

**ENGINEER:**  
 RICK ENGINEERING COMPANY  
 6150 NORTH 16TH STREET  
 PHOENIX, ARIZONA 85016  
 CONTACT: DALE MILLER, PE  
 PHONE: (480)522-0330  
 EMAIL: DMILLER@RICKENGINEERING.COM

**OWNER:**  
 TOWN OF HUACHUCA CITY  
 500 GONZALES BLVD  
 HUACHUCA CITY, ARIZONA 85616  
 CONTACT: MATTHEW C. WILLIAMS, CITY MANAGER  
 PHONE: (520)456-1354  
 EMAIL: MWILLIAMS@HUACHUCACITYAZ.GOV

**BASIS OF BEARING:**  
 ARIZONA STATE PLANE, EAST ZONE, NAD 83 (EPSG 2222)

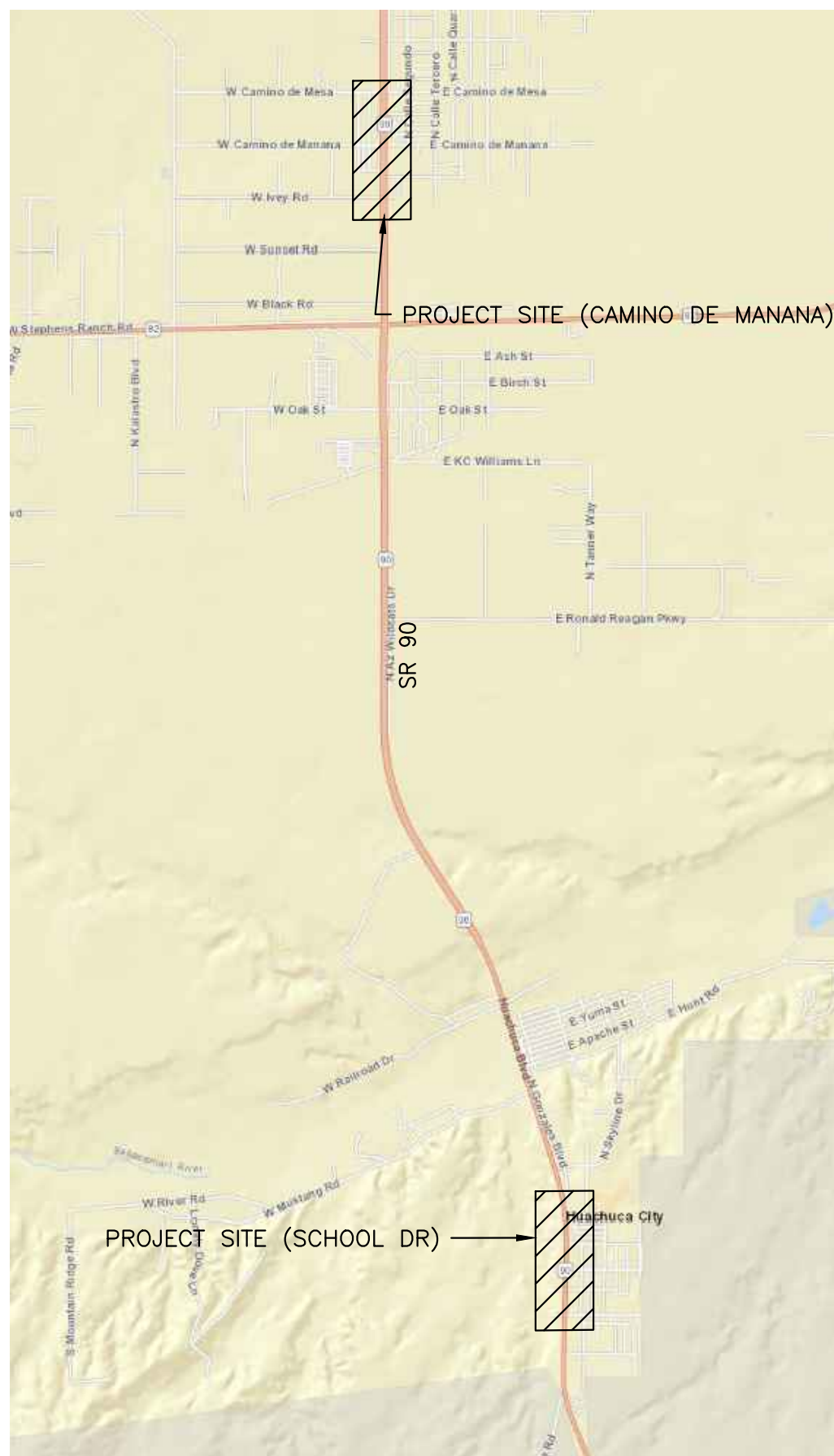
**BENCHMARK:**  
 ELEVATION DATUM IS NAVD 88

**SURVEY DATA:**  
 AERIAL PHOTOGRAPHY AND TOPOGRAPHIC  
 DATA WAS PROVIDED BY DATASIGHT WITH  
 THE DATE OF FLIGHTS OF AUGUST 20, 2019  
 FOR CAMINO DE MANANA AND SEPTEMBER  
 5, 2019 FOR SCHOOL DR

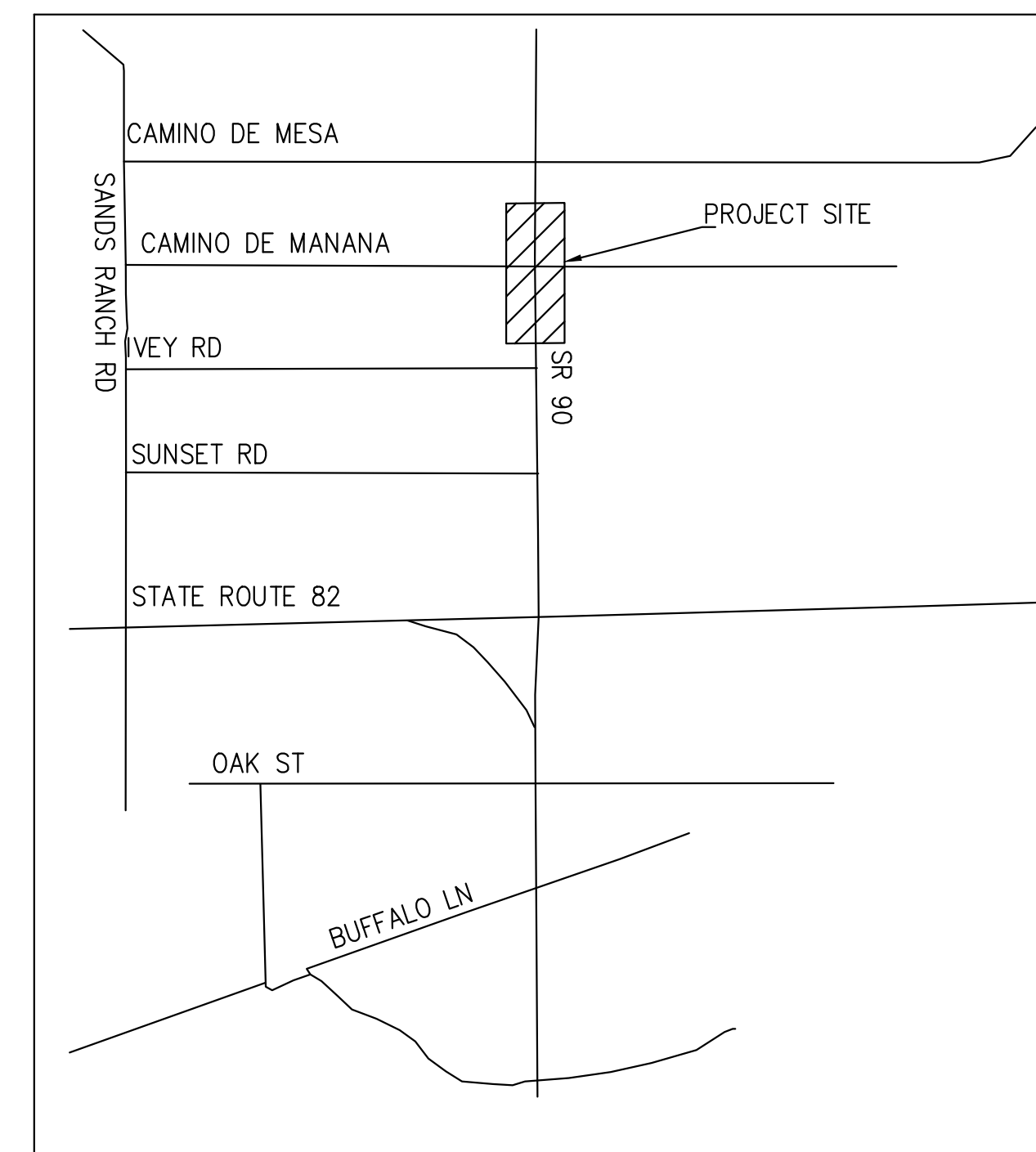


# TOWN OF HUACHUCA CITY IN PARTNERSHIP WITH THE SIERRA VISTA METROPOLITAN PLANNING ORGANIZATION

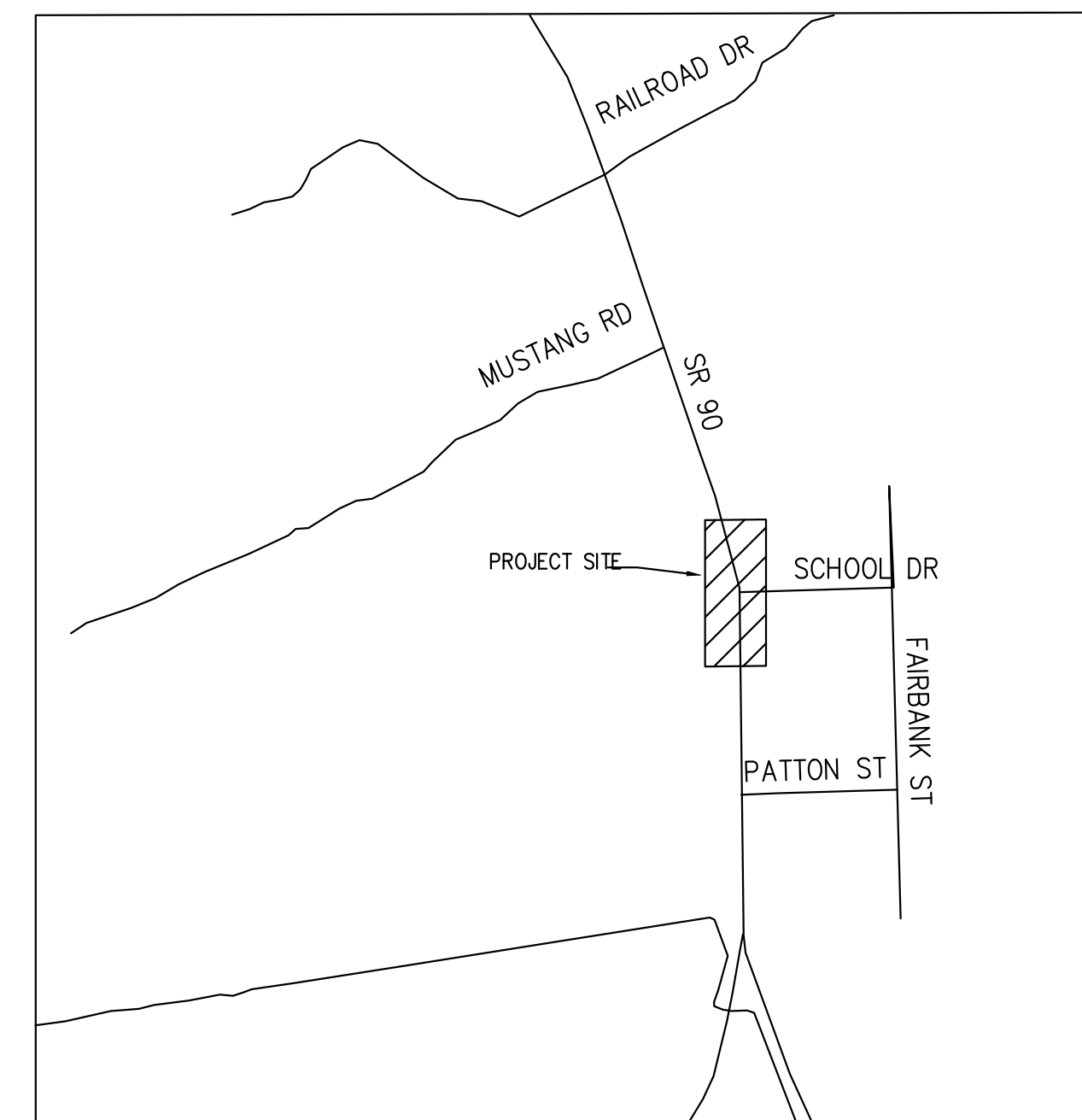
## EMERGENCY VEHICLE PREEMPTION SIGNAL PROJECT



VICINITY MAP



CAMINO DE MANANA RD PROJECT SITE



SCHOOL DRIVE PROJECT SITE

SHEET LIST TABLE		
SHEET NUMBER	SHEET TITLE	SHEET DESCRIPTION
1	CV01	COVER SHEET
2	GN01	GENERAL NOTES
3	TS01	SCHOOL DRIVE AND SR 90 SIGNAL PLAN
4	SS01	SCHOOL DRIVE AND SR 90 SIGNING AND STRIPING PLAN
5	SS02	CAMINO DE MANANA AND SR 90 SIGNING PLAN

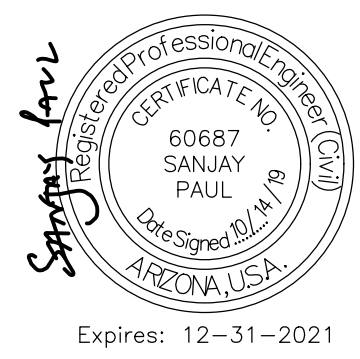
UTILITY COMPANIES		
OWNER	REPRESENTATIVE	PHONE NO.
ARIZONA DEPARTMENT OF TRANSPORTATION	SHANE ALDEN DAVID A VELASQUEZ	520-838-2841 520-720-4751
COX COMMUNICATIONS - SIERRA VISTA	MARK NORZAGARAY	520-343-8992
CTLQL-CENTURY LINK	RAY PERALES	610-761-8524
SOUTHWEST GAS	KANDI ALLRED	520-452-4127
SULPHUR SPRINGS VALLEY ELECTRIC	MIKE COOK	520-508-0324
TOWN OF HUACHUCA CITY	JAMES A. HALTERMAN	520-249-5241

TOTAL ESTIMATED QUANTITIES			
ITEM #	ITEM DESCRIPTION	QTY	UNIT
1	EV PREEMPTION REMOTE CONTROL DEVICES	12	EA
2	ADVANCE WARNING EV SIGNAL WITH SIGNS, FLASHERS, POLE & FOUNDATION	4	EA
3	PAVEMENT STRIPING, THERMOPLASTIC ALKYD, WHITE	96	SF
4	TYPE 'R' POLE AND FOUNDATION WITH 45' SIGNAL MAST ARM & 20' LUMINAIRE MAST ARM	2	EA
5	TYPE 'T' SIGNAL HEAD PER ADOT TS 8-5	5	EA
6	TYPE 'II' MOUNTING PER ADOT TS 9-1	5	EA
7	EV SIGNAL CONTROLLER WITH COMMUNICATION SYSTEM IN A POLE HANGING CABINET	1	LS
8	INSTALL TRAFFIC SIGN, 'W11-12P'	2	EA
9	INSTALL TRAFFIC SIGN, 'W11-8'	2	EA
10	INSTALL TRAFFIC SIGN, 'R8-10'	2	EA
11	INSTALL TRAFFIC SIGN, 'R10-14'	2	EA
12	SIGN POST, TYPE 'T', 2-1/2" SQUARE GALVANIZED STEEL POST PER ADOT S-3	4	EA
13	SIGN POST SLIP BASE FOUNDATION PER ADOT S-3	4	EA
14	STREET NAME SIGN ASSEMBLY, D3-1	2	EA
15	INSTALL SCHEDULE 40 PVC CONDUIT, 3" DIA, DIRECTIONAL DRILLING	160	LF
16	INSTALL SCHEDULE 40 PVC CONDUIT, 2-1/2" DIA, IN TRENCH WITH PULL CORD	130	LF
17	INSTALL CONDUCTORS, COMPLETE	1	LS
18	INSTALL PULL BOX, NO. 7, LIGHT DUTY, PER ADOT TS 1-1	3	EA
19	INSTALL LUMINAIRES WITH PHOTO CELL CONTROL	2	EA
20	TRAFFIC CONTROL	1	LS
21	MOBILIZATION	1	LS

COVER SHEET

**RICK ENGINEERING COMPANY**  
 6150 NORTH 16TH STREET  
 PHOENIX, AZ 85016  
 602.957.3350

Tucson - San Diego - Riverside - Orange  
 Sacramento - San Luis Obispo - Denver  
 rickengineering.com



REVISIONS:

NO.	DESCRIPTION	DATE:

Contact Arizona 811 at least two full working days before you begin excavation

**ARIZONA 811**  
 Call 811 or click Arizona811.com

DATE: 10/14/2019  
 DRAWN: C AGUILAR  
 DESIGNED: M GATEWOOD  
 CHECKED: S PAUL

PROJ. NO. 5143      CV01  
 SHT 1 OF 5

**GENERAL NOTES**

**GENERAL**

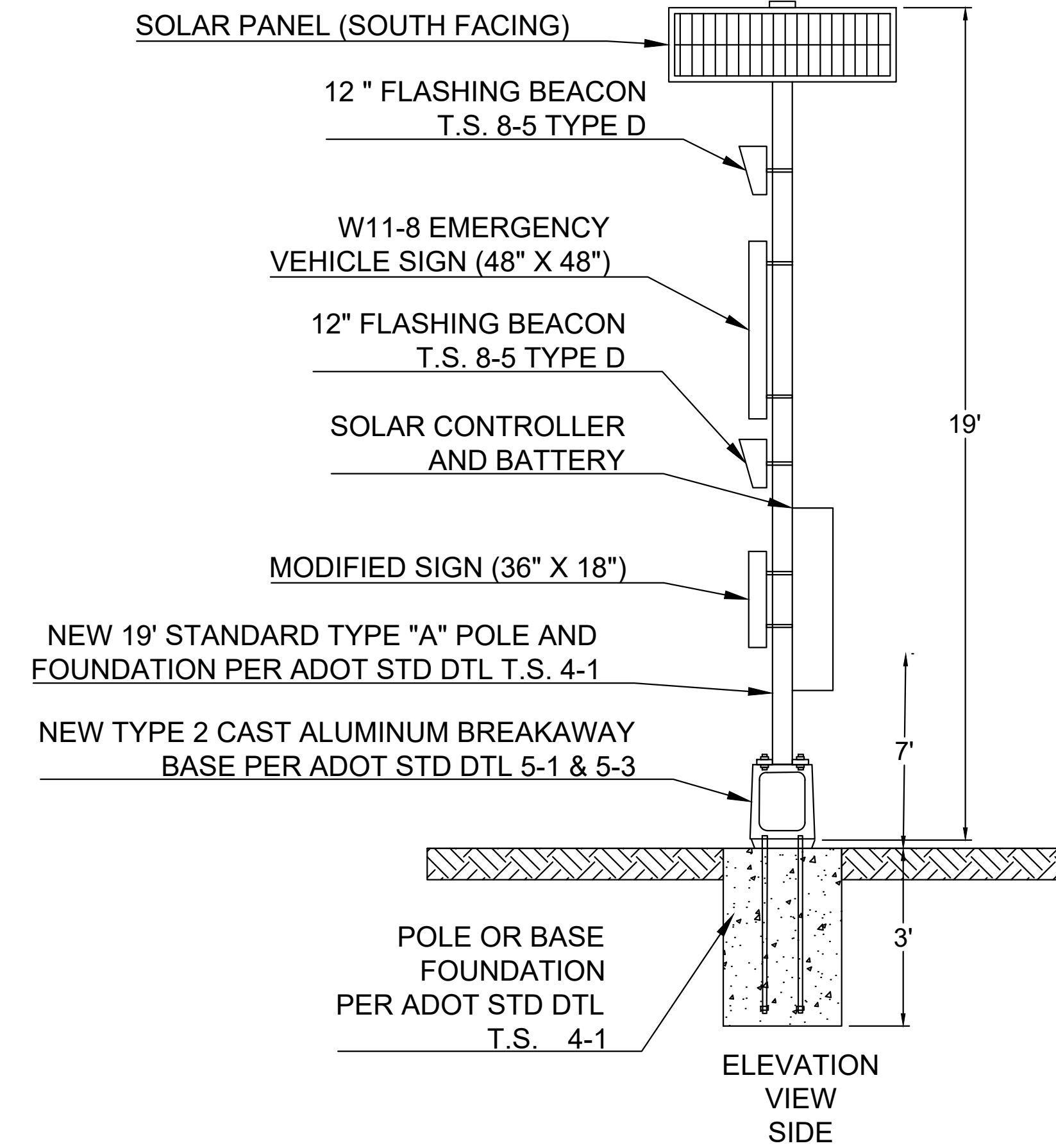
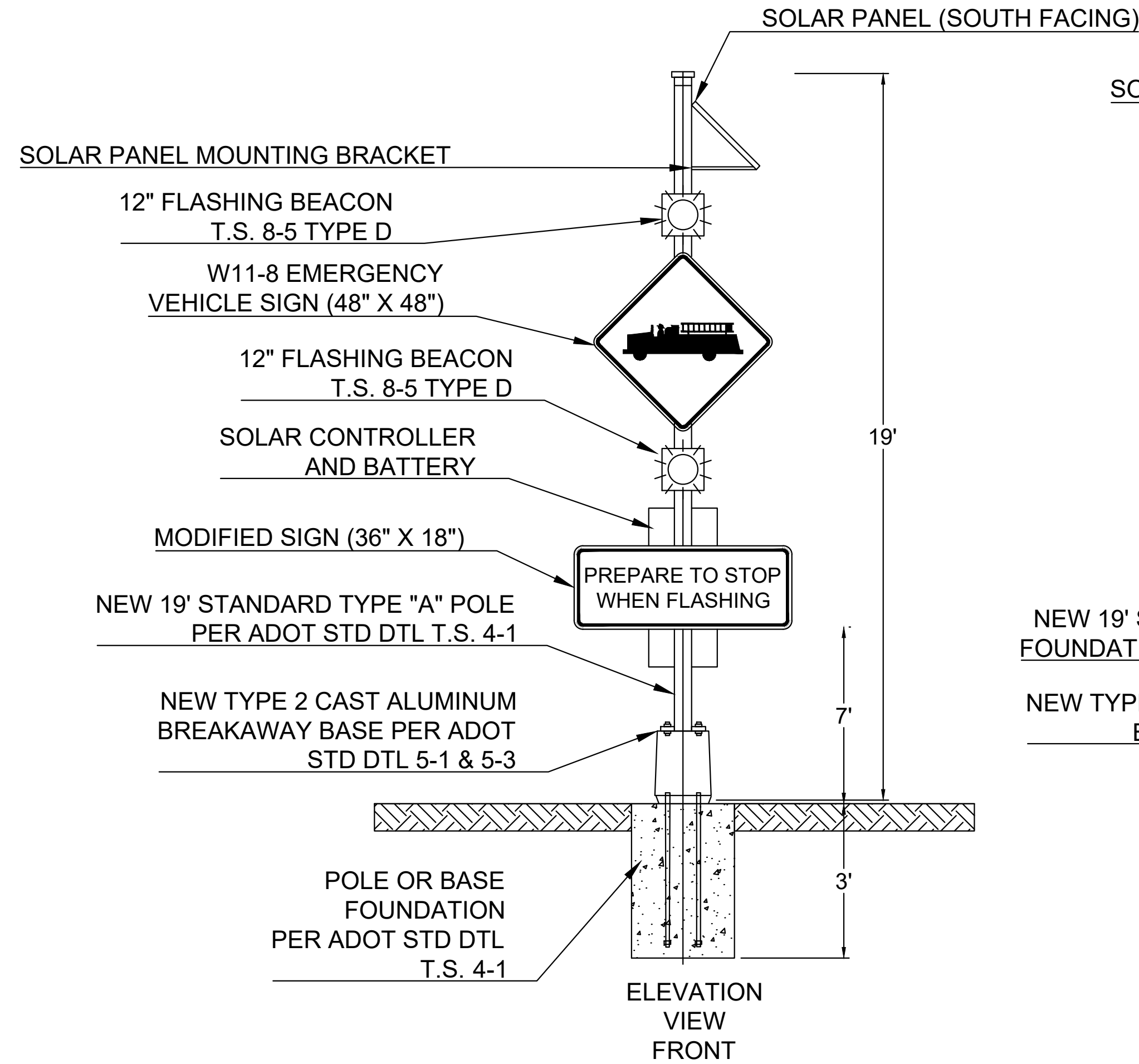
1. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL IMPROVEMENTS ARE BUILT, CONSTRUCTED, AND/OR INSTALLED IN ACCORDANCE WITH THESE PROJECT PLANS AND THE TECHNICAL SPECIFICATIONS FOR THE WORK - 2008 ADOT STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION.
2. THE CONTRACTOR IS RESPONSIBLE FOR THE SURVEY, LAYOUT, AND STAKING OF THE PROPOSED IMPROVEMENTS FOR CONSTRUCTION PURPOSES.
3. IF THERE ARE ANY QUESTIONS REGARDING THE PLANS OR THE INTENT OF THE DESIGN, THE CONTRACTOR SHALL CONTACT THE ENGINEER AND DISCUSS THE ISSUE SO THAT IT IS CLARIFIED OR RESOLVED PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS AND PRECAUTIONS TO PROTECT AND SAFEGUARD ADJACENT IMPROVEMENTS AND PROPERTY FROM DAMAGE DUE TO CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS PROJECT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND OBTAINING ANY PERMITS NEEDED TO COMPLETE THE PROJECT, POTENTIALLY INCLUDING AN AGENCY BUSINESS LICENSE, ADOT RIGHT OF WAY ENCROACHMENT PERMIT, WATER USAGE AGREEMENT, ETC., AND INCLUDE THE COSTS FOR THE SAME, IF ANY, IN THE PROJECT BID PRICES.
6. THE CONTRACTOR SHALL ALSO EMPLOY EFFECTIVE STORM WATER MANAGEMENT TO PREVENT EROSION AND/OR SILT AND DEBRIS FROM LEAVING THE CONSTRUCTION SITE DURING THE ENTIRE DURATION OF THE PROJECT BY APPROPRIATE MEANS INCLUDING THE USE OF SAND BAGS, WADDLES, HAY BALES, TEMPORARY SILTATION BASINS, SILT DIKES/DAMS, SHORING, ETC.
7. ALL PROJECT IMPROVEMENTS INCLUDING BUT NOT LIMITED TO MANHOLE FRAMES, VALVE BOXES, VAULTS, HANDHOLES, FIRE HYDRANTS, ETC., SHALL BE SET OR RESET TO FINISHED GRADE OF THE SURROUNDING GROUND OR PAVEMENT SURFACE WHETHER OR NOT SPECIFICALLY CALLED OUT ON THE PLANS OR IN THE SPECIFICATIONS.

**UTILITIES**

1. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR UTILITY STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM UTILITY MAPPING PROVIDED BY THE VARIOUS UTILITY COMPANIES BASED ON AN AZ811 UTILITY MAPPING REQUEST.
2. THE LOCATION OF THE UTILITIES MAY OR MAY NOT BE ACCURATELY SHOWN ON THE UTILITY MAPPING PROVIDED AND ON THE PROJECT PLANS; FIELD VERIFICATION MAY BE REQUIRED.
3. THERE MAY BE OTHER UTILITY LINES AND FACILITIES PRESENT THAT ARE IN SERVICE OR HAVE BEEN ABANDONED WITHIN THE PROJECT CORRIDOR OR AREA THAT ARE NOT SHOWN ON THE MAPPING AND ON THE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING AZ811 (BLUE STAKE) PRIOR TO COMMENCING ANY DIGGING ACTIVITIES TO HAVE THE LOCATIONS OF THE UTILITIES MARKED IN THE FIELD AT THE PROJECT SITE.
5. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VISUALLY INSPECTING THE MARKED UTILITIES AT THE PROJECT SITE TO ASCERTAIN IF ANY POTENTIAL CONFLICTS EXIST BETWEEN THE PROPOSED IMPROVEMENTS UNDER THIS PROJECT AND THE EXISTING UTILITY FACILITIES.
6. THE CONTRACTOR SHALL "POTHOLE" TO DETERMINE THE EXACT LOCATION AND DEPTH OF EXISTING UTILITY FACILITIES TO IDENTIFY ANY POTENTIAL CONFLICTS BETWEEN UTILITY FACILITIES AND THE PROPOSED IMPROVEMENTS AND, IF NEEDED, REVIEW THE INFORMATION WITH THE OWNER AND THE ENGINEER TO RESOLVE ANY POTENTIAL CONFLICT PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL OBSERVE ALL POSSIBLE PRECAUTIONS WHEN WORKING IN CLOSE PROXIMITY TO EXISTING UTILITY LINES AND/OR STRUCTURES TO PROTECT THE SAME AND AVOID ANY DAMAGE TO THE UTILITY FACILITIES.
8. SHOULD ANY UTILITY FACILITY BE DAMAGED BY THE CONTRACTOR'S ACTIVITIES, THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH THE UTILITY OWNER FOR THE REPAIR OF THE FACILITY AT NO ADDITIONAL COST TO THE PROJECT.

**CONSTRUCTION JOBSITE SAFETY**

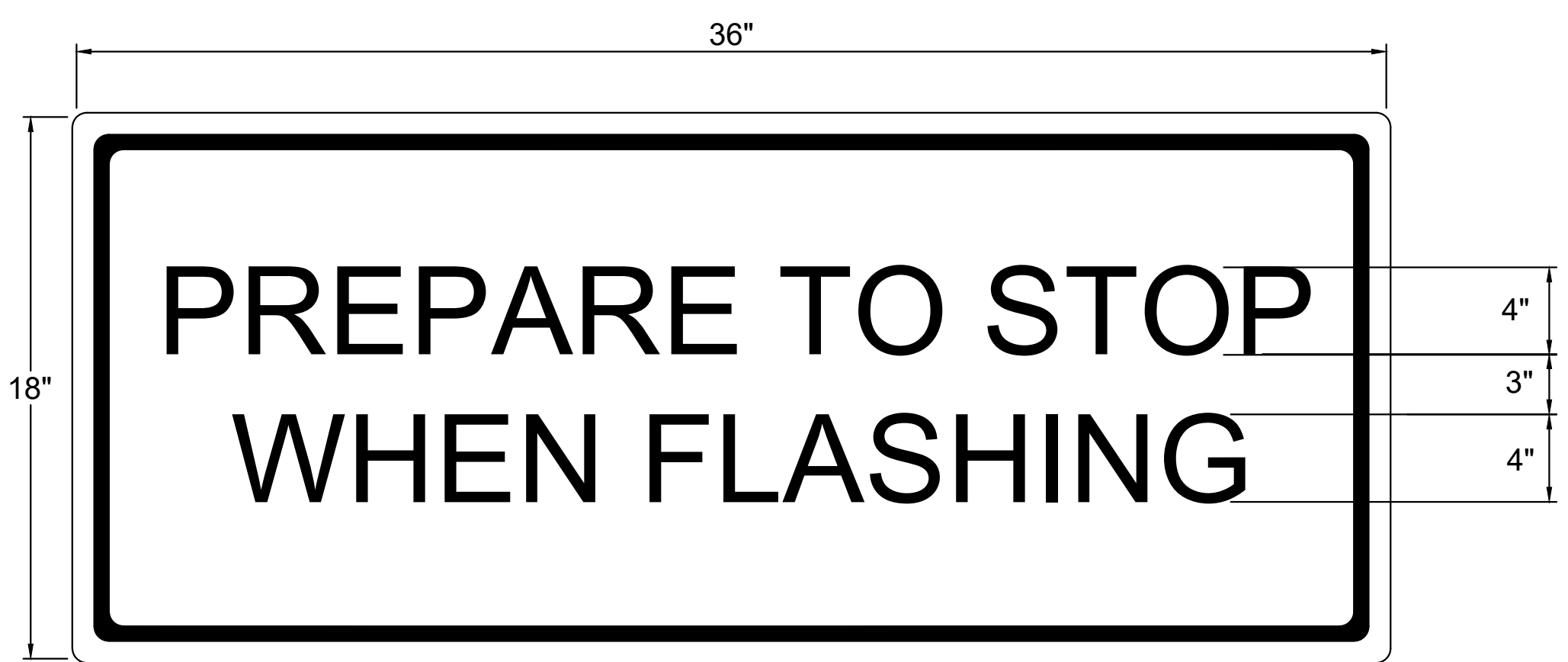
1. THE CONTRACTOR ASSUMES SOLE AND COMPLETE RESPONSIBILITY FOR JOBSITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY.
2. THIS SAFETY REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.
3. THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
4. NEITHER THE OWNER NOR THE ENGINEER WILL ENFORCE SAFETY MEASURES OR REGULATIONS.
5. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE DESIGN, CONSTRUCTION, AND MAINTENANCE OF ALL SAFETY DEVICES INCLUDING SHORING.
6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.
7. THE CONTRACTOR SHALL FOLLOW THE GUIDELINES AND REGULATIONS AS SET FORTH BY OSHA CONCERNING THE PROJECT WORK AND JOBSITE ACTIVITIES.



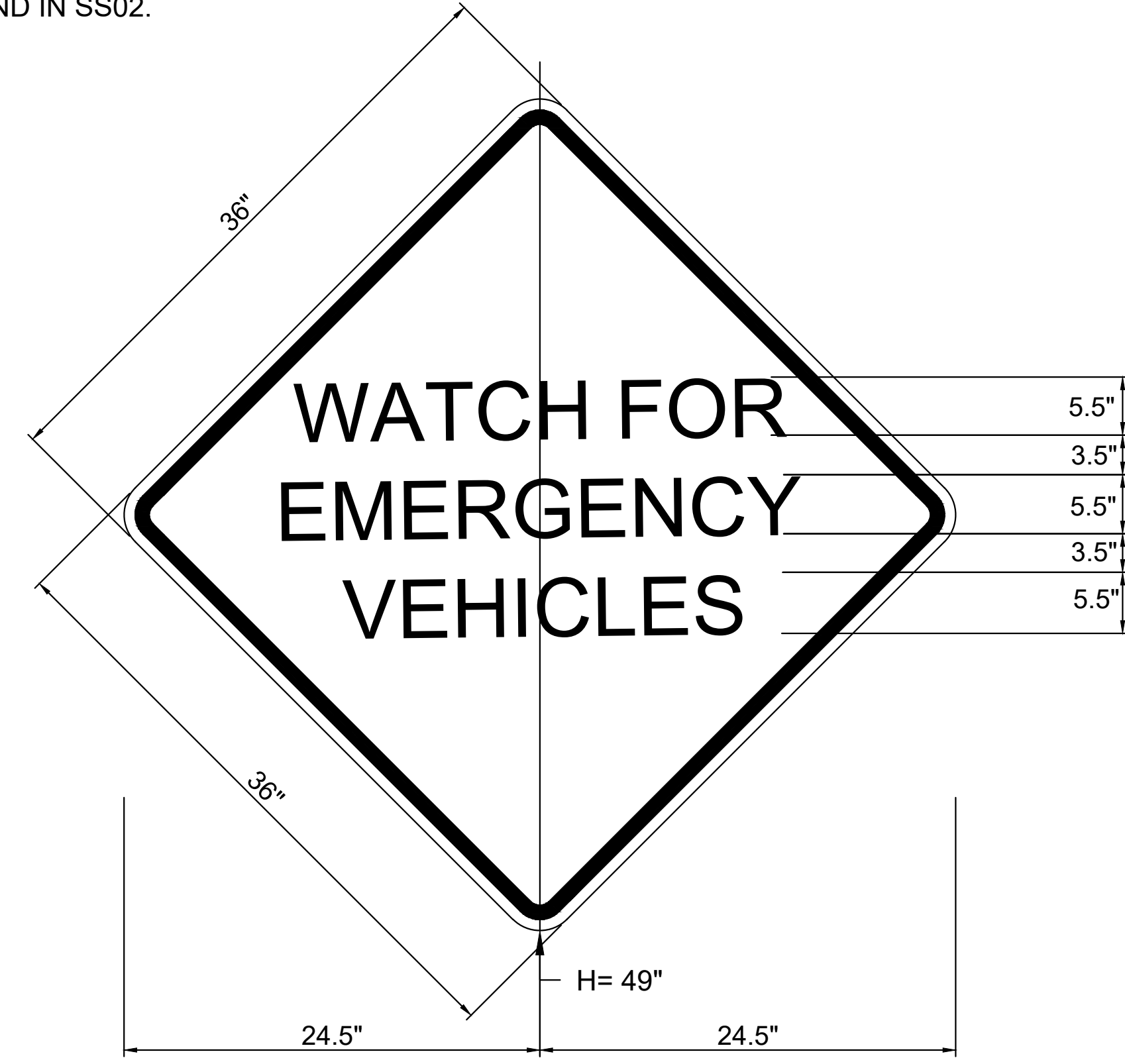
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**ADVANCE EMERGENCY VEHICLE WARNING SIGN- SR 90 AND CAMINO DE MANANA**

1. SOLAR PANEL DIRECTION SHOULD BE SOUTH FACING
2. SIGNS SHOULD BE PLACED A MINIMUM OF 12 FEET FROM THE EDGE LINE STRIPE UNLESS OTHERWISE SPECIFIED.
3. SIGNS SHOULD BE PLACED AT STATIONS FOUND IN SS02.
  - a. STA 53+25.00, OFFSET 1.8 RT
  - b. STA 53+25.00, OFFSET 67.8 RT
  - c. STA 64+00.00, OFFSET 62.9 LT
  - d. STA 64+00.00, OFFSET 5.1 LT



FORMAT FOR "PREPARE TO STOP WHEN FLASHING" SIGN



FORMAT FOR "WATCH FOR EMERGENCY VEHICLES" SIGN

GENERAL NOTES

**RICK ENGINEERING COMPANY**  
 6150 NORTH 16TH STREET  
 PHOENIX, AZ 85016  
 602.957.3350  
 Tucson - San Diego - Riverside - Orange  
 Sacramento - San Luis Obispo - Denver  
 rickengineering.com

Professional Engineer  
 CERTIFICATE NO. 60687  
 SANJAY PAUL  
 Registered Professional Engineer  
 ARIZONA, U.S.A.  
 Expires: 12-31-2021

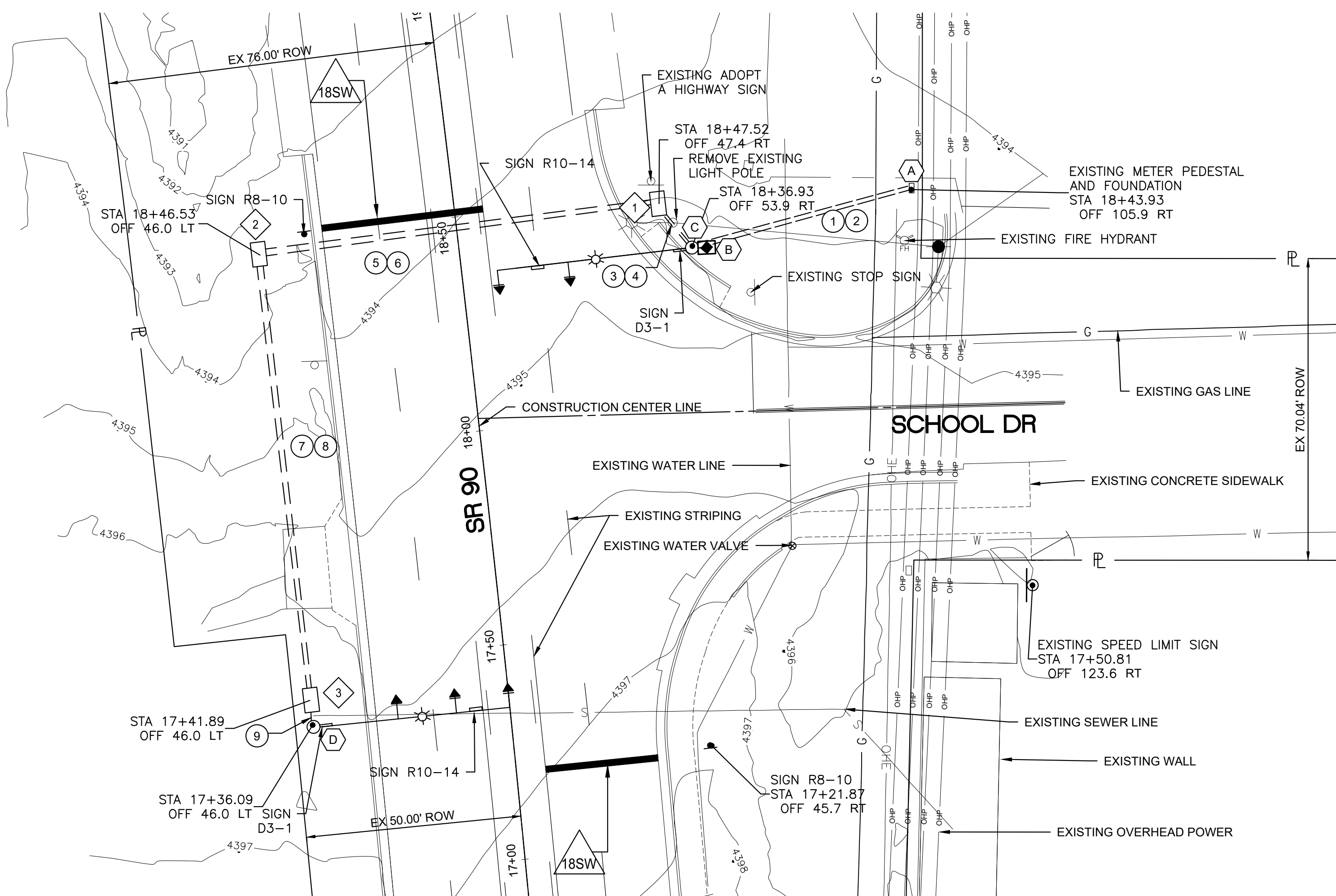
REVISIONS:

NO.	DESCRIPTION	DATE:

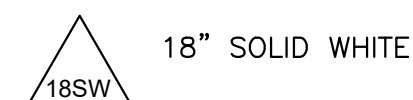
Contact Arizona 811 at least two full working days before you begin excavation  
  
 Call 811 or click Arizona811.com

DATE: 10/14/2019  
 DRAWN: C AGUILAR  
 DESIGNED: M GATEWOOD  
 CHECKED: S PAUL

PROJ. NO. 5143  
 GN01  
 SHT 2 OF 5



**LEGEND**



PULL BOX SCHEDULE				
PULL BOX No.	TYPE	STATION & OFFSET	ALIGNMENT	REMARKS
1	NO. 7 12" DEPTH	STA 18+47.52 OFF 47.4 RT	SR 90	PER ADOT DWG TS 1-1 THE LID SHALL BE PERMANENTLY MARKED WITH "TRAFFIC SIGNAL"
2	NO. 7 12" DEPTH	STA 18+46.53 OFF 46.0 LT	SR 90	PER ADOT DWG TS 1-1 THE LID SHALL BE PERMANENTLY MARKED WITH "TRAFFIC SIGNAL"
3	NO. 7 12" DEPTH	STA 17+41.89 OFF 46.0 LT	SR 90	PER ADOT DWG TS 1-1 THE LID SHALL BE PERMANENTLY MARKED WITH "TRAFFIC SIGNAL"

**TRAFFIC SIGNAL GENERAL NOTES**

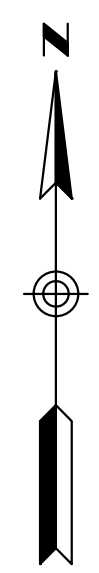
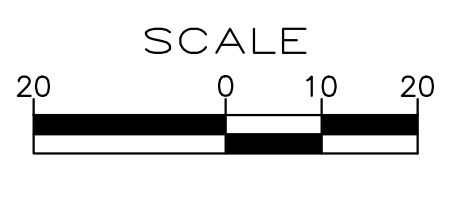
- ALL MATERIAL AND INSTALLATION SHALL CONFORM TO ADOT CONSTRUCTION STANDARDS AND SPECIFICATIONS, THE PROJECT SPECIFICATIONS AND THE ADOT SIGNALS AND LIGHTING STANDARD DRAWINGS (MOST RECENT REVISIONS).
- THE LOCATION OF UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. ALL INVOLVED UTILITIES MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITIES FOR EXACT LOCATIONS PRIOR TO ANY CONSTRUCTION.
- THE TRAFFIC SIGNAL CONTRACTOR MUST COORDINATE WITH ADOT REGIONAL TRAFFIC OPERATIONS, SHANE ALDEN AT 520-838-2841
- THE TRAFFIC SIGNAL CONTRACTOR MUST COORDINATE WORK WITH THAT OF THE OTHER CONTRACTORS WITHIN OR ADJACENT TO PROJECT LIMITS.
- ALL EQUIPMENT THAT IS REMOVED BY THE CONTRACTOR AND NOT REUSED MUST BE SALVAGED; OFFER AND DELIVER SALVAGE MATERIALS TO ADOT; DISPOSE OF IF ADOT DOES NOT WANT MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND ACTUAL ESTABLISHMENT OF ELECTRICAL SERVICE WITH SULPHUR SPRINGS VALLEY ELECTRIC.
- THE CONTRACTOR SHALL CONTACT THE ADOT REGIONAL TRAFFIC OPERATIONS, SHANE ALDEN, AT 520-838-2841, 14 DAYS PRIOR TO SCHEDULE THE TURN-ON. THE ADOT ENGINEER WILL SCHEDULE THE SIGNAL ACTIVATION.
- ALL STRIPING MUST BE INSTALLED WITHIN 24 HOURS OF THE DAY OF TURN-ON.
- ALL SIGNALS MUST BE SERVED FROM THE SIGNAL POLE ON THE ASSOCIATED CORNER.
- ALL CONDUCTORS MUST BE FURNISHED AND INSTALLED BY THE CONTRACTOR.
- ALL SIGNALS CABLES MUST SATISFY IMSA SPECIFICATION 19-1, AWG #14.
- THE CONTRACTOR SHALL VERIFY ALL SIGNAL POLE LOCATIONS WITH THE ENGINEER, PRIOR TO INSTALLATION. SIGNAL HEAD AIMING MUST BE AS DIRECTED BY THE ADOT REGIONAL TRAFFIC ENGINEER.
- THE COST OF ALL CONDUIT STUB-OUTS IS INCIDENTAL TO THE COST OF THE ASSOCIATED PULL BOXES.
- ALL PARALLEL CONDUITS IN PROXIMITY TO EACH OTHER SHOULD BE INSTALLED IN A JOINT TRENCH OR JOINT BORING/DRILLING OPERATION.
- ALL PERSONNEL, EQUIPMENT AND MATERIALS SHALL MAINTAIN 10' OF RADIAL CLEARANCE FROM EXISTING OVERHEAD POWER LINES AT ALL TIMES, PER THE SULPHUR SPRINGS VALLEY ELECTRIC. STANDARD DETAIL 1124.
- ALL TRAFFIC SIGNALS SHALL BE LED.
- ALL VEHICLE TRAFFIC SIGNAL FACE INDICATIONS SHALL BE 12 INCH WITH 5" LOUVERED BACKPLATES.
- SIGNAL MOUNTED STREET NAME SIGNS SHALL BE INSTALLED PER THE ADOT STANDARD DETAILS.
- CONTRACTORS WILL COORDINATE WITH SULPHUR SPRINGS VALLEY ELECTRIC. TO SUPPLY POWER FROM L METER PEDESTAL TO CABINET AND UPS.
- CONTRACTOR TO FURNISH ALL MATERIALS NEEDED.
- PULL BOXES AND LIDS SHALL BE TRAFFIC RATED.
- ALL TRAFFIC SIGNAL MATERIALS SHALL BE APPROVED BY ADOT THROUGH A MATERIAL SUBMITTAL PROCESS PRIOR TO ORDERING.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL LUMINAIRES. LUMINAIRES SHALL BE 163W, 3000K (COLOR), MODEL 6CL2 OR APPROVED EQUAL. ALL LUMINAIRES WILL HAVE SHORTING CAPS INSTALLED.

**CONSTRUCTION NOTES**

- THE CONTRACTOR SHALL PROVIDE NEW IMSA CONDUCTORS. NO SPLICING OF CONDUCTORS IN CONDUIT RUN WILL BE ALLOWED. PULL NEW CONDUCTORS INTO CONDUIT AS SPECIFIED IN THE CONDUCTOR SCHEDULE. ALL SPLICES SHALL BE SCOTCH COAT SEALED AND ALL CONDUCTORS SHALL BE LABELED PER THE ADOT COLOR CODE AND WIRING DETAIL. ALL IMSA CONDUCTORS SHALL BE INSTALLED WITHOUT SPLICING FROM THE SIGNAL HEAD TO THE PULL BOXES. TRAFFIC SIGNAL BLOCKS SHALL NOT BE USED AS A CONNECTION POINT BETWEEN THE PULL BOX AND THE VEHICLE OR PEDESTRIAN INDICATIONS.
- ALL PULL BOXES SHALL BE LEFT IN A CLEAN CONDITION. FREE OF DIRT AND DEBRIS UPON COMPLETION OF WORK.
- DRILLING HEIGHT FOR SIGNAL FACES SHALL BE PER ADOT STANDARD DRAWING T.S. 4-21. THE CONTRACTOR SHALL CONFER WITH THE ADOT INSPECTOR FOR SIDE-MOUNT DRILLING LOCATIONS.
- ALL INSTALLED TRAFFIC SIGNAL HEADS THAT WILL NOT BE ENERGIZED FOLLOWING CONSTRUCTION SHALL BE BAGGED/COVERED WITH A MATERIAL THAT DOES NOT ALLOW LIGHT PENETRATION WHEN NOT IN FULL OPERATION.
- THE TOP OF NEW POLE FOUNDATIONS SHALL BE INSTALLED 4" BELOW ADJACENT SIDEWALK ELEVATION AND FINISHED IN WITH AN APRON. LEVELING NUTS WILL BE BLOCKED/FORMED OUT DURING CONCRETE APRON INSTALLATION AND GROUTED BACK IN TO PROVIDE FOR FUTURE ACCESS. GROUT SHALL BE INSTALLED LEVEL WITH THE BASE OF THE POLE.
- PRIOR TO ENERGIZING THE TRAFFIC SIGNALS, THE CONTRACTOR IS RESPONSIBLE FOR THE POSITIONING, LEVELING AND ALIGNING OF THE INDIVIDUAL SIGNAL HEADS, SO THEY ARE COMPLETELY VISIBLE TO THE APPROACHING DRIVER THAT THE SIGNAL IS INTENDED TO CONTROL.
- THE CONTRACTOR SHALL CONTACT SULPHUR SPRINGS VALLEY ELECTRIC. FOR THE ELECTRICAL SERVICE. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL ELECTRICAL SERVICE CONDUCTORS, UNLESS OTHERWISE DIRECTED BY SULPHUR SPRINGS VALLEY ELECTRIC.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL "TRAFFIC CONTROL CHANGE" SIGNS WITH FLAGS 750' PRIOR TO THE INTERSECTION OF ALL AFFECTED APPROACHES FOR 90-DAYS. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF THE "TRAFFIC CONTROL CHANGE" SIGNS FOLLOWING THE 90-DAY PERIOD.

**PROPOSED POLE SCHEDULE - SR 90 AND SCHOOL DR**

POLE/CABINET	REMARKS	LOCATION
(A)	EXISTING METER PEDESTAL AND FOUNDATION	STA 18+43.93 OFF 105.90 RT
(B)	POLE MOUNTED TYPE III CONTROLLER CABINET PER ADOT T.S. 3-7 WITH EV CONTROLLER	STA 18+36.18 OFF 57.0 RT
(C)	1. INSTALL TYPE R SIGNAL POLE AND FOUNDATION PER ADOT T.S. 4-11 2. INSTALL 45' SIGNAL MAST ARM AND 20' LUMINAIRE MAST ARM 3. INSTALL 2-T SIGNAL HEADS WITH TYPE II MOUNTING PER ADOT T.S. 8-5 4. INSTALL STREET NAME SIGN PER ADOT STANDARD DETAILS 5. INSTALL LUMINAIRE WITH T3 DISTRIBUTION, 163W, 3000K OR EQUIVALENT WITH PHOTO ELECTRIC CALL 6. YELLOW STRIPE ON BACK PLATE OF SIGNAL HEADS PER ADOT T.S. 8-5	SR 90, STA 18+36.93, OFF 53.9 RT
(D)	1. INSTALL TYPE R SIGNAL POLE AND FOUNDATION PER ADOT T.S. 4-11 2. INSTALL 45' SIGNAL MAST ARM AND 20' LUMINAIRE MAST ARM 3. INSTALL 3-T SIGNAL HEADS WITH TYPE II MOUNTING PER ADOT T.S. 8-5 4. INSTALL STREET NAME SIGN PER ADOT STANDARD DETAILS 5. INSTALL LUMINAIRE WITH T3 DISTRIBUTION, 163W, 3000K OR EQUIVALENT WITH PHOTO ELECTRIC CALL 6. YELLOW STRIPE ON BACK PLATE OF SIGNAL HEADS PER ADOT T.S. 8-5	SR 90, STA 17+36.09, OFF 46.0 LT



**CONDUCTOR SCHEDULE**

CONDUCTOR RUN NUMBER		1	2	3	4	5	6	7	8	9
CONDUCTOR SIZE IN INCHES		3	3	3	3	3	3	3	3	3
SIGNAL HEADS	#16 IMSA 19-1 90 High Temp Wire, 20 Conductor	2		1		1		1		
	#16 IMSA, 19-1 90 High Temp Wire, 5 Conductor									3
POWER	#8 XHHW, 2 Conductor	1		1		1		1		1
LUMINAIRES	#9 XHHW, 2 Conductors		2		1		1		1	1

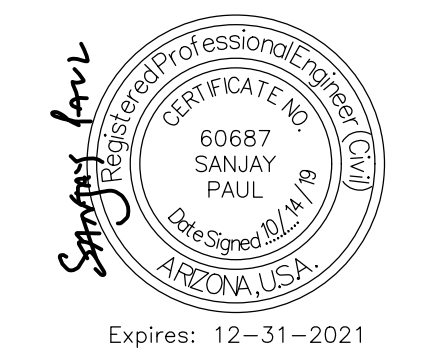
(X) = PER CONDUCTOR SCHEDULE

**SCHOOL DRIVE AND SR 90 SIGNAL PLAN**



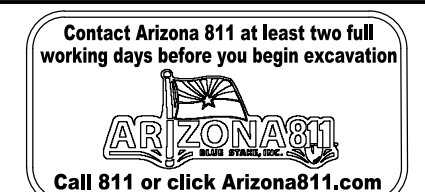
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Expires: 12-31-2021

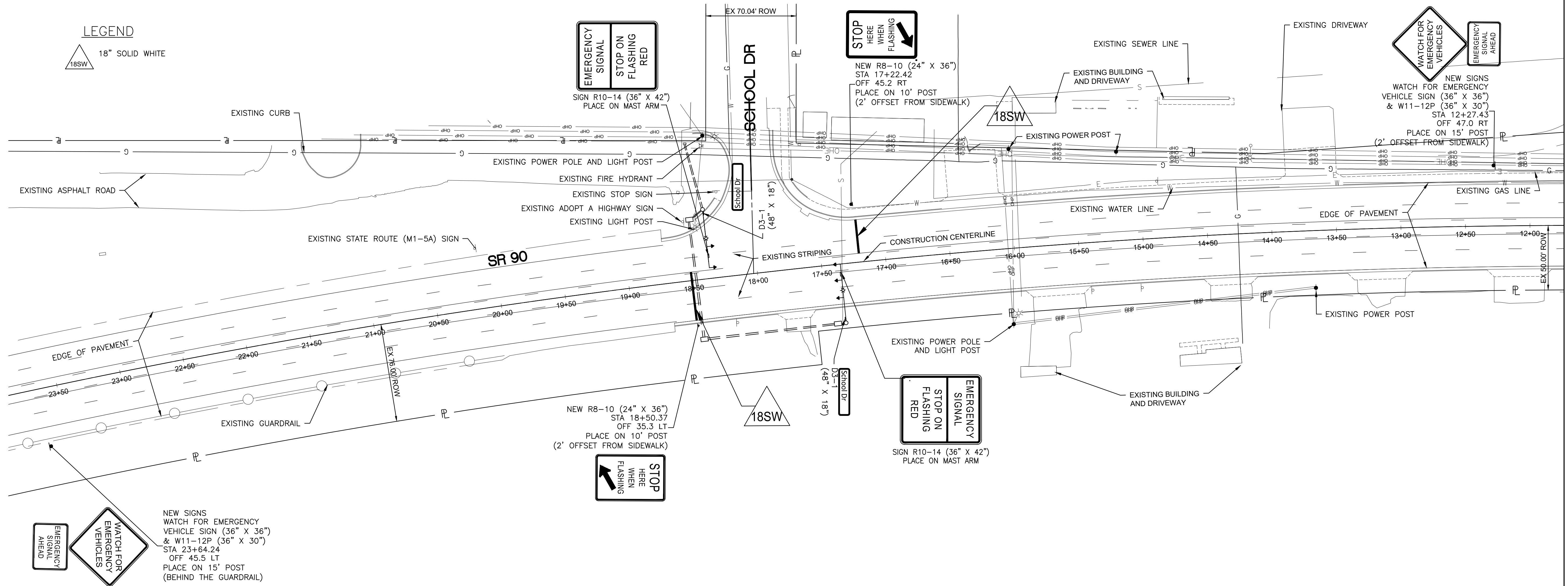
REVISIONS:		
NO.	DESCRIPTION	DATE:



DATE: 10/14/2019  
DRAWN: C AGUILAR  
DESIGNED: M GATEWOOD  
CHECKED: S PAUL

PROJ NO. 5143  
TS01  
SHT 3 OF 5

# SCHOOL DRIVE AND SR 90 SIGNING & STRIPING PLAN



**SIGNING AND STRIPING NOTES**

- SIGNING AND STRIPING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) ADOPTED BY THE ARIZONA DEPARTMENT OF TRANSPORTATION (ADOT)
  - SIGNING AND STRIPING LAYOUT SHALL BE APPROVED BY THE ENGINEERING INSPECTOR PRIOR TO ANY INSTALLATION. THE CONTRACTOR SHALL NOTIFY XAVIER CASILLAS AT 520-838-2828 AT LEAST 5-DAYS IN ADVANCE OF ANY SIGNING OR STRIPING INSTALLATION. SIGNING OR STRIPING INSTALLATIONS COMPLETED PRIOR TO CONTACTING XAVIER CASILLAS SHALL BE REMOVED AND/OR MODIFIED IF NOT DEEMED ADEQUATE BY THE ENGINEERING INSPECTOR.
  - ALL SIGNING AND PAVEMENT MARKING MATERIALS SHALL BE APPROVED BY ADOT THROUGH A MATERIAL SUBMITTAL PROCESS PRIOR TO ORDERING.
- STRIPING**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS ON THE FINAL SURFACE COURSE, FOLLOWING CONTROL POINTS THAT HAVE BEEN SET NO MORE THAN 50 FEET APART ALONG THE LINES TO BE STRIPED.
  - THE DIMENSIONS SHOWN FOR PAVEMENT STRIPING ARE TO THE CENTER OF THE STRIPING,
  - THE FINAL STRIPING SHALL BE A 0.090 INCH (90 MIL) THICKNESS OF HOT-SPRAYED THERMOPLASTIC REFLECTORIZED STRIPING PLACED BETWEEN 30 AND 45 DAYS AFTER THE INITIAL STRIPING AS DIRECTED BY THE ENGINEER.
  - ALL STRIPING WILL BE APPLIED INITIALLY IN PAINT (ADOT SECTION 708). THE CONTRACTOR WILL BE REQUIRED TO RESTRIPE THE ENTIRE PROJECT BETWEEN 30 TO 45 DAYS AFTER INITIAL STRIPING. AT THIS TIME, ALL MARKINGS WILL BE RESTRIPE USING 90 MILS THICK ALKYD EXTRUDED THERMOPLASTIC (ADOT SECTION 708).
  - THE CONTRACTOR SHALL CLEAN THE ROADWAY SURFACE TO THE SATISFACTION OF THE ENGINEER, BY SWEEPING AND AIR JET BLOWING, IMMEDIATELY PRIOR TO THE PLACEMENT OF ALL PAVEMENT MARKINGS. THE ROADWAY SURFACE SHALL BE DRY AND THE AIR AND PAVEMENT TEMPERATURES SHALL NOT BE LESS THAN 50 DEGREES F FOR THE PLACEMENT OF THERMOPLASTIC STRIPING.
  - WHEN STRIPE OBLITERATION IS NECESSARY, IT SHALL BE ACCOMPLISHED BY APPROVED METHODS. PAINTING OVER STRIPING DOES NOT CONSTITUTE STRIPE OBLITERATION. TRAFFIC PAINT SHALL BE OBLITERATED BY A METHOD THAT IS IN COMPLIANCE WITH OSHA 29 CFR, PART 1926, LEAD EXPOSURE IN CONSTRUCTION, INTERIM FINAL RULE. SAND BLASTING IS PREFERRED. IF LEAD EXPOSURE PREVENTION MEASURES ARE REQUIRED, THE CONTRACTOR SHALL ENSURE THAT ALL PERSONNEL PRESENT ON THE JOB SITE ARE NOTIFIED OF THE ACTIVITY AND ADVISED OF NECESSARY PRECAUTIONS TO BE TAKEN TO AVOID CONTAMINATION BY LEAD COMPOUNDS. THE CONTRACTOR SHALL SUBMIT A LEAD EXPOSURE PREVENTION PLAN TO THE ENGINEER FOR REVIEW, A MINIMUM OF 48 HOURS PRIOR TO THE START OF ANY STRIPING OBLITERATION ACTIVITIES.
  - THE PAVEMENT MARKING DRAWINGS ARE SCHEMATIC ONLY AND NOT TO SCALE. THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS, DETAILS AND STANDARDS WHEN INSTALLING PAVEMENT STRIPING AND MARKINGS.
  - THE PERMANENT PAVEMENT MARKING PLANS MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.

**SIGNING**

- ALL SIGN BLANKS SHALL BE 0.125 GAUGE ALUMINUM, UNLESS OTHERWISE NOTED AND ALL SIGNS SHALL BE ASTM TYPE XI HIGH INTENSITY SHEETING, UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL UNDERGROUND UTILITY LOCATIONS WHERE NEW POSTS ARE INSTALLED.
- THE ENGINEERING INSPECTOR MAY REQUIRE THE CONTRACTOR TO MAKE ANY ADJUSTMENTS DEEMED NECESSARY TO ADDRESS CONDITIONS NOT INCLUDED IN THE APPROVED PLANS.
- SIGNING MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.
- ALL STATION LOCATIONS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ACTUAL SIGN LOCATIONS WITH THE ENGINEER PRIOR TO THE INSTALLATION OF ALL SIGNS STANDARD SPECIFICATIONS.
- ALL SIGNS SHALL BE MADE OF FLAT SHEET ALUMINUM PANELS WITH REFLECTIVE SHEETING AND DIRECT APPLIED CHARACTERS PER SECTIONS 608-2.07 AND 608-2.09OF THE ADOT STANDARD SPECIFICATIONS.
- ALL SIGN POSTS SHALL BE GALVANIZED SQUARE TUBE POSTS - SIZE AS NOTED.
- NORMAL MOUNTING HEIGHT FOR ALL NEWLY INSTALLED SIGNS SHALL BE 7 FEET MINIMUM ABOVE NEAR EDGE OF PAVEMENT OR TOP OF CURB.

**TRAFFIC SIGNAL GENERAL NOTES**

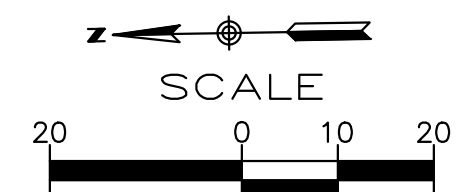
- ALL MATERIALS AND INSTALLATION SHALL CONFORM TO THE 2008 ADOT STANDARD SPECIFICATIONS AND ADOT'S MOST CURRENT TRAFFIC SIGNALS AND LIGHTING STANDARD DESIGN.
- THE LOCATIONS OF UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. ALL INVOLVED UTILITIES MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE PER SECTION 730-6 OF THE STANDARD SPECIFICATIONS, FOR CONTACTING ALL UTILITIES FOR EXACT LOCATIONS PRIOR TO ANY CONSTRUCTION ACTIVITY.
- SEE STRIPING PLANS TO VERIFY ACTUAL LANE DIMENSIONS AND STOP BAR LOCATIONS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL POLE LOCATIONS WITH THE ENGINEER, PRIOR TO ANY CONSTRUCTION ACTIVITY.
- THE ADOT INSPECTOR SHALL SCHEDULE WIRING OF CONTROL CABINET AND TURN-ON WITH THE ADOT SIGNAL INSPECTOR AND ADOT TRAFFIC OPERATIONS A MINIMUM OF TEN WORKING DAYS IN ADVANCE OF TURN-ON. ALL TURNS-ON SHALL OCCUR ON TUESDAY, WEDNESDAY, OR THURSDAY, CONTACT SHANE ALDEN AT 520-838-2841

**NOTE:**

CONTRACTOR SHALL REMOVE THE TWO W11-08 (EMERGENCY VEHICLE) SIGNS LOCATED AT:

- STA 12+27.43, OFF 47.0 RT
- STA 23+64.24, OFF 46.0 LT

SALVAGE OF SIGN PANEL TO ADOT. DISPOSE OF SIGN POST AND FOUNDATION. THIS ITEM IS A NON-PAY ITEM INCIDENTAL TO THE PROJECT.



**RICK ENGINEERING COMPANY**  
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 PHOENIX, AZ 85016  
 602.957.3350  
 Tucson - San Diego - Riverside - Orange  
 Sacramento - San Luis Obispo - Denver  
 rickengineering.com

Professional Engineer  
 CERTIFICATE NO. 60687  
 SANJAY PAUL  
 Date Signed 01/11/2019  
 ARIZONA U.S.A.  
 Expires: 12-31-2021

**REVISIONS:**

NO.	DESCRIPTION	DATE:

Contact Arizona 811 at least two full working days before you begin excavation  
**ARIZONA 811**  
 Call 811 or click Arizona811.com

DATE: 10/14/2019  
 DRAWN: C AGUILAR  
 DESIGNED: M GATEWOOD  
 CHECKED: S PAUL

PROJ NO. 5143  
 SS01  
 SHT 4 OF 5

