

CITY OF MANDAN, NORTH DAKOTA

JOB #	7	STATE	PROJECT	SHEET NO.
		ND	SU-1-988(008)019	1

MORTON COUNTY PLANS FOR FEDERAL AID PROJECT NO. SU-1-988(008)019

GOVERNING SPECIFICATIONS:
STANDARD SPECIFICATIONS ADOPTED BY THE NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION OCTOBER 1997;
STANDARD DRAWINGS CURRENTLY IN EFFECT; AND OTHER
CONTRACT PROVISIONS SUBMITTED HEREIN.

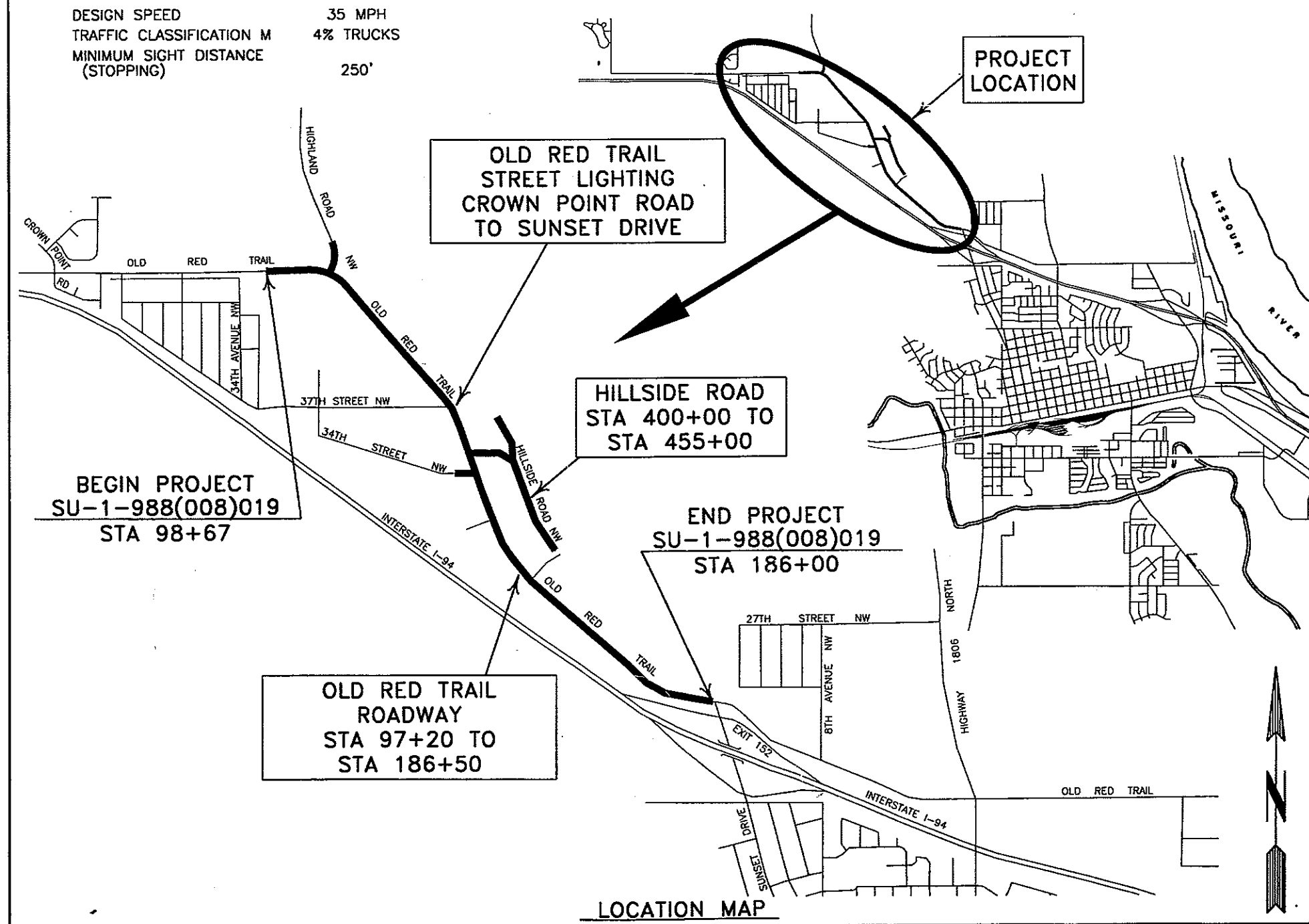
OLD RED TRAIL

GRADING, SURFACING, URBAN ITEMS, LIGHTING,
SIGNING, MARKING, AND INCIDENTALS

TRAFFIC	DESIGN DATA	AVERAGE DAILY	EST. 30TH MAX. HR.
CURRENT(1997)		6,200	700
FORECAST(2020)		12,000	1,200
DESIGN SPEED	35 MPH		
TRAFFIC CLASSIFICATION M	4% TRUCKS		
MINIMUM SIGHT DISTANCE (STOPPING)	250'		

LENGTH OF PROJECT

PROJECT	MILES-GROSS	MILES-NET
SU-1-988(008)019	1.653	1.653



<p>APPROVAL OF CITY ENGINEER I, Thomas Little, P.E., City Engineer for the City of Mandan, North Dakota, hereby approve these plans for Old Red Trail, Project Number SU-1-988(008)019, Mandan, North Dakota as shown on the accompanying plans.</p> <p><i>Thomas Little</i> Thomas R. Little City Engineer Mandan, North Dakota Date: August 27, 1999</p>	
<p>I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.</p> <p><i>Kenneth Nysether</i> Kenneth Nysether P.E. #4157 Ulteig Engineers, Inc. Date: August 30, 1999</p>	
<p>I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.</p> <p><i>Brant P. Malsam</i> Brant P. Malsam P.E. #2847 Ulteig Engineers, Inc. Date: 8/30/99</p>	

ULTEIG ENGINEERS, INC.
BISMARCK • FARGO • MINNEAPOLIS • SIOUX FALLS
SU-1-988(008)019

CITY OF MANDAN, NORTH DAKOTA

JOB # _____

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	1

MORTON COUNTY

PLANS FOR FEDERAL AID

PROJECT NO. TEU-1-988(012)023

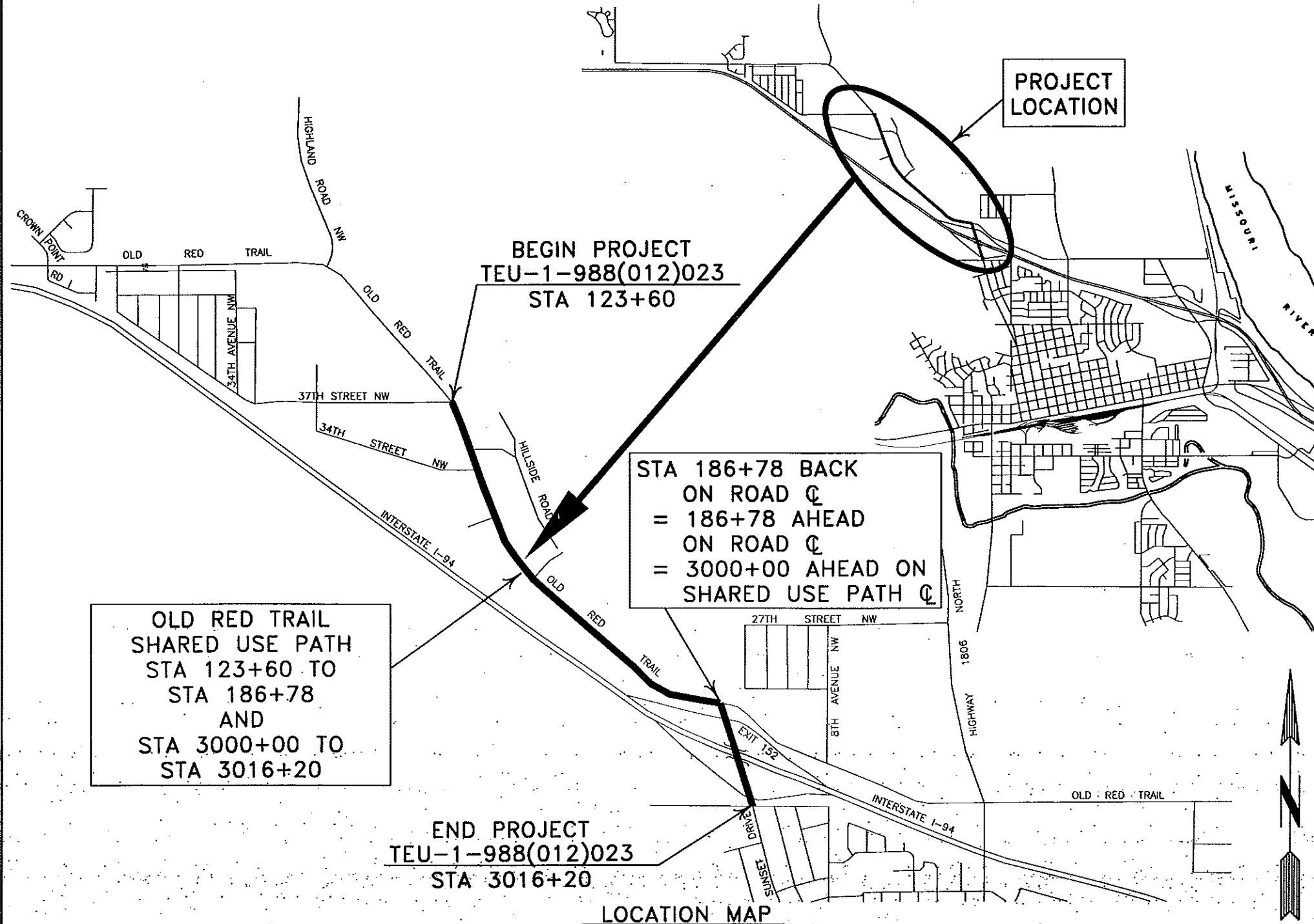
OLD RED TRAIL

SHARED USE PATH
37TH ST TO BOUNDARY ST

LENGTH OF PROJECT

PROJECT	MILES-GROSS	MILES-NET
TEU-1-988(012)023	1.50	1.50

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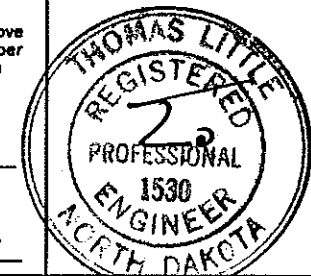


OLD RED TRAIL
SHARED USE PATH
STA 123+60 TO
STA 186+78
AND
STA 3000+00 TO
STA 3016+20

APPROVAL OF CITY ENGINEER

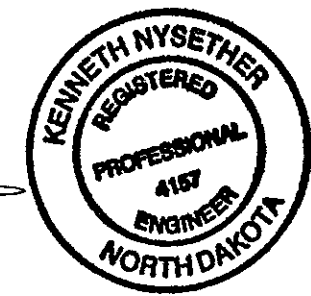
I, Thomas Little, P.E., City Engineer for the City of Mandan, North Dakota, hereby approve these plans for Old Red Trail, Project Number TEU-1-988(012)023, Mandan, North Dakota as shown on the accompanying plans.

Thomas Little
Thomas P. Little
City Engineer
Mandan, North Dakota
Date: March 8, 2000



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Kenneth Nysether
Kenneth Nysether
P.E. #4157
Ulteig Engineers, Inc.
Date: March 7, 2000



I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the State of North Dakota.

Brant P. Malsam
Brant P. Malsam
P.E. #2847
Ulteig Engineers, Inc.
Date: 3/7/00



ULTEIG ENGINEERS, INC.

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TEU-1-988(012)023

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	2
OLD RED TRAIL SHARED USE PATH		

TABLE OF CONTENTS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
<u>GENERAL</u>	
1	TITLE SHEET
2	TABLE OF CONTENTS
3	LEGEND
4-5	GENERAL NOTES
6	QUANTITIES
7	BASIS OF ESTIMATE
8	LIST OF STANDARDS AND LIST OF BENCH MARKS
 <u>PLAN AND PROFILE</u>	
9-29	SHARED USE PATH
 <u>MISCELLANEOUS DETAILS</u>	
30-31	TYPICAL SECTIONS
32	RETAINING WALL DETAILS
33	SIGNING TABLES
34	TRAFFIC CONTROL
 <u>CROSS SECTIONS</u>	
35-43	CROSS SECTION SHEETS
 <u>STANDARD DRAWINGS</u>	
D-704-8 - D-770-5	(FOUND AT BACK OF PLANS)

LEGEND

SYMBOLS

	250 WATT H.P. SODIUM VAPOR LUMINARE		GROUND MOUNTED SIGN (NEW)
	BORINGS		HEDGES
	CABLE TV		HYDRANT
	CENTERLINE OF CONSTRUCTION		MAILBOX
	CONCRETE CURB AND GUTTER		MANHOLE (EXISTING)
	CONCRETE PULL BOX		OLD RIGHT-OF-WAY LINE
	CONDUCTOR		NEW RIGHT-OF-WAY LINE
	CONDUIT		POWER LINES
	CONIFEROUS TREE		PROPERTY CORNER
	CONSTRUCTION SIGN		SECTION LINE
	CURB INLET (EXISTING)		STREET LIGHTS
	CURBSTOP		TELEPHONE LINES
	DECIDUOUS TREE		TEMPORARY CONSTRUCTION EASEMENT LINE
	DEFLECTION ANGLE (DELTA)		TUBULAR MARKERS
	DELINEATOR DRUMS		TYPE III BARRICADE
	FEED POINT		VALVE (EXISTING)
	FENCE		
	GAS		
	GRADE LINE (EXISTING)		
	GRADE LINE (NEW)		

ABBREVIATIONS

AGG. = AGGREGATE	M.A. = MAST ARM
AHD. = AHEAD	MAX. = MAXIMUM
ALUM. = ALUMINUM	MGAL. = THOUSAND GALLONS
APT. = APARTMENT	MDU = MONTANA DAKOTA UTILITIES
BEG. = BEGIN	MED. = MEDIAN
BIT. = BITUMINOUS	MIN. = MINIMUM
BK. = BACK	MTL. = METAL
BLK. = BLOCK	NB = NORTH BOUND
BRK. = BRICK	N.T.S. = NOT TO SCALE
B.S.W. = BACK OF SIDEWALK	O.C. = O/C = ON CENTER
BVC = BEGIN VERTICAL CURVE	O.D. = OUTSIDE DIAMETER
B.M. = BENCH MARK	PARPT. = PARAPET
BTM. = BOTTOM	PCC = PORTLAND CEMENT CONCRETE
CIP = CAST IRON PIPE	PERIM. = PERIMETER
CL = CENTERLINE	PERMANENT MTCE. ESMT. =
CL = CLASS	PERMANENT MAINTENANCE EASEMENT
CONC. = CONCRETE	PI = POINT OF INTERSECTION
CR = CURB RETURN	PROP. COR. = PROPERTY CORNER
CRS. = COURSE	PSI = POUNDS PER SQUARE INCH
CS = CURB STOP	PT = POINT OF TANGENCY
C.Y. = CUBIC YARD	PVC = POLYVINYL CHLORIDE PIPE
DEF. BARS = DEFORMED BARS	PVMT = PAVEMENT
DGBC = DENSE GRADED BASE COURSE	RAD. = RADIUS
EA. = EACH	RCP = REINFORCED CONCRETE PIPE
EB = EAST BOUND	R/W = RIGHT OF WAY
EL. = ELEV. = ELEVATION	SAN. = SANITARY
EVC = END VERTICAL CURVE	SB = SOUTH BOUND
EX. = EXIST. = EXISTING	S.F. = SQUARE FEET
FIN. = FINISH	SIG./LT. COMB. = TRAFFIC SIGNAL/ STREET LIGHT COMBINATION
FL = FLOW LINE	SRT = SOURIS RIVER TELEPHONE
FLR. = FLOOR	STA. = STATION
FND. = FOUNDATION	STD. = STANDARD
FTG. = FOOTING	SURF. = SURFACE
GAL. = GALLON	SVC. = SERVICE
GALV. = GALVANIZED	S.Y. = SQUARE YARD
G.C. = GENERAL CONTRACTOR	TA = TOP OF ASPHALT
GV = GATE VALVE	TC = TOP OF CURB
GYP. BD. = GYPSUM BOARD	TEMP. = TEMPERED
HBP = HOT BITUMINOUS PAVEMENT	TEMP. CONST. ESMT. =
H.M. = HEAVY METAL	TEMPERARY CONSTRUCTION EASEMENT
HORIZ. = HORIZONTAL	TW = TOP OF WALL
IN. = INCH	VC = VERTICAL CURVE
INT. = INTERIOR	VCP = VITRIFIED CLAY PIPE
INSUL. = INSULATION	VERT. = VERTICAL
INV. = INVERT	VPC = VERTICAL POINT OF CURVATURE
JST. = JOIST	VPI = VERTICAL POINT OF INTERSECTION
JST. BRG. = JOIST BEARING	VPT = VERTICAL POINT OF TANGENCY
KI = KIPS PER INCH	W/ = WITH
LBS. = POUNDS	WB = WEST BOUND
L.F. = LINEAR FOOT	WD. = WIDE
L.S. = LUMP. SUM	

GENERAL NOTES

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	4
OLD RED TRAIL GENERAL NOTES		

100 011 GENERAL: THE ENGINEER WILL ATTEND TO THE REMOVAL OF EXISTING FENCES TO THE HIGHWAY RIGHT OF WAY LINE AND TO THE RELOCATION OR ADJUSTMENT OF UTILITY FACILITIES AS SHOWN ON THE PLANS. EQUIPMENT SHALL WORK AROUND UTILITY POLES, WITHIN THE AREA, THAT ARE NOT TO BE DISTURBED.

100 P01 CONTRACTOR LOCATED AGGREGATE: THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IF THE POTENTIAL FOR CULTURAL RESOURCES IN THE AREA OF THE AGGREGATE SOURCE EXISTS. IF AN ARCHAEOLOGIST PERMITTED BY SHPO, DETERMINES THAT A MODERATE OR HIGHER POTENTIAL DOES EXIST, THE CONTRACTOR MUST OBTAIN SHPO CLEARANCE BEFORE ANY PIT OPERATIONS CAN BE INITIATED.

100 P02 THE CONTRACTOR'S OPERATION IS LIMITED TO THE R/W OR EASEMENTS AS SHOWN ON THE PLANS. ANY WORK OR DISTURBANCE OF PROPERTY BEYOND THOSE LIMITS SHALL BE RESTORED TO EXISTING CONDITIONS AND ANY COMPENSATION DUE THE PROPERTY OWNER SHALL BE NEGOTIATED BETWEEN THE OWNER AND THE CONTRACTOR AND PAID BY THE CONTRACTOR. THE CONTRACTOR SHALL PROTECT TREES AND SHRUBS UNLESS INDICATED FOR CLEARING AND GRUBBING. ANY DAMAGE OR REMOVAL PERFORMED BY THE CONTRACTOR WITHOUT PRIOR APPROVAL OF THE ENGINEER IN THE FIELD SHALL BE RESTORED OR COMPENSATION DUE SHALL BE NEGOTIATED WITH THE OWNER OF THE ADJACENT PROPERTY. THE CONTRACTOR SHALL OBTAIN A WRITTEN RELEASE FROM THE PROPERTY OWNER AND FURNISH THE ENGINEER WITH A COPY.

105 030 UNDERGROUND UTILITIES: THE CONTRACTOR SHALL NOTIFY THE LOCAL UTILITY COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION, SO THEY MAY DETERMINE THE LOCATION OF ALL UTILITIES IN THE PROJECT AREA. SUBCUTTING OR SCARIFYING OVER UTILITY LINES MAY BE ELIMINATED IF, IN THE OPINION OF THE UTILITY, A HAZARDOUS SITUATION EXISTS. SEPARATE PLANS, IF ANY, SHOWING RELOCATION OR ADJUSTMENT WORK TO BE PERFORMED BY UTILITY COMPANIES TO ACCOMMODATE HIGHWAY CONSTRUCTION WILL BE MADE AVAILABLE TO THE CONTRACTOR, UPON REQUEST TO THE ENGINEER.

105 110 PAVEMENT SWEEPING: THE CONTRACTOR SHALL SWEEP NEW PAVEMENTS BEFORE OPENING TO TRAFFIC AND FOR FINAL ACCEPTANCE. FOR THIS SWEEPING, THE CONTRACTOR SHALL FURNISH AND UTILIZE A VACUUM TYPE SWEEPER TO CONTROL THE DUST. ALL COSTS CONNECTED WITH THIS WORK SHALL BE INCLUDED IN THE PRICE BID OF OTHER ITEMS.

107 P01 HISTORICAL PRESERVATION: IN THE EVENT OF AN ARCHAEOLOGICAL FIND DURING EXCAVATION, THE CONSTRUCTION SHALL BE HALTED. THE CONTRACTOR SHALL NOTIFY THE OWNER, WHO SHALL CONTACT THE STATE HISTORIC PRESERVATION OFFICER. ANY CLAIM MADE BY THE CONTRACTOR FOR DELAY OR ADDITIONAL WORK REQUIRED BY THE OWNER OR PRESERVATION OFFICER SHALL BE CLASSIFIED AS EXTRA WORK.

200 010 SHRINKAGE: 25 PERCENT ADDITIONAL VOLUME IS INCLUDED FOR SHRINKAGE IN EARTH EMBANKMENT.

200 057 TREE REMOVAL: TREE REMOVAL WITHIN THE RIGHT OF WAY LIMITS AND EASEMENTS IS NOT A SEPARATE PAY ITEM. THE COST OF TREE REMOVAL SHALL BE INCIDENTAL TO THE PRICE BID FOR "CLEARING AND GRUBBING."

200 080 CONCRETE REMOVAL: REMOVAL OF P.C. CONCRETE SIDEWALKS AND DRIVEWAYS SHALL BE PAID FOR AS "REMOVAL OF CONCRETE."

200 252 WASTE DISPOSAL: ALL EXCESS EXCAVATION AND OLD CONCRETE SIDEWALKS, DRIVEWAYS, CURB AND GUTTER, PAVEMENT, BITUMINOUS SURFACING, ETC., SHALL BE DISPOSED OF OFF THE HIGHWAY RIGHT OF WAY AT A SITE SELECTED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE FOLLOWING PROPERTY OWNERS ADJACENT TO THE PROJECT HAVE EXPRESSED A WILLINGNESS TO PROVIDE A DISPOSAL SITE FOR EXCESS EXCAVATION MATERIAL. ANY CONDITIONS ASSOCIATED WITH THAT DISPOSAL ARE A MATTER BETWEEN THE CONTRACTOR AND THE PROPERTY OWNER. DISPOSAL IN WETLAND AREAS WILL NOT BE APPROVED. THE COST OF DISPOSAL (AND OBTAINING OF THE DISPOSAL AREA) SHALL BE INCLUDED IN THE PRICE BID FOR OTHER ITEMS.

ADJACENT OWNERS:

KENNETH PORSBORG 663-3572

200 P01 COMPACTION AND DENSITY CONTROL: COMPACTION AND DENSITY CONTROLS SHALL BE IN ACCORDANCE WITH SECTION 203.02 H OF THE STANDARD SPECIFICATIONS. PONDING OF WATER ADJACENT TO ROADWAY CONSTRUCTION WILL NOT BE ALLOWED.

200 P02 WATER: THE QUANTITY OF WATER REQUIRED FOR COMPACTION, FOR THE BASE COURSE, AND FOR USE AS A DUST PALLIATIVE HAS BEEN INCLUDED IN THE QUANTITIES AND SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "WATER." WATER IS AVAILABLE FOR PURCHASE FROM THE CITY OF MANDAN. CONTRACTOR MUST ABIDE BY THE CITY'S WATER SALE POLICY.

200 P03 TOPSOIL EMBANKMENT: IN INSLOPE AREAS WHERE TOPSOIL EMBANKMENT MAY FALL OVER EXISTING TOPSOIL, THE EXISTING VEGETATION SHALL BE REMOVED BEFORE PLACING THE EMBANKMENT. ALL COSTS ASSOCIATED WITH REMOVING VEGETATION SHALL BE INCLUDED IN THE PRICE BID FOR "COMMON EXCAVATION TYPE B".

203 P01 APPROXIMATE EARTHWORK QUANTITIES FOR THIS PROJECT HAVE BEEN CALCULATED AS FOLLOWS:

	<u>EXCAVATION</u>	<u>EMBANKMENT</u>	<u>BORROW OR EXCESS</u>
TOPSOIL	685 CY	*700 CY	15 CY BORROW
DIRT	*837 CY	417 CY	420 CY EXCESS

* COMMON EXCAVATION QUANTITY IS A TOTAL OF THESE TWO QUANTITIES.

PAYMENT FOR EXCAVATION SHALL BE IN ACCORDANCE WITH SECTION 203.03B--CONTRACT PLAN QUANTITY UNLESS FIELD GRADE CHANGES ARE MADE. THE EXISTING TOPSOIL ON THIS PROJECT SHALL BE REMOVED TO ITS FULL DEPTH, BUT NOT TO EXCEED EIGHT INCHES, AND STOCKPILED. UPON COMPLETION OF THE GRADING OPERATIONS, THE TOPSOIL SHALL BE SPREAD EVENLY OVER THE AREAS TO BE SEEDER OR SODDED. THE REMOVAL, STOCKPILING, AND SPREADING OF THE EXISTING TOPSOIL SHALL NOT BE PAID FOR SEPARATELY BUT SHALL BE MEASURED AND PAID FOR AS "COMMON EXCAVATION TYPE B." ALL EXCESS EXCAVATION AND TOPSOIL SHALL BE DISPOSED OF OFF THE RIGHT-OF-WAY AT A SITE SECURED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THERE WILL BE NO SEPARATE MEASUREMENT OR PAYMENT FOR COMPACTED EMBANKMENT, AND ALL COSTS INCIDENTAL TO PLACING IN LAYERS, COMPACTING, DISKING, WATERING, MIXING, SLOPING, AND OTHER NECESSARY OPERATIONS FOR CONSTRUCTION OF EMBANKMENTS WILL BE INCLUDED IN THE CONTRACT PRICE FOR "COMMON EXCAVATION TYPE B".

GENERAL NOTES

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	5
OLD RED TRAIL GENERAL NOTES		

- 203 P02 STORM WATER DISCHARGE AND EROSION CONTROL REQUIREMENTS: BEFORE WORK CAN BEGIN ON THIS CONTRACT, THE CONTRACTOR MUST COMPLY WITH THE U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA) REQUIREMENTS AND THE ND POLLUTANT DISCHARGE ELIMINATION SYSTEM (NDPDES), AS FOLLOWS:
 - A. THE CONTRACTOR MUST FILE A "NOTICE OF INTENT TO OBTAIN COVERAGE UNDER NDPDES GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" (NOI). THIS FORM MUST BE FILED WITH THE ND HEALTH AND CONSOLIDATED LABORATORIES AT LEAST FIVE DAYS BEFORE CONSTRUCTION BEGINS.

- 203 P03 SUBGRADE PREPARATION: PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE COURSE, THE SUBGRADE SHALL BE PREPARED IN ACCORDANCE WITH SECTION 230 SUBGRADE PREPARATION, TYPE "A" OF THE STANDARD SPECIFICATIONS, ORDINARY COMPACTION.

A SOIL STERILENT SHALL BE APPLIED TO THE SUBGRADE TO THE WIDTH OF THE ASPHALT PATH. SOIL STERILENT SHALL BE SPREAD UNIFORMLY AT THE MANUFACTURER'S RECOMMENDED APPLICATION RATE JUST PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE COURSE. SOIL STERILENT IS NOT A SEPARATE PAY ITEM AND SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR AGGREGATE BASE COURSE. STERILENT SHALL BE PRAMATOL BRAND OR EQUAL.

- 400 050 AUTOMATIC BATCHING EQUIPMENT: THE AUTOMATIC BATCHING EQUIPMENT AS SPECIFIED IN AASHTO M-156 WILL NOT BE REQUIRED ON THIS PROJECT.

- 400 080 THE 4" HOT BITUMINOUS PAVEMENT SHALL BE LAID IN 2 EQUAL 2 INCH LIFTS. BEFORE THE NEXT LIFT CAN BE PLACED, THE PRECEDING LIFT SHALL HAVE BEEN COMPACTED AND COOLED TO 100° F.

- 550 130 CONCRETE PROTECTION: ADJACENT P.C.C. PAVEMENT SHALL BE PROTECTED DURING THE APPLICATION OF ALL BITUMINOUS AND ASPHALT MATERIALS TO PREVENT ANY DISCOLORATION OF THE PAVEMENT. FAILURE TO COMPLY WILL RESULT IN THE CONTRACTOR HAVING TO CLEAN THE PAVEMENT AT THE CONTRACTOR'S OWN EXPENSE. THE P.C.C. PAVEMENT SLAB SHALL NOT BE USED AS A TABLE FOR STOCKPILING, MIXING, OR DRYING OF ANY MATERIAL.

- 704 010 MAINTAINING ACCESS: THE CONTRACTOR WILL BE RESPONSIBLE FOR PROVIDING ACCESS TO ALL RESIDENTIAL DWELLING AND BUSINESS ESTABLISHMENTS ADJACENT TO THIS PROJECT. FINAL DETAILS ON LOCATION OF ACCESS POINTS AND CONSTRUCTION PROCEDURES SHALL BE WORKED OUT WITH THE ENGINEER IN THE FIELD PRIOR TO START OF THE PROJECT.

- 704 P01 TRAFFIC CONTROL: ANY TRAFFIC CONTROL USED MUST BE DONE ACCORDING TO THE "MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES." ALL COSTS ASSOCIATED WITH TRAFFIC CONTROL SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "TRAFFIC CONTROL."

- 708 020 SEEDING: THE FOLLOWING SEED MIXTURE WILL BE USED ON THIS PROJECT: TYPE B, CLASS V. ALL SEEDED AREAS SHALL BE HYDRO MULCH SEEDED. HYDRO MULCHING SHALL MEET THE REQUIREMENTS OF SEC 708.02 B3 AND SEC 708.02 C3.

<u>GRASS SPECIES</u>	<u>VARIETY</u>	<u>POUNDS PURE LIVE SEED PER ACRE</u>
CRESTED WHEAT GRASS	FAIRWAY	100
KENTUCKY BLUEGRASS	PARK	50
PERENNIAL RYE GRASS	WIZARD	50
TOTAL		200

- 754 050 SIGN SUPPORTS: THE SIGN SUPPORTS "STEEL GALVANIZED POSTS - SQUARE TUBE PERFORATED" WERE DESIGNED USING A MINIMUM YIELD STRENGTH OF 55,000 PSI AND THE DESIGN REQUIREMENTS OF THE "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS." THE WIND SPEED OF 75 MPH WAS USED. THE SQUARE TELESCOPING STEEL POSTS SHALL HAVE ALL HOLES PUNCHED COMPLETELY. ALL METAL SHALL BE REMOVED FROM THE PUNCHED HOLES.

- 770 P01 RELOCATE LIGHT STANDARD: THE ITEM "RELOCATE LIGHT STANDARD" SHALL CONSIST OF REMOVING THE EXISTING BASE, LIGHT STANDARD AND LUMINAIRE FROM THE LOCATION SHOWN ON THE PLANS AND INSTALLING IN THE NEW LOCATION AS INDICATED.

THE CONDUCTORS FEEDING THE EXISTING LIGHT STANDARD AND LUMINAIRE SHALL BE ABANDONED AS SHOWN ON THE PLANS. THE NEW CONDUCTORS FEEDING THE RELOCATED LIGHT STANDARD AND LUMINAIRES SHALL BE CONNECTED AS INDICATED ON THE PLANS.

THE ITEM "RELOCATE LIGHT STANDARD" WILL BE MEASURED BY THE NUMBER OF EACH STANDARD RELOCATED AND ACCEPTED. THE QUANTITIES MEASURED WILL BE PAID FOR AT THE CONTRACT PRICE AND SHALL BE FULL COMPENSTAION FOR ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO COMPLETE THE INSTALLATION.

- 900 P01 NOISE: PILE DRIVING, JACK HAMMERING, CONCRETE DEMOLITION OR OTHER CONSTRUCTION ACTIVITIES WHICH CAUSE DISRUPTIVE NOISE WILL NOT BE ALLOWED AFTER 10 P.M. OR BEFORE 7 A.M. THE SAWING OF CONCRETE IS EXCLUDED FROM THIS RESTRICTION.

- 900 P02 EQUIPMENT AND TREES: NO EQUIPMENT SHALL BE OPERATED, PARKED OR STORED CLOSE TO OR UNDER ANY EXISTING TREES AT ANY LOCATION ON OR CLOSE TO PROJECT.

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STATE	PROJECT	SHEET NO.
ND	TEI-1-988(012)023	6
OLD RED TRAIL QUANTITIES SHARED USE PATH		

QUANTITIES

SPEC	CODE	DESCRIPTION	UNIT	UNITS
103	0100	CONTRACT BOND	LSUM	1.00
201	0330	CLEARING AND GRUBBING	LSUM	1.00
202	0112	REMOVAL OF CONCRETE	SY	15.00
202	0130	REMOVAL OF CURB & GUTTER	LF	125.00
202	0132	REMOVAL OF BITUMINOUS SURFACING	SY	93.00
202	0153	SAW BITUMINOUS SURFACING - FULL DEPTH	LF	442.00
203	0102	COMMON EXCAVATION TYPE B	CY	1537.00
216	0100	WATER	MGAL	30.00
302	0120	AGGREGATE BASE COURSE CL 5	TON	1838.00
401	0100	MC70 OR 250 LIQUID ASPHALT	GAL	2921.00
401	0150	SS1H OR CSS1H OR MS1 EMULSIFIED ASPHALT	GAL	417.00
408	0176	HOT BITUMINOUS PAVEMENT CL 27	TON	1838.00
408	0445	PG58-28 ASPHALT CEMENT	TON	110.00
410	0105	MILLING BITUMINOUS SURFACING	SY	31.00
702	0100	MOBILIZATION	LSUM	1.00
704	0100	FLAGGING	MHR	50.00
704	1000	TRAFFIC CONTROL	LSUM	1.00
708	2950	SEEDING-HYDRO MULCH	ACRE	0.50
714	0620	PIPE CONC REINF 24IN CL III - STORM DRAIN	LF	40.00
714	0825	PIPE CONC REINF 30IN CL III - STORM DRAIN	LF	22.00
714	9660	REMOVE & RELAY END SECTION - ALL TYPES & SIZES	EA	3.00
722	6200	ADJUST MANHOLE	EA	4.00
722	6240	ADJUST UTILITY APPURTENANCE	EA	1.00
748	0140	CURB & GUTTER - TYPE 1	LF	447.00
750	0100	SIDEWALK CONCRETE	SY	96.00
754	0116	FLAT SHEET FOR SIGNS TYPE 2 REFLECTIVE SHEETING	SF	136.50
754	0117	FLAT SHEET FOR SIGNS TYPE 3A REFLECTIVE SHEETING	SF	67.50
754	0206	STEEL GALV POSTS-TELESCOPING PERFORATED TUBE	LF	491.00
754	0592	RESET SIGN PANEL	EA	8.00
754	0593	RESET SIGN SUPPORT	EA	11.00
762	1206	PLASTIC PVMT MK FILM 6IN LINE	LF	311.00
762	1224	PLASTIC PVMT MK FILM 24IN LINE	LF	269.00
762	1307	PREFORMED PATTERNED PVMT MK 6IN LINE - GROOVED	LF	438.00
762	1325	PREFORMED PATTERNED PVMT MK 24IN LINE - GROOVED	LF	48.00
770	0020	CONCRETE FOUNDATION - HIGHWAY LIGHTING	EA	1.00
770	0100	PULL BOX	EA	1.00
770	0330	2IN DIAMETER RIGID CONDUIT	LF	812.00
770	0504	UNDERGROUND CONDUCTOR NO4 - TYPE RHW	LF	1654.00
770	0605	UNDERGROUND CONDUCTOR NO6 - TYPE THW	LF	827.00
770	4540	RELOCATE LIGHT STANDARD	EA	1.00
930	9543	RETAINING WALL	SF	70.00

BASIS OF ESTIMATE

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	7
OLD RED TRAIL BASIS OF ESTIMATE		

SURFACING

CLASS 5 AGGREGATE BASE COURSE @1.6 TON/CY + 25%	2.0 TON/CY
HOT BITUMINOUS PAVEMENT CLASS 27 @ 2 TON/CY	0.056 TON/SY/IN
P.G. 58-28 ASPHALT CEMENT @ 6% OF HOT BITUMINOUS PAVMENT	0.0036 TON/SY/IN
TACK COAT SS-1H OR CSS-1H OR MS1 EMULS ASPH @ 0.05 GAL/SY	0.05 GAL/SY
PRIME COAT MC-70 OR 250 LIQUID ASPHALT @ 0.35 GAL/SY	0.35 GAL/SY

GRADING

- WATER: 10 GAL/CY OF ESTIMATED EMBANKMENT QUANTITIES AND 20 GAL/TON OF AGGREGATE BASE COURSE. AN ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE QUANTITIES FOR USE AS A DUST PALLIATIVE.
- TOPSOIL: TOPSOIL SHALL BE REMOVED AND REPLACED FOR A MINIMUM DEPTH OF 6 INCHES ON THE AREAS THAT WILL BE DISTURBED BY THE CONSTRUCTION. SALVAGING, STOCKPILING, AND SPREADING TOPSOIL FROM EXCAVATION AREAS SHALL BE MEASURED AND PAID FOR AS "COMMON EXCAVATION - TYPE B".
- SEEDING: THE ENTIRE AREA WITHIN THE RIGHT OF WAY THAT IS DISTURBED BY CONSTRUCTION ACTIVITIES, EXCLUDING SURFACED AREAS SHALL BE SEEDED. THE EXACT LIMITS SHALL BE DETERMINED IN THE FIELD.
- MULCHING: THE ENTIRE AREA TO BE SEEDED.

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	8
OLD RED TRAIL		

LIST OF STANDARDS AND BENCH MARKS

LIST OF BENCH MARKS

NOTE:

VERTICAL CONTROL IS BASED ON NAVD OF 1929

NO	DESCRIPTION	LOCATION	ELEVATION
-	TN - HYDRANT	1ST S. OF INT. 37TH ST NW & ORT	1990.71
-	TN - HYDRANT	W. SIDE ORT BETWEEN HILLSIDE & 34TH ST NW	1984.29
-	WOOD POST	TOP 3 1/2" SQ. POST - W. OF MAILBOX #2111	1982.34
-	LOT LITE	TOP OF SW COR. BASE - 1ST N. OF N. ENTRANCE TO LOBBY SEVEN SEAS	1953.66
-	CONC. BASE	SW COR. CONC. LOT LITE - NE COR. CONOCO LOT	1938.69
-	BOLT	TOP OF BOLT - ST. SIDE ST. LITE #2 - 1ST SE OF CONOCO	1926.25
-	BOLT	TOP OF BOLT - ST. SIDE ST. LITE #3	1912.39
-	BOLT	TOP OF BOLT - ST. SIDE ST. LITE #4	1898.68
-	BOLT	TOP OF BOLT - ST. SIDE ST. LITE #5	1883.01
-	BOLT	TOP OF BOLT - ST. SIDE ST. LITE #7	1867.52

LIST OF STANDARDS

STANDARD NO.	DESCRIPTION
D-704-8	BREAKAWAY SYSTEMS FOR CONSTRUCTION ZONE SIGNS
D-704-9,10,11,12	CONSTRUCTION SIGN DETAILS
D-704-13	BARRICADE DETAILS
D-704-14	CONSTRUCTION SIGN AND BARRICADE ASSEMBLY DETAILS
D-708-2	TEMPORARY EROSION AND SILTATION CONTROLS
D-748-1	VALLEY GUTTER AND CURB AND GUTTER
D-750-1	CONCRETE DRIVEWAY (URBAN)
D-750-2	SIDEWALKS AND CURB RAMPS
D-754-1	ASSEMBLY DETAILS
D-754-3	BREAK AWAY BASE
D-754-4	MULTI DIRECTIONAL BREAK AWAY BASE
D-754-23	ASSEMBLY DETAILS
D-754-24	MOUNTING DETAILS PERFORATED TUBE
D-754-28,29,34	SIGN PUNCHING, STRINGER, AND SUPPORT LOCATION DETAILS FOR REGULATORY, WARNING, AND GUIDE SIGNS
D-770-1	CONCRETE FOUNDATIONS
D-770-3	PULL BOX DETAILS
D-770-5	LIGHT STANDARD DETAILS

NOTE: STANDARD DRAWINGS ARE INCLUDED IN THE BACK OF THE PLANS.

LIST OF CONTROL POINTS

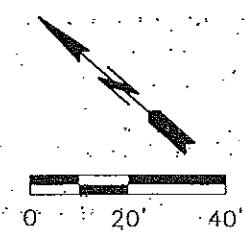
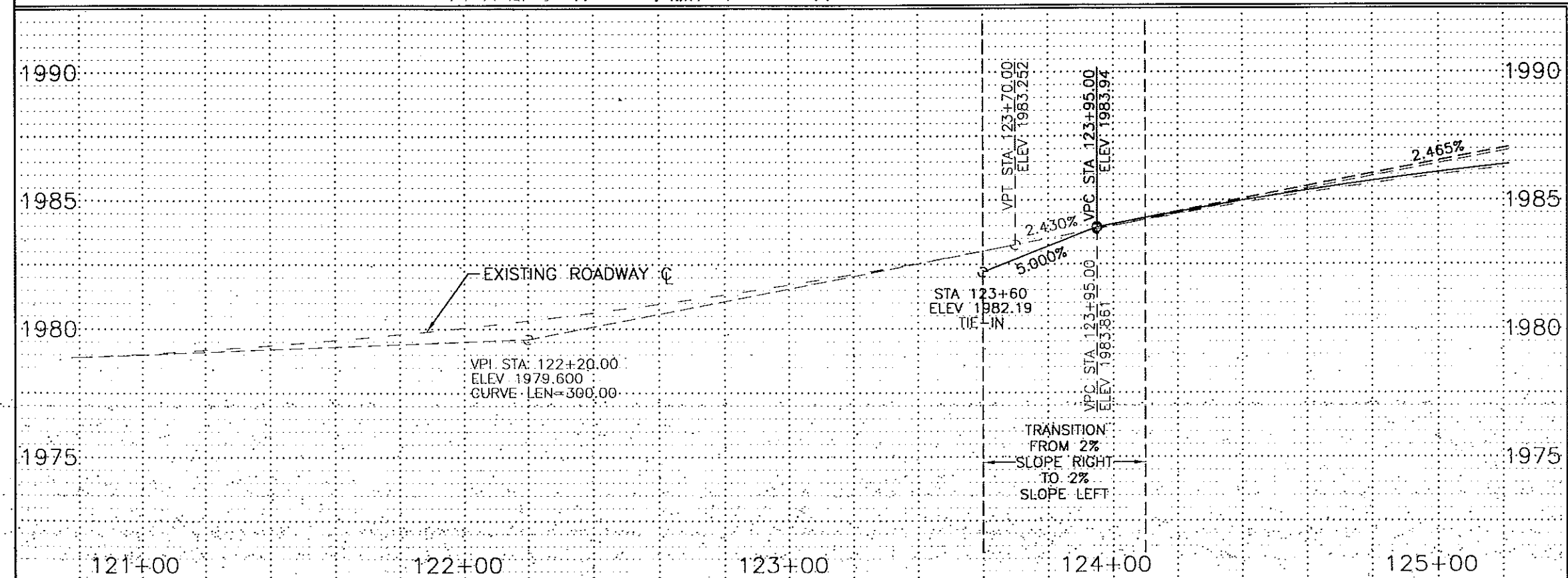
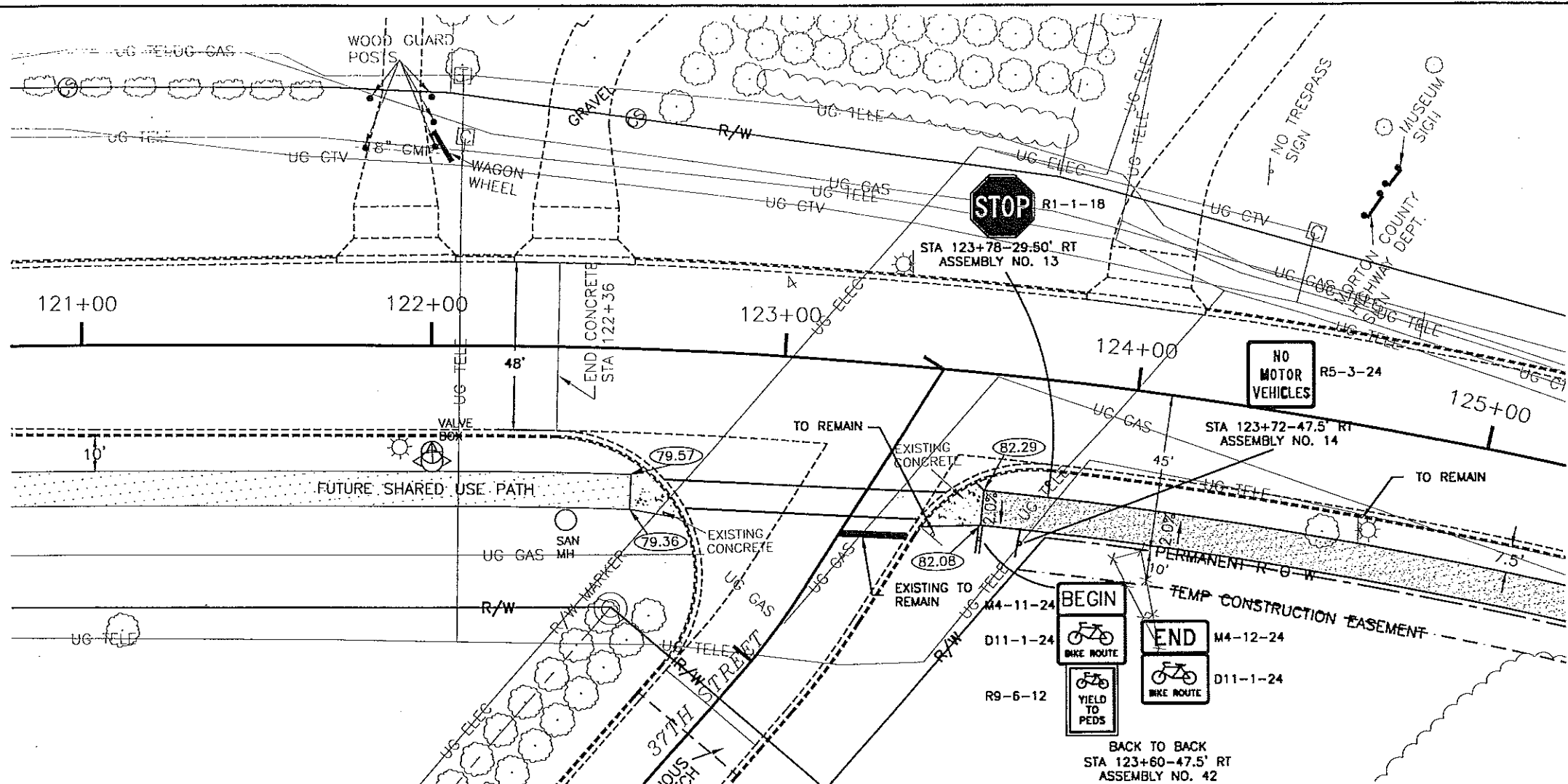
DESCRIPTION	COORDINATES	STATION AND OFFSET OR DESCRIPTION
CPT#100	430,651.43 N, 1,866,499.63 E	REBAR-GPS #97907-2 - ON HILLTOP - SE COR INT SUNSET & ORT
CPT#101	430,959.82 N, 1,865,588.70 E	REBAR-TOP OF BACKSLOPE - E SIDE ORT - SE OF "FARM CREDIT" SIGN
CPT#102	431,505.08 N, 1,864,740.40 E	PROP. COR. - SW COR. RIDGE MOTEL - GPS #97907-3
CPT#103	432,227.43 N, 1,863,902.00 E	RR SPIKE - E. OF ORT - APPROX LOT LINE BETWEEN #2026 & #2110
CPT#105	432,768.60 N, 1,863,199.46 E	REBAR - ON BACKSLOPE (EMPTY LOT) N. OF HOUSE #3001 ORT
CPT#106	433,345.37 N, 1,862,950.03 E	REBAR - SW COR. - ORT AND NYGREN DRIVE
CPT#107	433,645.78 N, 1,862,871.77 E	PROP. COR - NE COR "JEM" CONSTRUCTION
CPT#108	434,467.84 N, 1,862,581.18 E	GPS #97907-4 - "T" POST - 1/4 COR

STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	9
OLD RED TRAIL STA. 121+00 TO STA. 125+00 SHARED USE PATH LAYOUT		

PREFORMED PATTERNED PVMT MK
 6IN LINE GROOVED
 X-WALK 146 LF

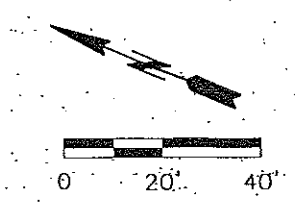
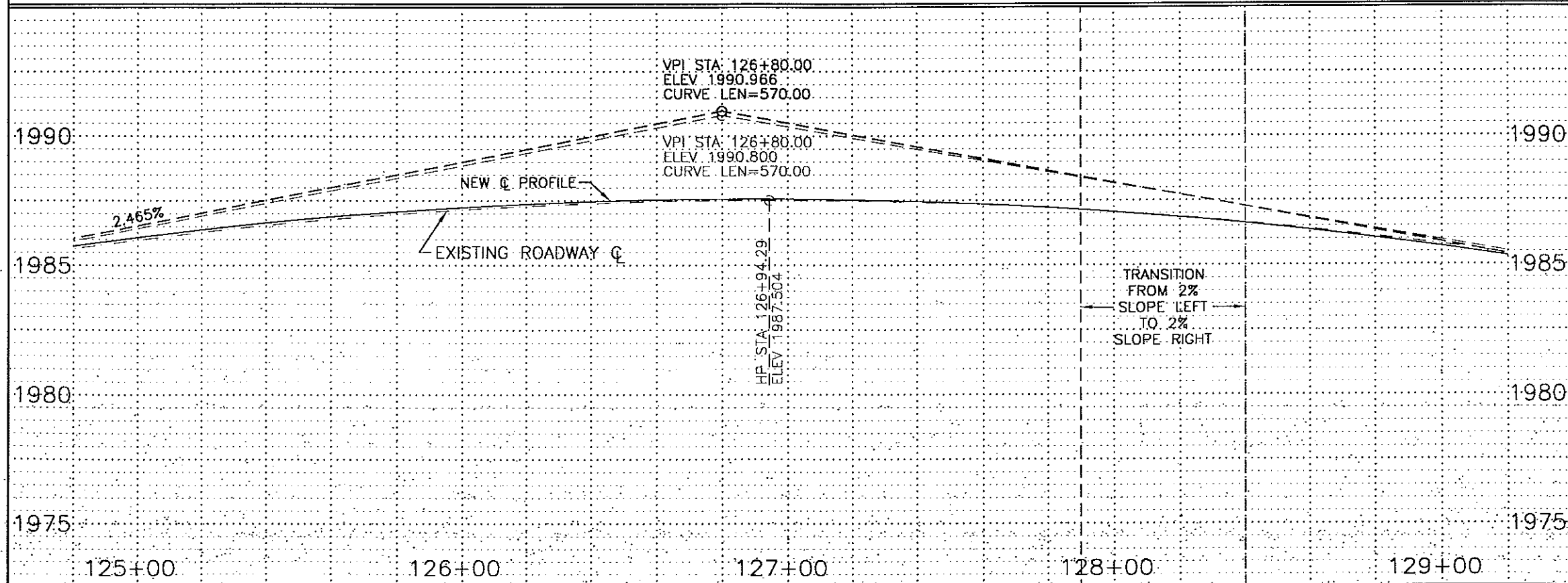
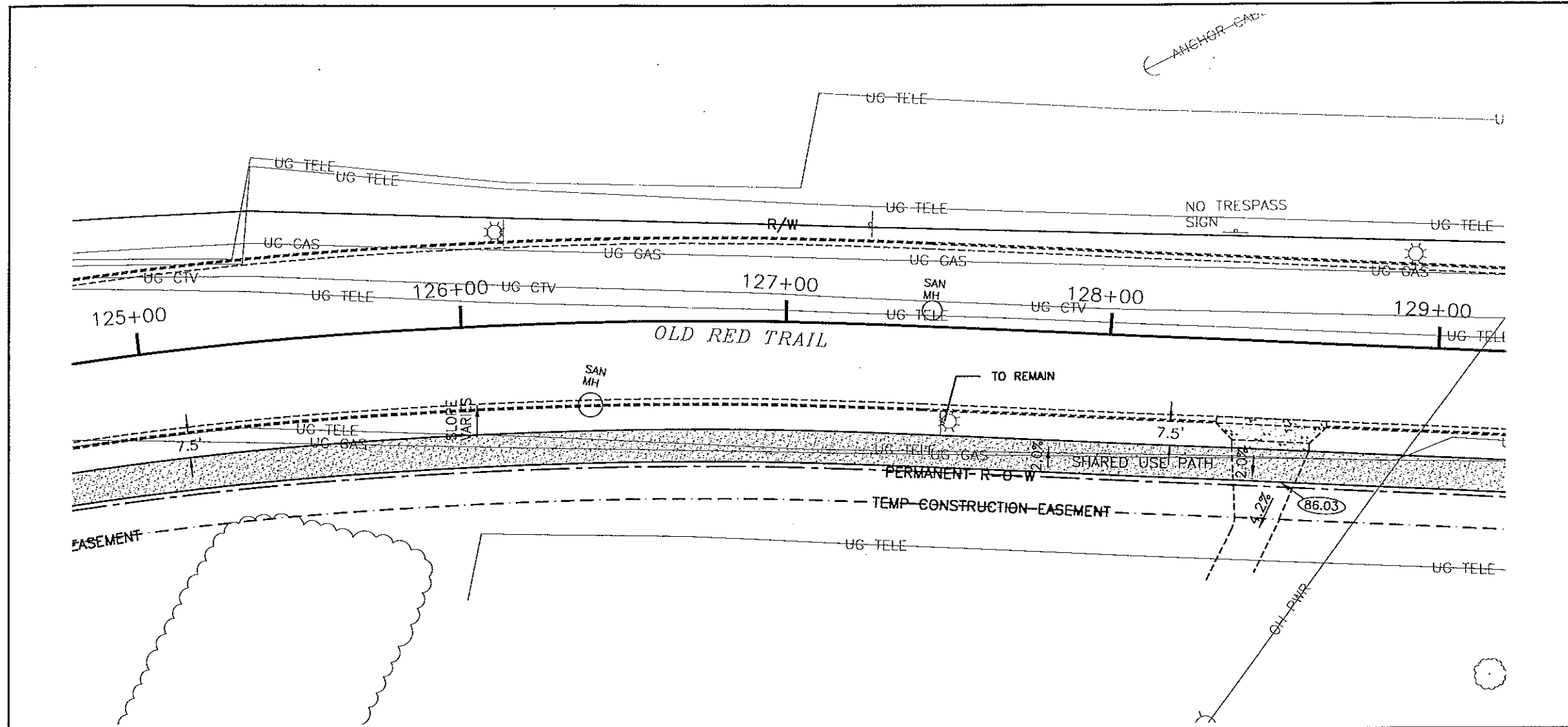
CONSTRUCTION NOTES:

- ① SHARED USE PATH PARALLELS THE ROAD CENTERLINE FROM 37TH STR. TO STA 171+94. CURVE DATA AND CROSS SECTIONS CAN BE SEEN IN OLD RED TRAIL ROAD PLANS.



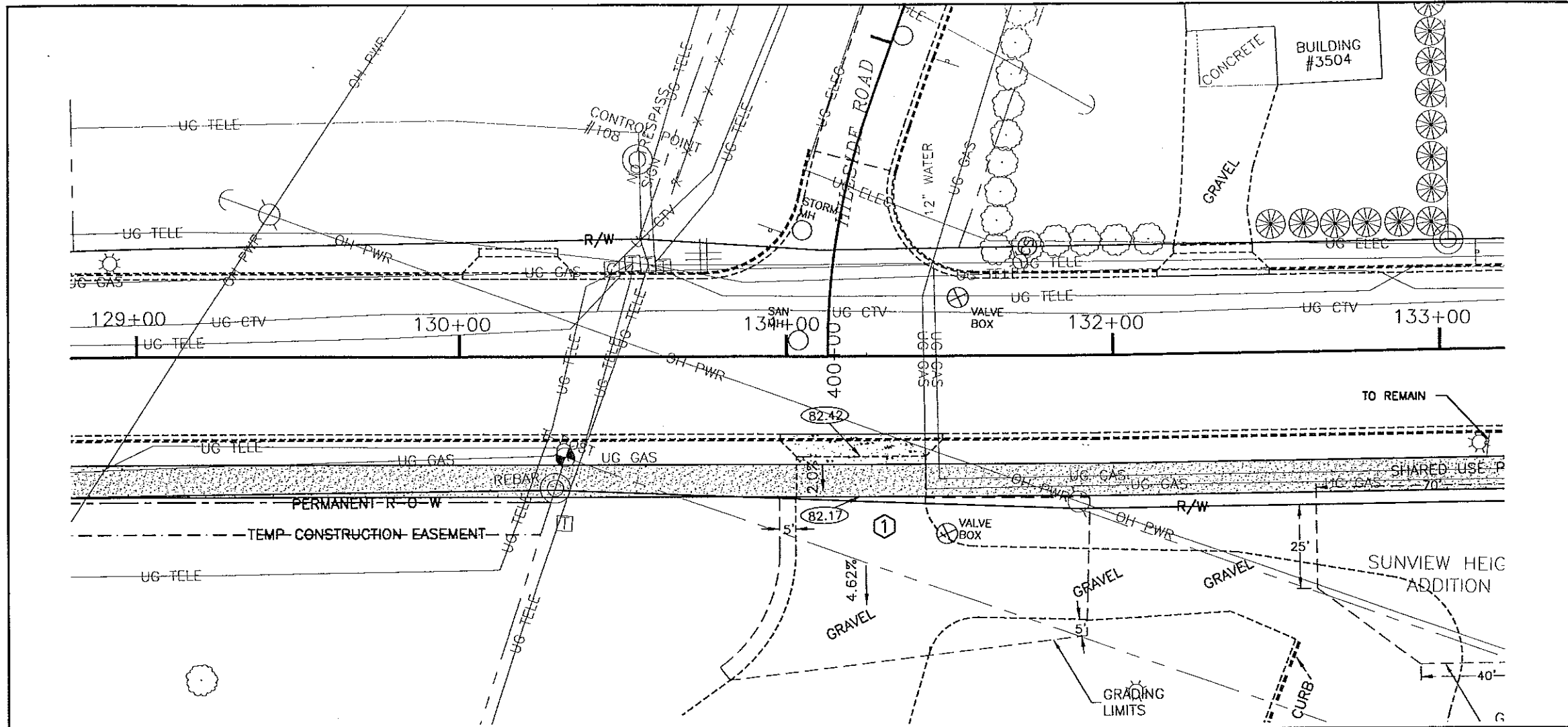
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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	10
OLD RED TRAIL STA. 125+00 TO STA. 129+00 SHARED USE PATH LAYOUT		



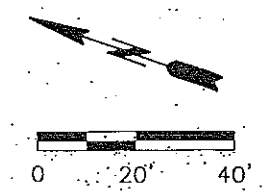
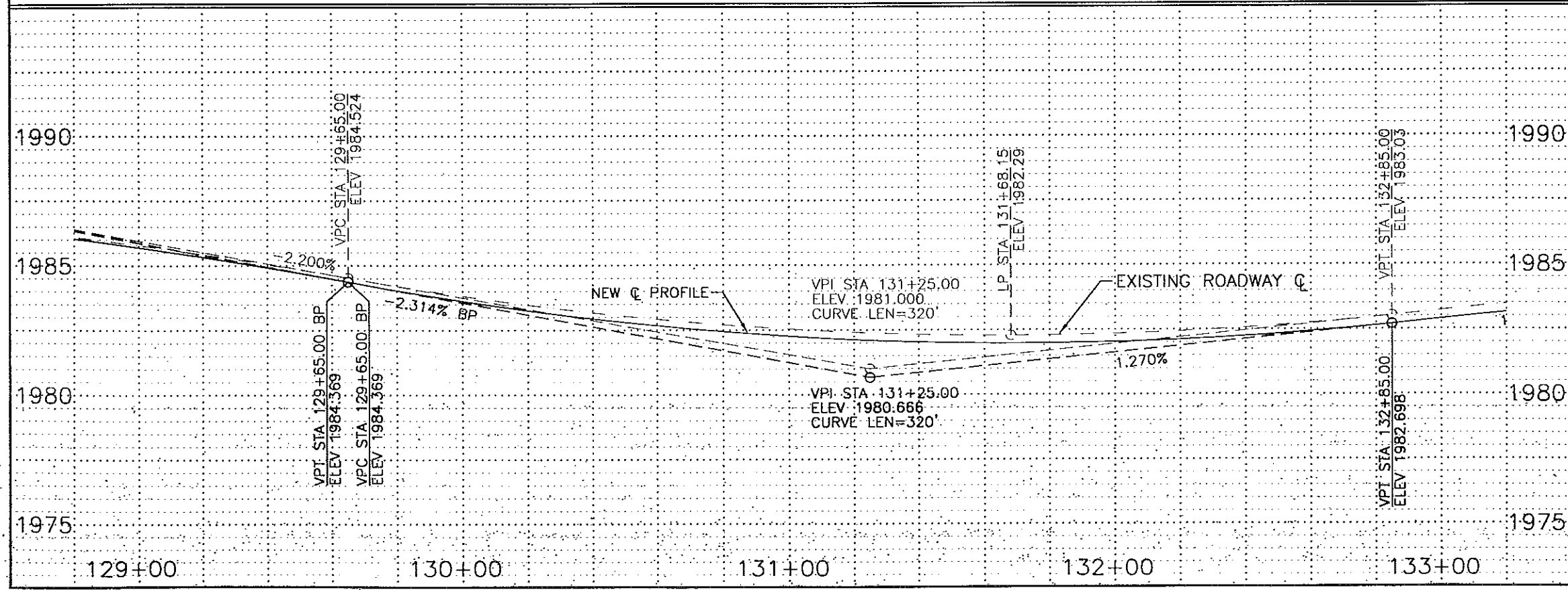
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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	11
OLD RED TRAIL STA. 129+00 TO STA. 133+00 SHARED USE PATH LAYOUT		



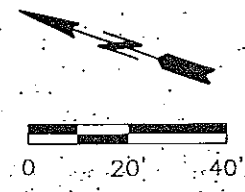
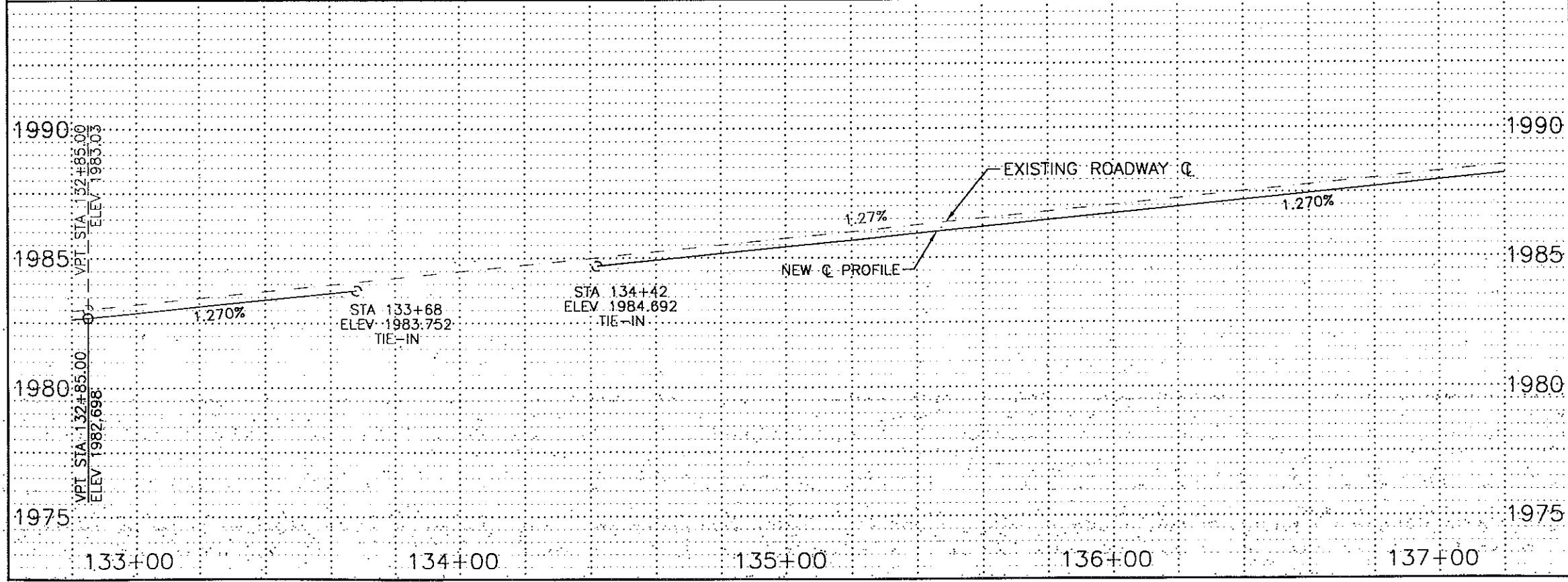
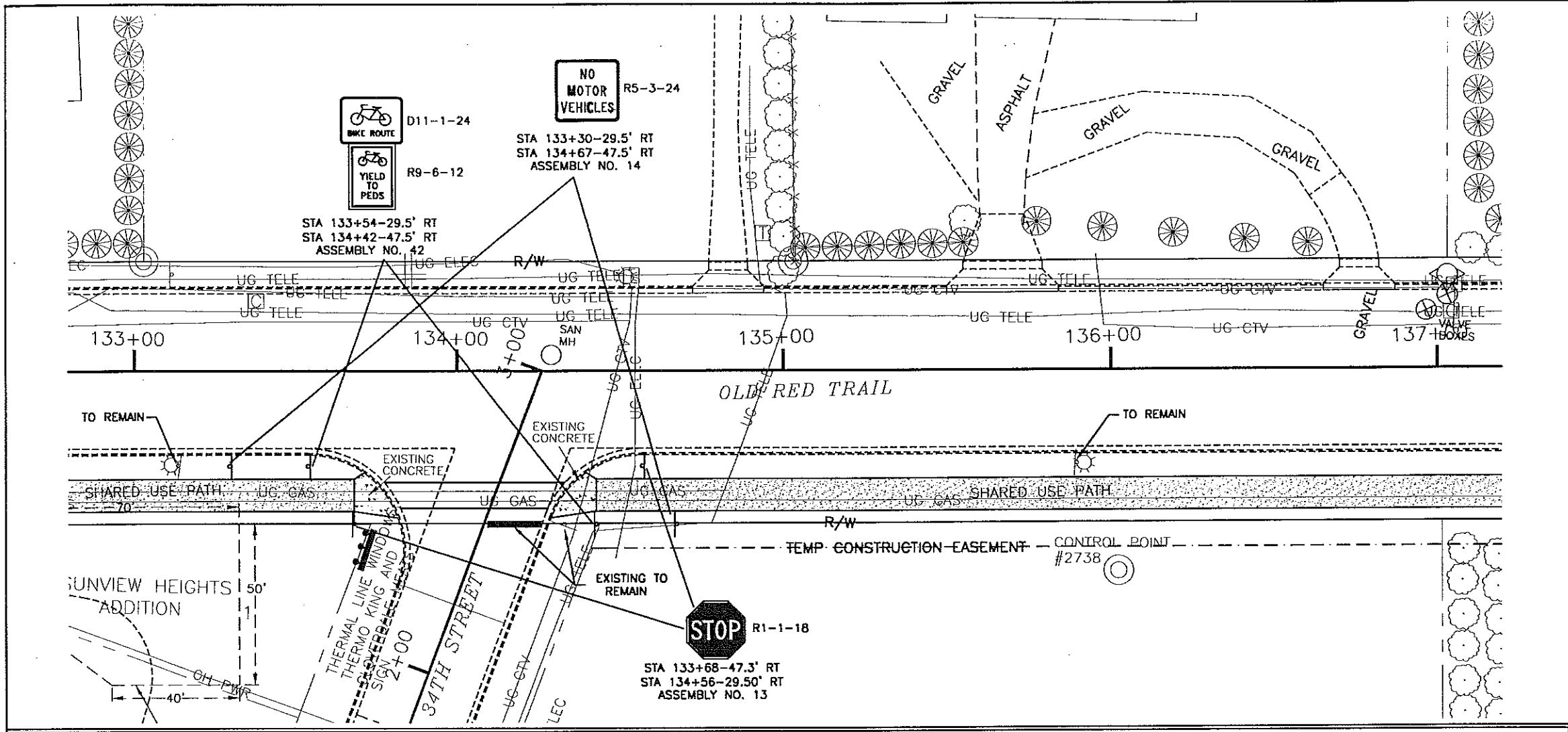
CONSTRUCTION NOTES:

① CONTRACTOR SHALL BLEND GRAVEL DRIVE INTO EDGE OF SHARED USE PATH UPON COMPLETION OF THE CONSTRUCTION THROUGH THE DRIVEWAY. ALL COSTS INCIDENTAL TO OTHER ITEMS.



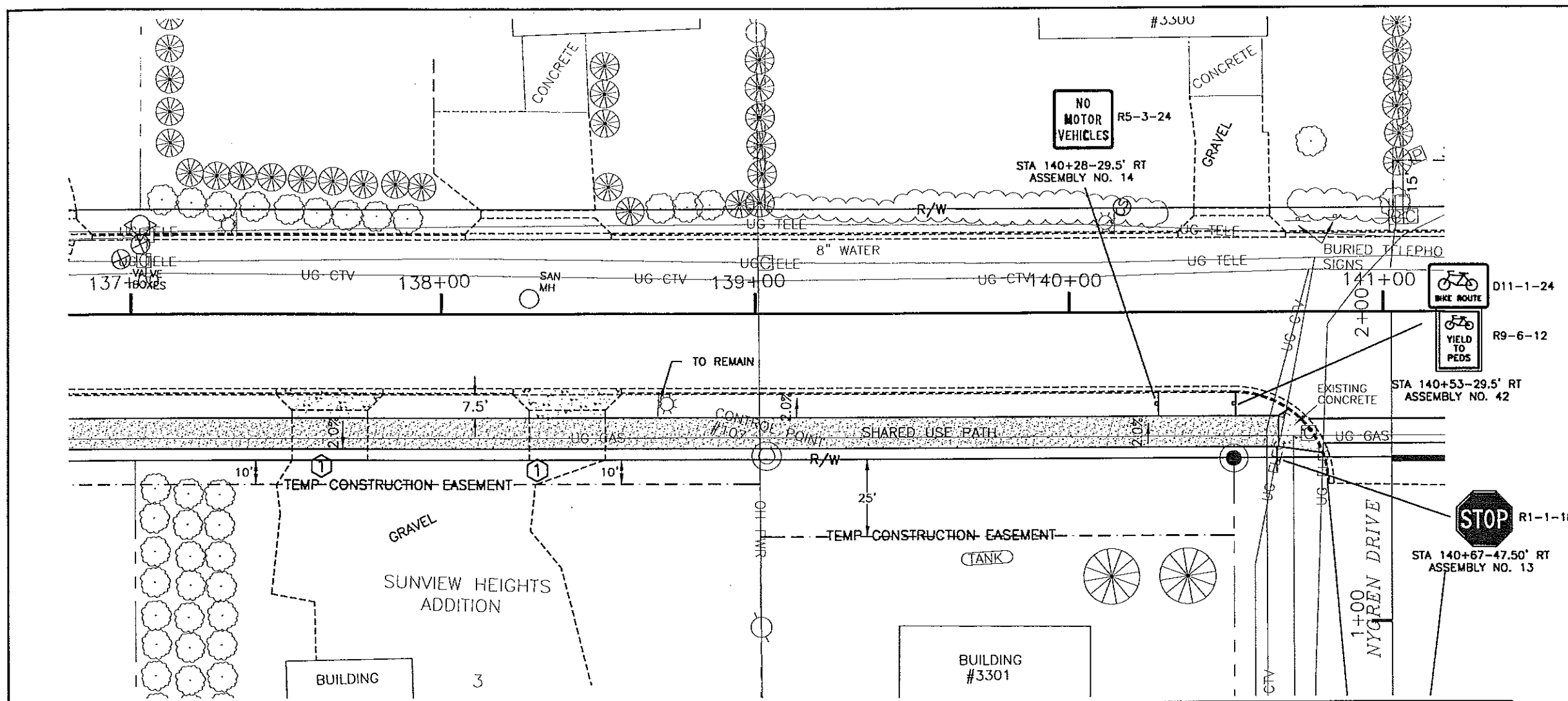
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	12
OLD RED TRAIL		
STA. 133+00 TO STA. 137+00		
SHARED USE PATH LAYOUT		

PREFORMED PATTERNED PVMT MK
6IN LINE GROOVED
X-WALK 101 LF



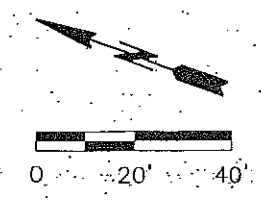
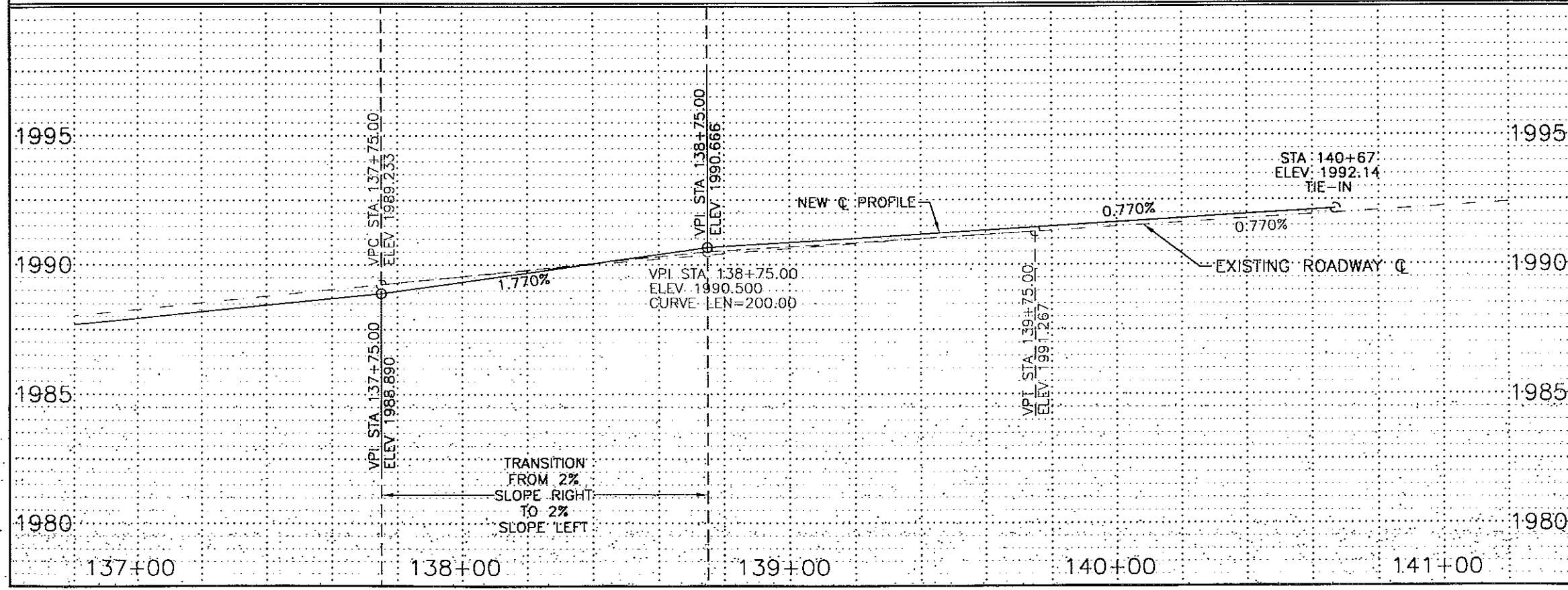
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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	13
OLD RED TRAIL STA. 137+00 TO STA. 141+00 SHARED USE PATH LAYOUT		



CONSTRUCTION NOTES:

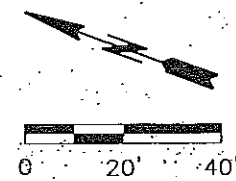
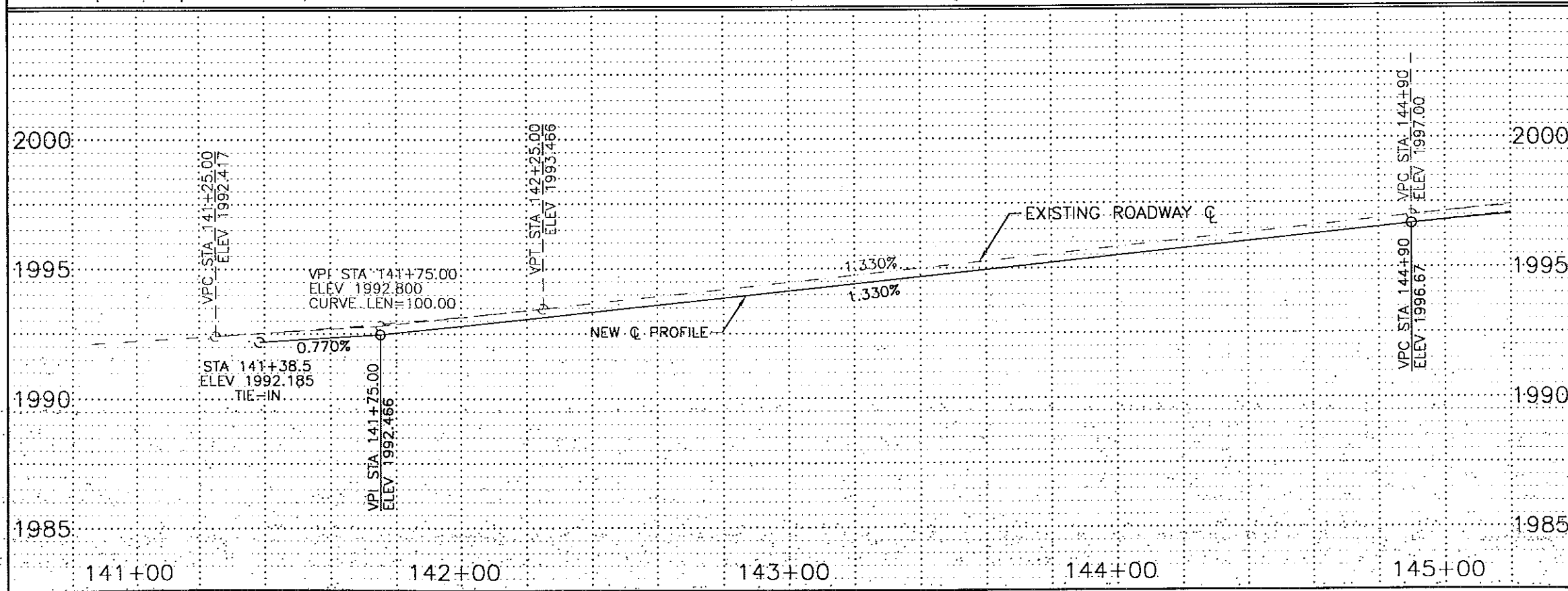
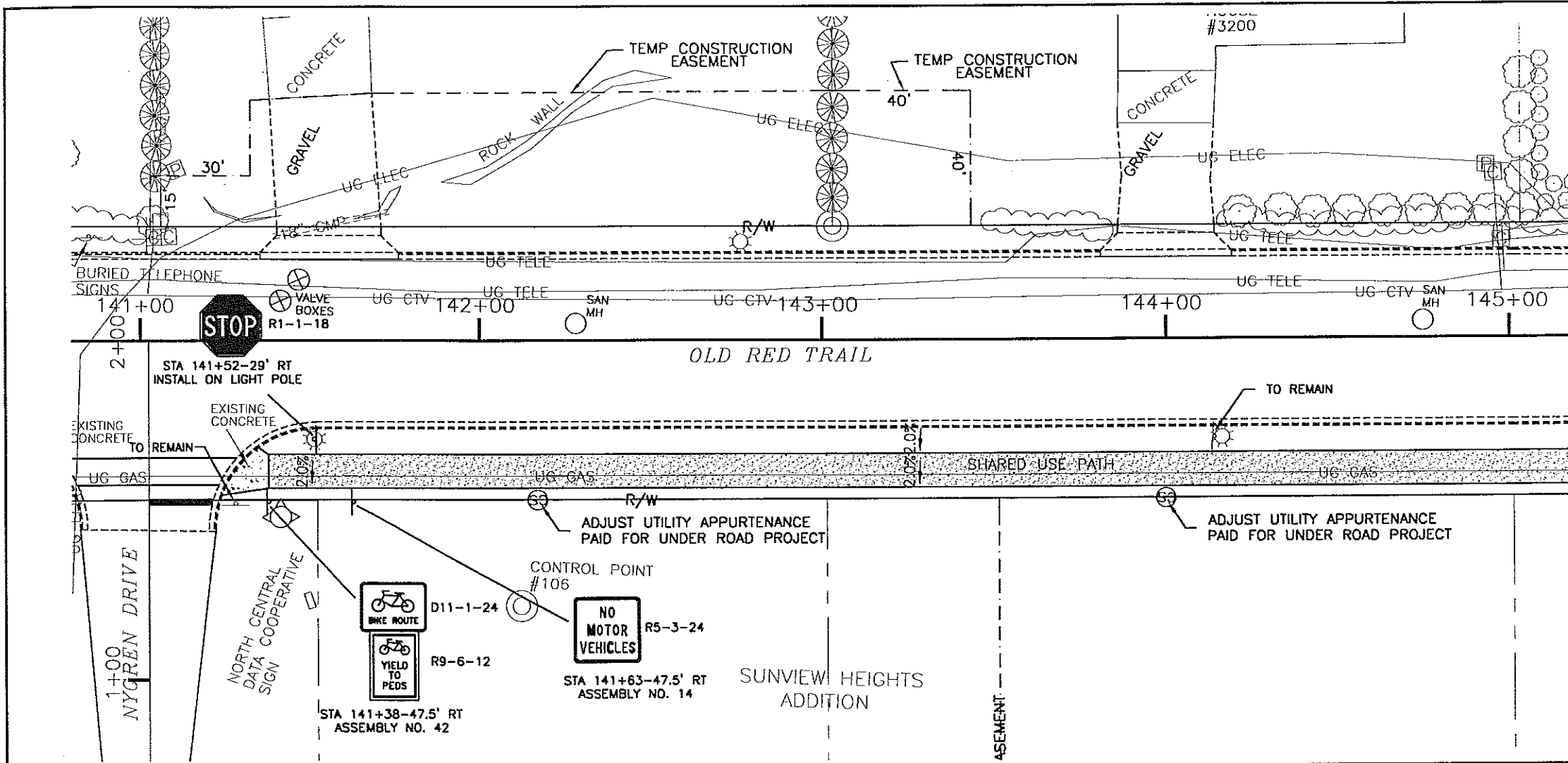
① CONTRACTOR SHALL BLEND GRAVEL DRIVE INTO EDGE OF SHARED USE PATH UPON COMPLETION OF THE CONSTRUCTION THROUGH THE DRIVEWAY. ALL COSTS INCIDENTAL TO OTHER ITEMS.



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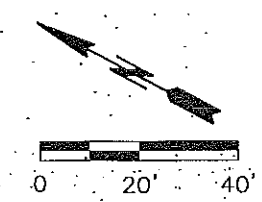
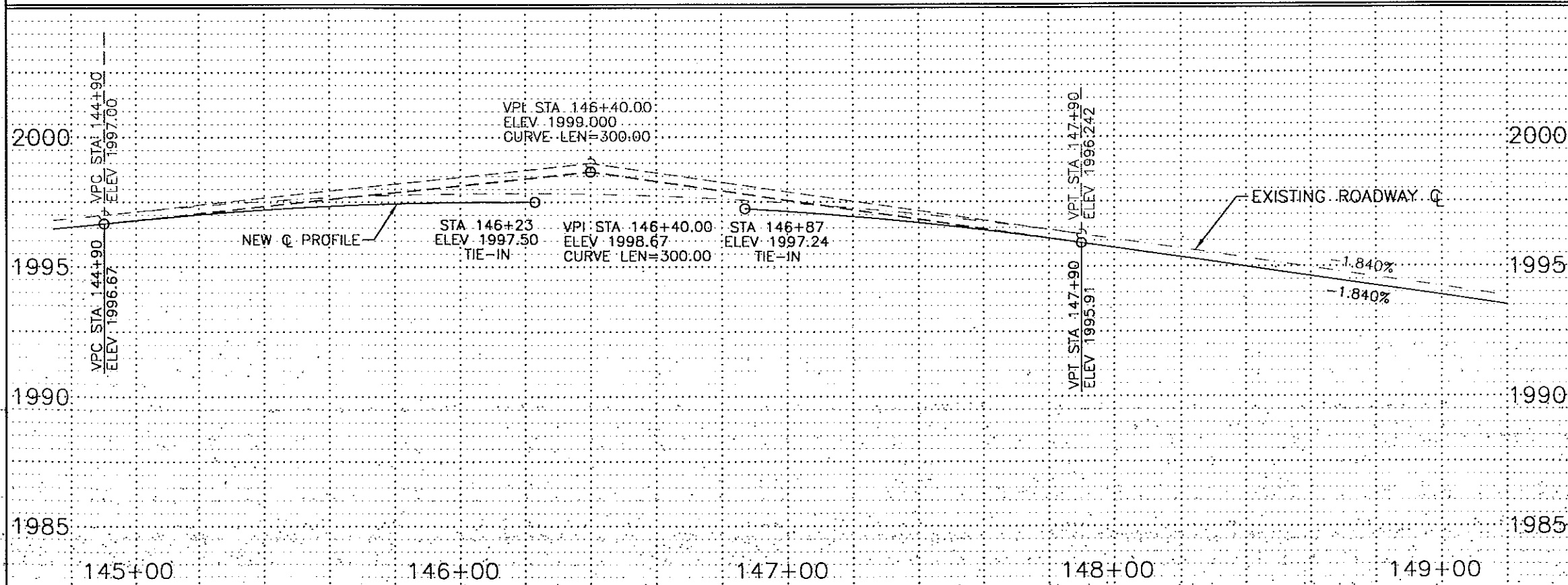
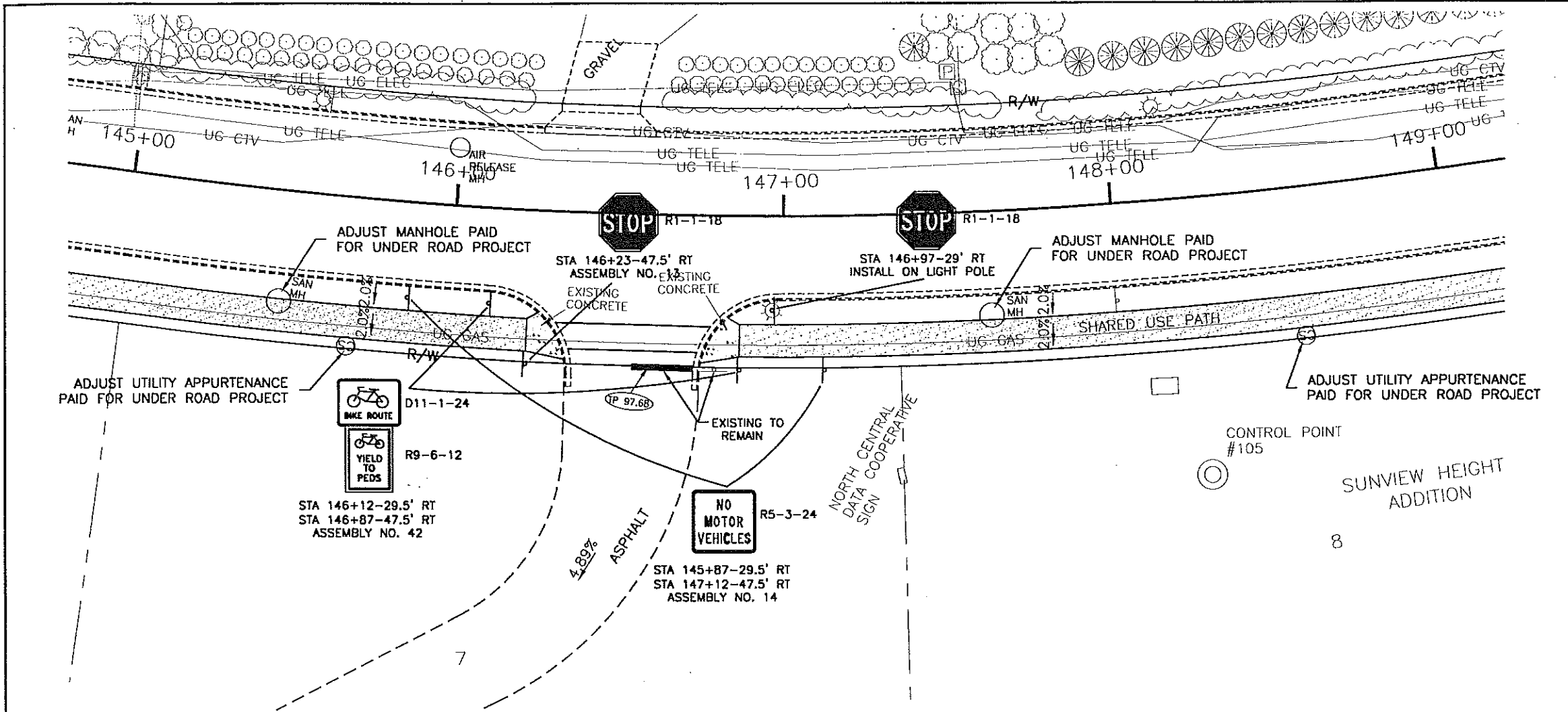
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	14
OLD RED TRAIL STA. 141+00 TO STA. 145+00 SHARED USE PATH LAYOUT		

PREFORMED PATTERNED PVMT MK
 6IN LINE GROOVED
 X-WALK 106 LF



STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	15
OLD RED TRAIL STA. 145+00 TO STA. 149+00 SHARED USE PATH LAYOUT		

PREFORMED PATTERNED PVMT MK
 6IN LINE GROOVED
 X-WALK 85 LF

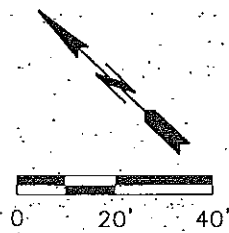
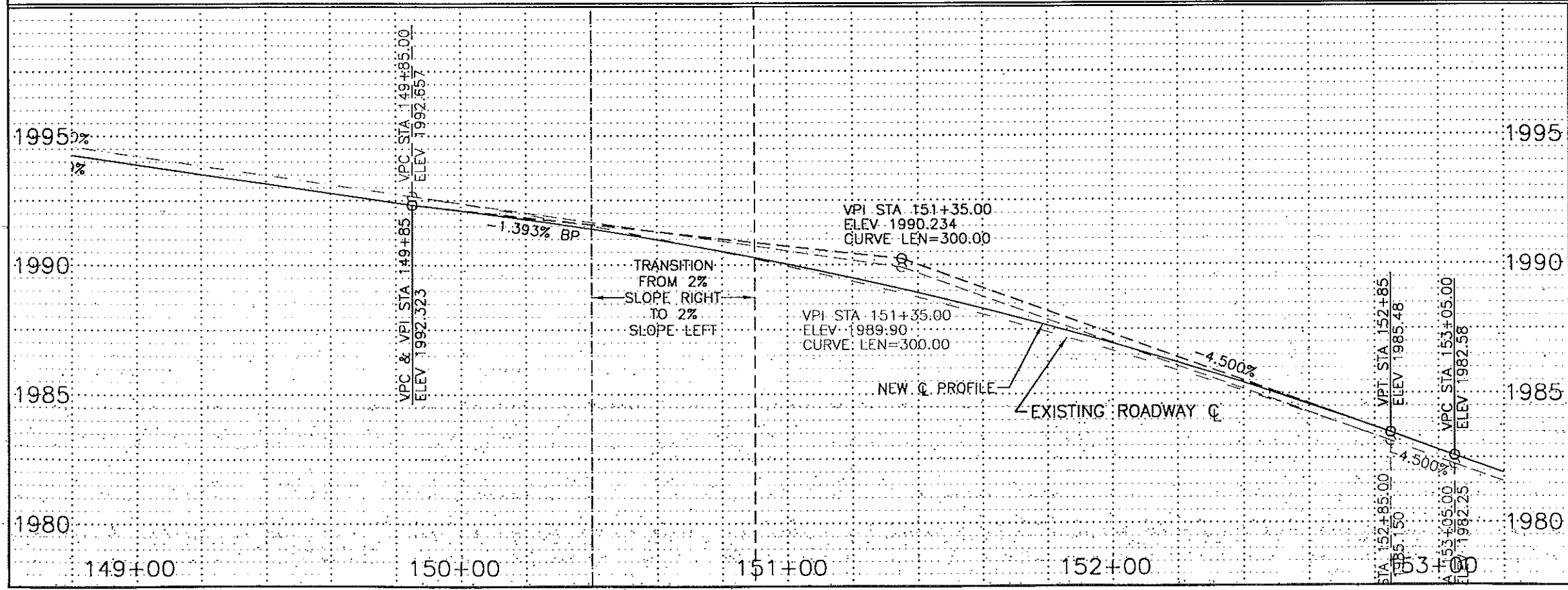
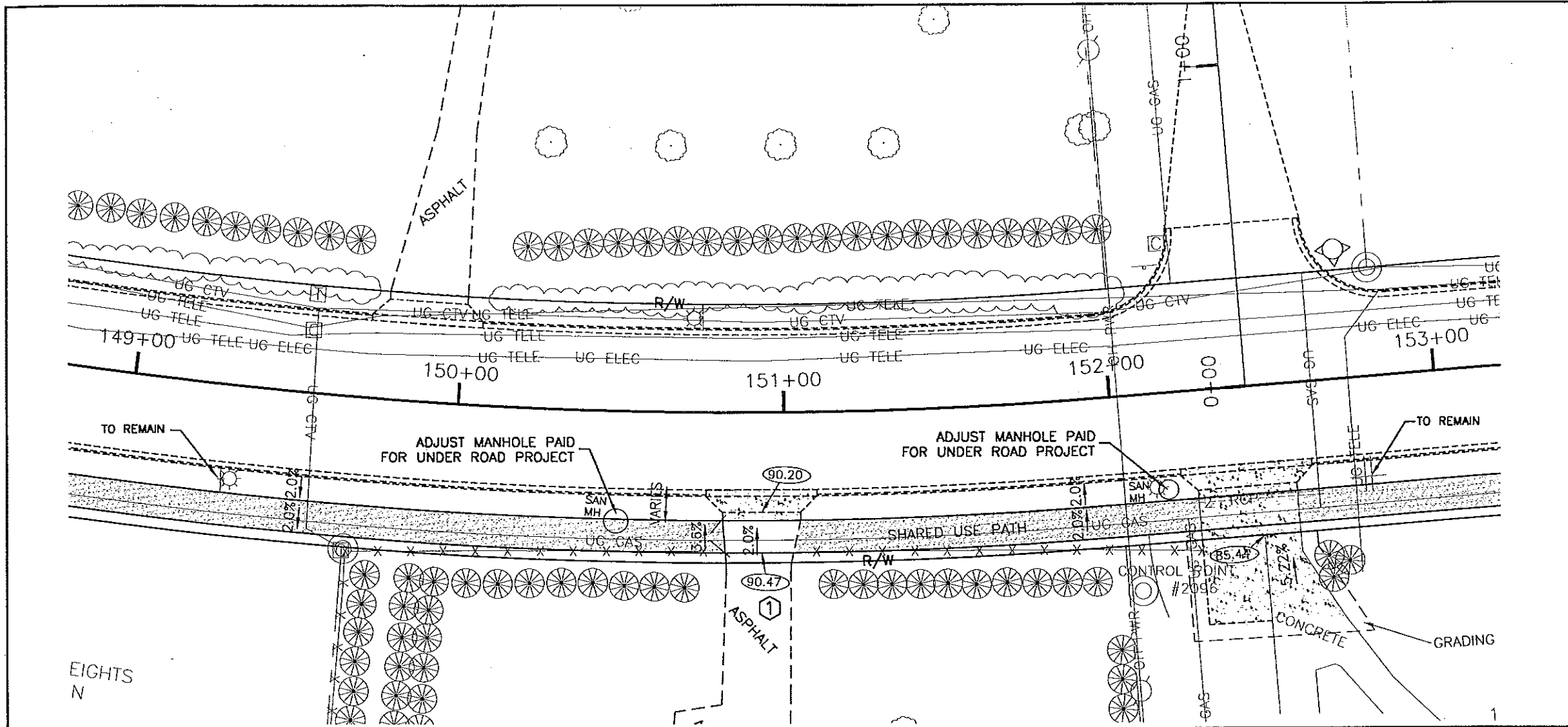


STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	16
OLD RED TRAIL STA. 149+00 TO STA. 153+00 SHARED USE PATH LAYOUT		

SAW BITUMINOUS SURFACING - FULL DEPTH
 ASPHALT DRIVEWAY 20 LF

CONSTRUCTION NOTES:

- ① CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.



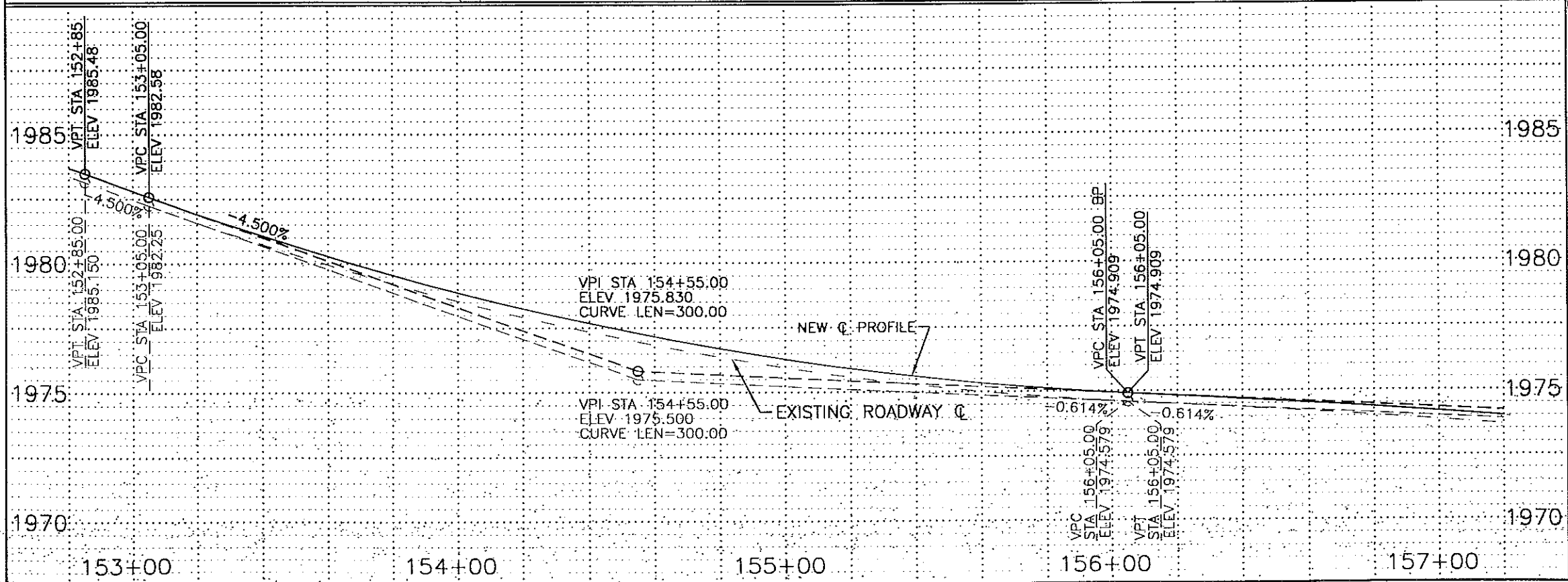
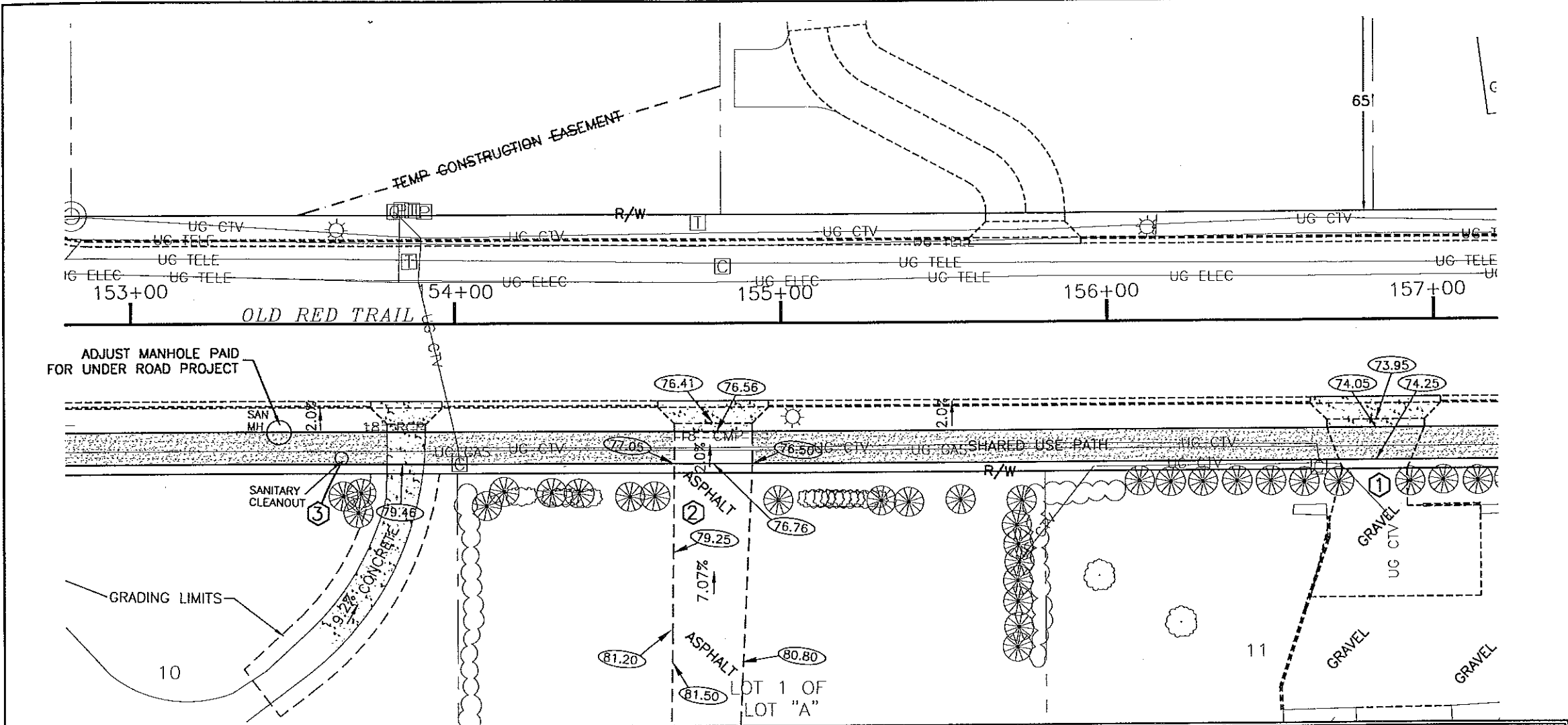
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	17
OLD RED TRAIL		
STA. 153+00 TO STA. 157+00		
SHARED USE PATH LAYOUT		

ADJUST UTILITY APPURTENANCE
153+65-41' RT 1 EA

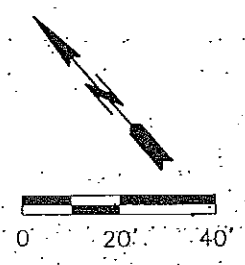
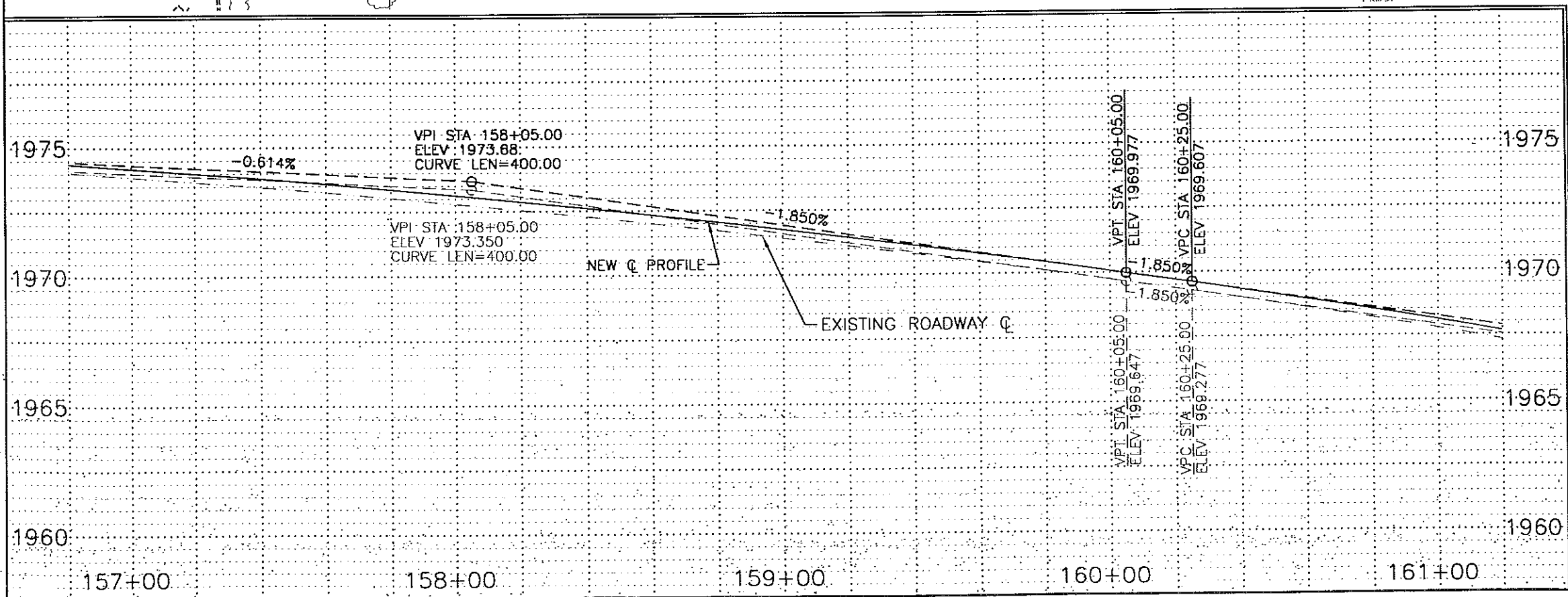
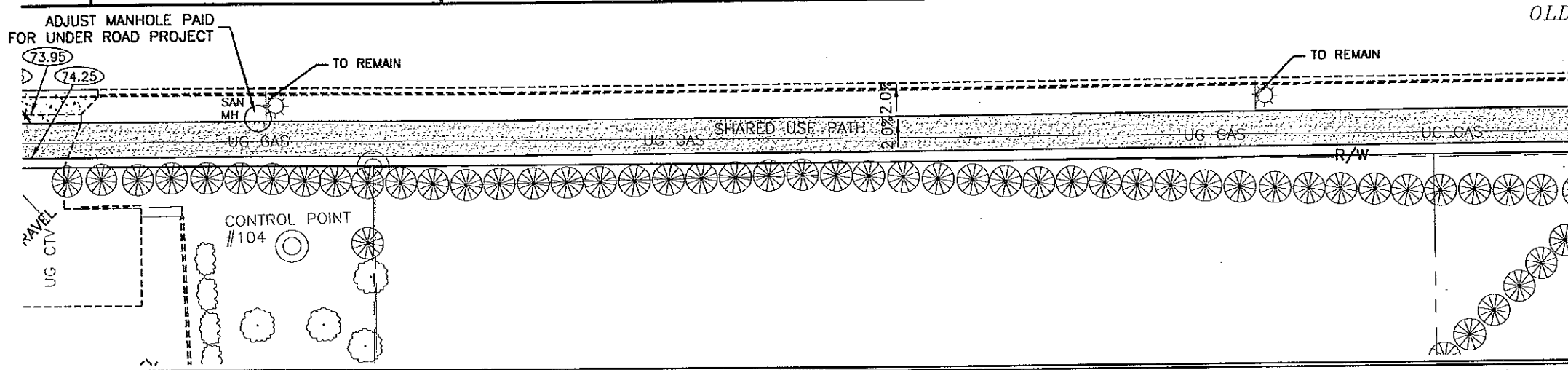
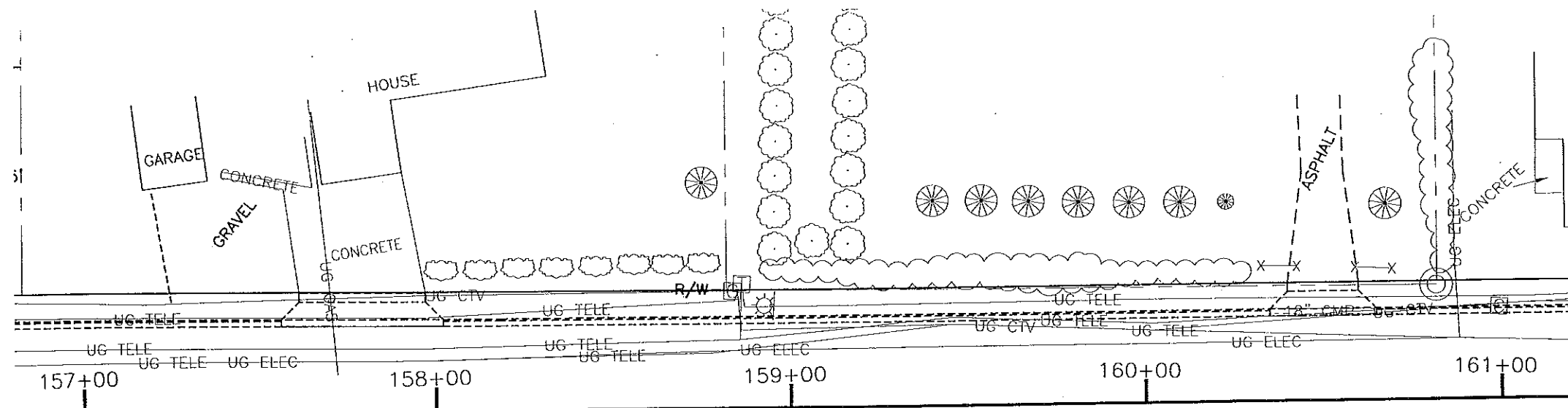
SAW BITUMINOUS SURFACING - FULL
DEPTH
ASPHALT DRIVEWAY 20 LF

CONSTRUCTION NOTES:

- ① CONTRACTOR SHALL BLEND GRAVEL DRIVE INTO EDGE OF SHARED USE PATH UPON COMPLETION OF THE CONSTRUCTION THROUGH THE DRIVEWAY. ALL COSTS INCIDENTAL TO OTHER ITEMS.
- ② CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.
- ③ PROVIDE AND INSTALL NEENAH R-1791-A (OR EQUAL) CASTING OVER THE EXISTING CLEANOUT. ADJUST THE CLEANOUT PIPE TO GRADE. ALL COSTS TO BE INCLUDED IN THE PRICE BID FOR "ADJUST UTILITY APPURTENANCE."



STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	18
OLD RED TRAIL STA. 157+00 TO STA. 161+00 SHARED USE PATH LAYOUT		

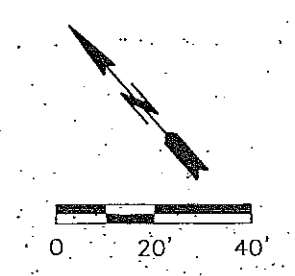
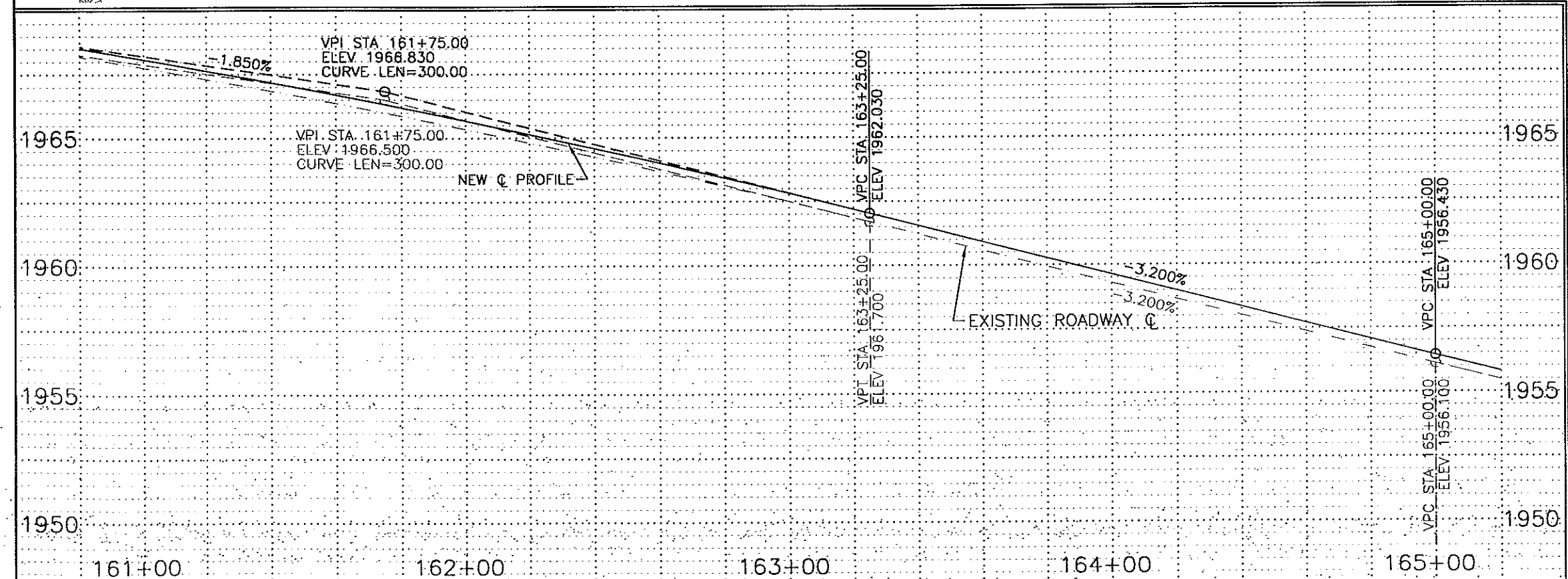
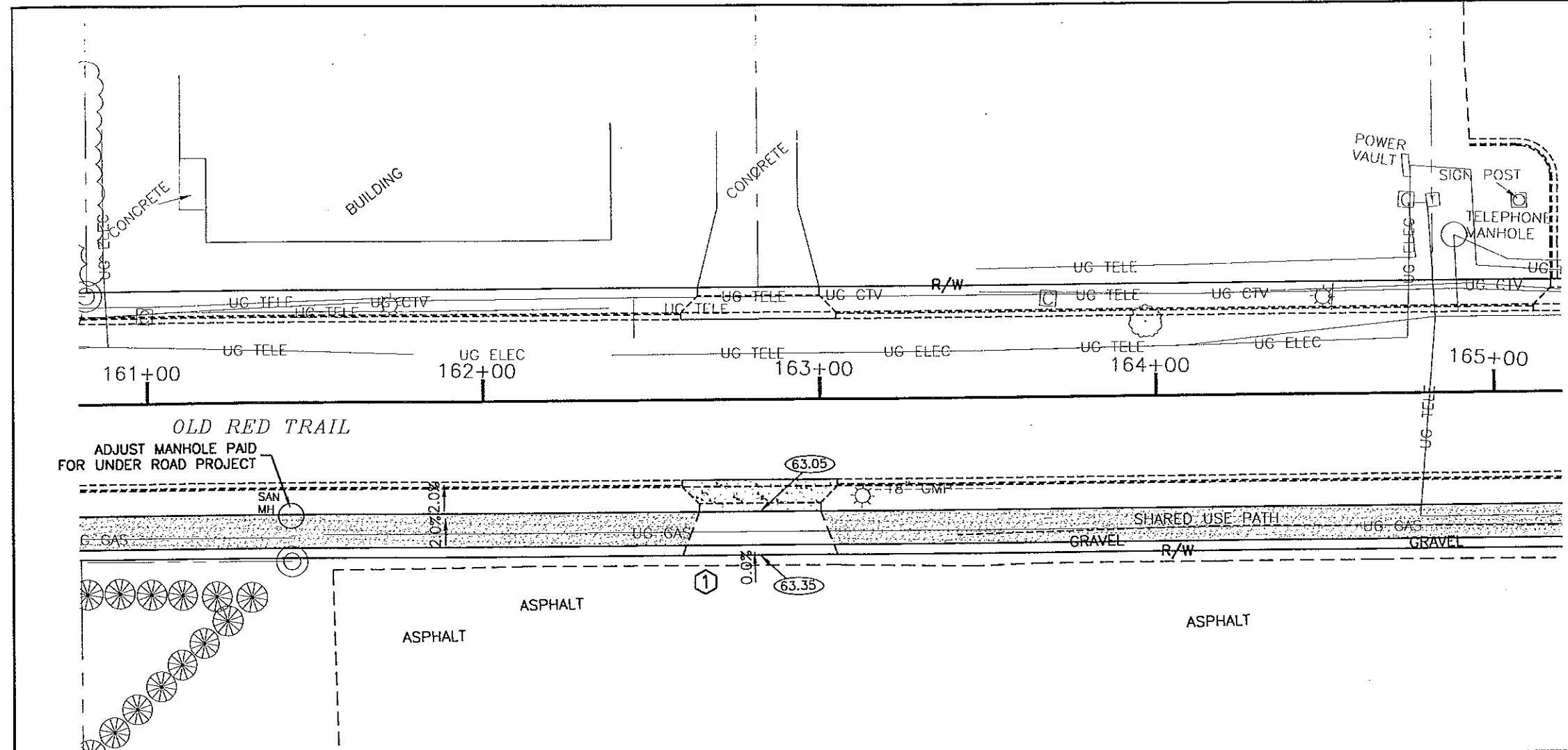


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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	19
OLD RED TRAIL STA. 161+00 TO STA. 165+00 SHARED USE PATH LAYOUT		

SAW BITUMINOUS SURFACING - FULL DEPTH
 ASPHALT DRIVEWAY 20 LF

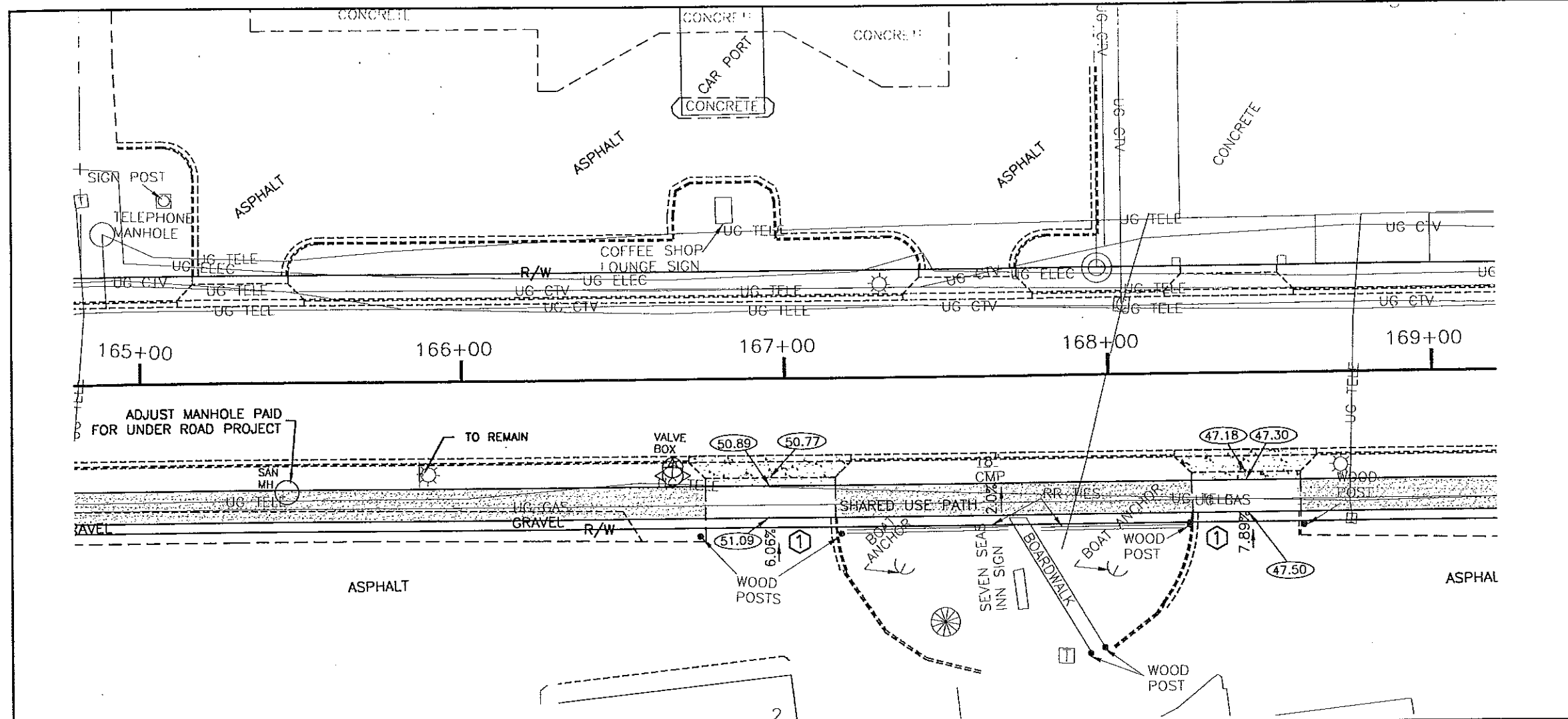
CONSTRUCTION NOTES:
 ① CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.



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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	20
OLD RED TRAIL STA. 165+00 TO STA. 169+00 SHARED USE PATH LAYOUT		

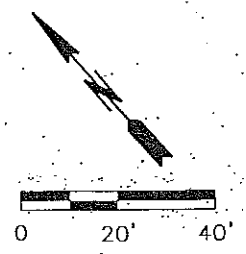
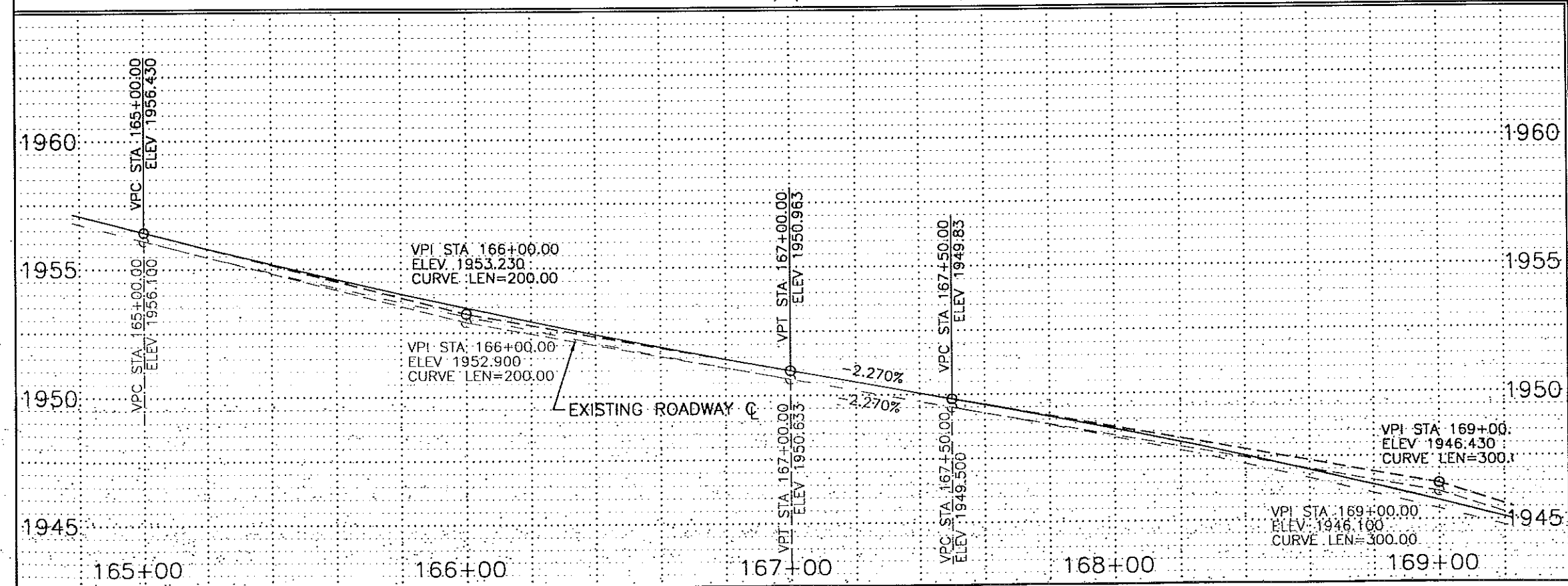


SAW BITUMINOUS SURFACING - FULL DEPTH

ASPHALT DRIVEWAY	20 LF
ASPHALT DRIVEWAY	20 LF

CONSTRUCTION NOTES:

① CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.



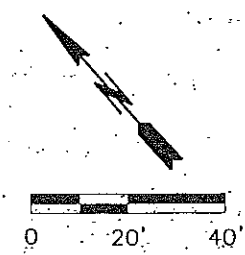
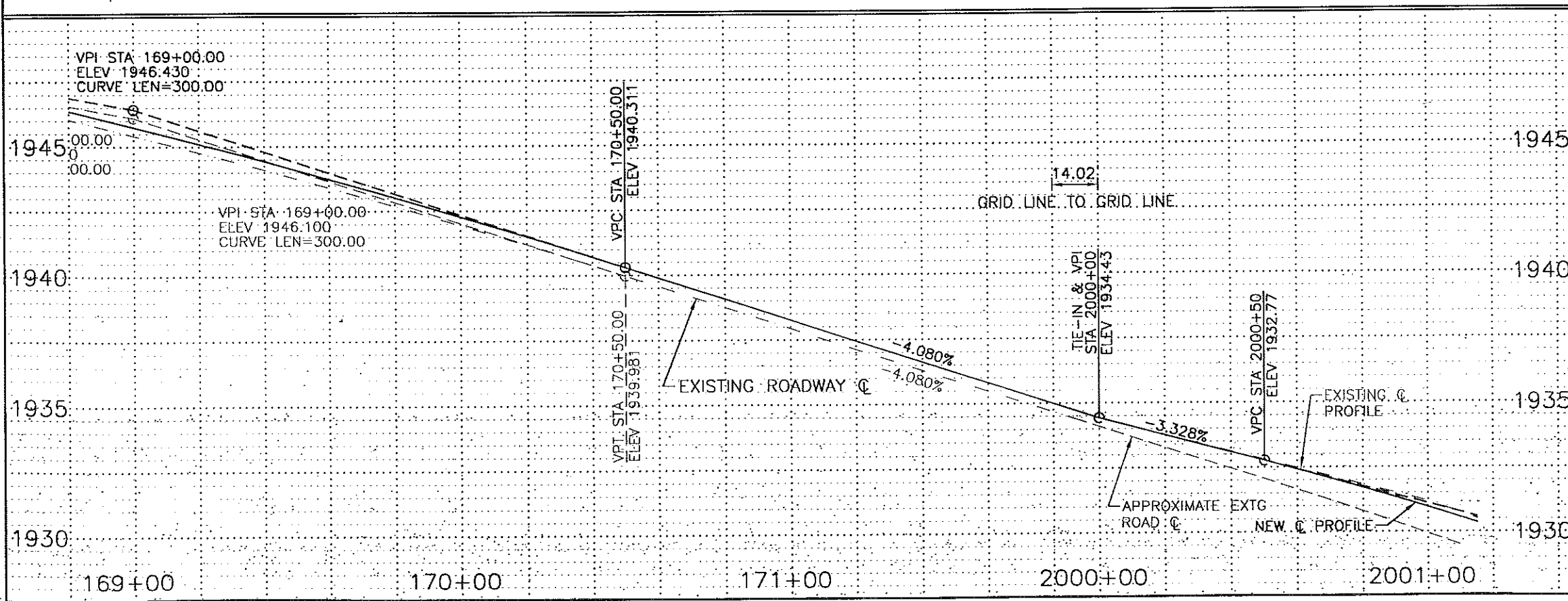
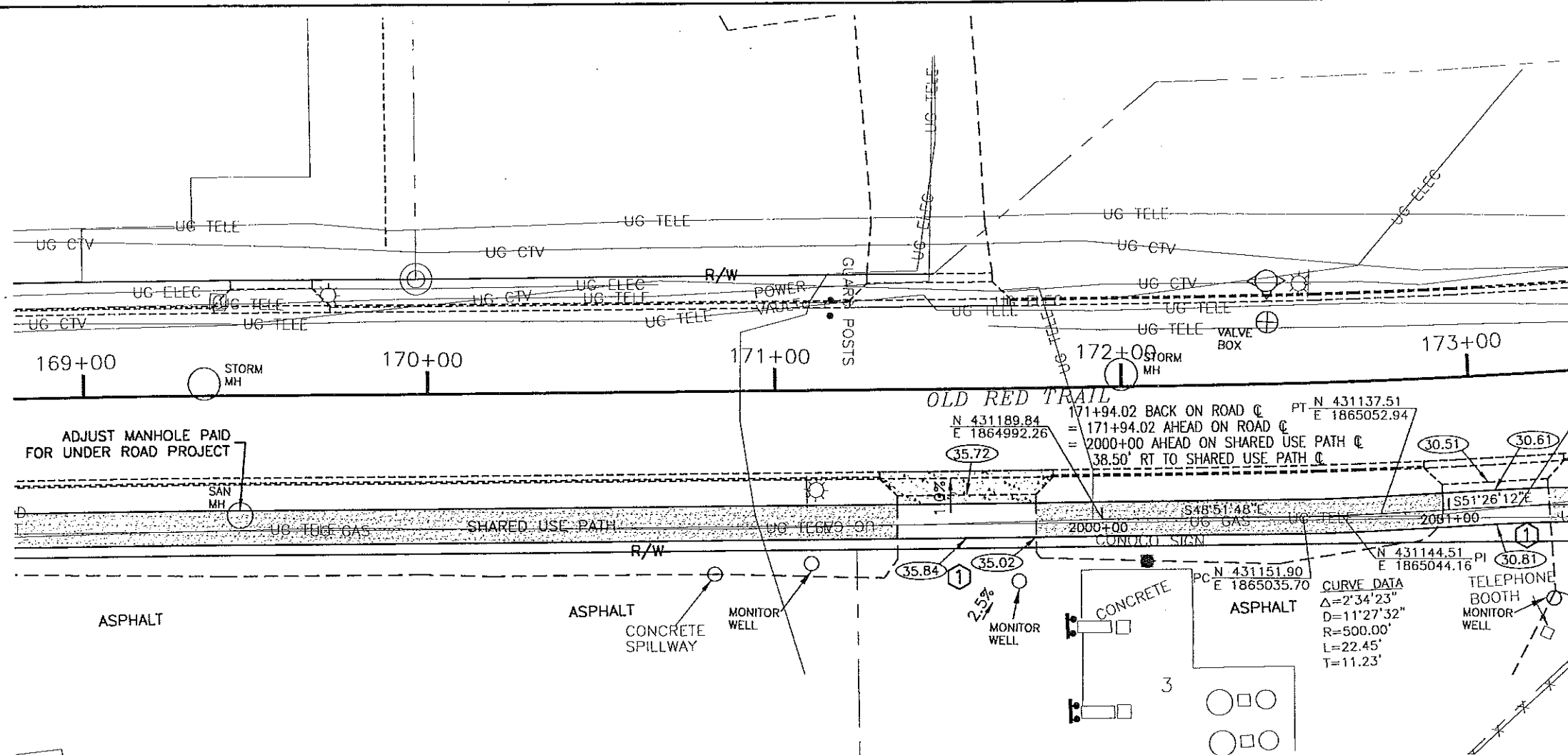
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	21

OLD RED TRAIL
STA. 169+00(RD) TO STA. 2001+00(SUP)
SHARED USE PATH LAYOUT

SAW BITUMINOUS SURFACING - FULL DEPTH
 ASPHALT DRIVEWAY 20 LF
 ASPHALT DRIVEWAY 20 LF

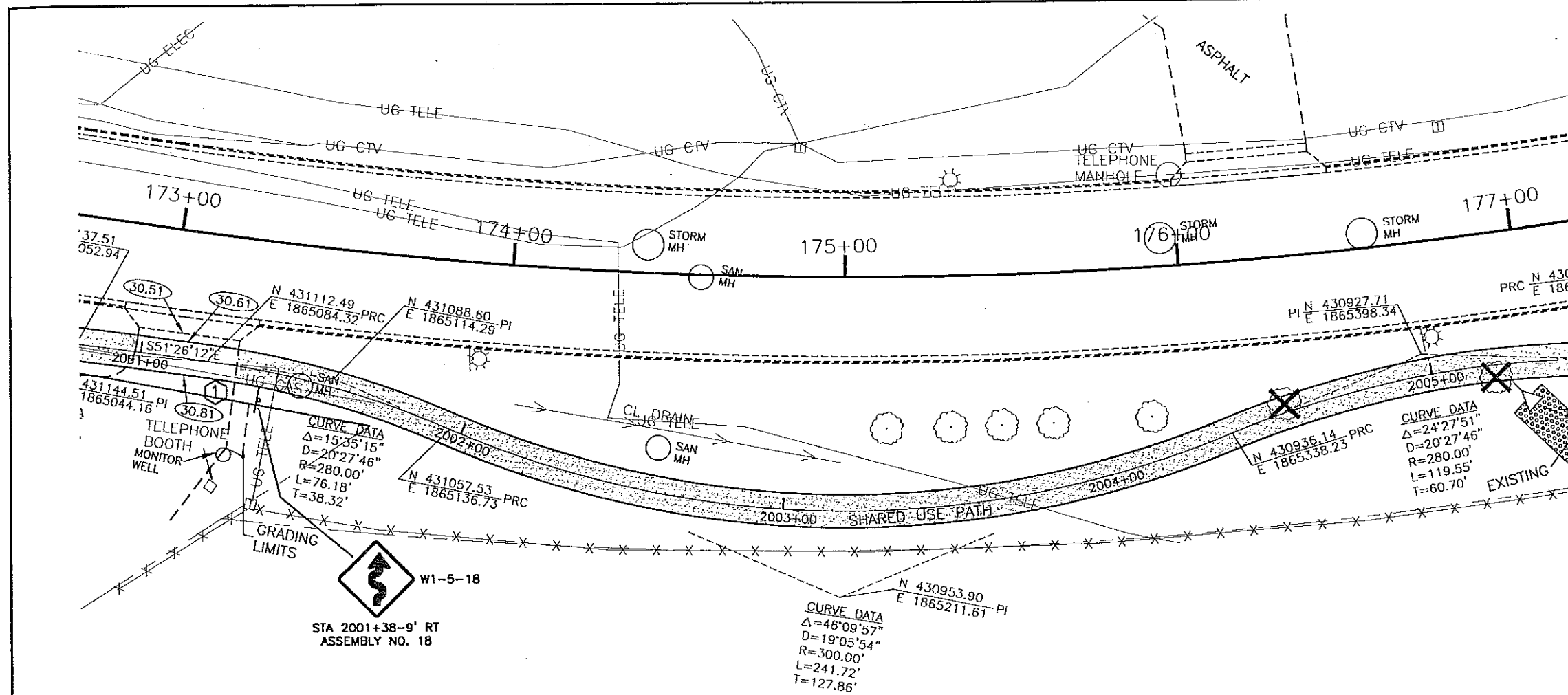
CONSTRUCTION NOTES:

- ① CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.
- ② SHARED USE PATH PARALLELS ROAD CENTERLINE FROM 37TH STR. TO STA 171+94. CURVE DATA AND CROSS SECTIONS CAN BE SEEN IN OLD RED TRAIL ROAD PLANS.



STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	22
OLD RED TRAIL STA. 2001+00 TO STA. 2005+00 SHARED USE PATH LAYOUT		

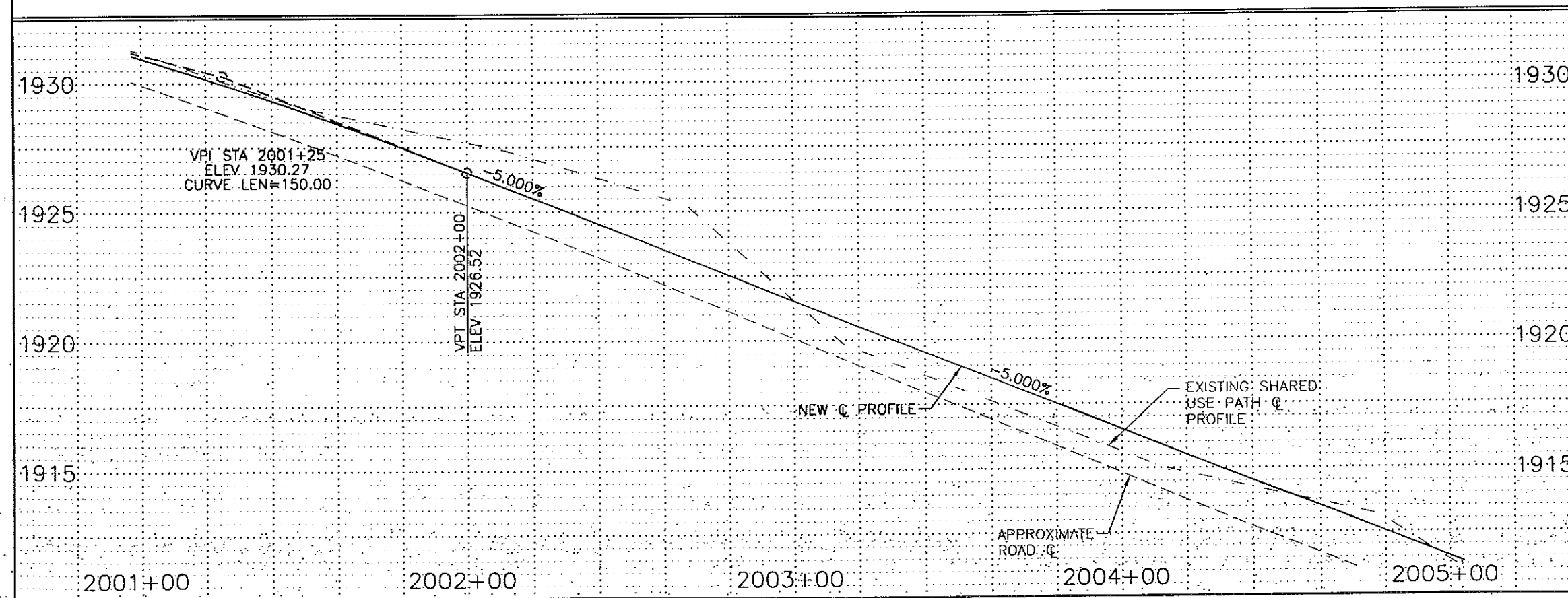
ADJUST MANHOLE
2001+50-2' RT 1 EA



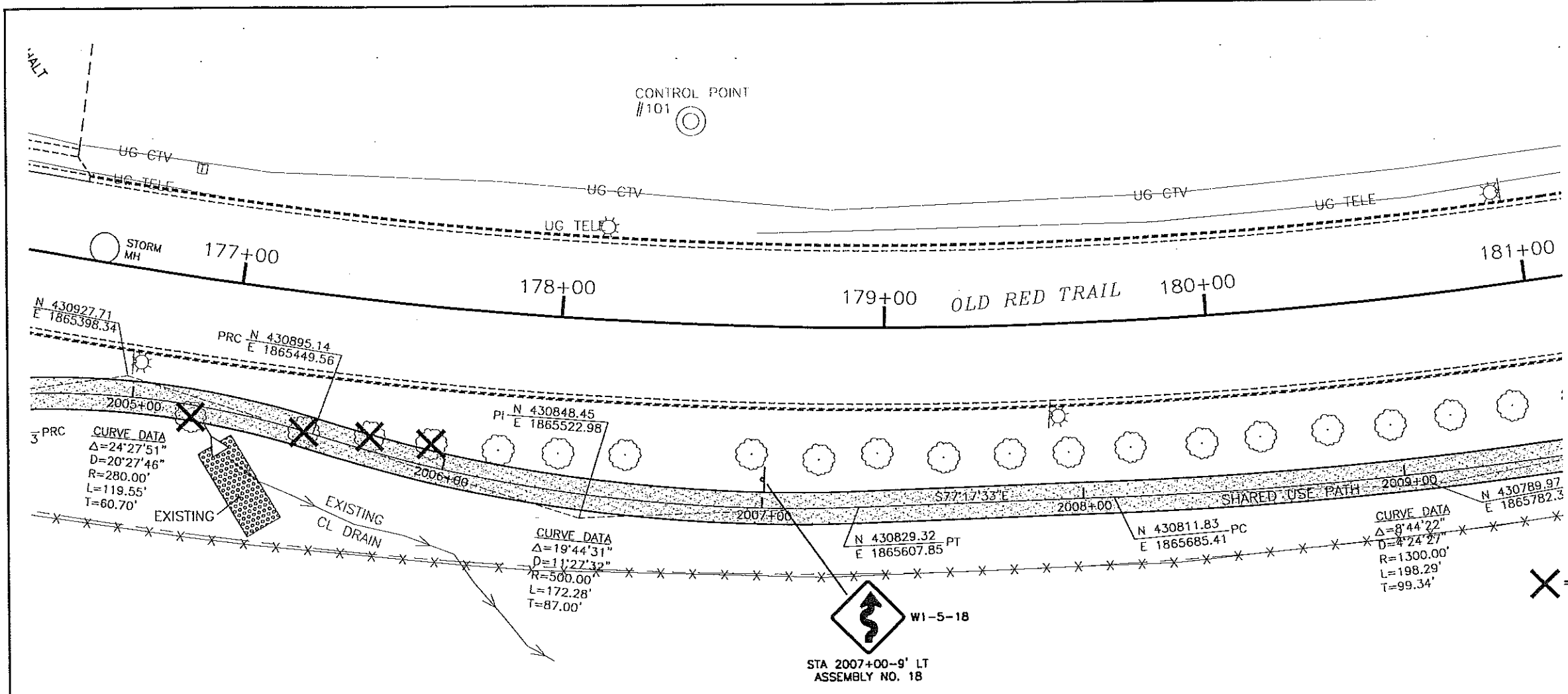
CONSTRUCTION NOTES:

- ① CONTRACTOR SHALL FULL DEPTH SAW OR SCORE EXISTING ASPHALT DRIVEWAY EDGES TO ALLOW CONSTRUCTION OF THE SHARED USE PATH UP TO EACH SIDE OF THE DRIVEWAY.

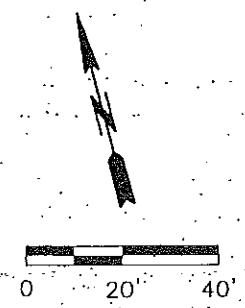
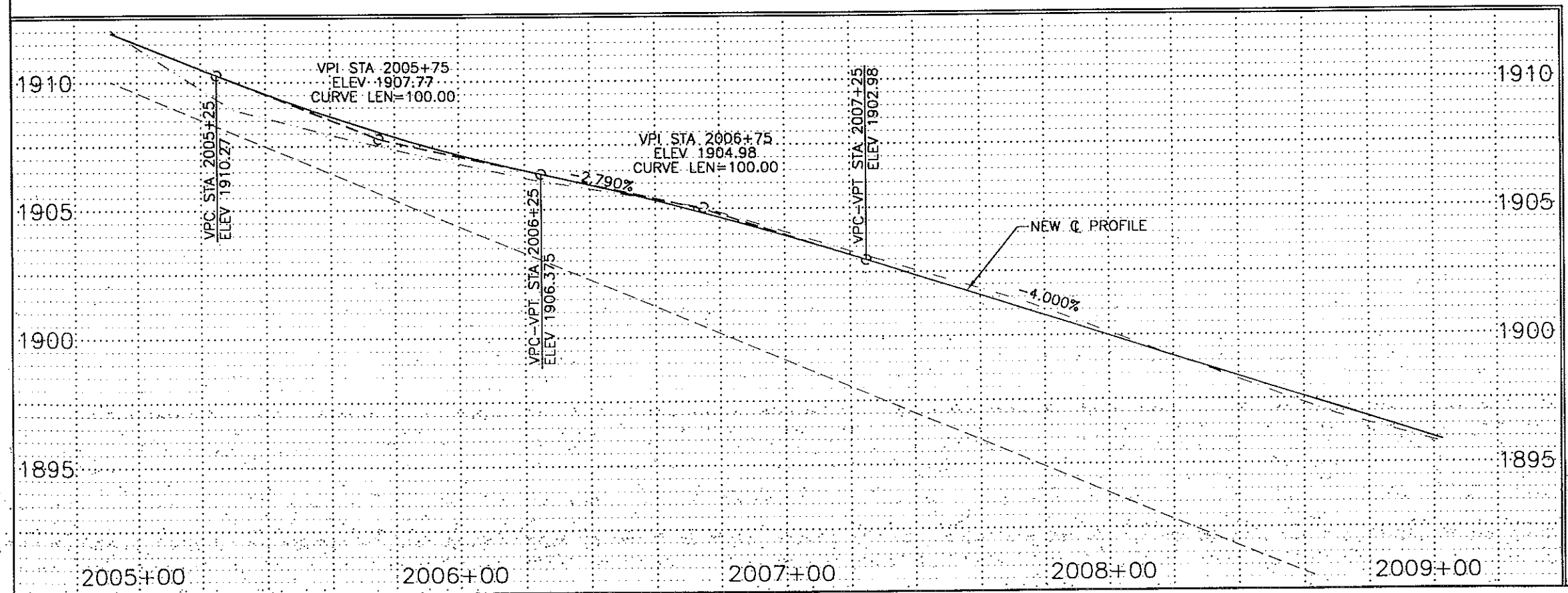
X = REMOVE TREE/SHRUB. ALL COSTS ASSOCIATED WITH TREE/SHRUB REMOVAL TO BE INCLUDED IN THE LUMP SUM PRICE FOR "CLEARING AND GRUBBING."



STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	23
OLD RED TRAIL STA. 2005+00 TO STA. 2009+00 SHARED USE PATH LAYOUT		

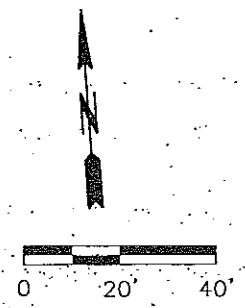
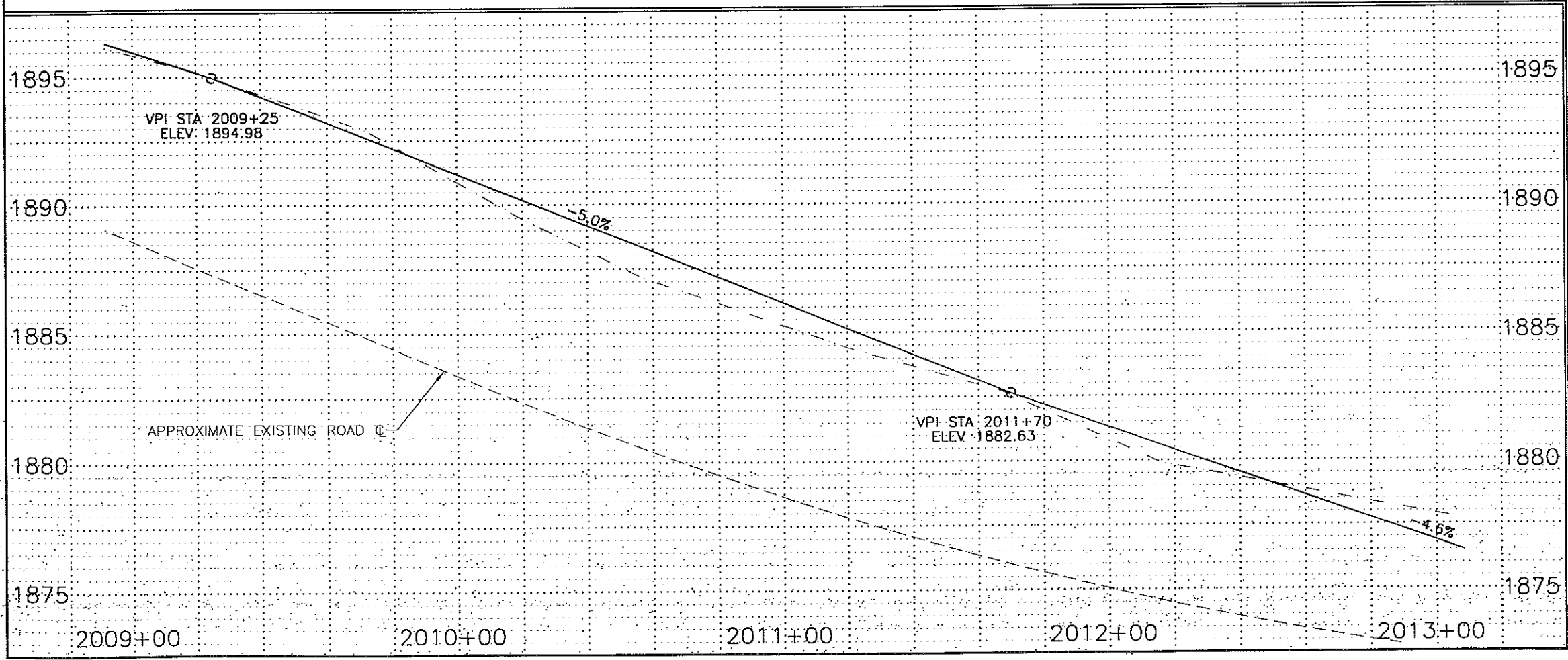
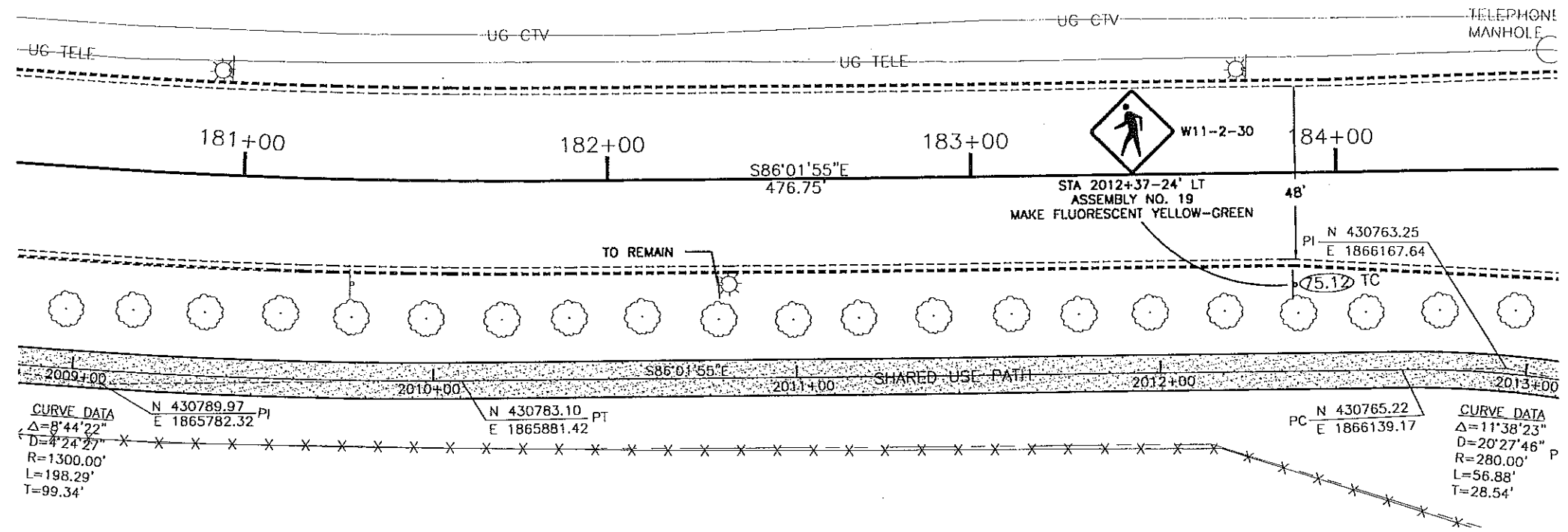


X = REMOVAL OF TREE/SHRUB. ALL COSTS ASSOCIATED WITH TREE/SHRUB REMOVAL TO BE INCLUDED IN THE LUMP SUM PRICE FOR "CLEARING AND GRUBBING."



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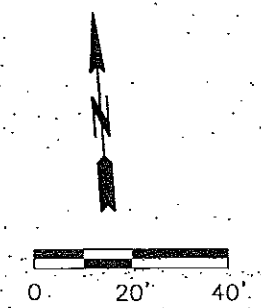
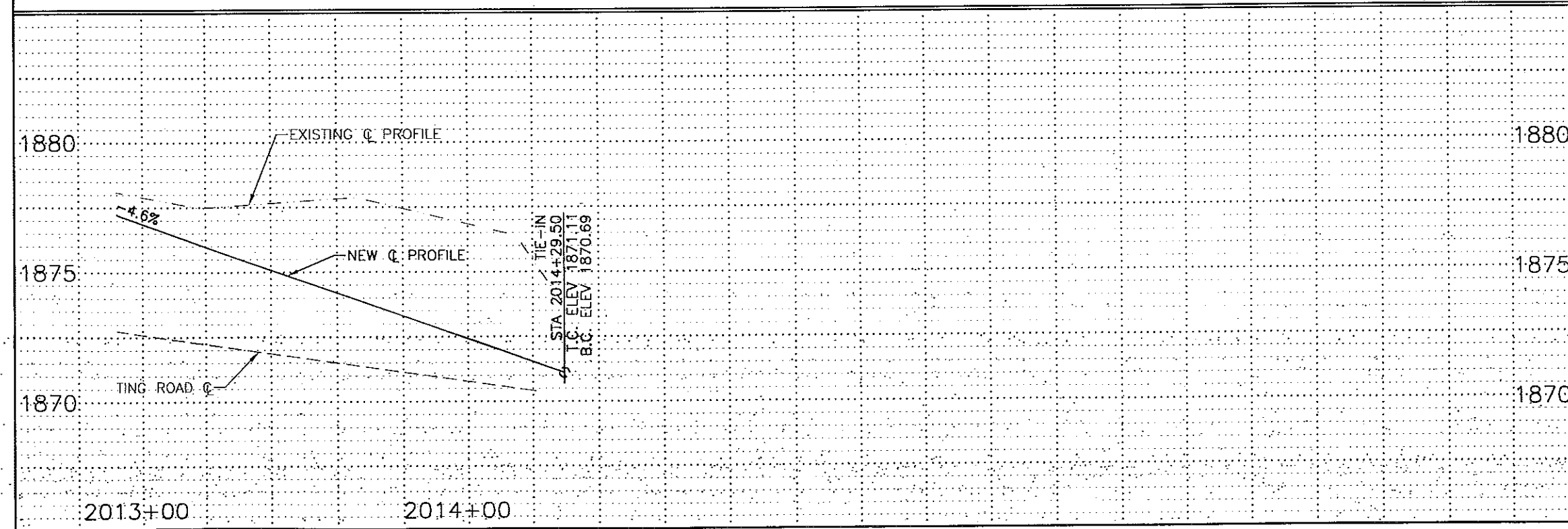
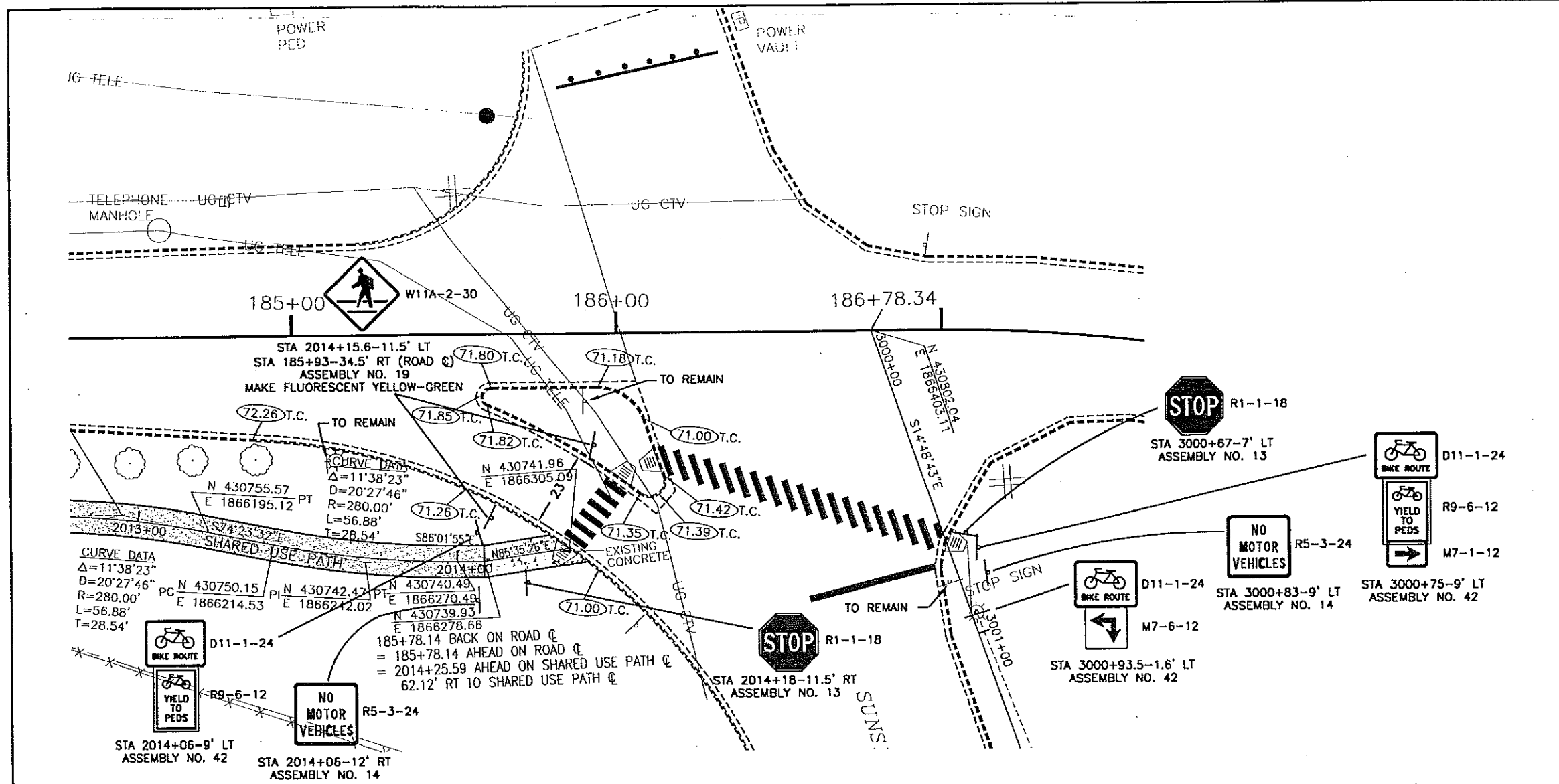
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	24
OLD RED TRAIL STA. 2009+00 TO STA. 2013+00 SHARED USE PATH LAYOUT		



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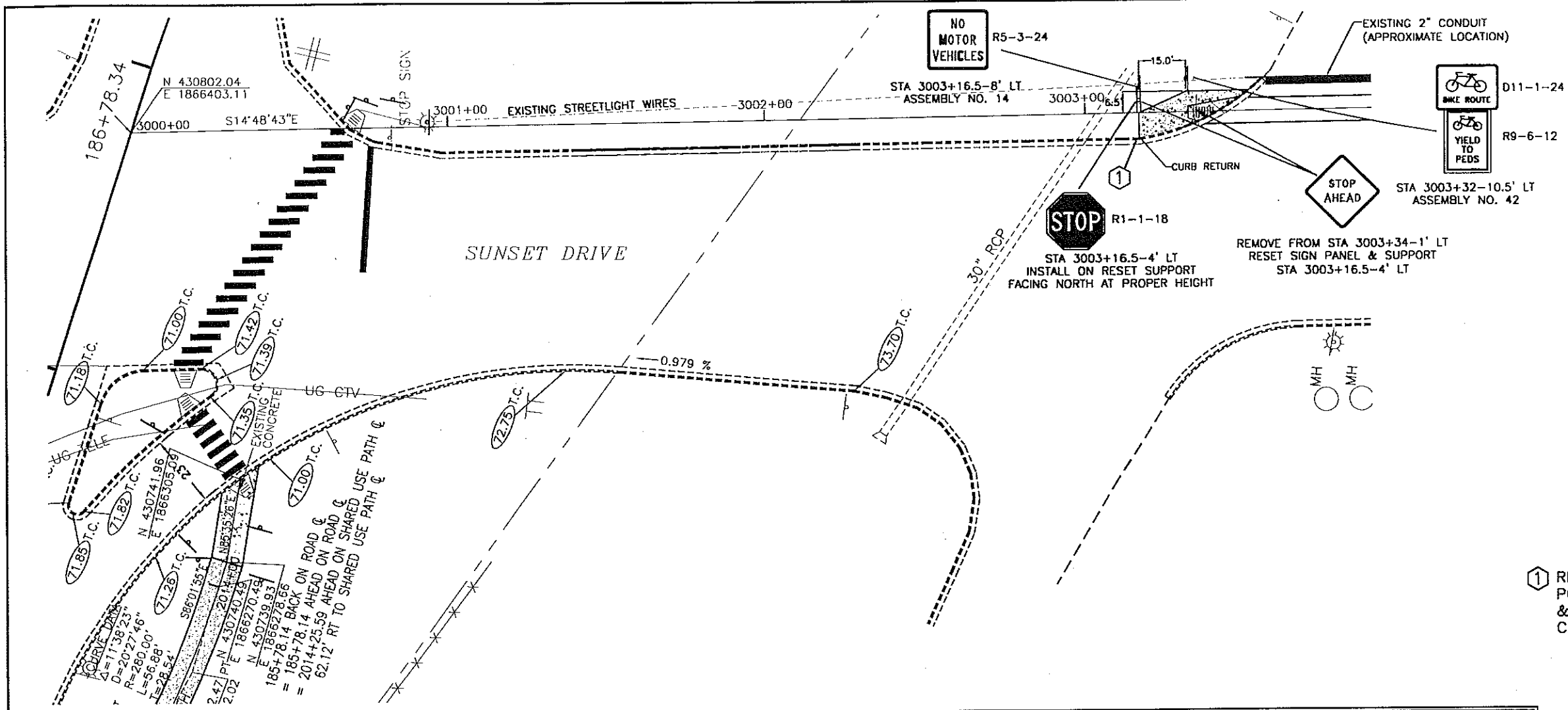
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	25
OLD RED TRAIL STA. 2013+00 TO STA. 186+78.34 SHARED USE PATH LAYOUT		

PREFORMED PATTERNED PVMT MK	24IN LINE GROOVED	
CONTINENTAL X-WALK	48 LF	
PLASTIC PVMT MK FILM	24IN LINE	
STOP BAR	40 LF	
CONTINENTAL X-WALK	176 LF	(SUNSET)



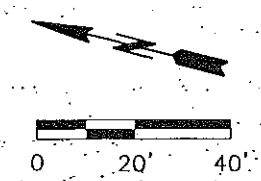
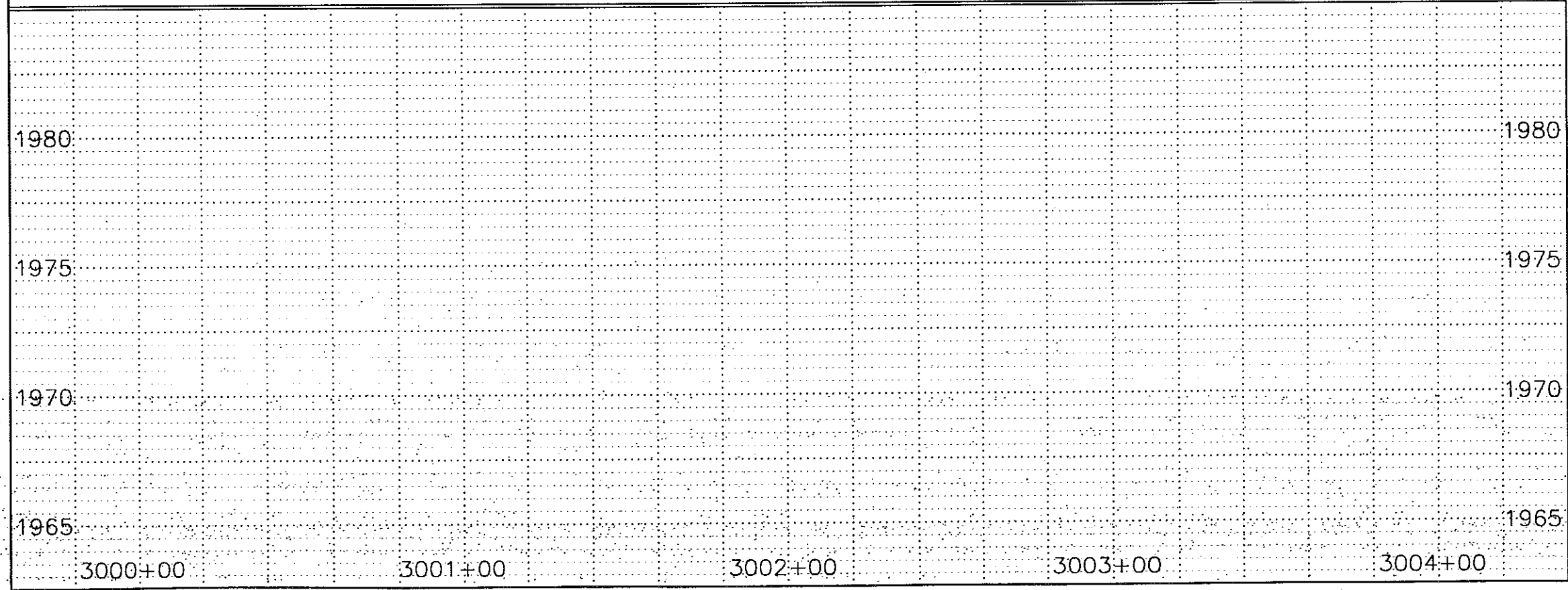
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STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	26
OLD RED TRAIL STA. 3000+00 TO STA. 3004+00 SHARED USE PATH LAYOUT		

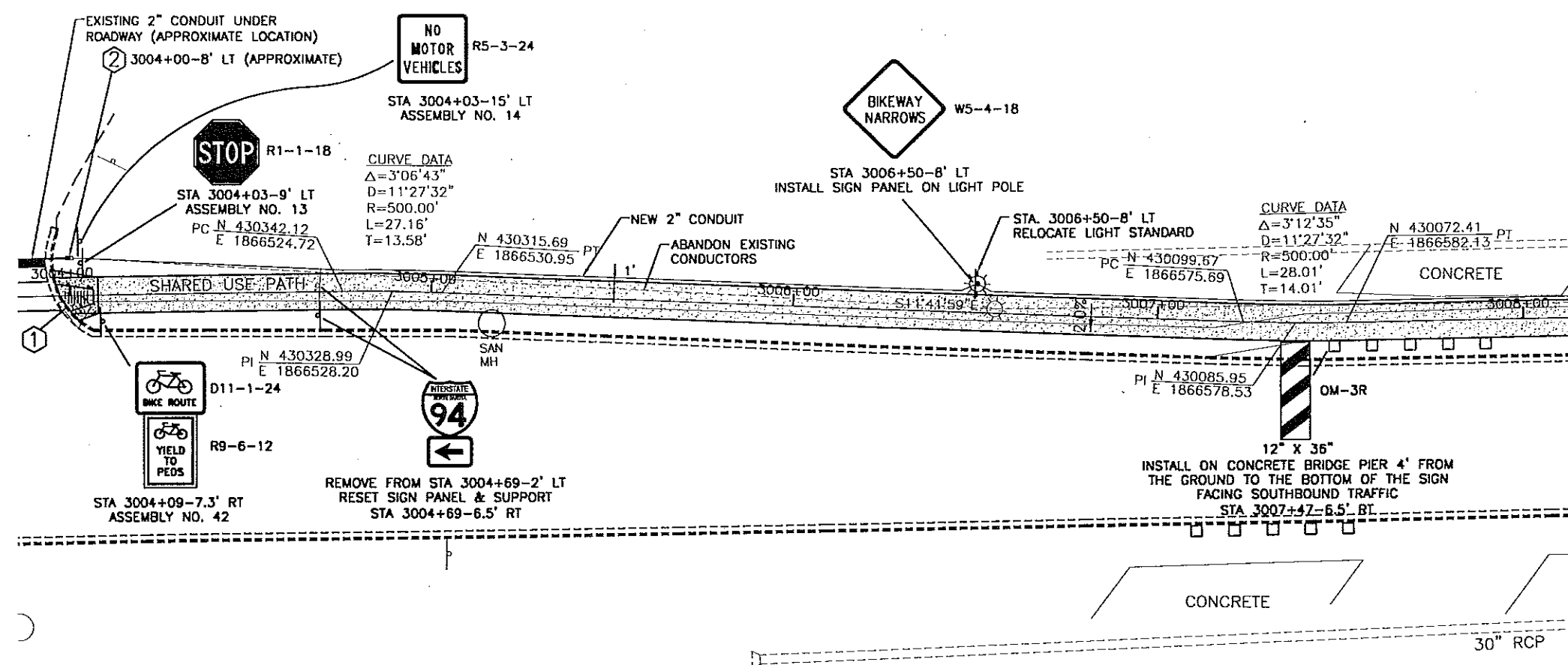


REMOVAL OF CONCRETE	
3003+16 TO 3003+41	14.2 SY
REMOVAL OF CURB & GUTTER	
3003+41±	30 LF
CURB & GUTTER - TYPE 1	
3003+41±	30 LF
SIDEWALK CONCRETE	
3003+16 TO 3003+41	29 SY
PLASTIC PVMT MK FILM-6IN LINE X-WALK	
	102 LF
PLASTIC PVMT MK FILM-24IN LINE STOP BAR	
	36 LF

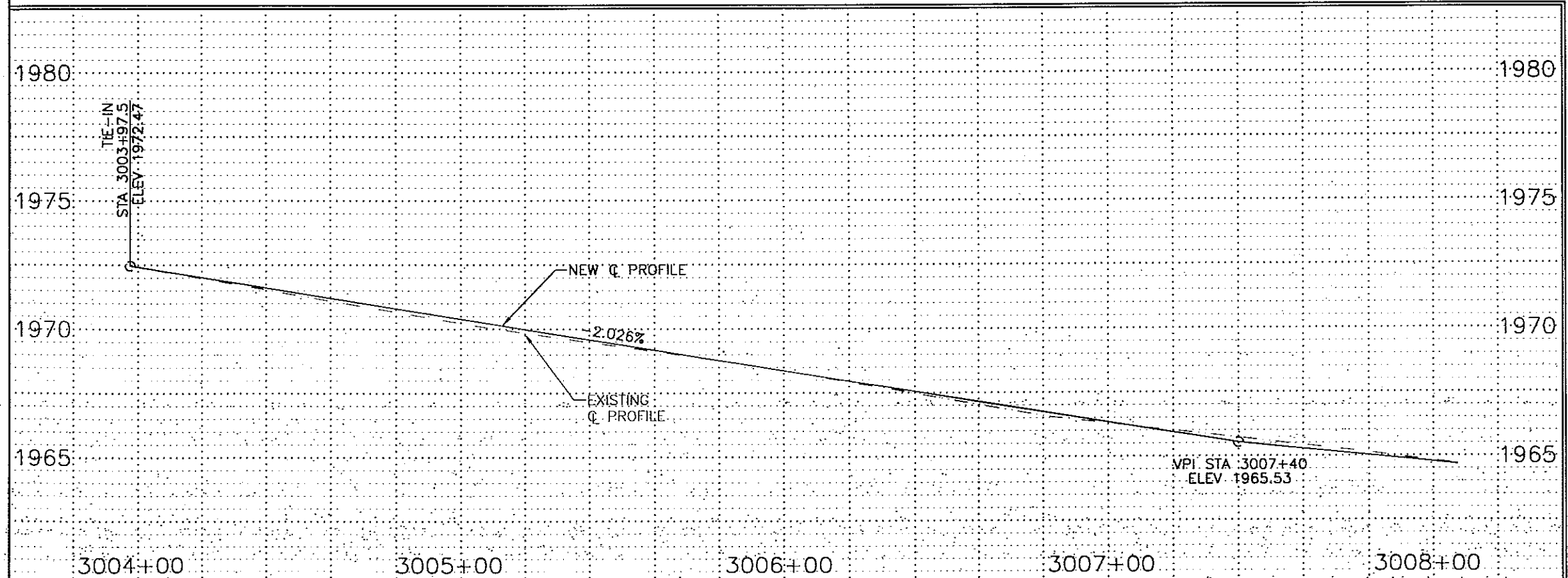
① REMOVE SIDEWALK FROM THIS POINT AND POUR APRON AS SHOWN. REMOVE CURB & GUTTER AS NEEDED TO REPLACE CROSS WALK RAMP TAPERS.



STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	27
OLD RED TRAIL STA. 3004+00 TO STA. 3008+00 SHARED USE PATH LAYOUT		

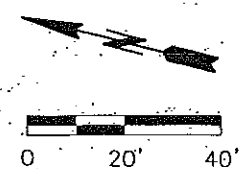


REMOVAL OF CURB & GUTTER	
3003+97±	20 LF
CURB & GUTTER - TYPE 1	
3003+97±	20 LF
SIDEWALK CONCRETE	
3003+16 TO 3003+41	13 SY
ADJUST MANHOLE	
3005+17.07	1EA
CONCRETE FOUNDATION HIGHWAY LIGHTING	
3006+50-8' LT	1 EA
RELOCATE LIGHT STANDARD	
3006+50-8' LT	1 EA
PULL BOX	
3004+00-8' LT	1 EA
2IN DIAMETER RIGID CONDUIT	
TIE-IN TO PULL BOX (3004+00-8' LT)	3 LF
PULL BOX (3004+00-8' LT) TO LIGHT STD (3006+50-8' LT)	250 LF
LIGHT STD (3006+50-8' LT) TO 3008+00	150 LF
UNDERGROUND CONDUCTOR NO.4-TYPE RHW	
3004+00-8' LT TO 3006+50-8' LT (2 LINES)	520 LF
3006+50-8' LT TO 3008+00-6' LT (2 LINES)	308 LF
UNDERGROUND CONDUCTOR NO.6-TYPE THW	
3004+00-8' LT TO 3006+50-8' LT (1 LINE)	260 LF
3006+50-8' LT TO 3008+00-8' LT (1 LINE)	154 LF



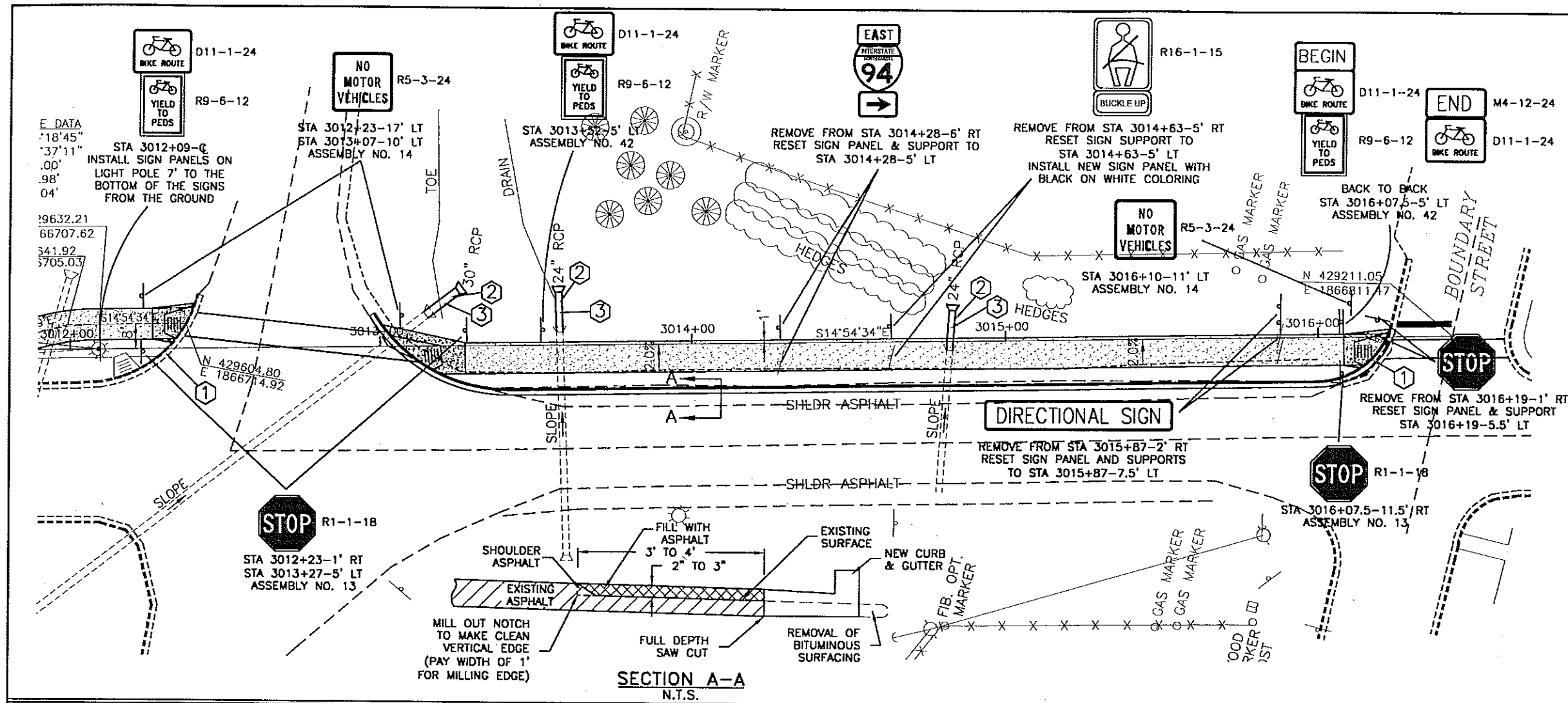
UNDERGROUND CONDUCTOR NO.4-TYPE RHW	
3004+00-8' LT TO 3006+50-8' LT (2 LINES)	520 LF
3006+50-8' LT TO 3008+00-6' LT (2 LINES)	308 LF
UNDERGROUND CONDUCTOR NO.6-TYPE THW	
3004+00-8' LT TO 3006+50-8' LT (1 LINE)	260 LF
3006+50-8' LT TO 3008+00-8' LT (1 LINE)	154 LF

- ① REMOVE CURB & GUTTER AS NEEDED TO REPLACE CURB & GUTTER TAPERS. ALL ITEMS TO BE PAID BY UNIT PRICES.
- ② INSTALL PULL BOX. CUT EXISTING LINES TO ALLOW 6' OF SLACK IN PULL BOX. EXTEND EXISTING 2" CONDUIT TO NEW PULLBOX. PULL BOX MUST BE PLACED OUTSIDE OF THE SHARED USE PATH. NEW ITEMS TO BE PAID BY UNIT PRICES. ANY WORK DONE WITH EXISTING ITEMS SHALL BE INCIDENTAL TO OTHER ITEMS.

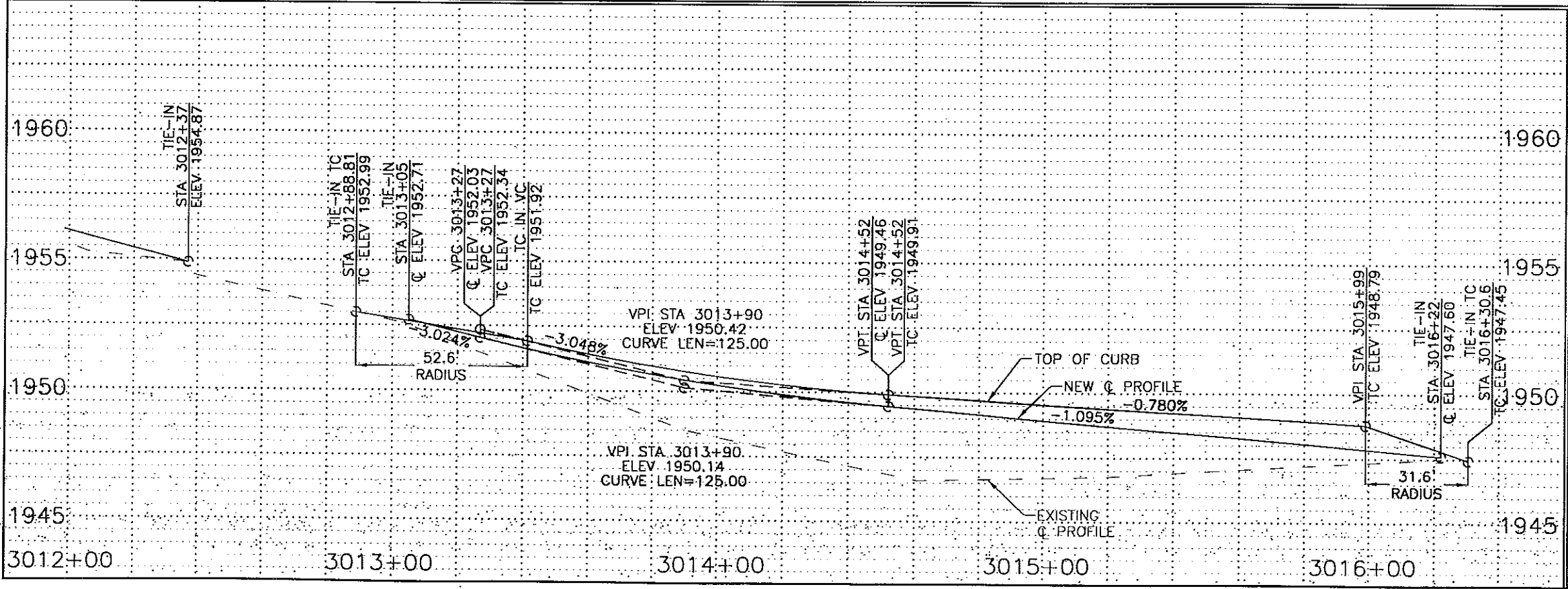


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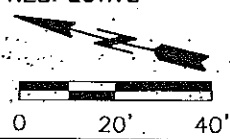
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	29
OLD RED TRAIL STA. 3012+00 TO STA. 3016+00+ SHARED USE PATH LAYOUT		



REMOVAL OF CURB & GUTTER	
3012+30±	50 LF
3016+20±	25 LF
REMOVAL OF BITUMINOUS SURFACING	
3013+25 TO 3016+05	93 SY
(280 LF @ 3' WIDE)	
CURB & GUTTER-TYPE 1	
3012+30±	50 LF
3013+00 TO 3016+20	342 LF
ADJUST MANHOLE	
3015+45-4' LT	1 EA
PLASTIC PVMT MK FILM-6 IN LINE	
X-WALK @ 3012-50±	134 LF
X-WALK @ 3016+50±	75 LF
PLASTIC PVMT MK FILM-24 IN LINE	
STOP BAR @ 3016+35±	17 LF
SIDEWALK CONCRETE	
3012+30± APRON	14 SY
3016+15± APRON	14 SY
3013+15± APRON	25 SY
REMOVE & RELAY END SECTION	
ALL TYPES & SIZES	
3013+18 LT	1 EA
3013+58 LT	1 EA
3014+82 LT	1 EA
PIPE CONC REINF 24IN CL III-	
STORM DRAIN	
3013+58 LT	18 LF
3014+82 LT	22 LF
PIPE CONC REINF 30IN CL III-	
STORM DRAIN	
3013+18 LT	22 LF
MILLING BITUMINOUS SURFACING	
3013+25 TO 3016+05	31 SY
(280 LF @ 1' WIDE)	
SAWING BITUMINOUS SURFACING	
3013+00 TO 3016+20	342 LF

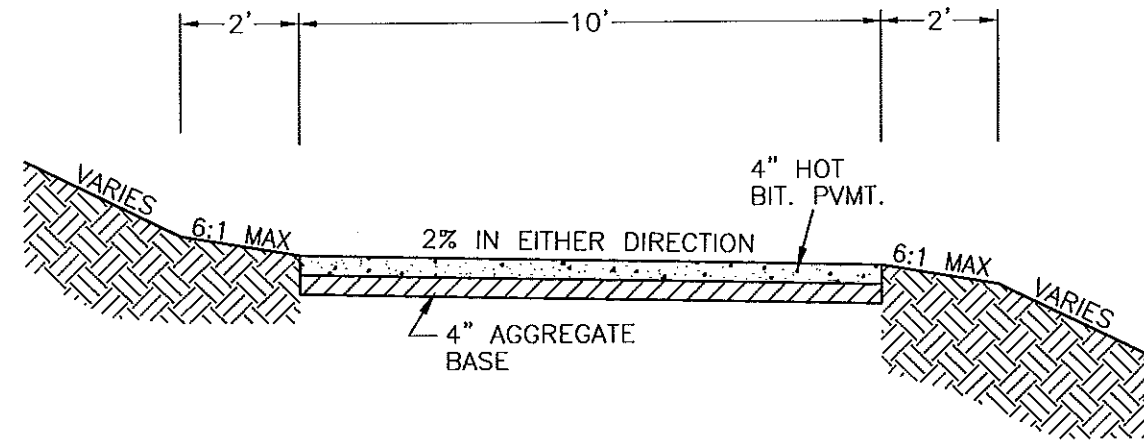


- ① REMOVE CURB & GUTTER AND INSTALL NEW AS NEEDED TO INSTALL NEW TAPERS. ITEMS TO BE PAID BY UNIT PRICES.
- ② REMOVE END SECTION. INSTALL PIPE SECTIONS AS STATED AND RESET END SECTION. PIPE & RESETTING END SECTIONS TO BE PAID BY UNIT PRICES.
- ③ INSTALL TIE BOLTS IN THE END SECTION AND TIE EACH JOINT BACK TO THE ORIGINAL PIPE. ALL COSTS ASSOCIATED WITH INSTALLING TIE-BOLTS SHALL BE INCIDENTAL TO THE RESPECTIVE CONCRETE PIPE.

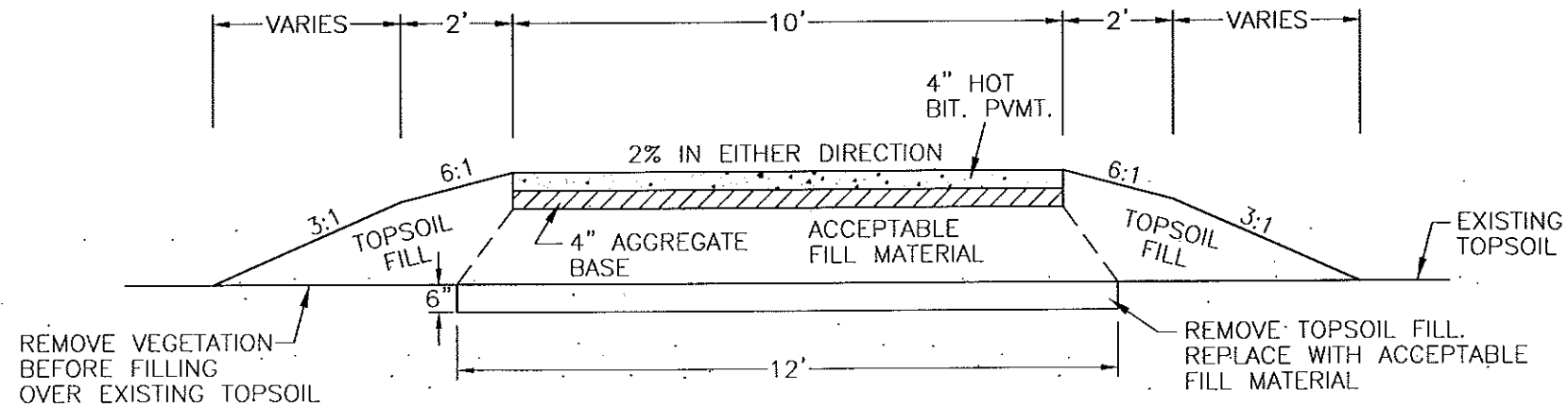


STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	30
OLD RED TRAIL TYPICAL SECTIONS		

TYPICAL SHARED USE PATH CROSS SECTION

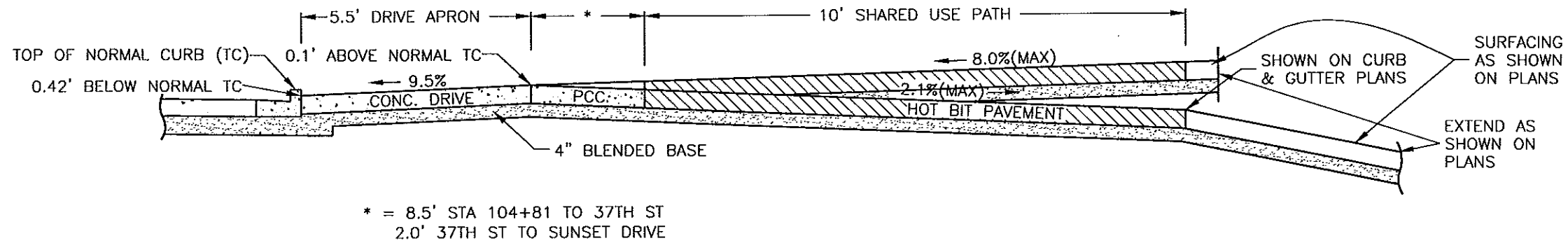


TYPICAL FILL SECTION

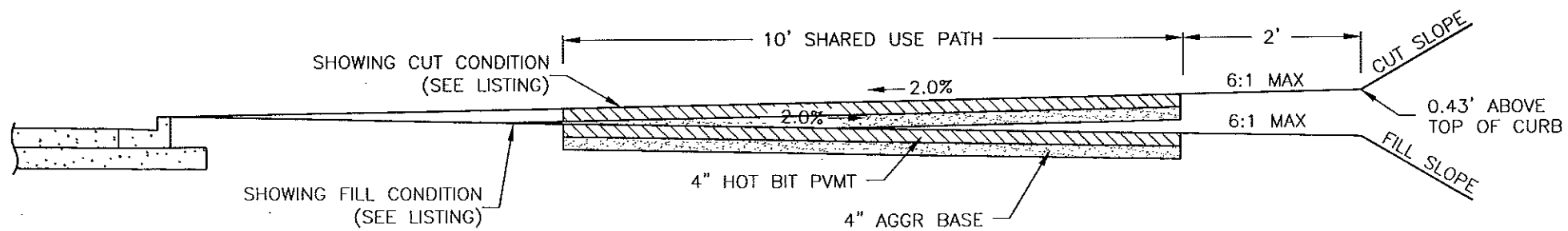


STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	31
OLD RED TRAIL TYPICAL SECTIONS		

TYPICAL GRADING FOR DRIVEWAYS & SHARED USE PATH SLOPE DETAILS



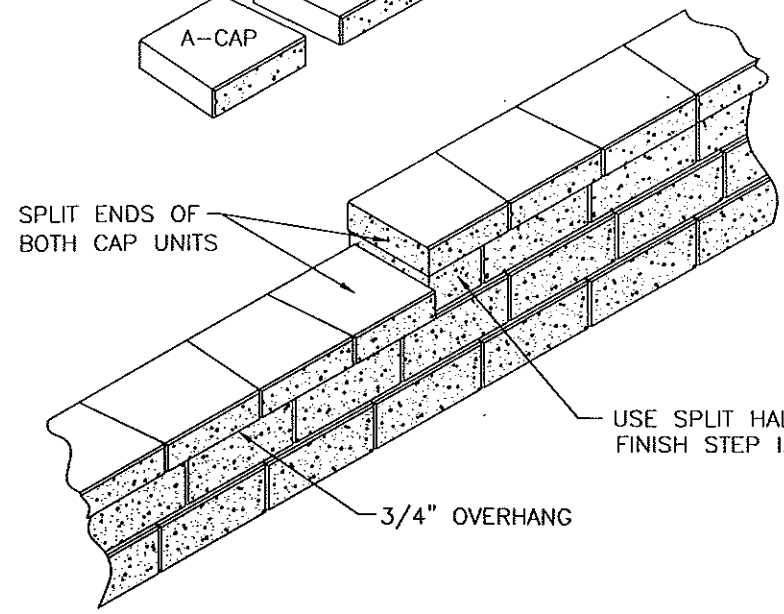
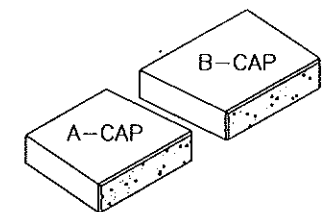
DRIVEWAY DETAIL



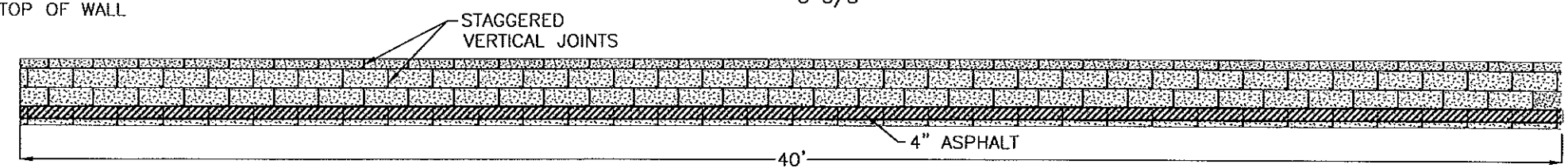
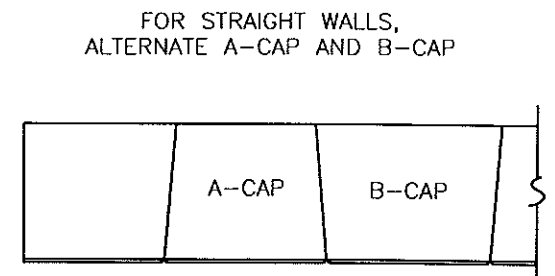
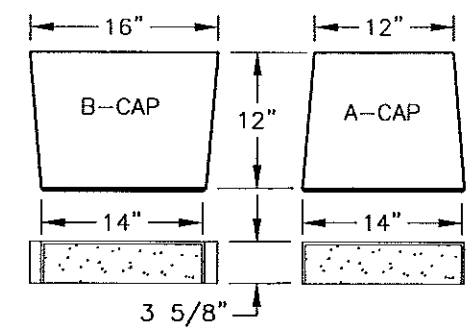
USE 50' TRANSITION BETWEEN SECTIONS

TYPICAL SHARED USE PATH
SLOPE DETAIL BY CURB AND GUTTER
(SHOWING CUT OR FILL CONDITIONS)

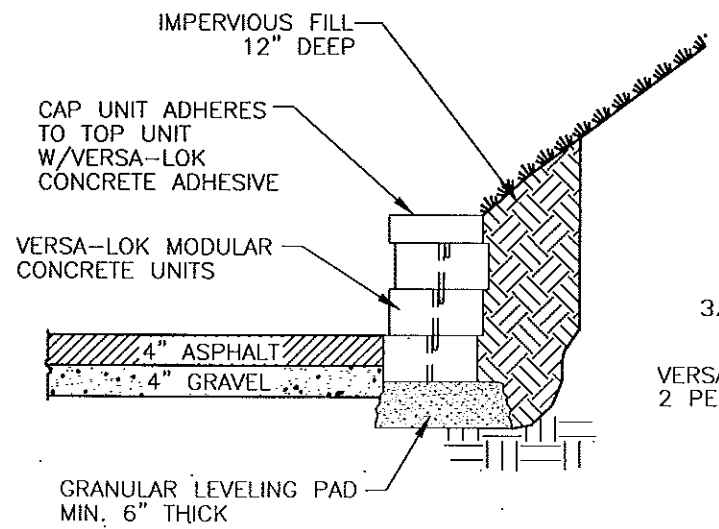
STATE	PROJECT	SHEET NO.
ND	TEI-1-988(012)023	32
OLD RED TRAIL RETAINING WALL DETAILS SHARED USE PATH		



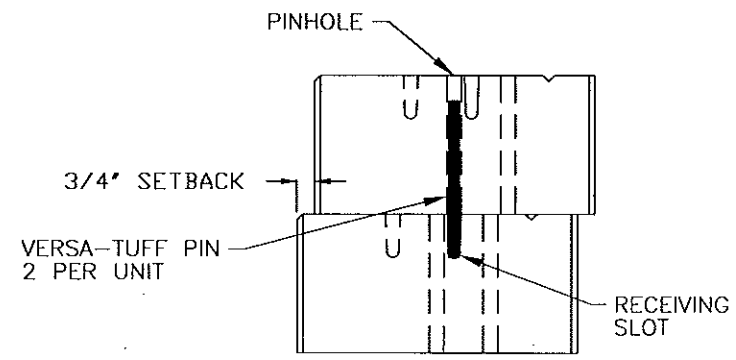
- GENERAL NOTES FOR CAPPING:**
1. CAPS SHALL BE ADHERED TO WALL USING VERSA-LOK CONCRETE ADHESIVE OR APPROVED EQUAL
 2. CAPS MAY BE PLACED WITH A 1/2" TO 3/4" OVERHANG OF TOP COURSE
 3. WHEN SPLITTING CAP UNIT FOR WALL END DO NOT USE A CAP SECTION LESS THAN 6" WIDE
 4. DO NOT OVERHANG CAP AT END OF COURSE MORE THAN 1"



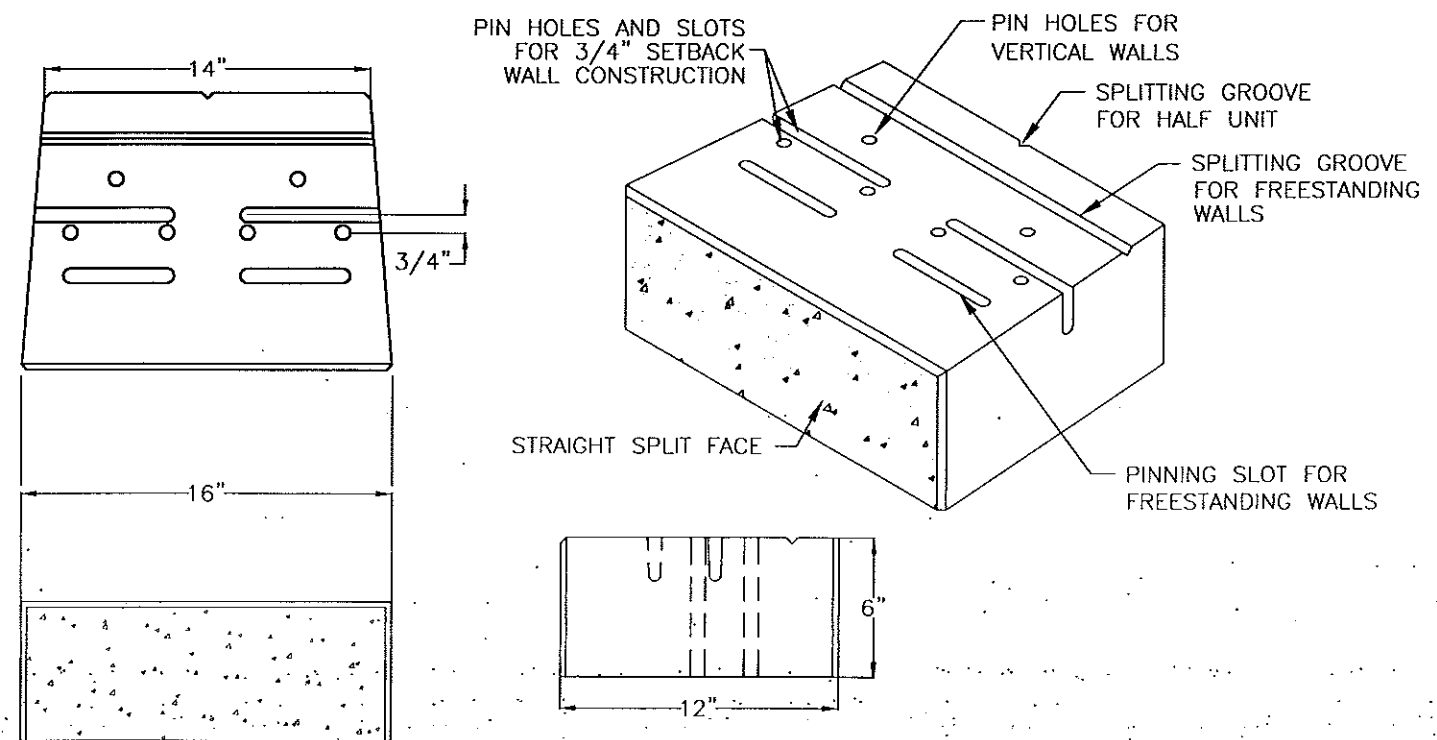
CAPPING DETAIL-PROFILE
STEP AT TOP OF WALL
N.T.S.



**TYPICAL SECTION-
UNREINFORCED RETAINING WALL**
N.T.S.



PINNING DETAIL
CROSS SECTION
N.T.S.



VERSA-LOK UNIT
UNIT DIMENSIONS
N.T.S.

PAY AREA = TOTAL SQUARE FEET OF
INSTALLED BLOCK FACES

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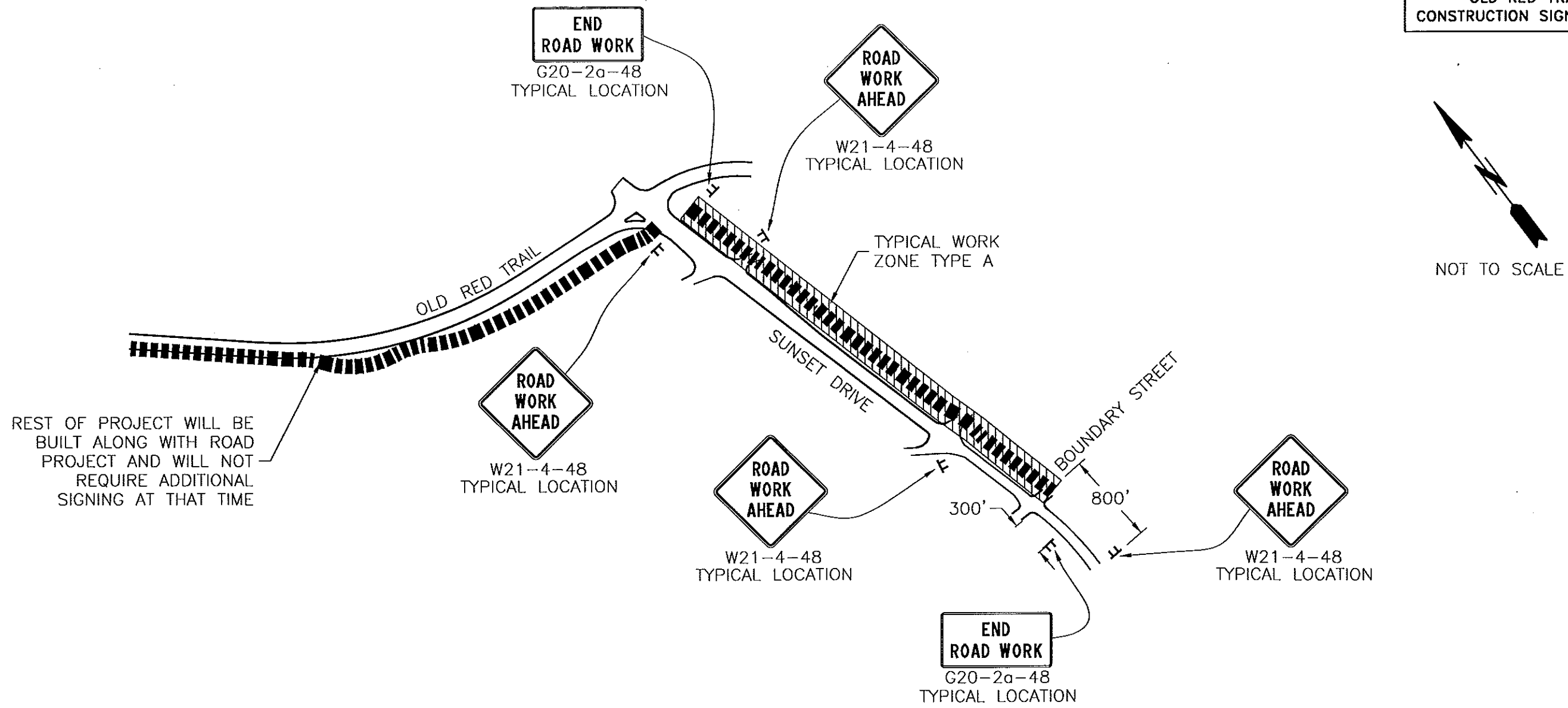
STATE	PROJECT	SHEET NO.
ND	TEU-1-988(012)023	33
OLD RED TRAIL PERMANENT SIGNING		

OLD RED TRAIL

OLD STATION	NEW STATION	ASSEMBLY NUMBER	SIGN DISCRPTION	NEW SIGN NUMBER	FLAT SHEET TYPE	SIGN AREA 2(SF)	SIGN AREA 3A(SF)	SUPPORT POST LENGTH			SUPPORT SLEEVE LENGTH			ANCHOR UNIT		TOTAL SUPPORT LENGTH(LF)	RESET SIGN PANEL	RESET SIGN SUPPORT	
								1ST(FT)	2ND(FT)	SIZE(IN)	1ST(FT)	2ND(FT)	SIZE(IN)	LNG(FT)	SIZE(IN)				
NEW	123+60-47.5'	NO. 42	COMBO	2(D11-1),R9-6,M4-11,M4-12	9.5	-	-	8.25	-	2.25	-	-	-	4.00	2.50	1	11.75	-	-
NEW	123+72-47.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	123+78-29.5'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	133+30-29.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	133+54-29.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	133+68-47.3'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	134+42-47.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	134+56-29.5'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	134+67-47.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	140+28-29.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	140+53-29.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	140+67-47.5'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	141+38-47.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	141+52-29'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	141+63-47.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	145+87-29.5' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	146+12-29.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	146+23-47.5'	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	146+87-47.5'	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	146+97-29'	L.P.	STOP	R1-1-18	-	2.25	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW	147+12-47.5'	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	2001+38-9'	NO. 18	WARNING	W1-5-18	-	2.25	-	6.75	-	2.00	-	-	-	4.00	2.25	1	10.25	-	-
NEW	2007+00-9' LT	NO. 18	WARNING	W1-5-18	-	2.25	-	6.75	-	2.00	-	-	-	4.00	2.25	1	10.25	-	-
NEW	2012+37-24' LT	NO. 19	ADV. X-WALK,FLUORESCENT	W11-2-30	-	6.25	-	10.75	-	2.25	-	-	-	4.00	2.50	1	14.75	-	-
NEW	2014+06-9' LT	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	2014+06-12' RT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	2014+15.6-11.5' LT	NO. 19	X-WALK,FLUORESCENT	W11A-2-30	-	6.25	-	10.75	-	2.25	-	-	-	4.00	2.50	1	14.75	-	-
NEW	2014+18-11.5' RT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	185+93-34.5' RT	NO. 19	X-WALK,FLUORESCENT	W11A-2-30	-	6.25	-	10.75	-	2.25	-	-	-	4.00	2.50	1	14.75	-	-
NEW	3000+67-7' LT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3000+75-9' LT	NO. 42	COMBO	D11-1,R9-6,M7-1	5.25	-	-	8.5	-	2.00	-	-	-	4.00	2.25	1	12.00	-	-
NEW	3000+83-9' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3000+93.5-1.6' LT	NO. 42	COMBO	D11-1,M7-6	3.75	-	-	7.00	-	2.00	-	-	-	4.00	2.25	1	10.50	-	-
3003+34-1' LT	3003+16.5-4' LT	RESET	STOP	R1-1-18	-	2.25	-	-	-	-	-	-	-	-	-	-	1	1	
NEW	3003+16.5-8' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3003+32-10.5' LT	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
NEW	3004+03-9' LT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3004+03-15' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3004+09-7.3' RT	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
3004+69-2' LT	3004+69-6.5' RT	RESET	I-94	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
NEW	3006+50-8' LT	L.P.	BIKEWAY NARROWS	W5-4-18	-	2.25	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW	3007+47-6.5' RT	ON PIER	MARKER	OM-3R	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW	3009+05-6.5' RT	ON PIER	MARKER	OM-3L	-	3.00	-	-	-	-	-	-	-	-	-	-	-	-	-
3009+45-8' LT	3009+50-11.5' LT	RESET	DIRECTIONAL	-	-	-	-	-	-	-	-	-	4.00	2.50	1	4	1	2	
NEW	3009+75-9' LT	NO. 18	BIKEWAY NARROWS	W5-4-18	-	2.25	-	6.75	-	2.00	-	-	-	4.00	2.25	1	10.25	-	-
3011+24-1' RT	3011+24-6.5' RT	RESET	WARNING	W1-4(L)-18	-	2.25	-	-	-	-	-	-	-	-	-	-	1	1	
3011+54-2' LT	3011+54-6.5' RT	RESET	I-94	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
NEW	3012+09 C	L.P.	COMBO	D11-1,R9-6	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NEW	3012+23-1' RT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3012+23-17' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3013+07-10' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3013+27-5' LT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3013+52-5' LT	NO. 42	COMBO	D11-1,R9-6	4.5	-	-	7.75	-	2.00	-	-	-	4.00	2.25	1	11.25	-	-
3014+28-6' RT	3014+28-5' LT	RESET	I-94	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	
3014+63-5' RT	3014+63-5' LT	NO. 7	BUCKLE UP	R16-1-15	3	-	-	-	-	-	-	-	-	-	-	-	-	1	1
3015+87-2' RT	3015+87-7.5' LT	RESET	DIRECTIONAL	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	
NEW	3016+7.5-11.5' RT	NO. 13	STOP	R1-1-18	-	2.25	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
NEW	3016+7.5-5' LT	NO. 42	COMBO	2(D11-1),M4-12,R9-6,M4-11	9.5	-	-	8.25	-	2.25	-	-	-	4.00	2.50	1	11.75	-	-
NEW	3016+10-11' LT	NO. 14	NO MOTOR VEH	R5-3-24	4	-	-	6.25	-	2.00	-	-	-	4.00	2.25	1	9.75	-	-
3016+19-1' RT	3016+19-5.5' LT	RESET	STOP	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	

136.50 67.50 491.00 8 11

L.P. = INSTALL ON LIGHT POLE



REST OF PROJECT WILL BE BUILT ALONG WITH ROAD PROJECT AND WILL NOT REQUIRE ADDITIONAL SIGNING AT THAT TIME

ESTIMATED CONSTRUCTION SIGN QUANTITIES

SIGN MESSAGE	SIGN NUMBER	SIZE	QUANTITY
ROAD WORK AHEAD (MOVABLE)	W21-4-48	48" x 48"	4
END ROAD WORK (MOVABLE)	G20-2a-48	48" x 24"	2
FLAGGER AHEAD (PORTABLE)	W20-7a-48	48" x 48"	2*
BE PREPARED TO STOP (PORTABLE)	W20-7b-48	48" x 48"	2*

* WORK ZONE SIGNS
WORK ZONE SIGNS SHALL BE TAKEN DOWN WHENEVER WORK IS NOT IN PROGRESS.

- NOTES:**
- SEE NDDOT STANDARD DRAWINGS FOR SIGN AND LETTERING SIZES.
 - CONSTRUCTION SIGNS ARE NOT A SEPARATE BID ITEM AND SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR "TRAFFIC CONTROL".
 - ANY TRAFFIC CONTROL ITEMS NEEDED SHALL ALSO BE INCLUDED IN THE LUMP SUM PRICE FOR TRAFFIC CONTROL.
 - ALL SIGNS SHALL BE MOVED AS THE PROJECT PROGRESSES SO THAT THEY ARE WITHIN 800' OF THE WORK OR AS DIRECTED BY THE ENGINEER.
 - ALL TRAFFIC CONTROL MUST COMPLY WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." CONTRACTOR MUST PROVIDE COMPLETE TRAFFIC CONTROL PLAN PRIOR TO COMMENCEMENT OF WORK.

