

TOWN OF GILBERT PROJECT TSXXX:
OCOTILLO RD AND 148th ST INTERSECTION
TRAFFIC SIGNAL PLANS
A PORTION OF SECTIONS 17 & 20 OF TOWNSHIP 2 SOUTH, RANGE 6 EAST
OF THE GILA AND SALT RIVER BASE AND MERIDIAN,
MARICOPA COUNTY
GILBERT, ARIZONA

SHEET INDEX

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OWNER

TOWN OF GILBERT
50 E Civic Center Dr.
Gilbert, AZ 85296
Phone (480) 503-6871

MAYOR

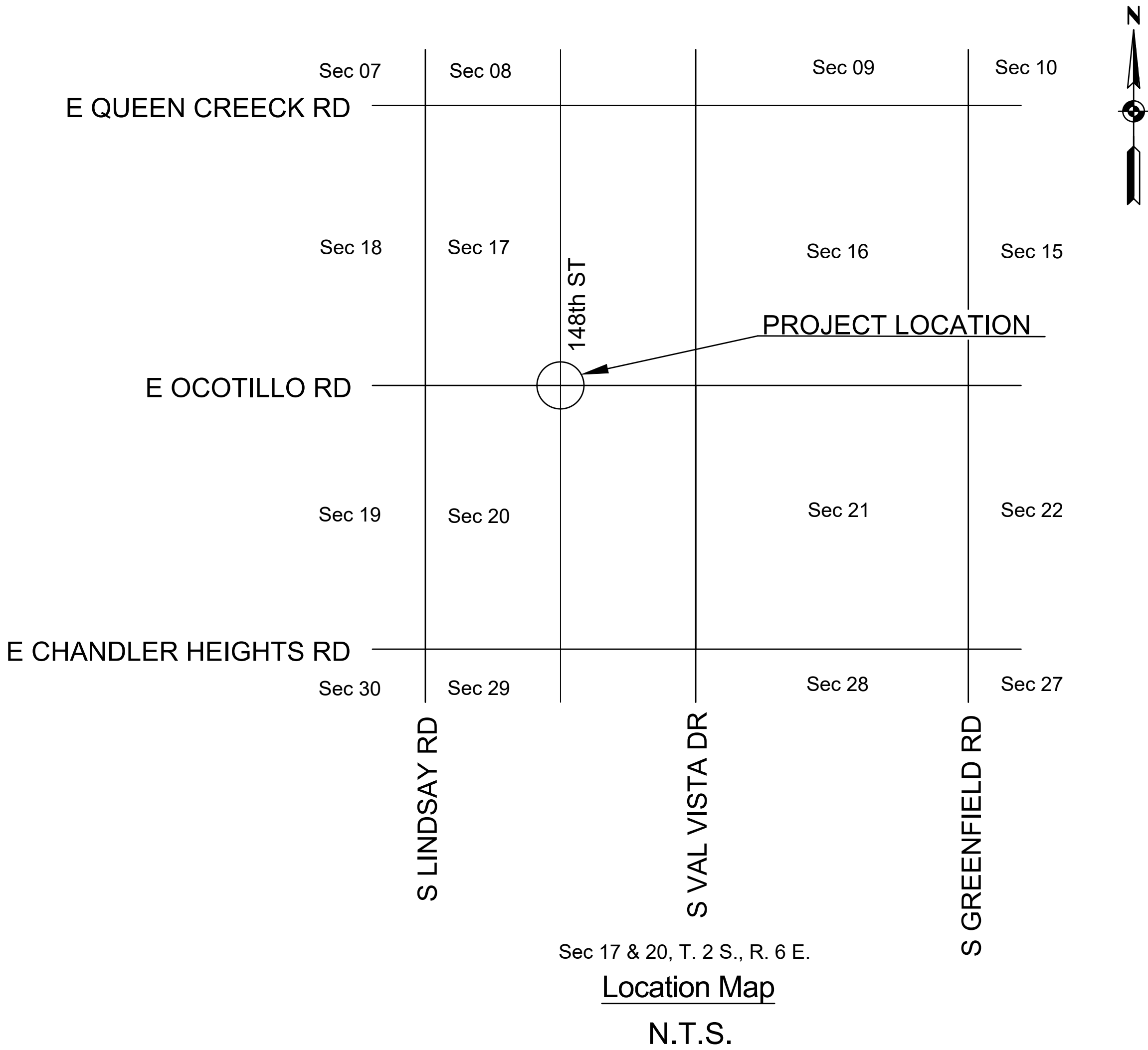
Brigette Peterson

VICE MAYOR

Scott Anderson

COUNCIL MEMBER

Kathy Tilque
Chuck Bongiovanni
Yung Koprowski
Bobbi Buchli
Jim Torgeson



UTILITY COORDINATION

The existence and location of any underground utility or structure depicted hereon are based upon the best available information at the time of field survey. The Engineer assumes no responsibility as to the accuracy of the depicted location on these drawings.

The Contractor shall contact Arizona Blue Stake at (602) 263-1100, prior to any construction activity. It is the responsibility of the Contractor to contact all involved agencies and field verify exact location of the utilities. If discrepancies exist, the Contractor shall notify the Engineer immediately.

During the design stage the following agencies were notified by submitting draft plans:

UTILITY COMPANY/AGENCY	DATE PLANS SUBMITTED
Electrical - SRP, (602) 459-3736	03/26/2020
Telephone - Cox Communication, (623) 500-3343	03/26/2020
Natural Gas - SW Gas, (877) 860-6020	03/26/2020
Cable TV - Century Link, (800) 526-3557	03/26/2020

TOWN OF GILBERT ENGINEER

Aaron Pinkerton, P.E.
Town Traffic Engineer
90 E Civic Center Dr.
Gilbert, AZ 85296
TEL: (480) 503-6919

Robert B. Zaitooni, P.E.
Traffic Engineering Consultants, LLC
7904 E Chaparral Rd, Suite A110-146
Scottsdale, AZ 85250
(407) 687-8764
bob.zaitooni@gmail.com

APPROVAL


TOWN TRAFFIC ENGINEER

8/14/2024
DATE

RECORD DRAWING CERTIFICATION

I hereby certify that the Record Drawing measurements as shown or noted hereon were made by myself or under my supervision and are correct to the best of my knowledge and belief.

SIGNATURE DATE

SEAL

RECORD DRAWING APPROVAL

TOWN TRAFFIC ENGINEER DATE

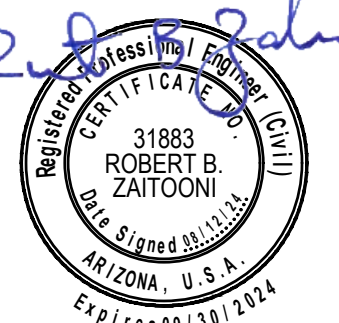
APPROVALS

ROOSEVELT WATER CONSERVATION DISTRICT

CHECKING IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN. ANY ACTION SHOWN IS SUBJECT TO THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS WHICH SHALL BE CONFIRMED AND CORRELATED AT THE JOB SITE; FABRICATION, PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATION OF HIS WORK WITH THAT OF ALL OTHER TRADES; THE SATISFACTORY PERFORMANCE OF HIS WORK. THE DISTRICT'S REVIEW OF THE PLANS IS A VOLUNTARY AND DISCRETIONARY ACTION WHICH IS NOT MANDATED BY STATE STATUTE. THE DISTRICT'S REVIEW OF THE PLANS IS SOLELY FOR THE DISTRICT'S BENEFIT, CONDUCTED WITH ONLY THE DISTRICT'S INTEREST IN MIND, AND SHOULD NOT BE RELIED UPON BY ANY THIRD PARTY. BY REVIEWING THE PLANS THE DISTRICT DOES NOT ASSUME ANY DUTY TO THIRD PARTIES.

ENGINEER: _____ DATE: _____
RWCD: _____ DATE: _____

TEC	DATE	INITIALS BY
TEC	05-17-20	
TEC	07-16-20	
TEC	08-20-20	
TEC	09-01-20	
TEC	11-04-20	
TEC	02-09-21	
TEC	03-11-21	



COVER SHEET
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

DESIGNED RBZ
DRAWN AGA
CHECKED RBZ

TEC
Traffic Engineering Consultants, LLC

7904 E Chaparral Rd, Suite A110-146
Scottsdale, AZ 85250
(407) 687-8754
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PROJECT NO.	TEC2020-05
DATE	03/15/2020
SHEET	1 OF 9

TRAFFIC SIGNAL PLAN GENERAL NOTES

1.

All materials and installation shall conform to the current editions of the Town of Gilbert Standards and Details, Town of Gilbert Supplement to MAG specifications and details, MAG Specifications and Details, Arizona Department Of Transportation (ADOT) "Standard Specifications for Road and Bridge Construction", ADOT "Traffic Signals & Lighting Standard Drawings", Manual on Uniform Traffic Control Devices (MUTCD), TOG Technical Specifications for Traffic Signal Installation, and these plans.
2.

The utilities depicted hereon are based upon the best available information at the time of the field survey. The Contractor shall contact Arizona 811, Blue Stake Center at (602) 263-1100 a minimum of 48 hours prior to any construction and field-verify exact locations of all utilities. If discrepancies exist, the Contractor shall notify the Engineer immediately.
3.

Prior to construction the Contractor shall pothole for utilities. Prior to installation of conduit, the Contractor shall pothole for utilities where conduit installation shall cross existing facilities.
4.

The Contractor shall maintain at least 1 foot clearance from all utilities and 2 feet clearance from any irrigation structure. The Contractor is responsible to confirm with utilities.
5.

The Contractor shall replace all landscaping and irrigation facilities that may be disturbed or damaged during traffic signal construction at his own expense. Contact the Town of Gilbert Street Department at (480) 503-6400 for information on locations of irrigation equipment.
6.

Tops of pole foundations shall be at same elevation as that of adjacent sidewalk or flush with the sidewalk. Concrete pole aprons shall be installed around pole bases as necessary to satisfy current ADA accessibility guidelines. If no sidewalk is present, the elevations shall match top of adjacent curb.
7.

Prior to any work requiring excavation, drilling, and/or pouring any concrete, the Contractor shall notify the Engineer to coordinate construction activities. The Contractor shall not proceed with construction activities unless approval from the Engineer is received.
8.

Approximate station and offset are shown in the pull box schedule. The Contractor shall contact TOG Traffic Operations at (480) 503-6981 or 6627 to coordinate location of the traffic signal pull boxes.
9.

Where the existing pull box is to be removed and replaced with a new pull box or splice vault, the Contractor shall adjust the existing conduit sweeps to enter the new pull box or splice vault installation per TOG Standard Details GIL-841, GIL-842, GIL-843 AND GIL-844.
10.

The Contractor shall supply a complete controller & cabinet assembly, signal poles, signal & luminaire mast arms, LED signal & pedestrian heads, APS pedestrian push buttons, detection systems, and anchor bolts. The Contractor shall supply luminaire heads, pre-emption equipment, wire and meter pedestal as well as all other equipment, materials and labor required by the project. The Contractor shall obtain approval from TOG Traffic Operations prior to ordering any materials for the project. Contact the Town of Gilbert Traffic Operations at (480) 503-6981 or 6627 to receive a current list of approved materials.
11.

The Contractor shall provide and install luminaires. Luminaires shall be GE Evolve ERL2-0-16-C3-30-D-DKBZ-ALU or approved equal. All luminaires will have shorting caps installed.
12.

Internally Illuminated Street Name Signs (I.S.N.S.) shall be provided and installed by the Contractor. Individual inline fuse holder, part numbers (WPBJ - rubber boot) and (HEB - AA buss fuse holders) shall be installed for both I.S.N.S. and luminaires in the pull box at the base of each pole.
13.

The Contractor shall paint poles, mast arms, and luminaires brown per the current TOG Standard Details and Technical Specifications (TNEMEC - Series 1075 Dark Bronze 86BR, Series 1079 Clear Semi-Gloss).
14.

The Contractor shall provide and install the conduit runs from the SRP power source Point of Delivery (POD) to the meter pedestal. SRP will install the service wire from the SRP power supply (POD) to the meter pedestal. See SRP plans [W/O #XXXX] for details.
15.

The Contractor shall contact SRP at (602) 236-6326 a minimum of three weeks prior to construction for power source POD location and installation requirements.
16.

All conduit shall be schedule 40 P.V.C.
17.

Installation of all conduit, pull boxes, traffic signal interconnect and conductors shall be done in accordance with the TOG Standard Details.
18.

All conduit runs under existing pavement and driveways shall be installed by directional drilling, unless prior approval is obtained from Town of Gilbert.
19.

The Contractor shall contact TOG Traffic Operations at (480) 503-6981 to coordinate the emergency pre-emption detector line of sight. Emergency pre-emption shall be Tomar Strobecom II manufactured by Tomar or approved equal. Terminations shall be done in accordance with TOG Standard Details.
20.

The Contractor shall install Econolite Autoscope Vision video detection system in accordance with the Technical Specifications and plans. The material and construction shall comply with Town of Gilbert Standard Details and Specifications for video detection and the manufacturer's recommendations. The Contractor shall verify mounting locations with Town of Gilbert prior to installation.
21.

The Contractor shall provide and install CCTV system in accordance with the project plans. CCTV cameras shall be mounted in accordance with TOG Standard Detail GIL-861. Prior to installation of the CCTV systems, the Contractor shall contact TOG Traffic Operations at (480) 503-6981 or 6627 to coordinate installation. The CCTV system shall include TKH/Siqura PD910 manufactured by Siqura or approved equal.
22.

The Contractor shall provide RuggedCom/Siemens RSG920P shelf-mount unit or approved equal. Contact TOG Traffic Operations for details.
23.

The signal cabinet shall be installed such that maintenance personnel facing the door of the cabinet shall be able to view the intersection.
24.

The Contractor shall install new APS pedestrian push buttons (PPB) in compliance with the current Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) and ADOT Standard T.S 11-1. The PPB shall be mounted in accordance with ADOT T.S. 4-21, except the center of the push button shall be 42 inches above the finished sidewalk. The PPB installed shall be Campbell Guardian.

25.

All work must be supervised on site by a Certified IMSA Level II Traffic Signal Technician. The Contractor shall submit the name of the technician and copy of their certification to the Town of Gilbert Traffic Operations prior to the start of construction activities. All traffic signal work on the project shall take place and be supervised by this technician at all times.
26.

The contractor shall supply and install broadband radio Simrex Datamover WB-K58B-23-E2 System or approved equal. Spread Spectrum Radio Antennas shall be mounted in accordance with TOG Standard Detail GIL-862. Prior to installation of the antennas, the contractor shall contact TOG Traffic Operations at (480)503-6926 for part numbers of radio interconnect system and to coordinate installation.

UTILITY LINES

	8" WATER LINE		RIGHT-OF-WAY
	CENTURY LINK		PUBLIC UTILITIES EASEMENT
	COX COMMUNICATIONS		PROPERTY LINE
	FIBER OPTIC		
	IRRIGATION		
	RECLAIMED WATER		
	SRP UNDERGROUND ELECTRIC LINE		
	SOUTHWEST GAS		
	SEWER LINE		
	EL PASO NATURAL GAS		
	STORM DRAIN		
	TRAFFIC SIGNAL/ITS		
	WATER LINE		

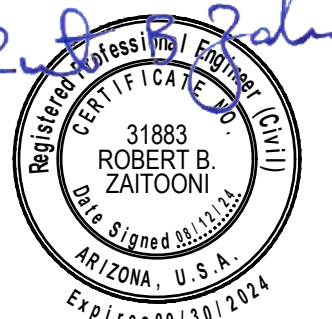
ABBREVIATIONS

ISNS	=	ILLUMINATED STREET NAME SIGN
EVD	=	EMERGENCY VEHICLE DETECTION
VDS	=	VIDEO DETECTION SYSTEM
SMA	=	SIGNAL MAST ARM
LMA	=	LUMINAIRE MAST ARM
RAD	=	RADAR ADVANCE DETECTOR

TRAFFIC EQUIPMENT AND ANNOTATIONS LEGEND

PROPOSED	EXISTING	PROPOSED	EXISTING
			Controller Cabinet
			Meter Pedestal
			#9 Pull Box
			#7 Pull Box w/ Ext.
			#7 Pull Box
			#3 1/2 Pull Box
			#5 Pull Box
			Conduit Run
			Signal Pole/Cabinet Number/Street Light Identifier
			Conduit Run Number
			Pull Box Number
			Construction Notes Number
			Removal Notes Number
			Relocate Note

TEC	05-17-20	TOWN OF GILBERT COMMENTS
TEC	07-16-20	TOWN OF GILBERT COMMENTS
TEC	08-20-20	TOWN OF GILBERT COMMENTS
TEC	09-01-20	TOWN OF GILBERT COMMENTS
TEC	11-04-20	TOWN OF GILBERT COMMENTS
TEC	02-09-21	TOWN OF GILBERT COMMENTS
TEC	03-11-21	RVCD COMMENTS
REVISION		
DATE		INITIALS BY



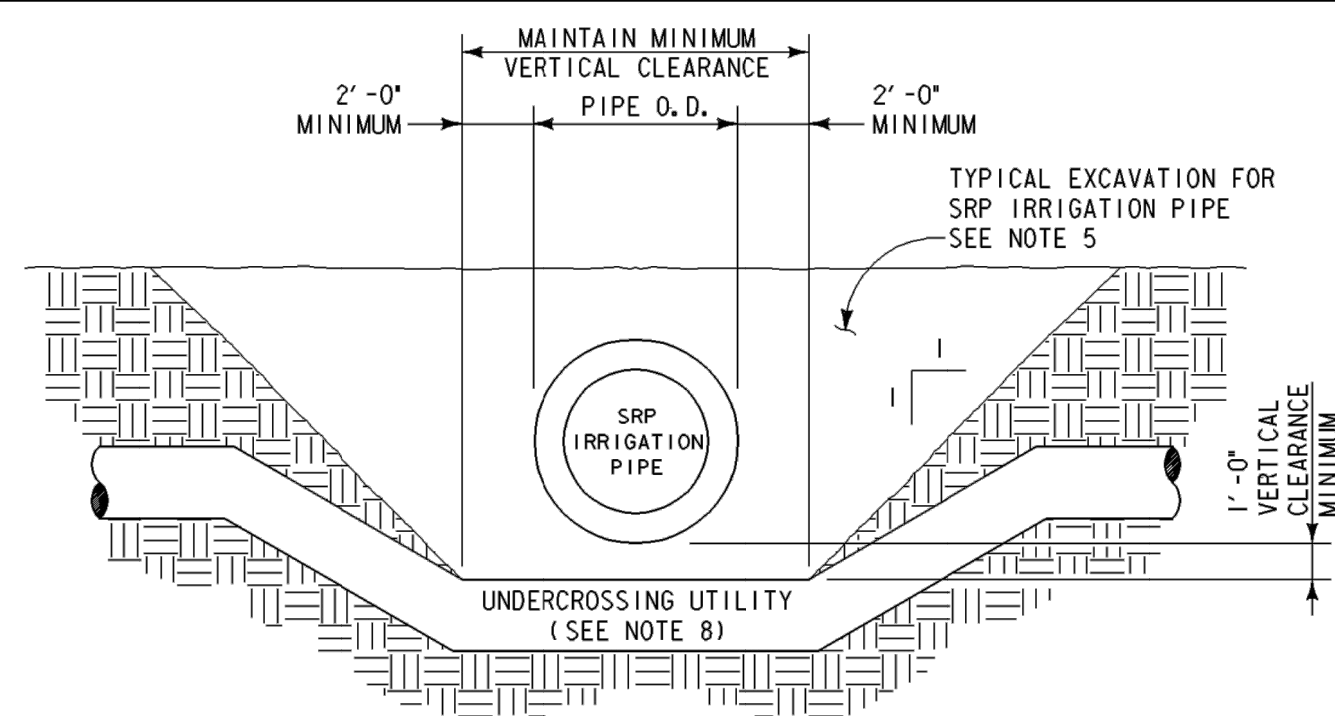
TRAFFIC LEGEND AND GENERAL NOTES
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

TEC

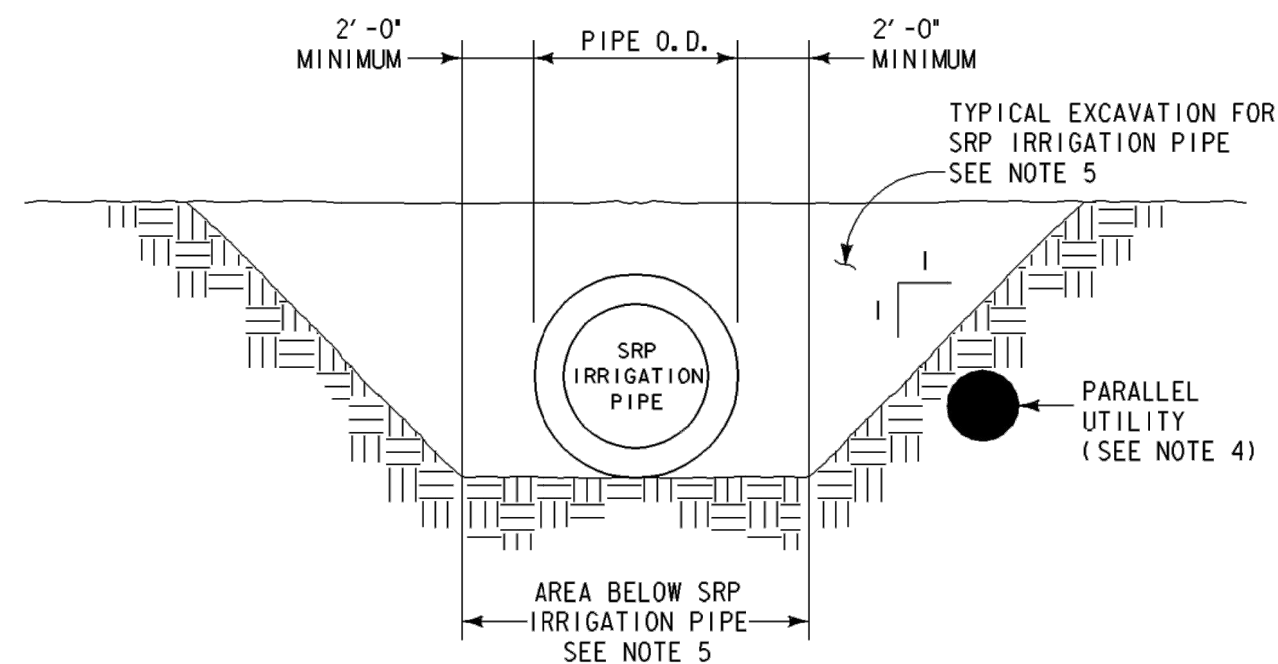
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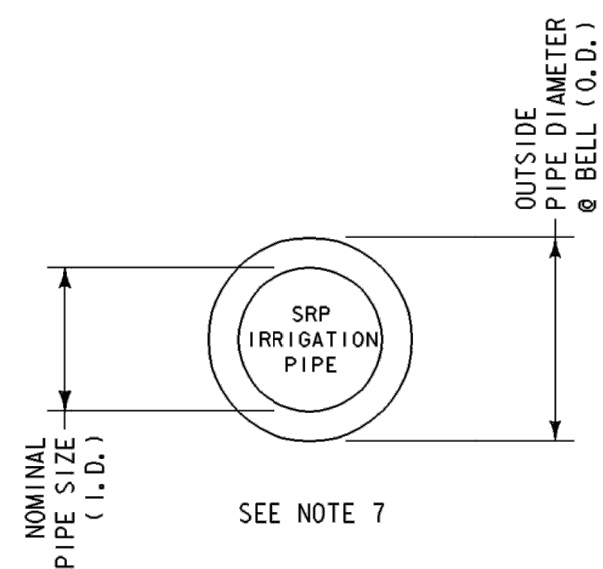
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DATE	03/19/2020
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PIPELINE - UTILITY CROSSING



PIPELINE - PARALLEL UTILITY

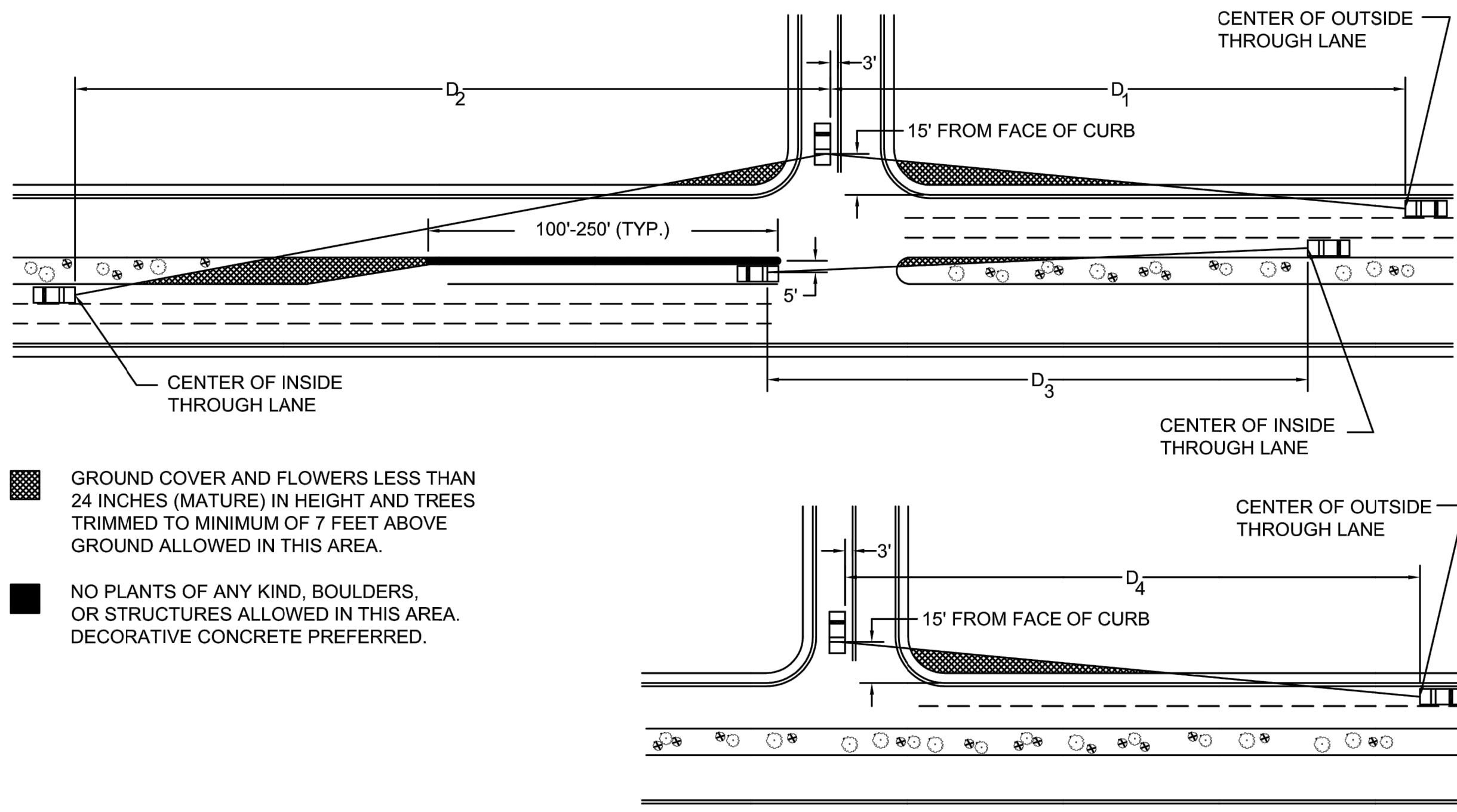


NOMINAL PIPE SIZE (I.D.)	OUTSIDE PIPE DIAMETER AT BELL (O.D.)
24"	37"
30"	45"
36"	53"
42"	60"
48"	68"
54"	75"
60"	82"
66"	89"
72"	91"

OUTSIDE DIAMETER SRP IRRIGATION PIPE

NOTES


- OVERCROSSINGS OF SRP IRRIGATION PIPE ARE REVIEWED ON A CASE-BY-CASE BASIS, EXCEPT FOR THOSE CASES SPECIFICALLY IDENTIFIED BELOW, OVERCROSSINGS ARE TYPICALLY NOT ALLOWED.
- MAINTAIN MINIMUM 6" CLEARANCE BETWEEN SRP IRRIGATION PIPE AND OVERCROSSING ELECTRICAL CABLE/CONDUIT (1" DIA. OR LESS).
- MAINTAIN MINIMUM 12" CLEARANCE BETWEEN SRP IRRIGATION PIPE AND CLOSEST POINT OF OVERCROSSING SCUPPER. SCUPPER SHALL CONFORM TO MAG STANDARD DETAIL 203 OR 206.
- UTILITIES PARALLEL TO SRP IRRIGATION PIPE ARE REVIEWED ON A CASE-BY-CASE BASIS. LOCATE PARALLEL UTILITY OUTSIDE OF AREA SRP EXCAVATES WHEN MAINTAINING IRRIGATION PIPE. TYPICAL EXCAVATION INCLUDES AREA ABOVE AND TO EACH SIDE OF SRP IRRIGATION PIPE. SIDE EXCAVATION INCLUDES AREA ABOVE A LINE EXTENDING UPWARD AND OUTWARD AT A ONE-TO-ONE SLOPE FROM A POINT LEVEL WITH THE BOTTOM OF AND TWO FEET BEYOND THE SIDE OF THE OUTSIDE BELL DIAMETER OF THE SRP IRRIGATION PIPE.
- OTHER UTILITIES NOT PERMITTED IN THESE AREAS.
- CLEARANCE IS MEASURED FROM OUTSIDE BELL DIAMETER OF SRP IRRIGATION PIPE. OUTSIDE BELL DIAMETER IS SIGNIFICANTLY LARGER THAN NOMINAL PIPE SIZE (INSIDE DIAMETER) NOTED ON PLAN/PROFILE DRAWINGS. SEE TABLE FOR NOMINAL PIPE SIZES AND OUTSIDE BELL DIAMETERS.
- SPECIFIED CLEARANCES ARE FOR USE WITH RUBBER GASKETED REINFORCED CONCRETE PIPE (RGRCP) UP TO AND INCLUDING 72" NOMINAL PIPE SIZE. GREATER CLEARANCE OR REPLACEMENT IS REQUIRED FOR LARGER DIAMETER RGRCP, CAST-IN-PLACE PIPE (CIPP) AND NON-REINFORCED CONCRETE PIPE.
- ASSURE CONTINUOUS SUPPORT AND PROTECTION OF SRP IRRIGATION PIPE. DAMAGE TO SRP IRRIGATION PIPE/SYSTEM WILL BE REPAIRED BY SRP. ALL DIRECT AND INDIRECT COSTS SHALL BE BORNE BY OTHER UTILITY/LICENSEE.
- TRENCH BACKFILL COMPACTION SHALL BE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) TYPE I OR TYPE III, EXCEPT THAT 95% COMPACTION SHALL BE REQUIRED FROM ONE FOOT ABOVE TOP OF PIPE TO BOTTOM OF TRENCH. WATER CONSOLIDATION IS NOT PERMITTED.
- COMPLY WITH MAG UNIFORM STANDARD SPECIFICATIONS AND STANDARD DETAILS UNLESS OTHERWISE NOTED IN PROJECT SPECIFIC SRP DOCUMENTS. MOST STRINGENT REQUIREMENTS SHALL APPLY UNLESS SPECIFICALLY NOTED OTHERWISE IN SRP DOCUMENTS.
- COMPLY WITH ALL APPLICABLE STATUTES, ORDINANCES AND REGULATIONS INCLUDING BLUE STAKE LAW (A.R.S. SEC. 40-360-21 ET SEQ.).
- THESE GUIDELINES ARE PROVIDED AS A GENERAL AID TO PLANNING. ACTUAL SRP REQUIREMENTS MAY VARY BASED ON SITE-SPECIFIC CONDITIONS, OPERATIONAL CONSIDERATIONS, ETC.
- AN SRP LICENSE IS REQUIRED FOR UTILITIES CROSSING/PARALLEL TO SRP IRRIGATION PIPE IN SRP RIGHT-OF-WAY. SRP REQUIRES ENGINEER DESIGNED UTILITY CROSSING/LOCATION AND EXCAVATION PLAN.
- REQUESTS FOR SRP LICENSES ARE HANDLED ON A CASE-BY-CASE BASIS. CONTACT SRP AT 602-236-5799 REGARDING LICENSES FOR SITES LOCATED NORTH AND SOUTH OF THE SALT RIVER.
- NOTIFY SRP INSPECTOR A MINIMUM OF 72 HOURS BEFORE STARTING CONSTRUCTION IN OR AROUND SRP IRRIGATION FACILITIES. AN IRRIGATION OUTAGE AGREEMENT MUST BE COMPLETED BY THE CONTRACTOR IF A DRY-UP OF ANY PART OF THE IRRIGATION SYSTEM WILL BE NECESSARY DURING CONSTRUCTION. ISSUANCE OF A LICENSE DOES NOT PROVIDE FOR A CONSTRUCTION DRY-UP.



- GROUND COVER AND FLOWERS LESS THAN 24 INCHES (MATURE) IN HEIGHT AND TREES TRIMMED TO MINIMUM OF 7 FEET ABOVE GROUND ALLOWED IN THIS AREA.
- NO PLANTS OF ANY KIND, BOULDERS, OR STRUCTURES ALLOWED IN THIS AREA. DECORATIVE CONCRETE PREFERRED.

MAIN STREET	POSTED SPEED LIMIT ON MAIN STREET	D ₁	D ₂	D ₃	D ₄
LOCAL	25	310'	355'	245'	290'
COLLECTOR	25	310'	355'	245'	290'
	30	365'	415'	285'	335'
	35	415'	475'	325'	385'
MINOR ARTERIAL	45	590'	625'	445'	480'
MAJOR ARTERIAL	45	665'	665'	480'	480'

NOTE: DETAIL PERTAINS TO ALL CONTROLLED INTERSECTIONS AND COMMERCIAL/SHOPPING CENTER DRIVEWAYS ON ALL CLASSIFICATIONS OF ROADWAYS.

REFERENCES		REVISIONS						 SALT RIVER PROJECT WATER ENGINEERING STANDARD		
SALT RIVER PROJECT RIGHT-OF-WAY GUIDELINES_____WES-ROWGUIDE	REV NO.	DFTR	DSGN	ENGR CHK	ISSUE AUTH	DATE	UTILITIES CROSSING OR PARALLEL TO SRP IRRIGATION PIPE			
	REVISED NOTE 2 MINIMUM CLEARANCE AND OVERCROSSING UTILITY TYPE.									
	5	JWS	-	REL	REL	02/07/14				
		JWS	-	REL	REL					
	INITIAL ISSUE.						SCALE: NONE		02604001.WES	
0	MOD	CWT	CWT	REL	REL	04/06/98	DWG SIZE 17X22	WES-02604-001		

GILBERT	STANDARD DETAIL	SIGHT DISTANCE AT CONTROLLED INTERSECTIONS	APPROVED TOWN ENGINEER	DATE	DETAIL No. GIL-212
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TOWN OF GILBERT COMMENTS	DATE	INITIALS BY
TEC	05-17-20	TEC
TEC	07-16-20	TEC
TEC	08-20-20	TEC
TEC	09-01-20	TEC
TEC	11-04-20	TEC
TEC	02-09-21	TEC
TEC	03-11-21	TEC



DETAILS
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

DESIGNED RBZ DRAWN AGA CHECKED RBZ

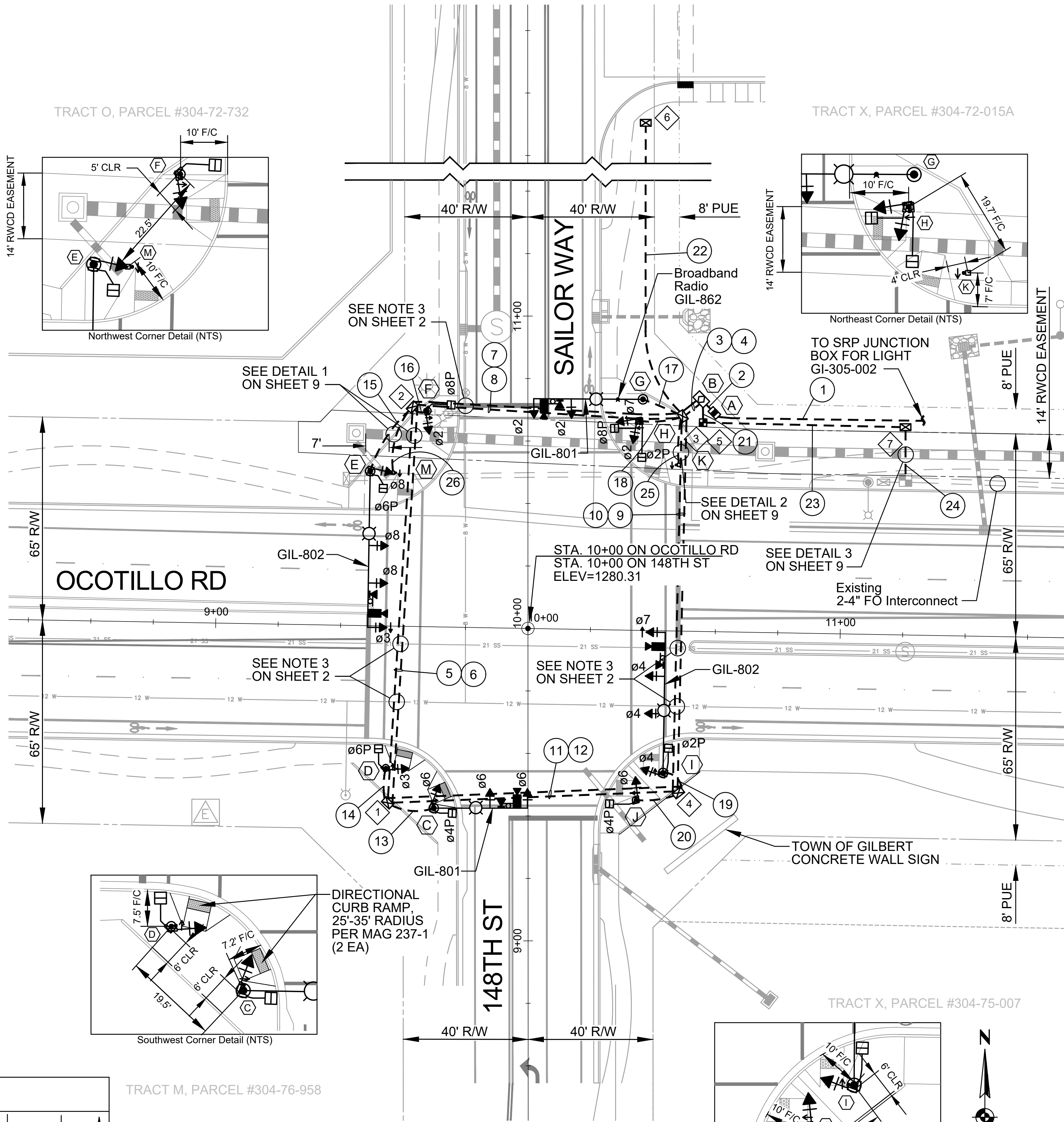
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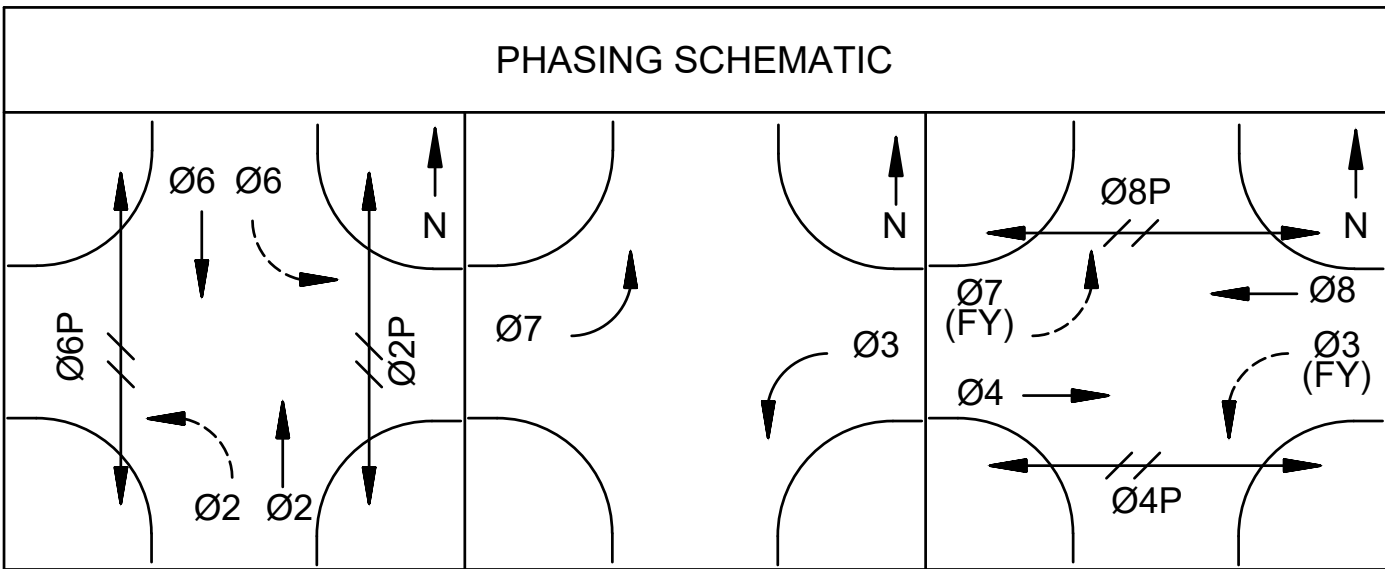
PROJECT NO. TEC2020-05
DATE 03/15/2020
SHEET 3 OF 9

Push Button Schedule [Not For Construction]				
P.B. No.	Pole No.	Direction	Dist. From Curb	Dist. From Crosswalk
1	C	E-W	7.2'	*
2	D	N-S	7.5'	*
3	F	E-W	10'	*
4	H	E-W	10'	*
5	I	N-S	10'	*
6	J	E-W	10'	*
7	K	N-S	10'	*
8	M	N-S	10'	*

* Indicates Within Extended Crosswalk



FLASH SEQUENCER	
PHASE 2 & 6	RED
PHASE 4 & 8	RED



ELECTRICAL CONDUIT QUANTITIES			
SIZE	INSTALLATION TYPE	LENGTH	REMARKS
2 1/2"	Trenched	38'	-
2"	Trenched		
2"	HDD		
4"	Trenched	52'	-
2-4"	Trenched	15'	-
2-4"	HDD	387'	-

PULL BOX SCHEDULE			
NO.	TYPE	LOCATION	REMARKS
1	New #7 pull box w/ Ext	Sta 9+55.0, 56.6' R	TOG DTL. GIL-841, GIL-842, & GIL-843
2	New #7 pull box w/ Ext	Sta 9+63.0, 70.4' L	TOG DTL. GIL-841, GIL-842, & GIL-843
3	New #7 pull box w/ Ext	Sta 10+49.5, 68.7' L	TOG DTL. GIL-841, GIL-842, & GIL-843
4	New #7 pull box w/ Ext	Sta 10+48.1, 51.8' R	TOG DTL. GIL-841, GIL-842, & GIL-843
5	New #9 Vault	Sta 10+56.1, 66.8' L	TOG DTL. GIL-841, GIL-842, & GIL-843
6	New #7 pull box w/ Ext	Sta 12+50.45, 37.8' R	TOG DTL. GIL-841, GIL-842, & GIL-843
7	New #7 pull box w/ Ext	Sta 11+20.9, 66.5' L	TOG DTL. GIL-841, GIL-842, & GIL-843

Station and offsets are based on OCOTILLO RD section line.

EQUIPMENT FOUNDATION SCHEDULE			
NO.	TYPE	LOCATION	ELEVATION
A	Meter Pedestal	Sta 10+58.5, Off 69.3' L	1280.00'
B	Controller Cabinet	Sta 10+57.5, Off 73.4' L	1280.00'

Station and offsets are based on OCOTILLO RD section line.

POLE FOUNDATION SCHEDULE			
NO.	TYPE	LOCATION	ELEVATION
C	Q	Sta 9+69.8, Off 58.1 R	1280.00'
D	A-12'	Sta 9+54.7, Off 45.6' R	1280.00'
E	R	Sta 9+49.5, Off 49.5' L	1280.29'
F	A-12'	Sta 9+68.1, Off 70.3' L	1280.29'
G	Q	Sta 10+33.8, Off 73.9' L	1280.71'
H	A-12'	Sta 10+35.8, Off 67.0' L	1280.71'
I	R	Sta 10+43.3, Off 45.5' R	1280.06'
J	A-12'	Sta 10+34.4, Off 54.3' R	1280.06'
K	PB	Sta 10+48.4, Off 53.2' L	1280.70'
M	PB	Sta 9+56.9, Off 49.1' L	1280.29'

Station and offsets are based on OCOTILLO RD section line.

DESIGNED	REVIEWED	DATE	INITIALS BY
TEC	TEC	05-17-20	TEC
TEC	TEC	07-16-20	TEC
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TEC	TEC	11-04-20	TEC
TEC	TEC	02-09-21	TEC
TEC	TEC	03-11-21	TEC




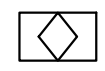
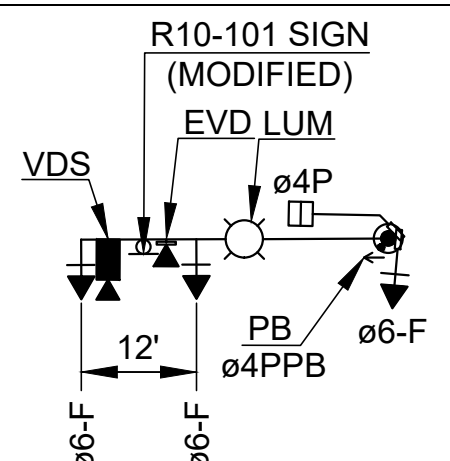
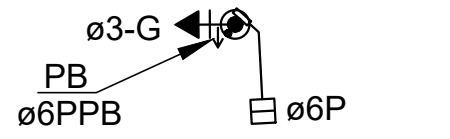
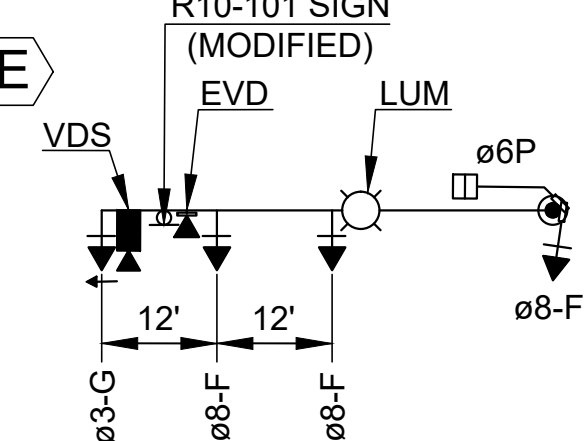
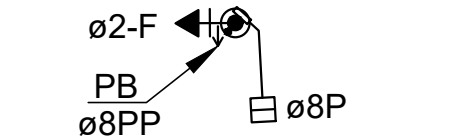
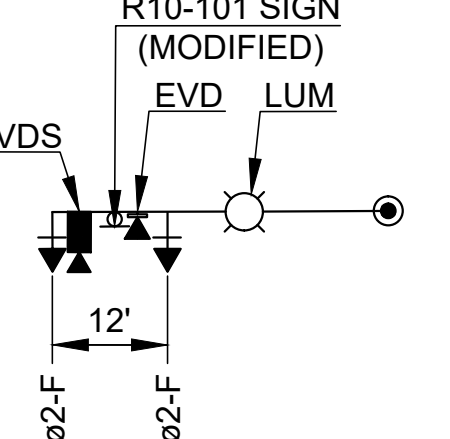
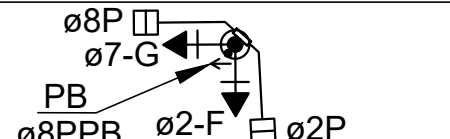
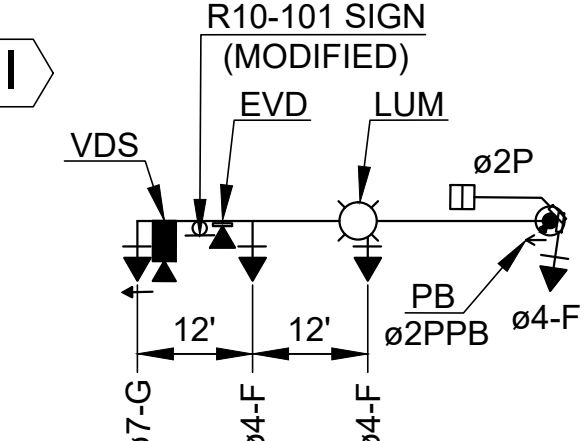
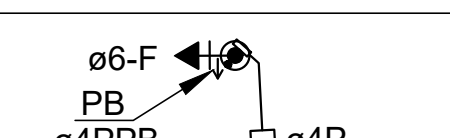
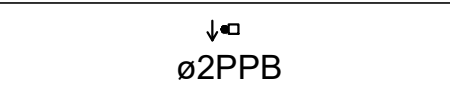
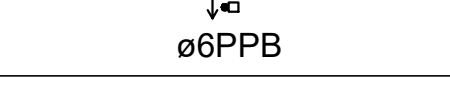
TRAFFIC SIGNAL LAYOUT
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

TEC
Traffic Engineering Consultants, LLC

7904 E Chaparral Rd. Suite A110-146
Scottsdale, AZ 85250
(407) 687-8754
bob.zaitoon@gmail.com

PROJECT NO. TEC2020-05
DATE 03/15/2020
SHEET 4 OF 9

POLE LAYOUT SCHEDULE

CABINET	TYPE	CONTROLLER	AUX. CONTROL				ASSEMBLY NOTES
A 	---	Tesco T-26-000	N/A				New Electrical Service Address: 1206 E. Ocotillo Rd. TS
B 	TS 2	Econolite Cobalt C	N/A				Size 6, 55", P44 NEMA Cabinet
NO.	LAYOUT	MAST ARM		SIGN			CONSTRUCTION NOTES
		TYPE	SIG.	LUM.	MTG.	FACE	
C 		Q	30'	20'	3-II	2-F 1-F 1-V 1-M/H	See Notes: 3*, 5, 6, 7, 8, 9, 10, 11, 12 *Use Type Q pole shaft
D 		A-12'	---	---	1-IV 1-V	1-G 1-M/H	See Notes 1, 10
E 		R	50'	20'	3-II	1-G 2-F 1-F 1-V 1-M/H	See Notes 2**, 5, 6, 8, 9, 10, 11, 12 ** Use Type R pole shaft
F 		A-12'	---	---	1-IV 1-V	1-F 1-M/H	See Notes 1, 10
G 		Q	35'	20'	3-II	1-V 1-F 1-V 1-M/H	See Notes: 3*, 5, 6, 7, 8, 9, 10, 11, 12 *Use Type Q pole shaft
H 		A-12'	---	---	1-IV 1-V	1-G 2-F 1-M/H	See Notes 1, 10, 13
I 		R	45'	20'	3-II	1-G 2-F 1-F 1-V 1-M/H	See Notes 2**, 5, 6, 8, 9, 10, 11, 12 ** Use Type R pole shaft
J 		A-12'	---	---	1-V	1-F 1-M/H	See Notes 1, 10
K 		PB	---	---	---	---	See Notes 1, 13
M 		PB	---	---	---	---	See Notes 1, 13

CONDUCTOR SCHEDULE

Conduit Run Number	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮	⑯	⑰	⑱	⑲	⑳	㉑	㉒	㉓	㉔	㉕	㉖	㉗	㉘	㉙	㉚	㉛	㉜	㉝	㉞	㉟	㊱	㊲
Conduit Size in Inches	2.5	2.5	4	4	4	4	4	4	4	4	4	4	4	2	4	2	4	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Signal Heads																																					
Ped Heads																																					
Ped PB's																																					
Luminaires (120V)																																					
I.S.N.S.																																					
Service																																					
Pre-Emption																																					
Survey																																					
Video Detector																																					
Broadband Radio																																					
ITS																																					

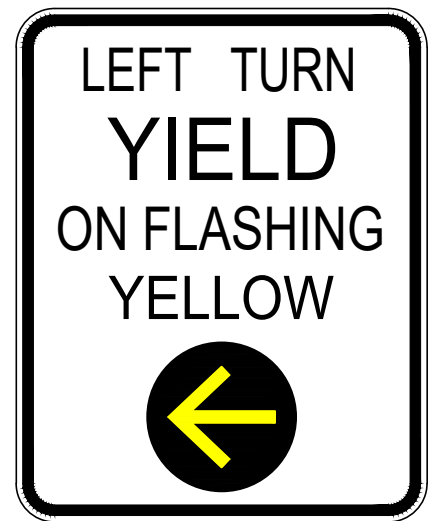
● : Conduit by Contractor, Conductors by SRP

POLE SCHEDULE NOTES

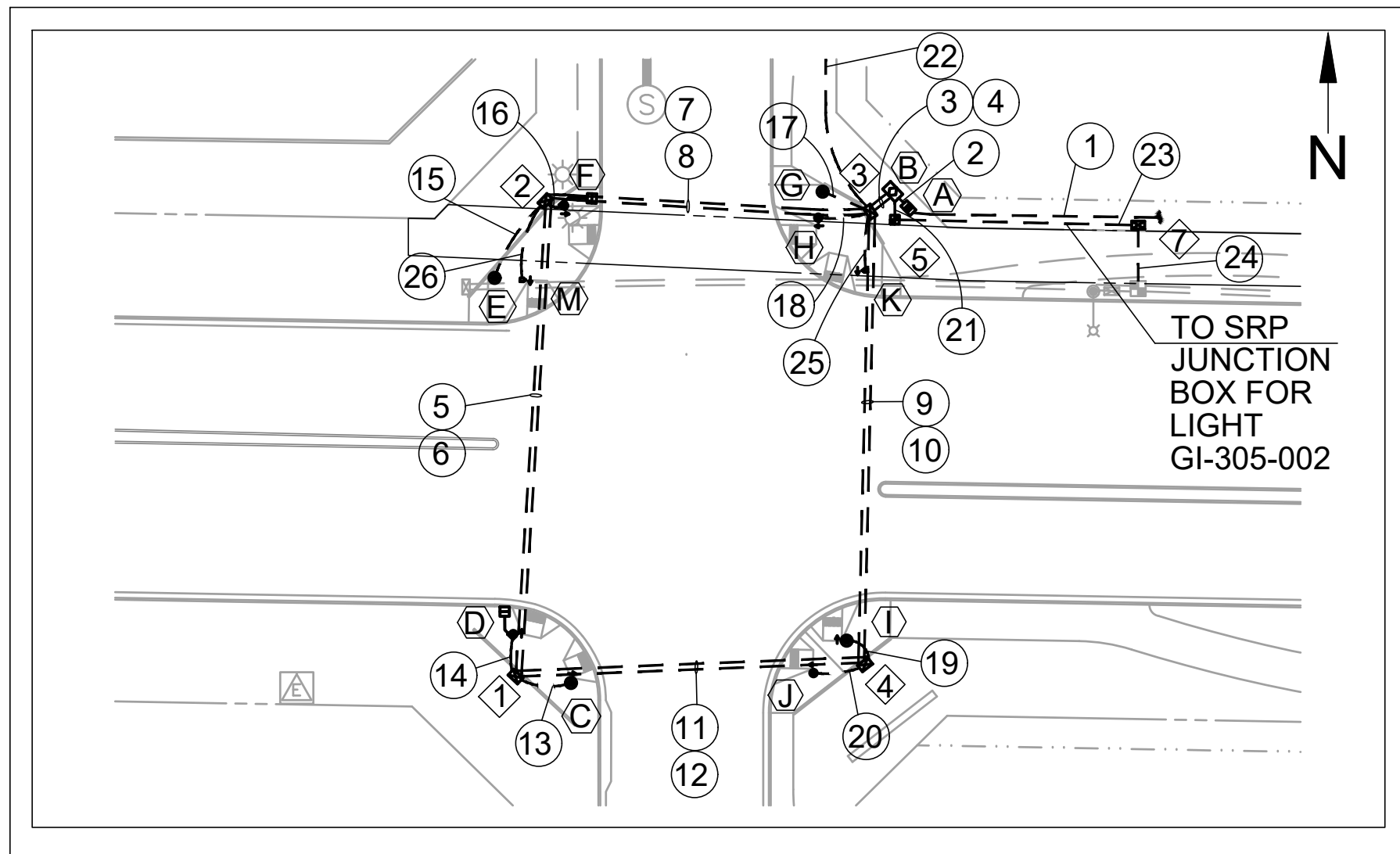
- 1) Install Pole and Foundation per GIL-804.
- 2) Install Pole and Foundation per ADOT Det. 4-15.
- 3) Install Pole and Foundation per ADOT Det. 4-13.
- 4) Install Pedestrian Push Button.
- 5) Provide and Install Emergency Vehicle Detection on Signal Mast Arm.
- 6) Install Video Detection Camera on Signal Mast Arm w/ 6 ft Extension Next to Emergency Vehicle Detection.
- 7) Provide and Install CCTV camera on Pole per TOG Det. GIL-861.
- 8) Provide and Install Illuminated Street Name Sign (Fluoresco-Crossfire).
- 9) Provide and Install Luminaire with T3 Distribution.
- 10) Provide and Install R10-3e Sign per ADOT Det. R10-3e.
- 11) Provide and Install R10-101 Sign per Detail 1 this Sheet.
- 12) See TOG Det. GIL-801 - GIL-803 for pole loading details.
- 13) Install pole and foundation per GIL-805.

CONDUCTOR SCHEDULE NOTES

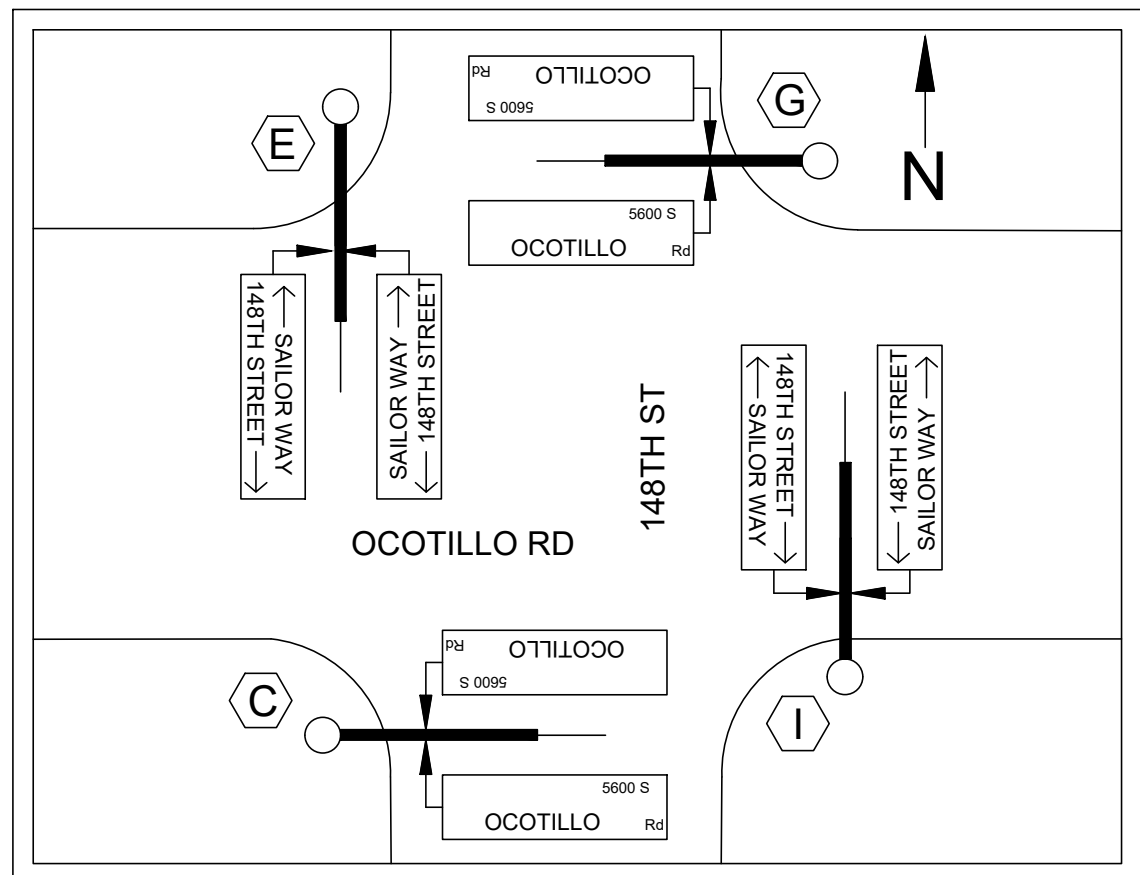
- 1) The IMSA 25-conductor, 7-conductor, 4-conductor, and 2-conductor cable shall be #14 AWG IMSA 19-1. AGPS shall use IMSA 2-conductor from the pullbox to the pushbutton. 4 conductor T-Stat wire shall be used to interface the pushbutton with the pedestrian indicators. All IMSA conductors shall be solid.
- 2) All new wire shall be provided and installed by the Contractor.
- 3) Contractor shall be responsible for providing multi-color conductors which meet the color coding and identification criteria per TOG Detail GIL-851.
- 4) Install Tracer Wire and pull tape in all conduits.
- 5) All luminaires and Illuminated Street Name Signs (I.S.N.S.) are LED and shall have separate fuses installed in pull boxes at the base of pole per technical specifications.
- 6) Video detection communication cable shall be supplied and installed by the Contractor.
- 7) Pre-emption cable shall be 4-Channel Strobecomm II detector cable or approved equal.
- 8) CCTV cable shall be manufacturer recommended or approved equal.
- 9) All sidemount heads shall have wire run directly to the signal heads. Terminal blocks shall not be used.



R10-101 SIGN
(30" x 36")
DETAIL 1



Conduit Run Schematic (NTS)



I.S.N.S. Detail (NTS)

POLE AND CONDUCTOR SCHEDULE OCOTILLO RD & 148th ST TRAFFIC SIGNAL PLANS

TEC Traffic Engineering Consultants, LLC

7904 E Chaparral Rd. Suite A110-146
Scottsdale, AZ 85250
(407) 687-8754
bob.zaitoon@gmail.com

PROJECT NO. TEC2020-05

DATE 03/15/2020

SHEET 5 OF 9

REVISION	DATE	INITIALS BY
1	03-11-21	TEC
2	02-09-21	TEC
3	11-04-20	TEC
4	09-01-20	TEC
5	08-20-20	TEC
6	07-16-20	TEC
7	05-17-20	TEC



PAVEMENT MARKING GENERAL NOTES:

These Notes will be periodically updated by the Town of Gilbert. At the time of the publication of these Standards they were as follows:

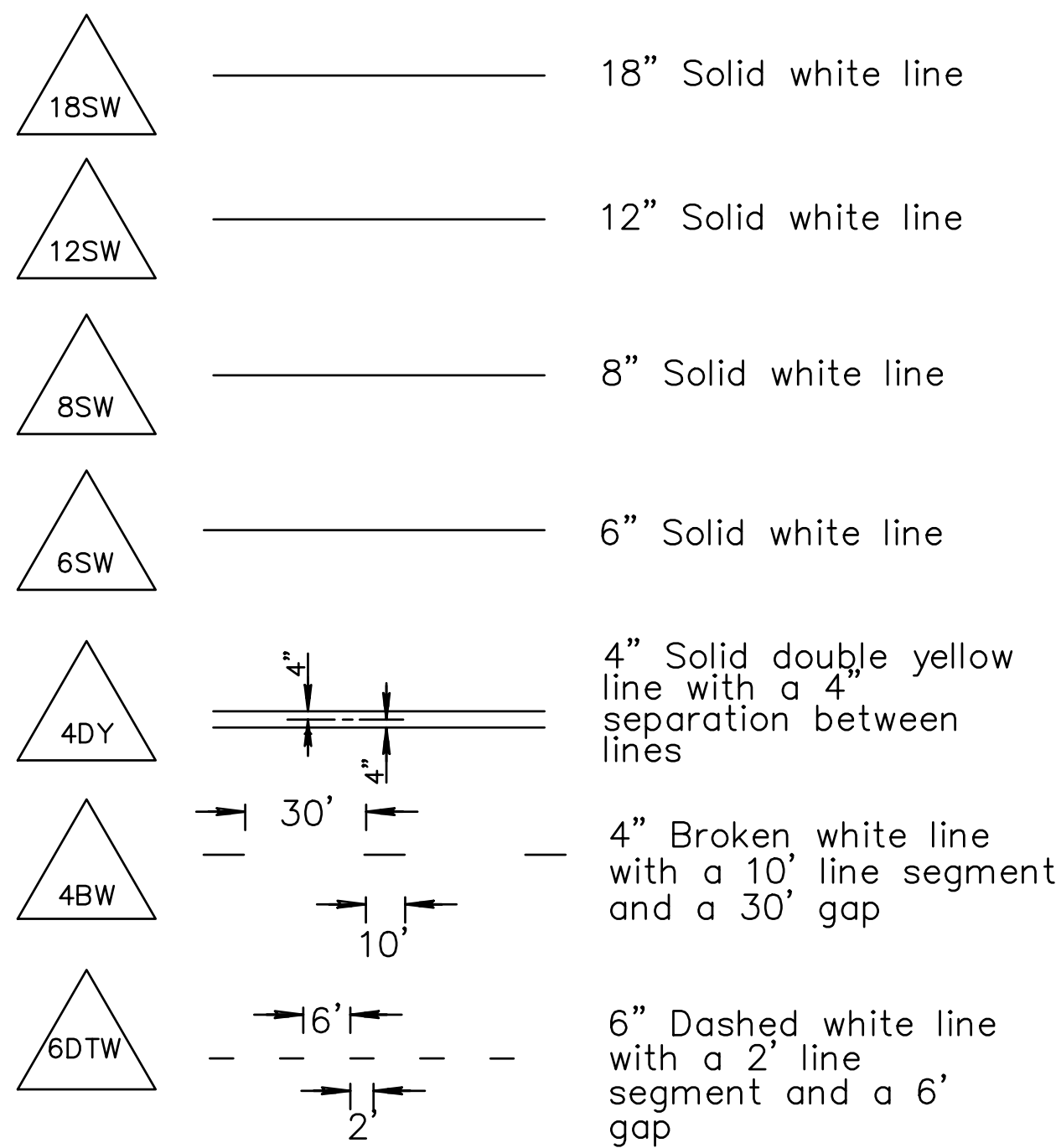
1. The Contractor or the sub-contractor installing pavement markings within the Town of Gilbert's right-of-way is required to obtain a Traffic Engineering Permit prior to any installation. Traffic Engineering Permit applications can be obtained from the Development Services Department located at 90 E. Civic Center Dr, Gilbert, AZ. 85296, or at the Town of Gilbert's website - www.gilbertaz.gov.
2. All pavement markings shall conform to the Town of Gilbert's Standard Details unless otherwise specified in the current edition of the Manual on Uniform Traffic Control Devices, or as noted on the plans. For arrow dimensions refer to M-10 in the ADOT Standard Drawings.
3. The Contractor shall spot mark the entire project before applying any markings. When the spotting is complete, the Contractor shall contact the Engineering Inspector listed on the permit to make arrange for inspection prior to applying any paint (2 business days advance notice is required). The permanent marking may be modified as directed by the Engineer, as a result, striping quantities may vary from the plans. The Contractor shall refer any questions concerning pavement markings to the Town of Gilbert Traffic Engineering Section at 480-503-6739.
4. Any pavement markings applied prior to field inspection by the Town of Gilbert Engineering Inspector shall be removed and re-striped at the Contractor's expense.
5. All striping will be applied initially in paint (to include all items specified to be applied in thermoplastic). The Contractor will be required to re-stripe the entire project 30 to 45 days after initial striping. At this time all symbols, transverse markings, and holding bars will be re-striped in a Melt-In-place Preformed Thermoplastic Tape or Extruded Thermoplastic and the remainder of the project in paint.
6. All striping within 200 feet of signalized intersection shall be applied in Extruded Thermoplastic.
7. Painted pavement markings shall be placed on the pavement by spray-type, self-propelled pavement marking machine designed for application of paint and beads.
8. Raised pavement markers shall be installed on the new pavement. They shall be installed per ADOT Standard Detail M-19. They shall be non-adhesive with an abrasive resistant surface. They shall be secured to the pavement with a hot, flexible marker adhesive. All markers shall be installed so that the reflective face of each marker is facing the direction of traffic and is perpendicular to the direction of traffic flow.
9. Where raised pavement markers are placed along solid striping, the nearest edge of each marker shall be offset no less than 4 inches and no more than 6 inches from the nearest edge of the striping.
10. The dimensions shown to the pavement marking stripes are to the center of the stripe, or in the case of a double stripe, to the center of the double stripe.
11. All permanent pavement markings shall be installed the latest version of the Arizona Department of Transportation Standard Specifications for Road and Bridge Construction Section 708 - Permanent Pavement Markings.
12. All striping shall be a minimum width of 4 inches except where noted on the plans, or as noted below:
 - All edge or bike lines shall be 6 inches in width
 - All holding bars shall be 8 inches in width
 - All crosswalk lines shall be 12 inches in width
 - All STOP bars shall be 18 inches in width
13. The pavement marking dimensions on any given set of plans may be schematic and not to scale. The Contractor shall not scale dimensions from the plan sheets and shall follow all standard details that are noted on the plans when installing pavement markings.
14. When striping obliteration is necessary, it shall be accomplished by water blasting (other methods may be allowed with prior approval of the Town Traffic Engineer). A sealant approved by the Town of Gilbert Traffic Engineer shall be provided and applied by the Contractor to all areas of pavement marking obliteration. Applying paint over striping DOES NOT constitute stripe obliteration. Striping obliteration may go beyond the project limits so that the new striping will match existing pavement markings. The Town of Gilbert Traffic Engineer may require the Contractor to adjust signing and striping as necessary. Removal of raised pavement markers within obliteration limits is incidental.
15. Median ends shall be marked in accordance with the Town of Gilbert Standard Detail GIL-240.
16. If necessary to transition the new pavement to match existing conditions, the Contractor shall add additional asphalt to accommodate traffic. The Contractor or Developer shall complete this at their expense.
17. Should field conditions change due to construction on adjacent pieces of roadway, the Contractor shall notify the Town of Gilbert Traffic Engineering Section at (480) 503-6739 and shall submit for review an updated pavement marking and signing plan 21 days prior to paving. The Contractor may be required to re-stripe, stripe, and design striping for adjacent portions of roadway that are affected by their construction. Any changes, additions, or deletions will be accomplished by the Contractor at their expense.
18. All signing and pavement markings shall be installed within 5 days of completion of the final lift of asphalt or as required by the Engineer. Temporary traffic control may be required between final paving and completion of signing and striping.

SIGNING GENERAL NOTES:

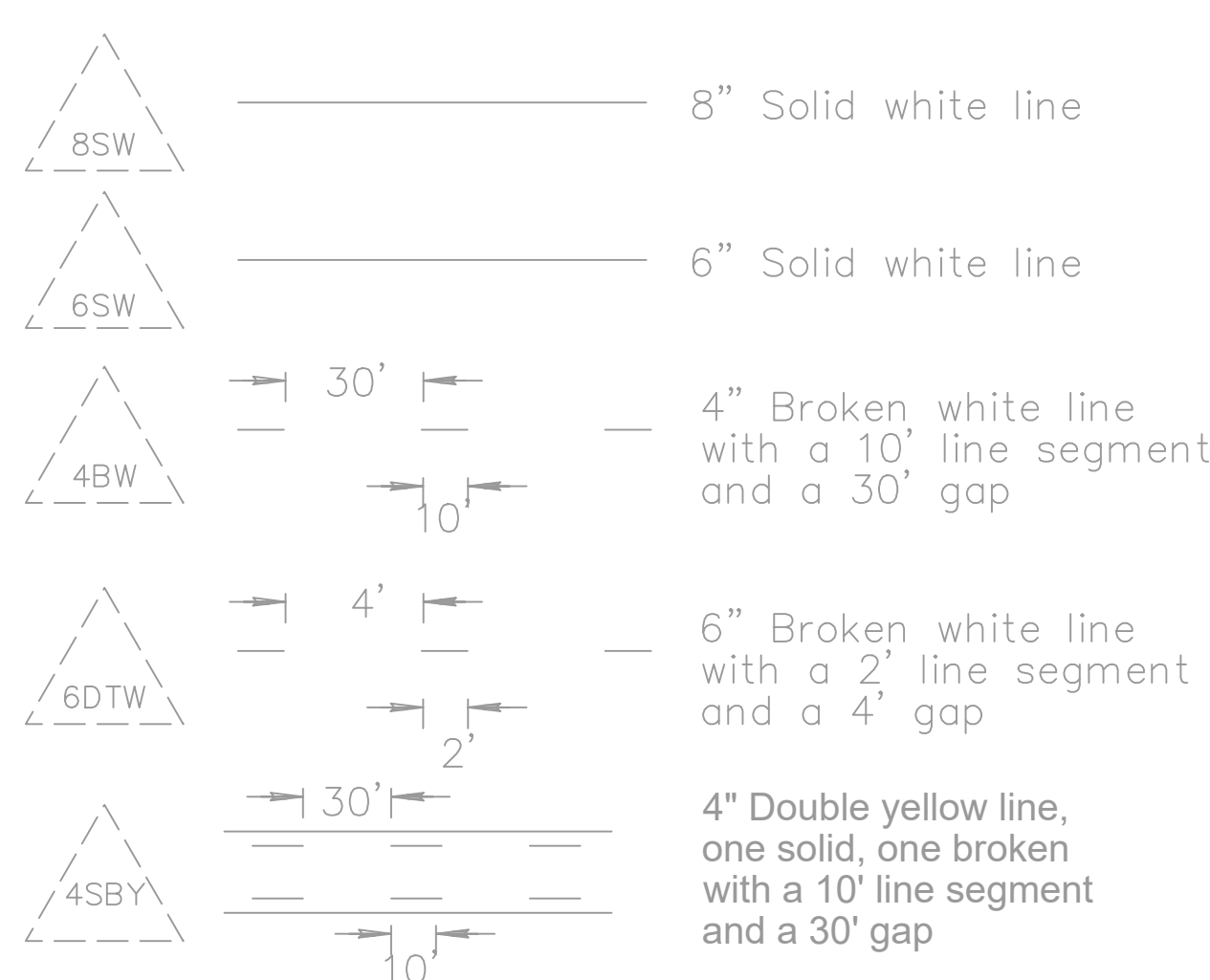
These Notes will be periodically updated by the Town of Gilbert. At the time of the publication of these Standards they were as follows:

1. The contractor installing signing within the Town of Gilbert's right-of-way will be required to obtain a Traffic Engineering Permit 5 days prior to any installation. Traffic Engineering Permit applications can be obtained from the Development Services Department located at 90 E. Civic Center Drive, Gilbert, AZ 85296 or at the Town of Gilbert website - www.gilbertaz.gov.
2. The signing Contractor shall contact the Engineering Inspector listed on the permit to arrange for a pre-installation meeting. No signing is to be installed prior to meeting with the Engineering Inspector.
3. All signing shall conform to the requirements contained in the latest edition of the Manual on Uniform Traffic Control Devices (MUTCD) and Handbook, and the latest edition of the Arizona Supplement published by the Arizona Department of Transportation.
4. All signs shall be installed using 1-3/4 inch or 2 inch square tubing as per Town of Gilbert Standard Detail GIL-227.
5. Signs shall be secured to post using 3/8 inch x 2-1/2 inch plated hex head bolts with flat washers (2 each) and nylon stop nuts (3/8 inch x 2-3/4 inch plated hex bolts with 2 inch post). A nylon washer shall be placed next to sign face.
6. Signs that are required to be removed or relocated during construction will be the responsibility of the Contractor. Any signing that is to be relocated or removed due to construction shall be reinstalled in its final location per Town of Gilbert Standard Detail GIL-227.
7. The Contractor shall allow the concrete in the postholes to cure for at least 24-hours prior to standing the poles and hanging any signing.
8. The Contractor shall ensure that at no time a traffic sign is installed in such a way as to be blocked by trees or any type of vegetation. In these cases, the Contractor shall contact the Engineering Inspector listed on the permit to provide an alternative location for the installation of signing in question.
9. Any signing that is to be affixed to a street light pole shall be done so using ¾ inch Stainless Steel banding with appropriate fasteners.
10. Any signing installed within the Town's right-of-way shall be installed by an individual that has current certification in signing installation or inspection from American Traffic Safety Services Association (ATSSA) or the International Municipal Signal Association (IMSA). Equivalents will be considered but must be submitted in writing to the Traffic Engineer 30 days prior to installation of any signing.
11. Signing quantities and installation locations are subject to change at the time of installation based upon current accepted practice. The contractor completing the signing installation shall contact the Traffic Engineering Section at 480-503-6739 prior to any signing being installed within the Town's right-of-way.
12. All signing will incorporate ASTM Type XI sheeting.
 - All Warning signs (yellow series) shall be ASTM Type XI (fluorescent yellow sheeting).
 - All School Area signing shall be ASTM Type XI sheeting (fluorescent yellow-green)
13. All signing specified to be ASTM Type XI shall be 3M 4000 (diamond grade) sheeting or equivalent, to include the same warranty period.
14. Sign imaging shall be in compliance with the reflective sheeting manufacturers matched component system. Sign imaging shall consist of an acrylic based electronic cuttable film (3M 1170 Series or equivalent) or silk screened (depending on the quantity of signage) with standard highway colors.
15. Any request to use sheeting other than that specified above shall be made in writing to the Town's Traffic Engineer 30 days in advance of installation.
16. The street name (D3) signs shall have a minimum 0.125 inch thickness. All other signing shall be a minimum 0.080 inch thickness.

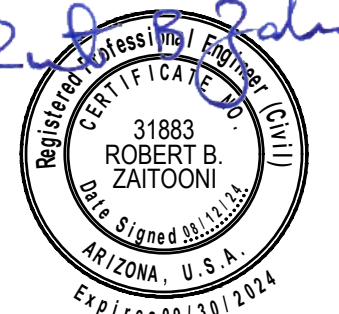
NEW STRIPING



EXISTING STRIPING

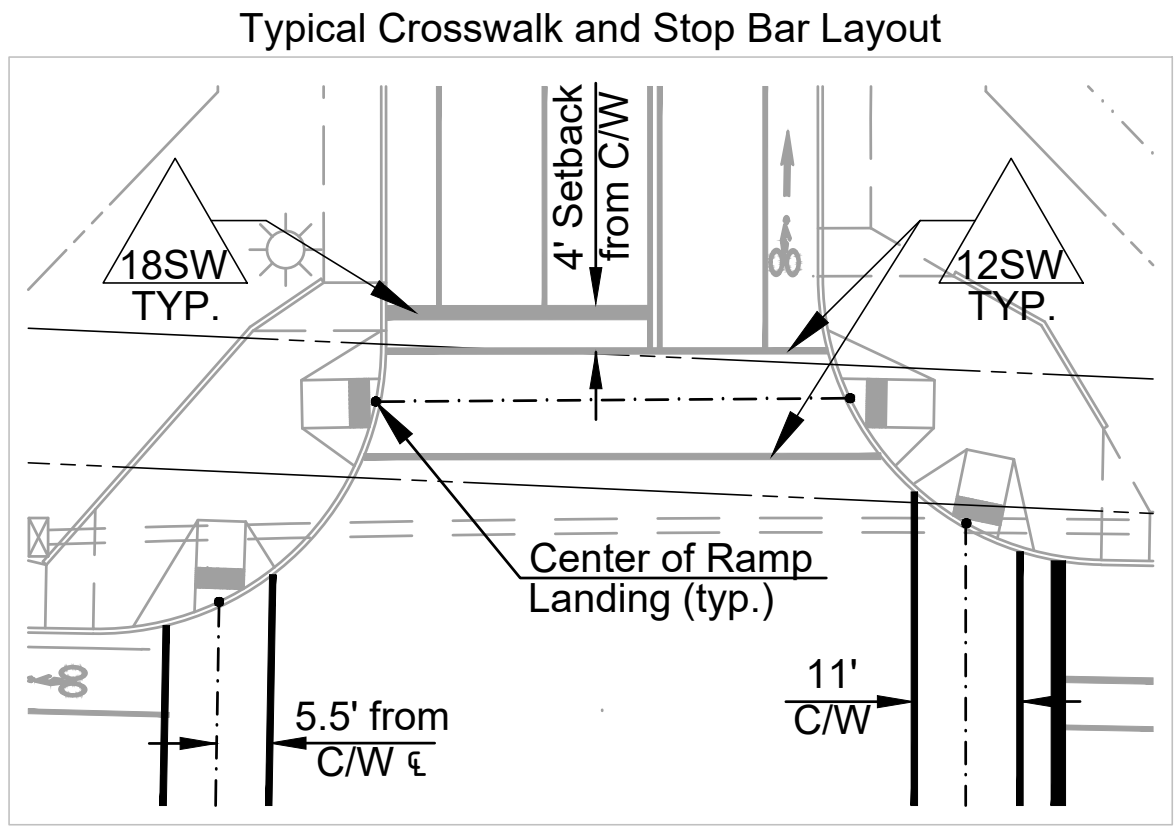


TEC	06-17-20	TOWN OF GILBERT COMMENTS	REVISION	DATE	INITIALS BY
TEC	07-16-20	TOWN OF GILBERT COMMENTS			
TEC	08-20-20	TOWN OF GILBERT COMMENTS			
TEC	09-01-20	TOWN OF GILBERT COMMENTS			
TEC	11-04-20	TOWN OF GILBERT COMMENTS			
TEC	02-09-21	TOWN OF GILBERT COMMENTS			
TEC	03-11-21	RVCDC COMMENTS			



SIGNING AND STRIPING NOTES OCOTILLO RD & 148th ST TRAFFIC SIGNAL PLANS					
DESIGNED	RBZ	DRAWN	AGA	CHECKED	RBZ

PROJECT NO. TEC2020-05	
DATE	03/19/2020
SHEET	6 OF 9



STRIPING COORDINATION NOTES

SIGNING AND STRIPING FOR THE SIGNAL SHALL BE COORDINATED WITH WATERSON PHASE 1 PLANS AS APPROVED BY TOWN OF GILBERT.

FOR STRIPING CONTINUATION SEE LARSON
ENGINEERING PLANS (NORTH SIDE OF OCOTILLO RD)
AND EPS GROUP PLANS (SOUTH SIDE OF OCOTILLO RD)

FOR STRIPING CONTINUATION SEE LARSON
ENGINEERING PLANS (NORTH SIDE OF OCOTILLO RD)
AND EPS GROUP PLANS (SOUTH SIDE OF OCOTILLO RD)

INTENTIONAL SIGNING AND STRIPING PLAN
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

TEC
Traffic Engineering Consultants, LLC

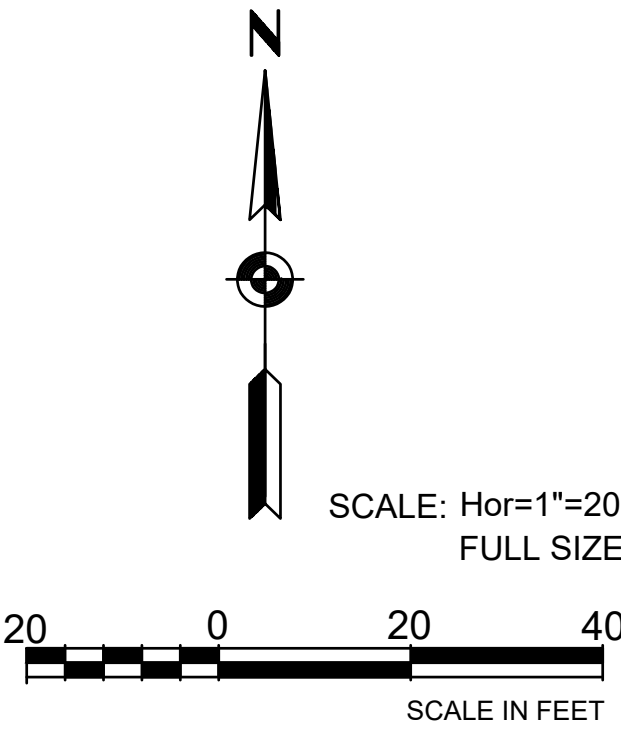
7904 E Chaparral Rd. Suite A110-146
Scottsdale, AZ 85250
(407) 687-8754
bob.zaitooni@gmail.com

PROJECT NO. TEC2020-05
DATE 03/15/2020
SHEET 7 OF 9

Call at least two full working days
before you begin construction.
ARIZONA
Arizona State Seal
Dial 8-1-1 or 1-800-STAKE-IT (785-5248)
In Maricopa County: (602) 263-1100

Professional Engineer
31883
ROBERT P.
ZAITOON
ARIZONA, U.S.A.
Expires 09/30/2024

REVISION	DATE	INITIALS BY
05-17-20	TEC	
07-16-20	TEC	
08-20-20	TEC	
09-01-20	TEC	
11-04-20	TEC	
02-09-21	TEC	
03-11-21	TEC	



REMOVE
E OCOTILLO RD
S 148th ST
STOP
STA 09+34
D3-1
D3-1
R1-1

STA. 10+00 ON OCOTILLO RD
STA. 10+00 ON 148th ST
ELEV=1280.31

REMOVE
E OCOTILLO RD
S SAILOR WAY
STOP
STA 10+78
D3-1
D3-1
R1-1

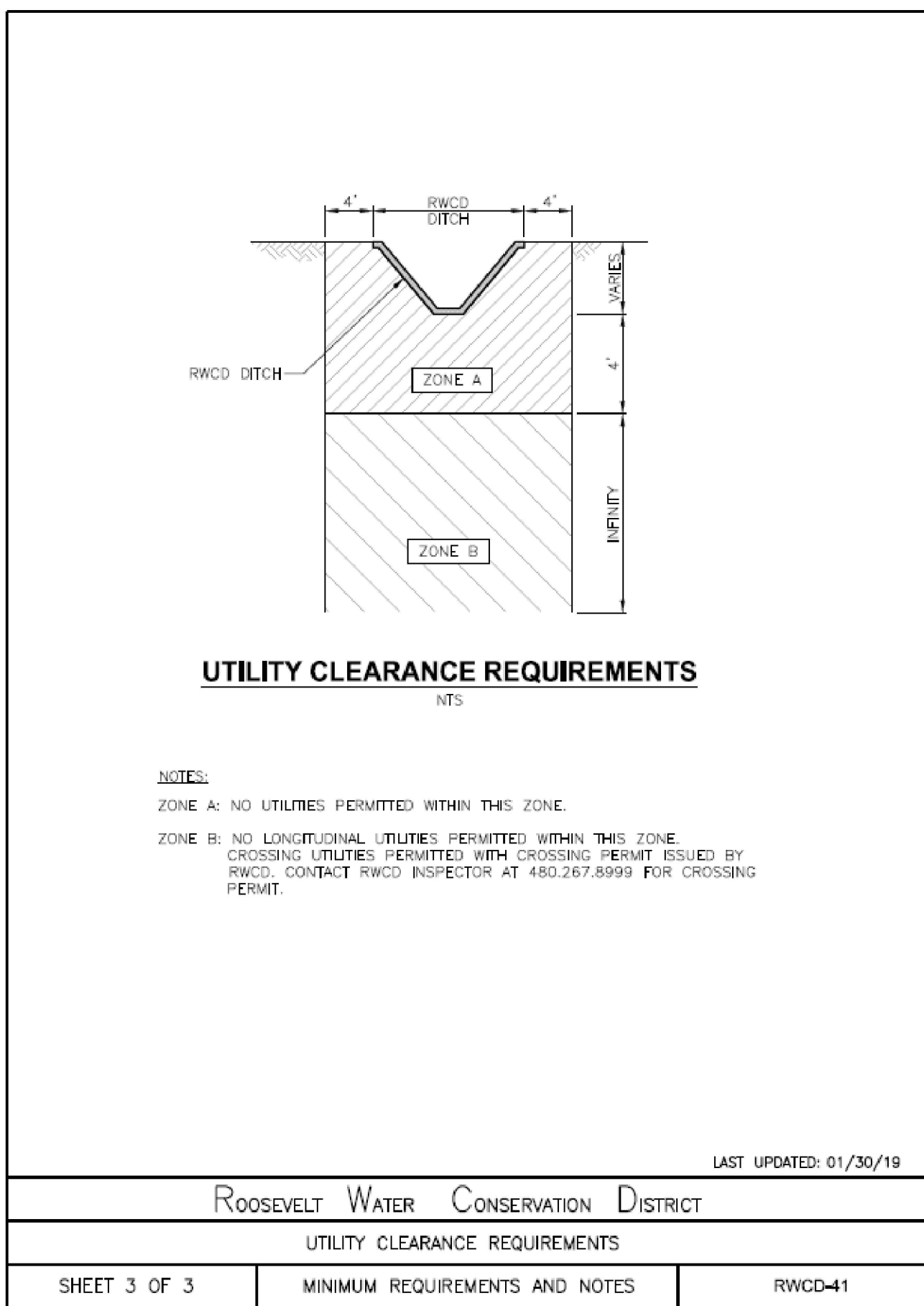
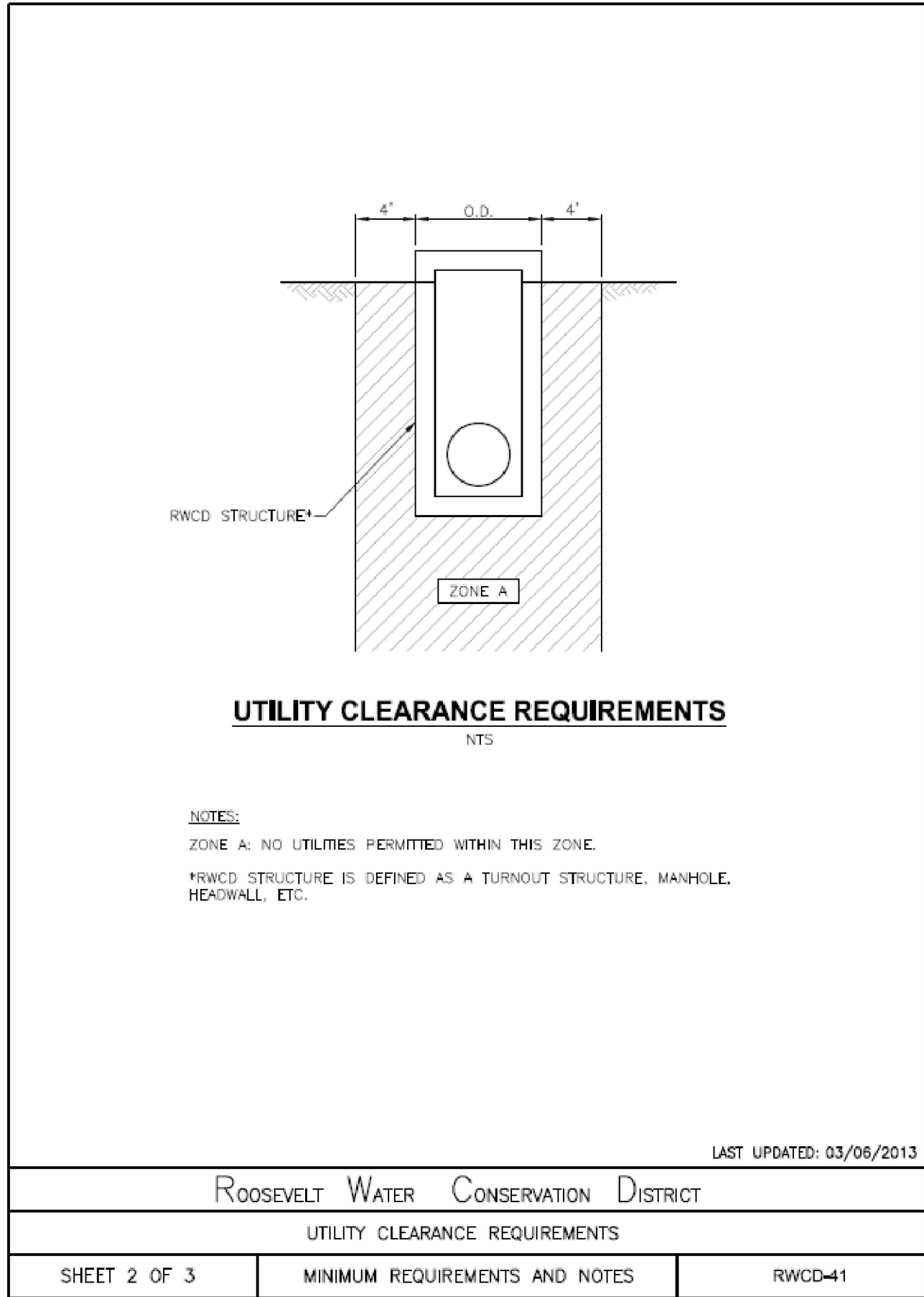
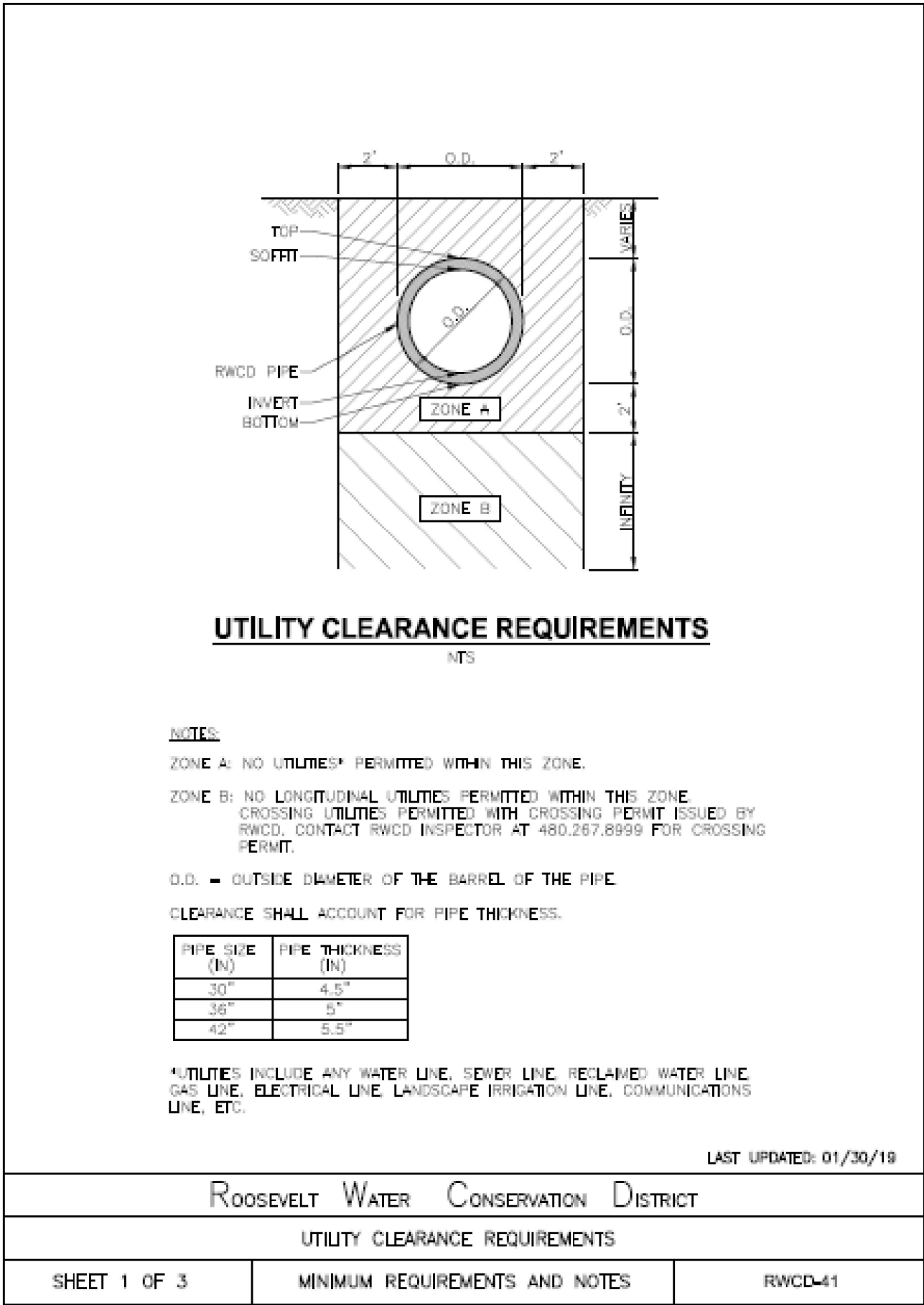
STA 09+18
R8-3
To Remain
R3-17
To Remain

SPEED
LIMIT
45
STA 07+40
R2-1-45
To Remain

RWCD GENERAL NOTES

1. GENERAL CONDITIONS:
- A. ALL CONSTRUCTION OF RWCD FACILITIES SHALL CONFORM TO THE LATEST RWCD SPECIFICATIONS (WWW.RWCD.ORG) AND LATEST MAG SPECIFICATIONS.
- B. THE CONTRACTOR SHALL OBTAIN A PERMIT FROM RWCD BEFORE ANY WORK BEGINS THAT IMPACTS RWCD FACILITIES OR ACCESS TO RWCD FACILITIES.
- C. IMPROVEMENT PLANS FOR RWCD FACILITIES SHALL NOT BE APPROVED UNTIL POTHOLE INFORMATION FOR CROSSING OR PARALLEL UTILITIES, OR OTHER CONFLICTS, IS RECEIVED, REVIEWED AND DEEMED ADEQUATE BY RWCD. POTHOLE RESULTS SHALL BE SEALED BY A LAND SURVEYOR OR CIVIL ENGINEER REGISTERED IN ARIZONA AND SHALL BE LOCATED BY PROJECT STATION AND OFFSET. EACH POTHOLE SHALL INCLUDE THE ELEVATIONS OF THE SURFACE AND THE TOP AND BOTTOM OF THE BURIED UTILITY BASED ON THE PROJECT DATUM.
- D. AN APPROVED SET OF PLANS SHALL BE ON THE JOB SITE AT ALL TIMES THAT WORK IS IN PROGRESS. DEVIATION FROM THE PLANS SHALL NOT BE ALLOWED WITHOUT AN APPROVED PLAN REVISION FROM THE ENGINEER.
- E. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE MAG SPECIFICATION 401, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, AND CURRENT TRAFFIC BARRICADE MANUAL.
- F. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING, IF NECESSARY, AN EXCAVATION AND DIRT MOVING PERMIT FROM THE MARICOPA COUNTY ENVIRONMENTAL SERVICES DEPARTMENT AND COMPLYING WITH ITS REQUIREMENTS FOR DUST CONTROL.
- G. NO ACTIVITY INVOLVING AN RWCD MANHOLE SHALL OCCUR WITHOUT PRIOR AUTHORIZATION BY RWCD. THIS INCLUDES, BUT IS NOT LIMITED TO, REMOVING THE MANHOLE LID, RIM OR ANY DEVICE HOLDING THE MANHOLE LID OR RIM IN PLACE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.267.8999 TO COORDINATE.
2. LANDSCAPE NOTES:
- A. TREES TO BE INSTALLED ADJACENT TO ANY RWCD FACILITY SHALL BE PLANTED NO CLOSER THAN 6' FROM THE OUTSIDE EDGE OF ROOT BALL TO THE OUTSIDE EDGE OF RWCD PIPE OR THE OUTSIDE EDGE OF ANY OTHER STRUCTURE, E.G. MANHOLE, DELIVERY STRUCTURE, ETC. RWCD RESERVES THE RIGHT TO MODIFY THIS CONDITION AT ANY TIME PER OUR DISCRETION. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.267.8999 TO COORDINATE.
- B. NO LANDSCAPE SPRINKLERS OR WATER EMITTERS ARE PERMITTED WITHIN 15 FEET OF ANY RWCD DELIVERY STRUCTURE.
- C. THE HOME OWNER'S ASSOCIATION IS RESPONSIBLE TO MAKE REPAIRS TO LANDSCAPING (INCLUDING TREES, GROUND COVER, GRASS, ETC) WHERE IT IS DAMAGED DURING REPAIRS TO RWCD PIPE OR OTHER FACILITIES.
- D. LANDSCAPE BOULDERS SHALL BE KEPT 15' AWAY FROM THE OUTSIDE OF RWCD MANHOLES, TURNOUT STRUCTURES, HEADWALLS, ETC.
- E. LANDSCAPE FACILITIES SHALL ADHERE TO RWCD'S UTILITY CLEARANCE REQUIREMENTS (RWCD DETAIL 41).
- F. LANDSCAPE IRRIGATION MAIN LINES SHALL CROSS UNDER RWCD FACILITIES PER RWCD STANDARD DETAIL 41 AND RWCD GENERAL NOTE SECTION 5. LANDSCAPE IRRIGATION LATERALS (ZONE PIPES DOWNSTREAM OF A CONTROL VALVE) 2" AND SMALLER MAY CROSS OVER THE TOP OF AN RWCD LATERAL PIPE WITH A MINIMUM OF 1' CLEARANCE. LANDSCAPE IRRIGATION LATERAL PIPES THAT ARE OVER 2" IN SIZE, OR THAT DO NOT MEET COVER AND CLEARANCE CRITERIA, SHALL CROSS UNDER THE RWCD LATERAL PER RWCD STANDARD DETAIL 41 AND RWCD GENERAL NOTE SECTION 5.
3. CONSTRUCTION SEQUENCE AND REQUIREMENTS:
- A. ALL CONSTRUCTION ACTIVITIES INVOLVING THE MODIFICATIONS AND/OR REPLACEMENT OF RWCD OWNED FACILITIES SHALL BE BONDED AT A FIGURE APPROVED BY THE GENERAL MANAGER. SUCH BOND SHALL BE MADE TO THE BENEFIT OF RWCD AND WILL NOT BE RELEASED UNTIL SUCH TIMES AS THE GENERAL MANAGER OR OTHER AUTHORIZED INDIVIDUAL HAS APPROVED ALL CONSTRUCTION ACTIVITIES FOR COMPLETENESS AND CORRECTNESS.
- B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING IRRIGATION DRY-UPS. CONTACT THE RWCD WATER DEPARTMENT AT 480.988.9586 TO SCHEDULE A DRY-UP.
- C. THE CONTRACTOR SHALL PROVIDE A COPY OF THE FOLLOWING TO THE RWCD INSPECTOR BEFORE THE PIPE IS INSTALLED.
- 1) RESULTS OF D-LOAD TEST ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.
- 2) A CONCRETE CYLINDER BREAK ON 1% OF THE PIPE LENGTH FOR EACH DAY OF BATCH PRODUCTION.
- 3) THE DATE OF PIPE MANUFACTURE AND CLASS OF PIPE SHALL APPEAR ON EVERY LENGTH OF PIPE DELIVERED TO THE JOBSITE. ALL PIPE SHALL HAVE A MINIMUM 14 DAYS OF CURE TIME BEFORE INSTALLATION.
- D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO EXCAVATION AND AVOID DAMAGE TO SAME. CALL 811 OR 602.263.1100 FOR BLUE STAKE TWO WORKING DAYS PRIOR TO DIGGING. IF AN UNIDENTIFIED UTILITY IS ENCOUNTERED DURING CONSTRUCTION, ALL CONSTRUCTION ACTIVITIES SHALL CEASE UNTIL THE UTILITY IS POTHOLED TO VERIFY RWCD CLEARANCE REQUIREMENTS ARE MET AND A PLAN TO RESOLVE CLEARANCE DEFICIENCIES, SUBMITTED BY THE CONTRACTOR, IS ACCEPTED BY RWCD.
- E. THE CONTRACTOR SHALL ENSURE NO CONSTRUCTION DEBRIS IS ALLOWED TO ENTER ANY RWCD DITCH OR FACILITY DURING CONSTRUCTION.
- F. WHEN RELOCATING AN EXISTING RWCD FACILITY, REMOVAL OF THE EXISTING FACILITY SHALL OCCUR ONLY DURING AN RWCD AUTHORIZED DRY-UP AND/OR AFTER THE NEW FACILITY IS OPERATIONAL.
- G. RWCD STRUCTURES ARE TO BE POURED MONOLITHICALLY. SHOULD IT BE NECESSARY TO CONSTRUCT AN RWCD STRUCTURE USING MULTIPLE CONCRETE POURS, THE CONTRACTOR WILL BE REQUIRED TO USE AN RWCD APPROVED METHOD OF WATER STOP ON EACH STRUCTURE THAT IS TO BE CONSTRUCTED USING MULTIPLE CONCRETE POURS. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.267.8999 TO COORDINATE.
- H. GRINDING AND/OR PATCHING OF NEW DELIVERY STRUCTURES, MANHOLES, HEADWALLS, AND RADIAL GATE STRUCTURES OR ANY CONCRETE STRUCTURE TO CORRECT DEFICIENCIES THAT RESULT FROM IMPROPER GRADE SETTING, OR CONSTRUCTION METHODS, OR BREAKAGE DUE TO ANY CIRCUMSTANCES SHALL NOT BE PERMITTED.
- I. THE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING RWCD FACILITY (HEADWALL, PIPE, DITCH, ACCESS ROADS, ETC.) DAMAGED DURING CONSTRUCTION AS DIRECTED BY THE RWCD INSPECTOR. THE REPAIRED FACILITY SHALL BE AT THE LOCATION, ELEVATION AND GRADES PRIOR TO CONSTRUCTION OR AS DIRECTED.
- J. RWCD MANHOLES ARE TO BE IDENTIFIED AND PROTECTED AT ALL TIMES BEFORE, DURING AND AFTER CONSTRUCTION. THE CONTRACTOR WILL BE REQUIRED TO INSTALL, AT A MINIMUM, TWO (2) 2X4s VERTICALLY ON OPPOSITE SIDES OF EACH MANHOLE TO PROVIDE IDENTIFICATION OF THE MANHOLE. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.267.8999 TO COORDINATE.
4. TRENCH EXCAVATION:
- A. TRENCH EXCAVATION, BACKFILLING AND COMPACTION FOR RWCD FACILITIES SHALL BE PER MAG SPEC SECTION 601, OR AS MODIFIED ON THE PLAN. BACKFILLING SHALL NOT BEGIN ON ANY PIPE UNTIL THE LINE HAS BEEN APPROVED BY RWCD'S INSPECTOR. BACKFILLING SHALL CONSIST OF ABC PLACED IN LIFT DEPTHS PER MAG SPEC 601.4.2. ALL OTHER LIFTS SHALL BE A MAX OF TWO (2) FEET. ABC BACKFILL SHALL EXTEND TO TWELVE (12) INCHES ABOVE THE TOP OF THE PIPE. COMPACTION OF THE BEDDING MATERIAL SHALL BE PER MAG SPEC 601.4.5. THE TRENCH BACKFILL SHALL BE THOROUGHLY COMPACTED TO THE DENSITIES LISTED ON THE PLAN OR AS SPECIFIED IN MAG SPEC 601.4.4, WHICHEVER IS MORE STRINGENT. MECHANICAL COMPACTION FROM THE BOTTOM OF THE TRENCH TO 1' ABOVE THE PIPE SHALL BE ACCOMPLISHED BY HAND OR WALK BEHIND EQUIPMENT SUCH AS A WACKER OR JUMPING JACK STYLE COMPACTOR, OR OTHER, AS APPROVED BY THE RWCD INSPECTOR. CONTRACTOR MAY SUBSTITUTE 1/2 SACK CLSM PER MAG SPEC SECTION 604 FOR BACKFILL UP TO SPRINGLINE. THE RWCD INSPECTOR MAY REQUIRE THE USE OF VIBRATORY EQUIPMENT IN CONJUNCTION WITH THE PLACEMENT OF CLSM MATERIAL. COMPACTION TESTS SHALL BE PERFORMED AT ALL STRUCTURES AND AT A MINIMUM OF EVERY 300 FEET ALONG THE PIPE AND AT LOCATIONS SPECIFIED BY THE RWCD INSPECTOR. A RESPONSIBLE PARTY FOR COMPACTION TESTING SHALL BE PRESENT DURING BACKFILLING OF ALL RWCD FACILITIES (INSTALLATIONS AND REMOVALS). COPIES OF THE COMPACTION TESTS ARE TO BE SUBMITTED TO THE RWCD INSPECTOR AT THE CONCLUSION OF EACH DAY.

5. UTILITY CROSSINGS:
- A. CALL THE RWCD INSPECTOR AT 480.267.8999 PRIOR TO MAKING THE UTILITY CROSSING. A PERMIT MAY BE REQUIRED FOR EACH UTILITY THAT CROSSES THE RWCD FACILITY.
- B. UTILITIES CROSSING RWCD SHALL MEET THE CLEARANCES SHOWN IN RWCD STANDARD DETAIL 41.
- C. WET UTILITIES (IE, WATER, SEWER, ETC.) CROSSING THE NEW RWCD IRRIGATION PIPE SHALL BE CONSTRUCTED PRIOR TO THE RWCD IRRIGATION PIPE.
- D. THERE SHALL BE NO JOINTS IN THE WET UTILITY LINES FOR A DISTANCE OF 8' EITHER SIDE OF THE CENTER OF THE RWCD IRRIGATION PIPE.
- E. WET UTILITIES SHALL BE BACKFILLED WITH ½ SACK SLURRY FROM THE UTILITY LINE UP TO 6" BELOW THE RWCD IRRIGATION PIPE FOR 7' EITHER SIDE OF THE CENTERLINE OF THE RWCD PIPE.
- F. WHERE PROPOSED WET UTILITY LINES WILL CROSS AN EXISTING RWCD PIPE LATERAL, THE WET UTILITIES SHALL BE INSTALLED VIA HORIZONTAL EARTH AUGER BORE IN A STEEL CASING PIPE, OR IF THE RWCD PIPE IS PLANNED TO BE REMOVED, THE WET UTILITIES SHALL BE INSTALLED AFTER THE NEW RWCD FACILITY IS OPERATIONAL AND THE OLD RWCD PIPE IS REMOVED. A PROFILE OF THE CROSSING SHALL BE PROVIDED AND THE TOP OF CASING PIPE AND OUTSIDE DIAMETER OF THE RWCD IRRIGATION PIPE ELEVATIONS SHALL BE SHOWN ON THE PLANS AND MEET THE CLEARANCES SHOWN IN RWCD DETAIL 41.
- G. WHERE PROPOSED WET UTILITY LINES WILL CROSS AN EXISTING RWCD OPEN DITCH LATERAL AND THE LATERAL WILL BE RELOCATED WITH THE CURRENT PROJECT, THE CONTRACTOR MAY REQUEST A DRY-UP FROM RWCD TO CROSS VIA OPEN CUT. IF A DRY-UP IS NOT AVAILABLE OR IF THE OPEN DITCH LATERAL IS NOT BEING RELOCATED WITH THE CURRENT PROJECT THEN THE PROPOSED WET UTILITY SHALL BE INSTALLED VIA A HORIZONTAL EARTH AUGER BORE IN A STEEL CASING PIPE. A PROFILE OF THE CROSSING SHALL BE PROVIDED AND THE TOP OF CASING PIPE AND OUTSIDE DIAMETER OF THE RWCD IRRIGATION PIPE ELEVATIONS SHALL BE SHOWN ON THE PLANS AND MEET THE CLEARANCES SHOWN IN RWCD DETAIL 41.
- H. DRY UTILITIES MAY BE INSTALLED VIA OPEN CUT TRENCH ACROSS A PROPOSED RWCD LATERAL, IF INSTALLED BEFORE THE RWCD FACILITY IS CONSTRUCTED. IF A DRY UTILITY WILL CROSS AN EXISTING RWCD PIPE OR DITCH THAT WILL REMAIN, THE DRY UTILITY SHALL BE INSTALLED VIA A BORE. BORE PITS SHALL BE LOCATED OUTSIDE ANY RWCD PROPERTY AND SHALL BE LOCATED A SUFFICIENT DISTANCE AWAY FROM THE RWCD FACILITY SUCH THAT THE RWCD FACILITY IS NOT COMPROMISED DURING EXCAVATION OR BORING.
- I. IF ANY EXISTING UTILITY IS FOUND TO HAVE LESS THAN 2 FT OF CLEARANCE TO THE RWCD FACILITIES, THE CONTRACTOR SHALL CONSULT WITH THE RWCD INSPECTOR AND THE OTHER UTILITY COMPANY FOR EVALUATION OF CLEARANCE AND RELOCATION REQUIREMENTS.
- J. UTILITY CROSSINGS AT THE RWCD MAIN CANAL, EXTENSION CANAL OR DRAIN DITCH SHALL BE INSTALLED BY HORIZONTAL EARTH AUGER BORE. NO BORE PITS SHALL BE ALLOWED WITHIN RWCD PROPERTY. ALL UTILITIES SHALL BE ENCASED IN A STEEL CASING. NO UTILITIES SHALL VARY FROM UTILITY CROSSING REQUIREMENTS WITHOUT WRITTEN APPROVAL FROM RWCD.
- K. ALL OVERHEAD WIRES THAT SUSPEND OVER THE RWCD RIGHT OF WAY SHALL HAVE 25 FEET MINIMUM OVERHEAD CLEARANCE.
6. RWCD INSPECTION:
- A. CALL THE RWCD INSPECTOR AT 480.267.8999 FOR RWCD INSPECTIONS. THE CONTRACTOR SHALL COORDINATE DAILY WITH THE RWCD INSPECTOR RELATIVE TO WORK ONGOING THAT DAY AND UPCOMING WORK THAT REQUIRES INSPECTION WITHIN THE NEXT 48 HOURS.
- B. THE CONTRACTOR SHALL PROVIDE A SAFE TRENCH FOR THE RWCD INSPECTOR TO INSPECT WORK INCLUDING SHORING AND LADDERS.
- C. CONSTRUCTION STAKING LATH SHALL INCLUDE STATIONING CONSISTENT WITH STATIONING SHOWN ON THE APPROVED IRRIGATION PLANS.
- D. MANHOLE AND STRUCTURE RIM ELEVATIONS MUST BE VERIFIED DURING THE CONSTRUCTION BY A "HUB" PLACED BY SURVEYORS.
- E. RWCD MAY REJECT ANY PART OR PORTION OF THE SUBJECT PIPE AT ANY POINT DURING THE INSTALLATION PROCESS AT ITS SOLE DISCRETION. SUCH DETERMINATION WILL BE BASED ON, AMONG OTHER POINTS, CURRENT ASTM STANDARDS FOR THE PIPE.
7. PROJECT ACCEPTANCE:
- A. THE JOB SITE, AT THE COMPLETION OF THE CONSTRUCTION, SHALL BE CLEANED OF ANY DEBRIS OR SPOIL RESULTING FROM THE CONSTRUCTION INCLUDING REMOVAL OF CONSTRUCTION DEBRIS FROM RWCD DITCHES.
- B. THE OWNER/DEVELOPER SHALL ACQUIRE PRIOR AUTHORIZATION FROM THE RWCD WATER DEPARTMENT AND RWCD INSPECTOR PRIOR TO PERFORMING AN AS-BUILT SURVEY. MANHOLE LIDS MUST BE TAKEN OFF BY PIPELINE CONTRACTOR. A NO-FEE DRY-UP IS REQUIRED FOR AS-BUILT SURVEY.
- C. THE OWNER/DEVELOPER SHALL PROVIDE CERTIFIED AS-BUILTS FOR THE LOCATION, ELEVATION AND SIZE OF ALL RWCD FACILITIES FOR RWCD RECORDS PRIOR TO RELEASING THE PROJECT BOND.
8. RWCD GENERAL NOTES:
- A. RWCD'S GENERAL NOTES ARE SUBJECT TO CHANGE WITHOUT NOTIFICATION AT ANY TIME PER OUR DISCRETION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE CONFORMANCE TO THE LATEST RWCD GENERAL NOTES. CONTACT RWCD'S CONSTRUCTION INSPECTOR AT 480.267.8999 TO RECEIVE THE MOST RECENT RWCD GENERAL NOTES.



RWCD GENERAL NOTES AND DETAILS
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

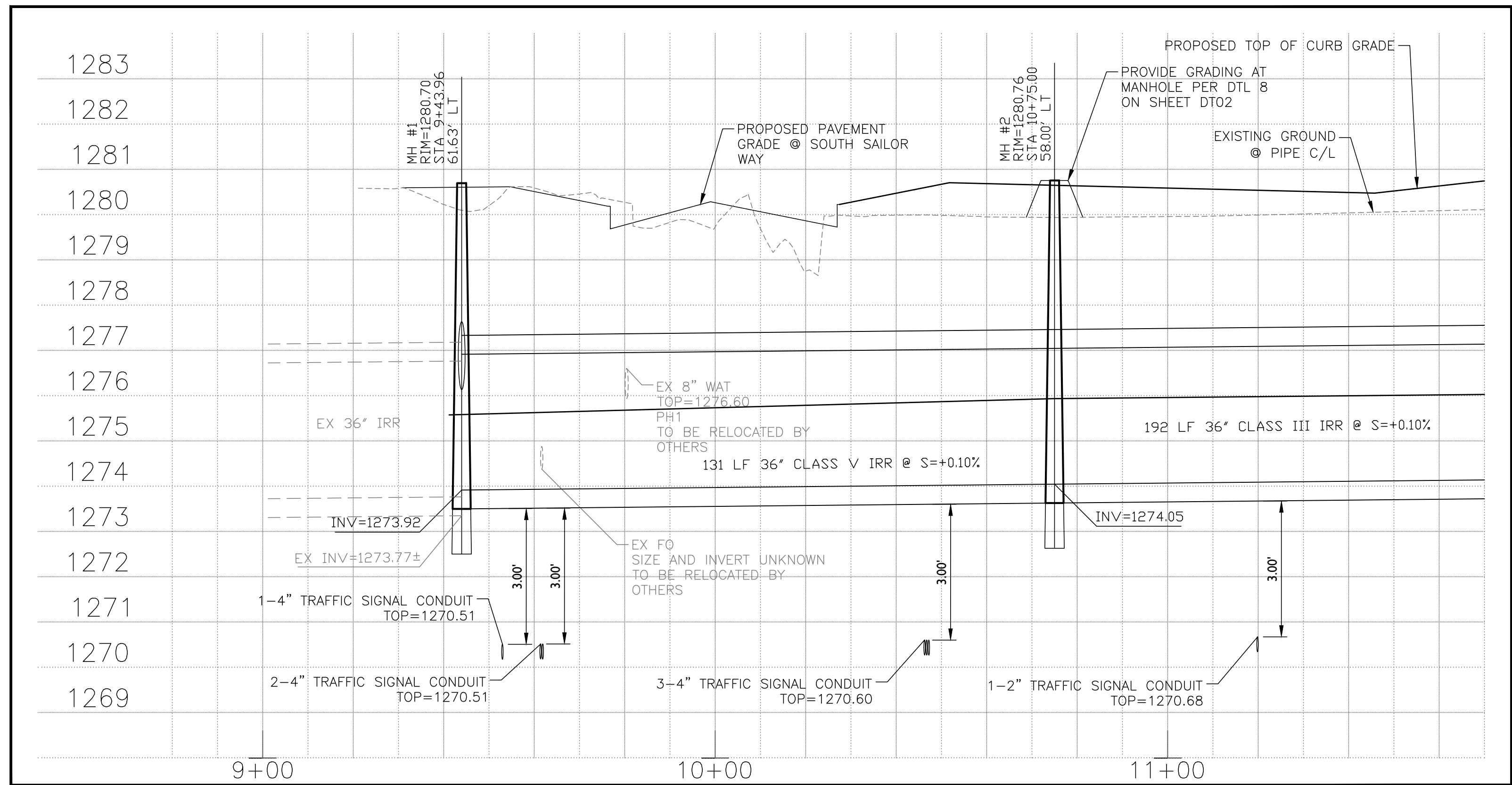
TEC
Traffic Engineering Consultants, LLC

7904 E Chaparral Rd, Suite A110-146
Scottsdale, AZ 85250
(407) 687-8754
bob.zaitoon@gmail.com

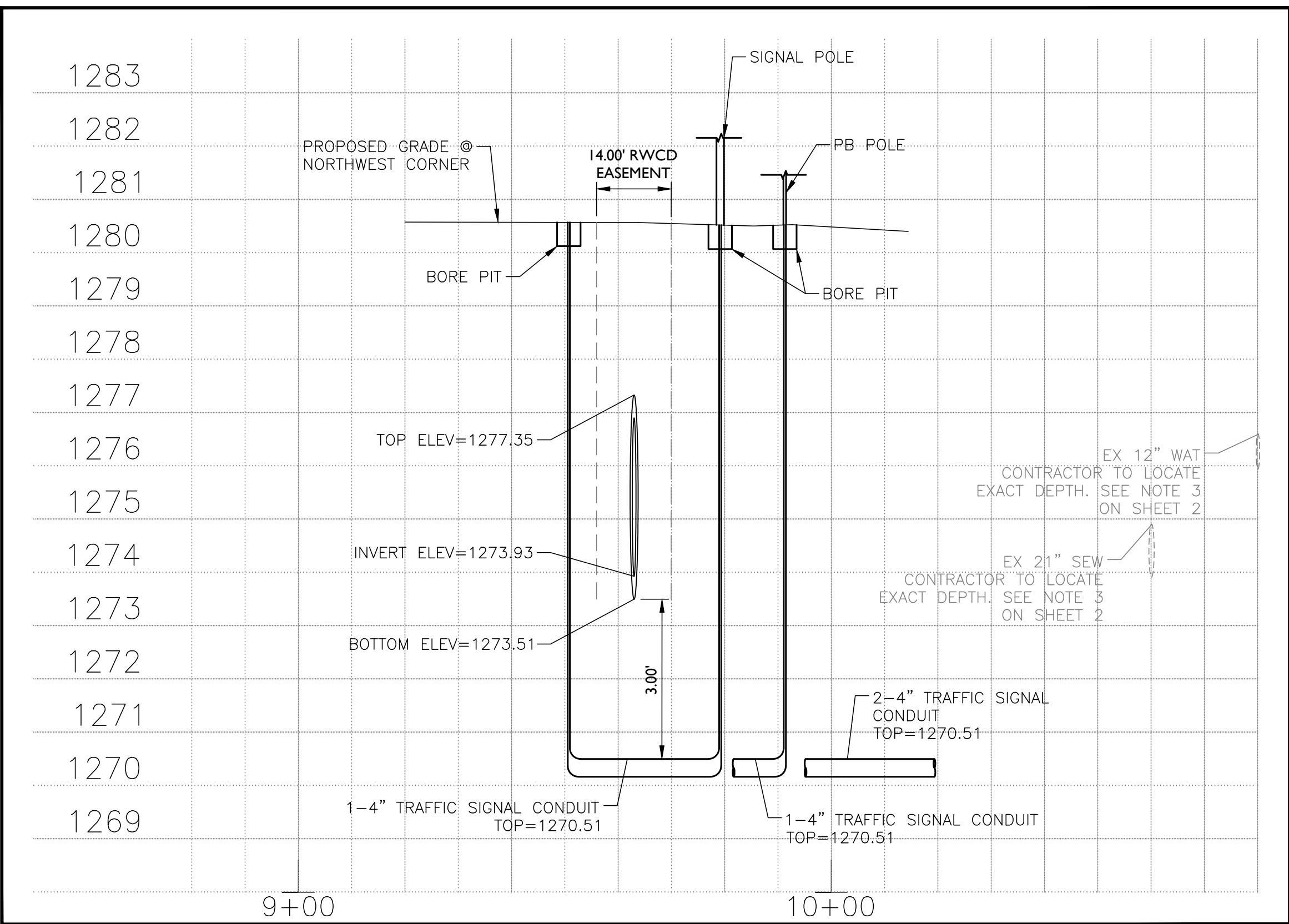
PROJECT NO. TEC2020-05
DATE 03/19/2020
SHEET 8 OF 9

REVISION	DATE	INITIALS BY
1	03-11-21	TEC
2	02-09-21	TEC
3	11-04-20	TEC
4	09-01-20	TEC
5	08-20-20	TEC
6	07-16-20	TEC
7	05-17-20	TEC

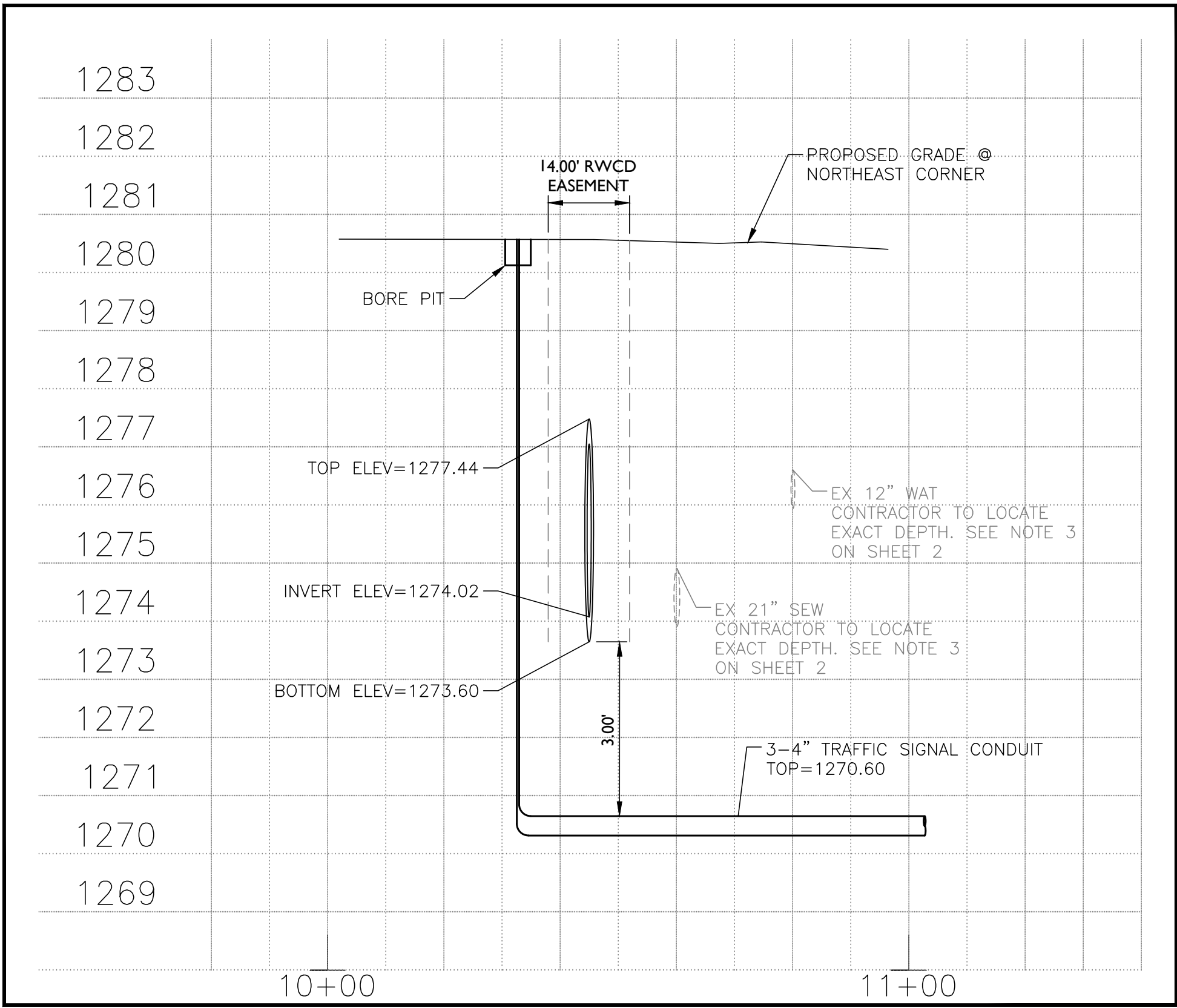




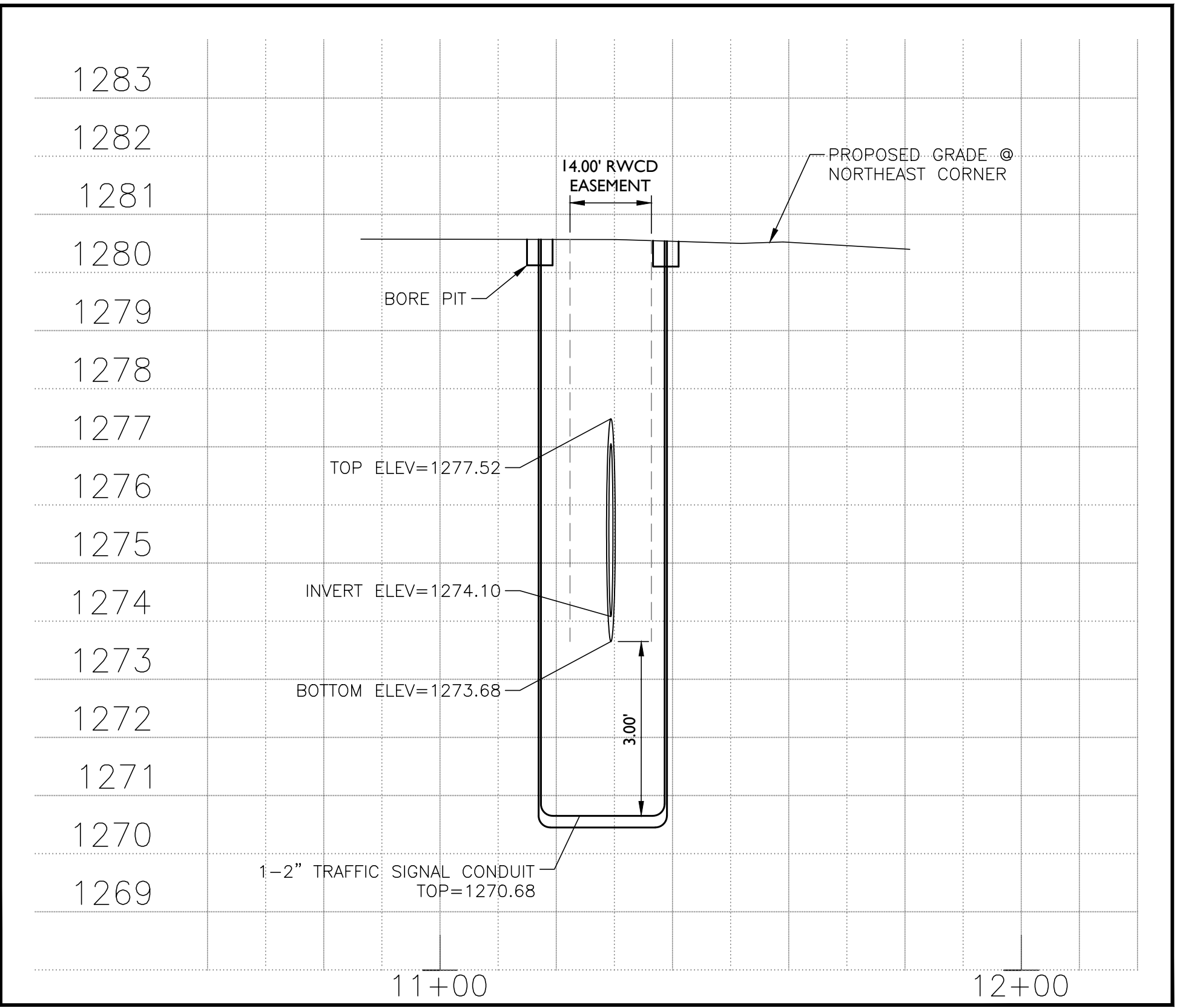
RWCD PROFILE



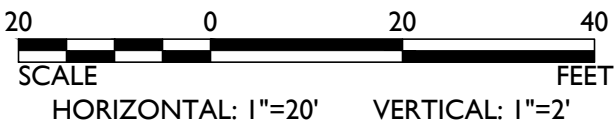
RWCD CROSSING DETAIL 1
STATION 9+63.0



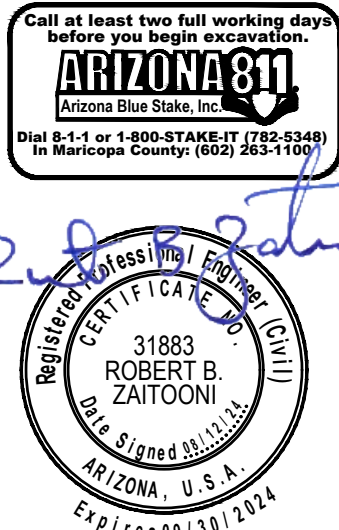
RWCD CROSSING DETAIL 2
STATION 10+49.5



RWCD CROSSING DETAIL 3
STATION 11+20.9



REVISION	DATE	INITIALS BY
05-17-20		TEC
07-16-20		TEC
08-20-20		TEC
09-01-20		TEC
11-04-20		TEC
02-09-21		TEC
03-11-21		TEC



RWCD CROSSING DETAILS
OCOTILLO RD & 148th ST
TRAFFIC SIGNAL PLANS

DESIGNED RBZ
DRAWN AGA
CHECKED RBZ

TEC
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PROJECT NO. TEC2020-05
DATE 03/15/2020
SHEET 9 OF 9