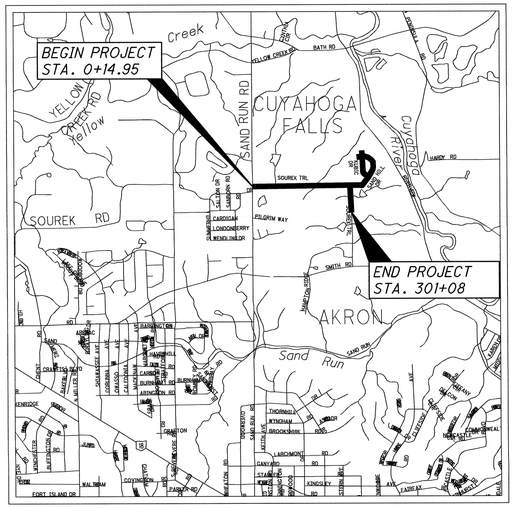
SOUREK TRAIL
ROADWAY IMPROVEMENTS AND WATERLINE INSTALLATION

CITY OF CUYAHOGA FALLS
CITY OF AKRON
STATE OF OHIO



LOCATION MAP

LATITUDE: 41°8'57"N LONGITUDE: 81°34'53"W

SCALE IN FEET

0 2500 5000 7500 10000

N

PORTION TO BE IMPROVED
INTERSTATE, U.S. AND STATE ROUTES
COUNTY AND OTHER ROADS

90 6 191 27

DESIGN DESIGNATION

CURRENT ADT (2020)	UNKNOWN
DESIGN YEAR ADT (2040)	UNKNOWN
DESIGN HOURLY VOLUME (2040)	UNKNOWN
DIRECTIONAL DISTRIBUTION	UNKNOWN
TRUCKS (24 HOUR B&C)	UNKNOWN
DESIGN SPEED	25 MPH
LEGAL SPEED	25 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	
URBAN LOCAL ROAD	
NHS PROJECT	NO

DESIGN EXCEPTIONS

VERTICAL PROFILE SAG AND CREST CURVES ON THE SOUTH LEG OF SOUREK TRAIL.

MAXIMUM GRADES AND GRADE BREAKS ON DRIVEWAY PROFILES ON SOUREK TRAIL.

OHIO Utilities Protection SERVICE
Call Before You Dig
800-362-2764 or 8-1-1
www.oups.org

PLAN PREPARED BY:

DLZ
ARCHITECTURE • ENGINEERING • PLANNING
SURVEYING • CONSTRUCTION SERVICES

614 W SUPERIOR AVE, SUITE 1000
CLEVELAND, OHIO 44113

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3 - 4
GENERAL NOTES	5 - 6
MAINTENANCE OF TRAFFIC	7 - 12
GENERAL SUMMARY	13 - 14
ROADWAY SUBSUMMARIES	15 - 20
PLAN AND PROFILE - SOUREK TRAIL	21 - 29
CROSS SECTIONS - SOUREK TRAIL	30 - 51
INTERSECTION DETAIL	52
DRIVEWAY PROFILES	53 - 54
CULVERT DETAIL SHEETS	55 - 59
STORM SEWER PROFILES	60 - 61
WATER WORK NOTES	62 - 63
WATER WORK SUBSUMMARY	64
WATER WORK PLAN AND PROFILE	65 - 71
WATER WORK DETAILS	72 - 73
SWPPP	74 - 82

ENGINEERS SEAL:

STATE OF OHIO
VICKIE L. WILDEMAN
E-55656
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Vickie L. Wildeman
DATE: 9/10/20

ENGINEERS SEAL:

STATE OF OHIO
EDWARD D. STRIBULA
48741
REGISTERED PROFESSIONAL ENGINEER

SIGNED: Edward D. Stribula
DATE: 9/10/20

OHIO DEPARTMENT OF TRANSPORTATION STANDARD CONSTRUCTION DRAWINGS

MT-97.10	4/19/19	CB-1.1	7/19/19	BP-3.1	1/17/20	TC-41.20	10/18/13				
MT-97.11	1/20/17	CB-2.1	7/20/18	BP-4.1	7/19/13	TC-41.30	10/18/13				
MT-101.90	7/17/20	CB-2.2	7/20/18	BP-5.1	1/18/19	TC-42.20	10/18/13				
MT-105.10	1/17/20	HW-2.2	7/20/18								
		MH-1.2	1/15/16								
		DM-1.1	7/17/20								
		DM-1.2	1/18/13								
		DM-4.2	7/20/12								
		DM-4.3	1/15/16								
		DM-4.4	1/15/16								

SUPPLEMENTAL SPECIFICATIONS

821	4/20/12
832	10/19/18

SPECIAL PROVISIONS

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF SOUREK TRAIL FROM SAND RUN ROAD TO THE INTERSECTION WEST OF SAND HILL DRIVE. INCLUDES IMPROVEMENTS TO THE VERTICAL PROFILE, DITCHES, STORM SEWER, RECONFIGURATION OF THE 3-LEG INTERSECTION AT SOUREK TRAIL, AND THE INSTALLATION OF A WATERLINE ON SOUREK TRAIL, SAND HILL DRIVE, AND KUBIC DRIVE.

PROJECT EARTH DISTURBED AREA:	5.03 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.00 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	5.03 ACRES

2019 SPECIFICATIONS

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

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC IN ONE DIRECTION, AS DESCRIBED ON SHEET 7, AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEETS 10 - 12.

WATER MAINS APPROVED BY:
OEPA LETTER THIS _____ DAY OF _____, 2020

SWPPP APPROVED BY:
SSWCD BY LETTER THIS 17th DAY OF March, 2020

SOUREK TRAIL NOTICE OF INTENT (N.O.I.) RECEIVED BY LETTER THIS _____ DAY OF _____, 2020
(PERMIT NO. _____)

APPROVED Anthony S. Zumbo
DATE 9/15/2020 CITY OF CUYAHOGA FALLS, SERVICE DIRECTOR

APPROVED Tony V. Desmasi
DATE 9/15/2020 CITY OF CUYAHOGA FALLS, CITY ENGINEER

APPROVED _____
DATE 9-11-2020 CITY OF AKRON, UTILITY MANAGER

APPROVED Jeff Bronowski
DATE 9-14-20 CITY OF AKRON, GL for MANAGER OF BUREAU OF WATER SUPPLY

APPROVED _____
DATE 9/14/2020 CITY OF AKRON, DIRECTOR OF PUBLIC SERVICE

FEDERAL PROJECT NO. N/A
PID NO. N/A
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
CUY FALLS - SOUREK TRL
1 / 82

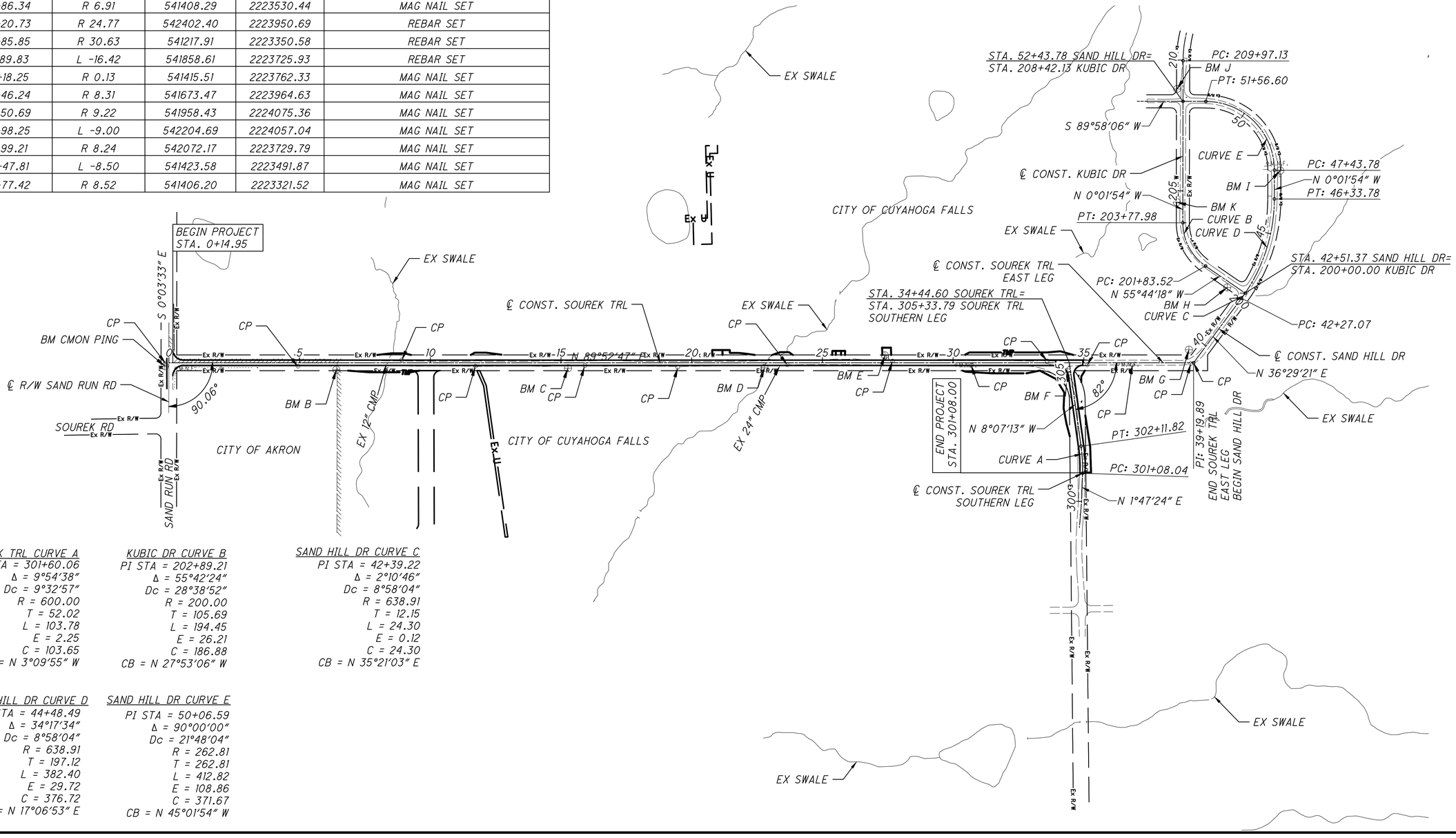
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GT001.dwg 9/10/20 8:52 AM

SOUREK TRL CONTROL				
STATION	OFFSET	NORTHING	EASTING	DESCRIPTION
-0+12.73	R 2.29	541405.09	2219831.34	REBAR SET
4+93.86	R 12.99	541395.46	2220337.98	REBAR SET
27+67.87	L -6.77	541420.02	2222611.94	MAG NAIL SET
33+59.28	L -7.14	541421.61	2223203.35	MAG NAIL SET
35+12.93	R 7.47	541407.33	2223357.03	MAG NAIL SET
39+08.31	R 2.83	541412.84	2223752.90	MAG NAIL SET
8+90.81	L -10.78	541420.06	2220734.88	MAG NAIL SET
11+72.55	R 13.05	541396.88	2221016.66	MAG NAIL SET
15+91.32	R 10.74	541400.01	2221435.43	MAG NAIL SET
19+46.26	R 16.84	541394.70	2221790.38	MAG NAIL SET
23+65.21	R 7.27	541405.07	2222209.31	MAG NAIL SET
30+69.79	R 9.46	541404.41	2222913.92	MAG NAIL SET
36+86.34	R 6.91	541408.29	2223530.44	MAG NAIL SET
50+20.73	R 24.77	542402.40	2223950.69	REBAR SET
23+85.85	R 30.63	541217.91	2223350.58	REBAR SET
12+89.83	L -16.42	541858.61	2223725.93	REBAR SET
39+18.25	R 0.13	541415.51	2223762.33	MAG NAIL SET
42+46.24	R 8.31	541673.47	2223964.63	MAG NAIL SET
45+50.69	R 9.22	541958.43	2224075.36	MAG NAIL SET
47+98.25	L -9.00	542204.69	2224057.04	MAG NAIL SET
14+99.21	R 8.24	542072.17	2223729.79	MAG NAIL SET
36+47.81	L -8.50	541423.58	2223491.87	MAG NAIL SET
34+77.42	R 8.52	541406.20	2223321.52	MAG NAIL SET

LEGEND:

CP CONTROL POINT
BM BENCHMARK

SOUREK TRL - BENCHMARKS				
ID	DESCRIPTION	ELEVATION	STATION	OFFSET
BM B	HYDRANT - CHISELED "X" ON NORTH BOLT	1039.03	6+40.31	R 26.49
BM C	MAGNAIL SET IN NORTH FACE OF TELEPHONE POLE #14826	1009.40	15+26.77	R 20.75
BM CMON	CITY MONUMENT WEST OF INTERSECTION OF SOUREK TRAIL AND SAND RUN	1046.31	-0+15.26	R 12.89
BM D	MAGNAIL SET IN NORTH FACE OF TELEPHONE POLE #14819	985.20	22+77.96	R 19.19
BM E	MAGNAIL SET IN SOUTH FACE OF TELEPHONE POLE #15423	1003.75	27+38.68	L -28.40
BM F	MAGNAIL SET IN WEST FACE OF TELEPHONE POLE #15523	986.69	34+37.02	R 36.36
BM G	BENCH TIE SET IN SOUTHEAST FACE OF TELEPHONE POLE #15414	950.56	39+49.25	L -44.21
BM H	MAGNAIL SET IN NORTH FACE OF TELEPHONE POLE #15521 BY HOUSE #1446	925.27	200+69.01	L -20.9
BM I	MAGNAIL SET IN WEST FACE OF TELEPHONE POLE #15402 BY HOUSE #1487	916.28	47+42.65	R 22.42
BM J	MAGNAIL SET IN EAST FACE OF TELEPHONE POLE #15409 BY HOUSE #1524	897.69	208+89.34	L 22.80
BM K	MAGNAIL SET IN EAST FACE OF TELEPHONE POLE #15404 BY HOUSE #1474	928.40	204+56.49	L -23.31



SOUREK TRL CURVE A
PI STA = 301+60.06
Δ = 9°54'38"
Dc = 9°32'57"
R = 600.00
T = 52.02
L = 103.78
E = 2.25
C = 103.65
CB = N 3°09'55" W

KUBIC DR CURVE B
PI STA = 202+89.21
Δ = 55°42'24"
Dc = 28°38'52"
R = 200.00
T = 105.69
L = 194.45
E = 26.21
C = 186.88
CB = N 27°53'06" W

SAND HILL DR CURVE C
PI STA = 42+39.22
Δ = 2°10'46"
Dc = 8°58'04"
R = 638.91
T = 12.15
L = 24.30
E = 0.12
C = 24.30
CB = N 35°21'03" E

SAND HILL DR CURVE D
PI STA = 44+48.49
Δ = 34°17'34"
Dc = 8°58'04"
R = 638.91
T = 197.12
L = 382.40
E = 29.72
C = 376.72
CB = N 17°06'53" E

SAND HILL DR CURVE E
PI STA = 50+06.59
Δ = 90°00'00"
Dc = 21°48'04"
R = 262.81
T = 262.81
L = 412.82
E = 108.86
C = 371.67
CB = N 45°01'54" W

HORIZONTAL
SCALE IN FEET
0 100 200 400

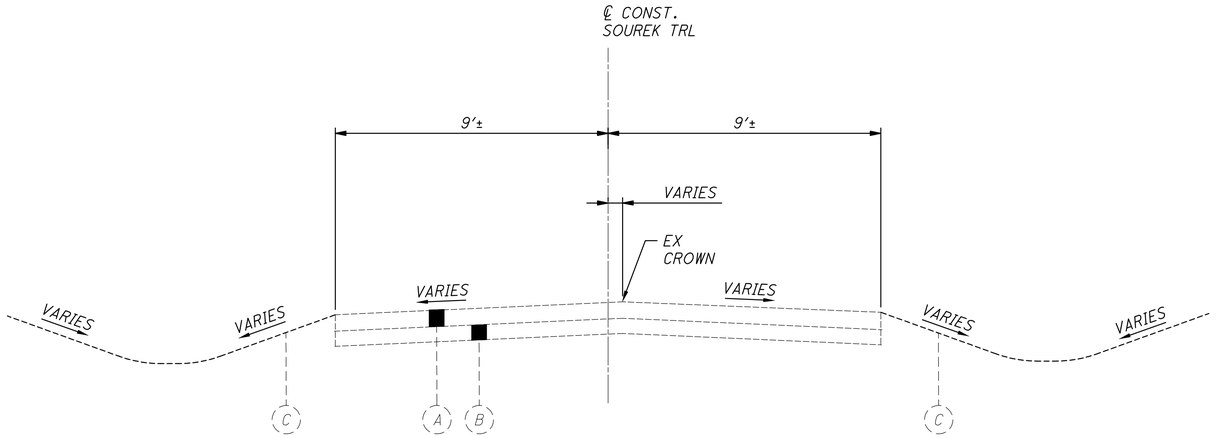
CALCULATED LAA
CHECKED CSR

SCHEMATIC PLAN

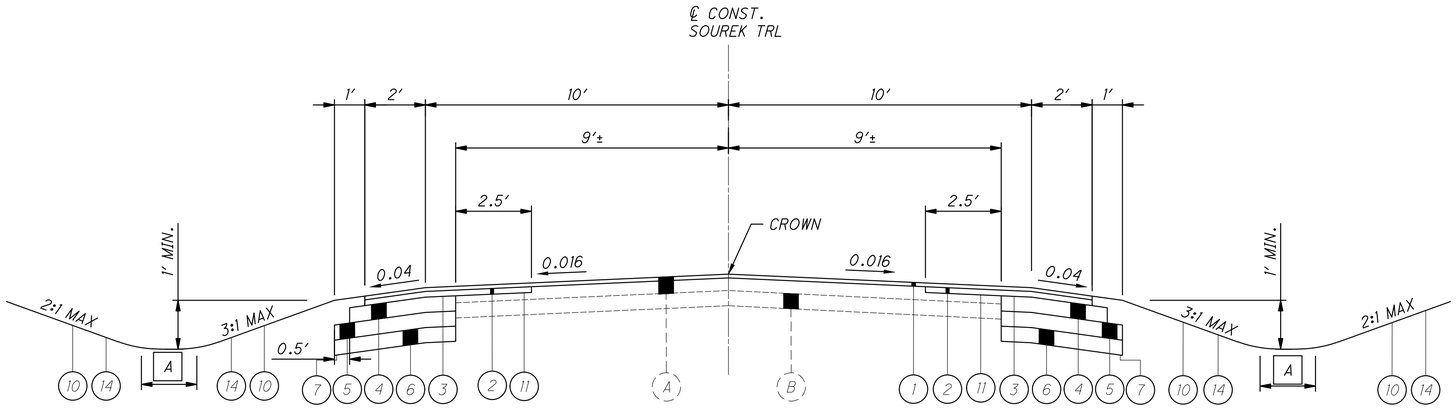
CUY FALLS - SOUREK TRL

2
82

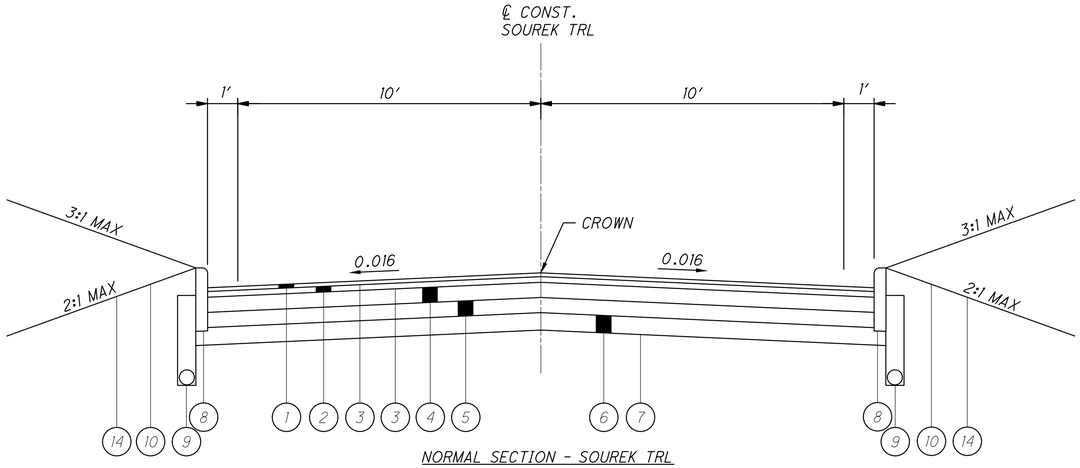
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GB001.dwg 24-Sep-20 8:49 AM



EXISTING SECTION - SOUREK TRL



NORMAL SECTION - SOUREK TRL
STA. 0+14.95 TO STA. 6+24.78
STA. 11+71.13 TO STA. 17+35.15
STA. 29+02.59 TO STA. 33+92.00
STA. 301+08.00 TO STA. 305+33.79



NORMAL SECTION - SOUREK TRL
STA. 6+24.78 TO STA. 11+71.13
STA. 18+77.36 TO STA. 29+02.59

EXISTING LEGEND

(A) EXISTING 4"-6"± ASPHALT CONCRETE
(B) EXISTING FILL MATERIAL (DEPTH VARIES)
(C) EXISTING SEEDING AND MULCHING

PROPOSED LEGEND

(1) ITEM 422 - DOUBLE CHIP SEAL, #8, CRS-2P
(2) ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (T=3")
(3) ITEM 407 - TACK COAT (0.06 GAL/SY)
(4) ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 (T=6")
(5) ITEM 304 - AGGREGATE BASE (T=6")
(6) ITEM SPECIAL - CEMENT STABILIZED SUBGRADE (T=8")
(7) ITEM 204 - SUBGRADE COMPACTION
(8) ITEM 609 - CURB, TYPE 6
(9) ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC
(10) ITEM 671 - EROSION CONTROL MAT, TYPE B, AS PER PLAN
(11) ITEM SPECIAL - PAVEMENT REINFORCING FABRIC (GLASGRID 8502 OR APPROVED EQUAL)
(12) ITEM 441 - ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG 64-22 (T=2") (DRIVEWAY)
(13) ITEM 452 - 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P (DRIVEWAY)
(14) ITEM 659 - TOPSOIL (T=4")

[A] SEE TABLE ON SHEET 4

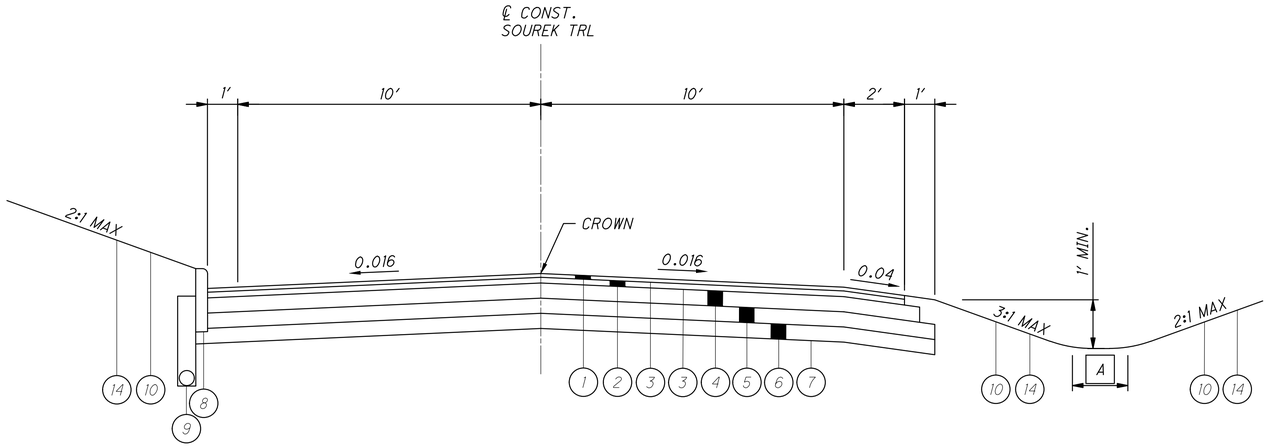
CALCULATED SA
CHECKED CSR

TYPICAL SECTIONS - SOUREK TRL

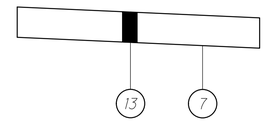
CUY FALLS - SOUREK TRL

3
82

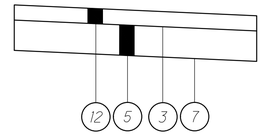
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GY001.dwg 24-Sep-20 8:50 AM



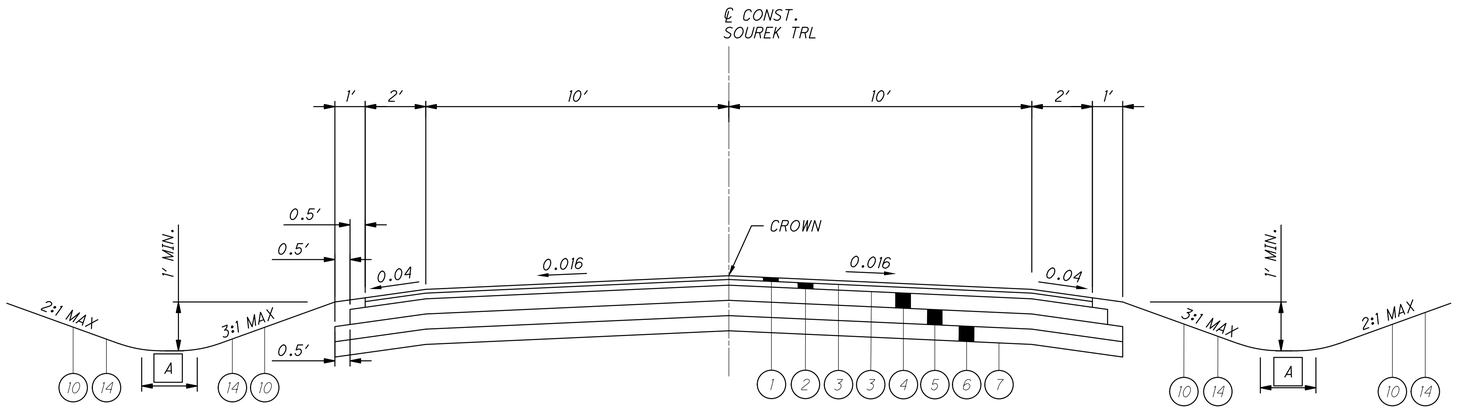
NORMAL SECTION - SOUREK TRL
STA. 17+35.15 TO STA. 18+77.36



CONCRETE DRIVE

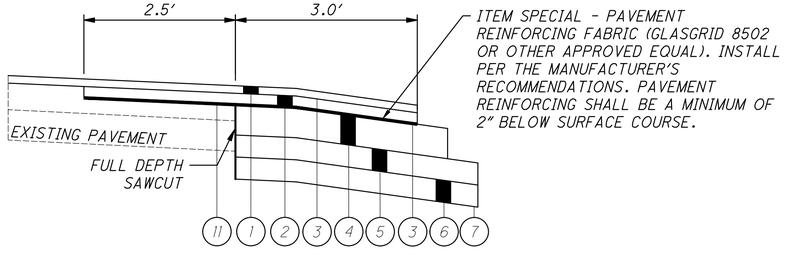


ASPHALT DRIVE



NORMAL SECTION - SOUREK TRL
33+92.00 TO STA. 34+96.00

NORMAL SECTION - SOUREK TRL SOUTH
STA. 301+08.00 TO STA. 304+82.00



PAVEMENT JOINT REINFORCEMENT DETAIL

A

DITCH BOTTOM WIDTH					
ALIGNMENT	BEGIN STATION	END STATION	SIDE	WIDTH	VEGETATED BIOFILTER?
SOUREK TRL	0+60	3+70	RT	2'	N
SOUREK TRL	3+70	3+90	RT	VARIES 2' TO 4'	N
SOUREK TRL	3+90	8+93	RT	4'	Y
SOUREK TRL	10+95	18+77	RT	2'	N
SOUREK TRL	18+77	22+71	RT	4'	Y
SOUREK TRL	29+02	33+80	RT	2'	N
SOUREK TRL	4+00	6+25	LT	4'	Y
SOUREK TRL	11+81	17+40	LT	2'	N
SOUREK TRL	22+59	23+05	LT	2'	N
SOUREK TRL	29+72	34+10	LT	2'	N
SOUREK TRL SOUTH	301+85	304+85	RT	4'	Y
SOUREK TRL SOUTH	304+85	305+10	RT	VARIES 4' TO 2'	N
SOUREK TRL SOUTH	301+25	304+75	LT	4'	Y
SOUREK TRL SOUTH	304+75	305+25	LT	VARIES 4' TO 2'	N

FOR LEGEND SEE SHEET 3

CALCULATED LAA
CHECKED CSR

TYPICAL SECTIONS - SOUREK TRL

CUY FALLS - SOUREK TRL

4
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GY001.dwg 24-Sep-20 8:50 AM

GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM FIELD SURVEY, OUPS LOCATING AND EXISTING RECORDS.

USE ITEM 613 - LOW STRENGTH MORTAR BACKFILL (TYPE 2) FOR ALL UTILITY TRENCHES LOCATED IN EXISTING ROADWAY. TRENCHES LOCATED IN EMBANKMENT AREAS SHALL BE BACKFILLED WITH APPROVED COMPACTED BACKFILL PER AKRON 551.09 AND 251.03. SEE DETAILS ON SHEET 73.

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

ELECTRIC
CUYAHOGA FALLS ELECTRIC
2310 SECOND STREET
CUYAHOGA FALLS, OHIO 44221
ATTN: MICHAEL DOUGHERTY
330-971-8060
DOUGHERTYMD@CITYOFCF.COM

OHIO EDISON CORPORATION
2600 ERIE ST SOUTH
MASSILLON, OH 44646
ATTN: MICHAEL JANSON
330-830-7092
JANSONM@FIRSTENERGYCORP.COM

PHONE
AT&T
50 W BOWERY ST., 6TH FLOOR
AKRON, OHIO 44308
ATTN: LUCIE HINSHAW (AT&T ENGINEERING)
330-524-2091
LB2785@ATT.COM
ATTN: JEFF ZEHNER (AT&T CONSTRUCTION)
330-524-4725

GAS
DOMINION ENERGY
320 SPRINGSIDE DRIVE, SUITE 320
AKRON, OH 44333
ATTN: RYAN A. BOND
330-807-2285
RYAN.A.BOND@DOMINIONENERGY.COM
ATTN: JASON ROSS
JASON.M.ROSS@DOMINIONENERGY.COM

WATER AND SEWER:
CITY OF AKRON WATER DISTRIBUTION
1460 TRIPLETT BLVD.
AKRON, OHIO 44306
ATTN: TONY PUGLIA
330-375-2420
APUGLIA@AKRONOHIO.GOV

CITY OF AKRON SEWER MAINTENANCE
2460 AKRON PENINSULA RD.
AKRON, OHIO 44313
ATTN: JOE HARBESON
330-375-2666
JHARBESON@AKRONOHIO.GOV

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C. THE CONTRACTOR SHALL VERIFY OWNERSHIP AND LOCATION PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN PROXIMITY OF UTILITIES.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7 PM AND 7 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

DOMINION ENERGY PIPELINES

IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN THE LATERAL AND SUBJACENT SUPPORT OF DOMINION ENERGY'S PIPELINE(S), IN COMPLIANCE TO 29 CFR, PART 1926, SUBPART P, (SAFE EXCAVATION & SHORING). ONE-FOOT MINIMUM VERTICAL AND HORIZONTAL CLEARANCE MUST BE MAINTAINED BETWEEN DOMINION ENERGY OHIO'S (DEO) EXISTING PIPELINE(S) AND ALL OTHER IMPROVEMENTS. EXTREME CARE SHOULD BE TAKEN NOT TO HARM ANY DEO FACILITY (PIPELINES, ETC.) OR APPURTENANCE (PIPE COATING, TRACER WIRE, CATHODIC PROTECTION TEST STATION WIRES & DEVICES, VALVE BOXES, ETC.). DEO FACILITIES MUST BE PROTECTED WITH A TARP DURING BRIDGE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE AND LIABLE FOR ENSURING THAT ALL DEO EXISTING FACILITIES, ABOVE AND BELOW GROUND, REMAIN UNDAMAGED, ACCESSIBLE AND IN WORKING ORDER. THE CROSSING OF DEO'S PIPELINE WITH ANOTHER STEEL FACILITY MAY CREATE A POTENTIAL CORROSION ISSUE FOR THE PROPOSED FACILITY AND THE EXISTING DEO FACILITY. PLEASE CONTACT DOMINION ENERGY OHIO'S CORROSION DEPARTMENT: DAVE CUTLIP (330-266-2121), RICK MCDONALD (330-266-2122), OR AL HUMRICHOUSER (330-478-3757).

SURVEYING PARAMETERS

ALL HORIZONTAL COORDINATES AND BEARING AS SHOWN ARE BASED ON THE OHIO STATE PLAN COORDINATE SYSTEM, NORTH ZONE, AND REFERENCE THE NORTH AMERICAN DATUM OF 1983 AND THE 2011 ADJUSTMENT (NAD 83(2011)).

ALL ELEVATIONS SHOWN ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON THIS PROJECT. SEE SHEET 2 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623 AT THE CONTRACTOR'S EXPENSE.

UNITS ARE IN U.S. SURVEY FEET.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

PROTECTION OF PRIVATE PROPERTY

NO EQUIPMENT SHALL BE PARKED OR MATERIALS STOCKPILED ON PRIVATE PROPERTY, INCLUDING TEMPORARY EASEMENTS, UNLESS THE OWNER AND THE PROJECT ENGINEER/SUPERVISOR HAS GRANTED PRIOR APPROVAL.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON ODOT STANDARD CONSTRUCTION DRAWING BP-3.1.

ROADWAY

ITEM 201 - TREE REMOVED, 18", 30", 48"

REMOVE ALL TREES AND STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE CONSTRUCTION LIMITS. THE FOLLOWING IS AN APPROXIMATE ESTIMATE OF THE NUMBER OF TREES TO BE REMOVED. THE ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

SIZES	NO. TREES
18"	71
30"	13
48"	1

ITEM 204 - SUBGRADE COMPACTION AND PROOF ROLLING

CONSTRUCT THE SUBGRADE AS FOLLOWS AND IN THE FOLLOWING SEQUENCE:

1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.

2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO SECTION 204.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS).

3. IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.

4. COMPACT THE SUBGRADE ACCORDING TO C&MS 204.03.

5. ESTIMATED LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN ON SHEET 18. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS.

6. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO C&MS 204.06.

7. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH ITEM SPECIAL - CEMENT STABILIZED SUBGRADE (T=8"). EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDERS, OR PAVED MEDIANS.

8. PROOF ROLL THE STABILIZED AREAS ACCORDING TO C&MS 204.06 TO VERIFY STABILITY.

9. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE.

ITEM SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE

PER ODOT CMS SECTION 107.10, THE CONSTRUCTION SHALL REMOVE EXISTING MAILBOXES THAT ARE IMPACTED BY CONSTRUCTION AND ERECT THEM IN A TEMPORARY LOCATION DURING CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN APPROVAL OF THE ENGINEER, AFTER POTENTIAL DISCUSSION WITH THE PROPERTY OWNER(S), ON THE PROPOSED LOCATION. WHERE NOT OTHERWISE SHOWN, THE CONTRACTOR SHALL INSTALL THE MAILBOX IN THE EXISTING LOCATION. THE COST FOR REMOVAL, TEMPORARY INSTALLATION, AND PERMANENT INSTALLATION OF MAILBOXES IS CONSIDERED AS INCIDENTAL TO THE WORK AND NO ADDITIONAL COSTS ARE PROVIDED TO THE CONTRACTOR.

THE CONTRACTOR SHALL REINSTALL THE EXISTING MAILBOX, UNLESS IT IS DAMAGED. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER FOR INSTALLING NEW MAILBOXES TO REPLACE DAMAGED MAILBOXES:

ITEM 690 - SPECIAL - MAILBOX SUPPORT SYSTEM, SINGLE	5 EACH

ITEM SPECIAL - CEMENT STABILIZED SUBGRADE (T=8")

THIS ITEM SHALL CONFORM TO ALL ODOT STANDARDS FOR ITEM 206 - CEMENT STABILIZED SUBGRADE, 12 INCHES DEEP, WITH THE EXCEPTION OF THE DEPTH OF 8 INCHES.

PAVEMENT TRANSITION AREAS:

TO ENSURE A SMOOTH TRANSITION BETWEEN THE RESURFACING AREAS, THE WIDENING SECTION, AND THE TIE-IN POINTS WITH EXISTING PAVEMENT, THE FOLLOWING CONTINGENCY QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM 202- PAVEMENT REMOVED	444 SY
ITEM 301- ASPHALT CONCRETE BASE, PG64-22	74 CY
ITEM 304- AGGREGATE BASE	74 CY

CALCULATED LAA
CHECKED CSR

GENERAL NOTES

CUY FALLS - SOUREK TRL

5
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GN001.dwg 07-Oct-20 2:19 PM

EROSION CONTROL

ITEM 671 - EROSION CONTROL MAT, TYPE B, AS PER PLAN

CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF ITEM 671 AND THE SPECIAL PROVISIONS FOR SEEDING AND MULCHING CONTAINED WITHIN THESE NOTES, USING THE SEED MIX SPECIFIED HEREIN:

A. SEED SPECIES: SEED OF GRASS SPECIES AS FOLLOWS, WITH NOT LESS THAN 85 PERCENT GERMINATION, NOT LESS THAN 98 PERCENT PURE SEED, AND NOT MORE THAN 0.05 PERCENT WEED SEED.
B. APPLICATION RATE: SHALL INCLUDE THE FOLLOWING GRASSES AT A MINIMUM RATE OF 220 LBS/AC OR 5 LBS PER 1000 SQ FT:

GRASSES:	COMMON NAME:	PROPORTION BY WEIGHT:
BOUTELOUA DACTYLOIDES	BUFFALO GRASS	15.00%
FESTUCA BREVIPILA	HARD FESCUE	17.00%
FESTUCA OVINA	SHEEP FESCUE	17.00%
FESTUCA RUBRA SUBS. FALLAX	CHEWINGS FESCUE	17.00%
FESTUCA RUBRA	RED FESCUE	17.00%
FESTUCA RUBRA VAR. RUBRA	CREEPING RED FESCUE	17.00%

THIS ITEM INCLUDES ALL LABOR, EQUIPMENT, TOOLS, SUBMITTALS, INCIDENTALS, AND MATERIALS REQUIRED TO COMPLETE THIS ITEM AND SHALL BE PAID BY SQUARE YARD UNDER ITEM 671 - EROSION CONTROL MAT, TYPE B, AS PER PLAN.

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

659, SOIL ANALYSIS TEST	2 EACH
659, TOPSOIL	1338 CU. YD.
659, REPAIR SEEDING AND MULCHING	603 SQ. YD.
659, INTER-SEEDING	603 SQ. YD.
659, COMMERCIAL FERTILIZER	1.63 TON
659, LIME	2.49 ACRES
659, WATER	33 M. GAL.
671, EROSION CONTROL MAT, TYPE B, AS PER PLAN	12053 SQ. YD.

ITEM 671, EROSION CONTROL MAT, TYPE B, AS PER PLAN 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 EROSION CONTROL MAT ARE BASED ON THESE LIMITS.

POST CONSTRUCTION STORM WATER TREATMENT

THIS PLAN UTILIZES STRUCTURAL BEST MANAGEMENT PRACTICES (BMPS) FOR POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE ITEM 671 - EROSION CONTROL MAT, TYPE B, AS PER PLAN, WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN ON SHEETS 3 - 4 TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER SHALL BE TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS.

ENVIRONMENTAL

INDIANA BAT AND NORTHERN LONG-EARED BAT

THIS PROJECT IS WITHIN THE RANGE OF THE FEDERALLY ENDANGERED INDIANA BAT AND FEDERALLY THREATENED NORTHERN LONG-EARED BAT. NO TREE CUTTING WILL BE CONDUCTED BETWEEN APRIL 1 AND SEPTEMBER 30 AS A MITIGATION MEASURE TO AVOID POTENTIAL IMPACTS TO THE INDIANA BAT AND NORTHERN LONG-EARED BAT. TREES GREATER THAN 3 INCHES DIAMETER AT BREAST HEIGHT (DBH), LIVING OR DEAD TREES OR SNAGS WITH EXFOLIATING, PEELING OR LOOSE BARK, SPLIT TREE TRUNKS AND/OR BRANCHES OR CAVITIES SHALL NOT BE REMOVED AS PART OF VEGETATION CLEARING ACTIVITIES WITHIN THE ABOVE DATES.

CALCULATED L.A.A.
CHECKED C.S.R.

GENERAL NOTES

CUY FALLS - SOUREK TRL

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GN001.dwg 24-Sep-20 8:50 AM

ITEM 614 - MAINTAINING TRAFFIC

THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 1 LANE OF TRAFFIC AT ALL TIMES BY USE OF THE EXISTING PAVEMENT, THE COMPLETED PAVEMENT, AND THE TEMPORARY PAVEMENT. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTIES.

THE CONTRACTOR SHALL DIVERT TRAFFIC FROM NORMAL CHANNELS BY PLASTIC DRUMS, FLASHING ARROW PANELS COMPLYING WITH SUPPLEMENTAL SPECIFICATION 821, TRAFFIC SIGNS AND WORK ZONE PAVEMENT MARKINGS, AS SHOWN ON SHEET 9 - 12.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, AND SHALL BE FURNISHED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS, SUCH AS TYPE III BARRICADES, LIGHTING, FLAGGERS, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ITEM 614 - MAINTAINING TRAFFIC, SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION.

EXISTING TRAFFIC CONTROL DEVICES (SIGNS AND/OR TRAFFIC SIGNALS), LOCATED WITHIN THE WORK AREA, WHICH ARE REQUIRED FOR INTERIM OR PERMANENT TRAFFIC CONTROL, SHALL BE RELOCATED TO POINTS APPROVED BY THE ENGINEER. APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE MAINTAINED, IN COMPLIANCE WITH THE MANUAL, AT ALL TIMES WHILE TRAFFIC IS MAINTAINED. THE COST OF RELOCATION, IF REQUIRED, SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC.

DRUMS FURNISHED BY THE CONTRACTOR IN ACCORDANCE WITH THE REQUIREMENTS OF THE PLANS, SPECIFICATIONS AND PROPOSAL WHICH BECOME DAMAGED BY TRAFFIC FOR REASONS BEYOND THE CONTROL OF THE CONTRACTOR SHALL BE REPLACED IN KIND WHEN ORDERED BY THE ENGINEER. REPLACEMENT DRUMS SHALL BE NEW. PAYMENT FOR THE NEW DRUMS SHALL BE MADE AT THE CONTRACT LUMP SUM PRICE FOR ITEM 614 - MAINTAINING TRAFFIC, AND SHALL INCLUDE THE COST OF REMOVING AND DISPOSING OF THE DAMAGED DRUM, AND PROVIDING AND MAINTAINING THE REPLACEMENT DRUM IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS FOR THE ORIGINAL DRUM.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR 614 - MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

DRIVEWAY ACCESS

THIS WORK SHALL BE IN CONJUNCTION WITH ITEM 614 - MAINTAINING TRAFFIC, AND ALL COSTS INCURRED FOR THIS ITEM SHALL BE INCLUDED WITH THE LUMP SUM BID FOR MAINTAINING TRAFFIC. NO ADDITIONAL PAYMENTS WILL BE MADE. ACCESS TO ALL PROPERTY OWNERS SHALL BE MADE AVAILABLE AT ALL TIMES DURING CONSTRUCTION. HOWEVER, SOME INCONVENIENCES WILL OCCUR.

THE CONTRACTOR SHALL MAKE AVAILABLE DURING CONSTRUCTION, STEEL PLATES, BRIDGES, OR OTHER MEANS APPROVED BY THE ENGINEER TO BRIDGE ACROSS THE HALF WIDTH ROADWAY OR WATERLINE TRENCH CONSTRUCTION, TO PROVIDE FULL TIME (TWENTY-FOUR (24) HOURS, SEVEN (7) DAYS A WEEK) ACCESS TO DRIVEWAYS. HIGH-EARLY STRENGTH CONCRETE SHALL BE USED AT DRIVES AND ROAD CROSSINGS.

THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, AT THE PRE-CONSTRUCTION MEETING, HIS PROPOSAL FOR PROVIDING ACCESS TO THE DRIVEWAYS. FOR ESTIMATING PURPOSES, THE NUMBER OF DRIVE APRONS TO BE MAINTAINED SHOULD BE THE NUMBER OF DRIVEWAYS IN EACH CONSTRUCTION PHASE.

SEQUENCE OF CONSTRUCTION

WATER WORK

THE PROPOSED WATER MAIN SHALL BE CONSTRUCTED ON SOUREK TRAIL SOUTHERN LEG, SOUREK TRAIL EAST LEG, SAND HILL DRIVE AND KUBIC DRIVE. ANY OPEN TRENCHES MUST BE PLATED OR COVERED AT THE END OF EACH WORK DAY. TWO-WAY TRAFFIC MUST BE MAINTAINED AT ALL TIMES ON SOUREK TRAIL EAST LEG AND SAND HILL DRIVE BETWEEN SOUREK TRAIL SOUTHERN LEG AND KUBIC DRIVE FOLLOWING ODOT SCD MT-97.11 DURING WORK OPERATIONS. FIELD REVISIONS TO THE CONSTRUCTION SEQUENCE MAY BE MADE WITH THE OWNER'S APPROVAL.

1. CONSTRUCT THE NEW 8-INCH WATER MAIN AND HYDRANT BRANCH ALONG THE SOUREK TRAIL SOUTHERN LEG (STATION 300+98 TO STATION 305+34) PRIOR TO CONSTRUCTING THE ROADWAY. DO NOT MAKE THE CONNECTION TO THE EXISTING WATER MAIN.

2. CONSTRUCT HYDRANT BRANCH AT STATION 303+50, INCLUDING 6" GATE VALVE, BUT DO NOT INSTALL HYDRANT BARREL. INSTALL HYDRANT GATE VALVE AND BOX TO EXISTING GRADE. INSTALL RESTRAINED CAP WITH 2" OUTLET ON END OF BRANCH. INSTALL TEMPORARY 2" RISER AT HYDRANT LOCATION TO FACILITATE WATER MAIN TESTING, DISINFECTION, AND FLUSHING.

3. CONSTRUCT THE REMAINING WATER MAIN AND HYDRANT BRANCHES ALONG THE SOUREK TRAIL EAST LEG, SAND HILL DRIVE, AND KUBIC DRIVE. AT BOTH INTERSECTIONS OF SAND HILL DRIVE WITH KUBIC DRIVE, SEQUENCE THE WORK TO MAINTAIN ONE LANE OF TRAFFIC ACCORDING TO THE MAINTENANCE OF TRAFFIC PLAN.

4. COMPLETE HYDROSTATIC PRESSURE TESTING, DISINFECTION, BACTERIA TESTING, AND FLUSHING OF THE NEW WATER MAIN.

5. REMOVE TEMPORARY RISER PIPE AT STATION 303+50 AND INSTALL TEMPORARY END CAP AND THRUST BLOCK AT HYDRANT LOCATION.

6. CONNECT THE NEW WATER MAIN TO THE EXISTING WATER MAIN AT SOUREK TRAIL SOUTHERN LEG STATION 300+98 AND OPERATIONALIZE THE NEW WATER MAIN. THE CONTRACTOR SHALL INCLUDE THE COST OF ANY PAVEMENT REPAIRS IN THIS AREA IN THE LUMP SUM COST OF ITEM 614 - MAINTAINING TRAFFIC.

7. TAP THE NEW WATER MAIN, INSTALL NEW SERVICE CONNECTIONS, AND OPERATIONALIZE THE SERVICE CONNECTIONS.

8. AFTER CONTRUCTING THE ROADWAY AT THE SOUREK TRAIL SOUTHERN LEG, REMOVE TEMPORARY END CAP AND THRUST BLOCK AND INSTALL THE HYDRANT BARREL AT STATION 303+50. ADJUST (SHORTEN) GATE VALVE BOX AT STATION 303+50 TO PROPOSED ROADWAY GRADE.

9. COMPLETE PAVING WORK AND SITE RESTORATION.

SOUREK TRAIL AND SOUREK TRAIL SOUTHERN LEG ROADWAY WORK

THE CONTRACTOR SHALL BE PERMITTED TO CLOSE THE EASTBOUND DIRECTION OF TRAFFIC ON SOUREK TRAIL AND SOUREK TRAIL SOUTHERN LEG FOR THE DURATION OF THE ROADWAY WORK FOLLOWING ODOT SCD MT-97.10. WATER WORK ON SOUREK TRAIL SOUTHERN LEG MUST BE COMPLETED BEFORE ROADWAY WORK COMMENCES. WATER WORK MUST BE COMPLETED FIRST DUE TO THE CULVERT AT STA. 304+99 WHICH WILL BE INSTALLED AT A HIGHER ELEVATION THAN THE WATER LINE.

DETOUR PLAN IS PROVIDED ON SHEET 10.

PHASE 1

MAINTAIN ONE 10' LANE ON THE SOUTH SIDE OF SOUREK TRAIL. WESTBOUND TRAFFIC SHALL BE MAINTAINED, AND EASTBOUND TRAFFIC SHALL BE DETOURED. UTILIZE TEMPORARY PAVEMENT AND TEMPORARY GRADING ON THE SOUTH SIDE OF SOUREK TRAIL AND CONSTRUCT THE NORTH SIDE OF THE PAVEMENT, AS SHOWN ON SHEET 9. UTILIZE TEMPORARY PAVEMENT ON THE WEST SIDE OF SOUREK TRAIL SOUTHERN LEG AS SHOWN ON SHEET 11.

PHASE 2

MAINTAIN ONE 10' LANE ON THE NORTH SIDE OF SOUREK TRAIL. WESTBOUND TRAFFIC SHALL BE MAINTAINED, AND EASTBOUND TRAFFIC SHALL BE DETOURED. CONSTRUCT THE SOUTH SIDE OF SOUREK TRAIL AS SHOWN ON SHEET 9.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN FORWARDED TO THE GENERAL SUMMARY:

ITEM 616, WATER .....3 MGAL

CALCULATED SA
CHECKED CSR

MAINTENANCE OF TRAFFIC NOTES

CUY FALLS - SOUREK TRL

7
82

X:\Projects\GFL\2018\1822\101401\SUM Design\MOT\Sheets\1822101401_MN001.dwg 24-Sep-20 8:50 AM

REF NO.	SHEET NO.	STATION TO STATION			SIDE	614 REPLACEMENT DRUM	614 WORK ZONE EDGE LINE, CLASS 1, 4"	614 WORK ZONE STOP LINE, CLASS 1	615 PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	622 PORTABLE BARRIER, 32"
						EACH	MILE	FT	SY	FT
			TO							
		PHASE 1								
		0+15		35+61	RT		1.34			
		35+61		52+44	RT		0.32			
		6+25		11+71	RT					546
		18+77		29+03	RT					1026
		0+44		19+25	RT				1091	
		19+77		33+05	RT				890	
		34+45		35+18	RT				72	
		200+36		208+43	RT		0.15			
		200+36		-				11		
		PHASE 2								
		0+15		35+55	LT	16	1.34			
		299+57		305+26	LT		0.22			
		0+40		35+55	LT					
		6+25		11+71	RT					546
		18+77		29+03	RT					1026
		299+57		304+39	LT				451	
		301+08		304+82						437
		TOTALS CARRIED TO GENERAL SUMMARY				16	4	11	2503	3581

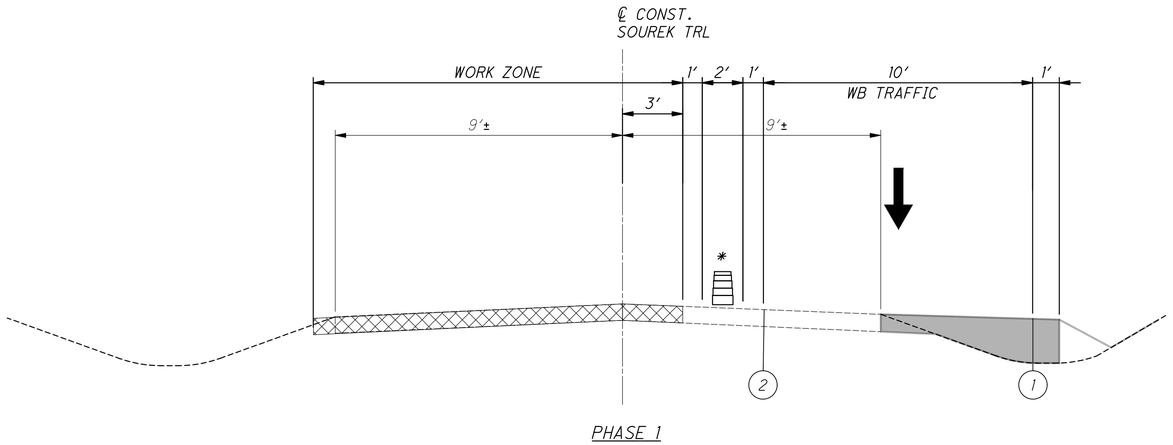
CALCULATED SA
CHECKED CSR

MAINTENANCE OF TRAFFIC SUBSUMMARY

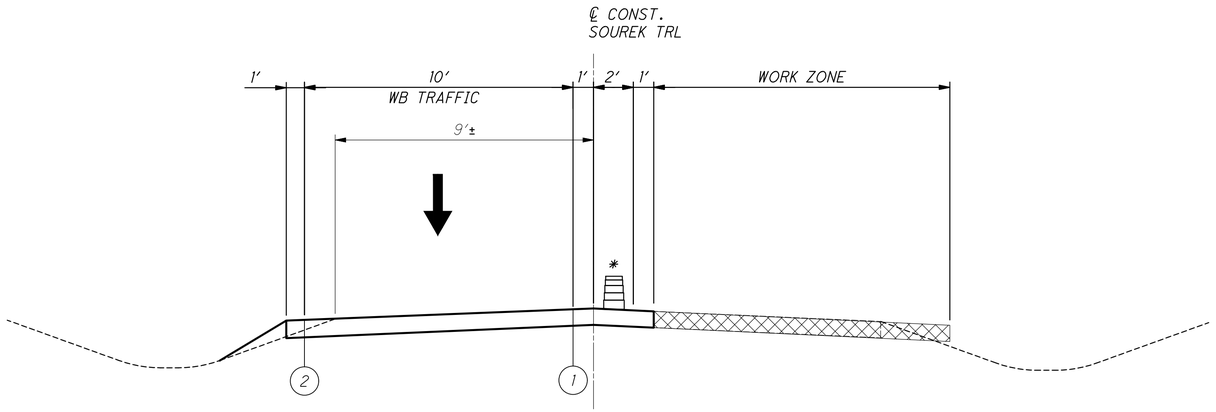
CUY FALLS - SOUREK TRL

8
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:50 AM



PHASE 1



PHASE 2

LEGEND:

TEMPORARY PAVEMENT

WORK ZONE

DRUMS

PROPOSED PAVEMENT

EXISTING PAVEMENT

(1) ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 4", WHITE

(2) ITEM 614 - WORK ZONE EDGE LINE, CLASS I, 4", YELLOW

* USE 32" PORTABLE CONCRETE BARRIER INSTEAD OF DRUMS IN THE FOLLOWING STATIONS:

STA. 6+24.78 TO STA. 11+71.13
STA. 18+77.36 TO STA. 29+02.59
STA. 301+08.00 TO STA. 304+82.00

FOR THE TRANSITION BETWEEN DRUMS AND BARRIER, USE ODOT SCD RM-4.1 AND RM-4.2

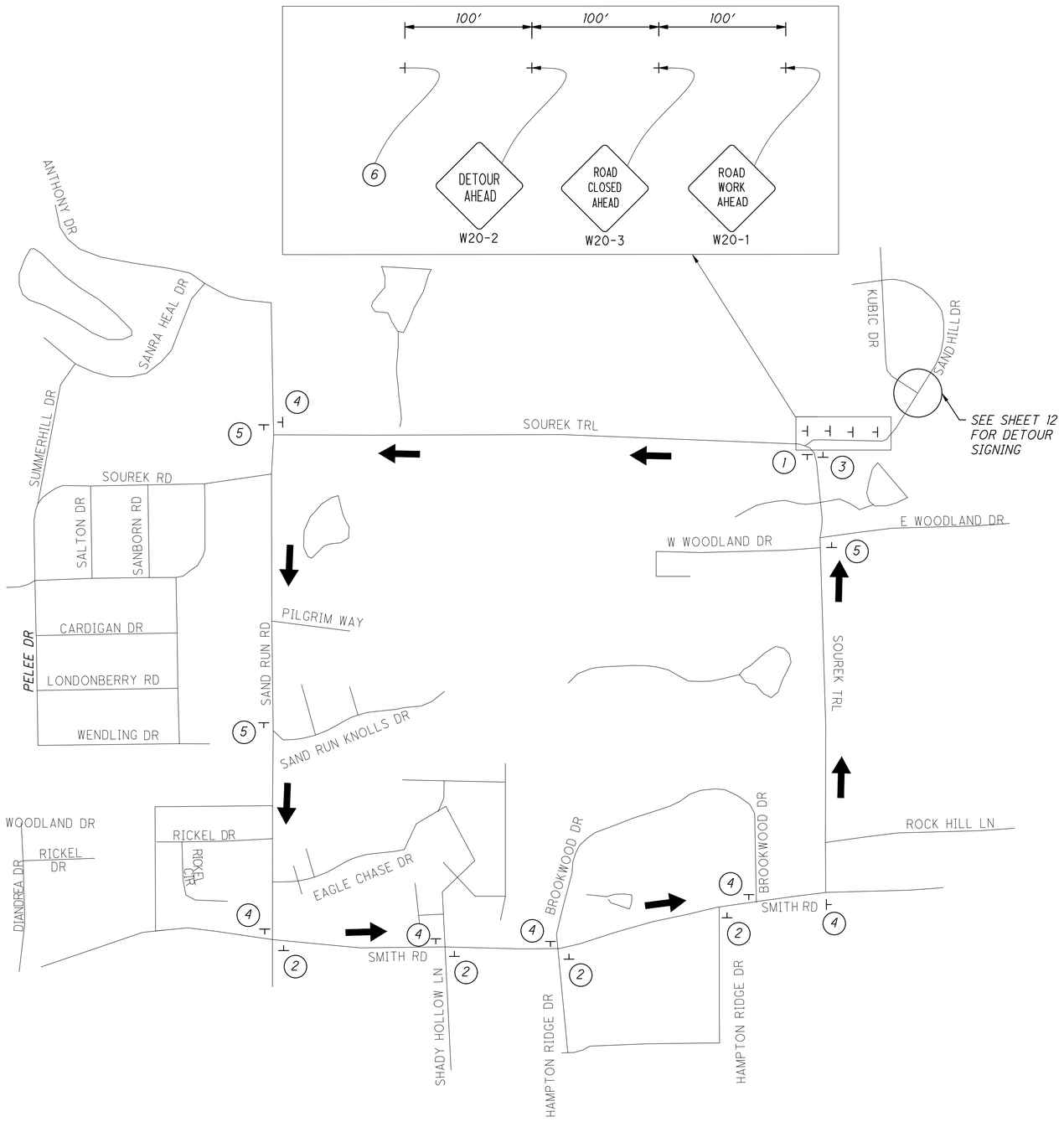
CALCULATED SA
CHECKED CSR

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS

CUY FALLS - SOUREK TRL

9
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\MOT\Sheets\1822101401_MY001.dwg 24-Sep-20 8:51 AM



1
Sourek Trail
D3-H1-6
ROAD CLOSED
R11-2-30
DETOUR
M4-10R-18

2
Sourek Trail
D3-H1-6
EAST
M3-2-6
DETOUR
M4-9R-24

3
Sourek Trail
D3-H1-6
END DETOUR
M4-8a-18

4
Sourek Trail
D3-H1-6
EAST
M3-2-6
DETOUR
M4-9L-24

5
Sourek Trail
D3-H1-6
EAST
M3-2-6
DETOUR
M4-9c-24

6
DO NOT ENTER
R5-1-30

BARRICADE TYPE III

NOTE:

TWO-WAY TRAFFIC TO BE MAINTAINED ON SOUREK TRL BETWEEN SMITH RD AND WOODLAND DR.

NOT TO SCALE

CALCULATED SA
CHECKED CSR

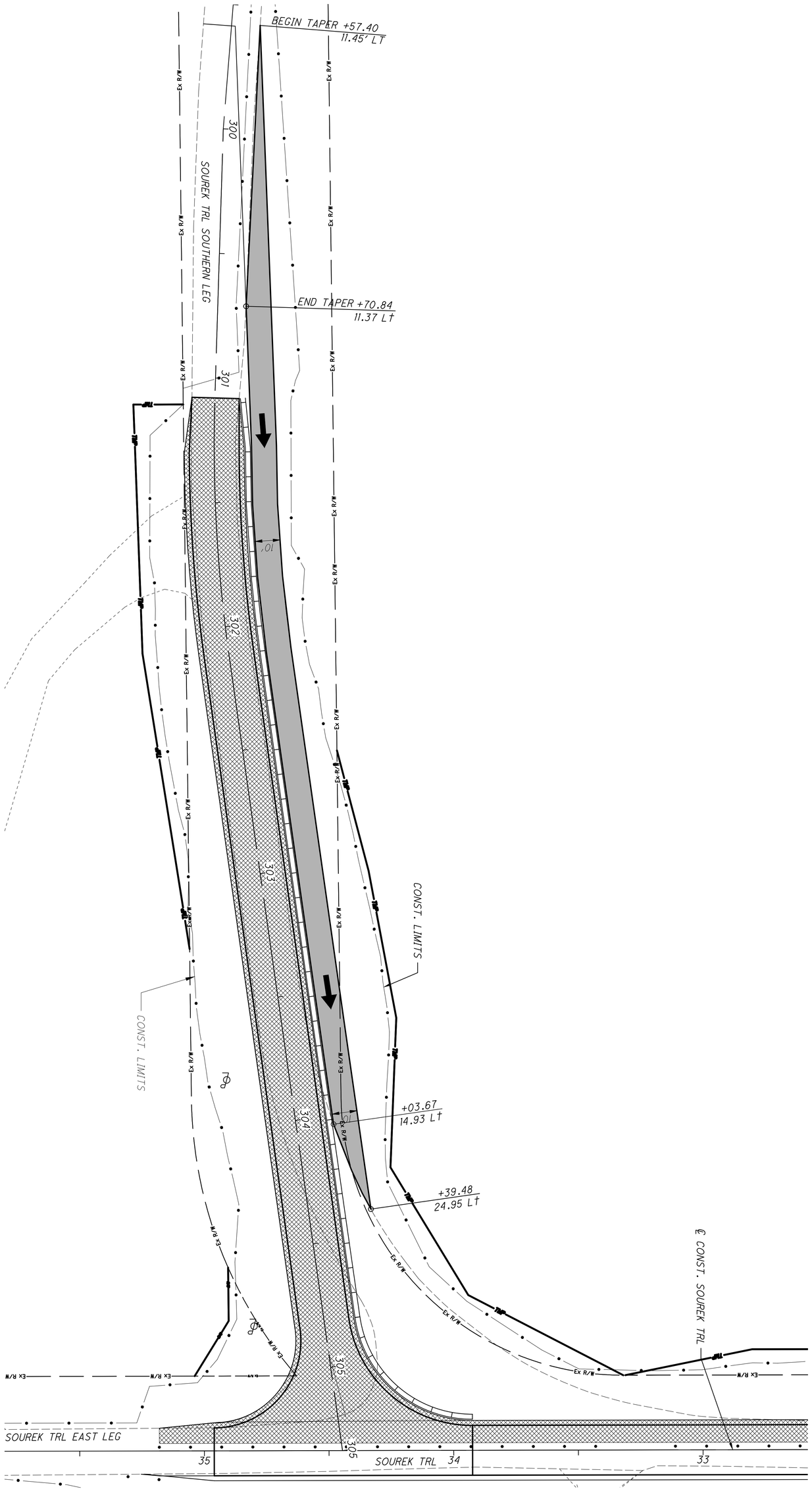
MAINTENANCE OF TRAFFIC DETOUR PLAN

CUY FALLS - SOUREK TRL

10
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\MOT\Sheets\1822101401_MD003.dwg 24-Sep-20 8:51 AM

X:\Projects\GFL\2018\1822\101401\SUM\Design\MOT\Sheets\1822101401_MB001.dwg 24-Sep-20 8:52 AM



LEGEND:
WORK ZONE
PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B
MOT EDGE LINE
MOT 32" PORTABLE CONCRETE BARRIER

11 of 82	CUY FALLS - SOUREK TRL	MAINTENANCE OF TRAFFIC SOUREK TRAIL INTERSECTION	CALCULATED SA CHECKED CSR	0 10 20 40 HORIZONTAL SCALE IN FEET

DRIVEWAY DETAIL:

LEGEND:

- WORK ZONE
- TEMPORARY ROAD
- MOT EDGE LINE
- MOT DRUMS @ 25' SPACING
- MOT TRAFFIC DIRECTION
- TWO-WAY TRAFFIC

℄ CONST. SOUREK TRL

℄ CONST. KUBIC DR

℄ CONST. SAND HILL DR

KUBIC DR

SAND HILL DR

CONST. LIMIT

CONST. LIMIT

STOP R1-1

DO NOT ENTER R5-1

Ex R/W

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SA
CHECKED CSR

MAINTENANCE OF TRAFFIC
SAND HILL DR & KUBIC DR
CUY FALLS - SOUREK TRL

12
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\MOT\Sheets\1822101401_MB002.dwg 24-Sep-20 8:53 AM

SHEET NUM.													PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	6	8	15		17	18	19	20	51	64			1						
																		ROADWAY	
													LS	201	11000	LS		CLEARING AND GRUBBING	
71													71	201	21800	71	EACH	TREE REMOVED, 18"	
13													13	201	23000	13	EACH	TREE REMOVED, 30"	
1													1	201	24800	1	EACH	TREE REMOVED, 48"	
444			5,643										6,087	202	23000	6,087	SY	PAVEMENT REMOVED	
			655										655	202	35100	655	FT	PIPE REMOVED, 24" AND UNDER	
			1										1	202	58100	1	EACH	CATCH BASIN REMOVED	
									4,309				4,309	203	10000	4,309	CY	EXCAVATION	
									1,547				1,547	203	20000	1,547	CY	EMBANKMENT	
						7,486	727						8,213	204	10000	8,213	SY	SUBGRADE COMPACTION	
						2,496							2,496	204	13000	2,496	CY	EXCAVATION OF SUBGRADE	
						3							3	204	45000	3	HOUR	PROOF ROLLING	
5													5	SPECIAL	69050100	5	EACH	MAILBOX SUPPORT SYSTEM, SINGLE	5
						7,486							7,486	SPECIAL	69098300	7,486	SY	CEMENT STABILIZED SUBGRADE (T=8")	5
																		EROSION CONTROL	
					19								19	601	32204	19	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
	2												2	659	00100	2	EACH	SOIL ANALYSIS TEST	
	1,338												1,338	659	00300	1,338	CY	TOPSOIL	
	603												603	659	14000	603	SY	REPAIR SEEDING AND MULCHING	
	603												603	659	15000	603	SY	INTER-SEEDING	
	1.6												1.6	659	20000	1.6	TON	COMMERCIAL FERTILIZER	
	2.49												2.49	659	31000	2.49	ACRE	LIME	
	33												33	659	35000	33	MGAL	WATER	
	12,053												12,053	671	15010	12,053	SY	EROSION CONTROL MAT, TYPE B, AS PER PLAN	6
													LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
													40,000	832	30000	40,000	EACH	EROSION CONTROL	
																		DRAINAGE	
					7								7	602	20000	7	CY	CONCRETE MASONRY	
					3,286								3,286	605	14020	3,286	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC	
					120								120	611	00510	120	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
					111								111	611	04200	111	FT	12" CONDUIT, TYPE A	
					678								678	611	04400	678	FT	12" CONDUIT, TYPE B	
					157								157	611	04600	157	FT	12" CONDUIT, TYPE C	
					256								256	611	04900	256	FT	12" CONDUIT, TYPE D	
					151								151	611	05900	151	FT	15" CONDUIT, TYPE B	
					25								25	611	06400	25	FT	15" CONDUIT, TYPE D	
					24								24	611	07400	24	FT	18" CONDUIT, TYPE B	
					36								36	611	07900	36	FT	18" CONDUIT, TYPE D	
					23								23	611	08900	23	FT	21" CONDUIT, TYPE B	
					216								216	611	10400	216	FT	24" CONDUIT, TYPE B	
					66								66	611	10900	66	FT	24" CONDUIT, TYPE D	
					203								203	611	13400	203	FT	30" CONDUIT, TYPE B	
					41								41	611	52400	41	FT	22" X 34" CONDUIT, TYPE A, 706.04	
					4								4	611	98150	4	EACH	CATCH BASIN, NO. 3	
					9								9	611	98180	9	EACH	CATCH BASIN, NO. 3A	
					6								6	611	98470	6	EACH	CATCH BASIN, NO. 2-2B	
					13								13	611	99574	13	EACH	MANHOLE, NO. 3	
																		PAVEMENT	
						924							924	254	01000	924	SY	PAVEMENT PLANING, ASPHALT CONCRETE	
74						1,176							1,250	301	46000	1,250	CY	ASPHALT CONCRETE BASE, PG64-22	

CALCULATED SA
CHECKED CSR

GENERAL SUMMARY

CUY FALLS - SOUREK TRL

13
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GG001.dwg 24-Sep-20 8:53 AM

SHEET NUM.												PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
5	7	8	15		17	18	19	20	51	64		1						
																	PAVEMENT	
74						1,216	107					1,397	304	20000	1,397	CY	AGGREGATE BASE	
						929	39					968	407	10000	968	GAL	TACK COAT	
						10,142						10,142	422	21000	10,142	SY	AGGREGATE, DOUBLE CHIP SEAL	
							23					23	441	50000	23	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (DRIVEWAY)	
						645						645	441	50300	645	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
							89					89	452	10010	89	SY	6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P (DRIVEWAY)	
						3,284						3,284	609	26000	3,284	FT	CURB, TYPE 6	
						1,263						1,263	SPECIAL	69012030	1,263	SY	PAVEMENT REINFORCING FABRIC (GLASGRID 8502 OR APPROVED EQUAL)	4
																	WATER WORK	
										143		143	SPECIAL	63820048	143	FT	6" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS (CITY OF AKRON)	62
										3,415		3,415	SPECIAL	63820094	3,415	FT	8" WATER MAIN DIP CLASS 53 PUSH ON JOINTS AND FITTINGS (CITY OF AKRON)	62
										8		8	SPECIAL	63820538	8	EACH	6" GATE VALVE WITH VALVE BOX (CITY OF AKRON)	62
										8		8	SPECIAL	63820554	8	EACH	8" GATE VALVE WITH VALVE BOX (CITY OF AKRON)	62
										10		10	SPECIAL	63820750	10	EACH	6" FIRE HYDRANT (CITY OF CUYAHOGA FALLS)	62
										573		573	638	98600	573	FT	WATER WORK, MISC.:1" COPPER SERVICE BRANCH (CITY OF AKRON)	62
																	TRAFFIC CONTROL	
								38				38	630	02100	38	FT	GROUND MOUNTED SUPPORT, NO. 2 POST	
								68.5				68.5	630	03100	68.5	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
								24				24	630	08510	24	FT	STREET NAME SIGN SUPPORT, NO. 2 POST	
								4				4	630	08600	4	EACH	SIGN POST REFLECTOR	
								49.8				49.8	630	80100	49.8	SF	SIGN, FLAT SHEET	
								4				4	630	80500	4	EACH	SIGN, DOUBLE FACED, STREET NAME	
								12				12	630	84900	12	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
								9				9	630	86002	9	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
								0.74				0.74	642	00290	0.74	MILE	CENTER LINE	
								50				50	642	00490	50	FT	STOP LINE	
																	MAINTENANCE OF TRAFFIC	
		16										24	614	12600	16	EACH	REPLACEMENT DRUM	
		4										5	614	22000	4	MILE	WORK ZONE EDGE LINE, CLASS I, 4"	
		11										11	614	26000	11	FT	WORK ZONE STOP LINE, CLASS I	
		2,503										2,503	615	25000	2,503	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS B	
	3											3	616	10000	3	MGAL	WATER	
		3,581										3,581	622	41000	3,581	FT	PORTABLE BARRIER, 32"	
																	INCIDENTALS	
	LS											LS	614	11000	LS		MAINTAINING TRAFFIC	
												8	619	16010	8	MNTH	FIELD OFFICE, TYPE B	
												LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS	624	10000	LS		MOBILIZATION	

CALCULATED SA
CHECKED CSR

GENERAL SUMMARY

CUY FALLS - SOUREK TRL

14
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GG001.dwg 24-Sep-20 8:53 AM

REF NO.	SHEET NO.	STATION TO STATION			SIDE	202 PAVEMENT REMOVED	202 PIPE REMOVED, 24" AND UNDER	202 CATCH BASIN REMOVED
			TO			SY	FT	EACH
		6+25		11+71	RT/LT	1122.33		
		17+35		29+03	RT/LT	2400.89		
		33+92		34+96	RT/LT	476.67		
		301+08		305+00	RT/LT	884.44		
R1	21	2+08		2+27	RT		19	
R2		3+18		3+40	RT		22	
DR1		1+28		-	LT	6.91		
DR2		2+19		-	RT	18.63		
DR3		3+25		-	RT	17.17		
R3	22	4+67		4+87	RT		20	
R4		5+96		6+16	RT		20	
R5		8+37		8+37	RT/LT		26	
DR4		4+71		-	LT	23.26		
DR5		4+77		-	RT	21.68		
DR6		6+06		-	RT	18.59		
R6	23	9+03		9+33	RT		30	
R7		11+84		12+08	RT		24	
DR7		9+19		-	RT	40.15		
DR8		11+99		-	RT	19.54		
R8	24	13+66		14+06	LT		40	
R9		14+31		14+86	RT		55	1
R10		16+61		16+92	RT		31	
R11		17+08		17+38	LT		30	
DR9		13+88		-	LT	13.31		
DR10		14+56		-	RT	29.97		
DR11		16+78		-	RT	22.48		
DR12		17+17		-	LT	20.34		
R12	25	19+24		19+65	RT		41	
R13		20+80		21+41	LT		61	
DR13		19+45		-	RT	26.55		
DR14		20+97		-	LT	50.11		
DR15		21+31		-	LT	62.67		
R14	26	22+71		22+96	RT/LT		40	
R15		25+54		25+77	LT		24	
R16		25+62		26+02	RT		40	
DR16		25+64		-	LT	50.99		
DR17		25+85		-	RT	48.02		
R17	27	28+89		29+14	RT		25	
R18		29+71		29+72	RT/LT		36	
R19		30+43		30+65	RT		22	
DR18	27	27+48		-	LT	39.68		
DR19		29+07		-	LT	13.48		
DR20		29+28		-	LT	15.37		
DR21		30+55		-	RT	13.33		
R20	28	33+49		33+64	RT/LT		49	
DR22		33+41		-	LT	28.19		
DR23	29	301+63		-	LT	158.23		
TOTALS CARRIED TO GENERAL SUMMARY						5643	655	1

CALCULATED CCW
CHECKED CSR

ROADWAY SUBSUMMARY

CUY FALLS - SOUREK TRL

15
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM

DRAINAGE SUBSUMMARY

CALCULATED SA
CHECKED CSR

REF NO.	SHEET NO.	STATION TO STATION			SIDE	601 ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC (CY)	602 CONCRETE MASONRY (CY)	605 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC (FT)	611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS (FT)	611 12" CONDUIT, TYPE A (FT)	611 12" CONDUIT, TYPE B (FT)	611 12" CONDUIT, TYPE C (FT)	611 12" CONDUIT, TYPE D (FT)	611 15" CONDUIT, TYPE B (FT)	611 15" CONDUIT, TYPE D (FT)	611 18" CONDUIT, TYPE B (FT)	611 18" CONDUIT, TYPE D (FT)	611 21" CONDUIT, TYPE B (FT)	611 24" CONDUIT, TYPE B (FT)	611 24" CONDUIT, TYPE D (FT)	611 30" CONDUIT, TYPE B (FT)	611 22" X 34" CONDUIT, TYPE A, 706.04 (FT)	611 CATCH BASIN, NO. 3 (EACH)	611 CATCH BASIN, NO. 3A (EACH)	611 CATCH BASIN, NO. 2-2B (EACH)	611 MANHOLE, NO. 3 (EACH)
			TO																								
DP1	21	2+10		2+28	RT								18														
DP2		3+16		3+35	RT								19														
DP3	22	4+51		4+82	LT								31														
DP4		4+65		4+90	RT								25														
DP5		5+96		6+17	RT								21														
U1-U2		6+25		11+71	RT/LT			1092	40																		
D5-6		6+25		6+25	RT/LT		0.38				23																
D4-6		6+25		6+25	LT						15															1	
D6-2		6+25		8+36	LT						212																1
D3-2		8+36		8+38	RT/LT		0.38									24											
D1-2		8+36		8+47	LT		0.38											23									
D2-8		8+36		8+93	LT						57																1
D7-8	23	8+93		8+93	LT						6														1		1
D11-10		8+93		9+38	LT							45														1	
D10-9		8+93		8+93	RT							11														1	
D9-8		8+93		9+38	RT						16														1		
D15-14		11+71		11+71	RT/LT						22															1	
D14-13		11+71		11+71	LT							11														1	
D13-12		11+71		11+81	LT		0.38					10															1
DP6		11+81		12+12	RT								31														
DP7	24	13+75		13+97	LT								22														
DP8		14+41		14+77	RT												36										
DP9		16+61		16+92	RT															31							
DP10		17+14		17+38	LT										25												
D25-25A		17+40		17+40	LT									14												1	
D25A-24		17+40		18+77	LT									137													1
U3		17+35		29+03	LT			1168	40																		
U4	25	18+77		29+03	RT			1026	40																		
D26-24		18+77		18+77	LT								6													1	
D25B-24		18+77		18+77	RT														26							1	
D24-23		18+77		20+67	LT														190								1
DP11		19+27		19+62	RT															35							
D22-23		20+67		20+67	RT/LT						16															1	
D21-23		20+67		20+67	LT						6															1	
D23-19		20+67		22+54	LT																187						1
D20-19	26	22+54		22+54	RT/LT						16														1		
D19-18		22+54		22+54	LT																6						1
D18-17		22+54		22+54	LT																5				1		
D17-16		22+54		22+59	LT	1.78	0.38														5						1
D28-27		22+71		22+96	RT/LT	1.78	0.76															41					
D30-29		23+05		23+10	LT		0.38					5															1
D31-30		23+10		23+10	LT						11																1
D32-31		23+10		25+07	LT						197																1
D33-32		25+07		25+07	LT						6															1	
D34-32		25+07		25+07	RT/LT						16															1	
SUBTOTALS CARRIED TO SHEET 17						4	4	3286	120		619	82	173	151	25	24	36	23	216	66	203	41	4	7	5	12	

CUY FALLS - SOUREK TRL

16
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM

REF NO.	SHEET NO.	STATION TO STATION			SIDE	601 ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC (CY)	602 CONCRETE MASONRY (CY)	605 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC (FT)	611 6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS (FT)	611 12" CONDUIT, TYPE A (FT)	611 12" CONDUIT, TYPE B (FT)	611 12" CONDUIT, TYPE C (FT)	611 12" CONDUIT, TYPE D (FT)	611 15" CONDUIT, TYPE B (FT)	611 15" CONDUIT, TYPE D (FT)	611 18" CONDUIT, TYPE B (FT)	611 18" CONDUIT, TYPE D (FT)	611 21" CONDUIT, TYPE B (FT)	611 24" CONDUIT, TYPE B (FT)	611 24" CONDUIT, TYPE D (FT)	611 30" CONDUIT, TYPE B (FT)	611 22" X 34" CONDUIT, TYPE A, 706.04 (FT)	611 CATCH BASIN, NO. 3 (EACH)	611 CATCH BASIN, NO. 3A (EACH)	611 CATCH BASIN, NO. 2-2B (EACH)	611 MANHOLE, NO. 3 (EACH)
			TO																								
D38-37	27	28+90		28+90	RT/LT						22														1		
D37-36		28+90		28+90	LT							5													1		
D36-35		28+90		29+60	LT	11.33	0.38					70															1
D39-40		29+72		29+70	RT/LT		0.38				37															1	
DP12		30+46		30+63	RT								17														
D41-42	28	33+67		33+53	RT/LT	3.06	0.76			49																	
D43-44		34+25		34+86	RT		0.76			62																	
DP13		33+31		33+52	LT								21														
DP14	29	301+43		301+88	RT								45														
SUBTOTALS CARRIED FROM SHEET 16						4	4	3286	120		619	82	173	151	25	24	36	23	216	66	203	41	4	7	5	12
SUBTOTALS THIS SHEET						15	3			111	59	75	83											2	1	1
TOTALS CARRIED TO GENERAL SUMMARY						19	7	3286	120	111	678	157	256	151	25	24	36	23	216	66	203	41	4	9	6	13

CALCULATED SA
CHECKED CSR

DRAINAGE SUBSUMMARY

CUY FALLS - SOUREK TRL

17
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM

REF NO.	SHEET NO.	STATION TO STATION			SIDE	CADD AREA	204 SUBGRADE COMPACTION SY	204 EXCAVATION OF SUBGRADE CY	204 PROOF ROLLING HOUR	254 PAVEMENT PLANING, ASPHALT CONCRETE SY	301 ASPHALT CONCRETE BASE, PG64-22 CY	304 AGGREGATE BASE CY	407 TACK COAT GAL	422 AGGREGATE, DOUBLE CHIP SEAL SY	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) CY	609 CURB, TYPE 6 FT	SPECIAL PAVEMENT REINFORCING FABRIC (GLASGRID 8502 OR APPROVED EQUAL) SY	SPECIAL CEMENT STABILIZED SUBGRADE (T=8") SY
P1	21-22	0+14.95	TO	6+24.78	RT/LT	615.45	610	203		339	90.45	101.74	97.64	1695	67.81		678	610
P2	22-23	6+24.78		11+71.13	RT/LT		1396	465			222.59	222.59	160.26	1336	111.29	1092		1396
P3	23-24	11+71.13		17+35.15	RT/LT		501	167		313	73.11	83.56	82.72	1504	57.45		313	501
P3A	24-25	17+35.15		18+77.36	RT/LT		387	129			61.89	63.2	43.62	363	30.29	142		387
P4	25-26	18+77.36		29+02.59	RT/LT		2620	873			417.69	417.69	300.74	2506	208.84	2050		2620
P5	27-28	29+02.59		33+92.00	RT/LT		435	145		272	63.44	72.51	71.78	1305	49.85		272	435
P6	28	33+92.00		34+96.00	RT/LT		266	89			42.37	42.37	30.5	254	21.19			266
P7	28-29	301+08.00		305+33.79	RT/LT	676.53	1271	424			204.2	211.86	141.5	1179	98.26			1271
TOTALS CARRIED TO GENERAL SUMMARY							7486	2496	3	924	1176	1216	929	10142	645	3284	1263	7486

CALCULATED SA
CHECKED CSR

PAVEMENT SUBSUMMARY

CUY FALLS - SOUREK TRL

18
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM

REF NO.	SHEET NO.	STATION TO STATION	SIDE	AREA	204 SUBGRADE COMPACTION	304 AGGREGATE BASE	407 TACK COAT	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22 (DRIVEWAY)	452 6" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P (DRIVEWAY)
					SY	CY	GAL	CY	SY
		TO							
DR1	21	1+28	LT	62.19	7				6.91
DR2		2+19	RT	167.71	19				18.63
DR3		3+25	RT	154.52	17				17.17
DR4	22	4+71	LT	209.35	23	3.88	1.4	0.81	
DR5		4+77	RT	195.13	22	3.61	1.3	0.75	
DR6		6+06	RT	167.33	19	3.10	1.12	0.65	
DR7	23	9+19	RT	476.56	53	8.83	3.18	1.84	
DR8		11+99	RT	227.46	25	4.21	1.52	0.88	
DR9	24	13+88	LT	120.97	13	2.24	0.81	0.47	
DR10		14+56	RT	311.81	35	5.77	2.08	1.2	
DR11		16+78	RT	230.93	26				25.66
DR12		17+17	LT	183.07	20				20.34
DR13	25	19+45	RT	418.99	47	7.76	2.79	1.62	
DR14		20+97	LT	362.22	40	6.71	2.41	1.4	
DR15		21+31	LT	481.34	53	8.91	3.21	1.86	
DR16	26	25+64.00	LT	743.45	83	13.77	4.96	2.87	
DR17		25+85.00	RT	409.32	45	7.58	2.73	1.58	
DR18	27	27+48.00	LT	688.29	76	12.75	4.59	2.66	
DR19		29+07	LT	128.86	14	2.39	0.86	0.5	
DR20		29+28	LT	138.33	15	2.56	0.92	0.53	
DR21		30+55	RT	133.5	15	2.47	0.89	0.52	
DR22	28	33+41	LT	265.06	29	4.91	1.77	1.02	
DR23	29	301+63	RT	280.73	31	5.20	1.87	1.08	
TOTALS CARRIED TO GENERAL SUMMARY					727	107	39	23	89

CALCULATED SA
CHECKED CSR

DRIVEWAY SUBSUMMARY

CUY FALLS - SOUREK TRL

19
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM

STATION RANGE			REF. NO.	SHEET NO.	SIDE	CODE	SIZE	630 GROUND MOUNTED SUPPORT, NO. 2 POST	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 STREET NAME SIGN SUPPORT, NO. 2 POST	630 SIGN POST REFLECTOR	630 SIGN, FLAT SHEET	630 SIGN, DOUBLE FACED, STREET NAME	630 REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	630 REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	642 CENTER LINE	642 STOP LINE
								FT	FT	FT	EACH	SF	EACH	EACH	EACH	MILE	FT
0+31		0+31	S1	21	RT	-	-							2	1		
						D3-1	30X8			12.0			1				
						D3-1	42x8						1				
0+42		0+42	S2		LT	-	-							1	1		
						R1-1	30X30	13.0			1	6.3					
0+95		0+95	S3		RT	-	-							1	1		
						R2-1	24X30	12.5				5.0					
0+44		0+44	SB1		LT												14
0+44		35+92	CL1		CL											0.67	
33+91		33+91	SB2	28	RT												10
305+02		305+02	SB3		RT												16
34+92		34+92	SB4		LT												10
31+67		31+67	S4		RT	-	-							1	1		
32+45		32+45	S5		RT	W3-1	30X30		14.0			6.3					
33+94		33+94	S6		RT	R1-1	30X30		13.5		1	6.3					
						R1-3P	18X6					0.8					
34+38		34+38	S7		LT	-	-							1	1		
34+90		34+90	S8		LT	R1-1	30X30		13.5		1	6.3					
						R1-3P	18X6					0.8					
34+48		34+48	S9		RT	-	-							1	1		
34+35		34+35	S10		RT	-	-							3	1		
305+05		305+05	S11		RT	R1-1	30X30		13.5		1	6.3					
						R1-3P	18X6					0.8					
305+12		305+12	S12		RT	D3-1	30x8			12.0			1				
						D3-1	42x8						1				
301+08		305+02	CL2	29	CL											0.07	
304+35		304+35	S13		LT	-	-							1	1		
						R2-1	24X30	12.5				5.0					
303+55		303+55	S14		RT	W3-1	30X30		14.0			6.3					
302+33		302+33	S15		RT	-	-							1	1		
TOTALS CARRIED TO GENERAL SUMMARY								38.0	68.5	24.0	4.0	49.8	4	12	9	0.74	50

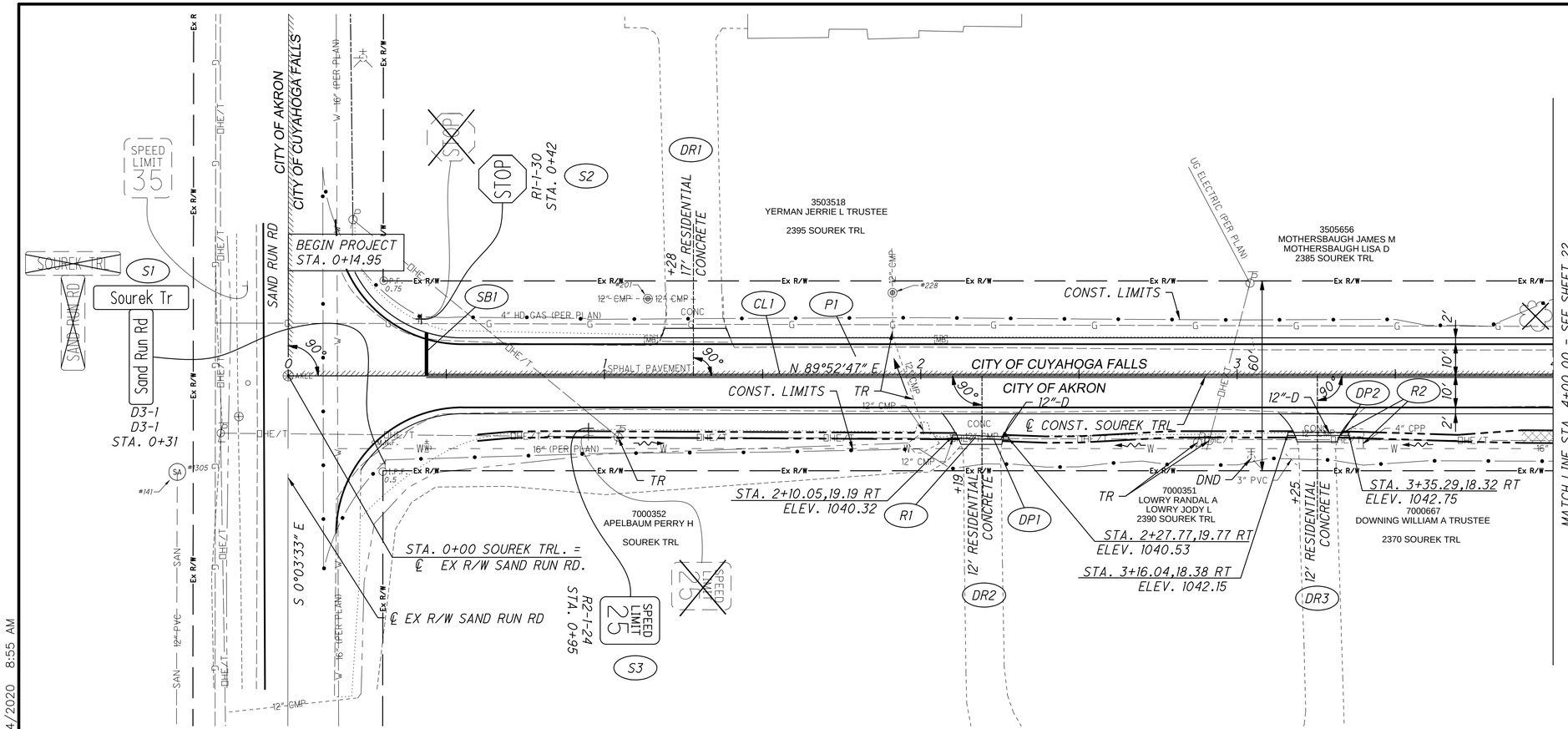
CALCULATED CCW
CHECKED CSR

TRAFFIC SUBSUMMARY

CUY FALLS - SOUREK TRL

20
82

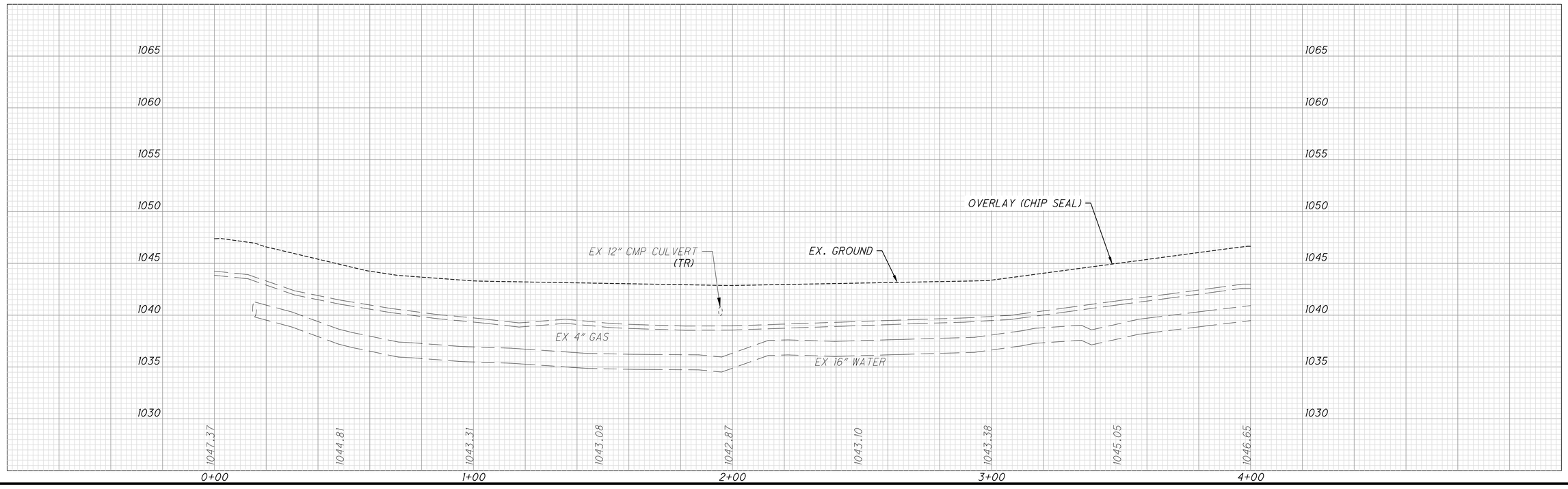
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GS001.dwg 24-Sep-20 8:53 AM



CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	30 - 31
INTERSECTION DETAILS	
DRIVE DETAILS	4
WATER PLAN & PROFILE	
SWPPP	77

LEGEND:

- VEGETATED BIOFILTER
- PROPOSED SIGN
- EXISTING SIGN TO BE REMOVED
- EXISTING SIGN TO REMAIN
- TREE TO BE REMOVED (6" AND LARGER)
- TREE TO REMAIN (6" AND LARGER)
- (C) CURB
- (U) UNDERDRAIN
- (P) PAVEMENT
- (DP) DRIVE PIPE
- (DR) DRIVEWAY
- (R) REMOVAL
- (S) SIGN
- (CL) CENTERLINE PAVEMENT MARKING
- (SB) STOP BAR PAVEMENT MARKING
- DRAINAGE
- TR TO REMAIN
- ATG ADJUST TO GRADE
- DND DO NOT DISTURB
- TBRBO TO BE REMOVED BY OTHERS
- TBRLBO TO BE RELOCATED BY OTHERS



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

PLAN AND PROFILE - SOUREK TRL
START TO STA. 4+00.00

CUY FALLS - SOUREK TRL

21
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP001.dwg 9/24/2020 8:55 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	32 - 34
INTERSECTION DETAILS	
DRIVE DETAILS	4
CULVERT DETAILS	55
STORM SEWER PROFILES	60
WATER PLAN & PROFILE	
SWPPP	77

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

PLAN AND PROFILE - SOUREK TRL
STA. 4+00.00 TO STA. 8+50.00

CUY FALLS - SOUREK TRL

22
82

MATCH LINE STA. 4+00.00 - SEE SHEET 21

MATCH LINE STA. 8+50.00 - SEE SHEET 23

3505656
MOTHERSBAUGH JAMES M
MOTHERSBAUGH LISA D
2385 SOUREK TRL

3502235
MOTHERSBAUGH JAMES M
MOTHERSBAUGH LISA D
2363 SOUREK TRL

7000667
DOWNING WILLIAM A TRUSTEE
2370 SOUREK TRL

3506353
HICKS KAREN
2350 SOUREK TRL

CITY OF AKRON
CITY OF CUYAHOGA FALLS

STA. 4+51.30, 17.86 LT
ELEV. 1043.89

STA. 4+64.90,19.76 RT
ELEV. 1043.21

STA. 4+81.82, 17.80 LT
ELEV. 1043.07

STA. 4+89.84,19.80 RT
ELEV. 1042.35

STA. 5+96.32,20.14 RT
ELEV. 1036.04

STA. 6+17.05,19.17 RT
ELEV. 1034.92

TAPER CURB HEIGHT FROM 0" TO 6"
BEGIN STA. 6+20.78, 12' LT
END STA. 6+24.78, 11' LT

TAPER CURB HEIGHT FROM 0" TO 6"
BEGIN STA. 6+20.78, 12' RT
END STA. 6+24.78, 11' RT

12" TYPE B

CONST. LIMITS

ASPHALT PAVEMENT

℄ CONST. SOUREK TRL

N 89°52'47" E

11' RESIDENTIAL ASPHALT

12' RESIDENTIAL ASPHALT

13' RESIDENTIAL ASPHALT

GATE

EX. SWALE

NOTES:

FOR LEGEND SEE SHEET 21

OVERLAY (CHIP SEAL)

EX 4" GAS

EX 16" WATER

PVI STA: 6+24.78
MATCH EXISTING
1036.59

PVC: 6+99.41
ELEV: 1032.20

PVI STA = 8+49.41
PVI ELEV = 1023.39
K = 34.67
300.00' VC

-5.87%

PR. PROFILE

EX. GROUND

STA 6+24.78, 5.0' LT
MH-3, TC = 1036.51
12" INV. (S) = 1031.00
12" INV. (N) = 1031.00
12" INV. (E) = 1031.00

STA 8+36.22, 5.0' LT
MH-3, TC = 1026.79
12" INV. (E) = 1022.02
12" INV. (W) = 1022.52
18" INV. (S) = 1022.02
21" INV. (NE) = 1021.77

212 - 12" TYPE B @ 4.01%

EX 12" CMP (TBR)

1050 1045 1040 1035 1030 1025 1020 1015

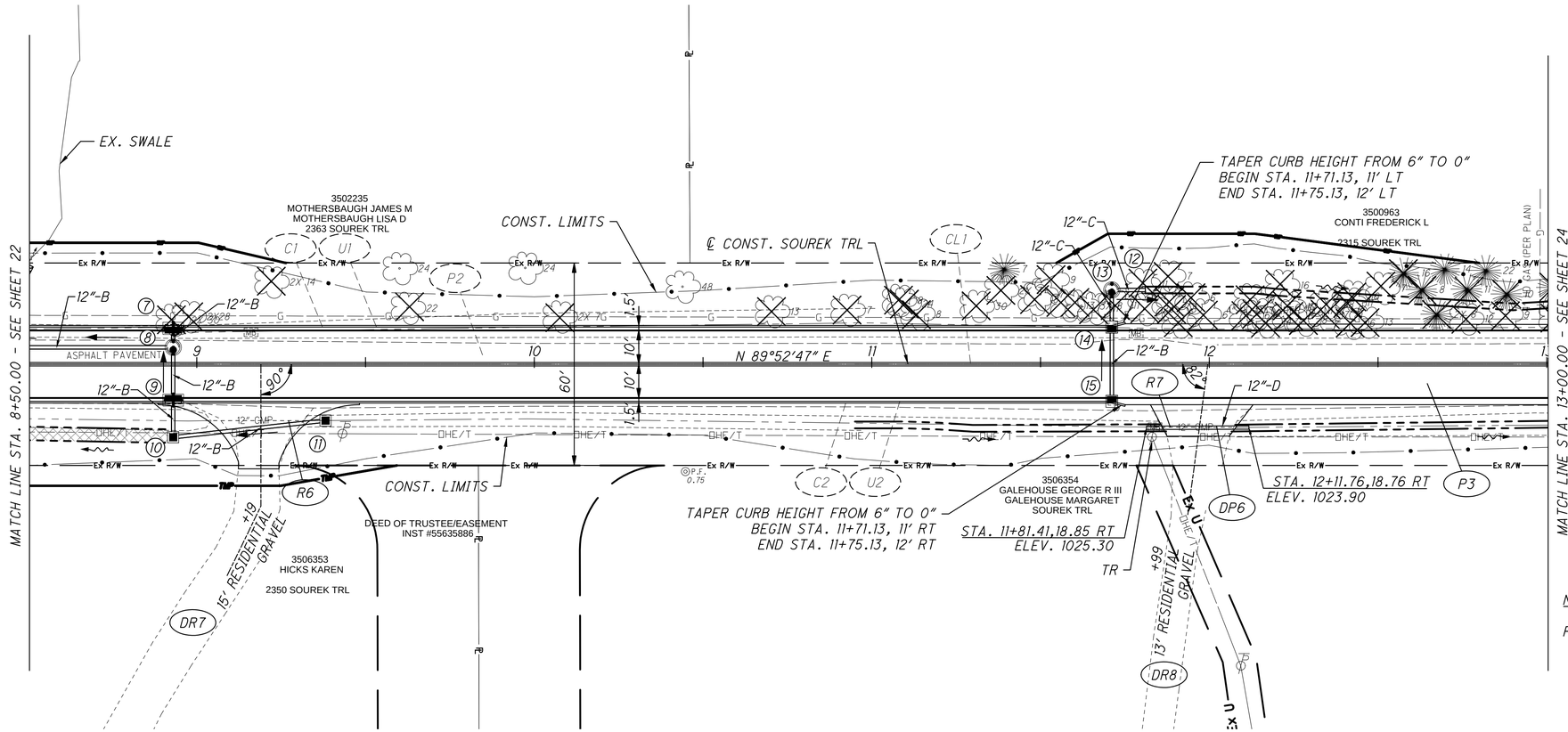
1035.69 1034.52 1033.34 1032.17 1031.05 1030.06 1029.17 1028.40 1027.75 1027.22 1026.79 1026.63

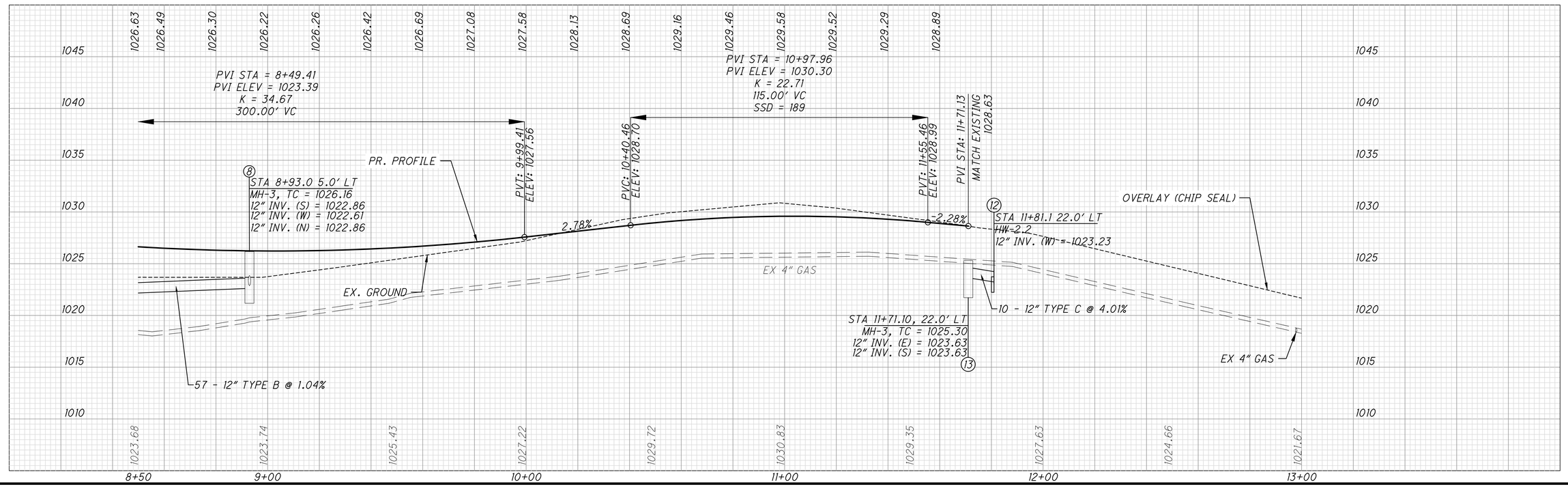
1046.65 1045.49 1044.13 1041.11 1038.08 1034.74 1031.02 1027.75 1024.58 1023.68

4+00 5+00 6+00 7+00 8+00 8+50

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP001.dwg 9/24/2020 8:55 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	34 - 36
INTERSECTION DETAILS	
DRIVE DETAILS	4, 53
CULVERT DETAILS	
STORM SEWER PROFILES	60
WATER PLAN & PROFILE	
SWPPP	77 - 78





NOTES:

FOR LEGEND SEE SHEET 21

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

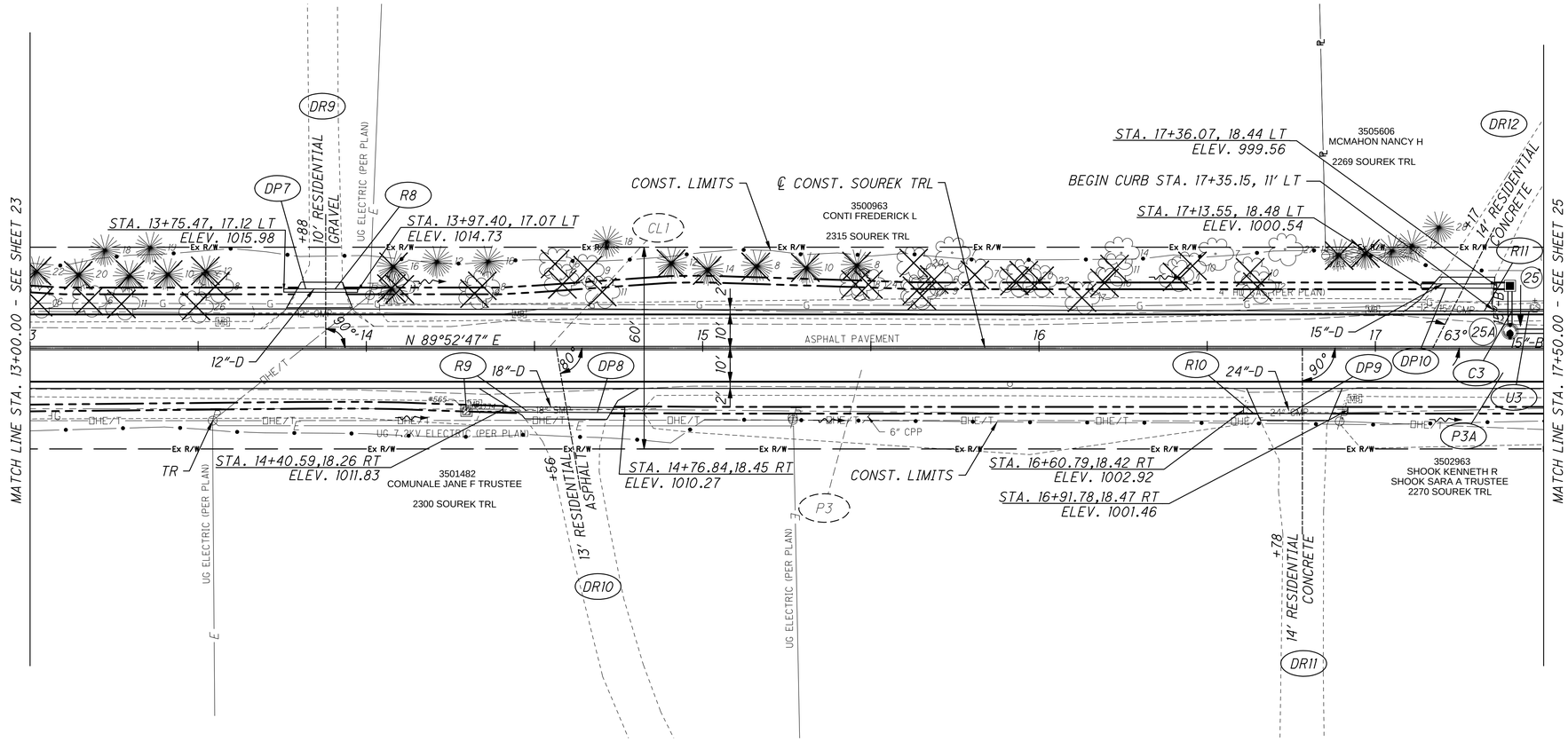
PLAN AND PROFILE - SOUREK TRL
STA. 8+50.00 TO STA. 13+00.00

CUY FALLS - SOUREK TRL

23
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP001.dwg 9/24/2020 8:55 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	36 - 39
INTERSECTION DETAILS	
DRIVE DETAILS	4
CULVERT DETAILS	
STORM SEWER PROFILES	61
WATER PLAN & PROFILE	
SWPPP	78



NOTES:

FOR LEGEND SEE SHEET 21

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

PLAN AND PROFILE - SOUREK TRL
STA. 13+00.00 TO STA. 17+50.00

CUY FALLS - SOUREK TRL

24
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP001.dwg 9/24/2020 8:55 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	39 - 41
INTERSECTION DETAILS	
DRIVE DETAILS	4, 53
CULVERT DETAILS	
STORM SEWER PROFILES	60
WATER PLAN & PROFILE	
SWPPP	78 - 79

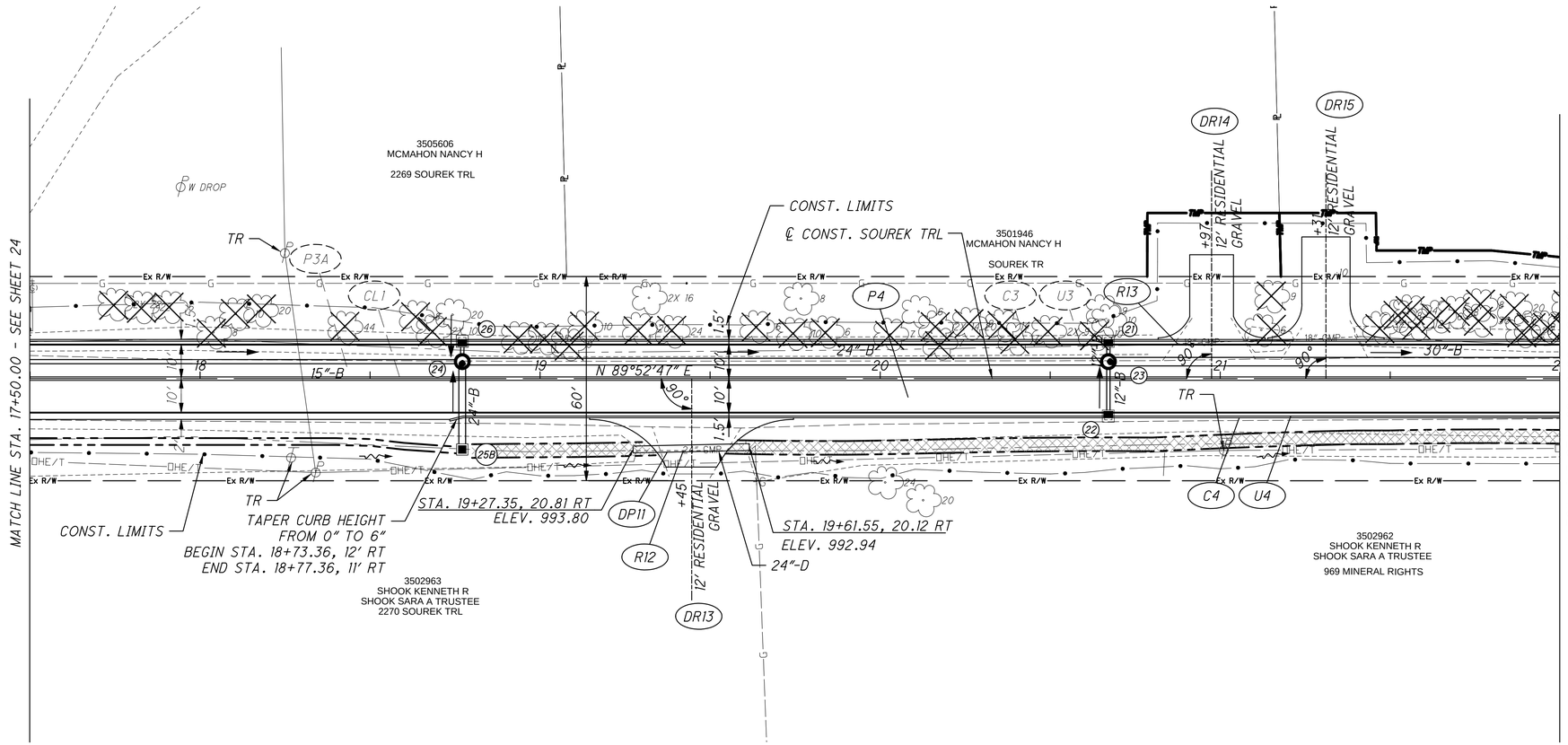
HORIZONTAL SCALE IN FEET
0 10 20 40

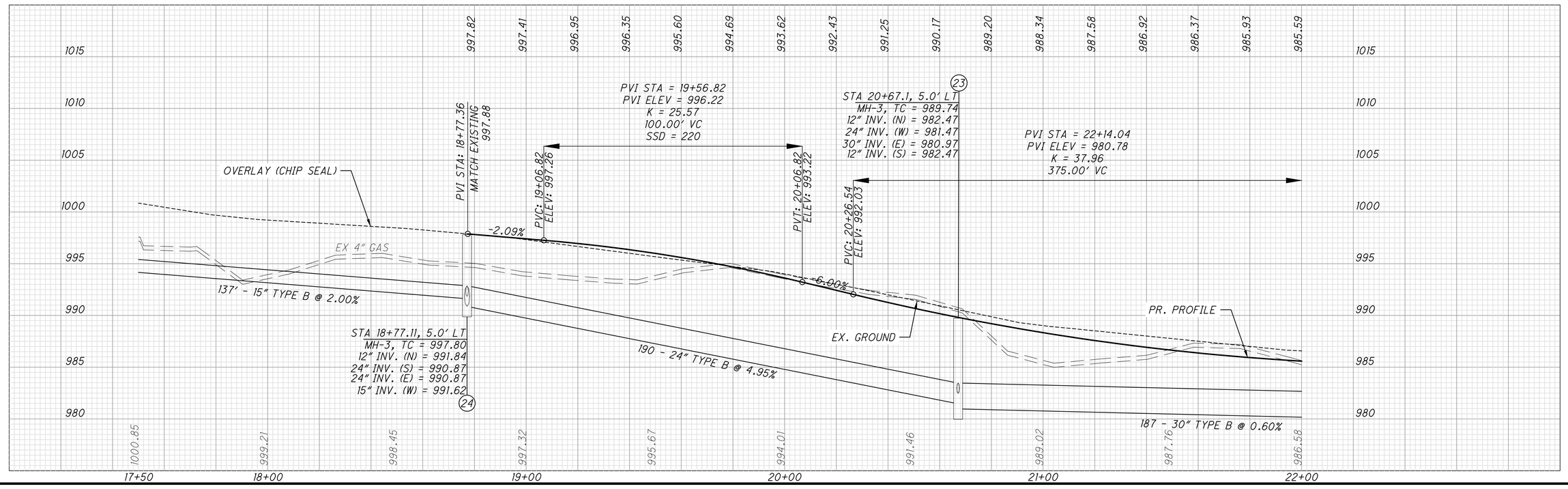
CALCULATED LAA
CHECKED CSR

PLAN AND PROFILE - SOUREK TRL
STA.17+50.00 TO STA. 22+00.00

CUY FALLS - SOUREK TRL

25
82





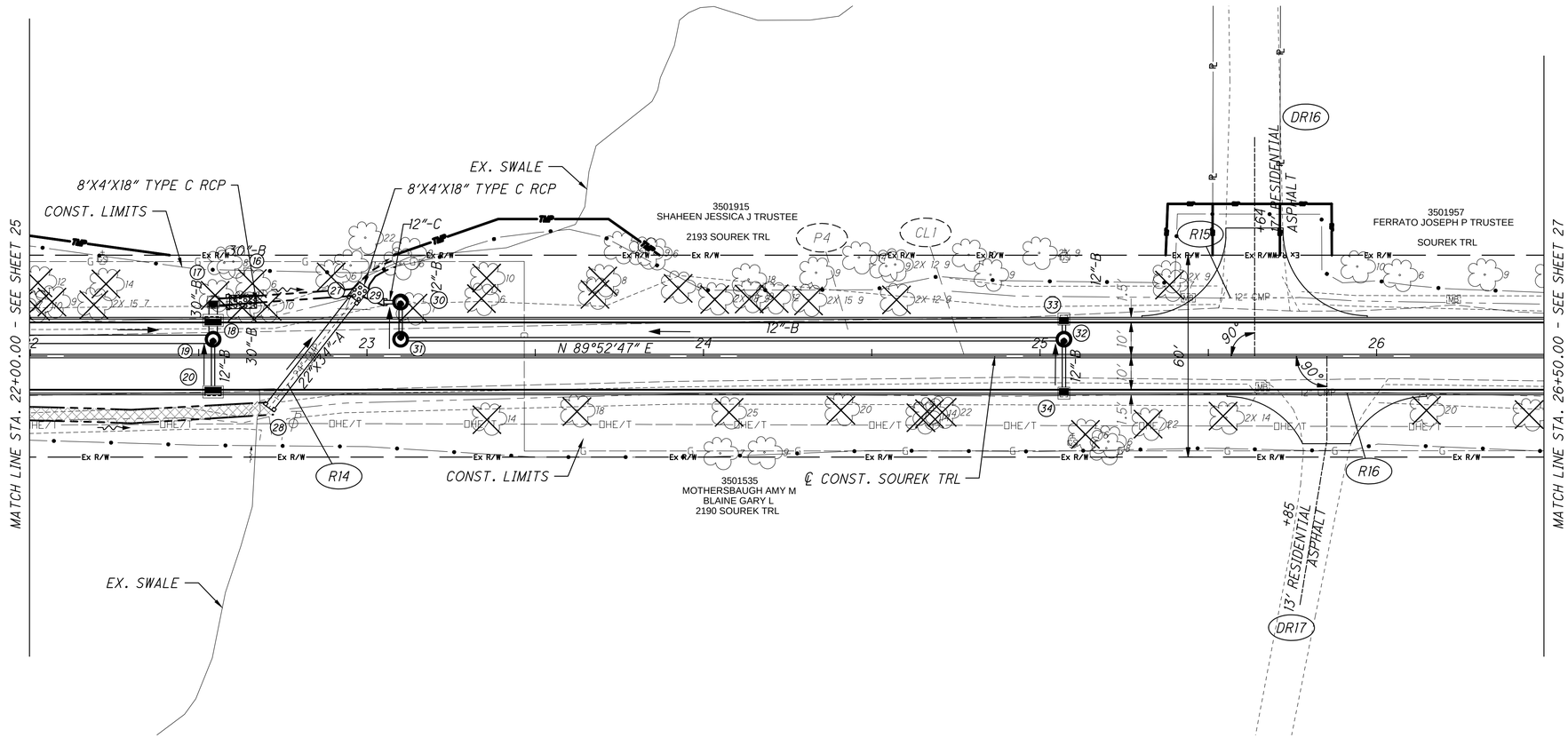
NOTES:

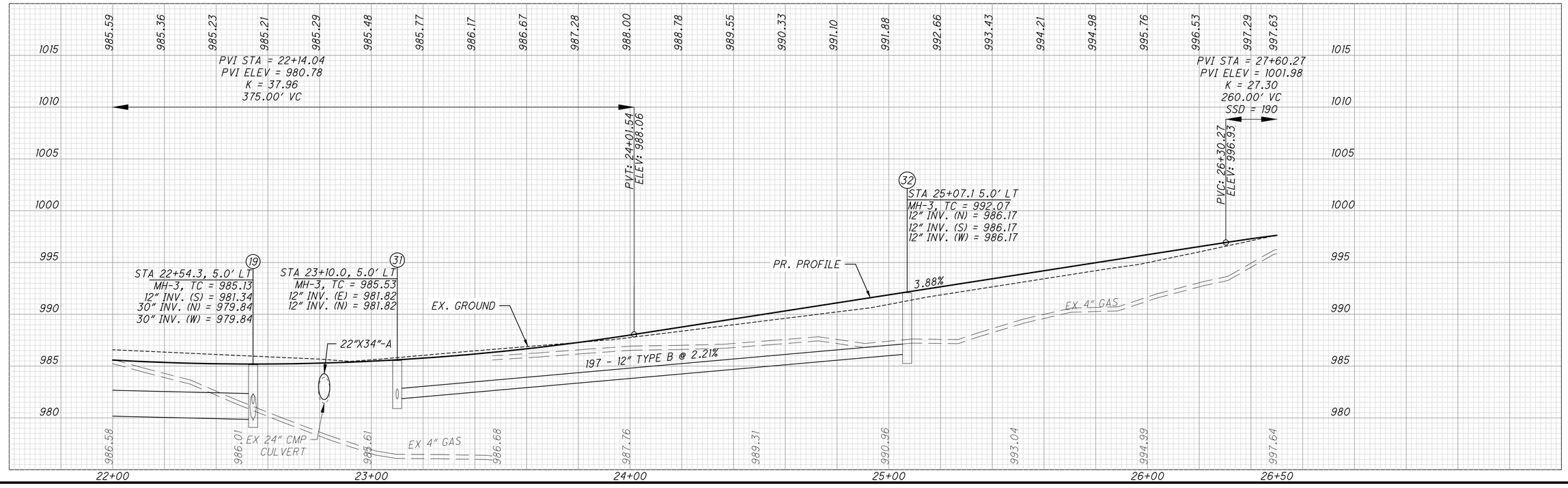
FOR LEGEND SEE SHEET 21

EXISTING 4" GAS LINE IN PROFILE IS SHOWN AT AN ASSUMED 3' COVER IN RELATION TO THE EXISTING GROUND. THE ROAD CENTERLINE PROFILE IS LOWER THAN THE EXISTING GROUND NORTH OF THE ROAD, SO THE PIPE APPEARS TO BE ABOVE THE EXISTING GROUND.

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP002.dwg 9/24/2020 8:58 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	42 - 44
INTERSECTION DETAILS	
DRIVE DETAILS	4, 54
CULVERT DETAILS	56
STORM SEWER PROFILES	60 - 61
WATER PLAN & PROFILE	
SWPPP	79





X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP002.dwg 9/24/2020 8:58 AM

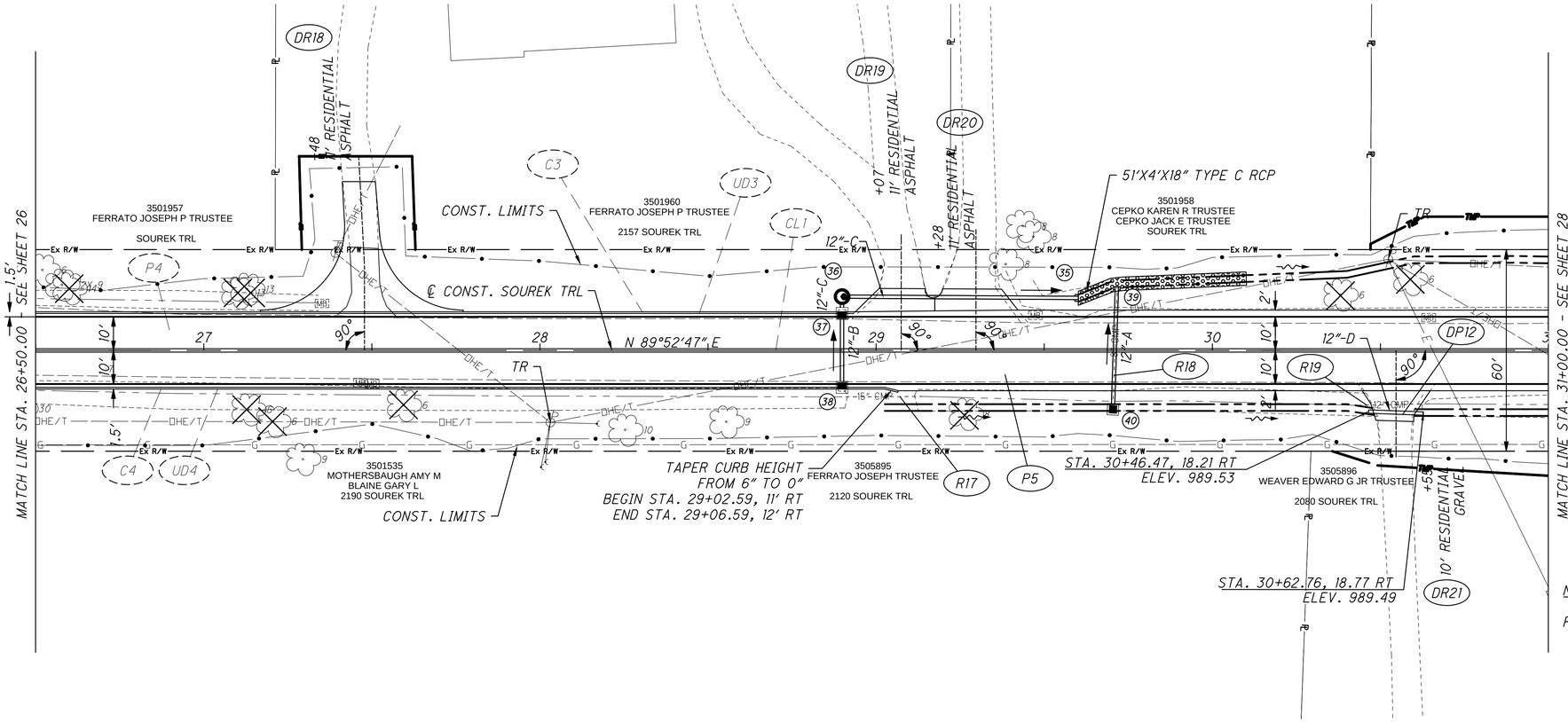
HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

PLAN AND PROFILE - SOUREK TRL
STA. 22+00.00 TO STA. 26+50.00

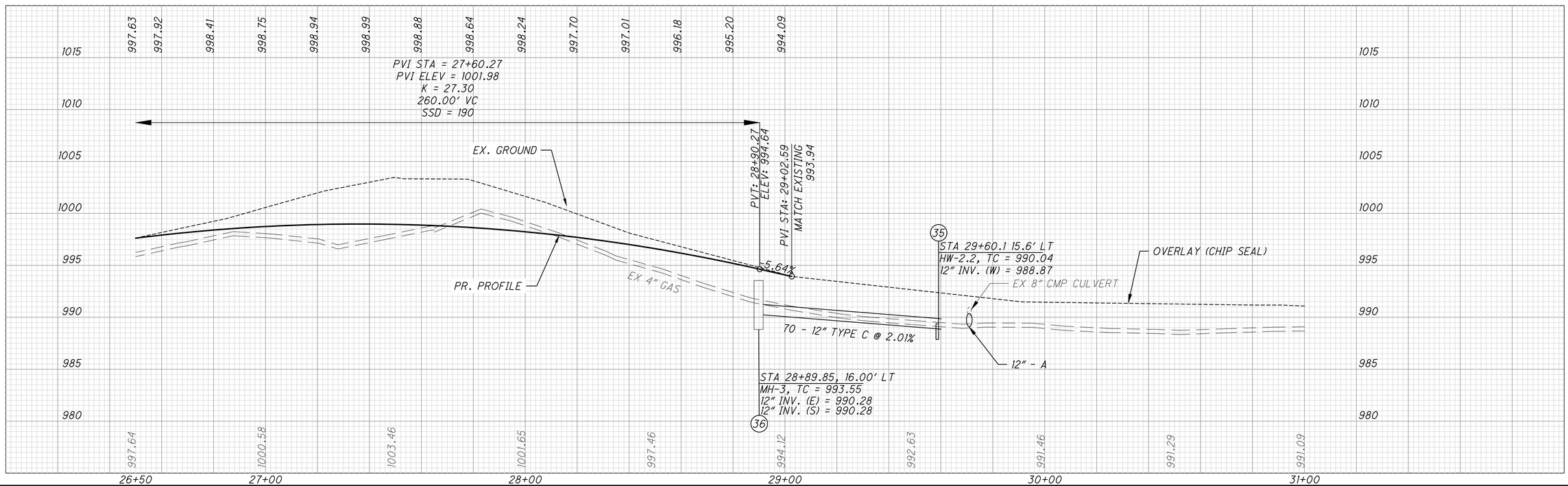
CUY FALLS - SOUREK TRL

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	44 - 46
INTERSECTION DETAILS	
DRIVE DETAILS	54
CULVERT DETAILS	57
STORM SEWER PROFILES	61
WATER PLAN & PROFILE	
SWPPP	79 - 80



NOTES:

FOR LEGEND SEE SHEET 21



CALCULATED LAA
CHECKED CSR

HORIZONTAL SCALE IN FEET
0 10 20 40

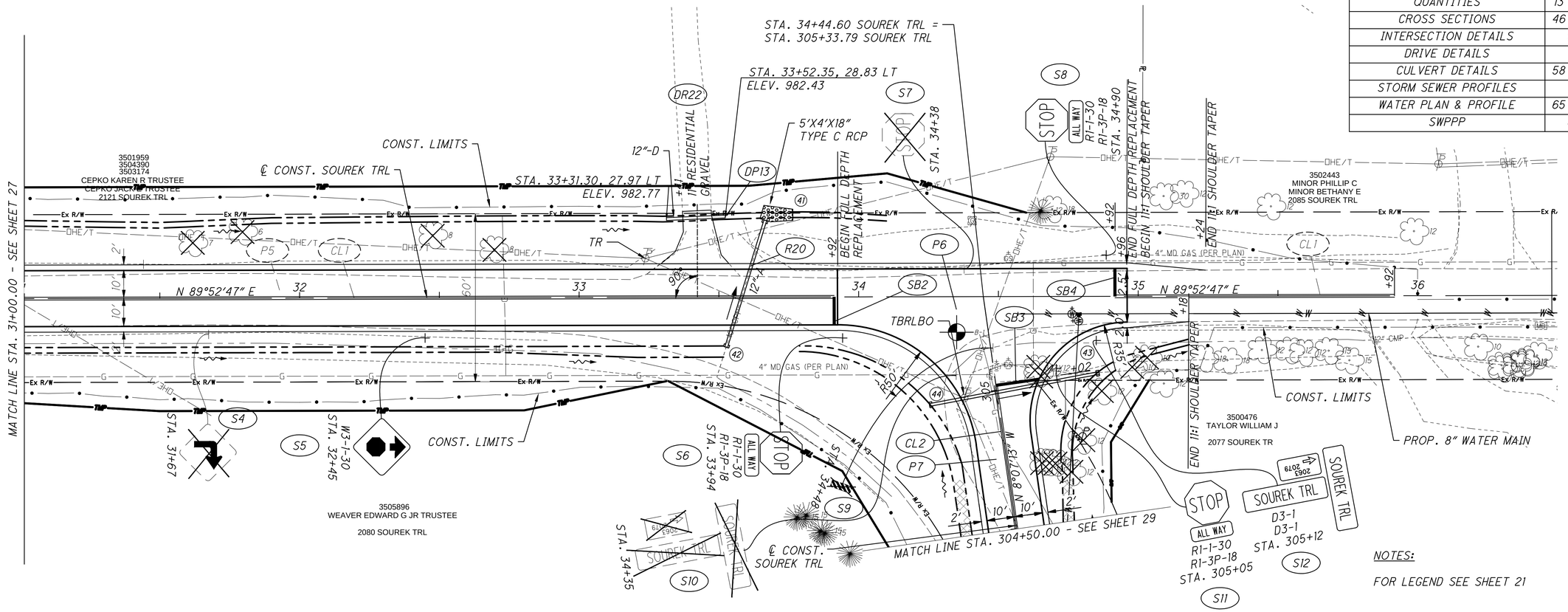
PLAN AND PROFILE - SOUREK TRL
STA. 26+50.00 TO STA. 31+00.00

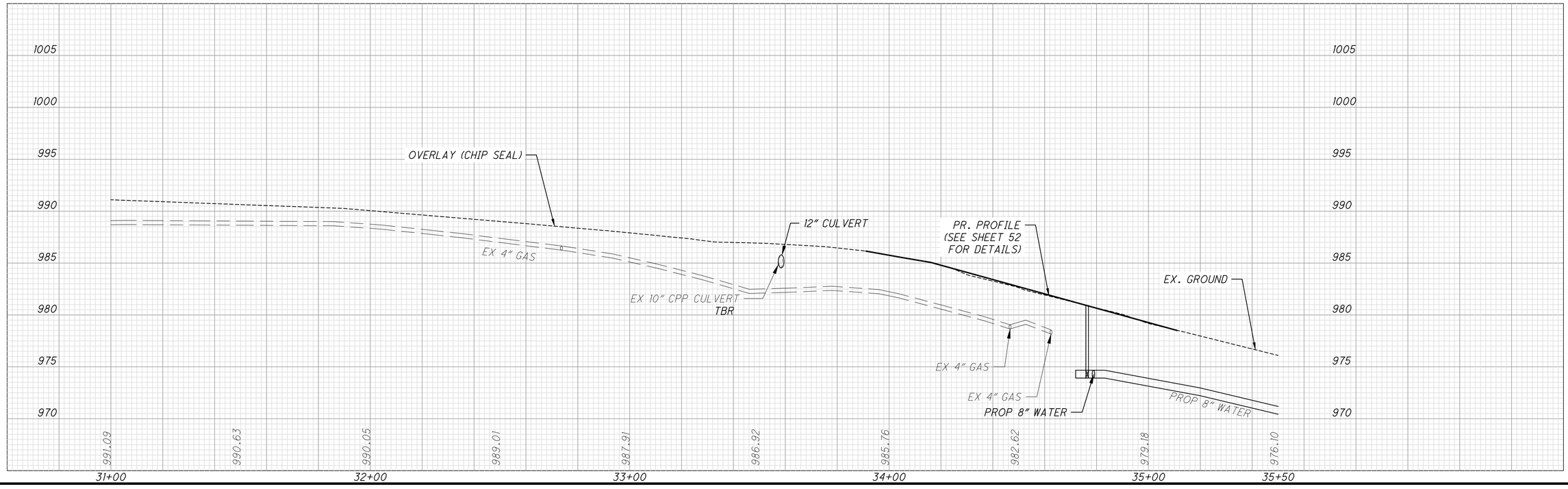
CUY FALLS - SOUREK TRL

27
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP002.dwg 9/24/2020 8:58 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	46 - 48
INTERSECTION DETAILS	52
DRIVE DETAILS	4
CULVERT DETAILS	58 - 59
STORM SEWER PROFILES	
WATER PLAN & PROFILE	65 - 66
SWPPP	80





PLAN AND PROFILE - SOUREK TRL
STA. 31+00.00 TO END

CUY FALLS - SOUREK TRL

28
82

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED LAA
CHECKED CSR

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP002.dwg 9/24/2020 8:58 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
QUANTITIES	13 - 20
CROSS SECTIONS	49 - 51
INTERSECTION DETAILS	52
DRIVE DETAILS	4
CULVERT DETAILS	
STORM SEWER PROFILES	
WATER PLAN & PROFILE	65
SWPPP	80

SOUREK TRL - CURVE A
PI STA = 301+60.06
Δ = 9°54'38"
Dc = 9°32'57"
R = 600.00
T = 52.02
L = 103.78
E = 2.25
C = 103.65
CB = N 3°09'55" W

3505896
WEAVER EDWARD G JR TRUSTEE
2080 SOUREK TRL

3500476
TAYLOR WILLIAM J
2077 SOUREK TR

END PROJECT STA. 301+08.00
CURVE A
CONST. LIMITS
8" WATER MAIN
℄ CONST. SOUREK TRL
Ex R/W
S13
SPEED LIMIT 25
R2-1-24 STA. 304+35
TBRLBO
MATCH LINE STA. 304+50.00 - SEE SHEET 28
8" (PER PLAN)
N 1°47'24" E
N 8°07'13" W
60'
70°
PC: 301+08.04
TR
STA. 301+42.65, 16.79 RT
ELEV. 976.54
STA. 301+88.09, 17.96 RT
ELEV. 979.56
PT: 302+17.82
STA. 302+33
STA. 303+55
W3-1-30
S14
S15
DP14
DR23
CL2
P7
+63' 17" RESIDENTIAL GRAVEL
CONST. LIMITS

NOTES:

FOR LEGEND SEE SHEET 21

PVI STA = 301+62.66
PVI ELEV = 977.86
K = 8.20
85.00' VC

PVI STA = 303+51.65
PVI ELEV = 1000.44
K = 12.01
280.00' VC

PVI STA = 305+08.79
PVI ELEV = 982.58
K = 0.77
10.00' VC

PVI STA: 301+08.00
PVI ELEV: 977.00
PVC: 301+20.16
ELEV: 977.19
PVT: 302+05.16
ELEV: 982.94
PVC: 302+11.65
ELEV: 983.72
PVT: 304+91.65
ELEV: 984.53
PVC: 305+03.79
ELEV: 983.15
PVT: 305+13.79
ELEV: 982.66
PVI STA: 305+33.79
PVI ELEV: 982.98

1.95%
1.58%
0.11%
-11.31%
1.60%

EX. GROUND
EX 4" GAS
PROP 8" WATER
PR. PROFILE
EX. 24" CMP (TR)

* NOTE: K VALUES ON THIS SHEET DO NOT MEET THE MINIMUM VALUES FOR 25 MPH

977.19 977.74 978.79 980.32 982.34 984.68 986.77 988.52 989.94 991.02 991.77 992.19 992.28 992.03 991.45 990.54 989.29 987.71 985.80 983.58 982.76 982.98

982.84 979.00 977.01 978.70 983.65 989.51 994.31 996.32 994.01 990.05 984.40 982.98

1005 1000 995 990 985 980 975 970

300+00 301+00 302+00 303+00 304+00 305+00 305+34

HORIZONTAL SCALE IN FEET
0 10 20 40
CALCULATED LAA
CHECKED CSR

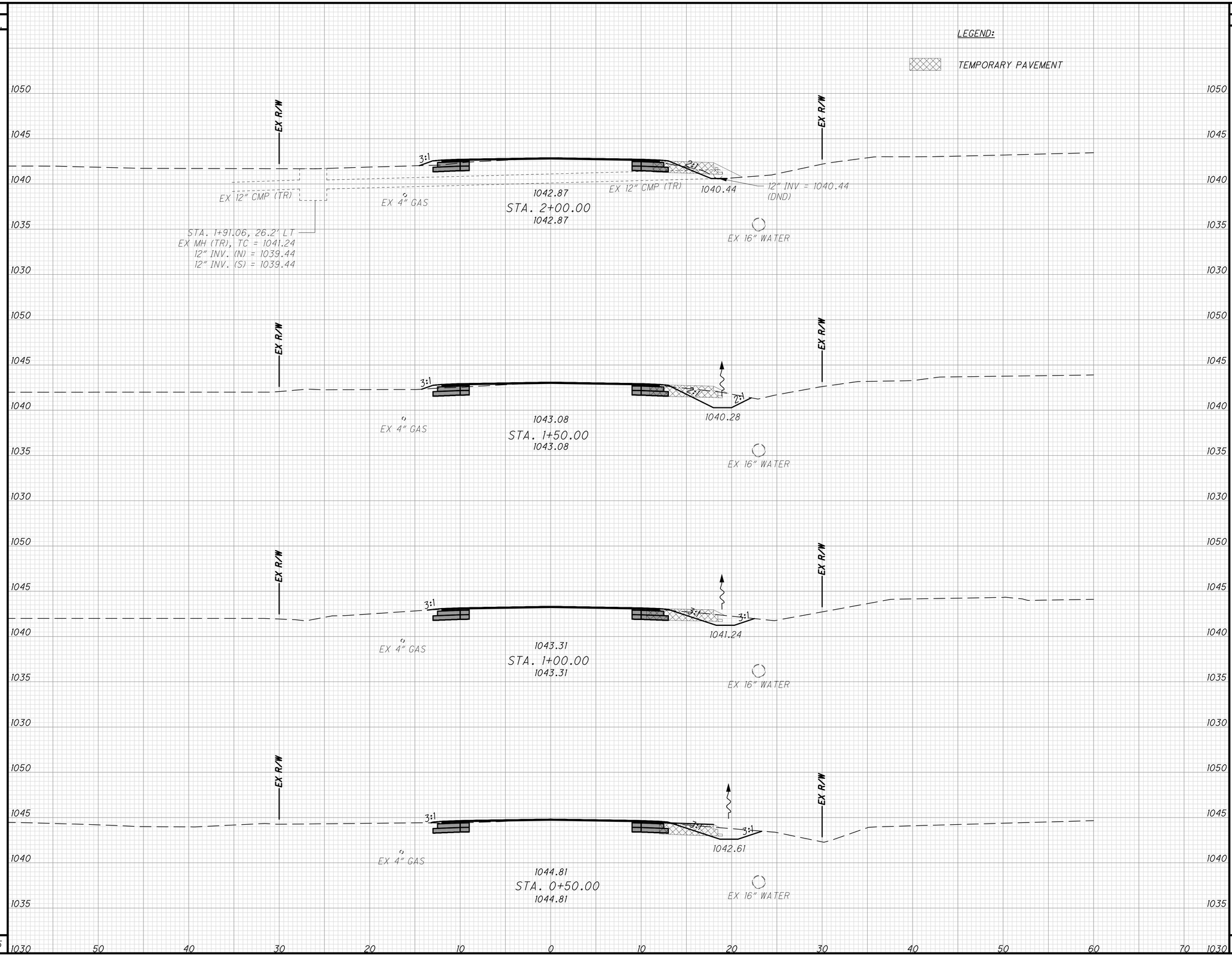
PLAN AND PROFILE - SOUREK TRL
STA. 300+00 TO STA. 304+50

CUY FALLS - SOUREK TRL

29
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GP003.dwg 24-Sep-20 9:00 AM

SEEDING	
END WIDTH	SQ. YDS.
12	72
13	72
13	71
13	
	215



END AREA		VOLUME	
CUT	FILL	CUT	FILL
3	1		
		11	2
9	1		
		14	1
6	0		
		12	1
7	0		
		6	0
		43	4

CALCULATED LAA
CHECKED CSR

CROSS SECTIONS - SOUREK TRL
STA. 0+50 TO STA. 2+00

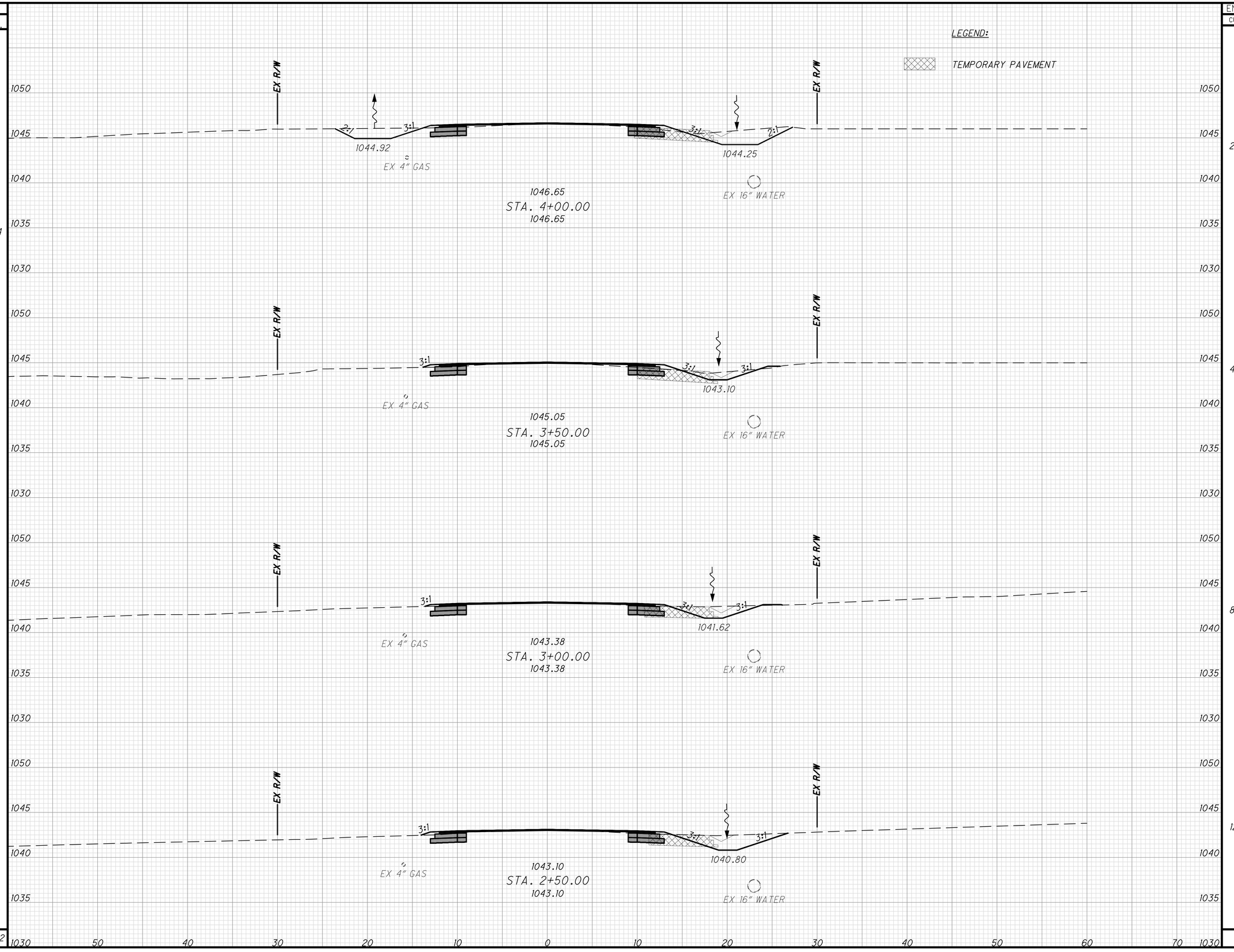
CUY FALLS - SOUREK TRL

30
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:00 AM

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
28	124	20	1	23	3
16	91	4	1		
16	94	8	1	11	2
18	83	12	1	19	1
	392			14	2
				67	8

CALCULATED L.A.A.
CHECKED C.S.R.



CROSS SECTIONS - SOUREK TRL
STA. 2+50 TO STA. 4+00

CUY FALLS - SOUREK TRL

31
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

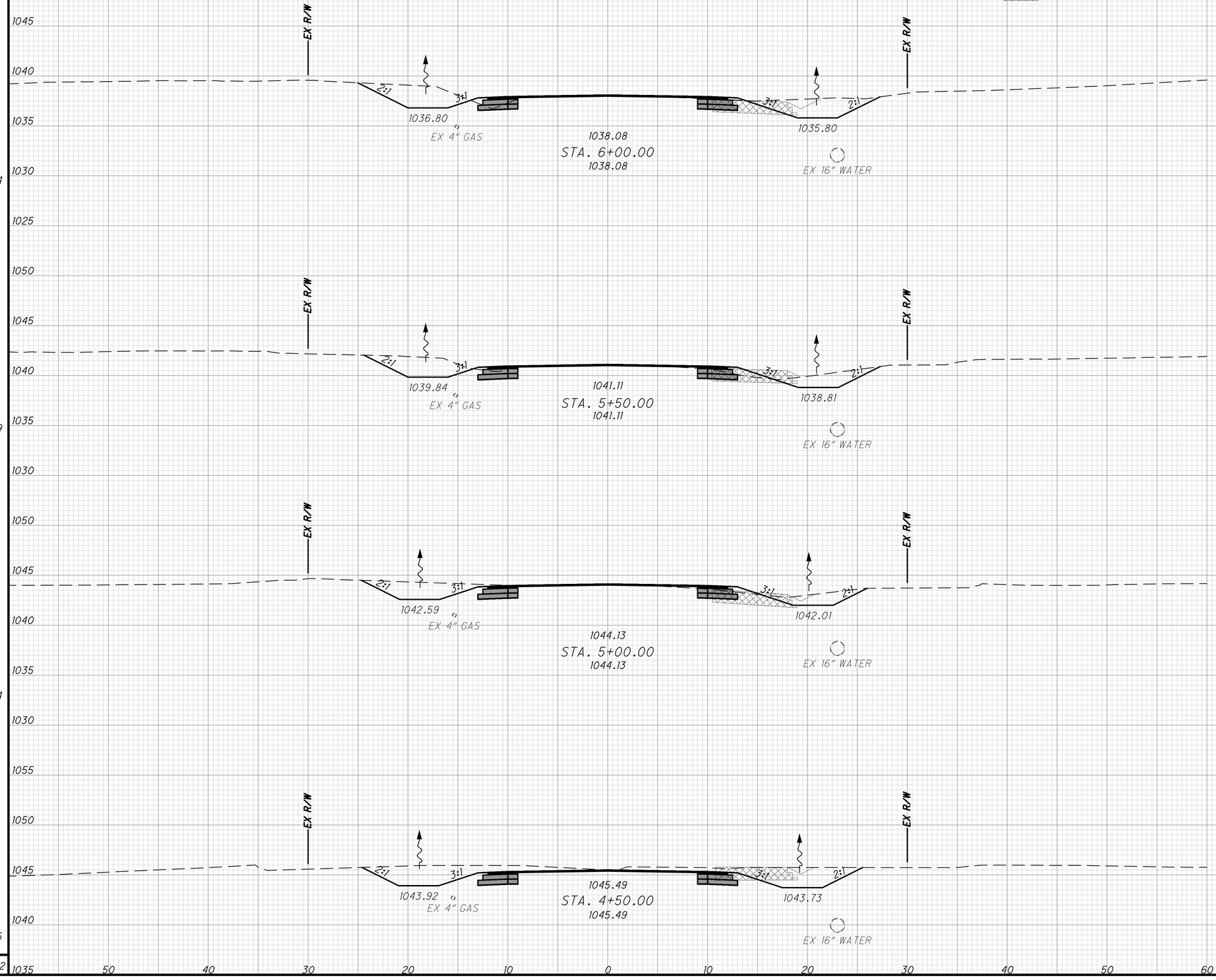
SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
30	164	33	1	53	3
29	159	24	2	42	3
28	154	22	1	61	1
27	155	44	0	60	1
	632			216	8

CALCULATED LAA

CHECKED CSR

LEGEND:

TEMPORARY PAVEMENT



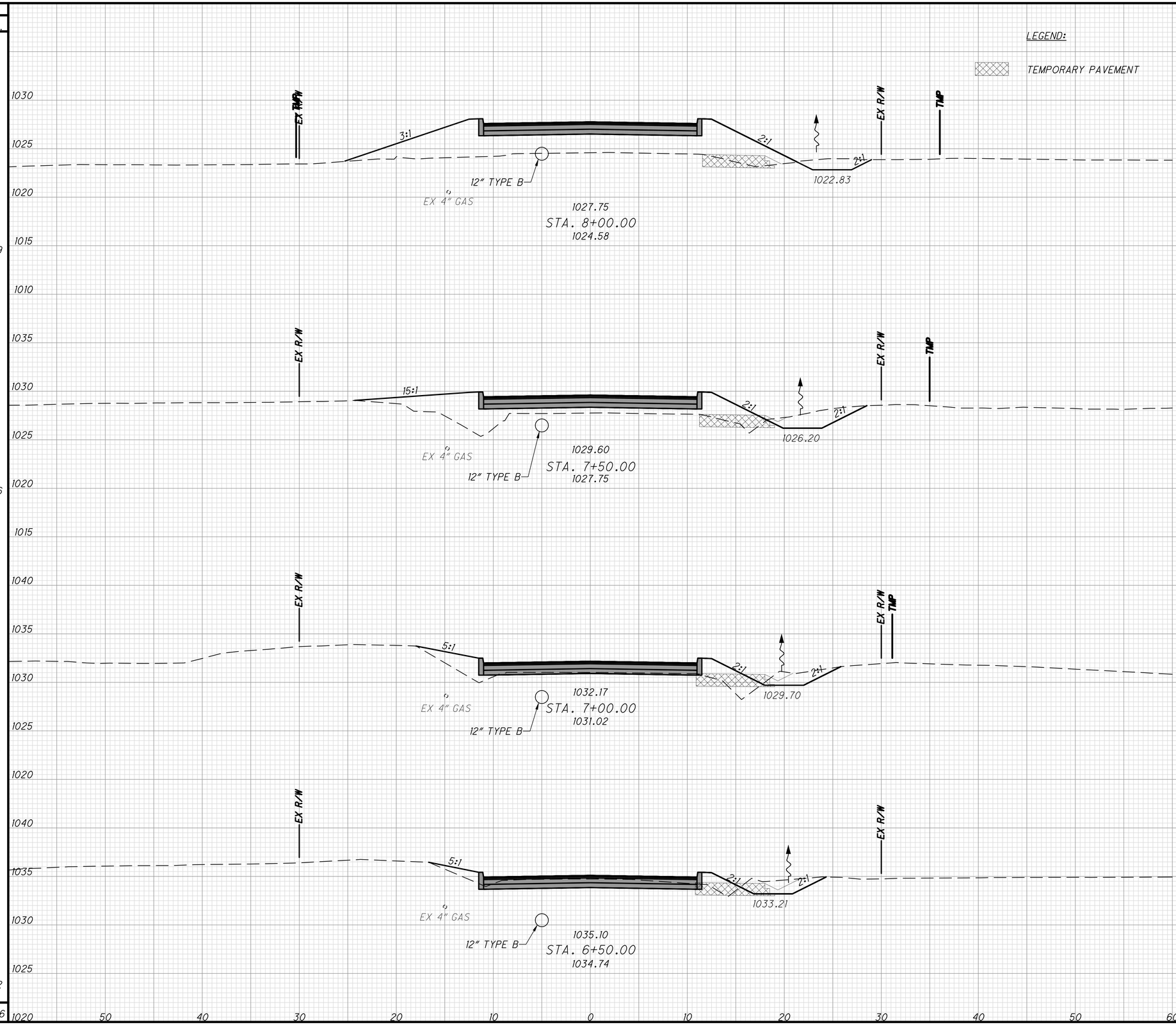
CROSS SECTIONS - SOUREK TRL
STA. 4+50 TO STA. 6+00

CUY FALLS - SOUREK TRL

32
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

SEEDING	
END WIDTH	SQ. YDS.
30	169
31	146
22	119
21	142
	576



END AREA		VOLUME	
CUT	FILL	CUT	FILL
1	94		
		11	132
11	48		
		17	63
7	20		
		15	26
9	8		
		40	8
		83	229

CALCULATED LAA
CHECKED CSR

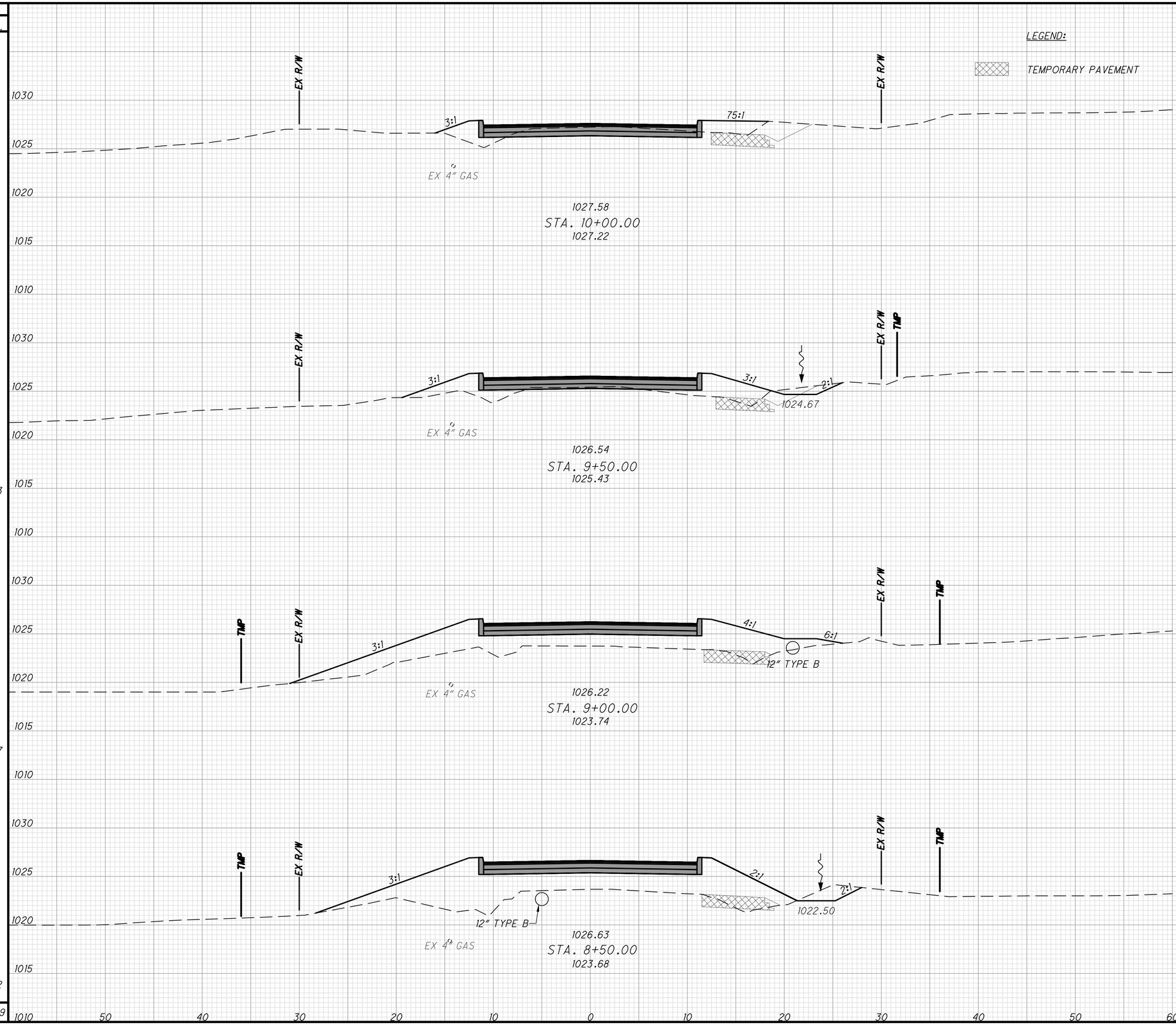
CROSS SECTIONS - SOUREK TRL
STA. 6+50 TO STA. 8+00

CUY FALLS - SOUREK TRL

33
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

SEEDING	
END WIDTH	SQ. YDS.
12	97
23	163
35	197
36	182
	639



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	15		
		4	40
4	28		
		4	112
0	92		
		5	190
6	112		
		6	192
		19	534

CALCULATED LAA
CHECKED CSR

CROSS SECTIONS - SOUREK TRL
STA. 8+50 TO STA. 10+00

CUY FALLS - SOUREK TRL

34
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

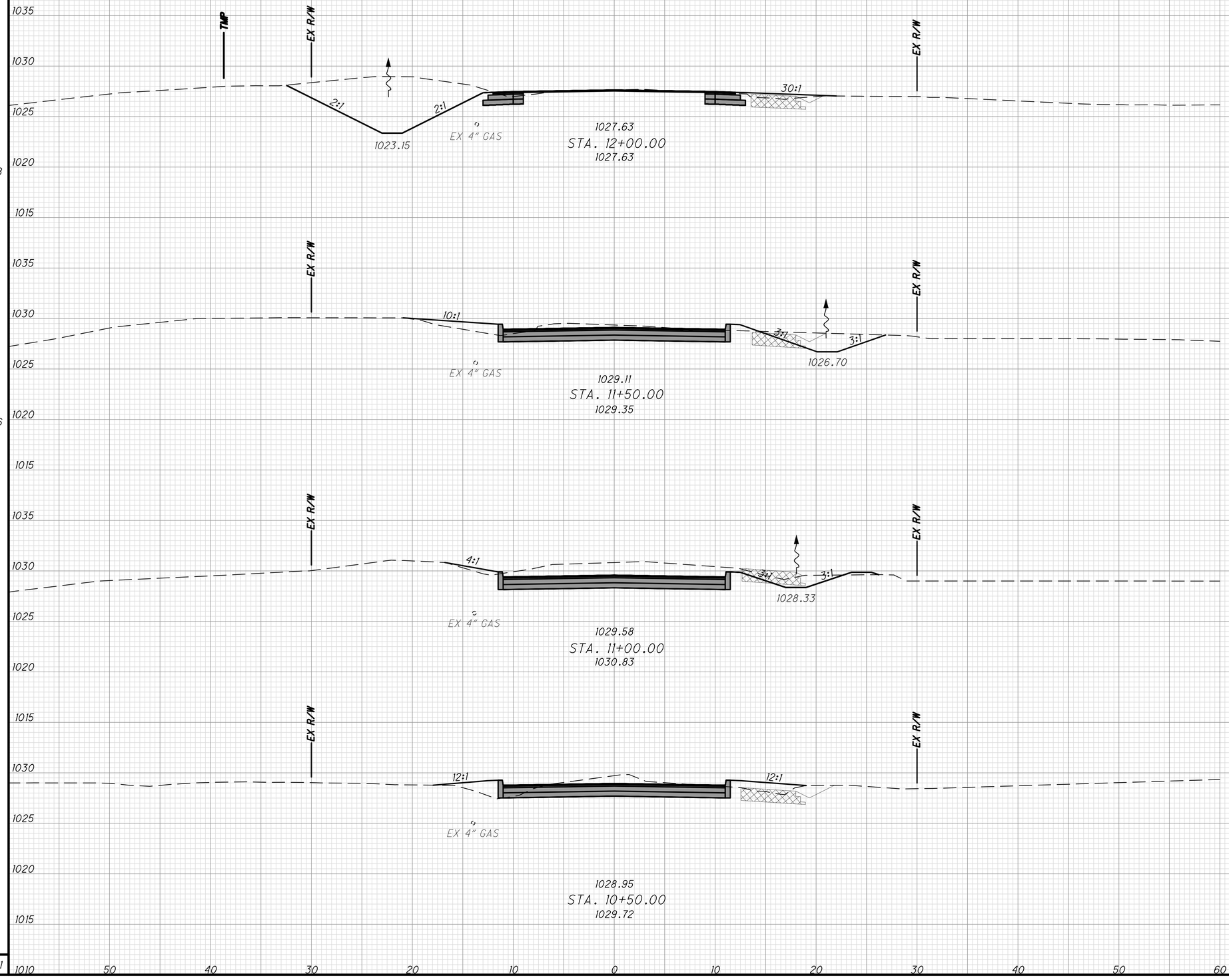
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
33	158	63	3	75	8
24	126	18	6	47	8
21	96	33	2	35	11
14	71	5	10	5	23
	451			162	50

CALCULATED LAA

CHECKED CSR

LEGEND:

TEMPORARY PAVEMENT



CROSS SECTIONS - SOUREK TRL
STA. 10+50 TO STA. 12+00

CUY FALLS - SOUREK TRL

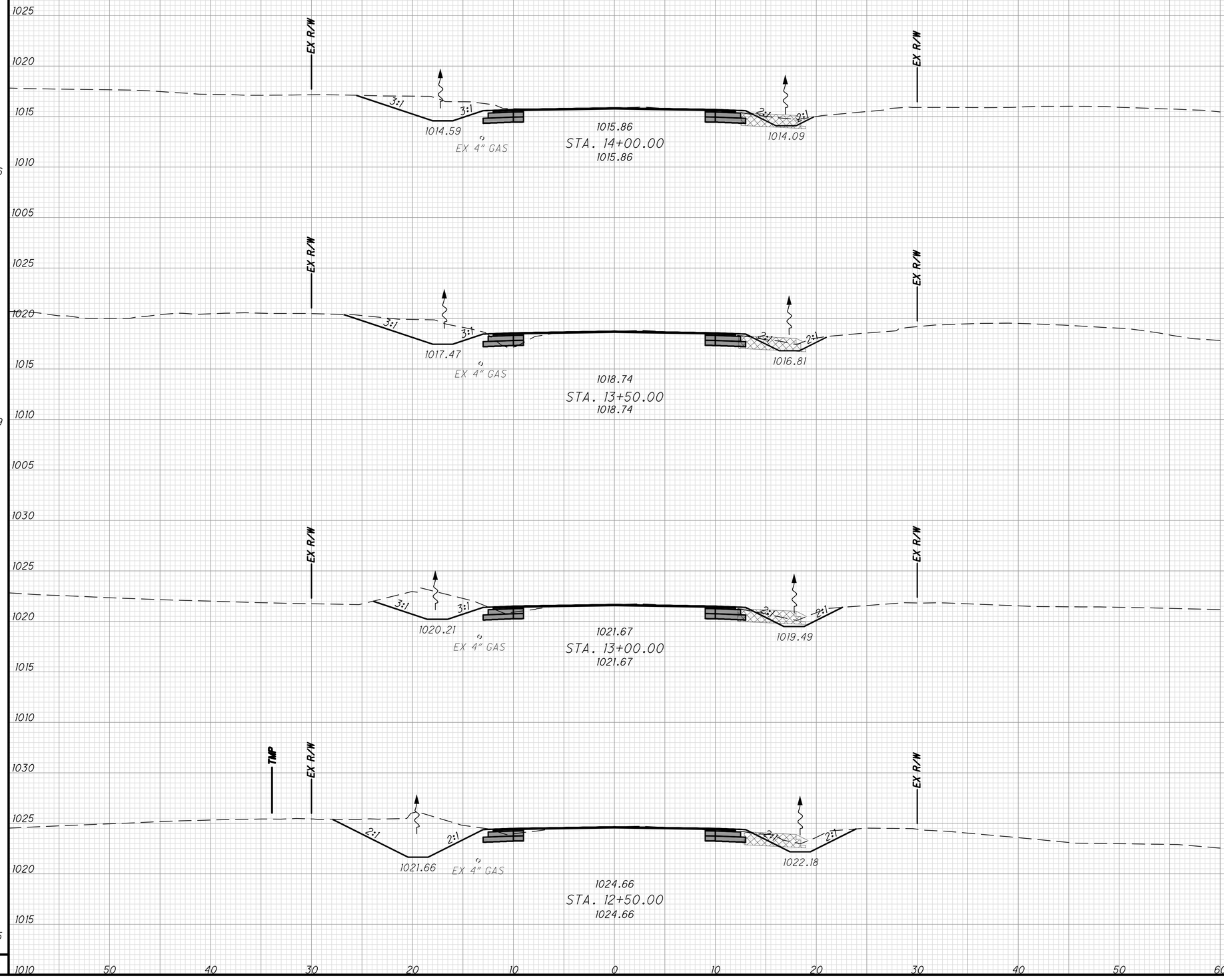
35
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
26	146	21	1	39	2
26	139	21	0	42	1
24	151	24	0	61	1
31	175	42	0	97	3
	611			239	7

LEGEND:

TEMPORARY PAVEMENT



CALCULATED LAA

CHECKED CSR

CROSS SECTIONS - SOUREK TRL

STA. 12+50 TO STA. 14+00

CUY FALLS - SOUREK TRL

36
82

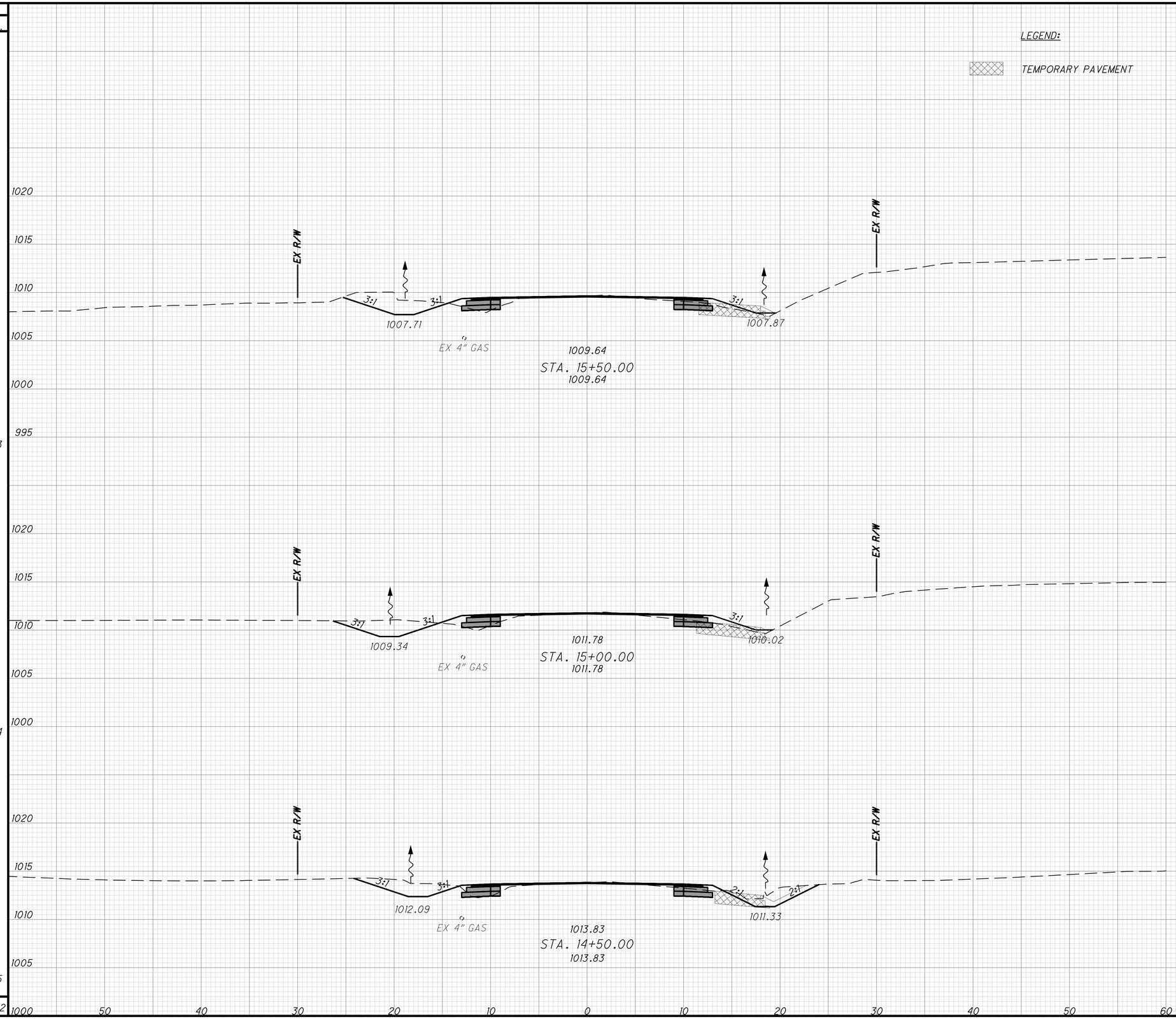
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:01 AM

SEEDING	
END WIDTH	SQ. YDS.
22	123
23	134
26	145
	402

END AREA	
CUT	FILL
13	4
11	5
18	1

VOLUME	
CUT	FILL
22	8
27	6
36	3
85	17

CALCULATED LAA
CHECKED CSR



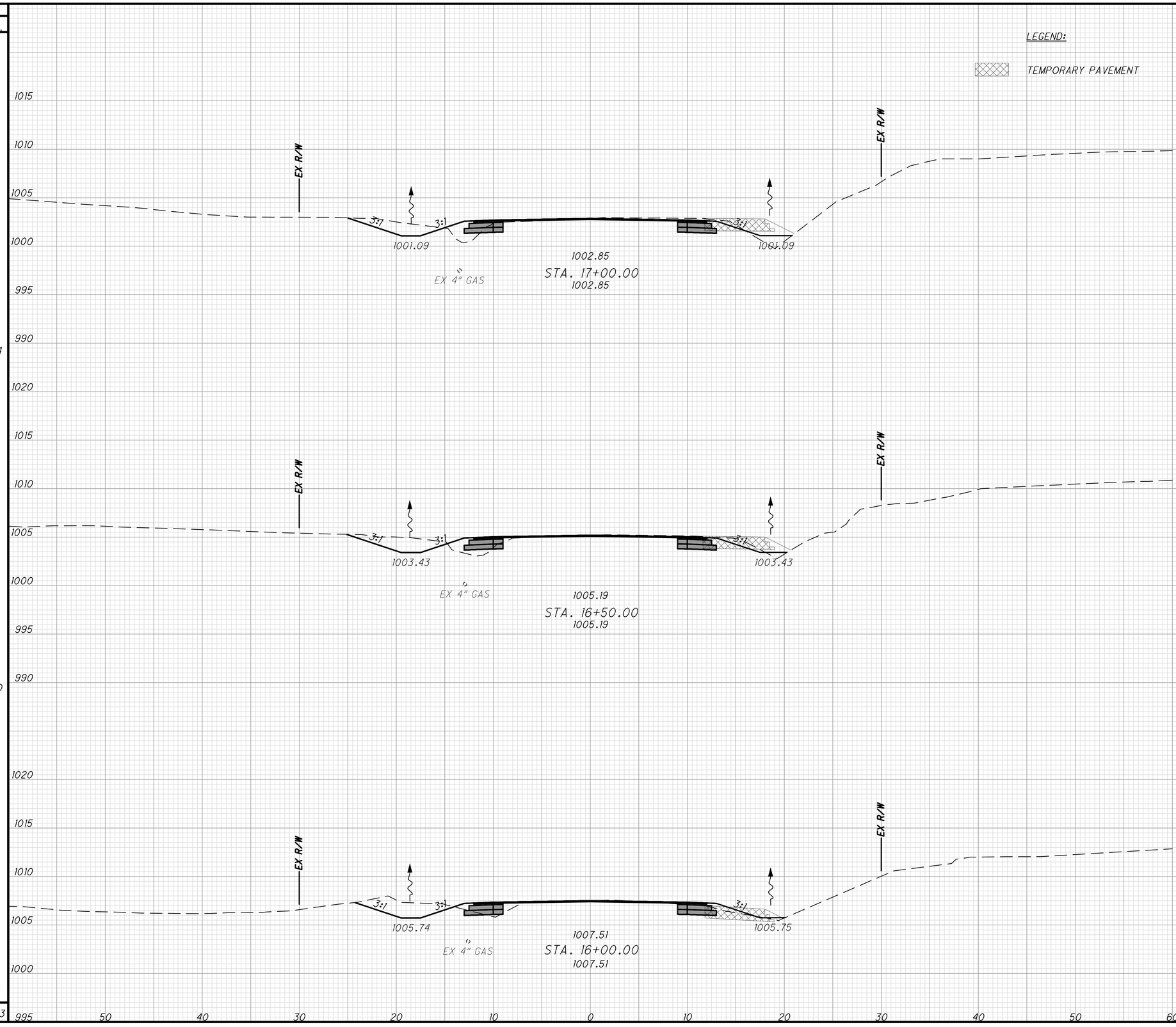
CROSS SECTIONS - SOUREK TRL
STA. 14+50 TO STA. 15+50

CUY FALLS - SOUREK TRL

37
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM

SEEDING	
END WIDTH	SQ. YDS.
23	124
22	120
21	119
	363



END AREA		VOLUME	
CUT	FILL	CUT	FILL
10	7		
12	4		
12	3	21	10
		22	6
		23	6
		66	22

CALCULATED LAA
CHECKED CSR

CROSS SECTIONS - SOUREK TRL
STA. 16+00 TO STA. 17+00

CUY FALLS - SOUREK TRL

38
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM

SEEDING	
END WIDTH	SQ. YDS.
16	95
18	93
15	105
	293

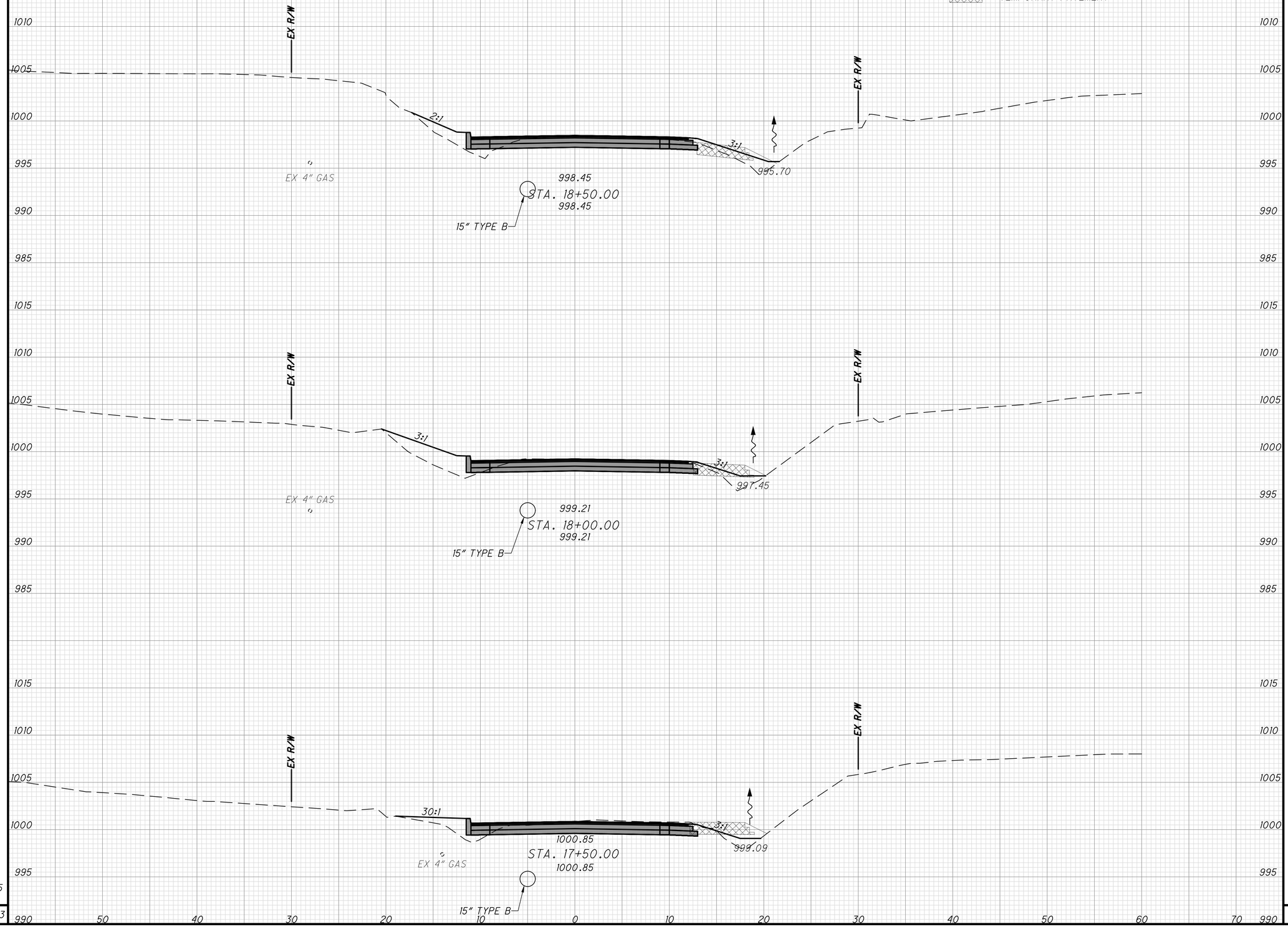
END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	15	0	32
0	20	0	27
0	10	10	16
		10	75

CALCULATED LAA

CHECKED CSR

LEGEND:

TEMPORARY PAVEMENT



CROSS SECTIONS - SOUREK TRL
STA. 17+50 TO STA. 18+50

CUY FALLS - SOUREK TRL

39
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM

SEEDING	
END WIDTH	SQ. YDS.
18	100
17	95
17	92
	287

LEGEND:

TEMPORARY PAVEMENT

EX R/W

EX 4" GAS

3:1

2:1

993.62

STA. 20+00.00

994.01

24" TYPE B

994.04

EX R/W

EX R/W

EX 4" GAS

3:1

2:1

996.00

STA. 19+50.00

995.67

24" TYPE B

EX R/W

EX R/W

EX 4" GAS

3:1

2:1

997.41

STA. 19+00.00

997.32

24" TYPE B

994.16

EX R/W

1000 995 990 985 1005 1010

50 40 30 20 10 0 10 20 30 40 50 60 70

END AREA		VOLUME	
CUT	FILL	CUT	FILL
8	5		
15	4		
1	9		
		22	8
		15	12
		1	22
		38	42

CALCULATED LAA

CHECKED CSR

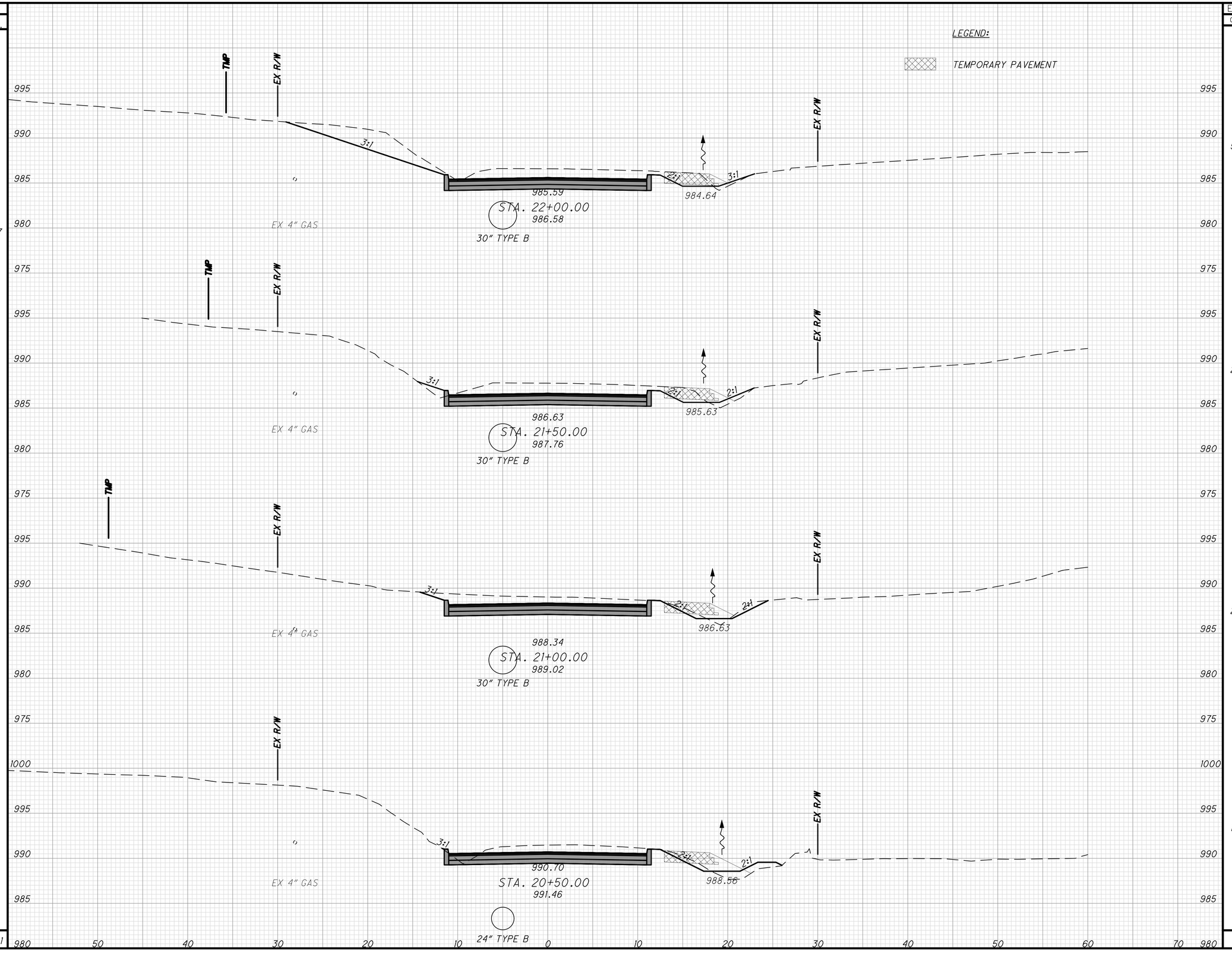
CROSS SECTIONS - SOUREK TRL
STA. 19+00 TO STA. 20+00

CUY FALLS - SOUREK TRL

40
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM

SEEDING	
END WIDTH	SQ. YDS.
31	
	127
15	
	89
17	
	90
16	
	95
	401



END AREA		VOLUME	
CUT	FILL	CUT	FILL
50	1		
		73	4
29	4		
		46	4
22	1		
		34	6
15	5		
		22	9
		175	23

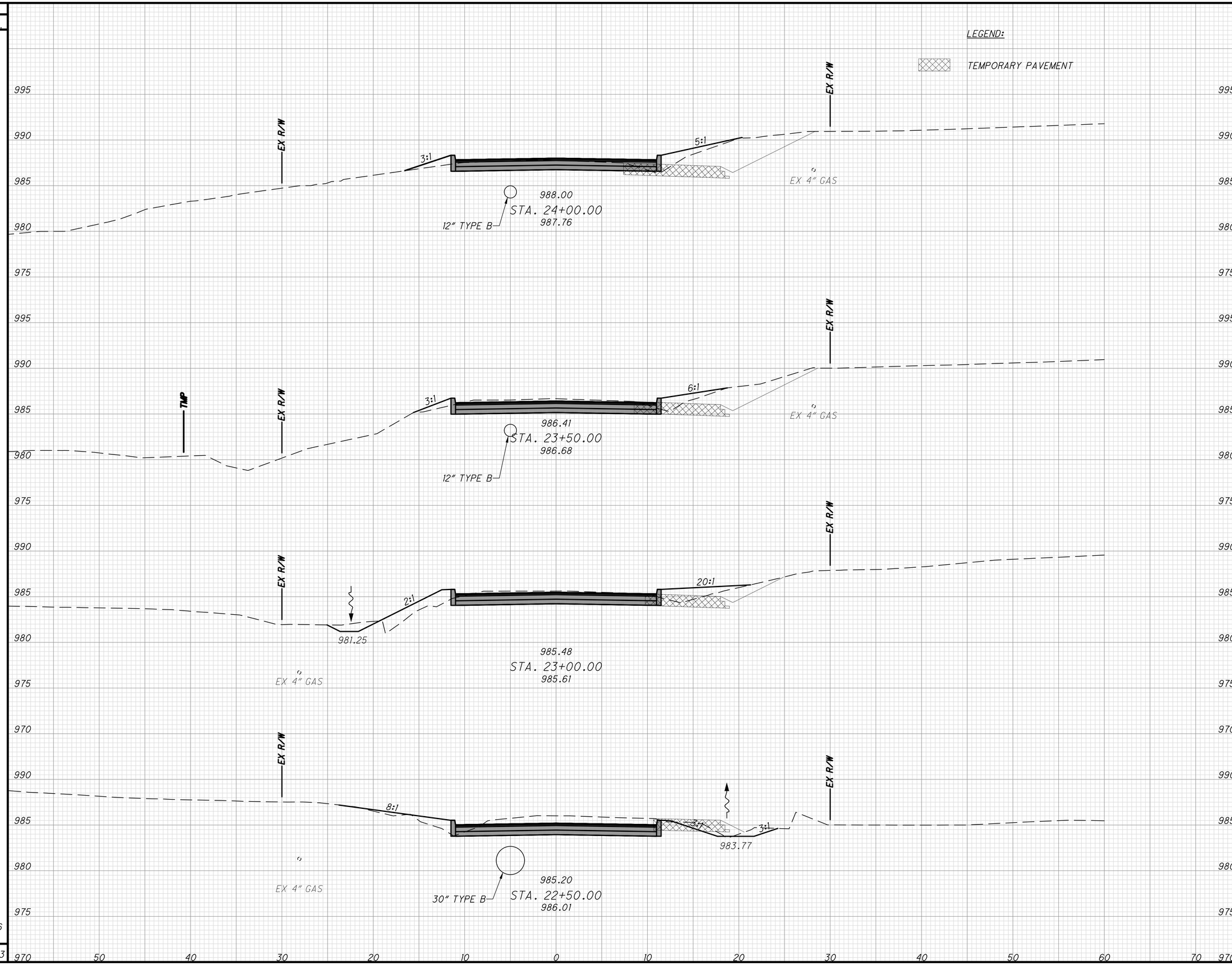
CALCULATED L.A.A.
CHECKED C.S.R.

CROSS SECTIONS - SOUREK TRL
STA. 20+50 TO STA. 22+00

CUY FALLS - SOUREK TRL

41
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM



SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
14		0	9		
	73			4	15
12		4	7		
	93			6	27
22		3	22		
	131			19	25
26		18	5		
	156			63	5
	453			92	72

CALCULATED LAA
CHECKED 82

CROSS SECTIONS - SOUREK TRL
STA. 22+50 TO STA. 24+00

CUY FALLS - SOUREK TRL

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:02 AM

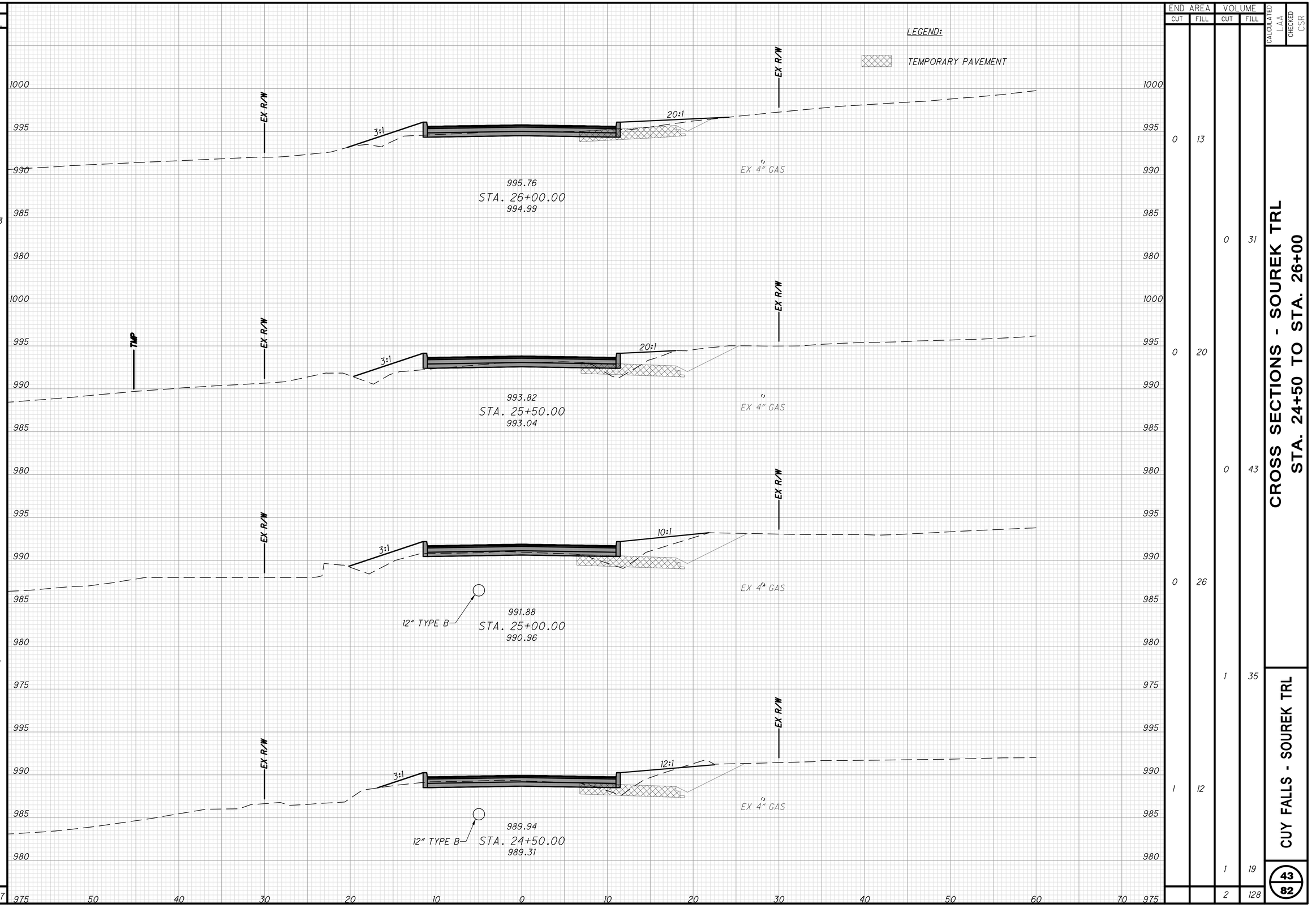
SEEDING	
END WIDTH	SQ. YDS.
22	103
15	96
20	101
17	87
	387

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	13	0	31
0	20	0	43
0	26	1	35
1	12	1	19
		2	128

CALCULATED LAA
CHECKED CSR

LEGEND:

TEMPORARY PAVEMENT



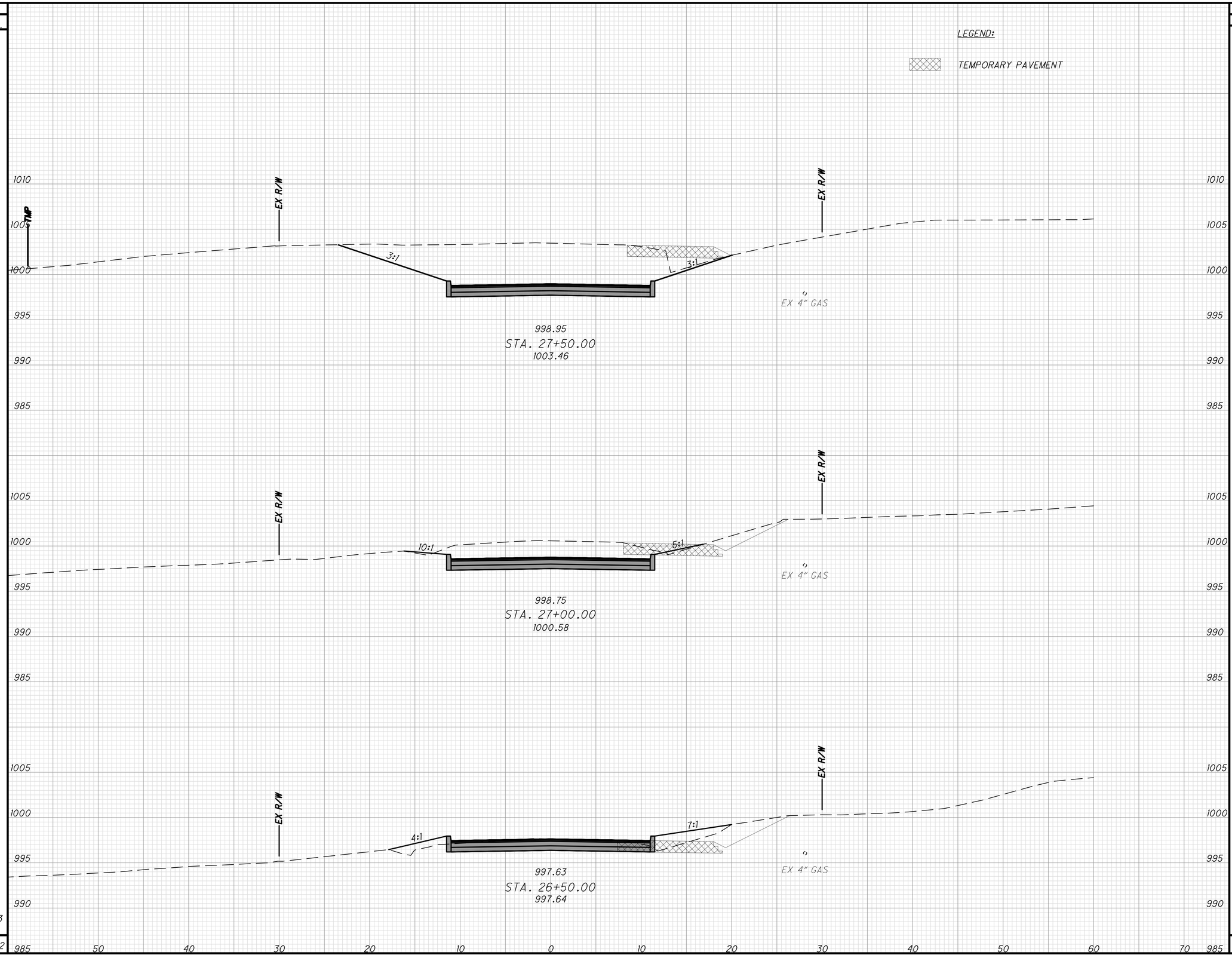
CROSS SECTIONS - SOUREK TRL STA. 24+50 TO STA. 26+00

CUY FALLS - SOUREK TRL

43
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:03 AM

SEEDING	
END WIDTH	SQ. YDS.
22	89
10	70
15	103
	262



END AREA		VOLUME	
CUT	FILL	CUT	FILL
133	0		
		159	1
39	1		
		36	14
0	14		
		0	25
		195	40

CALCULATED LAA
CHECKED CSR

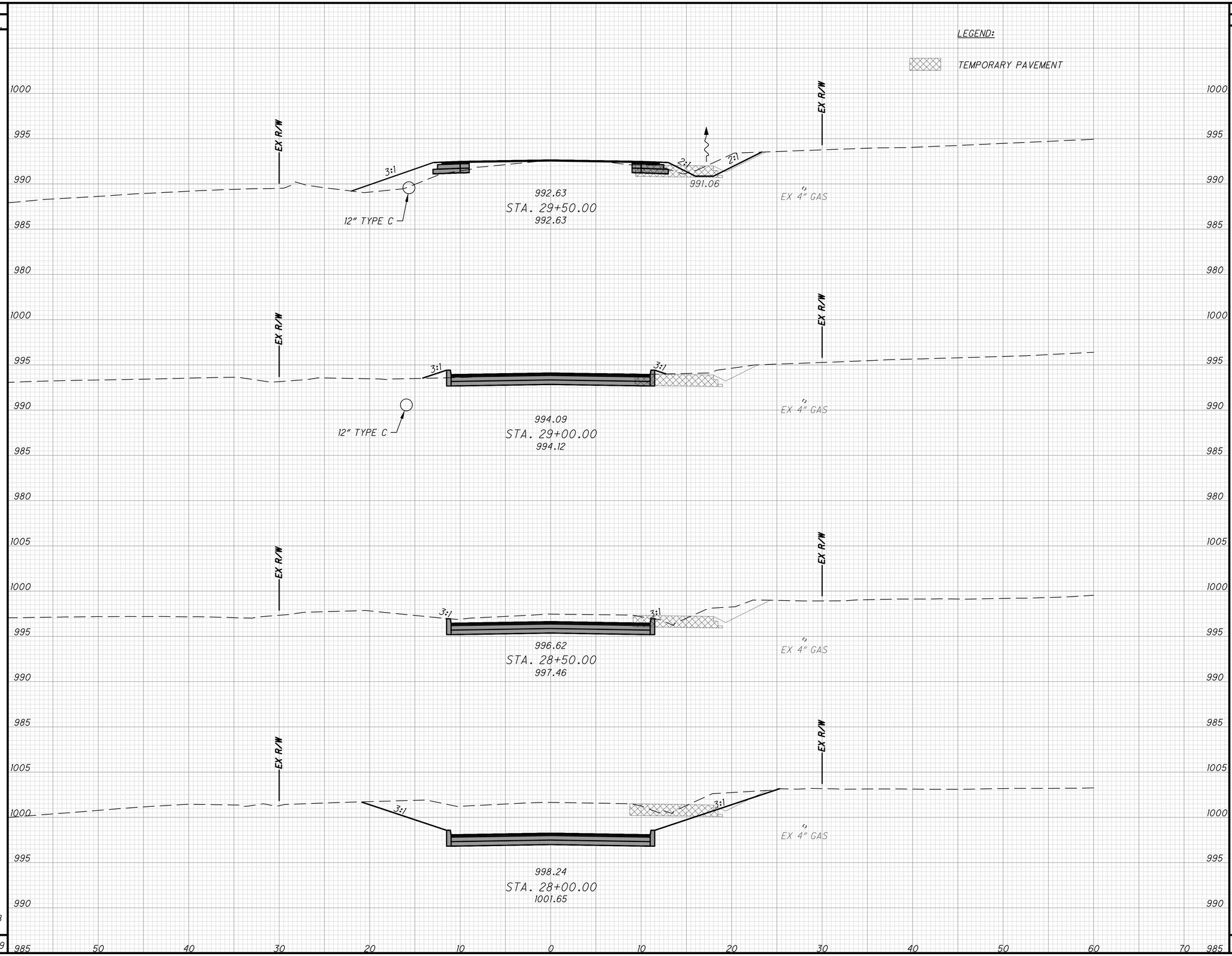
CROSS SECTIONS - SOUREK TRL
STA. 26+50 TO STA. 27+50

CUY FALLS - SOUREK TRL

44
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:03 AM

SEEDING	
END WIDTH	SQ. YDS.
22	72
3	10
0	69
25	128
	279



END AREA	
CUT	FILL
8	14
0	1
16	0
109	0

VOLUME	
CUT	FILL
7	14
15	1
116	0
224	0
362	15

CALCULATED L.A.A.
CHECKED C.S.R.

CROSS SECTIONS - SOUREK TRL
STA. 28+00 TO STA. 29+50

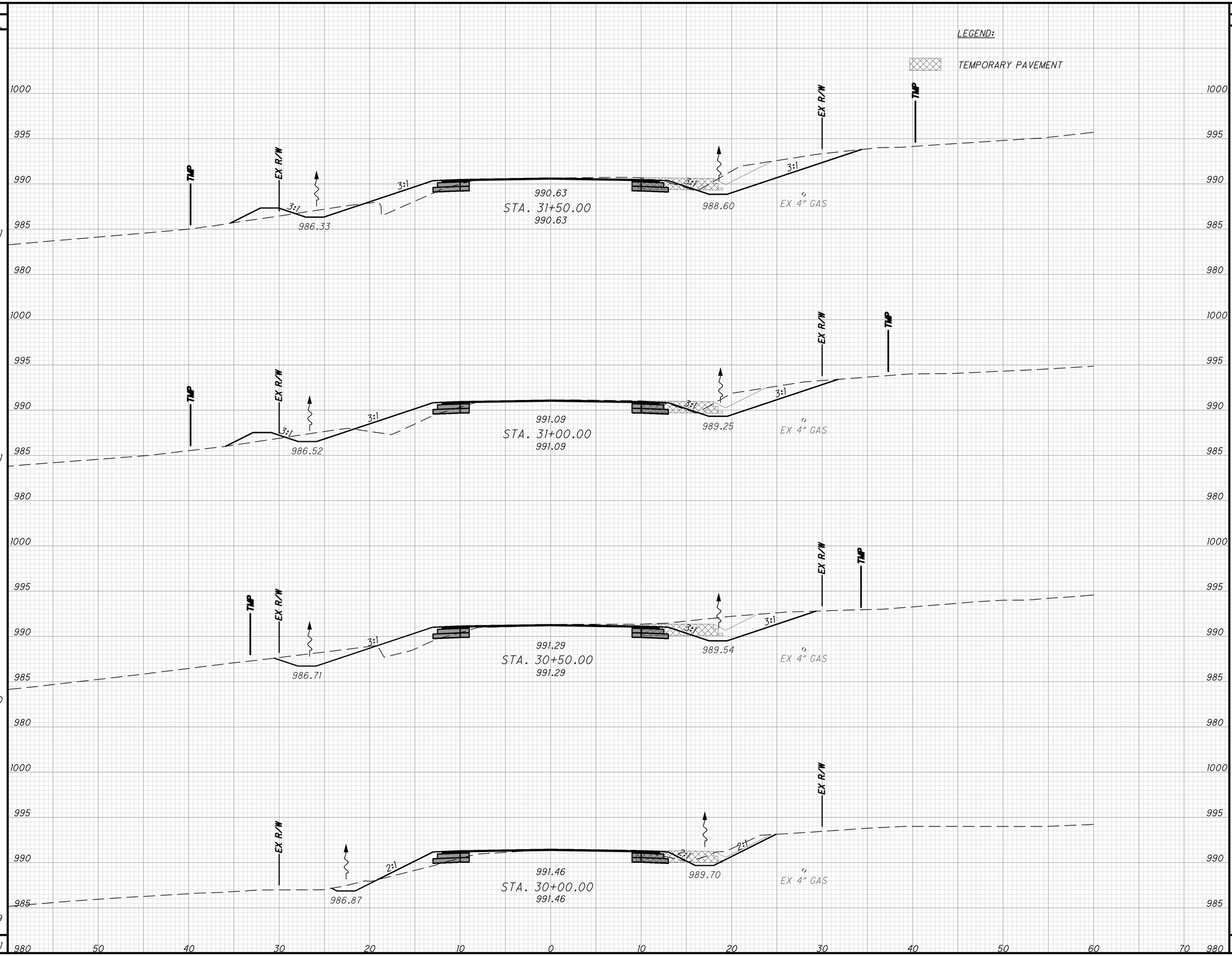
CUY FALLS - SOUREK TRL

45
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:03 AM

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
48	261	31	16	52	31
46	241	25	17	56	26
41	190	36	11	43	16
27	139	10	6	16	19
	831			167	92

CALCULATED LAA
CHECKED CSR



CROSS SECTIONS - SOUREK TRL
STA. 30+00 TO STA. 31+50

CUY FALLS - SOUREK TRL

46
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:03 AM

SEEDING	
END WIDTH	SQ. YDS.
51	253
41	236
44	254
47	264
	1007

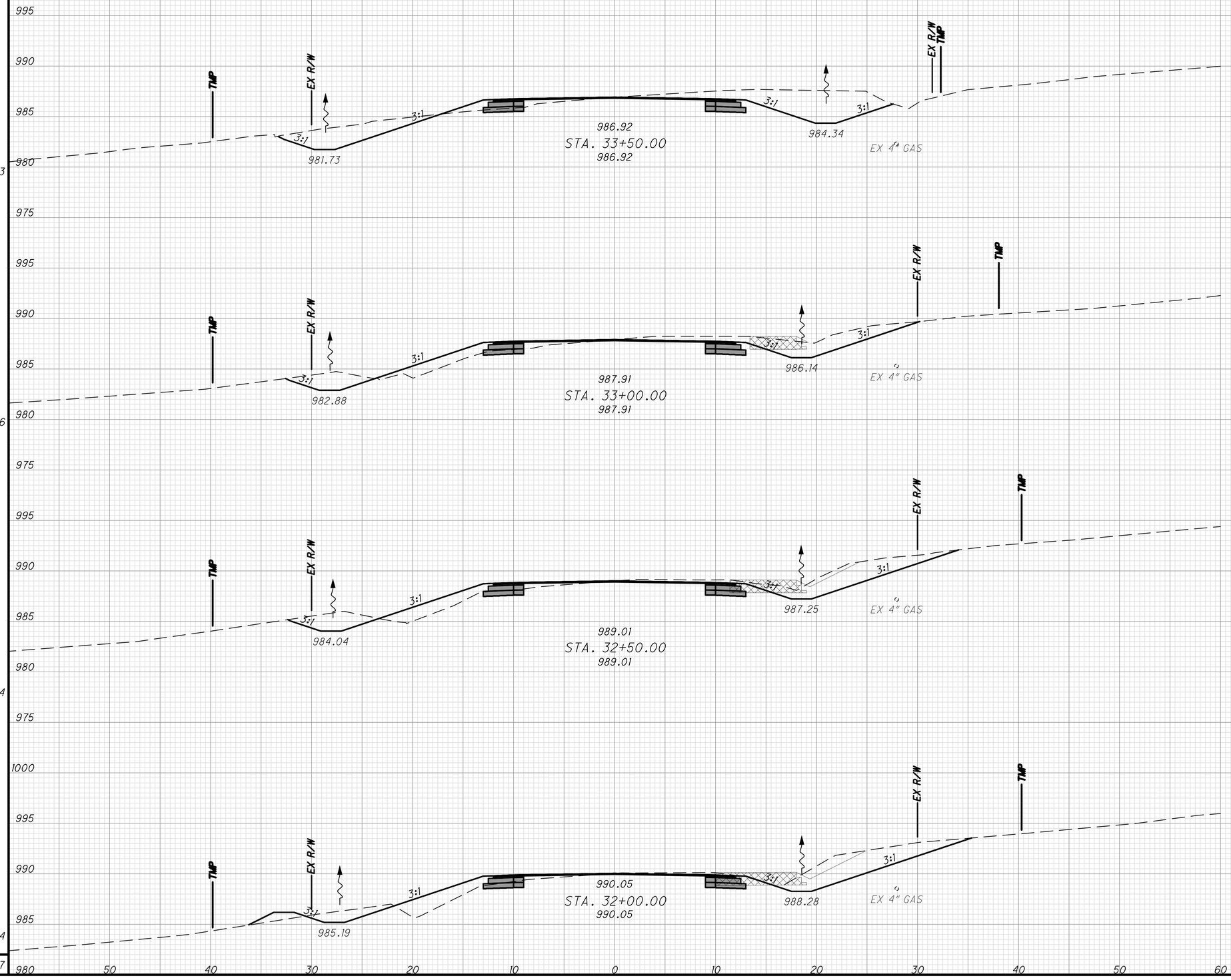
END AREA		VOLUME	
CUT	FILL	CUT	FILL
58	3	85	11
34	10	66	20
38	11	70	24
37	15	63	29
		284	84

CALCULATED LAA

CHECKED CSR

LEGEND:

TEMPORARY PAVEMENT



CROSS SECTIONS - SOUREK TRL
STA. 32+00 TO STA. 33+50

CUY FALLS - SOUREK TRL

47
82

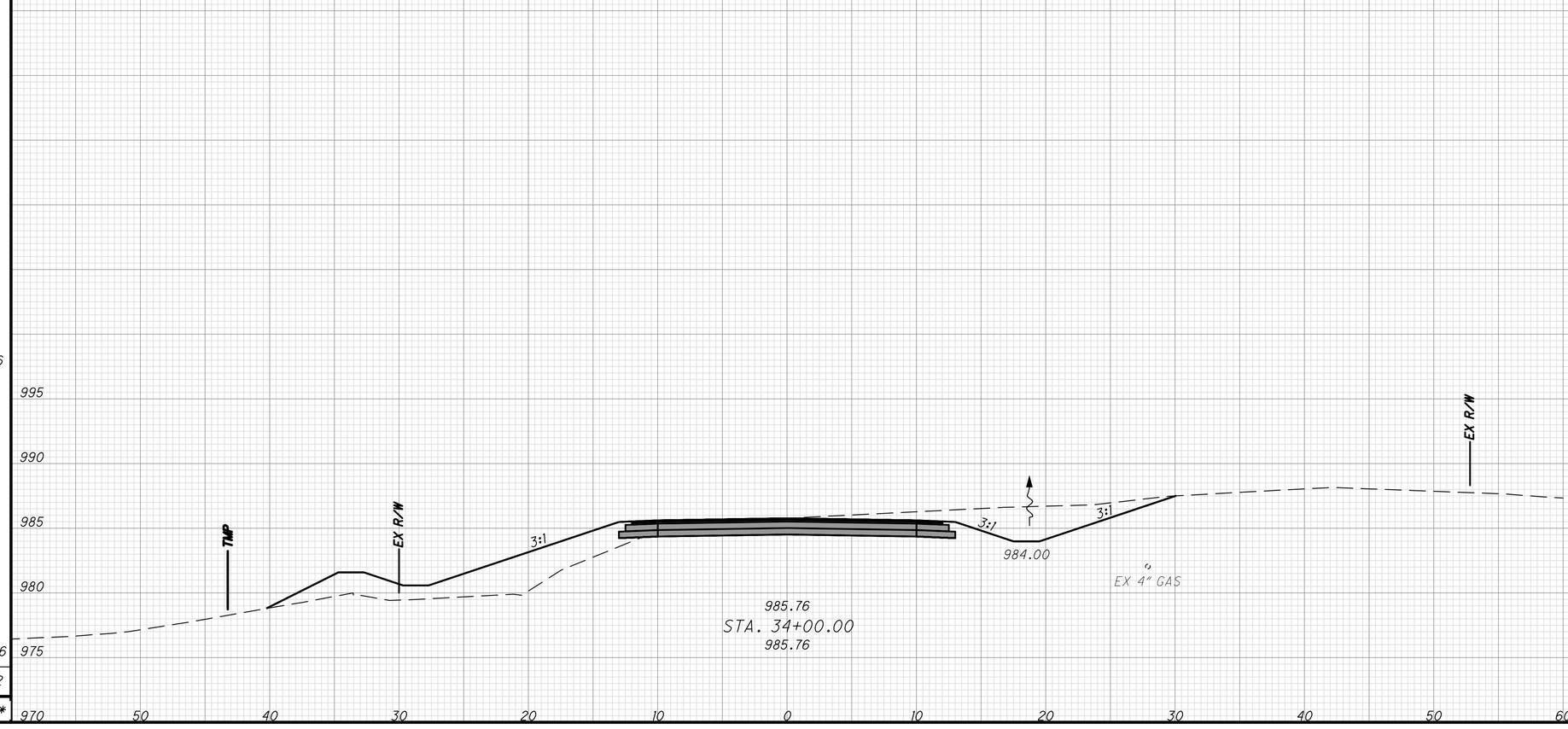
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:03 AM

SEEDING	
END WIDTH	SQ. YDS.
136	
49	
276	412
	8893*

LEGEND:

TEMPORARY PAVEMENT

* *TOTALS CARRIED TO SHEET 51*



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		30	45
32	49		
		84	48
		114	93
		2419*	1543*

CALCULATED LAA

CHECKED CSR

CROSS SECTIONS - SOUREK TRL

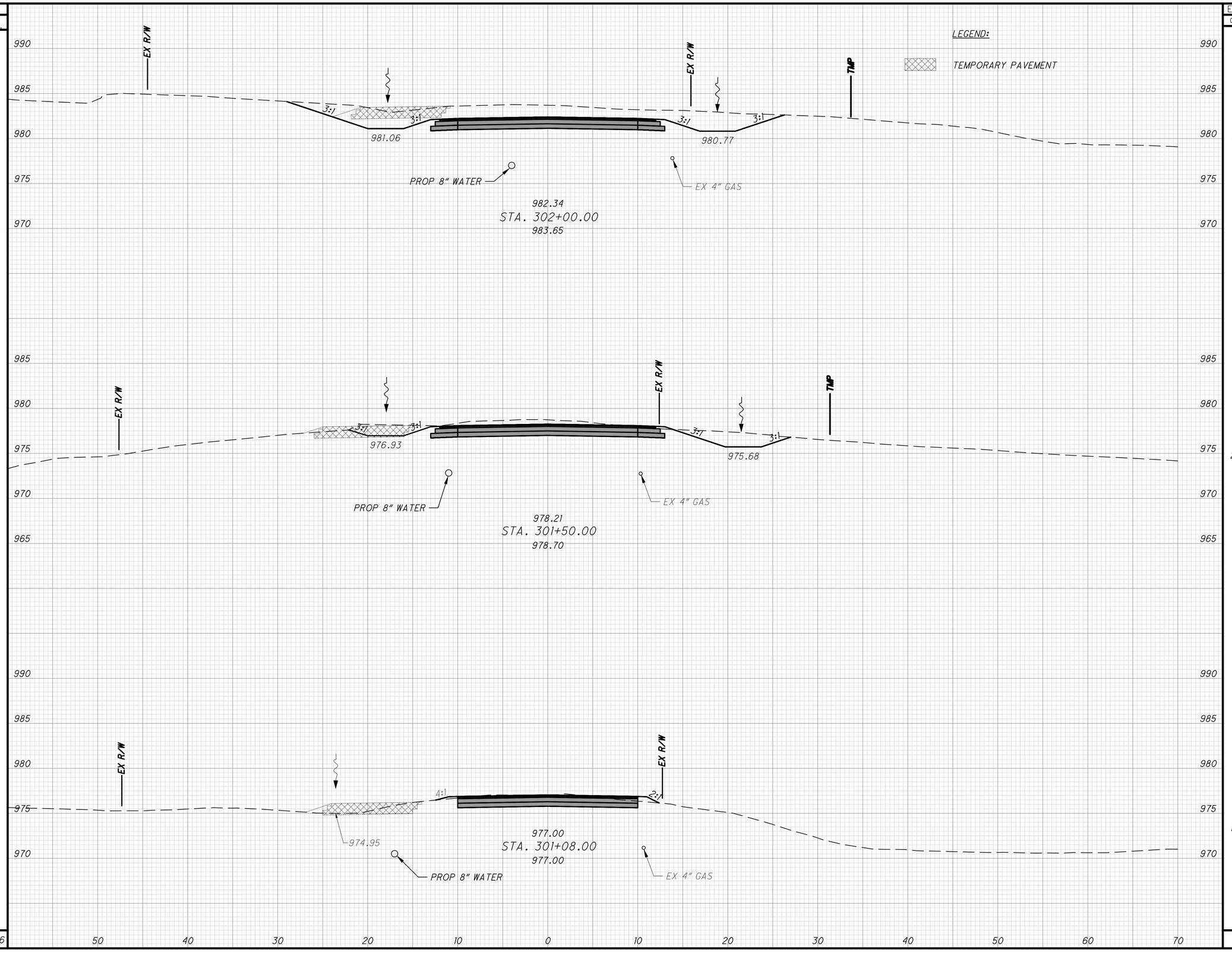
STA. 34+00

CUY FALLS - SOUREK TRL

48
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS001.dwg 24-Sep-20 9:04 AM

SEEDING	
END WIDTH	SQ. YDS.
33	161
26	85
5	246



END AREA		VOLUME	
CUT	FILL	CUT	FILL
76	0		
		98	0
29	0		
1	1		
		24	1
		122	1

CALCULATED LAA
CHECKED CSR

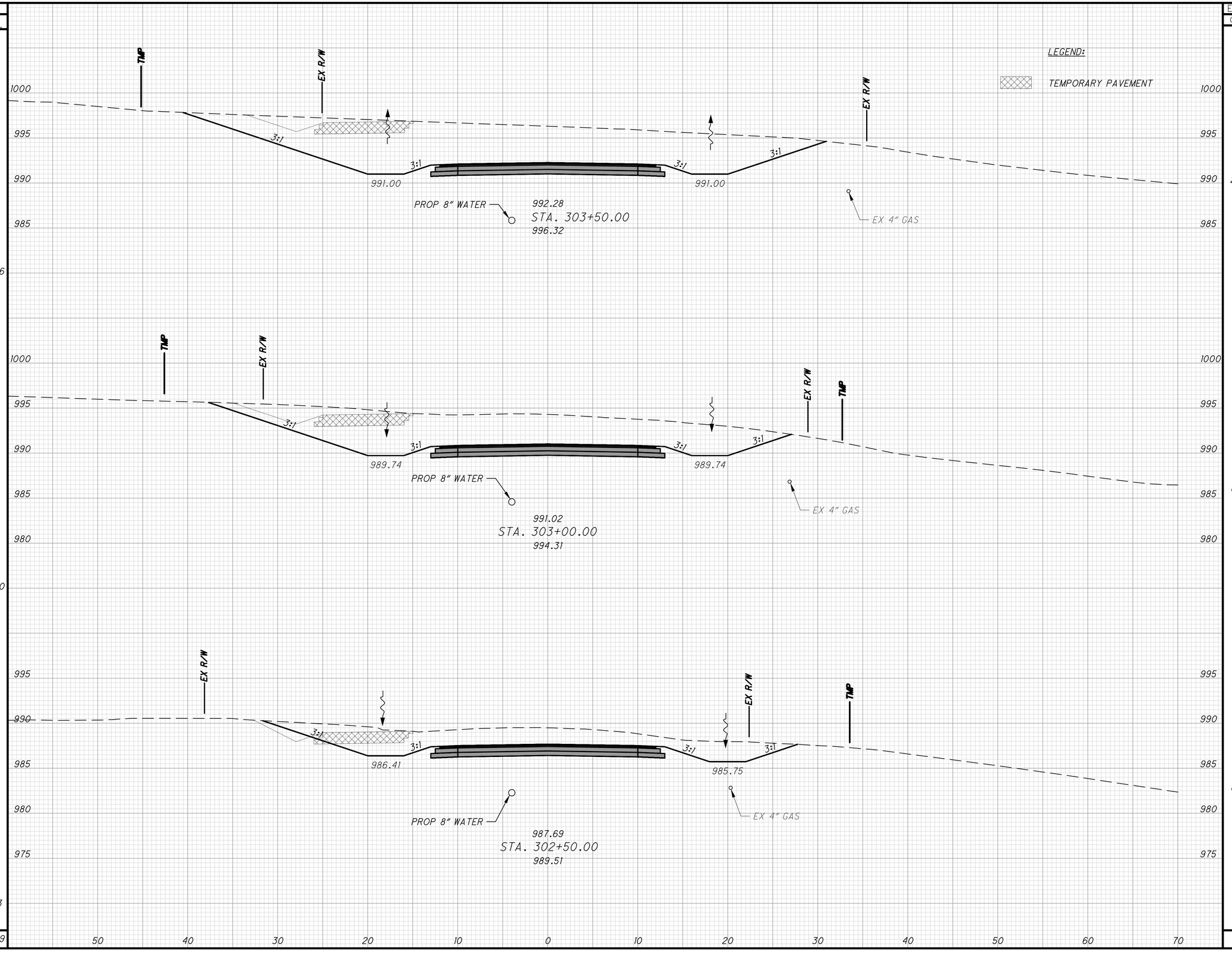
CROSS SECTIONS - SOUREK TRL (S)
STA. 301+08 TO STA. 302+00

CUY FALLS - SOUREK TRL

49
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS002.dwg 24-Sep-20 9:04 AM

SEEDING	
END WIDTH	SQ. YDS.
50	256
43	220
37	193
	669



END AREA		VOLUME	
CUT	FILL	CUT	FILL
265	0		
		428	0
198	0		
		280	0
104	0		
		167	0
		875	0

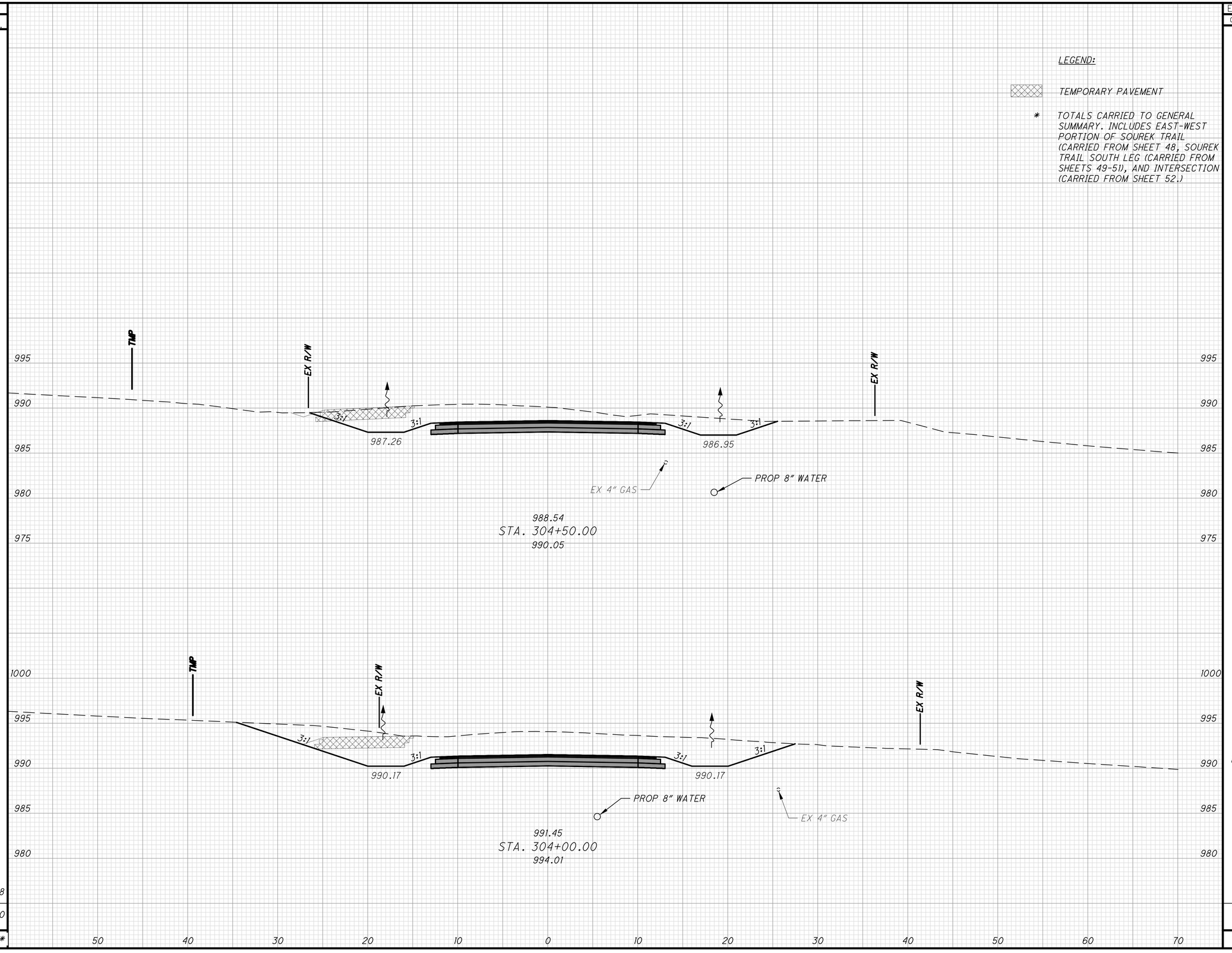
CALCULATED L.A.A.
CHECKED C.S.R.

CROSS SECTIONS - SOUREK TRL (S)
STA. 302+50 TO STA. 303+50

CUY FALLS - SOUREK TRL

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS002.dwg 24-Sep-20 9:04 AM

SEEDING	
END WIDTH	SQ. YDS.
	81
29	
	191
40	
	248
	520
12053*	



END AREA		VOLUME	
CUT	FILL	CUT	FILL
		73	0
79	0		
		210	0
148	0		
		382	0
		665	0
		4309*	1547*

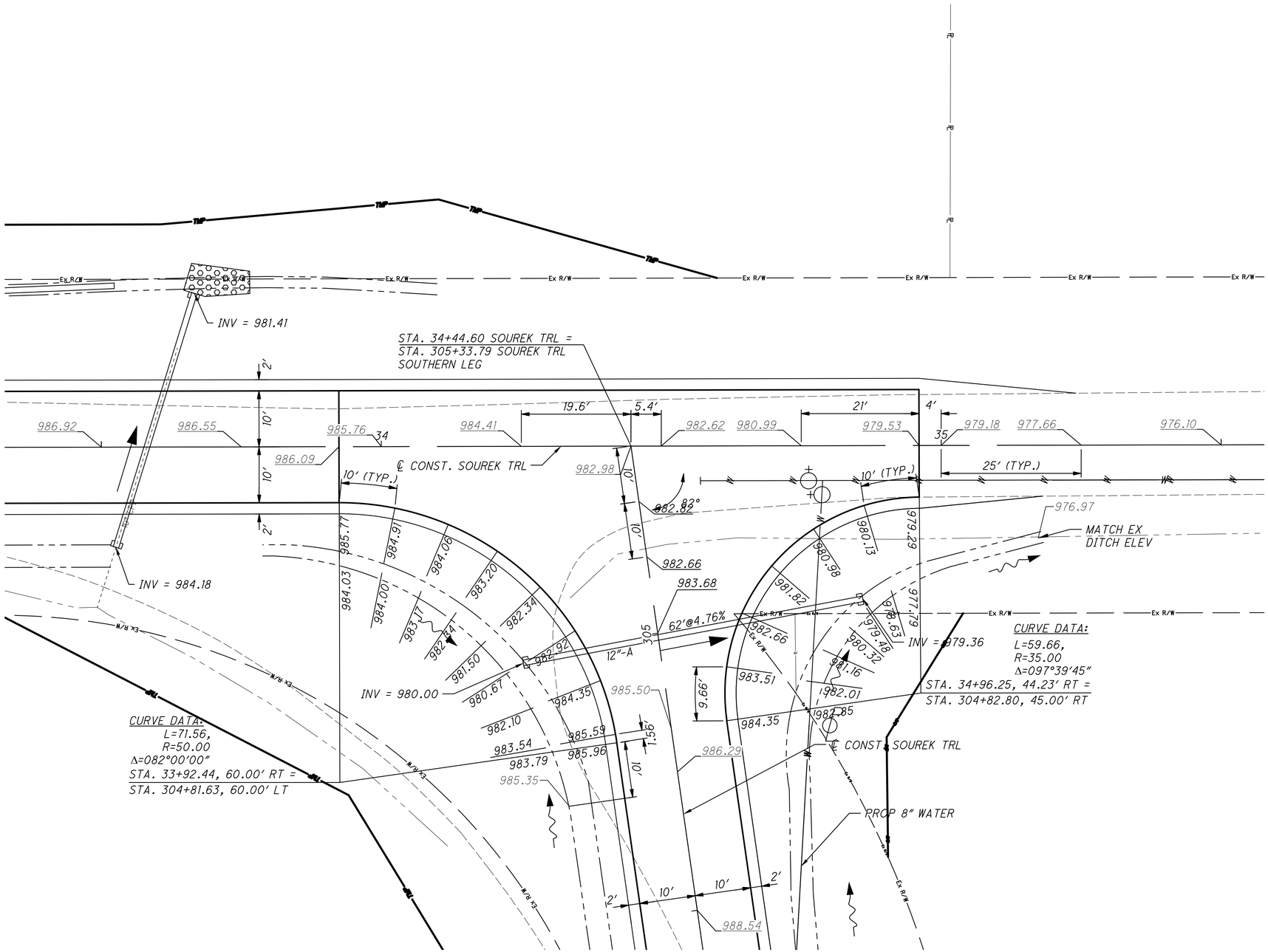
CALCULATED LAA
CHECKED CSR

CROSS SECTIONS - SOUREK TRL (S)
STA. 304+00 TO STA. 304+50

CUY FALLS - SOUREK TRL

51
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_XS002.dwg 24-Sep-20 9:05 AM



INTERSECTION QUANTITIES			
ITEM	WEST OF INTERSECTION	EAST OF INTERSECTION	TOTALS CARRIED TO SHEET 51
203 - EXCAVATION (CY)	77	151	228
203 - EMBANKMENT (CY)	4	0	4
671 - EROSION CONTROL MAT, TYPE B, AS PER PLAN (SY)	646	1079	1725

HORIZONTAL SCALE IN FEET
0 5 10 20

CALCULATED LAA
CHECKED CSR

INTERSECTION DETAIL
CUY FALLS - SOUREK TRL

52
82

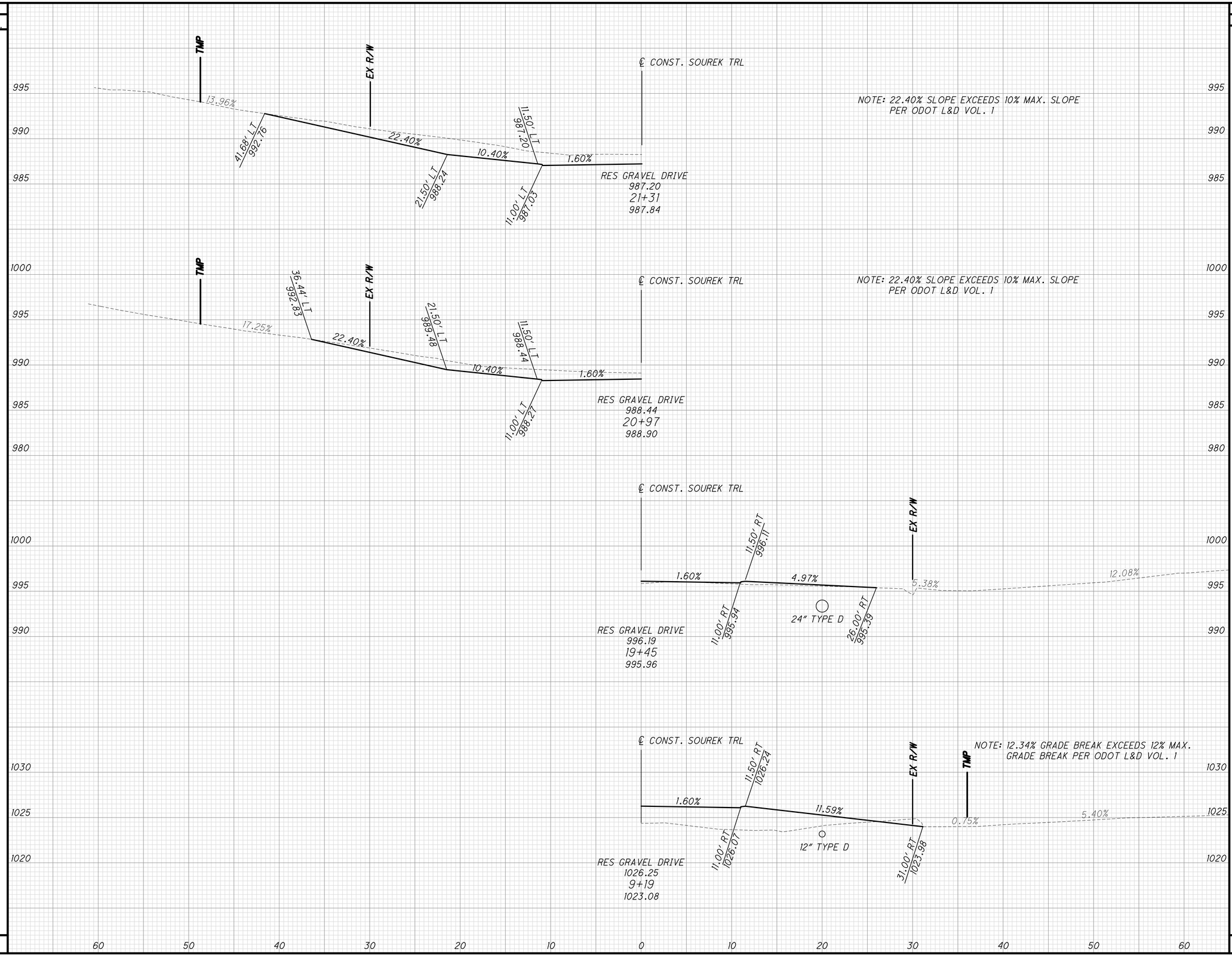
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GI001.dwg 24-Sep-20 9:06 AM

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED L.A.A.

CHECKED C.S.R.



DRIVE PROFILES - SOUREK TRL STA. 9+19 TO STA. 21+31

CUY FALLS - SOUREK TRL

53
82

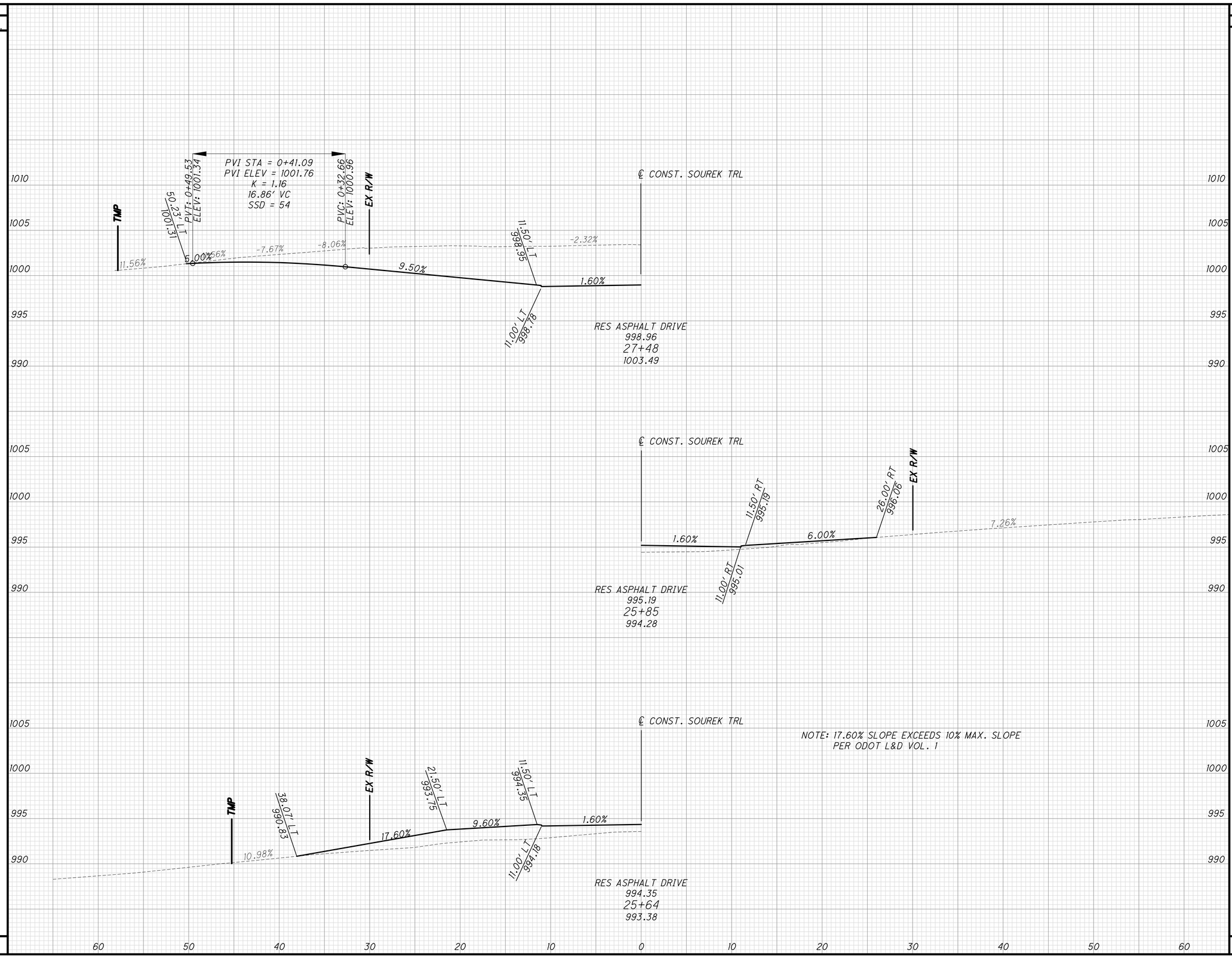
X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GD001.dwg 24-Sep-20 9:06 AM

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED LAA

CHECKED CSR

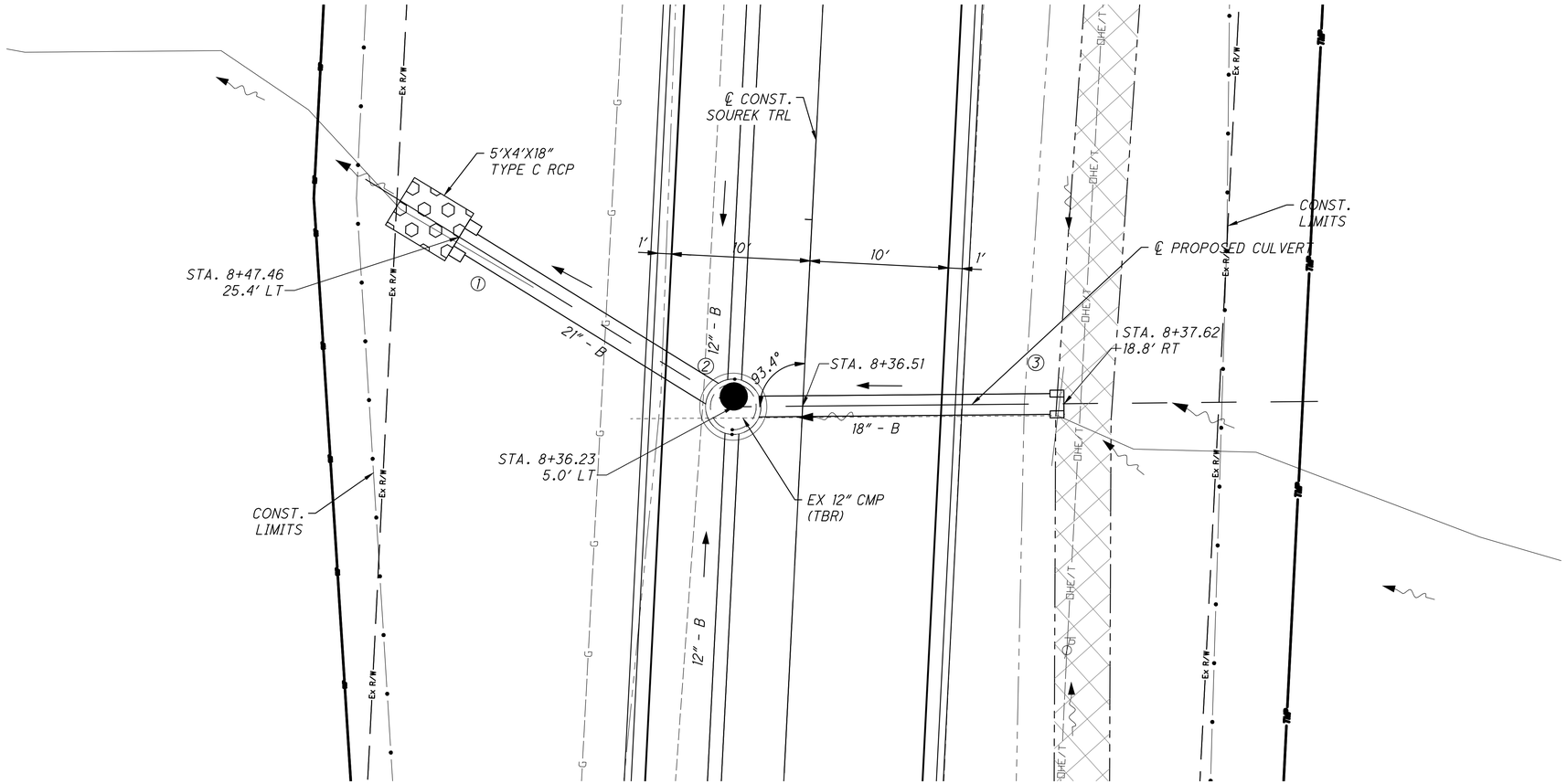


DRIVE PROFILES - SOUREK TRL STA. 25+64 TO STA. 27+48

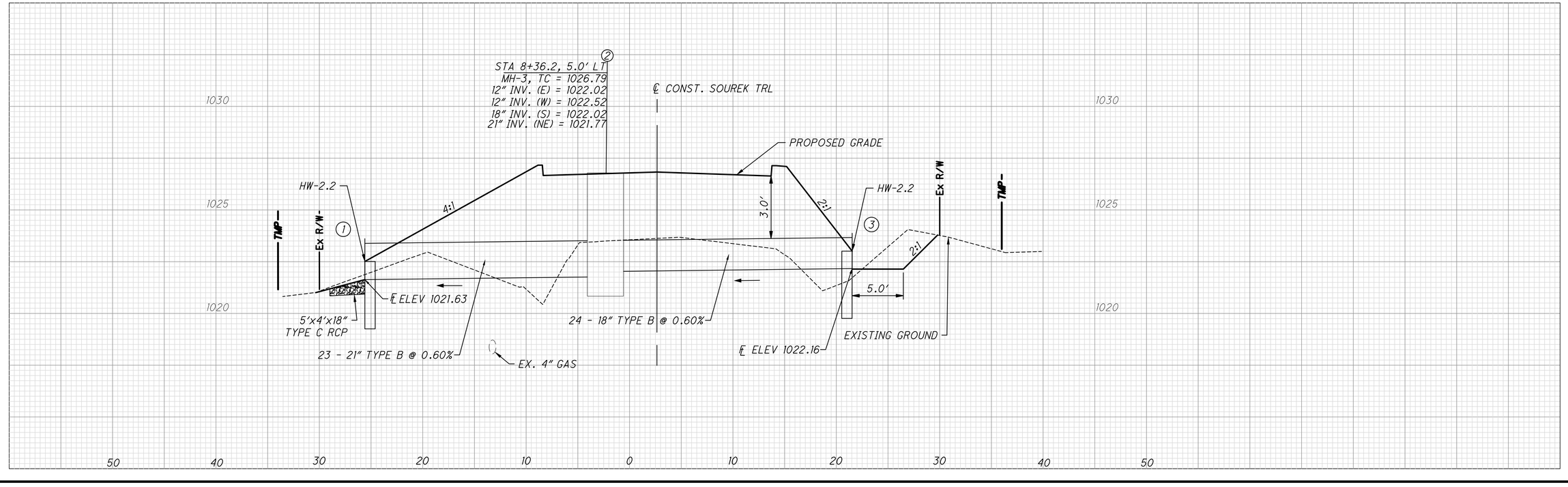
CUY FALLS - SOUREK TRL

54
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Roadway\Sheets\1822101401_GD001.dwg 24-Sep-20 9:07 AM



HYDRAULIC DESIGN DATA
DRAINAGE AREA = 4.02 AC
Q_{10} = 4.28 CFS
Q_{100} = 5.88 CFS
HW_{10} = 1023.3'
HW_{100} = 1023.5'
V_{10} = 6.24 FPS
V_{100} = 6.78 FPS



N

0 2.5 5 10 HORIZONTAL SCALE IN FEET

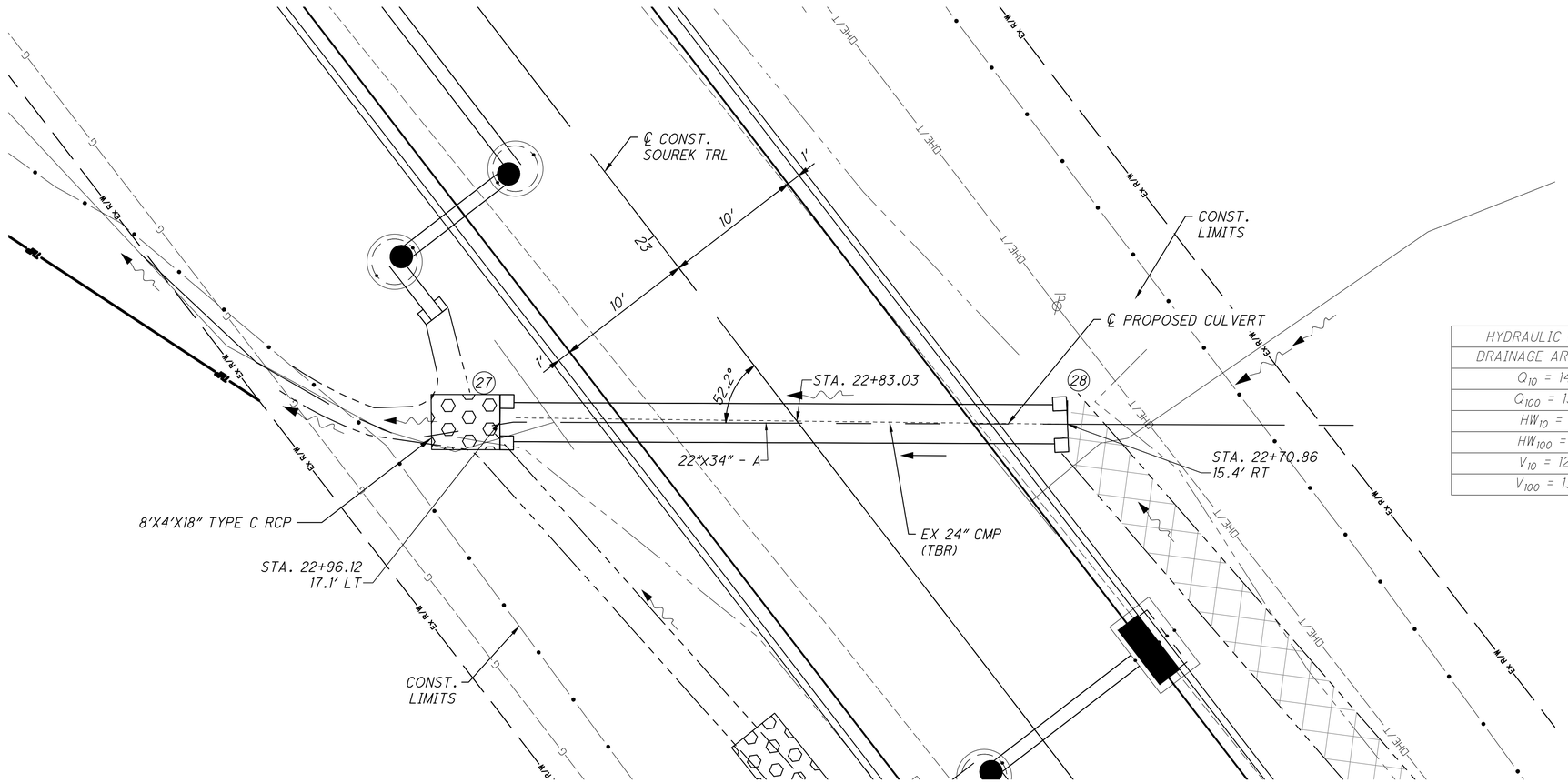
CALCULATED LAA | CHECKED CSR

CULVERT DETAILS - SOUREK TRL STA. 8+37

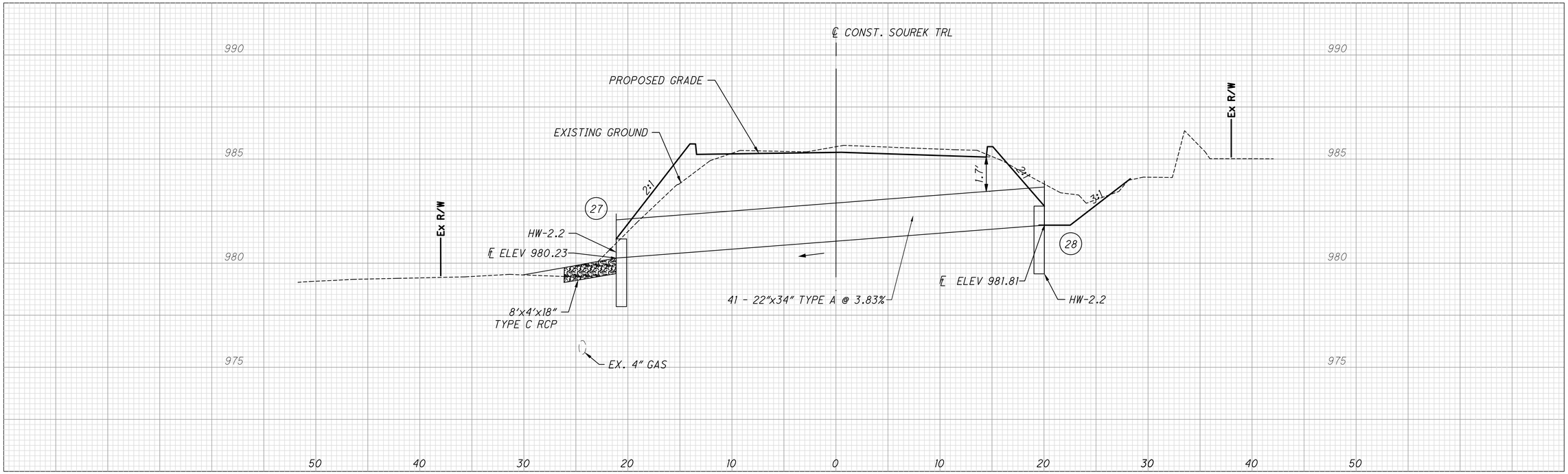
CUY FALLS - SOUREK TRL

55 / 82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DC001.dwg 24-Sep-20 9:08 AM



HYDRAULIC DESIGN DATA
DRAINAGE AREA = 13.65 AC
Q_{10} = 14.33 CFS
Q_{100} = 19.66 CFS
HW_{10} = 983.40'
HW_{100} = 983.77'
V_{10} = 12.56 FPS
V_{100} = 13.86 FPS



CALCULATED LAA
CHECKED CSR

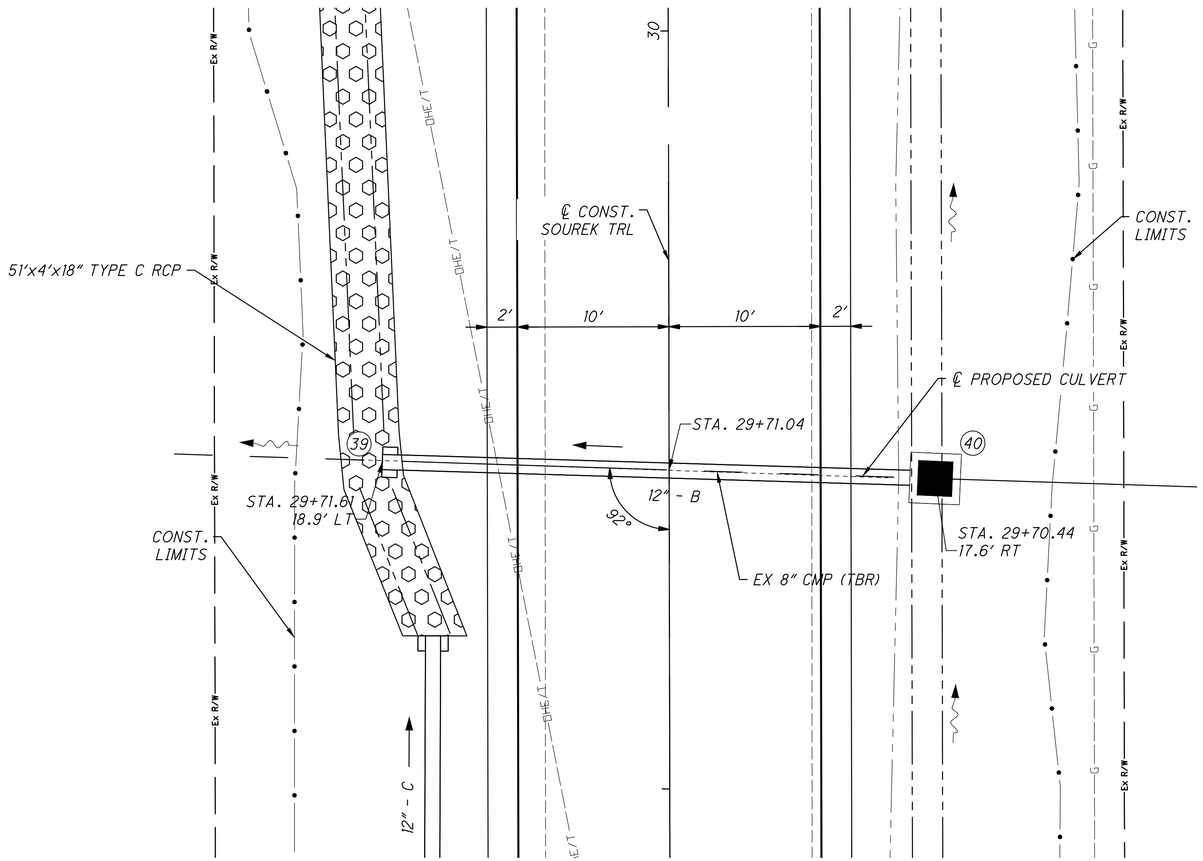
HORIZONTAL SCALE IN FEET
0 2.5 5 10

CULVERT DETAILS - SOUREK TRL STA. 22+83

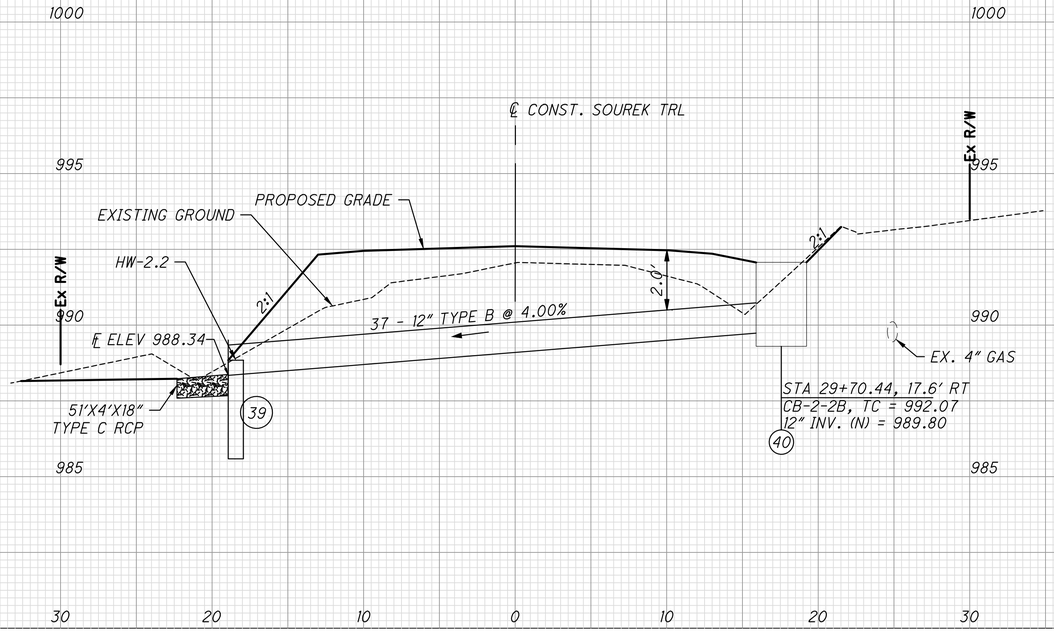
CUY FALLS - SOUREK TRL

56
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DC001.dwg 24-Sep-20 9:08 AM



HYDRAULIC DESIGN DATA
DRAINAGE AREA = 1.26 AC
Q_{10} = 1.57 CFS
Q_{100} = 2.11 CFS
HW_{10} = 990.57'
HW_{100} = 990.71'
V_{10} = 7.72 FPS
V_{100} = 8.40 FPS



0 2.5 5 10 HORIZONTAL SCALE IN FEET

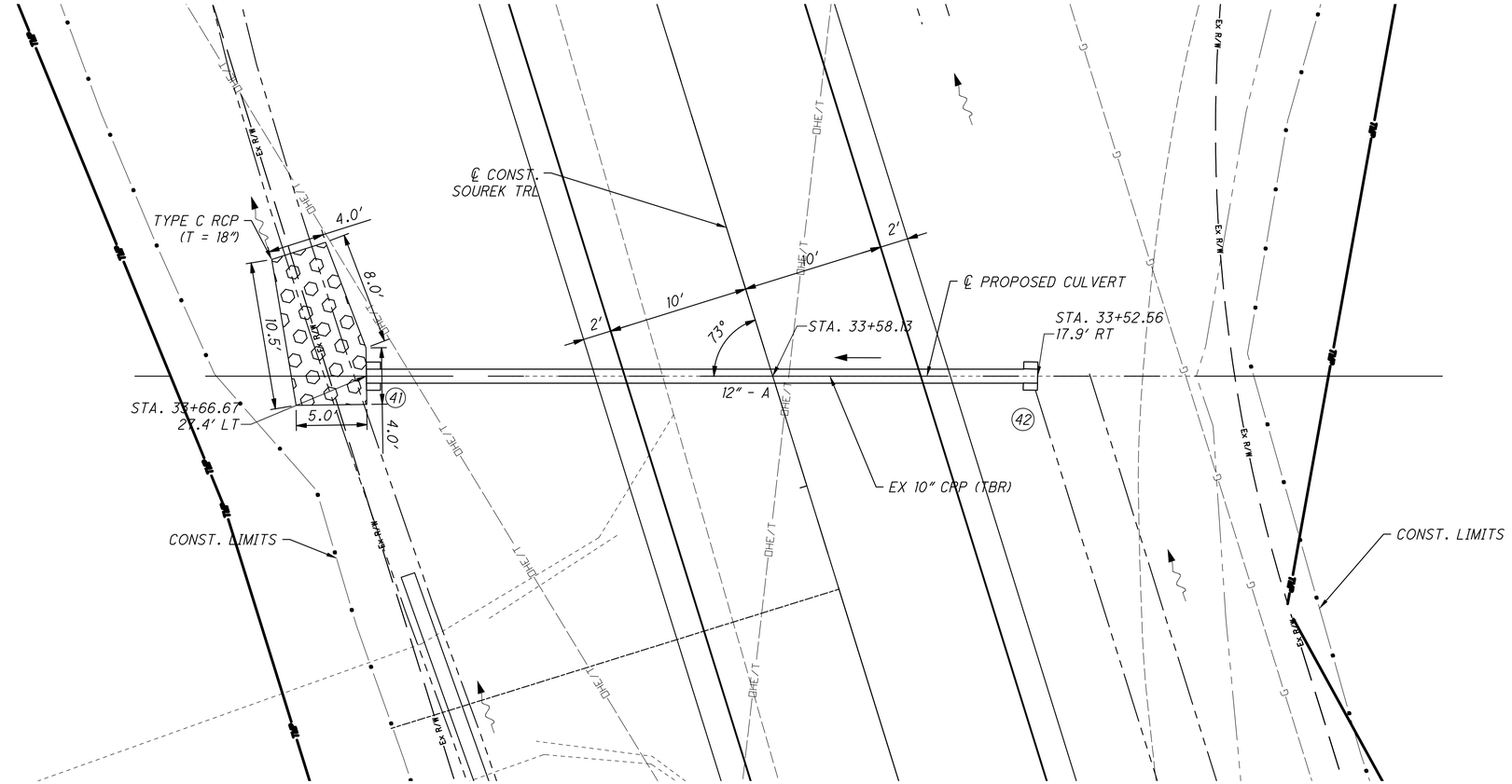
CALCULATED LAA | CHECKED CSR

CULVERT DETAILS - SOUREK TRL STA. 29+71

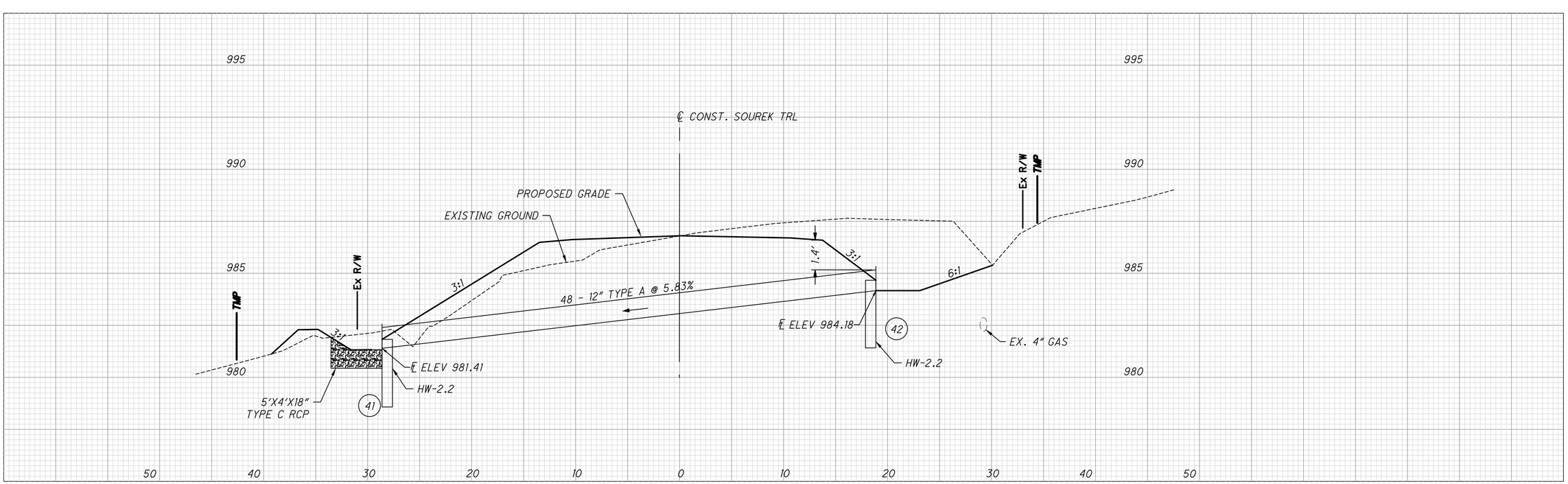
CUY FALLS - SOUREK TRL

57 / 82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DC001.dwg 24-Sep-20 9:09 AM



HYDRAULIC DESIGN DATA
DRAINAGE AREA = 1.80 AC
Q_{10} = 1.78 CFS
Q_{100} = 2.49 CFS
HW_{10} = 985.00'
HW_{100} = 985.19'
V_{10} = 9.07 FPS
V_{100} = 9.99 FPS



CALCULATED LAA
CHECKED CSR

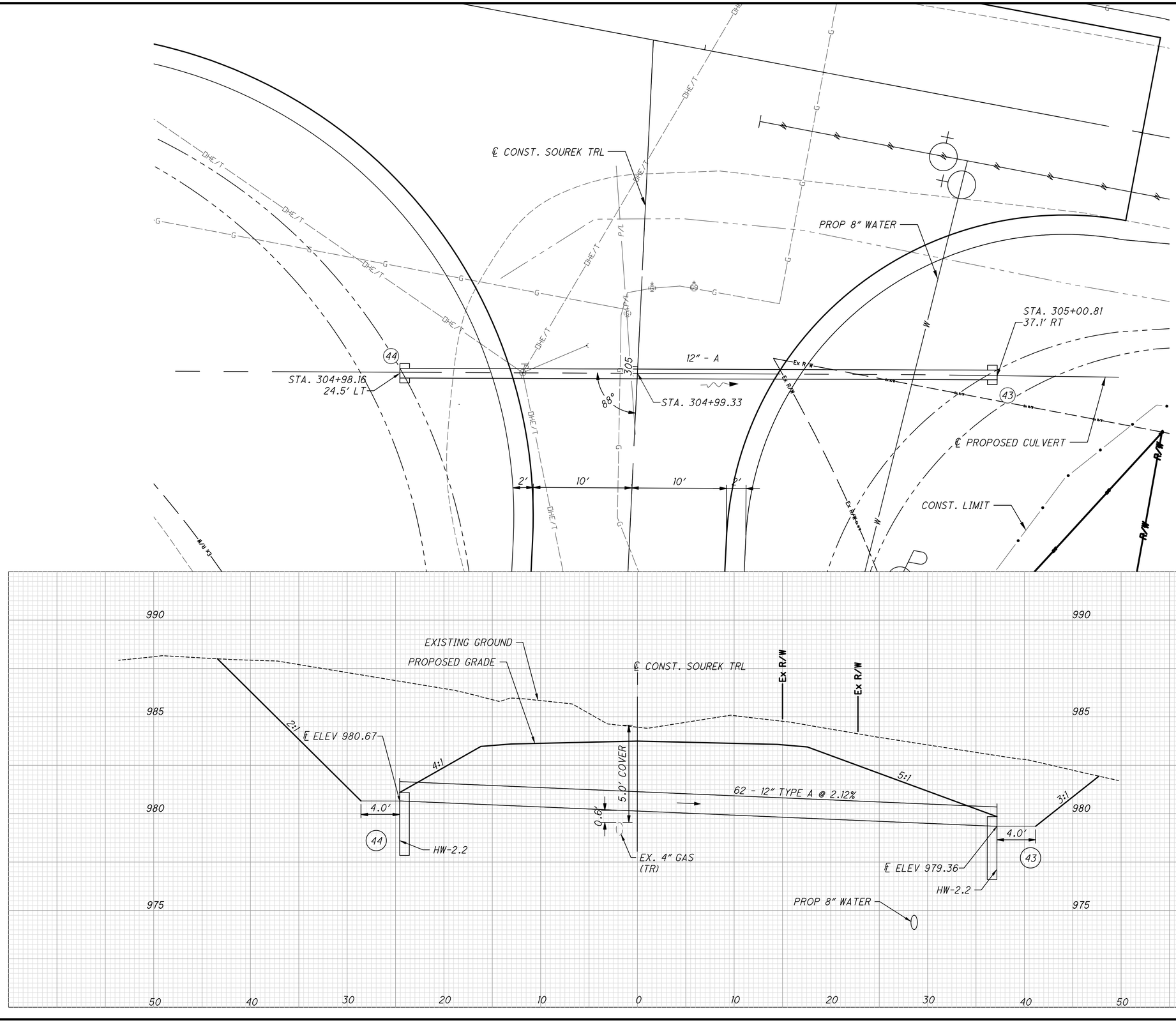
0 2.5 5 10
HORIZONTAL SCALE IN FEET

CULVERT DETAILS - SOUREK TRL STA. 33+58

CUY FALLS - SOUREK TRL

58
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DC001.dwg 24-Sep-20 9:09 AM



HYDRAULIC DESIGN DATA
DRAINAGE AREA = 0.59 AC
Q_{10} = 1.21 CFS
Q_{100} = 1.65 CFS
HW_{10} = 981.33'
HW_{100} = 981.46'
V_{10} = 5.70 FPS
V_{100} = 6.20 FPS

0 2.5 5 10
HORIZONTAL SCALE IN FEET

CALCULATED SA
CHECKED CSR

CULVERT DETAILS - SOUREK TRL STA. 304+99

CUY FALLS - SOUREK TRL

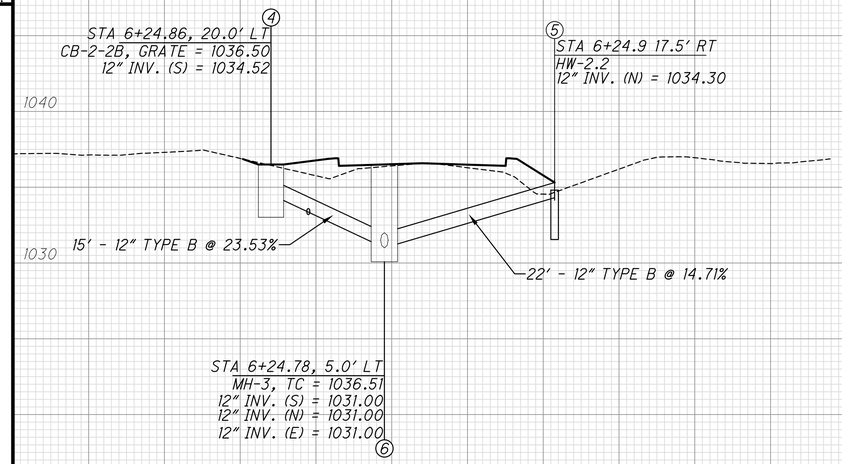
59
82

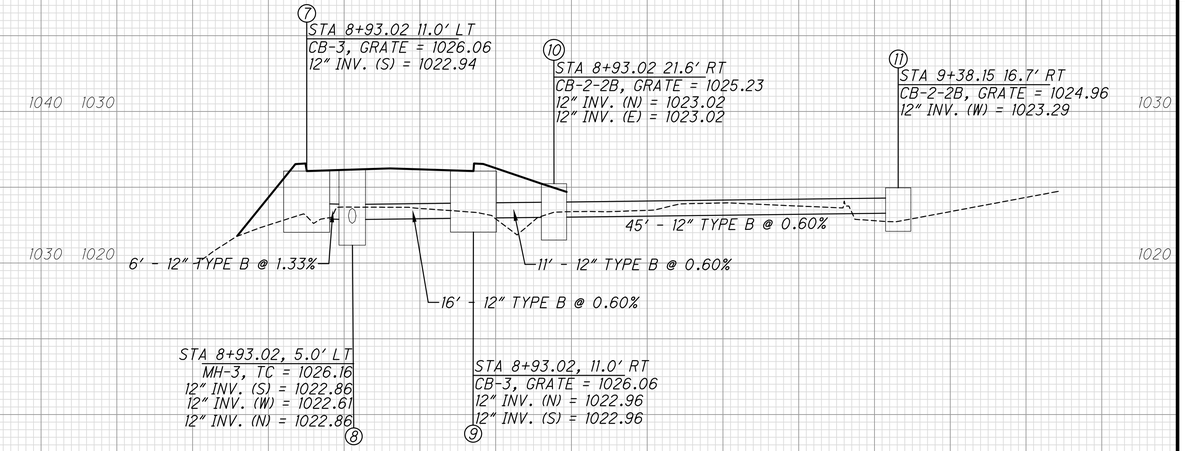
X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DC001.dwg 24-Sep-20 9:09 AM

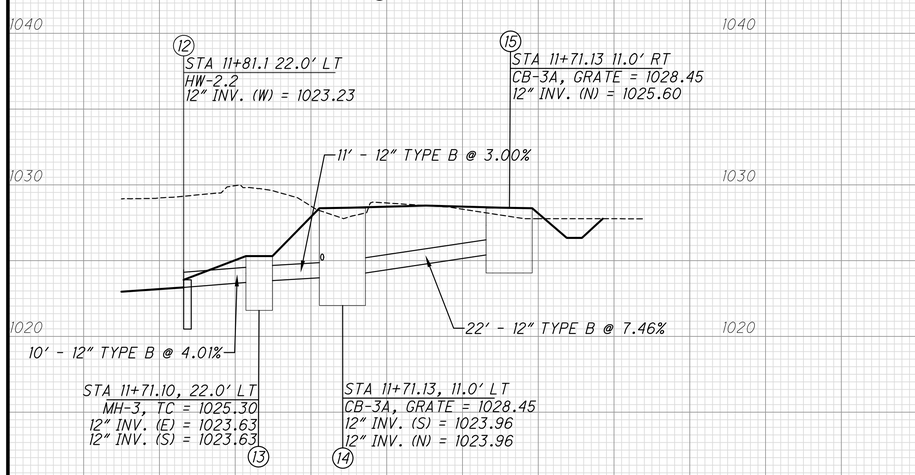
SEEDING	
END WIDTH	SQ. YDS.

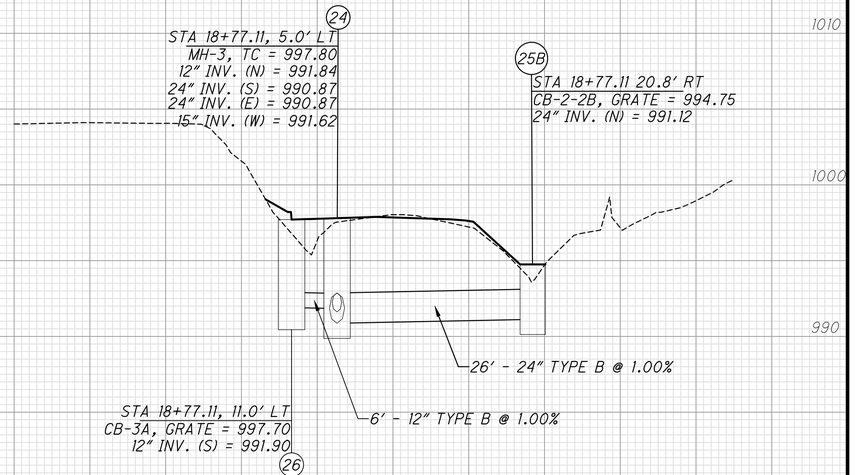
END AREA		VOLUME	
CUT	FILL	CUT	FILL

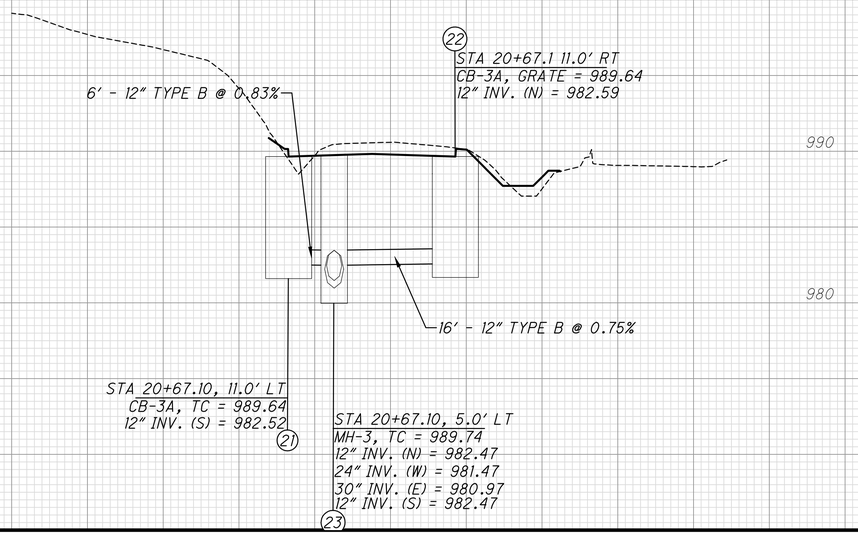
CALCULATED SA
CHECKED CSR

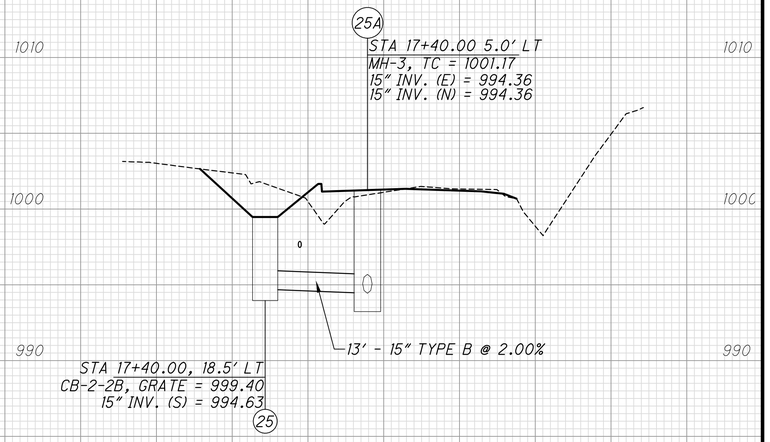












STORM SEWER PROFILES - SOUREK TRL
STA. 6+24.90 TO 17+40.00

CUY FALLS - SOUREK TRL

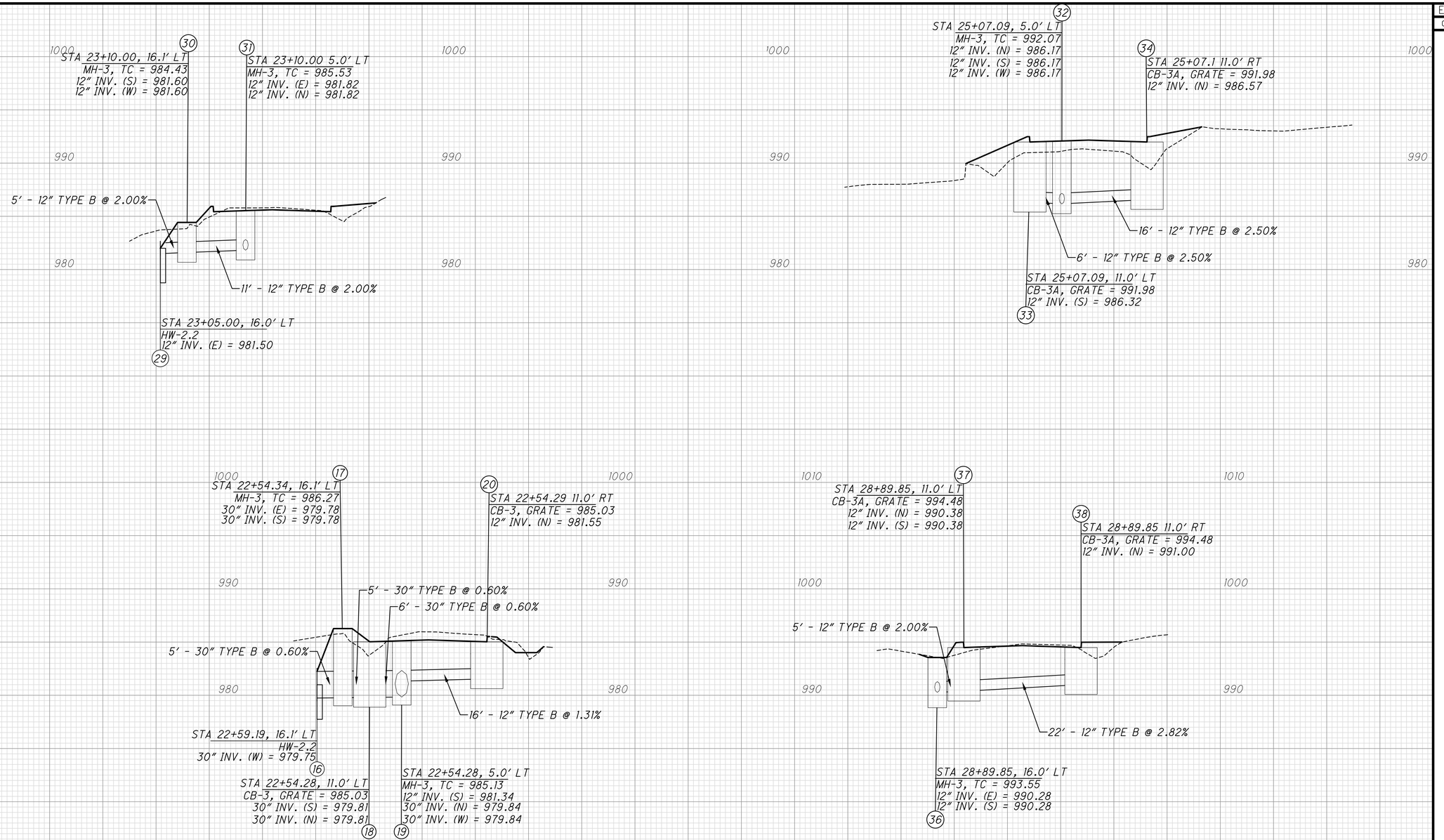
60
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DF001.dwg 24-Sep-20 9:10 AM

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CALCULATED SA
CHECKED CSR



STORM SEWER PROFILES - SOUREK TRL
STA. 17+40.00 TO STA. 28+89.90

CUY FALLS - SOUREK TRL

61
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Drainage\Sheets\1822101401_DF001.dwg 24-Sep-20 9:11 AM

GENERAL

UNLESS OTHERWISE SHOWN OR NOTED, ALL WATER WORK UNDER THIS CONTRACT SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF AKRON, DEPARTMENT OF PUBLIC SERVICE, AKRON ENGINEERING BUREAU, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2008 EDITION. ALL LABOR, MATERIALS, EQUIPMENT, AND INCIDENTALS MEETING THE CITY OF AKRON'S REQUIREMENTS SHALL BE INCLUDED IN THE WATER WORK BID ITEMS. THE LOCATION OF THE EXISTING WATER MAIN ON SOUREK TRAIL SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO PERFORMING THE PROPOSED WATER TIE-IN.

ALL WATER WORK, SUCH AS CONNECTIONS TO EXISTING WATER MAINS, THAT REQUIRES SHUTDOWN OF EXISTING WATER MAINS OR SERVICE CONNECTIONS SHALL BE FULLY COORDINATED WITH THE CITY OF AKRON WATER DEPARTMENT. ALL WORK SHALL BE SCHEDULED AND PERFORMED IN SUCH MANNER TO RESULT IN A MINIMUM AMOUNT OF SHUTDOWN TIME FOR EXISTING WATER MAINS AND SERVICE CONNECTIONS.

THE CONTRACTOR SHALL INSTALL CONCRETE THRUST BLOCKING AT HORIZONTAL AND VERTICAL BENDS AS SHOWN ON AKRON DRAWING 2017-009-19. REFER TO SHEET 72. IN ADDITION TO THE THRUST BLOCKING, THE CONTRACTOR SHALL RESTRAIN ALL WATER MAIN JOINTS FOR A LENGTH OF AT LEAST 30 FEET ON EACH SIDE OF A VALVE, BEND, OR OFFSET. REFER TO NOTES ON SHEET 63.

THE CONTRACTOR SHALL PREPARE A SCHEDULE OF PROPOSED WATER MAIN AND SERVICE LINE SHUTDOWN TIMES TO BE APPROVED BY THE CITY OF AKRON. THE CONTRACTOR SHALL RECONFIRM THE SHUTDOWN TIMES WITH THE CITY OF AKRON AT LEAST 24 HOURS PRIOR TO THE WATER MAIN AND SERVICE LINE SHUTDOWNS. ONLY CITY PERSONNEL SHALL OPERATE EXISTING VALVES FOR SHUTDOWNS OF WATER MAINS.

THE DESIGN WATER MAIN PRESSURE VARIES FROM 82 PSI TO 126 PSI. NEW WATER SERVICE CONNECTIONS SHALL REQUIRE A PRESSURE REDUCING VALVE INSIDE THE BUILDING TO REDUCE PRESSURES TO ABOUT 60 PSI. THE PRESSURE REDUCING VALVES SHALL BE INSTALLED BY OTHERS.

ITEM 638 SPECIAL - 6" WATER MAIN DIP, CLASS 53, MECHANICAL JOINTS AND FITTINGS (CITY OF AKRON)
ITEM 638 SPECIAL - 8" WATER MAIN DIP, CLASS 53, PUSH ON JOINTS AND FITTINGS (CITY OF AKRON)

THE CONTRACTOR, UNDER THESE ITEMS, SHALL FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS TO CONSTRUCT WATER MAINS AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE OWNER. THIS WORK SHALL INCLUDE THE FURNISHING, SHOP TESTING, INSTALLING, AND FIELD TESTING OF WATER MAIN PIPE, FITTINGS, AND COUPLINGS OF THE VARIOUS TYPES, SIZES AND JOINT TYPES SPECIFIED. THE WORK SHALL INCLUDE PAVEMENT CUTTING, EXCAVATIONS, SHEETING AND SHORING, TRENCH BOXES, PAVEMENT REMOVAL, CONNECTIONS TO VALVES AND SPECIALS, COATINGS, CEMENT PIPE LININGS, POLYETHYLENE ENCASEMENT, BACKFILL AND/OR PREMIUM BACKFILL, POLYTHEYLENE ENCASEMENT, THRUST BLOCKING, TEMPORARY PAVING OF TRENCHES, PAVEMENT REPLACEMENT, THE REPAIR AND/OR REPLACEMENT OF MATERIALS DUE TO LEAKAGE OR DEFECTS, STERILIZATION AND LEAKAGE TESTING, PROTECTING AND MAINTAINING UTILITIES AND UTILITY SERVICES, AND SITE RESTORATION. THESE ITEMS SHALL ALSO INCLUDE THE REMOVAL OF EXISTING PLUGS/CAPS AND CONCRETE THRUST BLOCKS AS REQUIRED TO INSTALL THE NEW WORK.

IN AREAS WHERE WATER MAINS ARE LOCATED UNDER NEW PAVEMENTS, THE PAVEMENT REMOVAL AND REPLACEMENT REQUIRED FOR WATER MAIN INSTALLATION SHALL BE INCLUDED IN THE APPROPRIATE "ROADWAY" OR "PAVEMENT" PAY ITEM.

ALL WORK UNDER ITEM "SPECIAL- WATER MAIN DIP, CLASS 53, MECHANICAL OR PUSH ON JOINTS AND FITTINGS (CITY OF AKRON)", CLASSIFIED AS TO SIZE, SHALL BE INCLUDED IN THE PRICE BID PER UNIT (LINEAR FOOT) OF WATER MAIN INSTALLED UNDER THIS CONTRACT.

ITEM 638 SPECIAL - 6"AND 8" GATE VALVE WITH VALVE BOX (CITY OF AKRON)

THE CONTRACTOR, UNDER THESE ITEMS, SHALL FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS TO CONSTRUCT GATE VALVES AND VALVE BOXES AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE OWNER. THIS WORK SHALL INCLUDE THE FURNISHING, SHOP TESTING, INSTALLING, AND FIELD TESTING OF GATE VALVES AND VALVE BOXES OF THE VARIOUS TYPES, SIZES AND JOINT TYPES SPECIFIED. THE WORK SHALL INCLUDE PAVEMENT CUTTING, EXCAVATIONS, SHEETING AND SHORING, TRENCH BOXES, PAVEMENT REMOVAL, CONNECTIONS TO PIPING, COATINGS, POLYETHYLENE ENCASEMENT, BACKFILL AND/OR PREMIUM BACKFILL, PAVEMENT REPLACEMENT, THE REPAIR AND/OR REPLACEMENT OF MATERIALS DUE TO LEAKAGE OR DEFECTS, STERILIZATION AND LEAKAGE TESTING, PROTECTING AND MAINTAINING UTILITIES AND UTILITY SERVICES, AND SITE RESTORATION. THIS WORK SHALL INCLUDE THE 6" GATE VALVES AND VALVE BOXES ON HYDRANT BRANCHES.

IN AREAS WHERE VALVES AND VALVE BOXES ARE LOCATED UNDER NEW PAVEMENTS, THE PAVEMENT REMOVAL AND REPLACEMENT REQUIRED FOR GATE VALVE AND VALVE BOX INSTALLATION SHALL BE INCLUDED IN THE APPROPRIATE "ROADWAY" OR "PAVEMENT" PAY ITEM.

THIS BID ITEM SHALL INCLUDE REWORK (SHORTENING) OF VALVE BOX AT THE HYDRANT BRANCH (STATION 303+50) TO ACCOMMODATE THE ROADWAY CONSTRUCTION SEQUENCE.

ALL WORK UNDER ITEM "SPECIAL- GATE VALVE AND VALVE BOX (CITY OF AKRON)", CLASSIFIED AS TO SIZE, SHALL BE INCLUDED IN THE PRICE BID PER UNIT (EACH) OF GATE VALVE AND VALVE BOX (CITY OF AKRON) FURNISHED AND INSTALLED UNDER THIS CONTRACT.

ITEM 638 SPECIAL - 6" FIRE HYDRANT (CITY OF CUYAHOGA FALLS)

THE CONTRACTOR, UNDER THIS ITEM, SHALL FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS TO CONSTRUCT THE 6" FIRE HYDRANT AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE OWNER. THIS WORK SHALL INCLUDE THE FURNISHING, SHOP TESTING, INSTALLING, AND FIELD TESTING OF THE FIRE HYDRANT AS SPECIFIED. THE WORK SHALL INCLUDE PAVEMENT CUTTING, EXCAVATIONS, SHEETING AND SHORING, TRENCH BOXES, PAVEMENT REMOVAL, CONNECTIONS TO PIPING, COUPLINGS, COATINGS, POLYETHYLENE ENCASEMENT, BACKFILL AND/OR PREMIUM BACKFILL, THRUST BLOCKING, PAVEMENT REPLACEMENT, THE REPAIR AND/OR REPLACEMENT OF MATERIALS DUE TO LEAKAGE OR DEFECTS, STERILIZATION AND LEAKAGE TESTING, PROTECTING AND MAINTAINING UTILITIES AND UTILITY SERVICES, AND SITE RESTORATION. FIRE HYDRANT DRAIN HOLES SHALL BE PLUGGED. THE CONTRACTOR SHALL PROVIDE AND INSTALL ONE METAL TAG FOR EACH HYDRANT THAT READS "NO DRAIN, PUMP AFTER USE".

FIRE HYDRANTS SHALL BE SUPPLIED WITH NATIONAL STANDARD THREADS ON ALL NOZZLES. HYDRANTS SHALL BE 5-1/4" AMERICAN B-84-B OR 5-1/4" KENNEDY K-81-A, WITH STAINLESS STEEL BOLTS CONFORMING TO AWWA C502 AND THE CITY OF CUYAHOGA FALLS WATER DEPARTMENT SPECIFICATIONS. A DRAINAGE SUMP 2 FEET IN DIAMETER AND 2 FEET DEEP SHALL BE EXCAVATED BELOW EACH HYDRANT AND FILLED WITH COARSE GRAVEL OR STONE, COMPACTED IN PLACE, UNDER AND AROUND THE SHOE OF THE HYDRANT AND TO A LEVEL OF 6 INCHES ABOVE THE WASTE OPENING. NO DRAINAGE SUMP SHALL BE CONNECTED TO A SANITARY SEWER.

THIS BID ITEM SHALL INCLUDE INSTALLATION AND REMOVAL OF THE TEMPORARY RISER PIPE, END CAP, AND THRUST BLOCK AT STATION 303+50 TO ACCOMMODATE THE ROADWAY CONSTRUCTION SEQUENCE.

THE 6" BRANCH PIPING FROM THE MAIN TO THE HYDRANT, AND THE 6" GATE VALVE AND VALVE BOX ON THE HYDRANT BRANCH SHALL BE PAID FOR UNDER SEPARATE PAY ITEMS.

ALL WORK UNDER ITEM "SPECIAL- 6" FIRE HYDRANT (CITY OF CUYAHOGA FALLS)" SHALL BE INCLUDED IN THE PRICE BID PER UNIT (EACH) OF 6" FIRE HYDRANT FURNISHED AND INSTALLED UNDER THIS CONTRACT.

ITEM 638- WATER WORK, MISC.: 1" COPPER SERVICE BRANCH (CITY OF AKRON)

THE CONTRACTOR, UNDER THESE ITEMS, SHALL FURNISH ALL MATERIALS, LABOR, TOOLS, EQUIPMENT, AND INCIDENTALS TO INSTALL COPPER SERVICE BRANCHES AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR AS DIRECTED BY THE OWNER. THIS WORK SHALL INCLUDE THE FURNISHING, SHOP TESTING, INSTALLING, AND FIELD TESTING OF COPPER TUBING, FITTINGS, AND COUPLINGS OF THE SIZE SPECIFIED. THE WORK SHALL INCLUDE PAVEMENT CUTTING, EXCAVATIONS, SHEETING AND SHORING, TRENCH BOXES, PAVEMENT REMOVAL, TAPPING SADDLES, CORPORATION STOPS AND VALVES, WOOD BLOCKING, CURB VALVES AND CURB VALVE BOXES, BACKFILL AND/OR PREMIUM BACKFILL, TEMPORARY PAVING OF TRENCHES, PAVEMENT REPLACEMENT, THE REPAIR AND/OR REPLACEMENT OF MATERIALS DUE TO LEAKAGE OR DEFECTS, STERILIZATION AND LEAKAGE TESTING, PROTECTING AND MAINTAINING UTILITIES AND UTILITY SERVICES, AND SITE RESTORATION.

IN AREAS WHERE SERVICE LINES ARE LOCATED UNDER NEW PAVEMENTS, THE PAVEMENT REMOVAL AND REPLACEMENT REQUIRED FOR COPPER SERVICE BRANCH INSTALLATION SHALL BE INCLUDED IN THE APPROPRIATE "ROADWAY" OR "PAVEMENT" PAY ITEM.

IN AREAS WHERE THE NEW COPPER SERVICE BRANCH NEEDS TO BE RAISED, LOWERED, OR MOVED LATERALLY TO CLEAR EXISTING OR PROPOSED UNDERGROUND CONSTRUCTION WORK, THE CONTRACTOR SHALL PERFORM SUCH WORK AT NO ADDITIONAL COST TO THE OWNER.

PROPOSED WATER SERVICE CONNECTIONS ARE LISTED IN TABLE "A". ALL WORK UNDER ITEM "WATER WORK, MISC.: 1" COPPER SERVICE BRANCH (CITY OF AKRON)" SHALL BE INCLUDED IN THE PRICE BID PER UNIT (LINEAR FOOT) OF COPPER SERVICE BRANCH FURNISHED AND INSTALLED UNDER THIS CONTRACT.

CONSTRUCTION SEQUENCE

THE PROPOSED WATER MAINS SHALL BE CONSTRUCTED GENERALLY IN ACCORDANCE WITH THE WATER WORK CONSTRUCTION SEQUENCE DESCRIBED ON SHEET 7- MAINTENANCE OF TRAFFIC NOTES.

IN THE EVENT THAT IT BECOMES NECESSARY TO PERFORM ADDITIONAL QUANTIITES OF WATER WORK WITHIN THE PROJECT LIMITS THAT ARE NOT SHOWN ON THE PLANS, THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE OWNER.

CONTINGENCY QUANTITIES

ITEM 638- SPECIAL- 6" WATER MAIN DIP CLASS 53, MECHANICAL JOINTS AND FITTINGS (CITY OF AKRON) 20 LF

ITEM 638- SPECIAL- 8" WATER MAIN DIP CLASS 53, PUSH ON JOINTS AND FITTINGS (CITY OF AKRON) 30 LF

WATER WORK, MISC.: 1" AND SMALLER COPPER SERVICE BRANCH (CITY OF AKRON) 35 LF

TABLE A: LIST OF PROPOSED WATER SERVICE CONNECTIONS

NO.	ADDRESS	STREET	PARCEL	TAP STA	OWNER
1	1446	KUBIC DR.	3501952	201+50.00	MARK J GALANESE
2	1462	KUBIC DR.	3501953	203+00.00	FAITH A GREER TRUSTEE
3	1473	KUBIC DR.	3500958	204+10.00	GREGORY T & SUSAN P HARTZ
4	1474	KUBIC DR.	3501763	203+85.00	KENNETH E SCHINDLER
5	1483	KUBIC DR.	3502444	205+02.00	FAITH A GREER TRUSTEE
6	1484	KUBIC DR.	3501773	205+45.00	WILLIAM T & CHERYL A PETERSON
7	1493	KUBIC DR.	3500647	206+18.00	MARK CADEZ
8	1494	KUBIC DR.	3502429	206+35.00	ROBERTA M WALLACE
9	1524	KUBIC DR.	3500455	53+11.00	ZACHARY C GUTTENBERG
10	1415	SANDHILL DR.	3503378	41+82.00	JEFFERY R & VICKY L LEE
11	1443	SANDHILL DR.	3501764	201+17.00	LOREEN R GIOVANNELLI
12	1468	SANDHILL DR.	3500818	46+29.00	CARLOS J ANDRADE
13	1478	SANDHILL DR.	3500886	47+10.00	KRISTIN L PAPCZUN
14	1487	SANDHILL DR.	3506339	47+70.00	WILLIAM W II & ANNE M BICKETT
15	1500	SANDHILL DR.	3500366	48+56.00	ROBERT A & JEANNE E BICKETT
16	1525	SANDHILL DR.	3500193	209+90.00	MEGAN K STEVENS
17	2063	SOUREK TRAIL	3501955	38+05.00	KEVIN T WILSON
18	2077	SOUREK TRAIL	3500476	37+15.00	WILLIAM J TAYLOR
19	2077	SOUREK TRAIL	3500476	302+30.00	WILLIAM J TAYLOR
20	2080	SOUREK TRAIL	3505896	303+30.00	EDWARD G WEAVER JR
21	2085	SOUREK TRAIL	3502443	36+48.00	PHILLIP C & BETHANY E MINOR

CALCULATED EDS CHECKED KDB

WATER WORK NOTES

CUY FALLS - SOUREK TRL

62 82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP002.dwg 08-Oct-20 11:14 AM

CITY OF AKRON
PUBLIC SERVICE DEPARTMENT
WATER SUPPLY BUREAU

WATER SERVICE AND FIRELINE NOTES

No water service will be installed until all requirements of the Akron Water Works are met, including but not limited to the following:

1. Review and approval of all building plans.
2. Receipt of the applicable fees.
3. Approval of the houseline installation and appurtenances.
4. Approval of the fire system which includes review and approval of sprinkler plans.

All on-site water line piping and appurtenances shall be installed according to Water Department specifications and must be inspected and approved by the Water Distribution Division (375-2420) prior to backfilling.

All underground pipe 2 inches and smaller shall be Type "K" soft copper with flared fittings. Compression fittings may be used on 1 1/2 inch and 2 inch pipe. All brass fittings used shall be lead free per NSF61-G. Pipe shall be installed with 4 feet 6 inches of cover.

All underground straight lengths of pipe larger than 2 inches shall be Class 53 cement lined ductile iron with push-on joints. Pipe shall be installed with 4 feet 6 inches of cover. See detailed specifications for approved pipe, fittings, bolts, etc., for water line installation (Acc. #14908).

Maintain a 10 foot horizontal clearance from edge of water line to edge of sanitary and storm sewer pipes.

Maintain an 18 inch minimum vertical clearance from edge of water line to edge of sanitary and storm sewer pipes where the cross.

Maintain a 12 inch vertical clearance from edge of water line to edge of gas, electric, etc.

Maintain a 5 foot minimum horizontal clearance from edge of water line to edge of gas line(s), electric line(s), communication line(s), etc.

APPROVED PIPE, FITTINGS, BOLTS, ETC.

FOR AKRON SYSTEM WATER LINE INSTALLATIONS

Pipe:	Class 53 ductile iron per AWWA C151 specifications, with cement-lining per AWWA C104, labeled polyethylene encasement per AWWA C105 is required.
Pipe Joints:	Push-on joints (Tyton, Fastite, etc.), per AWWA C151 specifications with plain or restraining rubber gaskets per AWWA C111 specifications.
Fittings:	Class 350 ductile iron compact fittings per AWWA C153 or full thickness castings per AWWA C110 are acceptable, with mechanical joint ends and ductile iron follower glands. Anchor pipe is required on all hydrant runs between the tee and hydrant run valve. Anchor tee may be substituted provided there is no conflict with valve location Refer to Hydrant detail Page 23.
Restrained pipe systems:	Push-on joint with Field Lock (4 through 16 inch only), Sure Stop 350 (3 through 16 inch only), or Fast Grip gaskets (4 through 16 inch only), or mechanical joint with restrained follower glands, and 6 ounce zinc anode caps on every bolt thread. TR Flex or Flex-Ring required on all 16 inch or larger pipe diameters when specified on the plans.
Restrained fitting devices:	All valves, bends, offsets, hydrant inlets, caps, plugs, and branches of tees and wyes must be restrained using mechanical joint with restrained follower glands or restraining gaskets. All threads with ductile iron lugs are required on all vertical bends and /or as required by the engineer. Hardwood blocking is required for all diameters 4 through 8 inch, concrete blocking and strapping for all diameters 12 inches and larger. Concrete blocking is required on all fire lines and on all diameters in areas over 100 psi. Restrained joints for diameters 12 inches and under shall use Field-Lock or Fast-Grip restraining gaskets or mechanical joint with restrained follower glands. All ductile iron water mains shall be restrained for a length of 30 feet on each side of a valve, bend or offset using mechanical joint with restrained follower glands.
Mechanical Joint T-head Bolts:	All mechanical joints shall be made with Cor-Ten or construction-grade alloyed ductile iron T-head bolts. T-head bolts shall be ½ inch longer than standard length and must include a 6 oz. zinc anode cap on every bolt thread.
Gate Valves:	Resilient-seat wedge (RSW) valves with restrained mechanical joints. Valves shall have non-rising stems and shall open to the right (clockwise).
Butterfly Valves, 16 Inch and up:	Restrained mechanical joint. Rubber seals in the valve must be replaceable. Flanged end or wafer-style valves are not acceptable.
Valve Boxes:	Only Bibby, Tyler, East Jordan, or Star (heavy duty only), brands acceptable for compatibility.
Curb Boxes:	Riser pipe must be of yoloy corrosion resistant material. Plug must be cast iron and threaded into a brass ring.

INDIVIDUAL RESIDENTIAL BOOSTER PUMPS

PRIVATE BOOSTER PUMPS SHALL NOT BE ALLOWED FOR ANY INDIVIDUAL RESIDENTIAL SERVICE FROM THE PUBLIC WATER SUPPLY MAIN.

CALCULATED EDS CHECKED KDB

WATER WORK NOTES

CUY FALLS - SOUREK TRL

63
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP002.dwg 08-Oct-20 11:15 AM

REF NO.	SHEET NO.	STATION TO STATION			SIDE	SPECIAL 6" WATER MAIN DIP CLASS 53 MECHANICAL JOINTS AND FITTINGS (CITY OF AKRON) FT	SPECIAL 8" WATER MAIN DIP CLASS 53 PUSH ON JOINTS AND FITTINGS (CITY OF AKRON) FT	SPECIAL 6" GATE VALVE WITH VALVE BOX (CITY OF AKRON) EACH	SPECIAL 8" GATE VALVE WITH VALVE BOX (CITY OF AKRON) EACH	SPECIAL 6" FIRE HYDRANT (CITY OF CUYAHOGA FALLS) EACH	638 WATER WORK, MISC: 1" COPPER SERVICE BRANCH (CITY OF AKRON) FT
	62	Water Work Notes				20	30				35
W1	65	300+96		305+20			430		1		
W2		302+30		302+30	RT/LT						24
W3		303+30		303+30	LT						24
W4		303+50		303+50	LT	18		1		1	
W5	66	34+78		39+00			445		1		
W6		36+48		36+48	RT/LT						36.3
W7		37+15		37+15	RT						23.8
W8		37+40		37+40	RT	7		1		1	
W9		38+05		38+05	RT/LT						36.3
W10	67	39+00		44+00			503		1		
W11		39+63		39+63	RT	13		1		1	
W12		41+82		41+82	RT						16.5
W13	68	44+00		49+00			510				
W14		46+29		46+29	RT/LT						32
W15		46+88		46+88	RT	14		1		1	
W16		47+10		47+10	RT/LT						32
W17		47+70		47+70	RT						18
W18		48+56		48+56	RT/LT						32
W19	69	49+00		53+86			500		2		
W20		50+10		50+10	RT	7		1		1	
W21		53+11		53+11	RT						15
W22		53+88		54+00	RT	12				1	
W23	70	200+00		205+00			497		1		
W24		200+67		200+67	RT	13		1		1	
W25		201+17		201+17	RT						15
W26		201+50		201+50	RT/LT						35
W27		203+00		203+00	RT/LT						37
W28		203+46		203+46	RT	10		1		1	
W29		203+85		203+85	RT/LT						32
W30		204+10		204+10	RT						18
W31	71	205+00		210+00			500		2		
W32		205+02		205+02	RT						18
W33		205+45		205+45	RT/LT						32
W34		206+10		206+10	RT	13		1		1	
W35		206+18		206+18	RT						18
W36		206+35		206+35	RT/LT						32
W37		209+90		209+90	RT						10.5
W38		210+02		210+18	RT	16				1	
TOTALS CARRIED TO GENERAL SUMMARY						143	3415	8	8	10	573

CALCULATED EDS
CHECKED KDB

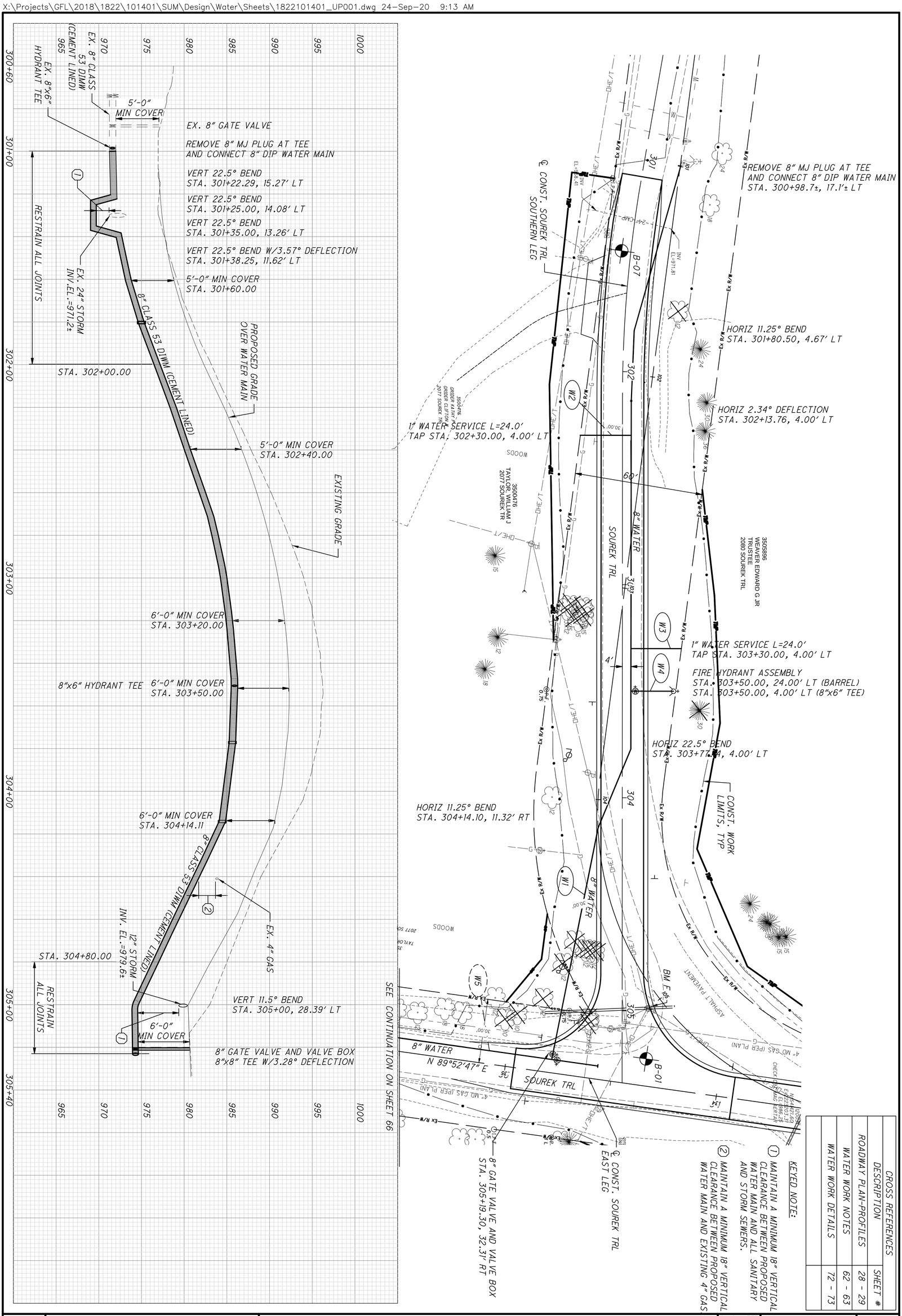
WATER WORKS SUBSUMMARY

CUY FALLS - SOUREK TRL

64
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_US001.dwg 24-Sep-20 9:12 AM

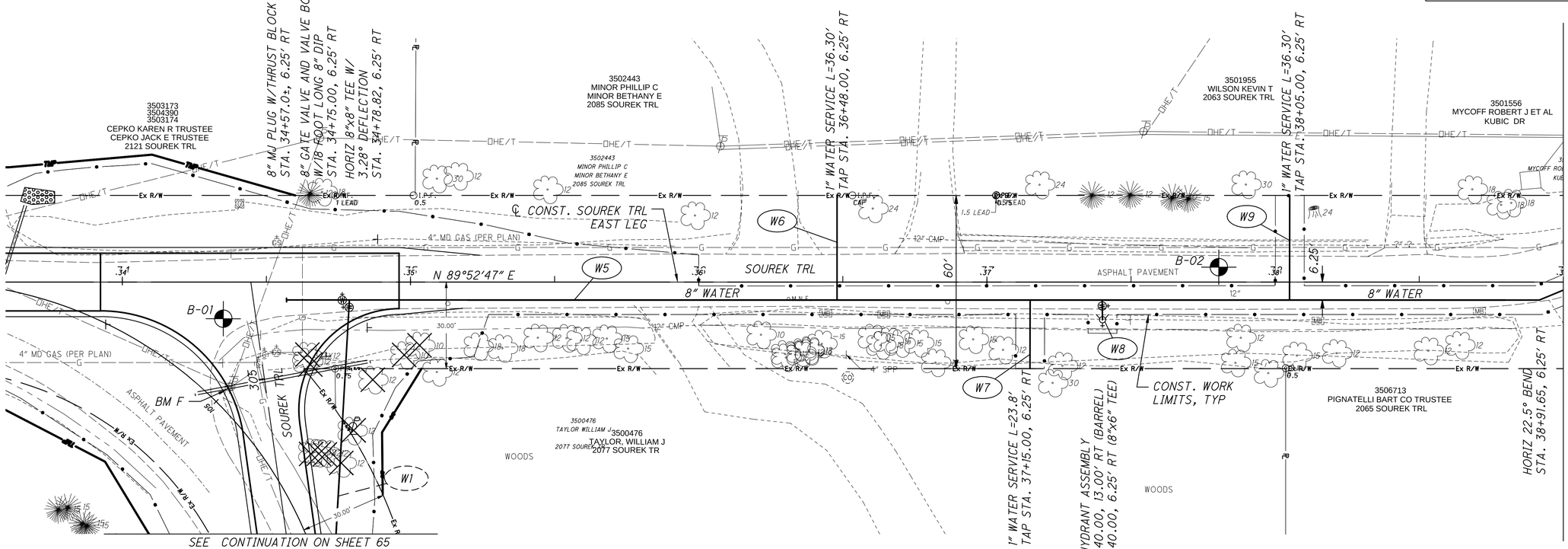
X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:13 AM

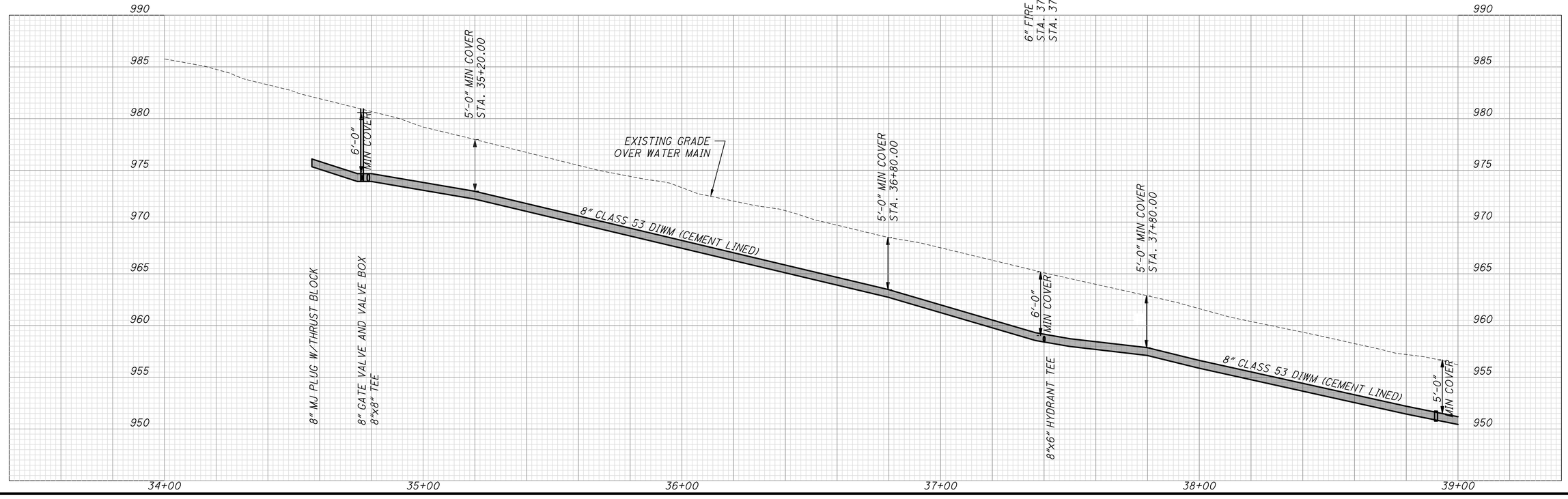


CROSS REFERENCES	
DESCRIPTION	SHEET #
ROADWAY PLAN-PROFILES	28 - 29
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73

65 / 82	CUY FALLS - SOUREK TRL	WATER WORK PLAN AND PROFILE SOUREK TRL STA. 300+50 TO STA. 305+33.79	CALCULATED EDS / CHECKED KDB	0 10 20 40 HORIZONTAL SCALE IN FEET

CROSS REFERENCES	
DESCRIPTION	SHEET #
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73





WATER WORK PLAN AND PROFILE
SOUREK TRL STA. 34+00 TO STA. 39+00

CUY FALLS - SOUREK TRL

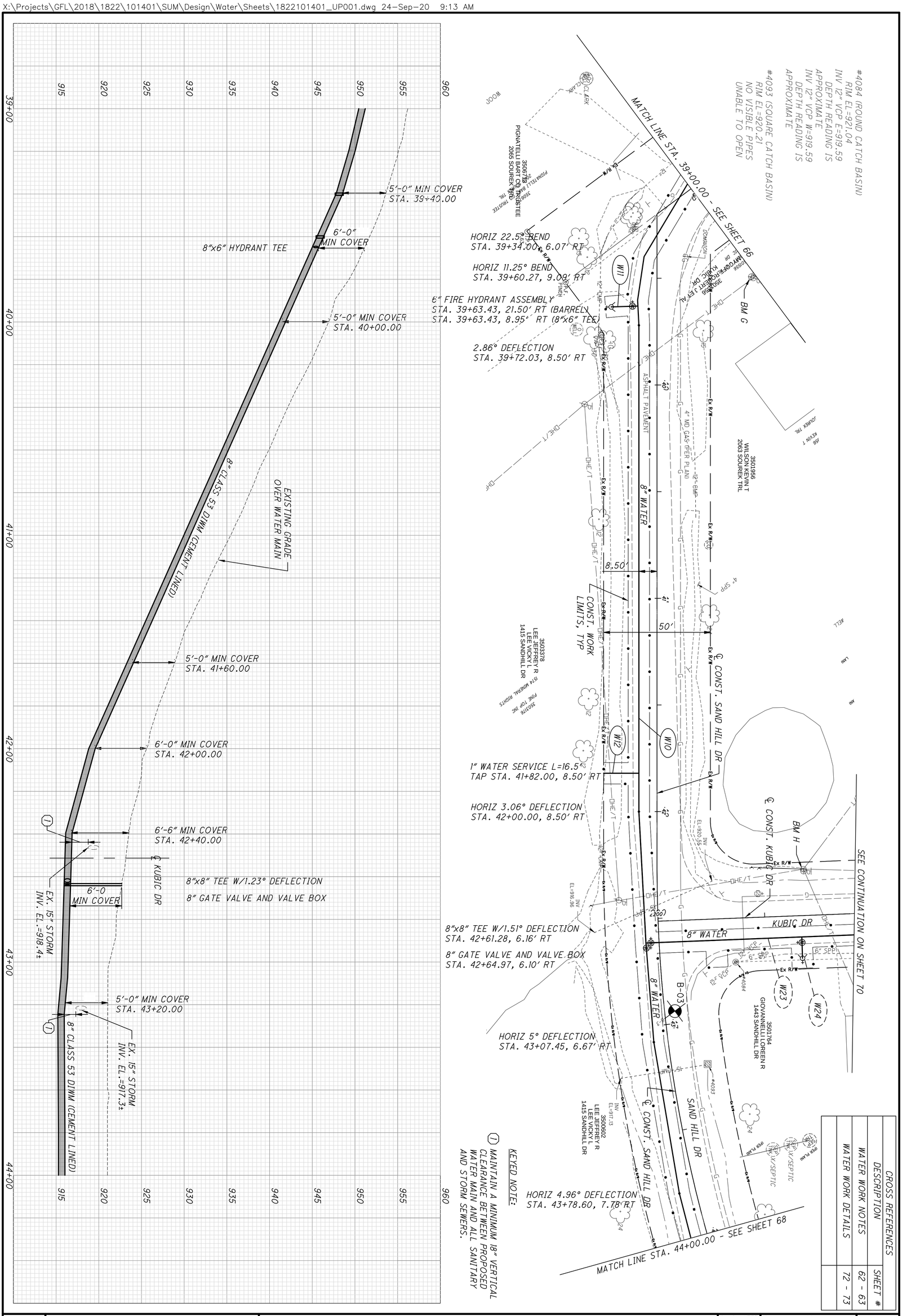
66
82

HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EDS
CHECKED KDB

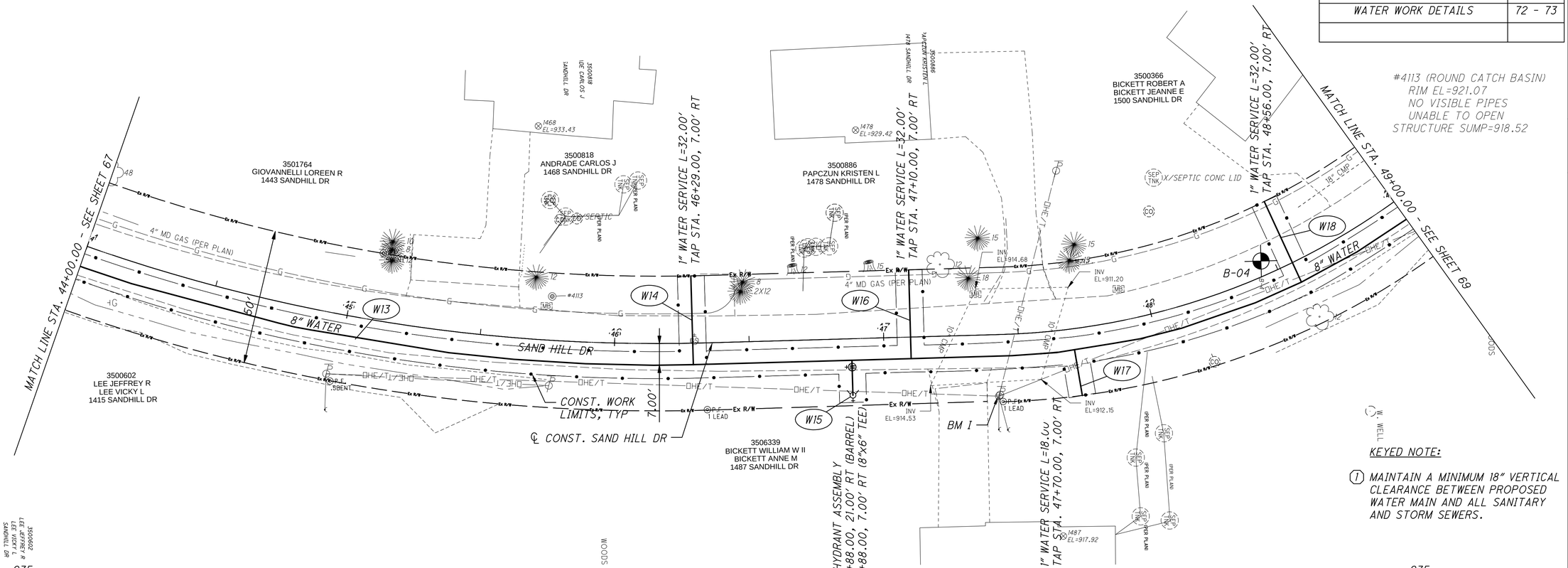
X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:13 AM

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:13 AM



67 / 82	CUY FALLS - SOUREK TRL	WATER WORK PLAN AND PROFILE SAND HILL DR STA. 39+00 TO STA. 44+00	CALCULATED EDS CHECKED KDB	0 10 20 40 HORIZONTAL SCALE IN FEET

CROSS REFERENCES	
DESCRIPTION	SHEET #
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73



CALCULATED EDS
CHECKED KDB

HORIZONTAL SCALE IN FEET
0 10 20 40

WATER WORK PLAN AND PROFILE
SAND HILL DR STA. 44+00 TO STA. 49+00

CUY FALLS - SOUREK TRL

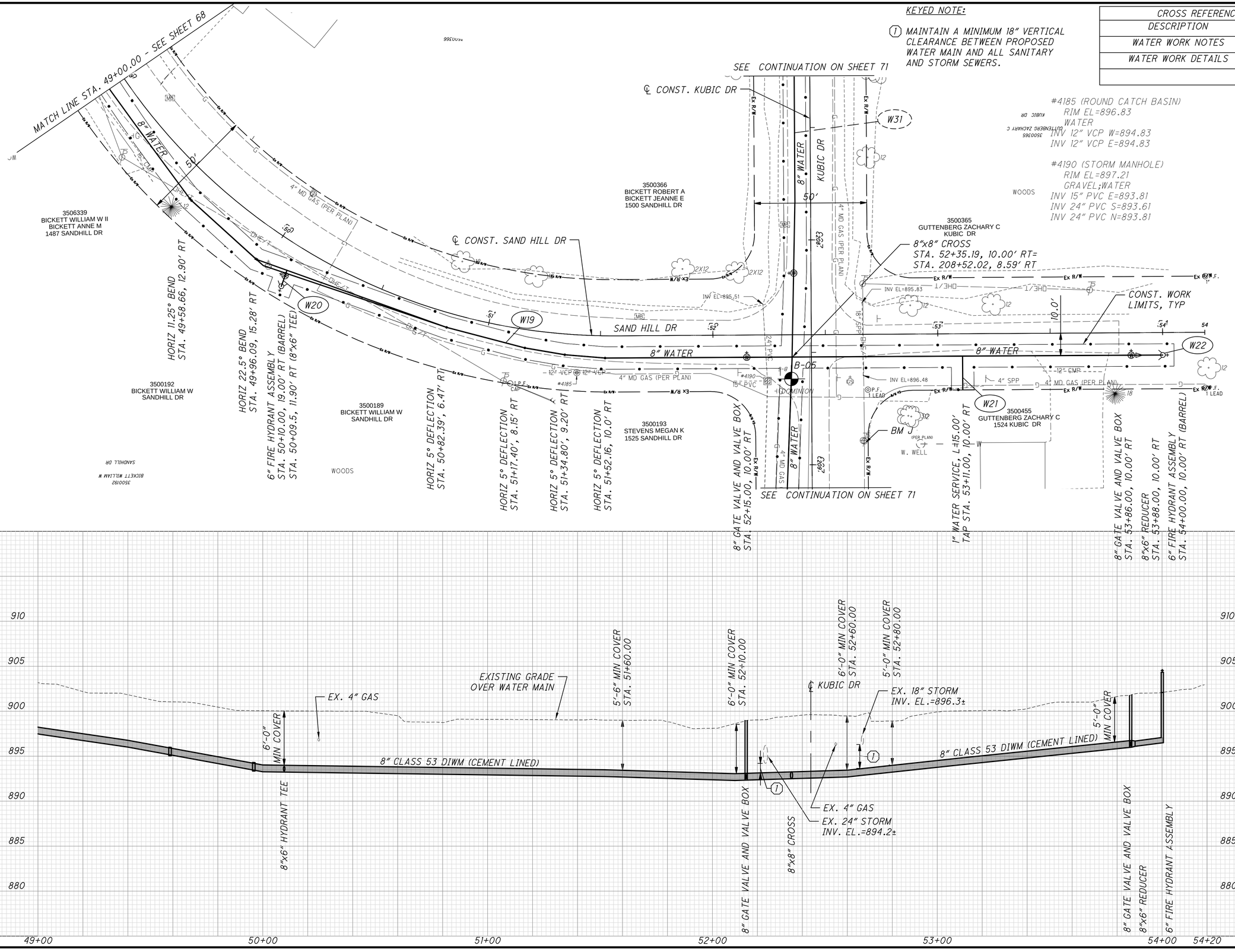
68
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:13 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73

KEYED NOTE:

(1) MAINTAIN A MINIMUM 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATER MAIN AND ALL SANITARY AND STORM SEWERS.



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EDS
CHECKED KDB

WATER WORK PLAN AND PROFILE
SAND HILL DR STA. 49+00 TO STA. 54+00

CUY FALLS - SOUREK TRL

69
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:13 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73

#4084 (ROUND CATCH BASIN)
RIM EL=921.04
INV 12" VCP E=919.59
DEPTH READING IS APPROXIMATE
INV 12" VCP W=919.59
DEPTH READING IS APPROXIMATE

#4093 (SQUARE CATCH BASIN)
RIM EL=920.21
NO VISIBLE PIPES
UNABLE TO OPEN

SEE CONTINUATION ON SHEET 67

℄ CONST. SAND HILL DR

℄ CONST. KUBIC DR

KUBIC DR

8" GATE VALVE AND VALVE BOX
STA. 42+61.34, 2.00' RT
(SAND HILL DR STATIONING)

1" WATER SERVICE, L=55.00', 10.00' RT
TAP STA. 204+50.00

1" WATER SERVICE, L=15.00', 10.00' RT
TAP STA. 201+41.00

1" WATER SERVICE, L=37.00'
TAP STA. 203+00.00, 12.38' RT

1" WATER SERVICE, L=32.00'
TAP STA. 203+85.00, 7.00' RT

1" WATER SERVICE, L=18.00'
TAP STA. 204+0.00, 7.00' RT

6" FIRE HYDRANT ASSEMBLY
STA. 200+67.00, 23.00' RT (8"x6" TEE)
STA. 200+67.00, 10.00' RT (8"x6" TEE)

6" FIRE HYDRANT ASSEMBLY
STA. 203+30.24, 10.13' RT
STA. 203+46.00, 20.00' RT (BARREL)
STA. 203+46.00, 10.28' RT (8"x6" TEE)

HORIZ 11.25° BEND
STA. 201+89.41, 9.91' RT

HORIZ 11.25° BEND
STA. 202+41.17, 11.30' RT

HORIZ 11.25° BEND
STA. 202+79.00, 11.36' RT

HORIZ 11.25° BEND
W/ 4.1° DEFLECTION
STA. 203+18.00, 7.00' RT

8" WATER

12" RCP

4" MD GAS (PER PLAN)

BM H

BM K

B-03

B-06

W10 W23 W24 W25 W26 W27 W28 W29 W30

3501952
GALANESE MARK J
1446 KUBIC DR

3501953
GREER FAITH A TRUSTEE
1462 KUBIC DR

3501763
SCHINDLER KENNETH E
1474 KUBIC DR

3500957
HARTZ GREGORY T
HARTZ SUSAN P
KUBIC DR

3501765
GIOVANNELLI LOREEN R
SANDHILL DR

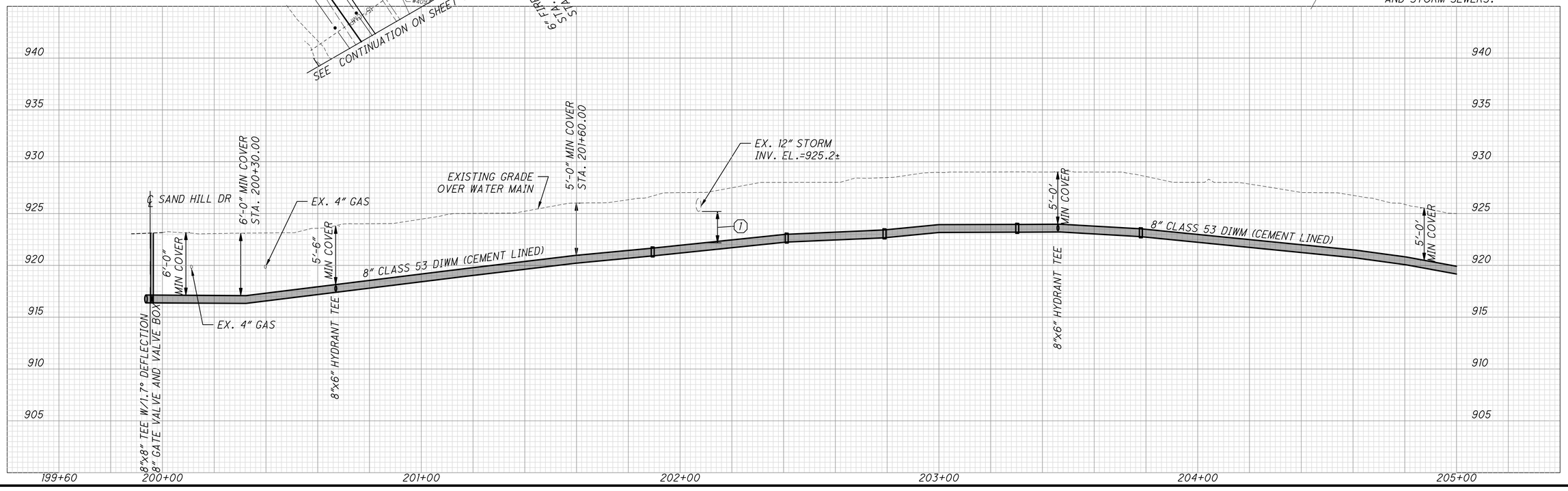
3501764
GIOVANNELLI LOREEN R
1443 SANDHILL DR

3500958
HARTZ GREGORY T
HARTZ SUSAN P
1473 KUBIC DR

MATCH LINE STA. 205+00.00 - SEE SHEET 71

KEYED NOTE:

(1) MAINTAIN A MINIMUM 18" VERTICAL CLEARANCE BETWEEN PROPOSED WATER MAIN AND ALL SANITARY AND STORM SEWERS.



CALCULATED EDS
CHECKED KDB

HORIZONTAL SCALE IN FEET
0 10 20 40

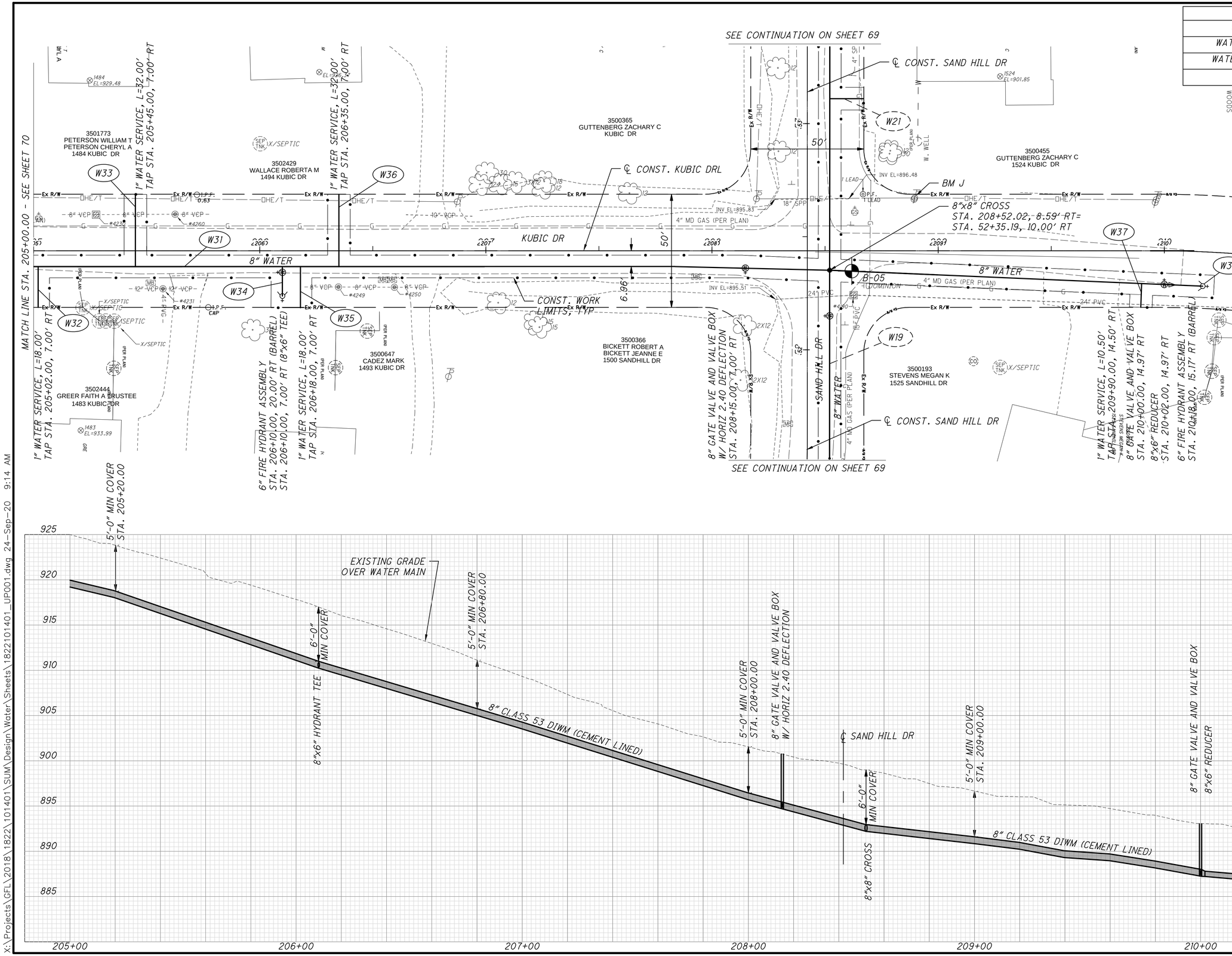
WATER WORK PLAN AND PROFILE
KUBIC DR STA. 200+00 TO STA. 205+00

CUY FALLS - SOUREK TRL

70
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:14 AM

CROSS REFERENCES	
DESCRIPTION	SHEET #
WATER WORK NOTES	62 - 63
WATER WORK DETAILS	72 - 73



#4190 (STORM MANHOLE)
RIM EL=897.21
GRAVEL;WATER
INV 15" PVC E=893.81
INV 24" PVC S=893.61
INV 24" PVC N=893.81

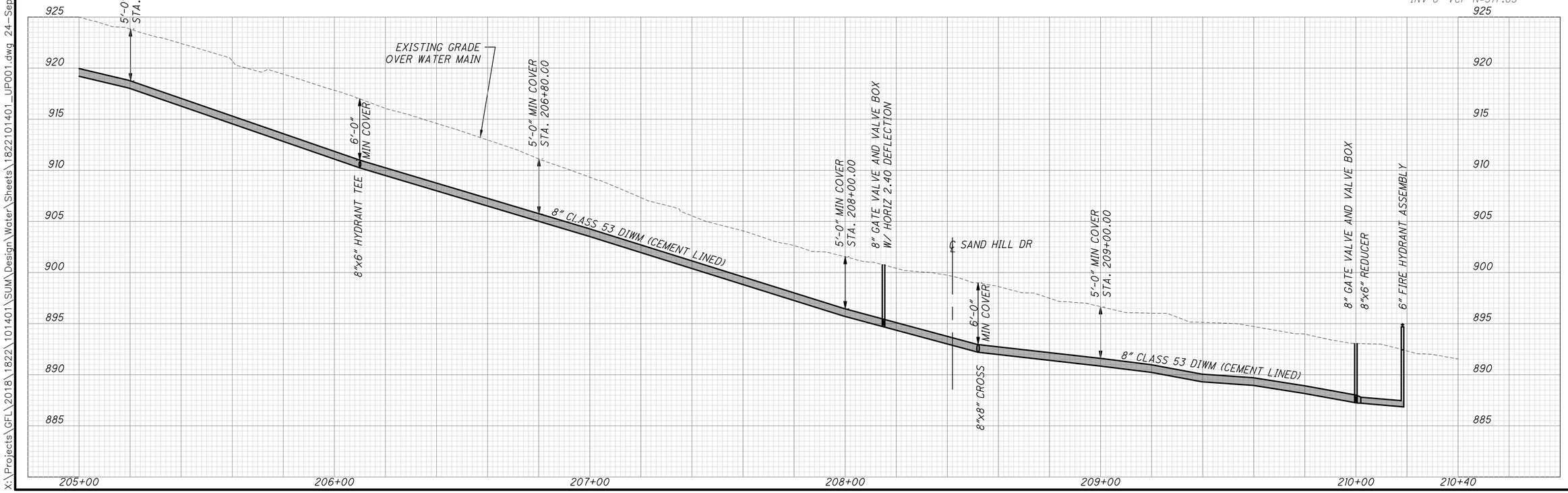
#4230 (ROUND CATCH BASIN)
RIM EL=922.34
INV 8" VCP S=920.64
INV 8" VCP N
(TO #4260)=920.64

#4231 (ROUND CATCH BASIN)
RIM EL=920.43
GRAVEL
INV 12" VCP S=918.83
QUESTIONABLE SIZE
INV 12" VCP N=918.83
QUESTIONABLE SIZE
INV 4" PVC E=919.38

#4249 (ROUND CATCH BASIN)
RIM EL=912.62
GRAVEL
INV 8" VCP S=910.62
INV 8" VCP N
(TO #4250)=910.62

#4250 (ROUND CATCH BASIN)
RIM EL=910.38
GRAVEL
INV 8" VCP S
(TO #4249)=908.98
INV 8" VCP N=908.98

#4260 (ROUND CATCH BASIN)
RIM EL=919.85
INV 8" VCP S
(TO #4230)=917.85
INV 8" VCP N=917.85



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED EDS
CHECKED KDB

WATER WORK PLAN AND PROFILE
KUBIC DR STA. 205+00 TO STA. 210+50

CUY FALLS - SOUREK TRL

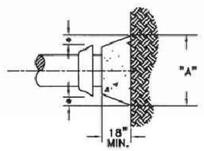
X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP001.dwg 24-Sep-20 9:14 AM

TYPICAL CONCRETE THRUST BLOCKING

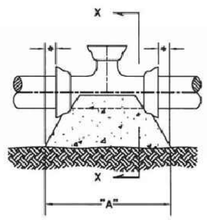
REVISED BY CAS 3/17

The City of Akron, Ohio
Department of Public Services – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

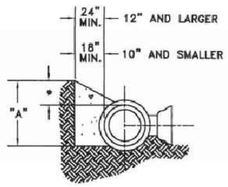
NOT TO SCALE



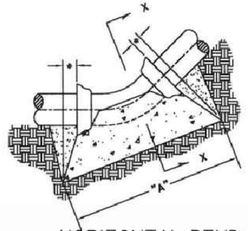
PLUG



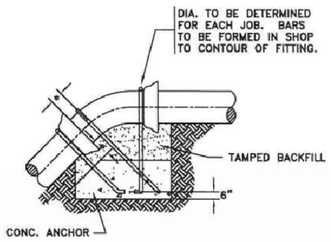
PLAN VIEW OF TEE



SECTION VIEW X-X



HORIZONTAL BEND
VERTICAL BEND (UPWARD)



VERTICAL BEND
(DOWNWARD)

MINIMUM VOLUME OF CONCRETE FOR TOP VERTICAL BENDS

6"	4 C.F.
8"	11 C.F.
10"	22 C.F.
12"	37 C.F.
16"	71 C.F.

"A"
HORIZONTAL BENDS

	90°	45°	22 1/2°	TEE	PLUG
6"	17"	13"	9"	13"	14"
8"	23"	17"	12"	17"	19"
10"	28"	21"	15"	21"	24"
12"	34"	25"	18"	25"	29"
16"	45"	33"	24"	28"	38"

* 6" MINIMUM
COPIED FROM Acc. C – 9015 AND REVISED

NOTE: IN AREAS OVER 100 PSI PLEASE CALL 330-375-2369 FOR THRUST BLOCK SIZING

APPROVED
UTILITIES ENGINEER 4-12-17 DATE

DANIEL HORRIGAN, MAYOR

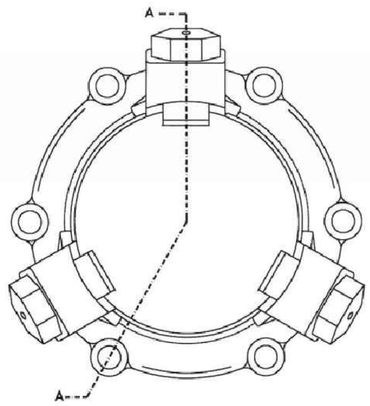
PAGE #19
2017-009-19

MECHANICAL JOINT DUCTILE IRON RESTRAINING GLANDS

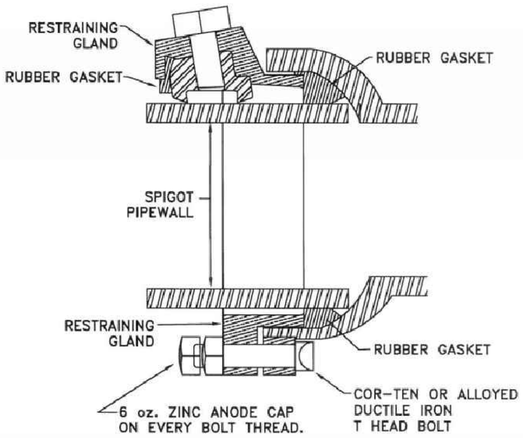
REVISED BY CAS 3/17

The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

NOT TO SCALE



MECHANICAL JOINT DUCTILE IRON
RESTRAINING GLAND



MECHANICAL JOINT
SECTION A–A

NOTE: DUCTILE IRON RESTRAINED GLAND TO BE USED ON ALL FITTINGS

PIPE SIZE	WEIGHT (lbs.)
4"	7
6"	12
8"	16
10"	24
12"	33
16"	58

APPROVED
UTILITIES ENGINEER 4-12-17 DATE

DANIEL HORRIGAN, MAYOR

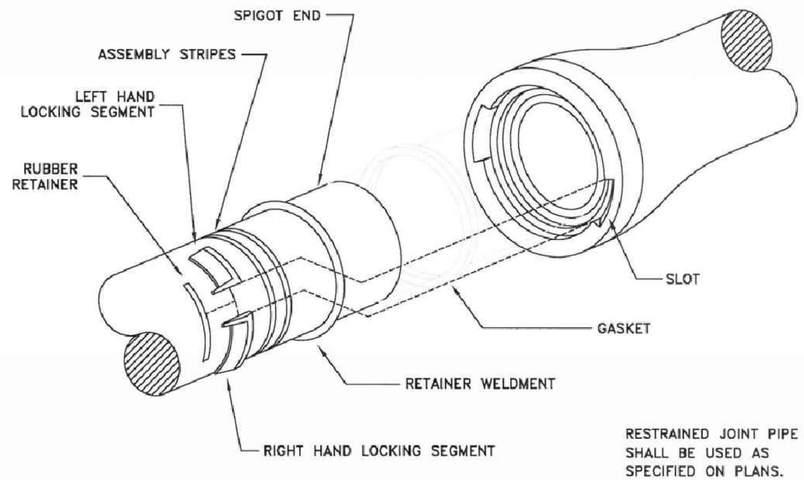
PAGE #20
2017-009-20

RESTRAINED JOINT PIPE

REVISED BY CAS 3/17

The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

NOT TO SCALE



RESTRAINED JOINT PIPE SHALL BE USED AS SPECIFIED ON PLANS.

APPROVED
UTILITIES ENGINEER 4-12-17 DATE

DANIEL HORRIGAN, MAYOR

PAGE #22
2017-009-22

HYDRANT RUN & INSTALLATION

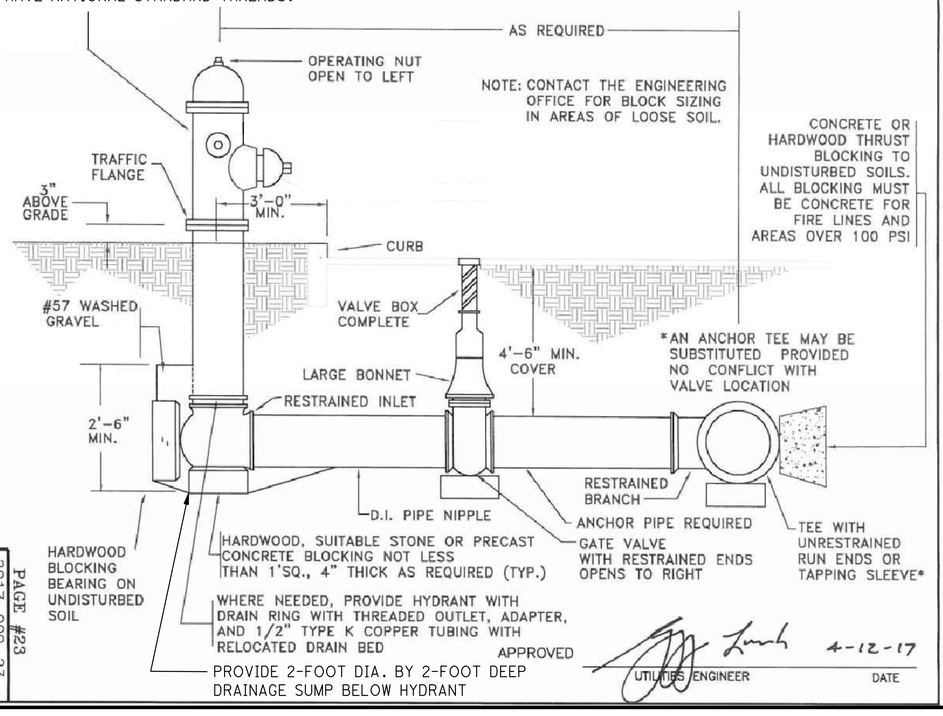
REVISED BY CAS 4/17

The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

NOT TO SCALE

FIRE HYDRANT BARREL SHALL COMPLY WITH CITY OF CUYAHOGA FALLS SPECIFICATIONS. HYDRANTS SHALL HAVE NATIONAL STANDARD THREADS.

JOINTS MAY BE MECHANICAL JOINTS WITH RESTRAINED FOLLOWER GLAND OR PUSH-ON WITH FIELD LOCK OR FAST GRIP GASKET.



APPROVED
UTILITIES ENGINEER 4-12-17 DATE

DANIEL HORRIGAN, MAYOR

PAGE #23
2017-009-23

CALCULATED EDS
CHECKED KDB

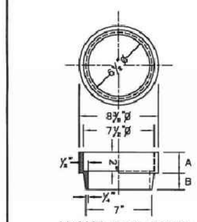
WATER WORK DETAILS

CUY FALLS - SOUREK TRL

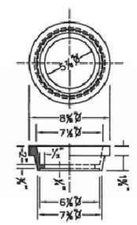
72
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP002.dwg 08-Oct-20 11:15 AM

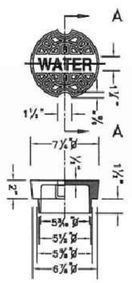
WATER WORK DETAILS



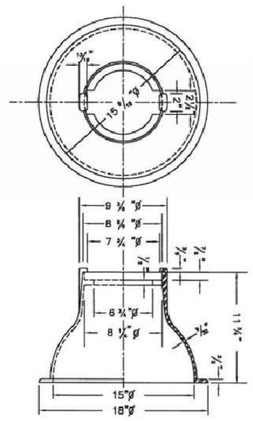
VALVE BOX RISER
2" SIZE & LARGER



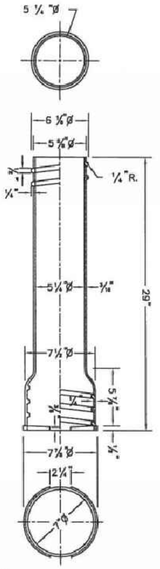
VALVE BOX RISER
1" & 1¼" SIZE



COVER
APPROXIMATE WEIGHT = 15 lbs.

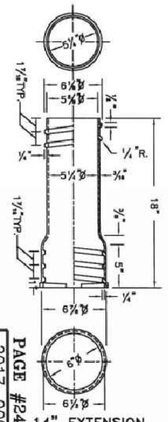


BASE
APPROXIMATE WEIGHT = 33 lbs.

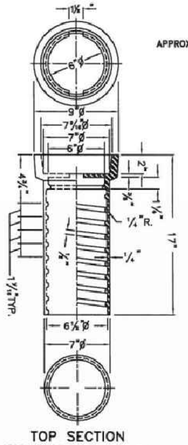


29" CENTER SECTION
APPROXIMATE WEIGHT = 35 lbs.
NOTE: CENTER SECTIONS ALSO MADE IN 36" LENGTHS

SECTION A-A



14" EXTENSION
APPROXIMATE WEIGHT = 20 lbs.
NOTE: 10" EXTENSION ALSO MADE TO 14" OVERALL LENGTH.



TOP SECTION
APPROXIMATE WEIGHT = 28 lbs.
NOTE: TOP SECTION ALSO MADE IN 24" LENGTHS.

VALVE BOX RISER DIMENSIONS

SIZE	A	B
1"	1 1/4"	1 5/8"
1 1/2"	1 3/4"	1 5/8"
2"	2 1/4"	1 3/4"
3"	3 1/4"	2 3/4"
4"	4 1/4"	3 3/4"

VALVE BOXES AND PARTS SHALL BE MADE FROM CAST IRON MEETING LATEST REVISION ASTM A-126. EACH CASTING SHALL BE COATED INSIDE AND OUT WITH COAL-TAR PITCH VARNISH, SIMILAR TO THAT USED FOR COATING CAST IRON PIPE.
APPROXIMATE WEIGHT OF BOX COMPLETE, (BASE, CENTER SECTION, TOP SECTION AND COVER) = 110 lbs.
A CLEARANCE OF 3/16" SHALL BE MAINTAINED BETWEEN SECTIONS AT ALL POINTS.

APPROVED 4-12-17
UTILITIES ENGINEER DATE

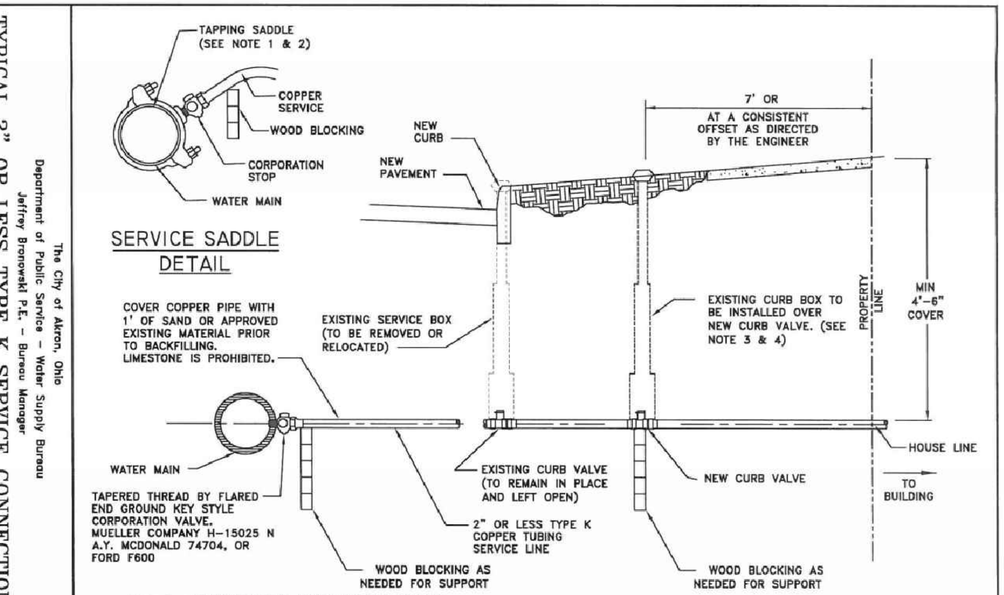
The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

STANDARD VALVE BOX

DRAWN FROM ORIGINAL ACC. A-3207 REVISED BY CAS 3/17
NOT TO SCALE

DANIEL HORRIGAN, MAYOR

PAGE #24
2017-009-24



NOTE: 1. A TAPPING SADDLE IS REQUIRED FOR SERVICES SIZES 1 ¼"-2"AND ALL PLASTIC PIPE.

2. SERVICE SADDLES SHALL BE EITHER A.Y. MCDONALD 3825, POWER SEAL 3409 OR APPROVED EQUAL.

3. 1-1/2" CURB BOXES OR CURB BOXES IN POOR CONDITION SHALL BE REPLACED WITH 2" YOLOY CURB BOX.

4. CURB BOX SHALL BE INSTALLED IN LAWN STRIP. AVOID INSTALLING BOX IN PAVED OR CONCRETE AREAS.

APPROVED 4-12-17
UTILITIES ENGINEER DATE

TYPICAL 2" OR LESS TYPE K SERVICE CONNECTION

REVISED BY CAS 3/17
NOT TO SCALE

The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

DANIEL HORRIGAN, MAYOR

PAGE #28
2017-009-28

NOTES

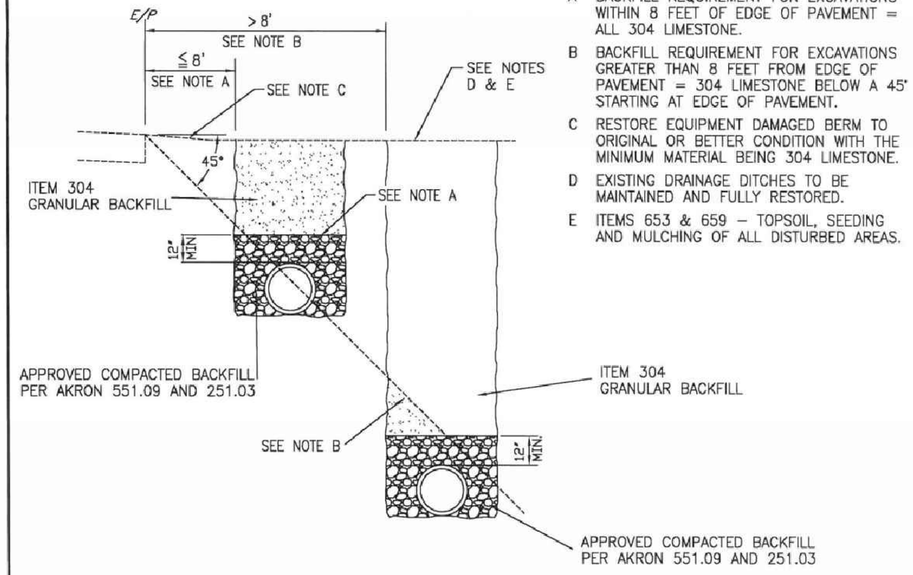
A BACKFILL REQUIREMENT FOR EXCAVATIONS WITHIN 8 FEET OF EDGE OF PAVEMENT = ALL 304 LIMESTONE.

B BACKFILL REQUIREMENT FOR EXCAVATIONS GREATER THAN 8 FEET FROM EDGE OF PAVEMENT = 304 LIMESTONE BELOW A 45° STARTING AT EDGE OF PAVEMENT.

C RESTORE EQUIPMENT DAMAGED BERM TO ORIGINAL OR BETTER CONDITION WITH THE MINIMUM MATERIAL BEING 304 LIMESTONE.

D EXISTING DRAINAGE DITCHES TO BE MAINTAINED AND FULLY RESTORED.

E ITEMS 653 & 659 – TOPSOIL, SEEDING AND MULCHING OF ALL DISTURBED AREAS.



APPROVED 4-12-17
UTILITIES ENGINEER DATE

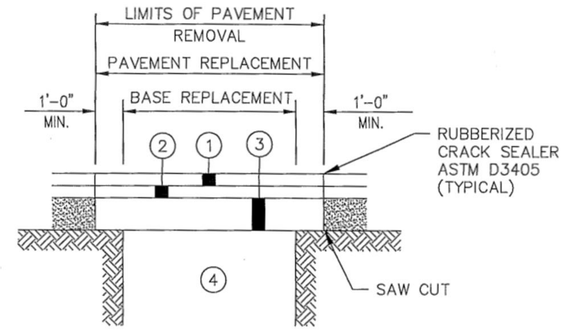
TYPICAL BACKFILL OUTSIDE OF PAVEMENT WITHIN SUMMIT COUNTY RIGHT OF WAY

REVISED BY CAD 3/17
NOT TO SCALE

The City of Akron, Ohio
Department of Public Service – Water Supply Bureau
Jeffrey Bronowski P.E. – Bureau Manager

DANIEL HORRIGAN, MAYOR

PAGE #29
2017-009-29



O.D.O.T. SPECIFICATION REFERENCE

(1) ITEM 448 – 1-1/2" ASPHALT CONCRETE (SURFACE COURSE)

(2) ITEM 448 – 2" ASPHALT CONCRETE (INTERMEDIATE COURSE)

(3) ITEM 301 – 6" ASPHALT CONCRETE (BASE COURSE)

(4) ITEM 613 – LOW STRENGTH MORTAR BACKFILL–TYPE 2

OPEN CUT DETAIL

NO SCALE

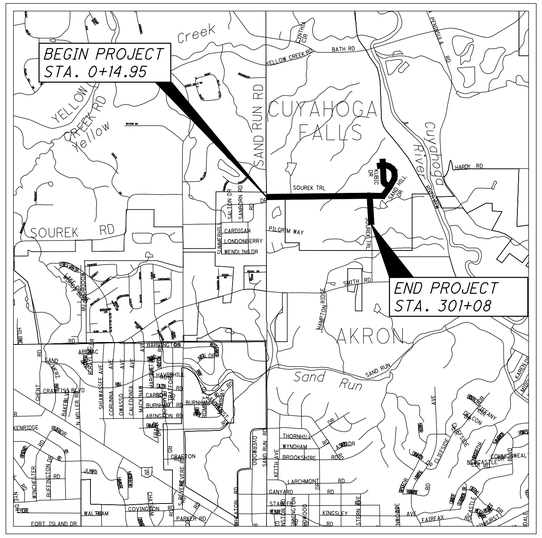
CUY FALLS - SOUREK TRL

X:\Projects\GFL\2018\1822\101401\SUM\Design\Water\Sheets\1822101401_UP002.dwg 24-Sep-20 9:14 AM

CITY OF CUYAHOGA FALLS
CITY OF AKRON

SOUREK TRAIL ROADWAY IMPROVEMENTS AND WATERLINE INSTALLATION

STORM WATER POLLUTION PREVENTION PLAN



LOCATION MAP

LATITUDE: 41°8'57"N LONGITUDE: 81°34'53"W

SCALE IN FEET

0 2500 5000 7500 10000

N

SWP3 STATEMENT

THIS PROJECT SHALL COMPLY WITH THE OEPA CGP OHC000005. THIS SWP3 PLAN WAS DEVELOPED TO CONTROL EROSION AND SEDIMENT PRIOR TO EXITING THE SITE. SEDIMENT WILL BE CONTROLLED WITHIN SITE MEASURES DEMONSTRATED WITHIN THIS PLAN SET. SEE THE SEQUENCE OF CONSTRUCTION ON SHEET 76. THE SCHEDULE SHOULD BE FOLLOWED TO MAINTAIN PROPER CONTROL OF EROSION AND SEDIMENT ON SITE. ALL DISTURBED AREAS WHERE CONSTRUCTION WILL CEASE FOR MORE THAN 14 DAYS MUST BE STABILIZED. SEEDING AND MULCHING SHOULD BE CONSISTENT WITH THE SOIL STABILIZATION REQUIREMENTS SECTION LOCATED ON SHEET 76. SLOPES 3:1 OR GREATER REQUIRE EROSION CONTROL MATTING TO BE INSTALLED TO CONTROL EROSION. A LOG OF GRADING AND STABILIZATION ACTIVITIES AND SITE INSPECTION NEEDS TO BE KEPT. INSPECTIONS SHALL BE PERFORMED AT LEAST ONCE A WEEK AND WITHIN 24 HOURS AFTER A STORM EVENT GREATER THAN 1/2 INCH OF RAINFALL WITHIN A 24-HOUR DURATION. EMAIL INSPECTION REPORTS, LOGS, AND MAPS TO TONY DEMASI AT DEMASITV@CITYOFCF.COM WITHIN 24 HOURS OF INSPECTION. ALL MEASURES SHALL BE OBSERVED TO ENSURE CORRECT OPERATION; REPAIRS TO ANY DAMAGED DEVICE/STURCTURE SHALL BE COMPLETED WITHIN 3 DAYS OF THE INSPECTION.

DESIGN ENGINEER Michael Evans

MICHAEL S. EVANS REG. NO. 70744
DLZ OHIO, INC.

THE SITE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION & MAINTENANCE OF SEDIMENT CONTROL & BMP MEASURES DURING THE SEQUENCE OF CONSTRUCTION.

SITE CONTRACTOR _____

XXX
XXX
XXX
XXX

SWP3 SHEET INDEX

SWPPP - TITLE SHEET. 74
SWPPP - GENERAL NOTES 75-76
SWPPP - SITE PLANS 77-82

OHIO EPA SWP3 CHECKLIST:

PART III.G.1 SITE DESCRIPTION

1. NATURE AND TYPE OF ACTIVITY: ROADWAY, STORM SEWERS, WATER MAINS
2. TOTAL AREA OF SITE DISTURBANCE: 5.03 ACRES (ON SITE); 0.0 ACRES (OFF SITE)
3. RUNOFF COEFFICIENTS (PRE & POST): 0.63 PRE; 0.65 POST
4. IMPERVIOUS AREA AND % OF SITE: 3.43 ACRES 59 %
5. EXISTING SOIL DATA: WaB, RsC2, RsB, OtF, CpB, RuC, BeF
6. EXISTING / PRIOR SITE LAND USES: RESIDENTIAL
7. SCHEDULE OF CONSTRUCTION & IMPLEMENTATION OF BMPS: SEE SHEET 76
8. NAME OF INITIAL AND SUBSEQUENT RECEIVING WATERS: UNNAMED TRIBUTARIES TO CUYAHOGA RIVER
9. WETLANDS OR AQUATIC SITE RECEIVING STORM WATER DISCHARGES: N/A FOR THIS SITE
10. ASPHALT OR CONCRETE PLANT STORM WATER DISCHARGE LOCATIONS: N/A FOR THIS SITE
11. NPDES CONSTRUCTION STORM WATER GENERAL PERMIT #: TO BE FILLED IN

PART III.G.1.1 SWP3 SITE MAP REQUIREMENTS

1. LIMITS OF EARTH-DISTURBING ACTIVITIES: AS SHOWN ON SHEETS 77 - 82
2. LOCATION OF SITE SOIL TYPES: AS SHOWN ON SHEETS 77 - 82
3. EXISTING & PROPOSED CONTOURS (INCLUDING PRE&POST DRAINAGE AREAS): AS SHOWN ON SHEETS 77 - 82
4. SURFACE WATER LOCATIONS WITHIN 200 FEET OF SITE: UNNAMED TRIBUTARIES TO CUYAHOGA RIVER
5. BUILDINGS, ROADS, PARKING LOTS, UTILITIES, ETC.: AS SHOWN ON SHEETS 77 - 82
6. EROSION & SEDIMENT CONTROL PRACTICES: AS SHOWN ON SHEETS 77 - 82
7. SEDIMENT BASINS (WITH VOLUME AND DRAINAGE AREA): NO PLAN FOR SEDIMENT BASIN AT THIS TIME
8. PERMANENT STORM WATER MANAGEMENT PRACTICES: VEGETATED BIOFILTERS
9. AREAS DESIGNATED FOR STORAGE & DISPOSAL OF WASTES: TO BE PROVIDED BY CONTRACTOR
10. DESIGNATED CONSTRUCTION ENTRANCES: SEE NOTE #19 ON SHEET 75
11. LOCATION OF ANY IN-STREAM ACTIVITIES: NOT APPLICABLE TO THIS PROJECT

NOTES:

ITEM 832 - STORMWATER POLLUTION PREVENTION INSPECTIONS

INSPECTIONS SHALL BE PERFORMED PER OHIO EPA REQUIREMENTS AT A MINIMUM. THE CONTRACTOR SHALL UTILIZE QUALIFIED PERSONNEL TO PERFORM THE OEPA NPDES PERMIT REQUIRED INSPECTIONS. USE THE "OEPA CONSTRUCTION SITE INSPECTION CHECKLIST FOR OHC000005" FORM, OR OTHER FORM APPROVED BY OWNER. THE CONTRACTOR SHALL COMPLETE AND SUBMIT INSPECTION FORMS TO THE OWNER WITHIN 48 HOURS AFTER EACH INSPECTION.

A LOG DOCUMENTING GRADING AND STABILIZATION ACTIVITIES AS WELL AS AMENDMENTS TO THIS SWP3 SHALL BE MAINTAINED WITH THESE PLANS. THIS LOG SHALL BE INCLUDED WITH INSPECTION REPORT SUBMISSIONS.

OHIO EPA SWP3 CHECKLIST (CONT'D):

PART III.G.2 SEDIMENT & EROSION CONTROLS

1. PRESERVE RIPARIAN AND WETLAND SETBACKS, BUFFERS, ETC.: NOT APPLICABLE TO THIS PROJECT
2. PHASING OF CONSTRUCTION ACTIVITIES: SEE SEQUENCE OF MAJOR CONSTRUCTION OPERATIONS
3. PORTIONS OF SITE TO REMAIN UNDISTURBED (PRESERVATION AREAS): NO AREAS ON SITE
4. SITE STABILIZATION PROCEDURES AFTER CLEARING & GRUBBING: SEE SOIL STABILIZATION REQUIREMENTS
5. TYPES OF STABILIZATION MEASURES AT VARIOUS TIMES OF THE YEAR: SEE SOIL STABILIZATION REQUIREMENTS
6. EROSION CONTROL SCHEDULE (WITHIN 50' OF STREAM): SEE SOIL STABILIZATION REQUIREMENTS
7. EROSION CONTROL SCHEDULE (BEYOND 50' OF STREAM): SEE SOIL STABILIZATION REQUIREMENTS
8. EROSION CONTROL SCHEDULE (WINTER CONTROLS): SEE SOIL STABILIZATION REQUIREMENTS
9. PERMANENT CONTROL SCHEDULE (WITHIN 50' OF STREAM): SEE SOIL STABILIZATION REQUIREMENTS
10. PERMANENT CONTROL SCHEDULE (IDLE FOR MORE THAN 1 YEAR): SEE SOIL STABILIZATION REQUIREMENTS
11. MEASURES TO REDUCE FLOW RATES: NO QUANTITY CONTROL REQUIRED
12. MEASURES TO DIVERT CONCENTRATED FLOWS: NOT APPLICABLE TO THIS PROJECT
13. SEDIMENT CONTROL DEVICES IMPLEMENTATION: SEE SWP3 PLAN
14. DETAIL DRAWINGS OF SEDIMENT CONTROL DEVICES: SEE SWP3 PLAN
15. SEDIMENT CONTROL INSTALLATION SCHEDULE: SEE SOIL STABILIZATION REQUIREMENTS
16. ALTERNATE SEDIMENT CONTROL ON SLOPES: SEE SOIL STABILIZATION REQUIREMENTS
17. SEDIMENT SETTLING PONDS REQUIRED: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
18. SEDIMENT POND VOLUME: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
19. SEDIMENT POND DEPTH: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
20. SEDIMENT POND LENGTH TO WIDTH RATIO: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
21. SEDIMENT POND CLEANING SCHEDULE: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
22. SEDIMENT POND SAFETY: NO PLAN FOR SEDIMENT BASIN AT THIS TIME
23. CONTROL OF SHEET FLOW: PERIMETER CONTOURS
24. CONTROL OF CONCENTRATED FLOW/STEEP SLOPES: SEE PLANS FOR EROSION CONTROL MAT LOCATIONS
25. INLET PROTECTION REQUIREMENTS: INLET FILTERS ARE REQUIRED AS SHOWN ON THIS PLANS
26. STRUCTURAL SEDIMENT CONTROLS IN A STREAM: N/A
27. STREAM BANKS AND STREAM CROSSINGS: N/A

A PRE-CONSTRUCTION MEETING IS REQUIRED BETWEEN THE CONTRACTOR, THE CITY OF CUYAHOGA FALLS, AND THE SUMMIT SOIL AND WATER CONSERVATION DISTRICT PRIOR TO THE BEGINNING OF ANY CONSTRUCTION ACTIVITY ON SITE. CONTACT CITY ENGINEER AT LEAST 14 DAYS BEFORE COMMENCING ANY LAND DISTURBING ACTIVITY AT 330-971-8180 TO SCHEDULE THE MEETING.

OHIO EPA SWP3 CHECKLIST (CONT'D):

PART III.G.2.G NON-SEDIMENT POLLUTANT CONTROLS

1. DIRECTIONS ON DISPOSAL OF TOXIC/HAZARDOUS WASTE: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
2. RECYCLING OF HAZARDOUS MATERIALS: NOT APPLICABLE TO THIS PROJECT
3. DISPOSAL CONTAINERS FOR VARIOUS WASTES: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
4. FILL FREE OF CONTAMINATION: CONTAMINATED SOILS ARE PROHIBITED FROM THE SITE
5. ON-SITE CONSTRUCTION WASTE DISPOSAL: WASTE IS NOT TO BE REUSED ON SITE
6. CONSTRUCTION & DEMOLITION DEBRIS: ALL C&DD SHALL GO TO THE APPROVED LANDFILL (ORC 3714)
7. STORAGE & MIXING AREAS FOR CHEMICAL COMPOUNDS: NOT APPLICABLE TO THIS PROJECT
8. LOCATION IN RELATION TO WATERCOURSES: AREAS LOCATED SAFELY AWAY FROM WATERCOURSES
9. FUELING & VEHICLE MAINTENANCE AREAS: LOCATION TO BE PROVIDED BY CONTRACTOR
10. LOCATION IN RELATION TO WATERCOURSES: AREAS LOCATED SAFELY AWAY FROM WATERCOURSES
11. SPILL PREVENTION CONTROL PLAN: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
12. CONCRETE WASHOUT STATION: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
13. LOCATION IN RELATION TO WATERCOURSES: AREAS LOCATED SAFELY AWAY FROM WATERCOURSES
14. CONTAMINATED SOILS HANDLING: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
15. REPORTING SPILLS LESS THAN 25 GALLONS: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
16. OPEN BURNING RESTRICTIONS: NOT APPLICABLE TO THIS PROJECT
17. DUST CONTROL REQUIREMENTS: WATER TO BE USED, PER ODOT 616
18. LOCATION IN RELATION TO WATER COLLECTION: ONLY WATER TO BE USED NEAR WATERWAYS
19. AIR PERMITTING REQUIREMENTS: AIR PERMITS NOT REQUIRED FOR THIS PROJECT
20. ASBESTOS ISSUES: NOT APPLICABLE TO THIS PROJECT
21. PROCESS WASTEWATER/LECHATE MANAGEMENT: NOT APPLICABLE TO THIS PROJECT
22. PERMIT TO INSTALL REQUIREMENTS: PTI REQUIRED FOR WATER WORK
23. GOOD HOUSEKEEPING PRACTICES: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES
24. PROTECTION OF STORAGE AREAS: SEE NON-SEDIMENT POLLUTANT CONTROL GENERAL NOTES

SWPPP CONTACTS:

TONY DEMASI, P.E., CITY ENGINEER
CITY OF CUYAHOGA FALLS
2310 2ND STREET
CUYAHOGA FALLS, OHIO 44221
P: 330-971-8180

(FOR SWPPP AND STORMWATER)
JULIE BERBARI
SUMMIT SOIL AND WATER CONSERVATION DISTRICT
1180 SOUTH MAIN STREET
SUITE 241
AKRON, OHIO 44301
P: 330-929-2871

CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN TITLE SHEET

CUY FALLS - SOUREK TRL

74
82

X:\Projects\GFL\2018\1822\101401\SUM Design\Swppp\Sheets\1822101401_DE08.dwg 24-Sep-20 9:14 AM

SEDIMENT POLLUTANT CONTROLS (GENERAL NOTES):

1. PERIMETER SEDIMENT CONTROLS (I.E. SEDIMENT TRAPS, SILT FENCE, PERIMETER GEOTEXTILE FABRIC FENCES, COMPOST BERMS, ETC...) SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING AND WITHIN SEVEN DAYS FROM THE START OF GRUBBING AND SHALL CONTINUE TO FUNCTION UNTIL UPSLOPE AREAS DRAINING TO THEM ARE PERMANENTLY STABILIZED, OR AS DIRECTED BY THE CITY ENGINEER, OR DESIGNATED REPRESENTATIVE.

2. NO EROSION AND SEDIMENT CONTROL BMPS SHALL BE REMOVED FROM THE SITE PRIOR TO ADEQUATE PERMANENT STABILIZATION OF THE ASSOCIATED UPLAND DRAINAGE AREAS AND WITHOUT FIRST OBTAINING AUTHORIZATION FROM THE CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, UNLESS THEIR REMOVAL IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

3. THERE SHALL BE NO SEDIMENT-LADEN OR TURBID DISCHARGES TO WATER RESOURCES OR WETLANDS RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUNDWATER CONTAINS SEDIMENT, IT MUST PASS THROUGH A SEDIMENT TRAP OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SETTLING IN PLACE OR BY DEWATERING INTO A SUMP PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER DEWATERING WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.

4. STREETS DIRECTLY ADJACENT TO CONSTRUCTION ENTRANCES AND RECEIVING TRAFFIC FROM THE DEVELOPMENT AREA, SHALL BE CLEANED DAILY TO REMOVE SEDIMENT TRACKED OFF-SITE. IT SHALL BE REMOVED BY SHOVELING AND SCRAPING AND SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS. SEDIMENT REMOVED SHALL BE PLACED WHERE IT WILL NOT BE SUBJECT TO EROSION OR CONCENTRATED RUNOFF. IF APPLICABLE, THE CATCH BASINS ON THESE STREETS NEAREST TO THE CONSTRUCTION ENTRANCES SHALL ALSO BE CLEANED WEEKLY. BASED ON SITE CONDITIONS, THE CITY ENGINEER, OR HIS DESIGNATED REPRESENTATIVE, MAY REQUIRE ADDITIONAL BEST MANAGEMENT PRACTICES TO CONTROL OFF-SITE TRACKING OF DUST. AT A MINIMUM, ALL STREETS SHALL BE CLEANED AT THE END OF THE WORK WEEK JUST PRIOR TO THE CLOSING OF THE SITE.

5. THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE QUALIFIED INSPECTION PERSONNEL SHALL INSPECT ALL CONTROLS ON THE SITE AT LEAST ONCE EVERY SEVEN CALENDAR DAYS, AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN ONE-HALF INCH OF RAIN PER 24 HOUR PERIOD. WHEN INSPECTIONS REVEAL THE NEED FOR REPAIR, REPLACEMENT, OR INSTALLATION OF EROSION AND SEDIMENT CONTROL BMPS, THE FOLLOWING PROCEDURES SHALL BE FOLLOWED:
   A. WHEN PRACTICES REQUIRE REPAIR OR MAINTENANCE: THE BMP SHALL BE REPAIRED WITHIN 3 DAYS OF INSPECTION. EXCEPTION: SEDIMENT PONDS SHALL BE REPAIRED OR MAINTAINED WITH 10 DAYS OF INSPECTION.
   B. WHEN PRACTICES FAIL TO PROVIDE THEIR INTENDED FUNCTION: A MORE APPROPRIATE BMP SHALL BE SELECTED AND IMPLEMENTED WITHIN 10 DAYS OF THE INSPECTION.
   C. WHEN PRACTICES DEPICTED IN THE SWP3 ARE NOT INSTALLED: THE BMP SHALL BE INSTALLED WITHIN 10 DAYS OF THE INSPECTION. IF THE INSPECTION REVEALS THAT THE BMP IS NOT NECESSARY, THE RECORD MUST CONTAIN AN EXPLANATION FOR THE DECISION.
   D. THE INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY FOR DORMANT SITES IF: (1) THE ENTIRE SITE IS TEMPORARILY STABILIZED, , OR (2) RUNOFF IS UNLIKELY DUE TO WEATHER CONDITIONS FOR EXTENDED PERIODS OF TIME (E.G. FROZEN GROUND).

6. THE APPLICANT SHALL MAINTAIN FOR 3 YEARS FOLLOWING FINAL STABILIZATION, THE RESULTS OF THESE INSPECTIONS, THE NAMES AND QUALIFICATIONS OF PERSONNEL MAKING THE INSPECTIONS, THE DATES OF INSPECTIONS, MAJOR OBSERVATIONS RELATING TO THE IMPLEMENTATION OF THE SWP3, A CERTIFICATION AS TO WHETHER THE FACILITY IS IN COMPLIANCE WITH THE SWP3, AND INFORMATION ON ANY INCIDENTS OF NON-COMPLIANCE DETERMINED BY THESE INSPECTIONS. ALL INSPECTION REPORTS, LOGS, AND MAPS SHALL BE EMAILED TO TONY DEMASI AT DEMASITV@CITYOFCF.COM WITHIN 24 HOURS OF INSPECTION.

7. ALL EROSION AND SEDIMENT CONTROL PRACTICES SPECIFIED ON THIS PLAN SHALL CONFORM WITH THE DETAILS AND SPECIFICATIONS OUTLINED IN THE CURRENT VERSION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES, "RAINWATER AND LAND DEVELOPMENT" MANUAL, OR AS SPECIFIED BY THE CITY ENGINEER, OR DESIGNATED REPRESENTATIVE.

8. EROSION AND SEDIMENT CONTROL PRACTICES NOT ALREADY SPECIFIED ON THIS PLAN MAY BE NECESSARY DUE TO UNFORESEEN ENVIRONMENTAL CONDITIONS AND/OR CHANGES IN DRAINAGE PATTERNS CAUSED BY EARTH-MOVING ACTIVITY. ADDITIONAL PRACTICES SHALL BE IMPLEMENTED AT THE CONTRACTOR'S EXPENSE AS DIRECTED BY THE CITY ENGINEER, OR DESIGNATED REPRESENTATIVE.

9. NO STRUCTURAL SEDIMENT CONTROLS (PERIMETER GEOTEXTILE FABRIC FENCE, SEDIMENT TRAPS, ETC.) SHALL BE USED IN A WATER RESOURCE OR WETLAND, UNLESS THEIR USE IS SPECIFICALLY PROVIDED FOR WITHIN THE SITE'S APPROVED PLAN.

10. SOIL STOCKPILES, TOPSOIL OR OTHERWISE, SHALL BE SITUATED AWAY FROM STREETS, SWALES, OR OTHER WATERWAYS AND SHALL BE SEEDED AND/OR MULCHED IMMEDIATELY.

11. ON-SITE PERSONNEL SHALL TAKE ALL NECESSARY MEASURES TO COMPLY WITH APPLICABLE REGULATIONS REGARDING FUGITIVE DUST EMISSIONS, INCLUDING OBTAINING NECESSARY PERMITS FOR SUCH EMISSIONS. THE CITY ENGINEER, OR DESIGNATED REPRESENTATIVE, MAY REQUIRE DUST CONTROLS INCLUDING, BUT NOT LIMITED TO, THE USE OF WATER TRUCKS TO WET DISTURBED AREAS, TARPING STOCKPILES, TEMPORARY STABILIZATION OF DISTURBED AREAS, AND REGULATION OF THE SPEED OF VEHICLES ON THE SITE.

12. ANY DISTURBED AREA NOT PAVED, SODDED, OR BUILT UPON SHALL HAVE A MINIMUM OF 80% UNIFORM VEGETATIVE COVER PRIOR TO FINAL INSPECTION AND, IN THE OPINION OF THE CITY ENGINEER OR DESIGNATED REPRESENTATIVE, WILL BE MATURE ENOUGH TO CONTROL EROSION SATISFACTORILY AND SURVIVE SEVERE WEATHER.

13. EROSION CONTROL SHALL BE MAINTAINED AT ALL TIMES. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED AND MULCHED IN ACCORDANCE WITH ODOT ITEM 659. INLET PROTECTION, PERIMETER GEOTEXTILE PERIMETER GEOTEXTILE FABRIC FENCES, CONCRETE WASHOUT PITS, TEMPORARY CONSTRUCTION ENTRANCES, AND OTHER EROSION CONTROL ITEMS THE EPA MAY REQUIRE SHALL BE INSTALLED, MAINTAINED, AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR.

14. ALL EXISTING CATCH BASINS OR INLETS WHICH COLLECT STORM RUNOFF FROM AREAS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED AROUND THEM. ALL PROPOSED STORM CATCH BASINS OR INLETS SHALL HAVE INLET PROTECTION. INLET PROTECTION DEVICES AS SHOWN ON THE FOLLOWING SHEETS SHALL BE USED. THE CONTRACTOR SHALL FIELD MEASURE EXISTING CATCH BASIN SIZE, AND PROVIDE THIS INFORMATION TO THE INLET PROTECTION MANUFACTURER FOR USE IN SELECTING MATERIALS. THE CONTRACTOR SHALL INSTALL, MAINTAIN, AND SUBSEQUENTLY REMOVE INLET PROTECTION SYSTEMS ON ALL CATCH BASIN/INLET BASINS THAT ARE WITHIN WORK AREA. THE INLET PROTECTION SYSTEMS SHALL BE REMOVED AFTER THE PAVEMENT HAS BEEN REPLACED AND GRASS HAS ESTABLISHED IN NON-PAVED AREAS. INSTALL INLET PROTECTION SYSTEMS PRIOR TO COMMENCING EARTH DISTURBING ACTIVITIES WITHIN THE CONTRIBUTING DRAINAGE AREA OF CATCH BASINS/INLET BASINS.

15. AT A MINIMUM, ALL STOCKPILES SHALL HAVE PERIMETER GEOTEXTILE FABRIC FENCE PLACED 10' OFF AND ALONG THE BOTTOM FOOTPRINT OF THE FINAL STOCKPILE CONFIGURATION. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THEN THE SURFACE SHALL BE SEEDED, OR STABILIZED WITHIN 7 DAYS OF LAST ACTIVITY. THE STOCKPILE CAN BE LOCATED BY THE CONTRACTOR TO BEST FIT HIS MEANS AND METHODS, BUT AT NO TIME SHALL ALLOW SEDIMENT LADEN RUNOFF TO EXIT THE SITES.

16. THE CONTRACTOR SHALL LIMIT THE SURFACE AREA OF ERODABLE EARTH MATERIAL EXPOSED BY EXCAVATION, BORROW AND FILL OPERATIONS AND PROVIDE IMMEDIATE PERMANENT OR TEMPORARY CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT STREAMS.

17. GROUNDWATER AND STORMWATER DRAINAGE BEARING SEDIMENT SHALLBE FILTERED USING A FILTER BAG OR PONDED TO ALLOW REMOVAL OF SILT, SEDIMENT, DEBRIS AND OTHER POLLUTANTS PRIOR TO DISCHARGE FROM THE SITE. THE SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL. WATER WITH A VISIBLE SHEEN SHALL BE REMOVED BY A VACUUM TRUCK. THERE SHALL BE NO TURBID OR MURKY DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. TRENCH OR GROUND WATER CONTAINING SEDIMENT OR OTHER POLLUTANTS SHALL PASS THROUGH A SEDIMENT TRAP OR FILTER BAG PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. FILTER BAGS SHALL BE LOCATED AT WELL-VEGATATED (GRASSY) AREAS AND DISCHARGED ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE PROVIDED. FILTER BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. DISCHARGE SHALL NOT FLOW ONTO ADJACENT PARCELS. GROUND WATER WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. CLEAN GROUND WATER SHALL NOT BE DISCHARGED OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES, OR ERODE DISCHARGE AREA.

18. CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL SEDIMENT AND EROSION CONTROL ITEMS AT ANY OFF-SITE BORROW OR SPOIL AREAS REQUIRED FOR THIS PROJECT.

19. FOR ALL AREAS WHERE CONSTRUCTION TRAFFIC WILL ACCESS A PAVED ROAD FROM A DISTURBED AREA, A ROCK CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT EVERY POINT WHERE VEHICLES ENTER OR EXIT THE SITE.

NON-SEDIMENT POLLUTANT CONTROLS (GENERAL NOTES):

1. ALL PERSONNEL WILL BE INSTRUCTED REGARDING THE CORRECT PROCEDURE FOR WASTE DISPOSAL. THE INDIVIDUAL WHO MANAGES THE DAY-TO-DAY SITE OPERATIONS WILL BE RESPONSIBLE FOR ENSURING ALL FORMS OF WASTE ARE PROPERLY DISPOSED OF.

2. CONTAMINATED SOILS FROM REDEVELOPMENT SITES SHALL BE DISPOSED OF PROPERLY. RUNOFF FROM CONTAMINATED SOILS SHALL NOT BE DISCHARGED FROM THE SITE. PROPER PERMITS SHALL BE OBTAINED FOR DEVELOPMENT PROJECTS ON SOLID WASTE LANDFILL SITES OR REDEVELOPMENT SITES.

3. CONCRETE WASH WATER SHALL NOT BE ALLOWED TO FLOW TO STREAMS, DITCHES, STORM DRAINS, OR ANY OTHER WATER CONVEYANCE. A CONCRETE WASHOUT PIT WITH NO POTENTIAL FOR DISCHARGE SHALL BE CONSTRUCTED TO CONTAIN CONCRETE WASH WATER. FIELD TILE OR OTHER SUBSURFACE DRAINAGE STRUCTURES WITHIN 10 FEET OF THE SUMP SHALL BE CUT AND PLUGGED.

4. NO SOLID OR LIQUID WASTE SHALL BE DISCHARGED INTO STORM WATER RUNOFF. ANY AND ALL WASTE MATERIALS (SOLID, HAZARDOUS, CONSTRUCTION & DEMOLITION, SANITARY, TOXIC, CONTAMINATED SOILS, ETC.) GENERATED AT THE SITE SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL RULES/REGULATIONS. ON-SITE STORAGE CONTAINERS SHALL BE COVERED AND NOT LEAKING. IT IS PROHIBITED TO BURN, BUY OR POUR OUT ONTO THE GROUND OR INTO THE STORM SEWERS ANY SOLVENTS, PAINTS, GASOLINE, DIESEL FUEL, USED MOTOR OIL, HYDRAULIC FLUID, ANTIFREEZE, CEMENT CURING COMPOUNDS AND ANY OTHER SUCH TOXIC OR HAZARDOUS MATERIALS OR WASTES.

5. HANDLING CONSTRUCTION CHEMICALS. MIXING, PUMPING, TRANSFERRING OR OTHER HANDLING OF CONSTRUCTION CHEMICALS SUCH AS FERTILIZER, LIME, ASPHALT, CONCRETE DRYING COMPOUNDS, AND ALL OTHER POTENTIALLY HAZARDOUS MATERIALS SHALL BE PERFORMED IN AN AREA AWAY FROM ANY WATERCOURSE, DITCH OR STORM DRAIN.

6. EQUIPMENT FUELING AND MAINTENANCE, OIL CHANGING, ETC., SHALL BE PERFORMED AWAY FROM WATERCOURSES, DITCHES OR STORM DRAINS, IN AN AREA DESIGNATED FOR THAT PURPOSE. THE DESIGNATED AREA SHALL BE EQUIPPED FOR RECYCLING OIL AND CATCHING SPILLS. SECONDARY CONTAINMENT WITH A MINIMUM CAPACITY EQUAL TO 110% OF THE VOLUME OF ALL CONTAINERS IN A STORAGE AREA SHALL BE PROVIDED FOR ALL FUEL/LIQUID STORAGE TANKS AND DRUMS.

7. ALL SANITARY WASTE SHALL BE COLLECTED FROM PORTABLE UNITS A MINIMUM OF ONE TIME PER WEEK BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR, AS REQUIRED BY LOCAL REGULATION.

8. THE FOLLOWING GOOD HOUSEKEEPING PRACTICES WILL BE FOLLOWED ON SITE DURING THE CONSTRUCTION PROJECT:
   A. AN EFFORT WILL BE MADE TO STORE ONLY ENOUGH PRODUCT REQUIRED TO DO THE JOB.
   B. ALL MATERIALS STORED ON SITE WILL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR APPROPRIATE CONTAINERS, AND, IF POSSIBLE, UNDER A ROOF OR OTHER ENCLOSURE.
   C. PRODUCTS WILL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES WILL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER.
   D. WHENEVER POSSIBLE, ALL OF A PRODUCT WILL BE USED UP BEFORE DISPOSING OF THE CONTAINER.
   E. THE MANUFACTURER'S RECOMMENDATIONS FOR PROPER USE AND DISPOSAL WILL BE FOLLOWED.
   F. THE SITE SUPERINTENDENT WILL INSPECT DAILY TO ENSURE PROPER USE AND DISPOSAL OF MATERIALS ON SITE.

9. IN ADDITION TO PREVIOUS NOTES, THE FOLLOWING PRACTICES WILL BE FOLLOWED FOR SPILL PREVENTION AND CLEAN-UP:
   A. MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEAN-UP WILL BE POSTED AND SITE PERSONNEL MADE AWARE OF THE PROCEDURES AND THE LOCATION OF THE INFORMATION AND CLEAN-UP SUPPLIES.
   B. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP WILL BE KEPT IN THE MATERIAL STORAGE AREA ON SITE. EQUIPMENT AND MATERIALS WILL INCLUDE, BUT NOT LIMITED TO: BROOMS, DUSTPANS, MOPS, RAGS, GLOVES, GOFFLES, CAT LITTER, SAND, SAWDUST, AND PLASTIC AND METAL TRASH CONTAINERS SPECIFICALLY DESIGNATED FOR THIS PURPOSE.
   C. ALL SPILLS WILL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY.
   D. THE SPILL AREA WILL BE KEPT WELL-VENTILATED AND PERSONNEL WILL WEAR APPROPRIATE PROTECTIVE CLOTHING TO PREVENT INJURY FROM CONTACT WITH A HAZARDOUS SUBSTANCE.
   E. SPILLS OF TOXIC OR HAZARDOUS MATERIALS WILL BE REPORTED TO THE APPROPRIATE STATE OR LOCAL GOVERNMENT AGENCY, REGARDLESS OF SIZE.
   F. THE SPILL PREVENTION PLAN WILL BE ADJUSTED TO INCLUDE MEASURES TO PREVENT THIS TYPE OF SPILL FROM REOCCURRING AND HOW TO CLEAN UP THE SPILL IF THERE IS ANOTHER ONE. A DESCRIPTION OF THE SPILL, WHAT CAUSED IT, AND THE CLEANUP MEASURES WILL ALSO BE INCLUDED.
   G. THE SITE SUPERINTENDENT RESPONSIBLE FOR THE DAY-TO-DAY OPERATIONS WILL BE THE SPILL PREVENTION AND CLEANUP COORDINATOR. THEY WILL DESIGNATE SITE PERSONNEL WHO WILL RECEIVE SPILL PREVENTION AND CLEANUP TRAINING. THESE INDIVIDUALS WILL EACH BECOME RESPONSIBLE FOR A PARTICULAR PHASE OF PREVENTION AND CLEANUP. THE NAMES OF RESPONSIBLE SPILL PERSONNEL WILL BE POSTED IN THE MATERIAL STORAGE AREA AND IN THE OFFICE TRAILER ON SITE.

CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN GENERAL NOTES

CUY FALLS - SOUREK TRL

75
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE09.dwg 24-Sep-20 9:15 AM

NON-SEDIMENT POLLUTANT CONTROLS (GENERAL NOTES, CONTINUED):

10. ALL WORK SPECIFIED AS AN ODOT ITEM SHALL BE GOVERNED BY THE CURRENT STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION HANDBOOK. OTHER ITEMS SHALL CONFORM TO SPECIFICATIONS CONTAINED IN THE CURRENT ODNR MANUAL - RAINWATER AND LAND DEVELOPMENT, UNLESS OTHERWISE NOTED.

11. THE CONTRACTOR SHALL PREVENT DISCHARGE OF WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS FROM MIXING WITH RUNOFF AND LEAVING THE SITE. THE CONTRACTOR SHALL SIZE THE CONCRETE WASHOUT PITS TO HANDLE HIS PROPOSED CONCRETE OPERATIONS AND SHALL MAINTAIN THE PITS SUCH THAT ALL CONCRETE TRUCKS CAN USE IT TO WASHOUT. ALL CEMENT TRUCK WASHOUT SHALL BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. THE CONTRACTOR SHALL LOCATE TEMPORARY CONCRETE WASHOUT PITS AT LOCATIONS APPROVED BY THE OWNER. WASHOUT PITS SHALL BE AT LEAST 50 FEET FROM CATCH BASINS AND WATER COURSES.

12. WHILE CONSTRUCTION WORK IS ON GOING, THE CONSTRUCTION WORK AREA SHALL BE KEPT CLEAN OF ALL RUBBISH AND DEBRIS RESULTING FROM THE WORK. MOM-HAZARDOUS MATERIALS AND WASTE SHALL BE DISPOSED OF AT AN APPROVED LAND FILL OR RECYCLED AT AN APPROPRIATE FACILITY.

13. DUST CONTROL SHALL BE PER ODOT ITEM 616, WATER ONLY.

SOIL STABILIZATION REQUIREMENTS:

TEMPORARY STABILIZATION

AREA TO BE STABILIZED	TIMEFRAME TO BE STABILIZED
ANY DISTURBED AREA BEYOND 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN 7 DAYS OF DISTURBANCE (IF AREA TO REMAIN IDLE FOR MORE THAN 14 DAYS)
ANY DISTURBED AREA WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND NOT AT FINAL GRADE	WITHIN 2 DAYS OF DISTURBANCE (IF AREA TO REMAIN IDLE FOR MORE THAN 14 DAYS)
ANY DISTURBED AREA THAT WILL REMAIN IDLE OVER THE WINTER	PRIOR TO THE ONSET OF WINTER

PERMANENT STABILIZATION

AREA TO BE STABILIZED	TIMEFRAME TO BE STABILIZED
ANY DISTURBED AREA BEYOND 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN 7 DAYS OF DISTURBANCE
ANY DISTURBED AREA WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AND AT FINAL GRADE	WITHIN 2 DAYS OF DISTURBANCE
ANY DISTURBED AREA TO REMAIN DORMANT FOR ONE YEAR OR MORE	WITHIN 7 DAYS OF DISTURBANCE

SOIL STABILIZATION TECHNIQUES

TYPE OF STABILIZATION	ACCEPTABLE USAGE
SEEDING & MULCHING	AREAS FLATTER THAN 3:1
SODDING	AREAS FLATTER THAN 3:1
EROSION CONTROL MATTING	AREAS FLATTER THAN 2:1
ROCK CHANNEL PROTECTION	AREAS FLATTER THAN 1.5:1

PERMANENT SEEDING REQUIREMENTS (PER SHEET 6)

CONTRACTOR SHALL FOLLOW ALL REQUIREMENTS OF ODOT ITEM 659 AND THE SPECIAL PROVISIONS FOR SEEDING AND MULCHING CONTAINED WITHIN THESE NOTES, USING THE SEED MIX SPECIFIED HEREIN:

A. SEED SPECIES: SEED OF GRASS SPIES AS FOLLOWS, WITH NOT LESS THAN 85 PERCENT GERMINATION, NOT LESS THAN 98 PERCENT SURE SEED, AND NOT MORE THAN 0.05 PERCENT WEED SEED.
B. APPLICATION RATE: SHALL INCLUDE THE FOLLOWING GRASSES AT A MINIMUM RATE OF 220 LBS/AC OR 5 LBS PER 1000 SQ FT:

GRASSES:	COMMON NAME:	PROPORTION BY WEIGHT:
BOUTELOUA DACTYLOIDES	BUFFALO GRASS	15.00%
FESTUCA BREVIPILA	HARD FESCUE	17.00%
FESTUCA OVINA	SHEEP FESCUE	17.00%
FESTUCA RUBRA SUBS. FALLAX	CHEWINGS FESCUE	17.00%
FESTUCA RUBRA	RED FESCUE	17.00%
FESTUCA RUBRA VAR. RUBRA	CREEPING RED FESCUE	17.00%

SOIL STABILIZATION TIME TABLE

TYPE OF STABILIZATION	MONTHS OF THE YEAR
TEMPORARY SEEDING	MARCH THRU SEPTEMBER
PERMANENT SEEDING	MARCH THRU SEPTEMBER
MULCHING	JANUARY THRU DECEMBER
MAINTENANCE	JANUARY THRU DECEMBER

SEQUENCE OF MAJOR CONSTRUCTION OPERATIONS
(I.E. GRUBBING, EXCAVATION, GRADING, UTILITIES, & INFRASTRUCTURE)

1. INITIAL SEDIMENT CONTROL
   - INSTALL INLET PROTECTION AND PERIMETER GEOTEXTILE FABRIC FENCE PERIMETER CONTROL WHERE SHOWN ON THE PLANS.

2. DEMOLITION
   - REMOVE TREES AND STUMPS WHERE SHOWN ON PLANS.
   - REMOVE PAVEMENTS AS REQUIRED.
   - STABILIZE PER PLAN NOTES ALL DISTURBED AREAS THAT ARE TO REMAIN DORMANT.

3. EXCAVATION, GRADING & UTILITY INSTALLATION
   - STRIP TOPSOIL FROM ALL EXCAVATION AREAS, PLACING ALL TOPSOIL INTO
   - INSTALL ROCK CHECK DAMS TEMPORARY STOCKPILES.
   - STABILIZE PER PLAN NOTES AND SPECIFICATIONS ALL TOPSOIL STOCKPILES.
   - EXCAVATE TRENCHES, INSTALL PIPE, AND BACKFILL PER TRENCH REPAIR DETAILS.
   - EXCAVATE AND INSTALL ROADWAY WORK.
   - SEED AND MULCH PER PLAN NOTES ALL STOCKPILES AND DISTURBED AREAS OF THE SITE.

4. FINAL SITE STABILIZATION AND DISPOSITION OF BMPS
   - PERFORM SITE GRADING AND INSTALL VEGETATED BIOFILTERS WHERE SHOWN ON PLANS.
   - STABILIZE PER PLAN NOTES AND SPECIFICATIONS ALL AREAS AT FINAL GRADE.
   - REMOVE TEMPORARY BMPS AND TRAPPED SEDIMENT WHEN DISTURBED AREAS HAVE ESTABLISHED 80% UNIFORM VEGETATIVE COVER.

POST-CONSTRUCTION BMP:

THE POST-CONSTRUCTION BMP SHALL BE VEGETATED BIOFILTERS. SEE THE TABLE BELOW FOR THE LOCATION OF VEGETATED BIOFILTERS:

DITCH BOTTOM WIDTH					
ALIGNMENT	BEGIN STATION	END STATION	SIDE	WIDTH	VEGETATED BIOFILTER?
SOUREK TRL	0+60	3+70	RT	2'	N
SOUREK TRL	3+70	3+90	RT	VARIES 2' TO 4'	N
SOUREK TRL	3+90	8+93	RT	4'	Y
SOUREK TRL	10+95	18+77	RT	2'	N
SOUREK TRL	18+77	22+71	RT	4'	Y
SOUREK TRL	29+02	33+80	RT	2'	N
SOUREK TRL	4+00	6+25	LT	4'	Y
SOUREK TRL	11+81	17+40	LT	2'	N
SOUREK TRL	22+59	23+05	LT	2'	N
SOUREK TRL	29+72	34+10	LT	2'	N
SOUREK TRL SOUTH	301+85	303+50	RT	4'	N
SOUREK TRL SOUTH	303+50	304+85	RT	4'	Y
SOUREK TRL SOUTH	304+85	305+10	RT	VARIES 4' TO 2'	N
SOUREK TRL SOUTH	301+25	304+75	LT	4'	Y
SOUREK TRL SOUTH	304+75	305+25	LT	VARIES 4' TO 2'	N

CALCULATED SA
CHECKED MSE

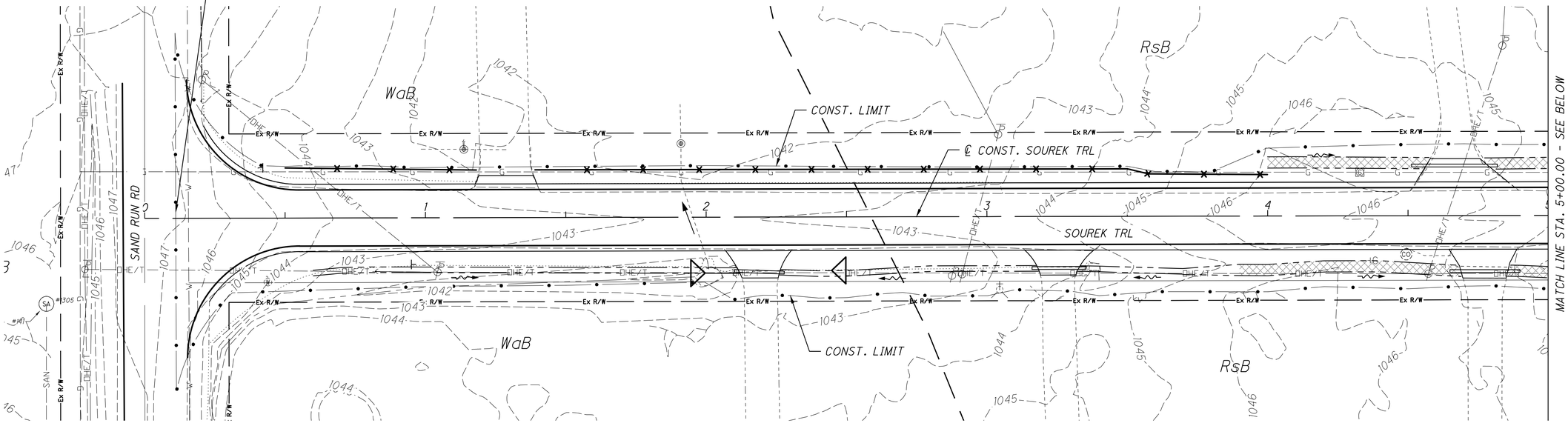
STORMWATER POLLUTION PREVENTION PLAN GENERAL NOTES

CUY FALLS - SOUREK TRL

76
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE09.dwg 24-Sep-20 9:15 AM

CONSTRUCTION ENTRANCE, SEE SEDIMENT POLLUTION CONTROLS GENERAL NOTE NO. 4 ON SHEET 75

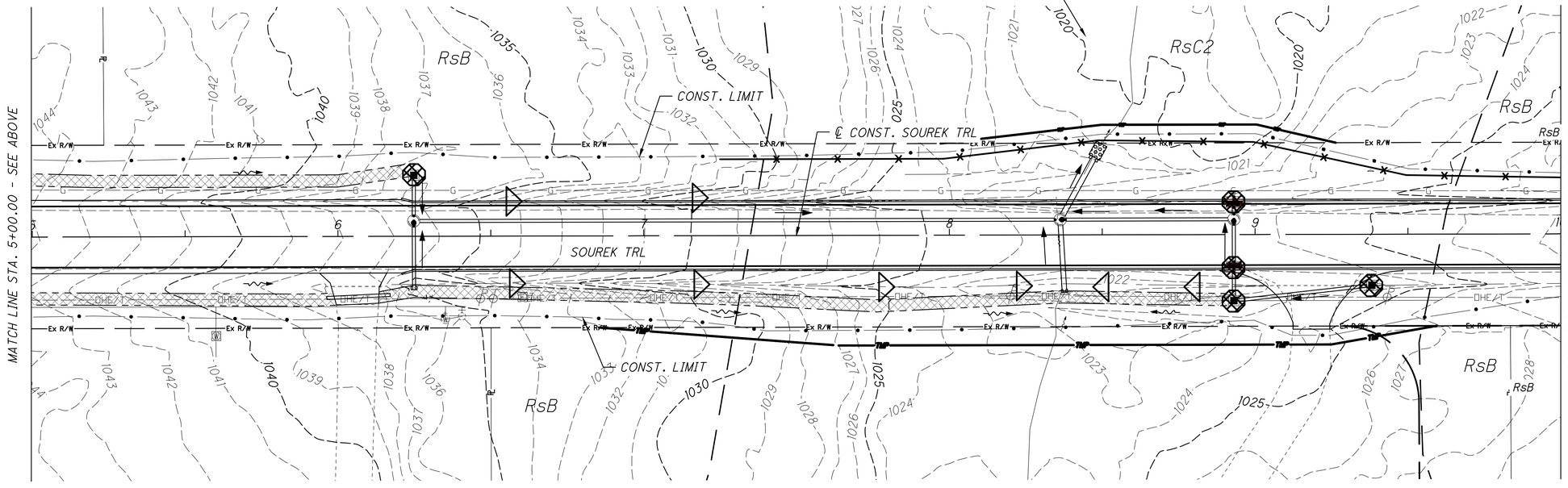


LEGEND:

- INLET PROTECTION PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR EXISTING DITCH PER ODOT SCD DM-4.4
- PERIMETER GEOTEXTILE FABRIC FENCE PER ODOT SCD DM-4.4
- SOIL DIVIDE LINES
- VEGETATED BIOFILTER
- ROCK CHANNEL PROTECTION

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	SOIL NAME
WaB	WADSWORTH SILT LOAM, 2 TO 6 PERCENT SLOPES
RsB	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES
RsC2	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES, ERODED

UNNAMED TRIBUTARY TO CUYAHOGA RIVER



HORIZONTAL SCALE IN FEET
0 10 20 40

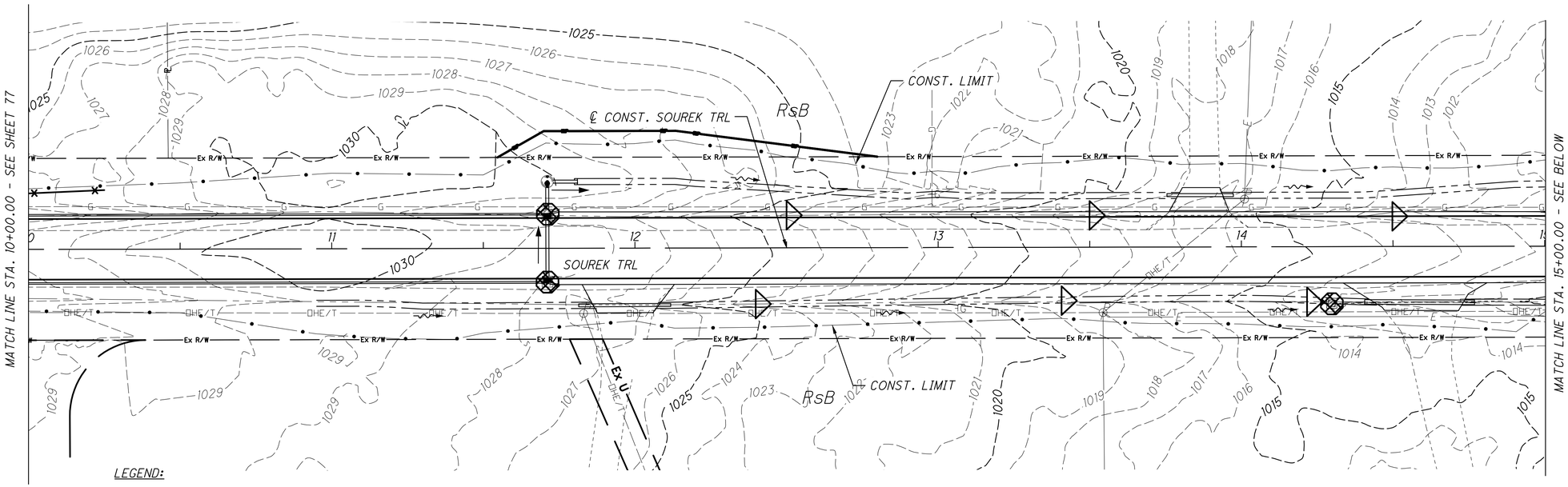
CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN
STA 00+00.00 TO STA 10+00.00

CUY FALLS - SOUREK TRL

77
82

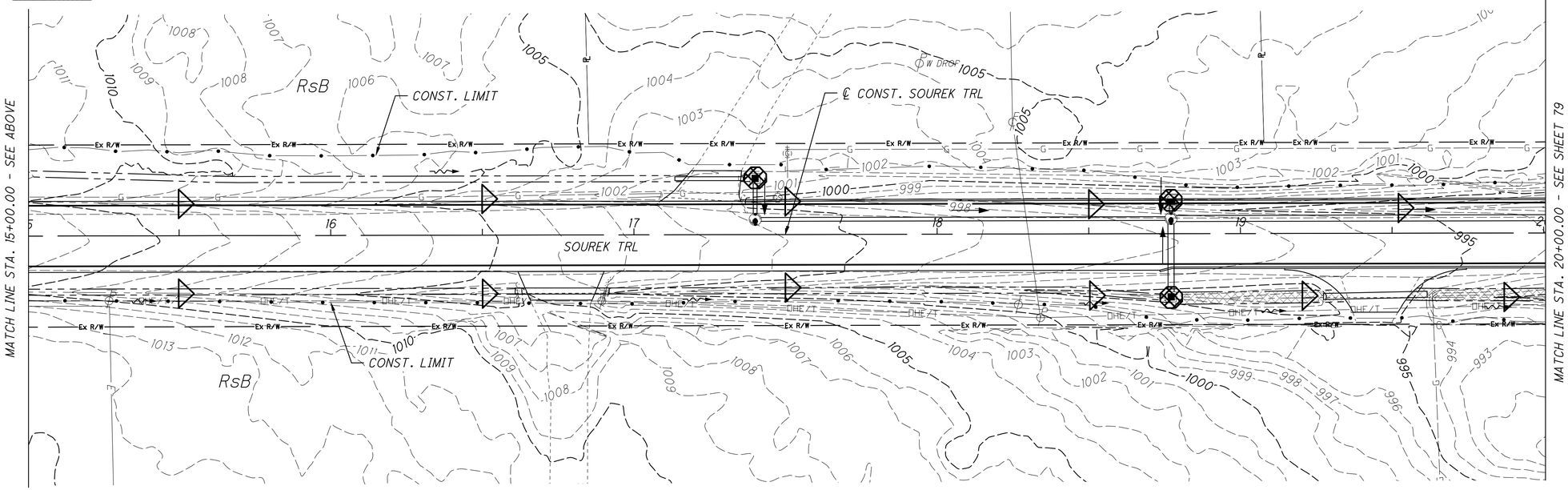
X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE010.dwg 24-Sep-20 9:16 AM



LEGEND:

- INLET PROTECTION PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR EXISTING DITCH PER ODOT SCD DM-4.4
- PERIMETER GEOTEXTILE FABRIC FENCE PER ODOT SCD DM-4.4
- SOIL DIVIDE LINES
- VEGETATED BIOFILTER
- ROCK CHANNEL PROTECTION

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	SOIL NAME
RsB	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES



N

HORIZONTAL SCALE IN FEET
0 10 20 40

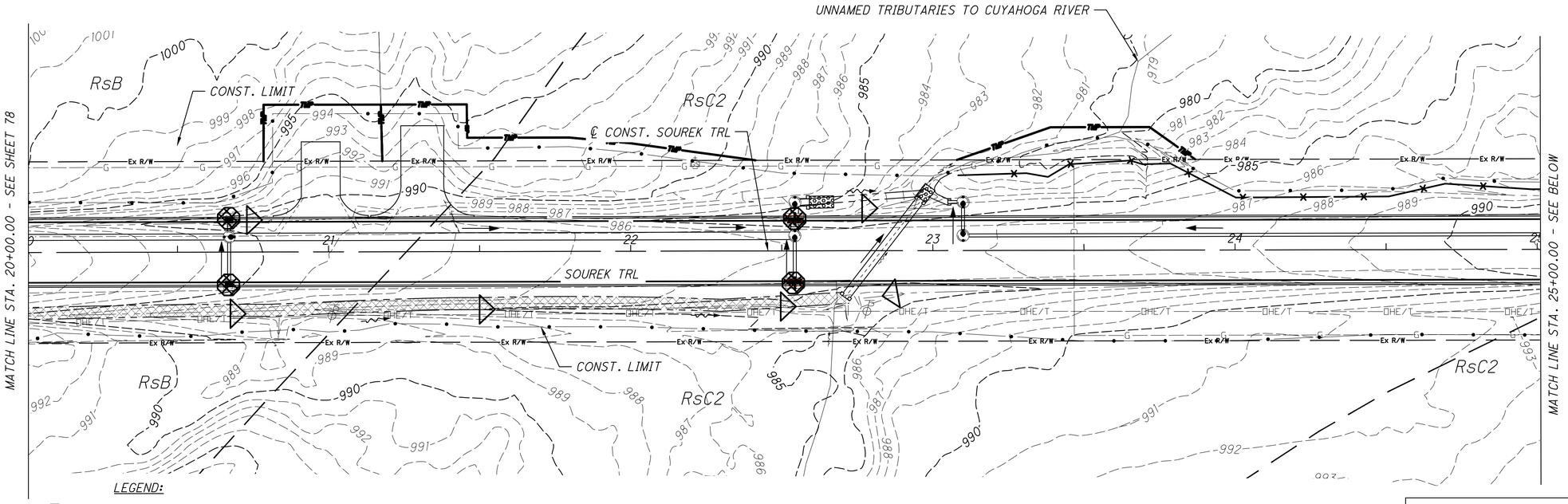
CALCULATED SA
CHECKED MSE

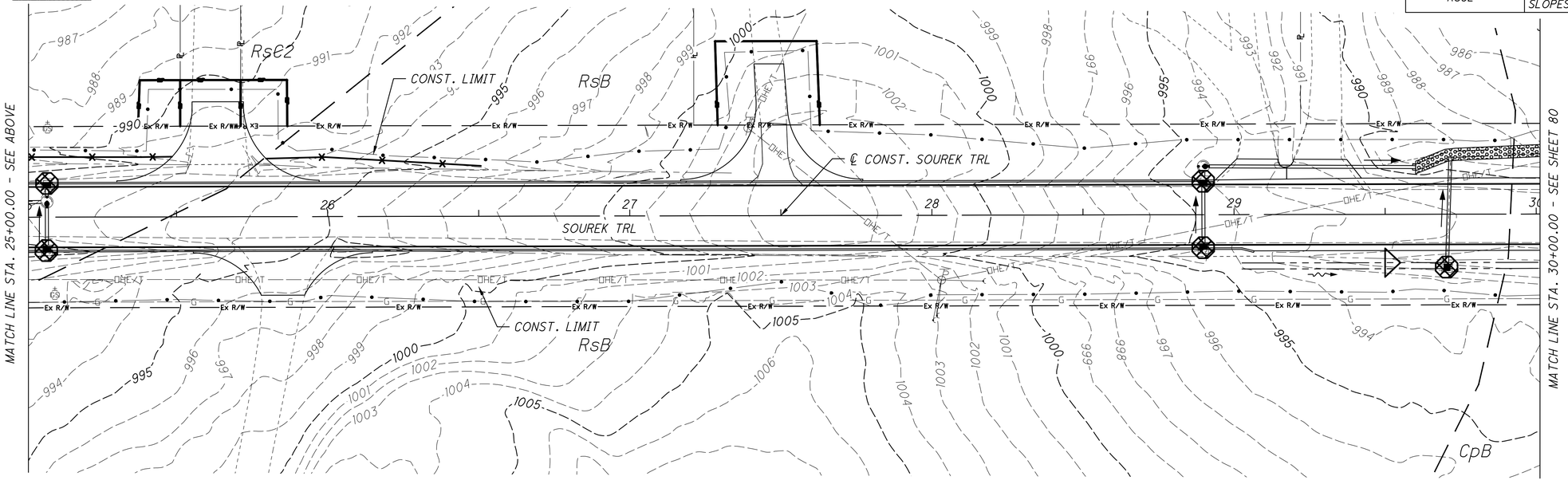
STORMWATER POLLUTION PREVENTION PLAN
STA 10+00.00 TO STA 20+00.00

CUY FALLS - SOUREK TRL

78
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE010.dwg 24-Sep-20 9:16 AM





LEGEND:

- *INLET PROTECTION PER ODOT SCD DM-4.4*
- *GEOTEXTILE FABRIC DITCH CHECKS FOR EXISTING DITCH PER ODOT SCD DM-4.4*
- *PERIMETER GEOTEXTILE FABRIC FENCE PER ODOT SCD DM-4.4*
- *SOIL DIVIDE LINES*
- *VEGETATED BIOFILTER*
- *ROCK CHANNEL PROTECTION*

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	*SOIL NAME*
CpB	*CHILI SILT LOAM, 2 TO 6 PERCENT SLOPES*
RsB	*RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES*
RsC2	*RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES, ERODED*

HORIZONTAL SCALE IN FEET
0 10 20 40

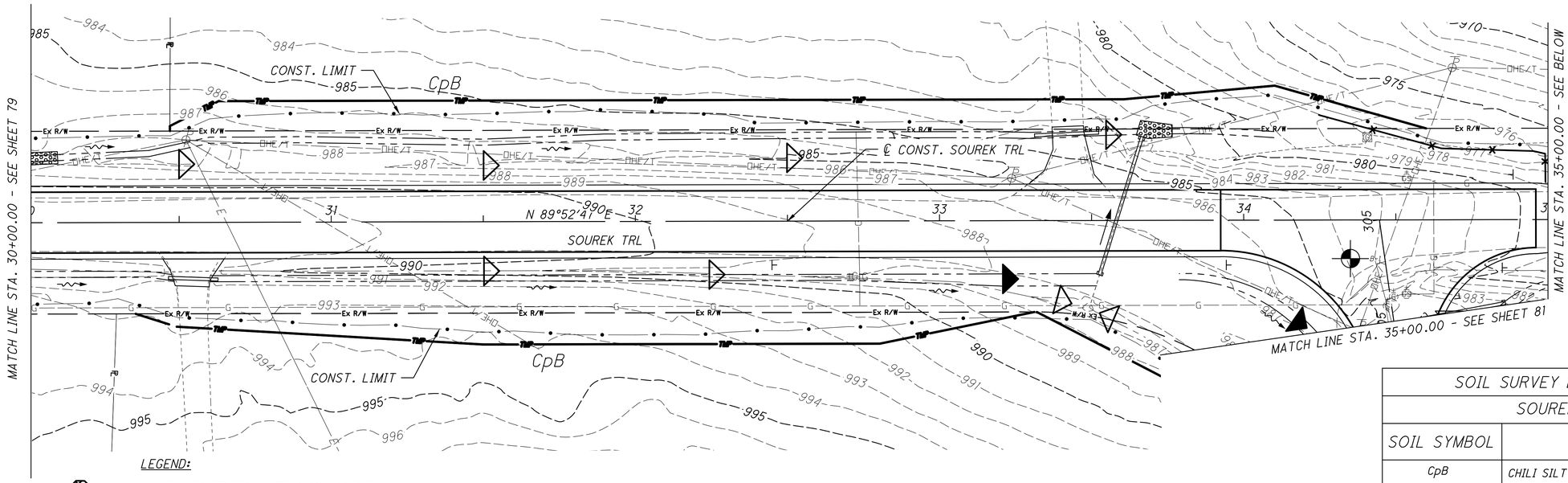
CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN
STA 20+00.00 TO STA 30+00.00

CUY FALLS - SOUREK TRL

79
82

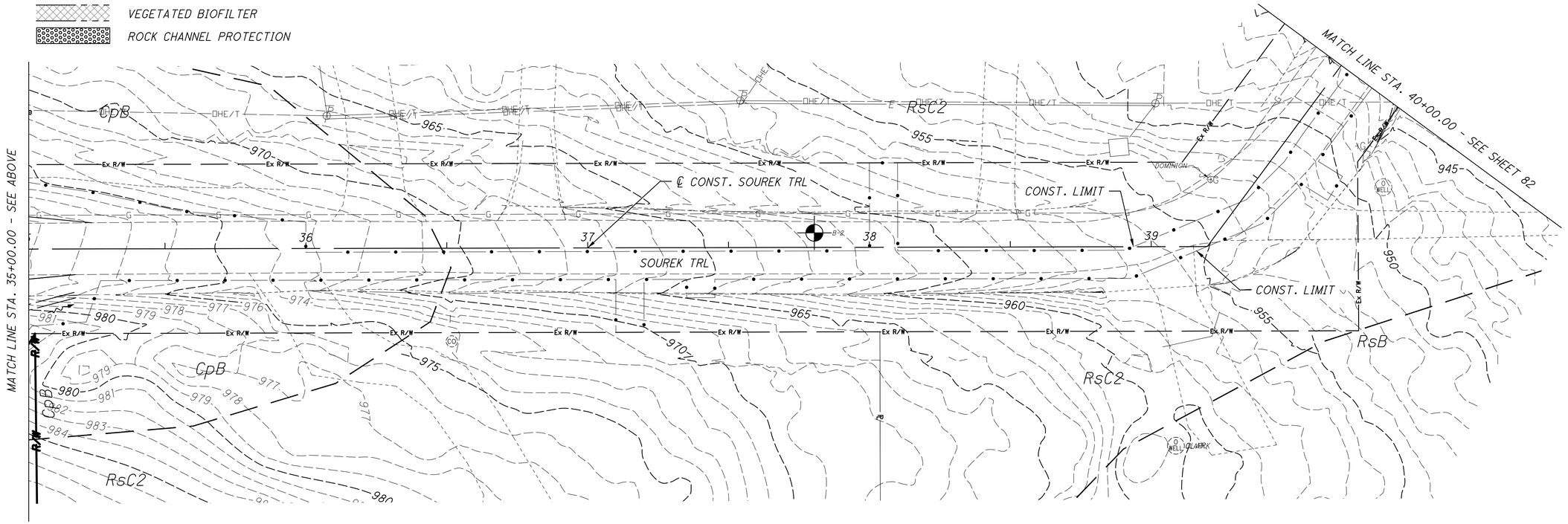
X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE010.dwg 24-Sep-20 9:16 AM



LEGEND:

- INLET PROTECTION PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR PROPOSED DITCH PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR EXISTING DITCH PER ODOT SCD DM-4.4
- PERIMETER GEOTEXTILE FABRIC FENCE PER ODOT SCD DM-4.4
- SOIL DIVIDE LINES
- VEGETATED BIOFILTER
- ROCK CHANNEL PROTECTION

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	SOIL NAME
CpB	CHILI SILT LOAM, 2 TO 6 PERCENT SLOPES
RsB	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES
RsC2	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES, ERODED



HORIZONTAL SCALE IN FEET
0 10 20 40

CALCULATED SA
CHECKED MSE

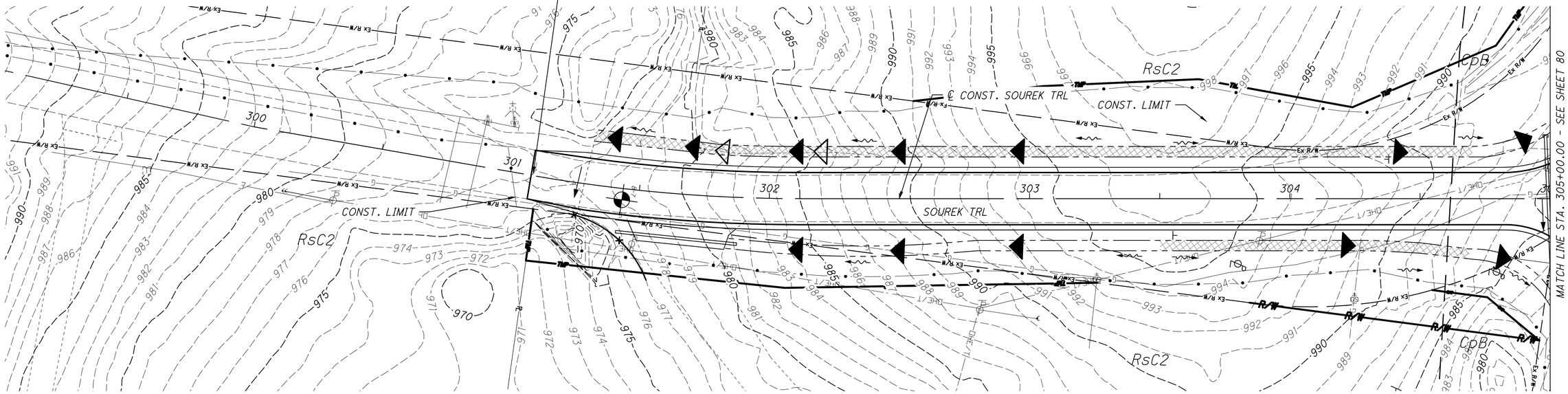
STORMWATER POLLUTION PREVENTION PLAN
STA 30+00.00 TO STA 40+00.00

CUY FALLS - SOUREK TRL

80
82

X:\Projects\GFL\2018\1822\10140\SUM\Design\Swppp\Sheets\1822101401_DE010.dwg 24-Sep-20 9:16 AM

CONSTRUCTION ENTRANCE, SEE SEDIMENT POLLUTION CONTROLS GENERAL NOTE NO. 4 ON SHEET 75



LEGEND:

- INLET PROTECTION PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR PROPOSED DITCH PER ODOT SCD DM-4.4
- GEOTEXTILE FABRIC DITCH CHECKS FOR EXISTING DITCH PER ODOT SCD DM-4.4
- PERIMETER GEOTEXTILE FABRIC FENCE PER ODOT SCD DM-4.4
- SOIL DIVIDE LINES
- VEGETATED BIOFILTER

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	SOIL NAME
CpB	CHILI SILT LOAM, 2 TO 6 PERCENT SLOPES
RsC2	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES, ERODED

HORIZONTAL SCALE IN FEET
0 10 20 40

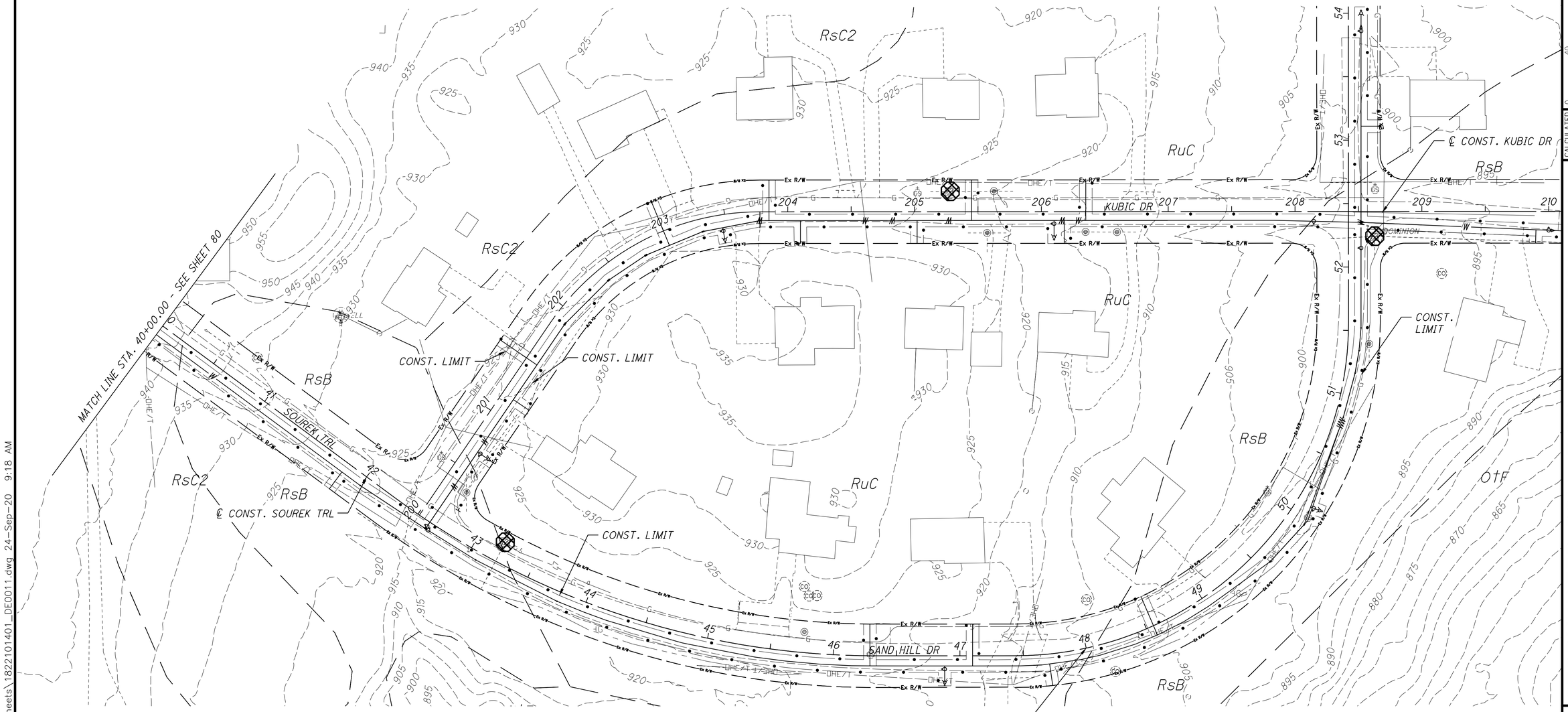
CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN
STA. 300+00.00 TO STA. 305+00.00

CUY FALLS - SOUREK TRL

81
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE010.dwg 24-Sep-20 9:16 AM



LEGEND:

INLET PROTECTION PER ODOT SCD DM-4.4

SOIL DIVIDE LINES

SOIL SURVEY DESCRIPTIONS	
SOUREK TRAIL	
SOIL SYMBOL	SOIL NAME
RuC	RITTMAN-URBAN LAND COMPLEX, 6 TO 12 PERCENT SLOPES
RsB	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES
RsC2	RITTMAN SILT LOAM, 2 TO 6 PERCENT SLOPES, ERODED

HORIZONTAL SCALE IN FEET
0 20 40 80

CALCULATED SA
CHECKED MSE

STORMWATER POLLUTION PREVENTION PLAN
SAND HILL DR & KUBIC DR
CUY FALLS - SOUREK TRL

82
82

X:\Projects\GFL\2018\1822\101401\SUM\Design\Swppp\Sheets\1822101401_DE0011.dwg 24-Sep-20 9:18 AM