This electronic collection of documents is provided for the convenience of the user and is Not a Certified Document –

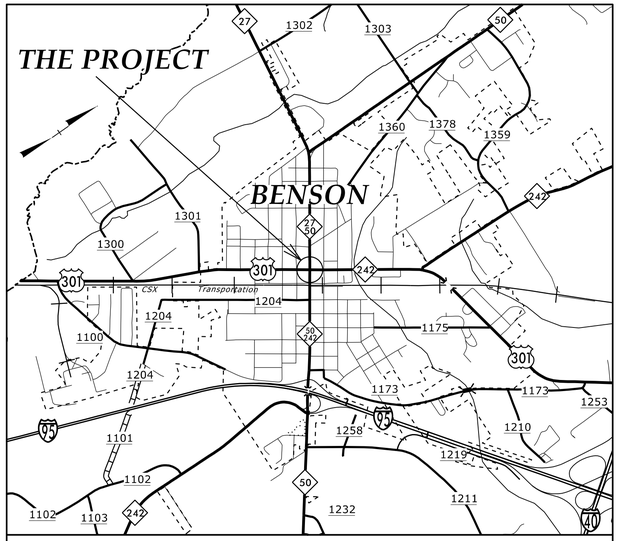
The documents contained herein were originally issued and sealed by the individuals whose names and license numbers appear on each page, on the dates appearing with their signature on that page.
This file or an individual page shall not be considered a certified document.

DDC4

TIP PROJECT: W-5704H

CONTRACT: DD00398

See Sheet 1-A For Index of Sheets



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

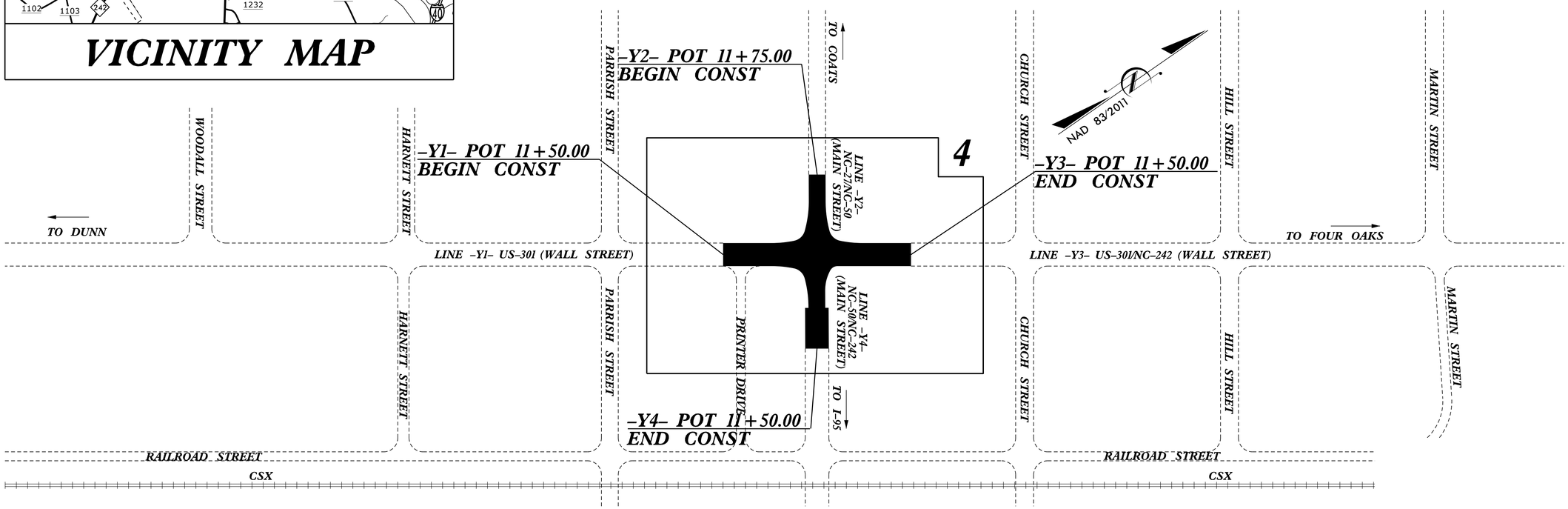
JOHNSTON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5704H	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
44850.1.8	HSIP-0301(044)	PE
44850.2.8	HSIP-0301(044)	R/W & UTILITY
44850.3.8	HSIP-0301(044)	CONST

LOCATION: US-301/NC-242 (WALL STREET) AND NC-50/NC-242 (MAIN STREET) INTERSECTION.

TYPE OF WORK: GRADING, DRAINAGE AND PAVING



DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES

20 10 0 20 40
PLANS

20 10 0 20 40
PROFILE (HORIZONTAL)

4 2 0 4 8
PROFILE (VERTICAL)

DESIGN DATA

ADT 2016 = 9500

FUNCTIONAL CLASS
MINOR ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5704H = 0.063 MILES
TOTAL LENGTH TIP PROJECT W-5704H = 0.063 MILES

NOTE: LENGTH -Y1-, -L- & -Y3-

Prepared In the Office of:
DIVISION OF HIGHWAYS
Division 4 DDC
509 Ward Blvd., Wilson NC, 27895

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 21, 2019

LETTING DATE:
AUGUST 9, 2022

KEVIN BOWEN, PE
PROJECT ENGINEER

D.R. ETHRIDGE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

07/06/2022

DocuSigned by: Benjamin J. Henegar
SIGNATURE: P.E.

NORTH CAROLINA PROFESSIONAL SEAL 044158 ENGINEER BENJAMIN J. HENEGAR

ROADWAY DESIGN ENGINEER

07/06/2022

DocuSigned by: Norwood A Gainey III
SIGNATURE: P.E.

NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

04-JUL-2022 09:20
R:\Roadway\Proj\W-5704H_DDC4_TSH.dgn
Division 4 DDC

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	1-A

ROADWAY DESIGN ENGINEER

07/05/2022

NORTH CAROLINA PROFESSIONAL SEAL 40774 ENGINEER NORWOOD A. GAINEY

DocuSigned by:
Norwood A Gainey III
E0B8B9D0A4504B...

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

INDEX OF SHEETS

SHEET NUMBER	SHEET
01	TITLE SHEET
01A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
01B	CONVENTIONAL SYMBOLS
02A-1 THRU 02A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
02C-1	SPECIAL DETAIL - CURB RAMPS
03B-1	ROADWAY SUMMARIES - EARTHWORK, PARCEL INDEX, AND REMOVAL OF EXISTING PAVEMENTS.
03D-1	DRAINAGE SUMMARIES
04	PLAN SHEET
05	PROFILE SHEET
RW02C-1 THRU 1RW02C-3	SURVEY CONTROL, EXISTING CENTERLINES RIGHT OF WAY, EASEMENTS AND PROPERTY TIES
TMP-1 THRU TMP-4	TRANSPORTATION MANAGEMENT PLANS
PM-1 THRU PM-4	PAVEMENT MARKING PLANS
SIGN-1 THRU SIGN-5	SIGNING PLANS
UBO-1 THRU UBO-4	UTILITIES BY OTHERS PLANS
X-1A	CROSS-SECTION SUMMARY
X-1 THRU X-17	CROSS-SECTIONS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" HIGHWAY DESIGN BRANCH - N. C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N. C., DATED JANUARY, 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

DIVISION 2 - EARTHWORK
200.02 METHOD OF CLEARING - METHOD II
225.02 GUIDE FOR GRADING SUBGRADE - SECONDARY AND LOCAL
DIVISION 3 - PIPE CULVERTS
300.01 METHOD OF PIPE INSTALLATION
DIVISION 6 - ASPHALT BASES AND PAVEMENTS
654.01 PAVEMENT REPAIRS
DIVISION 8 - INCIDENTALS
840.00 CONCRETE BASE PAD FOR DRAINAGE STRUCTURES
840.01 BRICK CATCH BASIN - 12" THRU 54" PIPE
840.02 CONCRETE CATCH BASIN - 12" THRU 54" PIPE
840.03 FRAME, GRATES AND HOOD - FOR USE ON STANDARD CATCH BASIN
840.25 ANCHORAGE FOR FRAMES - BRICK OR CONCRETE OR PRECAST
840.29 FRAMES AND NARROW SLOT FLAT GRATES
840.34 TRAFFIC BEARING JUNCTION BOX - FOR USE WITH PIPES 42" AND UNDER
840.35 TRAFFIC BEARING GRATED DROP INLET - FOR CAST IRON DOUBLE FRAME AND GRATES
840.45 PRECAST DRAINAGE STRUCTURE
840.46 TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE
840.54 MANHOLE FRAME AND COVER
840.66 DRAINAGE STRUCTURE STEPS
840.72 PIPE COLLAR
846.01 CONCRETE CURB, GUTTER AND CURB & GUTTER
848.01 CONCRETE SIDEWALK
848.05 CURB RAMP - PROPOSED CURB & GUTTER
848.06 CURB RAMP - EXISTING CURB & GUTTER
852.02 CONCRETE MOUNTABLE MEDIAN - FOR USE WITH RIGID OR FLEXIBLE PAVEMENT
876.02 GUIDE FOR RIP RAP AT PIPE OUTLETS

GENERAL NOTES: 2018 SPECIFICATIONS

GRADE LINE:
GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:
CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SIDE ROADS:
THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

SUBSURFACE PLANS:
NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE:
PIEDMONT NATURAL GAS, SPECTRUM, CENTURYLINK AND TOWN OF BENSON (POWER).

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:
ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

12/2/2016

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	1B

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale **S.U.E. = Subsurface Utility Engineering*

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Computed Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary — WLB
- Proposed Wetland Boundary — WLB
- Existing Endangered Animal Boundary — EAB
- Existing Endangered Plant Boundary — EPB
- Existing Historic Property Boundary — HPB
- Known Contamination Area: Soil — S
- Potential Contamination Area: Soil — S
- Known Contamination Area: Water — W
- Potential Contamination Area: Water — W
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream — JS
- Buffer Zone 1 — BZ 1
- Buffer Zone 2 — BZ 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Secondary Horiz and Vert Control Point
- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Exist Permanent Easment Pin and Cap
- New Permanent Easement Pin and Cap
- Vertical Benchmark
- Existing Right of Way Marker
- Existing Right of Way Line
- New Right of Way Line — RW
- New Right of Way Line with Pin and Cap — RW
- New Right of Way Line with Concrete or Granite R/W Marker — RW
- New Control of Access Line with Concrete C/A Marker — CA
- Existing Control of Access — CA
- New Control of Access — CA
- Existing Easement Line — E
- New Temporary Construction Easement — E
- New Temporary Drainage Easement — TDE
- New Permanent Drainage Easement — PDE
- New Permanent Drainage / Utility Easement — DUE
- New Permanent Utility Easement — PUE
- New Temporary Utility Easement — TUE
- New Aerial Utility Easement — AUE

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line LOS B (S.U.E.*) — P
- U/G Power Line LOS C (S.U.E.*) — P
- U/G Power Line LOS D (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- U/G Telephone Cable LOS B (S.U.E.*) — T
- U/G Telephone Cable LOS C (S.U.E.*) — T
- U/G Telephone Cable LOS D (S.U.E.*) — T
- U/G Telephone Conduit LOS B (S.U.E.*) — TC
- U/G Telephone Conduit LOS C (S.U.E.*) — TC
- U/G Telephone Conduit LOS D (S.U.E.*) — TC
- U/G Fiber Optics Cable LOS B (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS C (S.U.E.*) — T FO
- U/G Fiber Optics Cable LOS D (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line LOS B (S.U.E.*) — W
- U/G Water Line LOS C (S.U.E.*) — W
- U/G Water Line LOS D (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- U/G TV Cable LOS B (S.U.E.*) — TV
- U/G TV Cable LOS C (S.U.E.*) — TV
- U/G TV Cable LOS D (S.U.E.*) — TV
- U/G Fiber Optic Cable LOS B (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS C (S.U.E.*) — TV FO
- U/G Fiber Optic Cable LOS D (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line LOS B (S.U.E.*) — G
- U/G Gas Line LOS C (S.U.E.*) — G
- U/G Gas Line LOS D (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- SS Forced Main Line LOS B (S.U.E.*) — FSS
- SS Forced Main Line LOS C (S.U.E.*) — FSS
- SS Forced Main Line LOS D (S.U.E.*) — FSS

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line LOS B (S.U.E.*) — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole LOS A (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

PAVEMENT SCHEDULE

C1	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD.	E1	PROP. APPROX. 4″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.	T1	EARTH MATERIAL.
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YARD. IN EACH OF TWO LAYERS.	E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3″ IN DEPTH OR GREATER THAN 5.5″ IN DEPTH.	U1	EXISTING PAVEMENT.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YARD. PER 1″ DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1.5″ DEPTH.	R1	2′-6″ CONCRETE CURB AND GUTTER.	V1	VAR. 0″-3″ MILLING
D1	PROP. APPROX. 4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YARD.	R2	2′-0″ CONCRETE VALLEY GUTTER	W1	VARIABLE DEPTH ASPHALT PAVEMENT (SEE STANDARD WEDGING DETAIL)
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE TYPE I19.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YARD. PER 1″ DEPTH TO BE PLACED IN LAYERS NOT LESS THAN 2.5″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.	R3	CONCRETE MOUNTABLE MEDIAN		

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	2A-1

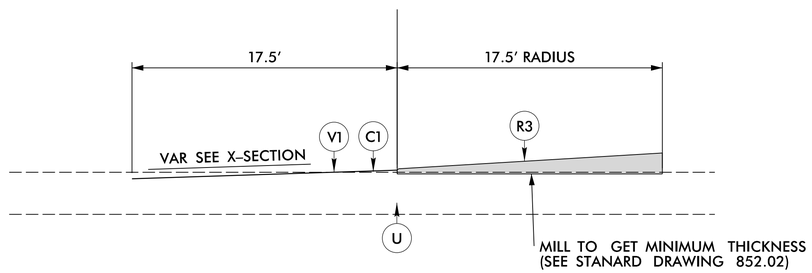
ROADWAY DESIGN ENGINEER
01/24/2022 1:31 PM EST
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
E0D89850A45044B...

PAVEMENT DESIGN ENGINEER
01/24/2022 1:31 PM EST
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
E0D89850A45044B...

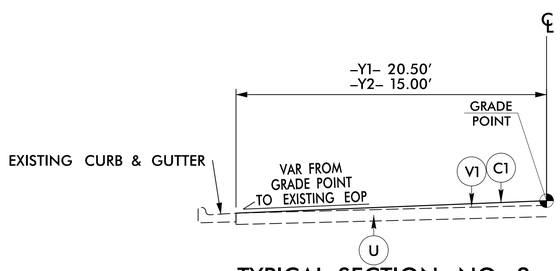
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

USE TYPICAL SECTION NO. 1

–L– STA 10+00 TO –L– STA 11+09.96

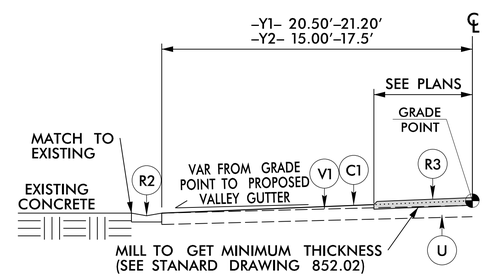


TYPICAL SECTION NO. 1



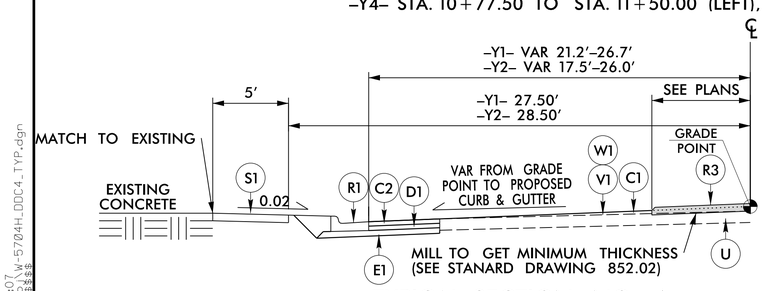
TYPICAL SECTION NO. 2

–Y1– STA. 11+50.00 TO STA. 11+85.00 (LEFT)
–Y1– STA. 11+50.00 TO STA. 12+27.50 (RIGHT, MIRROR IMAGE)
–Y2– STA. 11+75.00 TO STA. 12+20.93 (LEFT), (RIGHT, MIRROR IMAGE)
–Y3– STA. 10+17.50 TO STA. 10+67.50 (RIGHT, MIRROR IMAGE) ADD MOUNTABLE MEDIAN
–Y4– STA. 10+77.50 TO STA. 11+50.00 (LEFT), (RIGHT, MIRROR IMAGE) ADD MOUNTABLE MEDIAN



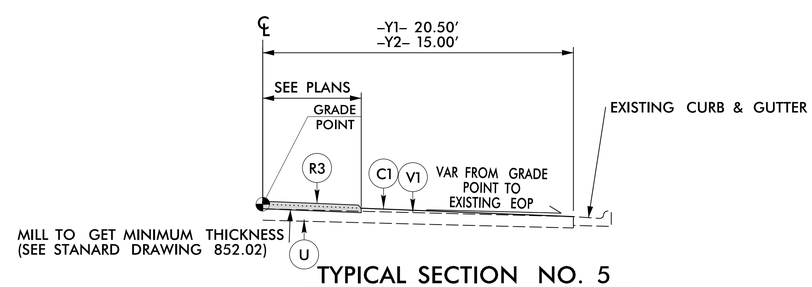
TYPICAL SECTION NO. 3

–Y1– STA. 11+85.00 TO STA 12+52.50 (LEFT) MOUNTABLE MEDIAN STARTS 12+27.50
–Y2– STA. 12+20.93 TO STA 12+52.50 (RIGHT, MIRROR IMAGE)



TYPICAL SECTION NO. 4

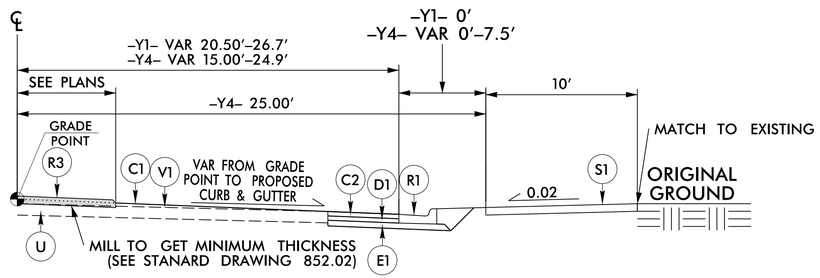
–Y1– STA. 12+52.50 TO STA. 12+82.50 (LEFT)
–Y2– STA. 12+52.50 TO STA. 12+82.50 (RIGHT, MIRROR IMAGE)
–Y4– STA. 10+17.50 TO STA. 10+77.50 (LEFT, NO NEW SIDEWALK))



TYPICAL SECTION NO. 5

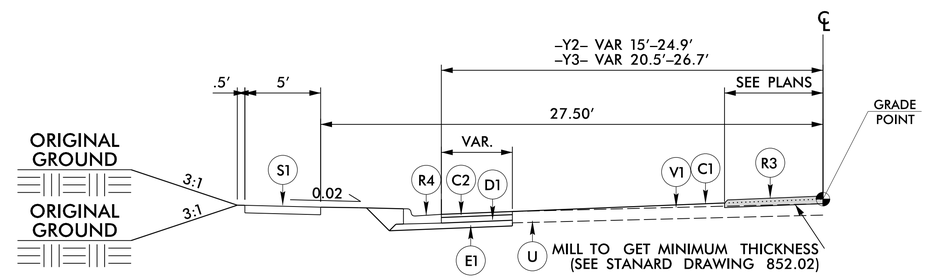
–Y1– STA. 11+27.50 TO STA. 12+32.50 (RIGHT)
–Y2– STA. 12+20.93 TO STA. 12+24.33 (LEFT, MIRROR IMAGE)

6/2/99
24-JAN-2022 14:07
R:\Roadway\Proj\W-5704H_DDC4_TYP.dgn
$$$$USERNAME$$$$



TYPICAL SECTION NO. 6

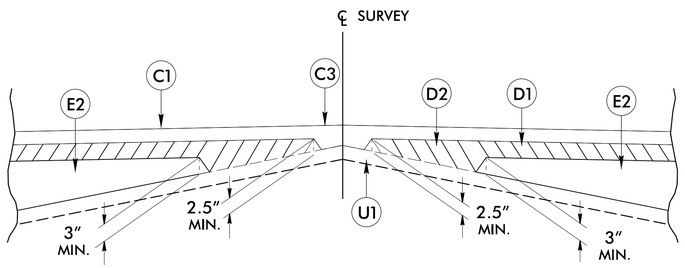
–Y1– STA. 12+32.50 TO STA. 12+82.50 (RIGHT)
–Y4– STA. 10+17.50 TO STA. 10+77.50 (RIGHT)



TYPICAL SECTION NO. 7

–Y3– 10+67.50 TO 10+92.50(LEFT & RIGHT)
MILL 1.5″ RESURFACE 1.5″ C1(S9.5B) WITH MM
–Y3– 10+92.50 TO 11+50.00(LEFT & RIGHT)
MILL 1.5″ RESURFACE 1.5″ C1(S9.5B)

–Y2– STA. 12+24.33 TO STA. 12+52.50 (LEFT) NO SIDEWALK
–Y2– STA. 12+52.50 TO STA. 12+82.50 (LEFT)
–Y3– STA. 10+17.50 TO STA. 10+67.50 (LEFT)



Detail Showing Method of Wedging

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	2A-2

ROADWAY DESIGN ENGINEER
01/24/2022 4:31 PM EST
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
E0D89850A45044B...

PAVEMENT DESIGN ENGINEER
01/24/2022 4:31 PM EST
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III
DocuSigned by: Norwood A Gainey III
E0D89850A45044B...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PAVEMENT SCHEDULE	
C1	1.5″ S9.5C
C2	3″ S9.5C
C3	VAR S9.5C
D1	4″ I19.0C
D2	VAR I19.0C
E1	4″ B25.0C
E2	VAR B25.0C
R1	2.5′ C&G
R2	2′ VALLEY GUTTER
R3	MOUNTABLE MEDIAN
T1	EARTH MATERIAL
U1	EXIST. PAVEMENT
V1	0″-3″ MILLING
W1	WEDGING

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

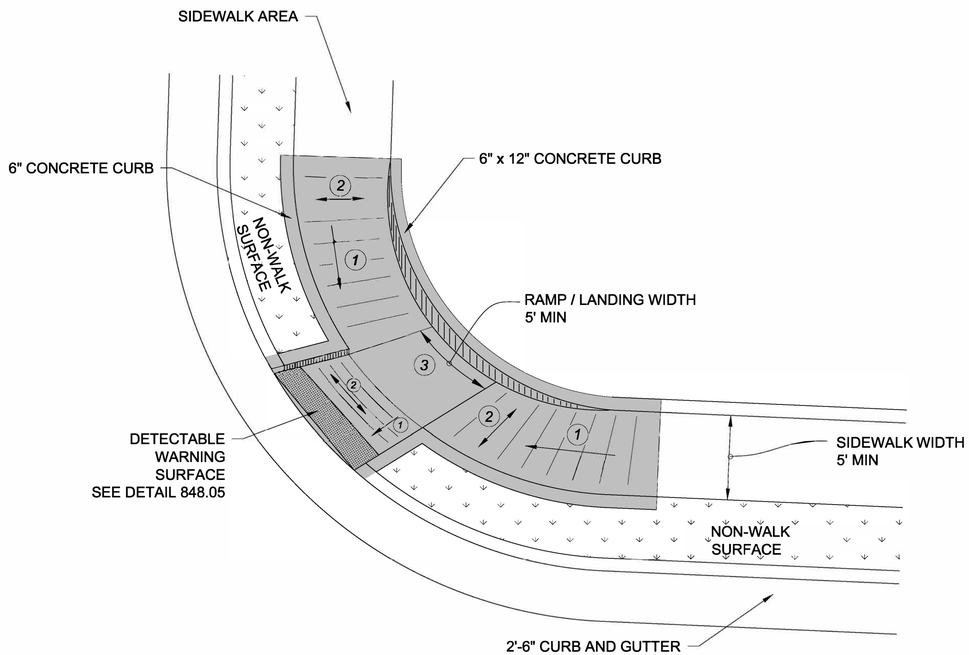
REVISIONS

6/2/99

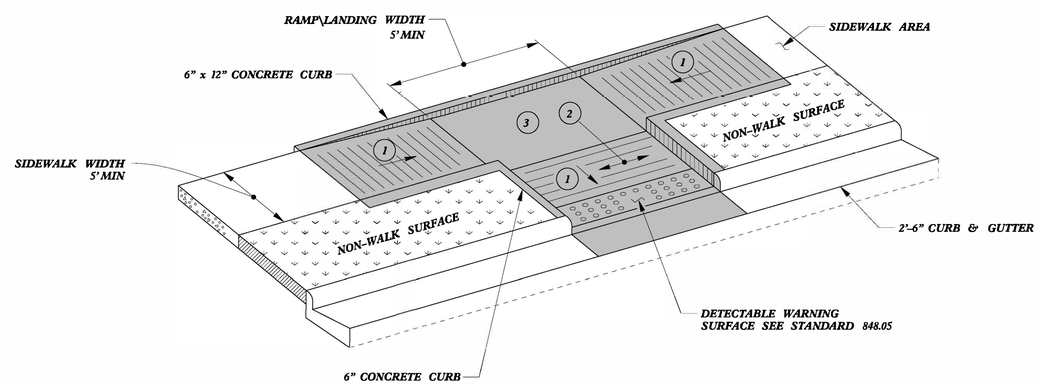
24-JAN-2022 14:13
R:\Roadway\Proj\W-5704H_DDC4_TYP.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	2C-1

PAY LIMITS FOR 1 CURB RAMP



TYPE 3 MODIFIED
INSTALLATION IN A RADIUS



TYPE 3

1. *8.33% (12:1) MAX RAMP SLOPE*
2. *CROSS SLOPE: 2.00%*
3. *CURB RAMPS REQUIRE A (4'-0") MINIMUM LANDING WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SLOPE TO DRAIN TO CURB.*

07/05/2022

NORTH CAROLINA PROFESSIONAL SEAL 022071 ENGINEER RONALD ELTON DAVENPORT JR.

DocuSigned by:
Ron Davenport
F81B6038A47A442...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

CONTRACT STANDARDS AND DEVELOPMENT UNIT
Office 919-707-6950 FAX 919-250-4119

CURB RAMPS

ORIGINAL BY: J.S. HOWERTON DATE: 7/7/11
MODIFIED BY: DATE:
CHECKED BY: DATE:
FILE SPEC. :stds/2012CurbRamp/CurbRampDetails.dgn

5/14/99
$$$$USERNAME$$$$
$$$$USERNAME$$$$

COMPUTED BY:	DATE:	7/5/2022
CHECKED BY:	DATE:	7/5/2022

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	3B-1

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SUMMARY OF EARTHWORK

Volumes in Cubic Yards

STATION TO STATION					Uncl. Excav.	Undercut	Embank +%	Borrow	Waste
L	10+00.00	TO	11+09.96		31				31
Y1	11+50.00	TO	12+82.50		21				21
Y2	11+75.00	TO	12+82.50		29				29
Y3	10+17.50	TO	11+50.00		37				37
Y4	10+17.50	TO	11+50.00		66		4		62
SUBTOTAL					184		4		180
TOTAL					184		4		180
WASTE TO REPLACE BORROW									
PROJECT TOTAL					184		4		180
ESTIMATE TO REPLACE TOPSOIL ON BORROW PIT									
GRAND TOTAL					184		4		180
SAY					200			100	
ESTIMATE UNDERCUT						50			

PARCEL INDEX

PARCEL	SHEET	PROPERTY OWNERS NAMES
1	4	ROBIN HOOD FAMILY TRUST
2	4	JAMES GORDON
3	4	TOWN OF BENSON

SUMMARY OF REMOVAL OF EXISTING ASPHALT PAVEMENT

STATION TO STATION					LOC	SQUARE YARDS
Y4	10+28	TO	Y4	10+78	RT	23
Y4	10+17	TO	Y4	10+78	LT	35
TOTAL						58
SAY						60

SUMMARY OF REMOVAL OF EXISTING CONCRETE PAVEMENT

STATION TO STATION					LOC	SQUARE YARDS
Y4	10+28	TO	Y4	10+78	RT	23
Y4	10+17	TO	Y4	10+78	LT	35
TOTAL						58
SAY						60

COMPUTED BY:	BAJ	DATE:	2/25/2020
CHECKED BY:	BJH	DATE:	2/25/2020

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
W-5704H	3D-1

TGSBEN-LAPTC

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION | OFFSET | STRUCTURE NO. FROM | STRUCTURE NO. TO | TOP ELEVATION | INVERT ELEVATION | INVERT ELEVATION | % MINIMUM REQUIRED SLOPE | WELDED STEEL PIPE (GRADE B) SEALED PIPE SYSTEM SEE SPECIAL PROVISIONS SIZE 12" | 16" | 18" | 24" | 30" | 36" | 42" | 48" | QUANTITIES FOR SEALED DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | LIN. FT. B 10.0' AND ABOVE | SEALED STRUCTURE WITH BOOTS | C.S. PIPE 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS III 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | R.C. PIPE CLASS IV 12" | 15" | 18" | 24" | 30" | 36" | 42" | 48" | ** " R.C. PIPE (CLASS V) | ***" RC PIPE CULVERTS, CONTRACTOR DESIGN | ****" RC PIPE CULVERTS, CONTRACTOR DESIGN | 15" SIDE DRAIN PIPE | 18" SIDE DRAIN PIPE | ENDWALLS STD. 838.01 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YARDS | QUANTITIES FOR DRAINAGE STRUCTURES *TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL. 'B') PER EACH (0' THRU 5.0') | LIN. FT. A 5.0' THRU 10.0' | LIN. FT. B 10.0' AND ABOVE | C.B. STD. 840.01 OR STD. 840.02 | FRAME, GRATES, AND HOOD STD. 840.03 TYPE OF GRATE E | F | G | CONCRETE TRANSITIONAL SECTION DROP INLET | CATCH BASIN | T.B.D.I STD. 840.35 | G.D.I. (N.S. FLAT) FRAME W/ 2 GRATES 840.29 | T.B.J.B. STD. 840.34 | M.H. FRAME AND COVER STD. 840.54 | | CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71 | CONC. COLLARS CL. "B" C.Y. STD. 840.72 | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	04
R/W SHEET NO.	04

ROADWAY DESIGN ENGINEER
07/05/2022
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY
DocuSigned by: Norwood A Gainey III

HYDRAULICS ENGINEER
07/05/2022
NORTH CAROLINA PROFESSIONAL SEAL 044158 ENGINEER BENJAMIN J. HENEGAR
DocuSigned by: Benjamin J. Henegar

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BENSON BAPTIST CHURCH
NO DEED ON RECORD

PROP CONC SIDEWALK

NAD 83/NSRS 2011

NATHAN BLACKMAN
DB 1032 PG 294

ROBIN HOOD FAMILY TRUST
DB 4082 PG 839

JAMES GORDON
DB 4655 PG 853

JAMES GORDON
DB 3198 PG 626

ROBIN HOOD FAMILY TRUST
DB 4082 PG 839

HARVEST SILVER LLC
DB 1561PG 207

TOWN OF BENSON
DB 1195 PG 508

TOWN OF BENSON
DB 1195 PG 512

SUZANNE COOK
DB 4459 PG 220

TOWN OF BENSON
DB 1195 PG 512

ROY RAYNOR
DB 1215 PG 349

ROY RAYNOR
DB 669 PG 116

JAMES MILLER
DB 3330 PG 169

RONALD KENNEDY
DB 669 PG 116

GARY SULLIVAN
DB 4456 PG 541

RHONDA JACKSON
DB 4664 PG 118

JAMES MILLER ESTATE
DB 3330 PG 169

ROBERT ARNETT
DB 2298 PG 80

LINE -Y1-

LINE -Y2-

LINE -Y3-

LINE -Y4-

-Y2- POT 11+75.00
BEGIN CONST
BEGIN RESURFACING

-Y1- POT 11+50.00
BEGIN CONST
BEGIN RESURFACING

-Y3- POT 11+50.00
END CONST
END RESURFACING

-Y4- POT 11+50.00
END CONST
END RESURFACING

-Y2- 12+20.93
BEGIN PROP CONC VALLEY GUTTER (RIGHT)
BEGIN PROP CONC MOUNTABLE MEDIAN

-Y2- 12+52.50
END PROP CONC VALLEY GUTTER
BEGIN PROP 2'-6" CONC CURB & GUTTER

-Y1- 12+52.50
END PROP CONC VALLEY GUTTER
BEGIN PROP 2'-6" CONC CURB & GUTTER
-Y1- 11+85.00
BEGIN PROP CONC VALLEY GUTTER (LEFT)

-Y2- 12+24.33
BEGIN PROP 2'-6" CONC CURB & GUTTER

-Y1- 12+27.50
BEGIN PROP CONC MOUNTABLE MEDIAN

-Y3- 10+92.50
END PROP CONC MOUNTABLE MEDIAN

-Y3- 10+67.50
END PROP 2'-6" CONC CURB & GUTTER

-Y3- 10+19.18
END PROP 2'-6" CONC CURB & GUTTER
REMOVE EXISTING CURB RAMP
& REPLACE CONC SIDEWALK

-Y1- 12+32.50
BEGIN PROP 2'-6" CONC CURB & GUTTER

-Y4- 10+77.50
BEGIN PROP 2'-6" CONC CURB & GUTTER

-Y4- 11+07.50
PROP CONC MOUNTABLE MEDIAN

-L- PCC 10+28.17 =
-Y2- POT 13+00.00

-L- PCC 10+54.98 =
-Y3- POT 10+00.00

-L- PCC 10+83.14 =
-Y4- POT 10+00.00

-L- PC 10+00.00 =
-L- POT 11+09.96 =
-Y1- POT 13+00.00

REMOVE & REPLACE CONC SIDEWALK (5' MIN WIDTH)

REMOVE & REPLACE
CONC SIDEWALK (10' MIN WIDTH)

REMOVE EXIST PAVEMENT

REMOVE EXIST PAVEMENT
Could not Locate

COLLAR AND EXTEND
W/15" RCP-IV

REMOVE R 3'

REMOVE DI

N 34° 48' 14.8" E

S 55° 26' 07.9" E

PI Sta 10+18.19
Δ = 92° 12' 59.9" (RT)
D = 32° 24' 16.0"
L = 28.17'
T = 18.19'
R = 17.50'

PI Sta 10+45.00
Δ = 87° 46' 58.2" (RT)
D = 32° 24' 16.0"
L = 26.81'
T = 16.84'
R = 17.50'

PI Sta 10+73.17
Δ = 92° 12' 59.9" (RT)
D = 32° 24' 16.0"
L = 28.17'
T = 18.19'
R = 17.50'

PI Sta 10+99.98
Δ = 87° 47' 02.0" (RT)
D = 32° 24' 16.0"
L = 26.81'
T = 16.84'
R = 17.50'

REVISIONS

8/17/99

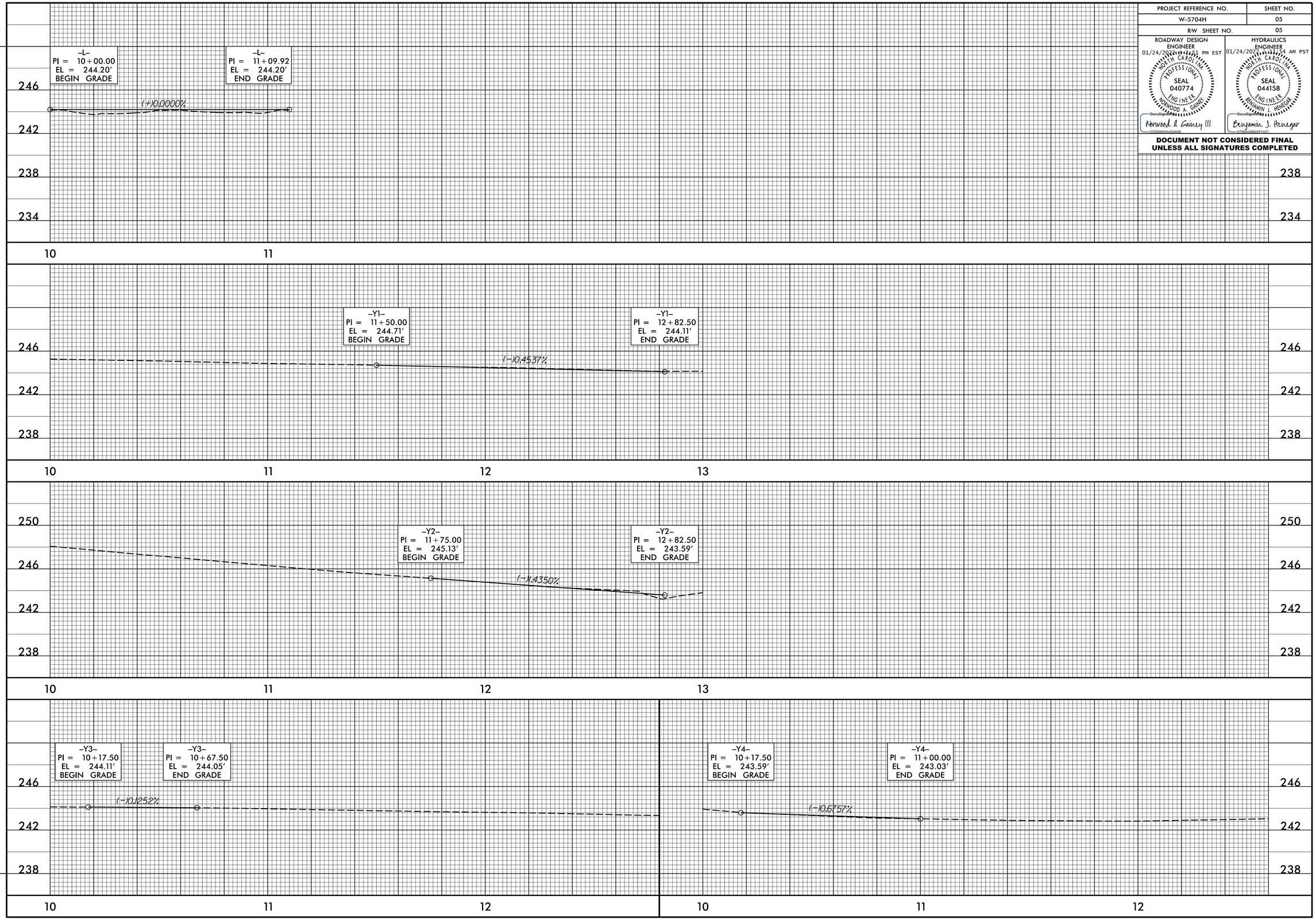
05-JUL-2022 14:20
R:\Roadway\Proj\W-5704H_DDC4_PSH_04.dgn
Division 4 DDC

DDC4

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	05
R/W SHEET NO.	05

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
01/24/2022 12:51 PM EST	01/24/2022 12:24 AM PST
NORTH CAROLINA PROFESSIONAL SEAL 040774 ENGINEER NORWOOD A. GAINEY III	NORTH CAROLINA PROFESSIONAL SEAL 044158 ENGINEER BENJAMIN J. HENEGAR
DocuSigned by: Norwood A Gainey III E0D6890A45044B...	DocuSigned by: Benjamin J. Henegar D79DAABB40FF437...

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



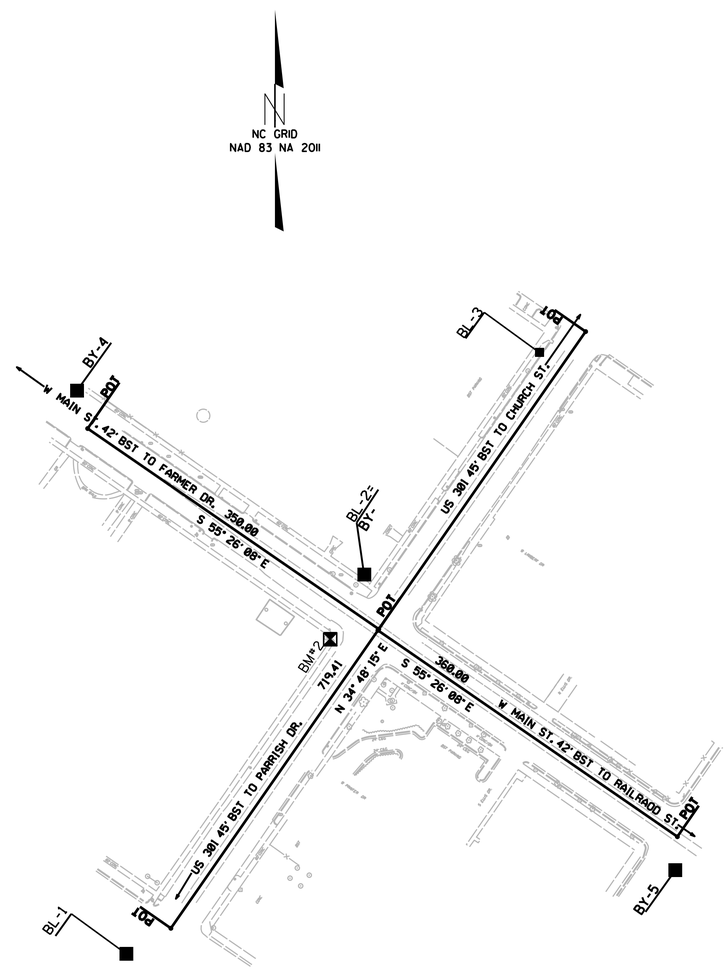
REVISIONS

24-JAN-2022 09:26
R:\Roadway\Proj\W-5704H_DDC4_PRO_05.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	RW02C-1
Location and Surveys	

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



SEE SHEET RW02C-3
FOR FUTHER
ALIGNMENT DETAILS

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

6/2/99
15-JUL-2018 19:23
C:\pro_pcs\w5704h\FIELDWORK\CONTROL_SHEET\w5704h_2d.dgn
User: pscavone at TASCNDREVOLIF20

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

BL

POINT	DESC.	NORTH	EAST	ELEVATION
1	W5704H BL1	593942.5830	2134192.8200	244.62
2	W5704H BL2	594317.3890	2134428.2400	243.95
3	W5704H BL3	594537.9690	2134601.6340	242.36

BY

POINT	DESC.	NORTH	EAST	ELEVATION
4	W5704H BY4	594500.4380	2134144.0380	248.93
22	BL-BY EQUALITY	594317.3890	2134428.2400	243.95
5	W5704H BY5	594025.4780	2134736.3180	243.55

****

BM1 ELEVATION = 223.17
N 595198 E 2135135
EY1 STATION 10+40.00 1163 LEFT
BENCH NAIL IN BASE OF 24" PINE

****

****

BM2 ELEVATION = 245.55
N 594254 E 2134395
EY1 STATION 10+00.00
S 79°30'52.1" W DIST 48.07
BOLT ON SIGN POST

****

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

6/2/99
REVISIONS
$$$$SYSTIME$$$$
$$$$DGN$$$$

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

EL

POINT	N	E	BEARING	DIST
POT	593967.987	2134236.867		
LINE			N 34°48'14.8" E	719.41
POT	594558.699	2134647.486		

EY

POINT	N	E	BEARING	DIST
POT	594462.717	2134154.503		
LINE			S 55°26'07.9" E	350.00
POT	594264.152	2134442.722		

EY1

POINT	N	E	BEARING	DIST
POT	594262.912	2134441.877		
LINE			S 55°26'07.9" E	360.00
POT	594058.671	2134738.335		

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

6/2/99

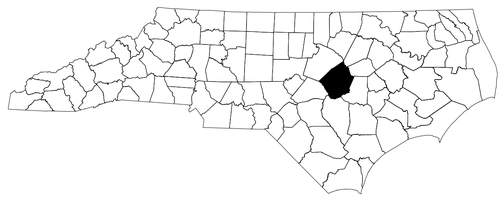
REVISIONS

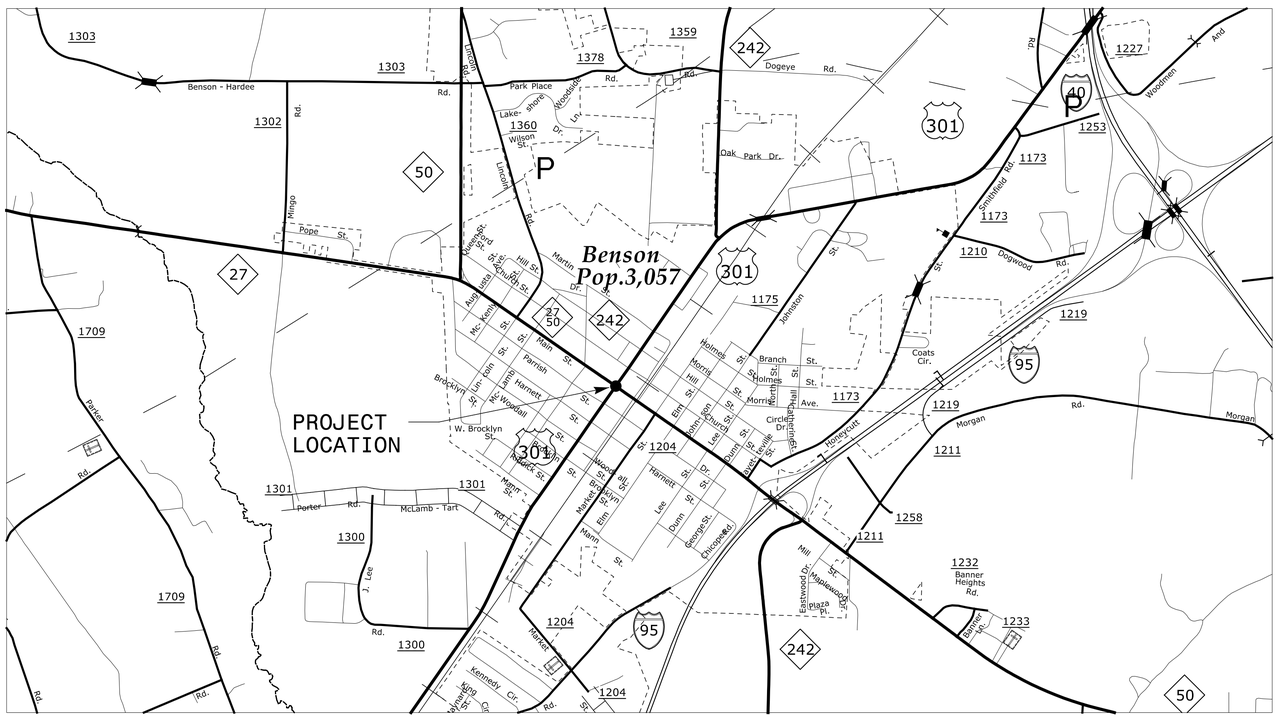
$$$$SYSTIME$$$$
$$$$SYSLIN$$$$
$$$$DGN$$$$

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

JOHNSTON COUNTY





VICINITY MAP
NOT TO SCALE

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES)
TMP-2 THRU TMP-2A	DETOUR SIGNING - TRUCKS
TMP-2B	DETOUR SIGNING - LOCAL TRAFFIC
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL

SHEET NO.
TMP-1

W-5704H

TIP PROJECT:

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

PLANS PREPARED BY:

JOHN TOWNSEND, PE (VHB)

NCDOT CONTACTS:

ADDISON GAINEY, PE
PROJECT ENGINEER

COREY MCLAMB, PE
PROJECT DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
WORK ZONE TRAFFIC CONTROL

APPROVED:

DATE:

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/24/2021

8/24/2021
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-01.dgn
User:jtrownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-1A

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.03	TEMPORARY ROAD CLOSURES
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1160.01	TEMPORARY CRASH CUSHION
1165.01	TRUCK MOUNTED ATTENUATOR
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL

SIGNALS

EXISTING PROPOSED TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM SKINNY DRUM TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

PQ WHITE CROSSWALK LINE PAINT (8")

vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No: C-3705

APPROVED: _____

DATE: _____

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/24/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS & LEGEND

8/24/2021
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-01A.dgn
User:jtownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-1B

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME
MAIN STREET
WALL STREET

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 6:00 A.M. DECEMBER 31st TO 6:00 P.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 6:00 P.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 6:00 A.M. THURSDAY AND 6:00 P.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY TO 6:00 P.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 6:00 A.M. THE DAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 6:00 A.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 6:00 P.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 6:00 A.M. FRIDAY AND 6:00 P.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 6:00 A.M. TUESDAY TO 6:00 P.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 6:00 A.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 6:00 P.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

9. FOR MULE DAYS 2022, BETWEEN THE HOURS OF 6:00 A.M. THE WEDNESDAY OF THE MULE DAYS 2022 AND 6:00 P.M.THE MONDAY AFTER THE MULE DAYS 2022.

B) DO NOT CLOSE ROADS AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
MAIN STREET	CLOSURE LIMITED TO 21 CONSECTUTIVE CALENDAR DAYS
WALL STREET	CLOSURE LIMITED TO 21 CONSECUTIVE CALENDAR DAYS

LANE AND SHOULDER CLOSURE REQUIREMENTS

C) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

D) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

   WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

G) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

PAVEMENT EDGE DROP OFF REQUIREMENTS

H) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

   BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

   BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

   BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

I) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 200 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

J) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

K) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

L) PROVIDE SIGNING AND DEVICES REQUIRED TO CLOSE THE ROAD ACCORDING TO THE ROADWAY STANDARD DRAWINGS AND TRAFFIC CONTROL PLANS.

   PROVIDE SIGNING REQUIRED FOR THE OFF-SITE DETOUR ROUTE AS SHOWN IN THE TRAFFIC CONTROL PLANS.

M) CONTRACTOR WILL COVER OR REMOVE ALL SIGNS AND DEVICES REQUIRED TO CLOSE THE ROAD WHEN ROAD CLOSURE IS NOT IN OPERATION.

   CONTRACTOR WILL COVER OR REMOVE ALL SIGNS REQUIRED FOR THE OFF-SITE DETOUR WHEN THE DETOUR IS NOT IN OPERATION.

N) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

O) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 200 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

TRAFFIC CONTROL DEVICES

P) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

Q) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

PAVEMENT MARKINGS AND MARKERS

R) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
MAIN STREET	PAINT	NONE
WALL STREET	PAINT	NONE

S) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

T) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

U) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

V) ALL CURB RAMP LOCATIONS SHALL BE DERIVED FROM STATIONING SHOWN ON PAVEMENT MARKING PLANS OR AS DIRECTED BY THE ENGINEER IN COORDINATION WITH THE SIGNING AND DELINEATION UNIT.

W) CONTRACTOR SHALL MAINTAIN SIDEWALK ACCESS AT ALL TIMES AS STATED IN THE PHASING. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE TEMPORARY SIDEWALKS (CONCRETE, ASPHALT, OR OTHER SUITABLE MATERIAL AS APPROVED BY THE ENGINEER) AT ALL LOCATIONS WHERE THE OPEN PEDESTRIAN TRAVELWAY HAS BEEN REMOVED FOR CONSTRUCTION OPERATIONS (UTILITIES, DRAINAGE, ETC.).

vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC license No: C-3705

APPROVED: _____

DATE: _____

DocuSigned: John Townsend
6B2101C41D8E4AC...

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

3/31/2022

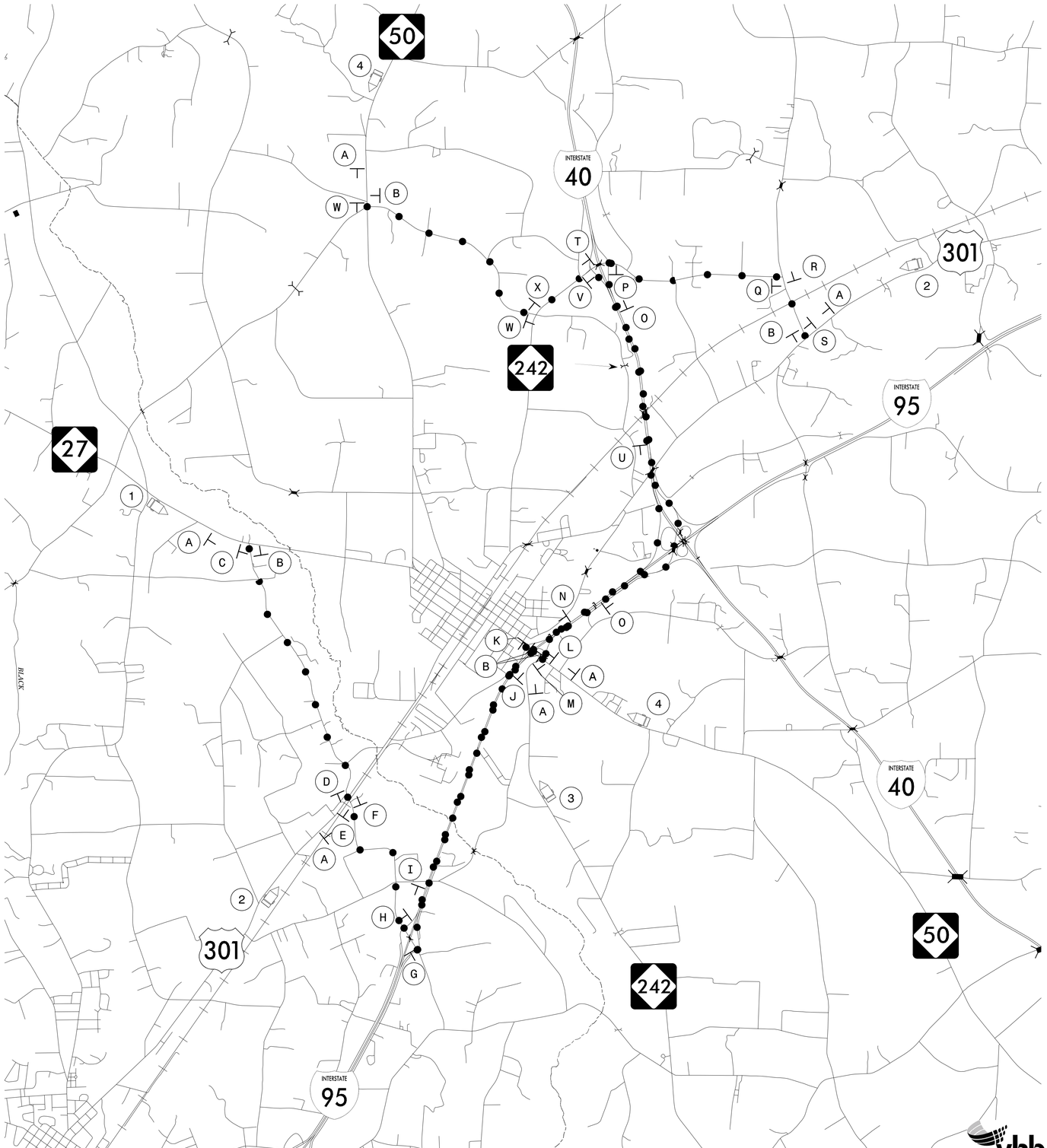
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

TRANSPORTATION OPERATIONS PLAN

3/31/2022
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-01B.dgn
User:jtownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-2



MESSAGE NO. 1	MESSAGE NO. 2
NC 27 CLOSED @ US 301	THRU TRUCKS DETOUR

CHANGEABLE MESSAGE SIGN

(1)

MESSAGE NO. 1	MESSAGE NO. 2
US 301 CLOSED @ NC 50	THRU TRUCKS DETOUR

CHANGEABLE MESSAGE SIGN

(2)

MESSAGE NO. 1	MESSAGE NO. 2
NC 242 CLOSED @ US 301	THRU TRUCKS DETOUR

CHANGEABLE MESSAGE SIGN

(3)

MESSAGE NO. 1	MESSAGE NO. 2
NC 50 CLOSED @ US 301	THRU TRUCKS DETOUR

CHANGEABLE MESSAGE SIGN

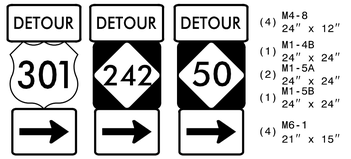
(4)

W20-2
48" x 48"

(A)

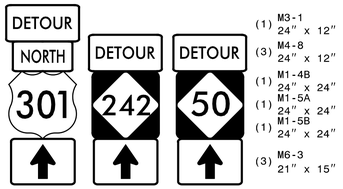
M4-8 A
24" X 18"

(B)



(4) M4-8 24" x 12"
(1) M1-4B 24" x 24"
(2) M1-5A 24" x 24"
(1) M1-5B 24" x 24"
(4) M6-1 21" x 15"

(C)

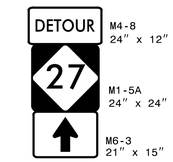


(1) M3-1 24" x 12"
(3) M4-8 24" x 12"
(1) M1-4B 24" x 24"
(1) M1-5A 24" x 24"
(1) M1-5B 24" x 24"
(3) M6-3 21" x 15"

(D)

(4) M4-8 24" x 12"
(1) M1-4B 24" x 24"
(2) M1-5A 24" x 24"
(1) M1-5B 24" x 24"
(4) M6-1 21" x 15"

(E)



M4-8
24" x 12"
M1-5A
24" x 24"
M6-3
21" x 15"

(F)

(4) M4-8 24" x 12"
(1) M1-4B 24" x 24"
(2) M1-5A 24" x 24"
(1) M1-5B 24" x 24"
(4) M6-1 21" x 15"

(G)

DETOUR ROUTE

APPROVED: _____

DATE: _____

John Townsend

8/24/2021

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

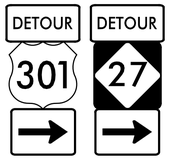
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

DETOUR SIGNING - TRUCKS

940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

8/24/2021
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-02.dgn
User:jtownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-2A

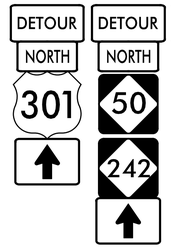


(2) M4-8 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(2) M6-1 21″ x 15″

H

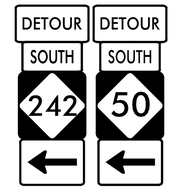
(2) M4-8 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(2) M6-2 21″ x 15″

I



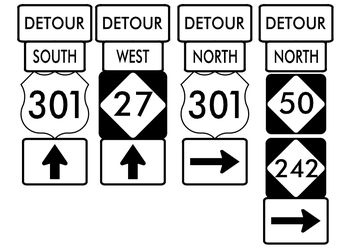
(3) M4-8 24″ x 12″
(2) M3-1 24″ x 12″
(1) M3-3 24″ x 12″
(1) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(2) M1-5B 24″ x 24″
(1) M6-3 21″ x 15″
(1) M6-2 21″ x 15″

J



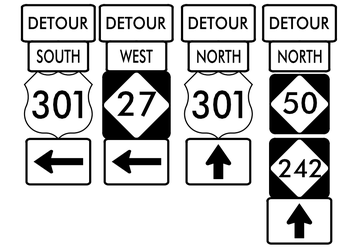
(2) M4-8 24″ x 12″
(2) M3-3 24″ x 12″
(1) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-1 21″ x 15″

K



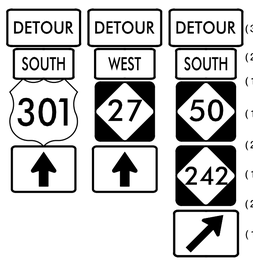
(4) M4-8 24″ x 12″
(1) M3-3 24″ x 12″
(1) M3-4 24″ x 12″
(2) M3-1 24″ x 12″
(2) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-3 21″ x 15″
(2) M6-1 21″ x 15″

L



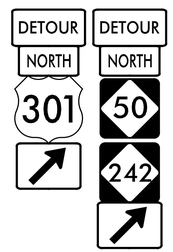
(4) M4-8 24″ x 12″
(1) M3-3 24″ x 12″
(1) M3-4 24″ x 12″
(2) M3-1 24″ x 12″
(2) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-1 21″ x 15″
(2) M6-3 21″ x 15″

M



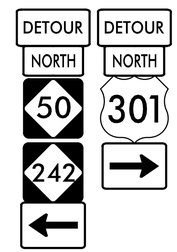
(3) M4-8 24″ x 12″
(2) M3-3 24″ x 12″
(1) M3-4 24″ x 12″
(1) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-3 21″ x 15″
(1) M6-2 21″ x 15″

N



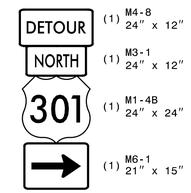
(2) M4-8 24″ x 12″
(2) M3-1 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-2 21″ x 15″

O



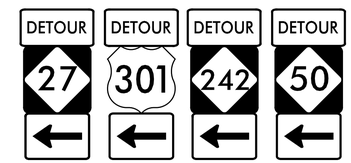
(2) M4-8 24″ x 12″
(2) M3-1 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-1 21″ x 15″

P



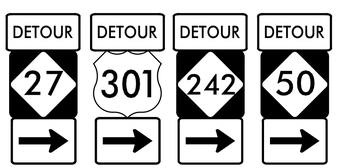
(1) M4-8 24″ x 12″
(1) M3-1 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M6-1 21″ x 15″

Q



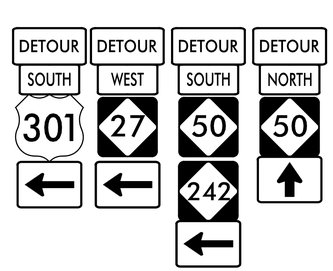
(4) M4-8 24″ x 12″
(1) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(4) M6-1 21″ x 15″

R



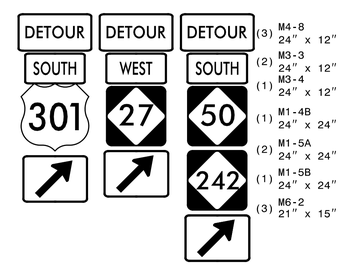
(4) M4-8 24″ x 12″
(1) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(4) M6-1 21″ x 15″

S



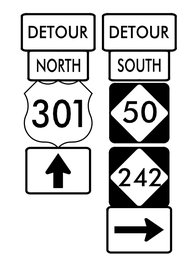
(4) M4-8 24″ x 12″
(2) M3-3 24″ x 12″
(1) M3-4 24″ x 12″
(1) M3-1 24″ x 12″
(1) M1-4B 24″ x 24″
(3) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(3) M6-1 21″ x 15″
(1) M6-2 21″ x 15″

T



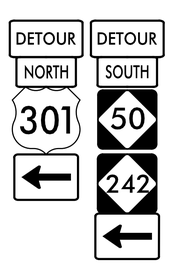
(3) M4-8 24″ x 12″
(2) M3-3 24″ x 12″
(1) M3-4 24″ x 12″
(1) M1-4B 24″ x 24″
(2) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(3) M6-2 21″ x 15″

U



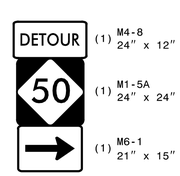
(2) M4-8 24″ x 12″
(1) M3-1 24″ x 12″
(1) M3-3 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(1) M6-2 21″ x 15″
(1) M6-1 21″ x 15″

V



(2) M4-8 24″ x 12″
(1) M3-1 24″ x 12″
(1) M3-3 24″ x 12″
(1) M1-4B 24″ x 24″
(1) M1-5A 24″ x 24″
(1) M1-5B 24″ x 24″
(2) M6-1 21″ x 15″

W



(1) M4-8 24″ x 12″
(1) M1-5A 24″ x 24″
(1) M6-1 21″ x 15″

X

APPROVED: _____

DATE: _____

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/24/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

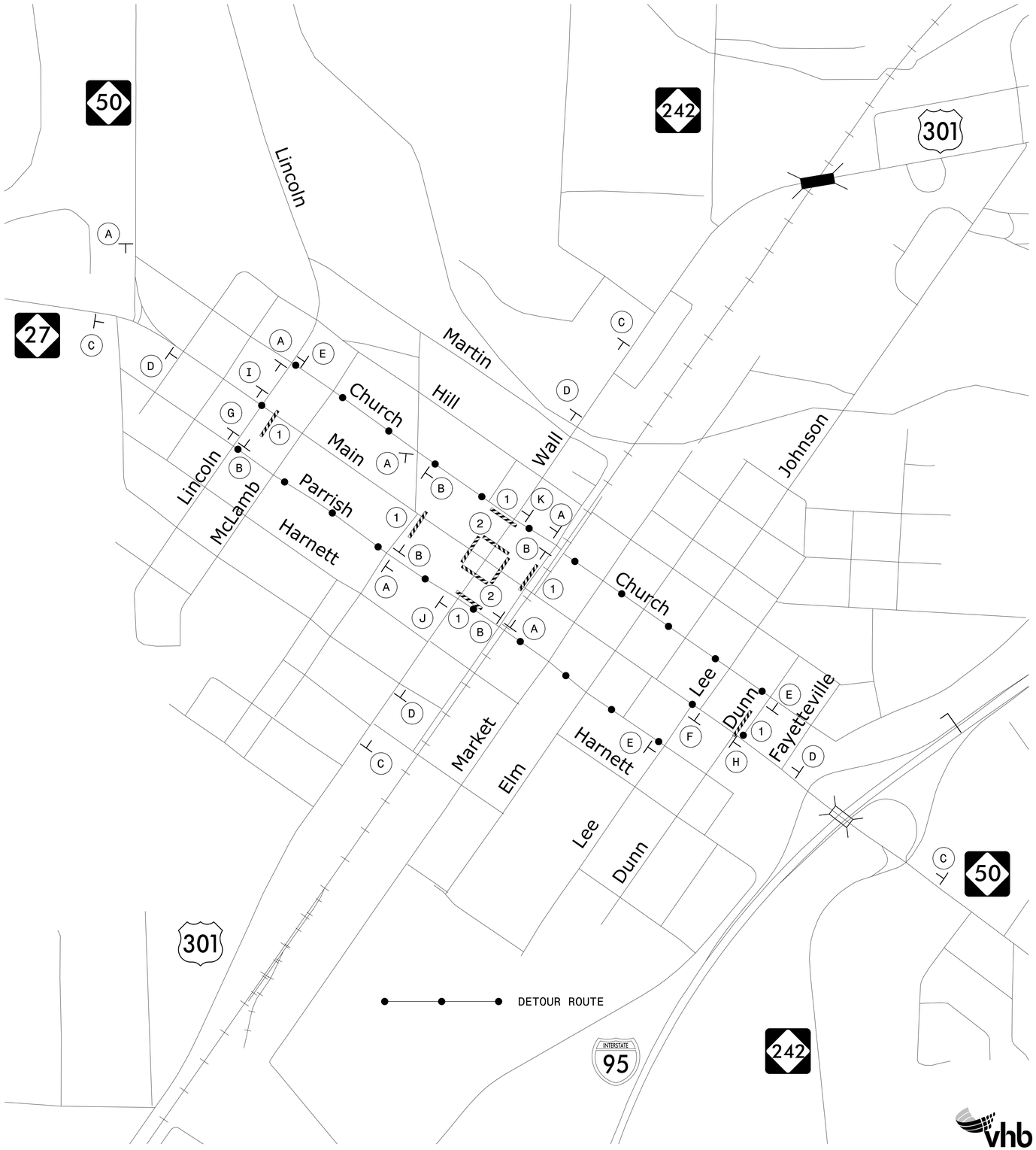
vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

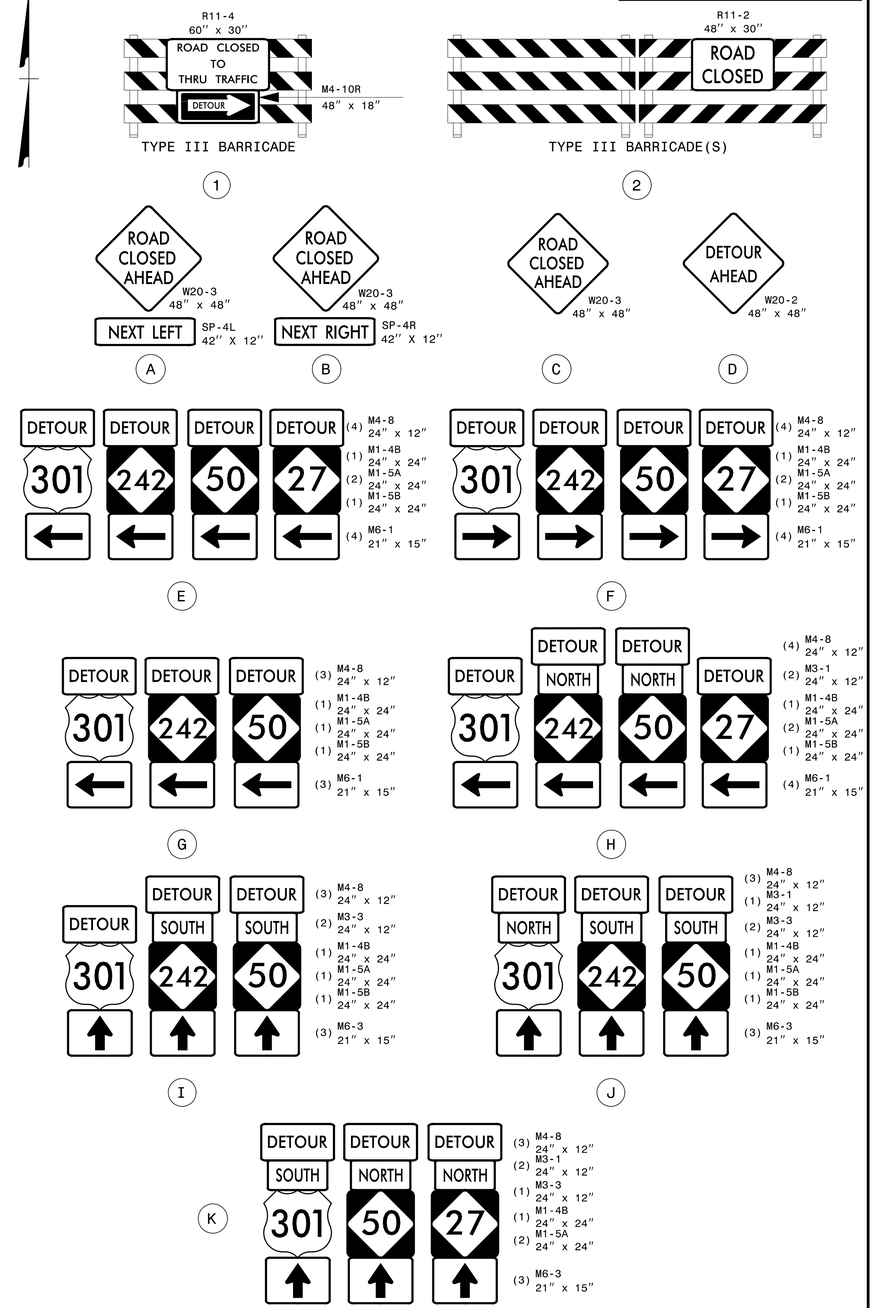
DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

DETOUR SIGNING - TRUCKS

8/24/2021
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-02A.dgn
User:jtownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-2B





APPROVED: _____

DATE: _____

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/24/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

DETOUR SIGNING - LOCAL

vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

8/24/2021
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-02B.dgn
User:jtownsend

PHASING

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-3

THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL EXISTING DRIVEWAYS DURING CONSTRUCTION UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR AS DIRECTED IN THE PHASING NOTES.

ERADICATE EXISTING MARKINGS WHICH CONFLICT WITH MARKINGS SHOWN IN THIS PLAN. REPLACE FADED OR WORN MARKINGS AS NEEDED DURING CONSTRUCTION TO MAINTAIN CLEAR DIRECTION TO THE TRAVELING PUBLIC OR AS DIRECTED BY THE ENGINEER.

PHASE I

STEP 1

INSTALL AND COVER DETOUR SIGNS AS SHOWN ON SHEETS TMP-2 THRU TMP-2B.

STEP 2

UNCOVER DETOUR SIGNING PLACED IN STEP 1 AND CLOSE THE INTERSECTION OF WALL STREET AT MAIN STREET.

INSTALL ADA COMPLIANT PEDSTRIAN BARRICADES AS SHOWN ON THE PLANS TO CLOSE AND DETOUR THE SIDEWALK AND PROVIDE PEDESTRIAN TRANSPORT SERVICE FOR PEDESTRIAN TRAFFIC TO/FROM THE WEST ON W MAIN STREET. ACCESS TO BUSINESSES SHALL BE MAINTAINED AT ALL TIMES.

CONSTRUCT CURB AND GUTTER, DRAINAGE, ASPHALT PAVEMENT, SIDEWALK, CURB RAMPS, AND CONCRETE ISLANDS.

INSTALL FINAL PAVEMENT LAYER AND FINAL PAVEMENT MARKINGS AND MARKERS. SEE PAVEMENT MARKING PLANS FOR DETAIL.

OPEN THE INTERSECTION OF WALL STREET AT MAIN STREET AND REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES.

vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

APPROVED: _____

DATE: _____

DocuSigned by: John Townsend
6B2101C41BFA4A...

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

6/1/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

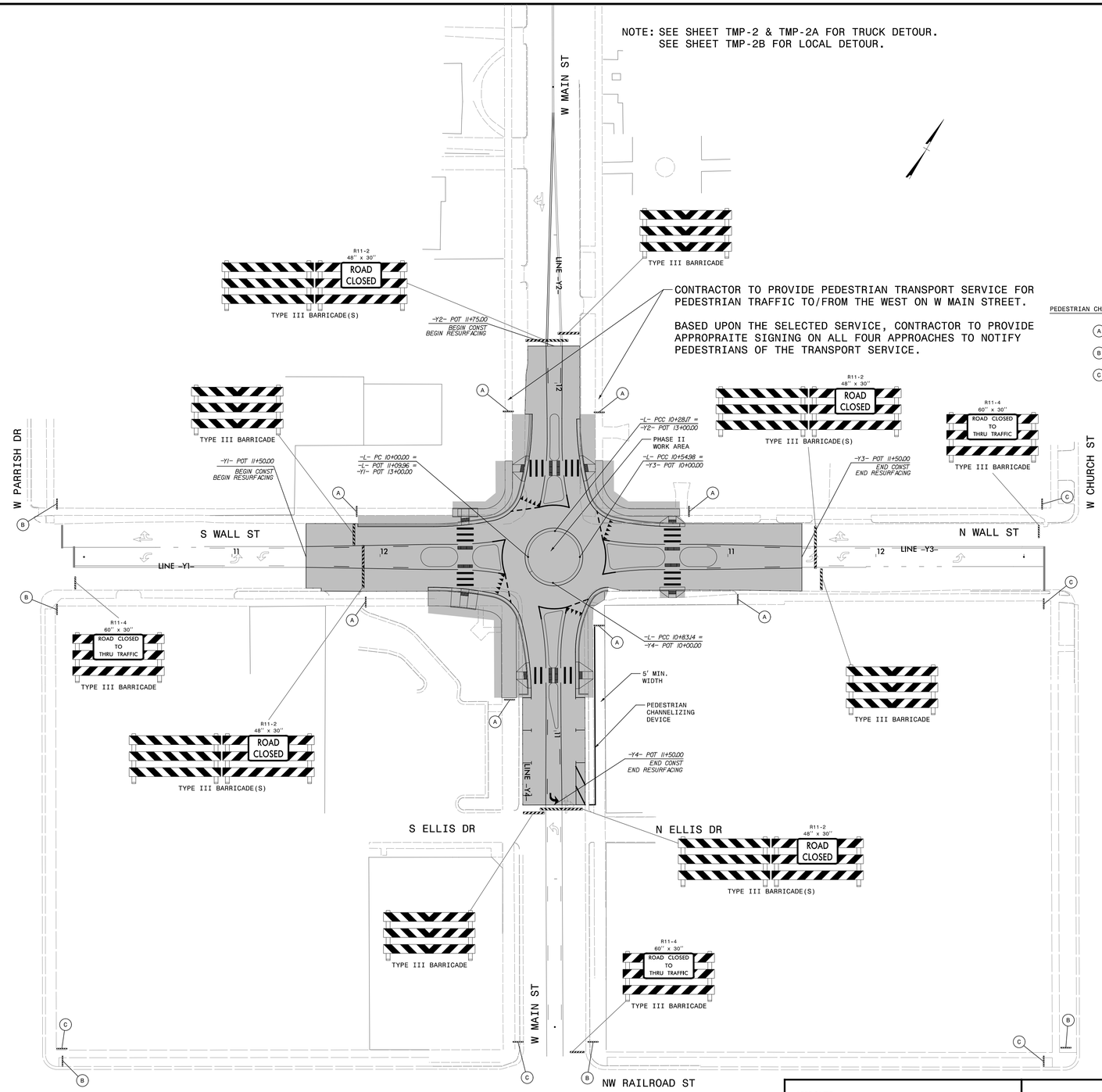
DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASING

6/1/2022
R:\TrafficTrafficControl\TCP\W5704H_tmp_TMP-3.dgn
User:jtownsend

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	TMP-4

NOTE: SEE SHEET TMP-2 & TMP-2A FOR TRUCK DETOUR.
SEE SHEET TMP-2B FOR LOCAL DETOUR.



APPROVED: _____

DATE: _____

DocuSigned by: John Townsend 6B2101C41D...

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

3/30/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DIVISION OF HIGHWAYS * STATE OF NORTH CAROLINA * DEPARTMENT OF TRANSPORTATION * WORK ZONE TRAFFIC CONTROL

PHASE I

vhb
940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705

3/30/2022
R:\Traffic\TrafficControl\TCP\W5704H_tmp_TMP-4.dgn
User:jtownsend

T.I.P.: W-5704H

CONTRACT:

TIP NO.	SHEET NO.
W-5704H	PMP-1

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/25/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING PLAN
JOHNSTON COUNTY

LOCATION: US-301 /NC-242 (WALL STREET) AND NC-50 /NC-242 (MAIN STREET) INTERSECTION IN BENSON

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE AND SCHEDULE SHEET
PMP-4	PAVEMENT MARKING DETAIL

PAVEMENT MARKING SCHEDULE

SYMBOL	ITEM DESCRIPTION	TOTAL QUANTITY	
	THERMOPLASTIC (24″, 90 MILS.)		
T3	WHITE CROSSWALK LINE (HIGH VISIBILITY)	220	FT
	THERMOPLASTIC (4″, 90 MILS.)		
TA	WHITE EDGELINE	75	FT
TB	YELLOW EDGELINE	496	FT
	THERMOPLASTIC (4″, 90 MILS.)		
TF	10 FT. YELLOW SKIP	520	FT
TH	YELLOW SINGLE CENTER	520	FT
TI	YELLOW DOUBLE CENTER	158	FT
	THERMOPLASTIC (8″, 90 MILS.)		
TN	WHITE GORELINE	138	FT
TO	WHITE DIAGONAL	28	FT
	THERMOPLASTIC (8″, 90 MILS.)		
T10	3 FT.-3FT./SP WHITE MINISKIP	74	FT
	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS.)		
UA	LEFT TURN ARROW	1	EA
UN	24″ YIELD LINE TRIANGLE	19	EA

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
-L-	THERMOPLASTIC	SNOWPLOWABLE
-Y- LINES	THERMOPLASTIC	SNOWPLOWABLE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF EXTRUDED THERMOPLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE EXTRUDED THERMOPLASTIC PAY ITEM.

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.04	PAVEMENT MARKINGS - INTERSECTIONS
1205.07	PAVEMENT MARKINGS - PEDESTRIAN CROSSWALKS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1253.01	RAISED PAVEMENT MARKERS - SNOWPLOWABLE

PLAN PREPARED BY: VHB Engineering NC, P.C.

John G. Townsend, PE PROJECT ENGINEER

vhb

Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606
NC License No. C-3705
919.829.0328

8/25/2021
R:\Traffic\PavementMarking\W5704H_pm_ts.dgn
User:jtownsend

TIP NO.	SHEET NO.
W-5704H	PMP-4

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

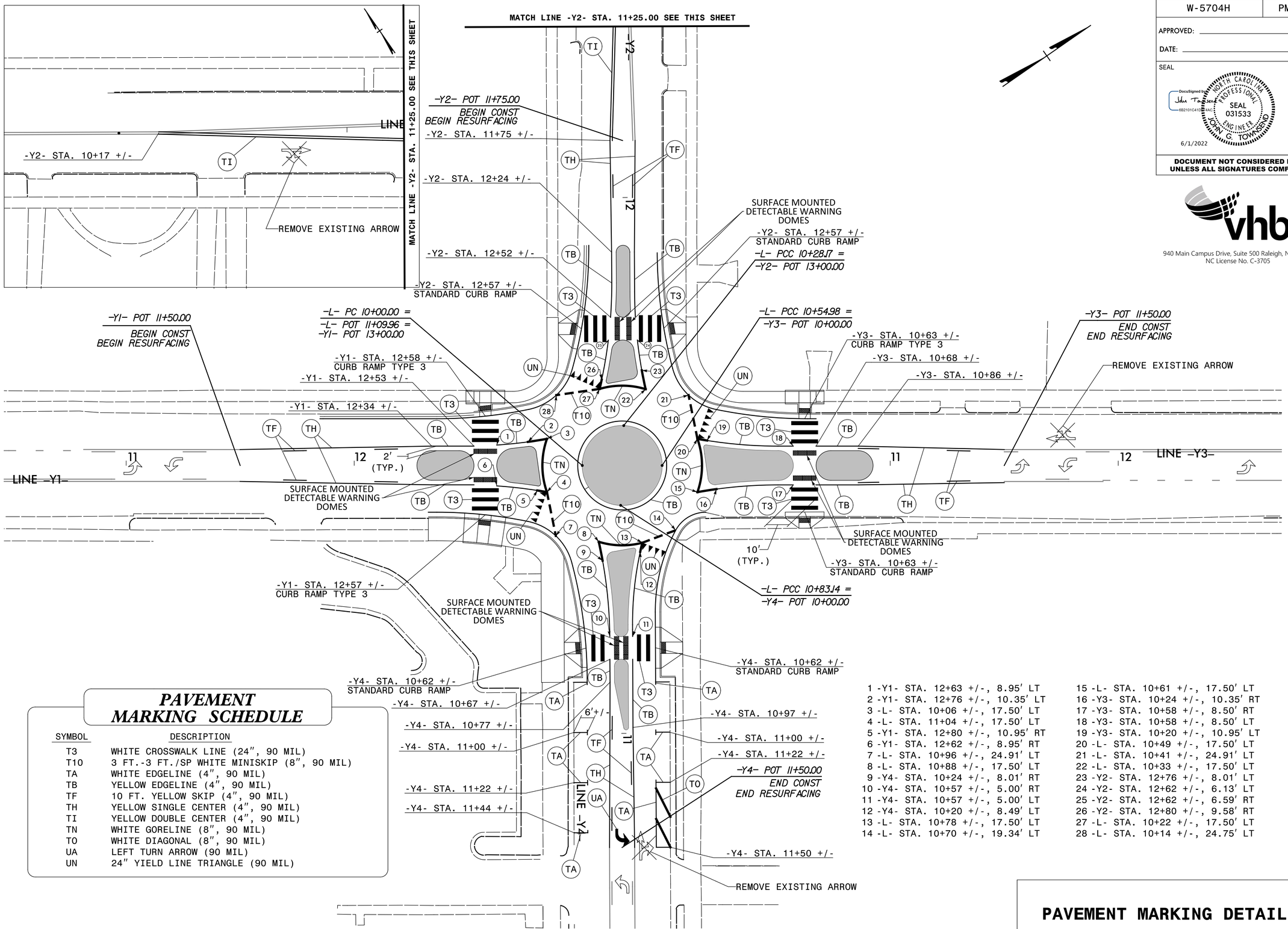
DocuSigned by: John Townsend 6B2101C41C4B4AC...

6/1/2022

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

vhb

940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705



PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
T3	WHITE CROSSWALK LINE (24", 90 MIL)
T10	3 FT.-3 FT./SP WHITE MINISKIP (8", 90 MIL)
TA	WHITE EDGELINE (4", 90 MIL)
TB	YELLOW EDGELINE (4", 90 MIL)
TF	10 FT. YELLOW SKIP (4", 90 MIL)
TH	YELLOW SINGLE CENTER (4", 90 MIL)
TI	YELLOW DOUBLE CENTER (4", 90 MIL)
TN	WHITE GORELINE (8", 90 MIL)
TO	WHITE DIAGONAL (8", 90 MIL)
UA	LEFT TURN ARROW (90 MIL)
UN	24" YIELD LINE TRIANGLE (90 MIL)

1 -Y1- STA. 12+63 +/-, 8.95' LT
2 -Y1- STA. 12+76 +/-, 10.35' LT
3 -L- STA. 10+06 +/-, 17.50' LT
4 -L- STA. 11+04 +/-, 17.50' LT
5 -Y1- STA. 12+80 +/-, 10.95' RT
6 -Y1- STA. 12+62 +/-, 8.95' RT
7 -L- STA. 10+96 +/-, 24.91' LT
8 -L- STA. 10+88 +/-, 17.50' LT
9 -Y4- STA. 10+24 +/-, 8.01' RT
10 -Y4- STA. 10+57 +/-, 5.00' RT
11 -Y4- STA. 10+57 +/-, 5.00' LT
12 -Y4- STA. 10+20 +/-, 8.49' LT
13 -L- STA. 10+78 +/-, 17.50' LT
14 -L- STA. 10+70 +/-, 19.34' LT
15 -L- STA. 10+61 +/-, 17.50' LT
16 -Y3- STA. 10+24 +/-, 10.35' RT
17 -Y3- STA. 10+58 +/-, 8.50' RT
18 -Y3- STA. 10+58 +/-, 8.50' LT
19 -Y3- STA. 10+20 +/-, 10.95' LT
20 -L- STA. 10+49 +/-, 17.50' LT
21 -L- STA. 10+41 +/-, 24.91' LT
22 -L- STA. 10+33 +/-, 17.50' LT
23 -Y2- STA. 12+76 +/-, 8.01' LT
24 -Y2- STA. 12+62 +/-, 6.13' LT
25 -Y2- STA. 12+62 +/-, 6.59' RT
26 -Y2- STA. 12+80 +/-, 9.58' RT
27 -L- STA. 10+22 +/-, 17.50' LT
28 -L- STA. 10+14 +/-, 24.75' LT

PAVEMENT MARKING DETAIL

6/1/2022
R:\Traffic\PavementMarking\W5704H_pm_psh04.dgn
User:jTownsend

T.I.P.: W-5704H

CONTRACT:

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	SIGN-1

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/25/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

SIGNING PLAN
JOHNSTON COUNTY

LOCATION: US-301 /NC-242 (WALL STREET) AND NC-50 /NC-242 (MAIN STREET) INTERSECTION IN BENSON

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
903.10	GROUND MOUNTED SIGN SUPPORTS
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

. SIGNS FURNISHED BY CONTRACTOR
. WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
. ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
. WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
. THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

SUMMARY OF QUANTITIES

ITEM NO.		ITEM DESCRIPTION	QUANTITY	UNIT
DESC. NO.	SECT. NO.			
4025000000	901	CONTRACTOR FURNISHED, TYPE E SIGN	101	S.F.
4072000000	903	SUPPORTS, 3 LB STEEL U-CHANNEL	240	L.F.
4102000000	904	SIGN ERECTION, TYPE E	12	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE E	3	EA.
4116100000	904	SIGN ERECTION, RELOCATE SIGN TYPE F	3	EA.
4192000000	907	DISPOSAL OF SUPPORT, U-CHANNEL	6	EA.

PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2 DISPOSAL OF SUPPORT, U-CHANNEL
3 SIGN ERECTION, RELOCATE SIGN TYPE D, E, AND F
4 SIGN ERECTION, TYPE D, E, AND F

PLAN PREPARED BY: N.C.D.O.T. SIGNING AND DELINEATION UNIT

_____ SIGNING & DELINEATION REGIONAL ENGINEER

_____ SIGNING & DELINEATION PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	TITLE SHEET
SIGN-3	F SHEET
SIGN-4-5	SIGNING PLAN SHEETS

8/25/2021
R:\Traffic\Signing\CADD\Signing Layout Plans\W5704H_sgn_tsh.dgn
jsmith townsend

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	SIGN-3

APPROVED: _____

DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/25/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

(401) QUANTITY REQ'D 4 _ _

36 X 36 X 36
R1-2

ONE "U" POSTS PER SIGN

(402) QUANTITY REQ'D _4_ _

30 X 30
R6-5p

MOUNT BELOW SIGN 401
IN 4 INSTALLATIONS
ONE "U" POST PER SIGN

(403) QUANTITY REQ'D _ _4_

30 X 30
W11-2

ONE "U" POST PER SIGN

(404) QUANTITY REQ'D _4_ _

24 X 12
W16-7p

MOUNT BELOW SIGN 403
IN 4 INSTALLATIONS
ONE "U" POST PER SIGN

(405) QUANTITY REQ'D _4_ _

30 X 30
W2-6

ONE "U" POST PER SIGN

TYPE "E" SIGNS

8/25/2021
R:\Traffic\Signing\CADD\Signing Layout Plans\W5704H_sgn_psh03.dgn
User:tcowsend

TIP NO.	SHEET NO.
W-5704H	SIGN-4

APPROVED: _____

DATE: _____

SEAL

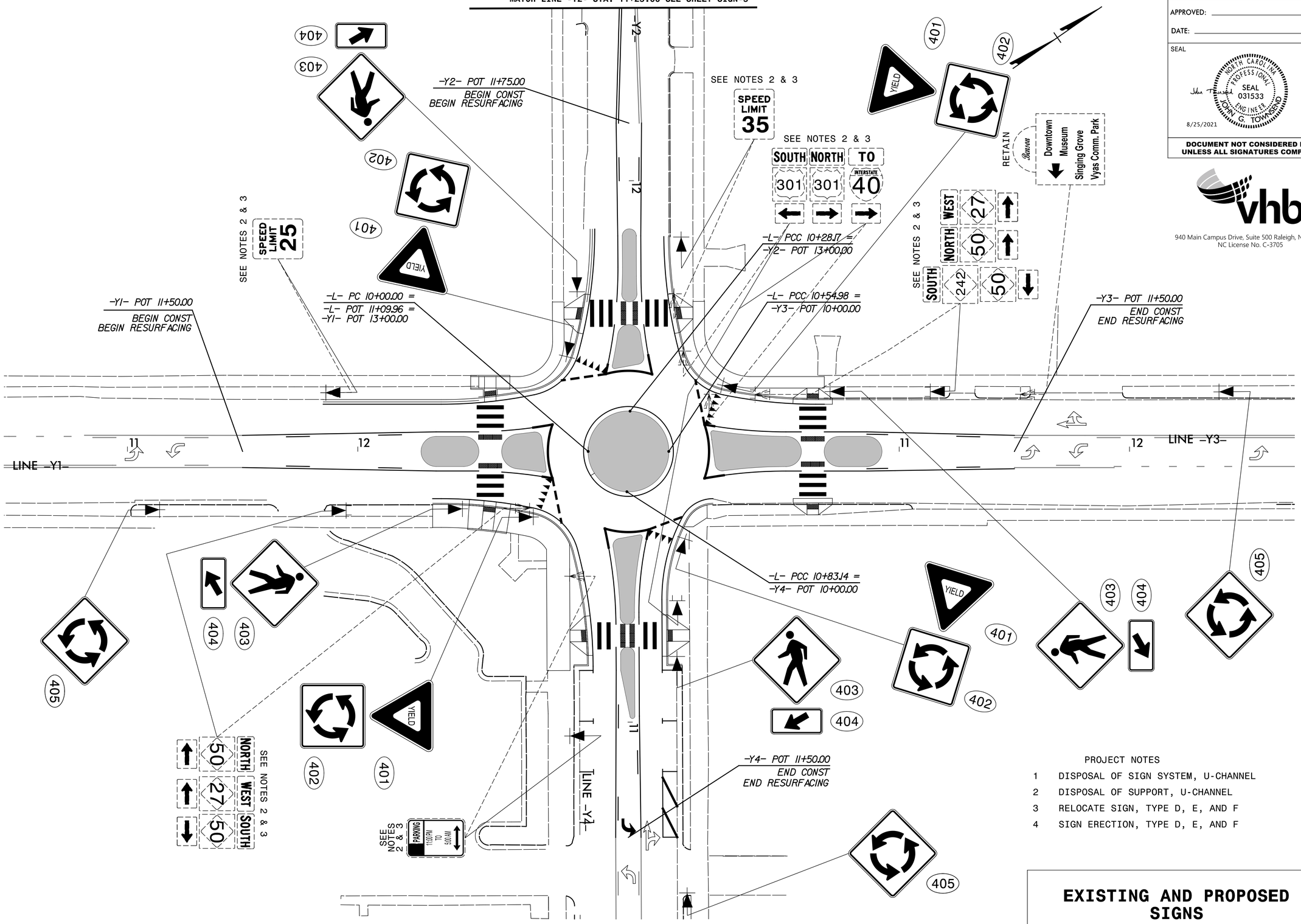
NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/25/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

vhb

940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705



PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2 DISPOSAL OF SUPPORT, U-CHANNEL
3 RELOCATE SIGN, TYPE D, E, AND F
4 SIGN ERECTION, TYPE D, E, AND F

EXISTING AND PROPOSED SIGNS

8/25/2021
R:\Traffic\Signing\CADD\Signing Layout Plans\W5704H_sgn_psh04.dgn
User:jtownsend

TIP NO.	SHEET NO.
W-5704H	SIGN-5

APPROVED: _____

DATE: _____

SEAL

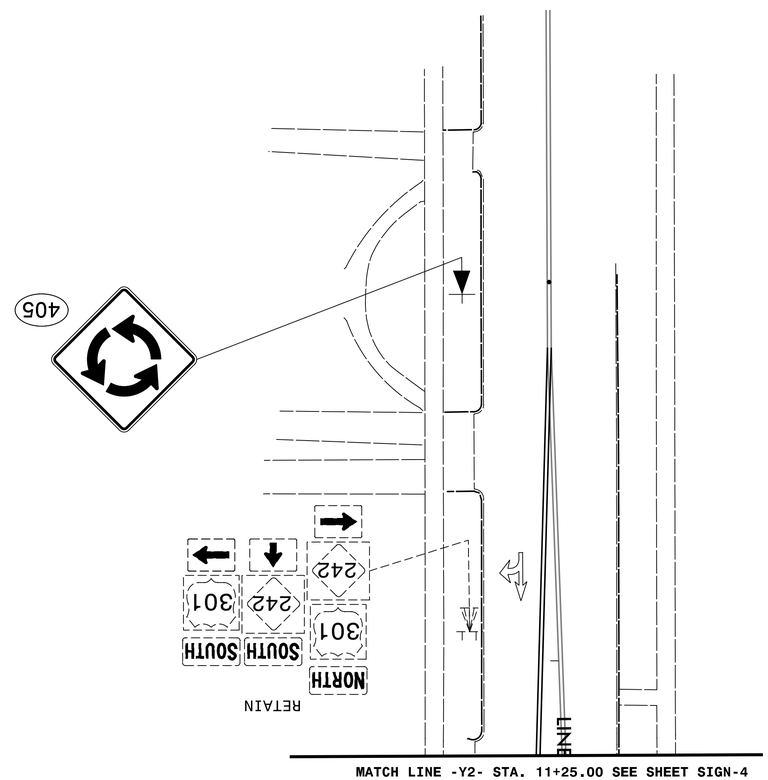
NORTH CAROLINA PROFESSIONAL SEAL 031533 ENGINEER JOHN G. TOWNSEND

8/25/2021

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

vhb

940 Main Campus Drive, Suite 500 Raleigh, NC 27606
NC License No. C-3705



PROJECT NOTES

1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2 DISPOSAL OF SUPPORT, U-CHANNEL
3 RELOCATE SIGN, TYPE D, E, AND F
4 SIGN ERECTION, TYPE D, E, AND F

EXISTING AND PROPOSED SIGNS

8/25/2021
R:\Traffic\Signing\CADD\Signing Layout Plans\W5704H_sgn_psh05.dgn
User:jtownsend

DDC4

TIP PROJECT: W-5704H

CONTRACT:

See Sheet 1-A For Index of Sheets

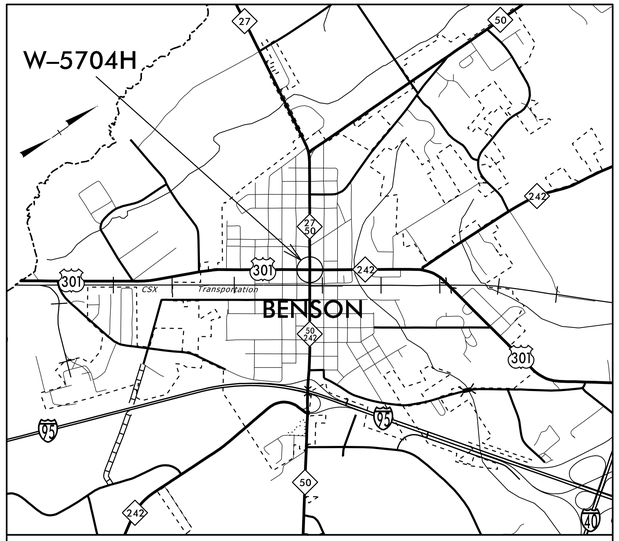
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5704H	1	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

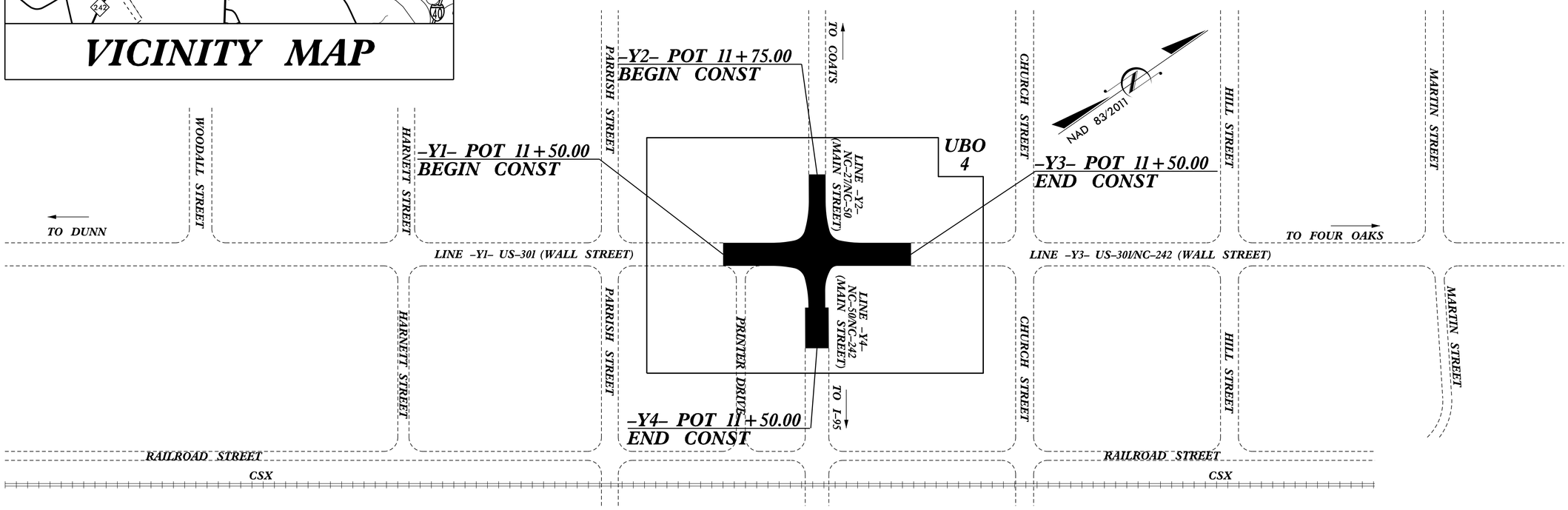
UTILITIES BY OTHERS PLANS
JOHNSTON COUNTY

LOCATION: US-301/NC-242 (WALL STREET) AND NC-50/NC-242 (MAIN STREET) INTERSECTION.

TYPE OF WORK: UTILITY BY OTHERS



VICINITY MAP



GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
UBO-01	TITLE SHEET
UBO-04	UBO PLAN SHEET

UTILITY OWNERS WITH CONFLICTS

A. GAS – PEIDMONT NATURAL GAS
B. ELECTRIC – TOWN OF BENSON
C. TELECOMMUNICATION – CENTURYLINK
D. TELECOMMUNICATION – SPECTRUM

Prepared in the Office of
DIVISION OF HIGHWAYS
Division 4
509 Ward Blvd.
Wilson NC, 27895

KYLE PLEASANT PROJECT UTILITIES ENGINEER

FRANK ZDELAR PROJECT UTILITIES COORDINATOR

DIVISION OF HIGHWAYS
DIVISION 4
509 Ward Blvd. Wilson NC, 27895

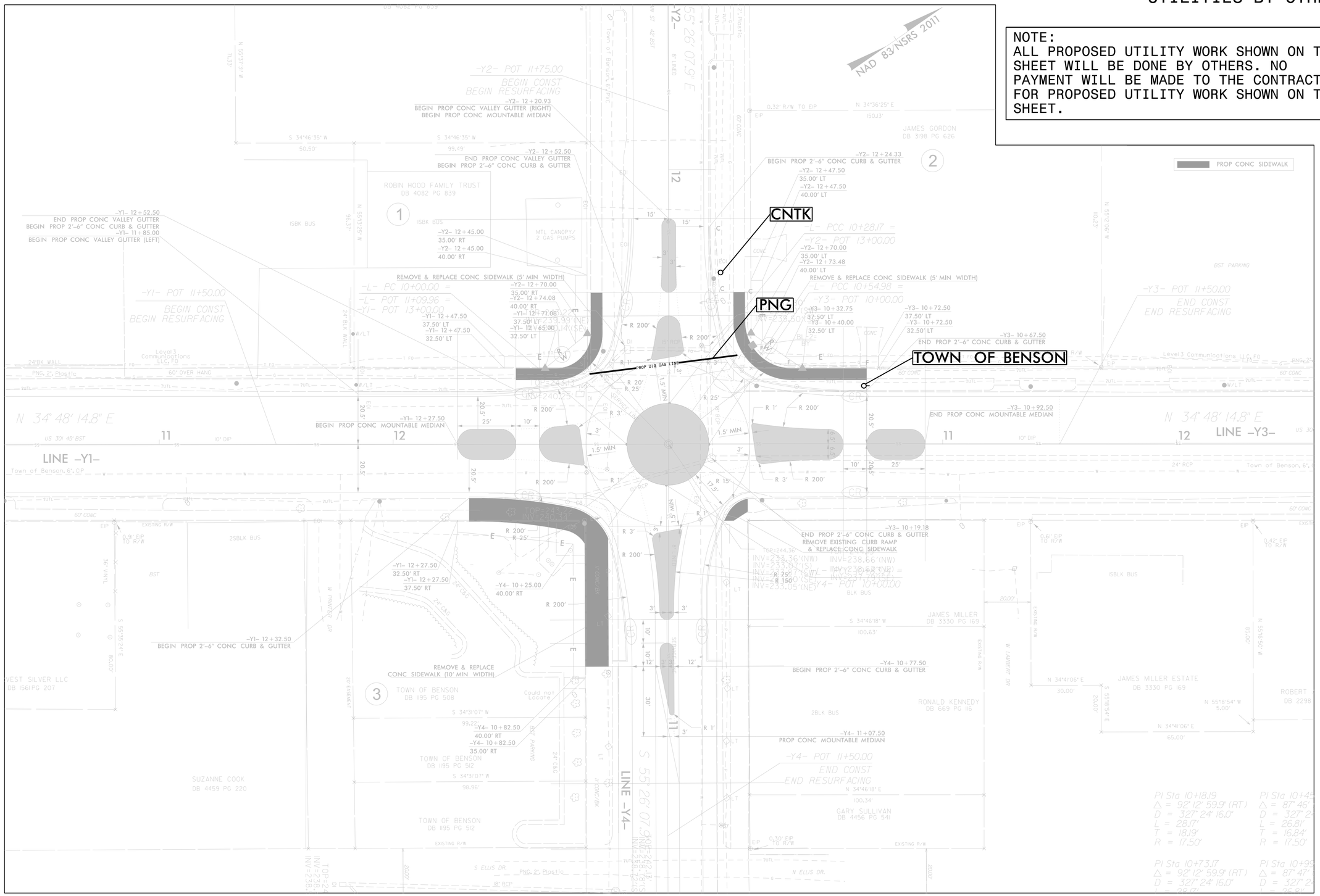
ADDISON GAINEY, PE DIVISION CONTACT #1

29-JUN-2022 14:45
C:\Users\wadd445\Desktop\2022 CLEANUP\W5704H\roadway\Proj\W-5704H_DDC4_UBO_TSH.dgn
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
W-5704H	UBO - 04

UTILITIES BY OTHERS

NOTE:
ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



8/17/99

29-JUN-2022 14:39
C:\Users\kwhaddock\Desktop\2022 CLEANUP\W5704H\roadway\Proj_W-5704H_DDC4_UBO_PSH_04.dgn
$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
W-5704H	X-1A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

Approximate quantities only. Unclassified excavation, shoulder borrow, fine grading, clearing and grubbing, breaking of existing pavement and removal of existing pavement will be paid for at the contract lump sum price

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDES BACKFILL FOR UNDERCUT

STATION L	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
10+00			
10+10	2		
10+20	6		
10+30	3		
10+40	4		
10+50	4		
10+60			
10+70	1		
10+80	1		
10+90	3		
11+00	5		
11+10	2		

STATION Y1	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
11+50			
11+75			
12+00			
12+25			
12+50	3		
12+75	12		
12+83	6		

STATION Y2	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
11+75			
12+00			
12+50	5		
12+83	24		

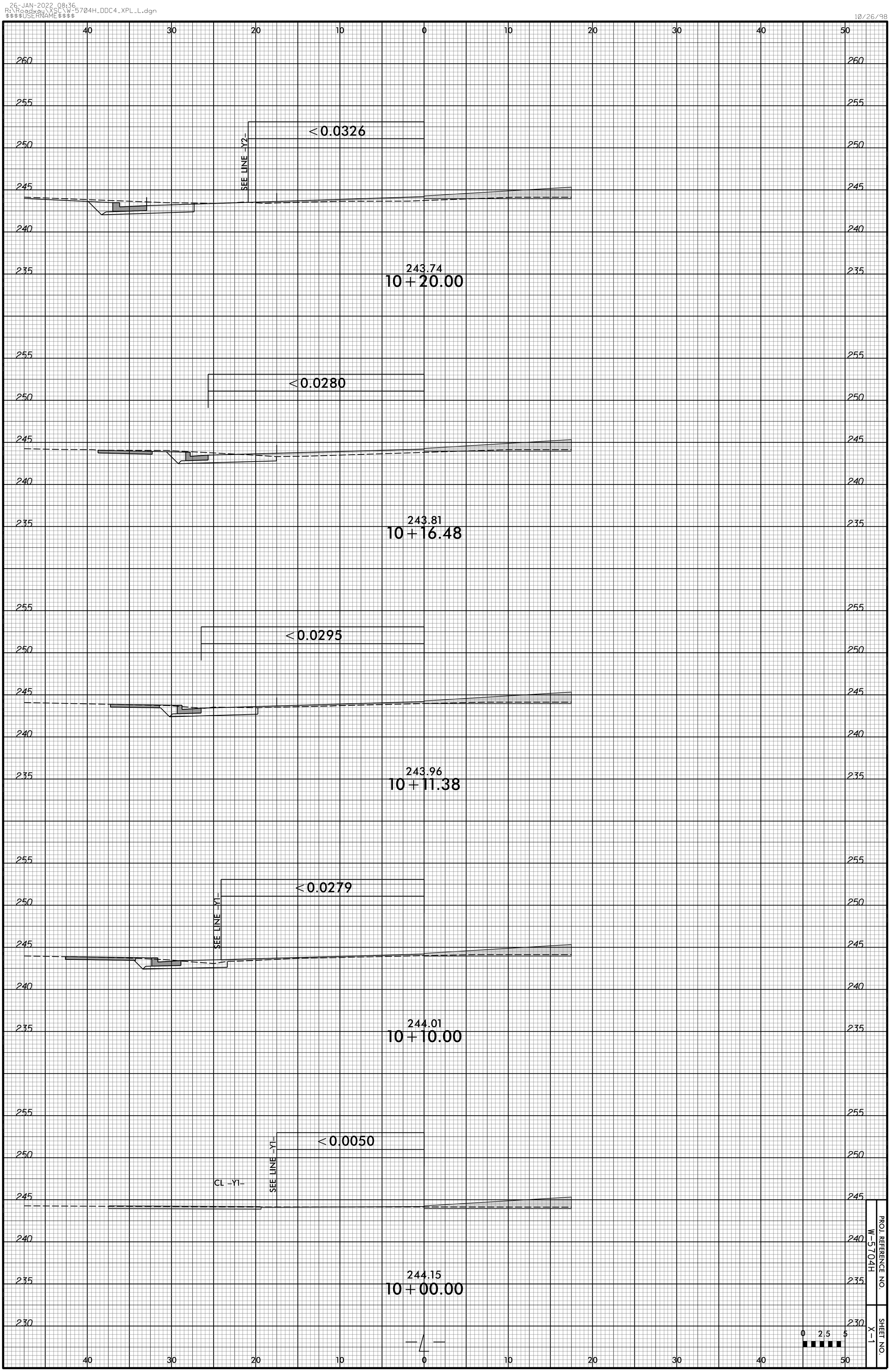
STATION Y3	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
10+18			
10+50	17		
11+00	10		
11+50	10		

STATION Y4	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	
10+18			
10+50	22	1	
11+00	22	2	
11+50	22		

STATION	UNCLASSIFIED EXCAVATION (CU YD)	EMBANKMENT (CU YD)	

26-JAN-2022 08:36
R:\Roadway\XSC\W-5704H_DDC4_XPL_L.dgn
$$$$USERNAME$$$$

10/26/98

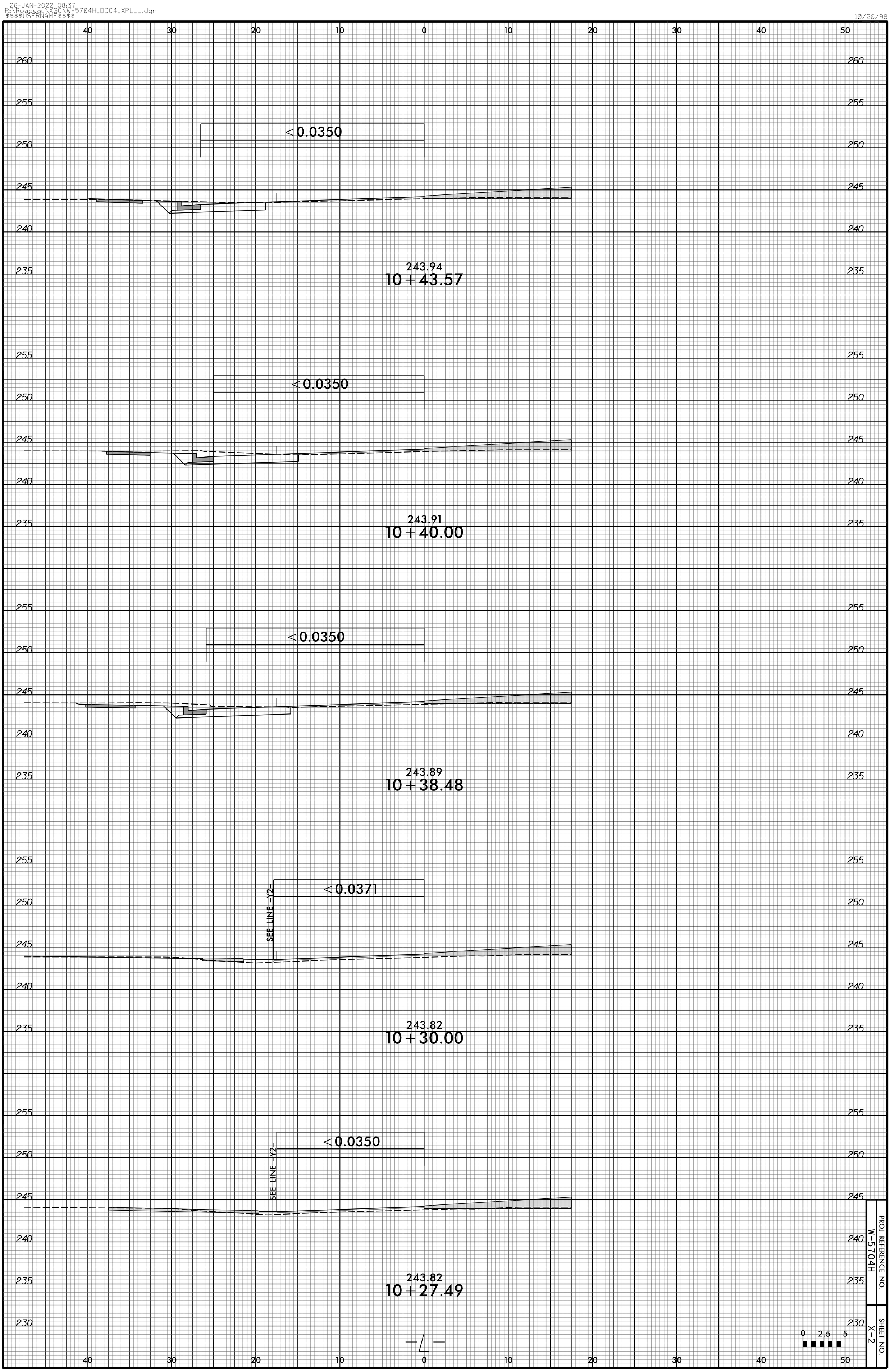


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-1

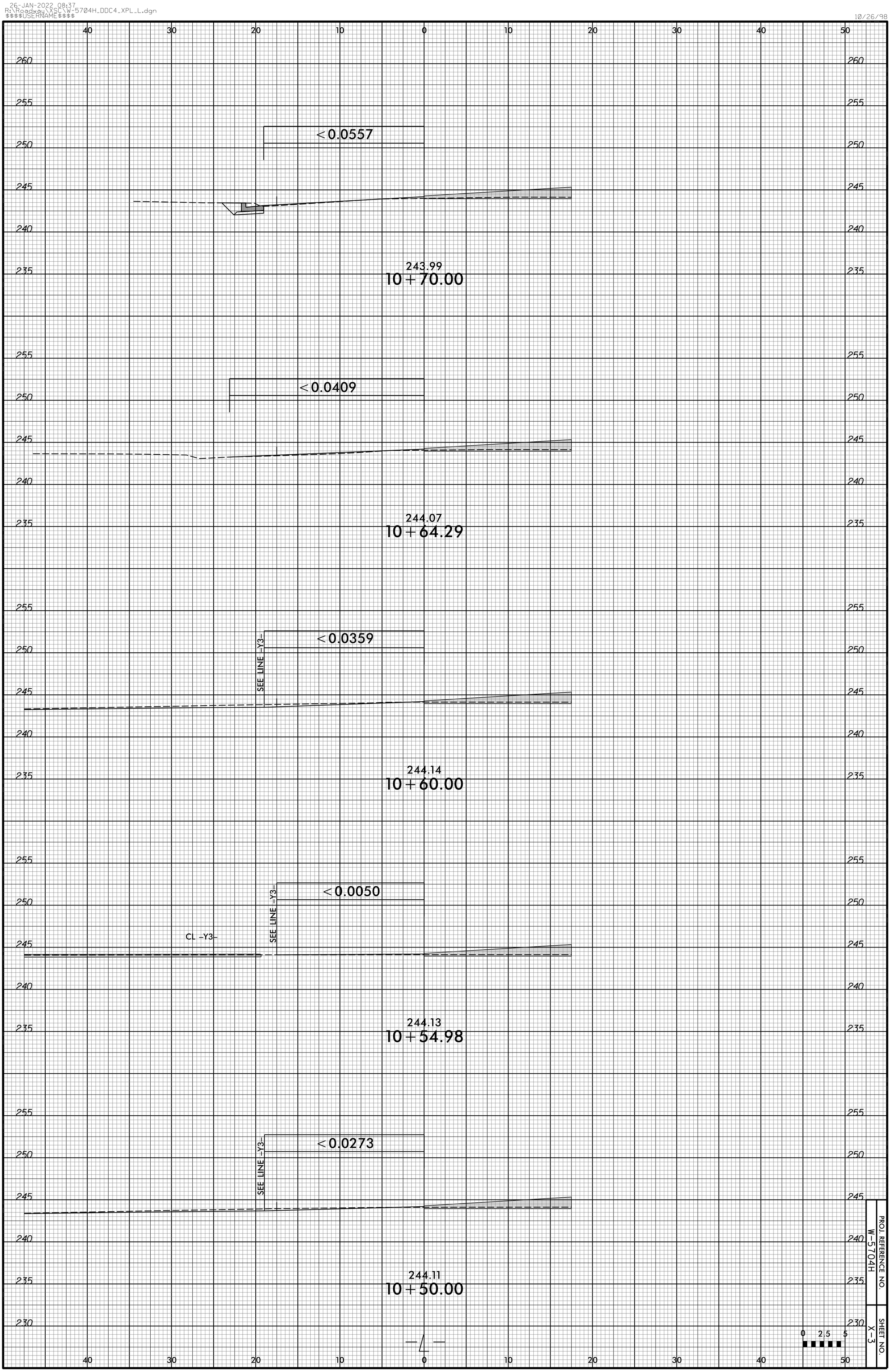
26-JAN-2022 08:37
R:\Roadway\XSC\W-5704H_DDC4_XPL_L.dgn
$$$$USERNAME$$$$

10/26/98



26-JAN-2022 08:37
R:\Roadway\XSC\W-5704H_DDC4_XPL_L.dgn
$$$$USERNAME$$$$

10/26/98

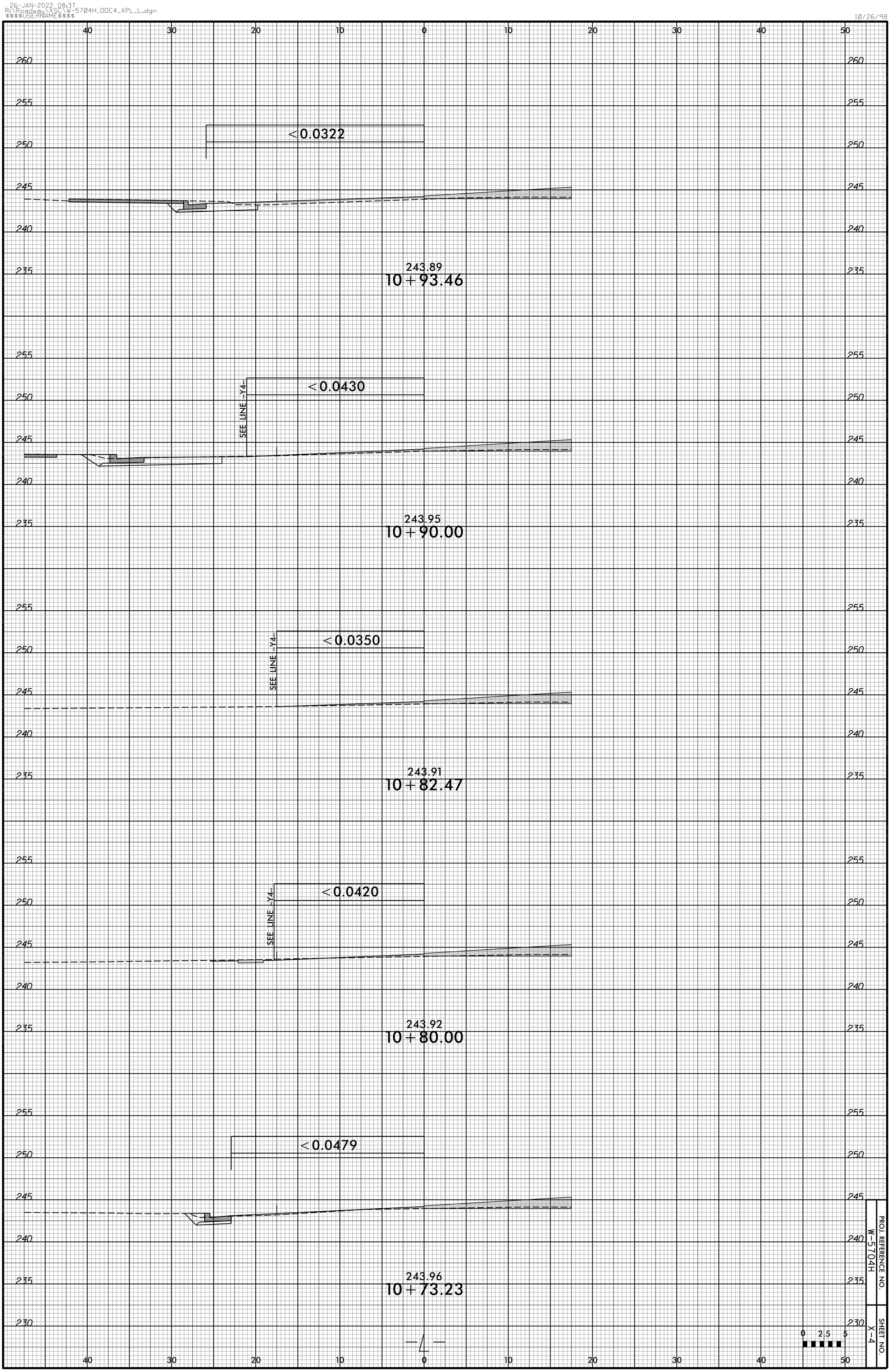


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-3

26-JAN-2022 08:37
R:\Roadway\XSC\W-5704H_DDC4_XPL_L.dgn
$$$$USERNAME$$$$

10/26/98

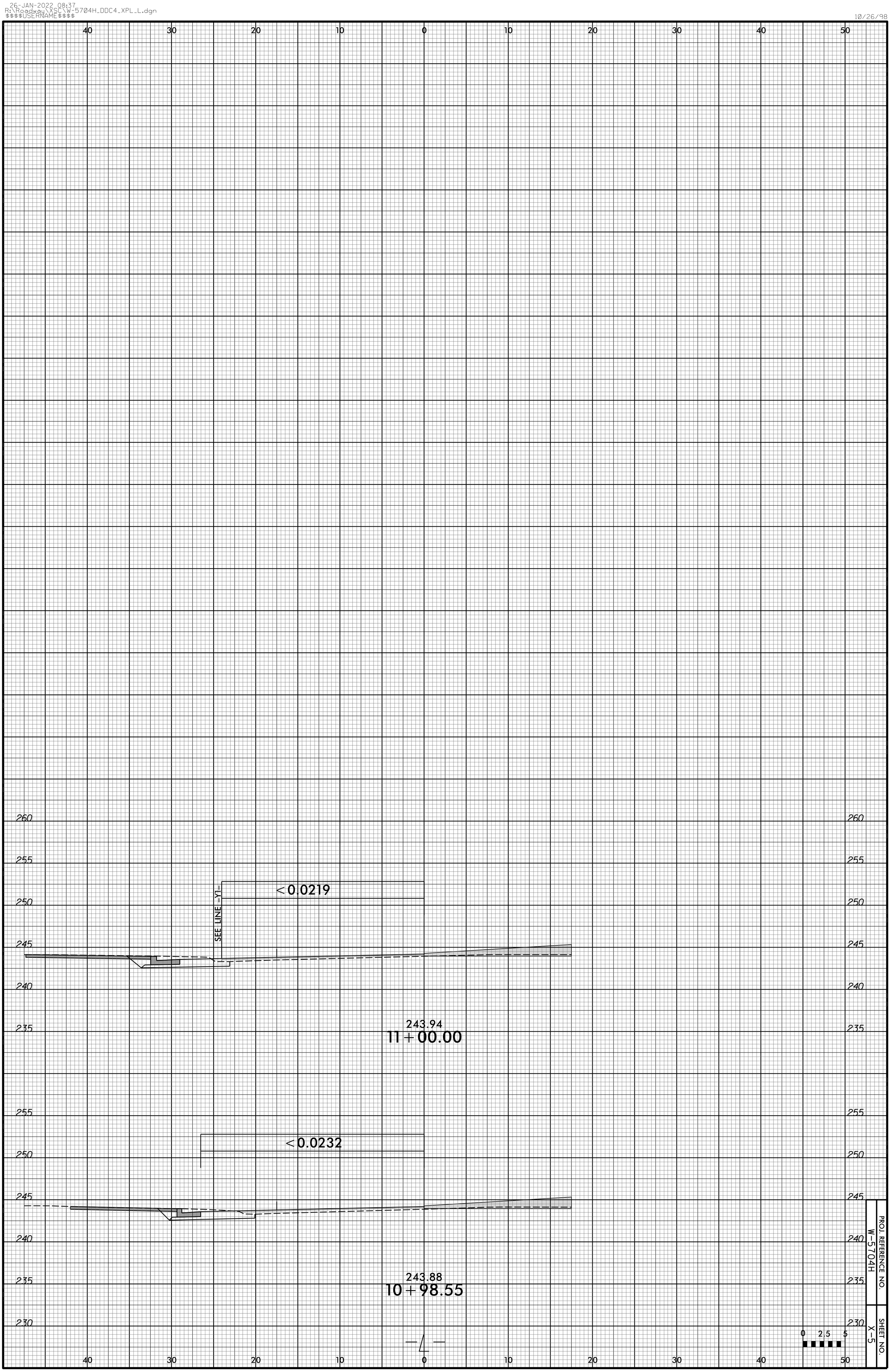


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-4

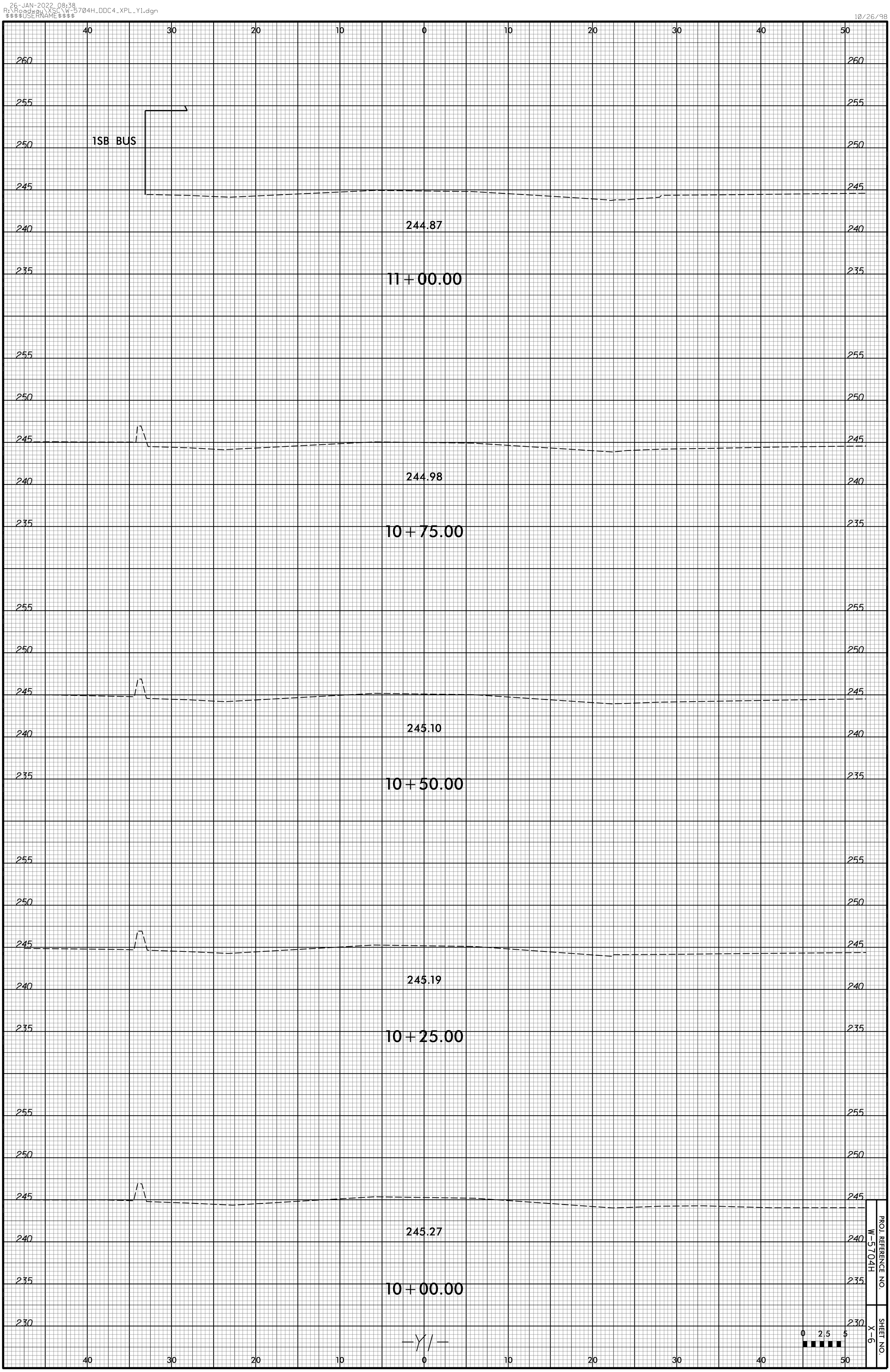
26-JAN-2022 08:37
R:\Roadway\XSC\W-5704H_DDC4_XPL_L.dgn
$$$$USERNAME$$$$

10/26/98



26-JAN-2022 08:38
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y1.dgn
$$$$USERNAME$$$$

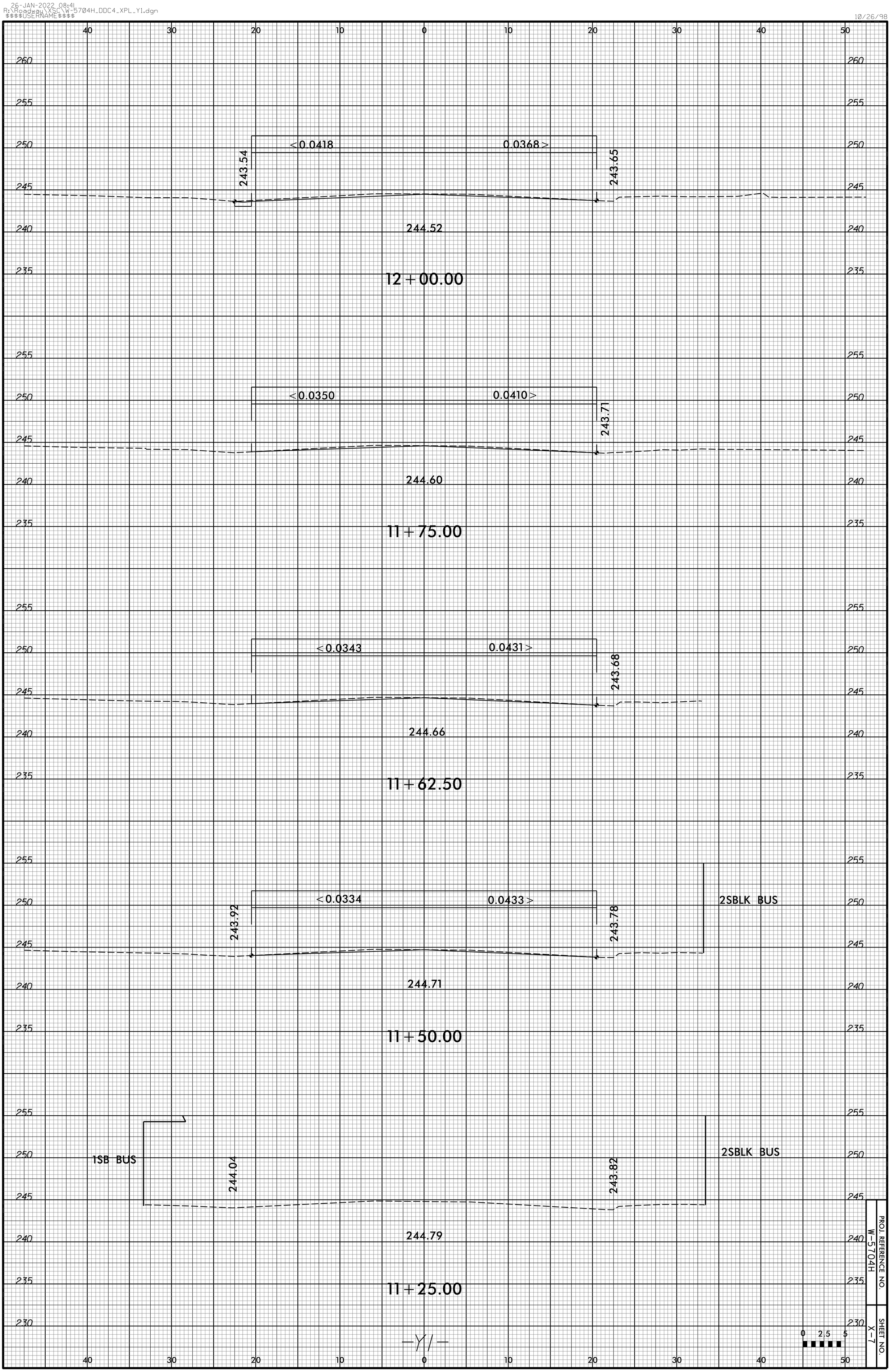
10/26/98



PROJ. REFERENCE NO.
W-5704H
SHEET NO.
X-6

26-JAN-2022 08:41
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y1.dgn
$$$$USERNAME$$$$

10/26/98

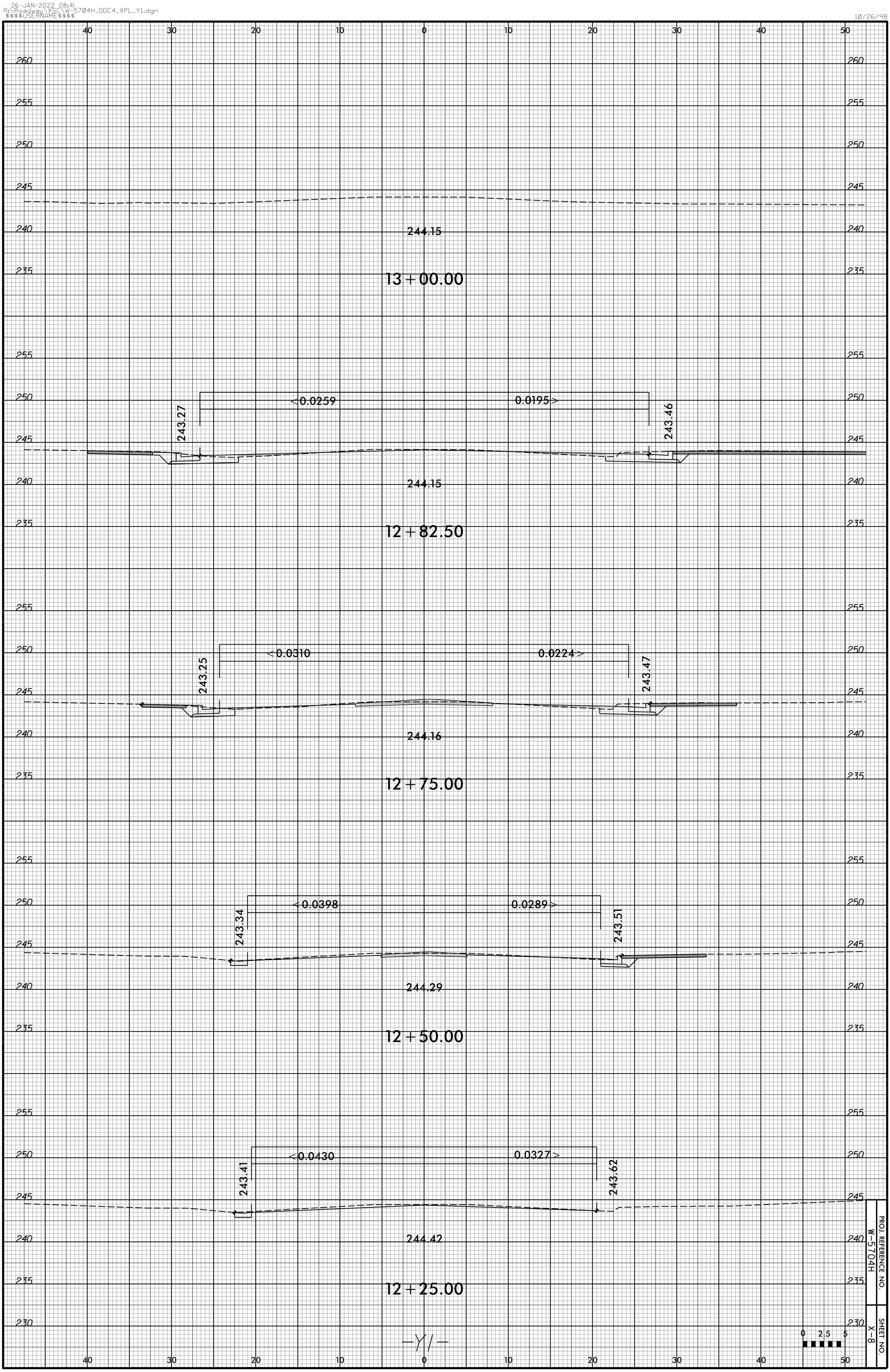


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-7

26-JAN-2022 08:41
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y1.dgn
$$$$USERNAME$$$$

10/26/98

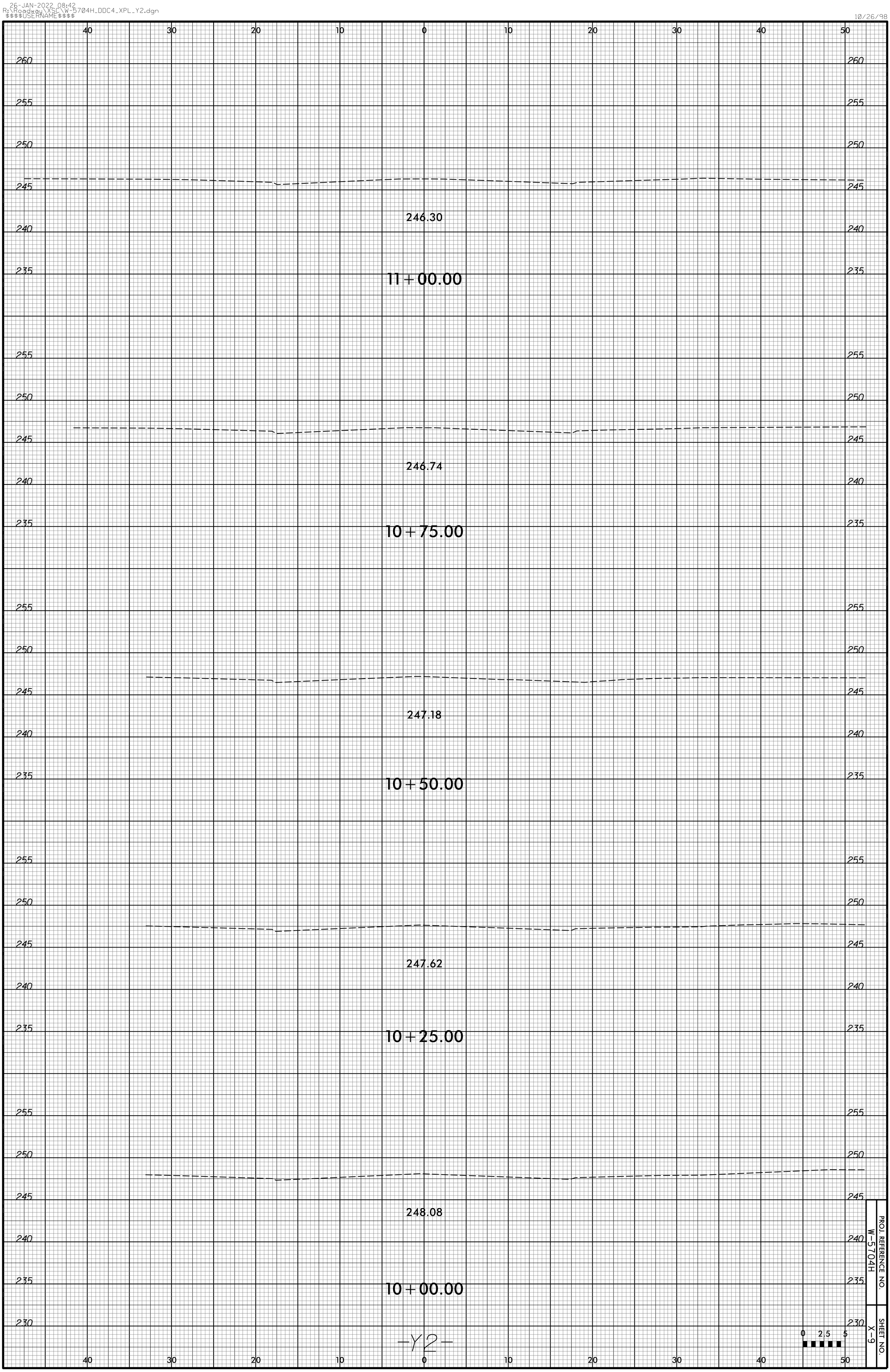


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-8

26-JAN-2022 08:42
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y2.dgn
$$$$USERNAME$$$$

10/26/98

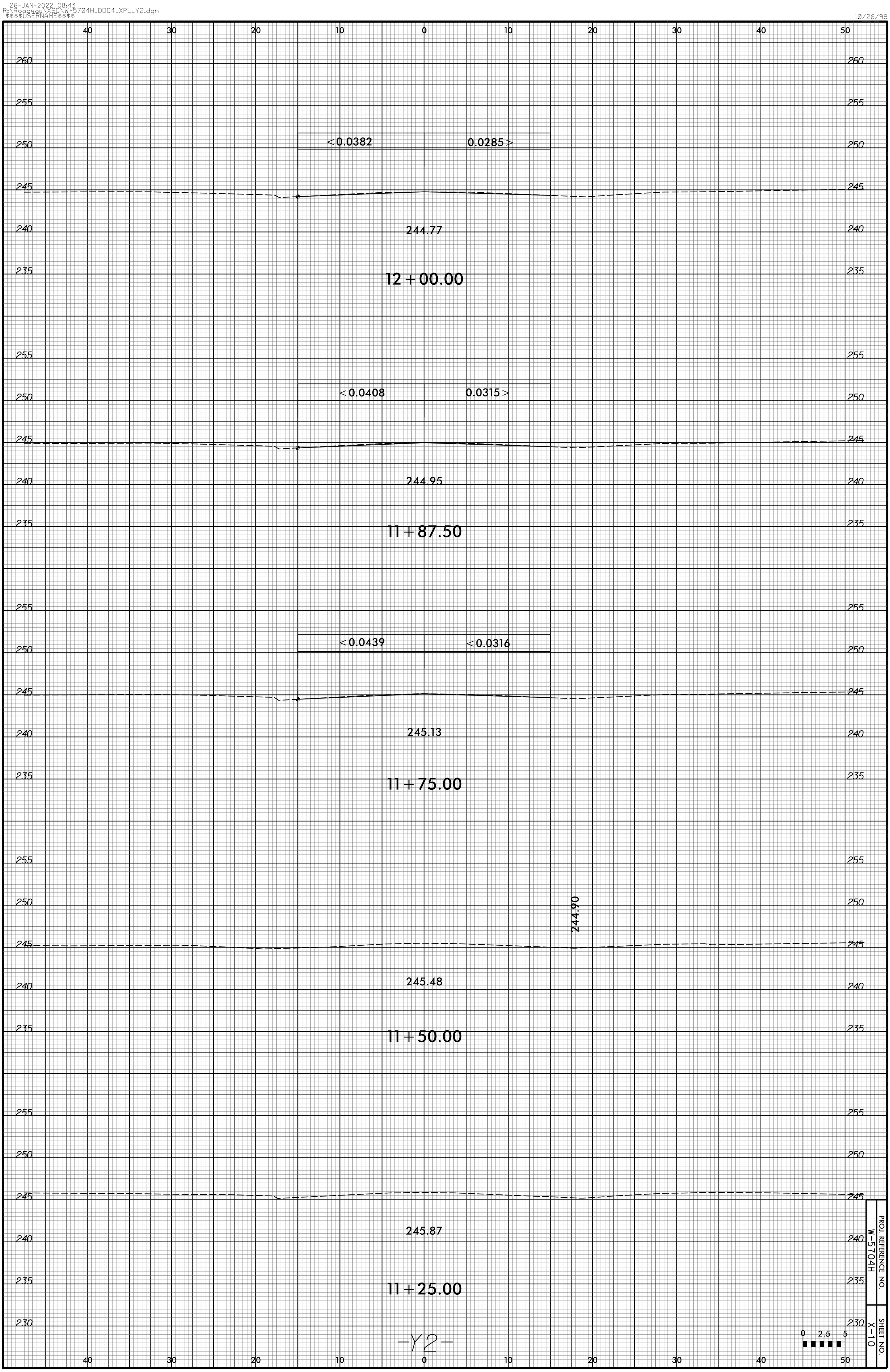


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-9

26-JAN-2022 08:43
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y2.dgn
$$$$USERNAME$$$$

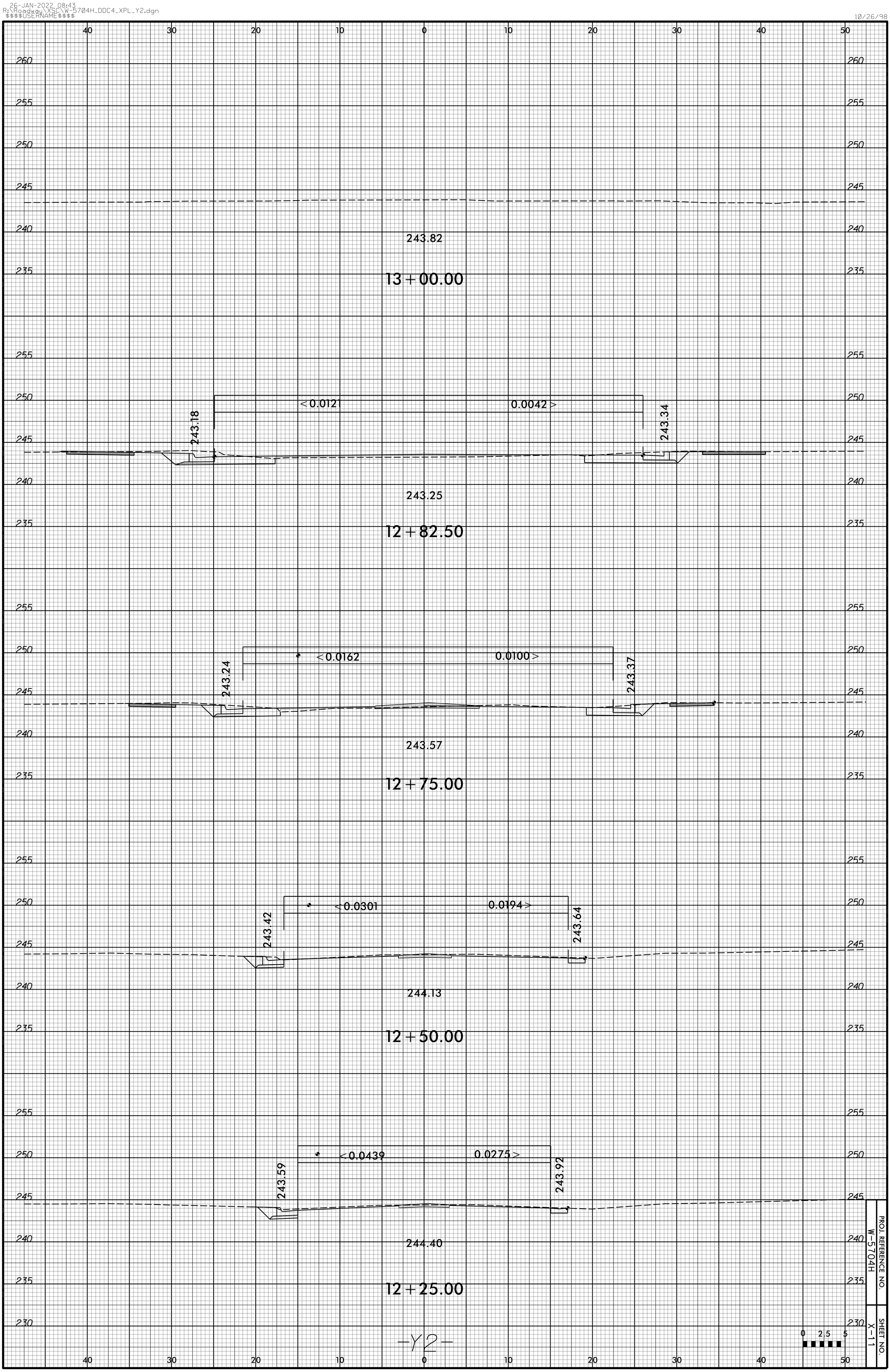
10/26/98



PROJ. REFERENCE NO.
W-5704H
SHEET NO.
X-10

26-JAN-2022 08:43
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y2.dgn
$$$$USERNAME$$$$

10/26/98

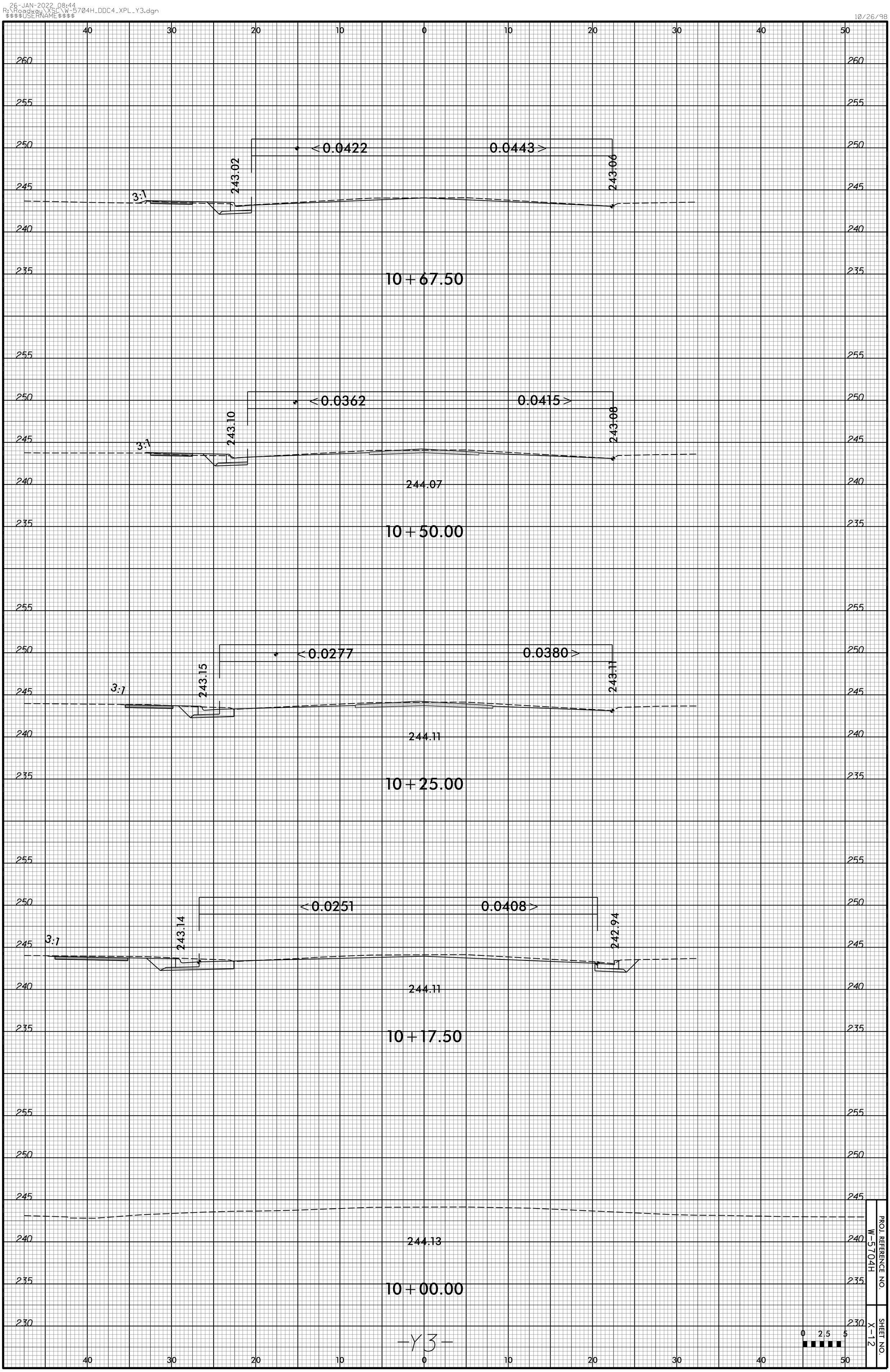


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-11

26-JAN-2022 08:44
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y3.dgn
$$$$USERNAME$$$$

10/26/98

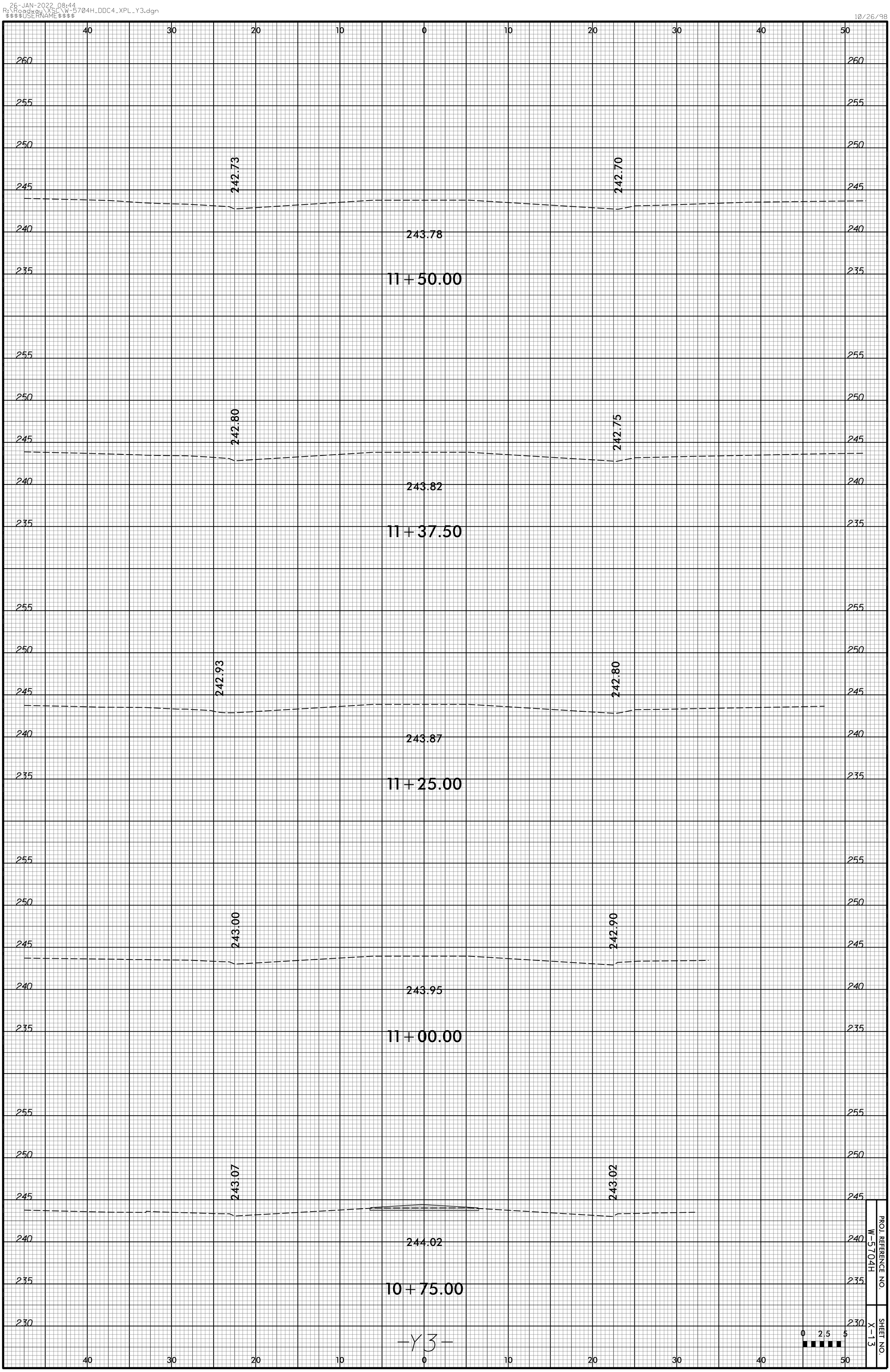


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-12

26-JAN-2022 08:44
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y3.dgn
$$$$USERNAME$$$$

10/26/98

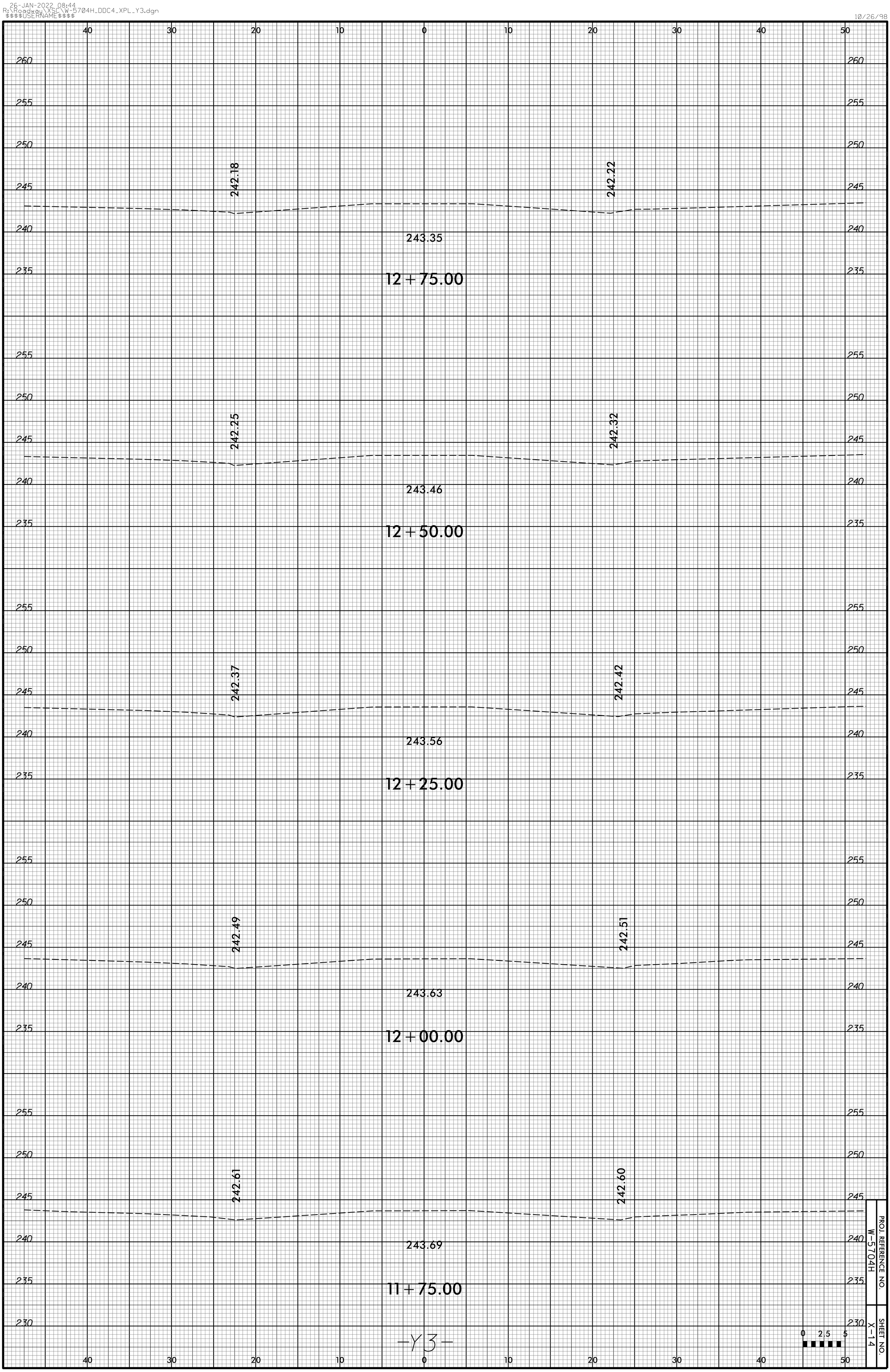


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-13

26-JAN-2022 08:44
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y3.dgn
$$$$USERNAME$$$$

10/26/98

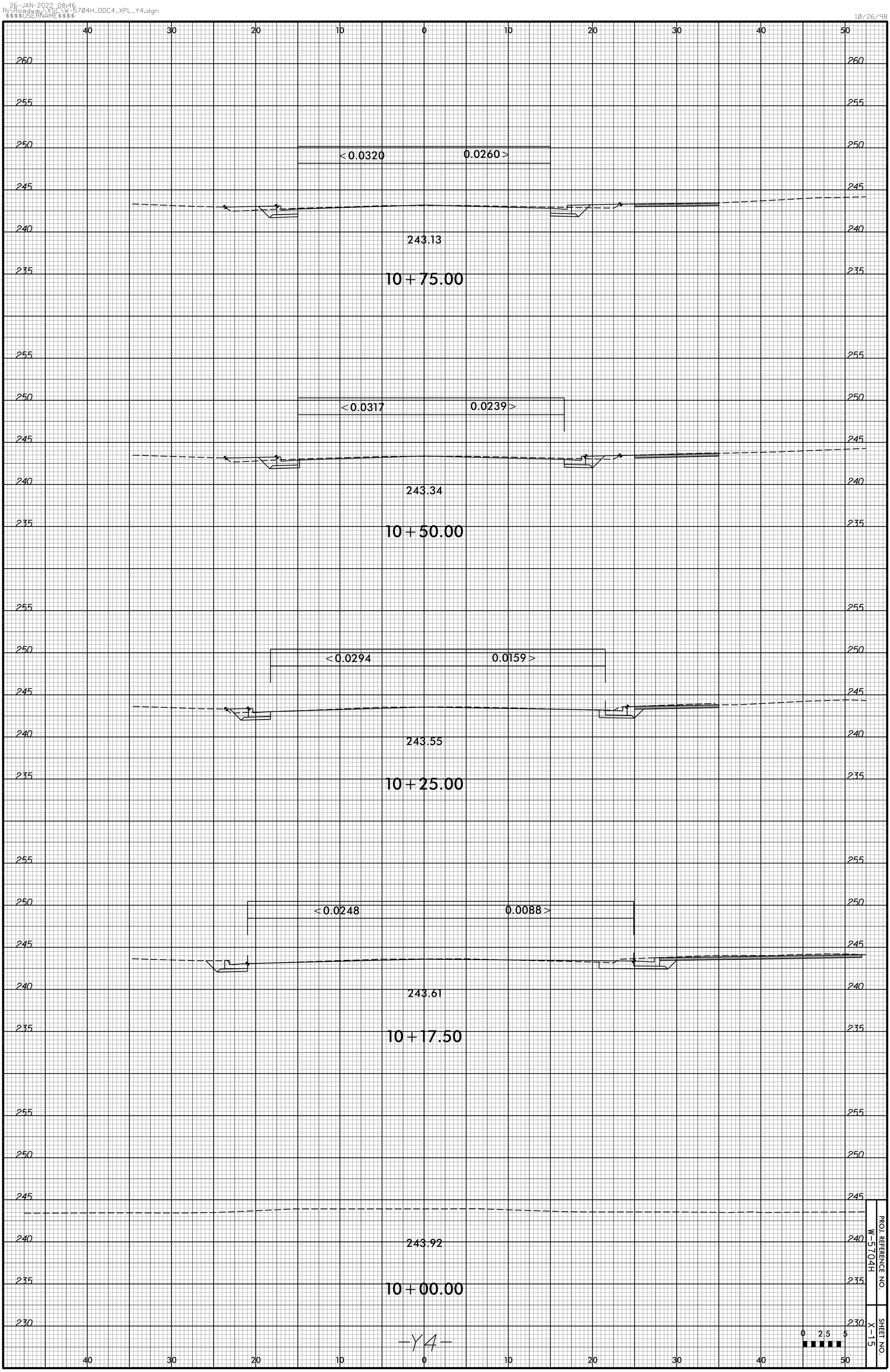


PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-14

26-JAN-2022 08:46
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y4.dgn
$$$$USERNAME$$$$

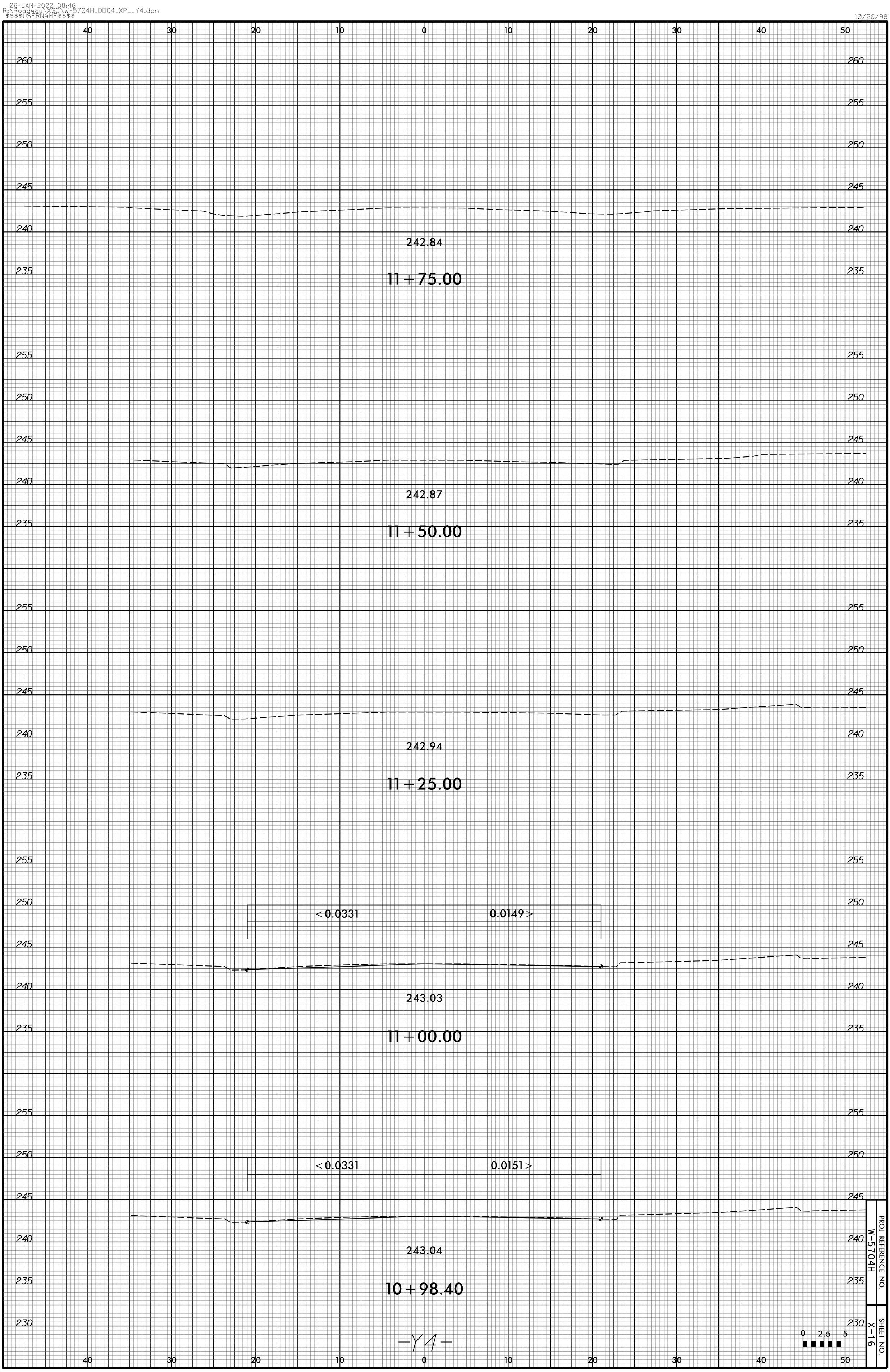
10/26/98



PROJ. REFERENCE NO.
W-5704H
SHEET NO.
X-15

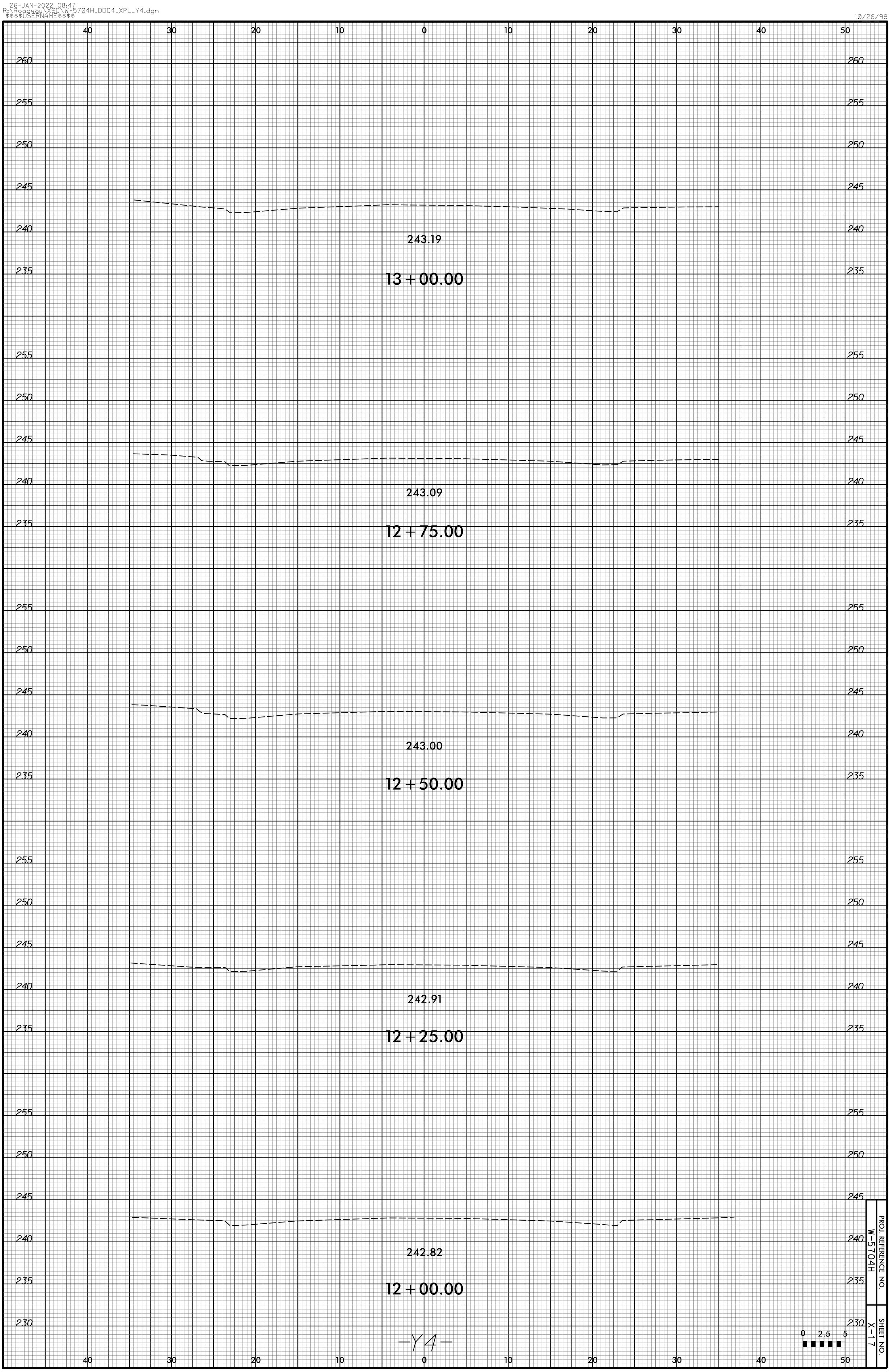
26-JAN-2022 08:46
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y4.dgn
$$$$USERNAME$$$$

10/26/98



26-JAN-2022 08:47
R:\Roadway\XSC\W-5704H_DDC4_XPL_Y4.dgn
$$$$USERNAME$$$$

10/26/98



PROJ. REFERENCE NO.
W-5704H

SHEET NO.
X-17