



KIVA #: _____ **Project Name:** _____

Reviewed By: _____ **Phone:** _____ **Date:** _____

Professional Engineer: _____ **Phone:** _____

The purpose of this checklist is to offer comments on plan design for soil nail shoring and to set the minimum submittal requirements for Soil Nail Shoring plans. The source of the requirement for a Soil Nail Shoring plan and permit is City Code Article VII - Temporary Use of Right-Of-Way, Chapter 31-80 Authority and administration. Soil nails that support a structure governed by the International Building Code (IBC), such as a basement wall or permanent retaining wall, are not addressed in this checklist.

This checklist serves to minimize redline comments on the check prints and to maintain consistency among plan reviewers on plans for soil nail shoring. Plan approval, issuing permits, and certain grading clearances depend on compliance with the comments made on the check prints and this checklist. The Professional Engineer of record shall satisfy themselves of the completeness and accuracy of the design.

Plan review correction cycles and/or approvals are valid for 12 months. Additional review fees (see Fee Schedule – Phoenix City Code, Chapter 9, Appendix A.2) shall be charged for extensions/reinstatements to update expired plan reviews.

A completed checklist must be attached to the Soil Nail Shoring plans when submitted for first review. The following Certification Statement must be signed by the Professional Engineer of record certifying that all applicable requirements on this checklist have been met.

CERTIFICATION

I CERTIFY THAT THE REFERENCED PLANS COMPLY WITH ALL APPLICABLE CITY ORDINANCES AND STANDARDS, INCLUDING FEDERAL, STATE AND COUNTY REQUIREMENTS AND REGULATIONS. IN ADDITION, I CERTIFY THAT THIS CHECKLIST HAS BEEN COMPLETED ENSURING ALL ITEMS LISTED ARE PROPERLY ADDRESSED. I UNDERSTAND THAT IF I FAIL TO ADDRESS ALL APPLICABLE ITEMS IN THIS CHECKLIST, THE PLANS MAY BE IMMEDIATELY RETURNED TO ME WITHOUT ANY FORMAL REVIEW BEING PERFORMED.

Professional Engineer's Name: _____

Professional Engineer's Signature: _____ **Date:** _____

Please complete and return this checklist and the check prints with each submittal. Discussion of redline comments on plans or this checklist should be directed to the plan reviewer listed above.

Professional Engineer of record (**ENG**) must fill out all boxes in the first column as either (Addressed) or (Not Applicable).

Civil plan reviewer (**RVW**) shall check the second column as (Required) when requirements have not been properly addressed.

For more information or for a copy of this publication in an alternate format, contact Planning & Development at (602) 262-7811 voice or TTY use 7-1-1.

REQUIRED SUBMITTALS

Note: If submitting through the Electronic Plan Review system, multiple copies of submittal documents are not required.

ENG RVW

- Plan sheets shall be 24" X 36"; submit eight (8) sets of Soil Nail Shoring plans, a copy of the Revocable permit from Street Transportation or the revocable permit number placed on the plan cover sheet, a notarized and signed "Soil Nail Indemnity" agreement from the real property owner, two (2) sets of calculations, two (2) sets of a sealed Geo-technical report, a sealed Professional Engineer's Estimate for the cost of the shoring (this amount may be deducted from the total valuation of the building if it is part of the building valuation), and a completed and signed Soil Nail Shoring Checklist.

GENERAL REQUIREMENTS

- The property owner shall apply for a revocable permit as an official record. Revocable permits are issued by the Street Transportation Department.
- Soil nails are only permitted to be used within Downtown Phoenix on parcels zoned DTC and may be permitted in other areas subject to Street Department approval prior to planning/designing a project.
- Symbols shall be per M.A.G. Specifications and Details.
- Cover sheet is required on plans of more than two sheets.
- All documents and plan sheets shall have the Civil Engineer's Arizona registration seal and original signature prior to plan submittal.
- Original plan sheets shall be sufficiently clear to allow legible prints to be reproduced. The size of lettering and symbols shall be 1/8 inch minimum.
- Any utilities within the affected area must be pot-holed to determine exact depth and location and the information placed on the plan.
- The attached "Soil Nail Indemnity" agreement from the real property owner shall be notarized and signed.
- An electronic CAD file and legal description of the plan showing the area of the Right-Of-Way the nails are in will be provided on a Compact Disk (CD) upon completion of the shoring. The CD will be sent to Floodplain Management by the Planning & Development Department Civil/Site Inspector for recording in the city of Phoenix GIS mapping system.
- All soil nails within the city of Phoenix Right-Of-Way are required to be as built for location and penetration depth using city of Phoenix datum benchmarks. As-built plans are to be submitted to the Planning & Development Department Civil/Site Inspector to be routed to Street Transportation Floodplain Management upon permit completion.

Cover Sheet Requirements

- Provide a Blue Stake notification decal.
- Indicate plan types:
 - Soil Nail Shoring Checklist
- Provide a project title block with name and address of project.
- Provide a vicinity map with north arrow.
- Provide an index of plan sheets if more than one plan sheet.

ENG RVW

- Provide a key map if more than one plan sheet.
- Provide the property owner's name, address, and telephone number.
- Provide the Professional Engineer's name, address, and telephone number
- Provide the address and legal description of the project.
- Provide the appropriate processing numbers including: KIVA#, SDEV#, Building log, and city Quarter Section Number in lower right corner.
- Provide a legend identifying grades, symbols, lines, etc.
- Provide an As-Built Certification Statement as follows (include on the plans)

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 THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED ENGINEER/ LAND SURVEYOR

DATE

REGISTRATION NUMBER

NOTES FOR SOIL NAIL SHORING PLANS
(To appear on cover sheet)

Soil Nail Shoring Notes (City of Phoenix)

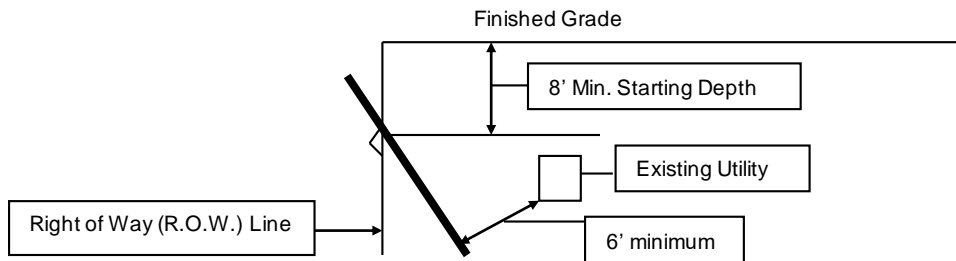
- The Revocable Permit number for this permit is RP-_____.
- Planning & Development Department Field Inspection Group shall be notified 48 hours before any on-site and/or off-site construction begins, telephone (602) 262-7811.
- Soil nails to be removed to a depth of 20' per Section III.C.10. of the City of Phoenix Traffic Barricade Manual.
- An approved Soil Nail Shoring Plan shall be on the job site at all times. Deviations from the plan must be preceded by an approved plan revision.
- The owner/developer is required to video the existing storm drain before and after the soil nail installation to confirm no contact or damage has been done to the storm drain pipe. The Civil Engineer of record will review the tapes and provide a sealed letter that states no damage has been done to the existing storm drain during construction. The before and after video and the sealed letter shall be submitted to the Planning & Development Civil/Site Inspector to route to Street Transportation Floodplain Management once all of the construction has been completed.
- The Planning & Development Civil/Site Inspector shall coordinate with Water Services Department to video the existing sewer system after the soil nails have been installed to ensure no contact or damage has occurred to the existing sewer system.
- Soil nails shall be a minimum of eight (8) feet below finished grade. Soil nails shall have a minimum of six (6) feet separation on all sides of any utility.
- An electronic CAD file and legal description of the plan showing the area of the Right-Of-Way the nails are in will be provided on a Compact Disk (CD) upon completion of the shoring. The CD will be sent to Floodplain Management by the Planning & Development Department Civil/Site Inspector for recording in the city of Phoenix GIS mapping system.

ENG RVW

- All soil nails within the city of Phoenix Right-Of-Way are required to be as built for location and penetration depth using city of Phoenix datum benchmarks. As-built plans are to be submitted to the Planning & Development Department Civil/Site Inspector to be routed to Street Transportation Floodplain Management upon permit completion.
- The Engineering Design on these plans is only approved by the city in scope and not in detail. Construction quantities on these plans are not verified by the city. Approval of these plans are for permit purposes only and shall not prevent the city from requiring correction of errors in the plans where such errors are subsequently found to be in violation of any law, ordinance, health, safety, or other design issues.
- The city of Phoenix Police Department enforces laws regulating the operation of commercial vehicles. This includes enforcement of federal, state, county and local laws and ordinances. Questions regarding Commercial Vehicle Enforcement may be directed to the Commercial Vehicle Enforcement Supervisor at (602) 495-7813 (Traffic Bureau South) or (602) 495-6784 (Traffic Bureau North)
- Plan approval is valid for 12 months. Prior to plan approval expiration, all associated permits shall be purchased, or the plans shall be resubmitted for extension of plan approval. The expiration, extension, and reinstatement of Civil Engineering plans and permits shall follow the same guidelines as those indicated in the Phoenix Building Construction Code Administrative Provisions Section 105.3 for Building permits.

Plan Sheet Requirements

- Provide the Civil Engineer's Arizona seal and original signature (on each sheet).
- Scale selected for each sheet. One-inch equals 40 feet (maximum) for all projects.
- Provide the location, angle, and depth of the first row of soil nails by determining and maintaining six (6) foot clearance from the soil nail to the closest existing utility.



- Show the area within Right-Of-Way being affected by the soil nails delineated.
- Provide the distance and bearing from a section corner to the property corner.
- Provide shoring method details indicating length, angle, material, etc.
- Provide the elevation of each soil nail head using a city of Phoenix benchmark (C.O.P. Datum required).

Note: On plans NGVD 29 (National Geodetic Vertical Datum 1929)

- All existing utilities and drainage facilities, including private or S.R.V.W.U.A. irrigation, within and adjacent to the property boundaries shall be shown. All utilities shall be dimensioned from street monument lines.

ENG RVW

- Show all existing and proposed easements, dedications, right-of-way, streets, and alleys with dimensions and offsets. Streets shall be identified by name. Streets, alleys, and easements shall be dimensioned at least once and at all breaks. Monument line of streets shall be shown.
- All proposed and existing structures, paving and other topographic features affected by construction shall be shown.

PLANS FOR REVISION

ENG RVW

- All original plan approvals, signatures, and seals are to remain on the revised plans.
- All plans revised after the original approval shall be resubmitted for review and approval. The nature of the revisions must be called out on the cover sheet and on the sheet(s) which have been revised. The revision number itself shall consist of a numeral within a triangle next to each revision. Δ Changes on each plan sheet shall be highlighted with "clouding".
- All revised sheets, including the cover sheet are to be re-sealed, signed and dated.

EXTENSIONS

- All plans submitted for extension require a new signature block and are to be re-signed by the submitting designer. Plan extensions are to be highlighted with "clouding" as specified in the plan revision process above. The plan sealant shall note that this change is a plan extension. A new approval signature block is required to be added to the coversheet for approval of the extension. All plan extensions must have prior approval by completing the Plan Review Extension Application.

The Plan Review Extension Application can be found at the following site:
<https://www.phoenix.gov/pdd/development/sitecivil/civil>. Provide a copy of the approved application with the plan submittal.

- Plan approvals for extension are valid for a period of 360 days from the date of plan approval.