



INVITATION FOR BID # 16PB020

SHEA TUNNEL ACCESS SHARED USE PATHWAY

ADDENDUM #1

MAY 2, 2016

NOTICE TO ALL BIDDERS AND PLAN HOLDERS

The Solicitation is amended by the following clarifications/changes/additional information. If any provision in this Addendum conflicts with any existing provisions in the Solicitation, this Addendum will control. All other terms, conditions, and provisions of the Solicitation remain in effect as published.

BID SUBMITTAL DEADLINE

The submittal due date and time **remains** 10:00 A.M. LOCAL TIME, MAY 13, 2016 and is **NOT CHANGED BY THIS ADDENDUM.**

1. **CHANGES/CLARIFICATIONS**

A. SPECIFICATIONS/SCOPE OF WORK/SPECIAL PROVISIONS

1. **DELETE** Item 108000 Force Account Extra Work from page SP-38 of Special Provisions Technical Specifications.
2. Temporary shoring is required for the upper 9' of existing soil at Wall 02 to support and protect the existing property wall adjacent to Wall 02. Temporary shoring is not required where the existing property wall is not present. The contractor shall develop a temporary shoring plan and submit supporting calculations and details of temporary shoring to the Engineer for review and approval prior to ordering material or starting construction of Wall 01 & Wall 02.
3. The test pit TP-1, as shown in the attached geotechnical investigation by Speedie and Associates dated January 20, 2011, is 8.5 feet deep and shows that cementitious density increases with depth. Excavation limits shown on the plans for the proposed wall are based on the cementitious material being present for the entire depth of the excavation. During excavation, if soil conditions differ from materials encountered at the bottom of TP-1, the contractor shall stop excavation work and notify the engineer.
4. Be aware of the ADOT FHWA requirements to this solicitation. All federal rules & regulations apply, including Buy America.

B. BID SHEET/SCHEDULE OF BID ITEMS

1. **DELETE** Bid Sheet pages 66, 67 and 68, **REPLACE** with "REVISED – pages 66, 67 and 68. (attached).

2. **CONTRACTOR QUESTIONS AND ANSWERS**

The following are the Questions and Answers and additional information that were brought up as a result of the **Pre Bid meeting** on April 25, 2016 and Questions and Answers as a result of the Questions deadline of April 29, 2016:

Q1 Fencing screen material – Can fabric be used instead of slates?

A1 Yes.

Q2 Does the entire pathway need to be fenced off

A2 As necessary to protect the public and as noted in the plans and specifications.

Q3 Scottsdale paths have stripes; no stripes are being called out in this project, is that correct?

A3 Yes, that is correct. No stripes are required for multi-use paths.

Q4 Mock ups for bench are 30 days?

A4 Refer to the specifications/drawings for all mock up requirements.

Q5 If nests are discovered, will work continue?

A5 Environmental measurers specified in the contractor mitigation responsibilities must be followed.

Q7 In reference to Page SP-22, Quality control, paragraph one. The contractor shall make arrangements to accommodate up to 3 testing agencies for any given test. Will this require the contractor to engage in 3 separate contracts and list all three in the sub list?

A7 The contractor is responsible for their quality control and quality assurance per the specifications. The contractor will be responsible to accommodate both the City and a third party testing agency as necessary.

Q8 In reference to Page SP-46 item 340290 Non Slip Path Treatment, paragraph 2. Color for the path shall contrast with the adjoining surfaces either light on dark or dark on light. There will be two different types of surfaces to be treated, asphalt and concrete driveways with one being colored. Will all surfaces be treated with just one chosen color scheme?

A8 The contrast of light on dark or dark on light must be maintained. Two colors may be necessary for existing conditions.

Q9 In reference to Page SP-53 item 401001 Traffic Control paragraph 6. Contractor will notify residents and businesses 14 calendar days prior to the start of construction. What will be the preferred method. Scottsdale web site? Door hangers, or Signage?

A9 Contractor will need to provide notification with both signage and door hangers.

Q10 Will the city provide a yard or staging area?

A10 No. The contractor needs to provide any staging or yard area necessary for their operations.

Q11 After reviewing the specifications and plans for item Hydroseeding (Native Seed Mix) the seed mix is shown on sheet 77 of 105 L202 but there is no PLS/LBS application rate per acre listed for the species outlined. This also falls back on the MAG standards which only have a section for turf and do not have an outline for the materials to accompany the seeding application typical with a native mix applications. These materials would consist of mulch, tacking agent and if required soil amendments. Please clarify.

A11 Attached is the PLS/LBS application rate per acre listing for the native seed species outlined on sheet LS02. The outline for the materials to accompany the seeding application (ie, mulch, tacking agent and soil amendments) can be found in the 2015 COS Supplement Specifications (430.3.6 Hydro-Seeding Restoration Areas).

Q12 Is Builders Risk Insurance Required for this project?

A12 The insurance requirements are detailed in the specifications.

Q13 Will any Native Plant relocation be required?

A13 Please review the plans and specifications for the salvage and relocation bid items.

Q14 The specs read that the Contractor gets the TCE's. Will any be required?

A14 The plans reflect the current land rights for construction of the project.

Q15 How is the Contractor to confirm the validity of the Geotech report?

A15 The Geotechnical Engineering Report dated 10.28.15 is included in the specifications.

Q16 Regarding CAP right to inspect on page SP-12, will CAP approval of the work be required on this project?

A16 CAP has the right to inspect any work within their property rights. The City of Scottsdale will approve all work under this construction bid contract.

Q17 Could the COS provide CAP requirements and specs to the bidders?

A17 The CAP requirements are incorporated into the construction plans and specifications.

Q18 For item, 108000, Force Account, what \$ amount should be input?

A18 For item 108000, Force Account has been deleted from the revised Bid Sheet issued as part of this Addendum.

Q19 Can the "Sample Area" of shotcrete be incorporated in the final project?

A19 If the City of Scottsdale accepts the work it will be incorporated into the project.

Q20 What color should be use in the S/W concrete?

A20 Please see the plans and specifications for the color determination.

Q21 What color is the curb to be painted?

A21 Please see the plans and specifications for the color determination.

Q22 Do all bidding contractors have to be ADOT approved at the time of Bid?

A22 Yes.

Q23 Does the DBE Participation Affidavit have to be turned in by 5/20/16?

A23 The DBE participation documentation procedure established by ADOT must be followed.

Q24 Regarding the "Plan Sheet" on the right side of the Gabion Wall detail, do the layer of Gabion wall need to be battered as they are placed?

A24 Please review specifications, structural details and the plans for Gabion Wall Construction.

Q25 Wall #2, North of access tunnel – Shoring may be required per specifications/drawings

A25 Shoring may be required as noted on the plans to construct the retaining walls and to protect existing structures.

4. ATTACHMENTS

REVISED BID SHEET

EXHIBIT A – GEOTECHNICAL INVESTIGATION LETTER

EXHIBIT B - DESERT RESTORATION-NATIVE SEED MIX

By signing and submitting a Bid or Proposal, the Bidder/Proposer is acknowledging that they will abide by all Addenda issued prior to the opening of the Bids/Proposals and agreeing that all pricing takes into account all such Addenda.

END OF ADDENDUM #1

Cheryl Champine, CPPB, PSCM
Bid & Contract Specialist
cchampine@ScottsdaleAZ.gov

CITY OF SCOTTSDALE
SHEA TUNNEL ACCESS SHARED USE PATHWAY - SHEA BLVD TO CAP CANAL
REVISED BID SHEET

Federal Aid Project No.: SCT-0(226)D
ADOT Project No.: 0000 MA SCT SZ161 01C/01D
COS Bid No. 16BP020

COS ITEM NO.		UNIT	QUANTITY	UNIT PRICE	TOTAL
Civil					
104150	PROJECT SIGNS (NEW)	EA	4		
201001	CLEARING & GRUBBING	ACRE	4		
205001	ROADWAY EXCAVATION	CY	9,795		
206001	STRUCTURAL EXCAVATION	CY	3,245		
206101	STRUCTURAL BACKFILL	CY	1,109		
220406	DUMPED RIPRAP (D50=6")	CY	163		
220409	DUMPED RIPRAP (D50=9")	CY	25		
220412	DUMPED RIPRAP (D50=12")	CY	53		
220422	WIRE ENCLOSED RIPRAP (D50=12")	CY	48		
220500	SHOTCRETE	CY	56		
340021	RIBBON CURB, MAG 220 TYPE "B"	LF	41		
340065	SINGLE CURB, (MAG 222 TYPE A MODIFIED)	LF	50		
340066	SINGLE CURB, (MAG 222 TYPE B MODIFIED)	LF	35		
340205	CONCRETE SIDEWALK, MAG 230 (5" THICK)	SF	8,862		
340243	EXPOSED AGGREGATE SIDEWALK	SF	194		
340290	NON SLIP TREATMENT (PATH TREATMENT)	SF	5,395		
340295	NON-SLIP TREATMENT (SHOULDER TREATMENT)	SF	120		
345003	FRAME & COVER GRADE ADJUSTMENT, COS 2270	EA	1		
350111	REMOVE FENCE	LF	76		
350115	REMOVE & REINSTALL TRAIL ACCESS GATE	EA	1		
350604	REMOVE SIGN, POST & POST BASE	EA	3		
350661	REMOVE AND SALVAGE LANDSCAPE LIGHT	EA	4		
350716	REMOVE (STRUCTURAL CONCRETE)	CY	11		
401001	TRAFFIC CONTROL	LS	1		
402401	REFLECTIVE TRAFFIC SIGN PANEL	SF	88		
402411	TELESPAR SIGN POST, COS 2131	LF	207		
402412	TELESPAR SIGN POST BASE ASSEMBLY (SLEEVE & ANCHOR), COS 2131	EA	19		
420012	STEEL RAIL FENCE, COS 2682	LF	1,225		
505103	LIGHTWELL	EA	1		

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ADOT Project No.: 0000 MA SCT SZ161 01C/01D
COS Bid No. 16BP020

COS ITEM NO.		UNIT	QUANTITY	UNIT PRICE	TOTAL
505402	BOX CULVERTS	LF	22		
505462	BOX CULVERT WINGS	EA	2		
505826	RETAINING WALL (ADOT SD 7.01)	SF	569		
505827	RETAINING WALL (GABION)	CY	2,280		
520001	STEEL HANDRAILS, COS 2508	LF	115		
610803	FIRE HYDRANT RELOCATION, MAG 360 & 362	EA	1		
618018	18" STORM DRAIN PIPE	LF	118		
618740	STORM DRAIN OUTLET BARRIER GATE (ADOT C-13.75)	EA	2		
Electrical					
403222	ELECTRIC SERVICE CABINET (INCLUDING CONTROLS, FOUNDATION & POWER COMPANY CONNECTION)	LS	1		
403941	CONDUCTORS AND BOND WIRES (COMPLETE AND IN PLACE; INCLUDES ALL SPLICES AND TERMINATIONS FOR A COMPLETE SET OF CONDUCTORS FOR THE CIRCUIT)	LF	850		
404202	CONCRETE PULL BOX	EA	2		
640311	STREET LIGHT CONDUIT AND TRENCH	LF	550		
640601	LUMINAIRES (LED CEILING MOUNTED LIGHTS)	EA	9		
640602	LUMINAIRES (LED AREA LIGHT, POLE AND FOUNDATION)	EA	2		
Hardscape & Landscape					
430003	DECOMPOSED GRANITE, (STABILIZED)	SY	2,702		
430009	HYDROSEEDING (NATIVE SEED MIX)	ACRE	1.6		
430201	SHRUBS, 1 GAL. (COS 2620)	EA	40		
430202	SHRUBS, 5 GAL. (COS 2620)	EA	206		
430203	CACTUS, 5 GAL. (COS 2620)	EA	74		
430204	CACTUS (OCOTILLO) (15 GAL) (8 CANE MIN) (COS 2620)	EA	12		
430302	TREES, 15 GAL. (COS 2620)	EA	2		
430502	SAGUARO (6' MIN HT) (COS 2620)	EA	10		
430604	SALVAGE & RELOCATE NATIVE CACTI (SAGUARO) (COS 2620)	EA	1		
430621	SALVAGE & RELOCATE NATIVE TREES (COS 2620)	EA	10		
430702	NATIVE PLANT SALVAGE/STORAGE (TEMPORARY NURSERY)	LS	1		
440835	LANDSCAPE RESTORATION	LS	1		
440836	LANDSCAPE (PROTECT IN PLACE - TREES, SHRUBS, AND CACTUS)	LS	1		
505851	ARCHITECTURAL SURFACE TREATMENTS	LS	1		
515206	6'- 0" GABION BASKET BENCH	EA	2		

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COS ITEM NO.		UNIT	QUANTITY	UNIT PRICE	TOTAL
Erosion Control					
430901	STORM WATER POLLUTION PREVENTION PLAN, MAINTENANCE AND PERMITS	LS	1		
Irrigation					
440808	MISC. IRRIGATION ITEMS (SOLID TUBE & 2 GEL PACS)	LS	1		
440809	MISC. IRRIGATION ITEMS (ADDITIONAL GEL PACS)	LS	1		
440931	IRRIGATION RESTORATION (PRIVATE PROPERTY)	LS	1		
440935	IRRIGATION (SALVAGE / PROTECT IN PLACE - TREES, SHRUBS, AND CACTUS)	LS	1		
Project Wide					
105801	CONSTRUCTION SURVEYING	LS	1		
105820	AS-BUILTS	LS	1		
401102	OFF-DUTY POLICE OFFICER (CONTINGENCY)	HR	40	\$65.00	\$2,600.00
800001	MOBILIZATION / DE-MOBILIZATION	LS	1		
800002	CONTRACTOR QUALITY CONTROL	LS	1		
800020	PROJECT CONTINGENCY (5% OF CONSTRUCTION ITEMS TOTAL)	LS	1		
Project Total					

January 20, 2011

Ms. Robin Rodgers
City of Scottsdale – Capital Improvements
7447 East Indian School Road, Suite 205
Scottsdale, AZ 85251

RE: Project No. 110016SA
Mountain View Trail (North Approach)
NEC Shea Boulevard and 124th Street
Scottsdale, AZ

Dear Robin:

This letter summarizes our findings and observations from the test pit investigation for the proposed Mountain View Trail segment located northeast of the Shea Boulevard and 124th Street intersection. A pathway will be constructed from the existing 10' by 10' box culvert running underneath Shea Boulevard, north to Sahuaro Drive. Cuts on the order of 10 to 12 feet are expected on the south end near the box culvert, which decrease in depth to existing grade at approximately 250 feet north of the box culvert.

On January 10th, 2011 three (3) test pits were excavated to determine the subsoil conditions, and the potential difficulty of excavation. It is noted that how easily a material is excavated is largely affected by the effort applied by the contractor, the equipment utilized, and the geometry of the excavation. Seismic refraction techniques were not utilized during this investigation, therefore rock velocities are not known - therefore, the general excavatability of the material was estimated based upon the relative difficulty in excavating the test pits with a backhoe.

Alluvial soil (upper 1 to 2 feet) – This sandy clay material with gravel and trace cobble should be excavatable with conventional earth moving equipment. A bulk sample (TP-2 BS-1) of this material was collected from Test Pit TP-2. The results from laboratory testing are attached.

Depending on its desired end use and any relevant specifications, it may require some screening of oversized material in order to produce suitable fill materials. Approximately 10% of our sample of this material consisted of cobble (3 to 12 inches in its least dimension).

It is also noted that the fine (medium sand or finer) fraction of this material exhibited high plasticity and a significant potential for expansion when subjected to an increase in moisture content. This too, may limit or prevent its use in some subsequent fill applications, unless it is blended with the deeper, non-plastic, non-expansive material found beneath it.

Moderately calcareously-cemented sand, gravel and cobble (2 to 8 feet in depth) – The upper few feet of this material is generally easily excavatable. However, this material becomes more cemented with depth and as one moves north from the box culvert, and therefore will be more difficult to excavate.

The fact that the test pits were excavated to a certain depth, utilizing a standard backhoe with an 18-inch bucket, does not mean that the soils may be excavated by standard means and methods. A hydraulic ram-hoe may be necessary in the deeper or more northern portions of the excavation. However, the excavating contractor must make their own assessment as to excavatability, relative to their intended means and methods.

A bulk sample (TP-1 BS-1) of this material produced from TP-1 was collected and tested, and these results are attached. The subsequent use of the excavated material as fill will be dependant upon its intended use and/or controlling specification.

Although the fine (medium sand or finer) fraction of this material was found to be non-plastic, with no potential for expansion upon wetting, there is a significant amount cementation, and both gravel and cobble (approximately 30% at our TP-1 test location) present.

As a result, the excavated material may lack sufficient fines and have excessive amounts of oversize rock relative to most common fill specifications. Therefore, depending on its intended use, it may require blending with the upper alluvial stratum, as well as having the larger rock and more strongly cemented conglomerate removed by screening, in order to be suitable for use as fill.

Should you have any questions regarding this investigation, or require additional information, please do not hesitate to contact our office.

Respectfully submitted,

SPEEDIE & ASSOCIATES, INC.



Keith R. Gravel, P.E.



Brett P. Creaser, P.E.





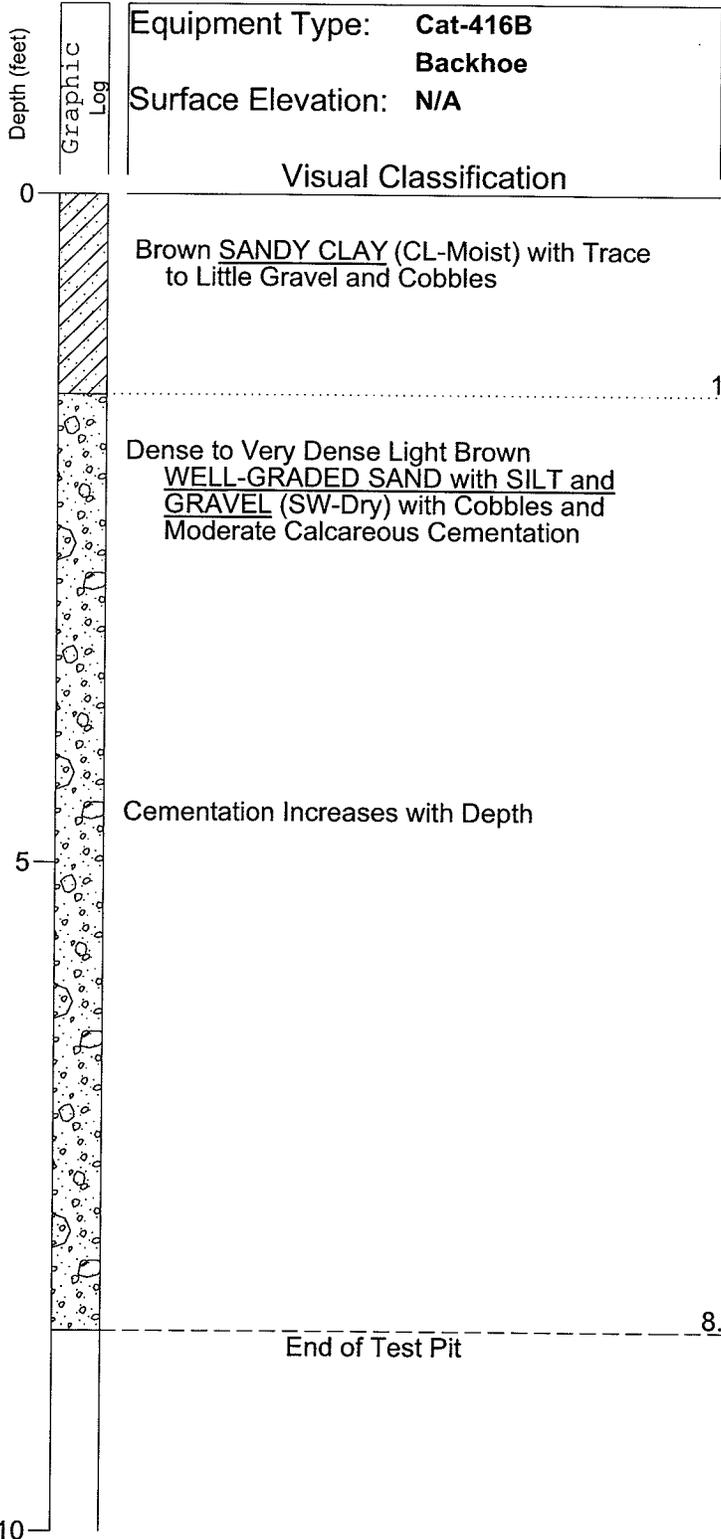
 - APPROXIMATE TEST PIT LOCATIONS



SOIL BORING LOCATION PLAN

SHEA BOULEVARD & 124TH STREET PATH
 NEC SHEA BOULEVARD & 124TH STREET
 SCOTTSDALE, ARIZONA

DR:	BJA	CHK:	REV:	DATE:	1/19/2011	PROJECT NO.:	110016SA
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Sample Number	Depth of Sample	Natural Water Content (%)	In-place Dry Density (P.C.F.)	Penetration Resistance Blows per Foot
BS-1	8.0	NT	NT	

Excavation Date: **1-10-11**
 Field Engineer/Technician: **K. Gravel**
 Excavator: **C. Litmer**
 Contractor: **Diggin' Dog Inc.**

Water Level		
Depth	Hour	Date
Free Water was Not Encountered		

NT = Not Tested

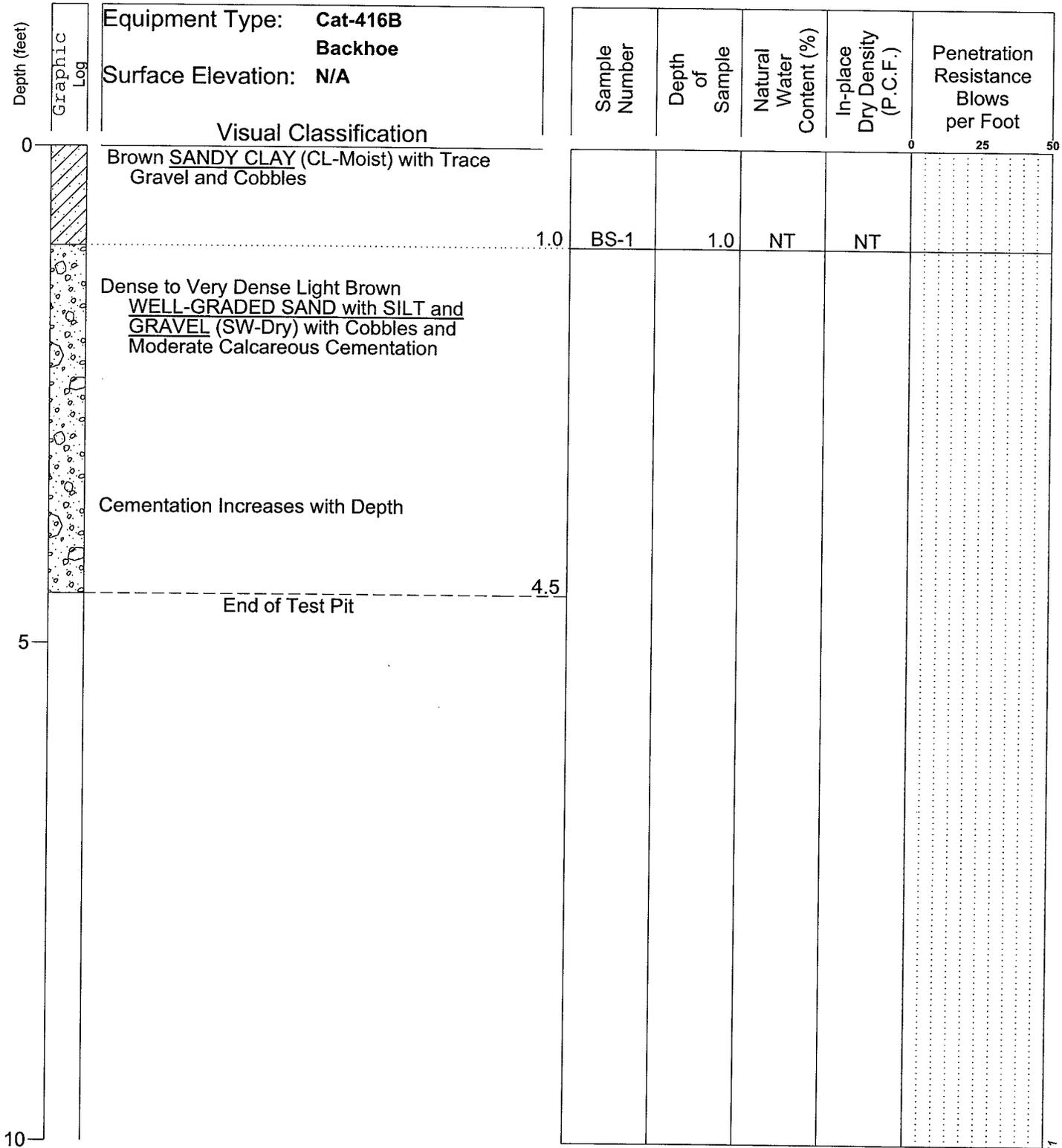
SPEEDIE AND ASSOCIATES

Log of Test Pit Number: **TP-1**

Shea & 124th Street Path
NEC Shea Boulevard & 124th St
Scottsdale, Arizona

Project No.: **110016SA**

TEST PIT 110016SA.GPJ GENGEO.GDT 1/20/11



Equipment Type: **Cat-416B Backhoe**
 Surface Elevation: **N/A**

Visual Classification

0
 Brown SANDY CLAY (CL-Moist) with Trace Gravel and Cobbles

1.0

Dense to Very Dense Light Brown WELL-GRADED SAND with SILT and GRAVEL (SW-Dry) with Cobbles and Moderate Calcareous Cementation

Cementation Increases with Depth

4.5
 End of Test Pit

5

10

Excavation Date: **1-10-11**
 Field Engineer/Technician: **K. Gravel**
 Excavator: **C. Litmer**
 Contractor: **Diggin' Dog Inc.**

Water Level		
Depth	Hour	Date
<i>Free Water was Not Encountered</i>		

NT = Not Tested

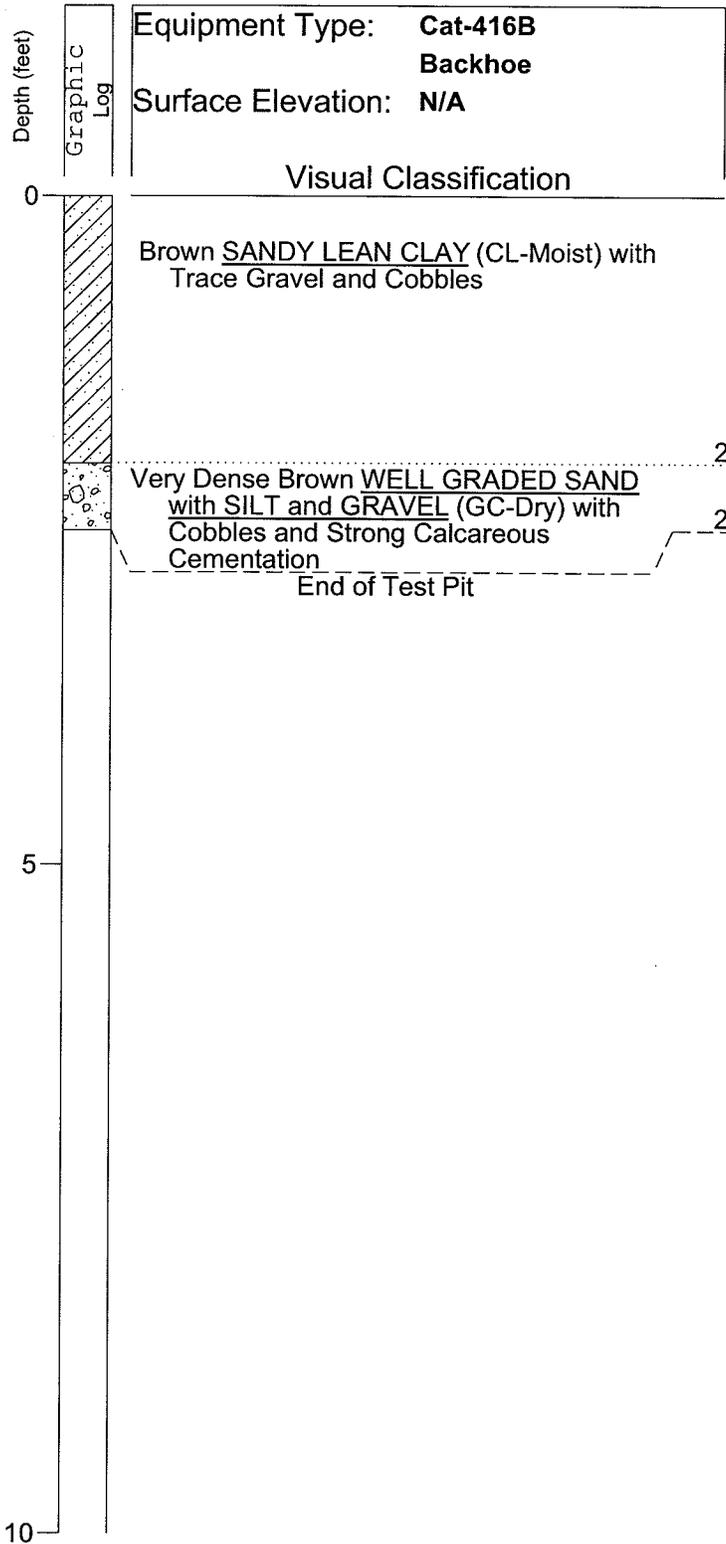
SPEEDIE AND ASSOCIATES

Log of Test Pit Number: **TP-2**

Shea & 124th Street Path
NEC Shea Boulevard & 124th St
Scottsdale, Arizona

Project No.: **110016SA**

TEST PIT 110016SA.GPJ GENGE0.GDT 1/20/11



Sample Number	Depth of Sample	Natural Water Content (%)	In-place Dry Density (P.C.F.)	Penetration Resistance Blows per Foot
				0 25 50

Excavation Date: **1-10-11**
 Field Engineer/Technician: **K. Gravel**
 Excavator: **C. Litmer**
 Contractor: **Diggin' Dog Inc.**

Water Level		
Depth	Hour	Date
Free Water was Not Encountered		

NT = Not Tested

SPEEDIE AND ASSOCIATES

Log of Test Pit Number: **TP-3**

Shea & 124th Street Path
NEC Shea Boulevard & 124th St
Scottsdale, Arizona

Project No.: **110016SA**

TEST PIT 110016SA.GPJ GEN GEO.GDT 1/20/11

TABULATION OF TEST DATA

SOIL BORING or TEST PIT NUMBER	SAMPLE NUMBER	SAMPLE TYPE	SAMPLE INTERVAL (ft)	NATURAL WATER CONTENT (Percent of Dry Weight)	IN-PLACE DRY DENSITY (Pounds Per Cubic Foot)	PARTICLE SIZE DISTRIBUTION (Percent Finer)					ATTERBERG LIMITS			UNIFIED SOIL CLASSIFICATION	SPECIMEN DESCRIPTION
						#200 SIEVE	#40 SIEVE	#10 SIEVE	#4 SIEVE	3" SIEVE *	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX		
TP-1	BS-1	BULK	2.0 - 8.0	NT	NT	8	17	42	64	100	NP	NP	NP	SW-SM	WELL-GRADED SAND with SILT and GRAVEL
TP-2	BS-1	BULK	0.0 - 1.0	NT	NT	68	79	92	97	100	NP	18	23	CL	SANDY LEAN CLAY

* Sieve analysis results do not include material greater than 3". Refer to the boring logs and report regarding the presence of oversized materials.

NT=Not Tested

Sheet 1 of 1

Shea & 124th Street Path
NEC Shea Boulevard & 124th St
Scottsdale, Arizona
Project No. 110016SA

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SWELL TEST DATA

BORING or TEST PIT No.	SAMPLE DEPTH, ft	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE CONTENT (%)	REMOVED DRY DENSITY (pcf)	INITIAL MOISTURE CONTENT (%)	PERCENT COMPACTION	FINAL MOISTURE CONTENT (%)	CONFINING LOAD (psf)	TOTAL SWELL (%)
TP-1, BS-1	8.0	115.0	12.8	109.2	11.1	94.9	15.9	100	0.0
TP-2, BS-1	1.0	111.5	15.4	105.9	13.7	94.9	23.4	100	5.5

SWELL TEST 110016SA.GPJ GENGE0.GDT 1/19/11

Shea & 124th Street Path
 NEC Shea Boulevard & 124th St
 Scottsdale, Arizona
 Project No. 110016SA

**SPEEDIE
AND ASSOCIATES**

MOISTURE-DENSITY RELATIONS

PROJECT: Shea & 124th Street Path

PROJECT NO.: 110016SA

LOCATION: NEC Shea Boulevard & 124th St

DATE: 1/10/11

BORING NO.: TP-1

SAMPLE NO.: BS-1

SAMPLE DEPTH: 2 to 8

LABORATORY NO.: HT771

METHOD OF COMPACTION: D698A

LIQUID LIMIT: NP

PLASTIC LIMIT: NP

PLASTICITY INDEX: NP

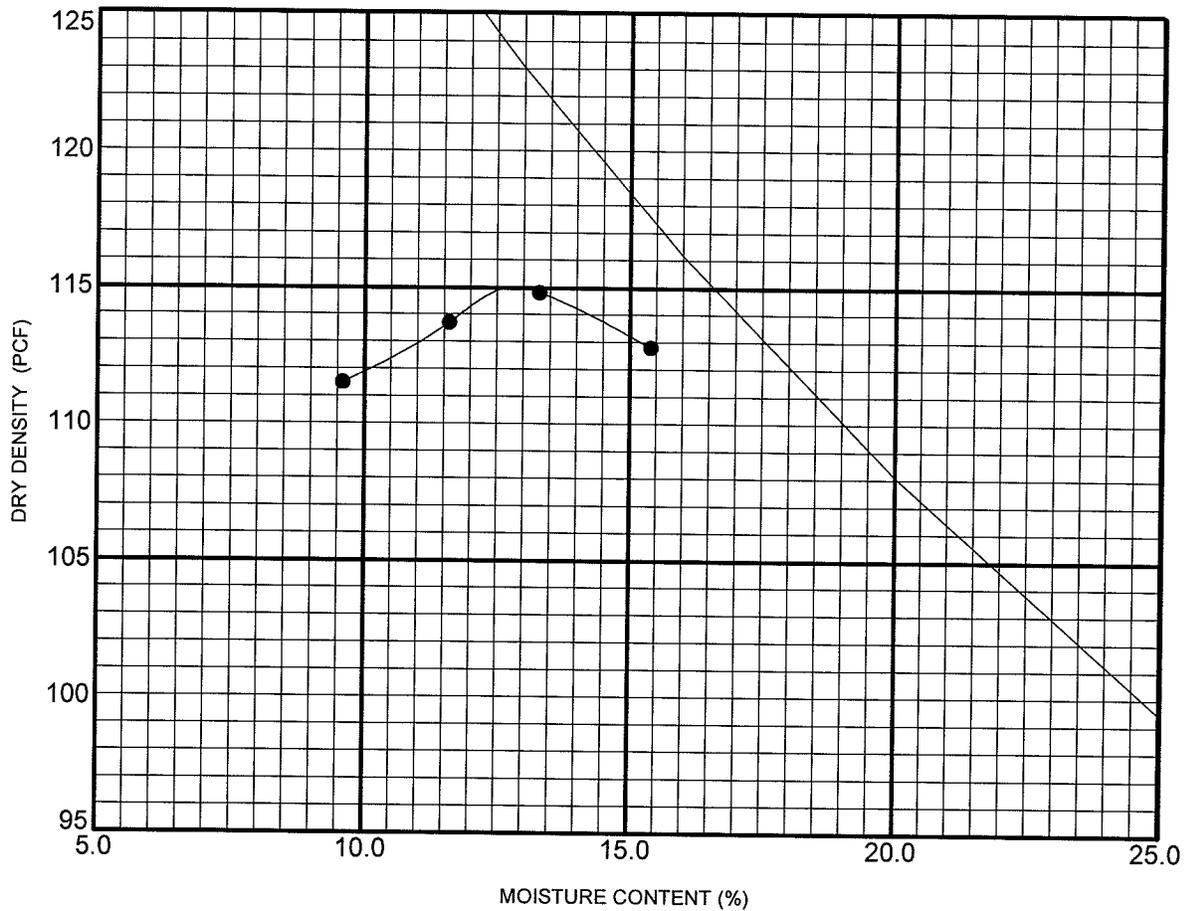
CLASSIFICATION: SW-SM

ASTM SOIL DESCRIPTION:

WELL-GRADED SAND with SILT and GRAVEL

MAXIMUM DRY DENSITY: 115.0 PCF

OPTIMUM MOISTURE CONTENT: 12.8%



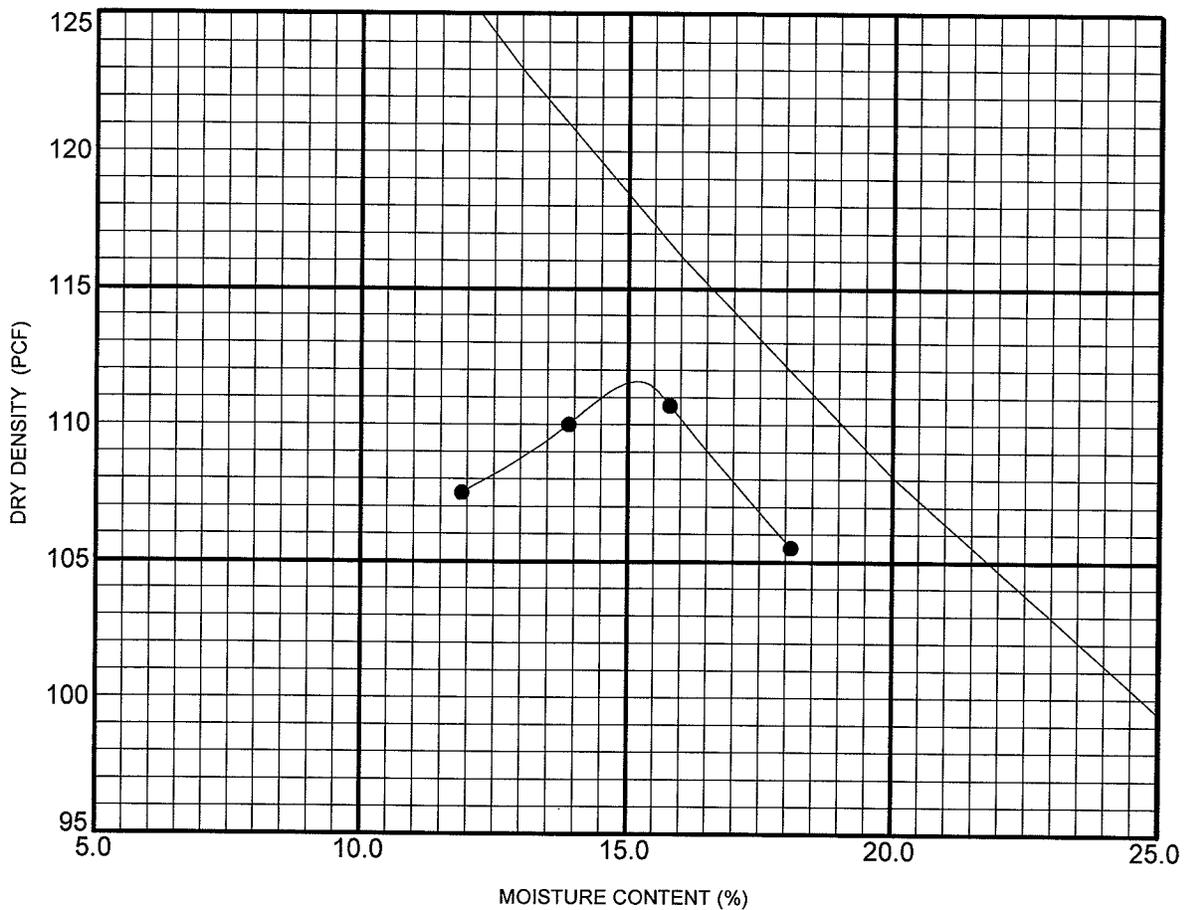
**SPEEDIE
AND ASSOCIATES**

MOISTURE-DENSITY RELATIONS

PROJECT: Shea & 124th Street Path PROJECT NO.: 110016SA
LOCATION: NEC Shea Boulevard & 124th St DATE: 1/10/11
BORING NO.: TP-2 SAMPLE NO.: BS-1 SAMPLE DEPTH: 0 to 1 LABORATORY NO.: HT770
METHOD OF COMPACTION: D698A
LIQUID LIMIT: 41 PLASTIC LIMIT: 18 PLASTICITY INDEX: 23
CLASSIFICATION: CL ASTM SOIL DESCRIPTION: SANDY LEAN CLAY

MAXIMUM DRY DENSITY: 111.5 PCF

OPTIMUM MOISTURE CONTENT: 15.4%



**SPEEDIE
AND ASSOCIATES**

IFB 16PB020 SHEA ACCESS TUNNEL SHARED USE PATHWAY			
DESERT RESTORATION - HYDROSEED MIX			
NATIVE DESERT RE-ESTABLISHMENT AREAS			
Botanical Name	Common Name	PLS Rate (Pounds Per	Per Pound Value for Substitution
Grasses			
Aristida purpurea	Purple Three Awn	1.0	\$45
Bouteloua aristidoides	Needle grama	0.5	\$20
Bouteloua rothrockii	Six Week's Grama	0.5	\$30
Sporobolus airoides	Alkali sacaton	0.5	\$9
Wildflowers/Forbs			
Baileya multiradiata	Desert Marigold	1.0	\$70
Cassia couesii	Desert Senna	1.0	\$40
Lesquerella gordonii	Gordons Bladderpod	1.0	\$40
Phacelia crenulata	Desert Phacelia	1.0	\$30
Plantago ovata	Desert Indian Wheat	2.0	\$5
Sphaeralcea ambigua	Desert Globemallow	1.0	\$55
Shrubs (suffrutescent)			
Ambrosia deltoids	Triangle Leaf Bursage	4.0	\$25
Ambrosia dumosa	White Bursage	4.0	\$30
Encelia farinosa	Brittlebush	0.5	\$18
Woody Shrubs and Trees			
Acacia constricta	White Thorn Acacia	0.5	\$20
Acacia greggii	Catclaw Acacia	2.0	\$17
Atriplex lentiformis	Quail Bush	0.5	\$15
Cercidium floridum	Blue Palo Verde	0.5	\$13
Prosopis juliflora velutina	Velvet Mesquite	0.1	\$19
Per Acre Subtotal Value			\$501.00
Temporary above ground irrigation system			
21.0 Pounds total per Acre			
PLS= Pure Live Seed = Purity x Germination			
Seed to be applied according to recommended rates			