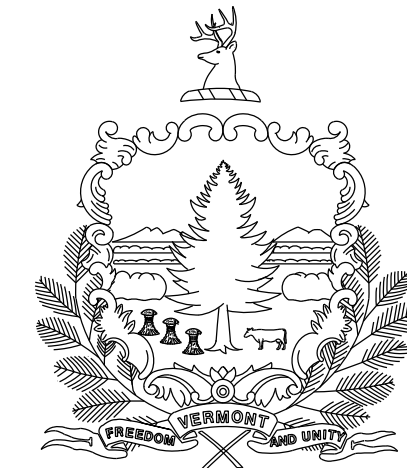


REVIEWER NOTES:

1. SURVEY LIMITS TO BE EXTENDED FOLLOWING CONCEPTUAL PLAN APPROVAL AND COORDINATION WITH VTRANS SURVEY FOR ADDITIONAL REQUEST NEEDED.
2. VT ROUTE 12 CURVE (I) HAS BEEN DESIGNED WITH A SUPERELEVATION RATE OF 5.4% WHICH MEETS AASHTO REQUIREMENTS FOR 50 MPH. CONCURRENCE WITH THIS SUPERELEVATION RATE BY VTRANS IS REQUESTED. IF CONCERNS EXIST, LESSER SUPERELEVATION RATES COULD STILL PROVIDE A SIGNIFICANT IMPROVEMENT OVER THE EXISTING CONDITION.
3. THE CONCEPTUAL CONSTRUCTION LIMITS SHOWN ON THE PLANS ARE REPRESENTATIVE OF THE TOE OF SLOPE LIMITS. THESE LIMITS WILL BE REVISED FOR PRELIMINARY PLANS.

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

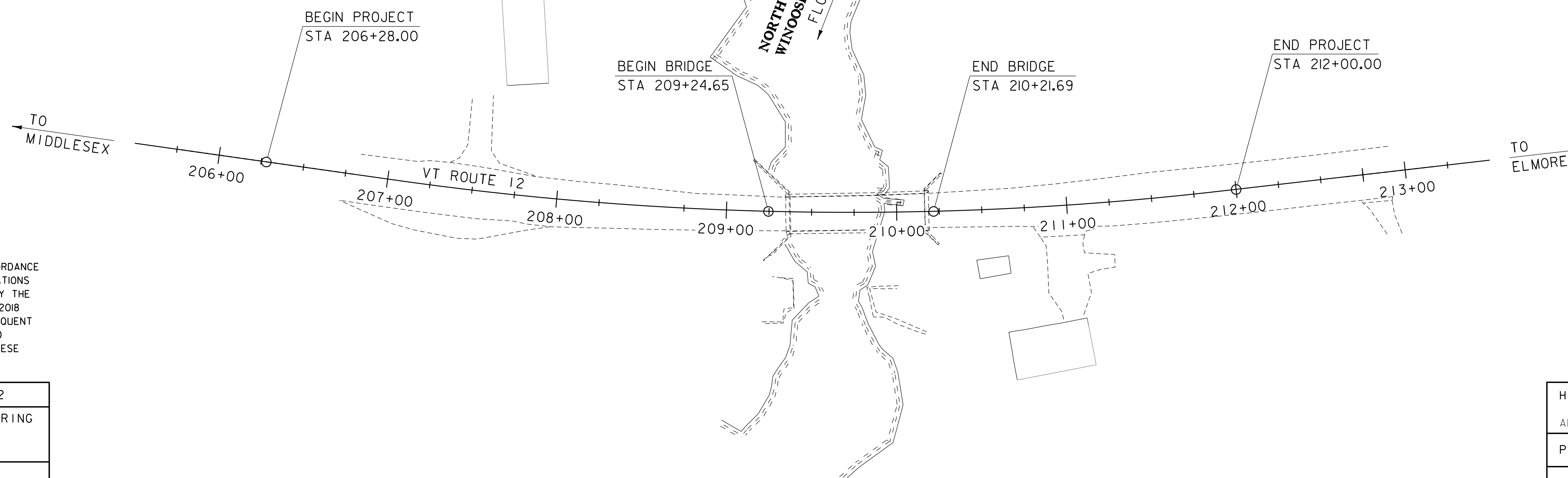
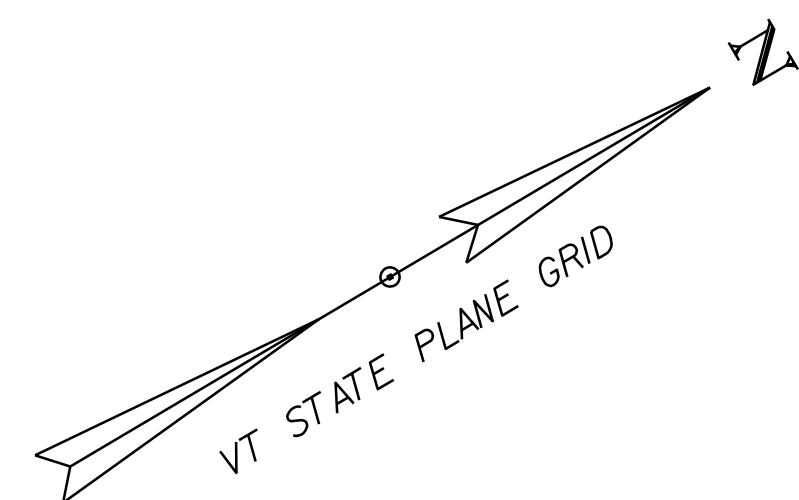
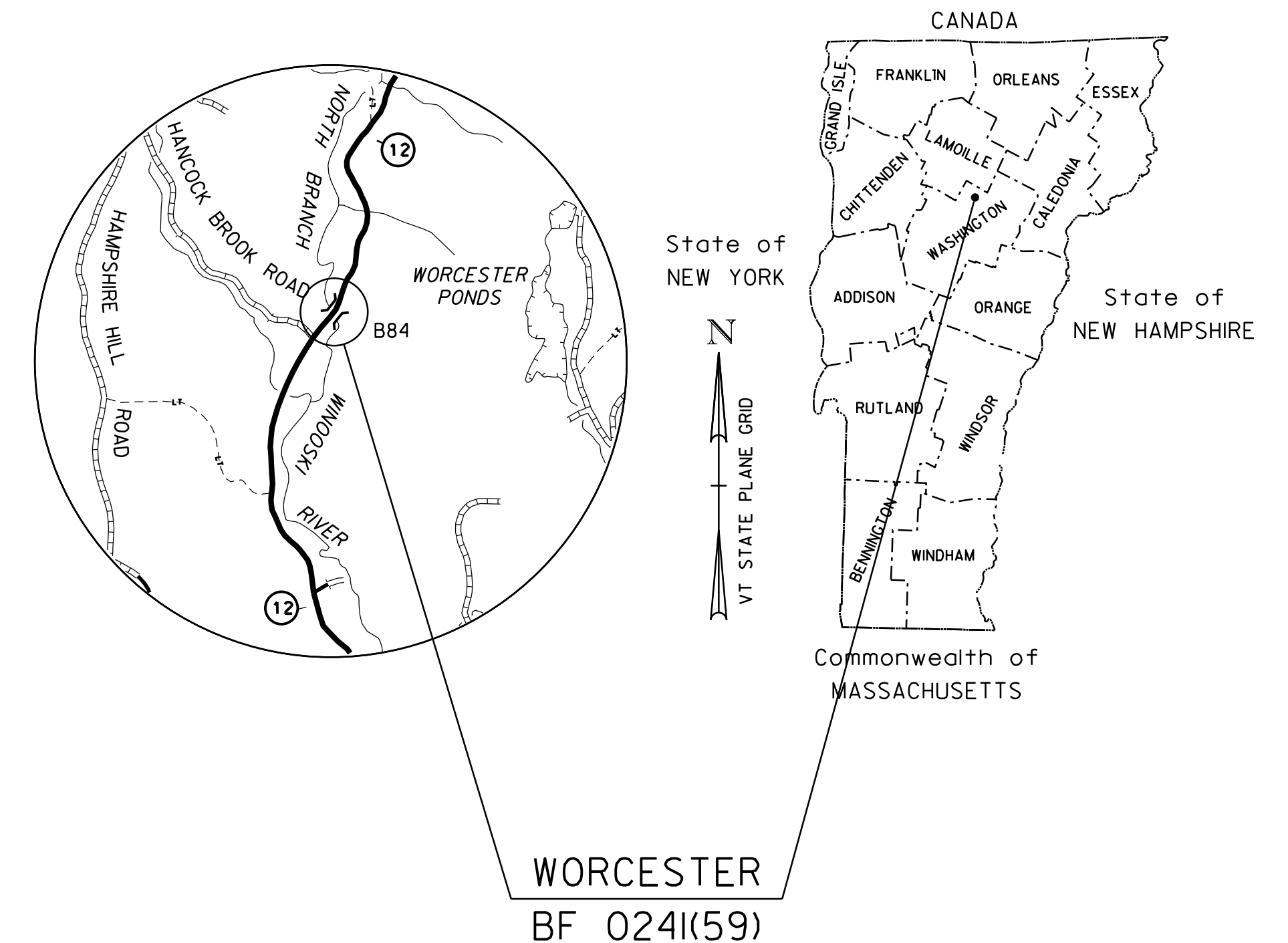
TOWN OF WORCESTER
COUNTY OF WASHINGTON

ROUTE NO: VERMONT ROUTE 12 (MAJOR COLLECTOR) BRIDGE NO: 84

PROJECT LOCATION: BEGINNING ON VT ROUTE 12 APPROXIMATELY 11.2 MILES NORTH OF THE JUNCTION WITH US ROUTE 2 AND EXTENDING NORTHERLY APPROXIMATELY 0.108 MILES

PROJECT DESCRIPTION: EXISTING BRIDGE REPLACEMENT WITH STEEL GIRDER BRIDGE ON SEMI-INTEGRAL ABUTMENTS WITH FOOTINGS FOUNDED ON BEDROCK, ASSOCIATED ROADWAY IMPROVEMENTS AND TRAFFIC BEING MAINTAINED ON A TEMPORARY BRIDGE

LENGTH OF BRIDGE: 97.04 FEET
LENGTH OF ROADWAY: 474.96 FEET
LENGTH OF PROJECT: 572.00 FEET



CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2018, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON APRIL 13, 2018 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

| | |
|-------------------------------------|--------------------------------------|
| QUALITY ASSURANCE PROGRAM : LEVEL 2 | |
| SURVEYED BY : | R. GILMAN, B. HERRING AND H. MCGOWAN |
| SURVEYED DATE : | 7/30/2019 |
| DATUM | |
| VERTICAL | NAVD88 |
| HORIZONTAL | NAD83 (2011) |

SCALE 1" = 40' - 0"
40 0 40

CONCEPTUAL PLANS 3/3/2021

| | |
|----------------------------------|--------------|
| HIGHWAY DIVISION, CHIEF ENGINEER | |
| APPROVED _____ | DATE _____ |
| PROJECT MANAGER : L. STONE | |
| PROJECT NAME : | WORCESTER |
| PROJECT NUMBER : | BF 0241 (59) |
| SHEET 1 OF 22 SHEETS | |

INDEX OF SHEETS

FINAL HYDRAULIC REPORT

PLAN SHEETS

- 1 TITLE SHEET
- 2 PRELIMINARY INFORMATION SHEET
- 3 - 4 TYPICAL SECTIONS 1-2
- 5 CONVENTIONAL SYMBOLOLOGY LEGEND
- 6 - 7 LAYOUT SHEET 1-2
- 8 PROFILE SHEET
- 9 - 10 TRAFFIC CONTROL SHEET 1-2
- 11 - 16 ROADWAY CROSS SECTIONS 1-6
- 17 - 20 CHANNEL CROSS SECTIONS 1-4
- 21 - 22 RESOURCE SITE PLAN 1-2

STANDARDS LIST

DETAIL SHEETS

Blank area for drawing content, including typical sections, roadway cross sections, channel cross sections, and resource site plans.

Blank area for drawing content, including hydraulic diagrams and calculations.

TRAFFIC MAINTENANCE NOTES

1. MAINTAIN ONE-WAY TRAFFIC ON A TEMPORARY BRIDGE.
2. INSTALL AND MAINTAIN TRAFFIC SIGNALS.
3. SIDEWALKS ARE NOT NECESSARY
4. THE APPROACHES FOR THE TEMPORARY BRIDGE SHALL BE PAVED.

DESIGN VALUES

| | |
|--|--------------------------|
| 1. DESIGN LIVE LOAD | HL-93 |
| 2. FUTURE PAVEMENT | d_p : --- |
| 3. DESIGN SPAN | L : 93.00 FT |
| 4. MIN. MID-SPAN POS. CAMBER @ RELEASE (PRESTRESSED UNITS) | Δ : --- |
| 5. PRESTRESSING STRAND | f_y : --- |
| 6. PRESTRESSED CONCRETE STRENGTH | f'_c : --- |
| 7. PRESTRESSED CONCRETE RELEASE STRENGTH | f'_{cr} : --- |
| 8. HIGH PERFORMANCE CONCRETE, CLASS PCD | f'_c : --- |
| 9. HIGH PERFORMANCE CONCRETE, CLASS PCS | f'_c : --- |
| 10. CONCRETE HIGH PERFORMANCE, CLASS SCC | f'_c : --- |
| 11. CONCRETE, CLASS C | f'_c : --- |
| 12. REINFORCING STEEL | f_y : 60 KSI |
| 13. STRUCTURAL STEEL AASHTO M270 (WEATHERING) | f_y : 50 KSI |
| 14. NOMINAL BEARING RESISTANCE OF SOIL | q_n : --- |
| 15. SOIL BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) | ϕ : --- |
| 16. NOMINAL BEARING RESISTANCE OF ROCK | q_n : --- |
| 17. ROCK BEARING RESISTANCE FACTOR (REFER TO AASHTO LRFD) | ϕ : --- |
| 18. PILE RESISTANCE FACTOR | ϕ : --- |
| 19. LATERAL PILE DEFLECTION | Δ : --- |
| 20. BASIC WIND SPEED | V_{3s} : --- |
| 21. MINIMUM GROUND SNOWLOAD | p_g : --- |
| 22. SEISMIC DATA | PGA : --- S : --- |
| 23. | --- |
| 24. | --- |
| 25. | --- |
| 26. | --- |

LRFR LOAD RATING FACTORS

| LOADING LEVELS | TRUCK | | | | | | |
|----------------|-------|-------|-----|--------|----------|----------|----------|
| | H-20 | HL-93 | 3S2 | 6 AXLE | 3A. STR. | 4A. STR. | 5A. SEMI |
| TONNAGE | 20 | 36 | 36 | 66 | 30 | 34.5 | 38 |
| INVENTORY | | | | | | | |
| POSTING | | | | | | | |
| OPERATING | | | | | | | |
| COMMENTS: | | | | | | | |

TRAFFIC DATA

AS BUILT "REBAR" DETAIL

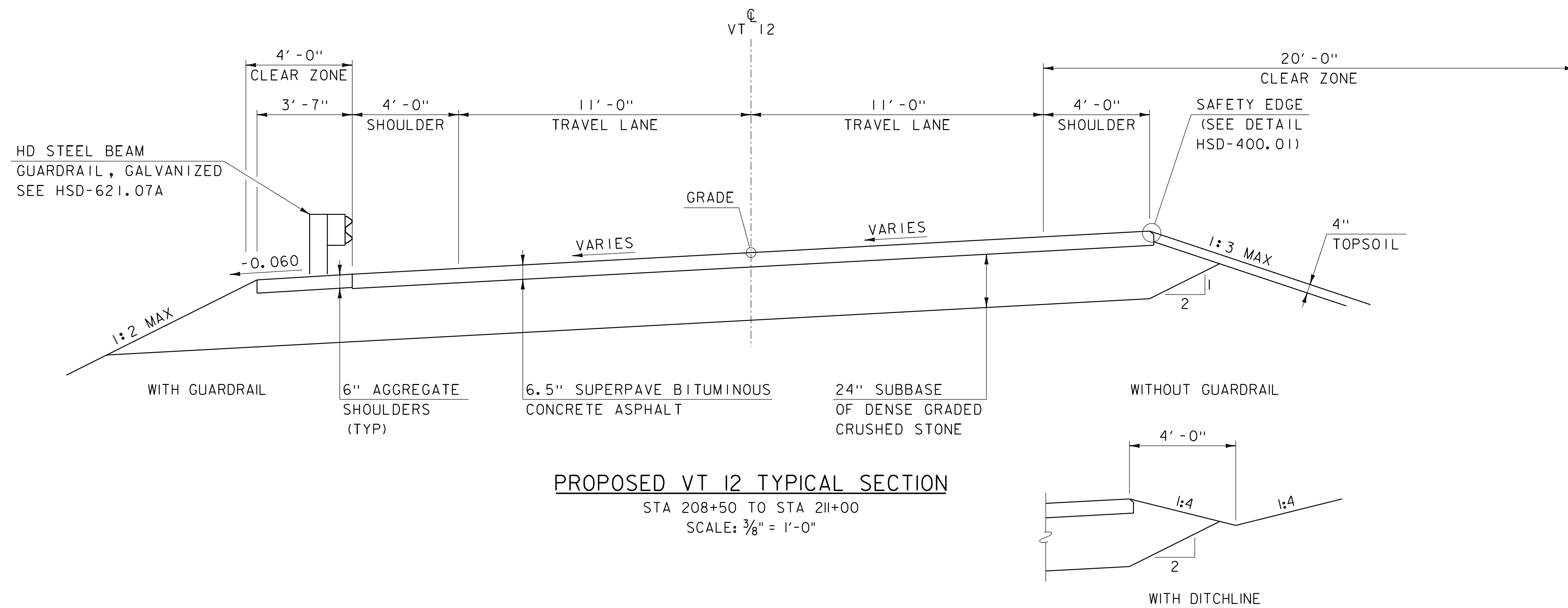
| YEAR | ADT | DHV | % D | % T | ADTT | 20 year ESAL for flexible pavement from 2023 to 2043 : 451000 | 40 year ESAL for flexible pavement from 2023 to 2063 : 1063000 | Design Speed : 50 mph |
|------|------|-----|-----|-----|------|---|--|-----------------------|
| 2023 | 1500 | 230 | 61 | 6 | 95 | | | |
| 2043 | 1700 | 260 | 61 | 8.8 | 150 | | | |

| LEVEL I | | | LEVEL II | | | LEVEL III | | |
|---------|--|--|----------|--|--|-----------|--|--|
| TYPE: | | | TYPE: | | | TYPE: | | |
| GRADE: | | | GRADE: | | | GRADE: | | |

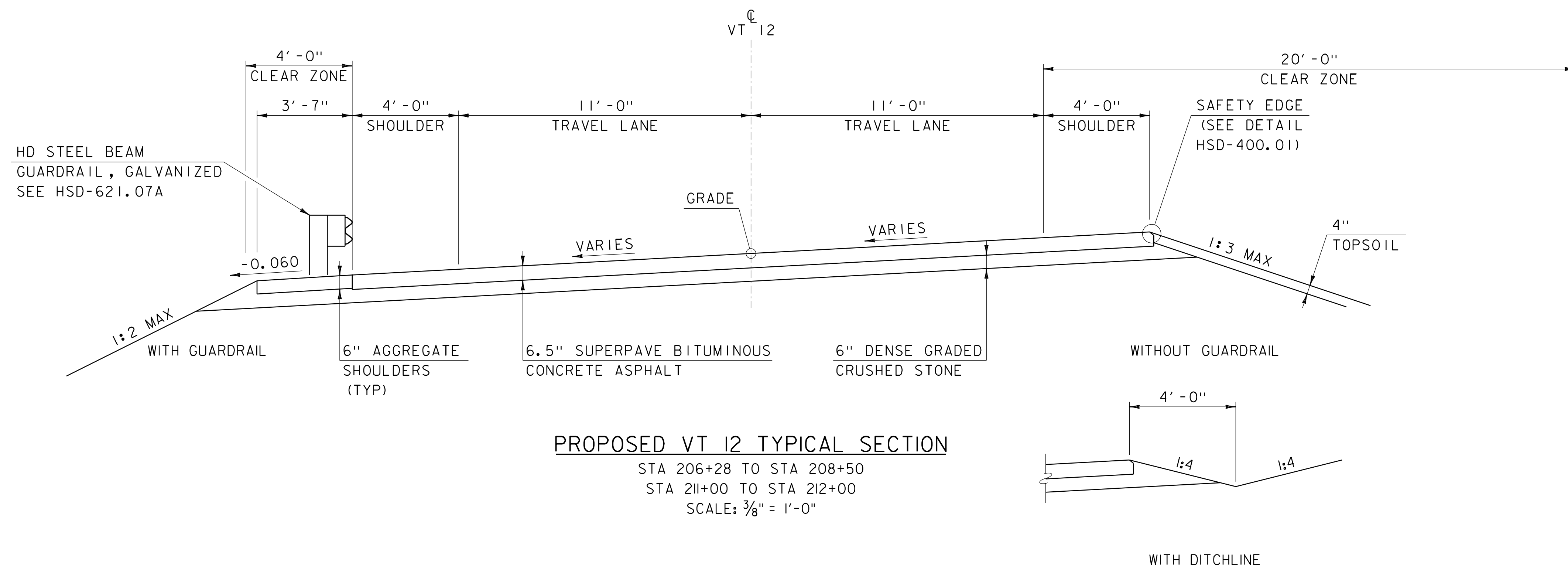


PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053pi.dgn PLOT DATE: 3/3/2021
PROJECT LEADER: L. STONE DRAWN BY: P.DUSTIN
DESIGNED BY: J.SEMPRINI CHECKED BY: E.WEINGARTNER
PRELIMINARY INFORMATION SHEET SHEET 2 OF 22



PROPOSED VT 12 TYPICAL SECTION
 STA 208+50 TO STA 211+00
 SCALE: 3/8" = 1'-0"



PROPOSED VT 12 TYPICAL SECTION
 STA 206+28 TO STA 208+50
 STA 211+00 TO STA 212+00
 SCALE: 3/8" = 1'-0"

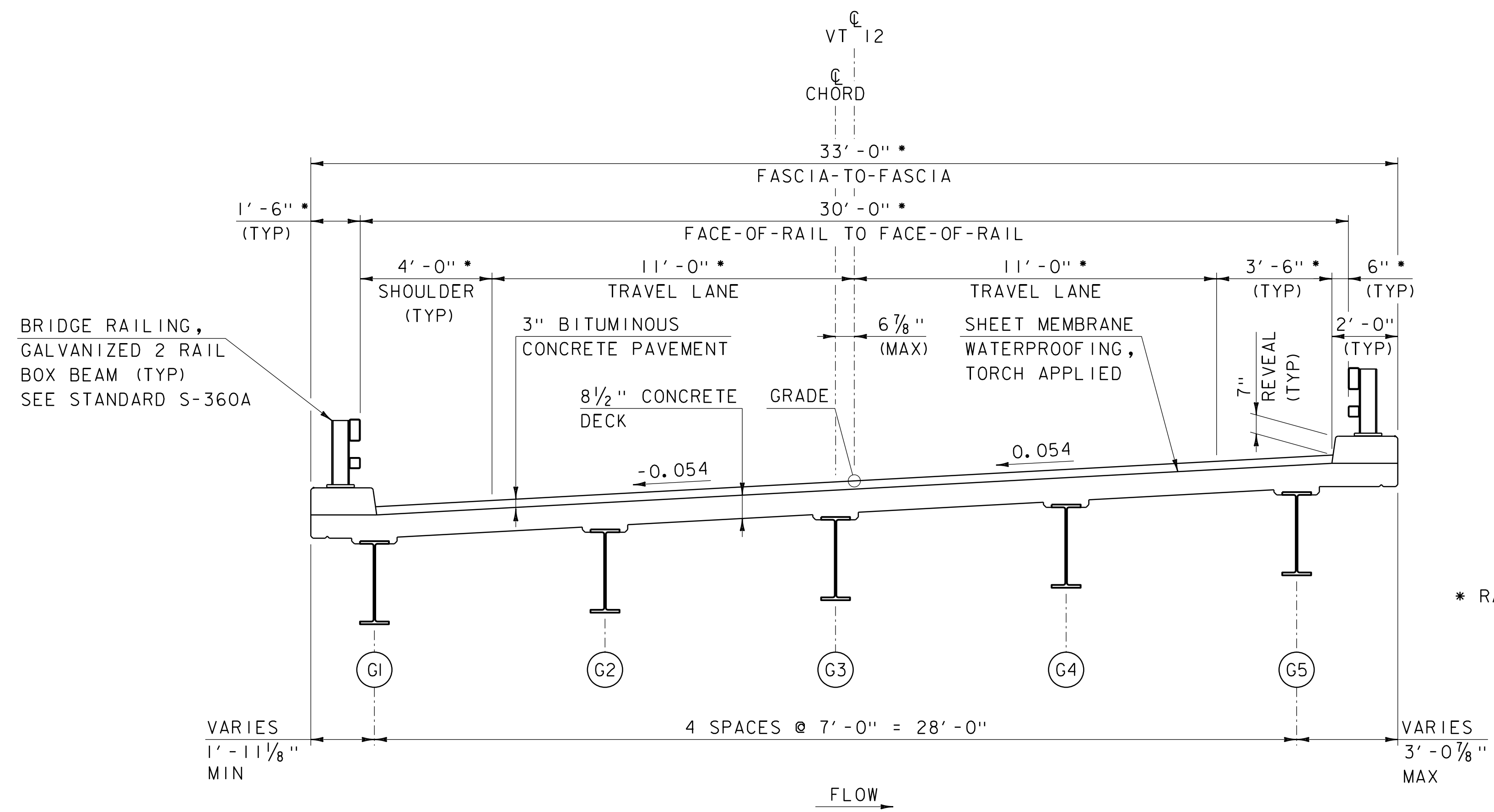
MATERIAL TOLERANCES
 (IF USED ON PROJECT)

| | |
|------------------------------|----------|
| SURFACE | |
| - PAVEMENT (TOTAL THICKNESS) | +/- 1/4" |
| - AGGREGATE SURFACE COURSE | +/- 1/2" |
| SUBBASE | +/- 1" |
| SAND BORROW | +/- 1" |

NOTES

- ROADWAY TYPICAL SECTION IS A GENERAL REPRESENTATION OF TYPICAL ROADWAY MATERIALS AND SLOPES. REFER TO THE ROADWAY PLANS FOR LOCATION OF GUARDRAIL AND SLOPE TIE IN LOCATIONS.
- 6.5" SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SHALL CONSIST OF THE FOLLOWING:
 1.5" TYPE IVS WEARING COURSE OVER
 1.5" TYPE IVS BINDER COURSE
 3.5" TYPE IIS BASE COURSE
- EMULSIFIED ASPHALT IS TO BE APPLIED AT A RATE OF 0.025 GAL/SY BETWEEN SUCCESSIVE COURSES OF NEW PAVEMENT AND 0.08 GAL/SY ON COLD PLANED SURFACES AS DIRECTED BY THE ENGINEER.

| | | | | | |
|-----------------|-------------|--------------------|----------------|-------------|----------------|
| PROJECT NAME: | WORCESTER | FILE NAME: | z86e053typ.dgn | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | PROJECT LEADER: | L. STONE | DRAWN BY: | P. DUSTIN |
| | | DESIGNED BY: | J. SEMPRINI | CHECKED BY: | E. WEINGARTNER |
| | | TYPICAL SECTIONS 1 | | | SHEET 3 OF 22 |



TYPICAL BRIDGE SECTION

SCALE: 3/8" = 1'-0"

PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053typ.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: J. SEMPRINI
TYPICAL SECTIONS 2

PLOT DATE: 3/3/2021
DRAWN BY: P. DUSTIN
CHECKED BY: E. WEINGARTNER
SHEET 4 OF 22

Hoyle, Tanner
& Associates, Inc.

GENERAL INFORMATION

SYMBOLOLOGY LEGEND NOTE

THE SYMBOLOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOLOGY. THE SYMBOLOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R. O. W. ABBREVIATIONS (CODES) & SYMBOLS

| POINT CODE | DESCRIPTION |
|------------|------------------------------|
| BF | BARRIER FENCE |
| CH | CHANNEL EASEMENT |
| CONST | CONSTRUCTION EASEMENT |
| CUL | CULVERT EASEMENT |
| D&C | DISCONNECT & CONNECT |
| DIT | DITCH EASEMENT |
| DR | DRAINAGE EASEMENT |
| DRIVE | DRIVEWAY EASEMENT |
| EC | EROSION CONTROL |
| HWY | HIGHWAY EASEMENT |
| I&M | INSTALL & MAINTAIN EASEMENT |
| LAND | LANDSCAPE EASEMENT |
| PDF | PROJECT DEMARCATION FENCE |
| R&RES | REMOVE & RESET |
| R&REP | REMOVE & REPLACE |
| R.T.&I. | RIGHT, TITLE, AND INTEREST |
| SR | SLOPE RIGHT |
| UE | UTILITY EASEMENT |
| (P) | PERMANENT EASEMENT |
| (T) | TEMPORARY EASEMENT |
| ■ | BNDNS BOUND SET |
| □ | BNDNS BOUND TO BE SET |
| ⊙ | IPNF IRON PIN FOUND |
| ● | IPNS IRON PIN TO BE SET |
| ⊠ | CALC EXISTING ROW POINT |
| ○ | PROW PROPOSED ROW POINT |
| [LENGTH] | LENGTH CARRIED ON NEXT SHEET |

COMMON TOPOGRAPHIC POINT SYMBOLS

| POINT CODE | DESCRIPTION |
|------------|----------------------------------|
| ⊕ | APL BOUND APPARENT LOCATION |
| ○ | BM BENCHMARK |
| □ | BND BOUND |
| ⊠ | CB CATCH BASIN |
| ⊕ | COMB COMBINATION POLE |
| ⊠ | DITHR DROP INLET THROATED DNC |
| ⊕ | EL ELECTRIC POWER POLE |
| ○ | FPOLE FLAGPOLE |
| ○ | GASFIL GAS FILLER |
| ○ | GP GUIDE POST |
| × | GSO GAS SHUT OFF |
| ○ | GUY GUY POLE |
| ○ | GUYW GUY WIRE |
| × | GV GATE VALVE |
| ⊕ | H TREE HARDWOOD |
| △ | HCTRL CONTROL HORIZONTAL |
| △ | HVCTRL CONTROL HORIZ. & VERTICAL |
| ◇ | HYD HYDRANT |
| ○ | IP IRON PIN |
| ○ | IPIPE IRON PIPE |
| ⊕ | LI LIGHT - STREET OR YARD |
| ○ | MB MAILBOX |
| ○ | MH MANHOLE (MH) |
| □ | MM MILE MARKER |
| ○ | PM PARKING METER |
| □ | PMK PROJECT MARKER |
| ○ | POST POST STONE/WOOD |
| ⊕ | RRSIG RAILROAD SIGNAL |
| ● | RRSL RAILROAD SWITCH LEVER |
| ⊕ | S TREE SOFTWOOD |
| ○ | SAT SATELLITE DISH |
| ⊕ | SHRUB SHRUB |
| ⊕ | SIGN SIGN |
| ⊕ | STUMP STUMP |
| ○ | TEL TELEPHONE POLE |
| ○ | TIE TIE |
| ⊕ | TSIGN SIGN W/DOUBLE POST |
| ⊕ | VCTRL CONTROL VERTICAL |
| ○ | WELL WELL |
| × | WSO WATER SHUT OFF |

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

| CODE | DESCRIPTION |
|------|-------------------------|
| PC | POINT OF CURVATURE |
| PI | POINT OF INTERSECTION |
| CC | CENTER OF CURVE |
| PT | POINT OF TANGENCY |
| PCC | POINT OF COMPOUND CURVE |
| PRC | POINT OF REVERSE CURVE |
| POB | POINT OF BEGINNING |
| POE | POINT OF ENDING |
| STA | STATION PREFIX |
| AH | AHEAD STATION SUFFIX |
| BK | BACK STATION SUFFIX |
| D | CURVE DEGREE OF (100FT) |
| R | CURVE RADIUS OF |
| T | CURVE TANGENT LENGTH |
| L | CURVE LENGTH OF |
| E | CURVE EXTERNAL DISTANCE |
| CB | CHORD BEARING |

UTILITY SYMBOLOLOGY

UNDERGROUND UTILITIES

| | |
|----------|---------------------------|
| — UGU — | UTILITY (GENERIC-UNKNOWN) |
| — UT — | TELEPHONE |
| — UE — | ELECTRIC |
| — UC — | CABLE (TV) |
| — UEC — | ELECTRIC+CABLE |
| — UET — | ELECTRIC+TELEPHONE |
| — UCT — | CABLE+TELEPHONE |
| — UECT — | ELECTRIC+CABLE+TELEPHONE |
| — G — | GAS LINE |
| — W — | WATER LINE |
| — S — | SANITARY SEWER (SEPTIC) |

ABOVE GROUND UTILITIES (AERIAL)

| | |
|-------------|---------------------------|
| — AGU — | UTILITY (GENERIC-UNKNOWN) |
| — T — | TELEPHONE |
| — E — | ELECTRIC |
| — C — | CABLE (TV) |
| — EC — | ELECTRIC+CABLE |
| — ET — | ELECTRIC+TELEPHONE |
| — AER E&T — | ELECTRIC+TELEPHONE |
| — CT — | CABLE+TELEPHONE |
| — ECT — | ELECTRIC+CABLE+TELEPHONE |
| — | UTILITY POLE GUY WIRE |

PROJECT CONSTRUCTION SYMBOLOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOLOGY

| | |
|----------------|-----------------------|
| — — — CZ — — — | CLEAR ZONE |
| ————— | PLAN LAYOUT MATCHLINE |

PROJECT CONSTRUCTION FEATURES

| | |
|----------------------|----------------------------|
| △ — △ — △ — △ | TOP OF CUT SLOPE |
| ○ — ○ — ○ — ○ | TOE OF FILL SLOPE |
| ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ | STONE FILL |
| ----- | BOTTOM OF DITCH |
| ----- | CULVERT PROPOSED |
| ----- | STRUCTURE SUBSURFACE |
| PDF — PDF — | PROJECT DEMARCATION FENCE |
| BF — — — BF — — — | BARRIER FENCE |
| XXXXXXXXXXXXXXXXXXXX | TREE PROTECTION ZONE (TPZ) |
| ////// | STRIPING LINE REMOVAL |
| ~~~~~ | SHEET PILES |

CONVENTIONAL BOUNDARY SYMBOLOLOGY

BOUNDARY LINES

| | |
|------------------|--|
| ————— | TOWN BOUNDARY LINE |
| ————— | COUNTY BOUNDARY LINE |
| ————— | STATE BOUNDARY LINE |
| ——— | PROPOSED STATE R.O.W. (LIMITED ACCESS) |
| ——— | PROPOSED STATE R.O.W. |
| ——— | STATE ROW (LIMITED ACCESS) |
| ——— | STATE ROW |
| ——— | TOWN ROW |
| ----- | PERMANENT EASEMENT LINE (P) |
| ----- | TEMPORARY EASEMENT LINE (T) |
| + | SURVEY LINE |
| P L P L | PROPERTY LINE (P/L) |
| △ SR ○ SR △ SR ○ | SLOPE RIGHTS |
| 6f ——— 6f ——— | 6F PROPERTY BOUNDARY |
| 4f ——— 4f ——— | 4F PROPERTY BOUNDARY |
| HAZ ——— HAZ ——— | HAZARDOUS WASTE |

EPSC LAYOUT PLAN SYMBOLOLOGY

EPSC MEASURES

| | |
|--------------|---|
| ONNOONNOONNO | FILTER CURTAIN |
| — — — — — | SILT FENCE |
| — — — — — | SILT FENCE WOVEN WIRE |
| ▶ — — — ▶ | CHECK DAM |
| ▬ | DISTURBED AREAS REQUIRING RE-VEGETATION |
| ⊗ | EROSION MATTING |

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLOLOGY

ENVIRONMENTAL RESOURCES

| | |
|-------------|---------------------------------|
| ——— | WETLAND BOUNDARY |
| ----- | RIPARIAN BUFFER ZONE |
| ----- | WETLAND BUFFER ZONE |
| ----- | SOIL TYPE BOUNDARY |
| T&E | THREATENED & ENDANGERED SPECIES |
| HAZ — HAZ | HAZARDOUS WASTE AREA |
| AG | AGRICULTURAL LAND |
| HABITAT | FISH & WILDLIFE HABITAT |
| FLOOD PLAIN | FLOOD PLAIN |
| OHW | ORDINARY HIGH WATER (OHW) |
| — — — — — | STORM WATER |
| ----- | USDA FOREST SERVICE LANDS |
| ----- | WILDLIFE HABITAT SUIT/CONN |

ARCHEOLOGICAL & HISTORIC

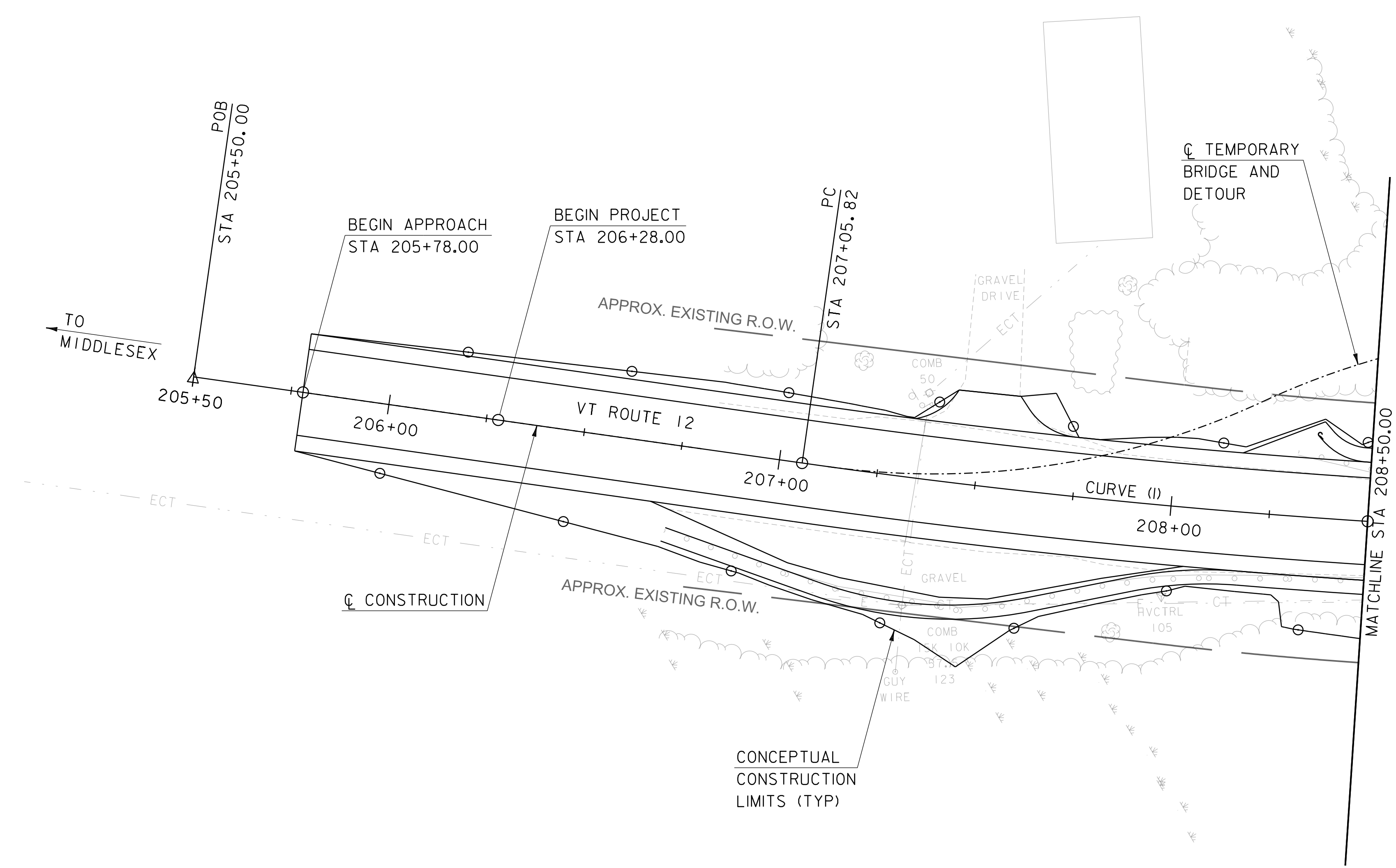
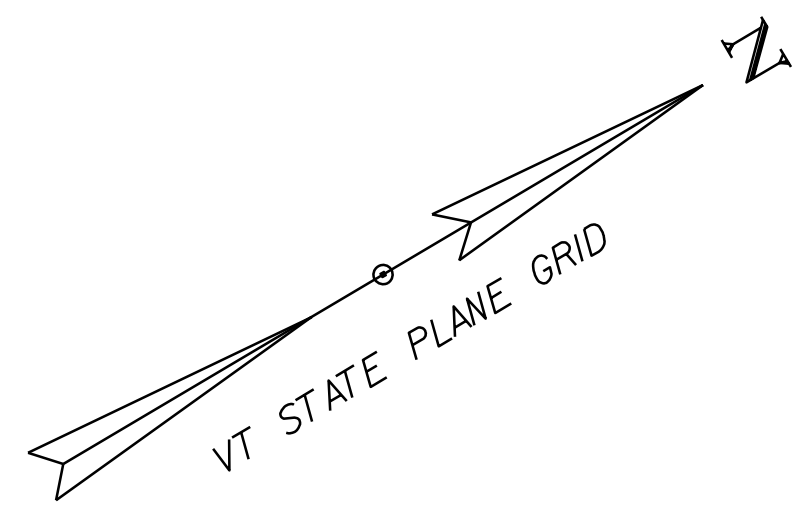
| | |
|---------------|----------------------------|
| ARCH | ARCHEOLOGICAL BOUNDARY |
| HISTORIC DIST | HISTORIC DISTRICT BOUNDARY |
| HISTORIC | HISTORIC AREA |
| Ⓜ | HISTORIC STRUCTURE |

CONVENTIONAL TOPOGRAPHIC SYMBOLOLOGY

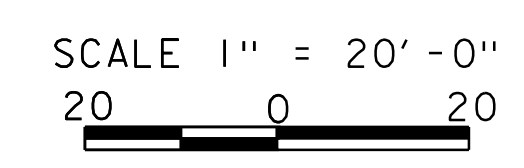
EXISTING FEATURES

| | |
|-----------------|--------------------|
| ----- | ROAD EDGE PAVEMENT |
| ----- | ROAD EDGE GRAVEL |
| ----- | DRIVEWAY EDGE |
| ----- | DITCH |
| ----- | FOUNDATION |
| x — x — x — x — | FENCE (EXISTING) |
| □ — □ — □ — □ — | FENCE WOOD POST |
| ○ — ○ — ○ — ○ — | FENCE STEEL POST |
| ~~~~~ | GARDEN |
| ○ — ○ — ○ — ○ — | ROAD GUARDRAIL |
| | RAILROAD TRACKS |
| ----- | CULVERT (EXISTING) |
| ○ — ○ — ○ — ○ — | STONE WALL |
| ----- | WALL |
| ~~~~~ | WOOD LINE |
| ~~~~~ | BRUSH LINE |
| ~~~~~ | HEDGE |
| ----- | BODY OF WATER EDGE |
| ////// | LEDGE EXPOSED |

| | |
|---------------------------------|----------------|
| PROJECT NAME: | WORCESTER |
| PROJECT NUMBER: | BF 0241(59) |
| FILE NAME: | z86e053leg.dgn |
| PROJECT LEADER: | L. STONE |
| DESIGNED BY: | J. SEMPRINI |
| CONVENTIONAL SYMBOLOLOGY LEGEND | |
| PLOT DATE: | 3/3/2021 |
| DRAWN BY: | P. DUSTIN |
| CHECKED BY: | E. WEINGARTNER |
| SHEET | 5 OF 22 |

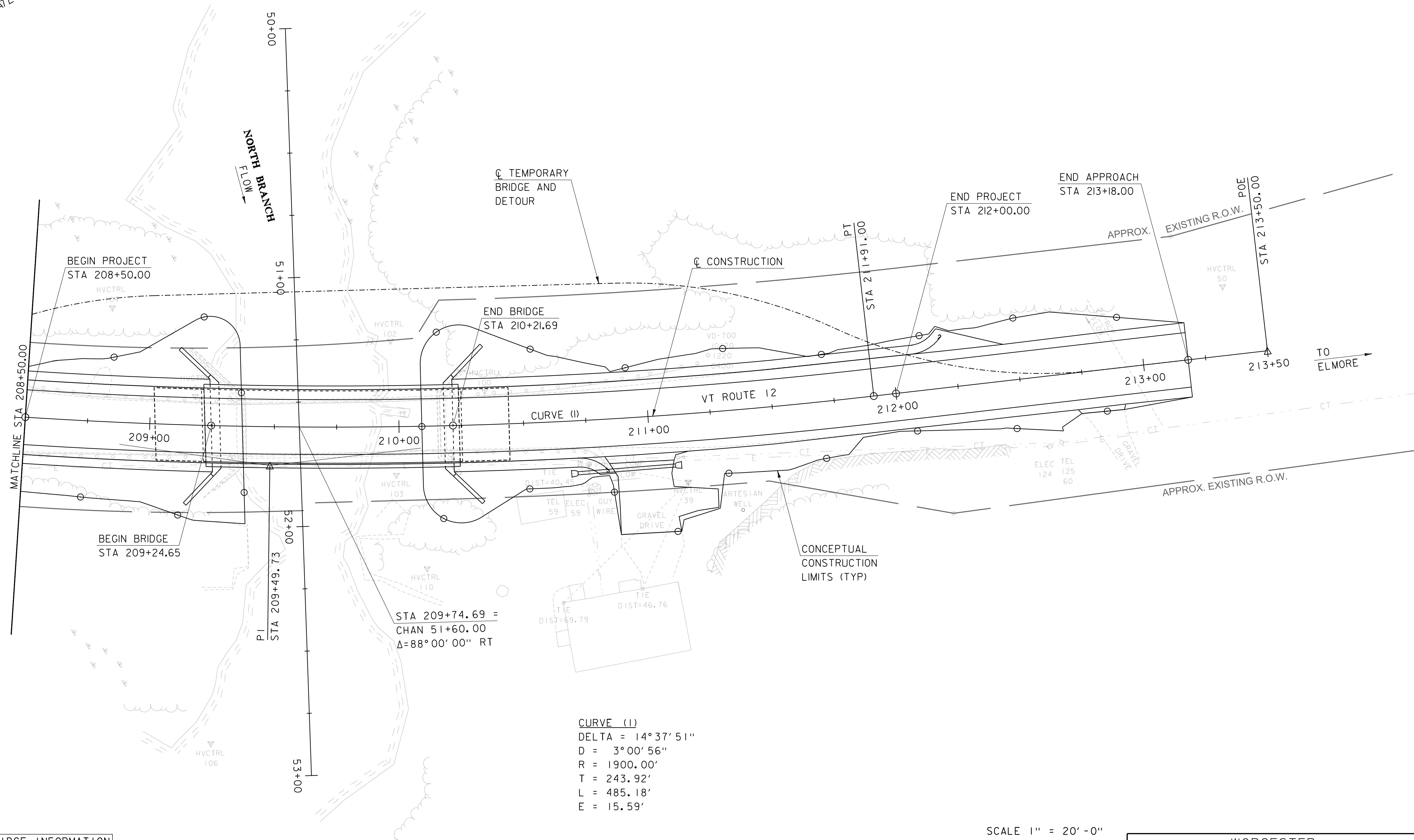
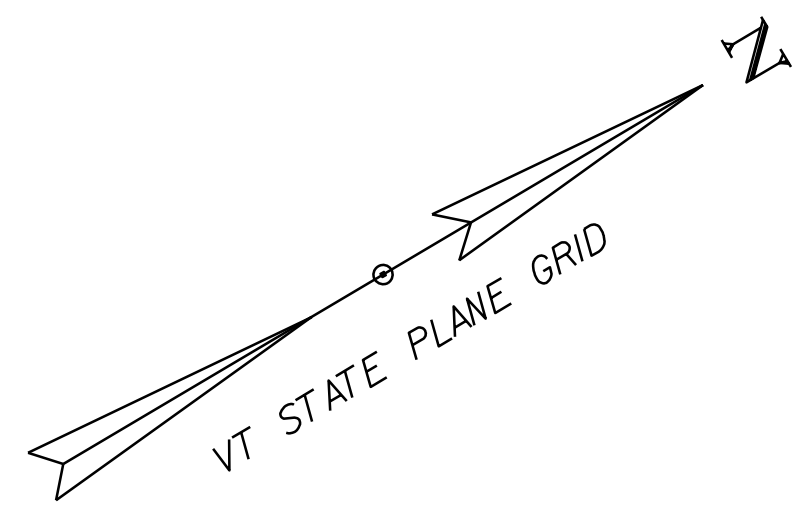


CURVE (1)
 DELTA = 14° 37' 51"
 D = 3° 00' 56"
 R = 1900.00'
 T = 243.92'
 L = 485.18'
 E = 15.59'



Hoyle, Tanner
 & Associates, Inc.

| | |
|-------------------------------|---------------------|
| PROJECT NAME: WORCESTER | |
| PROJECT NUMBER: BF 0241(59) | |
| FILE NAME: z86e053bdr_lay.dgn | PLOT DATE: 3/3/2021 |
| PROJECT LEADER: L. STONE | DRAWN BY: P. DUSTIN |
| DESIGNED BY: N. CENTERBAR | CHECKED BY: S. HAAS |
| LAYOUT SHEET 1 | SHEET 6 OF 22 |



EXISTING BRIDGE INFORMATION
 BUILT 1936
 SPAN LENGTH = 84'
 CAST-IN-PLACE CONCRETE DECK
 ON ROLLED BEAMS

CURVE (I)
 DELTA = 14°37'51"
 D = 3°00'56"
 R = 1900.00'
 T = 243.92'
 L = 485.18'
 E = 15.59'

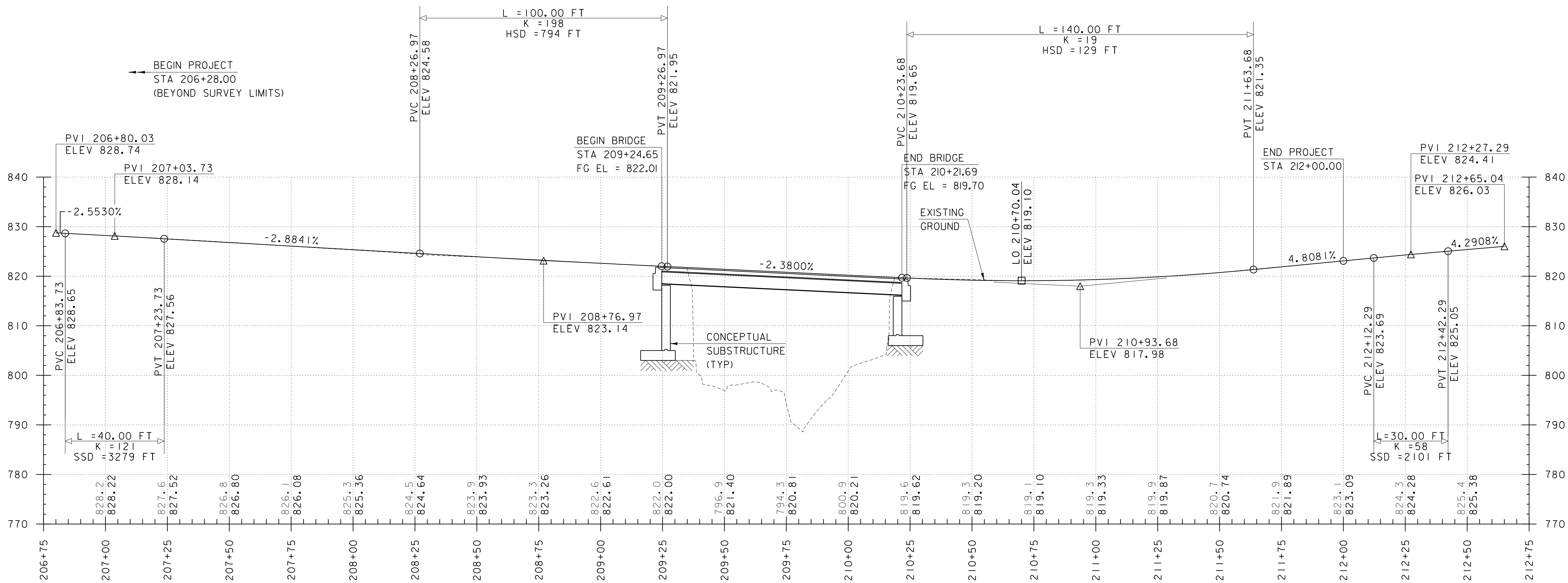
SCALE 1" = 20'-0"
 20 0 20

Hoyle, Tanner
 & Associates, Inc.

PROJECT NAME: WORCESTER
 PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053bdr_lay.dgn
 PROJECT LEADER: L. STONE
 DESIGNED BY: N.CENTERBAR
 LAYOUT SHEET 2

PLOT DATE: 3/3/2021
 DRAWN BY: P.DUSTIN
 CHECKED BY: S.HAAS
 SHEET 7 OF 22



VT ROUTE 12 PROFILE

SCALE: HORIZONTAL 1" = 20'-0"
 VERTICAL 1" = 10'-0"

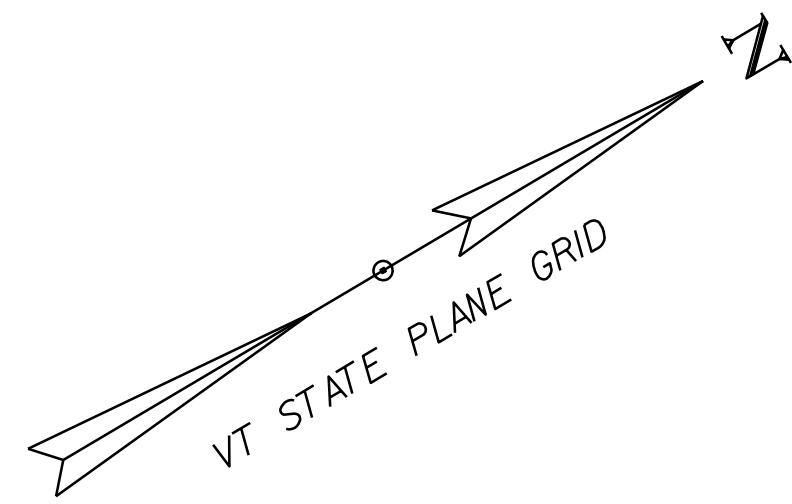
NOTE
 GRADES SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG C
 GRADES SHOWN TO THE NEAREST HUNDREDTH ARE FINISH GRADE ALONG C

PROJECT NAME: WORCESTER
 PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053pro.dgn
 PROJECT LEADER: L. STONE
 DESIGNED BY: N.CENTERBAR
 PROFILE SHEET

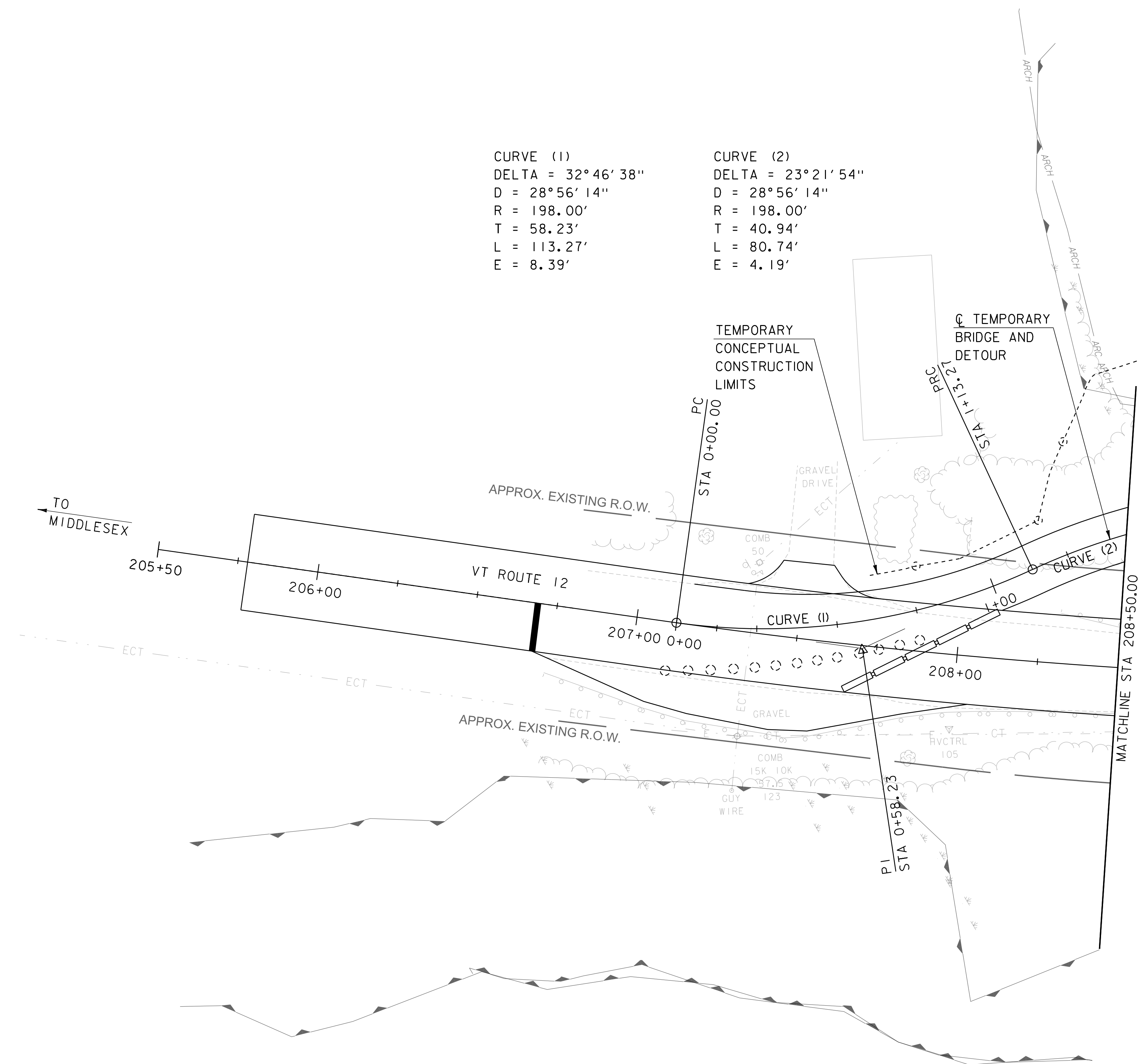
PLOT DATE: 3/3/2021
 DRAWN BY: N.CENTERBAR
 CHECKED BY: S.HAAS
 SHEET 8 OF 22





CURVE (1)
 DELTA = 32°46'38"
 D = 28°56'14"
 R = 198.00'
 T = 58.23'
 L = 113.27'
 E = 8.39'

CURVE (2)
 DELTA = 23°21'54"
 D = 28°56'14"
 R = 198.00'
 T = 40.94'
 L = 80.74'
 E = 4.19'



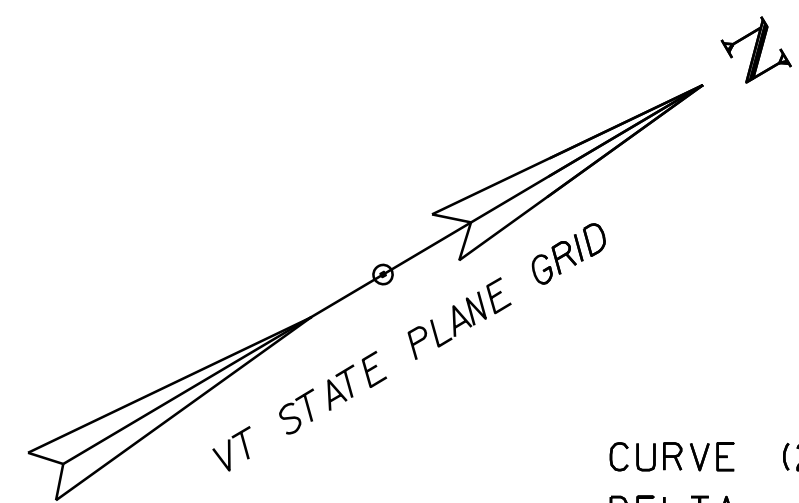
SCALE 1" = 20'-0"
 20 0 20

Hoyle, Tanner
 & Associates, Inc.

PROJECT NAME: WORCESTER
 PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053bdr_tcp.dgn
 PROJECT LEADER: L. STONE
 DESIGNED BY: N.CENTERBAR
 TRAFFIC CONTROL SHEET 1

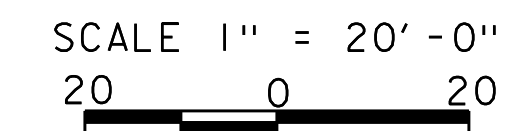
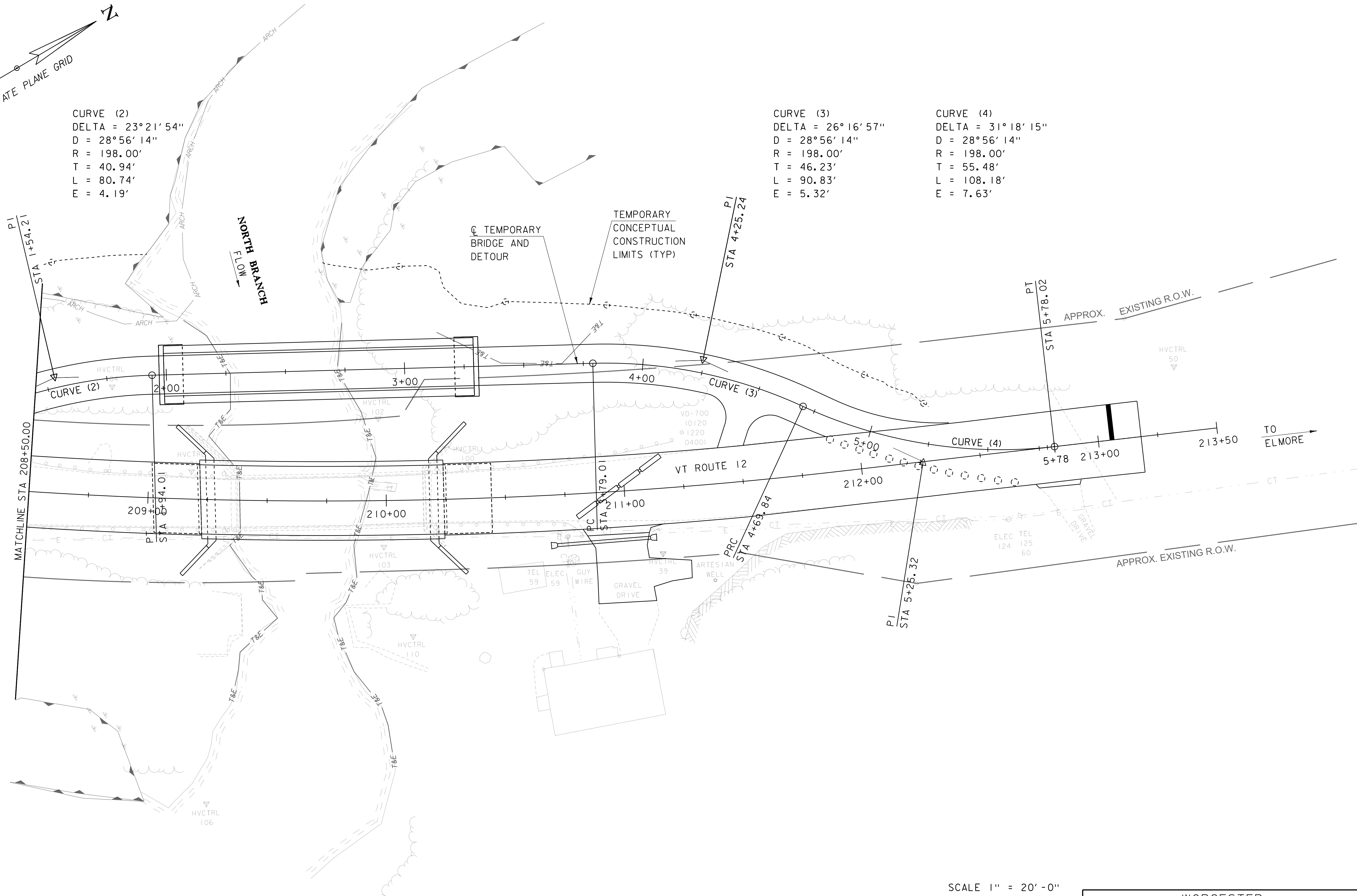
PLOT DATE: 3/3/2021
 DRAWN BY: P.DUSTIN
 CHECKED BY: S.HAAS
 SHEET 9 OF 22



CURVE (2)
 DELTA = 23°21'54"
 D = 28°56'14"
 R = 198.00'
 T = 40.94'
 L = 80.74'
 E = 4.19'

CURVE (3)
 DELTA = 26°16'57"
 D = 28°56'14"
 R = 198.00'
 T = 46.23'
 L = 90.83'
 E = 5.32'

CURVE (4)
 DELTA = 31°18'15"
 D = 28°56'14"
 R = 198.00'
 T = 55.48'
 L = 108.18'
 E = 7.63'

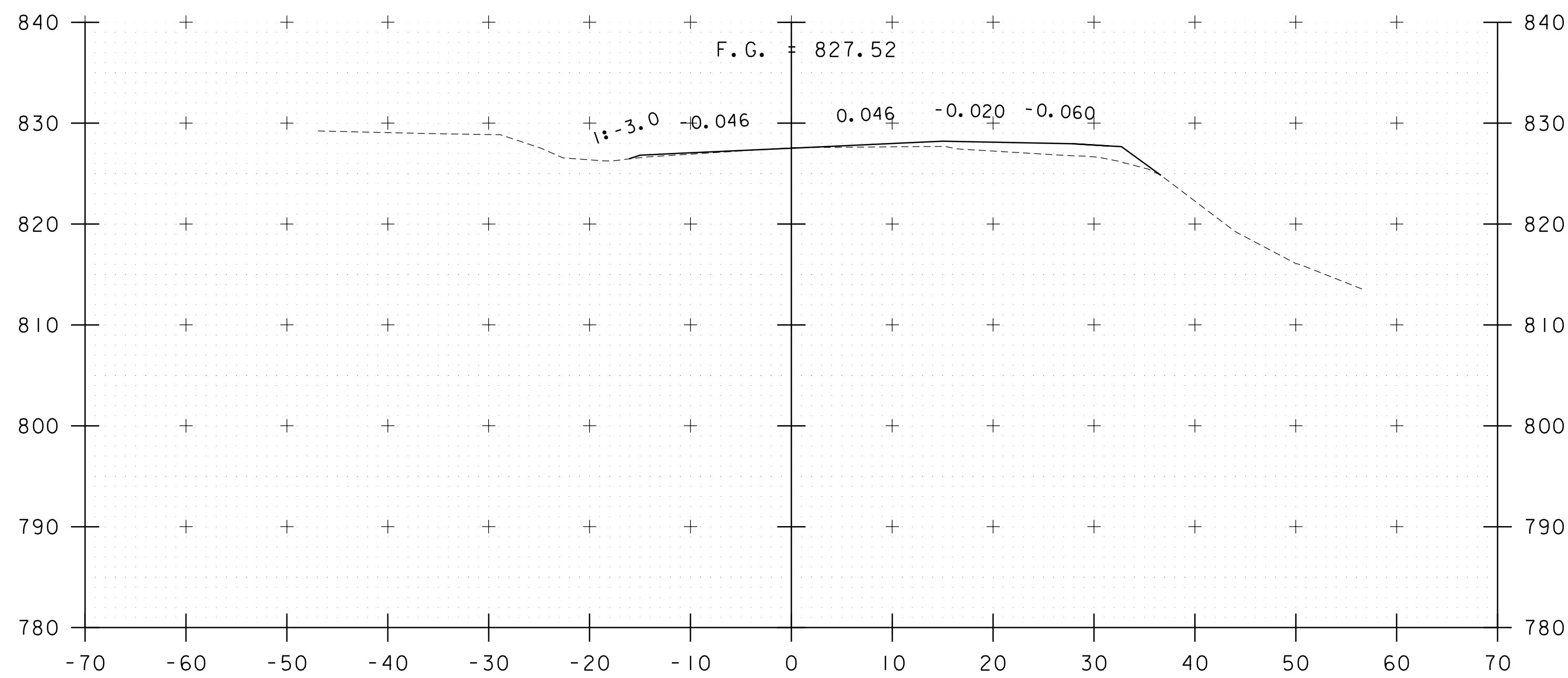


Hoyle, Tanner
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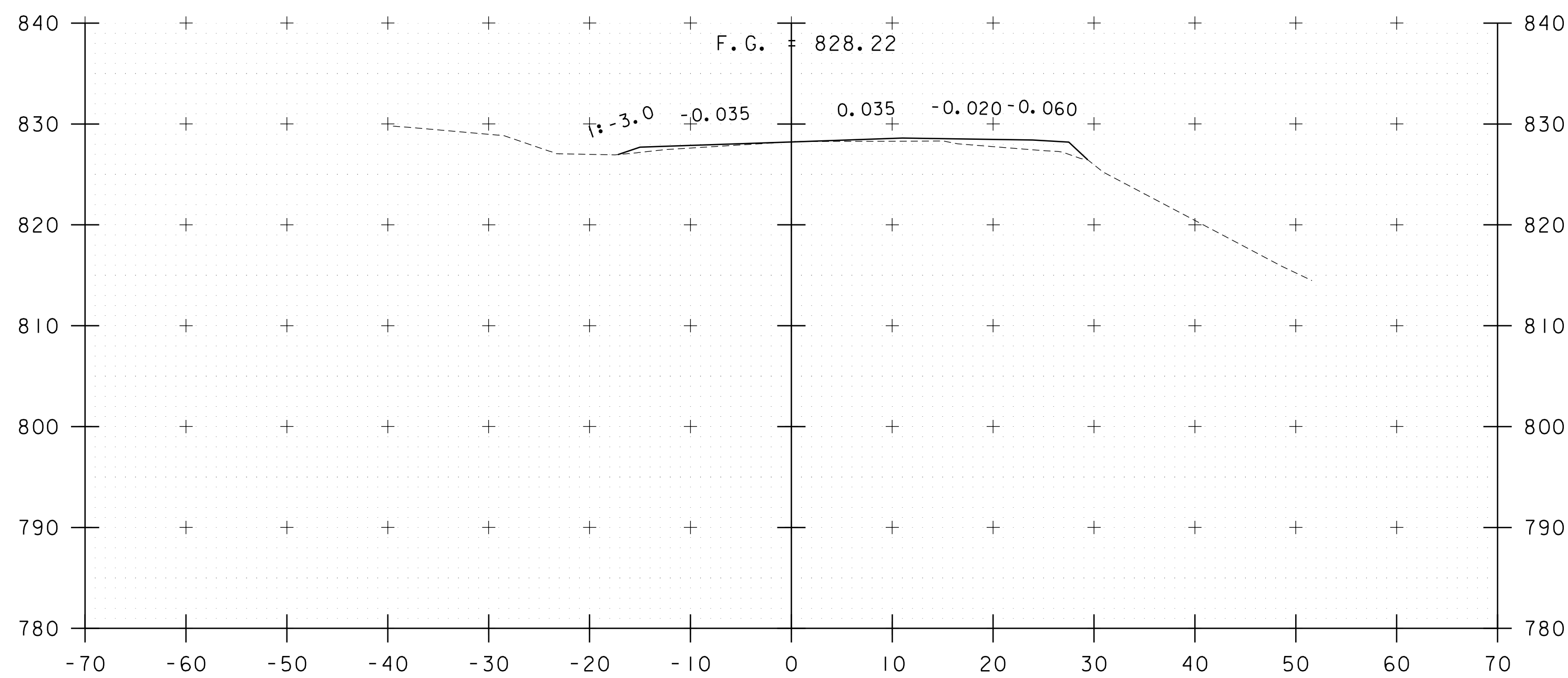
PROJECT NAME: WORCESTER
 PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053bdr_tcp.dgn
 PROJECT LEADER: L. STONE
 DESIGNED BY: N.CENTERBAR
 TRAFFIC CONTROL SHEET 2

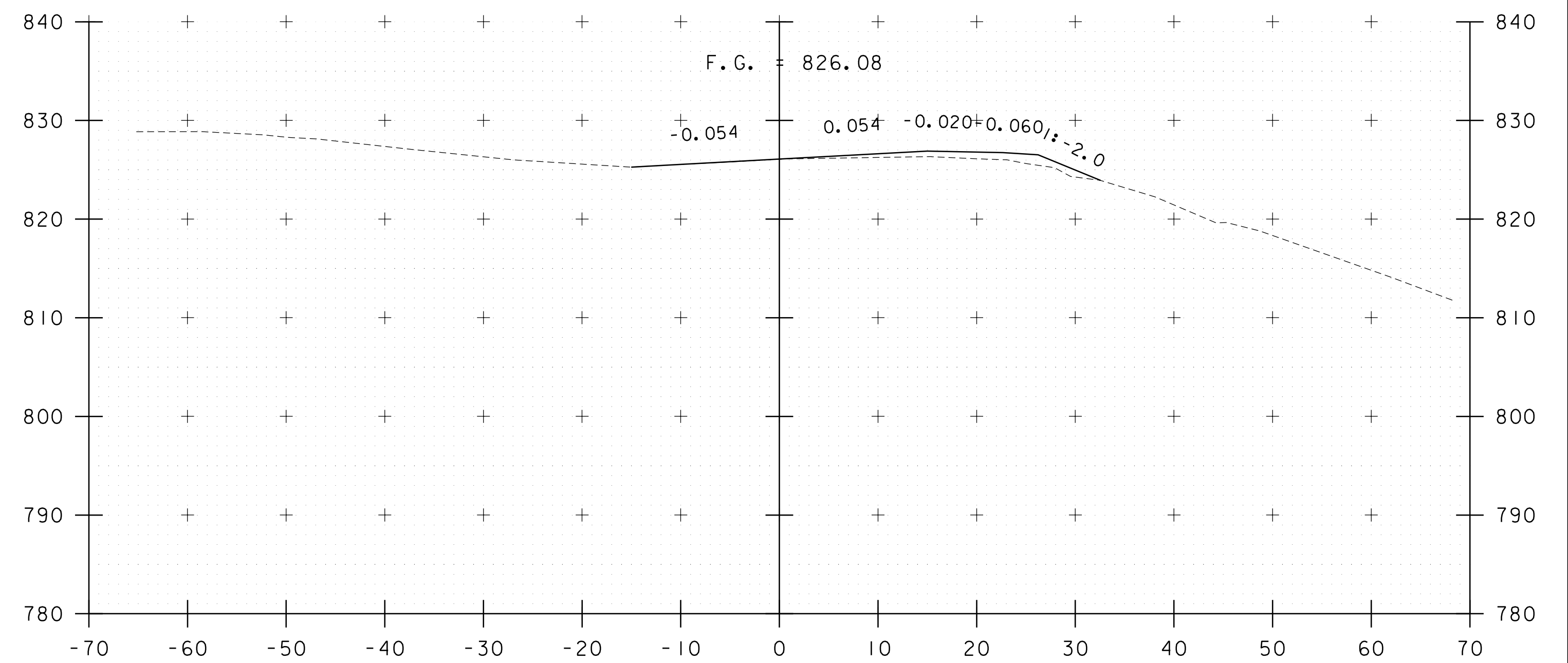
PLOT DATE: 3/3/2021
 DRAWN BY: P.DUSTIN
 CHECKED BY: S.HAAS
 SHEET 10 OF 22



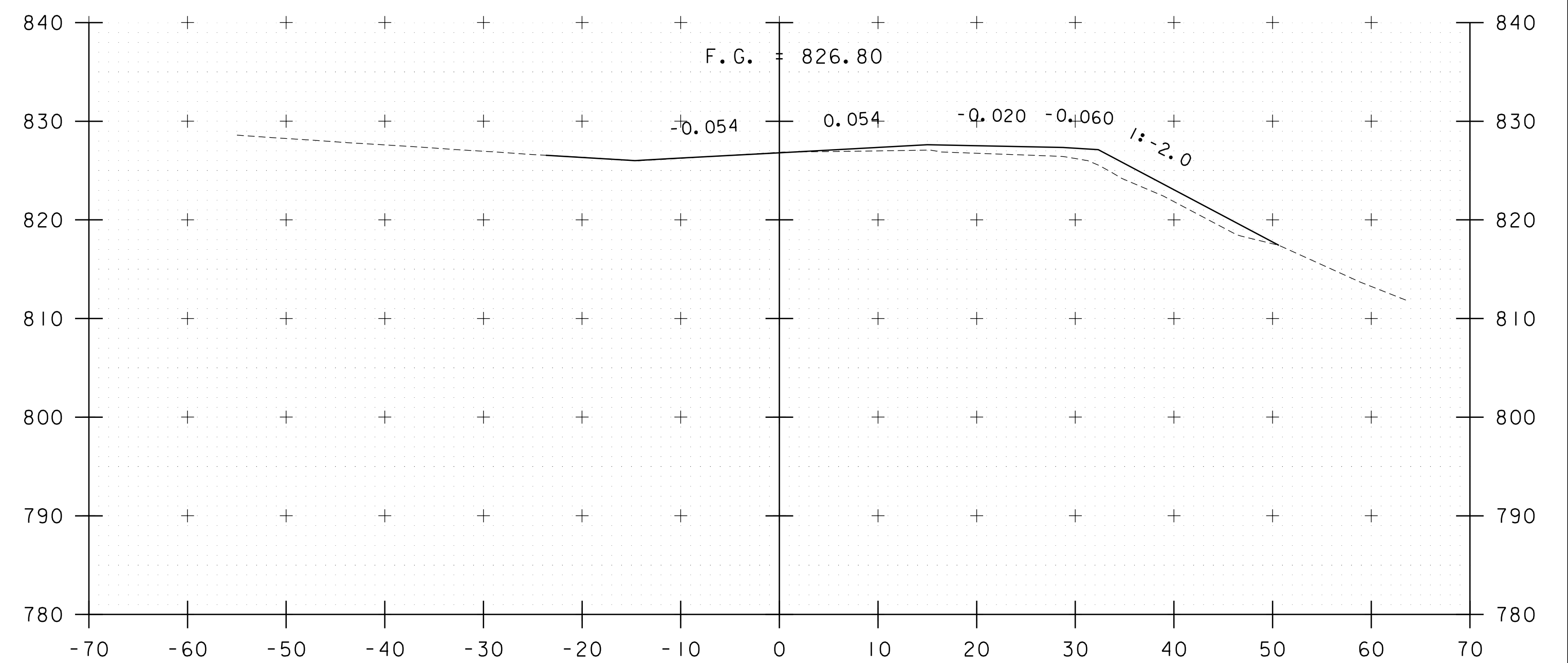
207+25



207+00



207+75



207+50

BEGIN APPROACH
STA 205+78.00

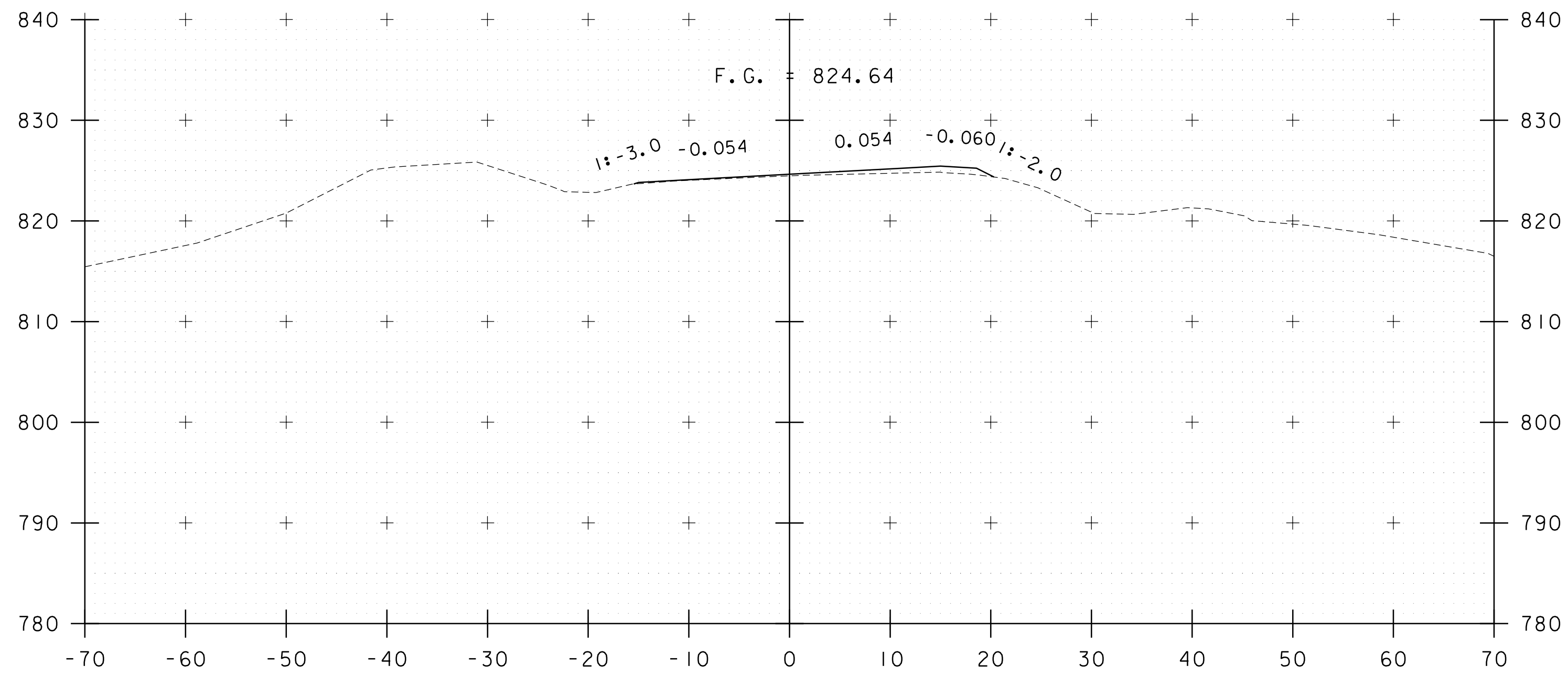
BEGIN PROJECT
STA 206+28.00

STA. 207+00 TO STA. 207+75

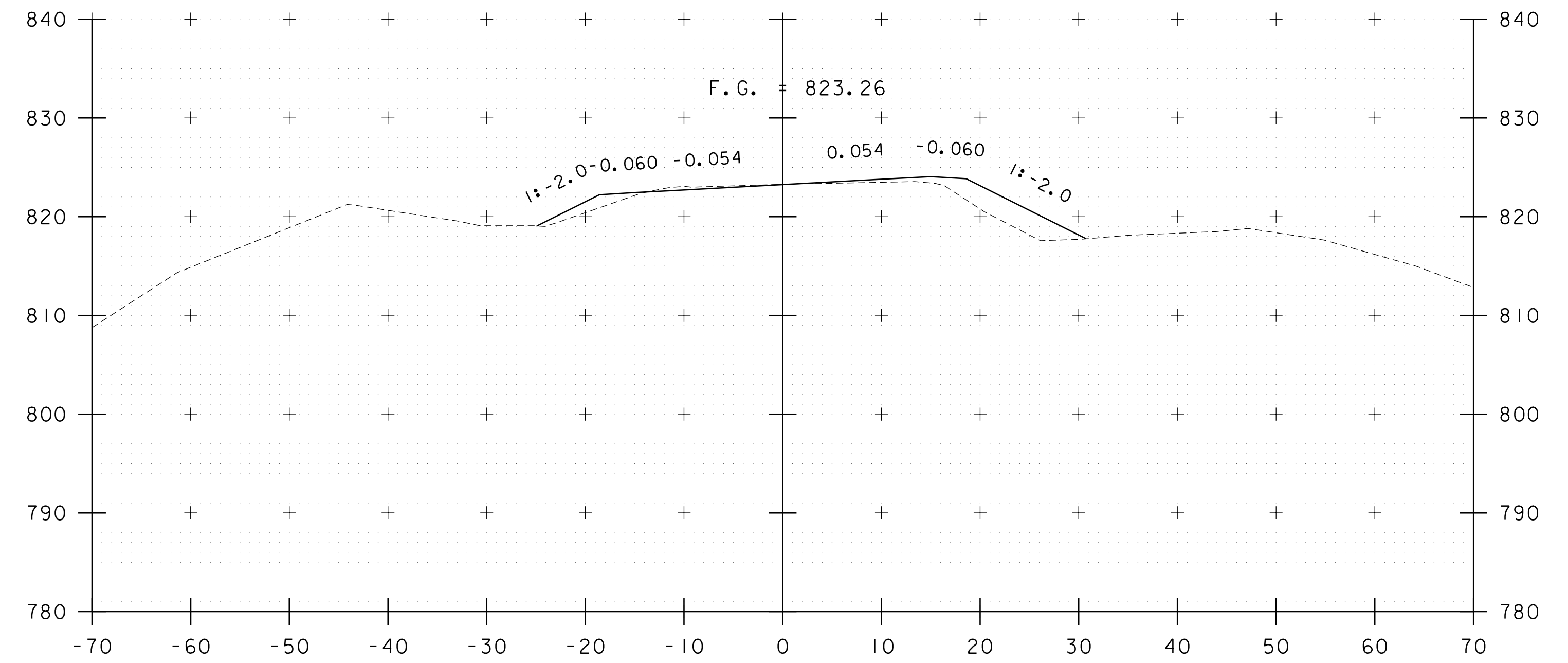
Hoyle, Tanner
& Associates, Inc.

PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)
FILE NAME: z86e053xs.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: N.CENTERBAR
ROADWAY CROSS SECTIONS I

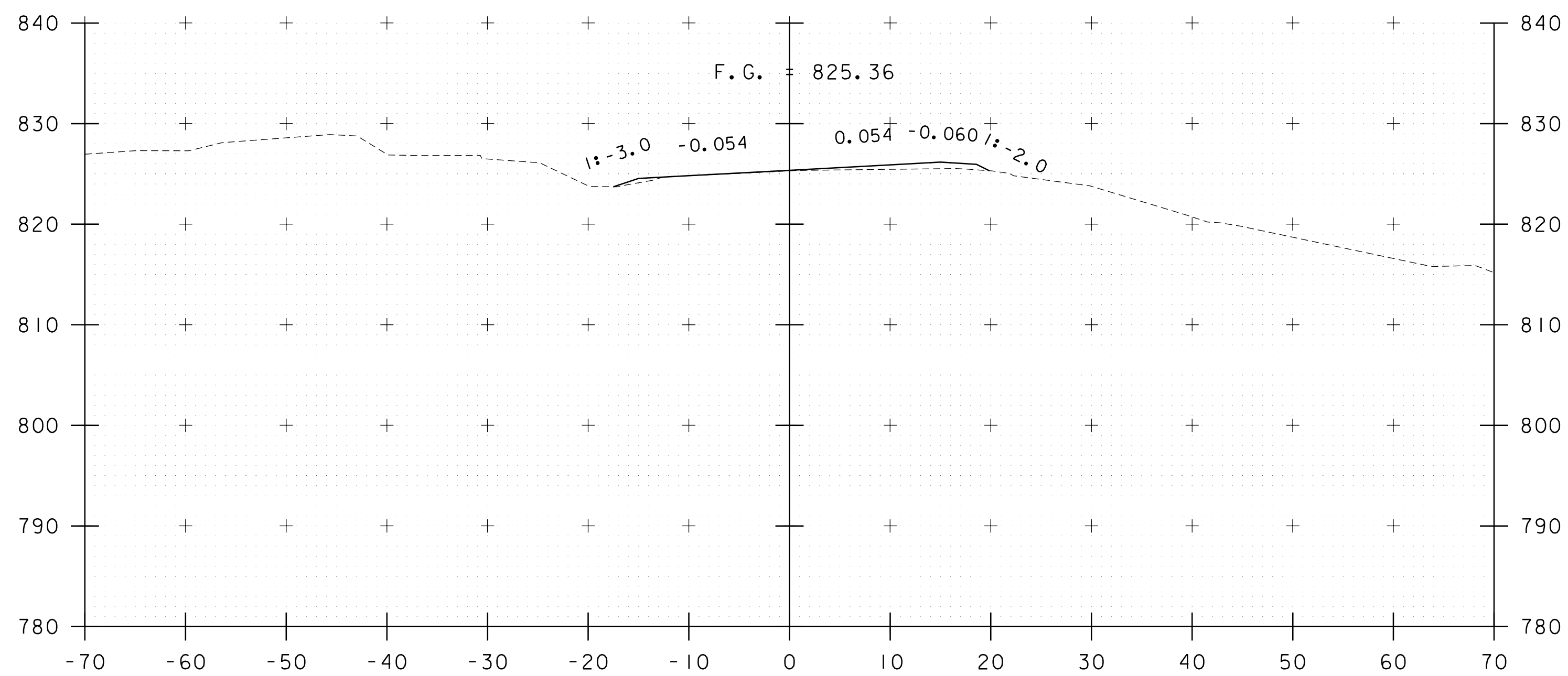
PLOT DATE: 3/3/2021
DRAWN BY: N.CENTERBAR
CHECKED BY: S.HAAS
SHEET II OF 22



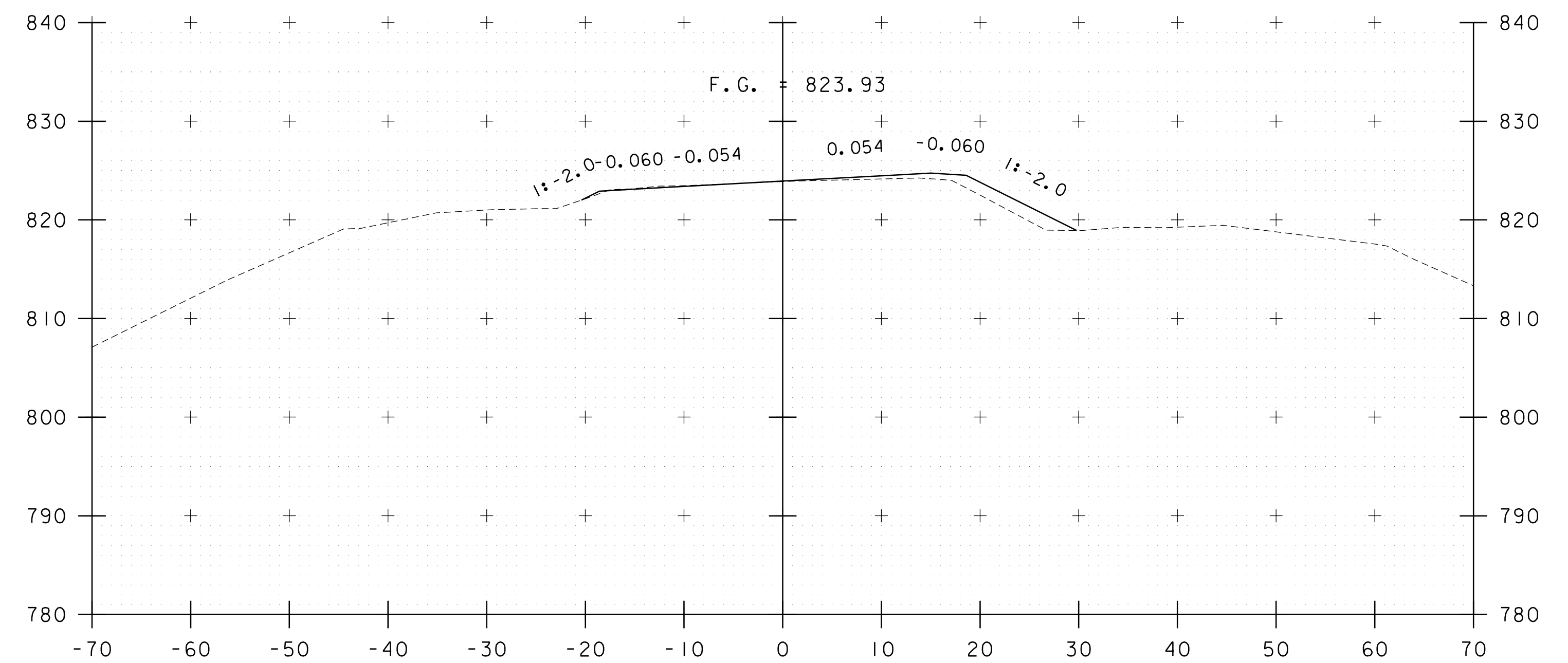
208+25



208+75



208+00

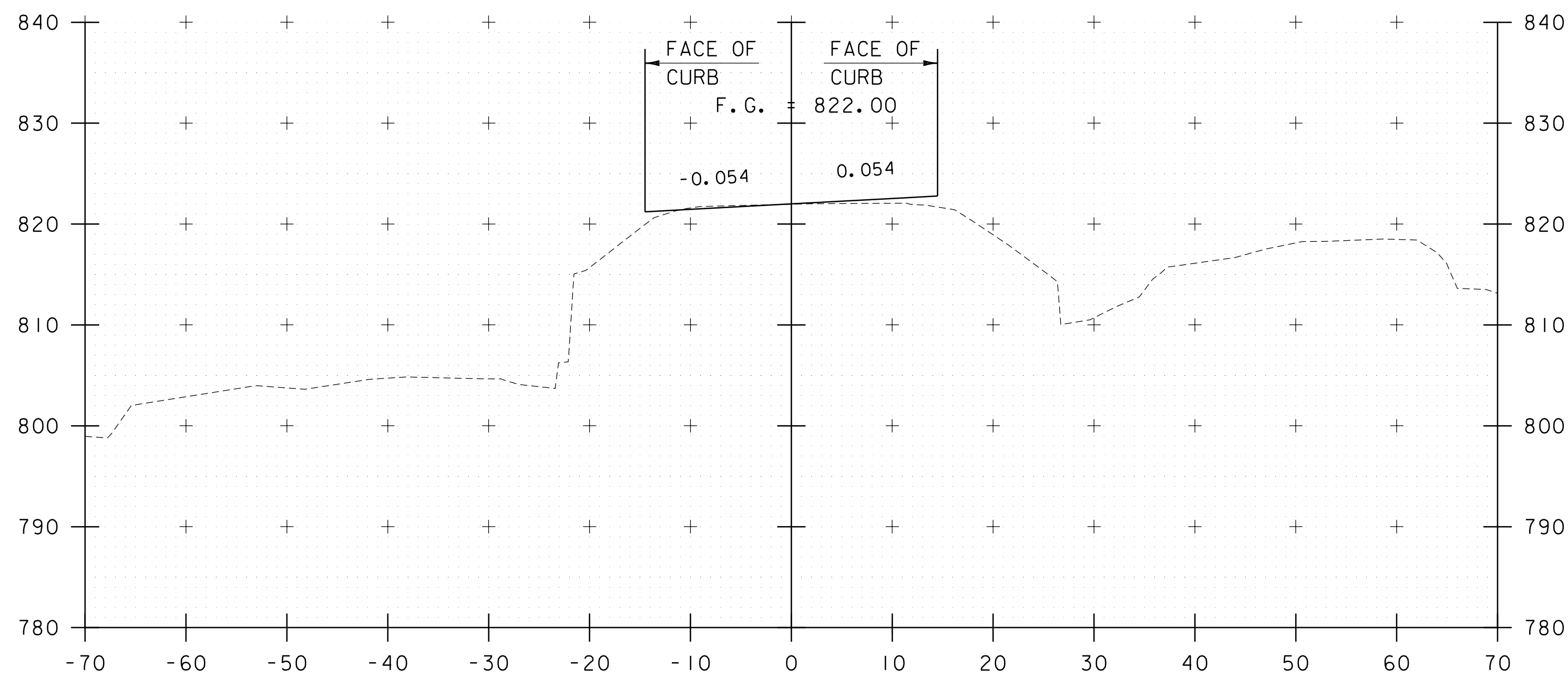


208+50

STA. 208+00 TO STA. 208+75

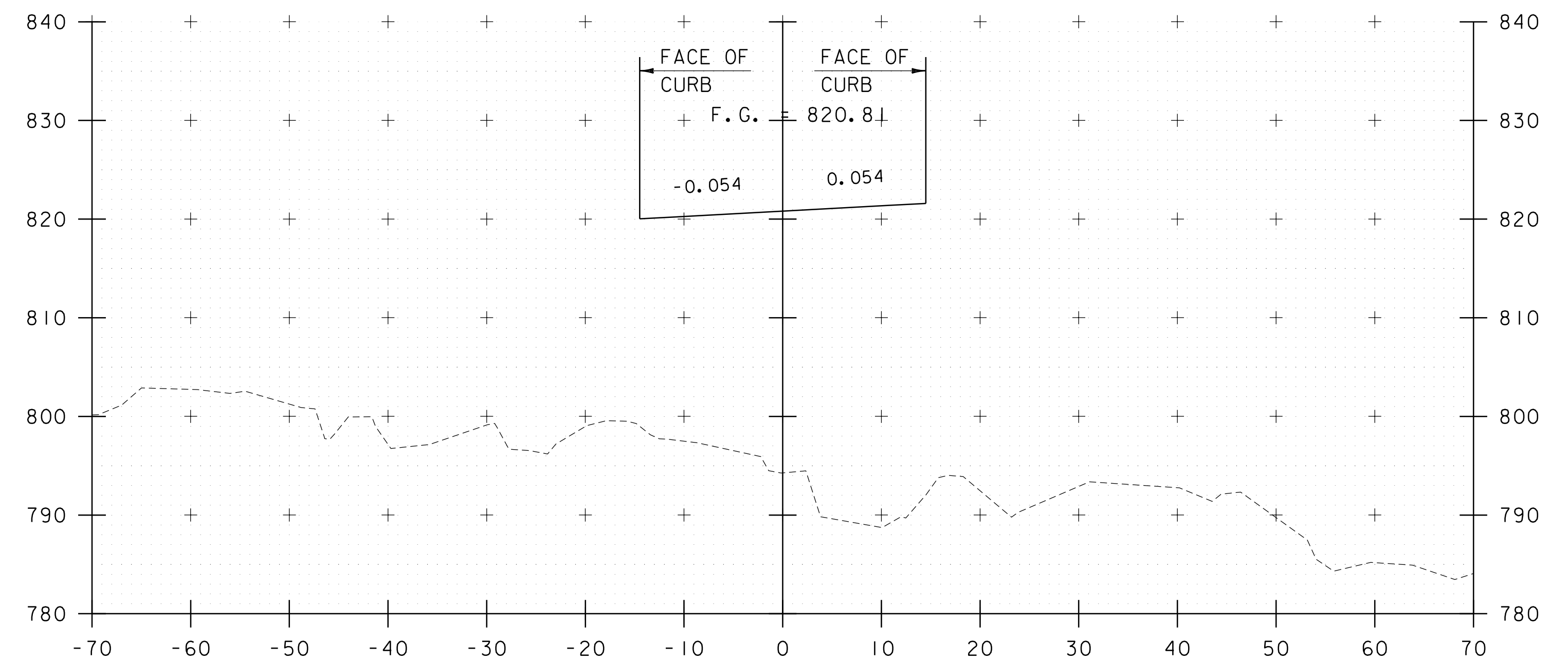


| | | | |
|-----------------|---------------|--------------------------|--------------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | N.CENTERBAR |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | N.CENTERBAR |
| PROJECT LEADER: | L. STONE | ROADWAY CROSS SECTIONS 2 | CHECKED BY: S.HAAS |
| | | | SHEET 12 OF 22 |

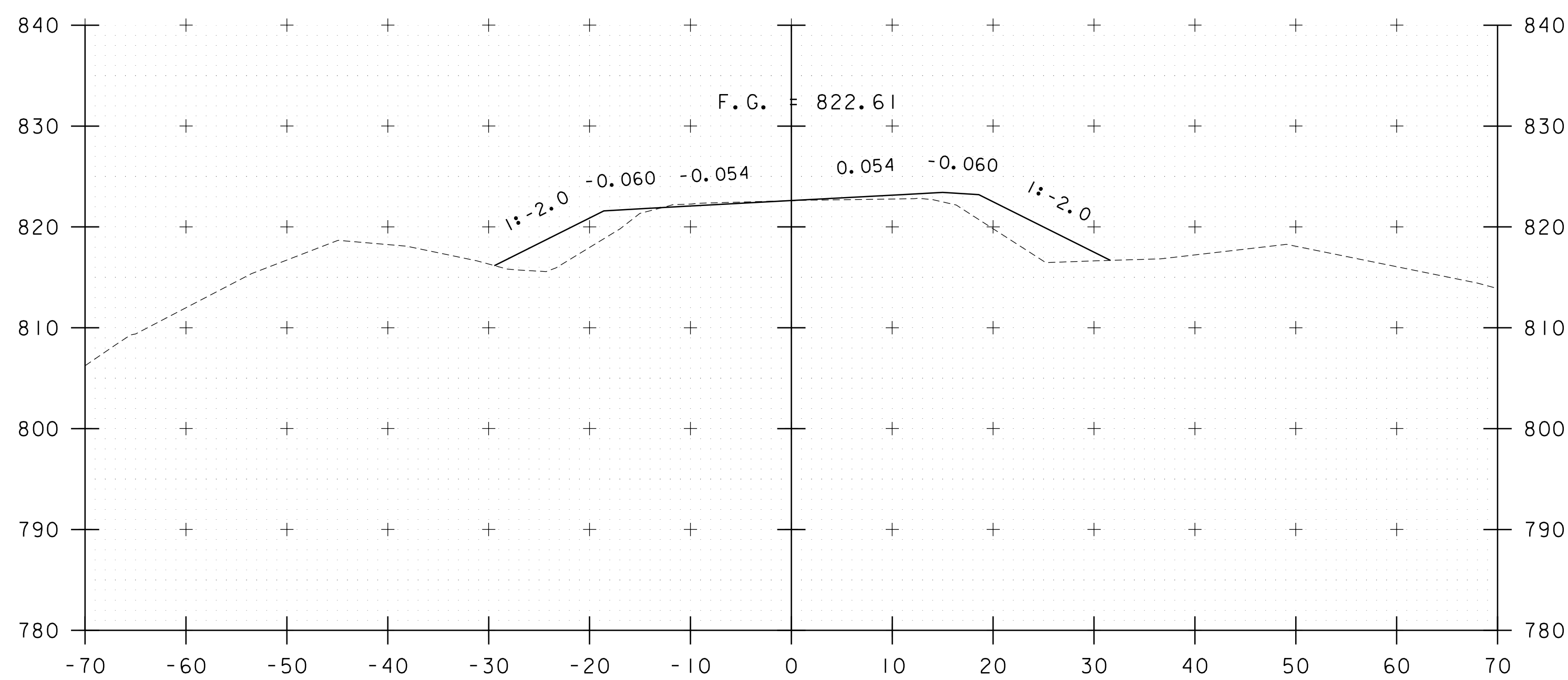


BEGIN BRIDGE
STA 209+24.65

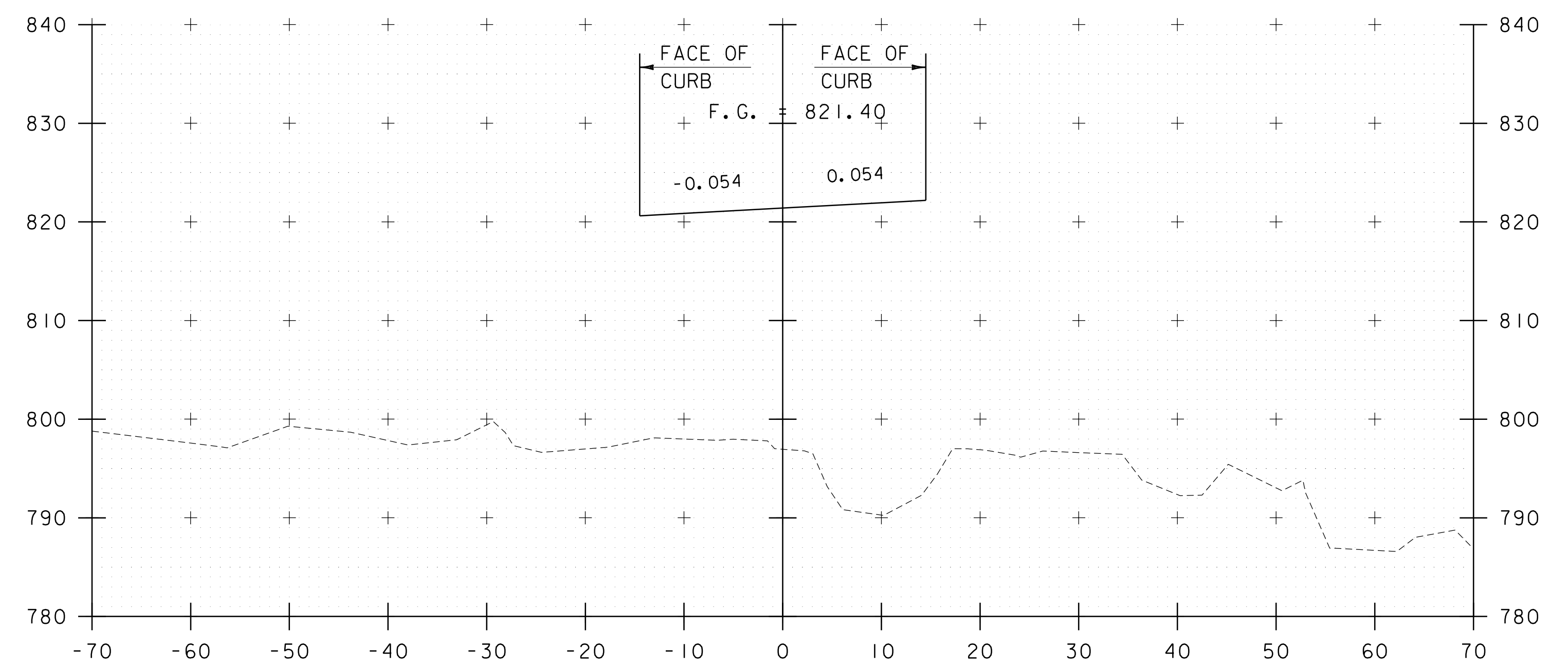
209+25



209+75



209+00



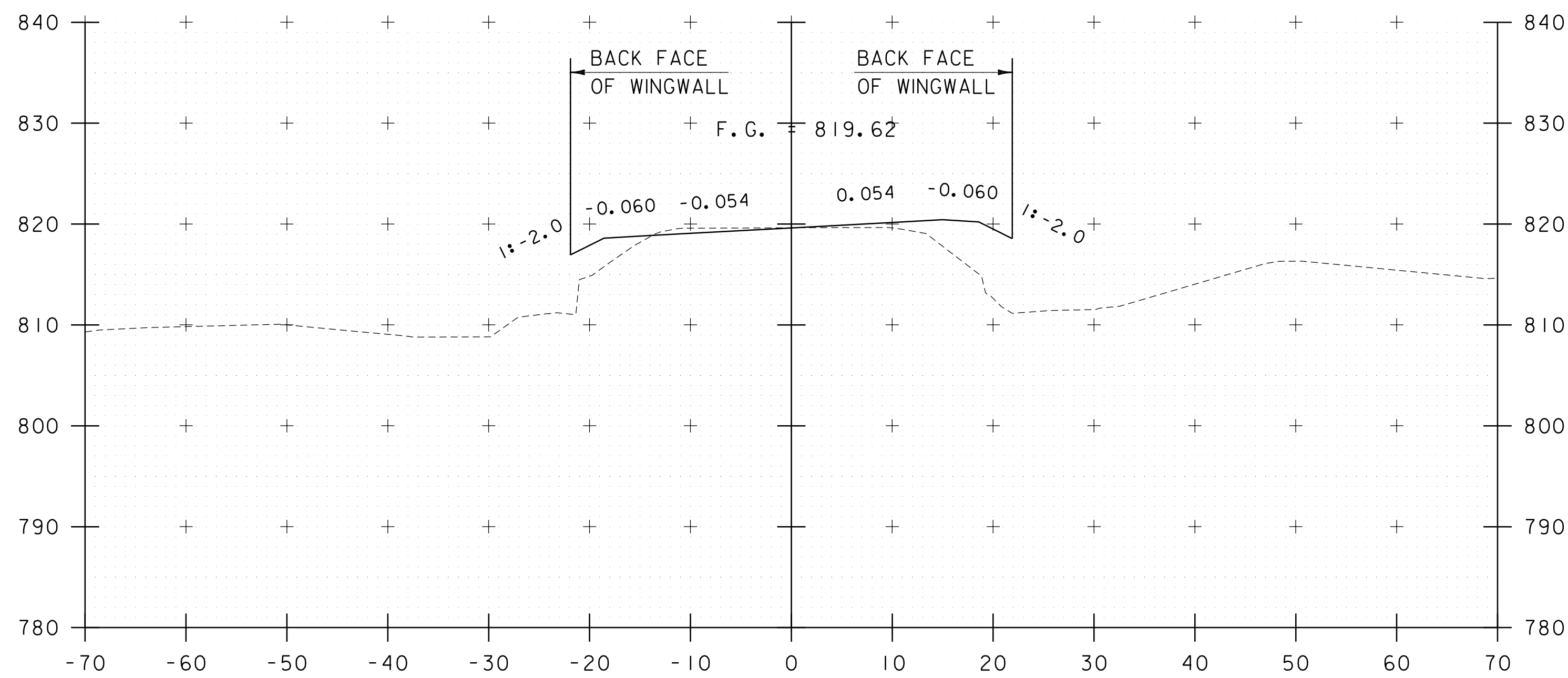
209+50

STA. 209+00 TO STA. 209+75

Hoyle, Tanner
& Associates, Inc.

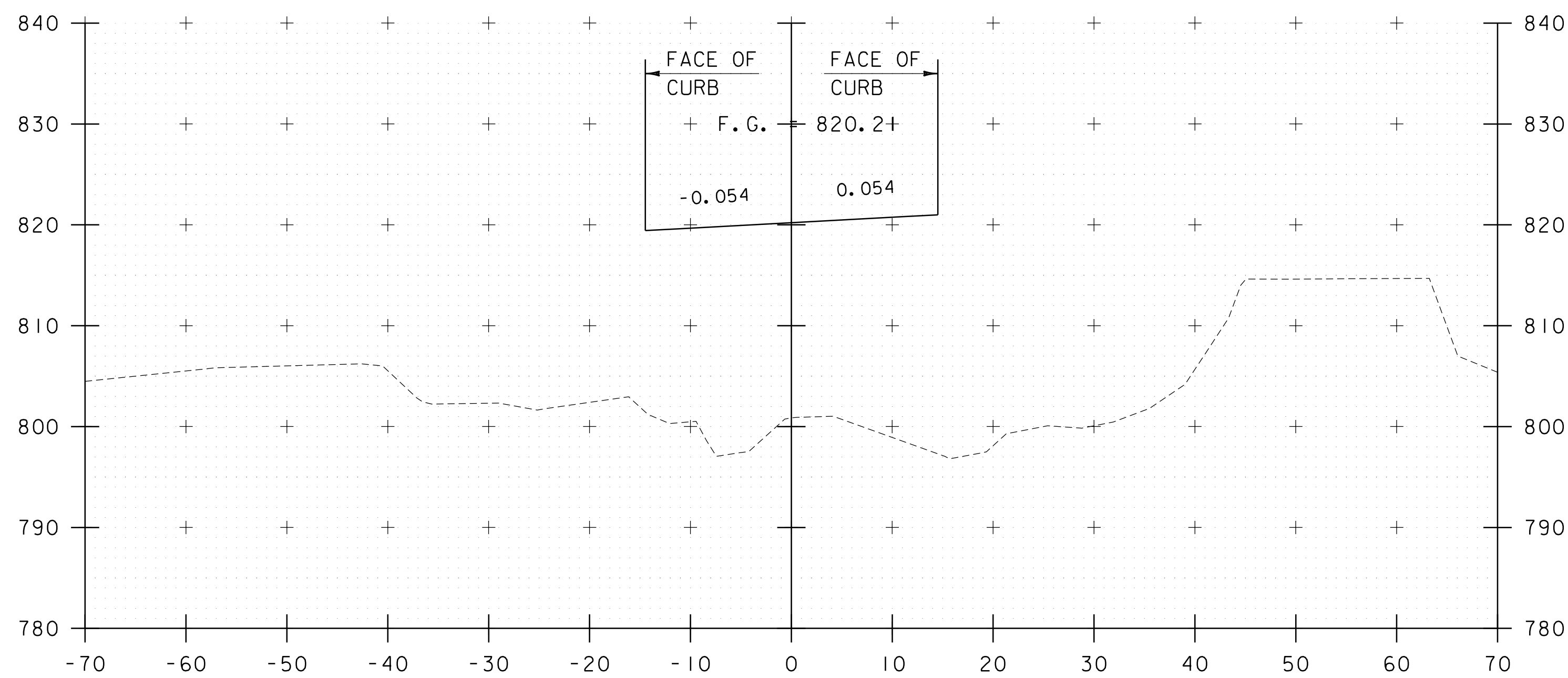
PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)
FILE NAME: z86e053xs.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: N.CENTERBAR
ROADWAY CROSS SECTIONS 3

PLOT DATE: 3/3/2021
DRAWN BY: N.CENTERBAR
CHECKED BY: S.HAAS
SHEET 13 OF 22

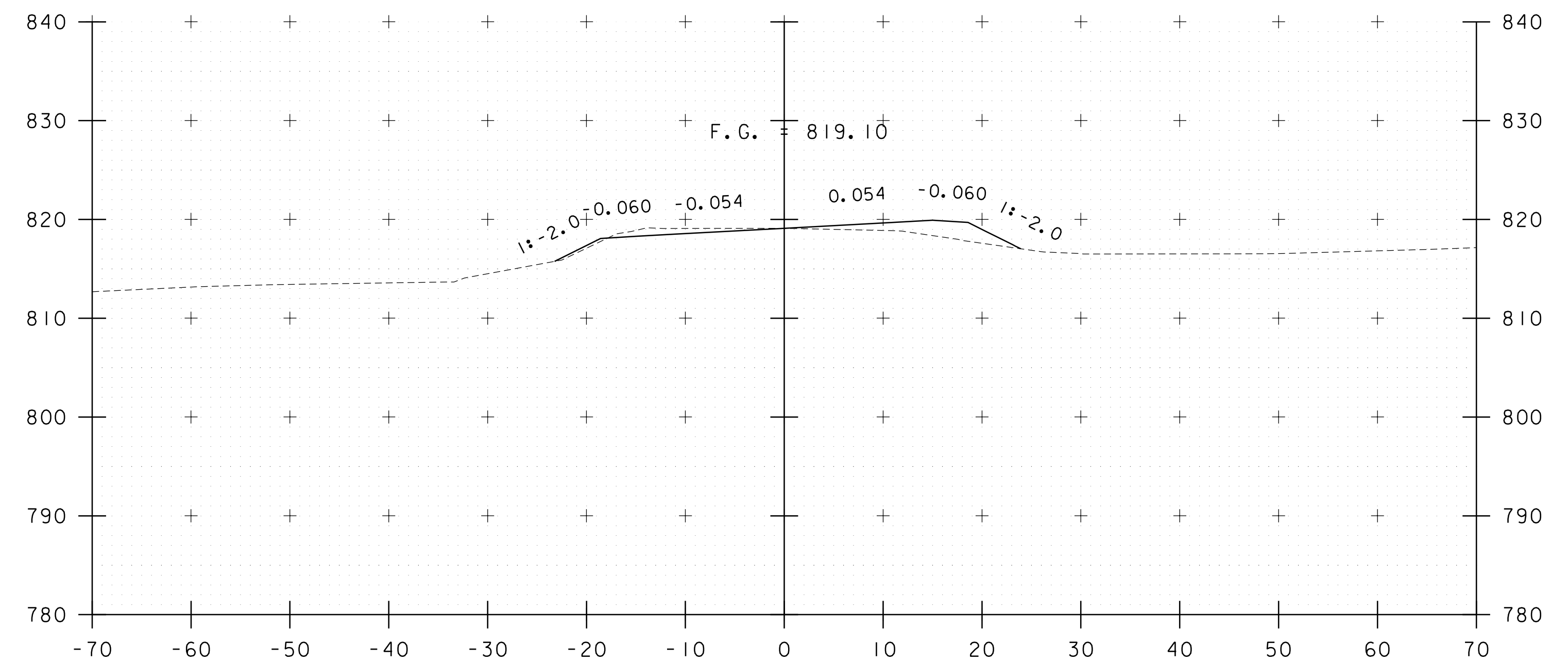


END BRIDGE
STA 210+21.69

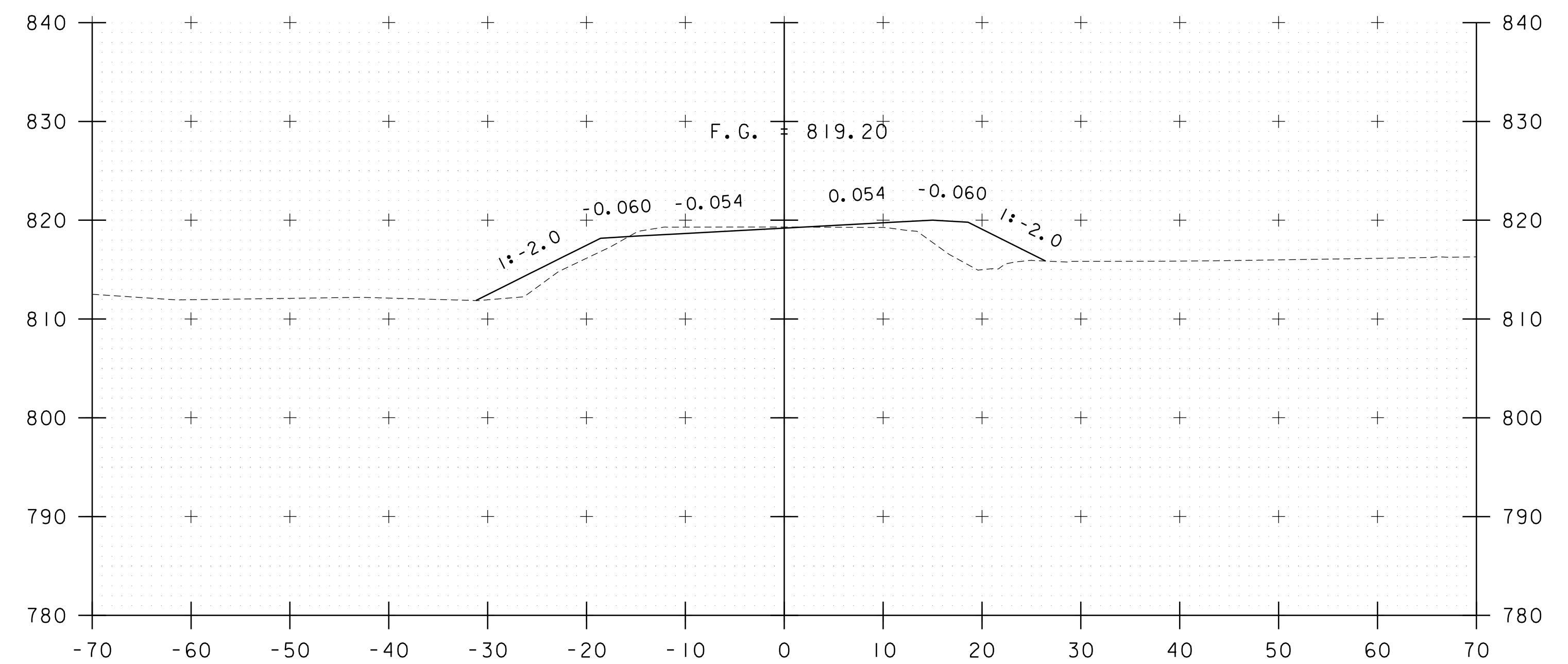
210+25



210+00



210+75



210+50

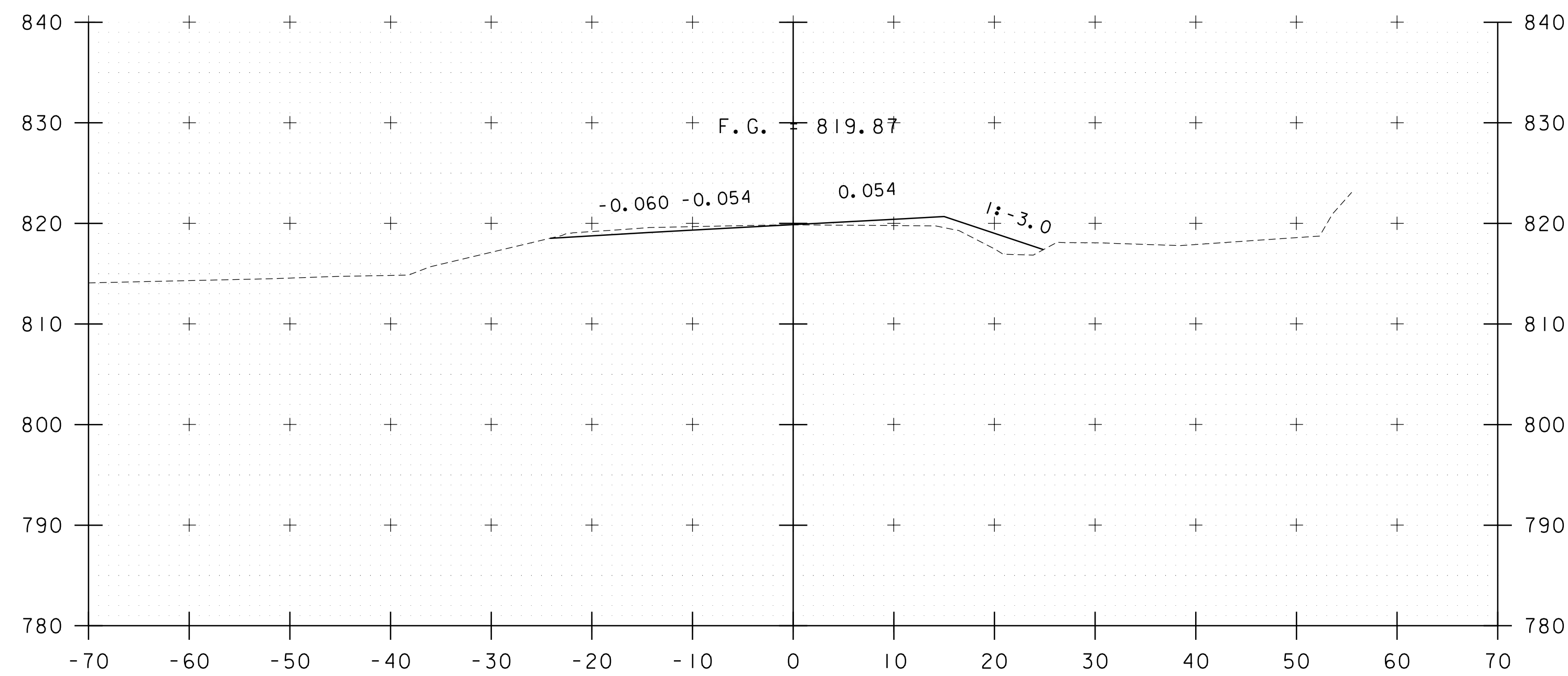
STA. 210+00 TO STA. 210+75



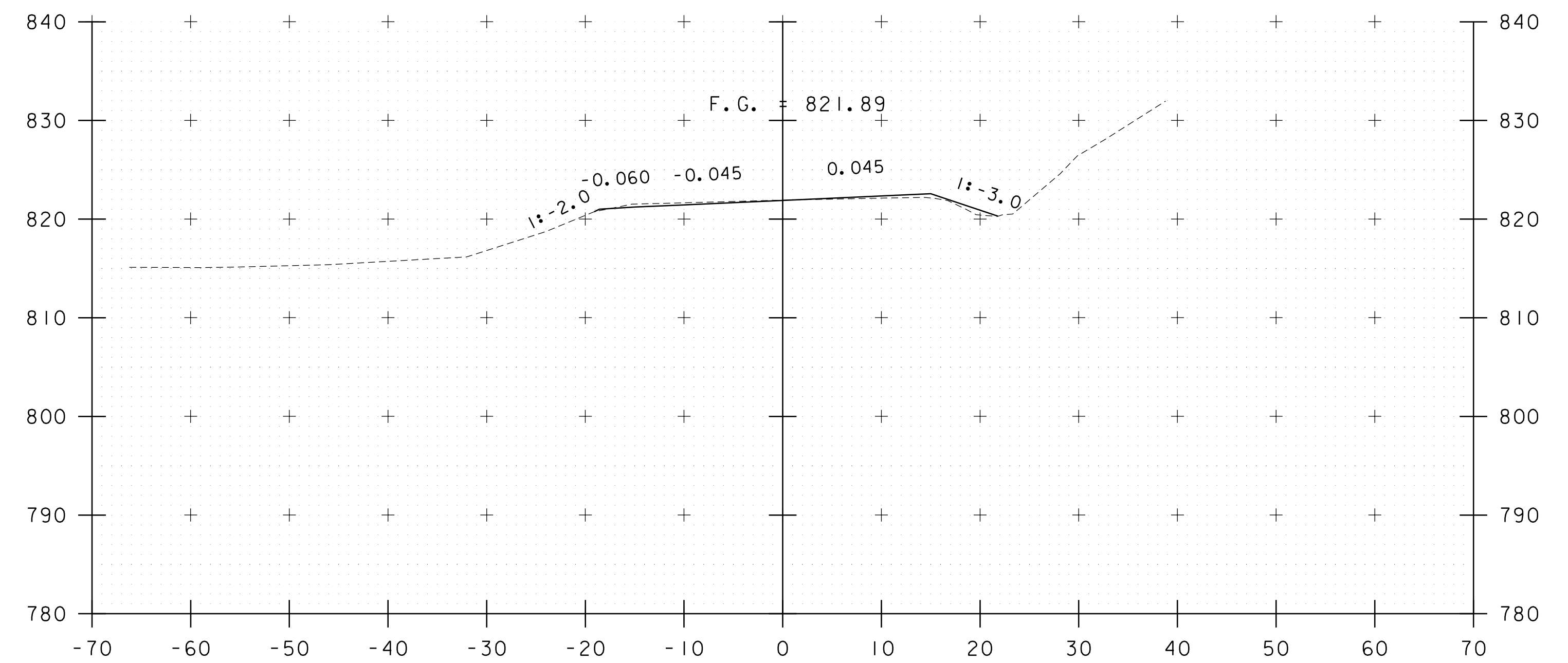
PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053xs.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: N.CENTERBAR
ROADWAY CROSS SECTIONS 4

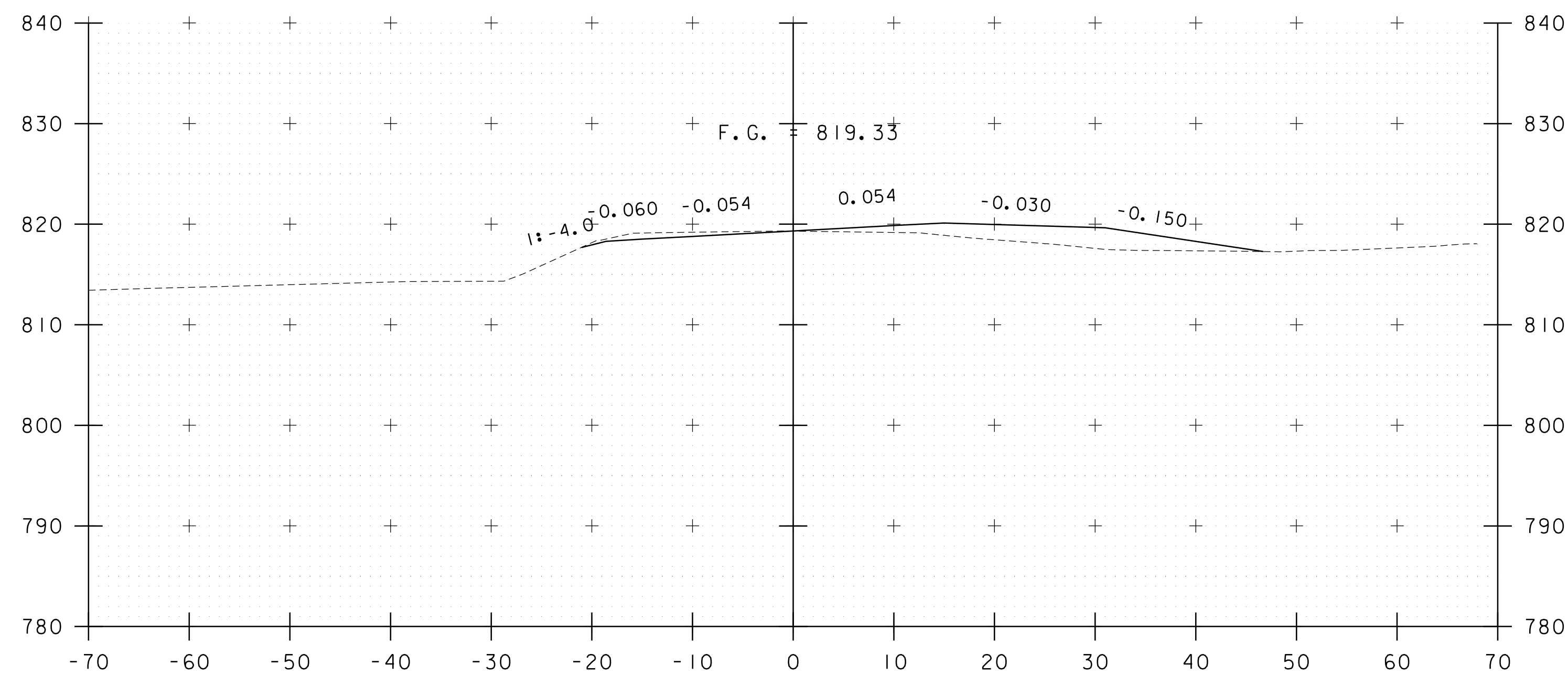
PLOT DATE: 3/3/2021
DRAWN BY: N.CENTERBAR
CHECKED BY: S.HAAS
SHEET 14 OF 22



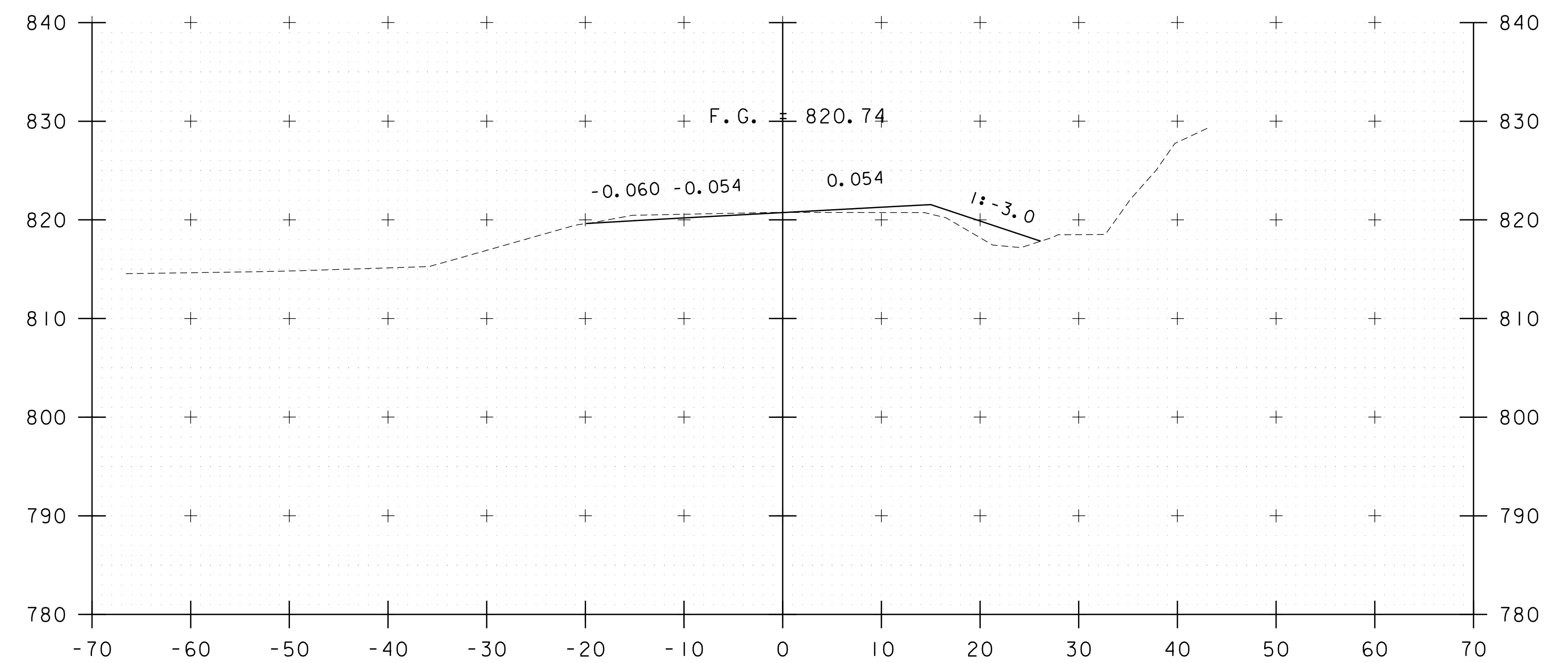
211+25



211+75



211+00

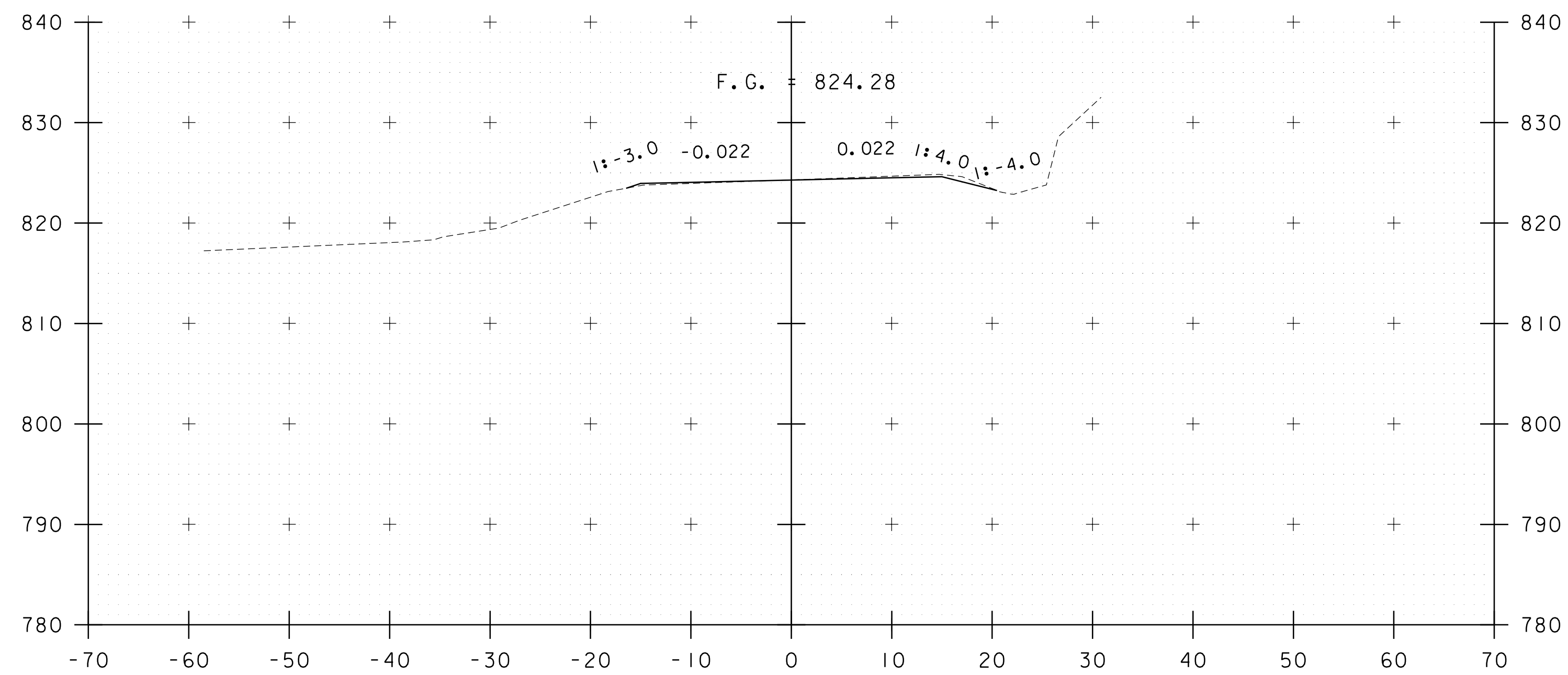


211+50

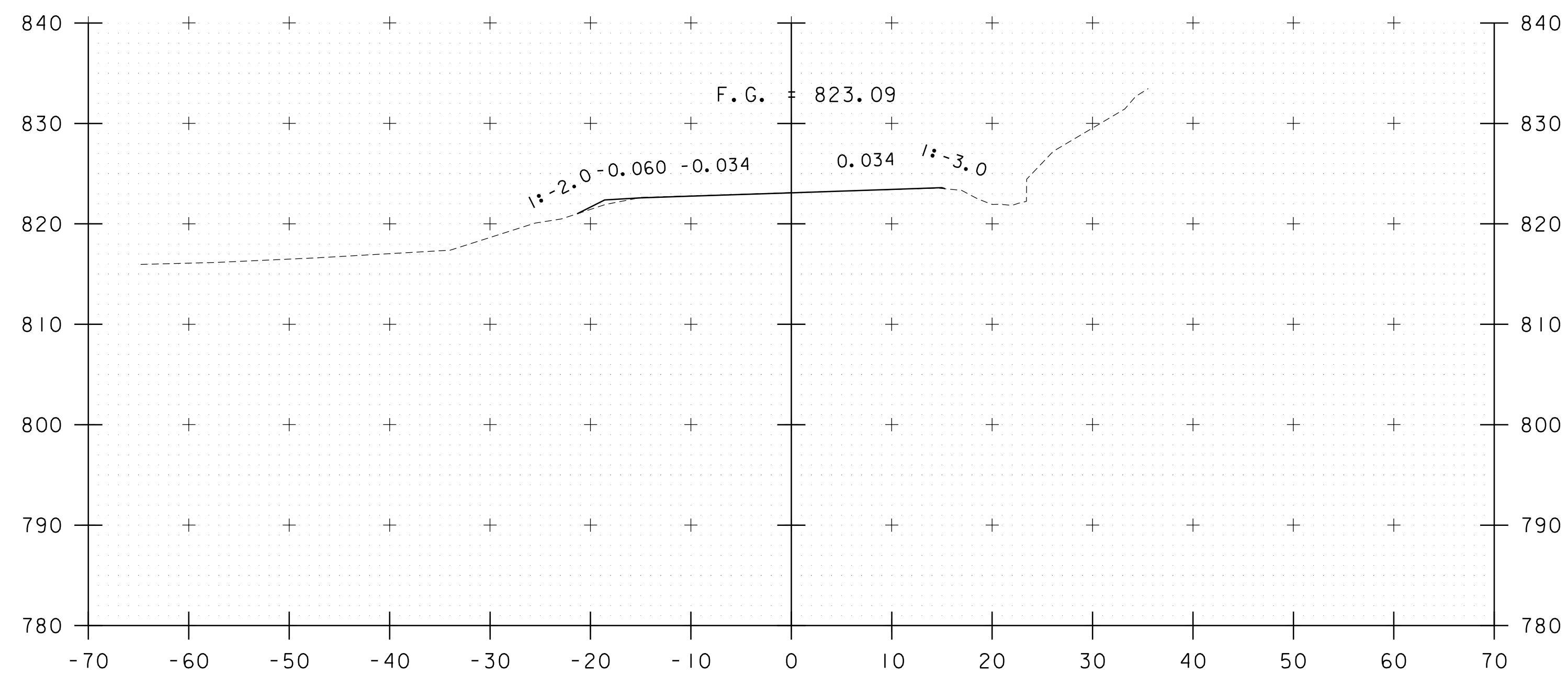
STA. 211+00 TO STA. 211+75



| | | | |
|--------------------------|---------------|--------------|-------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | N.CENTERBAR |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | N.CENTERBAR |
| PROJECT LEADER: | L. STONE | CHECKED BY: | S.HAAS |
| ROADWAY CROSS SECTIONS 5 | | SHEET | 15 OF 22 |



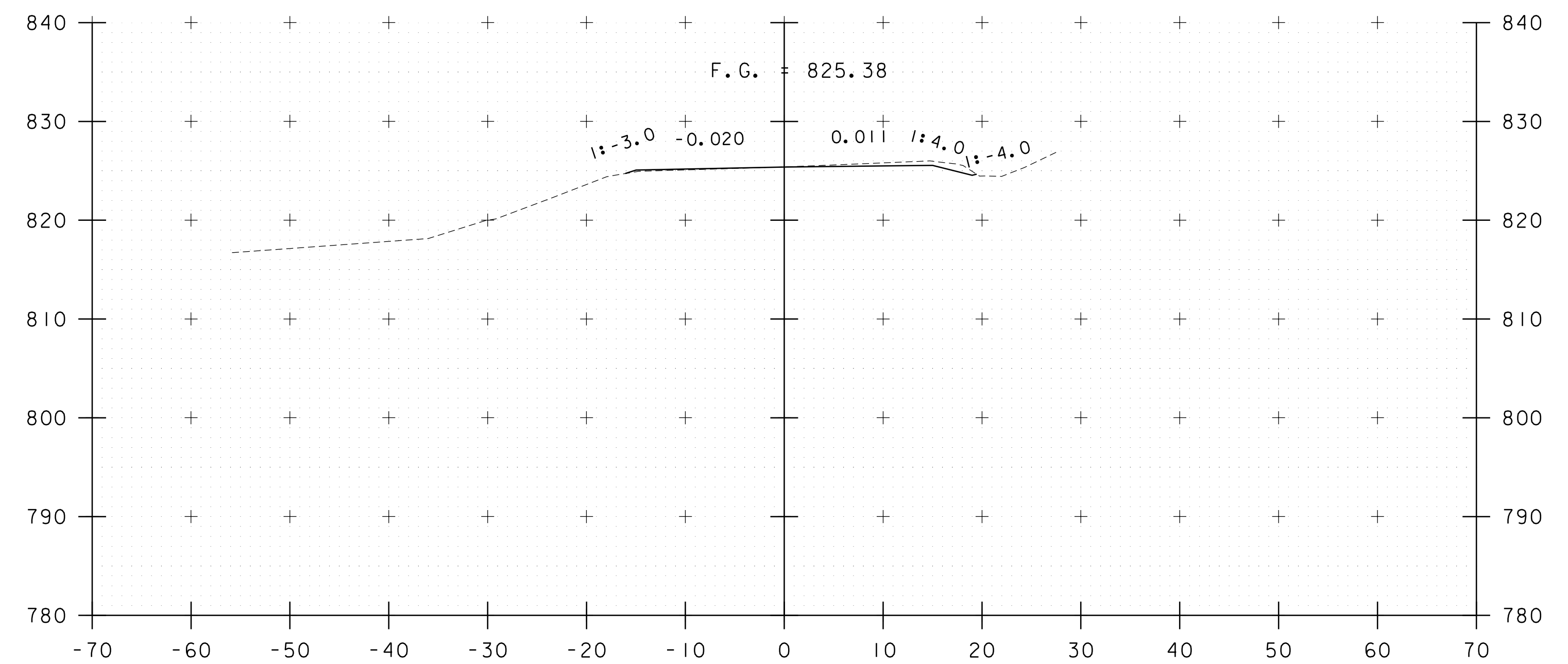
212+25



212+00

END PROJECT
STA 212+00.00

END APPROACH
STA 213+18.00



212+50

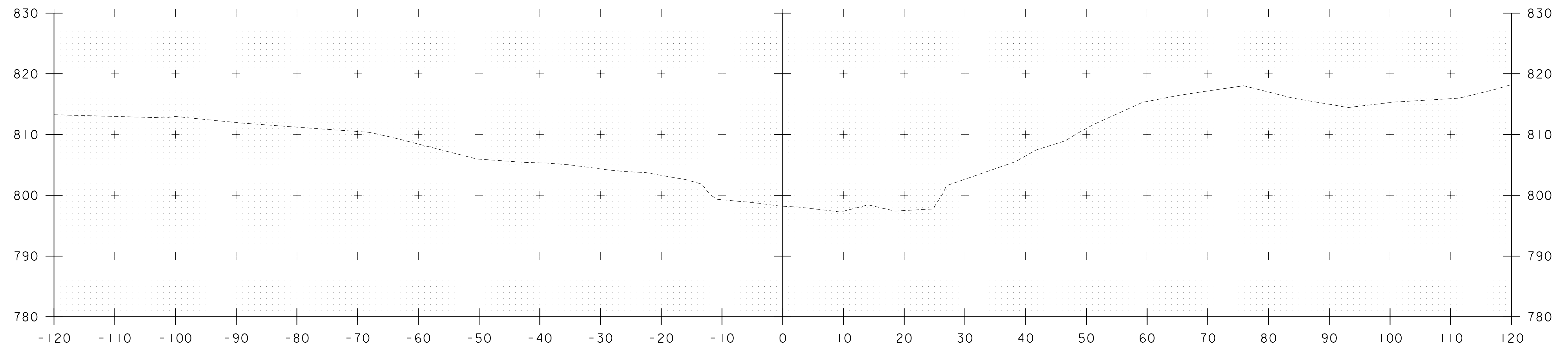
STA. 212+00 TO STA. 212+50

Hoyle, Tanner
& Associates, Inc.

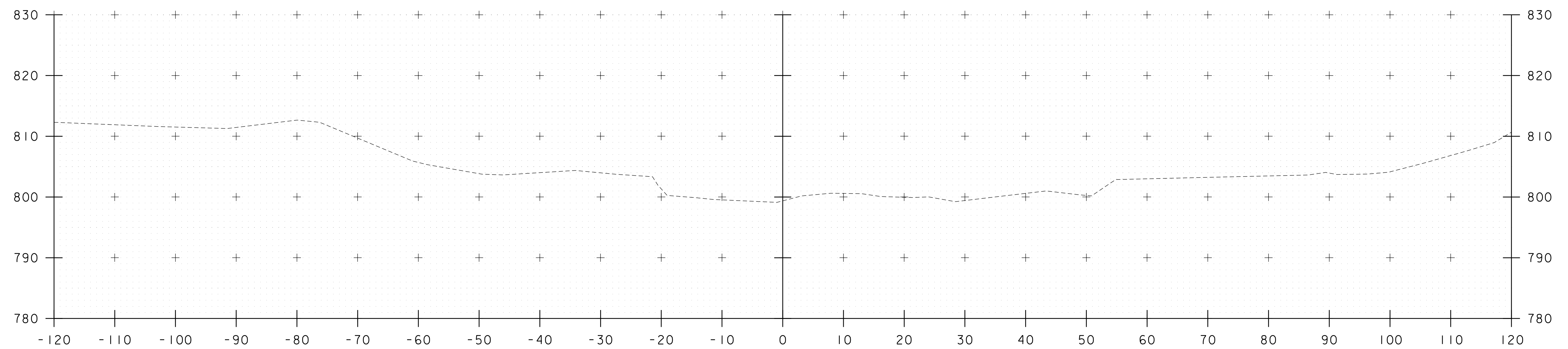
PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)

FILE NAME: z86e053xs.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: N.CENTERBAR
ROADWAY CROSS SECTIONS 6

PLOT DATE: 3/3/2021
DRAWN BY: N.CENTERBAR
CHECKED BY: S.HAAS
SHEET 16 OF 22



51+00

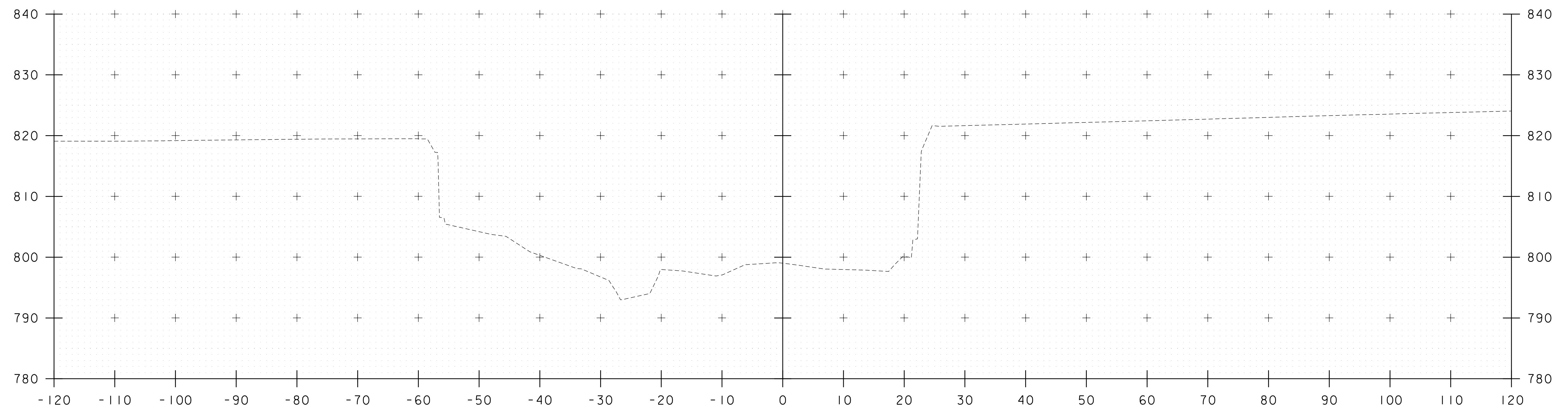


50+75

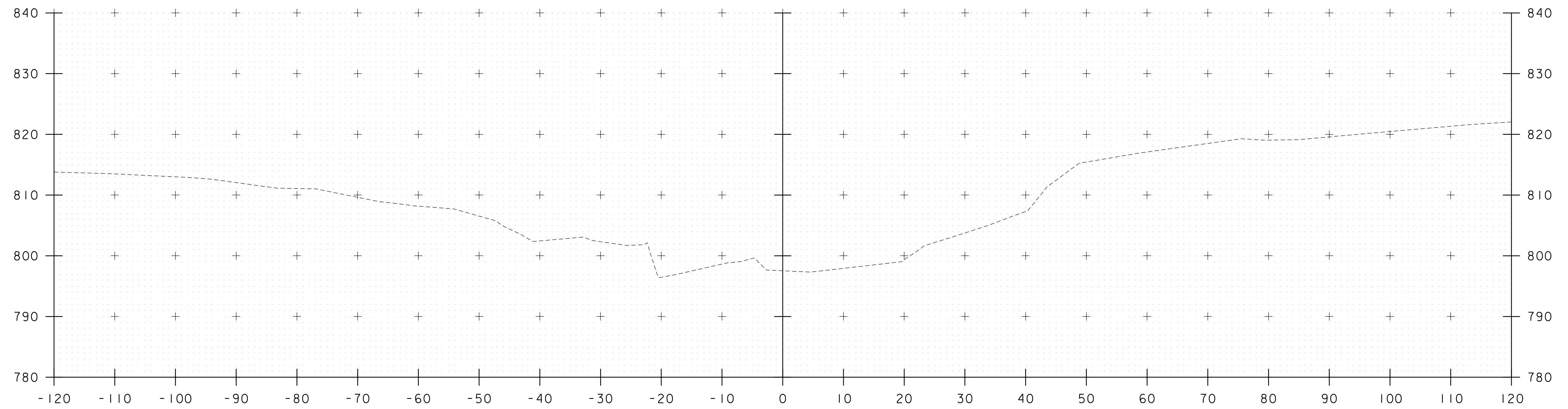
STA. 50+75 TO STA. 51+00

Hoyle, Tanner
& Associates, Inc.

| | | | |
|--------------------------|---------------|--------------|----------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | P.DUSTIN |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | P.DUSTIN |
| PROJECT LEADER: | L. STONE | CHECKED BY: | E. WEINGARTNER |
| CHANNEL CROSS SECTIONS 1 | | SHEET | 17 OF 22 |



51+50

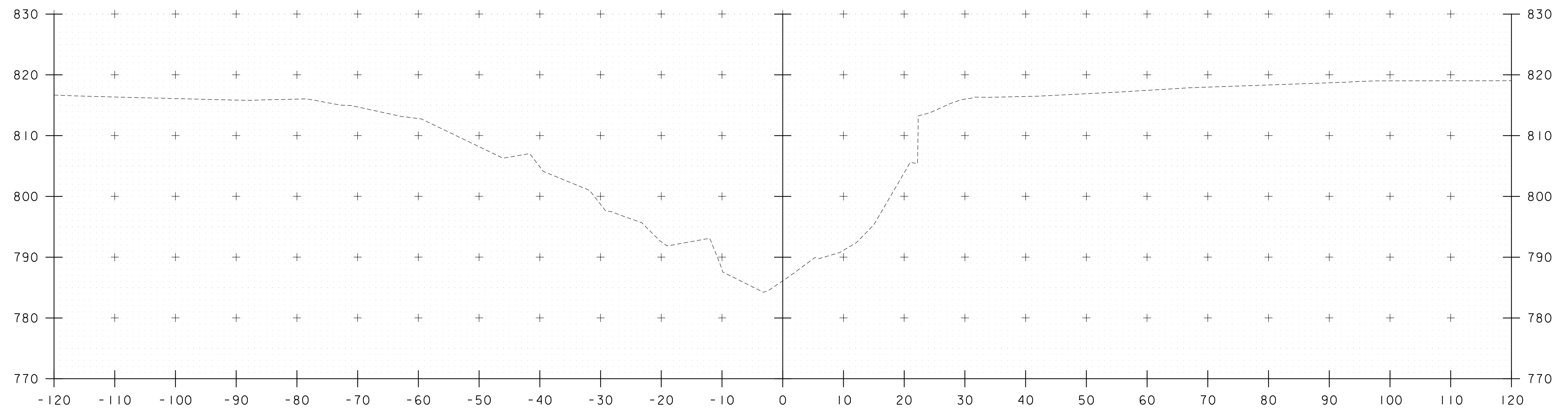


51+25

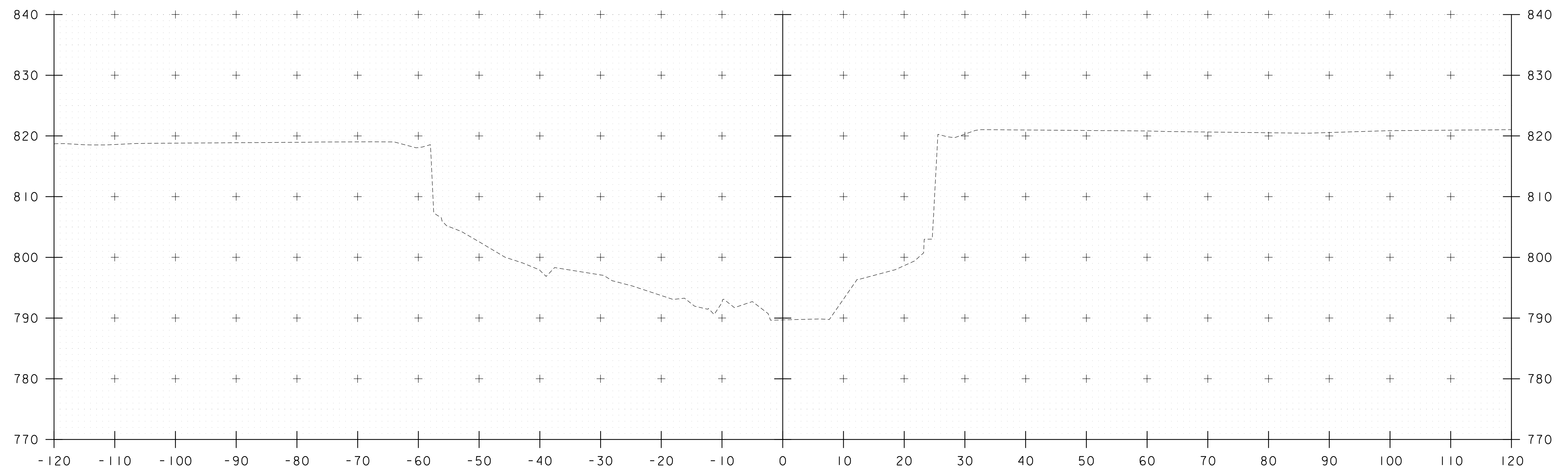
STA. 51+25 TO STA. 51+50

Hoyle, Tanner
& Associates, Inc.

| | | | |
|--------------------------|---------------|--------------|----------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | P.DUSTIN |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | P.DUSTIN |
| PROJECT LEADER: | L. STONE | CHECKED BY: | E. WEINGARTNER |
| CHANNEL CROSS SECTIONS 2 | | SHEET | 18 OF 22 |



52+00

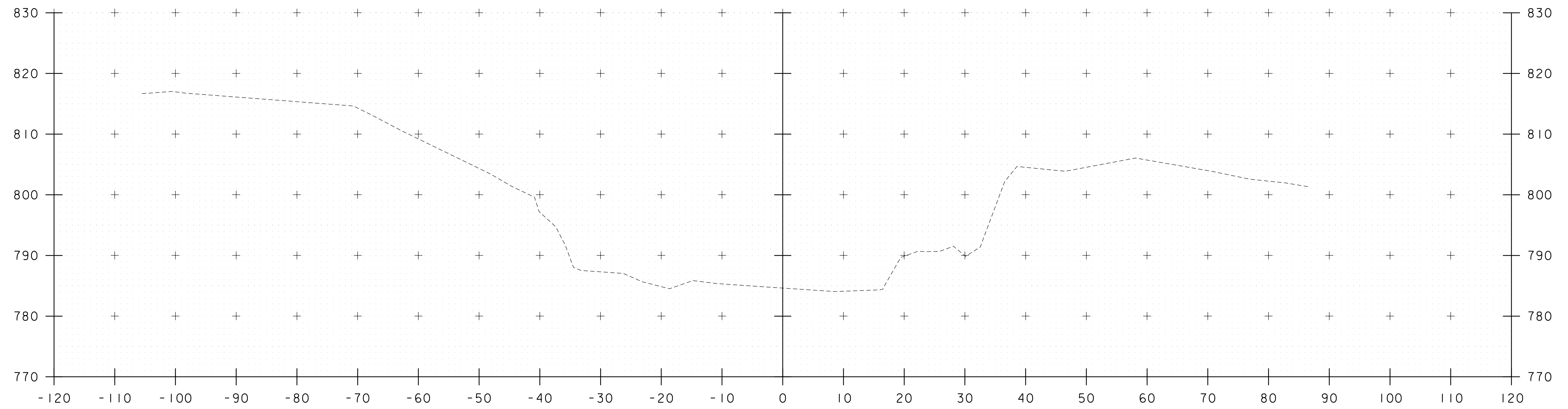


51+75

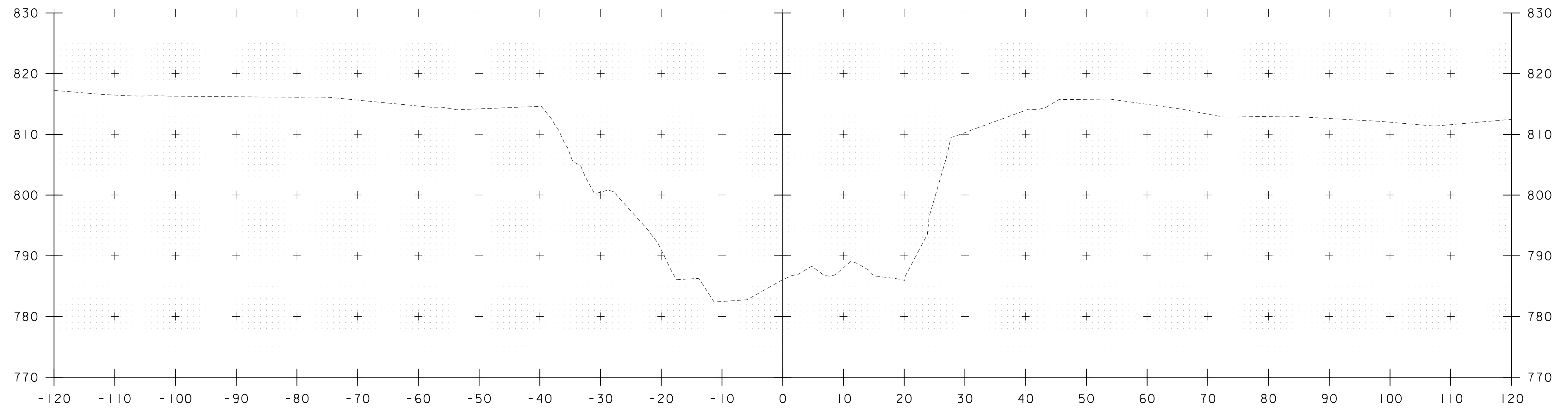
STA. 51+75 TO STA. 52+00



| | | | |
|------------------------|---------------|--------------|----------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | P.DUSTIN |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | P.DUSTIN |
| PROJECT LEADER: | L. STONE | CHECKED BY: | E. WEINGARTNER |
| CHANNEL CROSS SECTIONS | 3 | SHEET | 19 OF 22 |



52+50

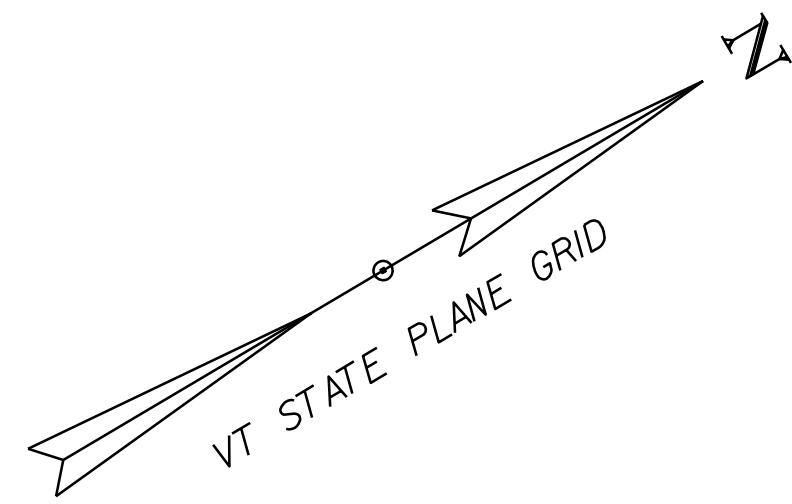


52+25

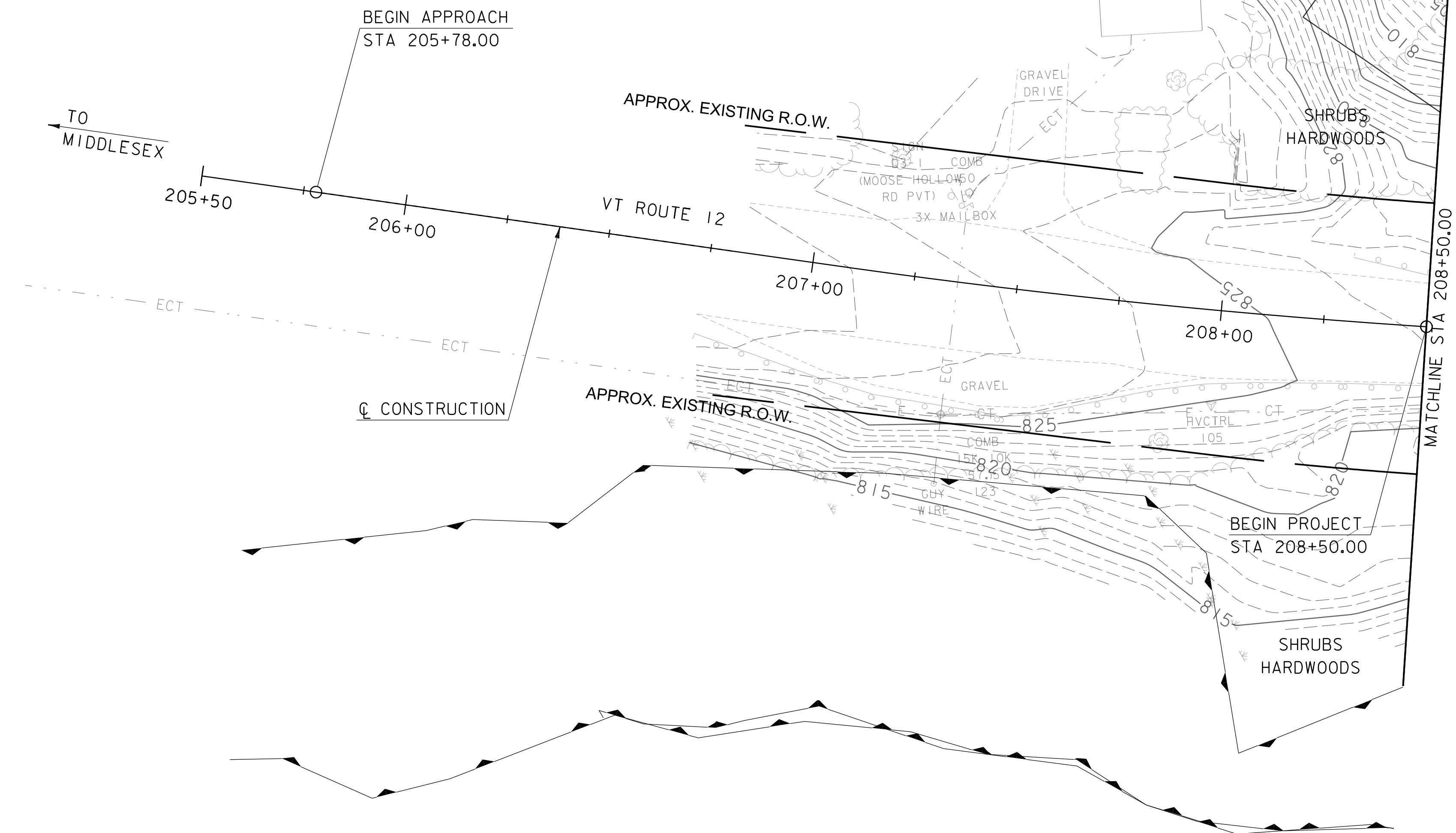
STA. 52+25 TO STA. 52+50



| | | | |
|------------------------|---------------|--------------|---------------|
| PROJECT NAME: | WORCESTER | PLOT DATE: | 3/3/2021 |
| PROJECT NUMBER: | BF 0241(59) | DRAWN BY: | P.DUSTIN |
| FILE NAME: | z86e053xs.dgn | DESIGNED BY: | P.DUSTIN |
| PROJECT LEADER: | L. STONE | CHECKED BY: | E.WEINGARTNER |
| CHANNEL CROSS SECTIONS | 4 | SHEET | 20 OF 22 |



**HOVEY,
LEOLA**



**DAVIS, JOANNE M.
& STEPHEN M.**

| ENVIRONMENTAL RESOURCE TABLE | | | | |
|---|-------|-------------------|------------|-----------|
| ENVIRONMENTAL RESOURCE | LEVEL | LINestyle NAME | CHECKED BY | DATE |
| WETLANDS | EWFS | wetland-lt or rt | VTRANS | 6/12/2020 |
| ARCHAEOLOGICAL | LAAS | arch. Area | VTRANS | 6/12/2020 |
| RARE, THREATENED AND ENDANGERED SPECIES | EHA | thr. & end. spec. | VTRANS | 6/12/2020 |

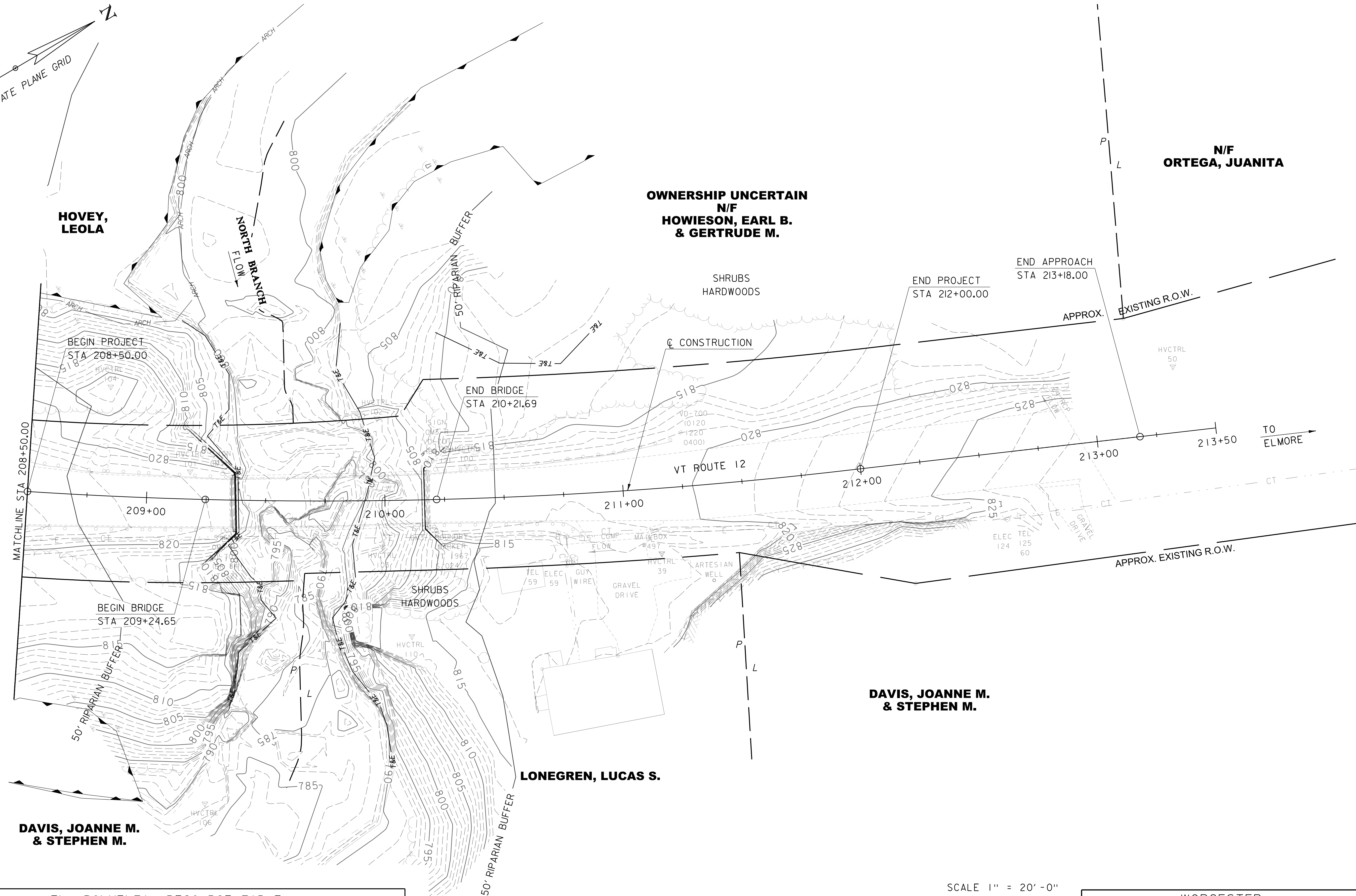
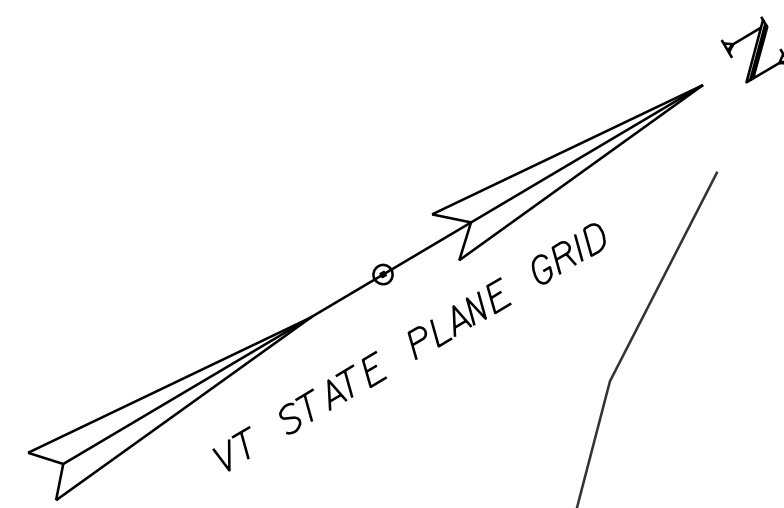
SCALE 1" = 20'-0"
20 0 20

**Hoyle, Tanner
& Associates, Inc.**

PROJECT NAME: WORCESTER
PROJECT NUMBER: BF 0241(59)

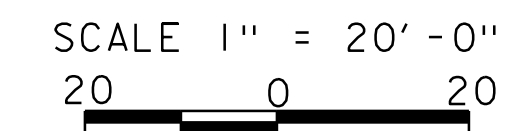
FILE NAME: z86e053res.dgn
PROJECT LEADER: L. STONE
DESIGNED BY: P. DUSTIN
RESOURCE SITE PLAN I

PLOT DATE: 3/3/2021
DRAWN BY: P. DUSTIN
CHECKED BY: E. WEINGARTNER
SHEET 21 OF 22



ENVIRONMENTAL RESOURCE TABLE

| ENVIRONMENTAL RESOURCE | LEVEL | LINestyle NAME | CHECKED BY | DATE |
|---|-------|-------------------|------------|-----------|
| WETLANDS | EWFS | wetland-lt or rt | VTRANS | 6/12/2020 |
| ARCHAEOLOGICAL | LAAS | arch. Area | VTRANS | 6/12/2020 |
| RARE, THREATENED AND ENDANGERED SPECIES | EHA | thr. & end. spec. | VTRANS | 6/12/2020 |



Hoyle, Tanner
& Associates, Inc.

| | |
|-----------------------------|---------------------------|
| PROJECT NAME: WORCESTER | PLOT DATE: 3/3/2021 |
| PROJECT NUMBER: BF 0241(59) | DRAWN BY: P.DUSTIN |
| FILE NAME: z86e053res.dgn | CHECKED BY: E.WEINGARTNER |
| PROJECT LEADER: L.STONE | SHEET 22 OF 22 |
| DESIGNED BY: P.DUSTIN | |
| RESOURCE SITE PLAN 2 | |