



PUBLIC NOTICE

U.S. ARMY CORPS OF ENGINEERS
LOS ANGELES DISTRICT

BUILDING STRONG®

APPLICATION FOR PERMIT

Agua Fria River Sand and Gravel Mine Reclamation

Public Notice/Application No.: SPL-2018-00655-MWL

Project: Agua Fria River Sand and Gravel Mine Reclamation

Comment Period: September 6, 2019 through October 7, 2019

Project Manager: Michael Langley; (602) 230-6953; Michael.W.Langley@usace.army.mil

Applicant

Craig Hills
San-Man, Inc.
1498 West Melody Drive
Gilbert, AZ 85233

Location

The project is located within the Agua Fria River at Lat. 33.682, Lon. -112.302 within Sun City, Maricopa County, Arizona.

Activity

To place 5,055 cubic yards of rip-rap and an additional 2,895,649 cubic yards of fill material within a 28.84-acre area of waters of the U.S. within the Agua Fria River Channel. This work is specifically required by the Maricopa County Flood Control District to comply with a closure plan for the mining operation and ensure the post-closure stability of the river channel. For more information see Additional Project Information section below and the enclosed figures.

Interested parties are hereby notified an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). We invite you to review today's public notice and provide views on the proposed work. By providing substantive, site-specific comments to the Corps Regulatory Division, you provide information that supports the Corps' decision-making process. All comments received during the comment period become part of the record and will be considered in the decision. This permit will be issued, issued with special conditions, or denied under Section 404 of the Clean Water Act. Comments should be mailed to:

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
REGULATORY DIVISION
ATTN: Michael Langley
3636 N. Central Ave, Suite 900
Phoenix, AZ 85012-1939

Alternatively, comments can be sent electronically to: Michael.W.Langley@usace.army.mil

The mission of the U.S. Army Corps of Engineers Regulatory Program is to protect the Nation's aquatic resources, while allowing reasonable development through fair, flexible and balanced permit decisions. The Corps evaluates permit applications for essentially all construction activities that occur in the Nation's waters, including wetlands. The Regulatory Program in the Los Angeles District is executed to protect aquatic resources by developing and implementing short- and long-term initiatives to improve regulatory products, processes, program transparency, and customer feedback considering current staffing levels and historical funding trends.

Corps permits are necessary for any work, including construction and dredging, in the Nation's navigable water and their tributary waters. The Corps balances the reasonably foreseeable benefits and detriments of proposed projects, and makes permit decisions that recognize the essential values of the Nation's aquatic ecosystems to the general public, as well as the property rights of private citizens who want to use their land. The Corps strives to make its permit decisions in a timely manner that minimizes impacts to the regulated public.

During the permit process, the Corps considers the views of other Federal, state and local agencies, interest groups, and the general public. The results of this careful public interest review are fair and equitable decisions that allow reasonable use of private property, infrastructure development, and growth of the economy, while offsetting the authorized impacts to the waters of the United States. The permit review process serves to first avoid and then minimize adverse effects of projects on aquatic resources to the maximum practicable extent. Any remaining unavoidable adverse impacts to the aquatic environment are offset by compensatory mitigation requirements, which may include restoration, enhancement, establishment, and/or preservation of aquatic ecosystem system functions and services.

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR Part 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination- A preliminary determination has been made an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the Arizona Department of Environmental Quality. Section 401 requires any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance.

Coastal Zone Management- Not applicable within the State of Arizona.

Essential Fish Habitat- No Essential Fish Habitat (EFH), as defined by the Magnuson-Stevens Fishery Conservation and Management Act, occurs within the project area and no EFH is affected by the proposed project.

Cultural Resources- The project site is located within a broad active flow area associated with the Agua Fria. For this reason, no cultural resources are presumed to exist within the project site. This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources.

Endangered Species- Preliminary determinations indicate the proposed activity would not affect federally-listed endangered or threatened species, or their critical habitat. Therefore, formal consultation under Section 7 of the Endangered Species Act does not appear to be required at this time.

Public Hearing- Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent (i.e., requires access or proximity to or siting within the special aquatic site to fulfill its basic purpose). Because no fills are proposed within special aquatic sites, identification of the basic project purpose is not necessary. The basic project purpose for the proposed project is mine reclamation. The project is not water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project is to stabilize the area around an inactive open pit sand and gravel mine to prevent erosion within the river bed.

Additional Project Information

Baseline information- The project site consists of an inactive sand and gravel operation that was previous operated within the broad active flow area of the Agua Fria River. This reach of the Agua Fria River has an ephemeral flow regime; no wetlands occur in the general vicinity. Sparse riparian scrub vegetation occurs in this area along with ruderal species that colonize the disturbed areas in the riverbed that have been affected by historic mining activities. The entire sand and gravel operation is located within the river bottom and is considered waters of the U.S.

Project description- The applicant is proposing to stabilize the disturbed river bottom area with rip-rap and soil materials in five phases as shown in the attached figures. Material for rip-rap is available on-site and will be used in the first phase of work. Successive phases involve placement of imported soil materials to the east of the mine pit and also to partially fill the mine pit itself. The construction of fill with defined side slopes is meant to direct storm water flows through the mined area in such a way that any potential erosion, including potential head cuts, can be effectively controlled and minimized. The proposed work matches the specific requirements of the Maricopa County Flood Control District for mine closure and compliance with their floodplain use permit.

Proposed Mitigation- The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: There are no opportunities for the applicant to avoid impacts to waters of the U.S. because the entire site is located within such waters.

Minimization: Considering the overall purpose of the project to address potential erosion impacts to the river channel, and the location of the entire site within waters of the U.S., there are no measures available to minimize impacts to jurisdictional waters.

Compensation: No compensatory mitigation is proposed. Although the impacts to waters of the U.S. would be considered permanent in duration, there would be no permanent loss of aquatic resources; rather, degradation of river channel hydraulic functions would be prevented.

Proposed Special Conditions

Special Conditions have not yet been developed and will be based on the results of the Section 404 permit analysis.

For additional information please call Michael Langley of my staff at (602) 230-6953 or via e-mail at Michael.W.Langley@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.



Regulatory Program Goals:

- To provide strong protection of the nation's aquatic environment, including wetlands.
- To ensure the Corps provides the regulated public with fair and reasonable decisions.
- To enhance the efficiency of the Corps' administration of its regulatory program.

DEPARTMENT OF THE ARMY
LOS ANGELES DISTRICT, U.S. ARMY CORPS OF ENGINEERS
3636 N. Central Ave, Suite 900
Phoenix, AZ 85012-1939

WWW.SPL.USACE.ARMY.MIL/MISSIONS/REGULATORY

LEGAL DESCRIPTION APN 200-12-003A

LOT 4, SECTION 18, TOWNSHIP 4 NORTH, RANGE 1 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN, MARICOPA COUNTY, ARIZONA;

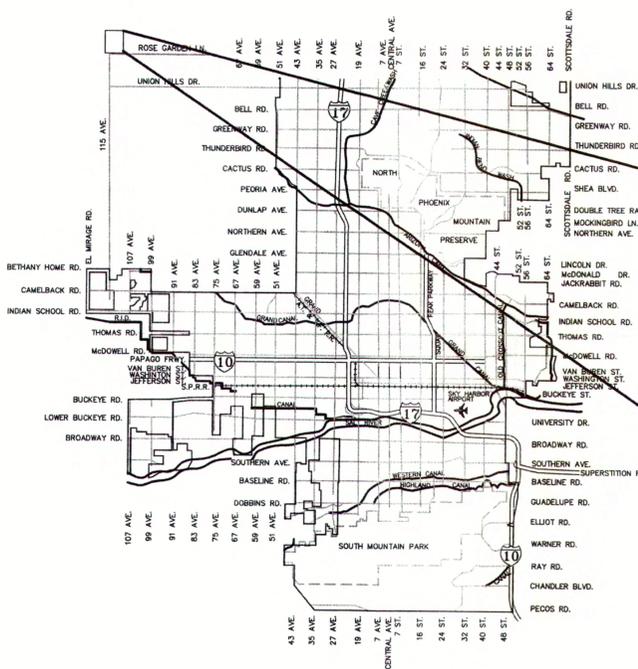
EXCEPT THE FOLLOWING DESCRIBED PARCEL OF LAND:

BEGINNING AT THE NORTHEAST CORNER OF SAID LOT 4, THENCE SOUTH 89 DEGREES 24 MINUTES 56 SECONDS WEST ALONG THE NORTH LINE OF SAID LOT 4, A DISTANCE OF 308.67 FEET;

THENCE SOUTH 48 DEGREES 50 MINUTES 52 SECONDS EAST, A DISTANCE OF 409.76 FEET TO A POINT ON THE EAST LINE OF SAID LOT 4;

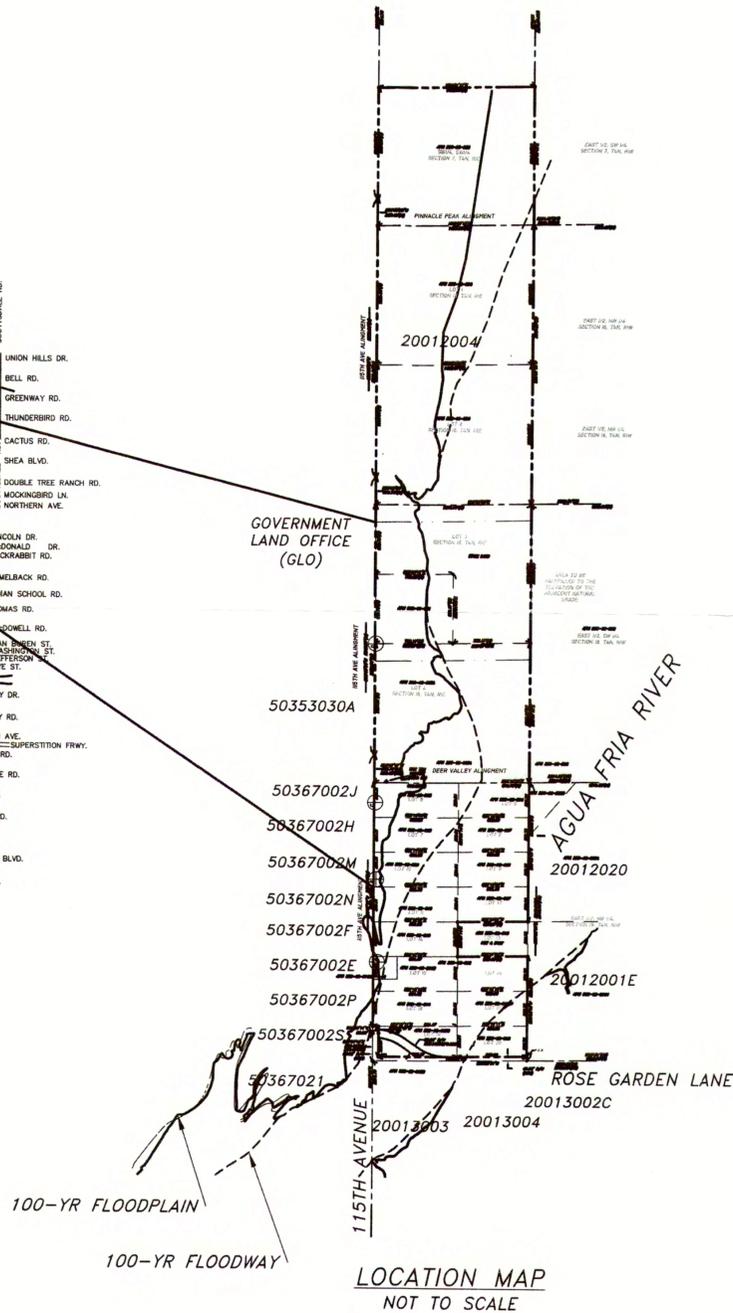
THENCE NORTH 00 DEGREES 01 MINUTES 28 SECONDS EAST ALONG THE EAST LINE OF SAID LOT 4, A DISTANCE OF 272.80 FEET TO THE NORTHEAST CORNER OF SAID LOT 4 AND THE TRUE POINT OF BEGINNING.

AGUA FRIA RIVER SAND AND GRAVEL FILL PLAN FOR PHOENIX SAN-MAN MARICOPA COUNTY, ARIZONA



PHOENIX, ARIZONA

VICINITY MAP
NOT TO SCALE



LOCATION MAP
NOT TO SCALE

BACKFILL NOTES

THE BACKFILL MATERIAL PLACED IN PHASES 2 THROUGH 5 MUST BE MONITORED AND THAT ADDITIONAL FILL MUST BE PLACED TO REPAIR DAMAGE TO THE SETBACK DUE TO EROSION. THE PLACEMENT OF ADDITIONAL FILL WILL REQUIRE AN ACTIVE FLOODPLAIN USE PERMIT.

THE 300-FT WIDE SETBACK MUST BE MONITORED AND MAINTAINED UNTIL SUCH TIME AS A PERMANENT SOLUTION IS IMPLEMENTED SUCH AS WHEN THE ENTIRE MINE IS BACKFILLED TO THE ELEVATIONS THAT EXISTED PRIOR TO MINING, WHEN THE WESTERN SLOPE OF THE SETBACK IS STABILIZED WITH THE INSTALLATION OF RIP-RAP OR CONCRETE RUBBLE OR WHEN SOME OTHER PERMANENT SOLUTION, APPROVED BY THE DISTRICT, IS IMPLEMENTED.

LEGAL DESCRIPTION

CURRENTLY PERMITTED SAND AND GRAVEL OPERATION PHOENIX SAN-MAN:

SURVEY OF: 173+ ACRES LOCATED IN THE NORTHWEST QUATER OF SECTION 19, TOWNSHIP 4 NORTH, RANGE 1 EAST AND 40+ ACRES IN THE SOUTHWEST QUATER OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 1 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN (PROPERTY BOUNDARY SURVEY BY ARIZONIAN SURVEYING AND MAPPING) ALL THAT PORTION OF THE GOVERNMENTAL LAND OFFICE (GLO) LOT 3 LYING WITHIN THE SOUTHWEST QUATER OF SECTION 18, TOWNSHIP 4 NORTH RANGE 1 EAST OF THE GILA & SALT RIVER MERIDIAN, MARICOPA COUNTY, ARIZONA.

THIS PERMIT APPLICATION APPLIES TO:

135 ACRES FOR CLOSURE OF SAND AND GRAVEL.

ELEVATION REFERENCE MARKS

TEMPORARY BENCH MARKS (TBM)

NOTE:
ALL ELEVATIONS ARE BASED ON NAVD 88. HORIZONTAL CONTROL IS THE STATE PLANE COORDINATE SYSTEM.

POINT I.D. ELEVATION (FT) DESCRIPTION/LOCATION

A	1201.59	SET 1/2" REBAR X=581012.73 Y=974009.21
B	1203.08	SET PK NAIL IN PAVEMENT X=580997.51 Y=974793.44
C	1206.43	SET PK NAIL IN PAVEMENT X=580982.88 Y=975524.51
D	1212.44	SET 1/2" REBAR X=580977.58 Y=977032.90

SHEET INDEX

NO.	DESCRIPTION
1	COVER SHEET
2	FILL PLAN
3	SECTIONS AND DETAILS

Flood Control District
Received
DEC 10 2018

By: ASB

FLOOD PLAIN APPROVAL ONLY

THIS APPROVAL IMPLIES COMPLIANCE WITH THE FLOOD PLAIN REGULATIONS OF MARICOPA COUNTY ONLY. THIS APPROVAL DOES NOT IMPLY THAT THE TOTAL DRAINAGE CONCEPT FOR THE SITE HAS BEEN REVIEWED OR APPROVED BY OUR OFFICE.
02/06/2019 RFD

PROPERTY OWNER: RICHARD O. FINLEY
6710 E. FANFOL DR.
PARADISE VALLEY, AZ 85253
(480) 948-2019

MINE SUPERVISOR: N/A

ENGINEER OF RECORD:
PEDRO CALZA

PEDRO A. CALZA, PE, CFM
52 W. 8TH PL.
MESA, AZ. 85201-4232



PROJECT NO.	BY	DATE
DESIGN	PAC	11-1-18
DESIGN CHK.	PAC	11-1-18
DRAWN	TJP	11-1-18
DRAWN CHK.	PAC	11-1-18

EXPIRES 9-30-2020

SHEET 1 OF 3

GENERAL NOTES

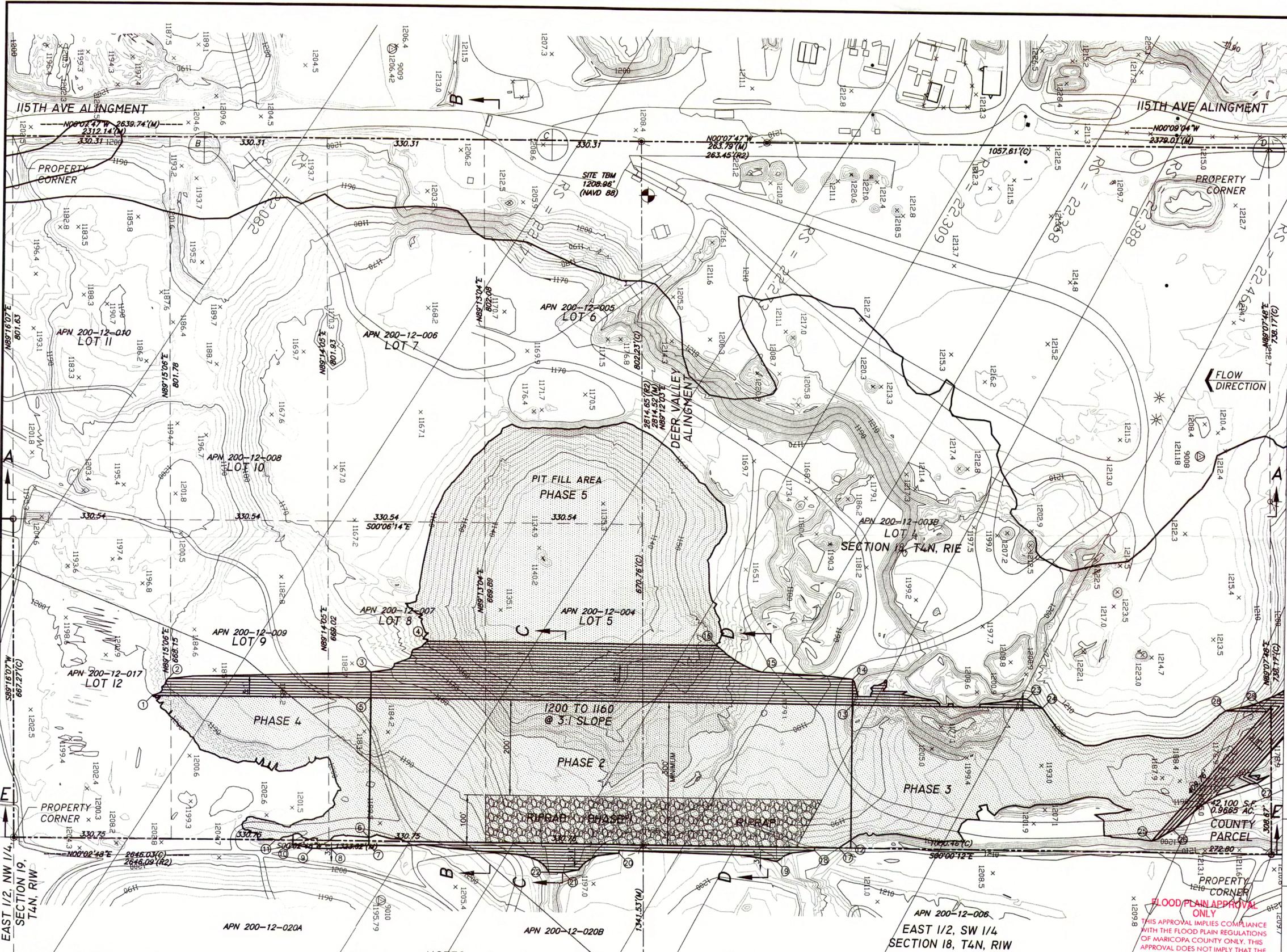
- 1- UTILITIES WILL BE CONTACTED PRIOR TO THE BEGINNING OF MINING FOR "BLUE STAKING" OF UTILITY LINES AS REQUIRED.
- 2- MINING WILL OCCUR IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE FLOODPLAIN USE PERMIT ISSUED BY THE FLOOD CONTROL DISTRICT OF MARICOPA COUNTY.
- 3- THIS PERMIT APPLIES TO APN's 200-11-003B, 200-12-005, 200-12-006, 200-12-007, 200-12-009 & 200-12-017.

DISCLAIMER

THESE DOCUMENTS HAVE BEEN PREPARED FOR A SPECIFIC PROJECT AND SHALL NEITHER BE ALTERED NOR REUSED FOR ANY OTHER PURPOSE. ALSO, THESE DOCUMENTS DO NOT REPRESENT AS-BUILT CONDITIONS. IF THESE DOCUMENTS ARE ALTERED INTENTIONALLY OR UNINTENTIONALLY, OR REUSED WITHOUT THE DESIGN ENGINEER'S WRITTEN APPROVAL, IT WILL BE AT THE SOLE RISK AND RESPONSIBILITY OF THE USER. THE ACT OF ALTERING OR REUSING IS CONSTRUED AS INDEMNIFYING AND HOLDING THE DESIGN ENGINEERING FIRM AND ITS EMPLOYEES HARMLESS FROM ALL CLAIMS, DAMAGES, AND EXPENSES, INCLUDING ATTORNEY FEES, ARISING OUT OF SUCH ACT.

THE BASE TOPOGRAPHIC MAPPING USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. THIS MAPPING IS BASED ON AERIAL PHOTOGRAPHY TAKEN AUGUST 2010. PROJECT CONTROL WAS PROVIDED BY WAAGE SURVEYING INC. ADDITIONAL BASE TOPOGRAPHIC MAPPING UPDATED AND USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. FLOWN APRIL 18, 2016. ADDITIONAL TOPO WAS COLLECTED ON JUNE 13, 2017 ALONG THE EAST SIDE OF APN's 200-11-003B AND 200-12-007 TO UPDATE CONTOURING SHOWING CURRENT EROSION ENTERING SITE. PEDRO CALZA ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE BASE TOPOGRAPHIC MAPPING.





LEGEND

- PROPOSED SPOT ELEVATION IN FEET
- x 1202.8 EXISTING SPOT ELEVATION IN FEET
- - - PROPERTY BOUNDARY
- - - PROPOSED CONTOUR
- 200-12-016A PARCEL NUMBER

ELEVATION REFERENCE MARKS

SURVEY OF: 80+ ACRES LOCATED IN THE NORTHWEST QUATER OF SECTION 19, TOWNSHIP 4 NORTH, RANGE 1 EAST AND 40+ ACRES IN THE SOUTHWEST QUATER OF SECTION 18, TOWNSHIP 4 NORTH, RANGE 1 EAST OF THE GILA AND SALT RIVER BASE AND MERIDIAN (PROPERTY BOUNDARY SURVEY BY ARIZONA SURVEYING AND MAPPING)

TEMPORARY BENCH MARKS (TBM)

NOTE: ALL ELEVATIONS ARE BASED ON NAVD 88. HORIZONTAL CONTROL IS THE STATE PLANE COORDINATE SYSTEM.

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D	1212.44	SET 1/2" REBAR X=580977.58 Y=977032.90

POINT	NORTHING	EASTING	ELEVATION
1	974833.60	582255.15	1200.00
2	974865.13	582219.18	1188.00
3	975292.82	582201.53	1182.00
4	975410.23	582135.62	1060.00
5	975292.80	582255.53	1200.00
6	975292.41	582547.84	1200.00
7	975292.68	582564.53	1202.00
8	975211.29	582572.46	1204.00
9	975172.40	582572.43	1204.00
10	975131.37	582564.40	1202.00
11	975094.95	582555.37	1200.00
12	976307.94	582539.14	1200.00
13	976307.95	582256.35	1200.00
14	976307.92	582202.35	1182.00
15	976113.87	582190.19	1178.00
16	976017.94	582136.12	1060.00
17	976282.56	582556.35	1200.00
18	976232.03	582562.29	1198.00
19	976149.33	582586.22	1190.00
20	975817.83	582573.95	1184.00
21	975701.85	582615.86	1180.00
22	975671.98	582615.83	1180.00
23	976673.32	582238.65	1194.00
24	976706.69	582256.68	1200.00
25	976939.62	582532.02	1200.00
26	976984.61	582507.67	1194.00
27	977160.03	582407.48	1182.00
28	977091.94	582256.99	1200.00
29	977178.47	582257.06	1200.00

Flood Control District
Received
DEC 10 2018
By: *ASB*

PHASING NOTES:

- PHASE 1: RIPRAP AREA= 68,239 S.F. OR 1.57 ACRES± CUT: 6,772 C.Y. FILL: 1,865,734 C.Y.
- PHASE 2: FILL AREA= 425,943 S.F. OR 9.78 ACRES± CUT: 51,661 C.Y. FILL: 196,348 C.Y.
- PHASE 3: FILL AREA= 195,134 S.F. OR 4.48 ACRES± CUT: 720 C.Y. FILL: 25,942 C.Y.
- PHASE 4: FILL AREA= 252,011 S.F. OR 5.79 ACRES± CUT: 0 C.Y. FILL: 807,625 C.Y.

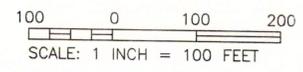
NOTES

- * NOTE HATCHED AREA WILL BE FILLED WITH CLEAN INERT FILL AS SHOWN ON PLAN AND PROFILES.
- * NOTE RIPRAP TO BE MATERIAL UTILIZED ONSITE. THE MEDIAN SIZE OF ROCK TO BE USED FOR RIPRAP WHICH WILL ALSO CONTAIN BROKEN CONCRETE AND WASTE CONCRETE WITH A MINIMUM STRENGTH OF 1000 PSI IS APPROXIMATELY D50=10". SEE TYPICAL RIPRAP DETAIL AND SECTIONS C-C & D-D

NOTES

- FILL WILL BE FILLED WITH CLEAN INERT MATERIAL TO ELEVATIONS PER PLAN NO LOWER THAN 1160. GRADING OF ALL FILL AREAS TO BE 3' HORIZONTAL TO 1' VERTICAL MINIMUM.
- THIS PERMIT APPLIES TO APN'S 200-11-003B, 200-12-005, 200-12-006, 200-12-007, 200-12-009 & 200-12-017.

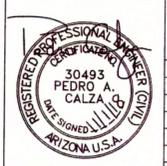
CALL TWO WORKING DAYS BEFORE YOU DIG
602-263-1100
1-800-STAKE-IT
(OUTSIDE MARICOPA COUNTY)



FLOOD/PLAIN APPROVAL ONLY
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05/06/2019 WCO

FILL PLAN

AGUA FRIA RIVER SAND AND GRAVEL MINING PLANS FOR PHOENIX SANMAN



PEDRO A. CALZA, PE, CFM 52 W. 8TH PL. MESA, AZ. 85201-4232		
PROJECT NO.	BY	DATE
DESIGN	PAC	11-1-18
DESIGN CHK.	PAC	11-1-18
DRAWN	TJP	11-1-18
DRAWN CHK.	PAC	11-1-18

THE BASE TOPOGRAPHIC MAPPING USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. THIS MAPPING IS BASED ON AERIAL PHOTOGRAPHY TAKEN AUGUST 2010. PROJECT CONTROL WAS PROVIDED BY WAAGE SURVEYING INC. ADDITIONAL BASE TOPOGRAPHIC MAPPING UPDATED AND USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. FLOWN APRIL 18, 2016. ADDITIONAL TOPO WAS COLLECTED ON JUNE 13, 2017 ALONG THE EAST SIDE OF APN'S 200-11-003B AND 200-12-007 TO UPDATE CONTOURING SHOWING CURRENT EROSION ENTERING SITE. PEDRO CALZA ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE BASE TOPOGRAPHIC MAPPING.

LEGEND

- PROPOSED SPOT ELEVATION IN FEET
- 1202.8 EXISTING SPOT ELEVATION IN FEET
- - - PROPERTY BOUNDARY
- PROPOSED CONTOUR
- 200-12-016A PARCEL NUMBER
- (A) TEMPORARY BENCH MARK (TBM)

ELEVATION REFERENCE MARKS

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NOTES

- 1- UTILITIES WILL BE CONTACTED PRIOR TO THE BEGINNING OF MINING FOR "BLUE STAKING" OF UTILITY LINES AS REQUIRED.
- 2- TEMPORARY BENCH MARK AT POINT I.D. "A" TO BE MAINTAINED FOR THE LIFE OF THE PERMIT.
- 3- NEAREST UTILITY CROSSING IS APPROXIMATELY 2.5 MILES DOWNSTREAM AT BELL ROAD.
- 4- FILL WILL BE FILLED WITH CLEAN INERT MATERIAL TO ELEVATIONS PER PLAN NO LOWER THAN 1160. GRADING OF ALL FILL AREAS TO BE 3' HORIZONTAL TO 1' VERTICAL MINIMUM.
- 5- RIPRAP TO BE MATERIAL UTILIZED ONSITE. THE MEDIAN SIZE OF ROCK TO BE USED FOR RIPRAP WHICH WILL ALSO CONTAIN BROKEN CONCRETE AND WASTE CONCRETE WITH A MINIMUM STRENGTH OF 1000 PSI IS APPROXIMATELY D50=10". SEE TYPICAL RIPRAP DETAIL AND SECTIONS C-C & D-D
- 6- THIS PERMIT APPLIES TO APNS 200-11-003B, 200-12-005, 200-12-006, 200-12-007, 200-12-009 & 200-12-017.

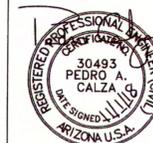
Flood Control District
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FLOOD PLAIN APPROVAL ONLY

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02/06/2019 ASD

SECTIONS AND DETAILS

AGUA FRIA RIVER SAND AND GRAVEL MINING PLANS FOR PHOENIX SANMAN

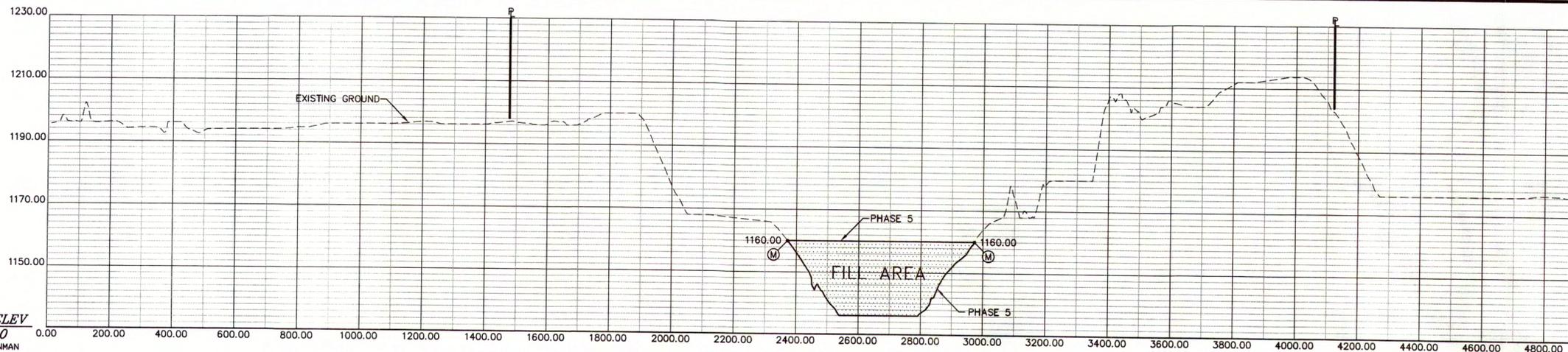


PEDRO A. CALZA, PE, CFM
52 W. 8TH PL.
MESA, AZ. 85201-4232

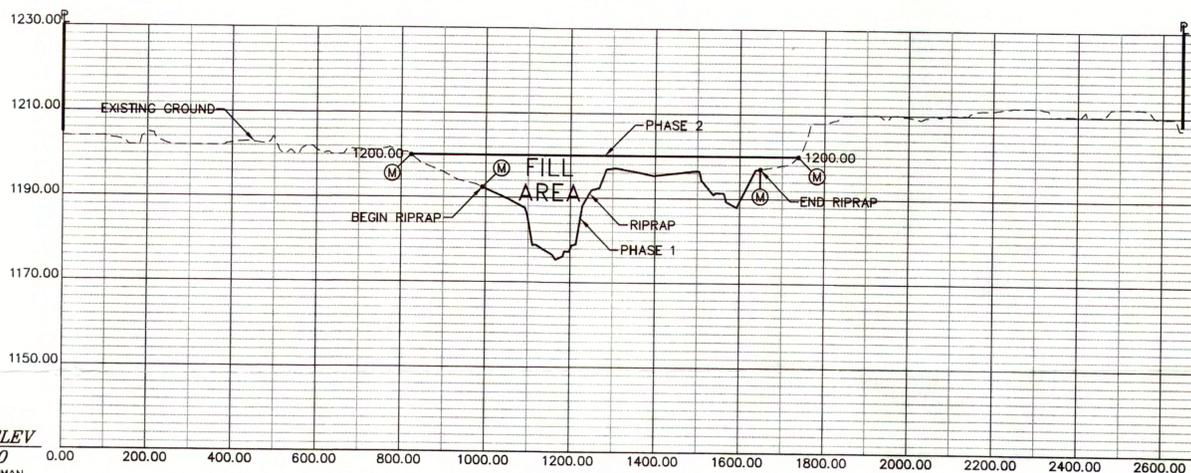
PROJECT NO.	BY	DATE
DESIGN	PAC	11-1-18
DESIGN CHK.	PAC	11-1-18
DRAWN	TJP	11-1-18
DRAWN CHK.	PAC	11-1-18

EXPIRES 9-30-2020

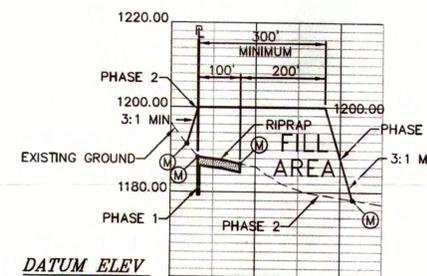
SHEET 3 OF 3



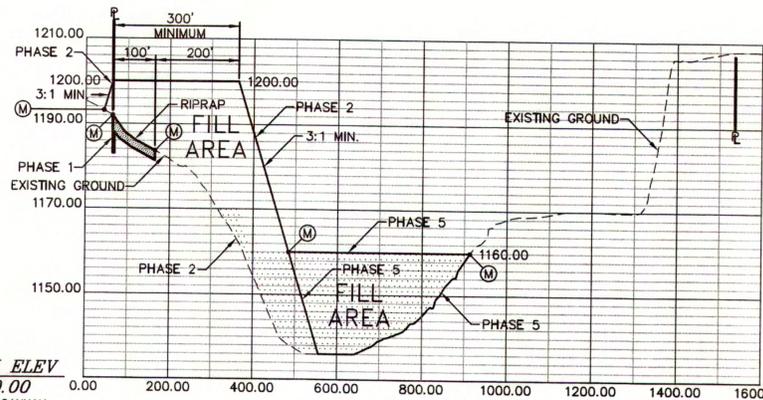
SECTION A-A
SCALE: H= 1" = 200'
V= 1" = 20'



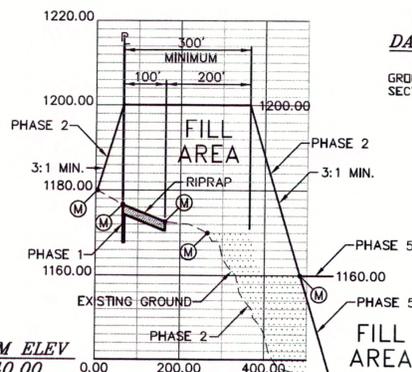
SECTION E-E
SCALE: H= 1" = 200'
V= 1" = 20'



SECTION D-D
SCALE: H= 1" = 200'
V= 1" = 20'

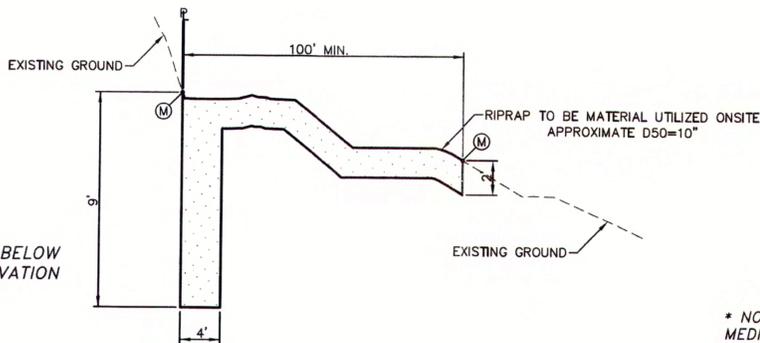


SECTION B-B
SCALE: H= 1" = 200'
V= 1" = 20'



SECTION C-C
SCALE: H= 1" = 200'
V= 1" = 20'

- NOTES:**
1. PHASE 1 IS PLACEMENT OF RIPRAP.
 2. PHASE 2 IS PLACEMENT OF FILL.



TYPICAL RIPRAP DETAIL
NTS

* NOTE RIPRAP TO BE MATERIAL UTILIZED ONSITE. THE MEDIAN SIZE OF ROCK TO BE USED FOR RIPRAP WHICH WILL ALSO CONTAIN BROKEN CONCRETE AND WASTE CONCRETE WITH A MINIMUM STRENGTH OF 1000 PSI IS APPROXIMATELY D50=10". SEE TYPICAL RIPRAP DETAIL AND SECTIONS C-C & D-D

- NOTES**
- * NOTE HATCHED AREA WILL BE FILLED WITH CLEAN INERT FILL AS SHOWN ON PLAN AND PROFILES.



THE BASE TOPOGRAPHIC MAPPING USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. THIS MAPPING IS BASED ON AERIAL PHOTOGRAPHY TAKEN AUGUST 2010. PROJECT CONTROL WAS PROVIDED BY WAAGE SURVEYING INC. ADDITIONAL BASE TOPOGRAPHIC MAPPING UPDATED AND USED TO PRODUCE THIS SAND AND GRAVEL MINING PLAN WAS PREPARED BY COOPER AERIAL SURVEYS CO. FLOWN APRIL 18, 2016. ADDITIONAL TOPO WAS COLLECTED ON JUNE 13, 2017 ALONG THE EAST SIDE OF APN'S 200-11-003B AND 200-12-007 TO UPDATE CONTOURING SHOWING CURRENT EROSION ENTERING SITE. PEDRO CALZA ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE BASE TOPOGRAPHIC MAPPING.