

LOCATION MAP

LATITUDE: 41°29'08" LONGITUDE: 81°37'22"



PORTION TO BE IMPROVED.....	_____
INTERSTATE HIGHWAY.....	_____
FEDERAL ROUTES.....	_____
STATE ROUTES.....	_____
COUNTY & TOWNSHIP ROADS.....	_____
OTHER ROADS.....	_____

DESIGN DESIGNATION

CURRENT ADT (2017)	35,820
DESIGN YEAR ADT (2020)	48,230
DESIGN HOURLY VOLUME (2020)	3,580
DIRECTIONAL DISTRIBUTION	58%
TRUCKS (24 HOUR B&C)	6%
DESIGN SPEED	40 MPH
LEGAL SPEED	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION	URBAN PRINCIPAL ARTERIAL
NHS PROJECT	NO

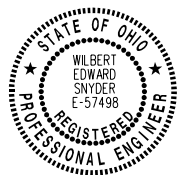
DESIGN EXCEPTIONS

NONE

<h2 style="text-align: center;">UNDERGROUND UTILITIES</h2> <p style="text-align: center;">CONTACT BOTH SERVICES TWO WORKING DAYS BEFORE YOU DIG.</p>	
 <p>OHIO Utilities Protection SERVICE</p> <p>(Non-members must be called directly)</p>	<p><i>Call Before You Dig</i></p> <p>1-800-362-2764</p>
<p style="text-align: center;">OIL & GAS PRODUCERS UNDERGROUND PROTECTION SERVICE</p> <p style="text-align: center;">1-800-925-0988</p>	



ENGINEERS SEAL:



SIGNED: William E. Snyder
DATE: 05/14/2019

ENGINEERS SEAL:

SIGNED: _____
DATE: _____

STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

**CUY-IR490 / SR010-
2.09 / 19.28**

CITY OF CLEVELAND
CUYAHOGA COUNTY

INDEX OF SHEETS:

SEE SHEET 2

BU-22A

NORFOLK SOUTHERN TRACKWORK AND GRAND AVE BRIDGE DEMOLITION

PLAN PREPARED BY:

Michael Baker

INTERNATIONAL

1111 SUPERIOR AVENUE EAST, SUITE 2300
CLEVELAND, OHIO 44114

[illegible]

PROJECT DESCRIPTION

THIS PROJECT CONSISTS OF THE CONSTRUCTION OF 2.09 MILES OF A NEW TWO- TO THREE-LANE BOULEVARD FROM E. 55TH ST. TO E. 93RD ST. WORK INCLUDES PAVEMENT, RAILROAD, STRUCTURES, DRAINAGE, WATERWORK, LIGHTING, POWER DISTRIBUTION, TRAFFIC CONTROL, LANDSCAPING, AND ADJUSTMENT OF EXISTING UTILITIES.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA: 87.2 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 87.2 ACRES
(AREA SERVICED BY COMBINED SEWER)

2016 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

RAILROAD INVOLVEMENT

RAILROAD INVOLVEMENT
**NORFOLK SOUTHERN
GCRTA**

CONSTRUCTION PROJECT NO.

PID NO.

FEDERAL PROJECT NO.

CUY-IR490/ SR010-
2.09 / 19.28

	1	
	86	

ISSUE NO.	RECORD DATE	PAGE NO.	SHEET TITLE
0	2019-05-14	1	TITLE SHEET
1	2019-07-10	2	INDEX OF SHEETS
0	2019-05-14	3	GENERAL NOTES AND ABBREVIATIONS (1 OF 2)
0	2019-05-14	4	GENERAL NOTES AND ABBREVIATIONS (2 OF 2)
0	2019-05-14	5	SURVEY CONTROL
1	2020-02-17	6	TRACK TYPICAL SECTIONS (1 OF 2)
1	2020-02-17	7	TRACK TYPICAL SECTIONS (2 OF 2)
0	2019-05-14	8	TRACK PLAN AND PROFILE - PHASE 0 - STA 6259+00 TO STA 6263+00
0	2019-05-14	9	TRACK PLAN AND PROFILE - PHASE 0 - STA 6263+00 TO STA 6273+00
0	2019-05-14	10	TRACK PLAN AND PROFILE - PHASE 1 - STA 16254+00 TO STA 16263+00
1	2019-07-10	11	TRACK PLAN AND PROFILE - PHASE 1 - STA 16263+00 TO STA 16277+00
1	2020-02-17	12	TRACK PLAN AND PROFILE - PHASE 2 - STA 26253+00 TO STA 26263+00
2	2020-02-17	13	TRACK PLAN AND PROFILE - PHASE 2 - STA 26263+00 TO STA 26277+00
1	2020-02-17	14	TRACK PLAN AND PROFILE - PHASE 3 - STA 36253+00 TO STA 36263+00
2	2020-02-17	15	TRACK PLAN AND PROFILE - PHASE 3 - STA 36263+00 TO STA 36277+00
0	2019-05-14	16	TRACK GEOMETRY TABLE - PHASE 1
0	2019-05-14	17	TRACK GEOMETRY TABLE - PHASE 2
0	2019-05-14	18	TRACK GEOMETRY TABLE - PHASE 3
0	2019-05-14	19	TRACK STAKING TABLE - PHASE 0
0	2019-05-14	20	TRACK STAKING TABLE - PHASE 1
0	2019-05-14	21	TRACK STAKING TABLE - PHASE 2 (1 OF 2)
0	2019-05-14	22	TRACK STAKING TABLE - PHASE 2 (2 OF 2)
0	2019-05-14	23	TRACK STAKING TABLE - PHASE 3 (1 OF 2)
0	2019-05-14	24	TRACK STAKING TABLE - PHASE 3 (2 OF 2)
0	2019-05-14	25	REMOVALS - PHASE 1
0	2019-05-14	26	REMOVALS - PHASE 2
0	2019-05-14	27	TRACK PHASING PLAN - PHASE 1A
0	2019-05-14	28	TRACK PHASING PLAN - PHASE 1B
0	2019-05-14	29	TRACK PHASING PLAN - PHASE 1C
0	2019-05-14	30	TRACK PHASING PLAN - PHASE 2A
0	2019-05-14	31	TRACK PHASING PLAN - PHASE 2B
0	2019-05-14	32	TRACK PHASING PLAN - PHASE 2C
0	2019-05-14	33	TRACK PHASING PLAN - PHASE 3A
0	2019-05-14	34	TRACK PHASING PLAN - PHASE 3B
0	2019-05-14	35	CONSTRUCTION DETAILS - GRAND AVE BRIDGE REMOVAL AND PLUG (1 OF 2)
0	2019-05-14	36	CONSTRUCTION DETAILS - GRAND AVE BRIDGE REMOVAL AND PLUG (2 OF 2)
0	2019-05-14	37	CROSS SECTIONS - PHASE 1 - STA 16254+61.18 TO STA 16255+00.00
0	2019-05-14	38	CROSS SECTIONS - PHASE 1 - STA 16255+16.04 TO STA 16256+00.00
0	2019-05-14	39	CROSS SECTIONS - PHASE 1 - STA 16256+50.00 TO STA 16257+50.00
0	2019-05-14	40	CROSS SECTIONS - PHASE 1 - STA 16258+00.00 TO STA 16259+00.00
0	2019-05-14	41	CROSS SECTIONS - PHASE 1 - STA 16259+50.00 TO STA 16260+50.00
0	2019-05-14	42	CROSS SECTIONS - PHASE 1 - STA 16261+00.00 TO STA 16262+00.00
0	2019-05-14	43	CROSS SECTIONS - PHASE 1 - STA 16262+50.00 TO STA 16263+50.00
0	2019-05-14	44	CROSS SECTIONS - PHASE 1 - STA 16264+00.00 TO STA 16265+00.00
0	2019-05-14	45	CROSS SECTIONS - PHASE 1 - STA 16265+50.00 TO STA 16266+50.00
0	2019-05-14	46	CROSS SECTIONS - PHASE 1 - STA 16267+00.00 TO STA 16268+00.00
0	2019-05-14	47	CROSS SECTIONS - PHASE 1 - STA 16268+50.00 TO STA 16269+50.00
0	2019-05-14	48	CROSS SECTIONS - PHASE 1 - STA 16270+00.00 TO STA 16271+00.00
0	2019-05-14	49	CROSS SECTIONS - PHASE 1 - STA 16271+50.00 TO STA 16272+50.00
0	2019-05-14	50	CROSS SECTIONS - PHASE 1 - STA 16273+00.00 TO STA 16274+00.00
0	2019-05-14	51	CROSS SECTIONS - PHASE 1 - STA 16274+50.00 TO STA 16275+50.00
0	2019-05-14	52	CROSS SECTIONS - PHASE 1 - STA 16276+00.00 TO STA 16276+85.91
0	2019-05-14	53	CROSS SECTIONS - PHASE 2 - STA 26253+15.00 TO STA 26254+00.00
0	2019-05-14	54	CROSS SECTIONS - PHASE 2 - STA 26254+50.00 TO STA 26255+50.00
0	2019-05-14	55	CROSS SECTIONS - PHASE 2 - STA 26256+00.00 TO STA 26257+00.00

[illegible]

2	2020-02-17	DC033
1	2019-07-10	DC012
0	2019-05-14	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

ABBREVIATIONS

°
/
"
%

△
AP
AVE
BC
BLVD
BM
CB
CC
CIP
C/L
CLR
CONC
CMP
CP
COMM
CORR
C.S.
CT
DC
DESC
Ea
E
EC
EF
EL or ELEV
EQ
EQNAHD
EQNBK
EW
Eu
EX. or EXIST
ESMT
F
FH
FL
FS
FT
G
GRD
GV
HGL
HORIZ
HP
HWY
INV

DESCRIPTION

DEGREE(S)
FOOT or FEET or MINUTE(S)
INCH or INCHES or SECOND(S)
PERCENT
POUND or NUMBER
CENTRAL ANGLE OF CIRCULAR CURVE
ANGLE POINT
AVENUE
BEGINNING OF CURVE
BOULEVARD
BENCHMARK
CATCH BASIN
CENTER OF CURVE
CAST IRON PIPE OR CAST IN PLACE
CENTERLINE
CLEAR
CONCRETE
CORRUGATED METAL PIPE
CONTROL POINT
COMMUNICATION LINE
CORRUGATED
CURVE TO SPIRAL
CONCRETE TIES
DEGREE OF CURVE
DESCRIPTION
SUPERELEVATION, ACTUAL
EAST or EASTERLY or EASTING
END OF CURVE
EACH FACE
ELEVATION
EQUAL or EQUATION
EQUATION AHEAD
EQUATION BACK
EACH WAY
SUPERELEVATION, UNBALANCED
EXISTING
EASEMENT
FREIGHT
FIRE HYDRANT
FLOWLINE
FINISHED SURFACE
FOOT or FEET
GRADE
GROUND
GAS VALVE
HYDRAULIC GRADE LINE
HORIZONTAL
HIGH POINT or HIGH PRESSURE
HIGHWAY
INVERT

LEGEND

- ===== EXISTING TRACK
- EXISTING TRACK CENTERLINE
- PROPOSED TRACK CENTERLINE
- X----- PROPOSED FENCE
- Ex RR— EXISTING RIGHT OF WAY
- R/W— PROPOSED RIGHT OF WAY
- RR— PROPOSED RAILROAD EASEMENT
- PROPOSED GRADING/EMBANKMENT LIMITS
- x—x— EXISTING FENCE
- —FO+— - EXISTING FIBER OPTIC
- —E— — EXISTING ELECTRIC
- —G— — EXISTING GAS
- —W— — EXISTING WATER
- Ex U— EXISTING UTILITY EASEMENT
- —CS— — EXISTING SANITARY STORM
- EXISTING ACCESS ROAD
- PROPOSED ACCESS ROAD
- ABANDON CLAY STORM SEWER
- ←----- PROPOSED UNDERDRAIN
- PROPOSED DITCH

ABBREVIATIONS

L
Lc
LF
LH
LP
Ls
LT
MAIN
MH
MIN
MP
N
NS
NTS
NW
OD
OH
PB
P.C.
PCC
PI
P.O.B.
P.O.E.
POT
PRC
PR. or PROP
PS
PT
P.V.C.
P.V.I.
P.V.T.
R
R/W
RCP
RH
RR
RT
S
S.C.
SF
STA.
STD
S.T.
SW
T
TBR
T.O. or TO
T/R or TOR
TF
TRK
T.S.
TYP
UD
VAR
VERT
W
WV
XING
XO
()

DESCRIPTION

LENGTH
LENGTH OF CURVE (CIRCULAR)
LINEAR FOOT or LINEAR FEET
LEFT HAND
LOW POINT
LENGTH OF SPIRAL
LEFT
MAIN TRACK
MANHOLE
MINIMUM
MILEPOST or MEDIUM PRESSURE
NORTH or NORTHERLY or NORTHING
NORFOLK SOUTHERN RAILROAD
NOT TO SCALE
NORTHWEST
OUTSIDE DIAMETER
OVERHEAD
PULLBOX
POINT OF CURVE
POINT OF COMPOUND CURVATURE
POINT OF INTERSECTION
POINT OF BEGINNING
POINT OF ENDING
POINT ON TANGENT
POINT OF REVERSE CURVATURE
PROPOSED
POINT OF SWITCH
POINT OF TANGENT
POINT OF VERTICAL CURVE
POINT OF VERTICAL INTERSECTION
POINT OF VERTICAL TANGENT
RADIUS
RIGHT-OF-WAY
REINFORCED CONCRETE PIPE
RIGHT HAND
RAILROAD
RIGHT
SOUTH or SOUTHERLY
SPIRAL TO CURVE
SQUARE FOOT or SQUARE FEET
STATION
STANDARD
STREET
SOUTHWEST
TANGENT
TO BE RELOCATED
TURNOUT
TOP OF RAIL
TRACK FOOT or TRACK FEET
TRACK
TANGENT TO SPIRAL
TYPICAL
UNDERDRAIN
VARIES
VERTICAL
WEST or WESTERLY
WATER VALVE
CROSSING
CROSSOVER
DENOTES EXISTING CONDITION

GENERAL NOTES

- EXISTING TRACKS, UNDERGROUND FACILITIES, POLES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS AND THEREFORE THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE. CONTRACTOR TO FIELD VERIFY ALL LOCATIONS.
- PROIR TO CONSTRUCTION THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS FOR CONFLICTS WITH EXISTING UTILITIES, SIGNAL CABLES / EQUIPMENT AND/OR OTHER ITEMS THAT MIGHT IMPAIR CONSTRUCTION ACTIVITIES. INCONSISTENCIES FOUND SHALL BE REPORTED TO THE ENGINEER AS SOON AS POSSIBLE.
- NORFOLK SOUTHERN (NS) WILL CONSTRUCT ALL TRACKWORK. TRACKWORK DONE BY NS WILL INCLUDE ALL MATERIAL FROM THE TOP OF THE SUBBALLAST AND UP. THE CONTRACTOR IS RESPONSIBLE FOR ALL GRADING WORK BELOW THE TOP OF SUBBALLAST. GRADING WORK CONSISTS OF SUBGRADE PREPARATION AND COMPACTION, AND THE PLACEMENT AND COMPACTION OF SUBBALLAST TO GRADES INDICATED ON THE PLANS.
- PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH NORFOLK SOUTHERN PUBLIC PROJECTS MANUAL, AUGUST 2015, AREMA 2016 MANUAL FOR RAILWAY ENGINEERING, STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION & MATERIALS SPECIFICATIONS JANUARY 1, 2016 (ODOT CMS), THE SUPPLEMENTAL SPECIFICATIONS, AND SPECIAL PROVISIONS FOR THIS PROJECT.
- COORDINATE ALL WORK WITH NORFOLK SOUTHERN RAILWAY COMPANY.
- THE CONSTRUCTION PROGRAM WILL REQUIRE CLOSE COORDINATION AND COOPERATION WITH NORFOLK SOUTHERN PERSONNEL FOR ALL OPERATIONS THAT INVOLVE TRACK WORK AND RAIL SERVICE. THE TIME OF SPECIFIC TRACK CLOSINGS, OPENINGS, AND SWITCHING WORK IN ALL CASES SHALL ALSO BE SUBJECT TO NORFOLK SOUTHERN APPROVAL.
- CONTRACTOR SHALL MAINTAIN A CONSTRUCTION CLEARANCE OF 10 FEET HORIZONTALLY FROM THE CENTERLINE OF TRACKS AND 22 FEET VERTICALLY FROM A POINT LEVEL WITH THE TOP OF THE HIGHER RAIL, AT ALL TIMES.
- SOIL BORING LOGS AND SUBSURFACE PROFILES CAN BE FOUND IN THE GEOTECHNICAL ENGINEERING DESIGN REPORT.
- TOP OF RAIL ELEVATIONS SHOWN ON THE PROFILES IS TO THE TOP OF THE LOW RAIL OF THE PROPOSED TRACK AS IT TRAVERSES THROUGH A HORIZONTAL CURVE.
- PROPOSED TRACK STATIONING IS MEASURED ALONG THE CENTERLINE OF PROPOSED TRACK ALIGNMENT.
- TRACK STATIONING IS BASED ON VAL MAPS RECEIVED FROM NS. THE STATIONING IS INCREASED BY 10000+00 FOR EACH PHASE OF CONSTRUCTION. FIXED POINT USED TO DETERMINE STATIONING IS THE CENTERLINE OF THE EXISTING GRAND AVENUE UNDERGRADE BRIDGE LOCATED AT STATION 6261+60.
- EXISTING CONDITIONS WERE TAKEN FROM AERIAL SURVEY AND LIMITED FIELD SURVEY. THE EXISTING TOP OF RAIL ELEVATIONS WERE TAKEN FROM FIELD SURVEY IN OCTOBER 2018. THE BASIS FOR HORIZONTAL SURVEY DATA IS THE OHIO STATE PLANE, NORTH ZONE NA83 (2011). THE VERTICAL DATUM IS NAVD 1988. SEE BU-15, ROADWAY AND PAVEMENT, KINGSBURY RUN TO END PROJECT, FOR MORE DETAIL.
- SEE THE OPPORTUNITY CORRIDOR SEGMENT 3 PROJECTWIDE STORM WATER POLLUTION PREVENTION PLAN FOR EROSION AND SEDIMENT CONTORL MEASURES TO BE IMPLEMENTED.
- NORFOLK SOUTHERN COMMUNICATION AND SIGNALS DEPARTMENT SHALL BE NOTIFIED SIX WEEKS IN ADVANCE OF THE START OF CONSTRUCTION TO RELOCATE POWER AND TRACK CIRCUIT WIRES AND OTHER REQUIRED APPURTENANCES.
- FOR UTILITY CONTACT INFORMATION, SEE BU-15, ROADWAY AND PAVEMENT, KINGSBURY RUN TO END PROJECT.
- RAILROAD DESIGN SPEEDS ARE 45 MPH FREIGHT AND 55 MPH PASSENGER.
- THE TEMPORARY AND PERMANENT TRACK ALIGNMENTS WERE DESIGNED WITH A MINIMUM HORIZONTAL CLEARANCE OF 13'-0" (14'-0" CURVED) FROM CENTERLINE OF TRACK TO ADJACENT PHYSICAL OBSTRUCTIONS AS PER NS PUBLIC PROJECTS MANUAL APPENDIX H.1-2.B TEMPORARY CLEARANCES.
- 10' CLEAR POINT IS DEFINED AS A POINT WHERE THE PROPOSED TRACE AND EXISTING TRACK CENTERLINES ARE 10 FEET APART. THIS LOCATION DETERMINES IF THE PROPOSED TRACK WILL BE NEW CONSTRUCTION OR SHIFT EXISTING.
- REFER TO DEMOLITION PLANS IN BU-15, ROADWAY AND PAVEMENT, KINGSBURY RUN TO END PROJECT FOR LOCATION AND IDENTIFICATION OF KNOWN REGULATED MATERIALS. HANDLING OF REGULATED MATERIALS SHALL BE IN ACCORDANCE WITH CONTRACT DOCUMENTS.
- CONTRACTOR'S OPERATIONS ARE GOVERNED BY NORFOLK SOUTHERN SPECIAL PROVISIONS FOR THE PROTECTION OF RAILWAY INTERESTS.
- REFER TO BU-24, OUTFALL 4 SEWER FOR SEWER AND OUTFALL LOCATION AND INFORMATION.
- REFER TO BU-22, NORFOLK SOUTHERN BRIDGE OVER OH-10 NS MP RD-118.24 FOR BRIDGE PLANS.
- REFER TO BU-23, WALLS 5A, 5B, 5C AND 5D FOR WINGWALL INFORMATION.

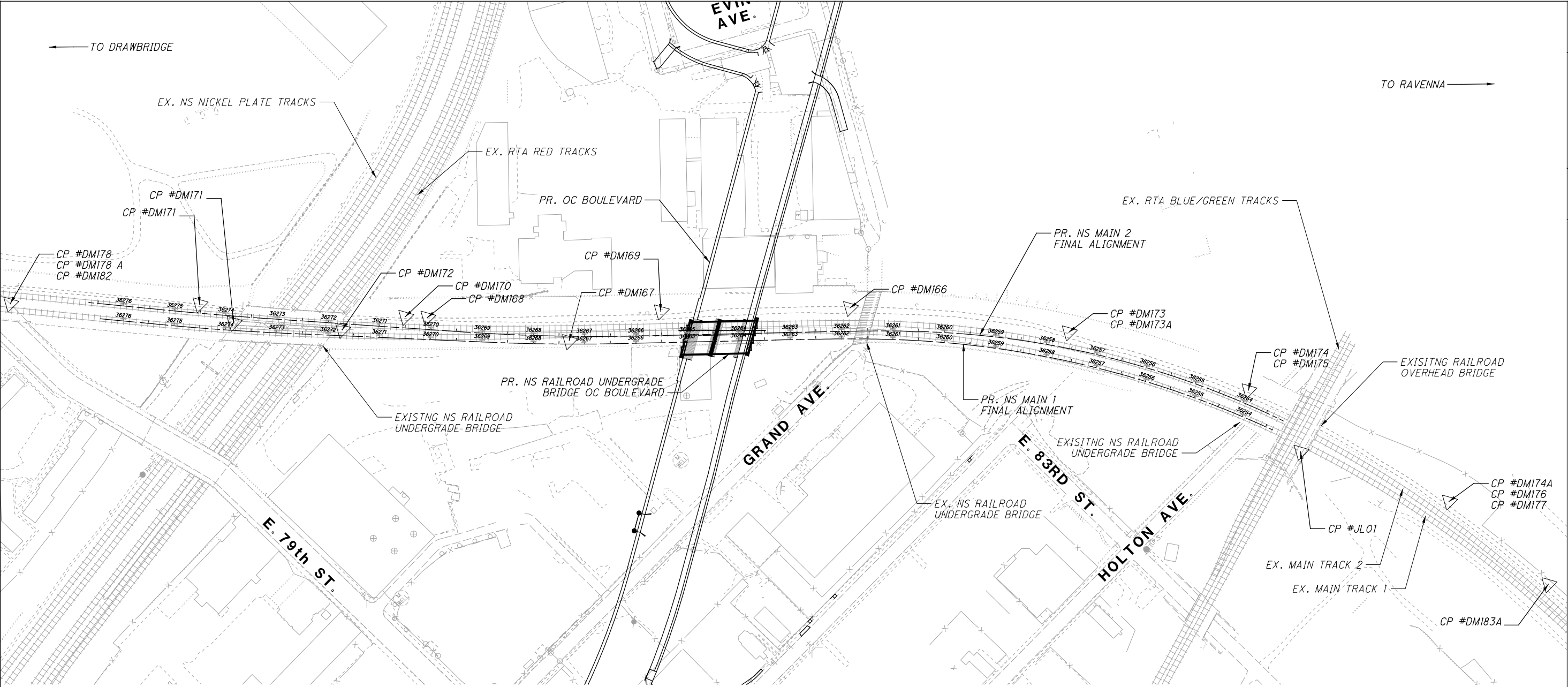
0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

SPECIFICATION	ITEM	DESCRIPTION
NS	-	CLEARING AND GRUBBING
ODOT	503	CLEARING AND GRUBBING
NS	-	EMBANKMENT
ODOT	203	ROADWAY EXCAVATION AND EMBANKMENT
NS	-	UNCLASSIFIED EXCAVATION
ODOT	203	ROADWAY EXCAVATION AND EMBANKMENT
NS	-	SUBBALLAST
ODOT	304	AGGREGATE BASE
NS	-	EROSION AND SEDIMENT CONTROL
ODOT	207	TEMPORARY SEDIMENT AND EROSION CONTROLS
NS	-	SEEDING AND MULCHING
ODOT	659	SEEDING AND MULCHING
ODOT	202	REMOVAL OF STRUCTURES AND OBSTRUCTIONS
ODOT	605	UNDERDRAIN
NS	-	RIGHT OF WAY FENCE
NS	-	SECURITY FENCE
ODOT	607	FENCE

NOTES:

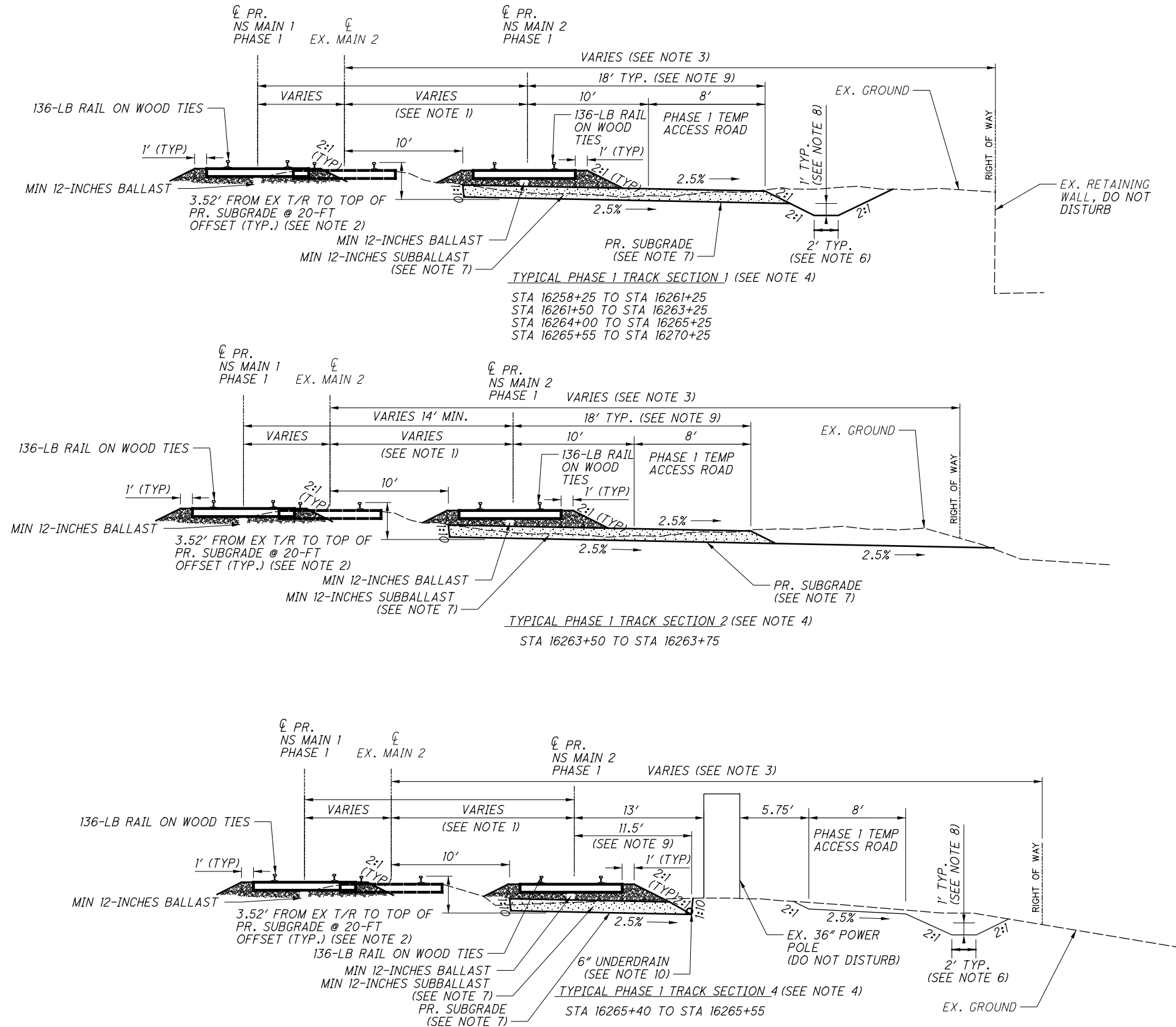
- 1. REFER TO NORFOLK SOUTHERN STANDARD SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION FOR NORFOLK SOUTHERN ITEMS.
- 2. WHERE BOTH NS AND ODOT SPECIFICATIONS ARE LISTED, NS SPECIFICATIONS OVERRULE ODOT SPECIFICATIONS

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CONTROL POINT	NORTHING	EASTING	ELEVATION	MATERIAL
JL123	664268.001	2206382.603	700.79	NAIL
JL01	662549.772	2207694.367	699.82	NAIL
DM183A	662026.471	2207854.100	703.65	MAG NAIL
DM182	664529.569	2206123.106	703.84	MAG NAIL
DM178A	664529.569	2206123.106	703.79	MAG NAIL
DM178	664529.569	2206123.106	703.84	MAG NAIL
DM177	662276.994	2207829.923	701.70	IRON PIN & CAP
DM176	662276.994	2207829.923	701.89	IRON PIN & CAP
DM175	662706.112	2207708.025	701.39	IRON PIN & CAP
DM174A	662276.994	2207829.923	701.89	-
DM174	662706.112	2207708.025	701.39	IRON PIN & CAP
DM173A	663033.209	2207540.472	699.25	-
DM173	663033.209	2207540.472	699.03	IRON PIN & CAP
DM172	664036.721	2206543.888	701.71	BOLT
DM171	664195.886	2206404.030	701.05	-
DM170	663967.877	2206648.475	702.29	-
DM169	663623.541	2207007.853	700.54	BOLT
DM168	663936.431	2206677.910	700.28	IRON PIN & CAP
DM167	663708.959	2206840.537	699.49	NAIL
DM166	663367.739	2207272.707	697.93	IRON PIN & CAP

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- NOTES:
1. TYPICAL SECTIONS SHOW TYPICAL DIMENSIONS. TRACK CENTERS, SHOULDER & DITCH WIDTHS, AND DITCH DEPTHS ARE VARIABLE. SEE PLANS AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
 2. TYPICAL DEPTH SHOWN. DEPTH OF EXCAVATION SHOULD BE TO THE TOP OF EXISTING SUBGRADE TO ELIMINATE THE FORMATION OF A WATER TRAP ZONE BETWEEN EXISTING AND PROPOSED AT THE 10-FT MATCH POINT.
 3. SEE PLANS AND CROSS SECTIONS FOR EXISTING AND PROPOSED RIGHT-OF-WAY REFERENCE LINEWORK.
 4. STATIONING PROVIDED REFERENCES PROPOSED MAIN TRACK 2 DURING PHASE 1.
 5. WHERE THERE ARE GAPS IN TYPICAL SECTION STATIONING, PROVIDE TRANSITION BETWEEN SECTIONS, EXCLUDING STATIONS 16261+25 TO 16261+50, GRAND AVENUE UNDERGRADE BRIDGE.
 6. FROM STATION 16260+48 TO STATION 16260+58, DITCH WIDTH IS 1'.
 7. ALL GRADING AND SUBBALLAST PLACEMENT SHALL MEET THE REQUIREMENTS OF THE 2015 NORFOLK SOUTHERN PUBLIC PROJECTS MANUAL. SUBBALLAST SHALL BE PER ODOT ITEM 304 - AGGREGATE BASE (COMPACTED SUBBALLAST).
 8. SEE PHASE 1 - DITCH ELEVATION TABLE FOR DITCH FLOWLINE ELEVATIONS.
 9. SEE PHASE 1 - ATYPICAL ROADBED WIDTH TABLE FOR ATYPICAL ROADBED WIDTHS. ROADBED WIDTH IS FROM CENTERLINE OF TRACK TO TOP EDGE OF SUBBALLAST. SEE TYPICAL SECTIONS FOR STATION RANGES NOT IN TABLE.
 10. SEE PLAN AND PROFILE PHASE 1 SHEETS FOR LOCATION OF UNDERDRAIN. SEE DETAIL ODOT ITEM 605 6" SHALLOW PIPE UNDERDRAINS.
 11. SEE CONSTRUCTION DETAIL SHEETS FOR GRAND AVENUE BRIDGE REMOVAL.
 12. NORFOLK SOUTHERN RAILROAD RESPONSIBLE FOR ALL TRACKWORK, INCLUDING RAIL, TIES AND BALLAST, AND ALL MATERIAL FROM THE TOP OF SUBBALLAST AND UP. THE CONTRACTOR IS RESPONSIBLE FOR ALL GRADING WORK BELOW THE TOP OF SUBBALLAST.

NS ROW FENCE TABLE				
STATION BEGIN	OFFSET	STATION END	OFFSET	LENGTH
26257+22	28.90' LT	26257+23	30.34' LT	1.69'
26257+23	30.34' LT	26257+58	35.29' LT	34.64'
26257+58	35.29' LT	26258+14	47.37' LT	56.64'
26258+14	47.37' LT	26259+97	40.63' LT	177.26'
26259+97	40.63' LT	26262+21	61.65' LT	221.57'
26262+21	61.65' LT	26263+77	36.00' LT	158.88'
26263+77	36.00' LT	26263+99	57.56' LT	30.49'
26265+24	59.95' LT	26265+45	39.05' LT	29.75'
26265+45	39.05' LT	26267+92	47.69' LT	250.78'
26267+92	47.69' LT	26271+89	36.85' LT	396.33'
26271+89	36.85' LT	26272+31	85.14' LT	64.14'
26272+31	85.14' LT	26272+52	83.19' LT	21.58'

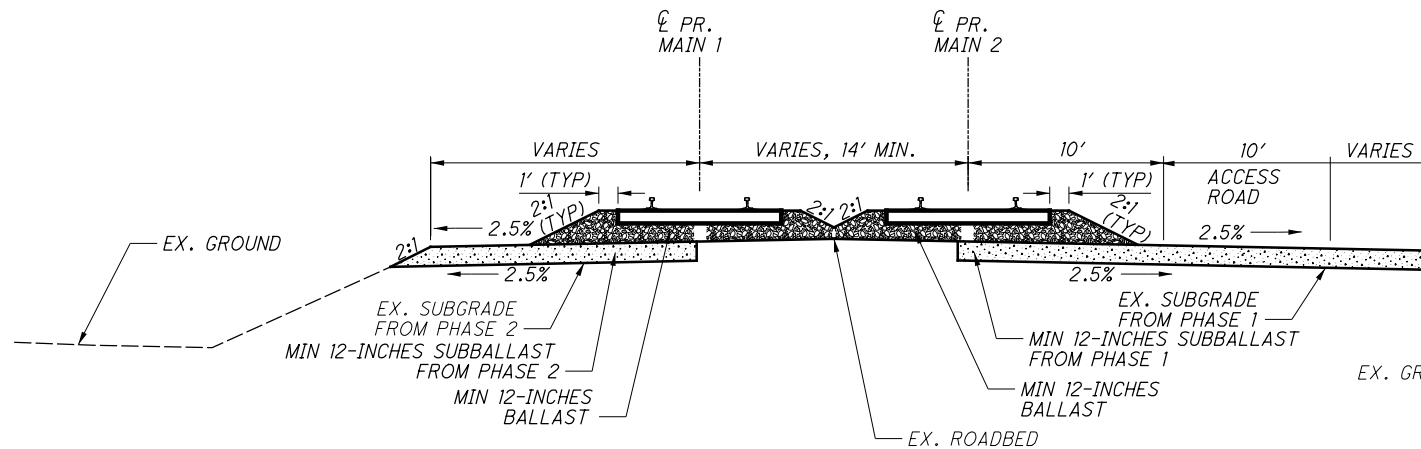
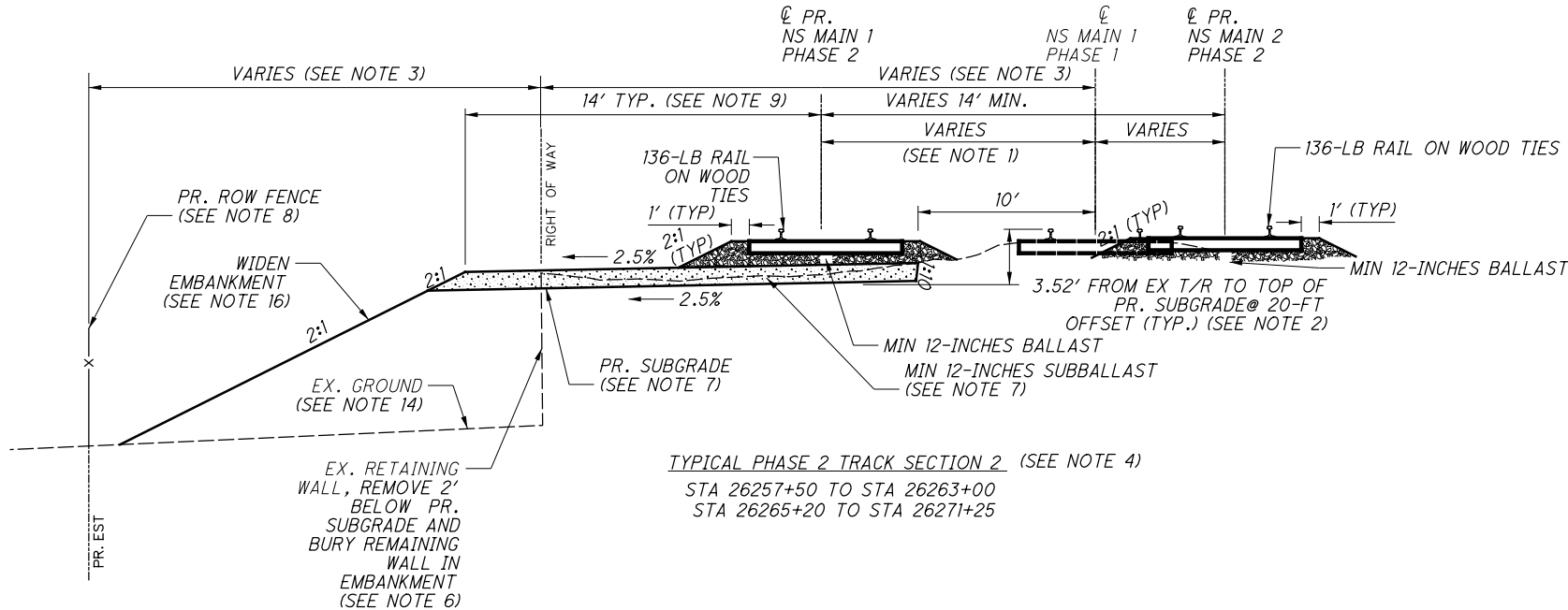
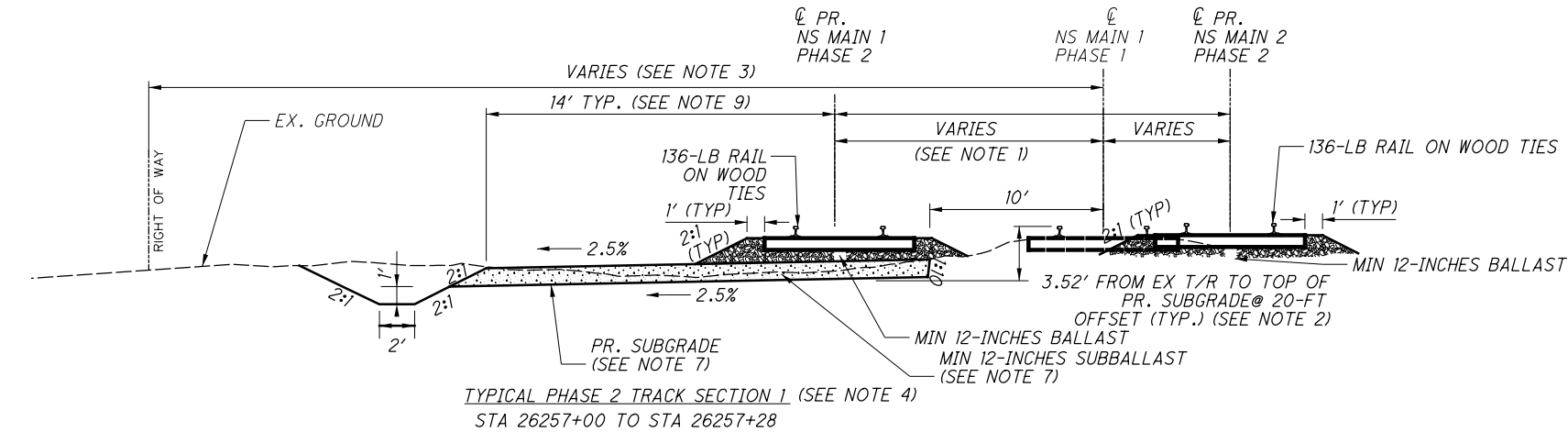
STATIONS AND OFFSETS ARE TAKING FROM CL PROP NS MAIN 1 PHASE 2.

PHASE 1 - DITCH ELEVATION TABLE			
STATION BEGIN	STATION END	ELEV BEGIN	ELEV END
16258+25	16261+00	696.47	696.33
16261+75	16263+25	696.13	696.00
16264+00	16265+25	696.38	696.52
16265+75	16266+25	696.58	696.63
16266+48	16270+25	696.66	697.07

PHASE 1 - ATYPICAL ROADBED WIDTH TABLE		
STATION BEGIN	STATION END	WIDTH MEASURED FROM CL PROPOSED NS MAIN 2
16265+40	16265+55	11.5'
16265+75	16266+25	32.810'

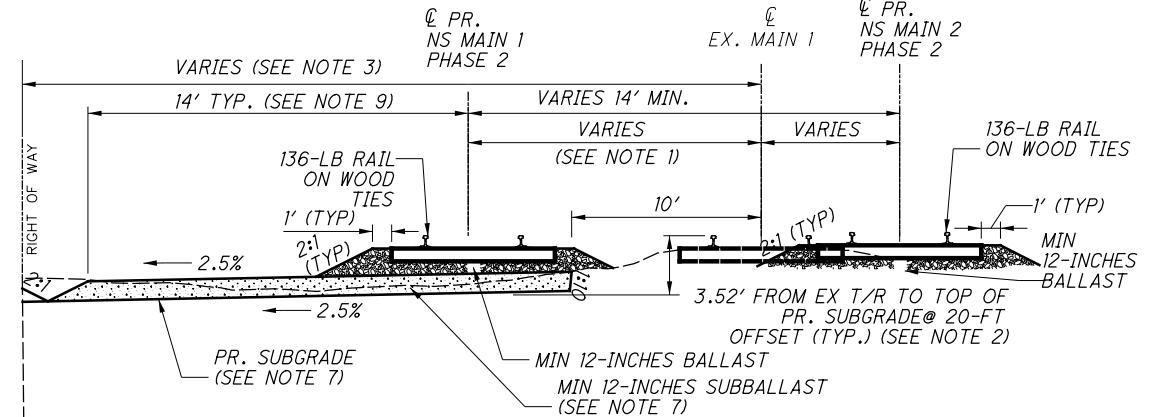
NOT TO SCALE

ISSUE RECORD		
NO.	DATE	DESCRIPTION
1	2020-02-17	DC033
0	2019-05-14	RFC



NOTES:

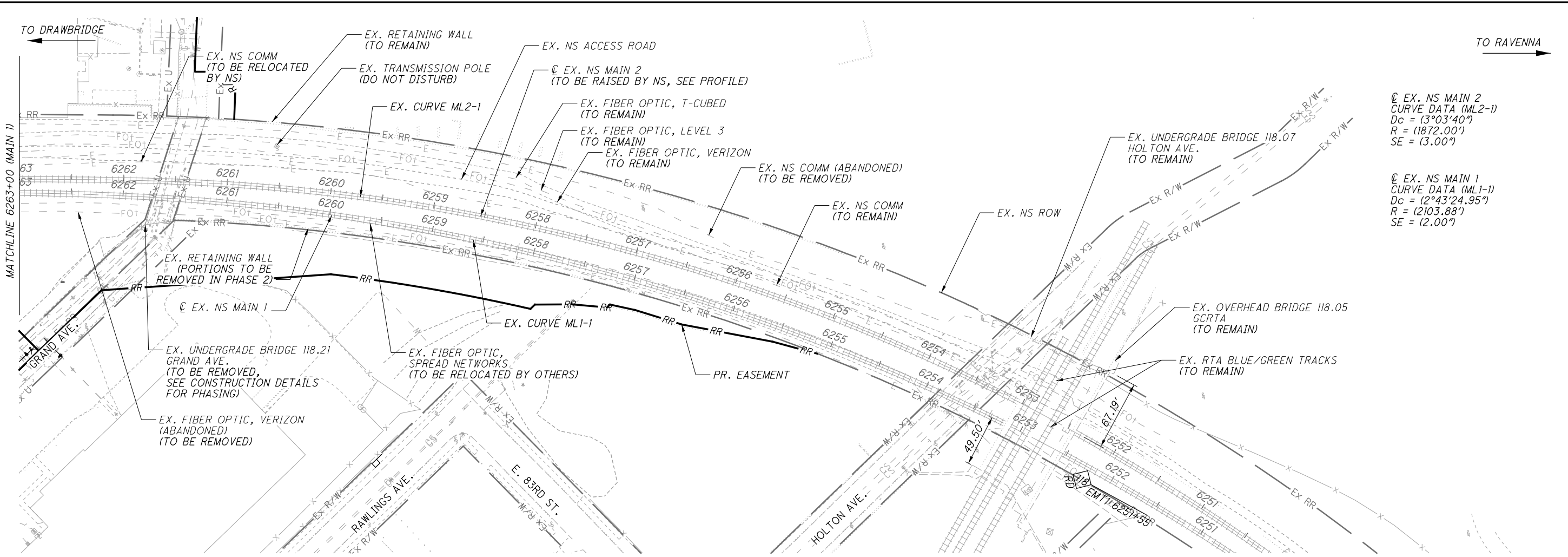
1. TYPICAL SECTIONS SHOW TYPICAL DIMENSIONS. TRACK CENTERS, SHOULDER & DITCH WIDTHS, AND DITCH DEPTHS ARE VARIABLE. SEE PLANS AND CROSS SECTIONS FOR ADDITIONAL INFORMATION.
2. TYPICAL DEPTH SHOWN. DEPTH OF EXCAVATION SHOULD BE TO THE TOP OF EXISTING SUBGRADE TO ELIMINATE THE FORMATION OF A WATER TRAP ZONE BETWEEN EXISTING AND PROPOSED AT THE 10-FT MATCH POINT.
3. SEE PLANS AND CROSS SECTIONS FOR EXISTING AND PROPOSED RIGHT-OF-WAY REFERENCE LINEWORK.
4. PHASE 2 STATIONING IS BASED OFF OF PROPOSED MAIN TRACK 1.
5. WHERE THERE ARE GAPS IN TYPICAL SECTION STATIONING, PROVIDE TRANSITION BETWEEN SECTIONS, EXCLUDING STATIONS 26263+00 TO 26265+20, OC BOULEVARD UNDERGRADE BRIDGE.
6. 515 LF OF RETAINING WALL IS TO BE REMOVED BETWEEN STATION 26256+85 TO STATION 26262+00 AND 605 LF OF RETAINING WALL IS TO BE REMOVED FROM STATION 26265+20 TO 26271+25.
7. ALL GRADING AND SUBBALLAST PLACEMENT SHALL MEET THE REQUIREMENTS OF THE 2015 NORFOLK SOUTHERN PUBLIC PROJECTS MANUAL. SUBBALLAST SHALL BE PER ODOT ITEM 304 - AGGREGATE BASE (COMPACTED SUBBALLAST).
8. 763 LF OF ROW FENCE IS TO BE INSTALLED DURING PHASE 2 FROM STATION 26265+24 TO STATION 26272+52 AND 681 LF OF ROW FENCE IS TO BE INSTALLED DURING PHASE 2 FROM STATION 26257+22 TO 26263+99. SEE 2015 NORFOLK SOUTHERN PUBLIC PROJECT MANUAL, DRAWING NUMBER 21 FOR DETAIL. SEE NS ROW FENCE TABLE ON SHEET 6 FOR LOCATION INFORMATION.
9. BETWEEN STATIONS 26263+45 TO 26263+55, ROADBED WIDTH IS 25', MEASURED FROM THE CENTERLINE OF PROPOSED NS MAIN 1, PHASE 2.
10. SEE CONSTRUCTION DETAIL SHEETS FOR GRAND AVENUE BRIDGE REMOVAL.
11. CONTRACTOR TO PREPARE TRACK ROADBED IN PHASE 3 BY REMOVING EXCESS ROADBED MATERIAL AND ENSURING 12" MINIMUM SUBBALLAST ACROSS THE ROADBED.
12. PHASE 3 STATIONING IS BASED OFF OF PROPOSED MAIN TRACK 2.
13. NORFOLK SOUTHERN RAILROAD RESPONSIBLE FOR ALL TRACKWORK, INCLUDING RAIL, TIES AND BALLAST, AND ALL MATERIAL FROM THE TOP OF SUBBALLAST AND UP. THE CONTRACTOR IS RESPONSIBLE FOR ALL GRADING WORK BELOW THE TOP OF SUBBALLAST.
14. EXISTING GROUND IS ACTUALLY FIRST FLOOR BUILDING SLABS AND FOUNDATIONS THAT WILL NEED TO BE REMOVED PRIOR TO PLACING EMBANKMENT.
15. SEE ODOT CMS 203.05 FOR BENCHING DETAIL.
16. WIDEN EMBANKMENT PER NORFOLK SOUTHERN STANDARD PLAN 1-23 FROM STATIONS 26257+50 TO 26263+00 AND STATIONS 26265+20 TO 26271+25.



TYPICAL PHASE 2 TRACK SECTION 3 (SEE NOTE 4)
STA 26271+25 TO STA 26271+75

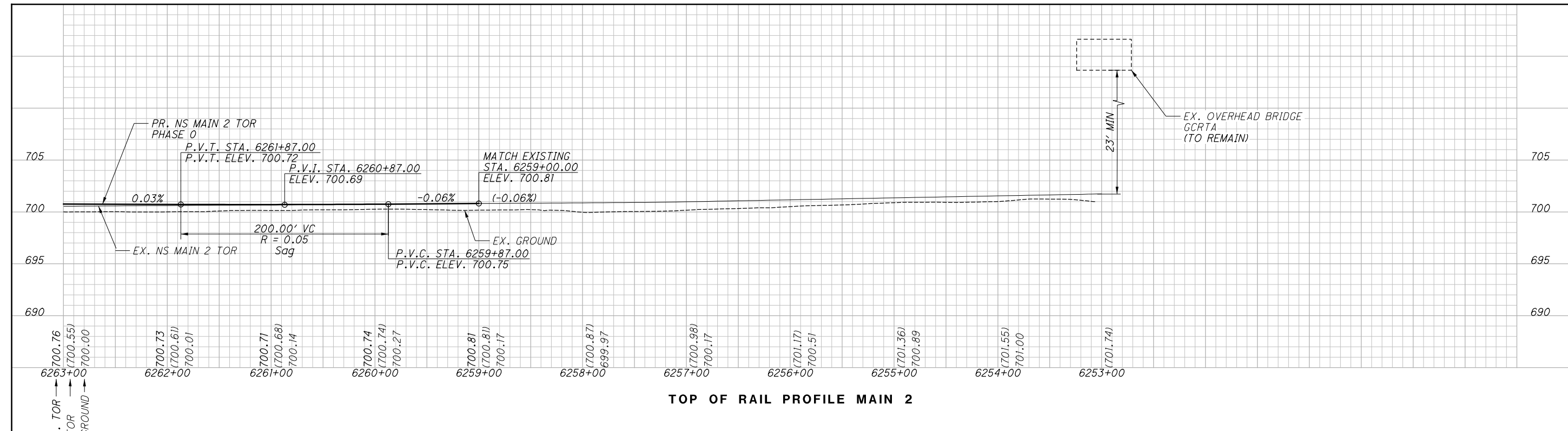
NOT TO SCALE

ISSUE RECORD		
NO.	DATE	DESCRIPTION
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0	2019-05-14	RFC

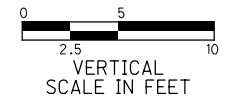


⊙ EX. NS MAIN 2
CURVE DATA (ML2-1)
Dc = (3°03'40")
R = (1872.00')
SE = (3.00')

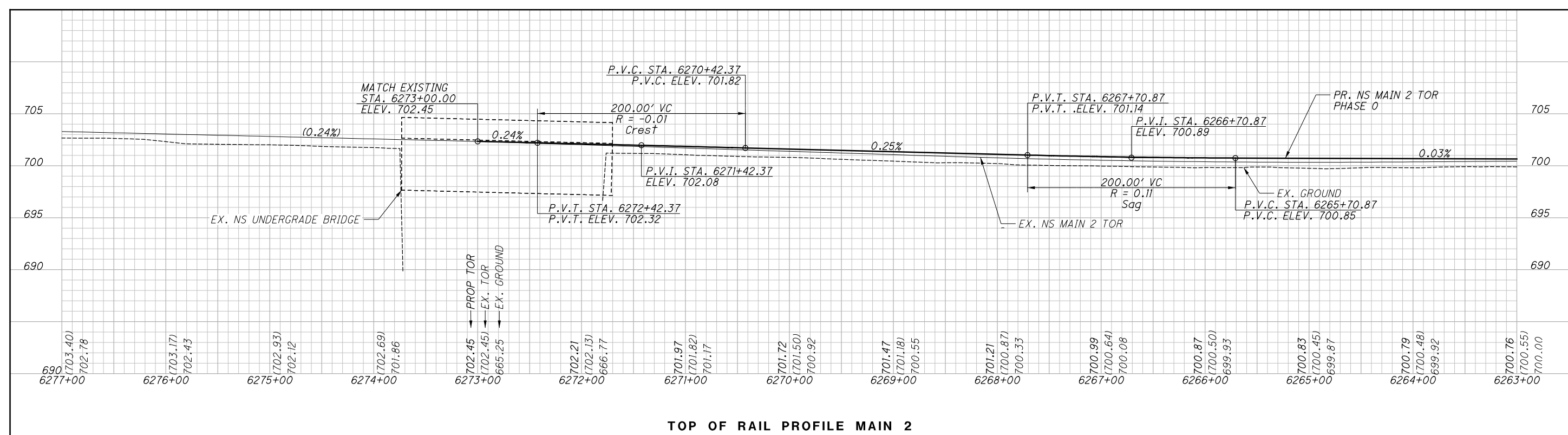
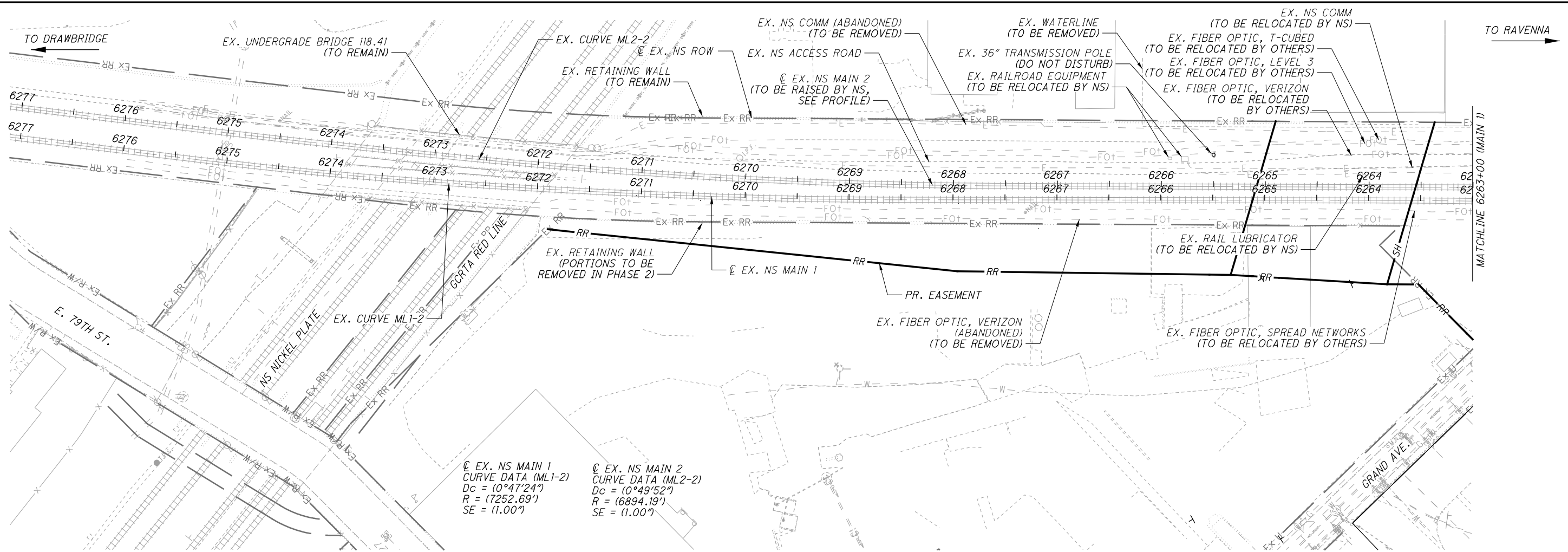
⊙ EX. NS MAIN 1
CURVE DATA (ML1-1)
Dc = (2°43'24.95")
R = (2103.88')
SE = (2.00')



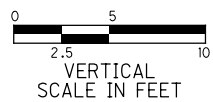
TOP OF RAIL PROFILE MAIN 2

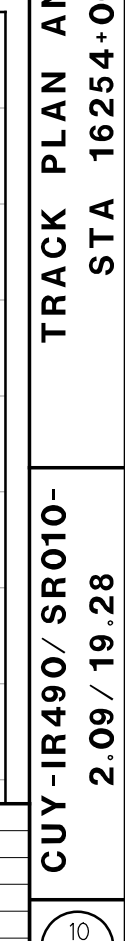
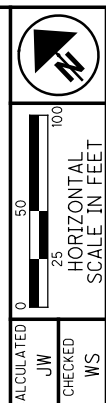


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NO.	DATE	DESCRIPTION
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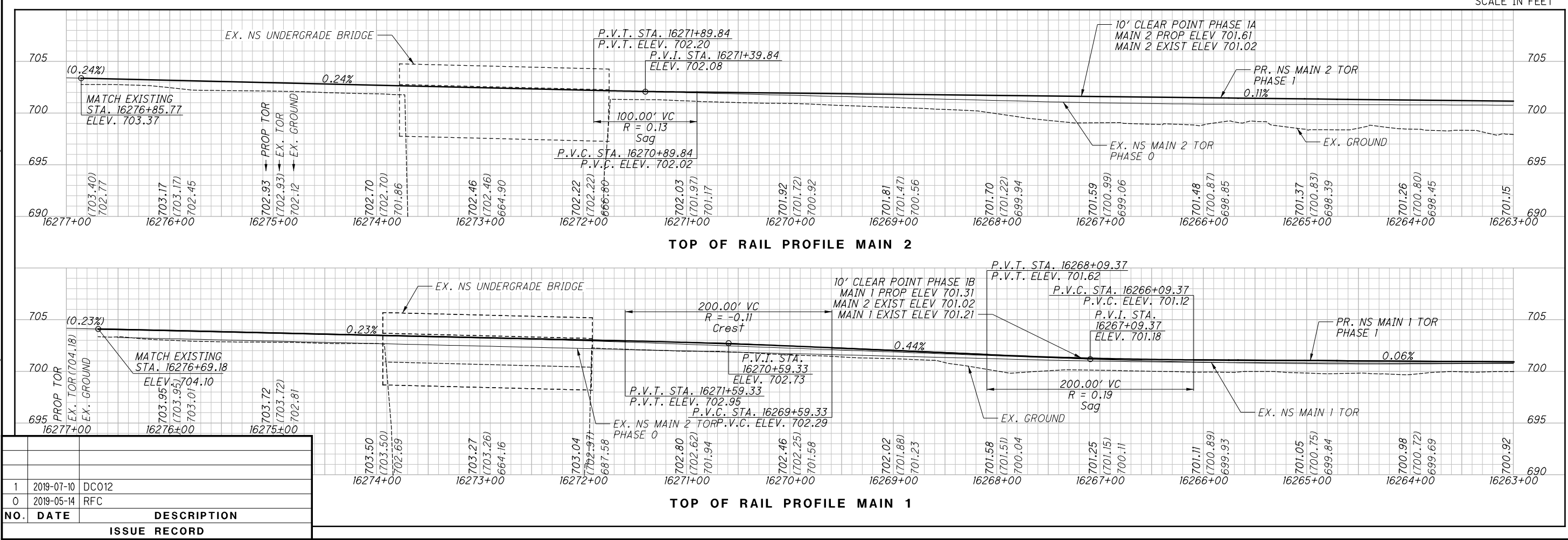
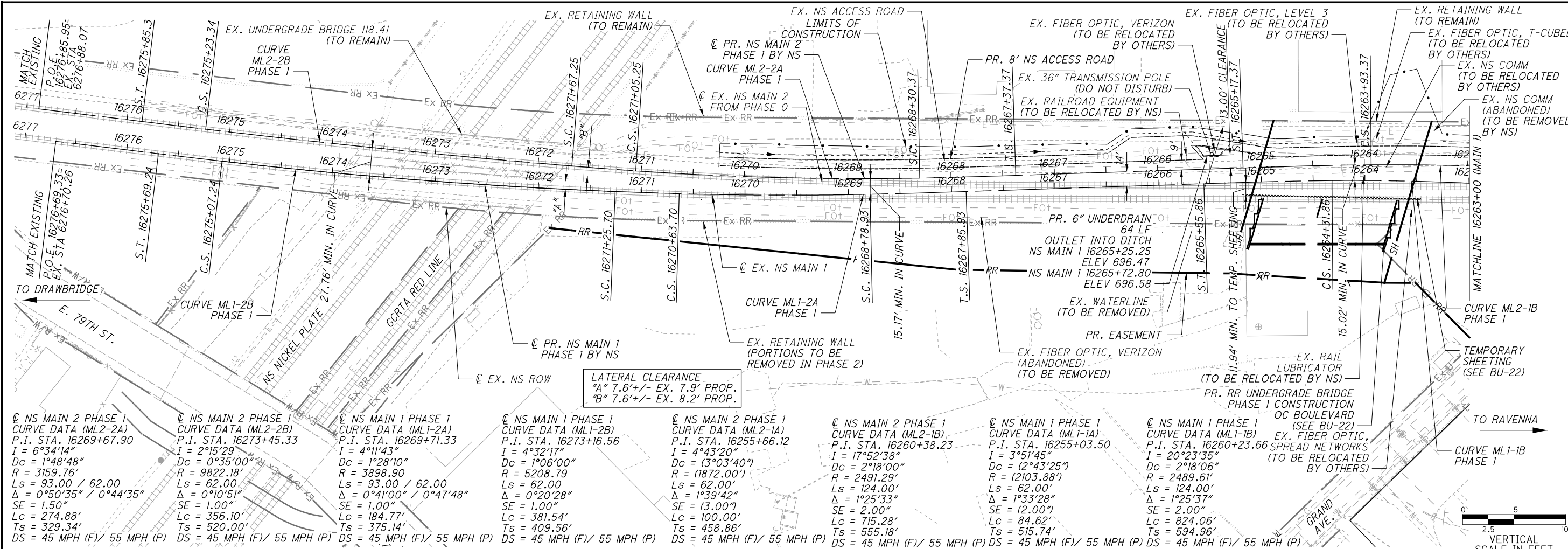


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ISSUE RECORD		



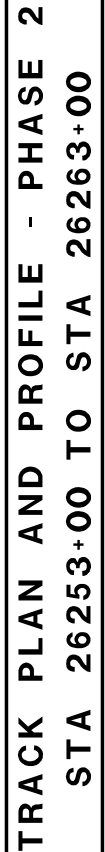
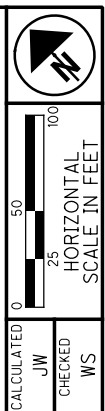


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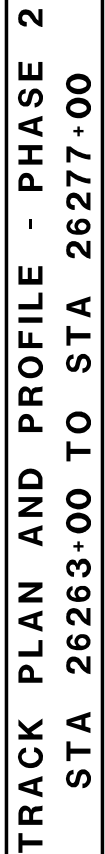
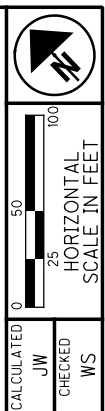


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0	2019-05-14	RFC

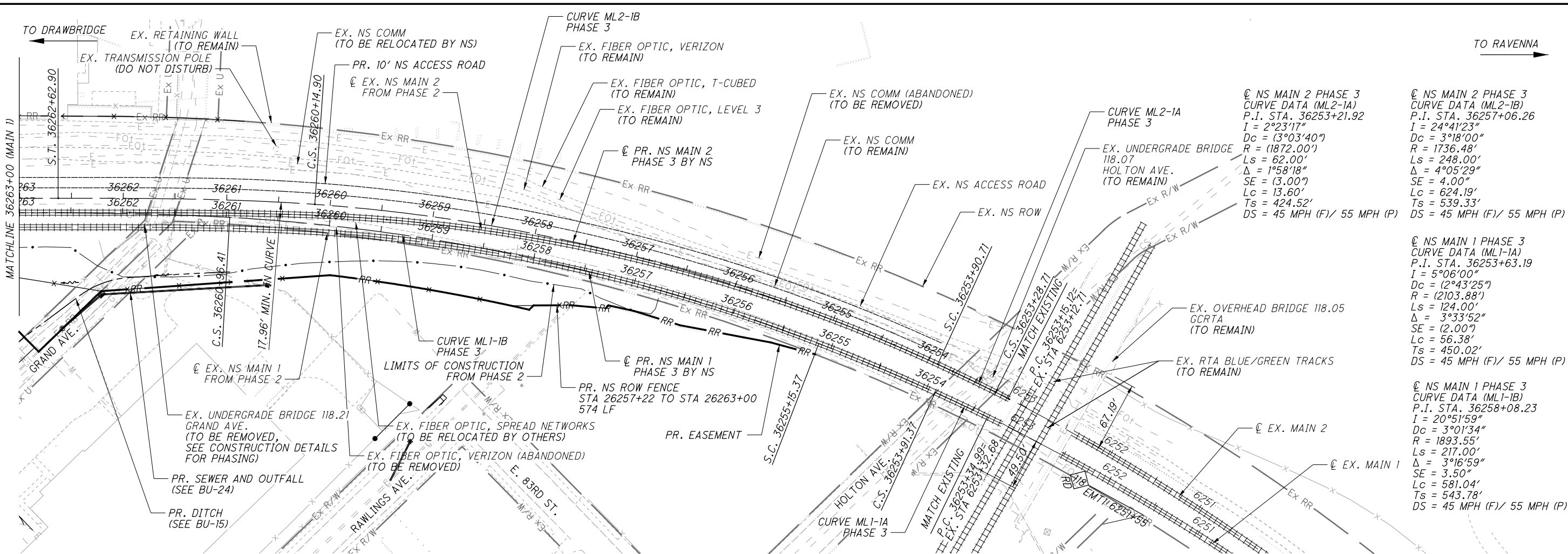
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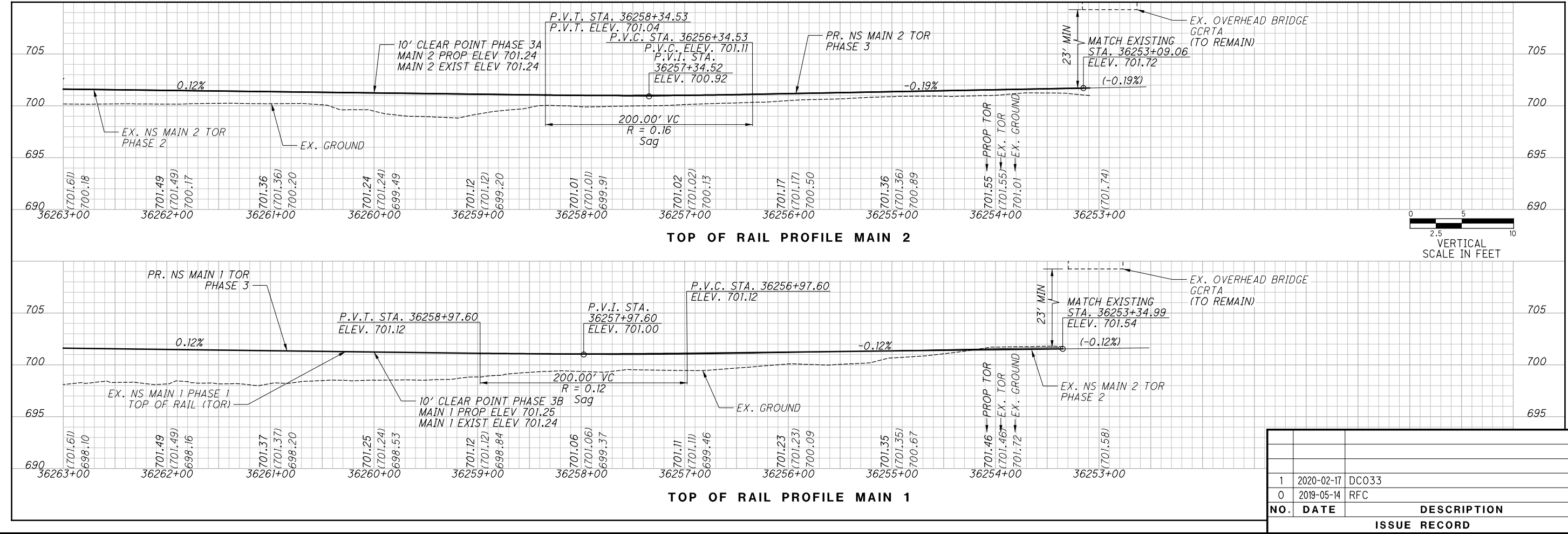

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2.09 / 19.28



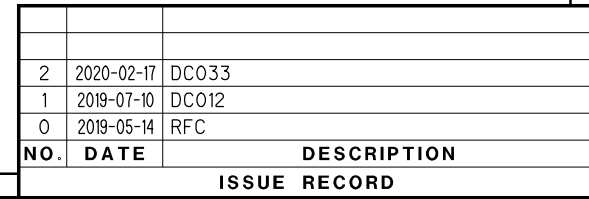
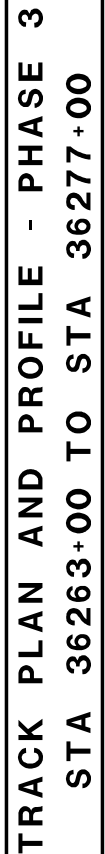
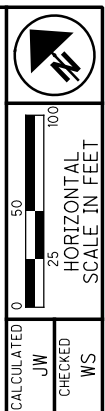
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NS MAIN 2 PHASE 3 CURVE DATA (ML2-1A) P.I. STA. 36253+21.92 I = 2°23'17" Dc = (3°03'40") R = (1872.00') Ls = 62.00' Δ = 1°58'18" SE = (3.00') Lc = 13.60' Ts = 424.52' DS = 45 MPH (F)/ 55 MPH (P)	NS MAIN 2 PHASE 3 CURVE DATA (ML2-1B) P.I. STA. 36257+06.26 I = 2°41'23" Dc = (3°18'00") R = 1736.48' Ls = 248.00' Δ = 4°05'29" SE = 4.00' Lc = 624.19' Ts = 539.33' DS = 45 MPH (F)/ 55 MPH (P)
NS MAIN 1 PHASE 3 CURVE DATA (ML1-1A) P.I. STA. 36253+63.19 I = 5°06'00" Dc = (2°43'25") R = (2103.88') Ls = 124.00' Δ = 3°33'52" SE = (2.00') Lc = 56.38' Ts = 450.02' DS = 45 MPH (F)/ 55 MPH (P)	NS MAIN 1 PHASE 3 CURVE DATA (ML1-1B) P.I. STA. 36258+08.23 I = 2°51'59" Dc = (3°01'34") R = 1893.55' Ls = 217.00' Δ = 3°16'59" SE = 3.50' Lc = 581.04' Ts = 543.78' DS = 45 MPH (F)/ 55 MPH (P)



NO.	DATE	DESCRIPTION
1	2020-02-17	DC033
0	2019-05-14	RFC
ISSUE RECORD		



PHASE 1 MAIN 1 – TRACK GEOMETRY TABLE																													
STATIONING DATA							INPUT DATA										CURVE DATA					SPIRAL DATA							
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Eg	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	K	p	LT	ST	Ts	
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML 1–1A	P.C.			16254+61.19	662740.295	2207637.054																							
	P.I.			16255+03.50	662778.974	2207619.886	(2°43′25″)	(2.0)	(1.05)	40	(1.86)	45	(3.77)	55			(2103.88)	2°18′17″	84.62	42.32									
	C.S.			16255+45.80	662816.932	2207601.177																							
	S.C.			16256+07.80	662872.153	2207572.993									62.00		24°15′20″					1°33′28″	61.99	0.82	4.80	0.01	31.87	30.13	515.74
ML 1–1B	P.I.			16260+23.66	663240.029	2207379.065	2°18′06″	2.0	0.58	40	1.26	45	2.87	55			2489.61	18°57′58″	824.06	415.86									
	C.S.			16264+31.86	663524.905	2207076.104									124.00							1°25′37″	123.99	1.03	62.00	0.26	82.67	41.34	594.96
	S.T.	N48°11′21″W	230.07	16265+55.86	663608.334	2206984.372																							
	T.S.																												
ML 1–2A	S.C.			16267+85.93	663761.717	2206812.888																							
	P.I.			16268+78.93	663823.992	2206743.818									93.00							0°41′00″	93.00	0.37	46.50	0.09	62.00	31.00	375.14
	C.S.			16269+71.33	663886.412	2206675.686	1°28′10″	1.0	0.65	40	1.08	45	2.11	55			3898.90	2°42′55″	184.77	92.40									
	S.C.			16270+63.70	663951.988	2206610.587									62.00		8°44′00″					0°47′48″	62.00	0.41	7.80	0.01	32.49	29.51	---
ML 1–2B	P.I.			16271+25.70	663996.306	2206567.229																							
	C.S.			16273+16.56	664133.612	2206434.662	1°06′00″	1.0	0.23	40	0.56	45	1.33	55			5208.79	4°11′49″	381.54	190.86									
	S.T.			16275+07.24	664280.252	2206312.499									62.00														
	P.O.E.	N39°27′22″W	100.09	16275+69.24	664328.045	2206273.004																0°20′28″	62.00	0.12	31.00	0.03	41.33	20.67	409.56
	P.O.E.			16276+69.33	664405.326	2206209.397																							

STATIONING DATA						INPUT DATA										CURVE DATA					SPIRAL DATA							
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	K	p	LT	ST	Ts
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML2-1A	P.C.			16255+16.10	662809.190	2207634.322																						
	P.I.			16255+66.12	662854.296	2207612.721	(3°03'40")	(3.0)	(0.43)	40	(1.34)	45	(3.48)	55			(1872.00)	3°03'38"	99.99	50.01								
	C.S.			16256+16.09	662898.185	2207588.743																						
ML2-1B	S.C.			16256+78.09	662952.134	2207558.194									62.00						1°39'42"	62.00	0.86	7.71	0.02	32.47	29.54	458.86
	P.I.			16260+38.23	663263.040	2207376.429	2°18'00"	2.0	0.58	40	1.26	45	2.87	55			2491.29	16°27'05"	715.28	360.14								
	C.S.			16263+93.37	663509.742	2207114.056									124.00						1°25'33"	123.99	1.03	62.00	0.26	82.67	41.34	555.18
ML2-2A	S.T.	N48°11'21"W	220.00	16265+17.37	663593.171	2207022.324																						
	T.S.			16267+37.37	663739.840	2206858.347																						
	S.C.			16268+30.37	663802.179	2206789.336									93.00						0°50'35"	93.00	0.46	46.50	0.11	62.00	31.00	329.34
ML-2-2B	P.I.			16269+67.90	663895.365	2206688.188	1°48'48"	1.5	0.53	40	1.07	45	2.33	55			3159.76	4°59'04"	274.88	137.53								
	C.S.			16271+05.25	663996.988	2206595.519									62.00		8°49'43"				0°44'35"	62.00	0.33	21.03	0.03	36.30	25.70	---
	S.C.			16271+67.25	664043.115	2206554.093																						
	P.I.			16273+45.32	664176.238	2206435.824	0°35'00"	1.0	-0.35	40	-0.18	45	0.23	55			9822.18	2°04'38"	356.10	178.07								
	C.S.			16275+23.34	664313.560	2206322.459									62.00						0°10'51"	62.00	0.07	31.00	0.02	41.33	20.67	520.00
	S.T.			16275+85.34	664361.455	2206283.088																						
	P.O.E.	N39°21'37"W	100.61	16276+85.95	664439.240	2206219.285																						

() – DENOTES EXISTING CONDITION

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

PHASE 2 MAIN 1 – TRACK GEOMETRY TABLE																												
STATIONING DATA							INPUT DATA										CURVE DATA					SPIRAL DATA						
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	k	p	LT	ST	Ts
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML1-1A	P.C.			26253+96.26	662673.998	2207665.131																						
	P.I.			26254+46.27	662720.375	2207646.419	(2°43′25″)	(2.0)	(1.05)	40	(1.86)	45	(3.77)	55			(2103.88)	2°43′25″	99.99	50.01								
	C.S.			26254+96.25	662765.810	2207625.525																						
ML1-1B	S.C.			26256+20.25	662876.695	2207570.076									124.00	24°20′20″					3°55′30″	123.91	4.05	15.19	0.10	64.91	59.14	382.49
	P.I.			26258+04.27	663038.227	2207481.928	3°36′29″	4.0	0.04	40	1.11	45	2.32	50			1588.31	13°13′02″	366.34	184.02								
	C.S.			26259+86.60	663175.325	2207359.182									248.00						4°28′23″	247.85	6.45	123.97	1.61	165.39	82.71	466.87
ML1-2	S.T.	N46°18′43″W	241.57	26262+34.60	663351.187	2207184.415																						
	T.S.			26264+76.17	663518.048	2207009.733																						
	S.C.			26265+69.17	663582.648	2206942.833									93.00	4°16′17″	2864.93	2°24′41″	120.57	60.30	0°55′48″	93.00	0.50	46.50	0.13	62.00	31.00	153.34
	P.I.			26266+29.47	663625.000	2206899.912	2°00′00″	1.5	0.74	40	1.34	45	2.74	55														
ML1-3	C.S.			26266+89.74	663669.121	2206858.812									93.00						0°55′48″	93.00	0.50	46.50	0.13	62.00	31.00	153.34
	S.T.	N42°02′26″W	500.00	26267+82.74	663737.850	2206796.162																						
	T.S.			26272+82.74	664109.186	2206461.334																						
	S.C.			26273+44.74	664155.320	2206419.914									62.00	2°35′04″	4849.76	1°51′07″	156.76	78.39	0°21′58″	62.00	0.13	31.00	0.03	41.33	20.67	140.40
	P.I.			26274+23.13	664213.871	2206367.794	1°10′53″	1.0	0.32	40	0.68	45	1.50	55							0°21′58″	62.00	0.13	31.00	0.03	41.33	20.67	140.40
	C.S.			26275+01.50	664274.075	2206317.594									62.00													
	S.T.	N39°27′22″W	100.00	26275+63.50	664321.862	2206278.092																						
	P.O.E.			26276+63.50	664399.073	2206214.544																						

PHASE 2 MAIN 2 – TRACK GEOMETRY TABLE																												
STATIONING DATA							INPUT DATA										CURVE DATA					SPIRAL DATA						
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	k	p	LT	ST	Ts
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML2-1A	P.C.			26253+15.04	662615.960	2207713.925																						
	P.I.			26253+45.65	662644.872	2207703.862	(3°03′40″)	(3.0)	(0.43)	40	(1.34)	45	(3.48)	55			(1872.00)	1°52′25″	61.21	30.61								
	C.S.			26253+76.25	662673.439	2207692.860																						
	S.C.			26254+38.25	662730.891	2207669.560																						
ML2-1B	P.I.			26256+93.96	662966.011	2207569.028	3°40′18″	4.0	0.11	40	1.20	45	2.42	50			1560.74	18°36′34″	506.83	255.71								
	C.S.			26259+45.08	663156.757	2207398.723																						
	S.T.	N46°18′43″W	251.10	26261+93.08	663332.698	2207224.039															4°33′08″	247.84	6.56	123.97	1.64	165.39	82.72	498.09
	T.S.			26264+44.18	663506.140	2207042.467																						
ML2-2	S.C.			26265+68.18	663592.498	2206953.486																						
	P.I.			26266+27.88	663634.746	2206911.314	2°12′00″	2.0	0.46	40	1.12	45	2.66	55	124.00	5°21′14″	2604.51	2°37′33″	119.36	59.69	1°21′50″	123.99	0.98	62.00	0.25	82.67	41.34	183.78
	C.S.			26266+87.54	663678.882	2206871.123																						
	S.T.	N40°57′29″W	490.92	26268+11.54	663771.876	2206789.101															1°21′50″	123.99	0.98	62.00	0.25	82.67	41.34	183.78
ML2-3	T.S.			26273+02.46	664142.609	2206467.303																						
	S.C.			26273+64.46	664189.490	2206426.729																						
	P.I.			26274+32.96	664241.415	2206382.052	0°48′10″	1.0	−0.10	40	0.14	45	0.69	55	62.00	1°35′52″	7136.28	1°06′00″	136.99	68.50	0°14′56″	62.00	0.09	31.00	0.02	41.33	20.67	130.50
	C.S.			26275+01.45	664294.188	2206338.380																						
	S.T.	N39°21′37″W	100.00	26275+63.45	664342.068	2206298.991									62.00						0°14′56″	62.00	0.09	31.00	0.02	41.33	20.67	130.50
	P.O.E.			26276+63.45	664419.385	2206235.571																						

() - DENOTES EXISTING CONDITION

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

PHASE 3 MAIN 1 – TRACK GEOMETRY TABLE																												
STATIONING DATA							INPUT DATA										CURVE DATA					SPIRAL DATA						
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	k	p	LT	ST	Ts
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML1-1A	P.C.			36253+34.99	662618.259	2207686.705																						
	P.I.			36253+63.19	662644.695	2207676.903	(2°43′25″)	(2.0)	(1.05)	40	(1.86)	45	(3.77)	55			2103.88	1°32′08″	56.38	28.19								
	C.S.			36253+91.37	662670.858	2207666.395																						
	S.C.			36255+15.37	662784.441	2207616.697									124.00	25°57′59″					3°33′52″	123.92	3.79	0.03	6.20	63.11	60.93	450.02
ML1-1B	P.I.			36258+08.23	663048.890	2207490.871	3°01′34″	3.50	−0.11	40	0.79	45	2.91	55			1893.55	17°35′00″	581.04	292.86								
	C.S.			36260+96.41	663262.971	2207291.035																						
	S.T.	N46°18′43″W	286.65	36263+13.41	663415.808	2207137.034									217.00						3°16′59″	216.93	4.14	1.04	108.49	144.69	72.36	543.78
	T.S.			36266+00.07	663613.809	2206929.752																						
ML1-2	S.C.			36266+62.07	663656.755	2206885.035																						
	P.I.			36267+58.83	663724.157	2206815.611	1°30′00″	1.0	0.68	40	1.13	45	2.18	55	62.00	3°49′56″	3819.83	2°54′08″	193.48	96.76	0°27′54″	62.00	0.17	0.04	31.00	41.33	20.67	158.79
	C.S.			36268+55.54	663794.988	2206749.688															0°27′54″	62.00	0.17	0.04	31.00	41.33	20.67	158.79
	S.T.	N42°28′47″W	339.06	36269+17.54	663840.600	2206707.694																						
ML1-3	T.S.			36272+56.61	664090.663	2206478.716																						
	S.C.			36273+18.61	664136.484	2206436.949															0°23′23″	62.00	0.14	0.04	31.00	41.33	20.67	151.29
	P.I.			36274+07.88	664202.735	2206377.108	1°15′26″	1.0	0.41	40	0.78	45	1.67	55	62.00	3°01′25″	4557.73	2°14′39″	178.52	89.28								
	C.S.			36274+97.13	664271.278	2206319.907															0°23′23″	62.00	0.14	0.04	31.00	41.33	20.67	151.29
	S.T.	N39°27′22″W	84.79	36275+59.13	664319.059	2206280.399									62.00													
	P.O.E.			36276+43.92	664384.527	2206226.516																						

PHASE 3 MAIN 2 – TRACK GEOMETRY TABLE																												
STATIONING DATA							INPUT DATA										CURVE DATA					SPIRAL DATA						
CURVE NO.	DESC	BEARING	DISTANCE	STATION	NORTHING	EASTING	Dc	Ea	Eu(FRT)	V(FRT)	Eu(TV)	V(TV)	Eu(PAS)	V(PAS)	LS	I	RADIUS	Δ	L	T	θ	X	Y	k	p	LT	ST	Ts
							DEGREES	INCHES	INCHES	MPH	INCHES	MPH	INCHES	MPH	FEET	DEGREES	FEET	DEGREES	FEET	FEET	DEGREES	FEET	FEET	FEET	FEET	FEET	FEET	FEET
ML2-1A	P.C.			36253+15.12	662617.331	2207713.447																						
	P.I.			36253+21.92	662623.752	2207711.207	(3°03′40″)	(3.0)	(0.43)	40	(1.34)	45	(3.48)	55			(1872.00)	0°24′59″	13.60	6.80								
	C.S.			36253+28.71	662630.156	2207708.920																						
ML2-1B	S.C.			36253+90.71	662688.179	2207687.083									62.00	27°04′40″					1°58′18″	61.99	1.05	2.24	0.01	31.39	30.61	424.52
	P.I.			36257+06.26	662981.520	2207570.810	3°18′00″	4.0	-0.30	40	0.68	45	2.99	55			1736.48	20°35′54″	624.19	315.54								
	C.S.			36260+14.90	663215.201	2207358.769																						
	S.T.	N46°18′43″W	296.93	36262+62.90	663390.682	2207183.605									248.00						4°05′29″	247.87	5.90	123.98	1.48	165.38	82.71	539.33
	T.S.			36265+59.83	663595.777	2206968.897																						
	S.C.			36266+21.83	663638.723	2206924.180																						
ML2-2	P.I.			36267+64.89	663738.379	2206821.534	1°30′00″	1.0	0.68	40	1.13	45	2.18	55	62.00	5°13′11″	3819.83	4°17′23″	285.99	143.06	0°27′54″	62.00	0.17	31.00	0.04	41.33	20.67	205.12
	C.S.			36269+07.82	663845.434	2206726.630									62.00						0°27′54″	62.00	0.17	31.00	0.04	41.33	20.67	205.12
	S.T.	N41°05′31″W	306.25	36269+69.82	663892.050	2206685.753																						
ML2-3	T.S.			36272+76.07	664122.860	2206484.461																						
	S.C.			36273+38.07	664169.643	2206443.774									62.00						0°14′08″	62.00	0.08	31.00	0.02	41.33	20.67	144.94
	P.I.			36274+21.00	664232.366	2206389.524	0°45′36″	1.0	-0.15	40	0.08	45	0.61	55		1°43′54″	7538.97	1°15′38″	165.85	82.93								
	C.S.			36275+03.92	664296.268	2206336.668									62.00						0°14′08″	62.00	0.08	31.00	0.02	41.33	20.67	144.94
	S.T.	N39°21′37″W	101.80	36275+65.92	664344.151	2206297.282																						
	P.O.E.			36276+67.72	664422.861	2206232.720																						

() - DENOTES EXISTING CONDITION

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

MAIN 2 STAKING TABLE - PHASE 0				
POINT	STATION	NORTHING	EASTING	ELEVATION
	6259+00.00	663133.38	2207437.78	700.81
	6259+50.00	663173.03	2207407.32	700.78
P.V.C.	6259+87.00	663201.85	2207384.12	700.75
	6260+00.00	663211.87	2207375.84	700.74
	6260+50.00	663249.87	2207343.35	700.72
P.V.I.	6260+87.00	663277.45	2207318.68	700.69
	6261+00.00	663287.02	2207309.88	700.71
	6261+10.23	663294.55	2207302.89	700.71
	6261+50.00	663323.34	2207275.45	700.71
P.V.T.	6261+87.00	663349.70	2207249.49	700.72
	6262+00.00	663358.89	2207240.29	700.73
	6262+50.00	663393.92	2207204.62	700.74
	6263+00.00	663428.65	2207168.65	700.76
	6263+15.57	663439.45	2207157.43	700.77
	6263+50.00	663463.31	2207132.61	700.78
	6264+00.00	663497.96	2207096.56	700.79
	6264+50.00	663532.61	2207060.52	700.81
	6265+00.00	663567.26	2207024.47	700.83
	6265+50.00	663601.91	2206988.42	700.85
P.V.C.	6265+70.87	663616.37	2206973.37	700.85
	6266+00.00	663636.56	2206952.38	700.87
	6266+50.00	663671.21	2206916.33	700.91
P.V.I.	6266+70.87	663685.67	2206901.28	700.89
	6266+94.05	663701.74	2206884.57	700.98
	6267+00.00	663705.86	2206880.28	700.99
	6267+50.00	663740.54	2206844.27	701.09
P.V.T.	6267+70.87	663755.06	2206829.27	701.14
	6268+00.00	663775.38	2206808.40	701.21
	6268+20.12	663789.47	2206794.05	701.26
	6268+50.00	663810.51	2206772.82	701.34
	6269+00.00	663845.98	2206737.58	701.47
	6269+50.00	663881.80	2206702.70	701.59
	6270+00.00	663917.95	2206668.16	701.72
	6270+25.78	663936.73	2206650.49	701.78
P.V.C.	6270+42.37	663948.86	2206639.17	701.82
	6270+50.00	663954.44	2206633.97	701.84
	6271+00.00	663991.25	2206600.14	701.97
P.V.I.	6271+42.37	664022.68	2206571.71	702.08
	6271+50.00	664028.35	2206566.62	702.09
	6271+86.31	664055.46	2206542.46	702.18
	6272+00.00	664065.72	2206533.39	702.21
P.V.T.	6272+42.37	664097.57	2206505.44	702.32
	6272+50.00	664103.32	2206500.43	702.33
	6273+00.00	664141.16	2206467.75	702.45

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

MAIN 1 STAKING TABLE - PHASE 1				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	16254+61.19	662740.295	2207637.054	701.39
	16255+00.00	662775.628	2207620.979	701.34
C.S.	16255+45.80	662816.932	2207601.177	701.29
	16255+50.00	662820.695	2207599.317	701.28
	16256+00.00	662865.246	2207576.620	701.22
	16256+07.80	662872.153	2207572.993	701.21
	16256+50.00	662909.316	2207552.998	701.17
	16257+00.00	662952.903	2207528.495	701.11
P.V.C.	16257+13.57	662964.685	2207521.666	701.09
	16257+50.00	662995.990	2207503.122	701.05
	16258+00.00	663038.558	2207476.888	701.00
	16258+13.57	663050.054	2207469.600	700.97
P.V.I.	16258+50.00	663080.591	2207449.805	700.96
	16259+00.00	663122.071	2207421.883	700.92
P.V.T.	16259+13.57	663133.264	2207414.151	700.91
	16259+50.00	663162.982	2207393.134	700.89
	16260+00.00	663203.308	2207363.569	700.86
	16260+13.57	663214.180	2207355.408	700.86
P.V.C.	16260+50.00	663243.032	2207333.199	700.84
	16261+00.00	663282.138	2207302.039	700.83
P.V.I.	16261+13.57	663292.676	2207293.464	700.80
	16261+50.00	663320.610	2207270.099	700.83
	16262+00.00	663358.432	2207237.393	700.85
	16262+13.57	663368.623	2207228.420	700.86
P.V.T.	16262+50.00	663395.591	2207203.934	700.89
	16263+00.00	663432.070	2207169.735	700.92
	16263+50.00	663467.854	2207134.811	700.95
	16264+00.00	663502.930	2207099.175	700.98
C.S.	16264+31.86	663524.905	2207076.104	701.00
	16264+50.00	663537.285	2207062.845	701.01
	16265+00.00	663571.024	2207025.944	701.05
	16265+50.00	663604.428	2206988.739	701.08
S.T.	16265+55.86	663608.334	2206984.372	701.08
	16266+00.00	663637.761	2206951.472	701.11
P.V.C.	16266+09.37	663644.003	2206944.494	701.12
	16266+50.00	663671.095	2206914.205	701.16
	16267+00.00	663704.429	2206876.937	701.25
	16267+09.37	663710.670	2206869.959	701.18
	16267+50.00	663737.763	2206839.670	701.39
	16267+85.93	663761.717	2206812.888	701.52
	16268+00.00	663771.097	2206802.403	701.58
	16268+09.37	663777.342	2206795.428	701.62
P.V.T.	16268+50.00	663804.520	2206765.215	701.80
	16268+78.93	663823.992	2206743.818	701.93
S.C.	16269+00.00	663838.267	2206728.321	702.02
	16269+50.00	663872.477	2206691.855	702.24
P.V.C.	16269+59.33	663878.902	2206685.109	702.29
	16270+00.00	663907.151	2206655.830	702.46
	16270+50.00	663942.285	2206620.253	702.64
	16270+59.33	663948.879	2206613.677	702.73
C.S.	16270+63.70	663951.988	2206610.587	702.69
	16271+00.00	663977.866	2206585.125	702.80
	16271+25.70	663996.306	2206567.229	702.87
	16271+50.00	664013.830	2206550.388	702.93
P.V.T.	16271+59.33	664020.570	2206543.962	702.95
	16272+00.00	664050.128	2206516.001	703.04
	16272+50.00	664086.754	2206481.963	703.16
	16273+00.00	664123.706	2206448.279	703.27
	16273+50.00	664160.979	2206414.951	703.38
	16274+00.00	664198.571	2206381.982	703.50
	16274+50.00	664236.477	2206349.376	703.61
	16275+00.00	664274.694	2206317.135	703.72
C.S.	16275+07.24	664280.252	2206312.499	703.74
	16275+50.00	664313.194	2206285.232	703.83
S.T.	16275+69.24	664328.045	2206273.004	703.88
	16276+00.00	664351.797	2206253.454	703.95
	16276+50.00	664390.402	2206221.680	704.06
	16276+69.33	664405.326	2206209.397	704.10

MAIN 2 STAKING TABLE - PHASE 1				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	16255+16.10	662809.190	2207634.322	701.34
	16255+50.00	662839.631	2207619.404	701.26
	16256+00.00	662884.028	2207596.398	701.16
	16256+16.09	662898.185	2207588.743	701.13
	16256+50.00	662927.799	2207572.229	701.07
	16256+78.07	662952.179	2207558.202	701.01
S.C.	16256+78.09	662952.134	2207558.194	701.01
	16257+00.00	662971.000	2207547.053	700.97
P.V.I.	16257+28.07	662995.090	2207532.540	700.92
	16257+50.00	663013.683	2207521.008	700.91
P.V.T.	16257+78.07	663037.477	2207506.021	700.89
	16258+00.00	663055.836	2207494.112	700.87
	16258+50.00	663097.440	2207466.375	700.84
	16259+00.00	663138.480	2207437.809	700.81
P.V.C.	16259+07.78	663144.879	2207433.311	700.80
	16259+50.00	663178.937	2207408.425	700.79
P.V.I.	16259+57.78	663185.245	2207403.806	700.77
	16260+00.00	663218.797	2207378.235	700.82
P.V.T.	16260+07.78	663225.010	2207373.497	700.82
	16260+50.00	663258.043	2207347.250	700.87
	16261+00.00	663296.659	2207315.485	700.93
	16261+50.00	663334.630	2207282.951	700.98
	16262+00.00	663371.940	2207249.661	701.04
	16262+50.00	663408.574	2207215.629	701.09
	16263+00.00	663444.518	2207180.869	701.15
	16263+50.00	663479.758	2207145.394	701.20
C.S.	16263+93.37	663509.742	2207114.056	701.25
	16264+00.00	663514.278	2207109.220	701.26
	16264+50.00	663548.135	2207072.428	701.31
	16265+00.00	663581.589	2207035.269	701.37
S.T.	16265+17.37	663593.171	2207022.324	701.39
	16265+50.00	663614.925	2206998.003	701.42
	16266+00.00	663648.259	2206960.736	701.48
	16266+50.00	663681.592	2206923.468	701.53
	16267+00.00	663714.926	2206886.201	701.59
	16267+37.37	663739.840	2206858.347	701.63
T.S.	16267+50.00	663748.261	2206848.934	701.65
	16268+00.00	663781.697	2206811.759	701.70
S.C.	16268+30.37	663802.179	2206789.336	701.73
	16268+50.00	663815.525	2206774.939	701.76
	16269+00.00	663849.921	2206738.647	701.81
	16269+50.00	663884.886	2206702.904	701.87
	16270+00.00	663920.413	2206667.719	701.92
	16270+50.00	663956.492	2206633.100	701.98
P.V.C.	16270+89.84	663985.646	2206605.912	702.02
	16271+00.00	663993.115	2206599.057	702.03
C.S.	16271+05.25	663996.988	2206595.519	702.04
	16271+39.84	664022.697	2206572.320	702.08
P.V.I.	16271+50.00	664030.235	2206565.560	702.11
	16271+67.25	664043.115	2206554.093	702.14
S.C.	16271+67.25	664043.115	2206554.093	702.14
	16271+89.84	664060.065	2206539.099	702.20
P.V.T.	16271+89.84	664060.065	2206539.099	702.20
	16272+00.00	664067.639	2206532.379	702.22
	16272+50.00	664105.213	2206499.391	702.34
	16273+00.00	664142.954	2206466.594	702.46
	16273+50.00	664180.862	2206433.990	702.58
	16274+00.00	664218.935	2206401.580	702.70
	16274+50.00	664257.173	2206369.364	702.81
	16275+00.00	664295.574	2206337.343	702.93
C.S.	16275+23.34	664313.560	2206322.459	702.99
	16275+50.00	664334.135	2206305.513	703.05
S.T.	16275+85.34	664361.455	2206283.088	703.14
	16276+00.00	664372.786	2206273.794	703.17
	16276+50.00	664411.444	2206242.084	703.29
	16276+85.95	664439.240	2206219.285	703.37

0	05/14/2019	RFC
NO.	DATE	DESCRIPTION
ISSUE RECORD		

CUY-IR490/ SR010-
2.09 / 19.28

TRACK STAKING TABLE - PHASE 1

CALCULATED
JW
CHECKED
WS

MAIN 1 STAKING TABLE - PHASE 2				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	26253+96.26	662673.998	2207665.131	701.47
	26254+00.00	662677.462	2207663.730	701.47
	26254+50.00	662723.573	2207644.389	701.41
C.S.	26254+96.25	662765.810	2207625.525	701.35
	26255+00.00	662769.212	2207623.957	701.35
	26255+50.00	662814.334	2207602.419	701.29
S.C.	26256+00.00	662858.855	2207579.667	701.23
	26256+20.25	662876.695	2207570.076	701.21
	26256+50.00	662902.675	2207555.582	701.17
P.V.C.	26256+99.52	662945.384	2207530.393	701.12
	26257+00.00	662945.719	2207530.129	701.11
	26257+50.00	662987.940	2207503.334	701.07
P.V.I.	26257+99.52	663029.012	2207475.593	701.00
	26258+00.00	663029.297	2207475.223	701.06
	26258+50.00	663069.749	2207445.824	701.07
P.V.T.	26258+99.52	663109.055	2207415.677	701.12
	26259+00.00	663109.255	2207415.166	701.12
	26259+50.00	663147.776	2207383.280	701.18
C.S.	26259+86.60	663175.325	2207359.182	701.23
	26260+00.00	663185.274	2207350.199	701.24
	26260+50.00	663221.780	2207316.036	701.30
	26261+00.00	663257.476	2207281.026	701.36
	26261+50.00	663292.569	2207245.410	701.43
	26262+00.00	663327.277	2207209.420	701.49
S.T.	26262+34.60	663351.187	2207184.415	701.53
	26262+50.00	663361.827	2207173.277	701.55
	26263+00.00	663396.363	2207137.121	701.61
	26263+50.00	663430.900	2207100.966	701.67
	26264+00.00	663465.437	2207064.810	701.73
	26264+50.00	663499.973	2207028.655	701.79
T.S.	26264+76.17	663518.048	2207009.733	701.82
	26265+00.00	663534.516	2206992.505	701.85
	26265+50.00	663569.228	2206956.518	701.91
S.C.	26265+69.17	663582.648	2206942.833	701.94
	26266+00.00	663604.423	2206921.002	701.98
	26266+50.00	663640.230	2206886.102	702.04
C.S.	26266+89.74	663669.121	2206858.812	702.08
	26267+00.00	663676.640	2206851.831	702.10
	26267+50.00	663713.550	2206818.103	702.16
P.V.C.	26267+78.82	663734.946	2206798.781	702.19
	26267+82.74	663737.850	2206796.162	702.20
	26268+00.00	663750.669	2206784.604	702.22
	26268+50.00	663787.803	2206751.121	702.29
	26268+78.82	663809.213	2206731.815	702.32
	26269+00.00	663824.936	2206717.638	702.38
P.V.I.	26269+50.00	663862.070	2206684.155	702.48
	26269+78.82	663883.481	2206664.850	702.54
	26270+00.00	663899.204	2206650.672	702.59
	26270+50.00	663936.337	2206617.190	702.70
	26271+00.00	663973.471	2206583.707	702.81
	26271+50.00	664010.604	2206550.224	702.93
T.S.	26272+00.00	664047.738	2206516.741	703.04
	26272+50.00	664084.871	2206483.258	703.15
	26272+82.74	664109.186	2206461.334	703.23

MAIN 1 STAKING TABLE - PHASE 2 (CONTINUED)				
POINT	STATION	NORTHING	EASTING	ELEVATION
	26273+00.00	664122.007	2206449.778	703.27
	26273+44.74	664155.320	2206419.914	703.37
	26273+50.00	664159.251	2206416.418	703.38
S.C.	26274+00.00	664196.805	2206383.407	703.49
	26274+50.00	664234.698	2206350.784	703.60
	26275+00.00	664272.924	2206318.554	703.72
C.S.	26275+01.50	664274.075	2206317.594	703.72
	26275+50.00	664311.441	2206286.671	703.83
	26275+63.50	664321.862	2206278.092	703.86
S.T.	26276+00.00	664350.045	2206254.896	703.94
	26276+50.00	664388.651	2206223.122	704.05
	26276+63.50	664399.073	2206214.544	704.08

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MAIN 2 STAKING TABLE - PHASE 2				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	26253+15.04	662615.960	2207713.925	701.71
	26253+50.00	662648.868	2207702.126	701.65
C.S.	26253+76.25	662673.439	2207692.860	701.60
	26254+00.00	662695.543	2207684.181	701.55
S.C.	26254+38.25	662730.891	2207669.560	701.48
	26254+50.00	662741.674	2207664.901	701.46
	26255+00.00	662787.171	2207644.168	701.36
	26255+50.00	662831.980	2207621.988	701.27
	26256+00.00	662876.055	2207598.384	701.18
P.V.C.	26256+35.31	662906.718	2207580.868	701.11
	26256+50.00	662919.352	2207573.381	701.08
	26257+00.00	662961.826	2207547.003	701.02
P.V.I.	26257+35.31	662991.304	2207527.560	700.92
	26257+50.00	663003.433	2207519.279	700.99
	26258+00.00	663044.130	2207490.236	701.01
P.V.T.	26258+35.31	663072.303	2207468.945	701.04
	26258+50.00	663083.877	2207459.905	701.06
	26259+00.00	663122.631	2207428.315	701.12
C.S.	26259+45.08	663156.757	2207398.723	701.18
	26259+50.00	663160.419	2207395.443	701.18
	26260+00.00	663197.118	2207361.488	701.24
	26260+50.00	663232.960	2207326.627	701.30
	26261+00.00	663268.151	2207291.109	701.37
	26261+50.00	663302.913	2207255.170	701.43
S.T.	26261+93.08	663332.698	2207224.039	701.48
	26262+00.00	663337.475	2207219.039	701.49
	26262+50.00	663372.011	2207182.883	701.55
	26263+00.00	663406.548	2207146.728	701.61
	26263+50.00	663441.085	2207110.572	701.67
	26264+00.00	663475.621	2207074.417	701.73
T.S.	26264+44.18	663506.140	2207042.467	701.79
	26264+50.00	663510.158	2207038.261	701.79
	26265+00.00	663544.759	2207002.168	701.85
P.V.C.	26265+17.30	663556.789	2206989.737	701.87
	26265+50.00	663579.671	2206966.375	701.91
S.C.	26265+68.18	663592.498	2206953.486	701.93
	26266+00.00	663615.153	2206931.147	701.95
P.V.I.	26266+17.30	663627.584	2206919.118	702.00
	26266+50.00	663651.302	2206896.605	701.98
C.S.	26266+87.54	663678.882	2206871.123	701.98
	26267+00.00	663688.112	2206862.757	701.98
P.V.T.	26267+17.30	663700.987	2206851.205	701.98
	26267+50.00	663725.478	2206829.534	701.98
	26268+00.00	663763.159	2206796.669	701.97
S.T.	26268+11.54	663771.876	2206789.101	701.97
	26268+50.00	663800.918	2206763.893	701.96
	26269+00.00	663838.677	2206731.117	701.96

MAIN 2 STAKING TABLE - PHASE 2 (CONTINUED)				
POINT	STATION	NORTHING	EASTING	ELEVATION
	26269+50.00	663876.436	2206698.342	701.95
P.V.C.	26269+81.64	663900.331	2206677.602	701.94
	26270+00.00	663914.196	2206665.567	701.94
	26270+50.00	663951.955	2206632.791	701.96
P.V.I.	26270+81.64	663975.850	2206612.051	701.93
	26271+00.00	663989.715	2206600.016	702.02
	26271+50.00	664027.474	2206567.241	702.10
P.V.T.	26271+81.64	664051.369	2206546.500	702.17
	26272+00.00	664065.234	2206534.465	702.21
	26272+50.00	664102.993	2206501.690	702.33
	26273+00.00	664140.753	2206468.915	702.45
T.S.	26273+02.46	664142.609	2206467.303	702.46
	26273+50.00	664178.539	2206436.170	702.57
S.C.	26273+64.46	664189.490	2206426.729	702.60
	26274+00.00	664216.489	2206403.616	702.69
	26274+50.00	664254.666	2206371.328	702.81
	26275+00.00	664293.068	2206339.308	702.93
C.S.	26275+01.45	664294.188	2206338.380	702.93
	26275+50.00	664331.666	2206307.523	703.04
S.T.	26275+63.45	664342.068	2206298.991	703.08
	26276+00.00	664370.324	2206275.813	703.16
	26276+50.00	664408.983	2206244.103	703.28
P.O.E.	26276+63.45	664419.385	2206235.571	703.31

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MAIN 1 STAKING TABLE - PHASE 3				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	36253+34.99	662618.259	2207686.705	701.54
	36253+50.00	662632.314	2207681.437	701.52
C.S.	36253+91.37	662670.858	2207666.395	701.47
	36254+00.00	662678.858	2207663.163	701.46
	36254+50.00	662724.946	2207643.778	701.41
S.C.	36255+00.00	662770.534	2207623.245	701.35
	36255+15.37	662784.441	2207616.697	701.33
	36255+50.00	662815.576	2207601.532	701.29
	36256+00.00	662860.031	2207578.636	701.23
	36256+50.00	662903.866	2207554.575	701.17
P.V.C.	36256+97.60	662945.064	2207530.772	701.12
	36257+00.00	662947.050	2207529.365	701.11
	36257+50.00	662989.553	2207503.023	701.07
P.V.I.	36257+97.60	663029.454	2207477.145	701.00
	36258+00.00	663031.346	2207475.567	701.06
	36258+50.00	663072.400	2207447.018	701.08
P.V.T.	36258+97.60	663110.897	2207419.138	701.12
	36259+00.00	663112.685	2207417.395	701.12
	36259+50.00	663152.174	2207386.718	701.18
	36260+00.00	663190.839	2207355.010	701.25
C.S.	36260+50.00	663228.653	2207322.291	701.31
	36260+96.41	663262.971	2207291.035	701.36
	36261+00.00	663265.590	2207288.586	701.37
	36261+50.00	663301.664	2207253.965	701.43
	36262+00.00	663337.043	2207218.634	701.49
S.T.	36262+50.00	663371.931	2207182.818	701.55
	36263+00.00	663406.541	2207146.733	701.61
	36263+13.41	663415.808	2207137.034	701.63
	36263+50.00	663441.079	2207110.578	701.67
	36264+00.00	663475.615	2207074.423	701.73
T.S.	36264+50.00	663510.152	2207038.267	701.79
	36265+00.00	663544.689	2207002.112	701.85
	36265+50.00	663579.225	2206965.956	701.91
	36266+00.00	663613.762	2206929.801	701.98
	36266+00.07	663613.809	2206929.752	701.98
S.C.	36266+50.00	663648.362	2206893.706	702.04
	36266+62.07	663656.755	2206885.035	702.05
	36267+00.00	663683.313	2206857.950	702.10
	36267+50.00	663718.729	2206822.654	702.16
	36267+76.71	663737.769	2206804.056	702.19
P.V.C.	36268+00.00	663754.604	2206787.825	702.22
	36268+50.00	663790.932	2206753.468	702.29
	36268+55.54	663794.988	2206749.688	702.30
P.V.I.	36268+76.71	663810.449	2206735.368	702.31
	36269+00.00	663827.664	2206719.545	702.38
S.T.	36269+17.54	663840.600	2206707.694	702.41
	36269+50.00	663864.537	2206685.775	702.48
	36269+76.71	663884.168	2206667.799	702.54
P.V.T.	36270+00.00	663901.413	2206652.009	702.59
	36270+50.00	663938.289	2206618.242	702.70
	36271+00.00	663975.164	2206584.476	702.82
	36271+50.00	664012.040	2206550.709	702.93
	36272+00.00	664048.916	2206516.943	703.04
T.S.	36272+50.00	664085.792	2206483.177	703.15
	36272+56.61	664090.663	2206478.716	703.17

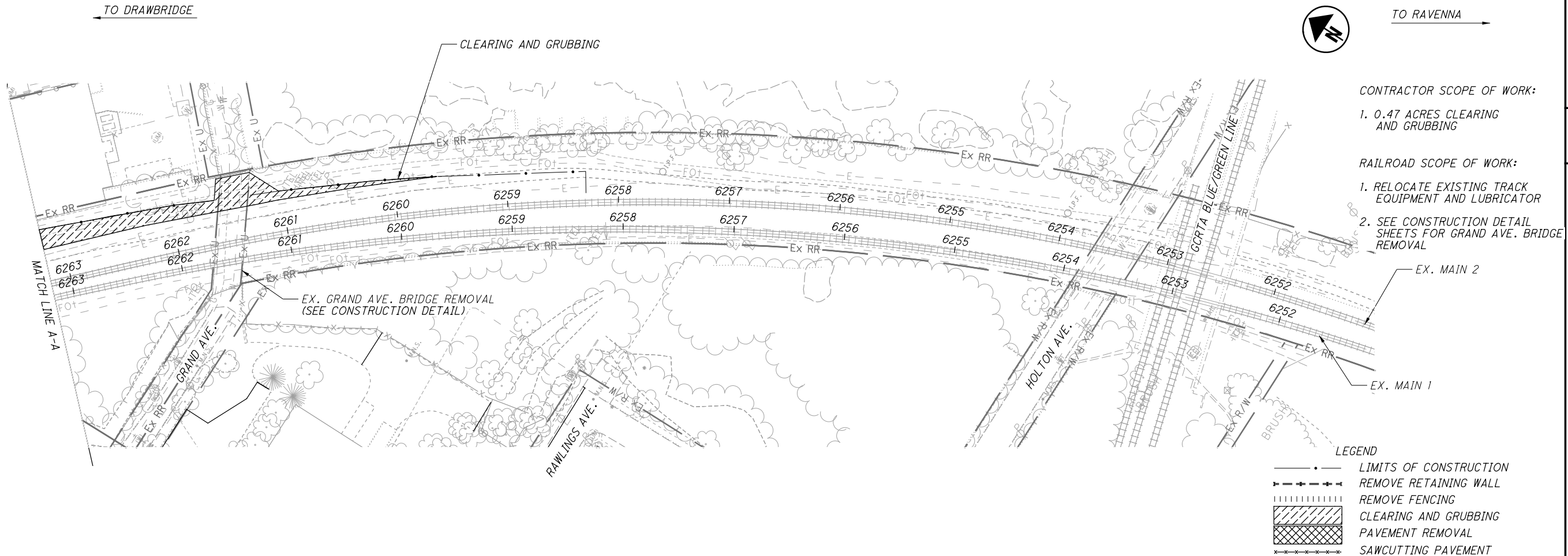
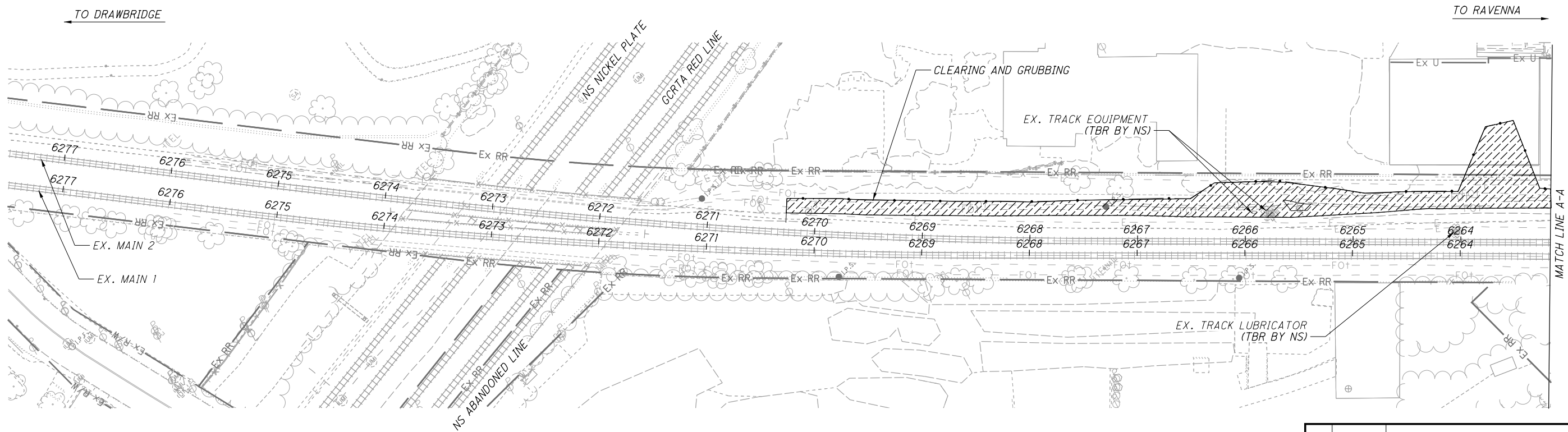
MAIN 1 STAKING TABLE - PHASE 3				
POINT	STATION	NORTHING	EASTING	ELEVATION
S.C.	36273+00.00	664122.700	2206449.446	703.27
	36273+18.61	664136.484	2206436.949	703.31
	36273+50.00	664159.855	2206415.985	703.38
C.S.	36274+00.00	664197.372	2206382.932	703.49
	36274+50.00	664235.249	2206350.292	703.60
	36274+97.13	664271.278	2206319.907	703.71
	36275+00.00	664273.482	2206318.069	703.72
	36275+50.00	664312.011	2206286.201	703.83
S.T.	36275+59.13	664319.059	2206280.399	703.85
	36276+00.00	664350.616	2206254.426	703.94
P.O.E.	36276+43.92	664384.527	2206226.516	704.04

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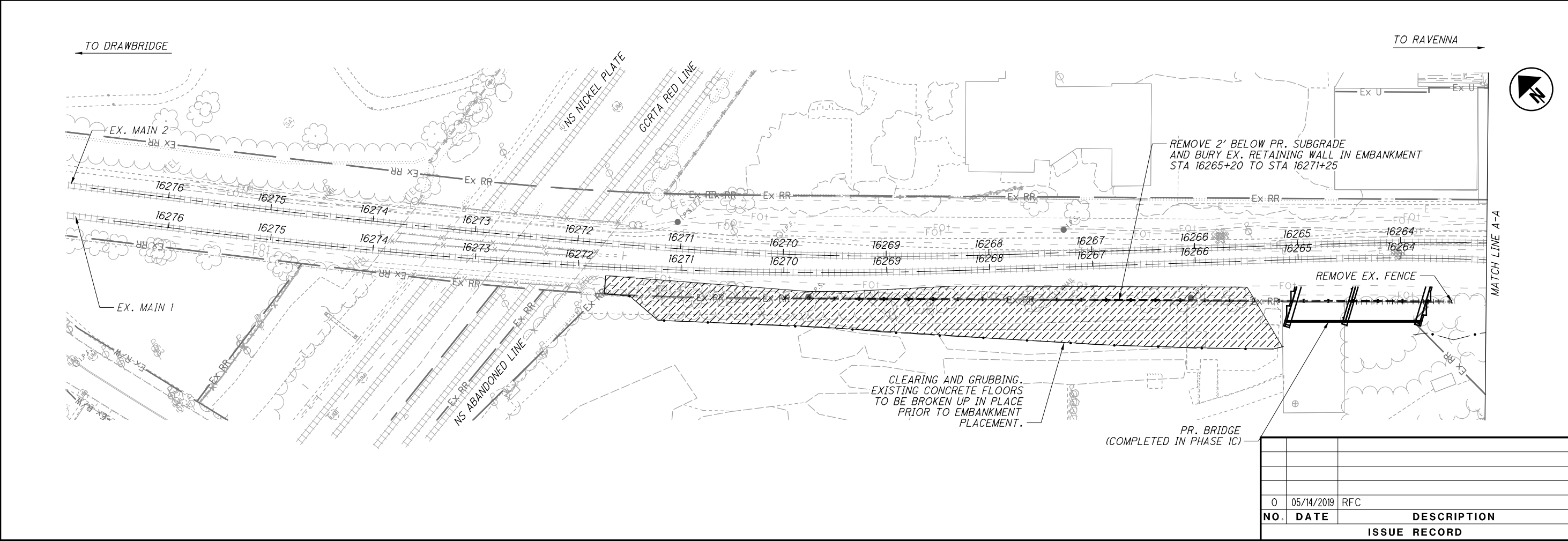
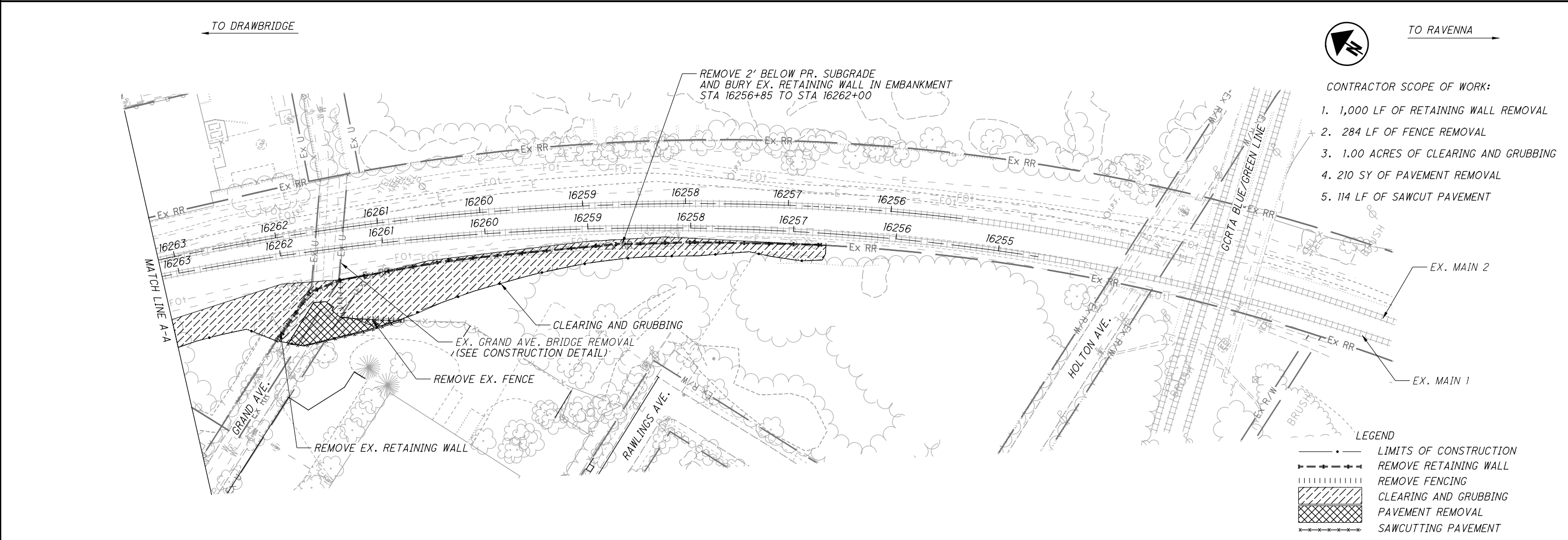
MAIN 2 STAKING TABLE - PHASE 3				
POINT	STATION	NORTHING	EASTING	ELEVATION
P.C.	36253+15.12	662617.331	2207713.447	701.71
C.S.	36253+28.71	662630.156	2207708.920	701.69
	36253+50.00	662650.160	2207701.647	701.65
S.C.	36253+90.71	662688.179	2207687.083	701.57
	36254+00.00	662696.803	2207683.638	701.55
	36254+50.00	662742.917	2207664.297	701.46
	36255+00.00	662788.454	2207643.637	701.36
	36255+50.00	662833.378	2207621.674	701.27
	36256+00.00	662877.651	2207598.427	701.17
P.V.C.	36256+34.53	662907.872	2207581.607	701.11
	36256+50.00	662921.236	2207573.915	701.08
	36257+00.00	662964.097	2207548.157	701.02
P.V.I.	36257+34.53	662993.288	2207529.633	700.92
	36257+50.00	663006.199	2207521.177	700.99
	36258+00.00	663047.507	2207492.995	701.01
P.V.T.	36258+34.53	663075.572	2207472.829	701.04
	36258+50.00	663087.986	2207463.635	701.06
	36259+00.00	663127.602	2207433.123	701.12
	36259+50.00	663166.324	2207401.482	701.18
	36260+00.00	663204.118	2207368.739	701.24
C.S.	36260+14.90	663215.201	2207358.769	701.26
	36260+50.00	663240.962	2207334.937	701.30
	36261+00.00	663276.960	2207300.237	701.36
	36261+50.00	663312.294	2207264.861	701.43
	36262+00.00	663347.162	2207229.026	701.49
	36262+50.00	663381.768	2207192.936	701.55
S.T.	36262+62.90	663390.682	2207183.605	701.56
	36263+00.00	663416.305	2207156.781	701.61
	36263+50.00	663450.842	2207120.626	701.67
	36264+00.00	663485.378	2207084.470	701.73
	36264+50.00	663519.915	2207048.315	701.79
	36265+00.00	663554.452	2207012.159	701.85
P.V.C.	36265+19.18	663567.700	2206998.290	701.88
	36265+50.00	663588.988	2206976.004	701.91
T.S.	36265+59.83	663595.777	2206968.897	701.92
	36266+00.00	663623.558	2206939.880	701.95
P.V.I.	36266+19.18	663636.880	2206926.081	702.00
S.C.	36266+21.83	663638.723	2206924.180	701.96
	36266+50.00	663658.422	2206904.040	701.98
	36267+00.00	663693.748	2206868.653	701.98
P.V.T.	36267+19.18	663707.420	2206855.204	701.98
	36267+50.00	663729.534	2206833.732	701.97
	36268+00.00	663765.774	2206799.282	701.97
	36268+50.00	663802.461	2206765.310	701.96
	36269+00.00	663839.591	2206731.821	701.95
C.S.	36269+07.82	663845.434	2206726.630	701.95
	36269+50.00	663877.119	2206698.782	701.94
S.T.	36269+69.82	663892.050	2206685.753	701.94
P.V.C.	36269+76.25	663896.895	2206681.528	701.94
	36270+00.00	663914.798	2206665.914	701.93
	36270+50.00	663952.481	2206633.050	701.96
P.V.I.	36270+76.25	663972.261	2206615.801	701.92
	36271+00.00	663990.164	2206600.187	702.01
	36271+50.00	664027.847	2206567.323	702.10
P.V.T.	36271+76.25	664047.626	2206550.073	702.16

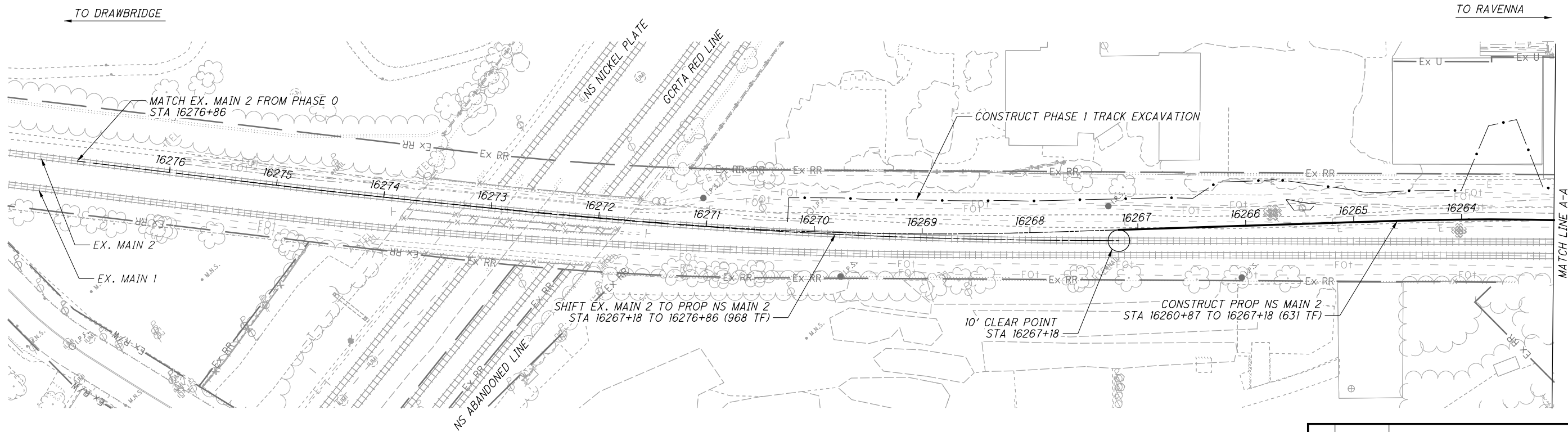
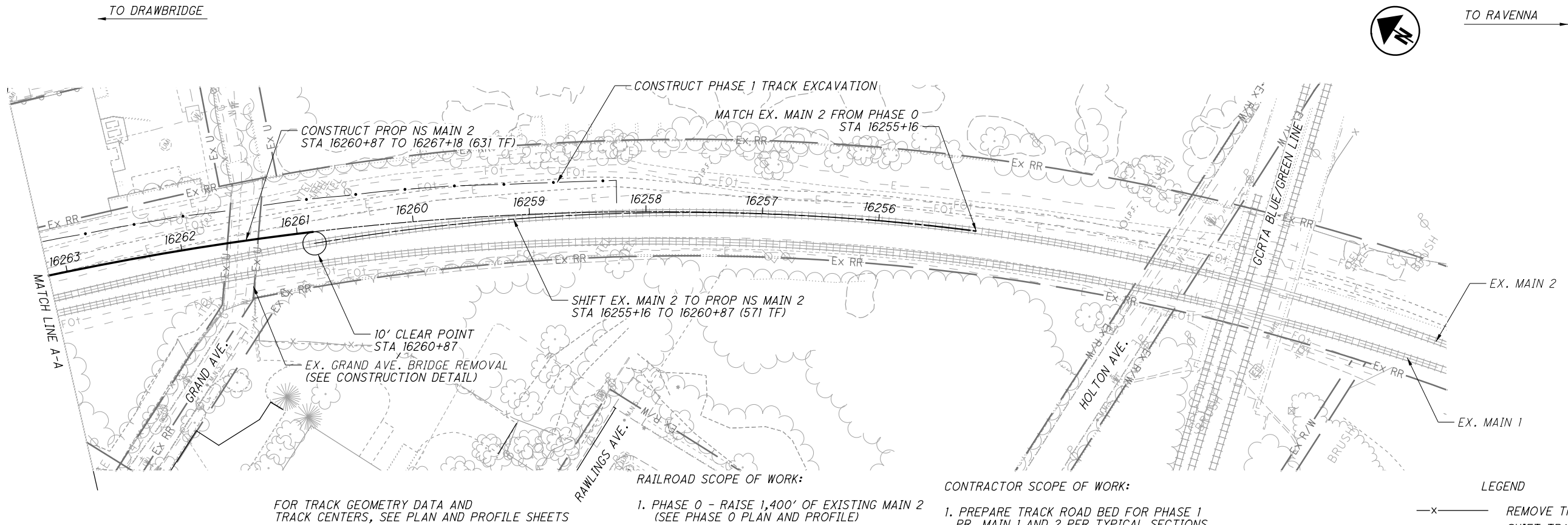
MAIN 2 STAKING TABLE - PHASE 3 (CONTINUED)				
POINT	STATION	NORTHING	EASTING	ELEVATION
	36272+00.00	664065.529	2206534.460	702.21
	36272+50.00	664103.212	2206501.596	702.33
T.S.	36272+76.07	664122.860	2206484.461	702.39
	36273+00.00	664140.898	2206468.736	702.45
S.C.	36273+38.07	664169.643	2206443.774	702.54
	36273+50.00	664178.672	2206435.977	702.57
	36274+00.00	664216.649	2206403.454	702.69
	36274+50.00	664254.842	2206371.184	702.81
	36275+00.00	664293.247	2206339.168	702.93
C.S.	36275+03.92	664296.268	2206336.668	702.93
	36275+50.00	664331.842	2206307.380	703.04
S.T.	36275+65.92	664344.151	2206297.282	703.08
	36276+00.00	664370.499	2206275.669	703.16
	36276+50.00	664409.158	2206243.960	703.28
P.O.E.	36276+67.72	664422.861	2206232.720	703.32

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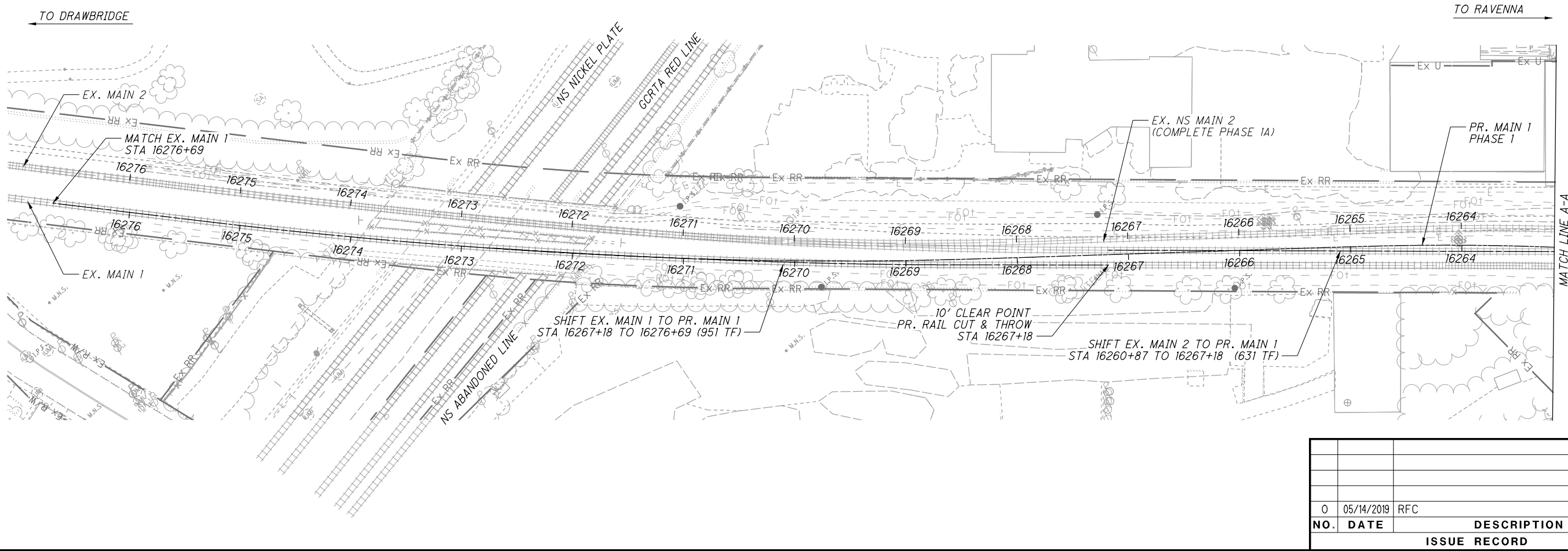
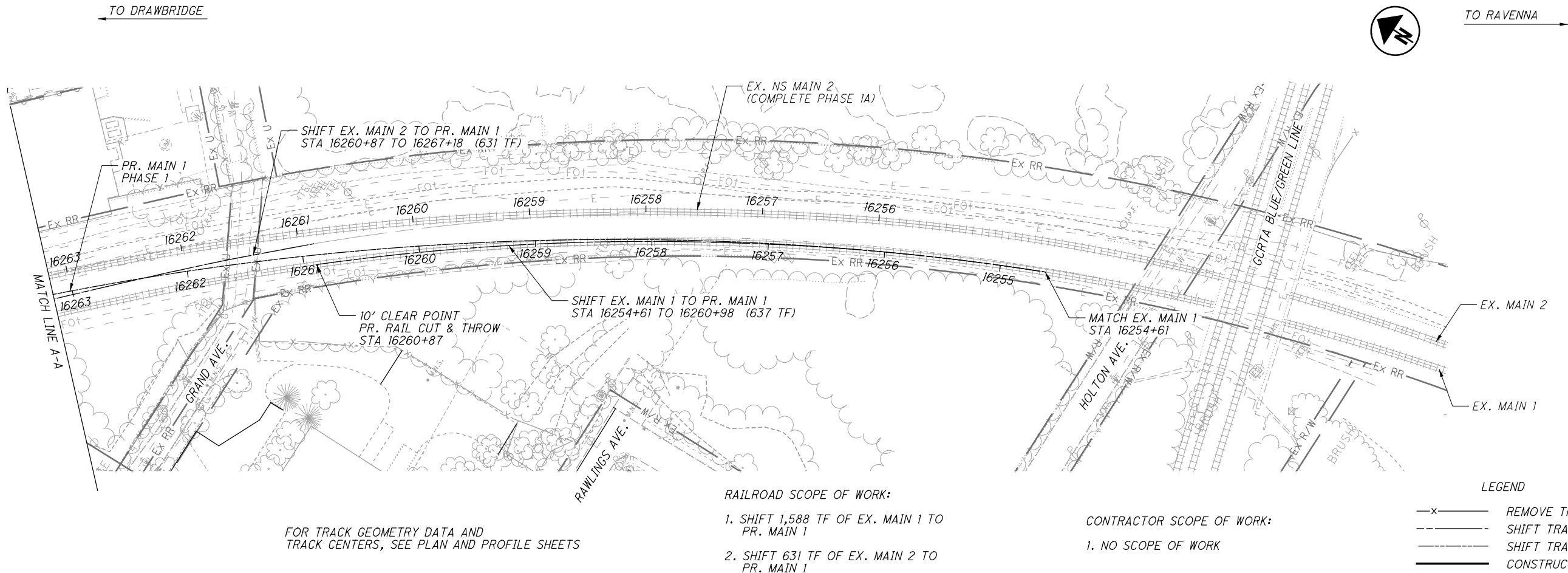


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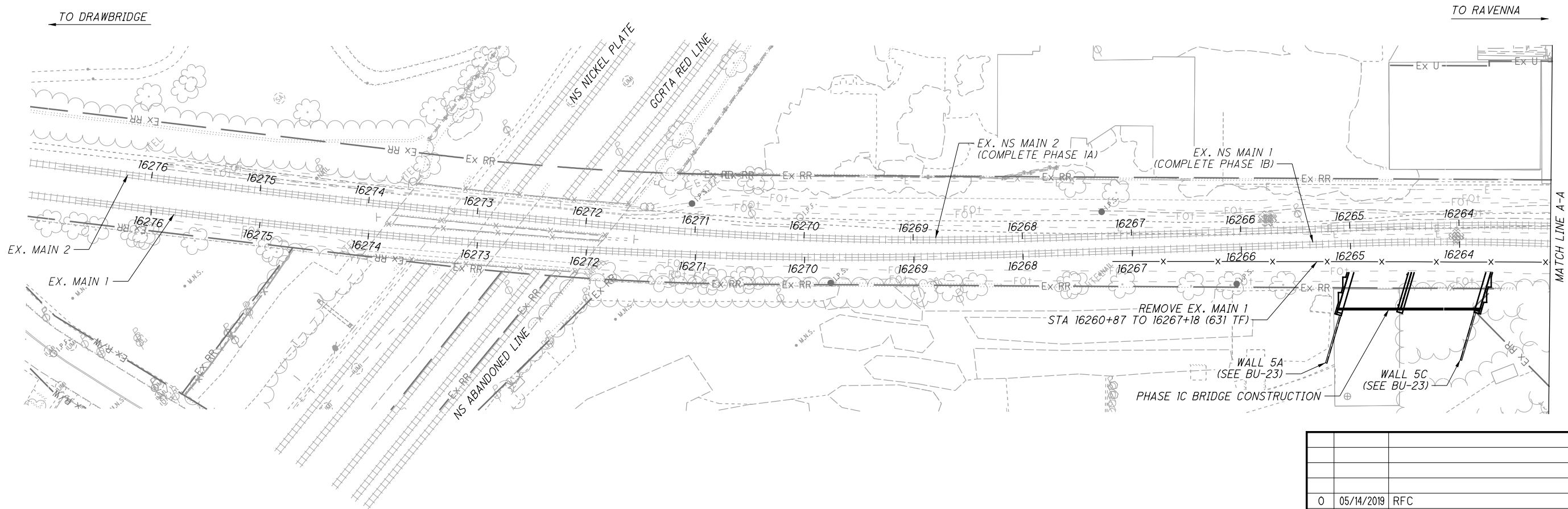




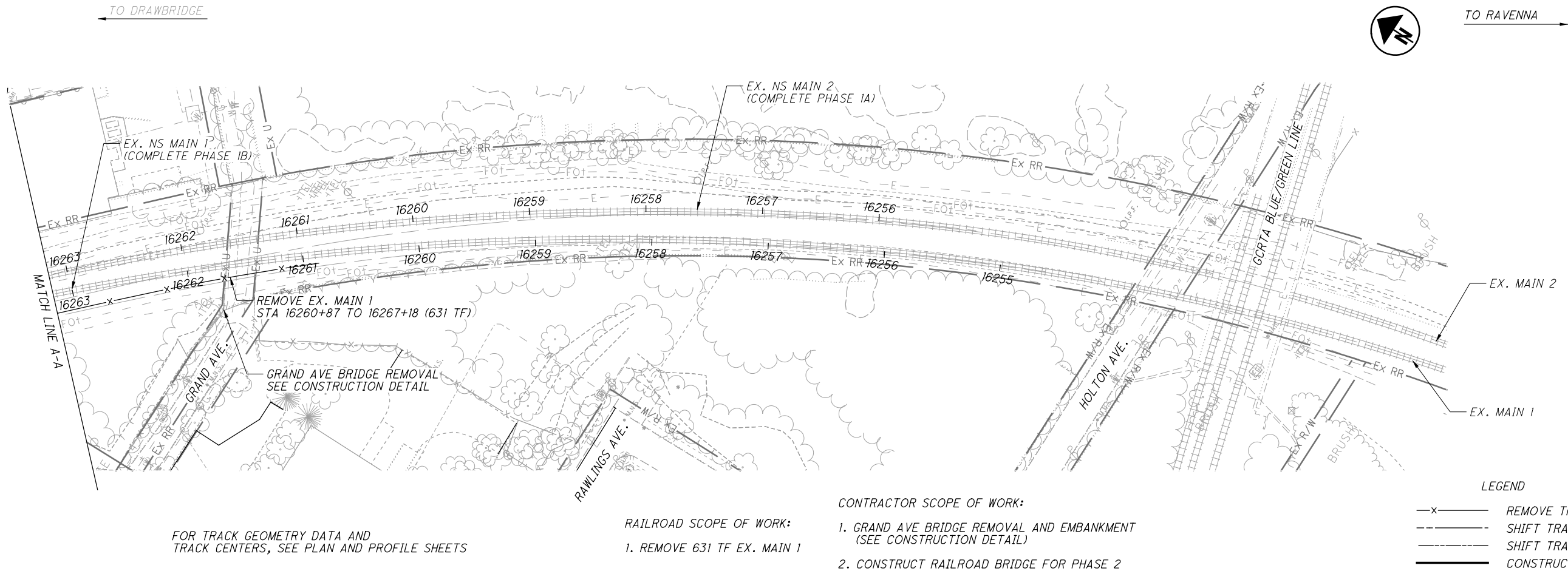
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ISSUE RECORD		



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0	05/14/2019	RFC
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NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
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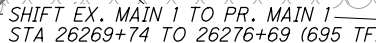


- RAILROAD SCOPE OF WORK *:
2. CONSTRUCT 1,135 TF OF PR. MAIN 1
 3. SHIFT 1,138 OF EX. MAIN 1 TO PR. MAIN 1
 4. CONSTRUCT 549 TF OF PR. MAIN 2
 7. REMOVE 951 TF OF EX. MAIN 1

- CONTRACTOR SCOPE OF WORK *:
1. PREPARE TRACK ROAD BED FOR PHASE 2
PR. MAIN 1 PER TYPICAL SECTIONS
AND CROSS SECTIONS
 5. GRAND AVENUE BRIDGE REMOVAL AND EMBANKMENT
AFTER SHIFTING MAIN 1 TO PHASE 2 LOCATION
(SEE CONSTRUCTION DETAIL)
 - 6. PREPARE REMAINDER OF TRACK ROAD BED FOR PHASE 2
PR. MAIN 2 PER TYPICAL SECTIONS
AND CROSS SECTIONS

LEGEND

- | | |
|-----------|-----------------------|
| —x——— | REMOVE TRACK |
| --x----- | SHIFT TRACK FROM |
| ---x----- | SHIFT TRACK TO |
| -----x | CONSTRUCT TRACK |
| *----- | SEQUENCE OF OPERATION |

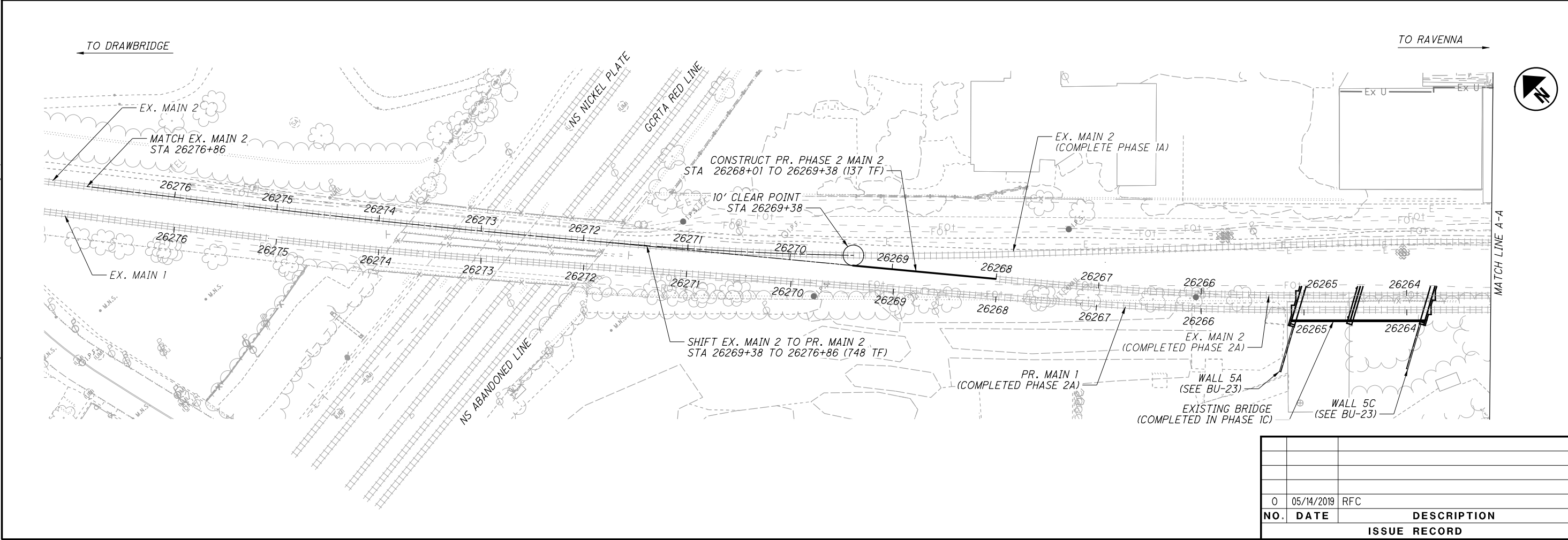
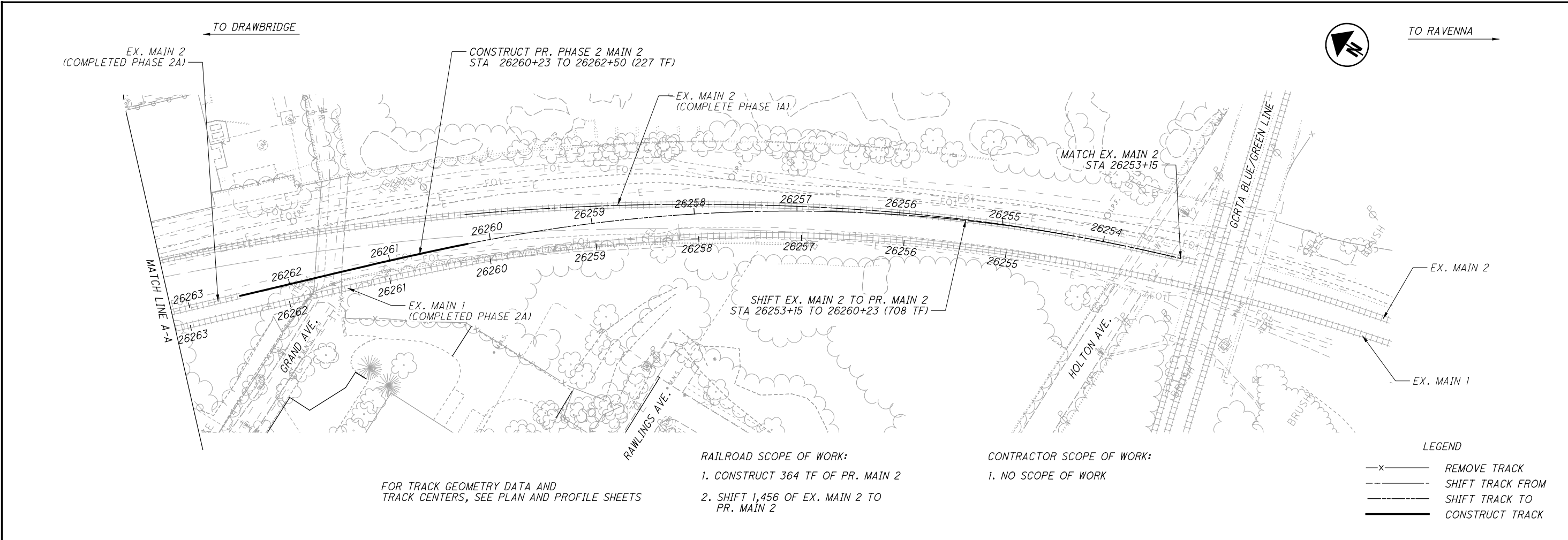


- CONSTRUCT PR. PHASE 2 MAIN 1
STA 26258+39 TO 26269+74 (1.135 TF) —

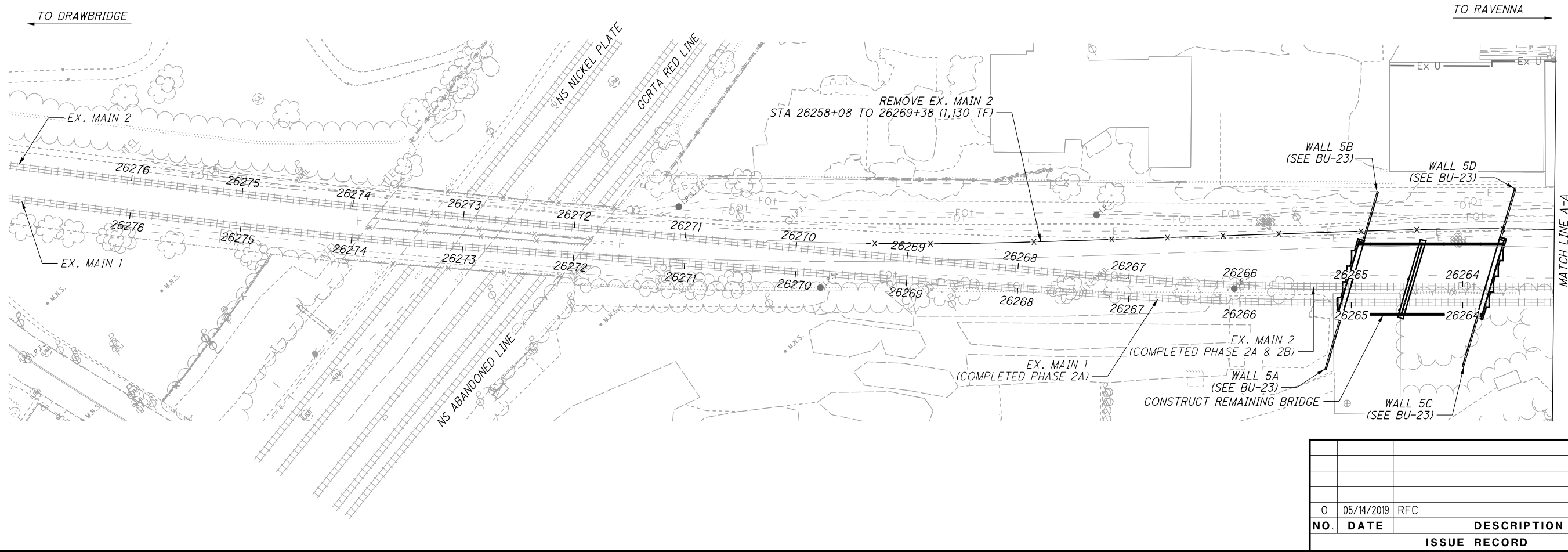
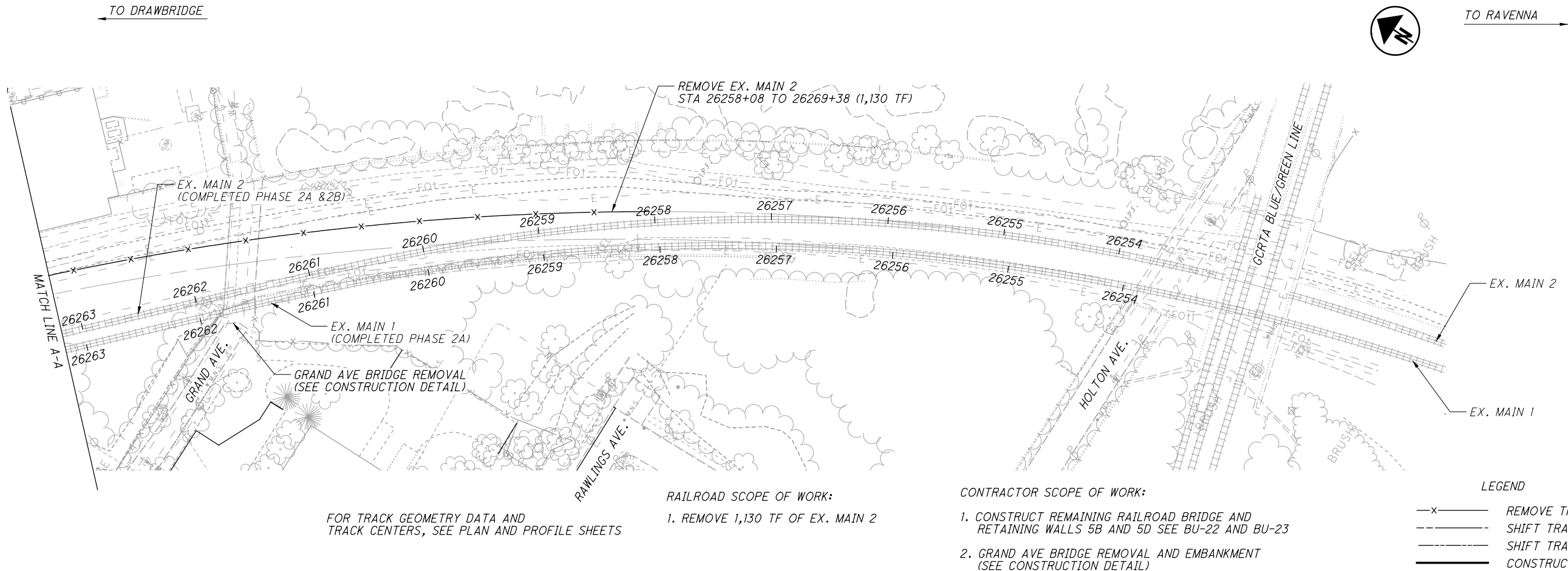
-----WALL 5A
(SEE BU-23)-

(COMPLETED IN PHASE 1C)

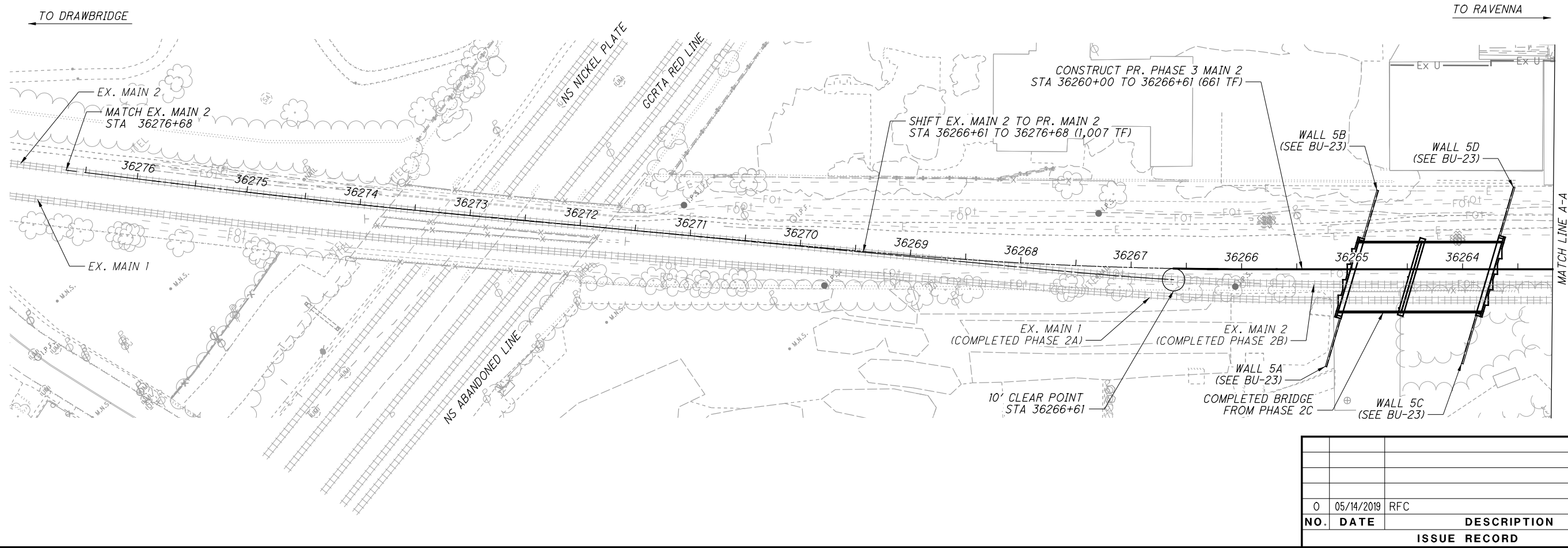
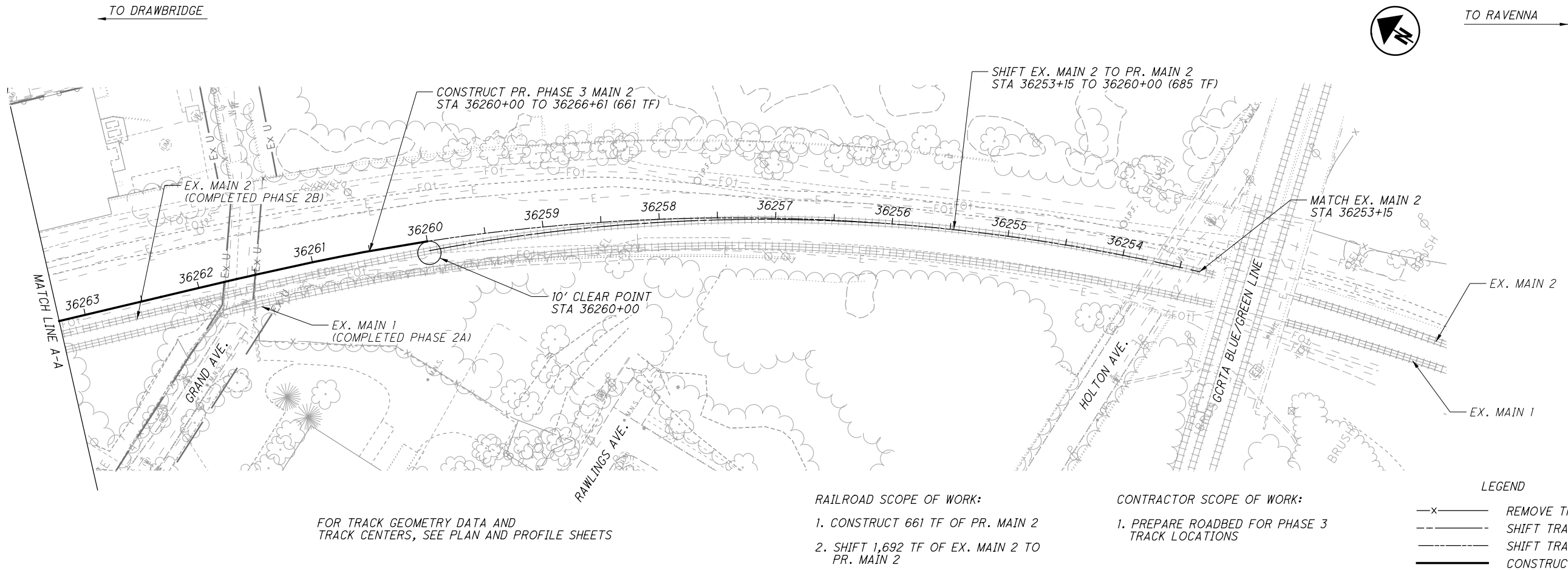
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NO.	DATE	DESCRIPTION
		ISSUE RECORD



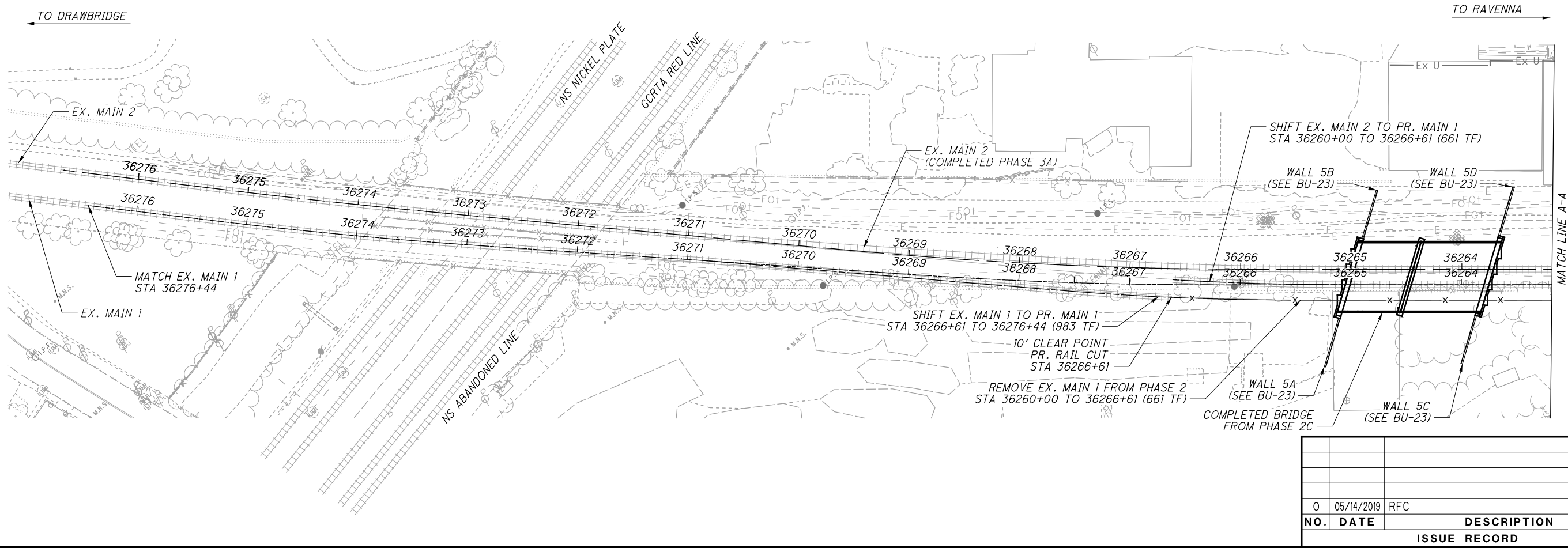
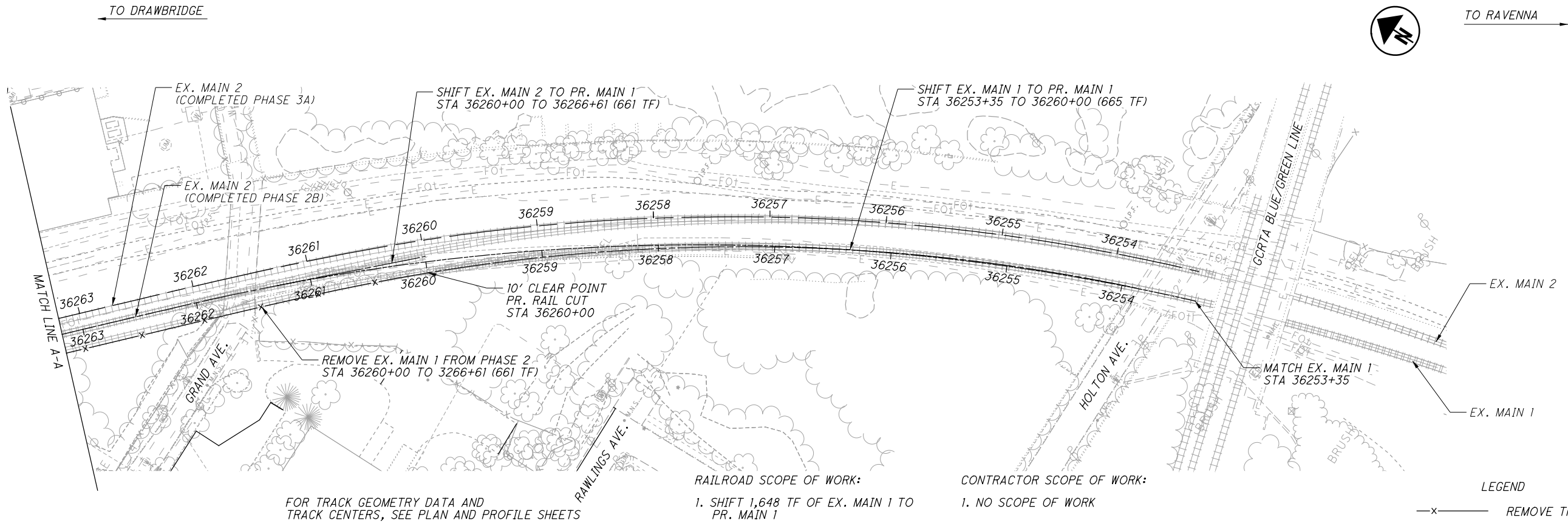
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0	05/14/2019	RFC
ISSUE RECORD		

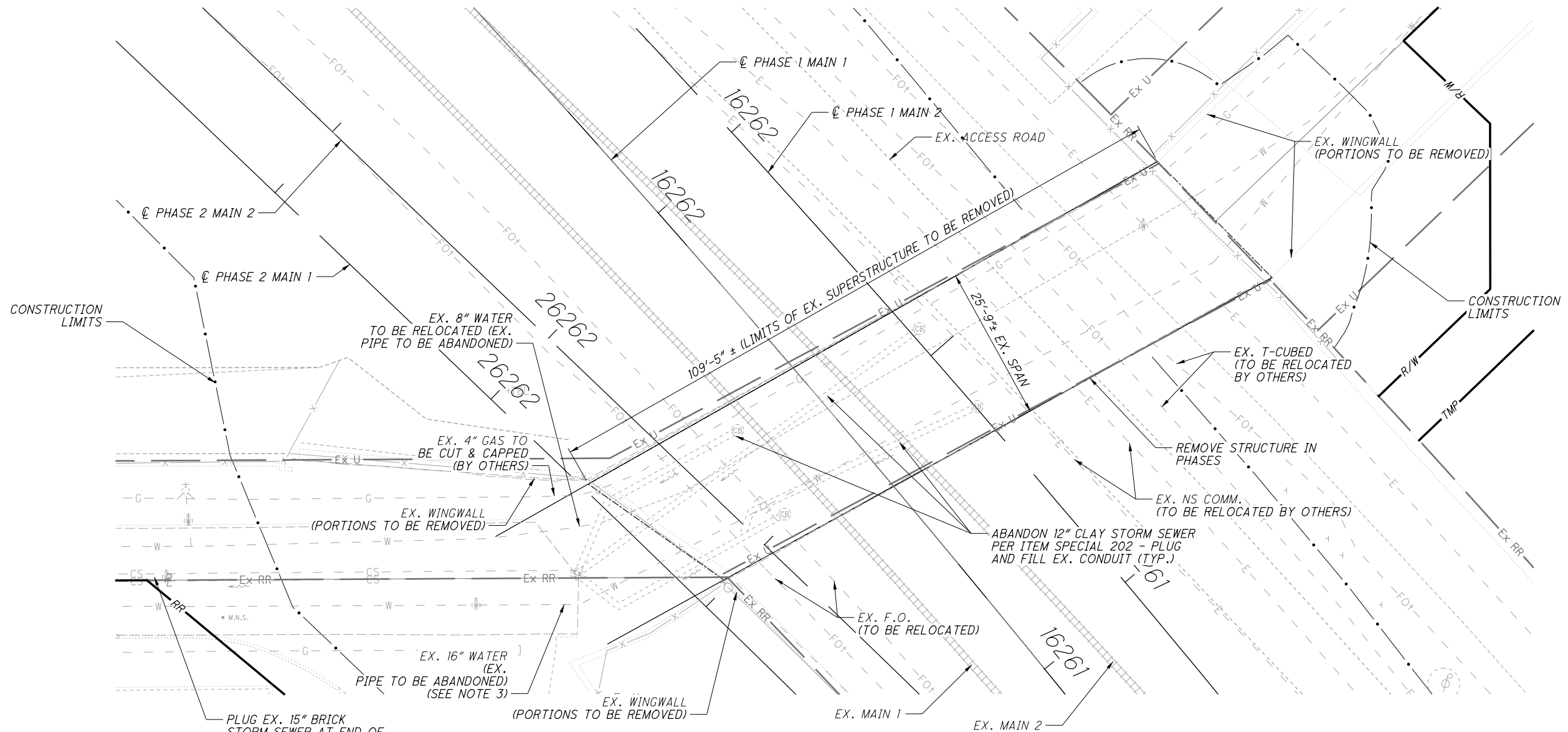


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ISSUE RECORD		



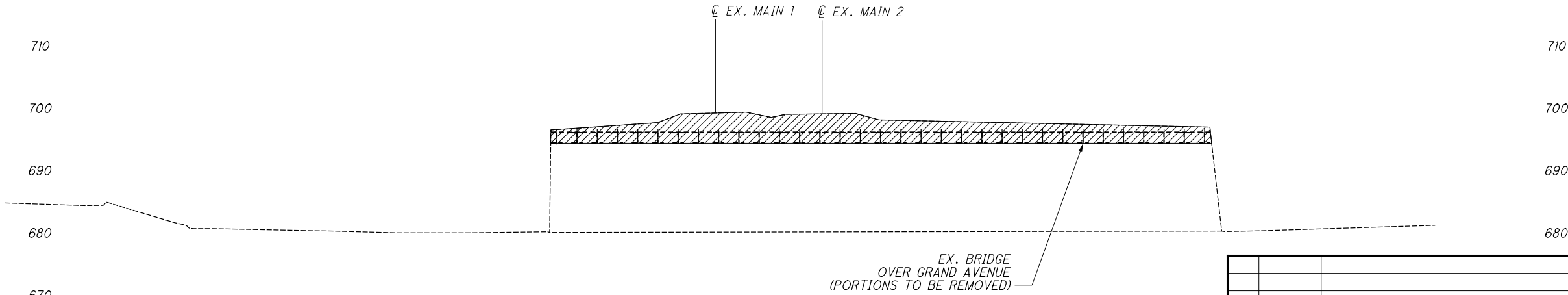
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ISSUE RECORD		





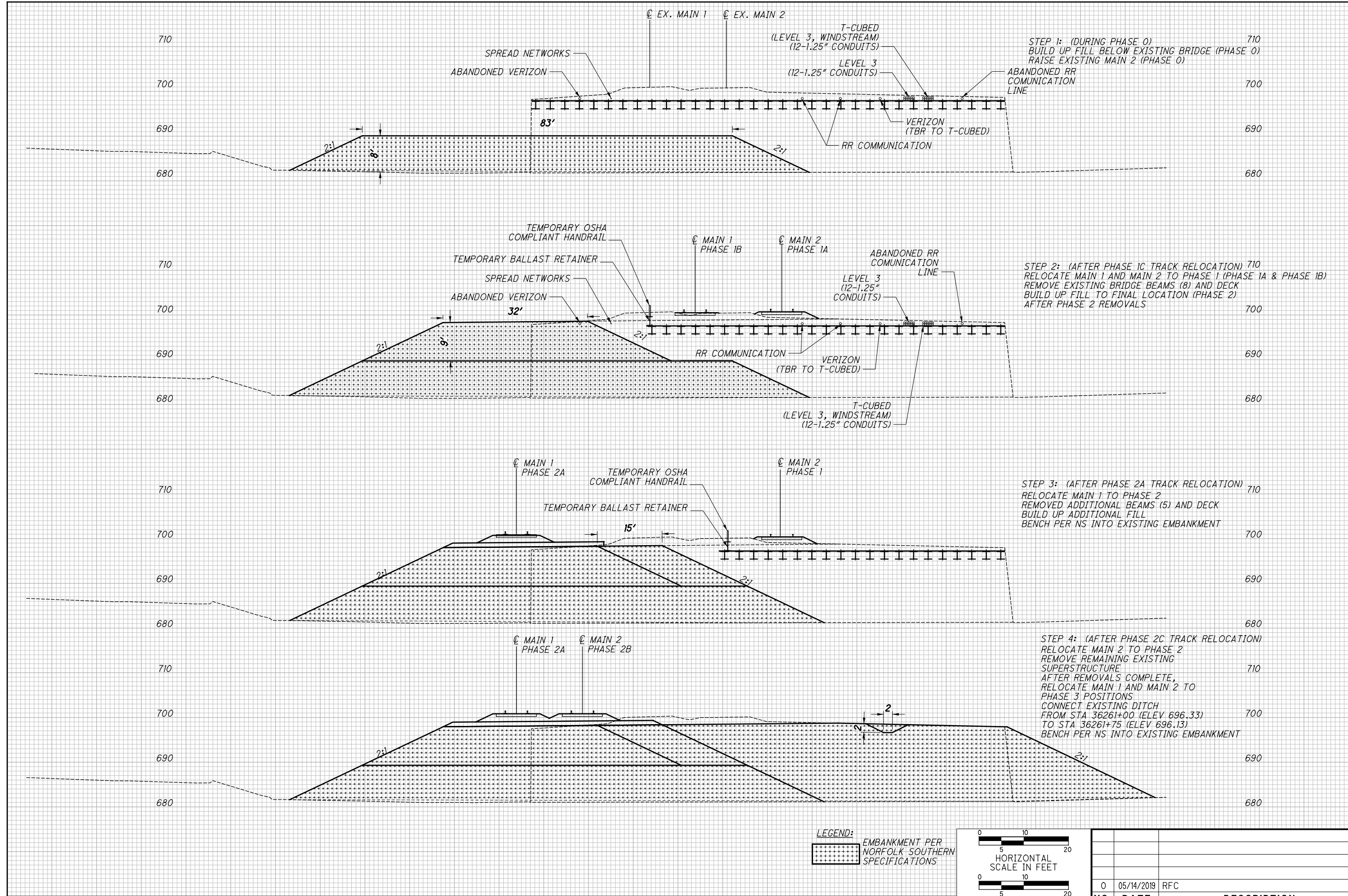
GRAND AVENUE BRIDGE REMOVAL - PLAN

- NOTES:
- EX. ABUTMENTS AND WINGWALLS TO BE REMOVED TO 2 FOOT BELOW PROPOSED SUBGRADE SURFACE AS PER ODOT ITEM 202
 - SEE NEXT SHEET FOR PHASED REMOVAL DETAILS
 - 16" WATERLINE TO BE TAKEN OUT OF SERVICE PER CWD



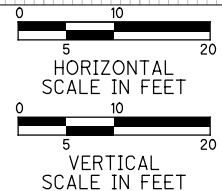
GRAND AVENUE BRIDGE REMOVAL - EX. SECTION

NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		



LEGEND:

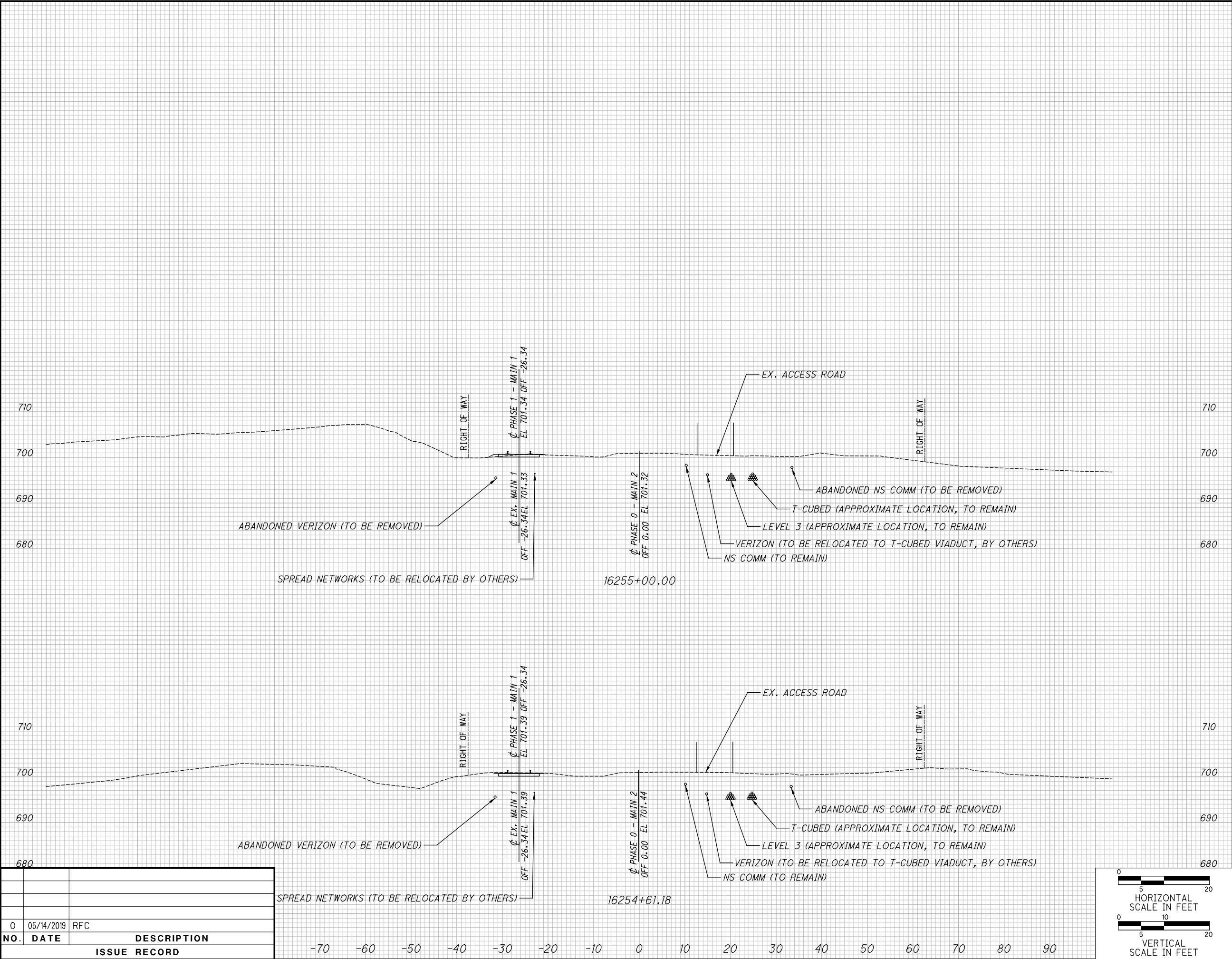
EMBANKMENT PER NORFOLK SOUTHERN SPECIFICATIONS



NOTE: BENCHING SHALL BE AS PER NORFOLK SOUTHERN ROADBED SECTION DETAILS

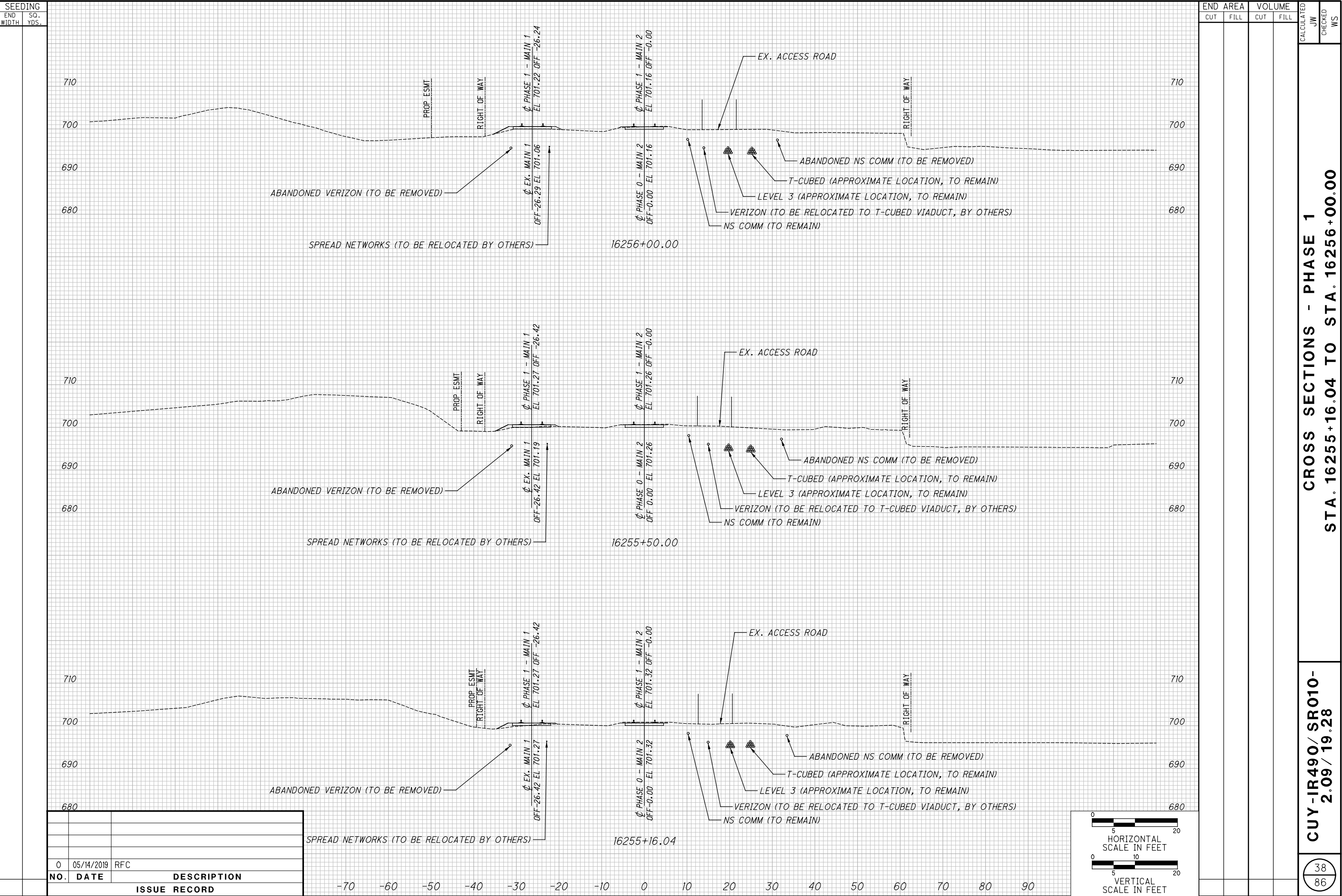
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NO.	DATE	DESCRIPTION
0	05/14/2019	RFC

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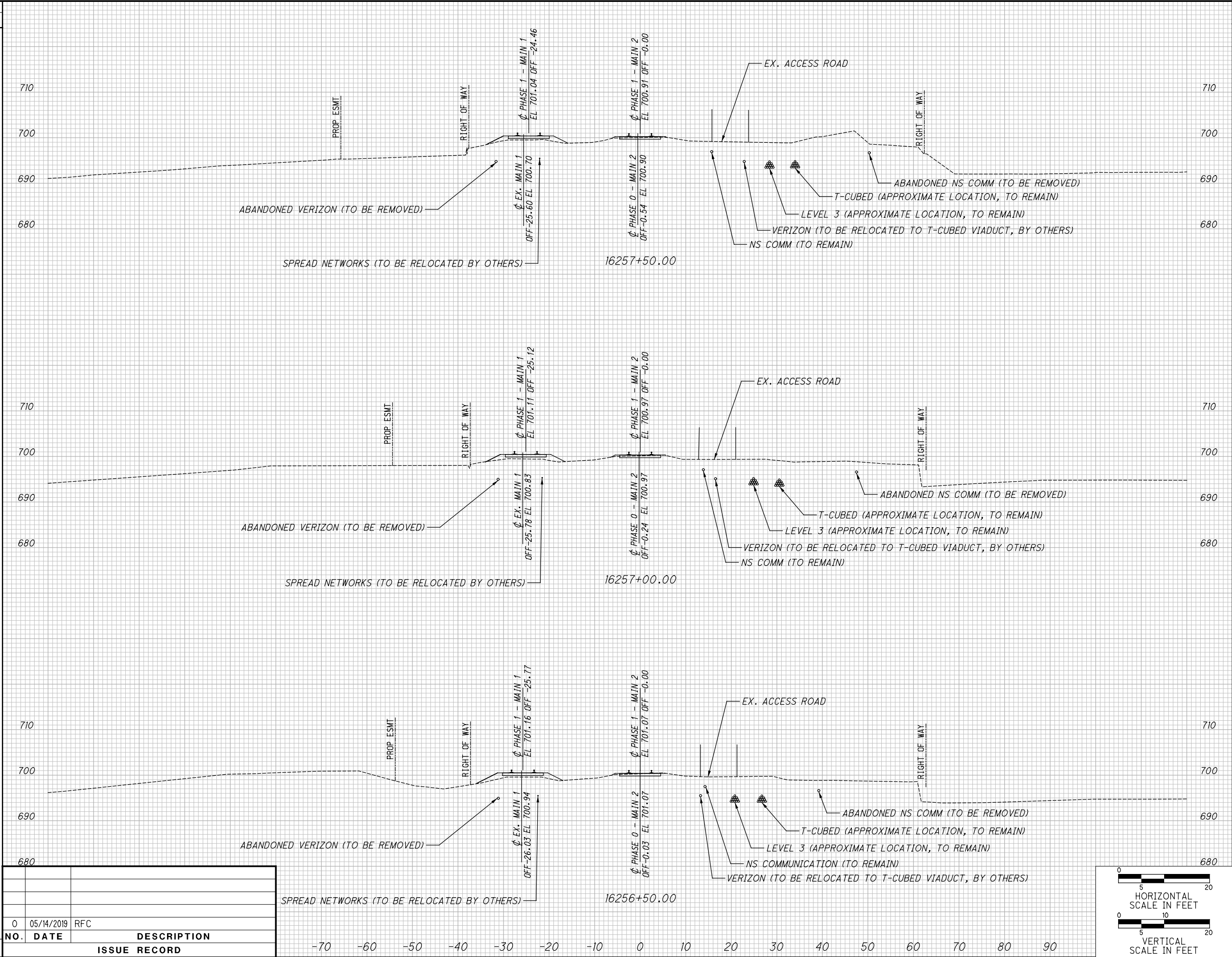


ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	05/14/2019	RFC

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16254+61.18 TO STA. 16255+00.00					
CUY-IR490/SR010- 2.09/19.28					
37 86					



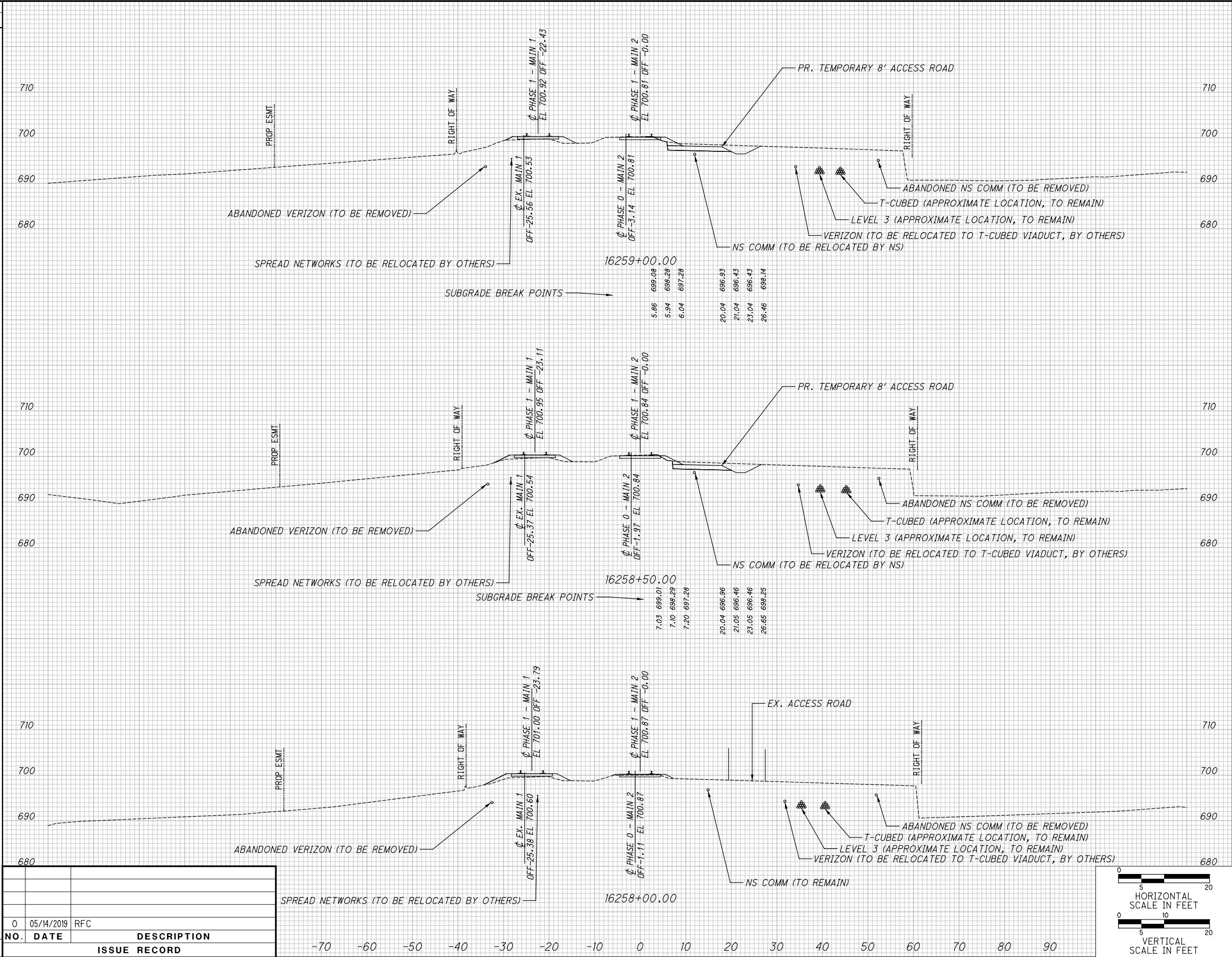
SEEDING	
END WIDTH	SO. YDS.



ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	05/14/2019	RFC

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1					
STA. 16256+50.00 TO STA. 16257+50.00					
CUY-IR490/SR010-2.09/19.28				39	86

SEEDING	
END WIDTH	SO. YDS.

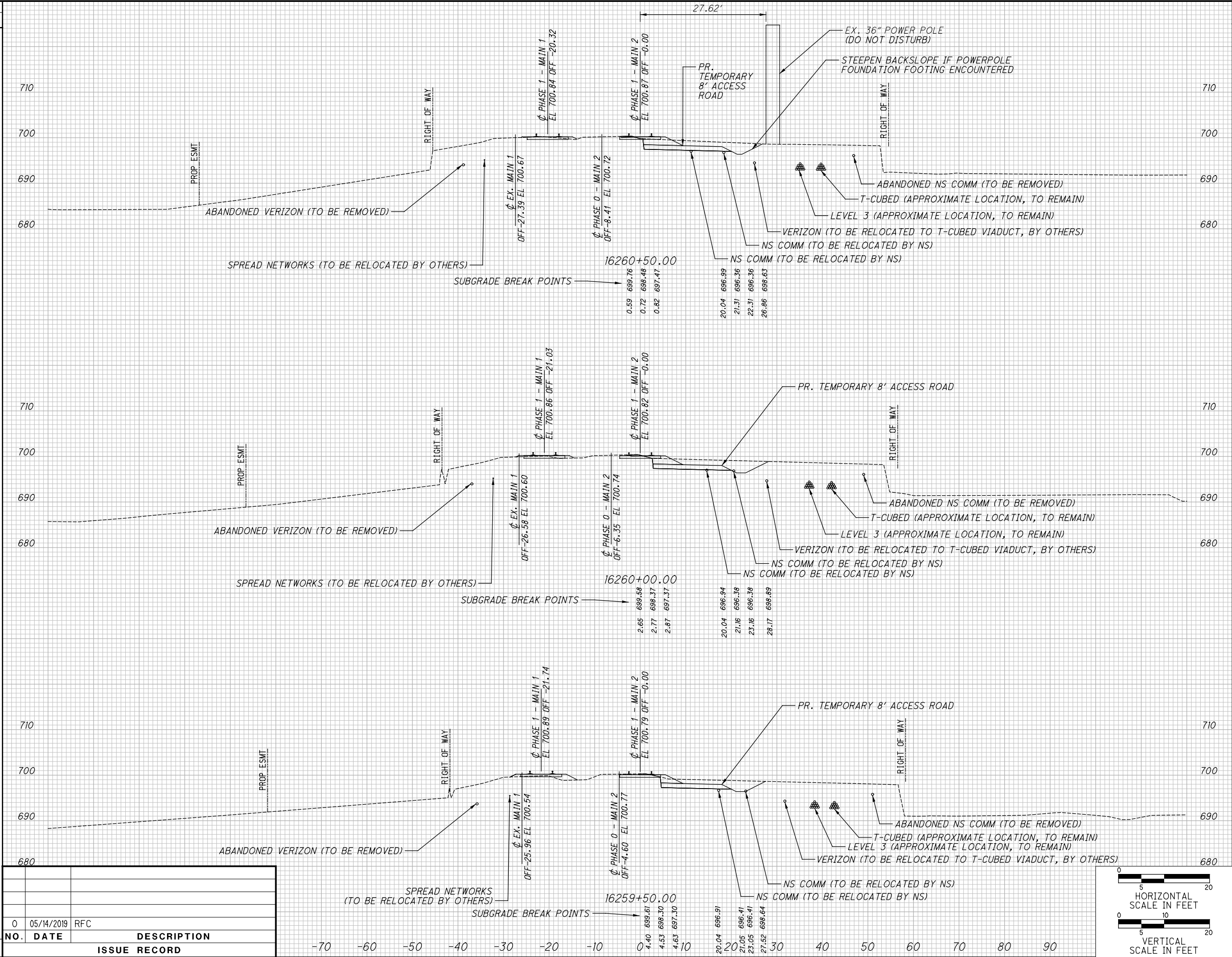


END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		

CROSS SECTIONS - PHASE 1
STA. 16258+00.00 TO STA. 16259+00.00

40
86

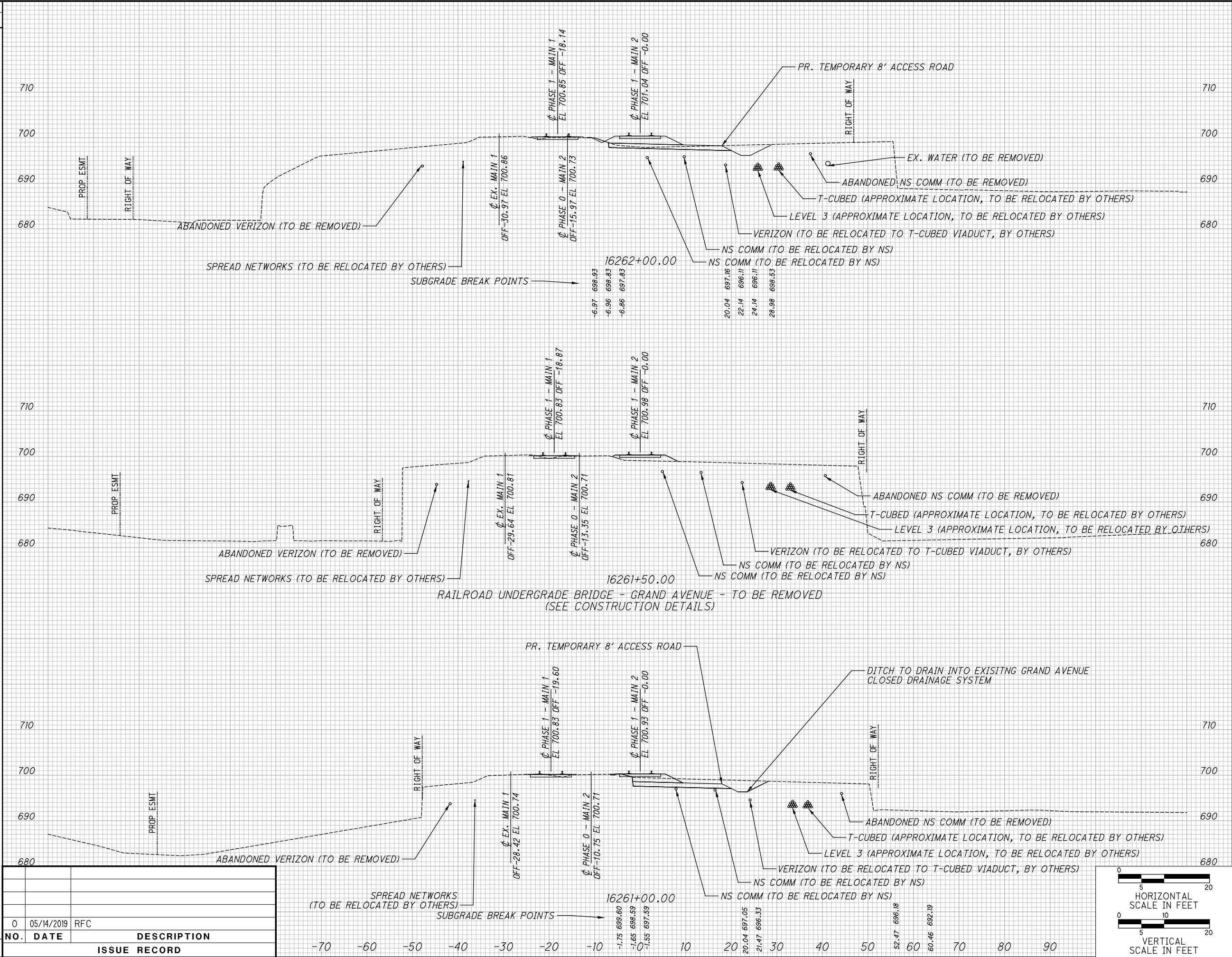
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END WIDTH	SO. YDS.



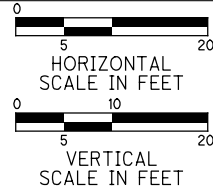
NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16259+50.00 TO STA. 16260+50.00					
CUY-IR490/SR010-2.09/19.28					
41 86					

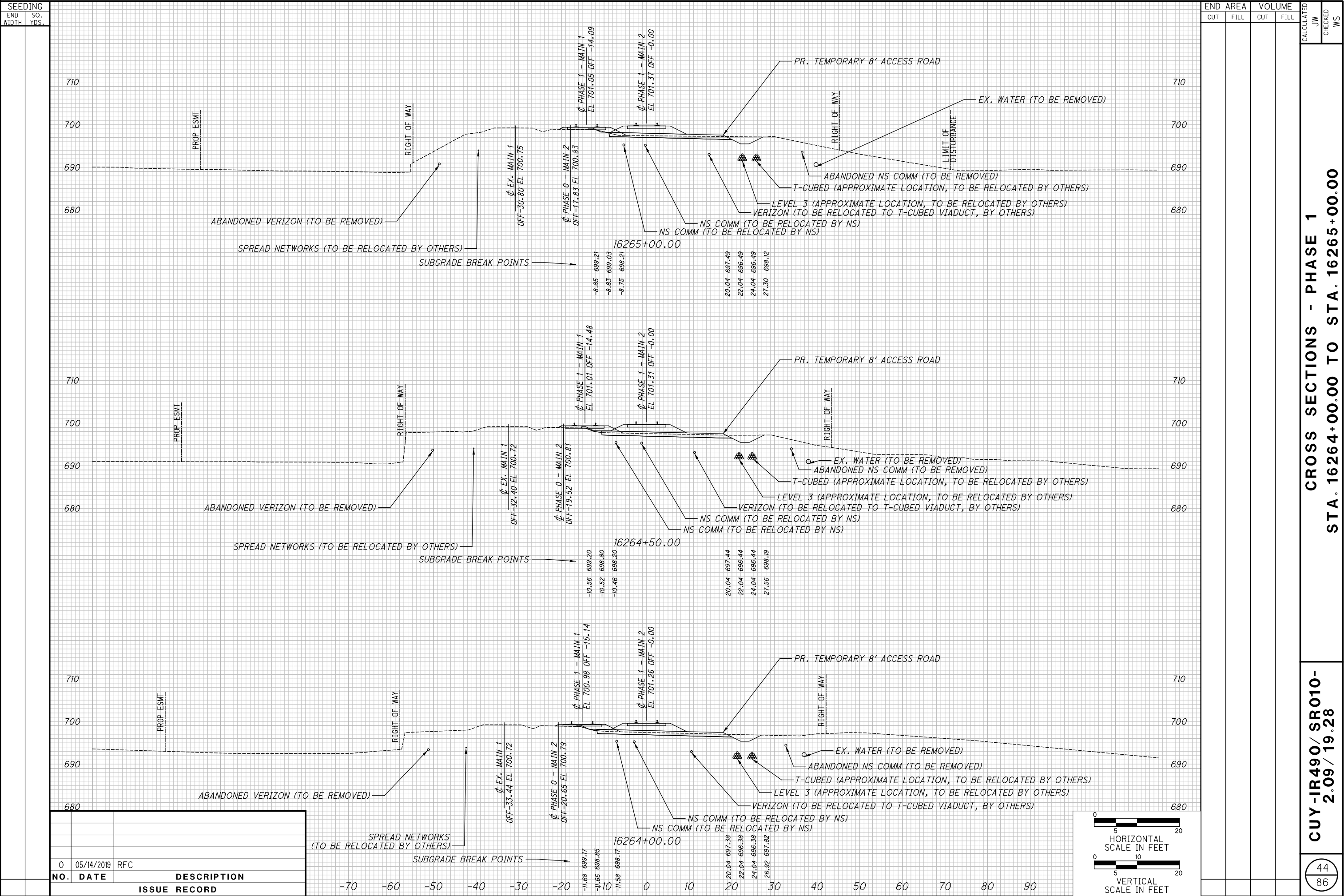
SEEDING	
END WIDTH	SO. YDS.



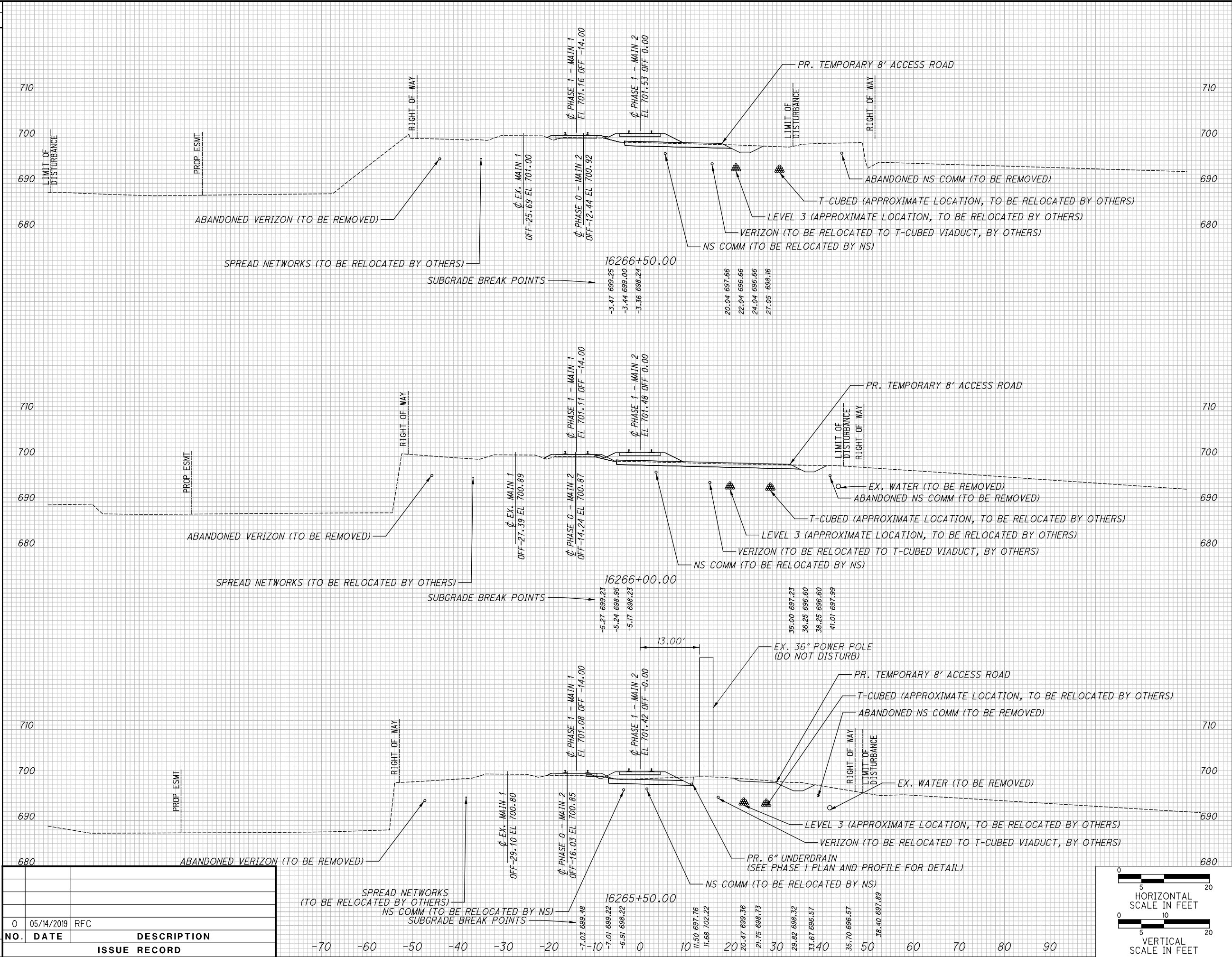
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL	JW	WS
CROSS SECTIONS - PHASE 1					
STA. 16261+00.00 TO STA. 16262+00.00					
CUY-IR490/SR010-2.09/19.28					
42/86					



END		AREA		VOLUME		CALCULATED	CROSS SECTIONS - PHASE 1	CUY -IR490/ SR010- 2.09 / 19.28	STA. 16262+50.00 TO STA. 16263+50.00
CUT	FILL	CUT	FILL	CUT	FILL				



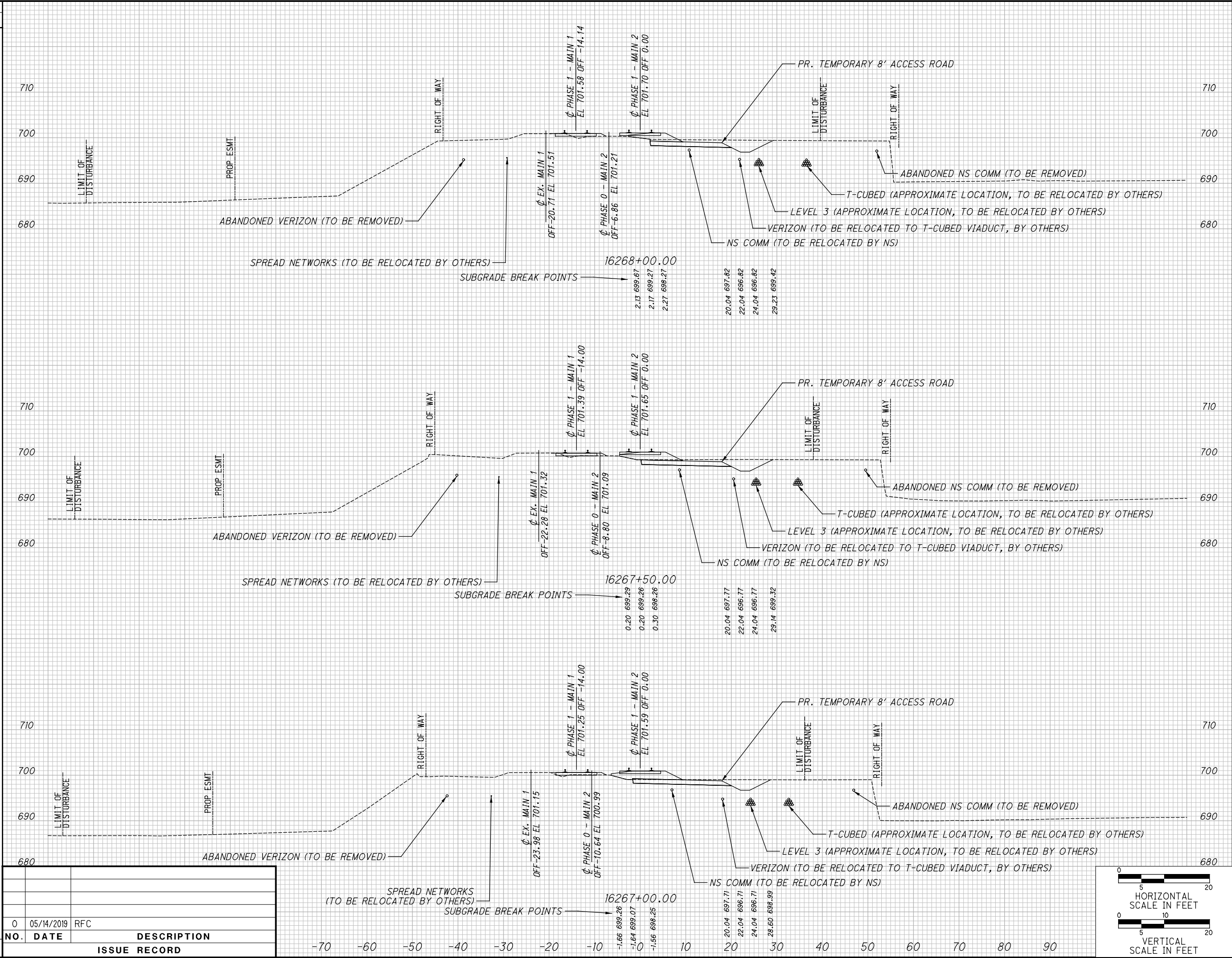
SEEDING	
END WIDTH	SO. YDS.



NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16265+50.00 TO STA. 16266+50.00					
CUY-IR490/SR010- 2.09/19.28					
45 86					

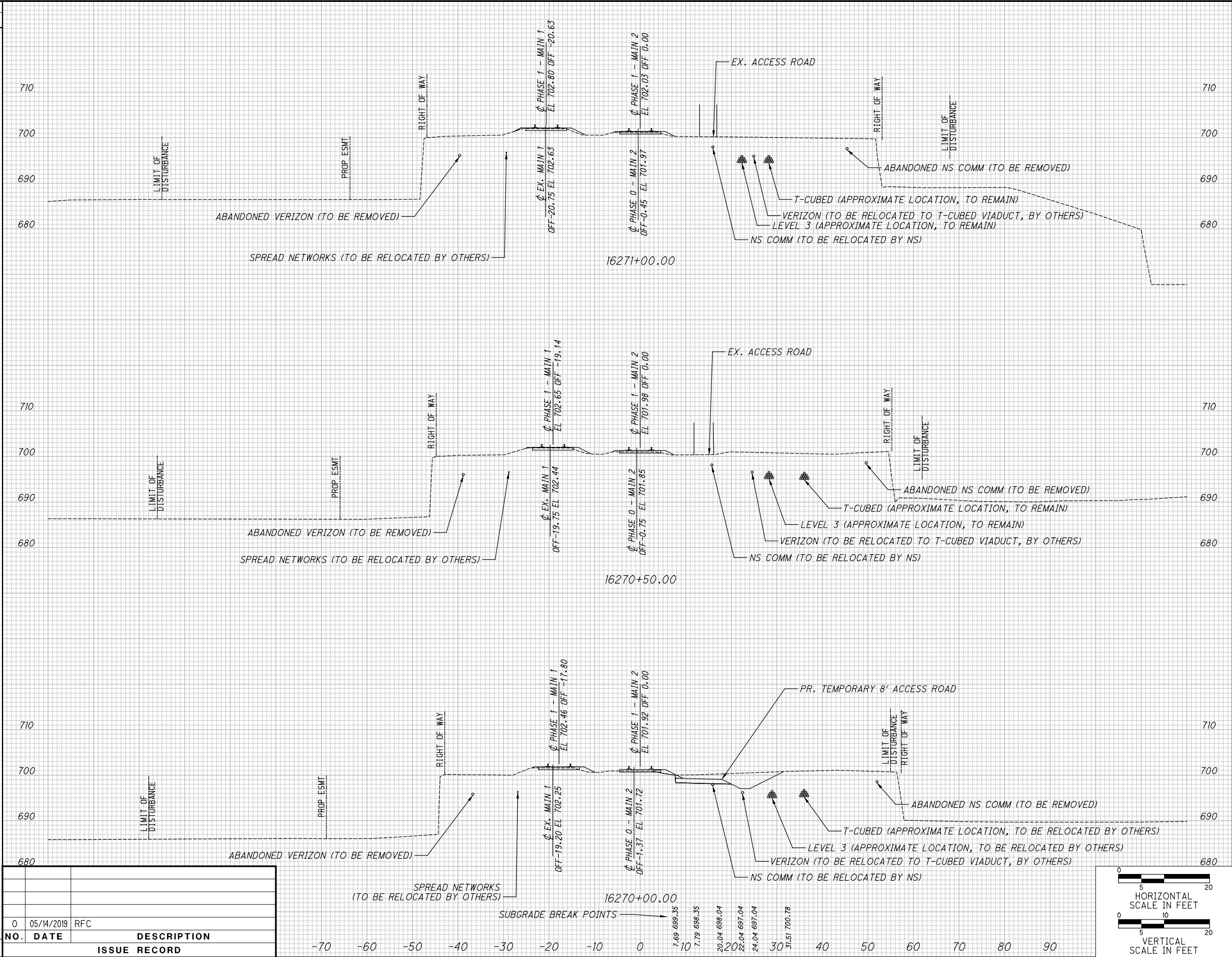
SEEDING	
END WIDTH	SO. YDS.



END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16267+00.00 TO STA. 16268+00.00					
CUY-IR490/SR010-2.09/19.28					
46 86					

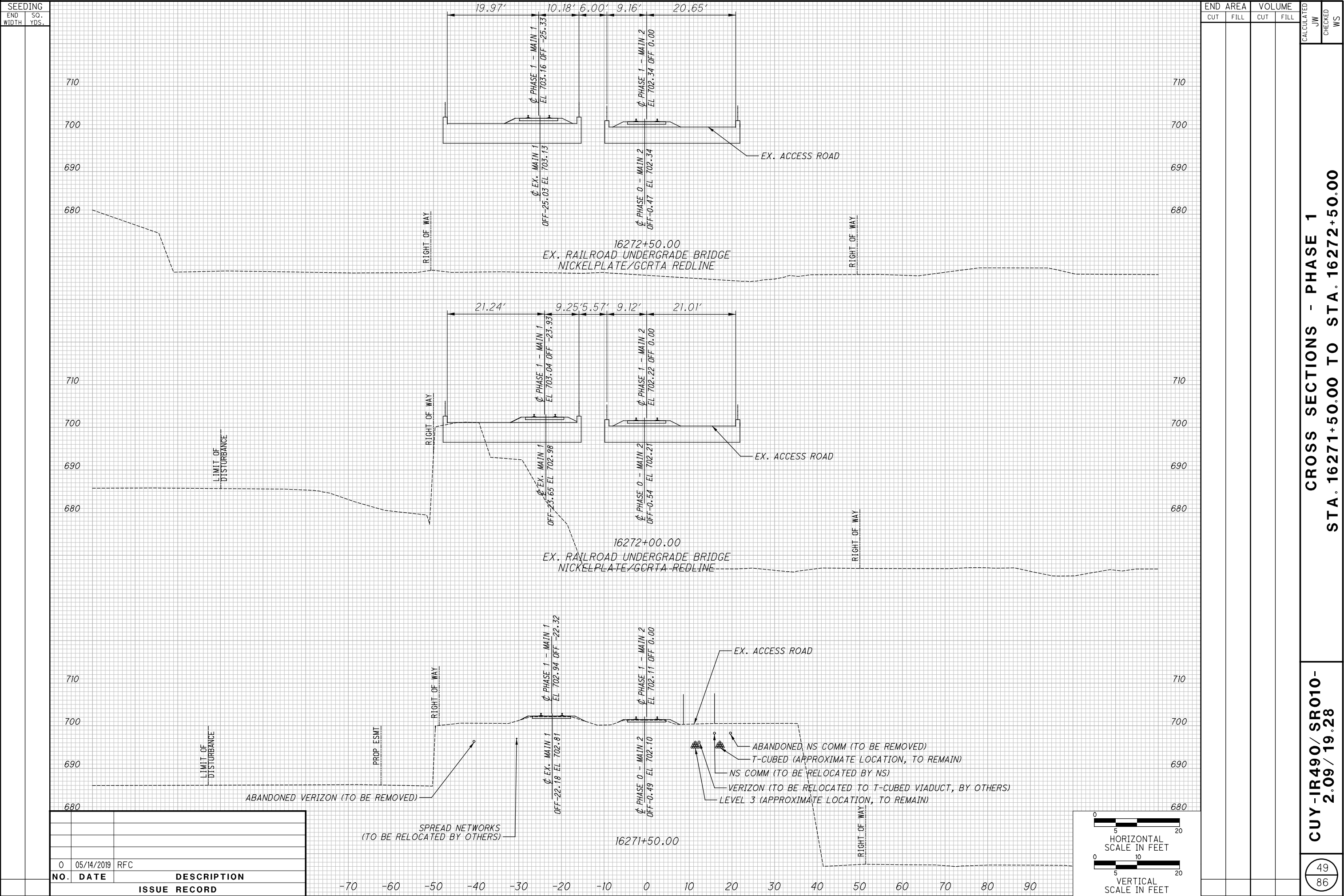
CROSS SECTIONS - PHASE 1
STA. 16268+50.00 TO STA. 16269+50.00

SEEDING	
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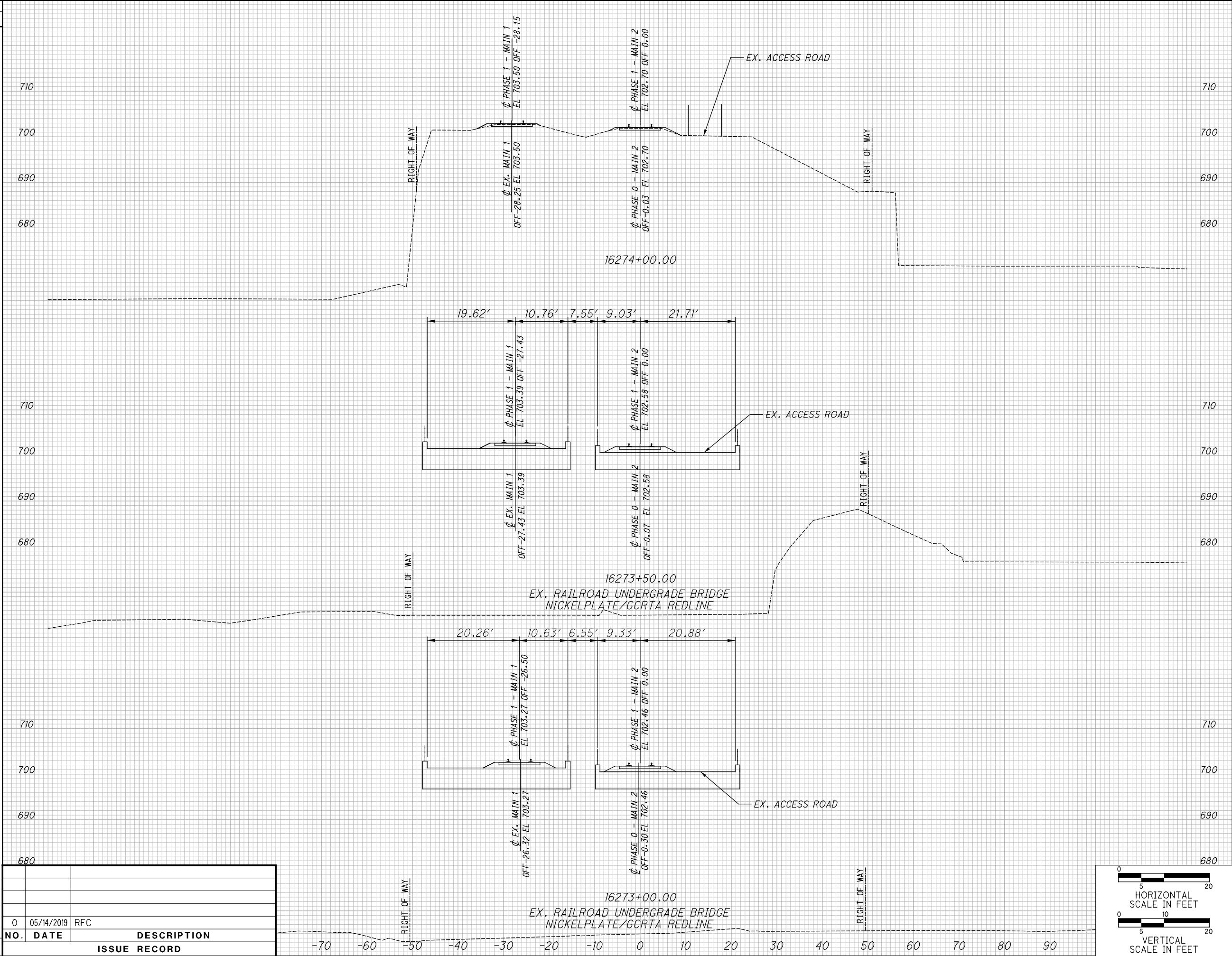


NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16270+00.00 TO STA. 16271+00.00					
CUY-IR490/SR010-2.09/19.28					
48 86					



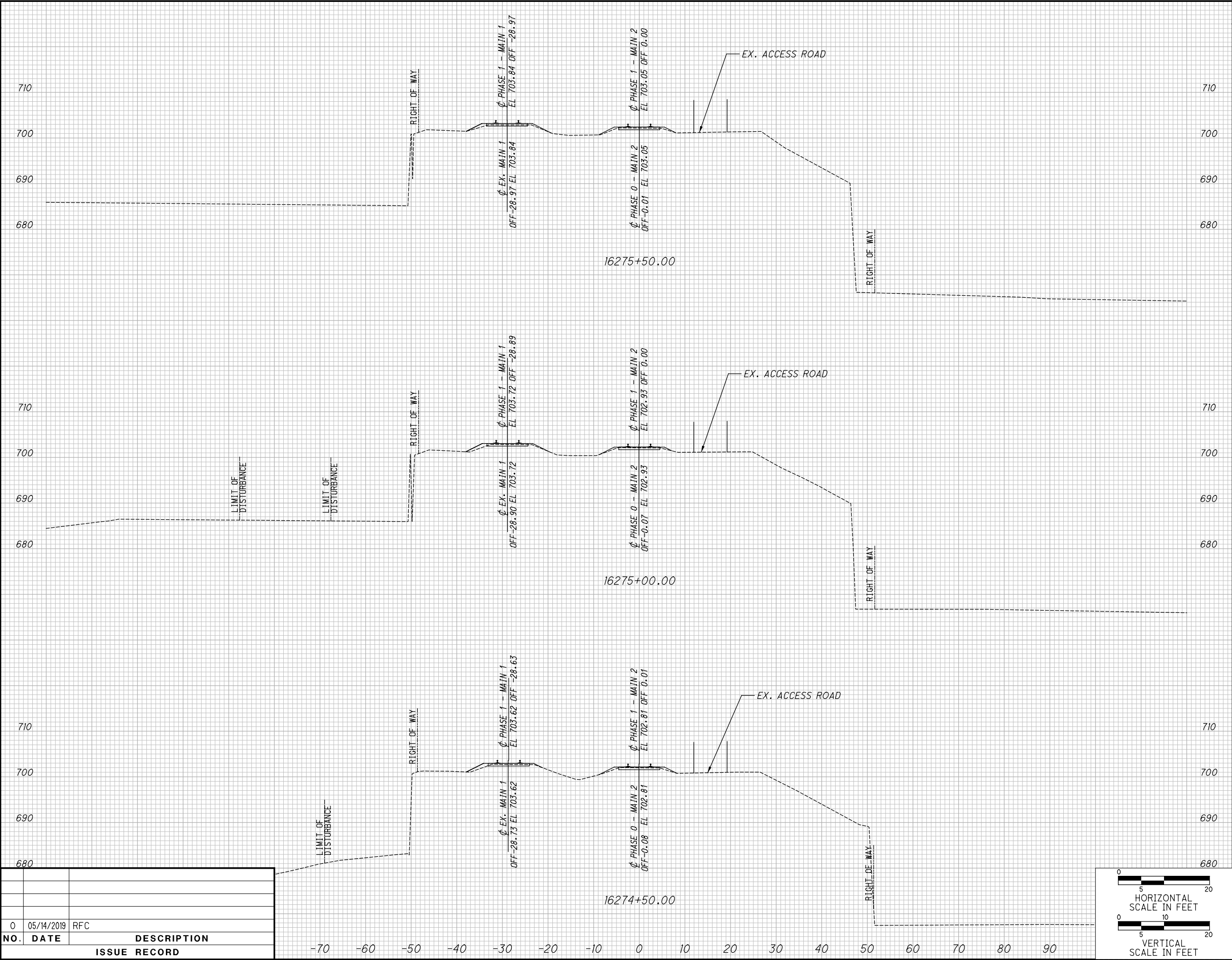
SEEDING	
END WIDTH	SO. YDS.



NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1 STA. 16273+00.00 TO STA. 16274+00.00					
CUY-IR490/SR010- 2.09/19.28					
50 86					

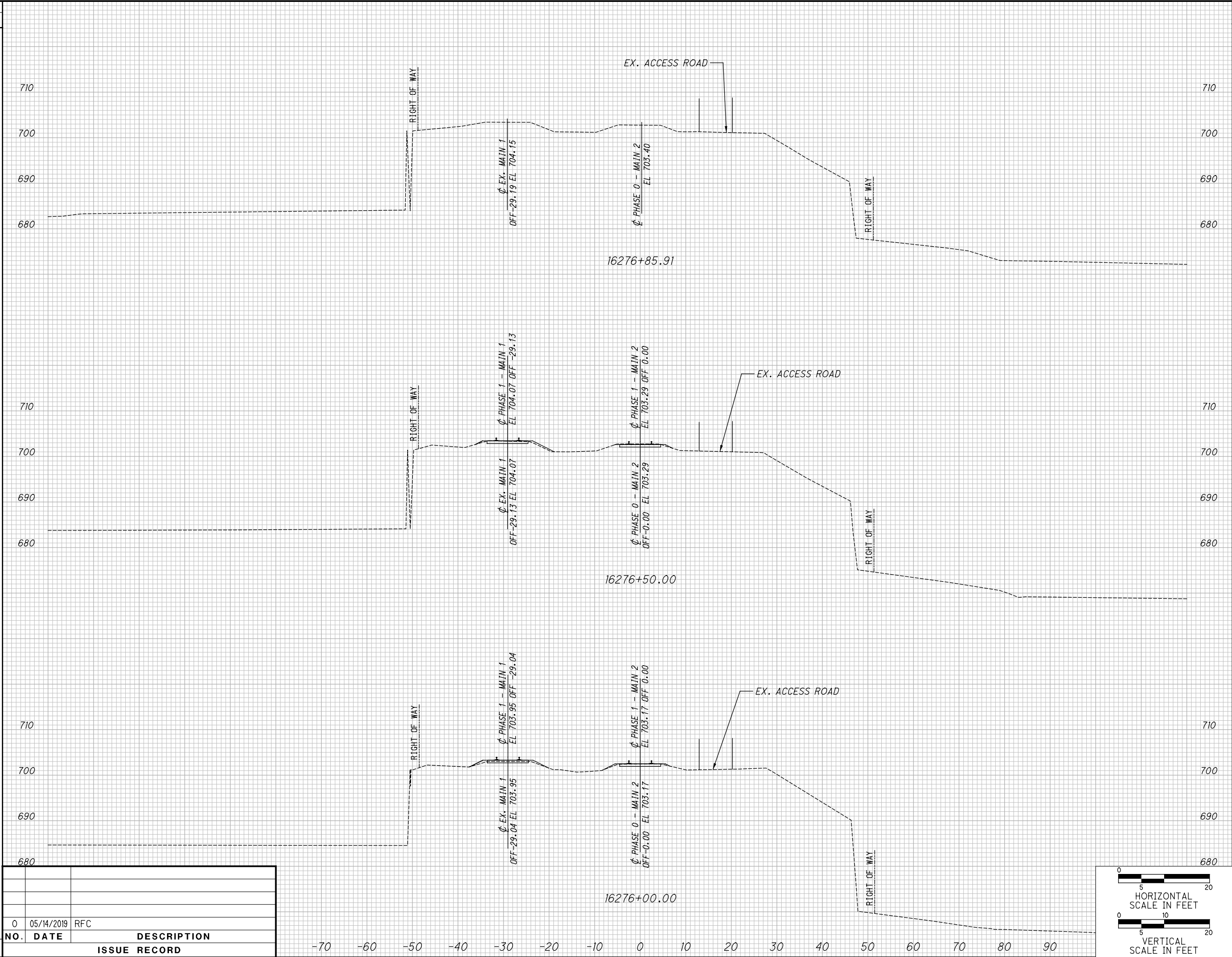
SEEDING	
END WIDTH	SO. YDS.



NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

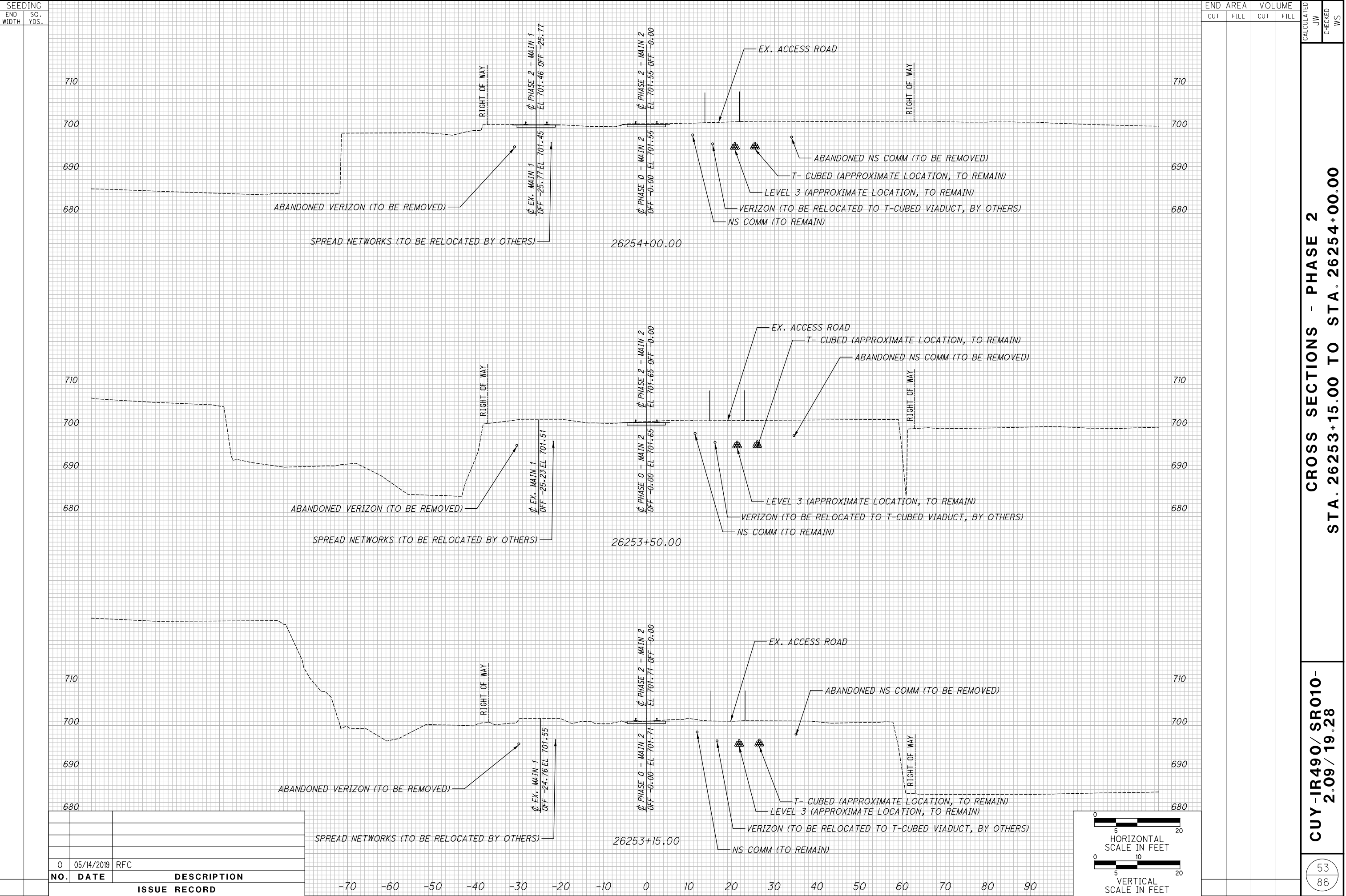
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1					
STA. 16274+50.00 TO STA. 16275+50.00					
CUY-IR490/SR010-2.09/19.28					
51/86					

SEEDING	
END WIDTH	SO. YDS.



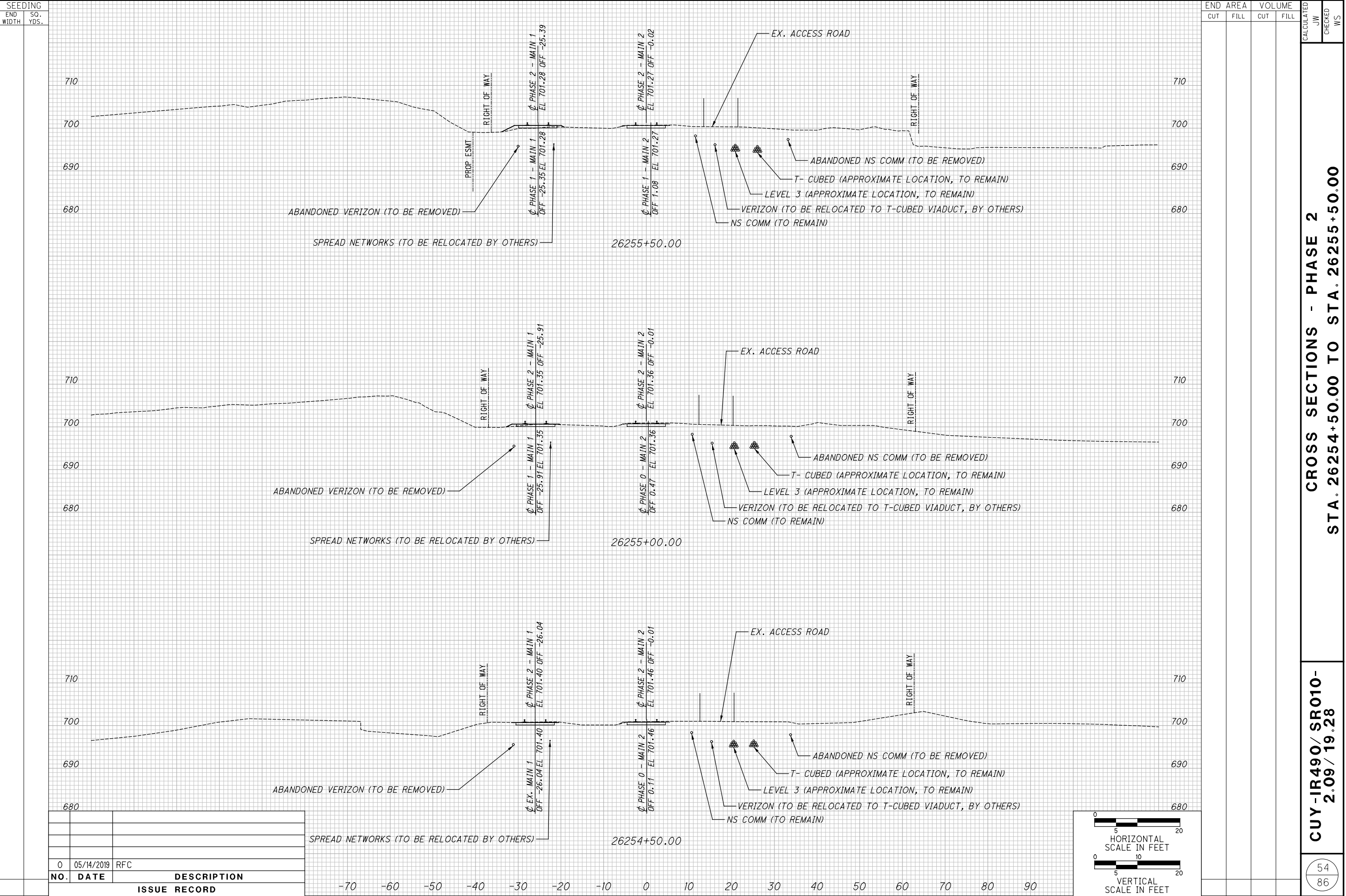
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0	05/14/2019	RFC
ISSUE RECORD		

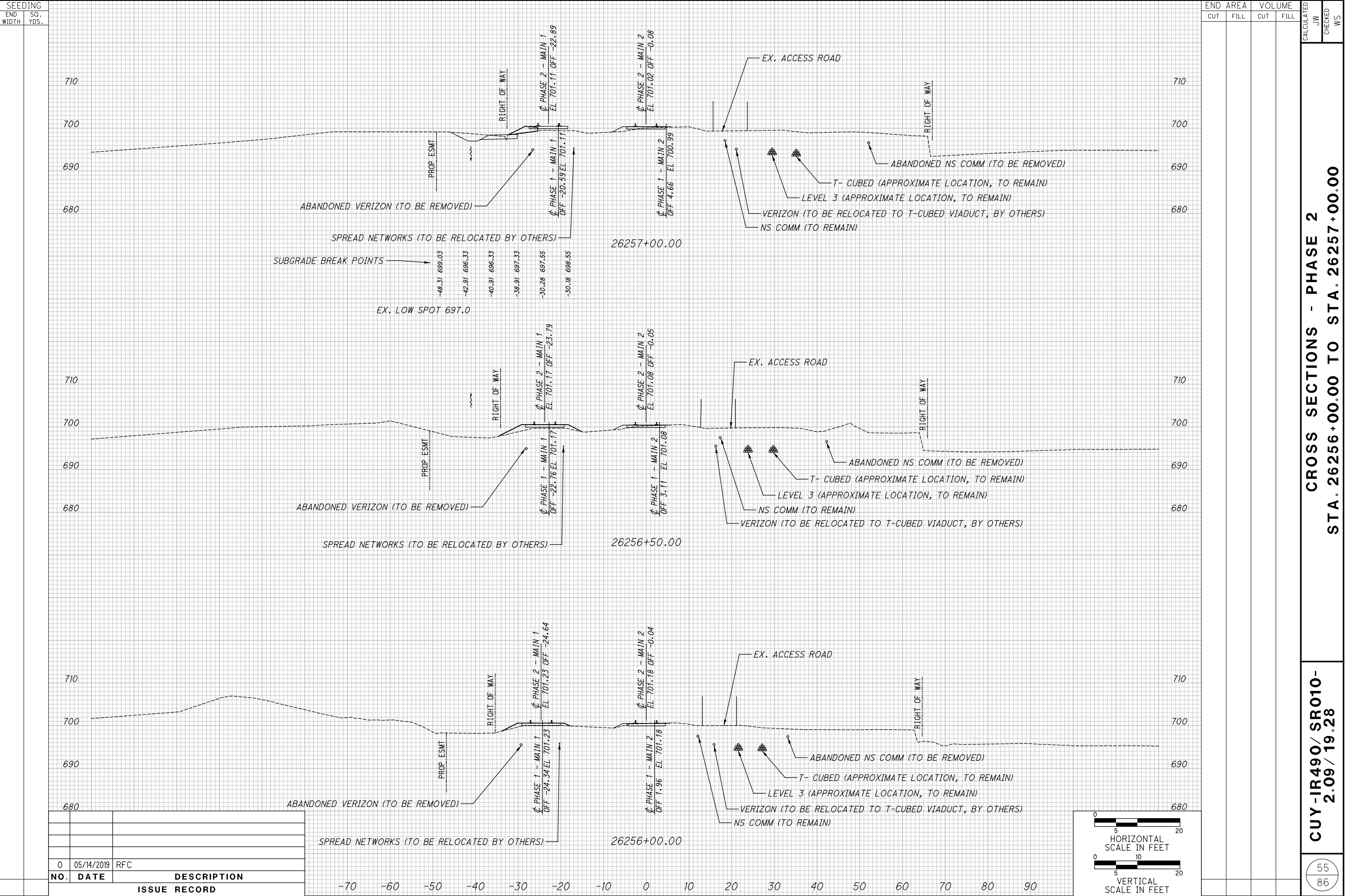
END AREA		VOLUME		CALCULATED	CHECKED
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 1					
STA. 16276+00.00 TO STA. 16276+85.91					
CUY-IR490/SR010-2.09/19.28					
52/86					



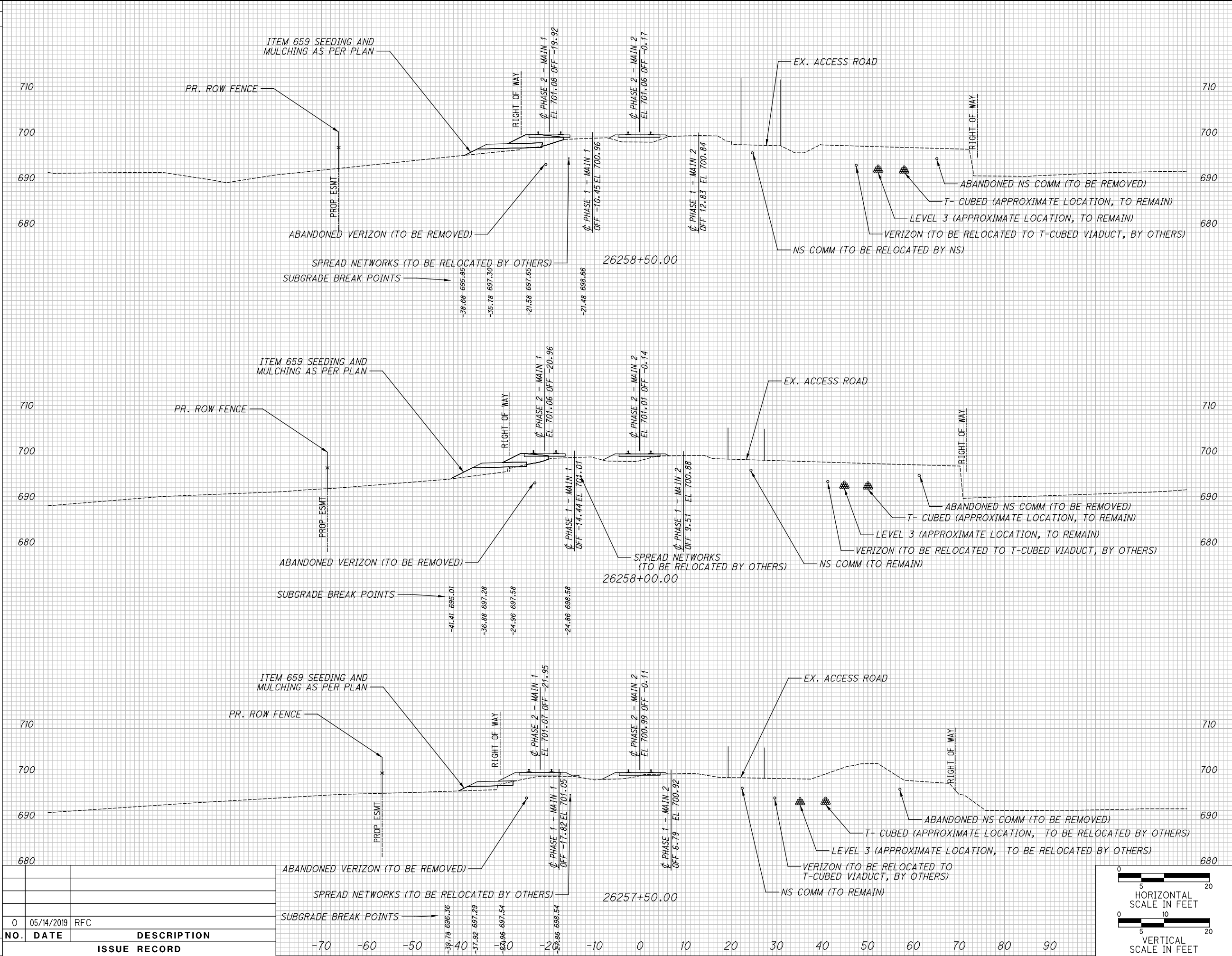
CROSS SECTIONS - PHASE 2
STA. 26253+15.00 TO STA. 26254+00.00

CUY-IR490/SR010-
2.09 / 19.28



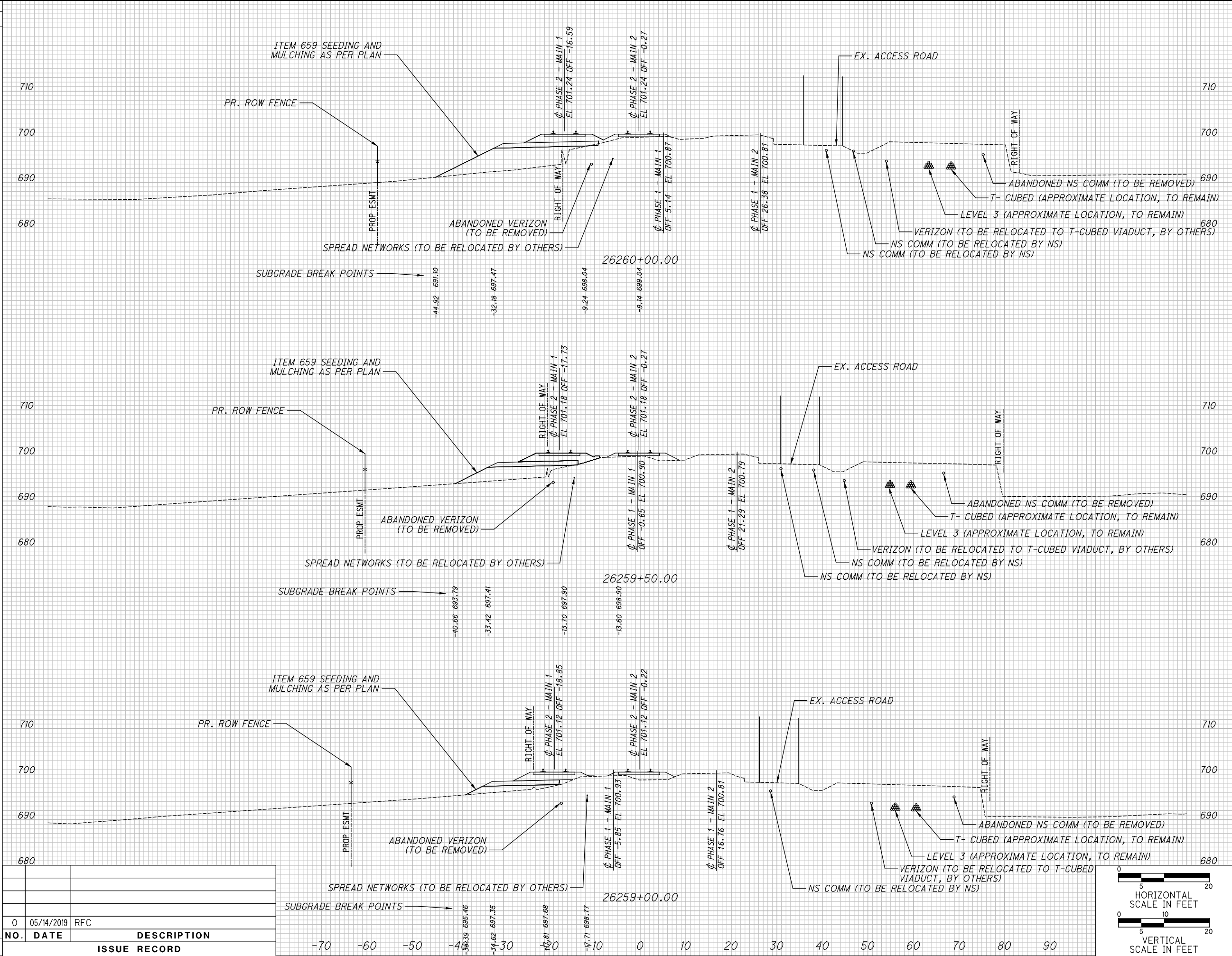


SEEDING	
END WIDTH	SO. YDS.



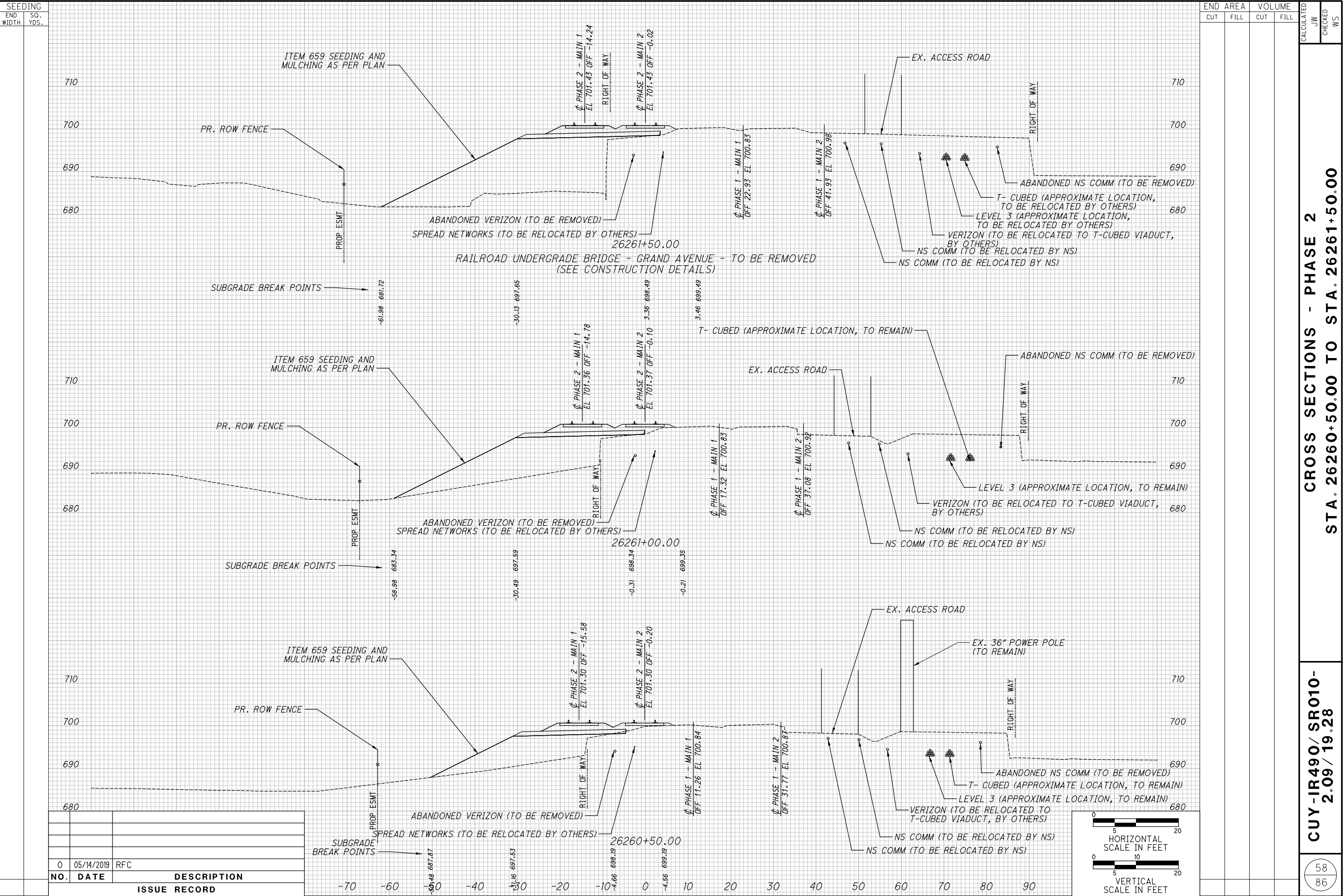
END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 2 STA. 26257+50.00 TO STA. 26258+50.00					
CUY-IR490/SR010- 2.09/19.28					
56 86					

SEEDING	
END WIDTH	SO. YDS.



ISSUE RECORD		
NO.	DATE	DESCRIPTION
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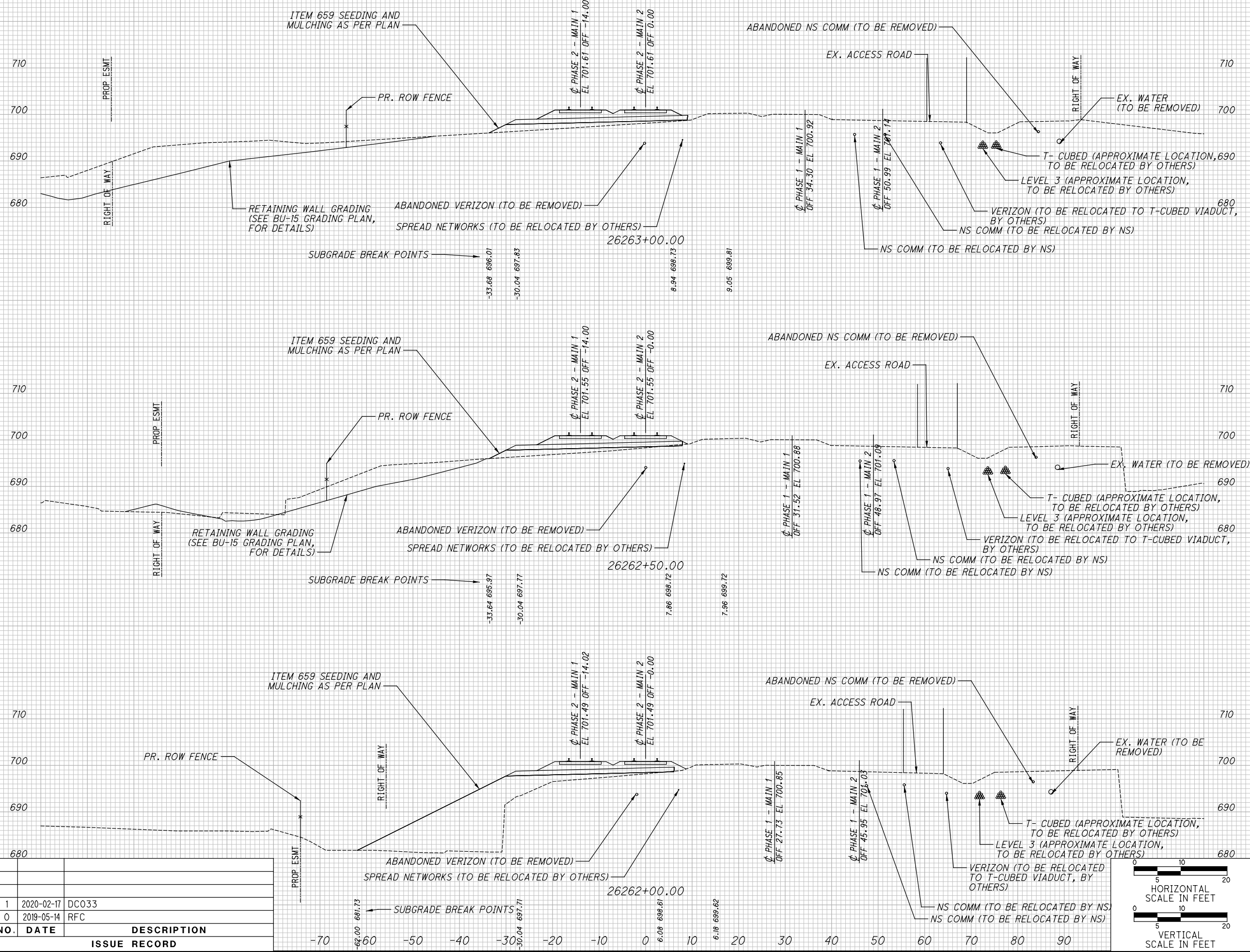
END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 2 STA. 26259+00.00 TO STA. 26260+00.00					
CUY-IR490/SR010- 2.09/19.28					
57 86					



CROSS SECTIONS - PHASE 2
STA. 26260+50.00 TO STA. 26261+50.00

CUY-IR490/SR010-
2.09/19.28

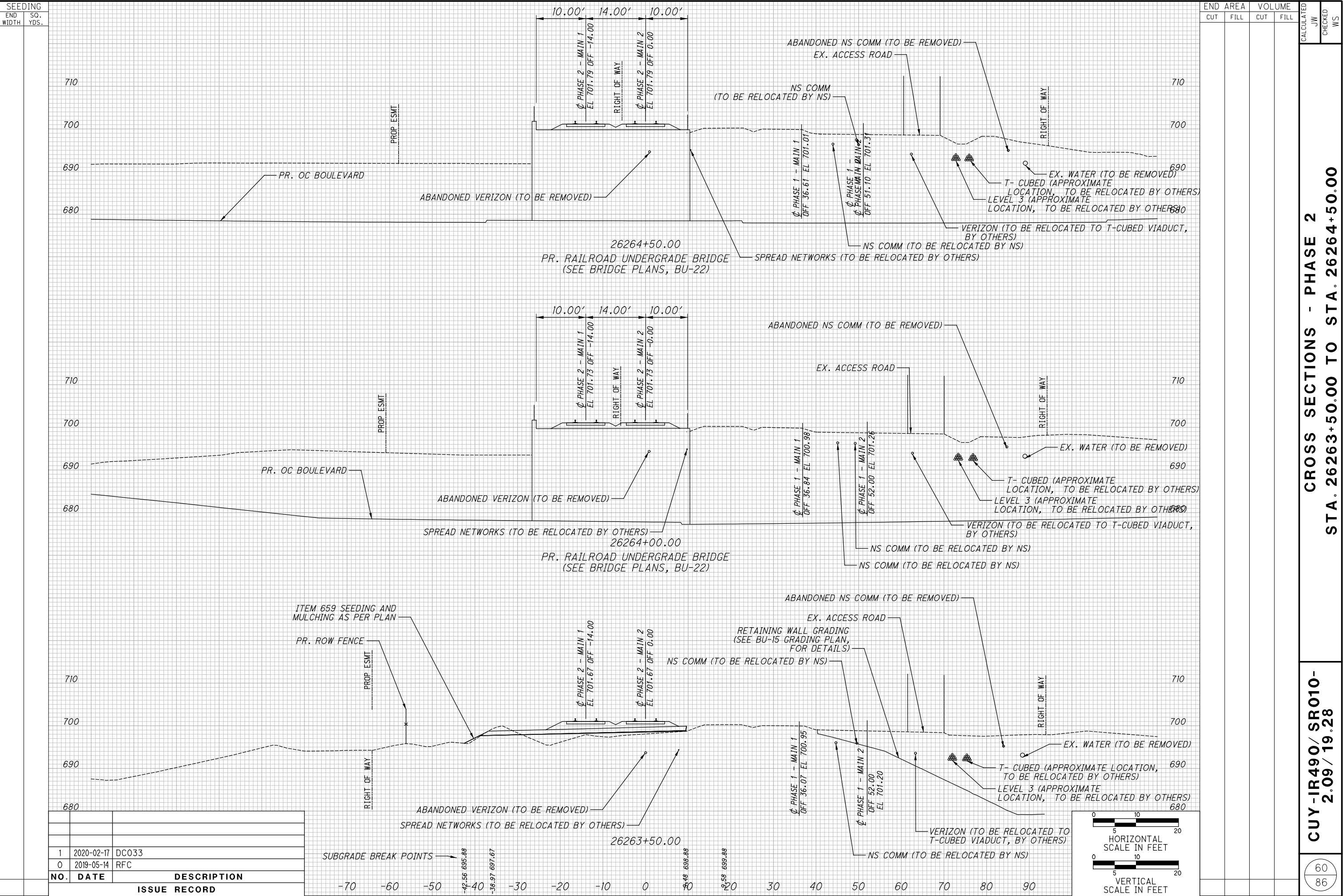
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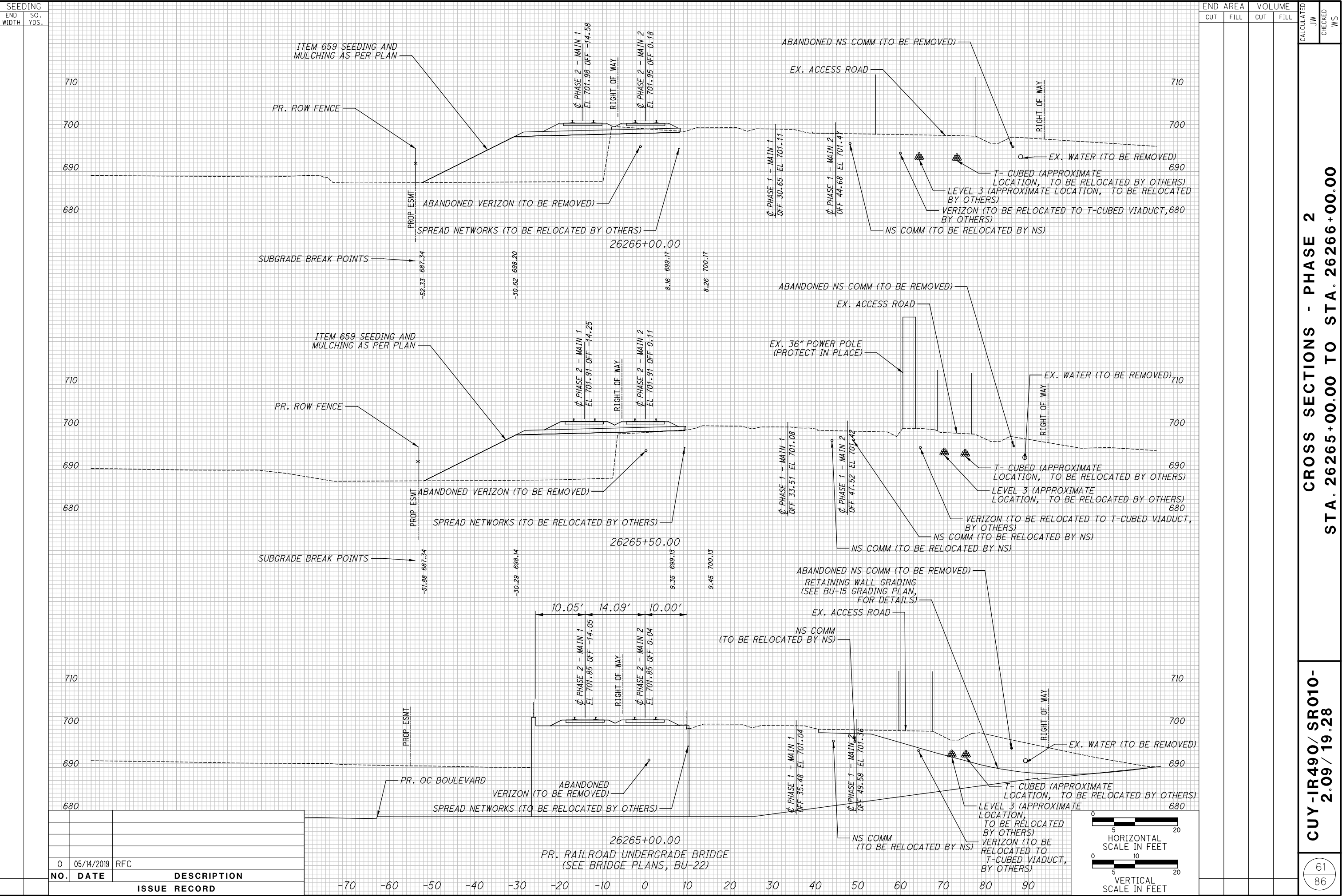


END AREA		VOLUME	
CUT	FILL	CUT	FILL

CROSS SECTIONS - PHASE 2

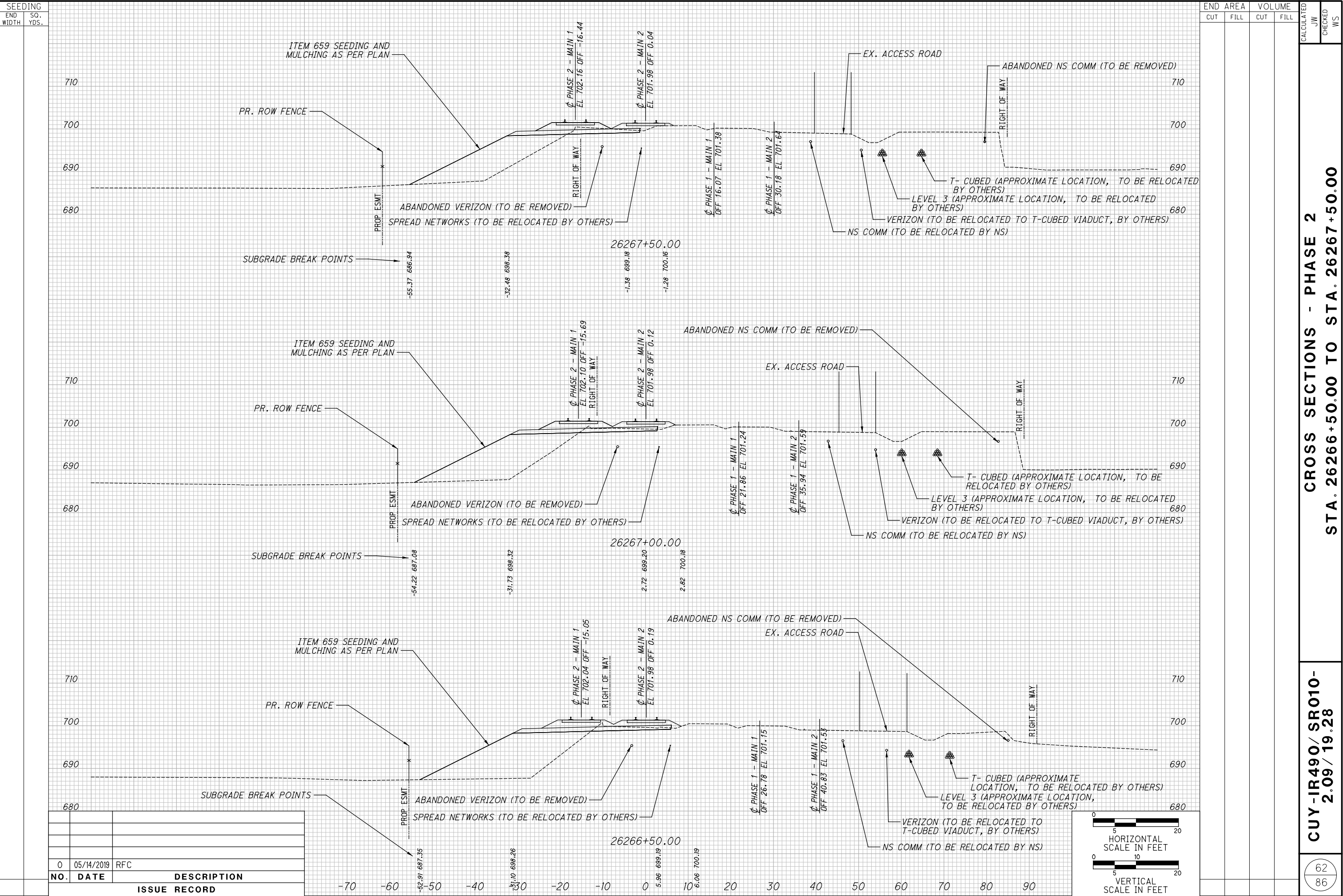
**CUY-IR490/SR010-
2.09/19.28**



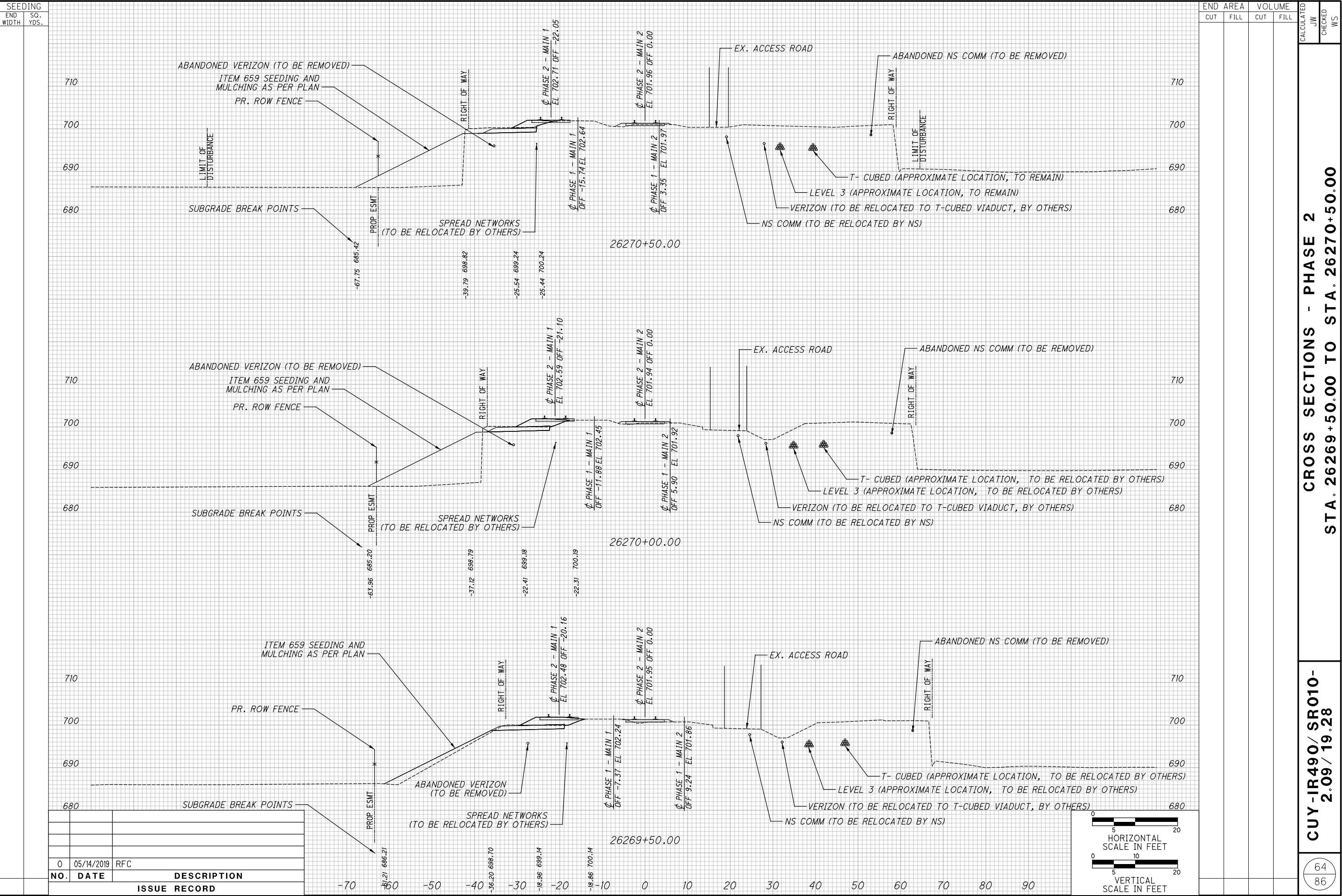


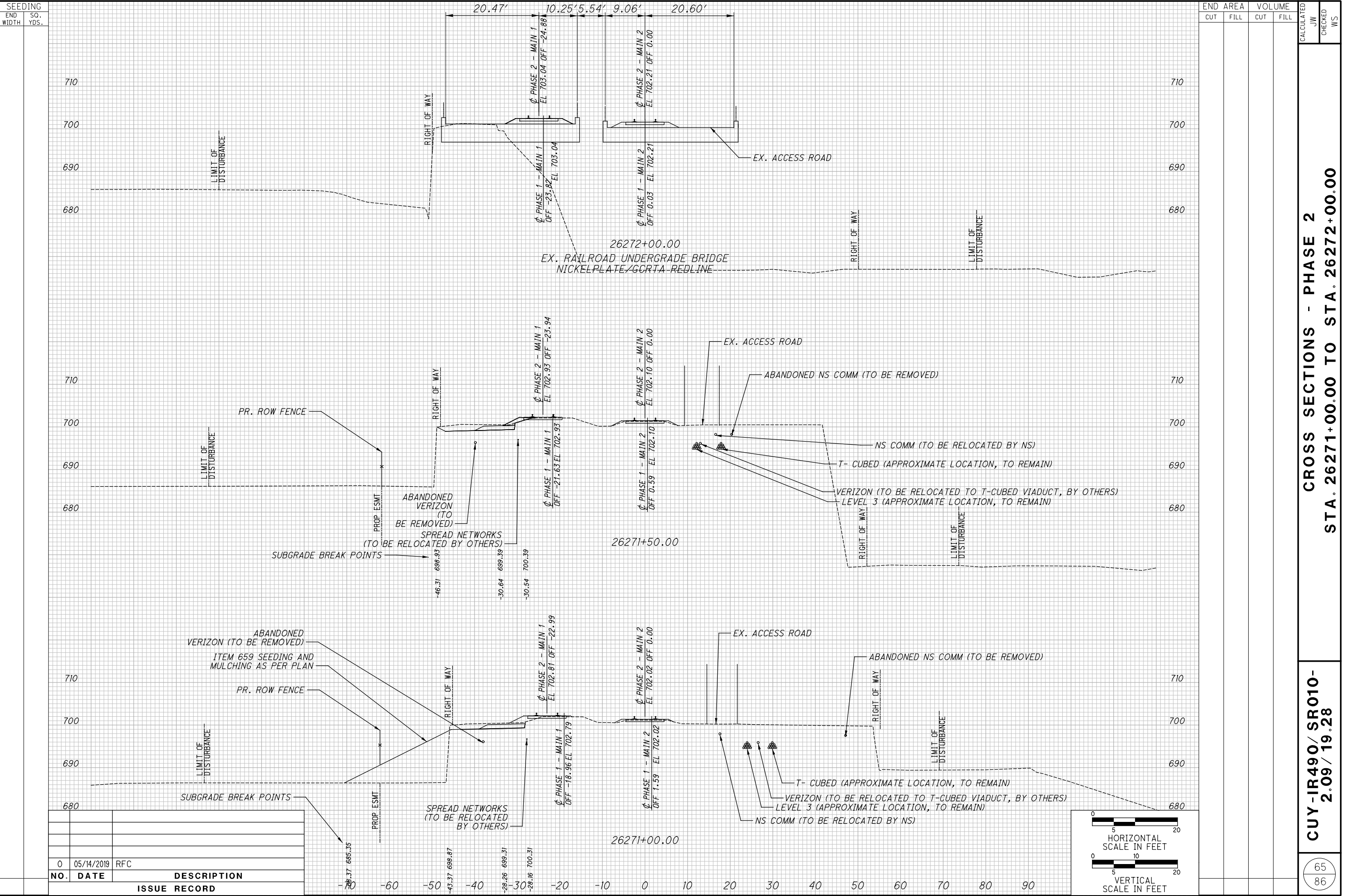
CROSS SECTIONS - PHASE 2
STA. 26265+00.00 TO STA. 26266+00.00

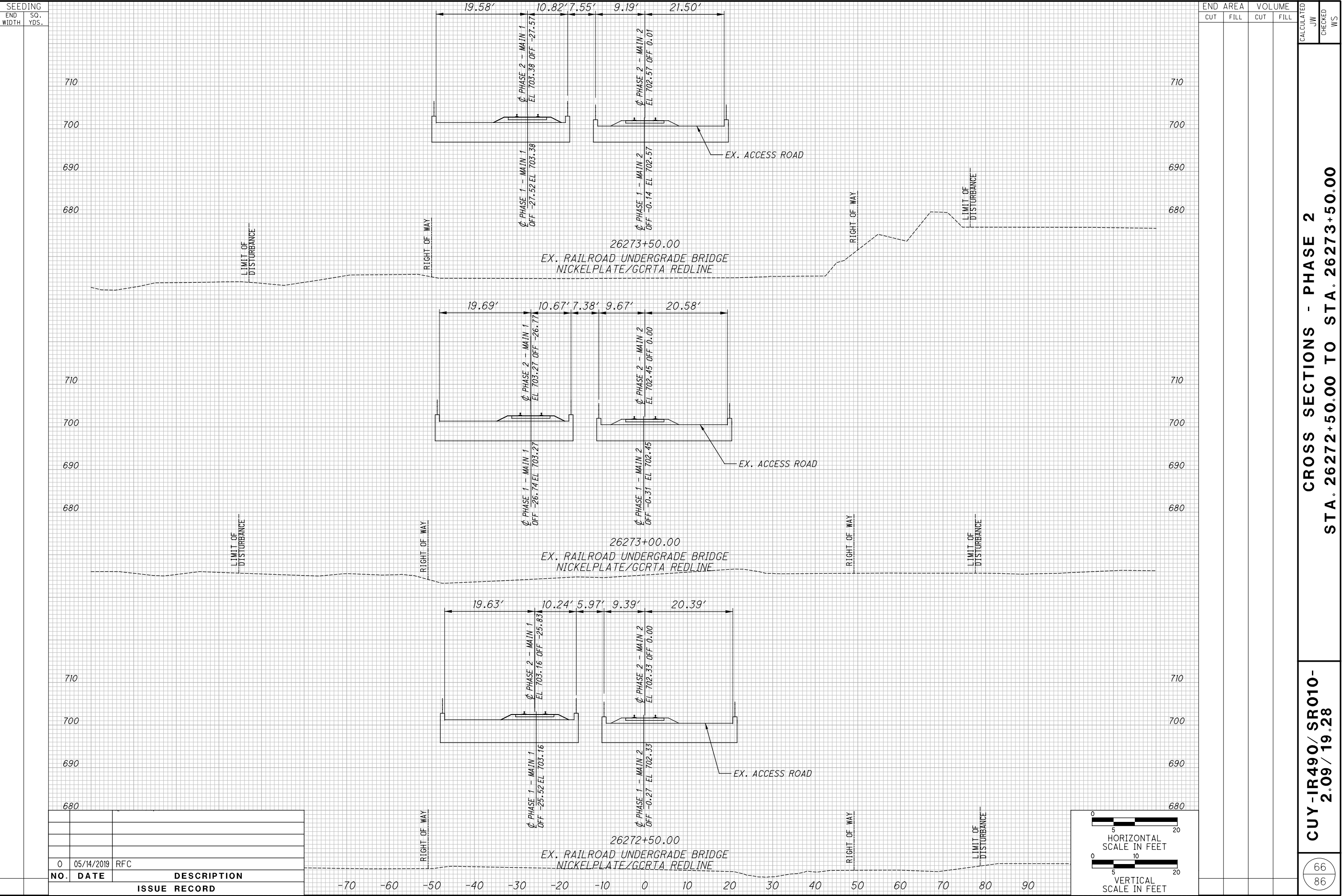
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2.09/19.28



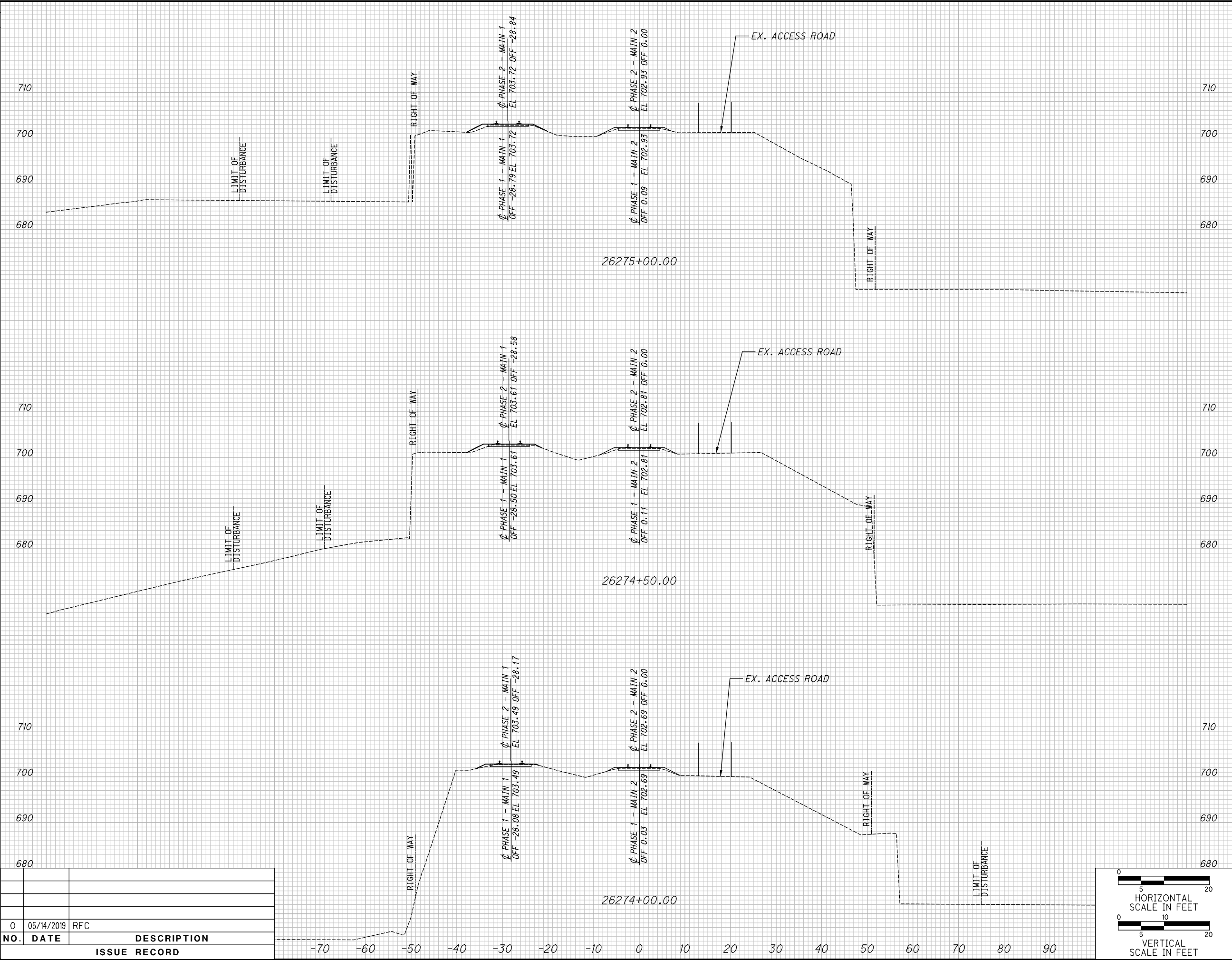
63
86



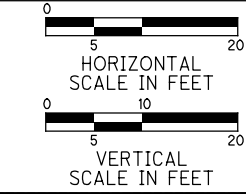




SEEDING	
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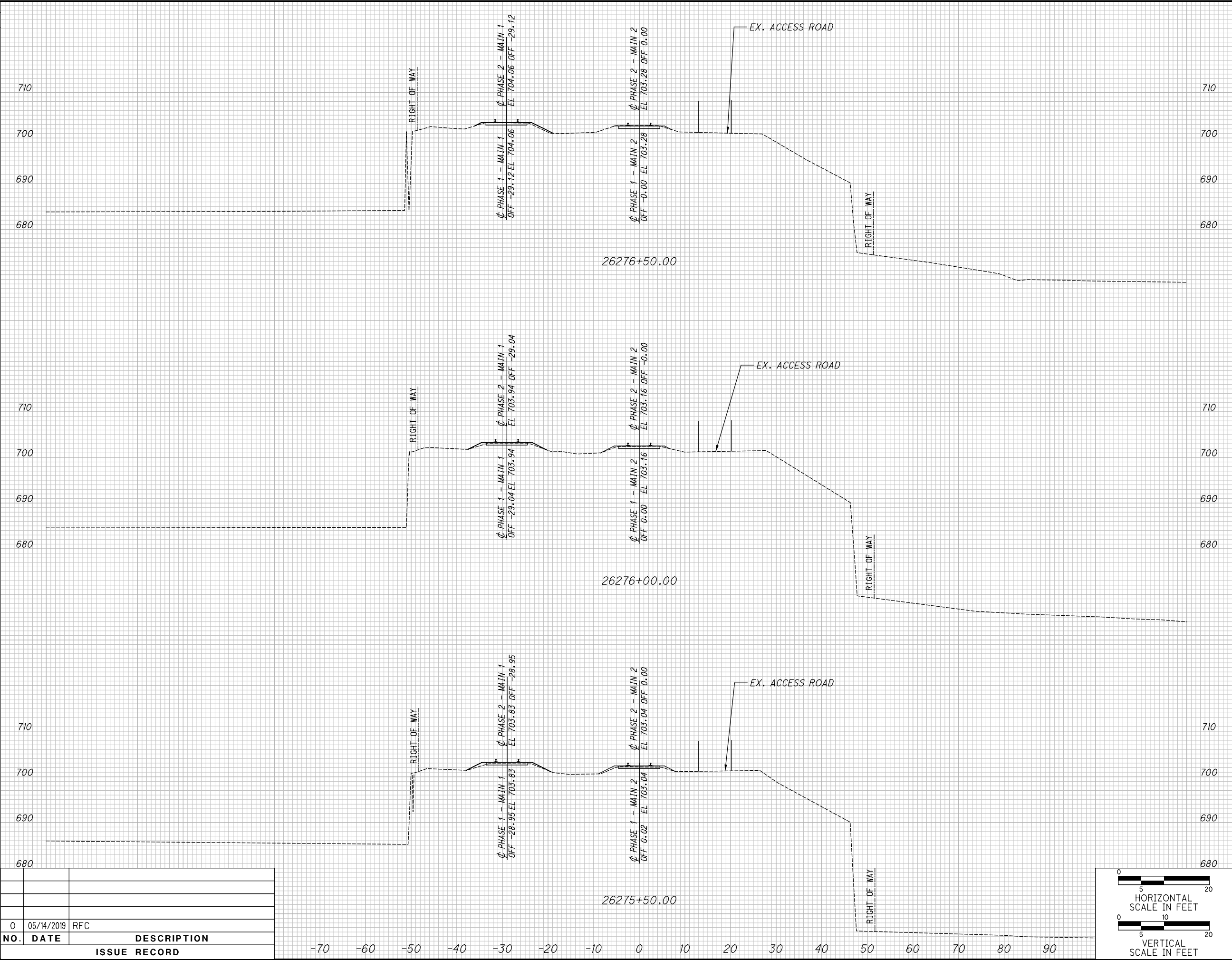


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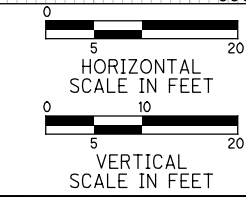


END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 2 STA. 26274+00.00 TO STA. 26275+00.00					
CUY-IR490/SR010- 2.09/19.28					
67 86					

SEEDING	
END WIDTH	SO. YDS.

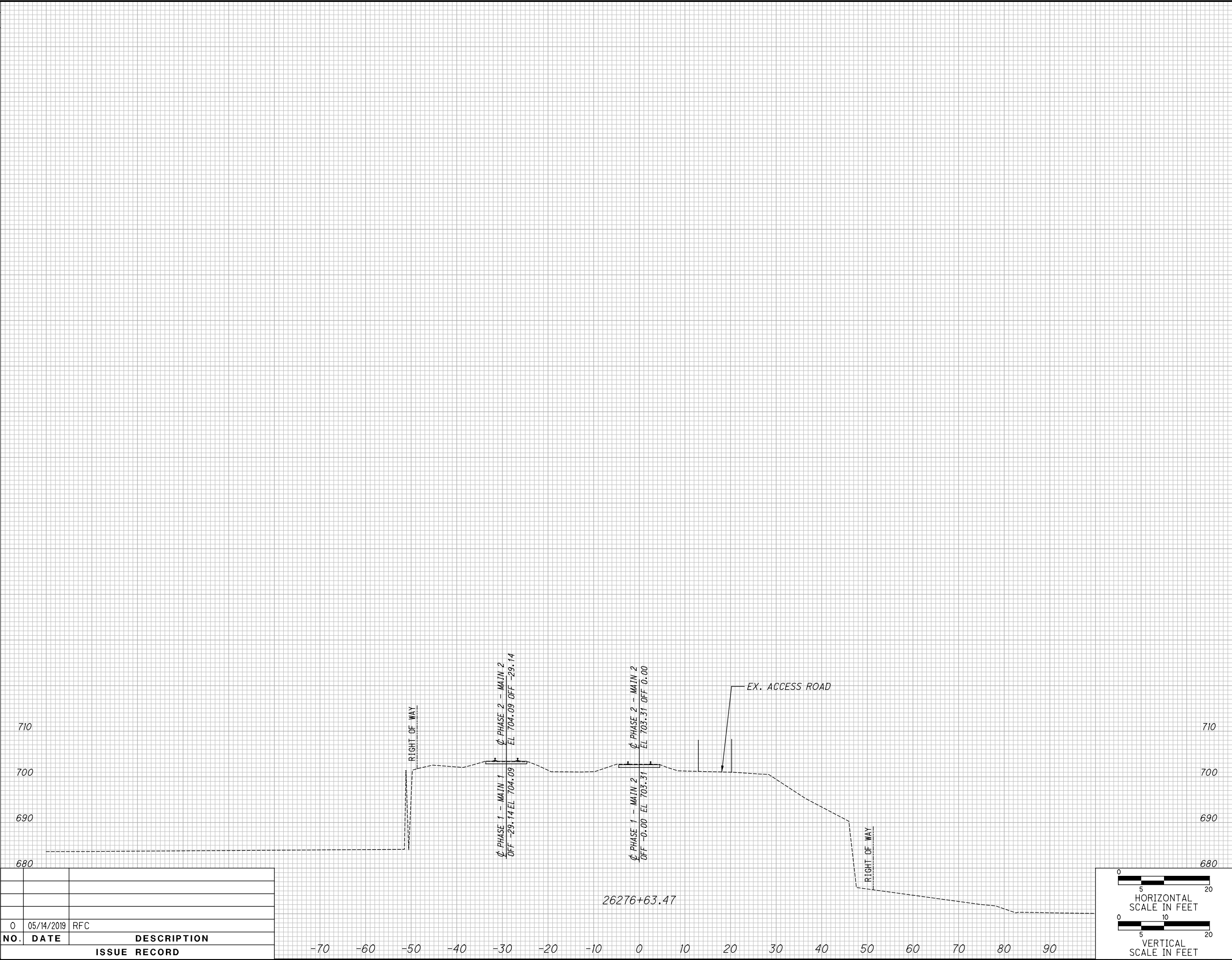


ISSUE RECORD		
NO.	DATE	DESCRIPTION
0	05/14/2019	RFC



END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 2 STA. 26275+50.00 TO STA. 26276+50.00					
CUY-IR490/SR010- 2.09 / 19.28					
68 86					

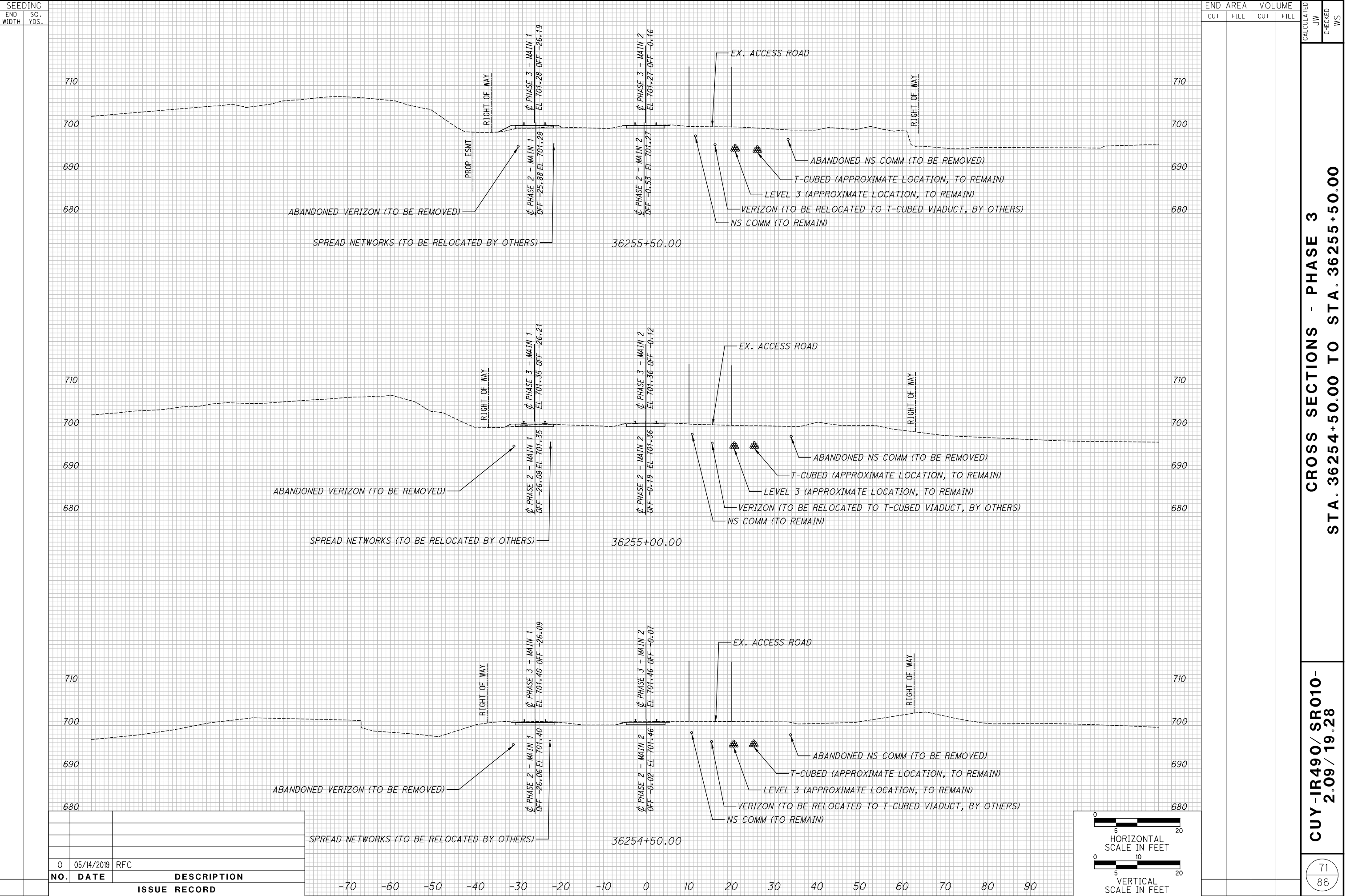
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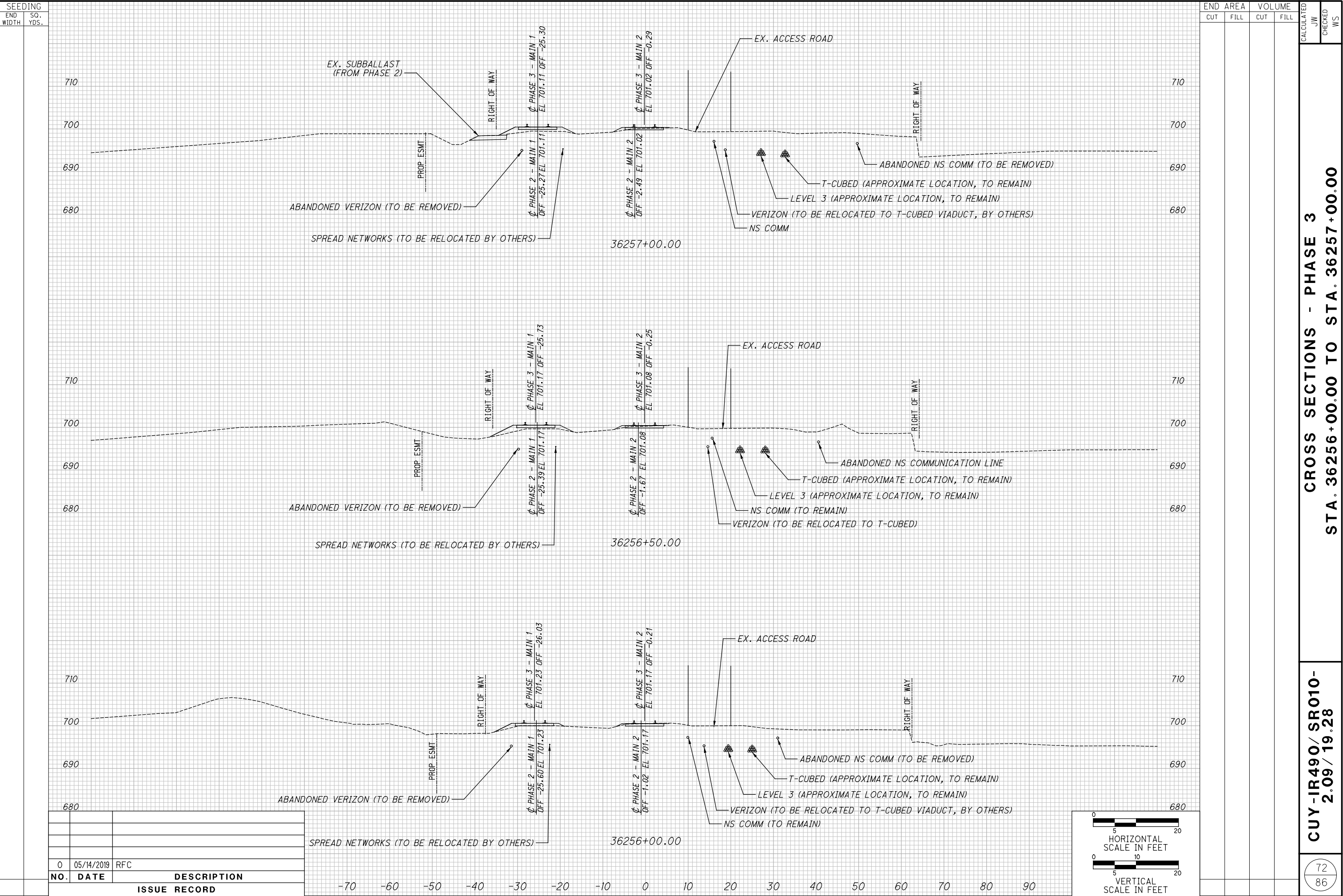


NO.	DATE	DESCRIPTION
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ISSUE RECORD		

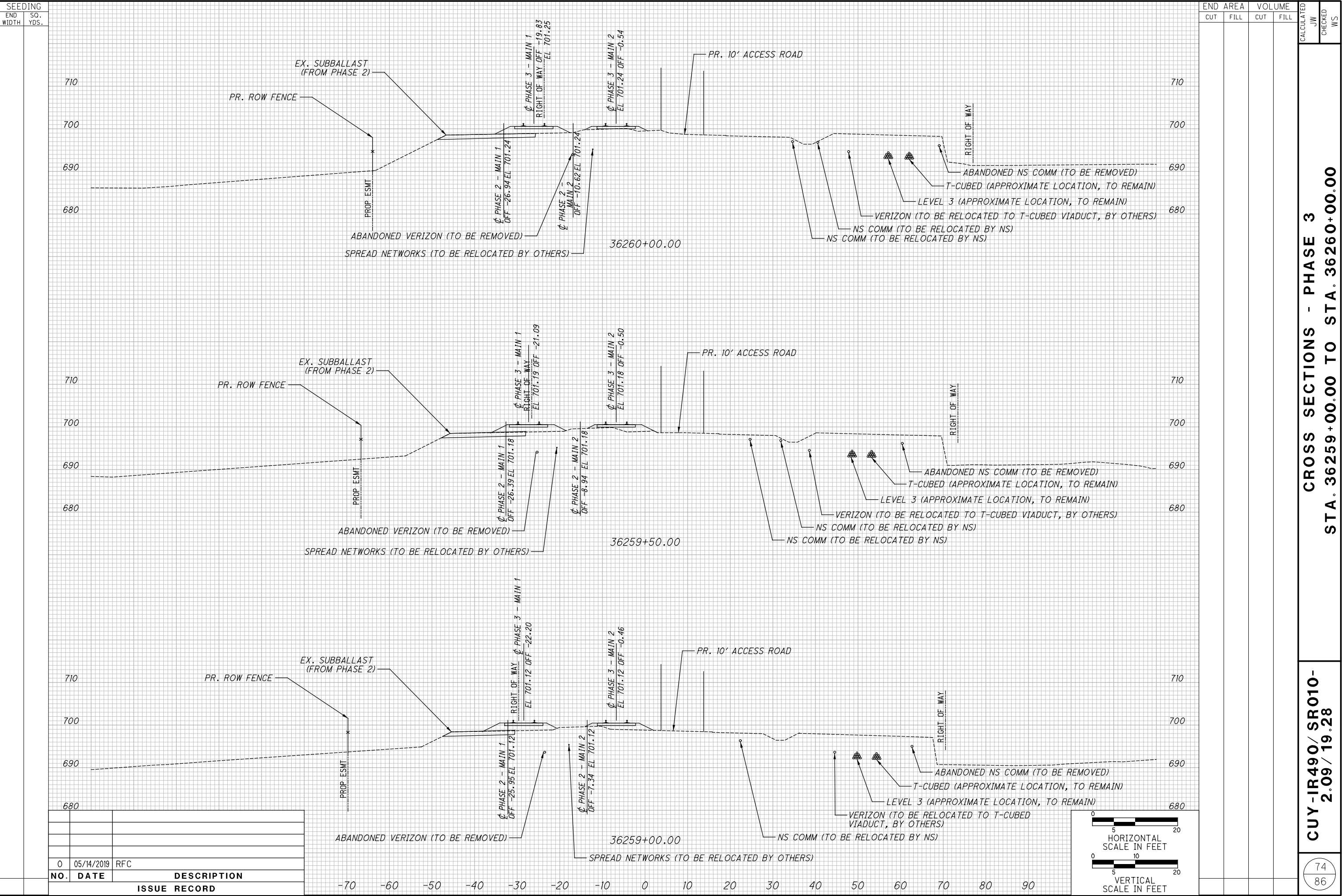
END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 2 STA. 26276+63.47					
CUY-IR490/SR010- 2.09/19.28					

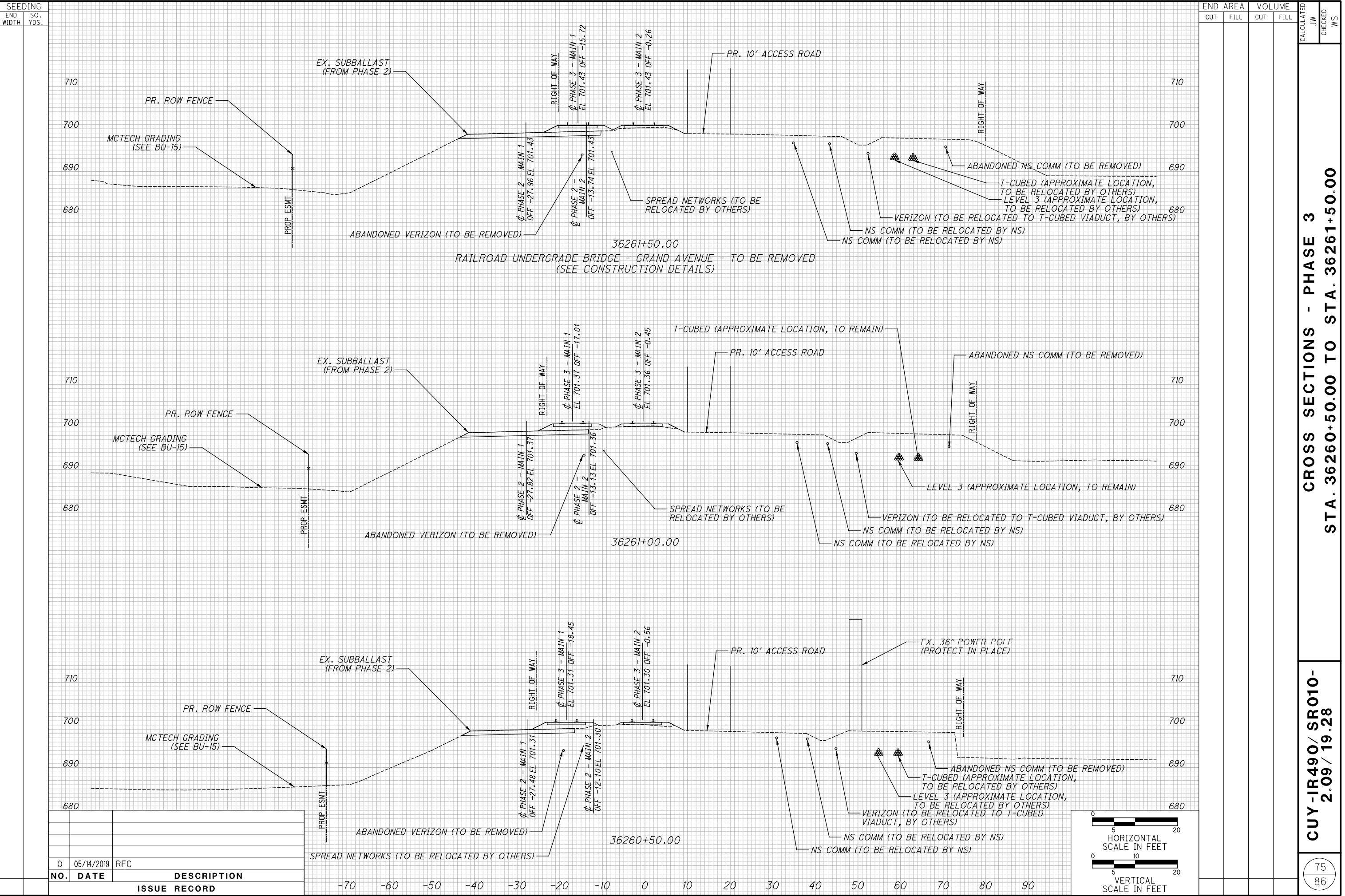
70
86

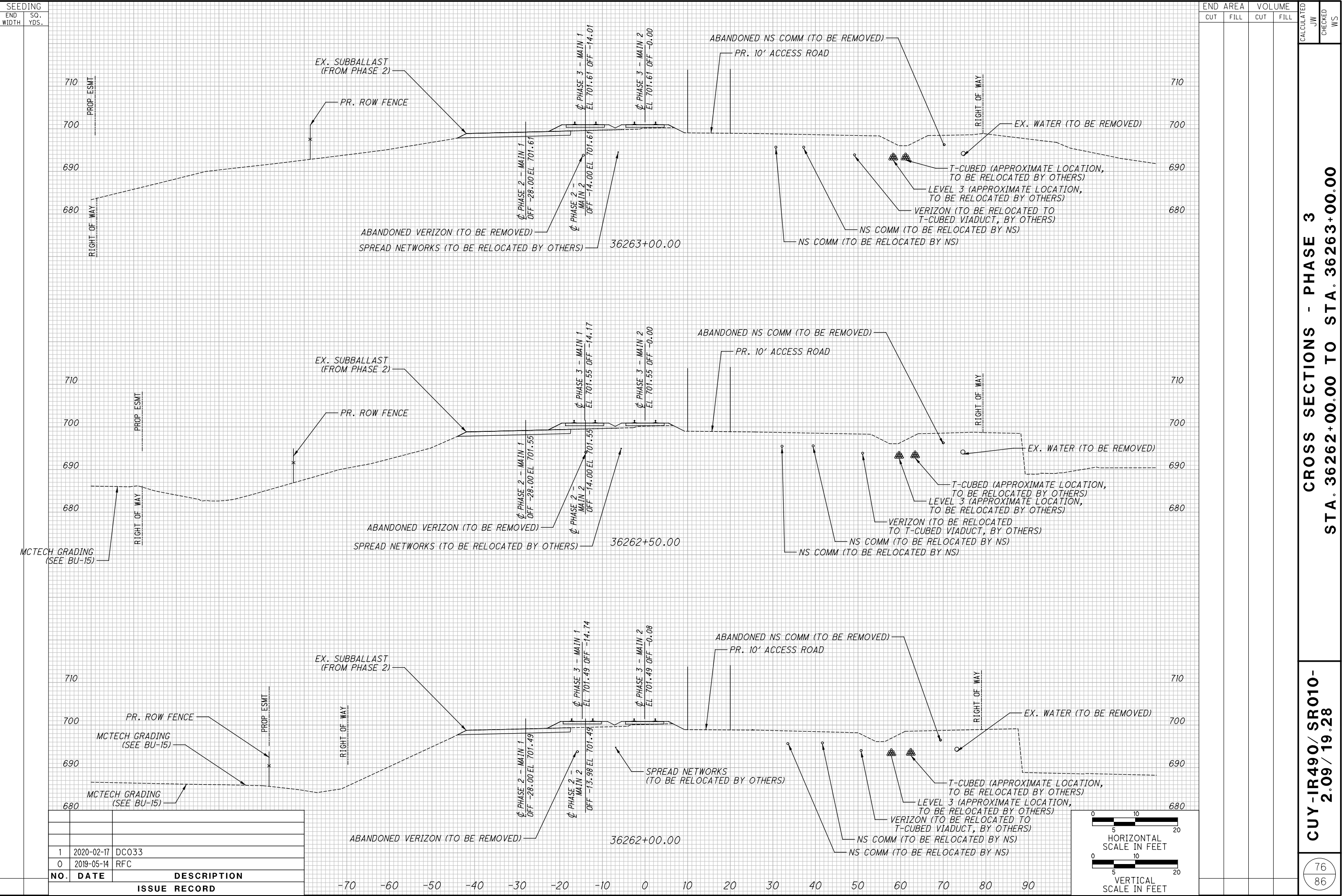


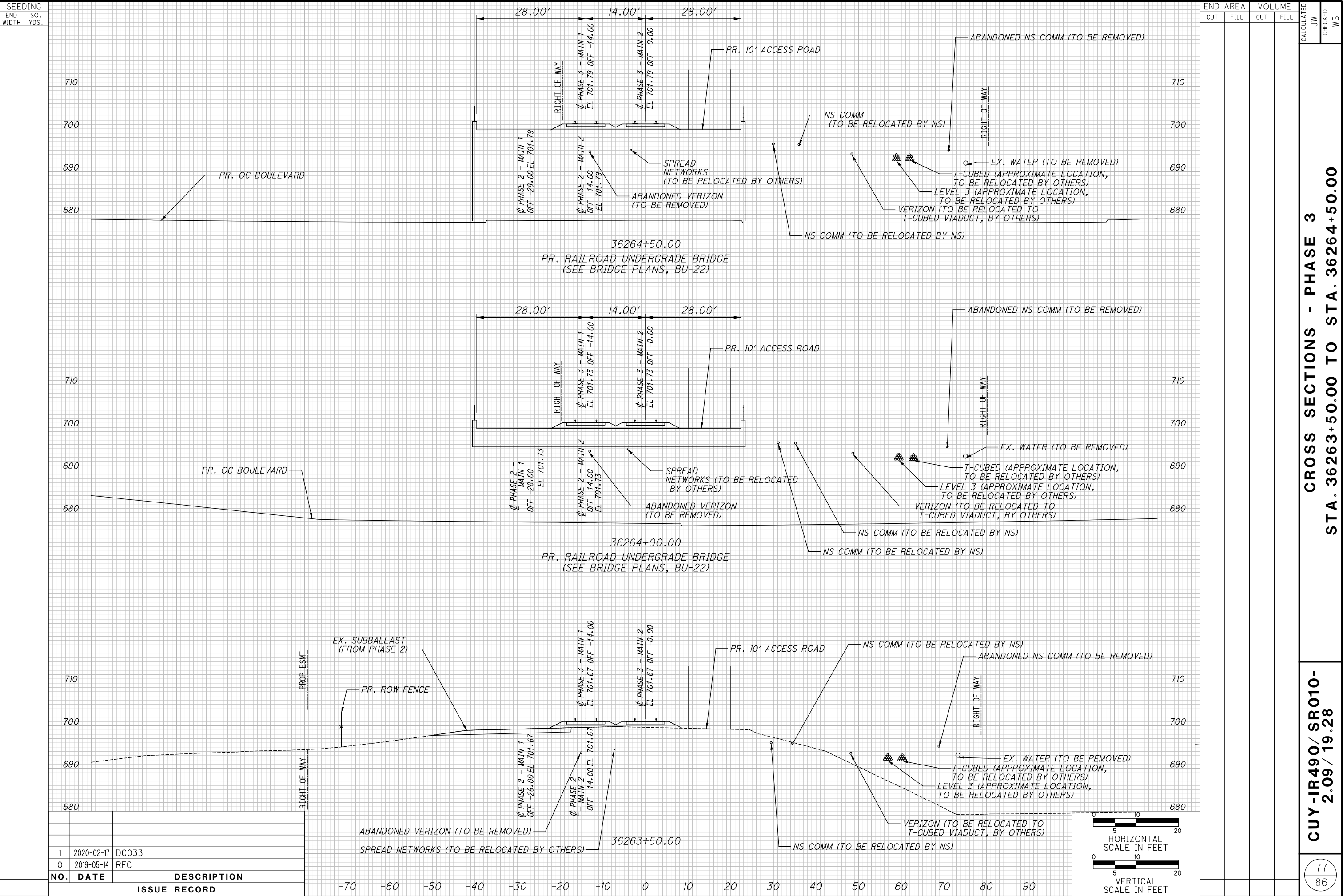


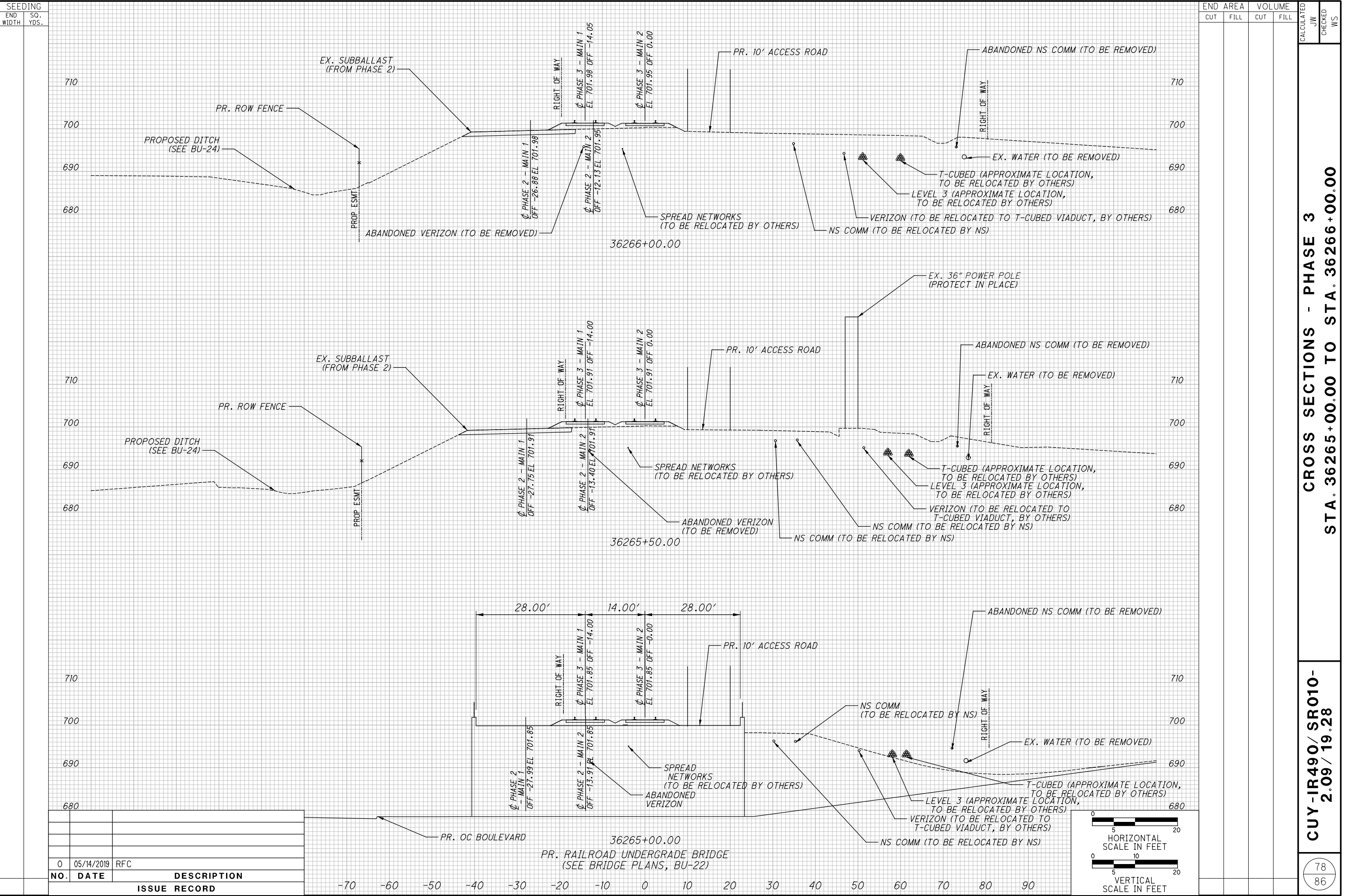
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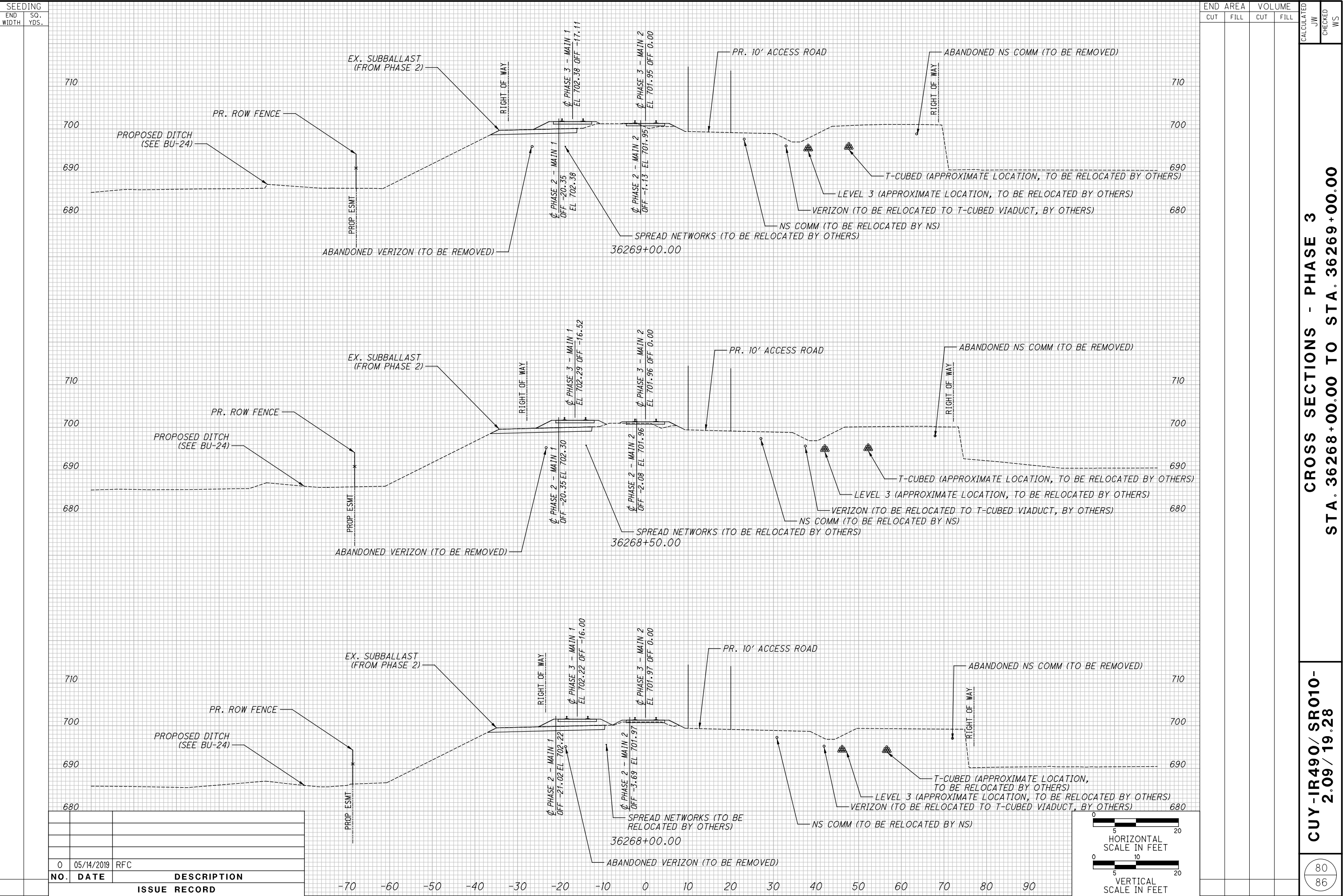


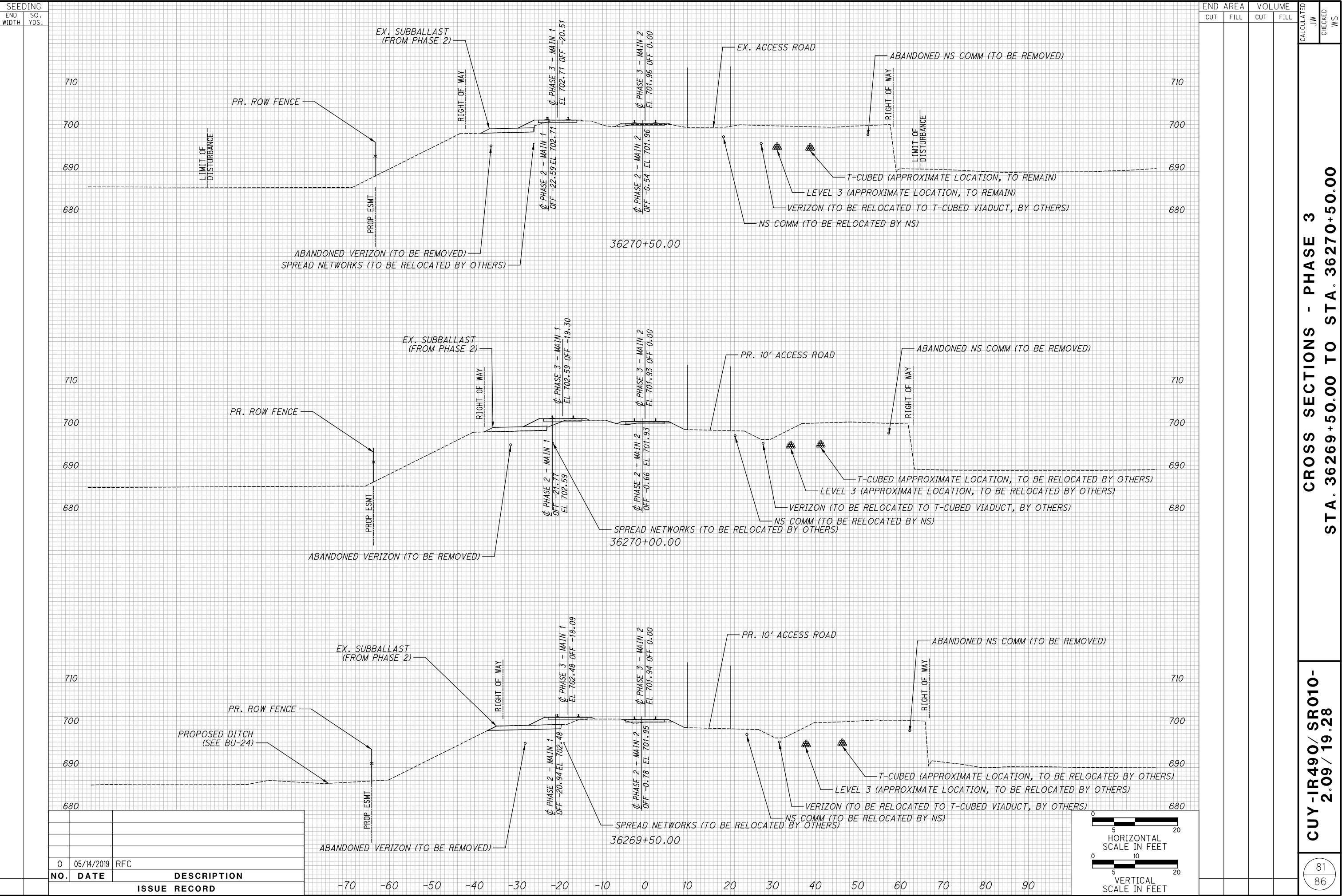


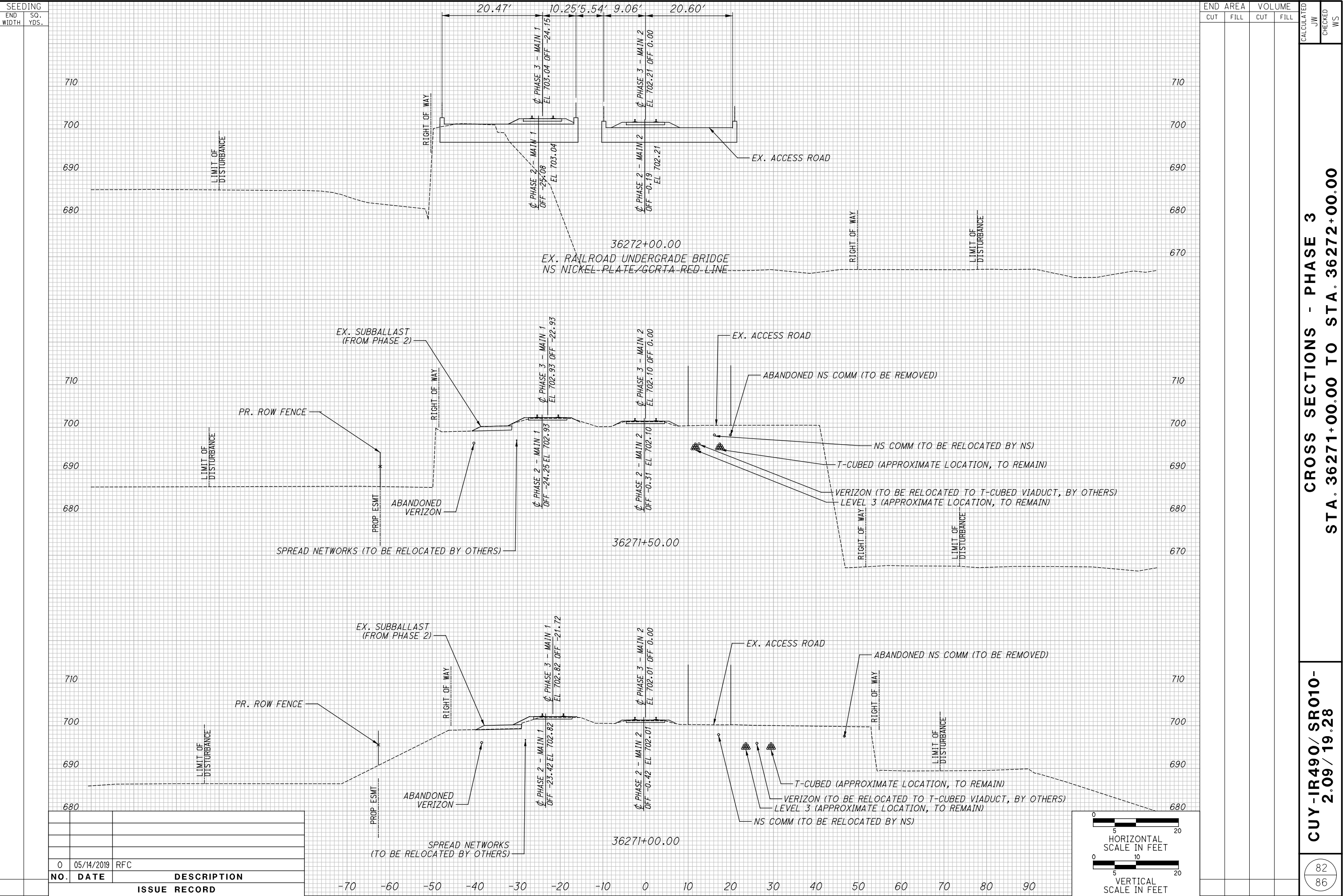
CROSS SECTIONS - PHASE 3
STA. 36265+00.00 TO STA. 36266+00.00

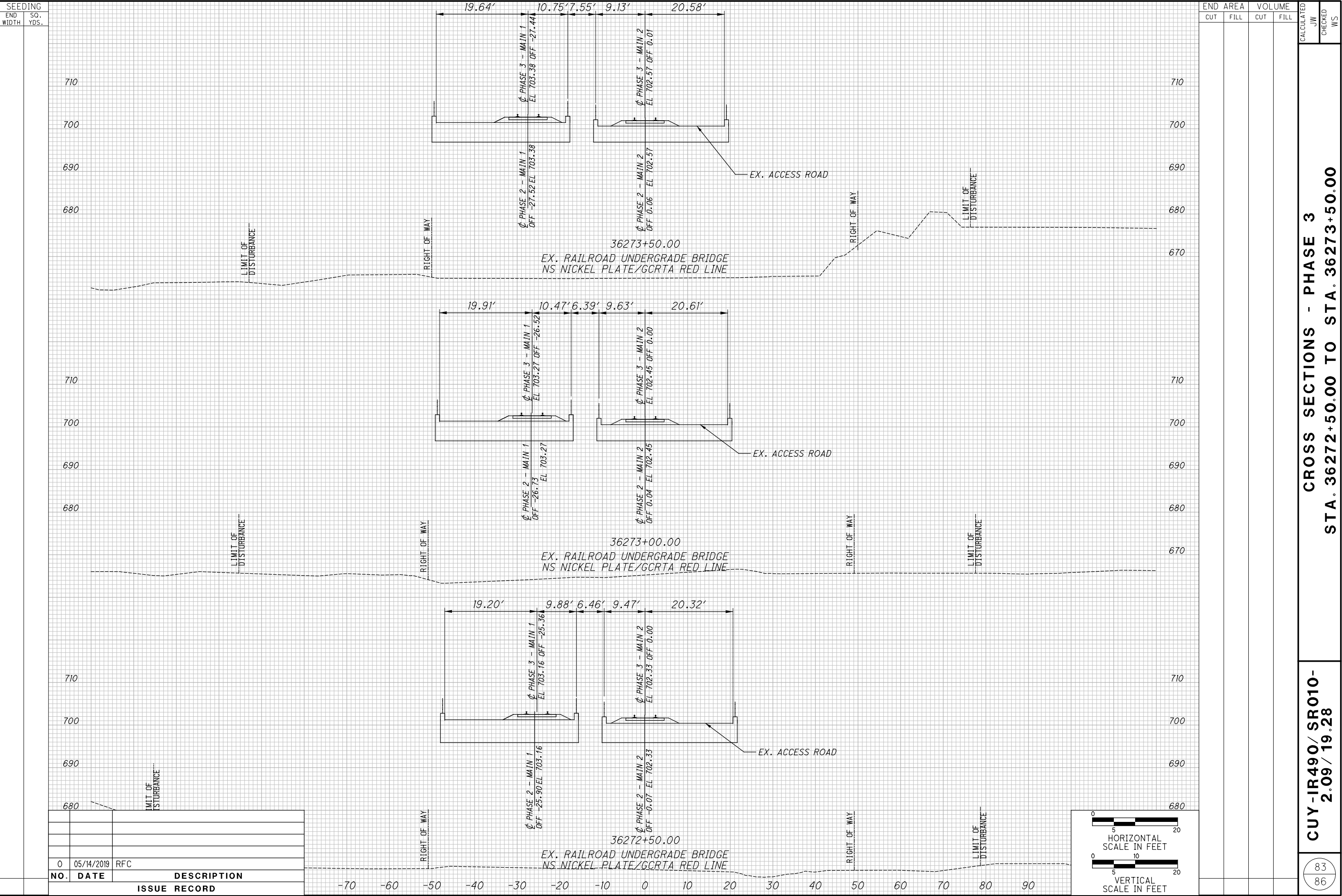
CUY-IR490/SR010-
2.09/19.28

[illegible]

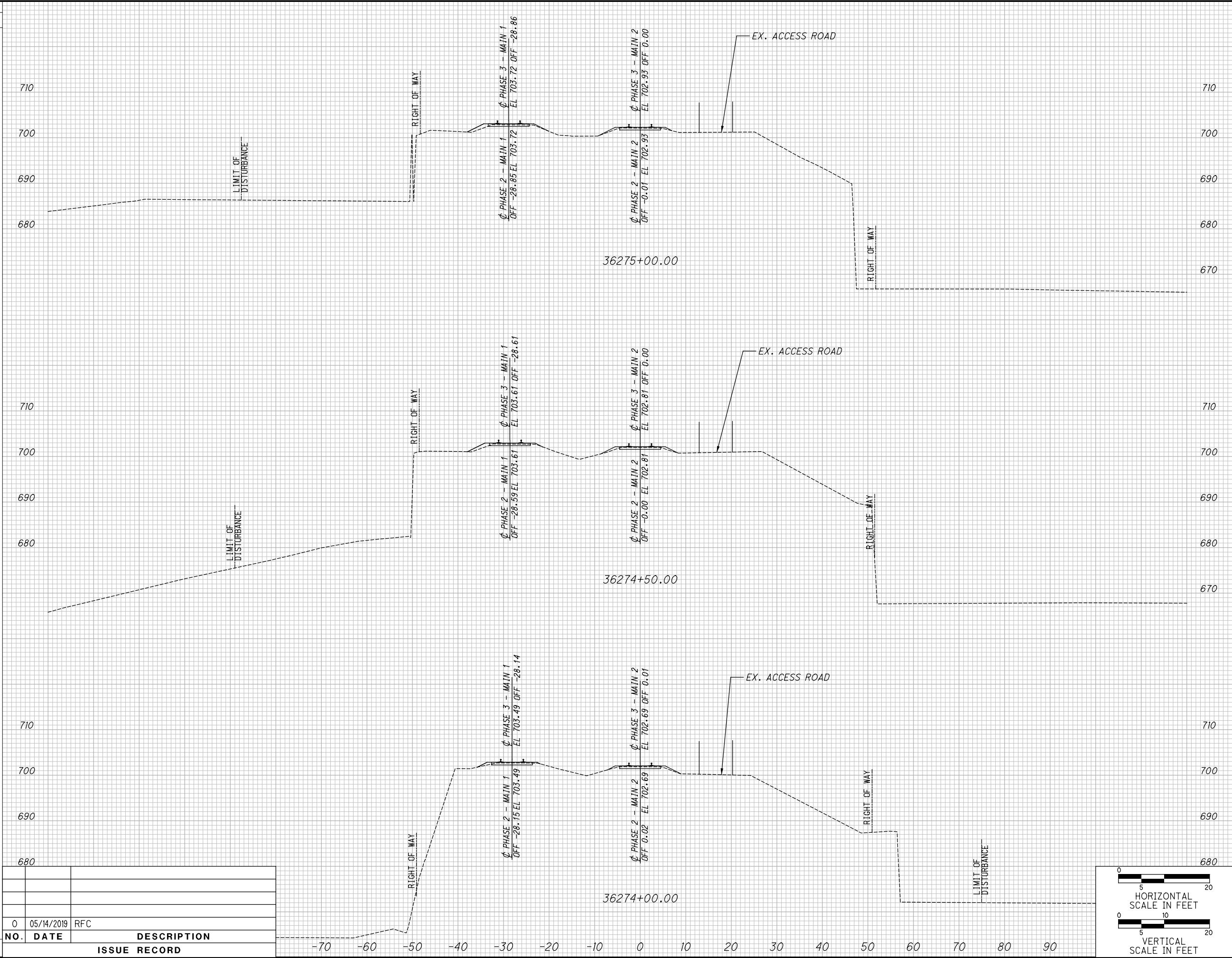




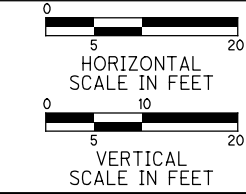




SEEDING	
END WIDTH	SO. YDS.



NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		



END AREA		VOLUME		CALCULATED JW	CHECKED WS
CUT	FILL	CUT	FILL		
CROSS SECTIONS - PHASE 3 STA. 36274+00.00 TO STA. 36275+00.00					
CUY-IR490/SR010- 2.09/19.28					
84 86					

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○

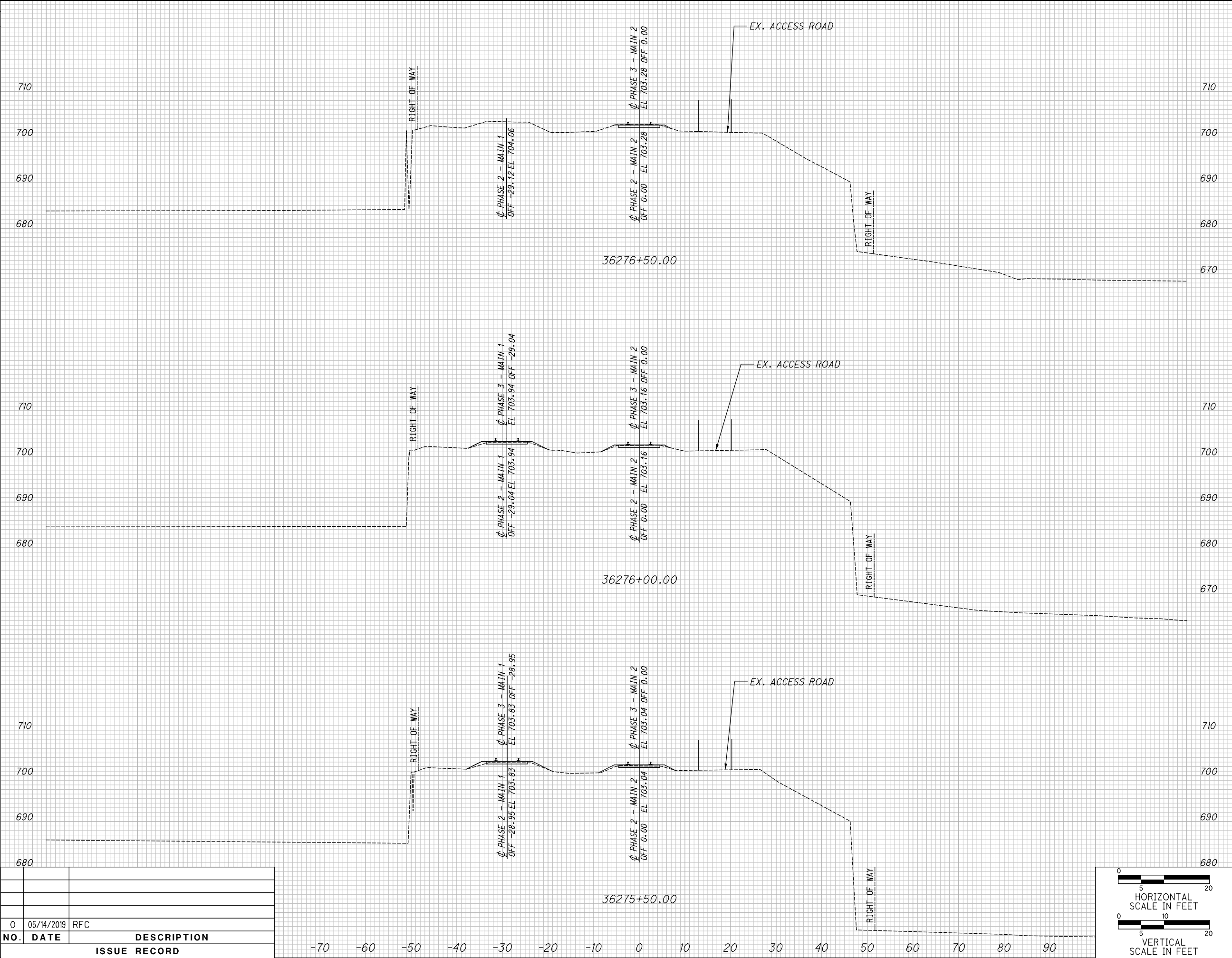
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BU-22 - NORFOLK SOUTHERN TRACKWORK AND GRAND AVE BRIDGE DEMOLITION

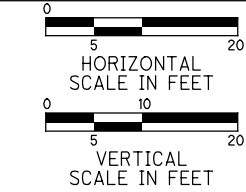
...\\Sheets\BU-22A\96833_XS401.dgn 5/13/2019 10:09:39 PM Jonathan.Wnek

SEEDING	
END WIDTH	SO. YDS.



NO.	DATE	DESCRIPTION
0	05/14/2019	RFC
ISSUE RECORD		

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90



END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED JW	CROSS SECTIONS - PHASE 3 STA. 36275+50.00 TO STA. 36276+50.00	
CHECKED WS		CUY-IR490/ SR010- 2.09 / 19.28

85
86

