

BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: October 18, 2016

Title: Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal for 5018 West Camino de Manana, Located within Xeroriparian Class C Riparian Habitat (District 1)

Introduction/Background:

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation when cumulative disturbance of more than 1/3 acre of mapped riparian habitat occurs. If a project site contains suitable area(s) for mitigation, restoration, or enhancement, then on-site mitigation is required in accordance with the adopted Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines. The Ordinance contains a provision for mitigation banking when on-site mitigation is not feasible. All off-site mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Discussion:

The owner, Ryan Nielsen, constructed a fence and disturbed more than 1/3 of an acre of Riparian Habitat (RRH) without written authorization at the property located at 5018 West Camino De Manana. The property is located within a FEMA Flood Hazard Zone mapped as Zone AO - Alluvial Fan 1 and within RRH classified as Xeroriparian Class C Habitat. Mr. Nielsen hired Greg Shinn, with GRS Landscape Architects, LLC, to prepare a Riparian Habitat Mitigation Plan. The applicant is proposing to mitigate through an in-lieu fee contribution of \$1,443.61 to the District's mitigation bank is based on the ILF Cost Estimate shown on the RHMP.

Conclusion:

Acceptance of mitigation banking funds in-lieu of on-site mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County.

Recommendation:

The ILF proposal presented conforms with the Ordinance and, as such, the District recommends approval.

Fiscal Impact:

\$1443.61

Board of Supervisor District:

1 2 3 4 5 All

Department: Regional Flood Control District Telephone: 724-4600


Department Director Signature/Date: *Eric Sherry* 9/20/16

Deputy County Administrator Signature/Date: *John M. Smith* 9/21/16

County Administrator Signature/Date: *C. Pulutsky* 9/21/16

DATE: September 14, 2016

TO: Flood Control District Board of Directors

FROM: Suzanne Shields, P.E. 
Director

SUBJECT: **Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal for Compliance of a Violation Located at 5018 West Camino de Manana Located within Xeroriparian Class C Riparian Habitat (District 1)**

Background

Chapter 16.30 of the Pima County Floodplain Management Ordinance No. 2010-FC5 (Ordinance) requires mitigation for mapped riparian habitat disturbances greater than 1/3 acre. If a project site contains suitable area(s) for riparian restoration, enhancement, or establishment, onsite mitigation occurs in accordance with the adopted *Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines*. The Ordinance contains a provision for mitigation banking, when on-site mitigation is not feasible. All offsite mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Report

Property owner, Ryan Nielsen, constructed a fence without a permit on his the property located at 5018 West Camino De Manana (Exhibit A) and the Regional Flood Control District (District) began a compliance enforcement action against Mr. Nielsen. Additional investigation revealed that Mr. Nielsen also disturbed more than 1/3 of an acre of Regulated Riparian Habitat (RRH) by removing native vegetation, including the understory and placing decomposed granite landscaping rock. The property is located within a FEMA Flood Hazard Zone mapped as Zone AO – Alluvial Fan 1 and within RRH classified as Xeroriparian Class C Habitat (Exhibit B).

Mr. Nielsen hired Greg Shinn, with GRS Landscape Architects, LLC, to prepare a Riparian Habitat Mitigation Plan (RHMP) (Exhibit C). Mr. Shinn's field investigation revealed that previous owners had planted native riparian vegetation of which 24 native trees and 80 native shrubs could be applied towards the current required mitigation for the violation.

The applicant is proposing to mitigate the remaining requirement through an in-lieu fee contribution of \$1,443.61 to the District's mitigation bank. This value is based on the ILF Cost Estimate shown on the RHMP prepared by Mr. Shinn.

Recommendation

Acceptance of mitigation banking funds in-lieu of onsite mitigation is allowed under the Ordinance. Contributions to the mitigation bank for disturbance of this habitat will provide funds to be used toward purchase of high value resources or towards restoration of degraded riparian habitat within Pima County.

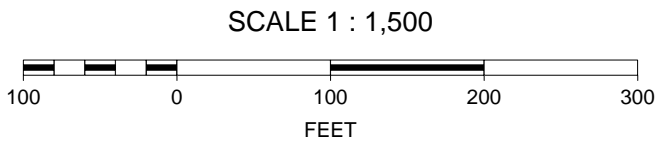
Attachments: Exhibit A – Project Location
Exhibit B – Project Site – Riparian Classification Map
Exhibit C – Mitigation Banking In-lieu Fee Proposal

Exhibit A



Canada Agua
2 Wash

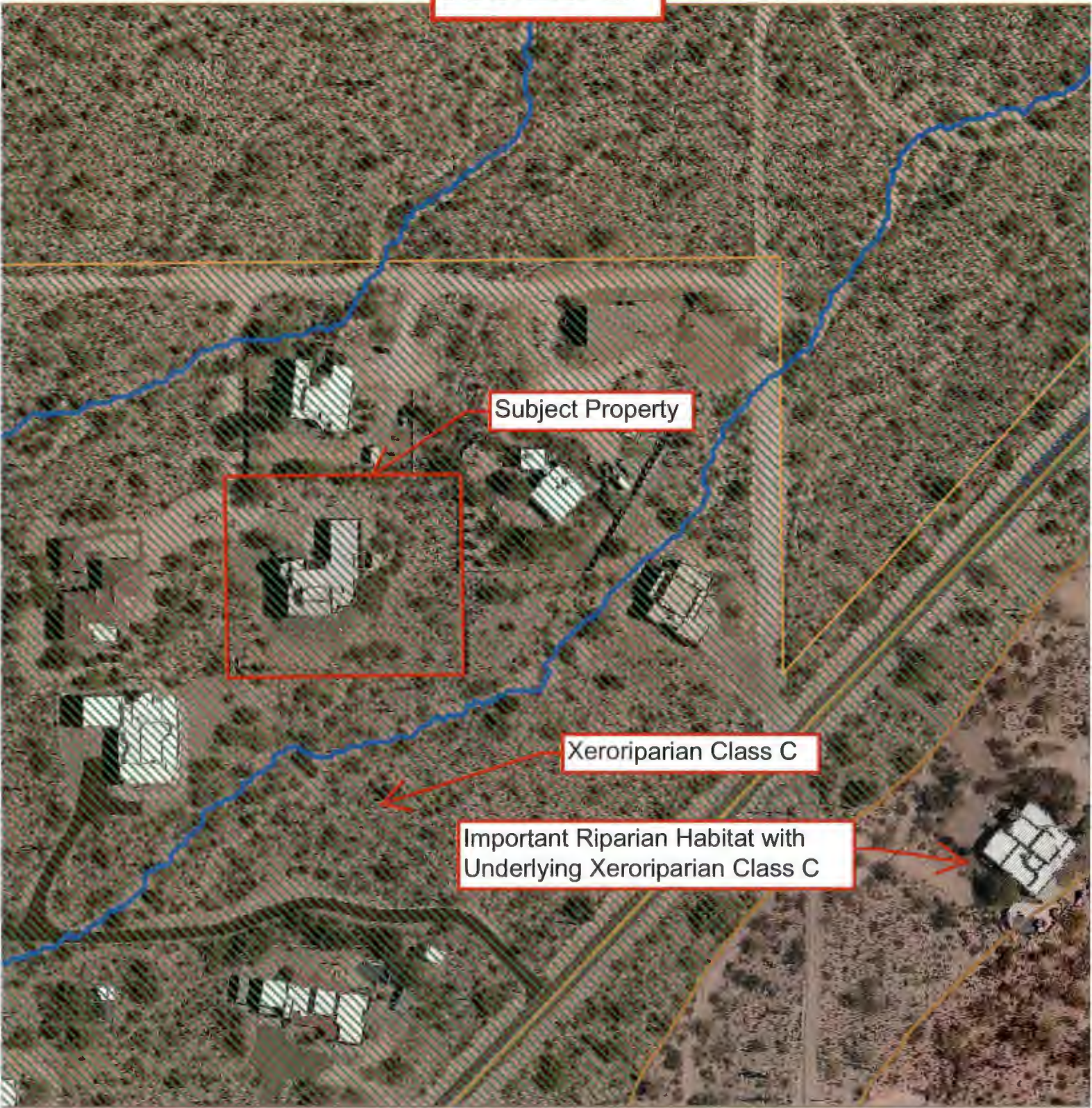
Subject Property



Nielsen Residence
5018 West Camino de Manana
BOS Meeting 10/18/16



Exhibit B



SCALE 1 : 1,500

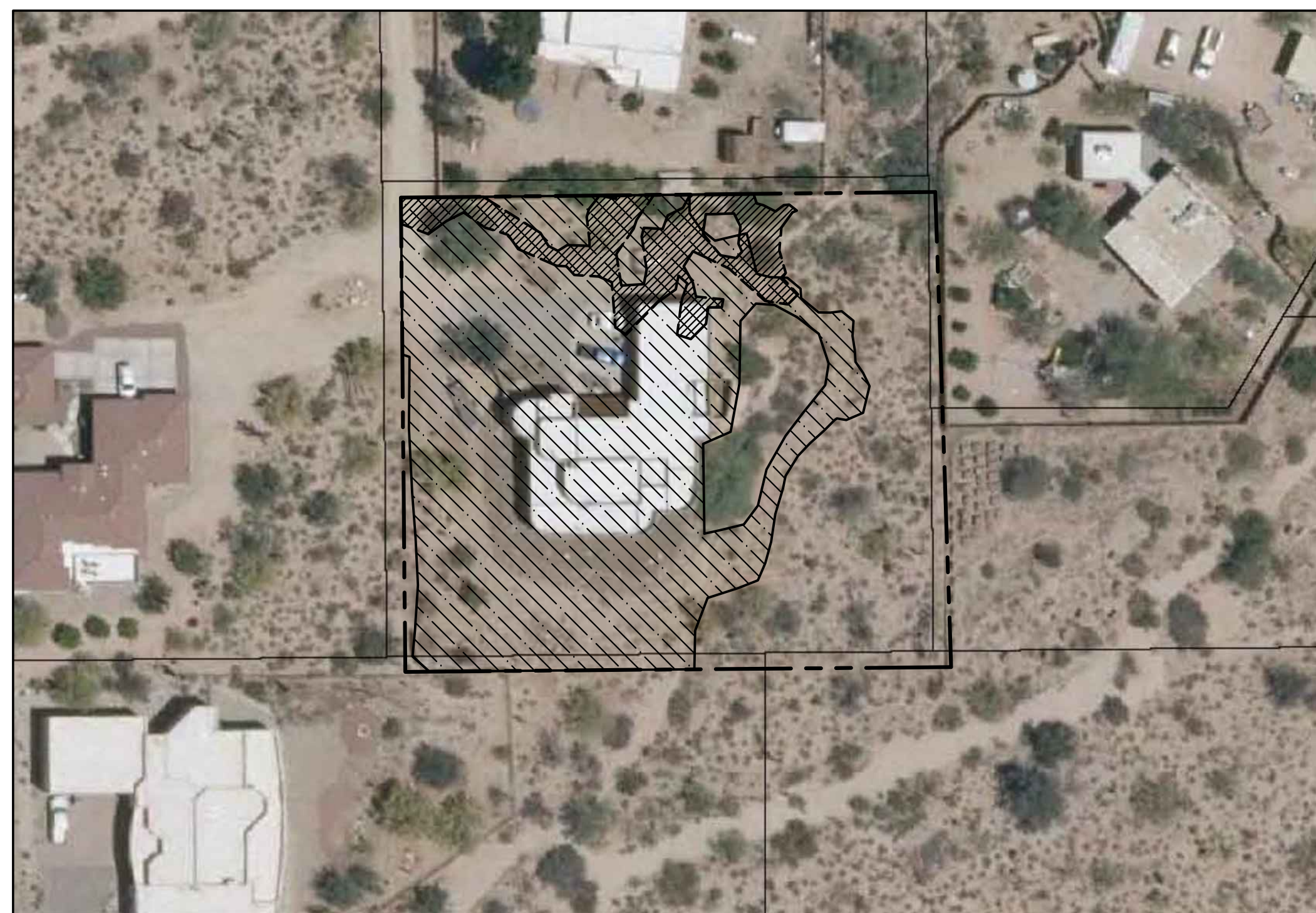


Nielsen Residence
5018 West Camino de Manana
BOS Meeting 10/18/16








PRE-ORDINANCE DISTURBANCE BASED ON 2005 AERIAL



POST-ORDINANCE DISTURBANCE BASED ON 2015 AERIAL

RIPARIAN LEGEND

-  Class "C" Xeroriparian Habitat (Entire Property)
-  Pre-Ordinance Disturbance
-  Post-Ordinance Disturbance

RIPARIAN MITIGATION NOTES

1. The Property Owner shall be responsible for maintenance of the required landscape and irrigation system in perpetuity.
2. Mitigated area will be hydroseeded with a minimum of 12 species from the approved Xeroriparian plant list found in Appendix B of the "Regulated Riparian Habitat Mitigation Standards and Implementation Guidelines." If plant species listed on the Mitigation Plan are unavailable, replacement species from the approved plant list may be selected based upon availability. Of the 12 species, 4 shall be shrubs, 4 shall be annuals/perennials/vines, and 4 shall be grasses.
3. Mitigation plantings to be irrigated using an automatic drip irrigation system.
4. A monitoring plan, in accordance with the Guidelines, will be submitted annually for a period of five (5) years following implementation of the Riparian Habitat Mitigation Plan (RHMP). Any changes from the approved RHMP shall be noted on the monitoring plan submittal.

Monitoring Report Submittals shall be labeled "Annual Monitoring Report for P16TPxxxxx" and submitted to the RFCD at:
 Pima County Regional Flood Control District
 ATTN: Floodplain Management Division Staff
 201 N. Stone Ave., 9th Floor
 Tucson, Arizona 85701

Place the FPUP number on the envelope and monitoring plan submittal.

5. The Project Owner, and/or the Owner's successors, agree to preserve and protect the Mitigation Area for the duration of the project. Further, the project owner and/or their successors agree to actively maintain the mitigated area for a period of not less than five years. Maintenance activities shall include, but not be limited to, the regular operation of the irrigation system, the replacement of dead trees, and the removal of noxious and/or invasive plant species.
6. Mitigation area(s) to be left in a natural state. No disturbance shall occur within the mitigation area(s) without RFCD review and approval. Such disturbance includes but is not limited to secondary impacts such as the presence of livestock, fencing, intensive landscaping, outdoor play areas, etc.

OVERVIEW NOTES

1. The 2005 aerial shows previous clearing of the site. This is most likely from the construction on the adjacent home to the north and the building of a dirt road and turnaround at the northwest corner of the property.
2. The 2011 aerial shows the presence of dirt paths through the desert on the east side of the property. Most of these paths have been revegetated and have not been included in the post-ordinance disturbance.
3. Standard revegetation quantities for Xeroriparian "C" have been used to calculate the required mitigation.
4. The Owner elects to pay an in-lieu fee for the missing mitigation and seeding.

RIPARIAN NOTES

1. Zoning = GR-1
2. Site Area = 1.02 acres
3. Land Use = Residential
4. Area Calculations:
 - a. Total Project Area 1.02 acres
 - b. Total Riparian Area On Site 1.02 acres (Entire Site) (Xeroriparian C Habitat)
 - c. Total Natural Open Space 0.41 acres
 - d. Total Riparian Habitat Disturbance 26,604 sf (0.61 acres) (Current less Pre-Ordinance)
 - e. Total Disturbance Pre-Ordinance 3,567 sf (0.08 acres)
 - f. Total Disturbance Post-Ordinance 30,171 sf (0.69 acres)
 - g. Mitigation will be per in-lieu fees.

CALCULATIONS	
This site contains Xeroriparian "C" Habitat	
Total Regulated Class "C" Habitat On-Site (Entire Site)	44,321 sf (1.02 acre)
Total Area of Disturbed Riparian Habitat	30,171 sf (0.69 acre)
Less Pre-Ordinance Disturbance Area	3,567 sf (0.08 acre)
Total Current Disturbance of Riparian Habitat	26,604 sf (0.61 acre)
Total Area of Disturbed Riparian Habitat	26,604 sf (0.61 acre)
Min. Mitigation Area Required =	1.0 x 0.61 x 0.7 = 18,623 sf (0.43 ac)
Total # of Trees Required =	1.0 x 45 x 0.61 = 28 Trees
Total # of Shrubs Required =	1.0 x 70 x 0.61 = 43 Shrubs
Total Riparian Mitigation Area Required	18,623 sf (0.43 ac)
Total Riparian Mitigation Area Provided on Site	0 sf (0.00 ac)
Total Riparian Mitigation Area Provided by in lieu fee	18,623 sf (0.43 ac)
Total # of Trees Required =	1.0 x 45 x 0.61 = 28 Trees
Total Trees Provided on Site	24 Trees
Total Trees Provided by in lieu fee	4 Trees
Total # of Shrubs Required =	1.0 x 70 x 0.61 = 43 Shrubs
Total Shrubs Provided on Site	80 Shrubs
Total Shrubs Provided by in lieu fee	0 Shrubs
Total Hydroseed Required =	18,623 sf (0.43 ac)
Total Hydroseed Provided by in lieu fee	18,623 sf (0.43 ac)

NIELSEN RESIDENCE

CALCULATION OF IN-LIEU FEE

Missing Plant Material

- 4 – 5 gal. Trees
- 0 – 5 gal. Shrubs
- 0 – 1 gal. Shrubs
- 18623 – SF Native Seed

Cost Calculation

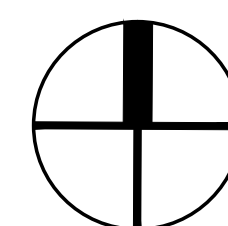
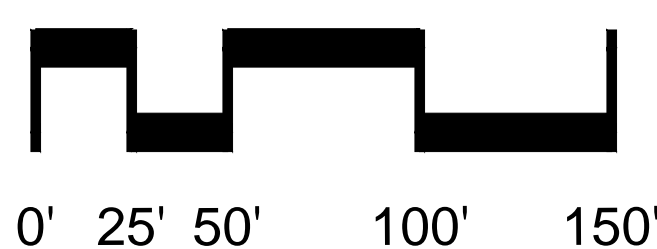
4 – 5 gal. Trees - \$ 35.00 ¹	140.00
0 – 5 gal. Shrubs - \$ 35.00 ¹	0.00
0 – 1 gal. Shrubs - \$ 10.00 ¹	0.00
18623 – SF Native Seed – \$ 0.07	1,303.61
Maintenance Cost – \$ 0.00 ²	0.00
Irrigation Cost - \$ 0.00 ³	0.00
Water Cost ⁴	0.00

TOTAL IN-LIEU FEE \$ 1,443.61

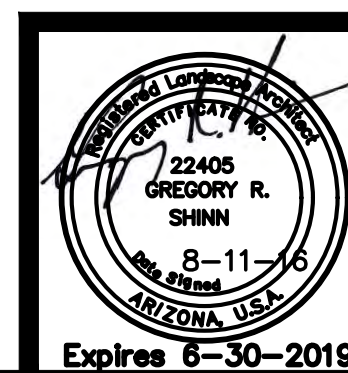
Notes

- 1 – These are "wet" costs that include the cost of spaghetti tubing and emitters.
- 2 – Owner's monthly maintenance costs do not change with the elimination/addition of these plants.
- 3 – Irrigation structure (meter, backflow, irrigation controller, mainline, poly line, valve and pressure regulators) are not affected by the addition of this plant material. No Mainline extension or additional valves are required to irrigation additional plant material. Cost of irrigation is included in "wet" costs of # 1 above.
- 4 – Property is served by a well and does not pay commodity charges for water.

Scale: 1" = 50'



North



11047 N. Cloud View Place
 Tucson, AZ 85737
 (520) 877-8037

Date: 8/11/16
 Drawn by: LMW
 Checked by: GRS

- Design Review
- Construction Documents
- Agency Submittal
- Construction Set
- Not for Construction

NIELSEN RESIDENCE

Parcel No. 216-03-0160

5018 West Camino de Manana, Tucson, AZ 85742

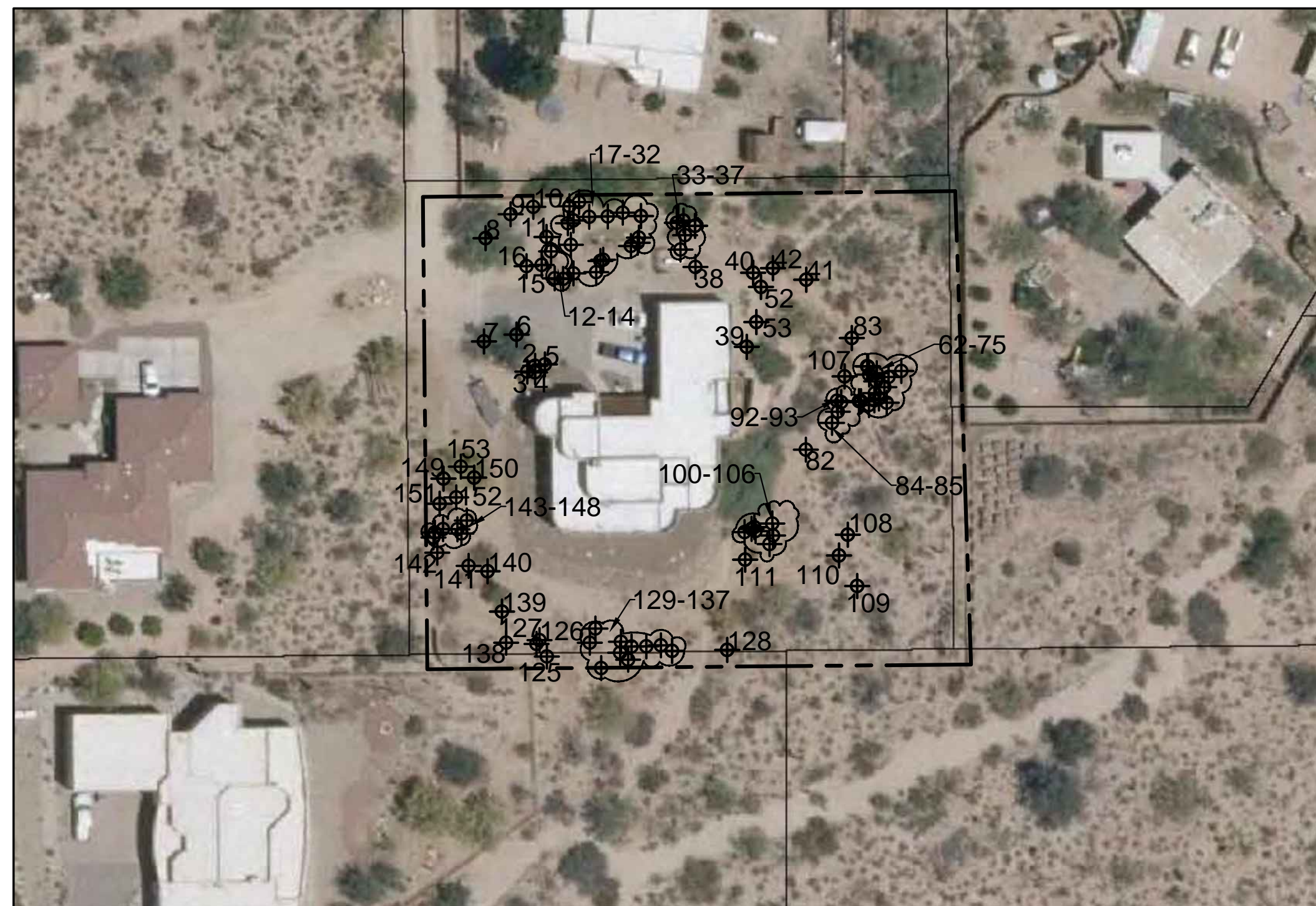
SE ¼, SW ¼ of Section 1, T-12-S, R-12-E, G&SRM, Pima County, AZ

RIPARIAN HABITAT MITIGATION PLAN

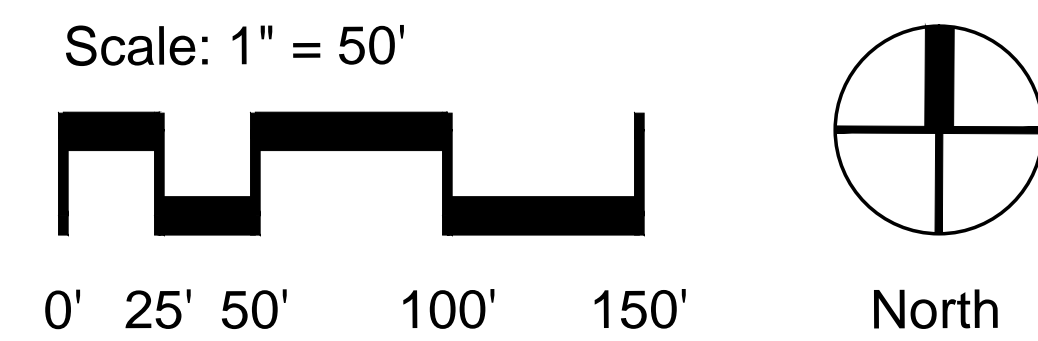
Floodplain Use Permit number:

PLANT INVENTORY

ID NO.	DESCRIPTION
2	Carnegiea gigantea - Saguaro
3	Carnegiea gigantea - Saguaro
4	Carnegiea gigantea - Saguaro
5	Ferocactus sp. - Barrel Cactus
6	Olneya tesota - Desert Ironwood
7	Olneya tesota - Desert Ironwood
8	Olneya tesota - Desert Ironwood
9	Fouquieria splendens - Ocotillo
10	Ambrosia deltoidea - Triangleleaf Bursage
11	Chilopsis linearis - Desert Willow
12	Ambrosia deltoidea - Triangleleaf Bursage
13	Ambrosia deltoidea - Triangleleaf Bursage
14	Carnegiea gigantea - Saguaro
15	Ferocactus sp. - Barrel Cactus
16	Ambrosia deltoidea - Triangleleaf Bursage
17	Opuntia sp. - Prickly Pear
18	Opuntia sp. - Prickly Pear
19	Opuntia sp. - Prickly Pear
20	Larrea tridentata - Creosote Bush
21	Cercidium floridum - Blue Palo Verde
22	Opuntia sp. - Prickly Pear
23	Encelia farinosa - Brittle Bush
24	Ambrosia deltoidea - Triangleleaf Bursage
25	Opuntia sp. - Prickly Pear
26	Opuntia sp. - Prickly Pear
27	Chilopsis linearis - Desert Willow
28	Opuntia sp. - Prickly Pear
29	Opuntia sp. - Prickly Pear
30	Opuntia sp. - Prickly Pear
31	Opuntia sp. - Prickly Pear
32	Ambrosia deltoidea - Triangleleaf Bursage
33	Ambrosia deltoidea - Triangleleaf Bursage
34	Celtis pallida - Desert Hackberry
35	Celtis pallida - Desert Hackberry
36	Zizyphus obtusifolia - Gray Thorn
37	Sphaeralcea ambigua - Globemallow
38	Sphaeralcea ambigua - Globemallow
39	Celtis pallida - Desert Hackberry
40	Cercidium floridum - Blue Palo Verde
41	Cercidium floridum - Blue Palo Verde
42	Acacia greggii - Catclaw Acacia
52	Chilopsis linearis - Desert Willow
53	Cercidium floridum - Blue Palo Verde
62	Ambrosia deltoidea - Triangleleaf Bursage
63	Ambrosia deltoidea - Triangleleaf Bursage
64	Ambrosia deltoidea - Triangleleaf Bursage
65	Ambrosia deltoidea - Triangleleaf Bursage
66	Opuntia sp. - Prickly Pear
67	Opuntia sp. - Prickly Pear
68	Opuntia sp. - Prickly Pear
69	Opuntia sp. - Prickly Pear
70	Opuntia sp. - Prickly Pear
71	Opuntia sp. - Prickly Pear
72	Ambrosia deltoidea - Triangleleaf Bursage
73	Ambrosia deltoidea - Triangleleaf Bursage
74	Opuntia sp. - Prickly Pear
75	Opuntia sp. - Prickly Pear
82	Opuntia sp. - Prickly Pear
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127	Sphaeralcea ambigua - Globemallow
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129	Ferocactus sp. - Barrel Cactus
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136	Ambrosia deltoidea - Triangleleaf Bursage
137	Ambrosia deltoidea - Triangleleaf Bursage
138	Carnegiea gigantea - Saguaro
139	Olneya tesota - Desert Ironwood
140	Acacia constricta - Whitethorn Acacia
141	Larrea tridentata - Creosote Bush
142	Ambrosia deltoidea - Triangleleaf Bursage
143	Ambrosia deltoidea - Triangleleaf Bursage
144	Ambrosia deltoidea - Triangleleaf Bursage
145	Carnegiea gigantea - Saguaro
146	Carnegiea gigantea - Saguaro
147	Ferocactus sp. - Barrel Cactus
148	Opuntia sp. - Prickly Pear
149	Cercidium microphyllum - Palo Verde
150	Cercidium microphyllum - Palo Verde
151	Chilopsis linearis - Desert Willow
152	Ambrosia deltoidea - Triangleleaf Bursage
153	Ambrosia deltoidea - Triangleleaf Bursage



2015 PIMA COUNTY MAPGUIDE AERIAL

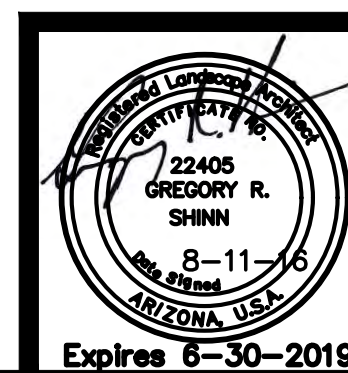


RIPARIAN LEGEND

	Class "C" Xeroriparian Habitat (Entire Property)
	Pre-Ordinance Disturbance
	Post-Ordinance Disturbance

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Date: 8/11/16
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- Design Review
- Construction Documents
- Agency Submittal
- Construction Set
- Not for Construction

NIELSEN RESIDENCE

Parcel No. 216-03-0160
5018 West Camino de Manana, Tucson, AZ 85742
SE ¼, SW ¼ of Section 1, T-12-S, R-12-E, G&SRM, Pima County, AZ
RIPARIAN HABITAT MITIGATION PLAN
Floodplain Use Permit number: