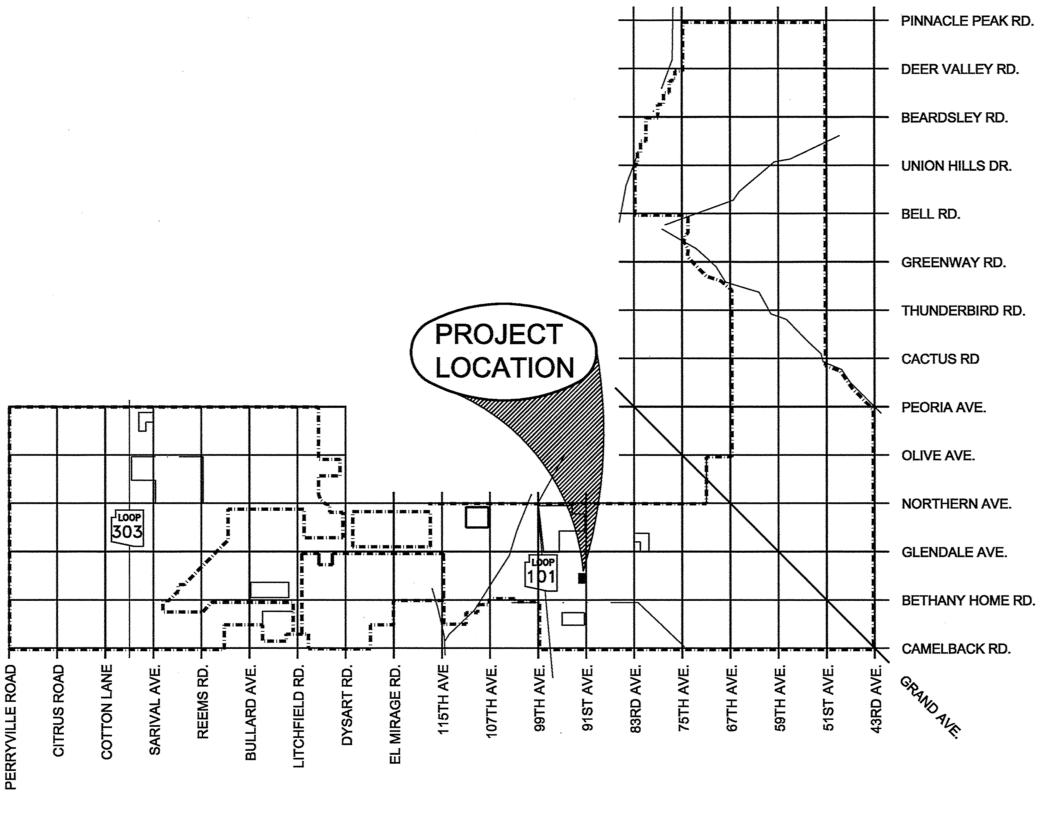


GLENDALE, ARIZONA

PROJECT NO. 161718 91ST AVENUE IMPROVEMENTS



INDEX OF SHEETS

G01 **COVER SHEET** NOTES, LEGEND AND ABBREVIATIONS G02 P01 - P04 **PAVING SHEET** DT01 MISCELLANEOUS PAVING DETAILS DT02 DYNAMIC MESSAGE BOARD DETAILS **DT03** TUBULAR CANTILEVER SIGN STRUCTURE FOUNDATION DETAILS STREET LIGHTING COVER SHEET **SL2 - SL5** STREET LIGHTING SHEET SL6 STREET LIGHTING DETAILS

LS01 - LS05 LANDSCAPE SHEET LSDT01 LANDSCAPE DETAILS SM01

SIGNING AND MARKING SHEET

TS01 TRAFFIC SIGNAL PLANS SB-01

SOIL BORING LOG INFORMATION SHEET

MAYOR

JERRY P. WEIERS

CITY COUNCIL

JAMIE ALDAMA JOYCE V. CLARK IAN HUGH **RAY MALNAR** LAUREN TOLMACHOFF **BART TURNER**

GLEND/LE

CITY MANAGER

KEVIN R. PHELPS

CITY CLERK

JULIE K. BOWER

CITY ATTORNEY

MICHAEL D. BAILEY

VICINITY MAP



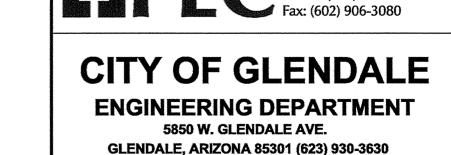
PLANS ACCEPTANCE

THE CITY OF GLENDALE ACCEPTS THESE PLANS FOR CONSTRUCTION, AS BEING IN GENERAL COMPLIANCE WITH PLAN PREPARATION REQUIREMENTS OF THE CITY. RESPONSIBILITY FOR THE COMPLETENESS AND ACCURACY OF THE PLANS AND RELATED DESIGN RESIDES WITH THE ENGINEER AND THE ENGINEERING FIRM OF RECORD.

7/31/2017

TRANSPORTATION DIRECTOR

DATE



COVER SHEET

91st AVENUE IMPROVEMENTS **PROJECT NUMBER 161718**

SCALE: HORIZ VERT G01 1 OF 24

DR: JG DES: MH CK: SM DRAWING DATE: 6/17 DATE: 6/17 DATE: 6/17 SERIES SHEET NO.

RECORD DRAWING

I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS AND RECORD DRAWING COMMENTS ACCURATELY REFLECT THE EXISTING FIELD CONDITIONS AND MATERIALS ACTUALLY USED DURING CONSTRUCTION. THIS CERTIFICATION IS BASED ON PERIODIC FIELD OBSERVATIONS AND THE CONTRACTORS REPRESENTATIONS OF THE FACILITIES AS CONSTRUCTED.

NAME		_ (SEAL)
REGISTRATION NO.	DATE	
REVD. BY:CONSTRUCTION ENGINEER		

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REVISION BY CITY OF GLENDALE	DESCRIPTION			
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REVISION BY CITY OF GLENDALE				
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REVISION BY CITY OF GLENDALE	DESCRIPTION			
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CITY OF GLENDALE GENERAL NOTES FOR CONSTRUCTION

- A. ALL CONSTRUCTION SHALL CONFORM TO THE LATEST MAG STANDARD DETAILS AND SPECIFICATIONS AND THE CITY'S CURRENT ENGINEERING DESIGN AND CONSTRUCTION STANDARDS.
- B. THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS. HOWEVER, SUCH REVIEW AND ACCEPTANCE SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTION OF ERRORS IN SAID PLANS AND/OR CONSTRUCTION WHEN IN VIOLATION OF ANY LAWS, ORDINANCES, CODES OR STANDARDS THAT ARE IN EFFECT. REVIEW AND ACCEPTANCE OF PLANS DOES NOT RELEASE A DEVELOPER OR ENGINEER FROM RESPONSIBILITY FOR ERRORS OR OMISSIONS ON SAID PLANS.
- C. THE CITY DOES NOT WARRANT ANY QUANTITIES SHOWN ON THESE PLANS.
- D. THE CITY PLANS ACCEPTANCE IS FOR GENERAL LAYOUT IN THE RIGHT-OF-WAY ONLY. THIS ACCEPTANCE IS VALID FOR A PERIOD OF SIX MONTHS. CONSTRUCTION PERMITS SHALL BE OBTAINED DURING THIS PERIOD OR THE PLANS SHALL BE RESUBMITTED FOR REVIEW.
- E. A CITY ACCEPTED SET OF PLANS SHALL BE AVAILABLE ON THE JOB SITE AT ALL TIMES,
- F. THE CITY SHALL BE NOTIFIED 48 HOURS PRIOR TO ANY CONSTRUCTION WORK. CONSTRUCTION WORK CONCEALED WITHOUT INSPECTION BY THE CITY SHALL BE SUBJECT TO EXPOSURE AT THE CONTRACTOR'S EXPENSE.
- G. A RIGHT-OF-WAY CONSTRUCTION PERMIT IS REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY OR WITHIN A CITY EASEMENT, A 100% PERFORMANCE BOND OR EQUIVALENT FORM OF FINANCIAL SURETY MAY BE REQUIRED FOR ALL WORK WITHIN THE RIGHT-OF-WAY PRIOR TO THE ISSUANCE OF ANY RIGHT-OF-WAY CONSTRUCTION PERMIT(S). ALL WORK WITHIN THE RIGHT-OF-WAY SHALL BE INSPECTED AND APPROVED BY THE CITY'S ENGINEERING DIVISION.
- H. IMPROVEMENTS SHALL NOT BE ACCEPTED UNTIL "AS-BUILT' PLANS AND ELECTRONIC (AUTOCAD) FILES HAVE BEEN SUBMITTED AND APPROVED BY THE CITY.
- . THE DEVELOPER IS RESPONSIBLE FOR ALL COSTS AND WORK RELATED TO THE REMOVAL, RELOCATION OR ABANDONMENT OF ALL OBSTRUCTIONS AND/OR UTILITIES WITHIN THE RIGHT-OF-WAY THAT CONFLICT WITH THE NEW IMPROVEMENTS.
- J. THE DEVELOPER IS RESPONSIBLE FOR OBTAINING OR DEDICATING ALL REQUIRED RIGHTS-OF-WAY AND EASEMENTS TO THE CITY PRIOR TO ISSUANCE OF THE BUILDING'S CERTIFICATE OF OCCUPANCY.
- K. THE CONTRACTOR SHALL CONTACT BLUE STAKE (602-263-1100) 48 HOURS PRIOR TO CONSTRUCTION.
- L. THE CONTRACTOR SHALL BARRICADE CONSTRUCTION SITES AT ALL TIMES PER THE CITY OF PHOENIX TRAFFIC BARRICADE MANUAL. WHEN REQUIRED BY THE CITY, A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED FOR APPROVAL A MINIMUM OF 72 HOURS IN ADVANCE OF CONSTRUCTION.
- M. THE CONTRACTOR MAY OBTAIN A FIRE HYDRANT METER FOR CONSTRUCTION WATER FROM THE CITY WATER SERVICES DEPARTMENT. THE UNLAWFUL REMOVAL OF WATER FROM A FIRE HYDRANT IS A VIOLATION OF THE MUNICIPAL CODE, PUNISHABLE BY FINE AND/OR IMPRISONMENT.
- N. DAMAGE CAUSED BY THE DEVELOPER DURING CONSTRUCTION TO CITY INFRASTRUCTURE OR FACILITIES SHALL BE REPAIRED OR REPLACED BY THE DEVELOPER, AT HIS EXPENSE, IN A MANNER ACCEPTABLE TO THE CITY. 0. THERE SHALL BE NO DIRT RAMPS OVER SIDEWALKS DURING CONSTRUCTION.
- O. AN AZPDES PERMIT IS REQUIRED FOR ALL CONSTRUCTION THAT DISTURBS LAND OVER ONE (1) ACRE IN SIZE. PRIOR TO START OF ANY CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (N01) TO THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) AND A COPY TO THE CITY OF GLENDALE AND HAVE A COPY OF THE SWPPP ON SITE AT ALL TIMES,

CITY OF GLENDALE GENERAL NOTES FOR GRADING AND DRAINAGE CONSTRUCTION

- A. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR PAYING PERMIT FEES PRIOR TO CONSTRUCTION.
- B. A SEPARATE PERMIT IS NECESSARY FOR ANY CONSTRUCTION IN THE RIGHT-OF-WAY.
- C. PRIOR TO THE START OF ANY ON-SITE GRADING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE CITY ENGINEERING DIVISION AT LEAST 48 HOURS PRIOR TO COMMENCING WORK BY CALLING 623-930-3630.
- D. STAKING PAD AND/OR FINISHED FLOOR ELEVATIONS ARE THE RESPONSIBILITY OF THE DEVELOPER OR HIS ENGINEER. IN NON-CRITICAL AREAS, THE DEVELOPER'S ENGINEER SHALL SUBMIT CERTIFICATIONS OF CONSTRUCTED BUILDING PAD ELEVATIONS PRIOR TO THE CITY'S ACCEPTANCE OF PROJECT. IN A CRITICAL DRAINAGE AREA, CERTIFICATION OF THE FINISHED BUILDING FLOOR OR STEM WALL ELEVATION SHALL BE SUBMITTED AND APPROVED PRIOR TO ANY VERTICAL CONSTRUCTION.
- E. AN APPROVED GRADING AND DRAINAGE PLAN SHALL BE ON THE JOB SITE AT ALL TIMES. DEVIATIONS FROM THE PLAN MUST BE PRECEDED BY AN APPROVED PLAN REVISION.
- F. ACCEPTANCE OF GRADING AND DRAINAGE IMPROVEMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE CONSTRUCTION OF RETENTION BASINS, CATCH BASINS, CURB FOR OTHER DRAINAGE FACILITIES, SITE GRADING, DRYWELLS, STORM DRAIN PIPES, UNDERGROUND STORAGE TANKS AND ASPHALT PAVEMENT.
- G. DRYWELLS MUST BE DRILLED A MINIMUM OF 10 FEET INTO PERMEABLE POROUS STRATA.
- H. THE CONTRACTOR SHALL CONSTRUCT ALL RETENTION BASINS TO THE ELEVATIONS AND SLOPES SHOWN ON THE PLANS.
- I. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND CONFIRMING DEPTH OF ALL THE EXISTING UTILITY LINES WITHIN PROPOSED RETENTION BASIN AREAS. IF THE BASIN CANNOT BE CONSTRUCTED PER PLAN AS A RESULT OF CONFLICT WITH UNDERGROUND UTILITIES, THE CONTRACTOR SHOULD CONTACT THE CITY AND DESIGN ENGINEER AND REQUEST MODIFICATION OF THE BASIN DESIGN.
- J. THIS SET OF PLANS HAS BEEN REVIEWED FOR COMPLIANCE WITH CITY REQUIREMENTS PRIOR TO ISSUANCE OF CONSTRUCTION PERMITS AND SHALL BE KEPT AT THE CONSTRUCTION SITE. SUCH REVIEW SHALL NOT PREVENT THE CITY FROM REQUIRING CORRECTIONS TO ERRORS ON THE PLANS, WHICH ARE FOUND TO BE IN VIOLATION OF ANY LAW OR ORDINANCE.
- K. NO PERSON SHALL USE ANY MECHANICAL EQUIPMENT FOR CLEARING, GRUBBING, ROAD CONSTRUCTION, TRENCHING, EXCAVATING, DEMOLITION OR ENGAGE IN ANY EARTHMOVING ACTIVITY WITHOUT FIRST OBTAINING A DUST CONTROL PERMIT FROM MARICOPA COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES.

LEGEND

	COMBINED CURB & GUTTER - M.A.G. DETAIL 220 TYPE "A"
	EXISTING CONCRETE PAVEMENT OR SIDEWALK
<u> </u>	NEW CONCRETE SIDEWALK - STD. DETAIL P1230
	EXISTING IRRIGATION LINE W/SIZE (NOTE PRIVATE, SALT RIVER OR R.I.D.)
	EXISTING IRRIGATION STRUCTURE
12" DIP W	EXISTING WATER LINE W/SIZE & TYPE (12" AND SMALLER)
36 <u>" DIP</u> W	EXISTING WATER LINE W/SIZE & TYPE (GREATER THAN 12")
	EXISTING WATER METER BOX
	EXISTING FIRE HYDRANT
•	NEW OR RELOCATED FIRE HYDRANT BY CONTRACTOR
\otimes	EXISTING WATER VALVE
8" VCP S	EXISTING SANITARY SEWER LINE W/SIZE & TYPE (12" AND SMALLER)
30 <u>" VCP</u> S	EXISTING SANITARY SEWER LINE W/SIZE & TYPE (GREATER THAN 12")
	EXISTING MANHOLE
30" <u>SD (</u> RCP)	EXISTING STORM DRAIN LINE W/SIZE & TYPE (GREATER THAN 12")
— — 4"G— —	EXISTING GAS LINE W/SIZE
— — E — —	EXISTING UNDERGROUND ELECTRIC CABLE OR SINGLE CONDUIT
— — E-4D — —	EXISTING UNDERGROUND ELECTRIC DUCT (SPECIFY NUMBER)
— T — —	EXISTING TELEPHONE BURIED CABLE OR SINGLE CONDUIT
	EXISTING UNDERGROUND TELEPHONE DUCT (SPECIFY NUMBER)
	EXISTING UNDERGROUND CABLE TV EXISTING UNDERGROUND FIBER OPTIC LINE
	EXISTING TRAFFIC SIGNAL POLE W/MAST ARM & SIGNAL INDICATIONS
V <u>o</u>	EXISTING STREET OR TRAFFIC SIGN
-0-	EXISTING UTILITY POLE W/LINE INDICATING WIRE DIRECTION
	EXISTING BLOCK FENCE
\leftarrow	EXISTING POWER POLE DOWN GUY ANCHOR
·	EXISTING STREET LIGHT & POLE
	EASEMENT LINE
	EXISTING OR NEW R/W LINE
	PAVEMENT CENTER LINE OR MONUMENT LINE

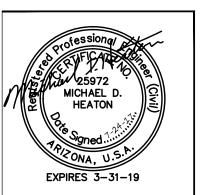
ABBREVIATIONS

AGGREGATE BASE COURSE

NC	ASPHALT CONCRETE
;	CONCRETE
OG	CITY OF GLENDALE
)TL	DETAIL
MS	DYNAMIC MESSAGE BOARD
/C	FACE OF CURB
}	GUTTER
.F	LINEAR FOOT
T	LEFT
1AG	MARICOPA ASSOCIATION OF GOVERNMENTS
1OD	MODIFIED
IIC	NOT IN CONTRACT
)	PAVEMENT
C	POINT OF CURVATURE
P/C	PAVEMENT/CONCRETE
R/W	RIGHT OF WAY
SF.	SQUARE FOOT
STD	STANDARD
SY	SQUARE YARD
C	TOP OF CURB
ΥP	TYPICAL

PROJECT NOTES FOR CONSTRUCTION

- 1. FACILITIES WHICH ARE NOT SPECIFICALLY LOCATED WITH ACTUAL VERTICAL AND HORIZONTAL CONTROLS, ARE LOCATED ONLY APPROXIMATELY AND TO THE BEST AVAILABLE INFORMATION PROVIDED BY VARIOUS OWNERS OF THE FACILITIES, AND SUPPLEMENTED BY VISUAL SURFACE INFORMATION WHERE APPROPRIATE. ACCURACY, LOCATION AND COMPLETENESS OF THIS INFORMATION SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INITIATION OF CONSTRUCTION
- 2. DETECTABLE WARNING STRIPS SHALL BE RED IN COLOR UNLESS OTHERWISE NOTED ON PLANS
- 3. FULL DEPTH SAWCUT OF EXISTING AC IS REQUIRED UNLESS OTHERWISE DIRECTED BY THE ENGINEERING INSPECTOR.
- 4. NEW PAVEMENT SHALL BE PER PLANS OR SHALL MATCH THICKNESS OF EXISTING PAVEMENT WHICHEVER IS GREATER AND SHALL FOLLOW MAG MIX DESIGNS.







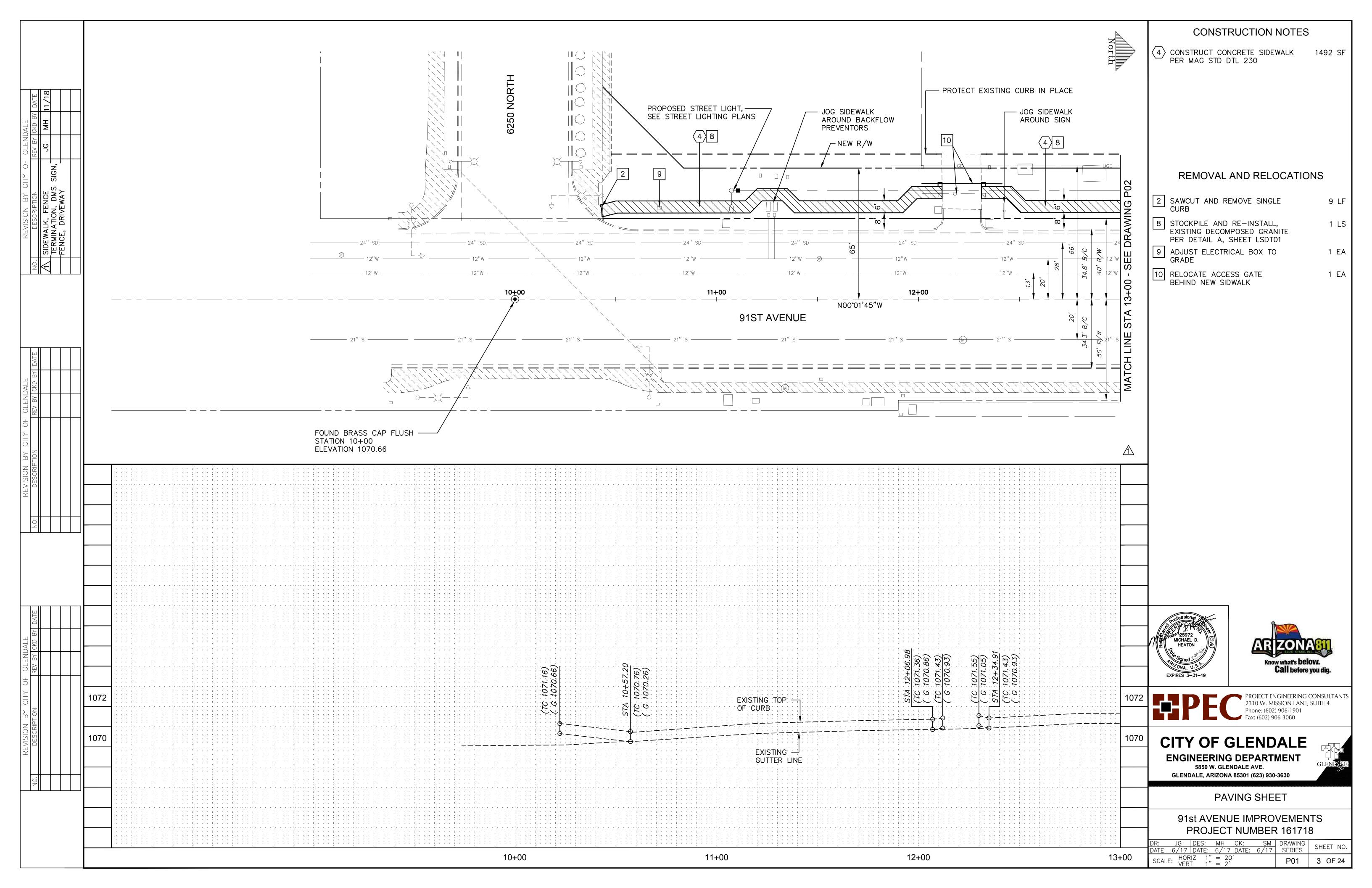
CITY OF GLENDALE ENGINEERING DEPARTMENT 5850 W. GLENDALE AVE.

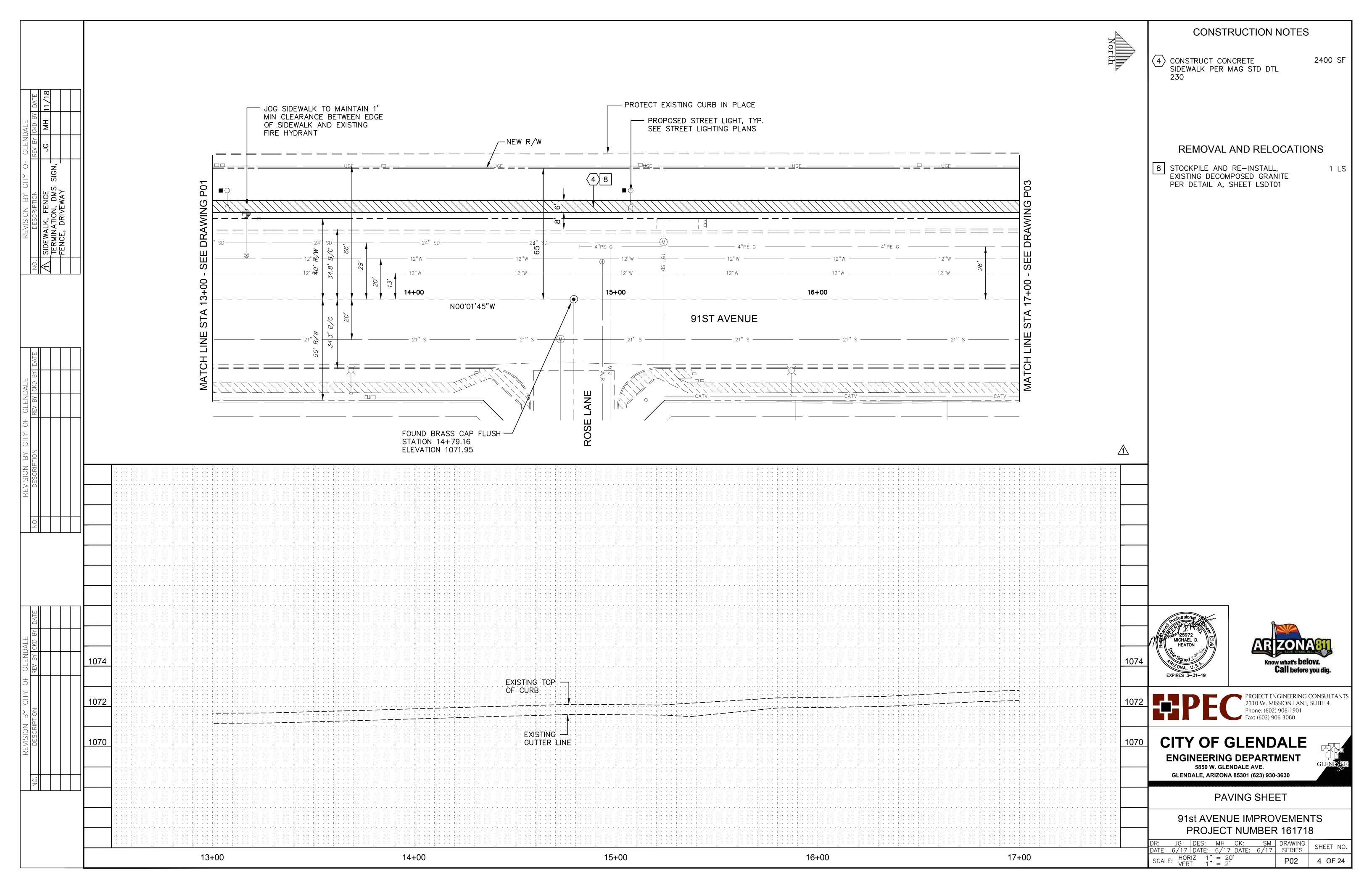
GLENDALE, ARIZONA 85301 (623) 930-3630

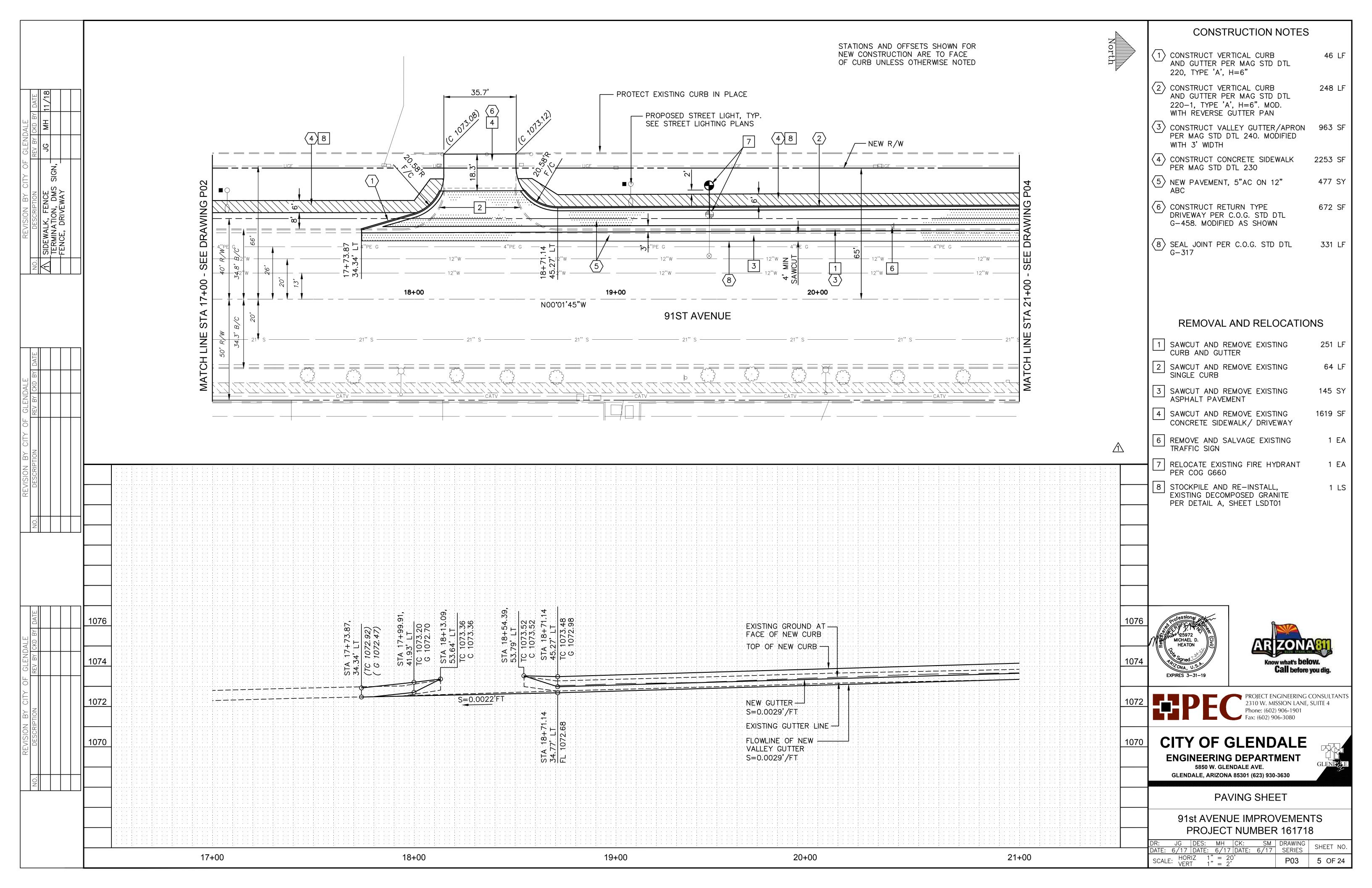
NOTES, LEGEND AND ABBREVIATIONS

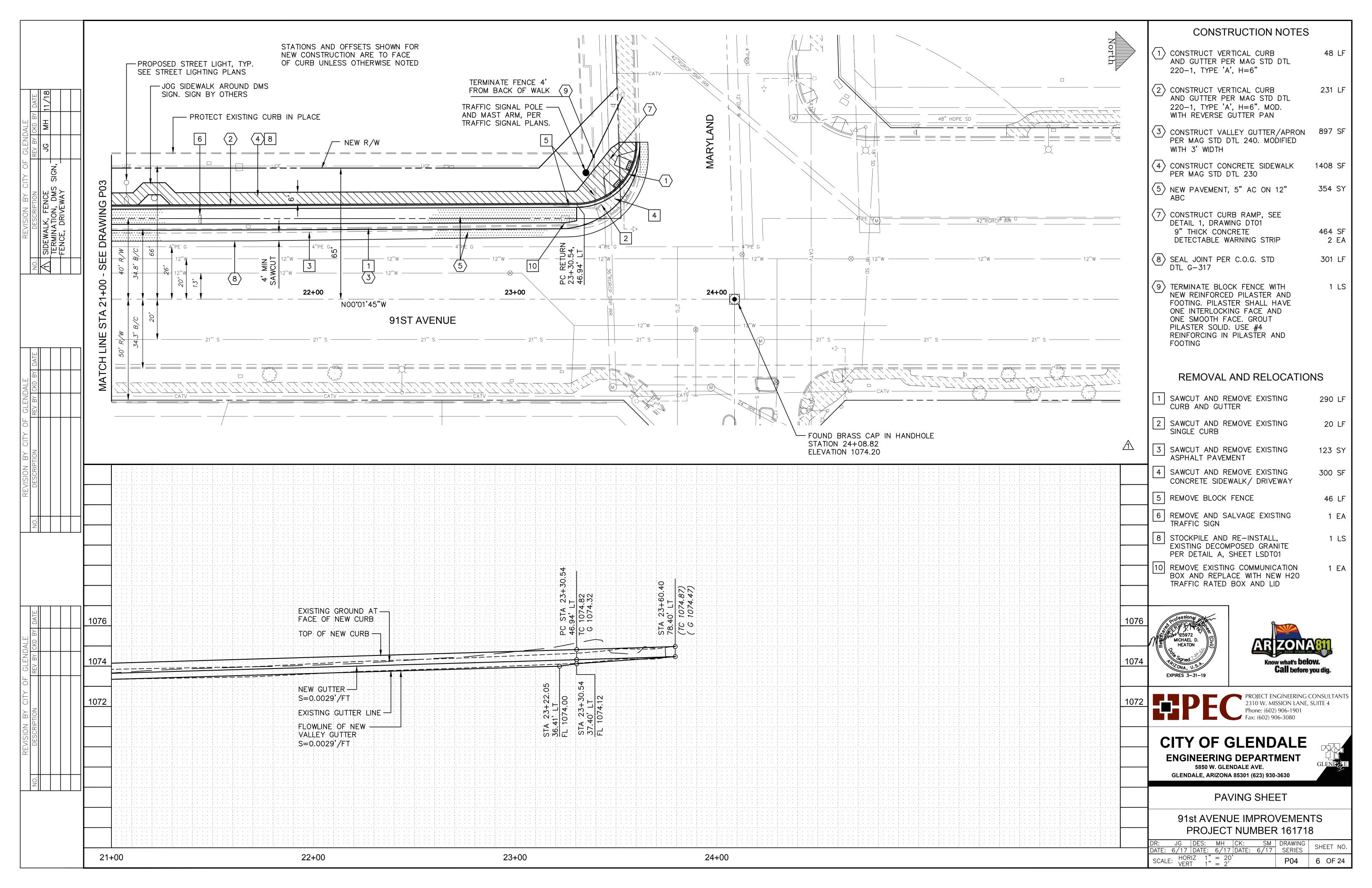
91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

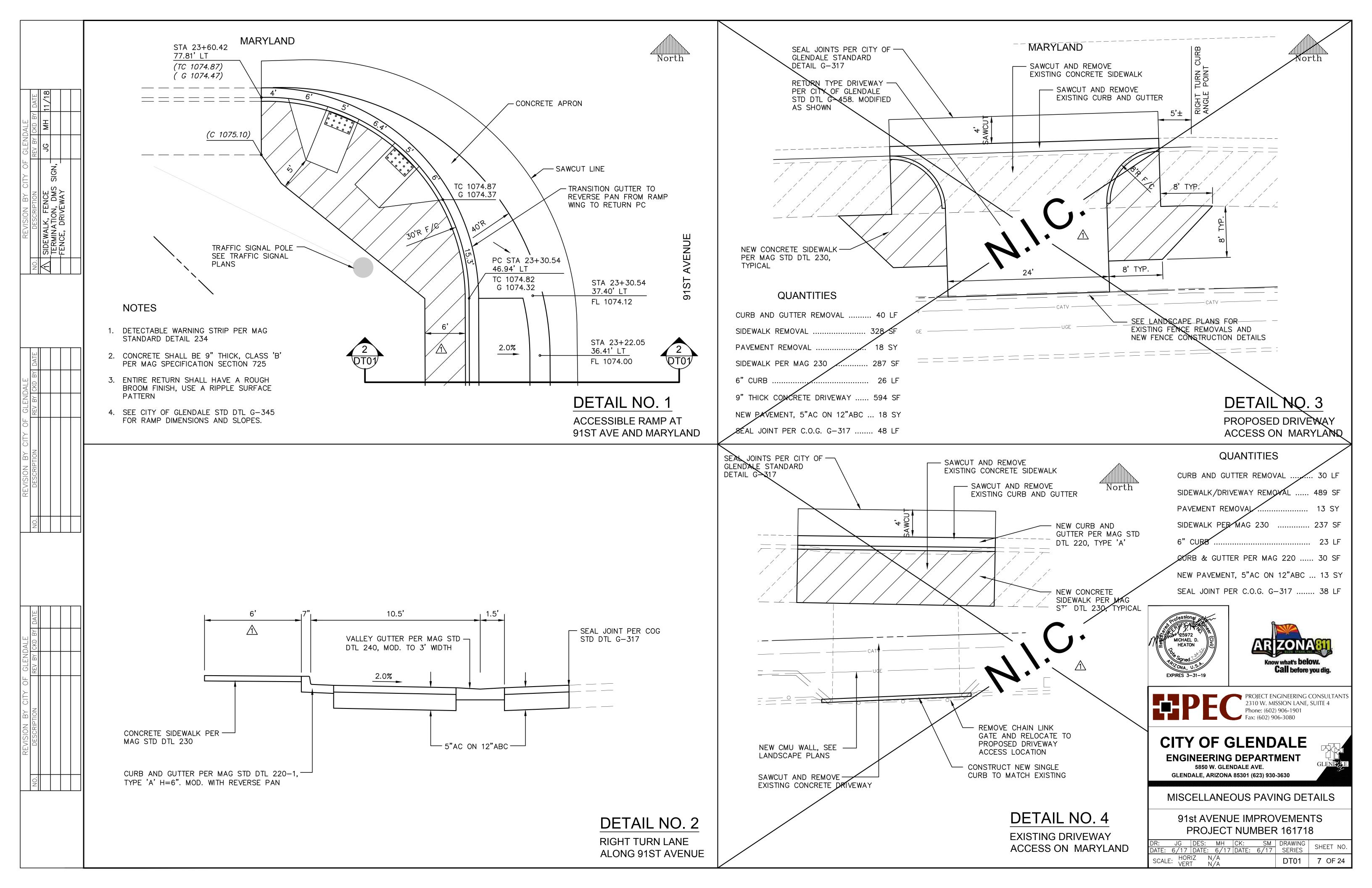
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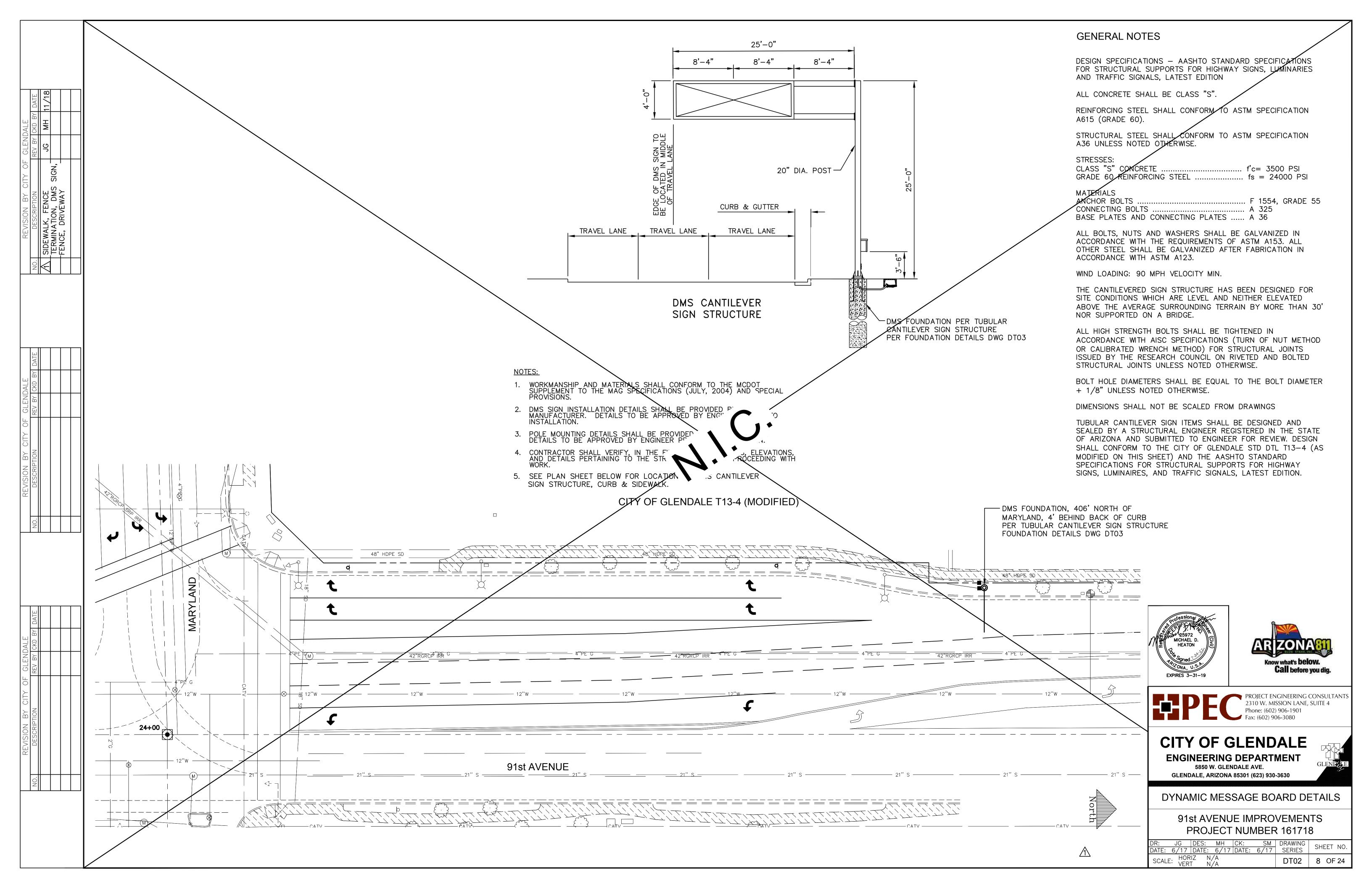


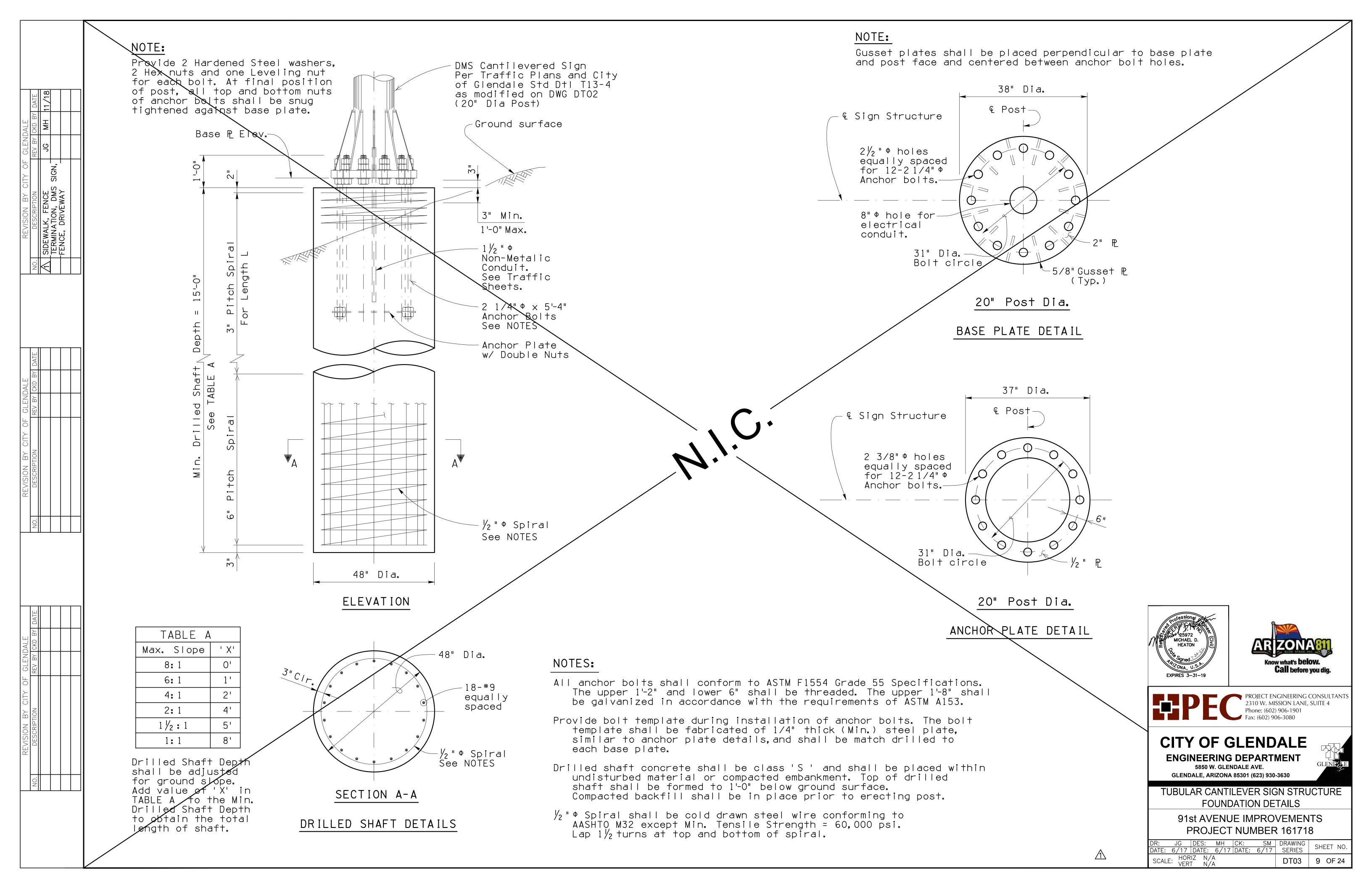


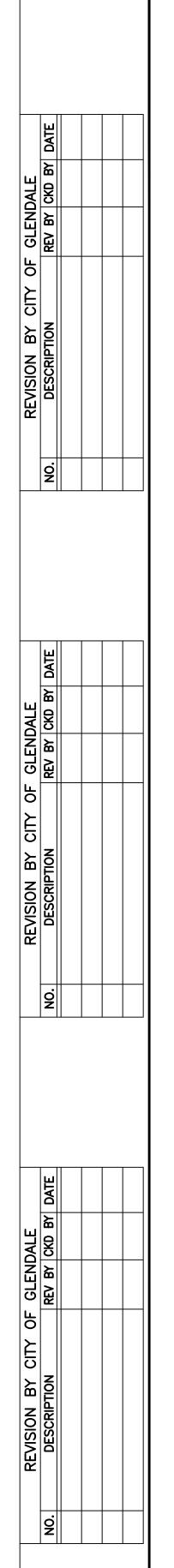












The following information is provided to emphasize critical work and is intended to supplement the specifications. Should there be a conflict with the specifications, this document shall take precedence.

Alternatives shall be pre-approved by the City Engineer. Approval of alternative products shall be on an equal basis with the product specified and shall be submitted a minimum of ten (10) days prior to bid opening. Structural calculations shall be furnished for alternate products and certified by a structural engineer, registered in the state of Arizona. Luminaires and lamps shall meet or exceed the photometric, electrical, and mechanical requirements for the specified

The contractor shall comply with State and City statutes along with the manufacturer's recommendations.

Prior to submitting a proposal, the bidder shall examine all general construction drawings and visit the construction site to become familiar with existing conditions under which he will operate. No subsequent allowance will be made in connection with or on behalf of the contractor for any errors or negligence on his part.

Prior to ordering any materials or doing any work, the contractor shall verify dimensions at the site and immediately report any discrepancies to the Streetlight Management. The contractor shall not proceed with any work until the City Engineer renders a decision. No extra charges or compensation will be allowed for the differences in actual dimensions and dimensions indicated on the drawings.

General Information

The electrical contractor shall comply with all licensing requirements set forth by the State Registrar of Contractors' office to perform work relating to streetlight installation in the city right-of-way.

The contractor shall obtain the following permits prior to the installation of street lighting:

One project underground utilities (right-of-way) permit. One street lighting permit for each

One electrical inspection permit for each installation.

The City's Streetlight Management Section shall be contacted 48 hours prior to starting the work.

All streetlights, including service line stubouts, within new planned developments or relocation projects, must be installed, inspected by the City of Glendale and city clearances issued before the utility company will install any wiring for the distribution system.

Light poles shall be installed plumb, adjusted to provide the proper alignment to the roadway being lighted and be properly grounded when the installation is complete.

If light poles are furnished by the city, the contractor shall pick up the poles from city storage and shall be responsible for their care until installed and accepted by the city (on City Projects).

City of Glendale Code requires exterior LED lights of 42 watts or more to use full cutoff luminaires. Incandescent lighting up to 150 watts is exempt from this requirement. Please provide authoritative information showing such luminaires are full cutoff or exempt from this requirement. To demonstrate the selected luminaire is full cutoff, a manufacturer's cut/detail sheet should be provided as part of the plan review sheets showing the fixture is "full cutoff" and/or International Dark Skies Association approved or certified as "Nighttime Friendly". This cut/detail sheet information must be provided in the plans for review and approval.

Light Emitting Diode (LED) Luminaires The City of Glendale is using following specifications for LED streetlight installations. These specifications are Acuity Autobahn LED Luminary:

1. Arterial Streets - Use 95 Watt, 11,600 lumens, 3,000K CCT, 70 CRI Min. LED lighting product: ATBM D MVOLT R2 3K MP NL P7. Includes a standard 5-year warranty.

Luminaires shall be installed level and shall include a lamp and photocell. Contractor shall assure that the luminaires are free of dust, dirt or any other substance, which would impair the output of the light prior to leaving the site.

Luminaires furnished with multi-tap ballast shall be rewired or reconnected to match the voltage supplied by the electric utility company.

If luminaires are furnished by the city and supplied from stock with a lamp and photocell each may be furnished in separate cartons and assembled by the contractor. The contractor shall pick up the products from city storage and shall be responsible for their care until installed and accepted by the city. If a product furnished by the city is defective, it shall be replaced at no expense to the contractor. Products damaged or rendered non-working by the contractor shall be replaced at the contractor's expense (on City Projects).

The City of Glendale is using the following specification for new photocells standard for new developments with all

1. Acuity Controls DTL DLL Elite Electronic Locking Type Photocontrol - DLL127 (for 120-277v), Fail On, 1.5 ANSI Std, Standard Housing, Standard Filter Operation, Standard Certification, Standard Cover Color (blue), JU

Foundation or Embedment

Foundations

The hole for the foundation shall be augured or hand dug, any exception shall be pre-approved by the City's Streetlight Management Section. Anchor bolts installed in foundations shall be provided with double nuts and washers. Anchor bolts will be set in place and supported by the use of a template (supplied by the contractor) to maintain the true bolt circle before the concrete is poured.

Streetlight Management shall inspect the work before the concrete is poured and must be contacted 48 hours before the scheduled pouring. A ground rod shall be installed in the pull box or next to the excavated hole in undisturbed soil, per the utility company requirement. A lead-in copper bond wire (#6) shall be installed in a separate 1" conduit up through the excavation for pole grounding.

The top of the foundation shall be two (2) inches above finished grade, trowel finished and level. And surplus excavation shall be legally disposed of by the contractor.

Embedment

Direct buried poles shall be set in a round hole, twelve (12) inch diameter, augured five (5) feet into undisturbed earth. Poles shall be set plumb in two directions 90 degrees apart.

Hand tamping of native soil with pneumatic or vibrating equipment is the acceptable method of compaction. Backfill shall be compacted to 85% of maximum density as determined by ASTM D698, D-2922 and D-3017. Using a backhoe is strictly prohibited for direct bury poles. Surplus excavation materials shall be legally disposed of by the contractor.

Wiring

Salt River Project Service Area

Streetlight poles shall be wired for 120 volt in SRP area.

utility company for coordination of trench and the installation of conduit.

Wiring from the transformer to the pole's flush mounted J-box shall consist of either 1-#6AL XLPE TX or 1-#4/OAL XLPE TX. Wiring from the J-box to the base of the pole or the pole's hand hole shall consist of 2-#6 AL XLPE and 1-#6 bare solid copper (bond). Wiring shall consist of 2-#12 single conductor and 1-#12 single conductor (bond) type XHHW or THWN pulled from the pole's hand hole or the base of the pole to the luminaire. Wire color for power shall be properly identified. Wiring between underground junction boxes, shall be provided and installed by the utility company supplying power. Connections in the J-box will be made by SRP.

SRP Junction Boxes

Junction boxes are not furnished by SRP. The contractor shall install all SRP junction boxes. Excavation for junction boxes and material specifications shall be per the utility company standards.

Grounding

Each pole foundation shall have an 8' X 5/8" copper clad ground rod, driven outside the area excavated for the pole. Ground rods maybe located in the J-box when required by the utility company. A #6 bare copper lead shall be used between the ground rod and the landing lug.

Trench shall be installed per the utility company standards.

The use of a common electric utility company trench is permitted. It is the contractor's responsibility to contact the

Conduit shall be installed at the depth specified on the plans. Conduit shall be per the utility company requirement. Each conduit shall terminate in each pull box and/or pole foundation. Elbows shall be the same size as the conduit.

All conduit which will not have circuit wire or cable pulled into it during construction shall have a #10 AWG. copper clad or aluminum clad pull wire installed in it and the ends sealed in a NEC approved manner to keep all moisture and

When required, the contractor shall encase conduits in concrete at street, railroad, and driveway crossings.

Concrete foundations require rigid conduit. Direct bury/Embedded poles require flexible conduit. Connections

Salt River Project (SRP) Service Area

Cable connection in the hand holes or bases of light poles shall be accomplished by the use of factory pre-assembled cable connector kits. A kit utilizing a 10 amp KTK-R fuse on the hot leg of the circuit shall be employed and shall be a quick disconnect type. Fuse kits shall be installed so that the exposed end shall be free of energized parts when

Splices in the junction boxes shall be prohibited. Connections shall be made using the 2 or 4 molder rubber insulated set screw bar connectors per the utility company's requirements. Split bolt connector and wire nut type devices are prohibited in all splices.

NEC approved grounding clamps connections shall be used for bonding bare bond wire and for connection to ground rods.

Light Pole Identification

The contractor shall furnish and install a number on each light pole. Streetlight pole identification and specifications will be provided by the utility company supplying power. The contractor will coordinate the installation of pole numbers with the utility company. Pole numbers will be on the plans provided by the utility company. Pole identification should be vellow letters/numbers on black background, two inches (2") high.

Energization of New Streetlights

The city street lighting program (623-930-2019) should be notified when the contractor arranges for any street lights to be energized by the electric company (SRP).

The City of Glendale Inspection Management section shall be contacted 48 hours prior to starting the work of digging or installing street lights. Notify street light inspections at 623-930-3626. Construction work concealed without inspection by the city shall be subject to exposure and/or removal and replacement at the contractor's expense. A geotechnical engineer's report will be required if direct bury poles are installed without inspector involvement.

Trees with branches which may grow at maturity to block the light coming from a street light fixture should not be planted near a street light pole. Such trees should be removed from the plans or placed a minimum of 25 feet from the pole. Show street light locations on landscape plans with 25-foot clear zone (parallel to the right of way primarily).

Removal of Existing Streetlight

When an existing street light is removed, the pole, arm, luminaire, and photocontrol should be delivered to the City of Glendale warehouse located at the city's Field Operations yard, 6210 W. Myrtle, Bldg. N. This material should be

No direct bury street light poles are to be relocated due to rust potential which may not be known until pole removal.

Foundation-mounted poles may be relocated under city observation. Such poles need to be lifted by the pole with a stabilizing strap to the luminaire end of the arm to prevent the arm from swinging as the pole rotates in mid-air. The strap must be secured from the ground. The arm swing makes the luminaire or arm subject to striking the crane or other

Jackhammer out the top 12" of the existing foundation that will be abandoned. or

Removed material (such as poles, arms, luminaires, and photocontrols) should be delivered to the City of Glendale Warehouse located at 6210 W. Myrtle, Bldg. N.

Restoration

It is the contractor's responsibility to restore all property, landscaping, paving and driveways that

are disturbed during streetlight construction to their original condition in conformance with Maricopa Association of Governments Specifications, Section 107.9.

Performance

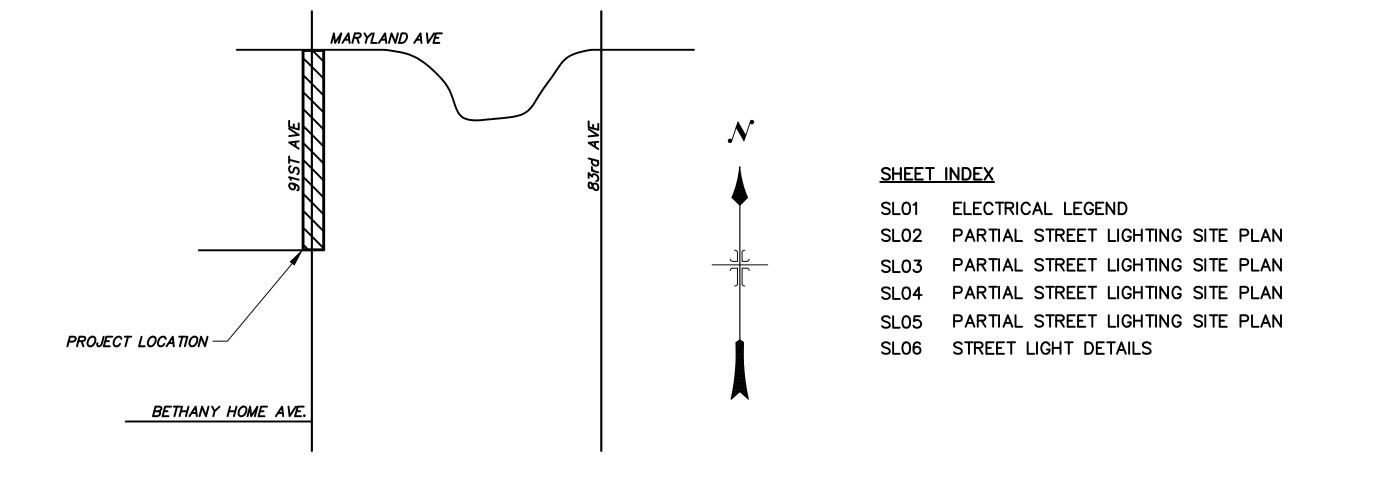
Prior to acceptance, the contractor shall energize and operate the entire roadway lighting system, from sunset to sunrise for two (2) consecutive days without interruption or failure. If a lamp or ballast should fail, it shall be replaced immediately and retested.

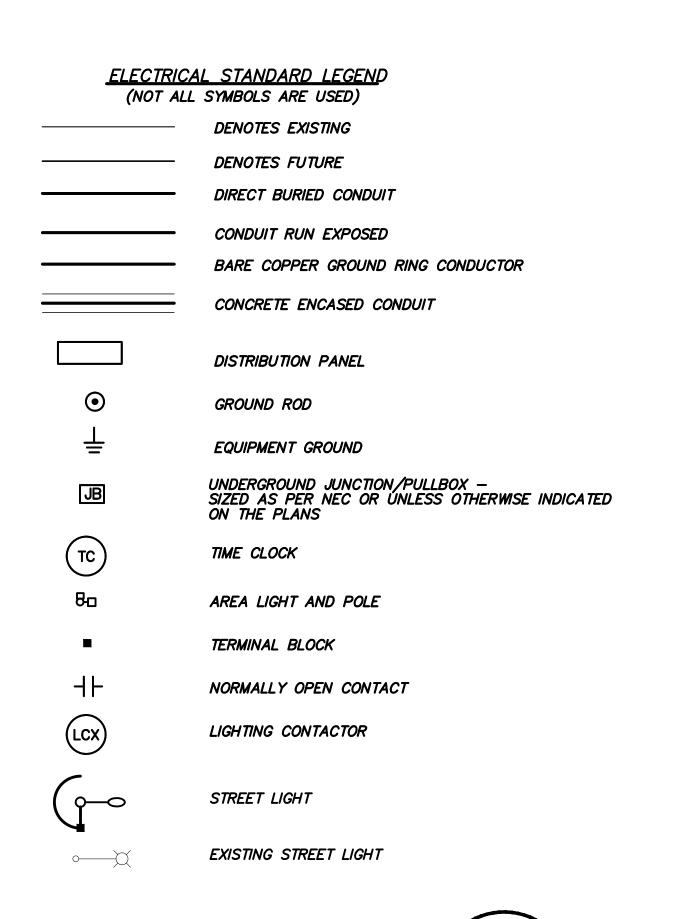
Final Acceptance by City

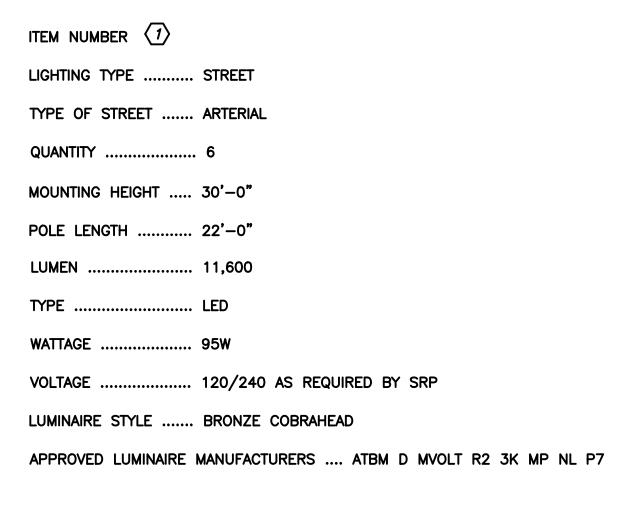
The City of Glendale staff shall perform visual inspection of work progress. Final acceptance of any street light shall be based on inspection and street light monitoring performance reports showing normal operation or otherwise from the Glendale street light monitoring system for a period of 30 days. A problem identified within this period shall result in contractor notification for repair.

The contractor shall guarantee all work for a period of one (1) year from the date of final acceptance by the Streetlight Management, against defects in workmanship, failure, malfunction of materials and/or equipment. This guarantee is to be in writing to the City at the time of issuing final acceptance. Work found to be defective within the warranty period shall be replaced without cost to the city.

91st AVENUE STREET IMPROVEMENTS STREET LIGHTING DESIGN GLENDALE, ARIZONA













CITY OF GLENDALE **ENGINEERING DEPARTMENT** 5850 W. GLENDALE AVE.

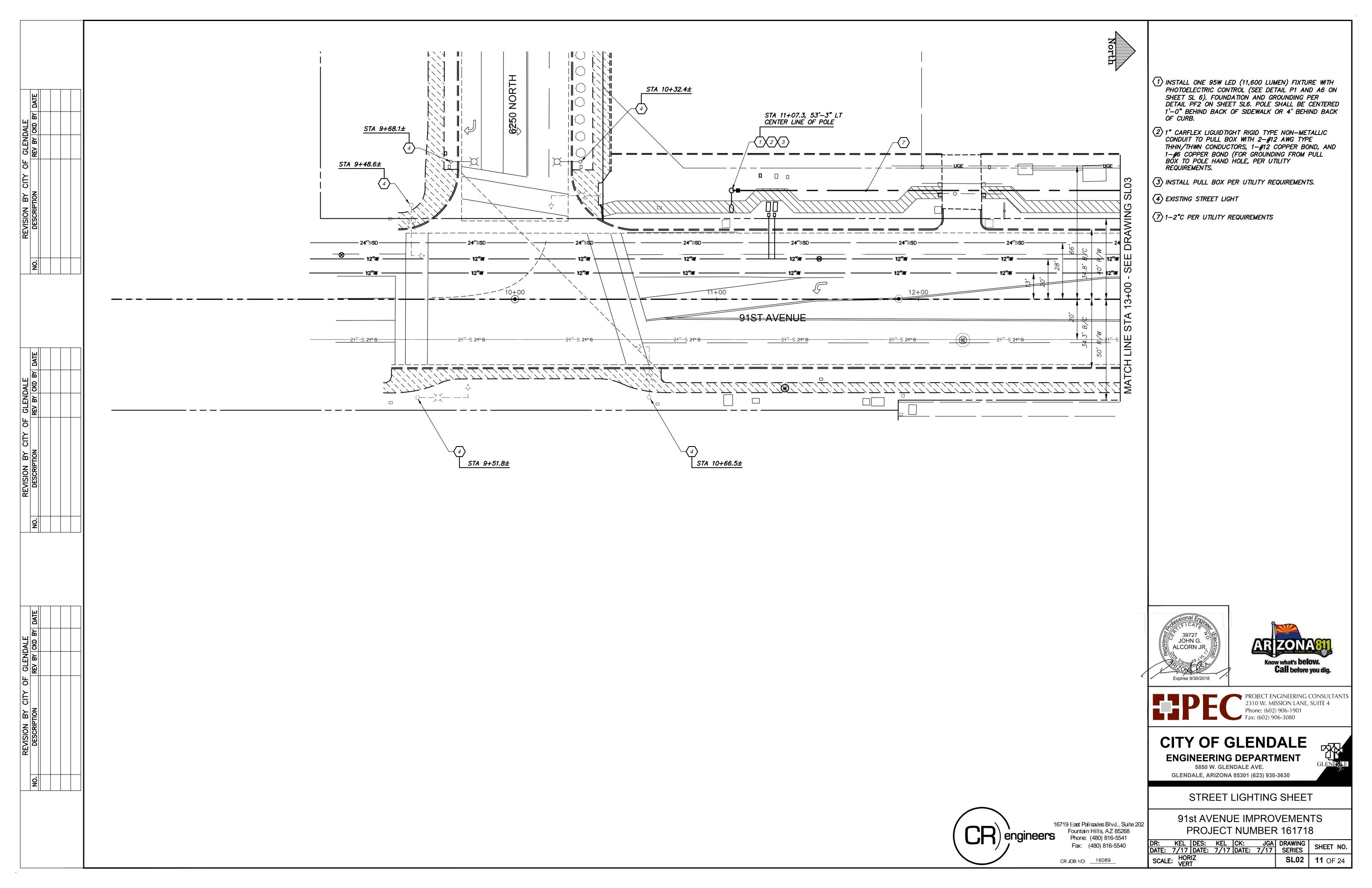
GLENDALE, ARIZONA 85301 (623) 930-3630

STREET LIGHTING COVER SHEET

91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

DR: KEL DES: KEL CK: JGA DRAWING DATE: 7/17 DATE: 7/17 DATE: 7/17 SERIES SHEET NO. SCALE: HORIZ VERT **SL01** | **10** OF 24

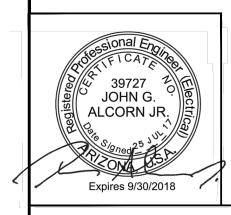








- 1) INSTALL ONE 95W LED (11,600 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL (SEE DETAIL P1 AND A6 ON SHEET SL 6). FOUNDATION AND GROUNDING PER DETAIL PF2 ON SHÉET SL6. POLE SHALL BE CENTERED 1'-0" BEHIND BACK OF SIDEWALK OR 4' BEHIND BACK OF
- 2 1" CARFLEX LIGUIDTIGHT RIGID TYPE NON-METALLIC CONDUIT TO PULL BOX WITH 2-#12 AWG TYPE THHN/THWN CONDUCTORS, 1-#12 COPPER BOND, AND 1-#6 COPPER BOND (FOR GROUNDING FROM PULL BOX TO POLE HAND HOLE, PER UTILITY REQUIREMENTS.
- (3) INSTALL PULL BOX PER UTILITY REQUIREMENTS.
- (4) EXISTING STREET LIGHT
- 7 1-2"C PER UTILITY REQUIREMENTS







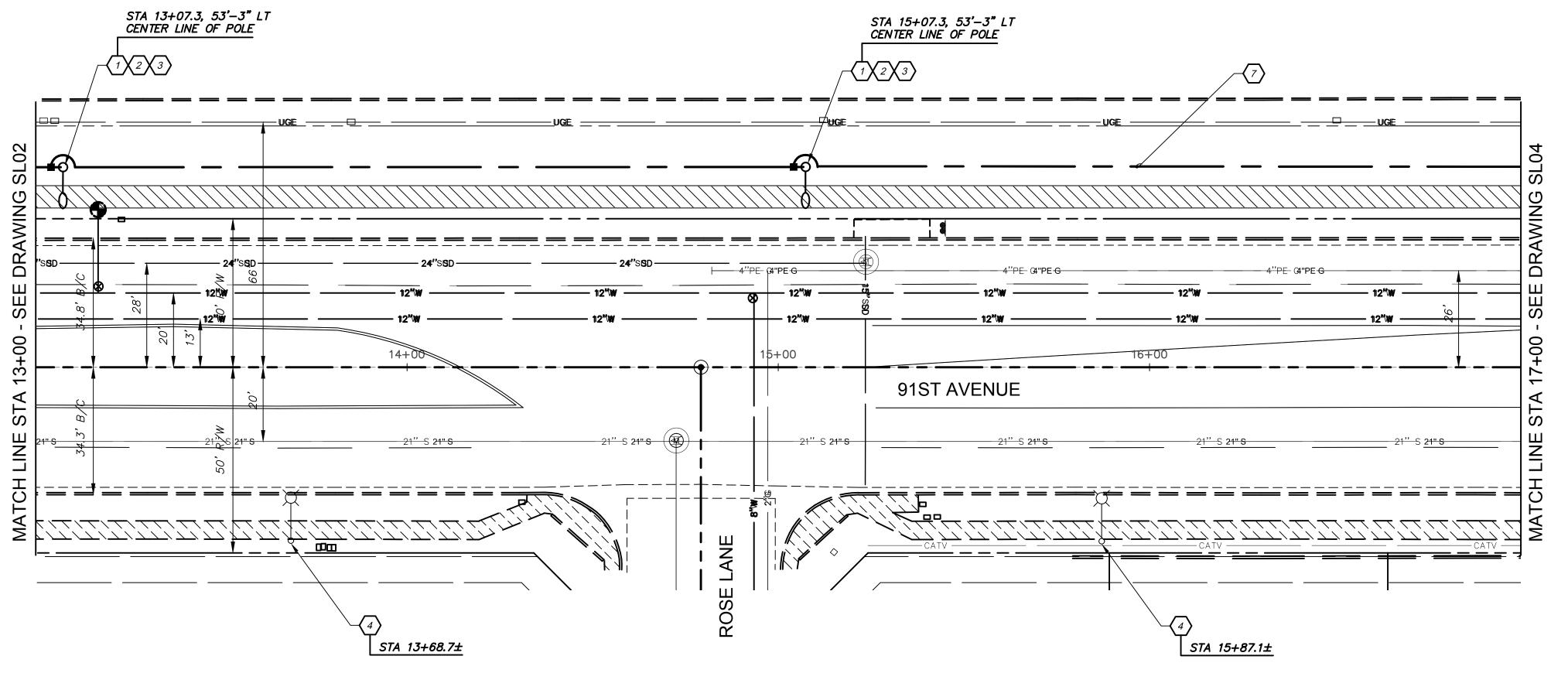
CITY OF GLENDALE ENGINEERING DEPARTMENT 5850 W. GLENDALE AVE.

GLENDALE, ARIZONA 85301 (623) 930-3630

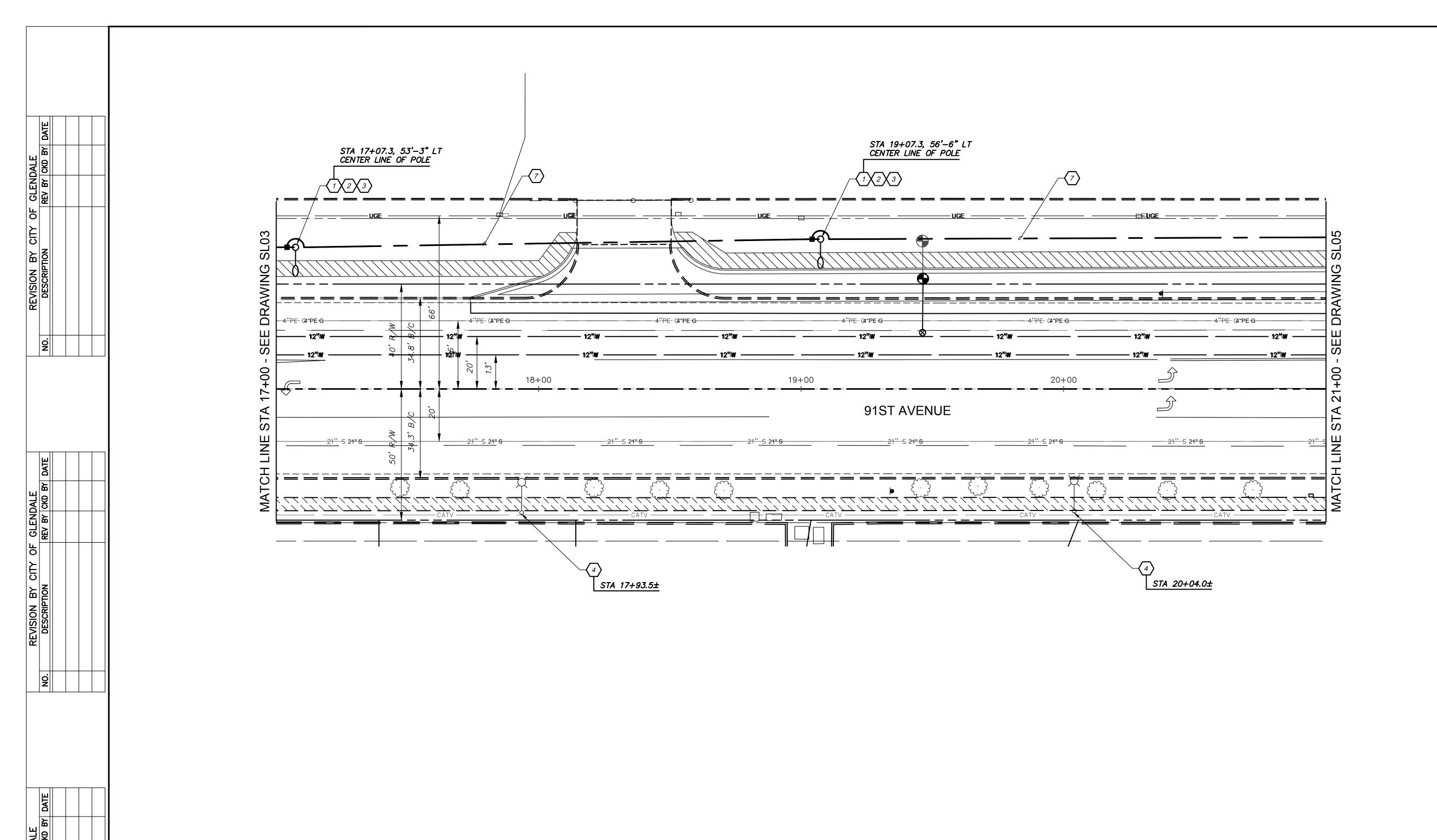
STREET LIGHTING SHEET

91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

DR:		DES:		CK:	JGA		SHEET NO.
DATE:	7/17	DATE:	7/17	DATE:	7/17	SERIES	SHEET NO.
SCALE	HOR VER	IZ T				SL03	12 OF 24

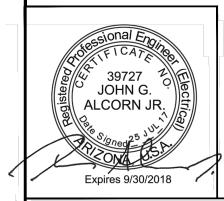








- 1) INSTALL ONE 95W LED (11,600 LUMEN) FIXTURE WITH PHOTOELECTRIC CONTROL (SEE DETAIL P1 AND A6 ON SHEET SL 6). FOUNDATION AND GROUNDING PER
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STREET LIGHTING SHEET

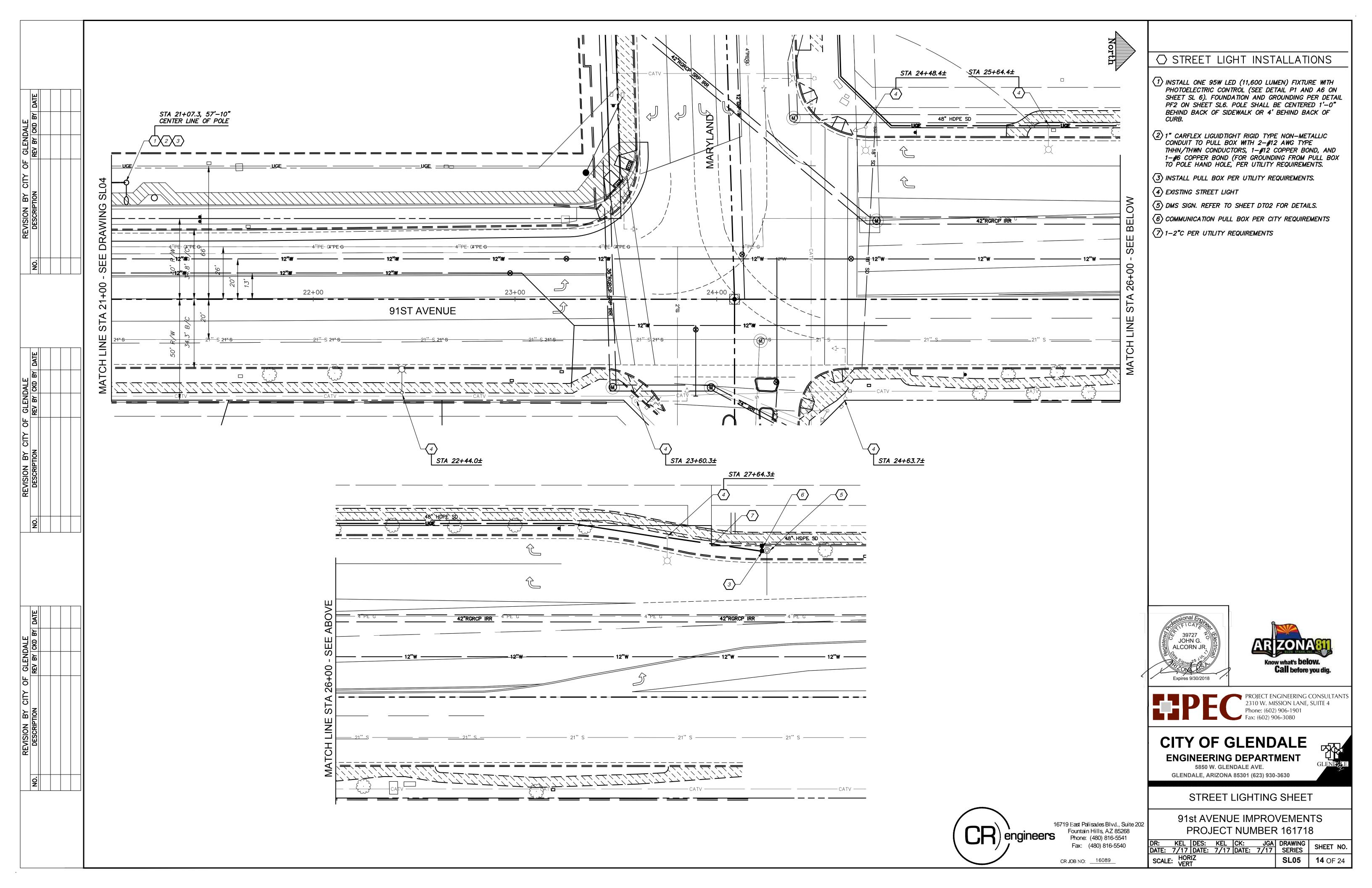
91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

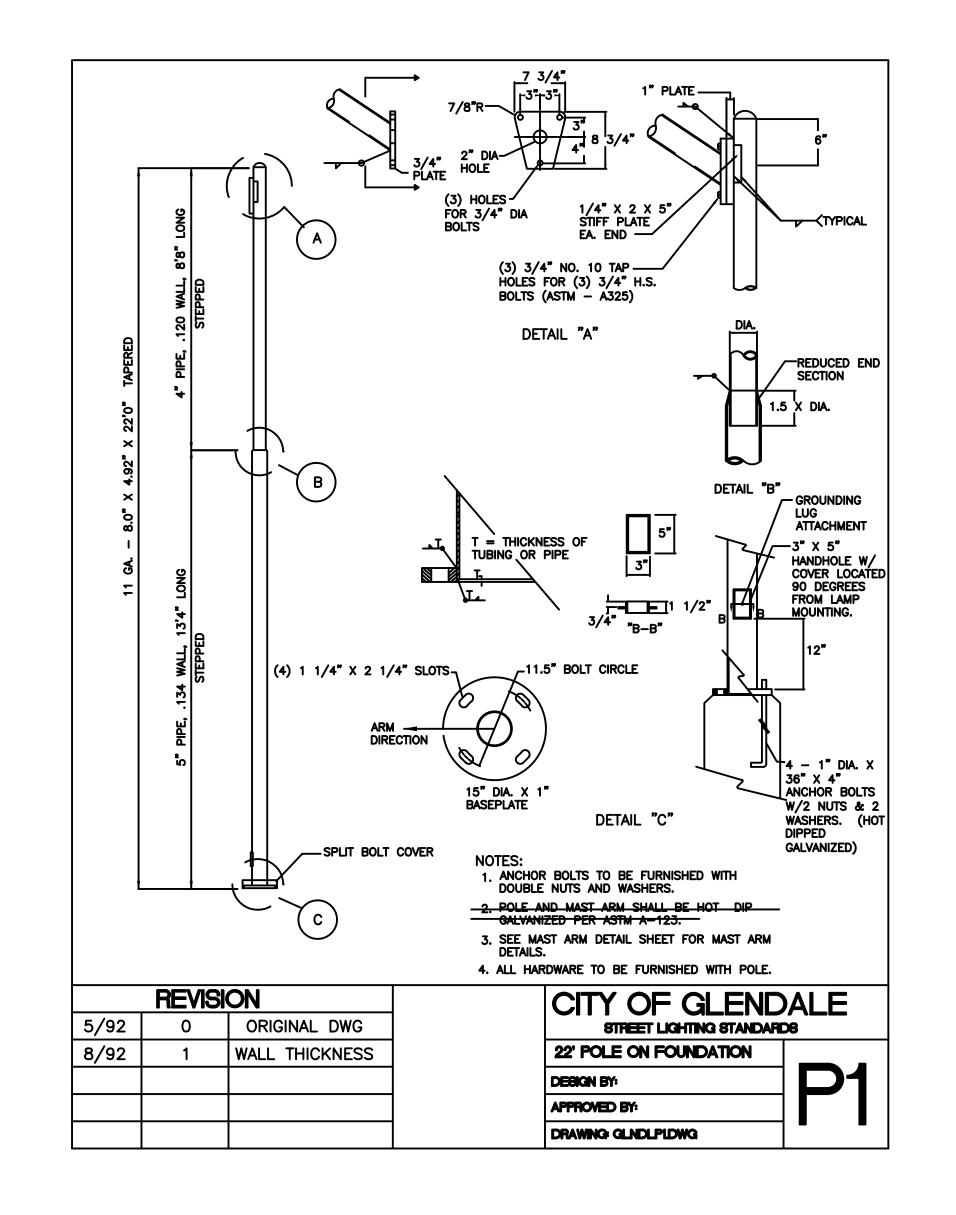
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DATE:	7/17	DATE:	7/17	DATE:	7/17	SERIES	SHEET NO.
SCALE	HOR VER	IZ T				SL04	13 OF 24

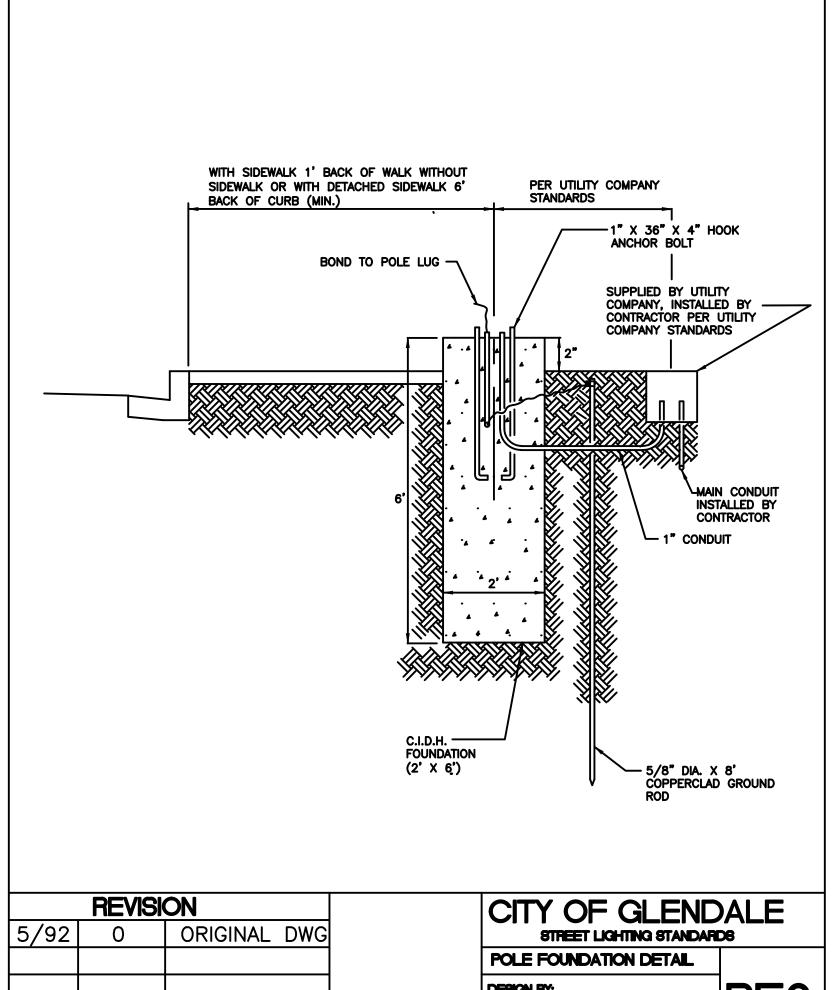


16719 East Palisades Blvd., Suite 202 Fountain Hills, AZ 85268 Phone: (480) 816-5541 Fax: (480) 816-5540

CR JOB NO: ___16089

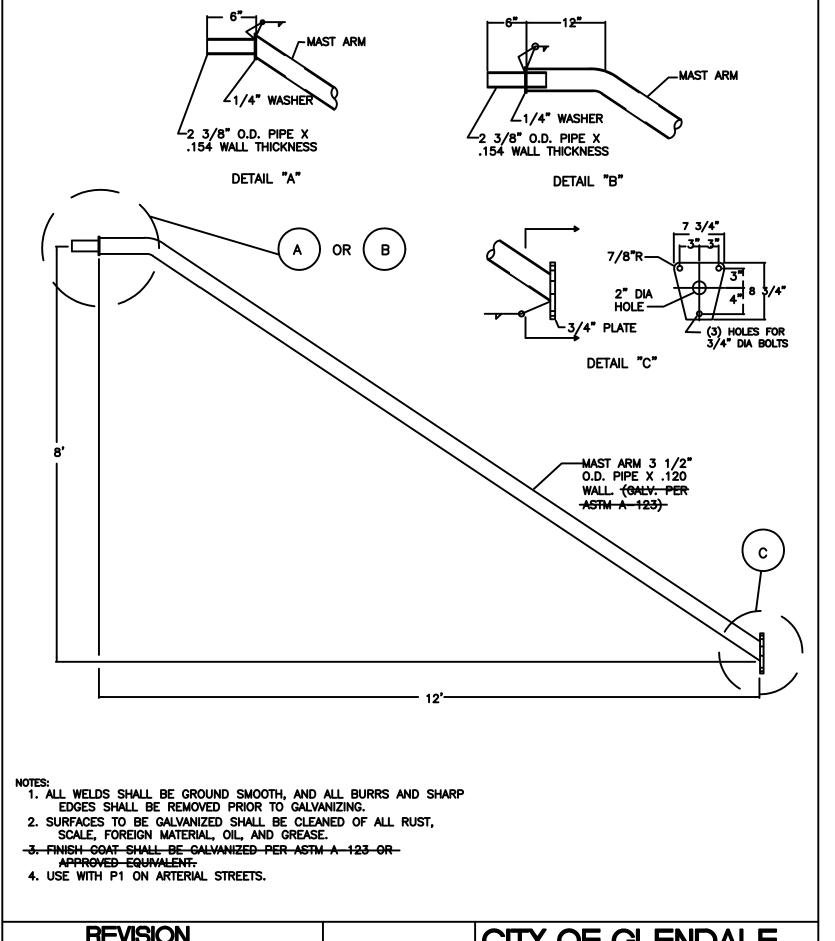






APPROVED BY:

DRAWING: GLNDLPF2.DWG



ΔI F	CITY OF GLEND	ION	REVISION				
	STREET LIGHTING STANDAR	ORIGINAL DWG	0	/92			
	12' X 8' HIGH RISE ARM	TENNON SIZE	1	/96			
1	DESIGN BY:						
HU	APPROVED BY:						
	DRAWING: GLNDLA6DWG						

NOTES

ALL STREET LIGHT POLES, MAST ARMS AND LUMINAIRES SHALL BE BRONZE IN COLOR PER CITY OF GLENDALE STANDARDS







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STREET LIGHTING DETAILS

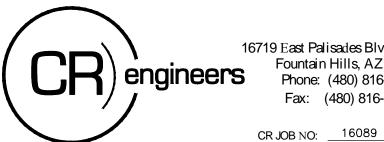
91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

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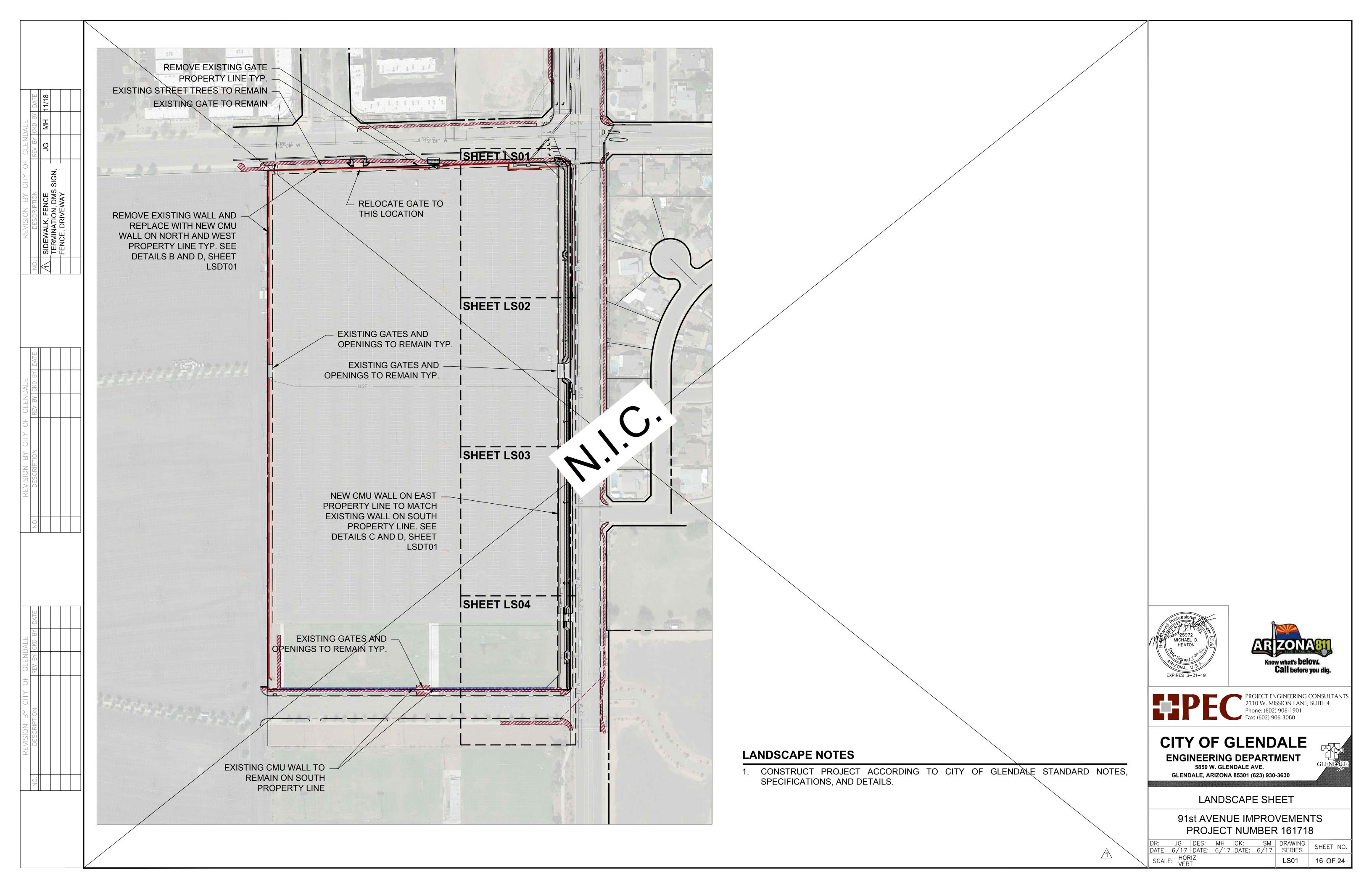
DATE: 7/17 DATE: 7/17 DATE: 7/17 SERIES

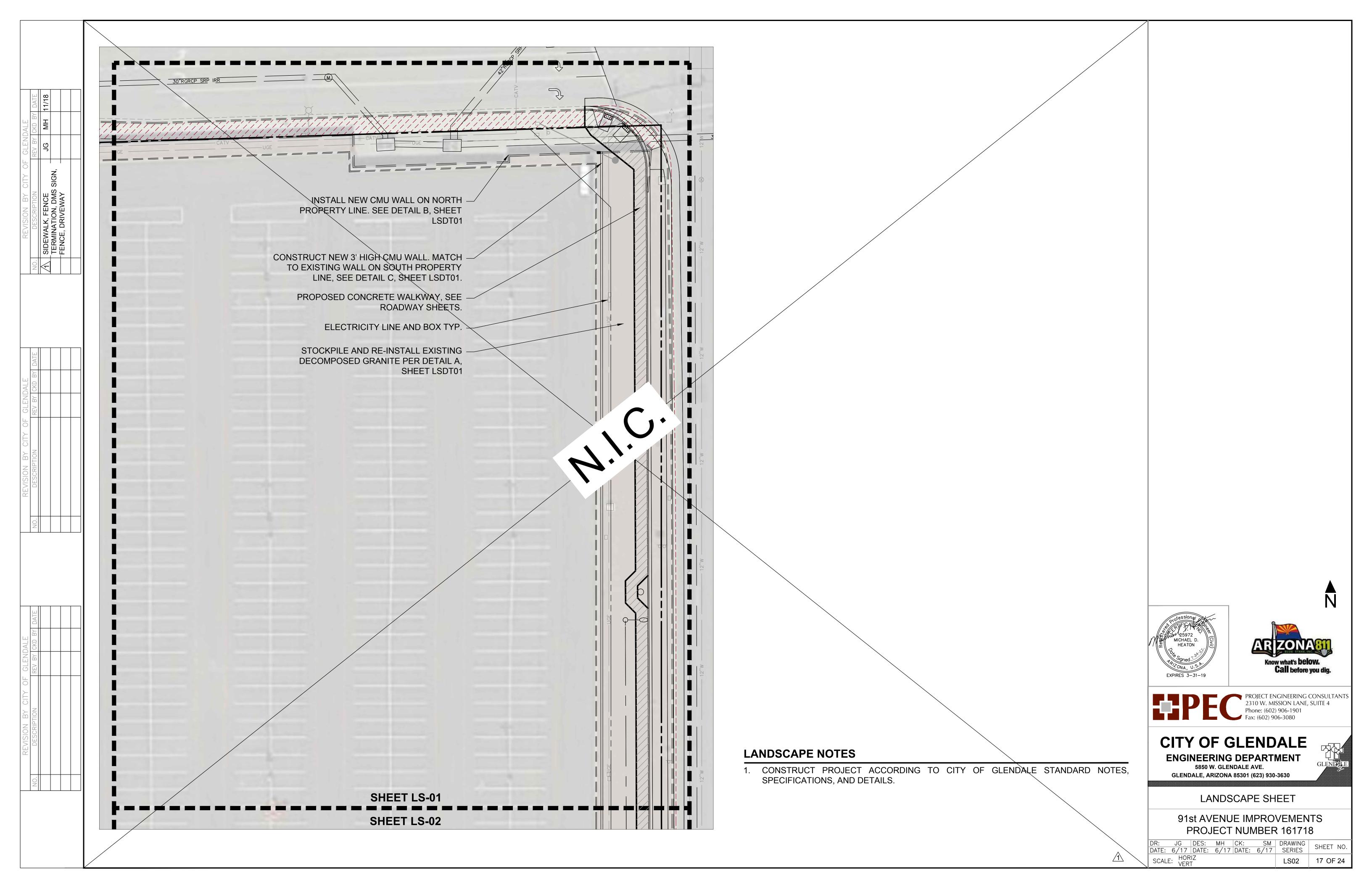
SCALE: HORIZ VERT

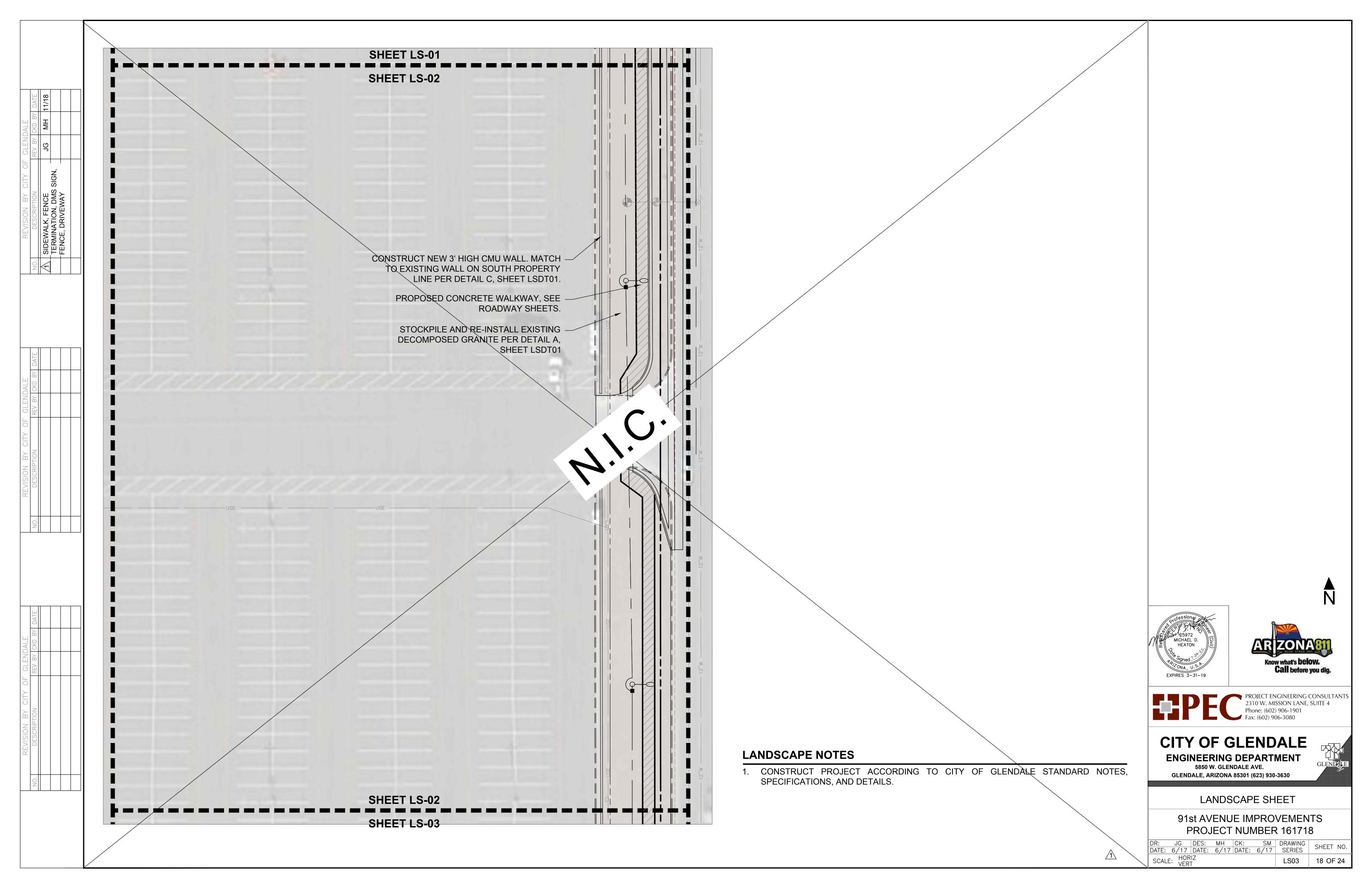
SL06 15 OF 24

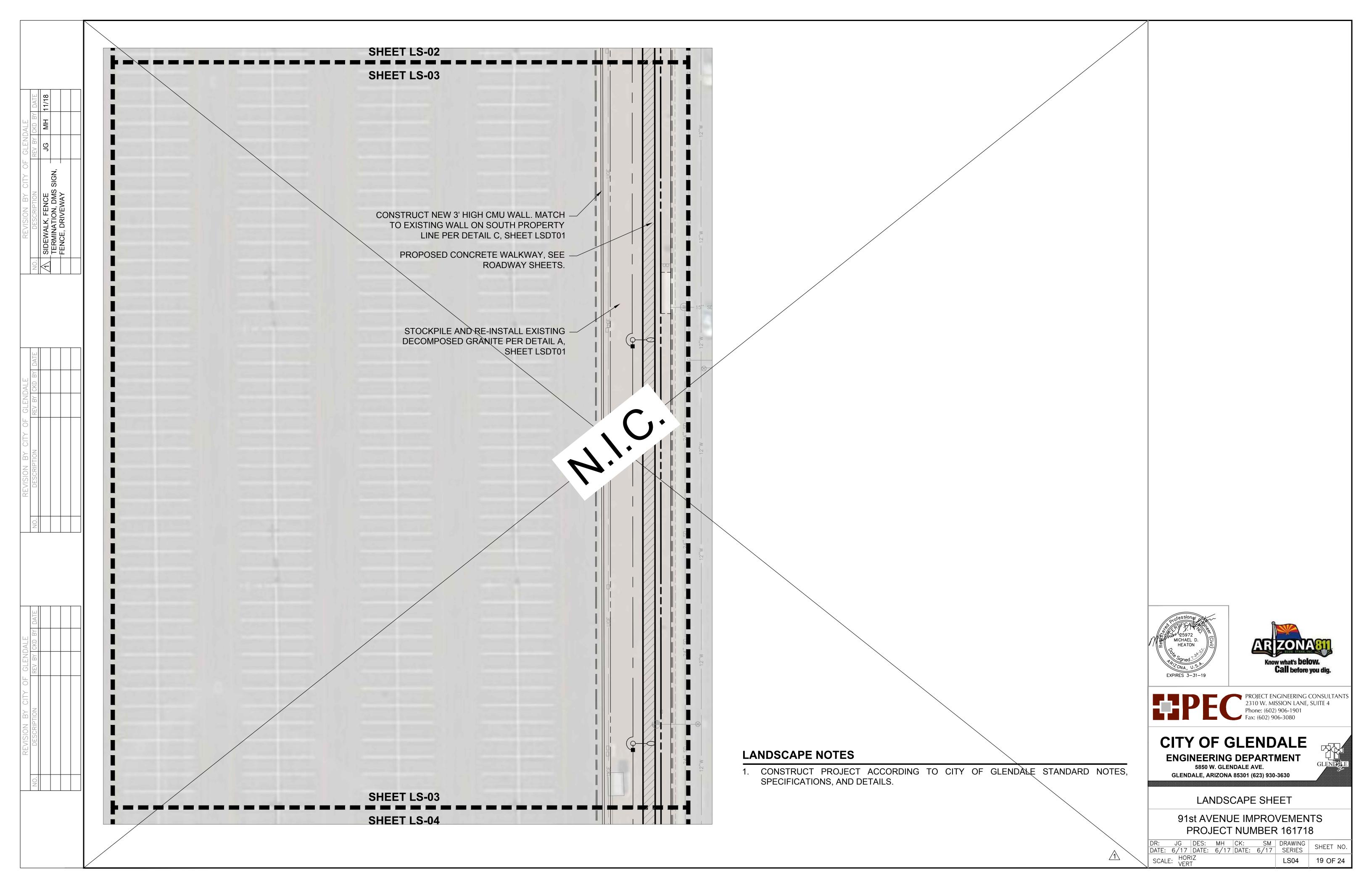


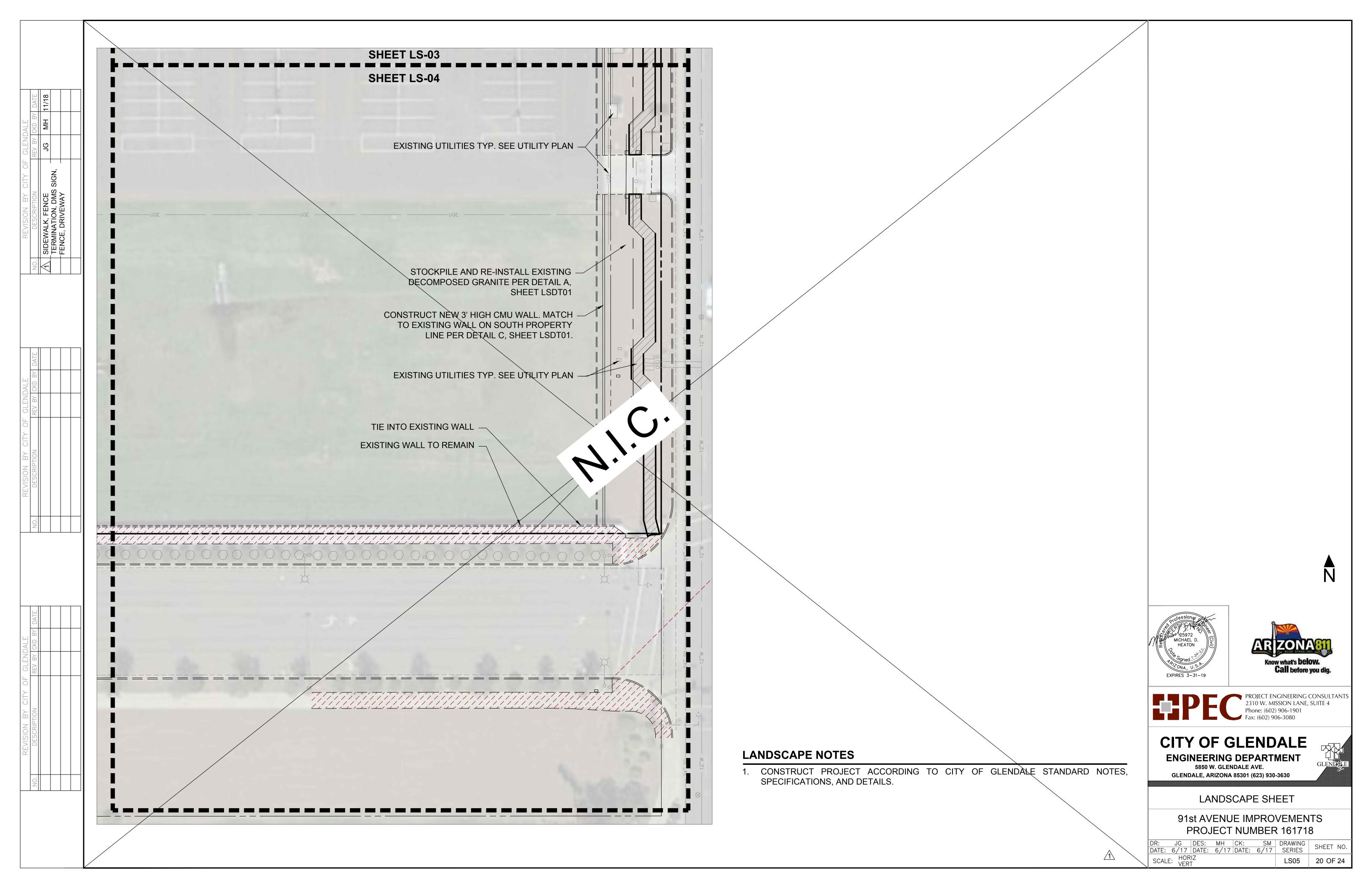
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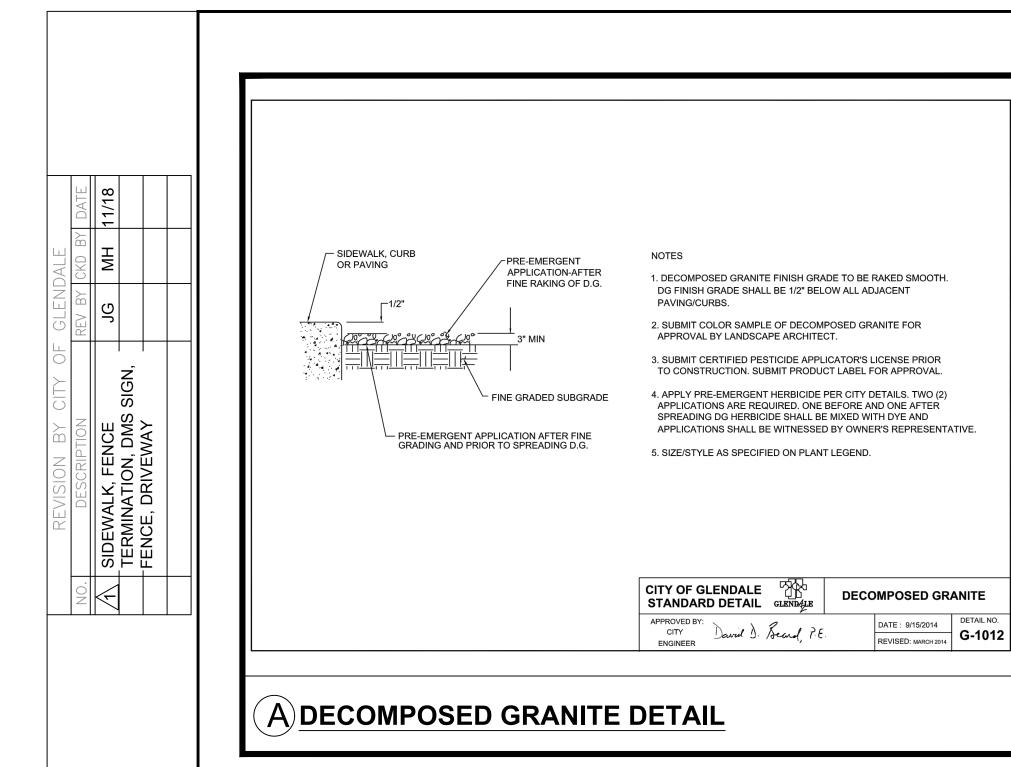






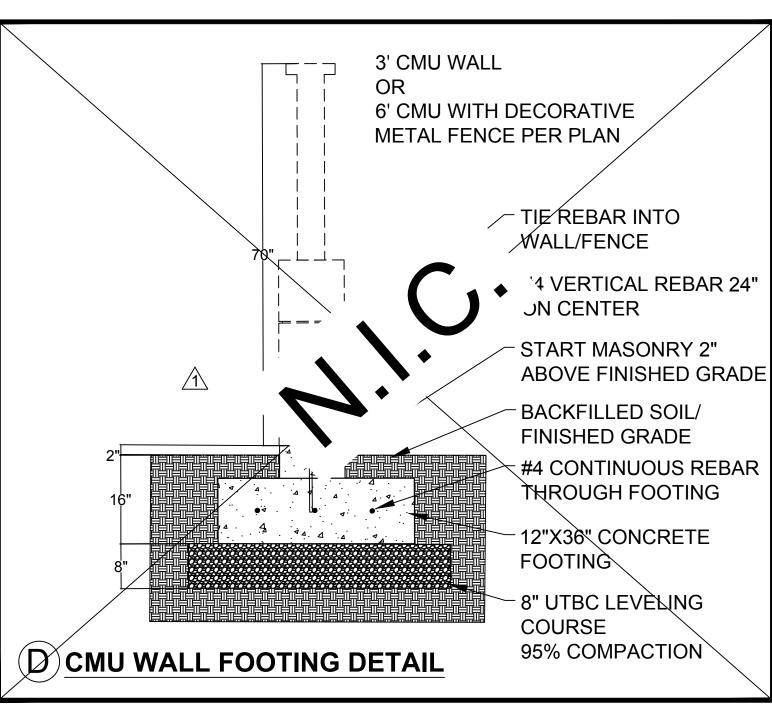


















CITY OF GLENDALE **ENGINEERING DEPARTMENT**

5850 W. GLENDALE AVE. GLENDALE, ARIZONA 85301 (623) 930-3630

LANDSCAPE DETAILS

91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

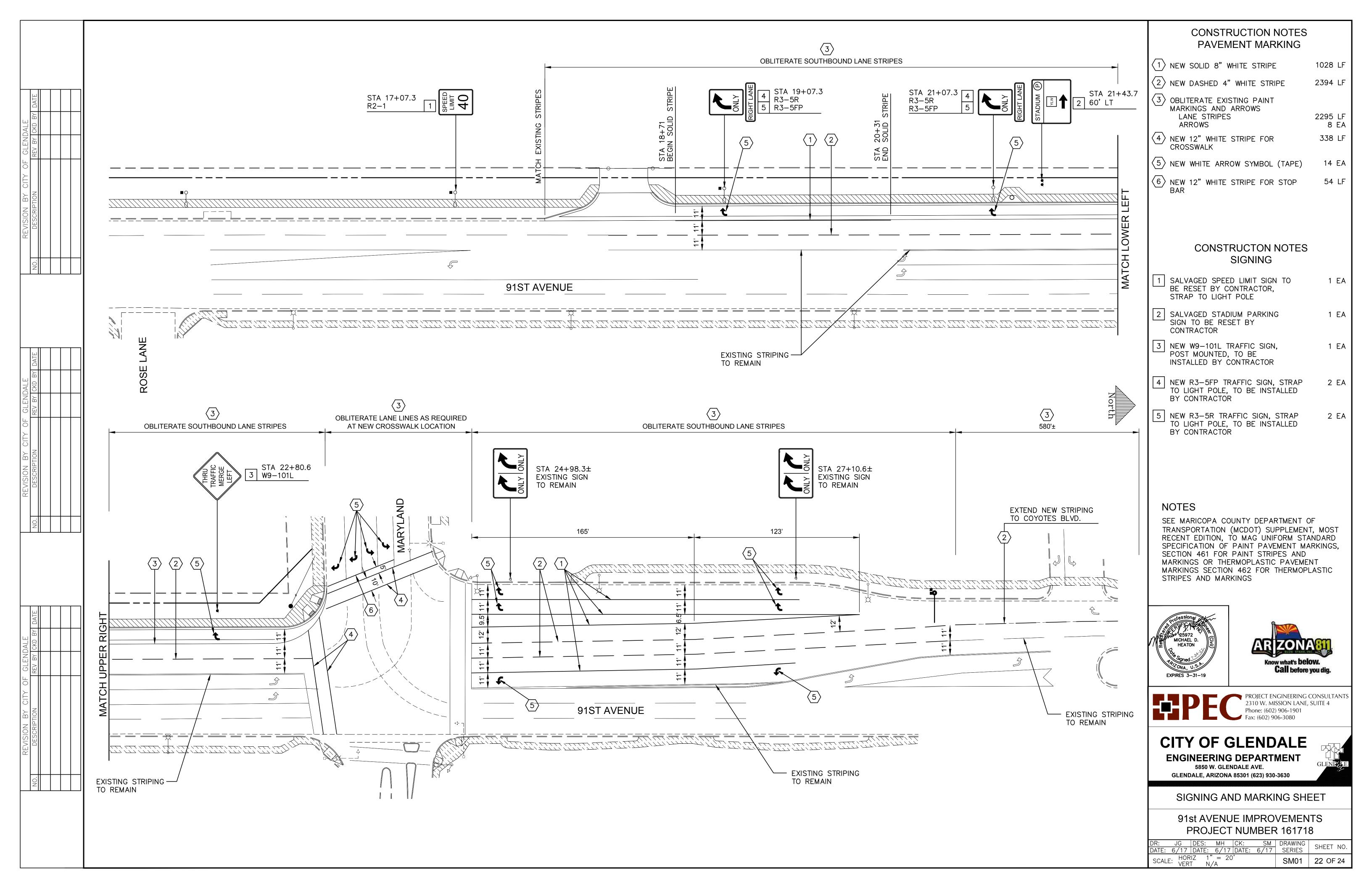
DR: JG DES: MH CK: SM DRAWING SHEET NO.

DATE: 6/17 DATE: 6/17 DATE: 6/17 SERIES

SCALE: HORIZ VERT

LSDT01 21 OF 24

	B' CMU WALL OR B' CMU WITH DECORATIVE METAL FENCE PER PLAN
70"	TIE REBAR INTO WALL/FENCE
	◆ '4 VERTICAL REBAR 24" JN CENTER
	START MASONRY 2" ABOVE FINISHED GRADE
	BACKFILLED SOIL/ FINISHED GRADE
16"	#4 CONTINUOUS REBAR THROUGH FOOTING
8"	12"X36" CONCRETE FOOTING
D CMU WALL FOOTING DE	COURSE
Sing Willer 1 33 Time BE	



	TRAFFIC SIGNAL GENERAL NOTES:		
	1. ALL TRAFFIC SIGNAL EQUIPMENT AND CONSTRUCTION SHALL CONFORM TO THE CITY OF GLENDALE TRAFFIC SIGNAL SPECIFICATIONS AND STANDARD DRAWINGS AND SUPPLEMENTED BY ADOT SPECIFICATIONS AND STANDARD DRAWINGS.	6. PUSH BUTTONS MUST BE LOCATED NEXT TO A LEVEL LANDING PAD (36"X48" MITTHE PUSH BUTTON MUST BE WITHIN 10 INCHES REACH OF THE LEVEL LANDING PAD.	
ATE	2. LOCATION OF UTILITIES SHOWN ON THIS PLAN ARE FOR REFERENCE ONLY. THE ENGINEER DOES NOT GUARANTEE THESE LOCATIONS NOR THE FACT THAT SOME MAY BE LEFT OUT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ARIZONA BLUE STAKE AND ALL INVOLVED AGENCIES PRIOR TO CONSTRUCTION. EXISTING TRAFFIC SIGNAL EQUIPMENT AND LOCATIONS SHOWN MAY NOT REPRESENT WHAT IS IN THE FIELD. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY EXISTING EQUIPMENT AND LOCATIONS.	10 FOOT (MAXIMUM) FROM THE CURB. 7. MOUNTING LOCATION AND ORIENTATION OF ALL TRAFFIC SIGNAL HEADS AND ISSUED SHALL BE CONFIRMED WITH THE TRAFFIC SIGNAL INSPECTOR IN THE FIELD PRIOR TO	
BY DA	3. TOP OF SIGNAL POLE FOUNDATIONS AND PULL BOXES SHALL BE AT THE SAME ELEVATION AS THE BACK OF SIDEWALK.	8. EXISTING TRAFFIC SIGNALS, PEDESTRIAN SIGNALS AND PUSH BUTTONS, STRE RESTORED WITHIN ONE DAY OR LESS OF ITS RELOCATION OR DAMAGE, LONGER OU	
INDAL!	4. NEW CONDUIT UNDER ROADWAY SHALL BE PLACED BY JACKING OR BORING METHOD (T-12). CONTRACTOR SHALL NOT TRENCH EXISTING PAVEMENT WITHOUT PRIOR APPROVAL OF ENGINEER.	9. CONTRACTOR IS RESPONSIBLE FOR OBTAINING CONSTRUCTION AND TEMPOR	ARY TRAFFIC CONTROL PERMITS FROM THE CITY OF GLENDALE.
F GLE	5. CONTACT APPROPRIATE UTILITIES FOR UTILITY LOCATION PRIOR TO START OF CONSTRUCTION:	10. COG STAFF TO TERMINATE ALL CONNECTIONS AT TRAFFIC SIGNAL BLOCKS AN	D CABINET.
REVISION BY CITY OF DESCRIPTION	- SOUTHWEST NATURAL GAS - CENTURYLINK TELEPHONE - COX COMMUNICATIONS CABLE TV - SALT RIVER PROJECT ELECTRIC - ARIZONA BLUE STAKE (602) 263-1100 - CITY OF GLENDALE WATER - CITY OF GLENDALE SEWER		
		CATV SP 2	North A8" HDPE SD UGE d UGE
BY DAT			
NDALE CKD F	—UGE — — — — — — — — — — — — — — — — — — —		
REV B			
YT 0F		4"PE (M)	42"RGRCP IRR G
BY CI	4"PE G	G	
REVISION DESCRIP	N	12"W	12"W 12"W
Ö		2"G	
		12"W — 12"W — 12"W	
	21" S — 21" S	21" S	21" S 21" S
BY DATE	CATV CATV CATV	CATV	EATV EATV
ENDAL!	CONSTRUCTION NOTES:		
REV REV	1. REMOVE THE EXISTING CABLES FROM THE RELOCATED SIGNAL POLE BACK TO THE TRAFFIC SIGNAL CONTROLLER.		
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	2. INSTALL NEW CONDUIT FROM THE EXISTING JUNCTION BOX TO THE NEW TRAFFIC SIGNAL POLE FOUNDATION.		
PTION	 INSTALL NEW WIRING FROM THE TRAFFIC SIGNAL CONTROLLER TO THE RELOCATED TRAFFIC SIGNAL POLE LOCATION. ALL TRAFFIC SIGNAL CONSTRUCTION WILL BE INSPECTED BY THE CITY OF GLENDALE TRAFFIC SIGNAL SUPERVISOR, (623) 930-2762. 		
VISION	5. THE LOCATION OF THE TRAFFIC SIGNAL POLES WHICH ARE SHOWN ON THE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF THE		
[POLE SHALL BE STAKED IN THE FIELD BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE TOP OF THE FOUNDATION SHALL BE SET TO BE AT THE FINISHED WHEELCHAIR RAMP SURFACE AND INTEGRATED INTO THE RAMP DESIGN. THE INTENT OF THIS CRITERIA IS TO INSURE THAT THE PEDESTRIAN PUSH BUTTON ASSEMBLIES ARE ACCESSIBLE TO WHEELCHAIR-BOUND PEDESTRIANS.		1
ON O			#10 Bare Copper #10 White \$5C IMSA Cable (Luminaire) 25C IMSA Cable (Luminaire) Button)
			Detection Camera Cable (1)

CONSTRUCTION NOTES

REMOVE

1 EXISTING SIGNAL POLE FOUNDATION IN SW CORNER OF THE INTERSECTION.

INSTALL

1 TYPE V TRAFFIC SIGNAL POLE FOUNDATION, 72 FT SOUTH FROM & OF MARYLAND 63 FT WEST FROM & OF 91ST AVENUE (DISTANCE IS PERPENDICULAR TO ROADWAY CENTER LINE). PER STANDARD DRAWING

2 2-INCH SCHEDULE 40 PVC

RELOCATE

WITH ALL OF THE EQUIPMENT ON THE POLE AND MAST ARM FROM THE EXISTING LOCATION TO THE NEW SIGNAL POLE FOUNDATION.

2 TRAFFIC SIGNAL HEAD - MASTARM

/3 \ VIDEO DETECTION

4 LED LUMINAIRE

5 TRAFFIC SIGNAL HEAD - POLE

6 PEDESTRIAN SIGNAL HEAD

7\ PEDESTRIAN PUSH BUTTON

/8\ LED ILLUMINATED STREET NAME SIGN

9 STREET NAME SIGN







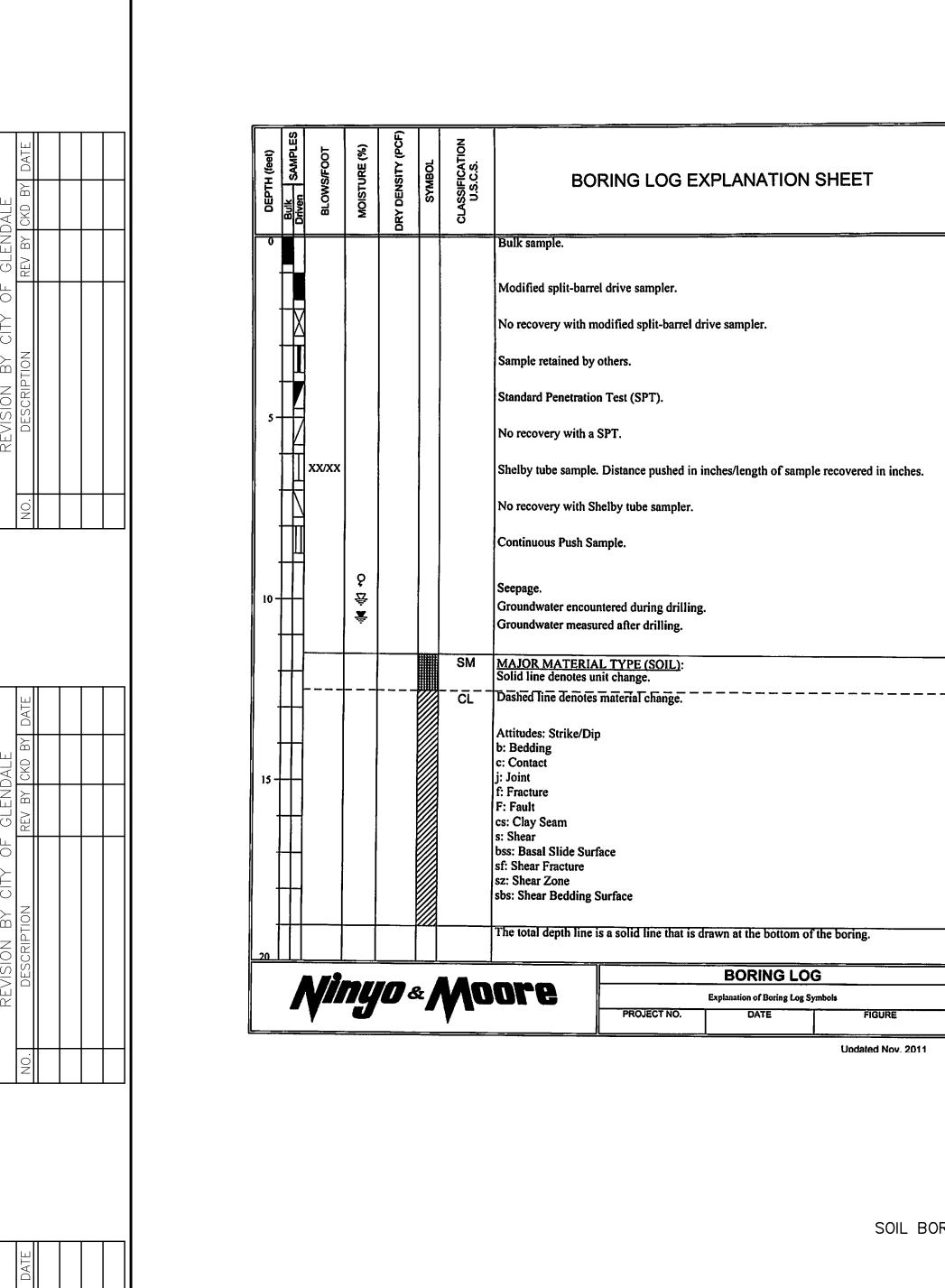
CITY OF GLENDALE **ENGINEERING DEPARTMENT**

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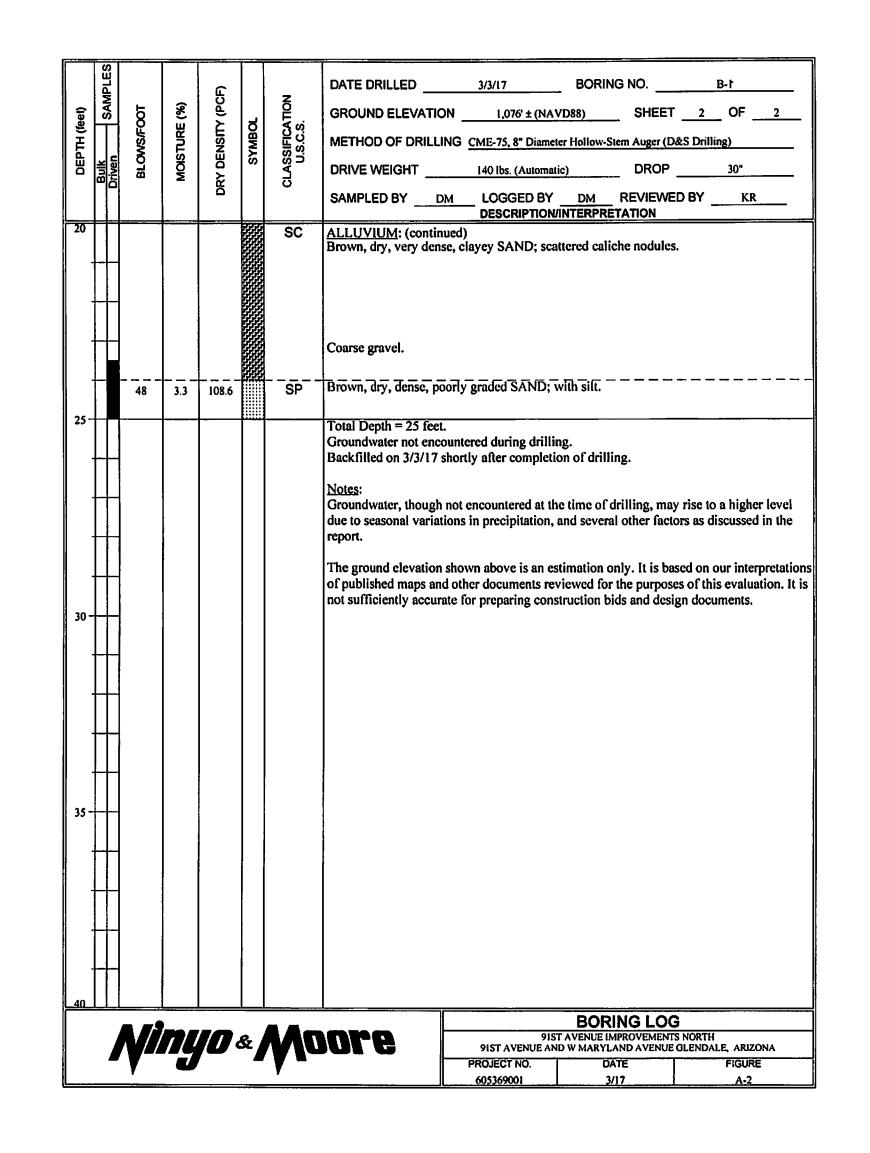
TRAFFIC SIGNAL PLANS

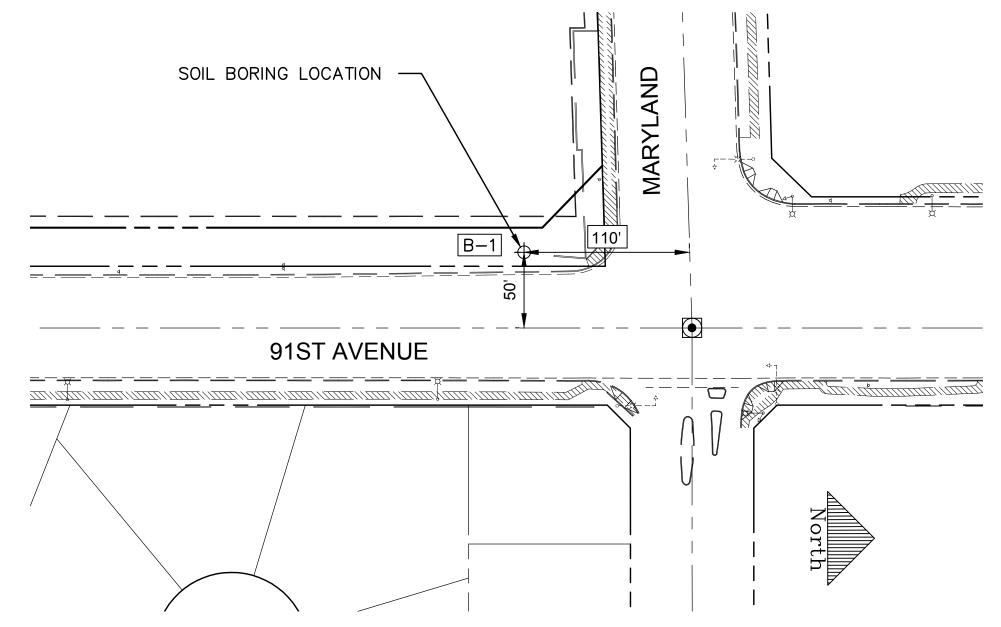
91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

DR:	JG	DES:	MH	CK:	SM	DRAWING	SHEET NO.
DATE:	6/17	DATE:	6/17	DATE:	6/17	SERIES	SHEET NO.
SCAL	- HOR	RIZ T	·			TS01	24 OF 24



DEPTH (feet)		BLOWS/FOOT	MOISTURE (%)	DRY DENSITY (PCF)	SYMBOL	CLASSIFICATION U.S.C.S.	DATE DRILLED 3/3/17 BORING NO. B-1 GROUND ELEVATION 1,076'± (NAVD88) SHEET 1 OF 2 METHOD OF DRILLING CME-75, 8" Diameter Hollow-Stem Auger (D&S Drilling)
DEP	Bulk Driven	BLOM	MOIST	DRY DEN	SY	CLASSI U.S	DRIVE WEIGHT 140 lbs. (Automatic) DROP 30" SAMPLED BY DM LOGGED BY DM REVIEWED BY KR
0						CL	DESCRIPTION/INTERPRETATION FILL: Brown, dry, hard, sandy lean CLAY with gravel.
		41	4.6	106.2			
5-		9					Stiff.
		19	19.6	98.6		СН	ALLUVIUM: Brown, moist, very stiff, sandy fat CLAY with gravel; scattered caliche nodules.
		28					Hard; no gravel.
		- 		-		sc	Brown, moist, medium dense, clayey SAND with gravel; scattered caliche nodules. Coarse gravel; possible cobbles.
		24	6.7	108.5			Medium dense; no gravel.
- 20		37					Dry; very dense.
	1			ın.	e /	Ma	BORING LOG 91ST AVENUE IMPROVEMENTS NORTH 91ST AVENUE AND W MARYLAND AVENUE GLENDALE, ARIZONA PROJECT NO. DATE FIGURE
		V	"3	,	~ //	Ain	91ST AVENUE AND W MARYLAND AVENUE GLENDALE, ARIZONA PROJECT NO. DATE FIGURE
		v				Y	605369001 3/17 A-1











CITY OF GLENDALE ENGINEERING DEPARTMENT 5850 W. GLENDALE AVE.

GLENDALE, ARIZONA 85301 (623) 930-3630

SOIL BORING LOG INFORMATION SHEET

91st AVENUE IMPROVEMENTS PROJECT NUMBER 161718

DR:	JG	DES:	МН	CK:	SM	DRAWING	SHEET NO.
DATE:	6/17	DATE:	6/17	DATE:	6/17	SERIES	SHEET NO.
SCALE	- HOR	RIZ N	/A /A			SB01	24 OF 24