



BOARD OF SUPERVISORS AGENDA ITEM REPORT

Requested Board Meeting Date: November 22, 2016

Title: Approval of a Riparian Habitat Mitigation In-Lieu Fee Proposal for 1792 East Sahuaro Blossom Place, Located within Important Riparian Area with Underlying Xeroriparian Class B and 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:

Property owner, William Diamond, is applying for a floodplain use permit to construct a single family residence on his property located at 1792 East Sahuaro Blossom Place. The entire property is mapped within Regulated Riparian Habitat (RRH) classified as Important Riparian Area with underlying Xeroriparian Class B and Class C Habitat. The property is 1.15 acres in size and the RRH disturbance is 0.35 acres, which requires a Riparian Habitat Mitigation Plan (RHMP). Mr. Diamond hired Gene Johnson, with Benjamin Designs, to prepare a RHMP. The property is densely vegetated with healthy mature trees therefore has no suitable place for on-site mitigation. As a result, the owner is proposing to contribute a fee of \$3,490.00 in lieu of on-site mitigation, based on the Flat Fee Table.

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:

\$3490.00

Board of Supervisor District:

1 2 3 4 5 All

Department: Regional Flood Control District Telephone: 724-4600

Department Director Signature/Date: ERIC SUZZO 10/31/16

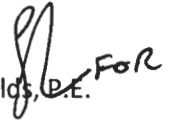
Deputy County Administrator Signature/Date: John H. Paul 11/1/16

County Administrator Signature/Date: C. Reddick 10/2/16

DATE: October 28, 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 Located at 1792 East Sahuaro Blossom Place, Located within Important Riparian Area with Underlying Xeroriparian Class B and Class C 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 off-site mitigation proposals require Flood Control District Board of Directors (Board) review and approval.

Report

Property owner, William Diamond, is applying for a floodplain use permit to construct a single family residence on his property located at 1792 East Sahuaro Blossom Place (Exhibit A). The entire property is mapped within Regulated Riparian Habitat (RRH) classified as Important Riparian Area with underlying Xeroriparian Class B and Class C Habitat (Exhibit B). The property is 1.15 acres in size and the RRH disturbance is 0.35 acres, which requires a Riparian Habitat Mitigation Plan (RHMP).

Mr. Diamond hired Gene Johnson, with Benjamin Designs, to prepare a RHMP (Exhibit C). The property is densely vegetated with healthy mature trees therefore has no suitable place for on-site mitigation. As a result, the owner is proposing to contribute a fee of \$3,490.00 in lieu of on-site mitigation, based on the Flat Fee Table (Exhibit D).

Recommendation

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.

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

Exhibit A



Subject Property

SCALE 1 : 2,000



Diamond Residence
1792 East Sahuaro Blossom Place
BOS Meeting Date 11/22/16



Exhibit B

Important Riparian Area with Underlying Xeriparian Class B Habitat

Xeriparian Class C Habitat

Diamond Residence
1792 East Sahuaro Blossom Place
BOS Meeting Date 11/22/16

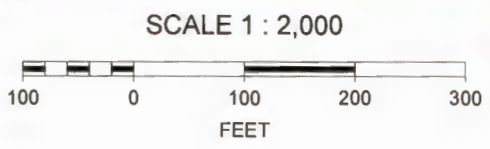
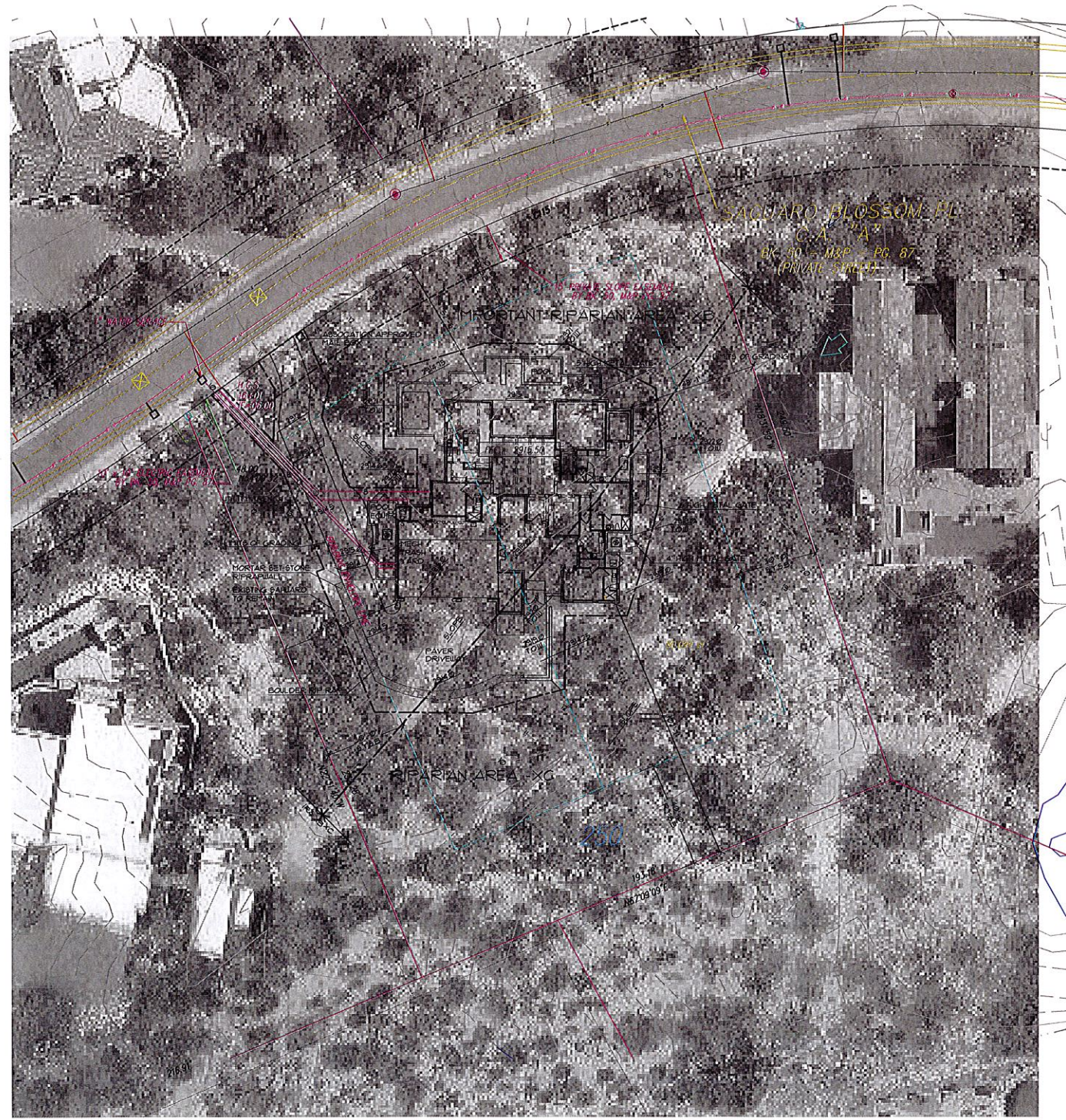


Exhibit C



SITE PLAN SYMBOLS	
FFE	FINISHED FLOOR ELEVATION
T.O.W.	TOP OF WALL
P.P.P.	PRESERVE IN PLACE
T.O.S.	TRANSPLANT ON SITE
R.O.S.	RELOCATED ON SITE
→	DRAINAGE FLOW
⊠	OUTDOOR WALL LANTERN (SHIELDED)
▲	LANDSCAPE LIGHTS
—	CONTOUR LINE
○	PROPERTY LINE
—	GRADING LIMITS
—	UTILITY LINE
—	100 YEAR FLOOD FRONE LIMITS
▨	UNDISTURBED NATURAL AREA
▩	HILLSIDE AREA

NOTE: DRAINAGE SHALL PER DRAINAGE STUDY BY CHG DRAINAGE ENGINEERING DRAINAGE REPORT

SITE PLAN GRADING NOTES

- CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. CALL BLUE STAKE (1800.182.5348) TWO FULL WORKING DAYS PRIOR TO EXCAVATION.
- THE CONTRACTOR SHALL PRESERVE ALL STAKES SET FOR THE LINES, LEVELS OR MEASUREMENTS OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEERS. ANY EXPENSE INCURRED IN REPLACING ANY STAKES WHICH THE CONTRACTOR OR HIS SUBORDINATES MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED TO THE CONTRACTOR.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH HULL AND SUPPLY ALL WATER REQUIRED FOR COMPACTION AND FOR THE CONTROL OF DUST FROM CONSTRUCTION ACTIVITY. THE COST THEREOF IS TO BE INCLUDED IN THE GRADING CONSTRUCTION PRICE.
- BUILDING SITES SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF FINISH BUILDING PAD ELEVATIONS AS STATED BY THE ENGINEER. STREETS AND PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF FINISH SUBGRADE AS STAKED BY THE ENGINEER.
- COMPACTION IN ALL AREAS SHALL BE A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED TO AASHTO DESIGNATION T-99 METHOD A. THOSE AREAS TO RECEIVE FILL ARE TO BE SCARIFIED TO A DEPTH OF (8) INCHES, BROUGHT TO THE PROPER MOISTURE CONTENT AND COMPACTED TO THE ABOVE DENSITY. THE AREA SOURCE OF FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK. TESTS TO FILL MATERIAL WILL BE DONE AT THE OWNER'S EXPENSE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE, REPAIR OR REPLACEMENT OF EXISTING IMPROVEMENTS IN THE WORK AREA WHICH HAVE BEEN REMOVED OR DAMAGED DURING THE COURSE OF CONSTRUCTION. ALL REPAIR, REPLACEMENT, OR CLEANUP SHALL BE DONE TO THE SATISFACTION OF THE OWNER.
- A REPORT OF SOILS INVESTIGATION INCLUDING RECOMMENDATIONS FOR GRADING PROCEDURES HAS BEEN PREPARED BY AN ENGINEER. EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED IN SAID REPORT.
- A COPY OF THE APPROVED PLAN AND GRADING PERMIT SHALL BE KEPT IN AN EASILY ACCESSIBLE LOCATION ON THE SITE AT ALL TIMES DURING CONSTRUCTION.
- ALL REVISIONS TO THESE PLANS MUST BE APPROVED BY THE MARICOPA COUNTY ENGINEER PRIOR TO CONSTRUCTION.
- CONTRACTOR SHALL REFER TO STORM WATER POLLUTION PREVENTION PLANS TO CONTROL SEDIMENT POLLUTION DURING GRADING OPERATIONS. II. SLOPE STABILIZATION:
 - A. SLOPES 3:1 OR SHALLOWER SHALL BE REVEGETATED (OR USE CLEAN LANDSCAPE ROCK).
 - B. SLOPES STEEPER THAN 3:1 BUT SHALLOWER THAN 1.5:1 SHALL BE COVERED W/ ROCK RIP-RAP OVER FILTER FABRIC.
 - C. SLOPES 1.5:1 AND STEEPER SHALL HAVE GROUTED RIP-RAP. EARTH RETAINING WALLS OR RETAINING WALLS AS APPROPRIATE.

GRADING CALCULATIONS

LOT SIZE	115 ACRES	50,089 SQ. FT.
GRADED AREA	15,223.31 SQ. FT. (.35 ACRES)	
% OF LOT GRADED		30.4 %
TOTAL RRH	115 ACRES	50,089 SQ. FT.
TOTAL DISTURBED RRH	15,223.31 SQ. FT. (.35 ACRES)	
TOTAL PERCENTAGE		30.4 %
IMPORTANT RIPARIAN XB AREA	(.51 ACRES)	24,632.89 SQ. FT.
TOTAL DISTURBED IRA XB	(.21 ACRES)	11,830.10 SQ. FT.
TOTAL PERCENTAGE OF DISTURBED CLEAN LANDSCAPE ROCK		48 %
RIPARIAN XC AREA	(.58 ACRES)	29,466.11 SQ. FT.
TOTAL DISTURBED XC	(.28 ACRES)	3,331.48 SQ. FT.
TOTAL PERCENTAGE OF DISTURBED		14.6 %

OWNERS

WILLIAM AND ELEANOR DIAMOND
1792 E. SAHJARO BLOSSOM PL.
TUCSON, ARIZONA 85718

ADDRESS/LEGAL DESCRIPTION

1792 E. SAHJARO BLOSSOM PL.
TUCSON, AZ 85718

PIMA CANYON ESTATES RESUB LOT 250
PARCEL: 220-20-3720
ZONING: CR-1

T25 R14E S31
MAP 4 PLAT 50181
AREA = 115 ACRES (50,089 SF)

AVOIDANCE NOTE

1792 E. SAHJARO BLOSSOM PLACE
LOT 250 PIMA CANYON ESTATES

AVOIDANCE JUSTIFICATION (16.300.040.11)

- WE ARE IN A HEAVILY VEGETATED LOT WHERE THERE ARE NOT ANY ADDITIONAL PLANTING AREAS.
- WE ARE IN A GATED COMMUNITY, WHERE WE ARE LIMITED TO THE AMOUNT OF GRADED AREA AWAY FROM THE HOUSE, DRIVE AND FENCING.
- WE ARE IN A GATED COMMUNITY THAT HAS ITS OWN LANDSCAPE REQUIREMENTS WITHIN THE GRADED AREA.

ILF COST ESTIMATION

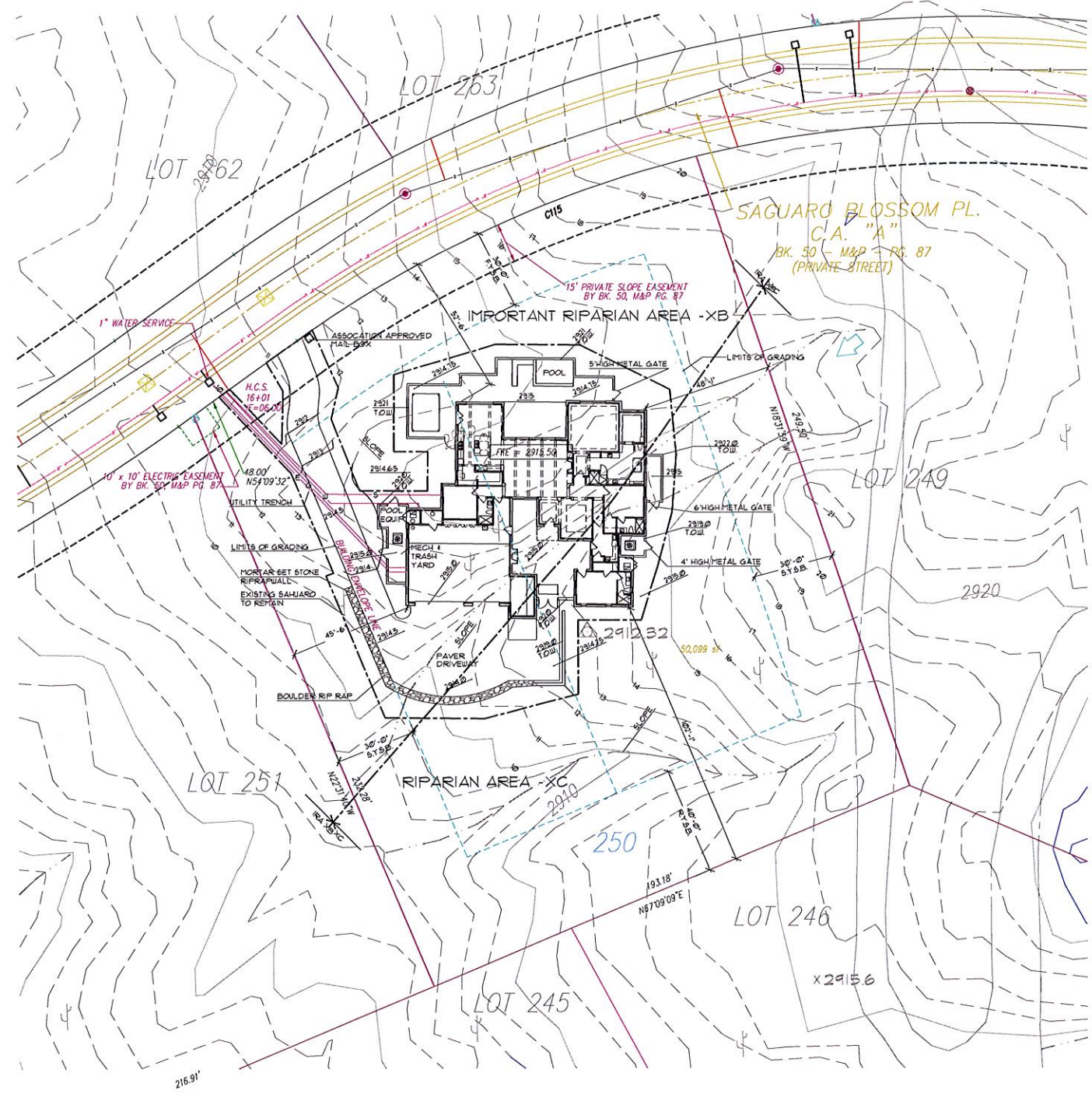
IRA XB	21 X 11,000	= 231,000
XC	28 X 6,500	= 182,000
TOTAL ESTIMATION		= 413,000

DIAMOND RESIDENCE
1792 E. SAHJARO BLOSSOM PL.
TUCSON, AZ. 85718

FPUP# P16FC00505
RIPARIAN HABITAT MITIGATION

Benjamin Design & Drafting
1830 E. BROADWAY BLVD. #124-221
TUCSON, ARIZONA, 85718
PHONE: (520) 732-1822
benjamin@benjandesign.com

Exhibit C



SITE PLAN SYMBOLS	
FFE	FINISHED FLOOR ELEVATION
T.O.W.	TOP OF WALL
P.I.P.	PRESERVE IN PLACE
T.O.S.	TRANSPLANT ON SITE
R.O.S.	RELOCATED ON SITE
←	DRAINAGE FLOW
◊	OUTDOOR WALL LANTERN (SHIELDED)
▲	LANDSCAPE LIGHTS
—	CONTOUR LINE
⊙	PROPERTY LINE
---	GRADING LIMITS
—	UTILITY LINE
—	100 YEAR FLOOD PRONE LIMITS
▨	UNDISTURBED NATURAL AREA
▩	HILLSIDE AREA

NOTE: DRAINAGE SHALL PER DRAINAGE STUDY BY CHS DRAINAGE ENGINEERING DRAINAGE REPORT

SITE PLAN GRADING NOTES	
1.	CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. CALL BLUE STAKE (5800 181348) TWO FULL WORKING DAYS PRIOR TO EXCAVATION.
2.	THE CONTRACTOR SHALL PRESERVE ALL STAKES SET FOR THE LINES, LEVELS OR MEASUREMENTS OF THE WORK IN THEIR PROPER PLACES UNTIL AUTHORIZED TO REMOVE THEM BY THE ENGINEER. ANY EXPENSE INCURRED IN REPLACING ANY STAKES WHICH THE CONTRACTOR OR HIS SUBORDINATES MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED TO THE CONTRACTOR.
3.	IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FURNISH, HAIL AND SUPPLY ALL WATER REQUIRED FOR COMPACTION AND FOR THE CONTROL OF DUST FROM CONSTRUCTION ACTIVITY. THE COST THEREOF IS TO BE INCLUDED IN THE GRADING CONSTRUCTION PRICE.
4.	BUILDING SITES SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF FINISH BUILDING PAD ELEVATIONS AS STATED BY THE ENGINEER. STREETS AND PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF FINISH SUBGRADE AS STATED BY THE ENGINEER.
5.	COMPACTION IN ALL AREAS SHALL BE A MINIMUM OF 95% OF THE MAXIMUM DENSITY AS DETERMINED TO ASTM DESIGNATION T-99, METHOD A. THOSE AREAS TO RECEIVE FILL ARE TO BE SCARIFIED TO A DEPTH OF 18 INCHES, BROUGHT TO THE PROPER MOISTURE CONTENT AND COMPACTED TO THE ABOVE DENSITY. THE AREA SOURCE OF FILL MATERIAL SHALL BE APPROVED BY THE OWNER PRIOR TO COMMENCEMENT OF WORK. TESTS TO FILL MATERIAL WILL BE DONE AT THE OWNER'S EXPENSE.
6.	THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE, MAINTENANCE, REPAIR OR REPLACEMENT OF EXISTING IMPROVEMENTS IN THE WORK AREA WHICH HAVE BEEN REMOVED OR DAMAGED DURING THE COURSE OF CONSTRUCTION. ALL REPAIR, REPLACEMENT, OR CLEANUP SHALL BE DONE TO THE SATISFACTION OF THE OWNER.
7.	A REPORT OF SOILS INVESTIGATION INCLUDING RECOMMENDATIONS FOR GRADING PROCEDURES HAS BEEN PREPARED BY AN ENGINEER. EARTHWORK SHALL CONFORM TO THE RECOMMENDATIONS CONTAINED IN SAID REPORT.
8.	A COPY OF THE APPROVED PLAN AND GRADING PERMIT SHALL BE KEPT IN AN EASILY ACCESSIBLE LOCATION ON THE SITE AT ALL TIMES DURING CONSTRUCTION.
9.	ALL REVISIONS TO THESE PLANS MUST BE APPROVED BY THE MARANA TOWN ENGINEER PRIOR TO CONSTRUCTION.
10.	CONTRACTOR SHALL REFER TO STORM WATER POLLUTION PREVENTION PLANS TO CONTROL SEDIMENT POLLUTION DURING GRADING OPERATIONS.
11.	SLOPE STABILIZATION: A. SLOPES 3:1 OR SHALLOWER SHALL BE REVEGETATED (OR USE CLEAN LANDSCAPE ROCK). B. SLOPES STEEPER THAN 3:1 BUT SHALLOWER THAN 15:1 SHALL BE COVERED W/ ROCK RIP-RAP OVER FILTER FABRIC. C. SLOPES 15:1 AND STEEPER SHALL HAVE GROUTED RIP-RAP, EARTH RETAINING WALLS, OR RETAINING WALLS AS APPROPRIATE.

GRADING CALCULATIONS	
LOT SIZE	1.15 ACRES) 50,089 SQ. FT.
GRADED AREA	15,222.31 SQ. FT. (.35 ACRES)
% OF LOT GRADED	30.4 %
TOTAL RSH	1.15 ACRES) 50,089 SQ. FT.
TOTAL DISTURBED RSH	15,222.31 SQ. FT. (.35 ACRES)
TOTAL PERCENTAGE	30.4 %
IMPORTANT RIPARIAN XB AREA	(.51 ACRES) 24,622.83 SQ. FT.
TOTAL DISTURBED IRA XB	(.21 ACRES) 11,830.18 SQ. FT.
TOTAL PERCENTAGE OF DISTURBED	48 %
RIPARIAN XC AREA	(.38 ACRES) 25,466.71 SQ. FT.
TOTAL DISTURBED XC	(.28 ACRES) 3,391.48 SQ. FT.
TOTAL PERCENTAGE OF DISTURBED	14.6 %

OWNERS
WILLIAM AND ELEANOR DIAMOND
1792 E. SAHUARO BLOSSOM PL.
TUCSON, ARIZONA 85718

ADDRESS/LEGAL DESCRIPTION
1792 E. SAHUARDA BLOSSOM PL.
TUCSON, AZ 85718
PIMA CANYON ESTATES RESUB LOT #30
PARCEL: 220-20-3720
ZONING: CR-1
TDS R4E 531
MAP # PLAT 50/81
AREA = 1.15 ACRES (50,089 SF.)

AVOIDANCE NOTE
1792 E. SAHUARO BLOSSOM PLACE
LOT #30 PIMA CANYON ESTATES
AVOIDANCE JUSTIFICATION (1630242.1)
1. WE ARE IN A HEAVILY VEGETATED LOT WHERE THERE ARE NOT ANY ADDITIONAL PLANTING AREAS.
2. WE ARE IN A GATED COMMUNITY, WHERE WE ARE LIMITED TO THE AMOUNT OF GRADED AREA AWAY FROM THE HOUSE, DRIVE AND FENCING.
3. WE ARE IN A GATED COMMUNITY THAT HAS ITS OWN LANDSCAPE REQUIREMENTS WITHIN THE GRADED AREA.

ILF COST ESTIMATION	
IRA /XB	21 X 11,000 = 231,000
XC	28 X 6,500 = 182,000
TOTAL ESTIMATION	413,000

DIAMOND RESIDENCE
1792 E. SAHUARO BLOSSOM PL.
TUCSON, AZ. 85718

FFUP# P16FC00505
RIPARIAN HABITAT MITIGATION

Benjamin Design & Drafting
1850 E. BROADWAY BLVD. #124-221
TUCSON, ARIZONA, 85719
PHONE: (520) 772-1822
ben@benjamin-design.com

PROJECT # DIAMOND_750
DRAWING # RDD/GEJ
DATE 06/25/2016
SCALE
FILENAME

SHEET
RHM
OF 17

RIPARIAN HABITAT MITIGATION IN-LIEU FEE PROPOSAL
SCALE 1"=20'

C:\PROJ\BENJAMIN DESIGN\000 NEWDIAMOND #250 DIAMOND #250-018-SITE RIPARIAN (1).dwg 10/27/2016 5:16:58 PM



In-Lieu Fee Calculation Options

1. **Flat fee table.** Applicant shall use the flat fee table for calculating the fee for acreage of disturbed Regulated Riparian Habitat (RRH) not mitigated onsite. Flat fee is based on cost per acre to mitigate onsite. The flat fee table accounts for all components of a mitigation plan.

Flat Fee Table - Cost per Acre for RRH Disturbance

	XA	XB	XC	XD	IRA/H, H	IRA/XA	IRA/XB	IRA/XC	IRA/XD
Cost per Acre Single Lot	\$8,500	\$7,500	\$6,500	\$5,000	\$17,000	\$12,500	\$11,000	\$9,500	\$8,000
Cost per Acre Development Project	\$17,000	\$16,000	\$14,000	\$12,000	\$40,000	\$30,000	\$28,000	\$25,000	\$22,000

2. **ILF Calculation Spreadsheet.** The applicant may use the ILF calculation spreadsheet when certain components of the mitigation requirement are not completed onsite. The ILF calculation spreadsheet allows an applicant to determine ILF costs for individual components of a mitigation plan (e.g., trees/shrubs, seeding, or irrigation, etc.). For example, an appropriate use of the ILF Calculation Spreadsheet would be when an applicant proposes planting only 50% of the required trees/shrubs onsite but placing 100% of the seeding requirement onsite.

The "component" ILF would then represent the value of 50% of trees/shrubs and irrigation not implemented on the project site. Note, when calculating component values, percentages of the irrigation component completed onsite must equal the percentage of trees/shrubs component completed onsite.

3. **ILF Cost Estimate provided by a qualified professional.** ILF cost estimates may be obtained from a qualified professional as an alternative to using the flat fee or spreadsheet calculations. Qualified professionals include: nurseries, landscape companies, landscape architects, biologist, botanist, or other qualified professional that would design, supply, or install components required for onsite mitigation. Submittals shall follow requirements listed in the ILF checklist provided in Appendix G of the Regulated Riparian Habitat Off-site Mitigation Guidelines for unincorporated Pima County.