VOLUME II

EXHIBITS

Reata Wash Flood Control Improvement Study

Contract No. 2014-168-COS

Design Concept Report Volume II - Exhibits November 2, 2016

Prepared for:



Capital Project Management 7447 East Indian School Road, Suite 205 Scottsdale, AZ. 85251

Prepared By:

Wood, Patel & Associates, Inc. 2051 West Northern Avenue, Suite 100 Phoenix, Arizona 85021

In Association with:



EXPIRES 12-31-16













THE DESIGN CONCEPT REPORT FOR THE REATA WASH FLOOD CONTROL IMPROVEMENT STUDY IS COMPOSED OF THREE SEPARATE VOLUMES:

VOLUME I - REPORT

VOLUME II – EXHIBITS

VOLUME III - APPENDICES



EXPIRES 12-31-16

VOLUME II EXHIBITS

Exhibit 1	Study Location Reach Map
Exhibit 2	Study Location Reach Map and Existing Condition Floodplain
Exhibit 3	Study Location Reach Map and Proposed Condition Floodplain
Exhibit 4	Land Rights
Exhibit 5	Concept Design Plan (15%)
Exhibit 6	Existing Condition Peak Discharges
Exhibit 7	Proposed Condition Peak Discharges



EXPIRES 12-31-16

EXHIBIT 1 STUDY LOCATION REACH MAP

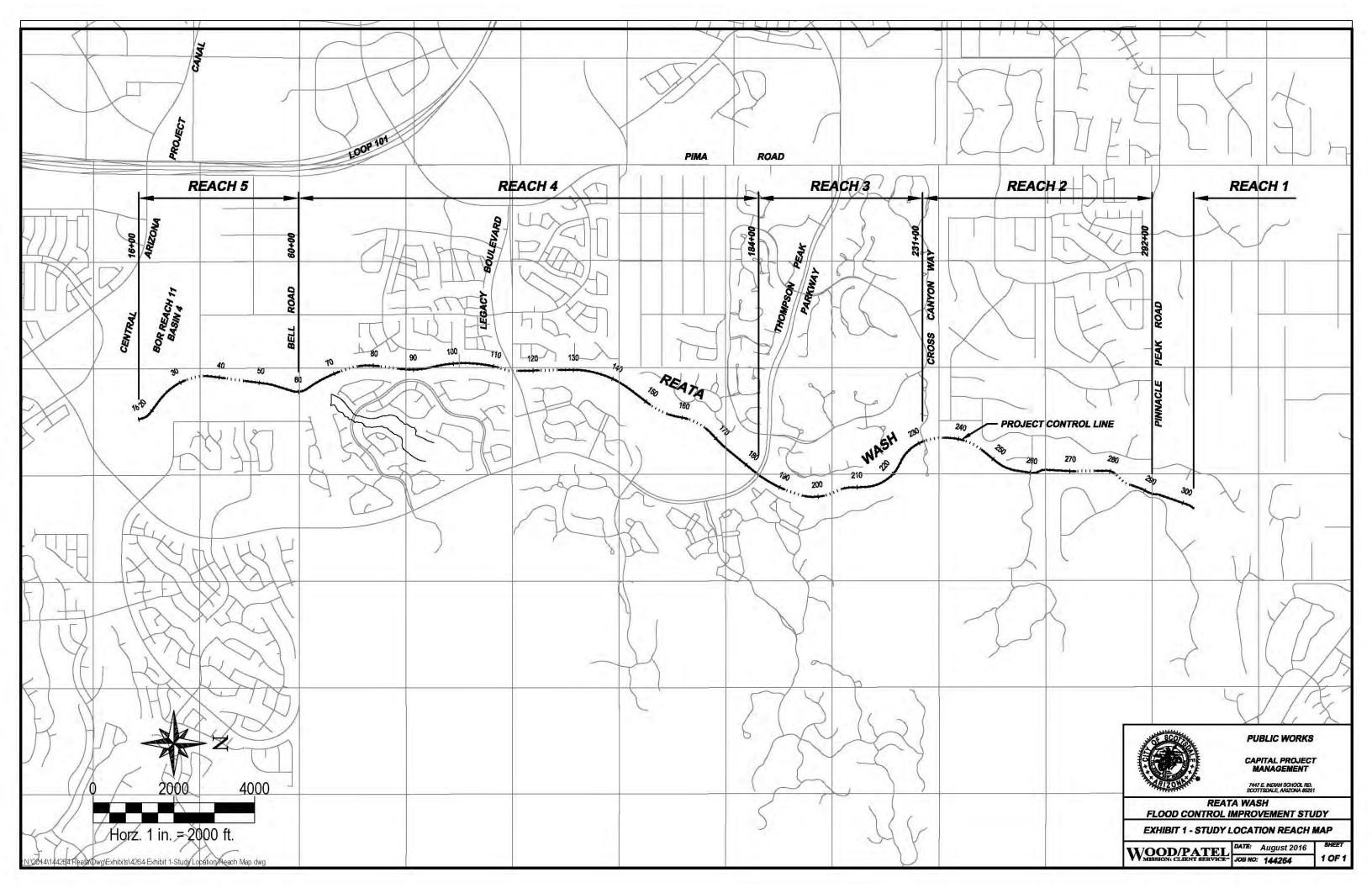
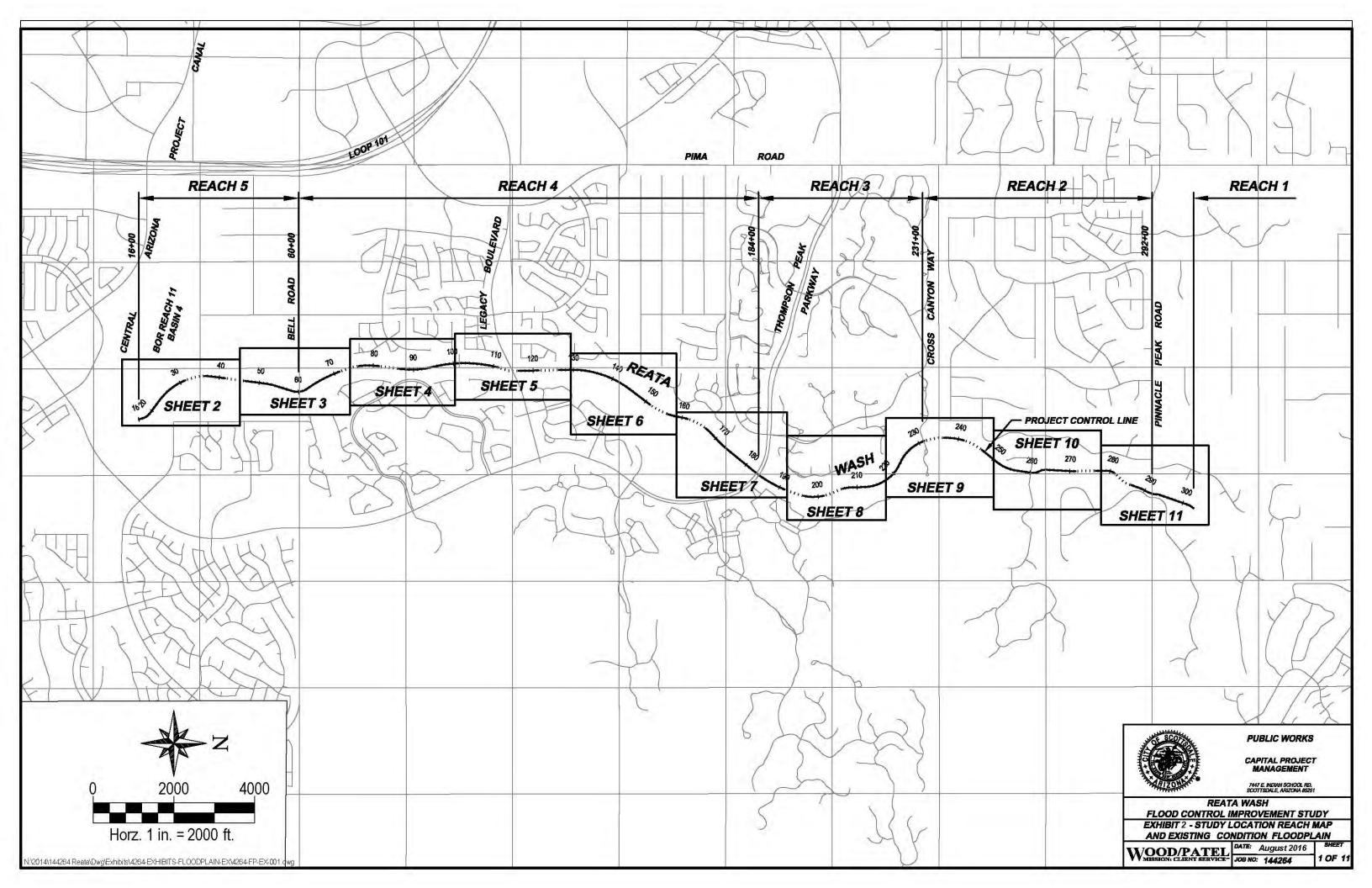
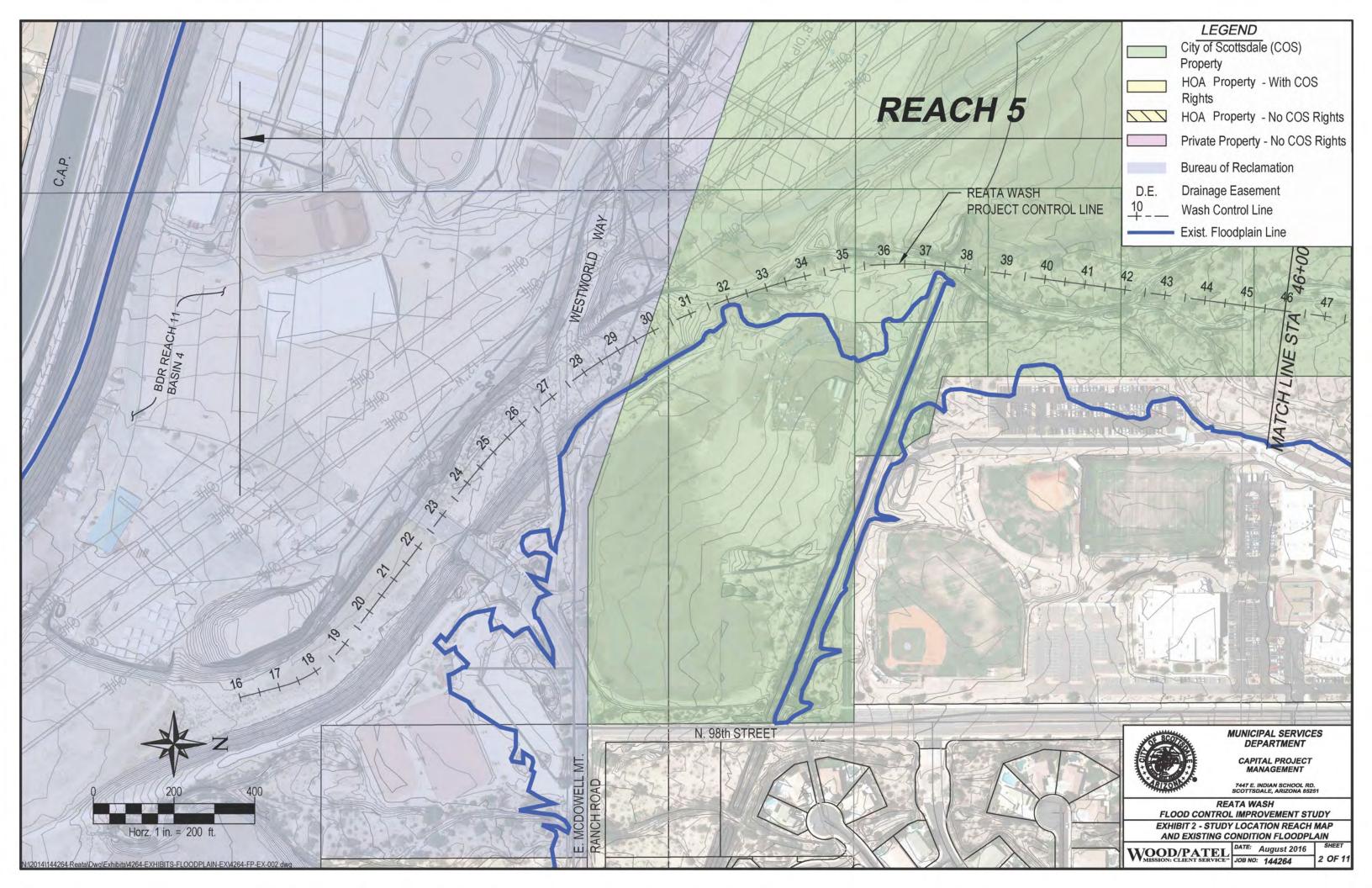
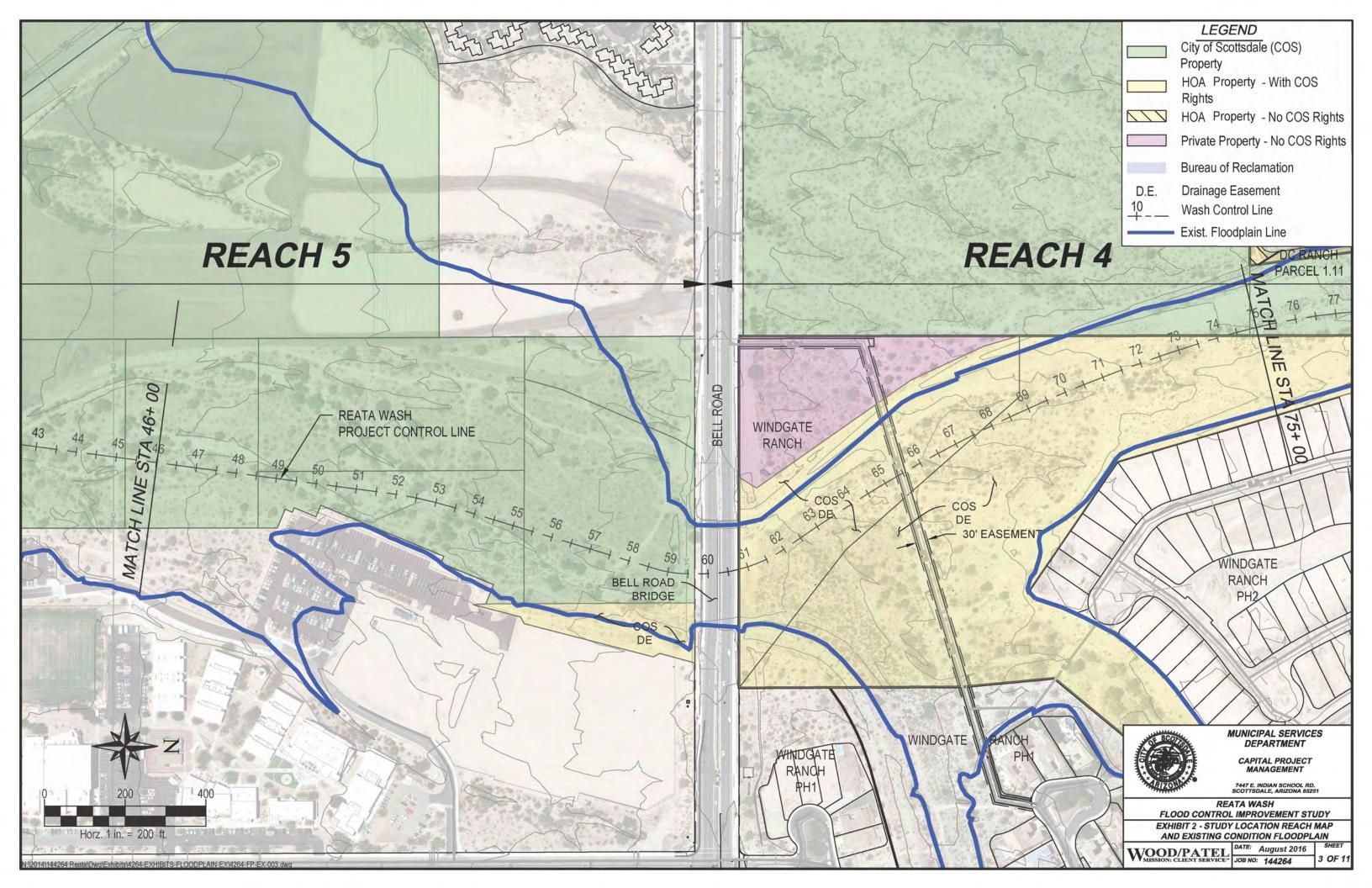


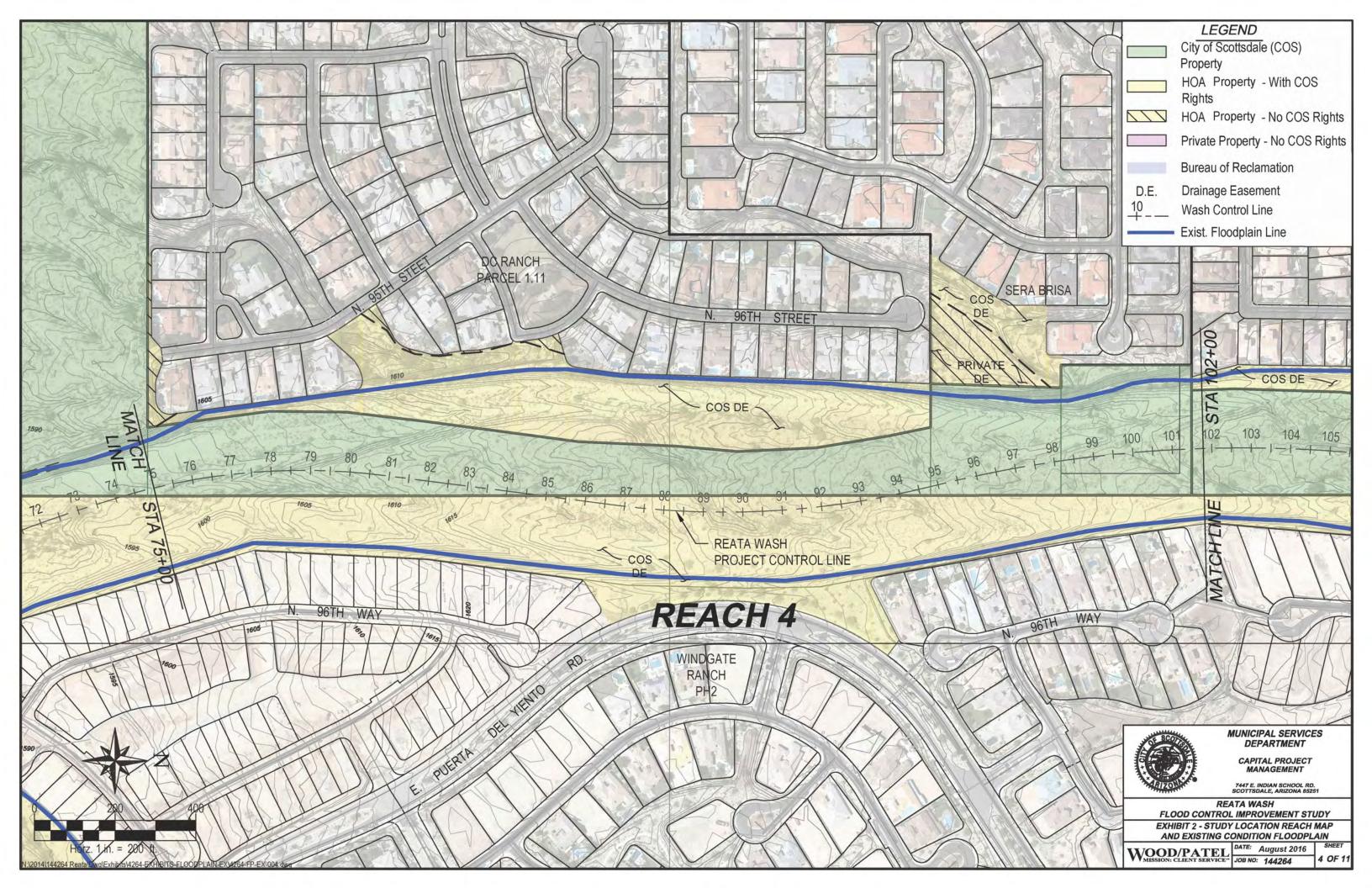
EXHIBIT 2

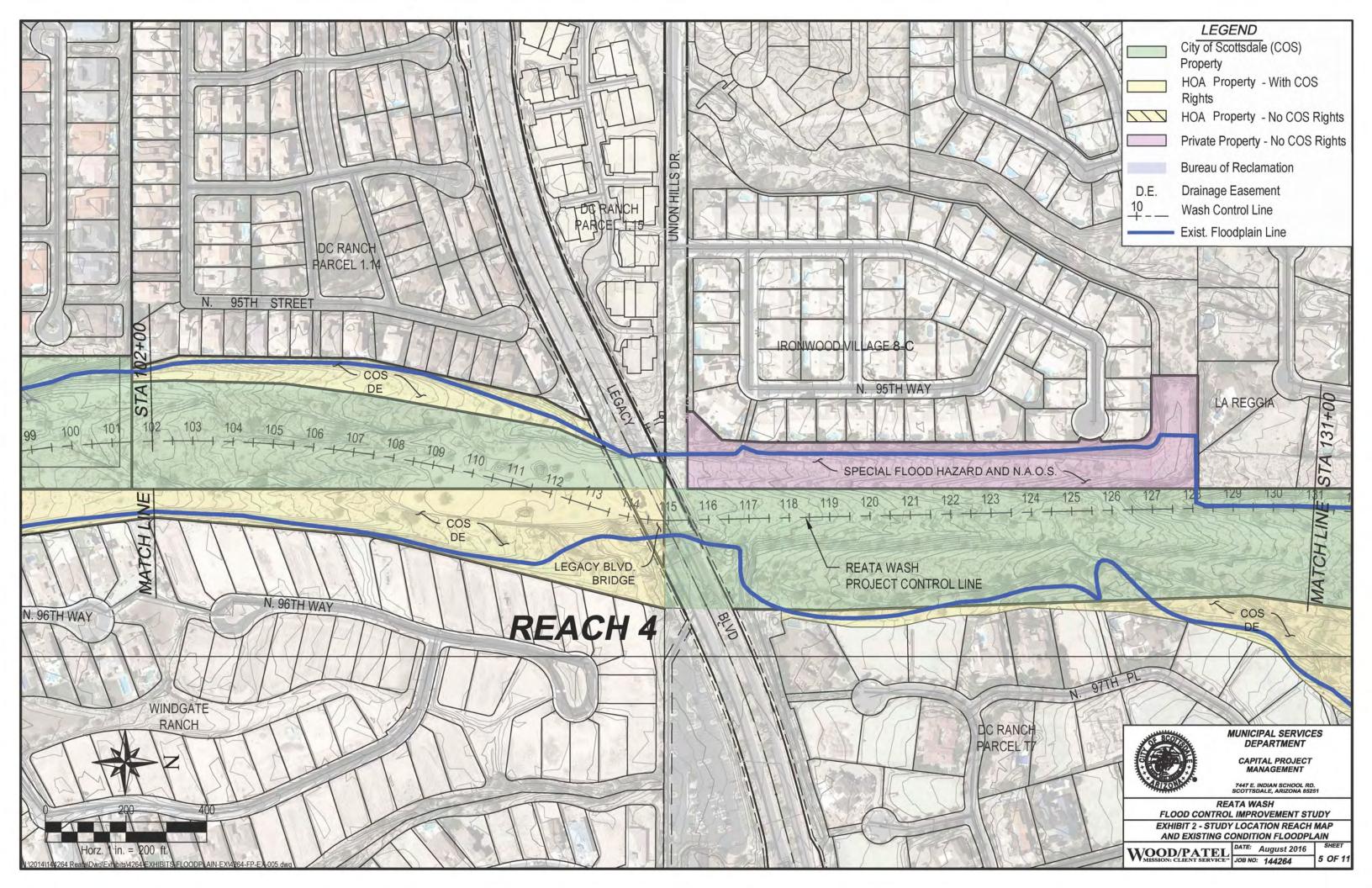
STUDY LOCATION REACH MAP AND EXISTING CONDITION FLOODPLAIN

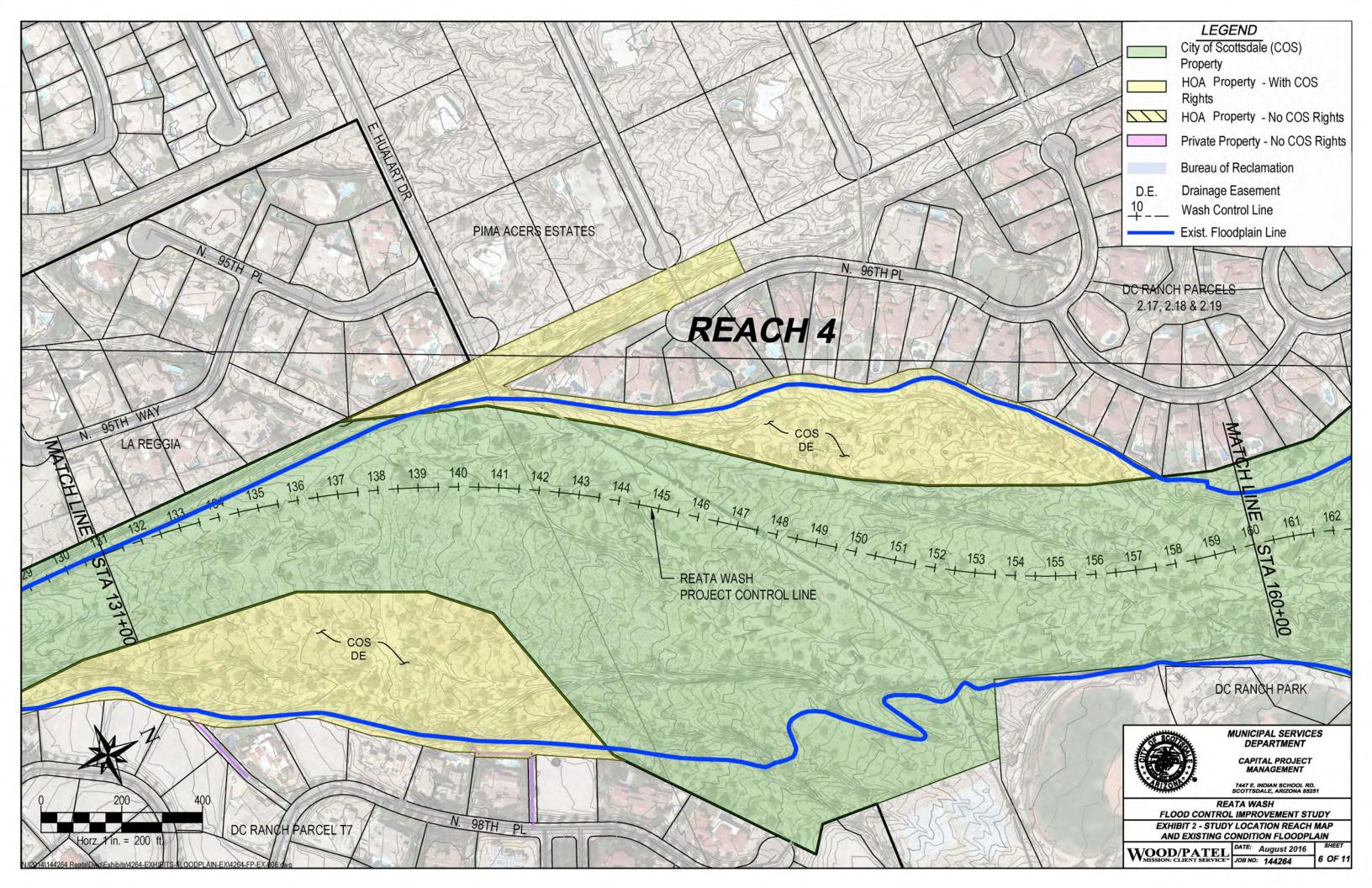


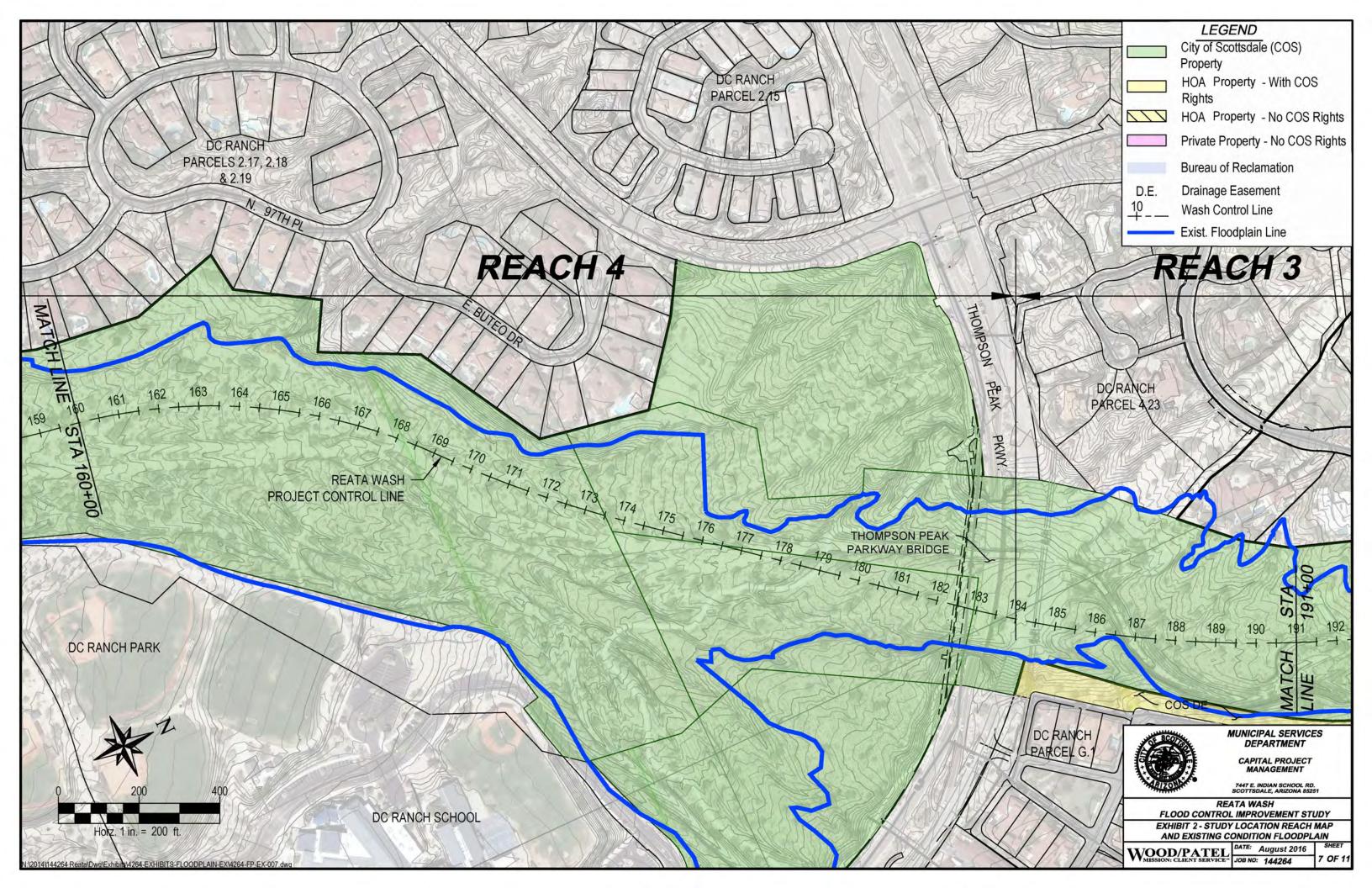


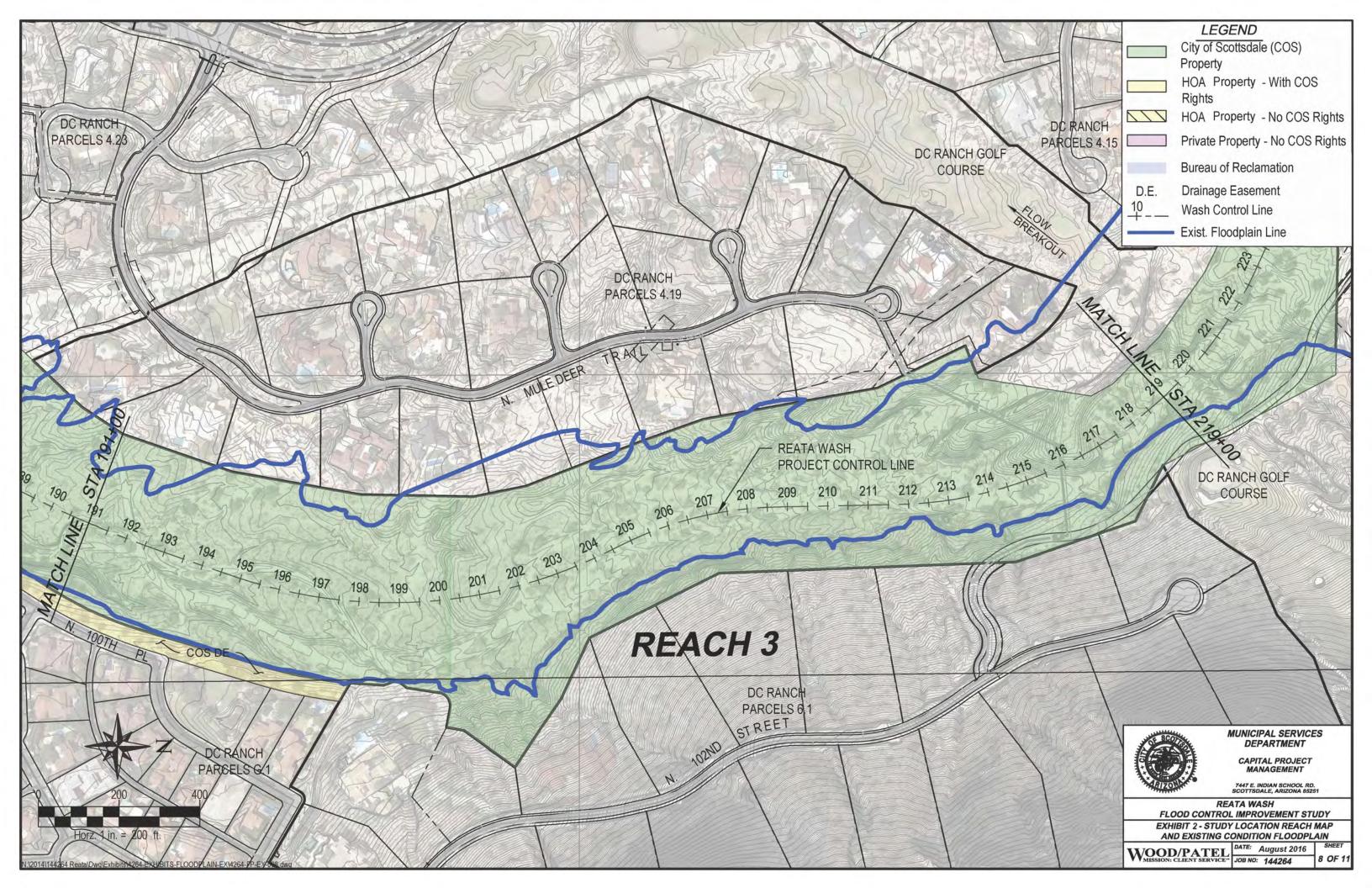


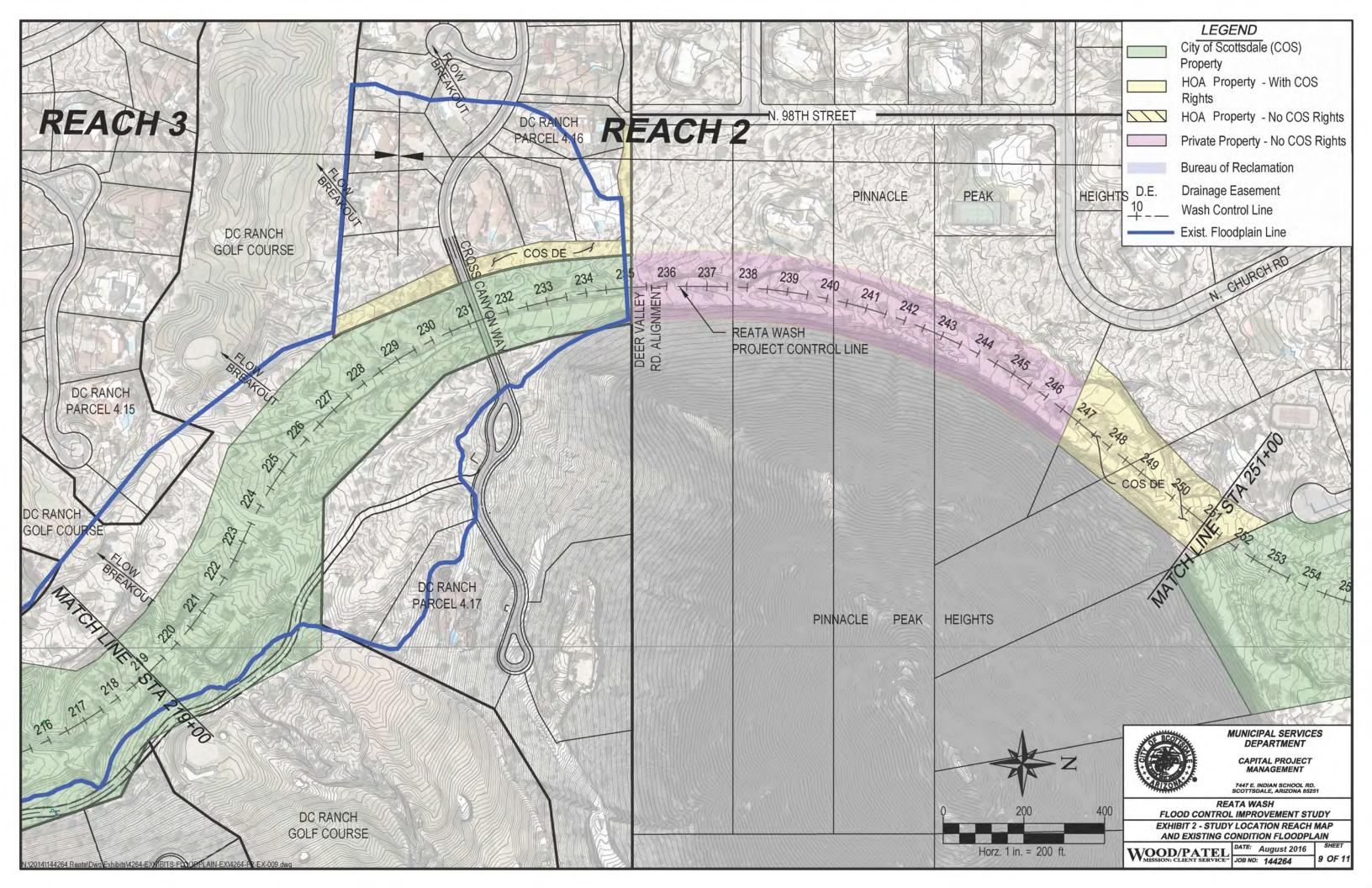


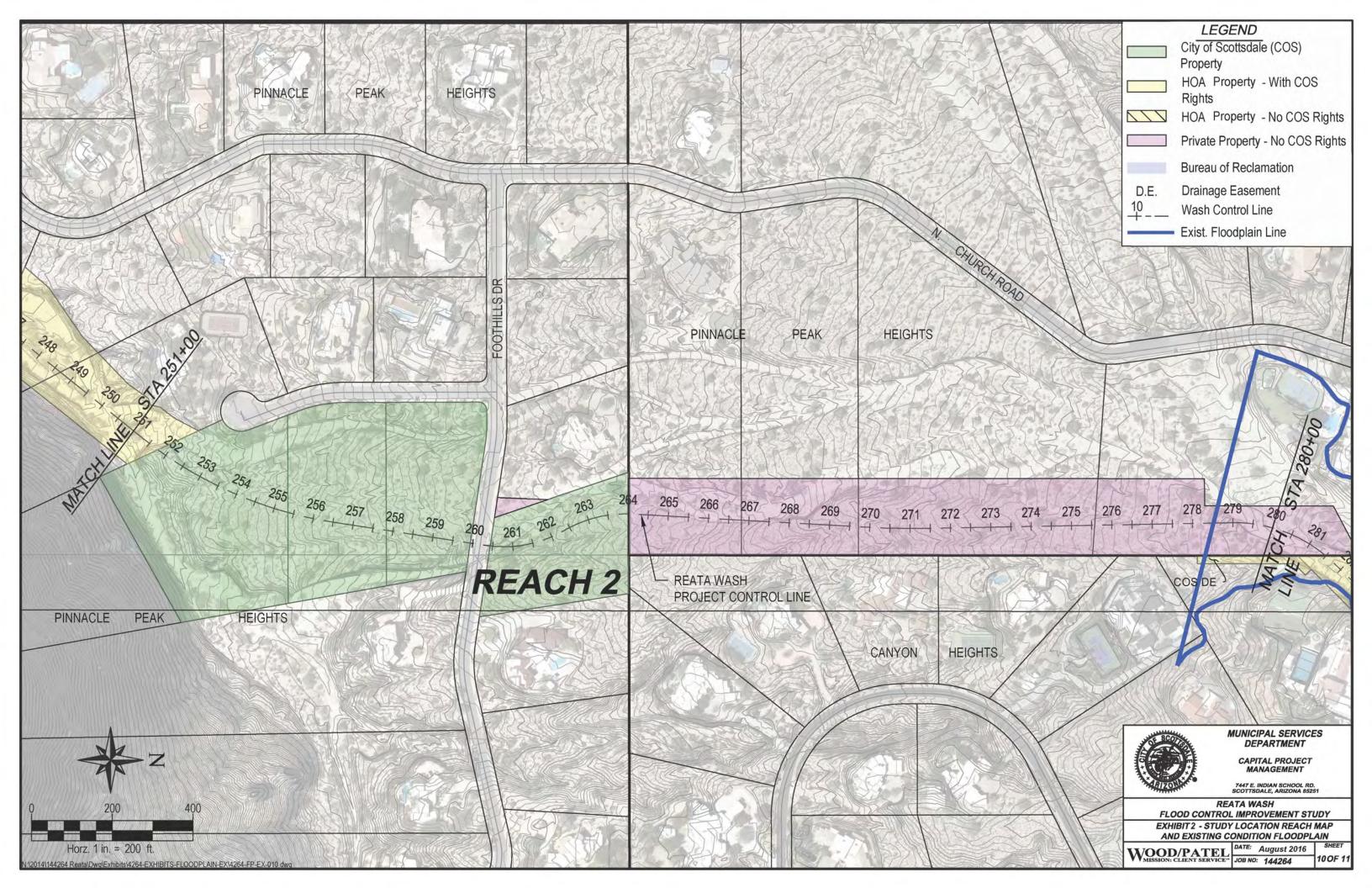












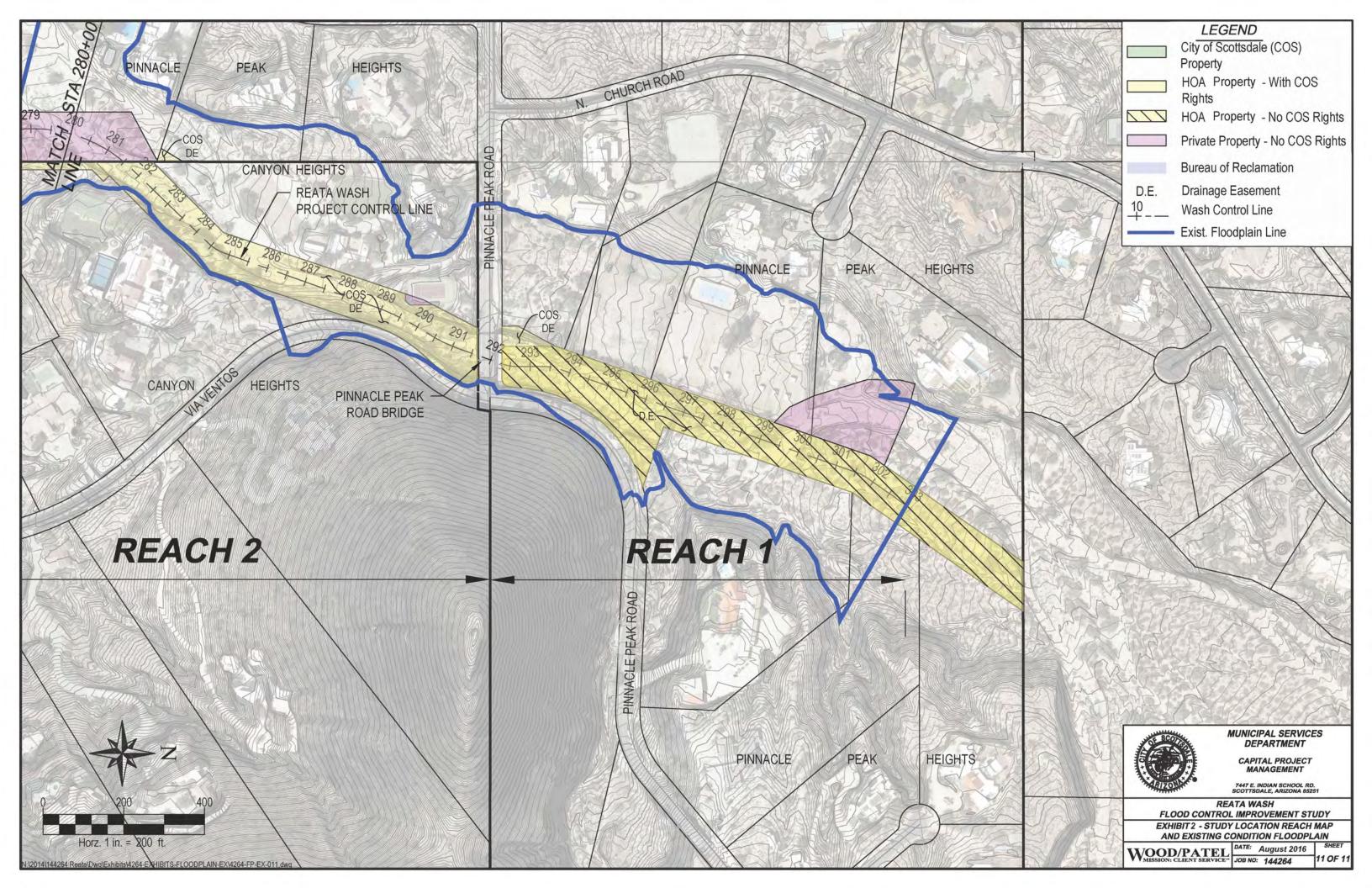
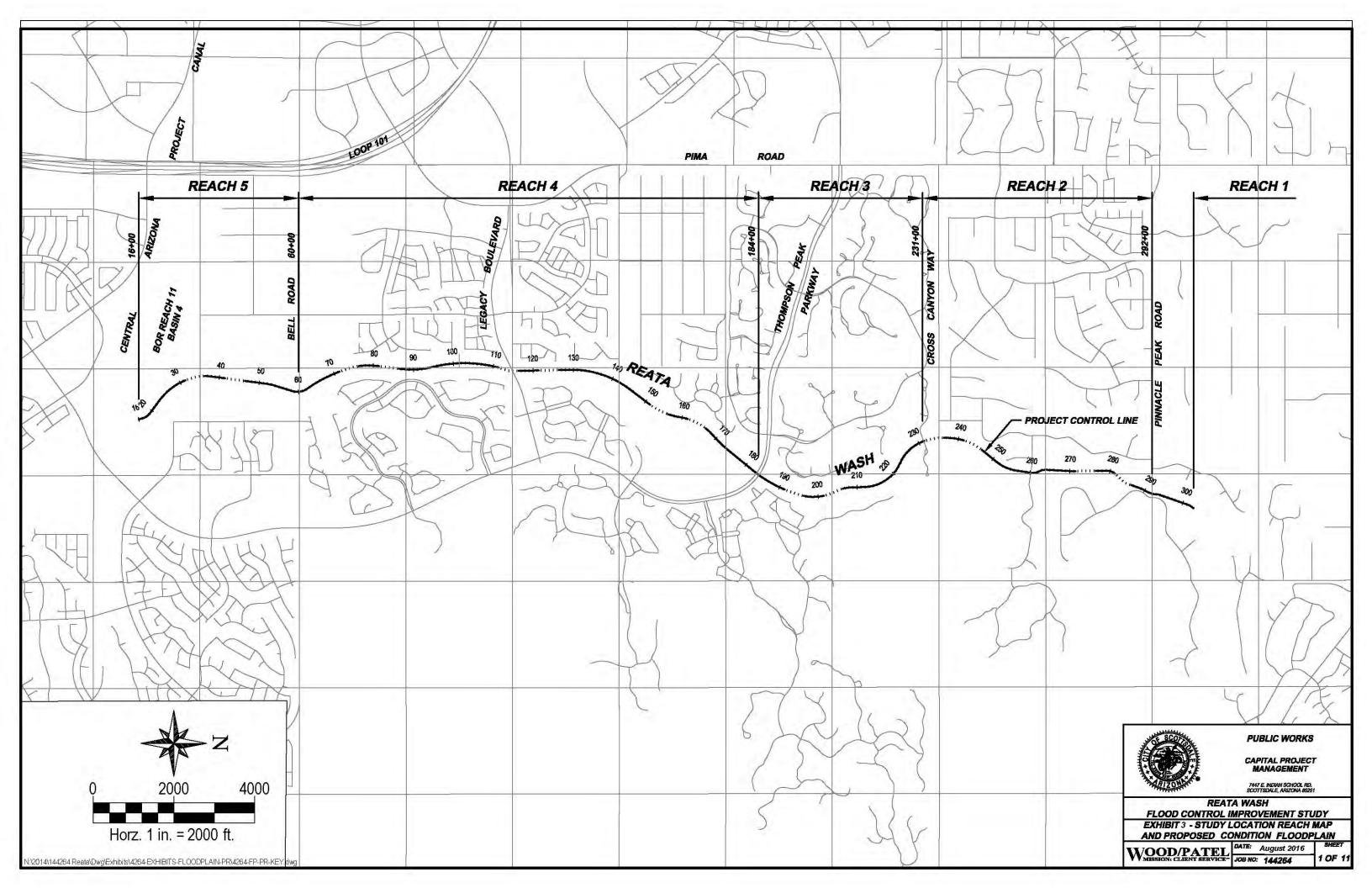
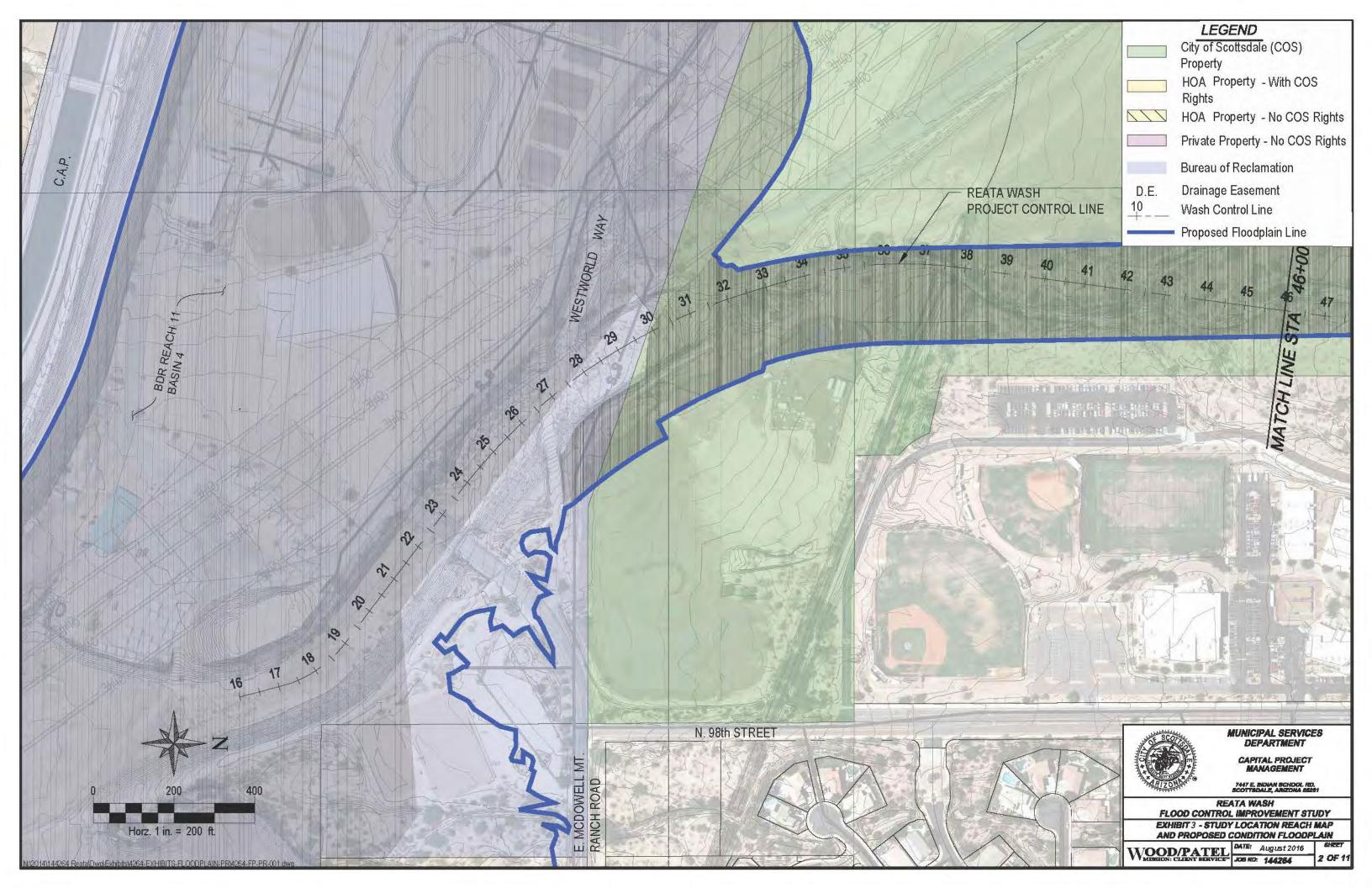
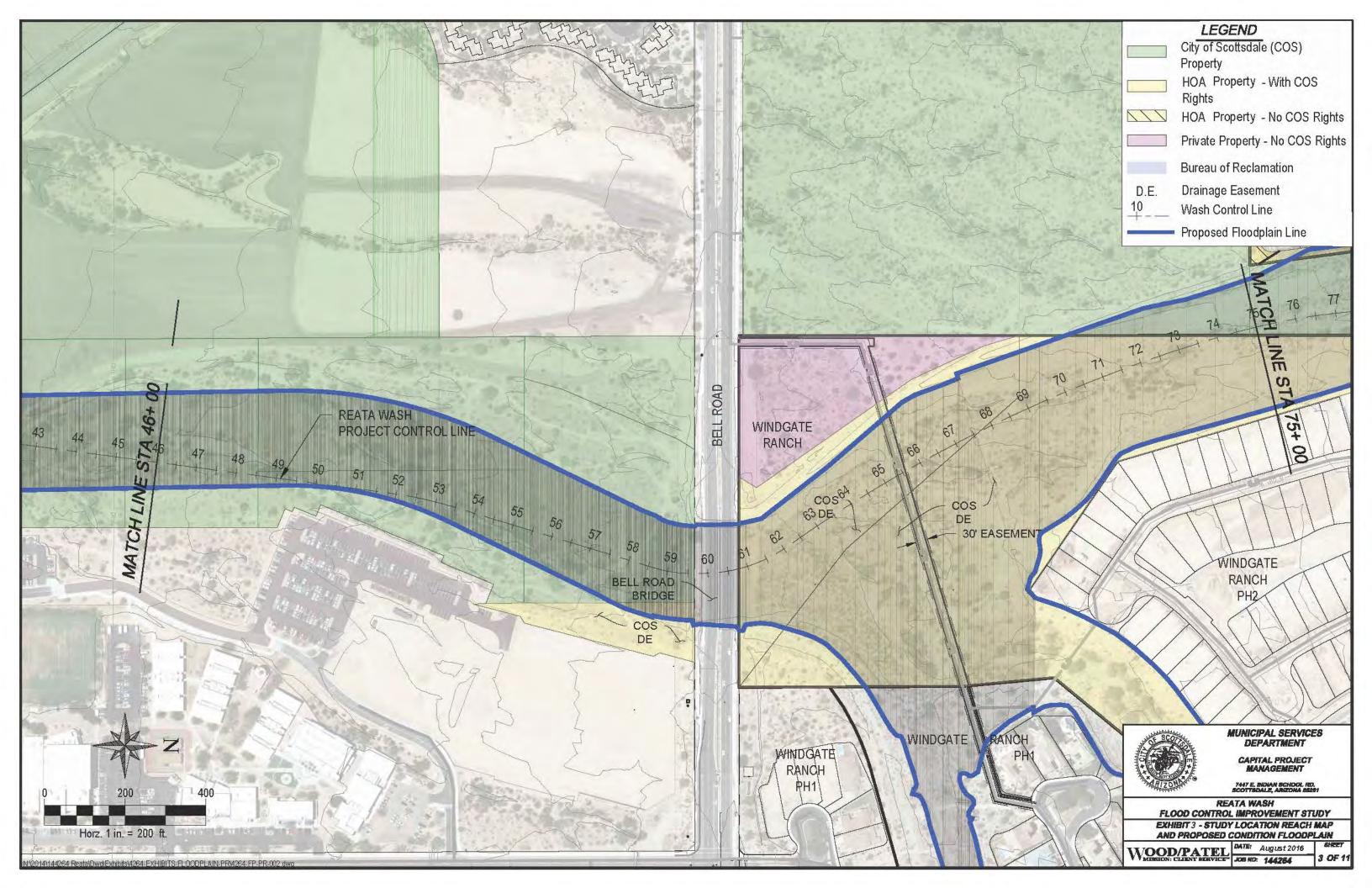


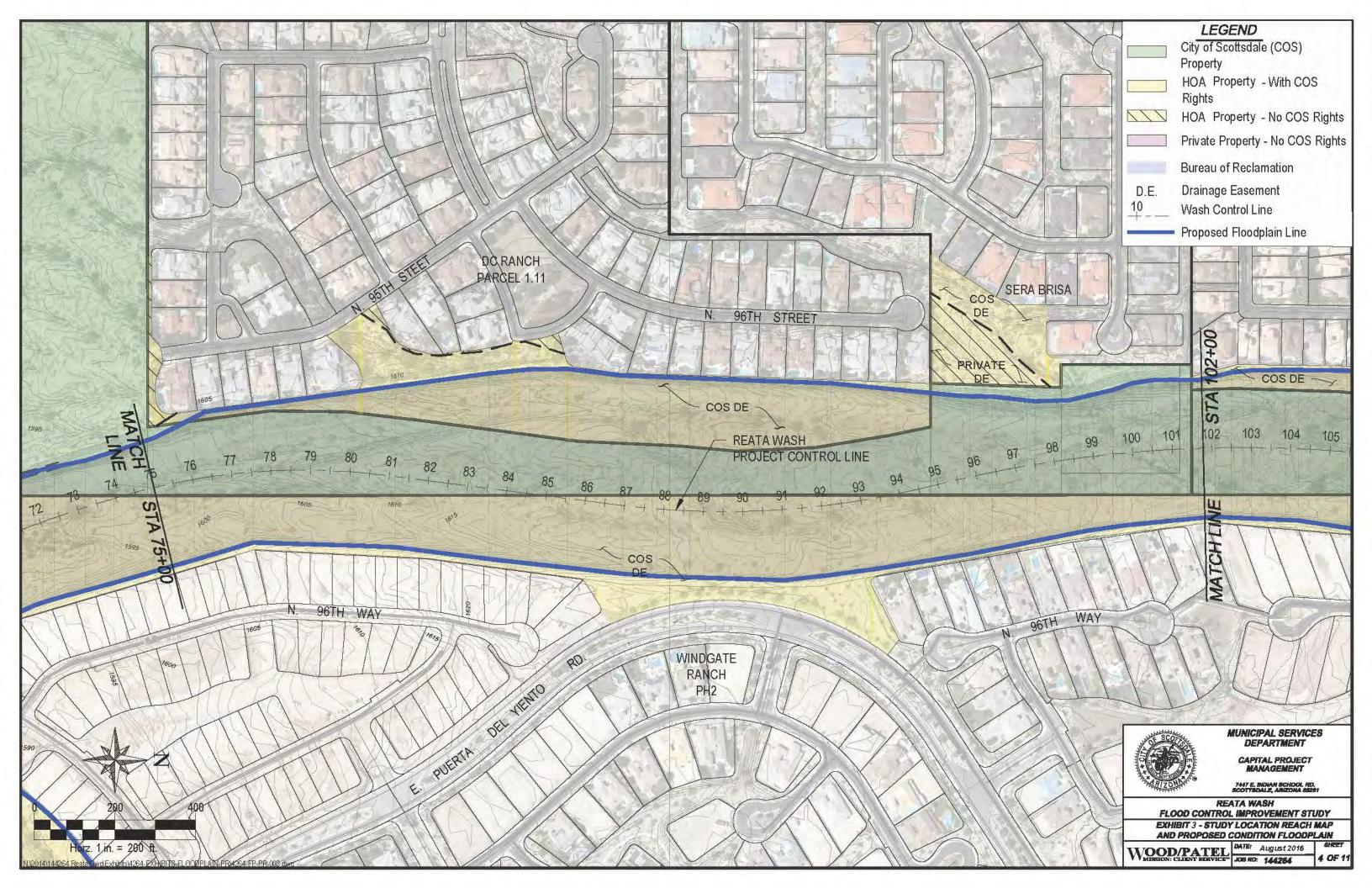
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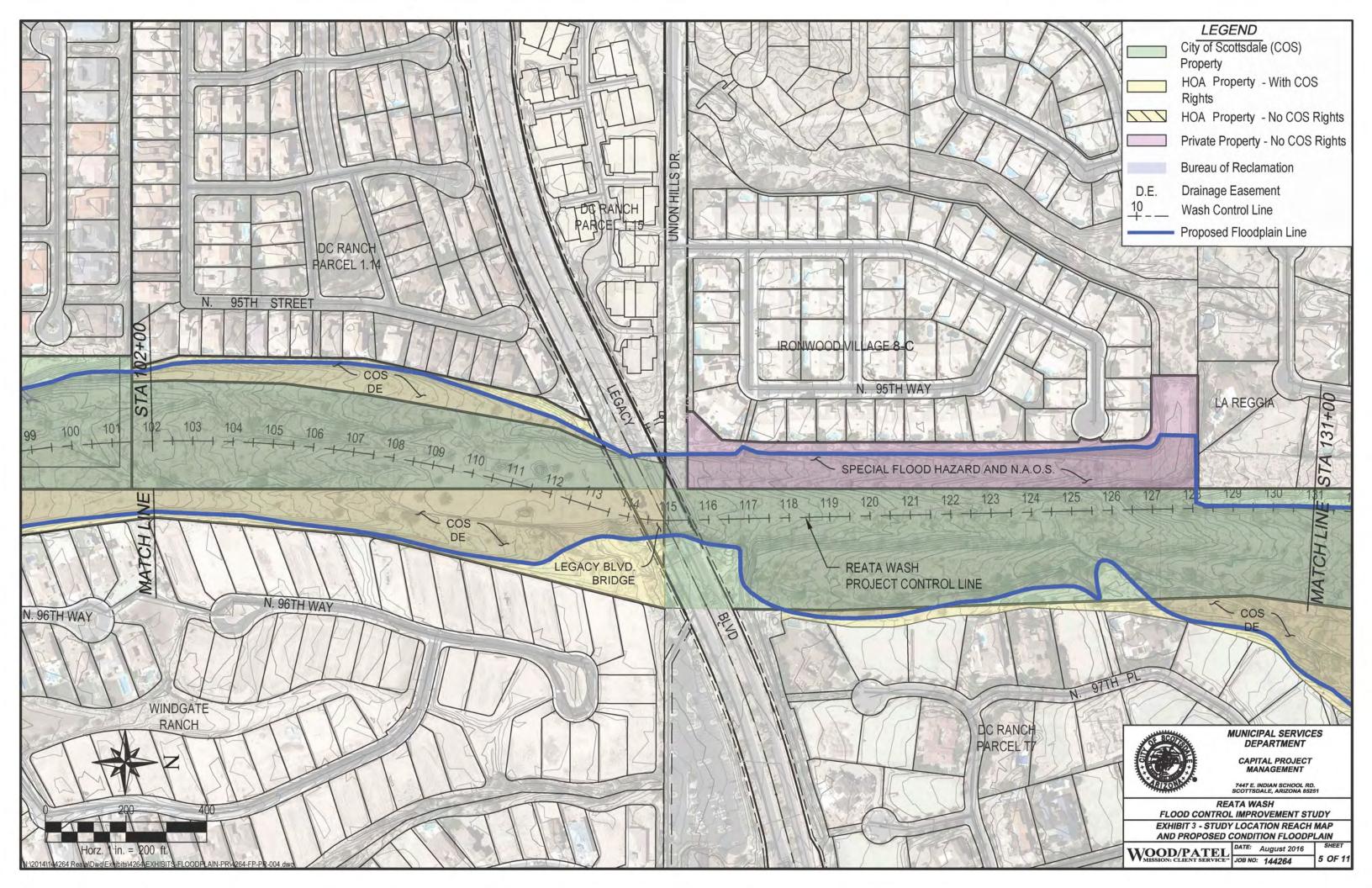
STUDY LOCATION REACH MAP AND PROPOSED CONDITION FLOODPLAIN

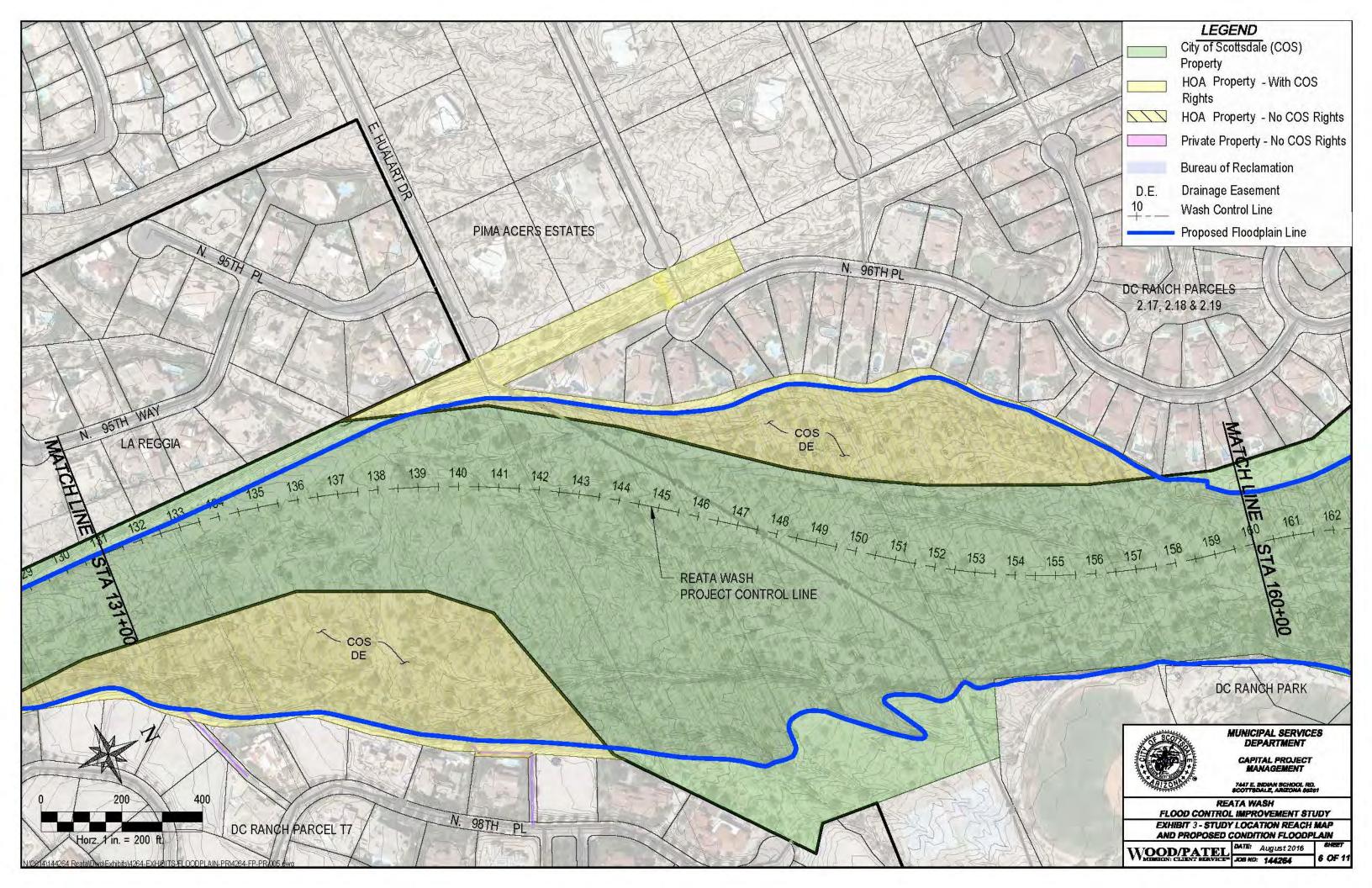


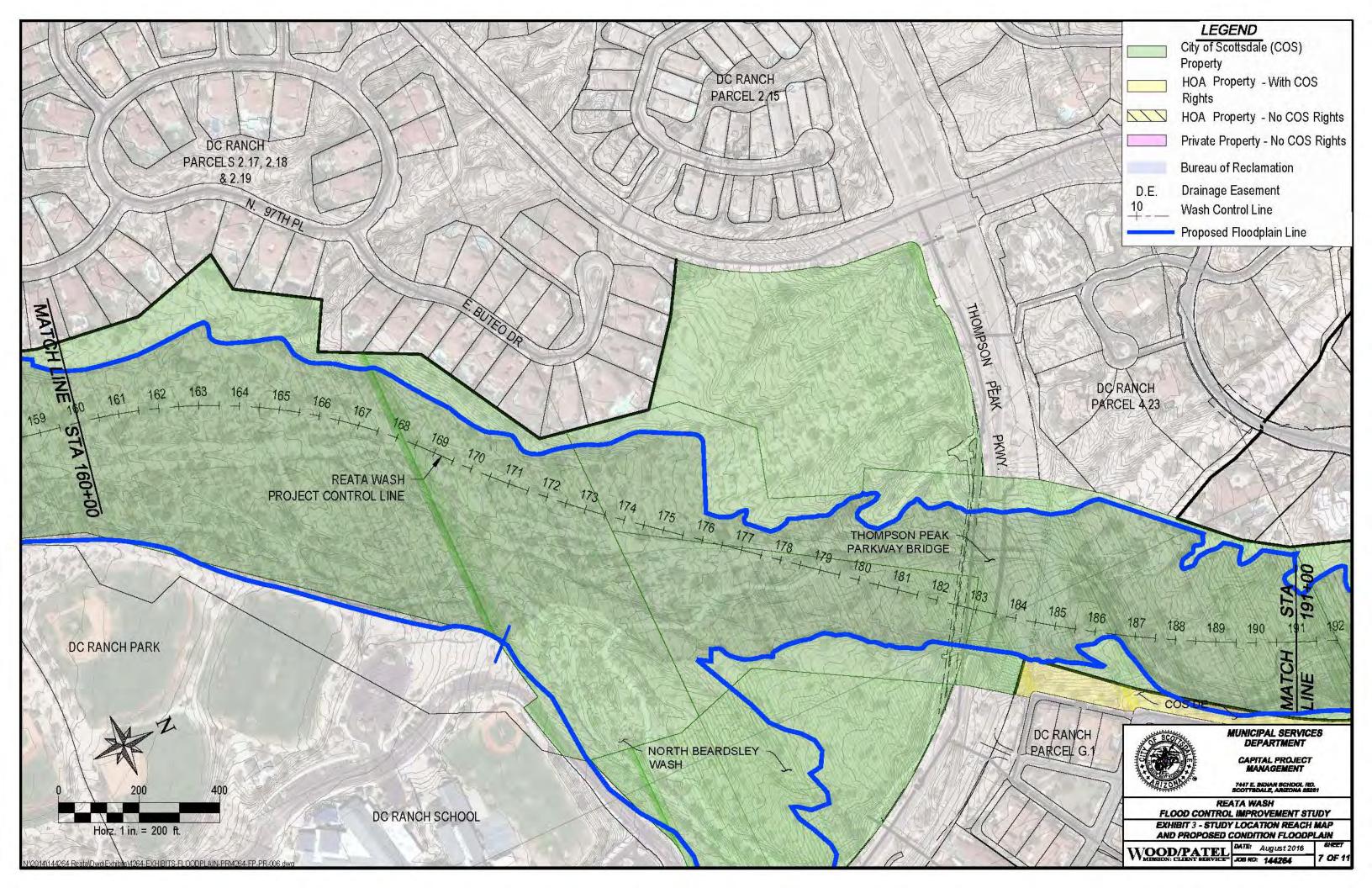


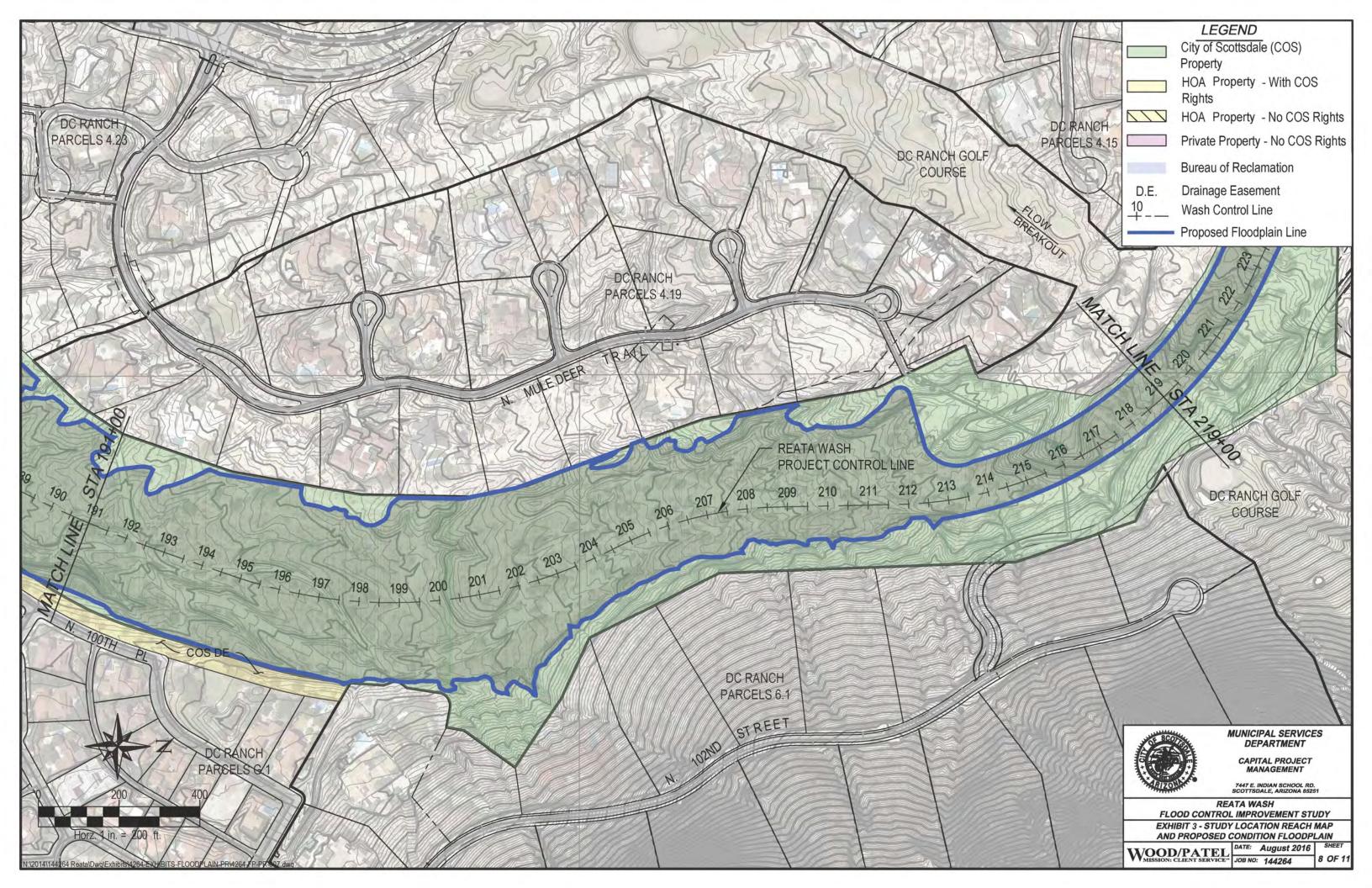


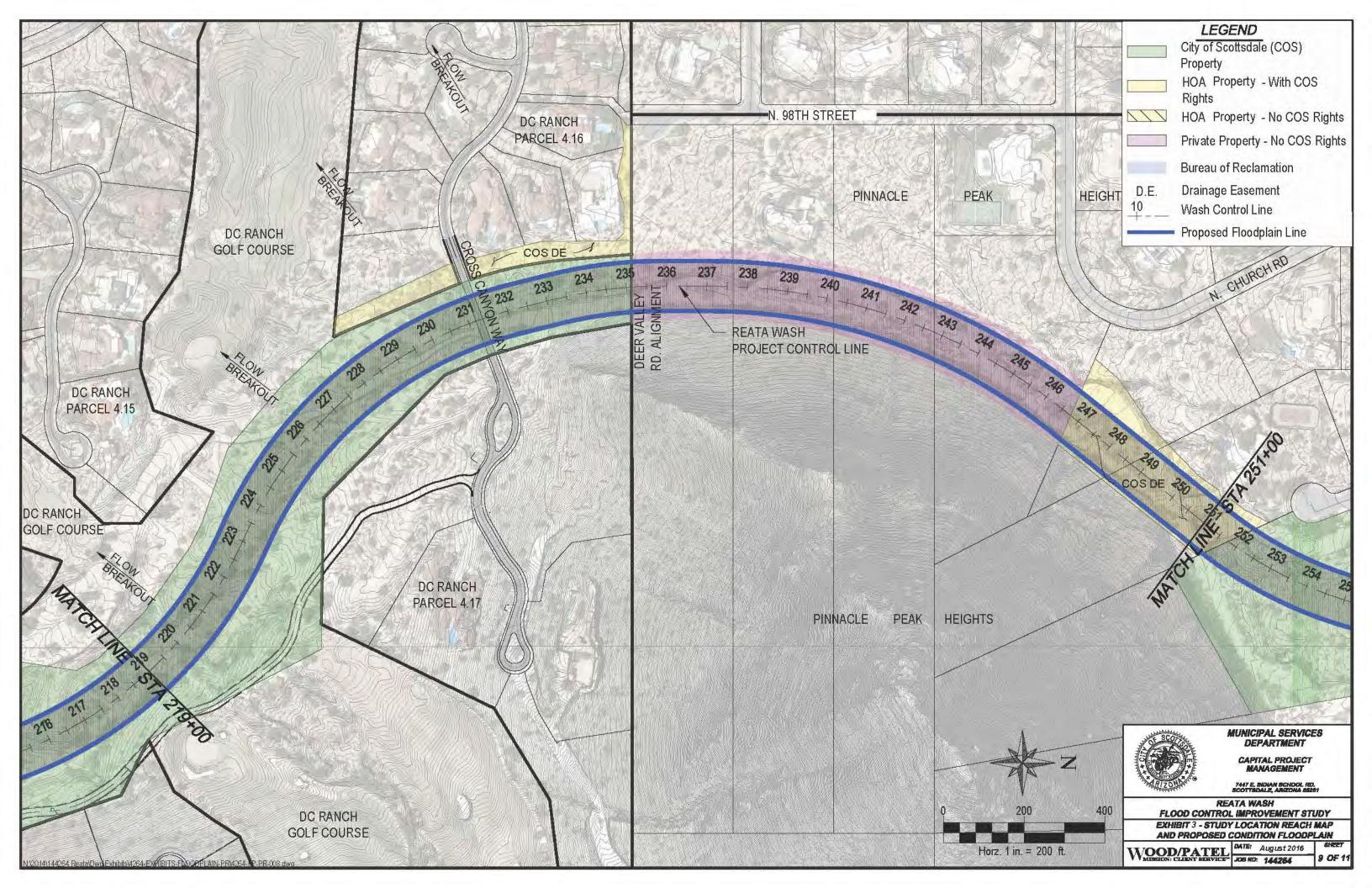


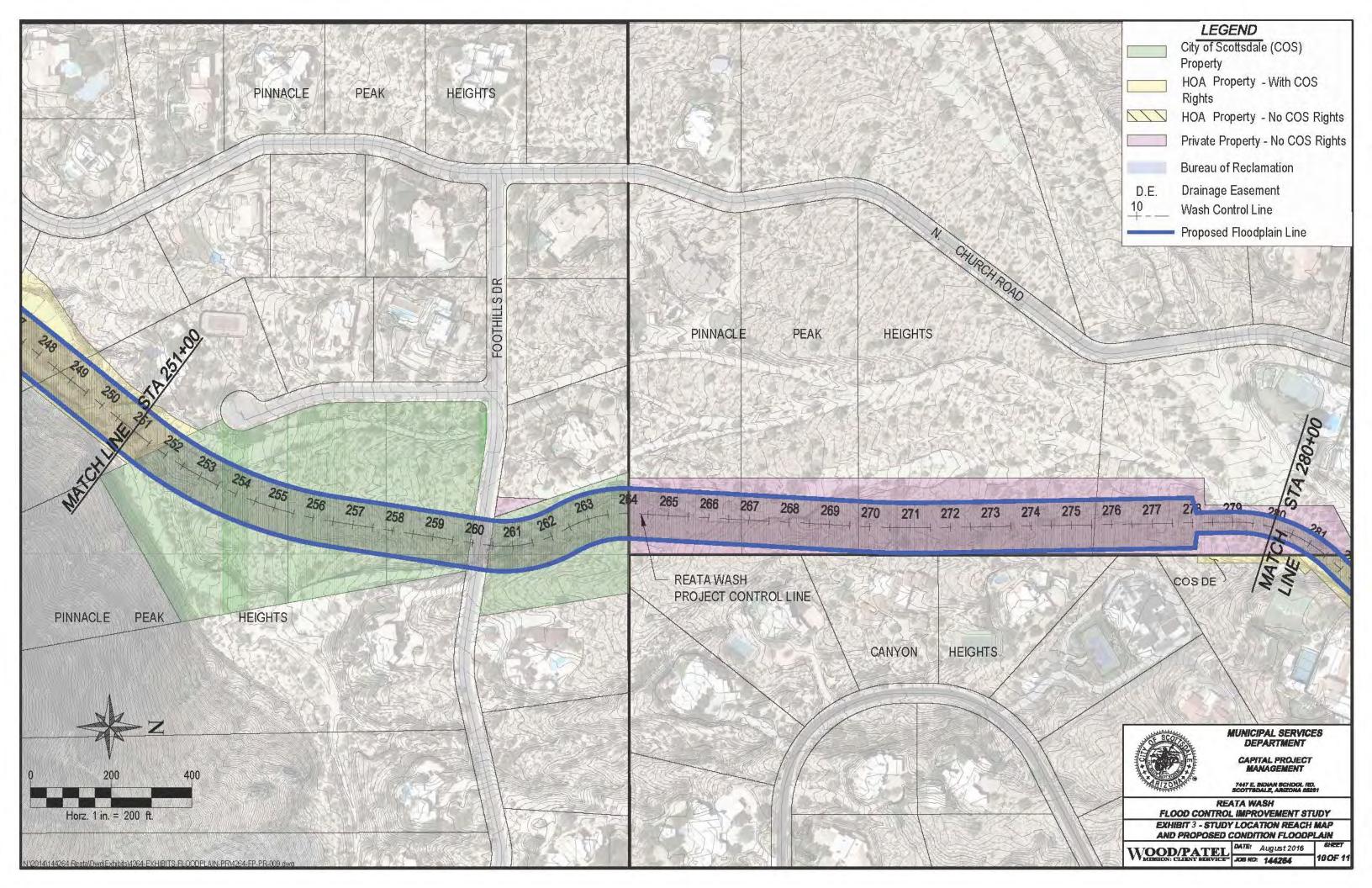












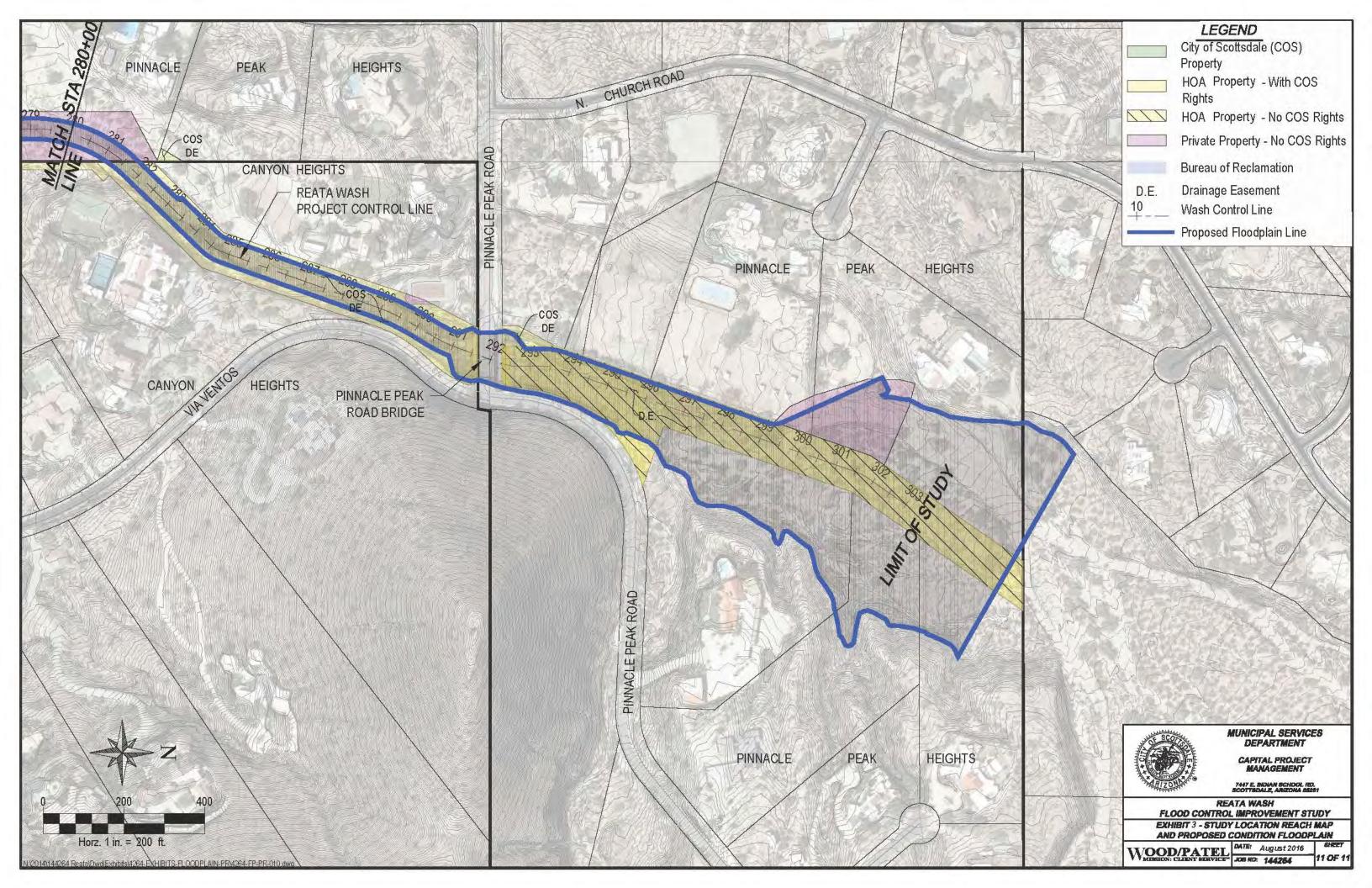
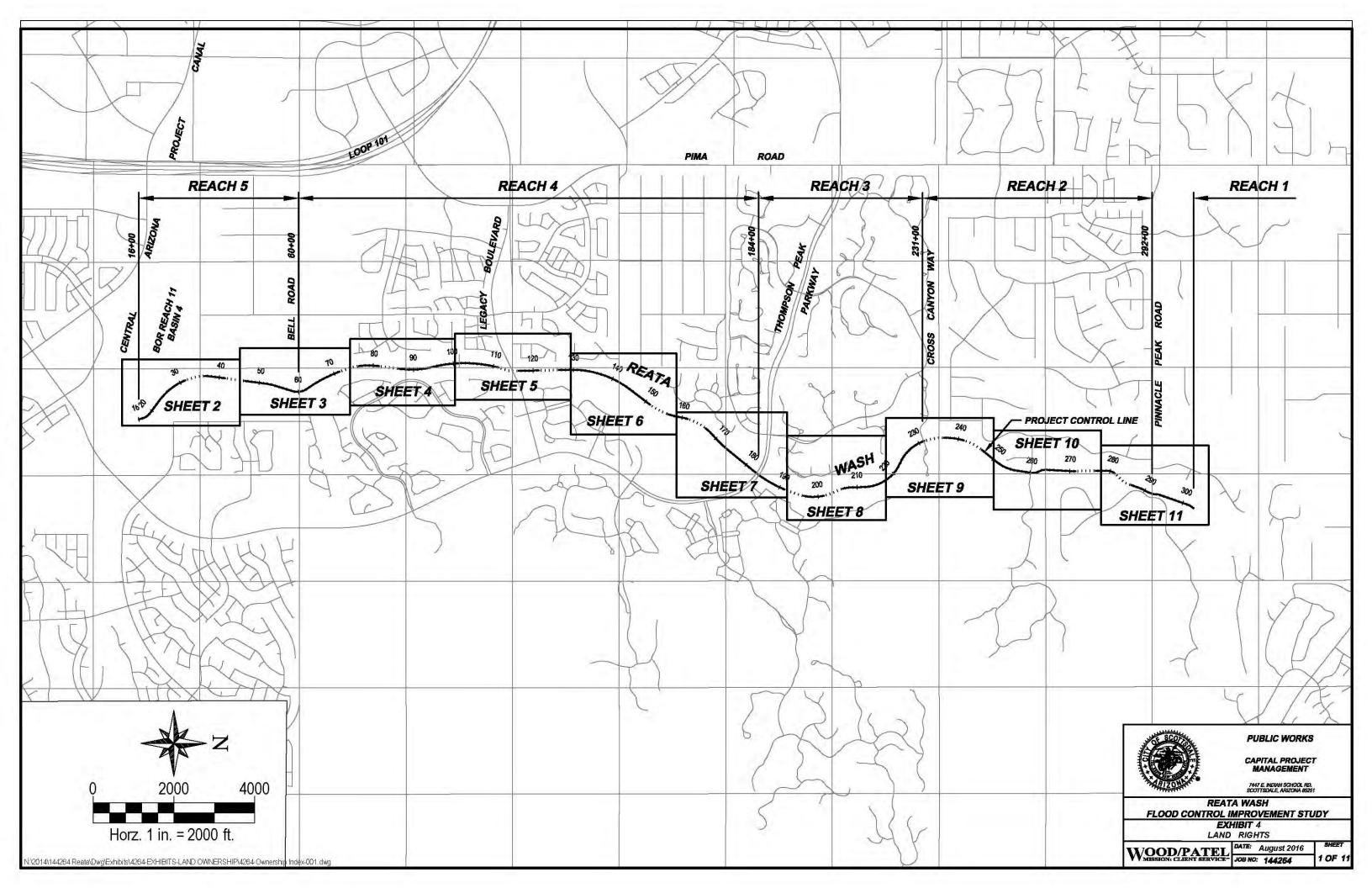
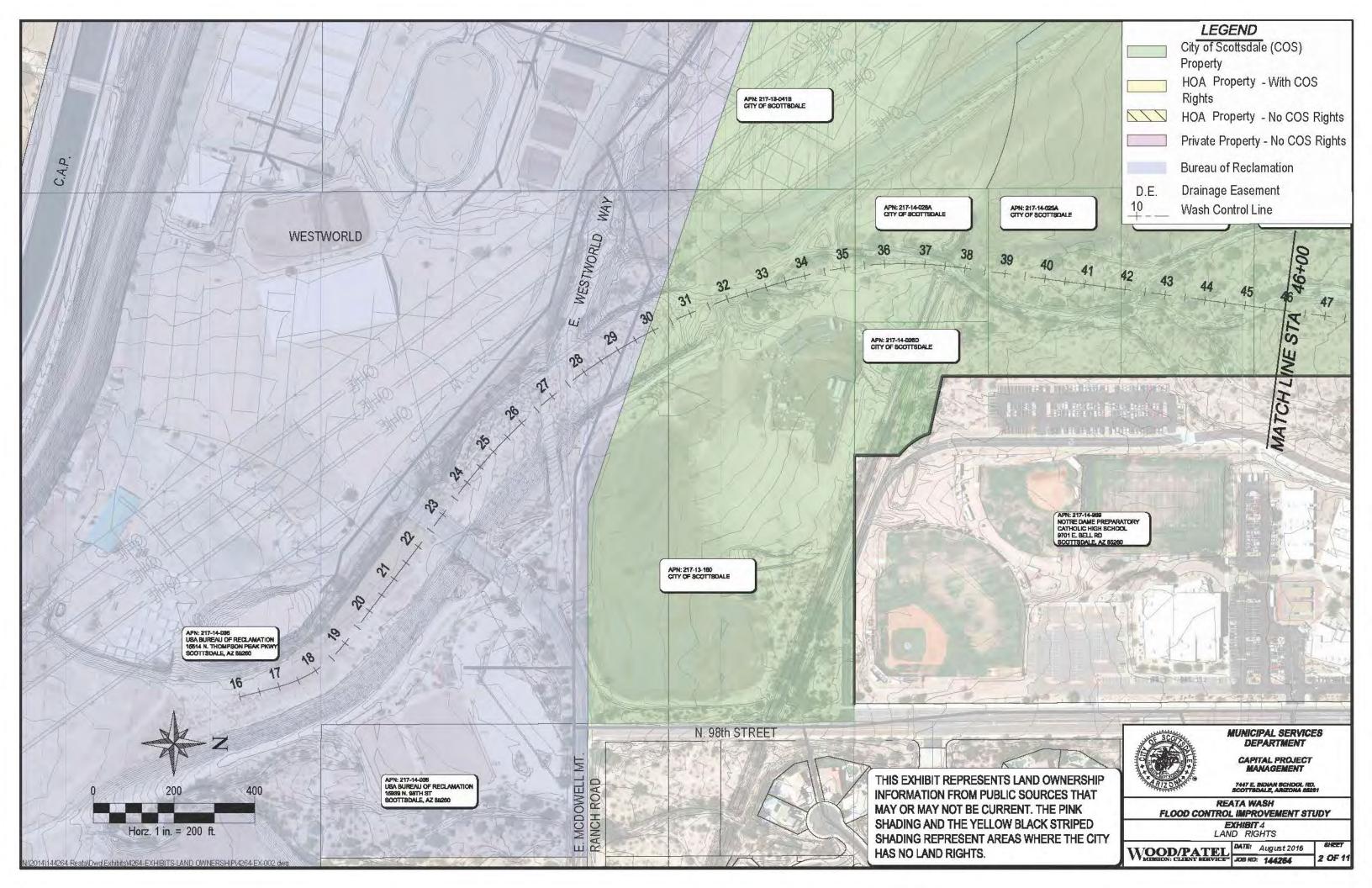
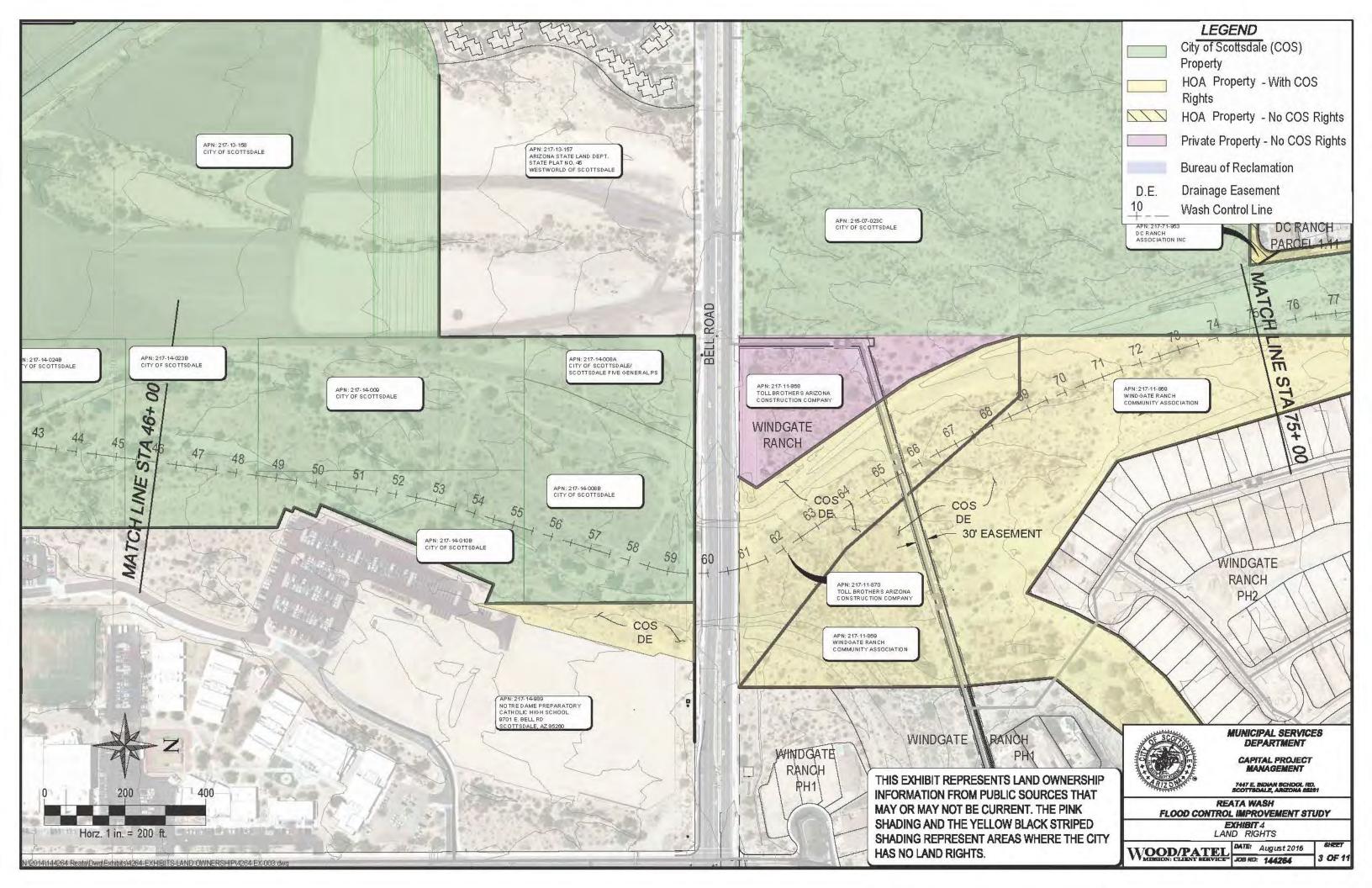


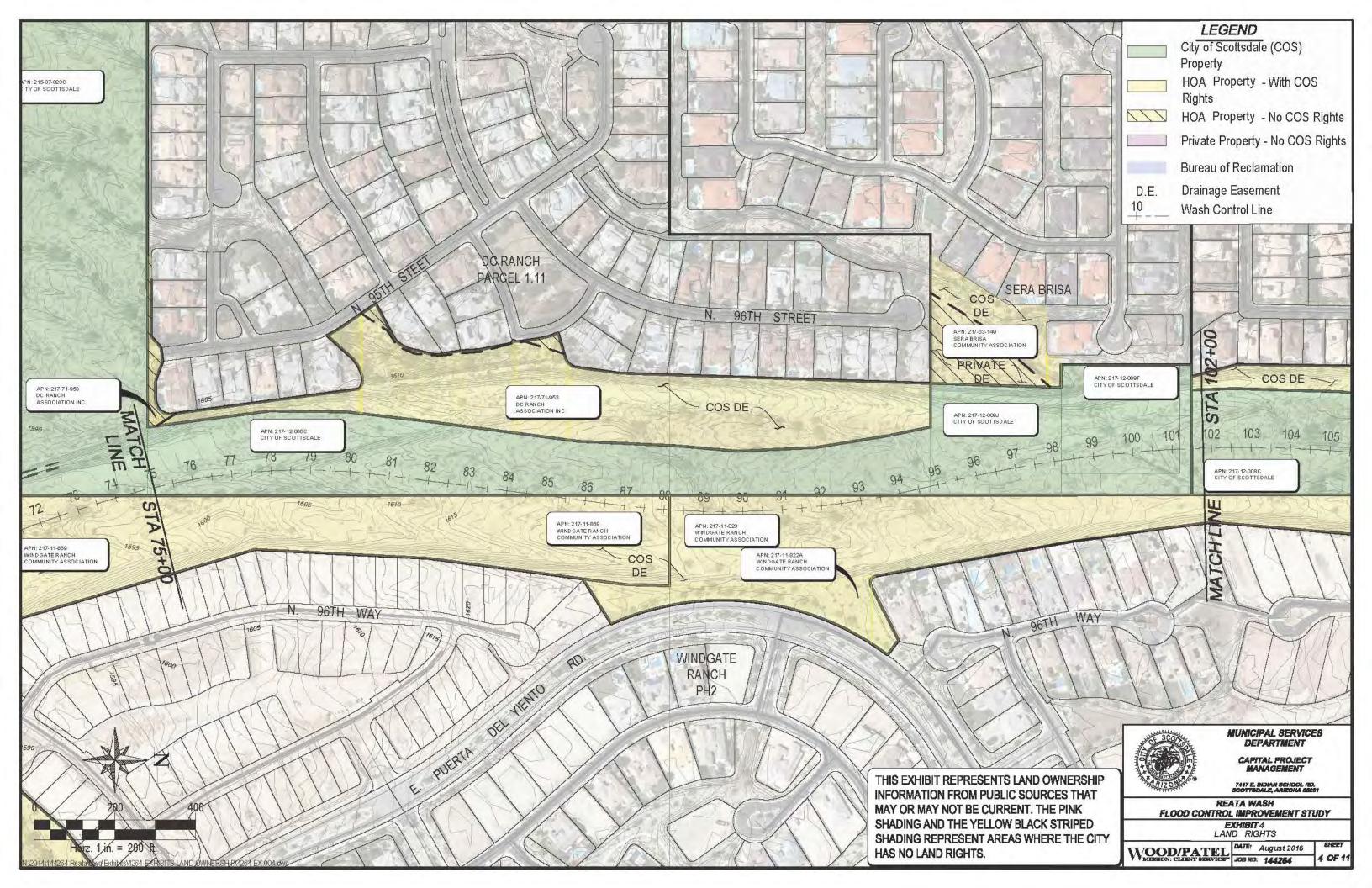
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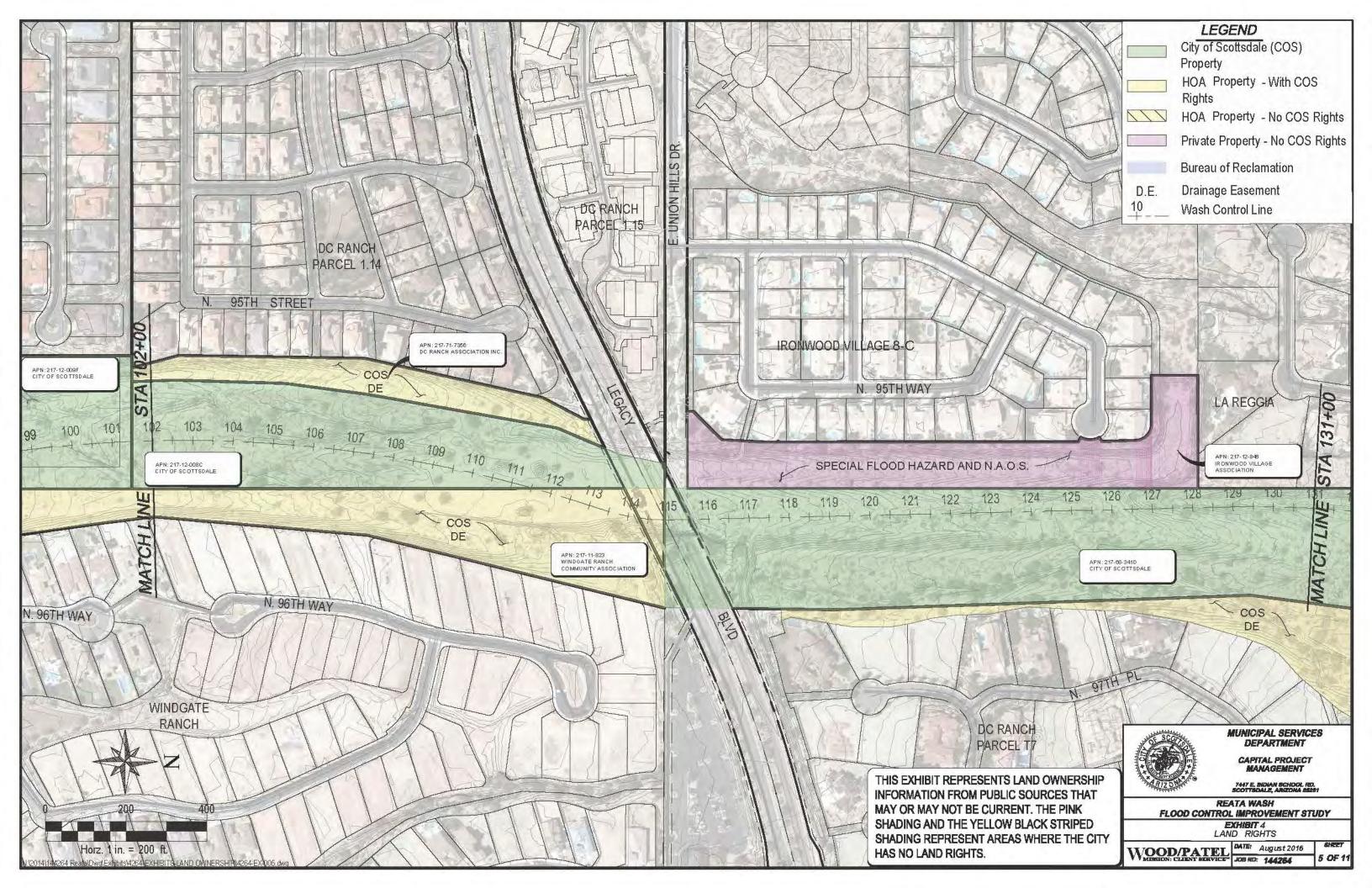
LAND RIGHTS

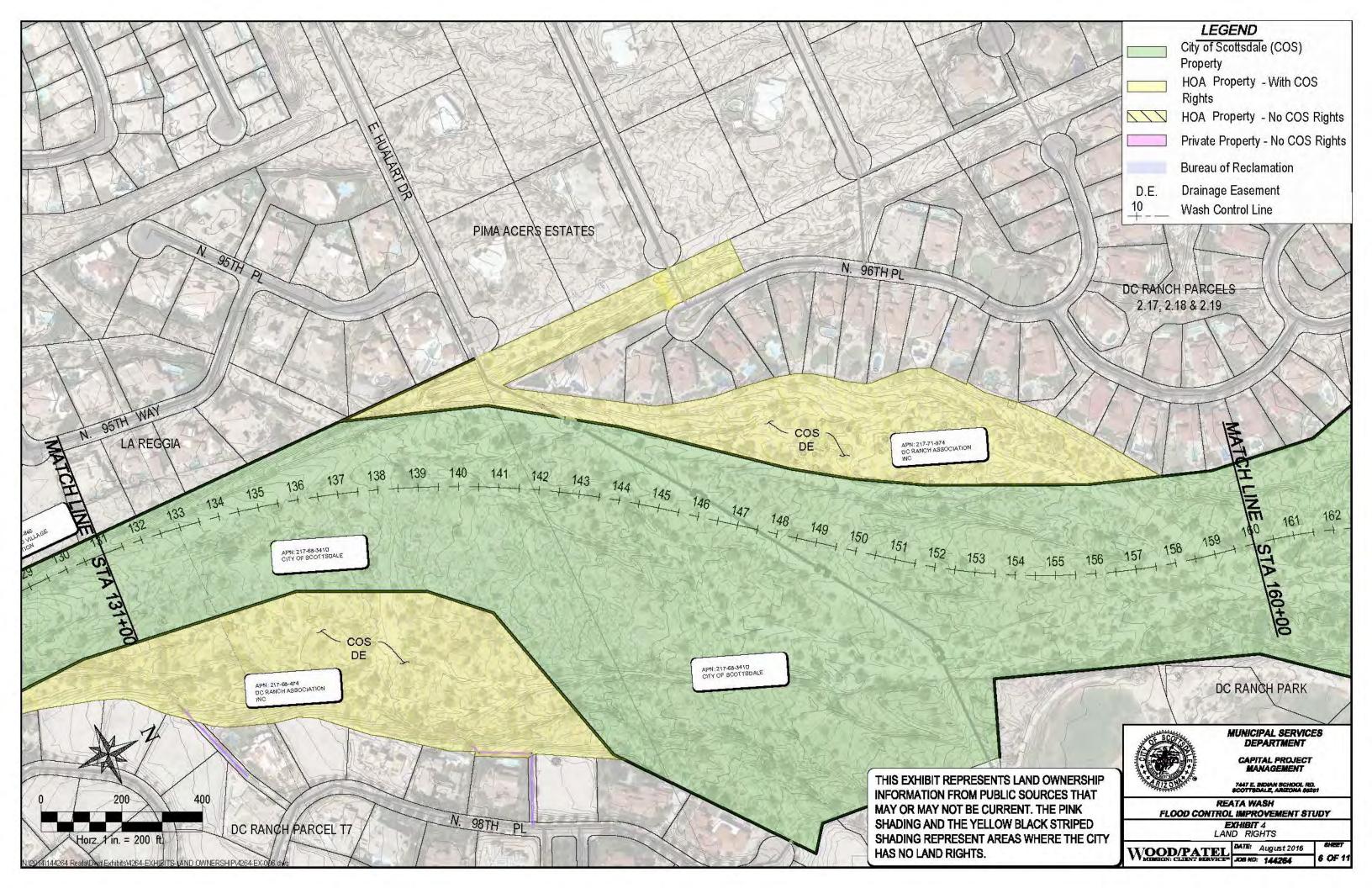


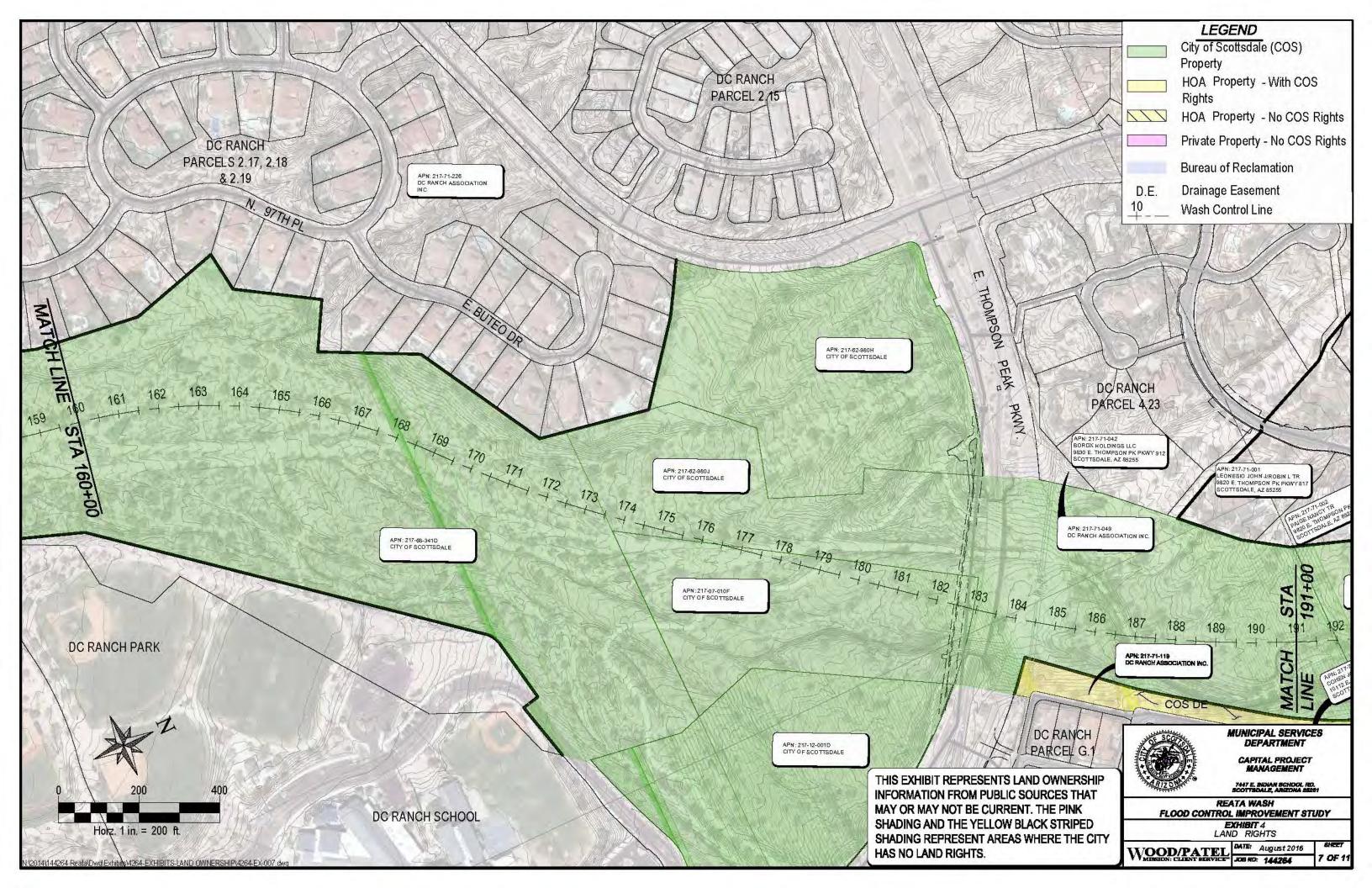


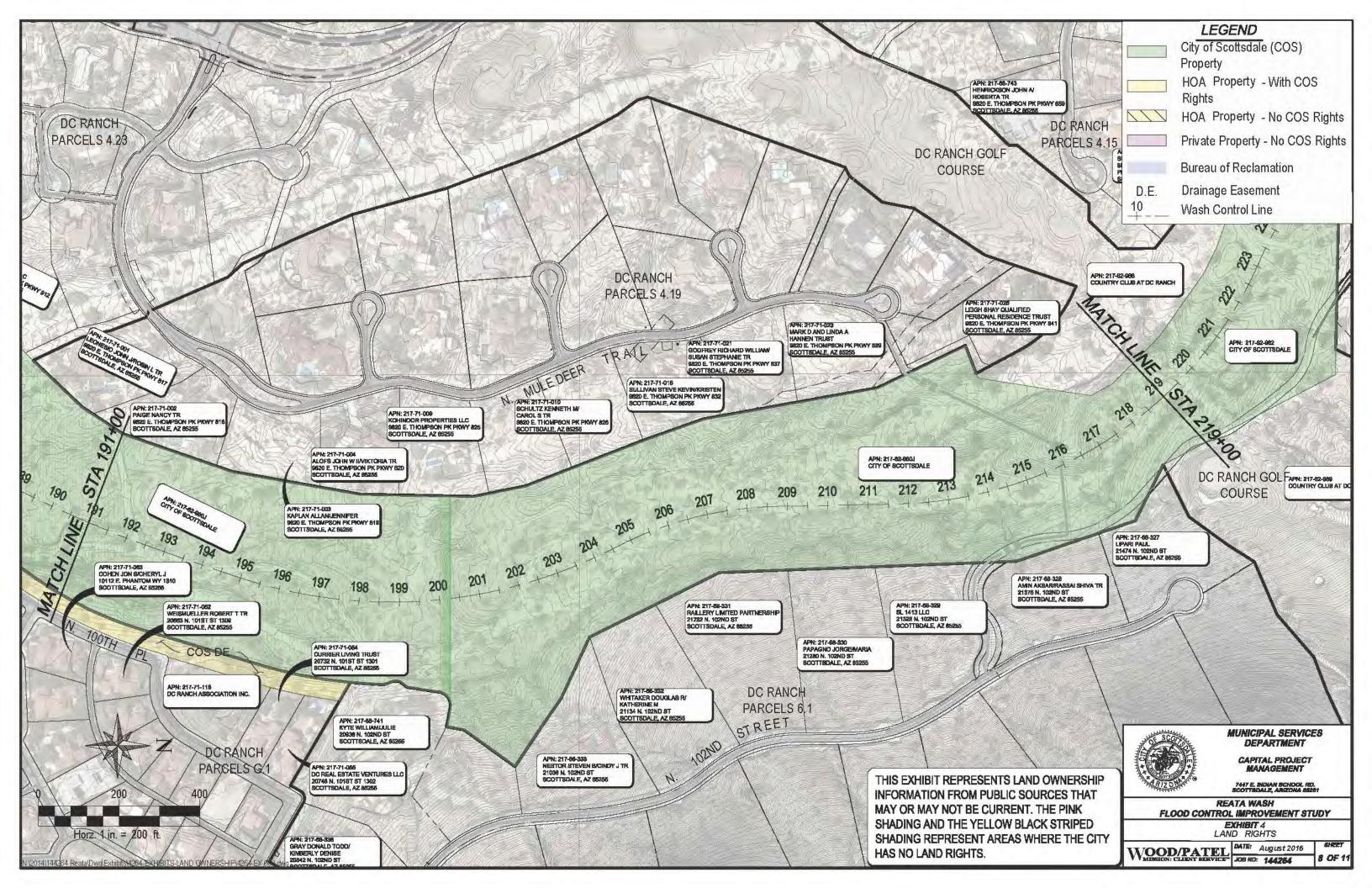


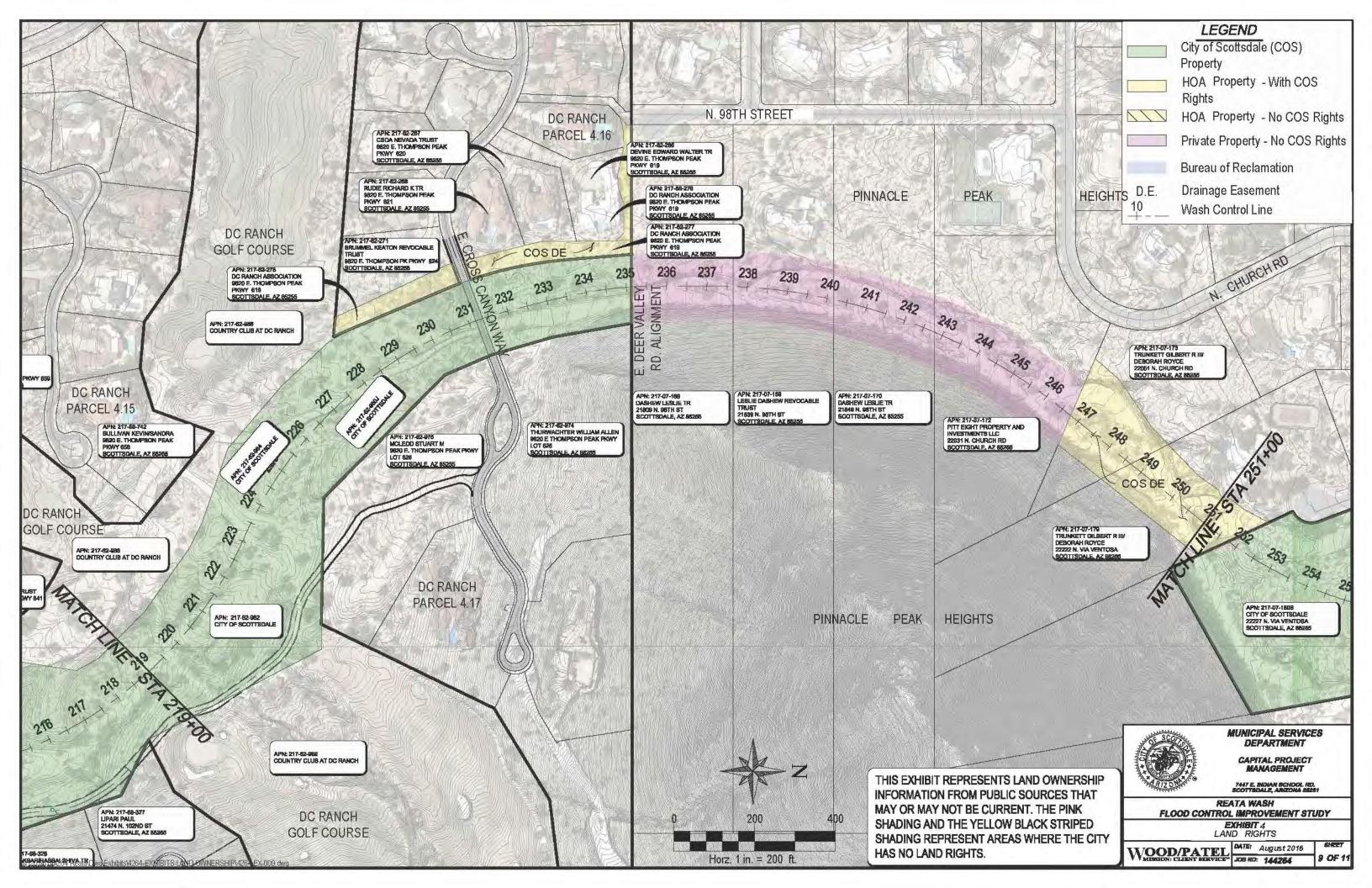


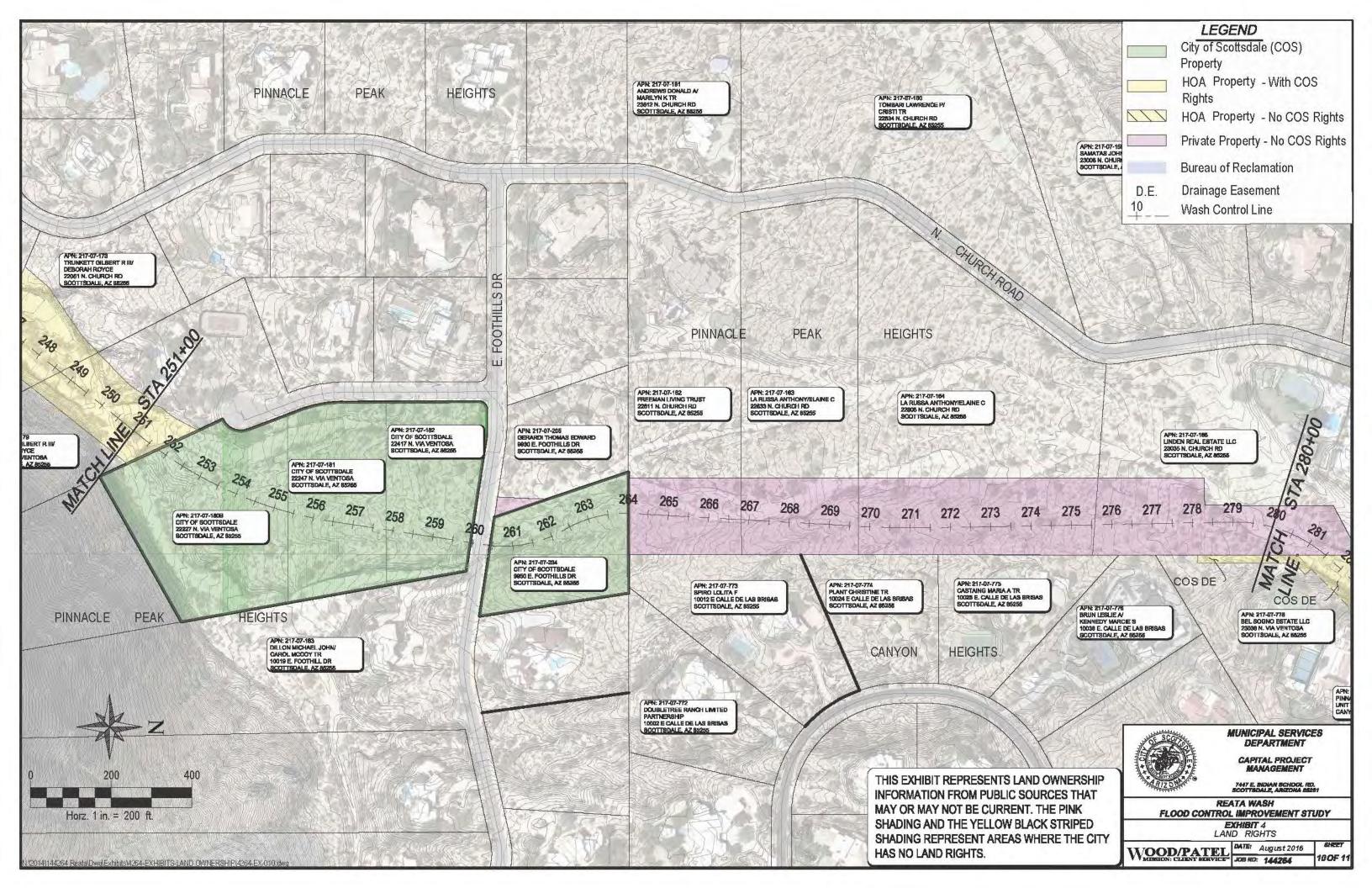












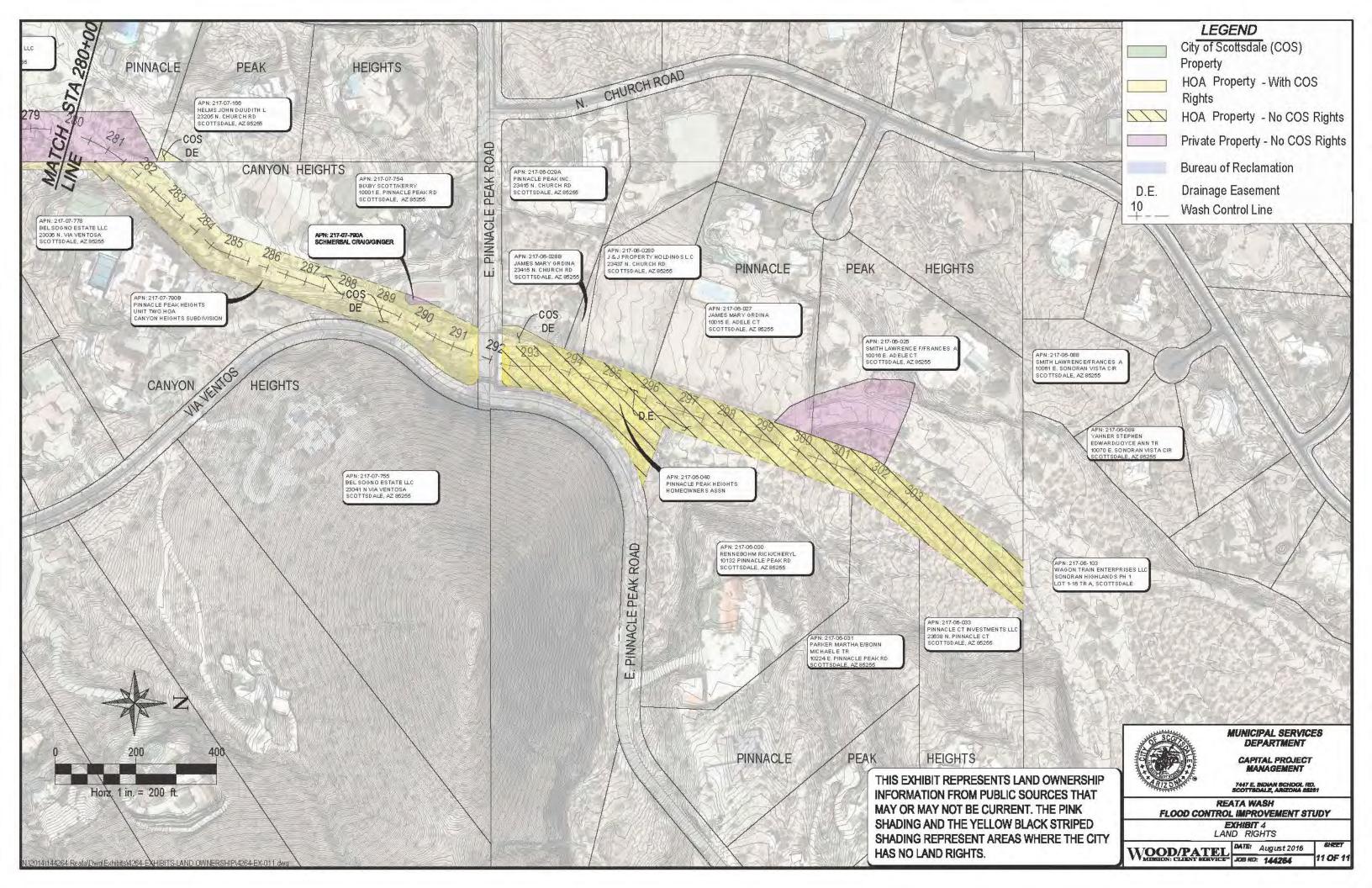
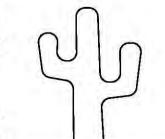


EXHIBIT 5 CONCEPT DESIGN PLAN (15%)

Volume II November 2, 2016



CITY OF SCOTTSDALE



PUBLIC IMPROVEMENTS

COUNCIL

W.J. "JIM" LANE, MAYOR

SUZANNE KLAPP

VIRGINIA KORTE

KATHY LITTLEFIELD LINDA MILHAVEN

GUY PHILLIPS

DAVID N. SMITH

CITY MANAGER

BRIAN BIESEMEYER, ACTING **CITY ATTORNEY**

BRUCE WASHBURN

CITY CLERK **CAROLYN JAGGER**

"AS-BUILT" CERTIFICATION

I HEREBY CERTIFY THAT THE "AS-BUILT" IMPROVEMENTS AS SHOWN HEREON ARE LOCATED AS NOTED, AND THE LOCATIONS

REGISTERED LAND SURVEYOR

CITY OF SCOTTSDALE REVIEWED AND RECOMMENDED APPROVAL BY

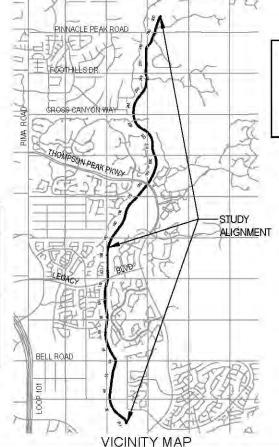
STRUCTURES	
BUILDING	
PLUMBING	
MECHANICAL	
ELECTRICAL	
FIRE IMPROVEMENTS	
FIRE FACILITIES	
7 1 2 1 1	
	BUILDING PLUMBING MECHANICAL ELECTRICAL FIRE IMPROVEMENTS FIRE

NGINEERING COORDINATION MANAGER (OR DESIGNEE)

iwo working days before you dig CALL FOR THE BLUE STAKES L-800-782-5348

WOOD/PATEL

REATA WASH FLOOD CONTROL IMPROVEMENT STUDY PROJECT NO. 14SQ011 BID NO. XXXX



Maricopa County Environmental Services Depa

15% DESIGN August 2016

SHEET INDEX

Sht. No.	Dwg. No.	Description
1	G1	COVER SHEET/VICINITY MAP
2	G2	GENERAL NOTES AND LEGEND
3	G3	KEY MAP SHEET
4-5	G4-G5	TYPICAL SECTIONS AND DETAILS
6	G6	GEOMETRIC SHEET
7-19	C1-C13	CHANNEL PLAN AND PROFILE SHEET
20	L1	LANDSCAPING DETAILS

EXHIBIT 5 CONCEPT DESIGN PLANS (15%)

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

BENCH MARKS (COS NAVD '88)

Description

GENERAL LAND OFFICE BRASS CAP AT THE NORTHEAST CORNER OF SECTION19. T. 4N., R. 5E, CITY OF SCOTTSDALE GPS **POINT NO. 7192**

ELEVATION= 1973.362 (C.O.S. NAVD '88

CONTROL IMPROVMENT STUDY BID NO. XXXX

sm. GCO-01

REATA WASH FLOOD PROJECT NO. 14SQ011

GENERAL CONSTRUCTION NOTES FOR CAPITAL PROJECTS

- ALL IMPROVEMENT CONSTRUCTION SHALL COMPLY WITH THE LATEST MARICOPA COUNTY ASSOCIATION OF GOVERNMENTS STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION AS AMENDED BY THE LATEST VERSION OF THE CITY OF SCOTTSDALE SUPPLEMENTAL STANDARD SPECIFICATIONS AND DETAILS AND CITY OF SCOTTSDALE'S DESIGN STANDARDS & POLICIES MANUAL (DS&PM). IF THERE IS A CONFLICT, THE LATTER SHALL APPLY. ALL FACILITIES CONSTRUCTION SHALL COMPLY WITH THE LATEST BUILDING CODES AS AMENDED AND ADOPTED BY THE CITY OF SCOTTSDALE.
- 2. THE ENGINEERING DESIGNS ON THESE PLANS ARE APPROVED BY THE CITY IN SCOPE AND NOT IN DETAIL. IF CONSTRUCTION QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE NOT VERIFIED BY THE CITY.
- BASED ON THE INFORMATION SUBMITTED ON THE PLANS AND ASSOCIATED DOCUMENTS, THE CITY HAS REVIEWED AND FOUND THEM TO BE IN ACCORDANCE WITH THE CITY'S MUNICIPAL CODE AND ARE ACCEPTABLE FOR PERMIT ISSUANCE. THIS ACCEPTANCE BY THE CITY DOES NOT AUTHORIZE VIOLATIONS OF ANY APPLICABLE CODE, ORDINANCE OR STANDARD AS ADOPTED BY THE MUNICIPAL CODE
- 4. APPROVAL OF THE PLANS BY THE CITY IS VALID FOR SIX MONTHS. IF A PERMIT FOR THE CONSTRUCTION HAS NOT BEEN ISSUED WITHIN SIX MONTHS OF REVIEW, THE PLANS SHALL BE RESUBMITTED TO THE CITY FOR
- 5. ANY DEVIATION FROM THE APPROVED PLANS SHALL BE REVIEWED AND APPROVED BY THE CITY PRIOR TO THAT CHANGE BEING INCORPORATED INTO
- 6. A CITY CAPITAL PROJECTS INSPECTOR WILL INSPECT ALL WORK WITHIN THE CITY RIGHTS-OF-WAY, EASEMENTS AND FACILITIES.
- 7. ANY SPECIAL INSPECTION REQUIRED SHALL BE IN ADDITION TO ANY ROUTINE INSPECTION BY THE CITY.
- 8. CITY ENCROACHMENT AND BUILDING PERMITS ARE REQUIRED FOR WORK IN PUBLIC RIGHTS—OF—WAY, EASEMENTS GRANTED FOR PUBLIC PURPOSES AND FACILITIES. PERMITS WILL BE ISSUED BY THE CITY THROUGH THE CITY'S ONE STOP SHOP. COPIES OF ALL PERMITS SHALL BE RETAINED ON—SITE AND SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES. FAILURE TO PRODUCE THE REQUIRED PERMITS WILL RESULT IN IMMEDIATE WORK STOPPAGE UNTIL THE PROPER PERMIT DOCUMENTATION IS OBTAINED.
- 9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FOR SALVAGING PROTECTED NATIVE PLANTS PRIOR TO THE START OF CONSTRUCTION
- 10. WHEREVER EXCAVATION IS DONE CONTACT THE BLUE STAKE CENTER AT (602) 263-1100 TWO WORKING DAYS BEFORE EXCAVATION IS TO BEGIN. THE CENTER WILL SEE THAT THE LOCATION OF THE UNDERGROUND UTILITY LINES IS IDENTIFIED FOR THE PROJECT.
- 11. ALL EXCAVATION AND GRADING WHICH IS NOT IN PUBLIC RIGHTS—OF—WAY OR IN EASEMENTS GRANTED FOR PUBLIC PURPOSES MUST CONFORM TO SECTION 1803 AND APPENDIX J OF THE 2006 EDITION OF THE INTERNATIONAL BUILDING CODE PREPARED BY THE INTERNATIONAL CODE COUNCIL, A PERMIT FOR THIS GRADING MUST BE SECURED FROM THE CITY.
- 12. THRUST RESTRAINT, WHERE REQUIRED, ON ALL CITY WATER LINES SHALL BE PROVIDED USING MEGALUG MECHANICAL JOINT RESTRAINTS OR CITY-APPROVED EQUAL.
- 13. ANY ASPHALT MIX DESIGN USED ON CITY PROJECTS SHALL HAVE BEEN APPROVED FOR THAT USE PER SECTION 5-10 THE CITY'S DS&PM AND APPEAR ON THE "APPROVED LIST OF ASPHALT MIXES" AS DISTRIBUTED BY THE EAST VALLEY ASPHALT COMMITTEE (EVAC).
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REPLACE, AT NO ADDITIONAL COST TO THE CITY, ANY AND ALL PAVEMENT, SIDEWALK, CURB AND GUTTER, DRAINAGE STRUCTURES, ETC. OUTSIDE THE PAY LIMIT THAT ARE DAMAGED DUE TO THEIR ACTIVITIES ON THE PROJECT. THIS INCLUDES, BUT IS NOT LIMITED TO, THE REMOVAL AND REPLACEMENT OF NEWLY CRECKED. ROADWAY INFRASTRUCTURE, THE REMOVAL AND REPLACEMENT OF EXISTING CRACKED ROADWAY INFRASTRUCTURE WHERE THE CRACKS HAVE BEEN ENLARGED DUE TO THE CONTRACTOR'S OPERATIONS, THE REMOVAL AND REPLACEMENT OF DEFORMED ROADWAY INFRASTRUCTURE, ALL SAWCUTS USED FOR THE REMOVAL OF THESE ITEMS SHALL BE PERPENDICULAR AND PARALLEL TO THE CENTERLINE CONTROLLING THAT ITEM, OR AT THE DIRECTION OF THE CITY'S CAPITAL PROJECTS INSPECTOR
- 15. ALL CAPITAL IMPROVEMENT PROJECTS SHALL MEET THE PROCEDURES AND STANDARDS FOR THE USE OF TEMPORARY/SECURITY FENCING AROUND THE PERIMETER OF CONSTRUCTION SITES, AS DEFINED IN THE CITY'S ZONING ORDINANCE, ARTICLE VII, SECTION 7.700.

S

SD

SHT

SS

STA

STD

TYP

WSEL

SLOPE

SHEET

STATION

TYPICAL

STANDARD

WATER LINE

STORM DRAIN

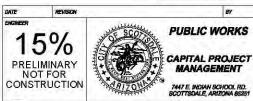
SANITARY SEWER LINE

WATER SURFACE ELEVATION

ABBRE	<u>VIATIONS</u>		
Q.	CENTERLINE		
cos	CITY OF SCOTTSDALE	LEGEND	
CST	CONSTRUCTION	EXISTING SEWER	
CMP	CORRUGATED METAL PIPE	EXISTING STORM DRAIN	
DTL	DETAIL	EWOTALO WATER	
DE	DRAINAGE EASEMENT	EXISTING WATER	
DIP	DUCTILE IRON PIPE	EXISTING UNDERGROUND ELECTRIC	
E	EASTING	EXISTING GAS LINE	
ELEV	ELEVATION	EXISTING UNDERGROUND TELEPHONE CABLE	
ESMT	EASEMENT		
EXIST	EXISTING		
EXF	EXISTING FLOWLINE	X EXISTING TRANSMISSION TOWER	
GB	GRADE BREAK		
H	HEIGHT	——————————————————————————————————————	
HOA	HOME OWNERS ASSOCIATION		
ΙE	INVERT ELEVATION	EXISTING OR NEW R/W LINE	
LT	LEFT	EXISTING PARCEL LINE	
MAG	MARICOPA ASSOCIATION OF GOVERNMENTS	— — — — EXISTING OR NEW EASEMENT	
MAX	MAXIMUM	PROPERTY LINE	
MIN	MINIMUM		
N	NORTHING	— — WATER SURFACE ELEVATION	
OHE	OVERHEAD ELECTRIC		
PC	POINT OF CURVE		
PCC	POINT OF COMPOUND CURVE		
PRC	POINT OF REVERSE CURVE	THOI USED SEWEN	
PT	POINT OF TANGENCY		
PVC	POLYVINYL CHLORINE	230.02.42.20	
P	PROPERTY LINE	EXHIBIT 5	
Q ₁₀₀	100 YEAR PEAK DISCHARGE	CONCEPT DESIGN PLANS (15	
RCBC	REINFORCED CONCRETE BOX CULVERT	PRELIMINARY NOT FOR	
RT	RIGHT	CONSTRUCTION OR RECORDING	

%

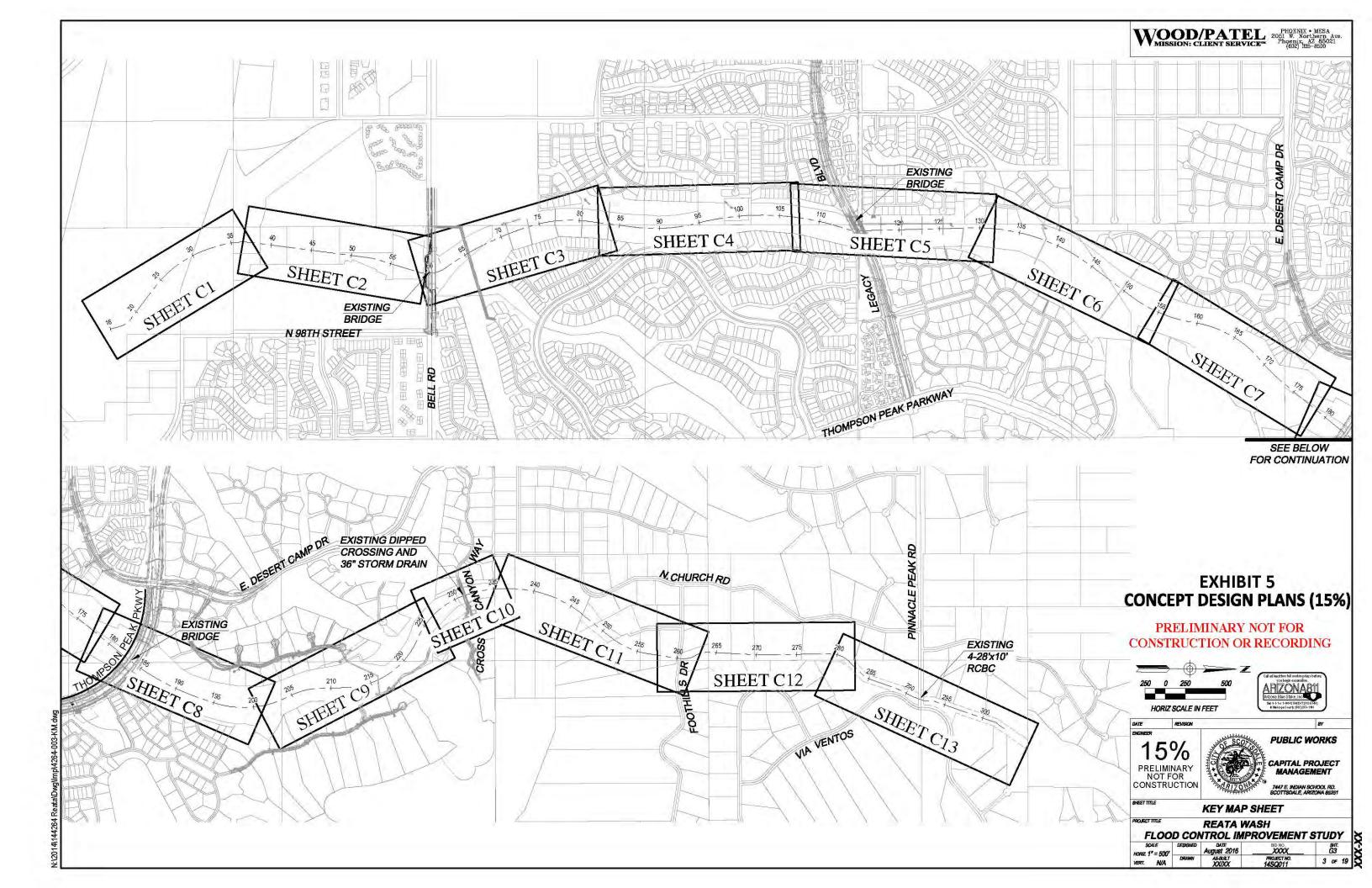


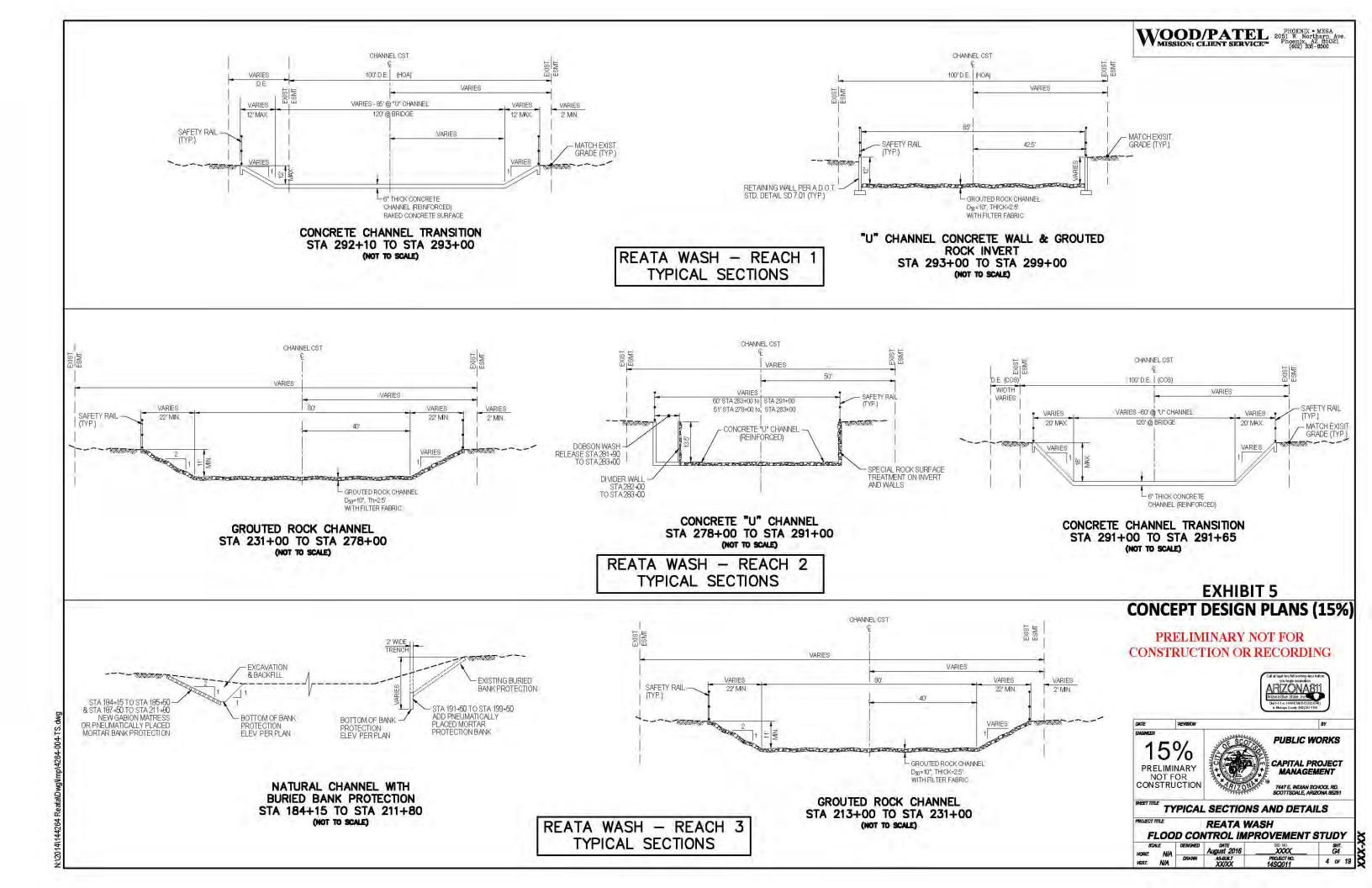


GENERAL NOTES AND LEGEND

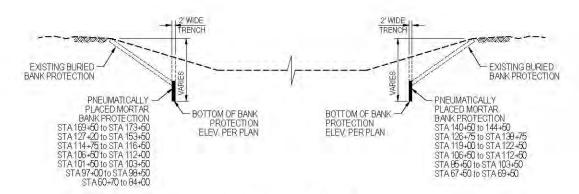
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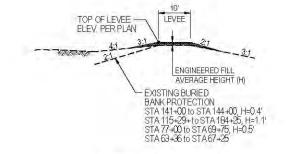
REATA WASH STUDY \$47. G2 2 of 19 FLOOD CONTROL IMPROVEMENT STUDY SCALE DESIGNED August 2016
AS-BURT
XXXXX N/A XXXX







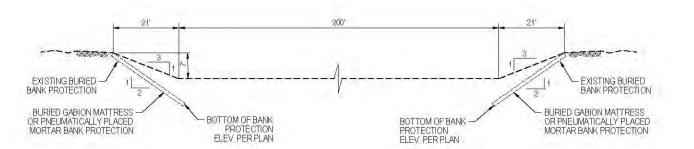




NATURAL CHANNEL WITH BURIED BANK PROTECTION STA 60+70 TO STA 184+15

NATURAL CHANNEL LEVEE / EMBANKMENT IMPROVEMENTS (WESTBANK) STA 63+36 TO STA 144+00

REATA WASH - REACH 4 TYPICAL SECTIONS



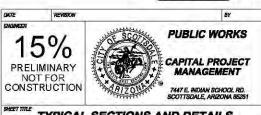
EARTHERN TRAPEZOIDIAL CHANNEL WITH BURIED PROTECTION STA 23+00 TO STA 60+00

REATA WASH - REACH 5 TYPICAL SECTIONS

EXHIBIT 5 CONCEPT DESIGN PLANS (15%)

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING

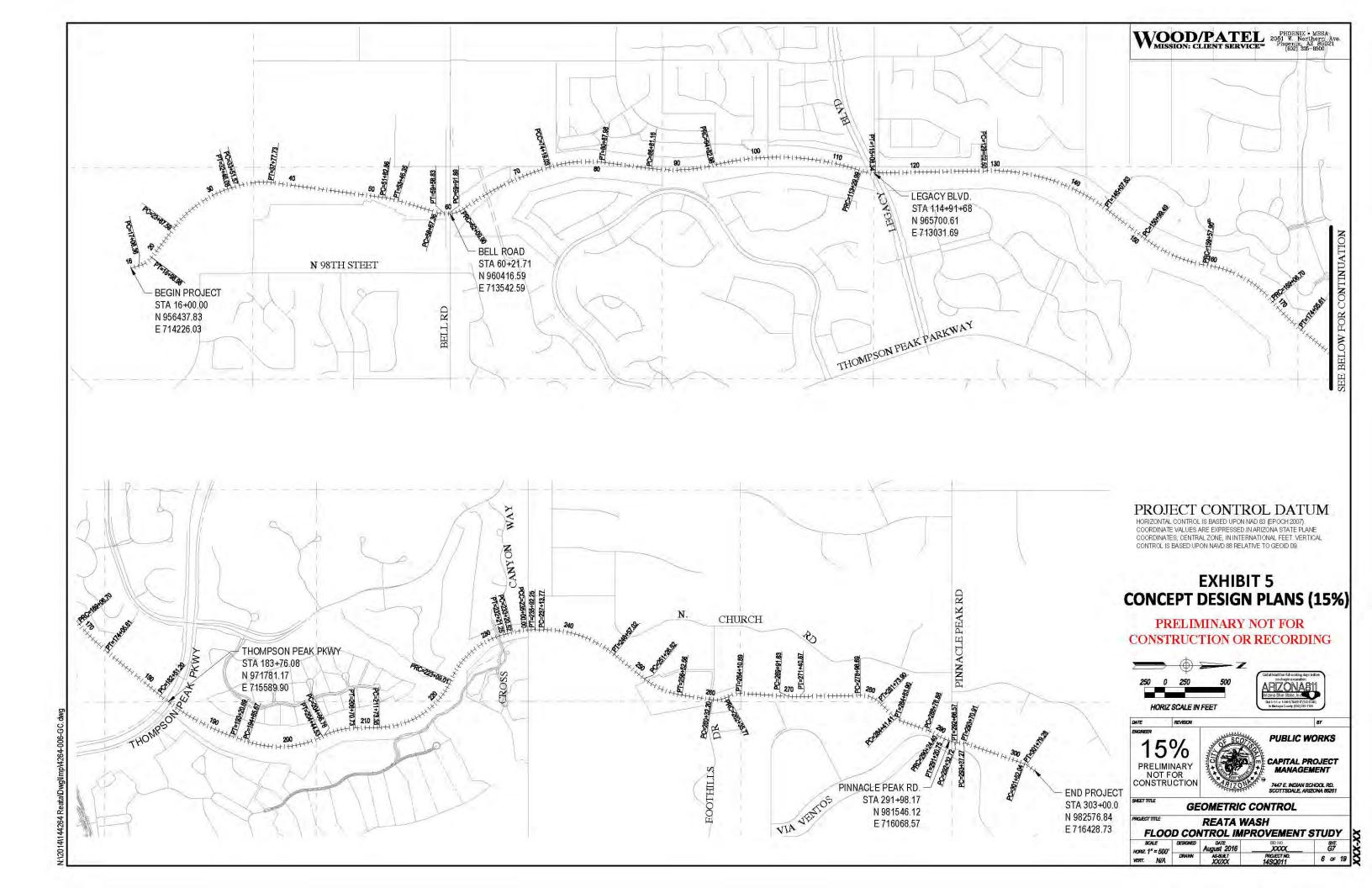


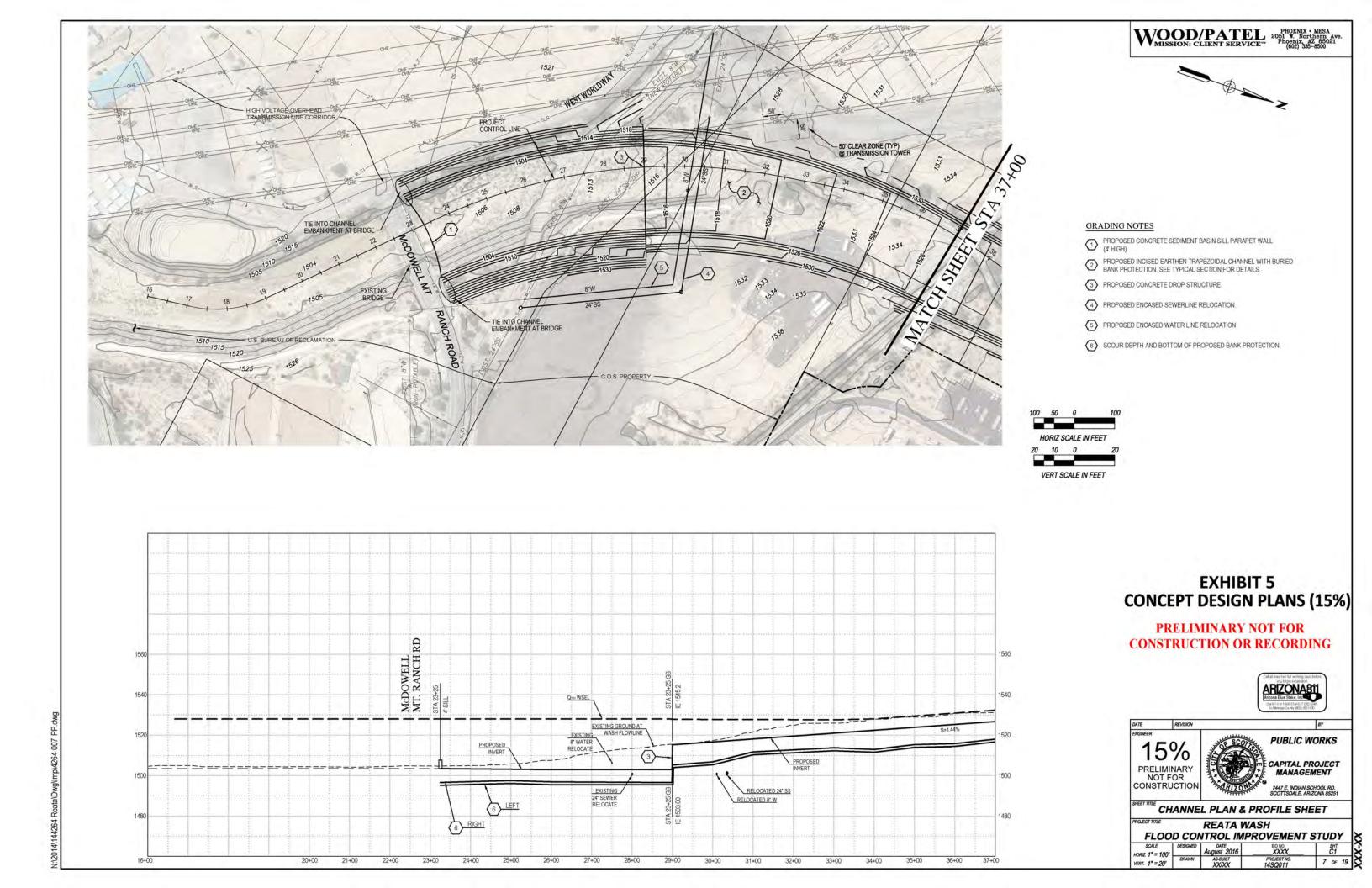


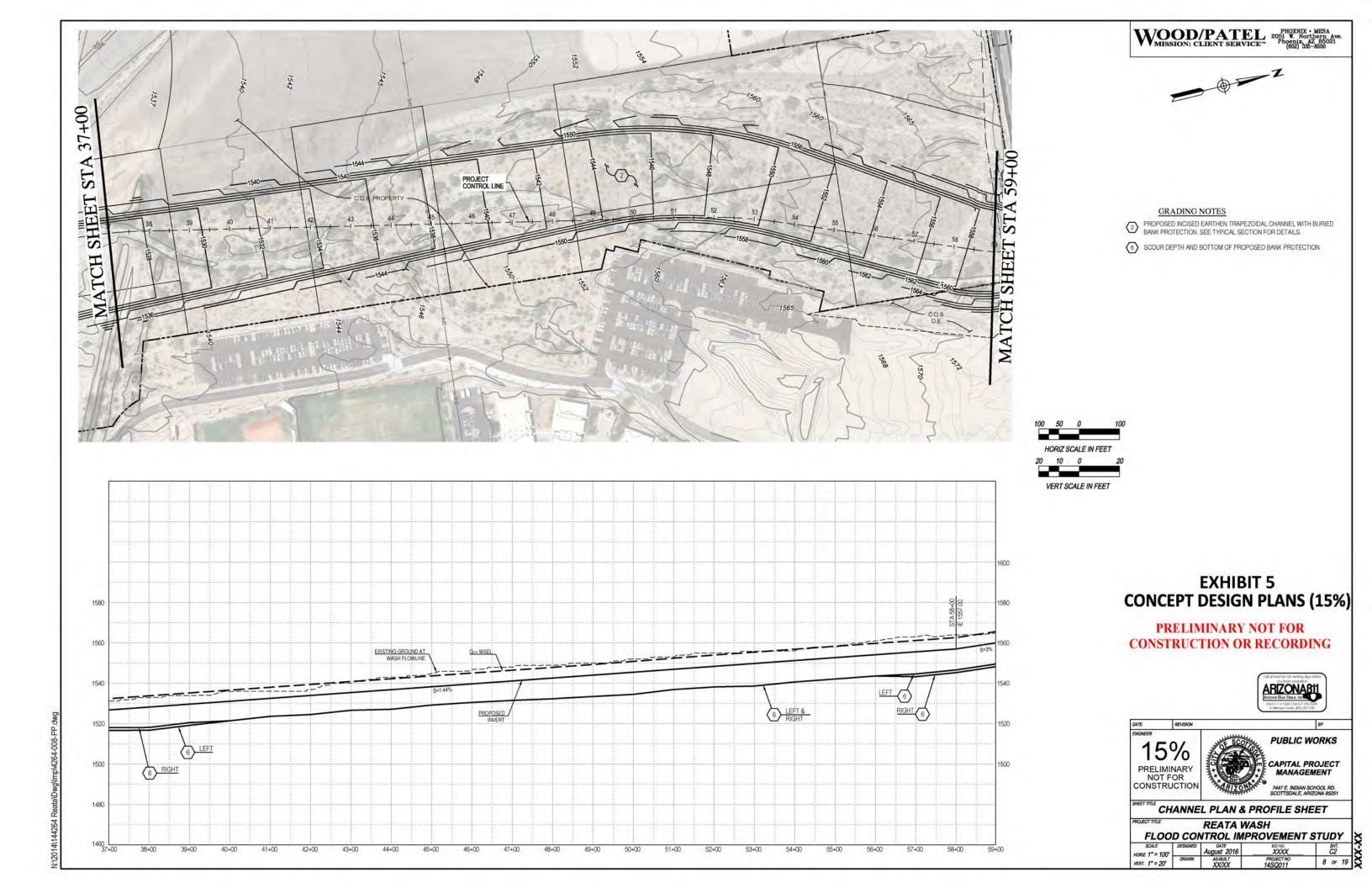
TYPICAL SECTIONS AND DETAILS

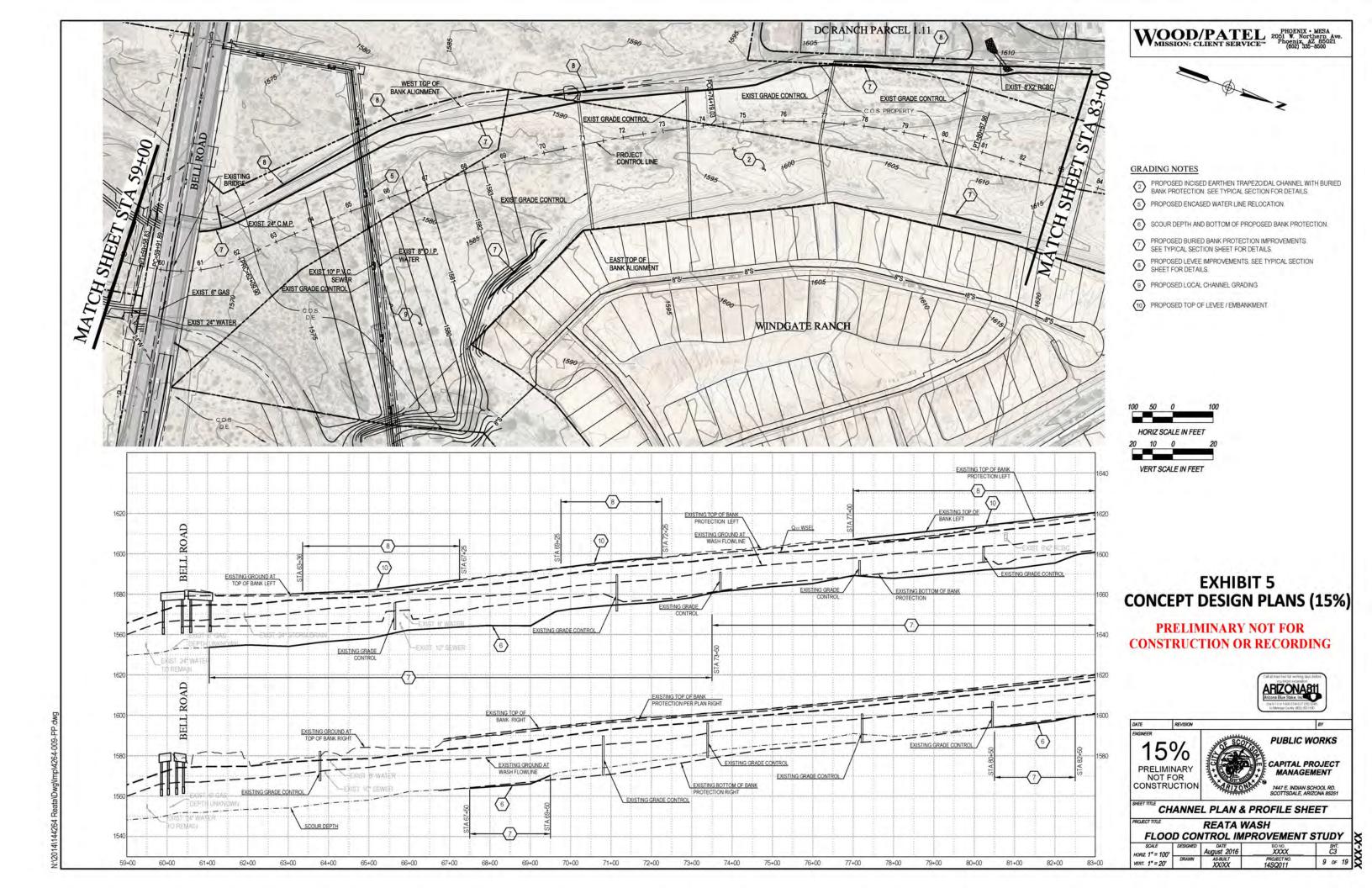
REATA WASH FLOOD CONTROL IMPROVEMENT STUDY

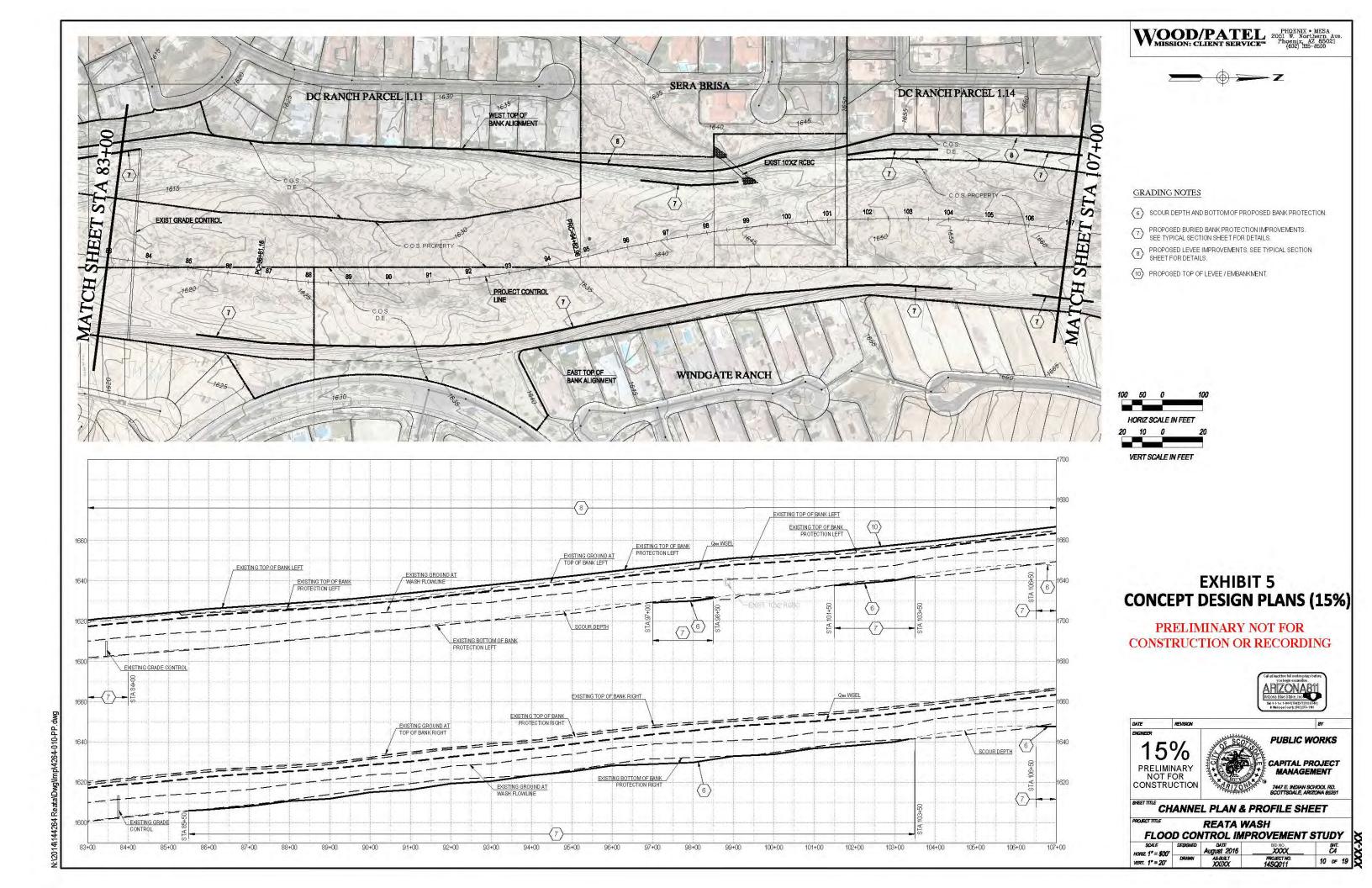
STUDY Syn. G5 5 or 19 August 2016
Aseus T
XXXXX HOREZ NVA VERT. NVA

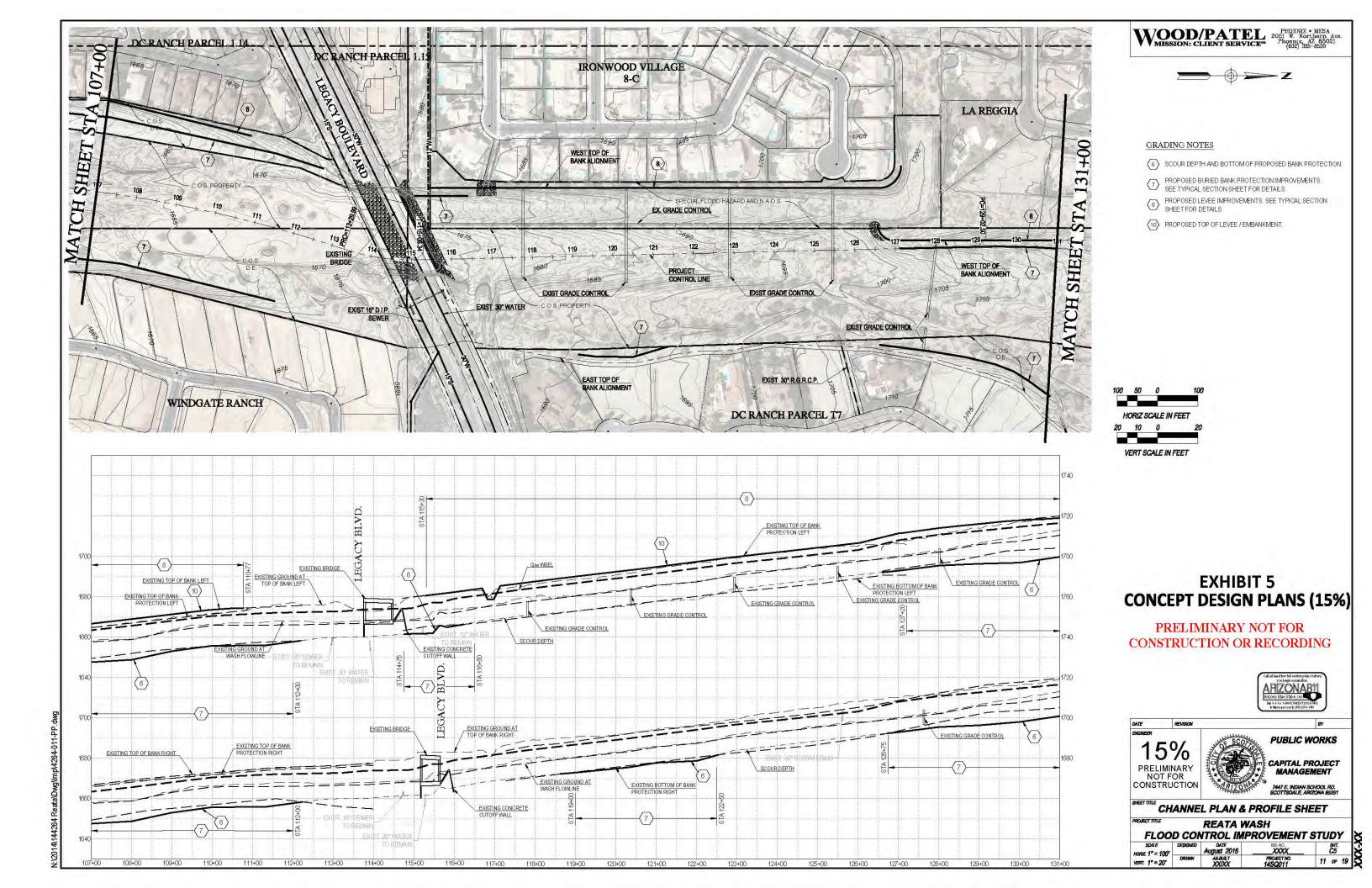


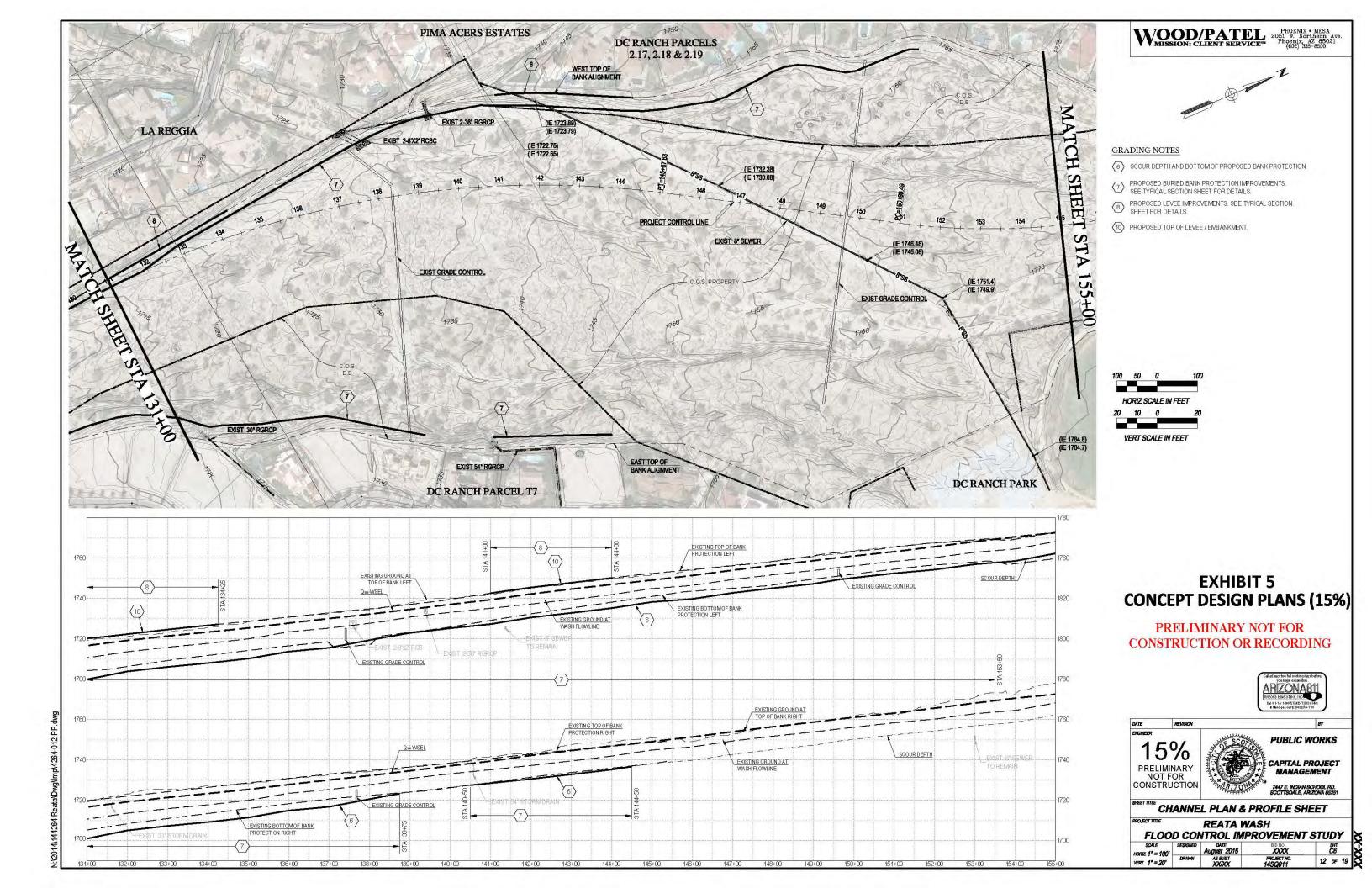


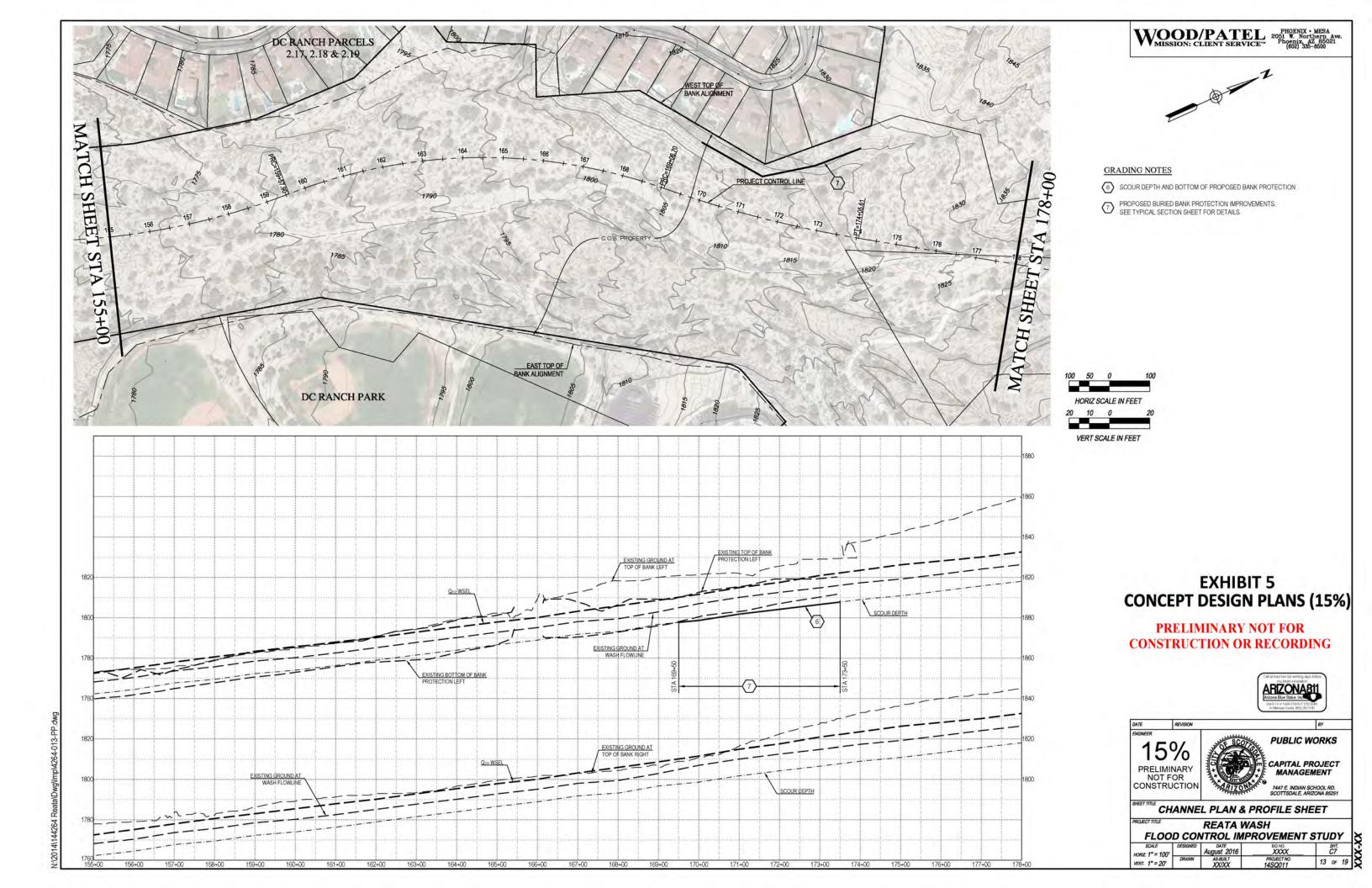


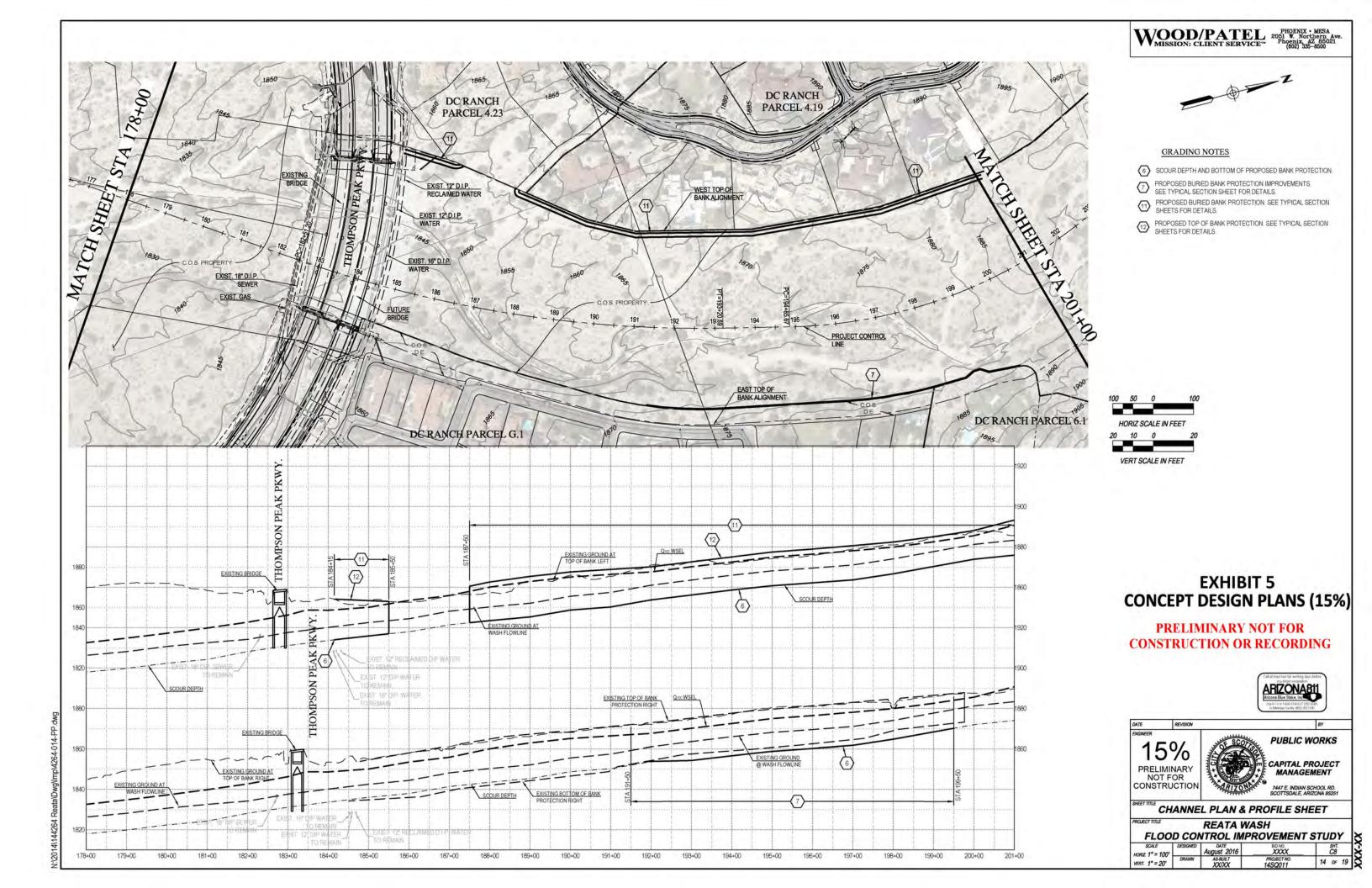


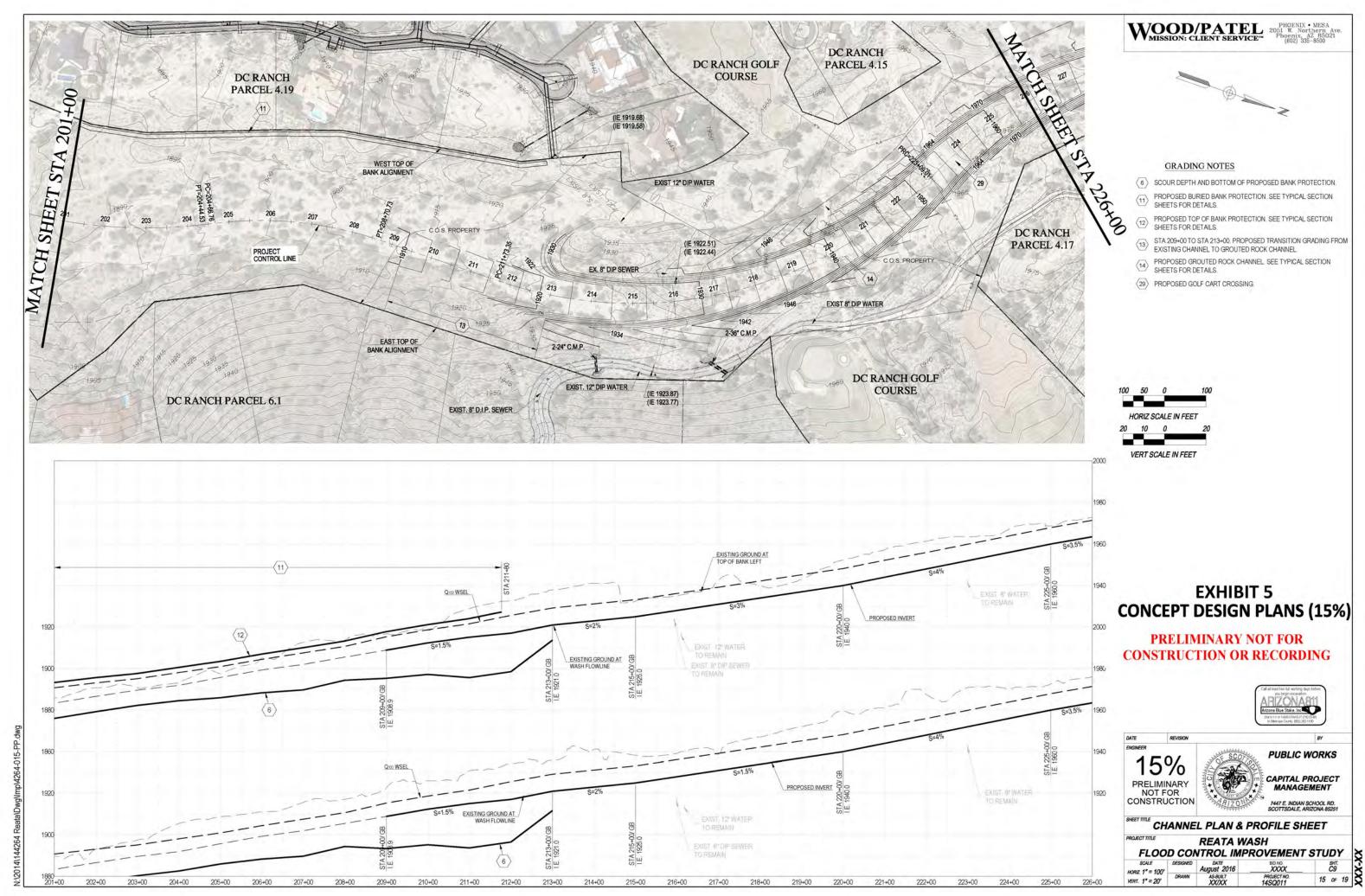


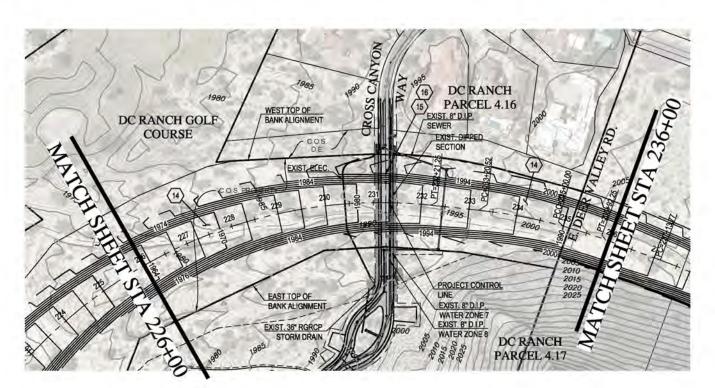


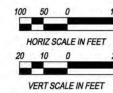


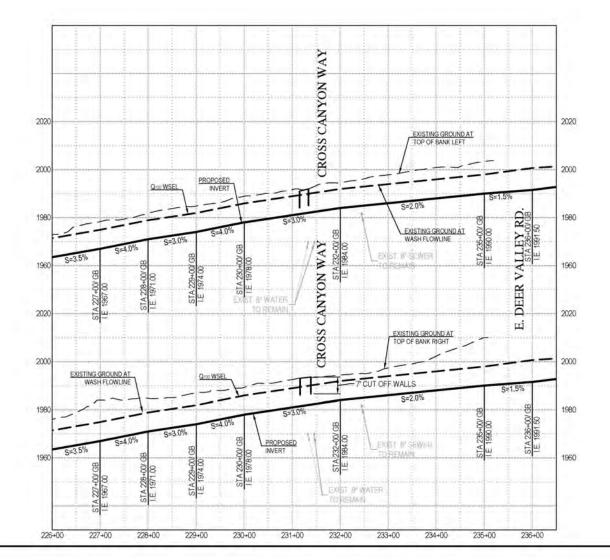




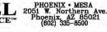








WOOD/PATEL MISSION: CLIENT SERVICE PHOENIX • MESA AVE. 1842 85021 (602) 335-6500





GRADING NOTES

- PROPOSED GROUTED ROCK CHANNEL. SEE TYPICAL SECTION SHEETS FOR DETAILS.
- 15) PROPOSED RCBC WITH WINGWALLS.
- (16) PROPOSED PAVEMENT REPLACEMENT AND GUARDRAILS.

EXHIBIT 5 CONCEPT DESIGN PLANS (15%)

PRELIMINARY NOT FOR CONSTRUCTION OR RECORDING



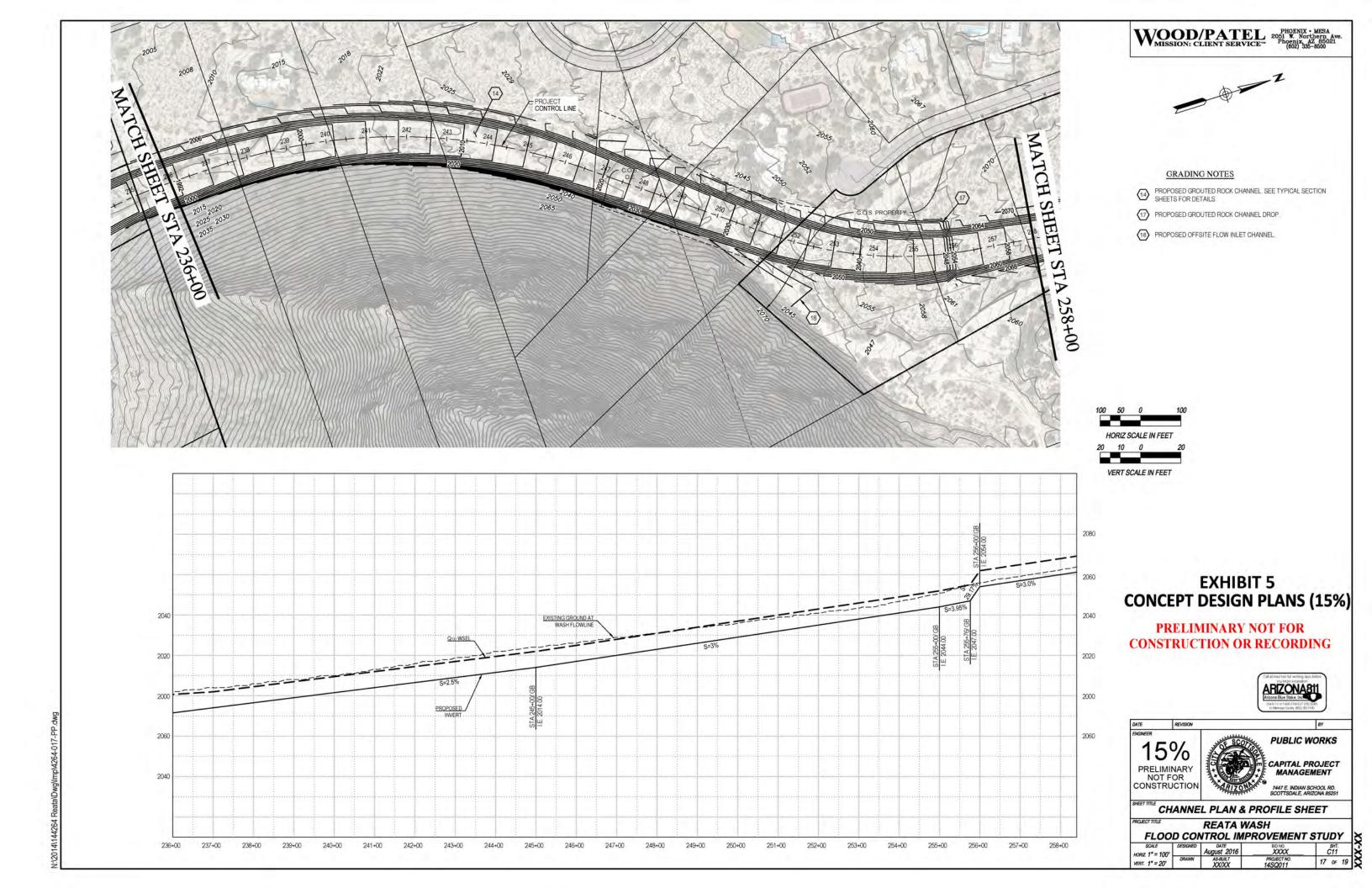
15% PRELIMINARY NOT FOR CONSTRUCTION

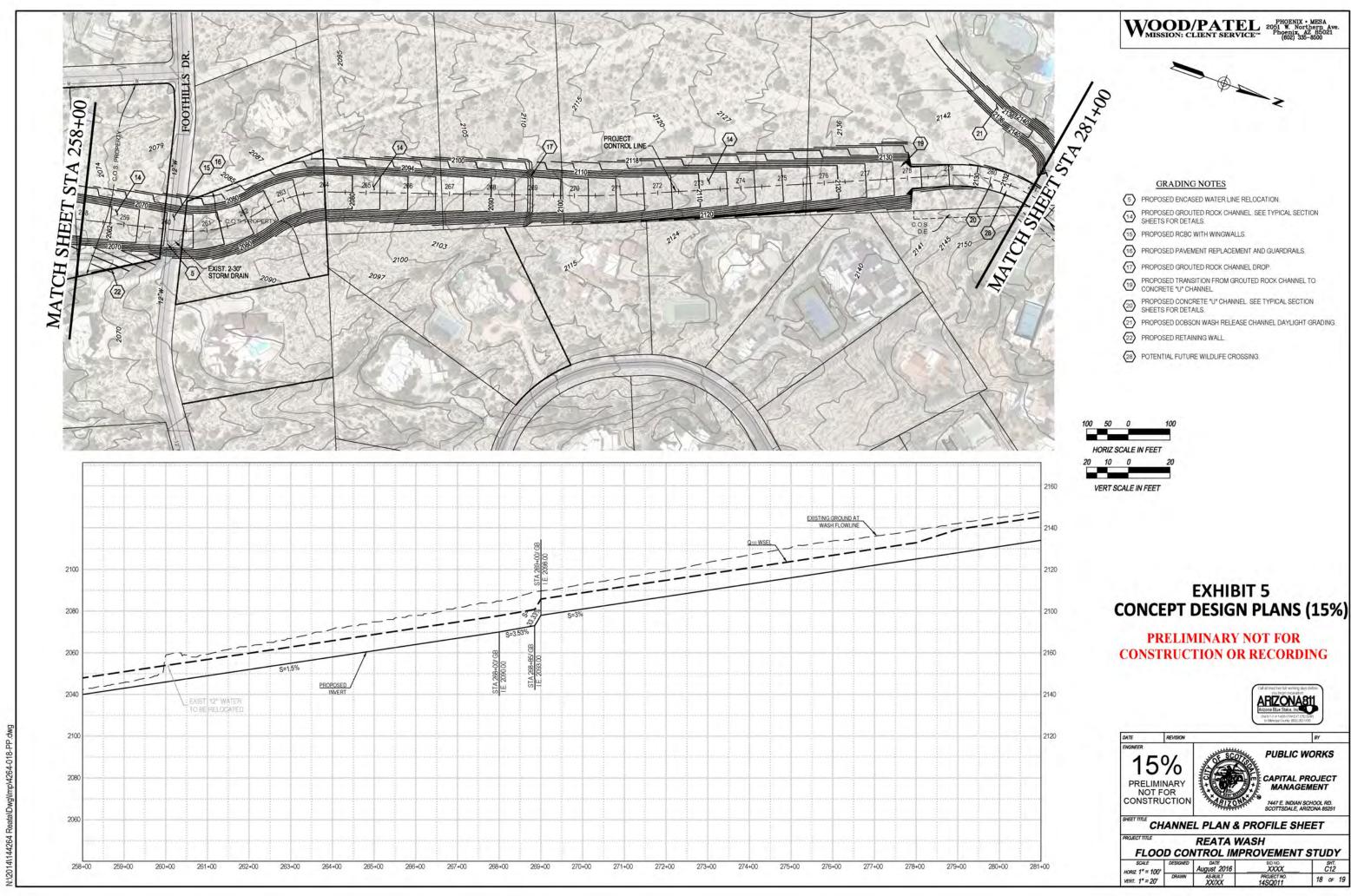
PUBLIC WORKS

CHANNEL PLAN & PROFILE SHEET

REATA WASH FLOOD CONTROL IMPROVEMENT STUDY

STUDY
| SHT. C10 |
| 16 or 19 | HORIZ 1" = 100"





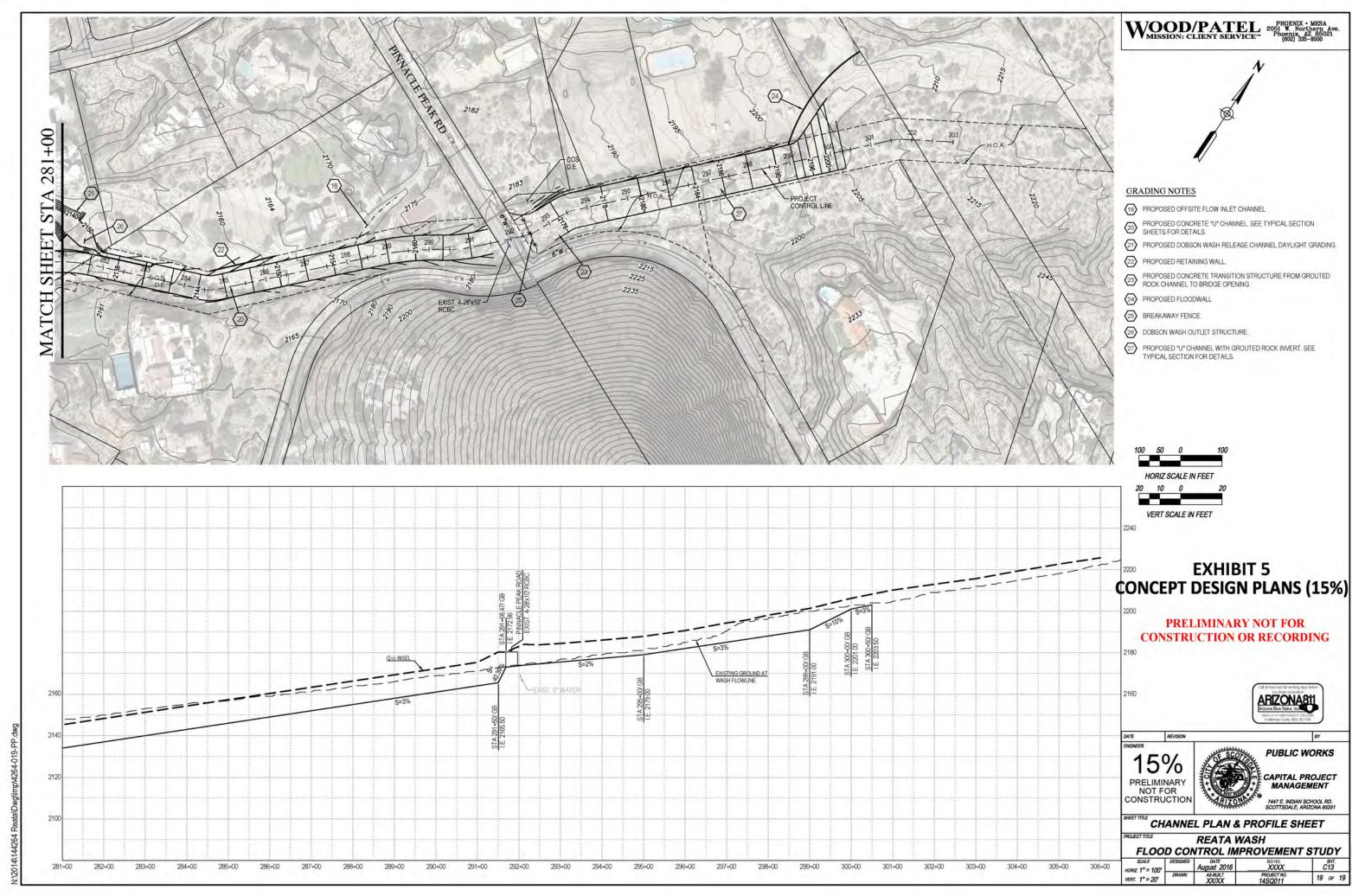


EXHIBIT 6

EXISTING CONDITION PEAK DISCHARGES

Volume II November 2, 2016

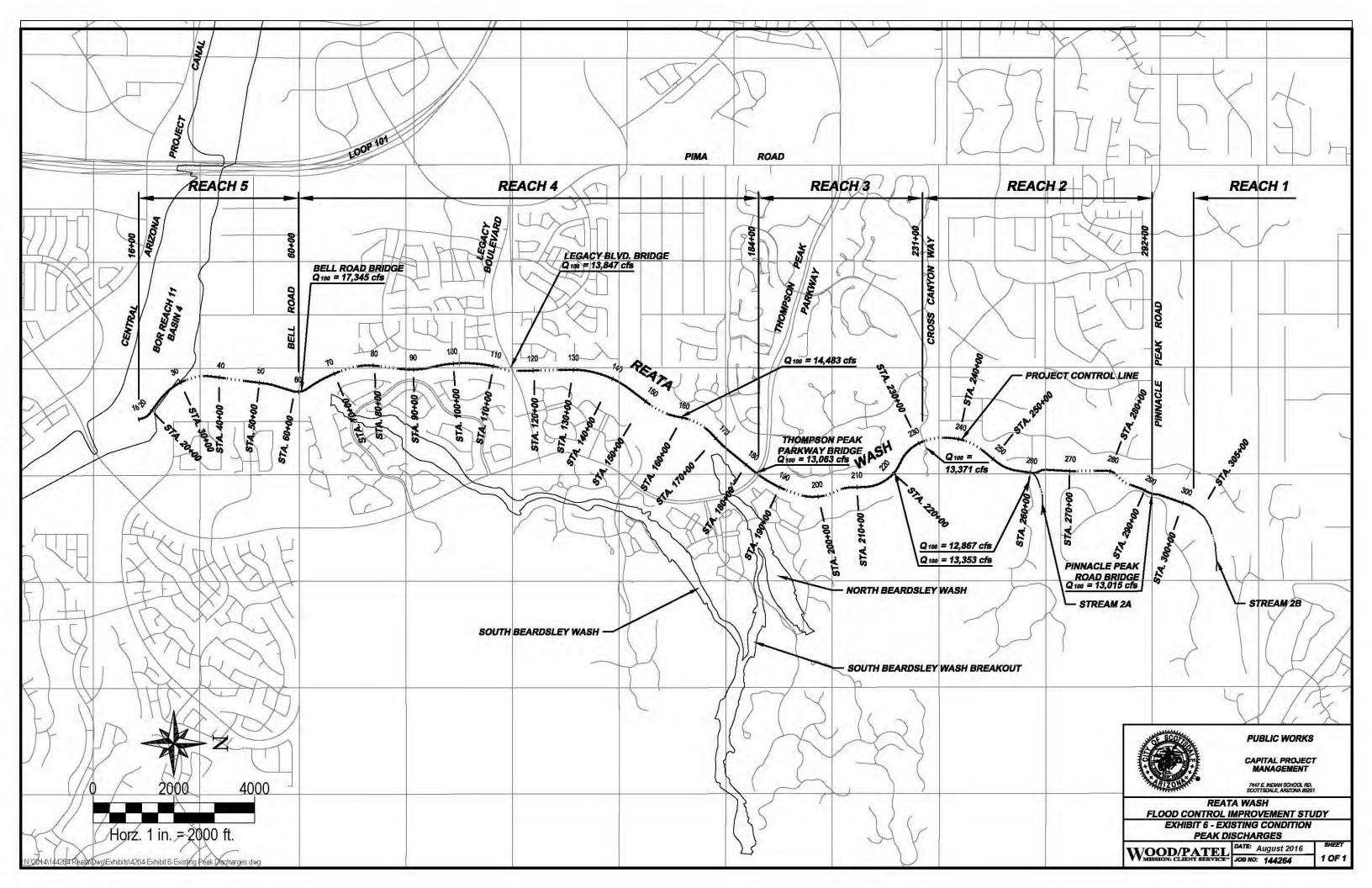


EXHIBIT 7 PROPOSED CONDITION PEAK DISCHARGES

Volume II November 2, 2016

