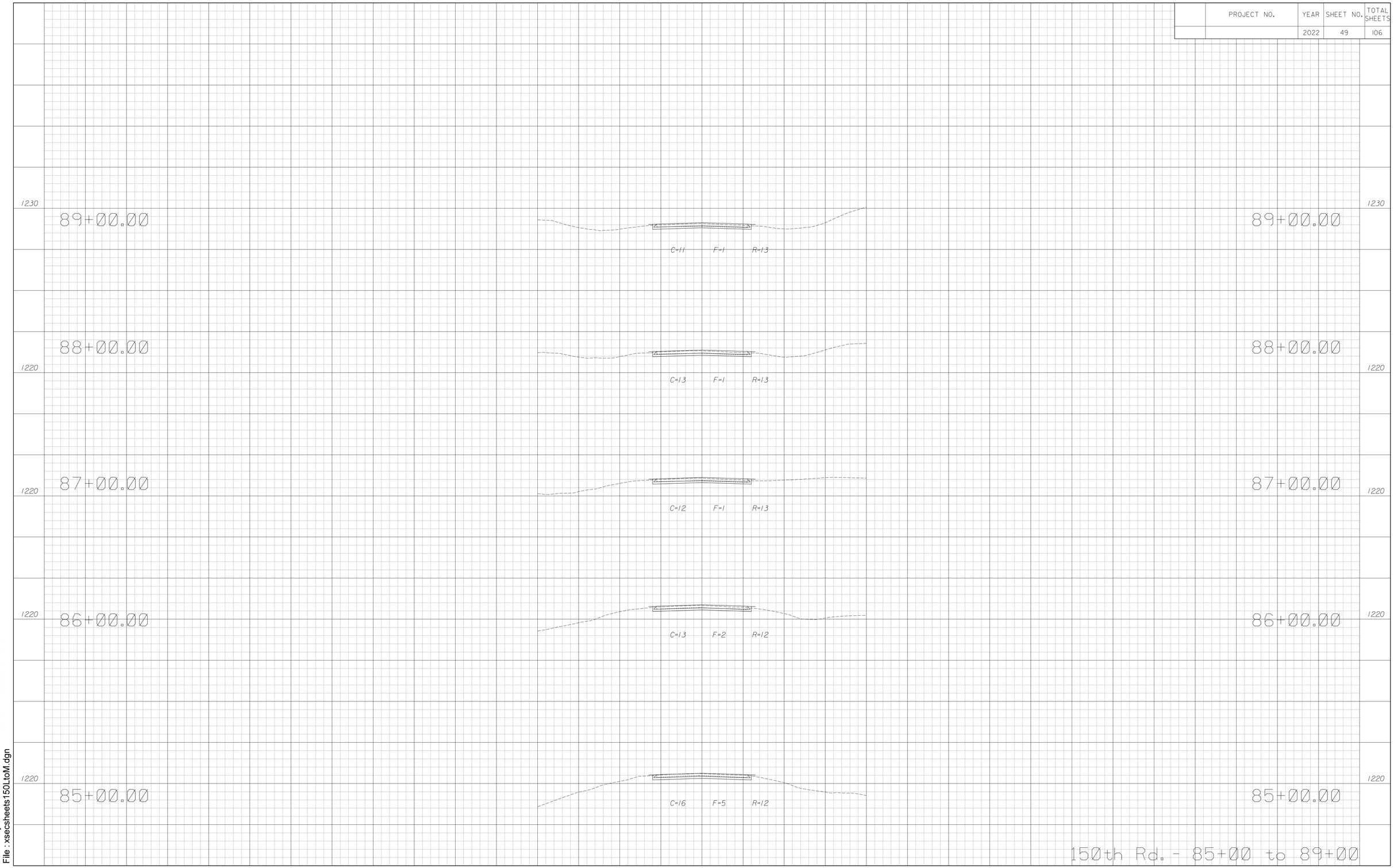
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	49	106



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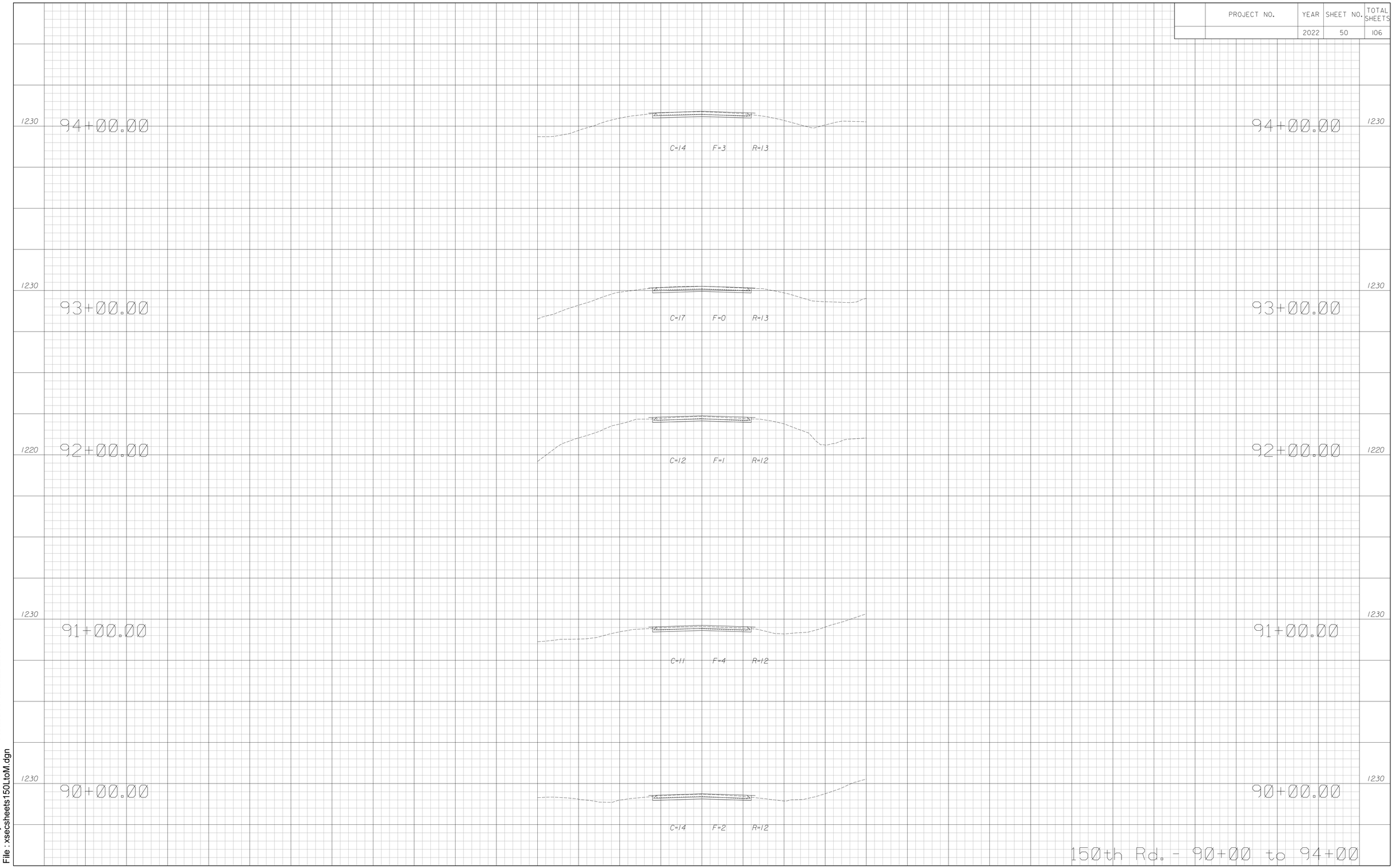
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	50	106



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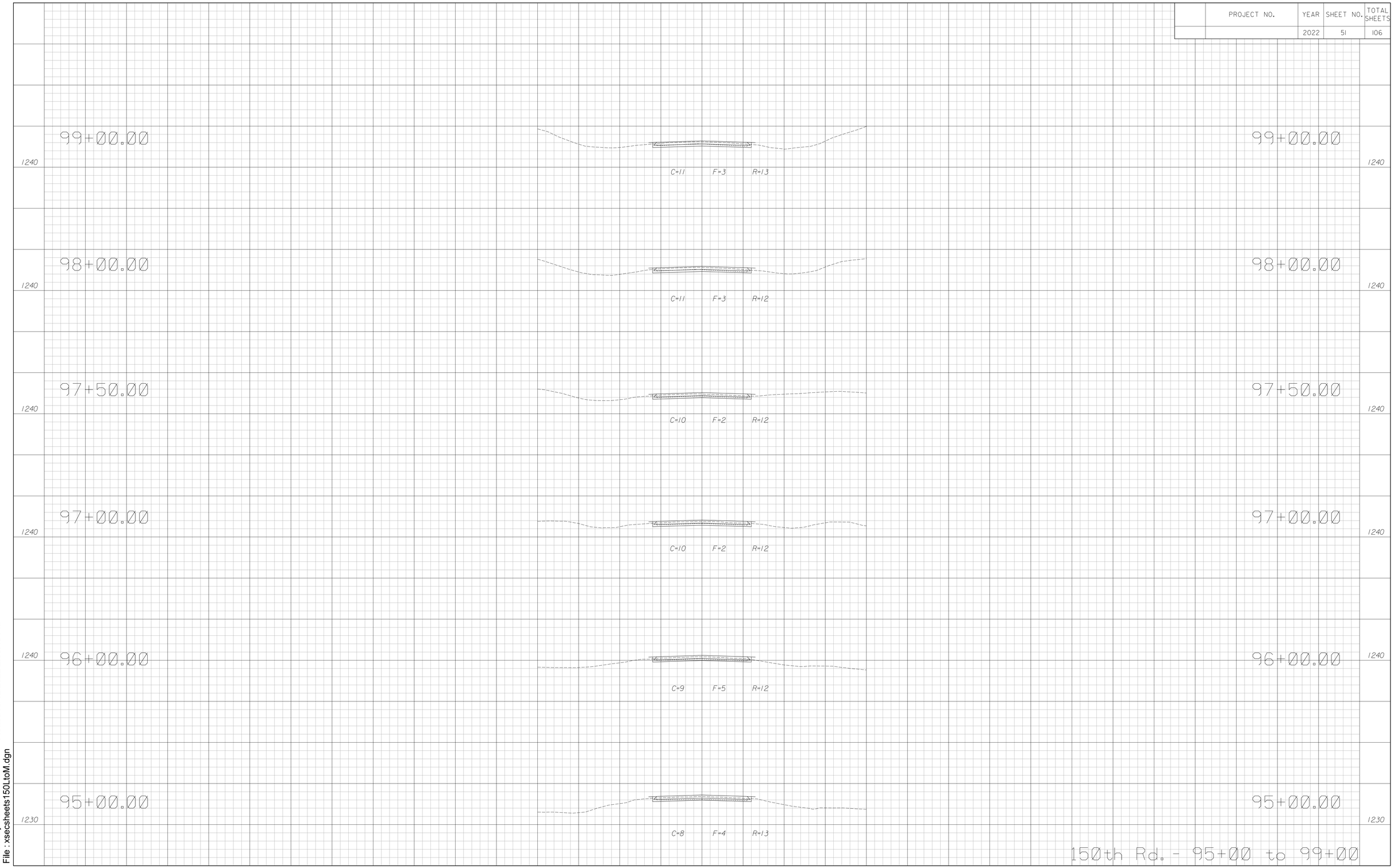
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	51	106



Sheet No. 51

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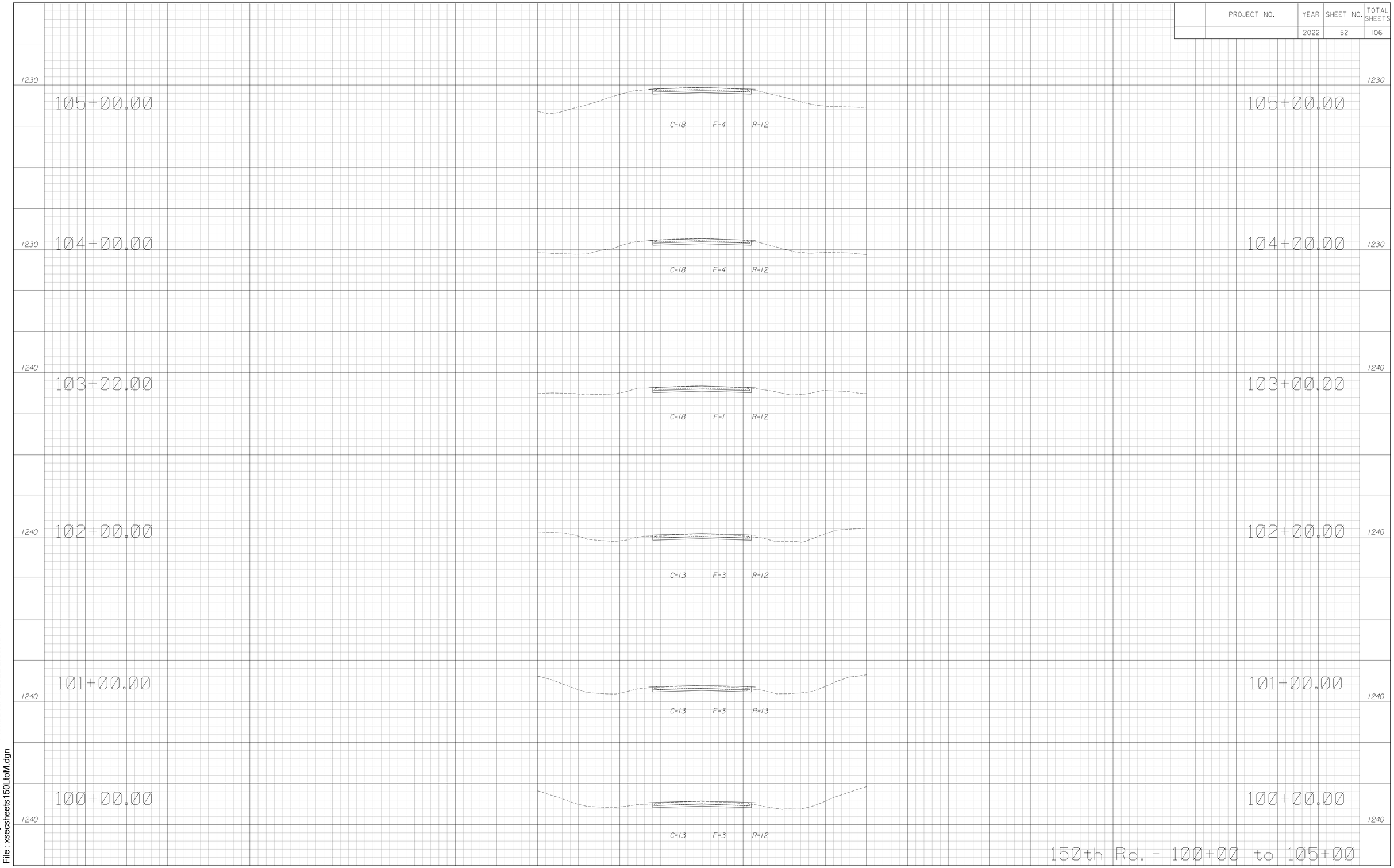
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	52	106



Sheet No. 52

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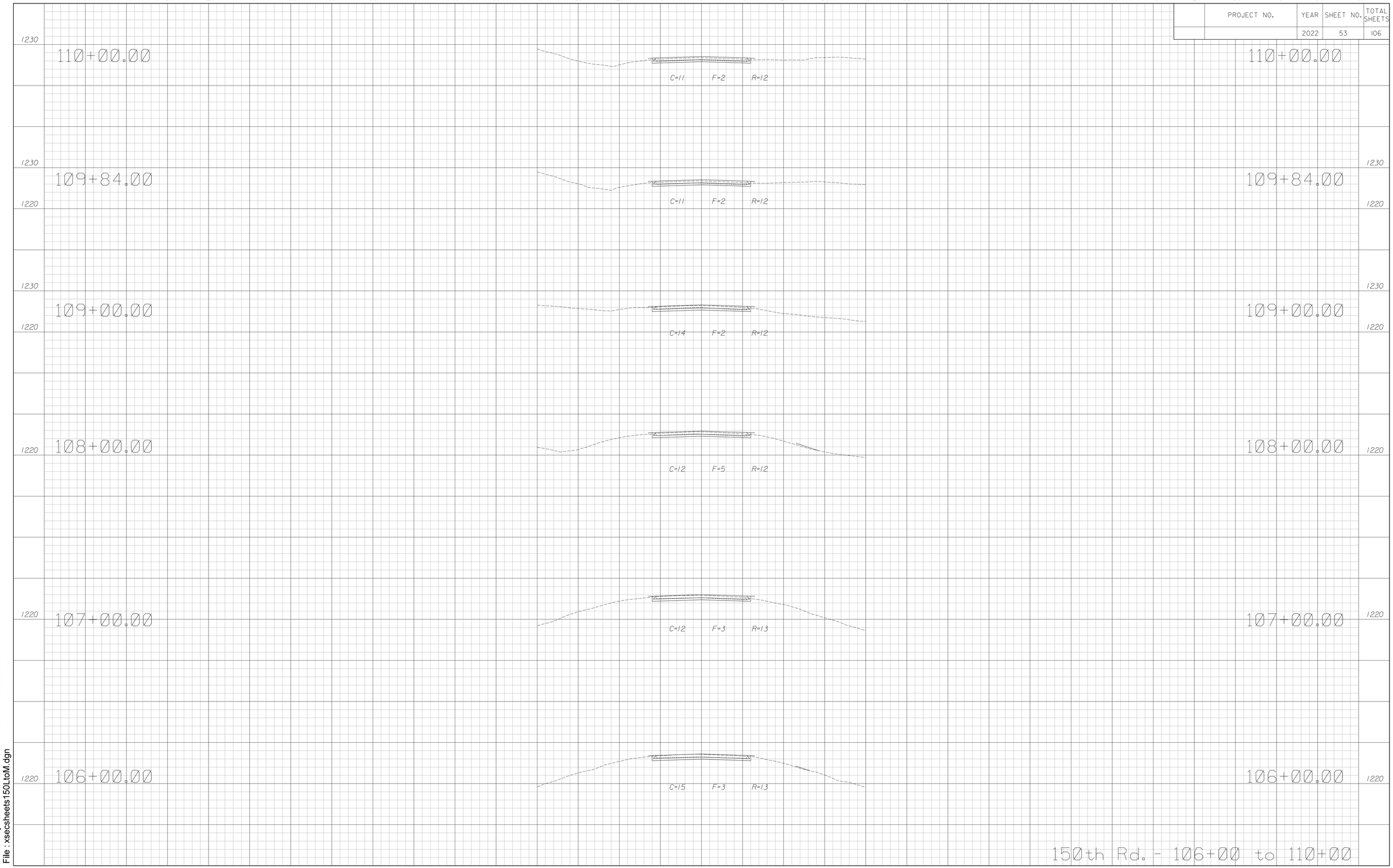
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	53	106



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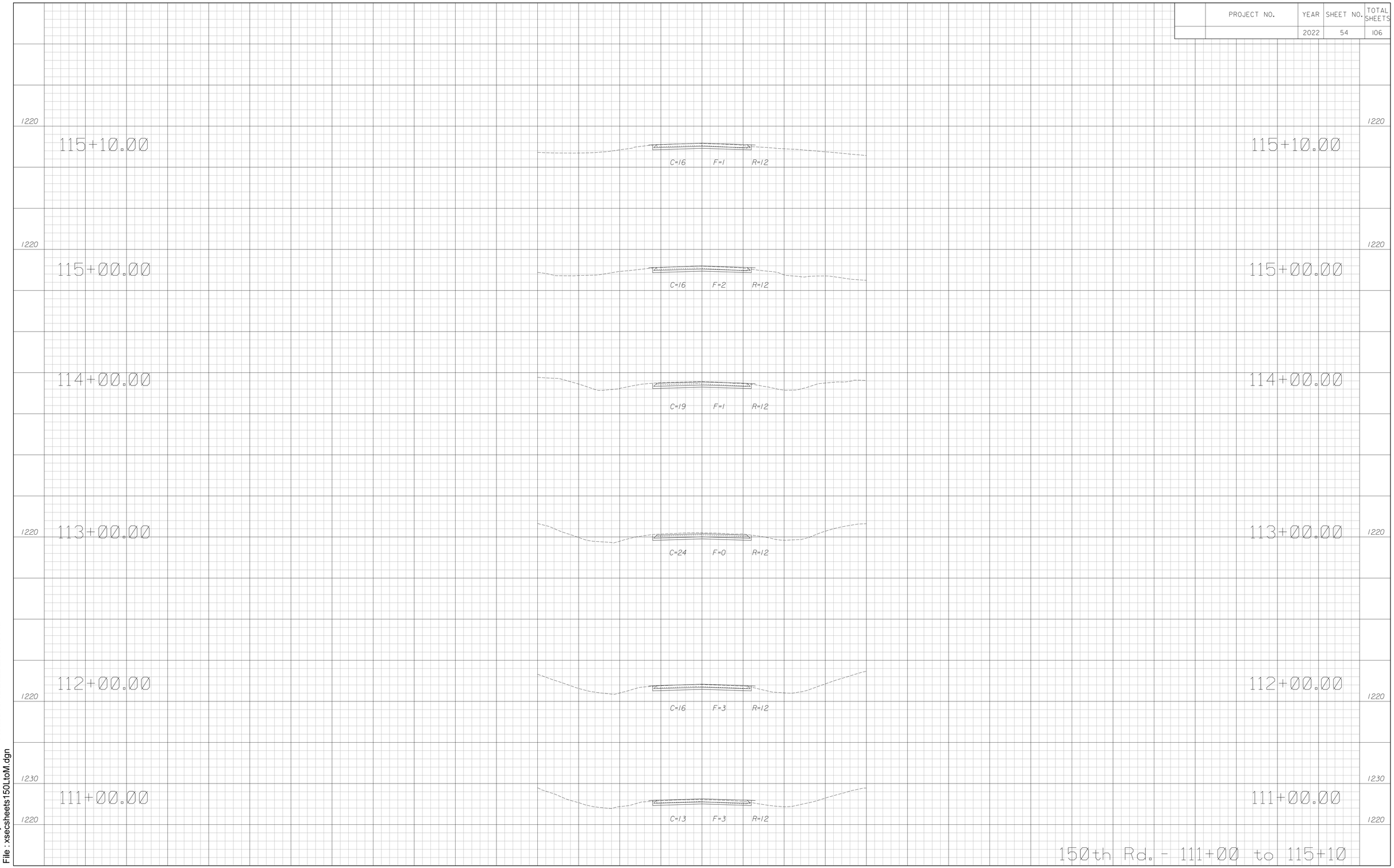
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	54	106



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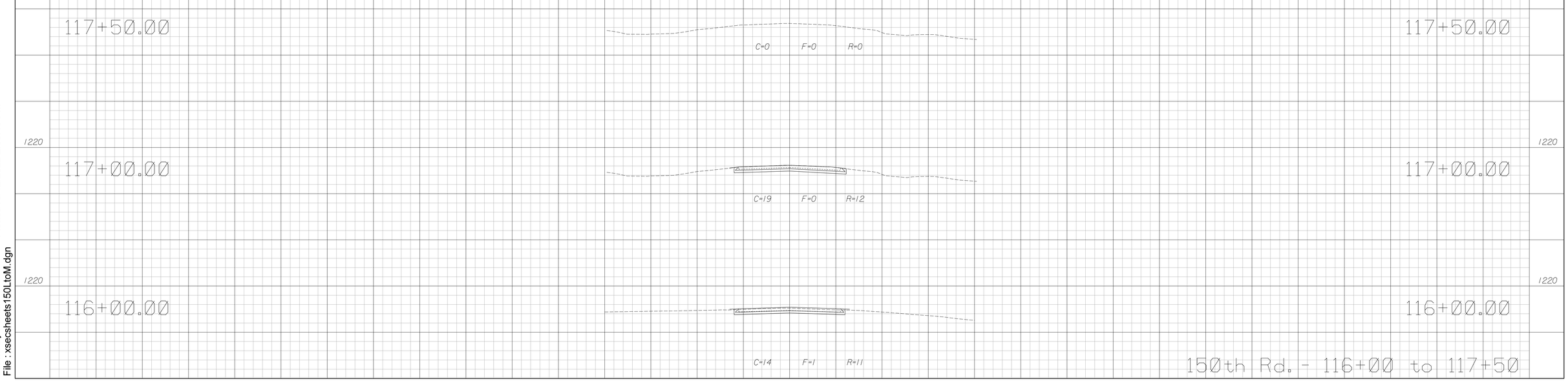
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	55	106



Sheet No. 55

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PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	56	106

1030 377+25.00

C=32 F=0 R=10

377+25.00 1030

1030 376+85.01

C=35 F=0 R=10

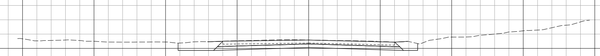
376+85.01 1030

1030 376+70.01

C=30 F=0 R=11

376+70.01 1030

1030 376+23.00



C=28 F=0 R=11

376+23.00 1030

376+00.00

C=0 F=0 R=0

376+00.00

158th Rd. - 376+00 to 377+25

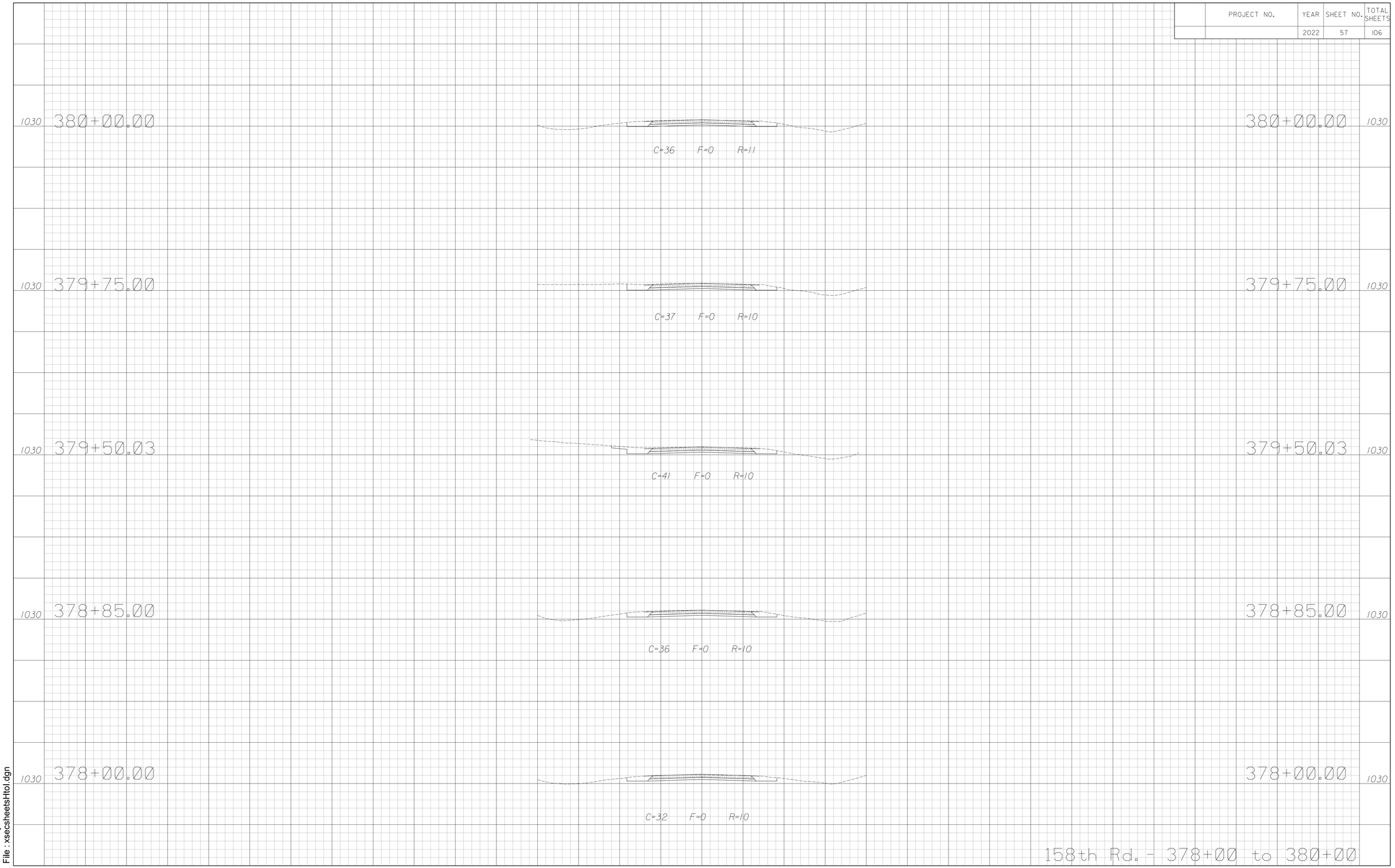
Plotted : 9/12/2022 2:06:49 PM

Drawn By : CAM

File : xsecsheetsHtol.dgn

Sheet No. 56

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	57	106



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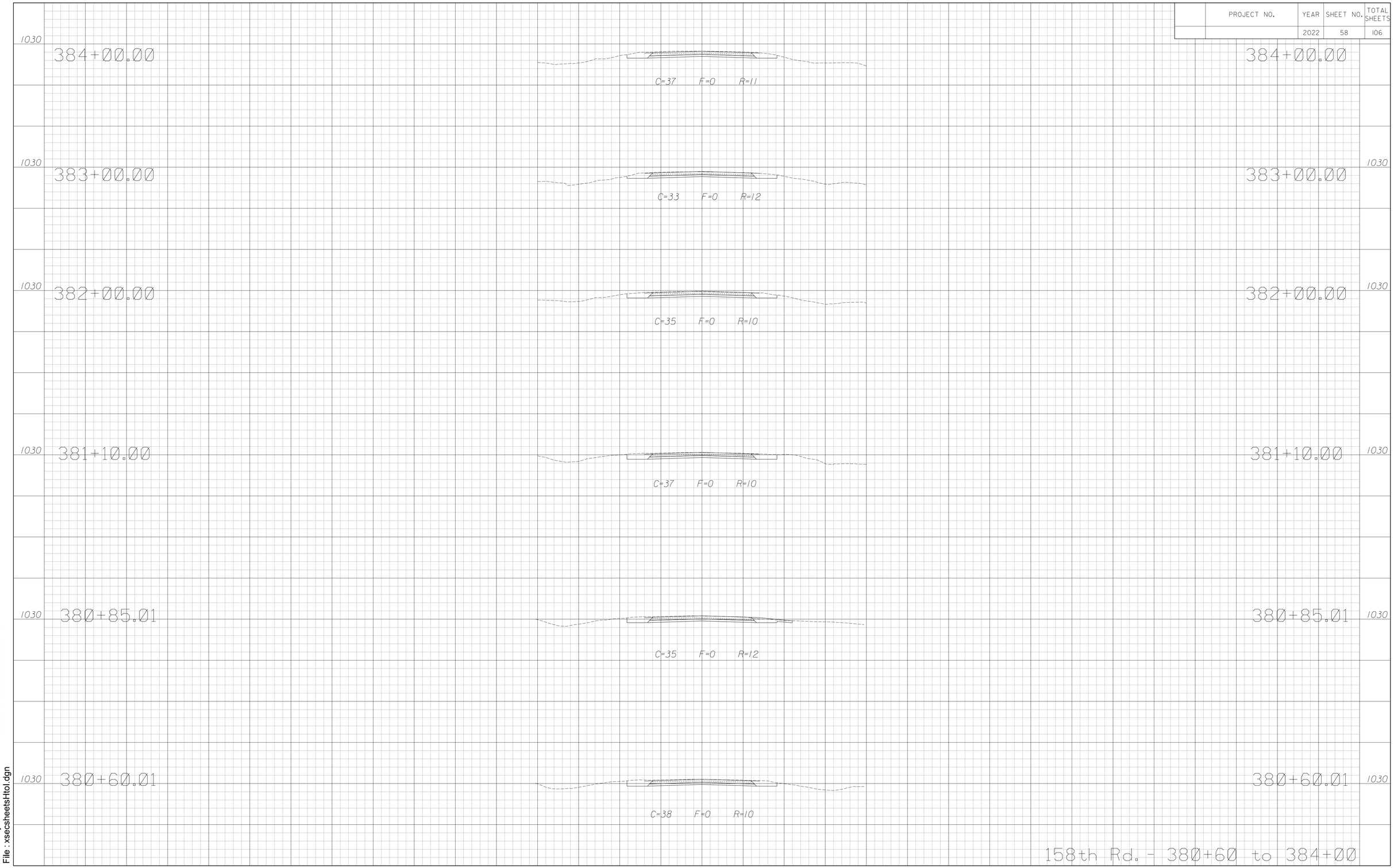
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	58	106



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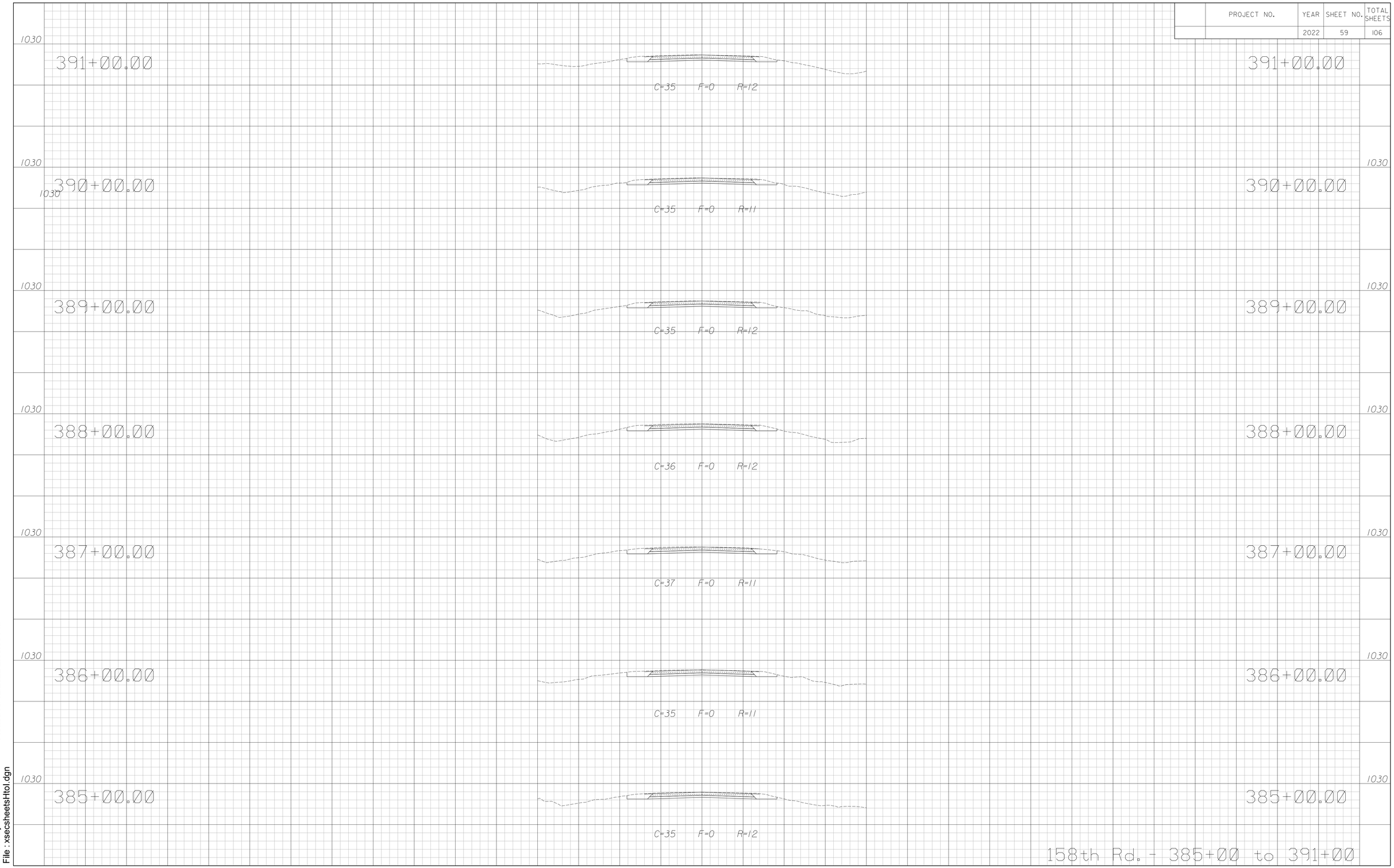
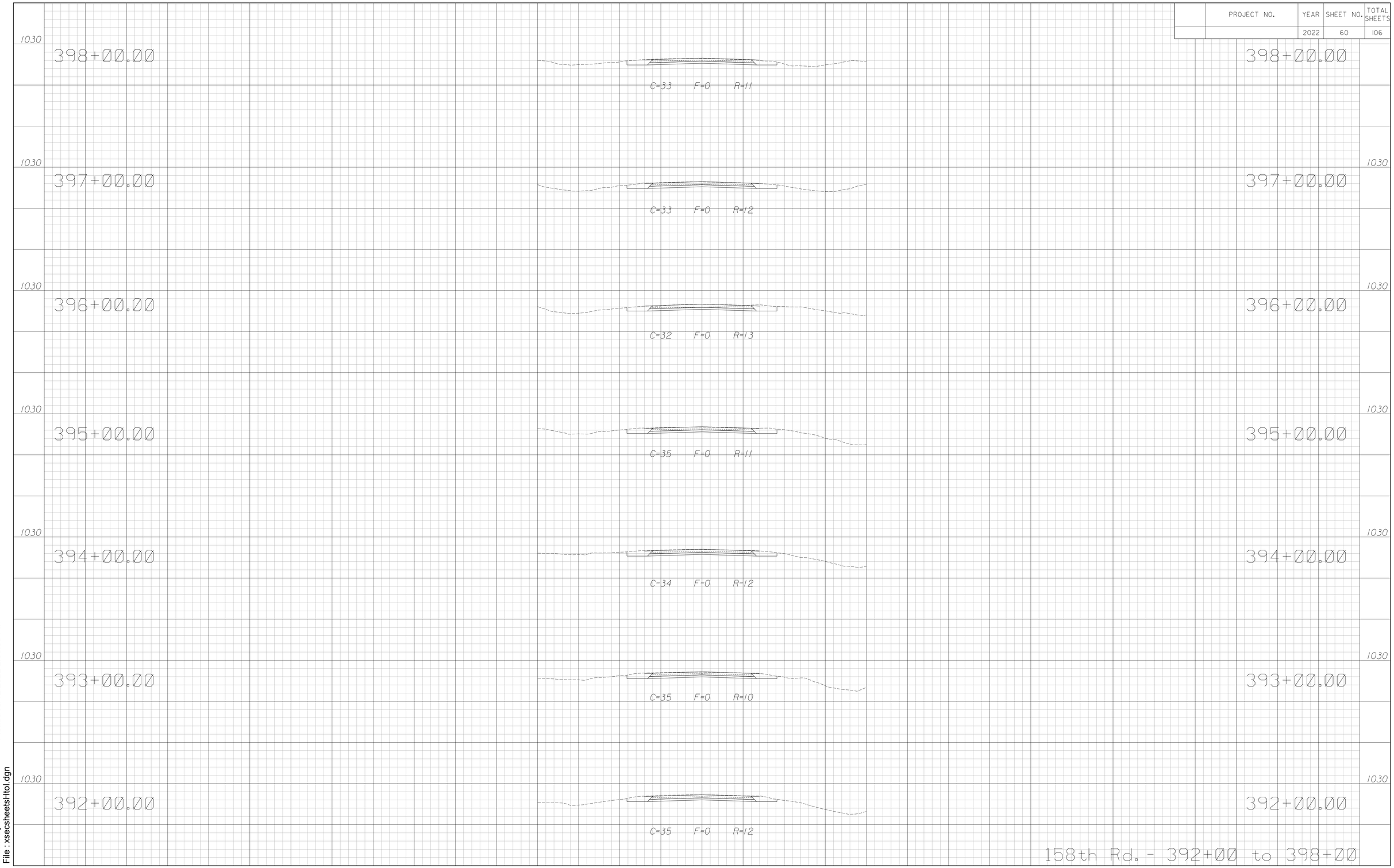
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	59	106



Plotted :9/12/2022 2:06:50 PM

Drawn By: : CAM
File : xsecsheetsHtol.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	60	106



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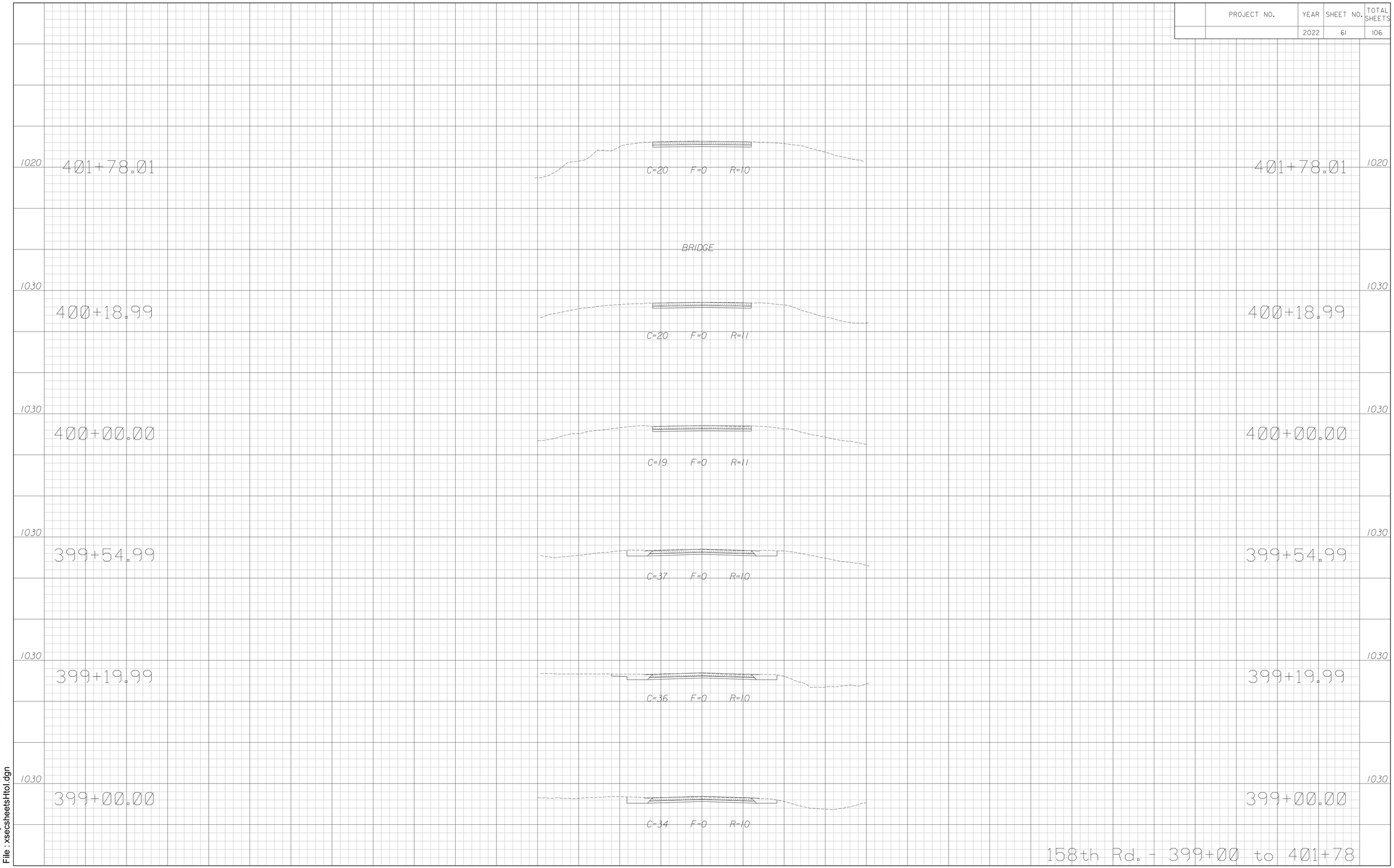
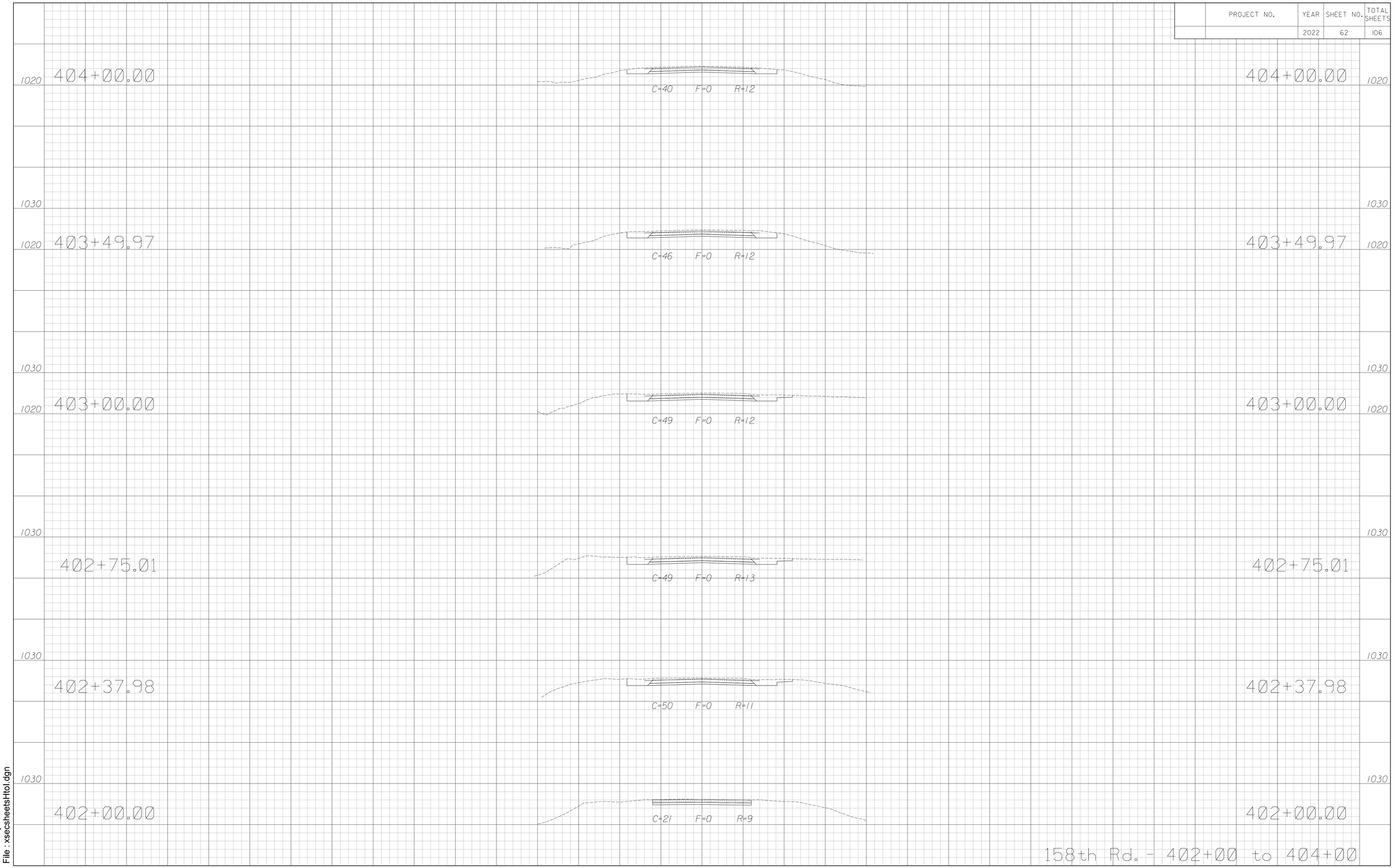
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	61	106



Plotted :9/12/2022 2:06:50 PM

Drawn By: : CAM
File : xsecsheetsHtol.dgn

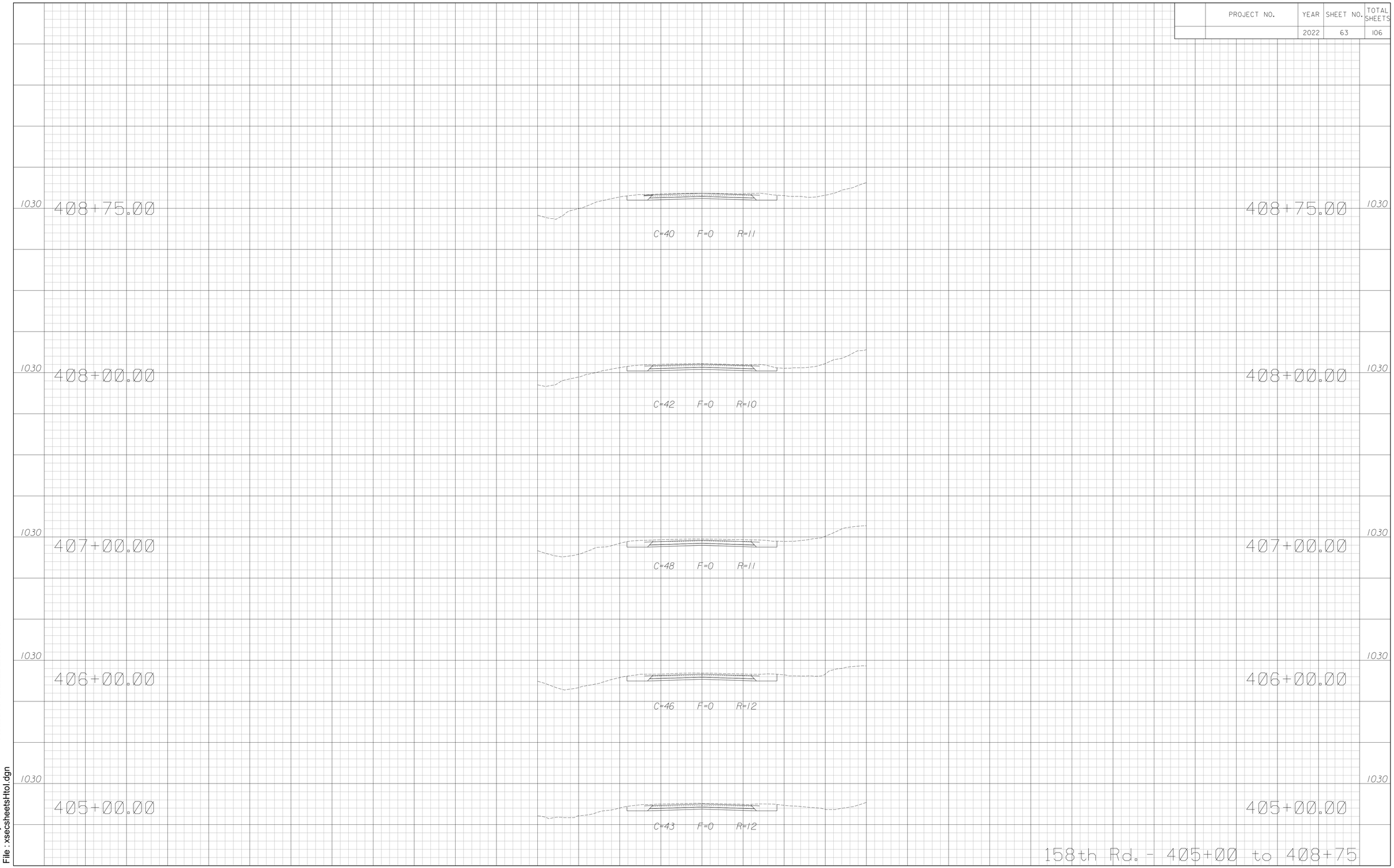
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	62	106



Plotted : 9/12/2022 2:06:50 PM

Drawn By : CAM
File : xsecsheetsHtol.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	63	106



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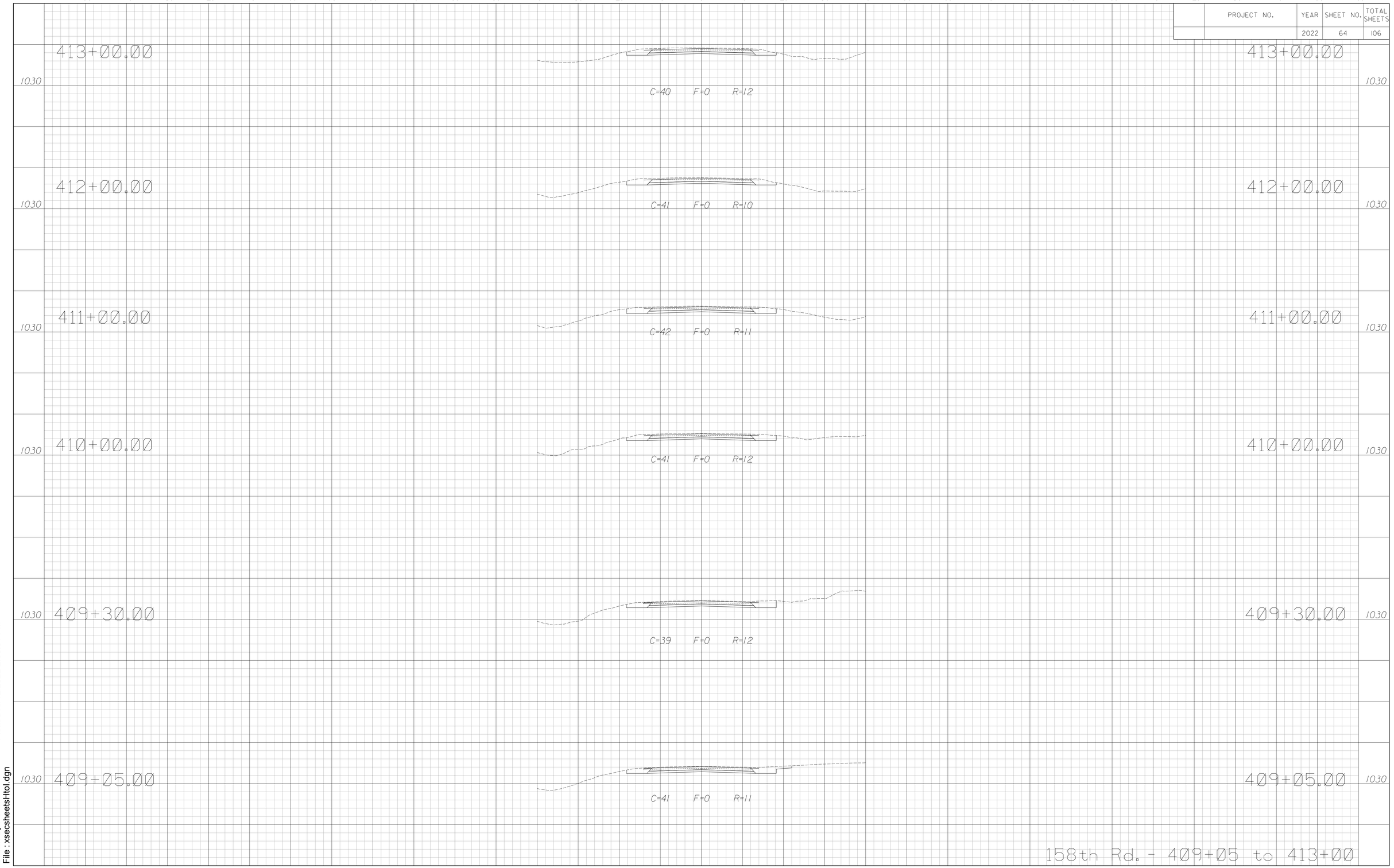
File : xsecsheetsHtol.dgn

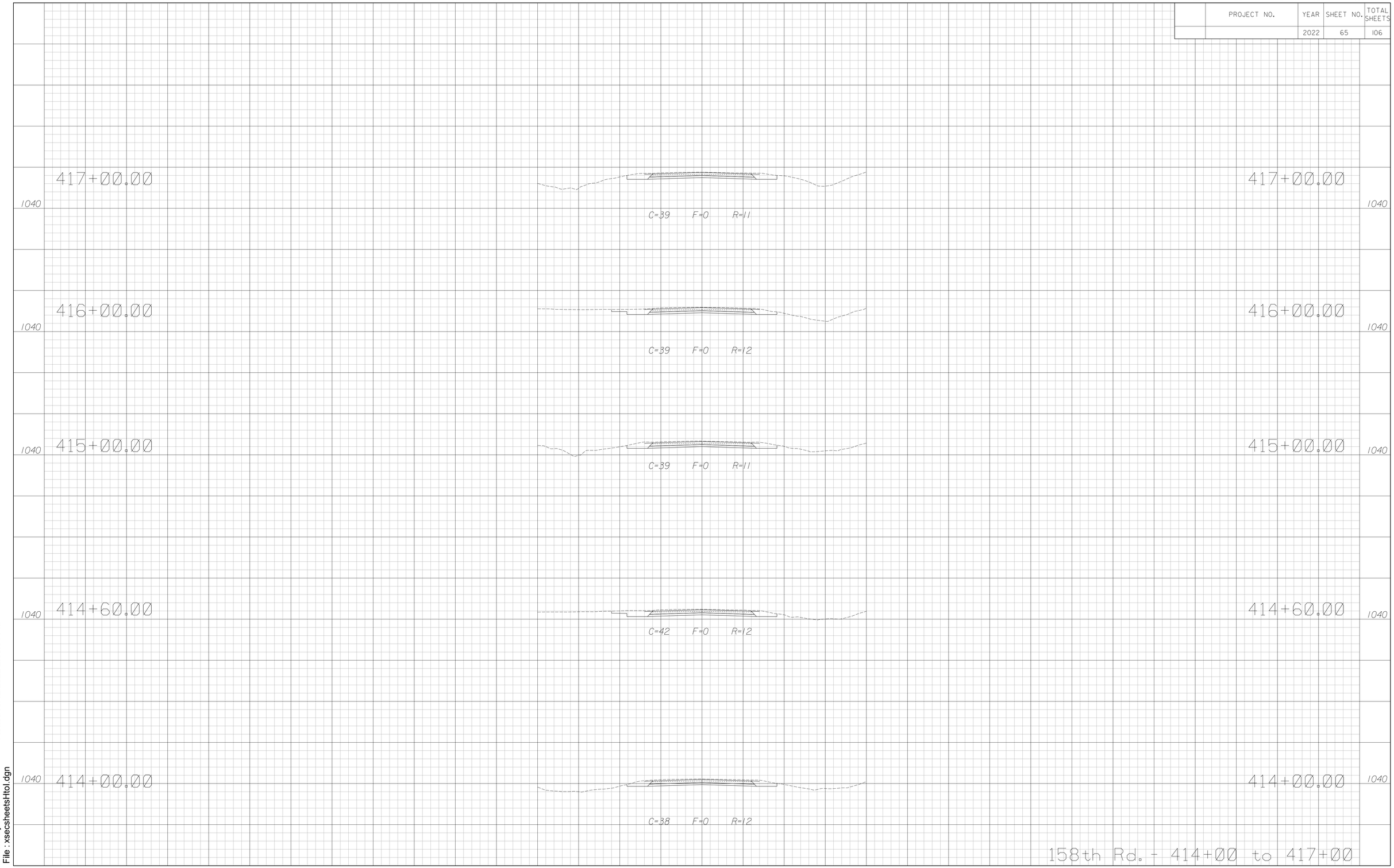
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	64	106



Plotted : 9/12/2022 2:06:51 PM

Drawn By : CAM
File : xsecsheetsHtol.dgn

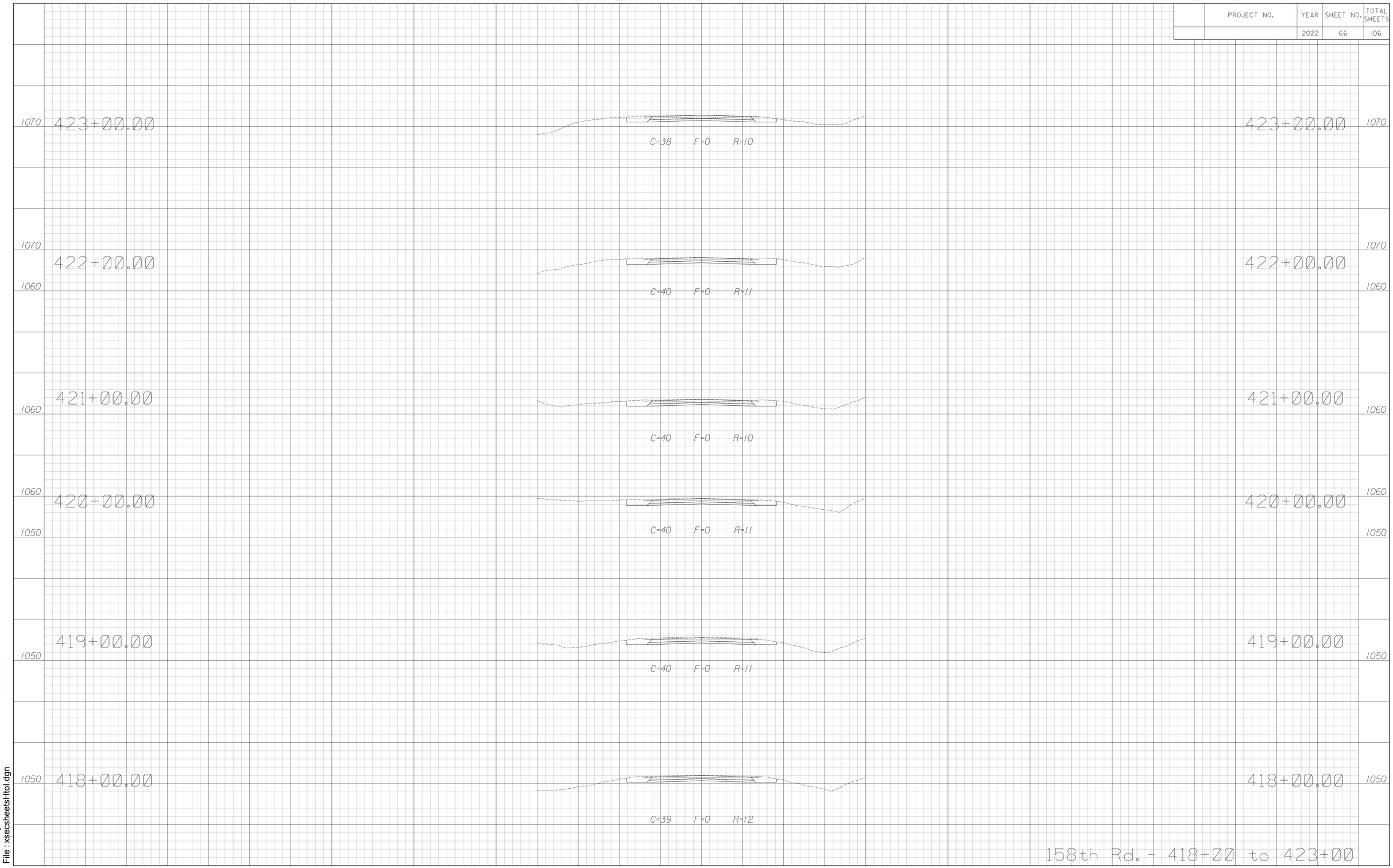
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	65	106



Plotted :9/12/2022 2:06:51 PM

Drawn By: : CAM
File : xsecsheetsHtol.dgn

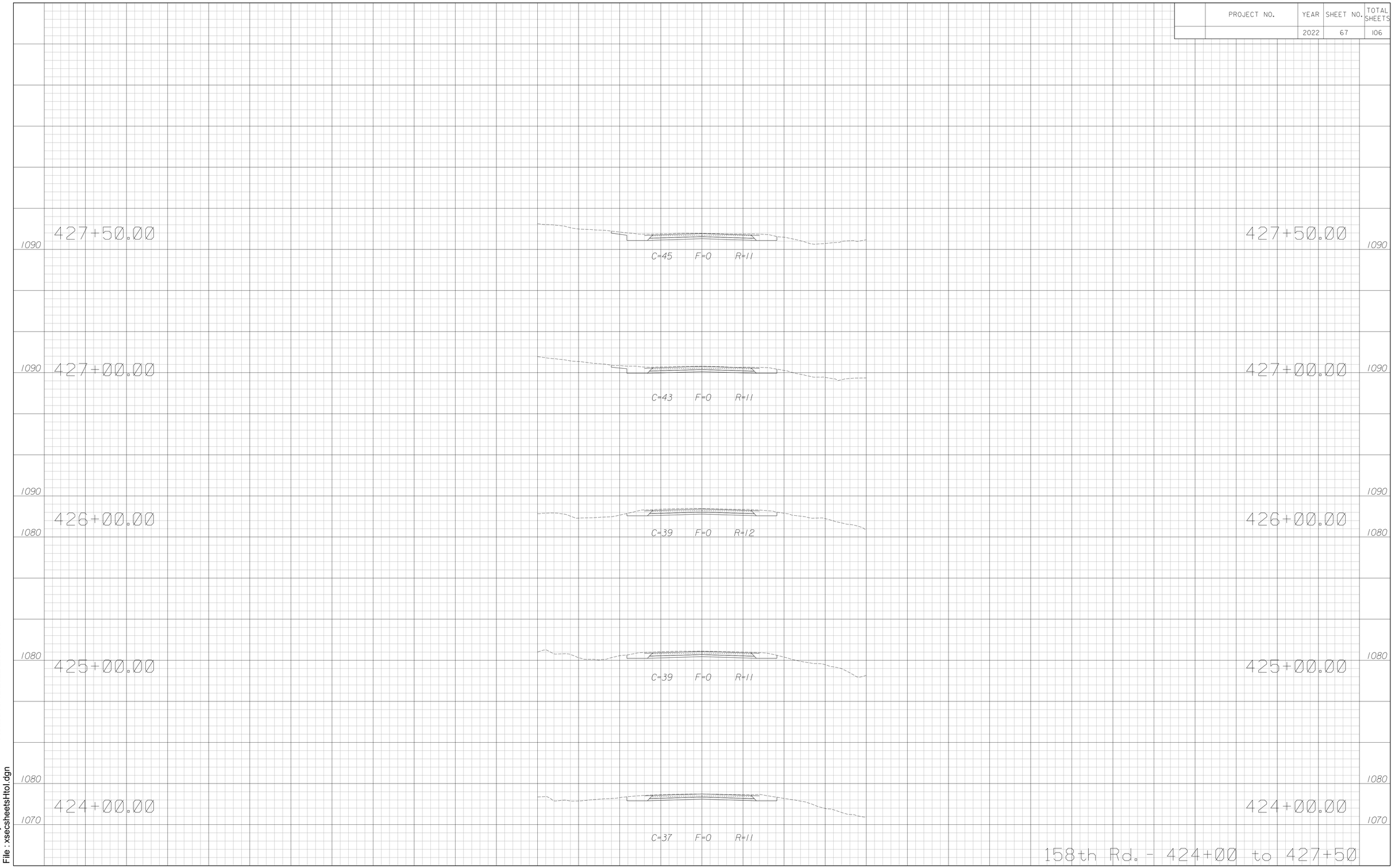
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	66	106



Plotted : 9/12/2022 2:06:51 PM

Drawn By : CAM
File : xsecsheetsHtol.dgn

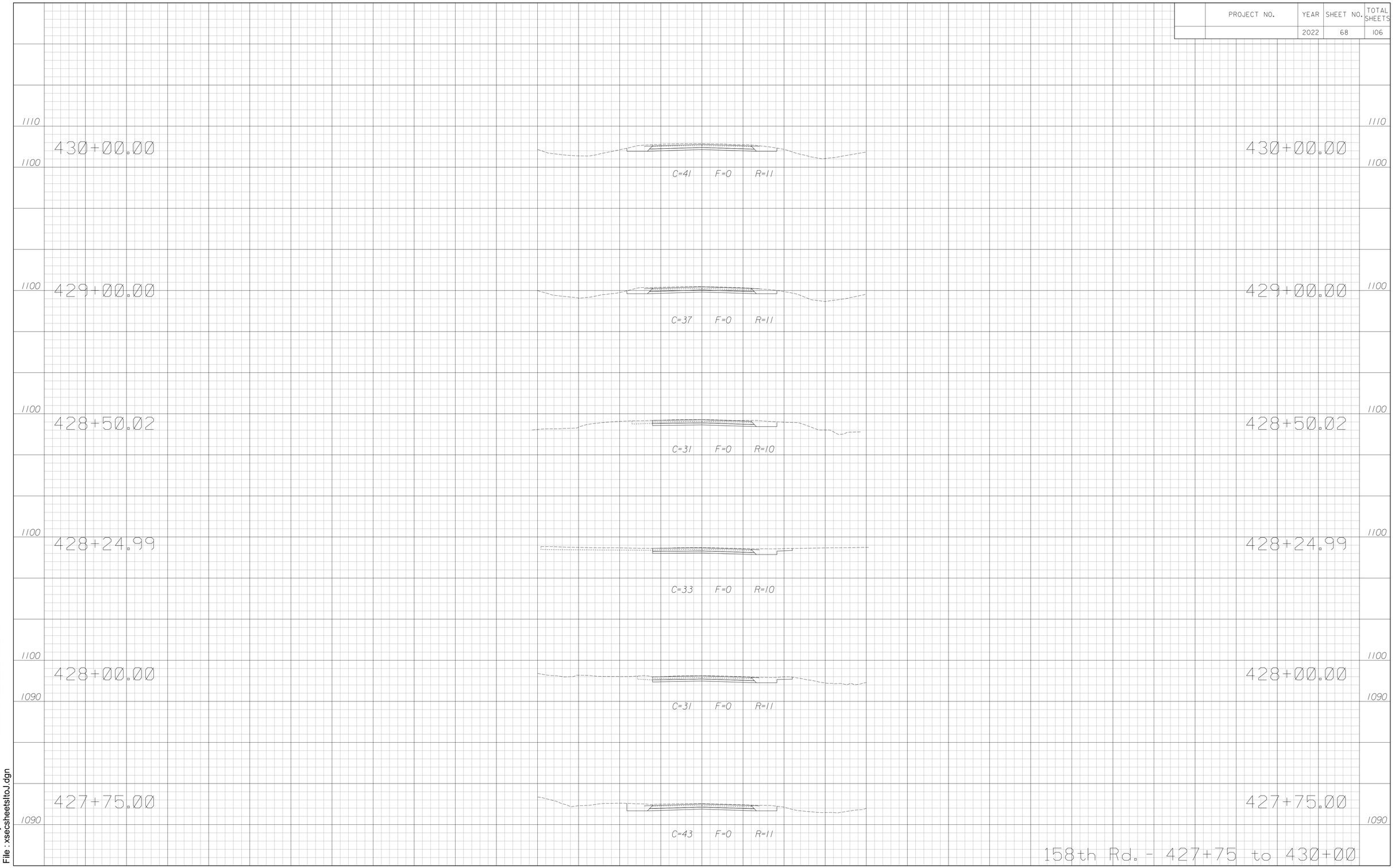
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	67	106



Plotted : 9/12/2022 2:06:51 PM

Drawn By : CAM
File : xsecsheetsHtol.dgn

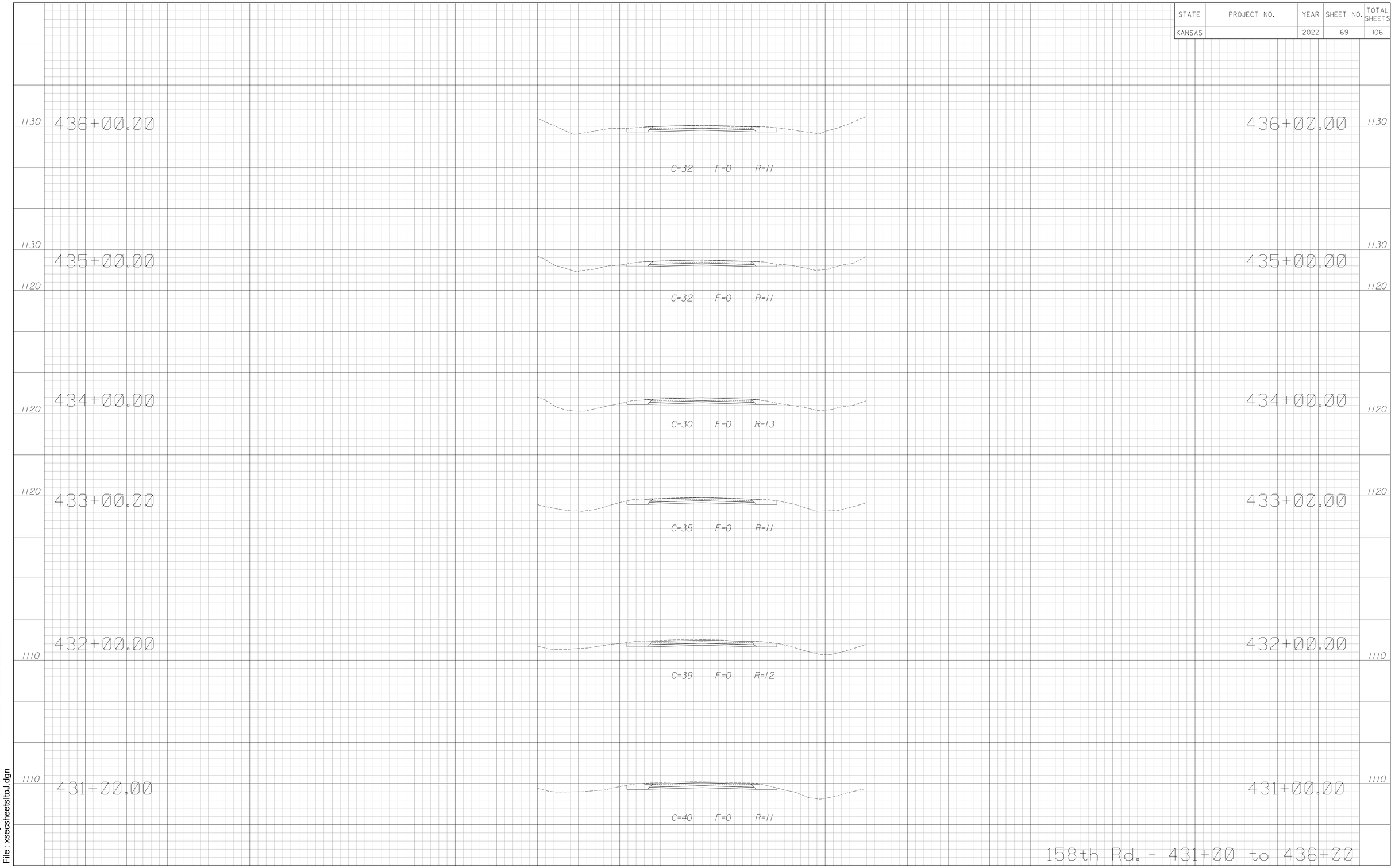
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	68	106



Plotted : 9/12/2022 2:06:52 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

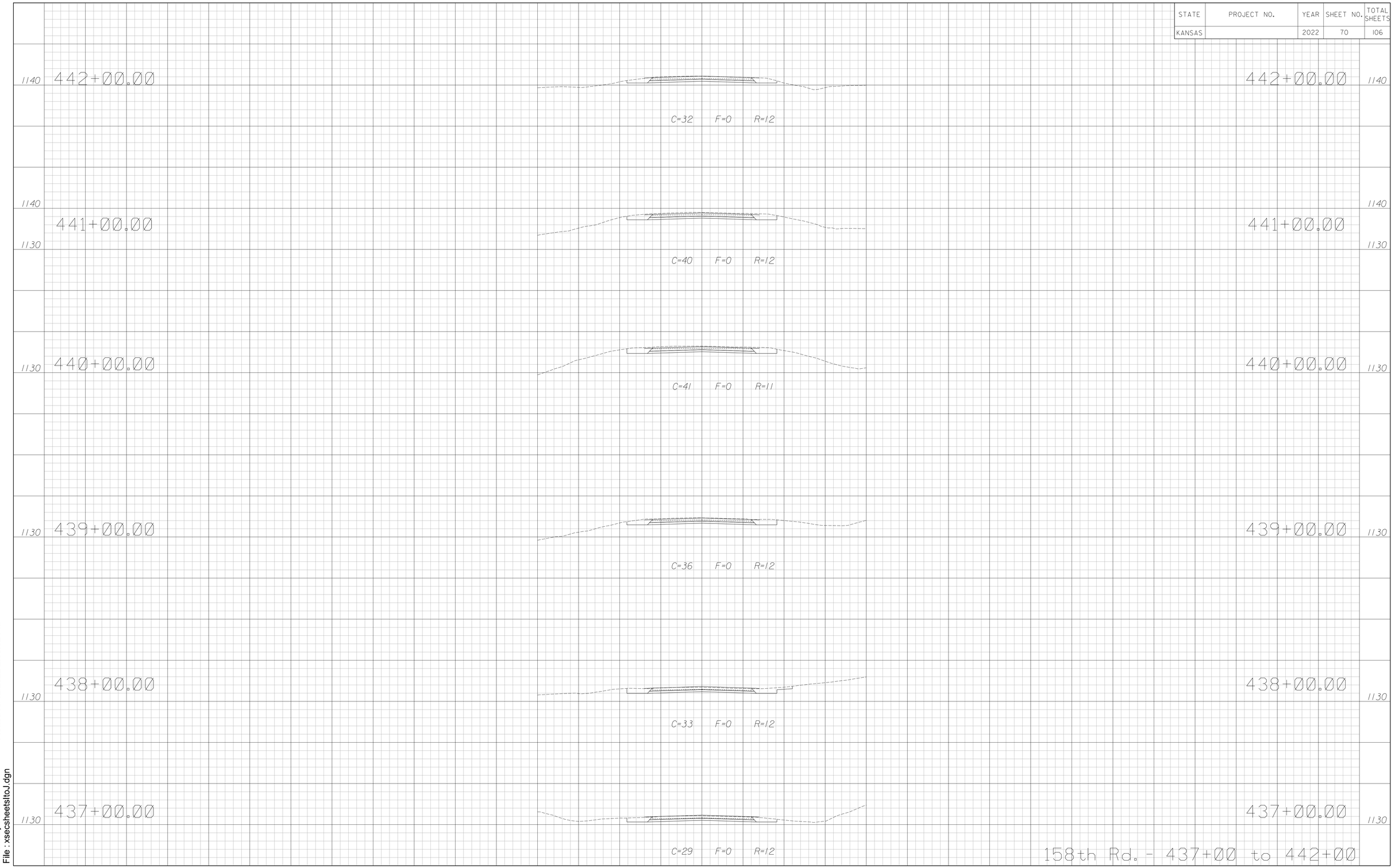
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	69	106



Plotted : 9/12/2022 2:06:52 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

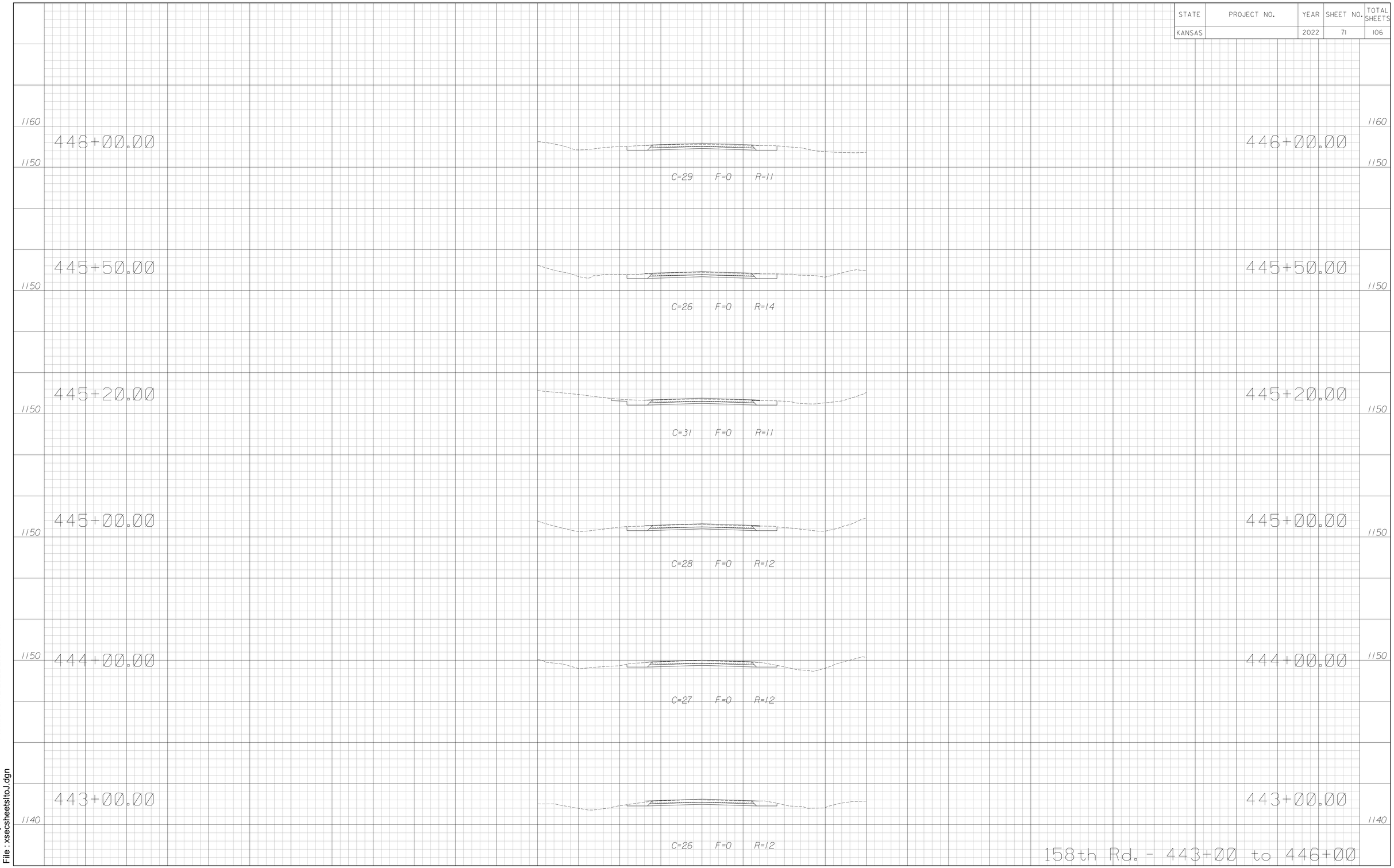
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	70	106



Plotted : 9/12/2022 2:06:52 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	71	106

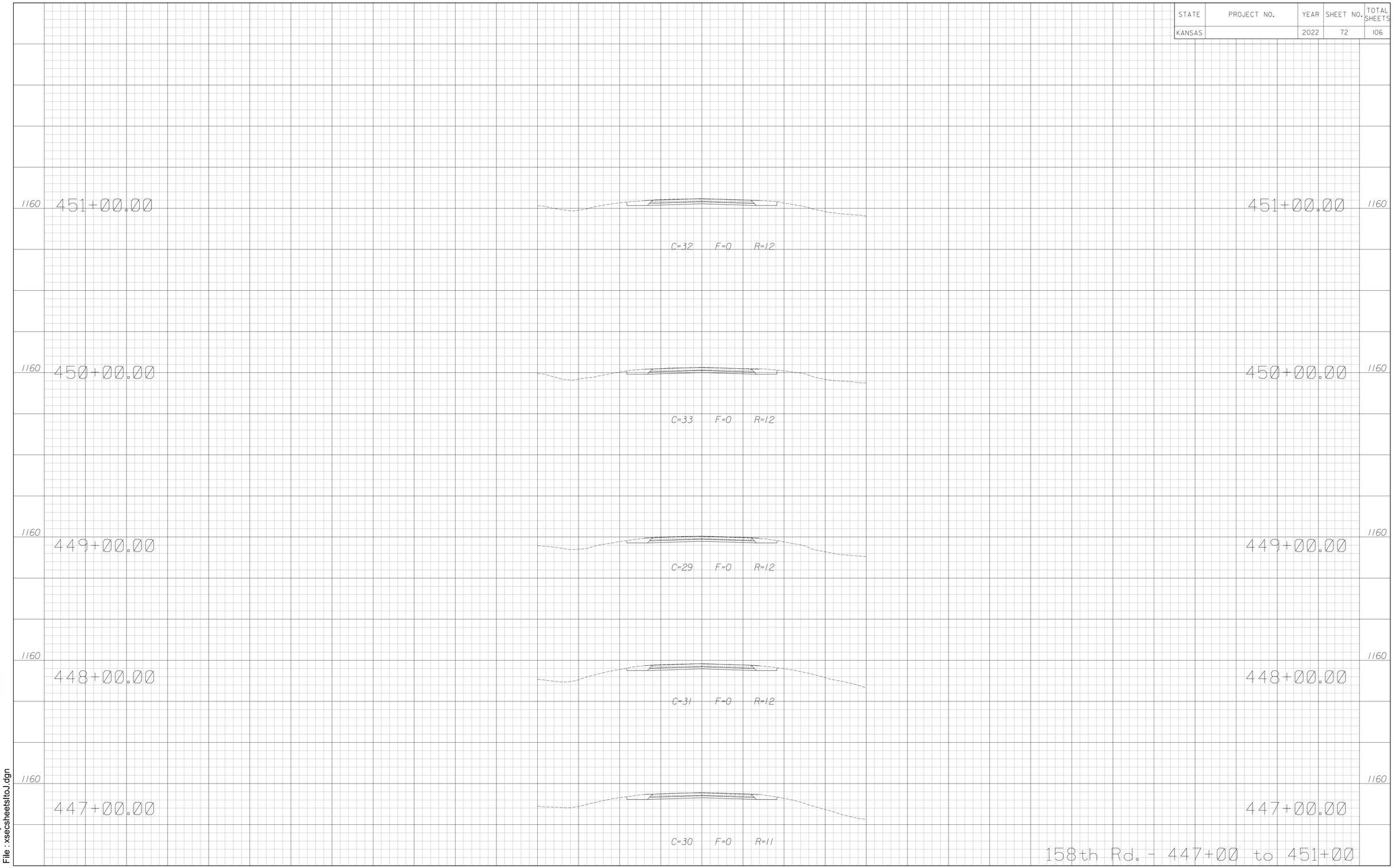


Sheet No. 71

Plotted : 9/12/2022 2:06:53 PM

Drawn By : : CAM
File : xsecsheetsltoJ.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	72	106

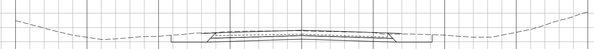


Plotted : 9/12/2022 2:06:53 PM

Drawn By : CAM
File : xsecsheetsItoJ.dgn

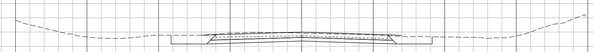
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	73	106

455+00.00



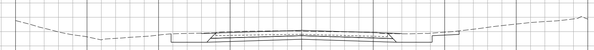
C=32 F=0 R=12

454+50.00



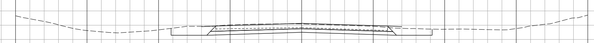
C=33 F=0 R=11

454+10.00



C=35 F=0 R=12

453+75.00



C=30 F=0 R=13

453+00.00

C=34 F=0 R=12

452+00.00

C=31 F=0 R=12

158th Rd. - 452+00 to 455+00

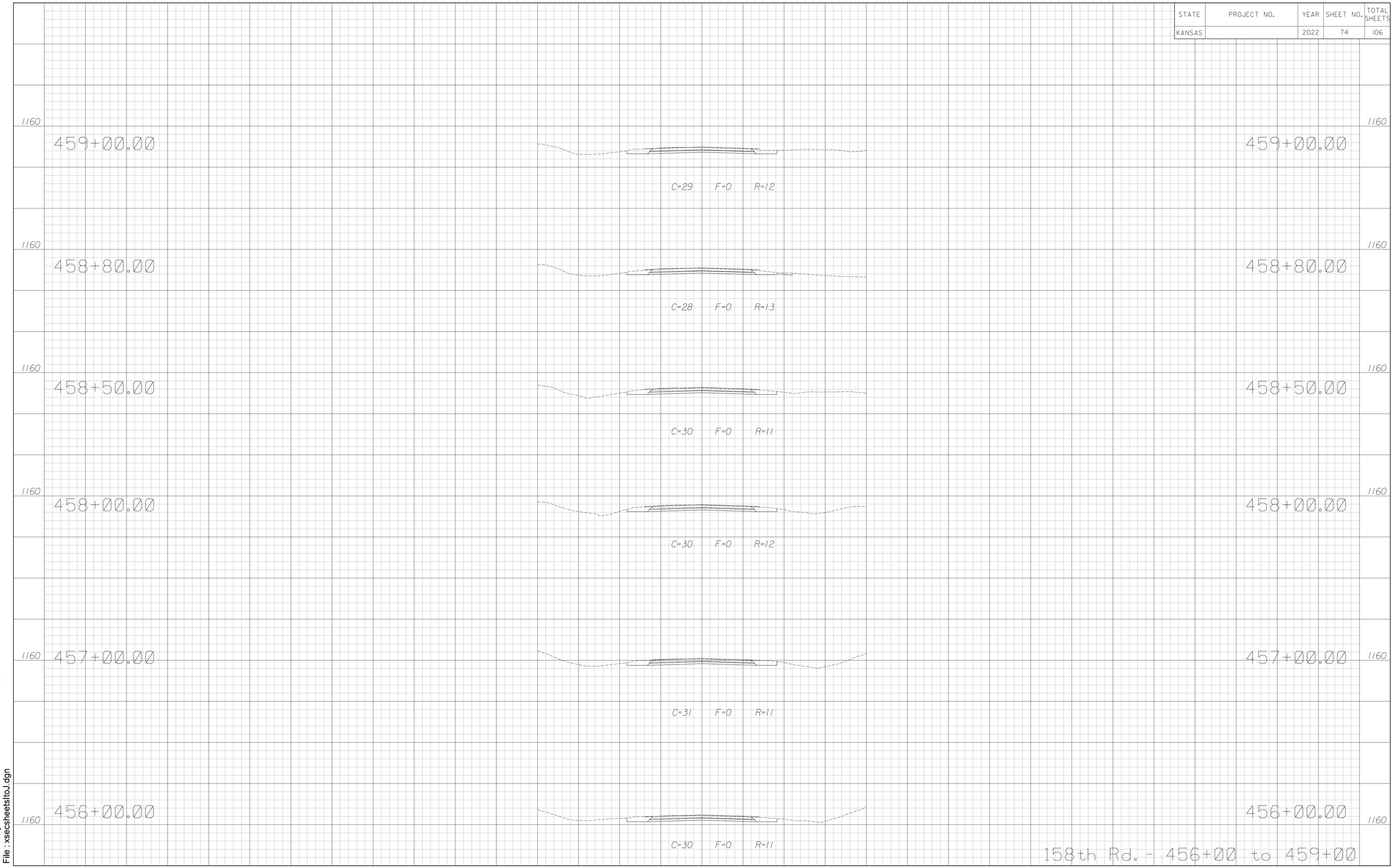
Sheet No. 73

Plotted : 9/12/2022 2:06:53 PM

Drawn By : CAM

File : xsecsheetsItoJ.dgn

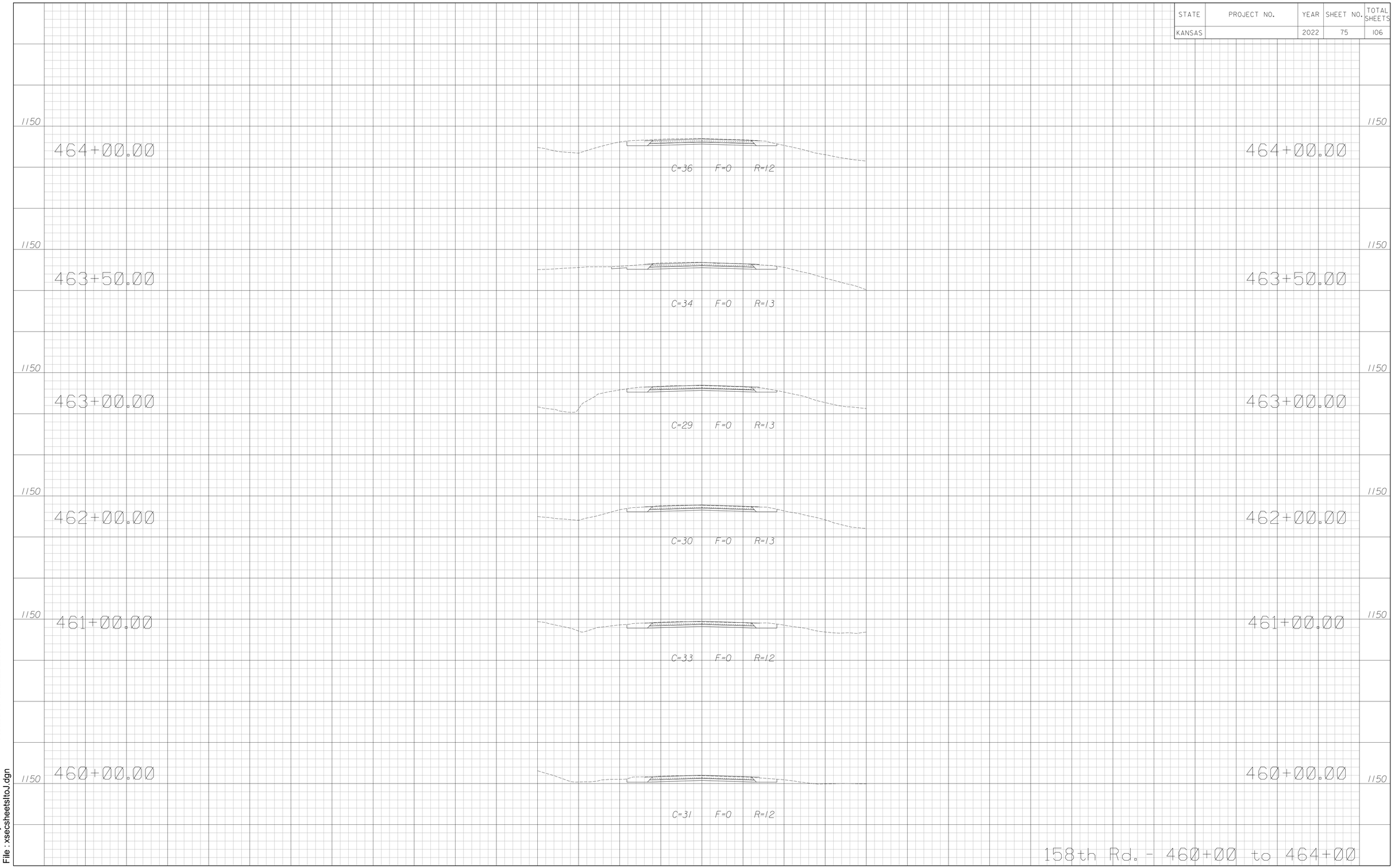
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	74	106



Plotted : 9/12/2022 2:06:53 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

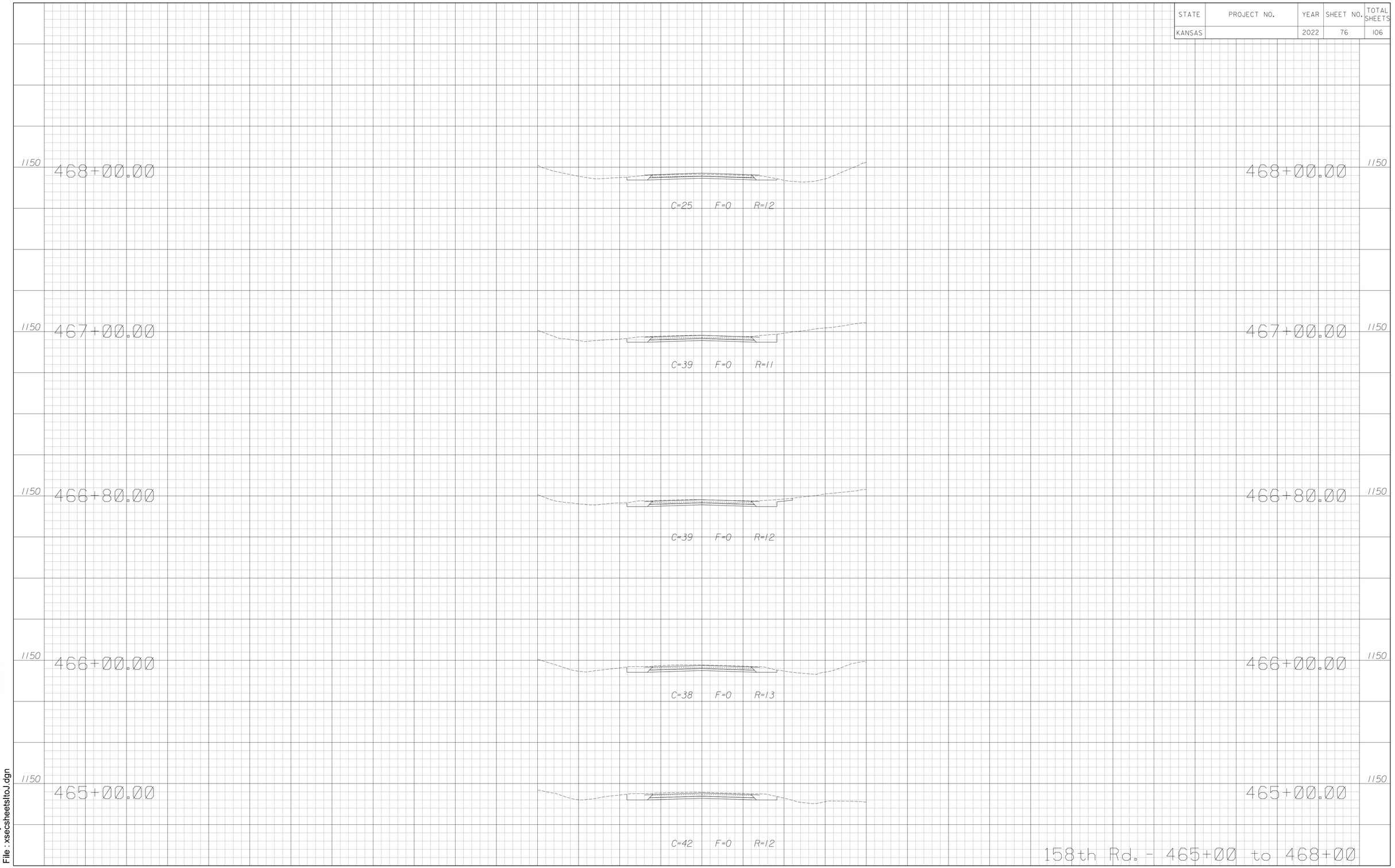
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	75	106



Plotted : 9/12/2022 2:06:53 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

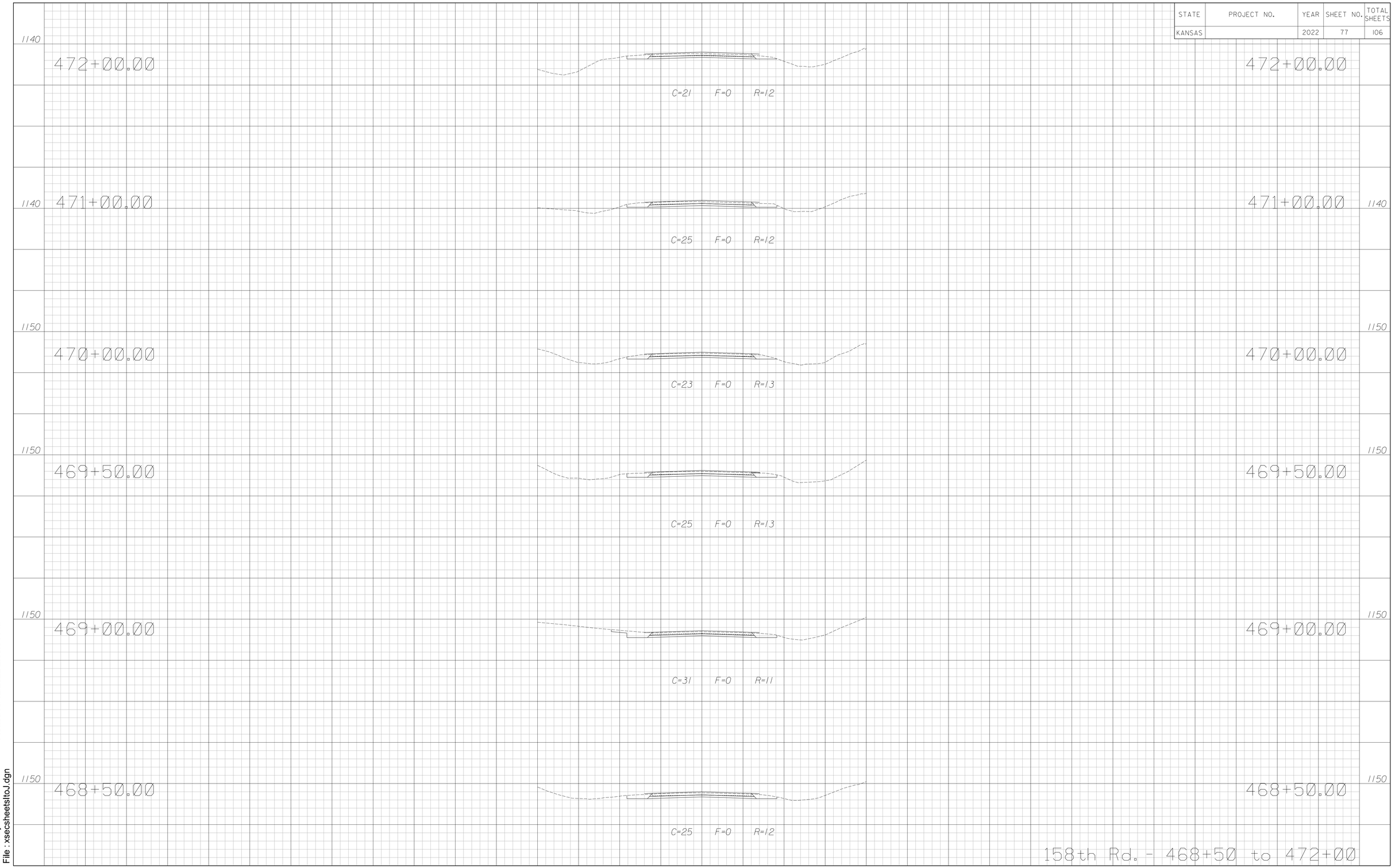
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	76	106



Plotted : 9/12/2022 2:06:54 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	77	106

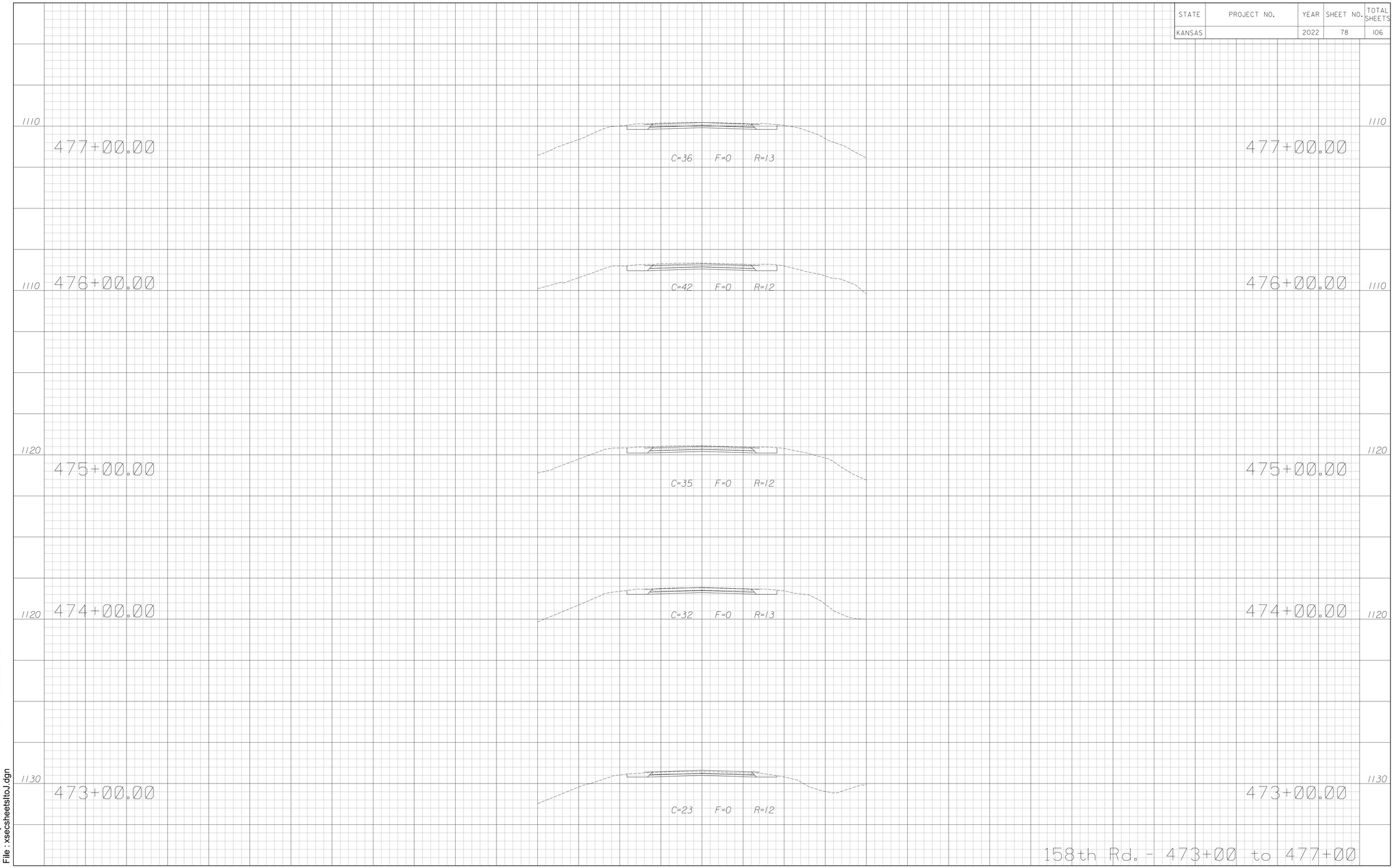


Sheet No. 77

Plotted : 9/12/2022 2:06:54 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

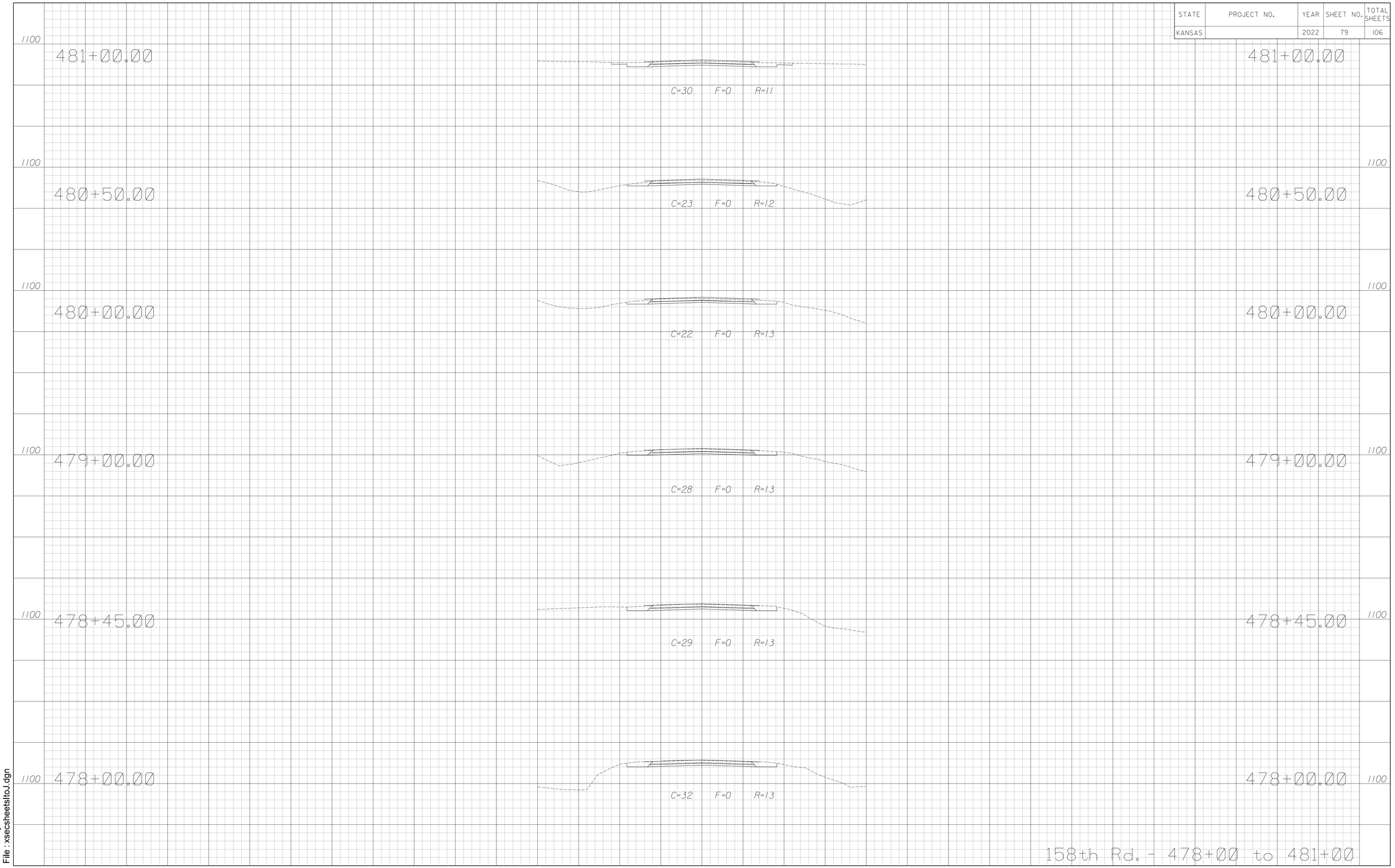
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	78	106



Plotted : 9/12/2022 2:06:54 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

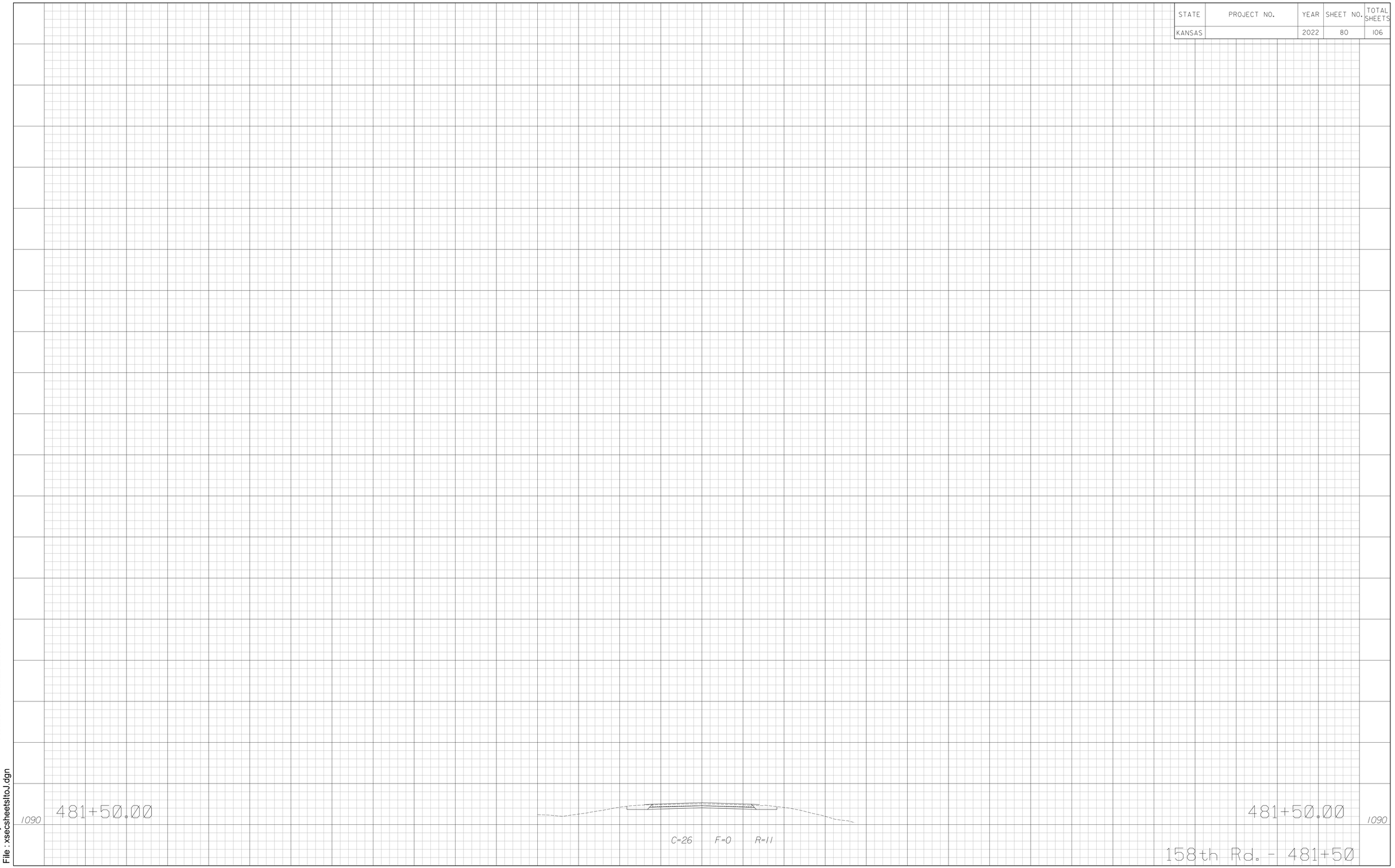
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	79	106



Plotted : 9/12/2022 2:06:54 PM

Drawn By : CAM
File : xsecsheetsltoJ.dgn

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS		2022	80	106



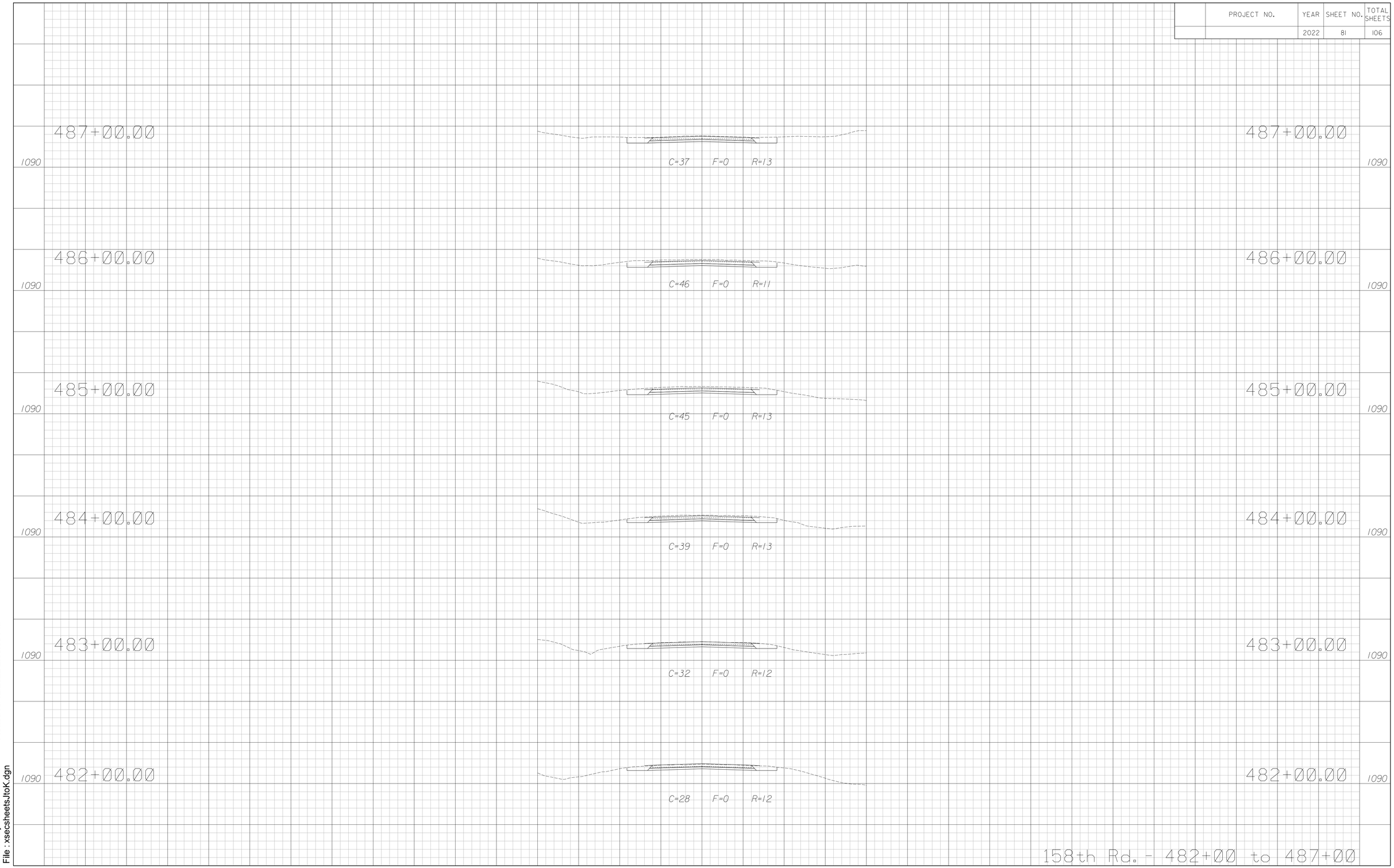
Sheet No. 80

Plotted :9/12/2022 2:06:54 PM

Drawn By : CAM

File : xsecsheetsItoJ.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	81	106



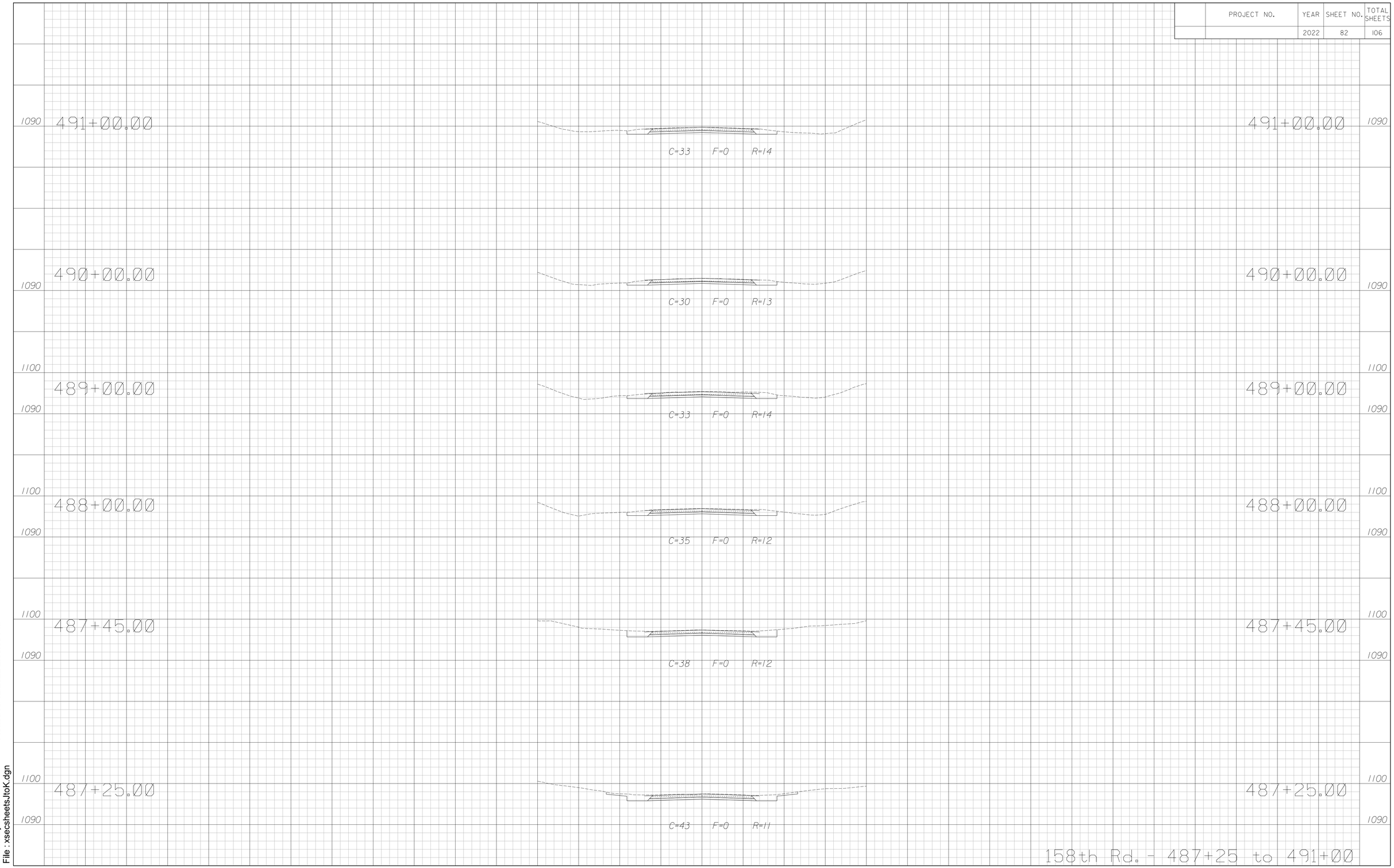
Sheet No. 81

Plotted : 9/12/2022 2:06:55 PM

Drawn By : CAM

File : xsecsheetsJtoK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	82	106



Plotted : 9/12/2022 2:06:55 PM

Drawn By : CAM
File : xsecsheets.tok.dgn

Sheet No. 82

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	83	106

1080 495+75.00

C=15 F=0 R=14

1080 495+00.00

C=21 F=0 R=14

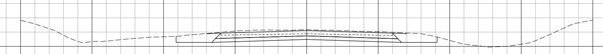
1080 494+15.00

C=38 F=0 R=12

1080 493+75.00

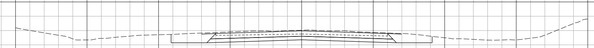
C=36 F=0 R=14

1080 493+00.00



C=36 F=0 R=13

1090 492+00.00



C=37 F=0 R=12

158th Rd. - 492+00 to 495+75

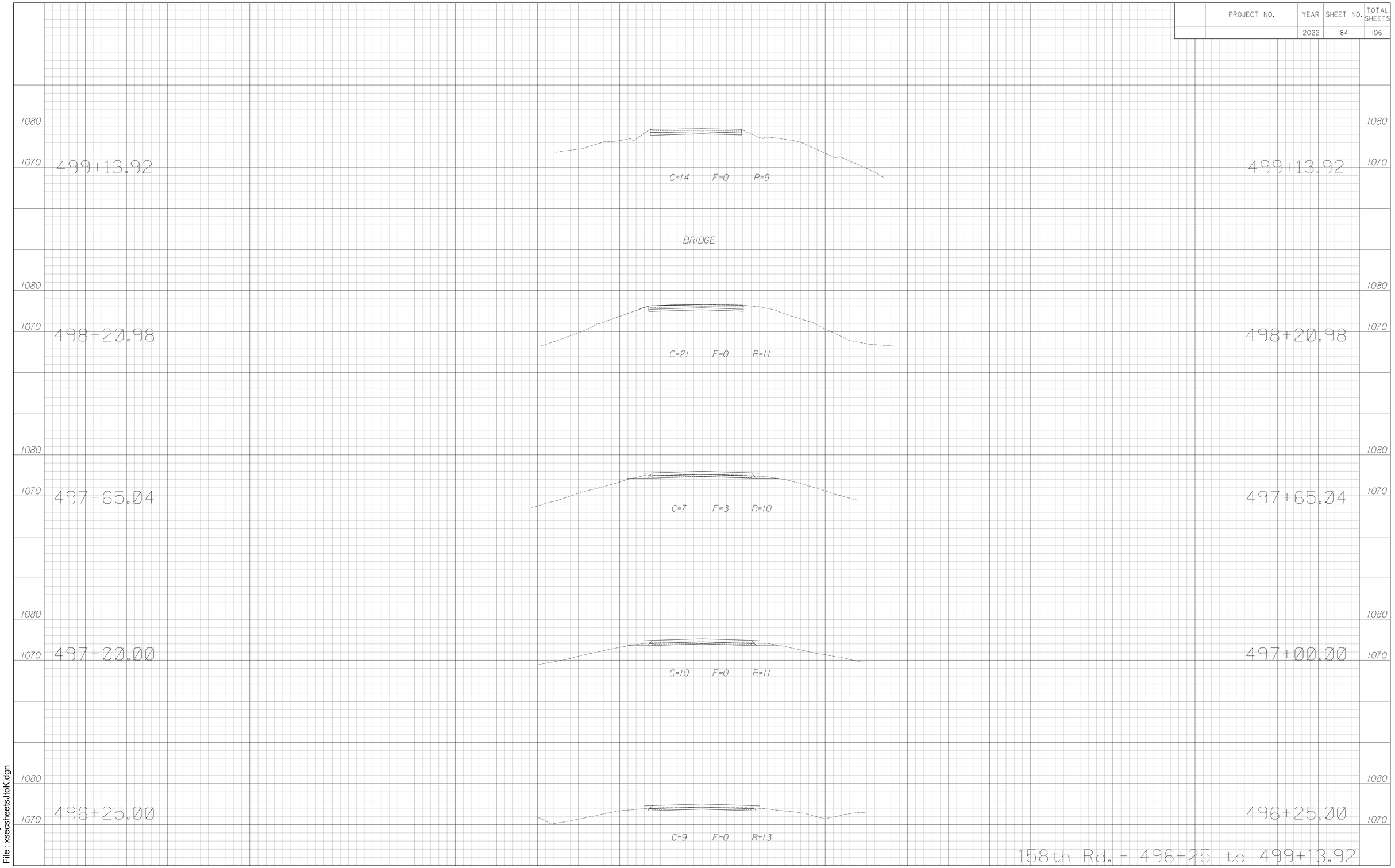
Sheet No. 83

Plotted : 9/12/2022 2:06:55 PM

Drawn By : CAM

File : xsecsheets.tofK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	84	106

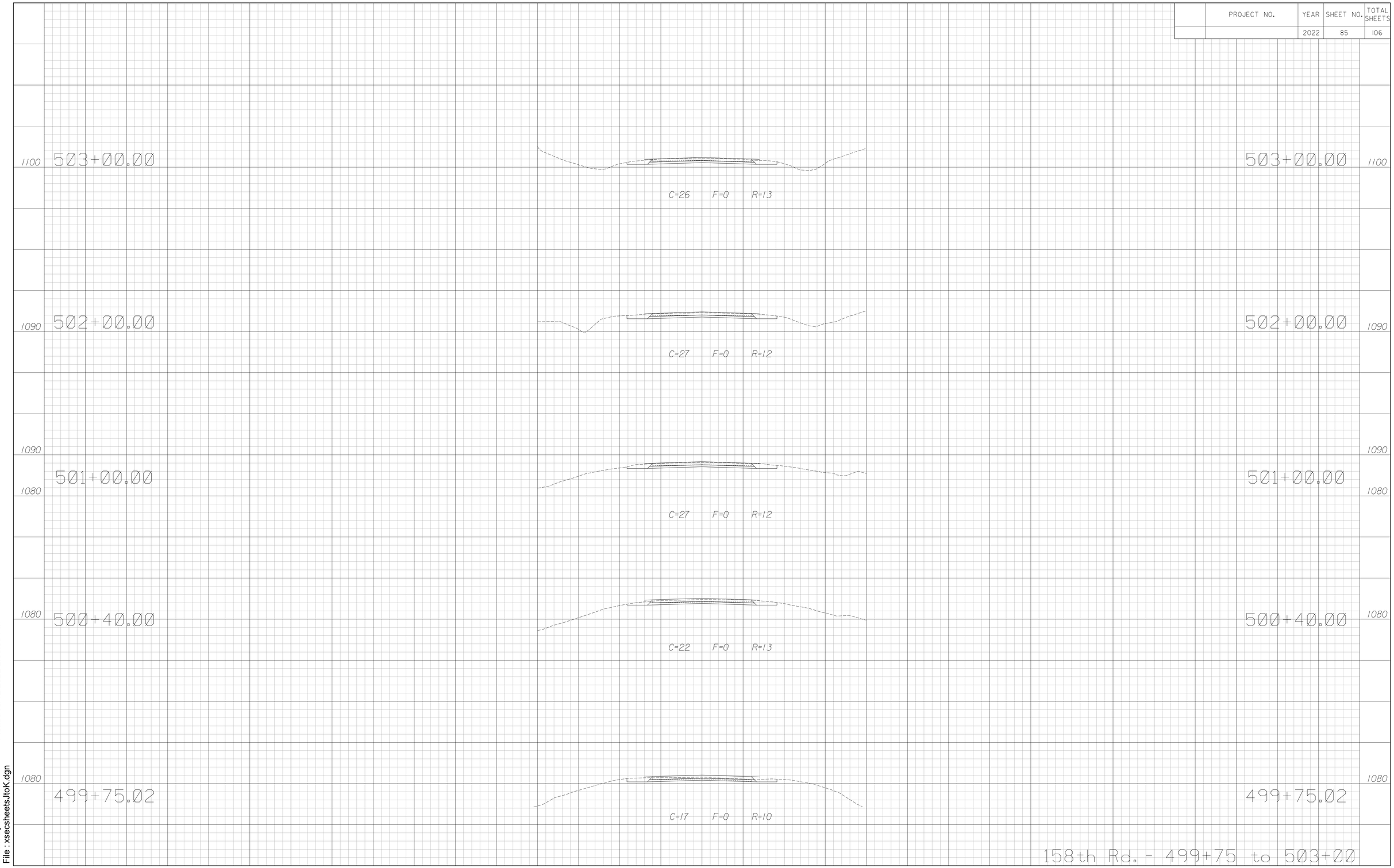


Plotted : 9/12/2022 2:06:55 PM

Drawn By : CAM
File : xsecsheets.tofK.dgn

Sheet No. 84

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	85	106

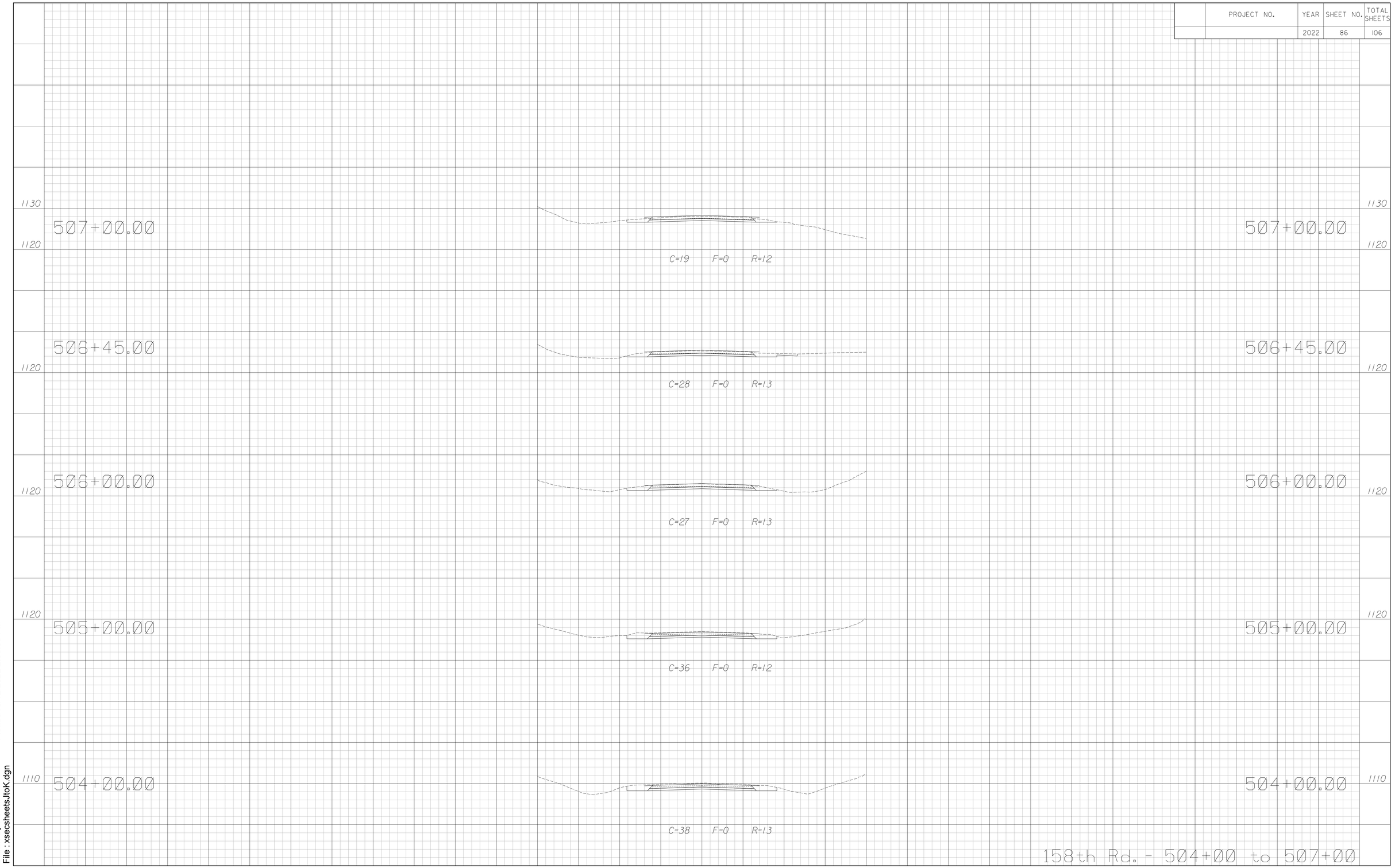


Sheet No. 85

Plotted : 9/12/2022 2:06:56 PM

Drawn By : CAM
File : xsecsheets.tok.dgn

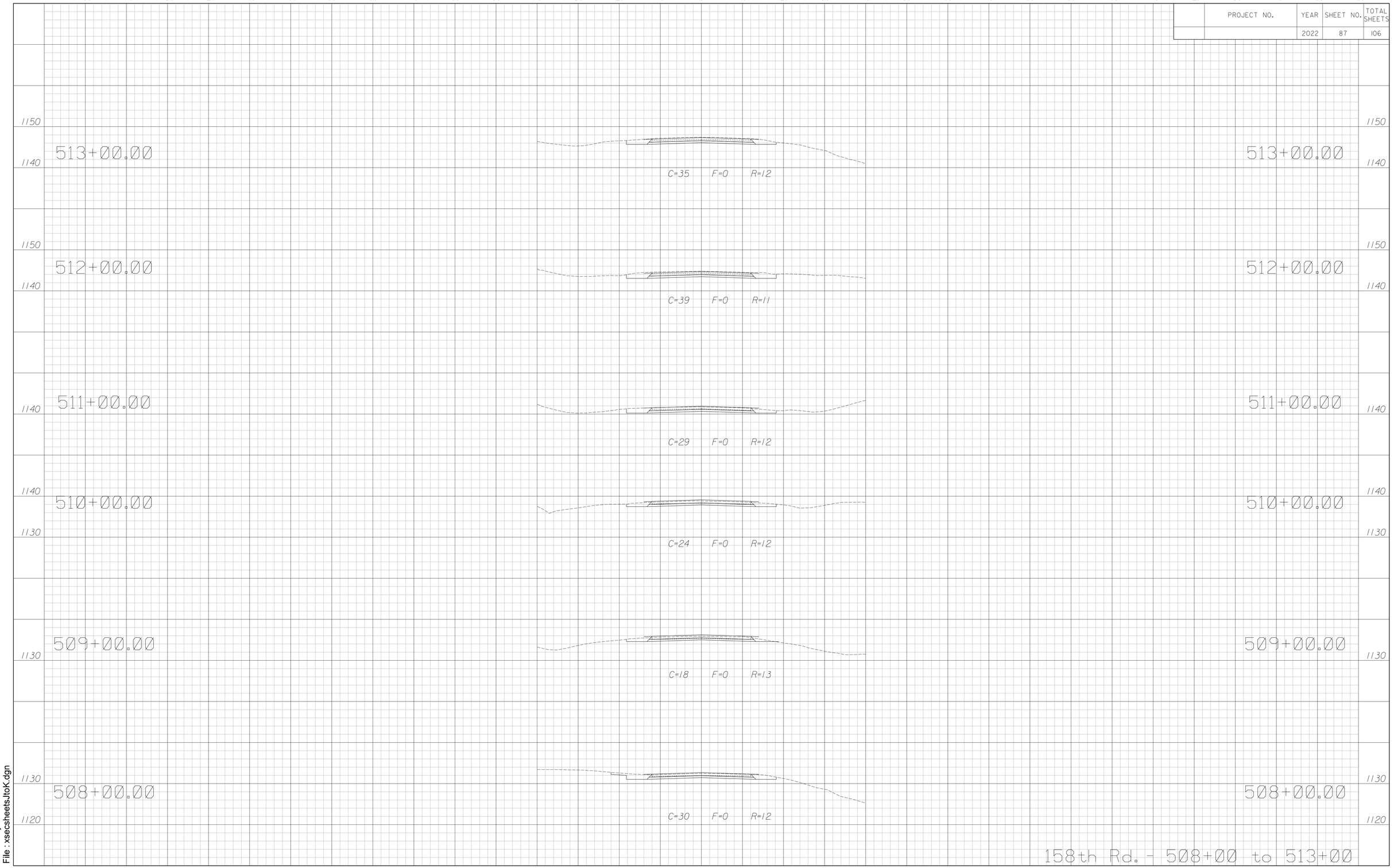
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	86	106



Plotted : 9/12/2022 2:06:56 PM

Drawn By : CAM
File : xsecsheets.JtoK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	87	106



Plotted : 9/12/2022 2:06:56 PM

Drawn By : CAM
File : xsecsheets.toK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	88	106

1150 517+00.00

C=36 F=0 R=12

517+00.00 1150

1150 516+00.00

C=32 F=0 R=13

516+00.00 1150

1150 515+00.00

C=28 F=0 R=13

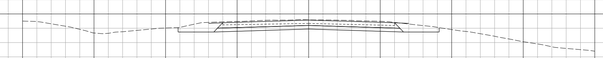
515+00.00 1150

1150 514+50.00

C=33 F=0 R=13

514+50.00 1150

1150 514+00.00



C=33 F=0 R=13

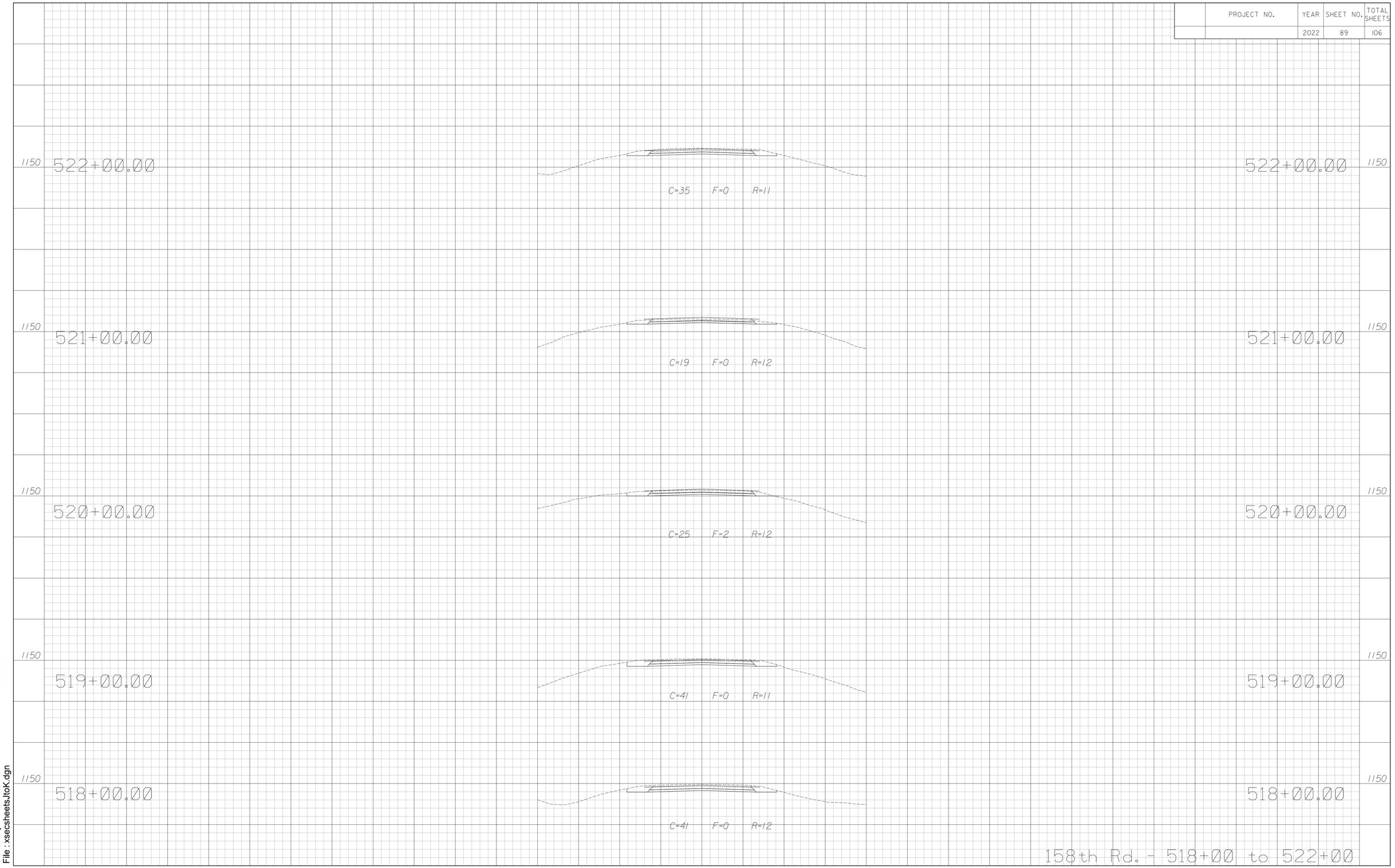
514+00.00 1150

158th Rd. - 514+00 to 517+00

Plotted : 9/12/2022 2:06:56 PM

Drawn By : CAM
File : xsecsheets.tofK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	89	106

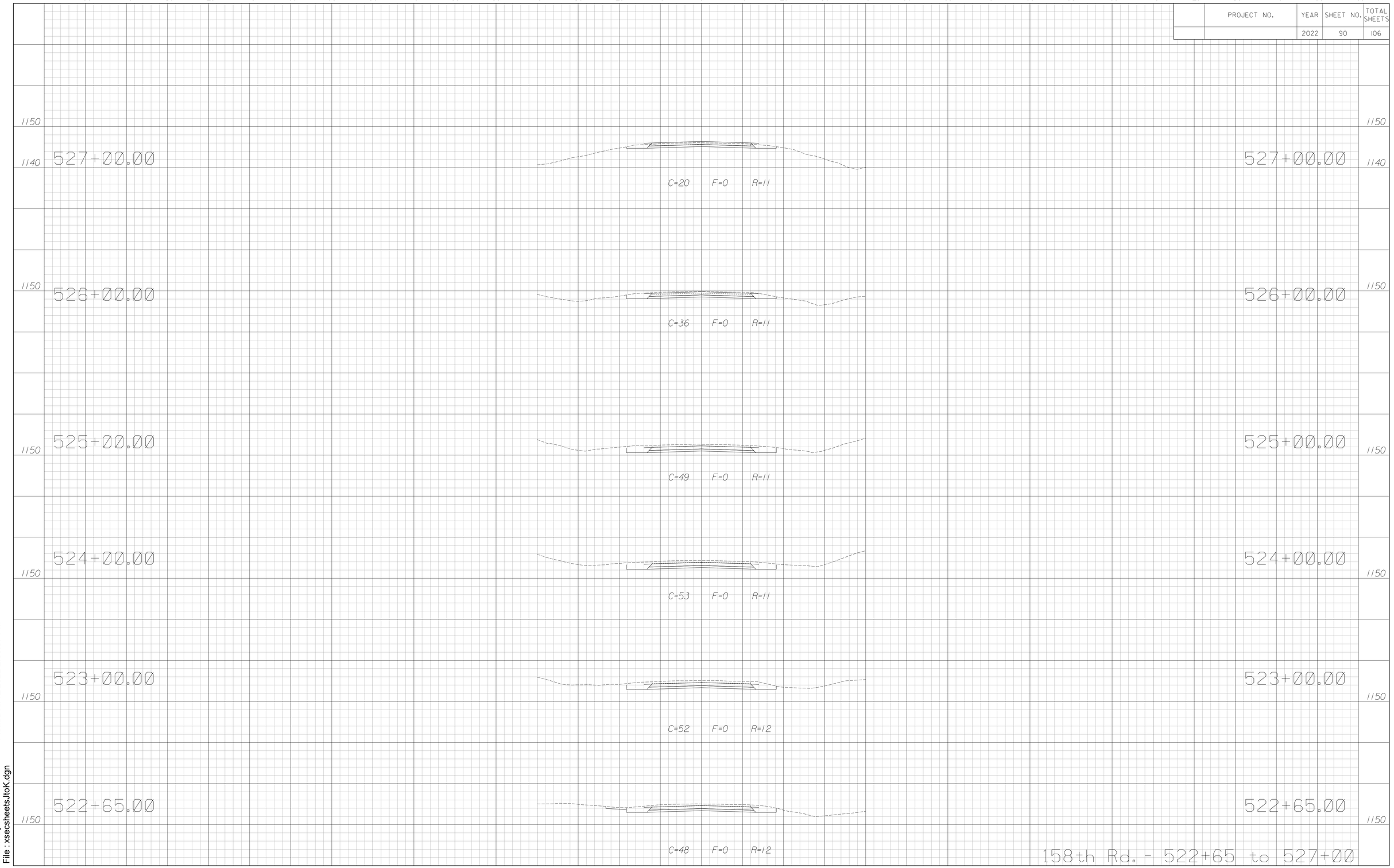


Plotted : 9/12/2022 2:06:56 PM

Drawn By : CAM
File : xsecsheets.toK.dgn

Sheet No. 89

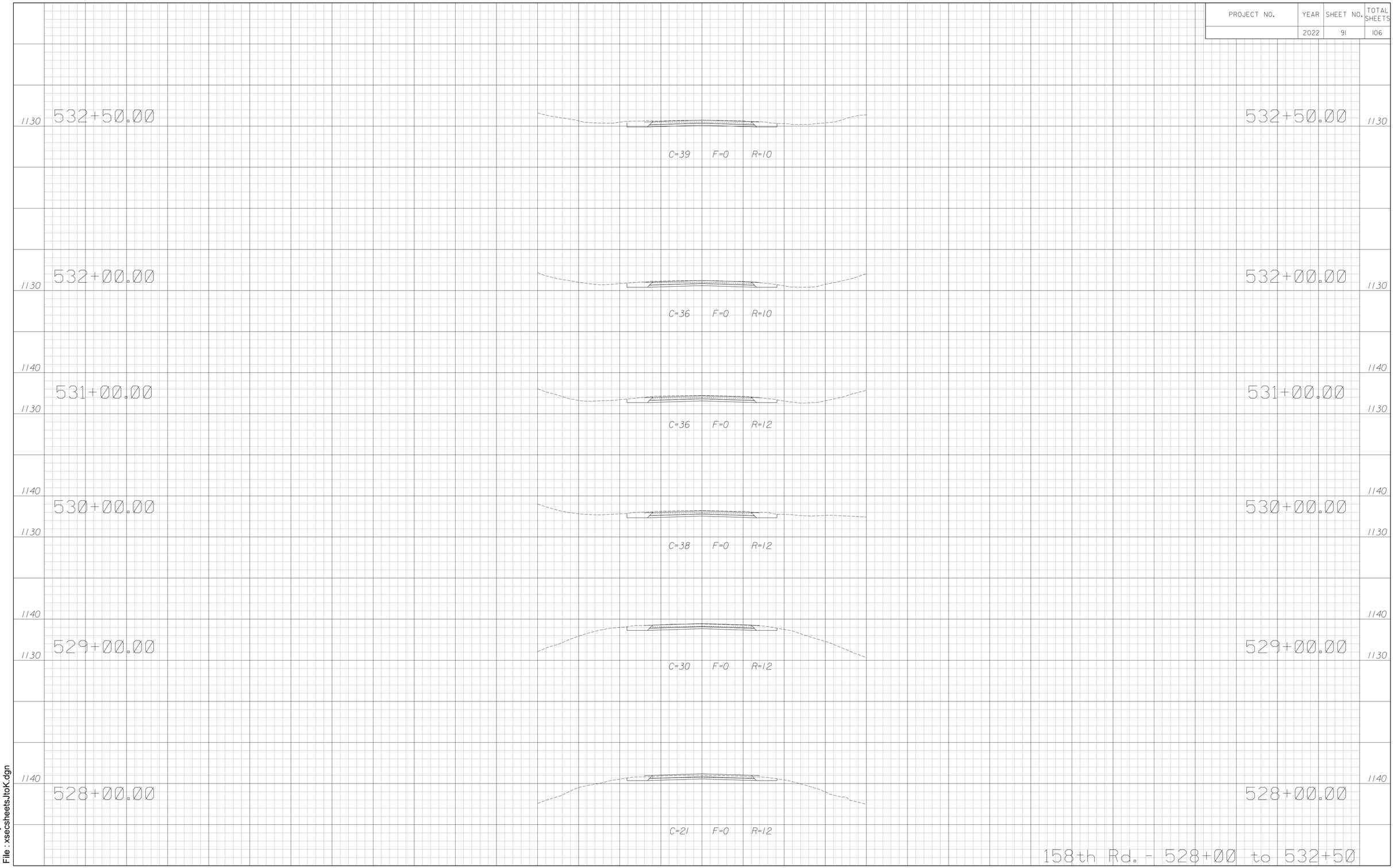
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	90	106



Plotted : 9/12/2022 2:06:57 PM

Drawn By : CAM
File : xsecsheets.ltoK.dgn

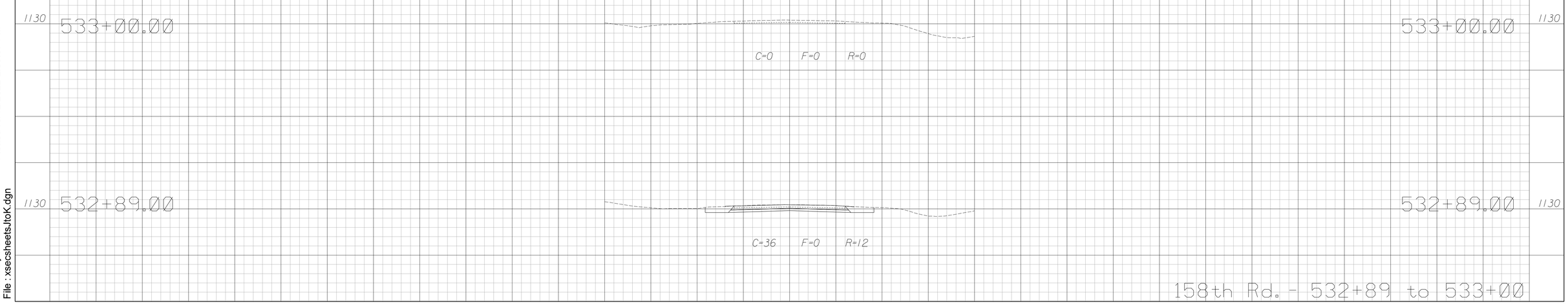
PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	91	106



Plotted : 9/12/2022 2:06:57 PM

Drawn By : CAM
File : xsecsheets.JtoK.dgn

PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
	2022	92	106



Plotted :9/12/2022 2:06:57 PM

Drawn By: : CAM
File : xsecsheets.tofoK.dgn