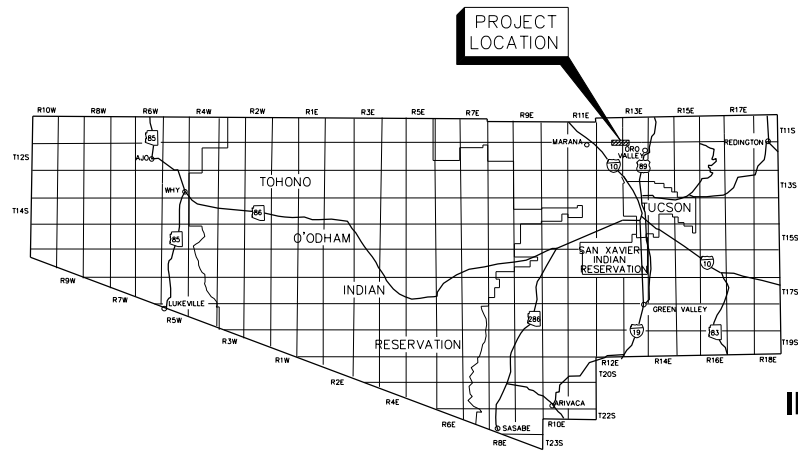


H:\proj\file\10420 - Tangerine Road DCR\30%01 Cover\tng-cvr-01.dgn
2/5/2013



VICINITY PLAN

Sections 31-36 T-11-S, R-12-E, G and S R M
Sections 1-6 T-12-S, R-12-E, G and S R M
Sections 31-34 T-11-S, R-13-E, G and S R M
Sections 3-6 T-12-S, R-13-E, G and S R M
Pima County, Arizona

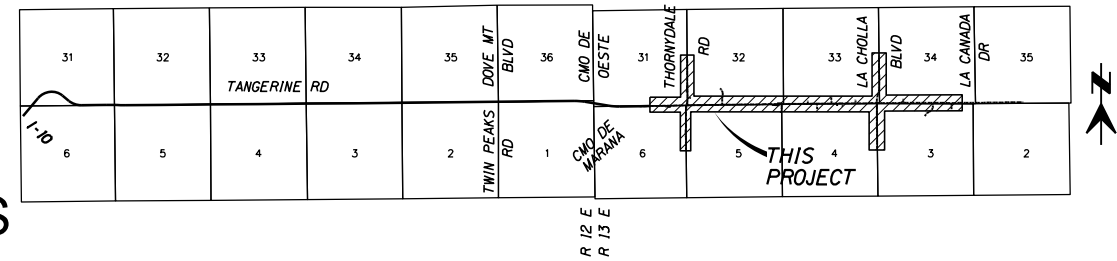
TANGERINE ROAD

THORNYDALE ROAD TO LA CAÑADA DRIVE

ROADWAY AND DRAINAGE IMPROVEMENTS

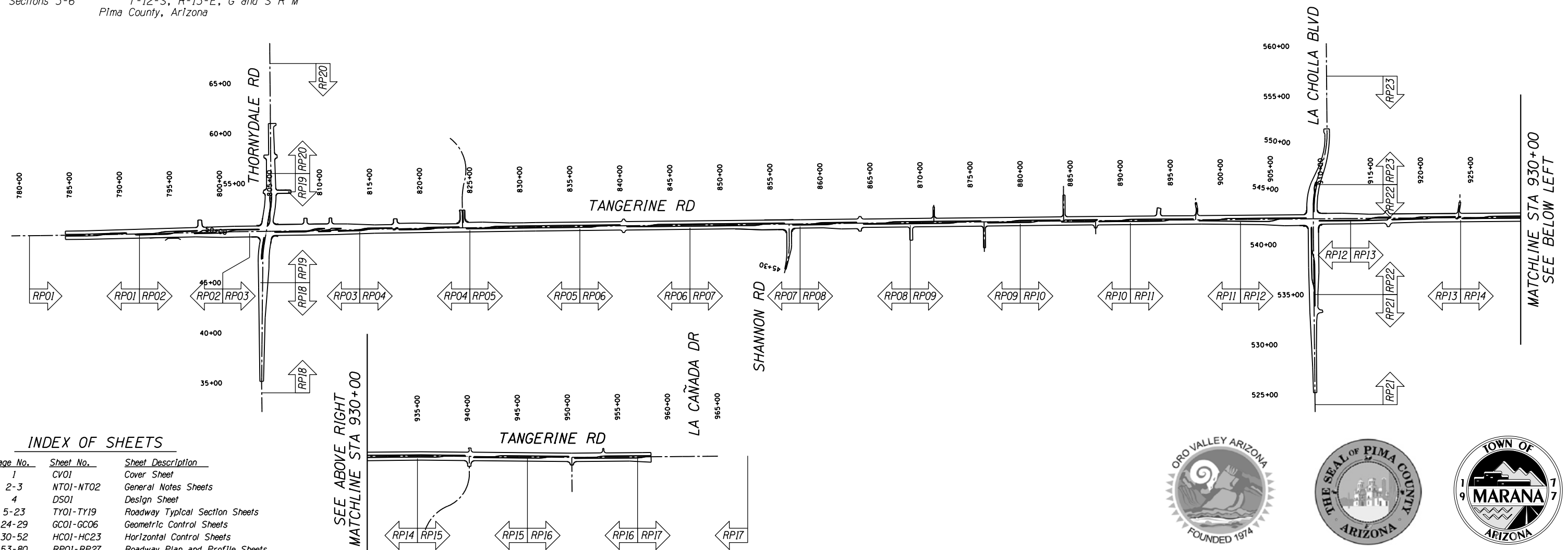
PROPOSED CONSTRUCTION BEGINS WEST OF THORNYDALE ROAD AND ENDS WEST OF LA CAÑADA DRIVE. THE 3.3 MILES OF NEW ROADWAY IMPROVEMENTS INCLUDE A FOUR LANE DIVIDED ROADWAY, MULTI-USE LANES, MEDIAN, MULTI-USE PATHS, AND DRAINAGE IMPROVEMENTS

T.O.M. PROJECT NO. 2005-061



LOCATION PLAN

Sections 31-34 T-11-S, R-13-E, G and S R M
Sections 3-6 T-12-S, R-13-E, G and S R M
Pima County, Arizona
Scale 1" = 1 Mile



INDEX OF SHEETS

Page No.	Sheet No.	Sheet Description
1	CV01	Cover Sheet
2-3	NT01-NT02	General Notes Sheets
4	DS01	Design Sheet
5-23	TY01-TY19	Roadway Typical Section Sheets
24-29	GC01-GC06	Geometric Control Sheets
30-52	HC01-HC23	Horizontal Control Sheets
53-80	RP01-RP27	Roadway Plan and Profile Sheets
81-86	DW01-DW06	Driveway Plan and Profile Sheets
87-114	DR01-DR27	Drainage Plan and Profile Sheets
115-117	ST01-ST03	Storm Drainage Plan and Profile Sheets
118-128	PM01-PM11	Pavement Marking Plan Sheets

K Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

NO.	REVIEWED BY	ENGINEER	DATE
NO.	AS BUILT	ENGINEER	DATE

30%
PRELIMINARY
NOT FOR
CONSTRUCTION



TOWN OF ORO VALLEY
DEPARTMENT OF DEVELOPMENT AND INFRASTRUCTURE SERVICES
11000 NORTH LA CAÑADA DRIVE
ORO VALLEY, ARIZONA 85737

ACCEPTED:

CRAIG CIVALIER, P.E.
TOWN ENGINEER

DATE

PIMA COUNTY
DEPARTMENT OF TRANSPORTATION
201 NORTH STONE AVENUE, 3RD FLOOR
TUCSON, ARIZONA 85701

ACCEPTED:

PRISCILLA S. CORNELIO, P.E.
DIRECTOR OF TRANSPORTATION

DATE

TOWN OF MARANA
DEPARTMENT OF PUBLIC WORKS
11555 WEST CIVIC CENTER DRIVE
MARANA, ARIZONA 85653

ACCEPTED:

ORVILLE SALING
DIRECTOR OF PUBLIC WORKS

DATE

KEITH BRANN, P.E.
TOWN ENGINEER

DATE

SCALES: HORIZ. N/A VERT. N/A SHEET C1 OF C1 PAGE 1 OF 128

GENERAL NOTES

1.

All materials, construction and workmanship shall conform to the *Pima County/City of Tucson Standard Specifications and Details for Public Improvements*, Edition of 2003 except as modified by *Town of Marana Standard Details* (latest edition) and the *Project's Contract Documents*. In addition, the Contractor shall conform to the *ADOT 2007 Construction Drawings (C-Series)* and the *ADOT 1992 Standard Drawings (B-Series)* plus current revisions to either series.
2.

Utility locations shown on plans were compiled based on the best information available. Utility locations are not intended to be exact or complete. Prior to commencing construction, the Contractor shall verify the location of all utilities with the appropriate organizations. Contact "Blue Stake" at 1-800-782-5348 two full working days prior to beginning construction. Saturday and Sunday are not considered working days.
3.

Construction zone traffic control shall conform to the requirements of the "Manual on Uniform Traffic Control Devices", 2009 Edition, the project plans and the *Project's Contract Documents*.
4.

Right of way encroachments shall be removed only by direction of the Town of Marana, unless otherwise noted on the project plans or in the *Project's Contract Documents*.
5.

Removal of all cacti and native plants shall be in accordance with the provisions of the "Arizona Native Plant Law", A.R.S., Chapter 7 (A.R.S. Section 3-901, Et. Seq) and the *Pima County Native Plant Preservation Ordinance*.
6.

The Contractor shall comply with all applicable Occupational Safety and Health Administration regulations.
7.

The Contractor shall adjust all water valves, storm drain manholes, sanitary sewer manholes and cleanout frames and covers to finish grade. Sanitary sewer manhole ring and cover adjustments are to be in accordance with *Pima County/City of Tucson Standard Details for Public Improvements WWM304, WWM305 or WWM306* (as applicable) and WWM307. The cost of this work shall be considered as incidental to the other items of work, except when the *Project's Bidding Schedule* contains specific items.
8.

The Contractor shall obtain all permits required by all governmental agencies, quasi government agencies and utilities unless specified otherwise in the *Project's Contract Documents*.
9.

Horizontal Control: This project utilizes the Arizona Coordinate System, 1983 (ACS 83), NAD83(2007), International feet, and is located in the central zone. The control network was surveyed in Aug.-Sept., 2010 using Trimble GPS units utilizing static methods and incorporated the following National Geodetic Survey (NGS) control points:

Station	PID	
NN 05	CZ2414	* Primary Control Point
NN 02	CZ2411	
NN 121	CZ2524	
NN 127	AI1932	

Surface coordinates and/or distances were computed from the ACS 83 coordinates by applying a project specific grid to a surface combined elevation and scale factor at a central point and subtracting a constant from the resulting coordinates:

NP LOC = (NP ACS83 - NCP ACS83) * CF + NCP ACS83 - KN

EP LOC = (EP ACS83 - ECP ACS83) * CF + ECP ACS83 - KE

Where NP LOC = Local North NP ACS83 = ACS 83 North
NCP ACS83 = ACS 83 at Central Point
EP LOC = Local East EP ACS83 = ACS 83 East
ECP ACS83 = ACS 83 at Central Point

Combined Factor (CF) = 1.0001337921
Constant (K) = N 500000.000, E 900000.000

N 519000.00 (ACS83) E 958000.00 (ACS83) *Central Point
N 19000.00 (Local) E 58000.00 (Local)

The basis of bearing for this project is the north line of the Northwest Quarter, section 1 T12S, R12E between found monuments shown herein for the northwest corner and the north quarter corner of said section. Said bearing being: North 89°25'27" East. The reference Meridian is ACS 83 Grid North.

Vertical Control: The vertical datum for this project is the North American Vertical Datum, 1988 (NAVD88). The bench marks used for this project were:

Station	NGS / Pima CO.	PID	Elevation	
NN 03	GPS0003	2666.30'		* Primary Control Point
NN 130	GPS0130	2788.48'		
TANG 36A	TNG036A	2627.34'		
TANG 44 Reset	TNG044	2423.42'		
TANG 46	TNG046	2350.75'		
TANG 48 Reset	TNG048	2281.62'		
TANG 51	TNG051	2188.79'		
TANG 55	TNG055	2070.53'		
THORNY 18	CFS0318	2374.84'		

Orthometric Heights (elevations) are derived from ellipsoid heights using a high resolution GEOID model, GEOID 09.

10.

Remove and relocate, as directed by the Engineer, all mailboxes, fences, gates, signs, posts, pipes, etc., within the right-of-way and construction easement areas. The cost of this work shall be considered as incidental to the other items of work, except when the *Project's Bidding Schedule* contains specific items on a unit basis.
11.

All permanent traffic control signing shall be supplied and installed by the Contractor.
12.

All permanent pavement striping and marking(s) shall be applied by the Contractor.
13.

Geotechnical information will be made available to prospective bidders upon request to the Town of Marana in writing. Geotechnical information so provided shall be for information purposes only and is not to be considered a part of the *Project's Contract Documents*. The report was prepared by Terracon Consultants, Inc., Terracon Consultants, Inc. Project No. 63105079 dated 21 September 2011. The information was developed as accurately as possible by the methods utilized. Kittelson & Associates, Inc. and the Town of Marana accept no responsibility and make no guarantees or warranties, expressed or implied, regarding the Geotechnical Reports referenced herein or for any conditions encountered which vary from information provided.

Kittelson & Associates, Inc. and the Town of Marana assume no responsibility and neither guarantee nor warrant the results of any subsurface explorations, the conclusions reached, recommendations made, or any test results presented.

Kittelson & Associates, Inc. and the Town of Marana assume no responsibility for the use of or conclusions reached by any prospective bidder utilizing the above referenced reports.

Prospective bidders' attention is directed to Section 102, entitled "BIDDING REQUIREMENTS AND CONDITIONS" of the Standard Specifications referenced in General Note No. 1 herein above.
14.

The Contractor's attention is directed to the *Project's Contract Documents* for detailed information regarding and relating to the disposition of salvaged materials(s).
15.

Relocated fence to be relocated 1' inside right-of-way. The Contractor shall coordinate and schedule fence removals and relocation with property owner(s) to maintain continuous protection of private property for livestock, etc.

UTILITIES

Utility Company	Contact	Phone No.
Tucson Water	Edward Lopez	(520) 791-2666
Town of Marana Water	Ann Meaders	(520) 382-2500
Town of Oro Valley Water	David Ruiz	(520) 292-5000
Tucson Electric Power	Debra Sykes	(520) 918-8766
Trico Electric Cooperative	Wes Crane	(520) 744-2944 x1356
Southwest Gas Corporation	Dominique Mitchell	(520) 794-6217
Pima County RWRD	Souren Naradiklan	(520) 740-6322
Century Link	Jamie Carroll	(520) 292-7484
T-Mobile	Ronda McDonnell	(480) 213-9556
Cricket	George Hice	(585) 926-8665
Verizon Wireless	David Buttiker	(480) 777-4316
Comcast Communications	Mike Ginn	(520) 744-5477

LEGEND	
NEW	EXISTING
	New Pavement
	New Concrete
	Remove Existing Pavement
	Rip Rap
	Right of Way Line
	Easement Line
	Property Line
	Section Line
	Survey Monument
	Benchmark
	Concrete Header
	Pavement Spot Elevation
	Cut Line
	Fill Line
	Mapped Utility Location
	Blue Stake Utility Location
	Water Line
	Water Meter
	Water Valve
	Fire Hydrant
	Reducer
	Sanitary Sewer Line
	Manhole
	Storm Drain
	Electric Line
	Overhead Electric
	Utility Pole
	Light Pole
	Traffic Signal Box
	Street Light Box
	Underground Telephone Line
	Telephone Pedestal
	Natural Gas Line
	Gas Line Marker
	Irrigation Line
	Irrigation Valve
	Sign
	Barbed Wire Fence
	Chainlink Fence
	Guardrail
	Pipe/Cross Culvert Reference Number
	Reinforced Concrete Box Culvert Reference Number
	Multi-Use Path
	Point on Taper
	Section Line
	Edge-of-Pavement
	Shoulder
	Face-of-Curb
	Median



SANITARY SEWER GENERAL NOTES


1. All design standards, materials and workmanship for public sanitary sewers are to be in accordance with the latest edition of the Pima County Regional Wastewater Reclamation Department's (PCRWRD) Manual of Engineering Standards and Procedures and the Pima County / City of Tucson Standard Details and Specifications for Public Improvements. Said manuals are on file at the Pima County Regional Wastewater Reclamation Department offices at 201 N. Stone Avenue, 8th floor.
2. The Contractor shall verify locations and elevations of all existing utilities prior to any construction, call "Blue Stake" at 1-800-782-5348 a minimum of two (2) full working days prior to excavating.
3. Existing pressure and abandoned sewer main locations will be identified and marked per City of Tucson / Pima County Standard Detail WWM 507.
4. The Contractor shall field verify existing sewer elevations and alignments prior to construction and implementation, verification may require pot-holing.
5. City of Tucson / Pima County Standard Detail WWM 106 applies to this project.
6. Immediately report any release of sewage, and/or any damage to, or the dropping of debris into, the public sanitary sewer conveyance system to either PCRWRD Field Engineering (520-740-2651) or PCRWRD Conveyance Division (520-443-6500). On weekends, holidays, or between 5:00 pm and 8:00 am, immediately call CENTRAL CONTROL ROOM (CCR) at 520-443-6048 and request that a PCRWRD representative to be dispatched to the site. Take immediate action to prevent or contain the sanitary sewage overflow (SSO) from the sewer system. The Contractor shall be responsible for all costs to repair the system, for all expenses to mitigate the released and to disinfect the release areas, and for any regulatory penalties levied on PCRWRD because the SSO entered a natural or constructed storm water drainage system. The Contractor shall repair all damage as directed and approved by PCRWRD.
7. House or business connection sewers (HCS or BCS) are not part of the public sanitary sewer conveyance system. Private connection sewers constructed prior to January 2006 are not required to be blue staked. Any HCS/BCS encountered during construction shall be protected, repaired, or rerouted, as the situation dictates (City of Tucson / Pima County Standard Detail WWM 404), at no expense to the property owner or the Pima County Regional Wastewater Reclamation Department.
8. Sewer construction shall not commence until: (a) Contractor has obtained a public sewer construction permit from Pima County Regional Wastewater Reclamation 520-740-6369 and (b) a pre-construction meeting with the assigned Pima County project Inspector is scheduled, at least three (3) full working days prior to the start of sewer construction.
9. It is the Contractor's responsibility to adjust or reconstruct all sanitary sewer manholes to finished grade. All ring and cover adjustments are to be in accordance with City of Tucson / Pima County Standard Details WWM 304, WWM 305 or WWM 306 (as applicable), and WWM 307. While adjusting the manhole to finished grade it is the Contractor's responsibility to ensure that rings and covers are cleaned of any and all attached materials (asphalt, concrete, etc.) And that any vent holes are open and clear of obstructions. If the frame and cover are damaged or cannot be completely cleaned a new frame and cover are to be put into place. Costs associated with these actions are the responsibility of the Contractor. Refer to City of Tucson / Pima County Details WWM 213.0-214.2 for requirements for rings and covers.
10. Contractor shall maintain access to all sanitary sewer manhole structures at all times.
11. All landscaping located within ten (10) feet horizontally of the public sanitary sewer and manholes shall be in accordance with the planting guidelines contained within City of Tucson / Pima County Standard Detail WWM A-4.
12. All landscaping within the public sewer easements shown hereon shall be in accordance with the planting guidelines contained within city of Tucson / Pima County Standard Detail WWM A-4.
13. All Storm Water Pollution Prevention Plan (SWPPP) measures shall be installed so as to prevent all storm water, construction water, fuels, chemicals, or liquids to be directed into or onto any sanitary sewer facilities. Protection of sanitary sewer facilities shall be a part of the approved construction SWPPP and best management practices. Protection devices shall be installed and maintained around all potentially affected sanitary sewer facilities within the project limits. Additional measures shall include but not be limited to the use of rain stoppers and manhole covers as deemed necessary by PCRWRD.



		RIN	02/13	DATE
		TMR	02/13	
		MDA	02/13	
		MDA	02/13	

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

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PRELIMINARY
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CONSTRUCTION



Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
GENERAL SANITARY SEWER NOTES
FOR
TANGERINE ROAD
TANGERINE ROAD

LENGTH OF PROJECT

Tangerine Road Sta 784+59.14 to 958+35.00 = 17,375.86'
Gross & Net Length = 3.29 Miles

DESIGN DATA

Tangerine Road
Roadway Classification = Arterial
Thornydale Road
Roadway Classification = Collector
La Cholla Boulevard
Roadway Classification = Collector

Road	Design Speed	Posted Speed
Tangerine Road	50 mph	45 mph
Thornydale Road (south of Sta 46+00)	50 mph	45 mph
Thornydale Road (north of Sta 46+00)	40 mph	35 mph
La Cholla Boulevard (south of Tangerine Road)	50 mph	45 mph
La Cholla Boulevard (north of Tangerine Road)	40 mph	35 mph
Other Side Streets	25 mph	25 mph

Design Vehicle:
Tangerine Road Mainlane = WB-62
Sidestreets = WB-40
U Turns = P

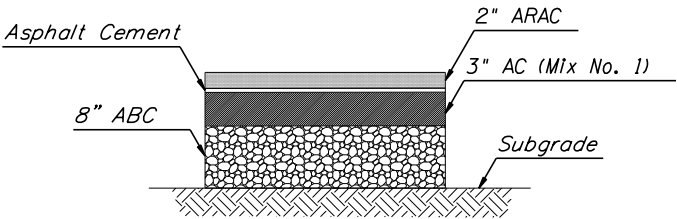
EARTHWORK QUANTITIES

Roadway Excavation	60,846	CY
Embankment Shrink	(26,536)	CY
Drainage Excavation	N/A	CY
10% Shrink	N/A	CY
* Pipe Excavation	3,209	CY
10% Shrink	(321)	CY
Structural Excavation	12,700	CY
10% Shrink	(1,270)	CY
Roadway Emb (Incl. Grnd. Comp.)	238,820	CY
* Pipe Backfill	(2,630)	CY
Structural Backfill	(5,006)	CY
Training Berm	(3,026)	CY
Borrow (In Place)	200,854	CY

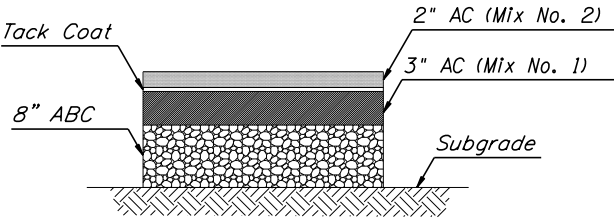
* The quantity is calculated and shown for informational purposes only.

EARTHWORK FACTORS

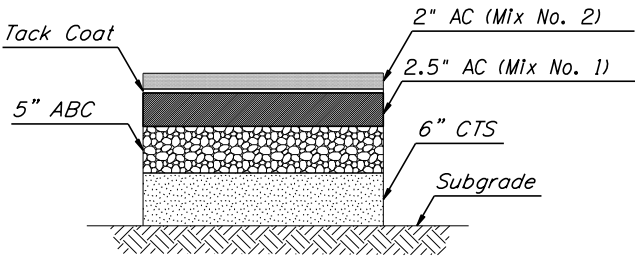
Station	Shrink	Ground Compaction
Begin Project to Sta 958+35	10%	0.20'



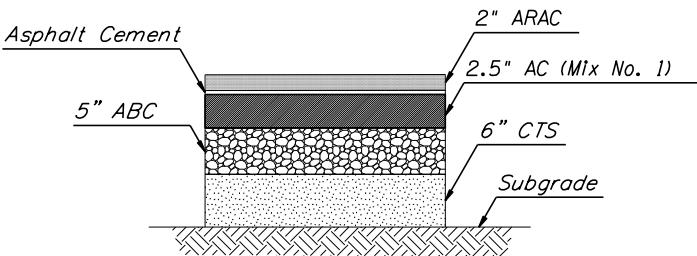
Total Thickness = 13"
STRUCTURAL SECTION NO. 1
Tangerine Road
Sta 784+59.14 to Sta 910+00.00



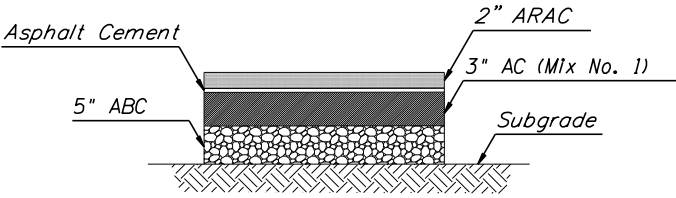
Total Thickness = 13"
STRUCTURAL SECTION NO. 2
Tangerine Road (Turn Lanes)
Sta 784+59.14 to Sta 910+00.00



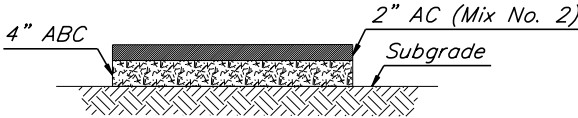
Total Thickness = 15.5"
STRUCTURAL SECTION NO. 3
Tangerine Road (Turn Lanes)
Sta 910+00.00 to Sta 958+35.00



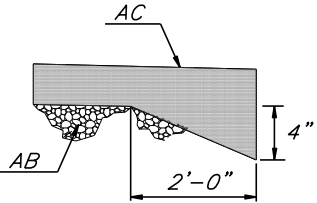
Total Thickness = 15.5"
STRUCTURAL SECTION NO. 4
Tangerine Road
Sta 910+00.00 to Sta 958+35.00



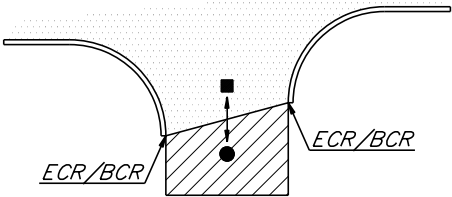
Total Thickness = 10"
STRUCTURAL SECTION NO. 5
Thornydale Road and La Cholla Boulevard



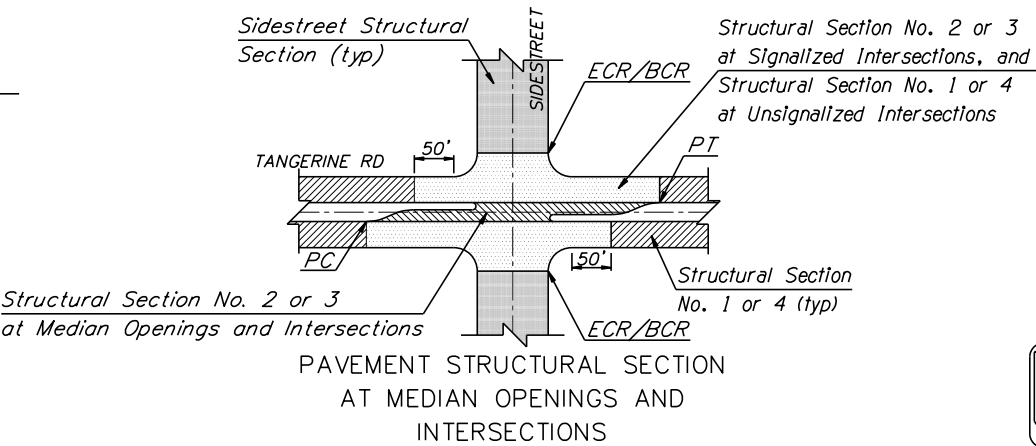
Total Thickness = 6"
STRUCTURAL SECTION NO. 6
Turnouts/ Driveways/ Multi-Use Pathway



THICKENED PVMT EDGE
All Uncurbed Sections
(Inside and Outside Pavement Edges)



SIDE STREET PAVEMENT SECTION TRASITION DETAIL
■ Tangerine Road Pvmt Section
● Side Street Pvmt Section



DATE
02/13
02/13
02/13
02/13

DESIGNED BY
PIN

DRAWN BY
TWP

CHECKED BY
MDA

PROJ. ENG. BY
MDA

DATE

DIV.

ENGINEER

NO.

REVISION DESCRIPTION

30% PRELIMINARY NOT FOR CONSTRUCTION

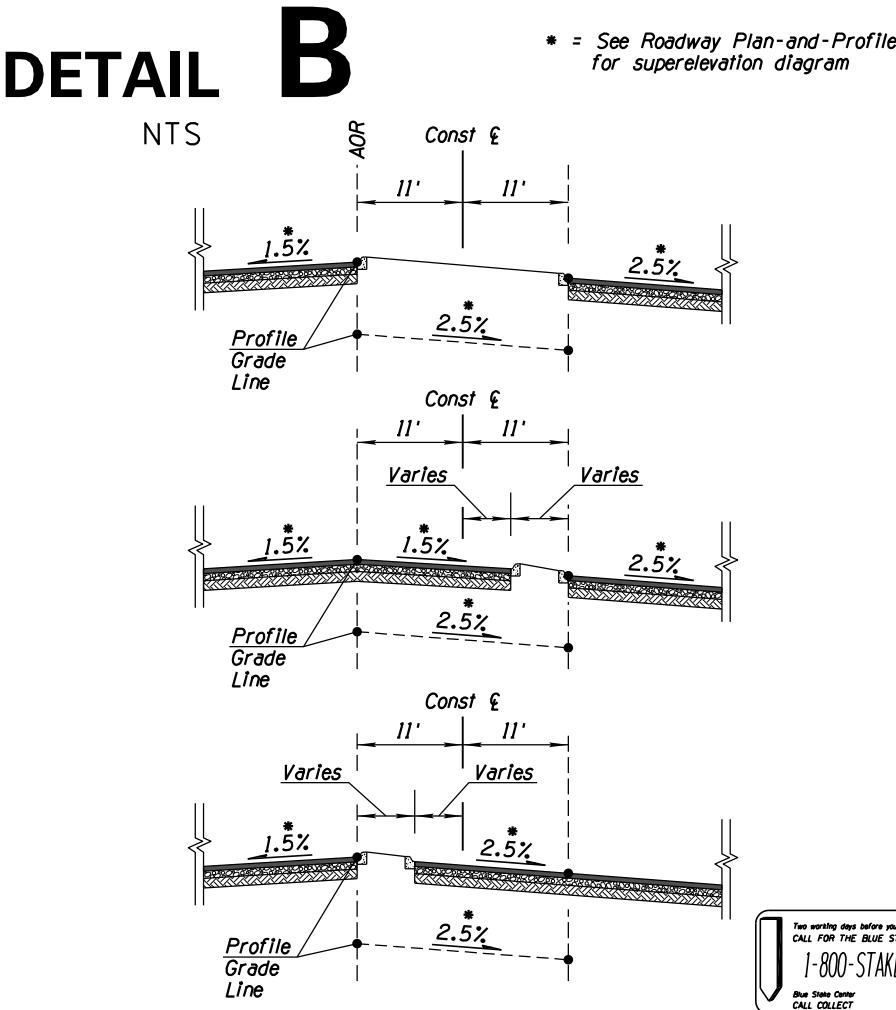
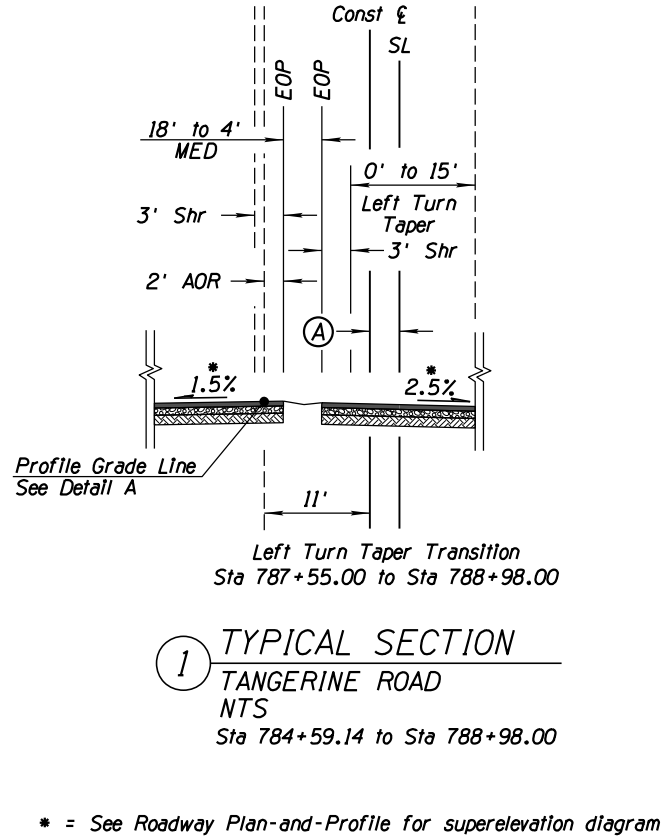
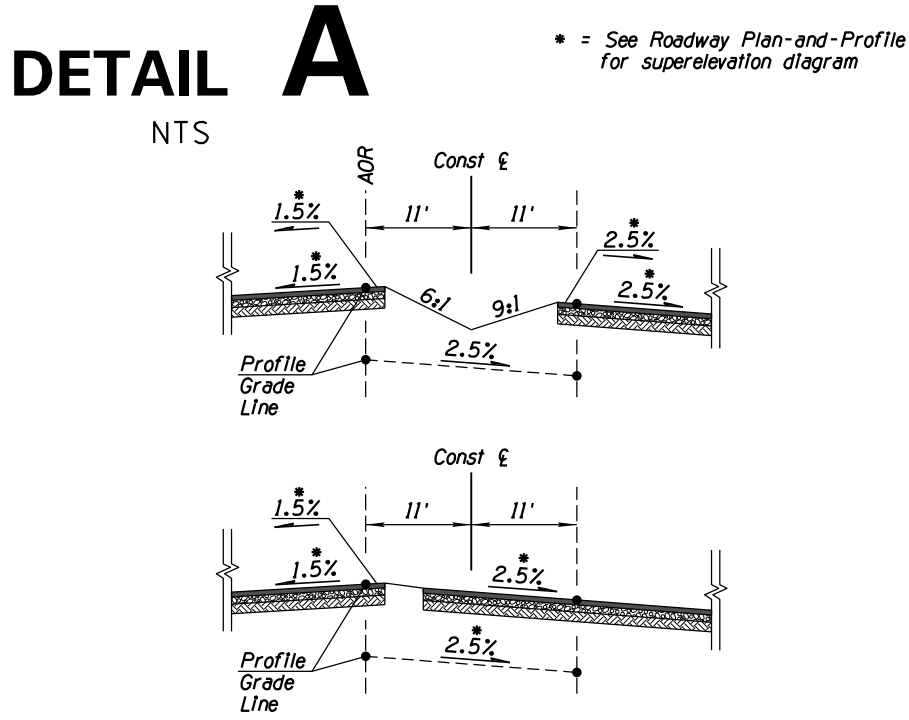
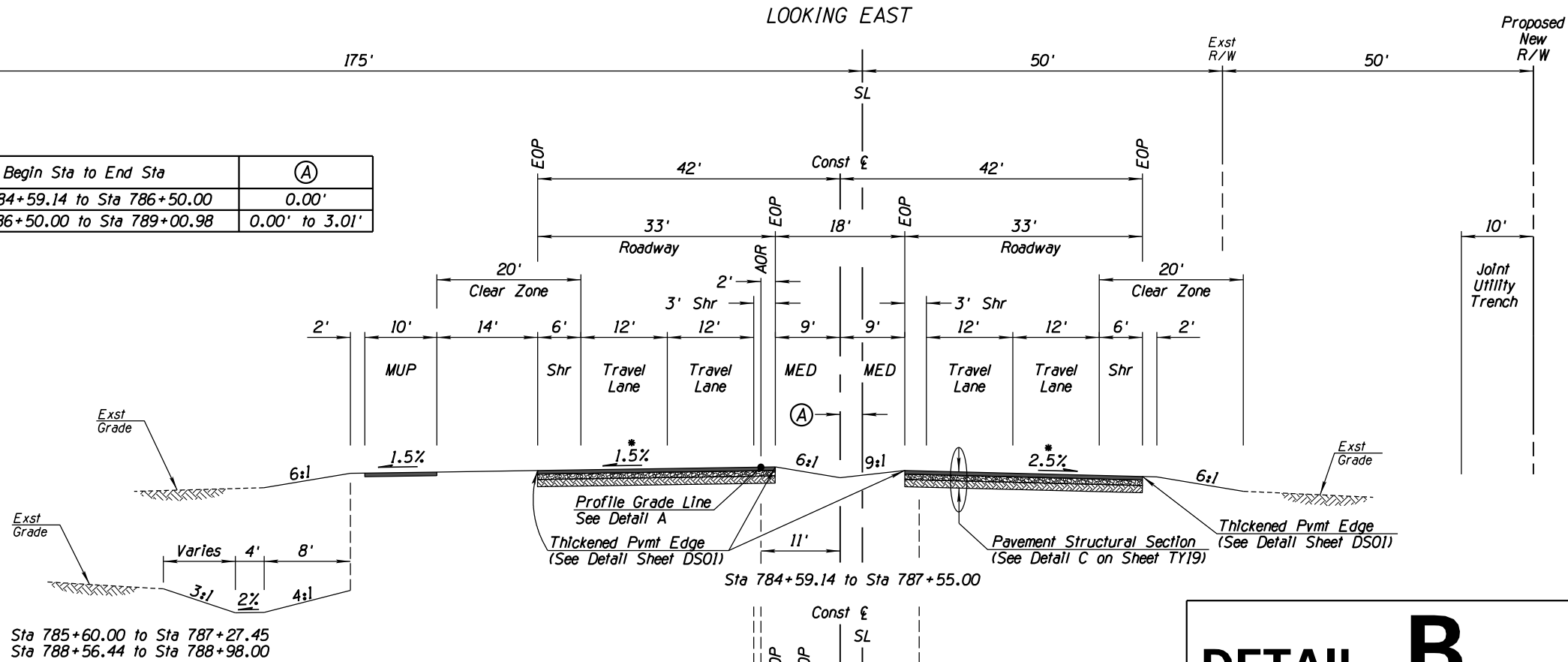
Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061

DESIGN SHEETS FOR TANGERINE ROAD

TANGERINE ROAD

Begin Sta to End Sta	(A)
Sta 784+59.14 to Sta 786+50.00	0.00'
Sta 786+50.00 to Sta 789+00.98	0.00' to 3.01'



TOWN OF MARANA - PROJECT NO. 2005-061

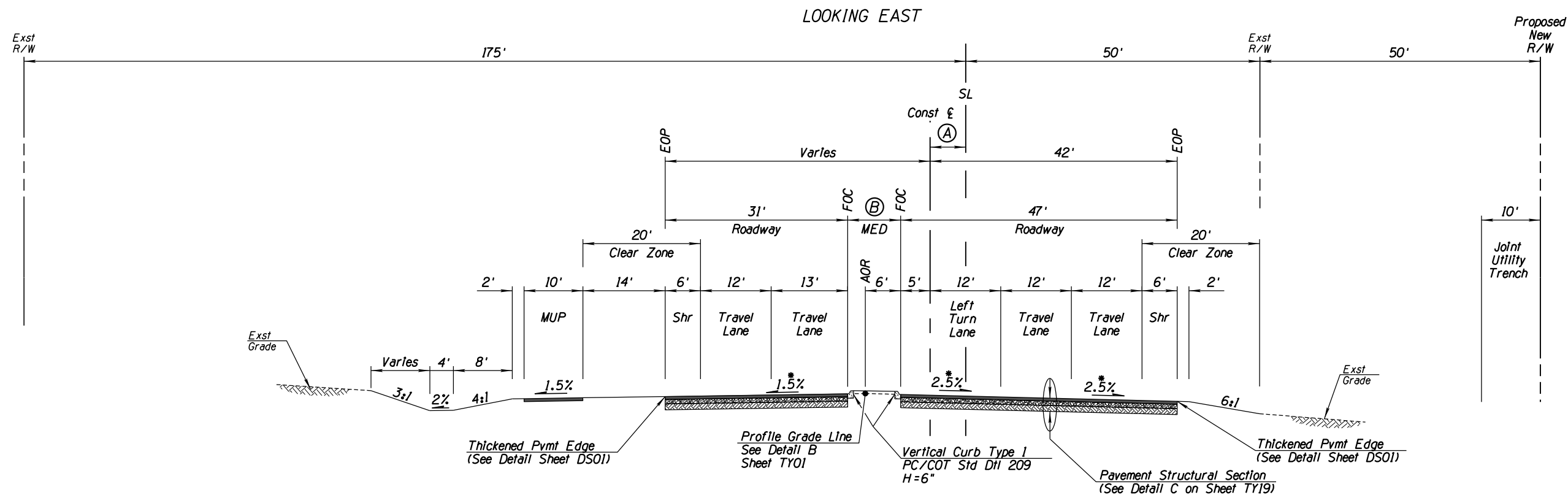
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TYPICAL SECTIONS FOR TANGERINE ROAD

TANGERINE ROAD

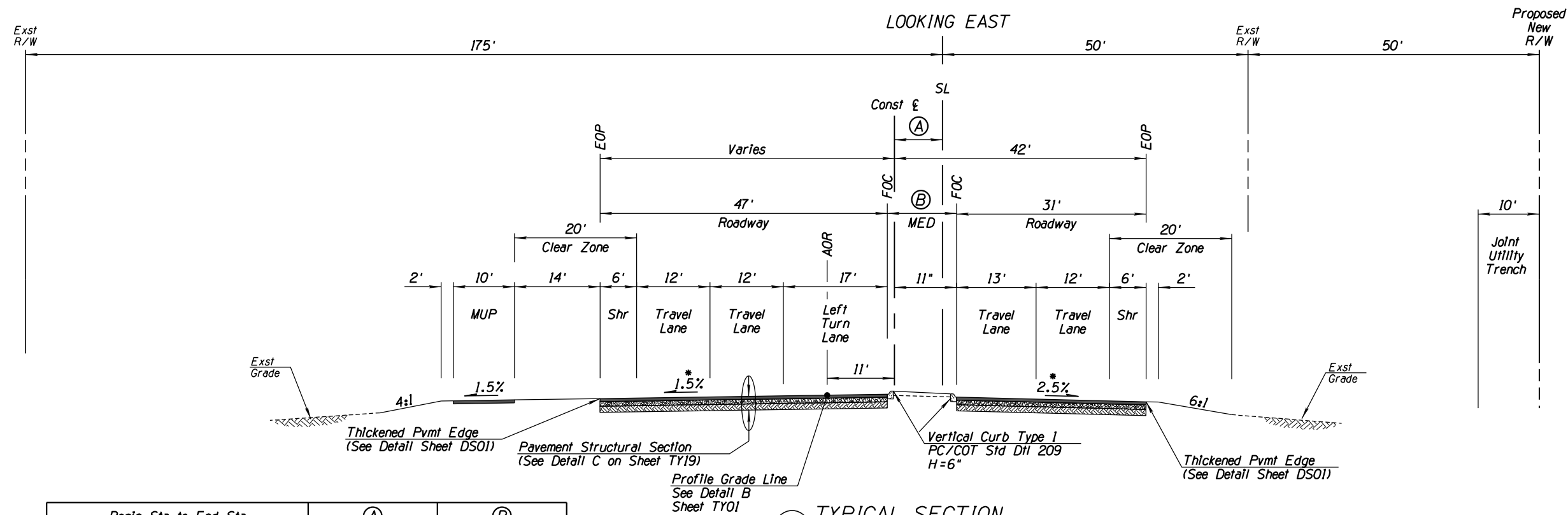
NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
			AW	AW	AW	AW
			AW	AW	AW	AW
			AW	AW	AW	AW
			AW	AW	AW	AW



Begin Sta to End Sta	(A)	(B)
Sta 789+05.00 to Sta 790+50.00	3.06' to 5.34'	8.04' to 9.55'

② TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 789+05.00 to Sta 790+50.00

* = See Roadway Plan-and-Profile for superelevation diagram



Begin Sta to End Sta	(A)	(B)
Sta 791+80.00 to Sta 793+30.00	6.42' to 8.16'	10.27' to 11.43'

③ TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 791+80.00 to Sta 793+30.00

* = See Roadway Plan-and-Profile for superelevation diagram



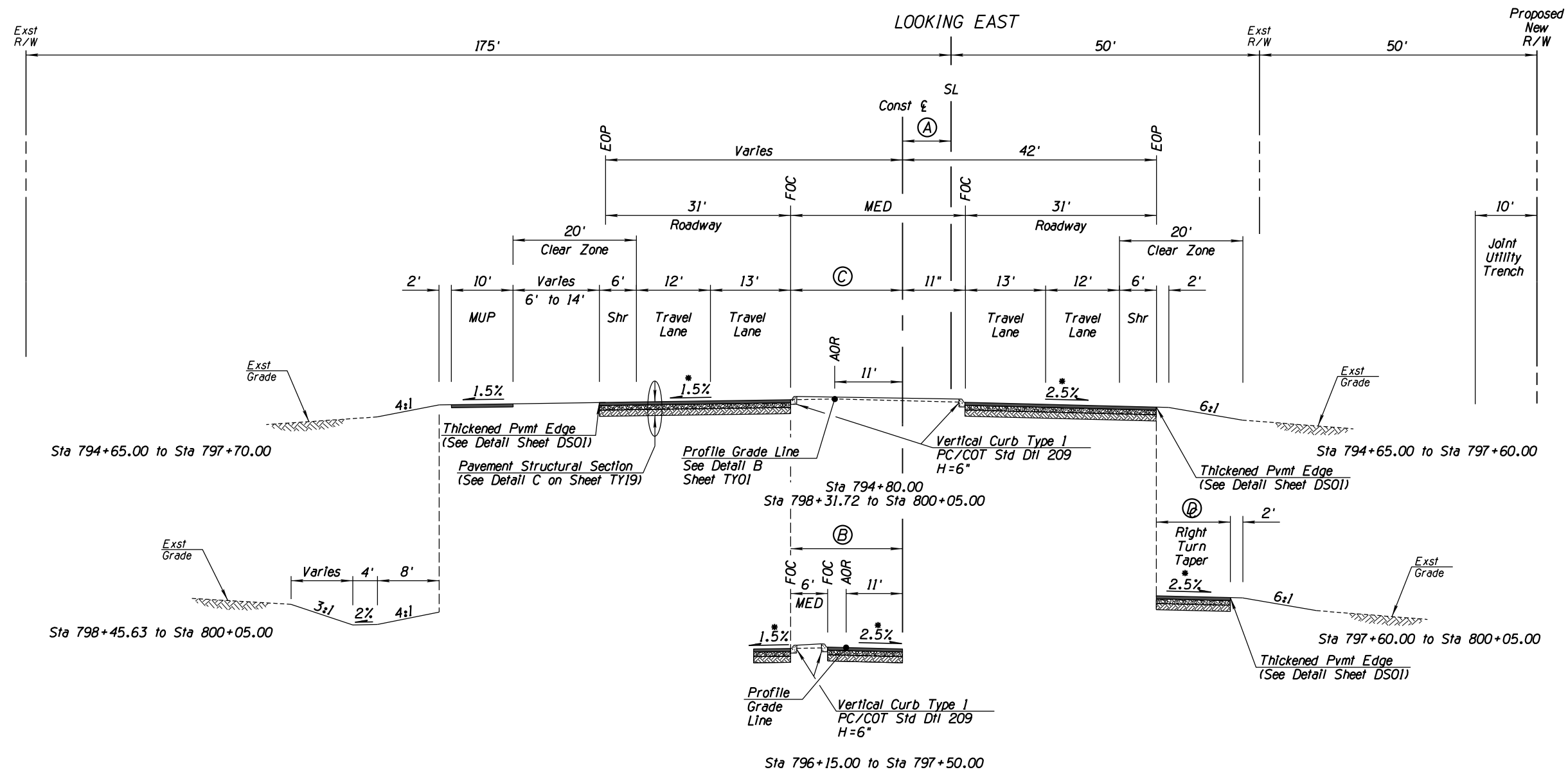
DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	02/13	02/13	02/13	02/13
	02/13	02/13	02/13	02/13

NO.	REVISION DESCRIPTION	DATE	BY	CHK

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CONSTRUCTION

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Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



Begin Sta to End Sta	(A)	(B)	(C)
Sta 794+80.00	9.96'	17.63'	N/A
Sta 796+30.00 to Sta 797+50.00	11.76' to 13.20'	18.84' to 19.80'	N/A
Sta 798+31.72 to Sta 800+05.00	14.18' to 16.26'	20.45' to 21.84'	0' to 10.89'

4 TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 794+65.00 to Sta 800+05.00

* = See Roadway Plan-and-Profile for superelevation diagram



DATE	02/13	02/13	02/13	02/13
DESIGNED	BY	BY	BY	BY
DRAWN	BY	BY	BY	BY
CHECKED	BY	BY	BY	BY
PROJ. ENG.	BY	BY	BY	BY

NO.	REVISION DESCRIPTION	DATE

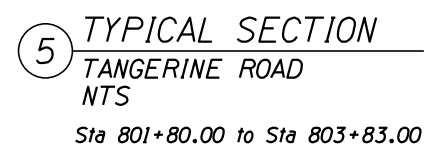
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(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061

TYPICAL SECTIONS FOR TANGERINE ROAD

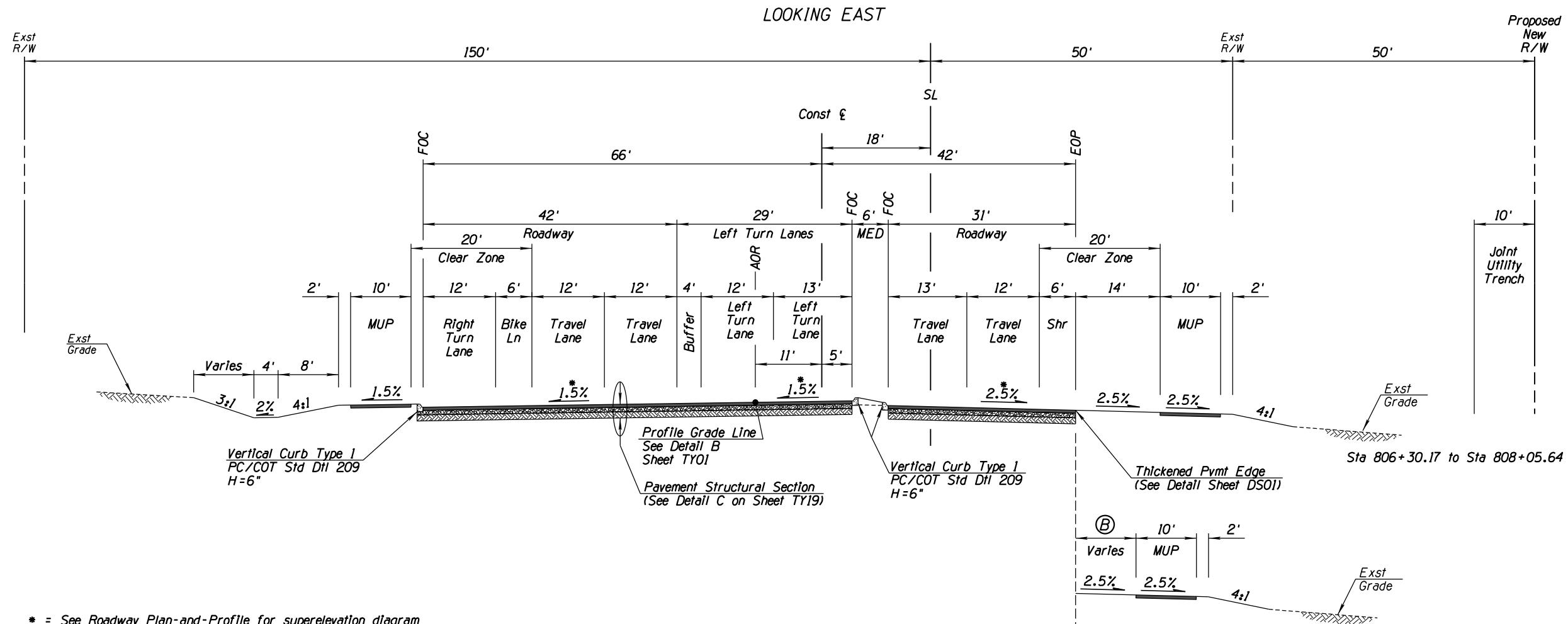
TANGERINE ROAD



Two working days before you dig.
CALL FOR THE BLUE STAKES
1-800-STAKE-1
Blue Stake Center
CALL COLLECT

[illegible]

		DATE
DESIGNED:	RIN	02/13
DRAWN:	RWR	02/13
CHECKED:	MDA	02/13
PROJ. ENG.:	MDA	02/13



* = See Roadway Plan-and-Profile for superelevation diagram

⑥ TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 805+65.04 to Sta 808+35.00

Begin Sta to End Sta	⑥
Sta 805+81.25 to Sta 806+30.17	2.2' to 14'
Sta 808+05.64 to Sta 808+35.00	14' to 8.2'



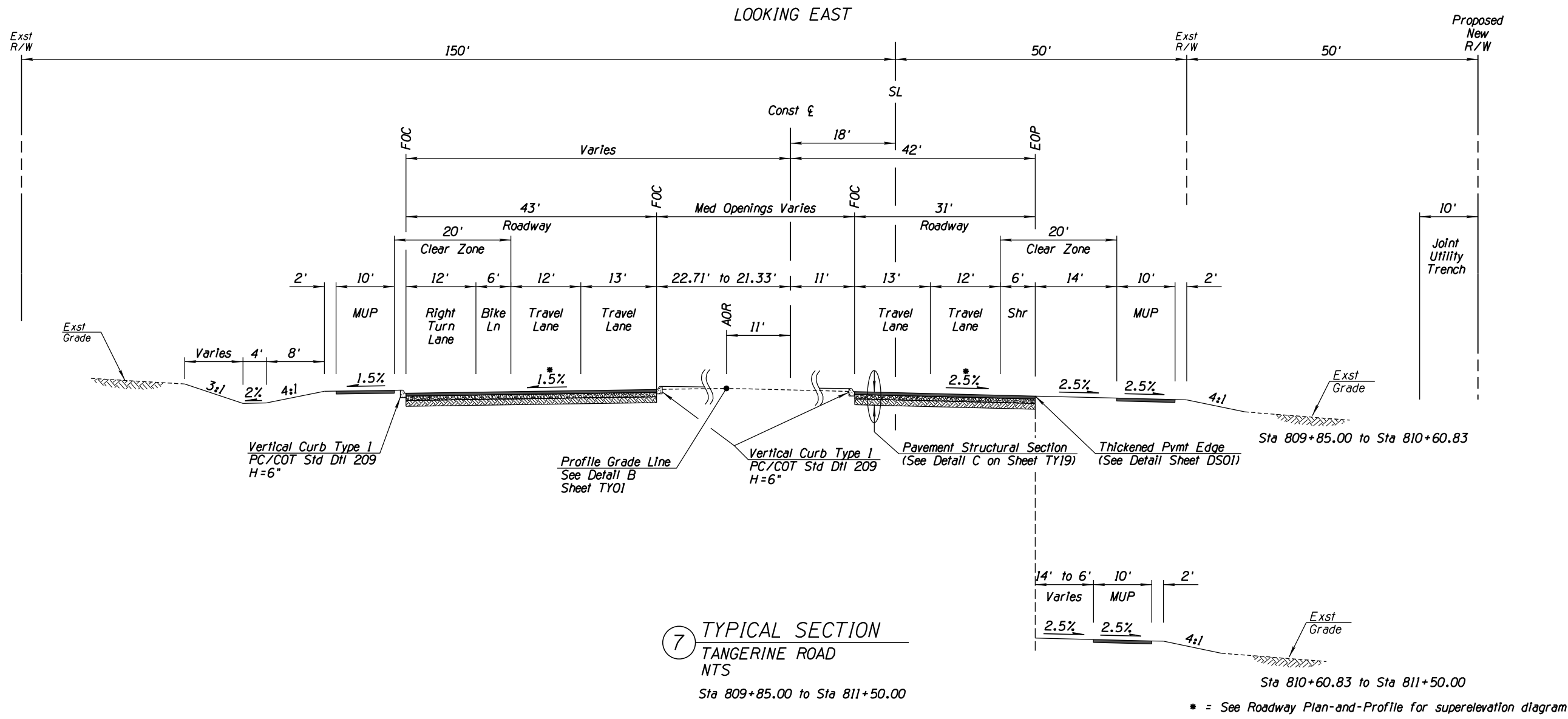
DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	RIN	RIN	MDA	MDA
02/13				
02/13				

NO.	REVISION DESCRIPTION	DATE	REV. ENGINEER

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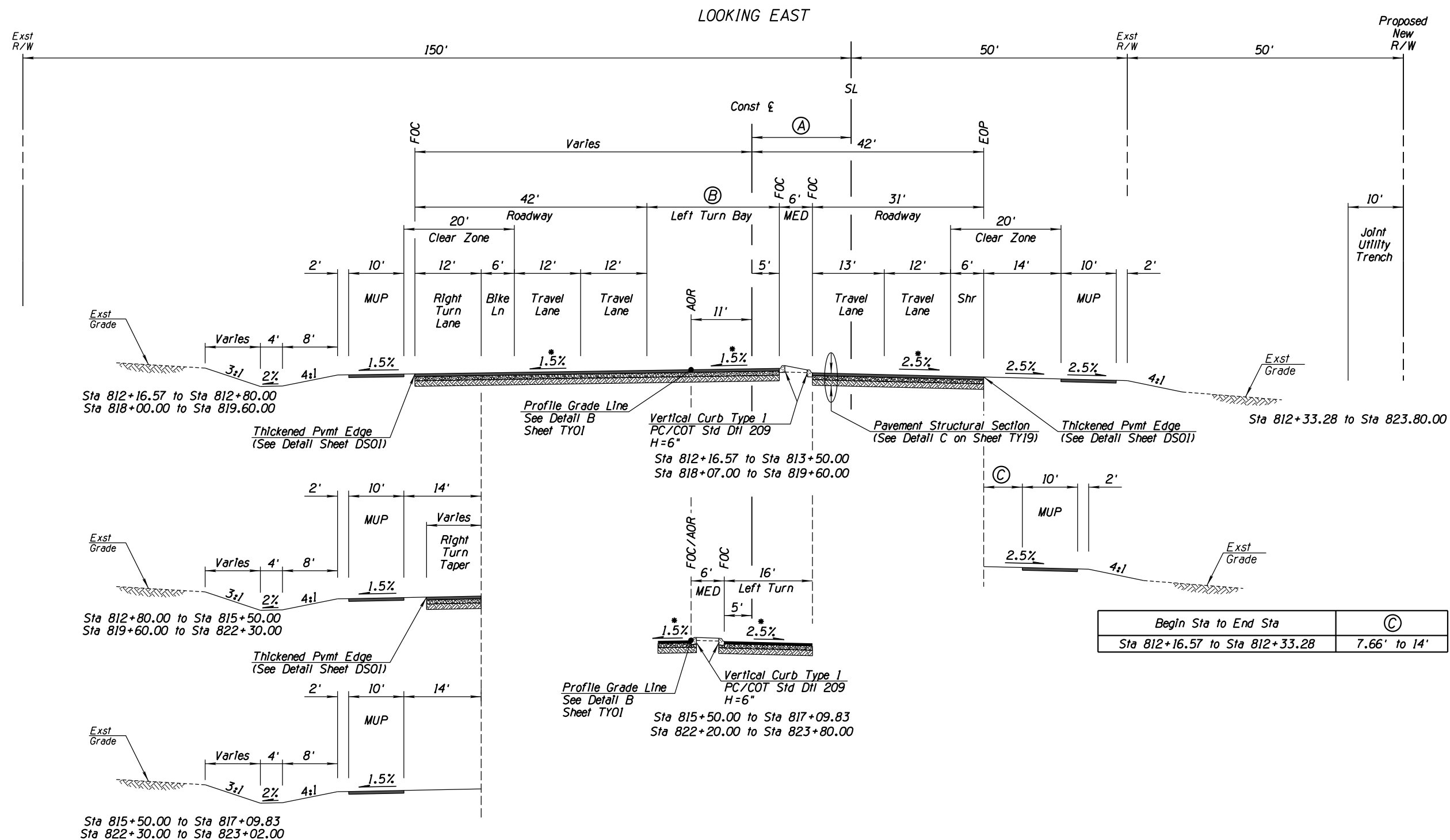
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Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
PROJ. ENG.	DATE



Begin Sta to End Sta	Ⓐ	Ⓑ
Sta 812+16.57 to Sta 813+50.00	19.16' to 21.5'	25.1 to 21.9'
Sta 813+50.00 to Sta 815+50.00	21.5' to 25'	-
Sta 815+50.00 to Sta 823+80.00	25'	16'

8 TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 812+16.57 to Sta 823+80.00

Begin Sta to End Sta	Ⓒ
Sta 812+16.57 to Sta 812+33.28	7.66' to 14'



DATE	02/13	02/13	02/13	02/13
DESIGNED	RIN	RIN	MDA	MDA
DRAWN				
CHECKED				
PROJ. ENG.				

NO.	REVISION DESCRIPTION	DATE	ENG.

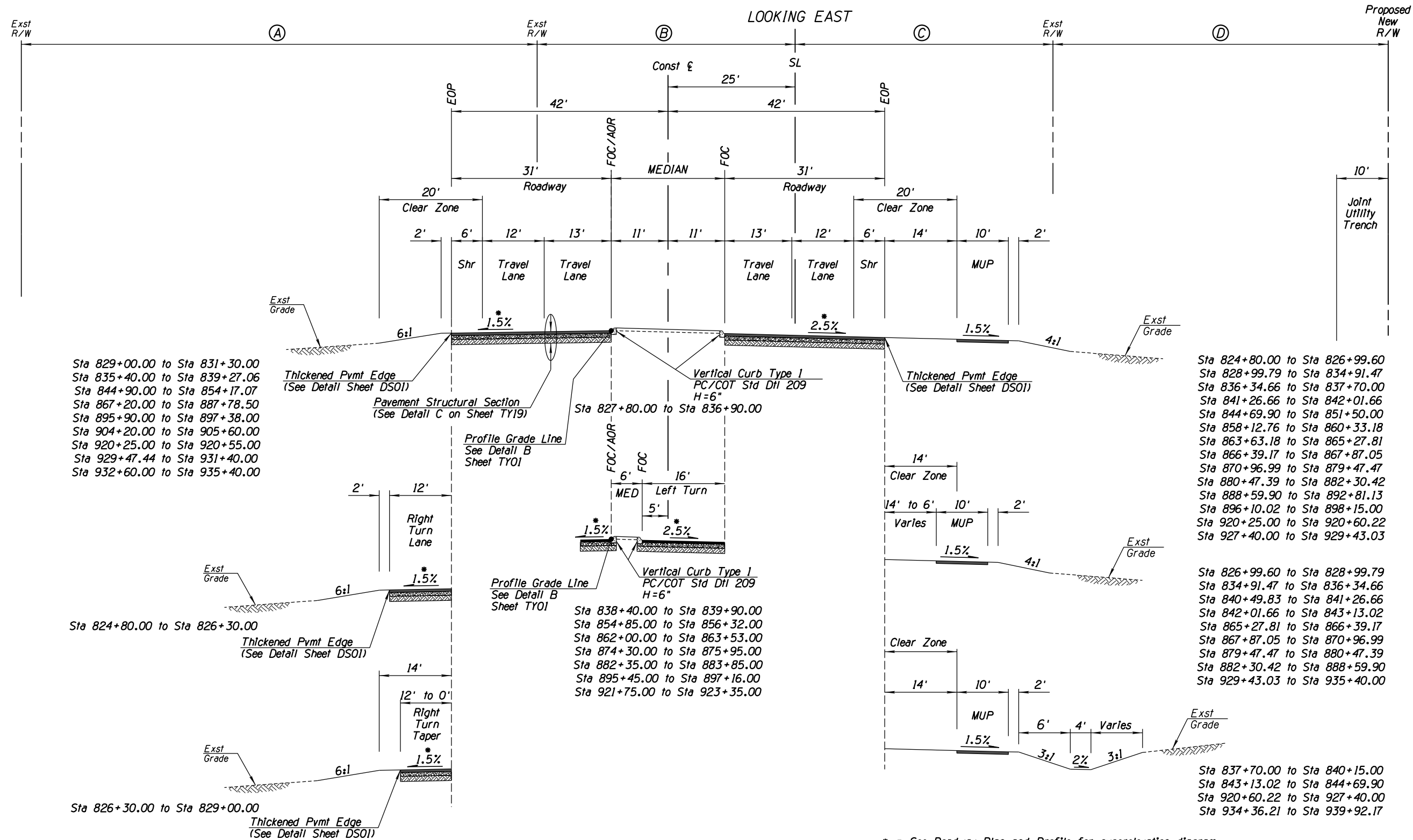
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TOWN OF MARANA - PROJECT NO. 2005-061

TYPICAL SECTIONS FOR TANGERINE ROAD

TANGERINE ROAD

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Sta 829+00.00 to Sta 831+30.00
Sta 835+40.00 to Sta 839+27.06
Sta 844+90.00 to Sta 854+17.07
Sta 867+20.00 to Sta 887+78.50
Sta 895+90.00 to Sta 897+38.00
Sta 904+20.00 to Sta 905+60.00
Sta 920+25.00 to Sta 920+55.00
Sta 929+47.44 to Sta 931+40.00
Sta 932+60.00 to Sta 935+40.00

Sta 824+80.00 to Sta 826+30.00

Sta 826+30.00 to Sta 829+00.00

Sta 827+80.00 to Sta 836+90.00
Sta 838+40.00 to Sta 839+90.00
Sta 854+85.00 to Sta 856+32.00
Sta 862+00.00 to Sta 863+53.00
Sta 874+30.00 to Sta 875+95.00
Sta 882+35.00 to Sta 883+85.00
Sta 895+45.00 to Sta 897+16.00
Sta 921+75.00 to Sta 923+35.00

Sta 824+80.00 to Sta 826+99.60
Sta 828+99.79 to Sta 834+91.47
Sta 836+34.66 to Sta 837+70.00
Sta 841+26.66 to Sta 842+01.66
Sta 844+69.90 to Sta 851+50.00
Sta 858+12.76 to Sta 860+33.18
Sta 863+63.18 to Sta 865+27.81
Sta 866+39.17 to Sta 867+87.05
Sta 870+96.99 to Sta 879+47.47
Sta 880+47.39 to Sta 882+30.42
Sta 888+59.90 to Sta 892+81.13
Sta 896+10.02 to Sta 898+15.00
Sta 920+25.00 to Sta 920+60.22
Sta 927+40.00 to Sta 929+43.03

Sta 826+99.60 to Sta 828+99.79
Sta 834+91.47 to Sta 836+34.66
Sta 840+49.83 to Sta 841+26.66
Sta 842+01.66 to Sta 843+13.02
Sta 865+27.81 to Sta 866+39.17
Sta 867+87.05 to Sta 870+96.99
Sta 879+47.47 to Sta 880+47.39
Sta 882+30.42 to Sta 888+59.90
Sta 929+43.03 to Sta 935+40.00

Sta 837+70.00 to Sta 840+15.00
Sta 843+13.02 to Sta 844+69.90
Sta 920+60.22 to Sta 927+40.00
Sta 934+36.21 to Sta 939+92.17

* = See Roadway Plan-and-Profile for superelevation diagram

Begin Sta to End Sta	Ⓐ	Ⓑ
Sta 824+80.00 to Sta 840+38.02	0'	150'
Sta 840+38.02 to Sta 898+15.00	100'	50'
Sta 920+25.00 to Sta 935+40.00	100'	50'

9A TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 824+80.00 to Sta 898+15.00
Sta 920+25.00 to Sta 935+40.00

Begin Sta to End Sta	Ⓒ	Ⓓ
Sta 824+80.00 to Sta 851+95.49	50'	50'
Sta 851+95.49 to Sta 876+53.99	50'	100'
Sta 876+53.99 to Sta 889+63.98	150'	0'
Sta 889+63.98 to Sta 896+18.89	50'	100'
Sta 896+18.89 to Sta 898+15.00	150'	0'
Sta 920+25.00 to Sta 922+48.78	50'	100'
Sta 922+48.78 to Sta 935+40.00	150'	0'



TOWN OF MARANA - PROJECT NO. 2005-061

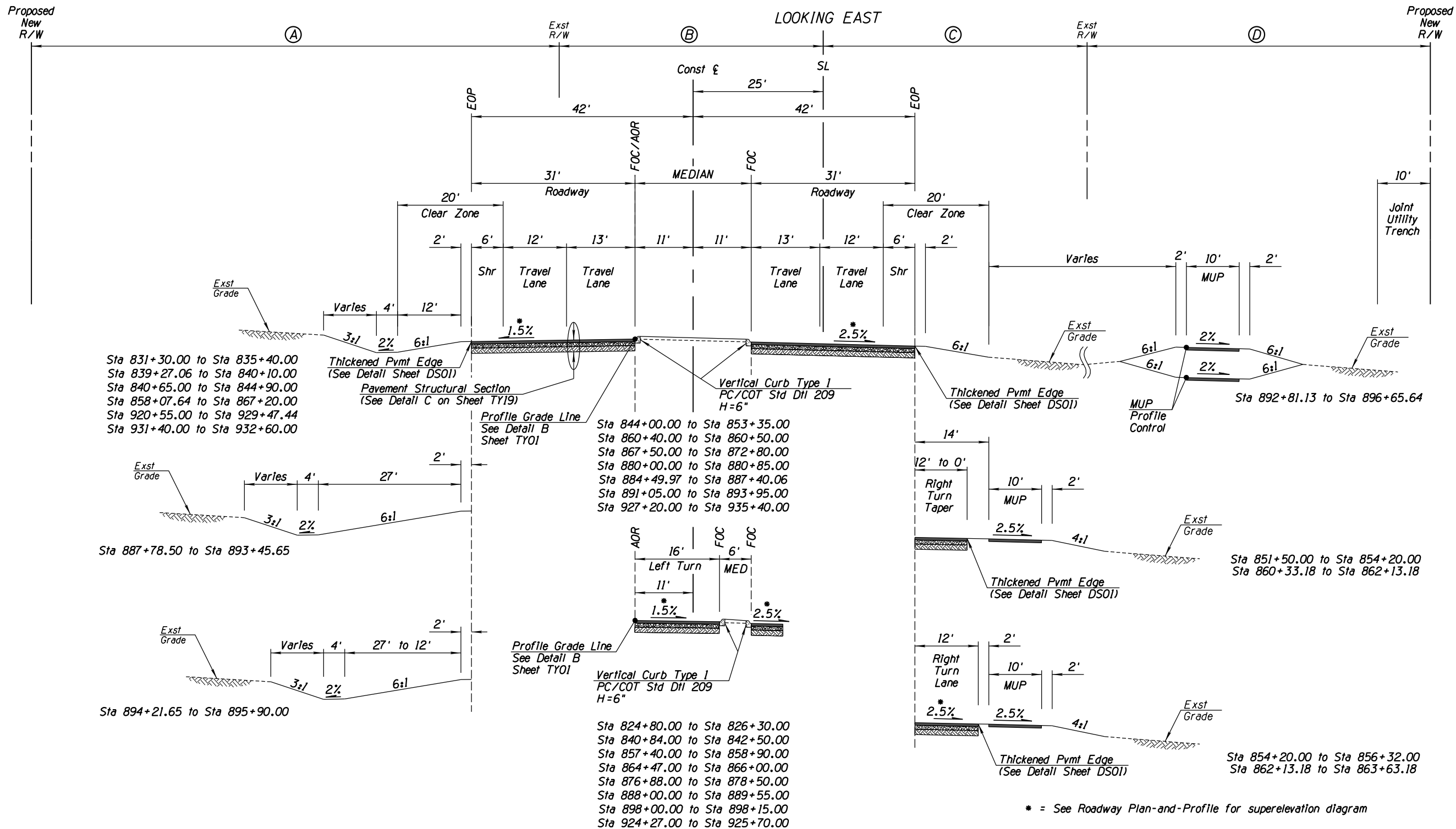
TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

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DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13				
02/13				
02/13				



Begin Sta to End Sta	①	②
Sta 824+80.00 to Sta 840+38.02	0'	150'
Sta 840+38.02 to Sta 898+15.00	100'	50'
Sta 920+25.00 to Sta 935+40.00	100'	50'

9B TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 824+80.00 to Sta 898+15.00
Sta 920+25.00 to Sta 935+40.00

Begin Sta to End Sta	③	④
Sta 824+80.00 to Sta 851+95.49	50'	50'
Sta 851+95.49 to Sta 876+53.99	50'	100'
Sta 876+53.99 to Sta 889+63.98	150'	0'
Sta 889+63.98 to Sta 896+18.89	50'	100'
Sta 896+18.89 to Sta 898+15.00	150'	0'
Sta 920+25.00 to Sta 922+48.78	50'	100'
Sta 922+48.78 to Sta 935+40.00	150'	0'

* = See Roadway Plan-and-Profile for superelevation diagram



DATE	02/13	02/13	02/13	02/13
DESIGNED	AW	AW	AW	AW
DRAWN	AW	AW	AW	AW
CHECKED	AW	AW	AW	AW
PROJ. ENG.	AW	AW	AW	AW

NO.	REVISION DESCRIPTION	DATE	BY

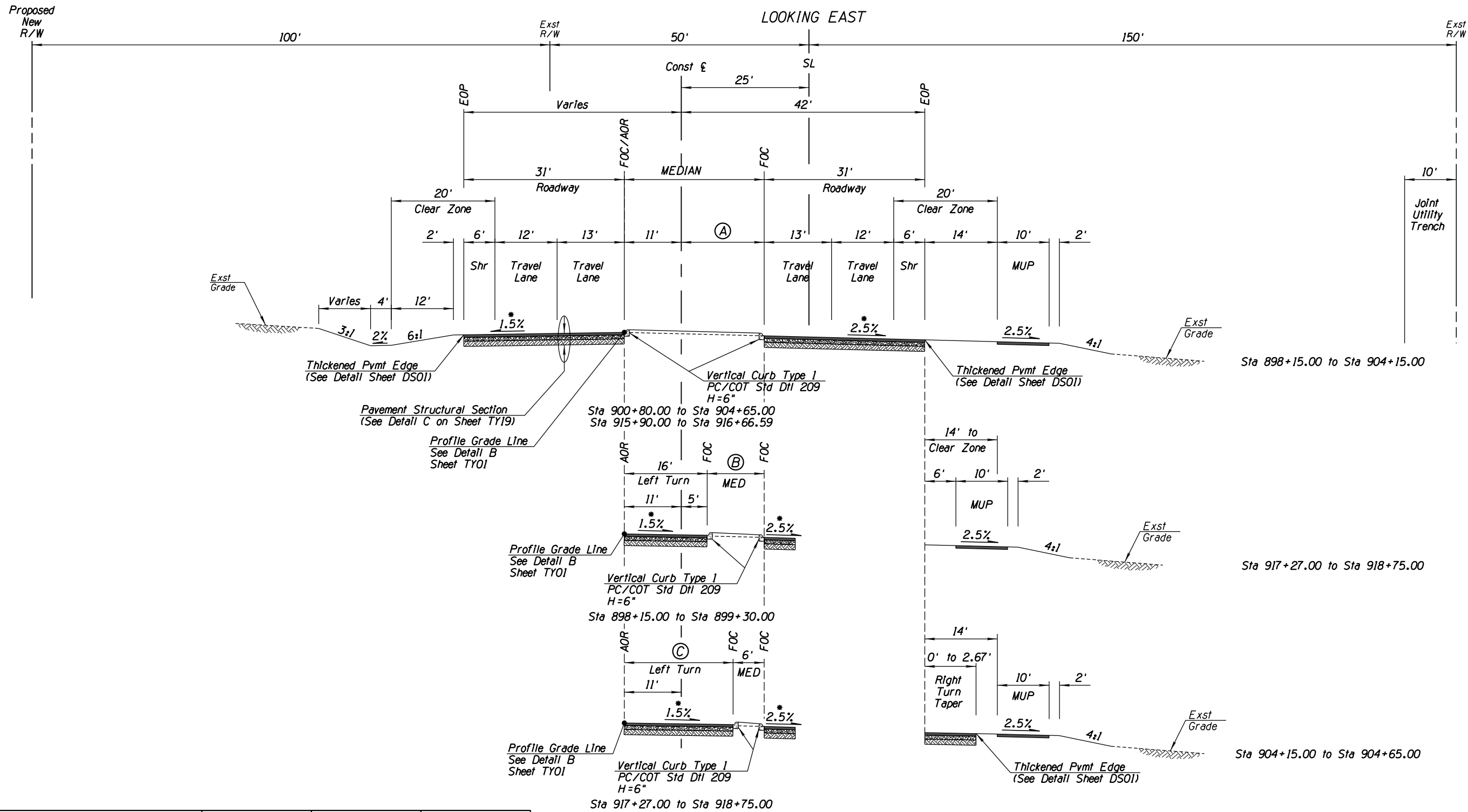
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TOWN OF MARANA - PROJECT NO. 2005-061

TYPICAL SECTIONS FOR TANGERINE ROAD

TANGERINE ROAD

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Begin Sta to End Sta	(A)	(B)	(C)
Sta 898+15.00 to Sta 899+30.00	N/A	6' to 8.30'	N/A
Sta 899+30.00 to Sta 904+65.00	13.30' to 23'	N/A	N/A
Sta 915+90.00 to Sta 916+66.59	19.49' to 17.96'	N/A	N/A
Sta 917+27.00 to Sta 918+75.00	N/A	N/A	22.75' to 19.84'

10 TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 898+15.00 to Sta 904+65.00
Sta 915+90.00 to Sta 918+75.00

* = See Roadway Plan-and-Profile for superelevation diagram



DATE	02/13	02/13	02/13	02/13
DESIGNED	RLN	RLN	MDA	MDA
DRAWN				
CHECKED				
PROJ. ENG.				

NO.	REVISION DESCRIPTION	DATE	ENGINEER

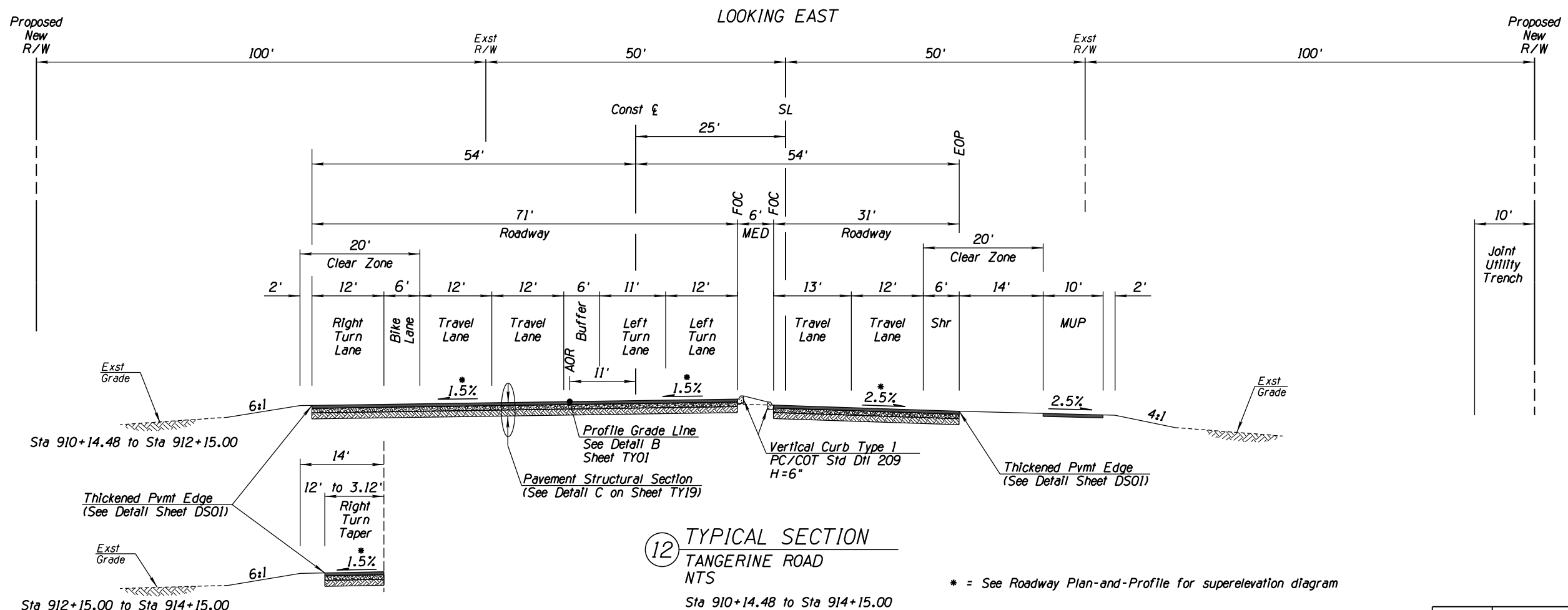
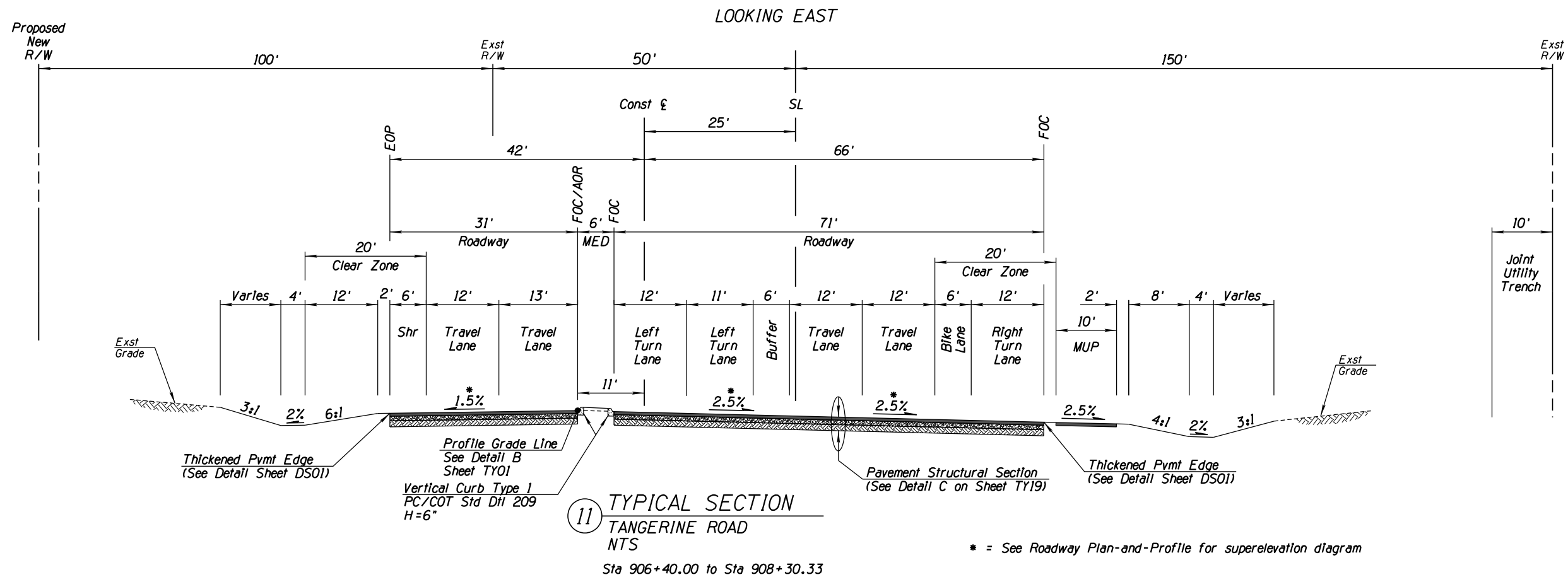
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TYPICAL SECTIONS FOR TANGERINE ROAD

TANGERINE ROAD



DATE	02/13	02/13	02/13	02/13
DESIGNED	RLN	RLN	RLN	RLN
DRAWN	RLN	RLN	RLN	RLN
CHECKED	MDA	MDA	MDA	MDA
PROJ. ENG.	MDA	MDA	MDA	MDA

NO.	REVISION DESCRIPTION	DATE	BY	CHKD

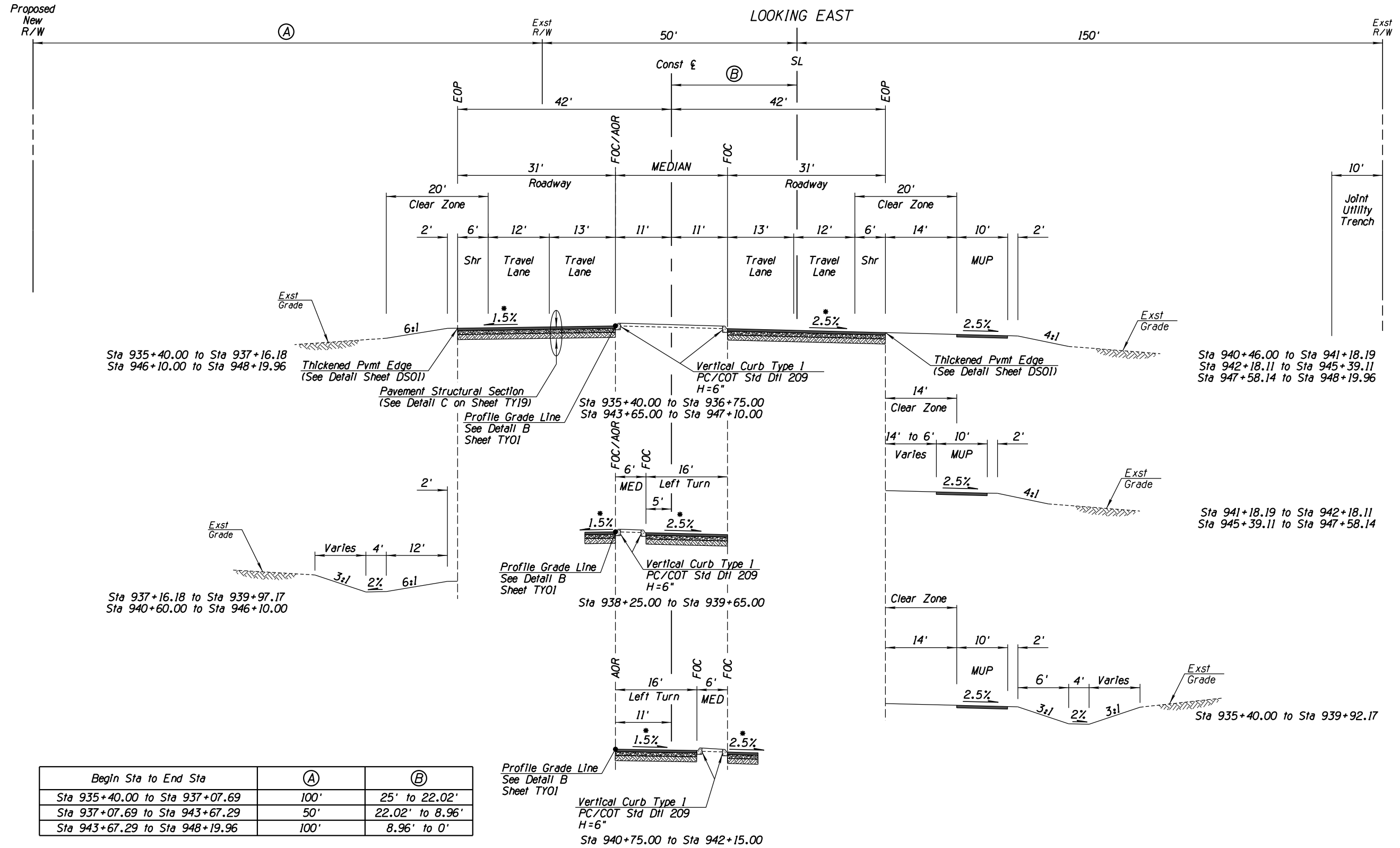
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TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

TOWN OF MARANA - PROJECT NO. 2005-061





Begin Sta to End Sta	Ⓐ	Ⓑ
Sta 935+40.00 to Sta 937+07.69	100'	25' to 22.02'
Sta 937+07.69 to Sta 943+67.29	50'	22.02' to 8.96'
Sta 943+67.29 to Sta 948+19.96	100'	8.96' to 0'

13 TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 935+40.00 to Sta 948+19.96

* = See Roadway Plan-and-Profile for superelevation diagram



DATE	02/13	02/13	02/13	02/13
DESIGNED	RLN	RLN	RLN	RLN
DRAWN	RLN	RLN	RLN	RLN
CHECKED	RLN	RLN	RLN	RLN
PROJ. ENG.	RLN	RLN	RLN	RLN

NO.	REVISION DESCRIPTION	DATE	BY

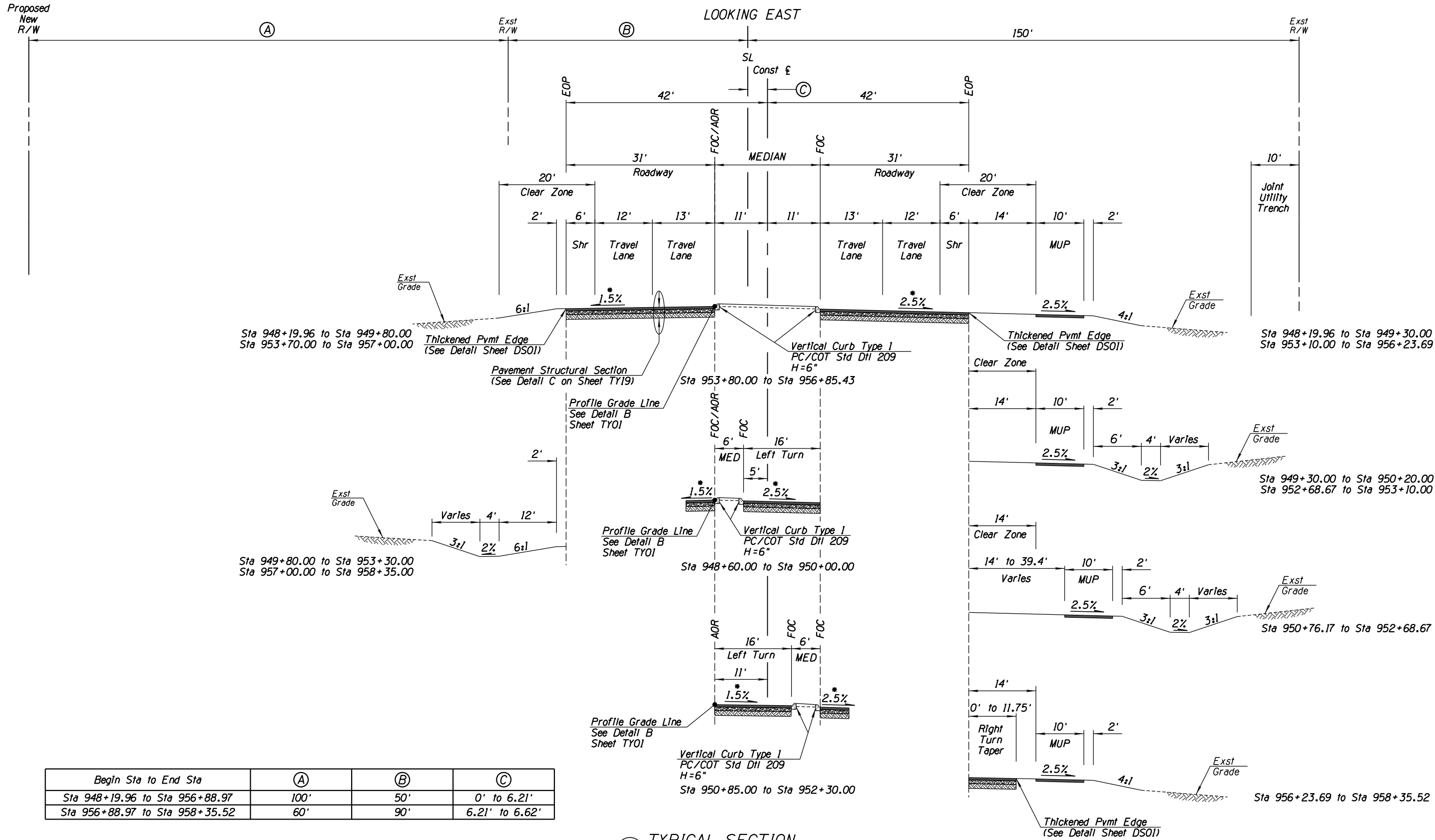
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TOWN OF MARANA - PROJECT NO. 2005-061

TYPICAL SECTIONS FOR TANGERINE ROAD

TANGERINE ROAD



14 TYPICAL SECTION
TANGERINE ROAD
NTS
Sta 948+19.96 to Sta 958+35.52

* = See Roadway Plan-and-Profile for superelevation diagram



DATE	02/13	02/13	02/13	02/13
DESIGNED	RLN	RLN	MDA	MDA
DRAWN				
CHECKED				
PROJ. ENG.				

NO.	REVISION DESCRIPTION	DATE	ENGINEER

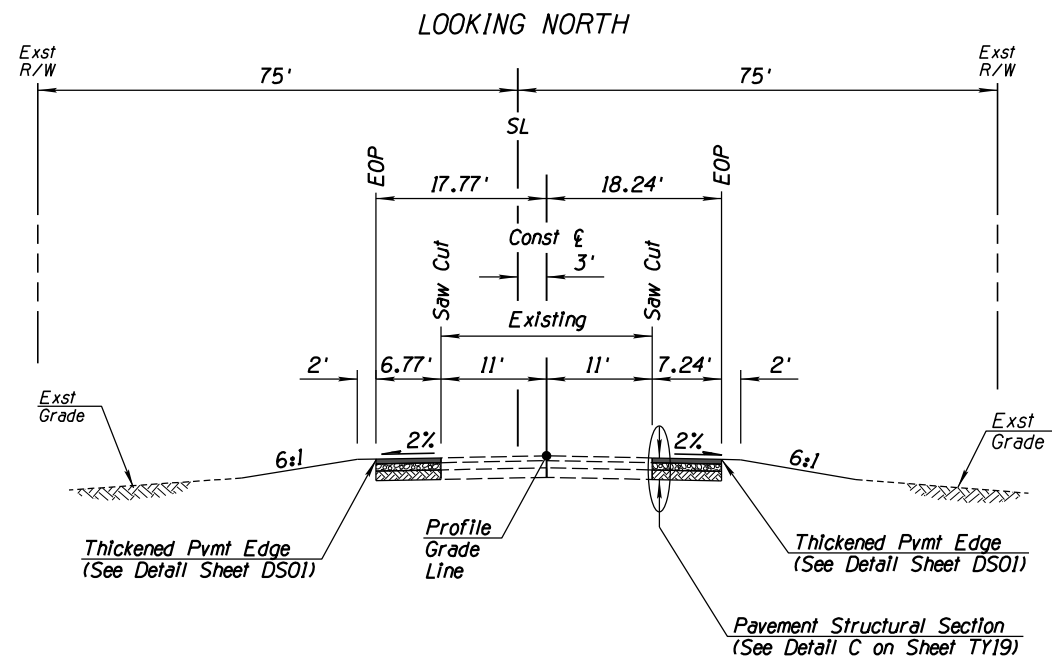
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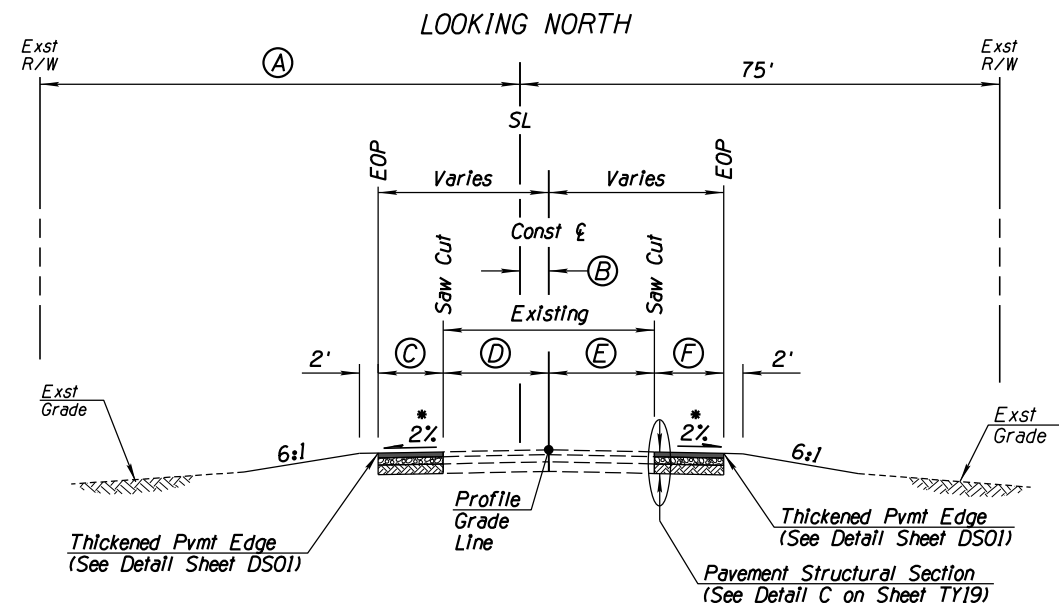
TYPICAL SECTIONS FOR TANGERINE ROAD

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TANGERINE ROAD

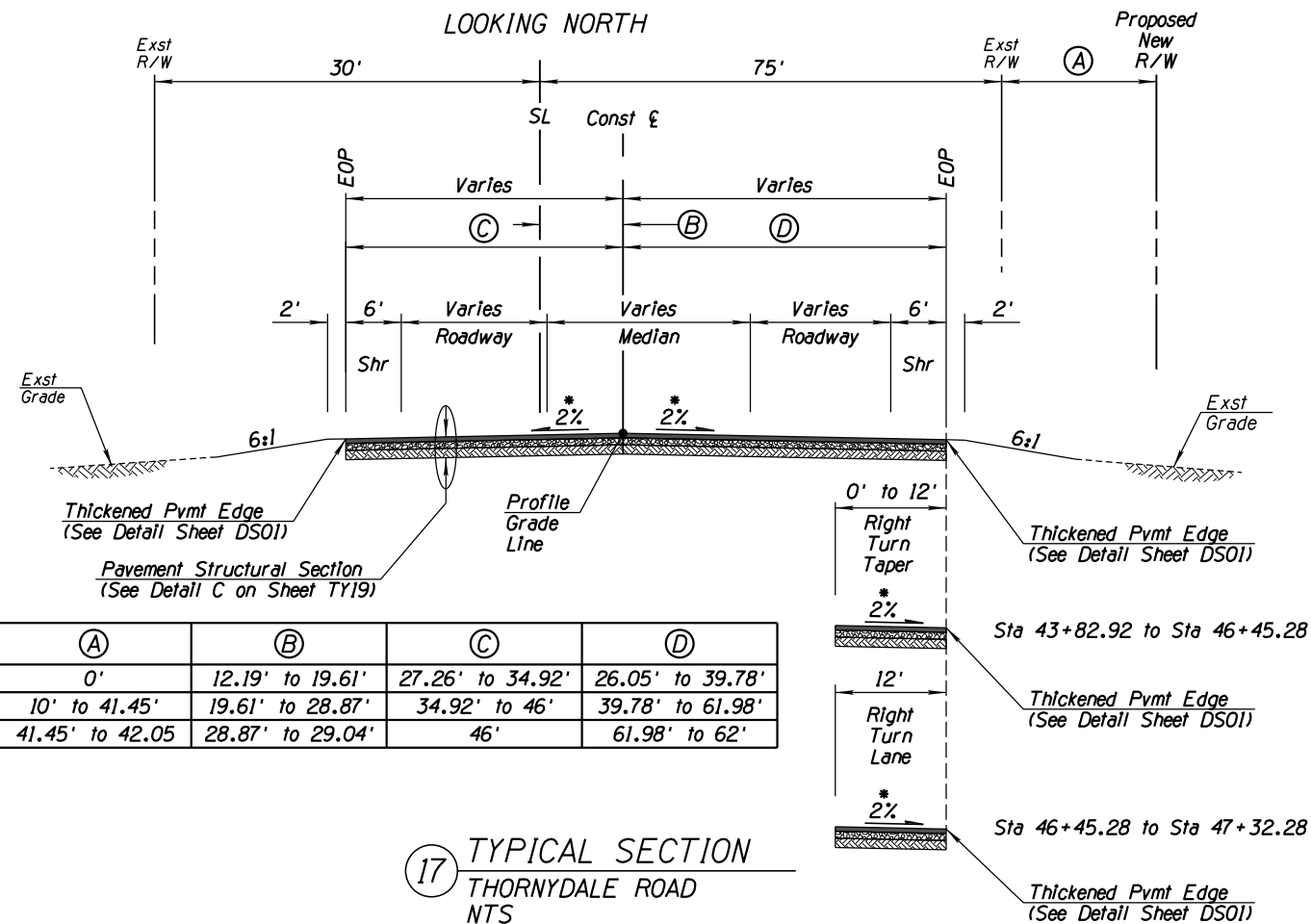


15 TYPICAL SECTION
THORNYDALE ROAD
NTS
Sta 35+16.75 to Sta 35+21.43



Begin Sta to End Sta	(A)	(B)	(C)	(D)	(E)	(F)
Sta 35+16.75 to Sta 39+29.08	75'	3' to 11.71'	6.77' to 7.06'	11' to 19.71'	11' to 2.29'	7.24' to 23.35'
Sta 39+29.08 to Sta 39+70.00	30'	11.71' to 12.19'	7.06' to 7.07'	19.71' to 20.19'	2.29 to 1.80'	23.35' to 24.25'

16 TYPICAL SECTION
THORNYDALE ROAD
NTS
Sta 35+21.43 to Sta 39+70.00
* = See Roadway Plan-and-Profile for superelevation diagram



Begin Sta to End Sta	(A)	(B)	(C)	(D)
Sta 39+50.00 to Sta 42+98.49	0'	12.19' to 19.61'	27.26' to 34.92'	26.05' to 39.78'
Sta 42+98.49 to Sta 47+31.87	10' to 41.45'	19.61' to 28.87'	34.92' to 46'	39.78' to 61.98'
Sta 47+31.87 to Sta 47+32.28	41.45' to 42.05'	28.87' to 29.04'	46'	61.98' to 62'

17 TYPICAL SECTION
THORNYDALE ROAD
NTS
Sta 39+70.00 to Sta 47+32.28
* = See Roadway Plan-and-Profile for superelevation diagram

NO.	REVISION DESCRIPTION	DATE	BY	CHKD	APPD
1	DESIGNED	02/13	RL	RL	MDA
2	DRAWN	02/13	RL	RL	MDA
3	CHECKED	02/13	RL	RL	MDA
4	PROJ. ENG.	02/13	RL	RL	MDA

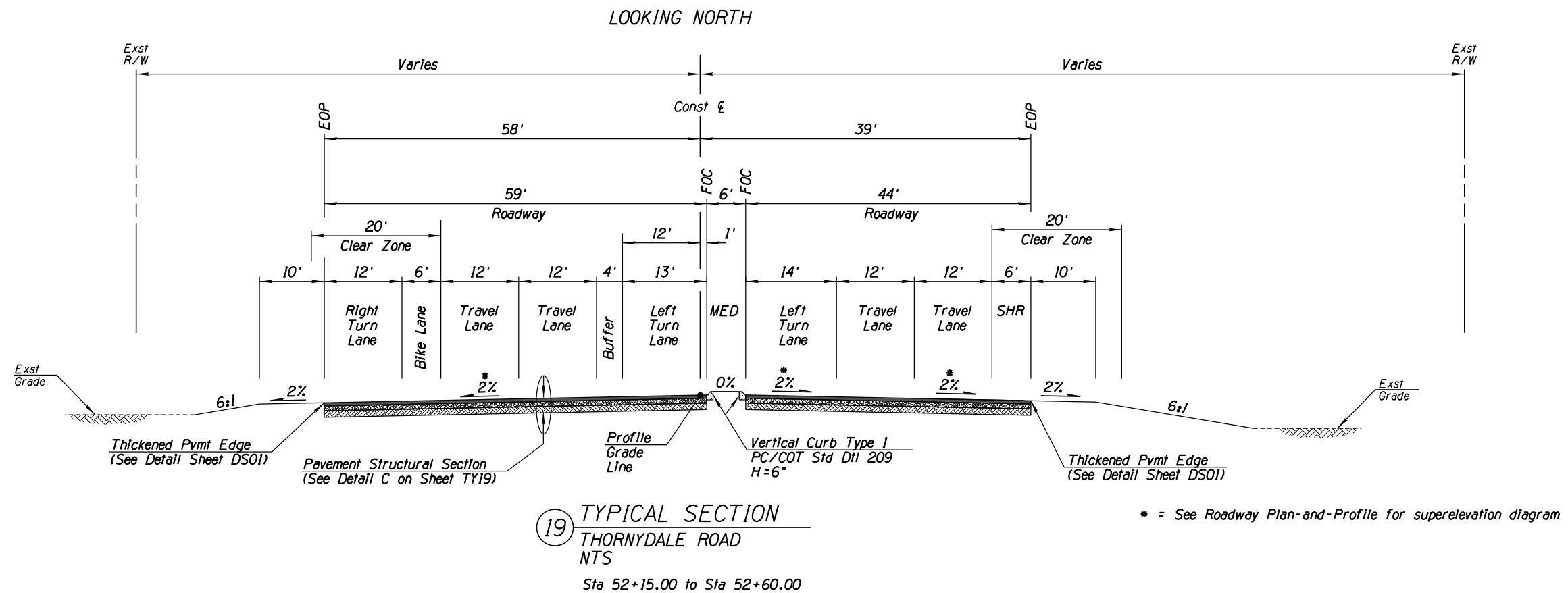
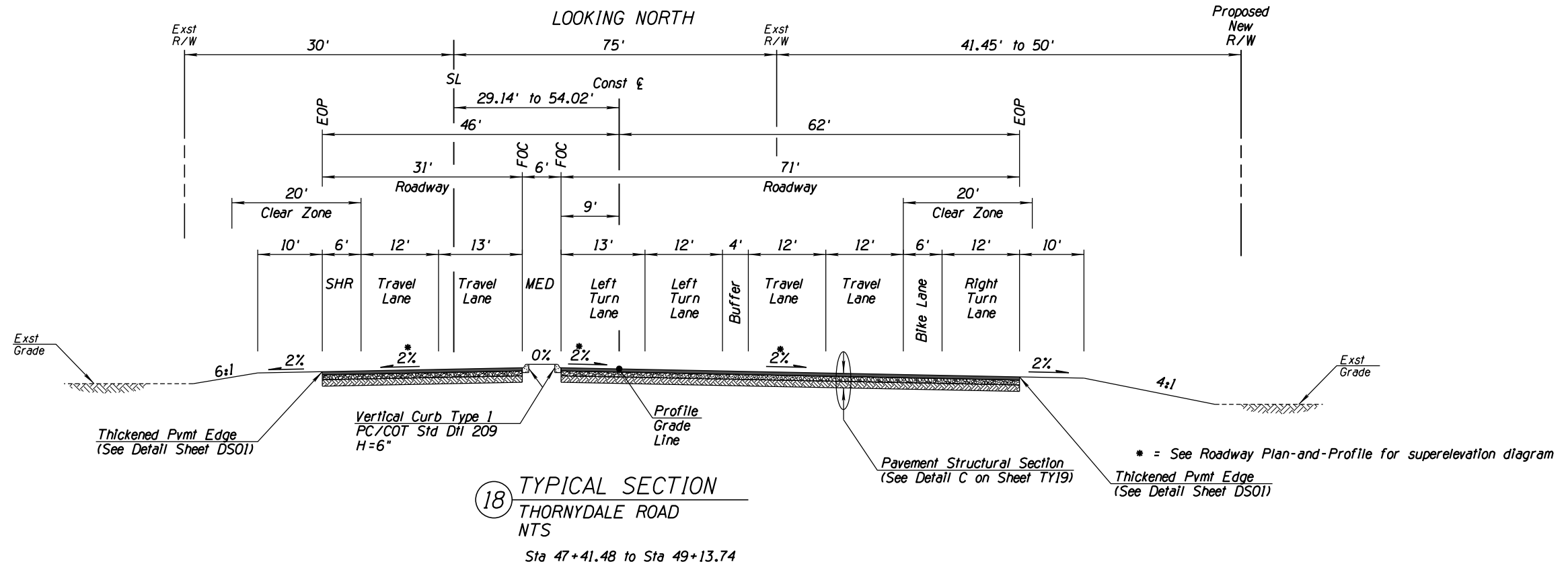
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TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

TOWN OF MARANA - PROJECT NO. 2005-061





DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13
DESIGNED	DRAWN	CHECKED	PROJ. ENG.
RIW	RIW	MDA	MDA

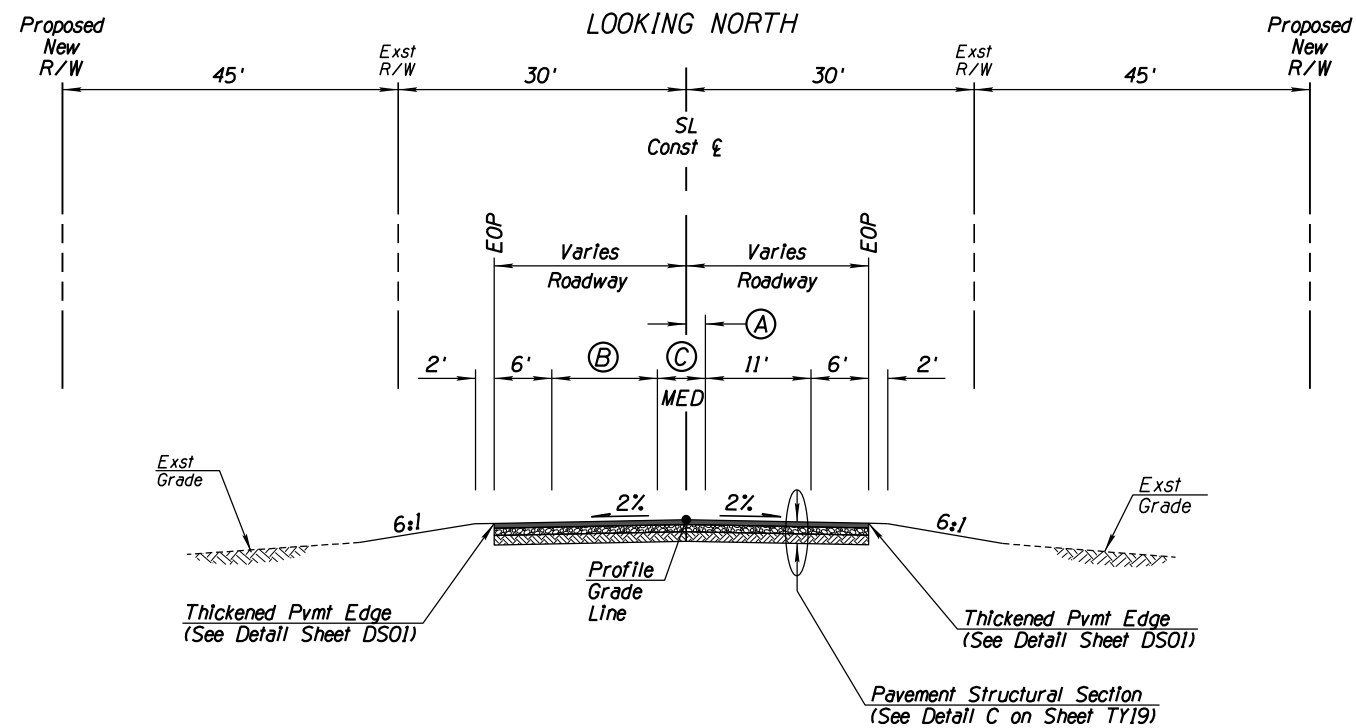
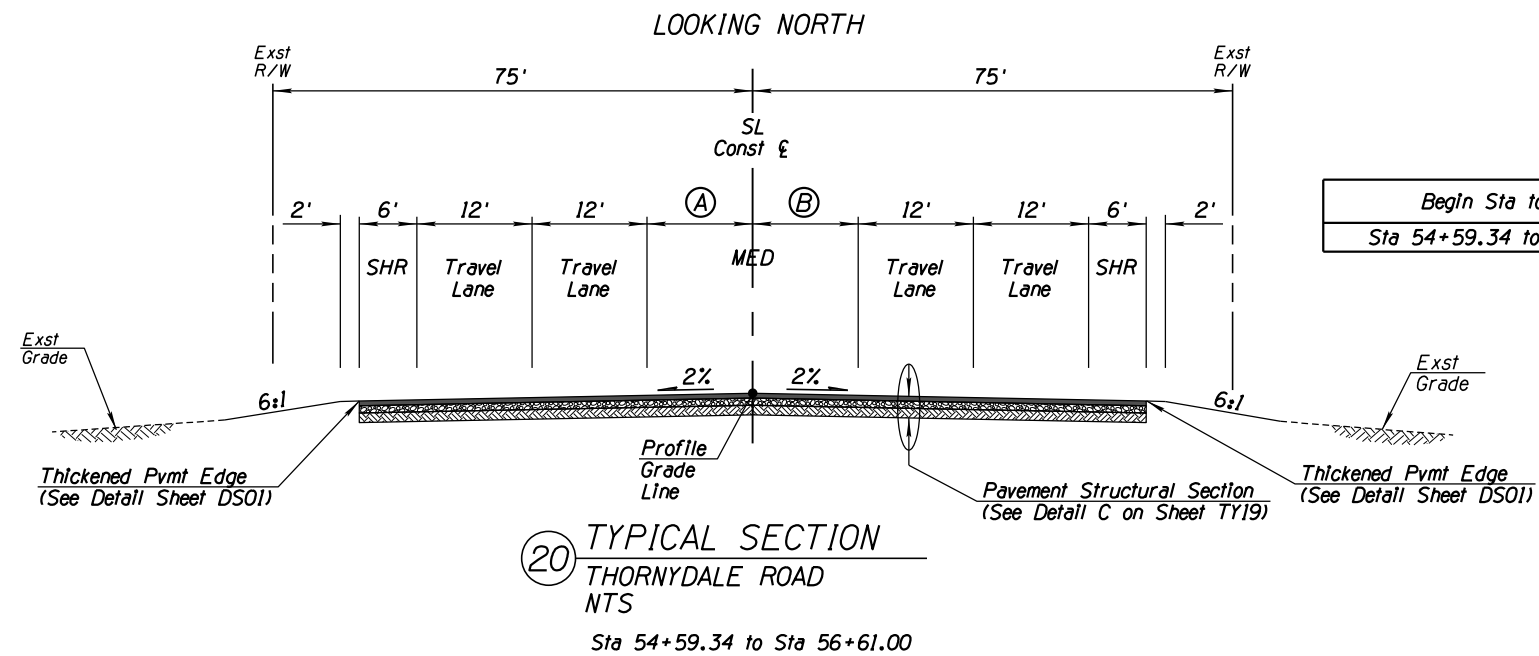
NO.	REVISION DESCRIPTION	DATE	ENGINEER

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TOWN OF MARANA - PROJECT NO. 2005-061
TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD





Begin Sta to End Sta	(A)	(B)	(C)
Sta 525+20.00 to Sta 527+75.00	2'	11'	0' to 5.10'
Sta 527+75.00 to Sta 529+50.00	2'	11' to 14.5'	5.10' to 8.60'
Sta 529+50.00 to Sta 532+35.00	2' to 7.7'	14.5' to 20.2'	8.60' to 20'



22

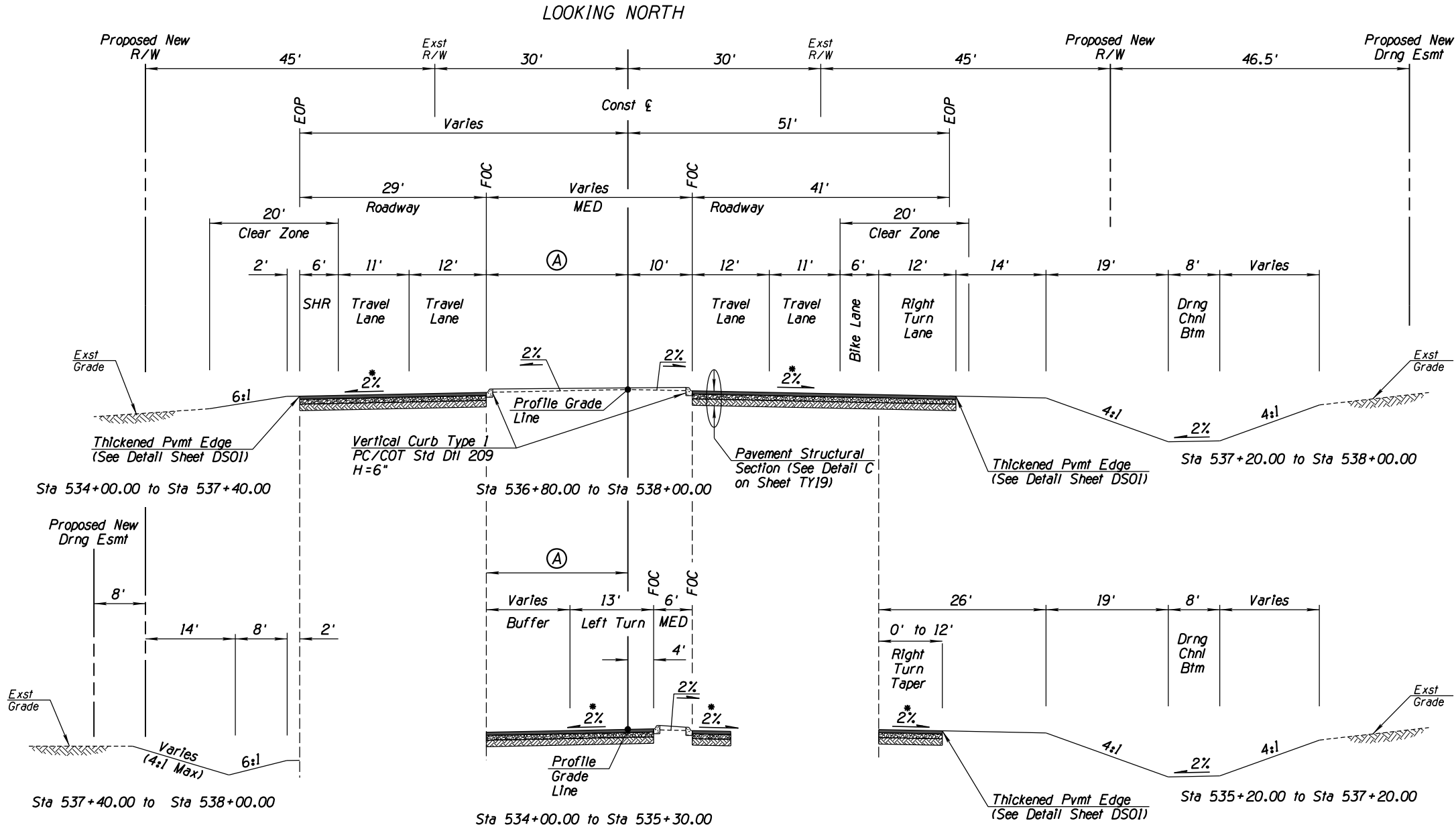
TYPICAL SECTION

LA CHOLLA BLVD

NTS

Sta 534+00.00 to Sta 538+00.00

Begin Sta to End Sta	(A)
Sta 534+00.00 to Sta 535+30.00	15.6' to 18.2'
Sta 535+30.00 to Sta 537+70.00	18.2' to 22'
Sta 537+70.00 to Sta 538+00.00	22'



DATE	02/13	02/13	02/13	02/13
DESIGNED	RLN	RLN	RLN	RLN
DRAWN	RLN	RLN	RLN	RLN
CHECKED	MDA	MDA	MDA	MDA
PROJ. ENG.	MDA	MDA	MDA	MDA

NO.	REVISION DESCRIPTION	DATE	ENGINEER	DIV.

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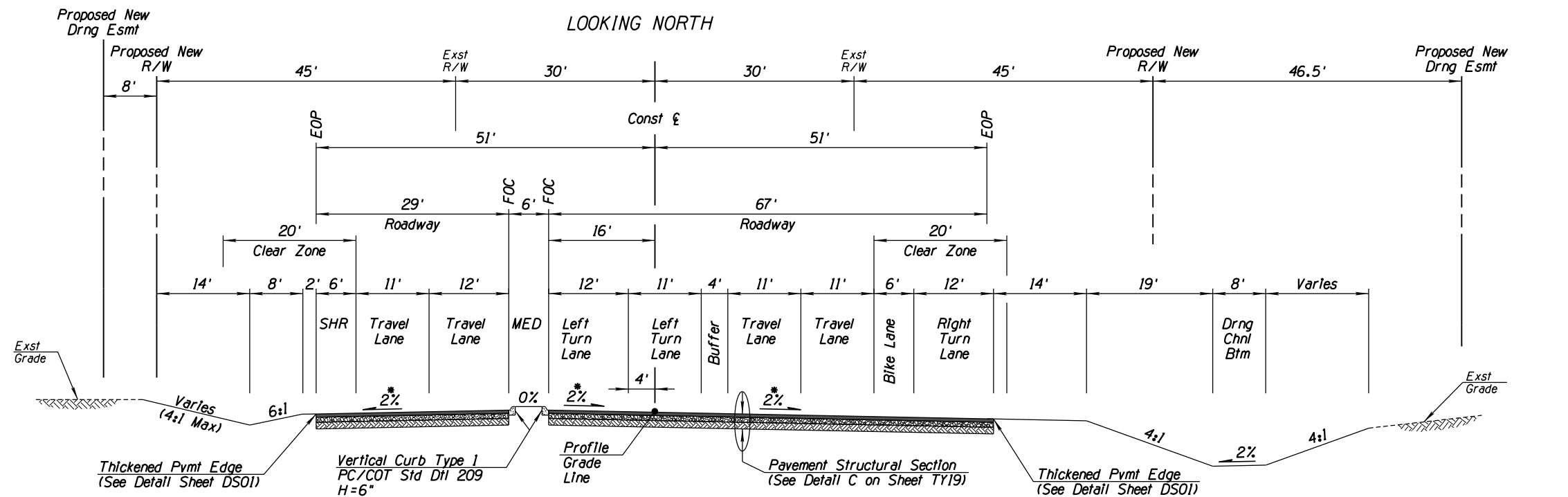
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TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

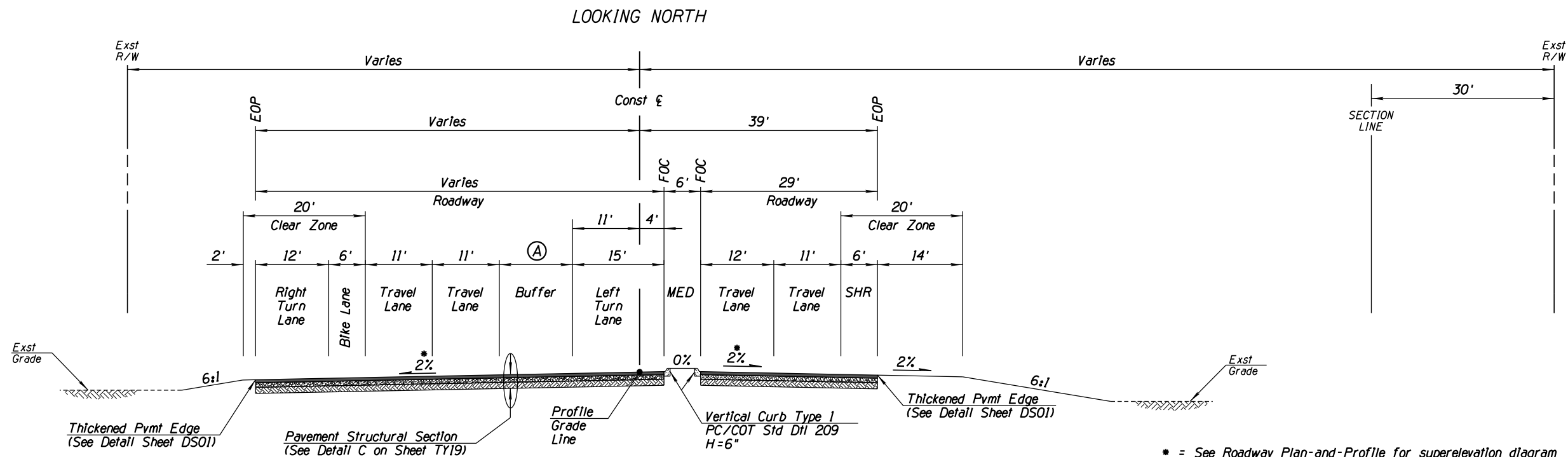
TOWN OF MARANA - PROJECT NO. 2005-061





23 TYPICAL SECTION
LA CHOLLA BLVD
NTS
Sta 539+75.00 to Sta 541+50.00

* = See Roadway Plan-and-Profile for superelevation diagram



24 TYPICAL SECTION
LA CHOLLA BLVD
NTS
Sta 543+50.00 to Sta 544+60.95

Begin Sta to End Sta	(A)
Sta 543+50.00 to Sta 543+80.96	12'
Sta 543+80.96 to Sta 544+60.95	12' to 11.5'

* = See Roadway Plan-and-Profile for superelevation diagram



NO.	REVISION DESCRIPTION	DIV.	ENGINEER	DATE
DESIGNED	DATE			
DRAWN	DATE			
CHECKED	DATE			
PROJ. ENG.	DATE			

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TYPICAL SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

TOWN OF MARANA - PROJECT NO. 2005-061



SCALES:	HORIZ. 1" = 100'
---------	------------------

SHEET GC01 OF GC01

GEOMETRIC CONTROL

TANGERINE ROAD

STA 778+83.55 TO STA 835+00.00



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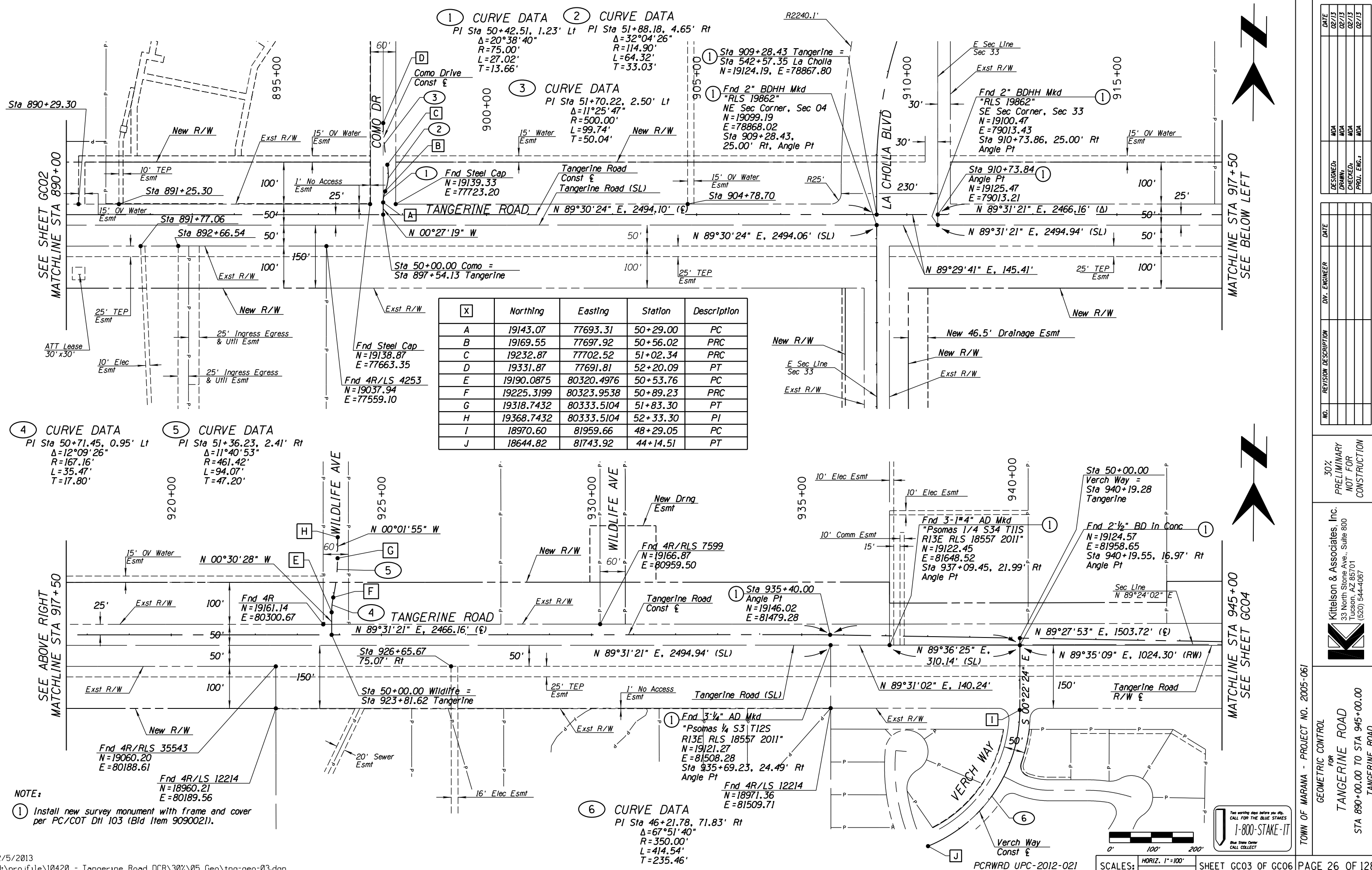
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				DATE
DESIGNED:	MDA			02/13
DRAWN:	MDA			02/13
CHECKED:	MDA			02/13
PROJ., ENG.-I	MDA			02/13



GEOMETRIC CONTROL
FOR
TANGERINE ROAD
STA 835+00.00 TO STA 890+00.00
TANGERINE ROAD



1 CURVE DATA
PI Sta 50+42.51, 1.23' Lt
 $\Delta=20^{\circ}38'40''$
R=75.00'
L=27.02'
T=13.66'

2 CURVE DATA
PI Sta 51+88.18, 4.65' Rt
 $\Delta=32^{\circ}04'26''$
R=114.90'
L=64.32'
T=33.03'

3 CURVE DATA
PI Sta 51+70.22, 2.50' Lt
 $\Delta=11^{\circ}25'47''$
R=500.00'
L=99.74'
T=50.04'

1 Sta 909+28.43 Tangerine =
Sta 542+57.35 La Cholla
N=19124.19, E=78867.80

1 Fnd 2" BDHH Mkd
"RLS 19862"
NE Sec Corner, Sec 04
N=19099.19
E=78868.02
Sta 909+28.43,
25.00' Rt, Angle Pt

Fnd 2" BDHH Mkd
"RLS 19862"
SE Sec Corner, Sec 33
N=19100.47
E=79013.43
Sta 910+73.86, 25.00' Rt
Angle Pt

Sta 910+73.84
Angle Pt
N=19125.47
E=79013.21

N 89°31'21" E, 2466.16' (Δ)
N 89°31'21" E, 2494.94' (SL)

N 89°29'41" E, 145.41'

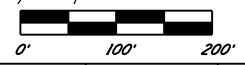
[X]	Northing	Easting	Station	Description
A	19143.07	77693.31	50+29.00	PC
B	19169.55	77697.92	50+56.02	PRC
C	19232.87	77702.52	51+02.34	PRC
D	19331.87	77691.81	52+20.09	PT
E	19190.0875	80320.4976	50+53.76	PC
F	19225.3199	80323.9538	50+89.23	PRC
G	19318.7432	80333.5104	51+83.30	PT
H	19368.7432	80333.5104	52+33.30	PI
I	18970.60	81959.66	48+29.05	PC
J	18644.82	81743.92	44+14.51	PT

4 CURVE DATA
PI Sta 50+71.45, 0.95' Lt
 $\Delta=12^{\circ}09'26''$
R=167.16'
L=35.47'
T=17.80'

5 CURVE DATA
PI Sta 51+36.23, 2.41' Rt
 $\Delta=11^{\circ}40'53''$
R=461.42'
L=94.07'
T=47.20'

NOTE:
1 Install new survey monument with frame and cover per PC/COT D11 103 (Bid Item 9090021).

6 CURVE DATA
PI Sta 46+21.78, 71.83' Rt
 $\Delta=67^{\circ}51'40''$
R=350.00'
L=414.54'
T=235.46'



Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue State Center
CALL COLLECT

DATE
02/13
02/13
02/13
02/13

DESIGNED
NDA

DRAWN
NDA

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NDA

PROJ. ENG.
NDA

NO.

REVISION DESCRIPTION

DATE

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(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061

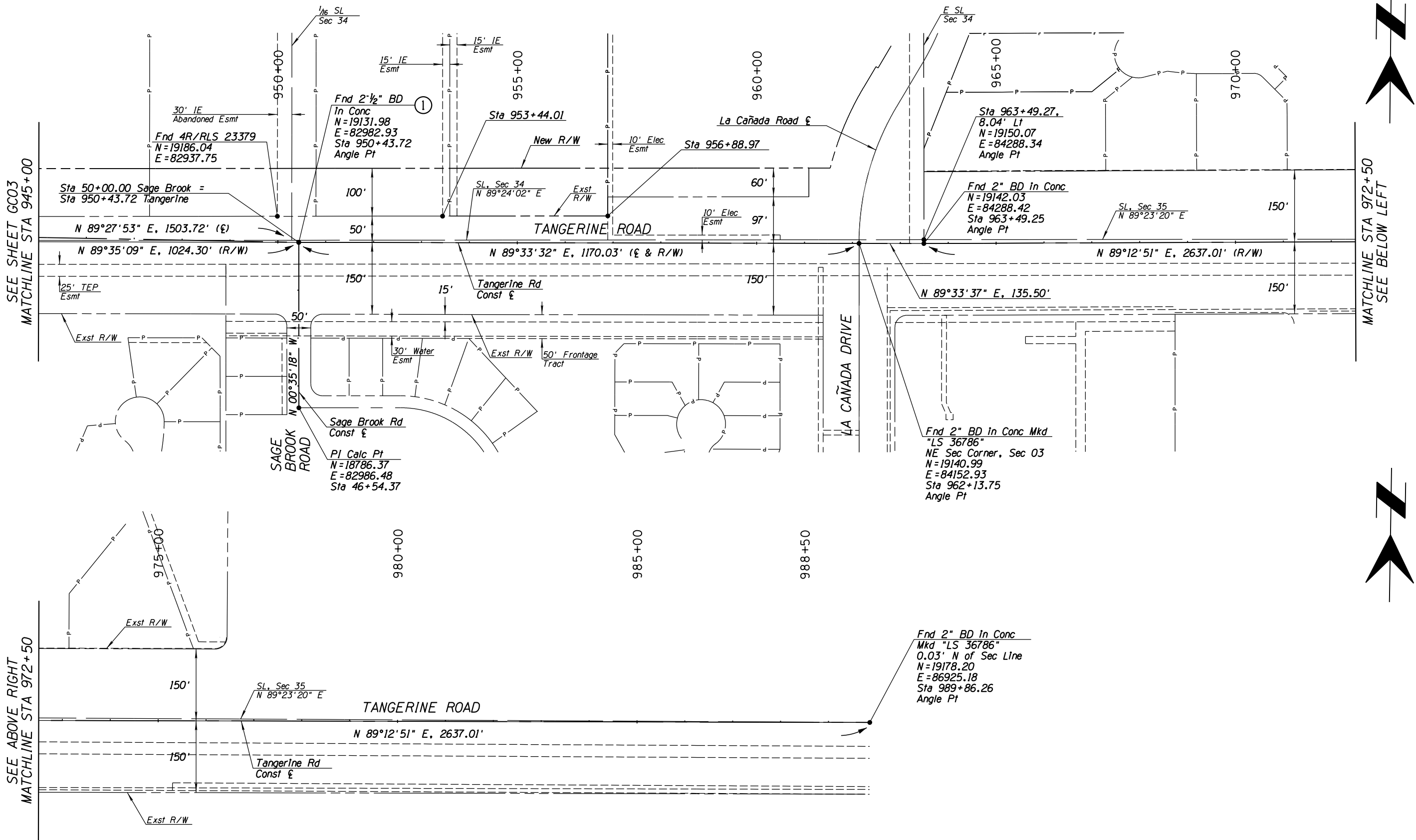
FOR
GEOMETRIC CONTROL
TANGERINE ROAD
STA 890+00.00 TO STA 945+00.00
TANGERINE ROAD

PCRWDR UPC-2012-021

SCALES:
HORIZ. 1"=100'

SHEET GC03 OF GC06

PAGE 26 OF 128



SEE SHEET GC03
MATCHLINE STA 945+00

SEE ABOVE RIGHT
MATCHLINE STA 972+50

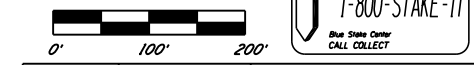
MATCHLINE STA 972+50
SEE BELOW LEFT

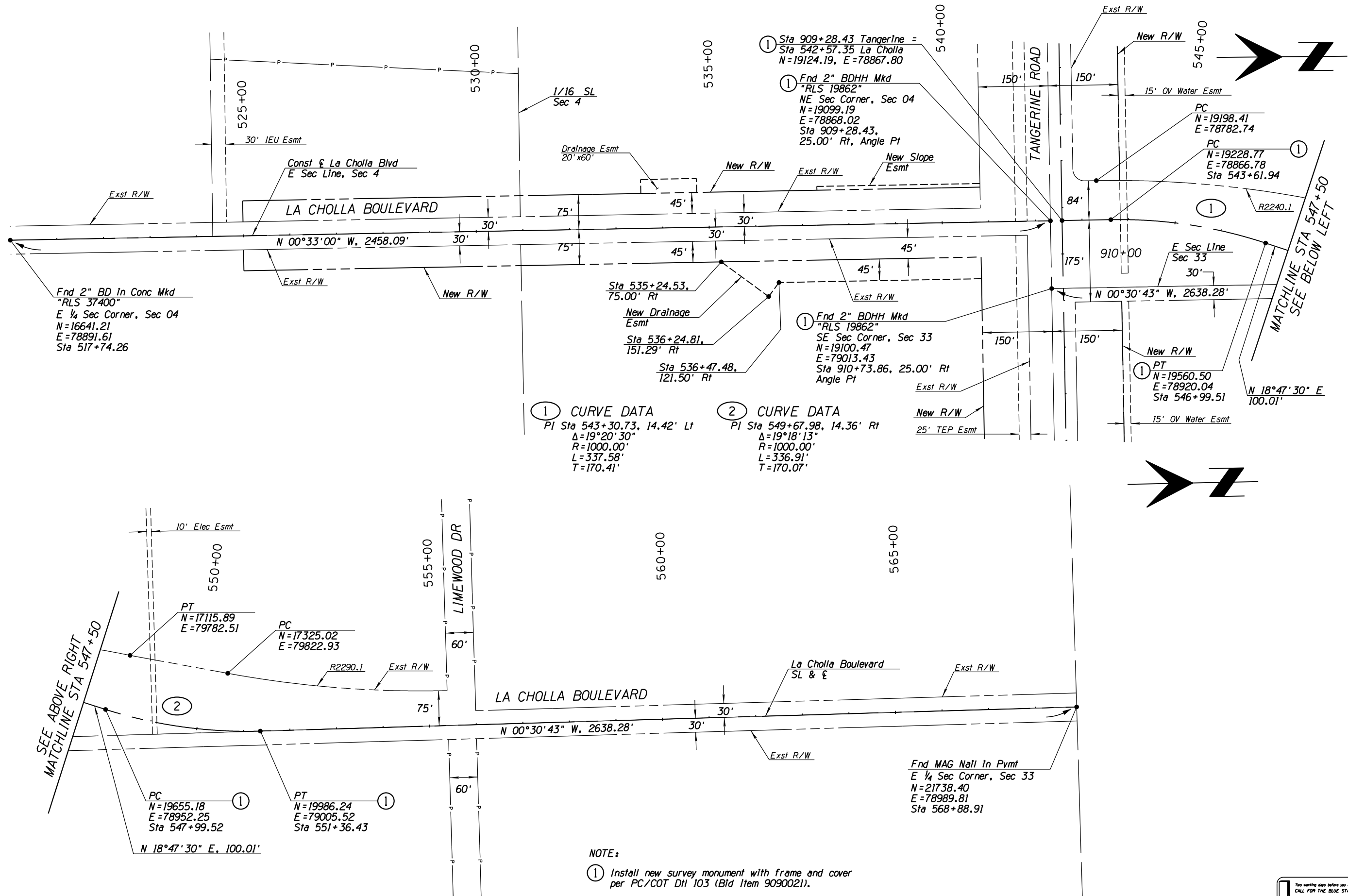
NOTE:
① Install new survey monument with frame and cover per PC/COT D11 103 (Bid Item 9090021).



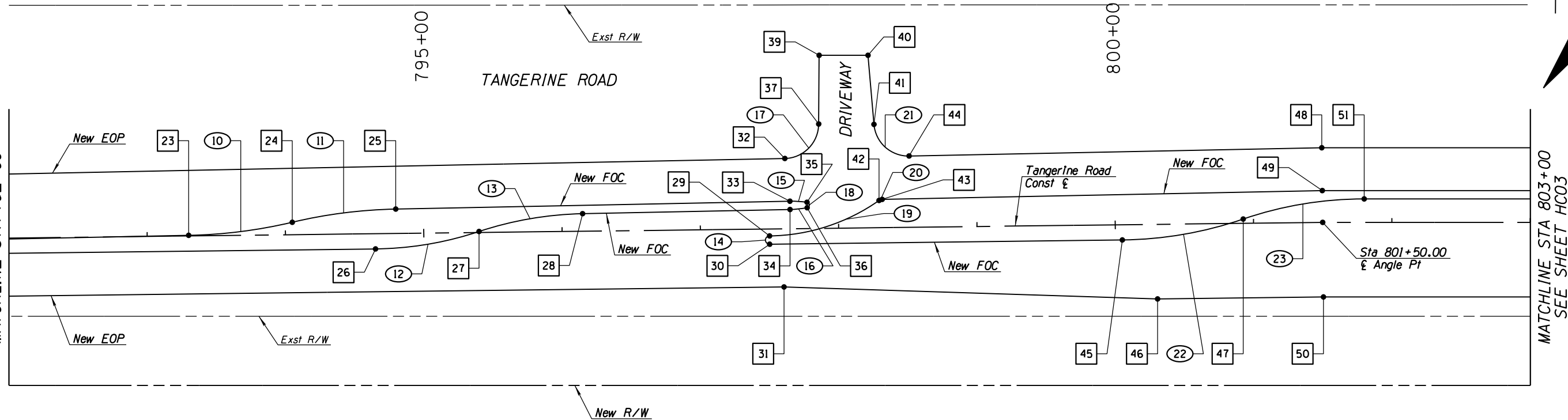
NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13
				02/13





SEE SHEET HC01
MATCHLINE STA 792+00



MATCHLINE STA 803+00
SEE SHEET HC03

HORIZONTAL CONTROL POINT SUMMARY TABLE

■	Station	Offset	Description
23	793+30.00	0.44' Lt	PC
24	794+05.00	9.04' Lt	PRC
25	794+80.00	17.64' Lt	PT
26	794+65.00	11.00' Rt	PC
27	795+40.00	0.71' Lt	PRC
28	796+15.00	12.72' Lt	PT
29	797+50.00	5.00' Rt	PCC
30	797+50.00	11.00' Rt	PC
31	797+60.00	42.00' Rt	PI
32	797+61.68	50.89' Lt	PC
33	797+65.00	19.92' Lt	PC
34	797+65.00	13.92' Lt	PT
35	797+77.35	19.00' Lt	PCC
36	797+77.39	15.05' Lt	PCC
37	797+86.47	75.54' Lt	PT
38			NOT USED
39	797+87.38	125.23' Lt	PI
40	798+22.73	124.80' Lt	PI
41	798+26.40	74.78' Lt	PC
42	798+29.48	19.75' Lt	PCC
43	798+31.72	20.45' Lt	PT
44	798+51.54	51.61' Lt	PT
45	800+05.00	11.00' Rt	PC
46	800+30.00	54.00' Rt	PI
47	800+92.60	3.09' Lt	PRC
48	801+50.00	54.00' Lt	PI
49	801+50.00	23.00' Lt	PI
50	801+50.54	54.00' Rt	PI
51	801+80.00	17.00' Lt	PT

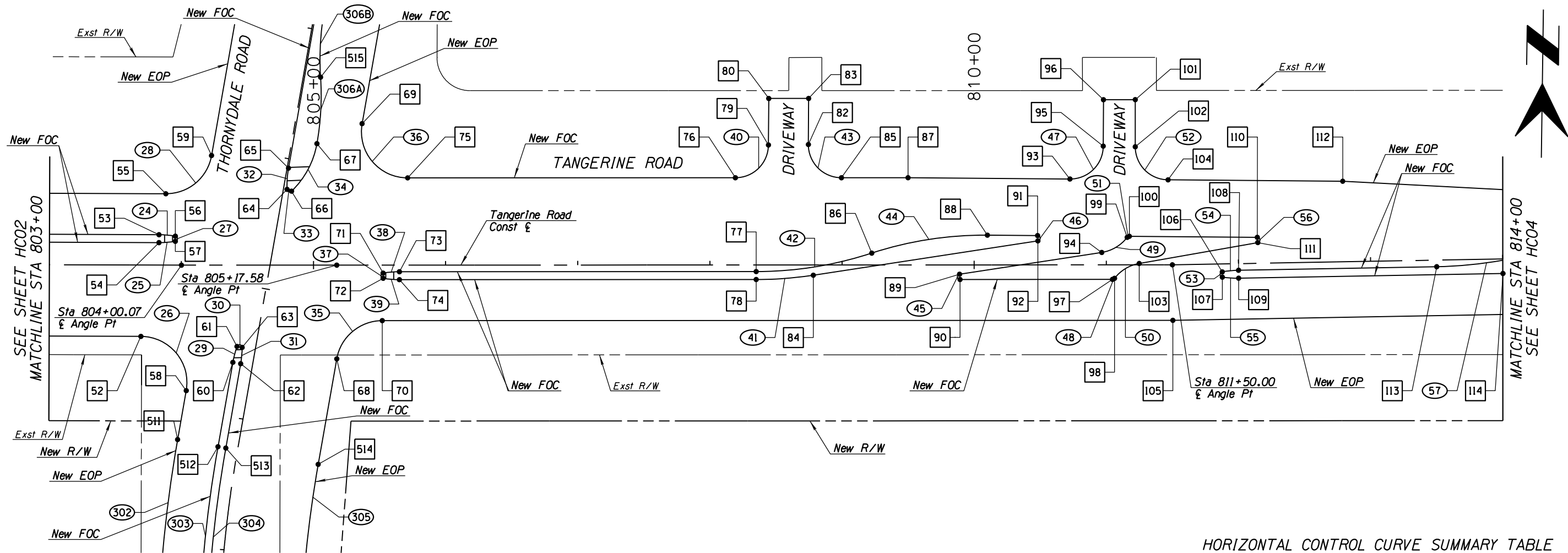
HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
10	356.19	75.63	12°09'59"	37.96
11	356.19	75.63	12°09'59"	37.96
12	246.13	76.21	17°44'29"	38.41
13	252.77	76.24	17°16'56"	38.41
14	3.00	9.42	179°59'57"	N/A
15	75.00	12.40	09°28'31"	6.22
16	75.00	12.45	09°30'49"	6.24
17	25.00	38.72	88°43'58"	24.45
18	2.00	5.62	161°00'40"	11.96
19	140.00	84.52	34°35'23"	43.59
20	4.00	2.38	34°07'54"	1.23
21	25.00	37.64	86°15'43"	23.42
22	279.37	89.11	18°16'29"	44.93
23	269.07	89.05	18°57'43"	44.93



NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
52	803+69.56	54.00' Rt	PC
53	803+83.00	23.00' Lt	PC
54	803+83.00	17.00' Lt	PT
55	803+88.08	54.00' Lt	PC
56	803+95.37	21.97' Lt	PCC
57	803+95.37	18.03' Lt	PCC
58	804+03.69	94.96' Rt	PT
59	804+22.88	82.97' Lt	PT
60	804+38.95	73.53' Rt	PC
61	804+42.11	61.53' Rt	PCC
62	804+44.86	74.57' Rt	PT
63	804+46.00	62.21' Rt	PCC
64	804+80.03	57.35' Lt	PT
65	804+81.11	73.41' Lt	PI
66	804+83.41	55.98' Lt	PT
67	805+02.65	91.95' Lt	PC
68	805+17.59	70.92' Rt	PC
69	805+36.81	107.08' Lt	PCC
70	805+52.06	42.00' Rt	PT
71	805+52.67	6.03' Rt	PCC
72	805+52.67	9.97' Rt	PCC
73	805+65.04	5.00' Rt	PC
74	805+65.04	11.00' Rt	PT
75	805+71.28	66.00' Lt	PC
76	808+19.33	66.00' Lt	PC
77	808+35.00	5.00' Rt	PC
78	808+35.04	11.00' Rt	PC
79	808+44.32	90.80' Lt	PT
80	808+44.60	126.00' Lt	PI

HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
81			NOT USED
82	808+74.56	91.15' Lt	PC
83	808+74.76	126.00' Lt	PI
84	808+78.22	7.73' Rt	PT
85	808+99.56	66.00' Lt	PT
86	809+22.50	8.94' Lt	PRC
87	809+50.00	66.00' Lt	PI
88	810+10.00	22.50' Lt	PT
89	809+88.96	7.02' Rt	PC
90	809+89.26	11.00' Rt	PT
91	810+47.97	22.18' Lt	PC
92	810+48.26	18.21' Lt	PT
93	810+72.50	64.97' Lt	PC
94	810+96.49	9.38' Lt	PC
95	810+97.71	89.85' Lt	PT
96	810+97.88	125.00' Lt	PI
97	811+04.66	11.00' Rt	PC
98	811+06.24	10.22' Rt	PCC
99	811+15.80	20.82' Lt	PCC
100	811+17.41	21.60' Lt	PT
101	811+21.95	125.00' Lt	PI
102	811+21.95	89.35' Lt	PC
103	811+24.85	1.06' Lt	PT
104	811+46.74	64.35' Lt	PT
105	811+50.00	42.00' Rt	PI
106	811+87.63	6.03' Rt	PCC
107	811+87.63	9.97' Rt	PCC
108	812+00.00	5.00' Rt	PC
109	812+00.00	11.00' Rt	PT

HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
110	812+14.63	19.67' Lt	PC
111	812+14.89	15.69' Lt	PT
112	812+80.00	60.98' Lt	PI
113	813+50.00	5.00' Rt	PC
114	814+00.00	11.00' Rt	PC
511	48+76.16	46.00' Lt	PT
512	48+76.16	15.00' Lt	PC
513	48+76.16	9.00' Lt	PT
514	48+76.16	62.00' Rt	PT
515	51+65.00	13.00' Rt	PT

HORIZONTAL CONTROL CURVE SUMMARY TABLE

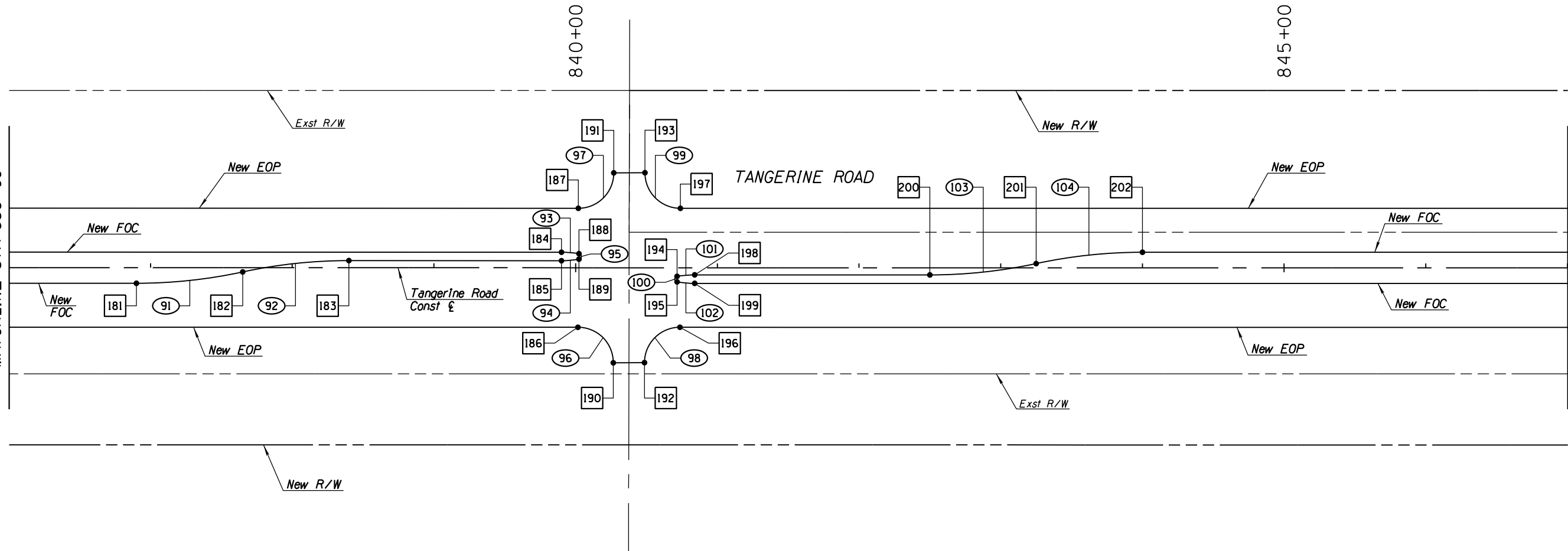
#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
24	75.00	12.43	09°29'40"	6.23
25	75.00	12.43	09°29'40"	6.23
26	35.00	60.96	99°47'06"	41.55
27	2.00	5.62	161°00'39"	11.96
28	35.00	49.00	80°12'54"	29.48
29	75.00	12.43	09°29'40"	6.23
30	2.00	5.62	161°00'39"	11.96
31	75.00	12.43	09°29'40"	6.23
32	75.00	16.13	12°19'22"	8.10
33	2.00	4.59	131°22'49"	4.43
34	65.48	41.48	36°17'49"	21.46
35	35.00	48.87	79°59'40"	29.37
36	35.00	61.09	100°00'20"	41.72
37	2.00	5.62	161°00'39"	11.96

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
38	75.00	12.43	09°29'40"	6.23
39	75.00	12.43	09°29'40"	6.23
40	25.00	39.07	89°32'40"	24.80
41	286.44	43.35	08°40'17"	21.72
42	281.65	88.97	18°05'59"	44.86
43	25.00	39.41	90°19'57"	25.15
44	274.28	88.93	18°34'39"	44.86
45	2.00	5.98	171°19'43"	26.38
46	2.00	5.96	170°51'04"	25.00
47	25.00	39.36	90°12'00"	25.09
48	2.00	1.83	52°28'26"	0.99
49	30.00	23.01	43°56'43"	12.10
50	30.00	22.26	42°30'30"	11.67
51	2.00	1.85	53°05'39"	1.00
52	25.00	39.06	89°31'37"	24.79
53	2.00	5.62	161°00'39"	11.96
54	75.00	12.43	09°29'40"	6.23
55	75.00	12.43	09°29'40"	6.23
56	2.00	5.92	169°33'24"	21.88
57	312.38	75.75	13°53'35"	38.06
302	1006.00	183.00	10°25'20"	91.75
303	975.00	136.78	08°02'17"	68.50
304	969.00	135.94	08°02'17"	68.08
305	898.00	134.59	08°35'15"	67.42
306A	211.33	50.48	13°41'08"	25.36
306B	211.33	50.48	13°41'08"	25.36



SEE SHEET HC05
MATCHLINE STA 836+00



MATCHLINE STA 847+00
SEE SHEET HC07



HORIZONTAL CONTROL POINT SUMMARY TABLE

■	Station	Offset	Description
181	836+90.00	11.00' Rt	PC
182	837+65.00	3.00' Rt	PRC
183	838+40.00	5.00' Lt	PT
184	839+90.00	11.00' Lt	PC
185	839+90.00	5.00' Lt	PT
186	840+01.62	42.00' Rt	PC
187	840+01.90	42.00' Lt	PC
188	840+02.37	9.97' Lt	PCC
189	840+02.37	6.03' Lt	PCC
190	840+26.61	67.05' Rt	PT
191	840+26.90	66.95' Lt	PT
192	840+48.62	66.95' Rt	PC
193	840+48.90	67.05' Lt	PC
194	840+71.63	6.03' Rt	PCC
195	840+71.63	9.97' Rt	PCC
196	840+73.62	42.00' Rt	PT
197	840+73.90	42.00' Lt	PT
198	840+84.00	5.00' Rt	PC
199	840+84.00	11.00' Rt	PT
200	842+50.00	5.00' Rt	PC
201	843+25.00	3.00' Lt	PRC
202	844+00.00	11.00' Lt	PT

HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
91	355.56	75.57	12°10' 37"	37.93
92	355.56	75.57	12°10' 37"	37.93
93	75.00	12.43	09°29' 40"	6.23
94	75.00	12.43	09°29' 40"	6.23
95	2.00	5.62	161°00' 39"	11.96
96	25.00	39.32	90°07' 15"	25.05
97	25.00	39.22	89°52' 45"	24.95
98	25.00	39.22	89°52' 45"	24.95
99	25.00	39.32	90°07' 15"	25.05
100	2.00	5.62	161°00' 39"	11.96
101	75.00	12.43	09°29' 41"	6.23
102	75.00	12.43	09°29' 41"	6.23
103	355.56	75.57	12°10' 37"	37.93
104	355.56	75.57	12°10' 37"	37.93



SCALES:

HORIZ. 1"=40'



SHEET HC06 OF HC23

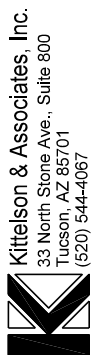
TOWN OF MARANA - PROJECT NO. 2005-061

HORIZONTAL CONTROL

FOR

TANGERINE ROAD

STA 836+00.00 TO STA 847+00.00
TANGERINE ROAD



30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	DATE

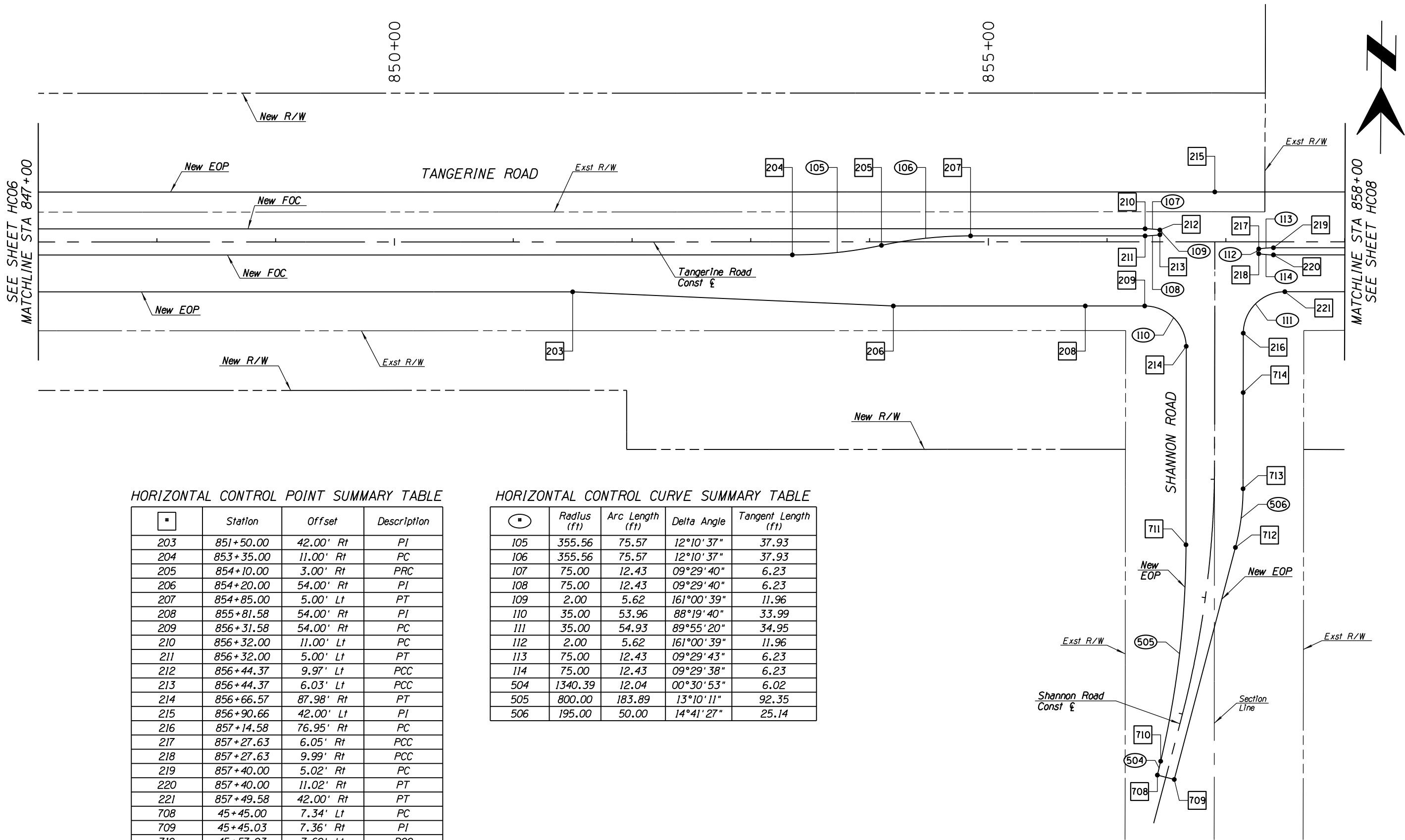
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		02/13
DRAWN	BY	DATE
		02/13
CHECKED	BY	DATE
		02/13
PROJ. ENG.	BY	DATE
		02/13

HORIZONTAL CONTROL POINT SUMMARY TABLE

■	Station	Offset	Description
203	851+50.00	42.00' Rt	PI
204	853+35.00	11.00' Rt	PC
205	854+10.00	3.00' Rt	PRC
206	854+20.00	54.00' Rt	PI
207	854+85.00	5.00' Lt	PT
208	855+81.58	54.00' Rt	PI
209	856+31.58	54.00' Rt	PC
210	856+32.00	11.00' Lt	PC
211	856+32.00	5.00' Lt	PT
212	856+44.37	9.97' Lt	PCC
213	856+44.37	6.03' Lt	PCC
214	856+66.57	87.98' Rt	PT
215	856+90.66	42.00' Lt	PI
216	857+14.58	76.95' Rt	PC
217	857+27.63	6.05' Rt	PCC
218	857+27.63	9.99' Rt	PCC
219	857+40.00	5.02' Rt	PC
220	857+40.00	11.02' Rt	PT
221	857+49.58	42.00' Rt	PT
708	45+45.00	7.34' Lt	PC
709	45+45.03	7.36' Rt	PI
710	45+57.03	7.60' Lt	PCC
711	47+43.05	21.10' Lt	PT
712	47+44.24	20.56' Rt	PC
713	47+92.69	24.29' Rt	PT
714	48+73.07	24.02' Rt	PI

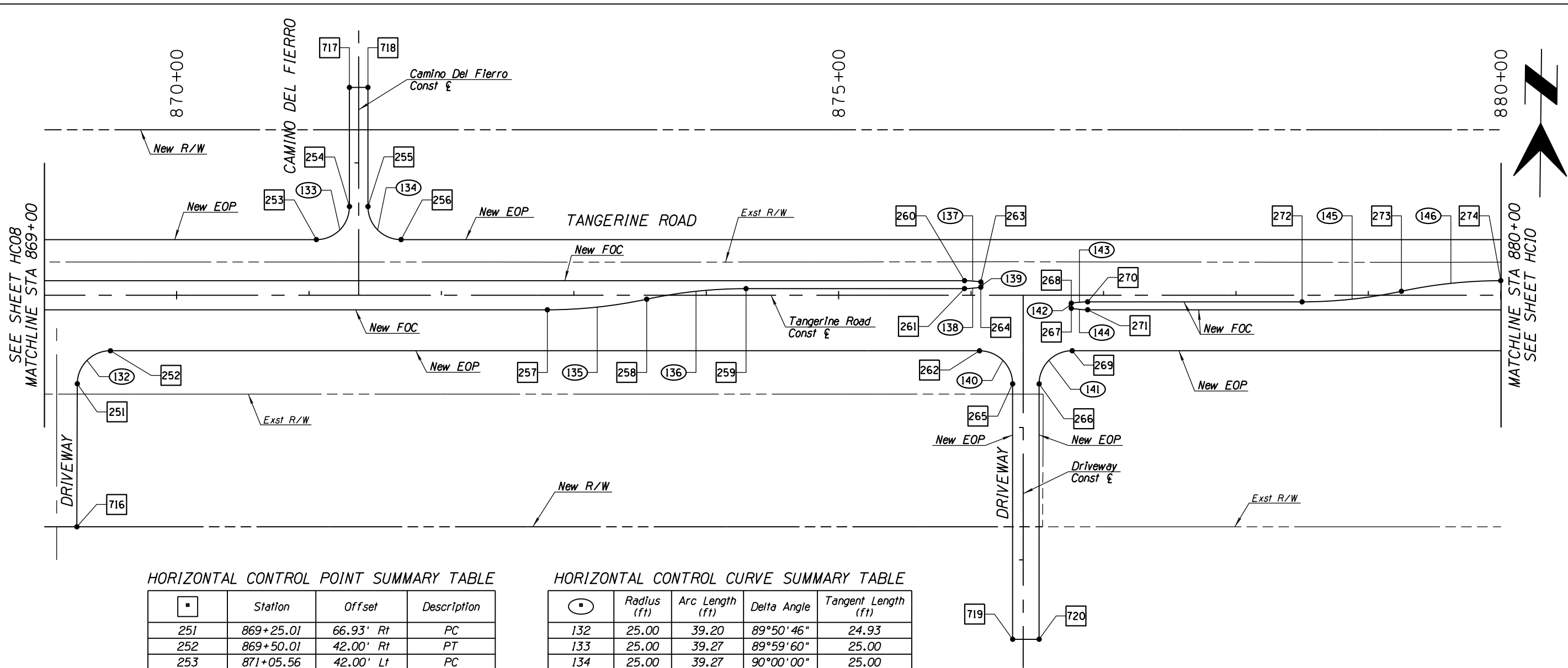
HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
105	355.56	75.57	12°10'37"	37.93
106	355.56	75.57	12°10'37"	37.93
107	75.00	12.43	09°29'40"	6.23
108	75.00	12.43	09°29'40"	6.23
109	2.00	5.62	161°00'39"	11.96
110	35.00	53.96	88°19'40"	33.99
111	35.00	54.93	89°55'20"	34.95
112	2.00	5.62	161°00'39"	11.96
113	75.00	12.43	09°29'43"	6.23
114	75.00	12.43	09°29'38"	6.23
504	1340.39	12.04	00°30'53"	6.02
505	800.00	183.89	13°10'11"	92.35
506	195.00	50.00	14°41'27"	25.14



NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE



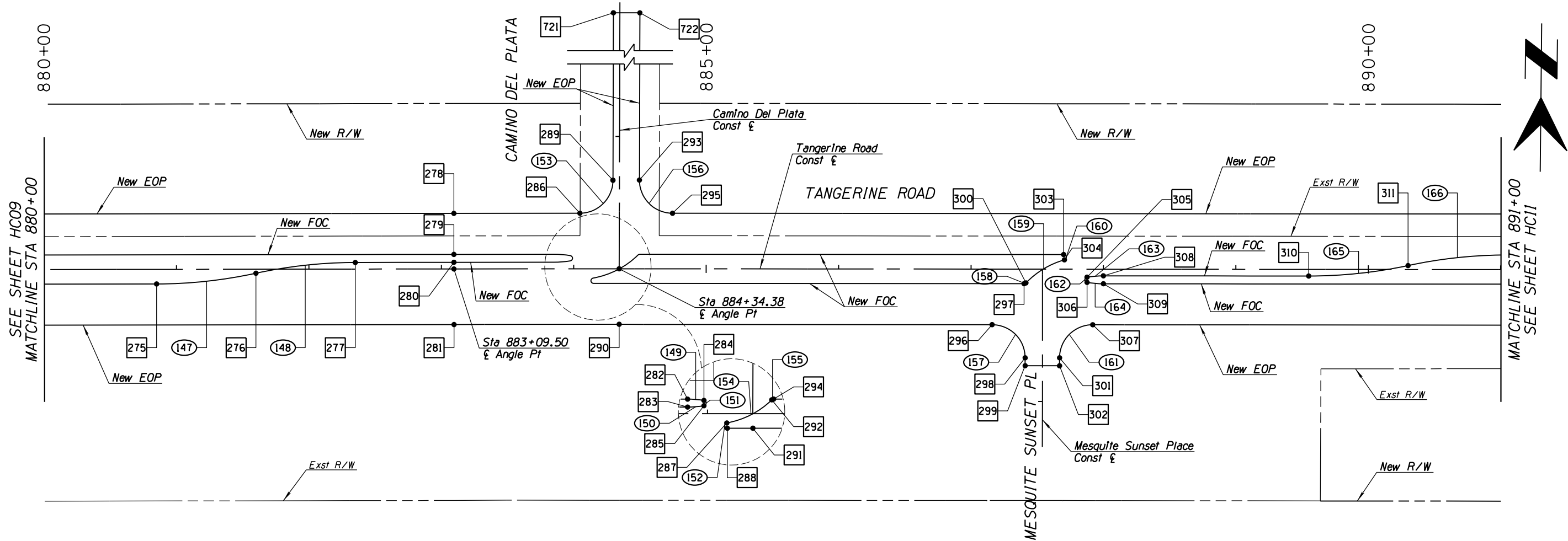
HORIZONTAL CONTROL POINT SUMMARY TABLE

■	Station	Offset	Description
251	869+25.01	66.93' Rt	PC
252	869+50.01	42.00' Rt	PT
253	871+05.56	42.00' Lt	PC
254	871+30.56	67.00' Lt	PT
255	871+44.56	67.00' Lt	PC
256	871+69.56	42.00' Lt	PT
257	872+80.00	11.00' Rt	PC
258	873+55.00	3.00' Rt	PRC
259	874+30.00	5.00' Lt	PT
260	875+95.00	11.00' Lt	PC
261	875+95.00	5.00' Lt	PT
262	876+06.35	42.00' Rt	PC
263	876+07.37	9.97' Lt	PCC
264	876+07.37	6.03' Lt	PCC
265	876+31.35	67.00' Rt	PT
266	876+51.35	67.00' Rt	PC
267	876+75.63	6.03' Rt	PCC
268	876+75.63	9.97' Rt	PCC
269	876+76.35	42.00' Rt	PT
270	876+88.00	5.00' Rt	PC
271	876+88.00	11.00' Rt	PT
272	878+50.00	5.00' Rt	PC
273	879+25.00	3.00' Lt	PRC
274	880+00.00	11.00' Lt	PT
716	869+24.72	175.00 Rt	PI
717	51+57.00	7.00' Lt	PI
718	51+57.00	7.00' Rt	PI
719	47+40.00	8.00' Lt	PI
720	47+40.00	12.00' Rt	PI

HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
132	25.00	39.20	89°50'46"	24.93
133	25.00	39.27	89°59'60"	25.00
134	25.00	39.27	90°00'00"	25.00
135	355.56	75.57	12°10'37"	37.93
136	355.56	75.57	12°10'37"	37.93
137	75.00	12.43	09°29'40"	6.23
138	75.00	12.43	09°29'40"	6.23
139	2.00	5.62	161°00'39"	11.96
140	25.00	39.27	90°00'00"	25.00
141	25.00	39.27	90°00'00"	25.00
142	2.00	5.62	161°00'39"	11.96
143	75.00	12.43	09°29'40"	6.23
144	75.00	12.43	09°29'40"	6.23
145	355.56	75.57	12°10'37"	37.93
146	355.56	75.57	12°10'37"	37.93





HORIZONTAL CONTROL POINT SUMMARY TABLE

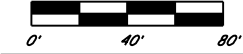
#	Station	Offset	Description
275	880+85.00	11.00' Rt	PC
276	881+60.00	3.00' Rt	PRC
277	882+35.00	5.00' Lt	PT
278	883+09.50	42.00' Lt	PI
279	883+09.50	11.00' Lt	PI
280	883+09.50	5.00' Lt	PI
281	883+09.51	42.00' Rt	PI
282	883+85.00	11.00' Lt	PC
283	883+85.00	5.00' Lt	PT
284	883+97.37	9.97' Lt	PCC
285	883+97.37	6.03' Lt	PCC
286	884+04.66	42.00' Lt	PC
287	884+14.65	7.03' Rt	PCC
288	884+15.00	11.00' Rt	PC
289	884+29.66	66.91' Lt	PT
290	884+34.29	42.00' Rt	PI
291	884+34.34	11.00' Rt	PI
292	884+48.57	10.43' Lt	PCC
293	884+49.53	67.04' Lt	PC
294	884+49.97	11.00' Lt	PT
295	884+74.53	42.00' Lt	PT
296	887+15.95	42.00' Rt	PC
297	887+40.06	11.00' Rt	PC
298	887+40.95	67.00' Rt	PT
299	887+40.95	73.00' Rt	PI
300	887+41.51	10.39' Rt	PI
301	887+66.95	67.00' Rt	PCC
302	887+66.95	73.00' Rt	PI
303	887+70.00	11.00' Lt	PT

HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
304	887+70.55	7.08' Lt	PCC
305	887+87.63	6.03' Rt	PCC
306	887+87.63	9.97' Rt	PCC
307	887+91.95	42.00' Rt	PT
308	888+00.00	5.00' Rt	PC
309	888+00.00	11.00' Rt	PT
310	889+55.00	5.00' Rt	PC
311	890+30.00	3.00' Lt	PRC
721	52+60.00	4.98' Lt	PI
722	52+60.00	15.02' Rt	PI

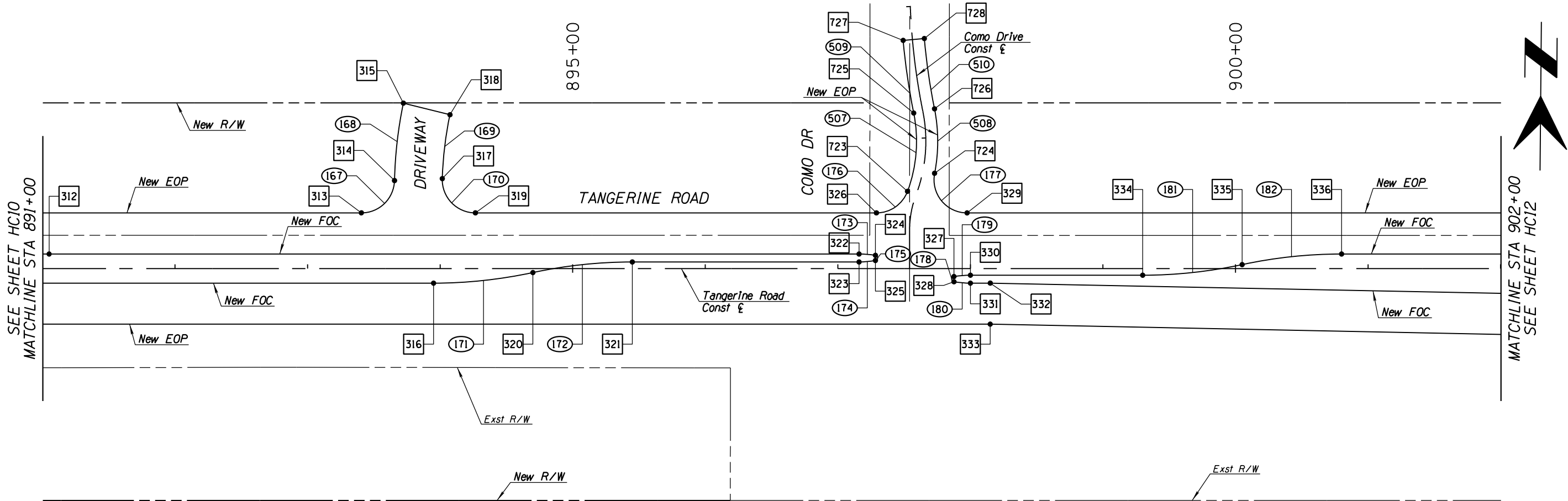
HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
147	355.56	75.57	12°10'37"	37.93
148	355.56	75.57	12°10'37"	37.93
149	75.00	12.43	09°29'40"	6.23
150	75.00	12.43	09°29'40"	6.23
151	2.00	5.62	161°00'39"	11.96
152	2.00	5.93	169°53'08"	22.60
153	25.00	39.18	89°47'32"	24.91
154	65.00	38.73	34°08'19"	19.96
155	2.00	1.55	44°21'58"	0.82
156	25.00	39.31	90°05'41"	25.04
157	25.00	39.27	90°00'00"	25.00
158	2.00	1.61	46°07'40"	0.85
159	65.00	34.28	30°13'16"	17.55
160	2.00	5.73	164°05'35"	14.32
161	25.00	39.27	89°59'60"	25.00
162	2.00	5.62	161°00'39"	11.96
163	75.00	12.43	09°29'40"	6.23
164	75.00	12.43	09°29'40"	6.23
165	355.56	75.57	12°10'37"	37.93
166	355.56	75.57	12°10'37"	37.93



DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	02/13	02/13	02/13	02/13
	02/13	02/13	02/13	02/13

NO.	REVISION DESCRIPTION	DATE	DATE	DATE



HORIZONTAL CONTROL POINT SUMMARY TABLE

□	Station	Offset	Description
312	891+05.00	11.00' Lt	PT
313	893+40.58	42.00' Lt	PC
314	893+65.57	66.41' Lt	PCC
315	893+72.27	124.82' Lt	PT
316	893+95.00	11.00' Rt	PC
317	894+01.61	67.83' Lt	PCC
318	894+07.41	116.06' Lt	PC
319	894+26.60	42.00' Lt	PT
320	894+70.00	3.00' Rt	PRC
321	895+45.00	5.00' Lt	PT
322	897+16.00	11.00' Lt	PC
323	897+16.00	5.00' Lt	PT
324	897+28.37	9.97' Lt	PCC
325	897+28.37	6.03' Lt	PCC
326	897+29.14	42.00' Lt	PC
327	897+87.63	6.03' Rt	PCC
328	897+87.63	9.97' Rt	PCC
329	897+97.53	42.00' Lt	PT
330	898+00.00	5.00' Rt	PC
331	898+00.00	11.00' Rt	PT
332	898+15.00	11.00' Rt	PI
333	898+15.00	42.00' Rt	PI
334	899+30.00	5.00' Rt	PC
335	900+05.00	3.00' Lt	PRC
336	900+80.00	11.00' Lt	PT
723	50+56.41	7.00' Lt	PCC
724	50+74.96	9.00' Rt	PCC
725	51+20.34	7.00' Lt	PCC
726	51+20.34	9.00' Rt	PRC
727	51+75.00	7.00' Lt	PT
728	51+75.00	9.00' Rt	PC

HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
167	25.00	38.68	88°38'53"	24.42
168	324.59	58.88	10°23'32"	29.52
169	281.62	48.64	09°53'46"	24.38
170	25.00	40.10	91°53'55"	25.84
171	355.56	75.57	12°10'37"	37.93
172	355.56	75.57	12°10'37"	37.93
173	75.00	12.43	09°29'40"	6.23
174	75.00	12.43	09°29'40"	6.23
175	2.00	5.62	161°00'39"	11.96
176	25.00	30.33	69°30'31"	17.35
177	25.00	44.17	101°14'20"	30.46
178	2.00	5.62	161°00'39"	11.96
179	75.00	12.43	09°29'40"	6.23
180	75.00	12.43	09°29'40"	6.23
181	355.56	75.57	12°10'37"	37.93
182	355.56	75.57	12°10'37"	37.93
507	107.90	60.04	31°52'58"	30.82
508	123.90	48.94	22°37'50"	24.79
509	507.00	55.42	06°15'47"	27.74
510	491.00	53.67	06°15'47"	26.86

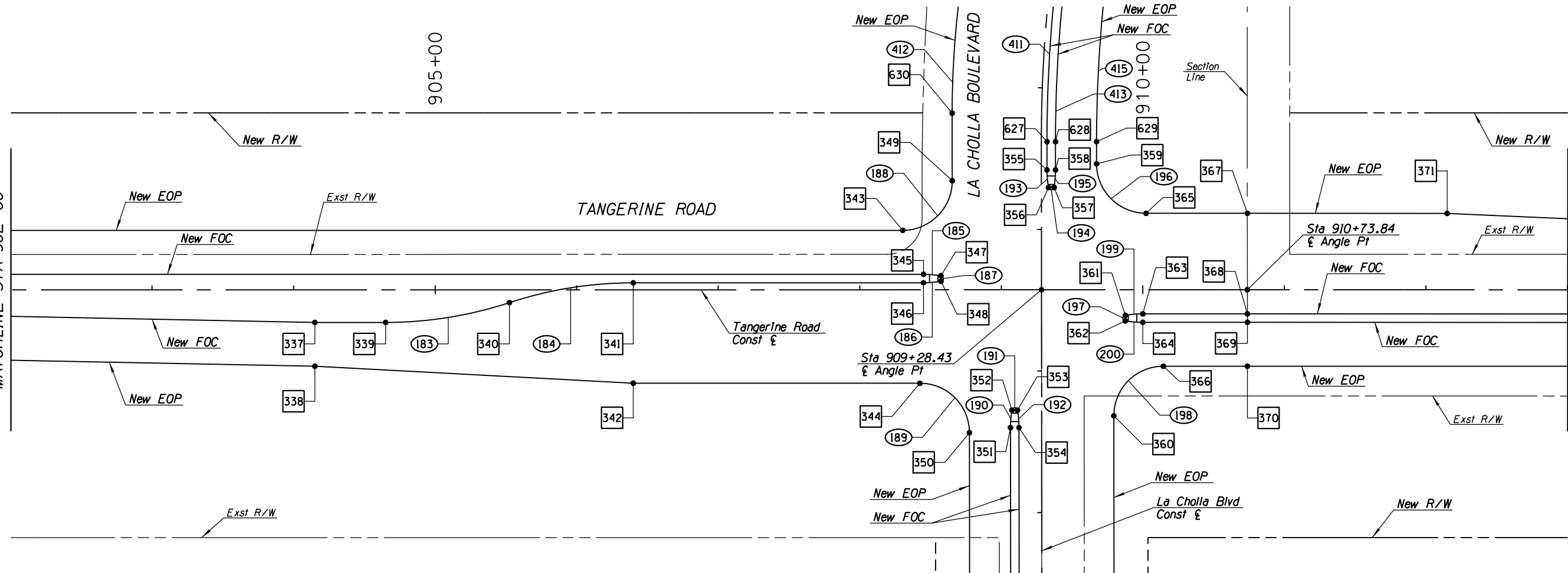


NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13				
02/13				
02/13				

SEE SHEET HC11
MATCHLINE STA 902+00



MATCHLINE STA 913+00
SEE SHEET HC13



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
337	904+15.00	23.00' Rt	PI
338	904+15.00	54.00' Rt	PI
339	904+65.00	23.00' Rt	PC
340	905+52.50	9.00' Rt	PRC
341	906+40.00	5.00' Lt	PT
342	906+40.00	66.00' Rt	PI
343	908+30.33	42.00' Lt	PC
344	908+42.51	66.00' Rt	PC
345	908+45.00	11.00' Lt	PC
346	908+45.00	5.00' Lt	PT
347	908+57.37	9.97' Lt	PCC
348	908+57.37	6.03' Lt	PCC
349	908+65.33	77.03' Lt	PT
350	908+77.51	100.97' Rt	PT
351	909+06.50	97.37' Rt	PC
352	909+07.52	84.99' Rt	PCC
353	909+11.46	84.99' Rt	PCC
354	909+12.50	97.36' Rt	PT
355	909+32.34	84.66' Lt	PT
356	909+33.38	72.29' Lt	PCC
357	909+37.32	72.29' Lt	PCC
358	909+38.34	84.66' Lt	PC
359	909+67.34	88.97' Lt	PT
360	909+79.48	89.03' Rt	PC
361	909+87.63	18.03' Rt	PCC
362	909+87.63	21.97' Rt	PCC
363	910+00.00	17.00' Rt	PC
364	910+00.00	23.00' Rt	PT
365	910+02.34	54.00' Lt	PC

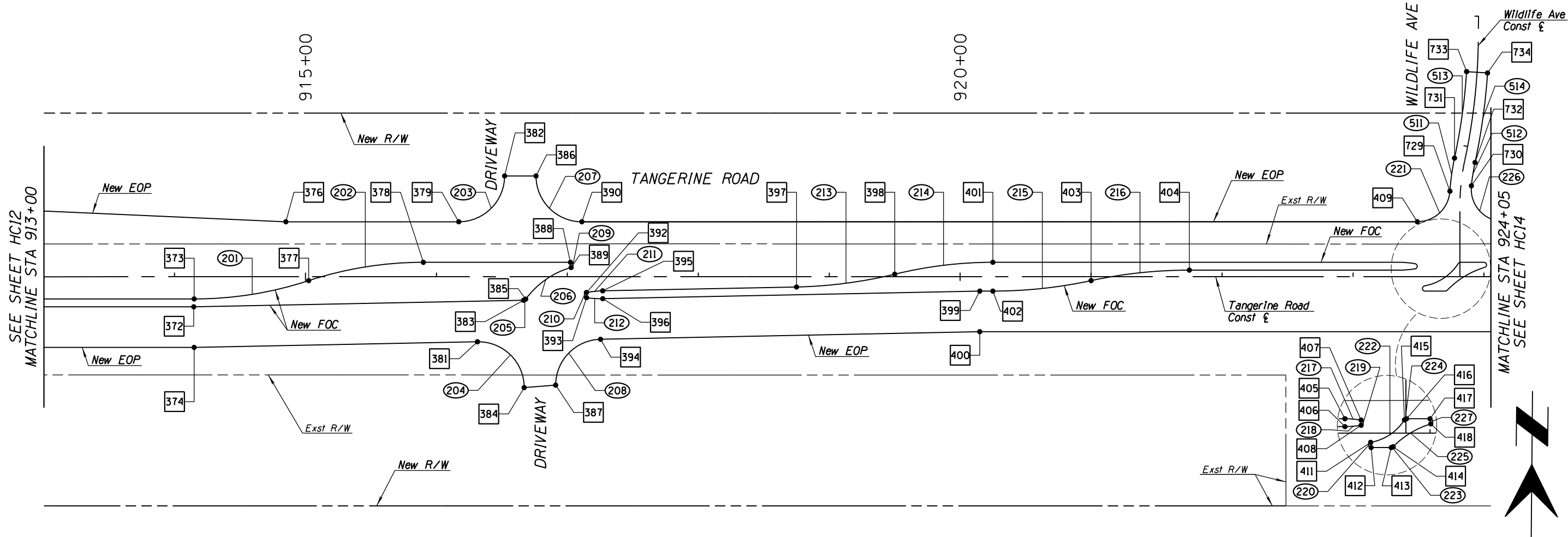
HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
366	910+14.48	54.00' Rt	PT
367	910+73.84	54.00' Lt	PI
368	910+73.84	17.00' Rt	PI
369	910+73.85	23.00' Rt	PI
370	910+73.86	54.00' Rt	PI
371	912+15.00	54.00' Lt	PI
627	543+61.94	4.00' Rt	PC
628	543+61.94	10.00' Rt	PC
629	543+61.94	39.00' Rt	PC
630	543+80.96	63.19' Lt	PC

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
183	280.44	88.99	18°10'50"	44.87
184	280.44	88.99	18°10'50"	44.87
185	75.00	12.43	09°29'40"	6.23
186	75.00	12.43	09°29'40"	6.23
187	2.00	5.62	161°00'39"	11.96
188	35.00	55.01	90°03'24"	35.03
189	35.00	54.94	89°56'36"	34.97
190	75.00	12.43	09°29'40"	6.23
191	2.00	5.62	161°00'39"	11.96
192	75.00	12.43	09°29'40"	6.23
193	75.00	12.43	09°29'40"	6.23
194	2.00	5.62	161°00'39"	11.96
195	75.00	12.43	09°29'40"	6.23
196	35.00	54.95	89°57'20"	34.97
197	2.00	5.62	161°00'39"	11.96
198	35.00	55.01	90°02'40"	35.03
199	75.00	12.43	09°29'40"	6.23
200	75.00	12.43	09°29'40"	6.23
411	996.00	123.51	07°06'18"	61.83
412	640.00	216.05	19°20'29"	109.06
413	990.00	254.77	14°44'41"	128.09
415	961.00	324.41	19°20'29"	163.76





HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
372	914+14.69	23.00' Rt	PCC
373	914+15.00	17.00' Rt	PC
374	914+15.00	54.00' Rt	PI
375			NOT USED
376	914+85.00	42.00' Lt	PI
377	915+02.50	3.00' Rt	PRC
378	915+90.00	11.00' Lt	PT
379	916+17.07	42.00' Lt	PC
380			NOT USED
381	916+31.35	49.67' Rt	PC
382	916+52.07	77.00' Lt	PT
383	916+66.59	17.96' Rt	PT
384	916+67.05	84.66' Rt	PT
385	916+68.17	17.14' Rt	PC
386	916+76.07	77.00' Lt	PCC
387	916+91.05	82.79' Rt	PC
388	917+02.33	11.00' Lt	PC
389	917+02.88	7.08' Lt	PCC
390	917+11.07	42.00' Lt	PT
391			NOT USED
392	917+14.59	12.04' Rt	PCC
393	917+14.67	15.99' Rt	PCC
394	917+25.35	47.79' Rt	PT
395	917+27.00	10.76' Rt	PC
396	917+27.00	16.76' Rt	PT
397	918+75.00	7.80' Rt	PC
398	919+50.00	1.98' Lt	PRC
399	920+15.00	11.00' Rt	PI
400	920+15.00	42.00' Rt	PI

HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
401	920+25.00	11.00' Lt	PT
402	920+25.00	11.00' Rt	PC
403	921+00.00	3.00' Rt	PRC
404	921+75.00	5.00' Lt	PT
405	923+35.00	11.00' Lt	PC
406	923+35.00	5.00' Lt	PT
407	923+47.37	9.97' Lt	PCC
408	923+47.37	6.03' Lt	PCC
409	923+49.06	42.00' Lt	PC
410			NOT USED
411	923+54.65	7.03' Rt	PCC
412	923+55.00	11.00' Rt	PC
413	923+70.38	11.00' Rt	PC
414	923+71.82	10.39' Rt	PCC
415	923+80.44	10.09' Lt	PCC
416	923+82.12	11.00' Lt	PT
417	924+00.00	11.00' Lt	PT
418	924+00.57	7.08' Lt	PCC
729	50+64.86	8.00' Lt	PCC
730	50+70.33	8.00' Rt	PCC
731	50+89.23	8.00' Lt	PRC
732	50+89.23	8.00' Rt	PRC
733	51+57.15	8.00' Lt	PT
734	51+57.15	8.00' Rt	PC

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
201	280.44	88.99	18°10'50"	44.87
202	280.44	88.99	18°10'50"	44.87
203	35.00	54.98	89°59'54"	35.00
204	35.00	55.67	91°08'14"	35.70
205	2.00	1.84	52°45'42"	0.99
206	65.00	43.11	38°00'01"	22.38
207	35.00	54.98	90°00'06"	35.00
208	35.00	54.28	88°51'46"	34.31
209	2.00	5.73	164°05'35"	14.32
210	2.00	5.62	161°00'40"	11.96
211	75.00	12.49	09°32'32"	6.26
212	75.00	12.37	09°26'48"	6.20
213	345.50	75.78	12°34'03"	38.04
214	316.40	75.72	13°42'46"	38.04
215	355.56	75.57	12°10'37"	37.93
216	355.56	75.57	12°10'37"	37.93
217	75.00	12.43	09°29'40"	6.23
218	75.00	12.43	09°29'40"	6.23
219	2.00	5.62	161°00'39"	11.96
220	2.00	5.93	169°48'36"	22.43
221	25.00	37.61	86°11'41"	23.39
222	39.00	31.84	46°46'13"	16.87
223	2.00	1.60	45°55'04"	0.85
224	2.00	1.99	56°57'36"	1.09
225	66.62	34.02	29°15'26"	17.39
226	25.00	41.75	95°40'58"	27.61
227	2.00	5.70	163°20'22"	13.66

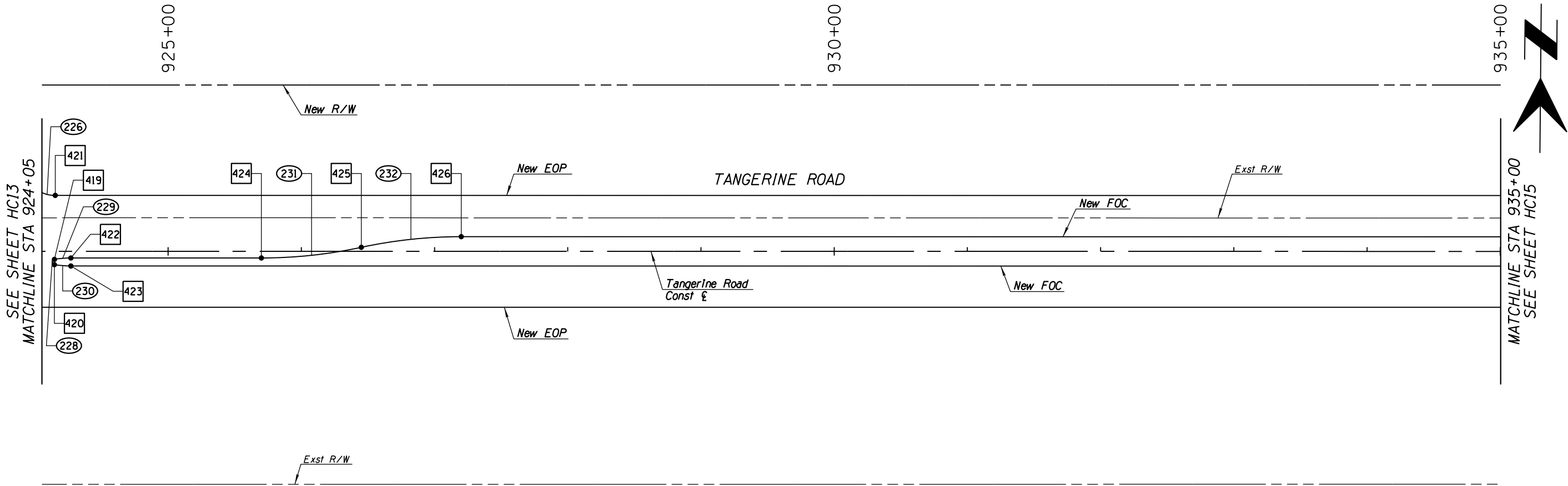
HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
511	175.16	25.54	08°21'13"	12.79
512	159.16	17.99	06°28'35"	9.00
513	453.42	66.74	08°26'01"	33.43
514	469.42	69.10	08°26'01"	34.61



NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13				
02/13				
02/13				



HORIZONTAL CONTROL POINT SUMMARY TABLE

<div>■</div>	Station	Offset	Description
419	924+14.63	6.03' Rt	PCC
420	924+14.63	9.97' Rt	PCC
421	924+15.28	42.00' Lt	PT
422	924+27.00	5.00' Rt	PC
423	924+27.00	11.00' Rt	PT
424	925+70.00	5.00' Rt	PC
425	926+45.00	3.00' Lt	PRC
426	927+20.00	11.00' Lt	PT

HORIZONTAL CONTROL CURVE SUMMARY TABLE

<div>○</div>	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
226	25.00	41.75	95°40'58"	27.61
228	2.00	5.62	161°00'39"	11.96
229	75.00	12.43	09°29'40"	6.23
230	75.00	12.43	09°29'40"	6.23
231	355.56	75.57	12°10'37"	37.93
232	355.56	75.57	12°10'37"	37.93



SCALES:

HORIZ. 1"=40'



SHEET HC14 OF HC23

TOWN OF MARANA - PROJECT NO. 2005-061

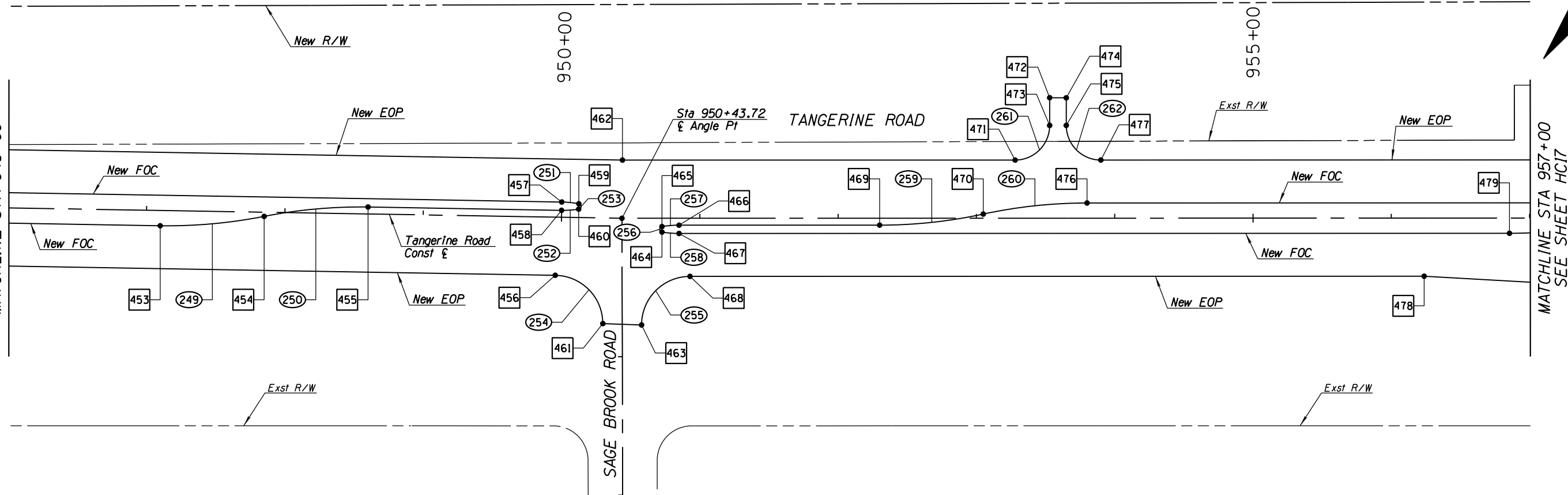
HORIZONTAL CONTROL
FOR
TANGERINE ROAD
STA 924+05.00 TO STA 935+00.00
TANGERINE ROAD



30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	DESIGNED BY	CHECKED BY	PROJ. ENG.	DATE	DATE

SEE SHEET HC15
MATCHLINE STA 946+00



HORIZONTAL CONTROL POINT SUMMARY TABLE

■	Station	Offset	Description
453	947+10.00	11.00' Rt	PC
454	947+85.00	3.00' Rt	PRC
455	948+60.00	5.00' Lt	PT
456	949+96.22	42.00' Rt	PC
457	950+00.00	11.00' Lt	PC
458	950+00.00	5.00' Lt	PT
459	950+12.37	9.97' Lt	PCC
460	950+12.37	6.03' Lt	PCC
461	950+31.21	76.31' Rt	PT
462	950+44.07	42.00' Lt	PI
463	950+57.91	77.09' Rt	PC
464	950+72.63	6.03' Rt	PCC
465	950+72.63	9.97' Rt	PCC
466	950+85.00	5.00' Rt	PC
467	950+85.00	11.00' Rt	PT
468	950+92.91	42.00' Rt	PT
469	952+30.00	5.00' Rt	PC
470	953+05.00	3.00' Lt	PRC
471	953+27.99	42.00' Lt	PC
472	953+52.99	87.04' Lt	PI
473	953+52.99	67.00' Lt	PT
474	953+64.99	86.96' Lt	PI
475	953+64.99	67.00' Lt	PC
476	953+80.00	11.00' Lt	PT
477	953+89.99	42.00' Lt	PT
478	956+23.69	42.00' Rt	PI
479	956+85.43	11.00' Rt	PC

HORIZONTAL CONTROL CURVE SUMMARY TABLE

○	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
249	355.56	75.57	12°10' 37"	37.93
250	355.56	75.57	12°10' 37"	37.93
251	75.00	12.43	09°29' 40"	6.23
252	75.00	12.43	09°29' 40"	6.23
253	2.00	5.62	161°00' 39"	11.96
254	35.00	54.29	88°52' 35"	34.32
255	35.00	55.07	90°08' 50"	35.09
256	2.00	5.62	161°00' 39"	11.96
257	75.00	12.43	09°29' 40"	6.23
258	75.00	12.43	09°29' 40"	6.23
259	355.56	75.57	12°10' 37"	37.93
260	355.56	75.57	12°10' 37"	37.93
261	25.00	39.27	90°00' 00"	25.00
262	25.00	39.27	89°59' 60"	25.00

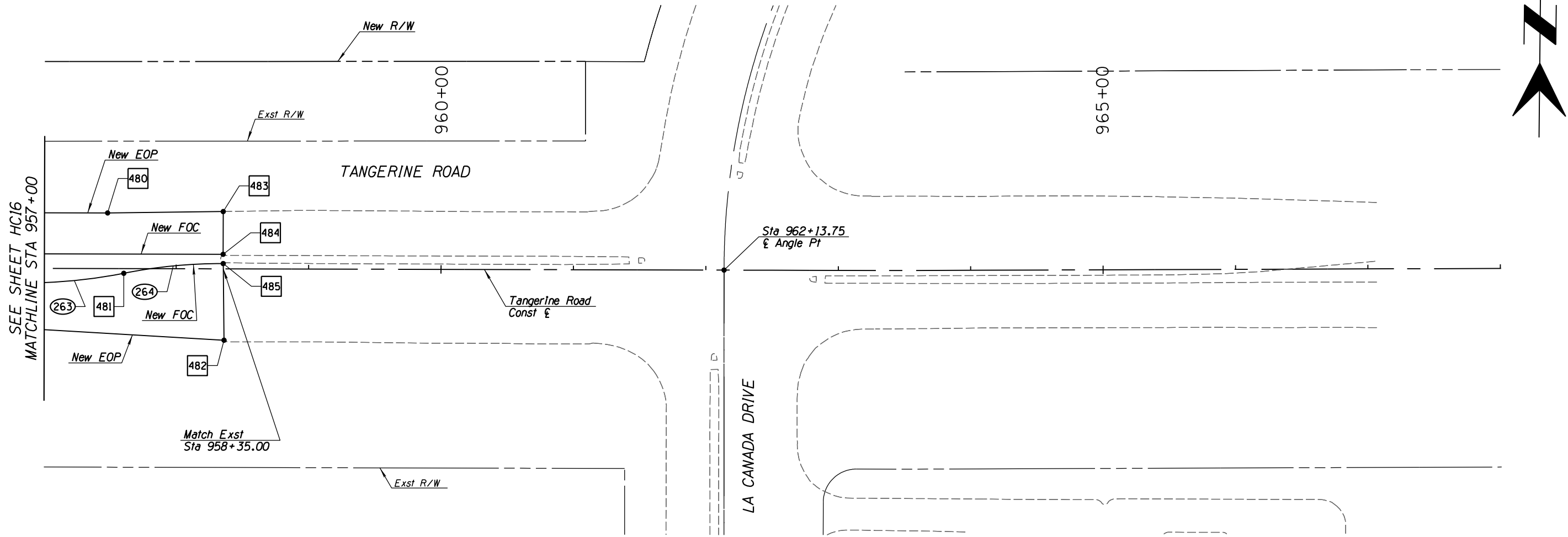


SCALES: HORIZ. 1"=40'



NO.	REVISION DESCRIPTION	DATE	BY	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE



HORIZONTAL CONTROL POINT SUMMARY TABLE

<div>▪</div>	Station	Offset	Description
480	957+48.12	42.00' Lt	PI
481	957+60.47	3.50' Rt	PRC
482	958+36.28	53.89' Rt	PI
483	958+35.43	43.30' Lt	PI
484	958+35.43	11.00' Lt	PI
485	958+35.52	4.00' Lt	PT

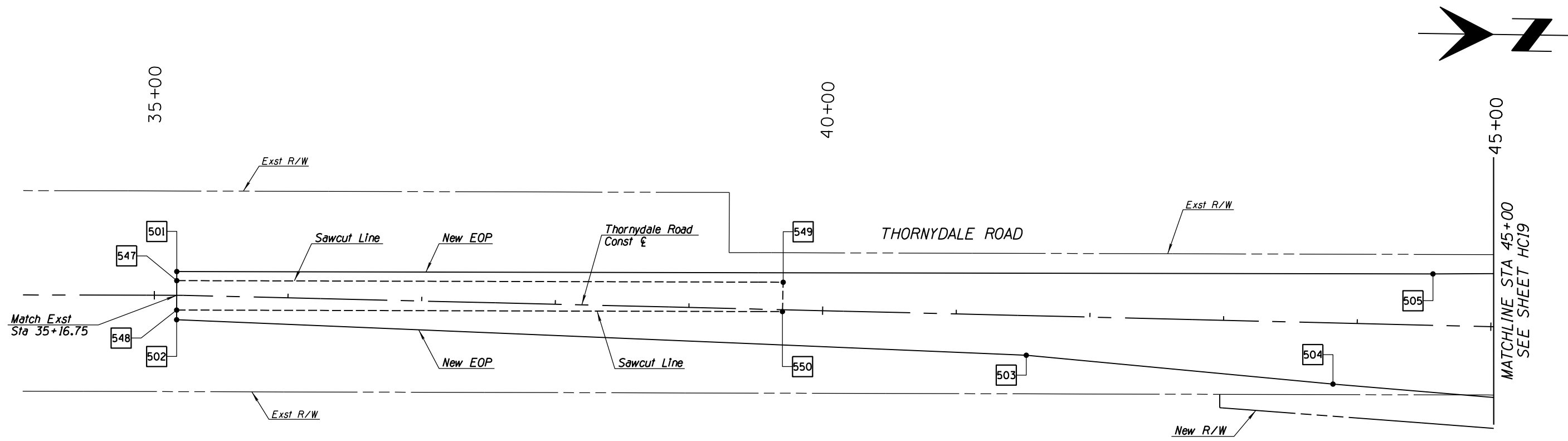
HORIZONTAL CONTROL CURVE SUMMARY TABLE

<div>○</div>	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
263	379.12	75.54	11°24'59"	37.90
264	379.13	75.55	11°25'02"	37.90



NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED BY	DATE	CHECKED BY	DATE
DRN	02/13	MDA	02/13
PROJ. ENG.	02/13	MDA	02/13



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
501	35+16.75	17.77' Lt	PI
502	35+16.75	18.24' Rt	PI
503	41+53.14	29.61' Rt	PI
504	43+82.92	45.68' Rt	PI
505	44+55.77	38.39' Lt	PI
547	35+16.75	11.00' Lt	PI
548	35+16.75	11.00' Rt	PI
549	39+70.00	20.59' Lt	PI
550	39+70.00	1.42' Rt	PI



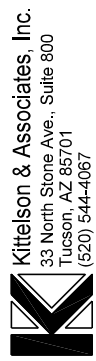
SCALES: HORIZ. 1"=40'

SHEET HC18 OF HC23



TOWN OF MARANA - PROJECT NO. 2005-061

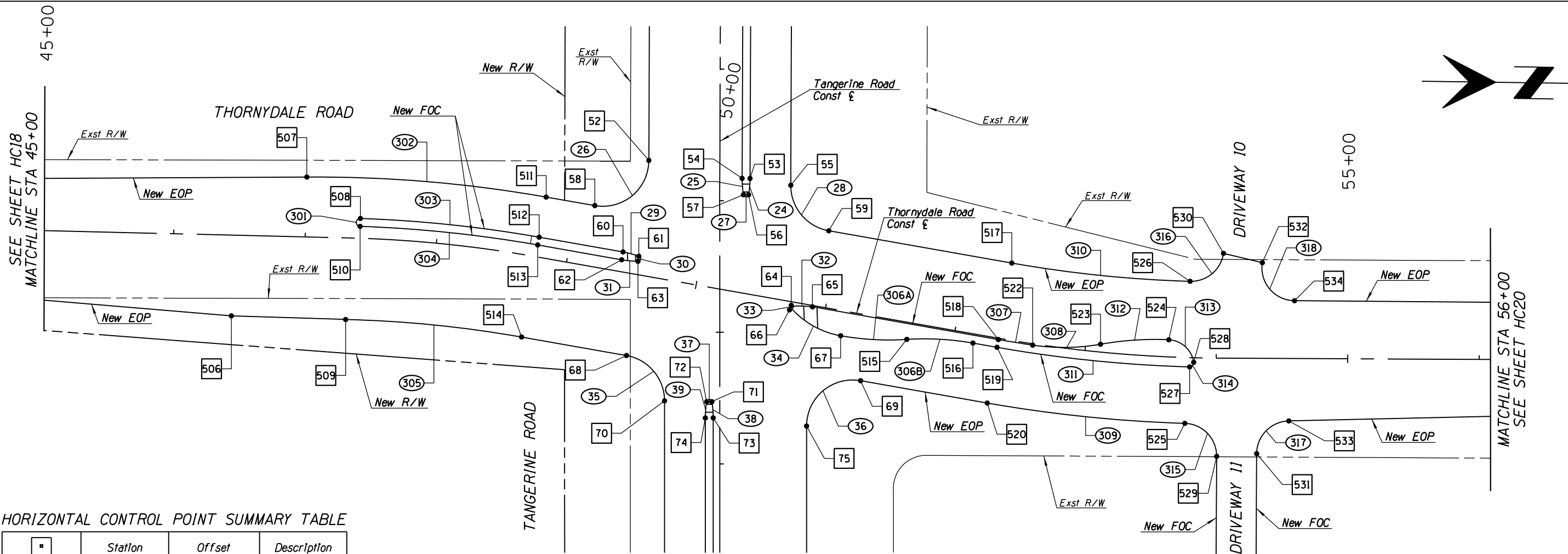
HORIZONTAL CONTROL
FOR
TANGERINE ROAD
STA 35+15.00 TO STA 45+00.00
THORNYDALE ROAD



30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED:	DATE
	02/13
DRAWN:	DATE
	02/13
CHECKED:	DATE
	02/13
PROJ. ENG.:	DATE
	02/13



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
506	46+45.28	61.34' Rt	PI
507	47+00.09	45.50' Lt	PC
508	47+41.48	15.00' Lt	PCC
509	47+32.28	62.00' Rt	PC
510	47+41.48	9.00' Lt	PCC
511	48+76.16	46.00' Lt	PT
512	48+76.16	15.00' Lt	PC
513	48+76.16	9.00' Lt	PT
514	48+76.16	62.00' Rt	PT
515	51+65.00	13.00' Rt	PRC
516	52+15.00	7.00' Rt	PC
517	52+33.63	58.00' Lt	PC
518	52+33.63	1.00' Rt	PT
519	52+33.63	7.00' Rt	PC
520	52+33.63	50.00' Rt	PC
521			NOT USED
522	52+60.00	1.00' Rt	PCC
523	53+11.32	5.98' Lt	PCC
524	53+63.36	13.00' Lt	PCC
525	53+77.61	50.00' Rt	PCC
526	53+78.39	58.00' Lt	PCC
527	53+80.00	7.00' Rt	PCC
528	53+82.95	3.50' Rt	PCC
529	54+00.86	74.66' Rt	PT
530	54+05.15	79.63' Lt	PT
531	54+31.13	72.44' Rt	PC
532	54+34.70	72.73' Lt	PC
533	54+55.44	47.45' Rt	PT
534	54+59.34	43.93' Lt	PT
739	48+00.00	15.00' Lt	PI
740	48+00.00	15.41' Rt	PI

HORIZONTAL CONTROL POINT SUMMARY TABLE

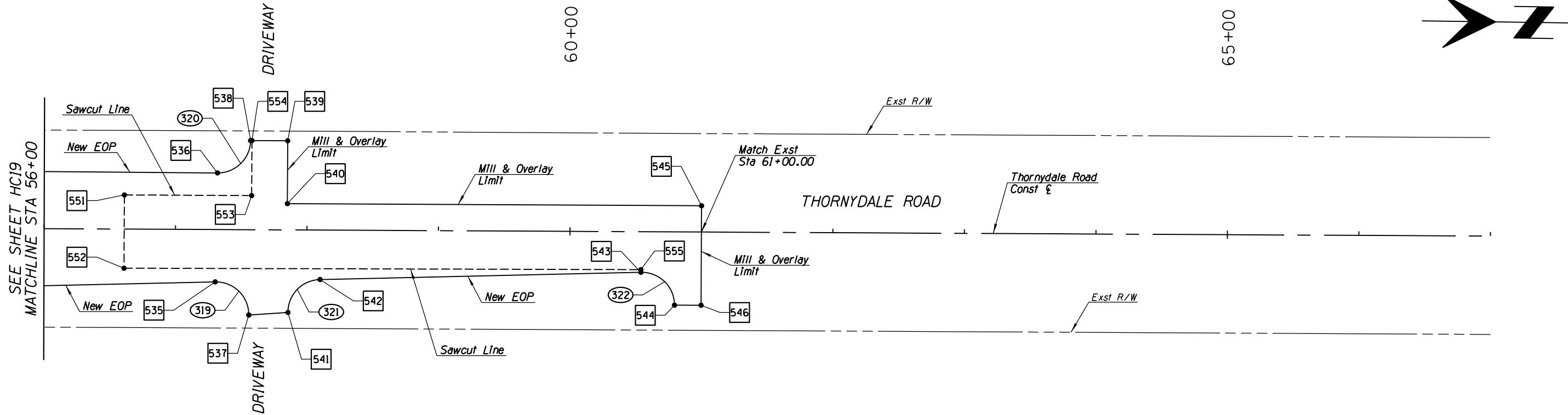
#	Station	Offset	Description
52	49+48.23	86.95' Lt	PC
53	50+26.40	86.79' Lt	PC
54	50+20.49	85.77' Lt	PT
55	50+57.81	87.05' Lt	PC
56	50+27.49	74.42' Lt	PCC
57	50+23.60	73.75' Lt	PCC
58	49+13.74	46.00' Lt	PT
59	50+92.30	58.00' Lt	PT
60	49+40.97	15.00' Lt	PC
61	49+53.34	13.97' Lt	PCC
62	49+40.97	9.00' Lt	PT
63	49+53.34	10.03' Lt	PCC
64	50+76.99	2.73' Rt	PCC
65	50+93.00	1.00' Rt	PT
66	50+76.24	6.29' Rt	PCC
67	51+15.00	19.00' Rt	PCC
68	49+57.20	62.00' Rt	PC
69	51+35.83	50.00' Rt	PC
70	49+91.67	90.92' Rt	PT
71	50+27.20	85.27' Rt	PCC
72	50+23.31	85.95' Rt	PCC
73	50+30.36	97.27' Rt	PC
74	50+24.45	98.31' Rt	PT
75	51+01.37	91.08' Rt	PT

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
301	3.00	9.42	180°00'00"	N/A
302	1006.00	183.00	10°25'20"	91.75
303	975.00	136.78	08°02'17"	68.50
304	969.00	135.94	08°02'17"	68.08
305	898.00	134.59	08°35'15"	67.42
306A	211.33	50.48	13°41'08"	25.36
306B	211.33	50.48	13°41'08"	25.36
307	1001.00	26.40	01°30'39"	13.20
308	161.05	51.88	18°27'24"	26.17
309	1050.00	151.18	08°14'57"	75.72
310	942.00	136.37	08°17'40"	68.30
311	1007.00	147.40	08°23'11"	73.83
312	238.26	52.12	12°32'05"	26.17
313	20.00	27.70	79°21'34"	16.59
314	3.00	5.22	99°41'14"	3.56
315	25.00	38.64	88°33'24"	24.38
316	25.00	36.22	83°00'54"	22.12
317	25.00	38.58	88°24'50"	24.32
318	25.00	43.01	98°33'59"	29.05

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
24	75.00	12.43	09°29'40"	6.23
25	75.00	12.43	09°29'40"	6.23
26	35.00	60.96	99°47'06"	41.55
27	2.00	5.62	161°00'39"	11.96
28	35.00	49.00	80°12'54"	29.48
29	75.00	12.43	09°29'40"	6.23
30	2.00	5.62	161°00'39"	11.96
31	75.00	12.43	09°29'40"	6.23
32	75.00	16.13	12°19'22"	8.10
33	2.00	4.67	133°54'19"	4.70
34	75.00	44.21	33°46'18"	22.77
35	35.00	48.87	79°59'40"	29.37
36	35.00	61.09	100°00'20"	41.72
37	2.00	5.62	161°00'39"	11.96
38	75.00	12.43	09°29'40"	6.23
39	75.00	12.43	09°29'40"	6.23



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
535	57+30.39	39.83' Rt	PC
536	57+31.73	43.11' Lt	PC
537	57+56.08	64.91' Rt	PT
538	57+56.80	67.89' Lt	PT
539	57+85.00	67.89' Lt	PI
540	57+85.00	20.00' Lt	PI
541	57+85.84	62.82' Rt	PC
542	58+10.14	37.62' Rt	PT
543	60+54.11	30.87' Rt	PC
544	60+79.80	55.77' Rt	PT
545	61+00.00	20.00' Lt	PI
546	61+00.00	55.77' Rt	PI
551	56+61.00	26.00' Lt	PI
552	56+61.00	29.75' Rt	PI
553	57+57.80	26.00' Lt	PI
554	57+57.80	67.89' Lt	PI
555	60+54.08	28.87' Rt	PI

HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
319	25.00	40.05	91°47'56"	25.80
320	25.00	39.12	89°39'48"	24.85
321	25.00	38.78	88°53'18"	24.52
322	25.00	39.88	91°23'46"	25.62

0'40'80'

Two working days before you dig.
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Blue Stake Center
CALL COLLECT

SCALES:

HORIZ. 1"=40'

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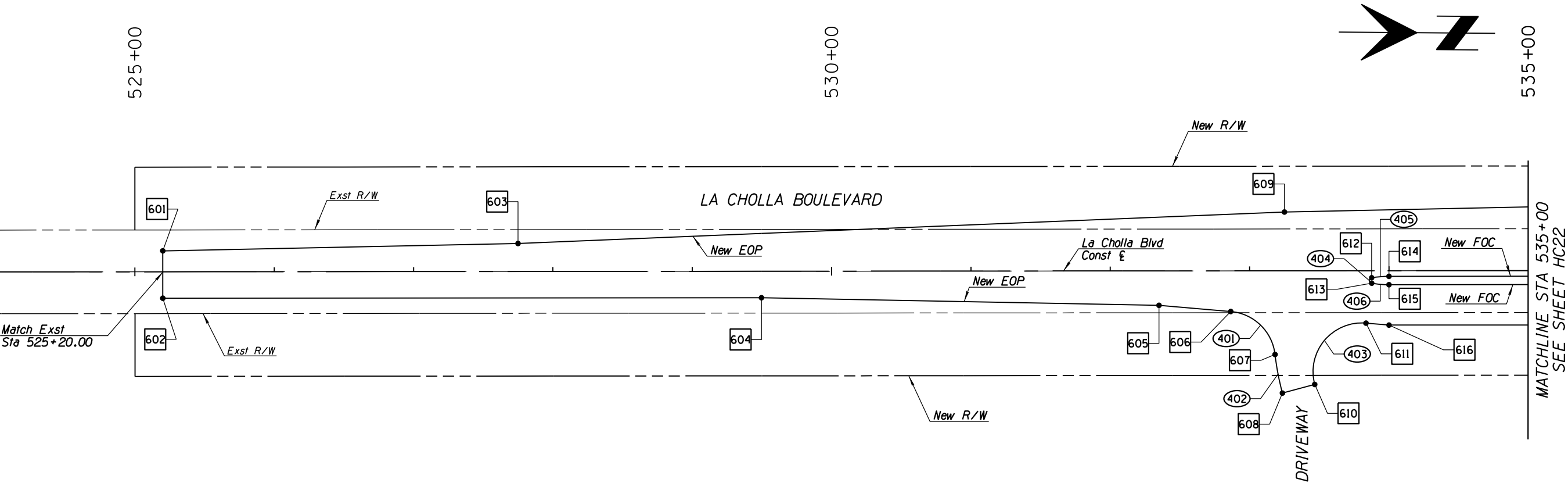
HORIZONTAL CONTROL
FOR
TANGERINE ROAD
STA 56+00.00 TO STA 61+00.00
THORNYDALE ROAD

K

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NO.	REVISION DESCRIPTION	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	PROJ. ENG. BY

DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
601	525+20.00	15.00' Lt	PI
602	525+20.00	19.00' Rt	PI
603	527+75.00	20.10' Lt	PI
604	529+49.66	19.00' Rt	PI
605	532+35.00	24.70' Rt	PI
606	532+86.46	29.16' Rt	PC
607	533+18.21	60.02' Rt	PCC
608	533+23.48	87.70' Rt	PT
609	533+25.00	42.11' Lt	PI
610	533+46.66	81.49' Rt	PC
611	533+83.49	37.57' Rt	PT
612	533+87.63	5.03' Rt	PCC
613	533+87.63	8.97' Rt	PCC
614	534+00.00	4.00' Rt	PC
615	534+00.00	10.00' Rt	PT
616	534+00.00	39.00' Rt	PI

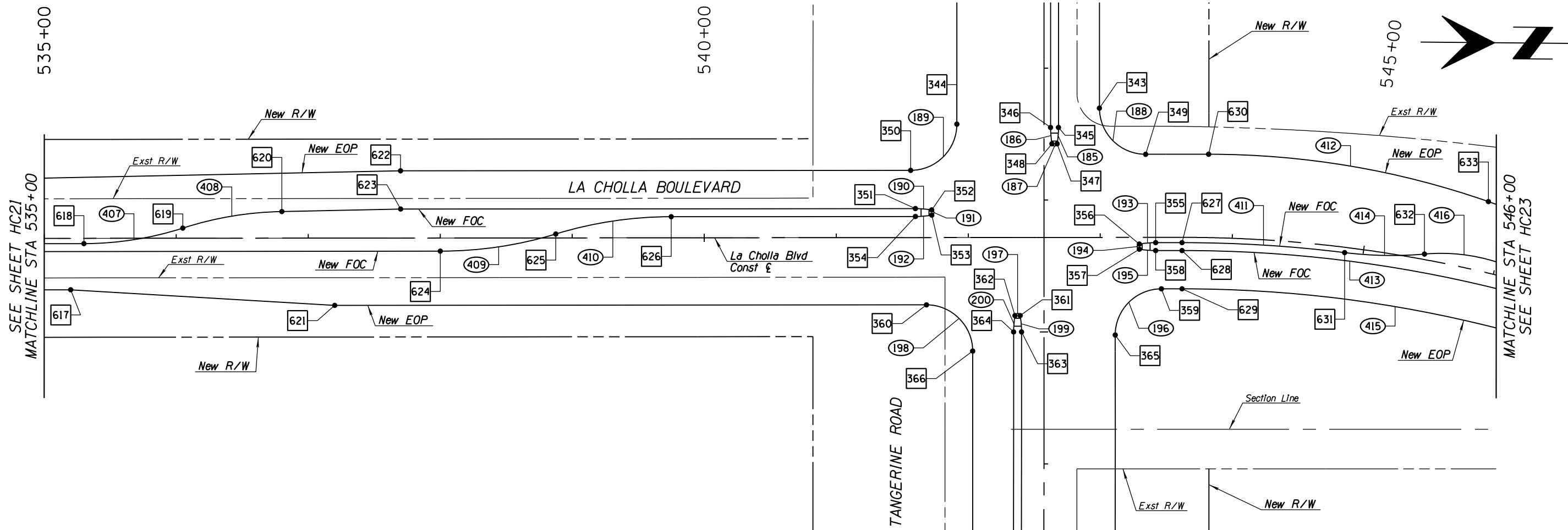
HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
401	35.00	47.94	78°28'17"	28.58
402	192.03	28.20	08°24'49"	14.13
403	35.00	67.16	109°56'33"	49.93
404	2.00	5.62	161°00'39"	11.96
405	75.00	12.43	09°29'40"	6.23
406	75.00	12.43	09°29'40"	6.23



NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED	BY	DATE	CHECKED	DATE
		02/13		02/13
DRAWN	BY	DATE	CHECKED	DATE
		02/13		02/13
PROJ. ENG.	BY	DATE	CHECKED	DATE
		02/13		02/13



HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
617	535+20.00	39.00' Rt	PI
618	535+30.00	4.00' Rt	PC
619	536+05.00	7.72' Lt	PRC
620	536+80.00	20.20' Lt	PT
621	537+20.00	51.00' Rt	PI
622	537+70.00	51.00' Lt	PI
623	537+70.00	22.00' Lt	PI
624	538+00.00	10.00' Rt	PC
625	538+87.50	3.00' Lt	PRC
626	539+75.00	16.00' Lt	PC
627	543+61.94	4.00' Rt	PC
628	543+61.94	10.00' Rt	PC
629	543+61.94	39.00' Rt	PC
630	543+80.96	63.19' Lt	PC
631	544+85.94	4.00' Rt	PCC
632	545+45.92	4.14' Lt	PRC
633	545+84.31	52.80' Lt	PT

HORIZONTAL CONTROL POINT SUMMARY TABLE

#	Station	Offset	Description
343	542+99.44	98.03' Lt	PC
344	541+91.43	85.97' Lt	PC
345	542+68.43	83.40' Lt	PC
346	542+62.43	83.40' Lt	PT
347	542+67.39	71.03' Lt	PCC
348	542+63.44	71.03' Lt	PCC
349	543+34.44	63.00' Lt	PC
350	541+56.43	51.00' Lt	PT
351	541+60.00	22.00' Lt	PC
352	541+72.37	20.97' Lt	PCC
353	541+72.37	17.03' Lt	PCC
354	541+60.00	16.00' Lt	PT
355	543+42.00	4.00' Rt	PT
356	543+29.63	5.03' Rt	PCC
357	543+29.63	8.97' Rt	PCC
358	543+42.00	10.00' Rt	PC
359	543+46.29	39.00' Rt	PT
360	541+68.28	51.00' Rt	PC
361	542+39.27	59.21' Rt	PCC
362	542+35.33	59.20' Rt	PCC
363	542+40.29	71.58' Rt	PC
364	542+34.29	71.57' Rt	PT
365	543+11.29	73.97' Rt	PC
366	542+03.28	86.03' Rt	PT

HORIZONTAL CONTROL CURVE SUMMARY TABLE

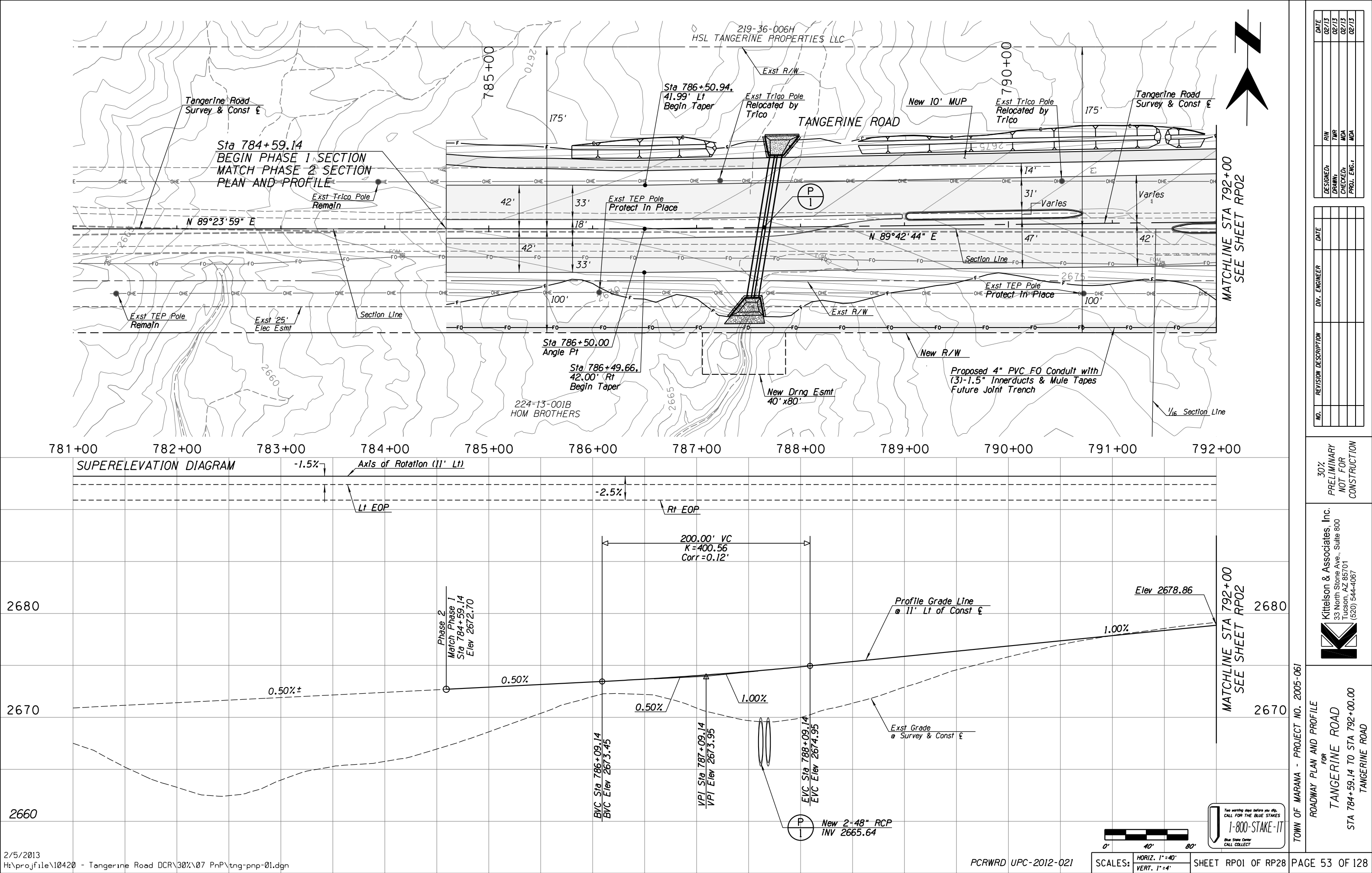
#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
407	245.94	76.22	17°45'22"	38.42
408	263.18	76.30	16°36'36"	38.42
409	300.97	88.78	16°54'05"	44.72
410	300.97	88.78	16°54'05"	44.72
411	996.00	123.51	07°06'18"	61.83
412	640.00	216.05	19°20'29"	109.06
413	990.00	254.77	14°44'41"	128.09
414	288.92	60.63	12°01'23"	30.43
415	961.00	324.41	19°20'29"	163.76
416	141.56	59.94	24°15'34"	30.43

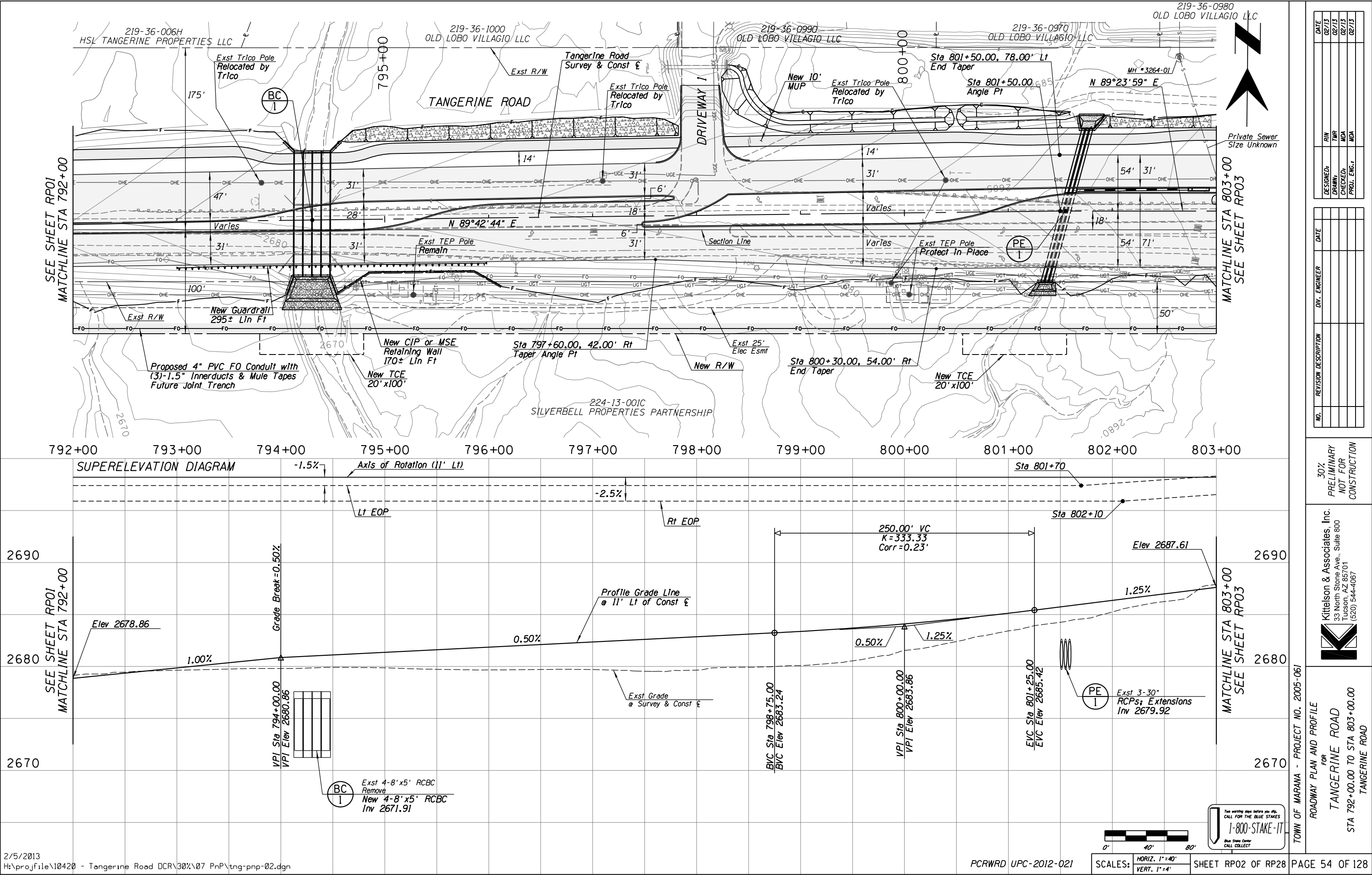
HORIZONTAL CONTROL CURVE SUMMARY TABLE

#	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
185	75.00	12.43	09°29'40"	6.23
186	75.00	12.43	09°29'40"	6.23
187	2.00	5.62	161°00'39"	11.96
188	35.00	55.01	90°03'24"	35.03
189	35.00	54.94	89°56'36"	34.97
190	75.00	12.43	09°29'40"	6.23
191	2.00	5.62	161°00'39"	11.96
192	75.00	12.43	09°29'40"	6.23
193	75.00	12.43	09°29'40"	6.23
194	2.00	5.62	161°00'39"	11.96
195	75.00	12.43	09°29'40"	6.23
196	35.00	54.95	89°57'20"	34.97
197	2.00	5.62	161°00'39"	11.96
198	35.00	55.01	90°02'40"	35.03
199	75.00	12.43	09°29'40"	6.23
200	75.00	12.43	09°29'40"	6.23



NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
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TOWN OF MARANA - PROJECT NO. 2005-061

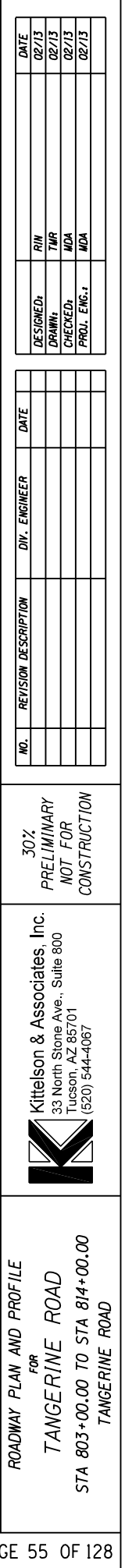
ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 792+00.00 TO STA 803+00.00 TANGERINE ROAD

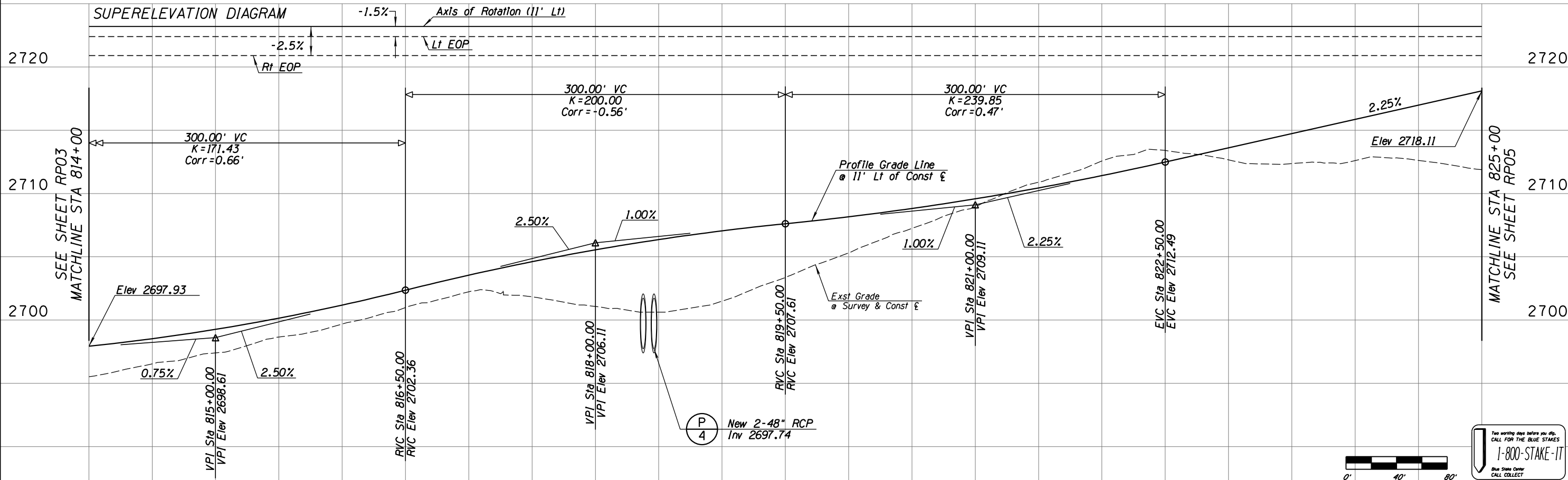
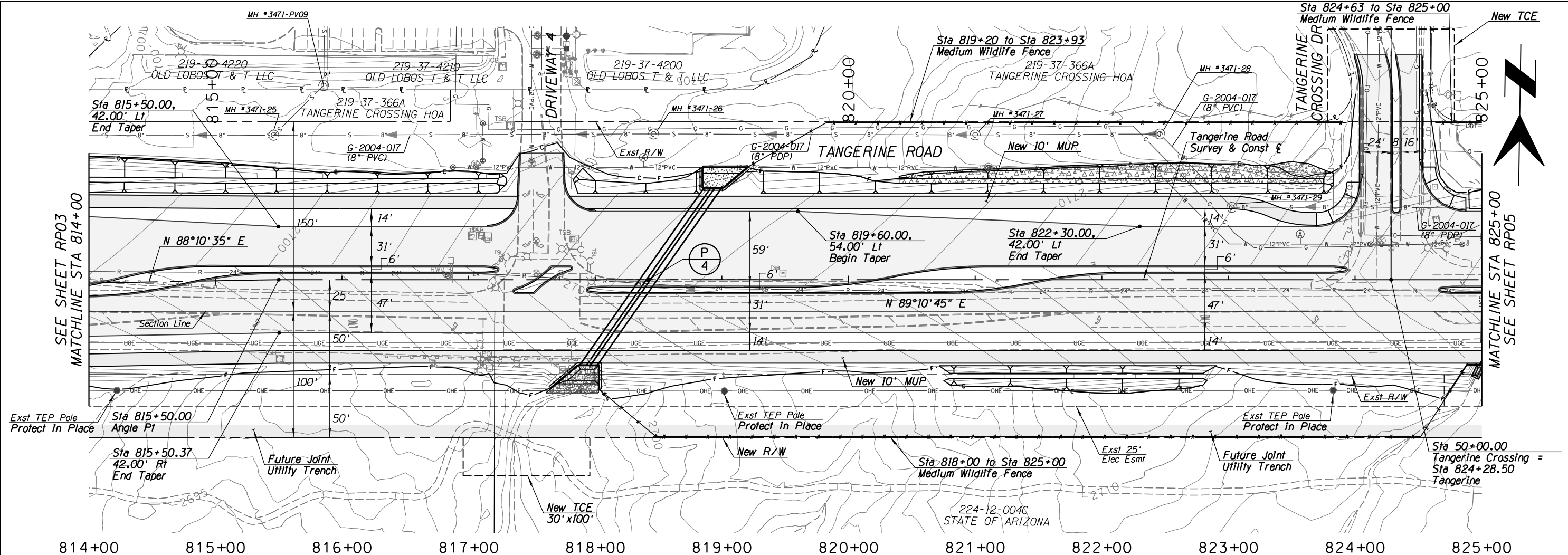
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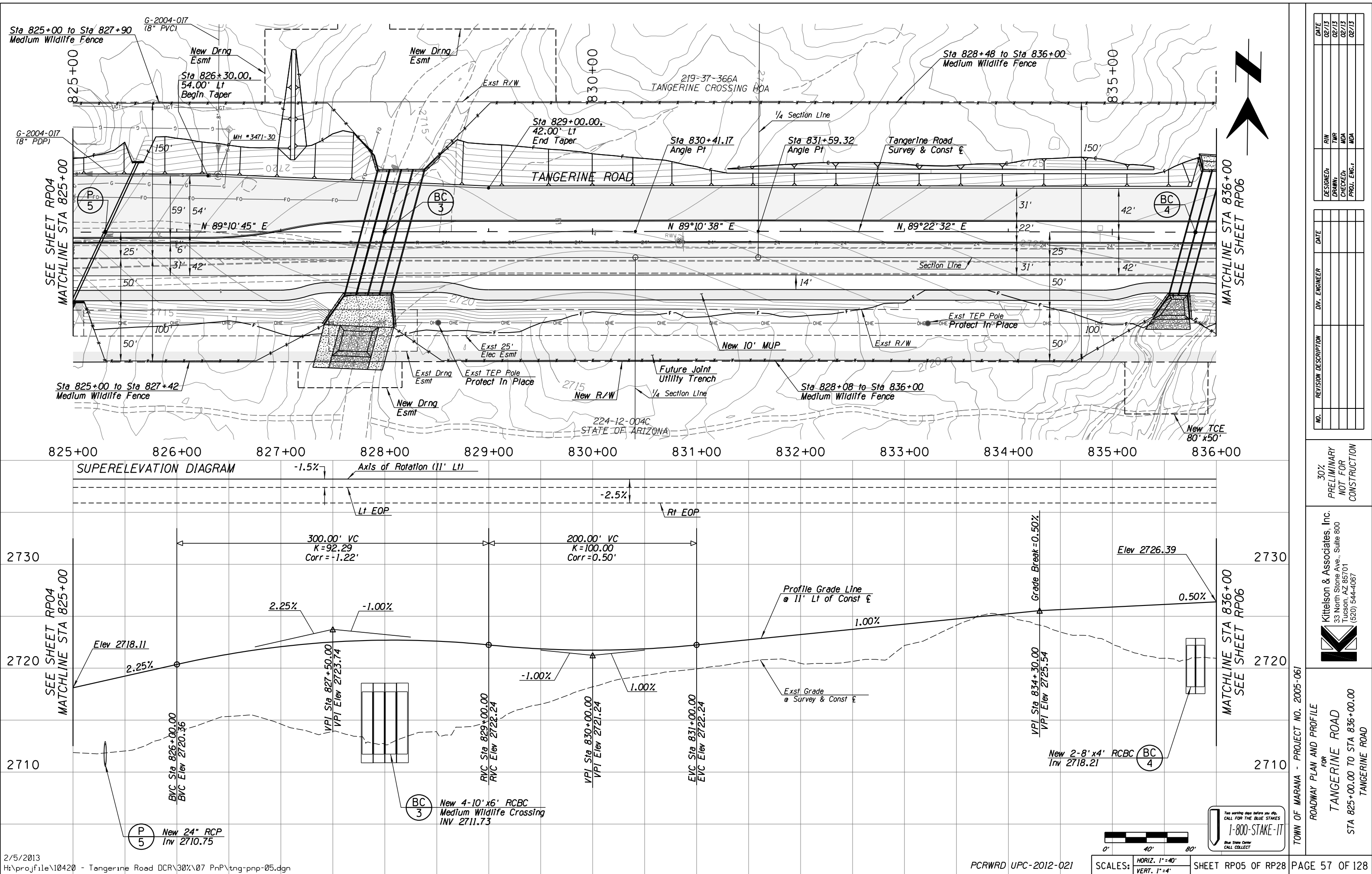
NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 814+00.00 TO STA 825+00.00 TANGERINE ROAD

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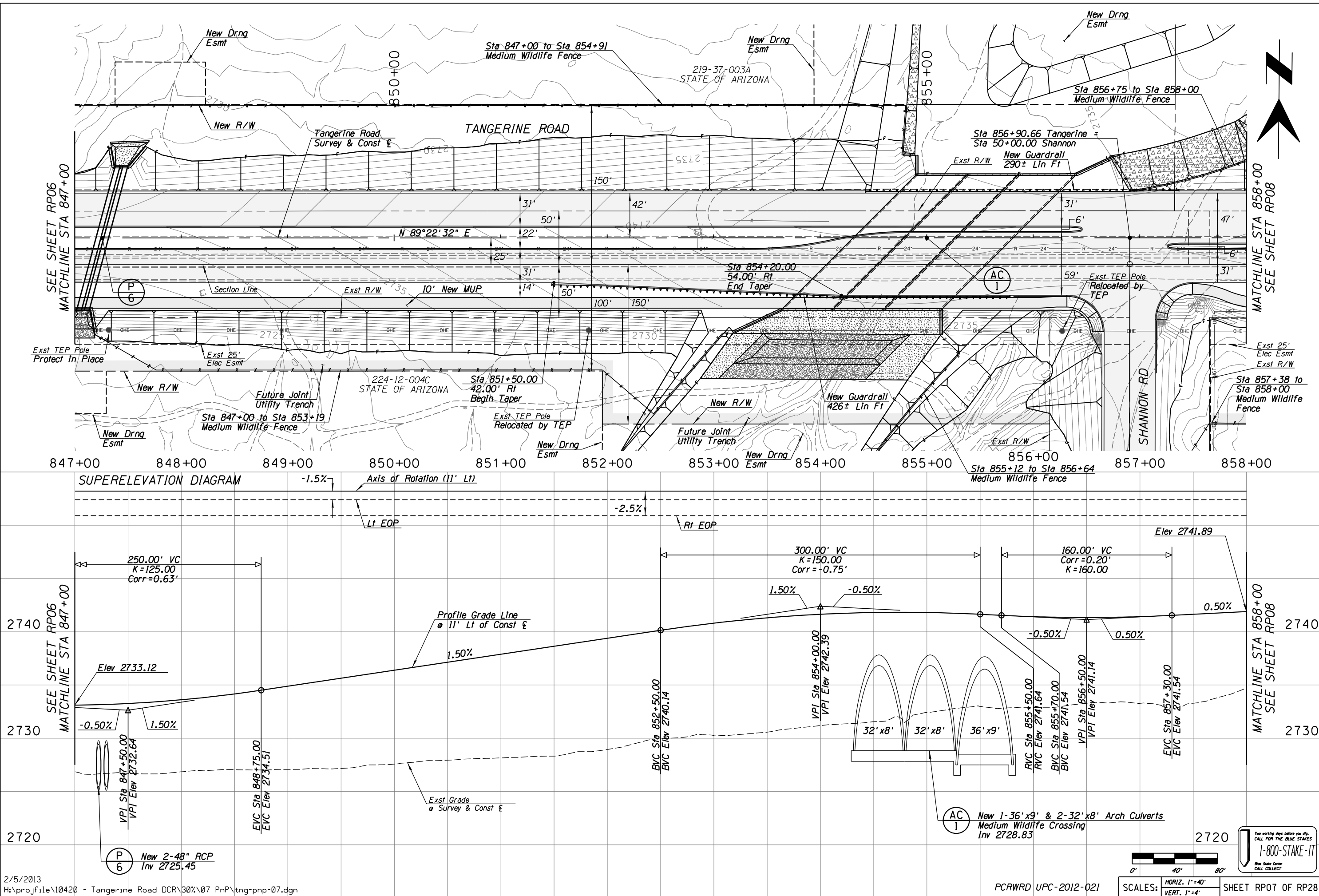
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PROJ. ENG.					

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ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 825+00.00 TO STA 836+00.00

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REVISION DESCRIPTION

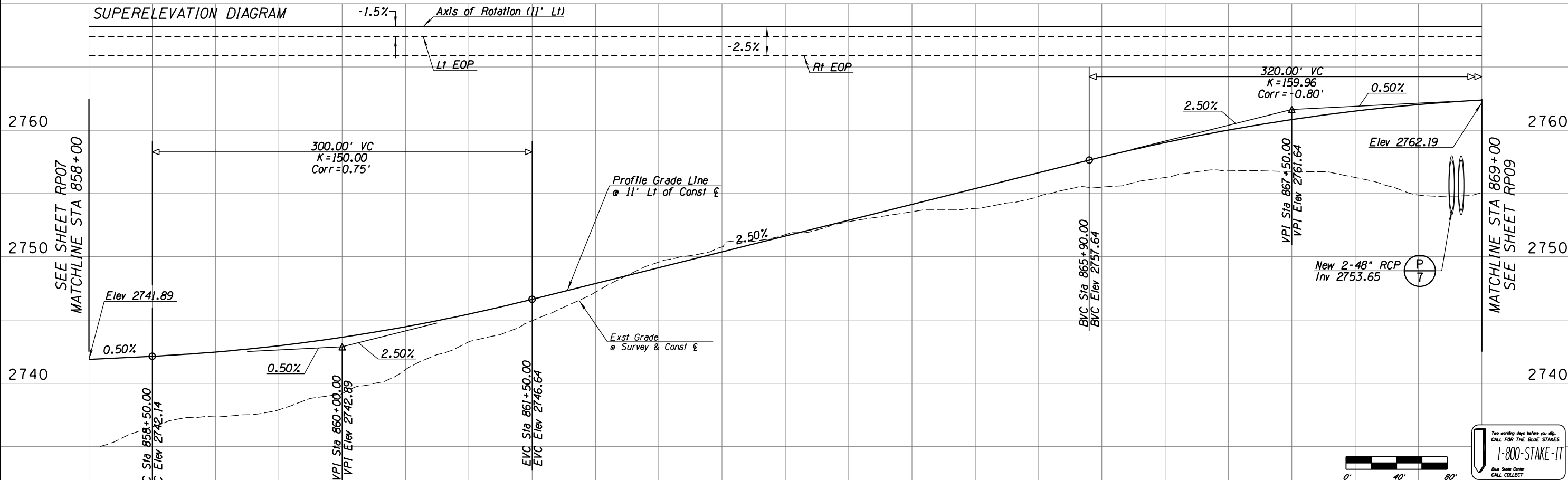
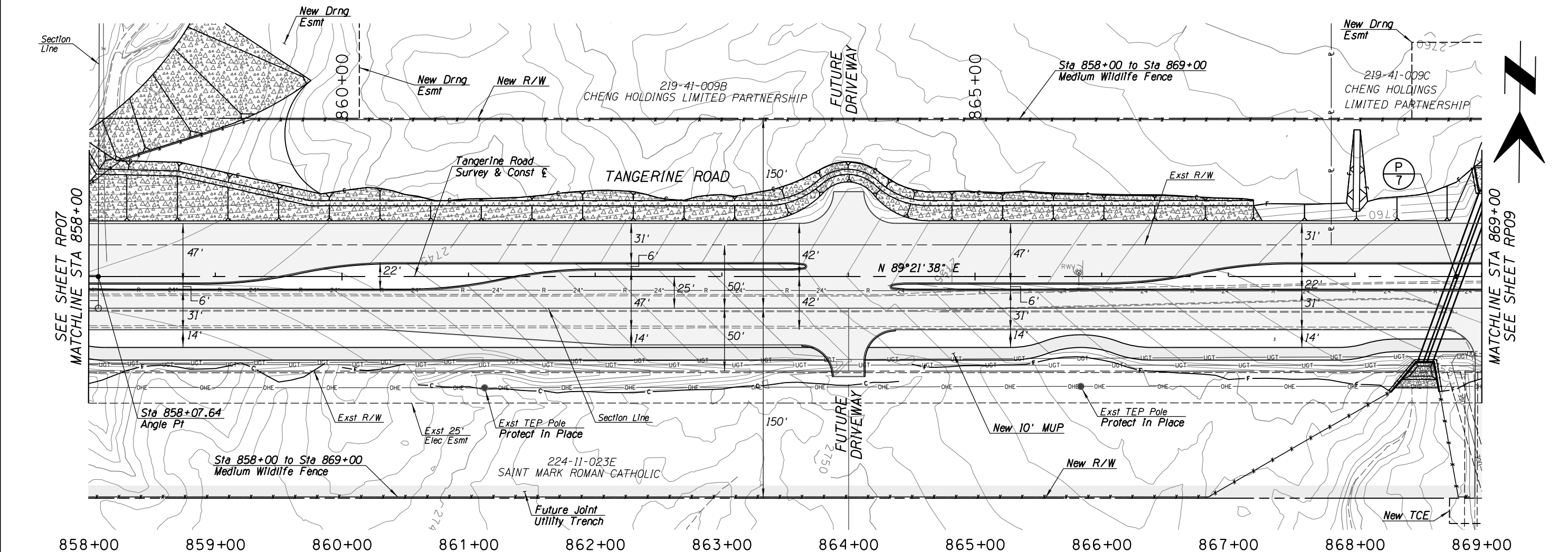
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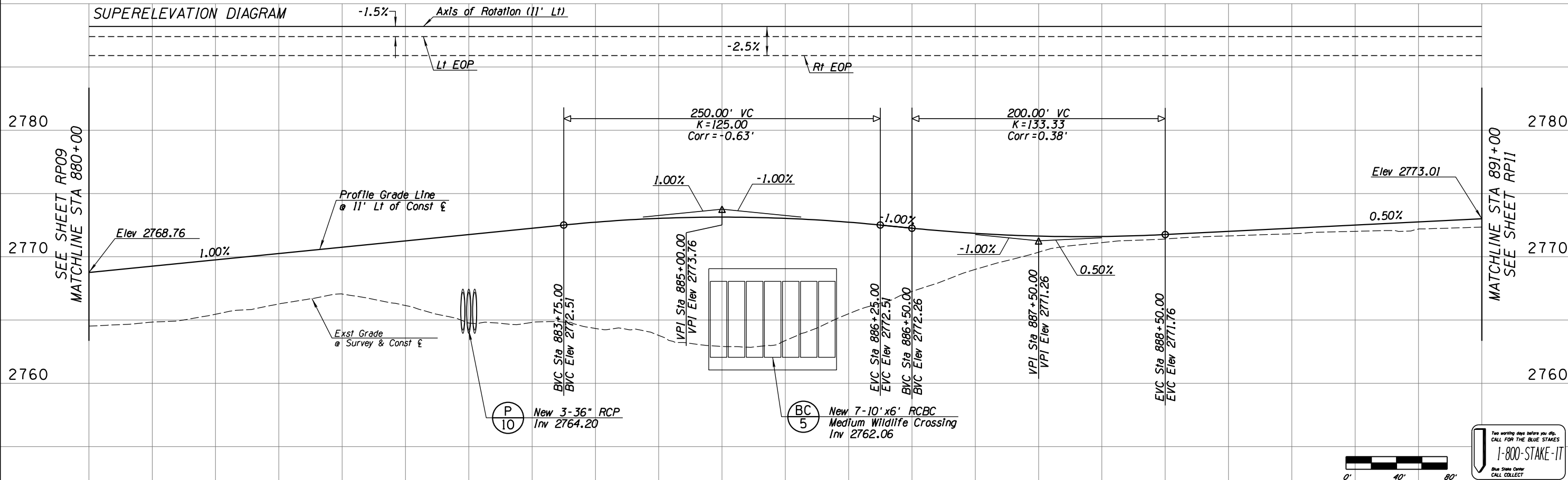
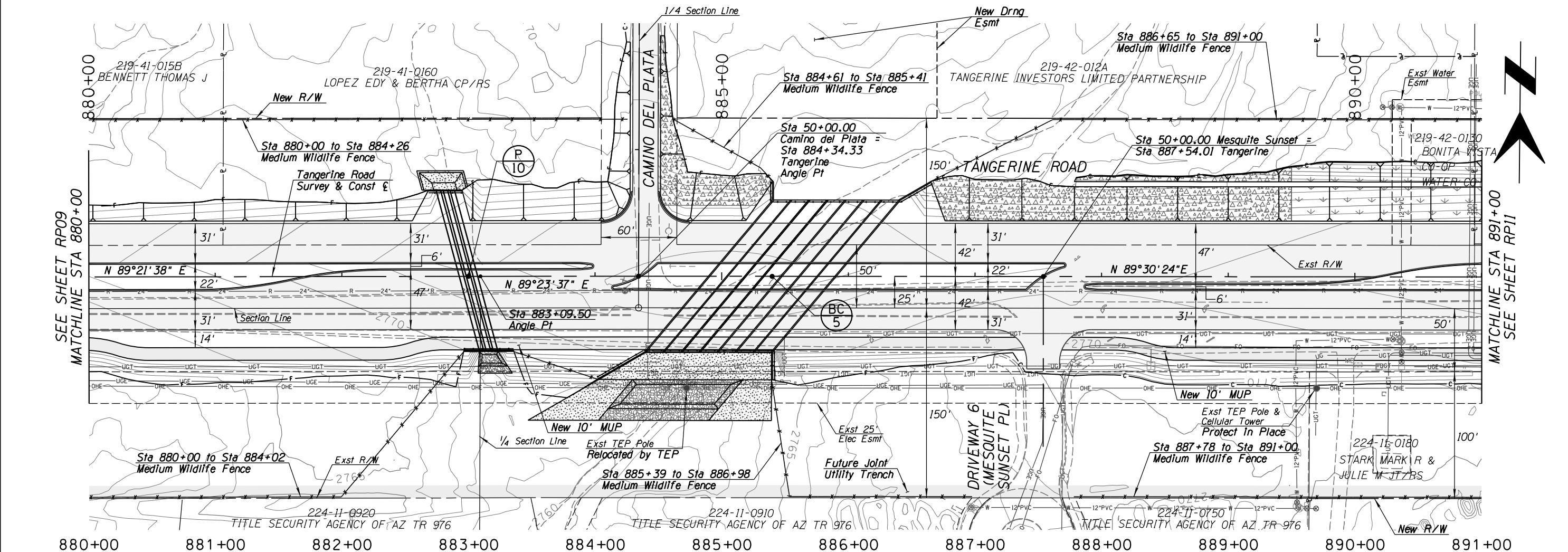
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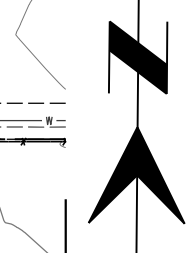
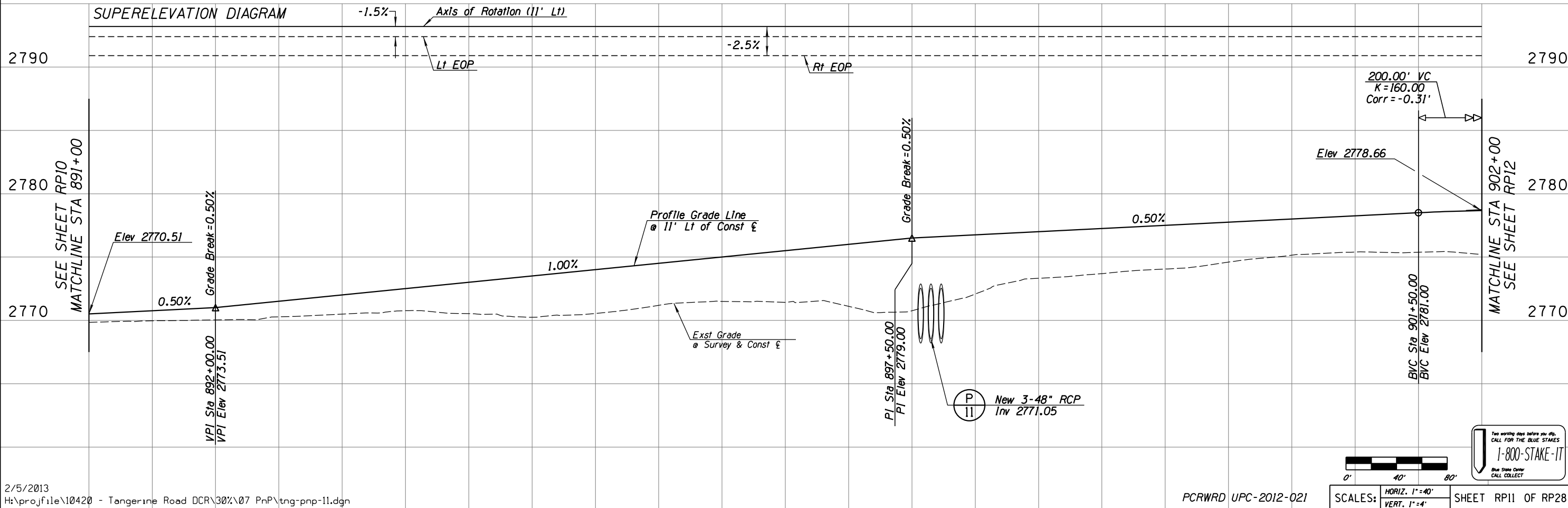
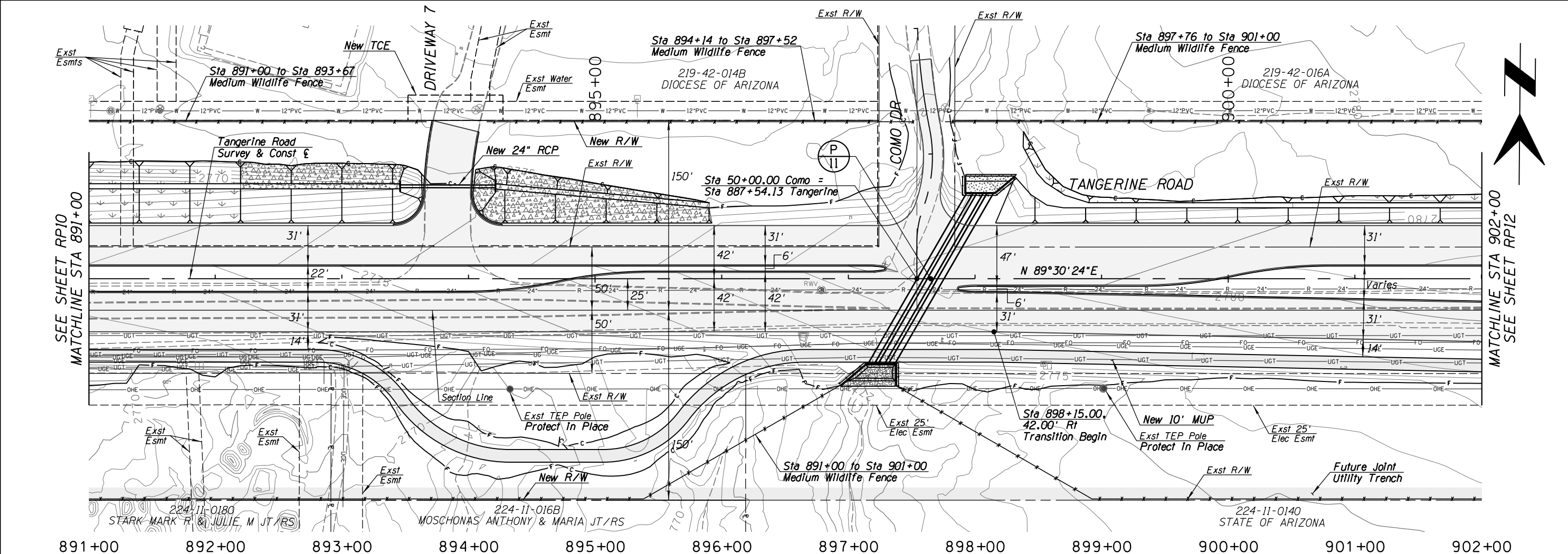
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FOR
ROADWAY PLAN AND PROFILE

TANGERINE ROAD
STA 847+00.00 TO STA 858+00.00
TANGERINE ROAD







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DATE	02/13	DATE	02/13	DATE	02/13	DATE	02/13

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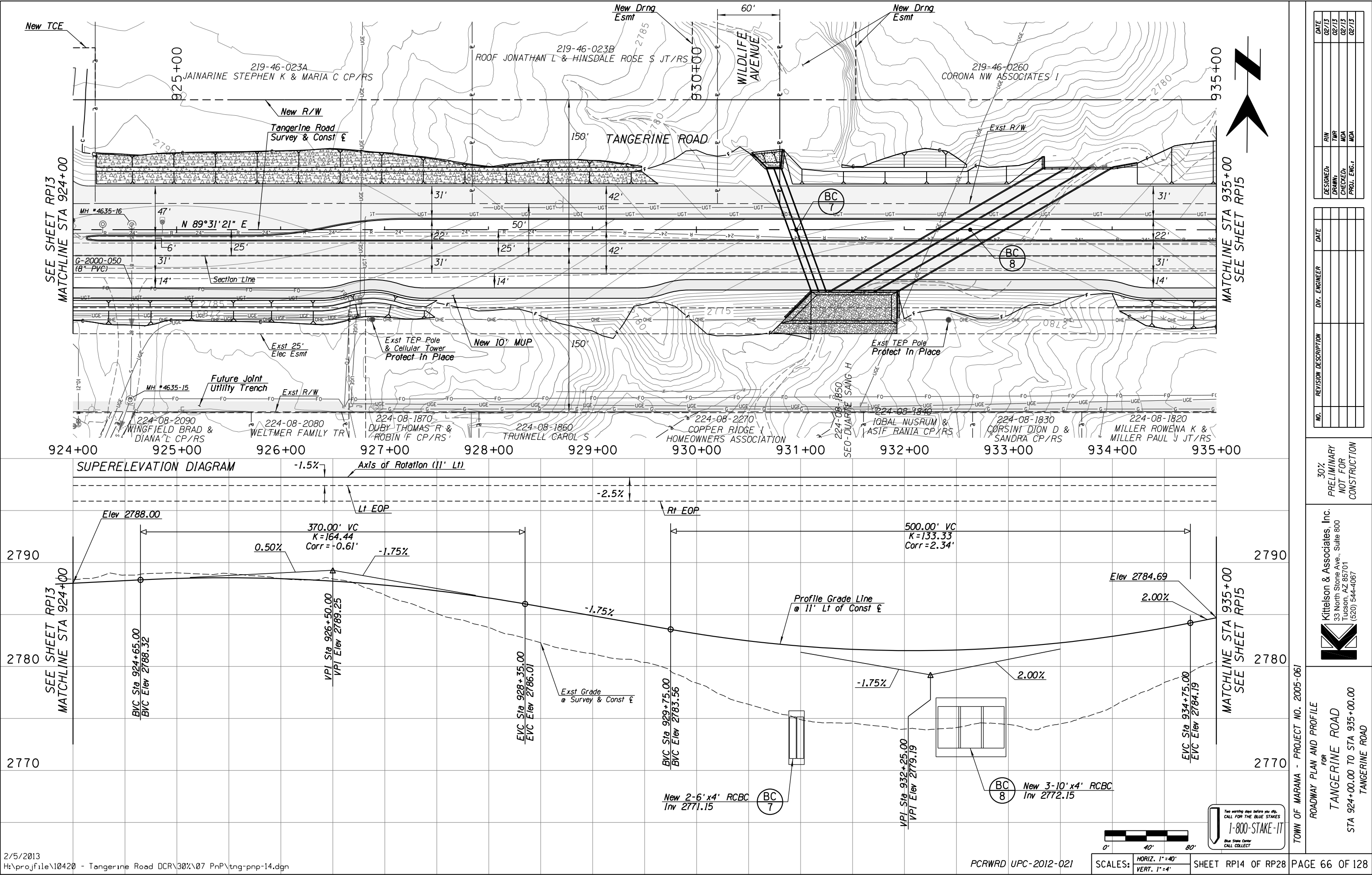
ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 891+00.00 TO STA 902+00.00 TANGERINE ROAD

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SHEET RP11 OF RP28

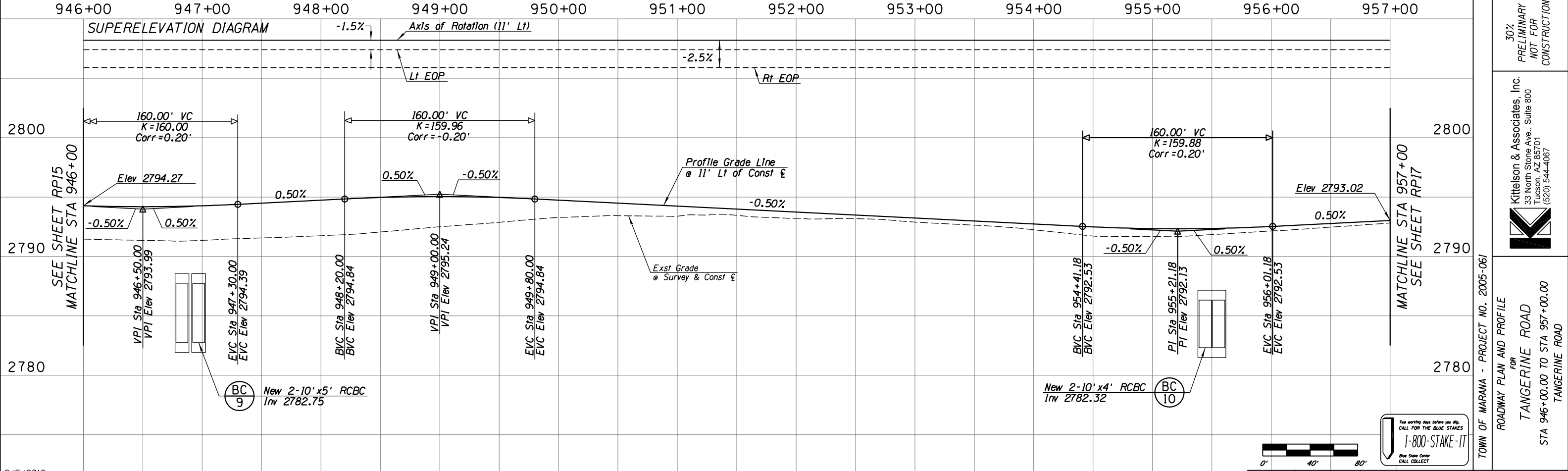
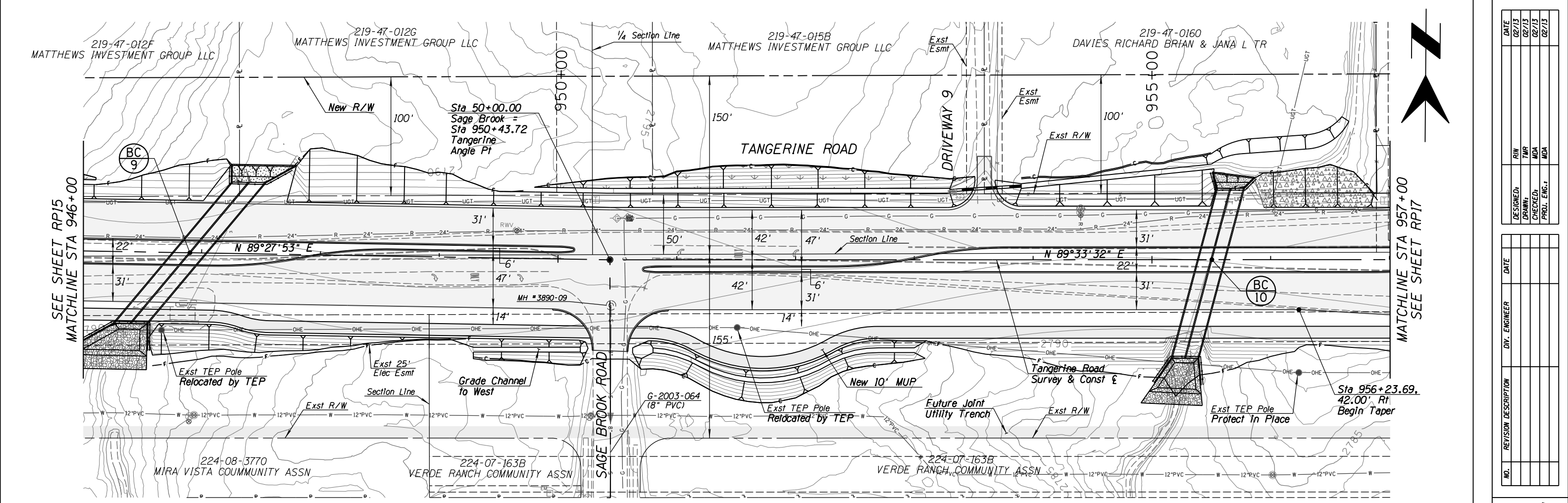
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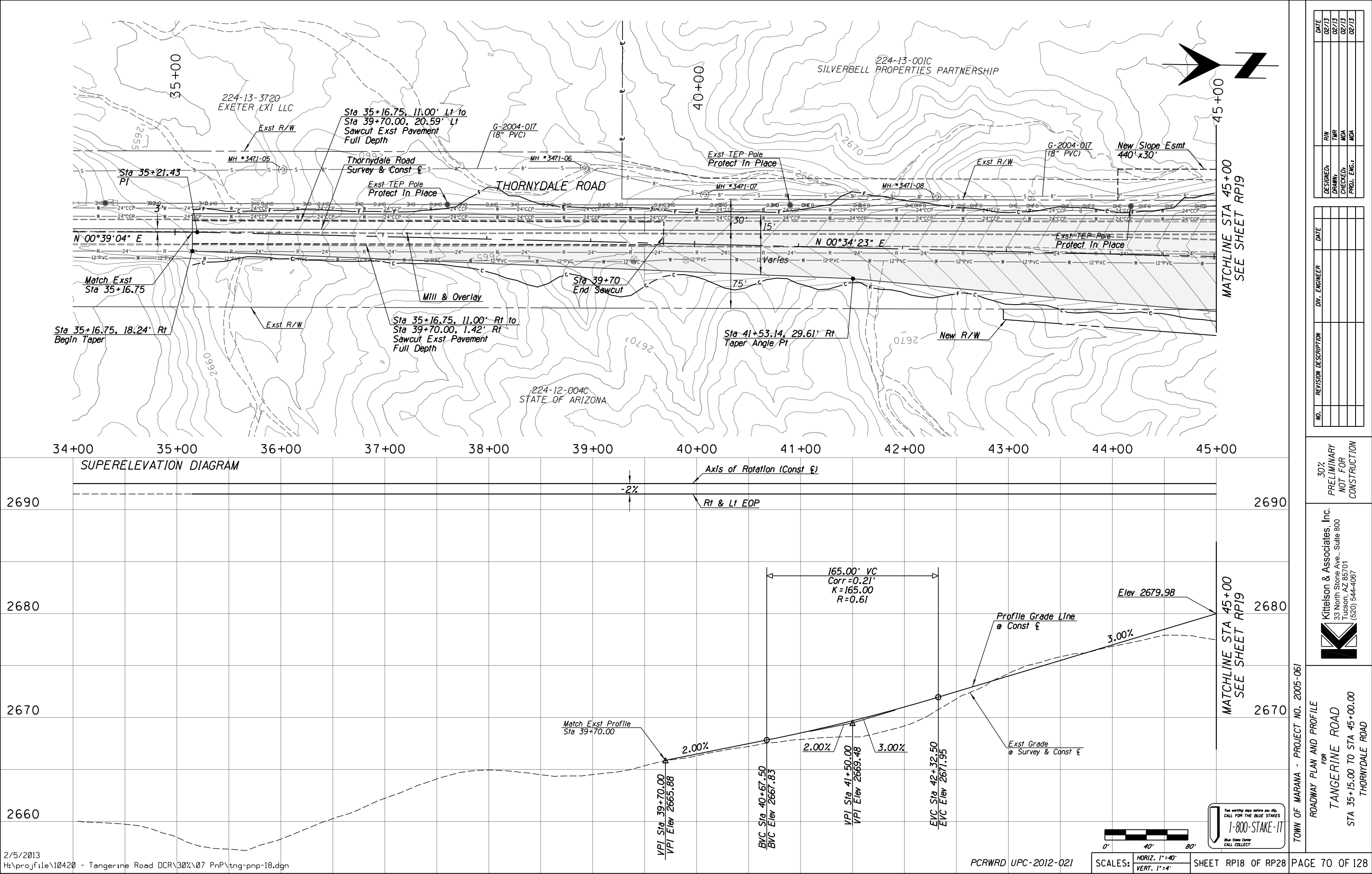


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DATE	02/13	02/13	02/13

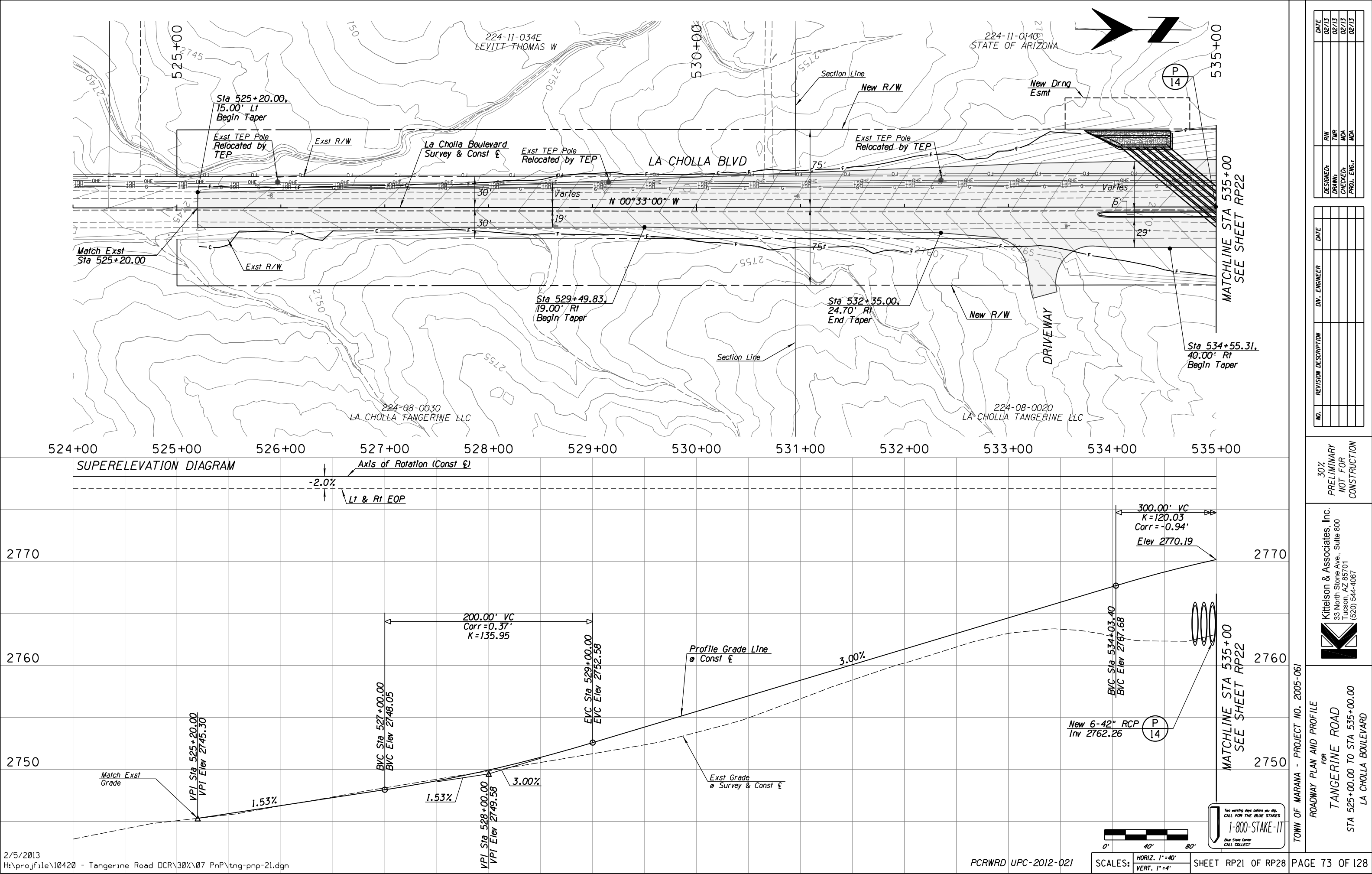




TOWN OF MARANA - PROJECT NO. 2005-061			
ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 35+15.00 TO STA 45+00.00 THORNYDALE ROAD			
NO.	REVISION DESCRIPTION	DATE	DATE
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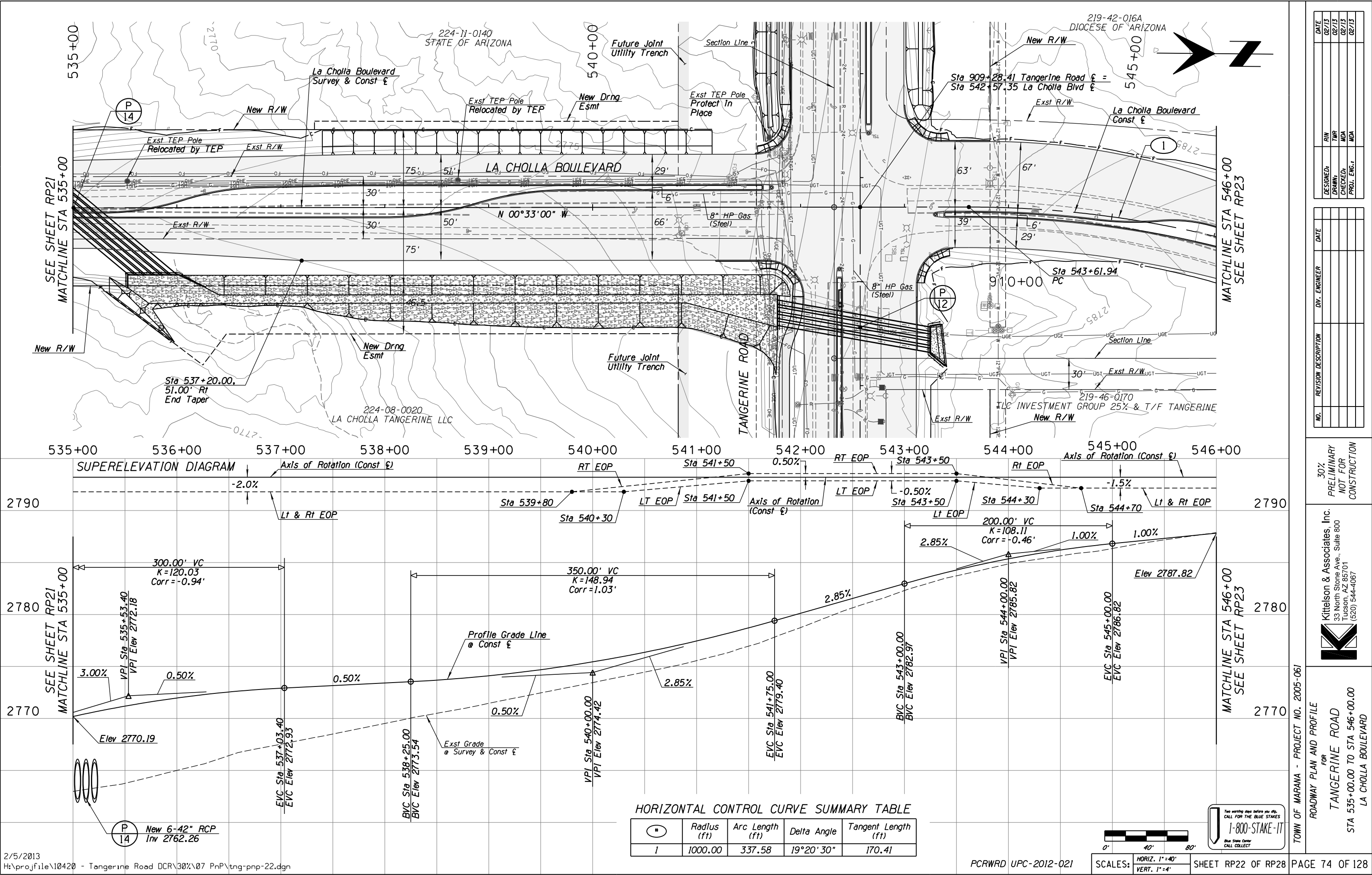
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02/13	02/13	02/13	02/13	02/13
	AW	MDA	MDA	MDA

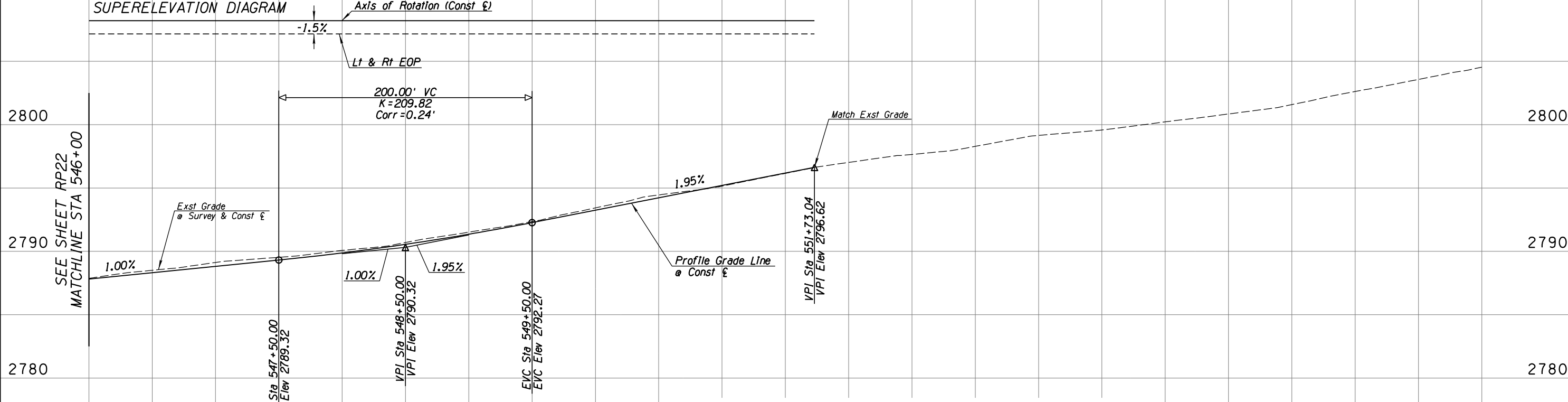
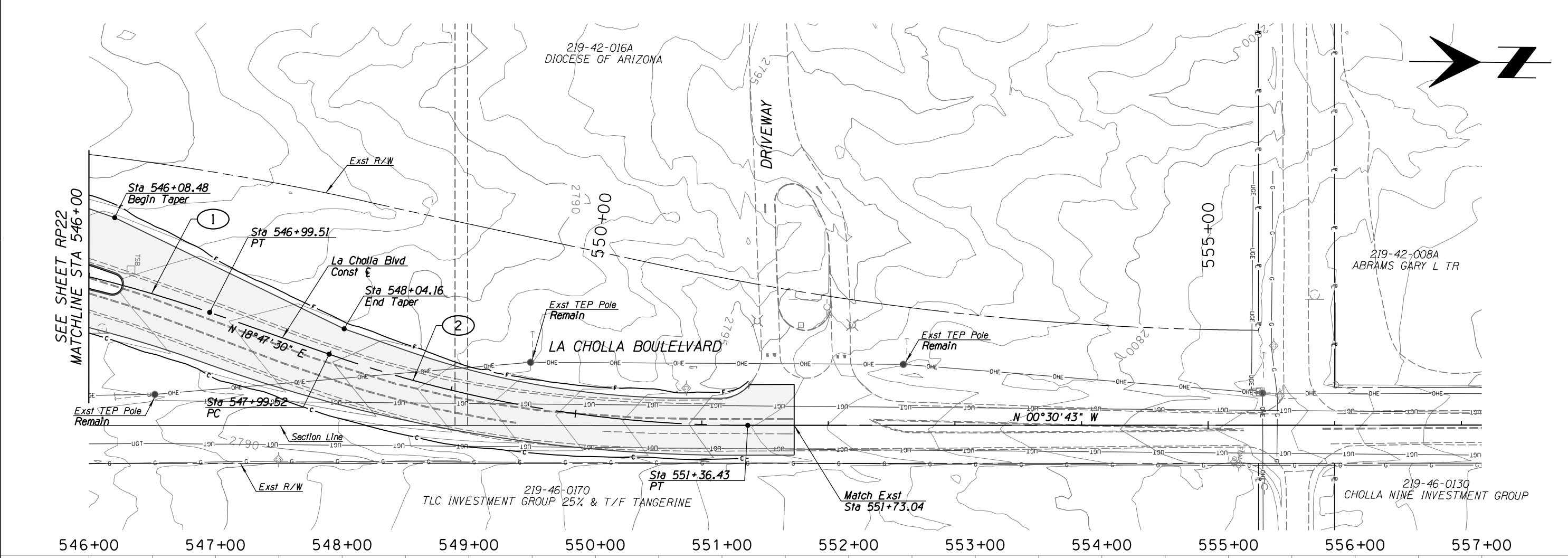
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TOWN OF MARANA - PROJECT NO. 2005-061
ROADWAY PLAN AND PROFILE
FOR
TANGERINE ROAD
STA 525+00.00 TO STA 535+00.00
LA CHOLLA BOULEVARD





HORIZONTAL CONTROL CURVE SUMMARY TABLE

Curve	Radius (ft)	Arc Length (ft)	Delta Angle	Tangent Length (ft)
1	1000.00	337.58	19°20'30"	170.41
2	1000.00	366.91	19°18'13"	170.07



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DATE

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DRAWN BY

CHECKED BY

PROJ. ENG. BY

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TOWN OF MARANA - PROJECT NO. 2005-061

ROADWAY PLAN AND PROFILE FOR TANGERINE ROAD STA 546+00.00 TO STA 550+97.57 LA CHOLLA BOULEVARD

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DATE

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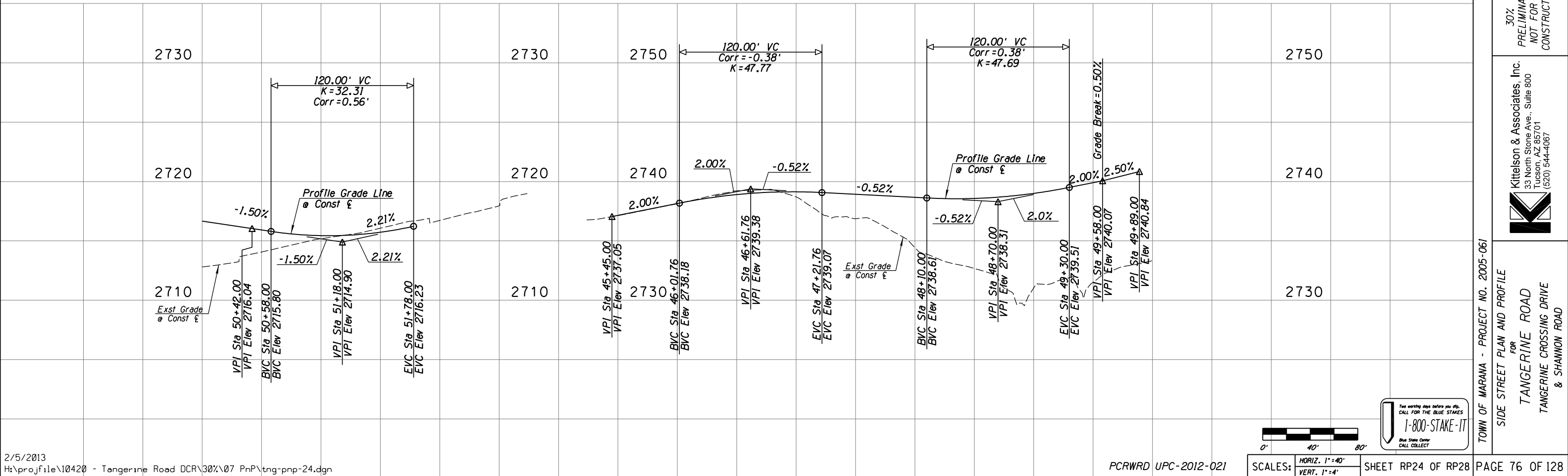
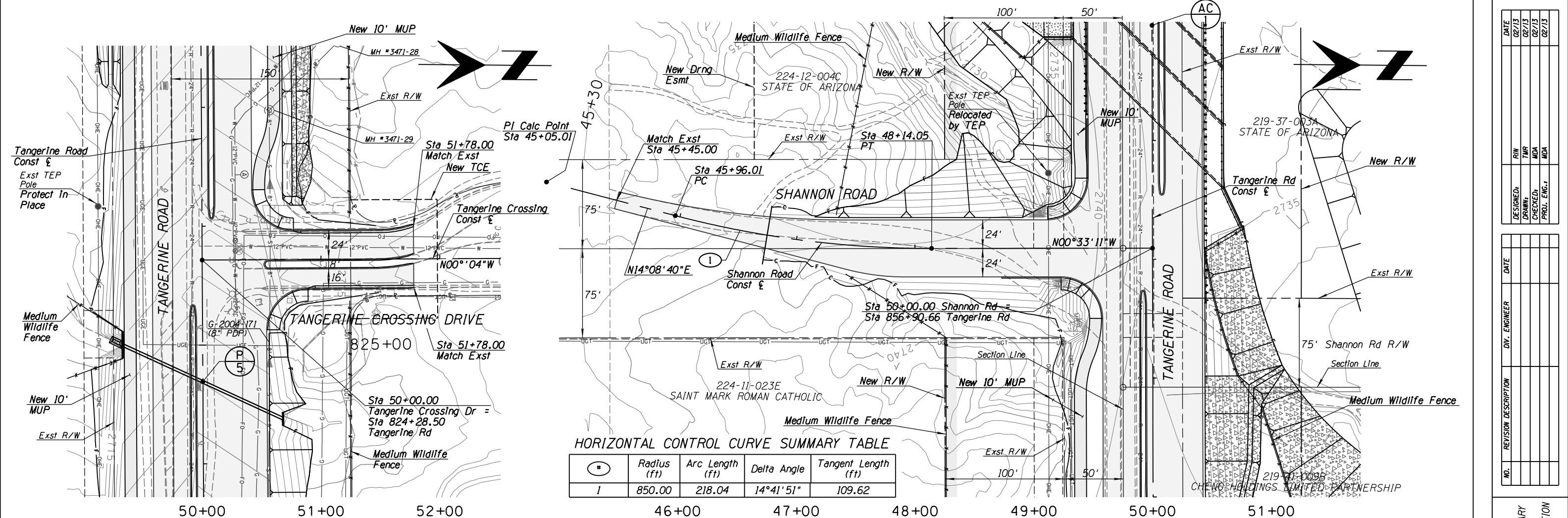
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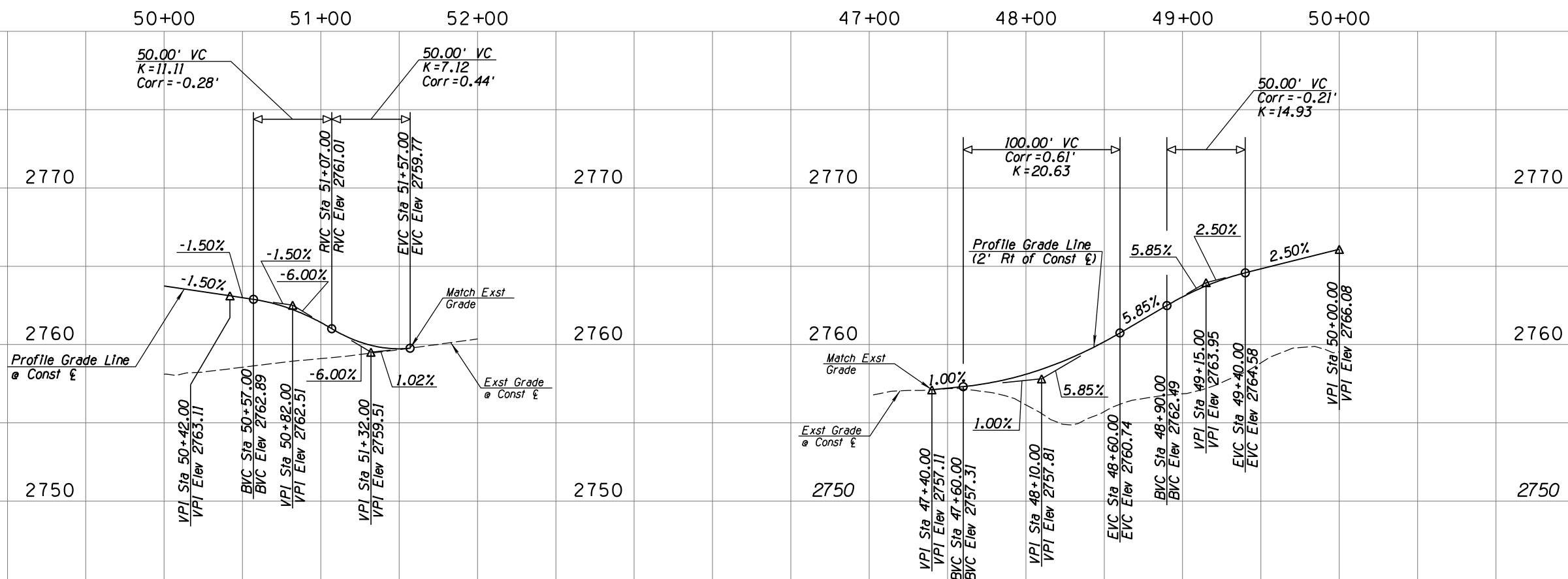
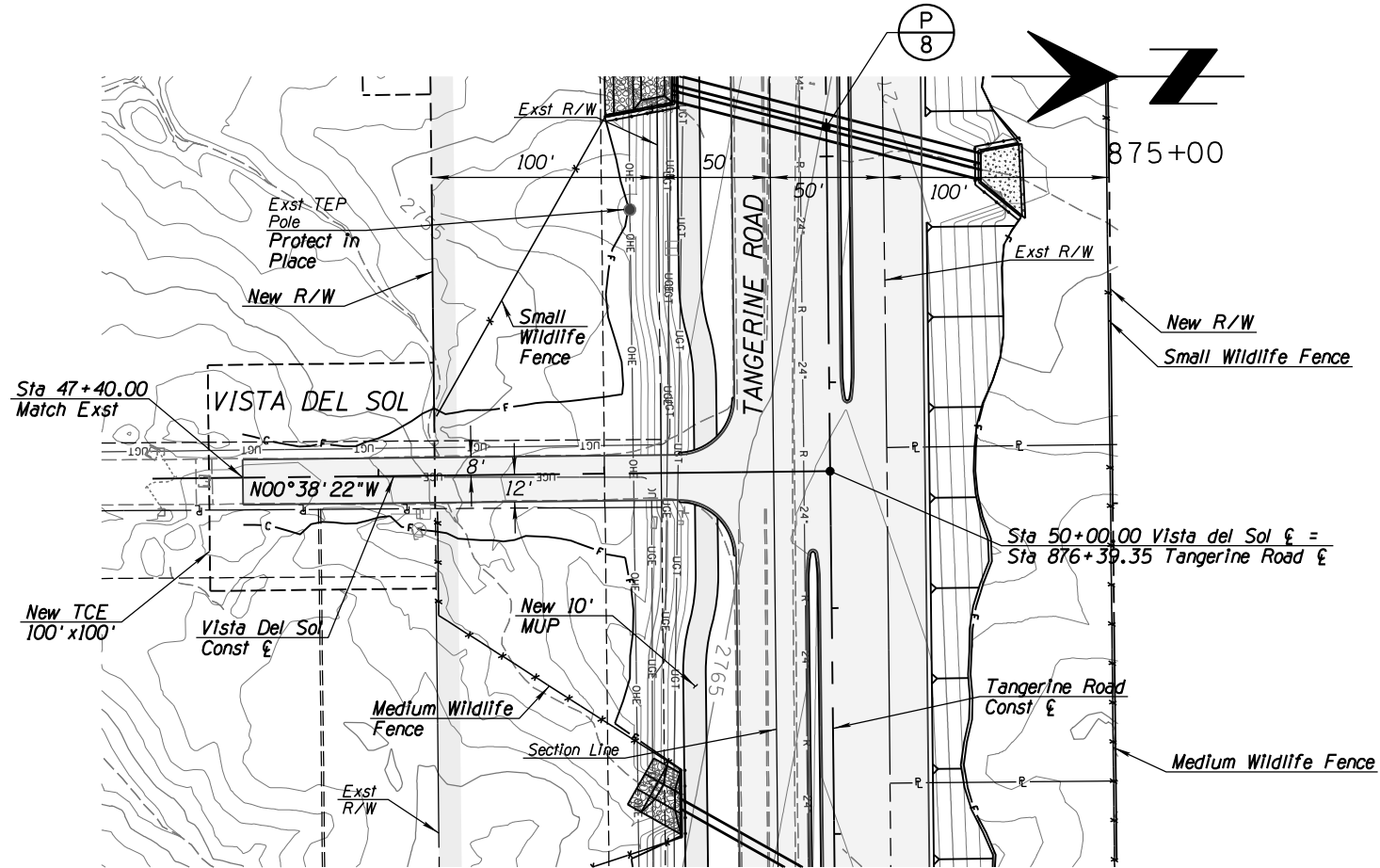
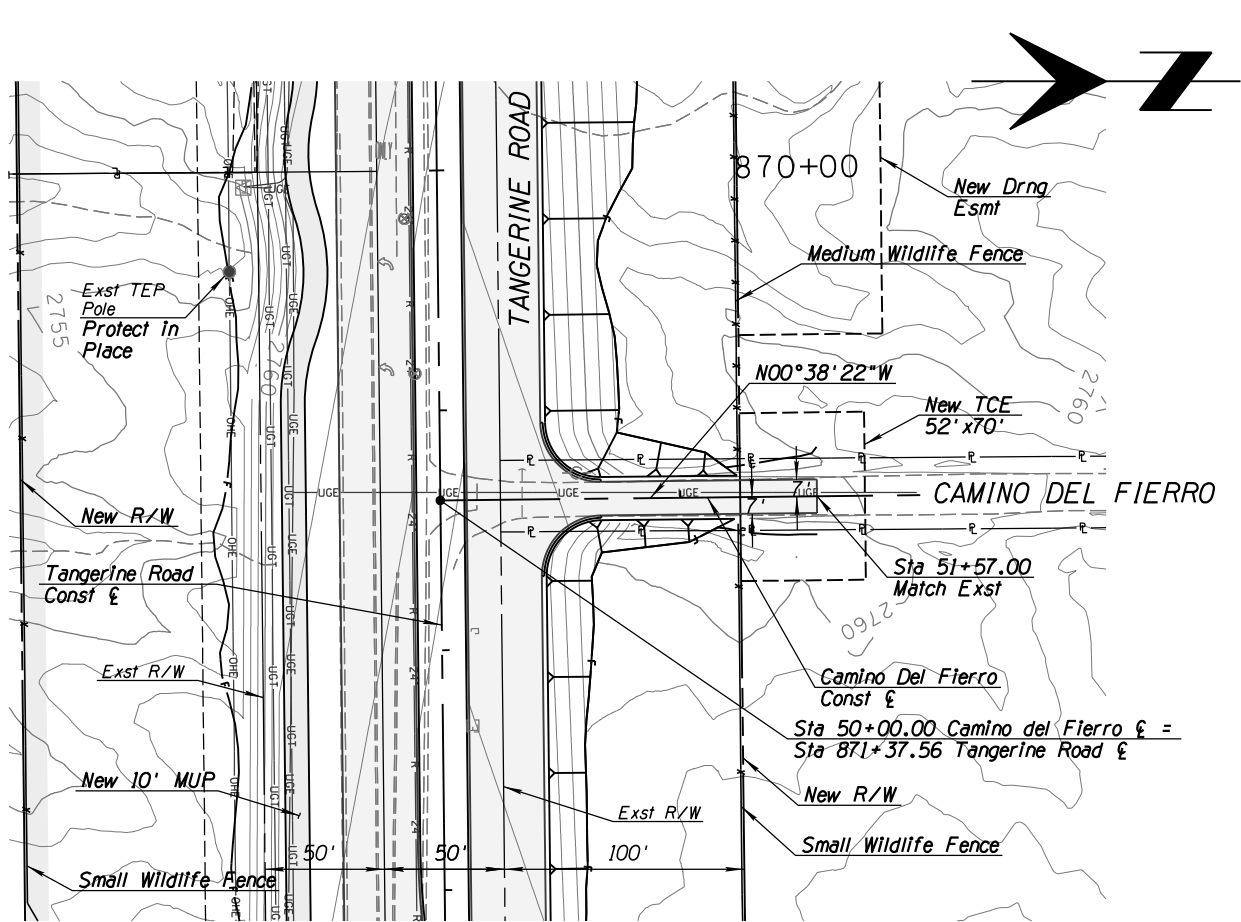
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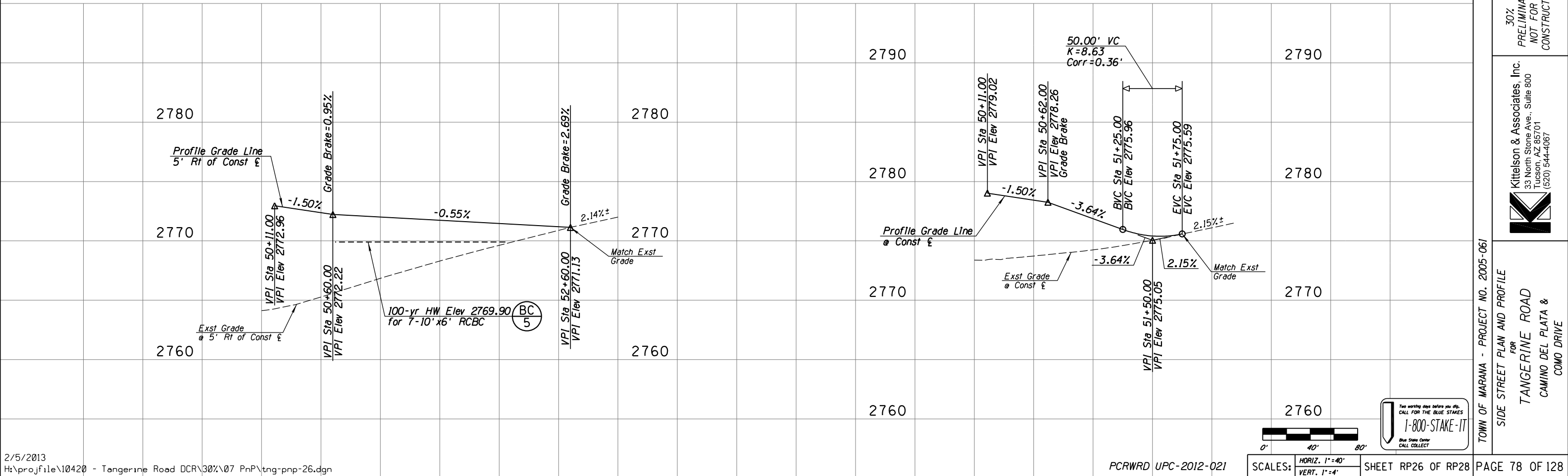
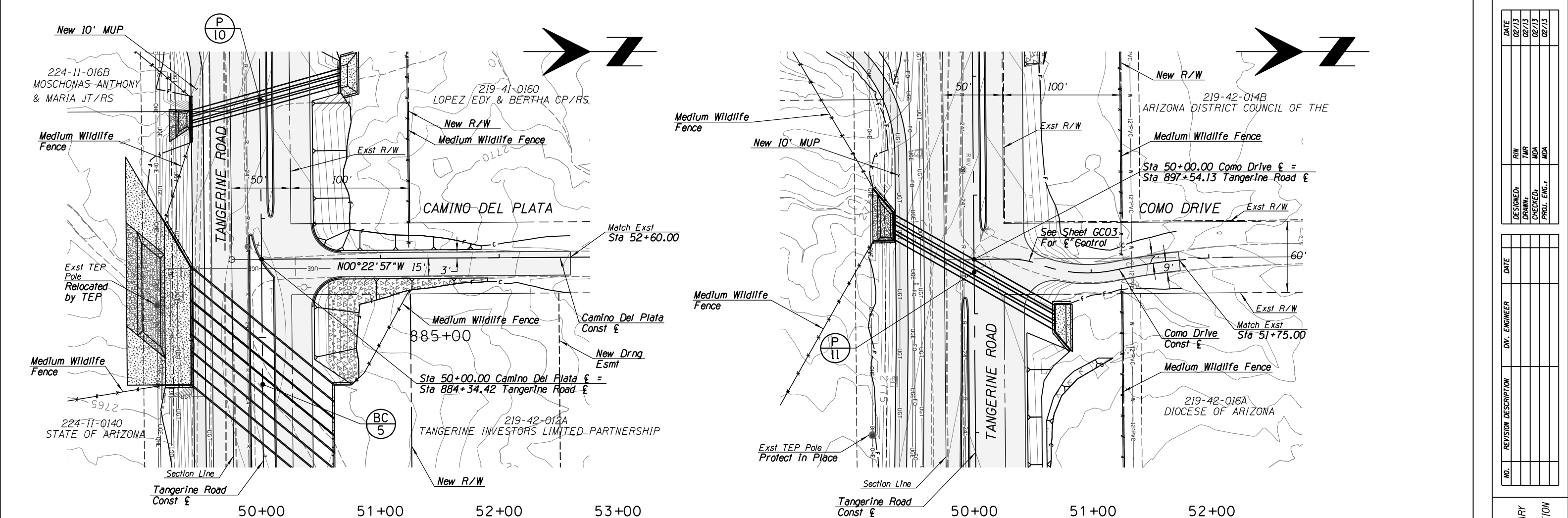
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			FIN	TWP	MDA	MDA



NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

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TOWN OF MARANA - PROJECT NO. 2005-061

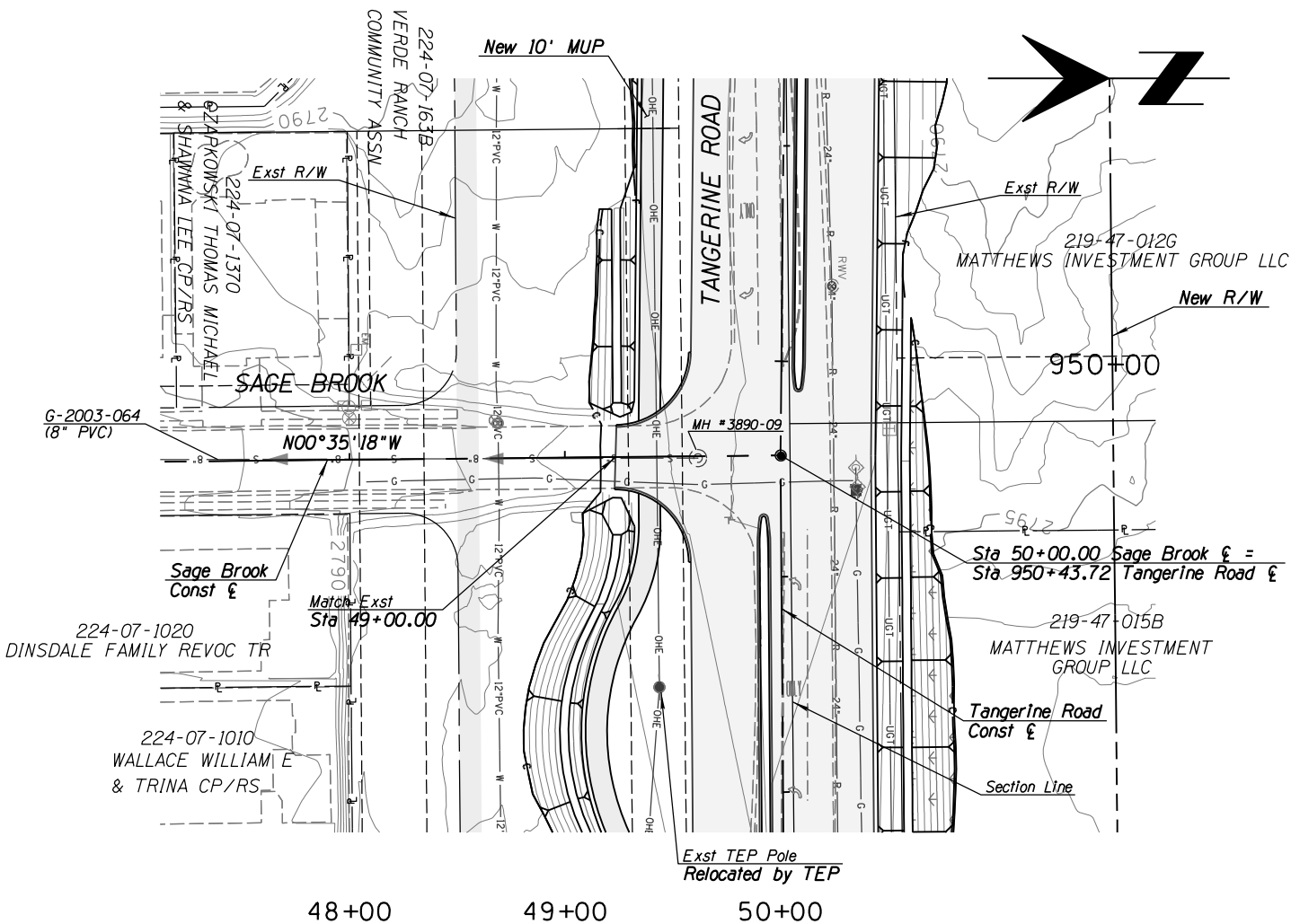
SIDE STREET PLAN AND PROFILE

FOR


TANGERINE ROAD

CAMINO DEL PLATA & COMO DRIVE

Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

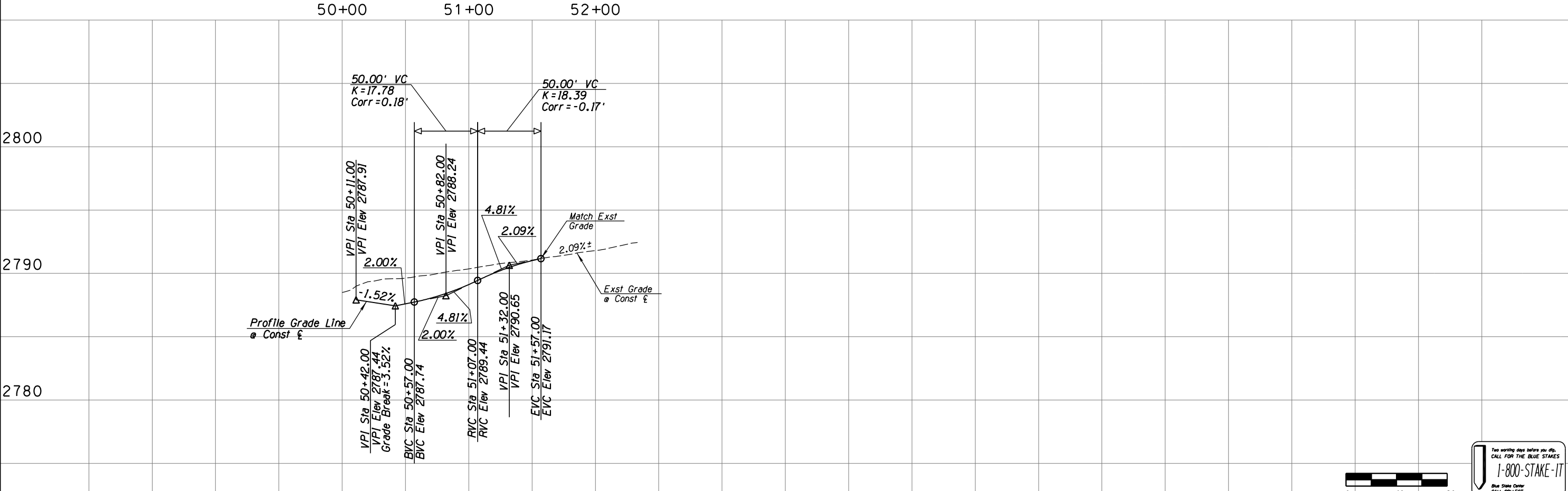
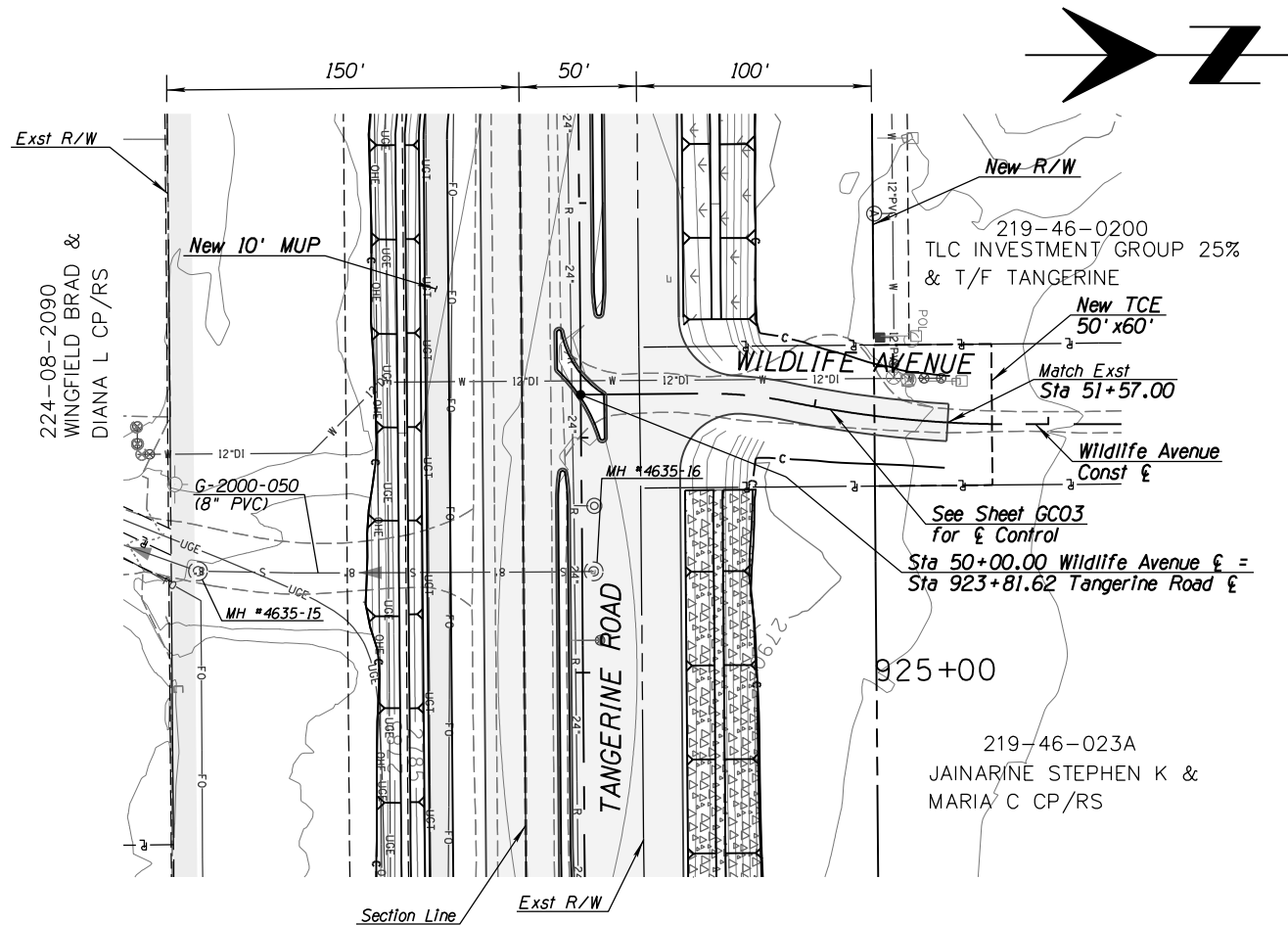
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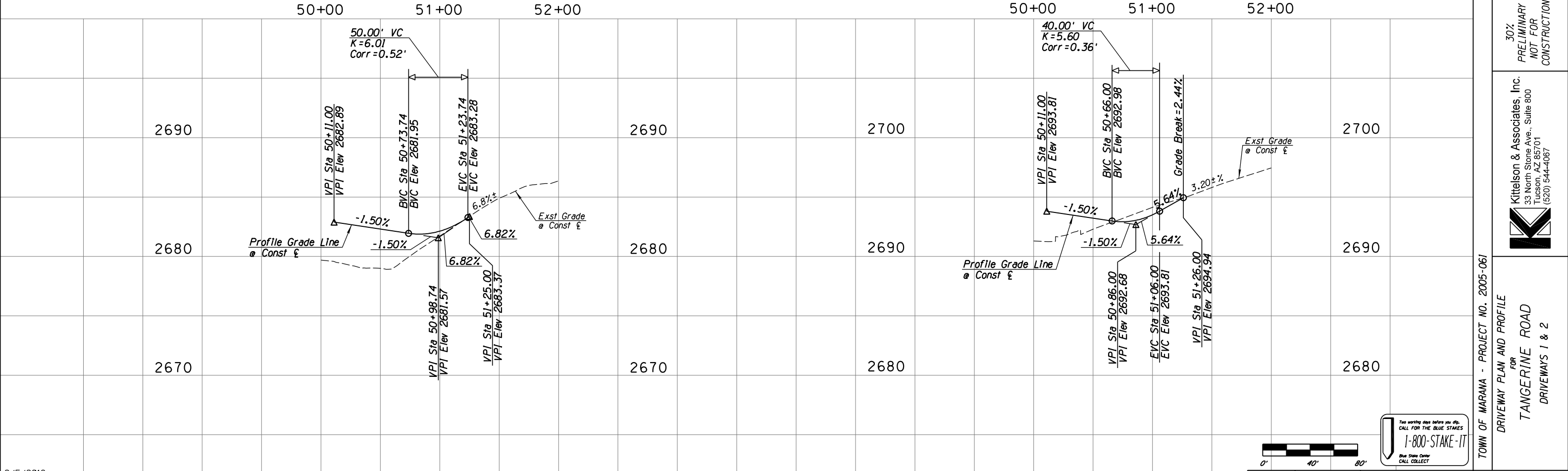
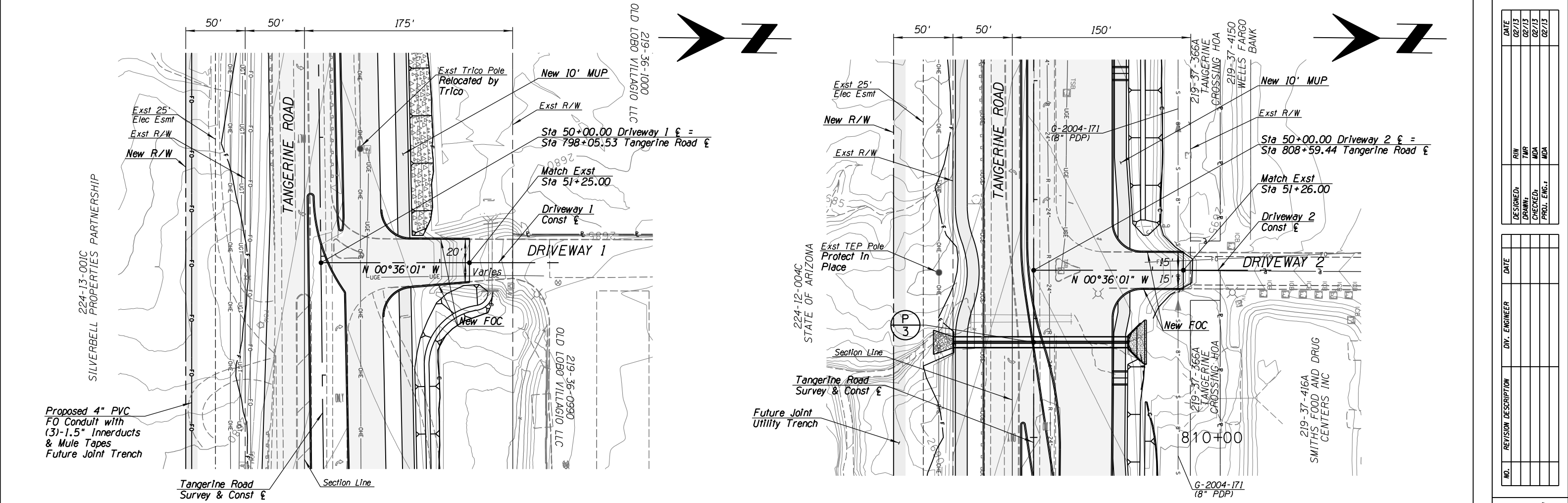
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33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

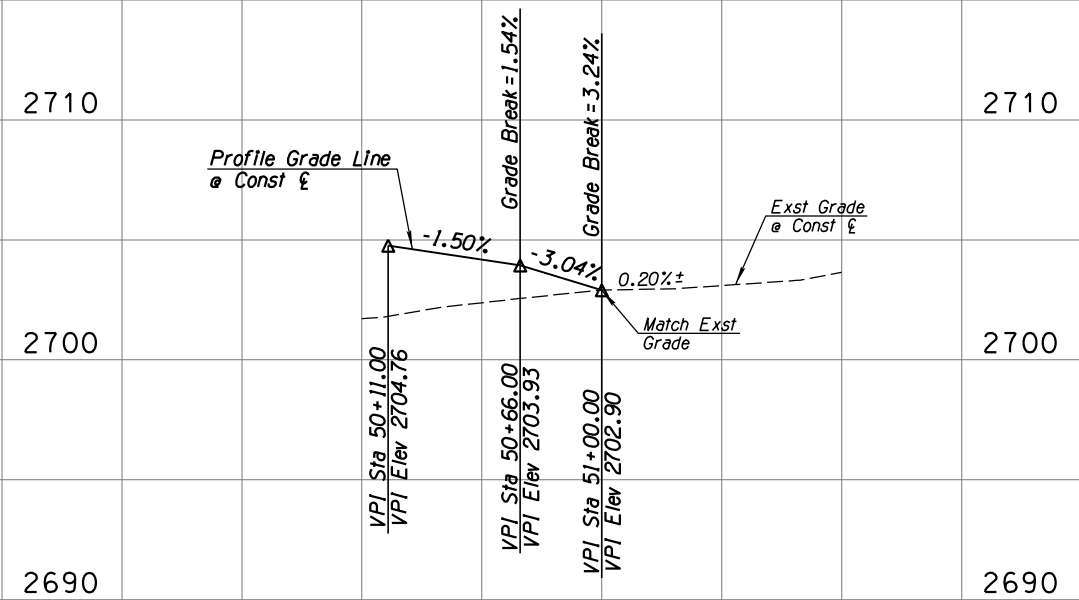
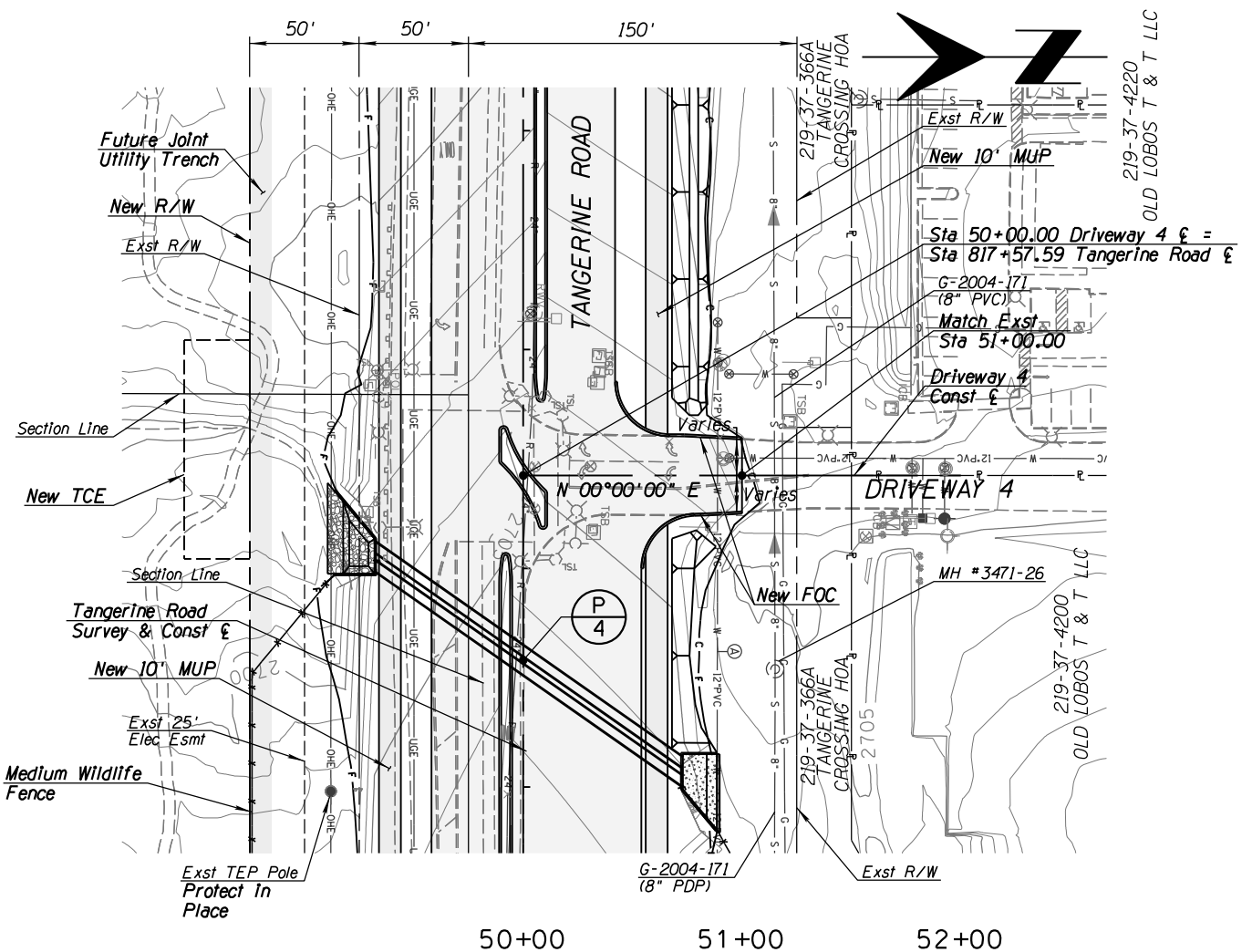
TOWN OF MARANA - PROJECT NO. 2005-061
SIDE STREET PLAN AND PROFILE
FOR
TANGERINE ROAD
VERCH WAY &
SAGE BROOK

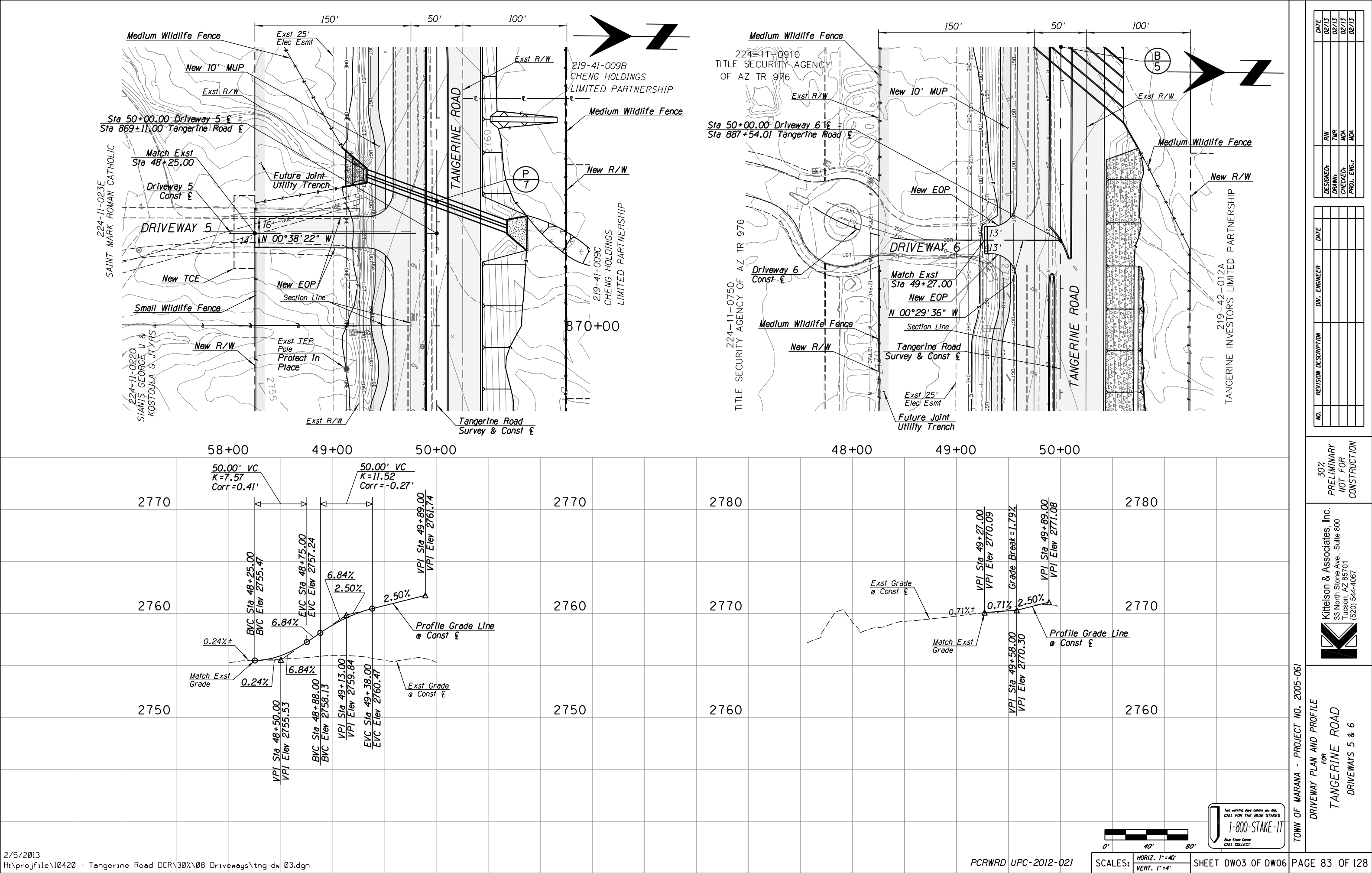


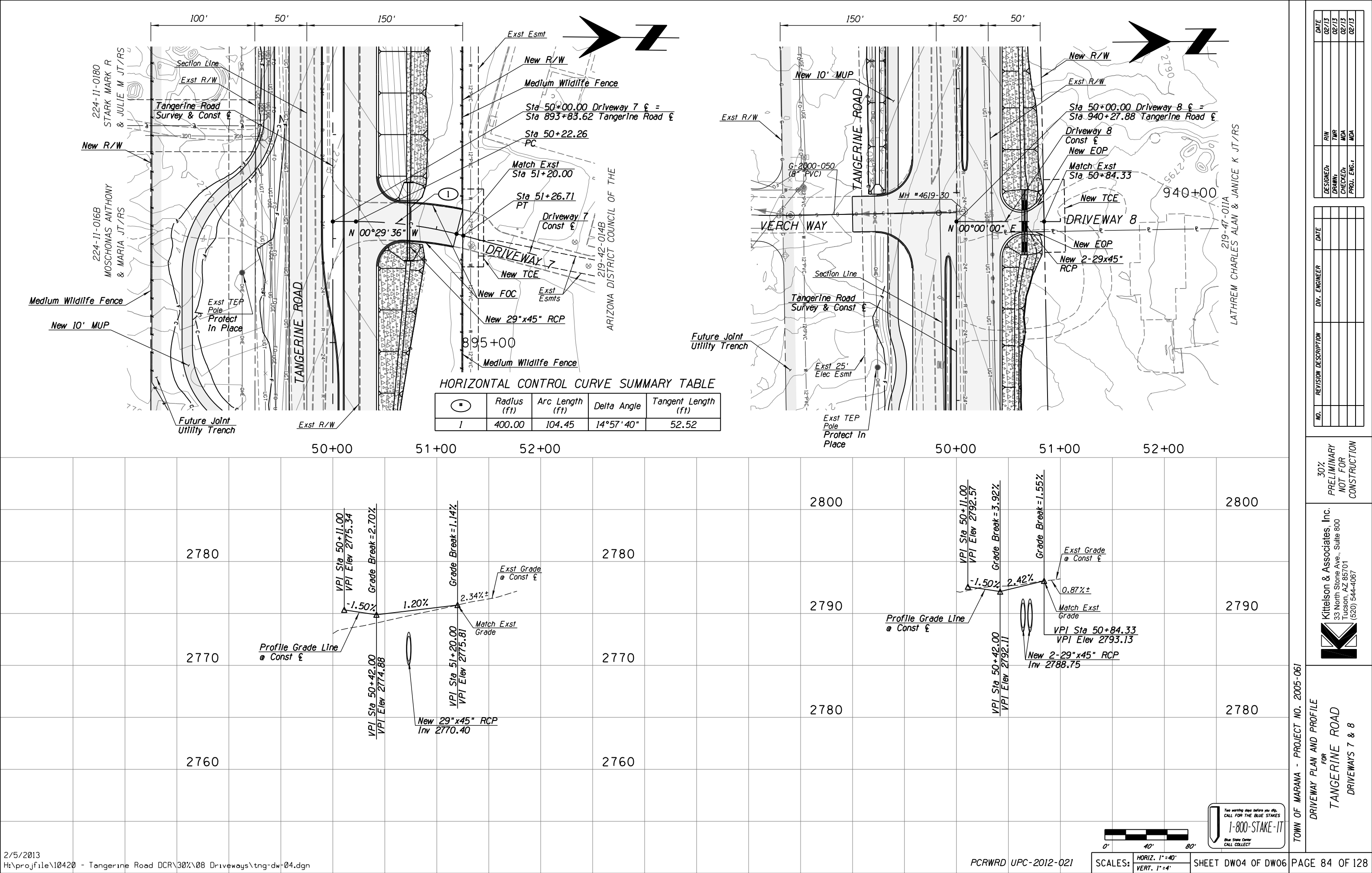
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CHECKED BY	DATE
	02/13
PROJ. ENG. BY	DATE
	02/13



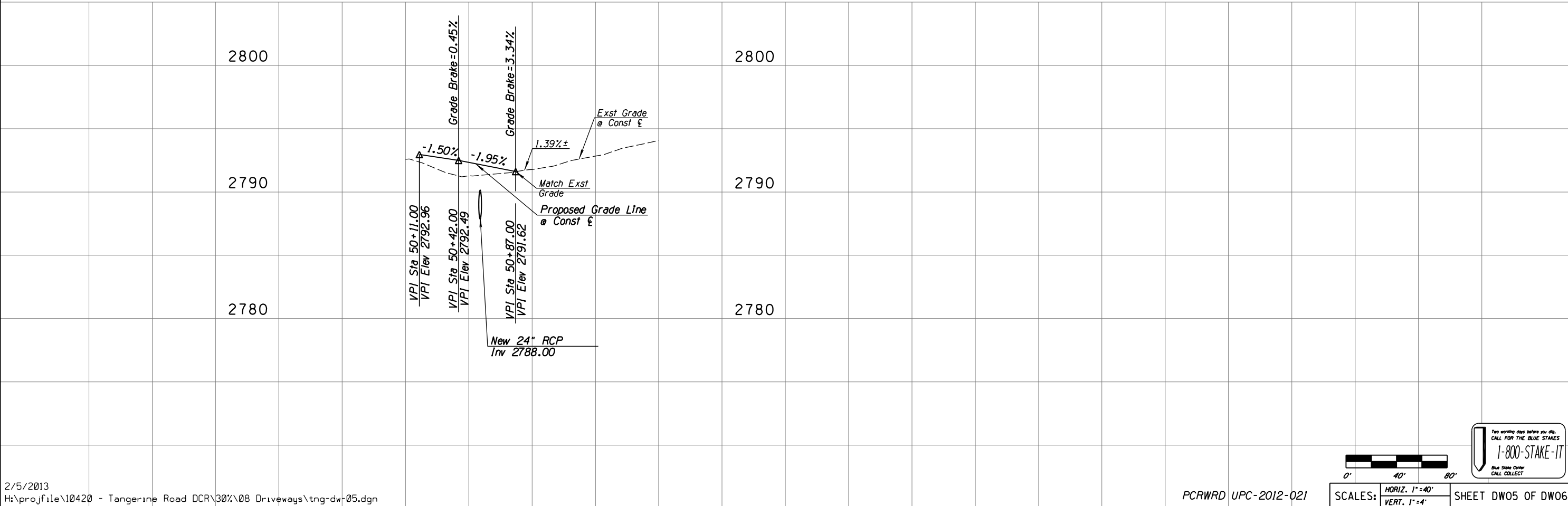
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NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.


DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
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PROJ. ENG.:	MDA	02/13

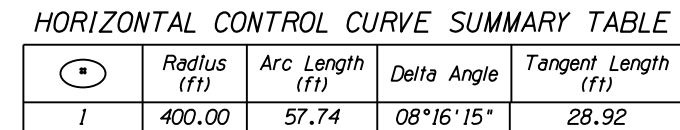
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(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
DRIVEWAY PLAN AND PROFILE
FOR
TANGERINE ROAD
DRIVEWAY 9




Two working days before you dig.
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue Stake Center
CALL COLLECT

			DATE
DESIGNED _t	FIN		02/13
DRAWN _t	TMR		02/13
CHECKED _t	MDA		02/13
PROJ. ENG. _t	MDA		02/13

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

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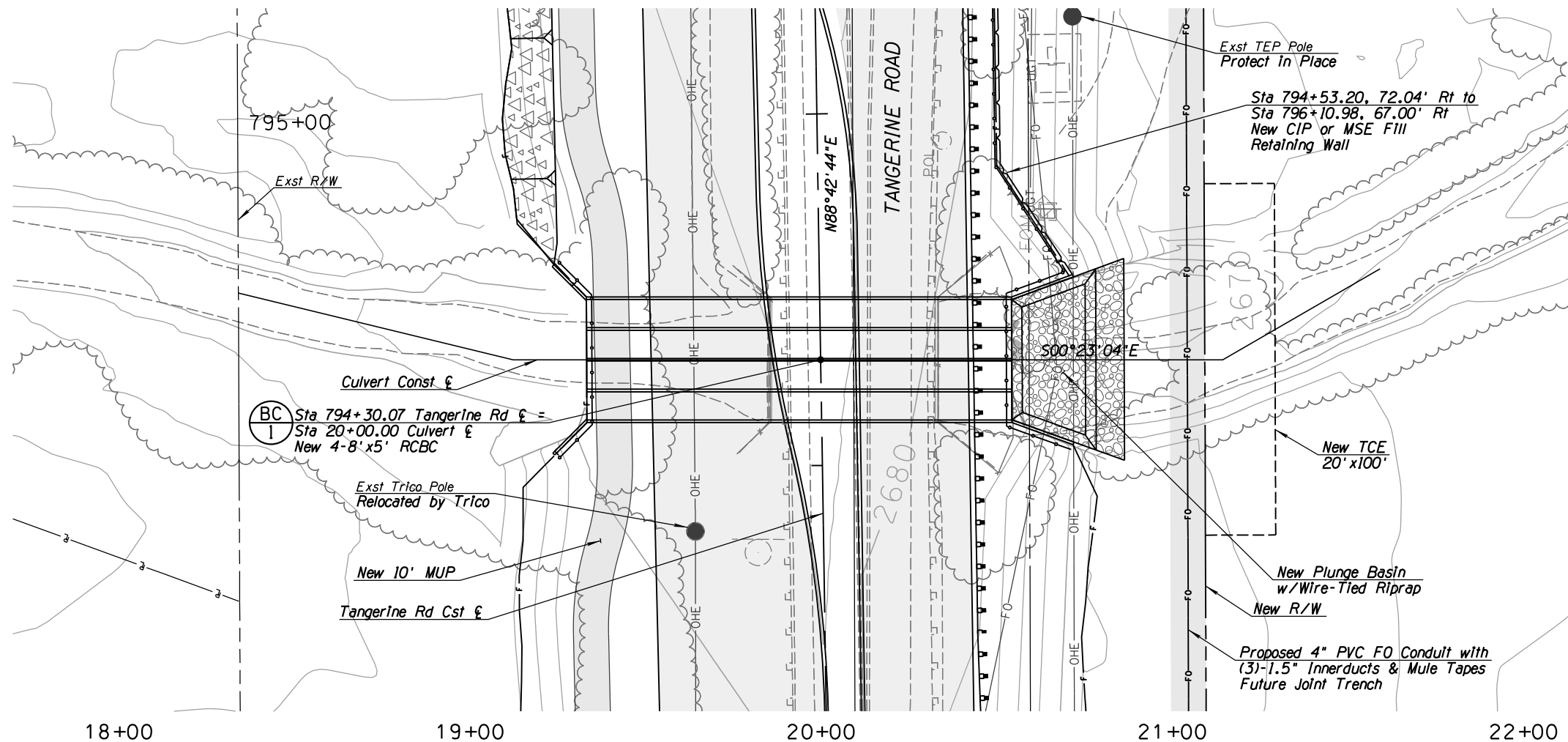
TOWN OF MARANA - PROJECT NO. 2005-061

DRIVEWAY PLAN AND PROFILE

FOR

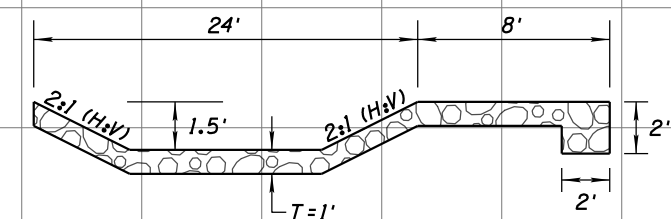
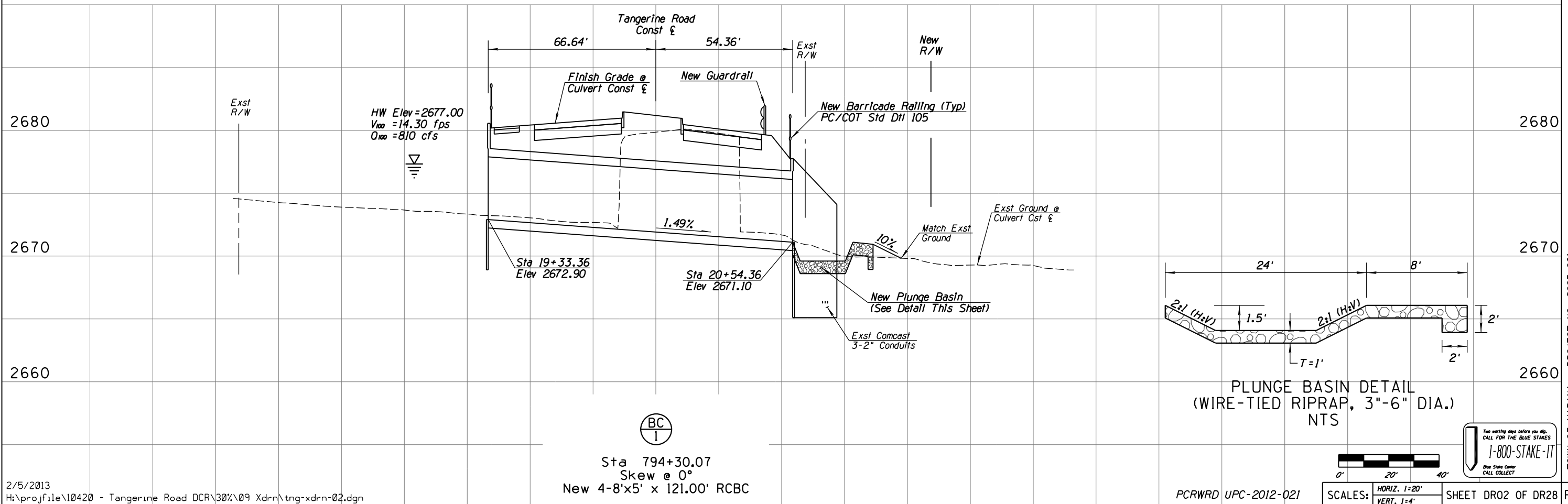
TANGERINE ROAD

DRIVEWAYS 10 & 11



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.30 (Modified) with 0° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.10 (Modified) with 0° skew and 4:1 slopes.



PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 3"-6" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'



TOWN OF MARANA - PROJECT NO. 2005-061

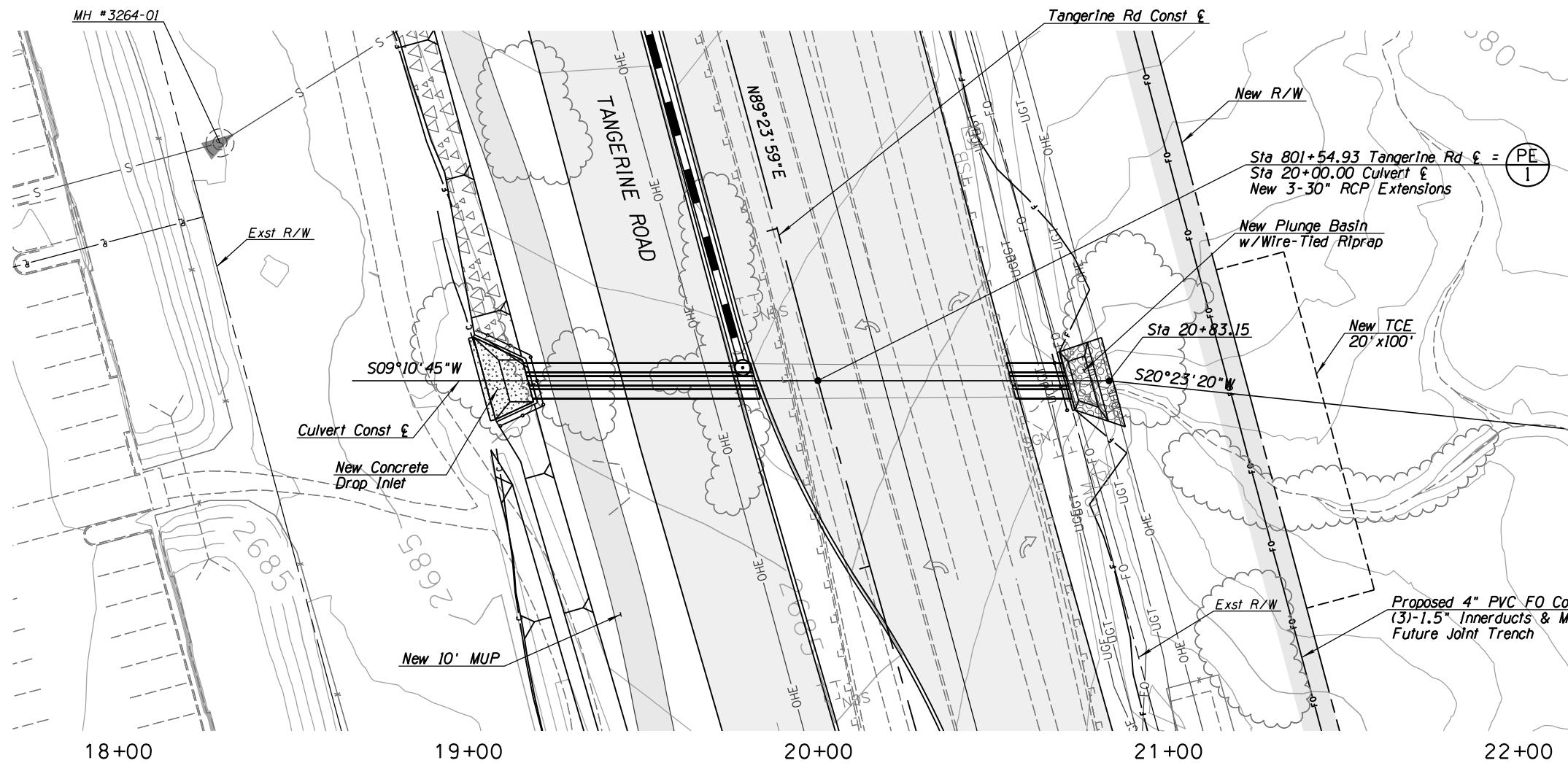
FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 794+30.07
TANGERINE ROAD

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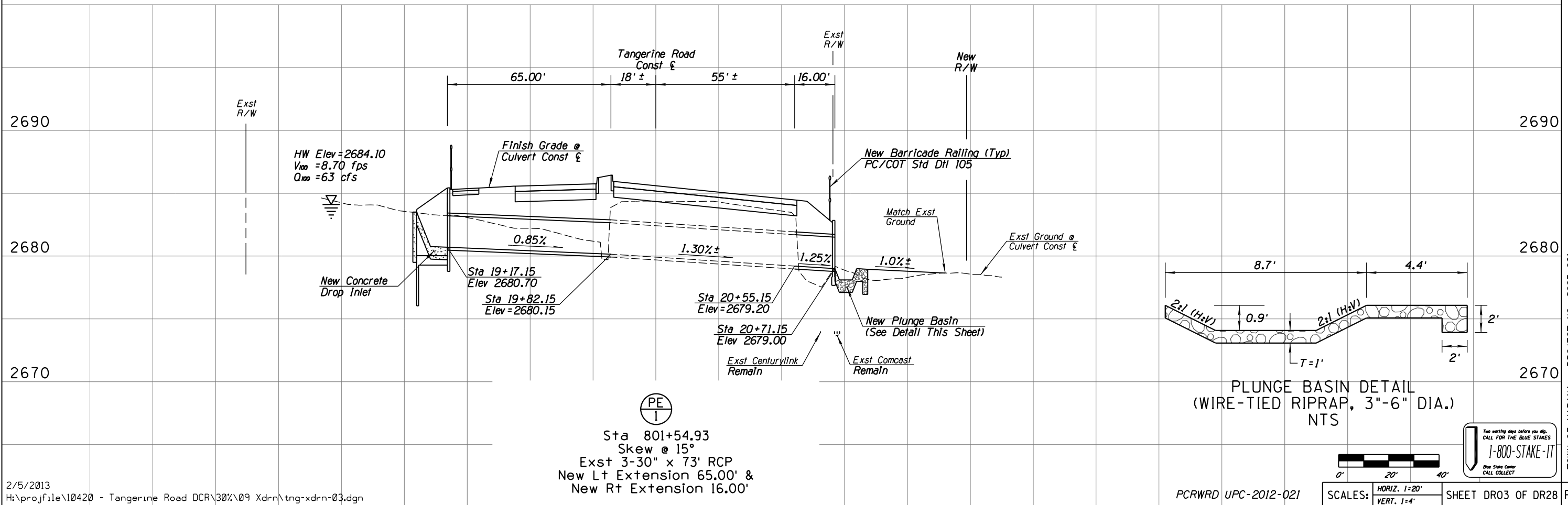
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DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 15° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 15° skew and 6:1 slopes.



Sta 801+54.93
Skew @ 15°
Exst 3-30" x 73" RCP
New Lt Extension 65.00' &
New Rt Extension 16.00'

DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	02/13	02/13	02/13	02/13
	FIN	TWS	MDA	MDA

NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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PRELIMINARY
NOT FOR
CONSTRUCTION

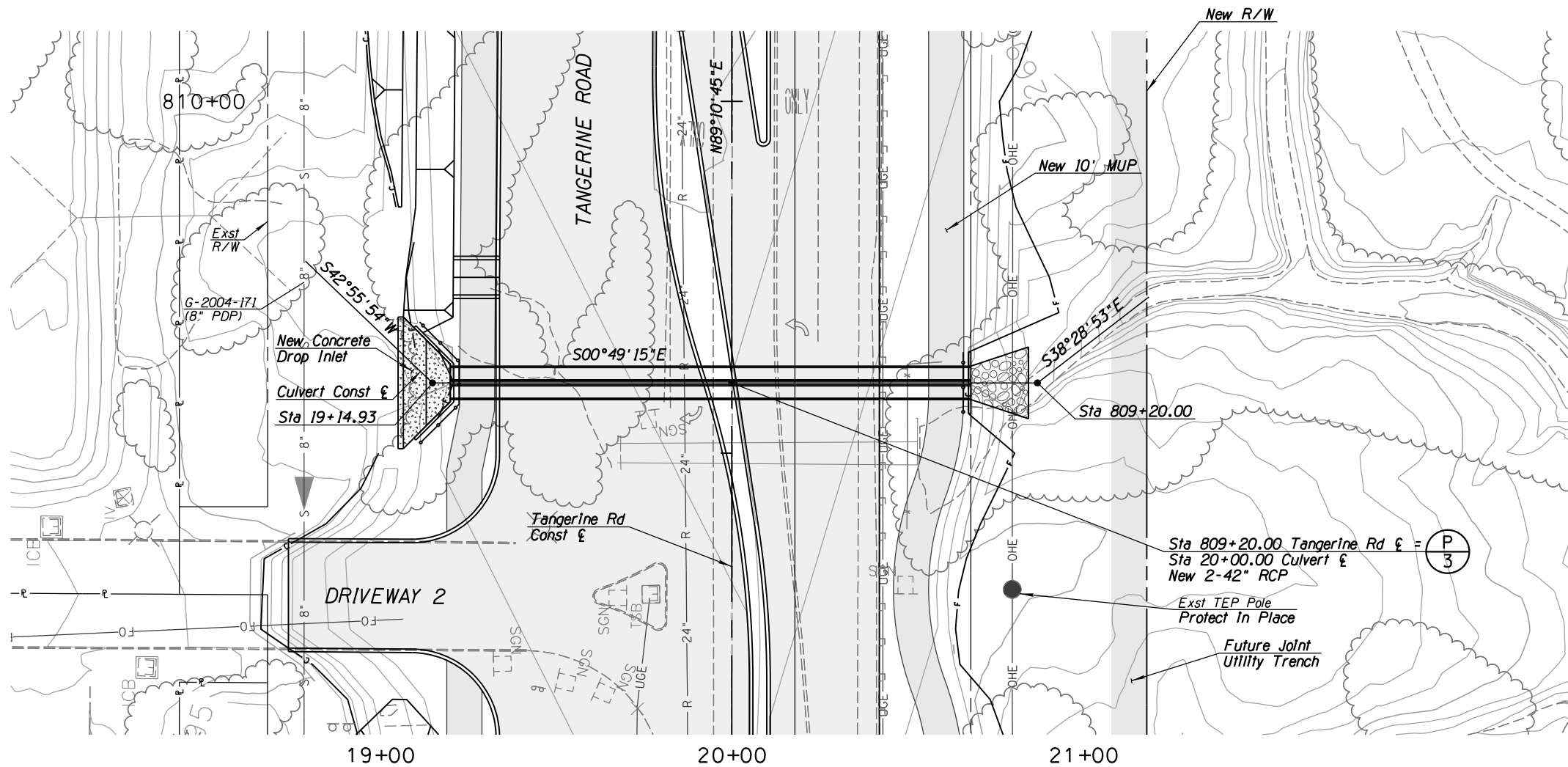
Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
DRAINAGE PLAN AND PROFILE
FOR
TANGERINE ROAD
STA 801+54.93
TANGERINE ROAD



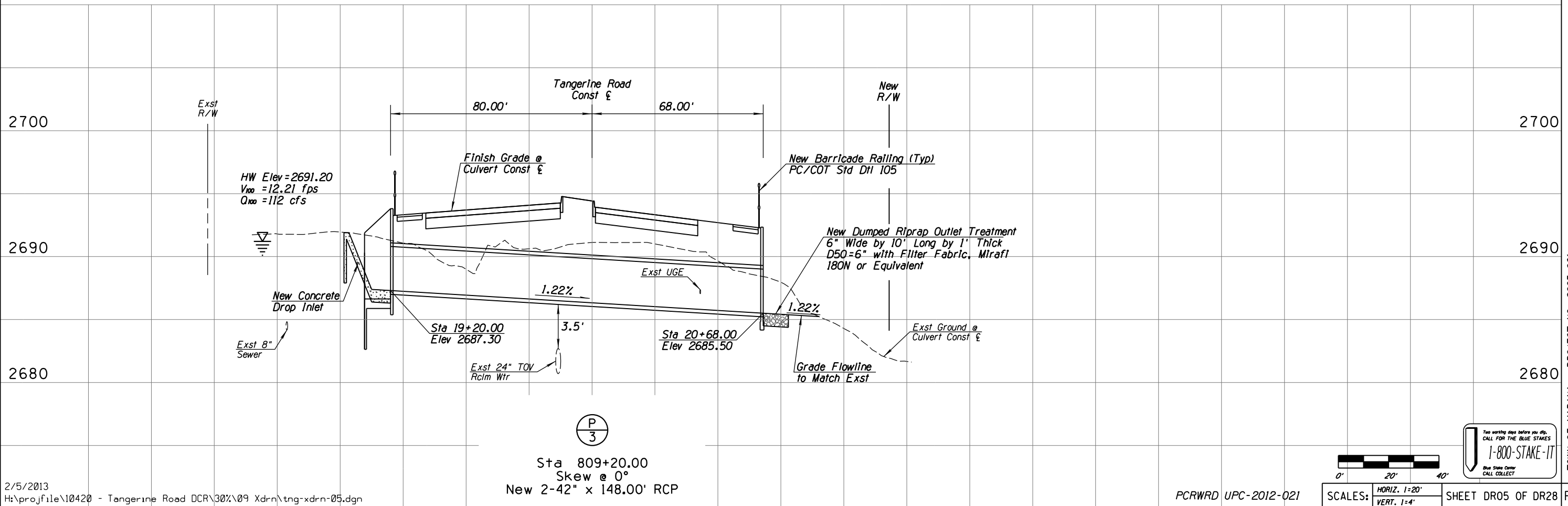
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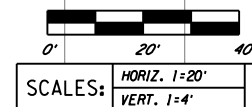


NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 15° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 15° skew and 6:1 slopes.

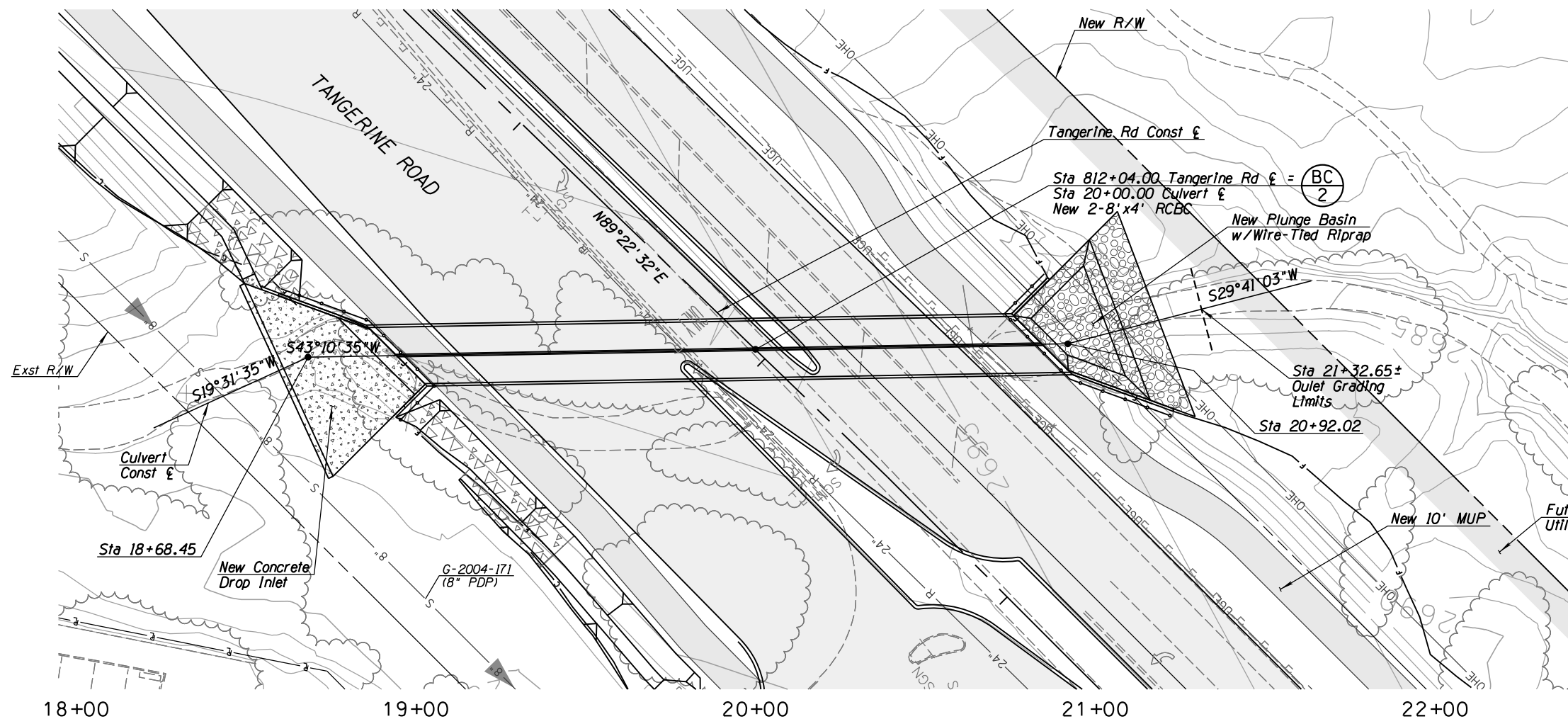


Sta 809+20.00
 Skew @ 0°
 New 2-42" x 148.00' RCP



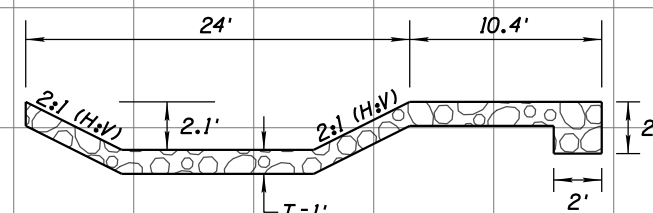
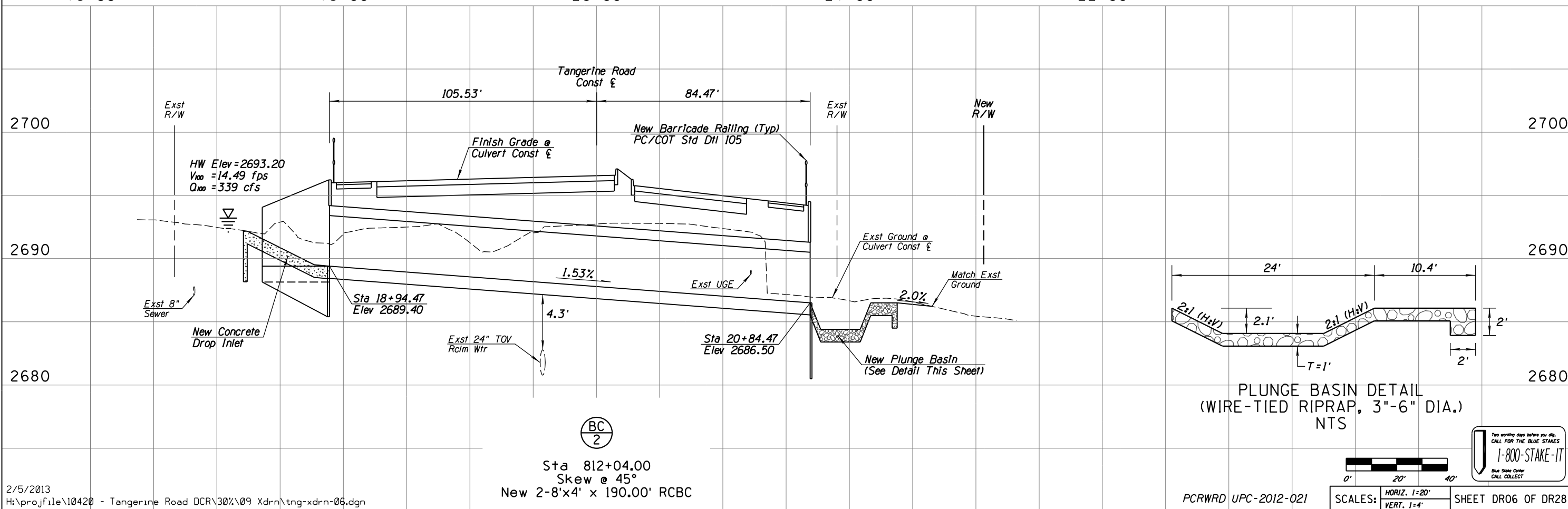
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				02/13
				02/13
				02/13



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.70 (Modified) with 45° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified) with 45° skew and 6:1 slopes.



PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 3"-6" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue State Center
CALL COLLECT

DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	AW	TWS	MDA	MDA

NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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K

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(520) 544-4067

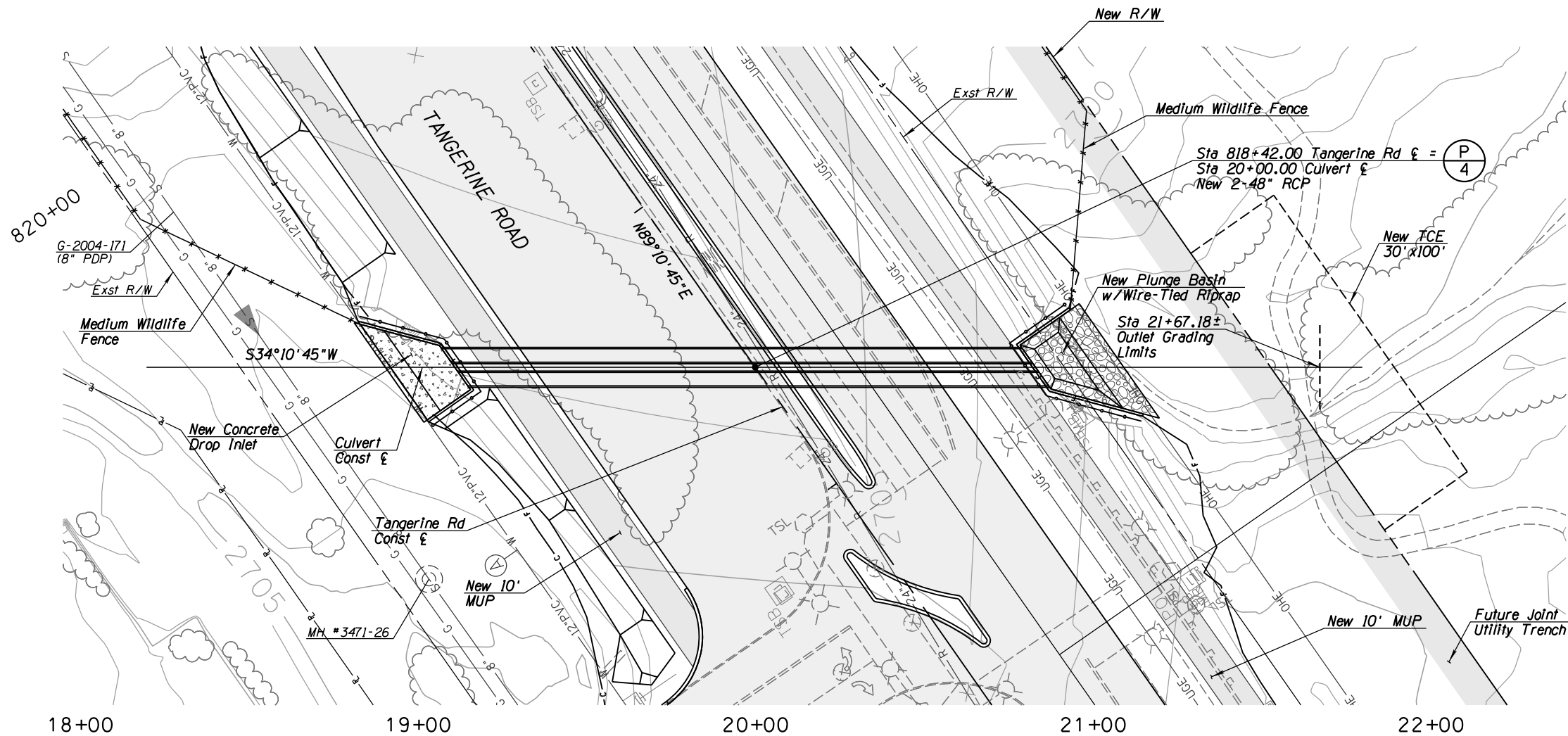
TOWN OF MARANA - PROJECT NO. 2005-061

FOR
DRAINAGE PLAN AND PROFILE

TANGERINE ROAD

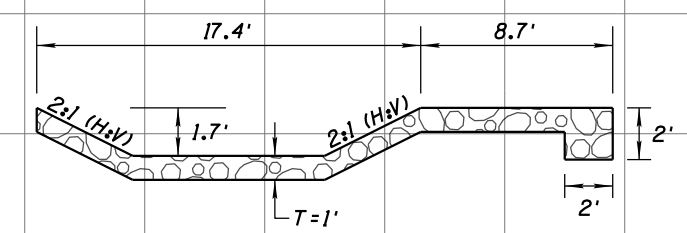
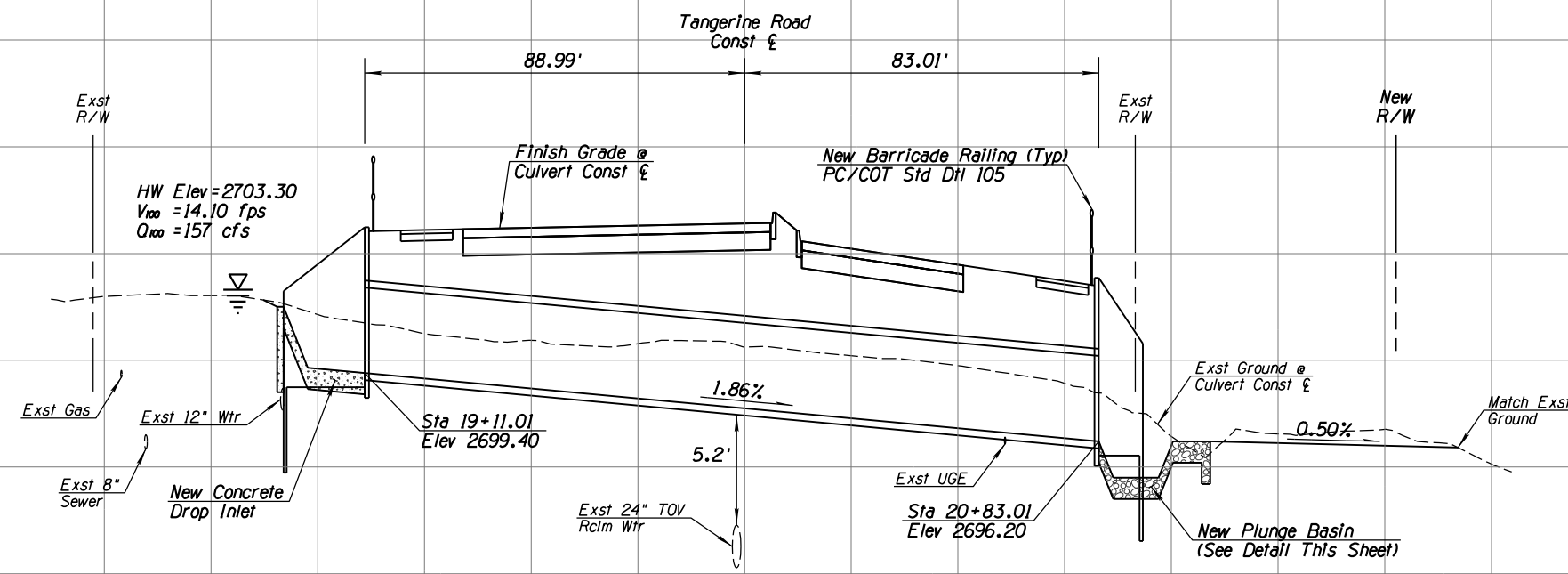
STA 812+04.00

TANGERINE ROAD



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes.




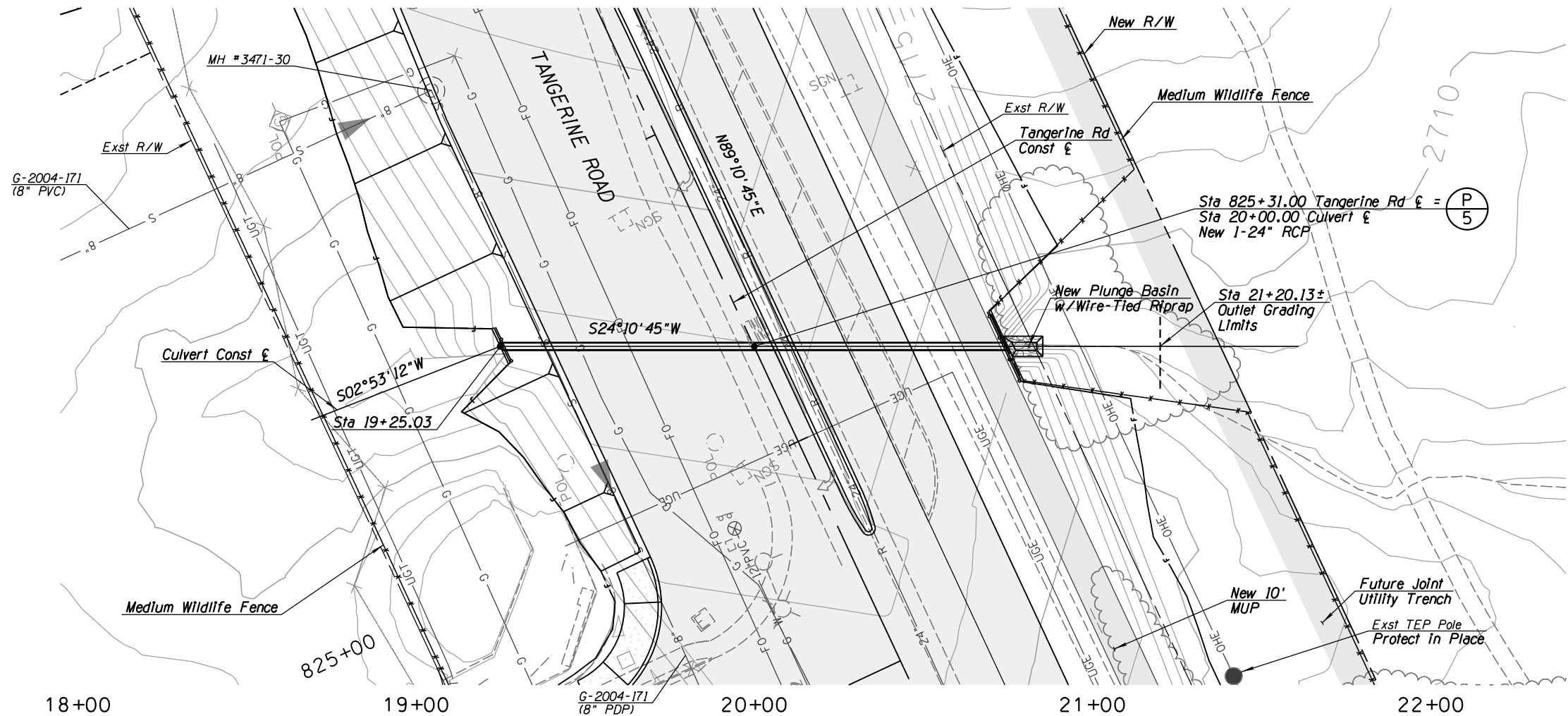
PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 3'-6" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

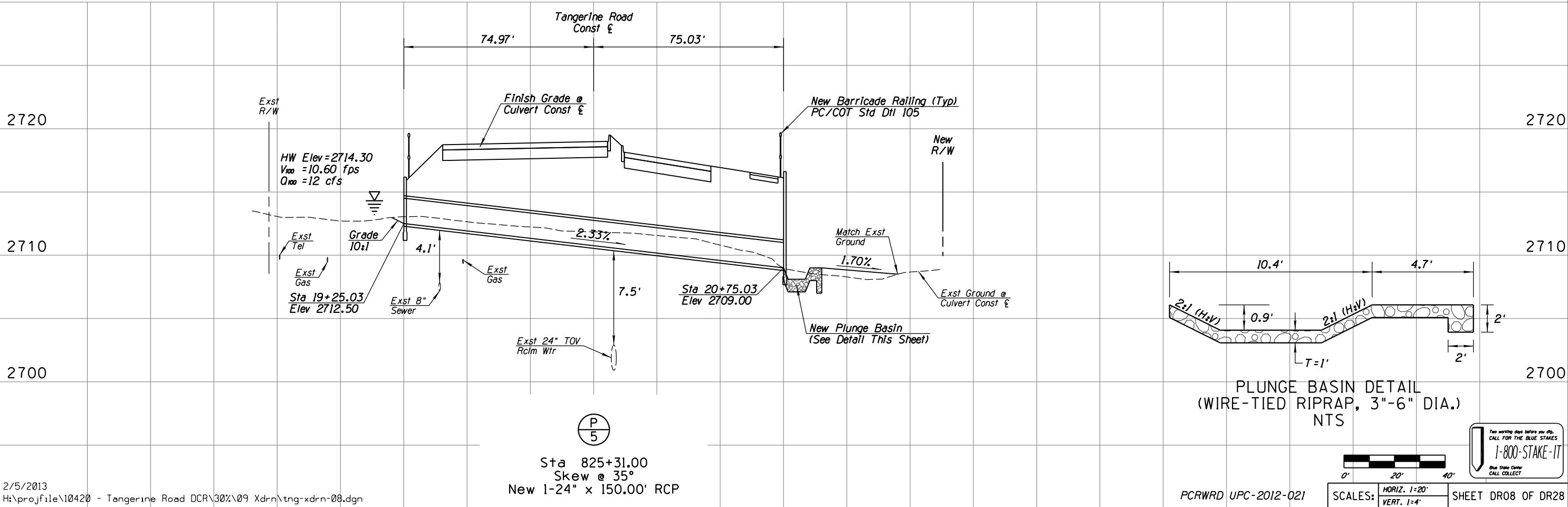
Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue State Center
CALL COLLECT

TOWN OF MARANA - PROJECT NO. 2005-061																																							
AGE 93 OF 128																																							
DRAINAGE PLAN AND PROFILE FOR TANGERINE ROAD STA 818+42.00 TANGERINE ROAD																																							
<div><div>Kittelson & Associates, Inc. 33 North Stone Ave., Suite 800 Tucson, AZ 85701 (520) 544-4067</div></div>																																							
30% PRELIMINARY NOT FOR CONSTRUCTION																																							
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NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 with 25° skew and 4:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 25° skew and 6:1 slopes.



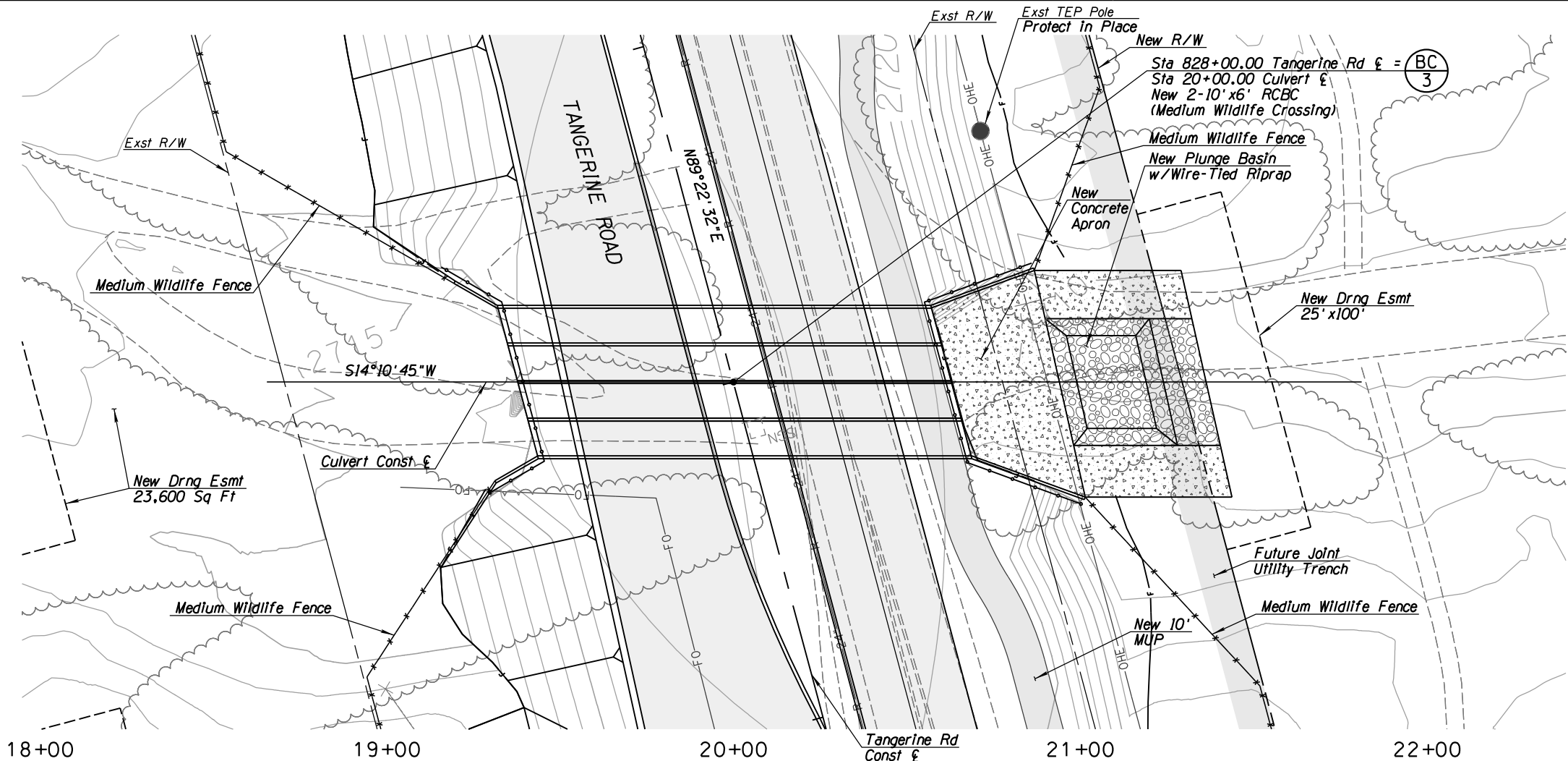
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NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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CONSTRUCTION

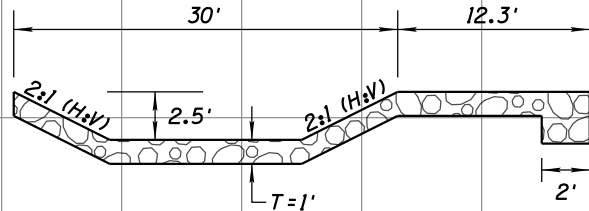
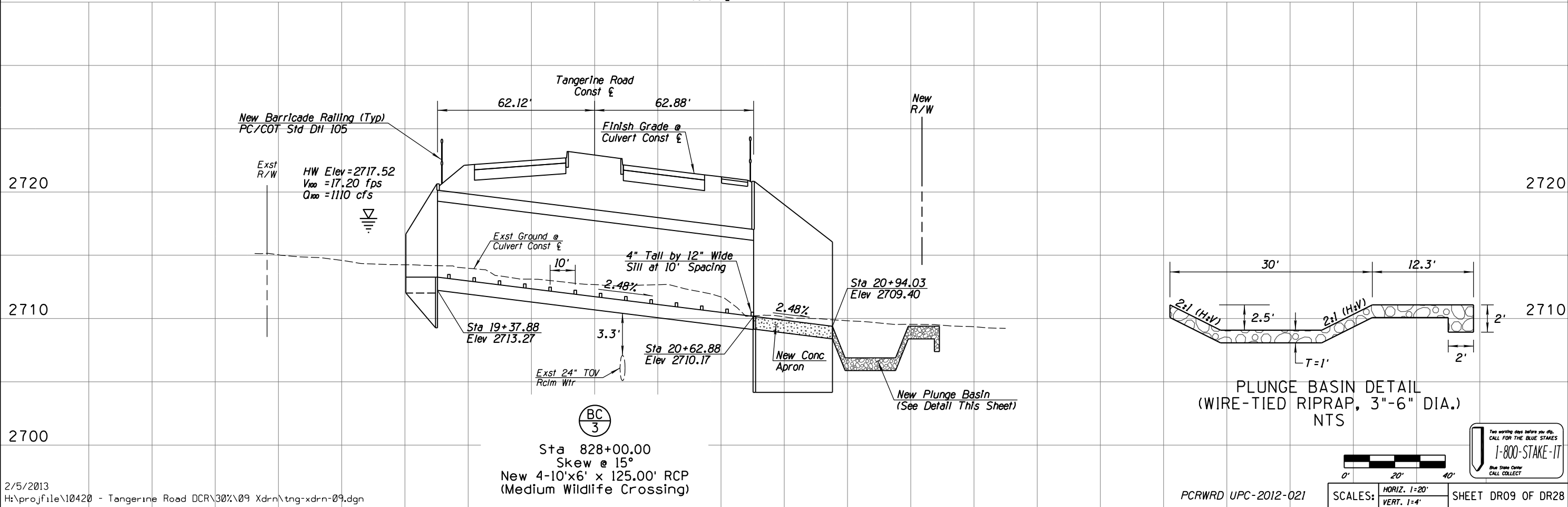
Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 825+31.00
TANGERINE ROAD



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.30 with 15° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.10 (Modified) with 15° skew and 6:1 slopes.



PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 3"-6" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET DR09 OF DR28

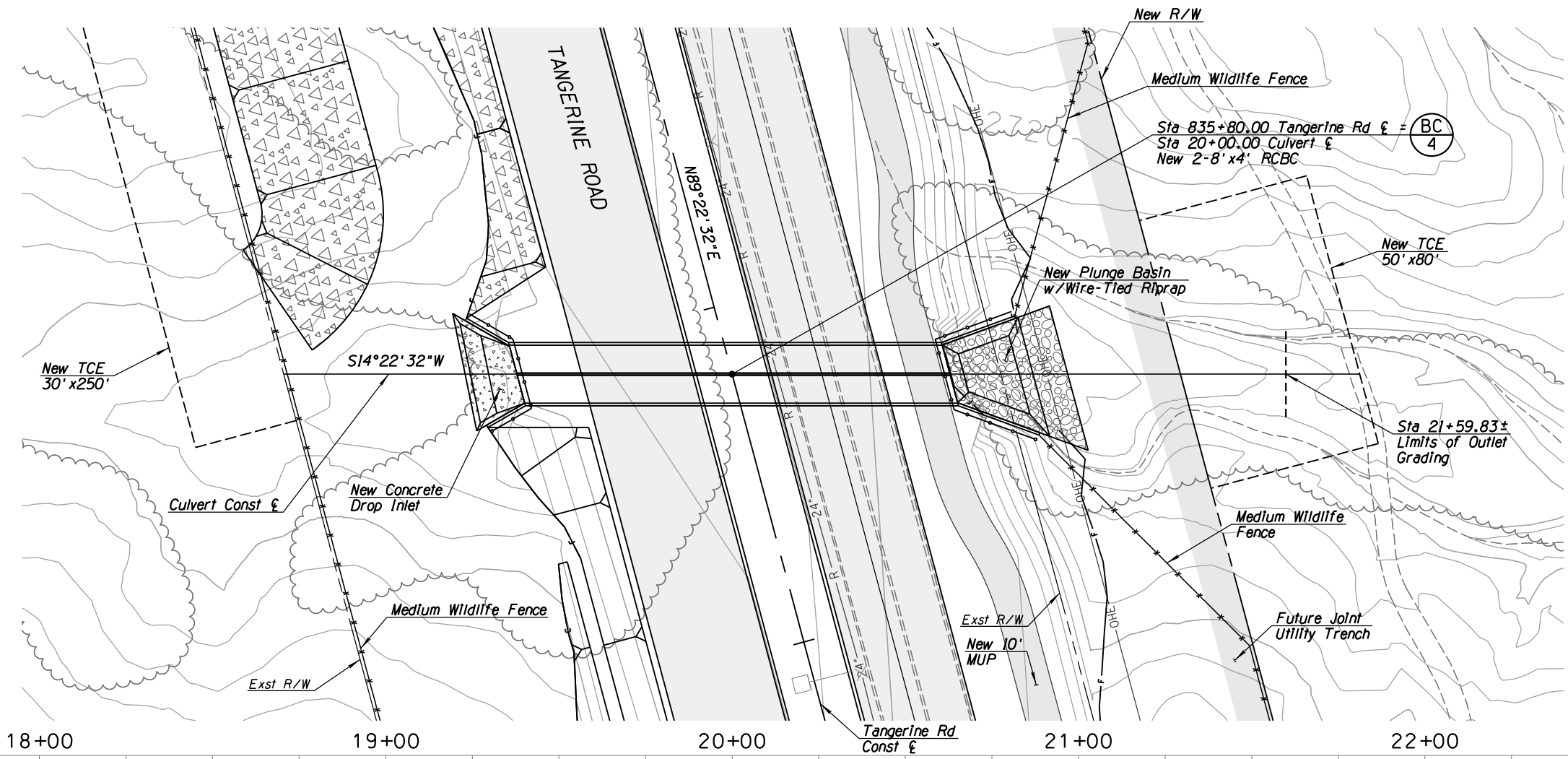
TOWN OF MARANA - PROJECT NO. 2005-061

FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 828+00.00
TANGERINE ROAD

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Tucson, AZ 85701
(520) 544-4067

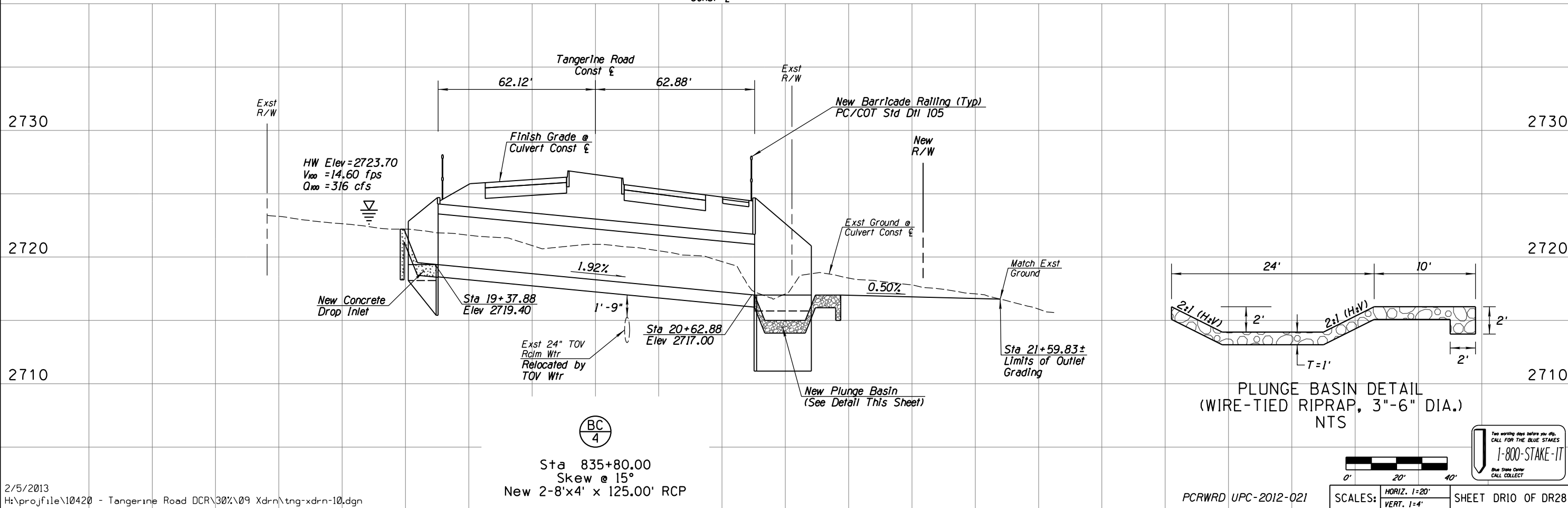
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CONSTRUCTION

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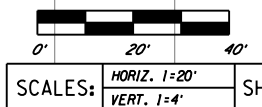


NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.30 with 15° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.10 (Modified) with 15° skew and 6:1 slopes.



Sta 835+80.00
Skew @ 15°
New 2-8'x4' x 125.00' RCP



Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue State Center
CALL COLLECT

DATE	02/13	02/13	02/13	02/13
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PROJ. ENG.				

NO.	REVISION DESCRIPTION	DATE

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PRELIMINARY
NOT FOR
CONSTRUCTION

TOWN OF MARANA - PROJECT NO. 2005-061

FOR
DRAINAGE PLAN AND PROFILE

TANGERINE ROAD

STA 835+80

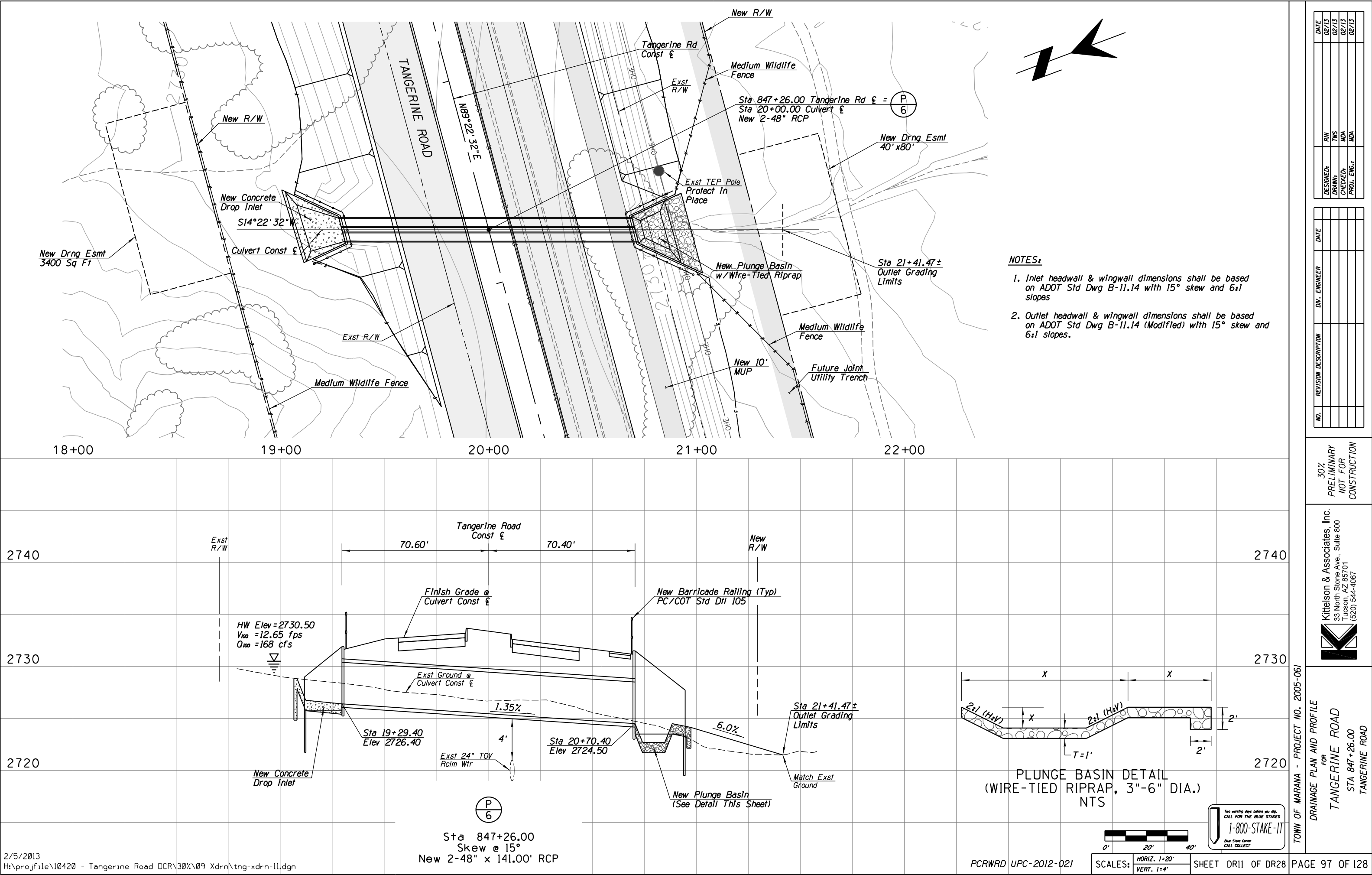
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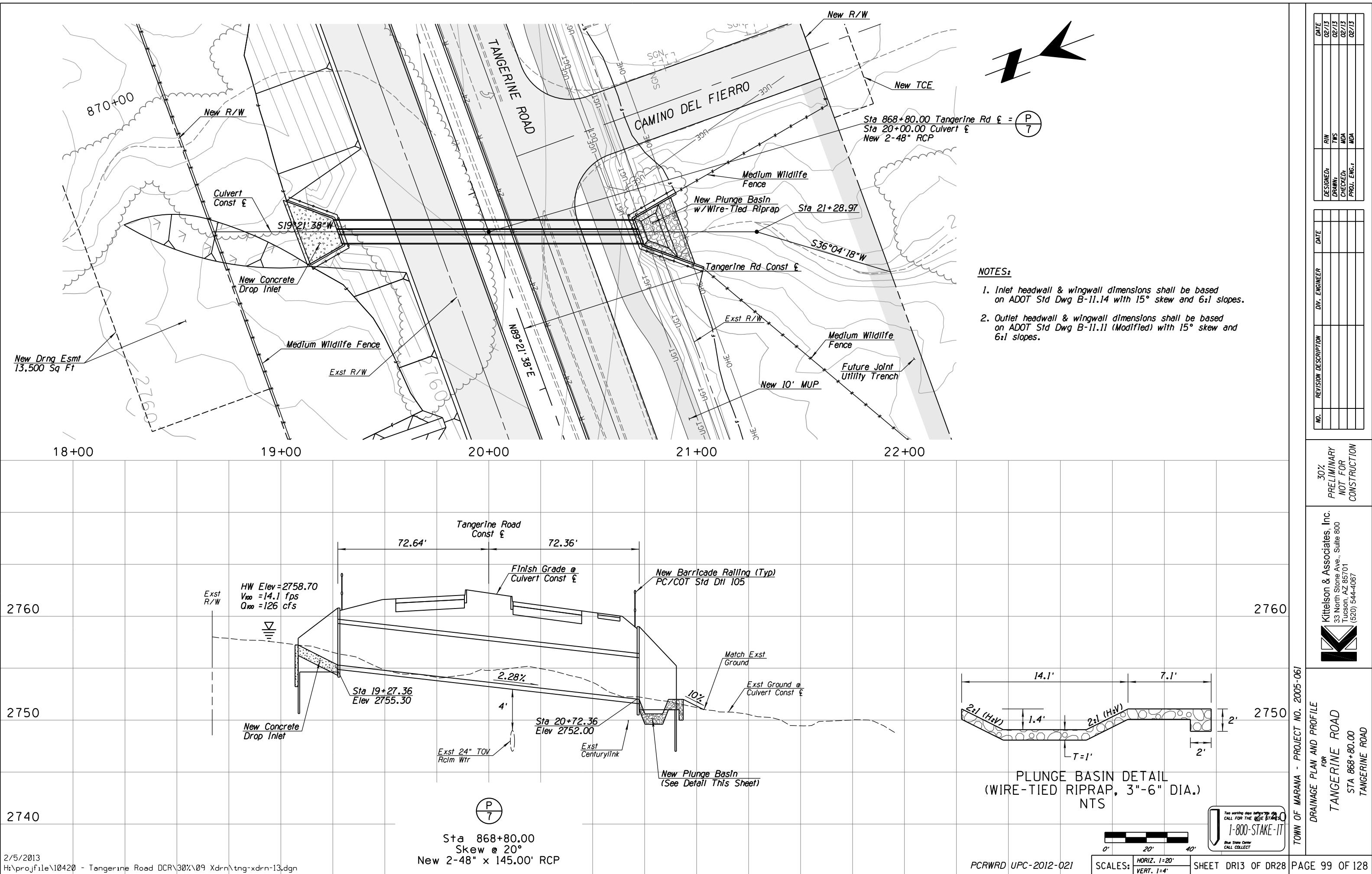
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Tucson, AZ 85701
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Blue State Center
CALL COLLECT

Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT

DATE





Sta 868+80.00
Skew @ 20°
New 2-48" x 145.00' RCP

PCRWRD UPC-2012-021

SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET DR13 OF DR28

PAGE 99 OF 128

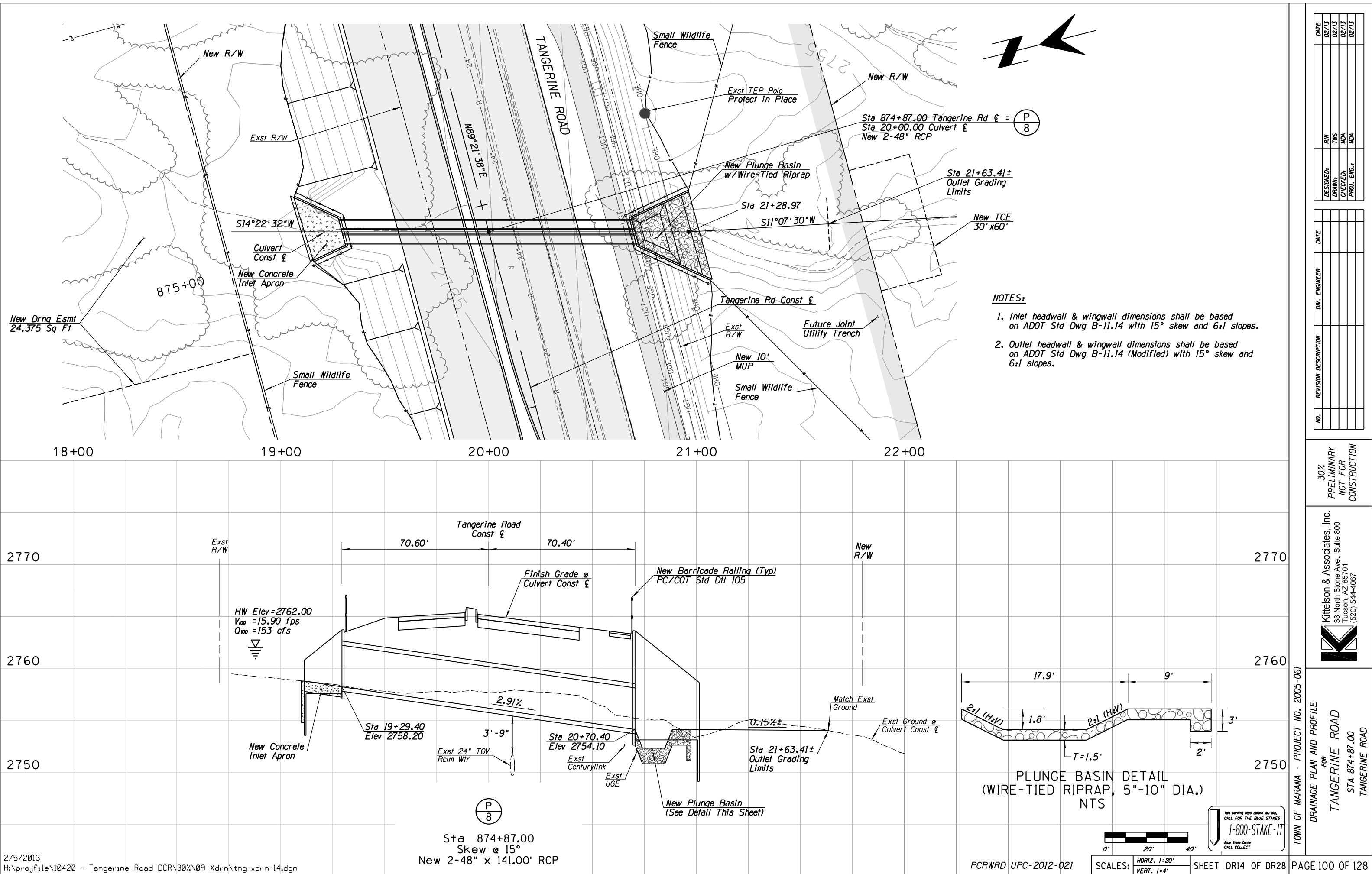
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NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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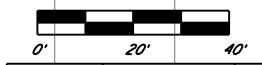
TOWN OF MARANA - PROJECT NO. 2005-061
FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 868+80.00
TANGERINE ROAD



Sta 874+87.00
Skew @ 15°
New 2-48" x 141.00' RCP

- NOTES:**
- 1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 with 15° skew and 6:1 slopes.
 - 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 15° skew and 6:1 slopes.

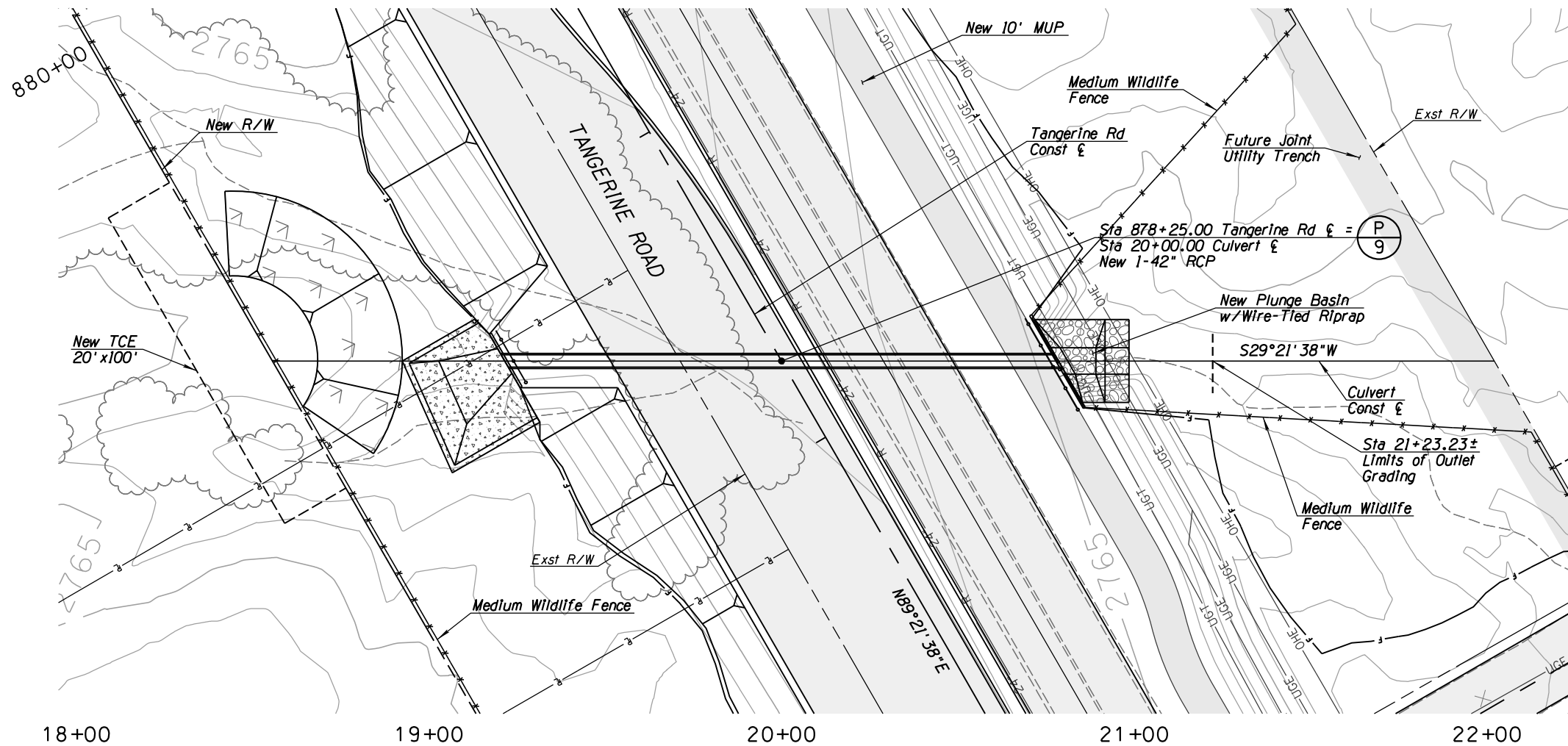
PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 5"-10" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

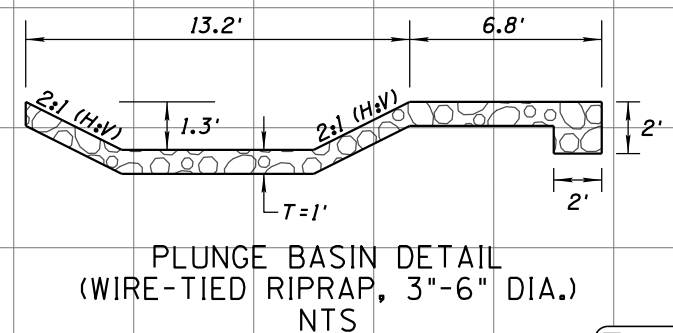
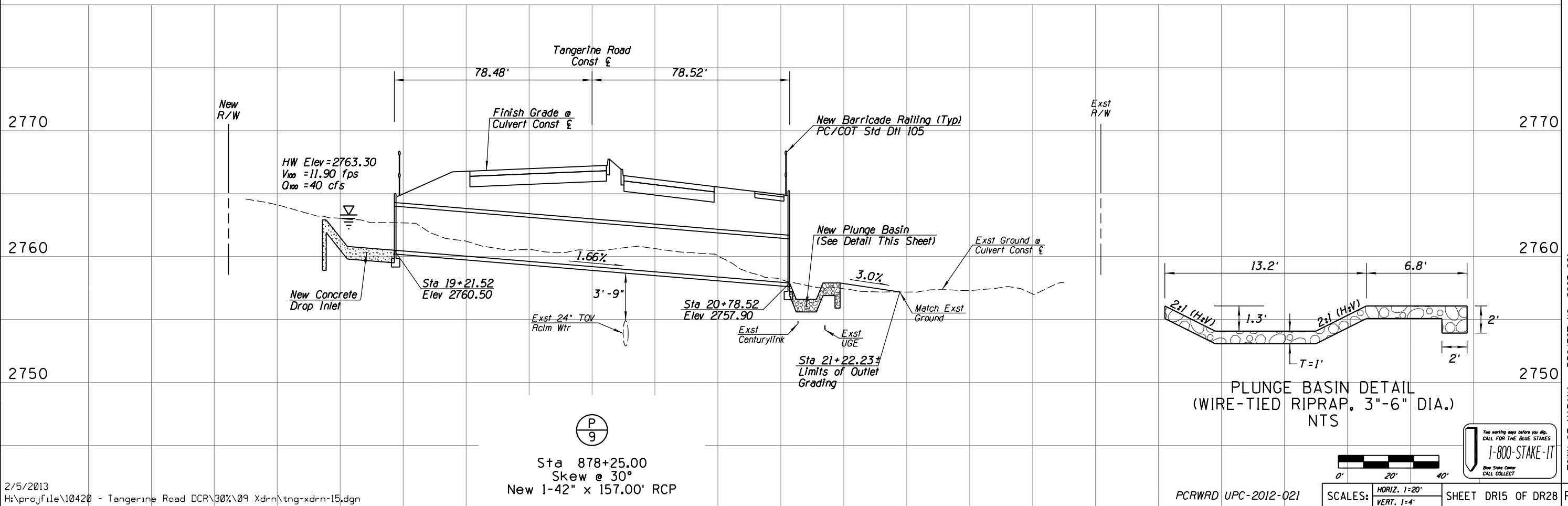


TOWN OF MARANA - PROJECT NO. 2005-061	
DRAINAGE PLAN AND PROFILE FOR TANGERINE ROAD STA 874+87.00 TANGERINE ROAD	
Kittelson & Associates, Inc. 33 North Stone Ave., Suite 800 Tucson, AZ 85701 (520) 544-4067	
30% PRELIMINARY NOT FOR CONSTRUCTION	
DESIGNED: RIN	DATE: 02/13
DRAWN: TWS	DATE: 02/13
CHECKED: MDA	DATE: 02/13
PROJ. ENG.: MDA	DATE: 02/13



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.1 with 30° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.1 (Modified) with 30° skew and 6:1 slopes.



DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	02/13	02/13	02/13	02/13

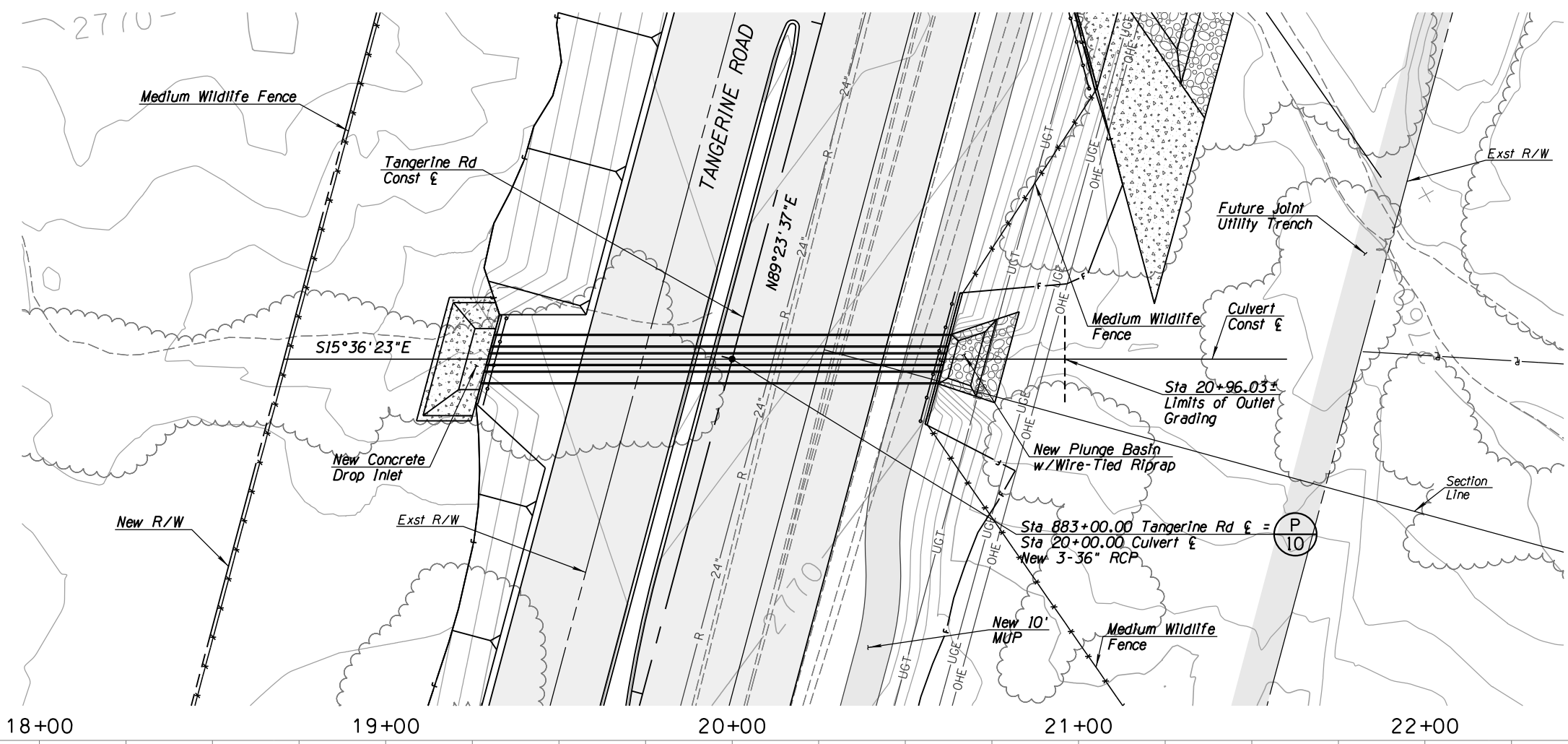
NO.	REVISION DESCRIPTION	DATE	BY	CHKD

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CONSTRUCTION

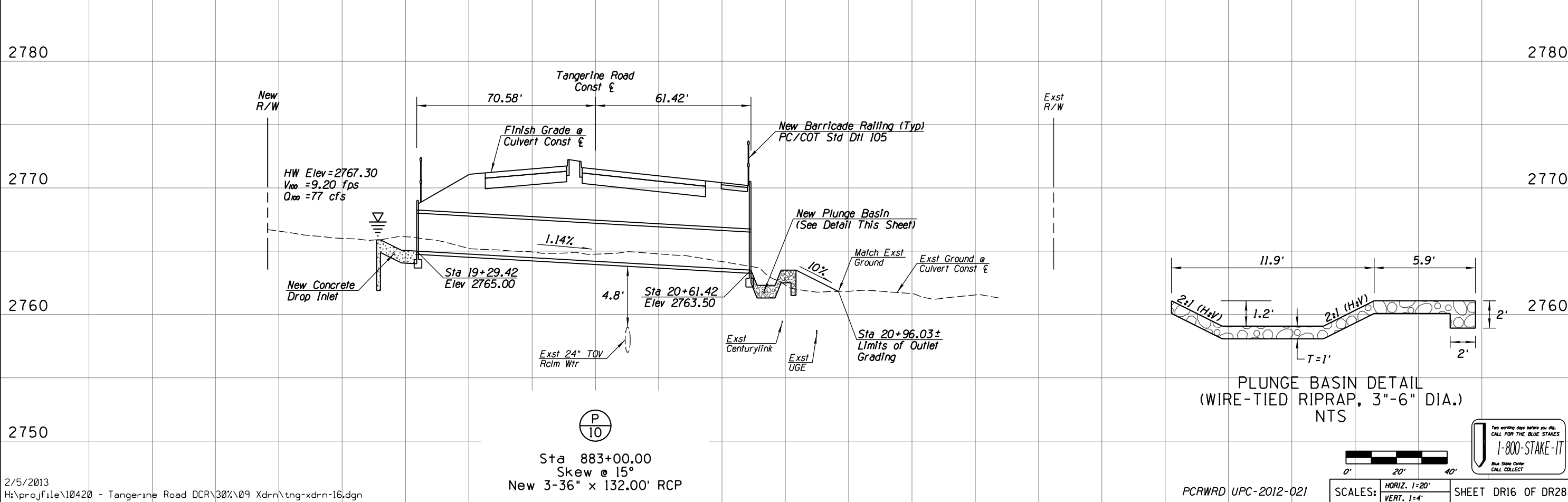
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33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061
FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 878+25.00
TANGERINE ROAD

Two working days before you dig,
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue State Center
CALL COLLECT



- NOTES:**
1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 with 15° skew and 6:1 slopes.
 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 15° skew and 6:1 slopes.



DATE	02/13	02/13	02/13	02/13
DESIGNED	AW	TWS	MDA	MDA
DRAWN				
CHECKED				
PROJ. ENG.				

NO.	REVISION DESCRIPTION	DATE

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TOWN OF MARANA - PROJECT NO. 2005-061

FOR DRAINAGE PLAN AND PROFILE

TANGERINE ROAD
 STA 883+00.00
 TANGERINE ROAD

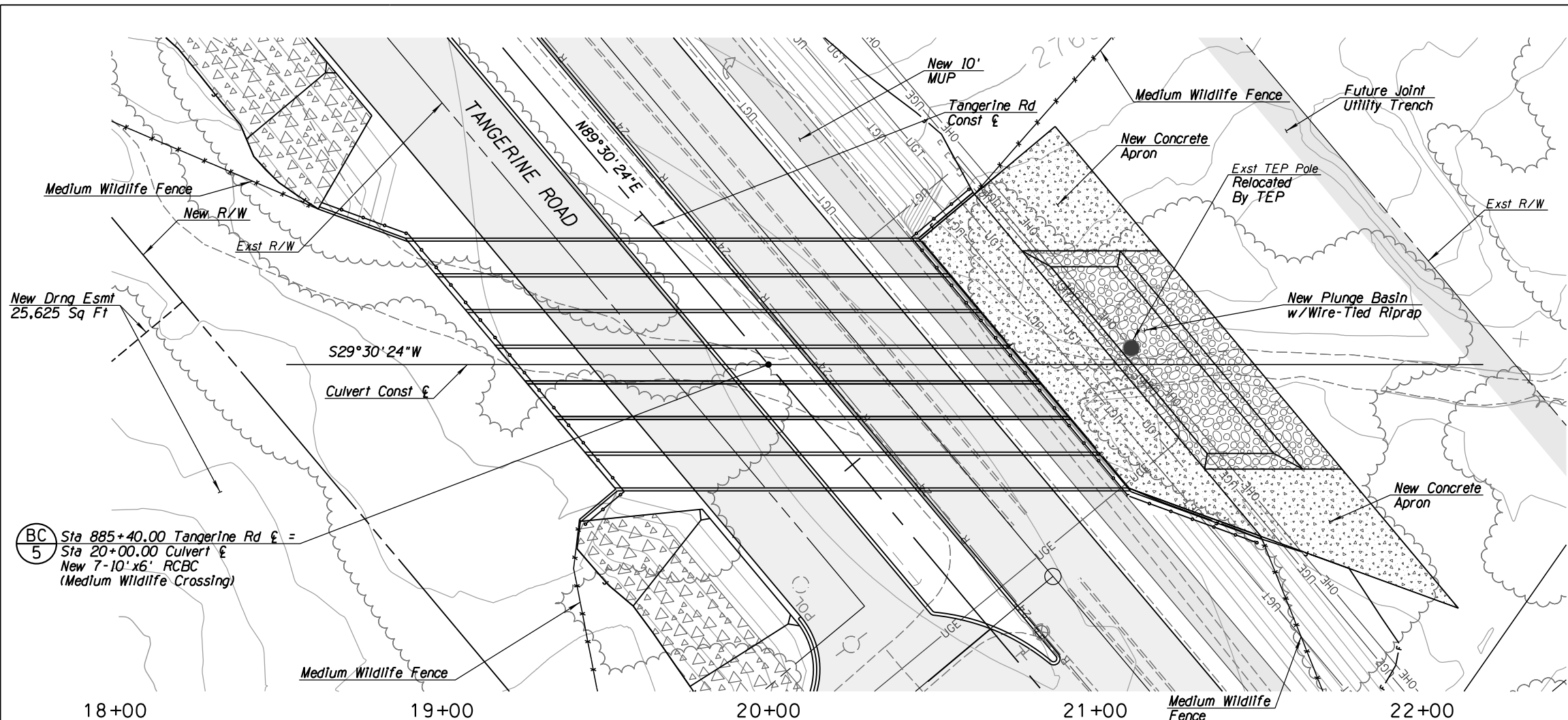
TOWN OF MARANA - PROJECT NO. 2005-061

PCRWDR UPC-2012-021

SCALES: HORIZ. 1"=20' VERT. 1"=4'

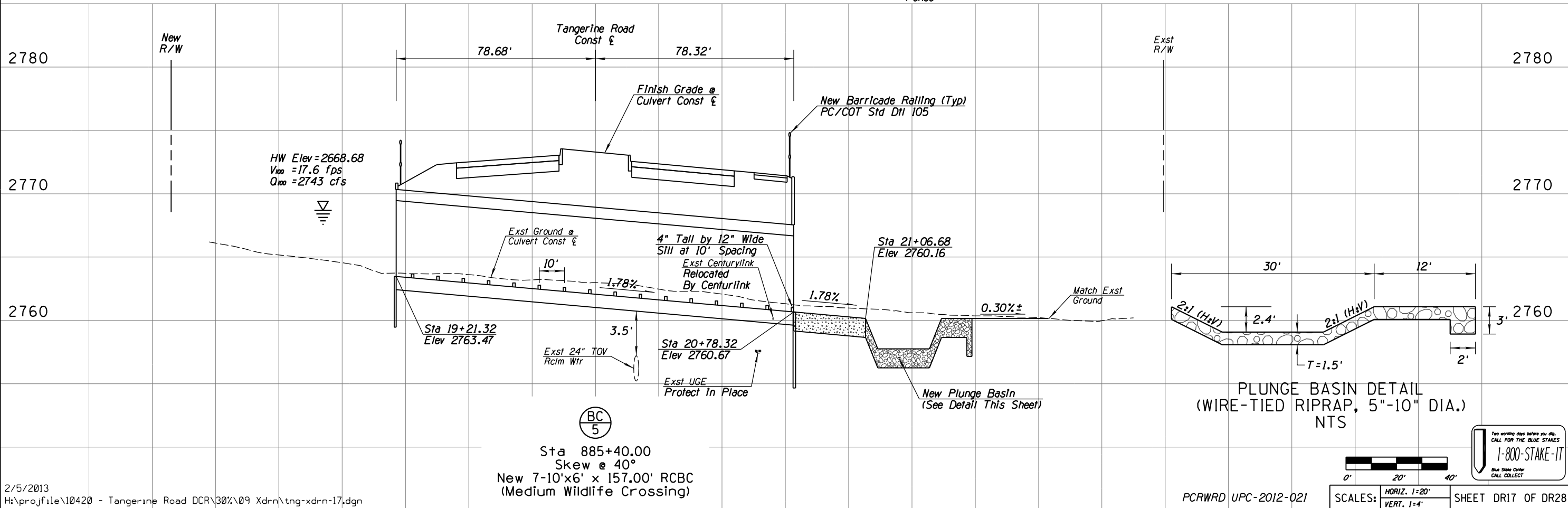
SHEET DR16 OF DR28

PAGE 102 OF 128

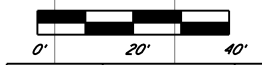


NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.70 with 40° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified) with 40° skew and 4:1 slopes.



PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 5"-10" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'



Sta 885+40.00
Skew @ 40°
New 7-10'x6' x 157.00' RCBC
(Medium Wildlife Crossing)

NO.	REVISION DESCRIPTION	DATE	DESIGNED	CHECKED	PROJ. ENG.	MDA
1		02/13				
2		02/13				
3		02/13				
4		02/13				

NO.	REVISION DESCRIPTION	DATE	DESIGNED	CHECKED	PROJ. ENG.	MDA
1		02/13				
2		02/13				
3		02/13				
4		02/13				

30% PRELIMINARY NOT FOR CONSTRUCTION

Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

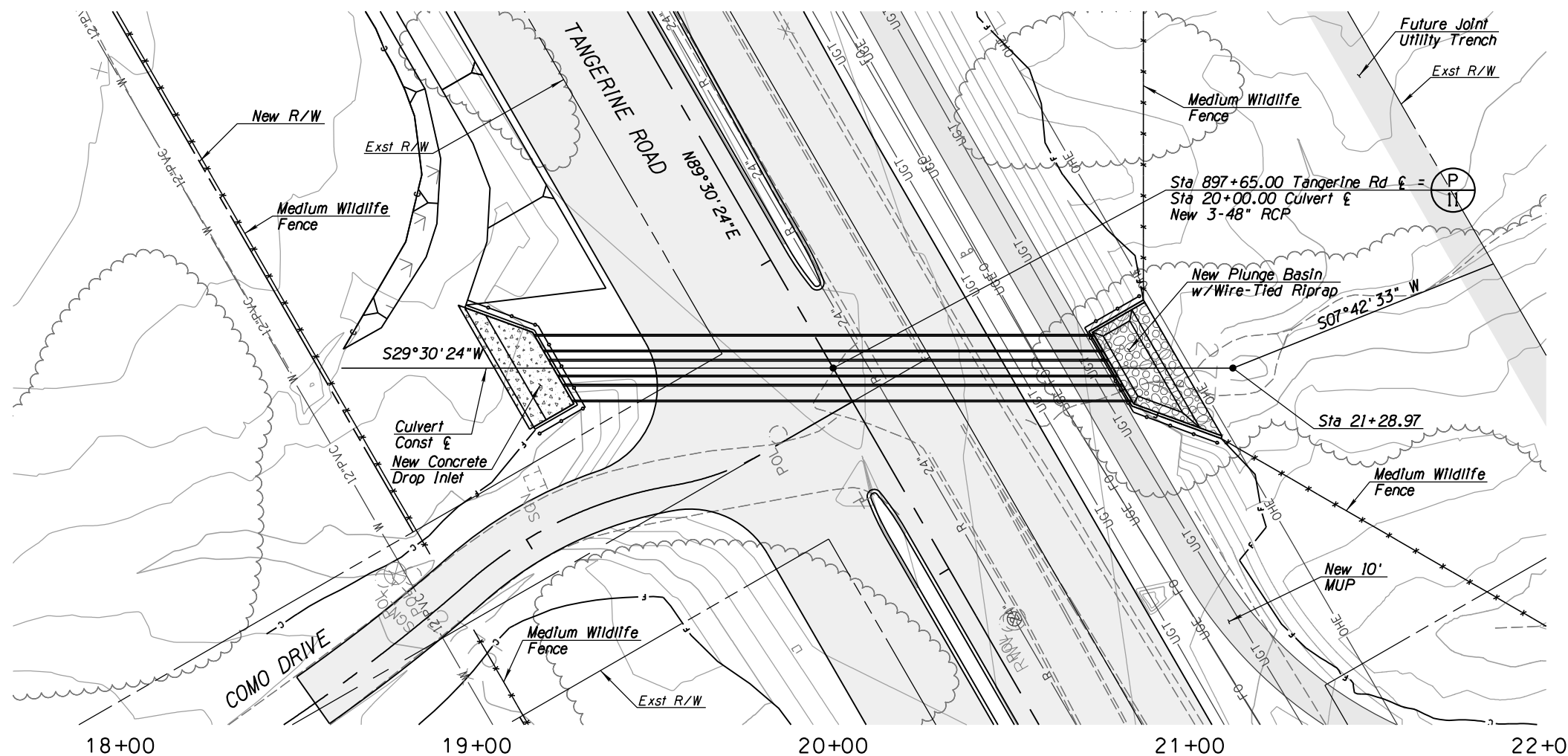
TOWN OF MARANA - PROJECT NO. 2005-061

FOR DRAINAGE PLAN AND PROFILE

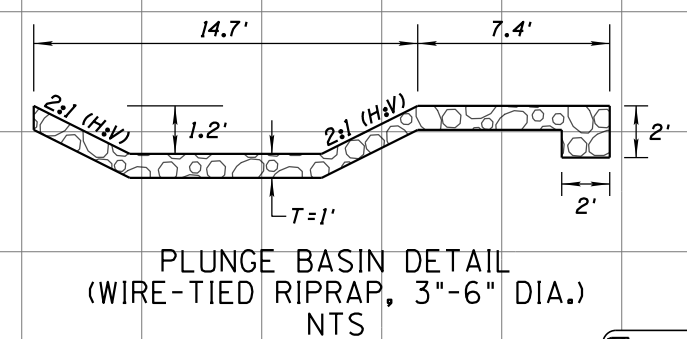
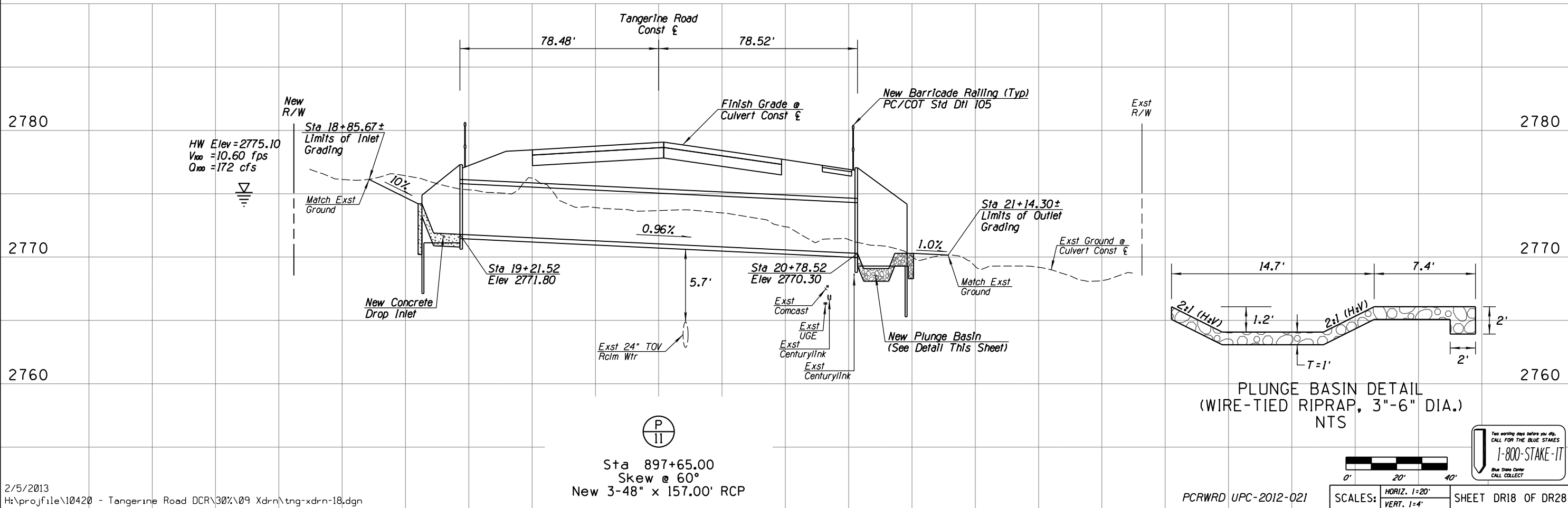
TANGERINE ROAD

STA 885+40.00

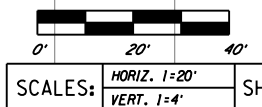
TANGERINE ROAD



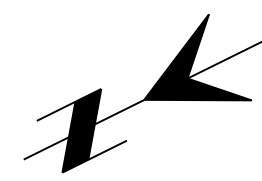
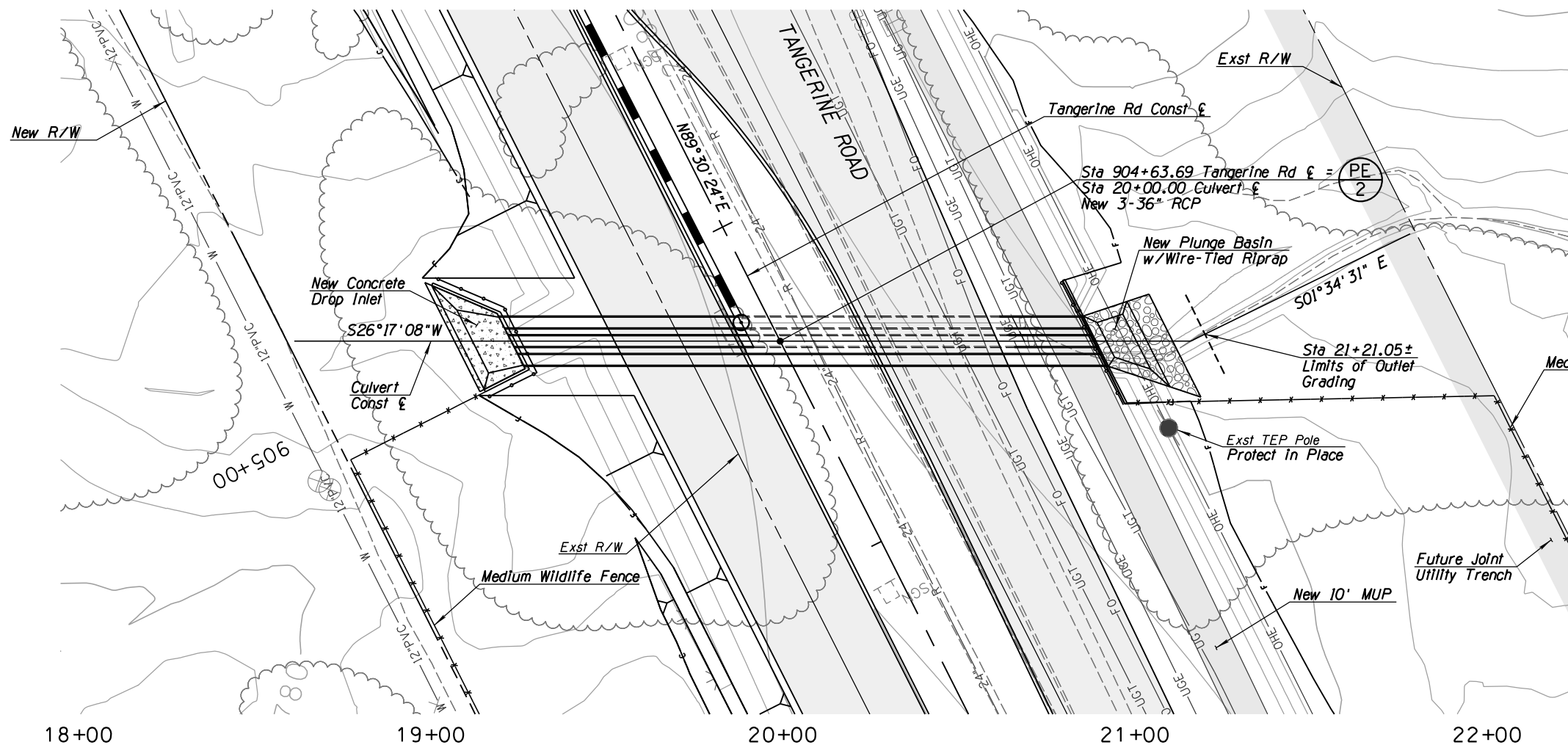
- NOTES:**
1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 with 30° skew and 6:1 slopes.
 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes.



Sta 897+65.00
Skew @ 60°
New 3-48" x 157.00' RCP

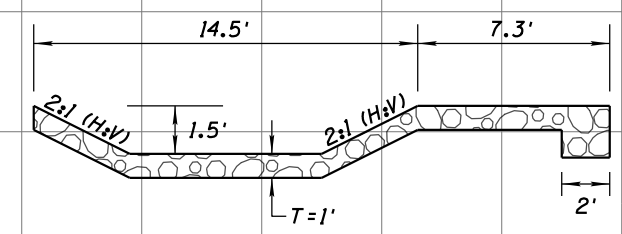
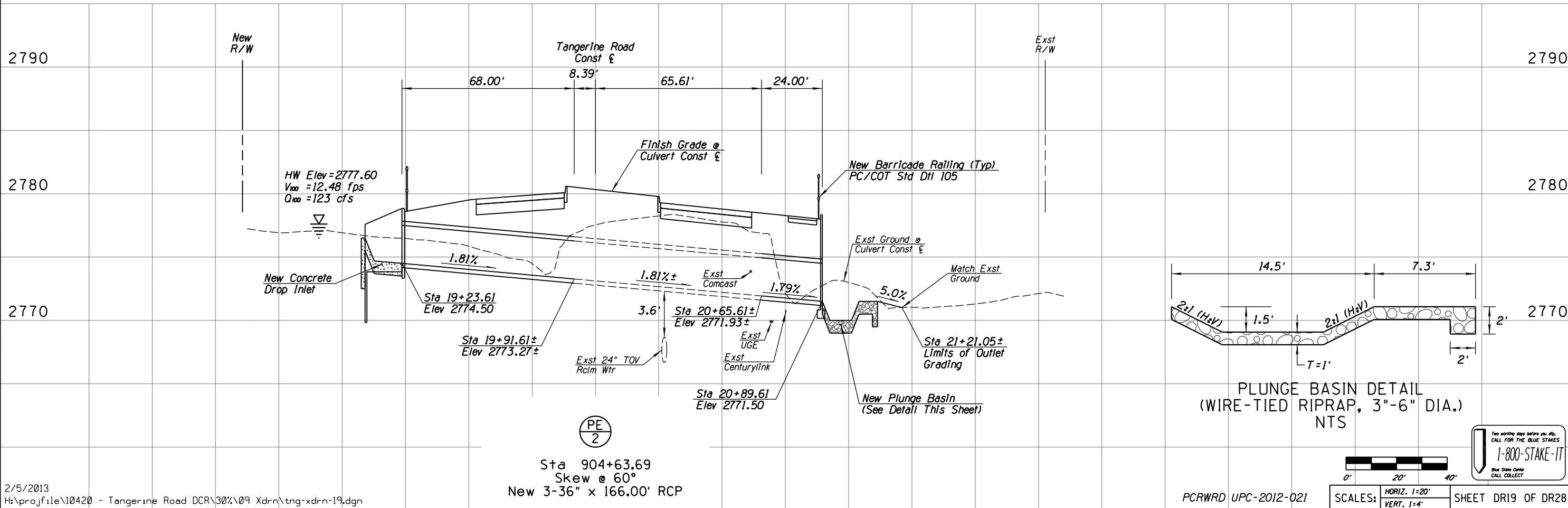


TOWN OF MARANA - PROJECT NO. 2005-061			
<div> <div> <div>DATE</div> <div>02/13</div> </div> <div> <div>DESIGNED</div> <div>02/13</div> </div> <div> <div>DRAWN</div> <div>02/13</div> </div> <div> <div>CHECKED</div> <div>02/13</div> </div> <div> <div>PROJ. ENG.</div> <div>02/13</div> </div> </div>			
<div> <div>NO.</div> <div>REVISION DESCRIPTION</div> <div>DATE</div> <div>DRW. ENGINEER</div> </div>			
<div> <div>30% PRELIMINARY NOT FOR CONSTRUCTION</div> </div>			
<div> <div> <div>Kittelson & Associates, Inc.</div> <div>33 North Stone Ave., Suite 800</div> <div>Tucson, AZ 85701</div> <div>(520) 544-4067</div> </div> </div>			
<div> <div> <div>FOR</div> <div>TANGERINE ROAD</div> <div>STA 897+65.00</div> <div>TANGERINE ROAD</div> </div> </div>			
<div> <div> <div>1-800-STAKE-IT</div> <div>Blue Stake Center</div> <div>CALL COLLECT</div> </div> </div>			
<div> <div> <div>SCALE: HORIZ. 1\"/> </div> </div> </div>			
<div> <div> <div>PAGE 104 OF 128</div> </div> </div>			



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes
2. Outlet headwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 30° skew and 6:1 slopes.

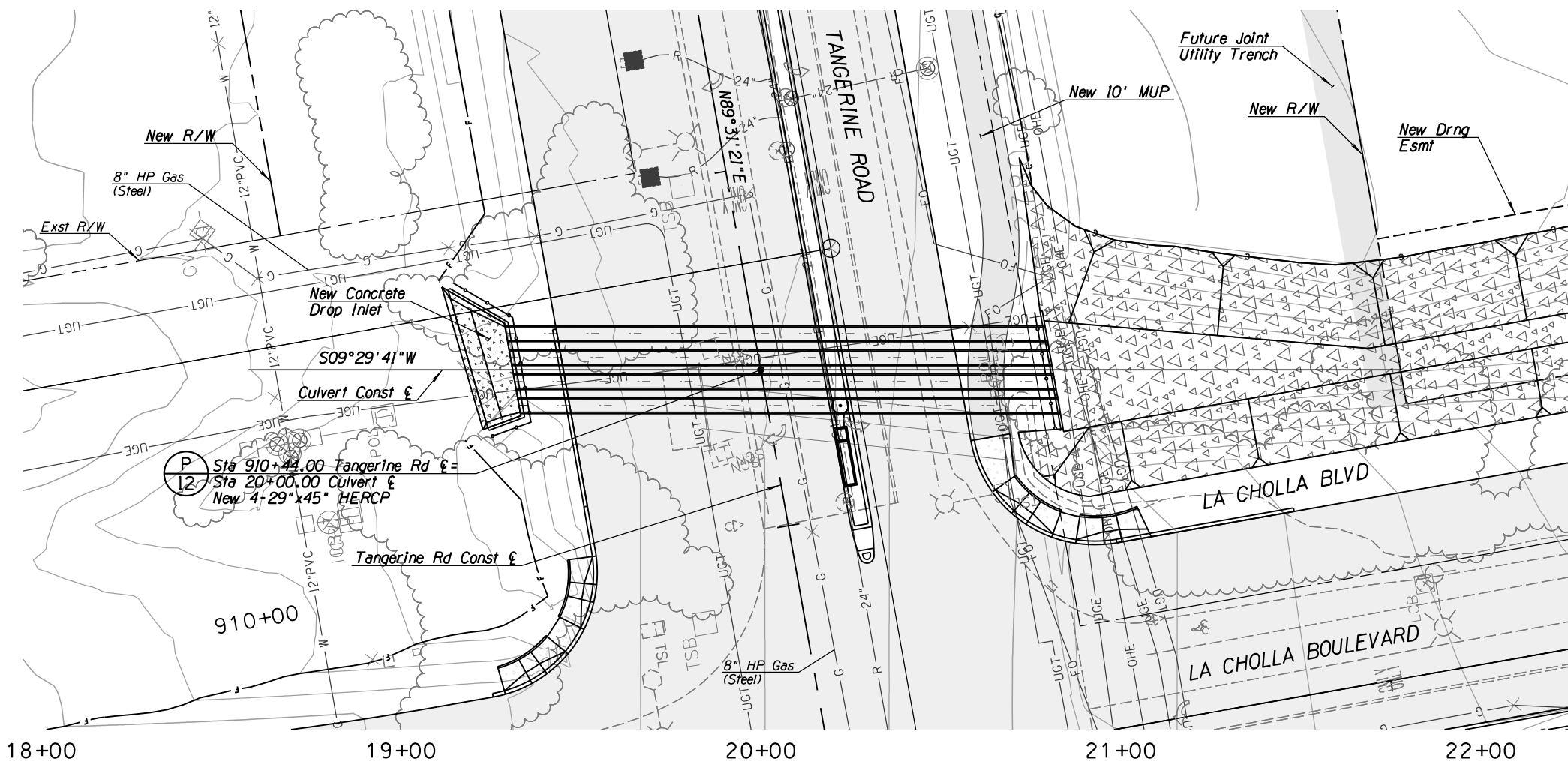


Sta 904+63.69
Skew @ 60°
New 3-36" x 166.00' RCP

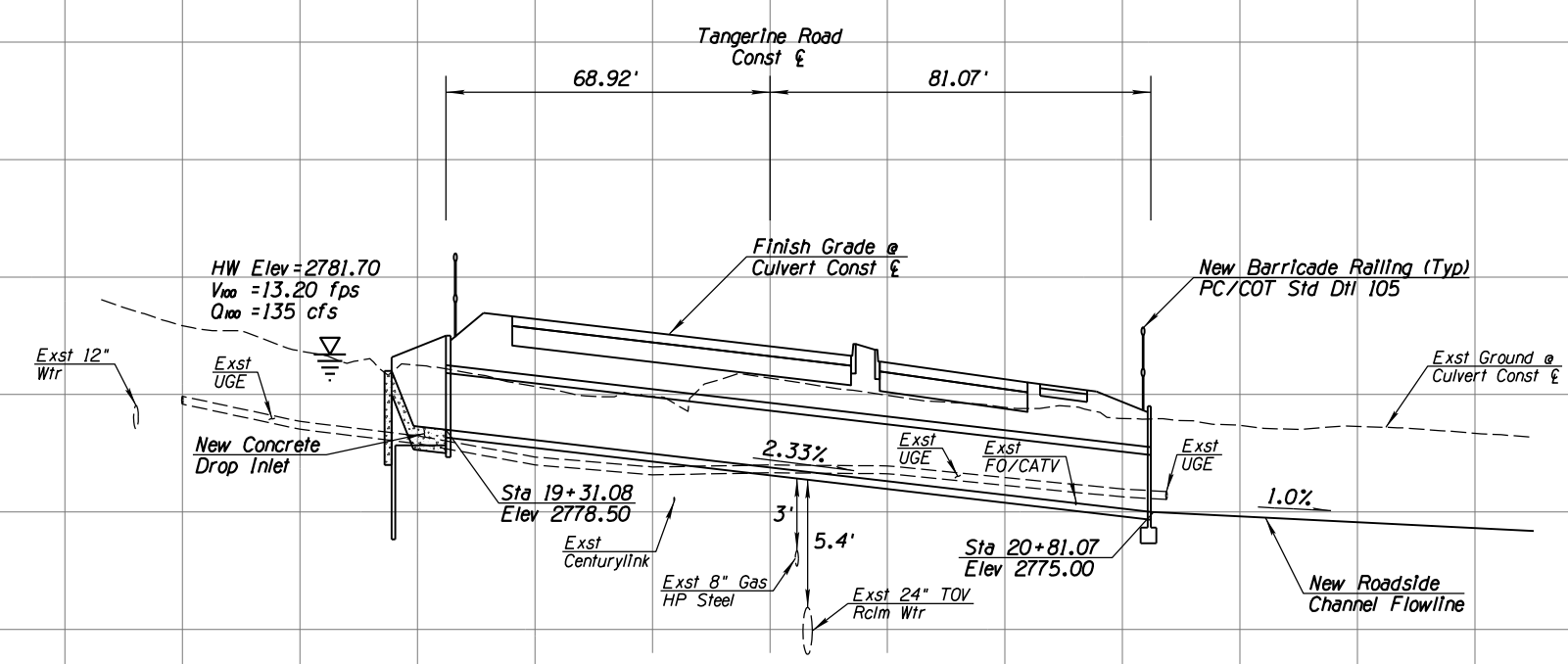
NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.

DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13



- NOTES:**
1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 15° skew and 6:1 slopes
 2. Outlet headwall dimensions shall be based on ADOT Std Dwg B-11.11 (Modified) with 15° skew and 6:1 slopes.



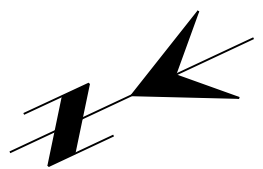
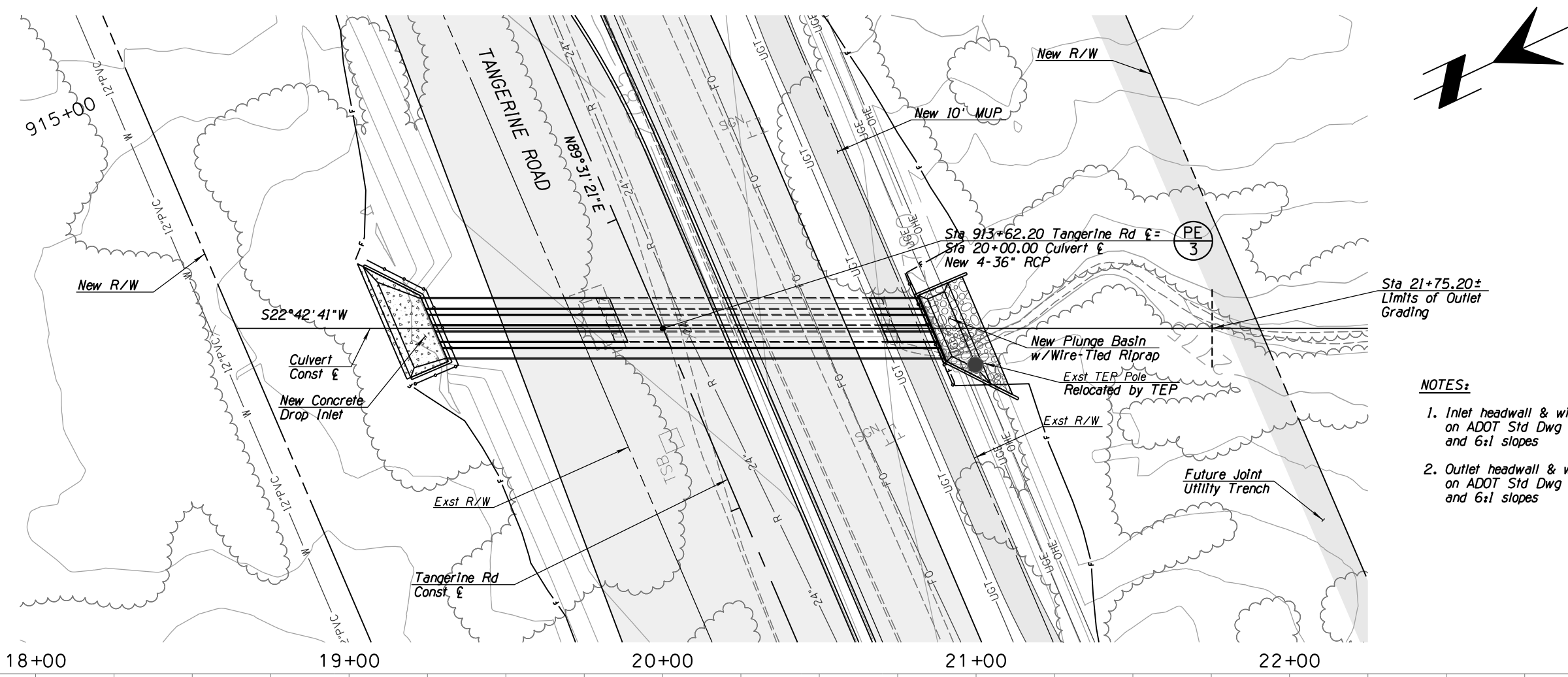
(P 12)

Sta 910+44.00
Skew @ 10°
New 4-29" x 45" x 150.00' HERCP



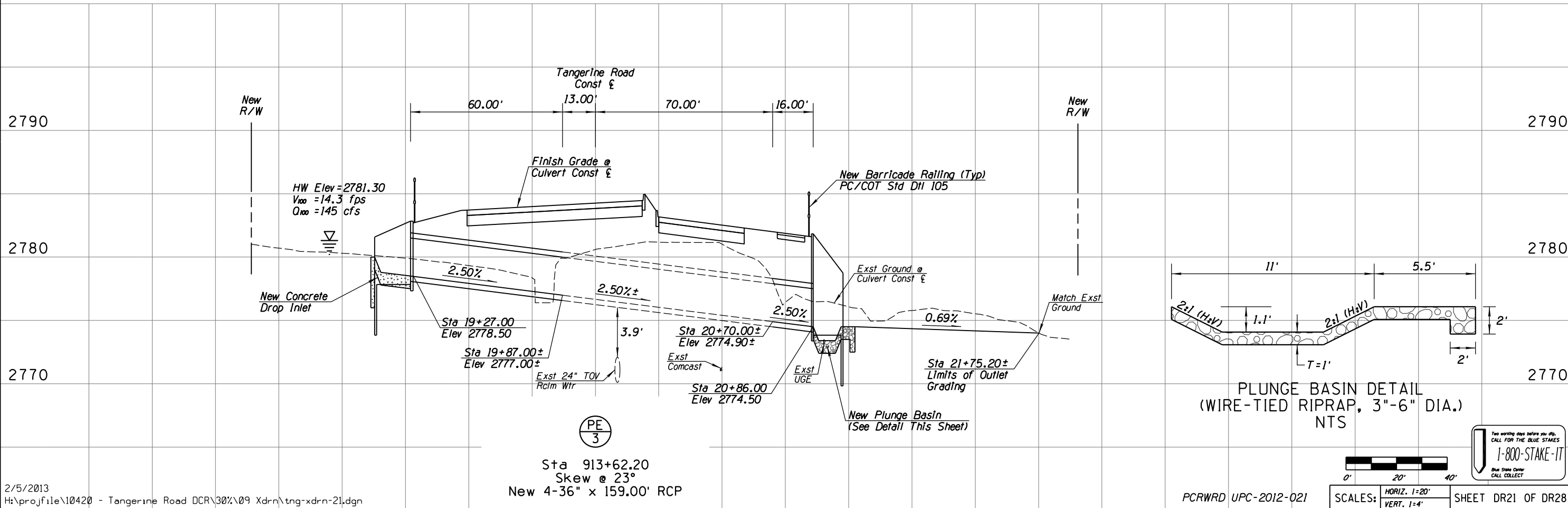
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DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13				
02/13				
02/13				



NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.14 (Modified) with 30° skew and 6:1 slopes



NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
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NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
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 Tucson, AZ 85701
 (520) 544-4067

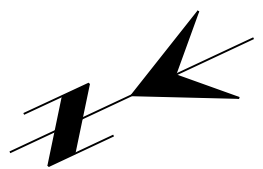
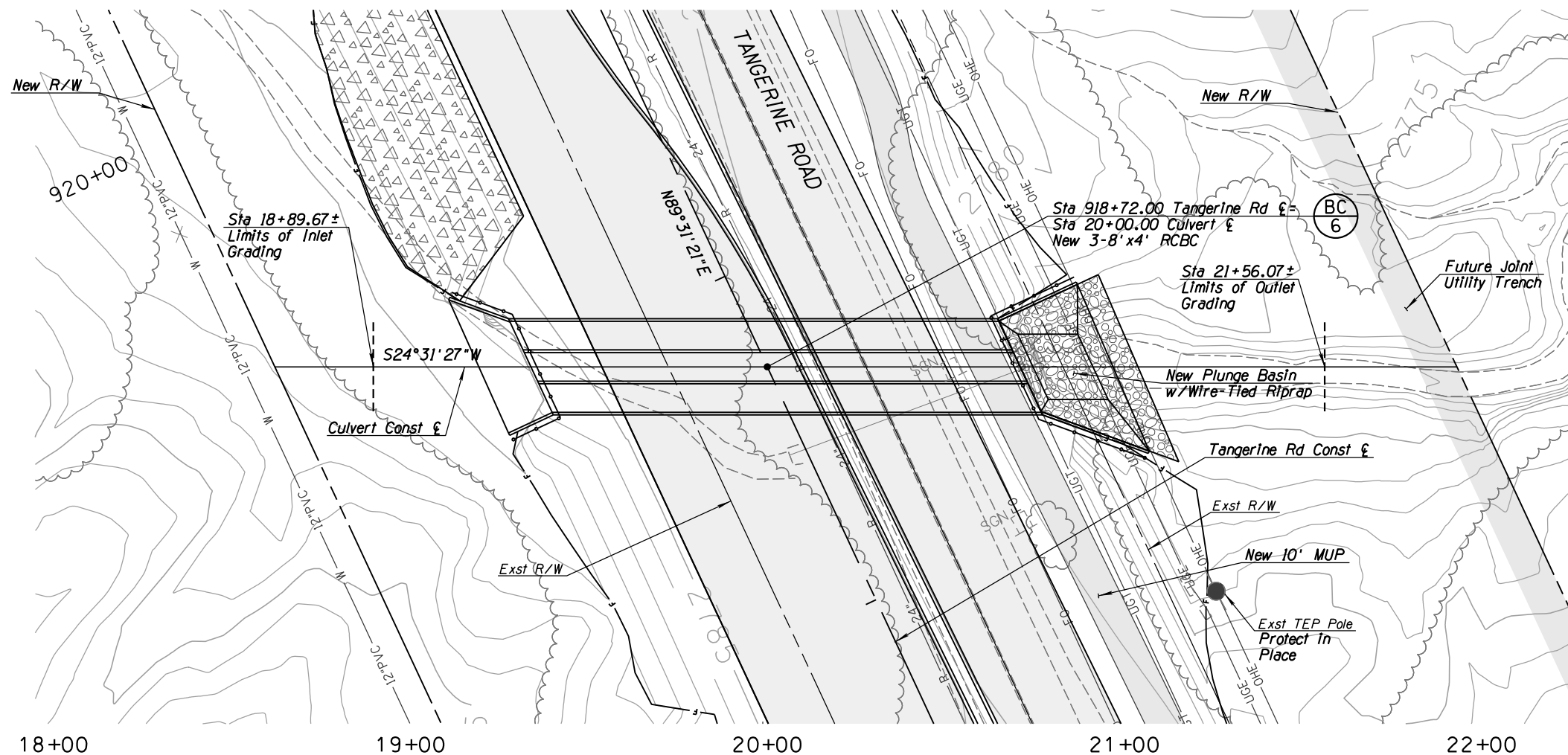
TOWN OF MARANA - PROJECT NO. 2005-061

FOR DRAINAGE PLAN AND PROFILE

TANGERINE ROAD

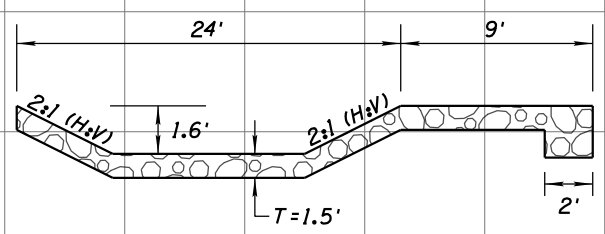
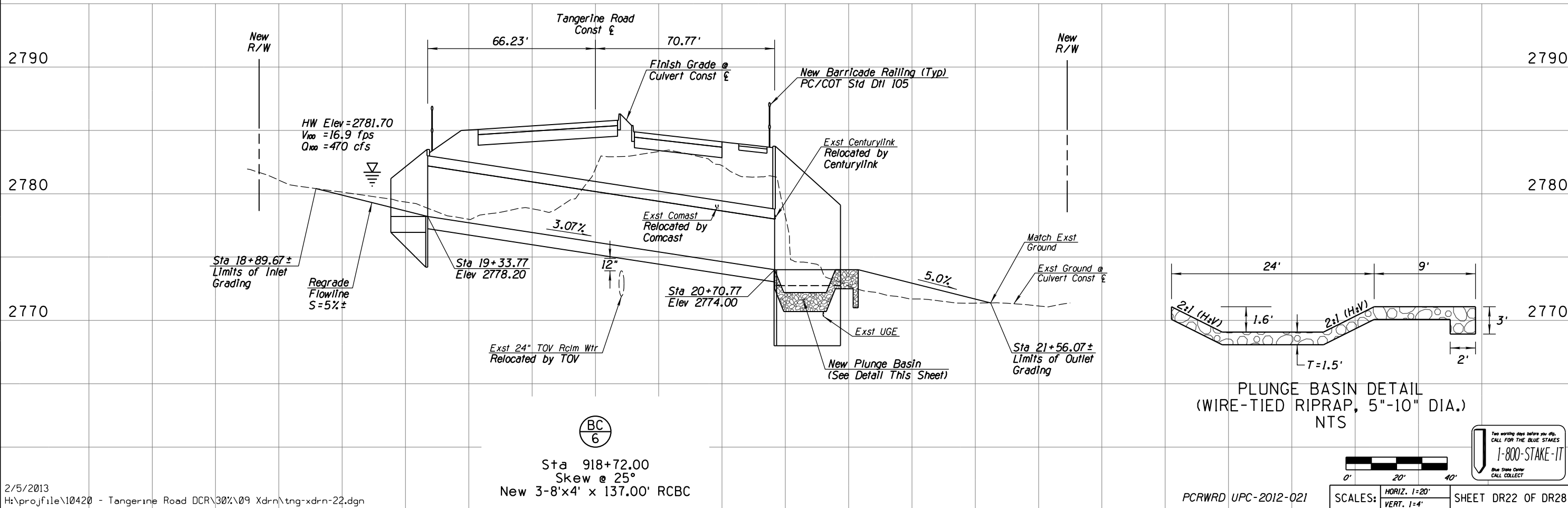
STA 913+62.20

TANGERINE ROAD

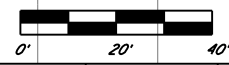


NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.70 with 25° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified) with 25° skew and 6:1 slopes.



PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 5"-10" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'



Sta 918+72.00
Skew @ 25°
New 3-8'x4' x 137.00' RCBC

NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

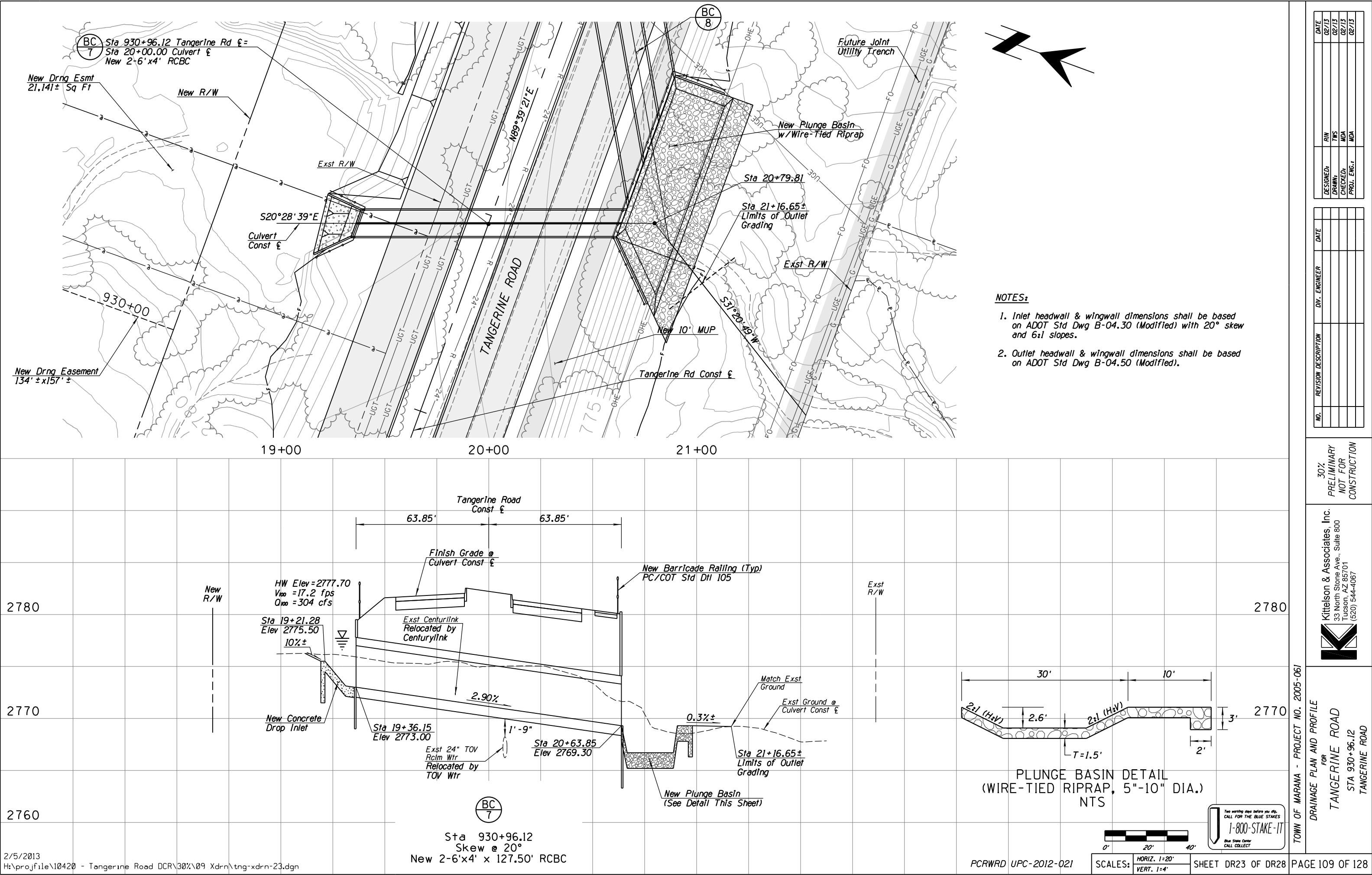
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TOWN OF MARANA - PROJECT NO. 2005-061

FOR
DRAINAGE PLAN AND PROFILE
TANGERINE ROAD
STA 918+72.00
TANGERINE ROAD

Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067



- NOTES:
- 1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.30 (Modified) with 20° skew and 6:1 slopes.
 - 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified).

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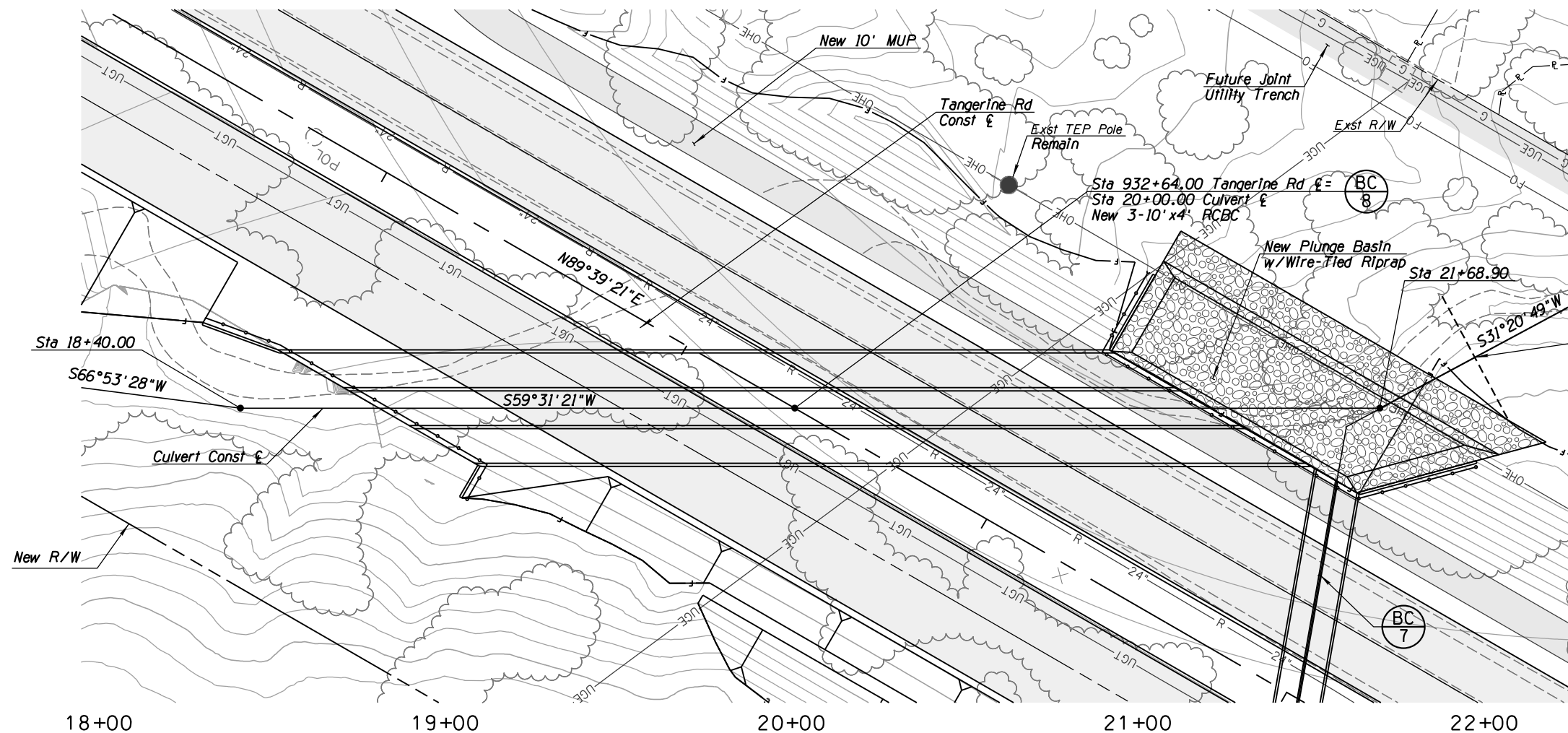
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CONSTRUCTION

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33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

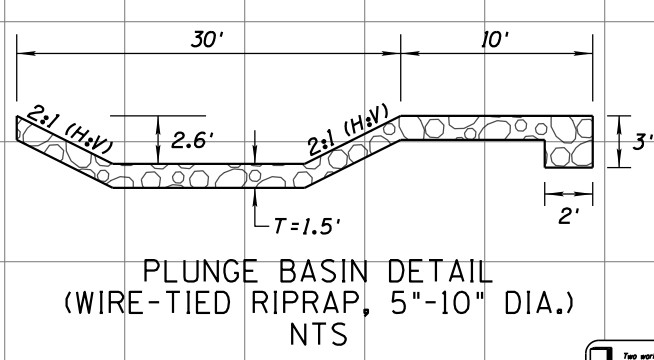
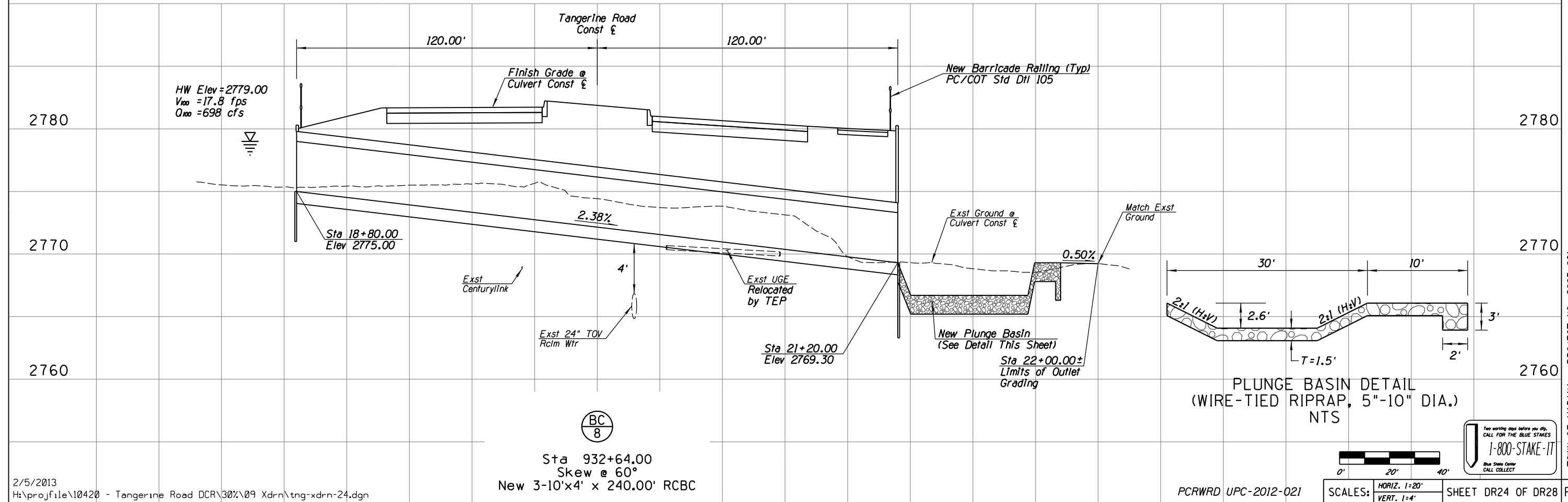
TOWN OF MARANA - PROJECT NO. 2005-061

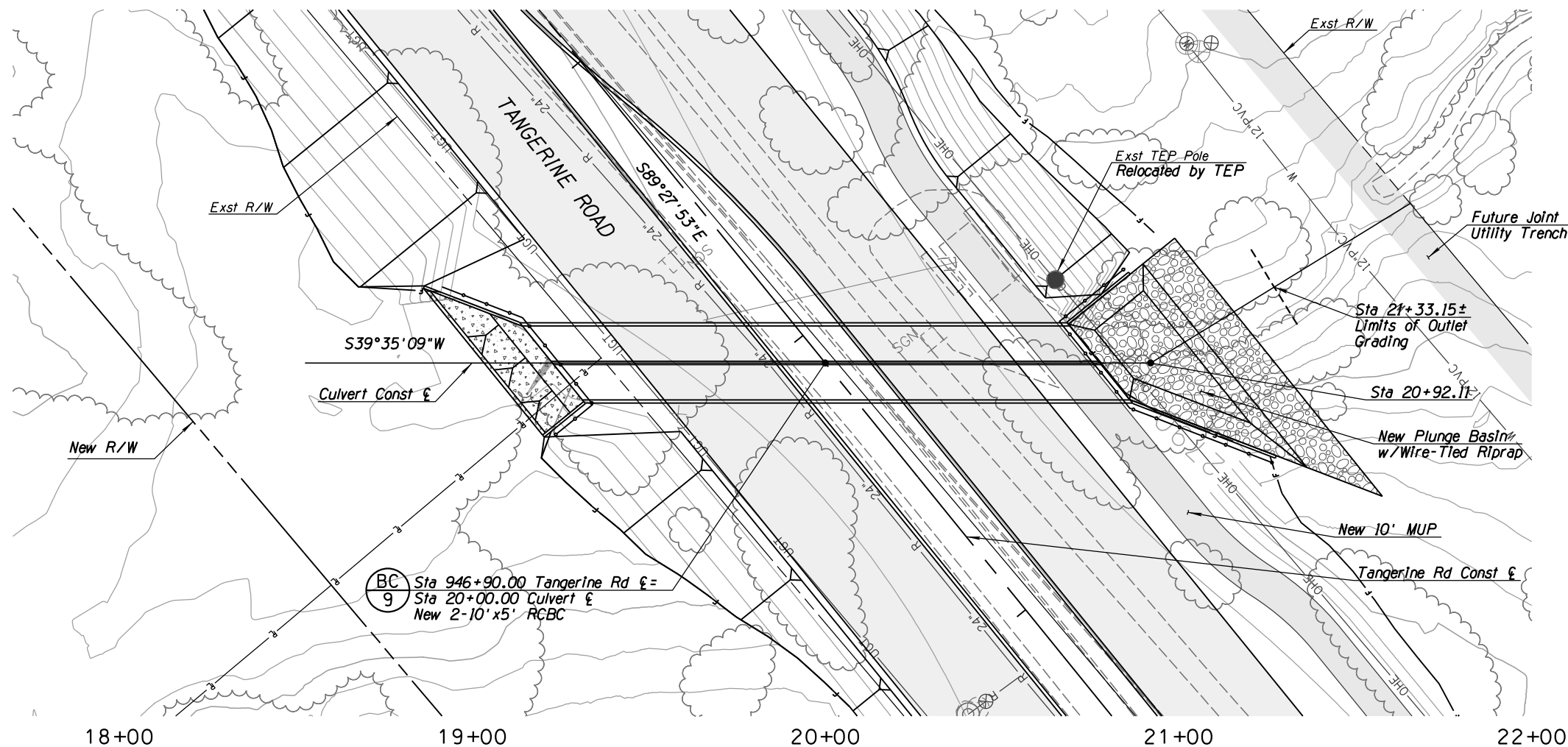
FOR
DRAINAGE PLAN AND PROFILE

TANGERINE ROAD
STA 930+96.12
TANGERINE ROAD



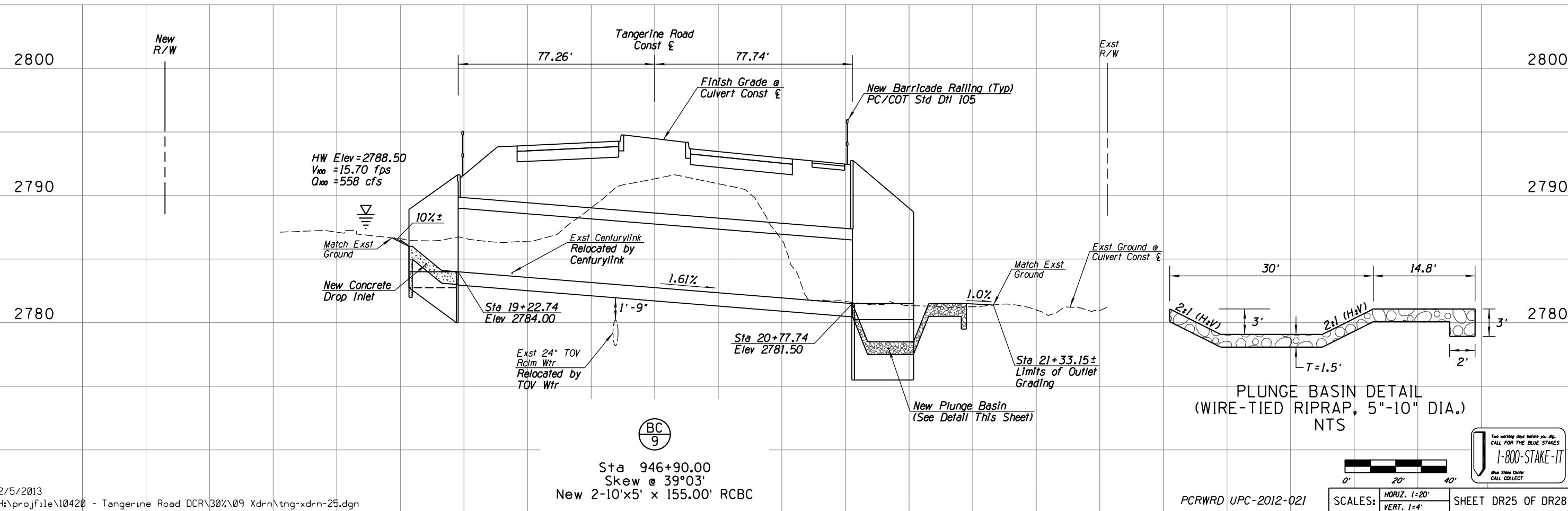
- NOTES:**
1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.70 (Modified) with 60° skew and 6:1 slopes.
 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified).

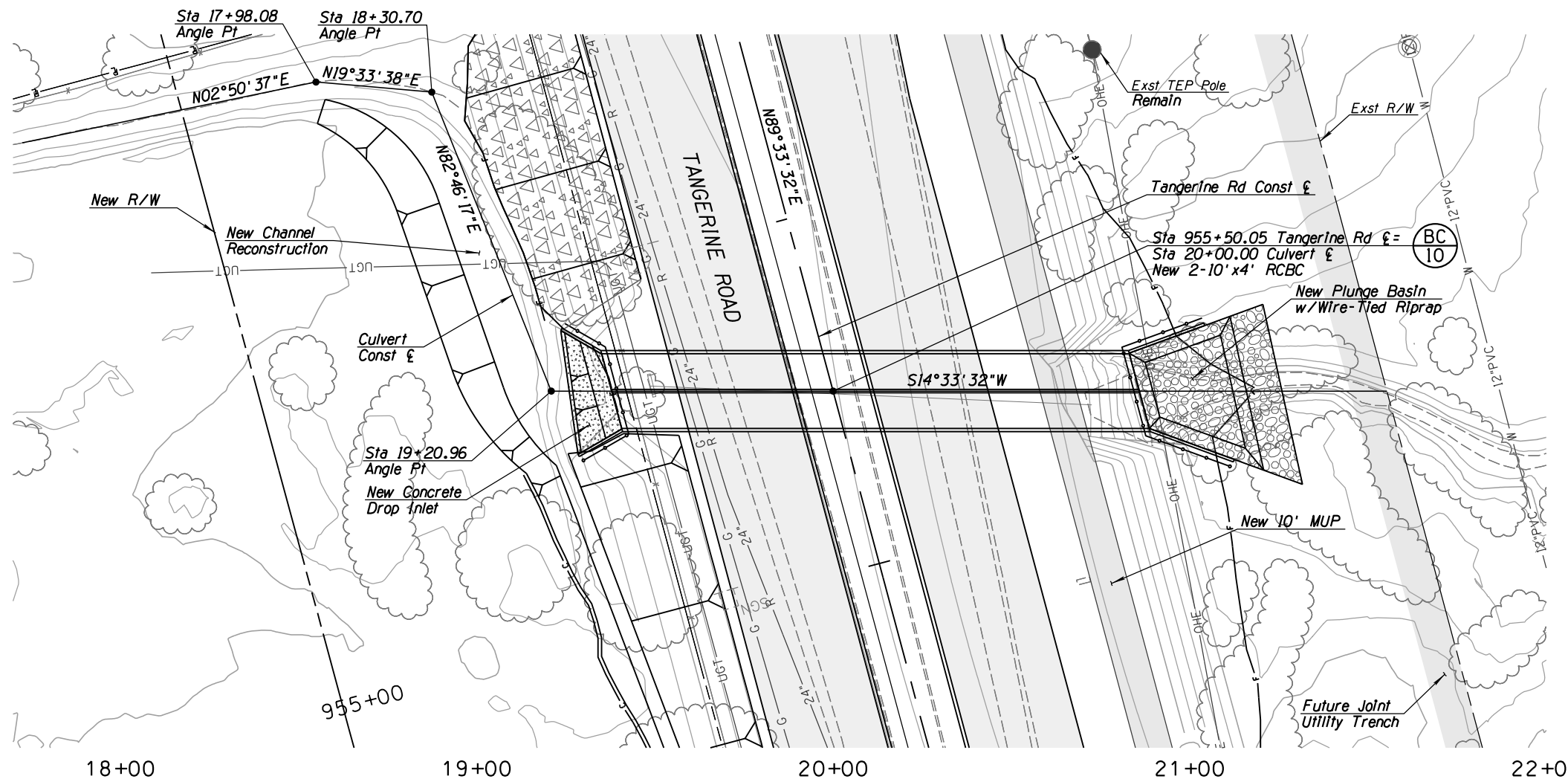




NOTES:

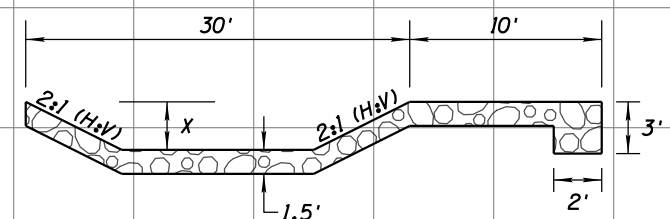
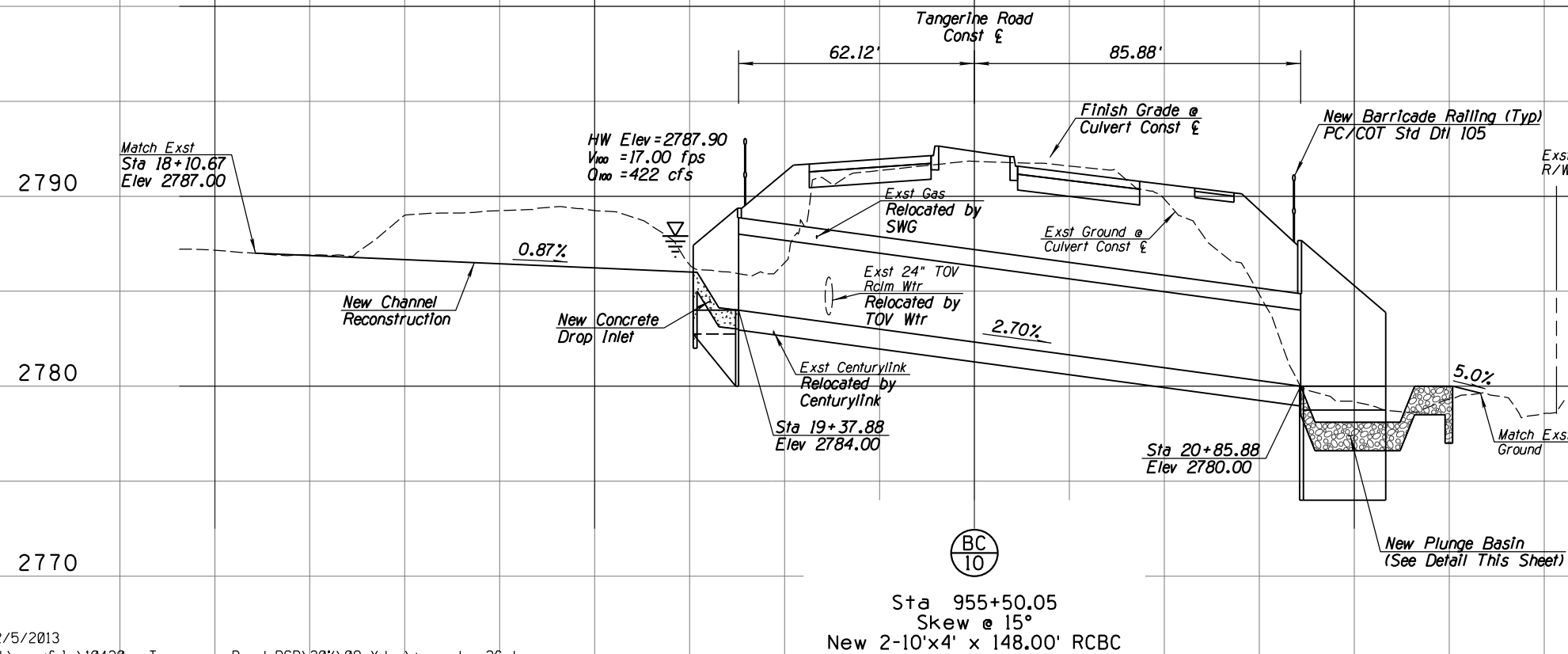
1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.70 (Modified) with 40° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.50 (Modified) with 40° skew and 6:1 slopes.





NOTES:

1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.30 with 15° skew and 6:1 slopes.
2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-04.10 (Modified) with 15° skew and 6:1 slopes.




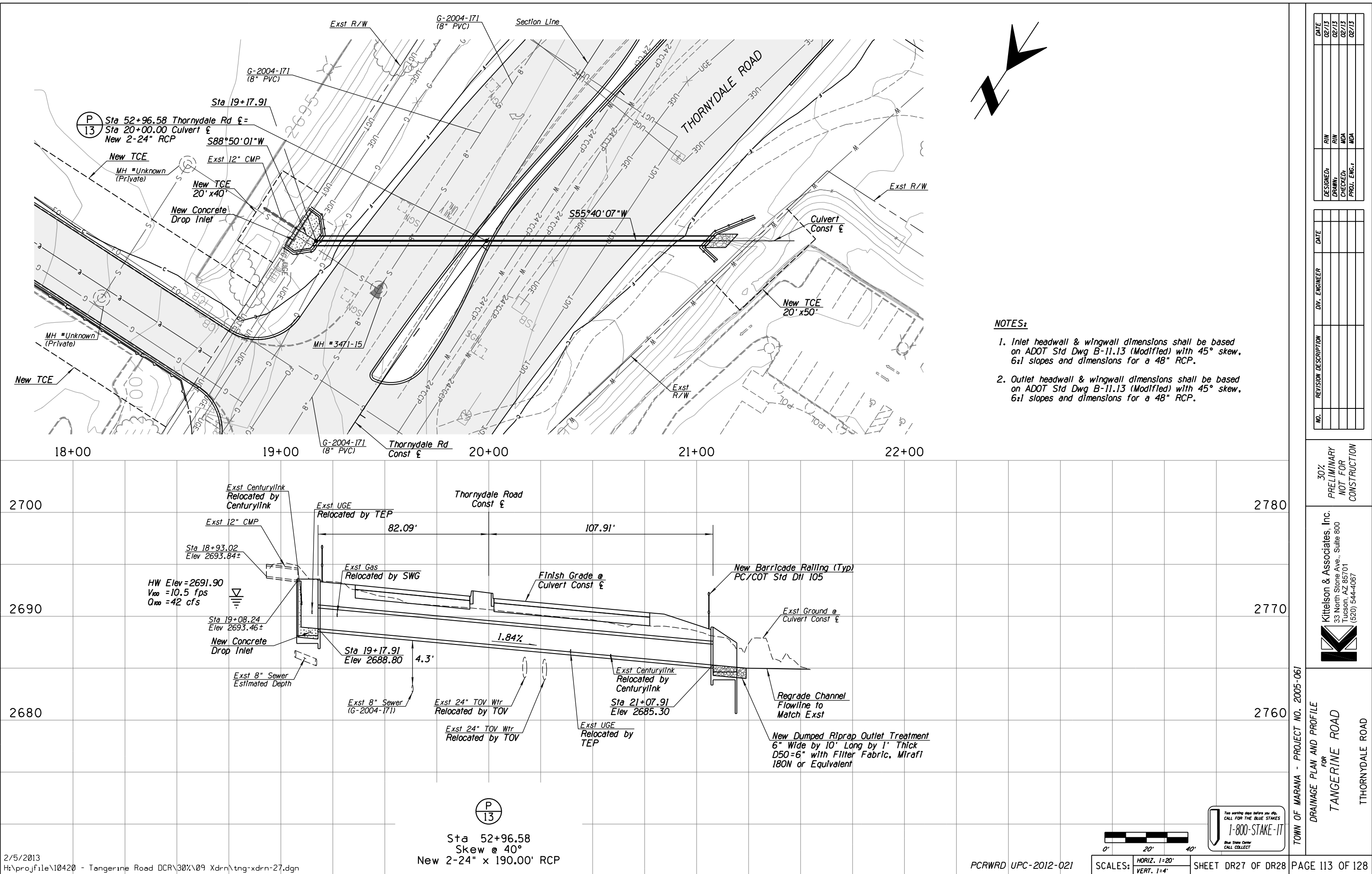
PLUNGE BASIN DETAIL
(WIRE-TIED RIPRAP, 5"-10" DIA.)
NTS



SCALES: HORIZ. 1"=20'
VERT. 1"=4'



DRAINAGE PLAN AND PROFILE FOR TANGERINE ROAD STA 955+50.05 TANGERINE ROAD		 Kittelson & Associates, Inc. 33 North Stone Ave., Suite 800 Tucson, AZ 85701 (520) 544-4067		30% PRELIMINARY NOT FOR CONSTRUCTION		<table><thead><tr><th>NO.</th><th>REVISION DESCRIPTION</th><th>DIV.</th><th>ENGINEER</th><th>DATE</th></tr></thead><tbody><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></tbody></table>		NO.	REVISION DESCRIPTION	DIV.	ENGINEER	DATE																										<table><thead><tr><th>DESIGNED:</th><th>DATE</th></tr></thead><tbody><tr><td>AIN</td><td>02/13</td></tr><tr><td>DRAWN:</td><td>02/13</td></tr><tr><td>TWS</td><td></td></tr><tr><td>CHECKED:</td><td>02/13</td></tr><tr><td>MDA</td><td></td></tr><tr><td>PROJ. ENG.:</td><td>02/13</td></tr><tr><td>MDA</td><td></td></tr></tbody></table>		DESIGNED:	DATE	AIN	02/13	DRAWN:	02/13	TWS		CHECKED:	02/13	MDA		PROJ. ENG.:	02/13	MDA	
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- NOTES:**
- 1. Inlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.13 (Modified) with 45° skew, 6:1 slopes and dimensions for a 48" RCP.
 - 2. Outlet headwall & wingwall dimensions shall be based on ADOT Std Dwg B-11.13 (Modified) with 45° skew, 6:1 slopes and dimensions for a 48" RCP.

DATE
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CONSTRUCTION

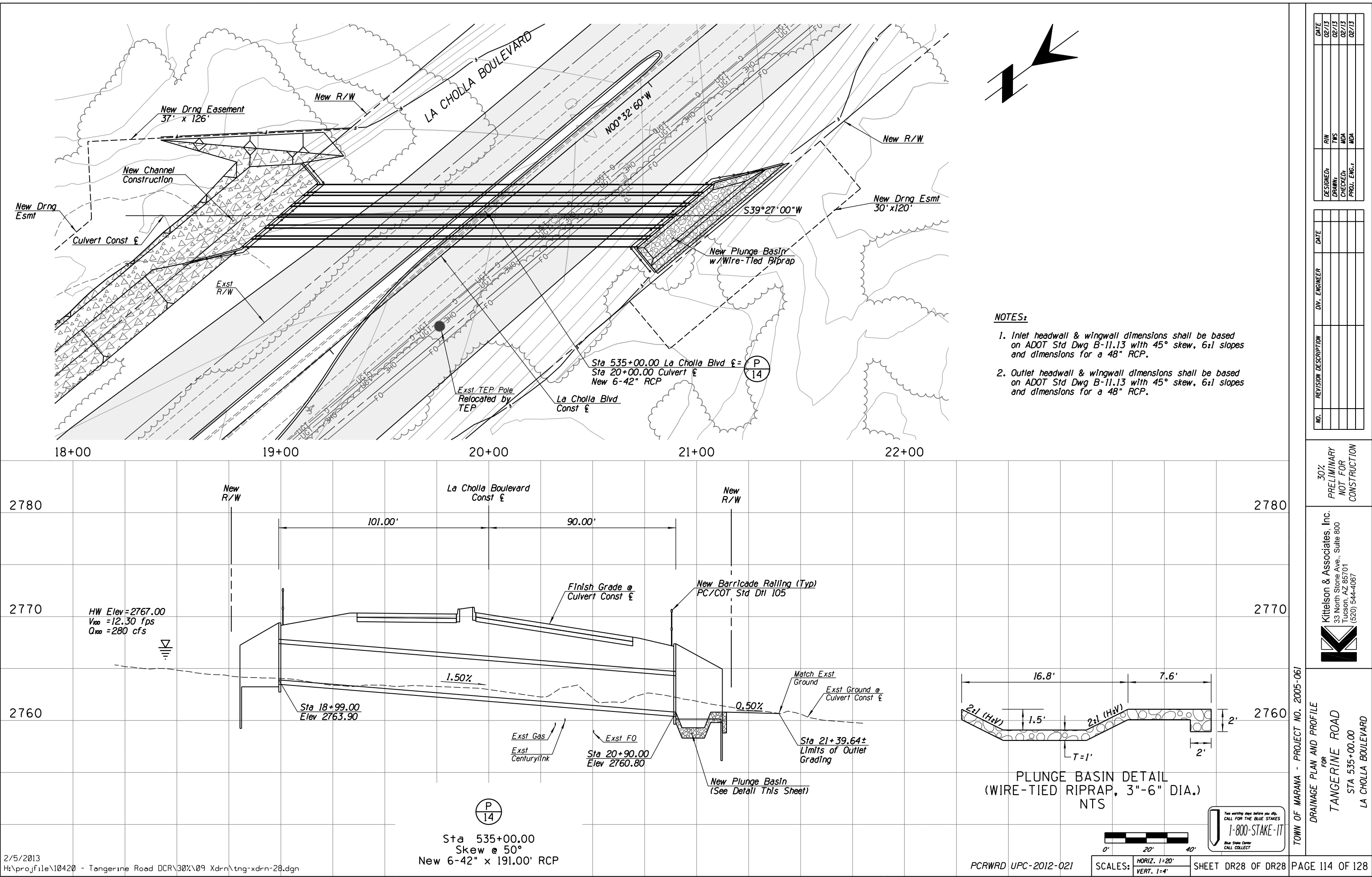
Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

TOWN OF MARANA - PROJECT NO. 2005-061

FOR
DRAINAGE PLAN AND PROFILE

TANGERINE ROAD

THORNYDALE ROAD





Stormdrain Flow Details

Pipe ID	Flow (cfs)		Velocity (ft/s)	
	Q _{ave}	Q _{max}	V _{ave}	V _{max}
PE 1	11.10	21.84	7.90	9.49
SD 102	1.10	1.84	4.27	4.98
SD 100	2.20	3.69	4.62	5.36
SD 99	2.20	3.69	4.73	5.49
SD 101	1.30	2.24	3.10	3.65
P 2	5.30	10.24	5.72	6.82



Catch Basin



Storm Drain Pipe



Intersection Drainage Area

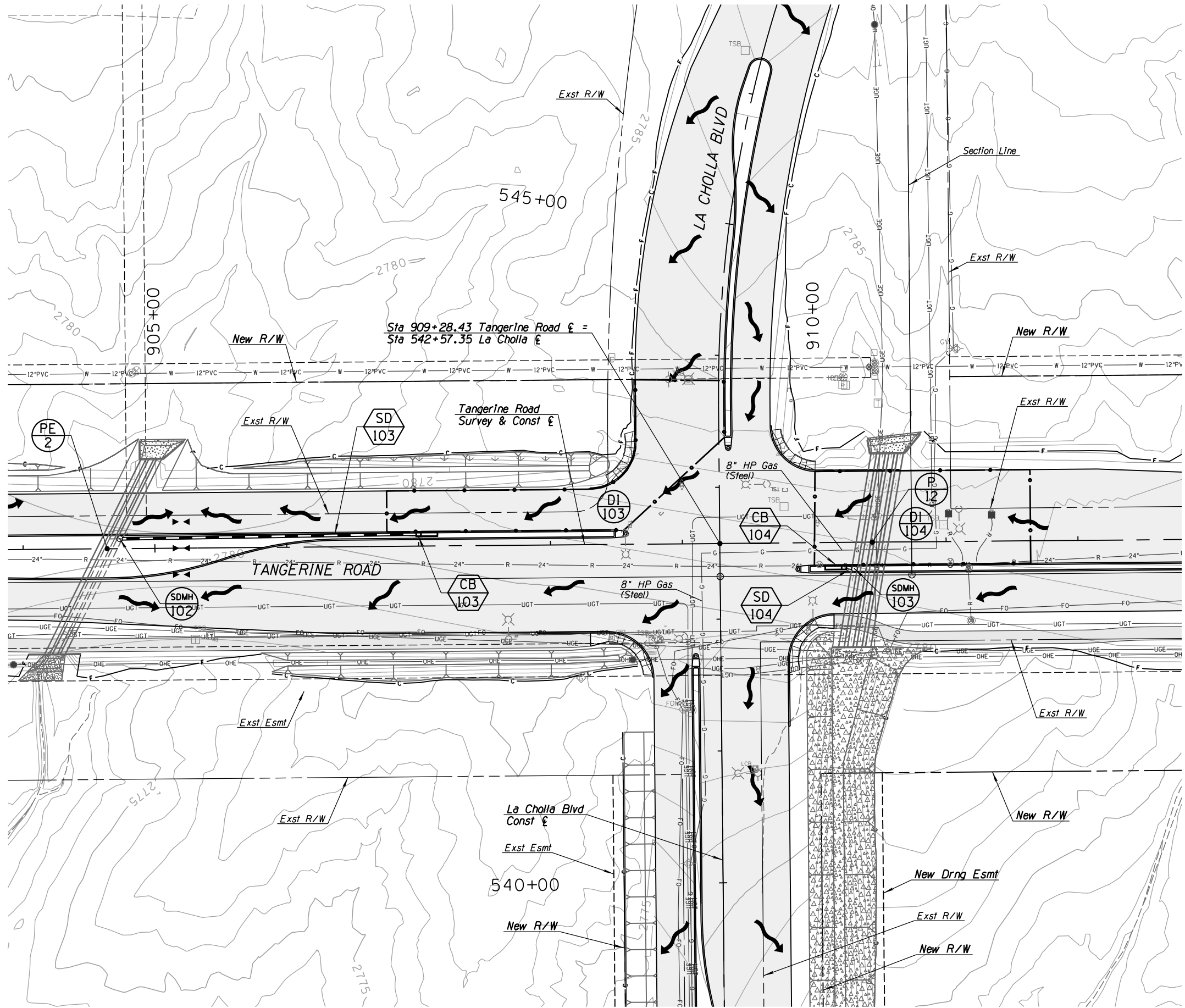


Storm Drain Manhole



Flow Arrow





Stormdrain Flow Details

Pipe ID	Flow (cfs)		Velocity (ft/s)	
	Q _{max}	Q _{min}	V _{max}	V _{min}
PE 2	21.20	42.11	10.46	12.60
SD 103	1.20	2.11	3.91	4.62
SD 104	1.30	2.18	5.15	6.03
P 12	18.30	36.18	10.96	13.47



Catch Basin



Storm Drain Pipe



Intersection Drainage Area



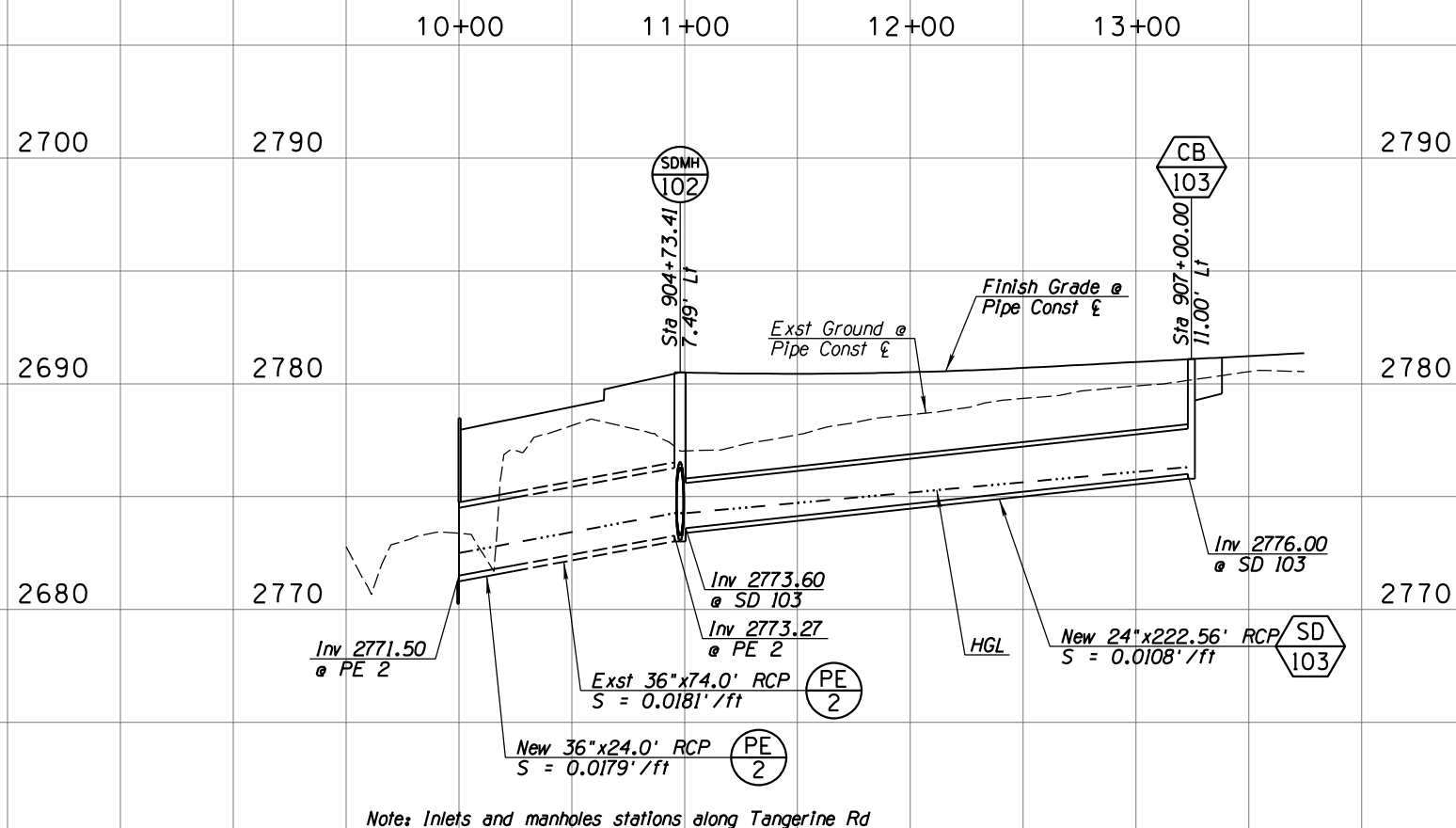
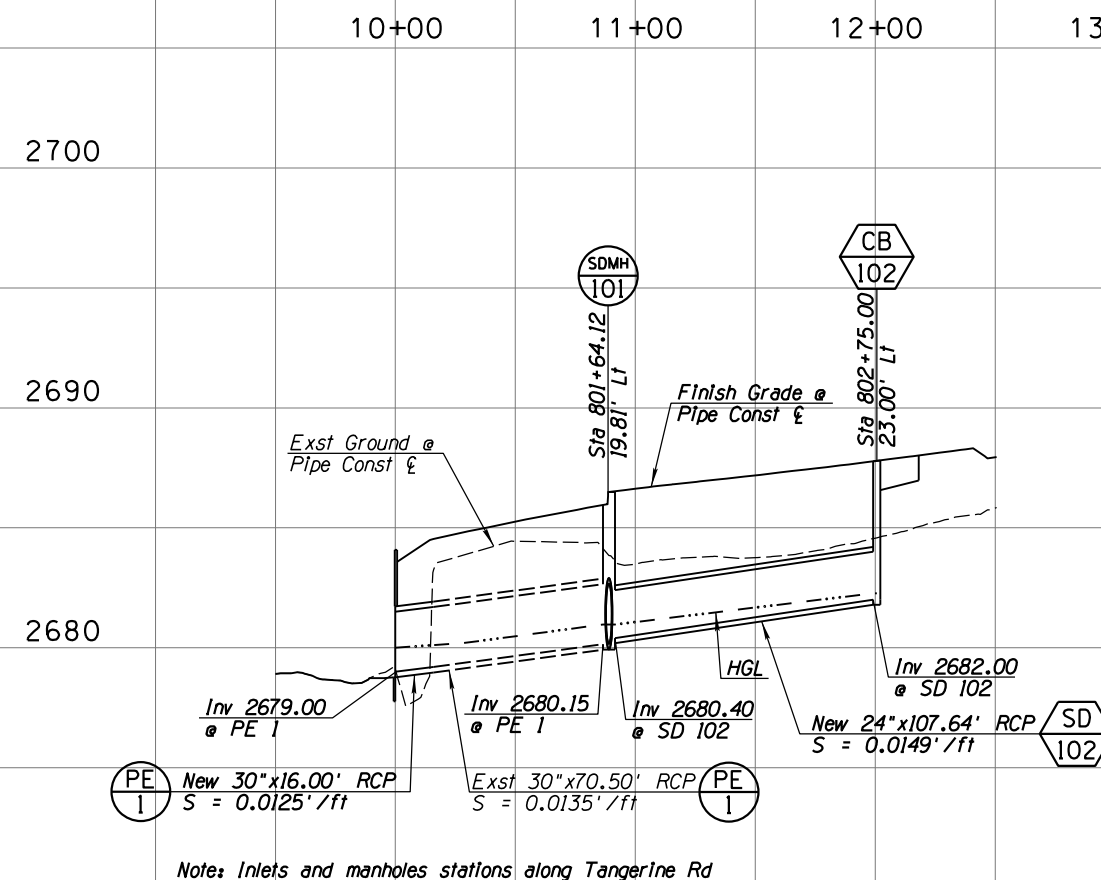
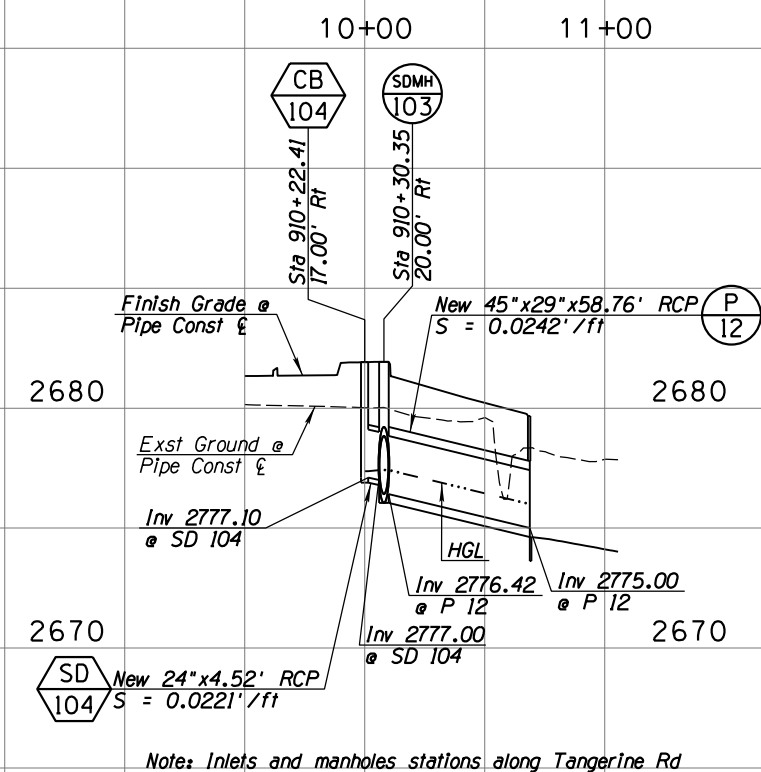
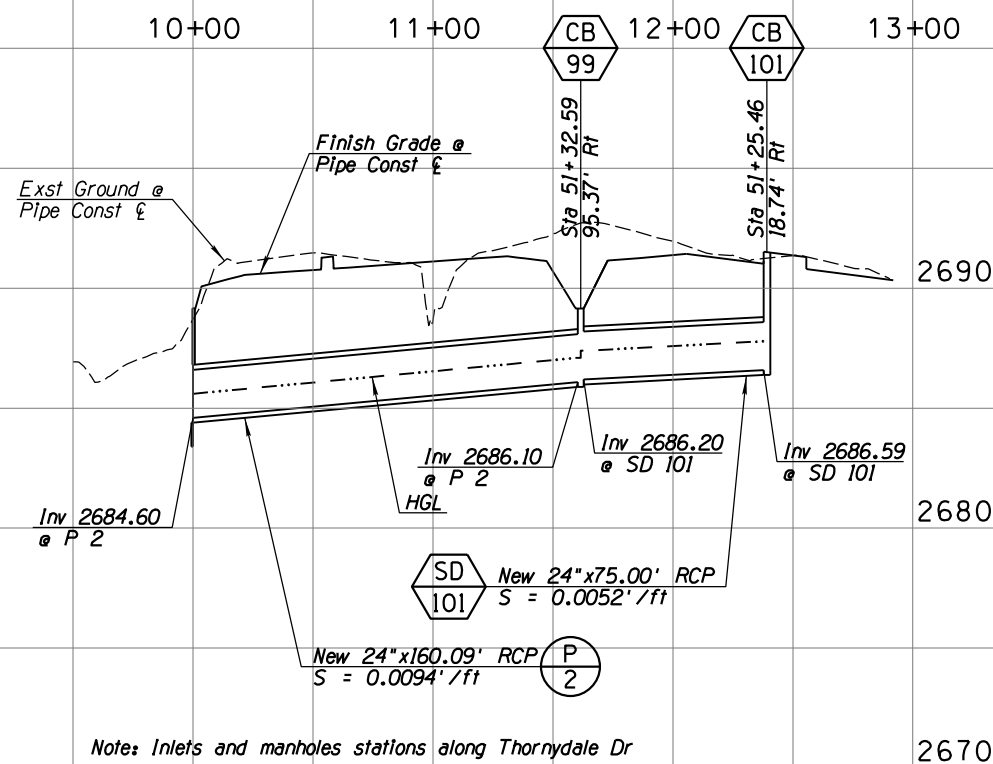
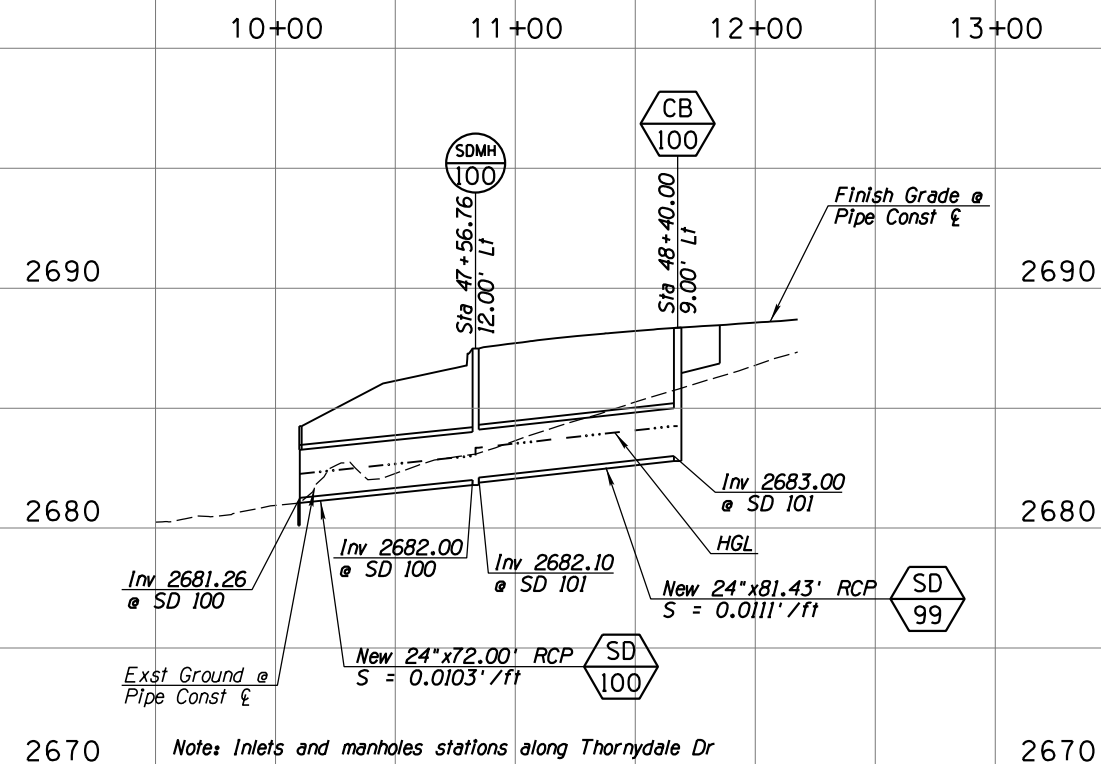
Storm Drain Manhole

Flow Arrow




NO.	REVISION DESCRIPTION	DATE	DESIGNED	CHECKED	PROJ. ENG.

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TOWN OF MARANA - PROJECT NO. 2005-061

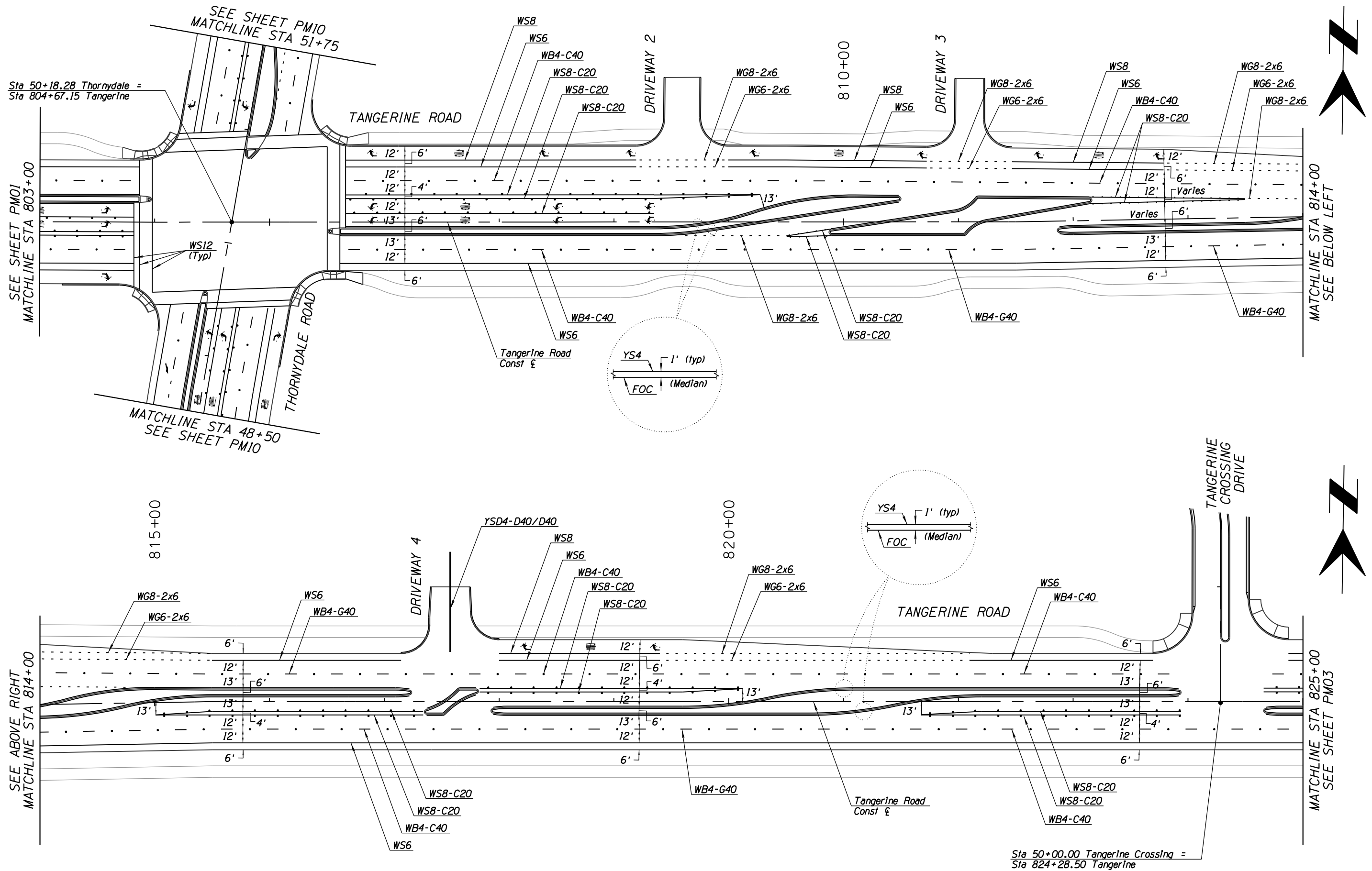
STORM DRAIN DETAILS
FOR
TANGERINE ROAD
THORNYDALE ROAD
LA CHOLLA BOULEVARD

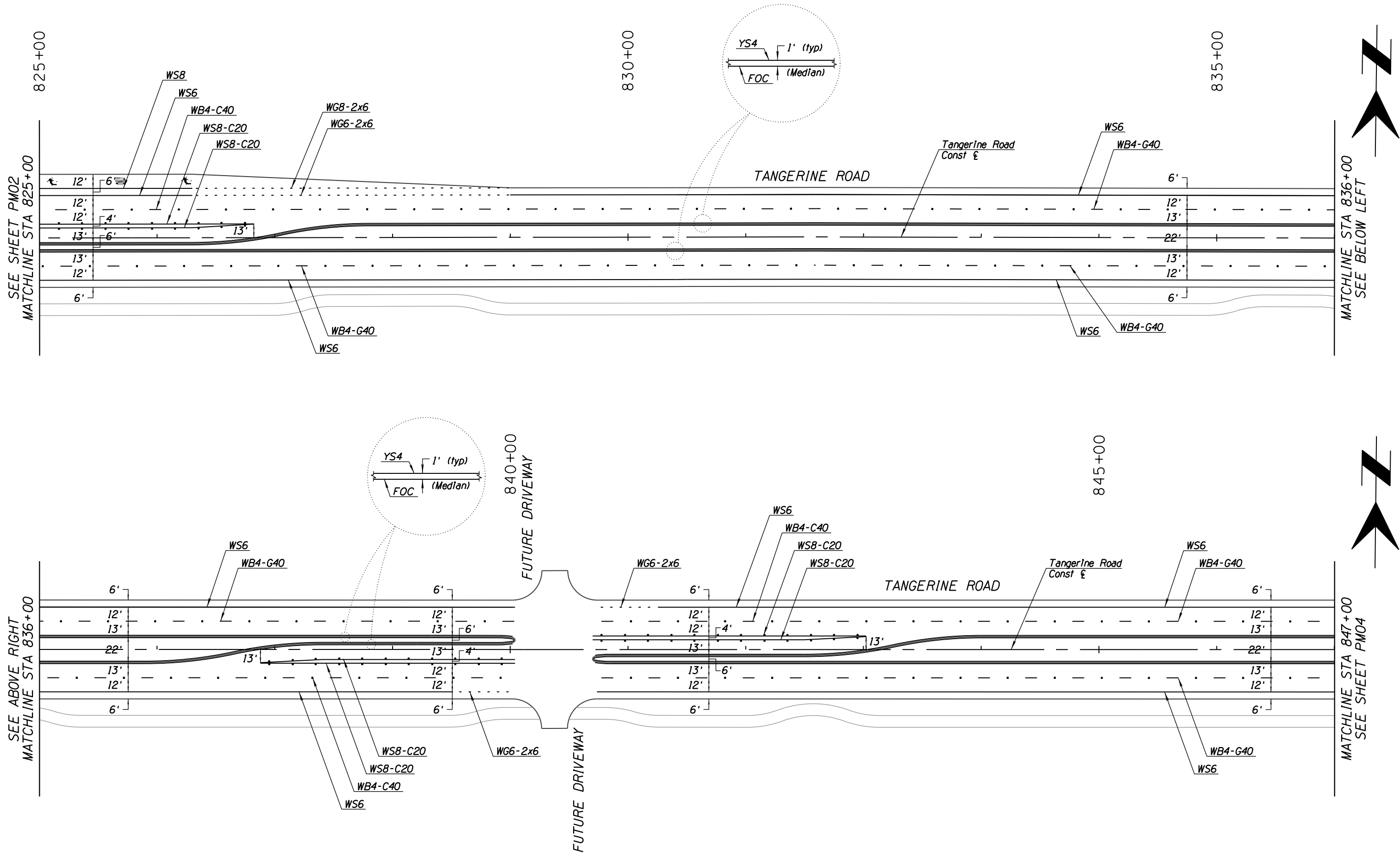


Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067



Two working days before you dig.
CALL FOR THE BLUE STAKES
1-800-STAKE-IT
Blue Stake Center
CALL COLLECT





NO.	REVISION DESCRIPTION	DATE	BY	DATE

DESIGNED BY	CHECKED BY	DATE



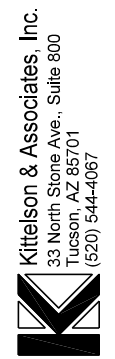
MATCHLINE STA 880+00
SEE BELOW LEFT

MATCHLINE STA 891+00
SEE SHEET PM06

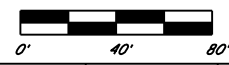
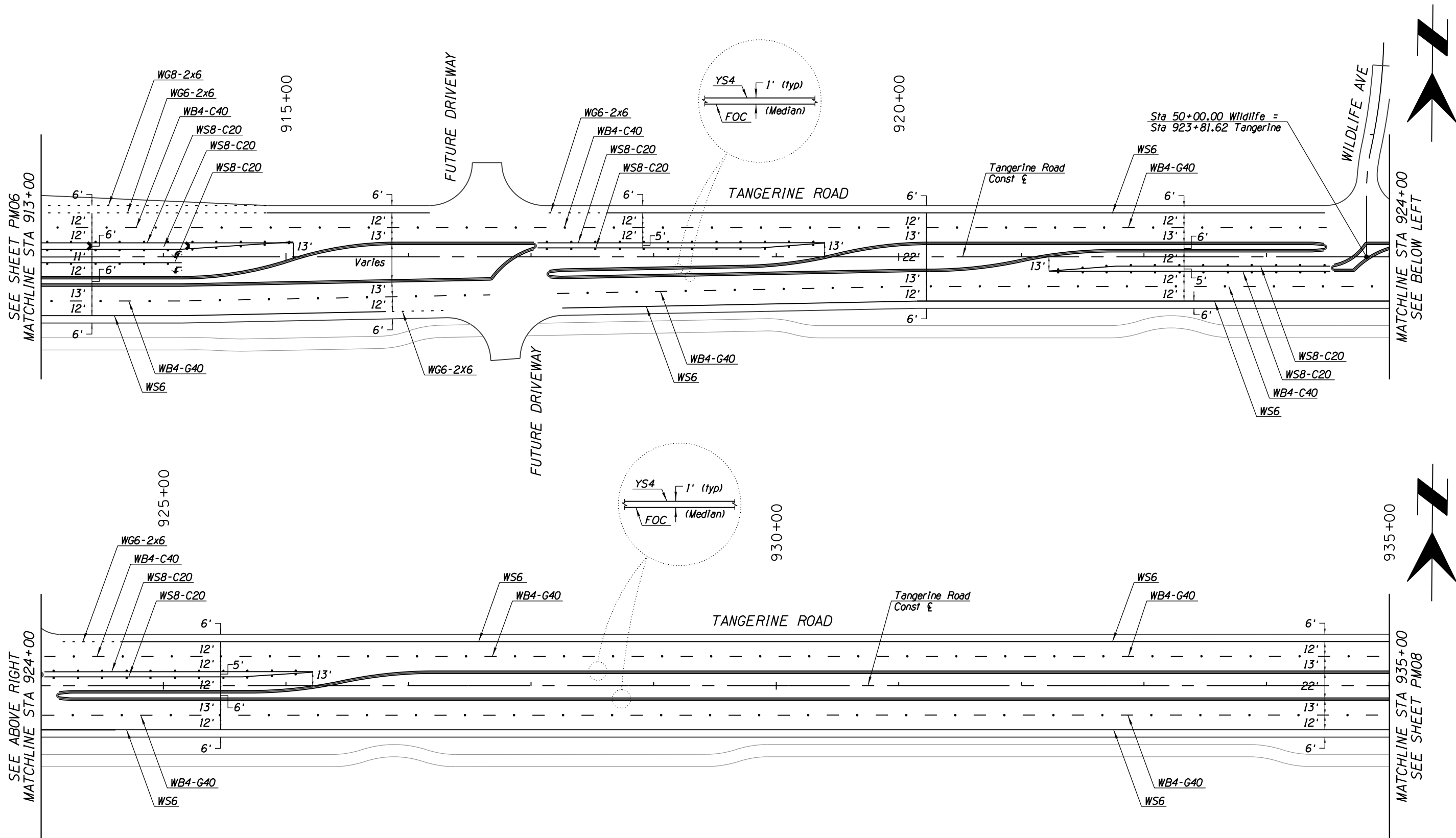
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DRAWN:	TJR			02/13
CHECKED:	MOA			02/13
PROJ. ENG.#	MOA			02/13

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

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CONSTRUCTION

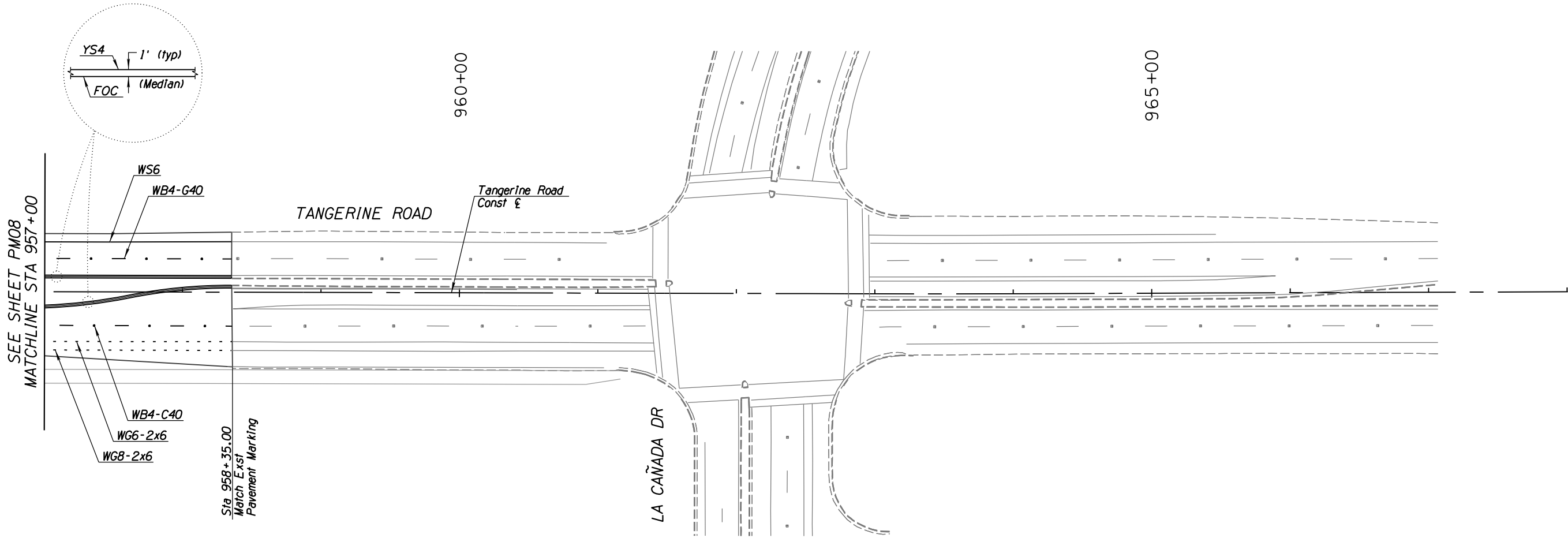


FOR
TANGERINE ROAD
STA 869+00.00 TO STA 891+00.00
TANGERINE ROAD



NO.	REVISION DESCRIPTION	DATE	DATE

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NO.	REVISION DESCRIPTION	DATE	ENGINEER

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PROJ. ENG. BY	DATE	BY
	02/13	



CALES:	HORIZ. 1" = 40'

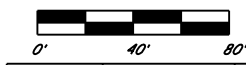
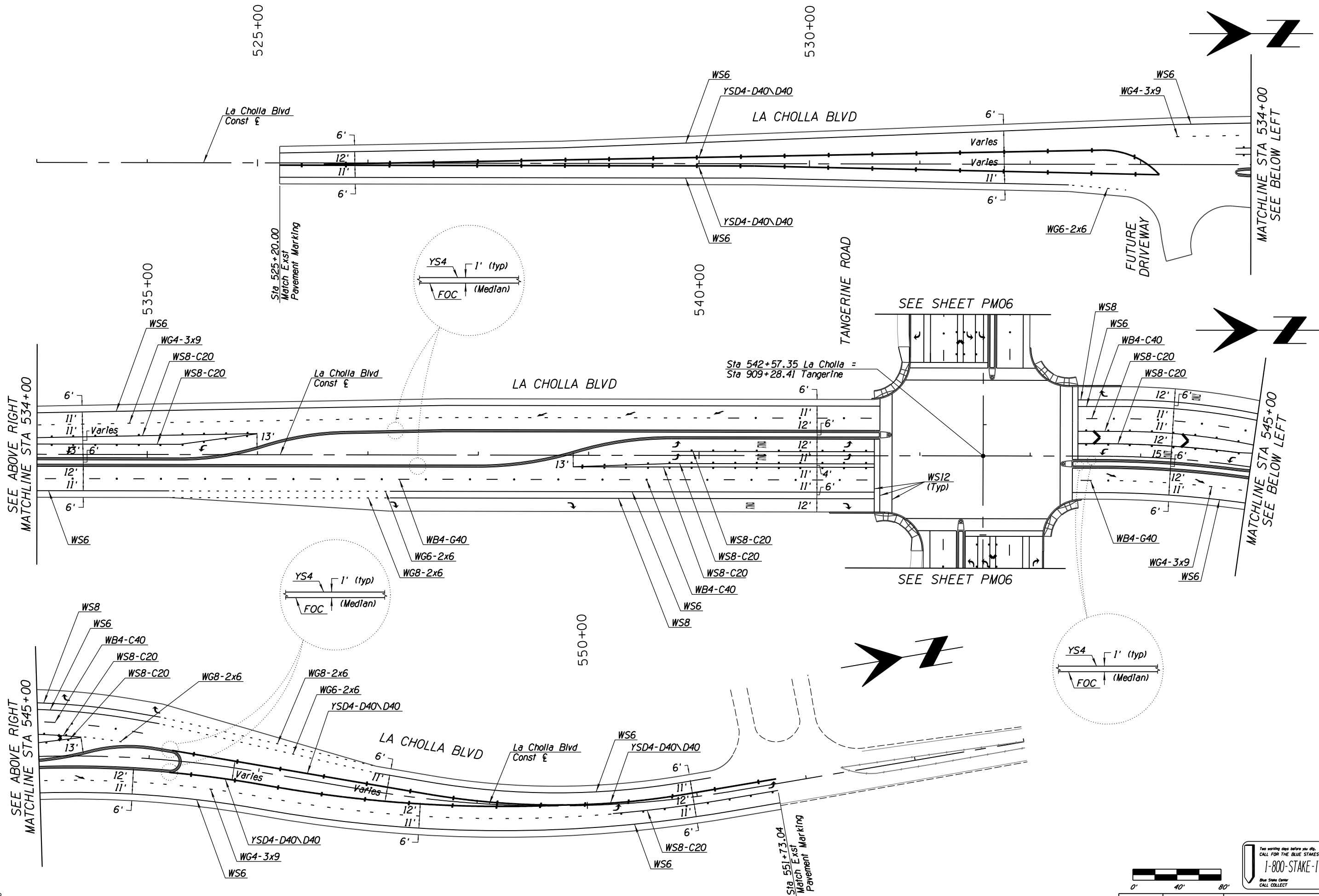
TOWN OF MARANA - PROJECT NO. 2005-061

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NOT FOR
CONSTRUCTION

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33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

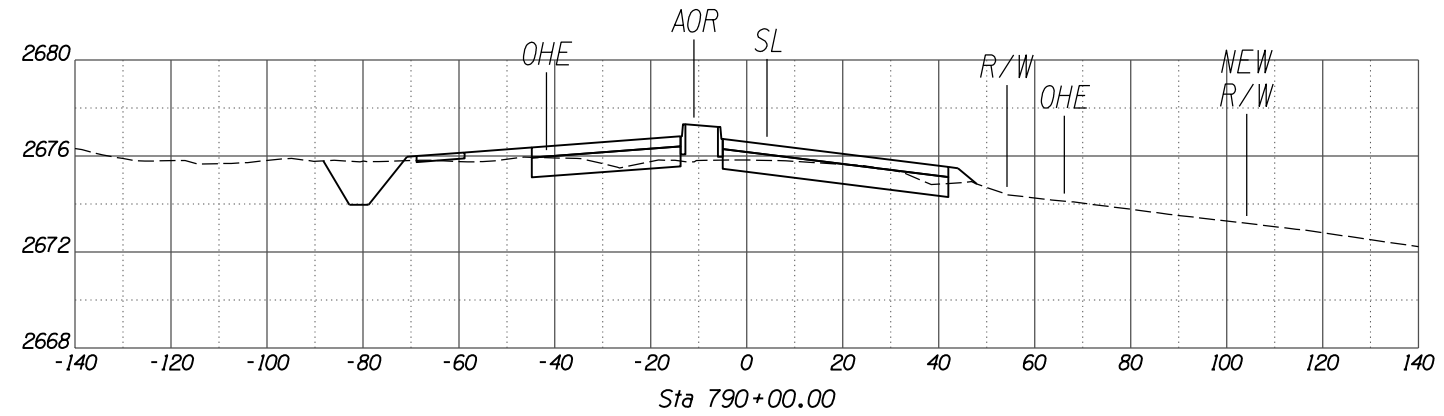
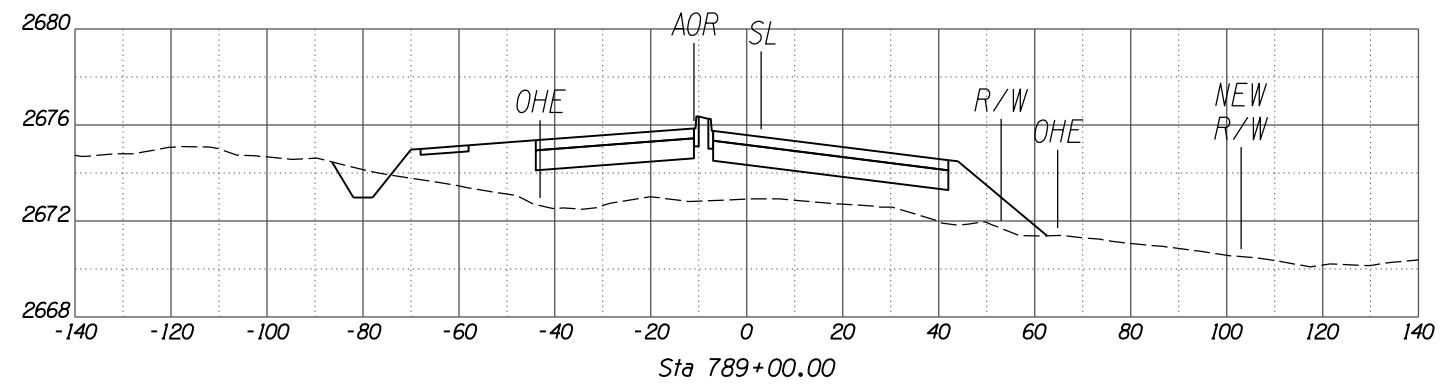
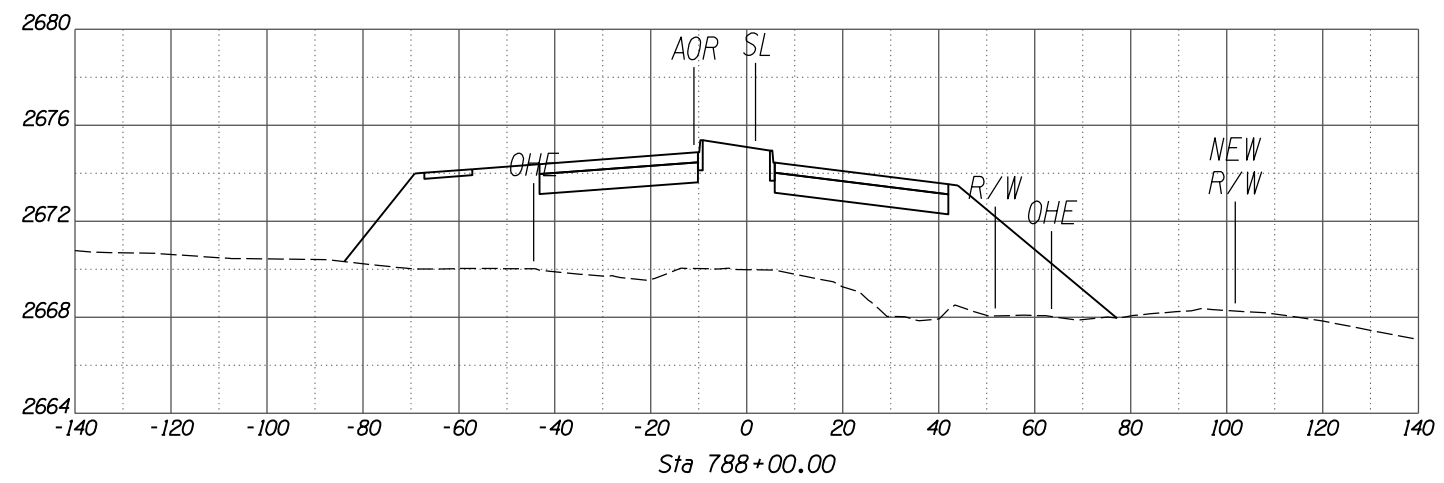
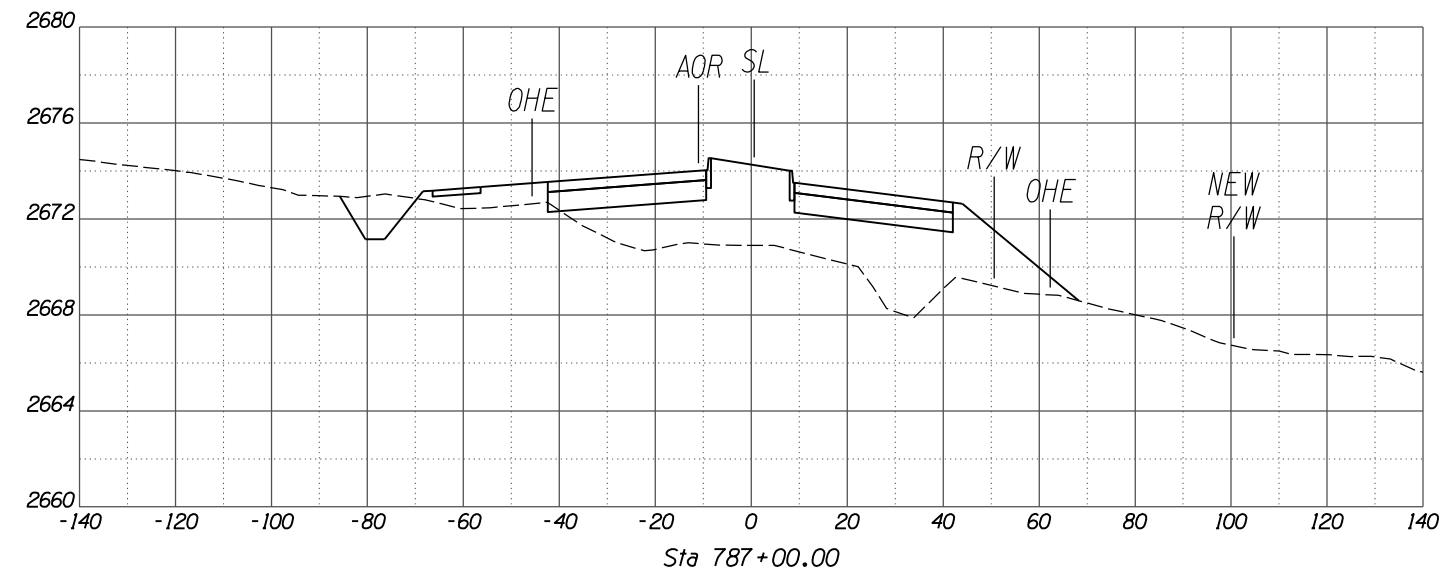
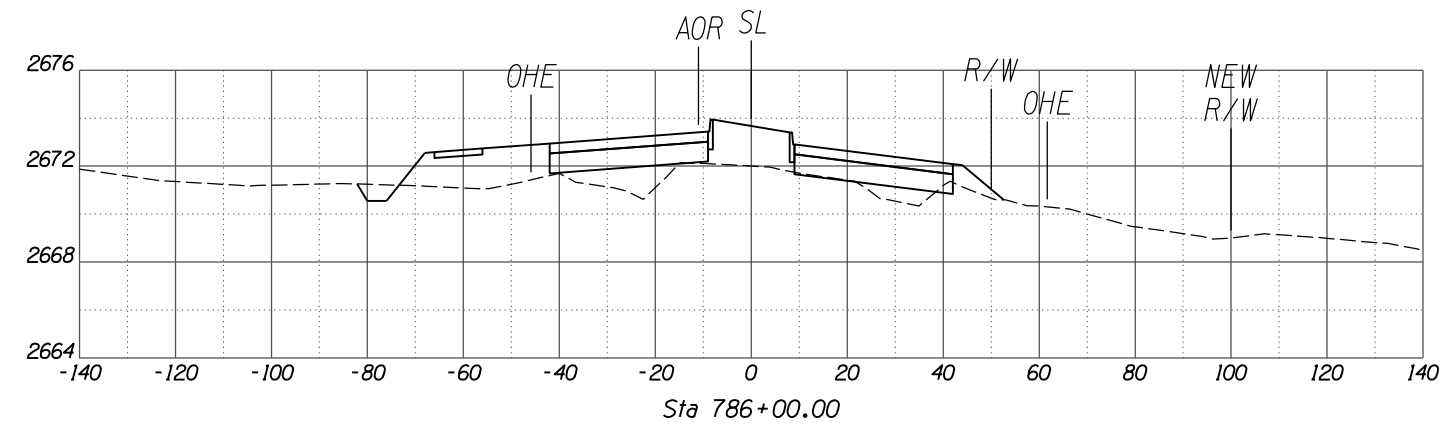
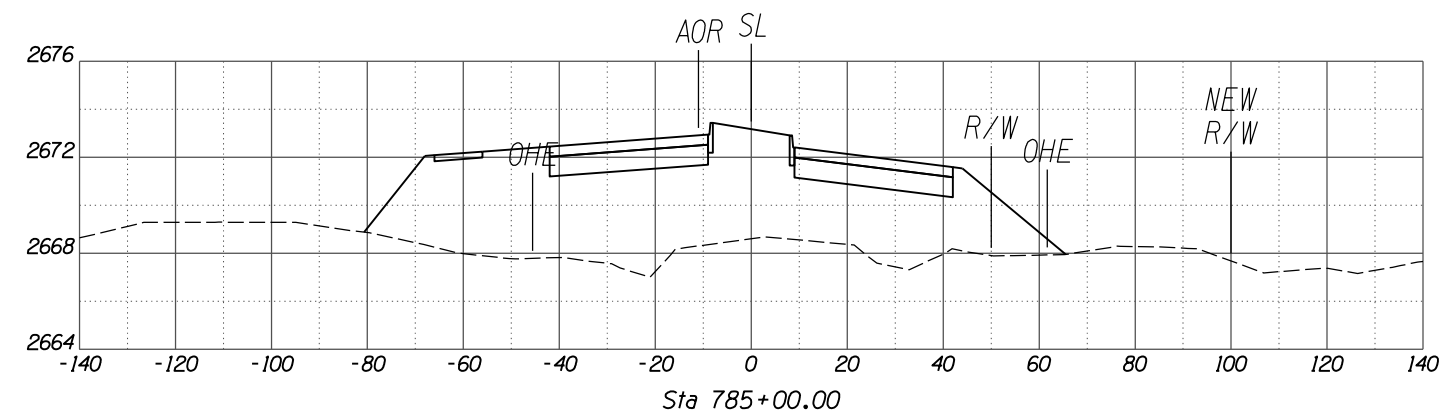
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DESIGNED:	02/13
DRAWN:	02/13
CHECKED:	02/13
PROJ. ENG.:	02/13

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE



NO.	REVISION DESCRIPTION	DATE	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE

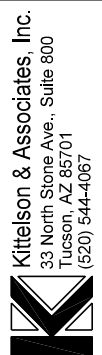


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XSI OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

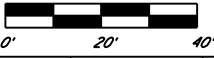
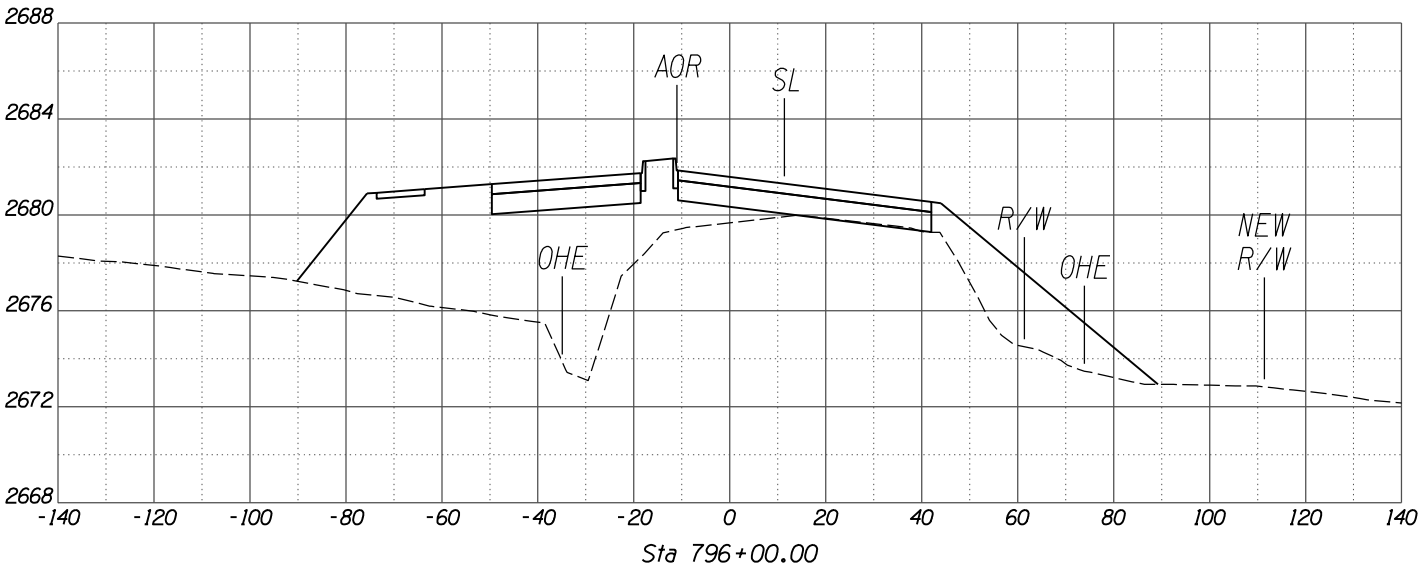
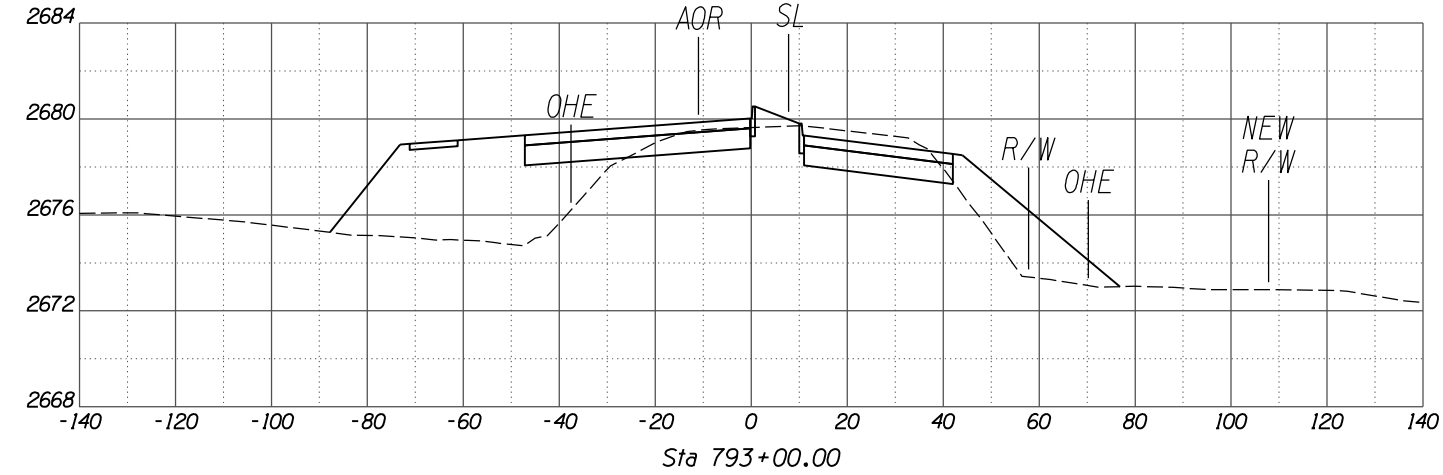
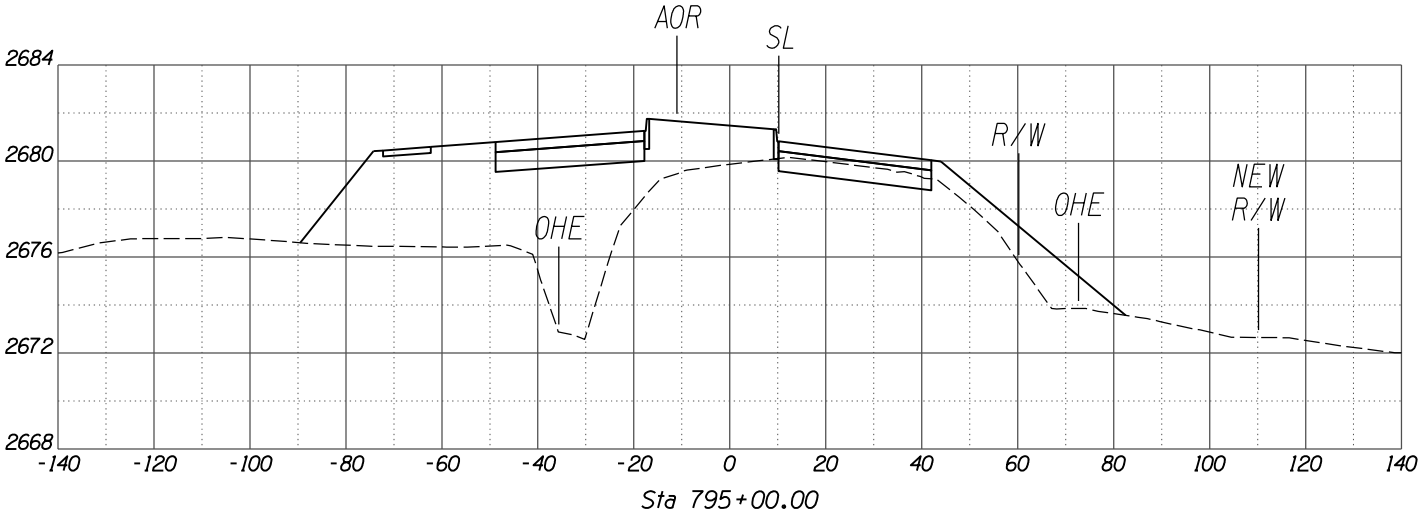
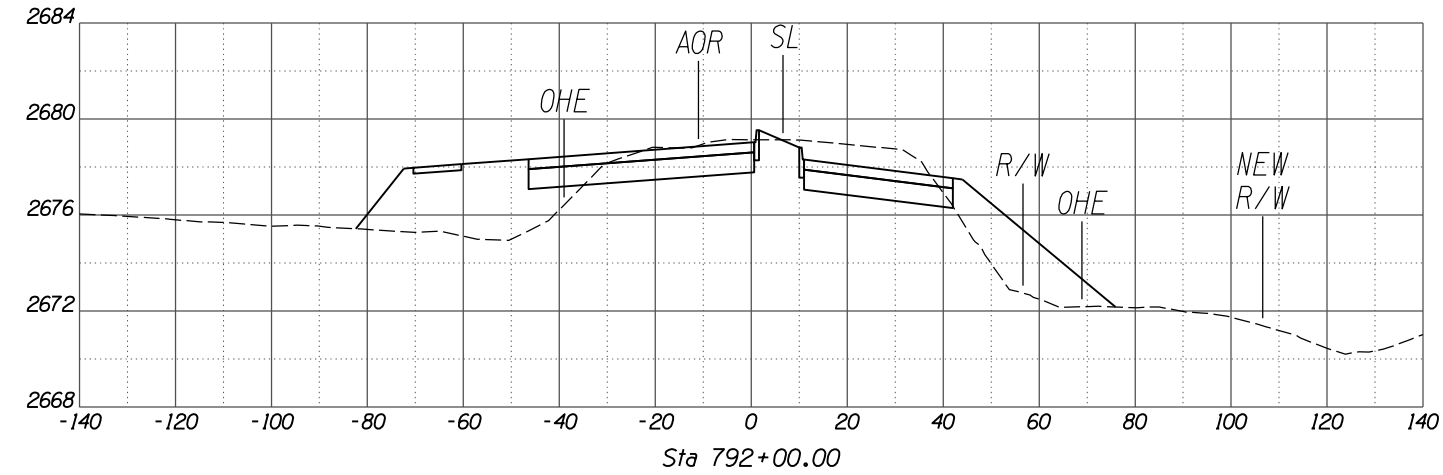
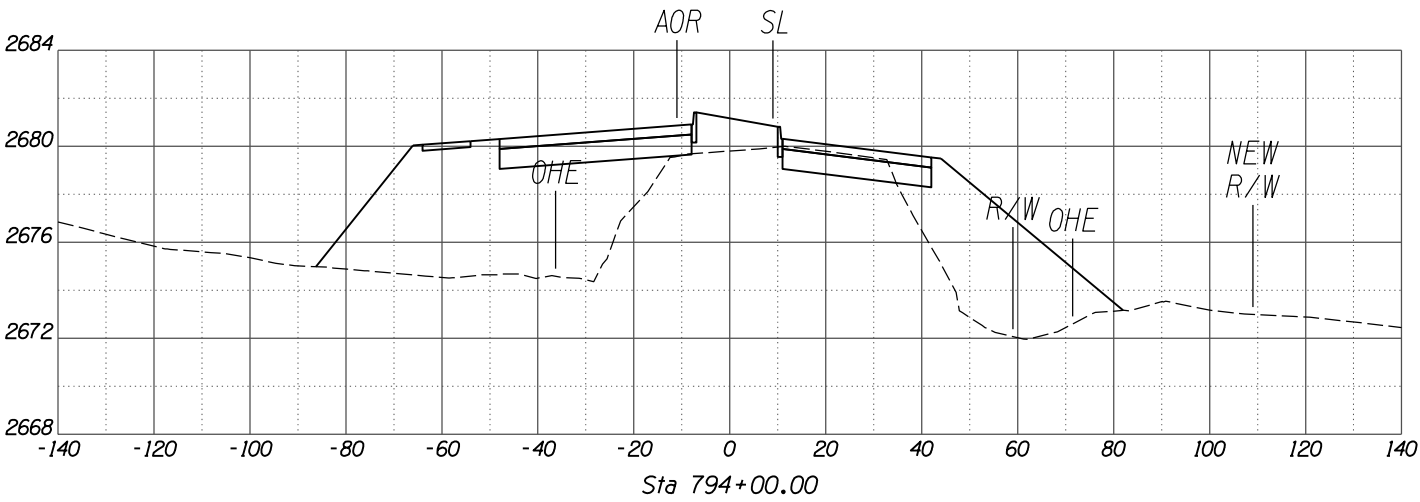
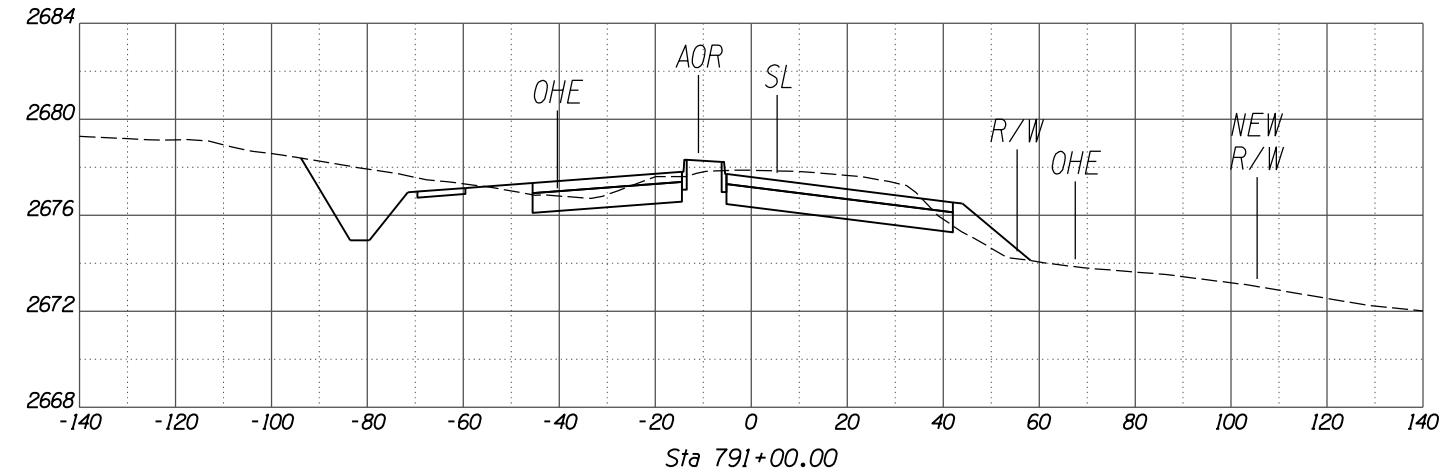
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

DATE	02/13	02/13	02/13	02/13
DESIGNED	FIN	TWP	MDA	MDA
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CHECKED				
PROJ. ENG.				

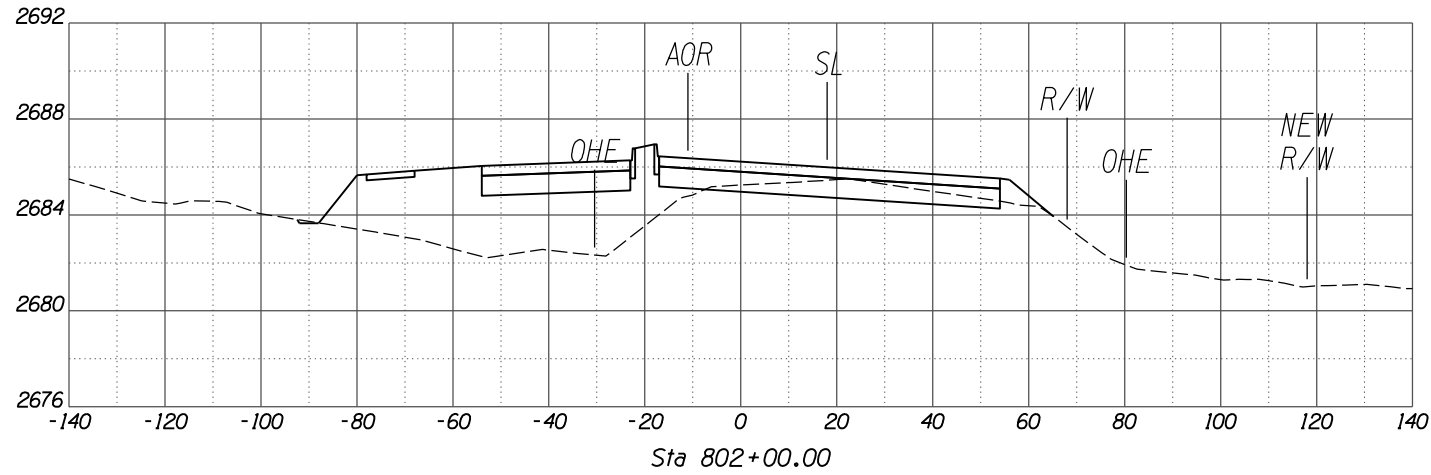
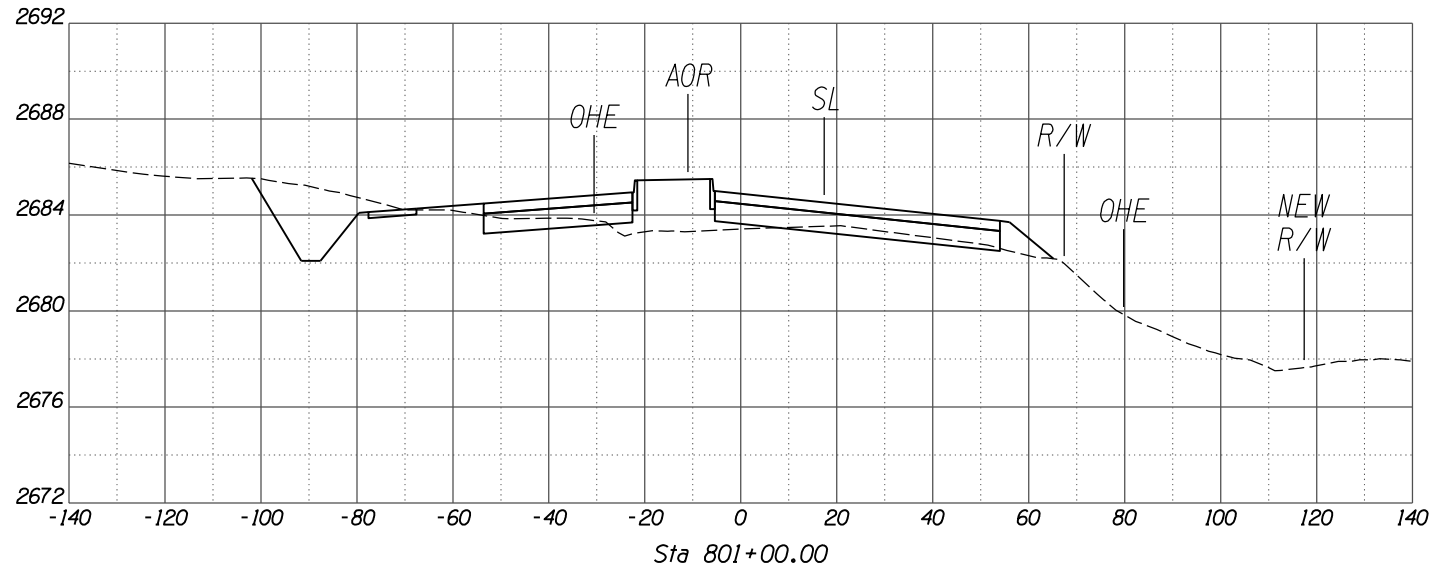
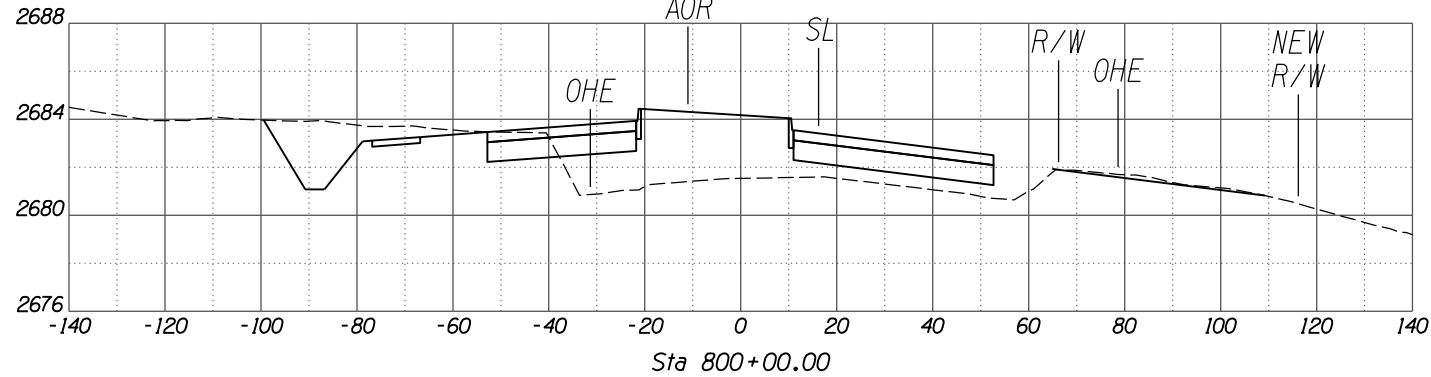
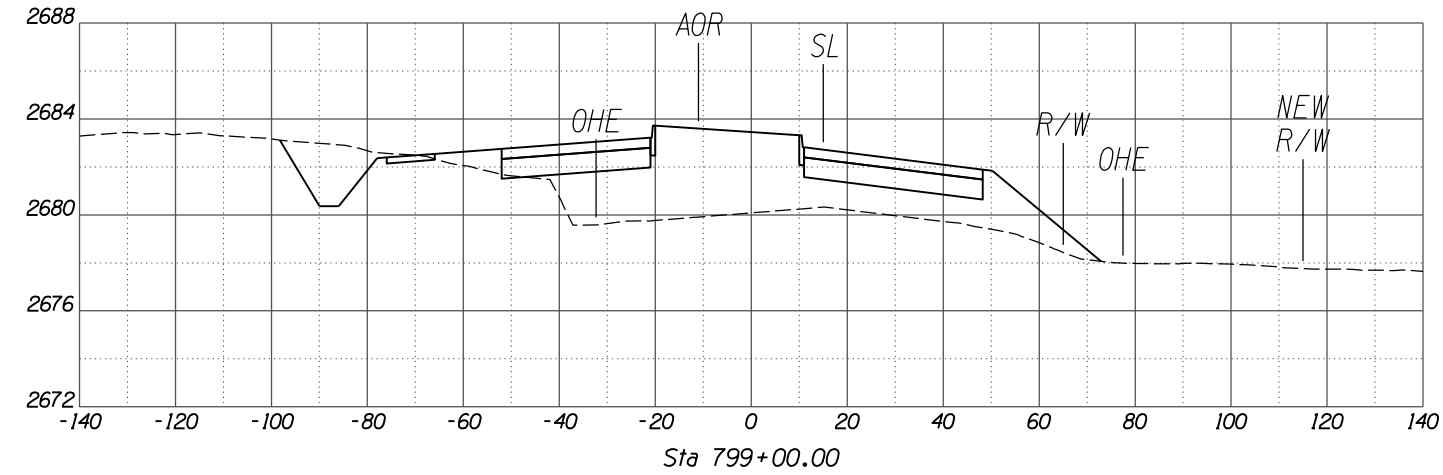
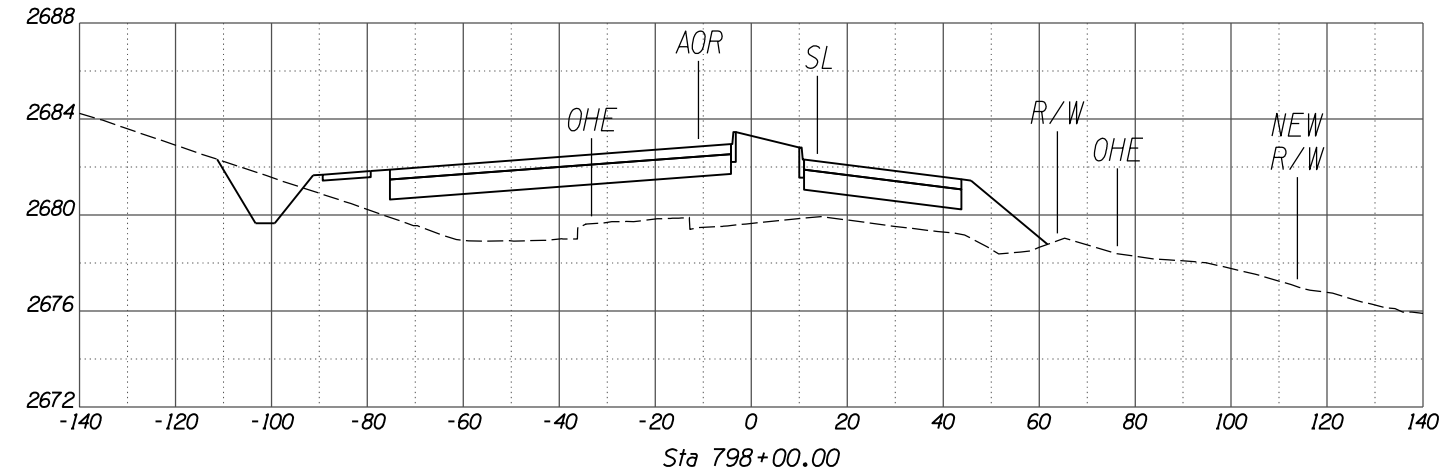
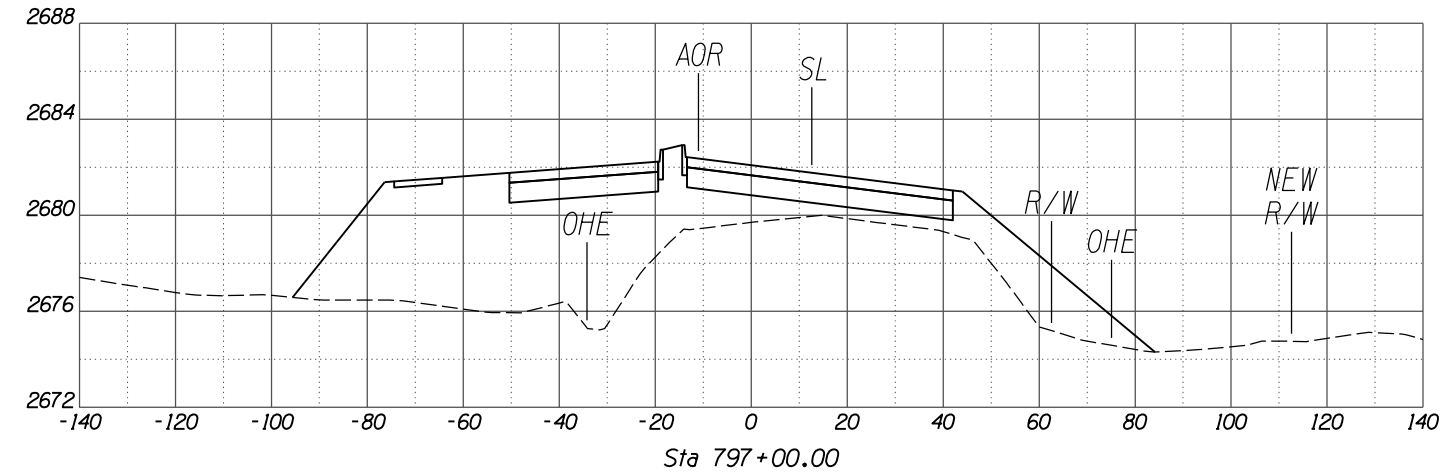
NO.	REVISION DESCRIPTION	DATE	ENGINEER



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

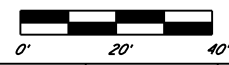
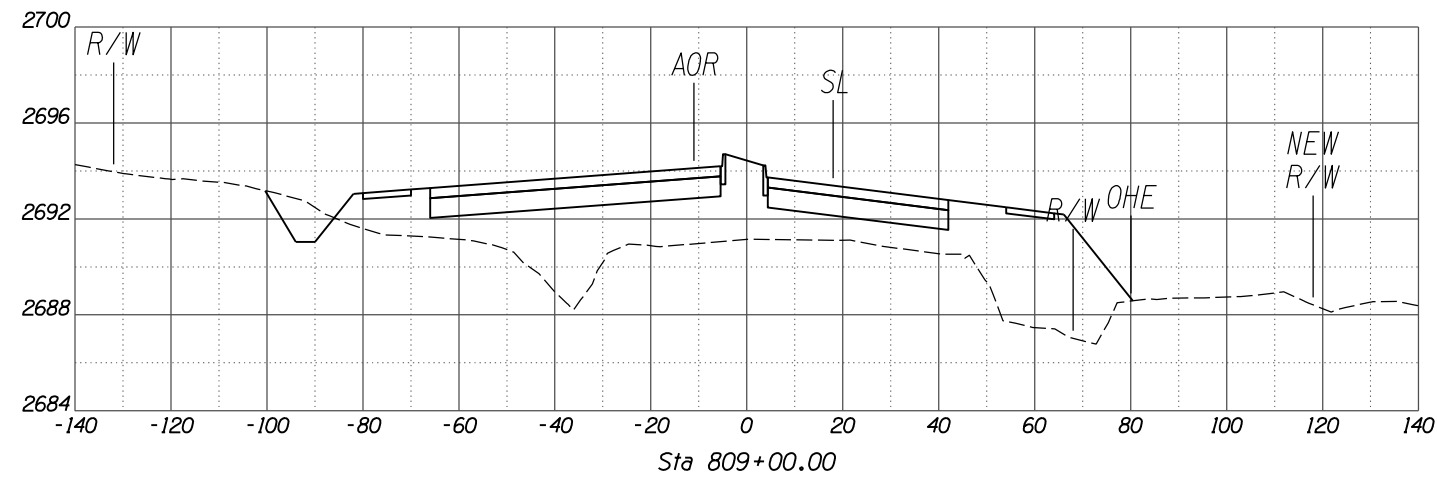
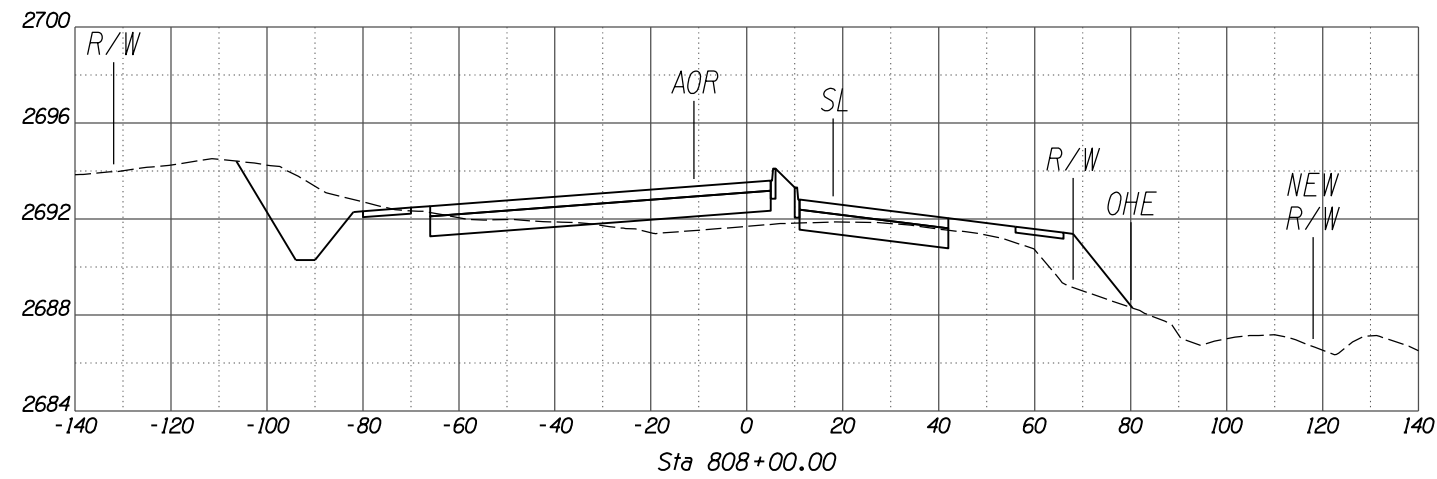
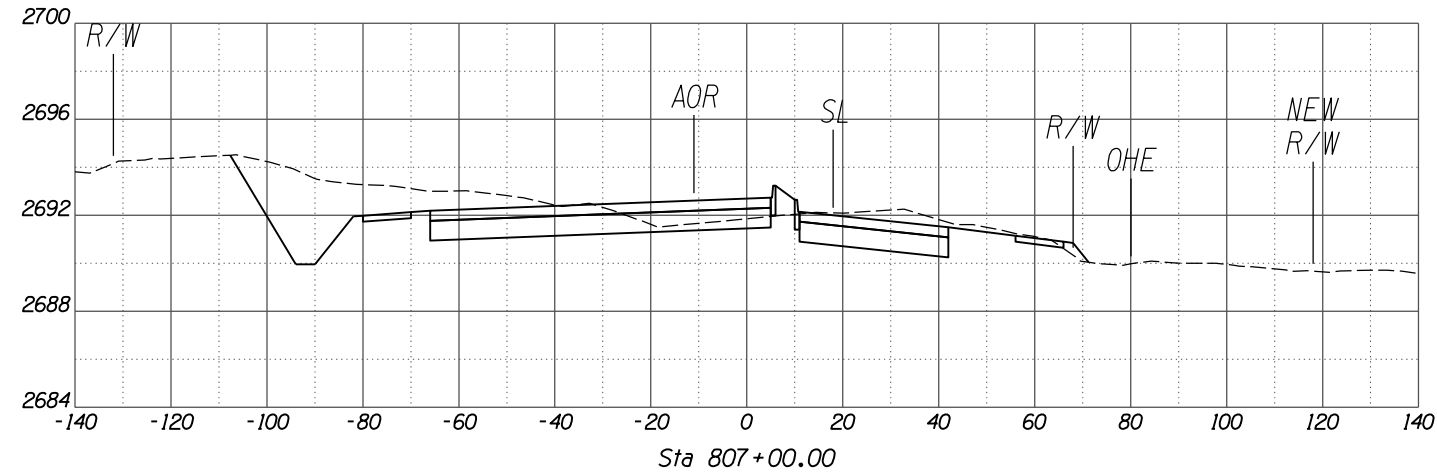
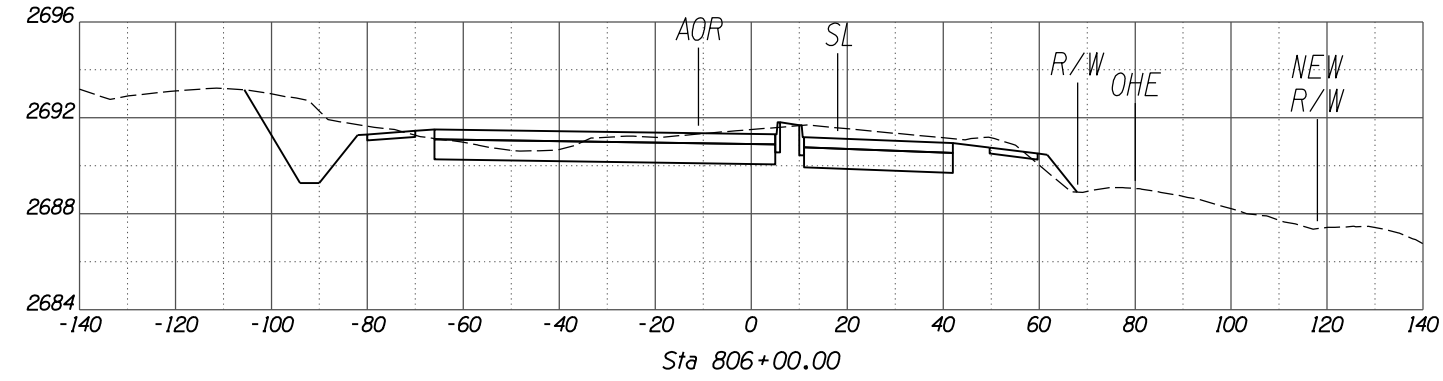
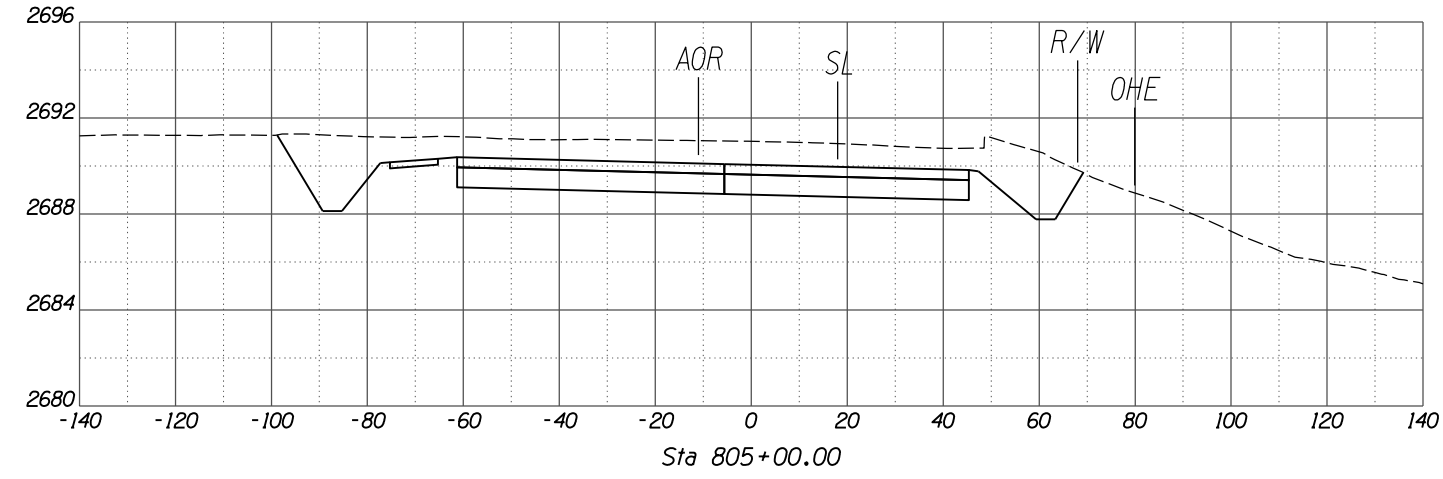
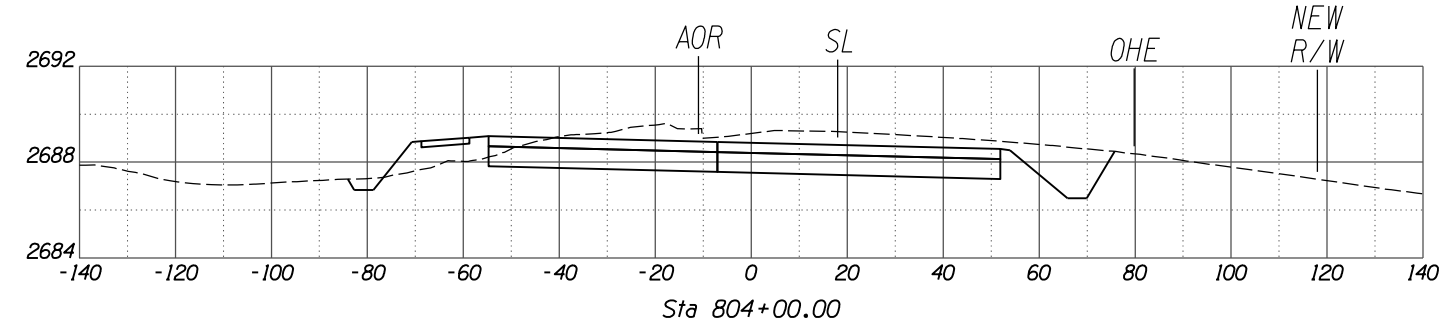
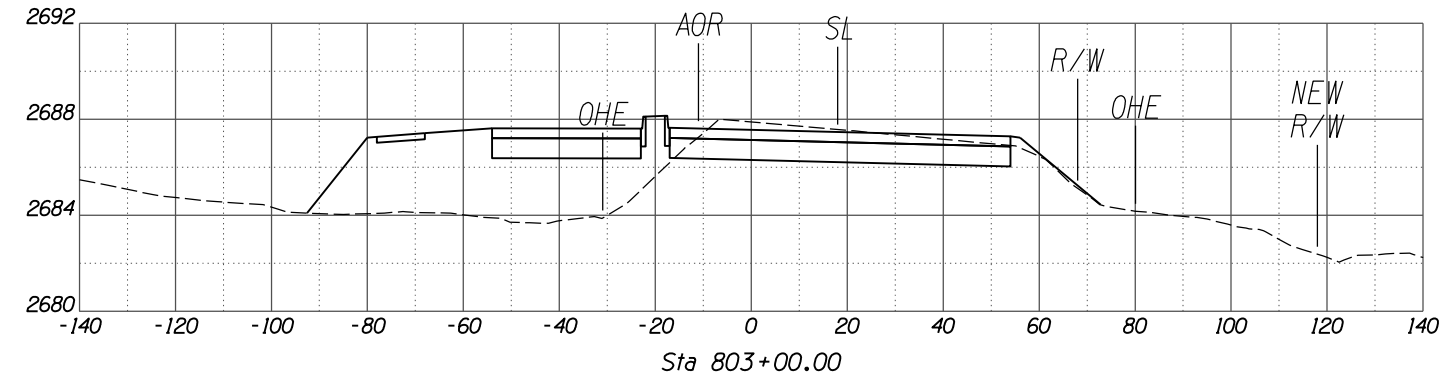
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				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

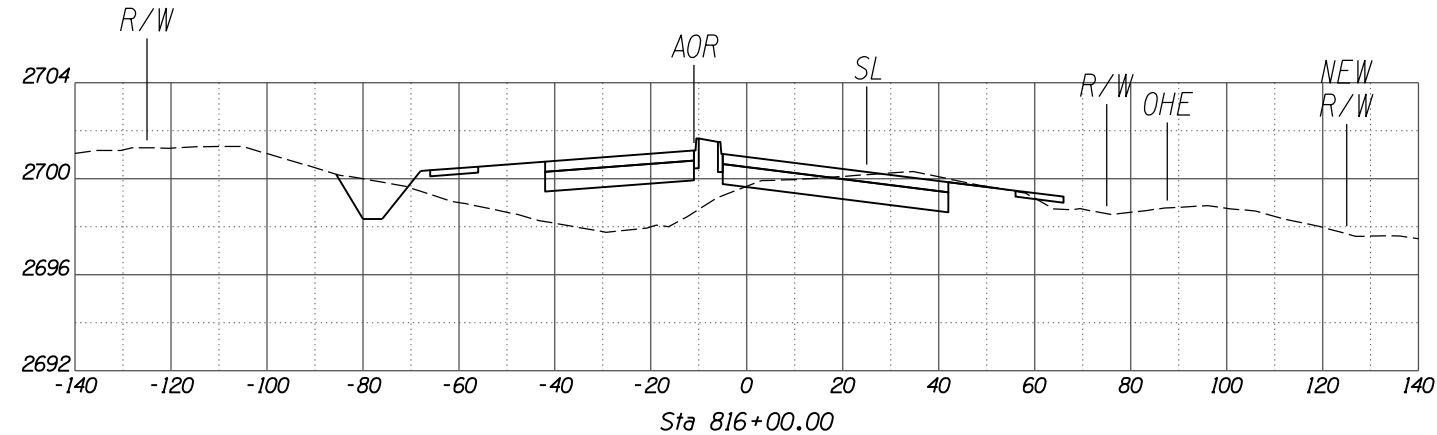
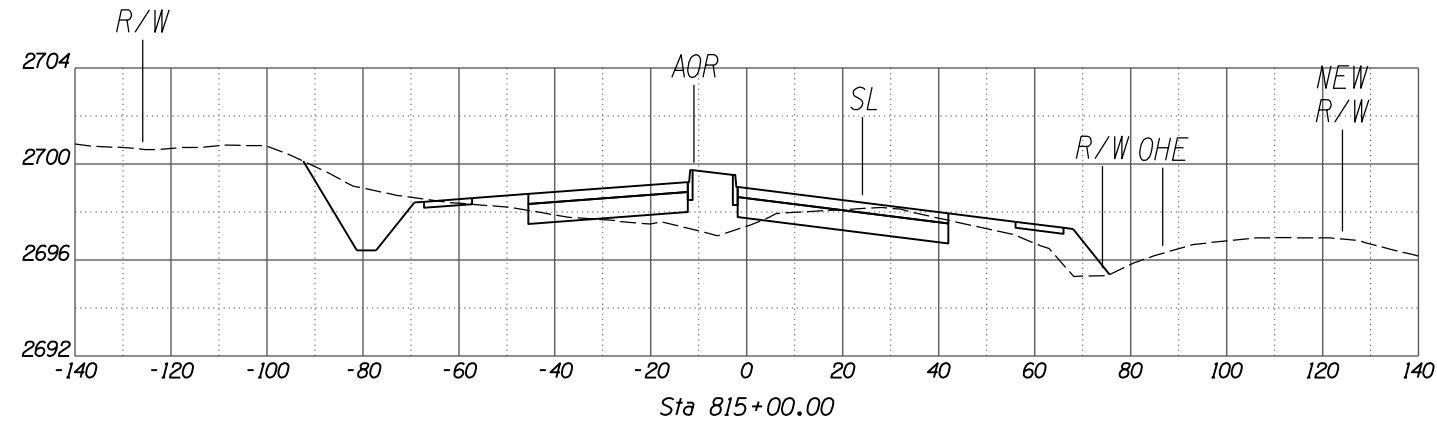
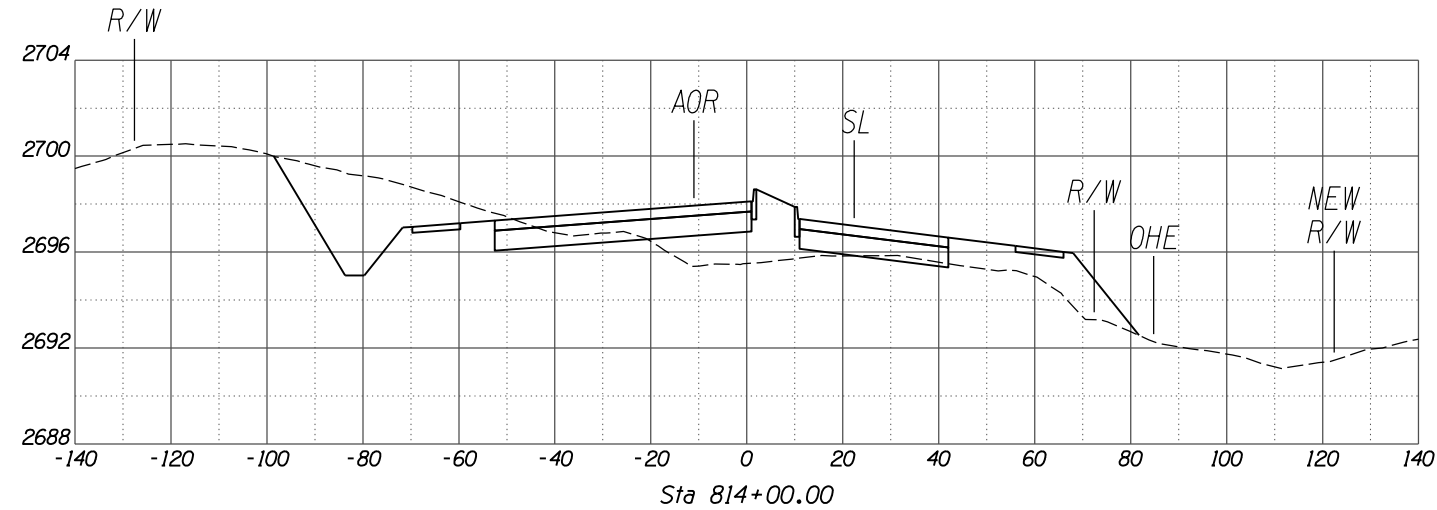
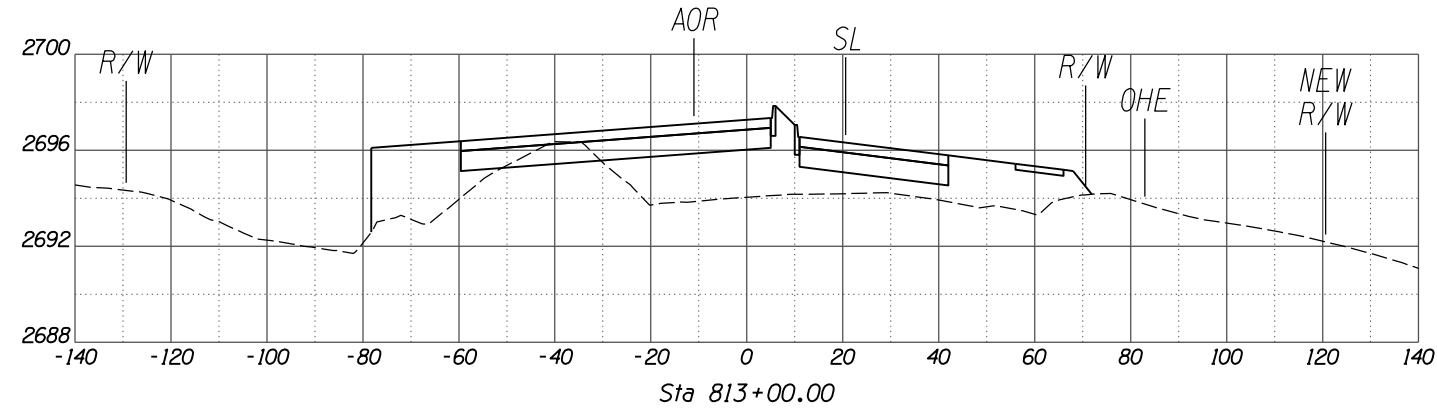
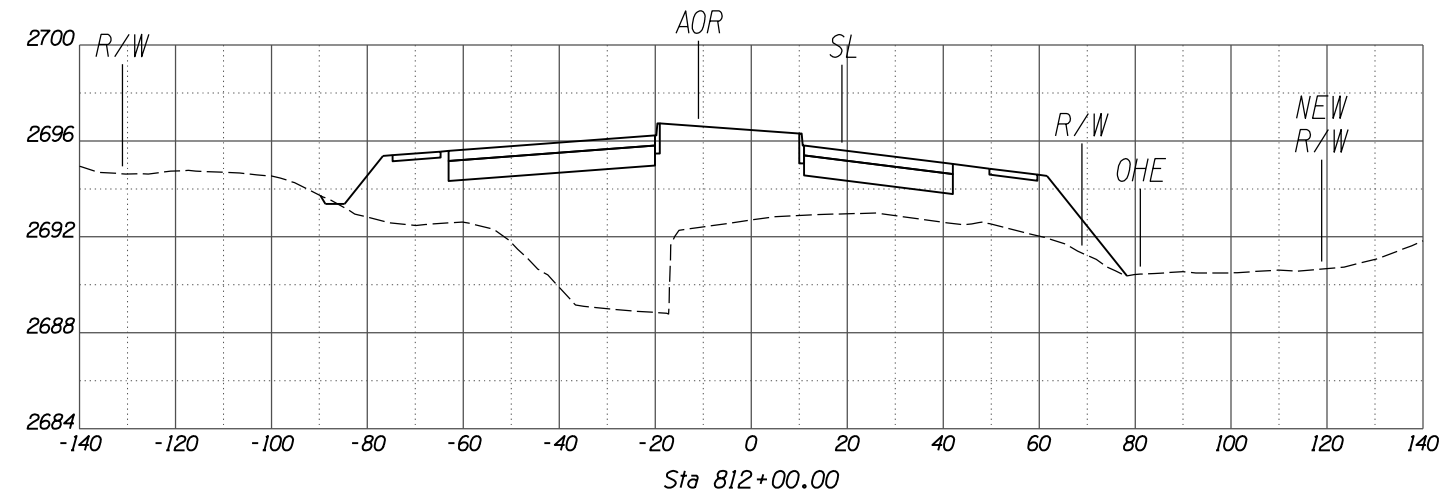
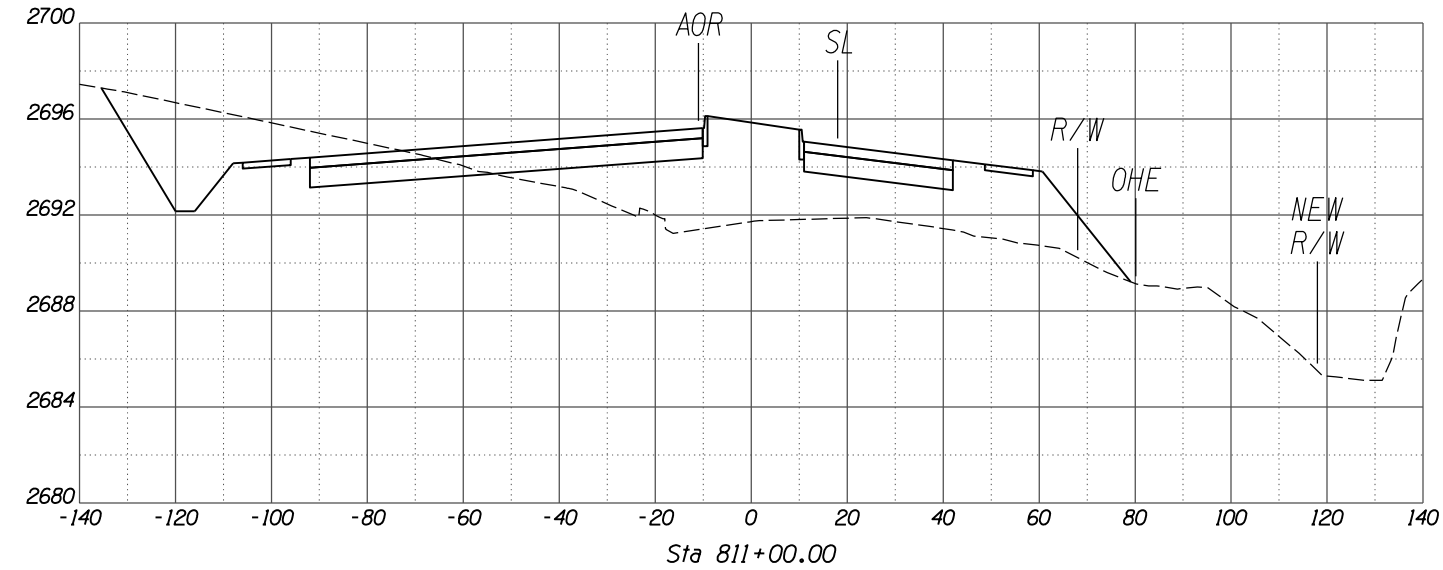
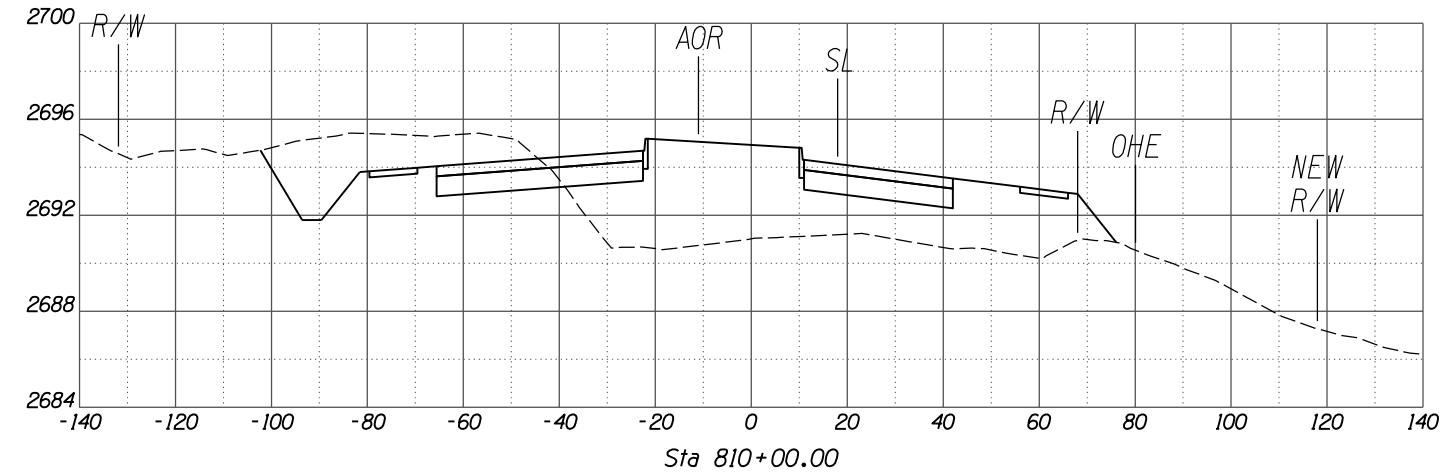
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CONSTRUCTION

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Tucson, AZ 85701
(520) 544-4067

CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13



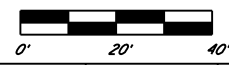
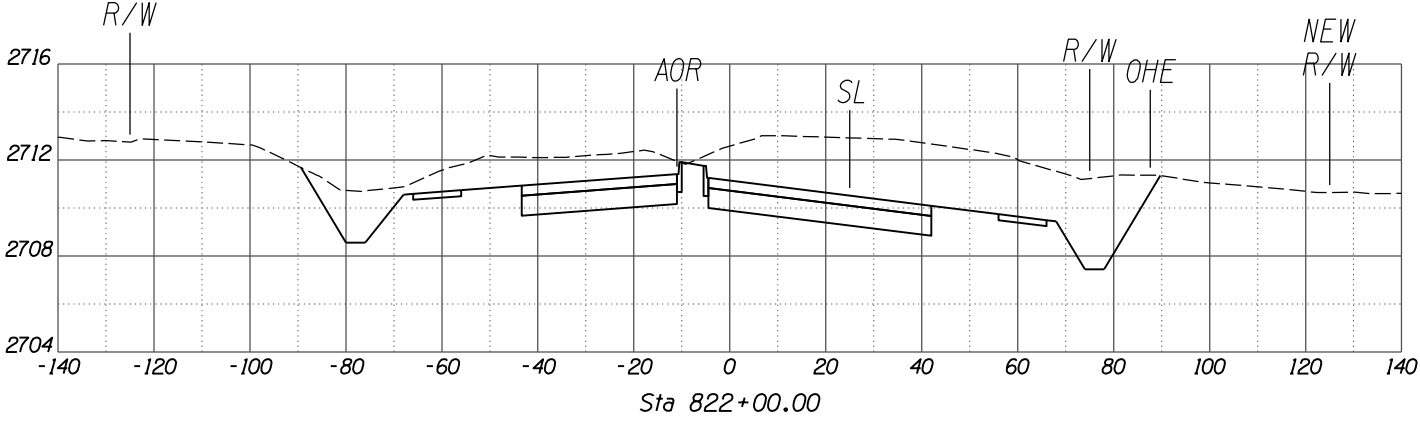
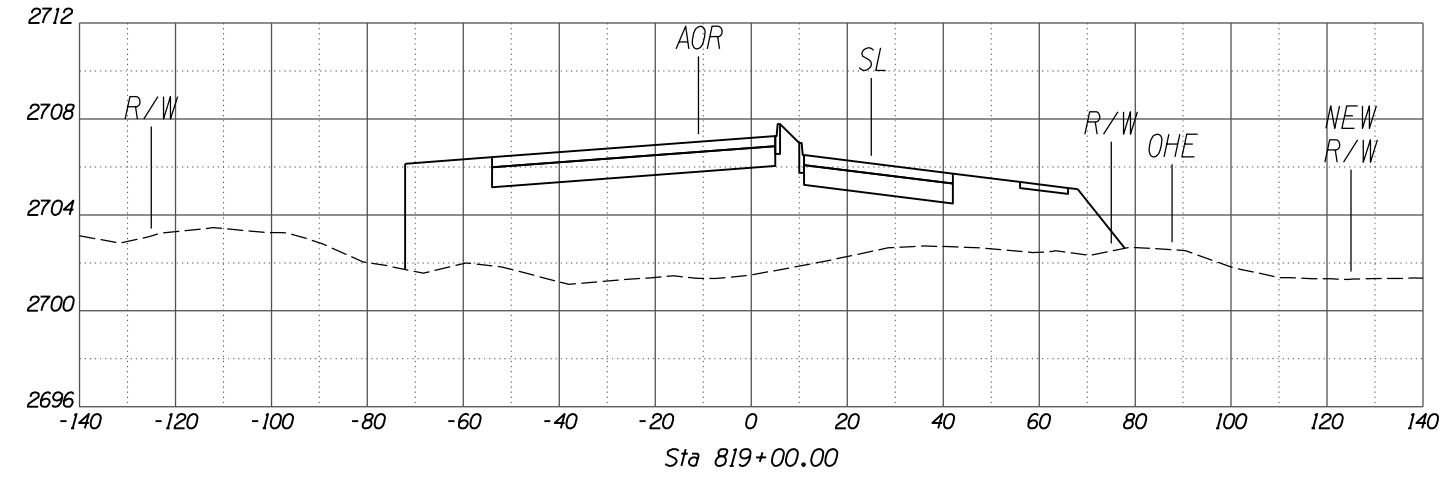
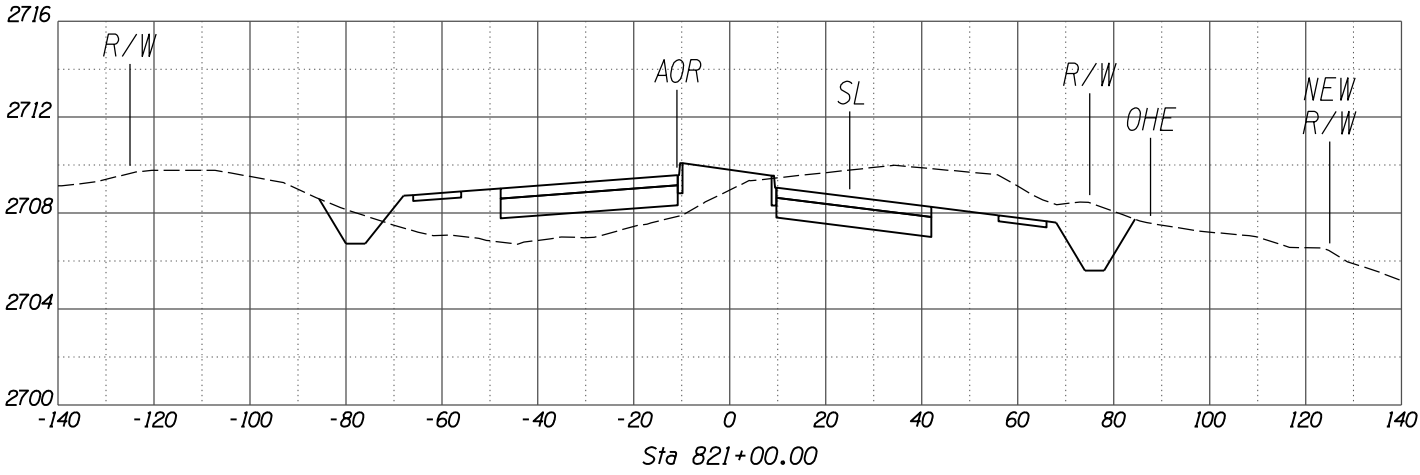
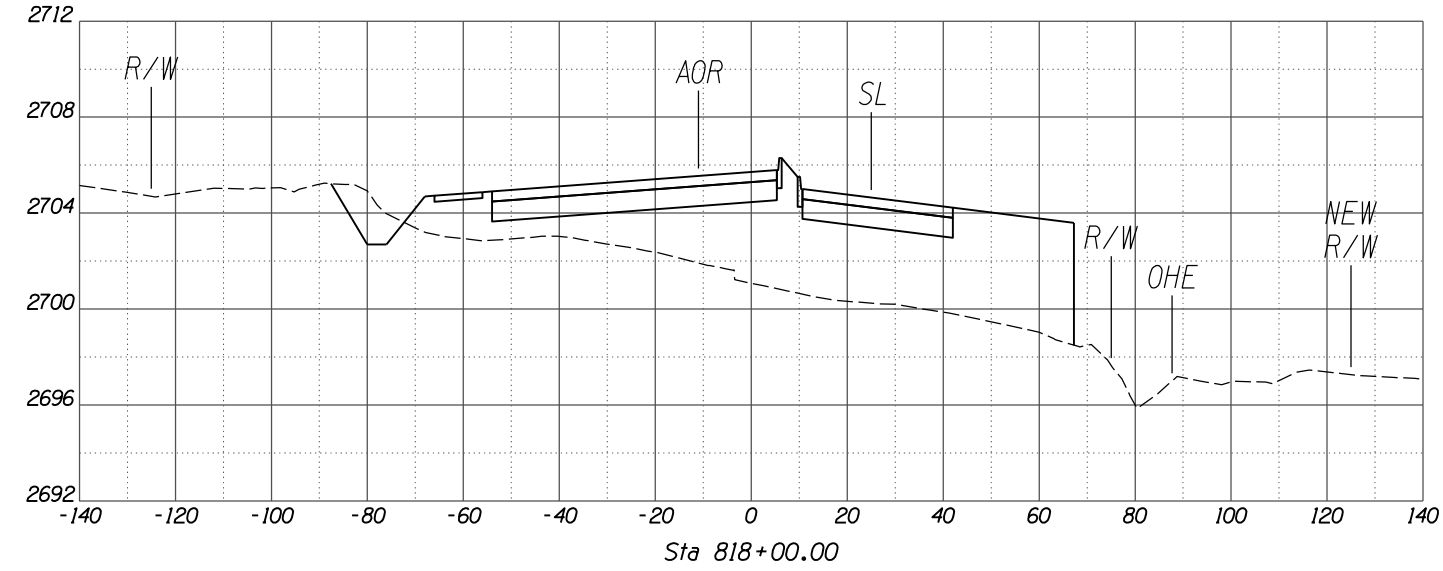
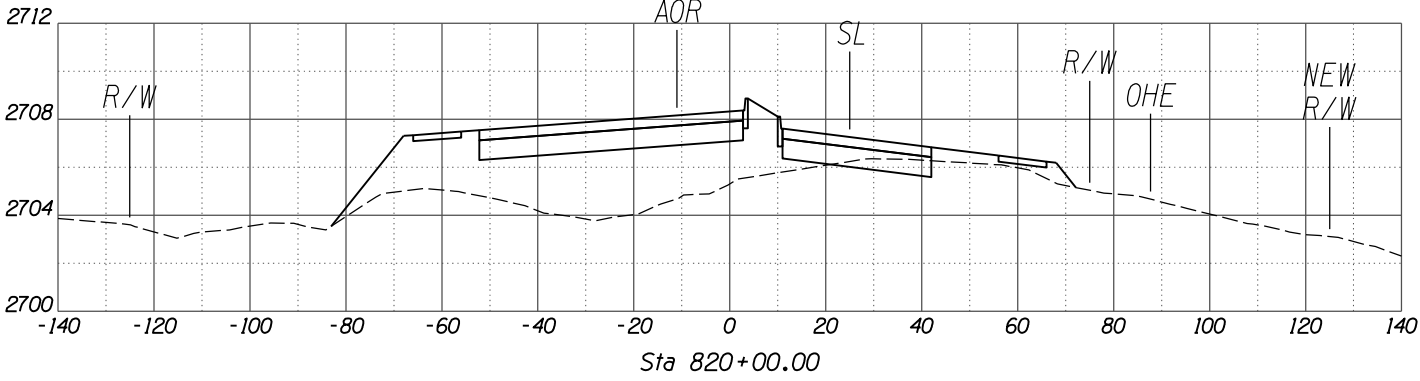
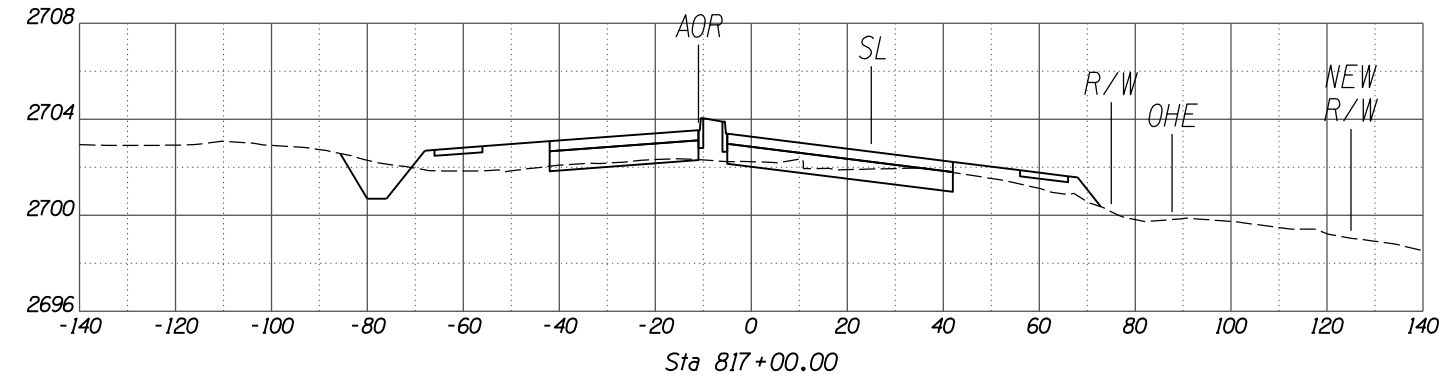
SCALES: HORIZ. 1"=20'
VERT. 1"=4'



NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.

DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

TOWN OF MARANA - PROJECT NO. 2005-061

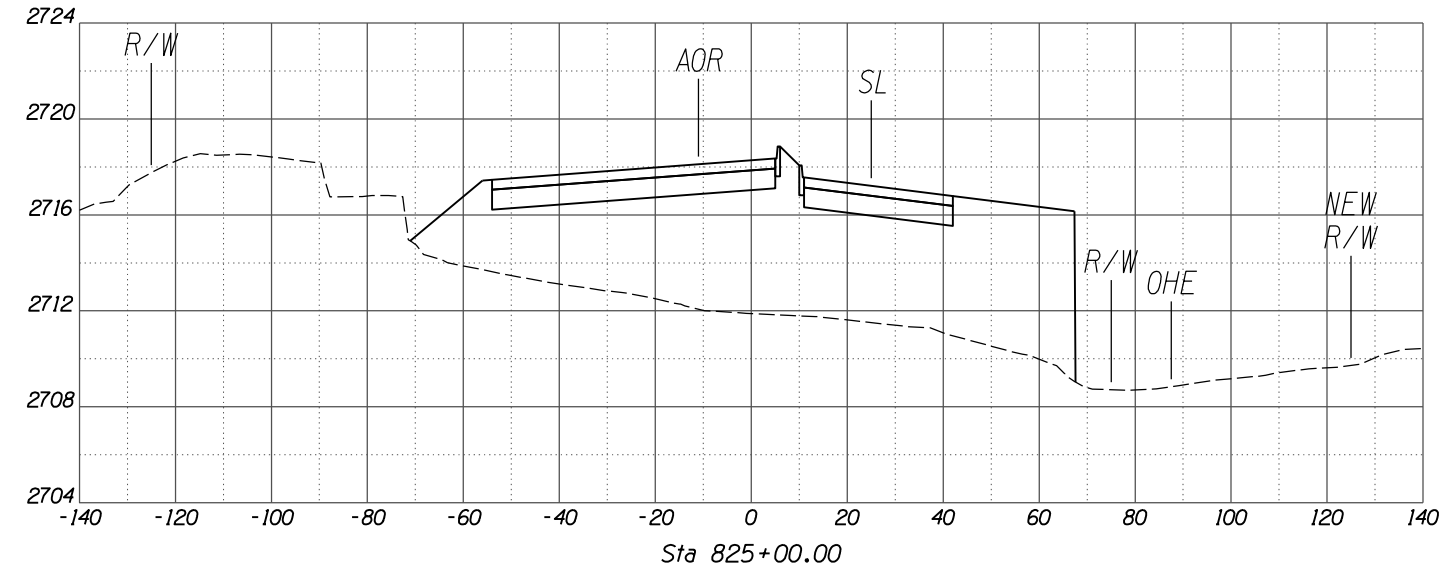
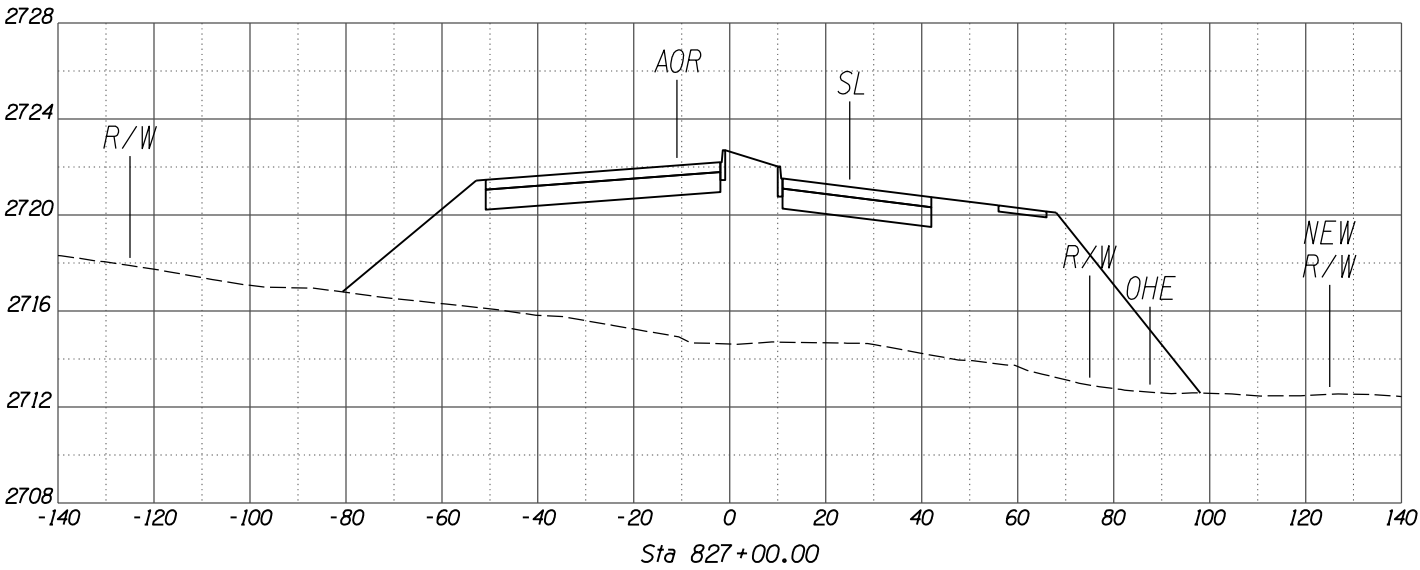
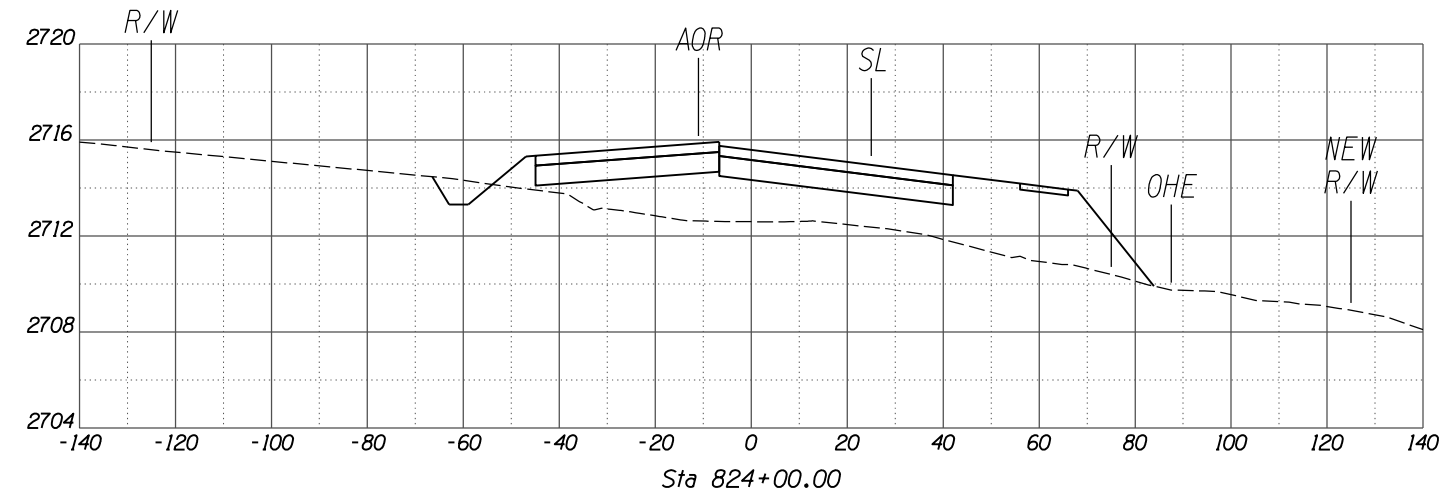
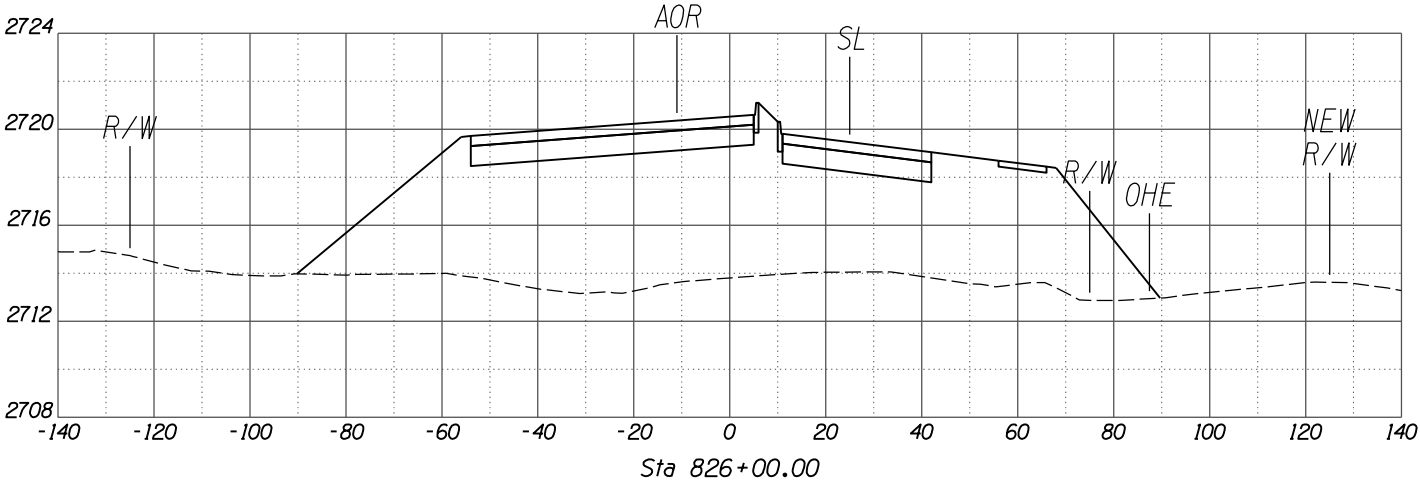
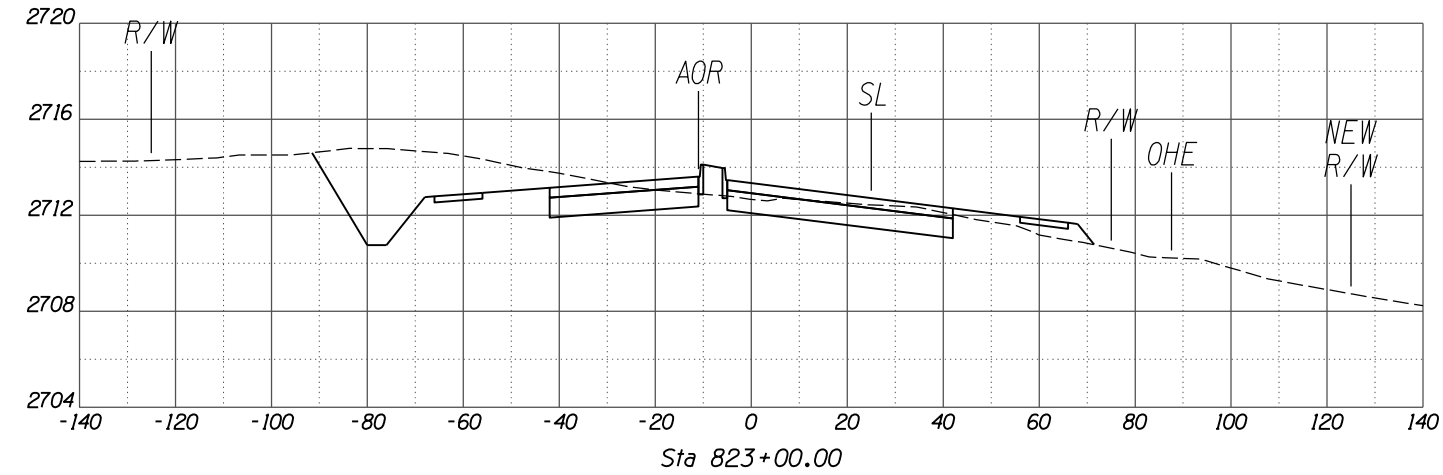
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

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(520) 544-4067

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NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	REV.	ENGINEER	DATE

DESIGNED BY	CHECKED BY	PROJ. ENG.	DATE



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS7 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

CROSS SECTIONS
FOR

TANGERINE ROAD

TANGERINE ROAD

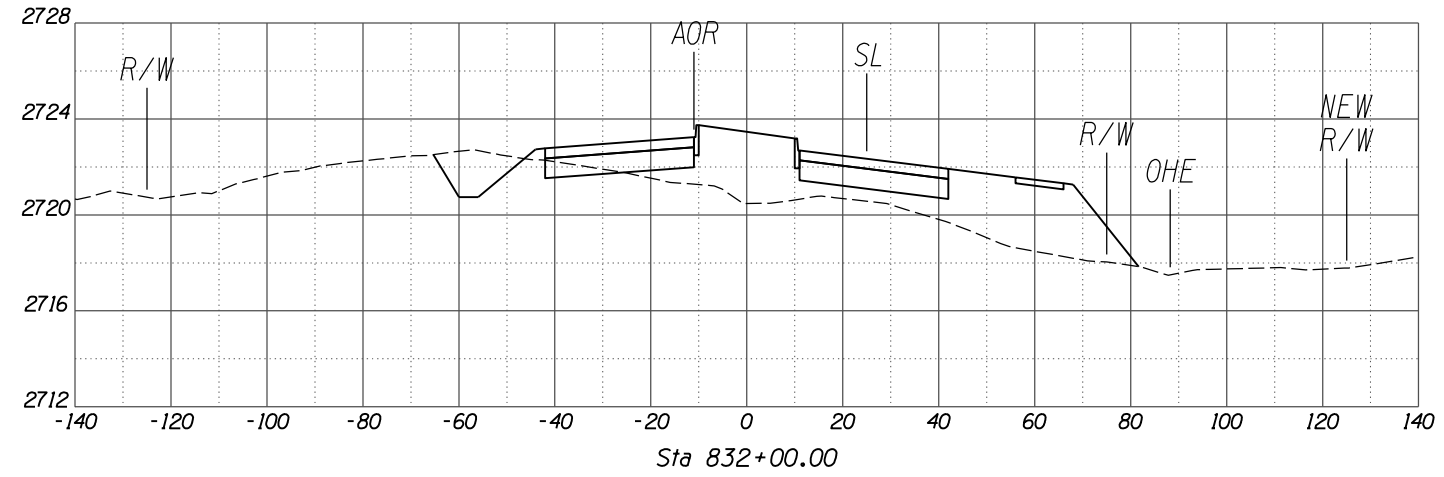
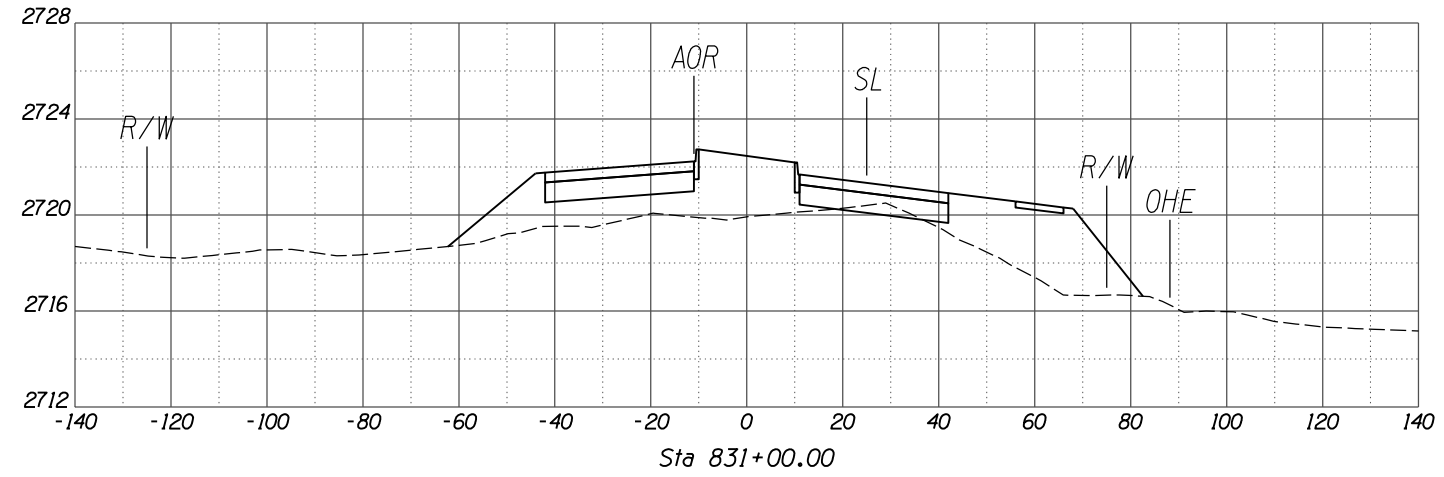
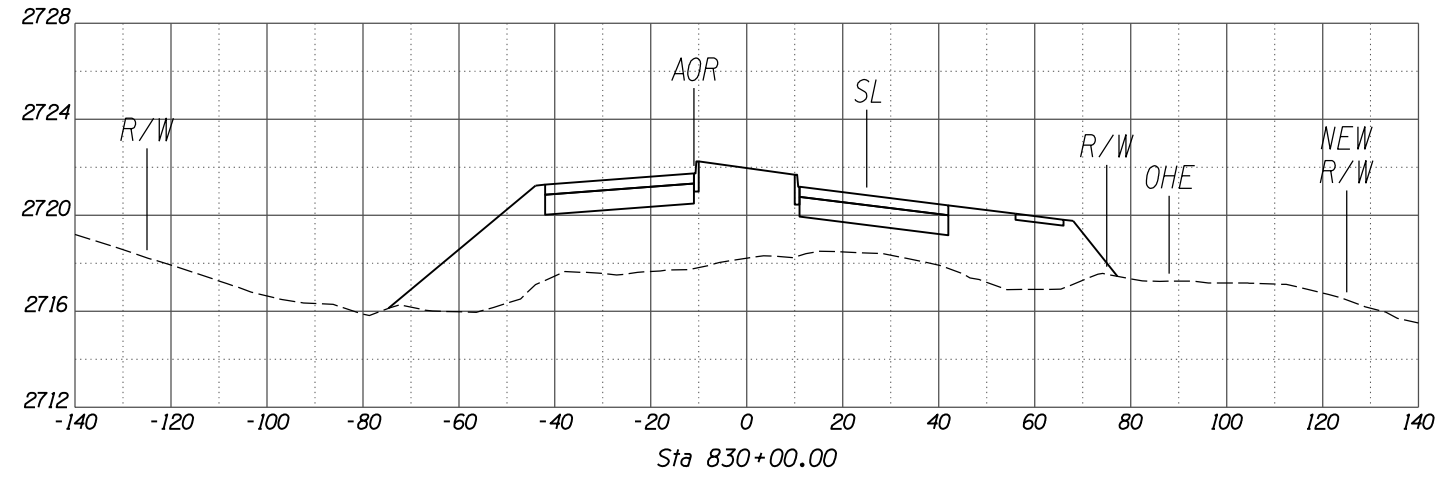
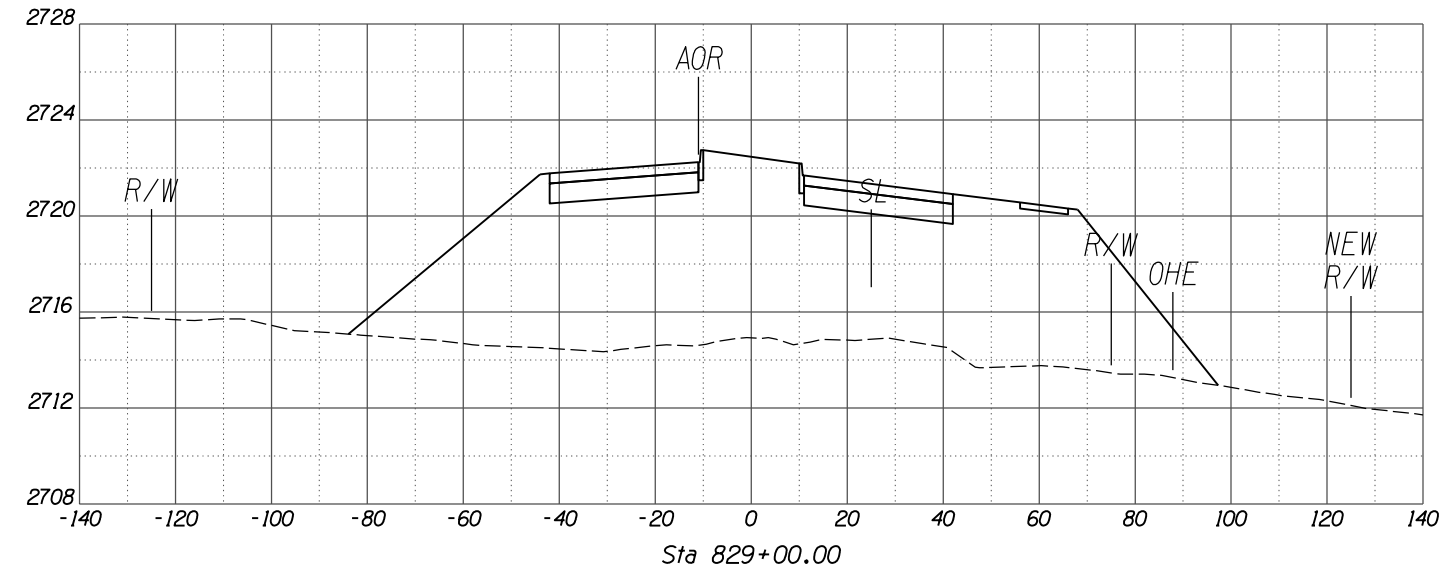
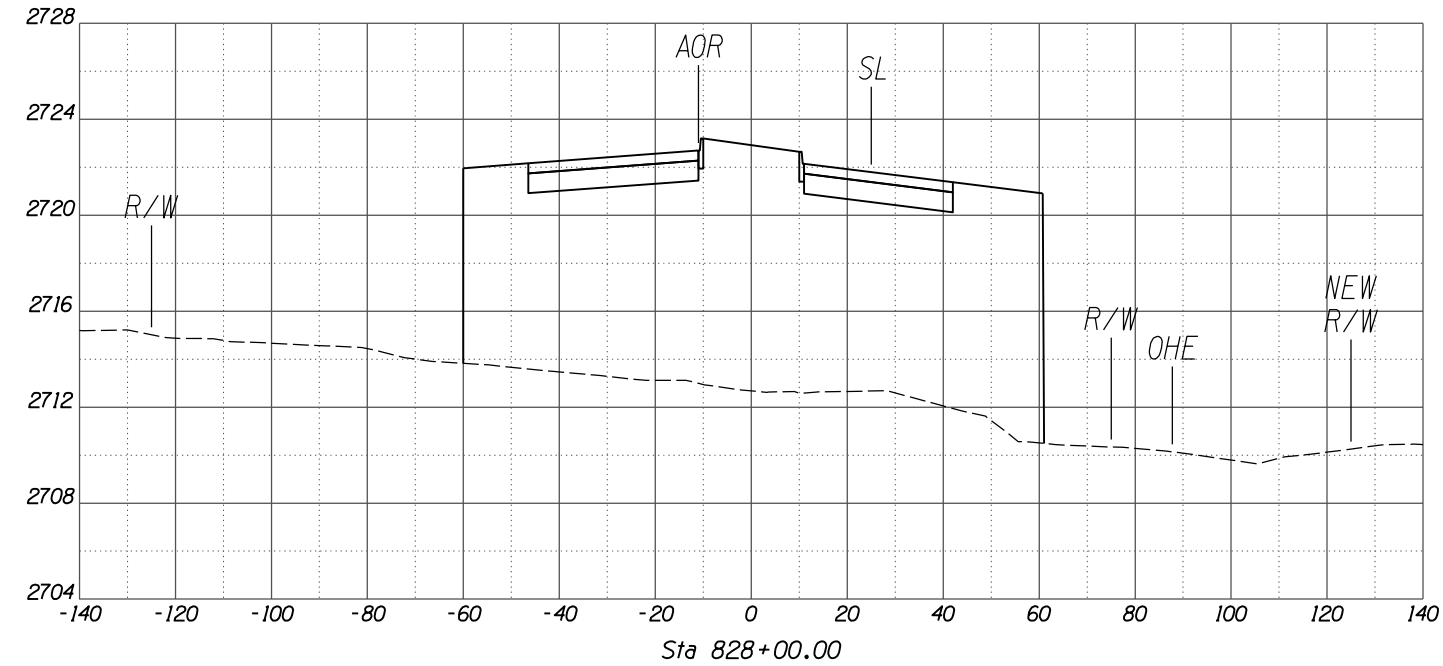
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PRELIMINARY
NOT FOR
CONSTRUCTION

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(520) 544-4067



DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.
02/13	FIN	TWP	MDA	MDA
02/13				
02/13				

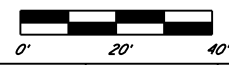
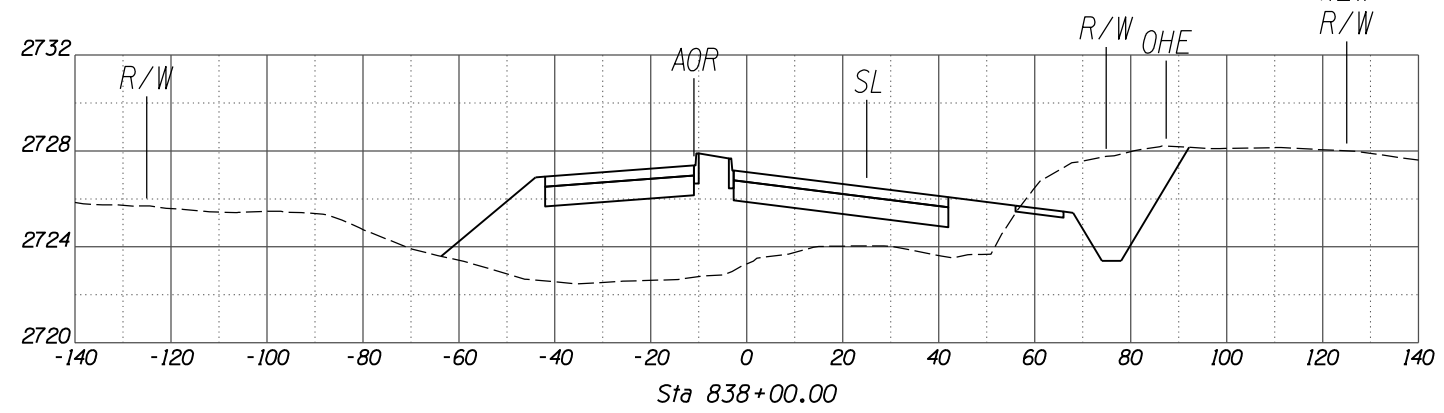
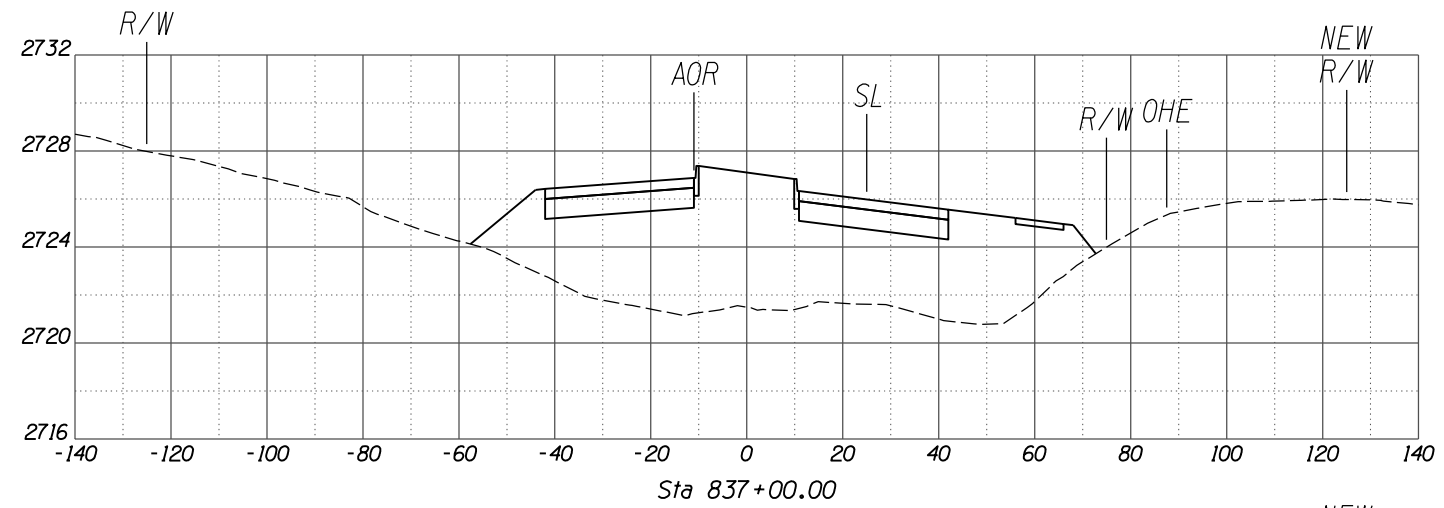
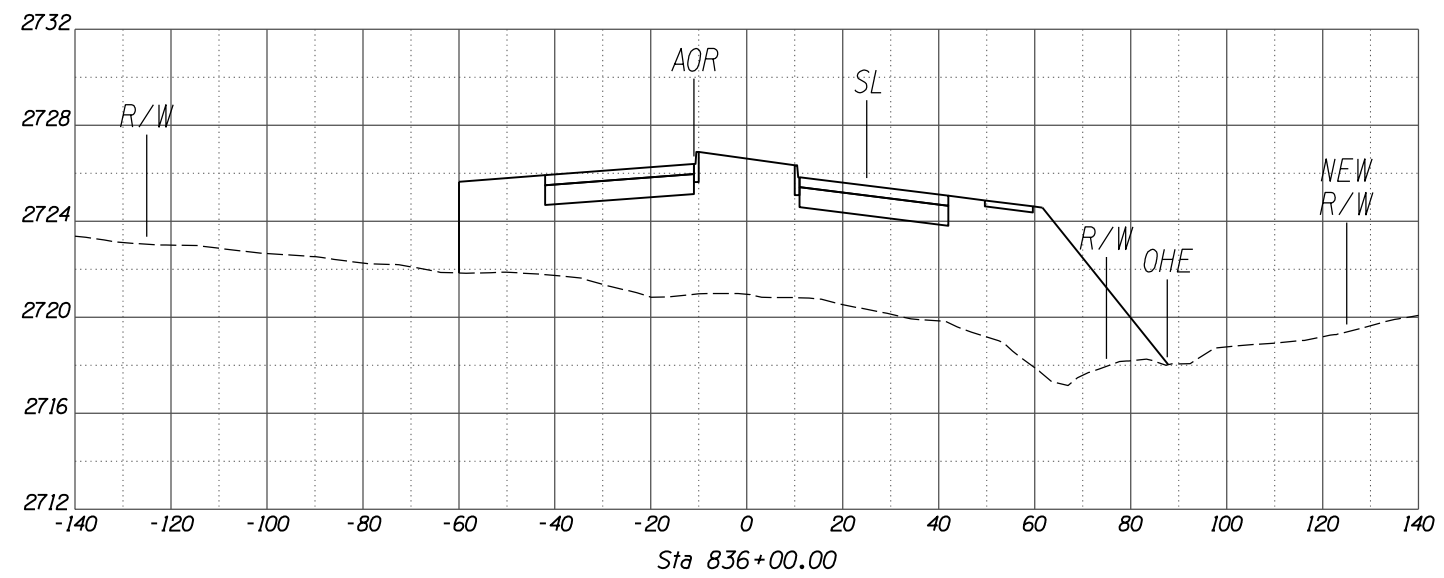
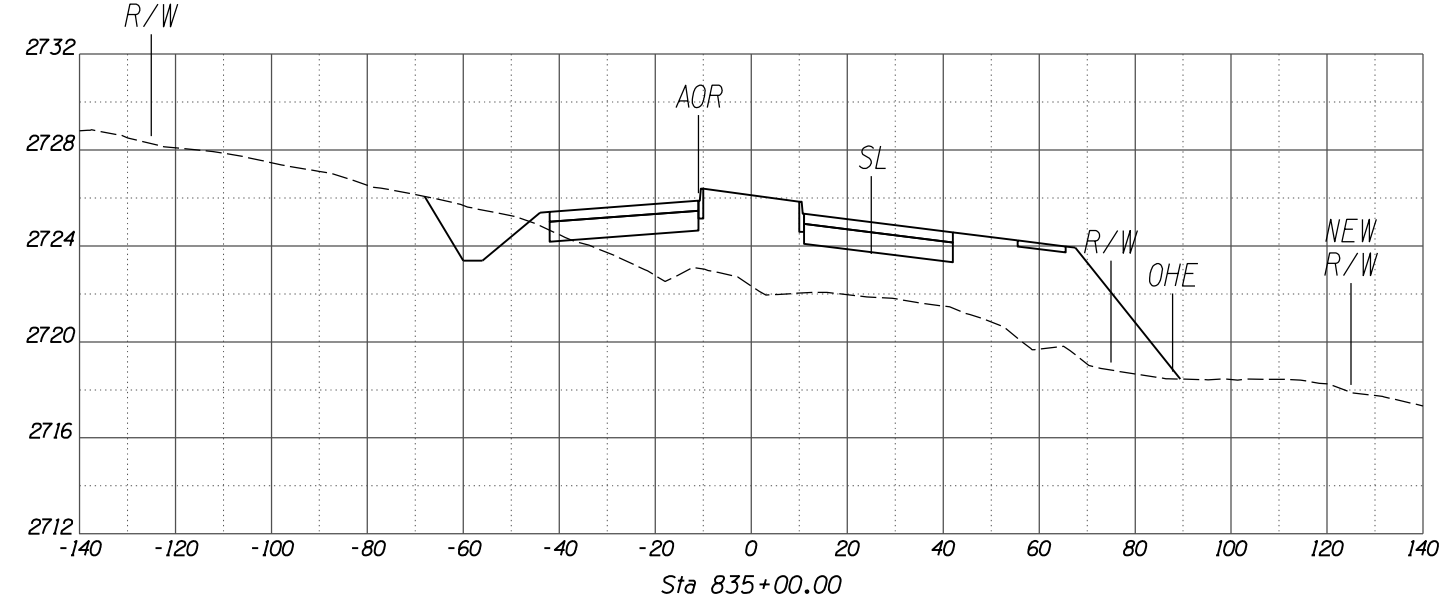
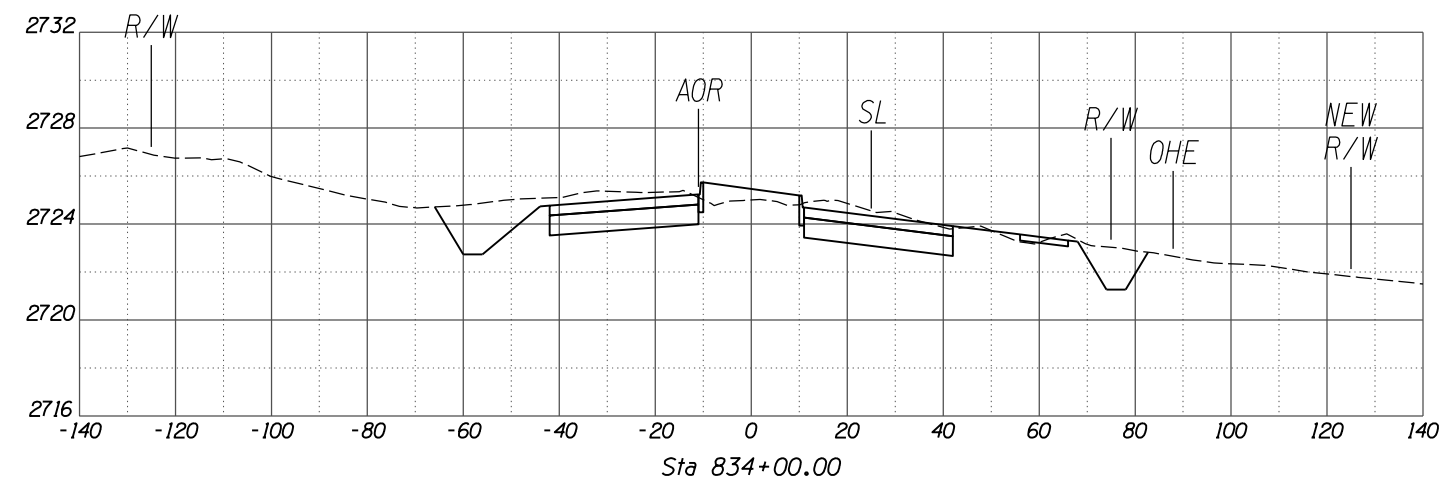
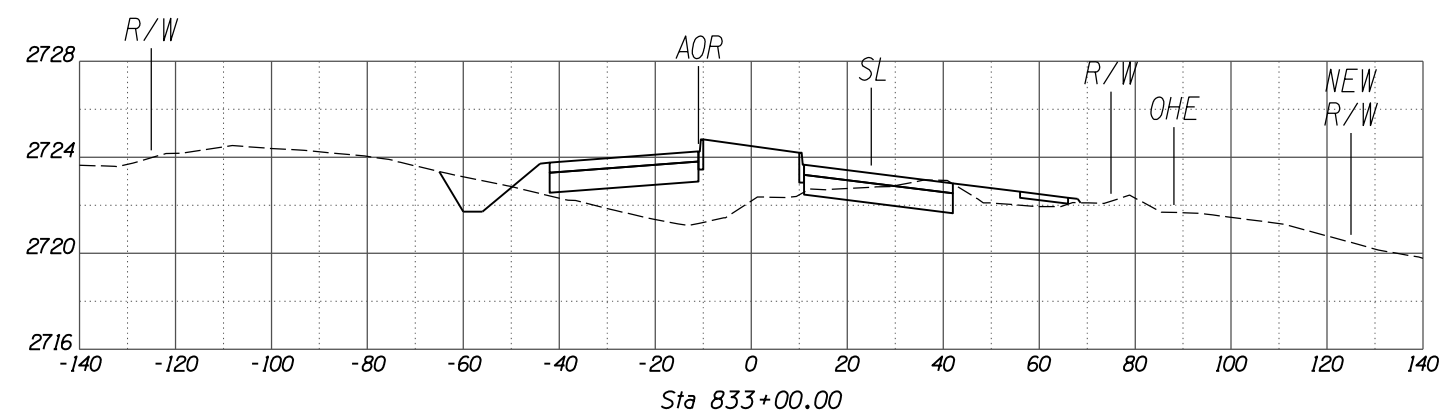
NO.	REVISION DESCRIPTION	DATE	ENGINEER



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	REV. ENGINEER	DATE

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13

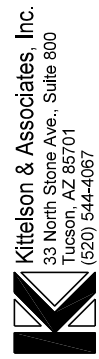


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS9 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

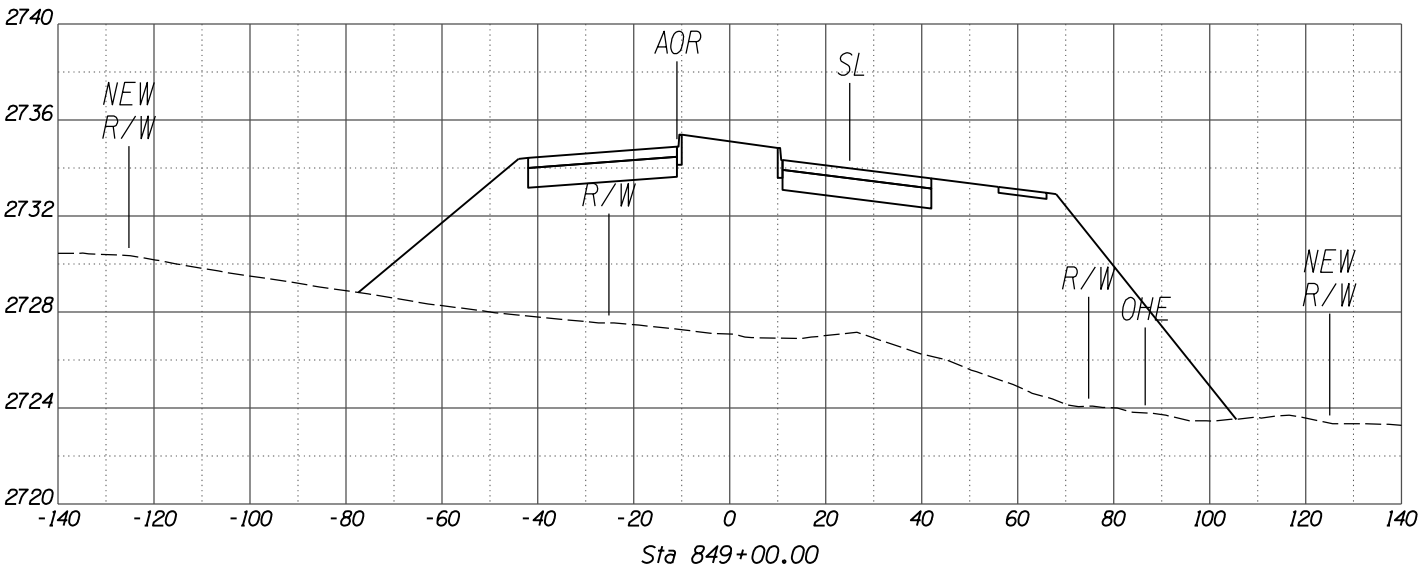
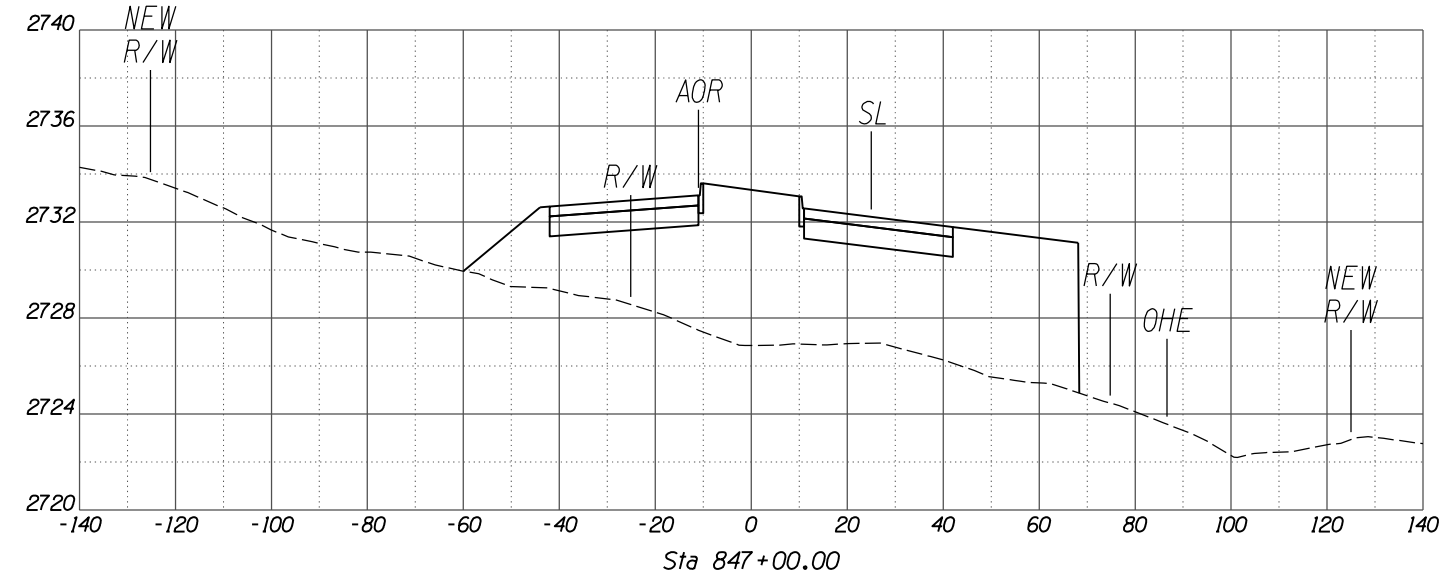
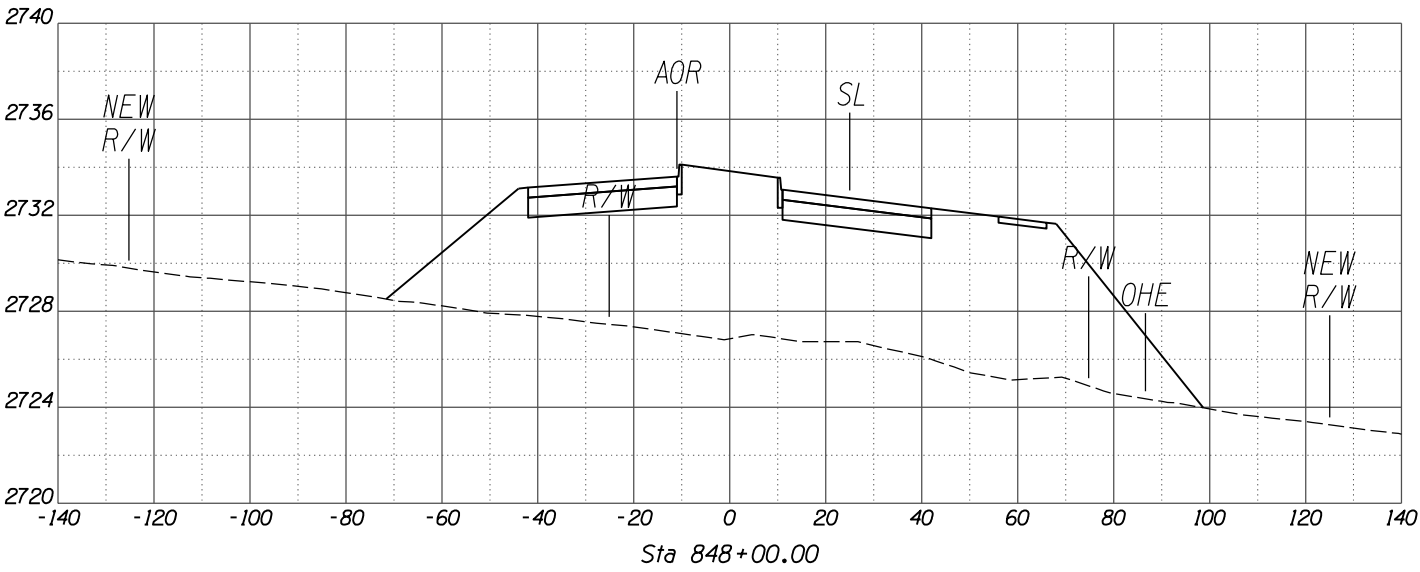
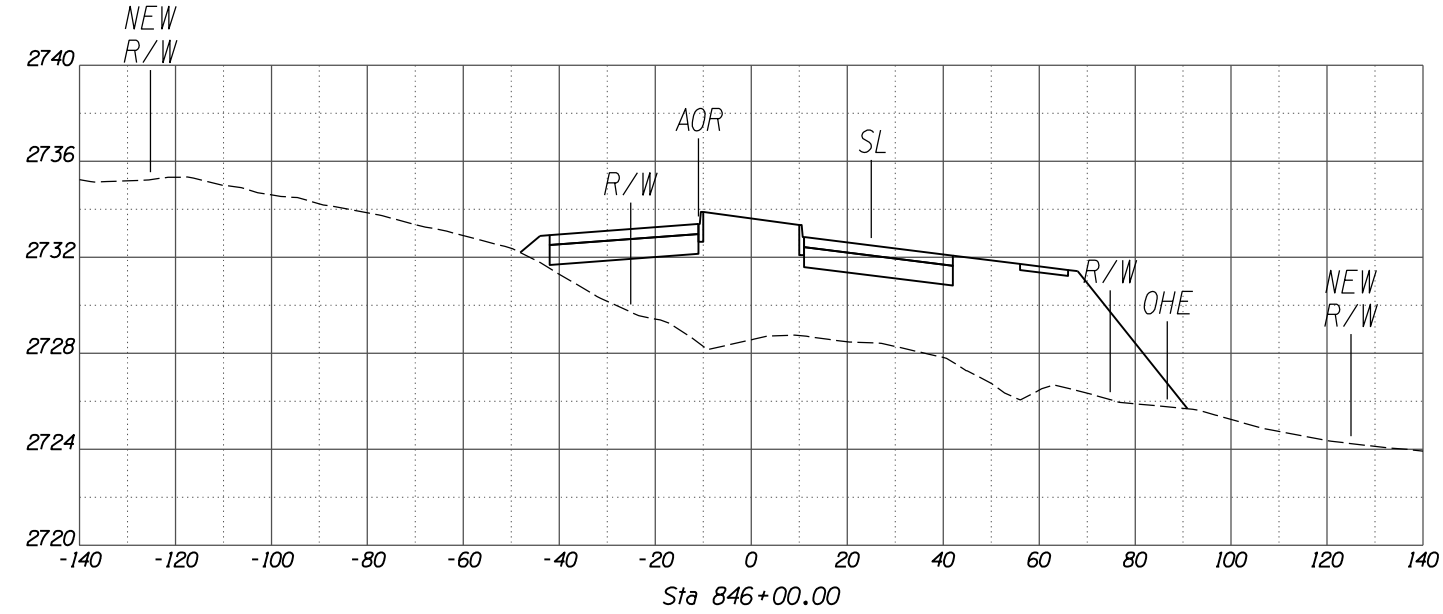
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	BY	CHKD.	APP.

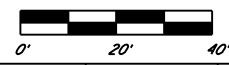
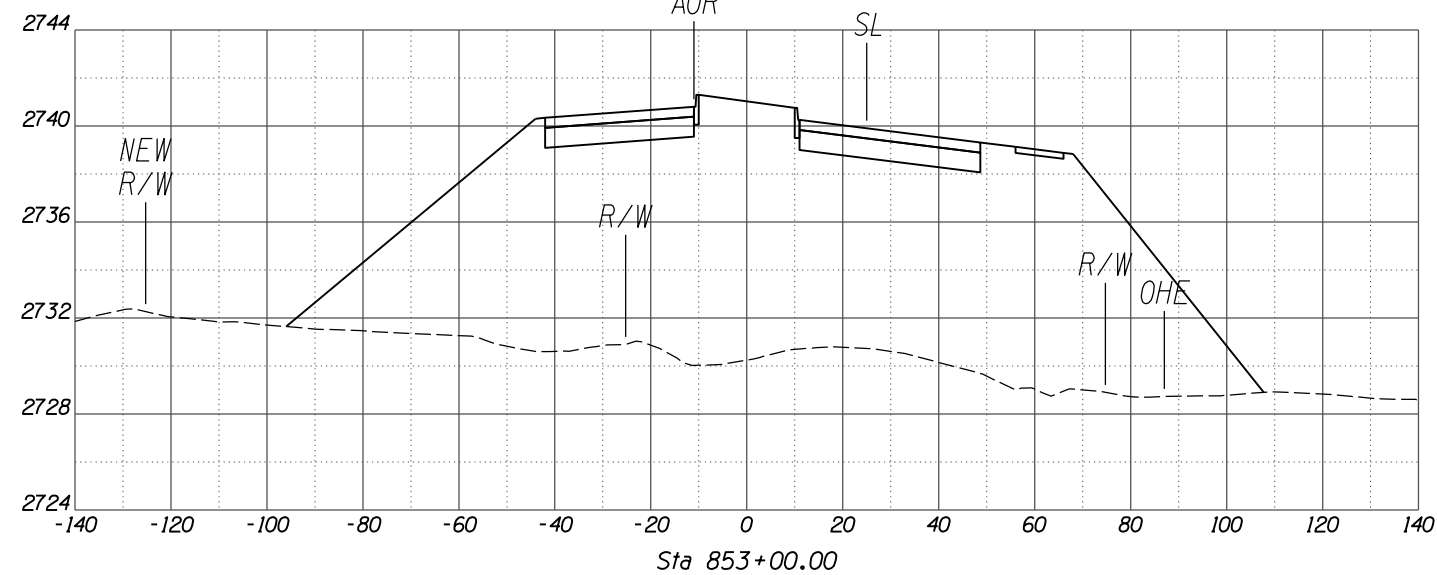
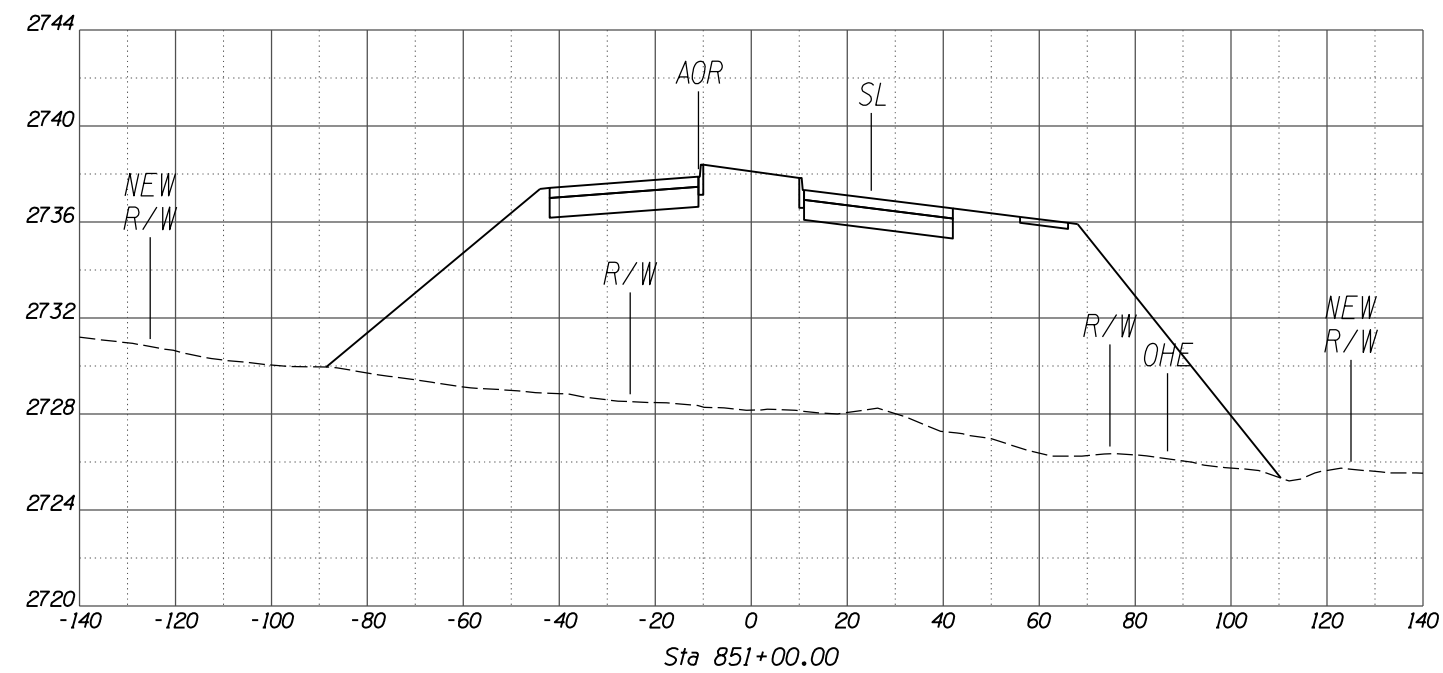
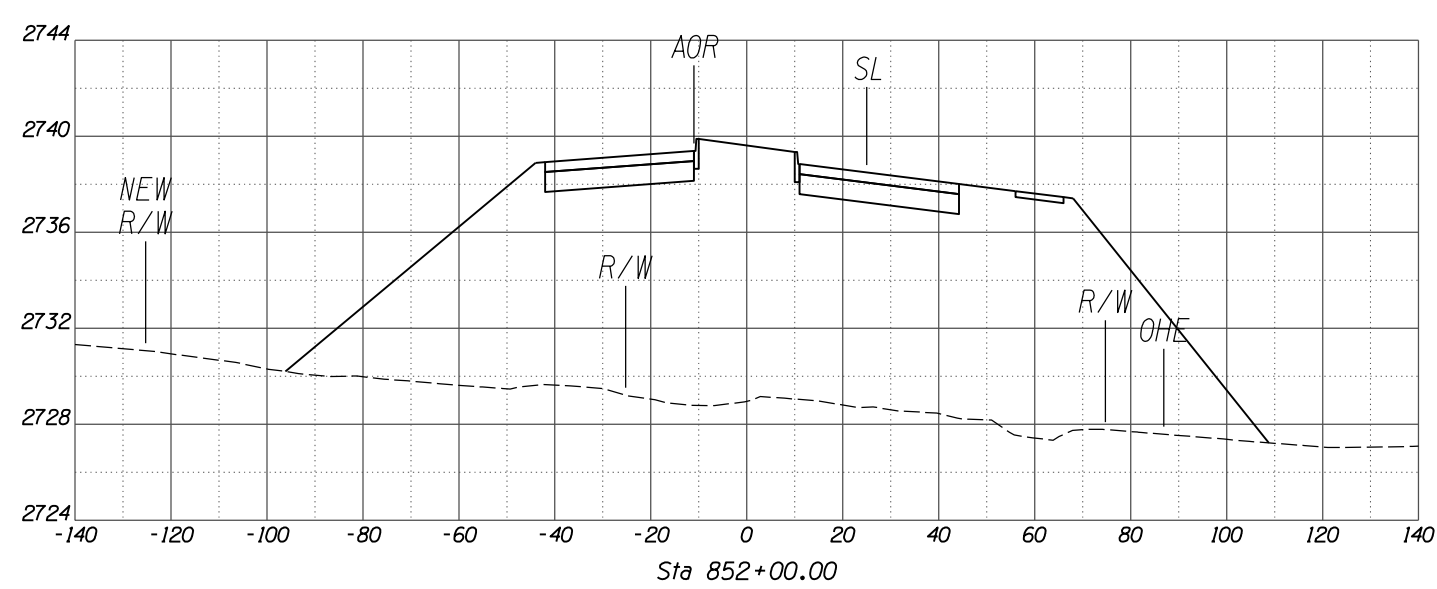
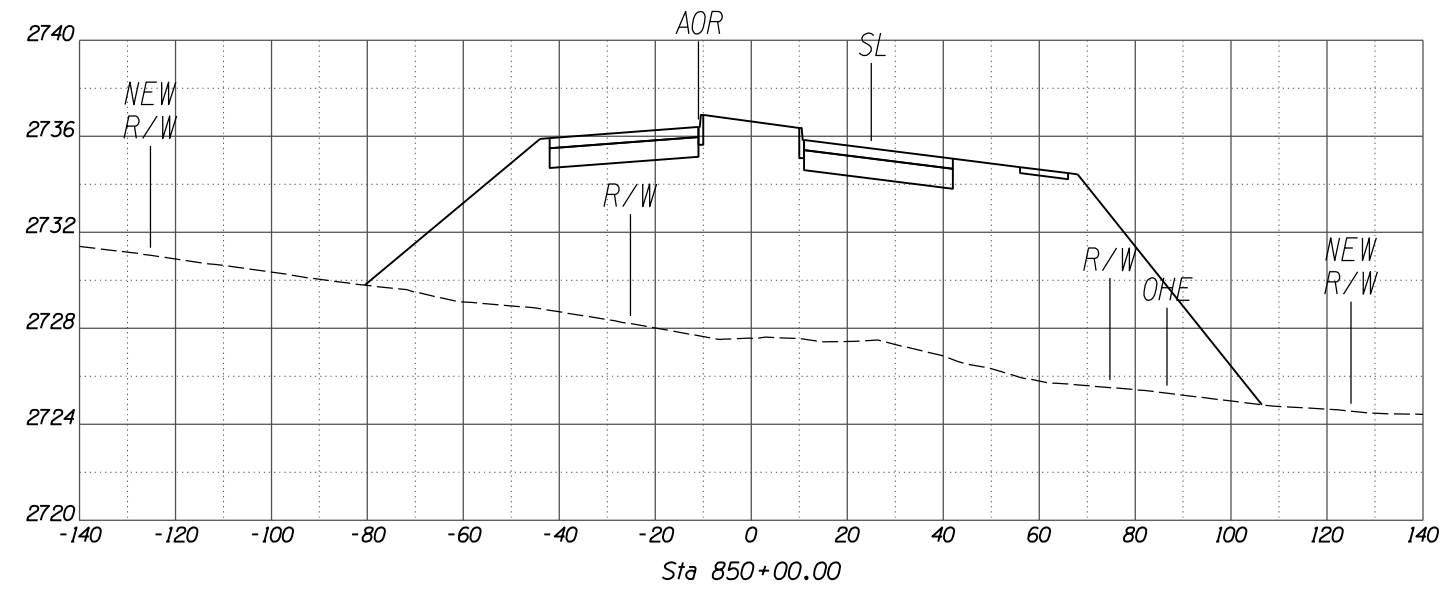
DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13
DESIGNED	DRAWN	CHECKED	PROJ. ENG.



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13

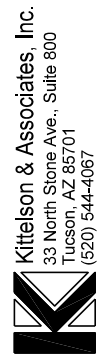


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS12 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

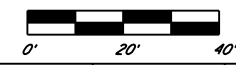
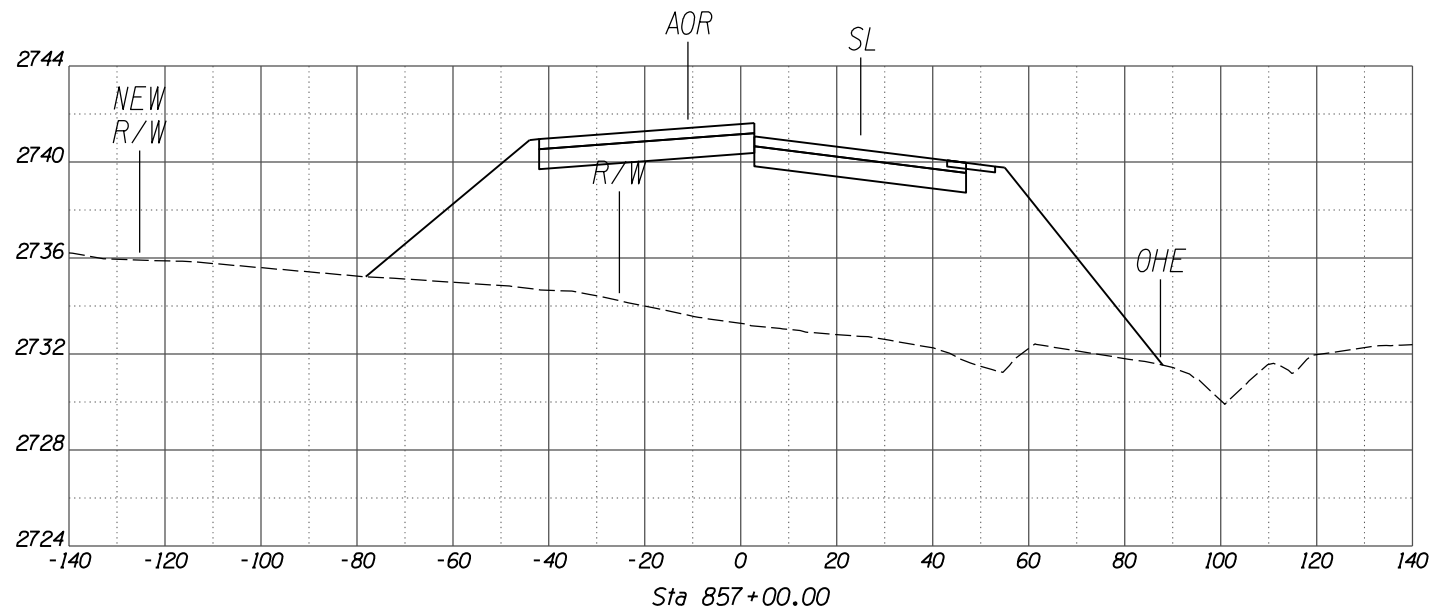
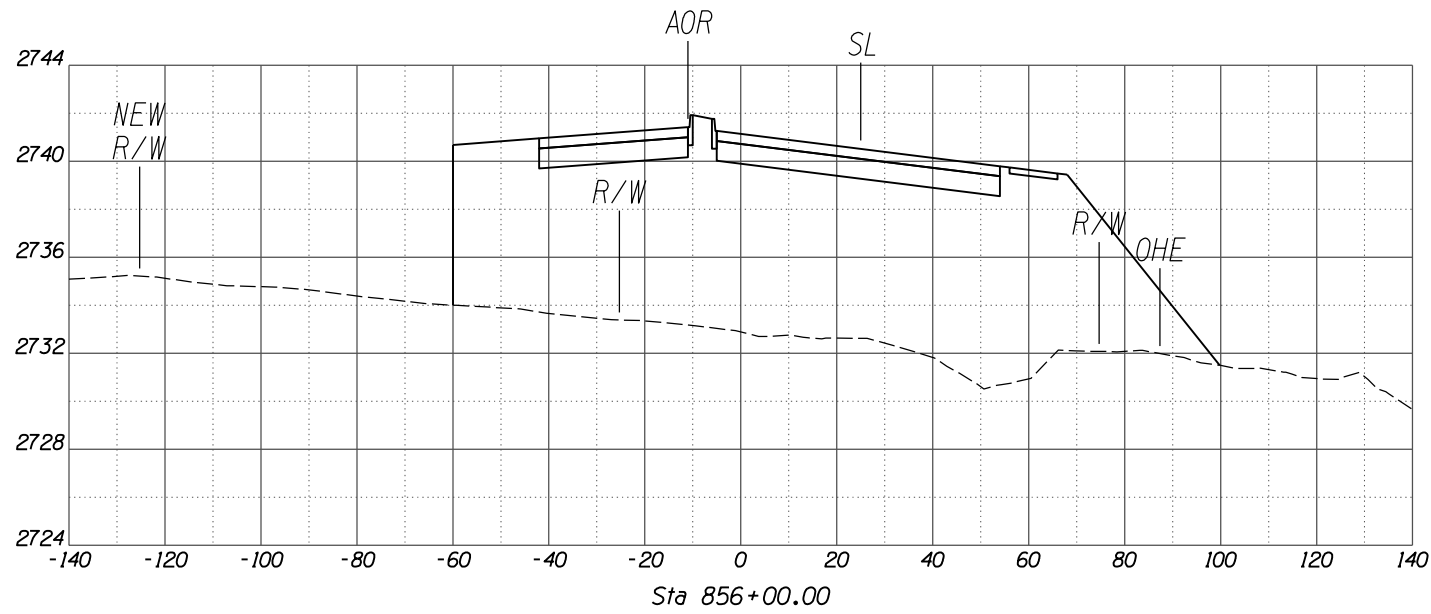
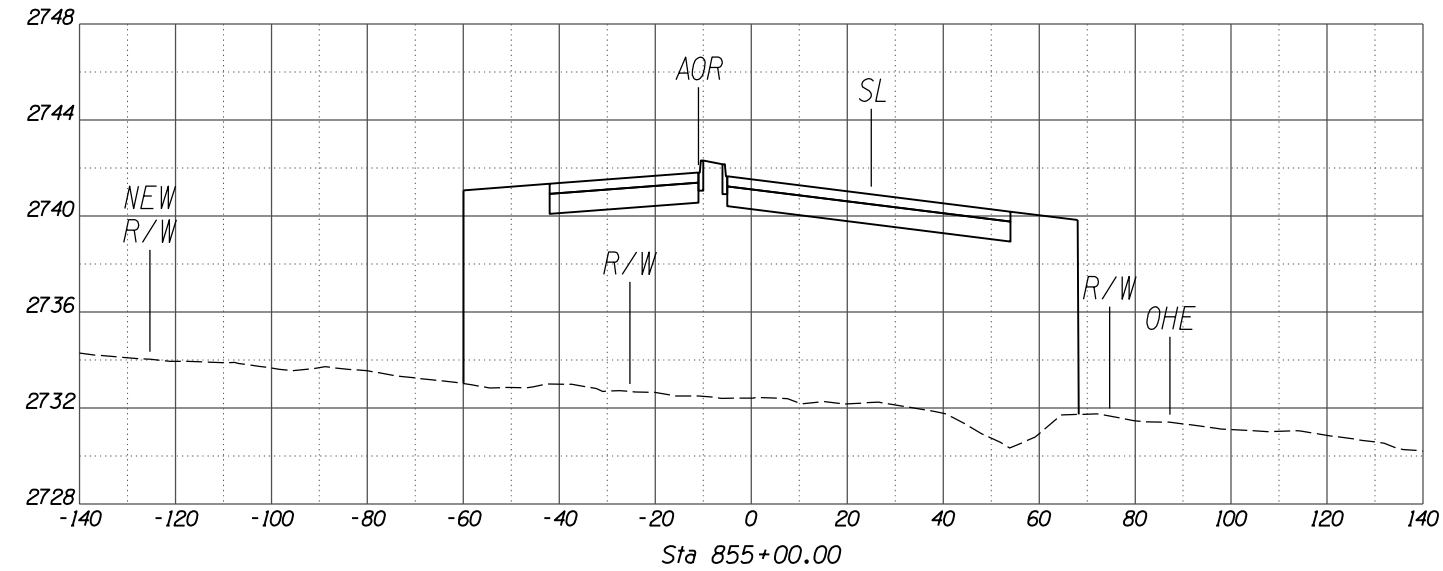
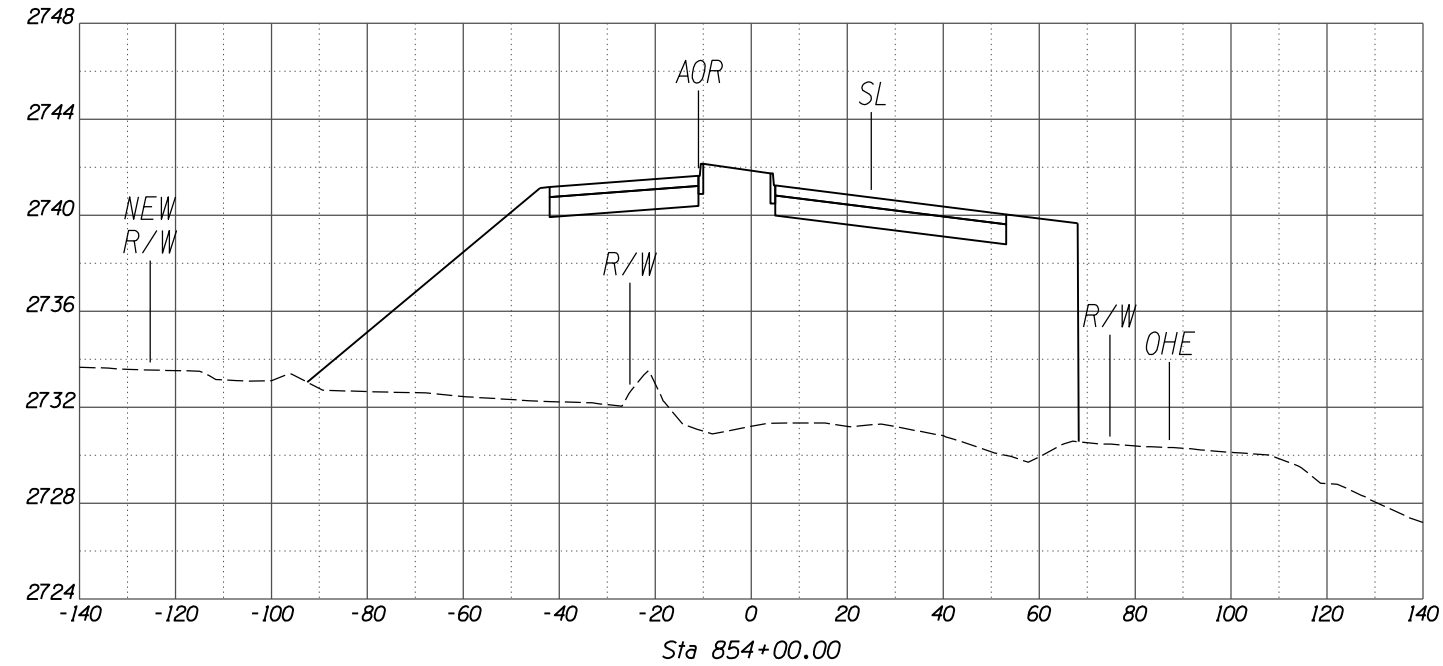
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE

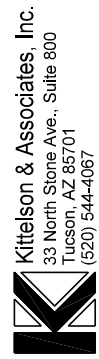


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS13 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

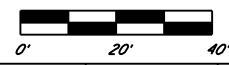
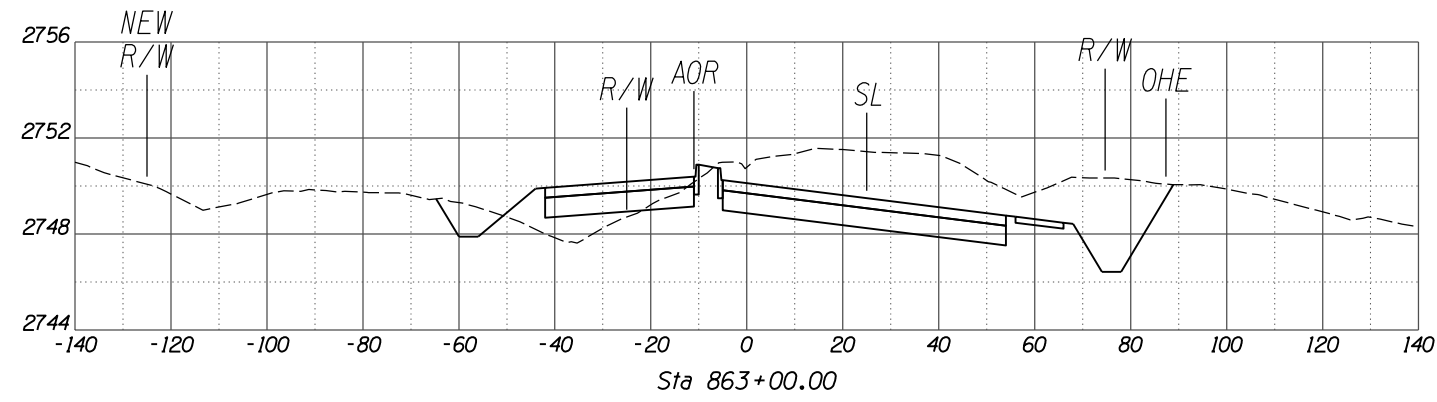
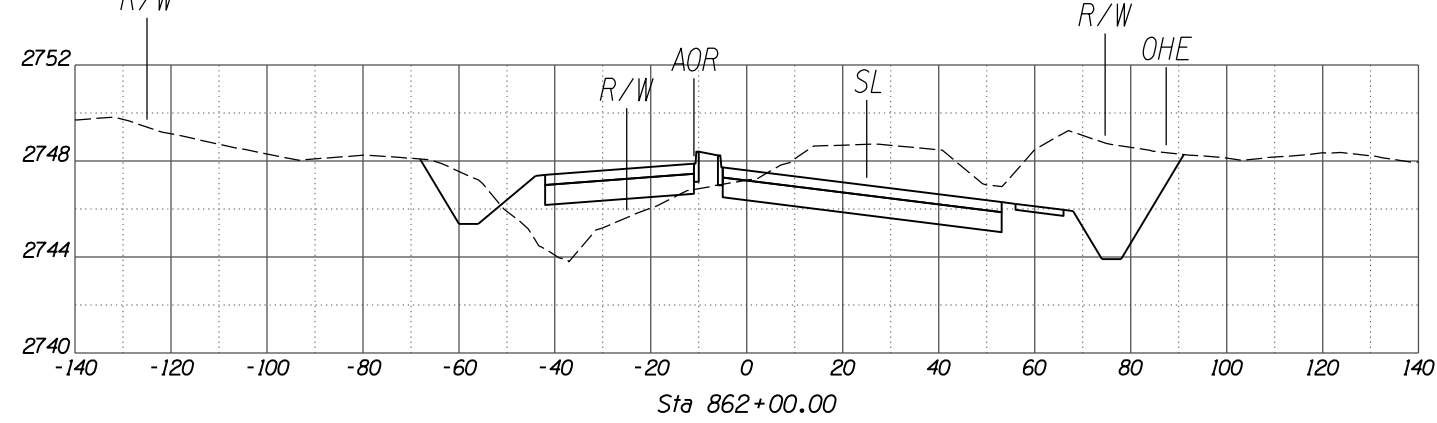
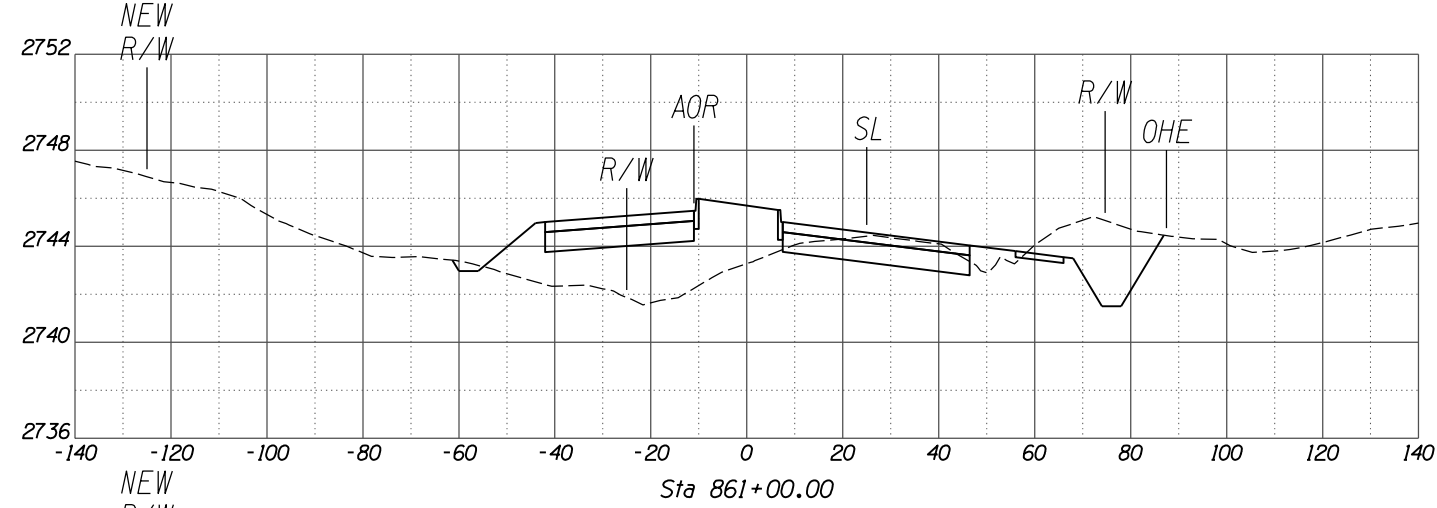
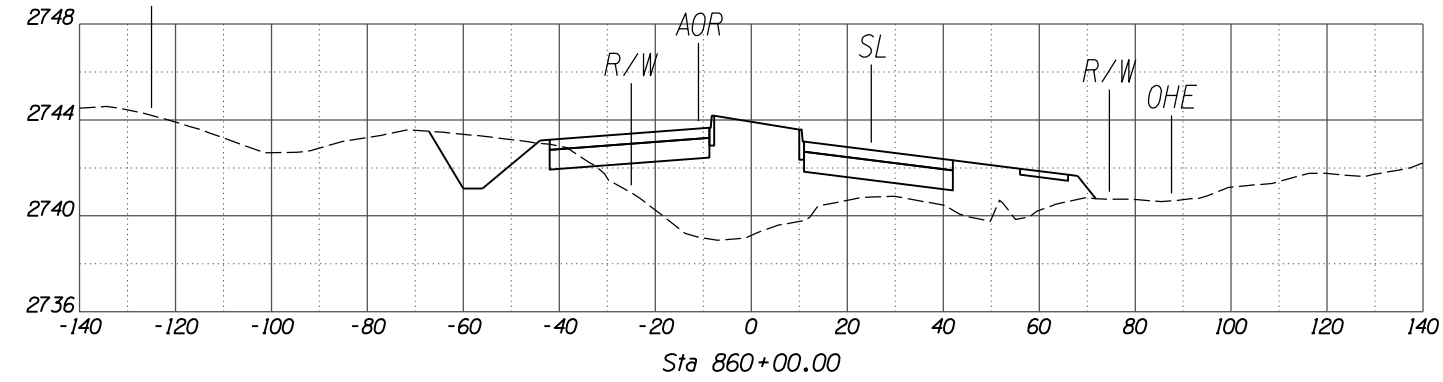
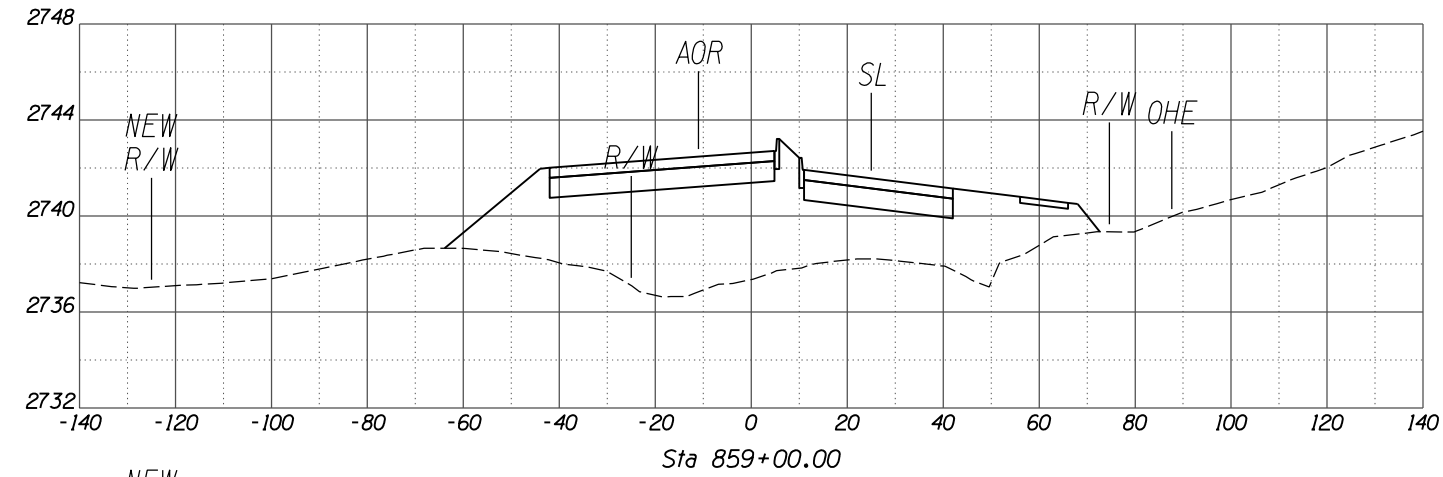
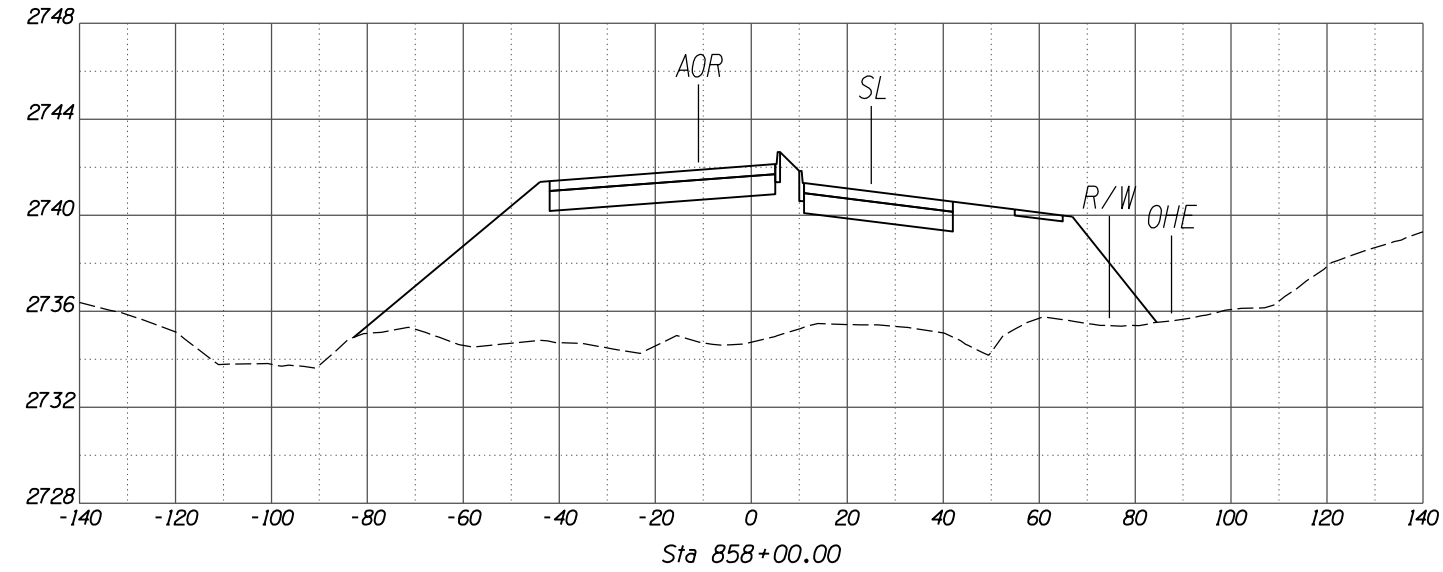
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS14 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

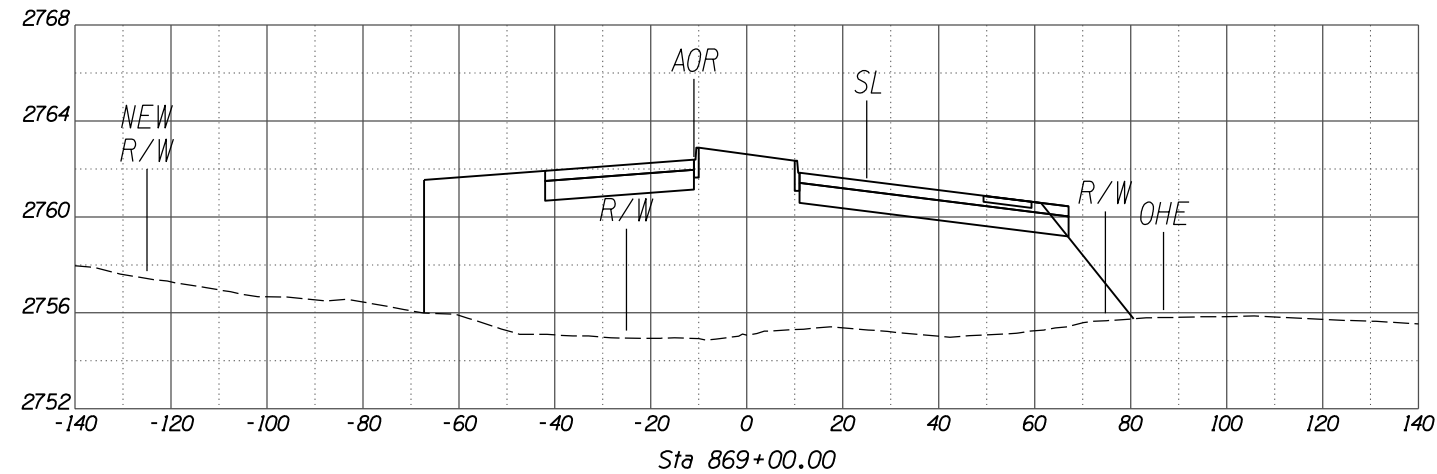
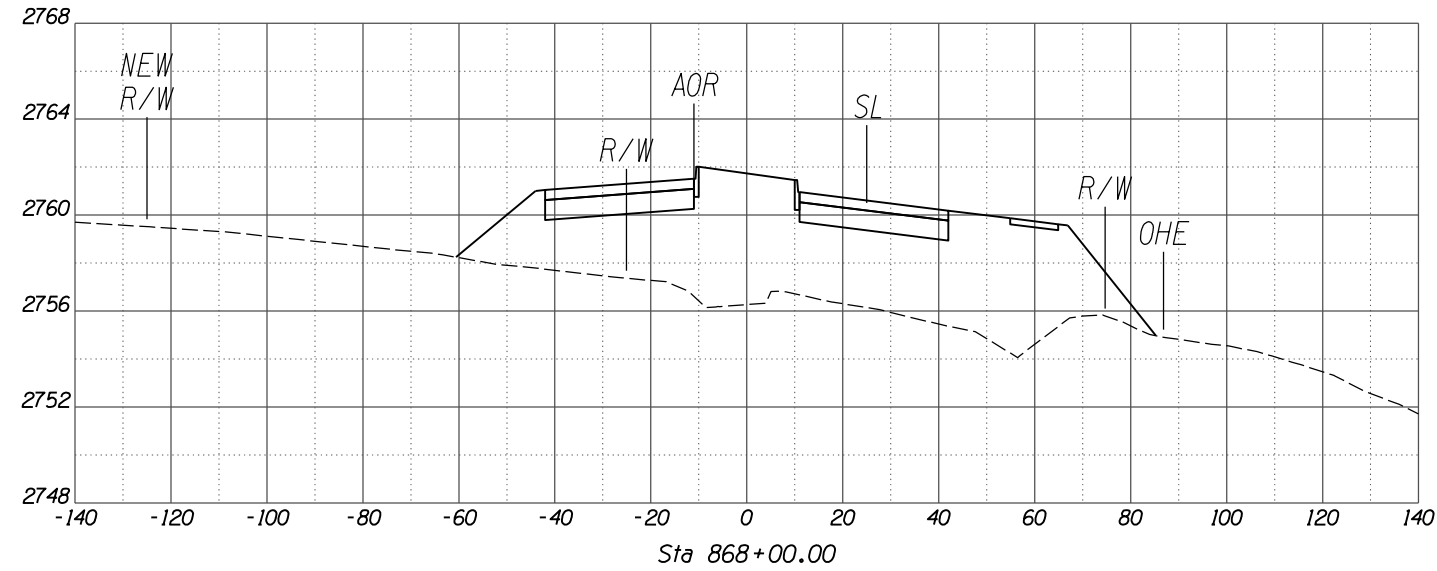
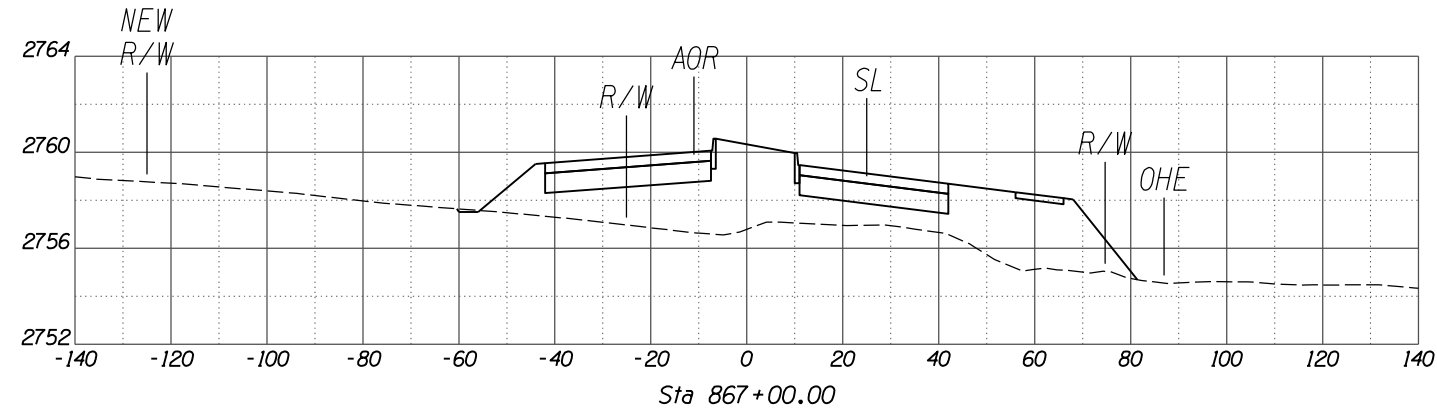
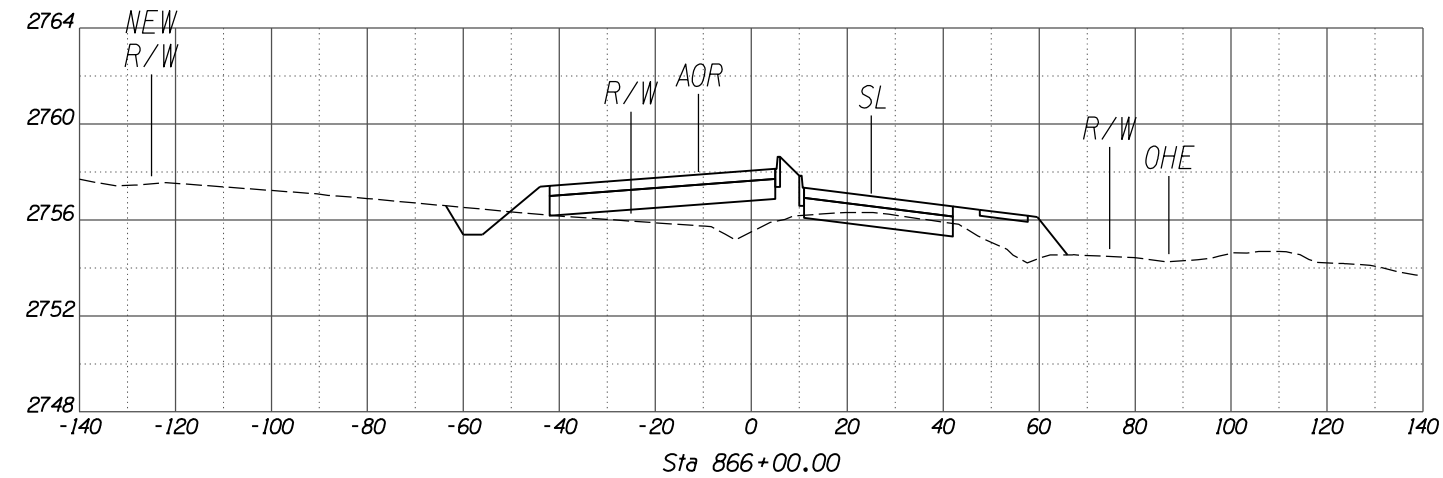
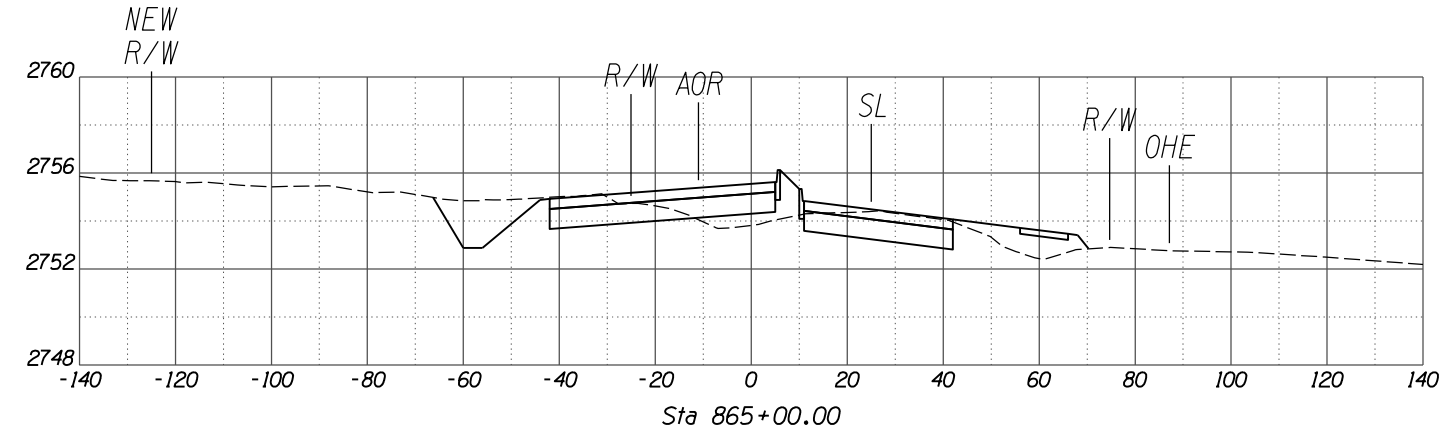
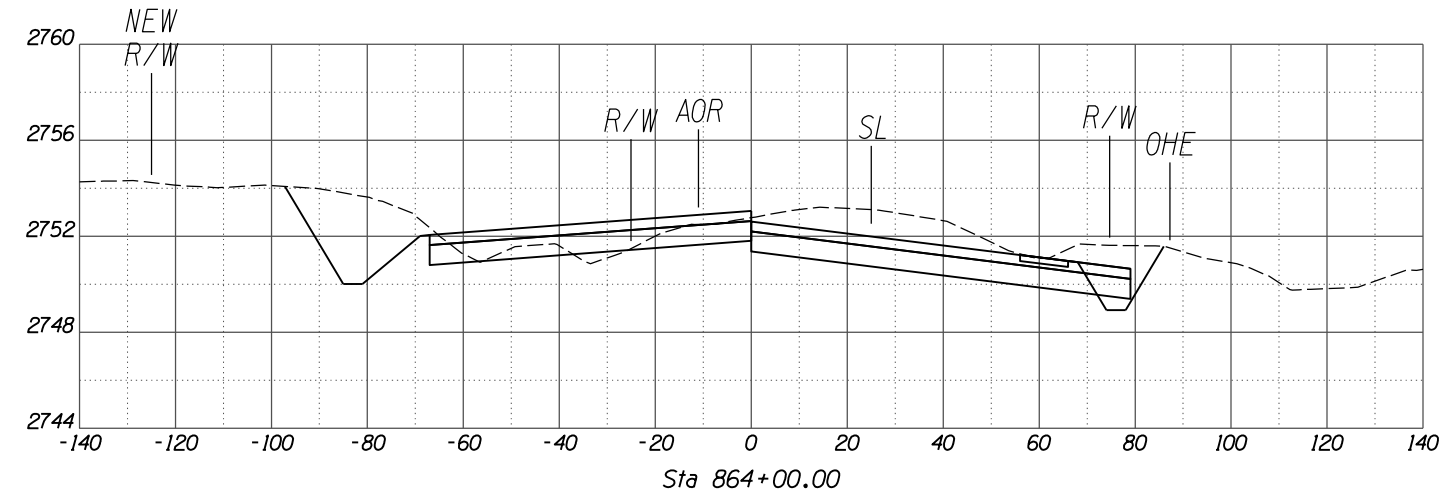
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

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30%
PRELIMINARY
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CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	BY	CHKD.

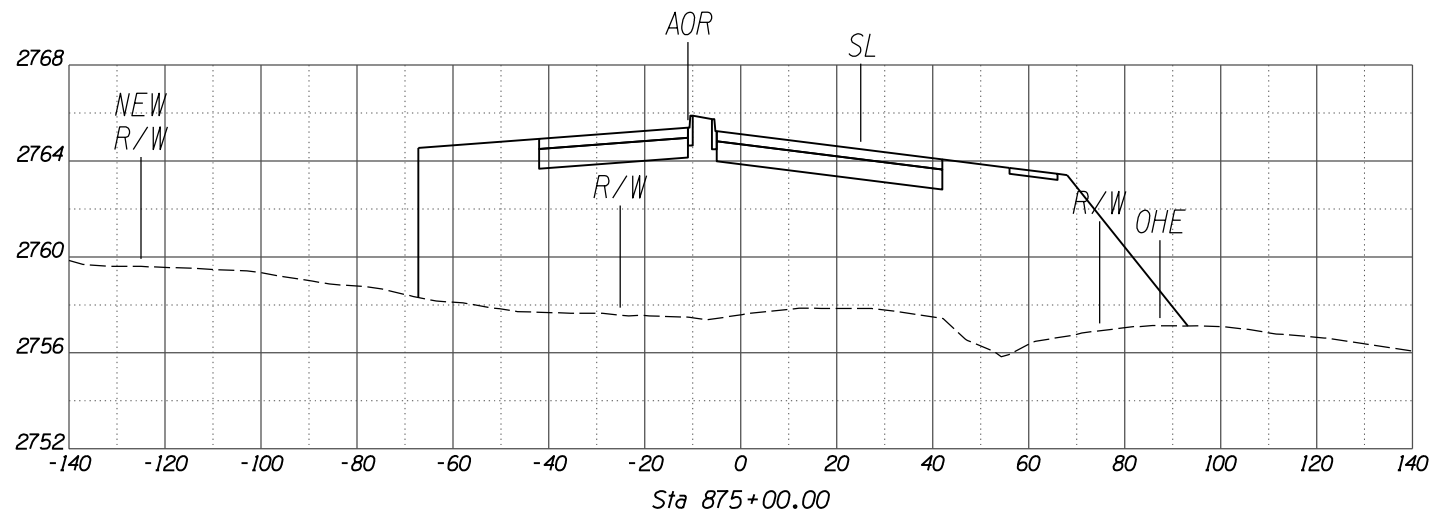
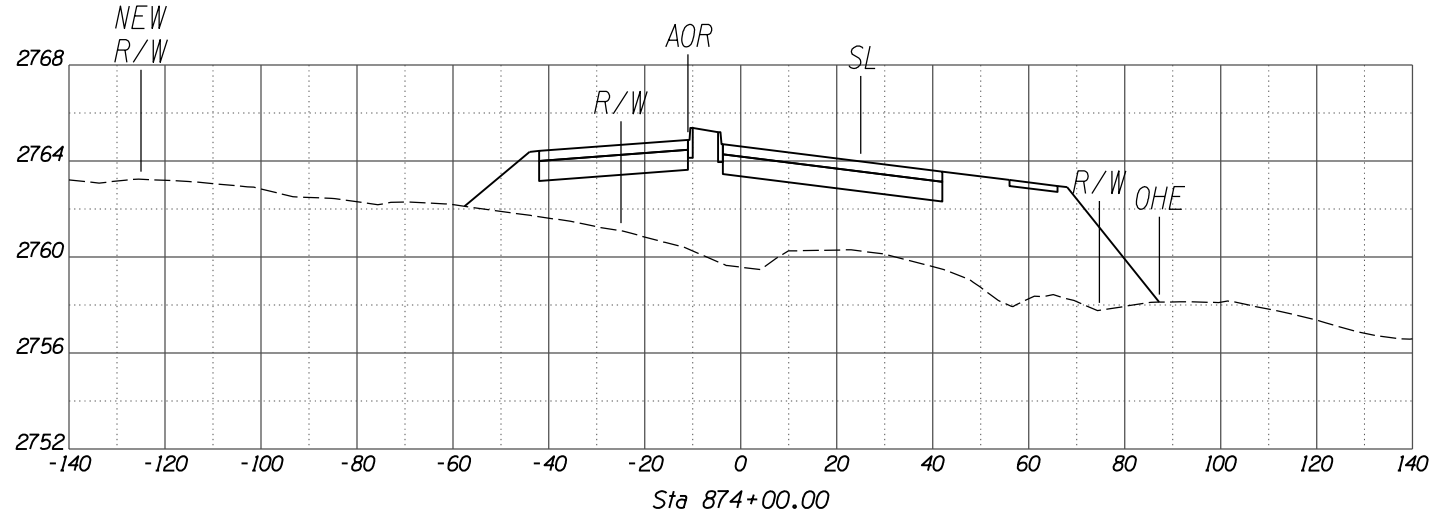
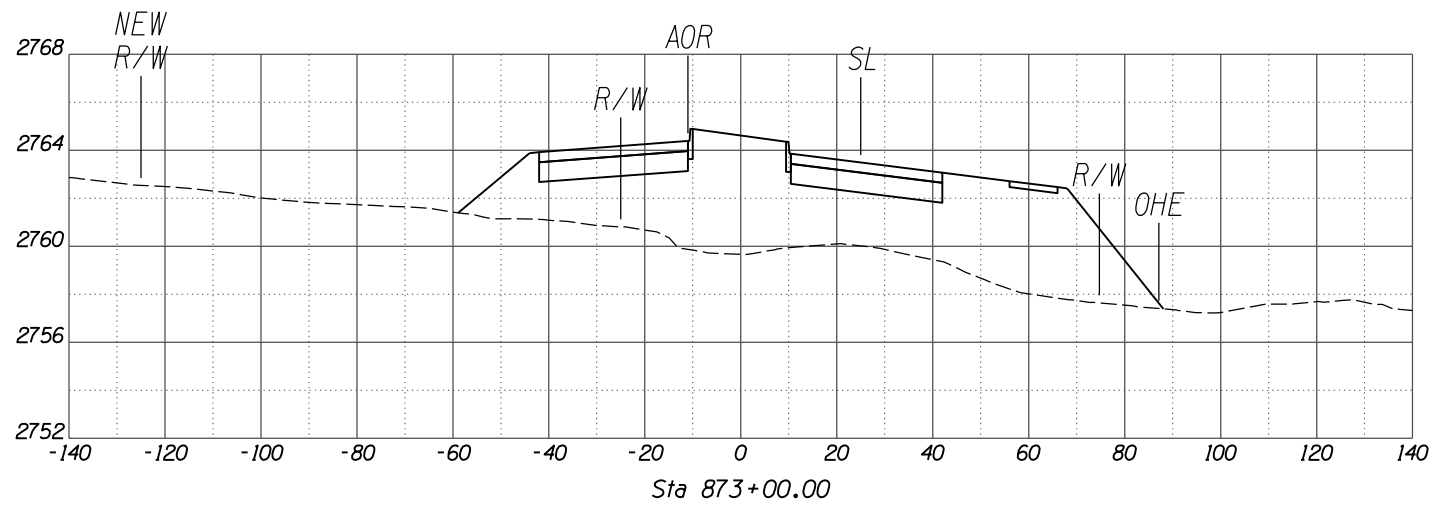
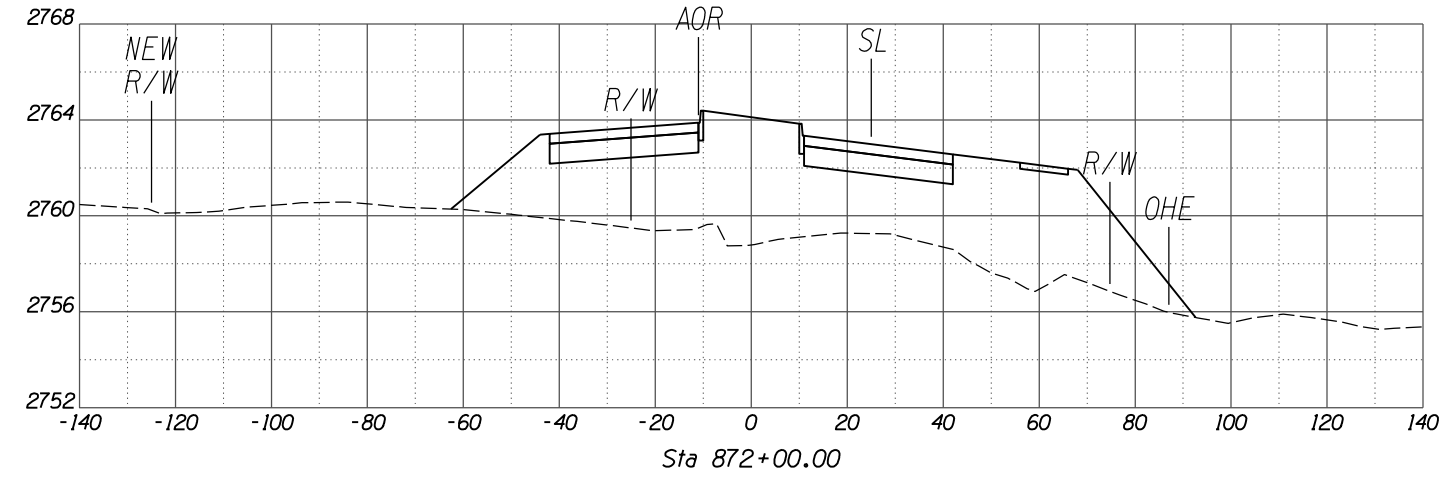
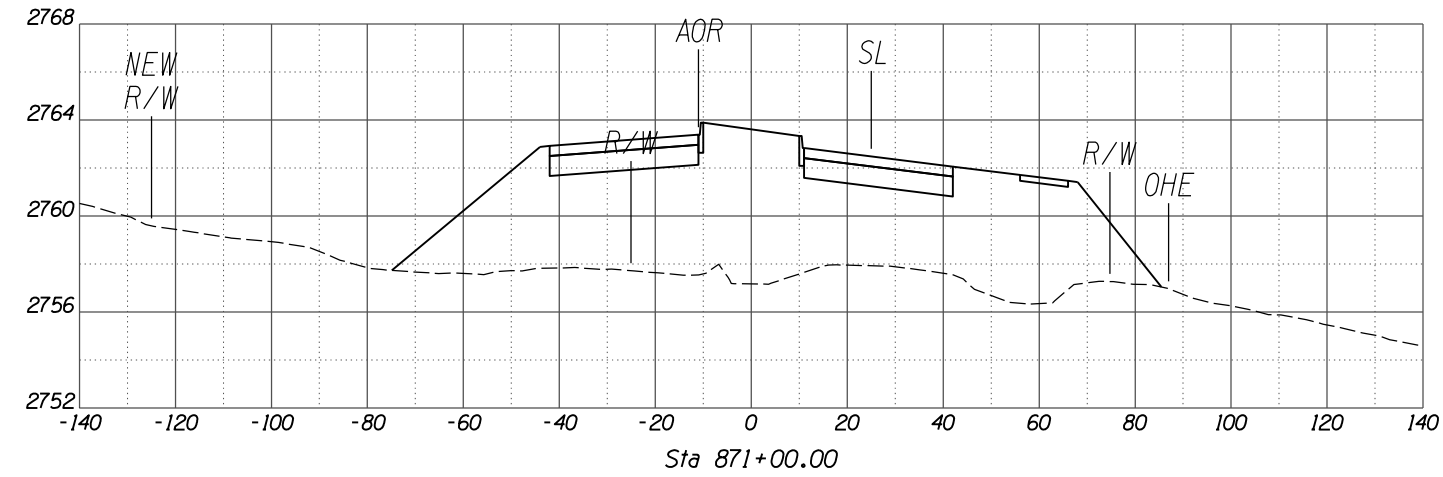
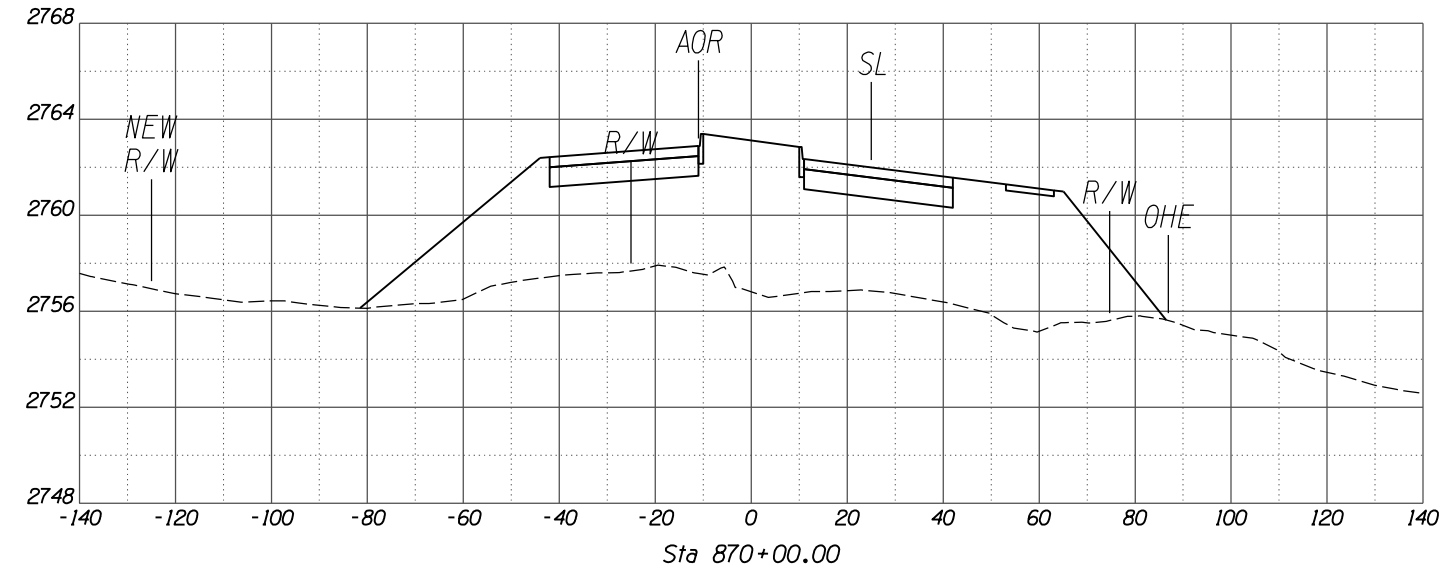
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

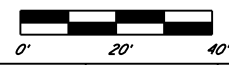
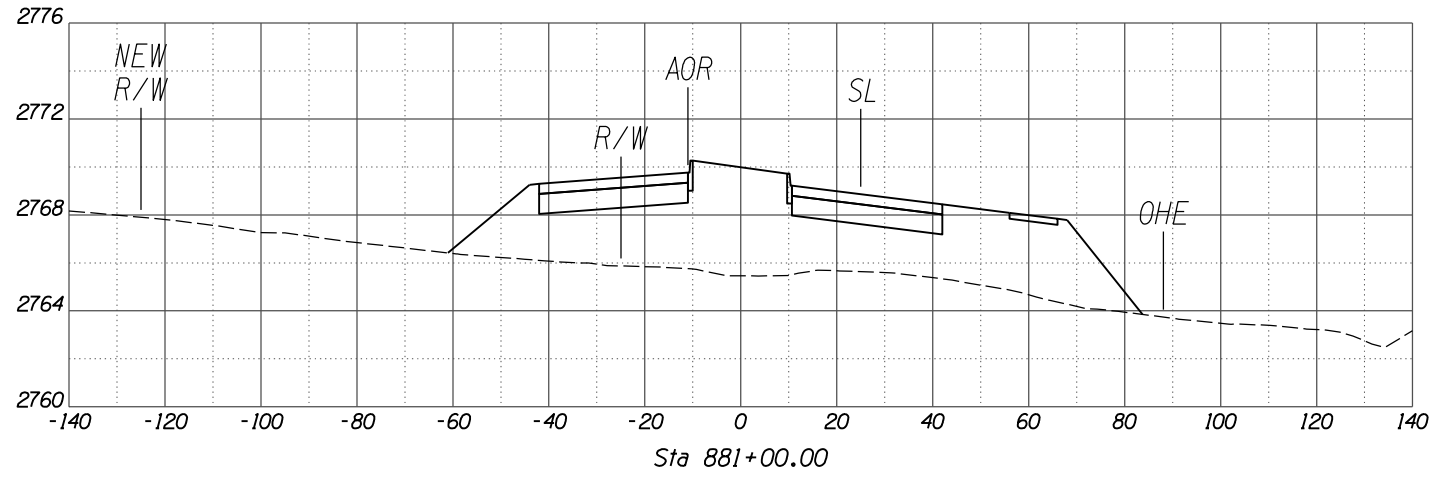
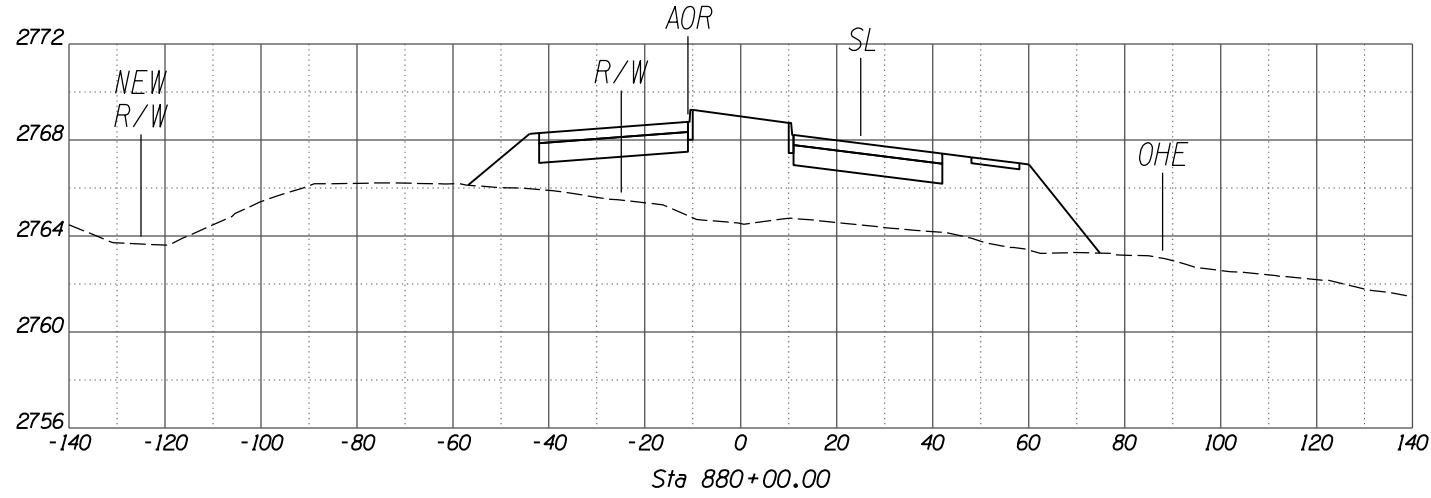
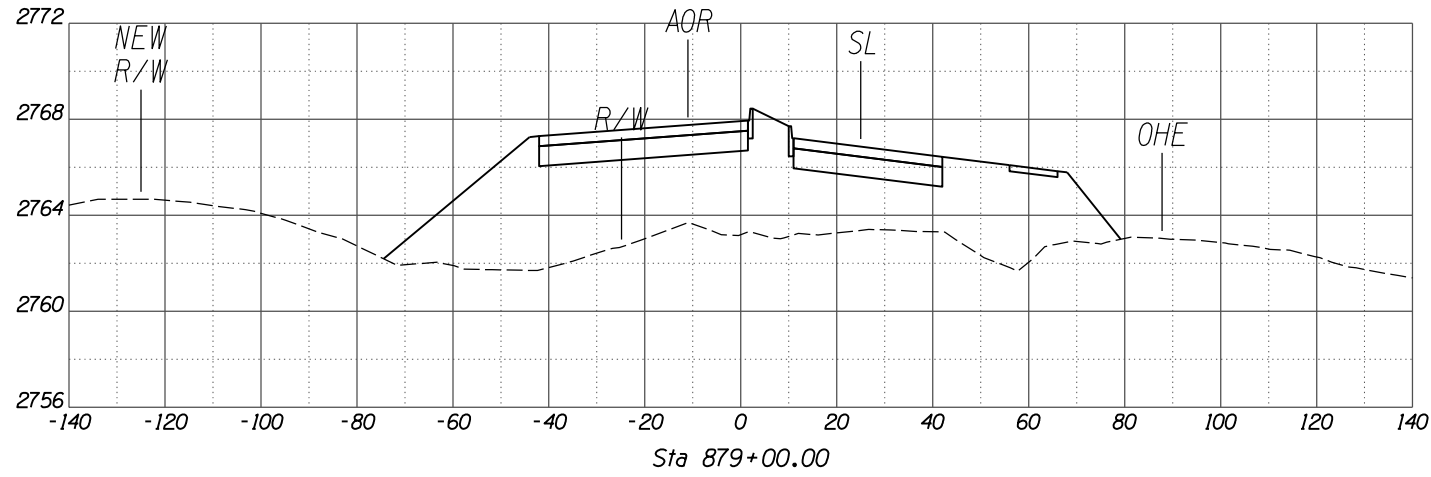
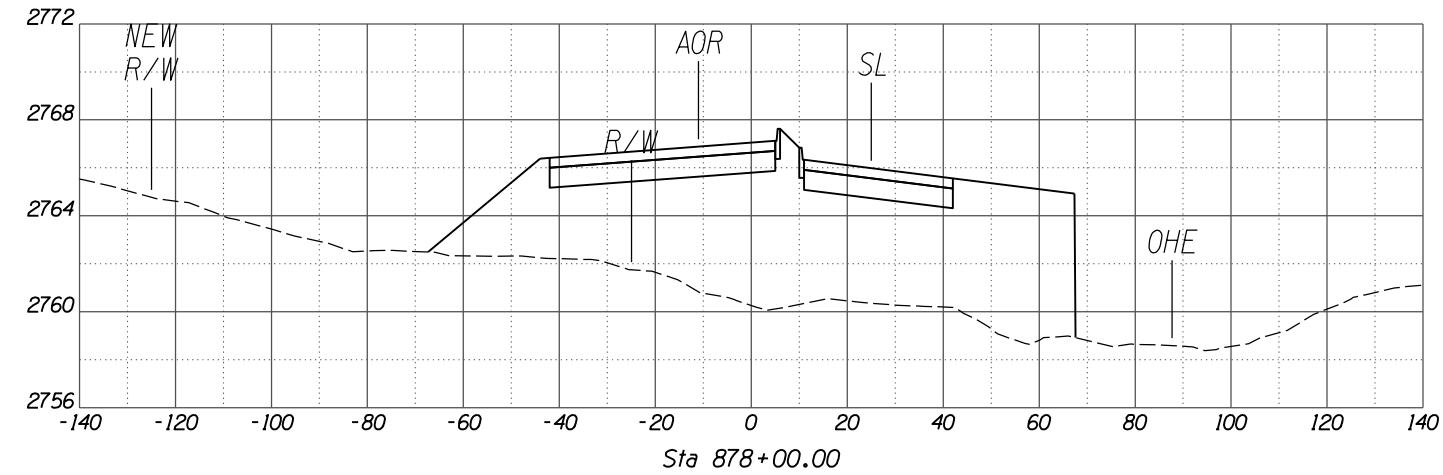
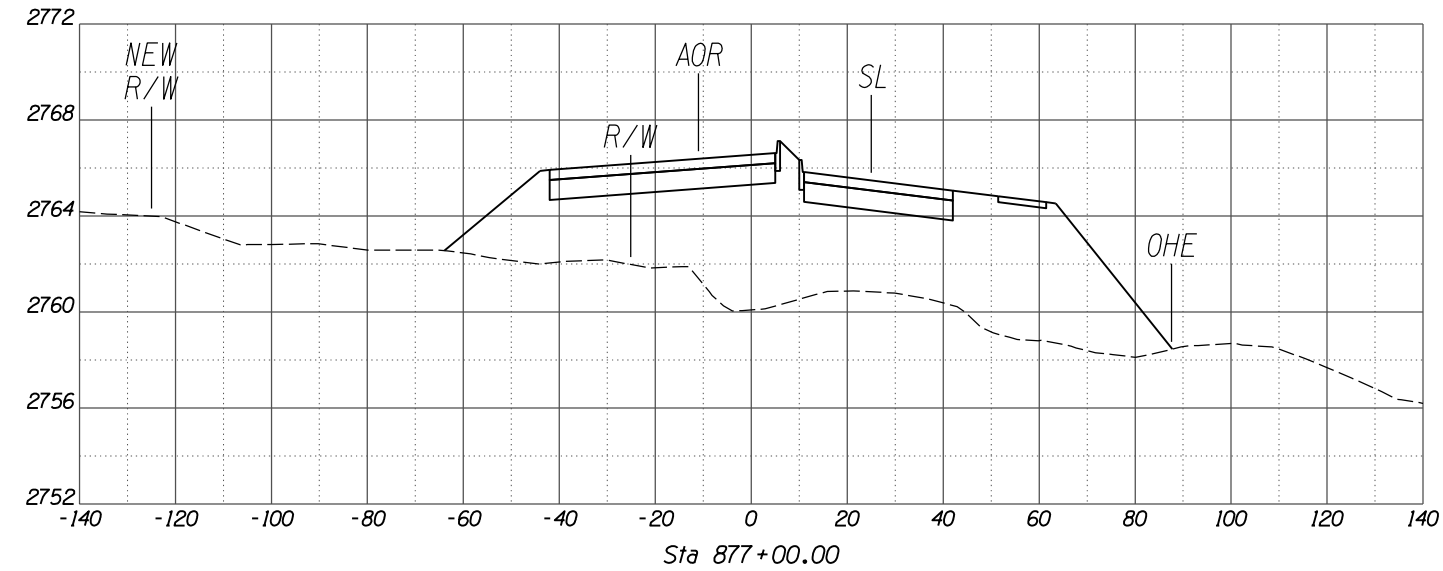
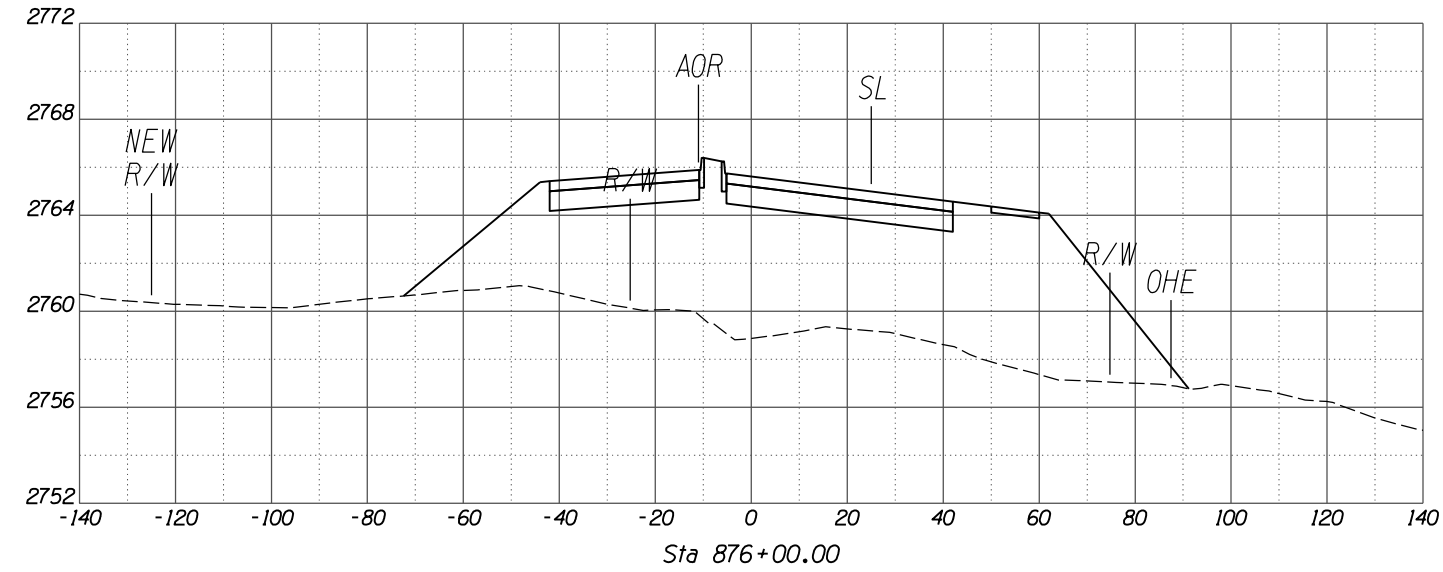
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS17 OF XS38

PAGE 17 OF 38

TOWN OF MARANA - PROJECT NO. 2005-061

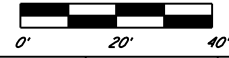
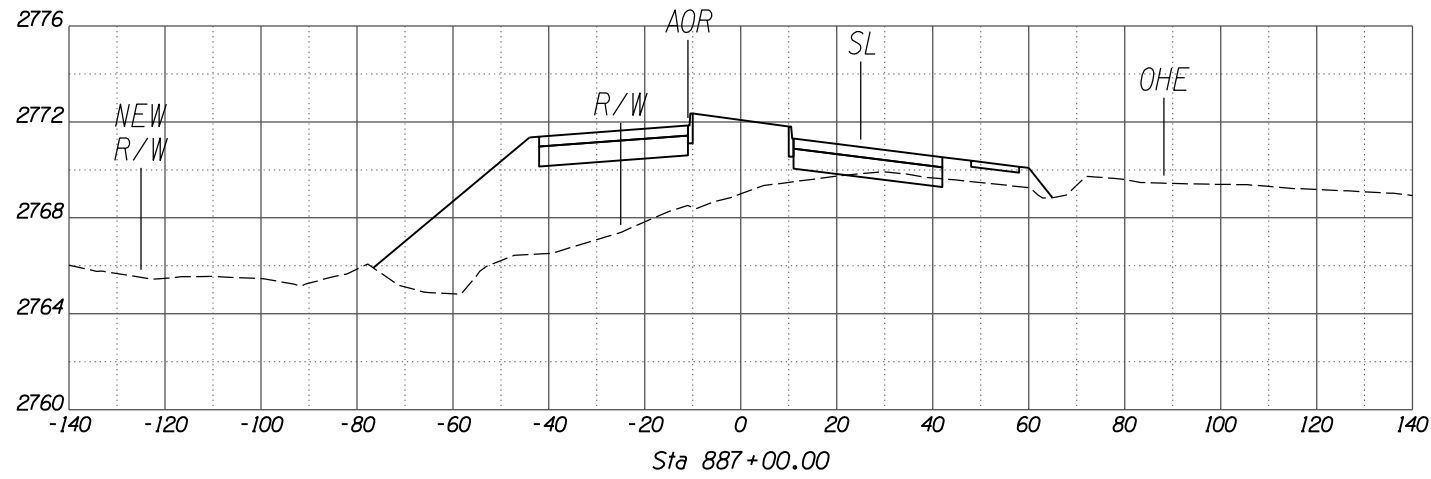
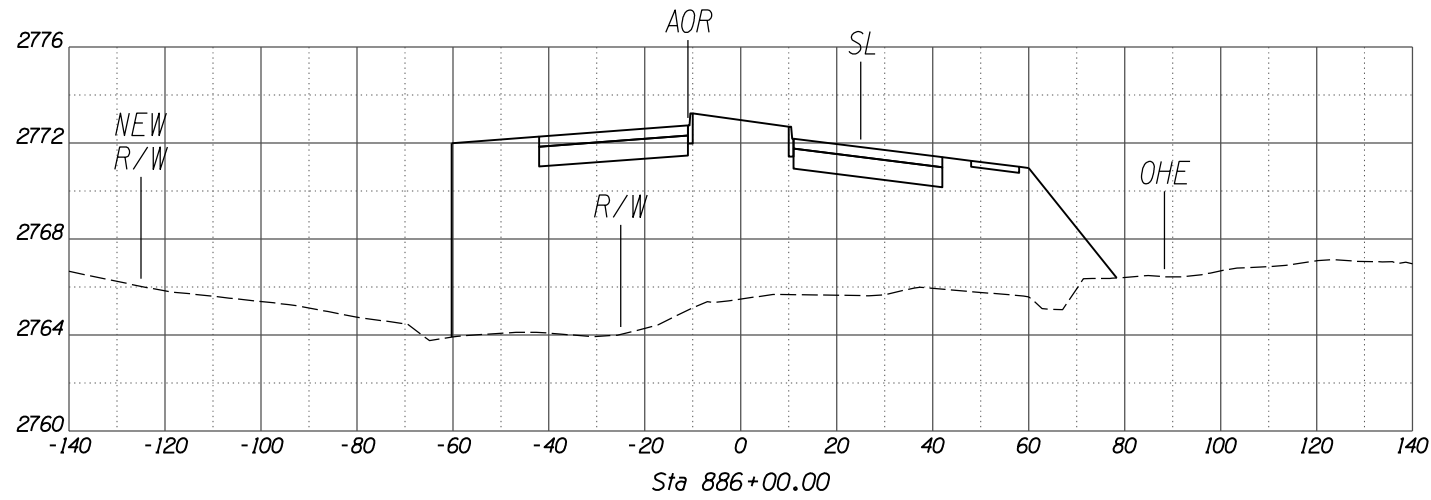
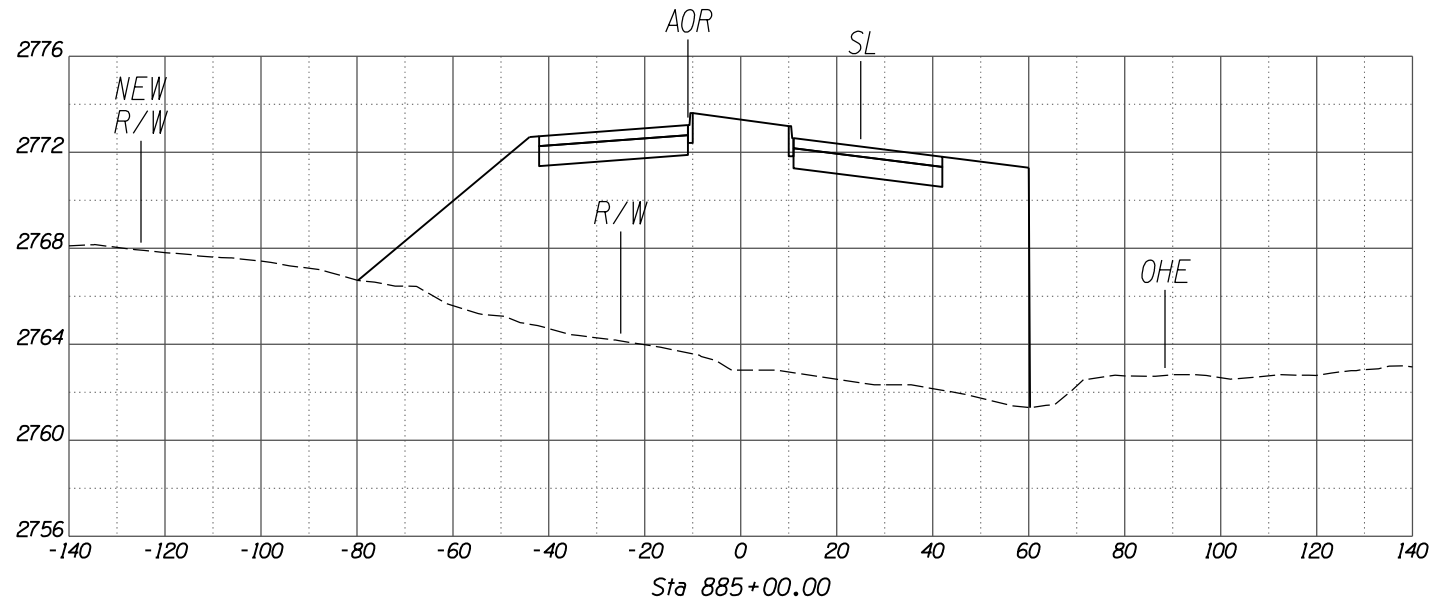
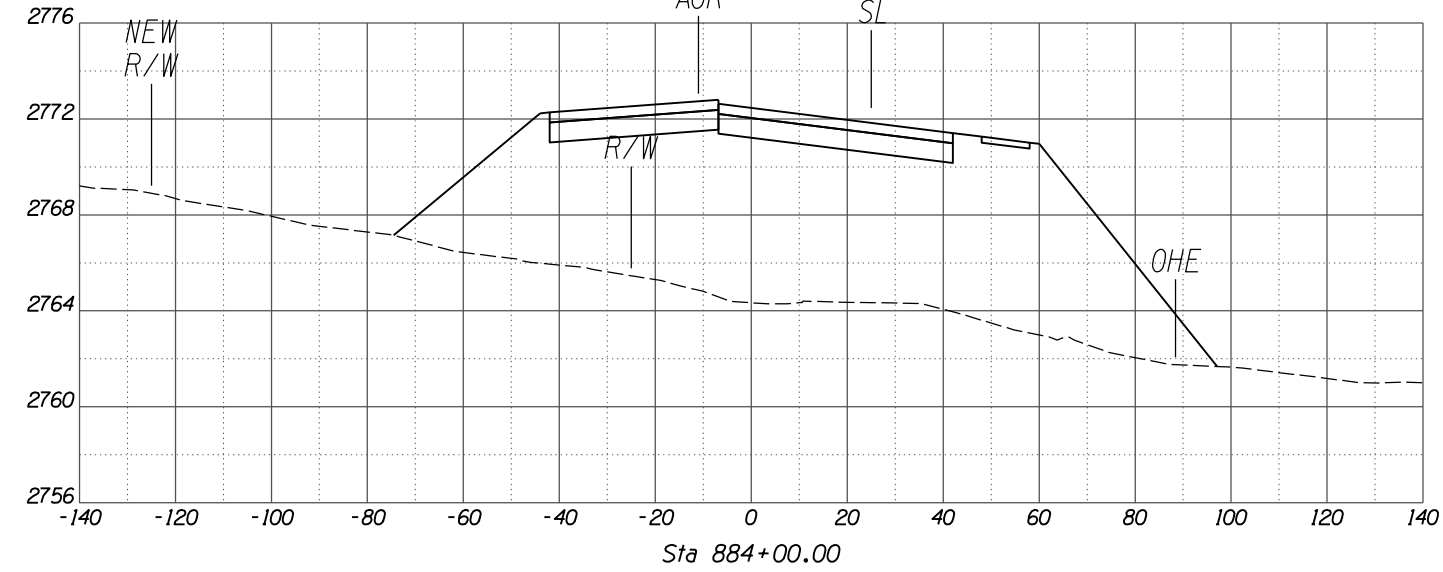
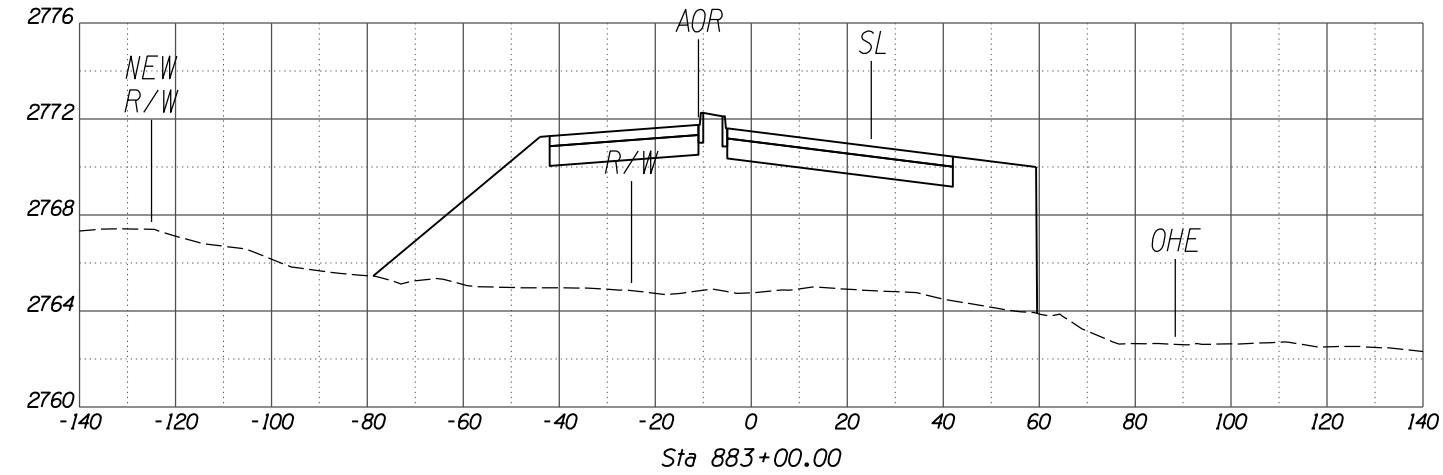
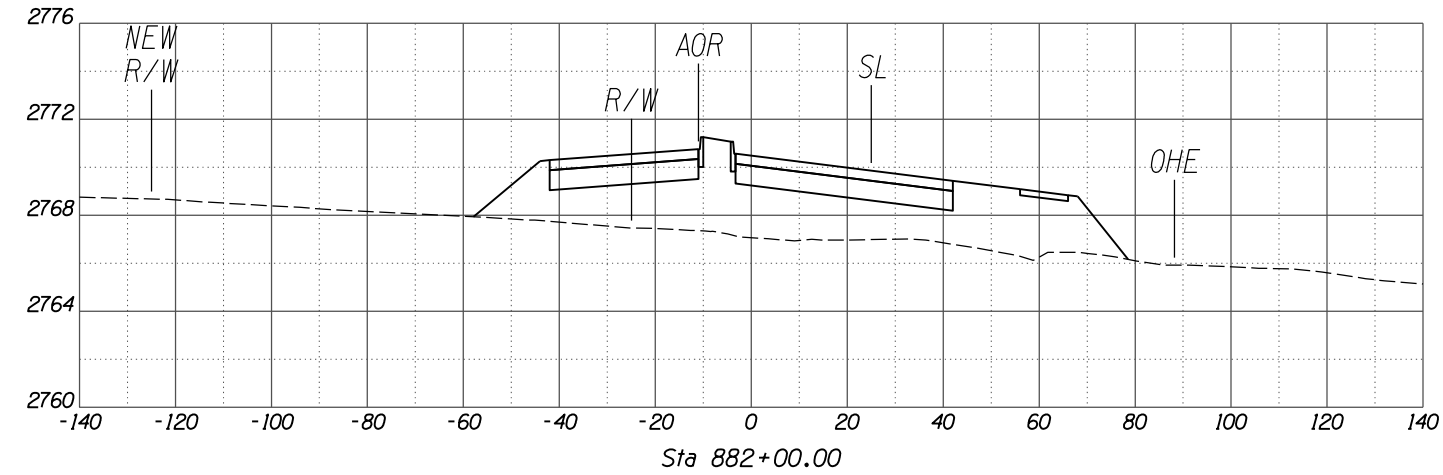
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CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

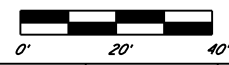
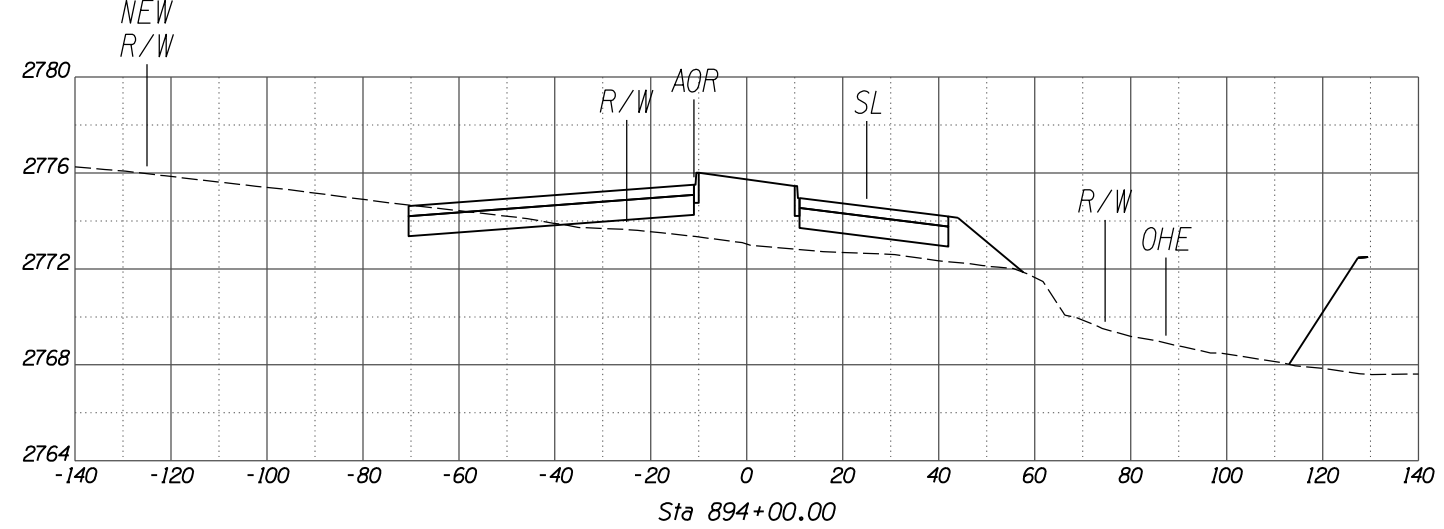
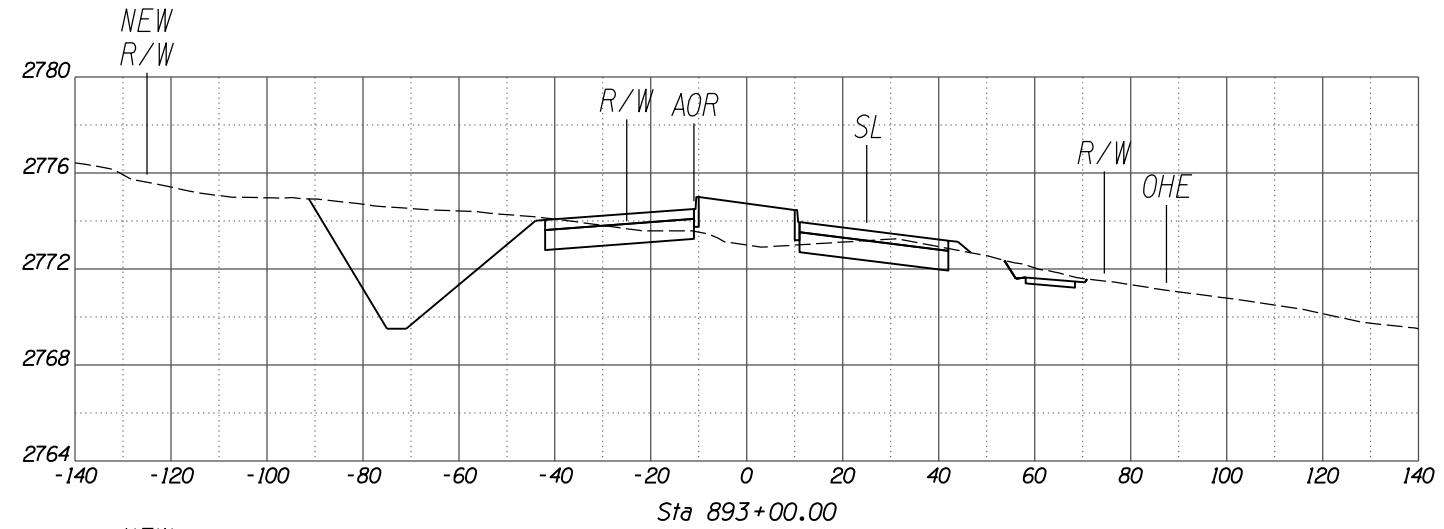
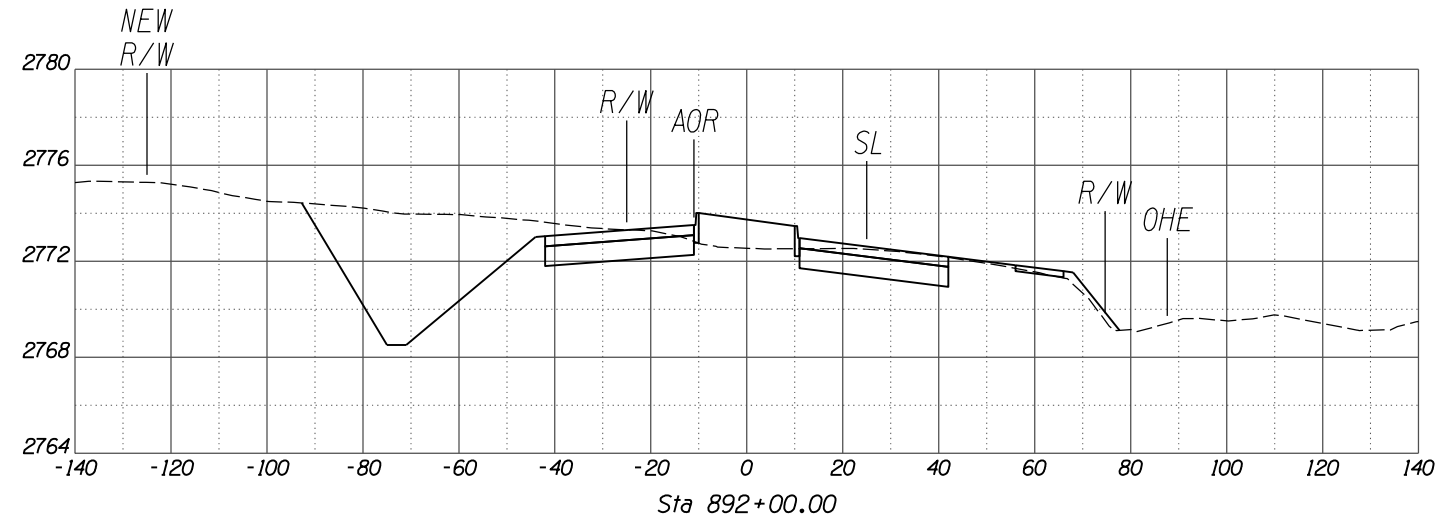
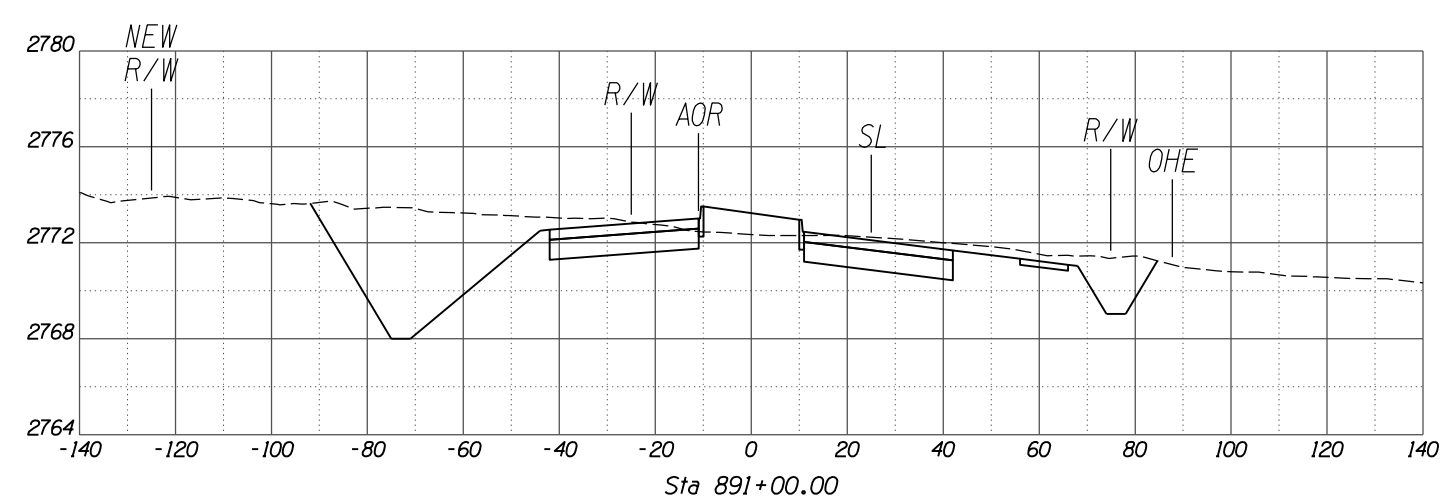
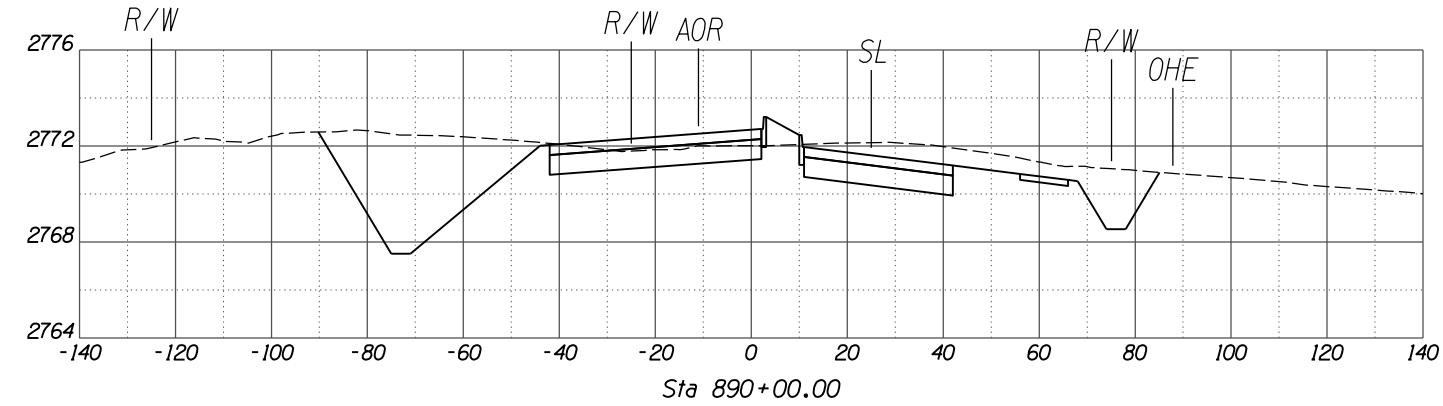
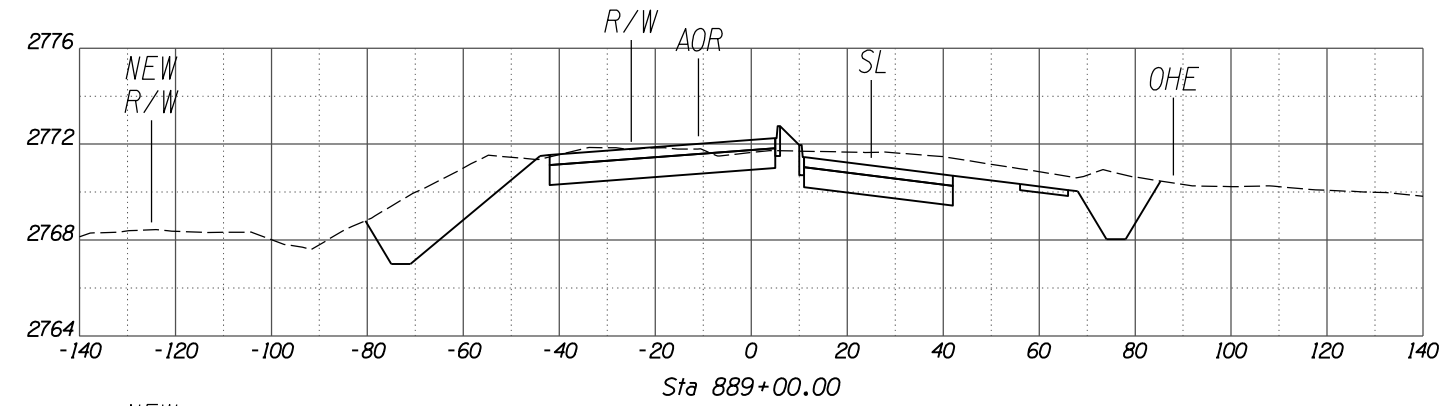
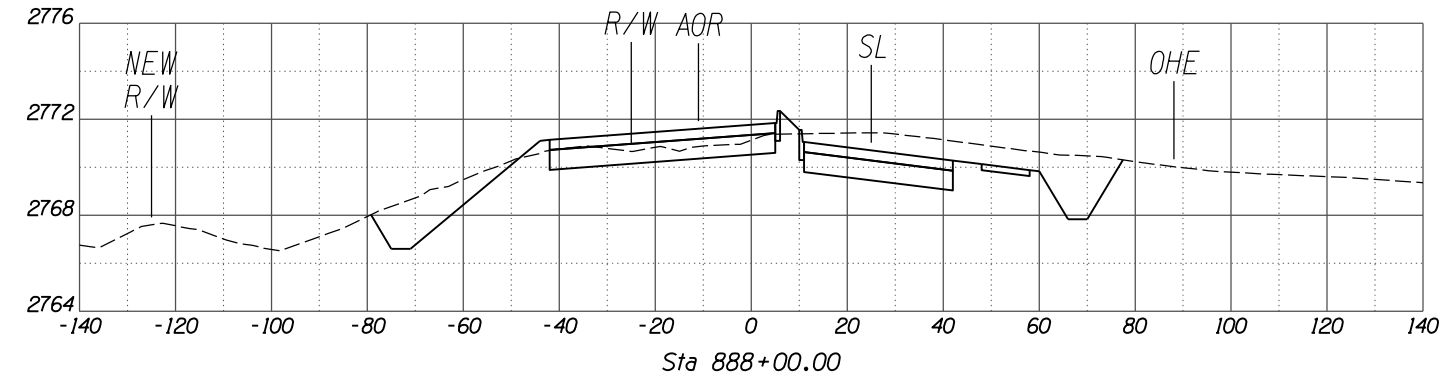
DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

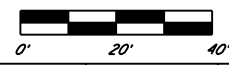
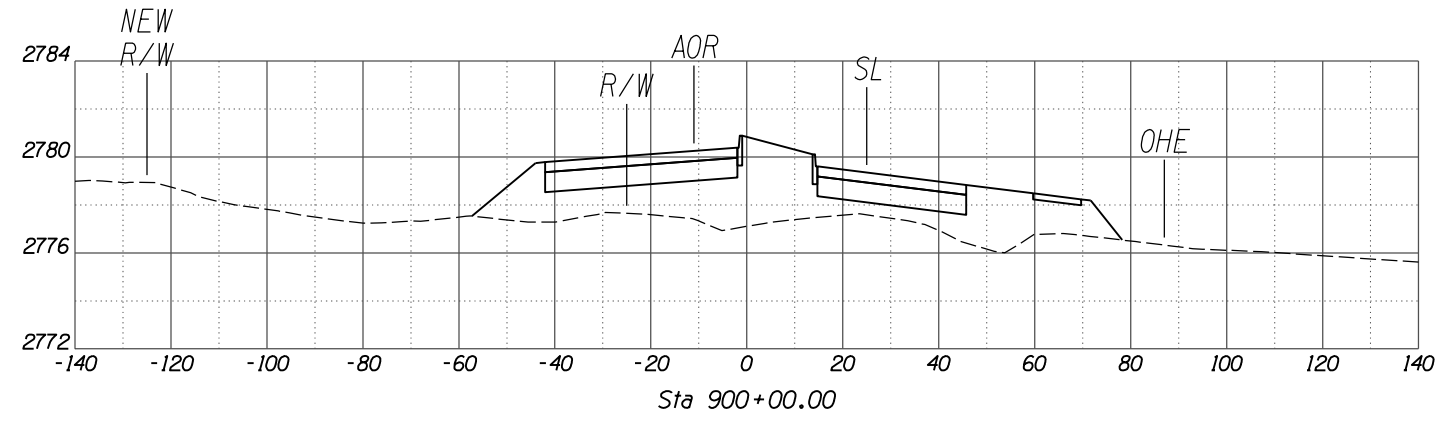
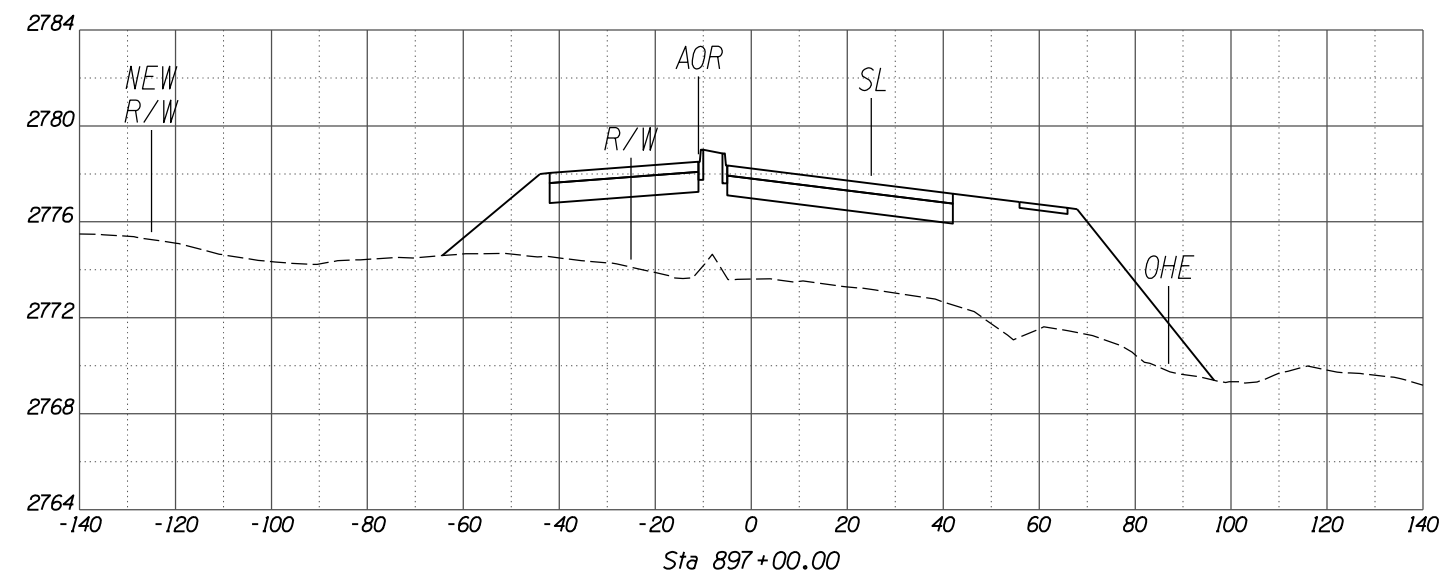
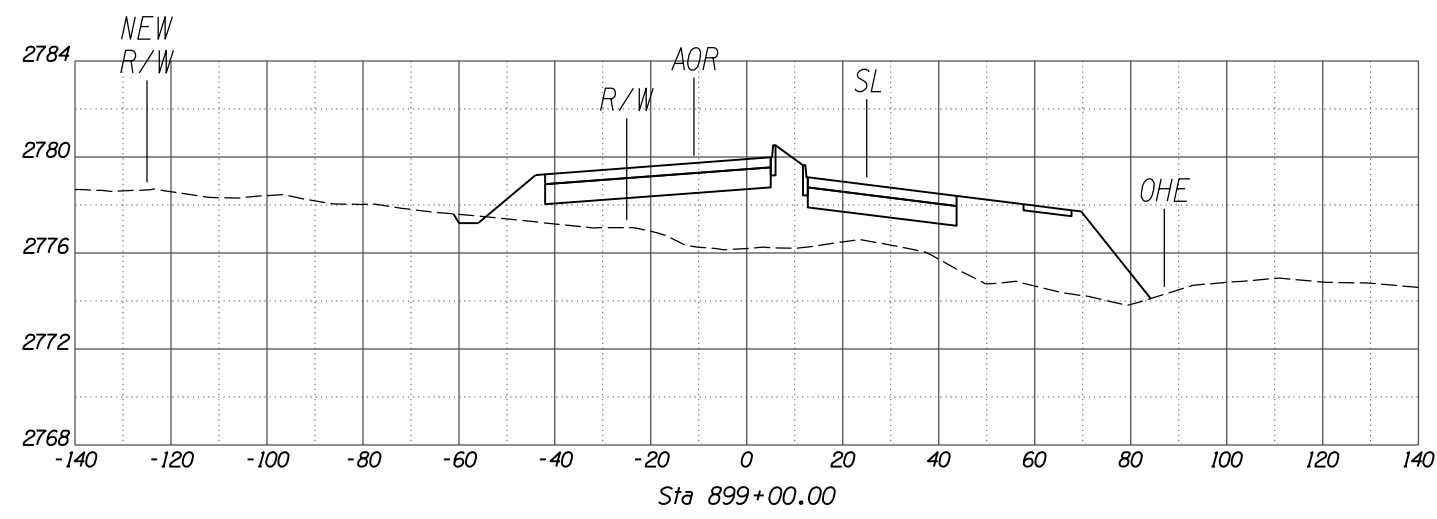
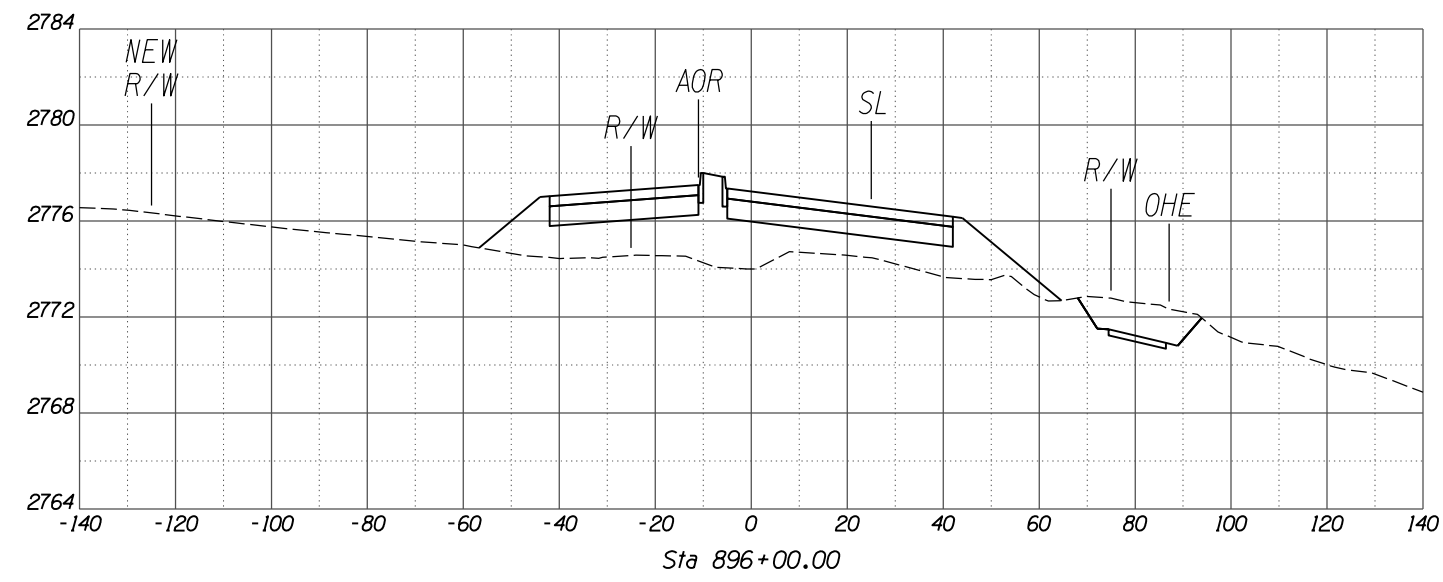
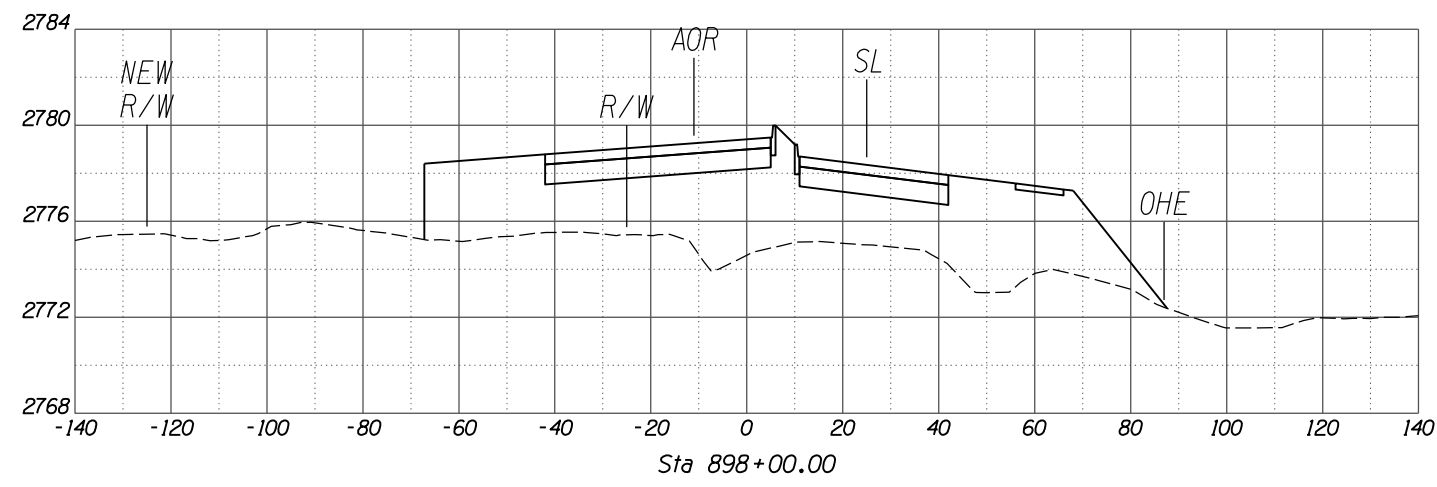
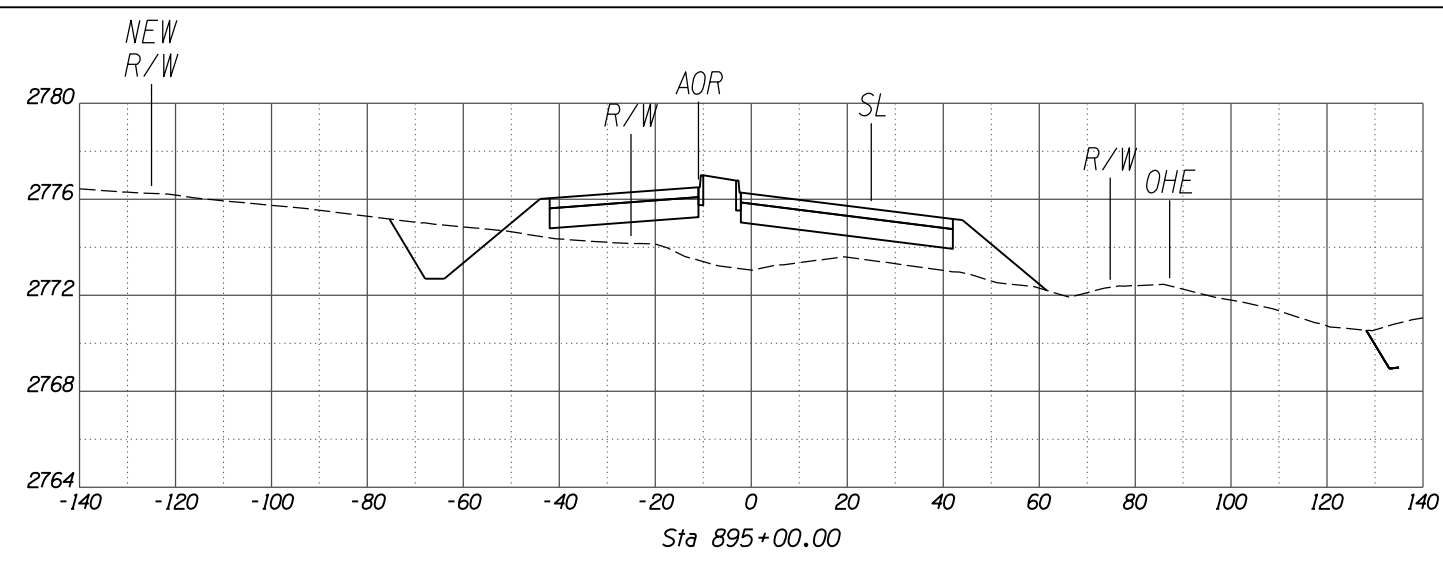
NO.	REVISION DESCRIPTION	DATE	BY	CHKD.

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE



NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13

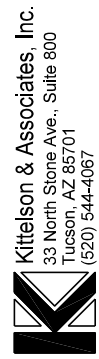


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS20 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

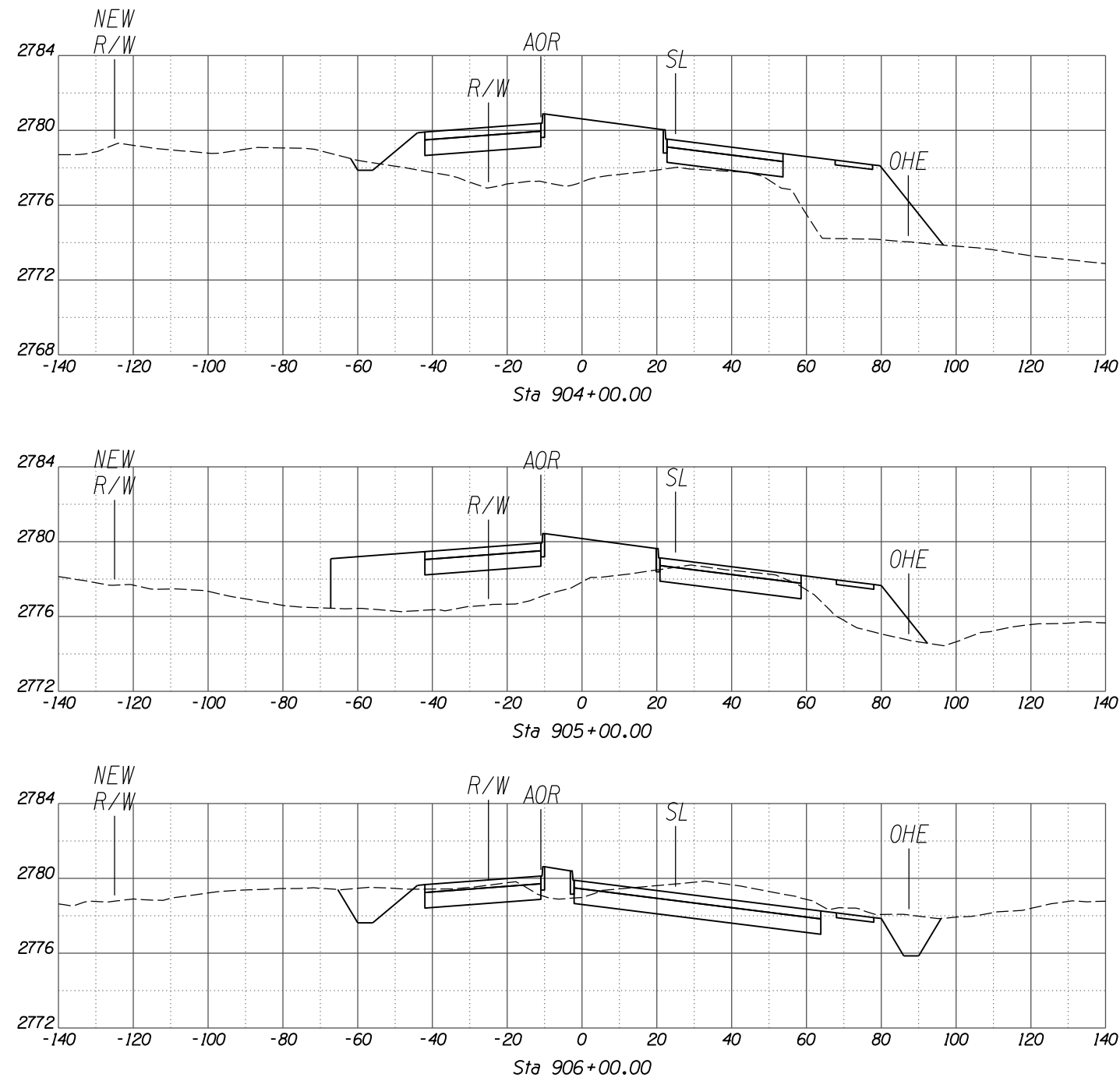
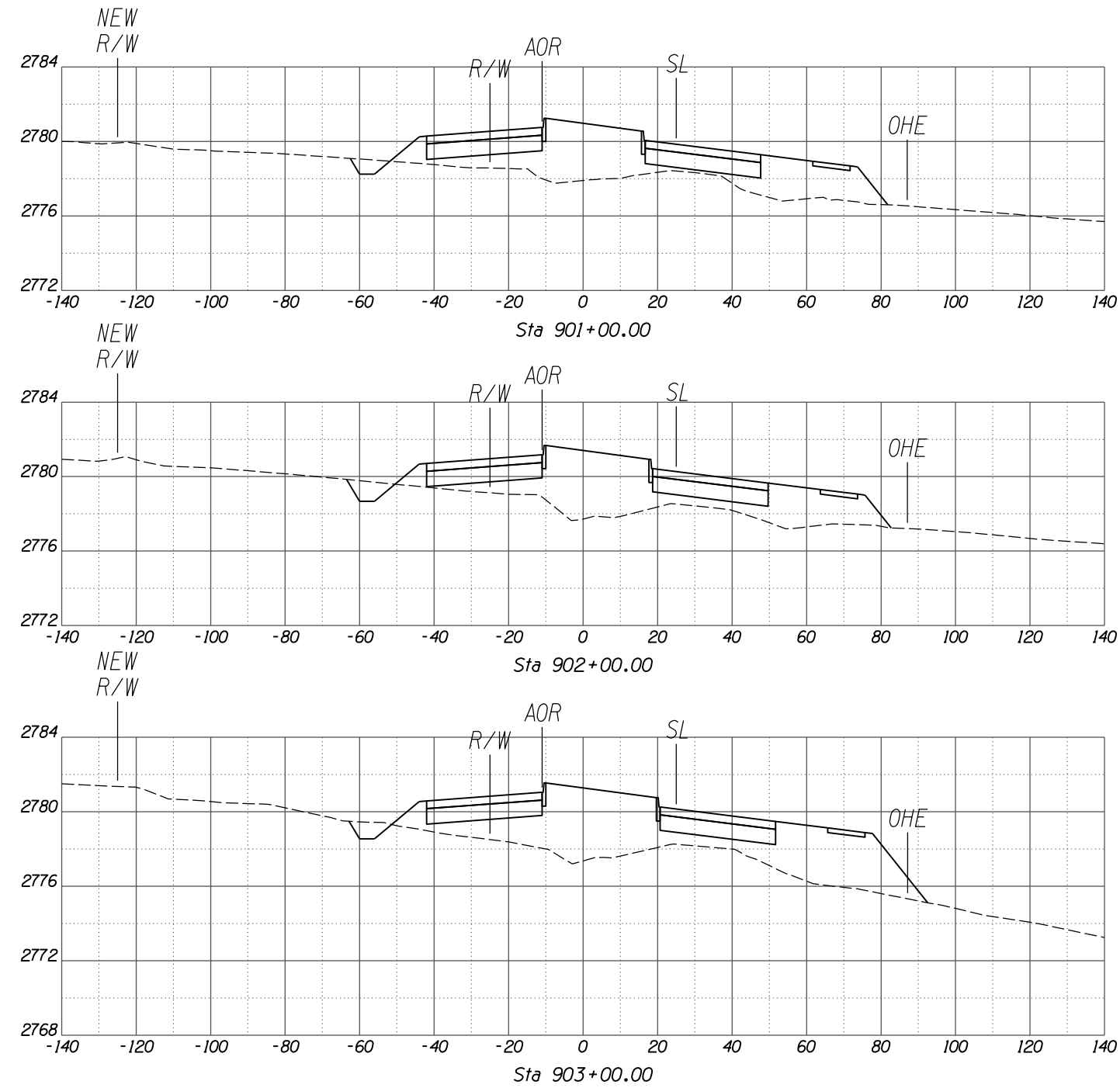
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD



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PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	DESIGNED	DRAWN	CHECKED	PROJ. ENG.

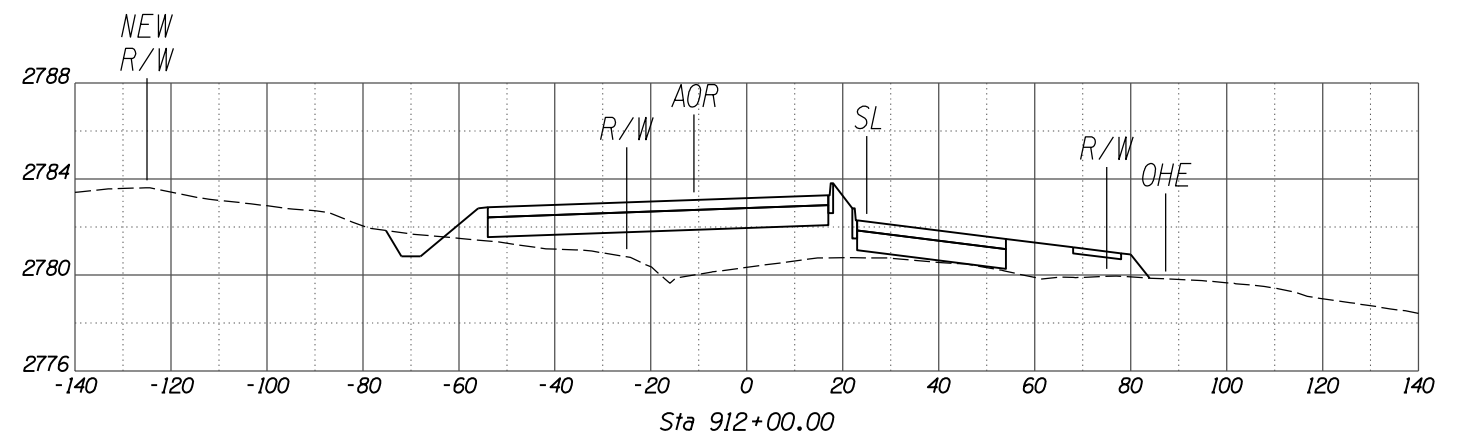
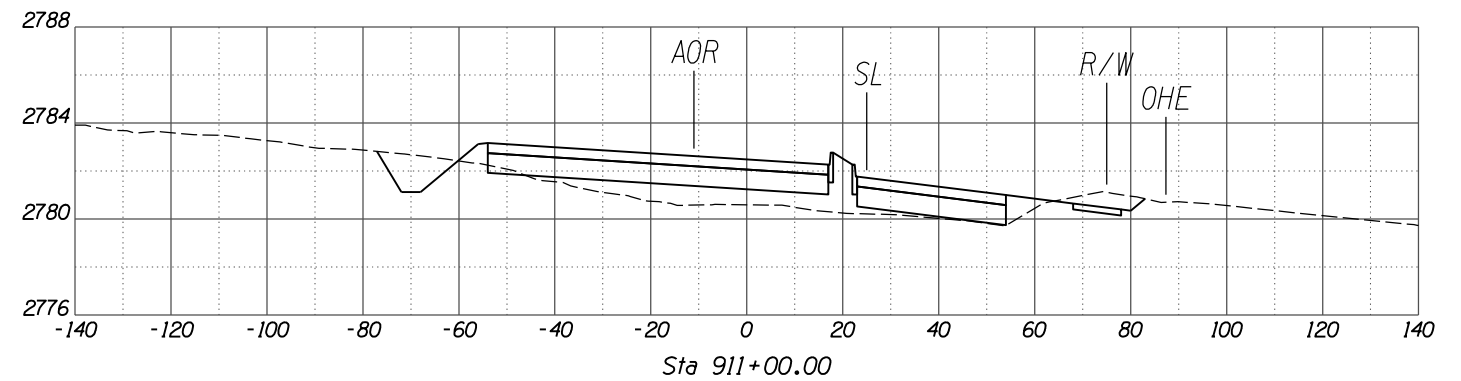
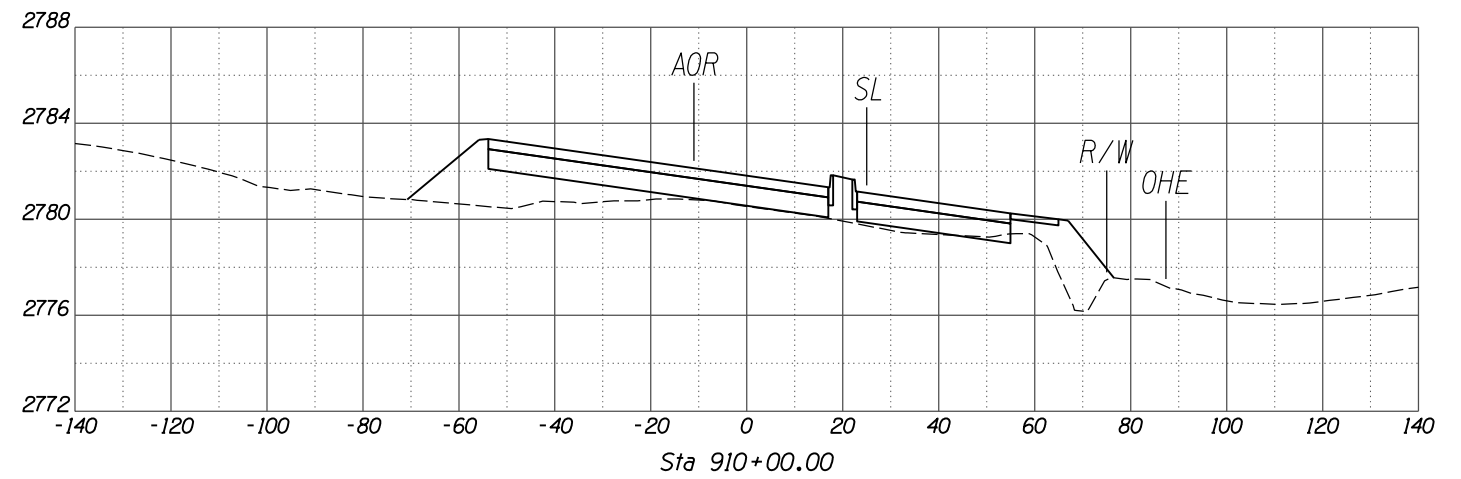
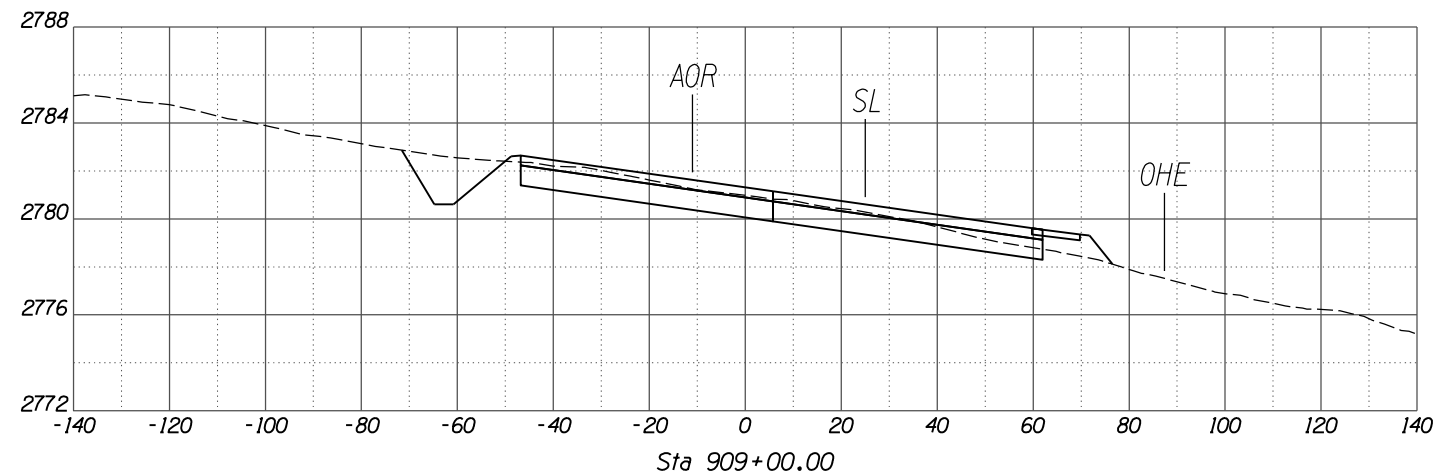
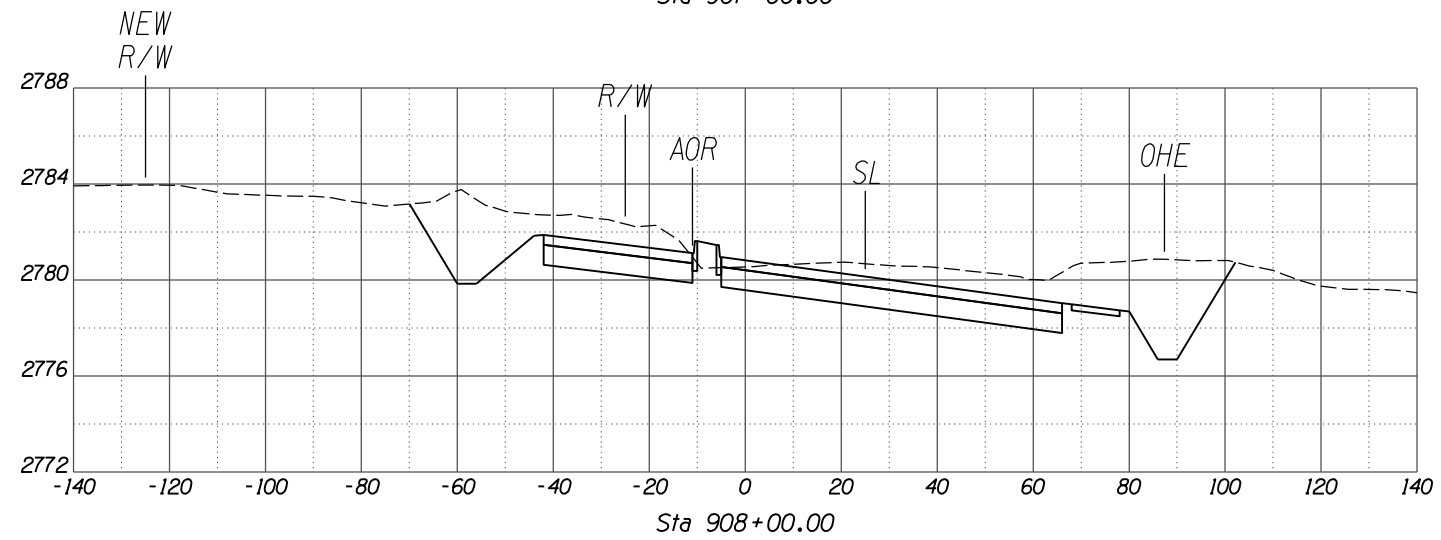
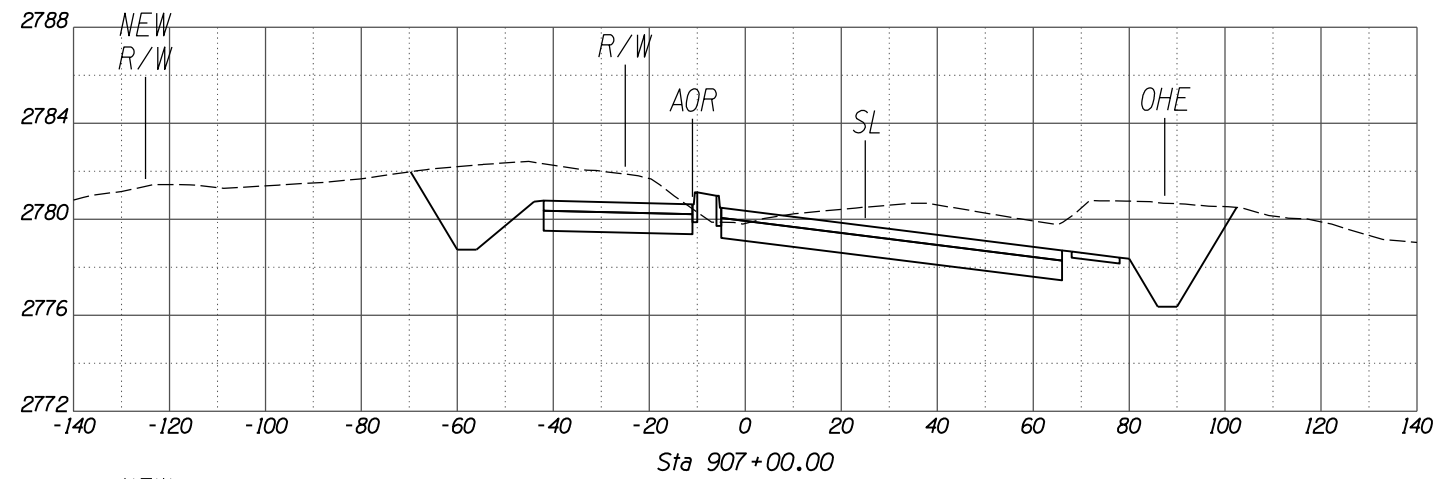
DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13
02/13	02/13	02/13	02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

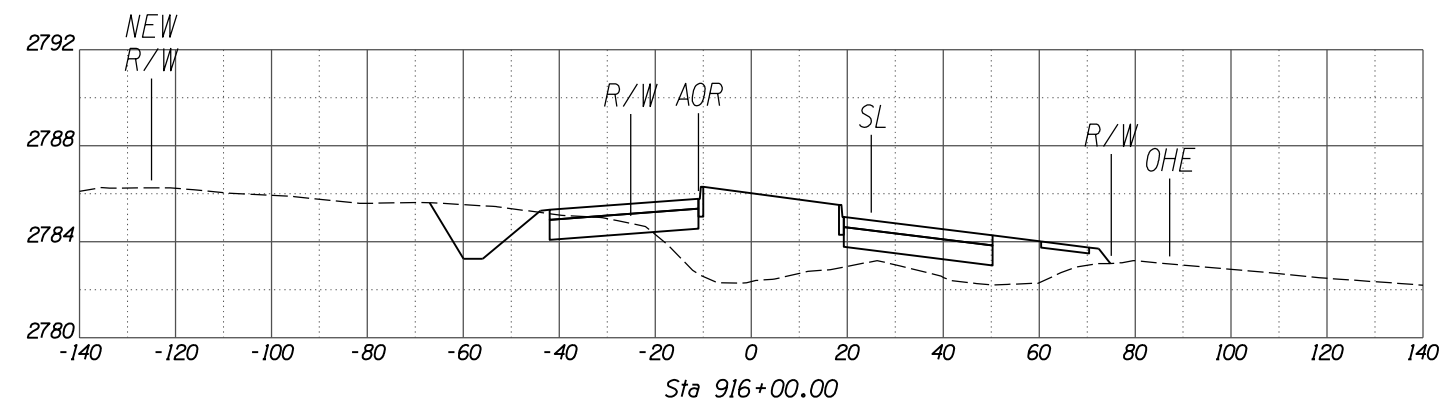
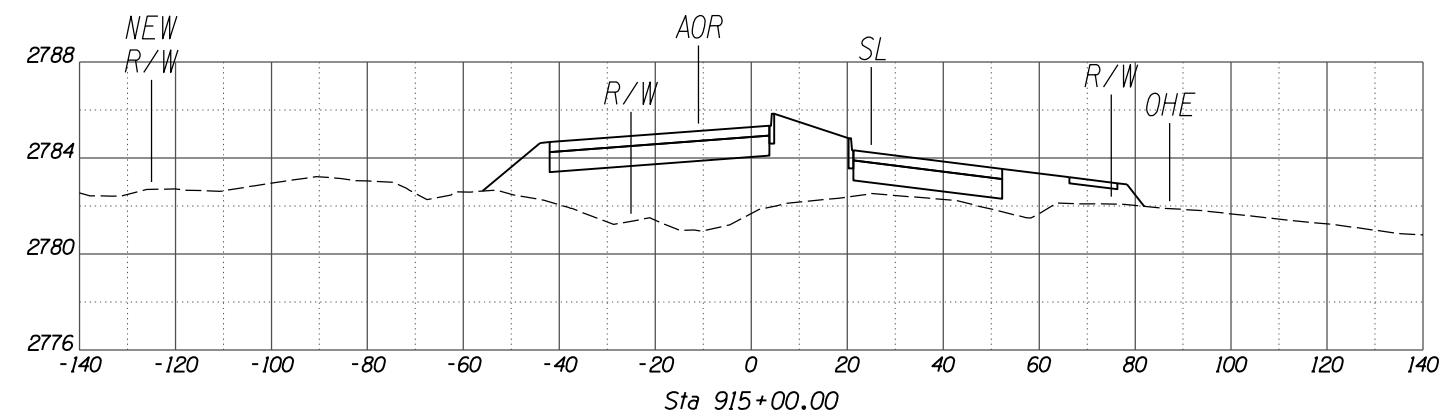
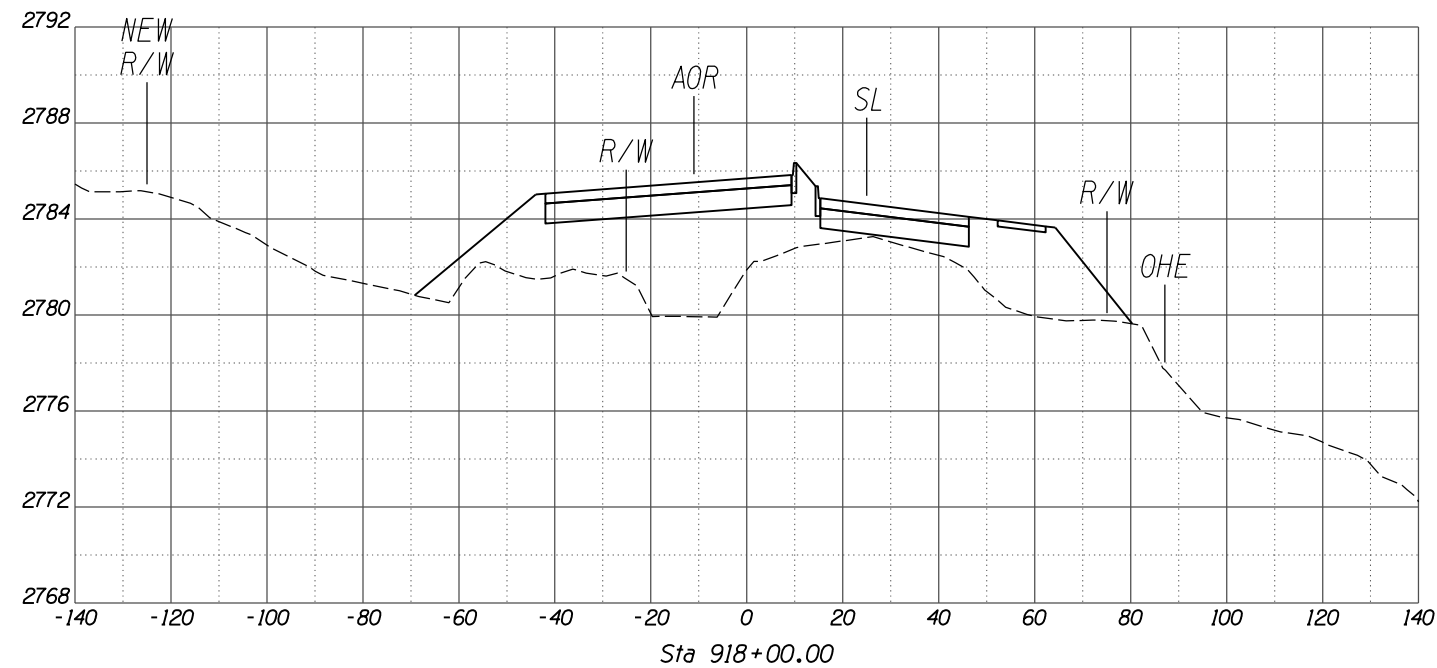
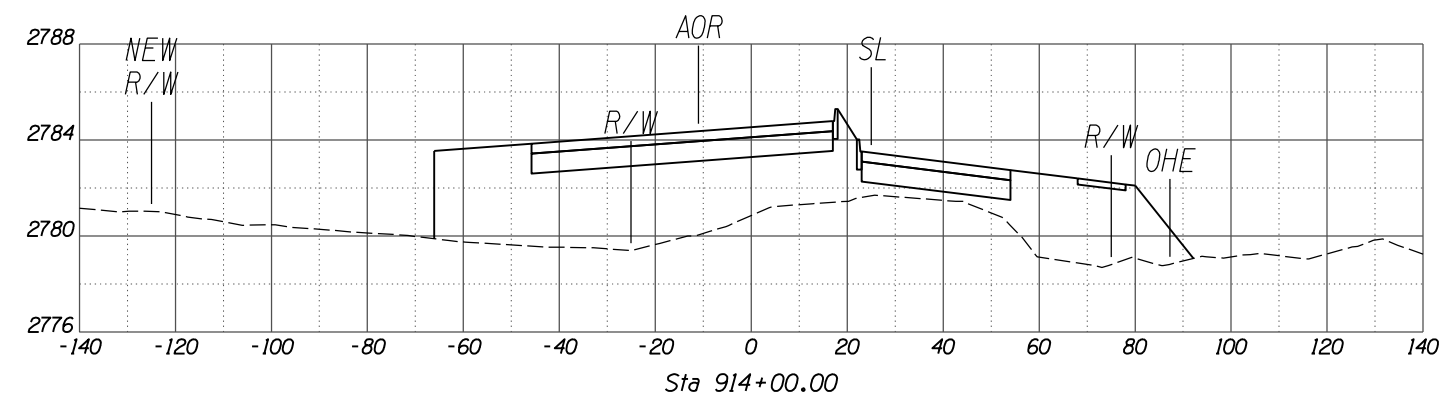
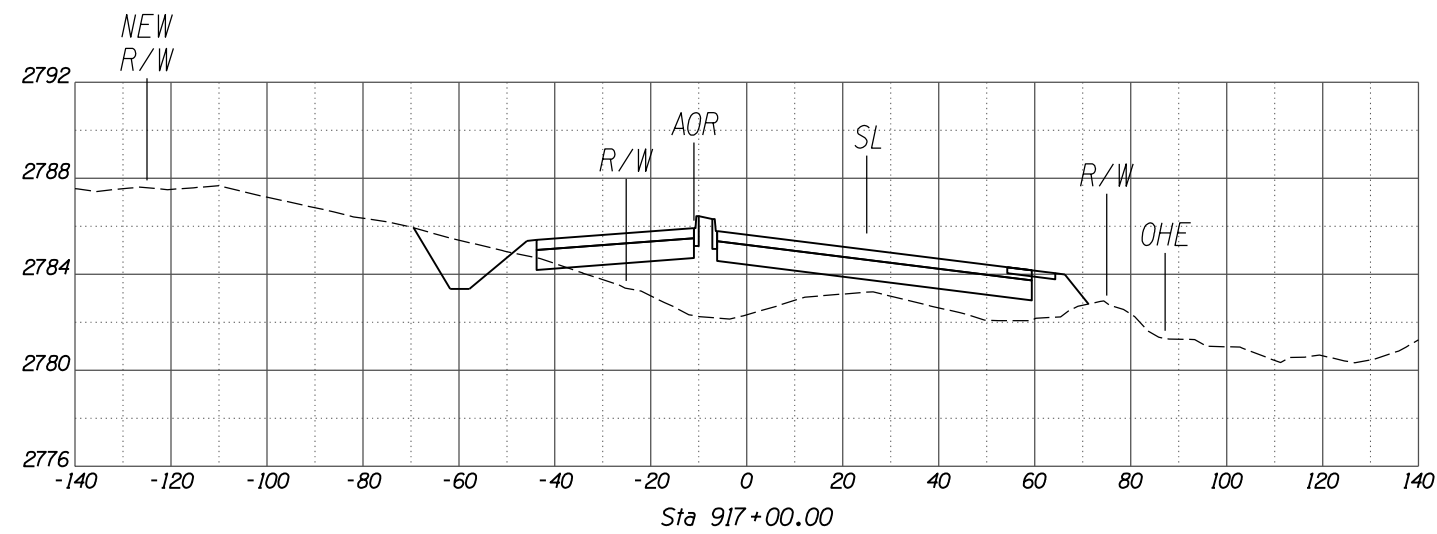
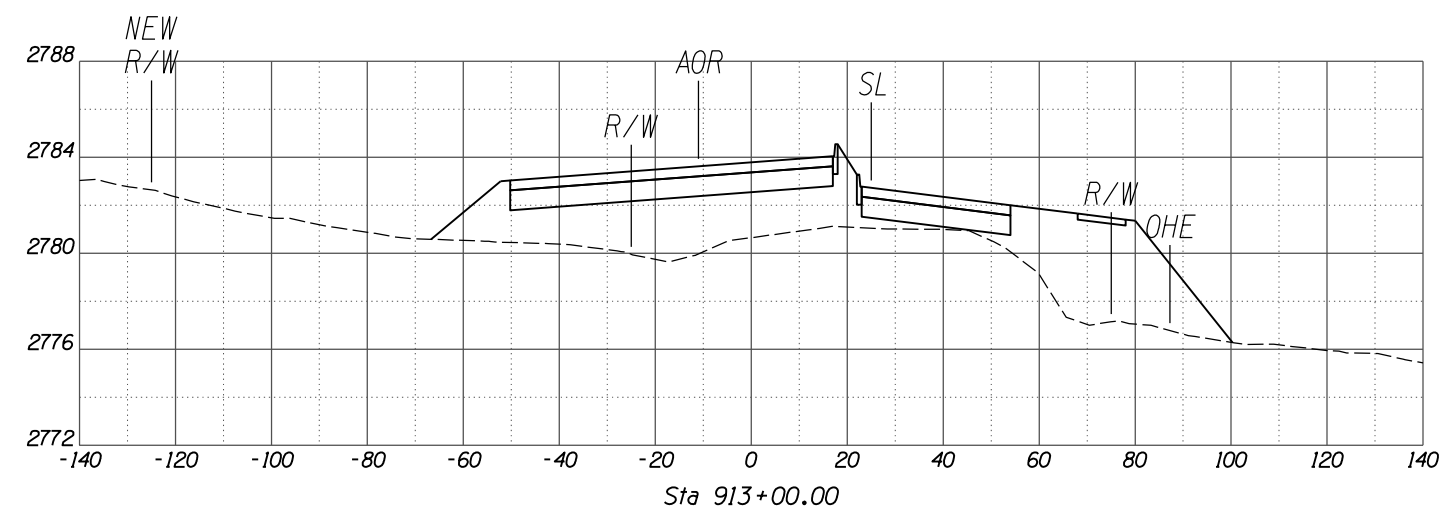
NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
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NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

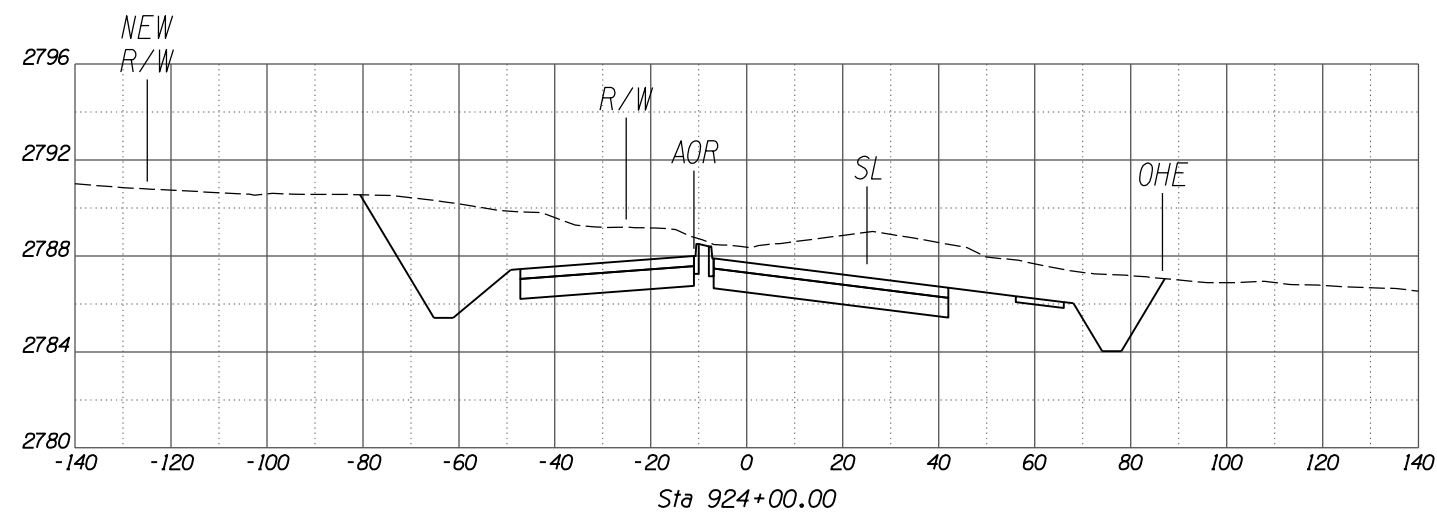
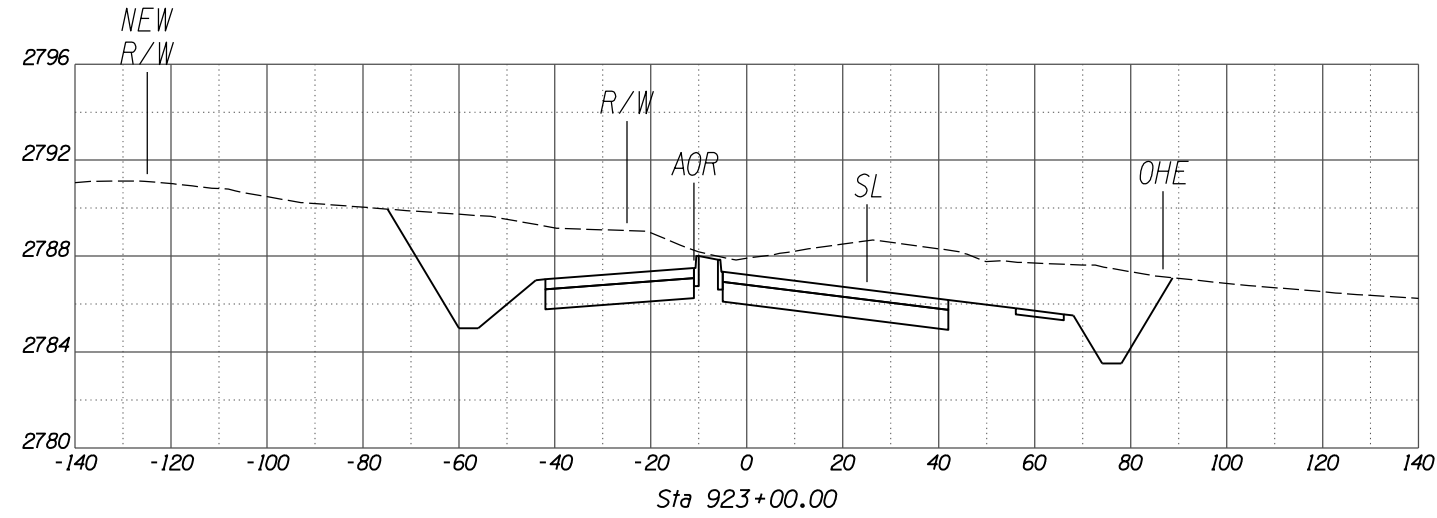
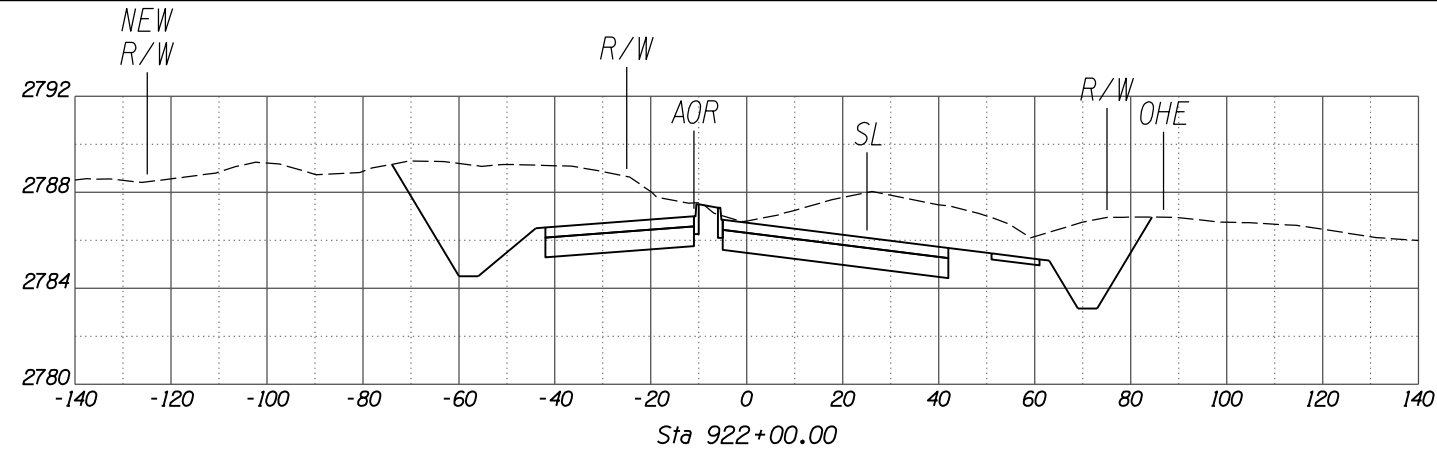
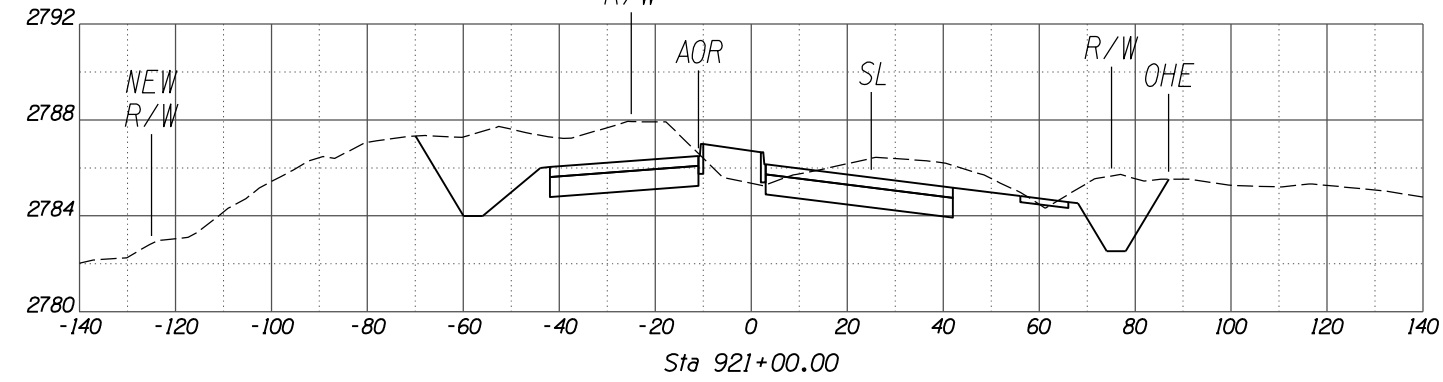
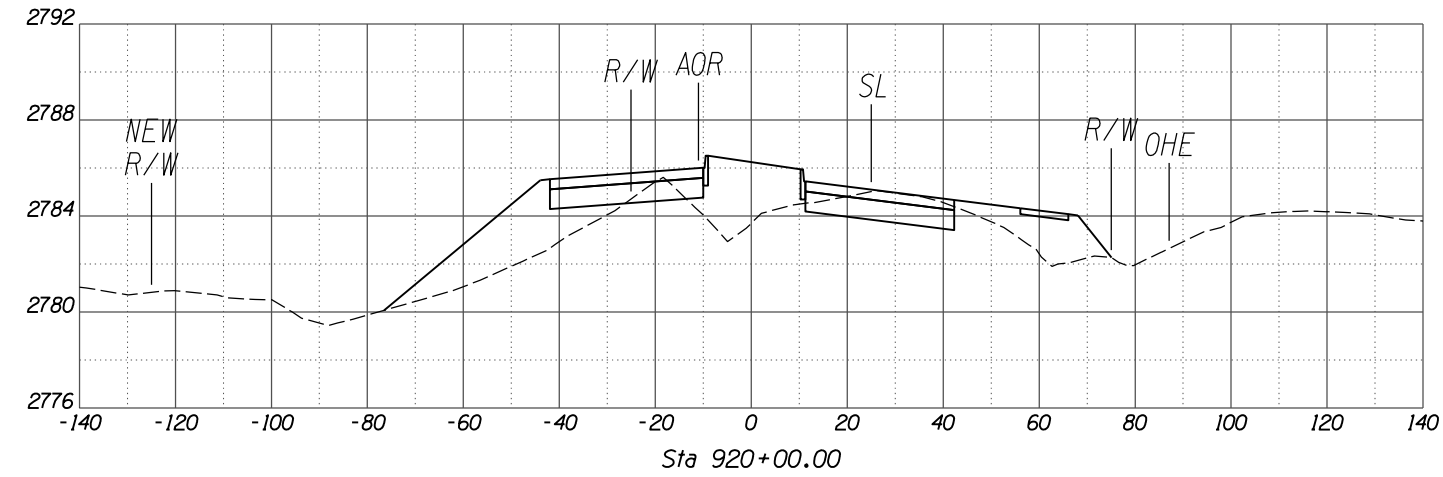
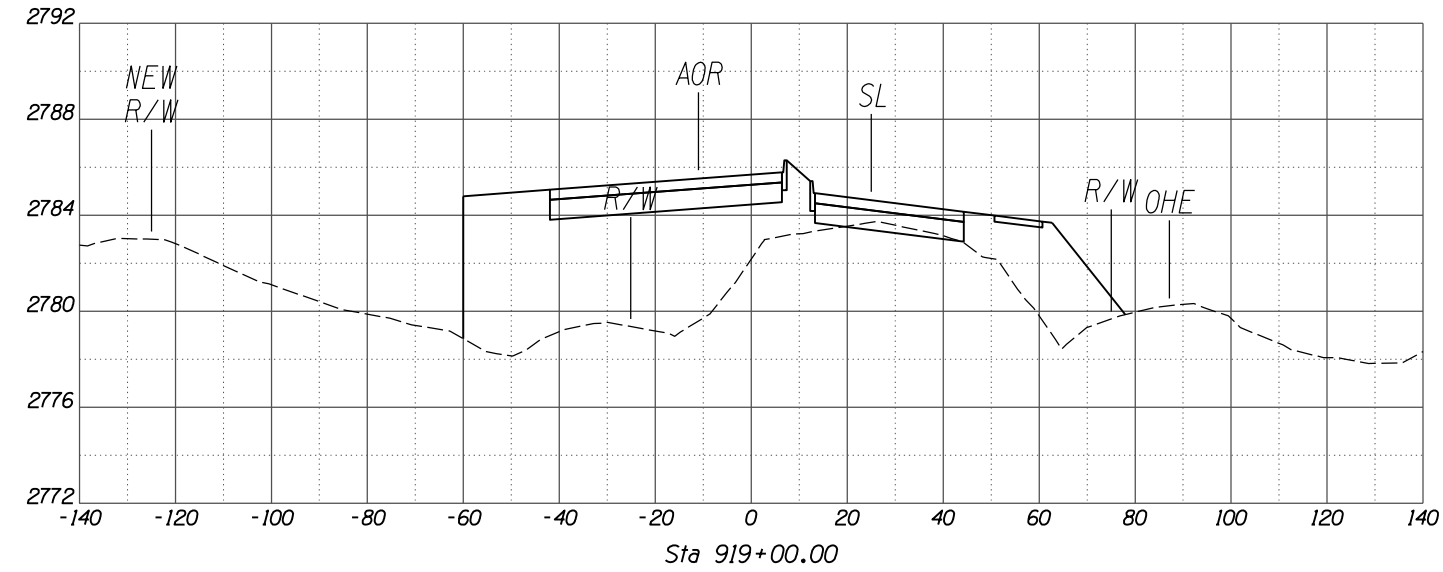
		DATE
DESIGNED ₂	RIN	02/13
DRAWN ₂	TWR	02/13
CHECKED ₂	MDA	02/13
PROJ. ENG. ₁	MDA	02/13



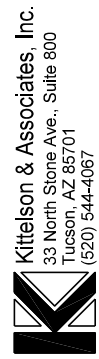
SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13

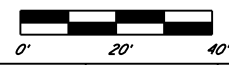
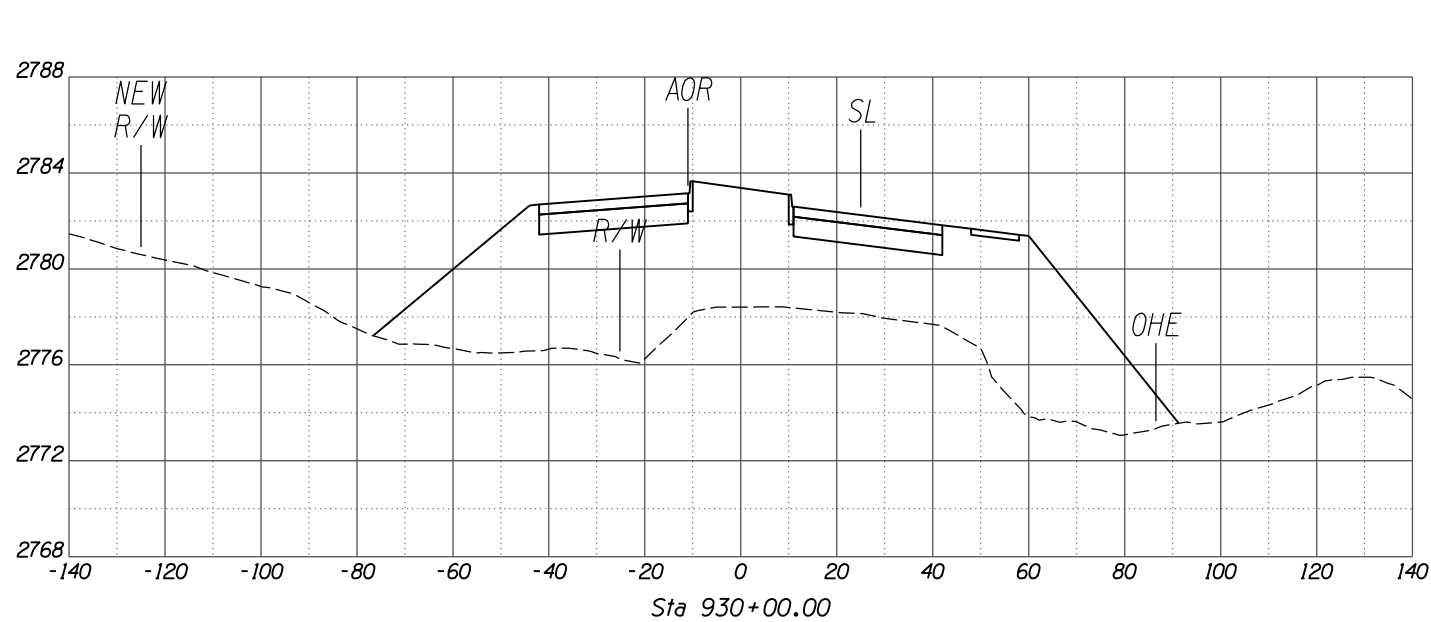
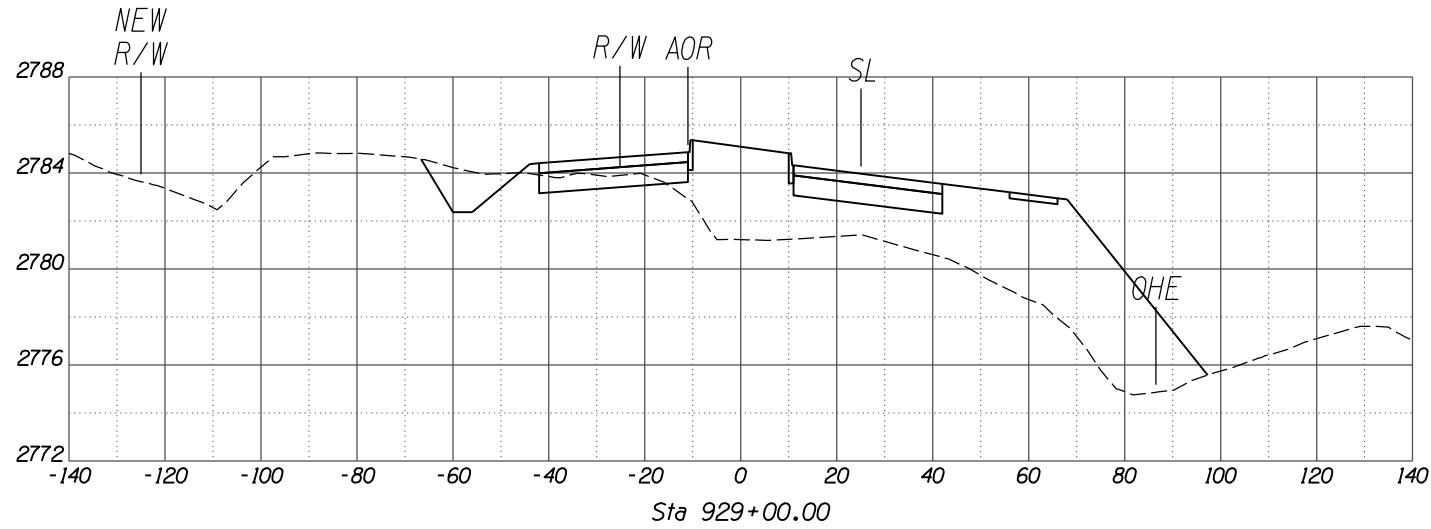
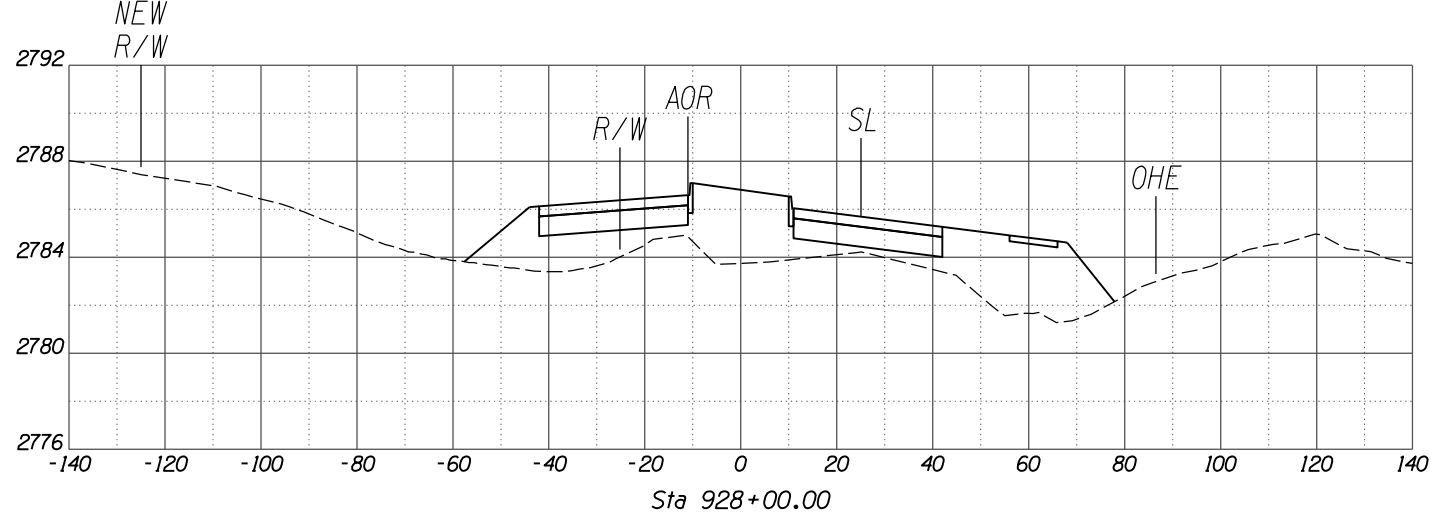
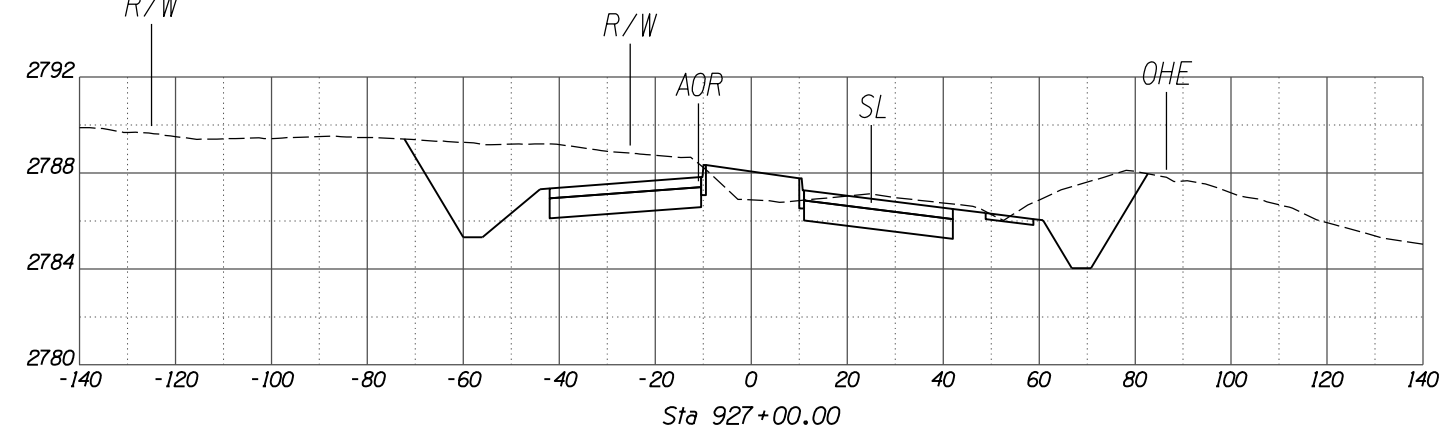
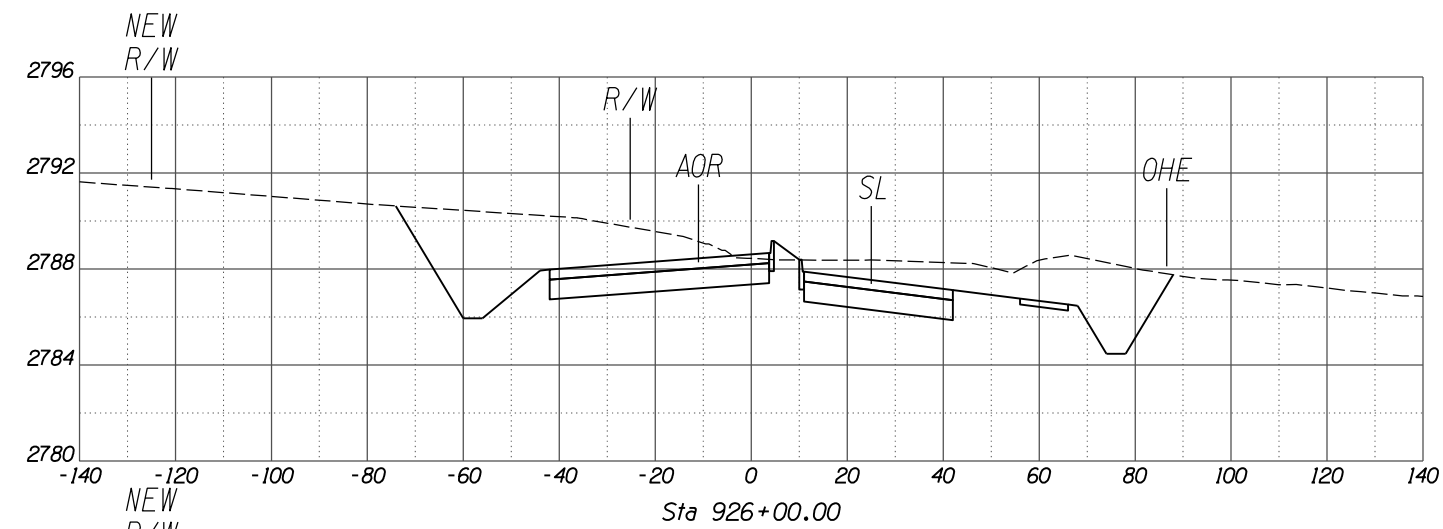
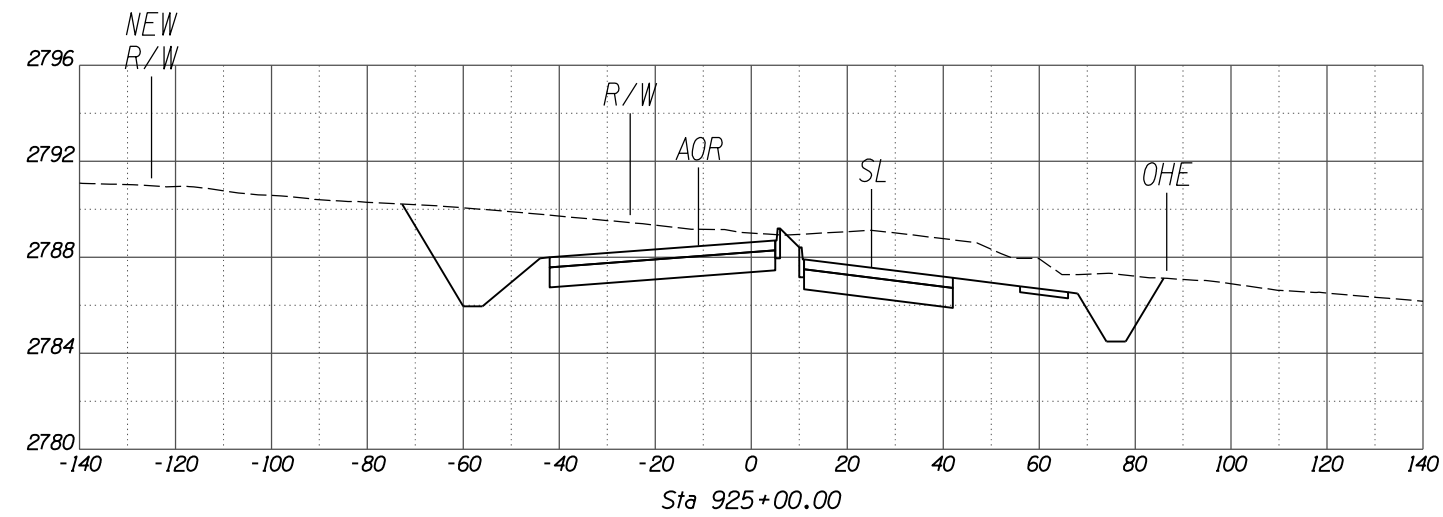


SCALES: HORIZ. 1"=20'
VERT. 1"=4'



NO.	REVISION DESCRIPTION	DATE	BY	CHKD.

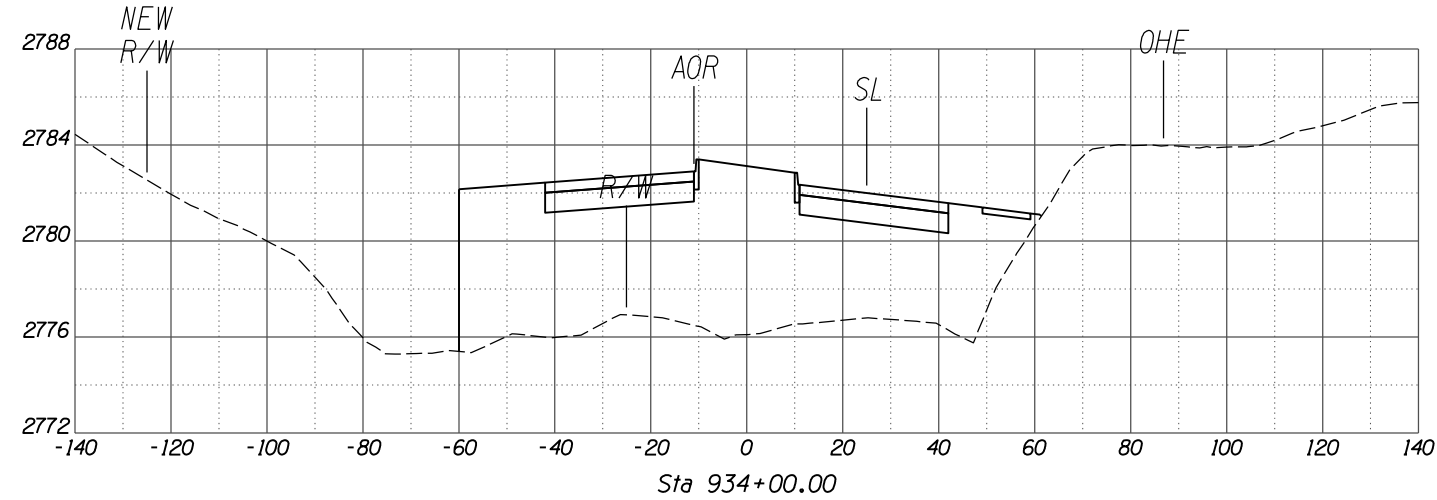
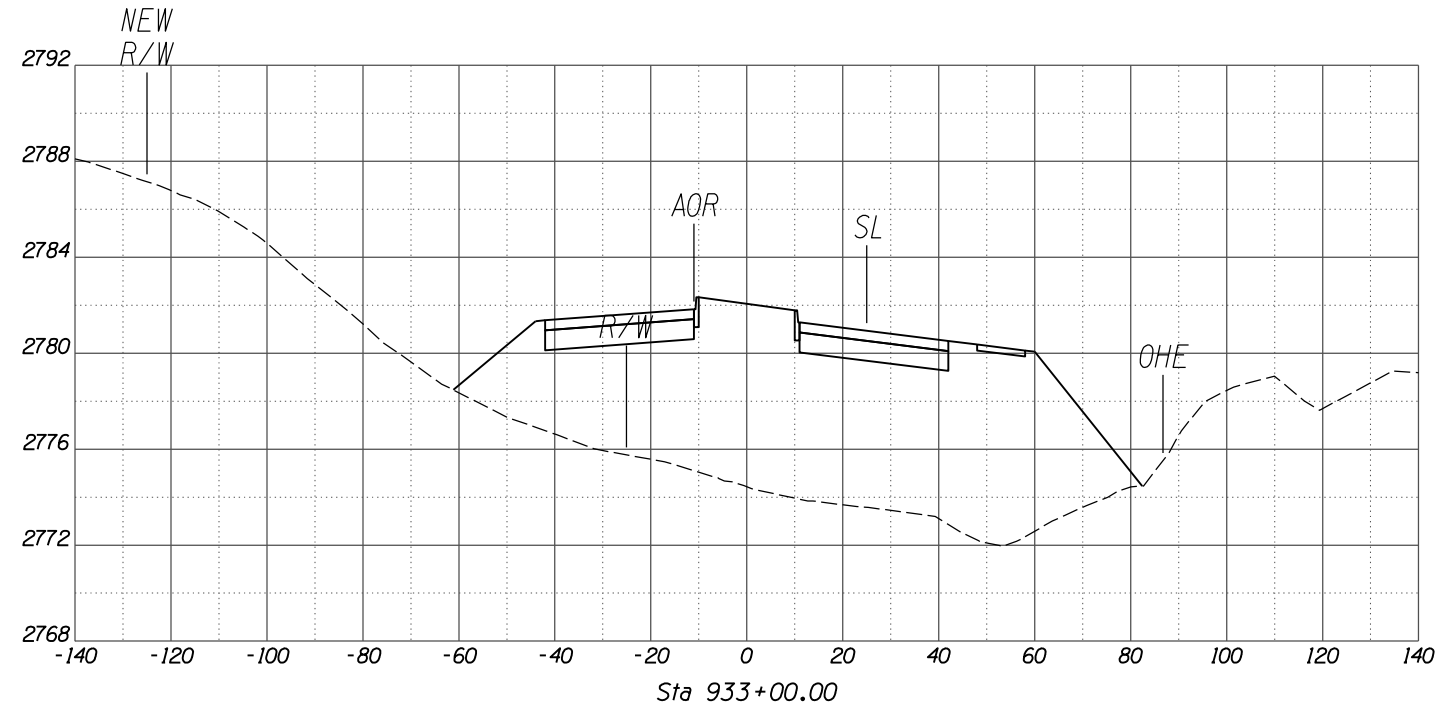
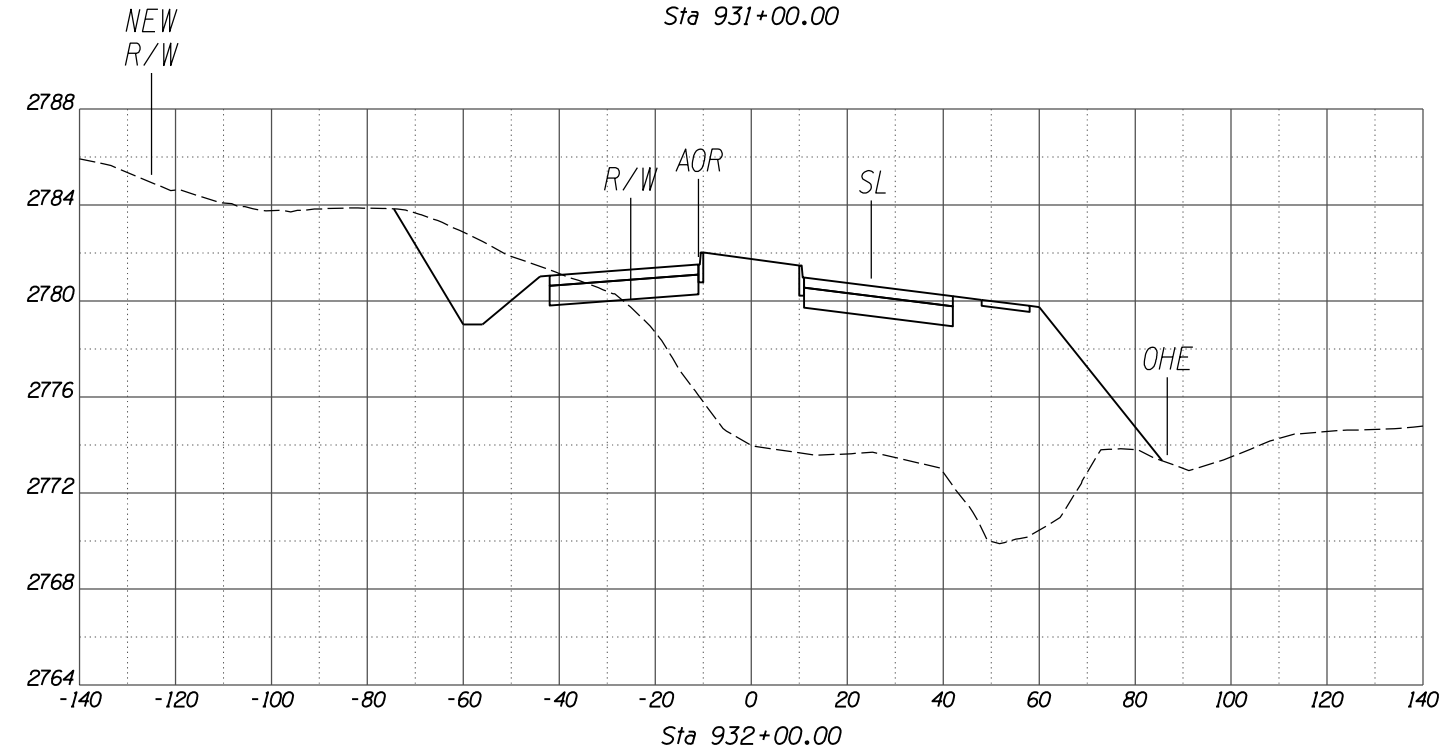
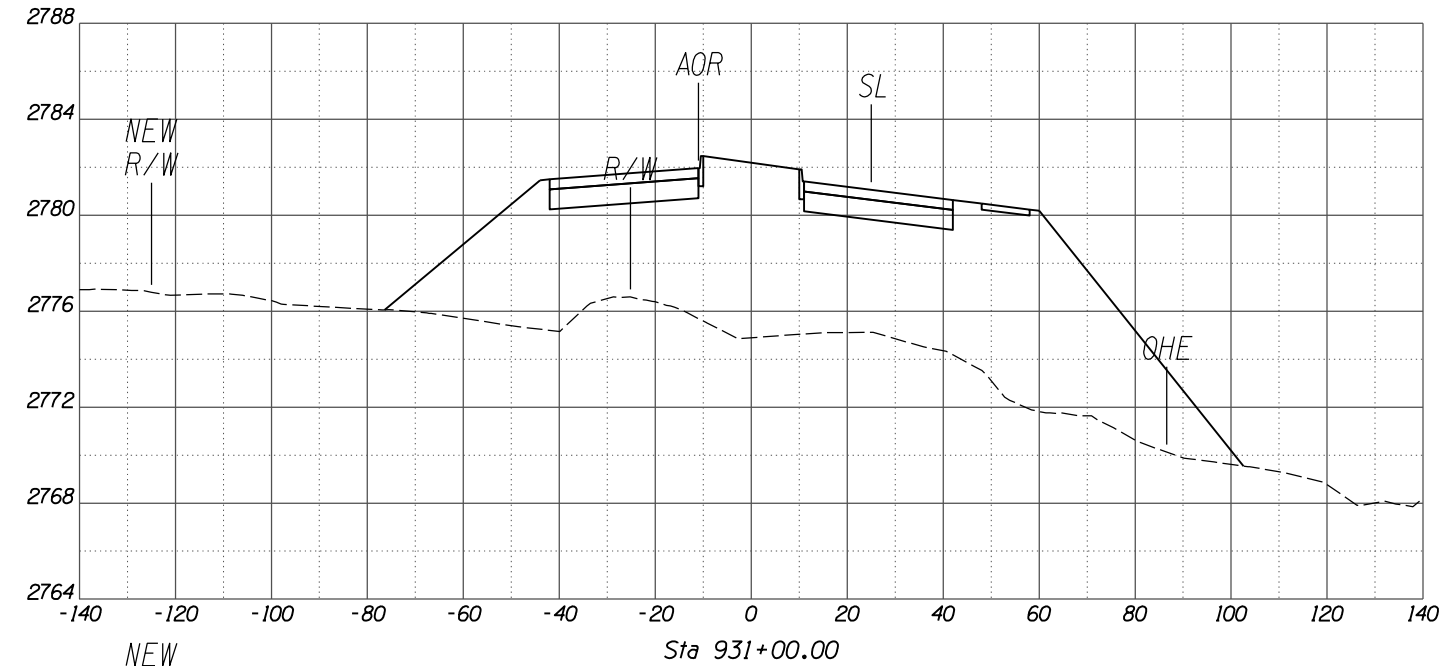
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

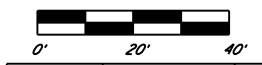
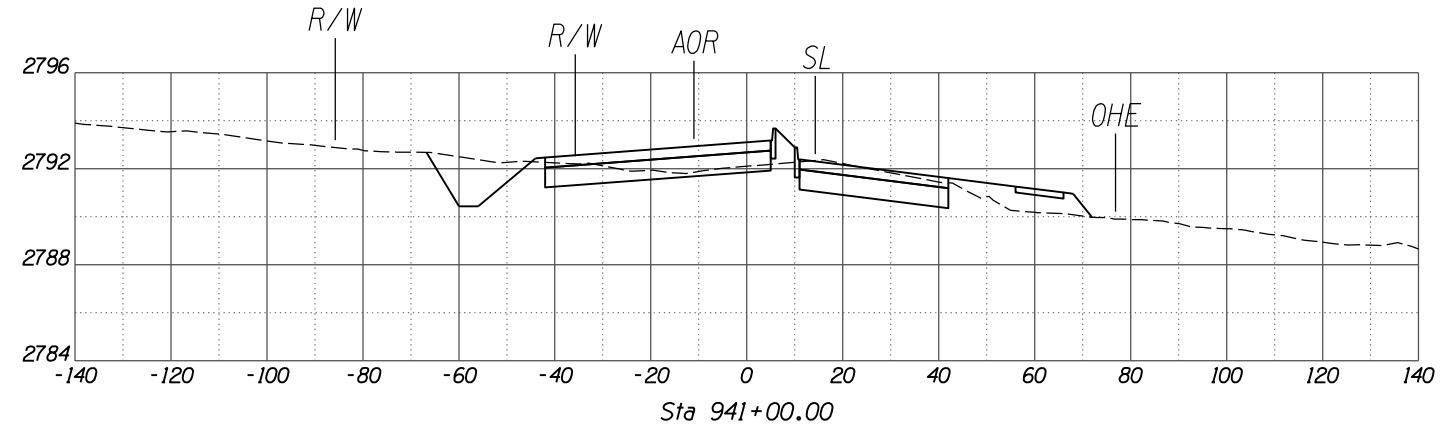
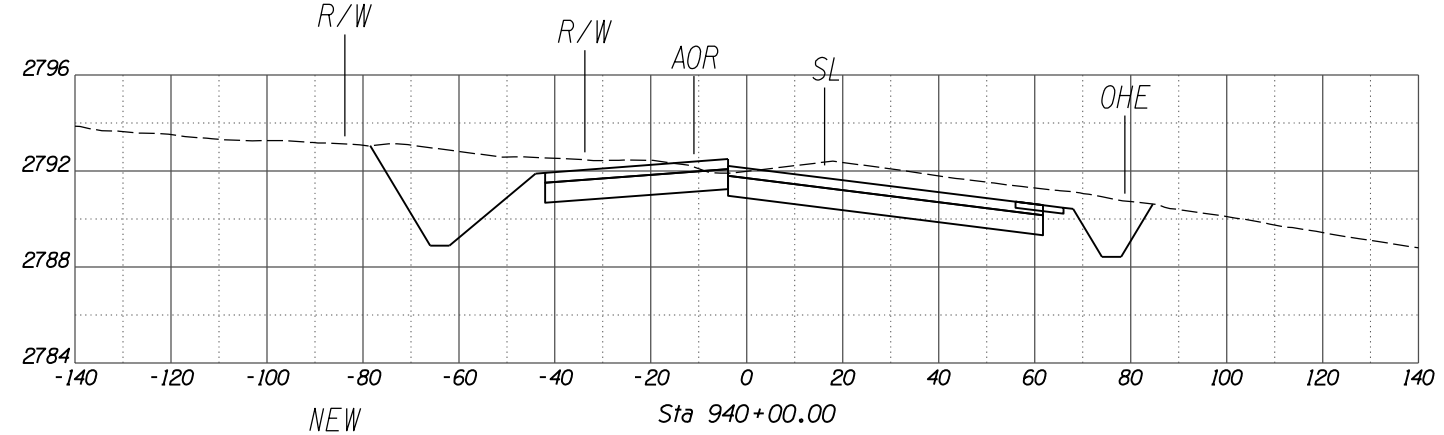
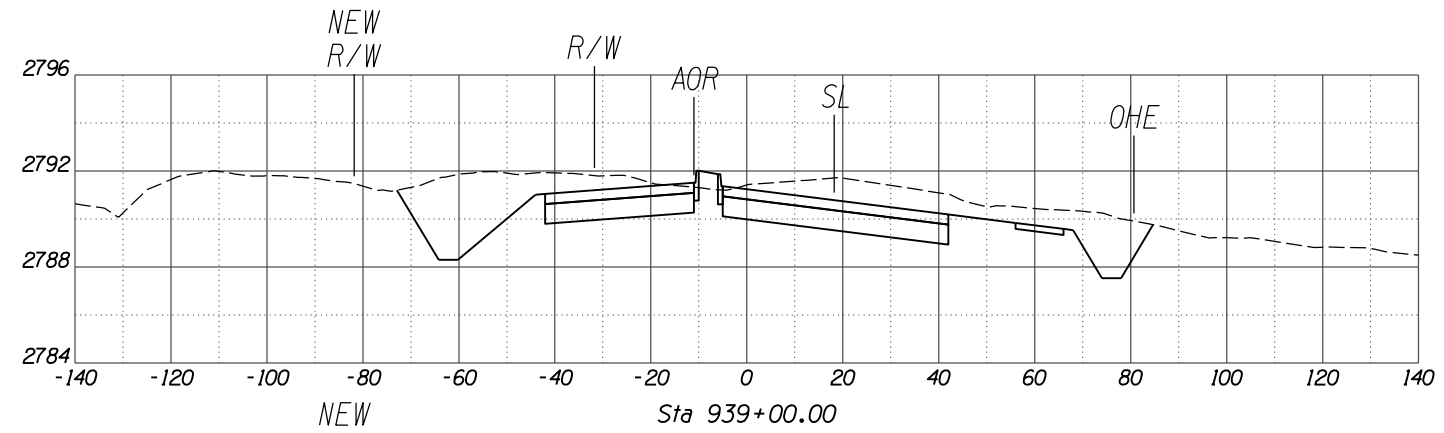
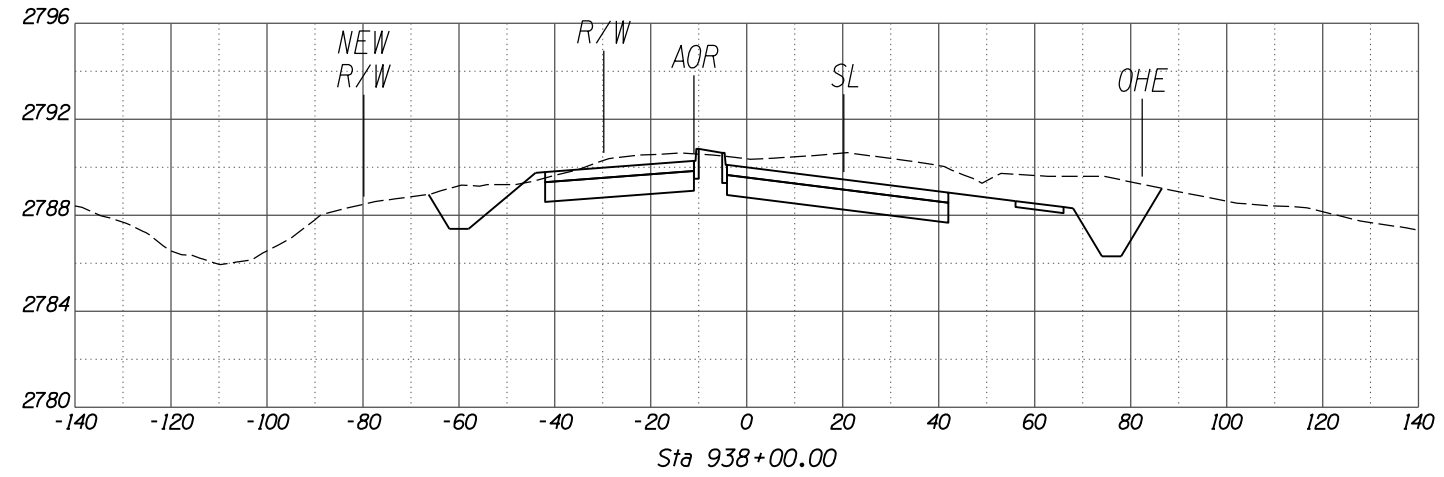
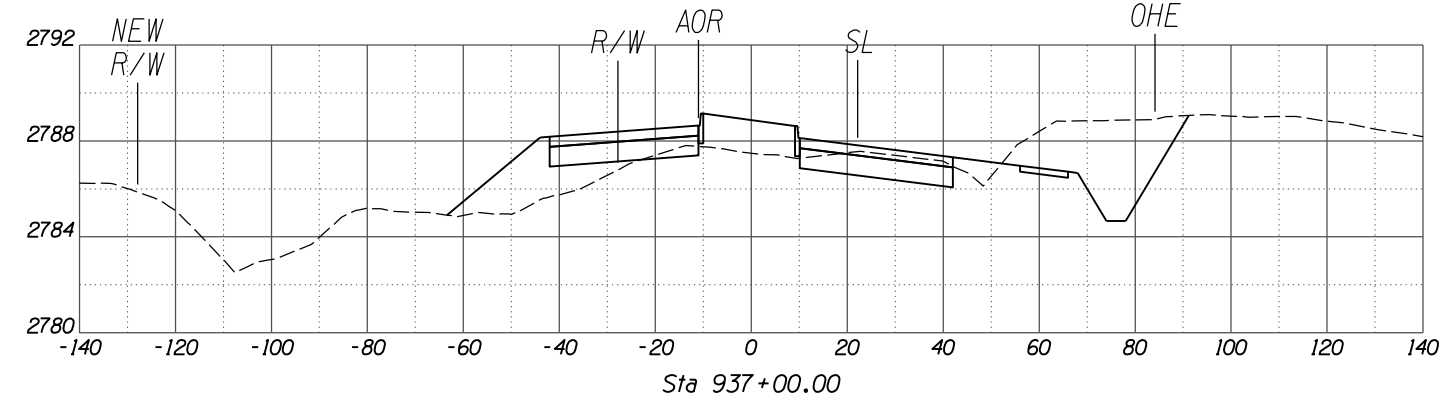
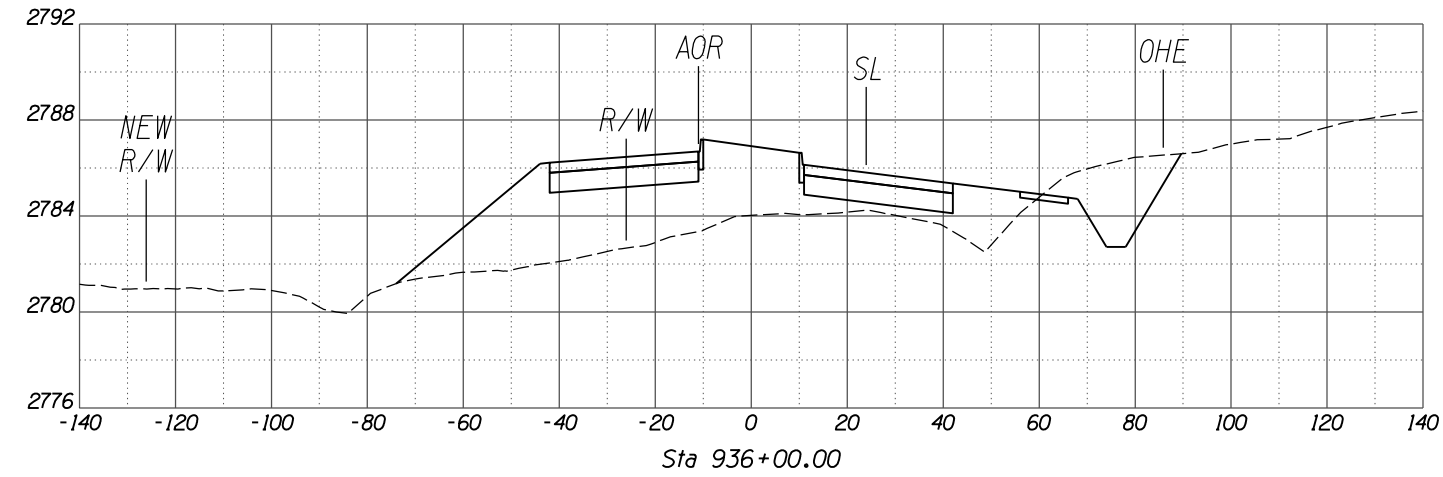
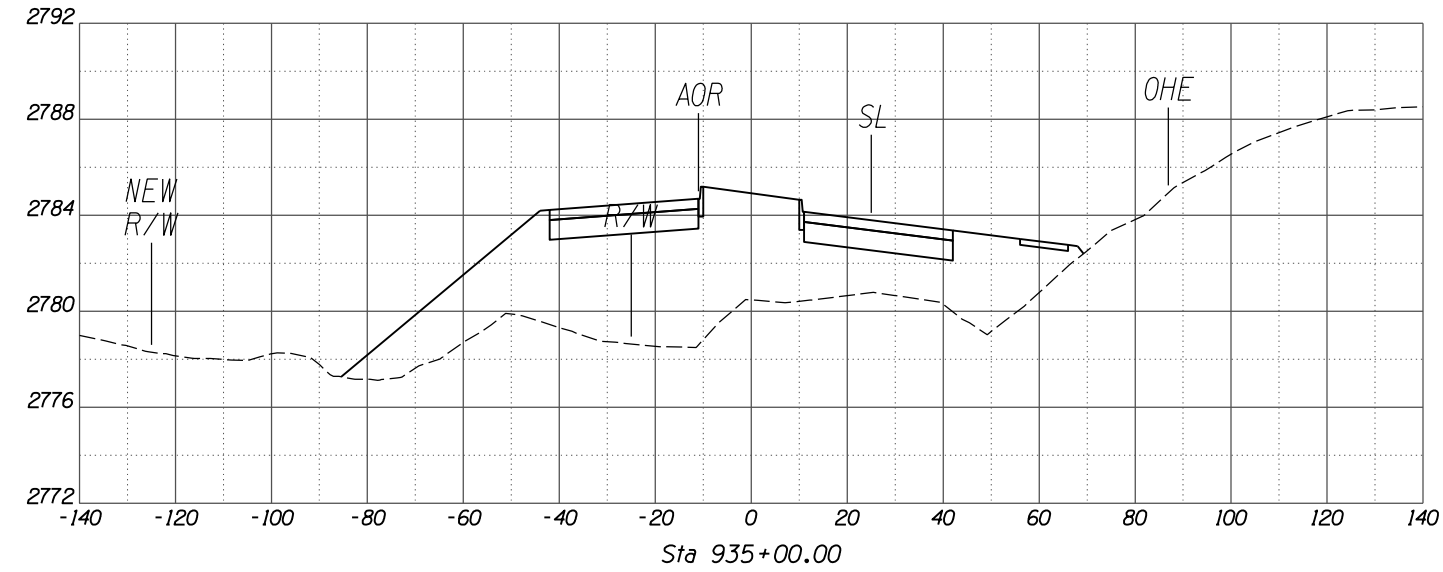
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	DATE

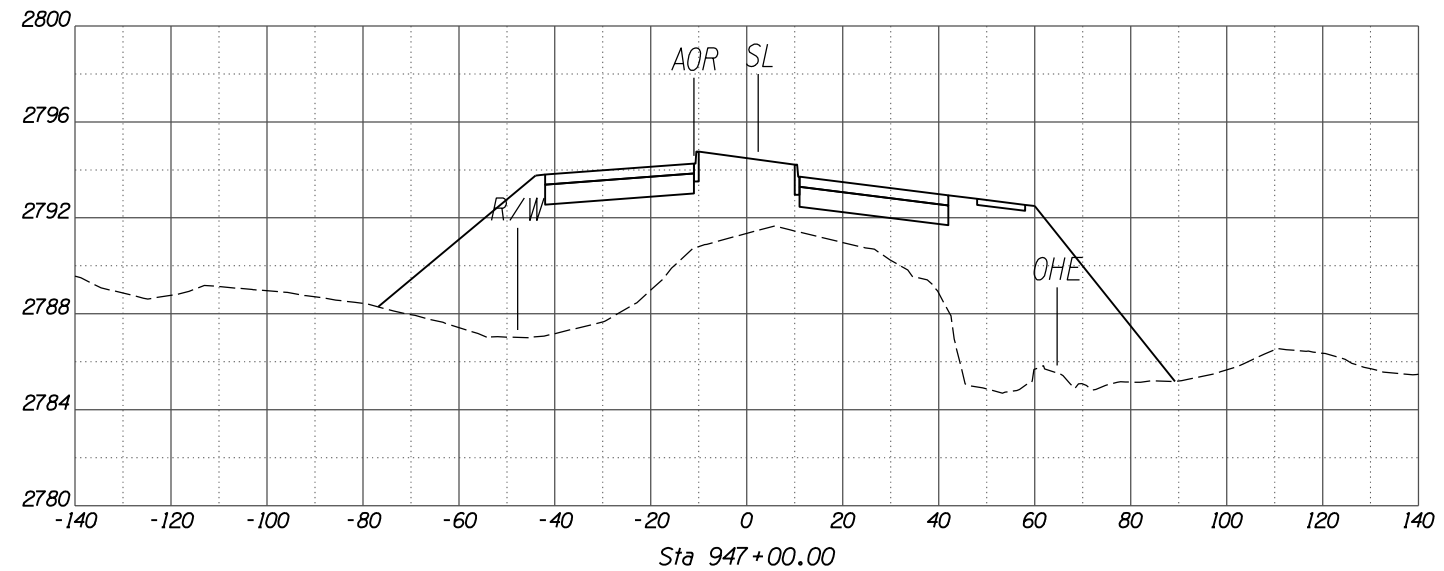
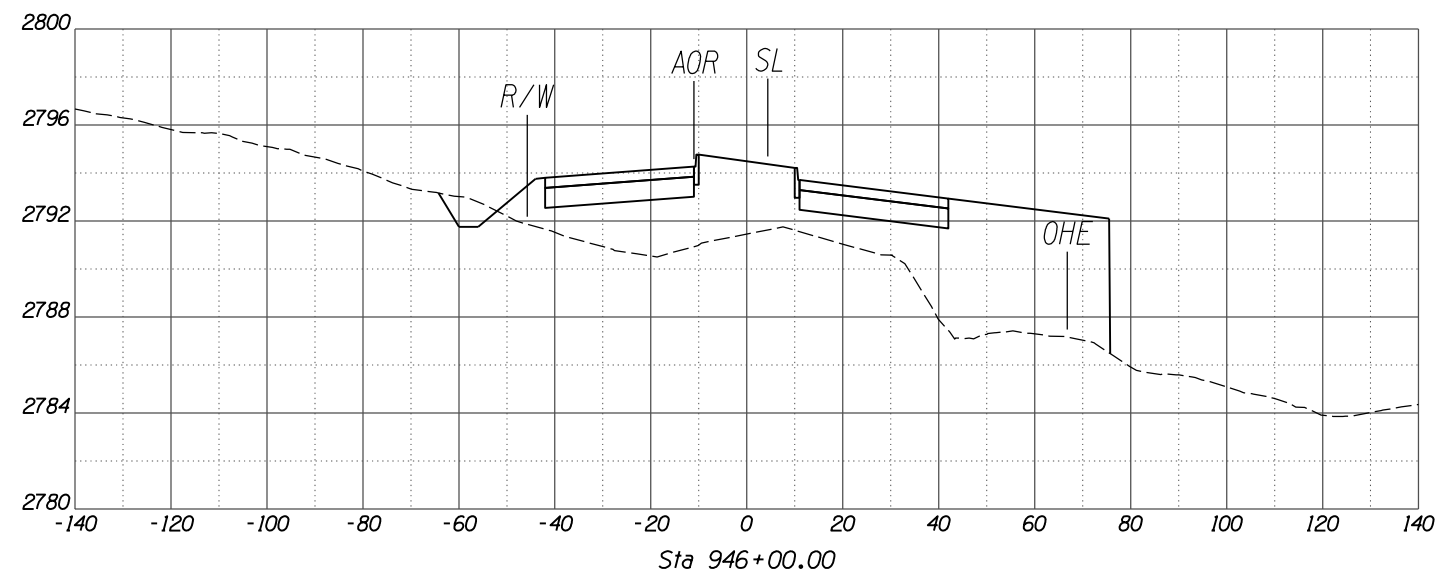
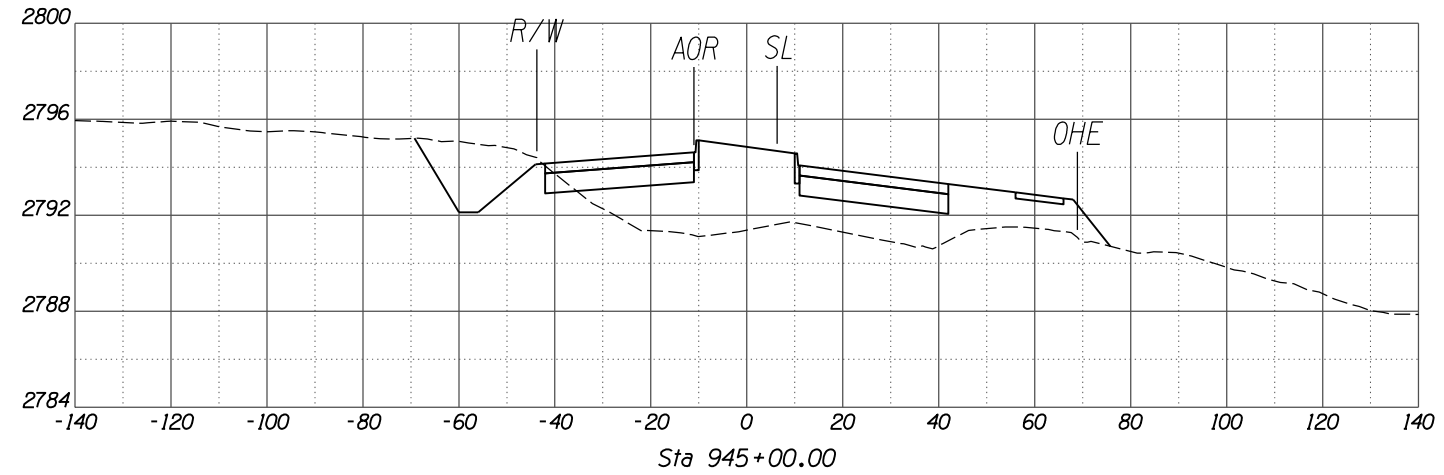
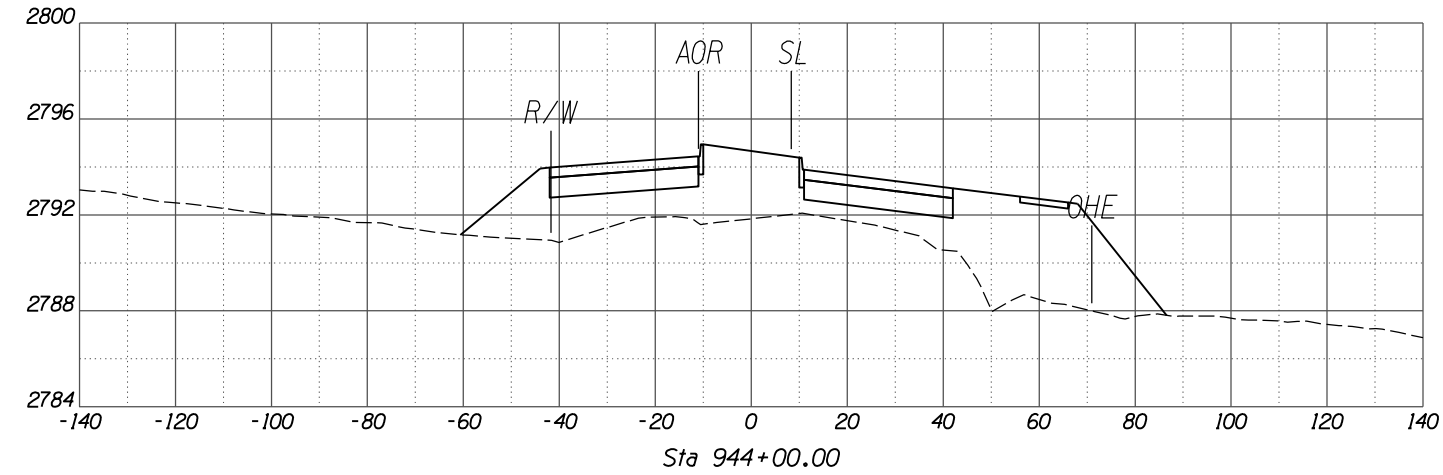
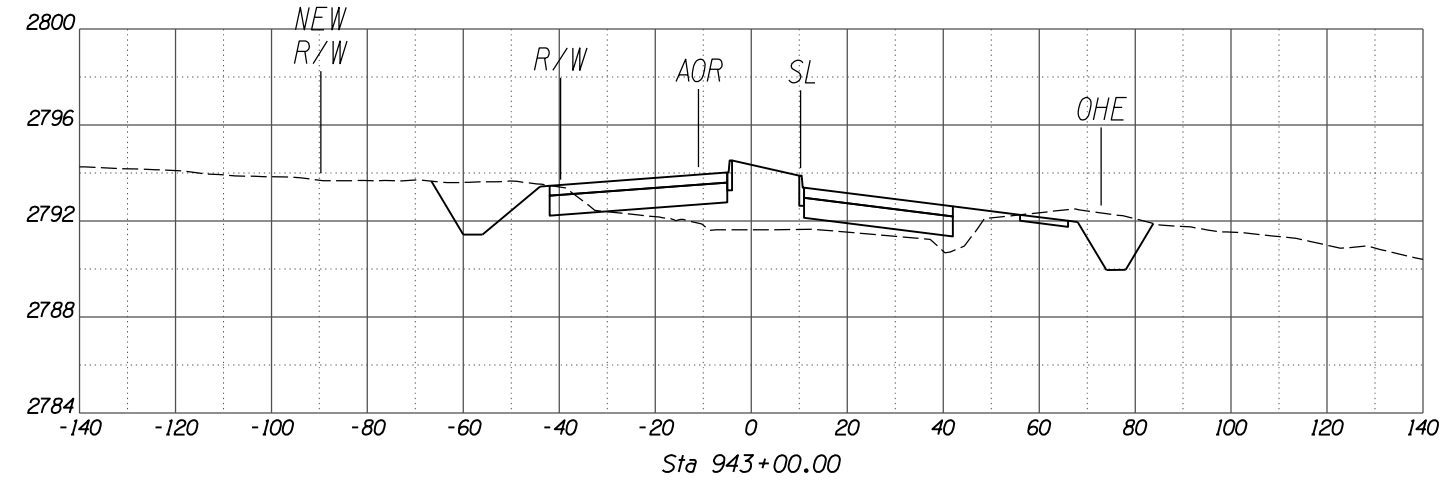
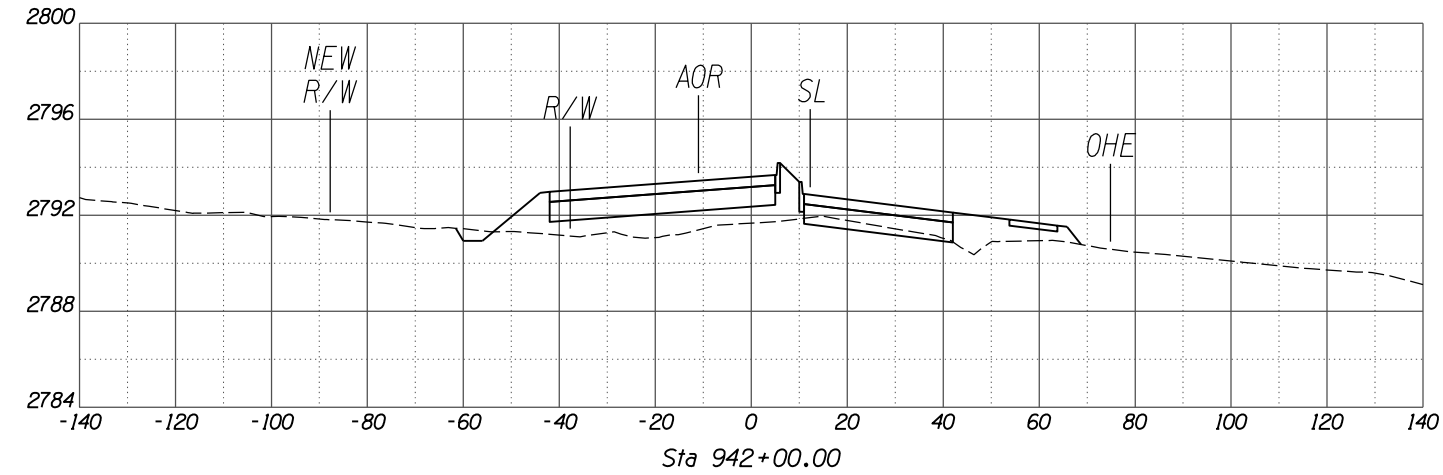
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

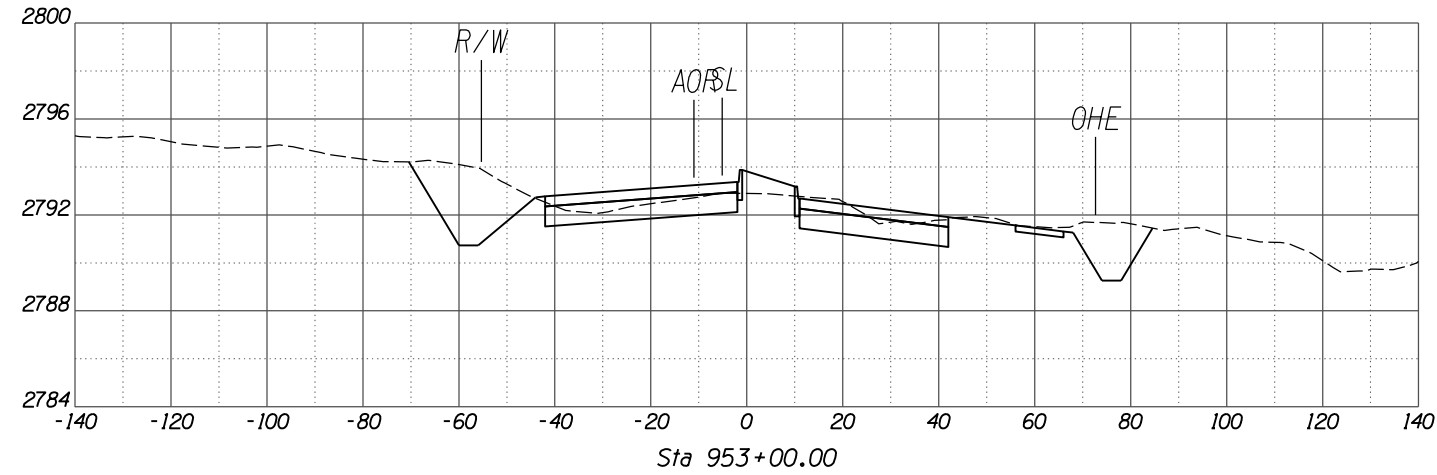
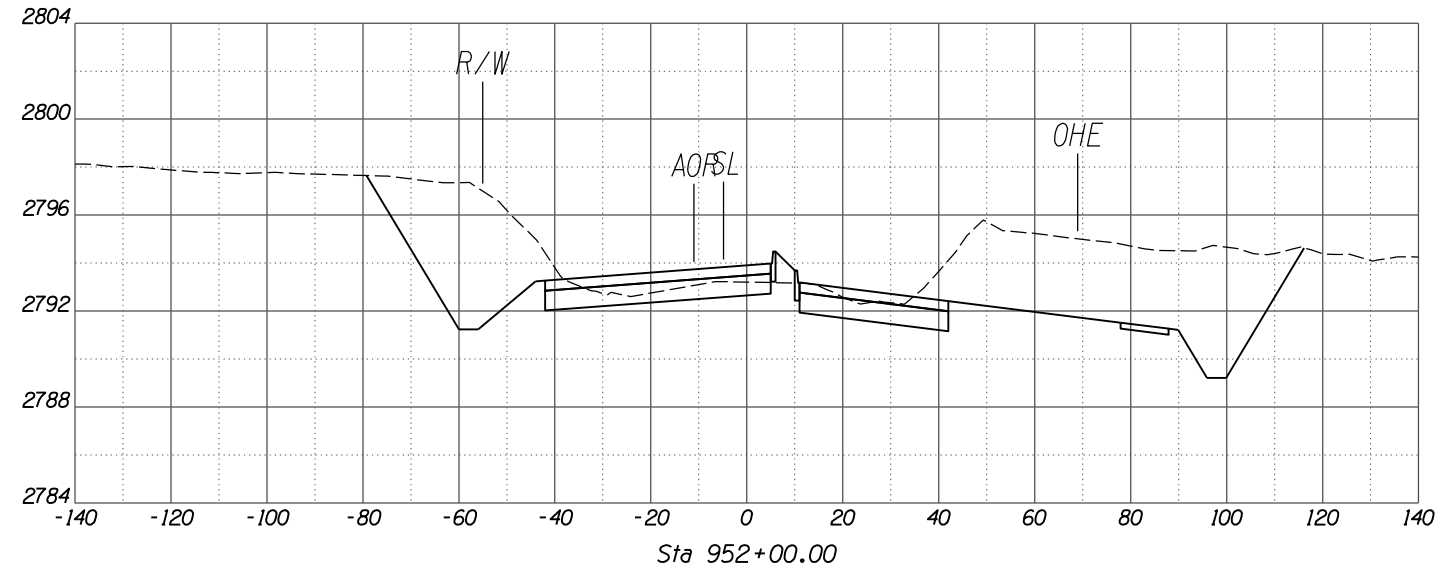
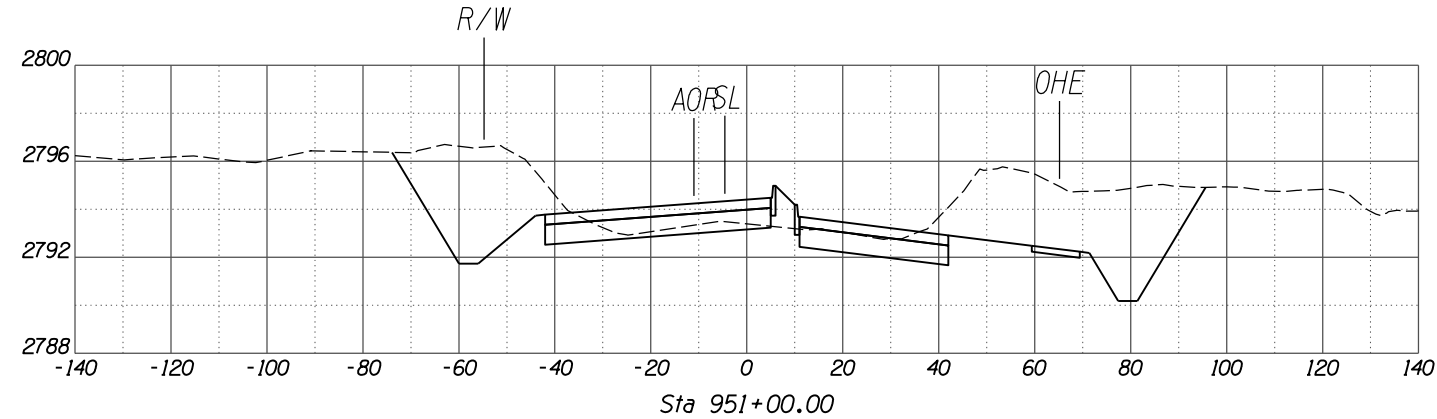
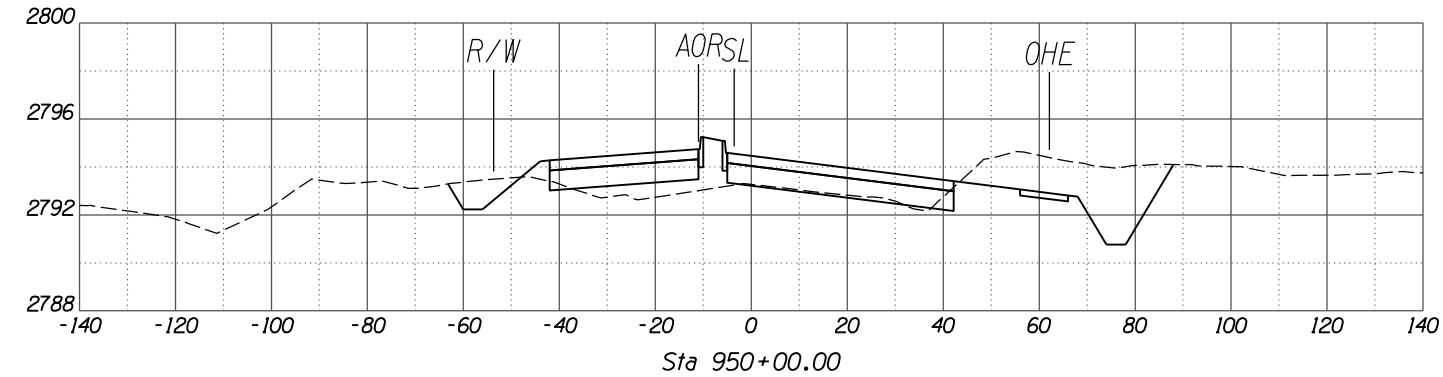
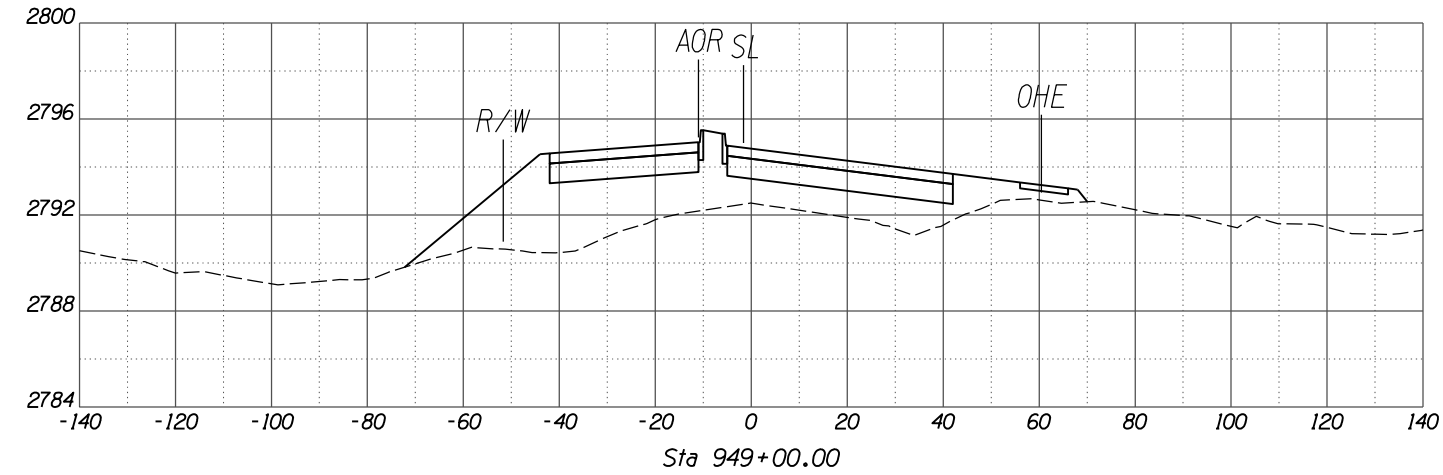
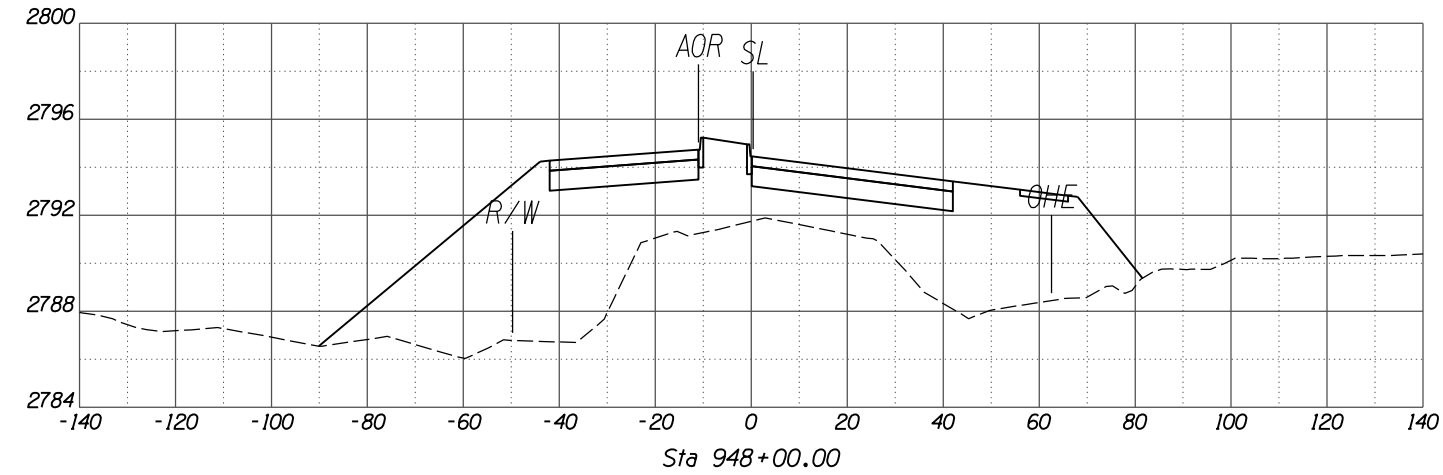
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

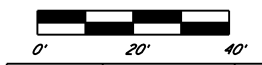
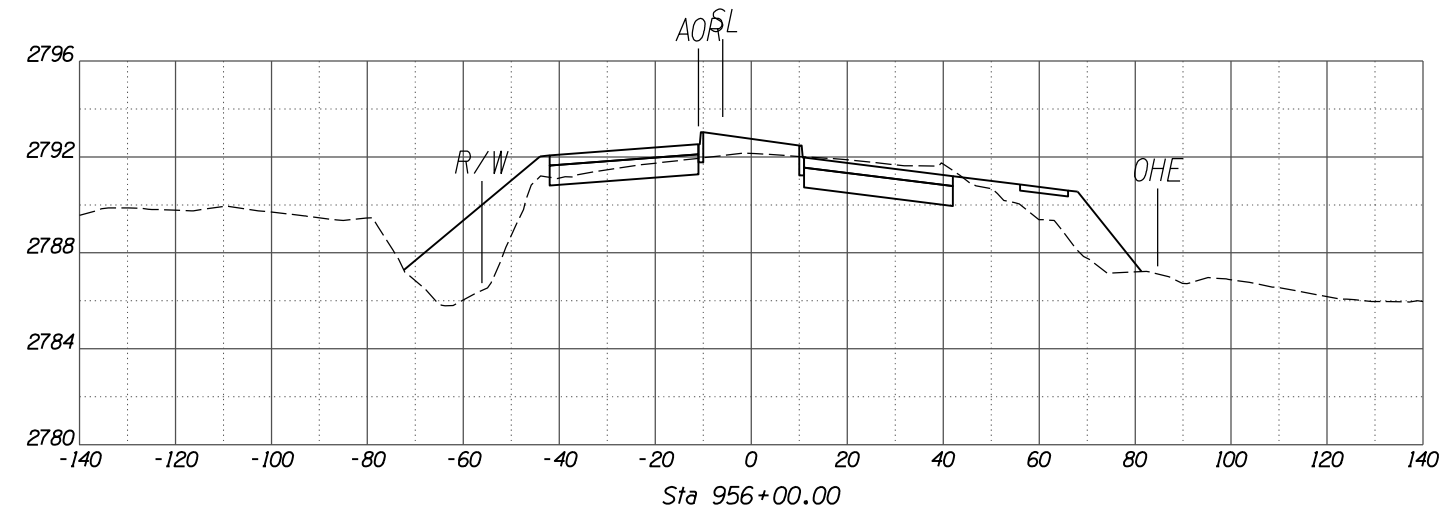
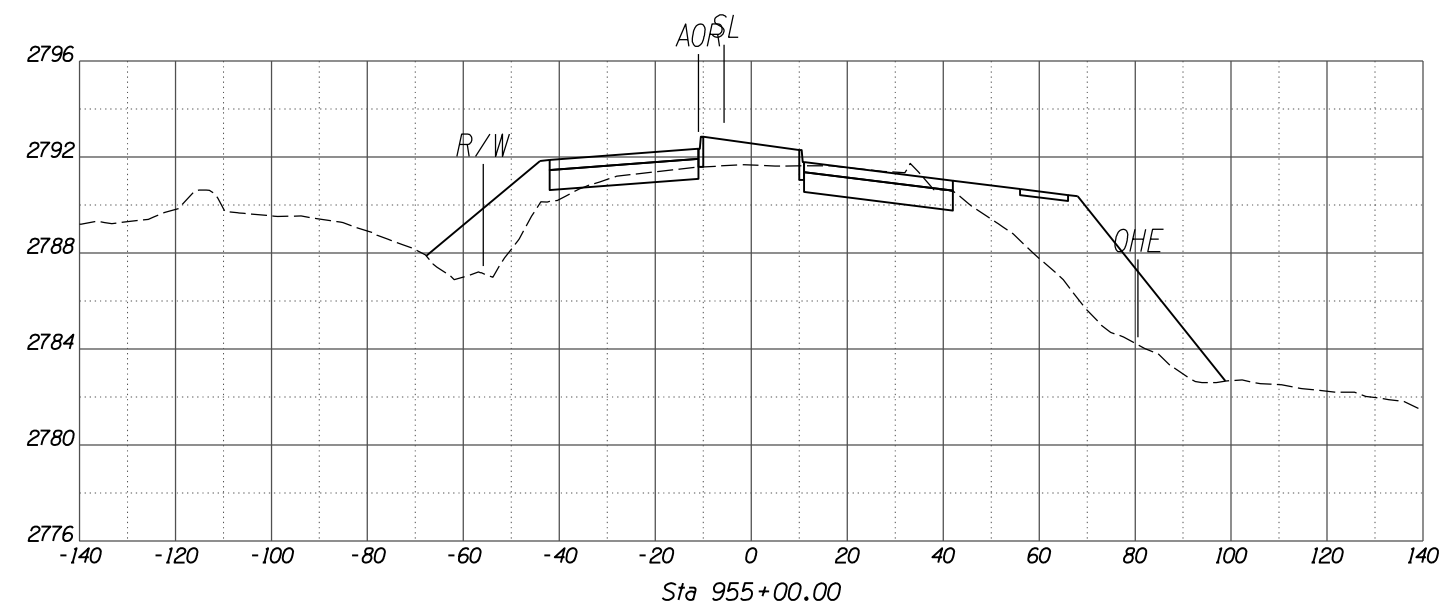
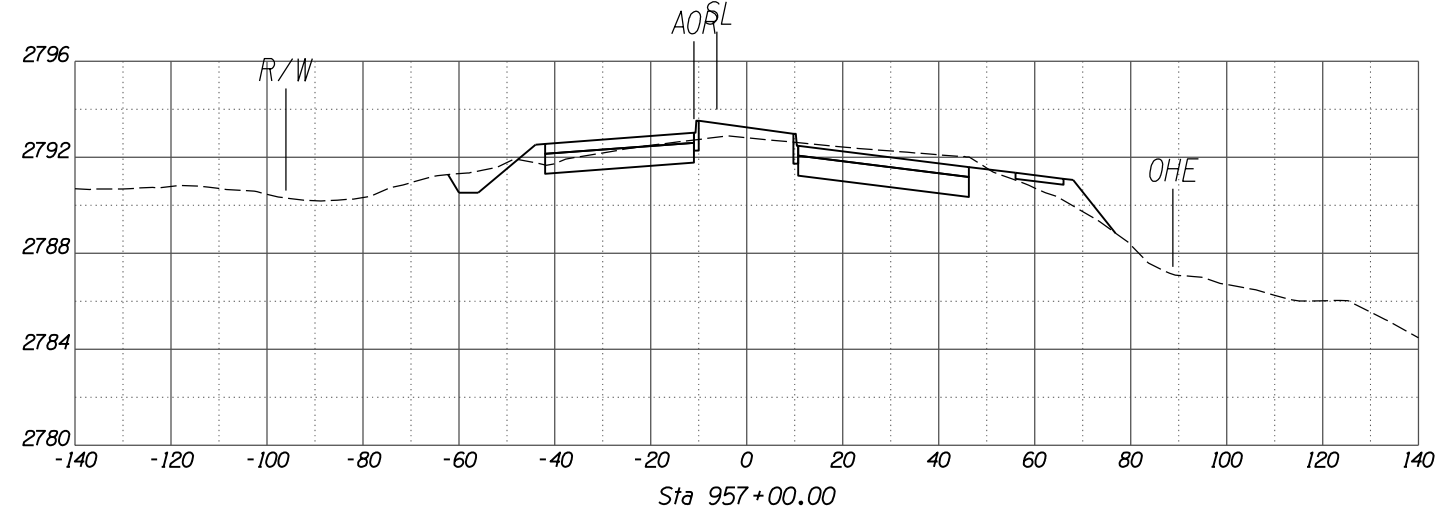
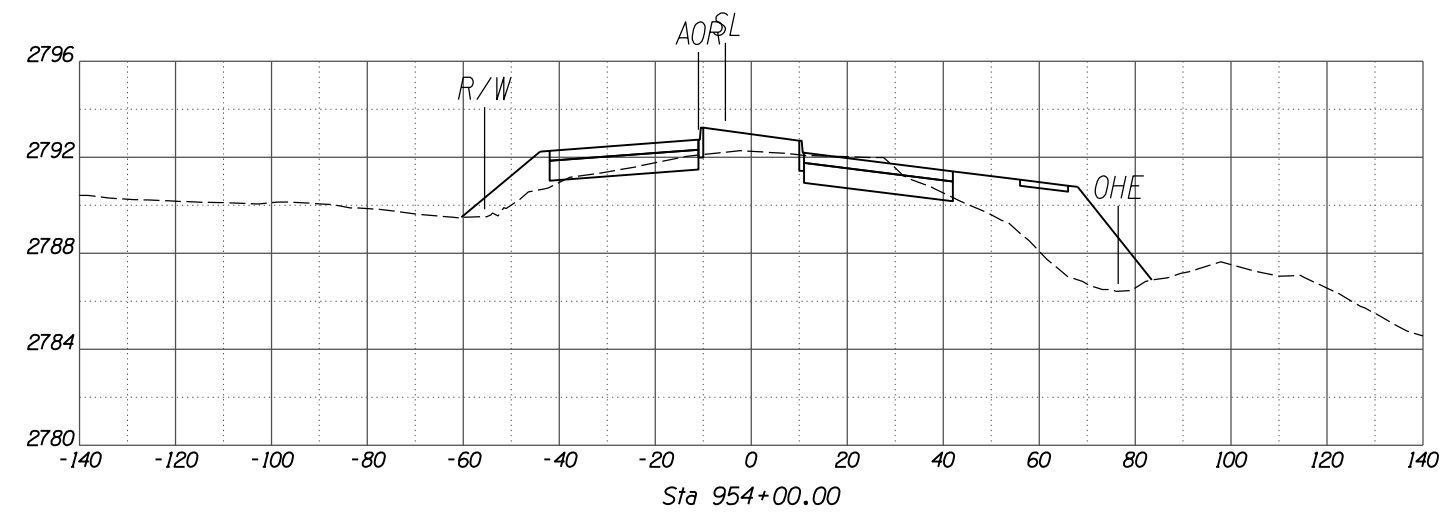
NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER	DATE
1	DESIGNED	02/13	FIN	02/13
2	DRAWN	02/13	TWP	02/13
3	CHECKED	02/13	MDA	02/13
4	PROJ. ENG.	02/13	MDA	02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS30 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

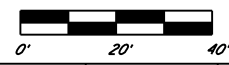
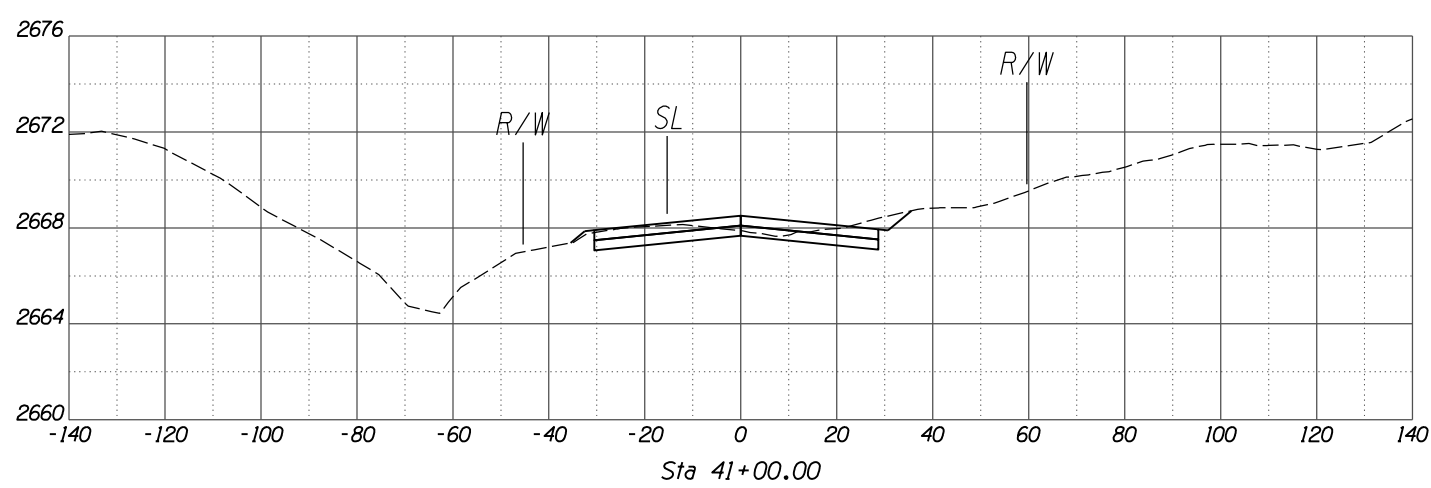
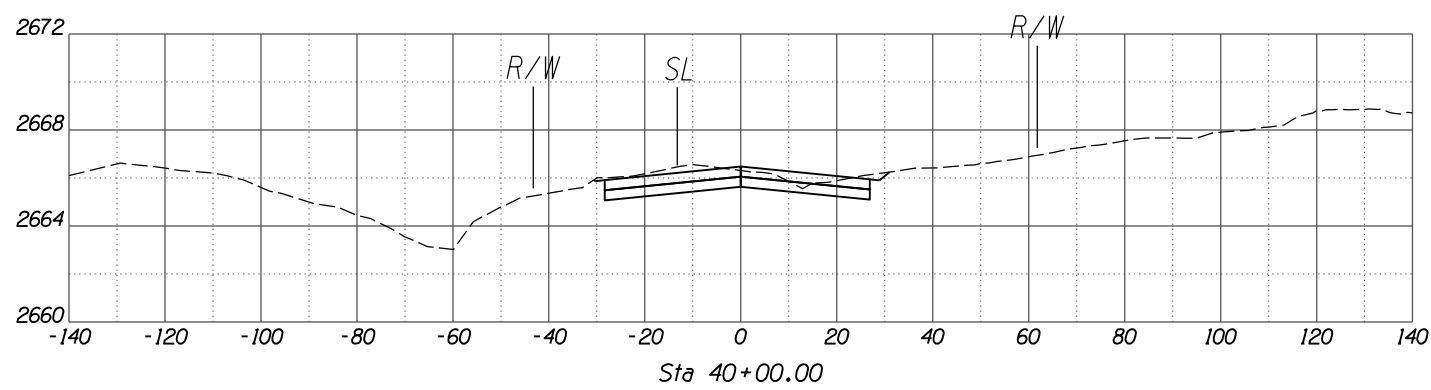
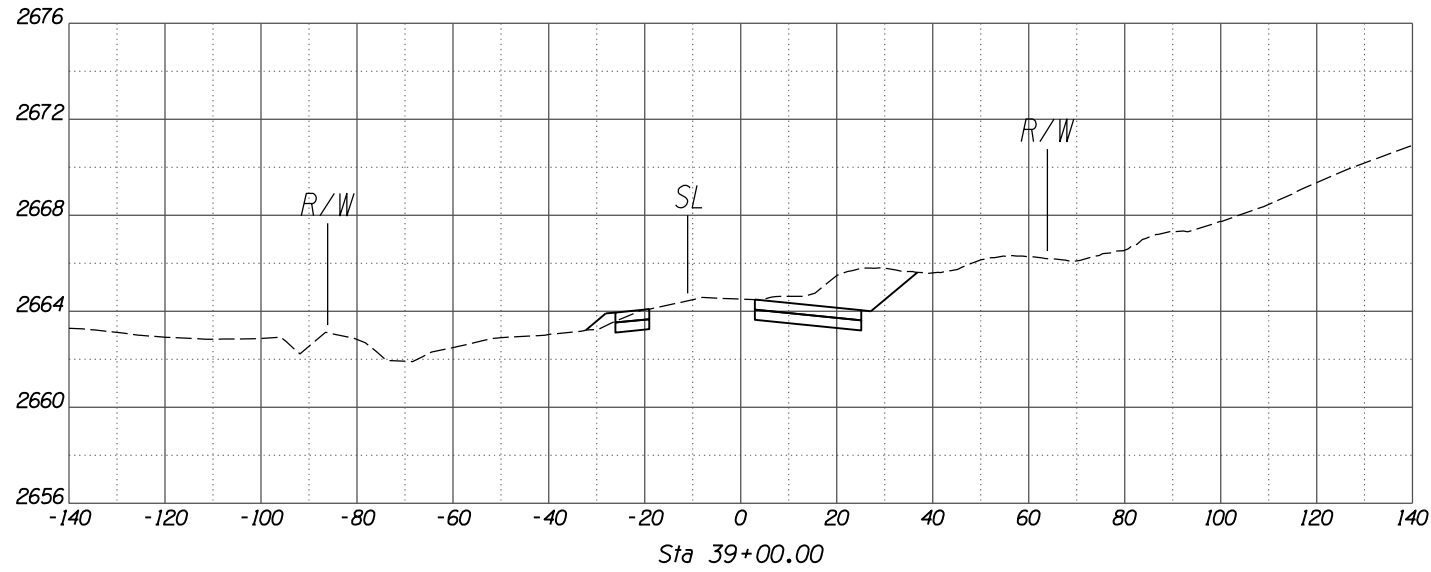
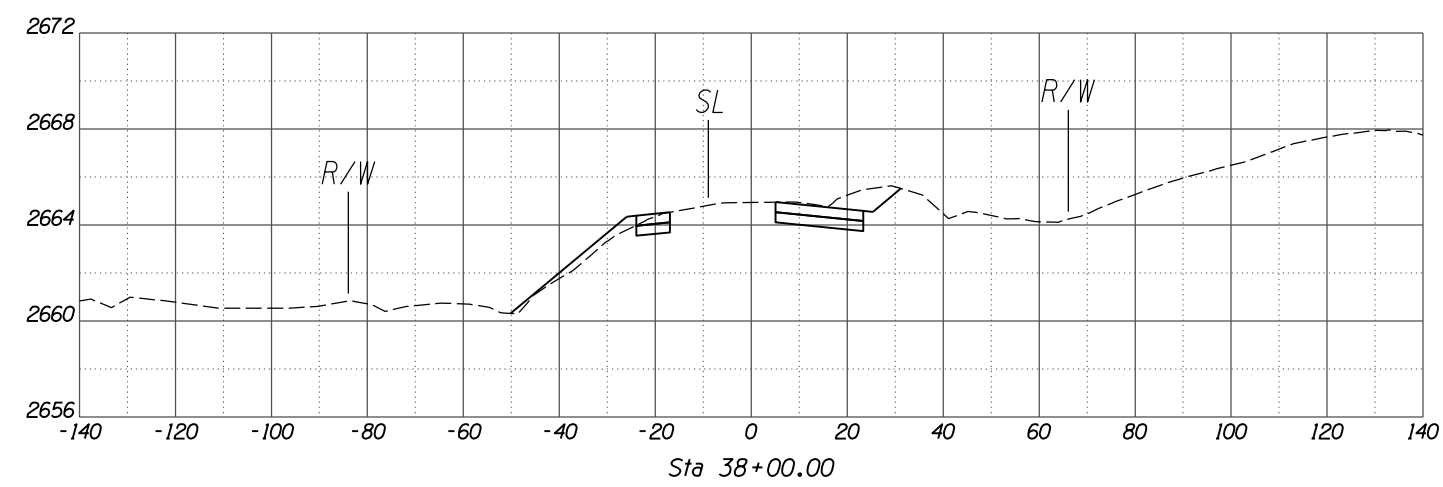
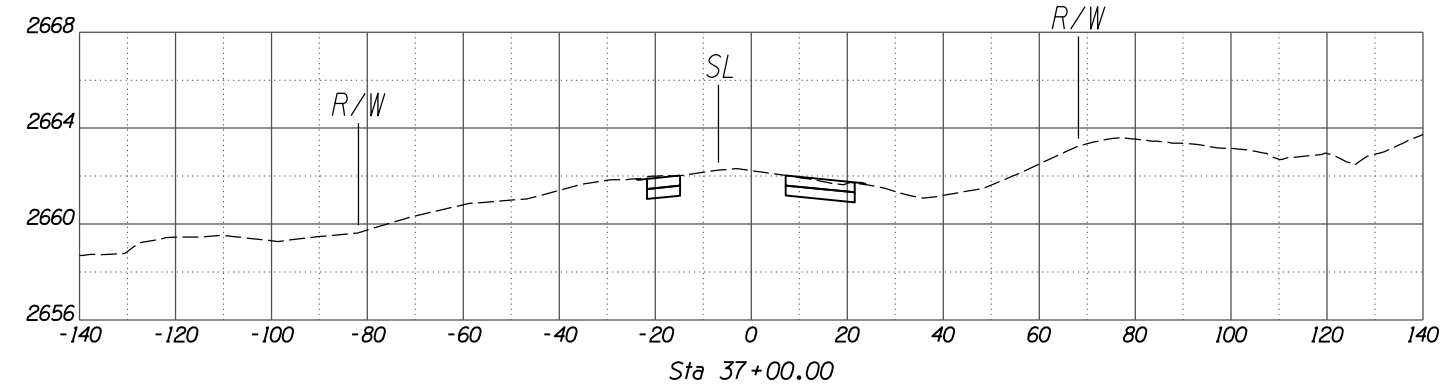
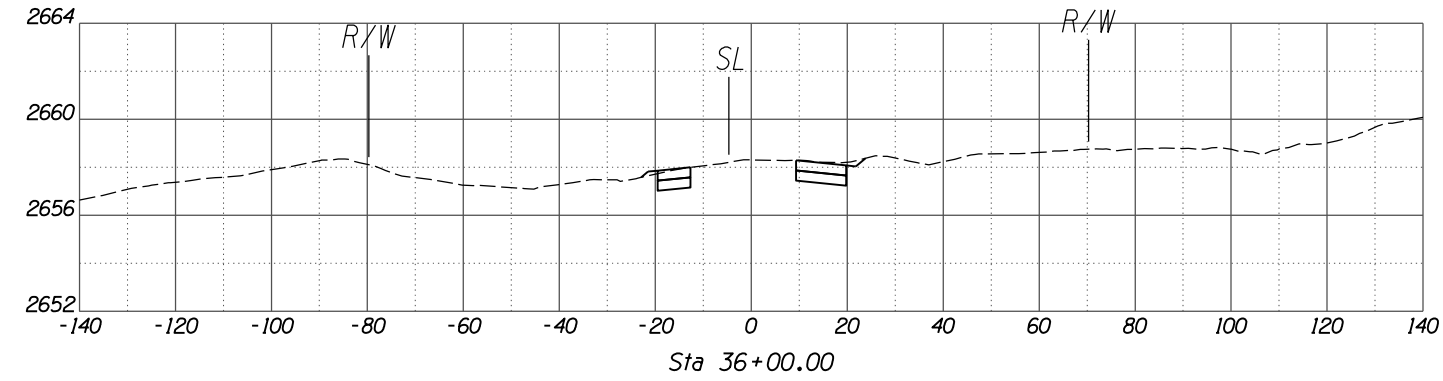
CROSS SECTIONS
FOR
TANGERINE ROAD
TANGERINE ROAD

Kittelson & Associates, Inc.
33 North Stone Ave., Suite 800
Tucson, AZ 85701
(520) 544-4067

30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	ENGINEER

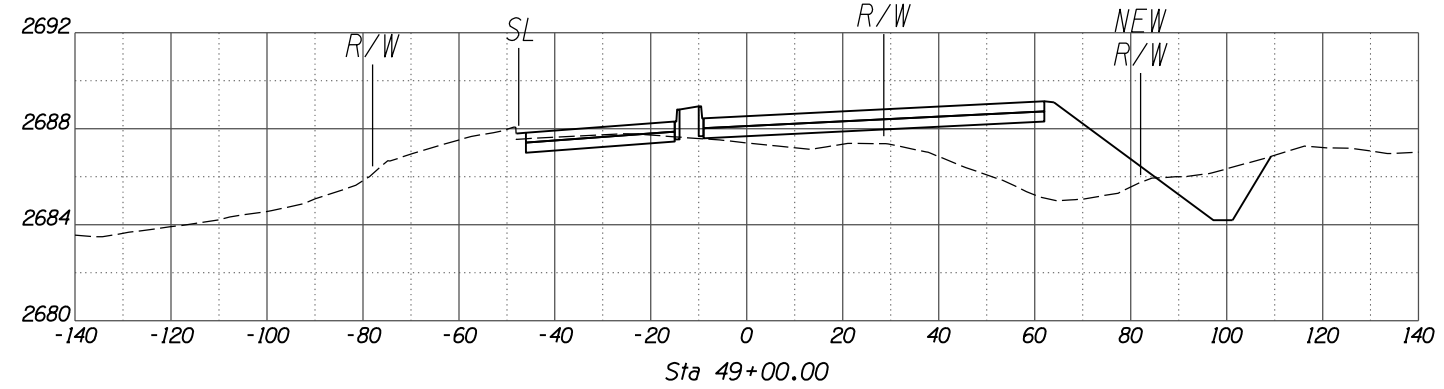
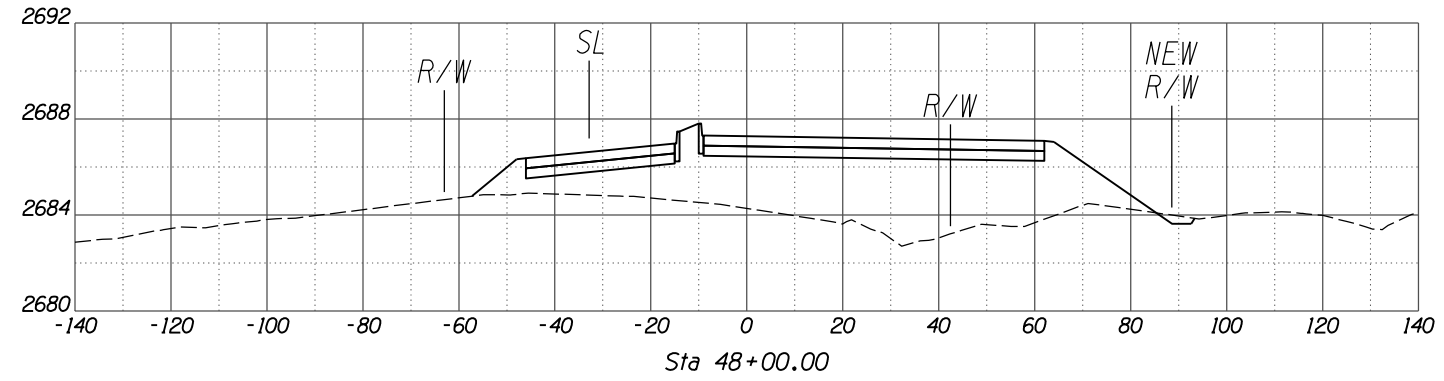
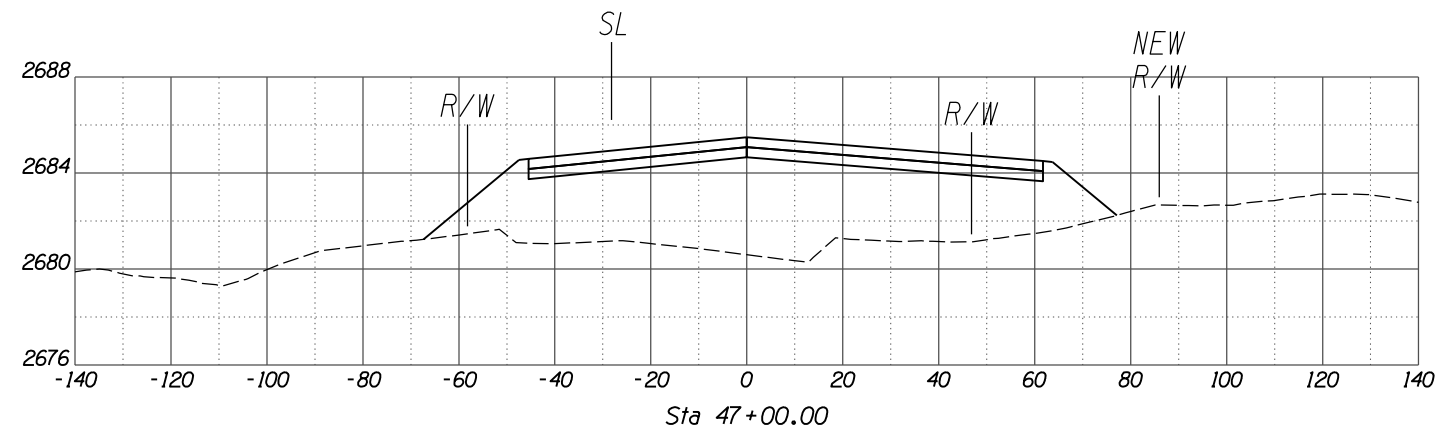
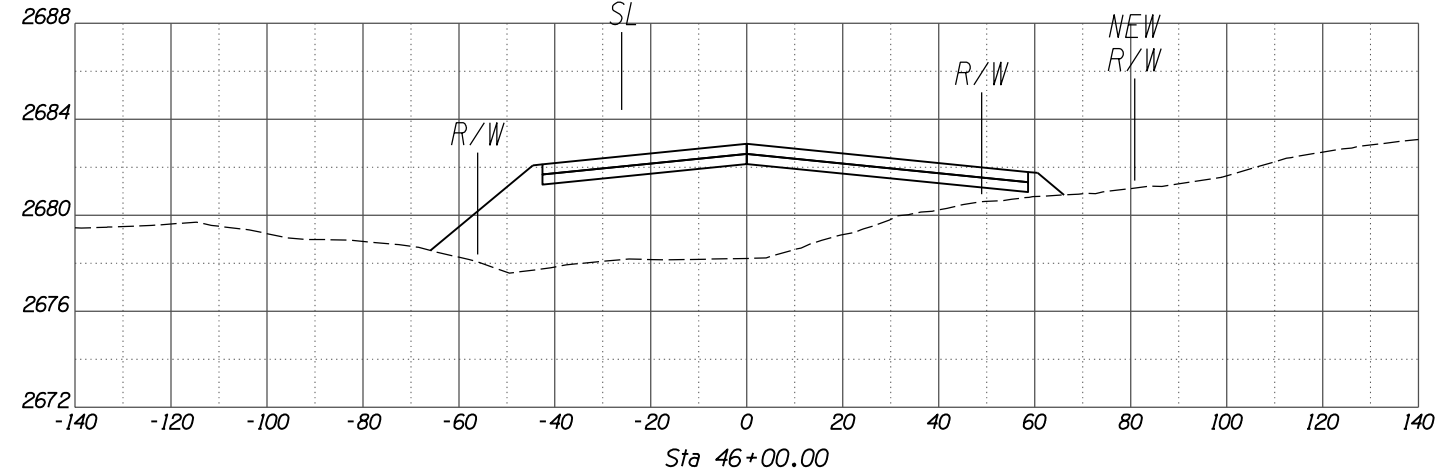
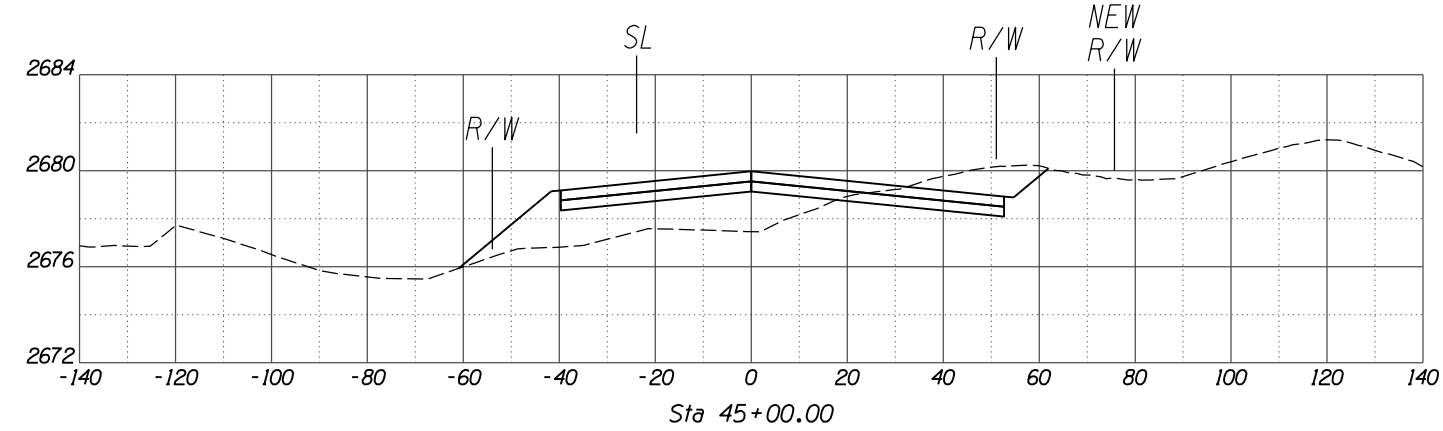
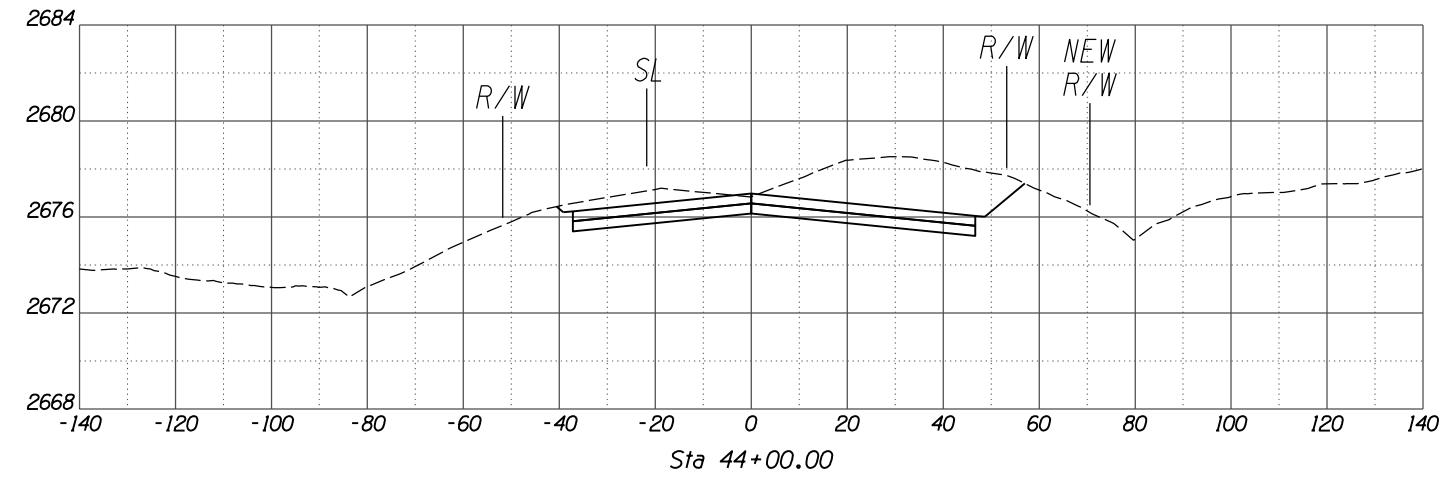
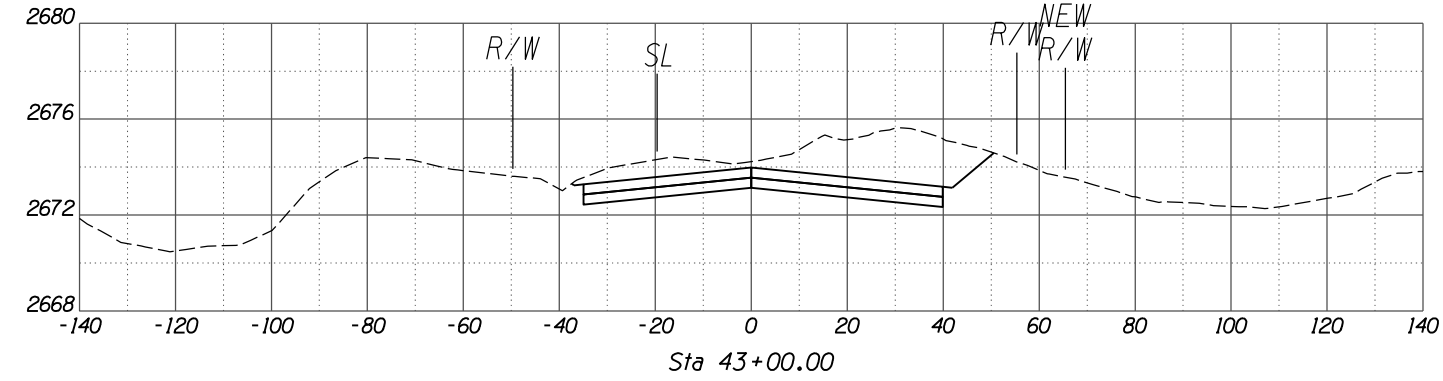
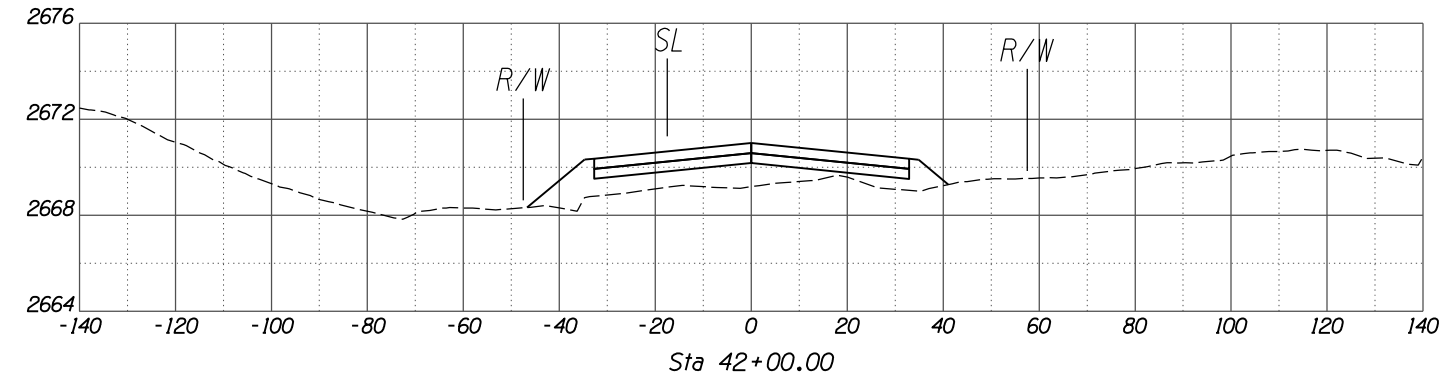
DESIGNED BY	CHECKED BY	PROJ. ENG.	DATE



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

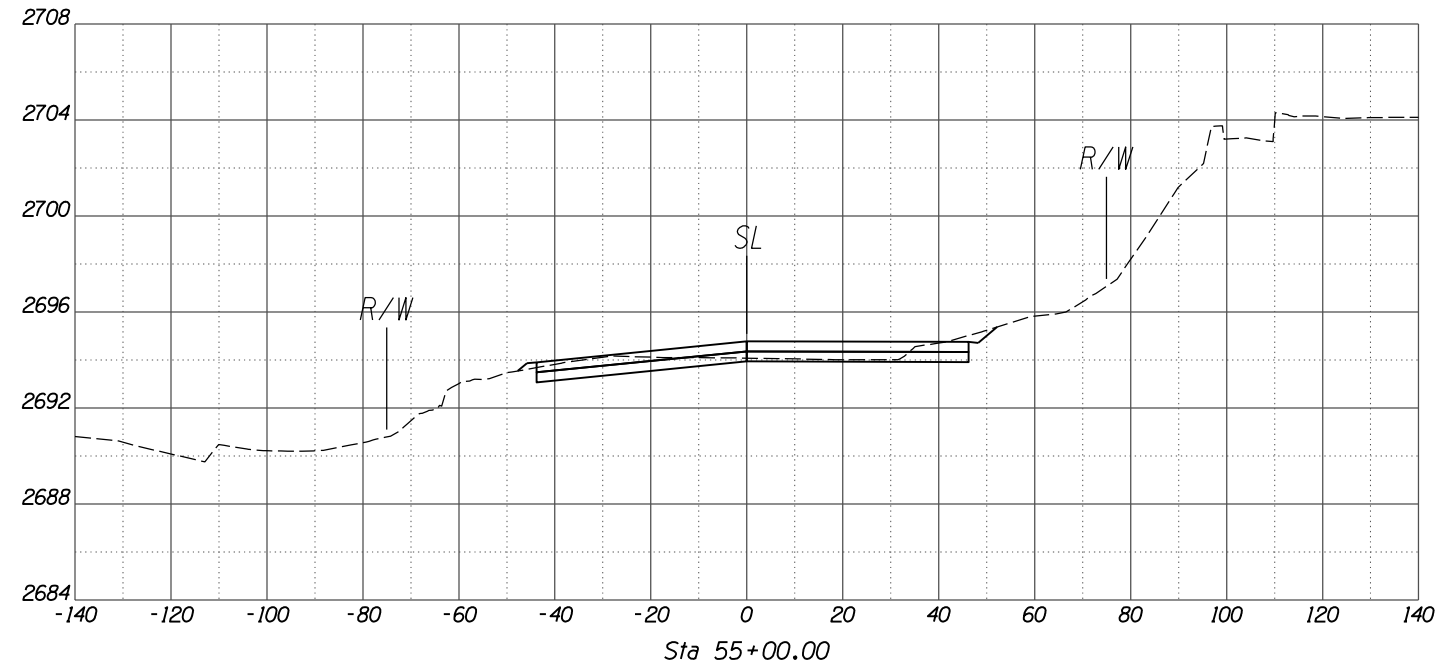
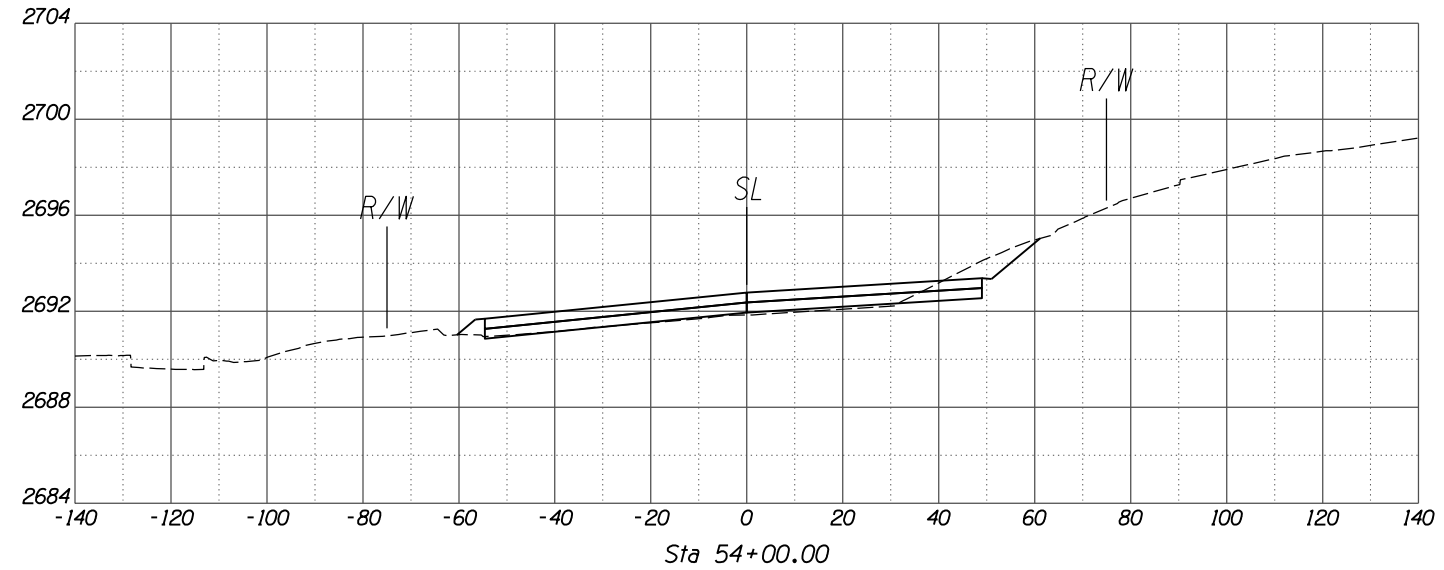
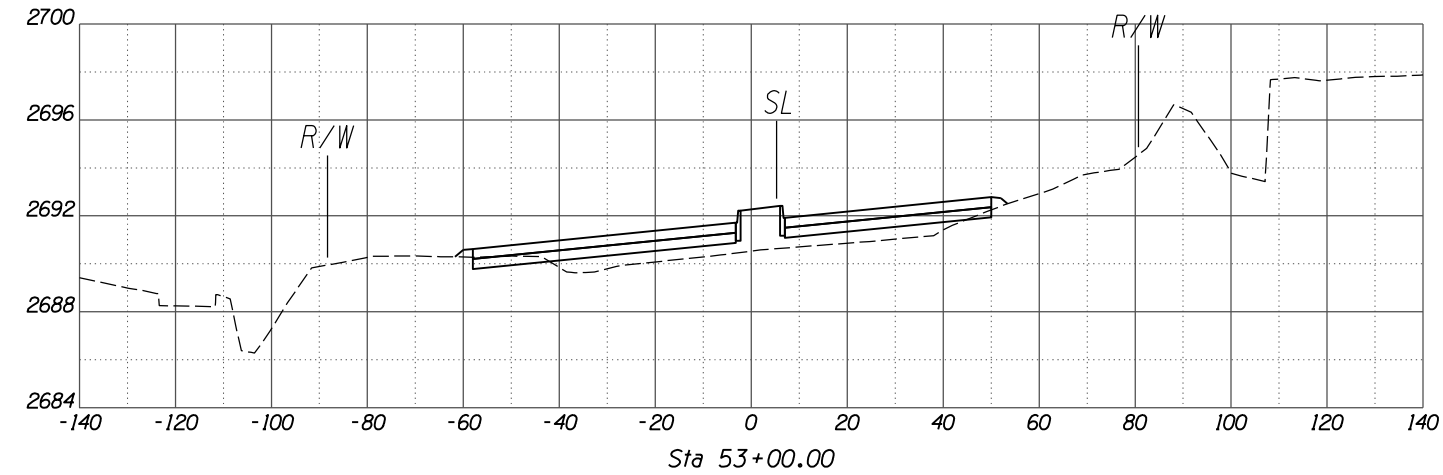
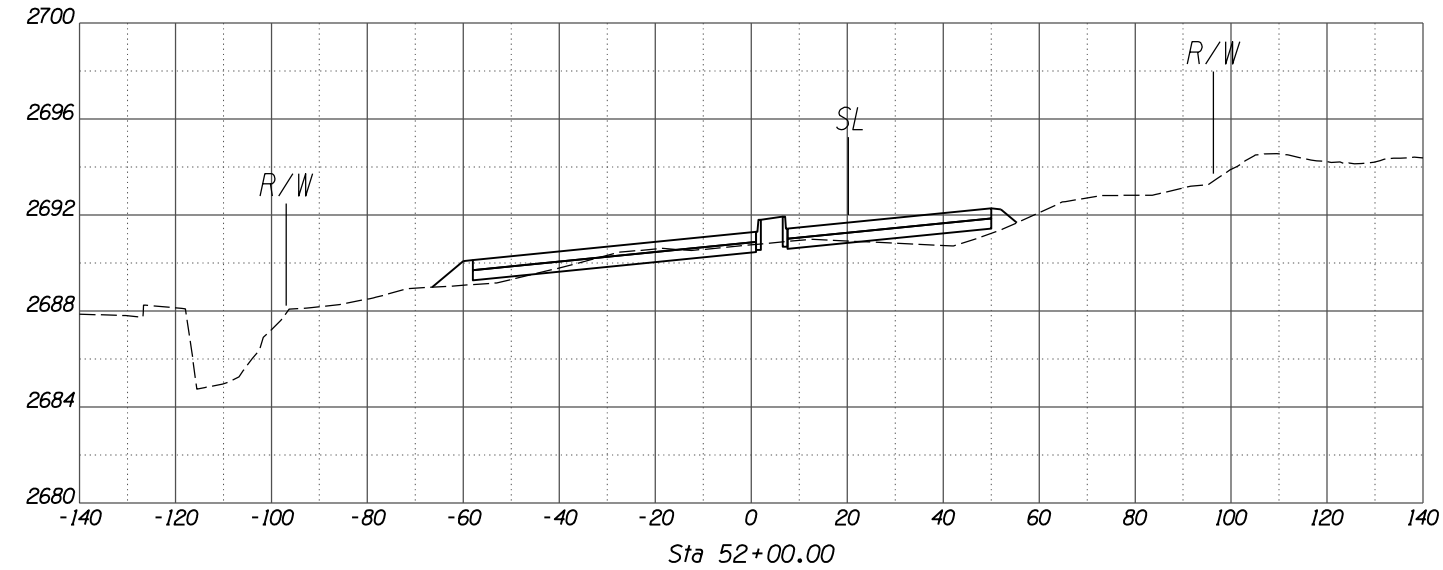
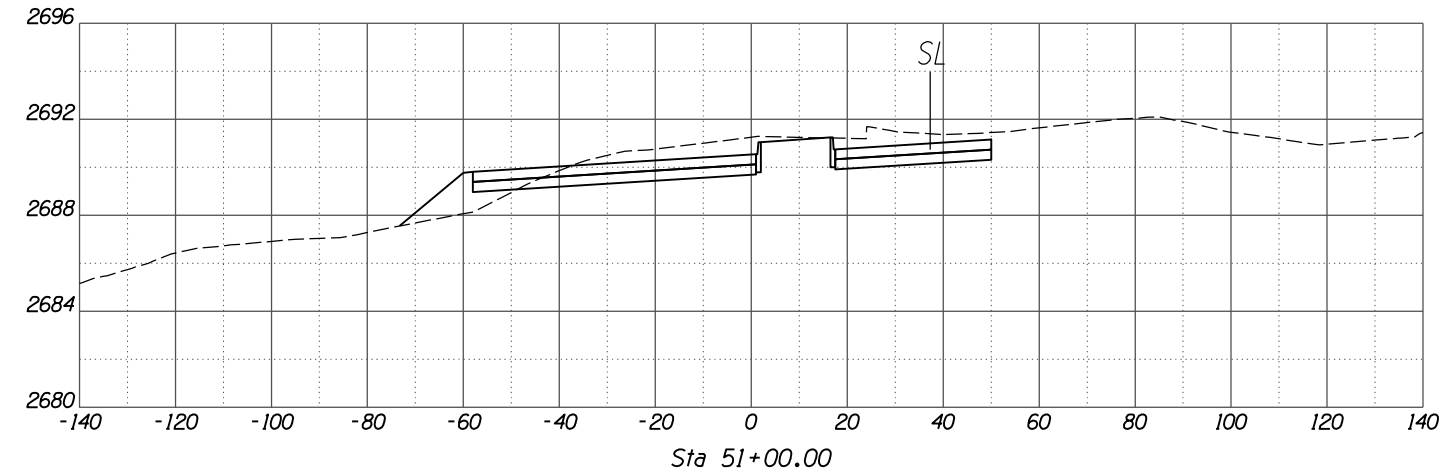
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED BY	DRAWN BY	CHECKED BY	PROJ. ENG.
DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13

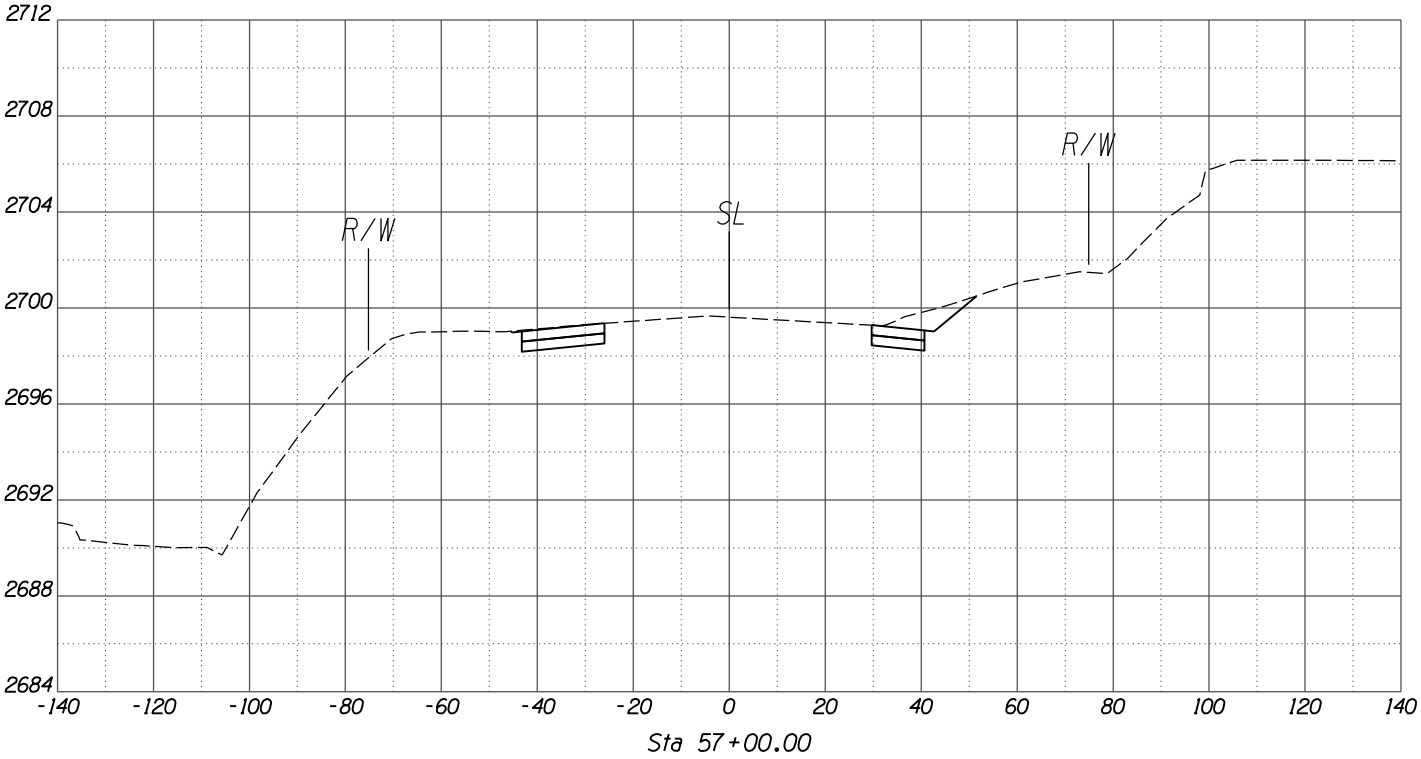
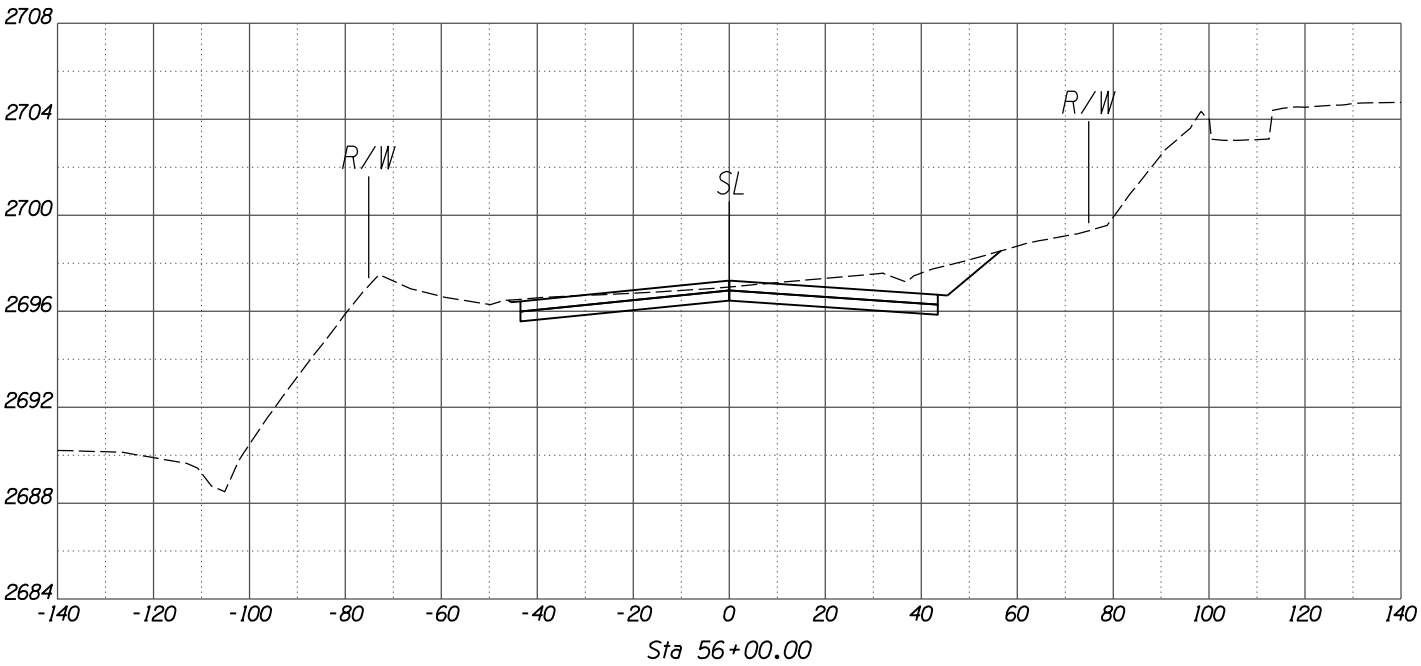


SCALES: HORIZ. 1"=20'
VERT. 1"=4'



DESIGNED	DRAWN	CHECKED	PROJ. ENG.
DATE	DATE	DATE	DATE
02/13	02/13	02/13	02/13

NO.	REVISION DESCRIPTION	DATE	ENGINEER



SCALES:

HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS34 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

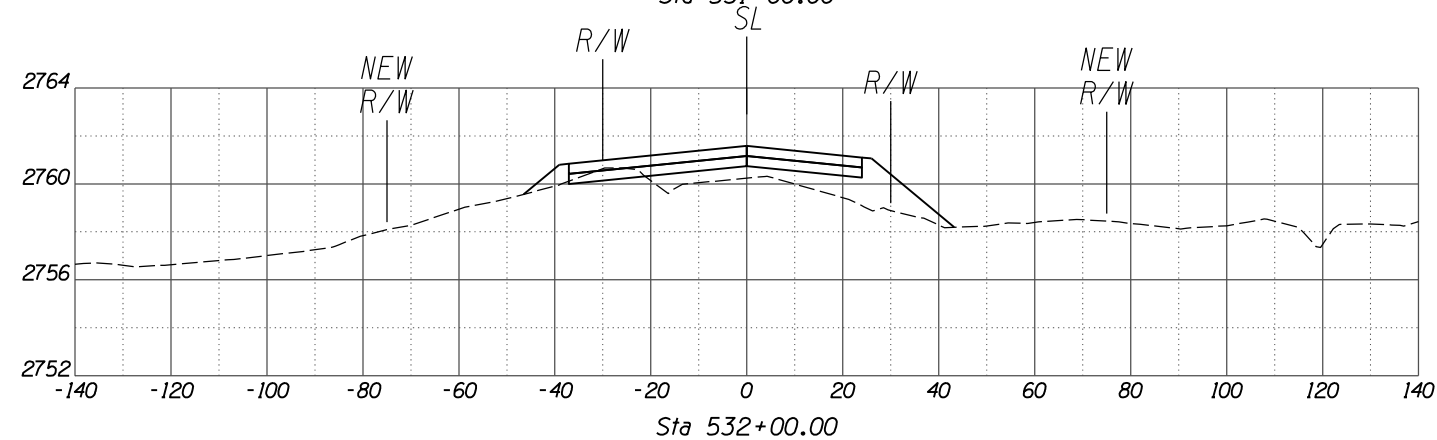
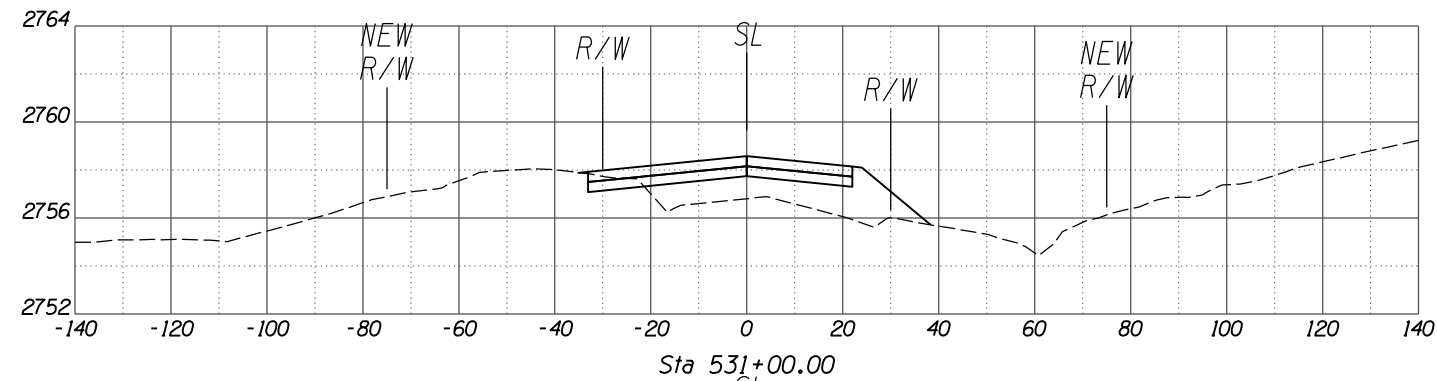
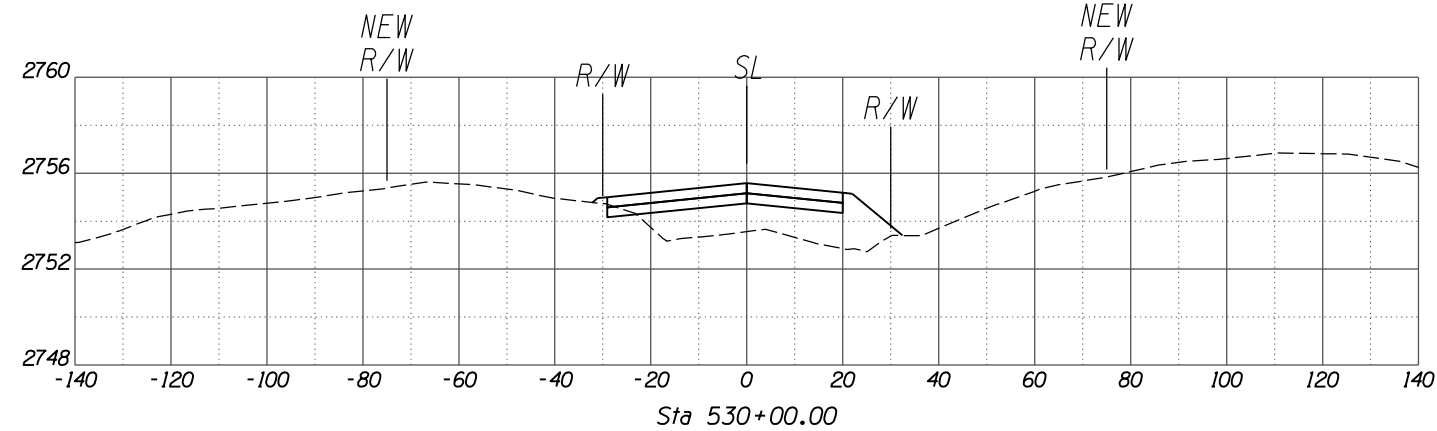
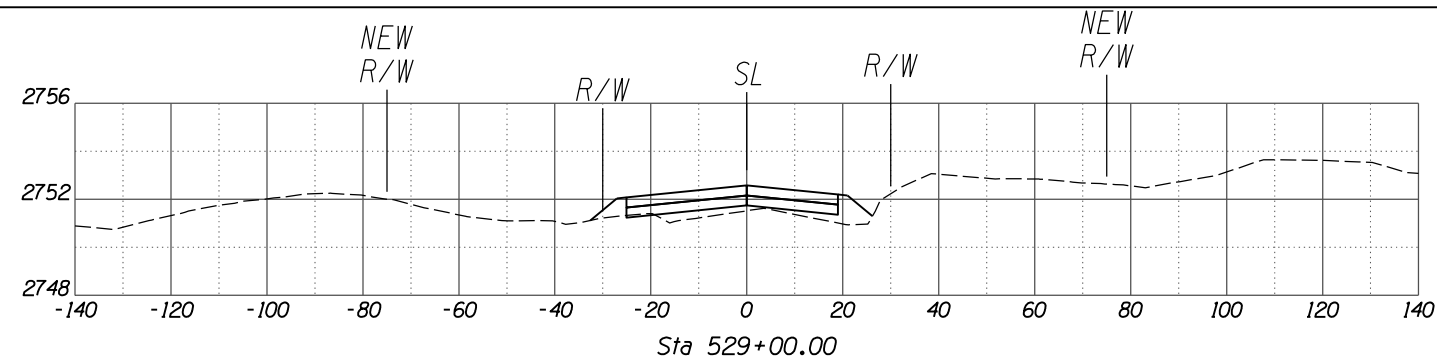
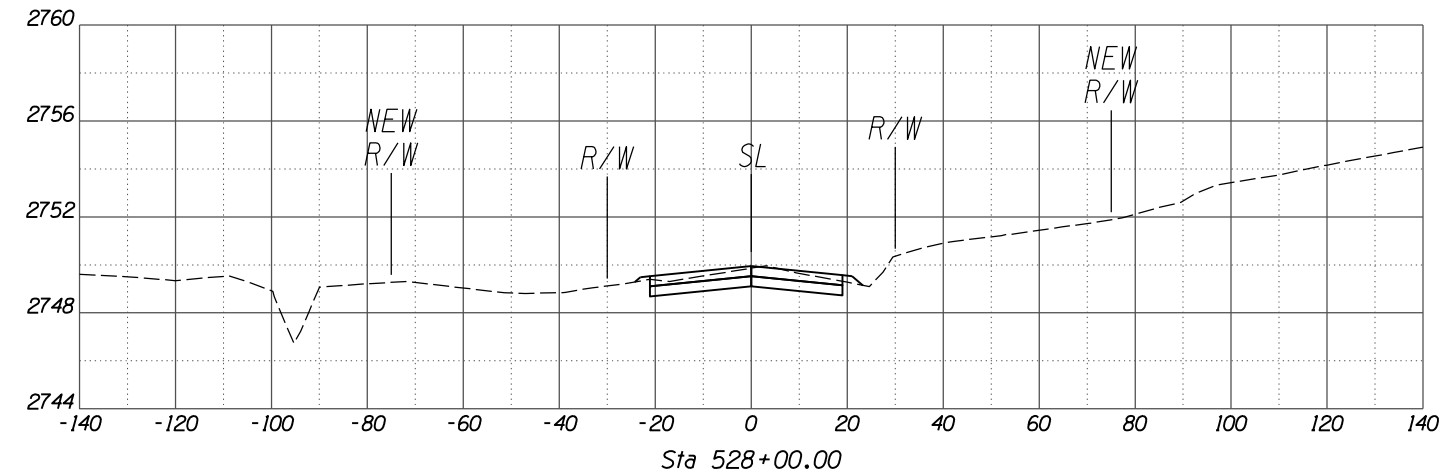
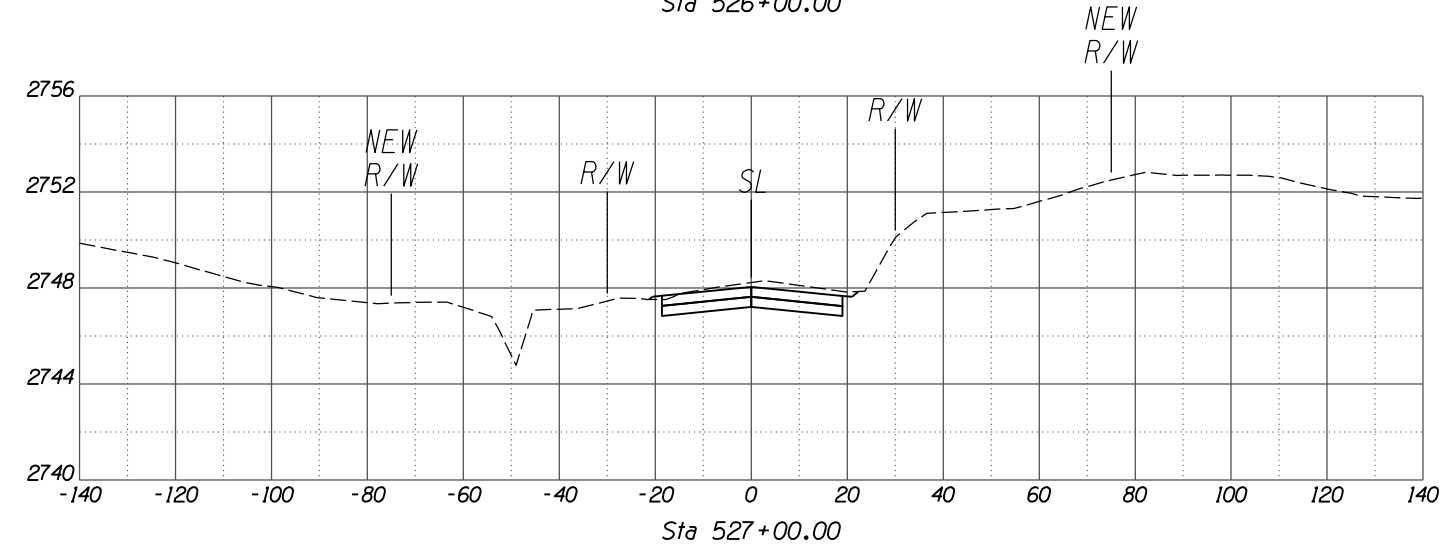
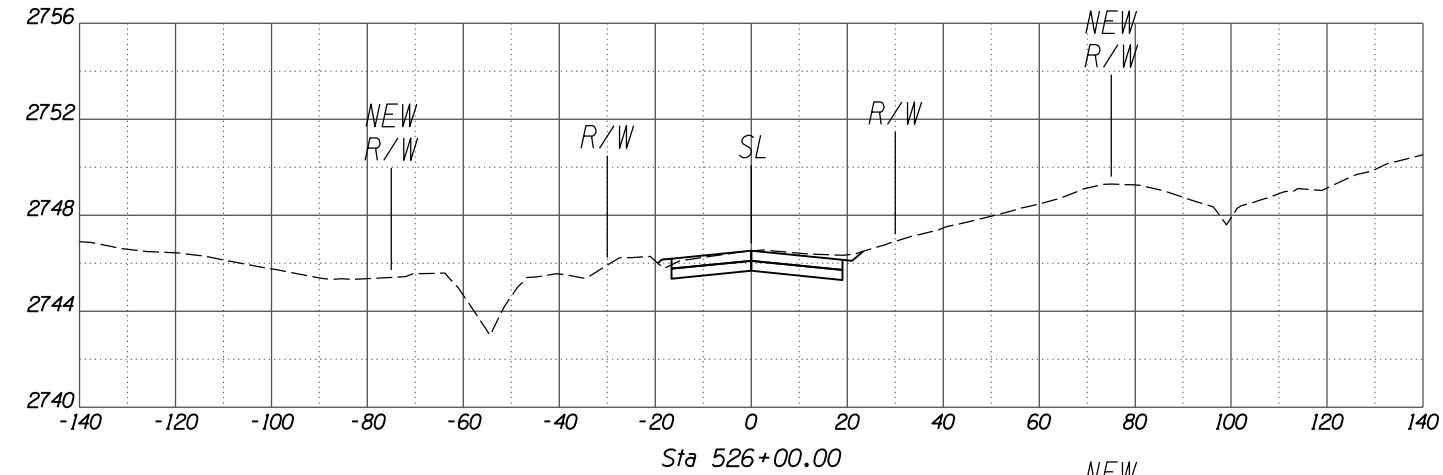
CROSS SECTIONS
FOR
TANGERINE ROAD
THORNYDALE ROAD



30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	ENGINEER

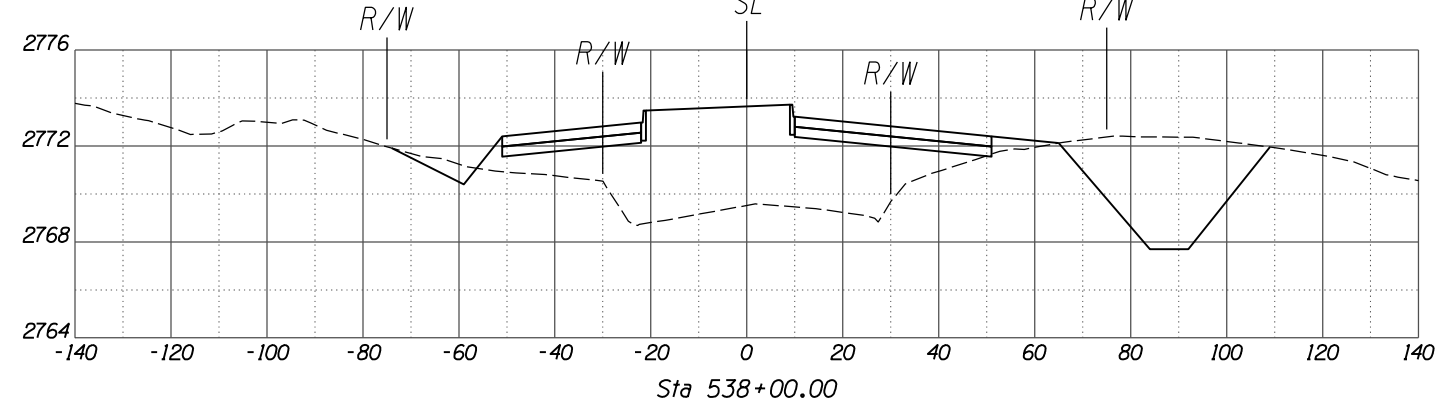
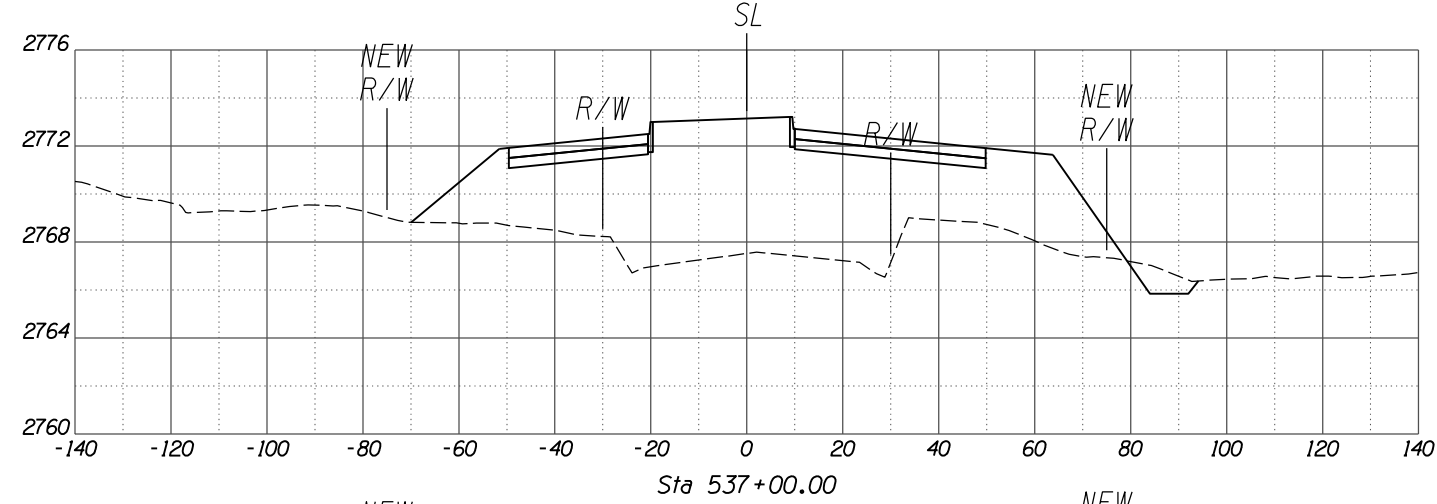
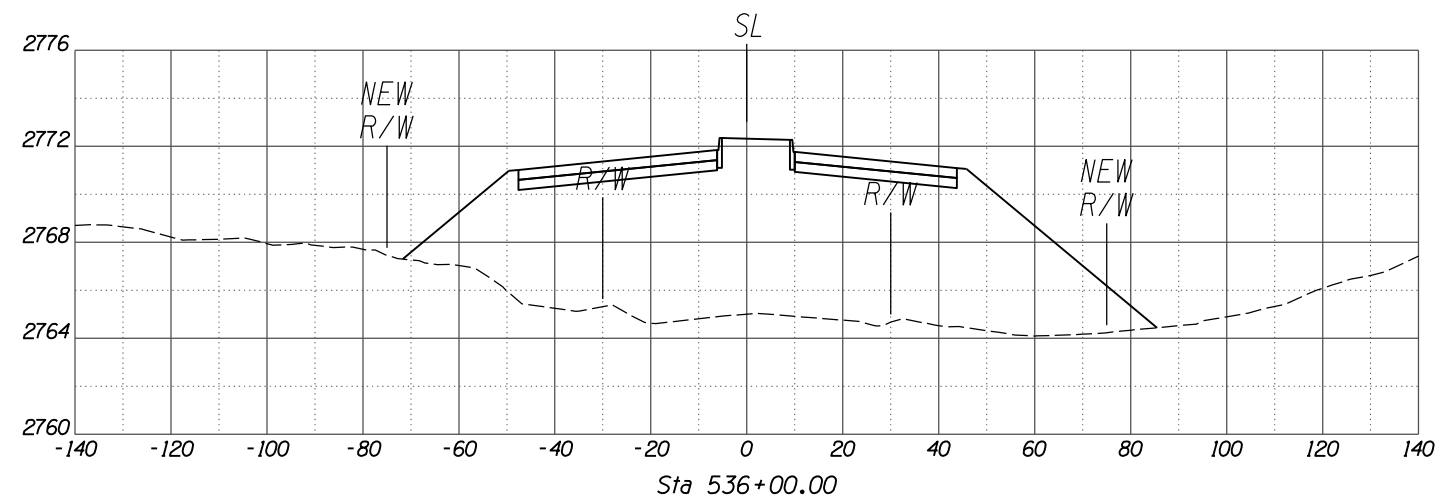
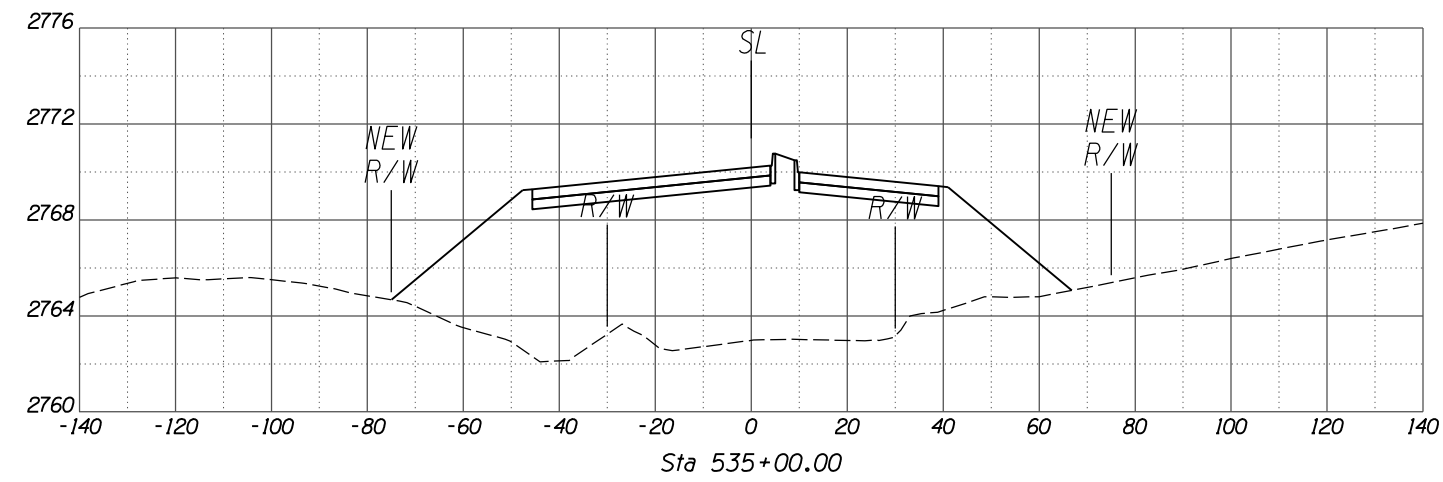
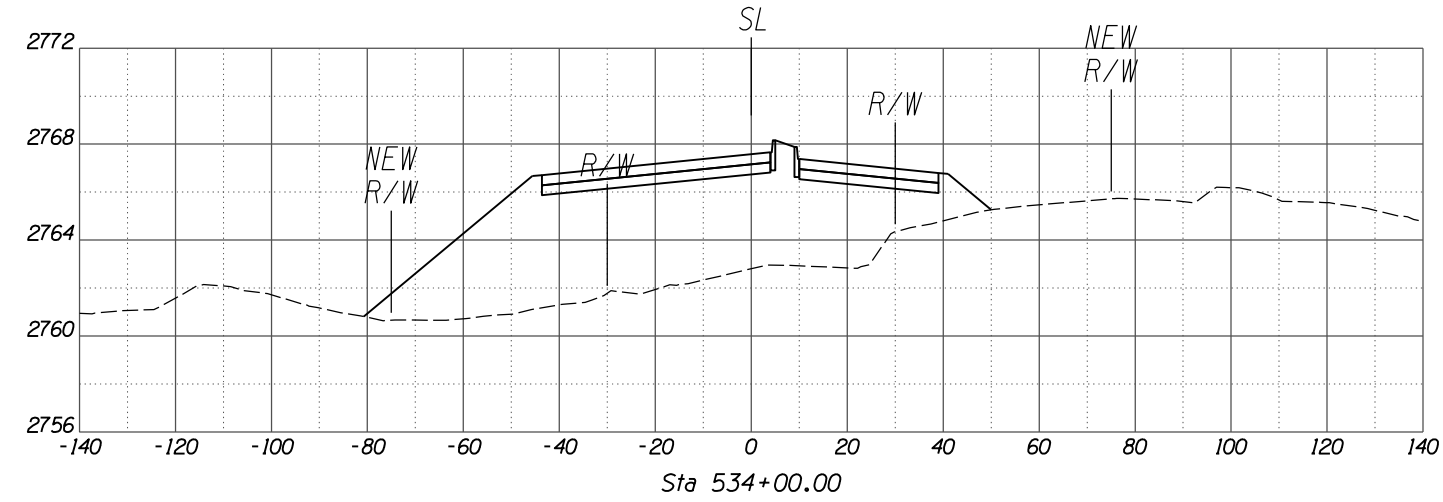
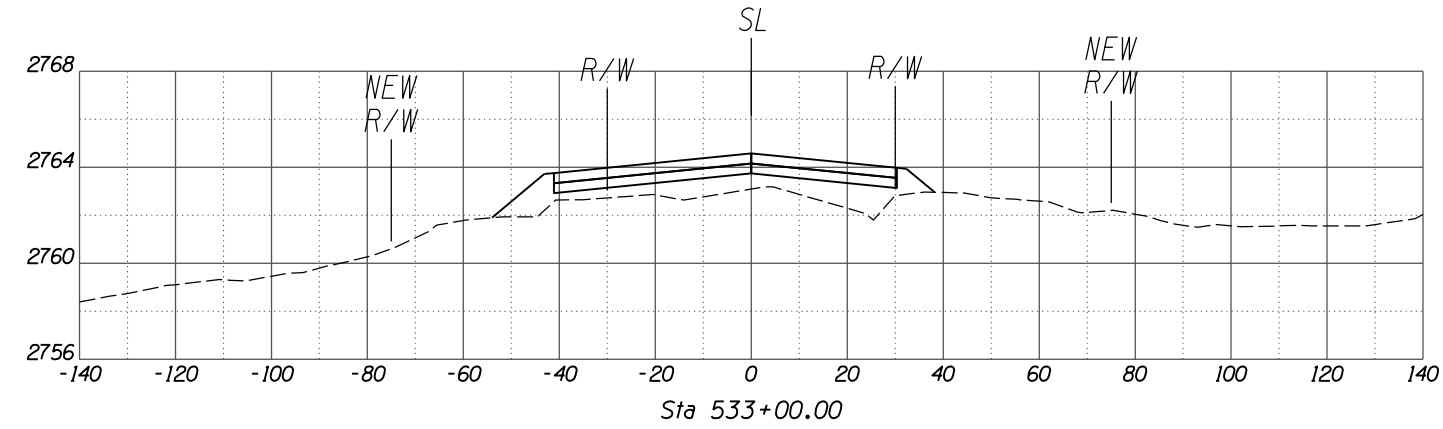
DESIGNED:	BY	DATE
		02/13
CHECKED:	BY	DATE
		02/13
PROJ. ENG.:	BY	DATE
		02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	DIV.	ENGINEER

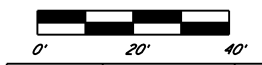
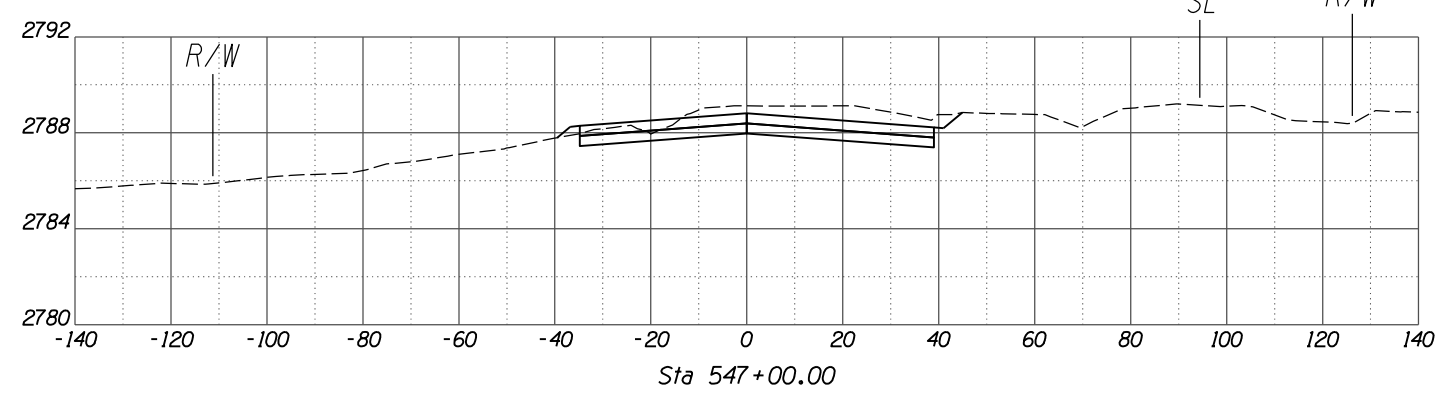
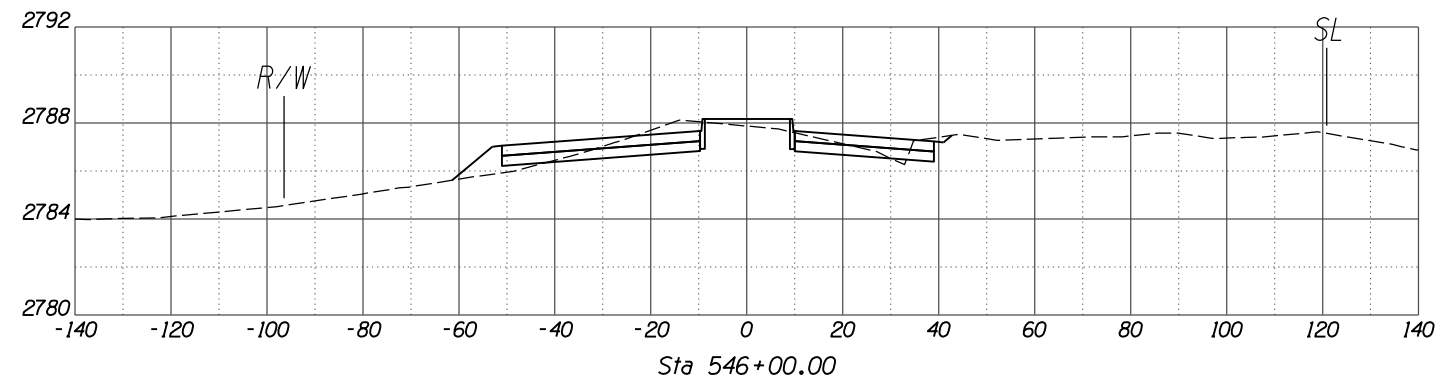
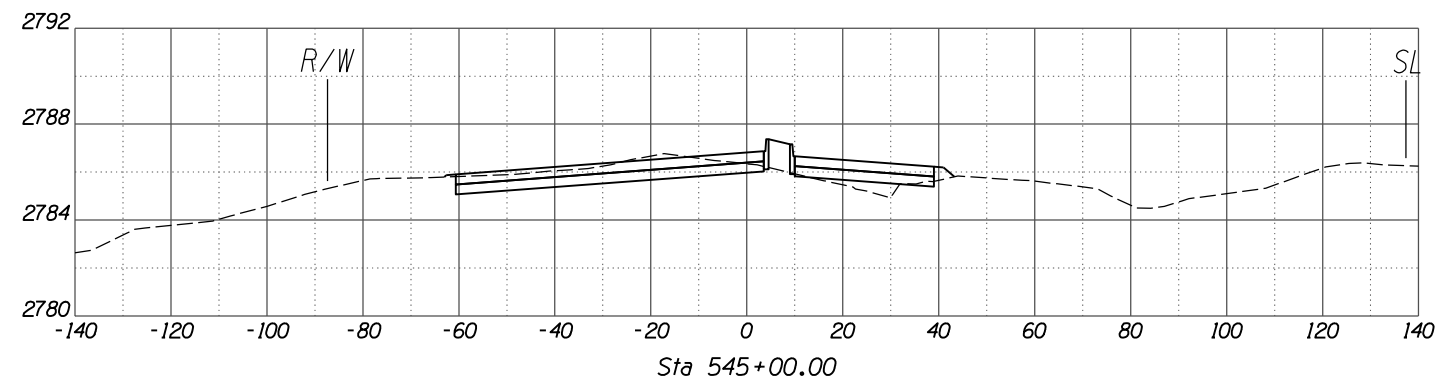
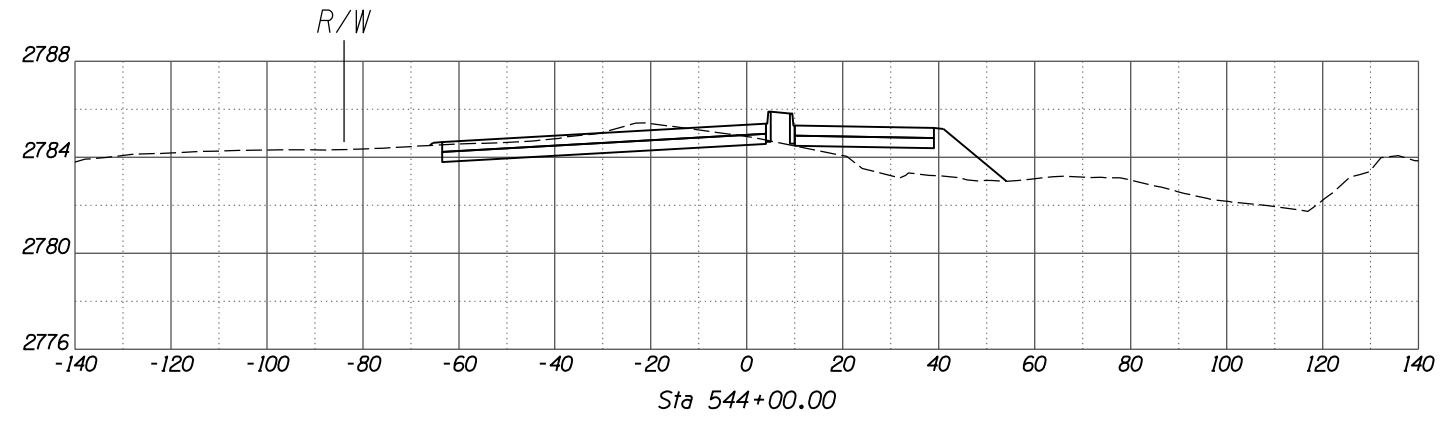
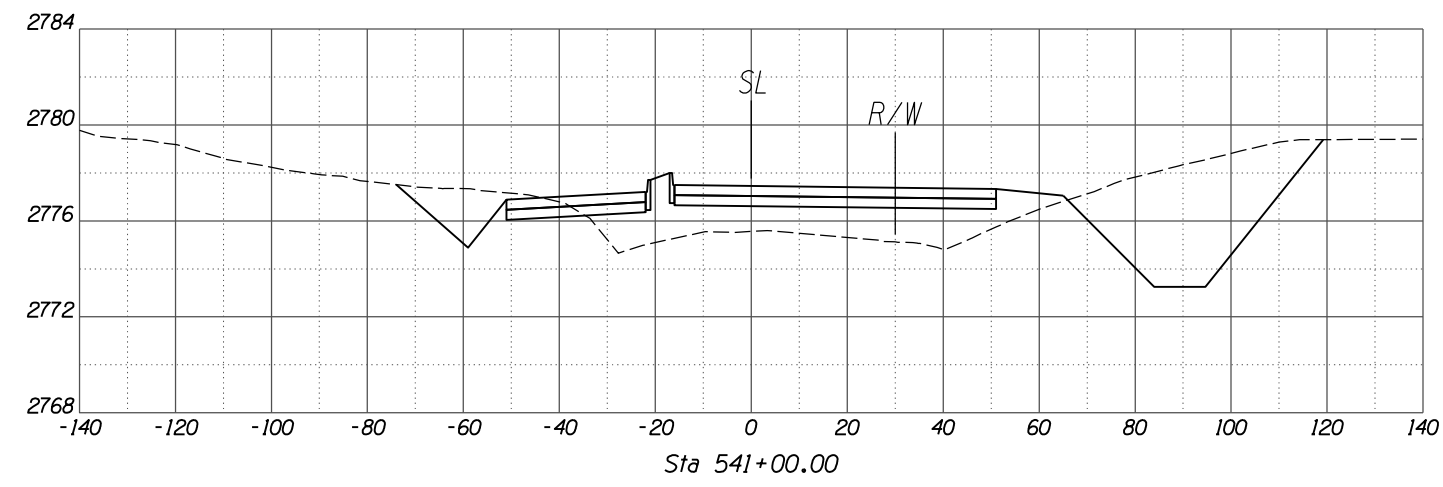
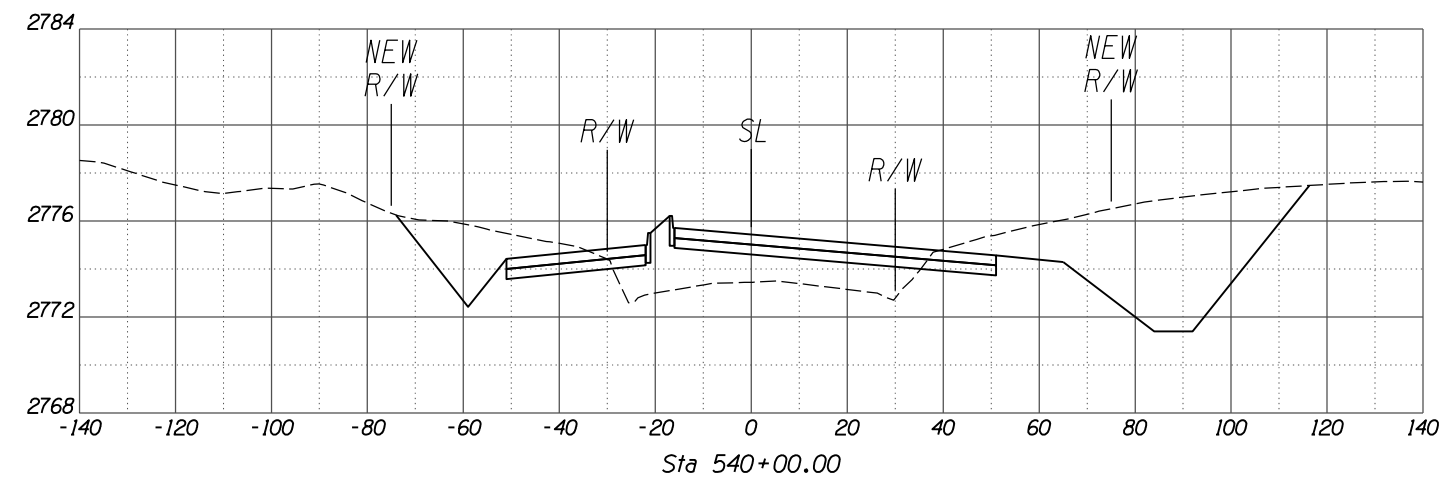
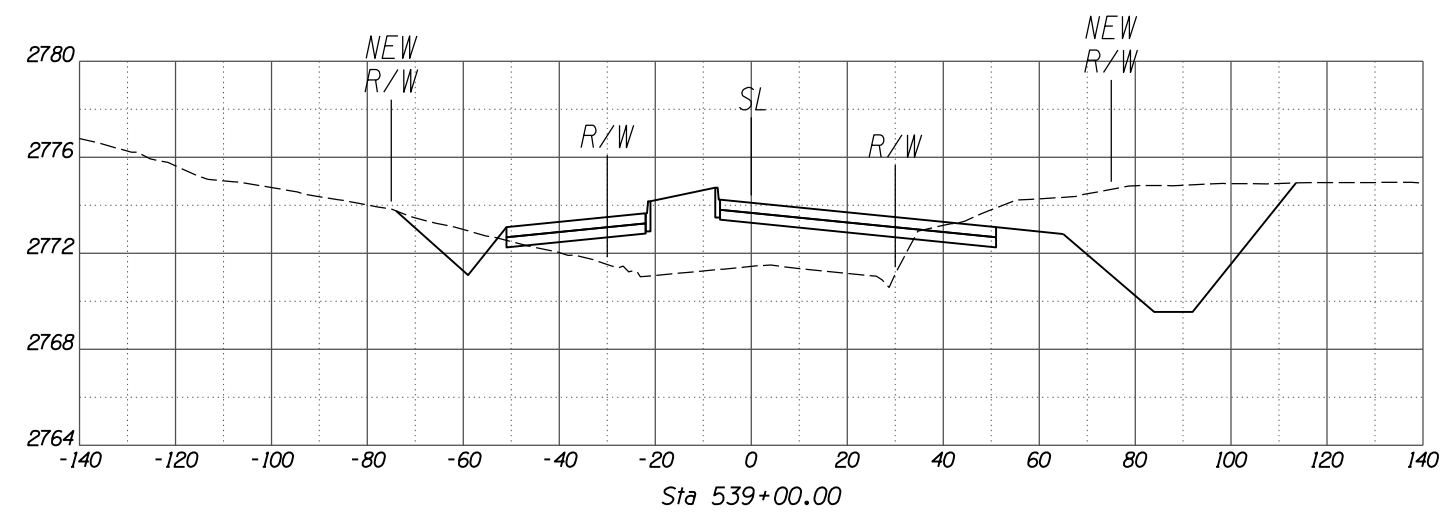
DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED BY	DRAWN BY	CHECKED BY	PROJ. ENG. NO.	DATE
				02/13
				02/13
				02/13

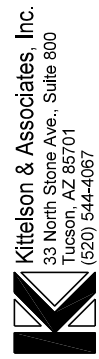


SCALES: HORIZ. 1"=20'
VERT. 1"=4'

SHEET XS37 OF XS38

TOWN OF MARANA - PROJECT NO. 2005-061

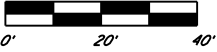
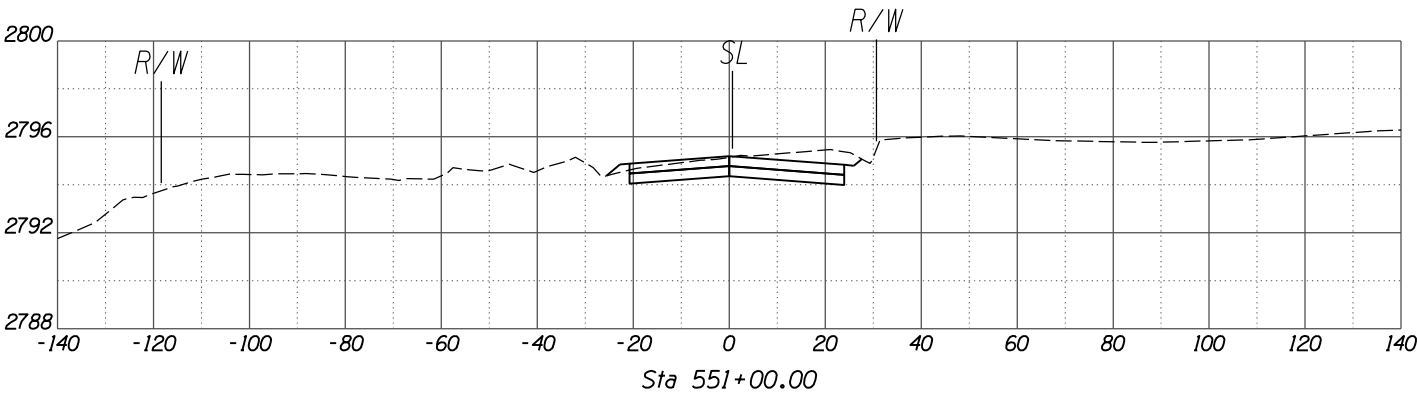
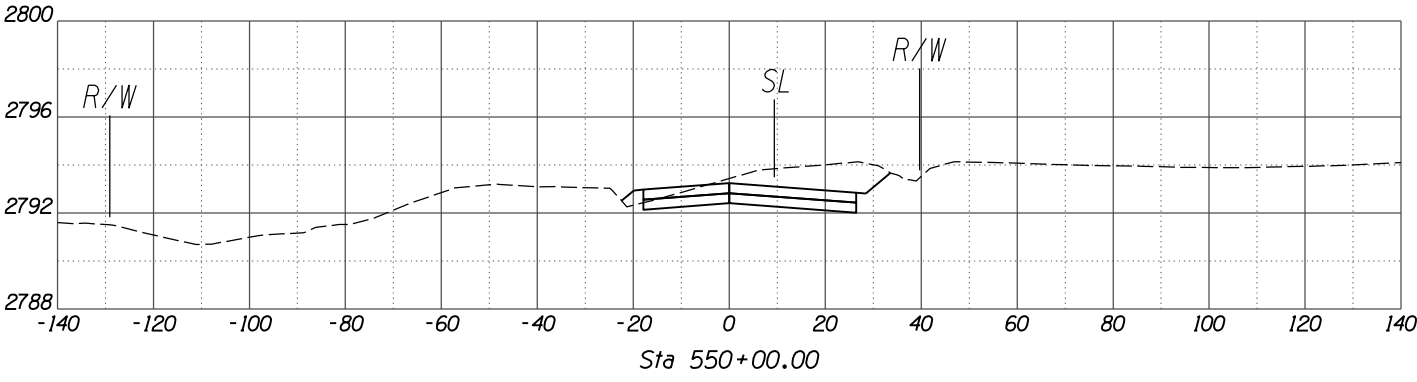
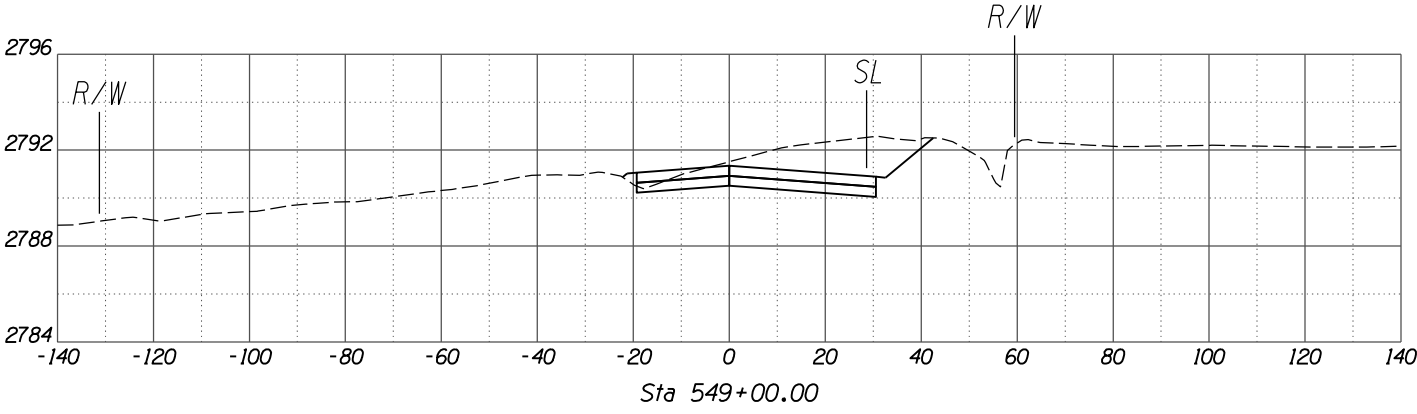
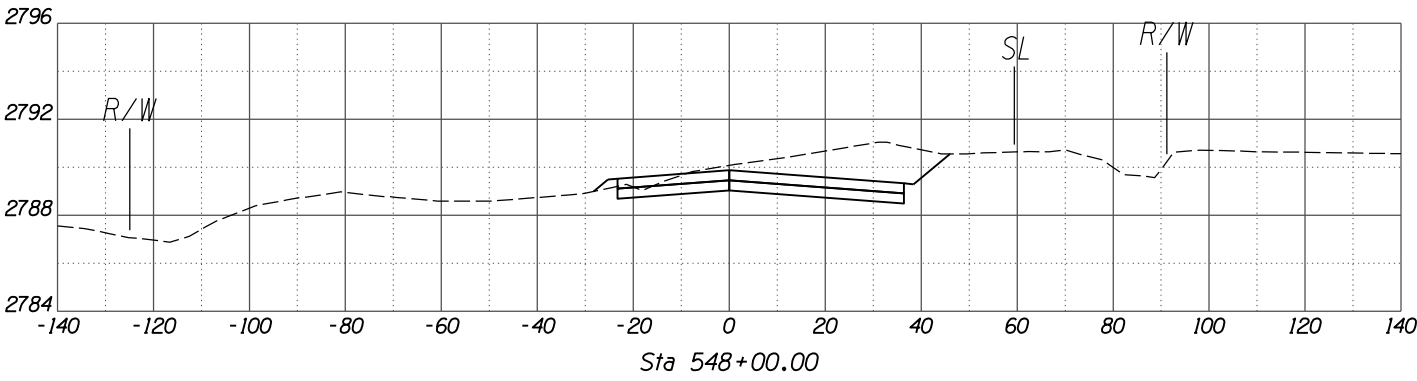
CROSS SECTIONS
FOR
TANGERINE ROAD
LA CHOLLA BOULEVARD



30%
PRELIMINARY
NOT FOR
CONSTRUCTION

NO.	REVISION DESCRIPTION	DATE	ENGINEER

DESIGNED	DRAWN	CHECKED	PROJ. ENG.	DATE
				02/13
				02/13
				02/13



SCALES: HORIZ. 1"=20'
VERT. 1"=4'

NO.	REVISION DESCRIPTION	DIV. ENGINEER	DATE

DESIGNED BY	DATE
	02/13
DRAWN BY	DATE
	02/13
CHECKED BY	DATE
	02/13
PROJ. ENG. BY	DATE
	02/13