

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

BUT-4-(9.28)(10.11)

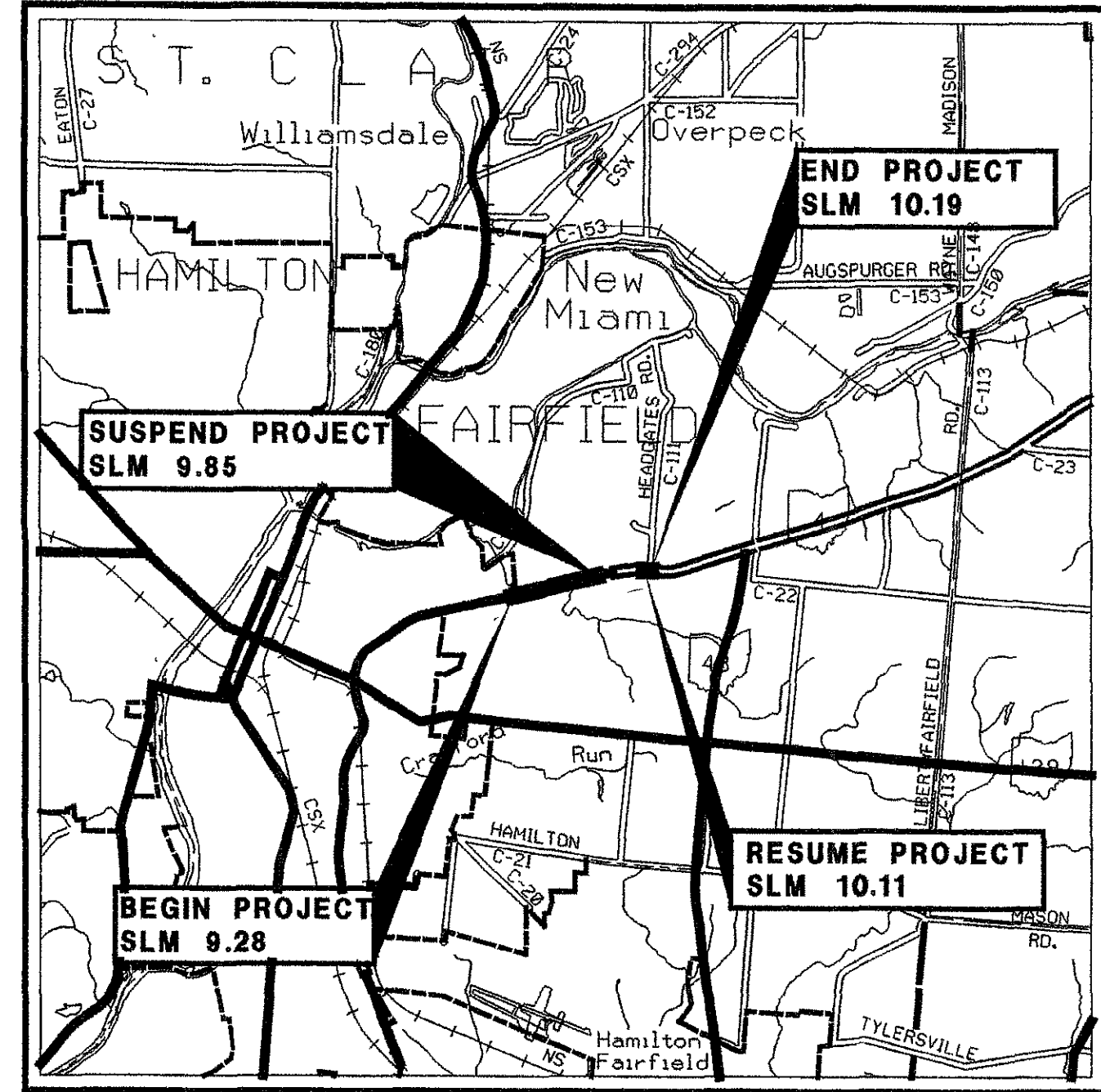
CITY OF HAMILTON
FAIRFIELD TOWNSHIP
BUTLER COUNTY

PROJECT DESCRIPTION

IMPROVEMENT OF 0.60 MILE OF S. R. 4 IN BUTLER COUNTY BY WIDENING AND CONSTRUCTION OF A CENTER TURN LANE, CONSTRUCTION OF A LEFT TURN LANE AT HEADGATES ROAD, RECONSTRUCTING PORTIONS OF STORM SEWERS AND RESURFACING WITH ASPHALT CONCRETE.

EARTH DISTURBED AREAS

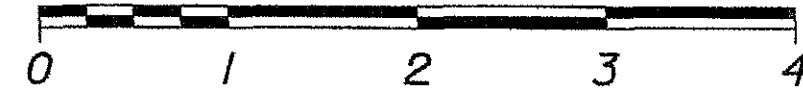
PROJECT EARTH DISTURBED AREA: 3.78 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA: 1.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA: 4.90 ACRES



LOCATION MAP

LATITUDE: 39°24'15" LONGITUDE: 84°31'45"

SCALE IN MILES



PORTION TO BE IMPROVED: INTERSTATE AND DIVIDED HIGHWAY: UNDIVIDED STATE AND FEDERAL ROUTES: OTHER ROADS:

INDEX OF SHEETS:

TITLE SHEET	1	PROJECT SITE PLAN	22-24
SCHEMATIC PLAN	2-3	PLAN AND PROFILE	25-32
TYPICAL SECTIONS	4-5	CROSS SECTIONS	33-82
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MAINTENANCE OF TRAFFIC	9-15	DRAINAGE DETAILS	87-88
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CALCULATIONS	21	SHEETS NOT USED	83-85

DESIGN DESIGNATION

CURRENT ADT (2007)	21300
DESIGN YEAR ADT (2027)	29200
DESIGN HOURLY VOLUME (2027)	2628
DIRECTIONAL DISTRIBUTION	60%
TRUCKS (24 HOUR B&C)	6.5%
DESIGN SPEED	55
LEGAL SPEED	55

DESIGN FUNCTIONAL CLASSIFICATION - URBAN ARTERIAL

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATE	SHEET NO.
LANE WIDTH	2-09-05	4
SHOULDER WIDTH	2-09-05	4

UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG
CALL 1-800-362-2764 (TOLL FREE)
OHIO UTILITIES PROTECTION SERVICE
NON-MEMBERS
MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
OHIO DEPARTMENT OF
TRANSPORTATION
DISTRICT 8 - PRODUCTION

ENGINEERS SEAL:

SIGNED: *Douglas A. Gruver*
DATE: 10-3-07

STANDARD CONSTRUCTION DRAWINGS						SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	7-16-04	GR-5.2	1-16-04	DM-1.1	4-21-06	800	10-19-07
BP-4.1	7-16-04			DM-1.2	10-21-05	802	4-15-05
BP-5.1	7-28-00	MH-1.1	7-19-02	DM-1.4	4-21-06	832	4-25-06
BP-7.1	1-19-07	MH-1.2	1-20-06	DM-3.1	7-19-02		
				DM-4.3	7-19-02	836	4-15-05
				DM-4.4	7-19-02	878	4-21-06
CB-1.1	7-15-05						
CB-1.2	7-15-05	MT-35.10	4-20-01				
CB-1.3	7-15-05	MT-95.30	9-05-06	TC-41.20	1-19-01		
CB-2.1	7-15-05	MT-95.31	9-05-06	TC-42.20	7-16-04		
CB-3.3	7-15-05	MT-95.32	9-05-06	TC-52.20	1-19-07		
		MT-97.10	9-05-06	TC-65.10	1-21-05		
GR-1.1	7-16-04	MT-97.11	9-05-06	TC-65.11	1-21-05		
GR-2.1	1-16-04	MT-99.20M	1-30-95	TC-71.10	1-19-07		
GR-4.1	4-18-03	MT-101.20	10-18-02	TC-73.10	1-19-01		
GR-4.2	1-19-07	MT-105.10	10-18-02				
GR-5.1	4-18-03	MT-105.11	10-18-02				

2005 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.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED: *[Signature]*
DATE 10/3/07 DISTRICT DEPUTY DIRECTOR

APPROVED: *[Signature]*
DATE 10-22-07 DIRECTOR, DEPARTMENT OF TRANSPORTATION

BUT - SR-4(9.28)(10.11)
080004 PID - 21946
Dist 8 1/9/2008

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FEDERAL PROJECT NO.
E070372

PID NO.
21946

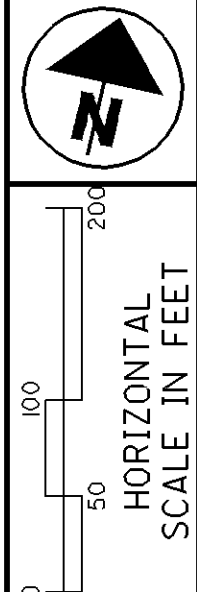
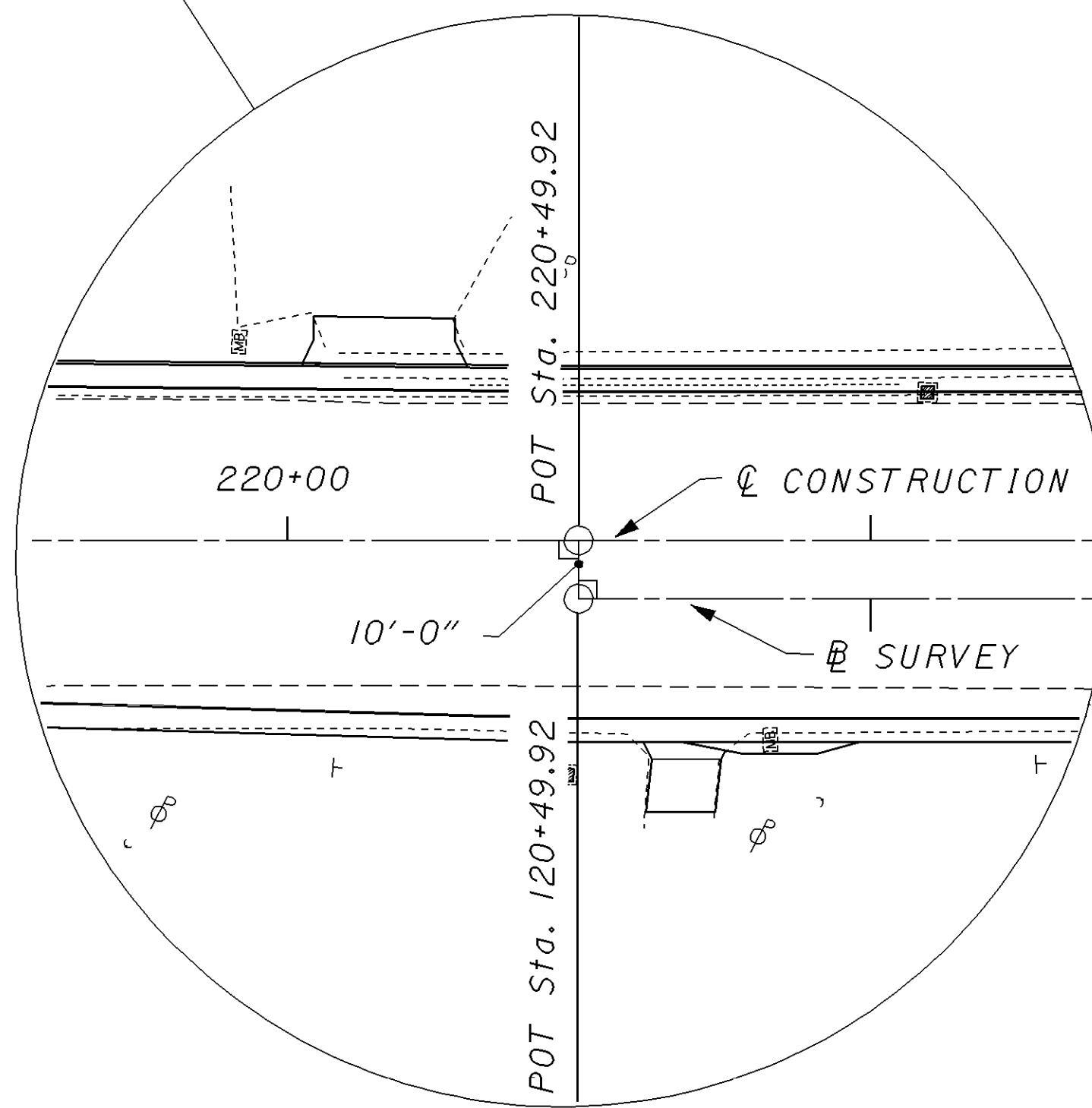
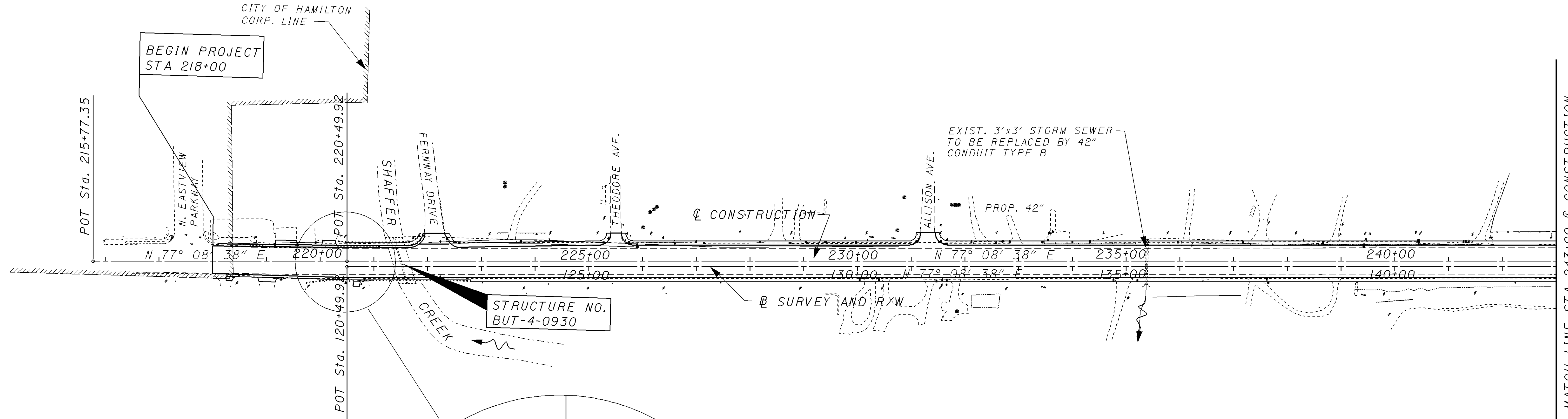
CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT
NONE

BUT - 4 - (9.28)(10.11)

CENTERLINE REFERENCES

<p>Sta. 120+49.92, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>120+49.92</td> <td>22.00' Rt.</td> </tr> <tr> <td>2</td> <td>120+51.20</td> <td>38.46' Lt.</td> </tr> <tr> <td>3</td> <td>120+76.32</td> <td>38.70' Lt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	120+49.92	22.00' Rt.	2	120+51.20	38.46' Lt.	3	120+76.32	38.70' Lt.	<p>Sta. 125+00.00, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>124+99.25</td> <td>21.80' Rt.</td> </tr> <tr> <td>2</td> <td>125+00.00</td> <td>40.00' Lt.</td> </tr> <tr> <td>3</td> <td>125+14.96</td> <td>39.75' Lt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	124+99.25	21.80' Rt.	2	125+00.00	40.00' Lt.	3	125+14.96	39.75' Lt.	<p>Sta. 130+00.00, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>129+89.99</td> <td>19.77' Rt.</td> </tr> <tr> <td>2</td> <td>130+15.69</td> <td>19.20' Rt.</td> </tr> <tr> <td>3</td> <td>130+64.24</td> <td>53.52' Lt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	129+89.99	19.77' Rt.	2	130+15.69	19.20' Rt.	3	130+64.24	53.52' Lt.	<p>Sta. 135+00.00, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>134+77.81</td> <td>20.20' Rt.</td> </tr> <tr> <td>2</td> <td>135+13.27</td> <td>38.61' Lt.</td> </tr> <tr> <td>3</td> <td>135+14.15</td> <td>19.65' Rt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	134+77.81	20.20' Rt.	2	135+13.27	38.61' Lt.	3	135+14.15	19.65' Rt.	<p>Sta. 140+00.00, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>139+61.30</td> <td>17.39' Rt.</td> </tr> <tr> <td>2</td> <td>139+92.61</td> <td>40.15' Lt.</td> </tr> <tr> <td>3</td> <td>140+24.99</td> <td>28.04' Rt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	139+61.30	17.39' Rt.	2	139+92.61	40.15' Lt.	3	140+24.99	28.04' Rt.	<p>Sta. 143+27.99, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>142+98.98</td> <td>20.71' Rt.</td> </tr> <tr> <td>2</td> <td>143+29.88</td> <td>20.82' Rt.</td> </tr> <tr> <td>3</td> <td>143+51.80</td> <td>20.93' Rt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	142+98.98	20.71' Rt.	2	143+29.88	20.82' Rt.	3	143+51.80	20.93' Rt.	<p>Sta. 146+27.99, S. R. 4 • P.K.S. on \mathcal{E} survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>146+05.95</td> <td>20.07' Rt.</td> </tr> <tr> <td>2</td> <td>146+27.56</td> <td>20.65' Rt.</td> </tr> <tr> <td>3</td> <td>146+49.21</td> <td>20.88' Rt.</td> </tr> </tbody> </table>	Pin No.	Stationing	Offset	1	146+05.95	20.07' Rt.	2	146+27.56	20.65' Rt.	3	146+49.21	20.88' Rt.
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SCHEMATIC PLAN

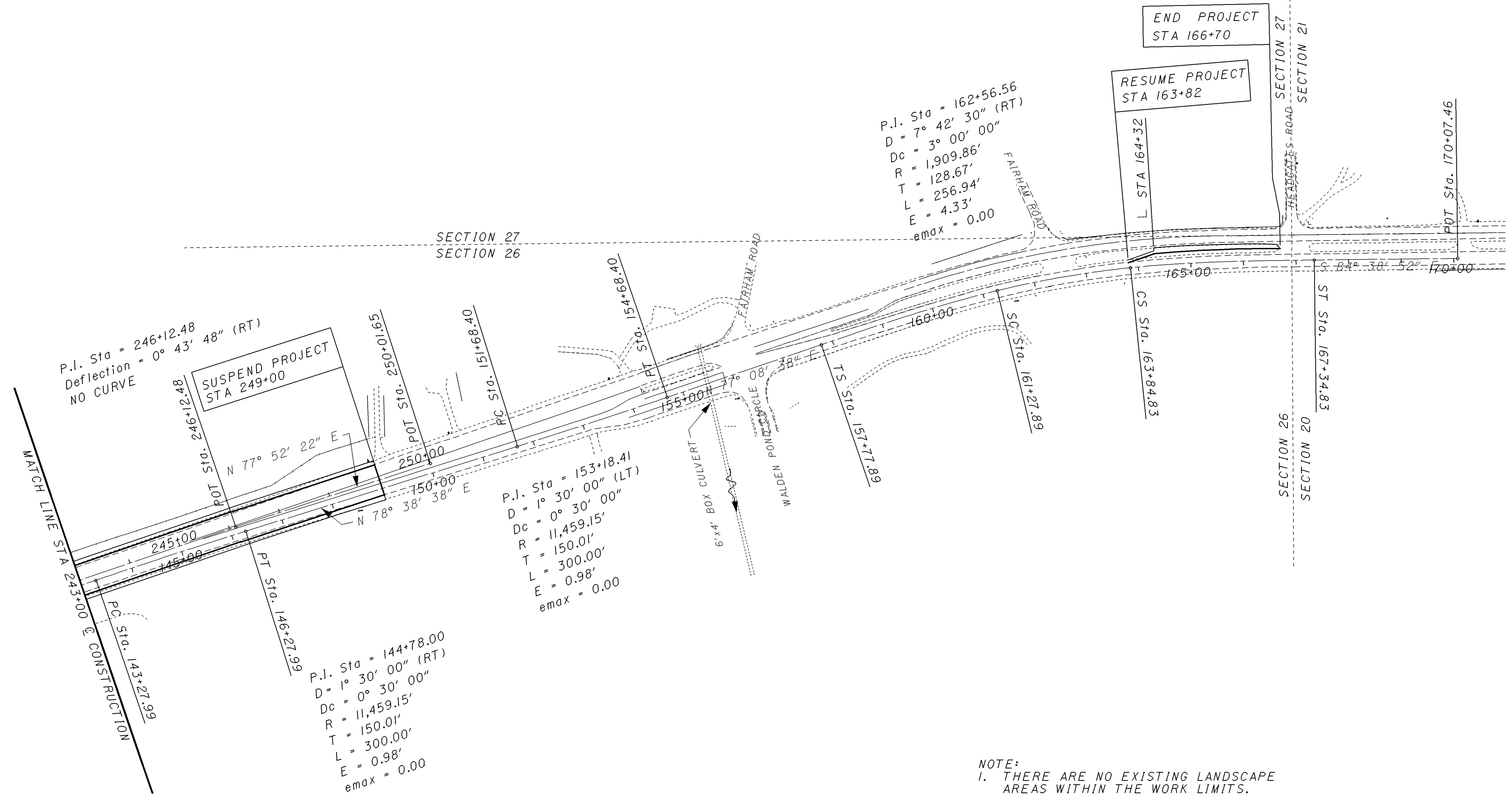
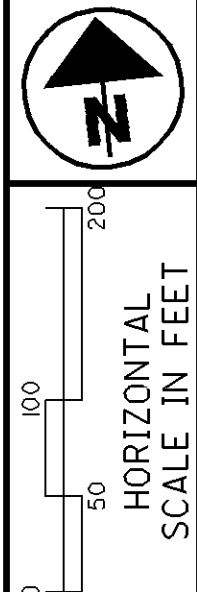
BUT-4-(9.28)(10.11)

NOTE:
1. THERE ARE NO EXISTING LANDSCAPE AREAS WITHIN THE WORK LIMITS.

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CENTERLINE REFERENCES

<p>Sta. 151+68.40, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>151+50.33</td><td>20.13' Rt.</td></tr> <tr><td>2</td><td>151+69.39</td><td>20.72' Lt.</td></tr> <tr><td>3</td><td>151+85.20</td><td>20.27' Rt.</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	151+50.33	20.13' Rt.	2	151+69.39	20.72' Lt.	3	151+85.20	20.27' Rt.	<p>Sta. 154+68.40, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>154+55.46</td><td>32.69' Rt.</td></tr> <tr><td>2</td><td>154+67.66</td><td>21.40' Lt.</td></tr> <tr><td>3</td><td>154+80.59</td><td>32.59' Rt.</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	154+55.46	32.69' Rt.	2	154+67.66	21.40' Lt.	3	154+80.59	32.59' Rt.	<p>Sta. 157+77.89, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>157+63.19</td><td>19.11' Rt.</td></tr> <tr><td>2</td><td>157+91.27</td><td>19.78' Rt.</td></tr> <tr><td>3</td><td>157+91.92</td><td>15.18' Lt.</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	157+63.19	19.11' Rt.	2	157+91.27	19.78' Rt.	3	157+91.92	15.18' Lt.	<p>Sta. 161+27.89, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>161+12.35</td><td>20.75' Rt.</td></tr> <tr><td>2</td><td>161+27.53</td><td>14.28' Lt.</td></tr> <tr><td>3</td><td>161+42.53</td><td>21.12' Rt.</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	161+12.35	20.75' Rt.	2	161+27.53	14.28' Lt.	3	161+42.53	21.12' Rt.	<p>Sta. 163+84.83, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>163+57.55</td><td>15.22' Rt.</td></tr> <tr><td>2</td><td>163+75.72</td><td>13.75' Lt.</td></tr> <tr><td>3</td><td>164+00.80</td><td>13.69' Lt.</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	163+57.55	15.22' Rt.	2	163+75.72	13.75' Lt.	3	164+00.80	13.69' Lt.	<p>Sta. 170+07.46, S. R. 4 • P.K.S. on @ survey</p> <table border="1"> <thead> <tr> <th>Pin No.</th> <th>Stationing</th> <th>Offset</th> </tr> </thead> <tbody> <tr><td>1</td><td>169+90.13</td><td>18.99' Rt.</td></tr> <tr><td>2</td><td>N/A</td><td>N/A</td></tr> <tr><td>3</td><td>N/A</td><td>N/A</td></tr> </tbody> </table>	Pin No.	Stationing	Offset	1	169+90.13	18.99' Rt.	2	N/A	N/A	3	N/A	N/A
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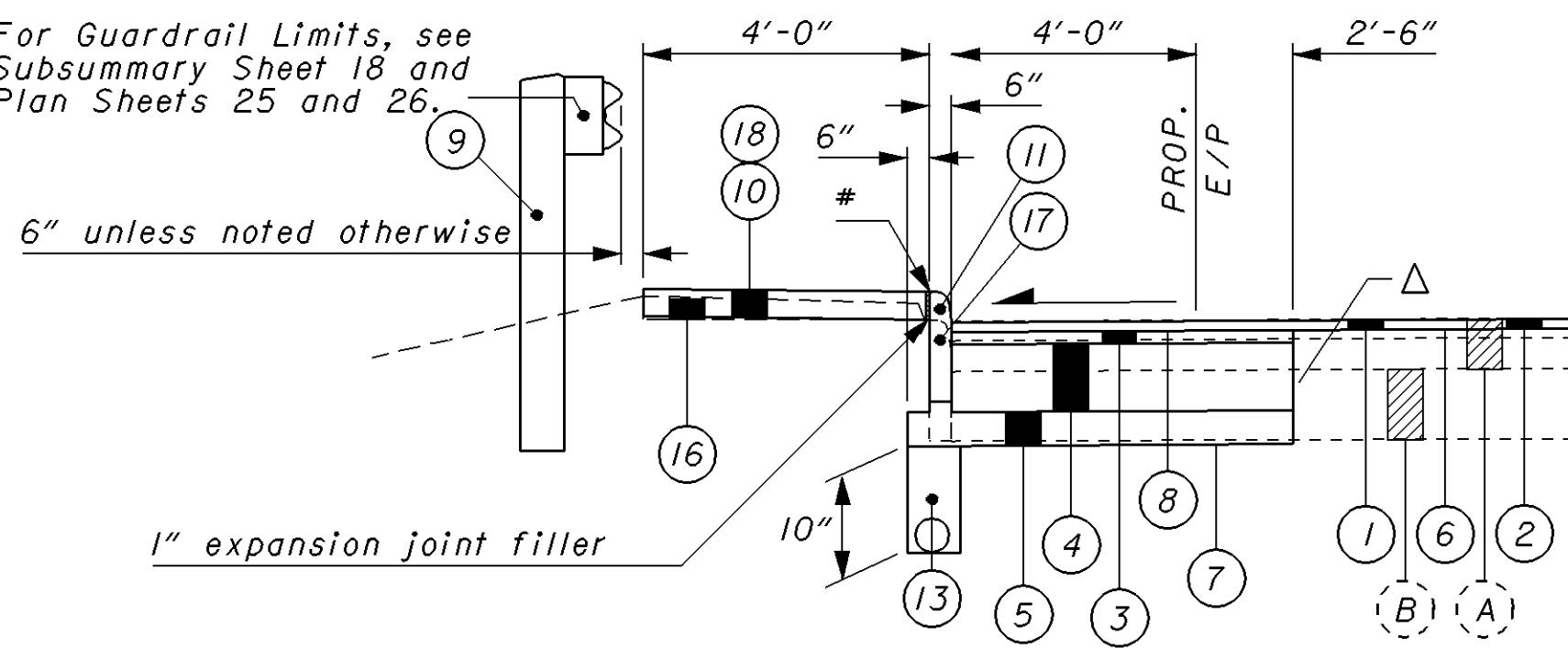
NOTE:
1. THERE ARE NO EXISTING LANDSCAPE AREAS WITHIN THE WORK LIMITS.

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SCHEMATIC PLAN

BUT-4-(9.28)(10.11)

For Guardrail Limits, see Subsummary Sheet 18 and Plan Sheets 25 and 26.



* Elevation to match existing conc. area; then transition in 10' to 6" above gutter
 Δ Sawcut into the existing pavement as per CMS 203.04.E.

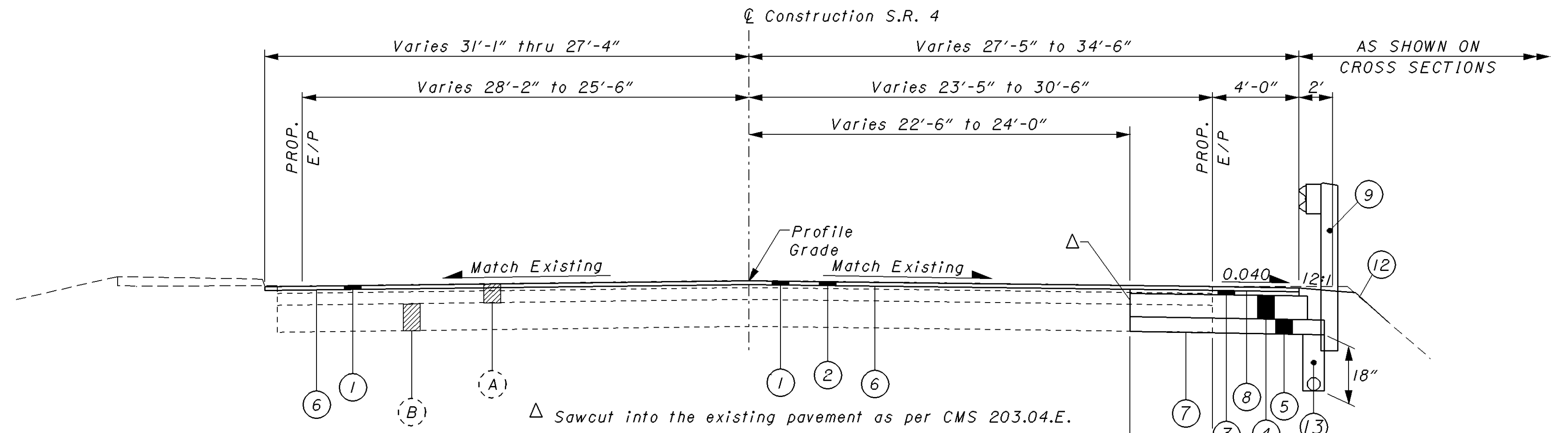
LEFT CURB AND WALK

SECTION APPLIES:

Sta. 218+09.50 to Sta. 218+70.00 = 60.50 Ft. Walk and underdrain do not apply.
 Sta. 218+70.00 to Sta. 221+66.00 = 296.00 Ft.
 Sta. 221+66.00 to Sta. 221+95.75 = 29.75 Ft. Underdrain and 2'-6" pavement width do not apply.
 Total = 386.25 Ft.

LEGEND

- ① Item 448 - 1 1/2" Asphalt Concrete Surface Course, Type IH
- ② Item 254 - 1 1/2" Pavement Planing, Asphalt Concrete
- ③ Item 448 - 1 3/4" Asphalt Concrete Intermediate Course, Type 2, PG64-28
- ④ Item 301 - 10" Asphalt Concrete Base, PG64-22
- ⑤ Item 304 - 6" Aggregate Base
- ⑥ Item 407 - Tack Coat (0.075 Gal./S.Y.)
- ⑦ Item 204 - Subgrade Compaction
- ⑧ Item 407 - Tack Coat for Intermediate Course (0.04 Gal./S.Y.)
- ⑨ Item 606 - Guardrail, Type 5
- ⑩ Item 608 - 4" Concrete Walk
- ⑪ Item 609 - Curb, Type 6
- ⑫ Item 659 - Seeding and Mulching
- ⑬ Item 605 - 6" Base Pipe Underdrains
- ⑭ Item 605 - 6" Shallow Pipe Underdrains
- ⑮ Item 605 - 6" Unclassified Pipe Underdrains
- ⑯ Item 202 - Walk Removed
- ⑰ Item 202 - Curb Removed
- ⑱ Item 452 - 6" Non-reinforced Concrete Pavement
- ⑲ Item 254 - Variable-depth Pavement Planing, Asphalt Concrete
- ⑲ Item 202 - Pavement Removed
- ⑲ Item 411 - 8" Stabilized Crushed Aggregate
- ⑲ Item 448 - 2" Asphalt Concrete Surface Course, Type I, PG64-22 (Driveways)
- ⑲ Item 408 - Prime Coat (0.40 Gal./S.Y.)
- ⑲ Item 605 - 8" Aggregate Drains
- (A) Existing Asphalt Pavement (mean depth highway 7") (est'd depth drive 2")
- (B) Existing Concrete Pavement (mean depth highway 9") (est'd depth drive 6")
- (C) Existing Aggregate Base

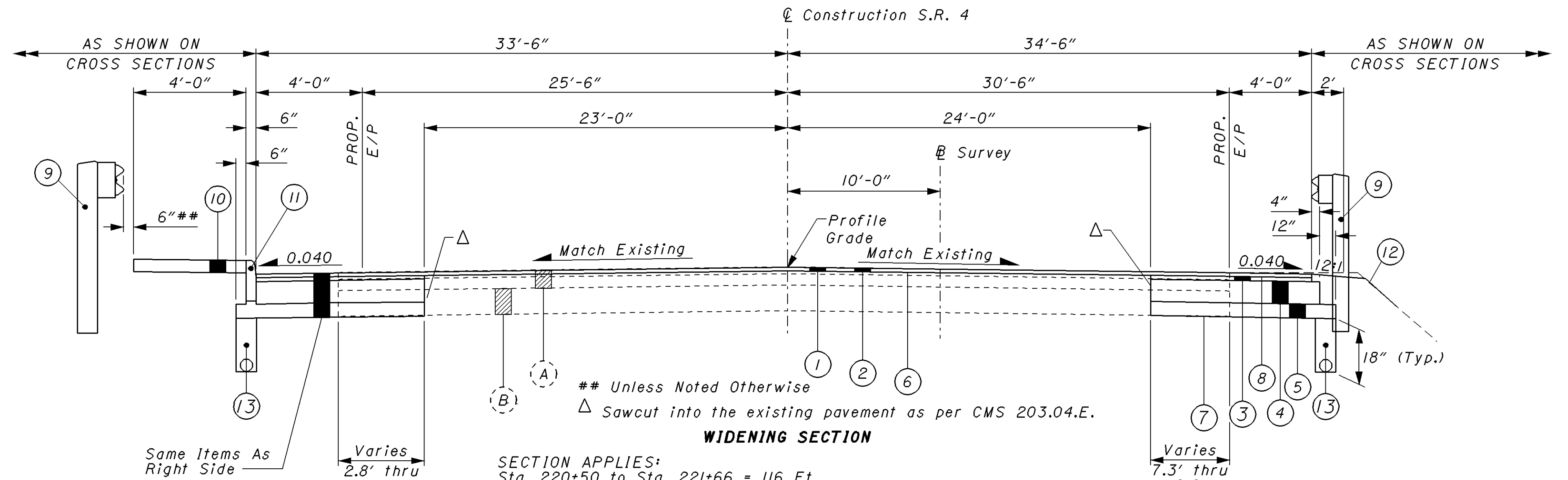


Δ Sawcut into the existing pavement as per CMS 203.04.E.

WIDENING SECTION

SECTION APPLIES:

Sta. 218+00 to Sta. 218+10 = 10 Ft. Widening right does not apply.
 Sta. 218+10 to Sta. 218+25 = 15 Ft. Widening right does not apply; curb and sidewalk left is not shown.
 Sta. 218+25 to Sta. 220+50 = 225 Ft. Curb and sidewalk left is not shown.
 Total = 250 Ft.

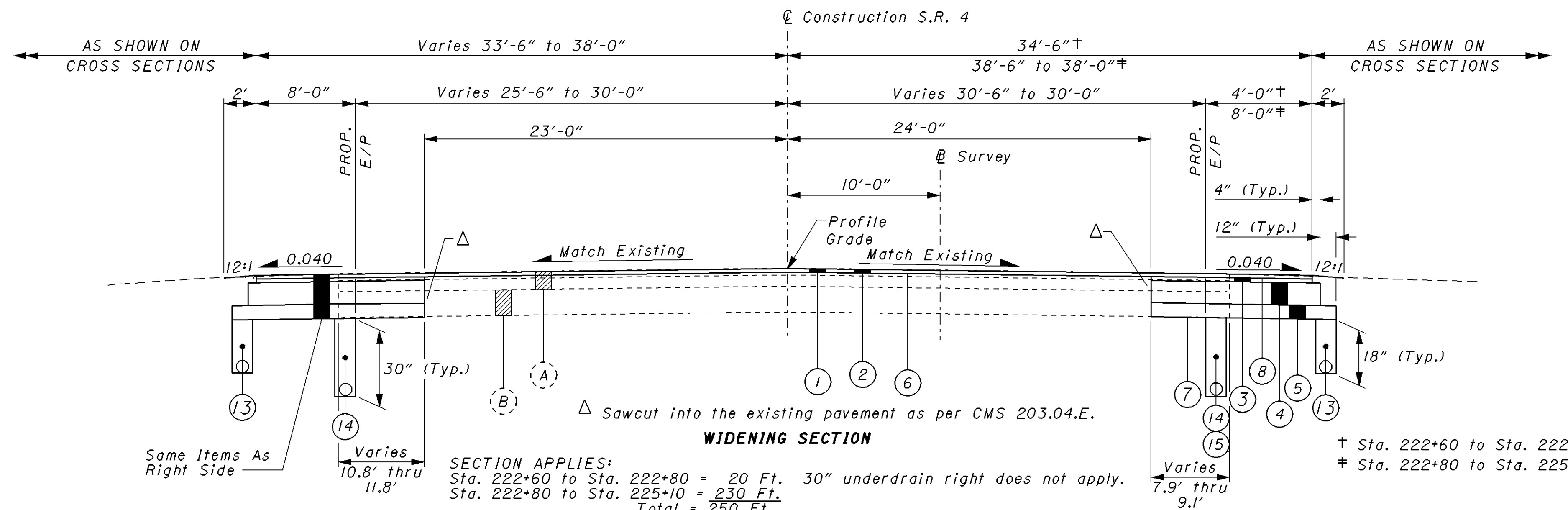


** Unless Noted Otherwise
 Δ Sawcut into the existing pavement as per CMS 203.04.E.

WIDENING SECTION

SECTION APPLIES:

Sta. 220+50 to Sta. 221+66 = 116 Ft.
 Sta. 221+66 to Sta. 222+60 = 94 Ft. Widening left does not apply.
 Total = 210 Ft.



Δ Sawcut into the existing pavement as per CMS 203.04.E.

WIDENING SECTION

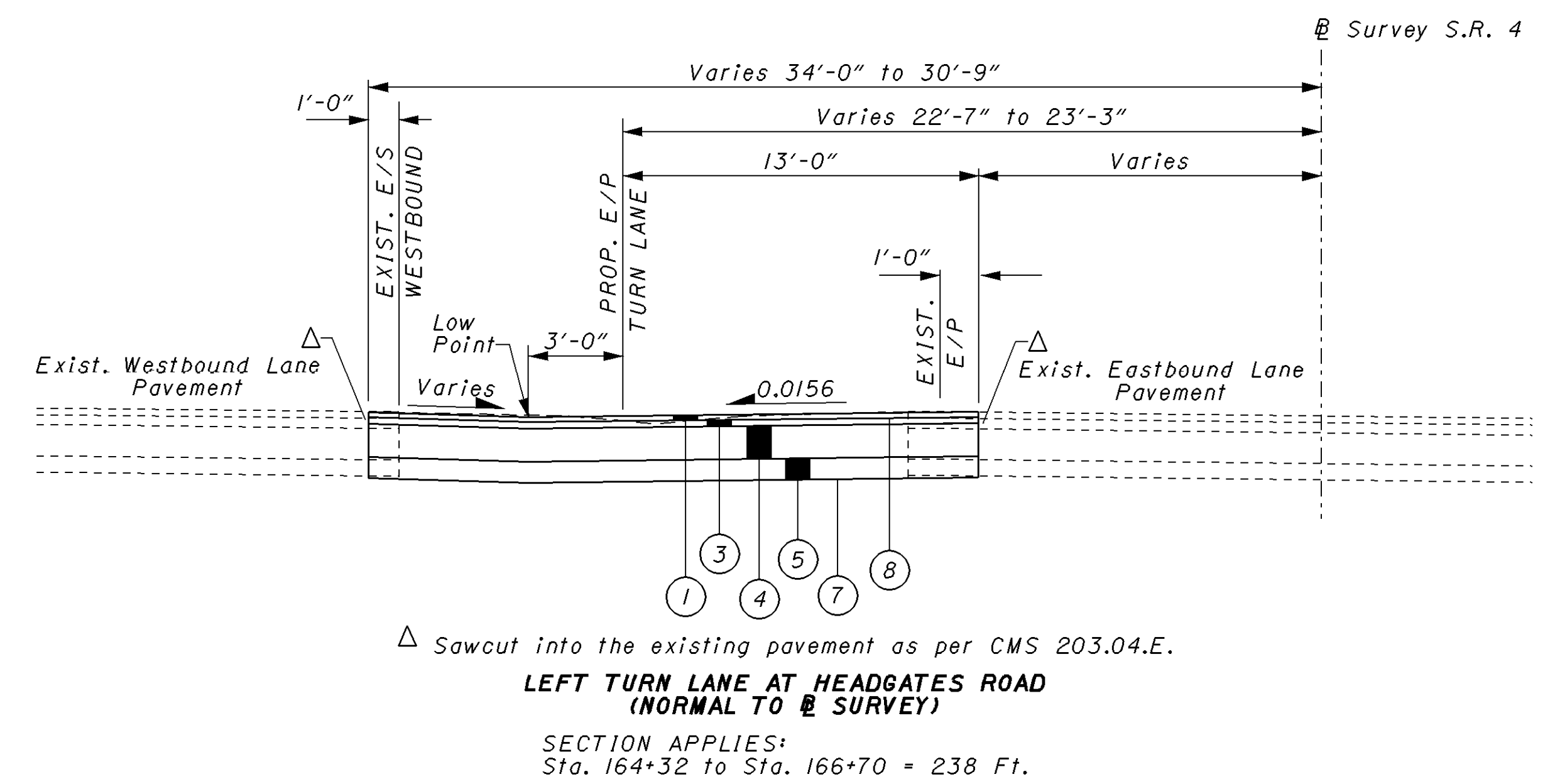
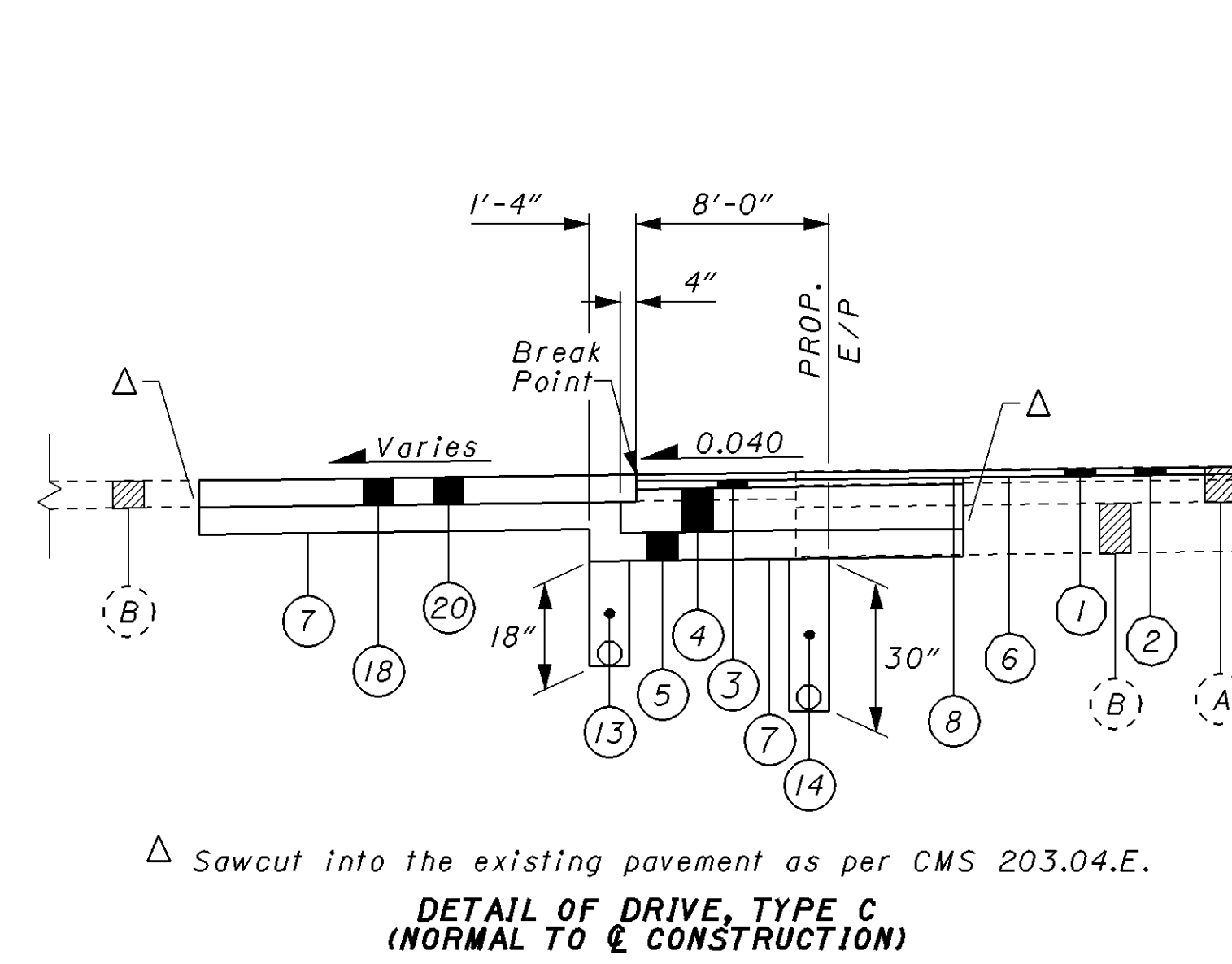
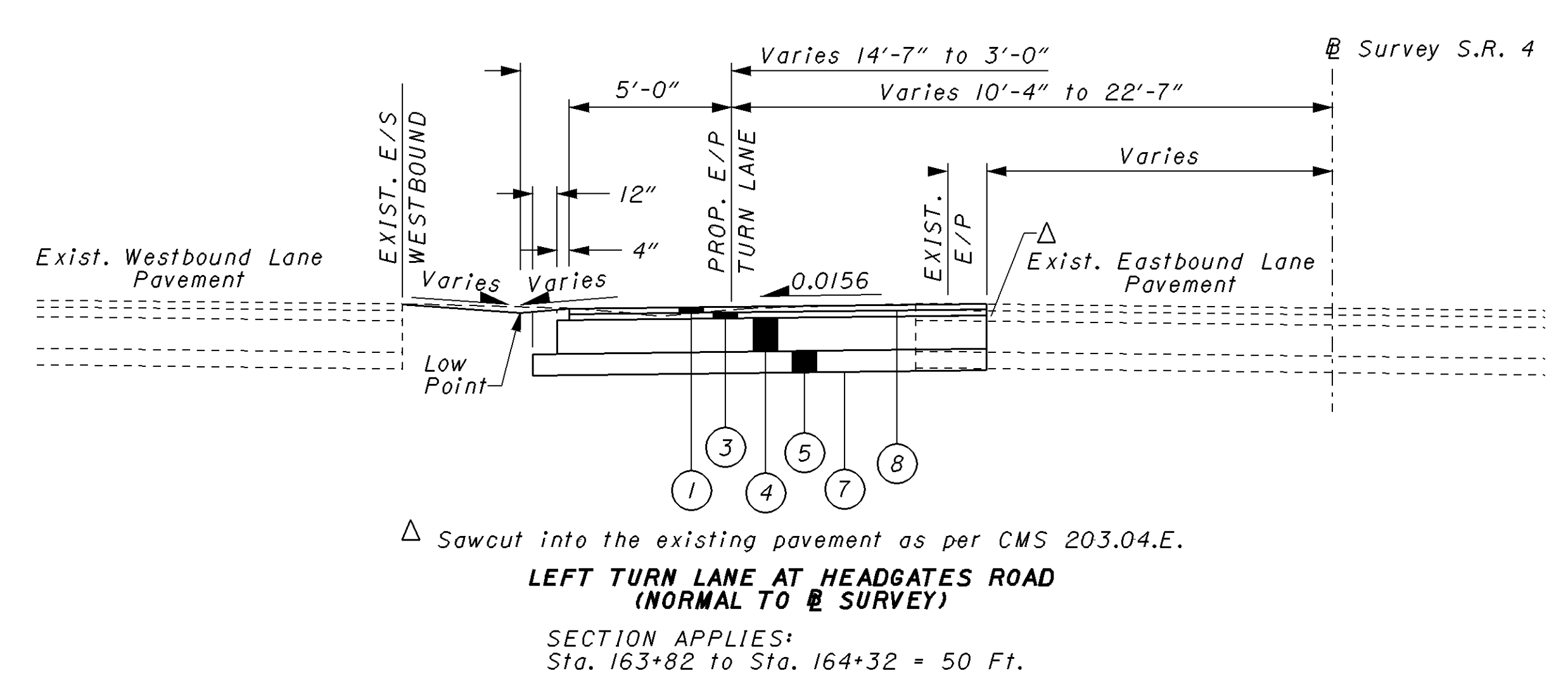
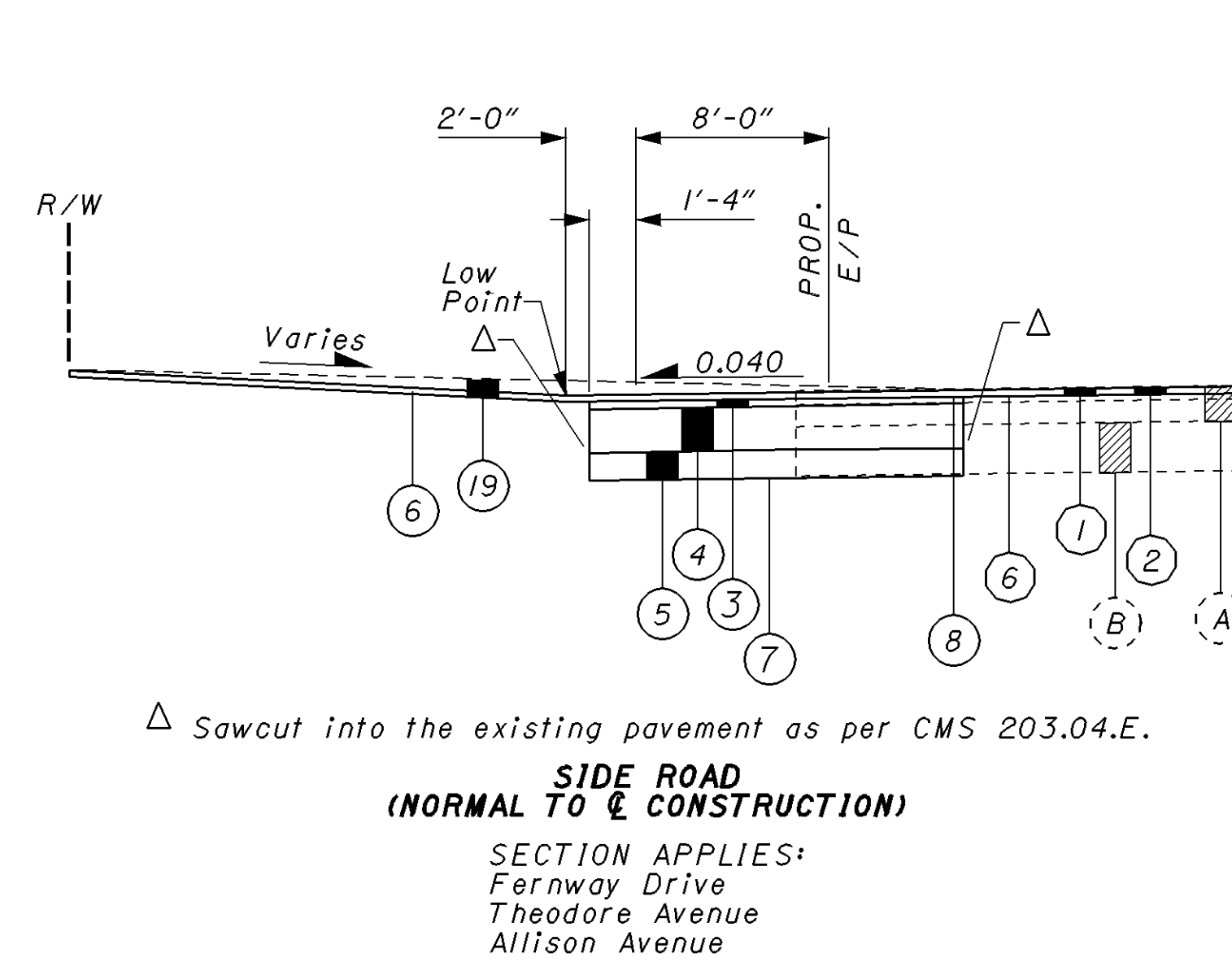
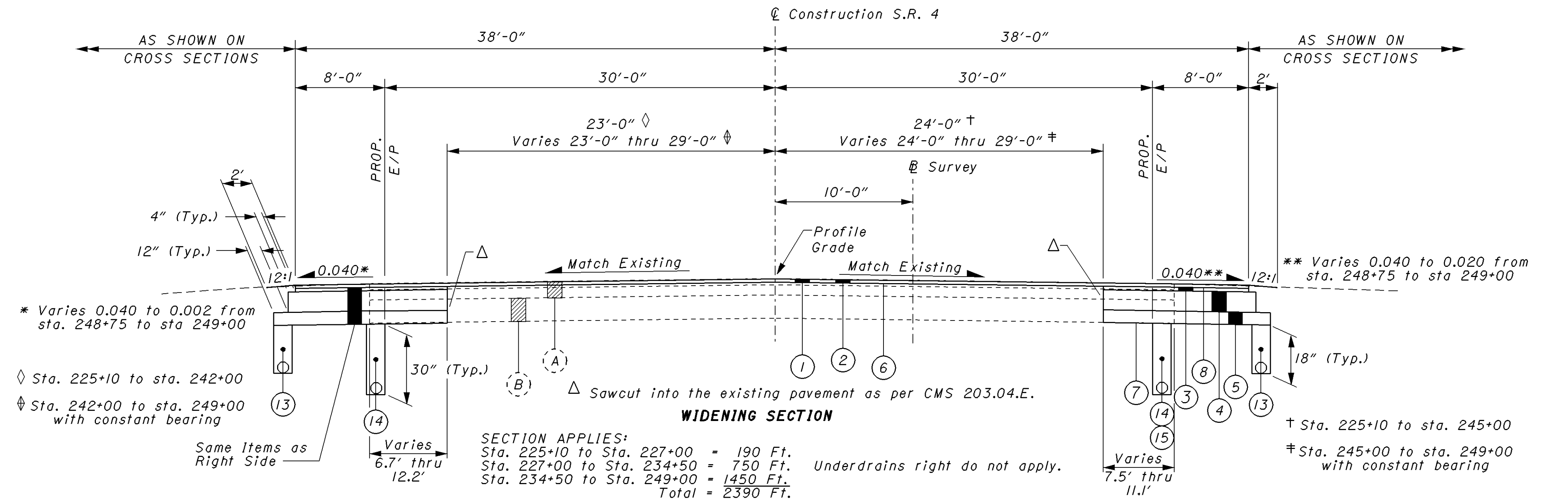
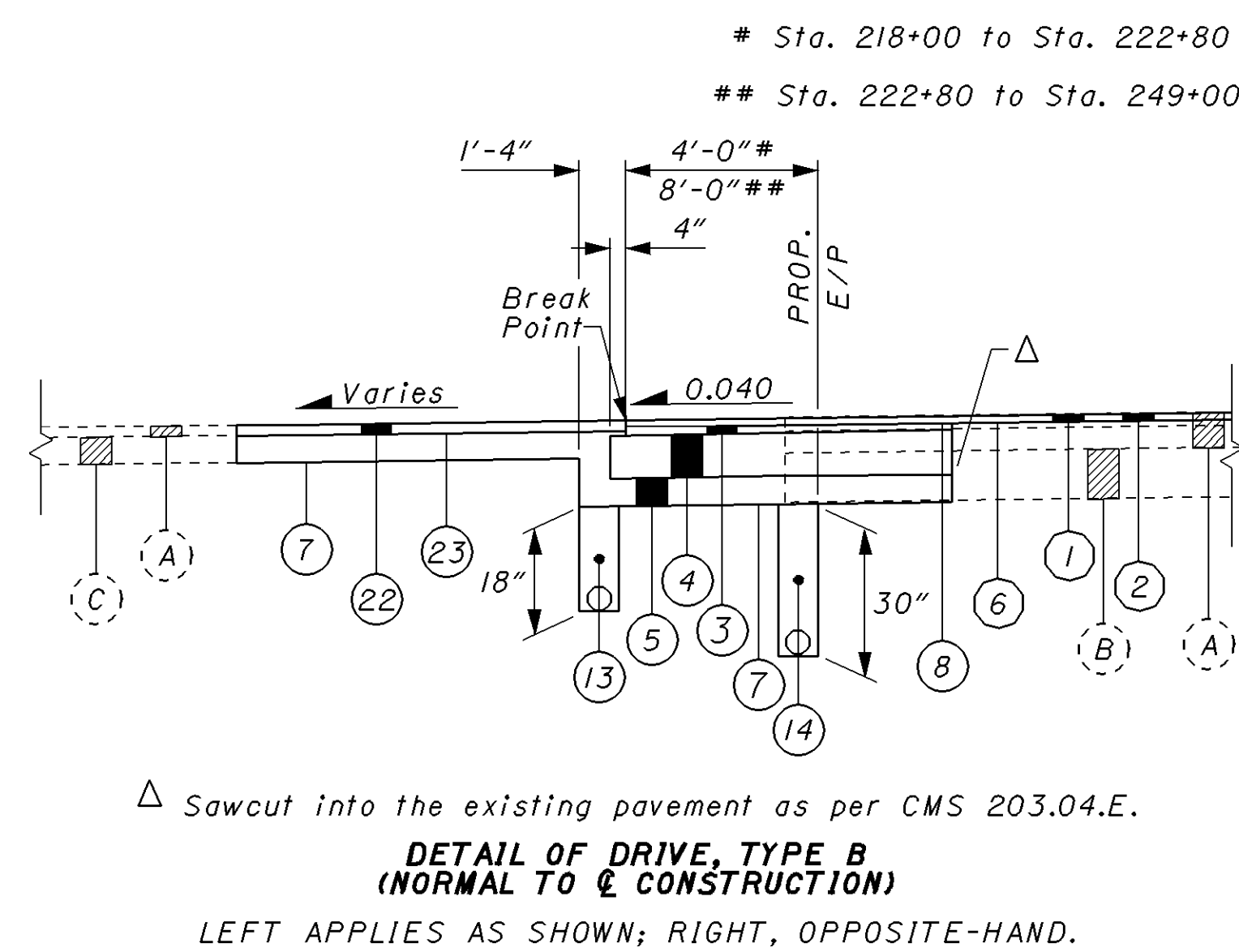
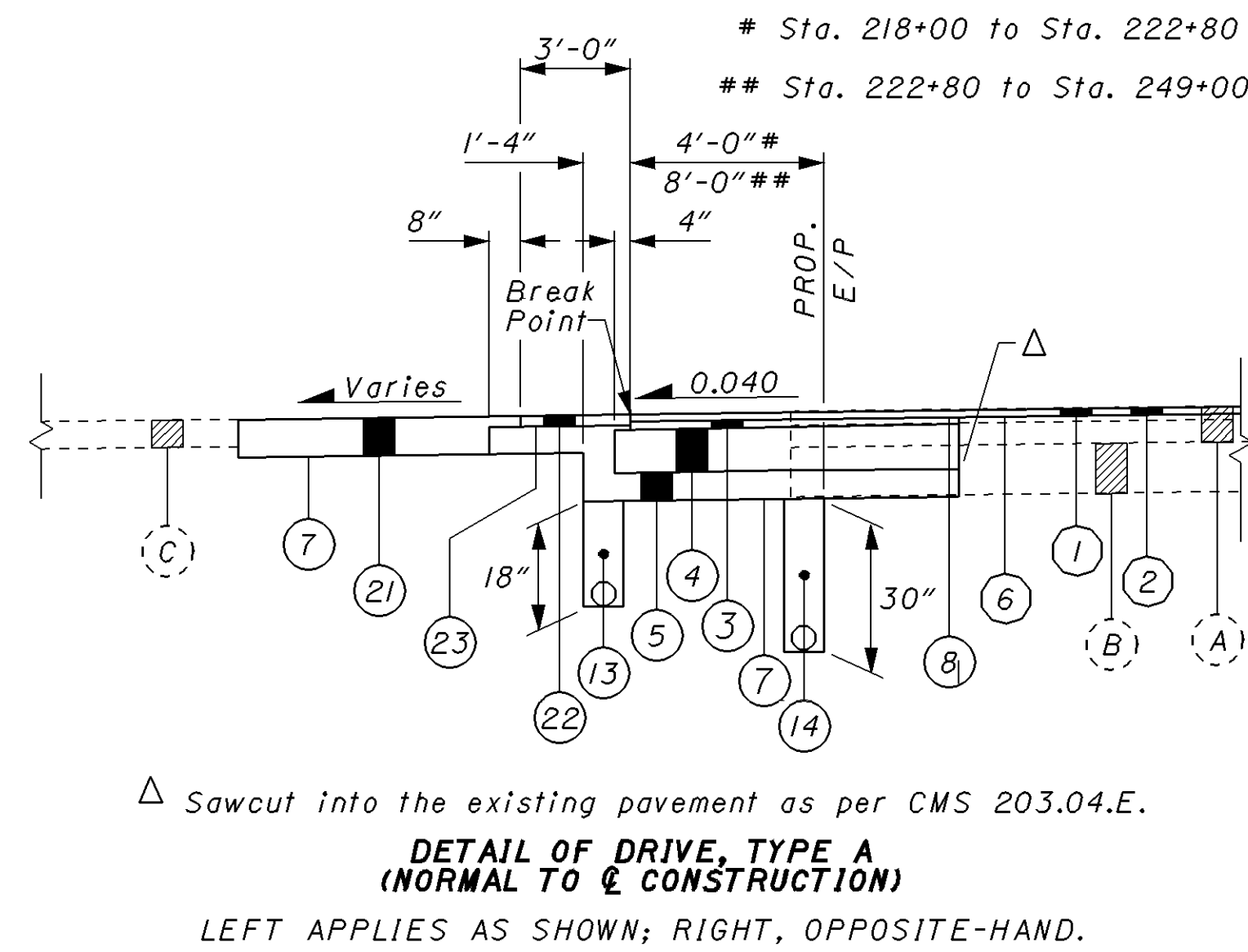
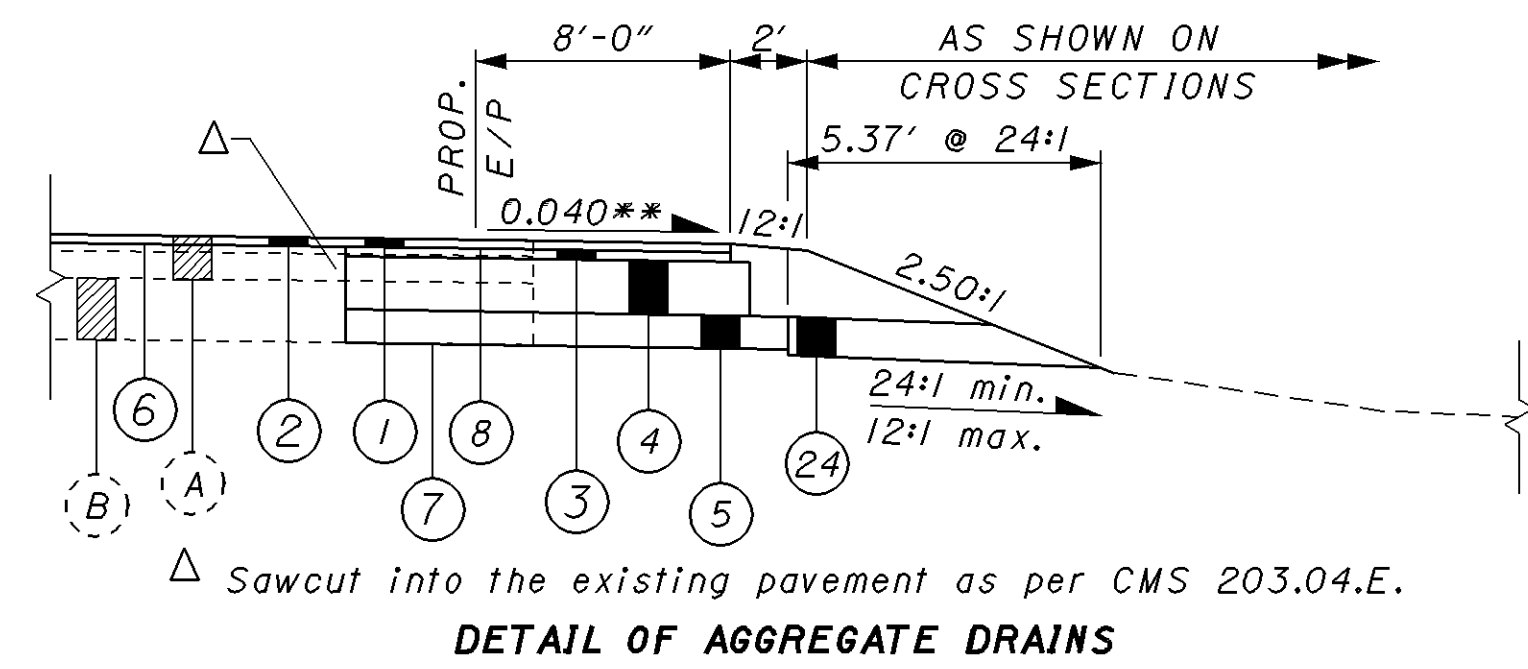
SECTION APPLIES:

Sta. 222+60 to Sta. 222+80 = 20 Ft. 30" underdrain right does not apply.
 Sta. 222+80 to Sta. 225+10 = 230 Ft.
 Total = 250 Ft.

† Sta. 222+60 to Sta. 222+80
 ‡ Sta. 222+80 to Sta. 225+10

NOTES

1. Wherever any mailbox approach extends beyond the paved shoulder, the typical section for widening shall apply only as far as 7'-4" from the proposed edge of pavement.
2. For drives, the aggregate base extends beside the surface course 8" for types A and B and 12" for type C.
3. For legend, see sheet 4.



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UTILITIES

LISTED BELOW ARE ALL OF THE UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

- CABLE TIME WARNER CABLE
11252 CORNELL PARK DRIVE
CINCINNATI, OH 45252
(513)469-5483 - GARY NAPIER
- ELECTRIC DUKE ENERGY
P. O. BOX 960, ROOM 467A
CINCINNATI, OH 45201
(513)287-3674 - AARON WRIGHT
- GAS & WATER CITY OF HAMILTON
GAS AND WATER DEPARTMENT
345 HIGH STREET, SUITE 450
HAMILTON, OH 45011
(513)785-7574 - TOM GUNDLER
(513)785-7572 - CHARLES GAYNOR
- GAS TRANS- MISSION TEXAS EASTERN
P. O. BOX 1642
HOUSTON, TX 77251
(812)522-2569
- TELEPHONE AT&T
3233 WOODMAN DRIVE
DAYTON, OH 45420
(937)296-3555 - TIM CALLAHAN
- (TELEPHONE) CINCINNATI BELL TELEPHONE
201 EAST 4TH STREET
MAIL LOCATION 343
CINCINNATI, OH 45202
(513)565-7043 - MIKE CONNER

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN IN THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O. R. C.

WATER WORK

THE CITY OF HAMILTON, GAS AND WATER DEPARTMENT SHALL HAVE UNTIL APRIL 1, 2008 TO REPLACE A 6 INCH WATERLINE ON THE LEFT SIDE OF S.R. 4. THE EXISTING 6" WATERLINE ON THE LEFT SIDE WILL BE ABANDONED IN PLACE. THE CONTRACTOR SHALL NOT SCHEDULE ANY WORK, WITH THE EXCEPTION OF TREE REMOVAL, BEFORE APRIL 1, 2008. THE CONTRACTOR SHALL COOPERATE WITH THE CITY OF HAMILTON, GAS AND WATER DEPARTMENT IF TREE REMOVAL AND WATERLINE WORK OCCUR SIMULTANEOUSLY.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS, PROVIDE THE INSTALLATION AND OPERATION OF ALL TEMPORARY TRAFFIC-CONTROL DEVICES REQUIRED BY THE PLANS.

ROUNDING

A ROUNDING OF 4 FEET HORIZONTALLY CENTERED AT SLOPE BREAK-POINTS APPLIES TO ALL CROSS SECTIONS EVEN THOUGH OTHERWISE SHOWN IN THE PLANS.

CONVERSION OF STANDARD CONSTRUCTION DRAWINGS

THE METRIC STANDARD DRAWINGS REFERENCED IN THE PLANS SHALL BE CONVERTED TO ENGLISH UNITS USING THE SI (METRIC) -TO-ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2005 CONSTRUCTION AND MATERIALS SPECIFICATIONS. THE APPENDIX OF ASTM E 380 SHALL BE UTILIZED FOR ANY ADDITIONAL CONVERSION FACTORS REQUIRED. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD-INDUSTRY ENGLISH VALUES WHERE SUITABLE.

ELEVATION DATUM

ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

REQUIREMENTS FOR PROTECTION OF THE FEDERALLY ENDANGERED INDIANA BAT HABITAT

ANY UNAVOIDABLE CUTTING OF TREES WITH SUITABLE ROOSTING AND BROOD-REARING HABITAT FOR THE FEDERALLY ENDANGERED INDIANA BAT (LIVING OR STANDING DEAD TREES, TREE CLUSTERS OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TRUNKS, SPLIT BRANCHES AND/OR CAVITIES; FOR EXAMPLE, SHAGBARK HICKORY, SYCAMORE, ETC.) WILL BE PERFORMED ONLY PRIOR TO APRIL 15 OR AFTER SEPTEMBER 15, WHEN THE SPECIES WOULD NOT BE USING SUCH HABITAT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE TREES THAT MAY SERVE AS SUITABLE HABITAT AND TO REMOVE THEM ONLY WITHIN THE DATES SPECIFIED. IF ASSISTANCE IS NEEDED IN MARKING SUITABLE TREE HABITAT, THE CONTRACTOR MAY CONTACT KEITH SMITH, P. E., ACTING ODOT DISTRICT 8 ENVIRONMENTAL COORDINATOR.

IF SUCH PROTECTION IS REQUIRED DUE TO TIMING OF CONSTRUCTION, IT SHALL NOT BE CAUSE FOR TIME DELAY OR EXTRA COMPENSATION CLAIMS BY THE CONTRACTOR, AND THE WORK SHALL BE PERFORMED PER BID ITEM 201 CLEARING AND GRUBBING.

CLEARING AND GRUBBING, AS PER PLAN

ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS SHALL BE REMOVED UNDER THE LUMP-SUM BID FOR ITEM 201 CLEARING AND GRUBBING, AS PER PLAN. REMOVAL OF TREES 6 INCHES IN DIAMETER AND LARGER SHALL ONLY BE PERFORMED BY CUTTING AND GRINDING THE STUMPS TO 6 INCHES BELOW THE GROUND SURFACE.

THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES AND STUMPS TO BE REMOVED:

SIZES	NO. TREES	NO. STUMPS	TOTAL
18"	5	0	5
30"	2	0	2
48"	7	0	7
60"	0	0	0.

SEEDING AND MULCHING

SEEDING AND MULCHING SHALL BE APPLIED TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE RESPECTIVE LIMITS.

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

659 TOPSOIL	1084 CU YD
659 SEEDING AND MULCHING	9766 SQ YD
659 REPAIR SEEDING AND MULCHING	488 SQ YD
659 COMMERCIAL FERTILIZER	1.32 TON
659 LIME	2.02 ACRES
659 WATER	53 M GAL.

RAISED PAVEMENT MARKER REMOVED

AS DIRECTED BY THE ENGINEER, REMOVE RAISED PAVEMENT MARKERS WITHIN THE LIMITS OF WORK BUT DO NOT REMOVE EXISTING RAISED PAVEMENT MARKERS UNLESS THEY WILL BE REPLACED IN THE SAME CONSTRUCTION SEASON.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY:

202 RAISED PAVEMENT MARKER REMOVED	124 EACH.
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ITEM 606 - ANCHOR ASSEMBLY, TYPE B-98

THIS SPECIFIC ITEM SHALL CONSIST OF FURNISHING AND INSTALLING EITHER OF THE FOLLOWING GUARDRAIL END TERMINALS:

- 1) THE SRT-350 MANUFACTURED BY TRINITY INDUSTRY, 1170 N. STATE STREET, GIRARD, OHIO 44420 (TELEPHONE: 330-545-4373).
- 2) THE FLEAT-350 MANUFACTURED BY ROAD SYSTEMS, INC., 2516 MALLORY LANE, STOW, OHIO, 44224, (TELEPHONE: 330-346-0721).

THE LENGTH OF THE SRT-350 SYSTEM IS CONSIDERED TO BE 37'-6" INCLUSIVE OF THREE (3) 12'-6"-LONG RAIL ELEMENTS.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING SET	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
SS425M	SLOTTED RAIL TERMINAL SRT-350 POST LAYOUT AND ERECTION DETAILS (12.5, 9 POST)	6-21-97 Rev. 1	3-6-98
SS444 SS444M	SLOTTED RAIL TERMINAL POST LAYOUT AND ERECTION DETAILS (12.5, 8 POST)	7-12-99 Rev. 1 7-12-99	8-27-99

THE LENGTH OF THE FLEAT-350 SYSTEM IS CONSIDERED TO BE 37'-6" INCLUSIVE OF FOUR (4) 12'-6"-LONG RAIL ELEMENTS.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AS DETAILED ON THE FOLLOWING PRE-APPROVED SHOP DRAWINGS:

DRAWING SET	DRAWING NAME	DRAWING/ REVISION DATE	ODOT APPROVAL DATE
FLT-M	FLARED ENERGY ABSORBING TERMINAL (FLEAT-350) ASSEMBLY	4-16-98	7-31-98

THE FACE OF THE TYPE B-98 IMPACT HEAD SHALL BE COVERED WITH A SHEET OF REFLECTIVE SHEETING, TYPE G PER 730.19 APPROXIMATELY 36" W. X 12" H. FOR THE SRT-350 AND APPROXIMATELY 14" W. X 20" H. FOR THE FLEAT-350.

REFER TO THE MANUFACTURER'S INSTRUCTION REGARDING THE INSTALLATION OF AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 27³/₄ INCHES FROM THE EDGE OF THE SHOULDER. ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR THE TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE GUARDRAIL POST IN COMMON WITH THE ANCHOR ASSEMBLY AND STANDARD GUARDRAIL WILL BE INCLUDED WITH THE STANDARD GUARDRAIL.

THE DEPARTMENT WILL PAY FOR ALL LABOR, TOOLS, EQUIPMENT AND MATERIAL NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY AS REQUIRED BY THE THE MANUFACTURER INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AND PAYMENT SHALL BE MADE IN THE ACCEPTED QUANTITY AT THE UNIT CONTRACT PRICE PER EACH FOR ITEM 606 ANCHOR ASSEMBLY, TYPE B-98.

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GENERAL NOTES

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REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF ANY WORK ON THE PROJECT AND AGAIN PRIOR TO FINAL ACCEPTANCE BY THE STATE, REPRESENTATIVES OF THE STATE AND THE CONTRACTOR ALONG WITH LOCAL REPRESENTATIVES SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS THAT ARE TO REMAIN IN SERVICE AND THAT MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE STATE. ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION.

ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BY THE CONTRACTOR BE CORRECTED TO THE SATISFACTION OF THE ENGINEER.

ALL NEW CONDUITS, INLETS, CATCH BASINS AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION PRIOR TO THE PROJECT BEING ACCEPTED BY THE STATE.

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEMS.

UNRECORDED UNTREATED NON-STORMWATER DRAINAGE

FURNISH NO CONTINUANCE FOR ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE SUCH AS UNTREATED SEPTIC, UNTREATED WASTEWATER, UNTREATED CURTAIN/GRADIENT DRAINS AND UNTREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK.

PLUG ANY UNRECORDED UNTREATED NON-STORMWATER DRAINAGE WITH CLASS C CONCRETE AT THE RIGHT-OF-WAY LINE.

PAYMENT FOR PLUGGING SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 202 OR 203 ITEM.

UNRECORDED TREATED NON-STORMWATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED TREATED NON-STORMWATER DRAINAGE SUCH AS TREATED SEPTIC, TREATED WASTEWATER, TREATED CURTAIN/GRADIENT DRAINS AND TREATED FOUNDATION FLOOR DRAINS DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE.

THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

ALL SUCH CONTINUANCE REQUIRES A RIGHT-OF-WAY USE PERMIT AND MAY ALSO REQUIRE A NPDES PERMIT FROM THE OHIO ENVIRONMENTAL PROTECTION AGENCY.

REPORT ALL CONTINUANCE TO THE LOCAL HEALTH DEPARTMENT.

WHERE MAKING A CONNECTION INTO A HIGHWAY DRAINAGE CONDUIT, AN INSPECTION WELL SHALL BE PROVIDED IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING DM-3.1.

IN MAKING THE ABOVE CONTINUANCE AS DIRECTED BY THE ENGINEER, THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY:

603	6" CONDUIT, TYPE C	50 FT
604	INSPECTION WELL	2 EACH.

UNRECORDED STORM WATER DRAINAGE

FURNISH A CONTINUANCE FOR ALL UNRECORDED STORM WATER DRAINAGE SUCH AS ROOF DRAIN DRAINS, FOOTER DRAINS OR YARD DRAINS DISTURBED BY THE WORK. FURNISH EITHER AN OPEN CONTINUANCE OR AN UNOBSTRUCTED CONTINUANCE BY CONNECTING A CONDUIT THROUGH THE CURB OR INTO A DRAINAGE STRUCTURE.

THE LOCATION, TYPE, SIZE AND GRADE OF THE NEEDED CONDUIT TO REPLACE OR EXTEND AN EXISTING DRAIN WILL BE DETERMINED BY THE ENGINEER.

ALL SUCH CONTINUANCE REQUIRES A RIGHT-OF-WAY USE PERMIT.

THE FOLLOWING CONDUIT TYPES MAY BE USED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, 707.51, 707.52 SDR35.

603	6" CONDUIT, TYPE C FOR DRAINAGE CONNECTION	50 FT
603	6" CONDUIT, TYPE E FOR DRAINAGE CONNECTION	50 FT.

FARM DRAINS

PROVIDE WITH UNOBSTRUCTED OUTLETS ALL FARM DRAINS THAT ARE ENCOUNTERED DURING CONSTRUCTION.

FOR EXISTING COLLECTORS THAT CROSS THE ROADWAY AND ARE LOCATED BELOW ROADWAY-DITCH ELEVATIONS WITHIN THE RIGHT-OF-WAY, REPLACE WITH 603 TYPE B CONDUIT ONE (1) COMMERCIAL SIZE LARGER THAN THE EXISTING CONDUIT. EXISTING COLLECTORS TORS AND ISOLATED FARM DRAINS THAT ARE ENCOUNTERED ABOVE ROADWAY-DITCH ELEVATIONS SHALL BE OUTLETTED INTO THE ROADWAY DITCH WITH 603 TYPE F CONDUIT. THE OPTIMUM OUTLET ELEVATION SHALL BE ONE (1) FOOT ABOVE THE FLOWLINE OF THE DITCH. LATERAL FIELD TILES THAT CROSS THE ROADWAY SHALL BE INTERCEPTED BY 603 TYPE E CONDUIT AND CARRIED IN A LONGITUDINAL DIRECTION TO AN ADEQUATE OUTLET OR ROADWAY CROSSING.

THE LOCATION, TYPE, SIZE AND GRADE OF REPLACEMENTS SHALL BE DETERMINED BY THE ENGINEER, AND BASIS OF PAYMENT WILL BE MADE ON FINAL MEASUREMENTS.

FOR THE WORK NOTED ABOVE, THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY:

603	8" CONDUIT, TYPE B	50 FT
603	8" CONDUIT, TYPE E	50 FT
603	8" CONDUIT, TYPE F	50 FT.

PROVIDE EROSION-CONTROL PADS AND ANIMAL GUARDS AT THE OUTLET END OF ALL FARM DRAINS AS PER STANDARD DRAWING DM-1.1 EXCEPT WHERE THEY OUTLET INTO A DRAINAGE STRUCTURE.

THE DEPARTMENT WILL PAY FOR EROSION-CONTROL PADS, ANIMAL GUARDS AND ANY NECESSARY BENDS AND/OR BRANCHES INCLUDED IN THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR THE THE RESPECTIVE 603 CONDUIT ITEM.

ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT

THE WORK SHALL CONSIST OF THE CONSTRUCTION OF BULKHEADS IN AN EXISTING CONDUIT AND FILLING THE AREA THUS SEALED OFF WITH LEAN GROUT, ITEM 613, SAND OR OTHER APPROVED MATERIAL APPROVED BY THE ENGINEER.

BULKHEADS SHALL BE LOCATED AT THE LIMITS OF THE AREA TO BE FILLED AS INDICATED IN THE PLANS AND SHALL CONSIST OF BRICK OR CONCRETE MASONRY WITH A MINIMUM THICKNESS OF 12 INCHES.

THE FILL MATERIAL SHALL BE PUMPED INTO PLACE OR PLACED BY OTHER MEANS APPROVED BY THE ENGINEER SO THAT AFTER SETTLEMENT, AT LEAST 90% PERCENT OF THE THE CROSS-SECTIONAL AREA OF THE CONDUIT FOR THE LENGTH OF THE CONDUIT SHALL BE FILLED.

THE LENGTH OF FILLED AND PLUGGED CONDUIT FOR WHICH TO BE PAID SHALL BE THE ACTUAL NUMBER OF FEET FILLED AND PLUGGED AS DESCRIBED ABOVE AND MEASURED ALONG THE CENTERLINE OF EACH CONDUIT FROM OUTER FACE TO OUTER FACE OF BULKHEADS.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES AS TO BOTH LINE AND GRADE PRIOR TO LAYING THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT OR EXISTING APPURTENANCE TO BE CONNECTED DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED PRIOR TO STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT THAT WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN IN THE PLANS, THE ENGINEER SHALL BE NOTIFIED PRIOR TO STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT THAT WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE SHALL BE INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 603 CONDUIT ITEM.

ITEM SPECIAL, MAILBOX SUPPORT

THE WORK SHALL CONSIST OF FURNISHING AND ERECTING MAILBOX SUPORTS AND ANY ASSOCIATED MOUNTING HARDWARE IN ACCORDANCE WITH PLAN DETAILS AND ATTACHING AN OWNER-SUPPLIED MAILBOX AT LOCATIONS SPECIFIED IN THE PLANS OR OTHERWISE ESTABLISHED BY THE ENGINEER.

IN THE ABSENCE OF A NEW BOX SUPPLIED BY THE OWNER, SALVAGE THE EXISTING BOX AND PLACE IT ON THE NEW SUPPORT. DUE CARE SHALL BE EXERCISED IN SUCH AN OPERATION, AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ANY BOX DAMAGED BY IMPROPER HANDLING ON HIS/HER PART AS JUDGED BY AND DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL POSTMASTER REGARDING THE TIMING OF THE MOVEMENT OF ANY MAILBOX TO A NEW LOCATION.

SUPPORT HARDWARE SHALL ACCOMMODATE EITHER A SINGLE OR A DOUBLE MAILBOX INSTALLATION, AND NO MORE THAN TWO (2) BOXES MAY BE MOUNTED ON A SINGLE POST.

THE MAILBOX SHALL BY THE CONTRACTOR BE SECURELY AND NEATLY ATTACHED TO THE NEW SUPPORT. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ATTACHMENT HARDWARE (NUTS, BOLTS, PLATES, SPACERS AND WASHERS) AS NECESSARY TO ACCOMMODATE THE COMPLETE INSTALLATION.

POSTS SHALL BE SET PER THE FIRST PARAGRAPH OF 606.03 AND SHALL IN NO INSTANCE BE ENCASED IN CONCRETE.

STEEL POSTS SHALL BE NOMINAL SIZE 2" (2 $\frac{3}{8}$ " O. D.) AND SHALL CONFORM TO AASHTO M 181.

WOOD POSTS SHALL BE NOMINAL 4" BY 4" SQUARE 4 $\frac{1}{2}$ " DIAMETER ROUND AND SHALL CONFORM TO 710.14.

HARDWARE (PLATES, SCREWS, BOLTS, ETC.) SHALL BE COMMERCIAL-GRADE GALVANIZED STEEL.

CHECK WITH THE LOCAL POSTMASTER TO DETERMINE THE HEIGHT TO PLACE THE MAILBOX ABOVE THE ELEVATION AT THE EDGE OF PAVED MAILBOX APPROACH.

AT 18" MINIMUM TO 24" MAXIMUM BELOW THE GROUND LINE, SET THE METAL OR TIMBER SUPPORT POST SO THAT THE NEAREST FACE OF THE MAILBOX IS APPROXIMATELY 12" OUTSIDE THE EDGE OF THE PAVED MAILBOX APPROACH.

FOR METAL POSTS ONLY, CLAMP TO THE POST A 7" HORIZONTAL BY 4 $\frac{1}{2}$ " VERTICAL ANTI-TWIST PLATE CENTERED AT $\frac{3}{4}$ " INSIDE THE TOP AND BOTTOM EDGES OF THE PLATE SO THAT THE BOTTOM OF THE PLATE IS AT A MAXIMUM OF 10" BELOW THE GROUND LINE.

FOR THIS SPECIFIED ITEM, AN ESTIMATED QUANTITY OF 26 EACH HAS BEEN CARRIED TO THE GENERAL SUMMARY.

PAYMENT FOR THIS SPECIFIED ITEM SHALL BE LIMITED TO FINAL PERMANENT INSTALLATIONS. TEMPORARY INSTALLATIONS SHALL BE IN ACCORDANCE WITH 107.10. HOWEVER, THE SAME MATERIAL AND SIZE LIMITATIONS AS FOR PERMANENT INSTALLATIONS APPLY. THE DEPARTMENT WILL PAY FOR MAILBOX SUPPORTS COMPLETE IN PLACE AT THE CONTRACT UNIT PRICE PER EACH FOR THIS ITEM SPECIAL MAILBOX SUPPORT, SINGLE.

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GENERAL NOTES

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ENVIRONMENTAL NOTES

THE PROJECT IS LOCATED OVER A PORTION OF THE GREAT MIAMI VALLEY SOLE SOURCE AQUIFER. IN ORDER TO MINIMIZE THE POTENTIAL FOR A RELEASE IN THIS SENSITIVE AREA, PROJECT-RELATED REFUELING AND MAINTENANCE ACTIVITIES SHALL NOT BE PERFORMED FROM STA. 218+00 TO STA. 229+50. SPILLS OF FUELS, OILS, CHEMICALS OR OTHER MATERIALS THAT COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY BY THE CONTRACTOR. IF THE SPILL IS A REPORTABLE AMOUNT, THE CONTRACTOR SHOULD CONTACT EITHER THE CITY OF HAMILTON FIRE DEPARTMENT AT 513-868-5909 AND/OR THE FAIRFIELD TOWNSHIP FIRE DEPARTMENT AT 513-887-3010 FOR CLEANUP OF THE SPILL.

ITEM 604, MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN

THE WORK CONSISTS OF CONVERTING EXISTING NO. 2-4 CATCH BASINS TO MANHOLES.

ALL REQUIREMENTS OF CMS 604 SHALL APPLY EXCEPT AS FOLLOWS:

PROVIDE A FLAT-SLAB TOP DESIGNED TO MEET OR EXCEED THE STRUCTURAL CAPACITY OF THE STANDARD FLAT-SLAB TOP SHOWN IN STANDARD-CONSTRUCTION DRAWING MH-1.2.

PROVIDE AN ACCESS HOLE, FRAME AND COVER IDENTICAL TO THAT UTILIZED ON STANDARD MANHOLE NO. 3.

SUBMIT FOR REVIEW AND APPROVAL BY THE DEPARTMENT THREE (3) SETS OF DRAWINGS DEPICTING THIS PROPOSED WORK. ENSURE THAT THE SHOP DRAWINGS ARE STAMPED AND SIGNED BY A REGISTERED PROFESSIONAL ENGINEER, STATE OF OHIO. ALLOW FOUR (4) WEEKS FOR APPROVAL.

THE DEPARTMENT WILL PAY FOR ALL MATERIAL, EQUIPMENT AND LABOR NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE IN THE ACCEPTED QUANTITY AT THE UNIT PRICE BID FOR ITEM 604 MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN.

ITEM 604, CATCH BASIN, MISC.: MODIFY GRATE AND WINDOWS

THE WORK CONSISTS OF MAKING MODIFICATIONS TO THE EXISTING NO. 2-5 CATCH BASIN BY REPLACING THE GRATE WITH A SOLID METAL PLATE AND CLOSING OFF THE SIDE-INLET WINDOWS.

PROVIDE A SOLID METAL PLATE WITH MINIMUM THICKNESS OF ONE-HALF INCH AND DIMENSIONS MATCHING THOSE OF THE EXISTING GRATE.

CLOSE OFF SIDE INLET WINDOWS USING BRICK OR BLOCK MASONRY WITH CONCRETE MORTAR OR STRUCTURE CONCRETE.

THE DEPARTMENT WILL PAY FOR ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE IN THE ACCEPTED QUANTITY AT THE UNIT PRICE BID FOR ITEM 604 CATCH BASIN, MISC.: MODIFY GRATE AND WINDOWS.

INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS

A LUMP SUM HAS BEEN PROVIDED FOR THIS SUPPLEMENTAL SPECIFICATION.

ITEM 623, CONSTRUCTION LAYOUT STAKES, AS PER PLAN

ALL OF THE WORK SHALL BE PERFORMED IN ACCORDANCE WITH 623 EXCEPT WHERE MODIFIED IN THE PLANS.

AT THE TERMINATION OF THE PROJECT, SET ALL MISSING AND/OR OBLITERATED IRON PINS SHOWN ON THE RIGHT-OF-WAY PLANS. THE PINS SHALL BE SET UNDER THE SUPERVISION OF A REGISTERED SURVEYOR HIRED BY THE CONTRACTOR.

EACH PIN SHALL BE 3/4" BY 36" REINFORCING ROD WITH AN ALUMINUM CAP STAMPED WITH THE SURVEYOR'S NAME AND REGISTRATION NUMBER.

THE DEPARTMENT WILL PAY FOR ALL LABOR, TOOLS, SERVICES, MATERIAL, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK INCLUDED IN THE ACCEPTED QUANTITY AT THE CONTRACT PRICE BY THE LUMP SUM FOR ITEM 623 CONSTRUCTION LAYOUT STAKES, AS PER PLAN.

CALCULATED
DAG
CHECKED
JEF

GENERAL NOTES

BUT - 4 - (9.28) (10.11)

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ITEM 614, MAINTAINING TRAFFIC

PRIOR TO THE BEGINNING OF WORK, SUBMIT TO THE ENGINEER THE NAME(S) AND TELEPHONE NUMBER(S) OF A PERSON OR PERSONS WHO CAN BE CONTACTED 24 HOURS PER DAY BY THE OHIO DEPARTMENT OF TRANSPORTATION AND ALL INTERESTED POLICE AGENCIES. SUCH PERSON OR PERSONS SHALL BE RESPONSIBLE FOR PLACING AND REPLACING NECESSARY TRAFFIC-CONTROL DEVICES.

IT IS THE INTENT OF THESE SPECIFIC NOTES AND THE FOLLOWING SEQUENCE OF OPERATIONS TO PROVIDE A WORK AREA FOR THE CONTRACTOR WHILE ALSO MAINTAINING TRAFFIC IN A MANNER THAT IS SAFE FOR THE TRAVELING PUBLIC. THEREFORE, THE PHASES SHALL BE STRICTLY ADHERED TO.

ALL TEMPORARY OR PERMANENT PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO ANY PAVEMENT BEING OPENED TO TRAFFIC.

SIDE ROADS AND DRIVES SHALL BE MAINTAINED AT ALL TIMES USING HALF-WIDTH CONSTRUCTION AND/OR TEMPORARY PAVEMENT TECHNIQUES. HOWEVER, SHORT DURATION CLOSURES SHALL BE ALLOWED WHEN GOOD ALTERNATE ACCESS IS AVAILABLE SUCH AS PROPERTIES WITH MULTIPLE DRIVES.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.

UNLESS SEPARATELY ITEMIZED IN THE PLANS, THE DEPARTMENT WILL PAY FOR ALL LABOR, EQUIPMENT AND MATERIALS INCLUDED IN THE LUMP-SUM CONTRACT PRICE FOR 614 MAINTAINING TRAFFIC.

SEQUENCE OF OPERATIONS

PHASE 1:

THE RIGHT LANE OF EASTBOUND S.R. 4 AND THE LEFT LANE OF WESTBOUND S.R. 4 WILL BE CLOSED PER STANDARD CONSTRUCTION DRAWINGS MT-95.31 AND MT-95.30 RESPECTIVELY.

OVER THE STORM-SEWER CONDUIT AT SLM 9.61, TRAFFIC SHALL BE REDUCED TO ONE LANE IN EACH DIRECTION USING THE DETAILS PROVIDED IN THE PLANS. THE OUTLET END OF THE STORM-SEWER CONDUIT SHALL BE CONSTRUCTED AND THE FULL-DEPTH PAVEMENT WIDENING (WITH THE EXCEPTION OF THE 1/2" SURFACE COURSE) SHALL BE PERFORMED ON THE SOUTH SIDE OF THE ROADWAY. MOT PAVEMENT MARKINGS SHALL CONSIST OF EXISTING MARKINGS AND WORK-ZONE EDGE LINES AND CENTER LINES AS DETAILED IN THE PLANS.

PHASE 2:

THE RIGHT LANE OF WESTBOUND S.R. 4 AND THE LEFT LANE OF EASTBOUND S.R. 4 WILL BE CLOSED PER STANDARD CONSTRUCTION DRAWINGS MT-95.30 AND MT-95.32 RESPECTIVELY.

OVER THE STORM-SEWER CONDUIT AT SLM 9.61, TRAFFIC SHALL BE REDUCED TO ONE LANE IN EACH DIRECTION USING THE DETAILS PROVIDED IN THE PLANS. THE DRAINAGE WORK (INCLUDING THE INLET END OF THE STORM-SEWER CONDUIT) SHALL BE CONSTRUCTED AND THE FULL-DEPTH PAVEMENT WIDENING (WITH THE EXCEPTION OF THE 1/2" SURFACE COURSE) SHALL BE PERFORMED ON THE NORTH SIDE OF THE ROADWAY. MOT PAVEMENT MARKINGS SHALL CONSIST OF EXISTING MARKINGS AND WORK-ZONE EDGE LINES AND CENTER LINES AS DETAILED IN THE PLANS.

PHASE 3:

LEFT-TURN LANE CONSTRUCTION EASTBOUND AT HEADGATES ROAD:

THE LEFT LANES OF EASTBOUND AND WESTBOUND S. R. 4 WEST OF THE INTERSECTION WITH HEADGATES ROAD SHALL BE CLOSED PER STANDARD CONSTRUCTION DRAWING MT-95.32. TRAFFIC IN BOTH DIRECTIONS SHALL BE MAINTAINED IN THE EXISTING RIGHT LANES.

THIS SPECIFIED CLOSURE SHALL NOT COINCIDE WITH ANY OTHER PHASE OF MAINTENANCE OF TRAFFIC.

CONSTRUCTION NOTIFICATION

A MINIMUM OF 14 DAYS PRIOR TO THE START OF CONSTRUCTION ACTIVITIES, ADVISE THE PROJECT ENGINEER AND THE BUTLER COUNTY ENGINEER. ALSO, PROVIDE THE PROJECT ENGINEER SUCH NOTIFICATION 14 DAYS PRIOR TO ANY DETOURS, LANE CLOSURES OR ROAD CLOSURES.

THE PROJECT ENGINEER WILL FORWARD THE INFORMATION TO THE DISTRICT PUBLIC INFORMATION OFFICER (PIO) EITHER BY FAX (513-932-7651) OR AT DISTRICT 8 PIO NOTIFICATION WEBSITE (http://www.dot.state.oh.us/dist8/Contact%20Info/planning_pio_webform.htm).

THE PUBLIC INFORMATION OFFICER WILL THEN PROVIDE NOTIFICATION TO THE LOCAL EMERGENCY SERVICES, AFFECTED SCHOOLS AND APPROPRIATE BUSINESSES REGARDING ANY UPCOMING PROJECT DETOURS, LANE CLOSURES AND/OR ROAD CLOSURES.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

TEMPORARY PAVEMENT WEDGE

TEMPORARY PAVEMENT WEDGES SHALL BE PROVIDED AT ALL TIMES WHERE TRAFFIC IS REQUIRED TO TRAVEL FROM OR ONTO A PAVEMENT SURFACE OF A DIFFERENT ELEVATION. SUCH WEDGES SHALL BE REMOVED PRIOR TO PLACING THE SPECIFIED PAVEMENT COURSE. THE MINIMUM SLOPE OF THE TEMPORARY PAVEMENT WEDGE SHALL BE 3:1 ALONG LONGITUDINAL JOINTS AND 120:1 AT TRANSVERSE JOINTS.

PAYMENT FOR ALL WORK, MATERIALS, LABOR, ETC. ASSOCIATED WITH THIS RELEVANT ITEM SHALL BE INCLUDED IN THE LUMP-SUM CONTRACT PRICE FOR 614 MAINTAINING TRAFFIC.

TRENCH FOR WIDENING

TRENCH EXCAVATION FOR BASE WIDENING SHALL BE ONLY ON ONE SIDE OF THE PAVEMENT AT A TIME.

THE OPEN TRENCH SHALL BE ADEQUATELY MAINTAINED AND PROTECTED WITH DRUMS OR BARRICADES.

PLACEMENT OF PROPOSED SUBBASE AND BASE MATERIAL SHALL FOLLOW AS CLOSELY AS POSSIBLE BEHIND EXCAVATION OPERATIONS.

THE LENGTH OF WIDENING TRENCH THAT IS OPEN AT ANY ONE TIME SHALL BE HELD TO A MINIMUM AND SHALL AT ALL TIMES BE SUBJECT TO APPROVAL OF THE ENGINEER.

OVERNIGHT TRENCH CLOSING

THE BASE WIDENING SHALL BE COMPLETED TO A DEPTH OF NO MORE THAN 5 INCHES BELOW THE EXISTING PAVEMENT BY THE END OF EACH WORK DAY.

NO TRENCH SHALL BE LEFT OPEN OVERNIGHT EXCEPT FOR A SHORT LENGTH OF 25 FEET OR LESS OF A WORK SECTION AT THE END OF THE TRENCH.

IN CASE THAT WORK MUST BE SUSPENDED BECAUSE OF INCLEMENT WEATHER OR OTHER REASONS, THE TRENCH FOR THE UNCOMPLETED BASE WIDENING SHALL BE BACKFILLED AT THE DIRECTION OF THE ENGINEER.

CONFLICTING PAVEMENT MARKINGS

THE CONTRACTOR SHALL REMOVE ALL CONFLICTING PAVEMENT MARKINGS.

PAYMENT FOR THE WORK SHALL BE INCLUDED IN THE LUMP-SUM CONTRACT PRICE FOR 614 MAINTAINING TRAFFIC.

WORK ZONE MARKINGS AND SIGNS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE IDENTIFIED BY THE ENGINEER AT LOCATIONS FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF CMS 614.04 AND 614.11:

614	WORK ZONE LANE LINE, CLASS I	2.34 MILE
614	WORK ZONE CENTER LINE, CLASS I	2.52 MILE
614	WORK ZONE EDGE LINE, CLASS I	2.36 MILE
614	WORK ZONE CHANNELIZING LINE, CLASS I	438 FT
614	WORK ZONE LANE ARROW, CLASS I	40 EACH.

SIGNS

AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN SIGNS AND SIGN SUPPORTS.

LANES OPEN DURING SPECIAL EVENTS

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

BUTLER COUNTY FAIR LAST WEEK OF JULY, 2008.

NO EXTENSIONS OF TIME SHALL BE GRANTED FOR DELAYS IN MATERIAL DELIVERIES UNLESS SUCH DELAYS ARE INDUSTRY-WIDE OR FOR LABOR STRIKES UNLESS SUCH STRIKES ARE AREA-WIDE.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

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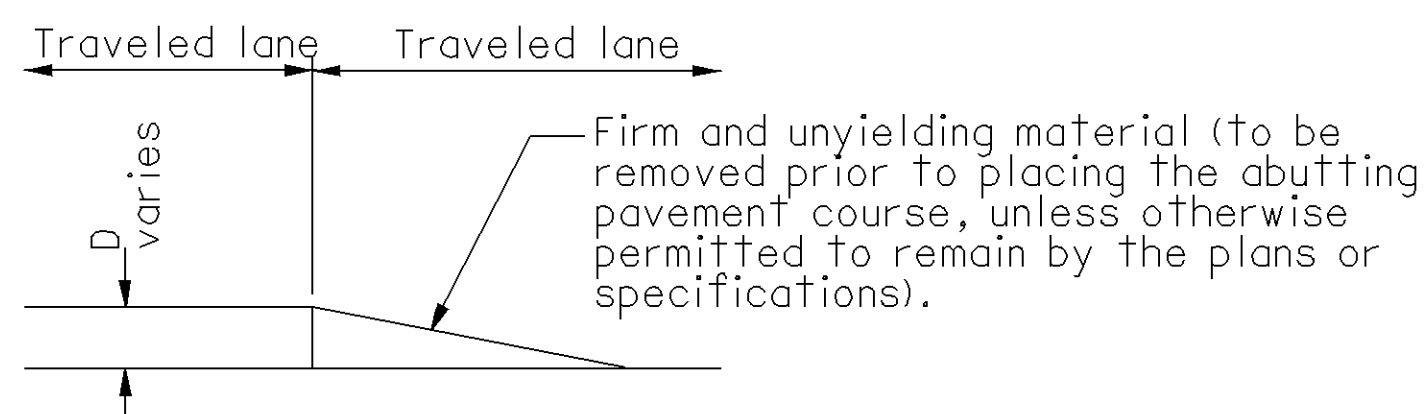
93

GENERAL NOTES

- It is intended that this drawing be used for treatment of drop-offs that develop during construction operations, and that are not otherwise provided for in the construction plans. The suggested treatments are intended for high volume projects that will last at least seven days and have an active work zone 1 mile [1.6 km] or less in length. For guidance on the use of this sheet, see L&D Manual Volume One, Section 500. Where the plans do not provide specific items for labor, equipment, or materials to implement the drop-off treatments specified hereon, they shall be included for payment in the lump sum bid for Item 614 - Maintaining Traffic.
- While the need for certain advisory signing is noted hereon, it is not intended that this be indicative of all signing that may be required to advise or warn motorists, and all requirements of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) must be fulfilled.
- In urban or otherwise heavily developed areas where pedestrians and/or bicyclists may be present in significant numbers, additional signing and protective measures other than those shown hereon may be required.
- The drop-off treatment selected for use at any given location shall be as appropriate for the prevailing conditions at the site.
- Where concrete barrier is specified, it shall be in accordance with Standard Construction Drawing RM-4.2 and Item 622.
- When drums are specified for a drop-off condition, a minimum number of four drums shall be used. Spacing shall be as indicated in the plans or as specified in the OMUTCD.
- When W8-9 (Low Shoulder) signs or W8-9a (Shoulder Drop-Off) signs or W8-11 (Uneven Lanes) signs are required, they shall be placed 750 feet [230 m] in advance of the condition, on all intersecting entrance ramps within the limits of the condition and immediately beyond all intersecting roadways within the limits of the condition. When the drop-off condition extends more than 0.5 mile [800 m], additional signs should be erected at intervals of 1.0 mile [1600 m] or less.
- For locations, such as at ramps, lane shifts, lane closures, etc., where traffic is required to negotiate a difference in elevation between pavements, a 3:1 slope treatment similar to the Optional Wedge Treatment shall be provided.
- Portable concrete barrier shall be placed on the same level as the traffic surface and shall not encroach on lane width(s) designated as the minimum required for traffic use. Where drums are used, and their presence would reduce traveled lane widths to less than 10 feet [3.0 m], drums may be placed on the opposite level from that of traffic provided the dropoff depth does not exceed 5 inches [125] and approval is granted by the Project Engineer.
- Pavement Repairs (or similar work):
 - Lengths greater than 60 feet [18 m] - utilize appropriate treatment from Condition I.
 - Lengths of 60 feet [18 m] or less - repairs shall be effected in accordance with CMS 255.08. Drums may be used as a separator adjacent to the traveled lane.

OPTIONAL WEDGE TREATMENT (MILLING OR RESURFACING)

- This treatment may be used when permitted for Condition I only.
- W8-11 sign required.



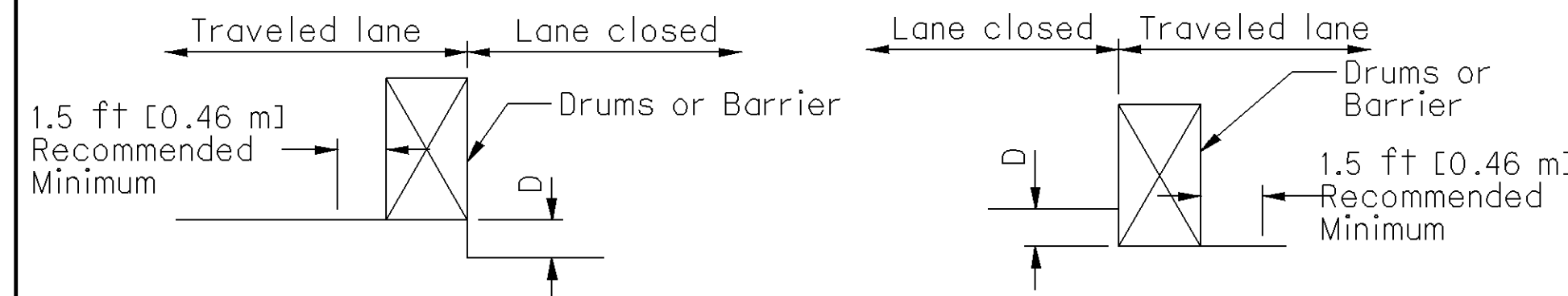
CONDITION I

DROP-OFFS BETWEEN TRAVELED LANES

- These treatments are to be used for resurfacing, pavement planing, excavation, etc. between or within traveled lanes.

D - inches (mm)	Treatment
< 1-1/2 [< 40]	Erect W8-11 sign.
1-1/2 - 3 [$40-75$]	1) Lane closure utilizing drums* as shown below OR 2) Optional Wedge Treatment
> 3 - 5 [$> 75-125$]	Lane closure utilizing drums as shown below.
> 5 [> 125]	Lane closure utilizing portable concrete barrier as shown below.

* Cones may be used for daytime only conditions.



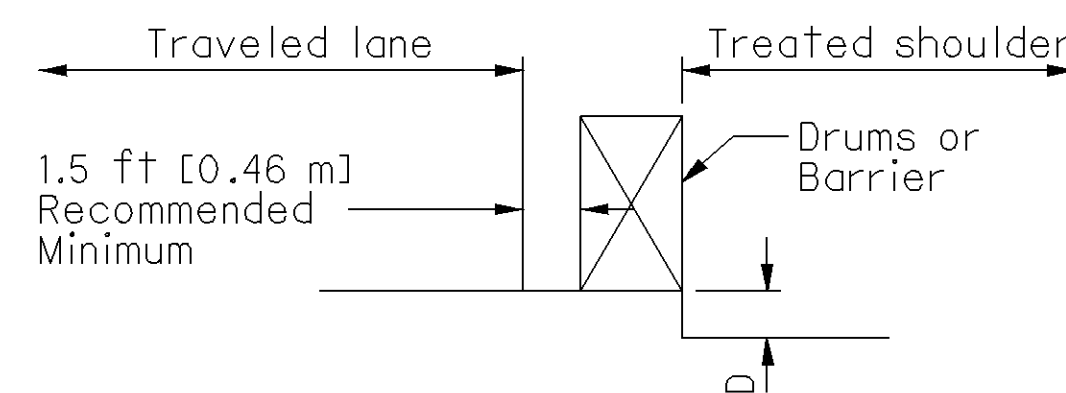
CONDITION II

DROP-OFFS WITHIN GRADED SHOULDER AREA

- The treatments indicated below are for use in conjunction with resurfacing, planing, or excavations within the graded shoulder area.
- The graded shoulder area is that flat or gradually sloping area between the edge of a normally traveled lane and the more steeply sloping ditch foreslope or embankment slope. Its surface may be soil or turf, and/or it may be inclusive of a "treated" area (improved with aggregates, asphaltic materials or concrete). For the purpose herein, its maximum width shall be considered to be 12 feet [3.6 m].

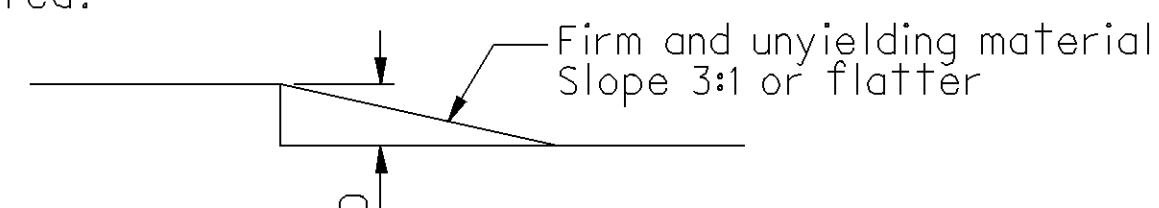
D - inches (mm)	Treatment
< 1-1/2 [< 40]	1) Erect W8-9a signs.
> 1-1/2 - 5 [$> 40-125$]	1) If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums OR 3) Optional Shoulder Treatment.
> 5 - 12 [$125-305$] Daylight only	If minimum lane width* requirements can be met, maintain lanes utilizing drums as shown below.
> 5 - 24 [$> 125-610$]	1) If minimum lane width* requirements can be met, maintain lanes utilizing portable concrete barrier as shown below. OR 2) If minimum lane width* requirements cannot be met, close adjacent lane utilizing drums.
> 24 [> 610]	Lane closure utilizing portable concrete barrier as shown below.

* Minimum lane widths shall be 10 ft [3.0 m] unless otherwise specified in the plans.



OPTIONAL SHOULDER TREATMENT

- This treatment may not be used within a bituminous shoulder where a hot longitudinal joint per CMS 401.15 is required.
- W8-9 signs required.



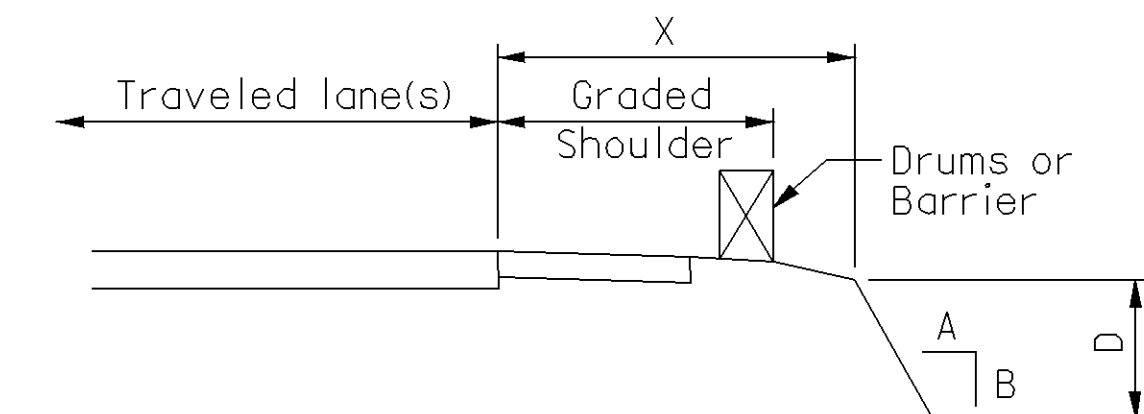
CONDITION III

DROP-OFFS BEYOND GRADED SHOULDER OR BACK OF CURB

- See Note 2 under Condition II.
- Use Chart A or B below, as applicable.

CHART A

- USE FOR:
- Uncurbed Facilities
 - Curbed Facilities, where:
 - Curbs are less than 6 inch [150] in height
 - Curbs are 6 inch [150] or greater in height and the legal speed is greater than 40 mph [70 km/hr].

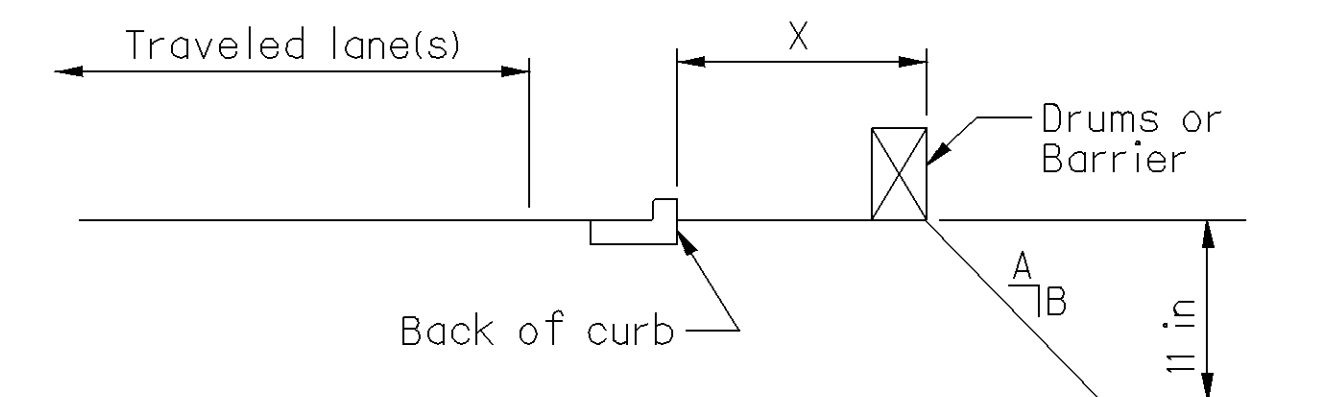


X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 4 [0 - 1.2]	Any	Any	(a)	(a)
4 - 30 [1.2 - 9.1]	Any	3:1 or Flatter	None	None
4 - 12 [1.2 - 3.6]	< 3 [< 75]	Steeper than 3:1	None	None
4 - 12 [1.2 - 3.6]	> 3 - < 12 [$> 75 - < 305$]	Steeper than 3:1	Drums	Drums
4 - 12 [1.2 - 3.6]	> 12 [> 305]	Steeper than 3:1	Drums	Barrier
> 12 - 20 [$> 3.6 - 6.1$]	< 12 [< 305]	Steeper than 3:1	None	None
> 12 - 20 [$> 3.6 - 6.1$]	> 12 - 24 [$> 305 - < 610$]	Steeper than 3:1	Drums	Drums
> 12 - 20 [$> 3.6 - 6.1$]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 20 - 30 [$> 6.1 - 9.1$]	< 24 [< 610]	Steeper than 3:1	None	None
> 20 - 30 [$> 6.1 - 9.1$]	> 24 [> 610]	Steeper than 3:1	Drums	Barrier
> 30 [> 9.1 m]	Any	Any	None	None

(a) Use treatment specified under Condition II.

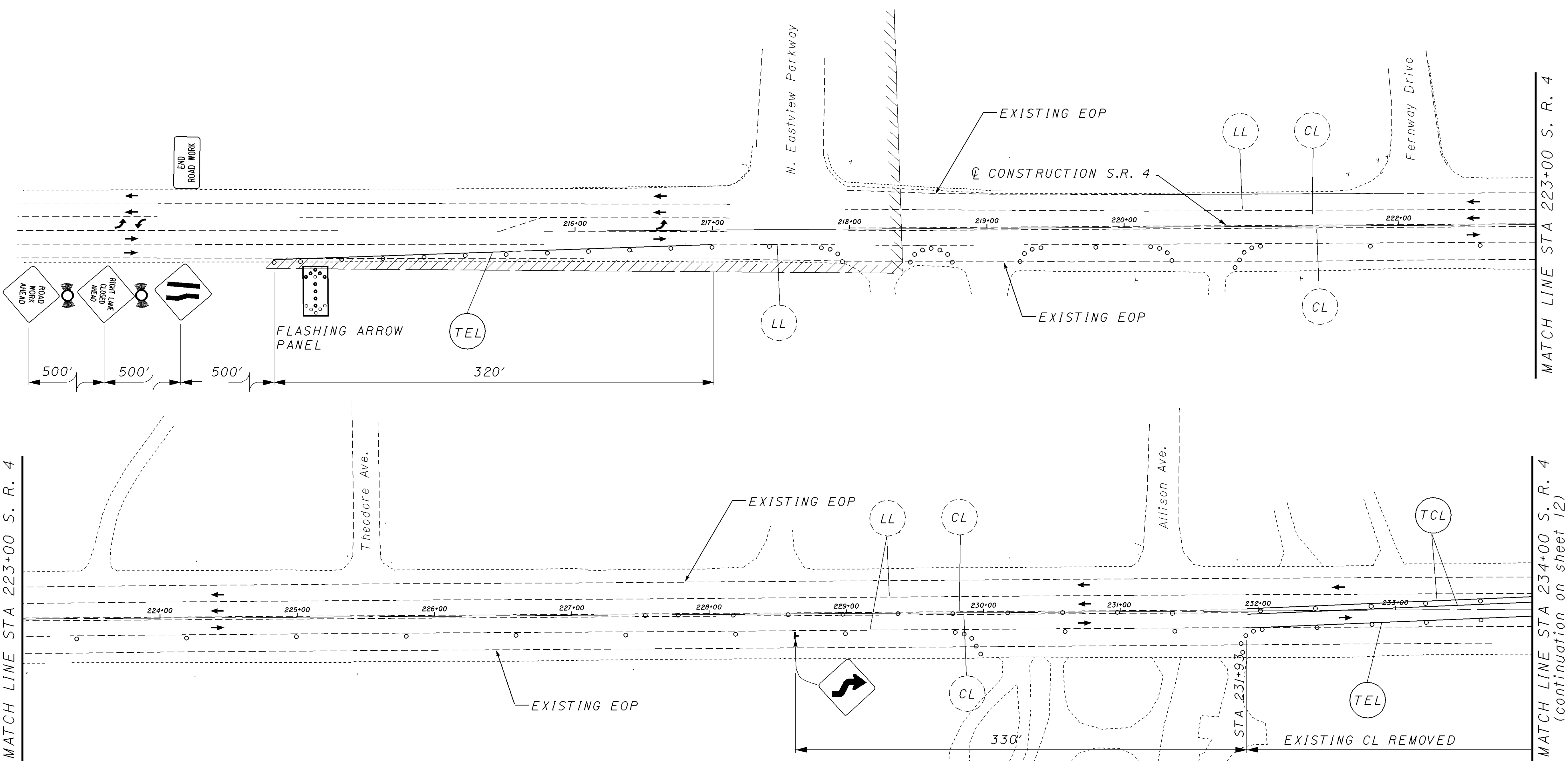
CHART B

- USE FOR: Curbed facilities, where the curb is 6 inches [150 mm] or greater in height and the legal speed is 40 mph [70 km/h] or less.



X feet (m)	D inch (mm)	A/B	Treatment Required	
			Day	Night
0 - 10 [0-3.0 m]	< 12 [< 305]	Any	None	Drums
0 - 10 [0-3.0 m]	> 12 [> 305]	Any	Drums	Drums
> 10 [> 3.0 m]	Any	Any	None	None

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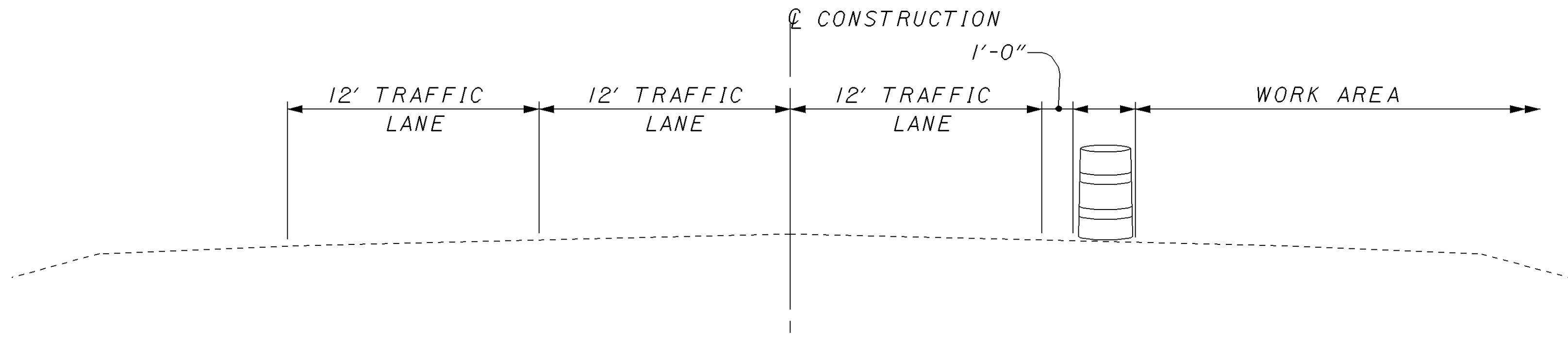
MATCH LINE STA 223+00 S. R. 4

MATCH LINE STA 223+00 S. R. 4

MATCH LINE STA 234+00 S. R. 4
(continuation on sheet 12)

MOT LEGEND

- (TEL) WORK ZONE EDGE LINE, CLASS 1
- (TCL) WORK ZONE CENTER LINE, CLASS 1
- (LL) EXISTING LANE LINE
- (CL) EXISTING CENTER LINE
- (TL) EXISTING TRANSVERSE LINE



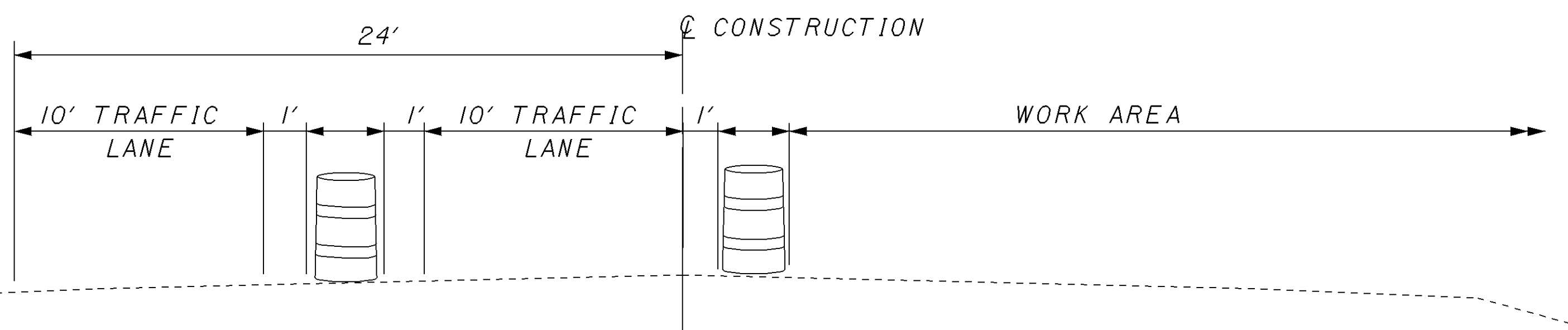
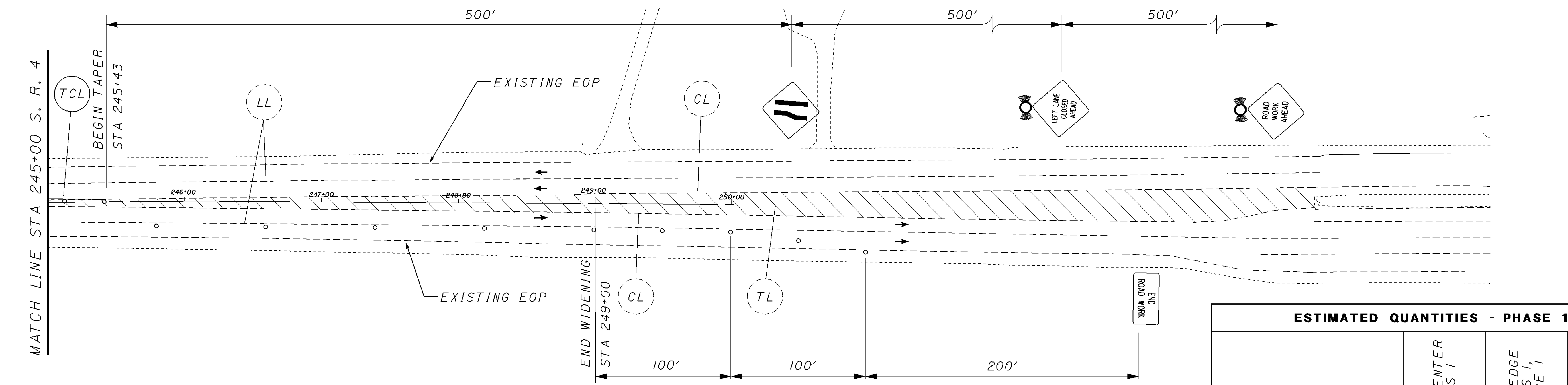
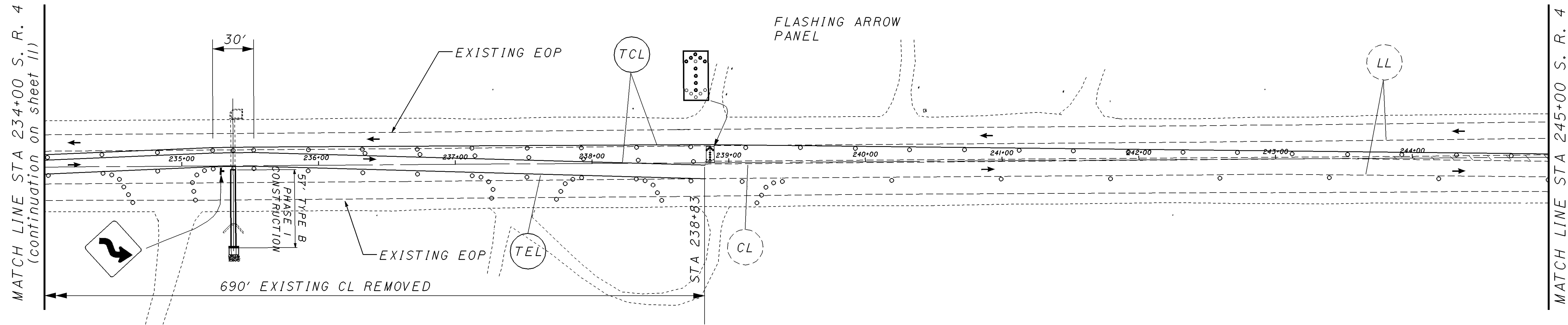
TYPICAL RIGHT LANE CLOSED DETAIL
(NTS)

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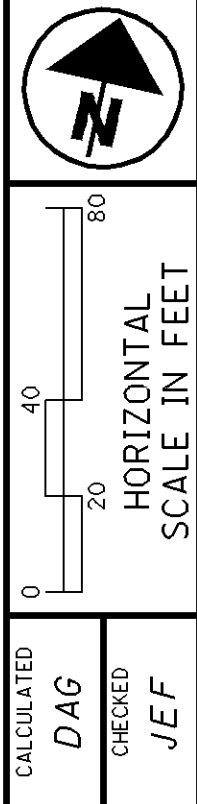
0 20 40 80
HORIZONTAL
SCALE IN FEET

**MAINTENANCE OF TRAFFIC
PHASE 1**

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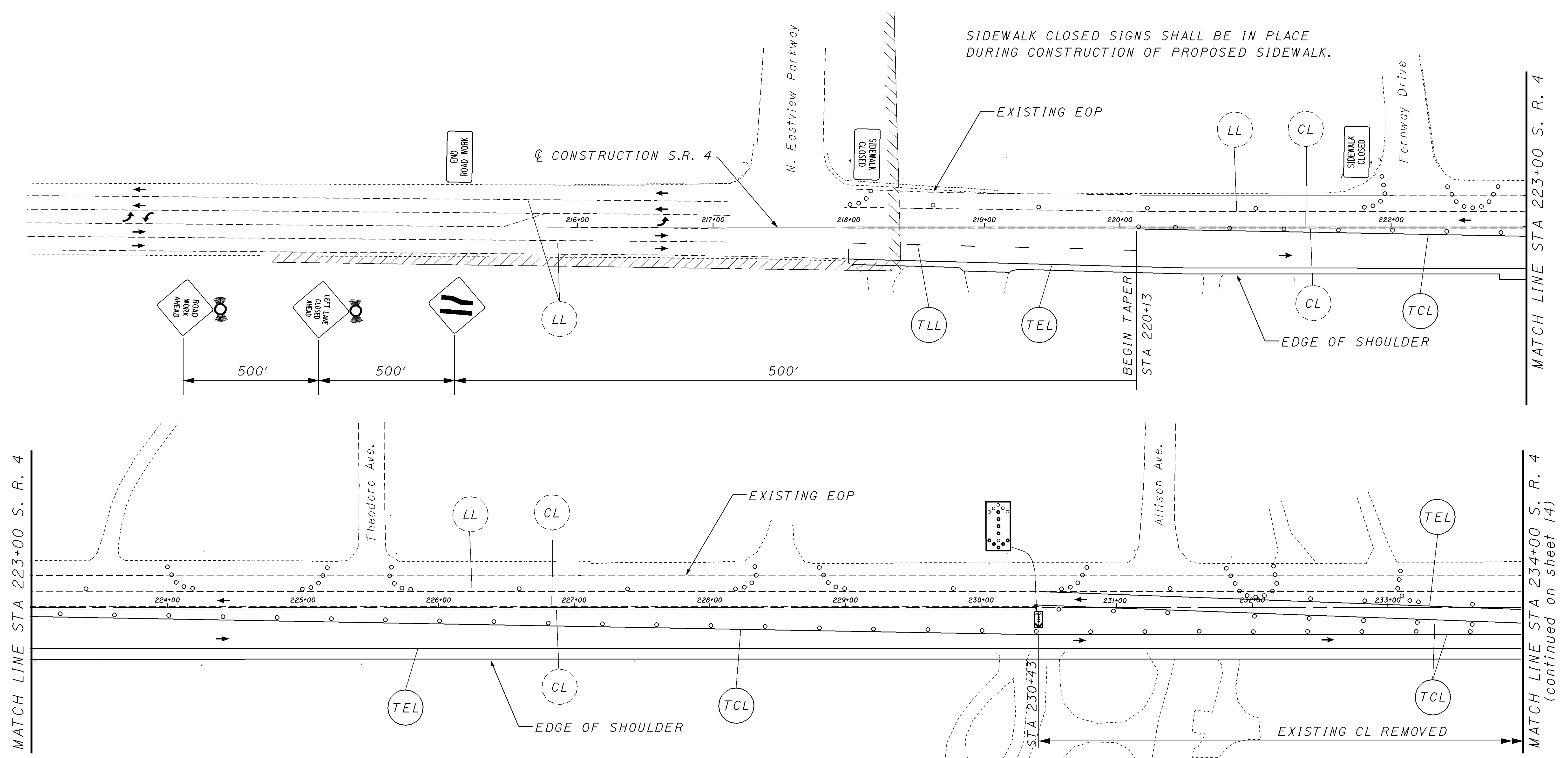
ESTIMATED QUANTITIES - PHASE 1			
STATIONING	WORK ZONE CENTER LINE, CLASS 1	WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1	WORK ZONE EDGE LINE, CLASS 1
	MILE	MILE	MILE
213+80 - 217+00	--	0.060	--
231+93 - 238+83	0.261	--	0.131
238+83 - 245+43	0.125	--	--
SUBTOTAL	0.386	0.060	0.131
TOTAL CARRIED TO GENERAL SUMMARY	0.39	0.06	0.13



MAINTENANCE OF TRAFFIC PHASE 1

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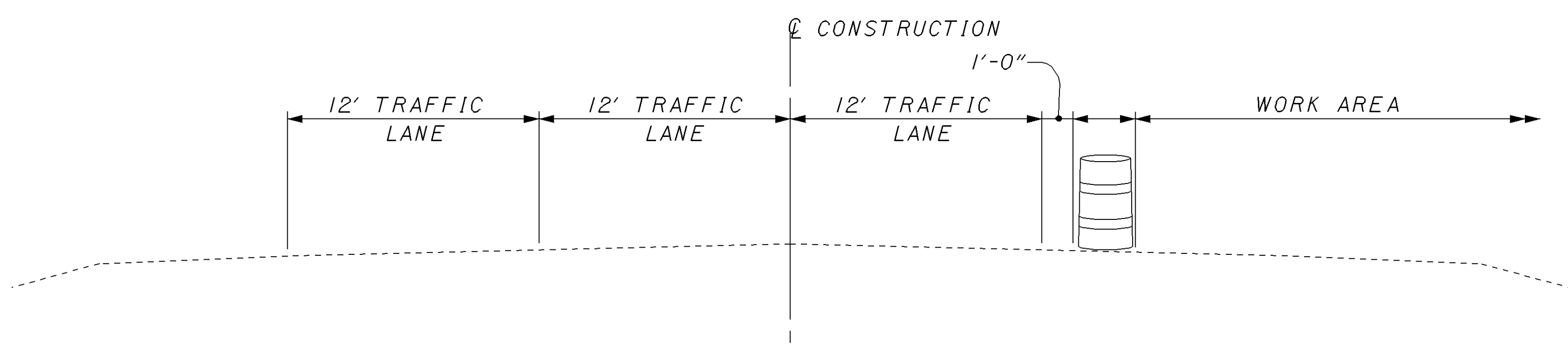
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SIDEWALK CLOSED SIGNS SHALL BE IN PLACE DURING CONSTRUCTION OF PROPOSED SIDEWALK.

MOT LEGEND

- (TEL) WORK ZONE EDGE LINE, CLASS 1
- (TCL) WORK ZONE CENTER LINE, CLASS 1
- (TLL) WORK ZONE LANE LINE, CLASS 1
- (LL) EXISTING LANE LINE
- (CL) EXISTING CENTER LINE
- (TL) EXISTING TRANSVERSE LINE



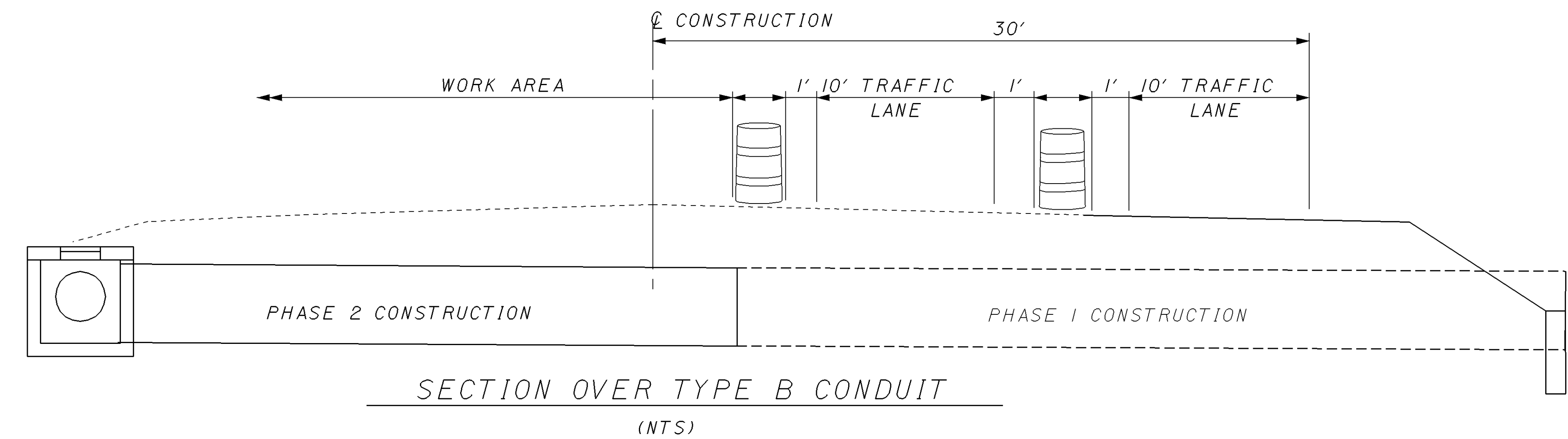
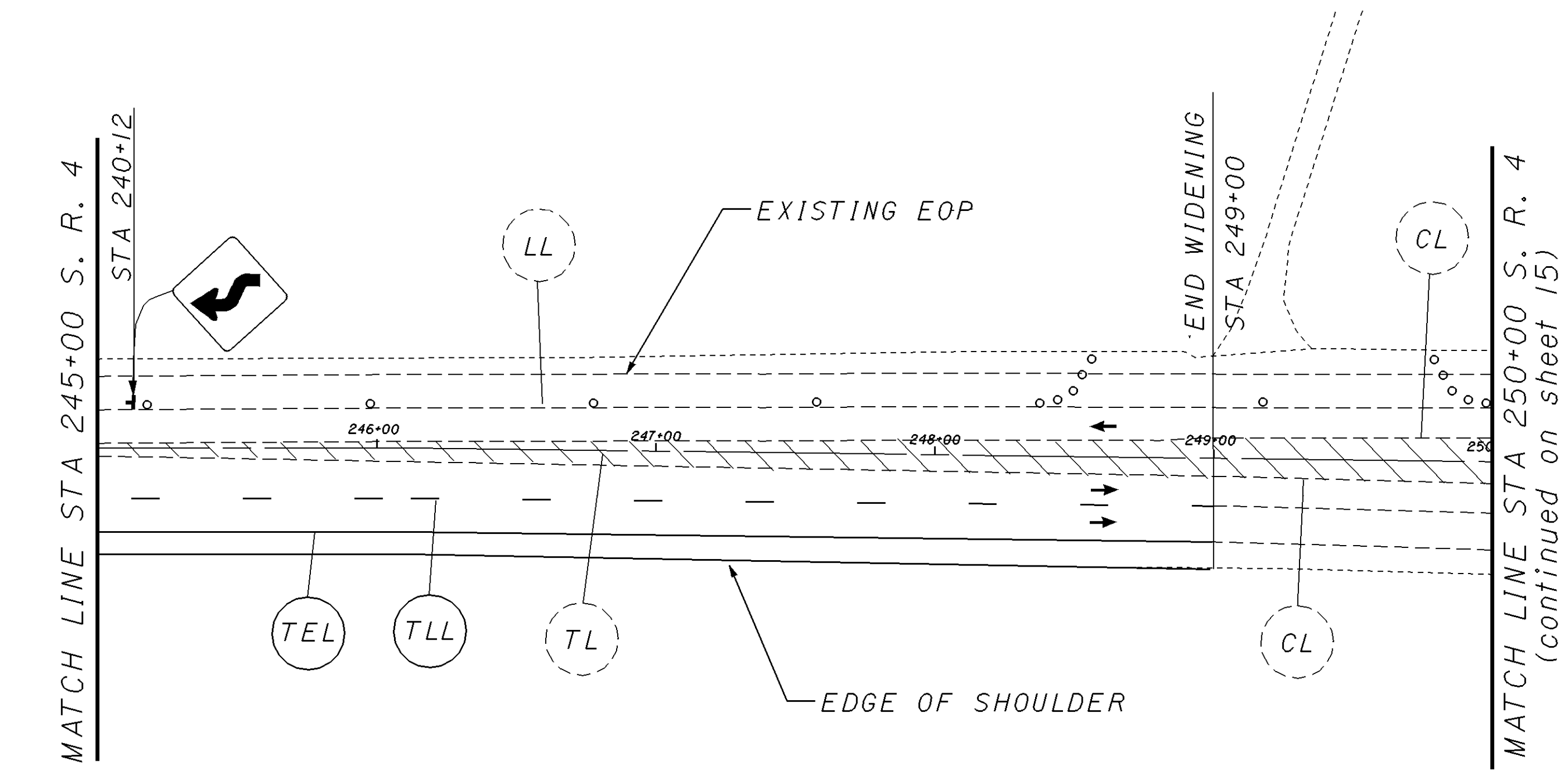
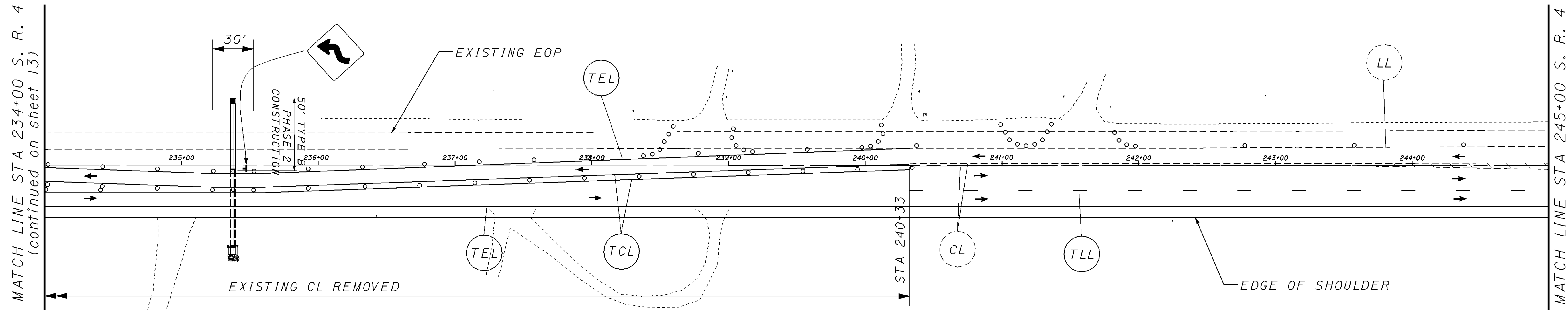
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0 20 40 80
 HORIZONTAL
 SCALE IN FEET

**MAINTENANCE OF TRAFFIC
 PHASE 2**

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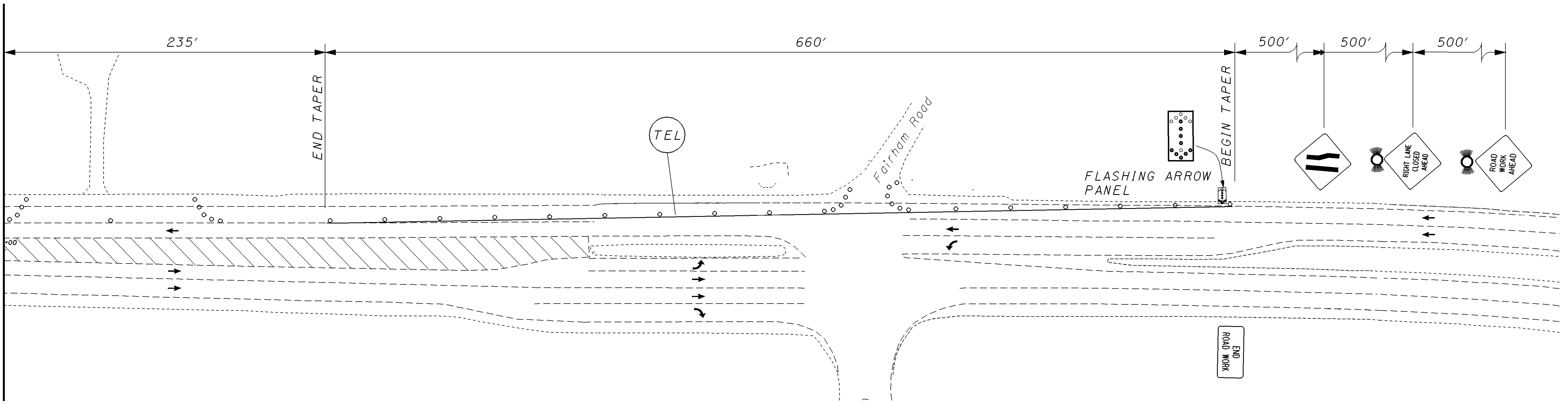
ESTIMATED QUANTITIES - PHASE 2				
STATIONING	WORK ZONE LANE LINE, CLASS 1	WORK ZONE CENTER LINE, CLASS 1	WORK ZONE EDGE LINE, CLASS 1	WORK ZONE EDGE LINE, CLASS 1 TYPE 1
	MILE	MILE	MILE	MILE
218+00 - 220+13	0.040	--	--	--
218+00 - 249+00	--	--	0.587	--
220+13 - 230+43	--	0.195	--	--
230+43 - 240+33	--	0.375	0.188	--
240+33 - 249+00	0.164	--	--	--
WESTBOUND TAPER	--	--	--	0.125
SUBTOTAL	0.204	0.570	0.775	0.125
TOTAL CARRIED TO GENERAL SUMMARY	0.20	0.57	0.78	0.13

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CHECKED
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HORIZONTAL SCALE IN FEET
0 20 40 80

**MAINTENANCE OF TRAFFIC
PHASE 2**

MATCH LINE STA 250+00 S. R. 4
(continued on sheet 14)



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SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
6	7	8	18	19	20	21	22	82								
ROADWAY																
LUMP											201	11001	LUMP		CLEARING AND GRUBBING, AS PER PLAN	6
			2								202	20010	2	EACH	HEADWALL REMOVED	
											202	23000	6672	SQ YD	PAVEMENT REMOVED	
			1824								202	30000	1824	SQ FT	WALK REMOVED	
			273								202	32000	273	FT	CURB REMOVED	
			284								202	35100	284	FT	PIPE REMOVED, 24" AND UNDER	
			445								202	35200	445	FT	PIPE REMOVED, OVER 24"	
			387.50								202	38000	387.50	FT	GUARDRAIL REMOVED	
			4								202	42000	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A	
			2								202	42040	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
124											202	54000	124	EACH	RAISED PAVEMENT MARKER REMOVED	
			1								202	58500	1	EACH	CATCH BASIN ABANDONED	
			6								202	58100	6	EACH	CATCH BASIN REMOVED	
			63								SPECIAL	20270000	63	FT	FILL AND PLUG EXISTING CONDUIT	
											203	10000	2919	CU YD	EXCAVATION	
											203	20000	1602	CU YD	EMBANKMENT	
											204	10000	11216	SQ YD	SUBGRADE COMPACTION	
			375								606	13000	375	FT	GUARDRAIL, TYPE 5	
			1								606	22000	1	EACH	ANCHOR ASSEMBLY, TYPE B-98	
			1								606	25000	1	EACH	ANCHOR ASSEMBLY, TYPE A	
			5								606	26500	5	EACH	ANCHOR ASSEMBLY, TYPE T	
			1046								608	10000	1046	SQ FT	4" CONCRETE WALK	
		26									SPECIAL	69050100	26	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	
			LUMP								878	25000	LUMP		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
EROSION CONTROL																
											601	21050	9	SQ YD	TIED CONCRETE BLOCK MAT, TYPE I	
											601	11000	4	SQ YD	RIPRAP USING 6" REINFORCED CONCRETE SLAB	
											601	32100	3	CU YD	ROCK CHANNEL PROTECTION, TYPE B WITH FILTER	
			1084								659	00300	1084	CU YD	TOPSOIL	
			9766								659	10000	9766	SQ YD	SEEDING AND MULCHING	
			488								659	14000	488	SQ YD	REPAIR SEEDING AND MULCHING	
			1.32								659	20000	1.32	TON	COMMERCIAL FERTILIZER	
			2.02								659	31000	2.02	ACRE	LIME	
			53								659	35000	53	M GAL	WATER	
											832	15000	LUMP		STORM WATER POLLUTION PREVENTION PLAN	
											832	30000	20000	EACH	EROSION CONTROL	
											836	10000	494	SQ YD	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE I	
DRAINAGE																
											602	20000	1.3	CU YD	CONCRETE MASONRY	
											603	00510	263	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
											603	01100	50	FT	6" CONDUIT, TYPE C	
			50								603	01100	50	FT	6" CONDUIT, TYPE C FOR DRAINAGE CONNECTION	
			50								603	01400	50	FT	6" CONDUIT, TYPE E FOR DRAINAGE CONNECTION	
			50								603	01800	50	FT	8" CONDUIT, TYPE B	
			50								603	02500	50	FT	8" CONDUIT, TYPE E	
			50								603	02600	50	FT	8" CONDUIT, TYPE F	
											603	04400	25	FT	12" CONDUIT, TYPE B	
											603	04600	119	FT	12" CONDUIT, TYPE C	
											603	07600	300	FT	18" CONDUIT, TYPE C	
											603	10600	285	FT	24" CONDUIT, TYPE C	
											603	13600	663	FT	30" CONDUIT, TYPE C	
											603	19400	107	FT	42" CONDUIT, TYPE B	

GENERAL SUMMARY

BUT - 4 - (9.28) (10.11)

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SHEET NUMBER											ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
7	9	12	14	19	20	21	25	91								
DRAINAGE (continued)																
											604	00400	1	EACH	CATCH BASIN, NO. 3	
											604	04100	1	EACH	CATCH BASIN, NO. 2-2A	
											604	02800	3	EACH	CATCH BASIN, NO. 8	
											604	04500	11	EACH	CATCH BASIN, NO. 2-2B	
											604	04900	4	EACH	CATCH BASIN, NO. 2-3	
											604	05300	1	EACH	CATCH BASIN, NO. 2-4	
											604	08600	1	EACH	CATCH BASIN, MISC.: MODIFY GRATE AND WINDOWS	8
											604	35501	11	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	8
											604	36600	5	EACH	PRECAST REINFORCED CONCRETE OUTLET	
	2										604	37000	2	EACH	INSPECTION WELL	
											605	11100	4125	FT	6" SHALLOW PIPE UNDERDRAINS	
											605	13300	181	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
											605	14000	4893	FT	6" BASE PIPE UNDERDRAINS	
											605	31100	70	FT	AGGREGATE DRAINS	
PAVEMENT																
											254	01000	16650	SQ YD	PAVEMENT PLANING, ASPHALT CONCRETE	
											301	46000	2734	CU YD	ASPHALT CONCRETE BASE, PG64-22	
											304	20000	1830	CU YD	AGGREGATE BASE	
											407	10000	1249	GALLON	TACK COAT	
											407	14000	385	GALLON	TACK COAT FOR INTERMEDIATE COURSE	
											408	10000	115	GALLON	PRIME COAT	
											411	10000	37	CU YD	STABILIZED CRUSHED AGGREGATE	
											448	46040	468	CU YD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28	
											448	48020	40	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-22 (DRIVEWAYS)	
											448	50000	1095	CU YD	ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	
											452	10000	86	SQ YD	6" NON-REINFORCED CONCRETE PAVEMENT	
											609	26000	409	FT	CURB, TYPE 6	
TRAFFIC CONTROL																
											621	00100	170	EACH	RPM	
											630	03100	273	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
											630	80100	24	SQ FT	SIGN, FLAT SHEET	
											630	84900	4	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
											630	85100	11	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION	
											630	86002	23	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
											644	00100	1.18	MILE	EDGE LINE	
											644	00200	1.17	MILE	LANE LINE	
											644	00300	1.26	MILE	CENTER LINE	
											644	00400	219	FT	CHANNELIZING LINE	
											644	00700	83	FT	TRANSVERSE/DIAGONAL LINE	
											644	01300	20	EACH	LANE ARROW	
											644	30000	241	FT	REMOVAL OF PAVEMENT MARKING	
MAINTENANCE OF TRAFFIC																
											614	20000	2.54	MILE	WORK ZONE LANE LINE, CLASS 1	
											614	21000	3.48	MILE	WORK ZONE CENTER LINE, CLASS 1	
											614	22000	3.27	MILE	WORK ZONE EDGE LINE, CLASS 1	
											614	22200	0.19	MILE	WORK ZONE EDGE LINE, CLASS 1, 740.06, TYPE 1	
											614	23000	438	FT	WORK ZONE CHANNELIZING LINE, CLASS 1	
											614	30000	40	EACH	WORK ZONE LANE ARROW, CLASS 1	
											624	10000	LUMP		MOBILIZATION	
											614	11000	LUMP		MAINTAINING TRAFFIC	
											623	10001	LUMP		CONSTRUCTION LAYOUT STAKES, AS PER PLAN	

GENERAL SUMMARY

BUT - 4 - (9.28) (10.11)

FLARED GUARDRAIL					
REF. NO.	GR-5.1 TAPER		GR-5.1 FLARE		
	BEGINNING	LENGTH	POST NO. 0	POST NO.	RAIL LENGTH
	Stationing	Ft-In	Stationing		Ft-In
GR-1	220+48.00	37-6	220+10.50	6	37-6
GR-2	221+66.00	37-6	221+28.50	14	87-6
GR-3	220+86.00	12-6	220+98.50	2	12-6
	221+11.00	87-6*	220+98.50	2	12-6
	220+98.50	87-6*	221+11.00	10	62-6
* (common)					

GUARDRAIL RUNS				
REF. NO.	CENTERLINE OF GUARDRAIL POST AT FACE OF RAIL			
	INITIAL POST	BEGIN LENGTH OF NEED	END LENGTH OF NEED	FINAL POST
	Stationing	Stationing	Stationing	Stationing
GR-1	219+35.82	219+52.30	--	220+56.00
GR-2	220+41.32	--	220+53.77	221+78.83
GR-3	220+78.07	--	--	222+60.88

ANCHOR ASSEMBLY, TYPE T			
REF. NO.	CENTERLINE OF GUARDRAIL POST AT FACE OF RAIL		
	INITIAL POST	LENGTH	FINAL POST
	Stationing	Ft-In	Stationing
GR-1	220+35.51	12-6	220+48.00
GR-2	220+41.32	12-6	220+53.77
	221+53.50	12-6	221+66.00
GR-3	220+86.00	12-6	220+98.50
	222+48.42	12-6	222+60.88

REF. NO.	SHEET NO.	202										603	606				608	FOR INFO ONLY	
		HEADWALL REMOVED	WALK REMOVED	CURB REMOVED	PIPE REMOVED, 24" AND UNDER	PIPE REMOVED, OVER 24"	GUARDRAIL REMOVED	ANCHOR ASSEMBLY REMOVED, TYPE A	ANCHOR ASSEMBLY REMOVED, TYPE T	CATCH BASIN ABANDONED	CATCH BASIN REMOVED	ITEM SPECIAL, FILL AND PLUG EXISTING CONDUIT	GUARDRAIL, TYPE 5	ANCHOR ASSEMBLY, TYPE B-98	ANCHOR ASSEMBLY, TYPE A	ANCHOR ASSEMBLY, TYPE T	4" CONCRETE WALK	FLARED END SECTION	
		EACH	SQ FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	FT	FT	EACH	EACH	EACH	SQ FT	EACH	
GR-1	25											75	1		1			1	
GR-2	25-26											137.50		1	2			1	
GR-3	25-26											162.50			2			2	
R-1	25-26		1823.19	273															
R-2	25					62.50	1	1											
R-3	25-26					150	2												
R-4	25-26					175	1	1											
R-5	26				16														
R-6	26								1		63								
R-7	28	1			79														
R-8	28-29				228														
R-9	29				126														
R-10	29				110														
R-11	29				32														
R-12	29-30	1			138														
W-1	25															184.96			
W-2	25															183.88			
W-3	25-26															677.03			
SUBTOTAL		2	1823.19	273	284	445	387.50	4	2	1	6	63	375.00	1	1	5	1045.87		4
TOTAL CARRIED TO GENERAL SUMMARY		2	1824	273	284	445	387.50	4	2	1	6	63	375	1	1	5	1046		

CALCULATED:
 DAG:
 CHECKED:
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ROADWAY SUBSUMMARY
BUT - 4 - (9.28) (10.11)

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REF. NO.	WORK TYPE OR DRIVE TYPE	LOCATION	CADD-GENERATED PLAN AREAS						202	204	254	301	304	407		408	411	448			452	
			STATIONING OR DESCRIPTION (Side of Centerline of Construction)	Areas for Widening Type include Side Streets 9'-4" from Edge of Proposed Pavement but only 8'-0" for Surface Course.						PAVEMENT REMOVED	SUBGRADE COMPACTION	PAVEMENT PLANING, ASPHALT CONCRETE	10" ASPHALT CONCRETE BASE, PG-64-22	6" AGGREGATE BASE	TACK COAT	TACK COAT FOR INTERMEDIATE COURSE	PRIME COAT	8" STABILIZED CRUSHED AGGREGATE	1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, PG64-28	2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, PG64-28 (DRIVEWAYS)	1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1H	6" NON-REINFORCED CONCRETE PAVEMENT
				A	B	C	D	E	F	1 A / 9	1 B / 9	1 A / 9	10 D / (12 x 27)	6 C / (12 x 27)	0.075 E / 9	0.04 E / 9	0.40 C / 9	8 E / (12 x 27)	1.75 E / (12 x 27)	2 F / (12 x 27)	1.50 F / (12 x 27)	1 F / 9
				SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ FT	SQ YD	SQ YD	SQ YD	CU YD	CU YD	GALLON	GALLON	GALLON	CU YD	CU YD	CU YD	CU YD	SQ YD
X	Widening	218+00 to 225+10 (LT)	4555.77	6966.97	6922.45	6199.86	6107.51	6029.16	506.20	774.11	N/A	191.35	128.19	N/A	27.14	N/A	N/A	32.99	N/A	27.91	N/A	
	Resurfacing	218+00 to 225+10 (CTR)	33551.87				33551.87	33551.87	N/A		3727.99				279.60	N/A	N/A	N/A		155.33	N/A	
	Widening	218+00 to 225+10 (RT)	5495.78	8529.78	8415.61	7730.51	7502.15	7502.15	610.64	947.75	N/A	238.60	155.84	N/A	33.34	N/A	N/A	40.52	N/A	34.73	N/A	
	Curb C-2	219+91± to 220+05± (LT)	16.39						1.82		N/A											
	Widening	225+10 to 249+00 (LT)	22803.78	38084.13	37697.55	35374.16	34598.10	34510.22	2533.75	4231.57	N/A	1091.80	698.10	N/A	153.77	N/A	N/A	186.87	N/A	159.77	N/A	
	Resurfacing	225+10 to 249+00 (CTR)	114879.80				114879.80	114879.80	N/A		12764.42				957.33	N/A	N/A	N/A		531.85	N/A	
	Widening	225+10 to 249+00 (RT)	21382.58	35834.35	35436.07	33046.60	32250.04	32250.04	2375.84	3981.59	N/A	1019.96	656.22	N/A	143.33	N/A	N/A	174.19	N/A	149.31	N/A	
Turn Lane	163+82 to 166+70 (CTR)	1884.58	6201.86	6193.43	6142.89	6126.05	6126.05	209.40	689.10	N/A	189.60	114.69	N/A	27.23	N/A	N/A	33.09	N/A	28.36	N/A		
P-1	B	Drive (RT) [sheet 25]		109.79	107.88			102.00		12.20			2.00			4.79			0.63	N/A	N/A	
P-2	B	Drive (RT) [sheet 25]		263.15	263.71			253.70		30.59			4.88			11.72			1.57	N/A	N/A	
	Mailbox	Mailbox Approach (RT)		86.38	44.20	43.74	43.58	43.58		9.60		1.35	0.82	N/A	0.19	N/A	N/A	0.24	N/A	0.20	N/A	
P-3	C	Drive (LT) [sheet 25]	237.81	348.04	339.53			322.56	26.42	38.67	N/A		6.29			N/A			N/A	N/A	35.84	
P-4	C	Drive (LT) [sheet 25]	120.23	226.71	218.21			201.23	13.36	25.19	N/A		4.04			N/A			N/A	N/A	22.36	
P-5	A	Drive (RT) [sheet 25]		170.57	46.42			105.43		18.95			0.60	N/A	N/A	2.06	2.60	N/A	0.21	N/A	N/A	
	Mailbox	Mailbox Approach (RT)		86.39	44.22	43.75	43.60	43.60		9.60		1.35	0.82	N/A	0.47	N/A	N/A	0.23	N/A	0.19	N/A	
P-6	Side Road	Fernway Drive (LT)	724.20				724.55	797.20	N/A		80.47			6.04	N/A	N/A	N/A	N/A	N/A	3.69	N/A	
P-7	B	Drive (LT) [sheet 26]		156.83	150.27			138.63		17.43			2.78			6.68			0.86	N/A	N/A	
P-8	Side Road	Theodore Avenue (LT)	272.78				290.44	328.85	N/A		30.31			2.42	N/A	N/A	N/A	N/A	N/A	1.52	N/A	
P-9	C	Drive (LT) [sheet 27]	197.18	162.22	144.87			137.03	21.91	18.02	N/A		2.68			N/A			N/A	N/A	15.23	
P-10	B	Drive (LT) [sheet 27]		344.36	334.18			316.70		38.26			6.19			14.85			1.95	N/A	N/A	
P-11	B	Drive (LT) [sheet 27]		164.35	149.36			132.14		18.26			2.77			6.64			0.82	N/A	N/A	
P-12	B	Drive (RT) [sheet 27]		225.59	215.83			200.88		25.07			4.00			9.59			1.24	N/A	N/A	
P-13	A	Drive (RT) [sheet 27]		153.34	56.69			80.82		17.04			1.05	N/A	N/A	2.52	2.00	N/A	0.26	N/A	N/A	
P-14	Side Road	Allison Avenue (LT)	423.65				431.28	480.74	N/A		47.07			3.59	N/A	N/A	N/A	N/A	N/A	2.23	N/A	
P-15	A	Drive (RT) [sheet 28]		152.84	61.53			78.02		16.98			1.14	N/A	N/A	2.73	1.93	N/A	0.29	N/A	N/A	
P-16	B	Drive (RT) [sheet 28]		167.88	157.17			142.80		18.65			2.91			6.99			0.88	N/A	N/A	
P-17	A	Drive (LT) [sheet 28]		253.39	74.54			154.97		28.15			1.38	N/A	N/A	3.31	3.83	N/A	0.36	N/A	N/A	
P-18	A	Drive (LT) [sheet 28]		200.74	67.61			113.92		22.30			1.25	N/A	N/A	3.00	2.81	N/A	0.32	N/A	N/A	
P-19	C	Drive (LT) [sheet 28]	200.84	106.39	103.40			110.12	22.32	11.82	N/A		1.91			N/A			N/A	N/A	12.24	
P-20	A	Drive (RT) [sheet 28]		319.57	106.22			203.93		35.51			1.97	N/A	N/A	4.72	5.04	N/A	0.52	N/A	N/A	
P-21	A	Drive (LT) [sheet 29]		171.21	58.76			92.59		19.02			1.09	N/A	N/A	2.61	2.29	N/A	0.28	N/A	N/A	
P-22	A	Drive (RT) [sheet 29]		368.91	135.29			234.23		40.99			6.72	N/A	N/A	5.78	5.78	N/A	0.66	N/A	N/A	
P-23	A	Drive (LT) [sheet 29]		315.19	105.61			199.47		35.02			5.63	N/A	N/A	4.69	4.93	N/A	0.51	N/A	N/A	
P-24	A	Drive (RT) [sheet 29]		141.06	56.58			70.30		15.67			2.40	N/A	N/A	2.51	1.74	N/A	0.26	N/A	N/A	
P-25	B	Drive (LT) [sheet 29]		192.51	177.99			160.57		18.06			3.30			7.91			0.99	N/A	N/A	
P-26	B	Drive (LT) [sheet 29]		214.22	198.48			180.01		23.80			3.68			8.82			1.11	N/A	N/A	
P-27	A	Drive (LT) [sheet 30]		240.56	75.19			144.78		26.73			4.16	N/A	N/A	3.34	3.57	N/A	0.36	N/A	N/A	
SUBTOTAL								6321.66	11215.70	16650.26	2734.01	1829.50	1248.98	385.47	115.26	36.52	468.13	39.82	1095.09	85.67		
TOTAL CARRIED TO GENERAL SUMMARY								6672	11216	16650	2734	1830	1249	385	115	37	468	40	1095	86		

PAVEMENT CALCULATIONS

BUT - 4-(9.28)(10.11)

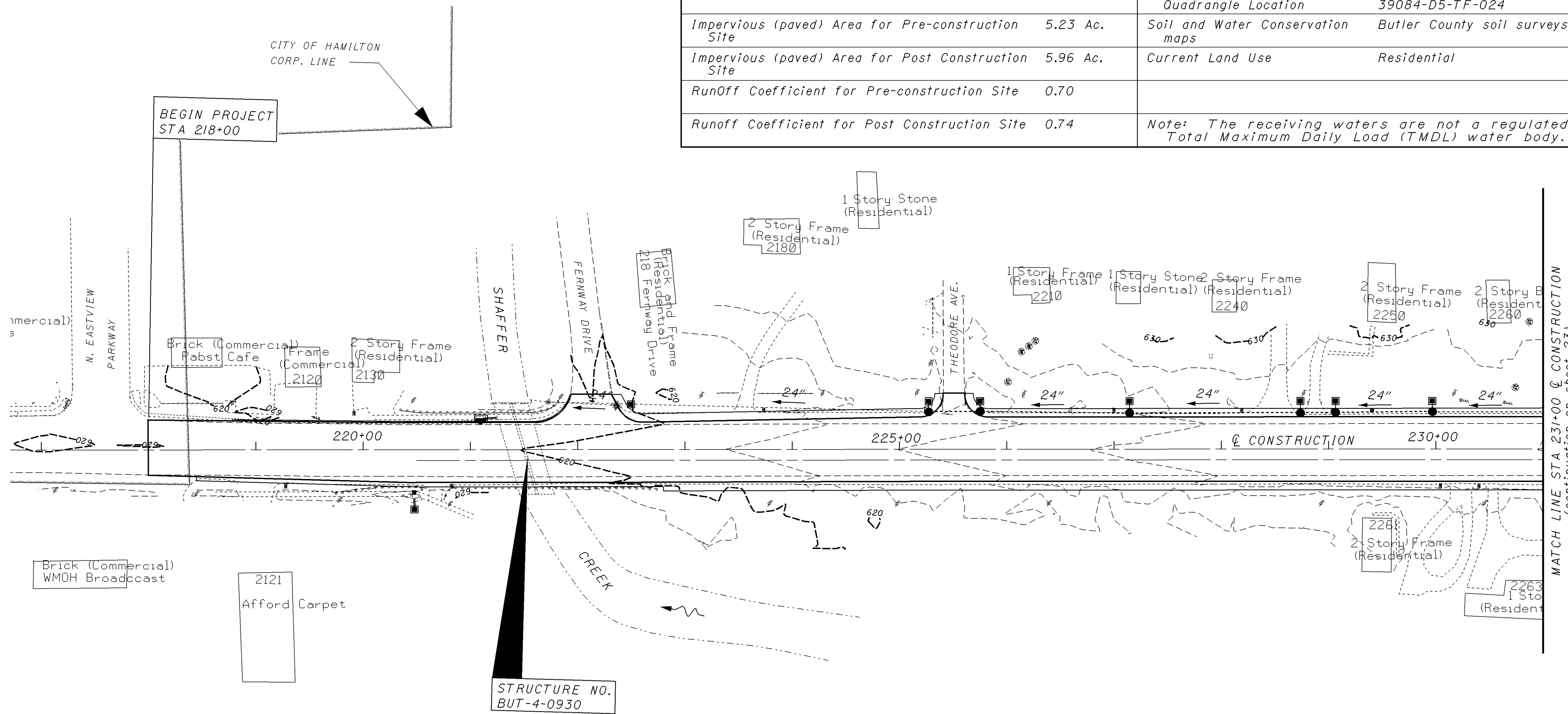
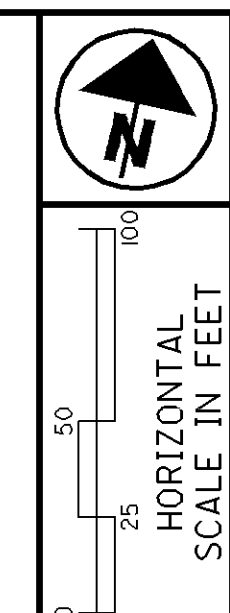
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NOTES

- The following items have been included in the General Summary:
 ITEM 832, STORM WATER POLLUTION PREVENTION PLAN LUMP
 ITEM 832, EROSION CONTROL 20000 EACH.
- For location map, see sheet 1 (Title Sheet).

PROJECT DATA			
Total Area (Right of Way)	8.79 Ac.	Immediate Receiving Waters	Shaffer Creek
Project Earth Disturbed Area	3.78 Ac.	Subsequent Receiving Waters	Great Miami River
Estimated Contractor Disturbed Area	1.00 Ac.	Latitude and Longitude to Approx. Center of Project	N 39°24'15" W 84°31'45"
Notice of Intent Disturbed Area	4.9 Ac.	Name and Number of USGS Quadrangle Location	Hamilton, Ohio 39084-D5-TF-024
Impervious (paved) Area for Pre-construction Site	5.23 Ac.	Soil and Water Conservation maps	Butler County soil surveys
Impervious (paved) Area for Post Construction Site	5.96 Ac.	Current Land Use	Residential
Runoff Coefficient for Pre-construction Site	0.70		
Runoff Coefficient for Post Construction Site	0.74	Note: The receiving waters are not a regulated Total Maximum Daily Load (TMDL) water body.	



PROJECT SITE PLAN

BUT - 4 - (9.28) (10.11)

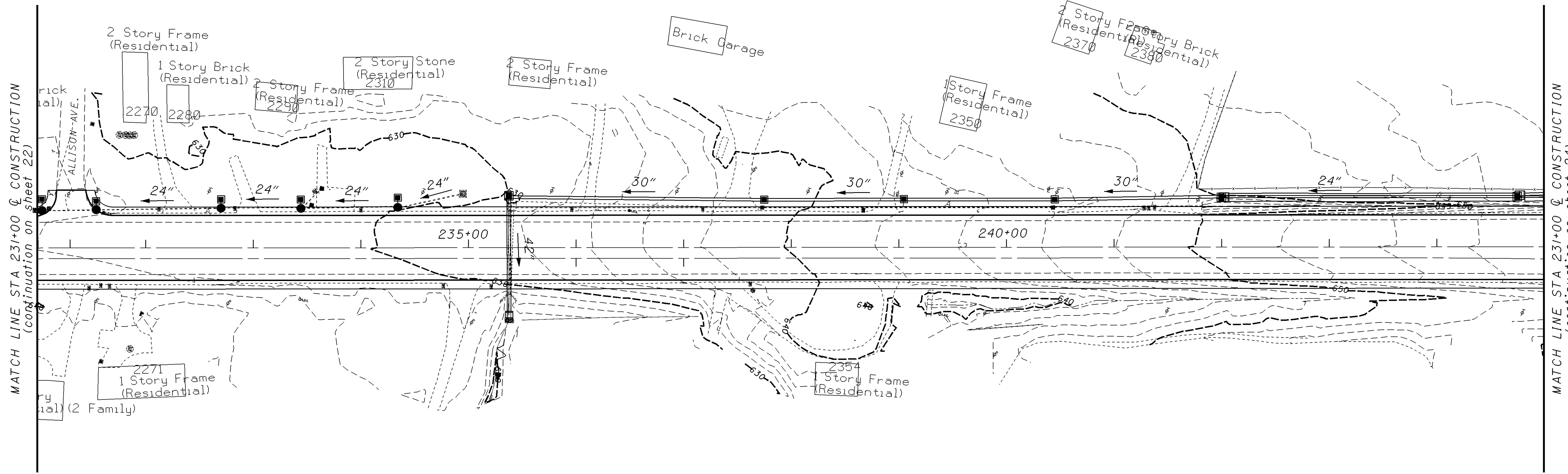
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USGS QUADRANT NO. 39084-D5-TF-024
 HAMILTON, OHIO
 LAT: 39°24'15"
 LONG: 84°31'45"

- LEGEND**
- CATCH BASIN
 - MANHOLE

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF IMPROVEMENT OF 0.60 MILE OF S. R. 4 IN BUTLER COUNTY BY WIDENING AND CONSTRUCTION OF A CENTER TURN LANE, CONSTRUCTION OF A LEFT TURN LANE AT HEADGATES ROAD, RECONSTRUCTING PORTIONS OF STORM SEWERS AND RESURFACING WITH ASPHALT CONCRETE.



MATCH LINE STA 231+00 @ CONSTRUCTION
(continuation on sheet 22)

MATCH LINE STA 241+00 @ CONSTRUCTION
(continuation on sheet 24)

LEGEND

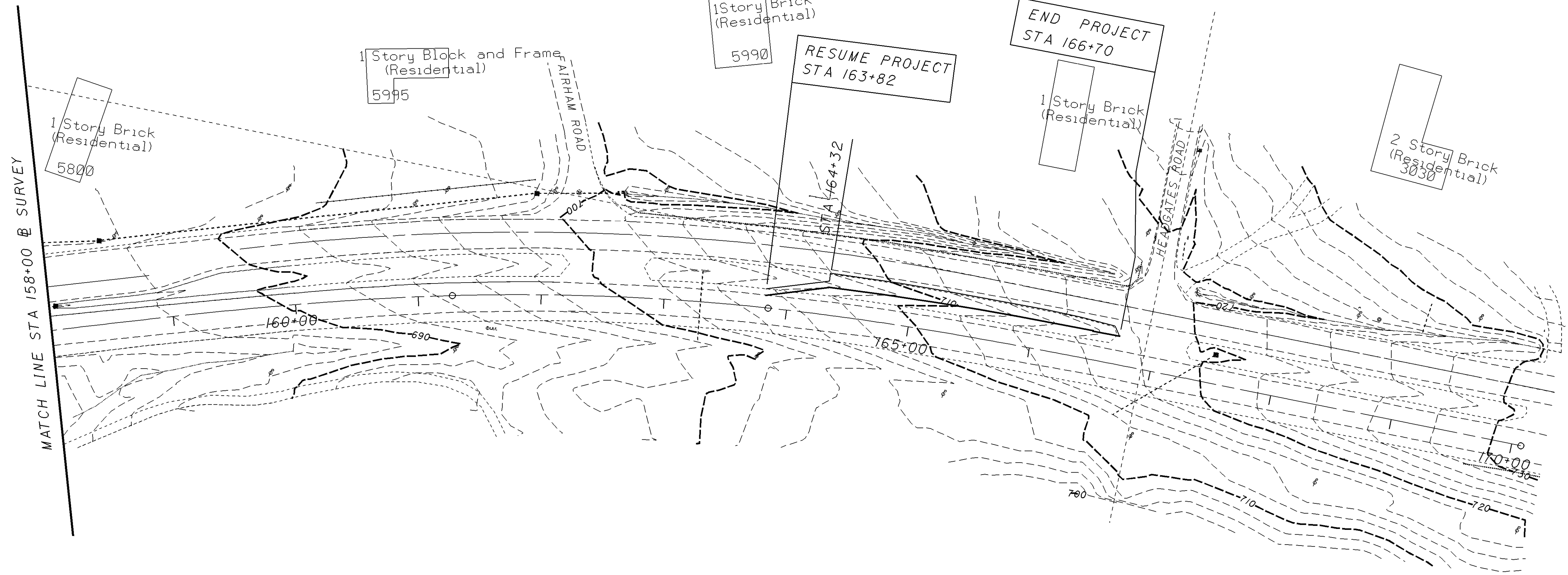
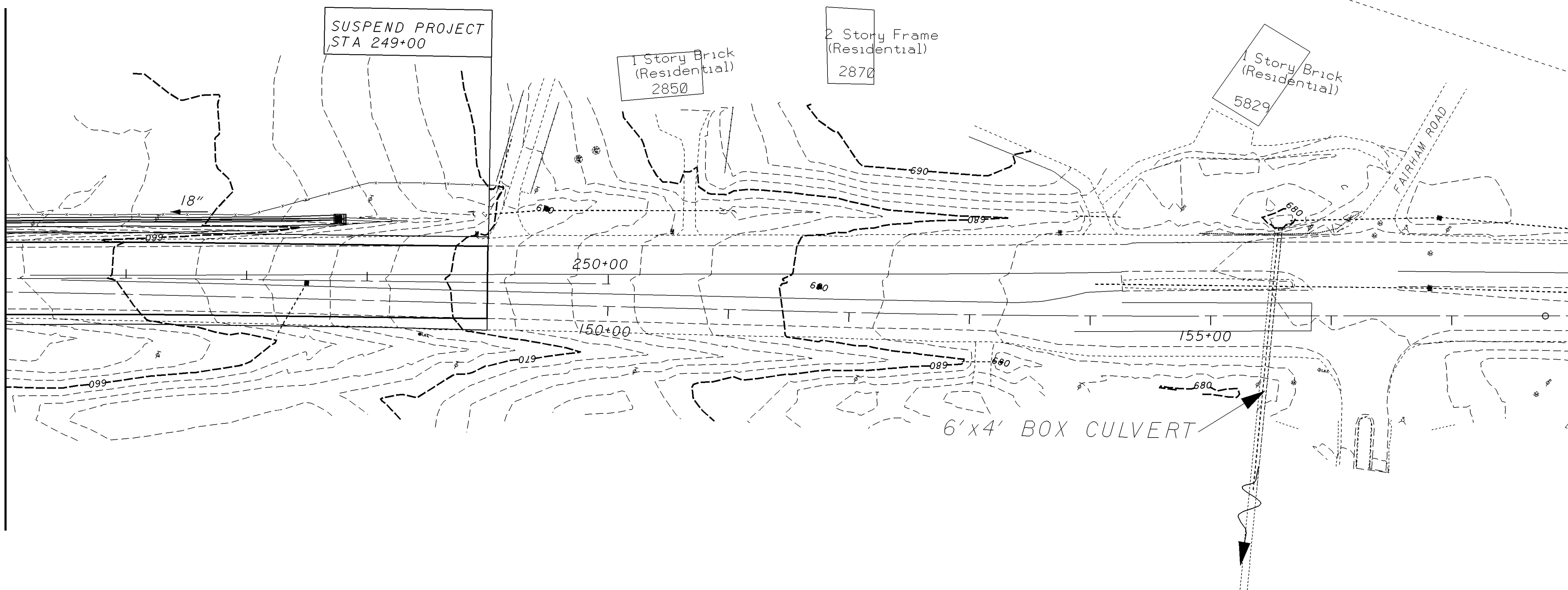
- CATCH BASIN
- MANHOLE

PROJECT SITE PLAN

BUT - 4 - (9.28) (10.11)

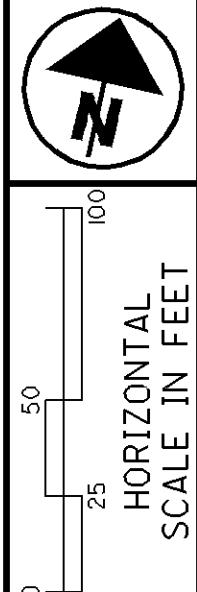
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MATCH LINE STA 231+00 @ CONSTRUCTION
(continuation on sheet 23)



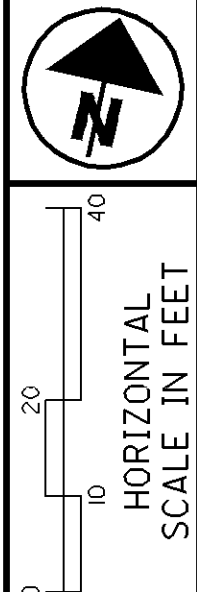
LEGEND

- CATCH BASIN
- MANHOLE



PROJECT SITE PLAN

BUT-4-(9.28)(10.11)

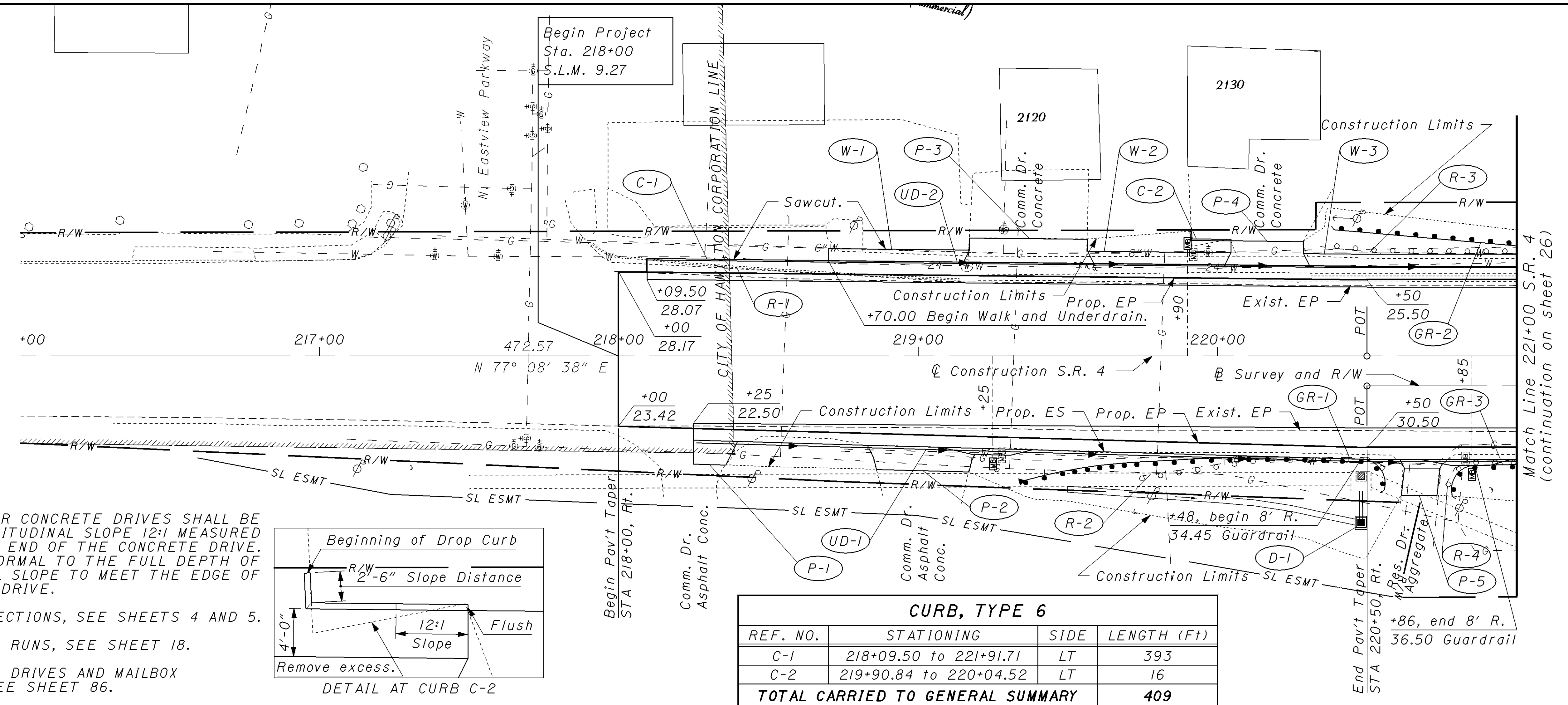


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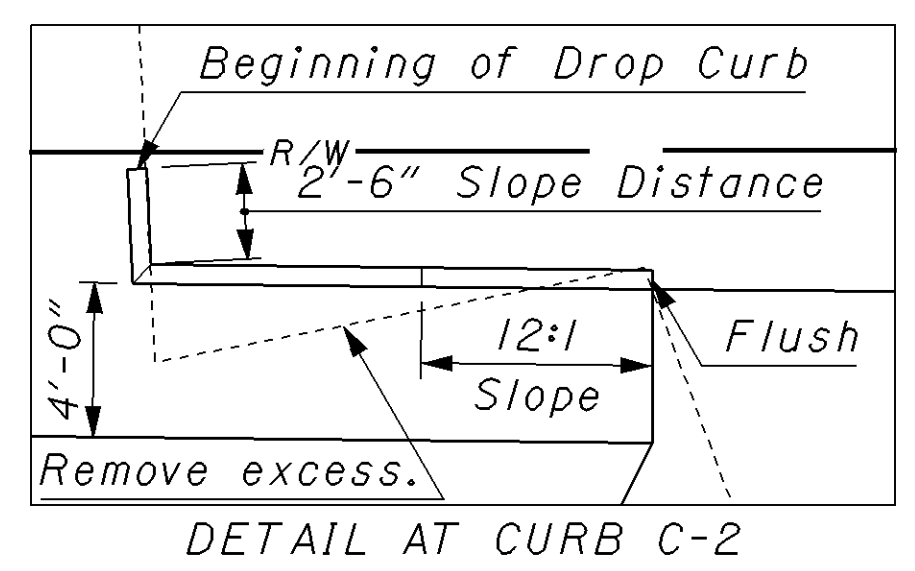
PLAN AND PROFILE
STA. 216+00 TO STA. 221+00

BUT-4-(9.28)(10.11)

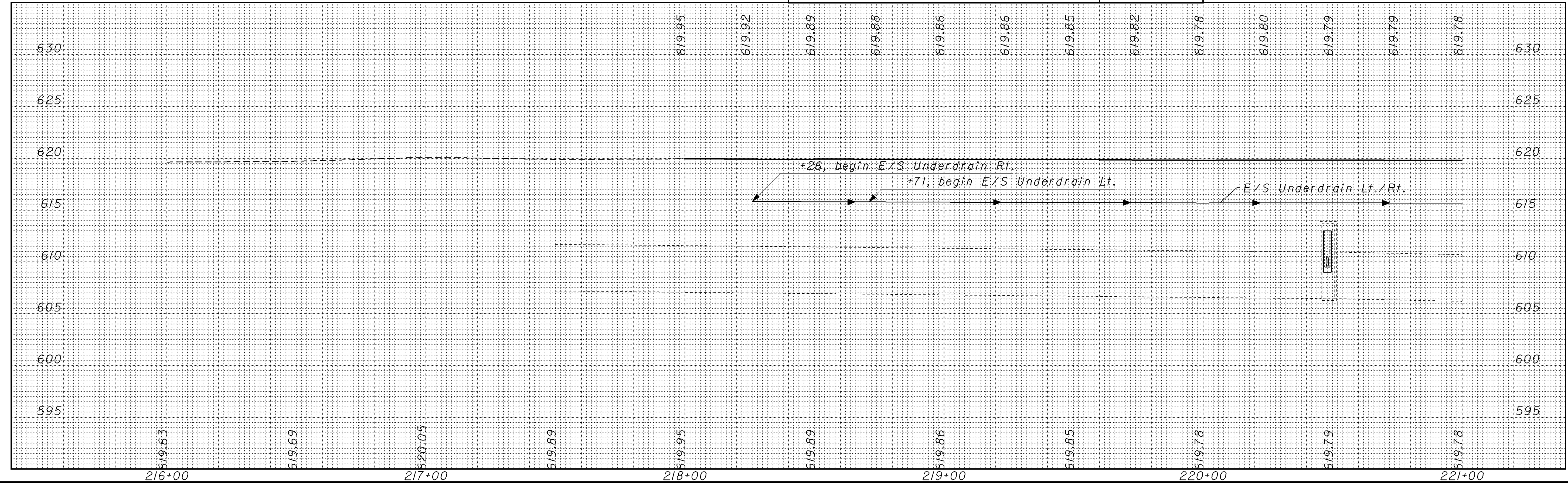
25
93



- NOTES**
1. DROP CURBS FOR CONCRETE DRIVES SHALL BE PLACED AT LONGITUDINAL SLOPE 12:1 MEASURED FROM THE CURB END OF THE CONCRETE DRIVE. THE 4" WALK NORMAL TO THE FULL DEPTH OF THE CURB SHALL SLOPE TO MEET THE EDGE OF THE CONCRETE DRIVE.
 2. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.
 3. FOR GUARDRAIL RUNS, SEE SHEET 18.
 4. FOR LAYOUTS OF DRIVES AND MAILBOX APPROACHES, SEE SHEET 86.

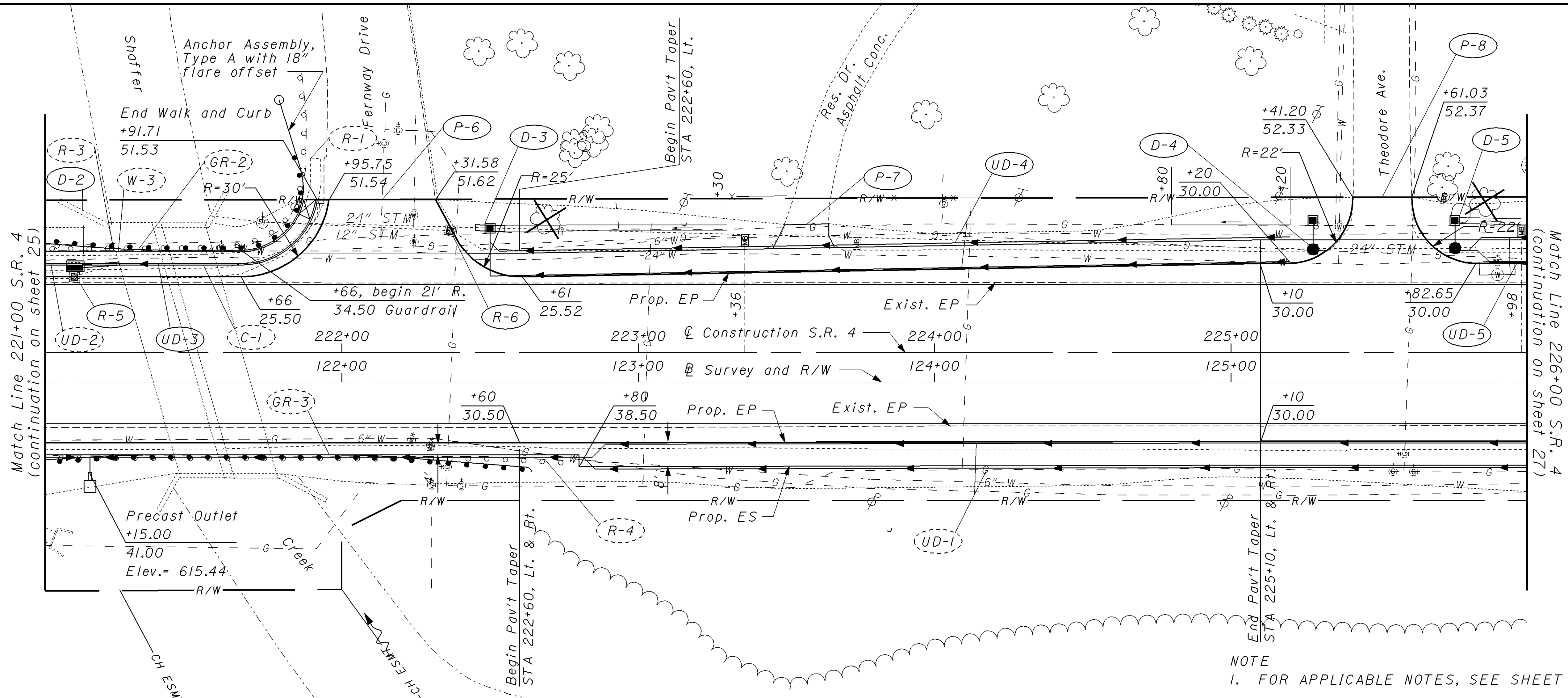


CURB, TYPE 6			
REF. NO.	STATIONING	SIDE	LENGTH (Ft)
C-1	218+09.50 to 221+91.71	LT	393
C-2	219+90.84 to 220+04.52	LT	16
TOTAL CARRIED TO GENERAL SUMMARY			409

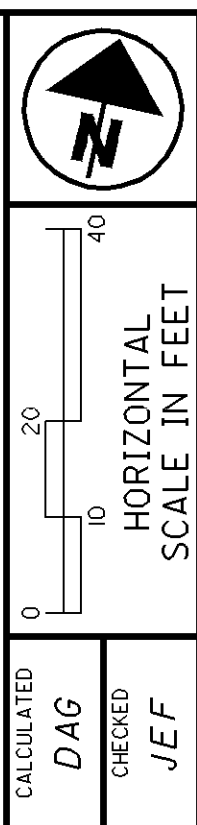
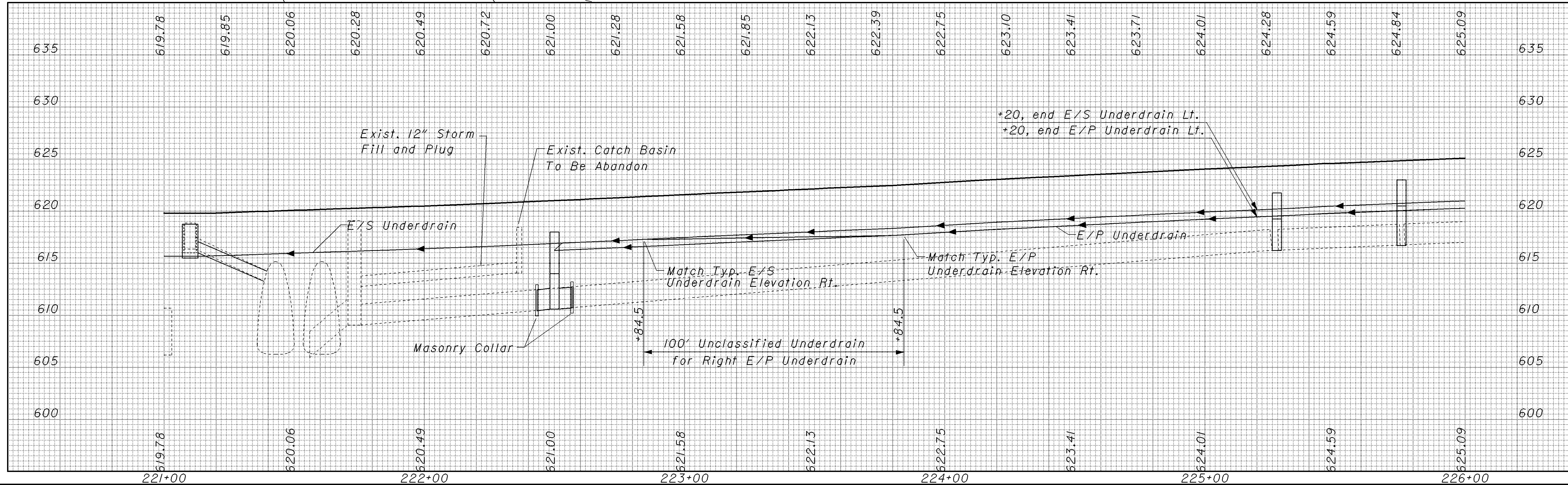


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I:\projects\BUT\sr004\09.28_PID21946\Design\CADD\21946gpb.dgn 05-OCT-2007 12:29PM Troudebu

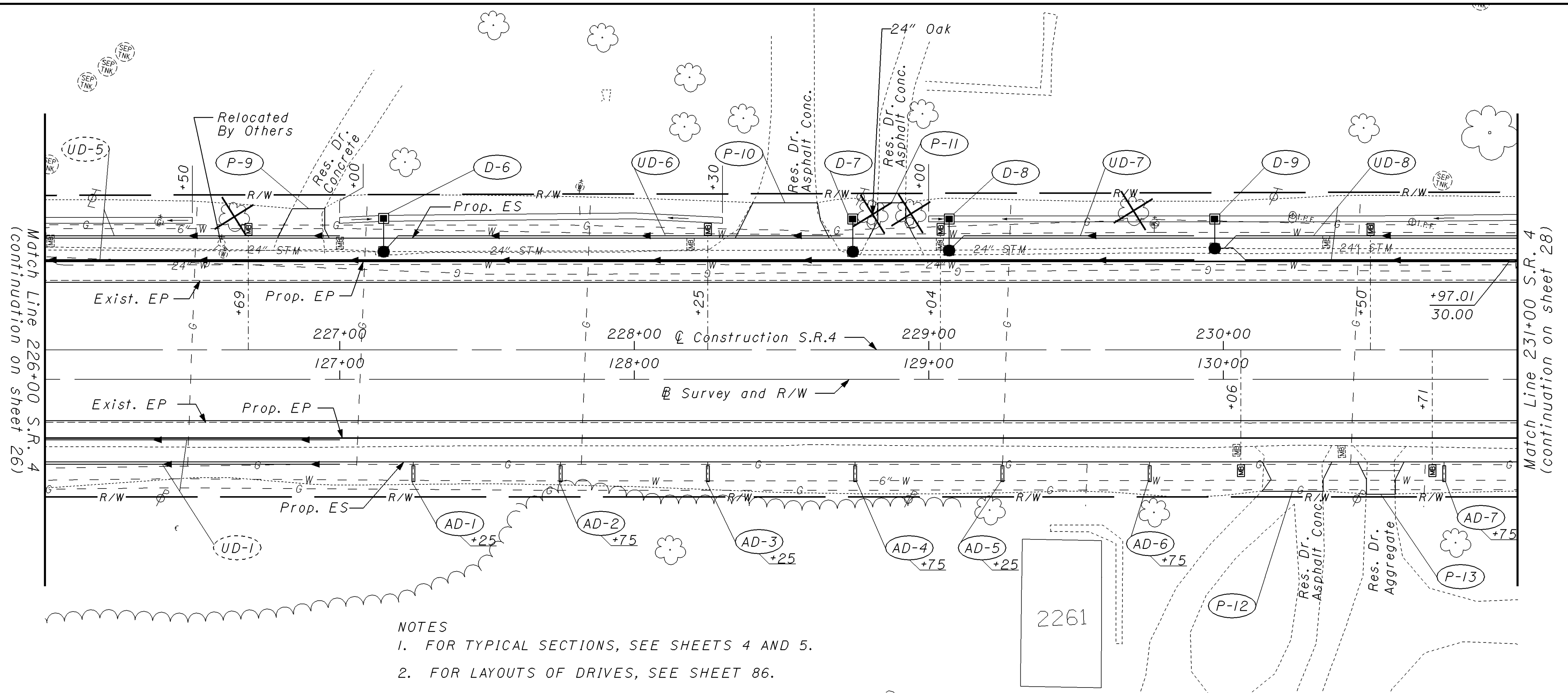


NOTE
1. FOR APPLICABLE NOTES, SEE SHEET 25.

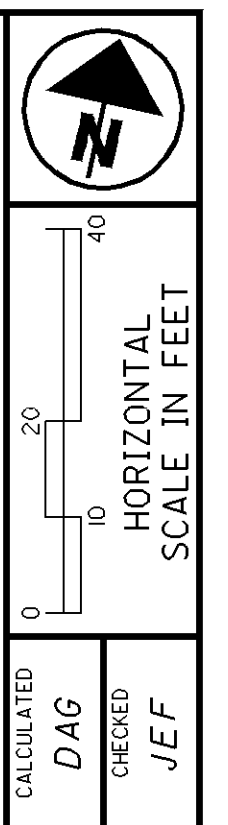
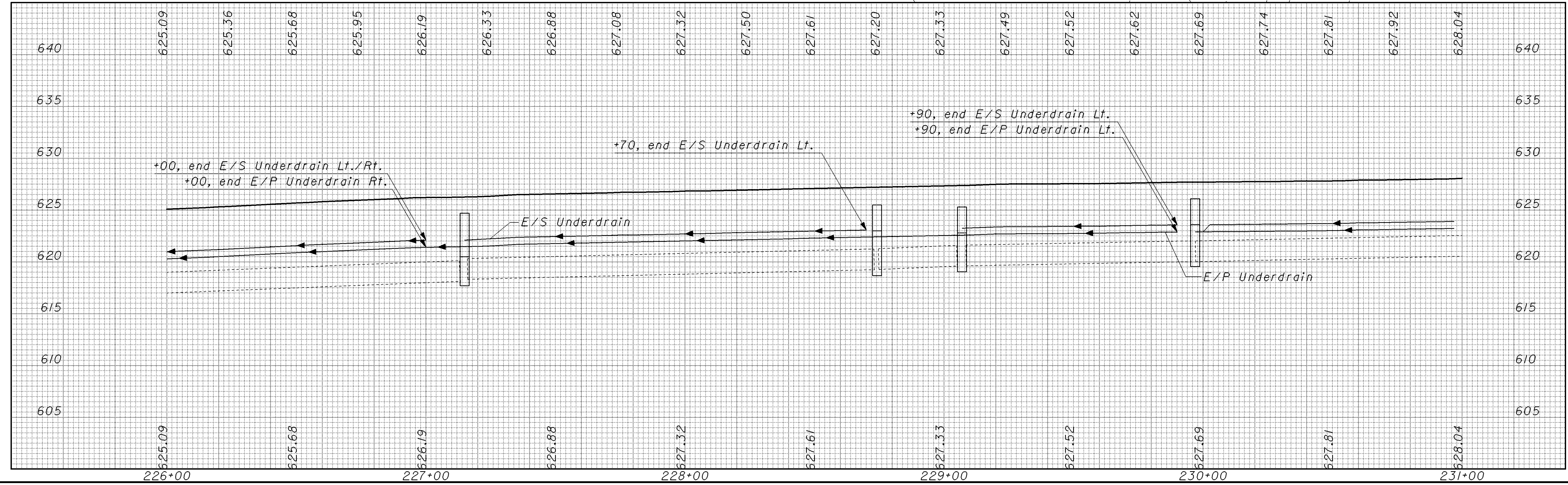


CALCULATED
DAG
CHECKED
JEF

**PLAN AND PROFILE
STA. 221+00 TO STA. 226+00**



NOTES
 1. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.
 2. FOR LAYOUTS OF DRIVES, SEE SHEET 86.



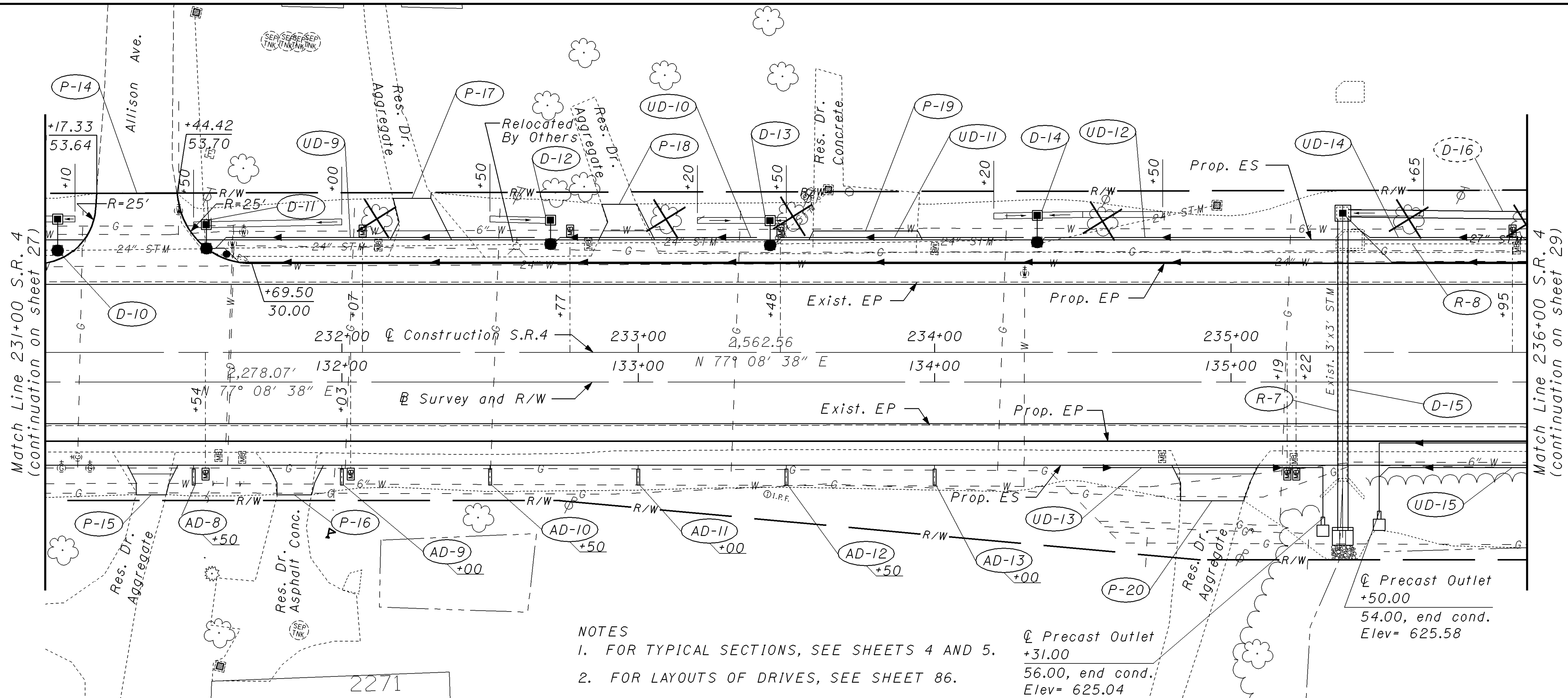
CALCULATED
 DAG
 CHECKED
 JEF

PLAN AND PROFILE
 STA. 226+00 TO STA. 231+00

BUT-4-(9.28)(10.11)
 27
 93

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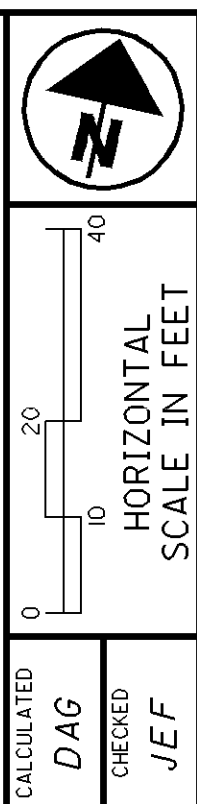
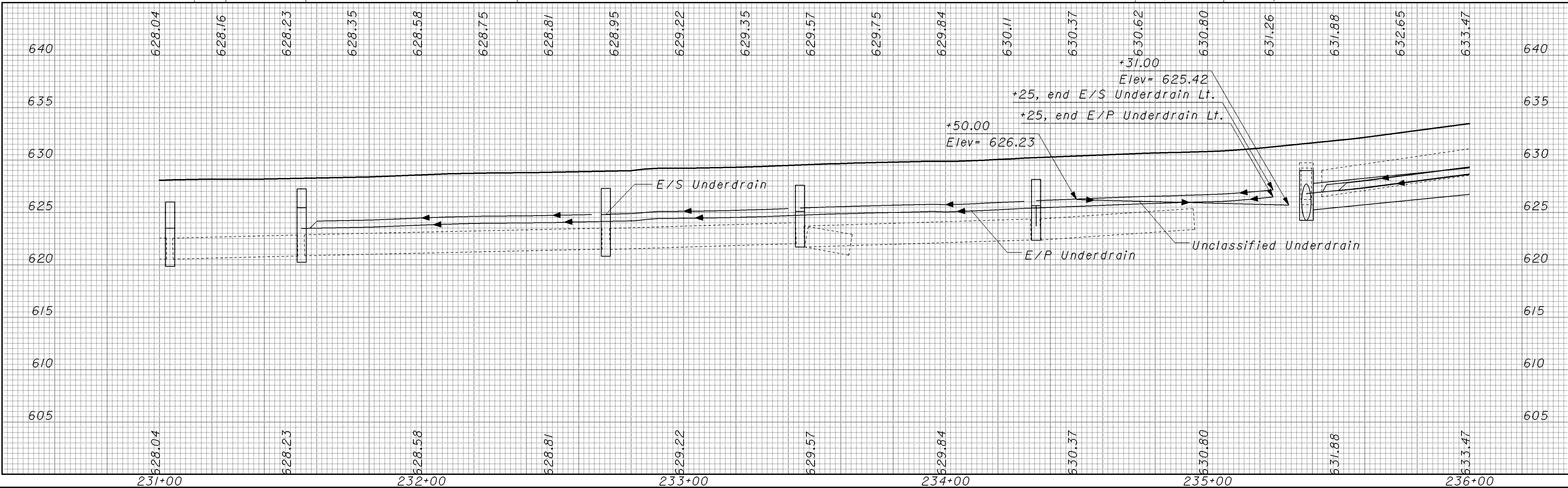
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NOTES
 1. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.
 2. FOR LAYOUTS OF DRIVES, SEE SHEET 86.

☉ Precast Outlet
 +31.00
 56.00, end cond.
 Elev= 625.04

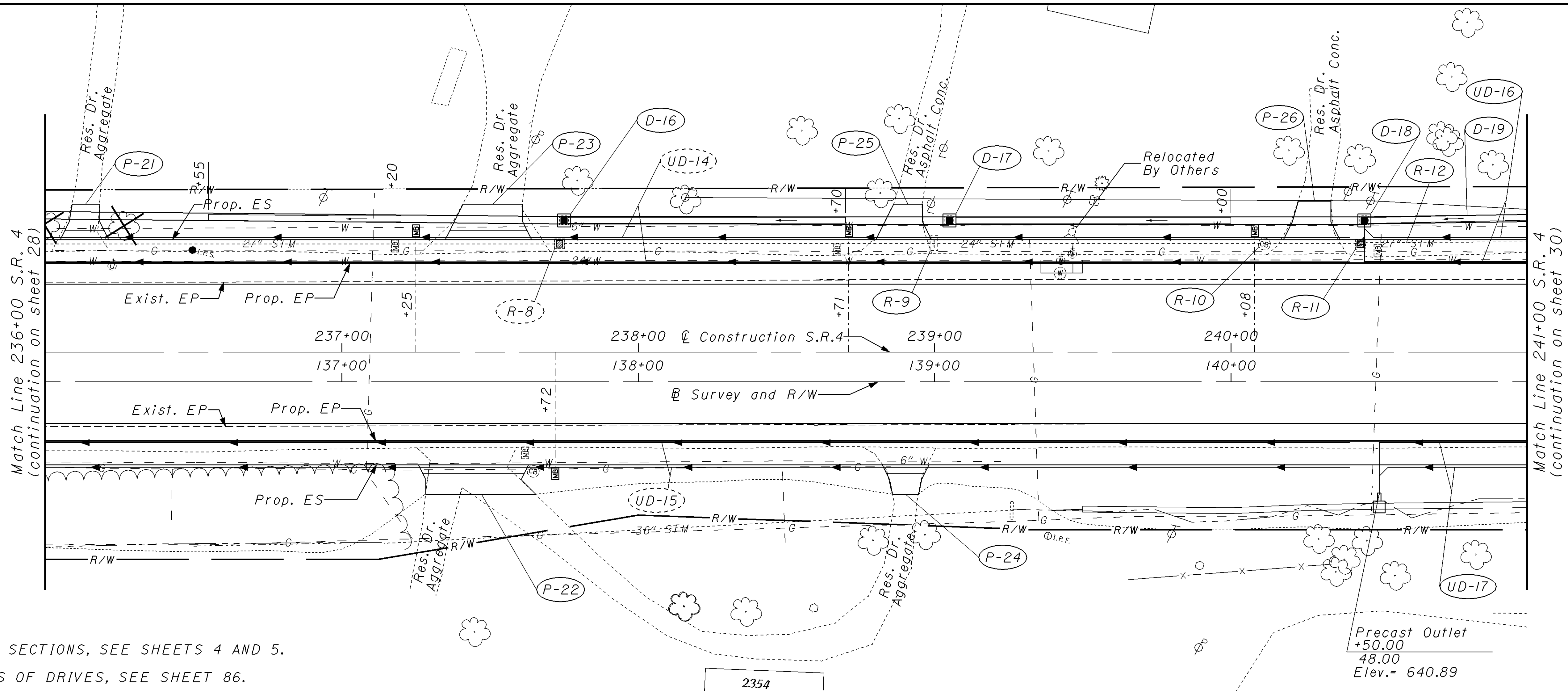
☉ Precast Outlet
 +50.00
 54.00, end cond.
 Elev= 625.58



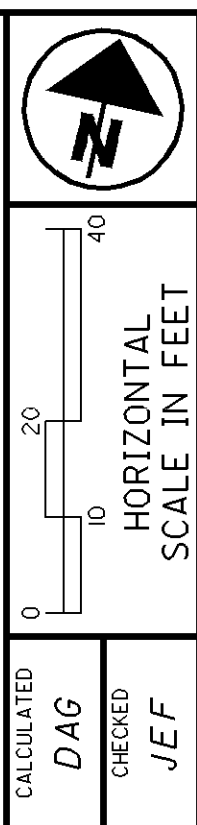
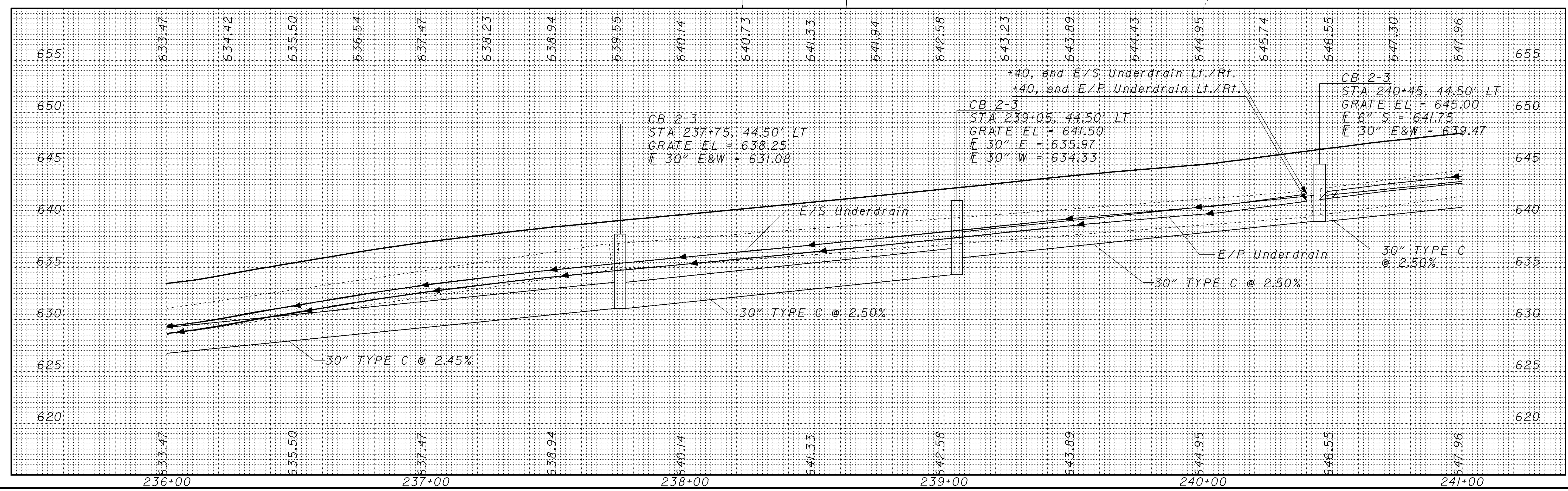
CALCULATED
 DAG
 CHECKED
 JEF

PLAN AND PROFILE
STA. 231+00 TO STA. 236+00

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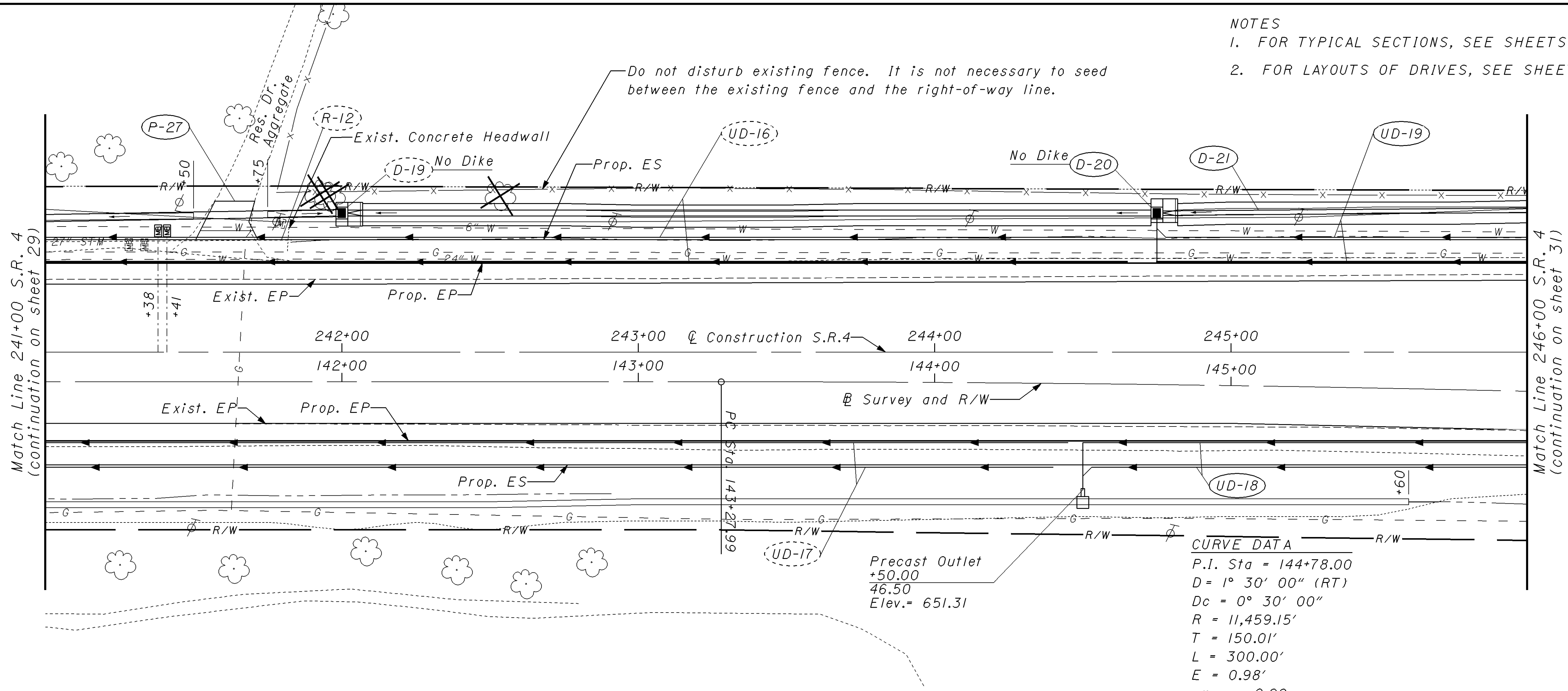
- NOTES
1. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.
 2. FOR LAYOUTS OF DRIVES, SEE SHEET 86.



CALCULATED
DAG
CHECKED
JEF

PLAN AND PROFILE
STA. 236+00 TO STA. 241+00

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- NOTES
1. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.
 2. FOR LAYOUTS OF DRIVES, SEE SHEET 86.

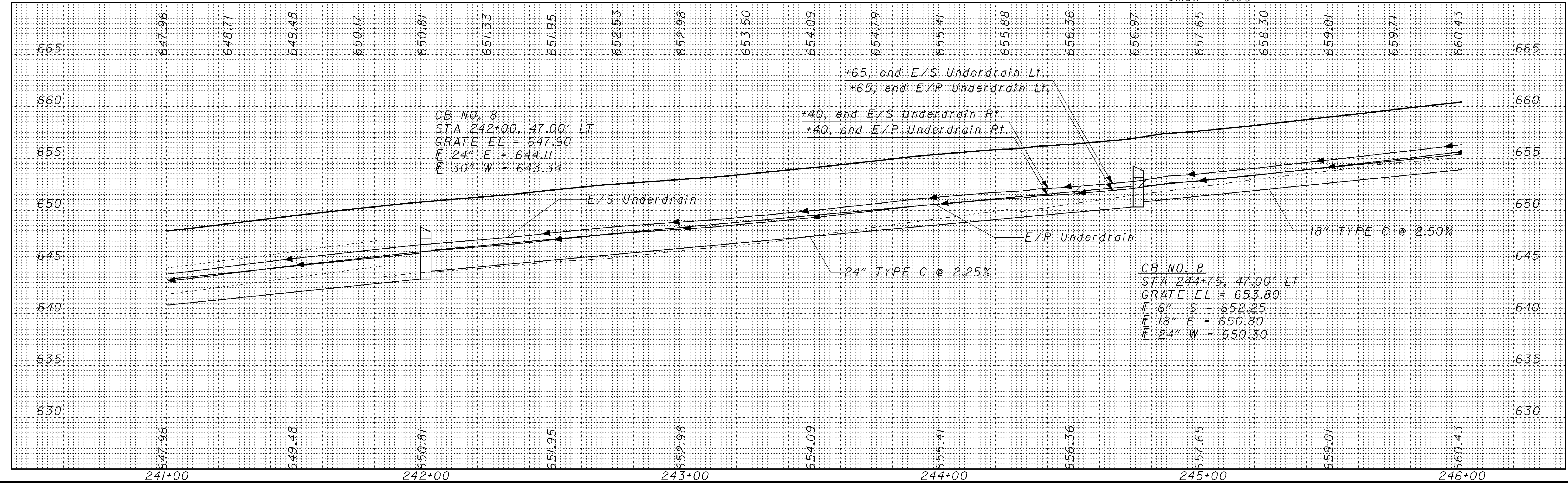
CALCULATED
DAG
CHECKED
JEF

HORIZONTAL SCALE IN FEET

0 10 20 40

CURVE DATA

P.I. Sta	= 144+78.00
D	= 1° 30' 00" (RT)
Dc	= 0° 30' 00"
R	= 11,459.15'
T	= 150.01'
L	= 300.00'
E	= 0.98'
emax	= 0.00

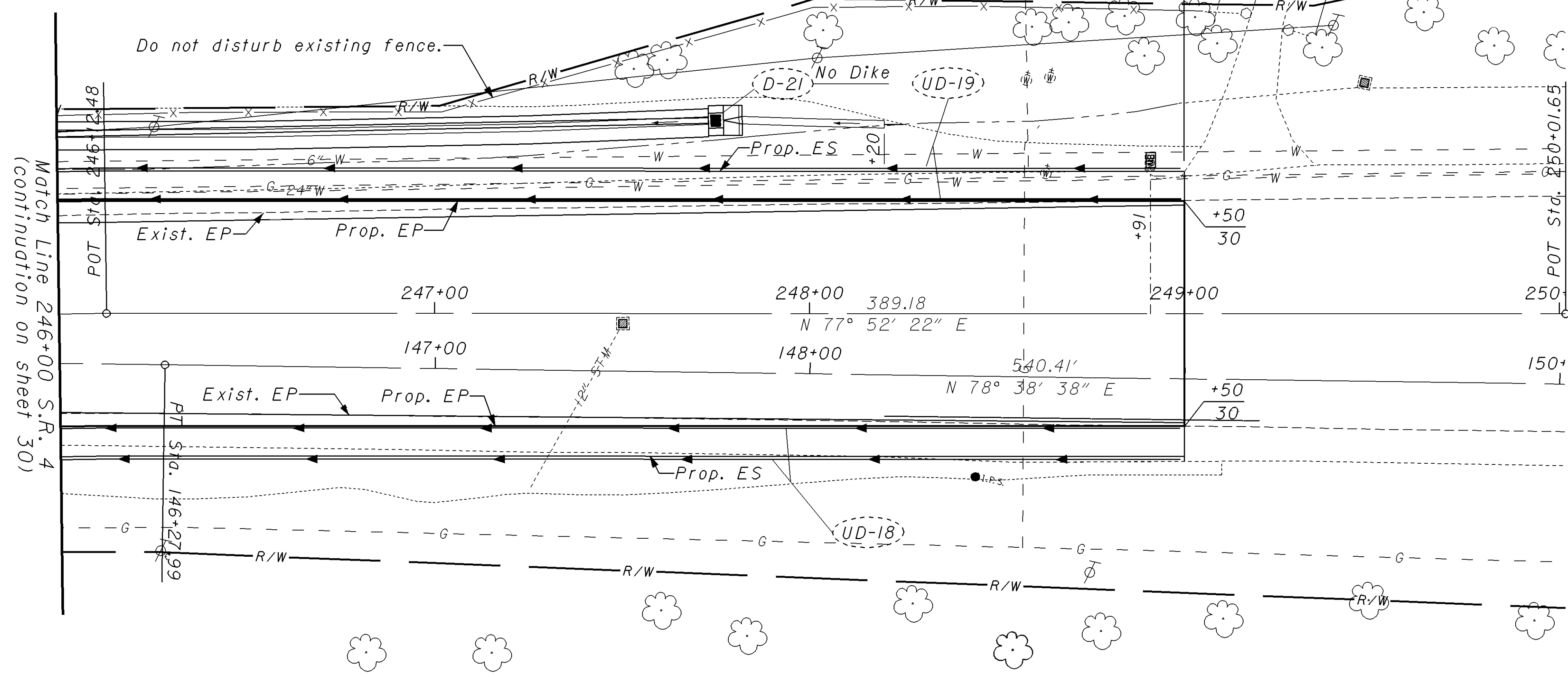


PLAN AND PROFILE
STA. 241+00 TO STA. 246+00

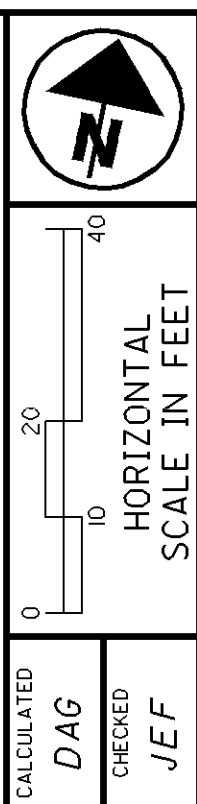
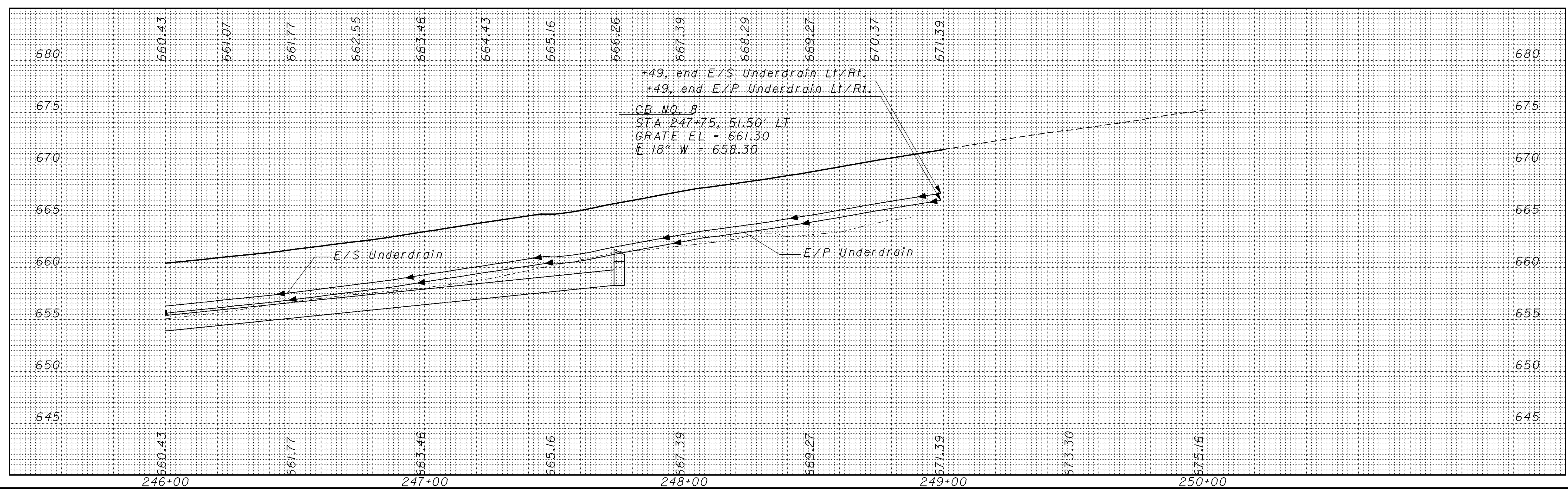
NOTES

1. IT IS NOT NECESSARY TO SEED BETWEEN THE EXISTING FENCE AND THE RIGHT-OF-WAY LINE.
2. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.

Suspend Project
Sta. 249+00
S.L.M. 9.85



BENCH MARK
Bench Mark #1 Elev. 667.64
Iron Pin with ODOT Cap
Sta. 148+44.55, 26.78' Rt.



CALCULATED
DAG
CHECKED
JEF

PLAN AND PROFILE
STA. 246+00 TO STA 250+02

BUT - 4 - (9.28) (10.11)

31
93

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Resume Work
Sta. 157+06.50

Resume Project
Sta. 163+82
S.L.M. 10.11

NOTE
1. FOR TYPICAL SECTIONS, SEE SHEETS 4 AND 5.

End Project
Sta. 166+70
S.L.M. 10.17



0 10 20 40
HORIZONTAL
SCALE IN FEET

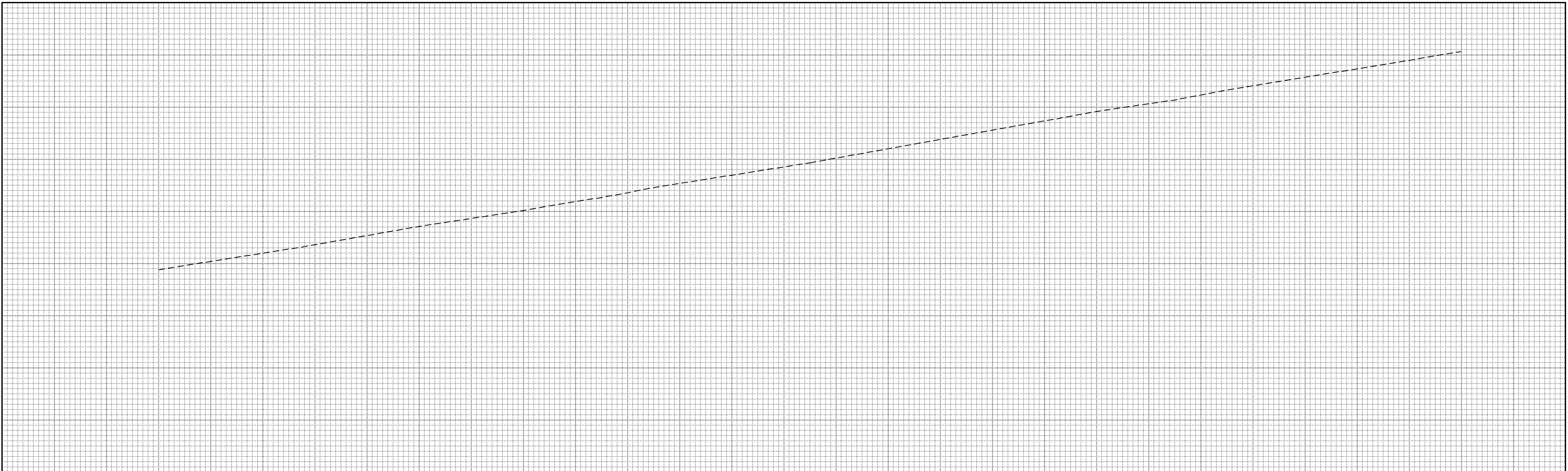
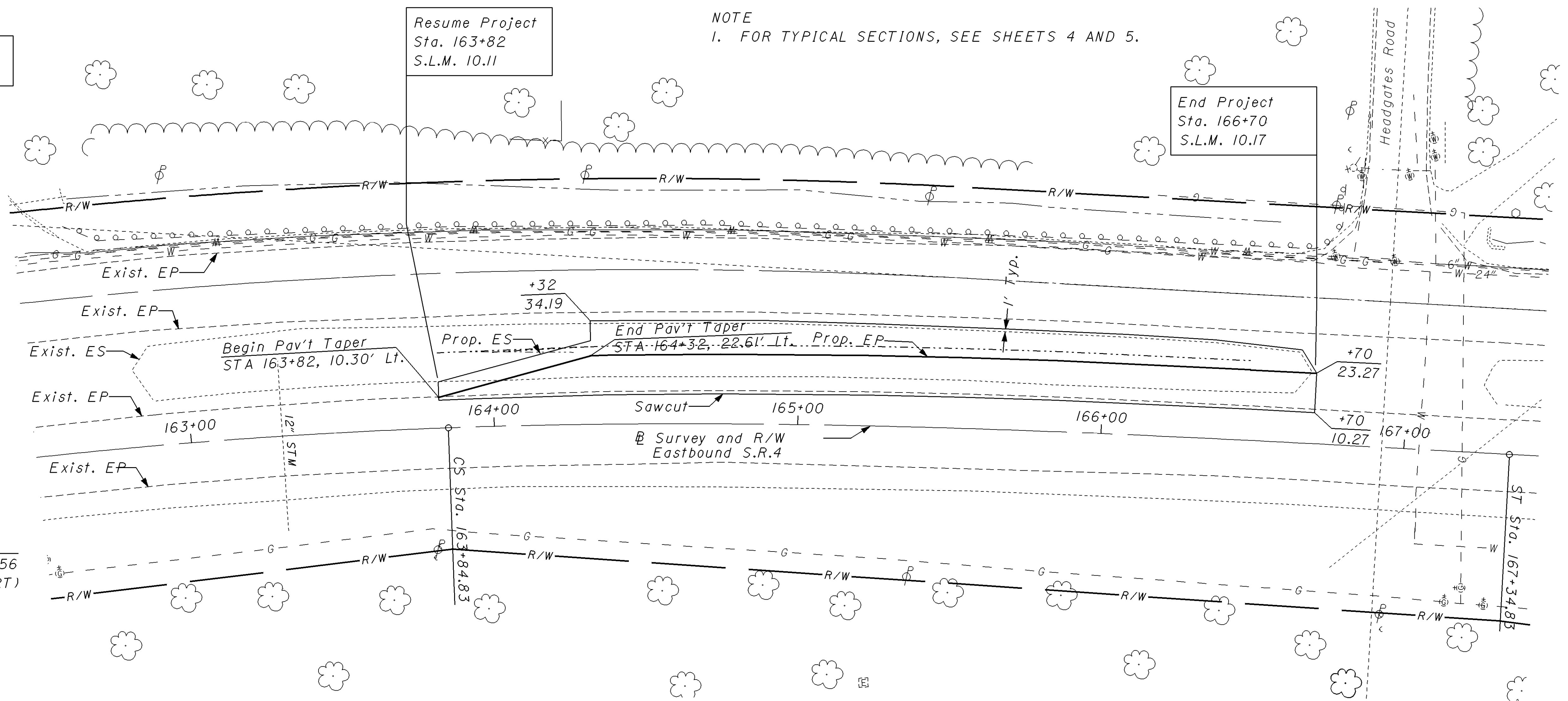
CALCULATED
DAG
CHECKED
JEF

PLAN AND PROFILE
STA. 162+50 TO 167+50

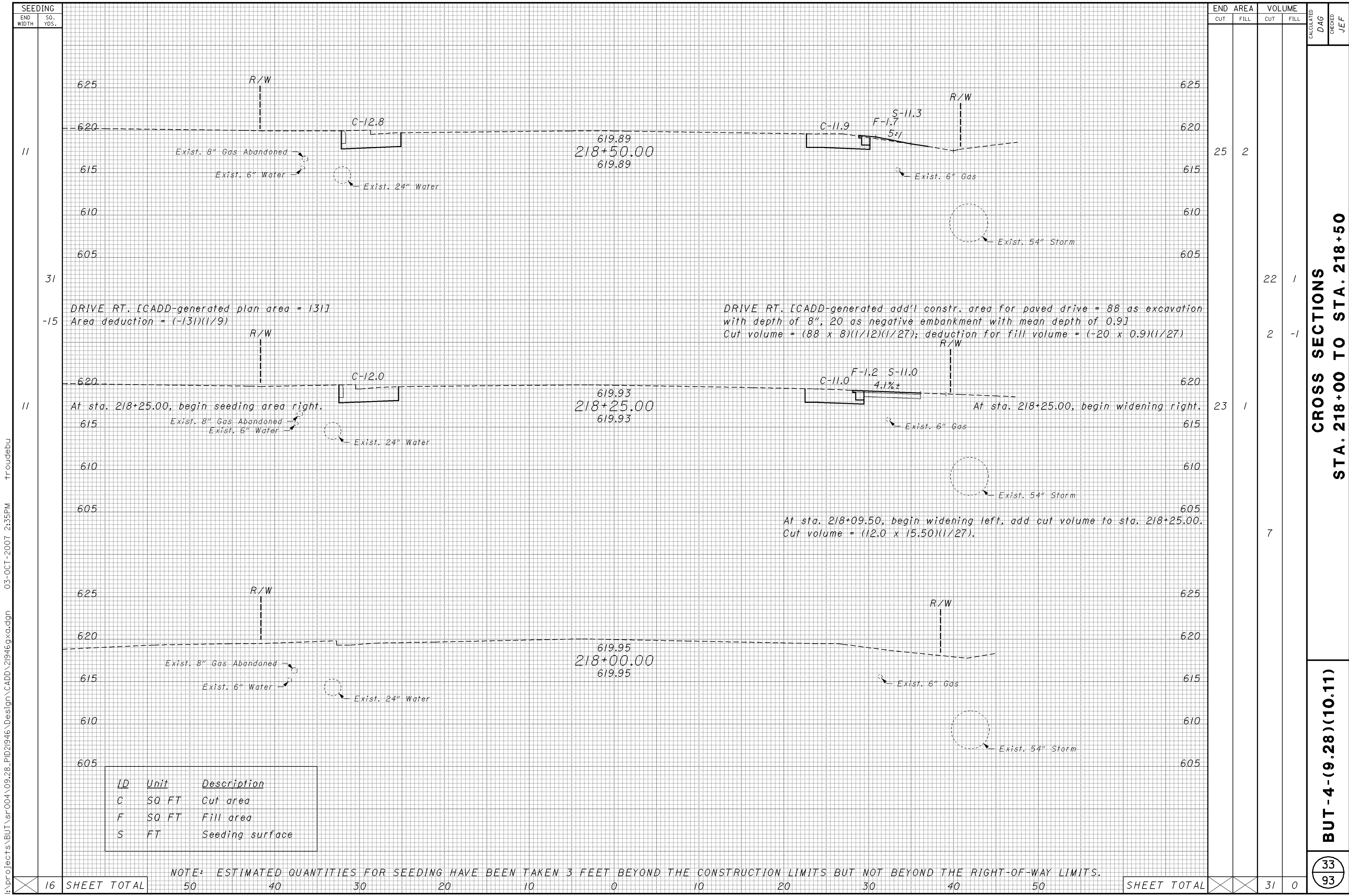
BUT - 4 - (9.28) (10.11)

32
93

CURVE DATA
P.I. Sta = 162+56.56
D = 7° 42' 30" (RT)
Dc = 3° 00' 00"
R = 1,909.86'
T = 128.67'
L = 256.94'
E = 4.33'
emax = 0.00



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SEEDING	
END WIDTH	SO. YDS.
11	31
11	15
11	16
SHEET TOTAL	
50	40
30	20
10	0
10	20
30	40
50	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
25	2	22	1
23	1	2	-1
		7	
SHEET TOTAL		31	0

CALCULATED:
 DAG:
 CHECKED:
 JEF:

CROSS SECTIONS
STA. 218+00 TO STA. 218+50

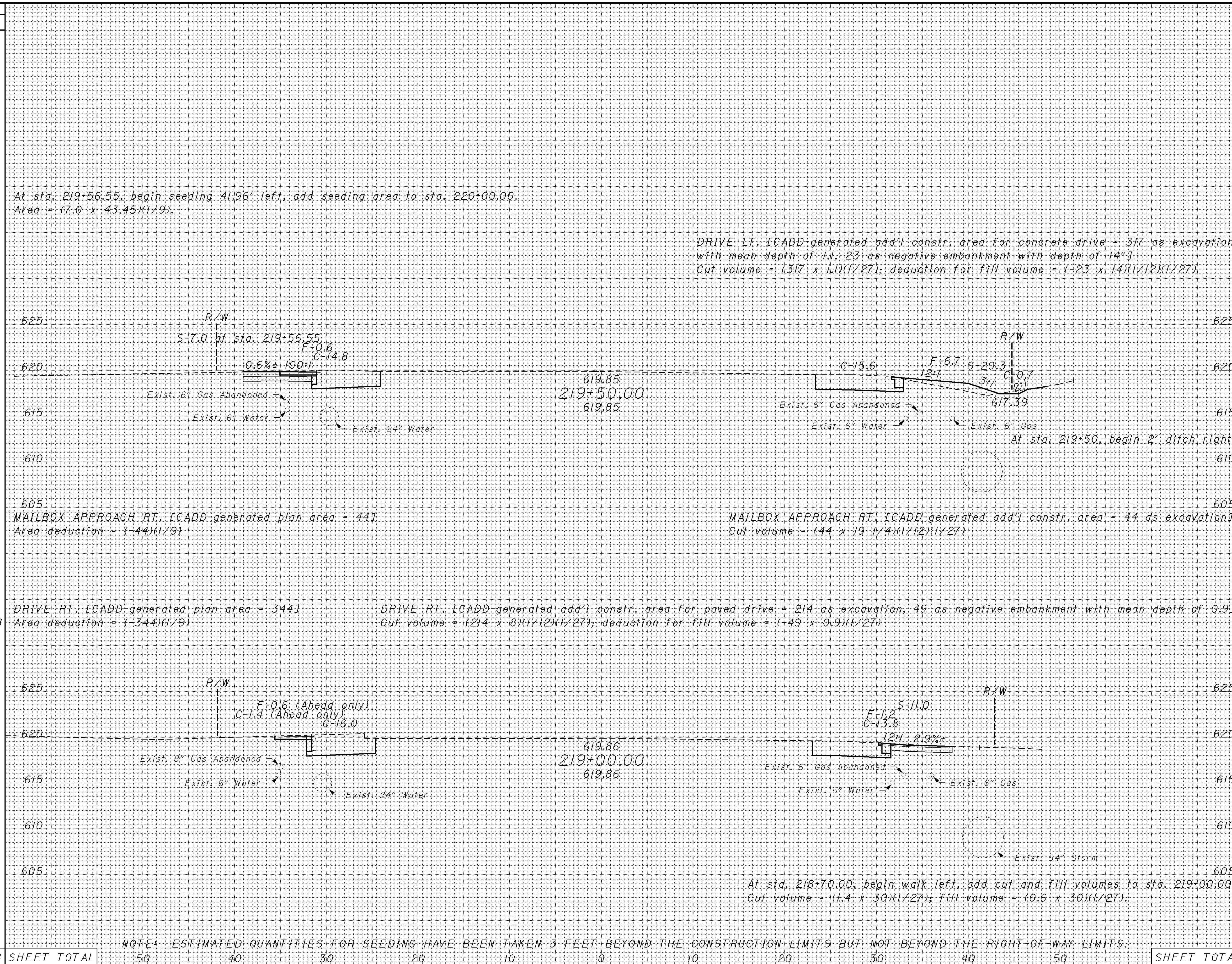
BUT-4-(9.28)(10.11)

ID	Unit	Description
C	SQ FT	Cut area
F	SQ FT	Fill area
S	FT	Seeding surface

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING
 END WIDTH SO. YDS.
 34
 20
 5
 86
 -38
 11
 61
 138



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
			13	-1
			31	7
			3	
			57	8
			5	-2
			31	2 Ahead
			30	1 Back
			2	1
			51	3
			131	9

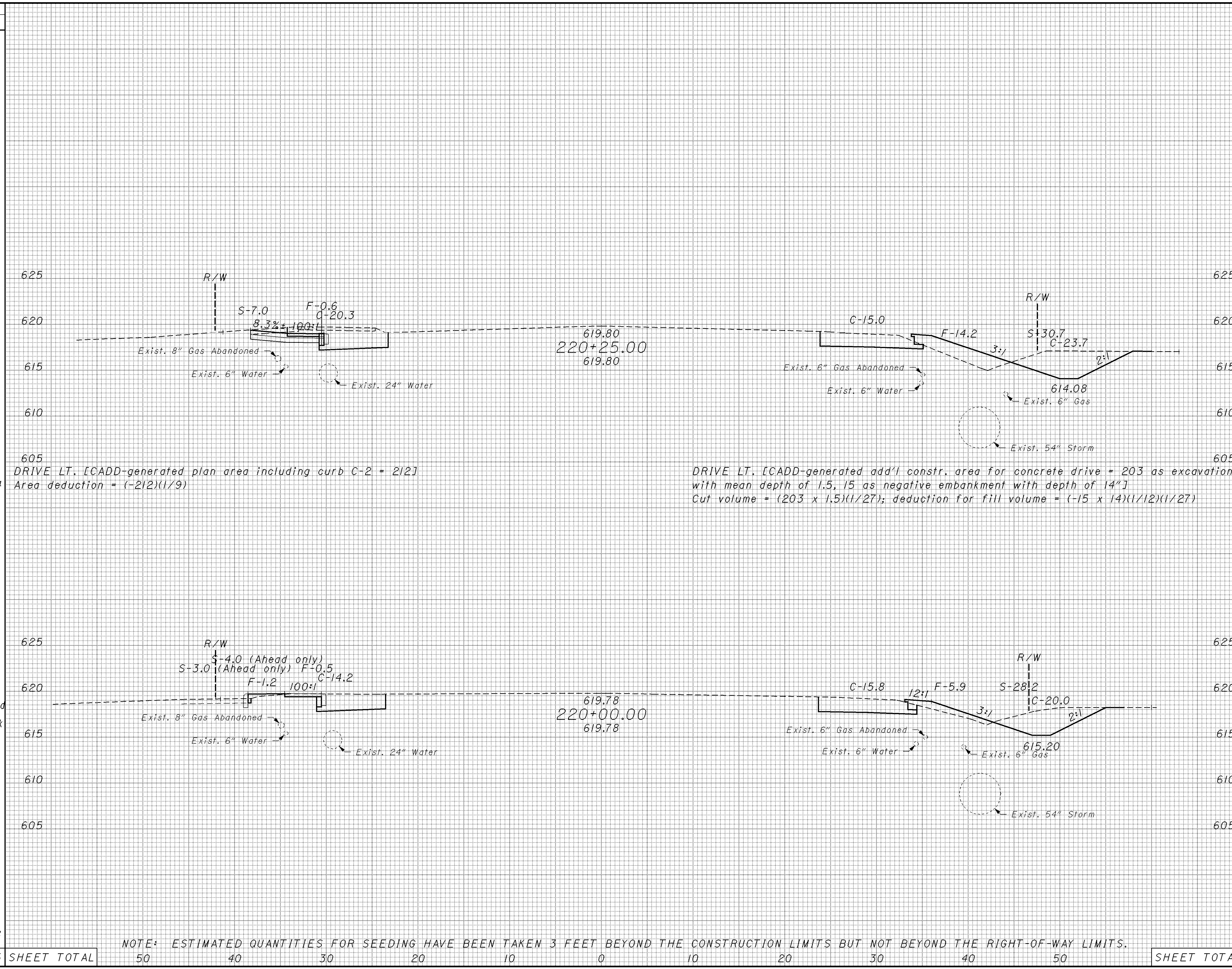
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
-------------	----	----	----	----	----	---	----	----	----	----	----	-------------

CROSS SECTIONS
 STA. 219+00 TO STA. 219+50
 BUT-4-(9.28)(10.11)
 34
 93

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SEEDING
 END WIDTH SO. YDS.
 38
 101
 35 Ahead
 28 Back
 108
 185 SHEET TOTAL

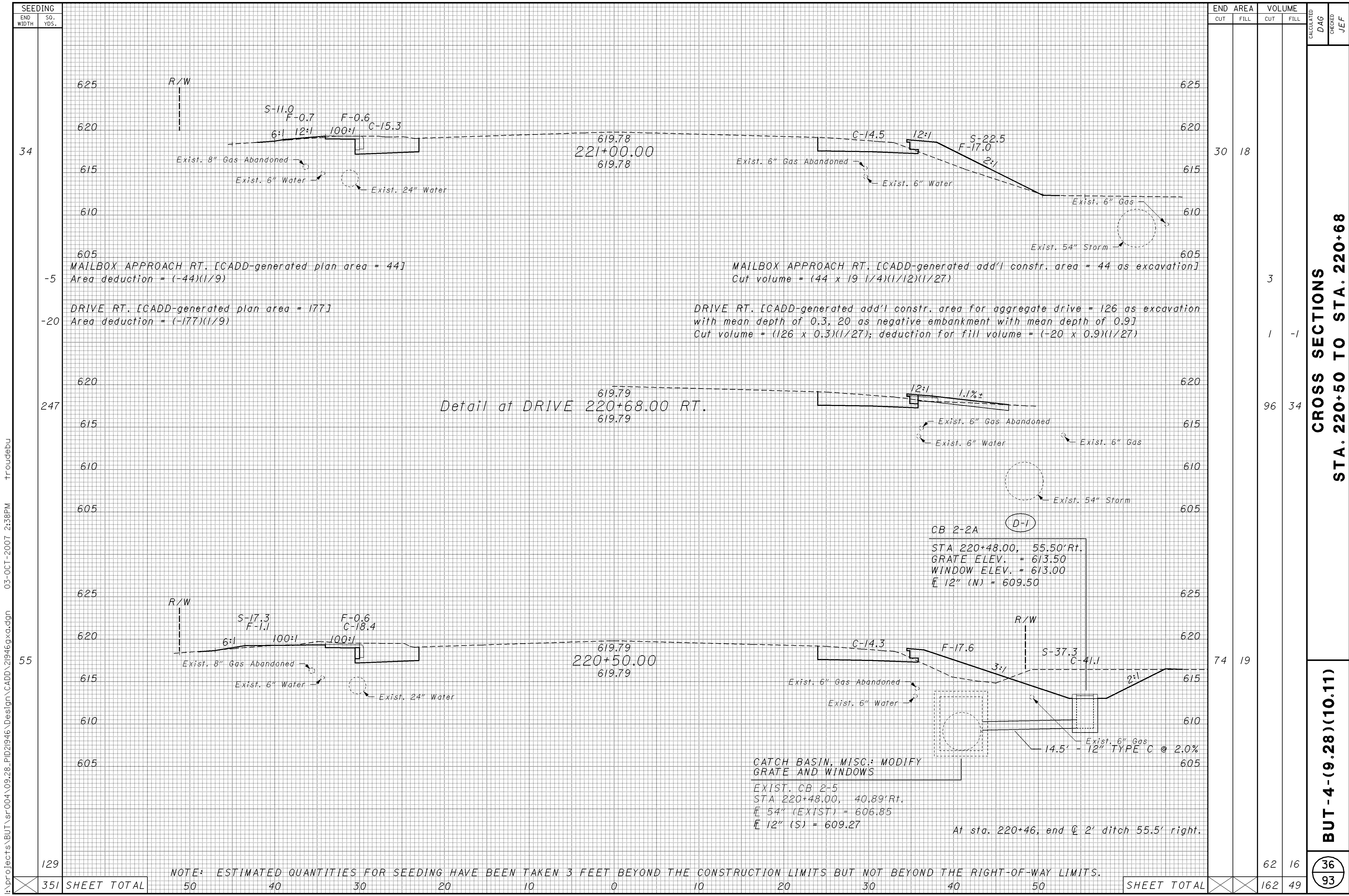


END STA.	AREA		VOLUME	
	CUT	FILL	CUT	FILL
220+25.00	59	15	11	-1
220+00.00	50	8	50	11
SHEET TOTAL	109	23	61	0

CROSS SECTIONS
 STA. 220+00 TO STA. 220+25
 CALCULATED
 DAG
 CHECKED
 JEF
BUT - 4 - (9.28) (10.11)
 35
 93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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**CROSS SECTIONS
STA. 220+50 TO STA. 220+68**

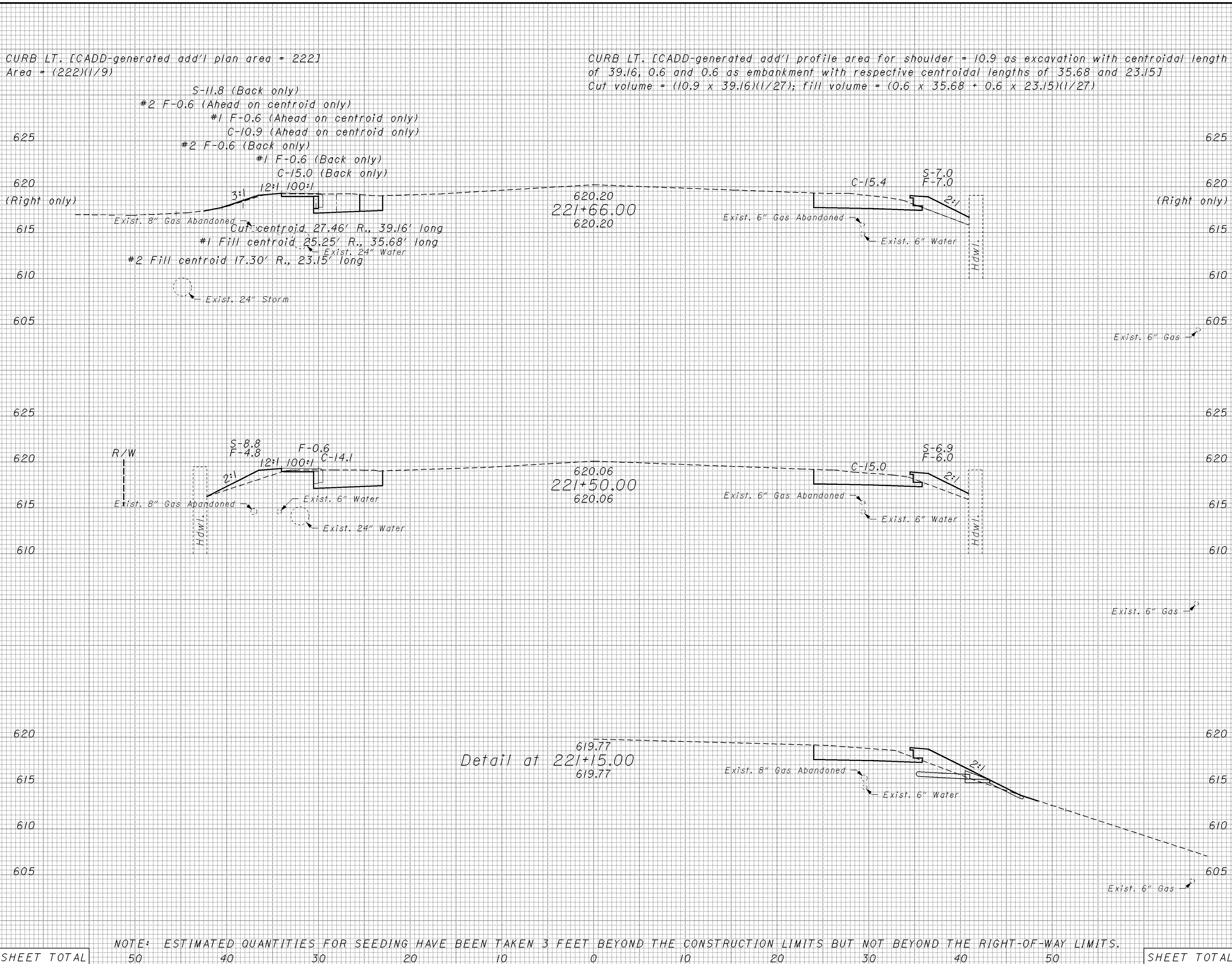
BUT - 4 - (9.28) (10.11)

CALCULATED
DAG
CHECKED
JEF

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING	END	
	WIDTH	SO. YDS.
25		
7	Ahead	
19	Back	
31		
16		
139		
195	SHEET TOTAL	

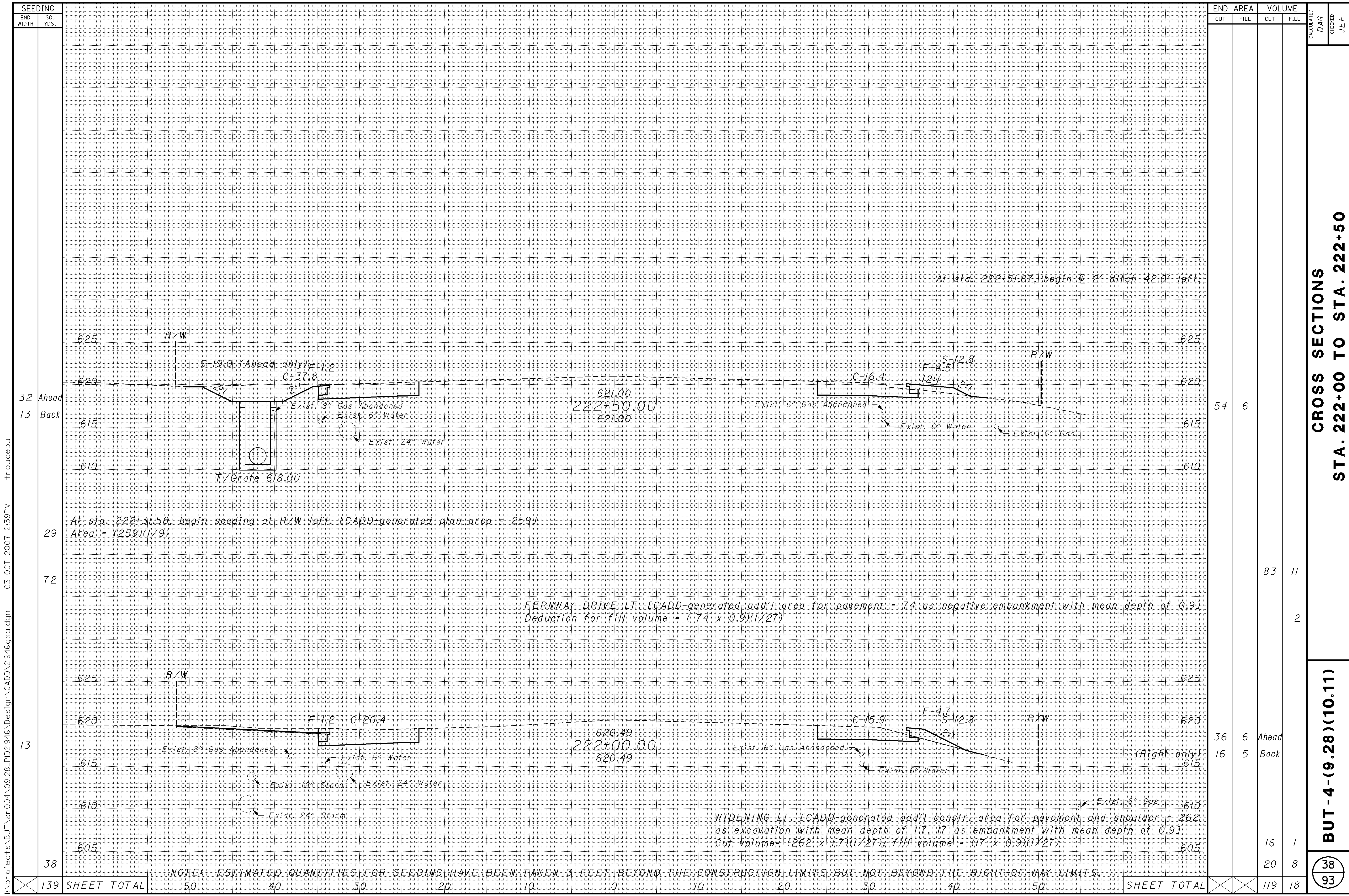


END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
15	7		16	1
30	8			
17			6	
29	11			
55	27		27	
88	34		34	

CALCULATED
 DAG
 CHECKED
 JEF
CROSS SECTIONS
STA. 221+00 TO STA. 221+50
BUT - 4-(9.28)(10.11)
37
93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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At sta. 222+51.67, begin 2' ditch 42.0' left.

621.00
222+50.00
621.00

FERNWAY DRIVE LT. [CADD-generated add'l area for pavement = 74 as negative embankment with mean depth of 0.9]
Deduction for fill volume = (-74 x 0.9)(1/27)

620.49
222+00.00
620.49

WIDENING LT. [CADD-generated add'l constr. area for pavement and shoulder = 262
as excavation with mean depth of 1.7, 17 as embankment with mean depth of 0.9]
Cut volume = (262 x 1.7)(1/27); fill volume = (17 x 0.9)(1/27)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

SEEDING	
END WIDTH	SO. YDS.
32 Ahead	
13 Back	
29	
72	
13	
38	
139	SHEET TOTAL

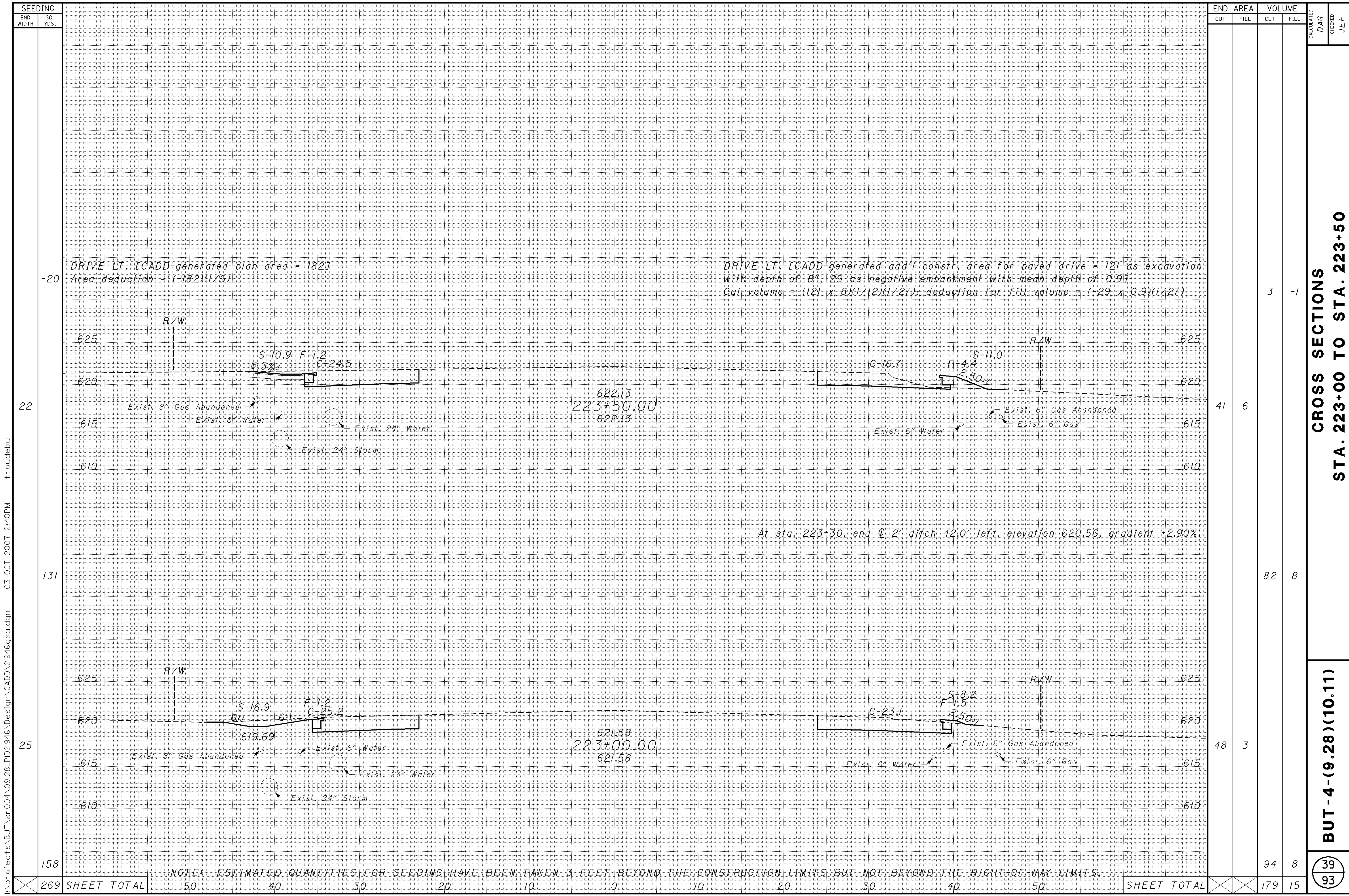
END	AREA		VOLUME		CALCULATED	DAG	CHECKED	JEF
	CUT	FILL	CUT	FILL				
54		6						
83			11					
36	6 Ahead							
16	5 Back							
16		1						
20		8						
119	SHEET TOTAL	18						

CROSS SECTIONS
STA. 222+00 TO STA. 222+50

BUT - 4 - (9.28) (10.11)

38
93

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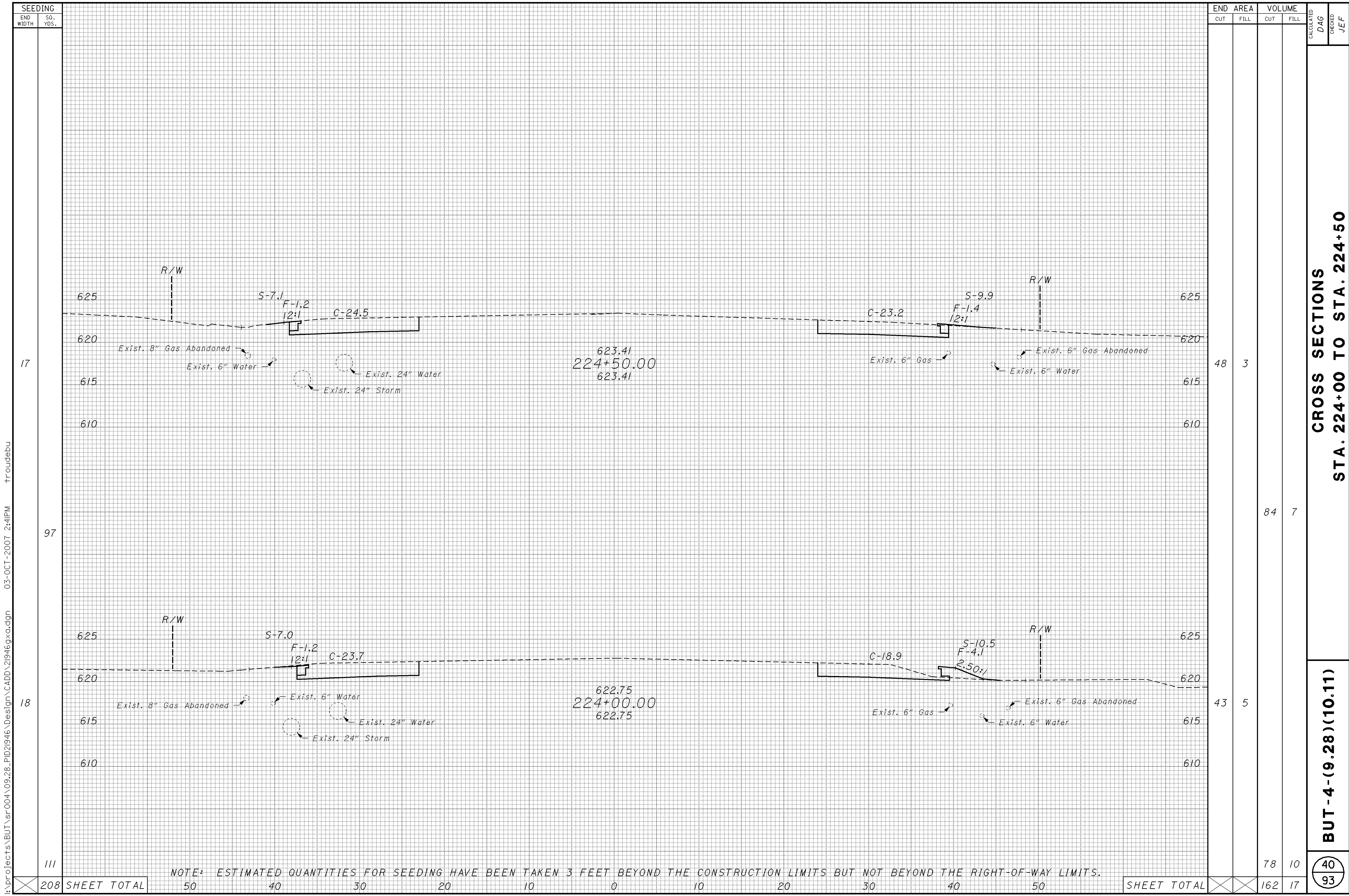
CROSS SECTIONS
STA. 223+00 TO STA. 223+50

BUT - 4 - (9.28) (10.11)

CALCULATED: DAG
 CHECKED: JEF

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING	
END WIDTH	SO. YDS.
17	17
97	97
18	18
III	III
208	208

END AREA		VOLUME	
CUT	FILL	CUT	FILL
48	3	84	7
43	5	78	10
162	17	162	17

CALCULATED
 DAG
 CHECKED
 JEF

**CROSS SECTIONS
 STA. 224+00 TO STA. 224+50**

BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

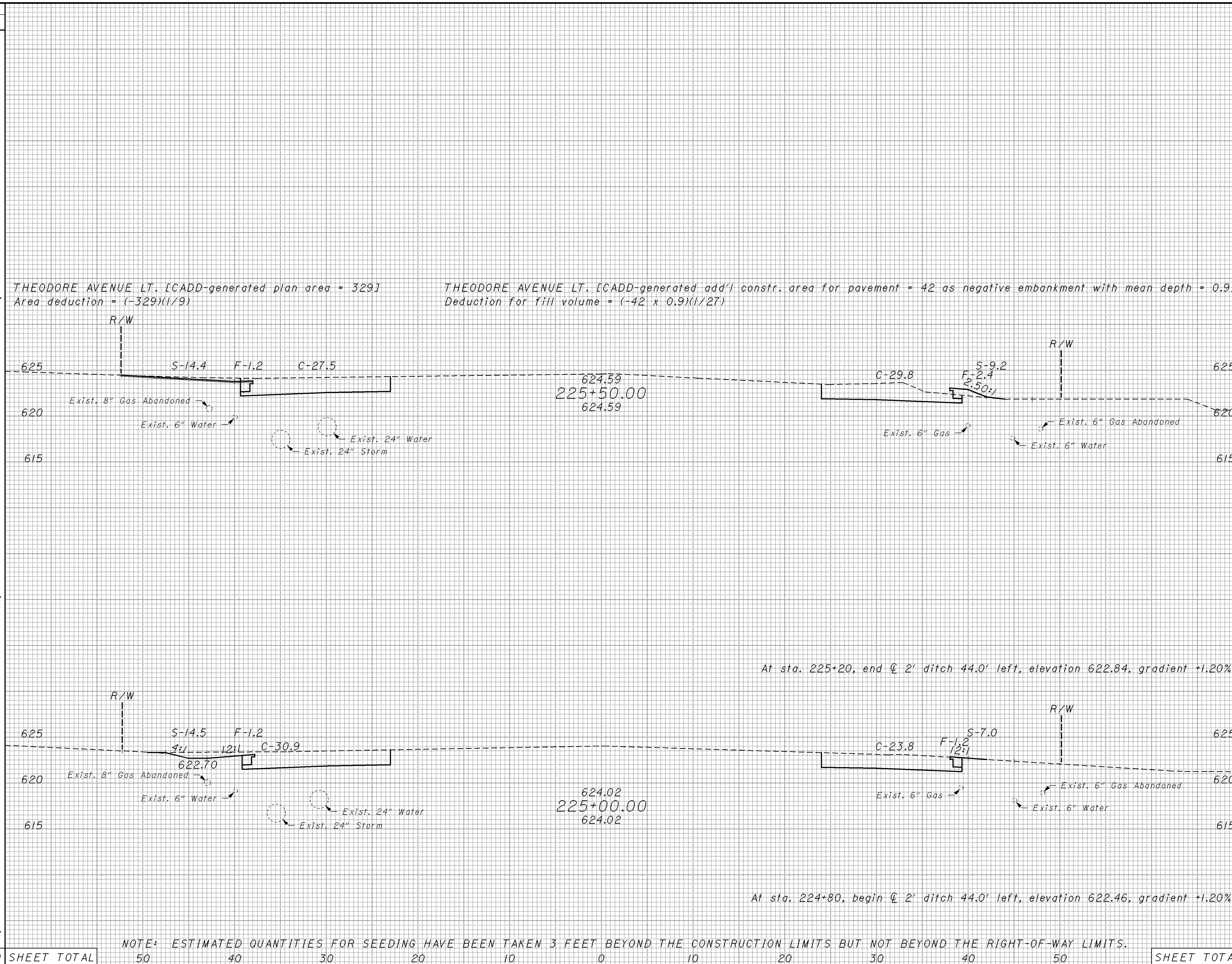
SHEET TOTAL

SHEET TOTAL

40
93

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SEEDING
 END WIDTH SO. YDS.
 24
 128
 22
 108
 199 SHEET TOTAL



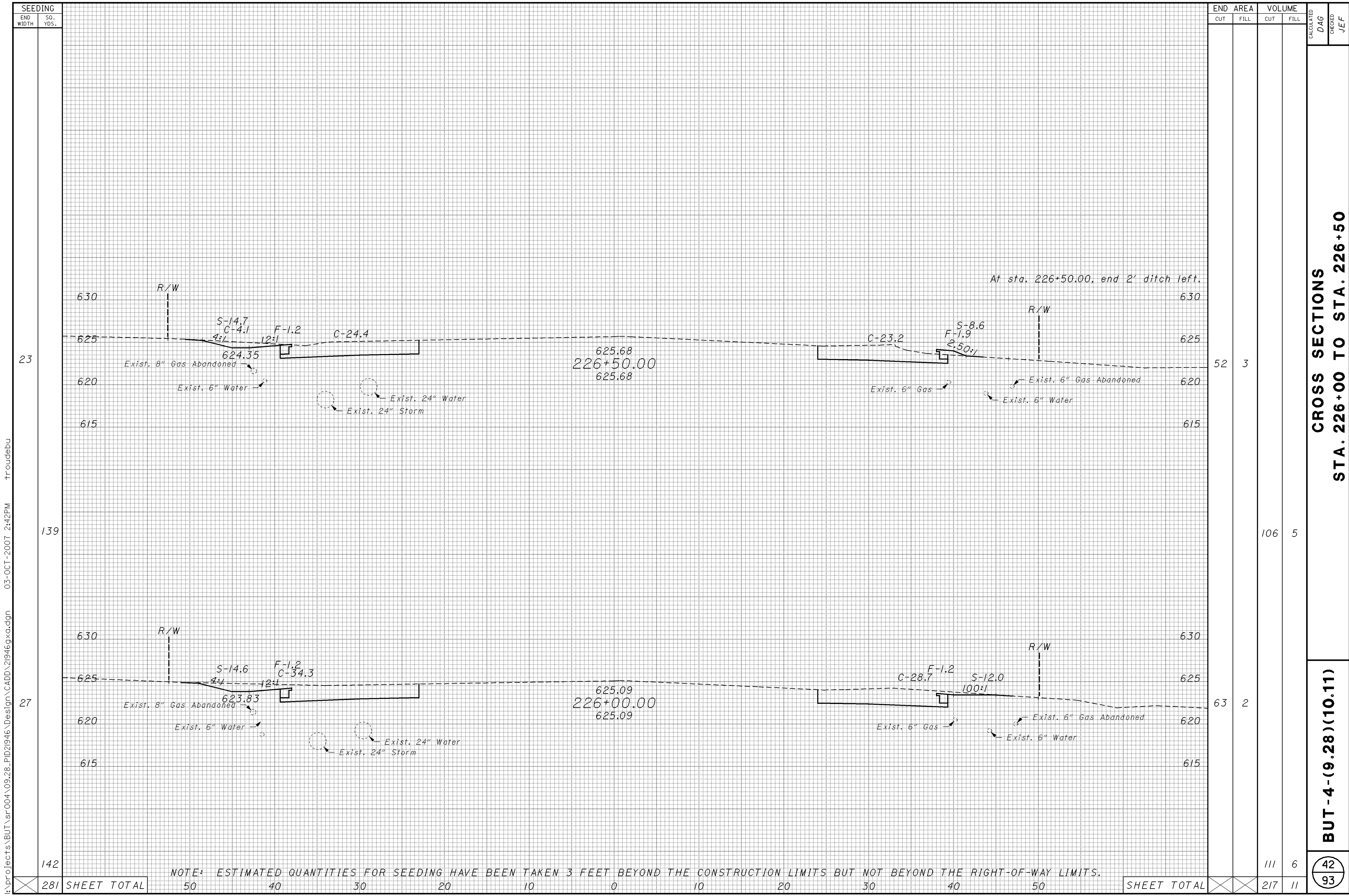
END AREA		VOLUME	
CUT	FILL	CUT	FILL
	4		
		104	6
	2		
		55	2
		95	5
199	10	199	10

CALCULATED
 DAG
 CHECKED
 JEF
CROSS SECTIONS
STA. 225+00 TO STA. 225+50
BUT - 4 - (9.28) (10.11)
 41
 93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

SHEET TOTAL

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SEEDING	
END WIDTH	SO. YDS.
23	
139	
27	
142	
281	SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
52	3		
106	5		
63	2		
111	6		
217	11		

CROSS SECTIONS
STA. 226+00 TO STA. 226+50

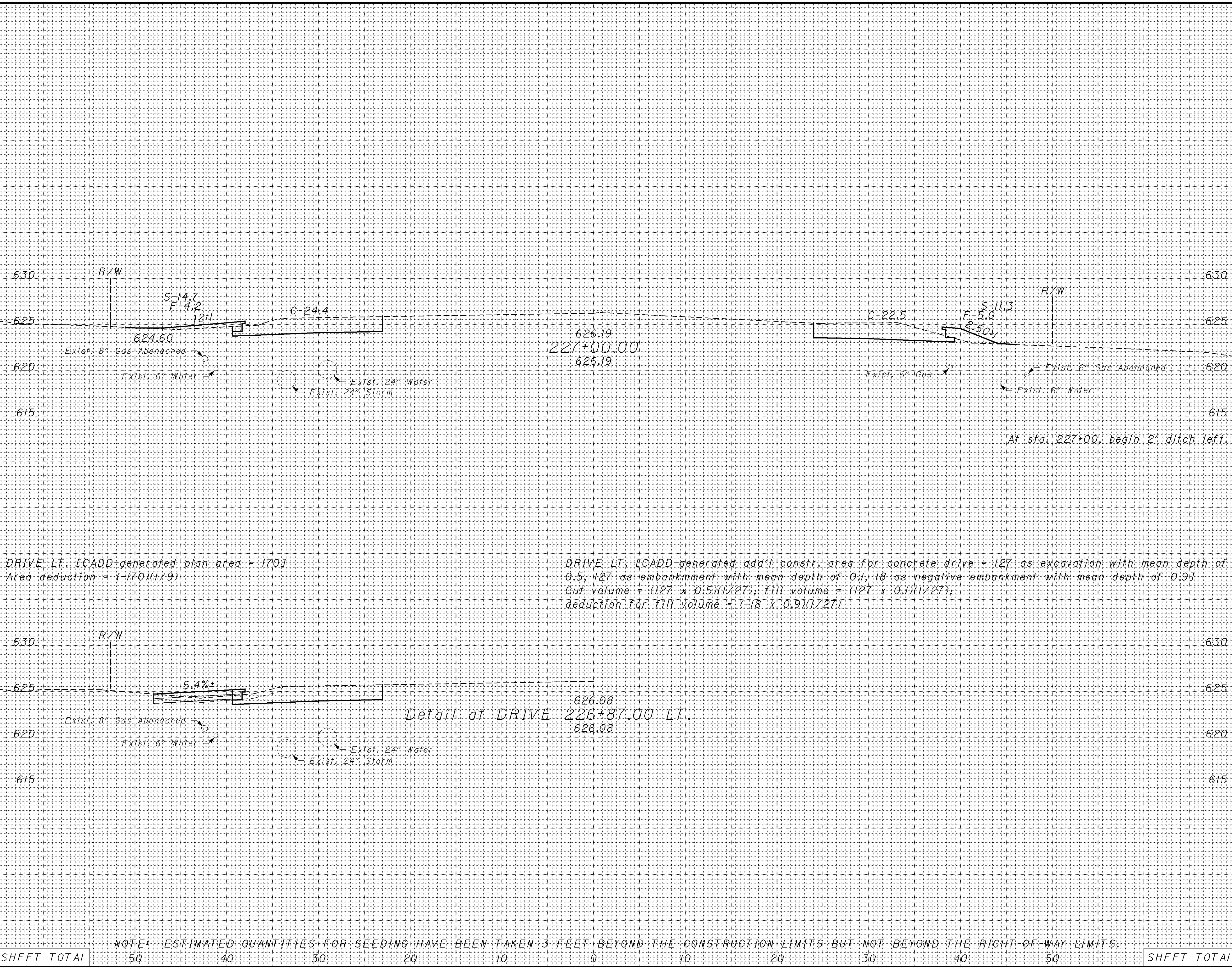
BUT-4-(9.28)(10.11)

CALCULATED: 42
 CHECKED: 93
 DAG: JEF

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING
 END WIDTH SO. YDS.
 26
 19
 136
 117 SHEET TOTAL



END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
		47	9		
				2	1 -1
		92	11		
		94	11		

**CROSS SECTIONS
 STA. 226+87 TO STA. 227+00**

BUT - 4 - (9.28) (10.11)

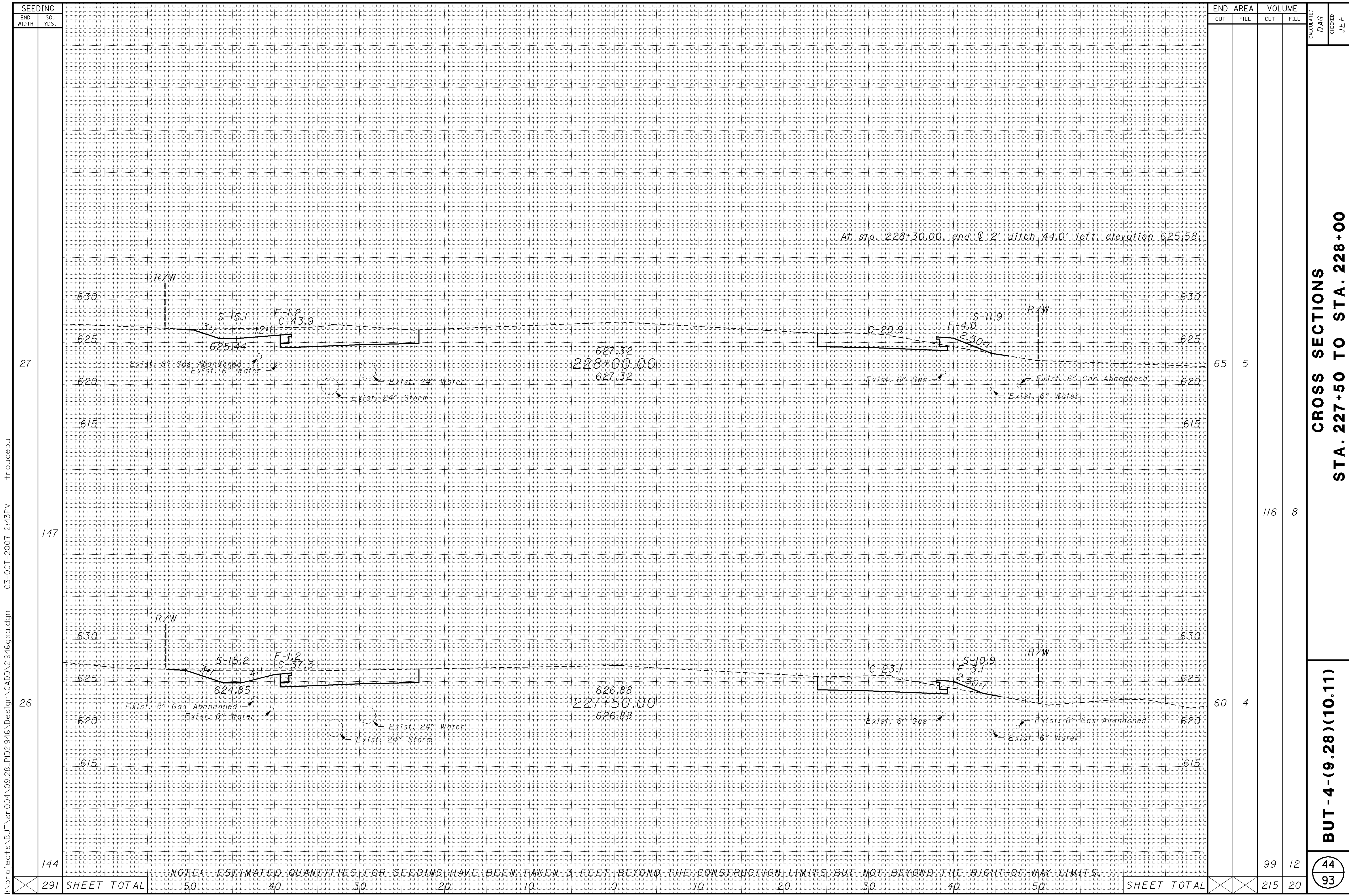
43
 93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50
----	----	----	----	----	---	----	----	----	----	----

SHEET TOTAL

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At sta. 228+30.00, end of 2' ditch 44.0' left, elevation 625.58.

SEEDING	
END WIDTH	SO. YDS.
27	147
26	144
291	SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
65	5	116	8
60	4	99	12
215	20	44	93

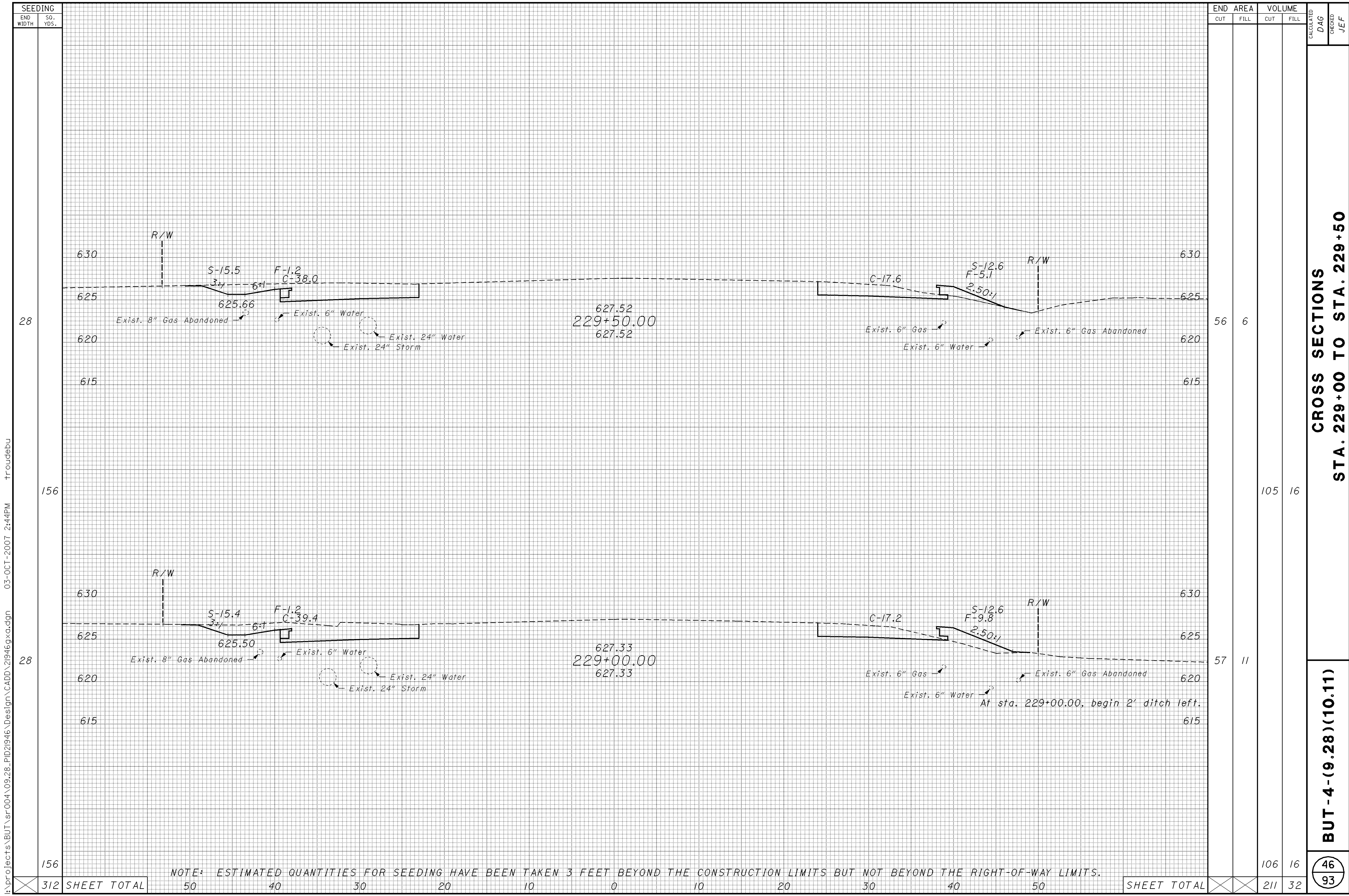
CROSS SECTIONS
STA. 227+50 TO STA. 228+00

BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
----	----	----	----	----	---	----	----	----	----	----	-------------

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SEEDING	
END WIDTH	SO. YDS.
28	
156	
28	
156	
312	SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
56	6	105	16
57	11	106	16
211	32	211	32

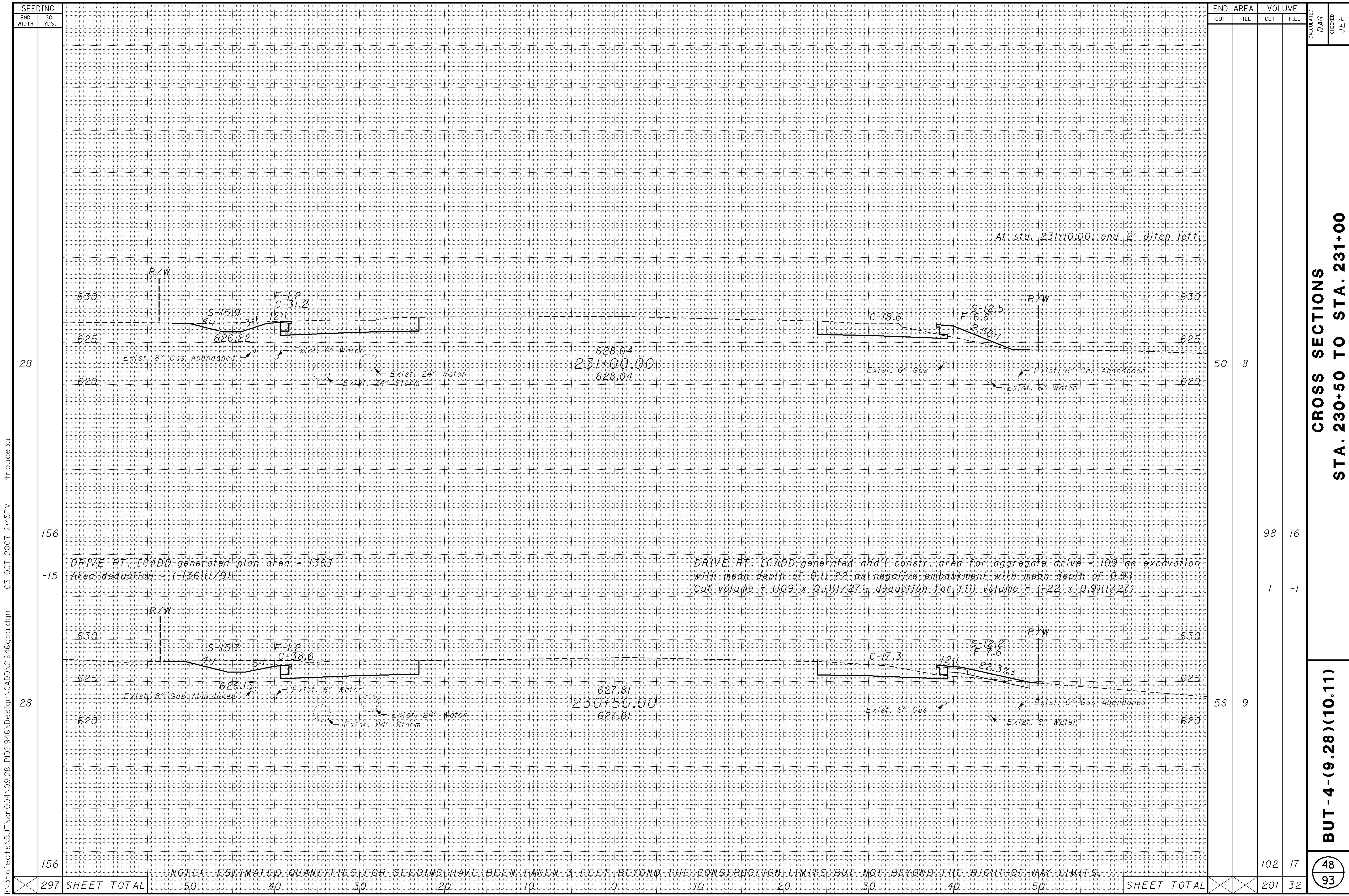
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 229+00 TO STA. 229+50

BUT - 4 - (9.28) (10.11)

46
93

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END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
630						
625						
620						
50		8				
156			98	16		
-15			1	-1		
630						
625						
620						
56		9				
156			102	17		
297			201	32		

CROSS SECTIONS
STA. 230+50 TO STA. 231+00

BUT - 4 - (9.28) (10.11)

48
 93

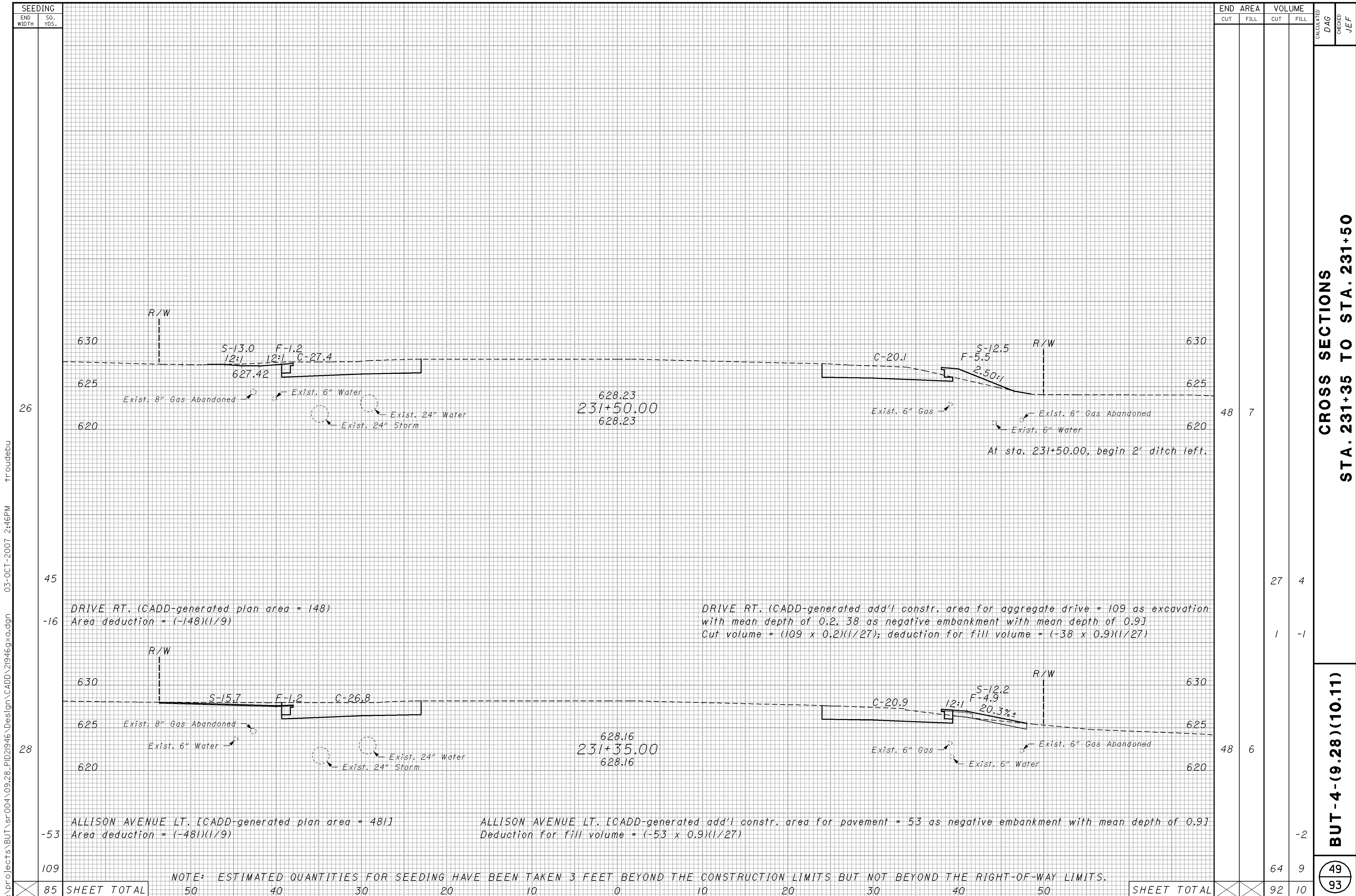
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SHEET TOTAL

SHEET TOTAL

50	40	30	20	10	0	10	20	30	40	50
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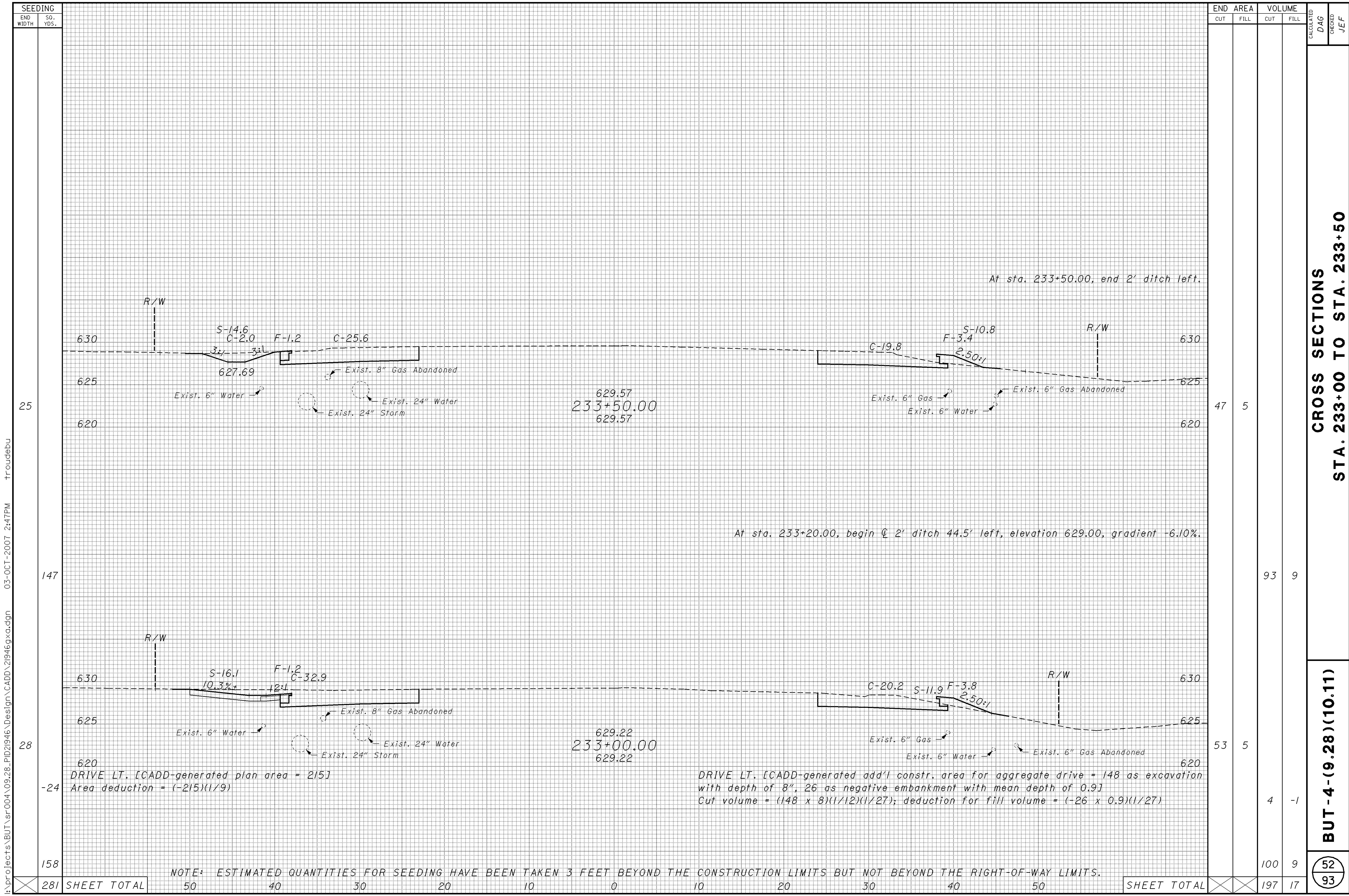
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END	AREA		VOLUME		CALCULATED	DAG	CHECKED	JEF
	CUT	FILL	CUT	FILL				
630								
625								
620								
48	7							
45			27	4				
-16			1	-1				
28			48	6				
-53				-2				
109			64	9				
85	SHEET TOTAL		92	10				

**CROSS SECTIONS
 STA. 231+35 TO STA. 231+50**

BUT - 4 - (9.28) (10.11)

49
 93



SEEDING	
END WIDTH	SO. YDS.
25	
147	
28	
-24	
158	
281	SHEET TOTAL

END AREA		VOLUME		CALCULATED	DAG	CHECKED	JEF
CUT	FILL	CUT	FILL				
47	5						
		93	9				
53	5						
		4	-1				
		100	9				
		197	17				

CROSS SECTIONS
STA. 233+00 TO STA. 233+50
BUT - 4-(9.28)(10.11)
52
93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING

END WIDTH	SO. YDS.
27	
60	
144	
84	

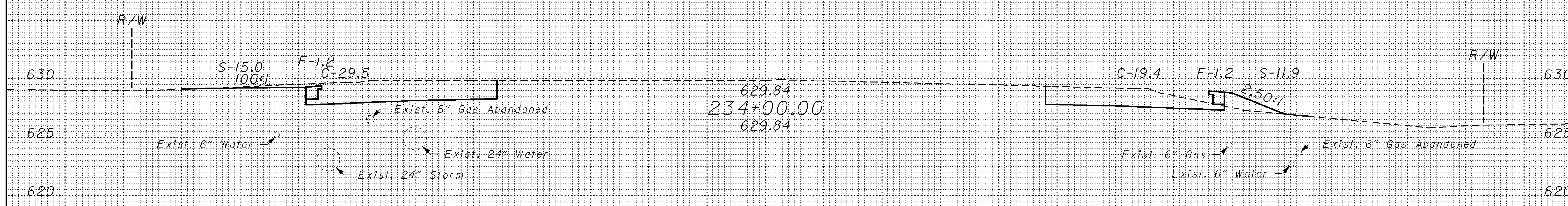
END AREA VOLUME

CUT	FILL	CUT	FILL
49	2	2	-1
89	6	91	5

CALCULATED
DAG
CHECKED
JEF

CROSS SECTIONS
STA. 233+75 TO STA. 234+00

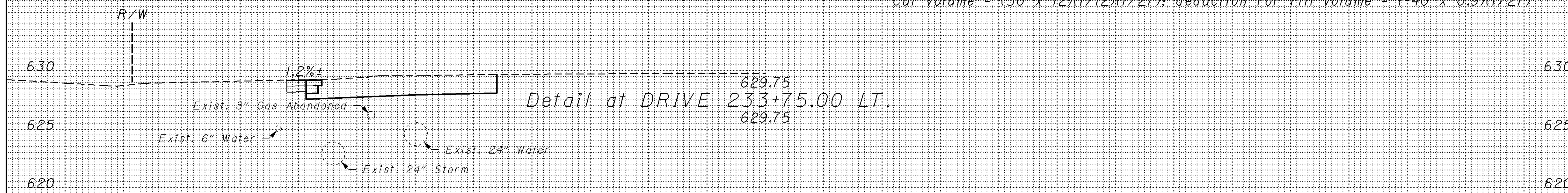
BUT - 4 - (9.28) (10.11)



629.84
234+00.00
629.84

DRIVE LT. [CADD-generated plan area = 536]
Area deduction = (-536)(1/9)

DRIVE LT. [CADD-generated add'l constr. area for concrete drive = 50 as excavation with depth of 12", 40 as negative embankment with mean depth of 0.9]
Cut volume = (50 x 12)(1/12)(1/27); deduction for fill volume = (-40 x 0.9)(1/27)

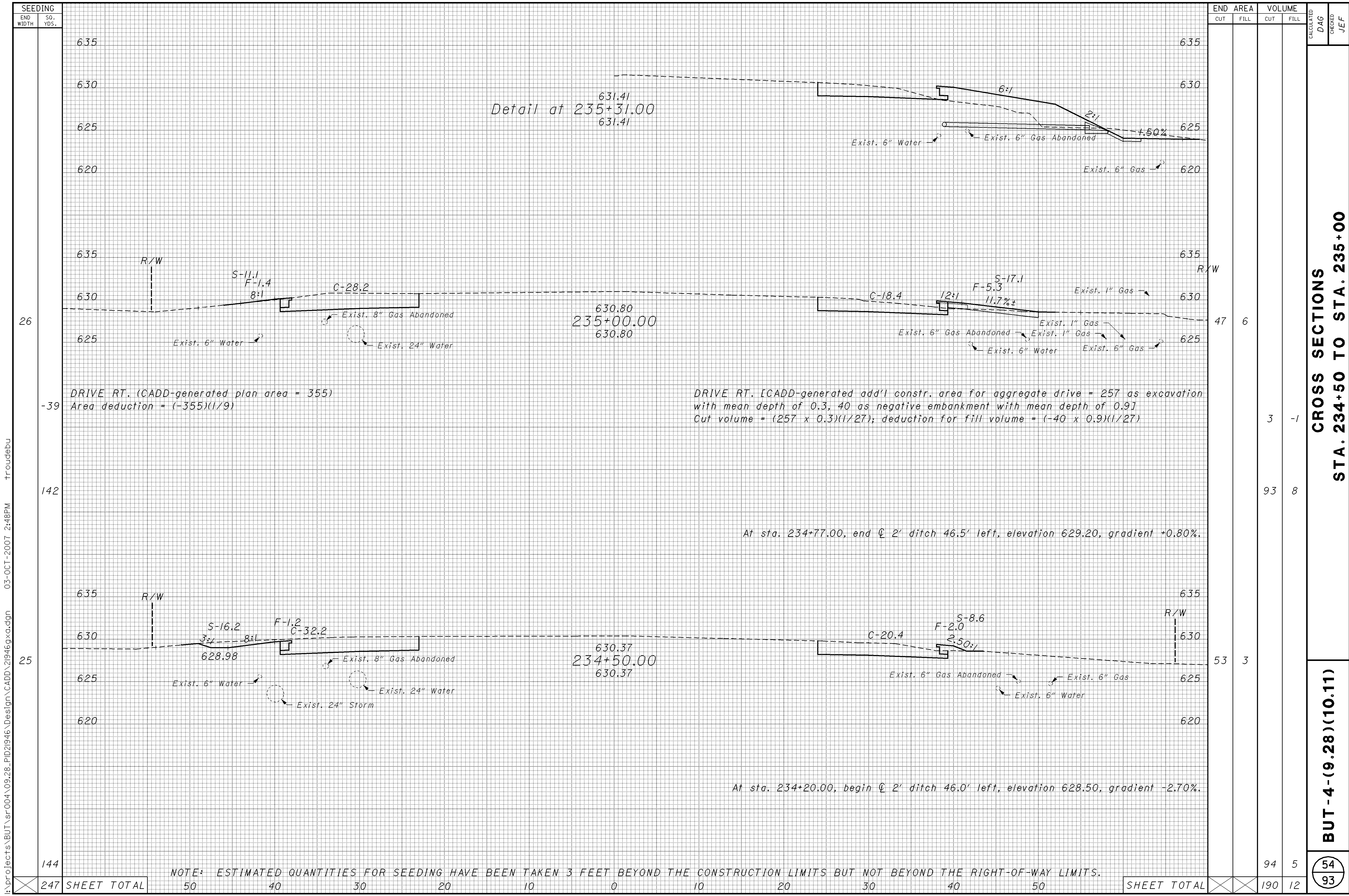


629.75
Detail at DRIVE 233+75.00 LT.
629.75

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

84	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	91	5	53 93
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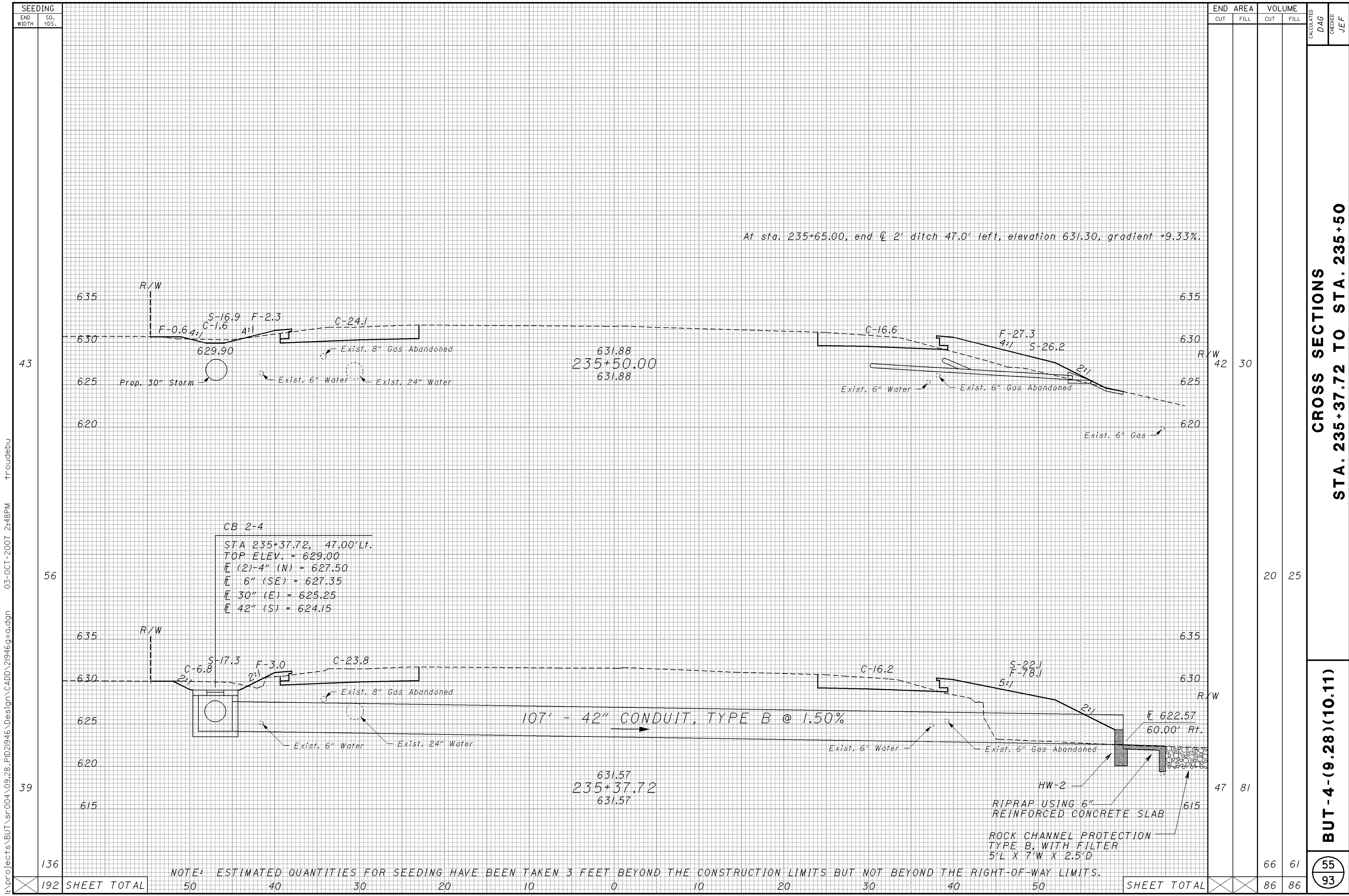
SEEDING		END AREA		VOLUME		CALCULATED	DAG	CHECKED	JEF								
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL												
26																	
39																	
142																	
25																	
144																	
247	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	190	12	54	93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 234+50 TO STA. 235+00

BUT - 4 - (9.28) (10.11)

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CROSS SECTIONS
 STA. 235+37.72 TO STA. 235+50

BUT - 4 - (9.28) (10.11)

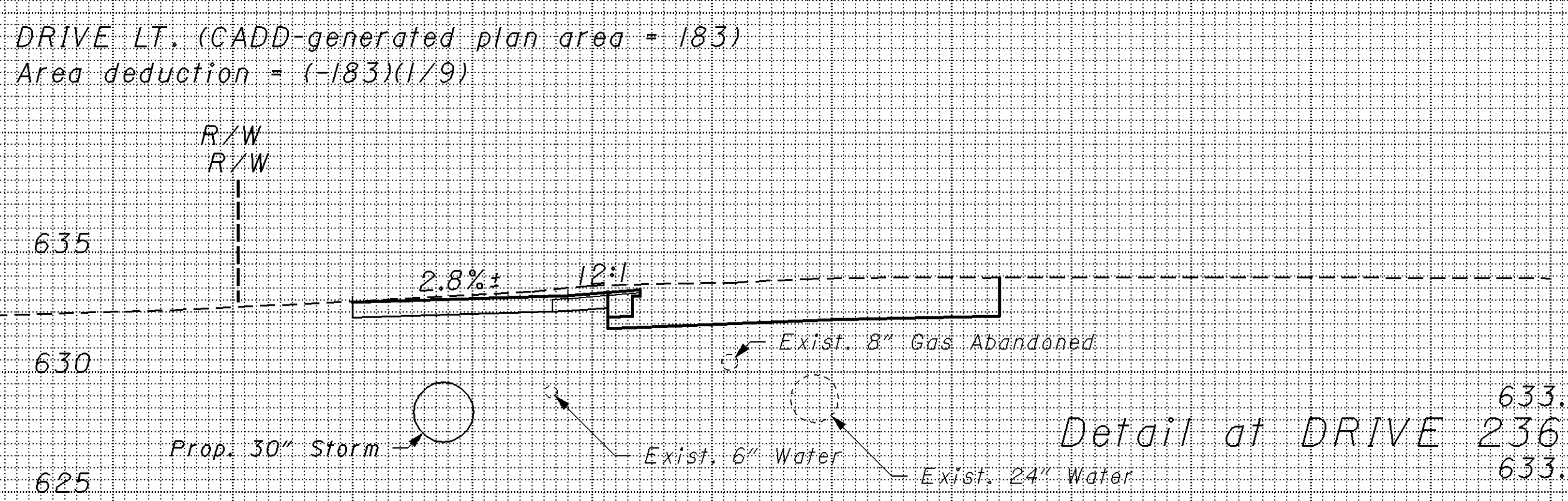
55
93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING	
END WIDTH	SO. YDS.
231	
211	
SHEET TOTAL	
50	40
30	20
10	0
10	20
30	40
50	
SHEET TOTAL	
83	51

-20



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		3	-1
44	26	80	52
		83	51

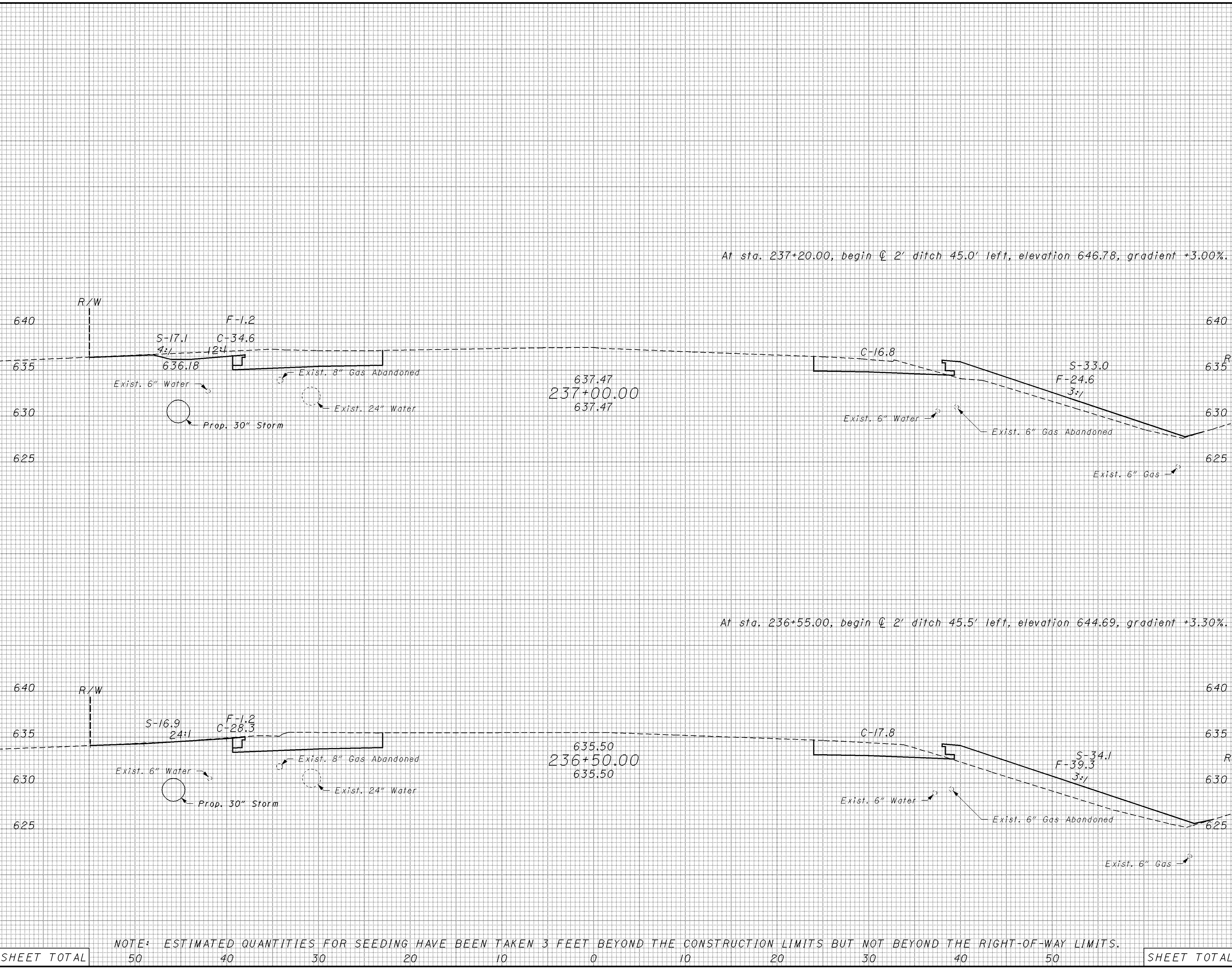
CROSS SECTIONS
STA. 236+00 TO STA. 236+13
BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

56
93

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SEEDING	
END WIDTH	SO. YDS.
51	278
59	559

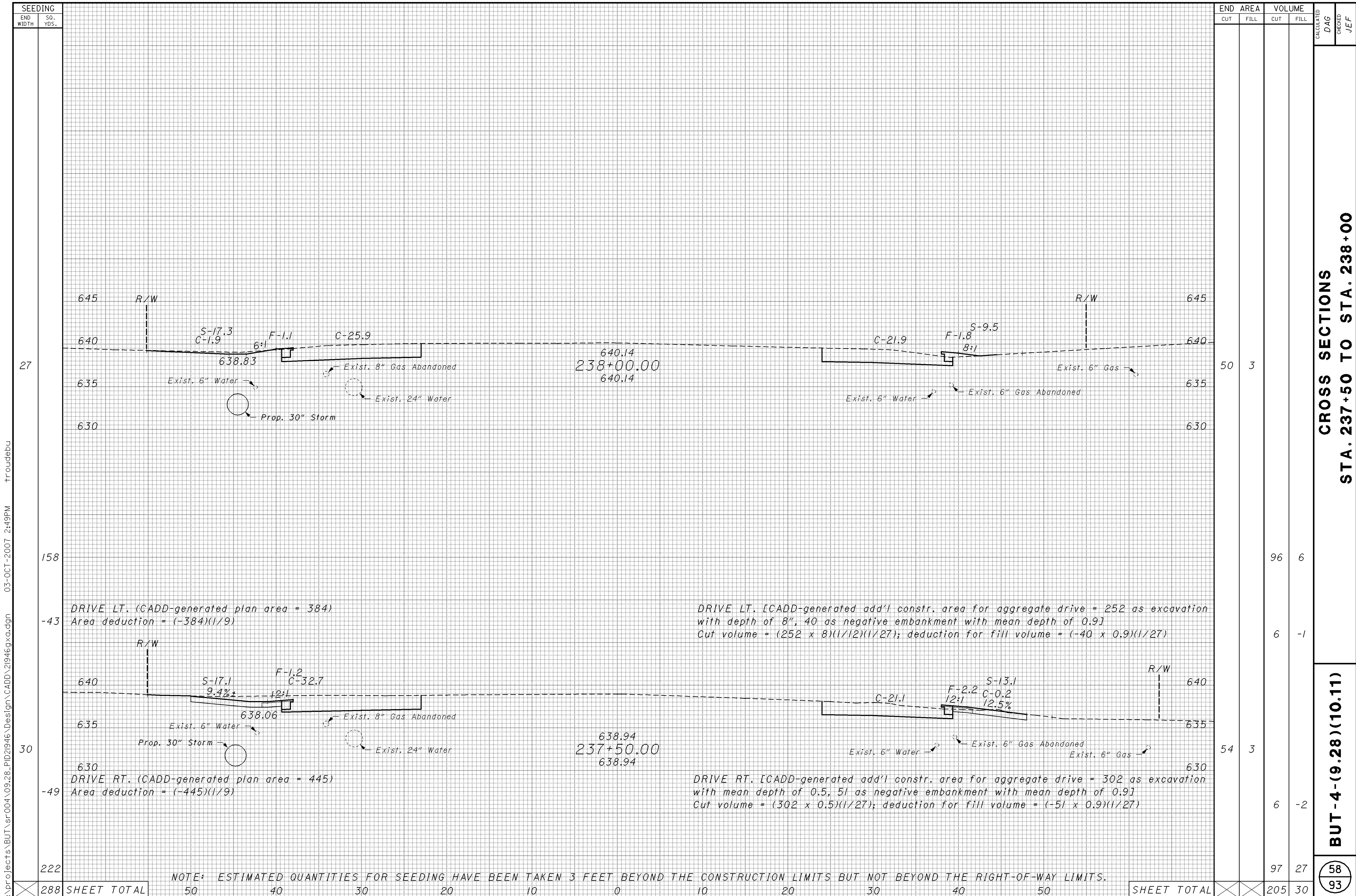


END AREA		VOLUME	
CUT	FILL	CUT	FILL
		90	62
		83	62
		173	124

CALCULATED: DAG
 CHECKED: JEF
CROSS SECTIONS
STA. 236+50 TO STA. 237+00
BUT - 4 - (9.28) (10.11)
 57
 93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
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CALCULATED
 DAG
 CHECKED
 JEF

58
 93

SEEDING
 END SO. YDS.
 WIDTH YDS.

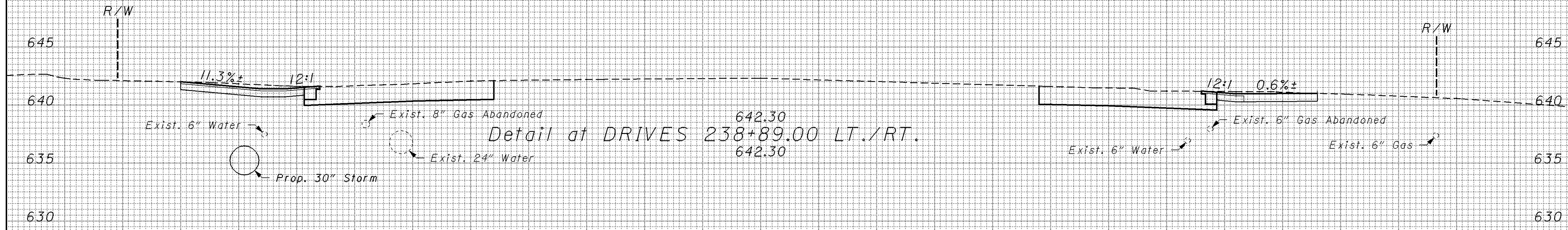
END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
		2	-1		
		4	-1		
		51	3		
89		94	6		
SHEET TOTAL		100	4		

-23 DRIVE LT. (CADD-generated plan area = 210)
 Area deduction = (-210)(1/9)

-16 DRIVE RT. (CADD-generated plan area = 140)
 Area deduction = (-140)(1/9)

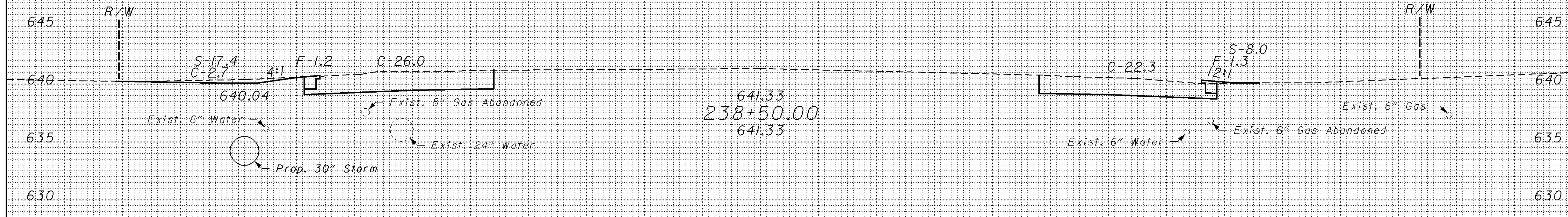
DRIVE LT. [CADD-generated add'l constr. area for paved drive = 99 as excavation with depth of 8", 22 as negative embankment with mean depth of 0.9]
 Cut volume = (99 x 8)(1/12)(1/27); deduction for fill volume = (-22 x 0.9)(1/27)

DRIVE RT. [CADD-generated add'l constr. area for aggregate drive = 152 as excavation with depth of 8", 26 as negative embankment with mean depth of 0.9]
 Cut volume = (152 x 8)(1/12)(1/27); deduction for fill volume = (-26 x 0.9)(1/27)



Detail at DRIVES 238+89.00 LT./RT.

At sta. 238+70.00, end of 2' ditch 44.5' left, elevation 640.48, gradient +2.40%.



NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

89

SHEET TOTAL

50 40 30 20 10 0 10 20 30 40 50

SHEET TOTAL

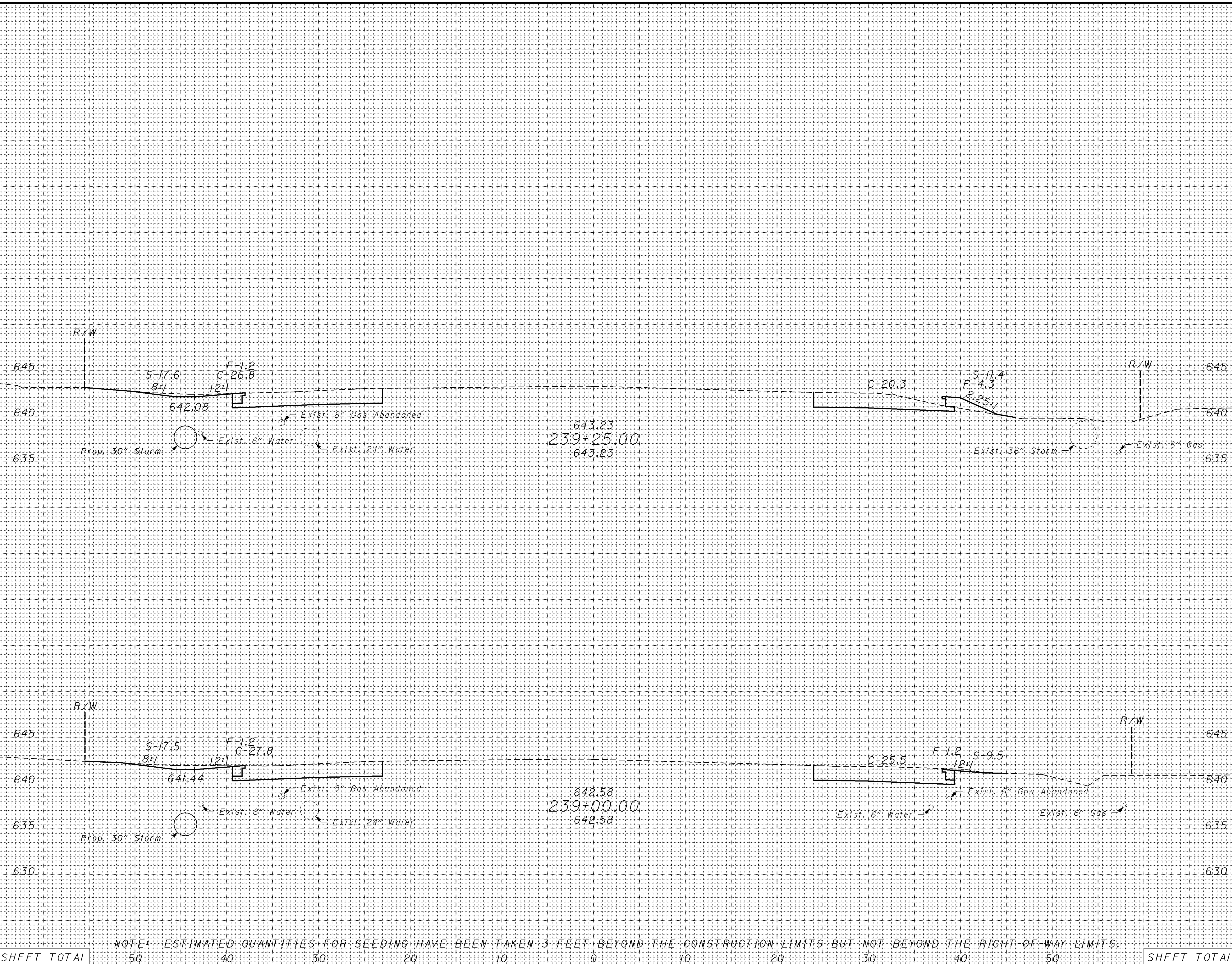
CROSS SECTIONS
 STA. 238+50 TO STA. 238+89

BUT-4-(9.28)(10.11)

59
93

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SEEDING
 END WIDTH SO. YDS.
 29
 78
 27
 144



END AREA		VOLUME	
CUT	FILL	CUT	FILL
47	6	46	4
53	2	96	5
		142	9

CROSS SECTIONS
 STA. 239+00 TO STA. 239+25
 BUT - 4 - (9.28) (10.11)
 CALCULATED: DAG
 CHECKED: JEF

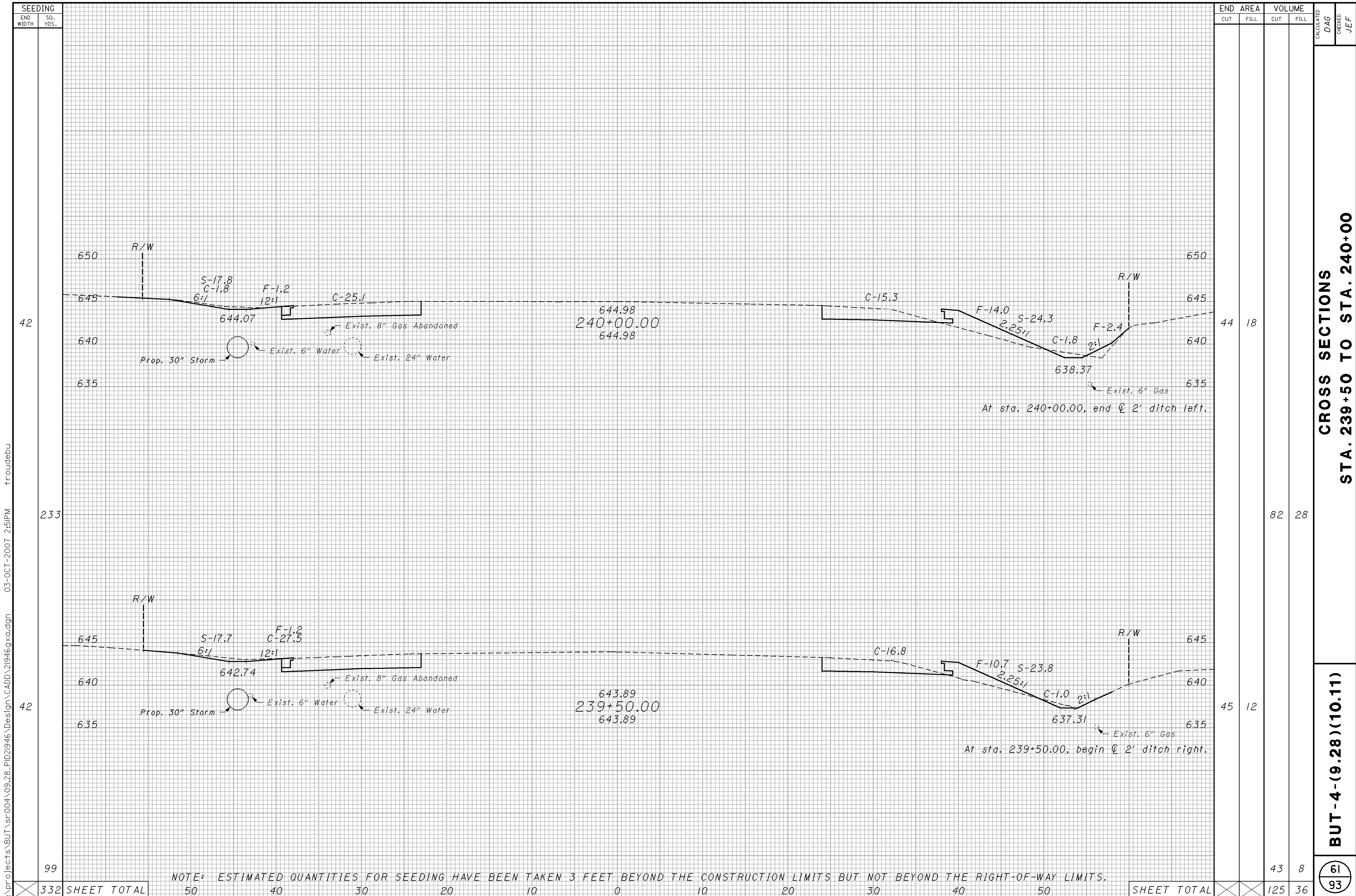
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

222 SHEET TOTAL

SHEET TOTAL

60
93

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SEEDING		END AREA		VOLUME		CALCULATED		CHECKED										
END WIDTH	SO. YDS.	CUT	FILL	CUT	FILL	DAG	JEF											
42	233		18															
42	233		82		28													
42	99		43		8													
332	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	125	36			

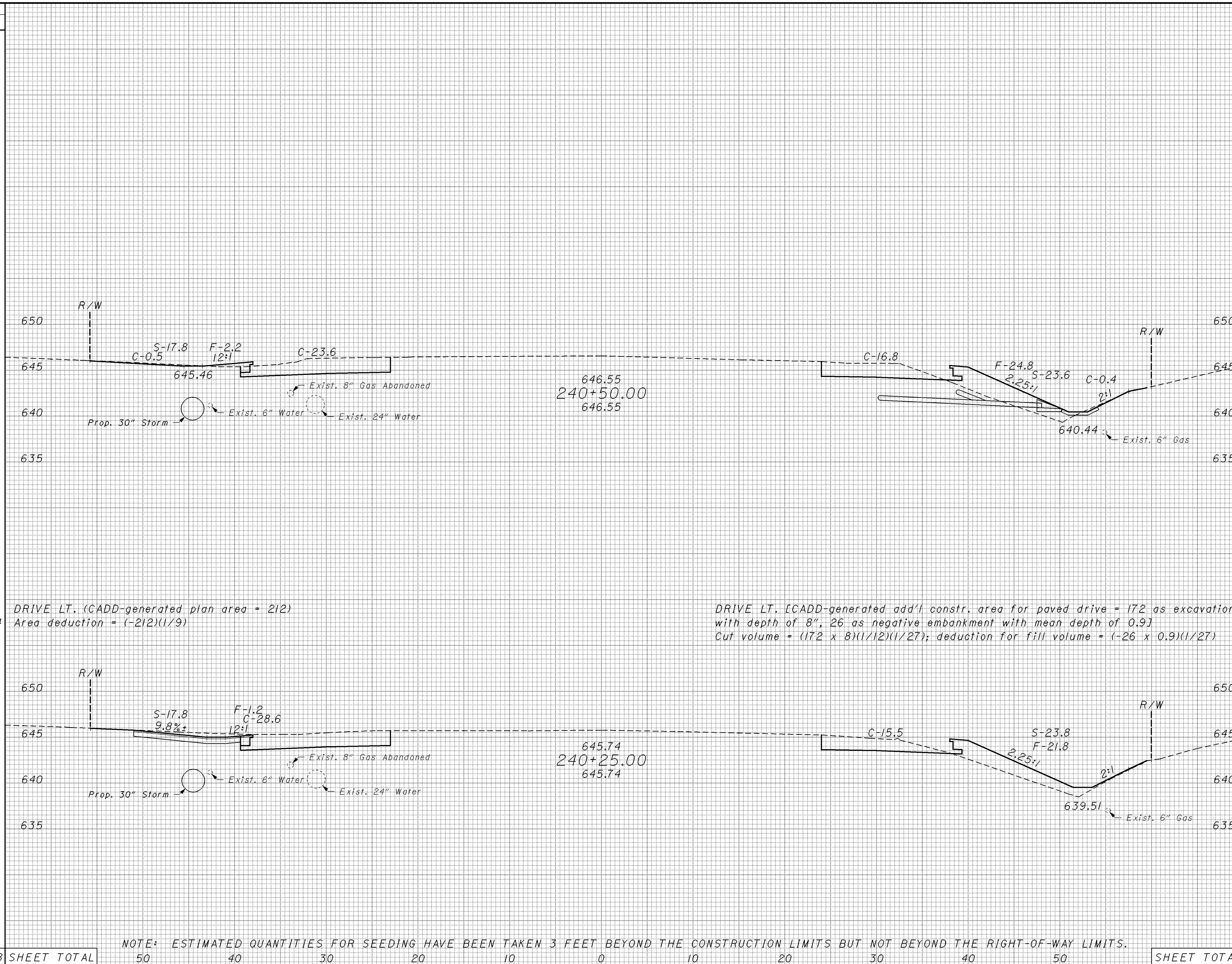
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 239+50 TO STA. 240+00
BUT - 4 - (9.28) (10.11)

61
93

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SEEDING
 END WIDTH SO. YDS.
 41
 115
 -24
 42
 117
 208



END	AREA		VOLUME	
	CUT	FILL	CUT	FILL
41			27	
115			39	23
-24			4	-1
42			44	23
117			41	19
SHEET TOTAL			84	41

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

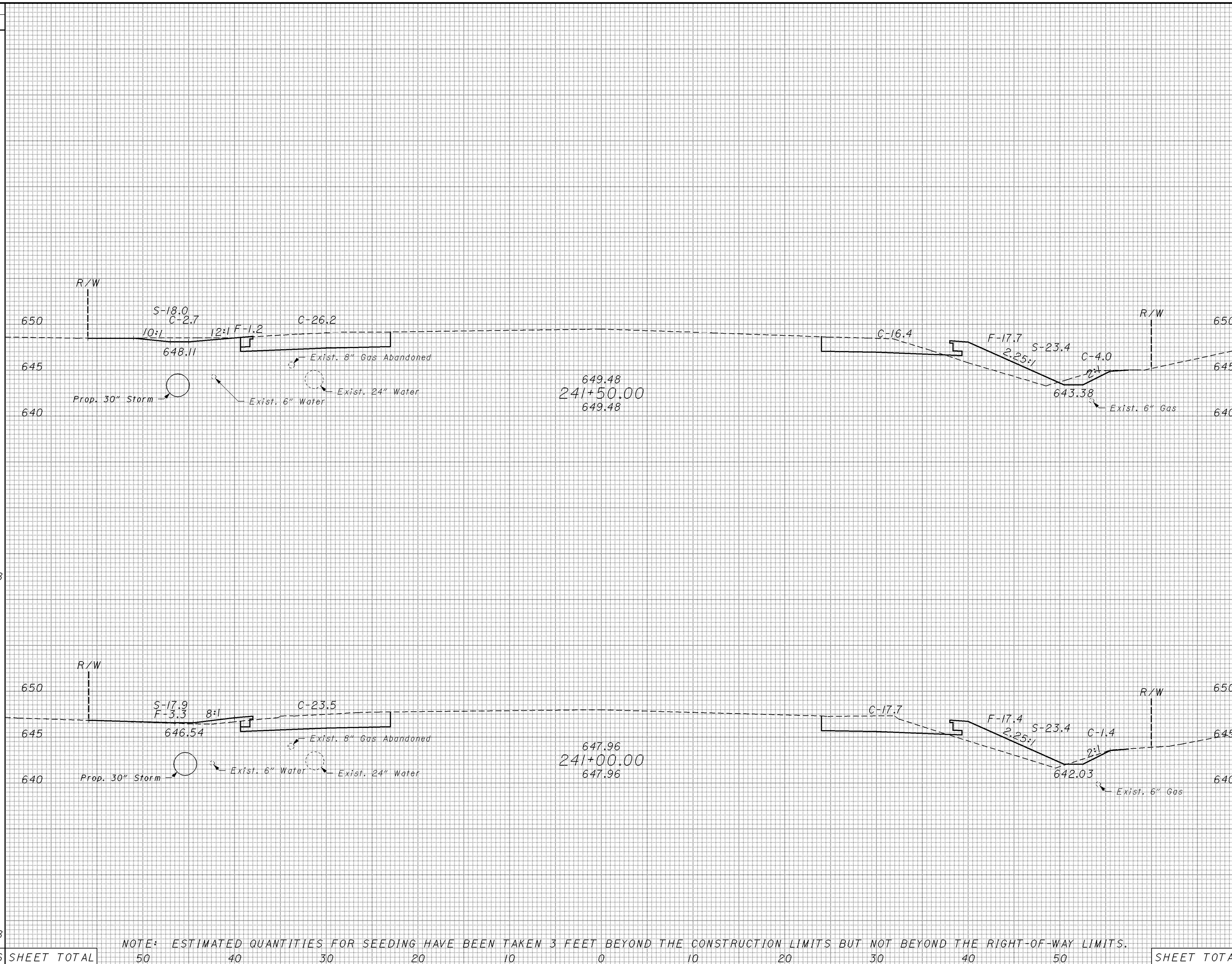
**CROSS SECTIONS
 STA. 240+25 TO STA. 240+50**

BUT - 4 - (9.28) (10.11)

CALCULATED	62
DAG	93
CHECKED	
JEF	

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SEEDING
 END WIDTH SO. YDS.
 41
 228
 41
 228
 456 SHEET TOTAL

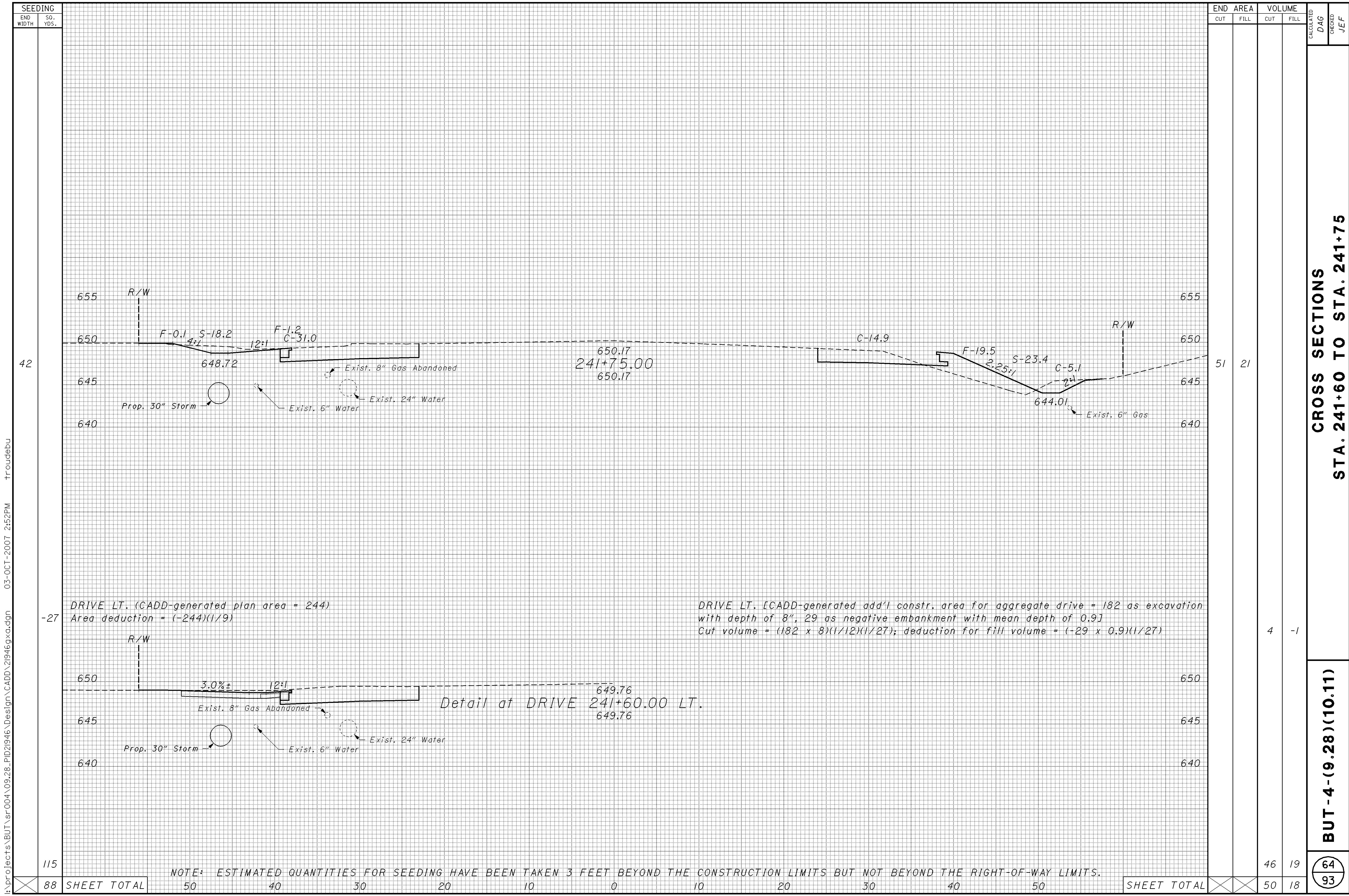


END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
49	19	85	37		
43	21	78	44		
456	SHEET TOTAL	163	81		

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 241+00 TO STA. 241+50
BUT - 4 - (9.28) (10.11)

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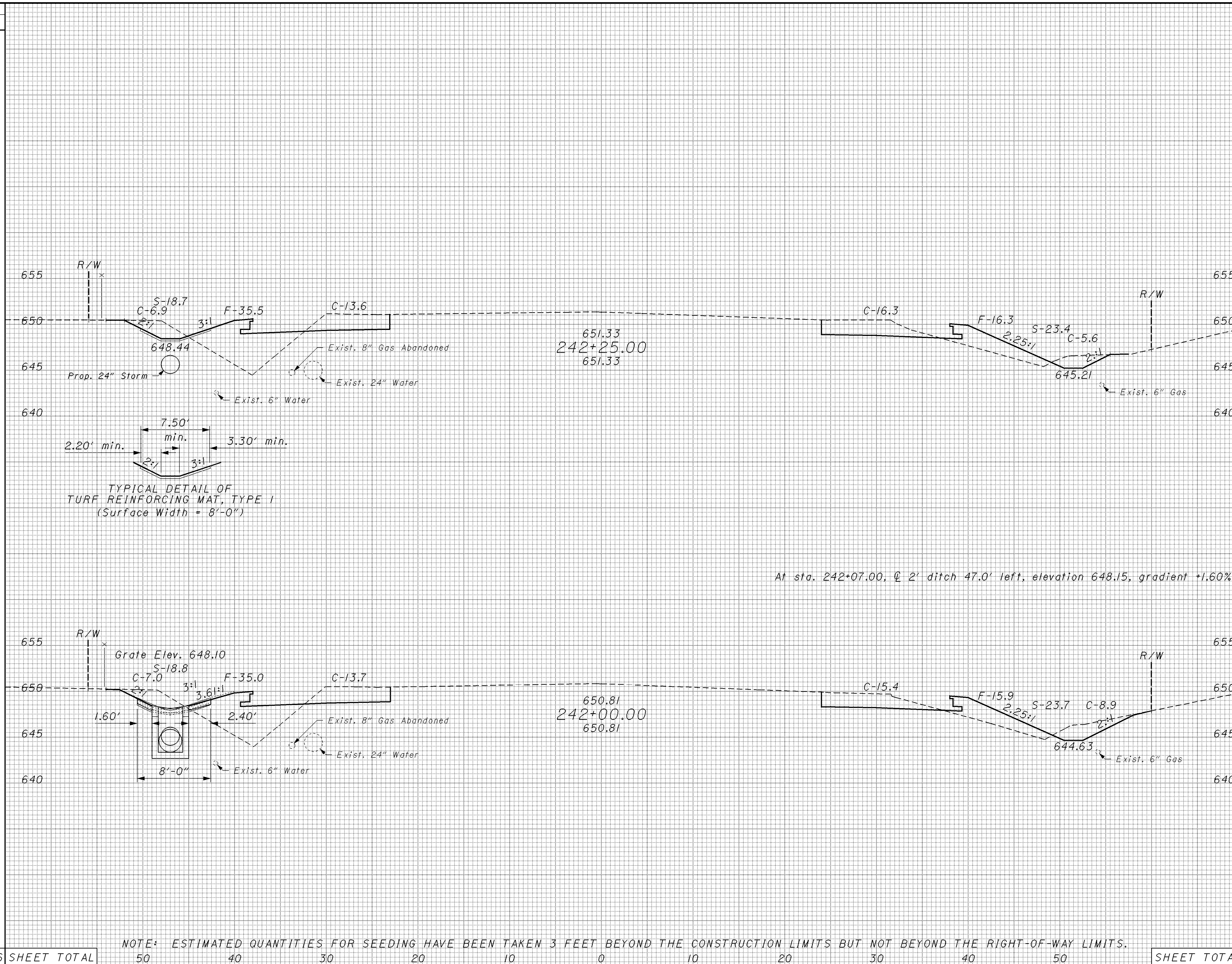
CROSS SECTIONS
STA. 241+60 TO STA. 241+75

BUT - 4 - (9.28) (10.11)

CALCULATED
 DAG
 CHECKED
 JEF

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SEEDING
 END WIDTH SO. YDS.
 42
 118
 43
 118
 236 SHEET TOTAL

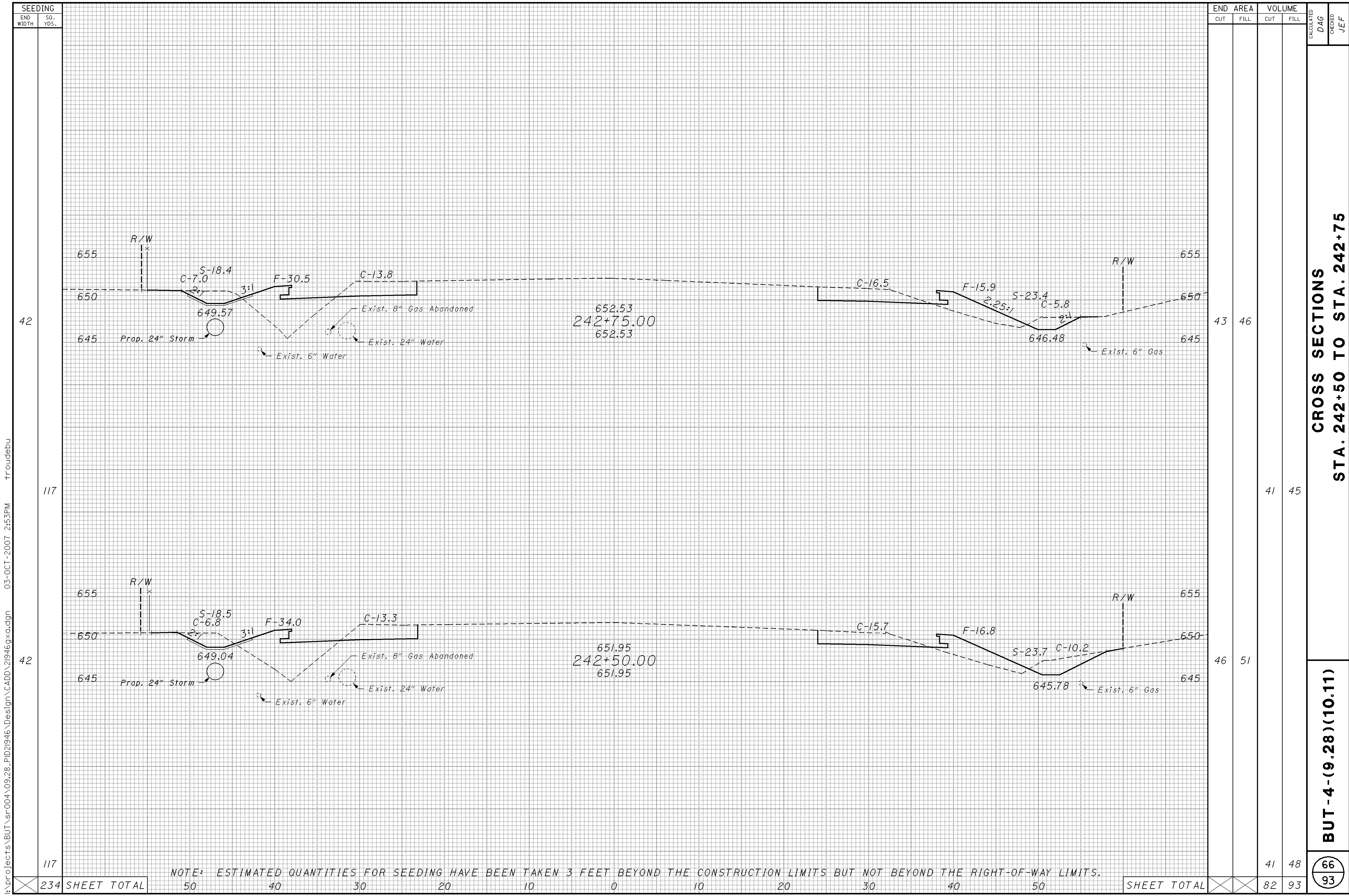


END AREA		VOLUME	
CUT	FILL	CUT	FILL
42	52	40	48
45	51	44	33
SHEET TOTAL		84	81

CALCULATED
 DAG
 CHECKED
 JEF
**CROSS SECTIONS
 STA. 242+00 TO STA. 242+25**
BUT - 4 - (9.28) (10.11)
 65
 93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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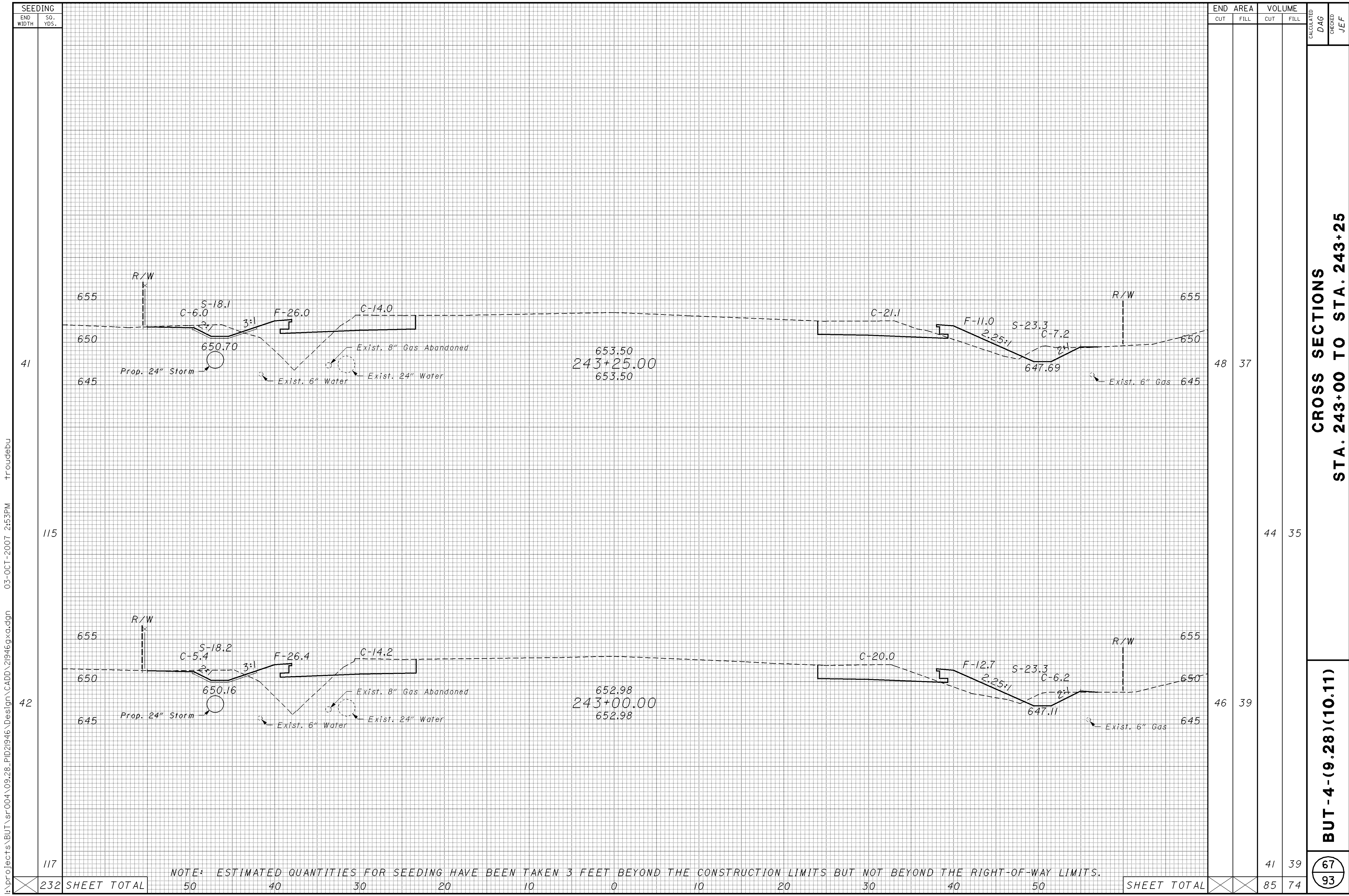


CROSS SECTIONS
STA. 242+50 TO STA. 242+75

BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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SEEDING	
END WIDTH	SO. YDS.
41	115
42	117
232	SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
48	37	44	35
46	39	41	39
		85	74

CALCULATED
 DAG
 CHECKED
 JEF

CROSS SECTIONS
STA. 243+00 TO STA. 243+25

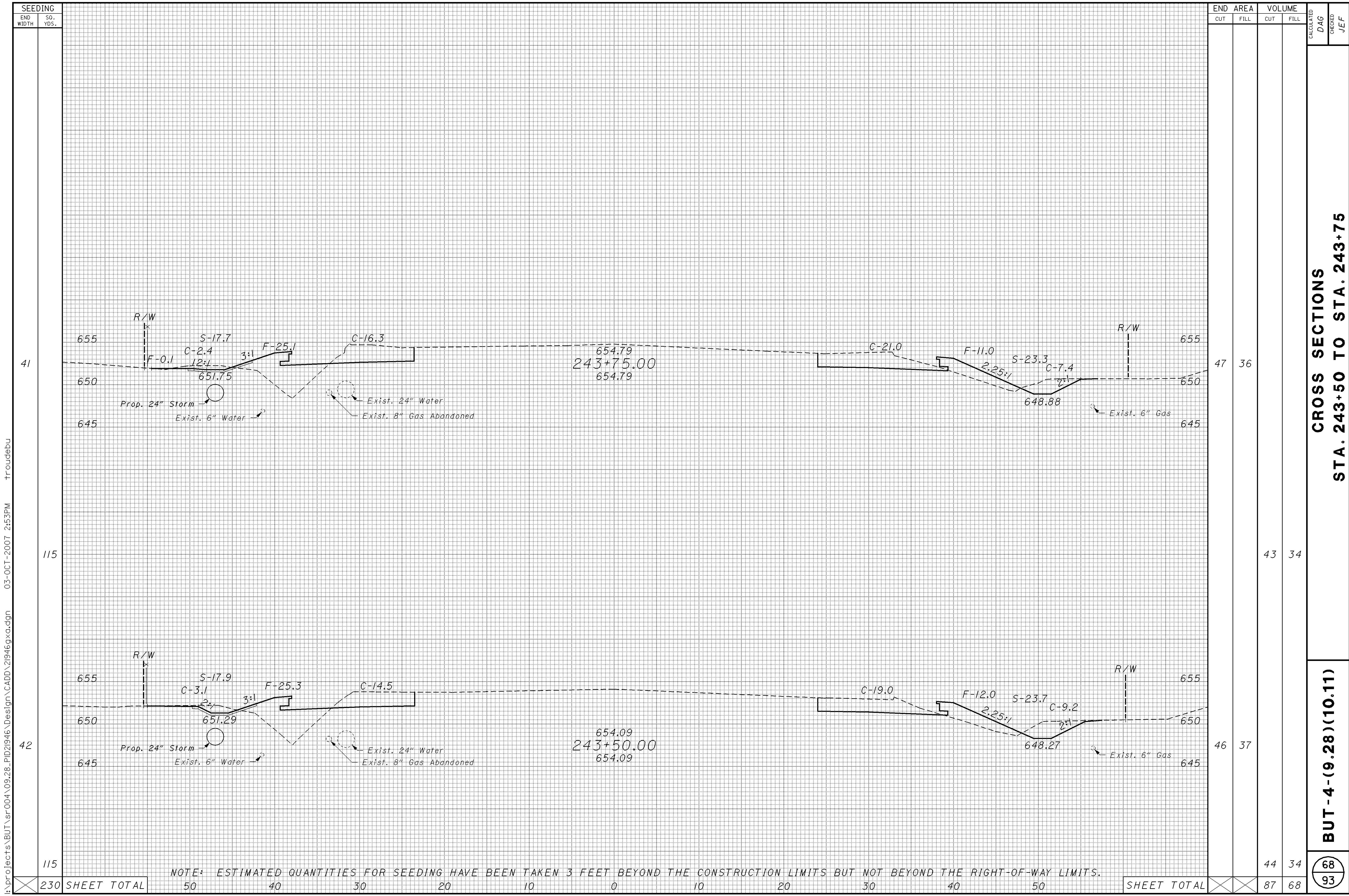
BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
----	----	----	----	----	---	----	----	----	----	----	-------------

67
 93

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SEEDING	
END WIDTH	SO. YDS.
41	115
42	115
230	115

END AREA		VOLUME	
CUT	FILL	CUT	FILL
47	36	43	34
46	37	44	34
87	68	87	68

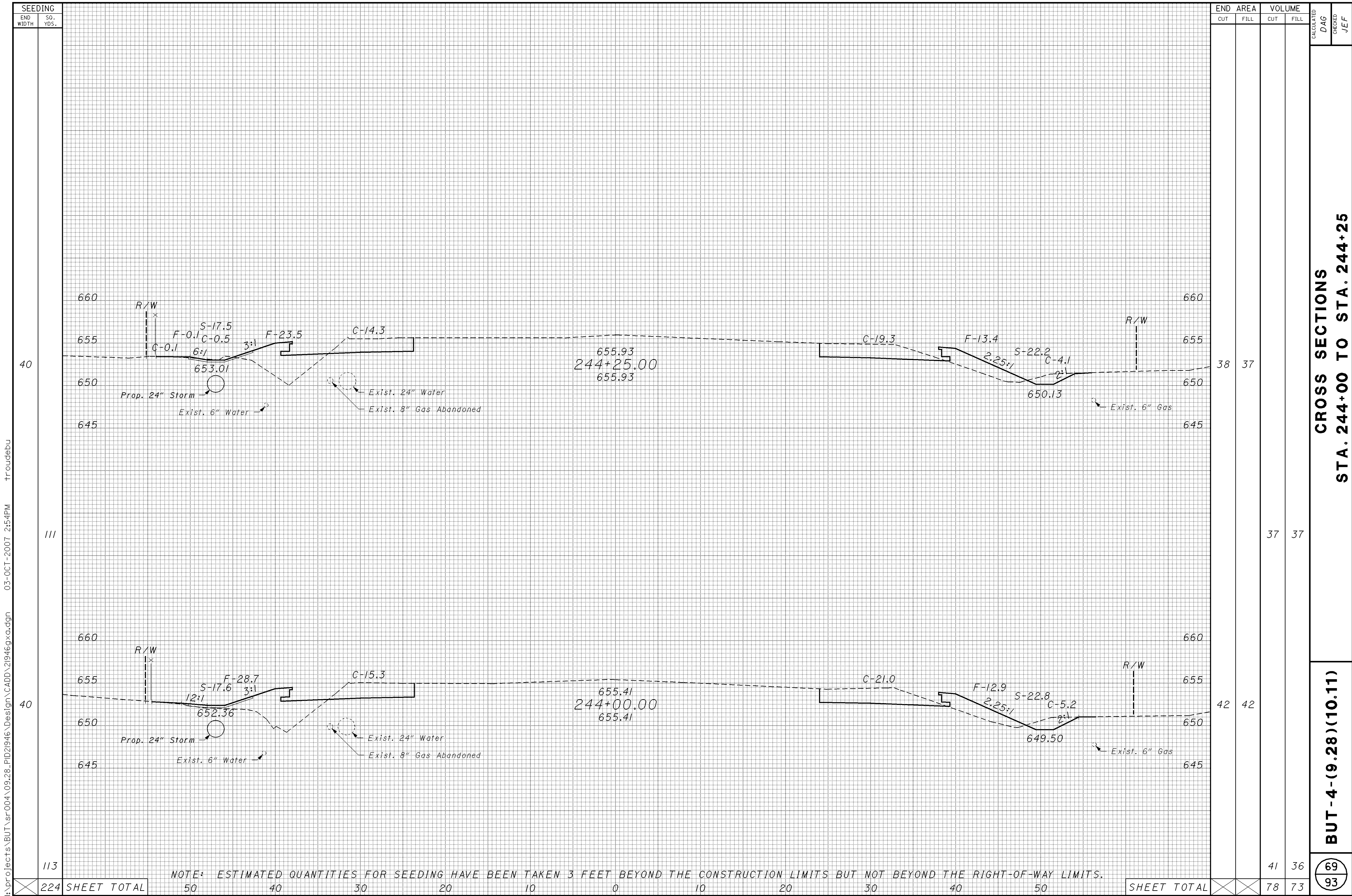
CROSS SECTIONS
STA. 243+50 TO STA. 243+75

BUT - 4 - (9.28) (10.11)

CALCULATED
 DAG
 CHECKED
 JEF

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
----	----	----	----	----	---	----	----	----	----	----	-------------



SEEDING	
END WIDTH	SO. YDS.
40	113
40	111
41	113
78	224 SHEET TOTAL

END AREA		VOLUME	
CUT	FILL	CUT	FILL
38	37	37	37
42	42	41	36
78	73	93	93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 244+00 TO STA. 244+25
BUT - 4 - (9.28) (10.11)

CALCULATED
 DAG
 CHECKED
 JEF

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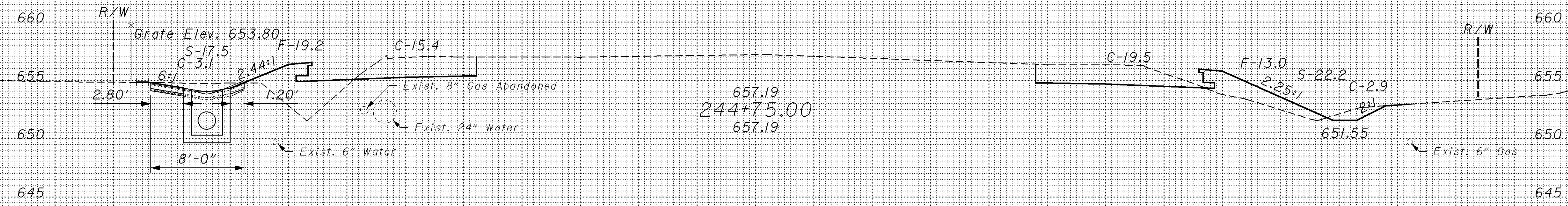
SEEDING
END WIDTH SO. YDS.
40
110
39
110
220

END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
41	32	39	30		
43	33				
		38	32		
		77	62		

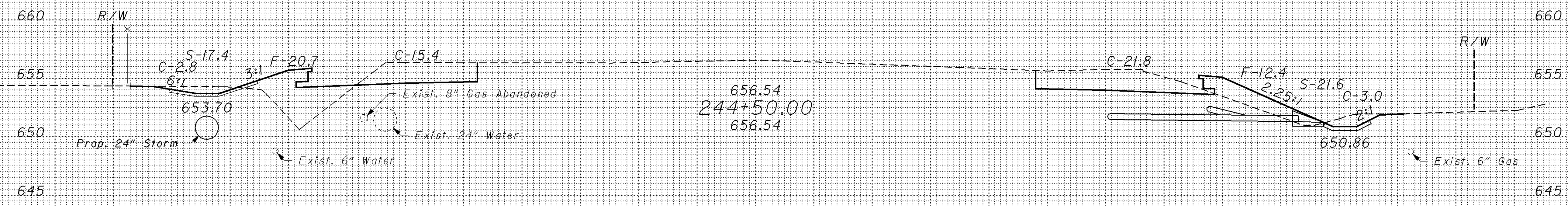
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CROSS SECTIONS
STA. 244+50 TO STA. 244+75
BUT - 4 - (9.28) (10.11)

At sta. 244+82.00, C 2' ditch 52.0' left, elevation 654.05, gradient +4.60%.



657.19
244+75.00
657.19



656.54
244+50.00
656.54

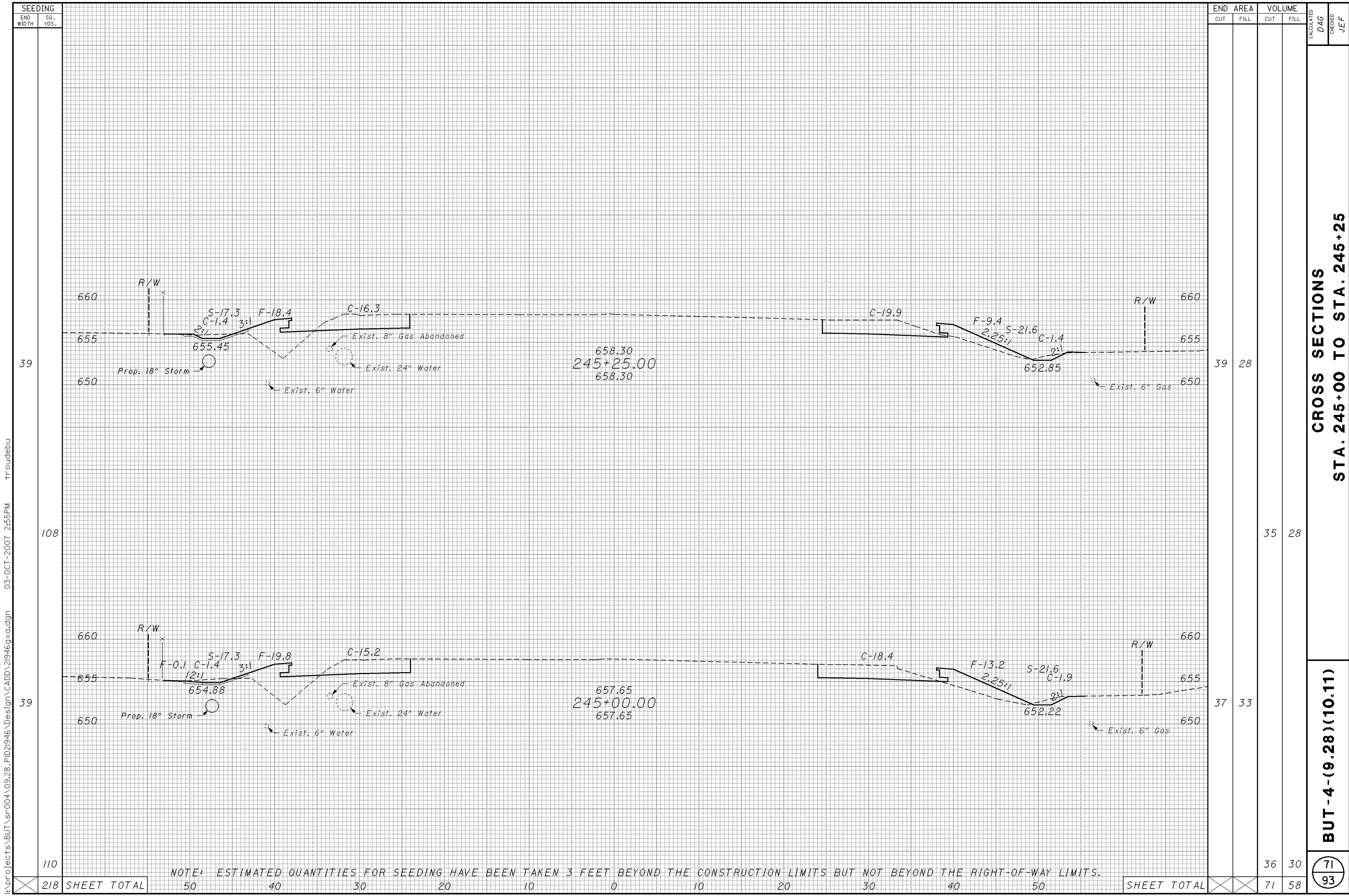
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

220 SHEET TOTAL

50	40	30	20	10	0	10	20	30	40	50
----	----	----	----	----	---	----	----	----	----	----

SHEET TOTAL

70
93



SEEDING	
END WIDTH	SO. YDS.
39	108
39	110
218	SHEET TOTAL

END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
39	28	35	28		
37	33	36	30		
		71	58		

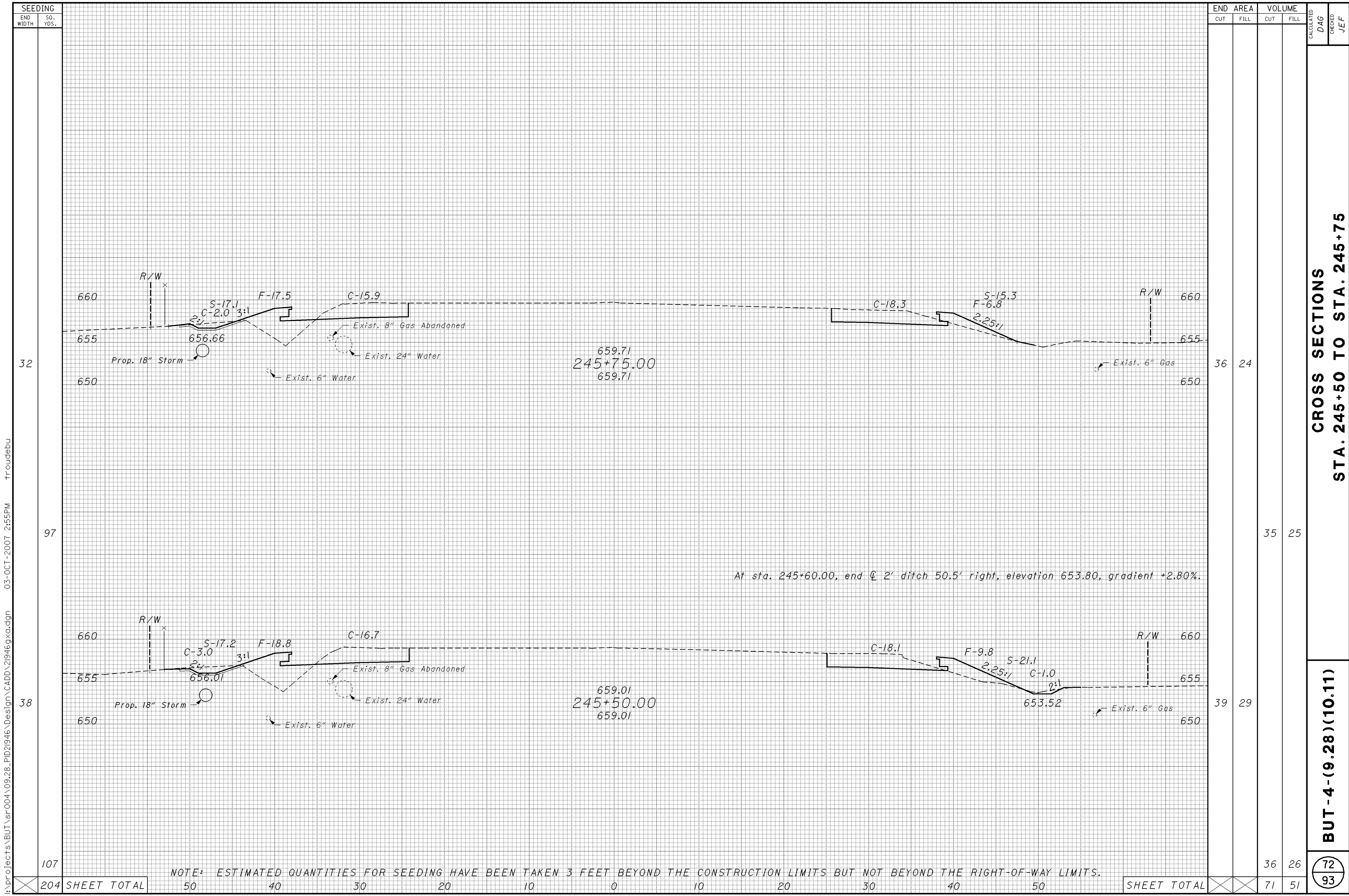
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 245+00 TO STA. 245+25

BUT - 4 - (9.28) (10.11)

71
93

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SEEDING	
END WIDTH	SO. YDS.
32	
97	
38	
107	
204	SHEET TOTAL

END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
36	24				
		35	25		
39	29				
		36	26		
		71	51		

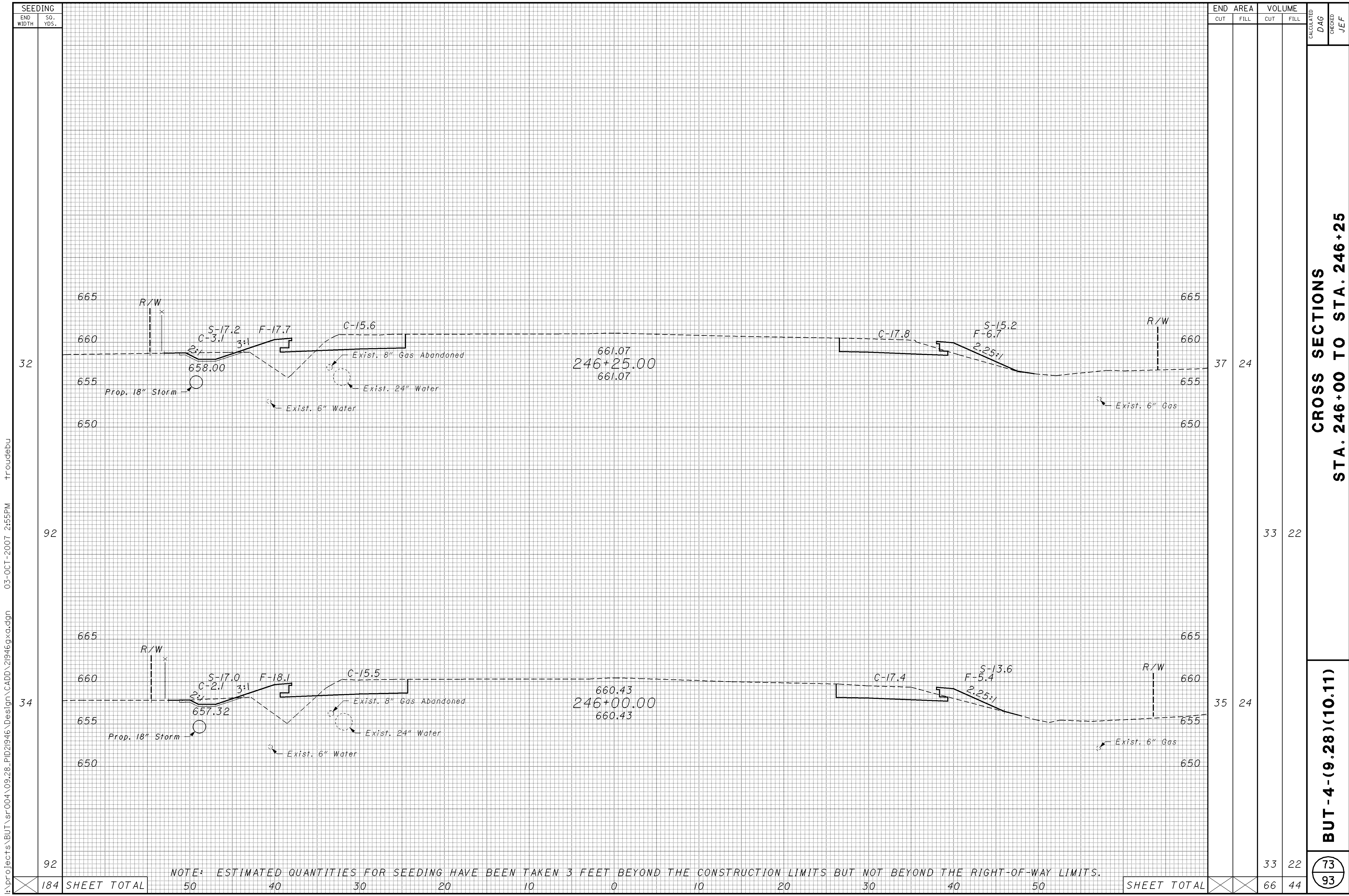
CROSS SECTIONS
STA. 245+50 TO STA. 245+75

BUT - 4 - (9.28) (10.11)

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	72	93
----	----	----	----	----	---	----	----	----	----	----	-------------	----	----

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SEEDING	
END WIDTH	SO. YDS.
32	92
34	92
92	184

END AREA		VOLUME	
CUT	FILL	CUT	FILL
	24	37	24
	33	22	33
	24	35	24
	66	93	66

CROSS SECTIONS
STA. 246+00 TO STA. 246+25

BUT - 4 - (9.28) (10.11)

CALCULATED: **DAG**
 CHECKED: **JEF**

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

184	SHEET TOTAL	50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	93	66	44
-----	-------------	----	----	----	----	----	---	----	----	----	----	----	-------------	----	----	----

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SEEDING	
END WIDTH	SO. YDS.
30	
86	
32	
89	
175	SHEET TOTAL

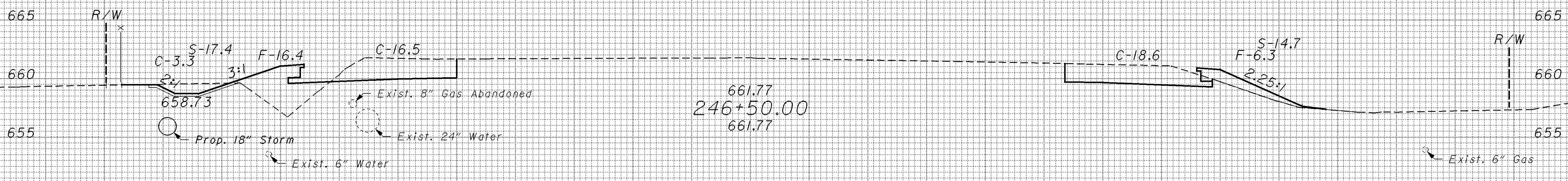
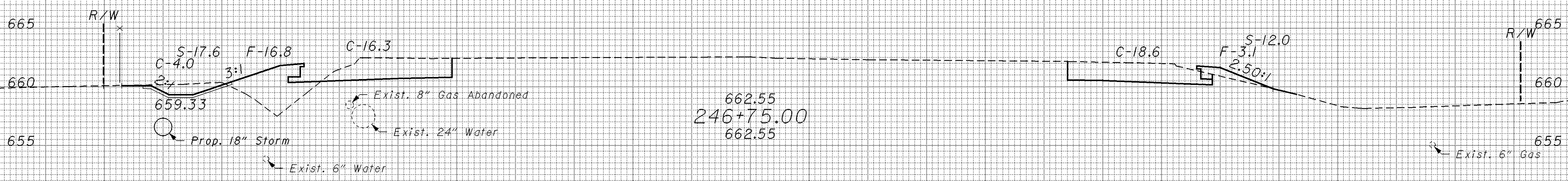
END AREA		VOLUME	
CUT	FILL	CUT	FILL
39	20		
		36	20
38	23		
		35	22
		71	42

CALCULATED
 DAG
 CHECKED
 JEF

CROSS SECTIONS
STA. 246+50 TO STA. 246+75

BUT - 4 - (9.28) (10.11)

74
 93



NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

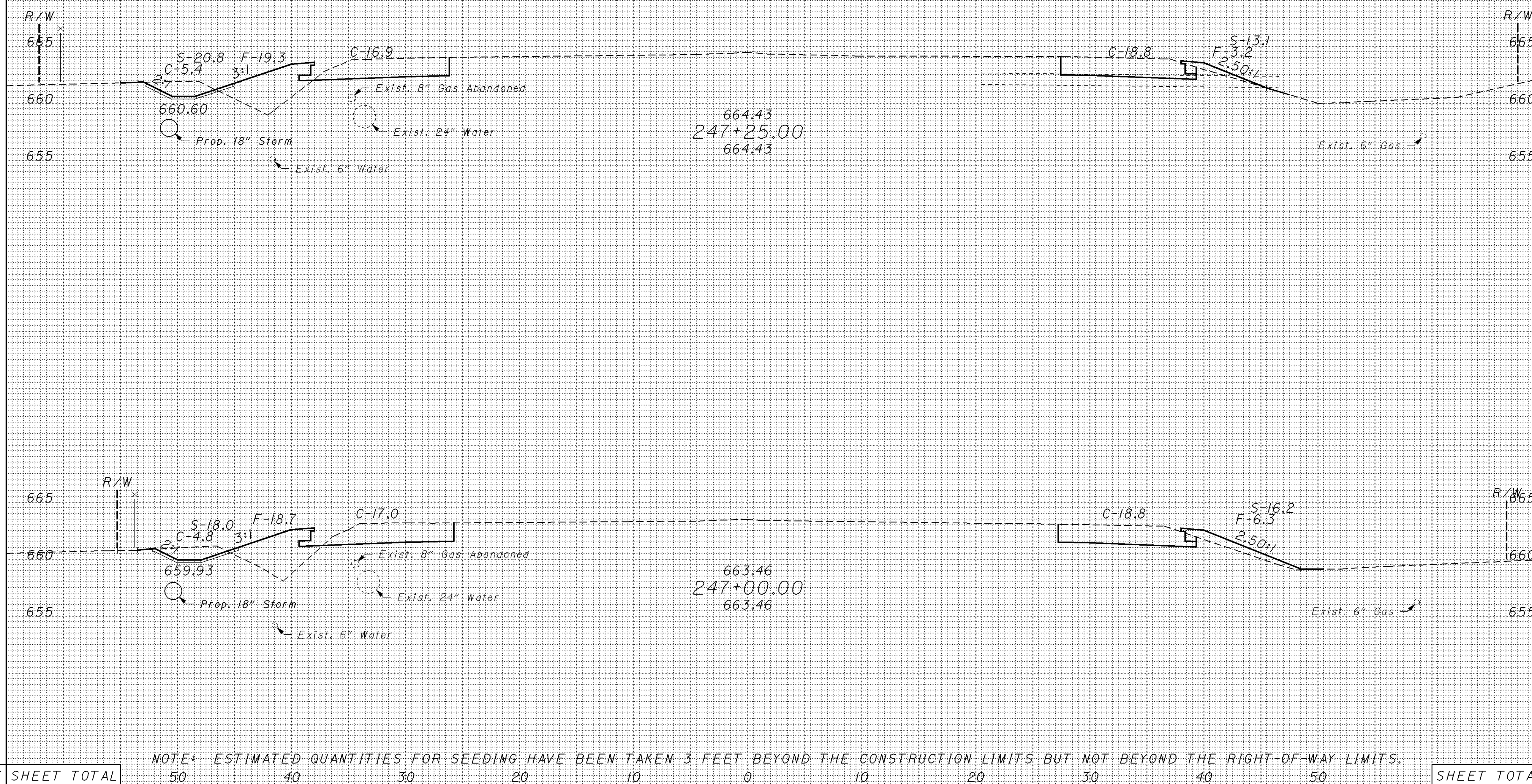
50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL
----	----	----	----	----	---	----	----	----	----	----	-------------

SEEDING
 END WIDTH SO. YDS.
 34
 94
 34
 89
 183 SHEET TOTAL

END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
41	23	38	22		
41	25	37	21		
75	43	75	43		

**CROSS SECTIONS
 STA. 247+00 TO STA. 247+25**

BUT - 4 - (9.28) (10.11)



NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

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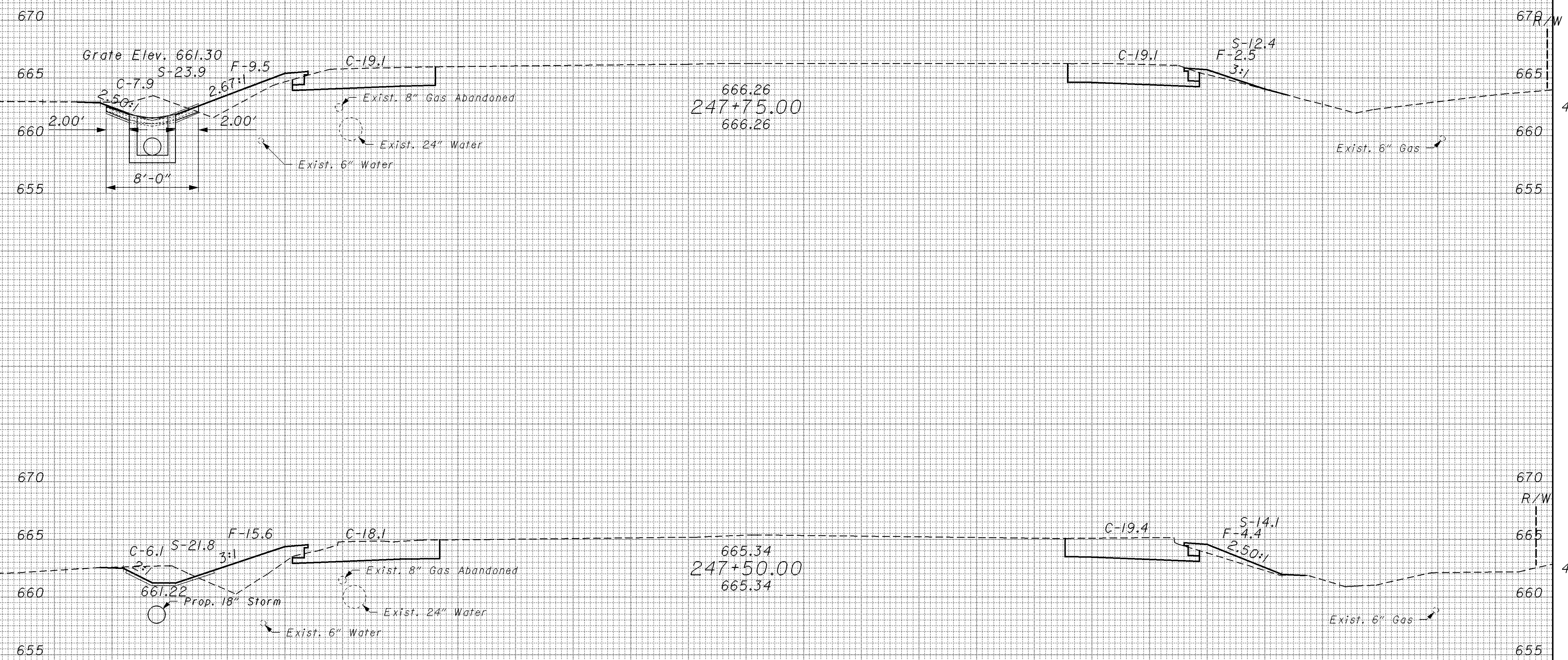
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SEEDING	
END WIDTH	SO. YDS.
36	99
36	99
36	99
97	
196	SHEET TOTAL

END AREA		VOLUME		CALCULATED DAG	CHECKED JEF
CUT	FILL	CUT	FILL		
46	12				
42	15				
44	20				
39	20				
81	35				

CROSS SECTIONS
STA. 247+50 TO STA. 247+75
BUT - 4 - (9.28)(10.11)

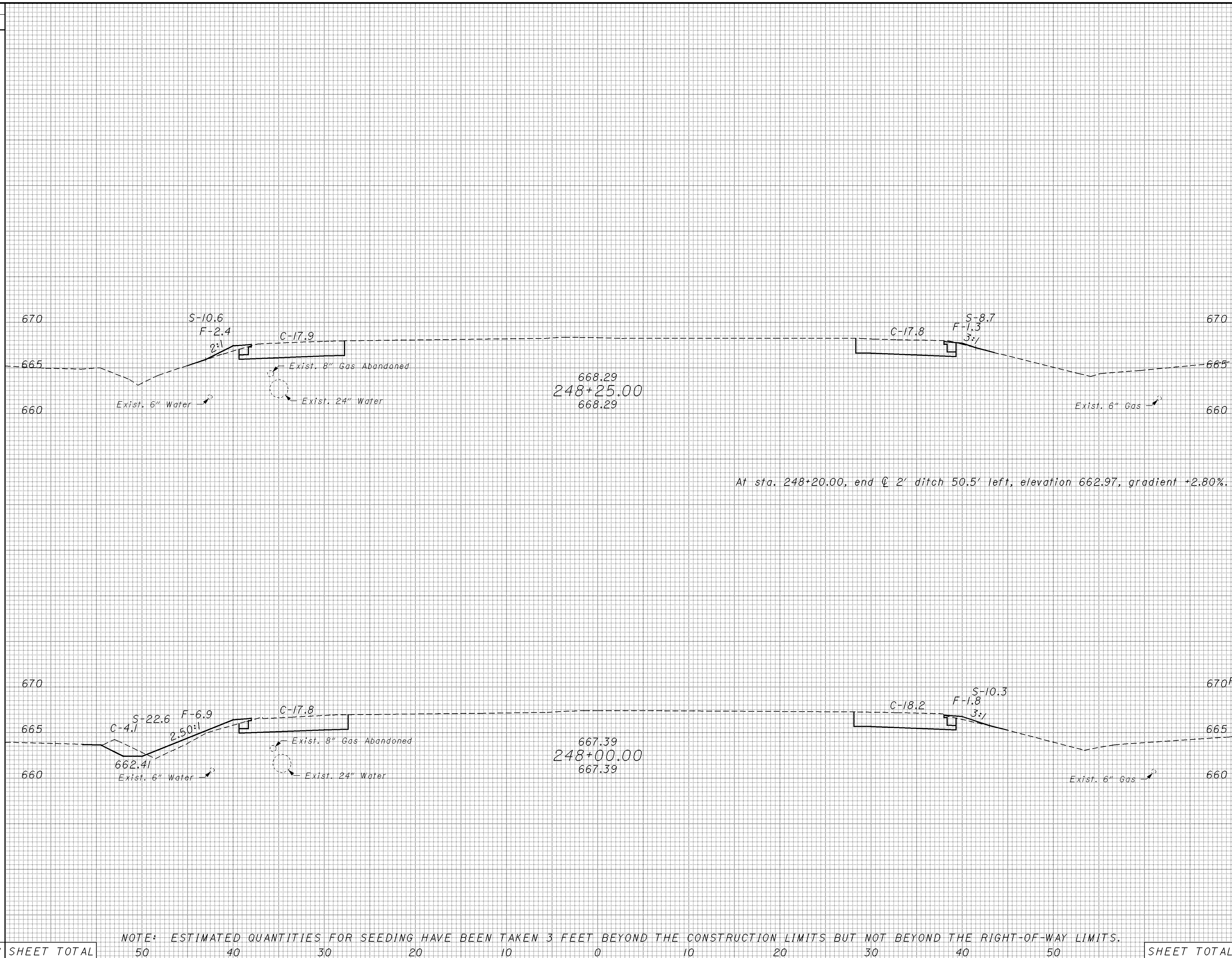
At sta. 247+82.00, \varnothing 2' ditch 51.6' left, elevation 661.55, gradient +4.80%.



NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

50	40	30	20	10	0	10	20	30	40	50	SHEET TOTAL	81	35	76	93
----	----	----	----	----	---	----	----	----	----	----	-------------	----	----	----	----

SEEDING
 END WIDTH SO. YDS.
 19
 72
 33
 96
 168

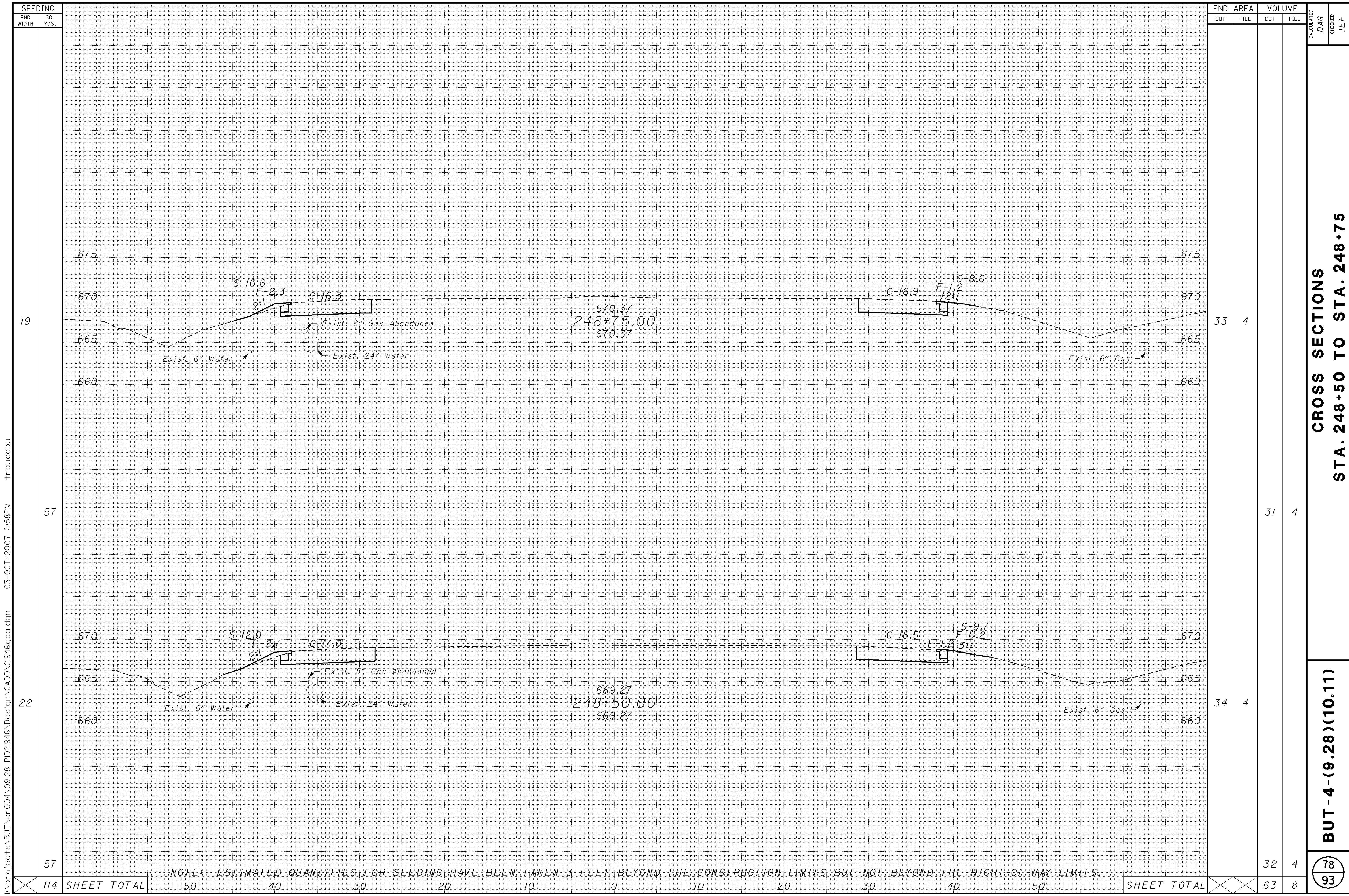


END AREA		VOLUME	
CUT	FILL	CUT	FILL
		36	4
		35	6
		40	9
		40	10
SHEET TOTAL			

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
 STA. 248+00 TO STA. 248+25
 BUT-4-(9.28)(10.11)
 CALCULATED: DAG
 CHECKED: JEF

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CROSS SECTIONS
STA. 248+50 TO STA. 248+75
BUT - 4 - (9.28) (10.11)

CALCULATED
 DAG
 CHECKED
 JEF

78
 93

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SEEDING	
END WIDTH	SO. YDS.
0	18
51	63
SHEET TOTAL	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	4
31	4	30	5
SHEET TOTAL		30	5

CALCULATED
DAG
CHECKED
JEF

CROSS SECTIONS
STA. 249+00 TO STA. 249+25

BUT - 4 - (9.28) (10.11)

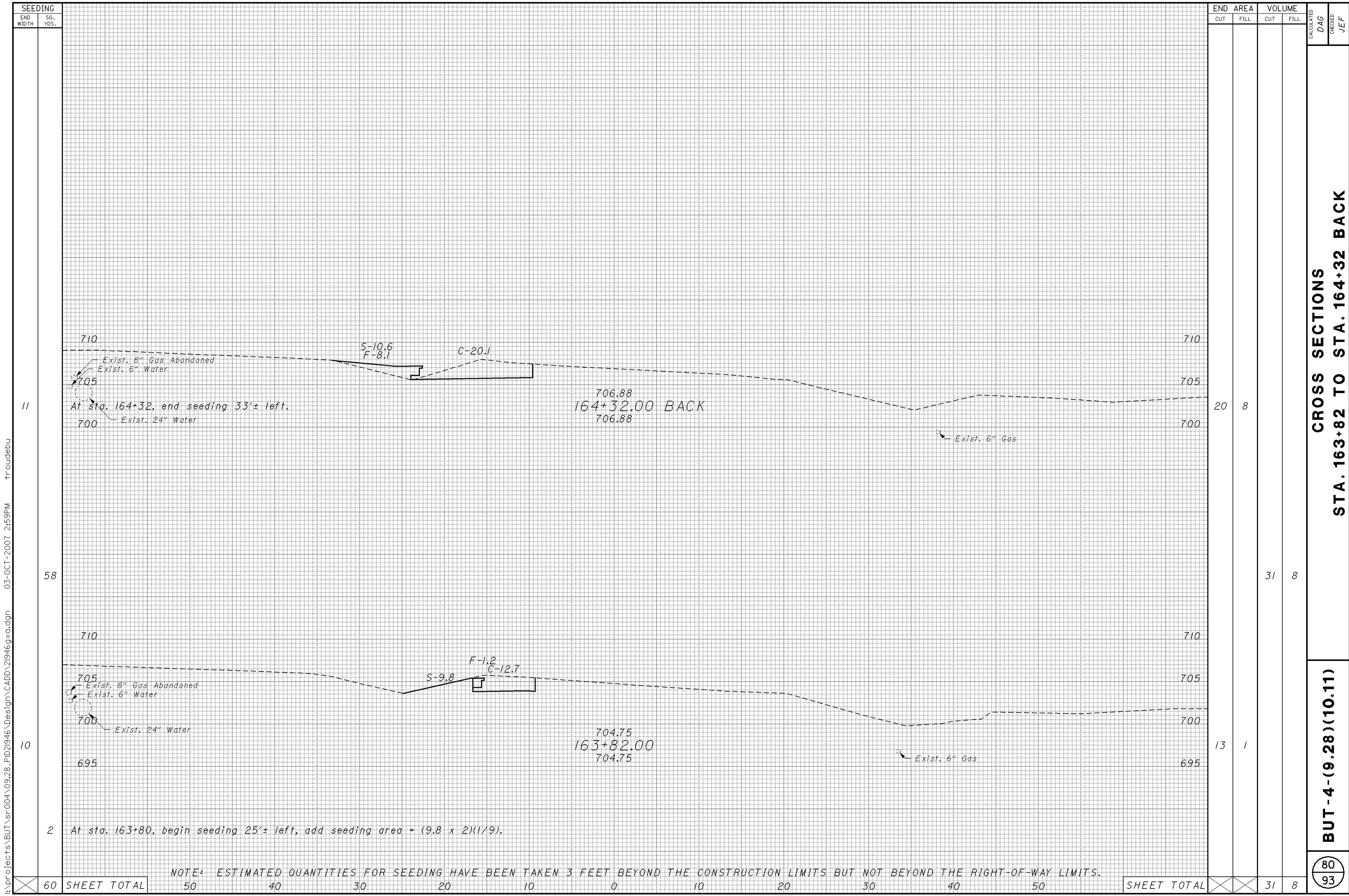


8 At sta. 249+10, end seeding 46.0' right, add seeding area = (6.8 x 10)(1/9).
 4 At sta. 249+06.2±, end seeding 47.5' left, add seeding area = (11.3 x 6.2/2)(1/9).
 At sta. 249+04.5±, end fill area left, add fill volume = (2.7/2 x 4.5/2)(1/27).

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

SHEET TOTAL

79
93



SEEDING	
END WIDTH	SO. YDS.
60	60
58	58
10	10
2	2
60	60

END AREA		VOLUME	
CUT	FILL	CUT	FILL
20	8	20	8
31	8	31	8
13	1	13	1
31	8	31	8

CALCULATED
 DAG
 CHECKED
 JEF

CROSS SECTIONS
STA. 163+82 TO STA. 164+32 BACK

BUT - 4 - (9.28) (10.11)

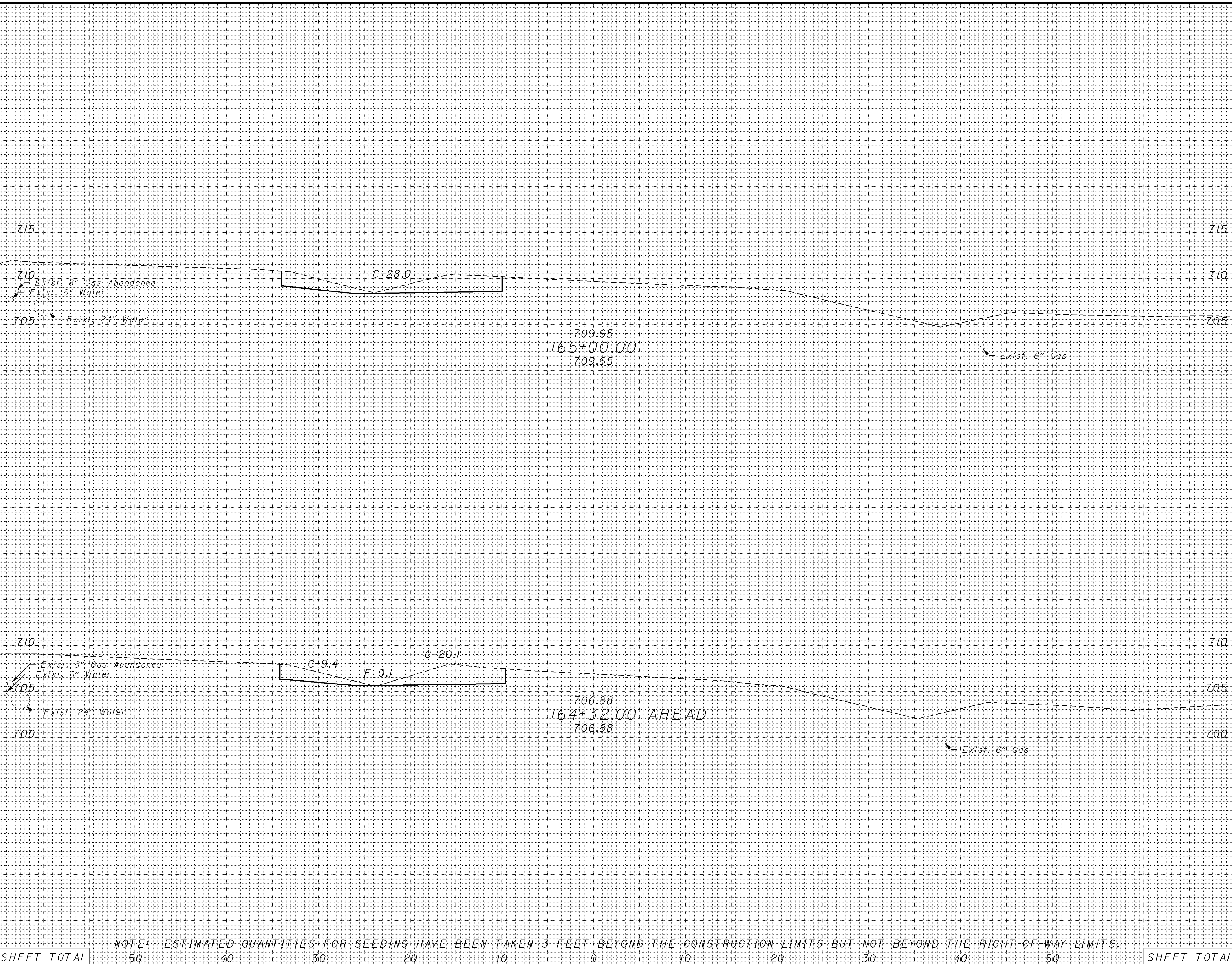
NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

SHEET TOTAL 31 8

80
93

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SEEDING		END WIDTH	SO. YDS.
CUT	FILL		
0	0	0	0
SHEET TOTAL			
50	40	30	20
10	0	10	20
30	40	50	

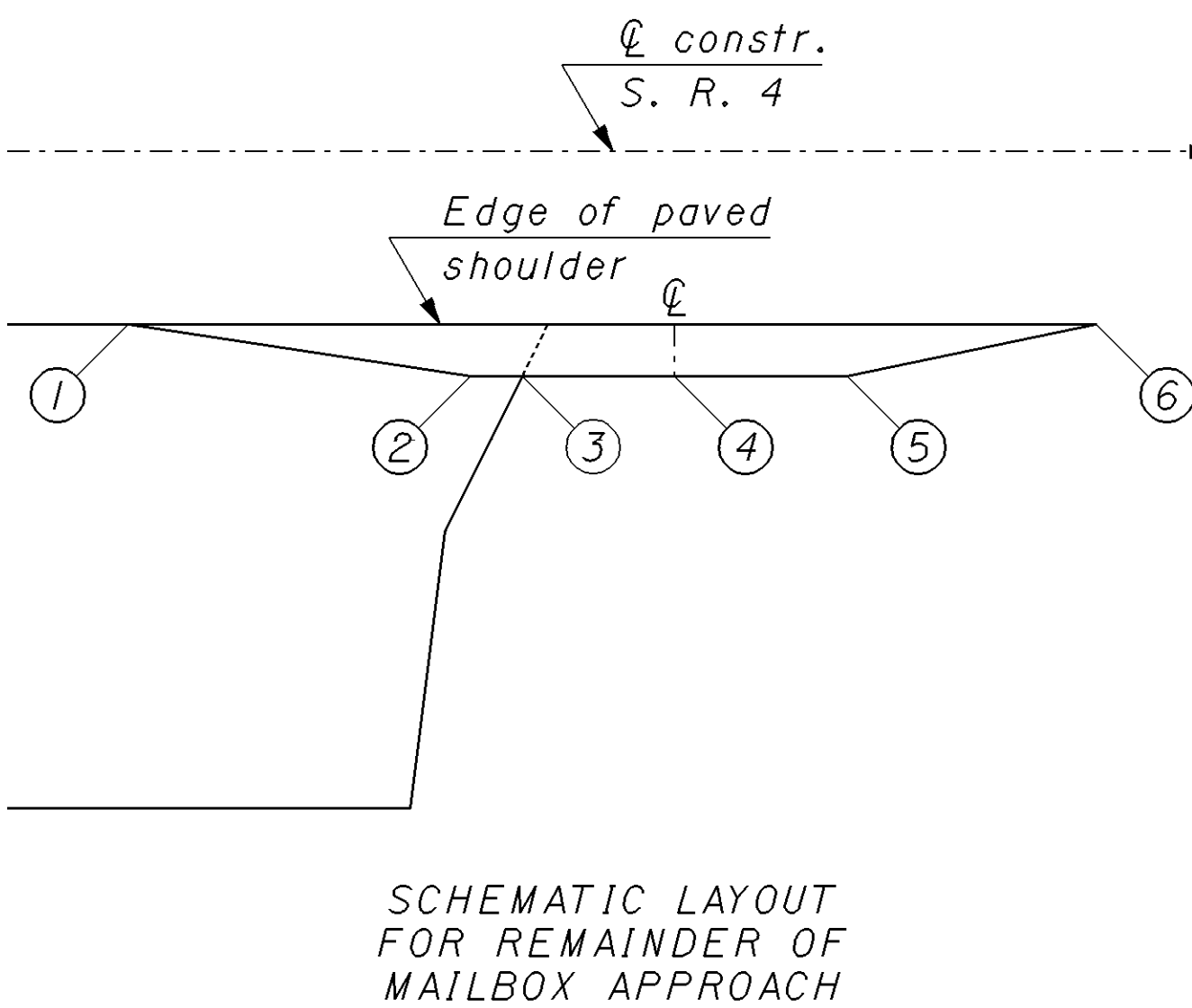
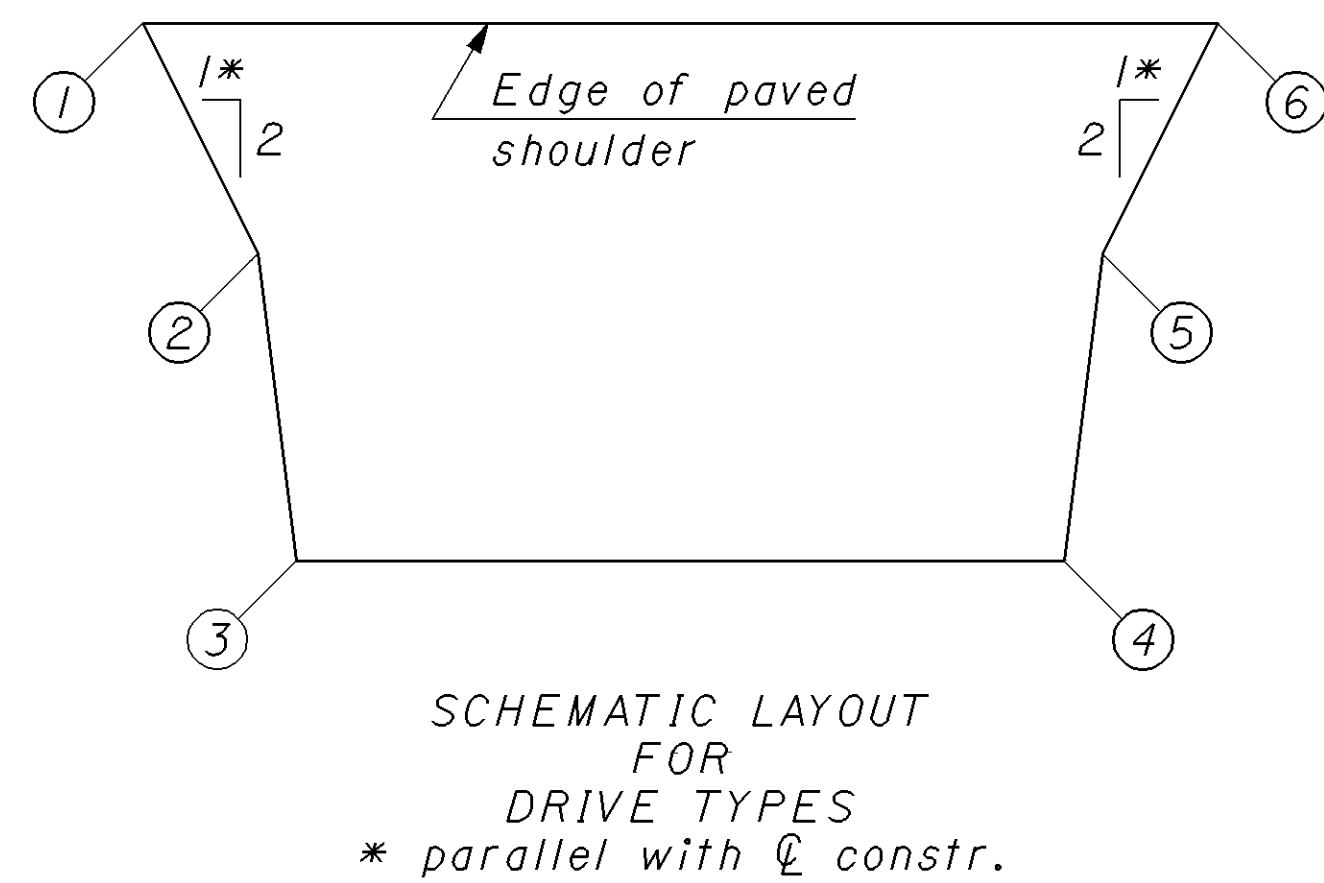
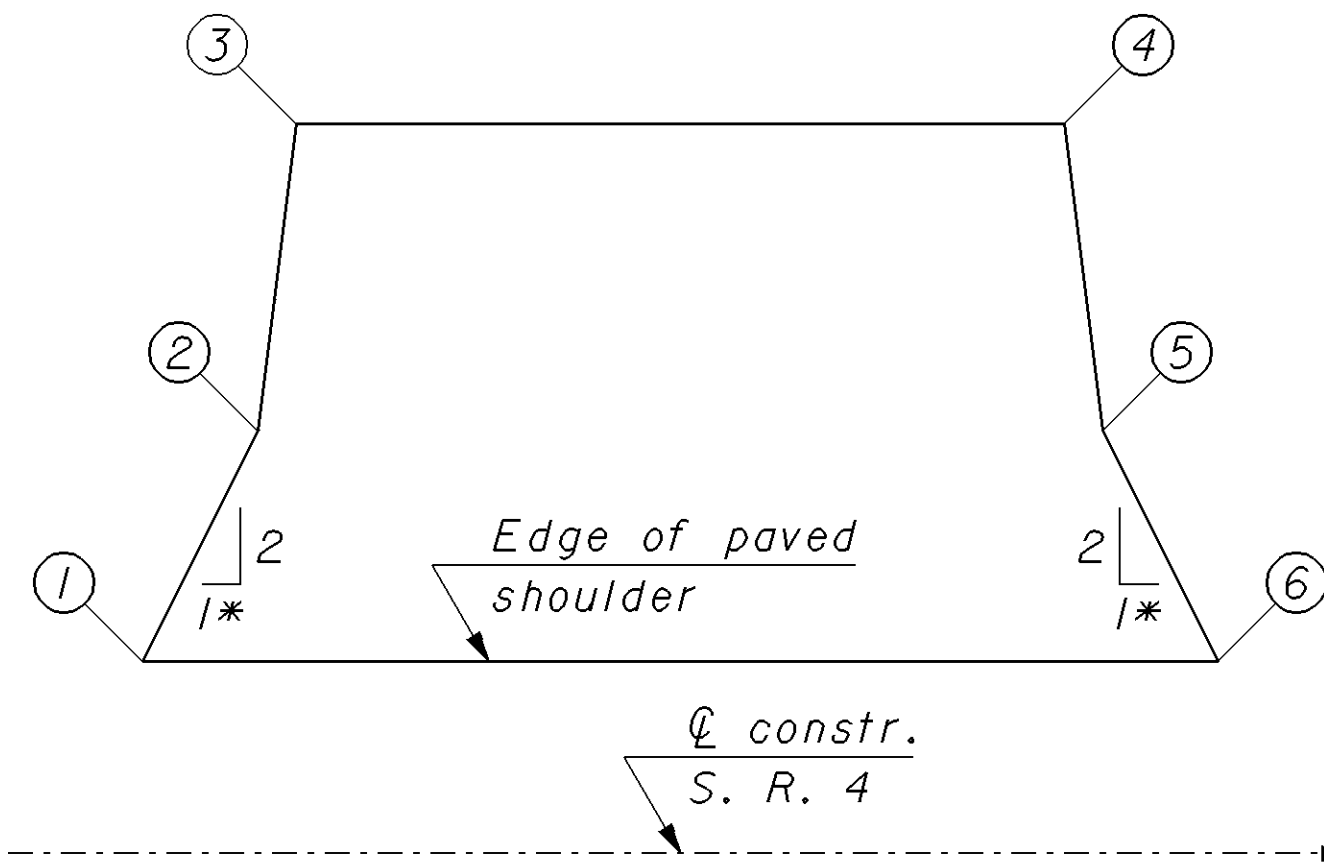


END	AREA		VOLUME		CALCULATED	CHECKED
	CUT	FILL	CUT	FILL		
28		0				
30		1				
SHEET TOTAL					0	0
73		1			81	93

NOTE: ESTIMATED QUANTITIES FOR SEEDING HAVE BEEN TAKEN 3 FEET BEYOND THE CONSTRUCTION LIMITS BUT NOT BEYOND THE RIGHT-OF-WAY LIMITS.

CROSS SECTIONS
STA. 164+32 AHEAD TO STA. 165+00
BUT-4-(9.28)(10.11)

NOTE
 1. For Typical Sections, see sheet 5.
 2. For drive quantities, see sheet 21.



REF. NO.	DESCRIPTION Side of Centerline (Sheet No.)	DRIVE TYPE from Sheet 5	STATIONING & CENTERLINE OFFSET (ARITHMETIC)											
			POINT 1		POINT 2		POINT 3		POINT 4		POINT 5		POINT 6	
			STA.	FT	STA.	FT	STA.	FT	STA.	FT	STA.	FT	STA.	FT
P-1	Drive RT (sheet 25)**	B	218+25.00	28.125	--	--	218+25.00	36.125	218+35.78	36.43	--	--	218+39.22	28.54
P-2	Drive RT (sheet 25) Mailbox Approach RT	B --	218+84.70 219+07.66	29.77 30.47	218+85.12 219+18.00	33.86 32.76	218+86.12 219+18.96	37.86 32.79	219+16.99 219+25.00	38.73 33.13	219+17.99 219+31.00	34.73 33.13	219+19.95 219+38.25	30.82 31.33
P-3	Drive LT (sheet 25)	C	219+15.24	31.45	219+17.23	35.42	219+17.23	39.42	219+56.55	39.00	219+56.55	35.00	219+58.56	30.98
P-4	Drive LT (sheet 25)	C	220+02.53	30.51	220+04.52	34.49	220+04.52	38.49	220+28.68	38.23	220+28.68	34.23	220+30.69	30.21
P-5	Drive RT (sheet 25) Mailbox Approach RT	A --	220+10.91 220+17.60	34.50 34.50	220+12.41 220+78.00	37.50 36.50	220+11.41 220+75.12	46.50 36.50	220+25.84 220+85.00	46.50 36.50	220+24.34 220+91.00	37.50 36.50	220+23.34 220+98.20	34.50 34.50
P-7	Drive LT (sheet 26)	B	223+45.41	35.04	--	--	223+49.45	43.11	223+64.26	43.38	223+64.26	39.38	223+66.25	35.42
P-9	Drive LT (sheet 27)	C	226+78.95	38.00	--	--	226+83.95	48.00	226+94.90	48.00	226+94.90	42.00	226+96.40	38.00
P-10	Drive LT (sheet 27)	B	228+34.29	38.00	--	--	228+40.29	50.00	228+62.18	50.00	228+63.18	44.00	228+66.18	38.00
P-11	Drive LT (sheet 27)	B	228+79.67	38.00	228+82.67	44.00	228+82.67	50.00	228+92.20	50.00	228+92.20	44.00	228+95.20	38.00
P-12	Drive RT (sheet 27)	B	230+13.20	38.00	230+16.20	44.00	230+13.20	48.00	230+33.89	48.00	230+33.89	44.00	230+36.89	38.00
P-13	Drive RT (sheet 27)	A	230+45.59	38.00	230+48.59	44.00	230+48.59	49.00	230+58.40	49.00	230+58.40	44.00	230+61.40	38.00
P-15	Drive RT (sheet 28)	A	231+27.62	38.00	231+30.62	44.00	231+30.62	48.00	231+40.74	48.00	231+41.74	44.00	234+40.74	38.00
P-16	Drive RT (sheet 28)	B	231+75.10	38.00	231+78.10	44.00	231+78.10	48.00	231+89.78	48.00	231+90.78	44.00	231+93.78	38.00
P-17	Drive LT (sheet 28)	A	232+16.33	38.00	232+19.33	44.00	232+17.33	52.00	232+30.00	52.00	--	--	232+37.00	38.00
P-18	Drive LT (sheet 28)	A	232+86.72	38.00	232+89.72	44.00	232+87.72	50.00	232+99.50	50.00	--	--	233+05.50	38.00
P-19	Drive LT (sheet 28)	C	233+57.57	38.00	--	--	233+59.07	41.00	233+94.28	41.00	--	--	233+95.78	38.00
P-20	Drive RT (sheet 28)	A	234+79.96	38.00	--	--	234+82.96	50.00	235+04.27	50.00	235+06.27	44.00	235+09.27	38.00
P-21	Drive LT (sheet 29)	A	236+04.96	38.00	236+07.96	44.00	236+08.96	50.00	236+18.33	50.00	236+18.33	44.00	236+21.33	38.00
P-22	Drive RT (sheet 29)	A	237+25.77	38.00	237+28.27	43.00	237+28.27	48.00	237+65.51	48.00	237+60.51	43.00	237+63.01	38.00
P-23	Drive LT (sheet 29)	A	237+34.88	38.00	--	--	237+40.88	50.00	237+61.03	50.00	237+61.03	44.00	237+64.03	38.00
P-24	Drive RT (sheet 29)	A	238+82.33	38.00	238+84.83	43.00	238+85.83	48.00	238+94.60	48.00	238+95.60	43.00	238+98.10	38.00
P-25	Drive LT (sheet 29)	B	238+80.23	38.00	--	--	238+86.23	50.00	238+95.86	50.00	238+95.86	44.00	238+98.86	38.00
P-26	Drive LT (sheet 29)	B	240+17.73	38.00	240+20.73	44.00	240+22.73	51.00	240+33.73	51.00	240+33.73	44.00	240+36.73	38.00
P-27	Drive LT (sheet 30)	A	241+50.73	38.00	--	--	241+57.73	51.00	241+70.58	51.00	241+68.58	44.00	241+71.58	38.00

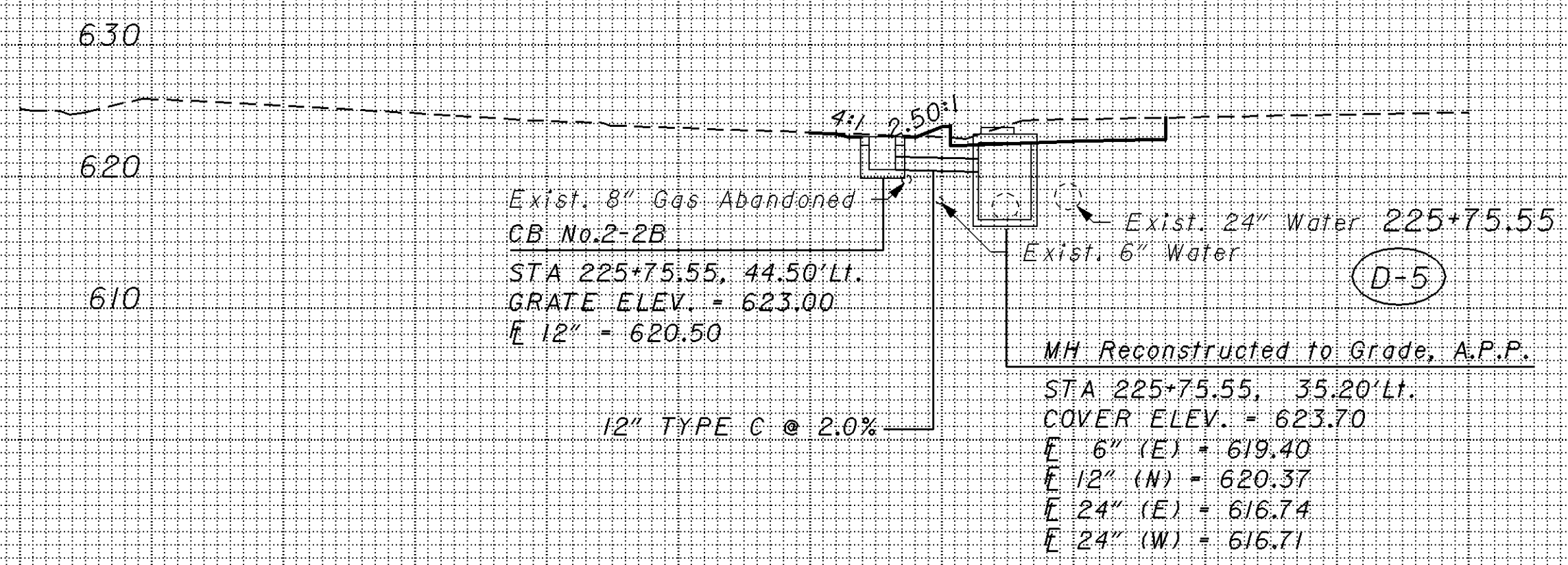
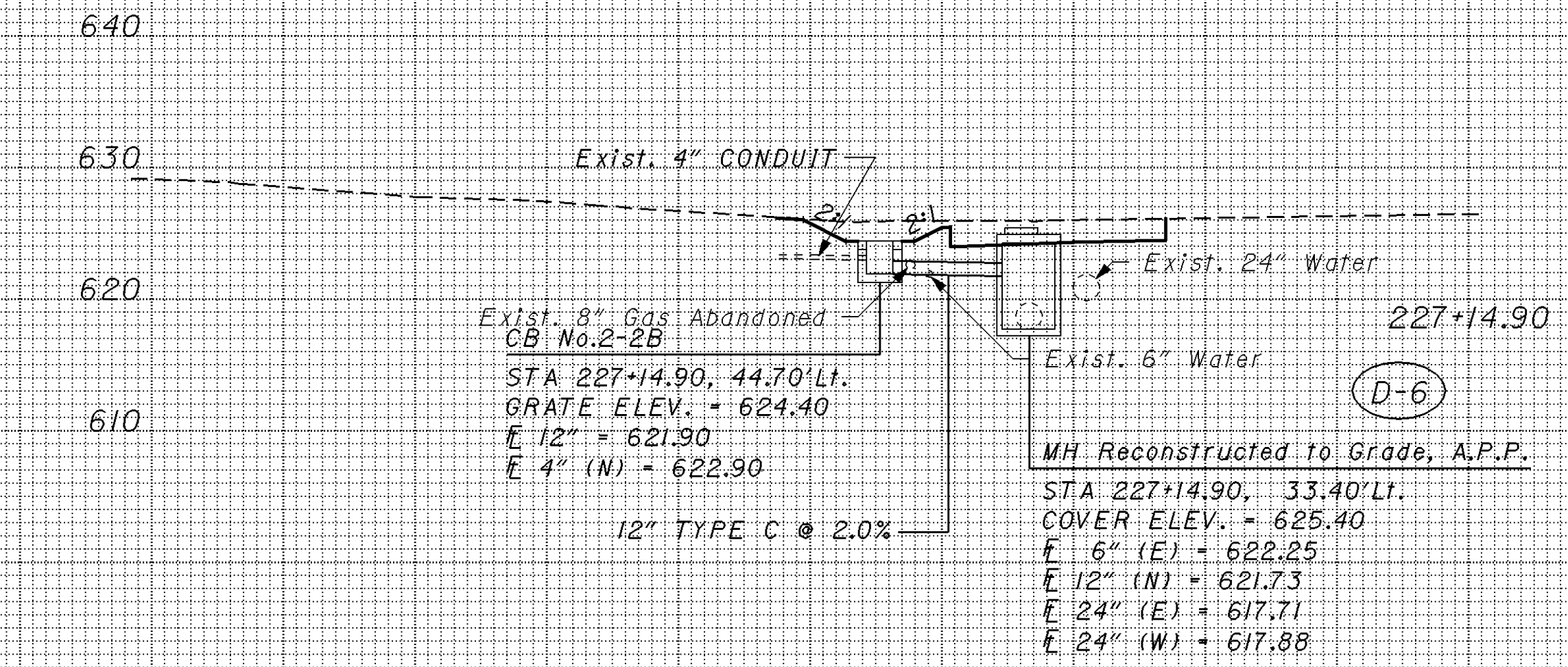
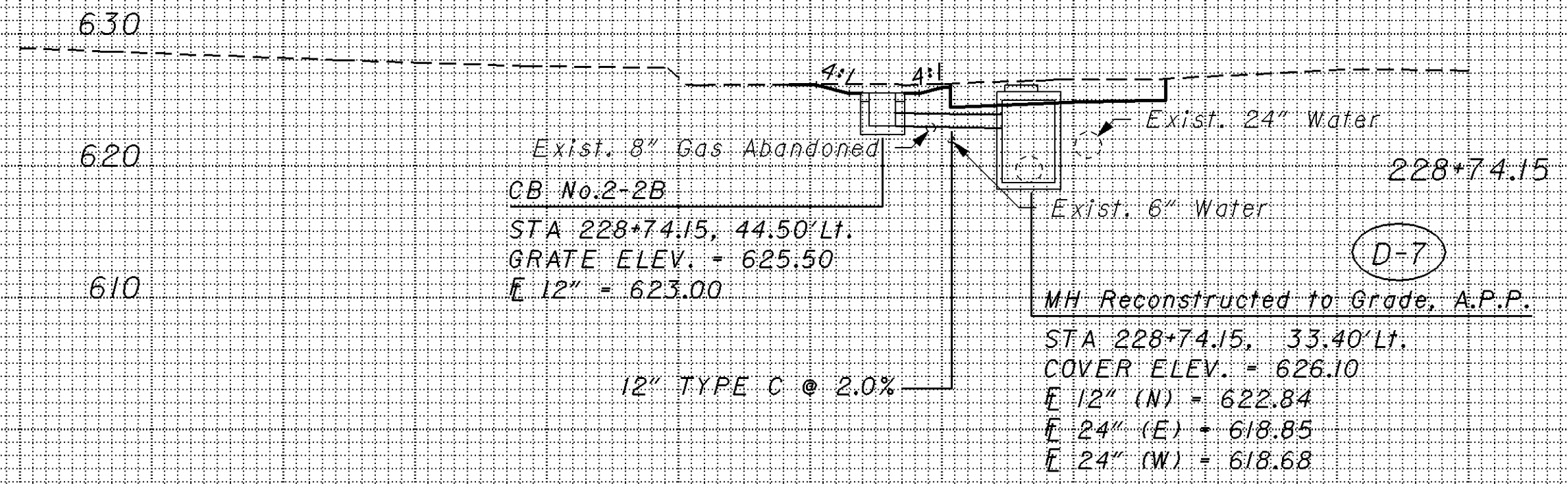
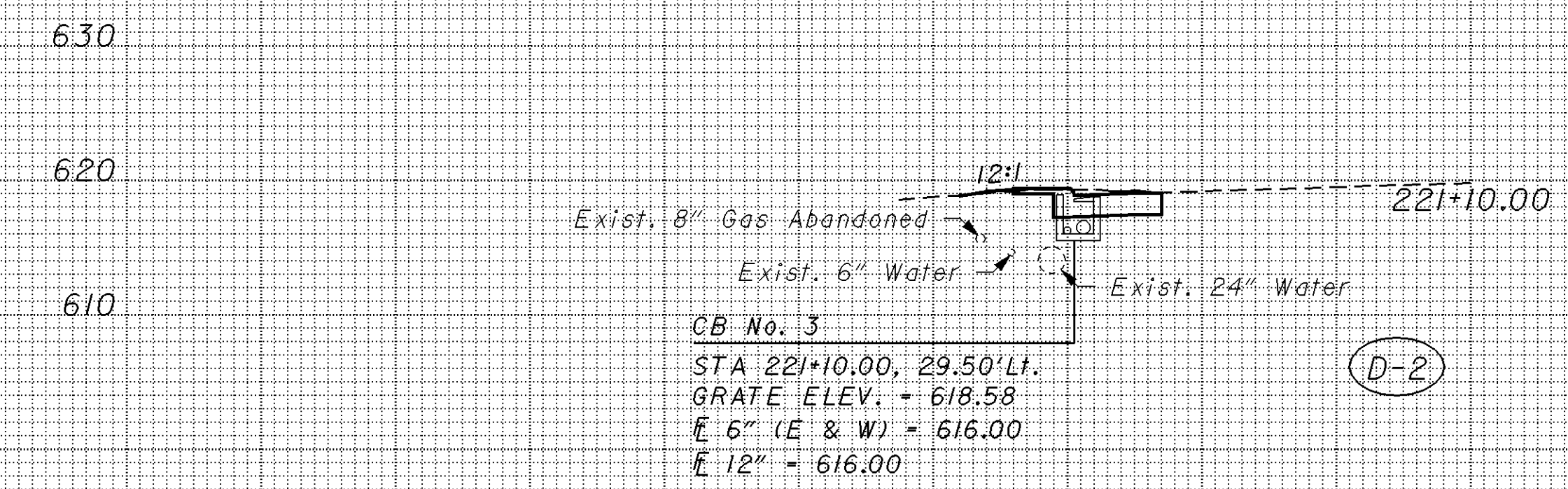
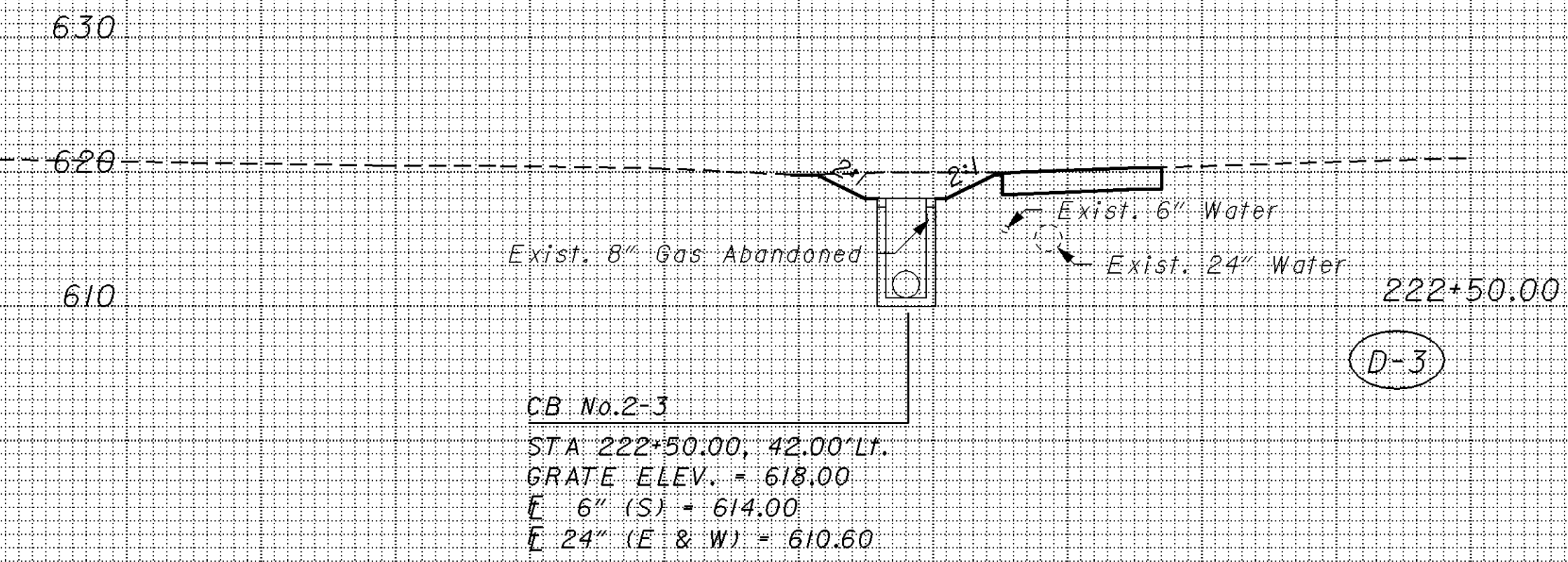
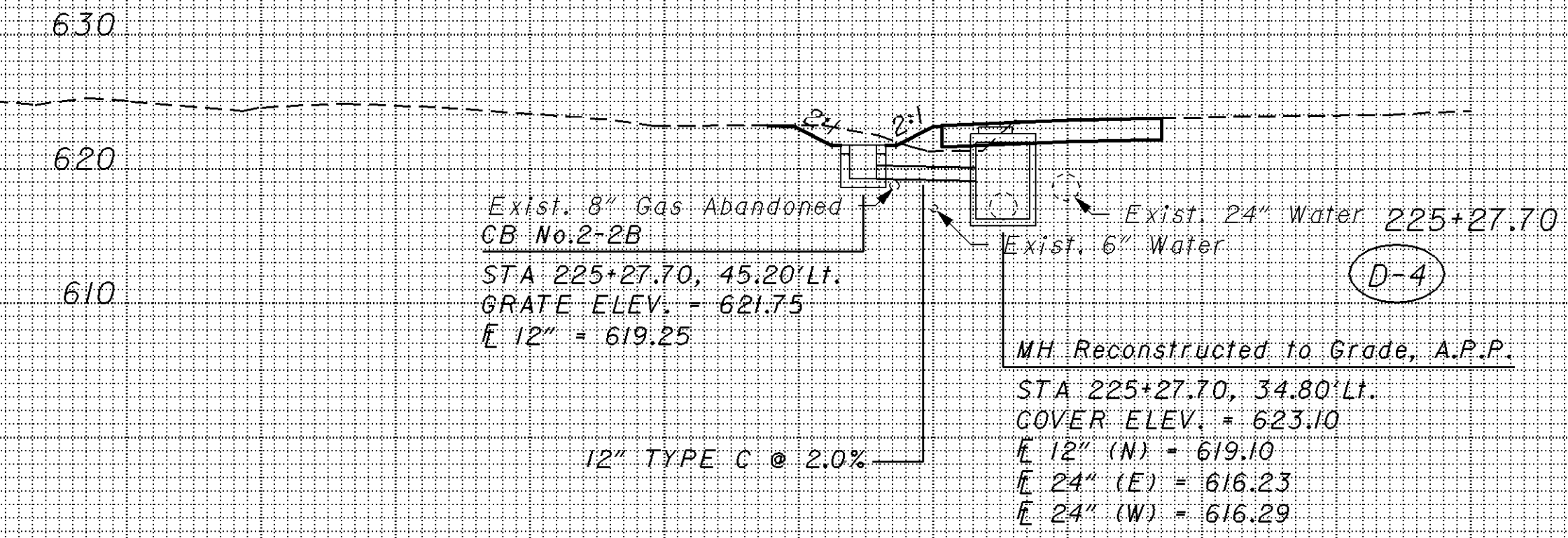
** Replacement begins at sta. 218+25.00.

LAYOUTS FOR DRIVES AND MAILBOX APPROACHES

BUT - 4 - (9.28) (10.11)

86
93

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90 80 70 60 50 40 30 20 10 0

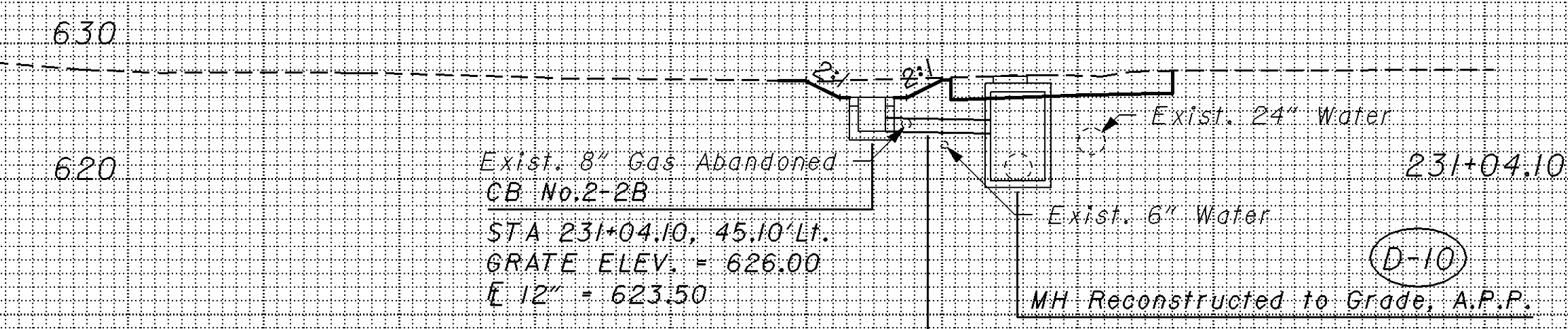
90 80 70 60 50 40 30 20 10 0

CALCULATED
DAG
CHECKED
JEF

STORM SEWER PROFILES

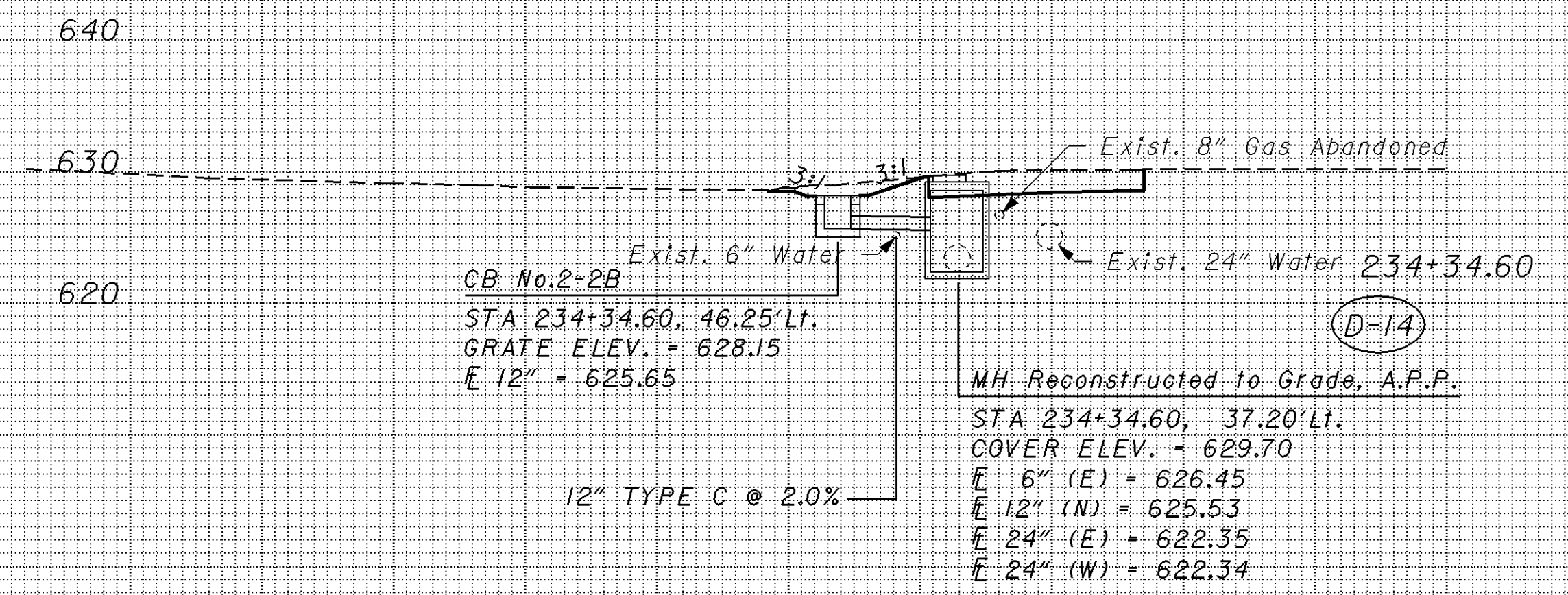
BUT - 4 - (9.28) (10.11)

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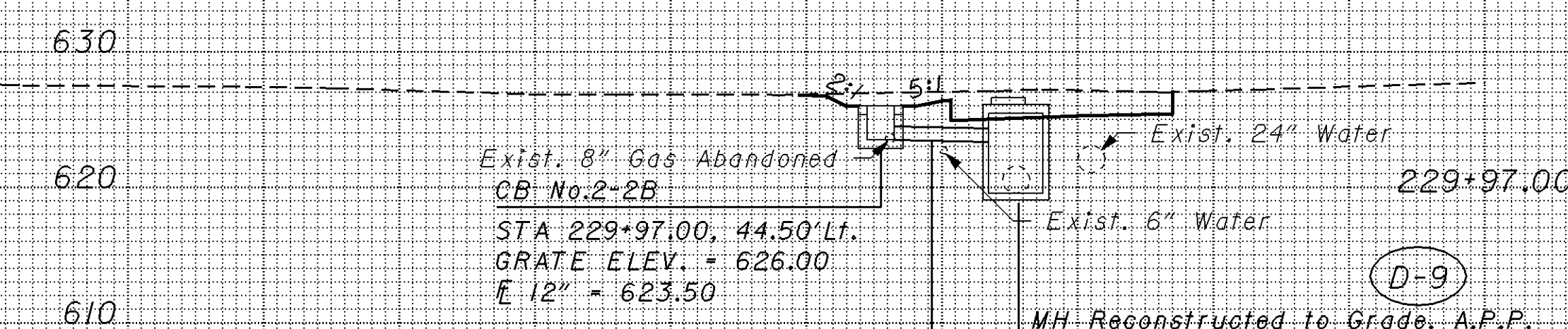
231+04.10
 MH Reconstructed to Grade, A.P.P.
 STA 231+04.10, 34.40'Lt.
 COVER ELEV. = 627.54
 E 12" (N) = 623.35
 E 24" (E) = 619.84
 E 24" (W) = 620.06

Exist. 8" Gas Abandoned
 CB No. 2-2B
 STA 231+04.10, 45.10'Lt.
 GRATE ELEV. = 626.00
 E 12" = 623.50



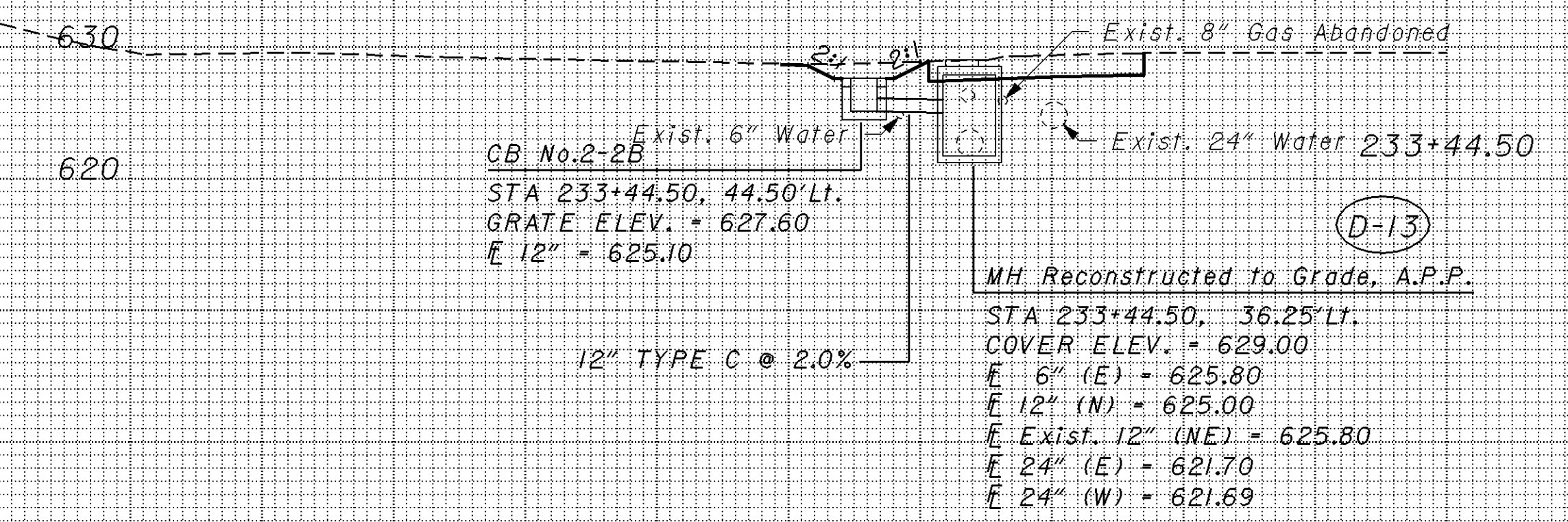
234+34.60
 MH Reconstructed to Grade, A.P.P.
 STA 234+34.60, 37.20'Lt.
 COVER ELEV. = 629.70
 E 6" (E) = 626.45
 E 12" (N) = 625.53
 E 24" (E) = 622.35
 E 24" (W) = 622.34

Exist. 6" Water
 CB No. 2-2B
 STA 234+34.60, 46.25'Lt.
 GRATE ELEV. = 628.15
 E 12" = 625.65



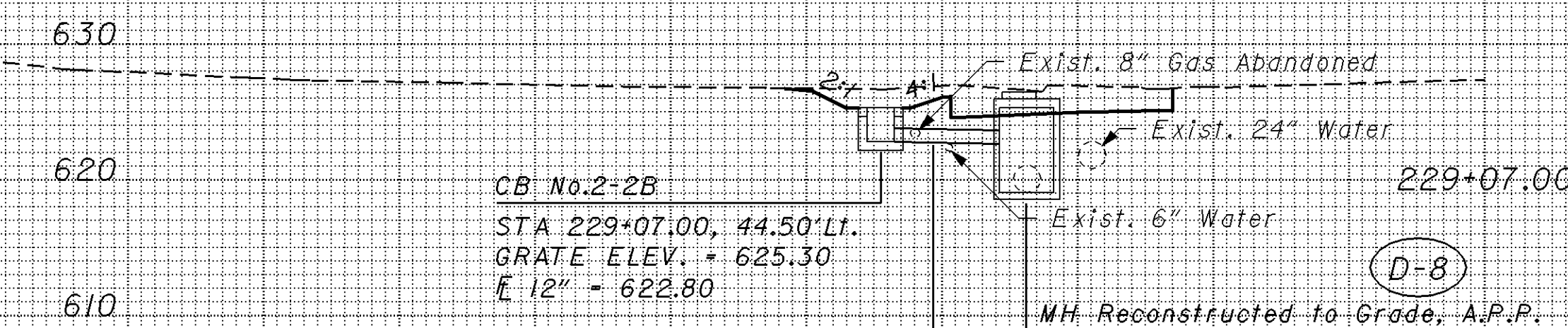
229+97.00
 MH Reconstructed to Grade, A.P.P.
 STA 229+97.00, 34.55'Lt.
 COVER ELEV. = 626.60
 E 6" (E) = 622.70
 E 12" (N) = 623.36
 E 24" (E) = 619.54
 E 24" (W) = 619.54

Exist. 8" Gas Abandoned
 CB No. 2-2B
 STA 229+97.00, 44.50'Lt.
 GRATE ELEV. = 626.00
 E 12" = 623.50



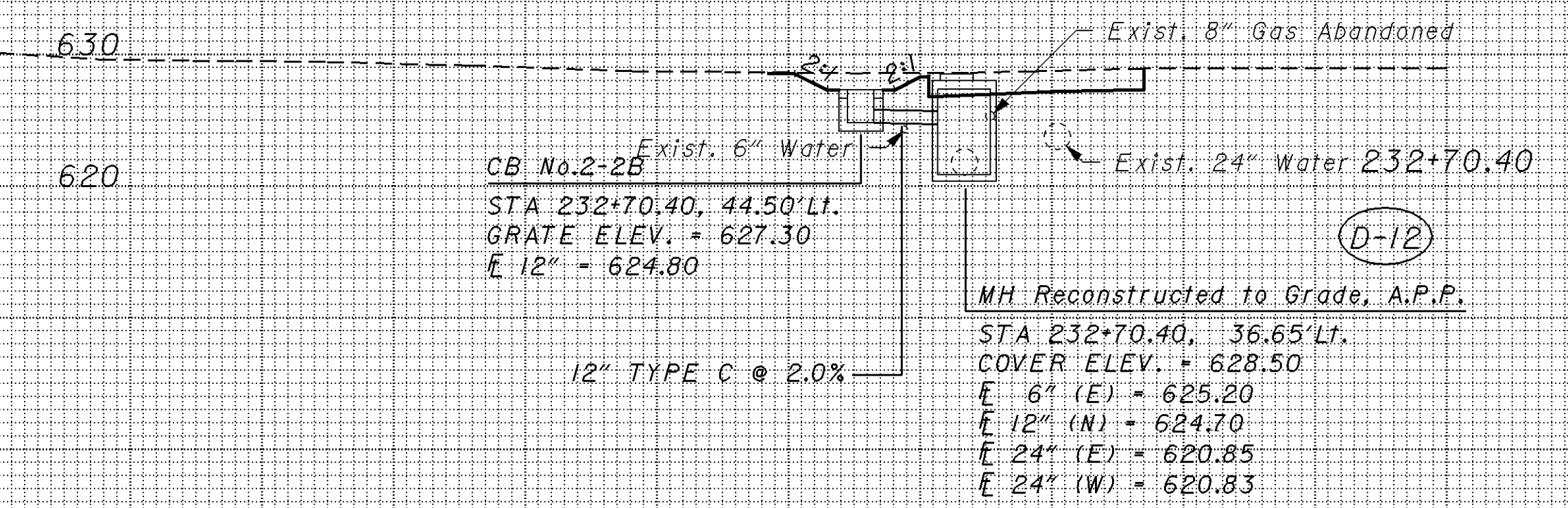
233+44.50
 MH Reconstructed to Grade, A.P.P.
 STA 233+44.50, 36.25'Lt.
 COVER ELEV. = 629.00
 E 6" (E) = 625.80
 E 12" (N) = 625.00
 E Exist. 12" (NE) = 625.80
 E 24" (E) = 621.70
 E 24" (W) = 621.69

Exist. 6" Water
 CB No. 2-2B
 STA 233+44.50, 44.50'Lt.
 GRATE ELEV. = 627.60
 E 12" = 625.10



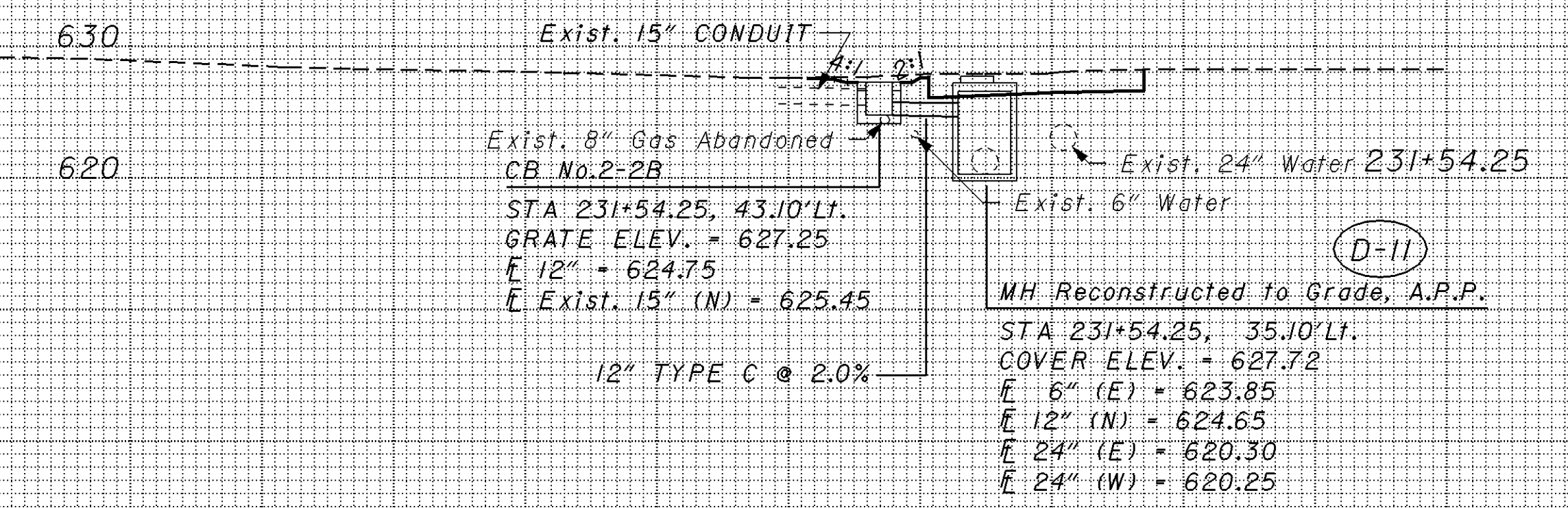
229+07.00
 MH Reconstructed to Grade, A.P.P.
 STA 229+07.00, 33.75'Lt.
 COVER ELEV. = 626.45
 E 6" (E) = 622.90
 E 12" (N) = 622.65
 E 24" (E) = 619.12
 E 24" (W) = 619.04

Exist. 8" Gas Abandoned
 CB No. 2-2B
 STA 229+07.00, 44.50'Lt.
 GRATE ELEV. = 625.30
 E 12" = 622.80



232+70.40
 MH Reconstructed to Grade, A.P.P.
 STA 232+70.40, 36.65'Lt.
 COVER ELEV. = 628.50
 E 6" (E) = 625.20
 E 12" (N) = 624.70
 E 24" (E) = 620.85
 E 24" (W) = 620.83

Exist. 6" Water
 CB No. 2-2B
 STA 232+70.40, 44.50'Lt.
 GRATE ELEV. = 627.30
 E 12" = 624.80



231+54.25
 MH Reconstructed to Grade, A.P.P.
 STA 231+54.25, 35.10'Lt.
 COVER ELEV. = 627.72
 E 6" (E) = 623.85
 E 12" (N) = 624.65
 E 24" (E) = 620.30
 E 24" (W) = 620.25

Exist. 8" Gas Abandoned
 CB No. 2-2B
 STA 231+54.25, 43.10'Lt.
 GRATE ELEV. = 627.25
 E 12" = 624.75
 E Exist. 15" (N) = 625.45

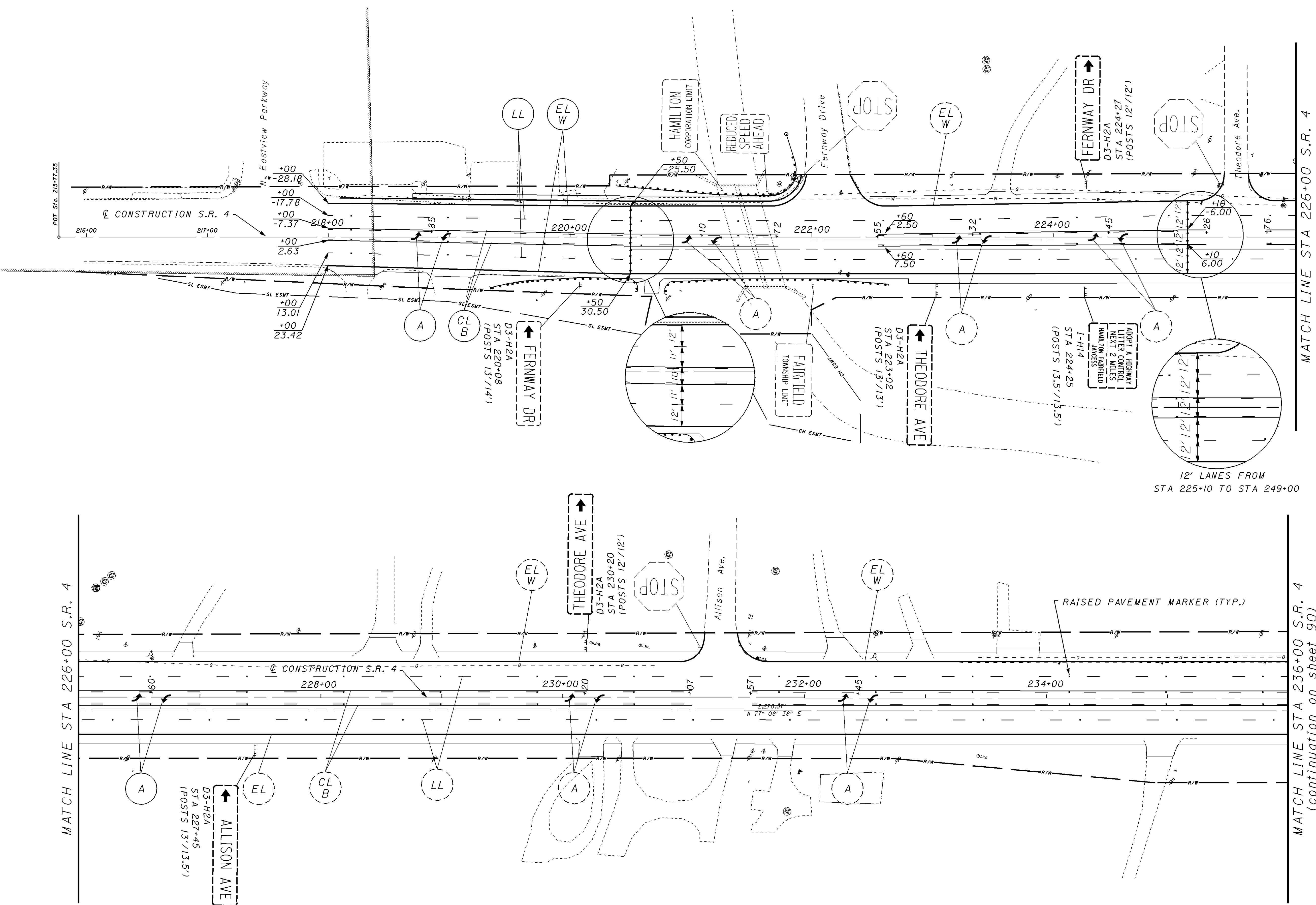
90 80 70 60 50 40 30 20 10 0

90 80 70 60 50 40 30 20 10 0

CALCULATED
DAG
CHECKED
JEF

STORM SEWER PROFILES

BUT - 4 - (9.28) (10.11)



CALCULATED
DAG
CHECKED
JEF

HORIZONTAL SCALE IN FEET

0 20 40 80

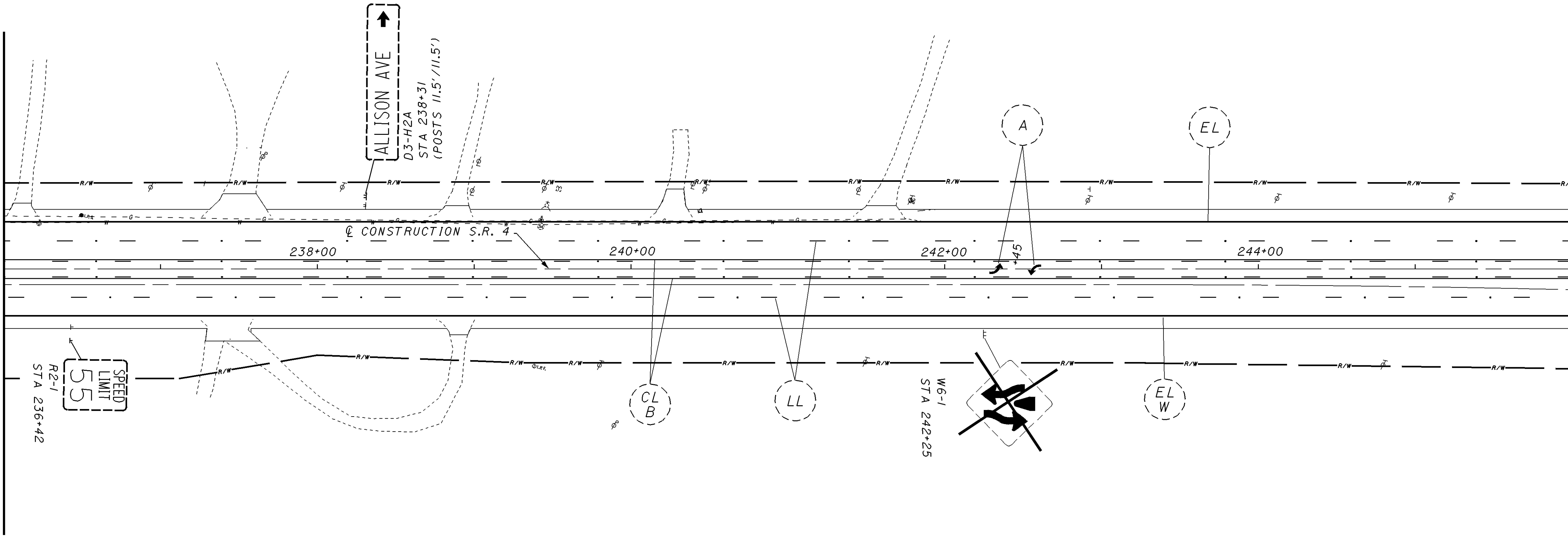
SIGNING AND PAVEMENT MARKING PLAN
STA. 218+00 TO STA. 236+00

MATCH LINE STA 226+00 S.R. 4

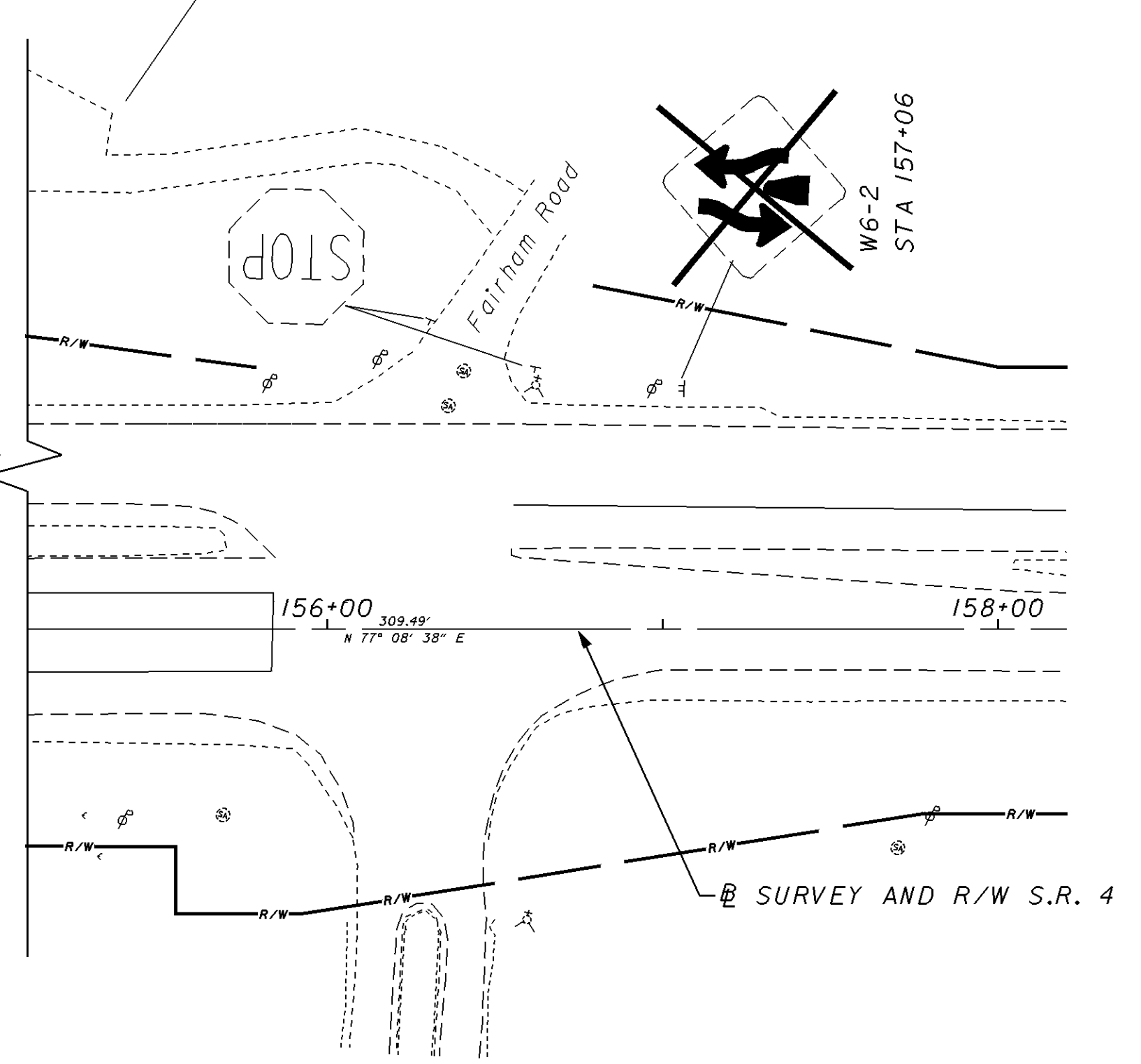
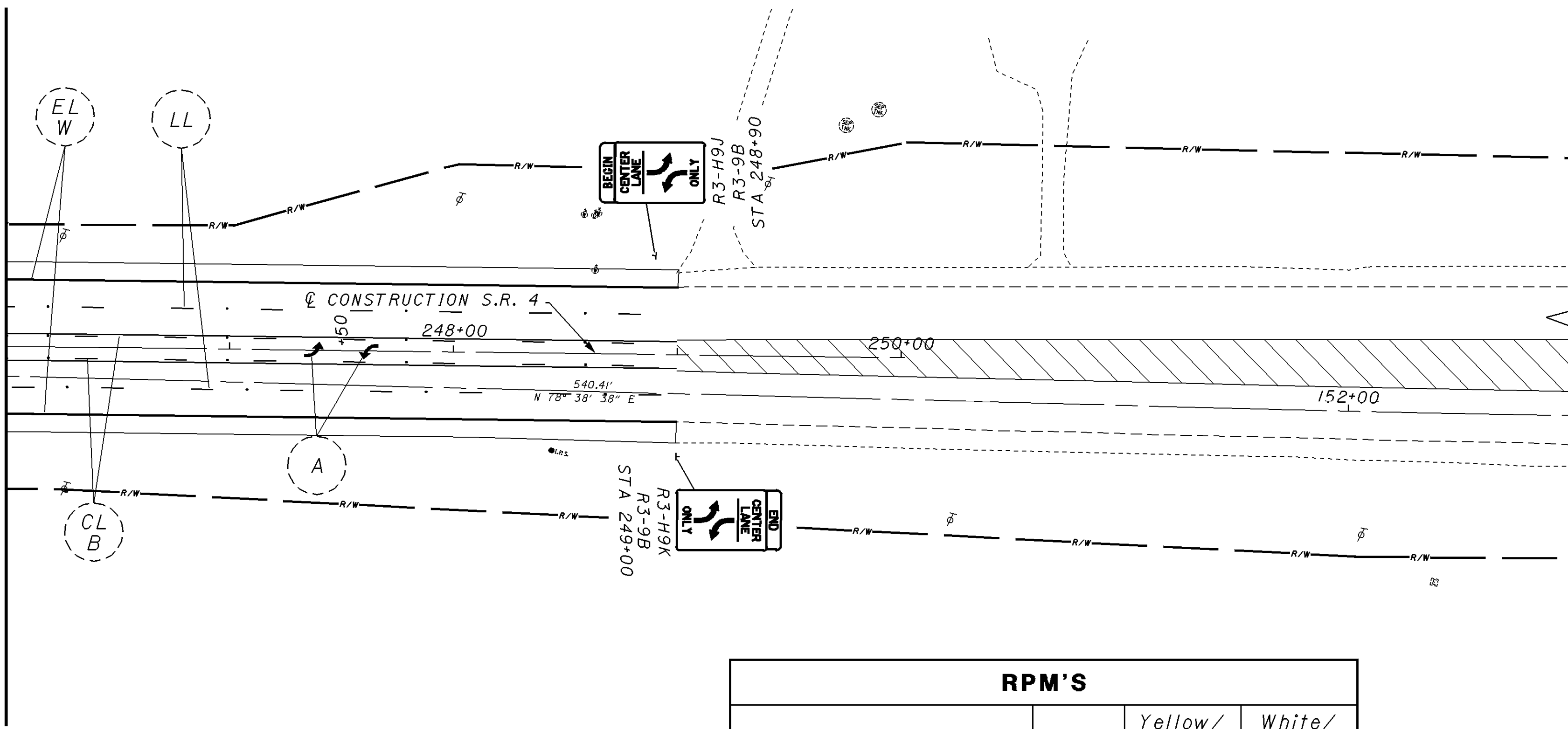
MATCH LINE STA 236+00 S.R. 4
(continuation on sheet 90)

NOTE
1. FOR LEGEND, SEE SHEET 91.

MATCH LINE STA 236+00 S.R. 4
(continuation on sheet 89)



MATCH LINE STA 246+00 S.R. 4



RPM'S			
STATIONING	SIDE	Yellow/ Yellow	White/ Red
		EACH	EACH
218+00 to 249+00	LT	38	38
218+00 to 249+00	RT	38	39
TOTAL INCLUDED IN TABLE ON SHEET 92		76	77

NOTE
1. FOR LEGEND, SEE SHEET 91.

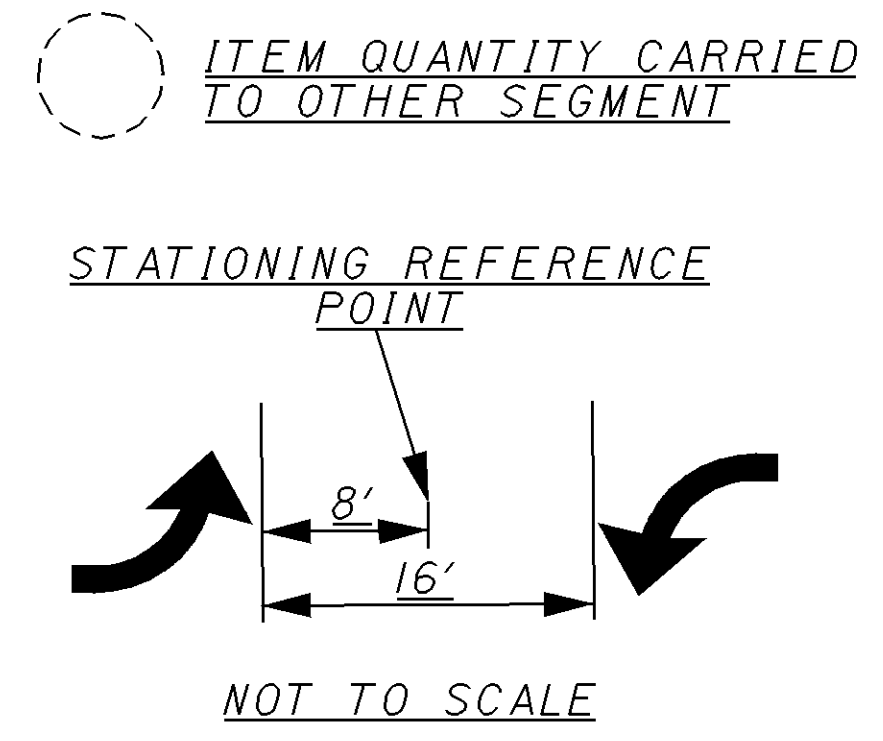
CALCULATED
DAG
CHECKED
JEF

0 20 40 80
HORIZONTAL
SCALE IN FEET

SIGNING AND PAVEMENT MARKING PLAN
STA. 236+00 TO STA. 249+00 AND STA. 157+06

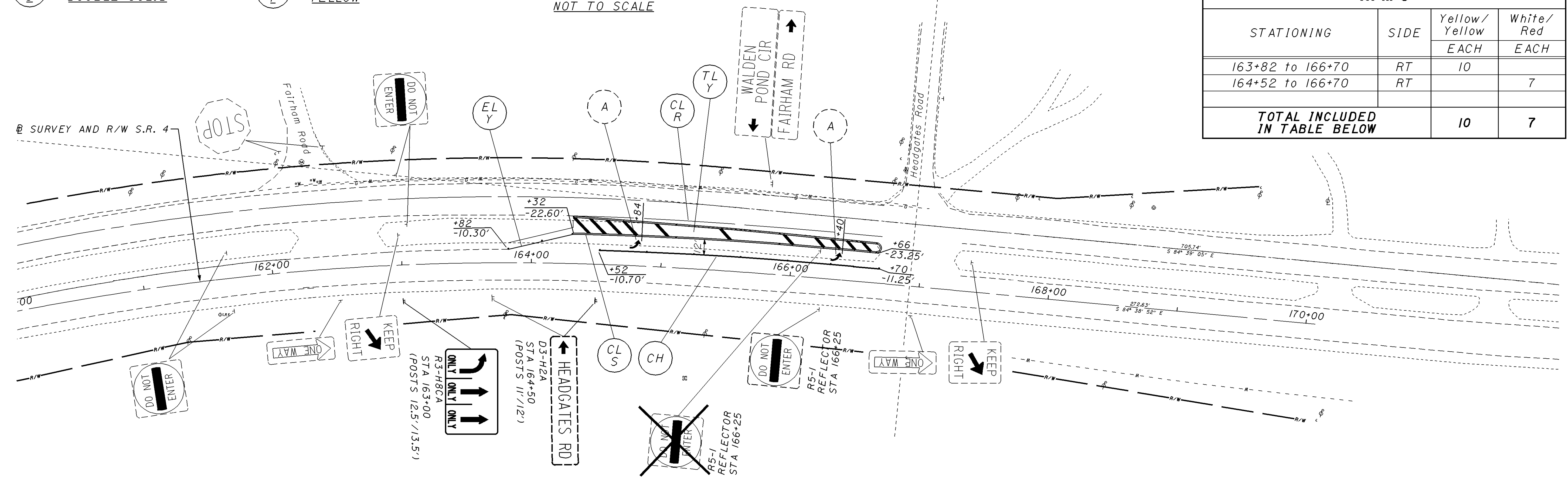
LEGEND

- (A) PAVEMENT ARROW
- (CH) CHANNELIZING LINE
- (CL B) CENTER LINE SOLID AND BROKEN
- (CL R) CENTER LINE REMOVED
- (CL S) CENTER LINE DOUBLE SOLID
- (EL W) EDGE LINE - WHITE
- (EL Y) EDGE LINE - YELLOW
- (LL) LANE LINE
- (SL) STOP LINE
- (TL Y) TRANSVERSE LINE - YELLOW



- (SIGN) - EXISTING TO REMAIN
- (SIGN with X) - EXISTING TO BE REMOVED
- (SIGN with dashed border) - EXISTING TO BE REMOVED AND REERECTED
- (SIGN with solid border) - PROPOSED

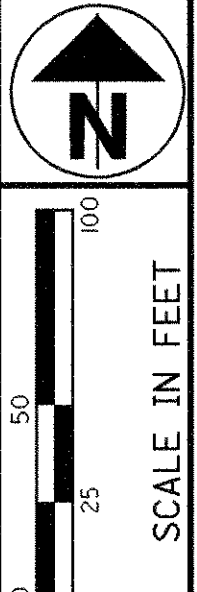
RPM'S			
STATIONING	SIDE	Yellow/ Yellow	White/ Red
		EACH	EACH
163+82 to 166+70	RT	10	
164+52 to 166+70	RT		7
TOTAL INCLUDED IN TABLE BELOW		10	7



TRAFFIC CONTROL

REF. NO.	STATIONING	621		RPM	Ground Mounted Support, No. 3	Sign, Flat Sheet	630			REF. NO.	STATIONING	644										
		Yellow/ Yellow	White/ Red				Removal of Ground Mounted Sign and, Disposal	Removal of Ground Mounted Sign and, Reerection	Removal of Ground Mounted Post Support, and Disposal			Edge Line	Lane Line	Center Line	Channelizing Line	Transverse/ Diagonal Line	Lane Arrow	Removal of Pavement Markings				
		EA.	EA.				EACH	EACH	EACH			MILE	MILE	MILE	FT	FT	EACH	FT				
D3-H2A	220+08 to 164+50				163.5				7	14	A	219+86 to 166+18										
I-H14	224+25				13.5/13.5				1	2	CH	164+52 to 166+70				219						
W6-1/W6-2	242+25/157+06							1/1		2/2	CLB	218+00 to 248+95			1.172							
R2-1	236+42				13.5				1	1	CLR	164+32 to 166+70										241
R3-H9J/R3-9B	248+90				15.5	1/6					CLS	164+32 to 166+70			0.091							
R3-H9K/R3-9B	249+00				14.0	1/6					ELW	218+00 to 249+00	1.174									
R3-H8CA	163+00				12.5/13.5	10					ELY	164+92 to 164+32	0.010									
R5-1	166+25				13.5			2	2	2	LL	218+00 to 249+00		1.174								
RPM	218+00 to 166+70	86	84								TLY	164+32 to 166+70					83					
SUBTOTAL		86	84		273.0	24		4	11	23	SUBTOTAL		1.184	1.174	1.263	219	83	20	241			
TOTAL CARRIED TO GENERAL SUMMARY		170			273	24		4	11	23	TOTAL CARRIED TO GENERAL SUMMARY		1.18	1.17	1.26	219	83	20	241			

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PID NO. **21946**
 R/W DESIGNER **D.M.E.**
 R/W REVIEWER **H.J.H.**

PROPERTY MAP

BUT - 4 - 9 . 28

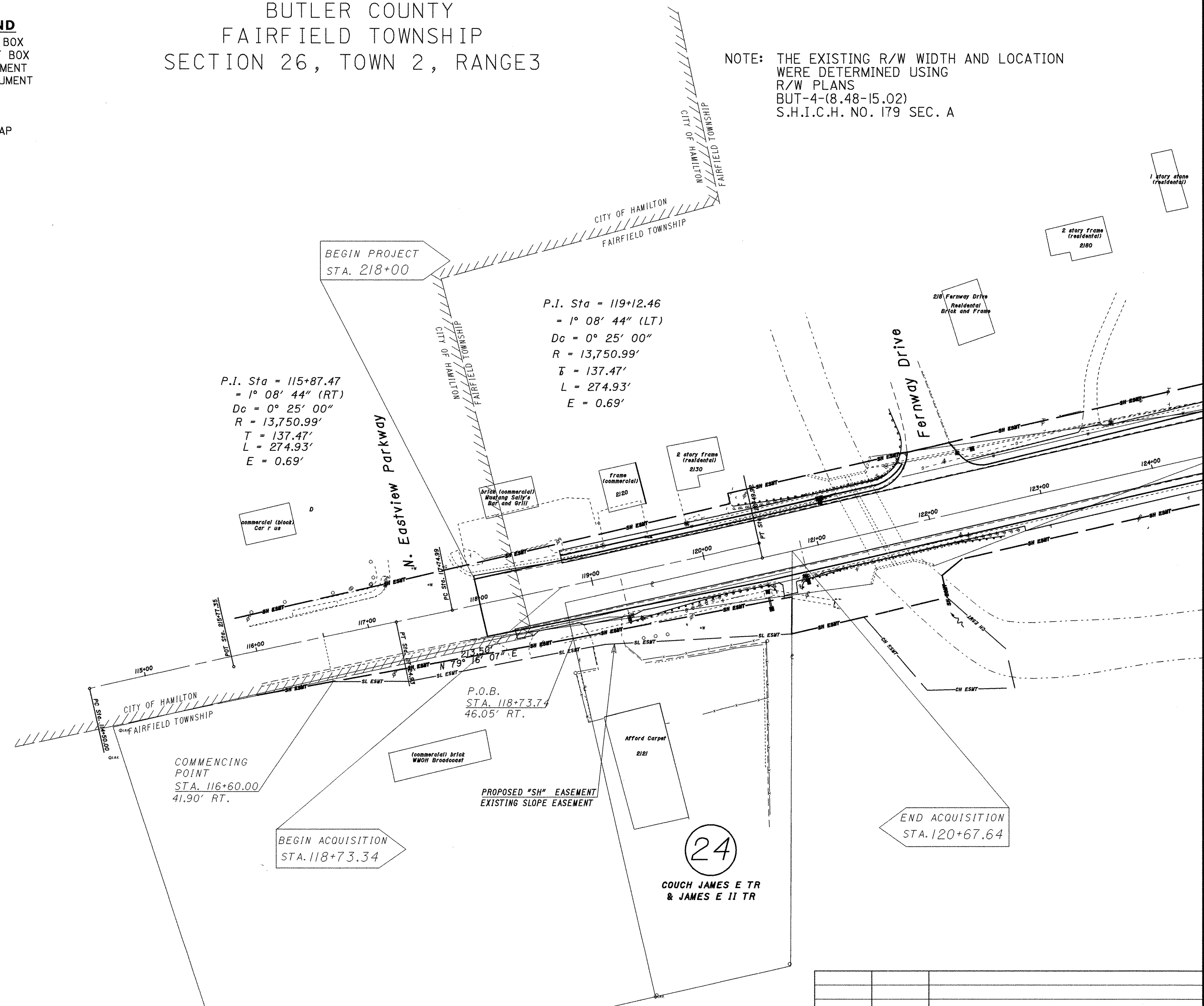
1/2
 92
 93

BUTLER COUNTY
 FAIRFIELD TOWNSHIP
 SECTION 26, TOWN 2, RANGE 3

NOTE: THE EXISTING R/W WIDTH AND LOCATION WERE DETERMINED USING R/W PLANS BUT-4-(8.48-15.02) S.H.I.C.H. NO. 179 SEC. A

- CONVENTIONAL SIGNS**
- County Line _____
 - Township Line _____
 - Section Line _____
 - Corporation Line _____ or _____
 - Fence Line (existing) -x-x-x- (proposed) *-*-*
 - Center Line _____
 - Trees, Stumps (to be removed) X X
 - Utility Poles: Telephone ϕ , Power ϕ , Light ϕ
 - Right of Way (only) _____ R/W
 - Standard Highway Ease. _____ SH
 - Temp. Right of Way _____ T
 - Exist. Right of Way _____ Ex R/W
 - Exist. Stand. High. Ease. _____ Ex SH
 - Exist. Channel Ease. _____ Ex CH
 - Exist. Utility Ease. _____ Ex U
 - Property Line _____ (in existing fence) *-*-*
 - Railroad _____ or _____
 - Guardrail (existing) \square \square (proposed) \square \square
 - Construction Limits _____

- MONUMENT LEGEND**
- EXISTING R/W MONUMENT BOX
 - PROPOSED R/W MONUMENT BOX
 - EXISTING CONCRETE MONUMENT
 - PROPOSED CONCRETE MONUMENT
 - RAILROAD SPIKE FOUND
 - RAILROAD SPIKE SET
 - IRON PIN FOUND
 - IRON PIN FOUND W/ ID CAP
 - IRON PIN SET W/ ID CAP
 - IRON PIPE FOUND
 - IRON PIPE SET
 - P.K. NAIL FOUND
 - P.K. NAIL SET



NOTES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNER OF THE UTILITIES AS REQUIRED BY SECTION 153.64 O.R.C.

REFERENCE POINT INFORMATION IS CONTAINED IN THE CONSTRUCTION PLAN.

I HEREBY CERTIFY THAT THIS PLAT IS A TRUE DELINEATION OF A SURVEY MADE FOR THE OHIO DEPARTMENT OF TRANSPORTATION IN 2006 BY DISTRICT 8 SURVEY DEPARTMENT

THE ESTABLISHMENT OF THE PROPERTY LINES AND EXISTING RIGHT OF WAY LINES SHOWN ON THIS PLAN AS OF THIS DATE WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION.

BY Howard J. Hardin
 HOWARD J. HARDIN
 SURVEYOR NO. 7381 DATE 8-17-2006



NET RESIDUE = RECORD AREA - TOTAL PRO - NET TAKE

ALL AREAS IN ACRES

PARCEL NO.	OWNER	SHEET NO.	OWNERS RECORD		AUDITOR'S PARCEL	RECORD AREA	TOTAL P.R.O.	GROSS TAKE	P.R.O. IN TAKE	NET TAKE	STRUC-TURE	NET RESIDUE		TYPE FUND	REMARKS AND PERSONALTY	AS ACQUIRED	
			BOOK	PAGE								LEFT	RIGHT			BOOK	PAGE
24-SH-2	COUCH JAMES E TR & JAMES E II TR	2	7547	2173	A0300026000069	1.243	0.1439	0.0866	0	0.0866			1.0125	TOTAL AREA OF TAKE ENCUMBERED BY SLOPE EASEMENT			

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CENTERLINE CURVE
 PC STA 117+74.99
 PI STA 119+12.46
 PT STA 120+49.92
 D = 1° 08' 44" (LT.)
 R = 13,750.99
 T = 137.47'
 L = 274.93'

BUTLER COUNTY
 FAIRFIELD TOWNSHIP
 SECTION 26, TOWN 2, RANGE 3

NOTE: THE EXISTING R/W WIDTH AND LOCATION
 WERE DETERMINED USING
 R/W PLANS
 BUT-4-(8.48-15.02)
 S.H.I.C.H. NO. 179 SEC. A



PID NO. 21946

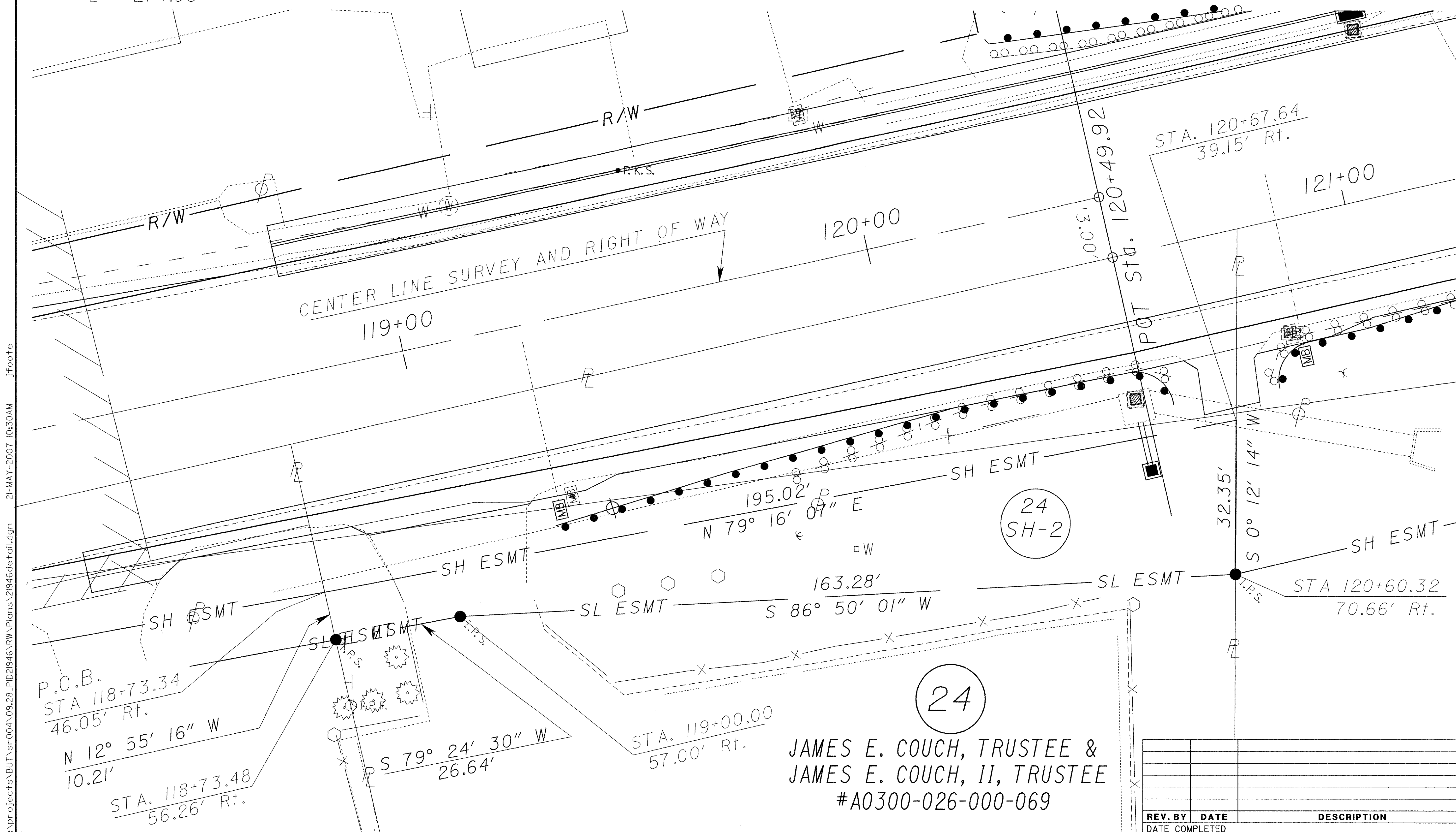
R/W DESIGNER D.M.E.
 R/W REVIEWER H.J.H.

RIGHT OF WAY PLAN
 DETAIL SHEET

BUT-4-9.29

2 / 2

93
93



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JAMES E. COUCH, TRUSTEE &
 JAMES E. COUCH, II, TRUSTEE
 #A0300-026-000-069

REV. BY	DATE	DESCRIPTION