

K:\PHX_Roadway\191376005-Van Buren St\Road\03-Sheets\191376005CV01.dwg 8/4/2017 11:57 AM

CITY MANAGER
BRIAN DALKE

MAYOR
GEORGIA LORD

CITY COUNCIL
SHERI LAURITANO
BRANNON HAMPTON
JOANNE OSBORNE
JOE PIZZILLO
BILL STIPP

VICE MAYOR
WALLY CAMPBELL

CITY OF GOODYEAR
VAN BUREN STREET IMPROVEMENTS
SARIVAL AVENUE TO ESTRELLA PARKWAY
PORTIONS OF SECTIONS 5, 6, 7, AND 8, T1N, R1W AND
SECTION 1 AND 12, T1N, R2W OF THE GILA AND
SALT RIVER BASE AND MERIDIAN, GOODYEAR, ARIZONA
CON-16-3635

STATE	PROJ. NO.	NO.	TOTAL
ARIZ.	CON-16-3635	1	59
Kimley»Horn		7740 N. 16TH STREET SUITE 300 PHOENIX, AZ 85020	Phone: 602-944-5500 Fax: 602-944-7423 www.kimley-horn.com
DES: JYT	DR: JYT	CK: CCW	DATE: 08/17



PROJECT INFORMATION

OWNER:
TROY TOBIASSON
CITY OF GOODYEAR
195 N. 145TH AVE
GOODYEAR, AZ 85338
PHONE: (623) 693-2661

ENGINEER:
CHRIS WOOLERY, PE
KIMLEY-HORN & ASSOCIATES, INC.
7740 N 16TH STREET, SUITE 300
PHOENIX, AZ 85020
PHONE: (602) 216-1224
FAX: (602) 944-7423

BASIS OF BEARING

BEARINGS SHOWN HEREON ARE BASED UPON U.S. STATE PLANE
NAD83 COORDINATE SYSTEM ARIZONA STATE PLANE COORDINATE
ZONE CENTRAL, DETERMINED BY RTK NETWORK GPS OBSERVATIONS.

BENCHMARKS

FND BCHH -107
NW COR.
SEC. 1 T. 1N. R. 2W
CITY OF GOODYEAR
BENCHMARK
N: 891645.1480 E: 549678.7260
ELEVATION = 996.48

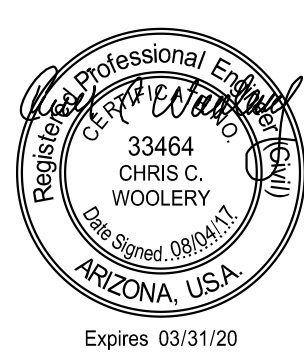
FND BCHH - 113
NE COR.
SEC. 8 T. 1N. R. 1W
N: 891543.4860 E: 560071.4140
ELEVATION = 989.87

FND BCHH - 116
NE COR.
SEC. 7 T. 1N. R. W
N: 891594.5890 E: 554861.7120
ELEVATION = 992.80

UTILITY NO CONFLICT CERTIFICATION				
UTILITY	UTILITY COMPANY	NAME OF COMPANY REPRESENTATIVE	TELEPHONE NUMBER	DATE SIGNED
IRRIGATION	ROOSEVELT IRRIGATION DISTRICT	APRIL VICTORINO	(602)-707-4727	5/12/2017
ELECTRIC	APS	HENRY MIRANDA	(602) 371-6605	5/12/2017
TELEPHONE	CENTURYLINK/ TERRA TECHNOLOGIES	KEVIN WAGNER	(815) 245-9640	5/12/2017
COMM	COX	DUANE MITRY	(623) 328-4181	5/12/2017
GAS	SOUTHWEST GAS	VALARIE GALLARDO-WELLER	(602) 484-5342	5/12/2017

ENGINEER'S CERTIFICATION

I, BEING THE PERSON RESPONSIBLE FOR DESIGNING THE FACILITIES
NECESSARY TO SERVE THIS DEVELOPMENT, HEREBY CERTIFY THAT ALL OF
THE UTILITY COMPANIES LISTED ABOVE HAVE REVIEWED THIS PROJECT
PROPOSAL AND ALL CONFLICTS HAVE BEEN RESOLVED AT THIS POINT. 'NO
CONFLICT' FORMS HAVE BEEN OBTAINED FROM EACH UTILITY COMPANY.



ROOSEVELT IRRIGATION DISTRICT APPROVAL

THE ROOSEVELT IRRIGATION DISTRICT (RID) HAS REVIEWED THESE PLANS
SOLELY FOR CONFORMANCE TO RID STANDARDS AND SPECIFICATIONS AS
RELATED TO RID IRRIGATION AND/OR DRAINAGE FACILITIES. RID MAKES
NO REPRESENTATIONS OR WARRANTIES REGARDING THE SUITABILITY,
AND/OR ADEQUACY, OF THE ITEMS BEING CONSTRUCTED TO MEET,
FULFILL, OR OTHERWISE SATISFY, THEIR INTENDED PURPOSE. RID
APPROVES THESE PLANS FOR CONCEPT ONLY AND ACCEPTS NO LIABILITY
FOR ERRORS OR OMISSIONS.

ROOSEVELT IRRIGATION DISTRICT

DATE

AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT THE "RECORD DRAWING" MEASUREMENTS AS
SHOWN HEREON WERE MADE UNDER MY SUPERVISION OR AS NOTED AND
ARE CORRECT TO BE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR

DATE

REGISTRATION NUMBER

DATA CERTIFICATION

I HEREBY CERTIFY THAT THIS DESIGN IS BASED ON ACCURATE
FIELD DATA WHICH HAS BEEN CHECKED IN THE FIELD PRIOR TO
SUBMISSION OF THESE PLANS TO THE CITY FOR APPROVAL.

APPROVALS

MARICOPA COUNTY ENVIRONMENTAL
SERVICE DEPARTMENT

DATE

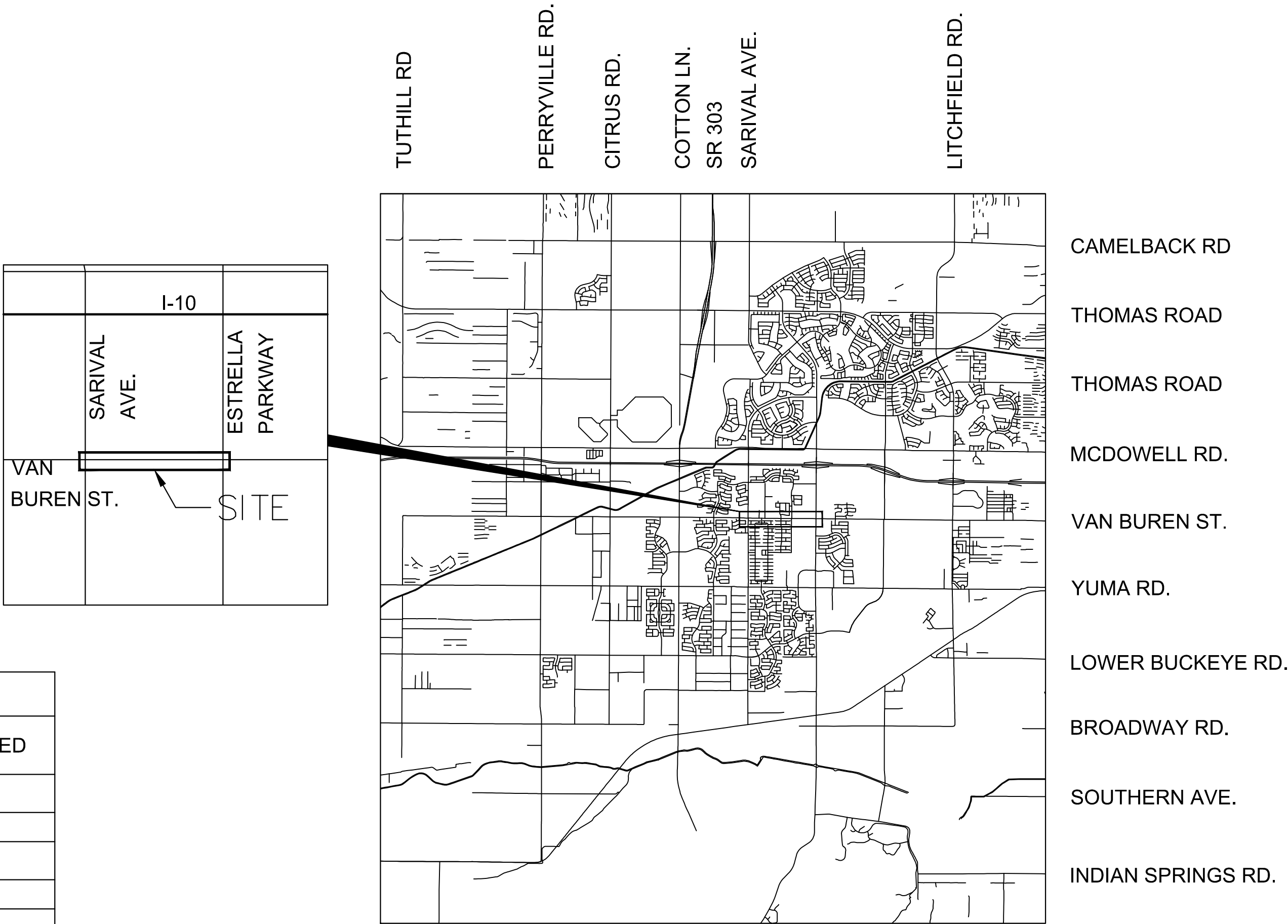
OPERATOR RESPONSIBLE
FOR INSTALLATION &
MAINTENANCE OF SWPPP

COMPANY

ADDRESS

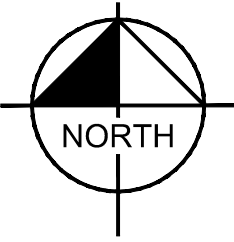
CONTACT NAME

CONTACT PHONE NUMBER

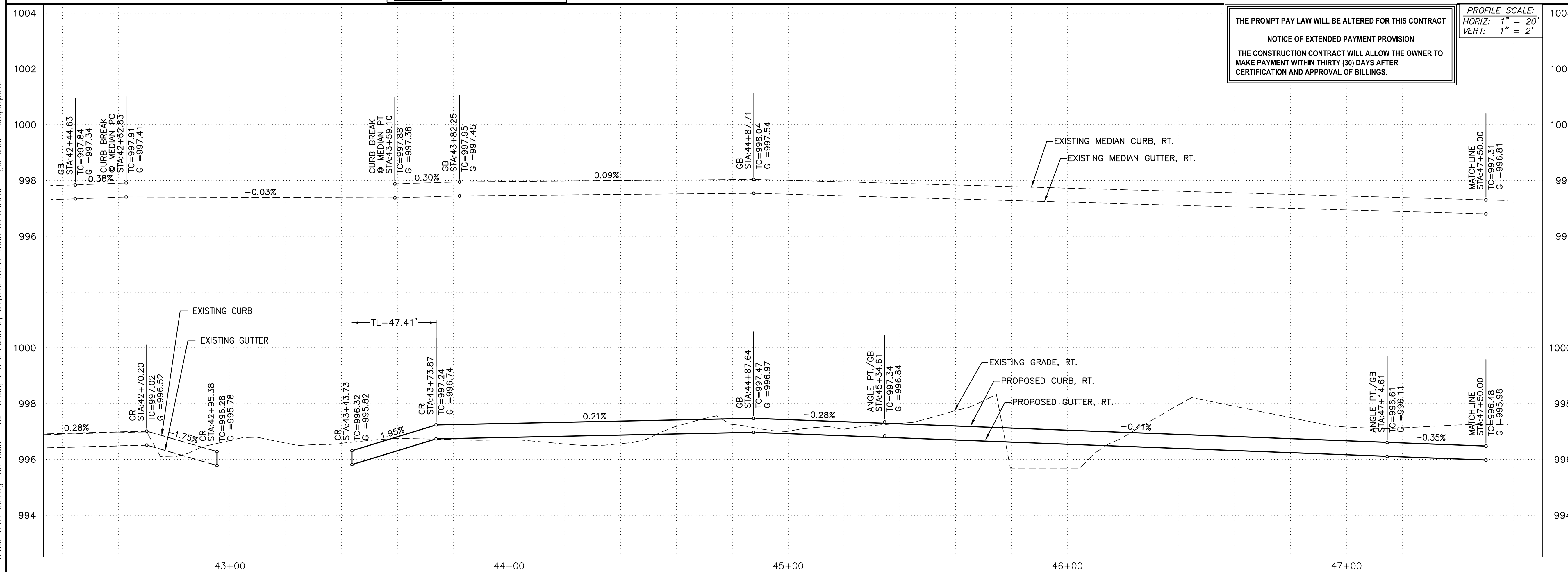


VICINITY MAP

N.T.S.



HTE 16-3114 VAN BUREN STREET - SARIVAL AVENUE TO ESTRELLA PARKWAY - 100% REVIEW (08/04/2017)



- | | | | |
|---------------------|-------------|-------------|-------------|
| VAN BUREN ST | | | |
| PV08 | PV09 | PV10 | PV11 |

PARCEL 1

PARCEL 2

PARCEL 3

ESTRELLA PARKWAY

HARRISON (ALIGNMENT)

KEYMAP

NTS

Call at least two full working days
before you begin excavations

ARIZONA 811

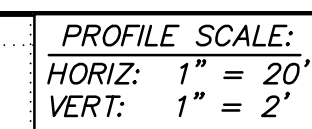
Arizona Statewide

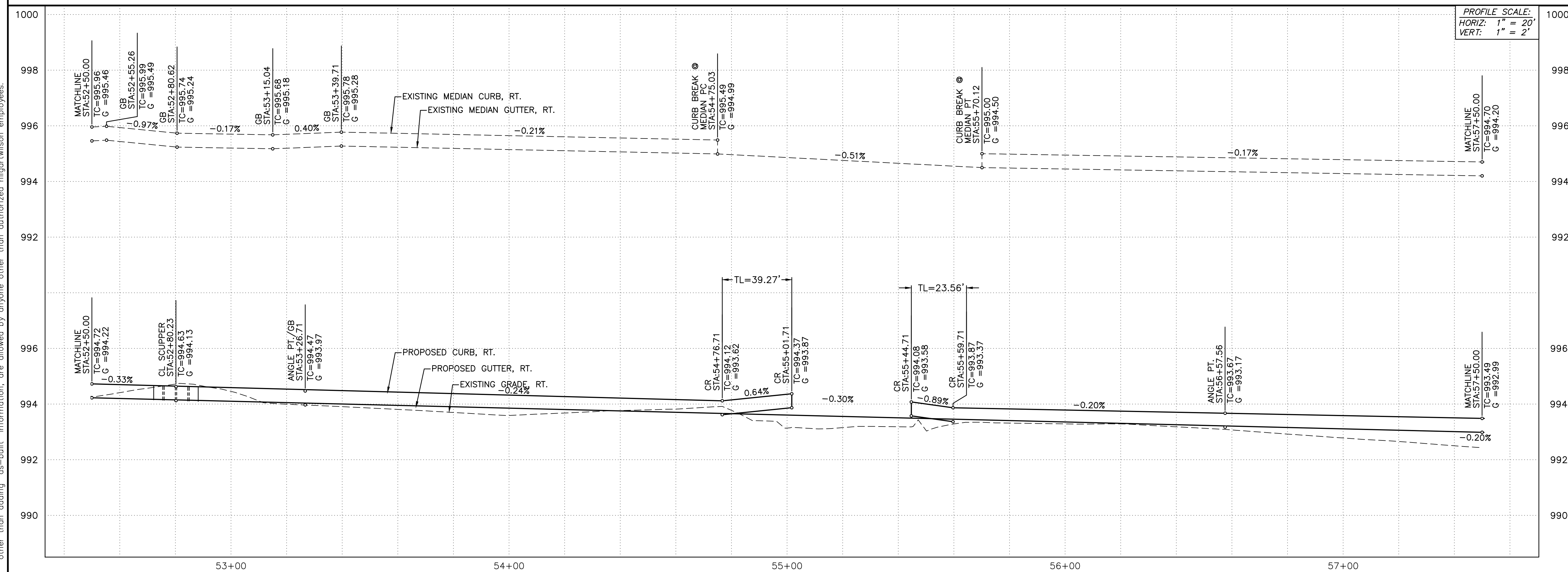
Dial 8-1-1 or 1-800-STAKE-111 (762-5348)
In Maricopa County: (602) 263-1100

HUDSON COMMONS			
VAN BUREN STREET			
GOODYEAR, ARIZONA			

OFFSITE PAVING PLAN – PLAN & PROFILE			
PROJ. NO.	1365		
DATE:	JUL 2017		
SCALE:	1"=20'		
DESIGNED: D3	DRAWN: RVW	APPROVED: DWG	DWG. NO.
REV.			PV08
			SHT. 18 OF 5

HILGART WILSON



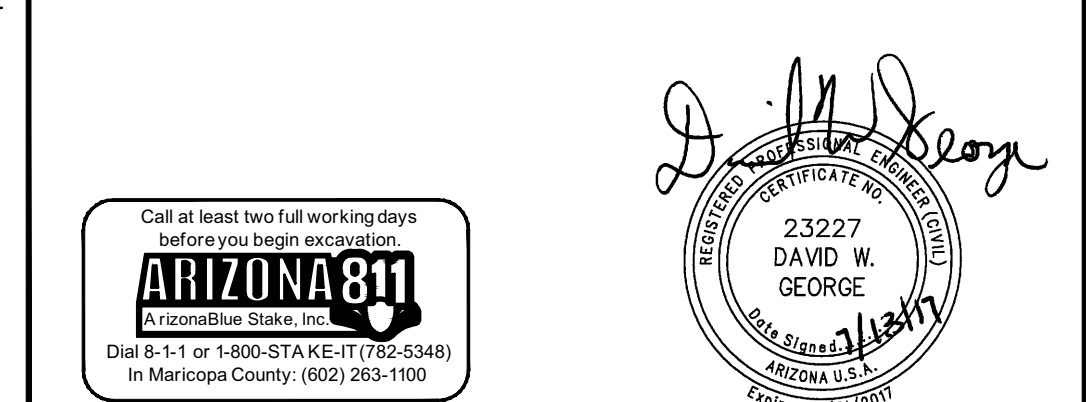


LEGEND

NEW PAVEMENT

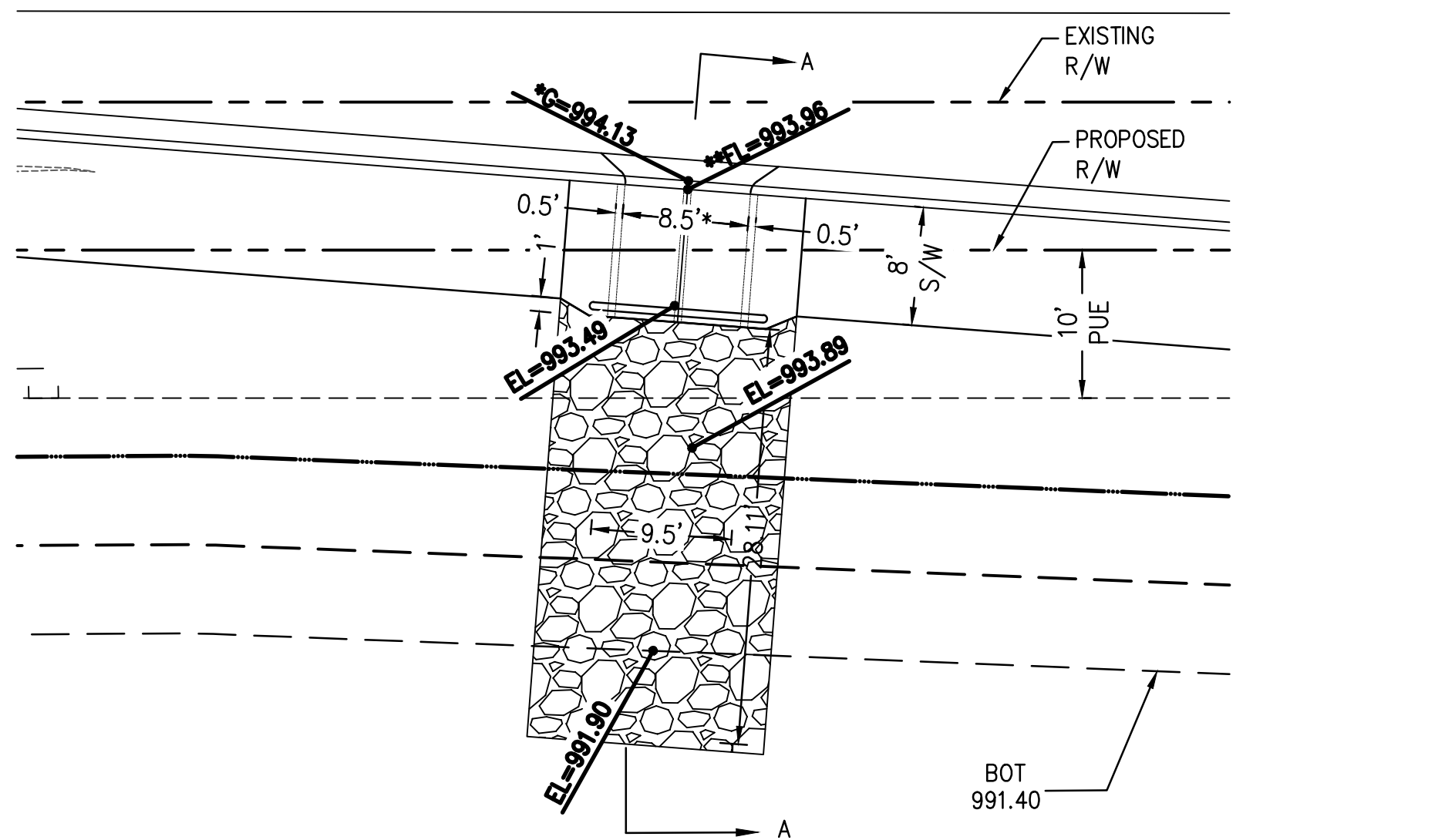
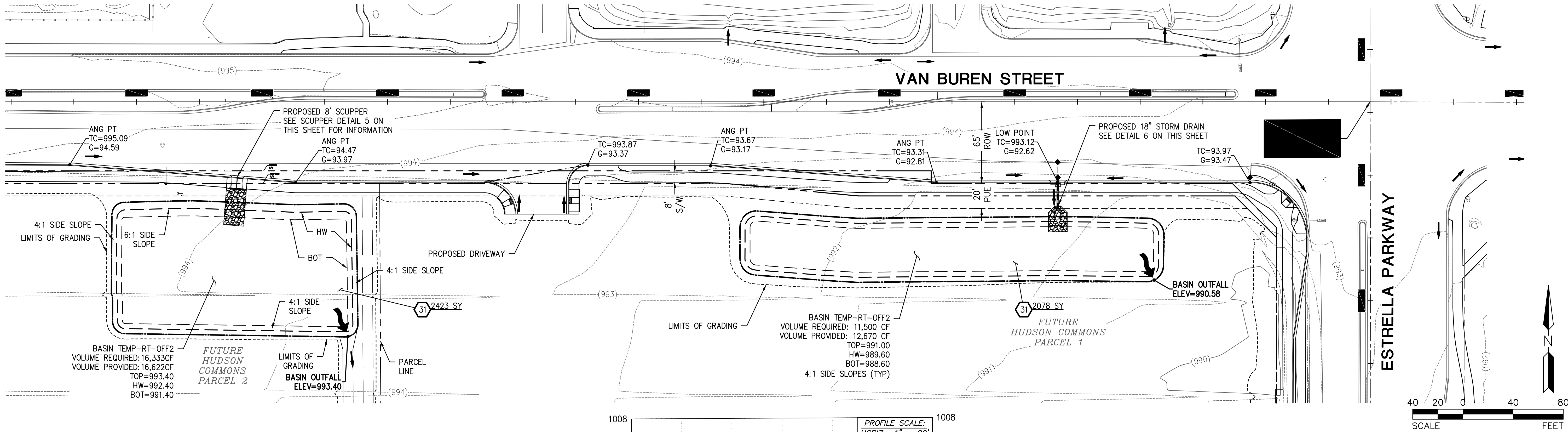
MILL EXISTING PAVEMENT
AND ADD NEW PAVEMENT

(A) IRRIGATION SLEEVING, SEE LANDSCAPE & IRRIGATION IMPROVEMENTS PREPARED BY LVA, HTE17-2157.



10/12/31 HUDSON COMMONS VAN BUREN STREET GOODYEAR, ARIZONA			
OFFSITE PAVING PLAN – PLAN & PROFILE			
PROJ. NO. 1365 DATE: JUL 2017 SCALE: 1"=20'	 HILGART WILSON		
DESIGNED: D3	DRAWN: RVW	APPROVED: DWG	DWG. NO.
REV.			PV10 SHT. 20 OF 59

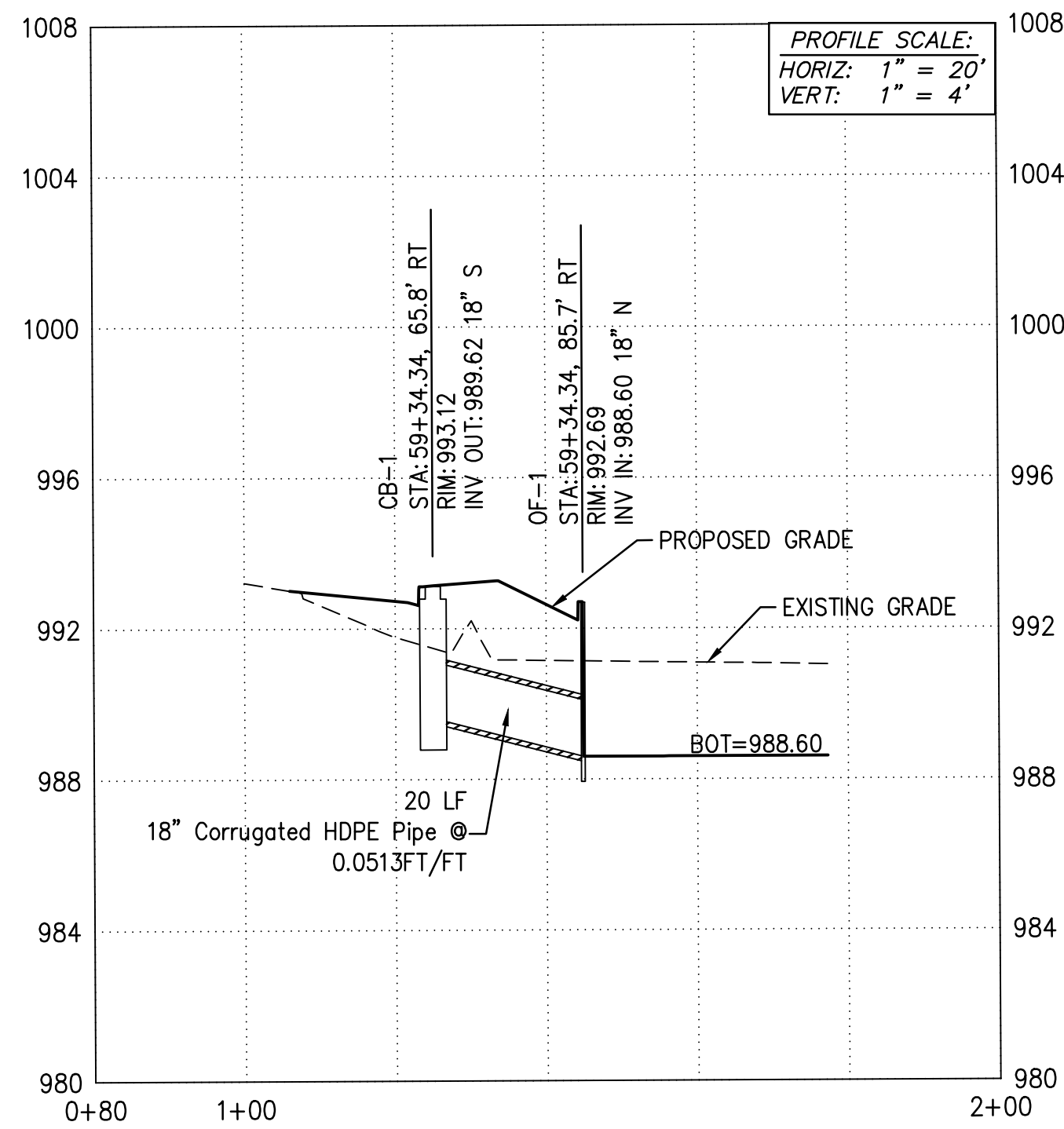
Copyright, HILGARTWILSON, 2017 — This plan document set is the sole property of HILGARTWILSON. No alterations to these plans, other than adding "as-built" information, are allowed by anyone other than authorized HILGARTWILSON employees.



MAG STD DTL 206-1 & 2
DETAIL 5-SCUPPER DETAIL
N.T.S.

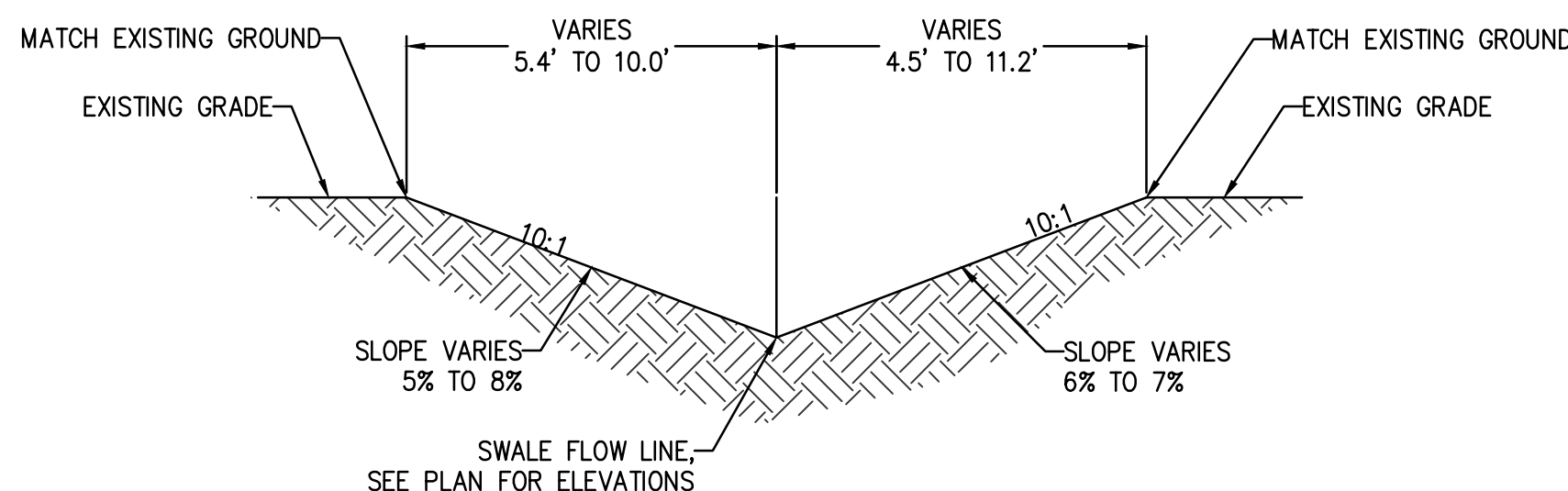
* THIS DIMENSION INCLUDES TOTAL
OPENING PLUS THE SUPPORT WALL BETWEEN OPENINGS

** ELEVATION IS 2" BELOW THE GUTTER
ELEVATION SHOWN IN PROFILE.



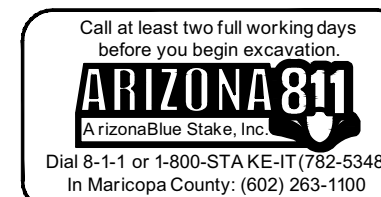
DETAIL 6-STORM DRAIN

VAN BUREN STREET
SHEET PV11
LOOKING EAST

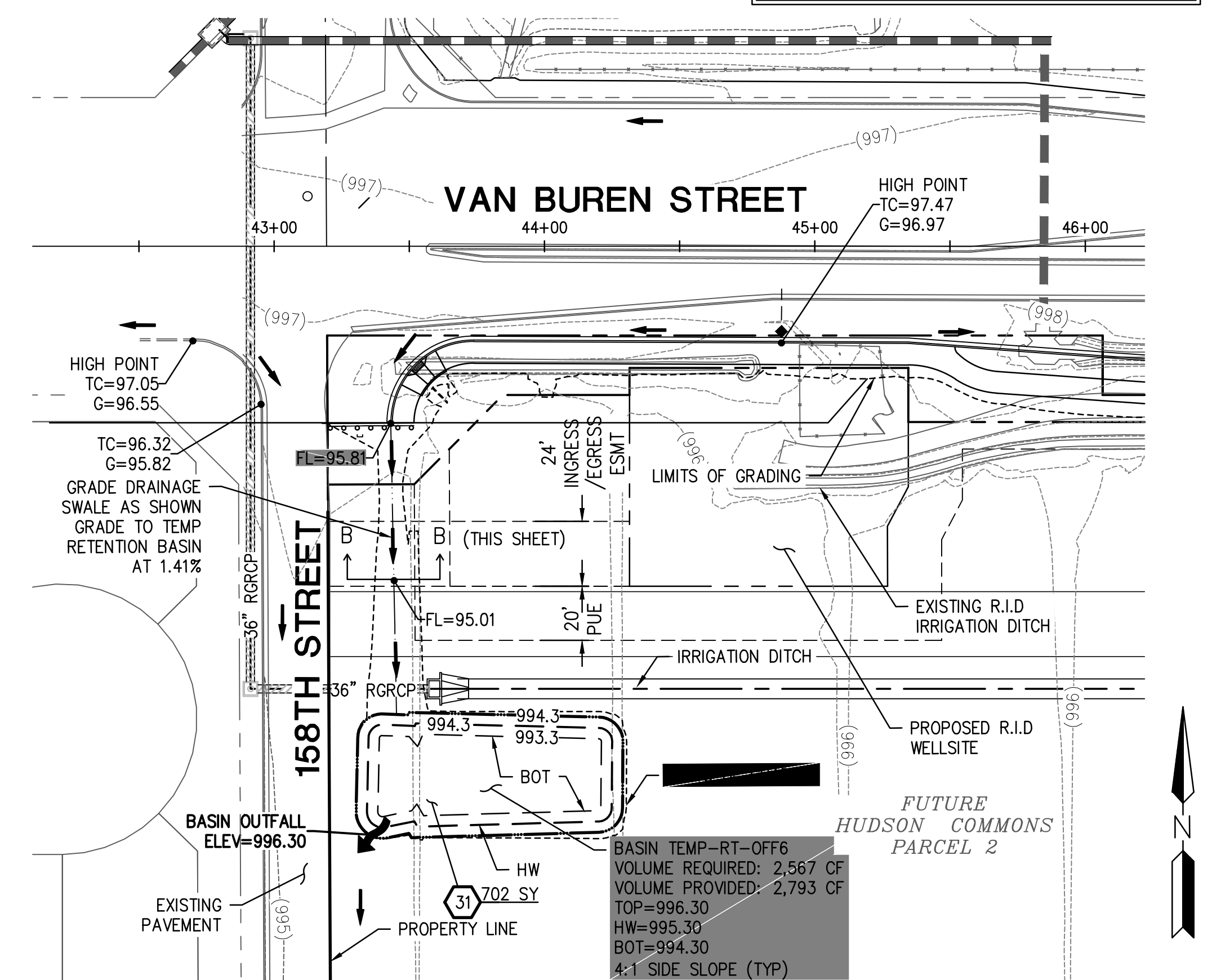


**DETAIL 7-SECTION B-B
DRAINAGE SWALE**
N.T.S.

STORM DRAIN CONSTRUCTION NOTES
31 INSTALL DUST PALLIATIVE PER MAG STD SPEC 230. 5203 SY



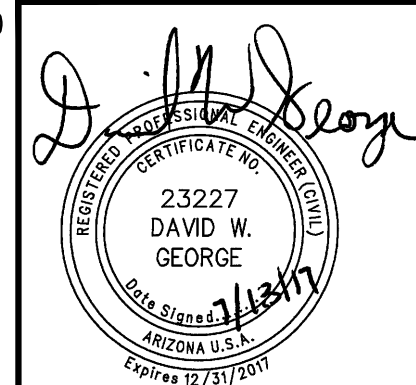
THE PROMPT PAY LAW WILL BE ALTERED FOR THIS CONTRACT
NOTICE OF EXTENDED PAYMENT PROVISION
THE CONSTRUCTION CONTRACT WILL ALLOW THE OWNER TO
MAKE PAYMENT WITHIN THIRTY (30) DAYS AFTER
CERTIFICATION AND APPROVAL OF BILLINGS.



GENERAL GRADING NOTE:
ALL GRADING SLOPES WITHIN
RIGHT AWAY SHALL BE 10:1.
ALL GRADING SLOPES
IN P.U.E SHALL BE 6:1.

REV:

HILGARTWILSON
ENGINEER | PLAN | SURVEY | MANAGE
2141 E. HIGHLAND AVE., STE. 250
PHOENIX, AZ 85016
P: 602.490.0535 / F: 602.368.2436
www.hilgartwilson.com

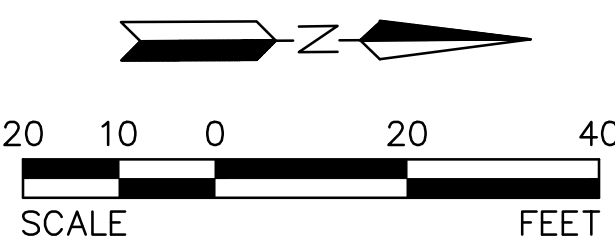
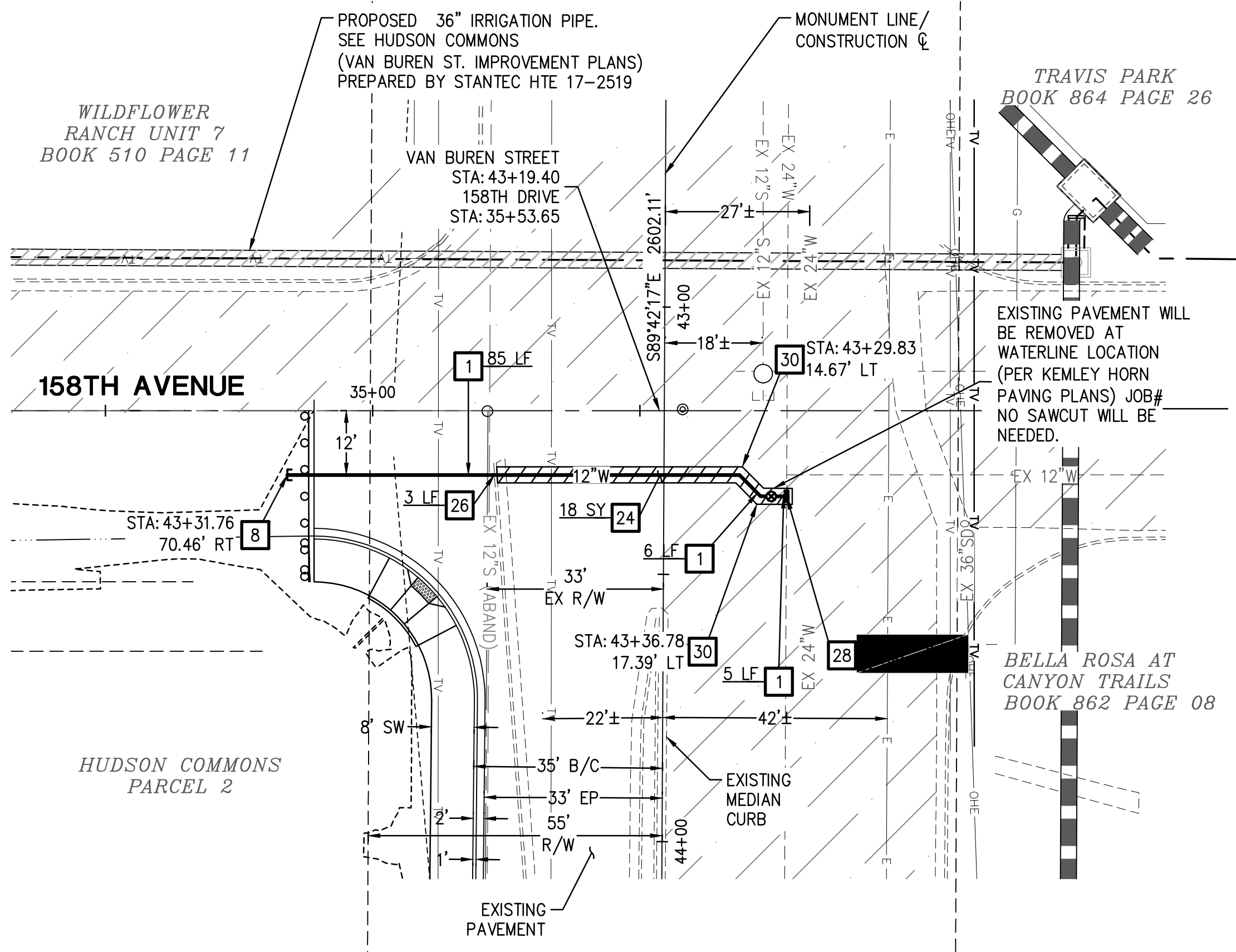


HUDSON COMMONS

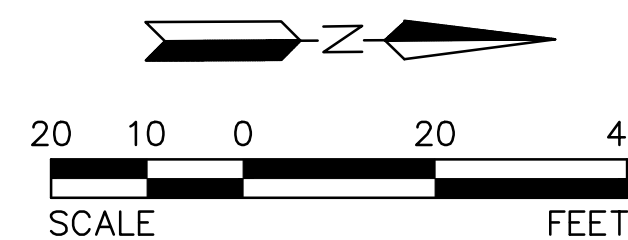
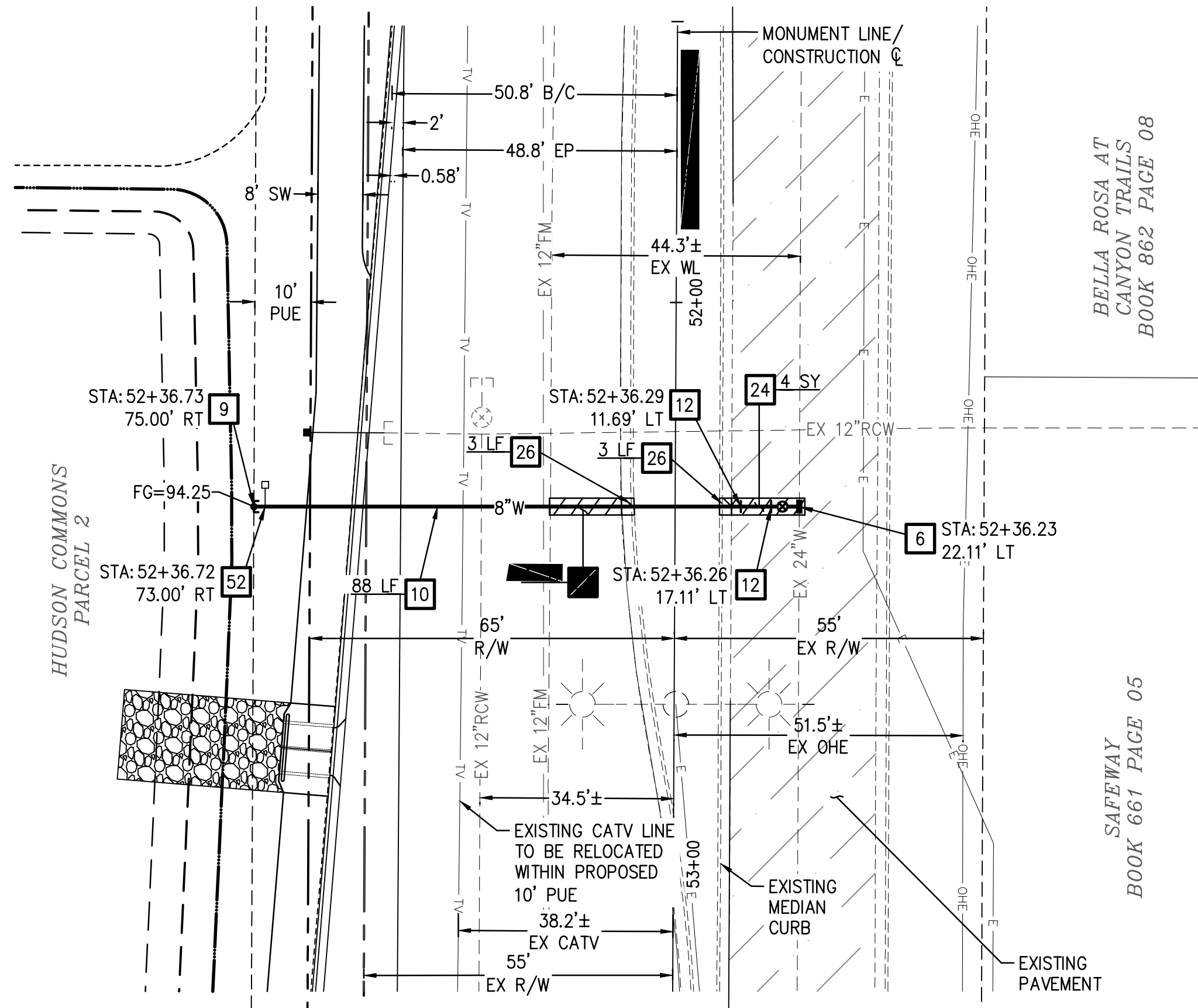
VAN BUREN STREET
GOODYEAR, ARIZONA

TEMPORARY RETENTION BASIN DETAILS

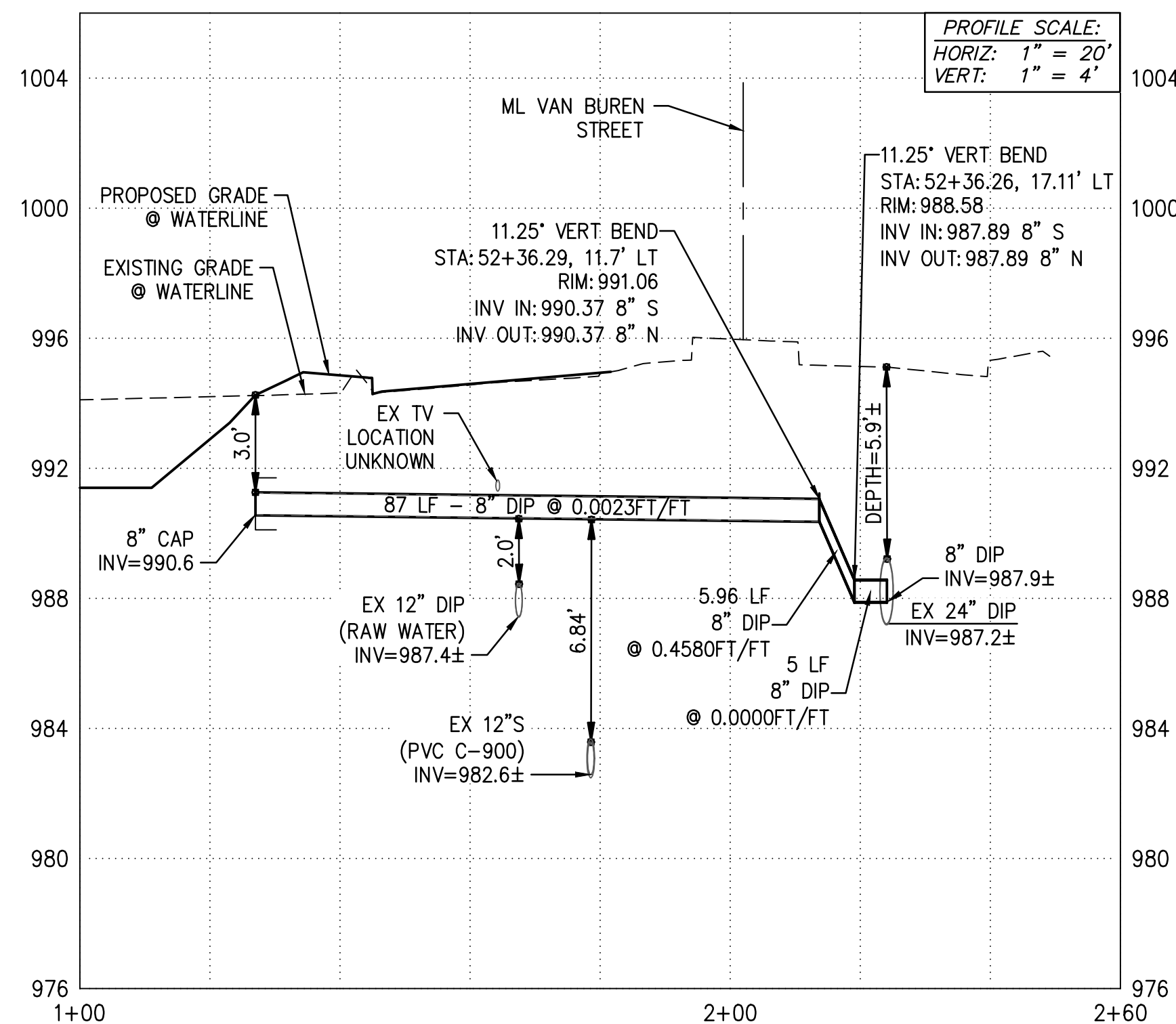
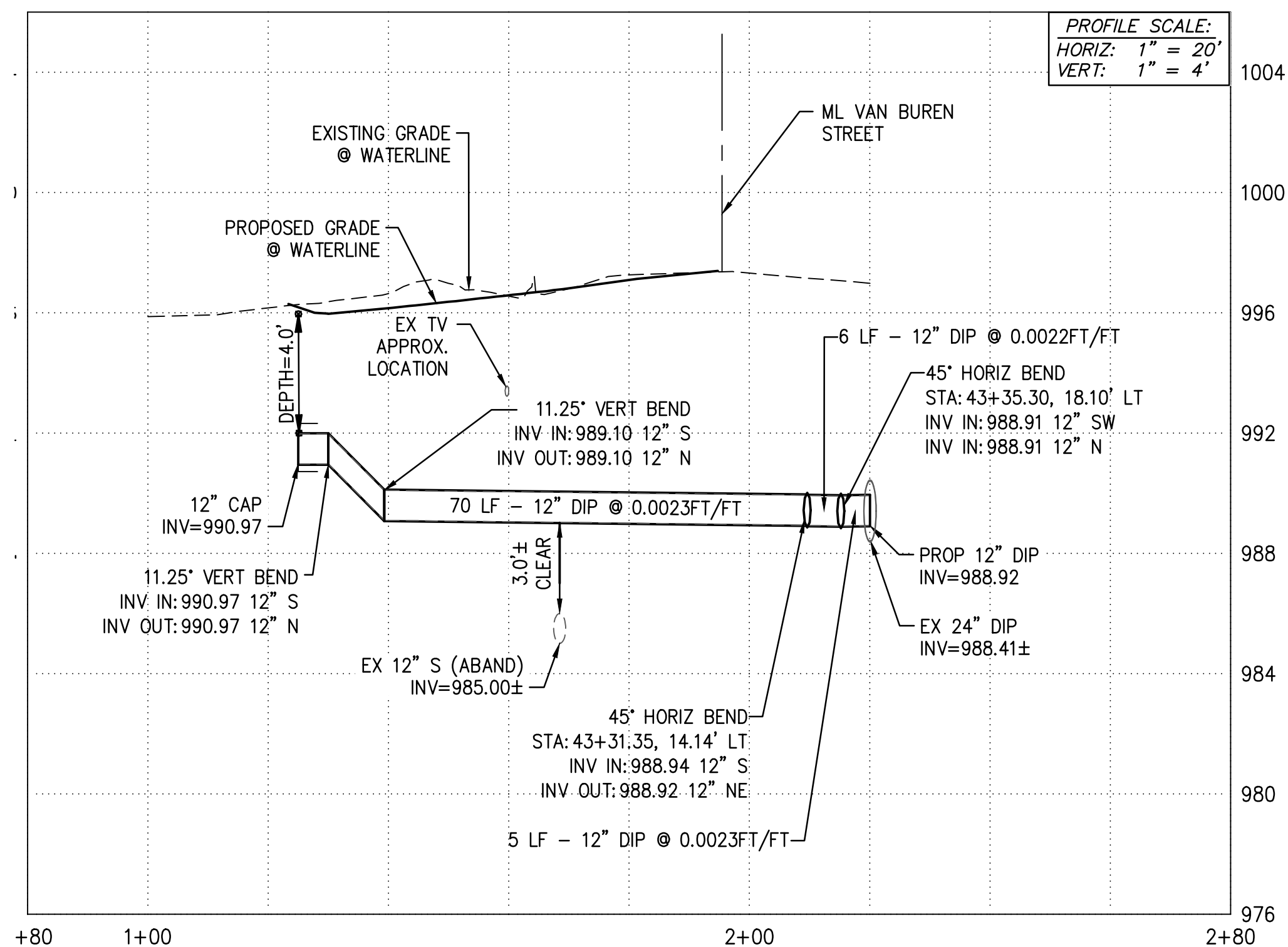
HILGARTWILSON
PROJ NO.: 1365
DATE: JUL 2017
SCALE: AS SHOWN
DRAWN: RW
DESIGNED: D3
APPROVED: DWG
DWG. NO.
DR01
SHT. 22 OF 59



**DETAIL 1
VAN BUREN STREET**



**DETAIL 2
VAN BUREN STREET**



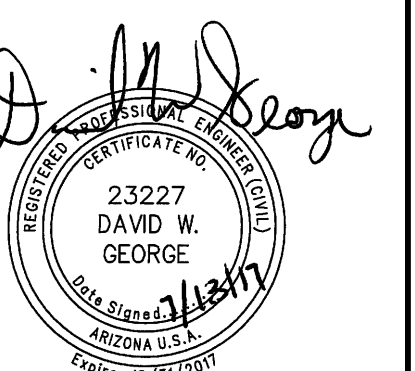
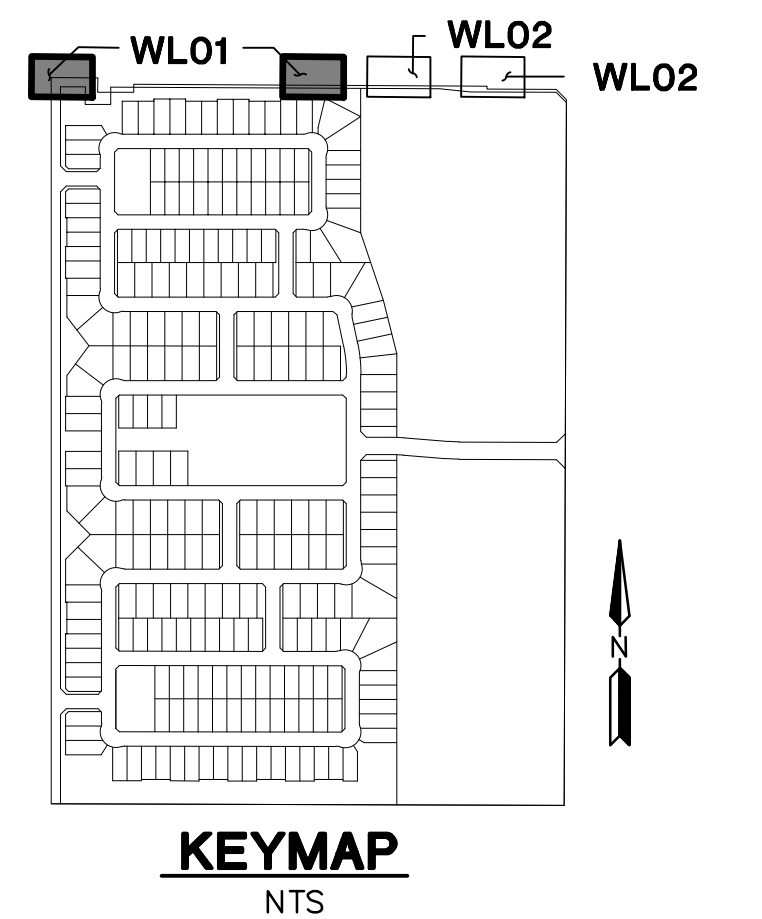
ALTERNATIVE BID #

- WATER CONSTRUCTION NOTES**
1. INSTALL 12" CLASS 350 DIP WATERLINE WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2. TRENCH EXCAVATION, BACKFILLING AND COMPACTION PER MAG SPEC SECTION 601. 96 LF
 6. INSTALL 24" X 8" TAPPING SLEEVE AND VALVE PER MAG STD DTL 340. 8" VALVE, VALVE BOX & COVER PER MAG STD DTL 391-1, TYPE 'A' & DEBRIS CAP PER C.O.G. STD DTL G-3321. CONTRACTOR TO VERIFY LOCATION & INVERT ELEVATION OF EXISTING WATERMAIN PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO TRENCHING. 1 EA
 8. INSTALL 2" CURB STOP PER MAG 390 TYPE "A" ON 12" TAPPED CAP. 1 EA
 9. INSTALL 2" CURB STOP PER MAG 390 TYPE "A" ON 8" TAPPED CAP. 1 EA
 10. INSTALL 8" CLASS 350 DIP WATERLINE WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2. TRENCH EXCAVATION, BACKFILLING AND COMPACTION PER MAG SPEC SECTION 601. 88 LF
 12. INSTALL 8" X 11.25" VERTICAL BEND WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2. 2 EA
 24. SAWCUT, REMOVE AND REPLACE A.C. PAVEMENT PER MAG STD DTL 200 T TOP (5" A.C. ON 12" A.B.C. OR MATCH EXISTING, WHICHEVER IS GREATER) 26 SY
 26. REMOVE EXISTING CURB AND GUTTER FROM JOINT TO JOINT. 3' MIN. REPLACE IN KIND. 9 LF
 28. INSTALL 24" X 12" TAPPING SLEEVE & VALVE PER MAG STD DTL 340. 12" VALVE, VALVE BOX & COVER PER MAG STD DTL 391-1, TYPE 'A' & DEBRIS CAP PER C.O.G. STD DTL G-3321. CONTRACTOR TO VERIFY LOCATION & INVERT ELEVATION PRIOR TO INSTALLATION. 1 EA
 30. INSTALL 12" X 11.25" HORIZONTAL BEND WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2. 2 EA
 52. INSTALL 1" LANDSCAPE WATER SERVICE CONNECTION WITH 1" METER PER COG STD DTL-G-3310. 1 EA

THE PROMPT PAY LAW WILL BE ALTERED FOR THIS CONTRACT

NOTICE OF EXTENDED PAYMENT PROVISION

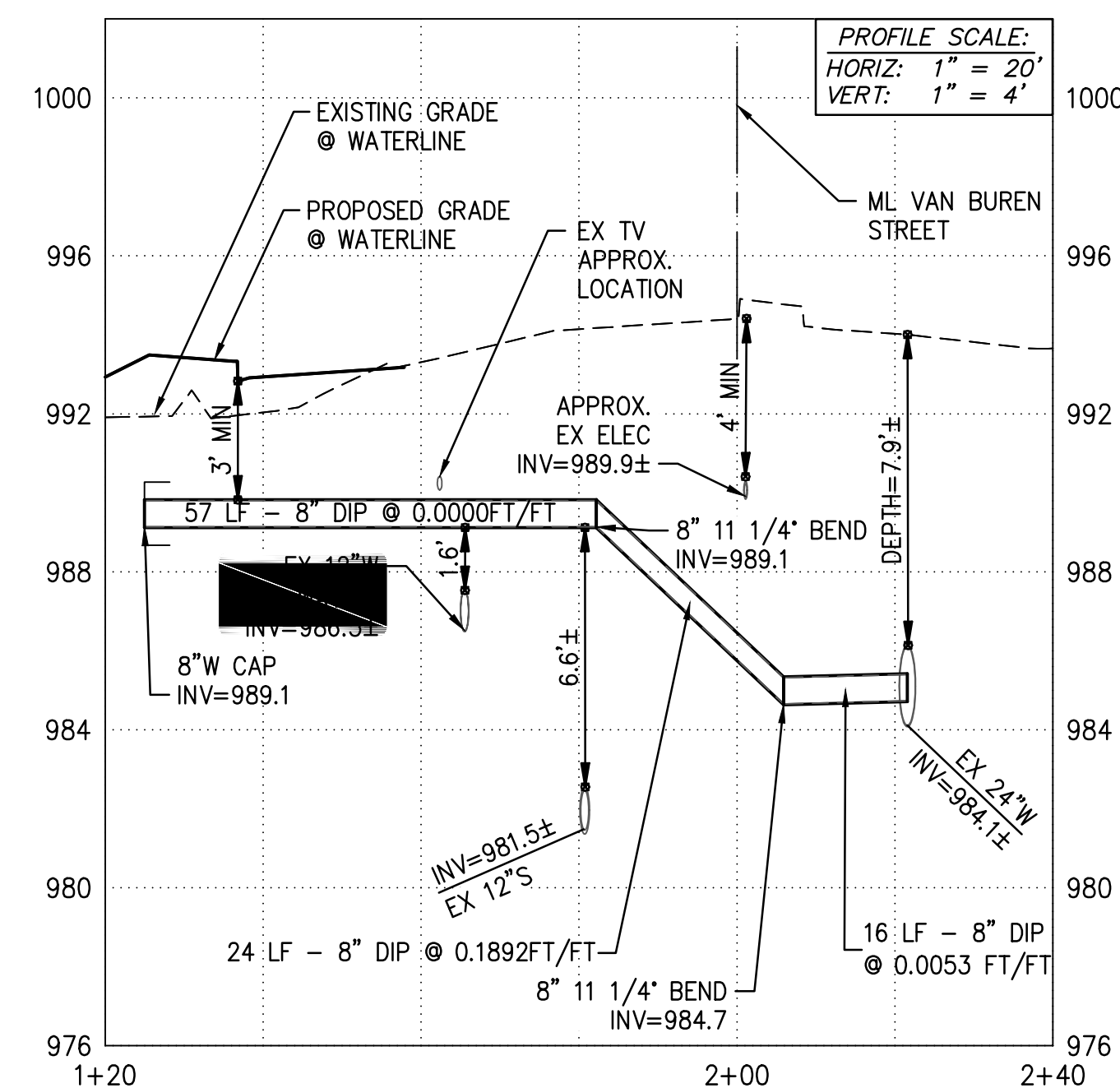
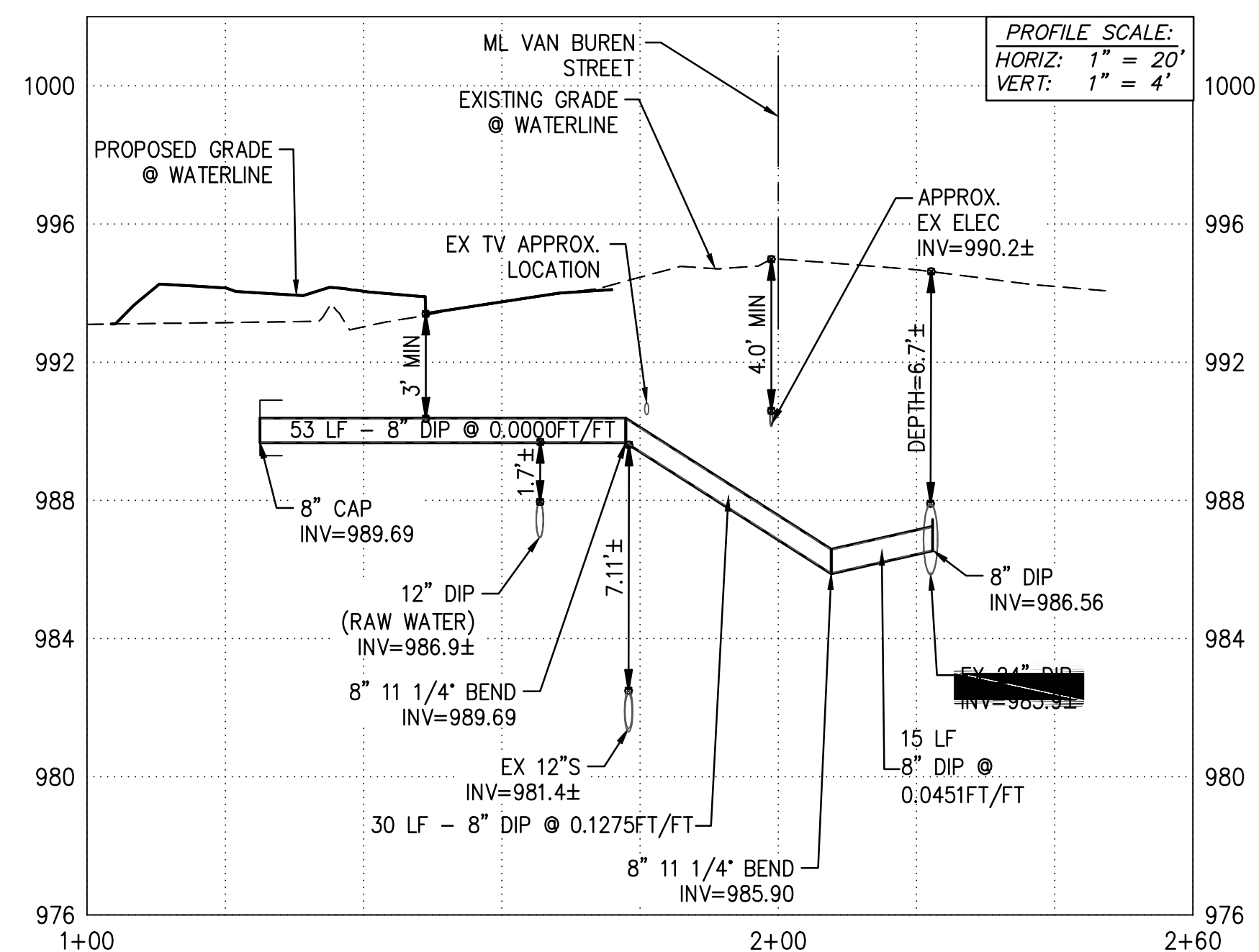
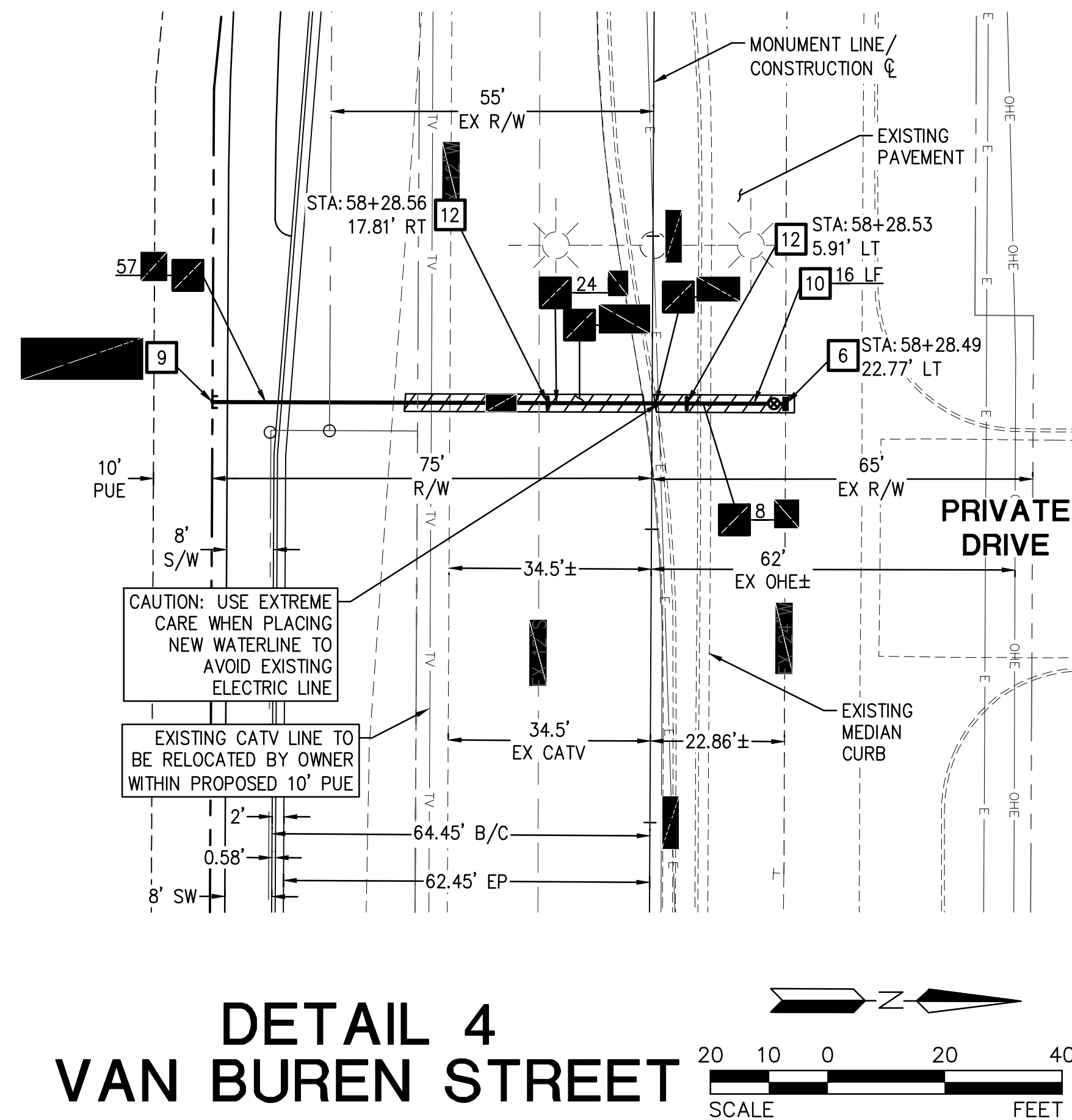
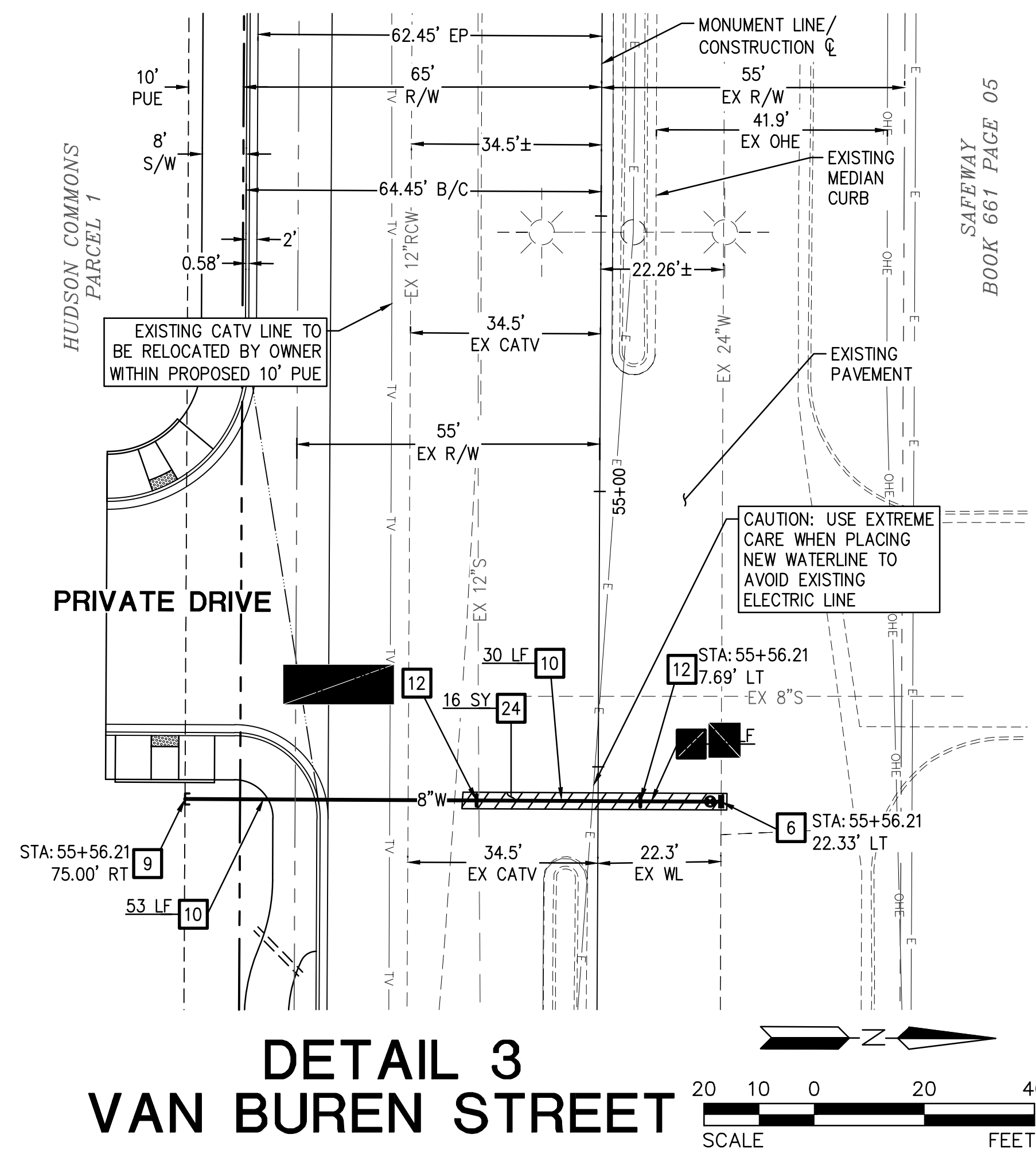
THE CONSTRUCTION CONTRACT WILL ALLOW THE OWNER TO MAKE PAYMENT WITHIN THIRTY (30) DAYS AFTER CERTIFICATION AND APPROVAL OF BILLINGS.



HUDSON COMMONS
VAN BUREN STREET
GOODYEAR, ARIZONA

OFF-SITE WATER PLAN - PLAN & PROFILE

PROJ. NO.	1365
DATE:	JUL 2017
SCALE:	1"=20'
DESIGNED: D3/JAF	DRAWN: RVW
REV.	APPROVED: DWG
DWG. NO.	
WL01	
SHT. 23 OF 59	

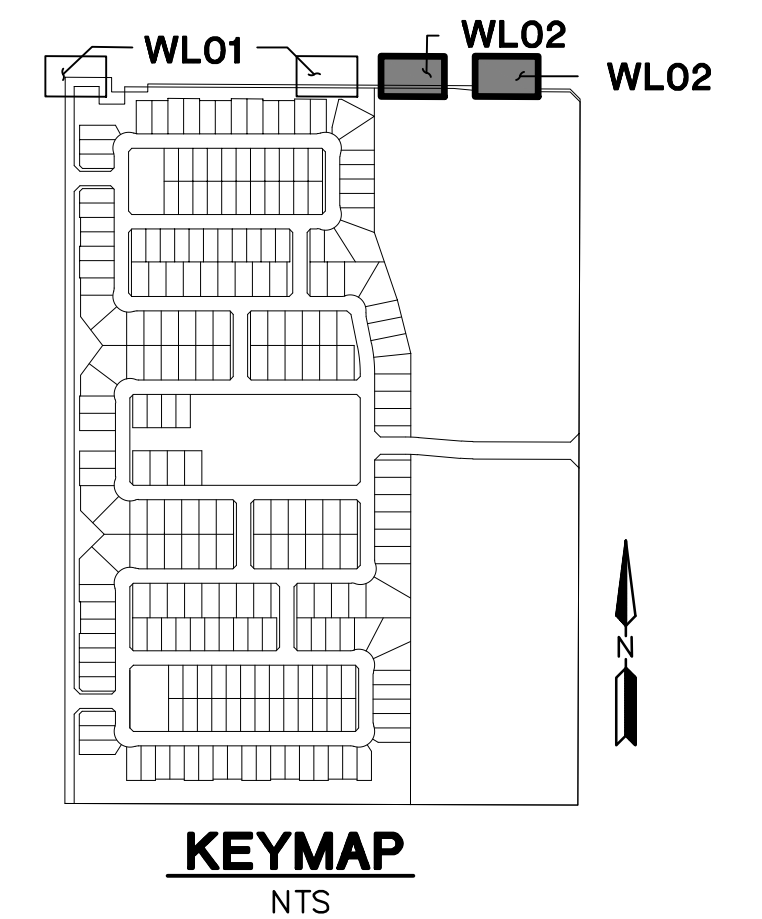


<u>WATER CONSTRUCTION NOTES</u>		
[6]	INSTALL 24" x 30" TAPPING SLEEVE AND VALVE PER MAG STD DTL 340. 8" VALVE, VALVE BOX & COVER PER MAG STD DTL 391-1, TYPE 'A' & DEBRIS CAP PER C.O.G. STD DTL G-3321. CONTRACTOR TO VERIFY LOCATION & INVERT ELEVATION OF EXISTING WATERMAIN PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF DISCREPANCIES PRIOR TO TRENCHING.	2 EA
[9]	INSTALL 2" CURB STOP PER MAG 390 TYPE "A" ON 8" TAPPED CAP.	2 EA
[10]	INSTALL 8" CLASS 350 DIP WATERLINE WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2. TRENCH EXCAVATION, BACKFILLING AND COMPACTION PER MAG SPEC SECTION 601.	195 LF
[12]	INSTALL 8" x 11.25" VERTICAL BEND WITH RESTRAINED JOINTS PER MAG STD DTL 303-1 AND 303-2.	4 EA
[24]	SAWCUT, REMOVE AND REPLACE A.C. PAVEMENT PER MAG STD DTL 200 T TOP (5" A.C. ON 12" A.B.C. OR MATCH EXISTING, WHICHEVER IS GREATER)	38 SY
[26]	REMOVE EXISTING CURB AND GUTTER FROM JOINT TO JOINT. 3' MIN. REPLACE IN KIND.	3 LF

THE PROMPT PAY LAW WILL BE ALTERED FOR THIS CONTRACT

NOTICE OF EXTENDED PAYMENT PROVISION

THE CONSTRUCTION CONTRACT WILL ALLOW THE OWNER TO
MAKE PAYMENT WITHIN THIRTY (30) DAYS AFTER
CERTIFICATION AND APPROVAL OF BILLINGS.



Call at least two full working days
before you begin excavation.

ARIZONA 811
ArizonaBlue Stake, Inc.

Dial 8-1-1 or 1-800-STAKE-IT (782-5348)
In Maricopa County: (602) 263-1100

HUDSON COMMONS
VAN BUREN STREET
GOODYEAR, ARIZONA

OFF-SITE WATER PLAN - PLAN & PROFILE

PROJ. NO.	1365
DATE:	JUL 2017
SCALE:	1"=20'
DESIGNED: D3/JAF	DRAWN
REV.	

HILGARTWILSON
RVW APPROVED: DWG
DWG. NO.

WL02

HT. 24 OF 59

ALTERNATIVE BID #

VAN BUREN ST AND ESTRELLA PKWY

TRAFFIC SIGNAL PLAN

GOODYEAR, AZ



CITY OF GOODYEAR TRAFFIC OPERATIONS APPROVED PRODUCTS LIST REVISED JUNE 2016

CABINET AND CONTROLLER ASSEMBLY:
SIEMENS EAGLE TS2 SIZE R CABINET INCLUDING THE FOLLOWING
EPAC M60 ATC LITE CONTROLLER WITH 3.56 PROTOCOL
EDI MMU 16LEIP
EDI BIU 700 (3)
PS-250 NEMA TS-2 POWER SUPPLY
DETECTOR RACK
SHELF
WORK LIGHT
LOAD SWITCHES (12)
FLASH TRANSFER RELAYS (4)
GTT 764 SELECTORS, 721 OPTICAL DETECTORS AND M138 OPTICOM CABLE

SIGNAL HEAD COVER MANUFACTURER:
PACIFIC INNOVATIONS ENTERPRISES
PO BOX 2592
MISSION VIEJO, CA 92690
www.trafficalsignalcover.com

3 SECTION HEAD COVER-3VLC12
2 SECTION HEAD COVER-2VLC12
PEDESTRIAN HEAD COVER-PCH

DOME CAMERA:
PELCO PRESSURIZED SPECTRA IV SE, MODEL SD427-PREO WITH IWM24-GY MOUNTING BRACKET.
INSTALL WITH SIAMESE CABLE AND FLOODED CAT5 CABLE BETWEEN CAMERA AND CONTROLLER CABINET

HEADS:
EAGLE POLYCARBONATE SA TYPE SIGNAL HEADS
SA105B1001BBB - 5 SECTION Q HEAD
SA104B1001BBB - 4 SECTION G HEAD
SA103B1001BBB - 3 SECTION F/R HEAD
SA102B1001BBB - 2 SECTION E HEAD
EAGLE ALUMINUM 16 INCH PEDESTRIAN SIGNAL, GLOSS BLACK

LED MODULES:
12" GELCORE FULL BALL
DR6-RTFB-VLA-RED LED MODULE
DR6-YTFB-VLA-YELLOW LED MODULE
DR6-GTFB-VLA-TINTED GREEN LED MODULE
12" GELCORE ARROW
DR6-RTAAN-17A-RED ARROW LED MODULE
DR6-YTAAAN-17A-YX-YELLOW ARROW LED MODULE
DR6-GTAAAN-17A-TINTED GREEN ARROW LED MODULE
PS7-CFF1-VLA-12"X18" GT1 LED COUNTDOWN PED MODULE

PEDESTRIAN PUSHBUTTONS:
POLARA BDL M2-B WITH SIGN R10-3B

UPS SYSTEM AND METER PEDESTAL:
MYERS MEUG35-PB-M100-AZ
MEUG32 BASE
PEC AND LIGHTING CONTRACTOR

ILLUMINATED STREET NAME SIGN:
FLUORESCO 3M HIGH INTENSITY SHEETING WITH 3M ANTI-GRAFFITI FILM
GE LED ILLUMINATED

SIGNAL STRUCTURES:
TA CAID - IN CONFORMANCE WITH CURRENT CITY OF TEMPE STANDARD DETAILS & SPECIFICATIONS
JV DRIVER - IN CONFORMANCE WITH CURRENT CITY OF TEMPE STANDARD DETAILS & SPECIFICATIONS

LUMINAIRE:
GE EVOLVE LUMINAIRE ERS2016C1X40ADBZLR

FIELD HARDENED ETHERNET SWITCH:
RUGGEDCOM MODEL RS900-HI-N-C2-C2-00 OR APPROVED EQUAL

VIDEO DETECTION SYSTEM:
SYSTEM: ITERIS RZ4 ADVANCE SYSTEM
SURGE PROTECTION: PHPVIDEO SURGE VIDEO POWER PANEL
MONITOR: MON-LOLCD 10" LCD COLOR MONITOR
MAST ARM BRACKETS: (4) AB-0166-5-62 4' MAST ARM RISER BRACKETS WITH SE-0415 FLAT BACK STRUCTURE MOUNT

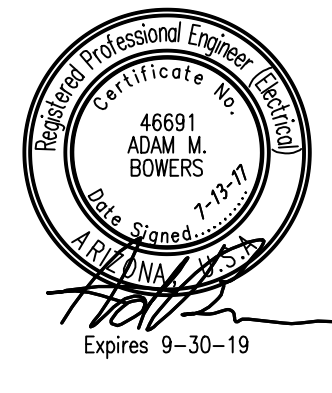
ELECTRICAL ENGINEER:
ADAM BOWERS, PE
WRIGHT ENGINEERING CORPORATION
165 EAST CHILTON DRIVE
CHANDLER, AZ 85225
PHONE: (480) 497-5829
FAX: (480) 497-5807

CIVIL ENGINEER:
DAVID GEORGE, PE
HILGARTWILSON LLC
2141 E. HIGHLAND AVE SUITE 250
PHOENIX, AZ 85016
PHONE: (602) 490-0535

METER SERVICE ADDRESS:
15526 W VAN BUREN

DATA CERTIFICATION

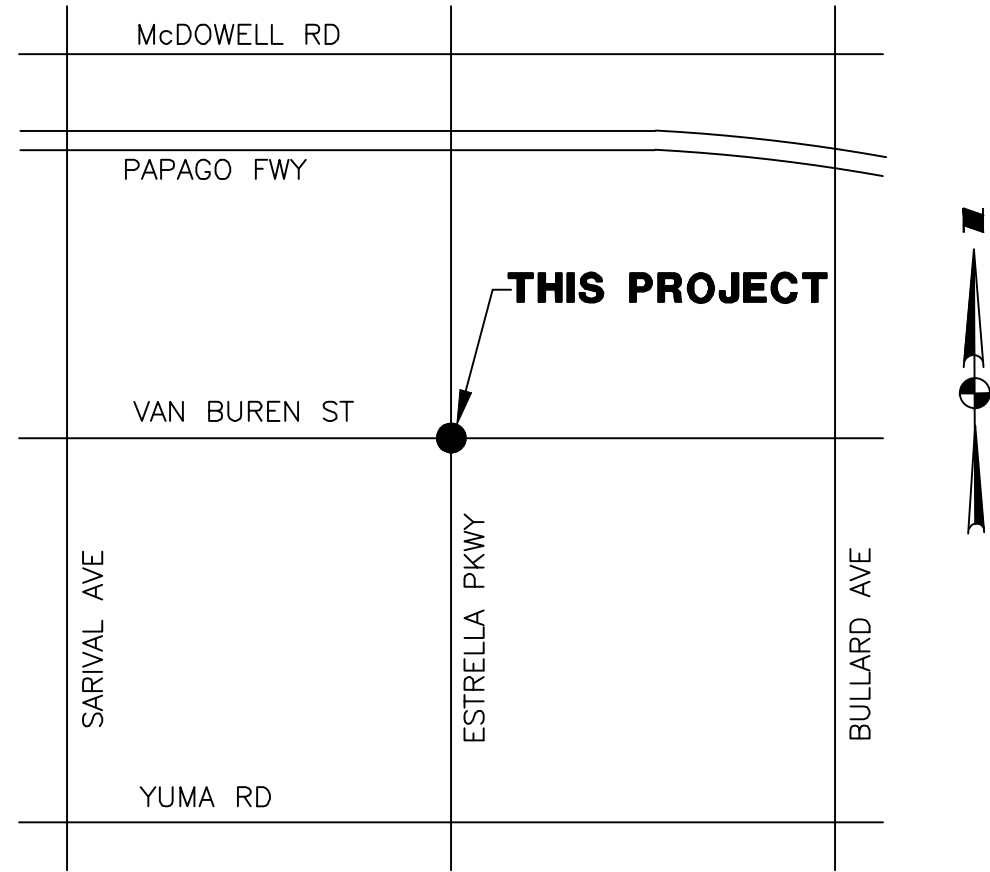
I HEREBY CERTIFY THAT THIS DESIGN IS BASED ON ACCURATE FIELD DATA WHICH HAS BEEN CHECKED IN THE FIELD PRIOR TO SUBMISSION OF THESE PLANS TO THE CITY FOR APPROVAL.



C.O.G. ENGINEERING DESIGN STANDARDS,
ADMINISTRATIVE SECTION, PAGE #7

QUANTITIES

NO.	ITEM	QTY
1	TRAFFIC SIGNAL FOUNDATION TYPE A-2	1 EACH
2	#7 PULL BOX	1 EACH
3	#9 ADOT PULL BOX	1 EACH
4	(3) 3" SCHEDULE 40 PVC CONDUITS	310 L.F.
5	3" SCHEDULE 40 PVC CONDUIT	425 L.F.
6	2" SCHEDULE 40 PVC CONDUIT	200 L.F.
7	CONDUCTORS & CABLES	L.SUM



VICINITY MAP
NOT TO SCALE

SPECIAL NOTES:

- CONTRACTOR SHALL VERIFY ALL EQUIPMENT SHOWN IS PER CURRENT CITY OF GOODYEAR SPECIFICATIONS AND REQUIREMENTS BEFORE ORDERING EQUIPMENT.
- ANY IMPROVEMENTS DAMAGED OR REPLACED DURING CONSTRUCTION SHALL BE REPLACED WITH IMPROVEMENTS THAT MEET THE CURRENT CITY STANDARDS.

SHEET INDEX

SHEET TS1	COVER SHEET
SHEET TS2	TRAFFIC SIGNAL NOTES
SHEET TS3	TRAFFIC SIGNAL PLAN
SHEET TS4	TRAFFIC SIGNAL DETAILS

CITY OF GOODYEAR

REVIEW AND RECOMMENDED APPROVAL BY:

FIRE DEPT.		GRADING & DRAINAGE	
LANDSCAPING & PLANNING		WATER & SEWER	
TRAFFIC SIGNAL		PAVING	
APPROVED BY:			
PLANS EXAMINER		DATE	

'AS-BUILT' CERTIFICATION

I CERTIFY THAT THE "AS-BUILT" INFORMATION SHOWN HEREON WAS OBTAINED UNDER MY DIRECT SUPERVISION AND IS CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NAME: _____ (SEAL)
REGISTRATION NO. _____ DATE _____
REVIEWED BY: _____
FIELD ENGINEERING



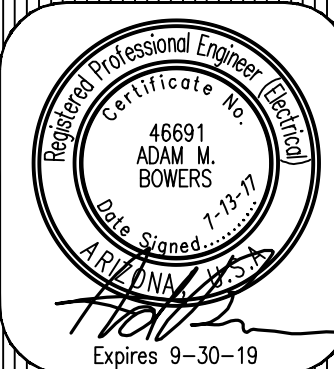
WRIGHT ENGINEERING
PROJECT NO:
16283
DESIGN BY: WTB
DRAWN BY: WTB
CHECKED BY: AMB

WRIGHT
engineering corporation
ELECTRICAL ENGINEERING AND DESIGN
165 EAST CHILTON DRIVE • CHANDLER, ARIZONA 85225
PHONE 480.497.5829 • FAX 480.497.5807
www.wrightengineering.us

PROJECT: TITLE:

GOODYEAR, ARIZONA
HUDSON COMMONS
VAN BUREN ST & ESTRELLA PKWY
TRAFFIC SIGNAL COVER SHEET

NO.	DATE	SUBMITTALS/REVISIONS (DESCRIPTIONS)
1	APR 2017	1ST SUBMITTAL
2	JUL 2017	2ND SUBMITTAL



DRAWING NO:

TS01
25 OF 59

THESE DRAWINGS AND SPECIFICATIONS ARE THE SOLE PROPERTY OF WRIGHT ENGINEERING CORPORATION AND MAY NOT BE REPRODUCED OR MODIFIED FOR ANY USE WITHOUT THE EXPRESS WRITTEN PERMISSION OF WRIGHT ENGINEERING CORPORATION.

CITY OF GOODYEAR GENERAL NOTES FOR CONSTRUCTION

- A. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- B. ALL CONSTRUCTION SHALL CONFORM TO THE CITY EDS&PM, CITY STANDARD DETAILS, AND CURRENT MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION.
- C. THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS. HOWEVER, SUCH REVIEW SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN PLANS FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.
- D. THE CITY DOES NOT WARRANT ANY QUANTITIES SHOWN ON THESE PLANS. City of Goodyear, Arizona Engineering Design Standards and Policies Manual Chapter 0 –Administrative Section 2012 Page 5 of 31
- E. THE CITY APPROVAL IS FOR GENERAL LAYOUT IN THE RIGHT-OF-WAY ONLY. THIS APPROVAL IS VALID FOR A PERIOD OF ONE YEAR. CONSTRUCTION PERMITS SHALL BE OBTAINED DURING THIS PERIOD OR THE PLANS SHALL BE RESUBMITTED FOR REVIEW AND APPROVAL.
- F. AN APPROVED SET OF PLANS SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES.
- G. THE CITY CONSTRUCTION INSPECTOR SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY CONSTRUCTION WORK AND INSPECTIONS (623-882-7979). CONSTRUCTION WORK CONCEALED WITHOUT INSPECTION BY THE CITY CONSTRUCTION INSPECTOR SHALL BE SUBJECT TO EXPOSURE AT THE CONTRACTOR'S EXPENSE.
- H. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY ENGINEER, OR DESIGNEE, AND ANY WORK/MATERIAL NOT IN CONFORMANCE WITH CITY ENGINEERING STANDARDS IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
- I. RIGHT-OF-WAY IMPROVEMENTS SHALL NOT BE ACCEPTED UNTIL "ASBUILT" PLANS HAVE BEEN SUBMITTED AND APPROVED BY THE CITY. (SEE AS-BUILT REQUIREMENTS)
- J. THE DEVELOPER IS RESPONSIBLE FOR THE REMOVAL OR RELOCATION OF ALL OBSTRUCTIONS WITHIN THE RIGHT-OF-WAY PRIOR TO STARTING NEW CONSTRUCTION.
- K. THE DEVELOPER IS RESPONSIBLE FOR ARRANGING THE RELOCATION AND ASSOCIATED COSTS OF ALL UTILITIES. A UTILITY RELOCATION SCHEDULE SHALL BE SUBMITTED PRIOR TO THE ISSUANCE OF PERMITS.
- L. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING OR DEDICATING ALL REQUIRED RIGHTS-OF-WAY AND EASEMENTS TO THE CITY PRIOR TO ISSUANCE OF PERMITS.
- M. THE CONTRACTOR SHALL CONTACT BLUE STAKE (602-263-1100) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL LOCATE ALL CONFLICTS PRIOR TO CONSTRUCTION.
- N. THE CONTRACTOR SHALL BARRICADE CONSTRUCTION SITES AT ALL TIMES PER THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL IN ADVANCE OF CONSTRUCTION.
- O. POTABLE WATER IS NOT AVAILABLE FOR CONSTRUCTION USE OTHER THAN THE FILLING AND TESTING OF NEW LINES. THE UNLAWFUL REMOVAL OF WATER FROM A FIRE HYDRANT OR ANY OTHER SOURCE IS A VIOLATION OF THE MUNICIPAL CODE, PUNISHABLE BY FINE AND/OR IMPRISONMENT.
- P. PRIOR TO MOVING OR DESTROYING PROTECTED NATIVE PLANT SPECIES, THE CONTRACTOR SHALL FILE A FORMAL NOTICE OF INTENT WITH THE ARIZONA DEPARTMENT OF AGRICULTURE (602-542-6408). City of Goodyear, Arizona Engineering Design Standards and Policies Manual Chapter 0 –Administrative Section 2012 Page 6 of 31
- Q. THE CONTRACTOR SHALL COMPLY WITH THE ENVIRONMENTAL PROTECTION AGENCY NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER REQUIREMENTS ESTABLISHED FOR CONSTRUCTION SITES, ADEQ GENERAL PERMIT FOR DISCHARGE FROM CONSTRUCTION ACTIVITIES, AND THE CITY OF GOODYEAR STORM WATER MANAGEMENT PLAN.
- R. NO PERSON SHALL USE ANY MECHANICAL EQUIPMENT FOR LAND LEVELING OR CLEARING, ROAD CONSTRUCTION, TRENCHING, EXCAVATING, DEMOLITION, NOR ENGAGE IN ANY EARTHMOVING ACTIVITY WITHOUT FIRST OBTAINING A PERMIT FROM THE MARICOPA COUNTY AIR QUALITY DEPARTMENT (602-506-0666), 1001 N. CENTRAL AVENUE, SUITE 150, PHOENIX, AZ 85003. (THIS NOTICE IS ISSUED PURSUANT TO A.R.S. 36-779.07, NOTICE OF BUILDING AGENCIES.)
- S. THESE PLANS REFLECT CONDITONS AS THEY EXIST AT THE TIME OF DESIGN. IF EXISTING CONDITIONS HAVE CHANGED BY THE TIME OF CONSTRUCTION THE CONTRACTOR SHALL NOTIFY THE CITY AND THESE PLANS MAY HAVE TO BE AMENDED PRIOR TO PROCEEDING WITH CONSTRUCTION ACTIVITIES.

CITY OF GOODYEAR TRAFFIC SIGNAL PLAN NOTES

1. ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE ADOT STANDARD SPECIFICATIONS, CURRENT EDITION, AND THE ADOT "TRAFFIC SIGNALS AND LIGHTING" STANDARD DRAWINGS, CURRENT EDITION, AS MODIFIED BY THE CITY OF GOODYEAR. TRAFFIC SIGNAL STRUCTURES AND FOUNDATIONS SHALL CONFORM TO CURRENT CITY OF TEMPE STANDARDS FOR MODULAR TRAFFIC SIGNAL STRUCTURES AND APPROVED FOR USE BY THE CITY OF GOODYEAR. DRAWINGS OF ANY NON-STANDARD FOUNDATIONS OR STRUCTURES SHALL BE SEALED BY AN ARIZONA REGISTERED STRUCTURAL ENGINEER AND SUBMITTED TO THE CITY OF GOODYEAR TRAFFIC ENGINEER. THESE DRAWINGS MUST BE APPROVED BY THE CITY TRAFFIC ENGINEER IN ORDER TO BE USED ON PROJECTS IN THE CITY OF GOODYEAR.
2. THE CONTRACTOR SHALL PROVIDE 4 SETS OF EQUIPMENT SUBMITTALS TO BE APPROVED BY THE CITY OF GOODYEAR TRAFFIC ENGINEER PRIOR TO INSTALLATION. CONTACT: GOODYEAR ENGINEERING DEPARTMENT (623) 882-7979.
3. THE CONTRACTOR SHALL WORK FROM THE CITY APPROVED PLAN SET.
4. THE CONTRACTOR SHALL HOLD A PRECONSTRUCTION MEETING WITH KEY STAKEHOLDERRS, WHICH INCLUDES OWNERS, INSPECTORS, UTILITY COMPANIES, BARRICADE AND POLICE SERVICES BEFORE THE START OF WORK.
5. THE LOCATION OF UTILITIES AND EXISTING CONDUITS AND SLEEVES SHOWN ON THE PLANS IS AS PROVIDED BY VARIOUS SOURCES. ALL INVOLVED UTILITIES MAY NOT BE SHOWN ON THE PLANS. PER SECTION 730-6 OF THE ADOT STANDARD SPECIFICATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITIES FOR THEIR EXACT LOCATION PRIOR TO ANY CONSTRUCTION ACTIVITY. IN ADDITION, THE CONTRACTOR SHALL PERFORM NECESSARY POTHOLING TO DETERMINE LOCATION, SIZE AND OWNERSHIP OF UTILITIES.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS AND INSPECTIONS, INCLUDING COORDINATION WITH THE CITY OF GOODYEAR ENGINEERING DEPT, AT (623) 882-7979 AND APS FOR UTILITY CONNECTION. CONTRACTOR SHALL CONTACT THE ENGINEERING INSPECTOR A MINIMUM OF 3 WORKING DAYS PRIOR TO BEGINNING WORK, AND AT MILESTONES SPECIFIED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
7. ANY WORK PERFORMED WITHOUT THE APPROVAL OF THE CITY OF GOODYEAR ENGINEERING PROJECT MANAGER, AND NOT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS, IS SUBJECT TO REMOVAL AND REPLACEMENT BY THE CONTRACTOR AT NO EXPENSE TO THE CITY.
8. POLE, CABINET, CONDUIT AND PULL BOX LOCATIONS AND ORIENTATIONS SHOWN ON THE PLANS ARE SUBJECT TO FIELD ADJUSTMENT BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR AS A RESULT OF FIELD CONDITIONS. THESE ADJUSTMENTS SHALL OCCUR AT NO ADDITIONAL EXPENSE TO THE CITY. THE CONTRACTOR SHALL OBTAIN BLUE STAKE MARKINGS, MARK TENTATIVE LOCATIONS OF FACILITIES, RIGHT OF WAY AND FINAL GRADE AT STRUCTURE LOCATIONS, AND GET APPROVAL FROM THE CITY OF GOODYEAR ENGINEERING INSPECTOR PRIOR TO EXCAVATION AND FIELD CONSTRUCTION. ITEMS PLACED PRIOR TO THIS APPROVAL ARE SUBJECT TO REMOVAL AND REPLACEMENT BY THE CONTRACTOR AT NO COST TO THE CITY.
9. ANY EXISTING IMPROVEMENTS, SIDEWALKS, RAMPS, LANDSCAPING AND IRRIGATION SYSTEMS DISRUPTED OR DAMAGED BY THE CONTRACTOR DURING THE COURSE OF THIS CONSTRUCTION SHALL BE REPLACED IN KIND BY THE CONTRACTOR AT NO EXPENSE TO THE CITY. CONTRACTOR SHALL BE RESPONSIBLE, TO THE SATISFACTION OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR, FOR THE REPAIRS AND REPLACEMENT OF ANY PRIVATE OR PUBLIC PROPERTIES OR FACILITIES DAMAGED, MISPLACED OR RELOCATED DURING THIS CONSTRUCTION.
10. ELECTRICAL SERVICE SHOWN ON PLAN IS BASED ON BEST AVAILABLE INFORMATION AT DESIGN AND IS SUBJECT TO VERIFICATION BY THE CONTRACTOR WITH APS PRIOR TO ANY EXCAVATION. CONTRACTOR SHALL BE PREPARED TO ADJUST SERVICE LOCATION IF REQUIRED BY APS. CONTACT BOBBY GARZA WITH APS AT (602) 371-7989 FOR ELECTRICAL SERVICE. ELECTRICAL SERVICE SHALL BE FULLY METERED FOR SIGNALS AND LIGHTING PER APS REQUIREMENTS. SERVICE ADDRESS SHALL BE AS SHOWN ON THE PLANS OR AS PROVIDED BY THE ENGINEERING INSPECTOR. THE ADDRESS LABEL SHALL BE ENGRAVED TYPE USING BLOCK LETTERS. THE ELECTRICAL SERVICE SHALL NOT BE LOCATED WITHIN 20 FEET OF THE SIGNAL CONTROL CABINET.
11. ELECTRICAL SERVICE SHALL BE 100 AMP, 120/240V, SINGLE-PHASE, FULLY METERED. METER PEDESTAL SHALL CONTAIN CONTRACTOR SUPPLIED AND INSTALLED BREAKERS OF ADEQUATE SIZE FOR LOADS (LABELED IN TYPE SET) SHOWN ON THE PLANS, PLUS REASONABLE FUTURE EXPANSION, AND APPROVED FOR USE BY APS. LUMINARIES SHALL BE 240V; ILLUMINATED STREET NAME SIGNS SHALL BE 120V. METER PEDESTAL SHALL CONTAIN PHOTOCCELL AND CONTACTOR. INSTALL PEC, 20 AMP FUSED LIGHTING CONTACTOR.
12. ILLUMINATED STREET NAME SIGN MESSAGE/TEXT WILL BE DETERMINED BY THE CITY OF GOODYEAR AS PART OF THE EQUIPMENT SUBMITTAL PROCESS.
13. CITY SHALL INSPECT ALL POLE FOUNDATIONS PRIOR TO PLACEMENT OF CONCRETE. CONCRETE SHALL BE MAG CLASS AA, 4,000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS. THE CONTRACTOR SHALL PROVIDE A COPY OF EACH CONCRETE LOAD TICKET TO THE ENGINEERING INSPECTOR. THE CONCRETE SHALL BE PLACED PER SECTION 506.6 OF THE MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, WHICH STATES THAT FRESH CONCRETE SHALL NOT BE PERMITTED TO FALL FROM A HEIGHT OF GREATER THAN SIX FEET WITHOUT THE USE OF ADJUSTABLE LENGTH PIPES OR ELEPHANT TRUNKS.
14. EACH FOUNDATION THAT SUPPORT A MASTARM STRUCTURE SHALL BE TESTED FOR STRENGH AT SEVEN, FOURTEEN AND 28 DAYS OR UNTIL 4000 PSI IS ACHIEVED. A COPY OF THE TESTING RESULTS SHALL BE SUBMITTED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR BEFORE MAST ARM STRUCTURES CAN BE INSTALLED.
15. CONTRACTOR SHALL HAVE AN INDEPENDENT CERTIFIED TESTING AGENCY PERFORM A THREE POINT GROUND RESISTANCE TEST AT ELECTRICAL SERVICE, SIGNAL CABINET AND FOR EACH INSTALLED GROUND ROD AND POLE FOUNDATION GROUND COIL IN ACCORDANCE WITH ADOT SUBSECTION 732-3.03, & SUBMITTED TO THE CITY ENGINEERING INSPECTOR FOR APPROVAL.
16. EXISTING CONDUIT OR SLEEVES MAY EXIST WITHIN THE PROJECT AND MAY BE USED WITH THE APPROVAL OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR. IF USED, CONDUITS SHALL BE PROOFED IN THE PRESENCE OF THE CITY OF GOODYEAR ENGINEERING INSPECTOR AT NO EXPENSE TO THE CITY. CONTRACTOR SHALL MANDREL AND CLEAN ANY EXISTING CONDUITS TO BE REUSED WITH A RAG PULLED THROUGH THE CONDUIT PRIOR TO CONDUCTOR INSTALLATION.
17. STREET CROSSING CONDUITS SHALL CONSIST OF THREE 3" SCHEDULE 80 CONDUITS. TYPICALLY, ONE CONDUIT IS USED EXCLUSIVELY FOR VIDEO DETECTION & PREEMPTION CABLES, ONE IS USED FOR ELECTRICAL CIRCUITS AND ONE IS A SPARE WITH INSULATED BOND.
18. THE CONTROLLER CABINET AND ITS COMPONENTS SHALL BE DELIVERED TO THE CITY OF GOODYEAR TRAFFIC OPERATIONS FACILITY AT 200 S. CALLE-DEL-PUEBLO FOR TESTING A MINIMUM OF THREE WORKING DAYS PRIOR TO INSTALLATION.
19. THE CONTROLLER CABINET SHALL BE WIRED AND LABELED WITH THE SAME PHASE NUMBER DESIGNATIONS, FOR INITIAL AND FUTURE PHASES, AS SHOWN IN THE PHASE MOVEMENT DIAGRAM. EACH CONNECTOR SHALL HAVE ALL PINS WITHIN THE CONNECTOR BROUGHT TO CABINET TIE POINTS. CITY WILL REJECT ANY CONTROL CABINET NOT WIRED ACCORDINGLY.

20. PEDESTRIAN PUSH BUTTONS AND ASSOCIATED ACCESS SHALL CONFORM TO ADA REQUIREMENTS. SIDEWALK PADS SHALL BE PROVIDED AS NECESSARY, AT NO ADDITIONAL COST TO THE CITY, TO INSURE SIDEWALK ACCESS TO FACE OF POLES WITH PEDESTRIAN BUTTONS. THE SIDEWALK LAYOUT SHALL BE BASED ON THE FINAL POLE LOCATIONS AND SHALL BE APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
21. BACKFILLING SHALL NOT BE STARTED UNTIL CONDUIT HAS BEEN INSPECTED AND APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
22. ALL PULL BOXES SHALL BE ADOT-APPROVED BRANDS AND MODELS OF POLYMER BOXES, LIDS, EXTENSIONS & LOCKS (PENTA HEAD BOLTS). TRAFFIC SIGNAL PULL BOX LIDS SHALL SAY "TRAFFIC SIGNAL" UNLESS OTHERWISE NOTED ON THE PLANS.
23. ALL PULL BOXES, AT PROJECT COMPLETION, SHALL BE LEFT IN CLEAN CONDITION, FREE OF DIRT AND DEBRIS. ALL PULL BOXES SHALL BE LEVEL AND ALL LIDS AND BOXES SHALL BE UNCRACKED/UNBROKEN, WITH APPROPRIATE LID WORDING.
24. TRAFFIC CONTROL SHALL BE MAINTAINED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT EDITION, SECTION VI, ANY ADOT SUPPLEMENTS, AND CITY OF PHOENIX TRAFFIC BARRICADE MANUAL, CURRENT EDITION. THE CITY REQUIRES A POLICE OFFICER AND MARKED POLICE VEHICLE TO BE PRESENT DURING CERTAIN CRITICAL PHASES OF CONSTRUCTION, AS DETERMINED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR. POLICE OFFICER ABSENCE AUTOMATICALLY CANCELS CRITICAL PHASES OF CONSTRUCTION UNTIL A POLICE OFFICER IS PRESENT.
25. CONTRACTOR SHALL SUBMIT AN ACTIVATION DATE TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR FOR APPROVAL. ONCE APPROVED, THE ACTIVATION SHALL BE SHOWN IN THE CONSTRUCTION SCHEDULE. ACTIVATION SHALL NOT OCCUR ON MONDAY, FRIDAY OR WEEKENDS
26. CROSSWALKS AND STOP LINES SHALL BE IN PLACE AT THE TIME OF SIGNAL ACTIVATION. EXISTING STOP SIGNS, OPERATIONAL TRAFFIC SIGNALS AND ROADWAY LIGHTING, STREET NAME SIGNS AND POSTS SHALL REMAIN IN PLACE UNTIL ACTIVATION OF THE NEW SIGNAL, AT WHICH TIME THEY SHALL BE IMMEDIATELY REMOVED AND SALVAGED TO THE CITY OF GOODYEAR. DAMAGED OR LOST MATERIALS SHALL BE REPLACED IN KIND BY CONTRACTOR AT NO EXPENSE TO THE CITY.
27. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE CITY OF GOODYEAR ENGINEERING INSPECTOR A TWO WEEK CONSTRUCTION SCHEDULE, UPDATED EACH FRIDAY DURING CONSTRUCTION. A COPY OF APPROVED PROJECT PLANS SHALL BE ON SITE AT ALL TIMES AND IN THE POSSESSION OF THE TRAFFIC SIGNAL CONTRACTOR DURING CONSTRUCTION. ANY DEVIATIONS FROM APPROVED PLANS SHALL BE APPROVED IN WRITING ON THE ON-SITE PLANS, BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR.
28. AN IMSA-CERTIFIED TRAFFIC SIGNAL LEVEL II TECHNICIAN SHALL BE ON SITE AT ALL TIMES DURING CONSTRUCTION.
29. THE CONTRACTOR IS RESPONSIBLE FOR PREPARING FINAL AS-BUILT DRAWINGS, ON MYLAR, AND SUBMITTING TO THE ENGINEERING INSPECTOR BEFORE FINAL ACCEPTANCE WILL BE GRANTED BY THE CITY OF GOODYEAR. MAST ARM HEIGHTS SHALL BE DOCUMENTED ON AS-BUILTS FOR EACH ARM.
30. CONTRACTOR SHALL FURNISH & INSTALL 4-CONDUCTOR AND/OR 7-CONDUCTOR IMSA CABLES FROM EACH SIGNAL FACE AND PEDESTRIAN BUTTON ON INDIVIDUAL STRUCTURES, TO THE BASE PANEL TERMINAL BLOCK, WHERE THEY WILL BE TERMINATED TO THE 20-CONDUCTOR IMSA CABLE THAT FEEDS THE STRUCTURE FROM THE CONTROLLER CABINET. PANELS AT ENDS OF MAST ARMS, AS WELL AS "FAR LEFT" SIDE STRUCTURES FOR AN APPROACH THAT DO NOT INITIALLY HAVE LEFT TURN ARROW DISPLAYS SHALL HAVE SEPARATE 4-CONDUCTOR CABLES RUN THROUGH THE STRUCTURE AND COILED AT THE FUTURE SIGNAL HEAD LOCATION. THESE CABLES SHALL BE COILED AND TAGGED IN THE BASE PANEL, FOR FUTURE CONNECTION TO ACTIVATE THE ARROWS WITHOUT THE NEED TO PULL ADDITIONAL CABLES. ALL FUTURE SIGNAL HEADS SHALL BE COVERED USING A MANUFACTURED SIGNAL HEAD COVER WITHOUT PRINT. SIGNAL HEADS SHALL BE COVERED USING A MANUFACTURED SIGNAL HEAD COVER WITHOUT PRINT IF NOT ACTIVATED WITHIN 30 DAYS OF INSTALL.
31. THE CONTRACTOR SHALL MAINTAIN A MINIMUM CLEARANCE OF 17' FROM THE CROWN OF THE ROAD TO THE BOTTOM OF THE MAST ARM. DOCUMENTATION SHALL BE PROVIDED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR ON SITE.
32. PRIOR TO SCHEDULING ACTIVATION OF THE TRAFFIC SIGNAL, THE CONTRACTOR SHALL CONDUCT A FIELD RING-OUT TEST IN THE PRESENCE OF THE ENGINEERING INSPECTOR AND TRAFFIC SIGNAL TECHNICIAN, TO VERIFY THAT ALL VEHICLE AND PEDESTRIAN INDICATIONS ILLUMINATE WITH THE APPROPRIATE CIRCUIT BY TOUCHING VOLTAGE TO FIELD CABLE CONDUCTORS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TESTING AND VERIFYING THE INTEGRITY AND CORRECT CONNECTION AND AIMING OF ALL DETECTION DEVICES, INCLUDING ALL VIDEO DETECTION, PREEMPTION DEVICES, AND PEDESTRIAN DETECTORS. IN ADDITION, THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL, WHICH INCLUDES ONE OR MORE OFF-DUTY POLICE OFFICERS, PRIOR TO SCHEDULING RING-OUT. CROSSWALK AND STOP BAR STRIPING SHOULD BE SCHEDULED TO OCCUR DURING RING-OUT. UPON COMPLETION OF A SUCCESSFUL RING-OUT, THE INTERSECTION WILL BE PLACED INTO FLASH MODE. UPON COMPLETION OF STRIPING OF STOP BARS AND CROSSWALKS, THE TRAFFIC SIGNAL WILL BE FULLY ACTIVATED.
33. ALL NEW OR MODIFIED INTERSECTION, ROADWAY AND UNDERDECK LIGHTING ALONG WITH ILLUMINATED STREET NAME SIGNS SHALL AFTER BEING ENERGIZED WILL HAVE A 72 HOUR BURN IN TEST PERIOD. START AND STOP TIMES SHALL BE RECORDED AND FORWARDED TO THE CITY OF GOODYEAR ENGINEERING INSPECTOR. TESTING WILL BE COMPLETE WHEN ALL INTERSECTION, ROADWAY AND UNDERDECK LIGHTING ALONG WITH ILLUMINATED STREET NAME SIGNS HAVE BEEN OPERATIONAL CONCURRENTLY FOR 72 HOURS.
34. CONTRACTOR SHALL SUPPLY AND INSTALL A 36" X 36" "TRAFFIC CONTROL CHANGE" SIGN, WITH TWO ORANGE FLAGS PER SIGN, ON EACH APPROACH, AS DIRECTED BY THE ENGINEERING INSPECTOR. THE LOCATION OF EACH SIGN SHALL CONFORM TO MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES REQUIREMENTS, AND MUST BE APPROVED BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR. THE MOUNTING HEIGHT SHALL BE MINIMUM 7'-0". SIGNS SHALL BE IN PLACE AT THE TIME OF ACTIVATION OF THE SIGNAL AND REMAIN IN PLACE FOR 30 CONSECUTIVE DAYS, AT WHICH TIME THE CITY OF GOODYEAR WILL REMOVE AND SALVAGE.
35. A PUNCH LIST OF DISCREPANCIES WILL BE PROVIDED TO THE CONTRACTOR BY THE CITY OF GOODYEAR ENGINEERING INSPECTOR AFTER ACTIVATION. AFTER THE PUNCH LIST IS SATISFIED A LETTER OF COMPLETION WILL BE ISSUED BY THE CITY OF GOODYEAR AND THE WARRANTY PERIOD SHALL BEGIN.
36. CITY FURNISHED EQUIPMENT MUST BE PICKED UP AT THE CITY OF GOODYEAR PUBLIC WORKS EQUIPMENT YARD. THE CONTRACTOR SHALL NOTIFY THE CITY OF GOODYEAR ENGINEERING INSPECTOR THREE WORKING DAYS IN ADVANCE OF EQUIPMENT PICK UP.
37. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING/MARKING ALL PROJECT INSTALLED UNDERGROUND CONDUITS FOR TRAFFIC SIGNAL AND INTERCONNECT FROM THE TIME OF INSTALLATION UNTIL PROJECT ACCEPTANCE BY THE CITY.
38. ALL LOCATIONS FOR VEHICULAR SIGNAL HEADS ON MAST ARMS SHALL BE POPULATED WITH SIGNAL HEADS.



WRIGHT ENGINEERING
PROJECT NO:
16283

DESIGN BY: WTB
DRAWN BY: WTB
CHECKED BY: AMB

WRIGHT
engineering corporation

ELECTRICAL ENGINEERING AND DESIGN
165 EAST CHILTON DRIVE • CHANDLER, ARIZONA 85225
PHONE 480.497.5829 • FAX 480.497.5807
www.wrightengineering.us

PROJECT: TITLE:

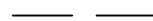
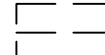
GOODYEAR, ARIZONA
HUDSON COMMONS
VAN BUREN ST & ESTRELLA PKWY
TRAFFIC SIGNAL COVER SHEET

NO.	DATE	SUBMITTALS/REVISIONS (DESCRIPTIONS)
1	APR 2017	1ST SUBMITTAL
2	JUL 2017	2ND SUBMITTAL

Professional Engineer
46691
ADAM M. BOWERS
Exp. 9-30-19

DRAWING NO:
TS02
26 OF 59

LEGEND

PROPOSED	EXISTING	
		UNDERGROUND CONDUIT
		NO. 5 PULL BOX
		NO. 7 PULL BOX
		NO. 7 PULL BOX WITH EXTENSION
		METERED SERVICE PEDESTAL
		CONTROL CABINET AND FOUNDATION
		TRAFFIC SIGNAL FOUNDATION
		TRAFFIC SIGNAL LOOP STUB OUT
		TRAFFIC SIGNAL LOOP
		TRAFFIC SIGNAL INDICATION
		PEDESTRIAN INDICATION
		PEDESTRIAN PUSH BUTTON
		HPS LUMINAIRE
		VIDEO DETECTION
		PRE-EMPTION
		ILLUMINATED STREET NAME SIGN
		STREET NAME SIGN
		CONDUIT RUN NUMBER TAG
		TRAFFIC SIGNAL POLE TAG

CONDUCTOR SCHEDULE

[illegible]

20CC THE IMSA 20 CONDUCTOR CABLE SHALL BE #14 AWG IMSA 19-1, SOLID COPPER, UNSPLICED FROM CONTROLLER CABINET TO SIGNAL STRUCTURE.

<> TRENCH AND CONDUIT BY CONTRACTOR PER POWER COMPANY REQUIREMENTS. CONDUCTORS BY POWER COMPANY.

** 3M MODEL 138

- POWER/VIDEO CABLE, MATCHING VIDEO DETECTION SYSTEM.
- † CRIMP CONNECTION SHALL BE USED FOR SPLICING IN PULL BOX.

↑↑ 8180 SIAMESE CABLE AND FLOODED CAT 5E CABLE

FO 12 SMFO CABLE SHALL CONTAIN PRE-TERMINATED PATCH PANEL INSIDE TRAFFIC SIGNAL CABINET

4CC THE IMSA 4 CONDUCTOR CABLE SHALL BE #14 AWG IMSA 19-1 SOLID COPPER. RUN FROM TERMINAL BLOCK ON ADJACENT MAST ARM POLE TO THE PEDESTRIAN PUSH BUTTON POLE.

CONSTRUCTION NOTES

- 1 CONTRACTOR SHALL USE EXTREME CAUTION WHEN DIGGING FOUNDATION DUE TO CLOSE PROXIMITY OF UNDERGROUND UTILITIES.
- 2 INTERCEPT EXISTING CONDUIT AND EXTEND TO NEW PULL BOX. REPLACE EXISTING CONDUCTORS IN KIND.
- 3 RELOCATE EX. A POLE TO NEW FOUNDATION AS SHOWN

PULL BOX SCHEDULE

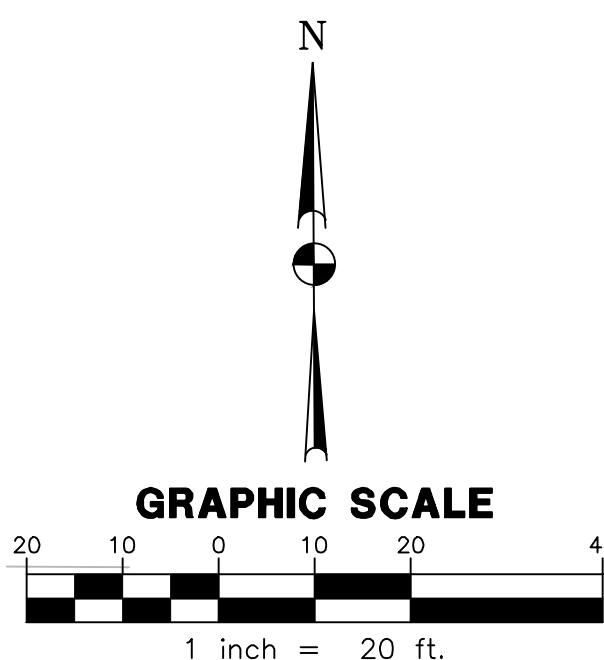
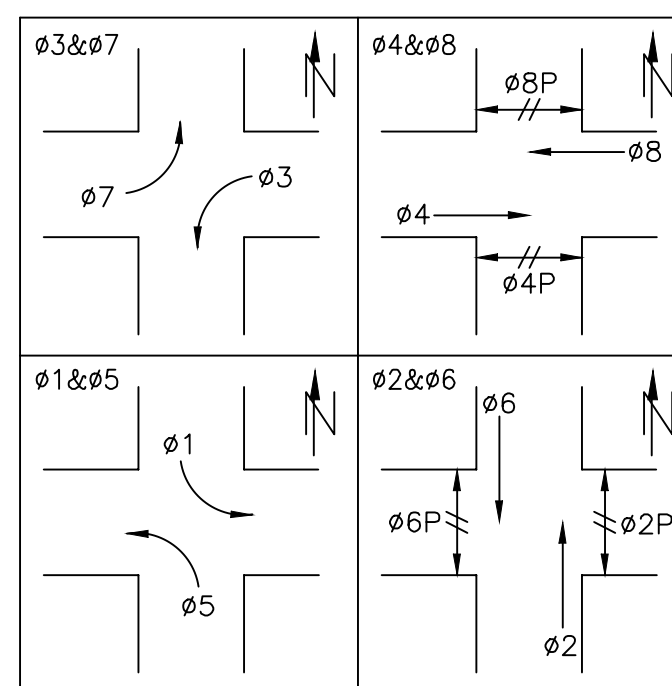
PULL BOX NO.	TYPE	STATION ON VAN BUREN ST	OFFSET FROM VAN BUREN ST	TOP OF PULL BOX ELEVATION
1	#7 W/EXT	EXISTING	EXISTING	SEE NOTE BELOW
2	#7 W/EXT	EXISTING	EXISTING	SEE NOTE BELOW
3	#7	EXISTING	EXISTING	SEE NOTE BELOW
4	#7	EXISTING	EXISTING	SEE NOTE BELOW
5	#7	STA 61+06.0	89.5' RT	SEE NOTE BELOW
6	#9	STA 61+11.1	122.3' RT	SEE NOTE BELOW

NOTE: TOP OF PULL BOX SHALL BE TWO INCHES ABOVE FINAL GRADE

ABBREVIATIONS AND SYMBOLS LEGEND

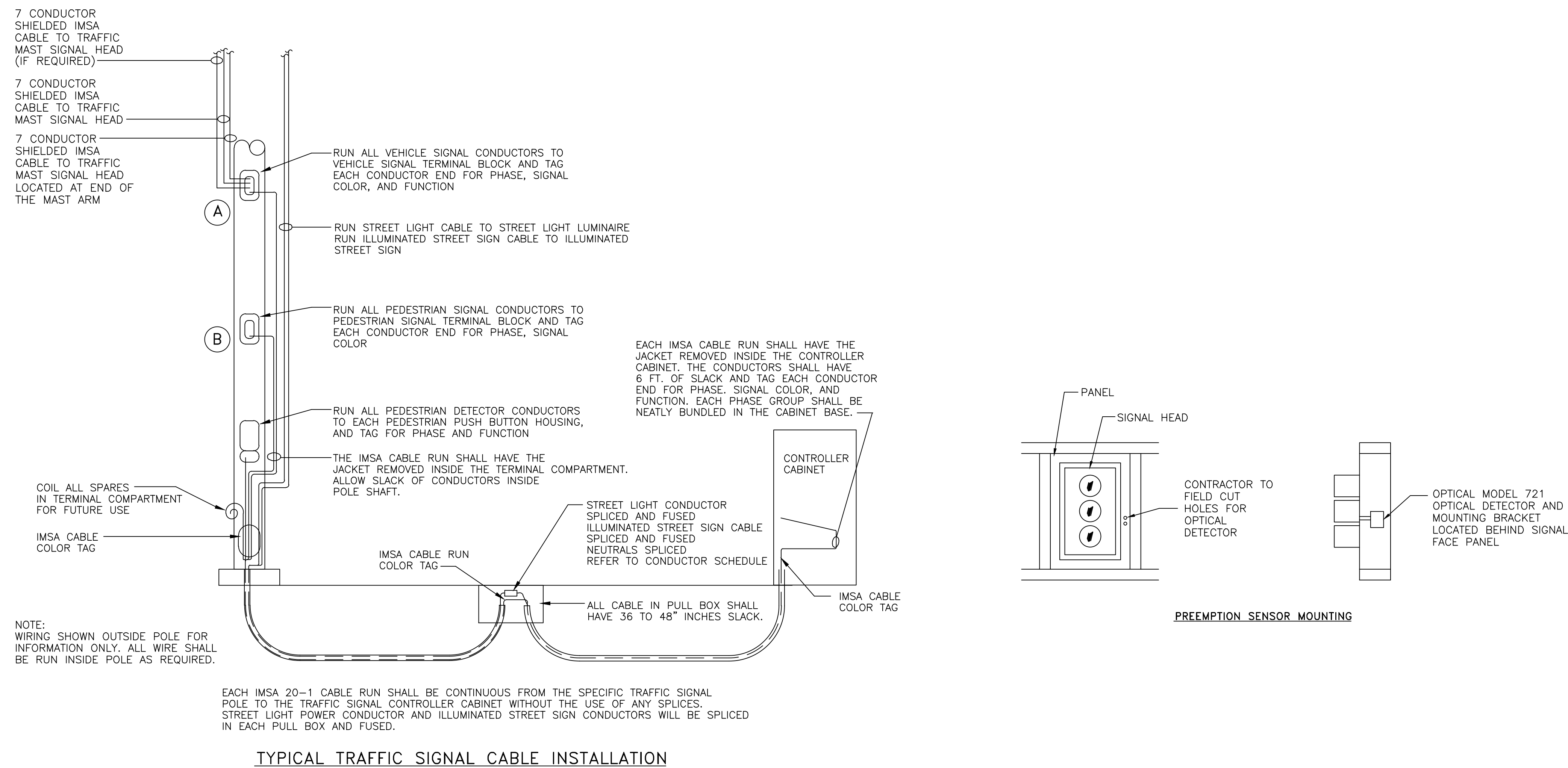
	FIRE HYDRANT
— W —	WATER LINE
— OHE —	OVERHEAD ELECTRIC
	STORM DRAIN
▼ G	GAS LINE
EOP	EDGE OF PAVEMENT
RW	RIGHT OF WAY
BC	BACK OF CURB
▼ W	WATER MARKER
SW	SIDEWALK
▼ FO	FIBER OPTIC CABLE
	CATCH BASIN

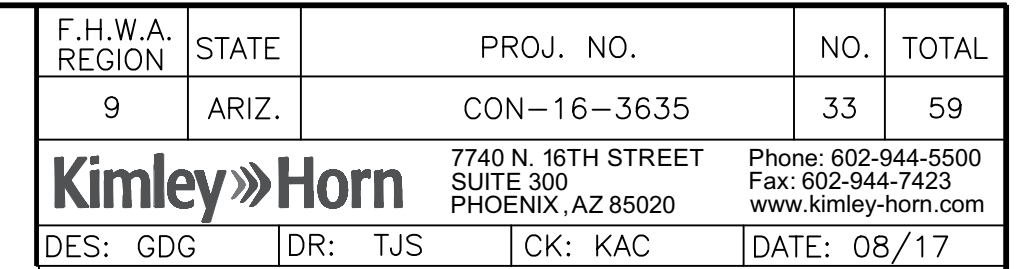
4-SEQUENCE DIAGRAM



PHASE/CORNER	UPRIGHT	A-POLE	LEADING	ADD ON	PED POST
1	R/BK, O/BK, G/BK	R/BK, O/BK, G/BK		BK/R, O/R, BL/R	
2	R, O, G	R, O, G	R/W, BK/W, G/W	R/W, BK/W, G/W	
3	R/BK, O/BK, G/BK	R/BK, O/BK, G/BK		BK/R, O/R, BL/R	
4	R, O, G	R, O, G	R/W, BK/W, G/W	R/W, BK/W, G/W	
5	R/BK, O/BK, G/BK	R/BK, O/BK, G/BK		BK/R, O/R, BL/R	
6	R, O, G	R, O, G	R/W, BK/W, G/W	R/W, BK/W, G/W	
7	R/BK, O/BK, G/BK	R/BK, O/BK, G/BK		BK/R, O/R, BL/R	
8	R, O, G	R, O, G	R/W, BK/W, G/W	R/W, BK/W, G/W	
2 PED	BK, BL	BK, BL		R/GR, BL/BK	
4 PED	BK, BL	BK, BL		R/GR, BL/BK	
6 PED	BK, BL	BK, BL		R/GR, BL/BK	
8 PED	BK, BL	BK, BL		R/GR, BL/BK	
SIGNAL COM	W	W			
PED COM IN	W/BK	W/BK			W/RD
PED COM OUT	W	W			W
NORTHEAST	RED TAPE	DOUBLE RED TAPE			# RED TAPE
SOUTHEAST	WHITE TAPE	DOUBLE WHITE TAPE			# WHITE TAPE
SOUTHWEST	BLUE TAPE	DOUBLE BLUE TAPE			# BLUE TAPE
NORTHWEST	GREEN TAPE	DOUBLE GREEN TAPE			# GREEN TAPE

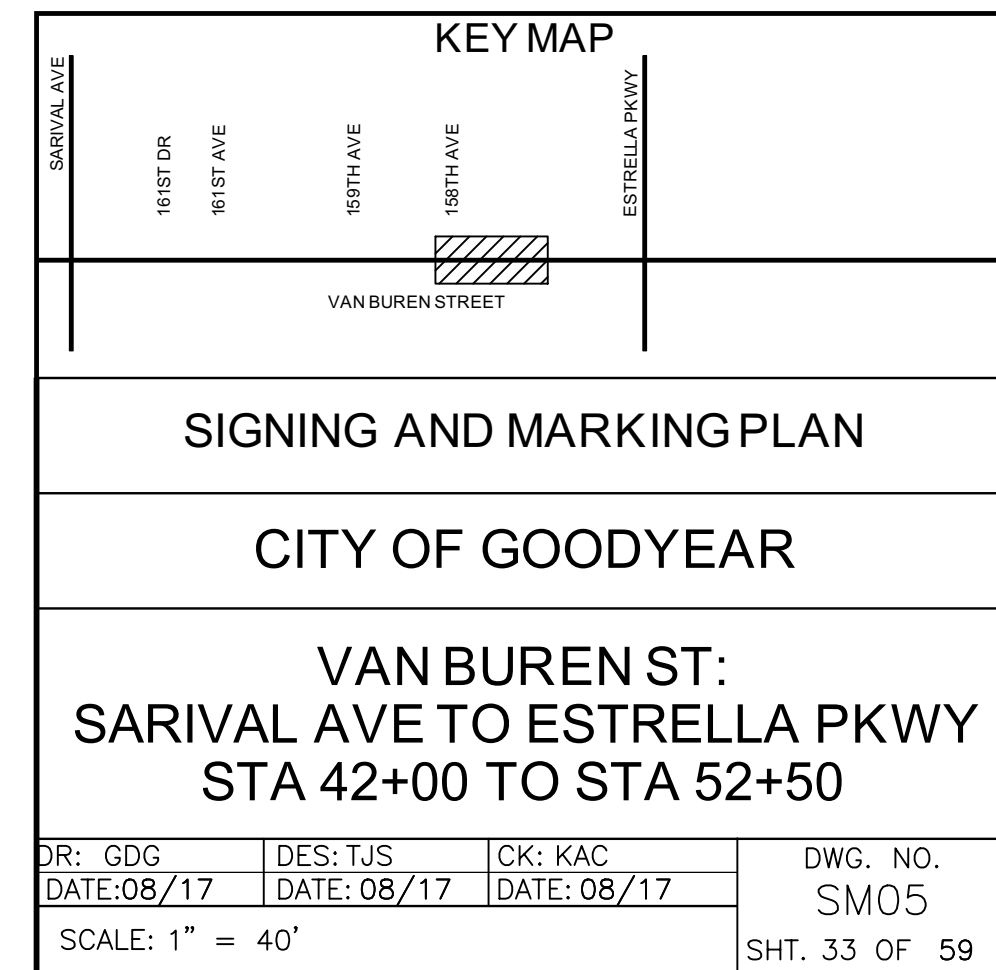
LOCATION	NO.	CONTROLLER / SERVICE PAD LAYOUT
FROM C OF VAN BUREN ST STA 61+22.4 94.1 RT		EXISTING TYPE 'R' 45' ARM
FROM C OF VAN BUREN ST STA 61+08.3 77.4 RT		RELOCATED TYPE 'A' POLE





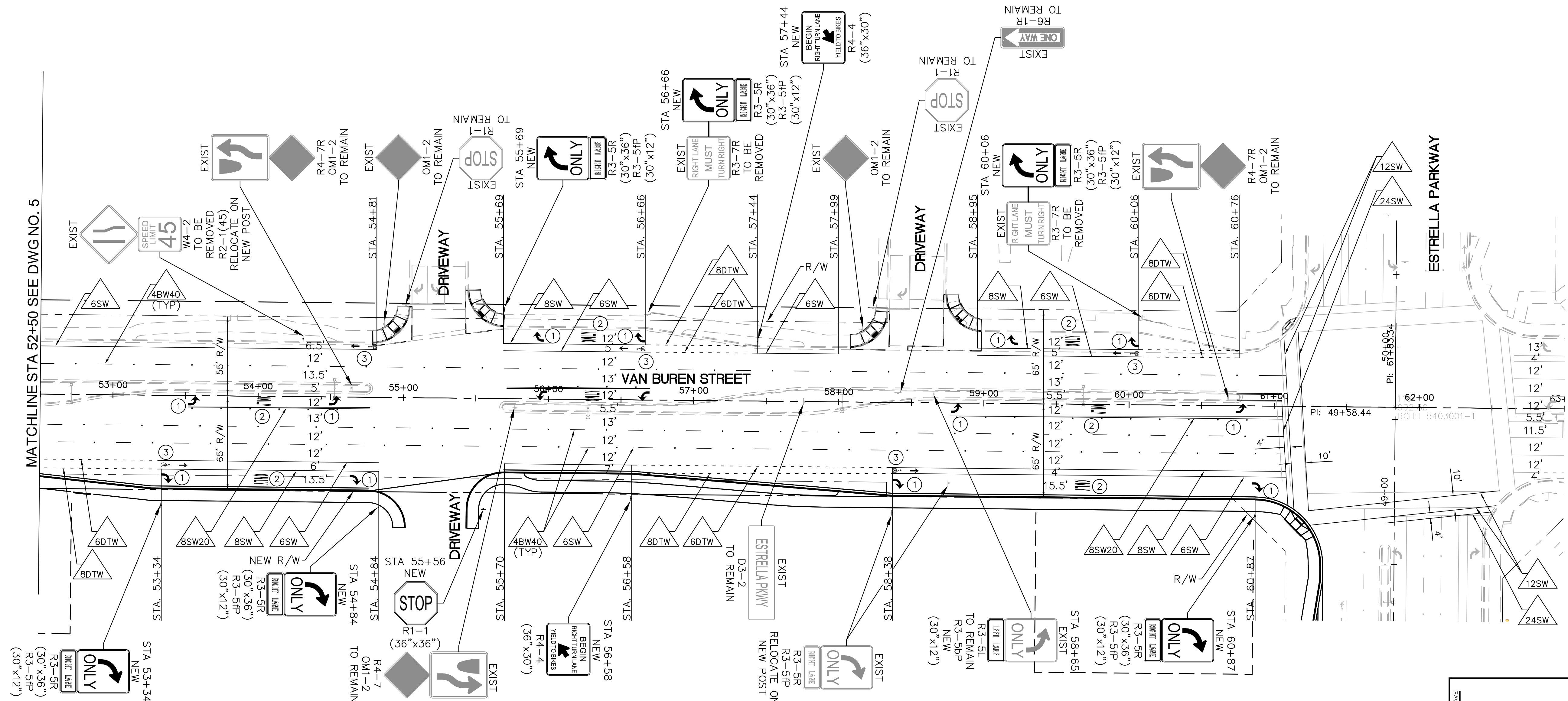
CONSTRUCTION NOTES

- ① LEFT OR RIGHT TURN ARROW PAVEMENT MARKING SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAILS G-3208 AND G-3219.
- ② ONLY SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAILS G-3219
- ③ BIKE LANE PAVEMENT MARKING SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAIL G-3208-6
- ④ PAINT MEDIAN NOSE PER CITY OF GOODYEAR STANDARD DETAILS G-3211 AND PER MCDOT PAVEMENT MARKING MANUAL, FIGURE 4-15 AND 4-16



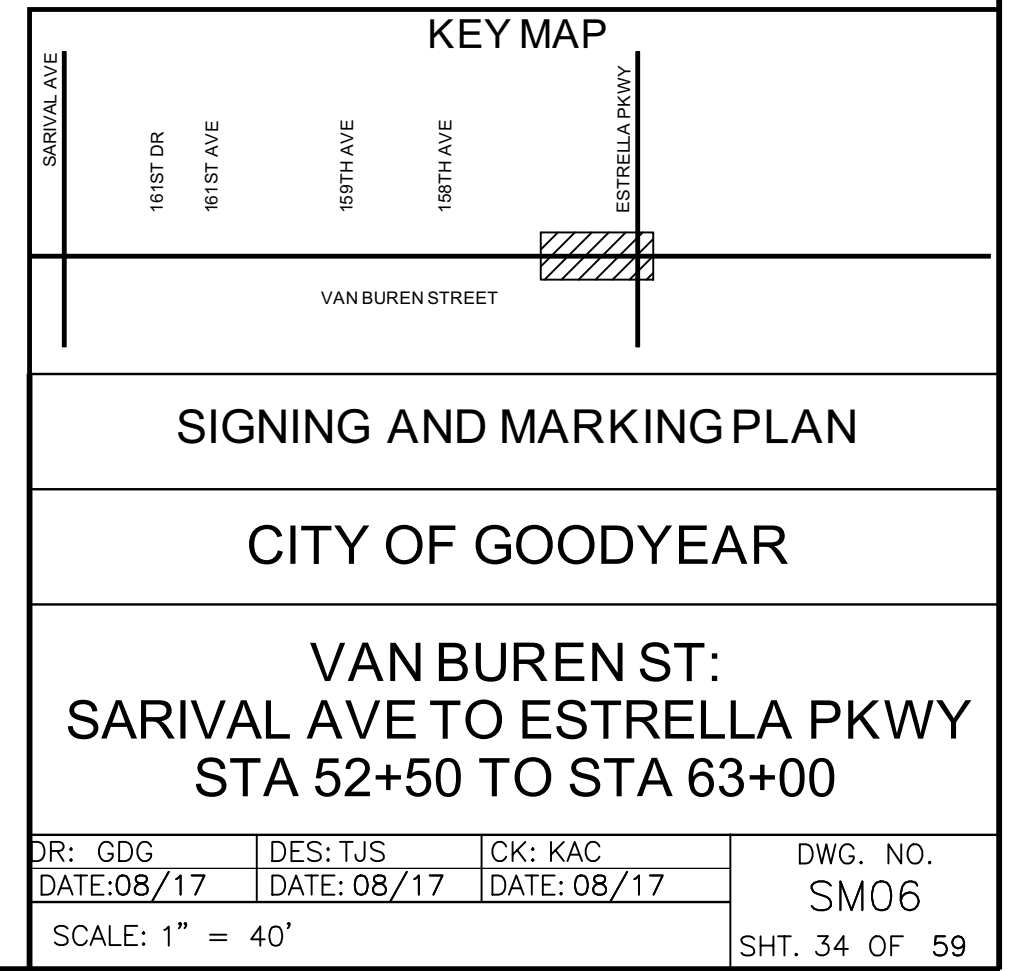


SIGNING AND MARKING PLAN			
CITY OF GOODYEAR			
VAN BUREN ST: SARIVAL AVE TO ESTRELLA PKWY STA 52+50 TO STA 63+00			
DR: GDG	DES: TJS	CK: KAC	DWG. NO.
DATE: 08/17	DATE: 08/17	DATE: 08/17	SM06
SCALE: 1" = 40'			SHT. 34 OF 59



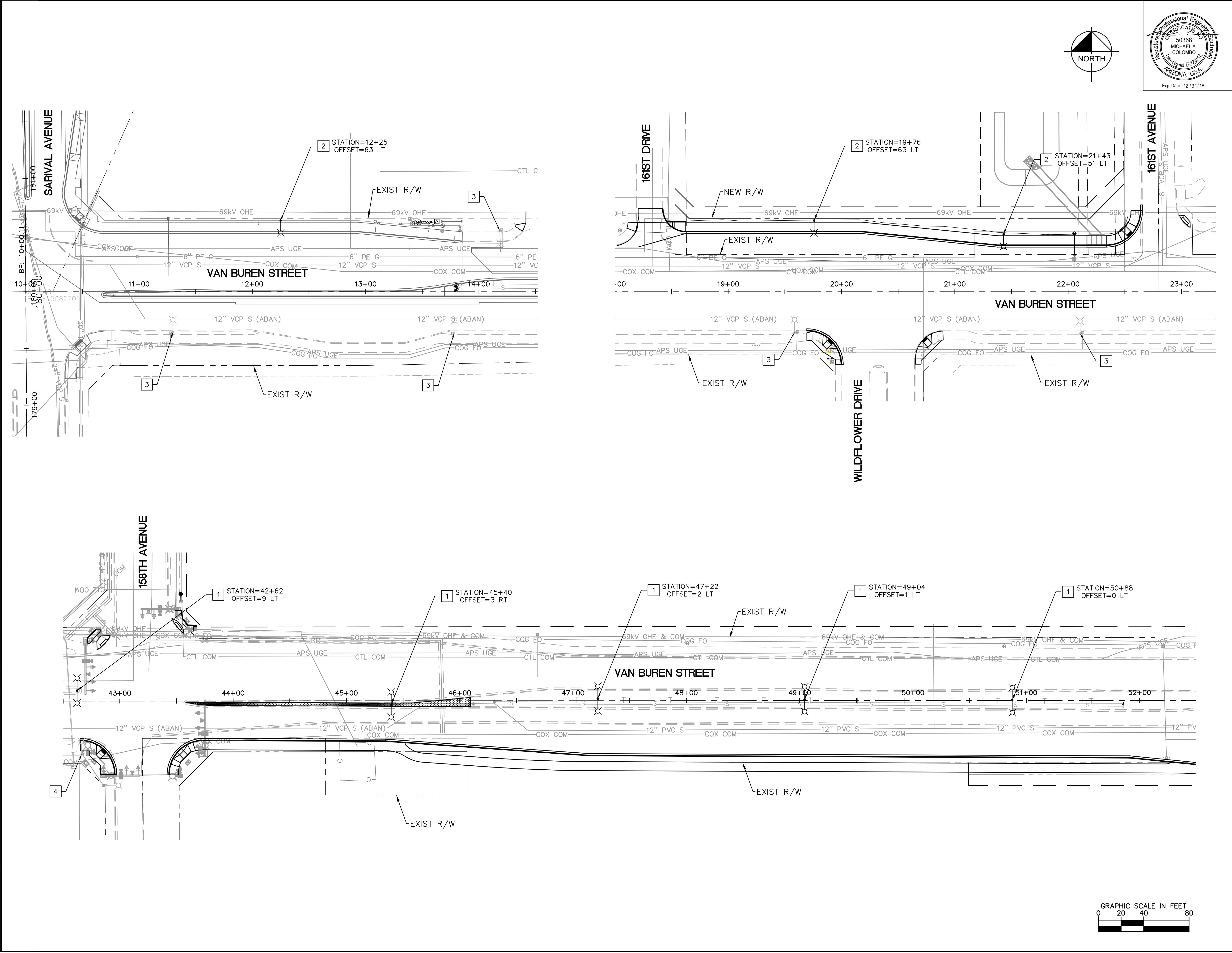
CONSTRUCTION NOTES

- ① LEFT OR RIGHT TURN ARROW PAVEMENT MARKING SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAILS G-3208 AND G-3219.
- ② ONLY SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAILS G-3219
- ③ BIKE LANE PAVEMENT MARKING SYMBOL INSTALLED PER CITY OF GOODYEAR STANDARD DETAIL G-3208-6
- ④ PAINT MEDIAN NOSE PER CITY OF GOODYEAR STANDARD DETAILS G-3211 AND PER MCDOT PAVEMENT MARKING MANUAL, FIGURE 4-15 AND 4-16



k:\PHX_Roadway\191376005-Van Buren ST\cad\03-Sheets\191376005S02.dwg 8/4/2017 11:28 AM

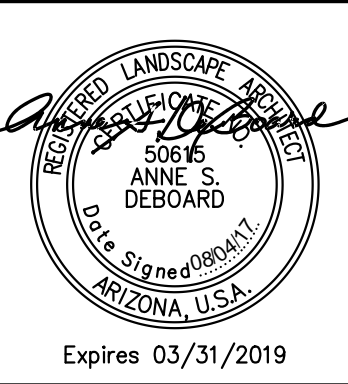
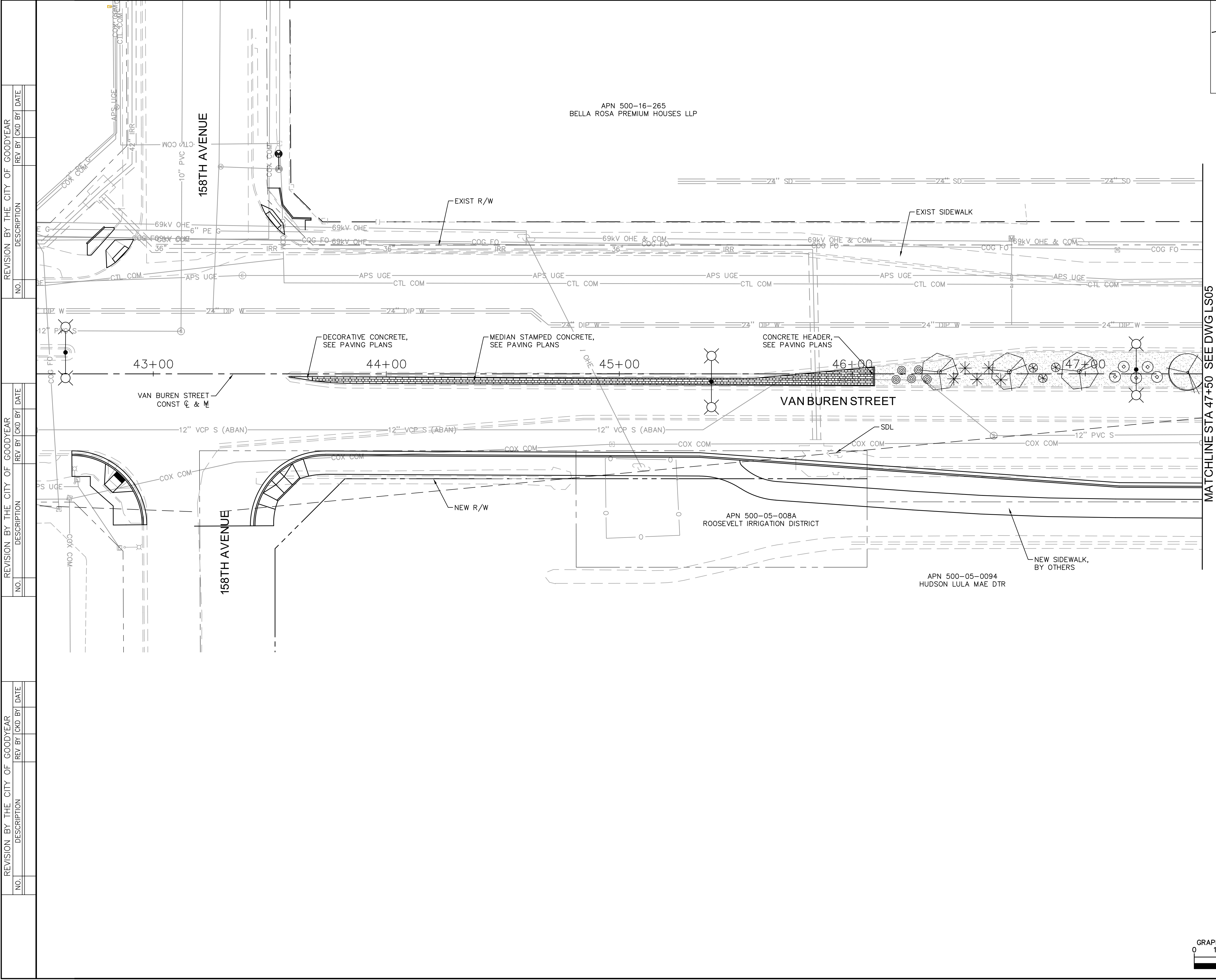
REVISION BY THE CITY OF GOODYEAR			REVISION BY THE CITY OF GOODYEAR			REVISION BY THE CITY OF GOODYEAR		
NO.	DESCRIPTION	REV BY	NO.	DESCRIPTION	REV BY	NO.	DESCRIPTION	REV BY



Kimley-Horn
Professional Engineering
50368
MICHAEL A. COLOMBO
Exp. Date 12/31/18
ARIZONA USA

F.H.W.A. REGION	STATE	PROJ. NO.		NO.	TOTAL
9	ARIZ.	CON-16-3635		36	59
Kimley»Horn		7740 N. 16TH STREET SUITE 300 PHOENIX, AZ 85020		Phone: 602-944-5500 Fax: 602-944-7423 www.kimley-horn.com	
DES: MAC		DR: GMY	CK: PMS	DATE: 08/17	
CONSTRUCTION NOTES					
NO	DESCRIPTION			UNIT	QTY
1	PROPOSED ARCHITECTURAL SQUARE STEEL POLE WITH 8'x8' DOUBLE MAST ARM (POLE CODE 1946S25, APS STANDARD DETAILS 8050S-1 & 8050S-2). INSTALL (2) 250W HPS LUMINAIRES (APN 33806726). LUMINAIRES SHALL HAVE A 40'-0" MOUNTING HEIGHT.			EA	5
2	PROPOSED ROUND STEEL POLE WITH 8'x8' MAST ARM INSTALLED 1.5' MINIMUM CLEARANCE FROM SIDEWALK (POLE CODE 1944.38, APS STANDARD DETAILS 8040-1 & 8040-2). INSTALL 250W HPS LUMINAIRE (APN 00047119). LUMINAIRE SHALL HAVE A 39' MOUNTING HEIGHT.			EA	3
3	EXISTING STREAMLINE STEEL STREET LIGHT POLE AND 250W HPS LUMINAIRE TO REMAIN.			EA	5
4	REMOVE AND SALVAGE EXISTING POLE, MAST ARM, LUMINAIRE AND CONDUCTORS. ABANDON CONDUITS IN PLACE.			EA	1
CALL TWO WORKING DAYS BEFORE YOU DIG 602-263-1100 1-800-STAKE-IT (OUTSIDE MARICOPA COUNTY)					
KEY MAP					
STREET LIGHTING PLAN					
CITY OF GOODYEAR					
VAN BUREN ST: SARIVAL AVE TO ESTRELLA PKWY					
DR: GMY		DES: MAC		CK: PMS	
DATE: 08/17		DATE: 08/17		DATE: 08/17	
SCALE: 1" = 40'				DWG. NO. SL02	
				SHT. 36 OF 59	

K:\PHX_Roadway\191376005-Van Buren ST\Coord\03-Sheets\191376005LS04.dwg 8/4/2017 11:30 AM



F.H.W.A. REGION 9	STATE ARIZ.	PROJ. NO. CON-16-3635	NO. 43	TOTAL 59
Kimley-Horn 7740 N. 18TH STREET SUITE 300 PHOENIX, AZ 85020 Phone: 602-944-5500 Fax: 602-944-7423 www.kimley-horn.com				
DES: KF	DR: KF	CK: AD	DATE: 08/17	

PLANTING LEGEND

TREES

BOTANICAL NAME / COMMON NAME	SIZE	SPACING
Acacia aneura Mulga	36" BOX	As Shown
Quercus Virginiana Live Oak	36" BOX	As Shown

SHRUBS & GROUNDCOVERS

BOTANICAL NAME / COMMON NAME	SIZE	SPACING
Eremophila glabra 'Mingenew Gold' Outback Sunrise Emu	5 Gal.	As Shown
Eremophila hygrophana / Blue Bells	5 Gal.	As Shown
Eremophila maculata / Valentine®	5 Gal.	As Shown
Euphorbia rigida / Gopher Plant	5 Gal.	As Shown

ACCENTS

BOTANICAL NAME / COMMON NAME	SIZE	SPACING
Agave geminiflora / Twin-Flowered Agave	5 Gal.	As Shown
Hesperaloe x 'Pink Parade' Pink Parade	5 Gal.	As Shown
Yucca pallida / Pale Leaf Yucca	5 Gal.	As Shown

MISCELLANEOUS

	Decomposed Granite Color: Madison Gold Size: 3/4" Screened, 2" depth
	Median Stamped Concrete
	6" Concrete Header
	Existing Vegetation to Remain
	Sight Distance Line

NOTES

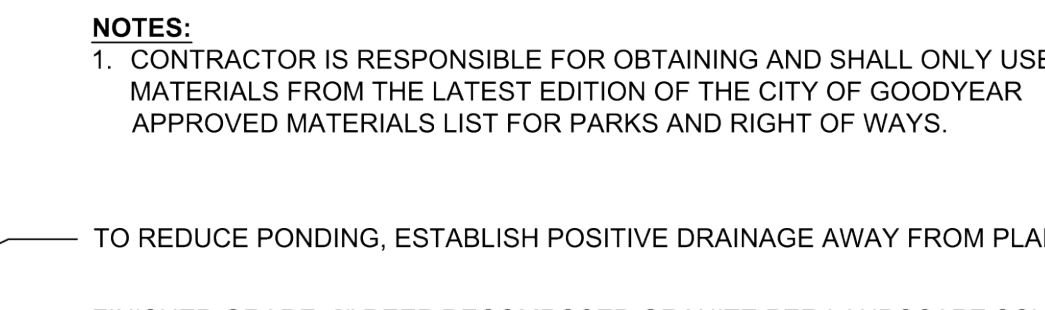
Landscape Areas shall be maintained by the City of Goodyear Parks & Recreation Department.

LANDSCAPE PLAN

CITY OF GOODYEAR

VAN BUREN ST: SARIVAL AVE TO ESTRELLA PKWY 42+50 TO 47+50

DR: KF	DES: KF	CK: AD	DWG. NO.
DATE: 08/17	DATE: 08/17	DATE: 08/17	LS04
SCALE: 1" = 20' HORIZ			SHT. 43 OF 59



NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR PARKS AND RIGHT OF WAYS.

TO REDUCE PONDING, ESTABLISH POSITIVE DRAINAGE AWAY FROM PLANT BASE

FINISHED GRADE: 2" DEEP DECOMPOSED GRANITE PER LANDSCAPE SCHEDULE
MAINTAIN 4" CLEAR ZONE AROUND ACCENT TRUNK

BACKFILL MIX (SEE NOTE 1)

SET ROOTBALL ON NATIVE UNDISTURBED SOIL OR SUBGRADE. SCARIFY SIDES AND BOTTOM OF PLANT PIT

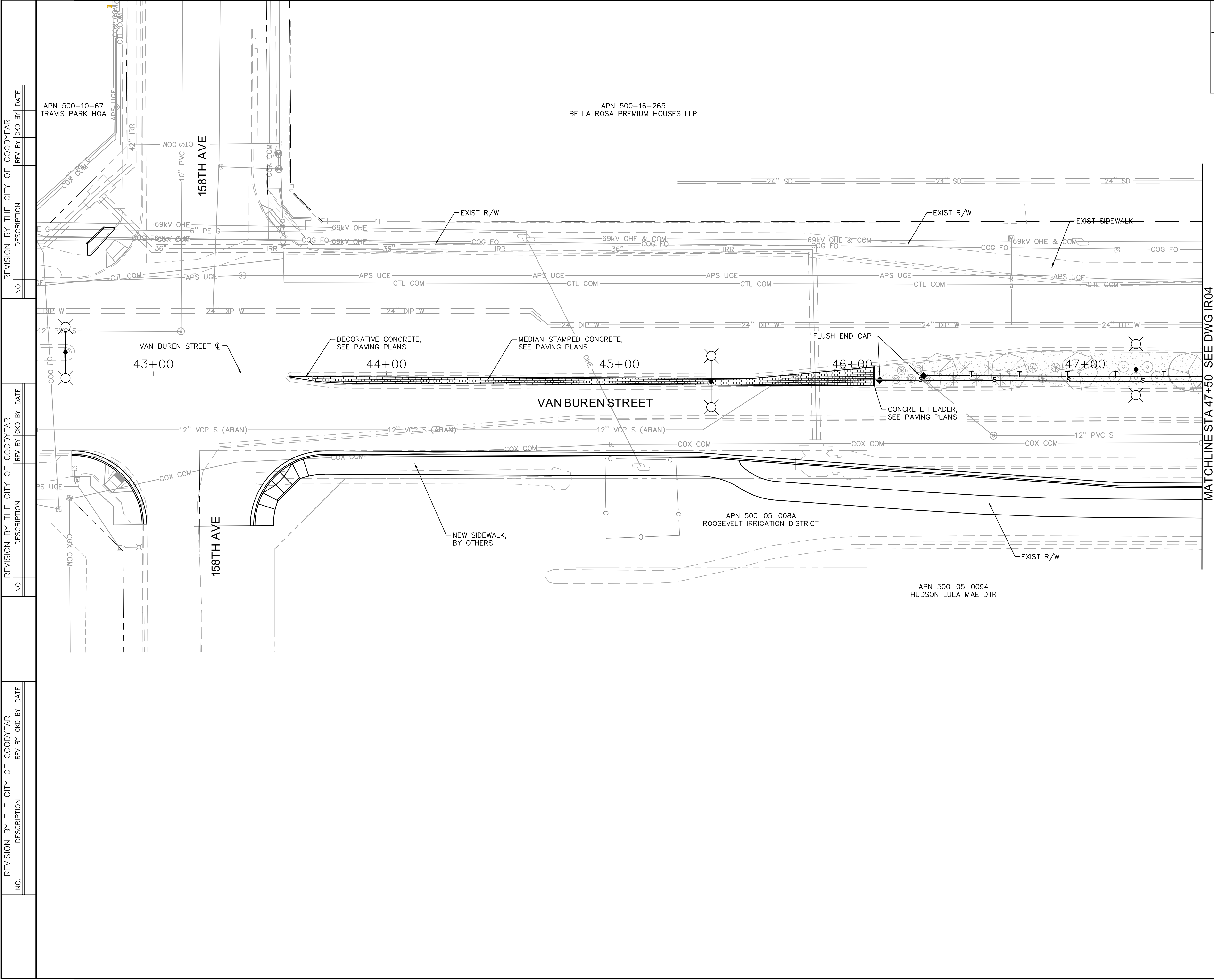
UNDISTURBED NATIVE SOIL OR SUBGRADE



**CALL TWO WORKING DAYS
BEFORE YOU DIG**
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)

LANDSCAPE DETAILS			
CITY OF GOODYEAR			
VAN BUREN ST: SARIVAL AVE TO ESTRELLA PKWY			
DR: KF	DES: KF	CK: AD	DWG. NO.
DATE: 08/17	DATE: 08/17	DATE: 08/17	LSD01
SCALE: NONE			SHT. 45 OF 59

k:\PHX_Roadway\191376005-Van Buren St\cad\03-Sheets\191376005IR04.dwg 8/4/2017 11:33 AM



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	CON-16-3635	49	59
7740 N. 18TH STREET SUITE 300 PHOENIX, AZ 85020 Phone: 602-944-5500 Fax: 602-944-7423 www.kimley-horn.com				
DES: KF	DR: KF	CK: AD	DATE: 08/17	

IRRIGATION LEGEND

MATERIALS AND EQUIPMENT

SYM	DESCRIPTION
	Meter - 1"
	Backflow Preventer - 1" FEBCO 825V
	Controller - Hunter XC Hybrid 6-Station Controller
	Master Valve - 1" (Normally Closed)
	Flow Sensor - 1"
	Gate Valve - 1" Bronze Full Port Watts or Febco
	Remote Control Drip Zone Valve Kit - 1"
	Flush End Cap
NOT SHOWN	Rain Bird EMT - 6XERI Outlet Manifold With Rain Bird Xeri - Bug Emitter

	Mainline - 1" SCH 40 PVC
	Tree Lateral - 3/4" SCH 40 PVC
	Shrub Lateral - 3/4" SCH 40 PVC
	Existing Sleeve

VALVE KEY

IRRIGATION LAYOUT NOTES

- Irrigation pipe routing and equipment locations are diagrammatic and shall be field adjusted to avoid conflict with and disturbance of existing plant materials and utility locations.
- Existing plants to remain shall continue to be watered with existing irrigation system, where applicable.
- Contractor shall maintain functionality of existing system outside project limits. Coordinate with the City of Goodyear and adjacent property owners for temporary interruptions to service.
- Contractor shall install irrigation equipment in median as shown within center of median maintaining a minimum 6' clear distance from back of curb.

CALL TWO WORKING DAYS BEFORE YOU DIG

602-263-1100

1-800-STAKE-IT

(OUTSIDE MARICOPA COUNTY)

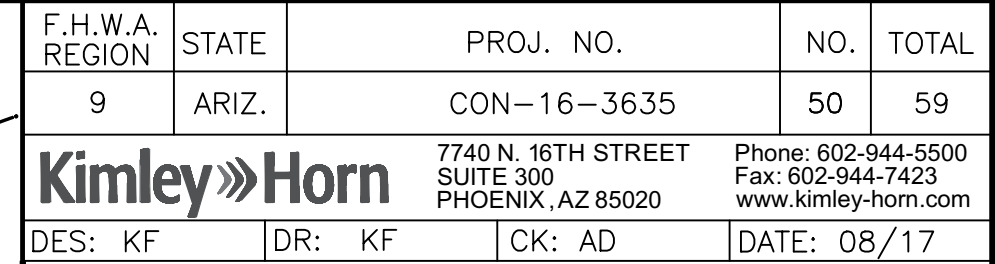
KEY MAP

LANDSCAPE IRRIGATION PLAN

CITY OF GOODYEAR

VAN BUREN ST: SARIVAL AVE TO ESTRELLA PKWY 42+50 TO 47+50

DR: KF	DES: KF	CK: AD	DWG. NO.
DATE: 08/17	DATE: 08/17	DATE: 08/17	IR04
SCALE: 1" = 20' HORIZ.			SHT. 49 OF 59



MATERIALS AND EQUIPMENT

	Mainline - 1" SCH 40 PVC
	Tree Lateral - 3/4" SCH 40 PVC
	Shrub Lateral - 3/4" SCH 40 PVC
	Existing Sleeve

The diagram shows a table with the title "DRIP-SHRUBS". The table has four columns: "VALVEZONE", "VALVEFLOW", "VALVE#", and "VALVE SIZE". The first row of data contains the values "5.8 GPM", "1\"", and "#".

VALVEZONE	VALVEFLOW	VALVE#	VALVE SIZE
	5.8 GPM	1"	#

1. Irrigation pipe routing and equipment locations are diagrammatic and shall be field adjusted to avoid conflict with and disturbance of existing plant materials and utility locations.
2. Existing plants to remain shall continue to be watered with existing irrigation system, where applicable.
3. Contractor shall maintain functionality of existing system outside project limits. Coordinate with the City of Goodyear and adjacent property owners for temporary interruptions to service.
4. Contractor shall install irrigation equipment in median as shown within center of median maintaining a minimum 6' clear distance from back of curb.

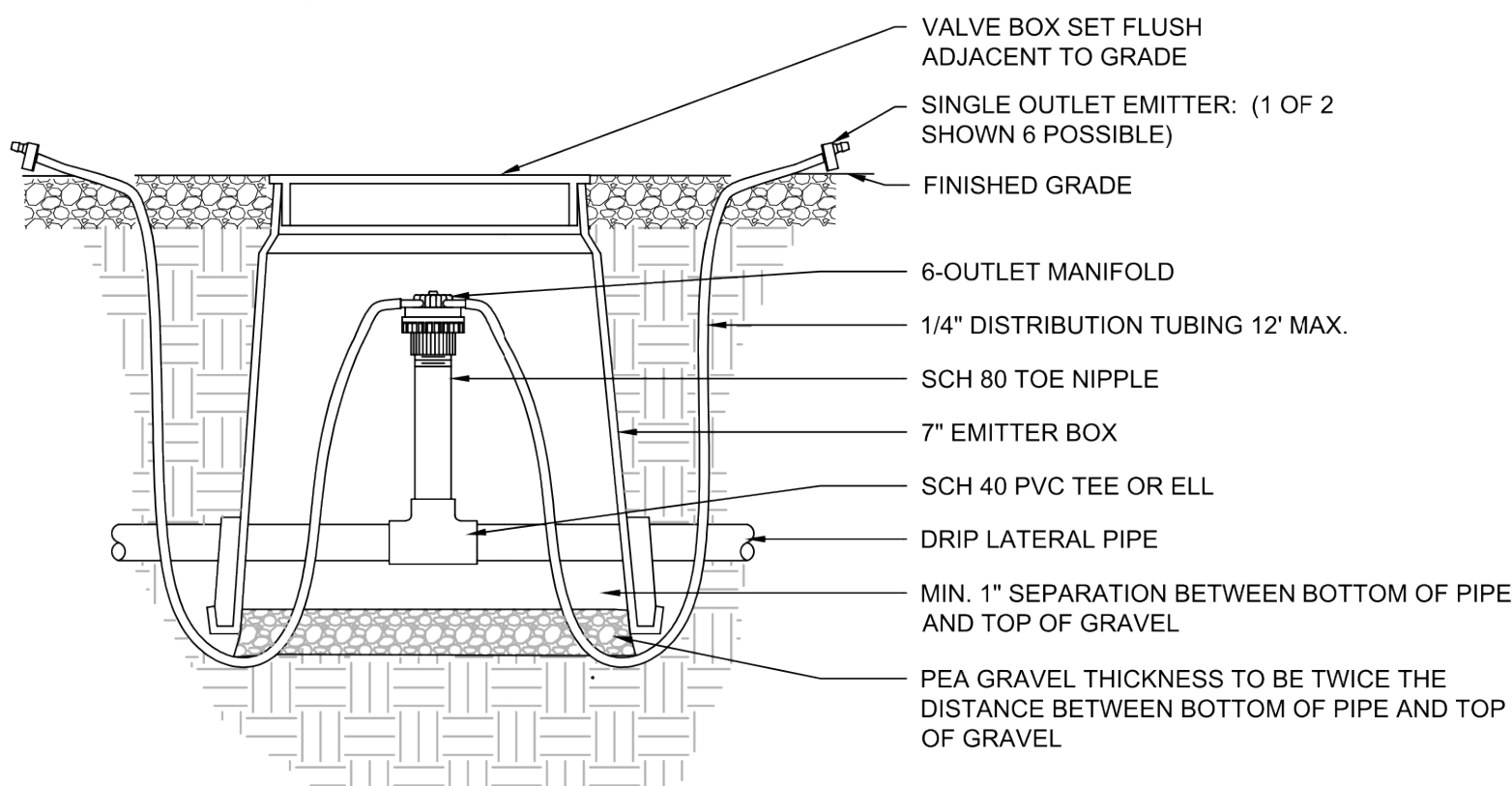


A map of a street intersection area. The vertical streets from left to right are GARVAL AVE, 161ST DR, 161ST AVE, 159TH AVE, 158TH AVE, and ESTRELLA PKWY. The horizontal street is VAN BUREN STREET. A hatched rectangular area is located on 158TH AVE, just west of ESTRELLA PKWY.

VAN BUREN ST:
SARIVAL AVE TO ESTRELLA PKWY
47+50 TO 52+50

DR: KF	DES: KF	CK: AD	DWG. NO. IR05 SHT. 50 OF 59
DATE: 08/17	DATE: 08/17	DATE: 08/17	
SCALE: 1" = 20' HORIZ,			

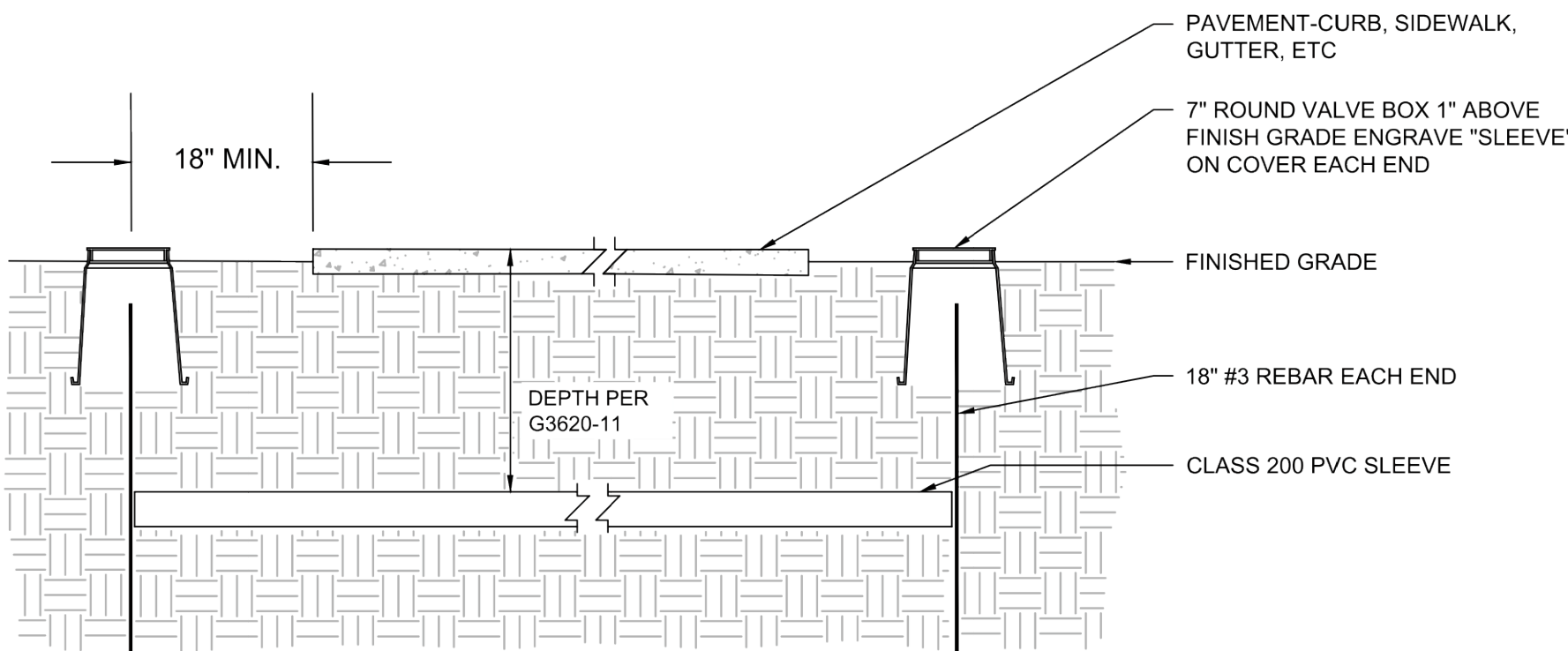
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR PARKS AND RIGHT OF WAYS.
2. OUTLET SHALL BE LOCATED DIRECTLY OVER ROOT BALL FOR PLANTS.
3. EMITTER TUBE OUTLET FOR CACTI ACQUIRED SHALL NOT BE PLACED DIRECTLY ON ROOT BALL BUT 4" TO 6" AWAY.
4. NUMBER OF EMITTER TUBES REQUIRED PER PLANT IS BASED ON PLANT SIZE. SEE EMITTER SCHEDULE.
5. ONE 6-ORIFICE MANIFOLD PER TREE. THE EMITTERS ARE PLACED EVENLY AROUND TREE PER CITY OF GOODYEAR STANDARD DETAIL G-3620-18. MANIFOLD PLACEMENT TO BE APPROVED BY CITY OF GOODYEAR REPRESENTATIVE.
6. MANIFOLD OUTLETS NOT USED SHALL BE PLUGGED TO THE SATISFACTION OF THE CITY OF GOODYEAR REPRESENTATIVE.
7. TREE MANIFOLD EMITTER VALVE BOX SHALL BE 5" MIN. FROM TREE TRUNK AND 12" FROM PAVEMENT EDGE.
8. EMISSION POINTS SHALL BE LOCATED UPHILL OF PLANT CENTERLINE AND SHALL DELIVER WATER DIRECTLY TO ROOT BALL (TYP.).



7 EMITTER MANIFOLD

SCALE: N.T.S.

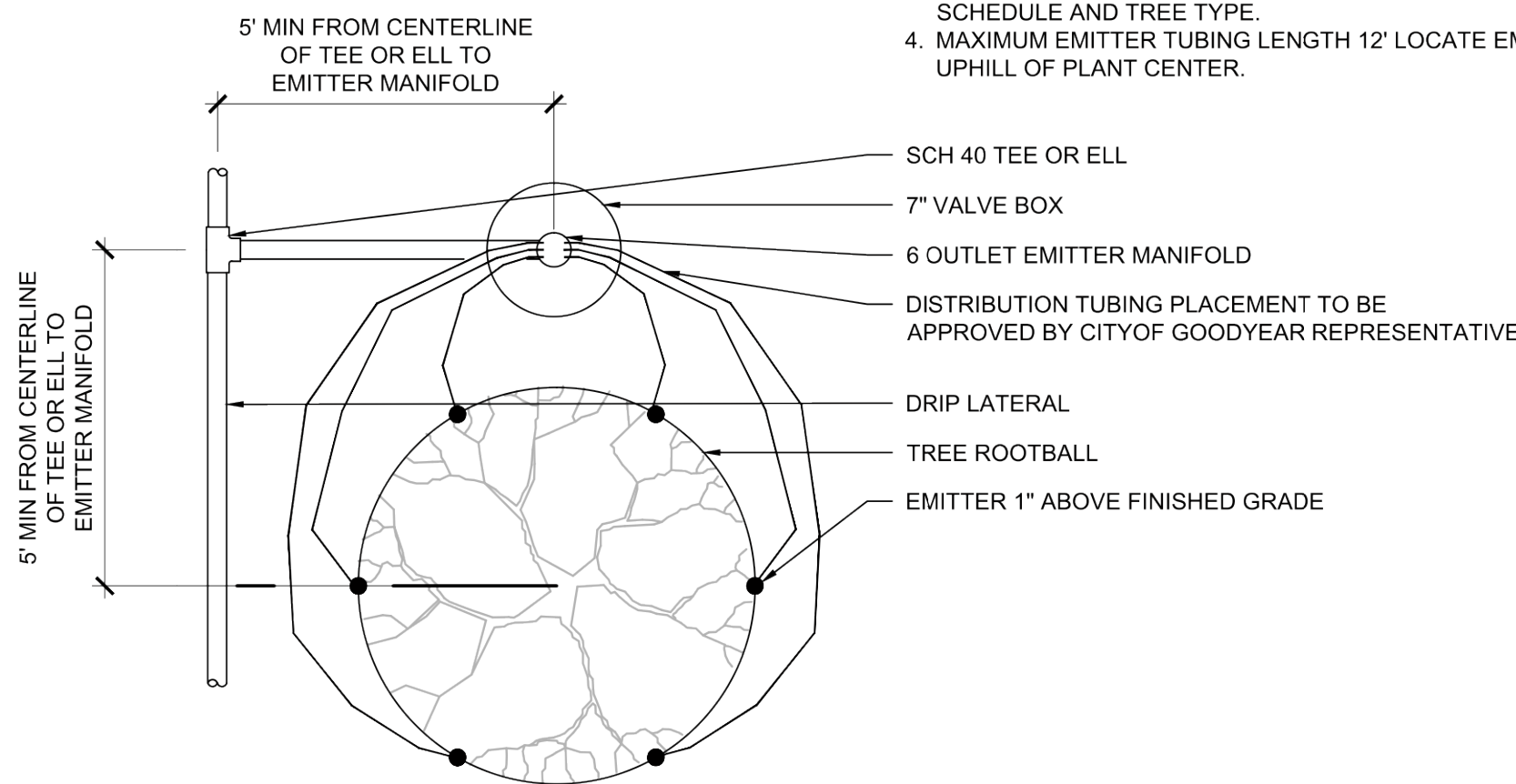
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR PARKS AND RIGHT OF WAYS.
2. VALVE BOX AND REBAR MARKERS TO BE INSTALLED WHEN LANDSCAPE AND IRRIGATION IS A FUTURE CONTRACT.



10 PVC SLEEVE

SCALE: N.T.S.

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR MARKS AND RINGS AND
2. EMITTER OUTLETS SHALL BE EQUALLY SPACED, AND LOCATED TO DIRECT WATER FLOW TO PERIMETER OF DRIF LINE AS WELL AS ROOT BALL.
3. PROVIDE SPECIFIED NUMBER OF OUTLETS PER EMITTER SCHEDULE AND TREE TYPE.
4. MAXIMUM EMITTER TUBING LENGTH 12' LOCATE EMITTERS UPHILL OF PLANT CENTER.

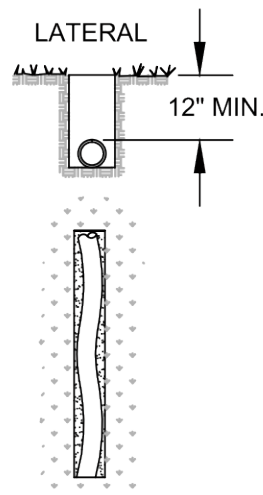


8 EMISSION POINT - TREE

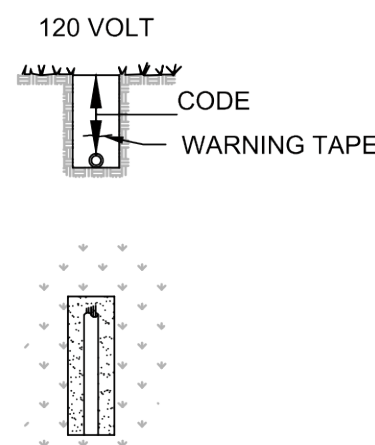
Diagram illustrating the placement of a fire alarm pull station and a fire alarm control unit. The pull station is located on the wall, and the control unit is located on the floor. A lateral line connects the pull station to the main line. The main line is labeled "MAIN LINE" and the lateral line is labeled "LATERAL". A note states: "WIRING SHALL BE INSTALLED BELOW MAIN LINE".

NOTE:
TAPE AND BUNDLE TUBING OR WIRING AT
10' INTERVALS.

* PIPE DIA	TRENCH DEPTHS
3/4" - 2"	18"
2-1/2" - 3"	24"
4" - 6"	36"
8" - 12"	48"



NOTE:
ALL PLASTIC PIPING TO BE SNAKED IN
TRENCHES WITH A 2" MIN. CLEARANCE
BETWEEN PIPES AND PIPES AND SIDE OF
TRENCH.

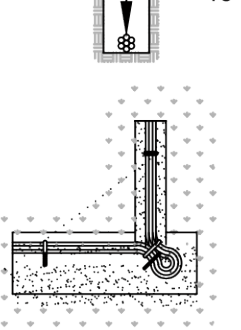


NOTE:
ALL 120 VOLT WIRING IN CONDUIT TO BE
INSTALLED IN ACCORDANCE WITH LOCAL
CODE.

APPROVED "ELECTRICAL POWER WIRES
BELOW" WARNING TAPE SHALL BE INSTALLED
12" ABOVE ALL POWER WIRING IN TRENCHES.

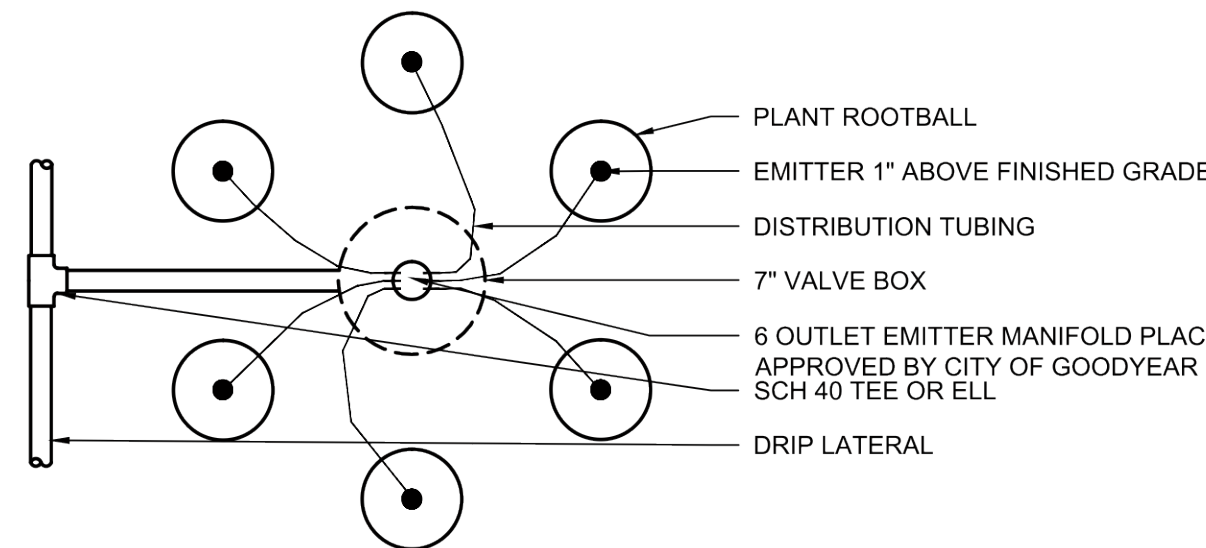
1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR PARKS AND RIGHT OF WAYS.
2. NO TRENCH TO BE CLOSER THAN 18" TO CONCRETE SIDEWALK CURBS, ELECTRIC POLES, J-BOXES, ELECTRIC CABINETS, STREET SIGNALS, SIGNS, ETC.
3. WHEN MULTIPLE MAIN OR LATERAL LINES RUN IN THE SAME TRENCH MAINTAIN 3" HORIZONTAL CLEARANCE BETWEEN PIPES
4. DETAIL APPLIES WHEN A 2" OR LARGER MAINLINE IS IN A SEPARATE TRENCH.

RED-CONTROLLER
BLUE-MASTER VALVE
BLACK/ORANGE-FLOW METER
WHITE-COMMON
GREEN-EXTRA



NOTE:
TIE A LOOSE 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION GREATER THAN 30°. UNTIE ALL LOOPS AFTER ALL CONNECTIONS HAVE BEEN MADE.

1. CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND SHALL ONLY USE MATERIALS FROM THE LATEST EDITION OF THE CITY OF GOODYEAR APPROVED MATERIALS LIST FOR PARKS AND RIGHT OF WAYS.
2. EMITTER OUTLETS SHALL BE LOCATED TO DIRECT WATER FLOW TO MIDDLE OF ROOTBALL.
3. PROVIDE SPECIFIED NUMBER OF OUTLETS PER EMITTER SCHEDULE AND PLANT TYPE.
4. MAXIMUM EMITTER TUBING LENGTH 12' LOCATE EMITTERS UPHILL OF PLANT CENTER.



9 EMISSION POINT - SHRUB AND GROUNDCOVER
SCALE: N.T.S.

SCALE: N.T.S.

SHT 52 OF 59



F.H.W.A. REGION	STATE	PROJ. NO.	NO.	TOTAL
9	ARIZ.	CON-16-3635	52	59
		7740 N. 16TH STREET SUITE 300 PHOENIX, AZ 85020		
		Phone: 602-944-5500 Fax: 602-944-7423 www.kimley-horn.com		
DES: RS		DR: RS	CK: AD	DATE: 08/17

