CAMINO DE OESTE

LOS REALES ROAD TO VALENCIA ROAD

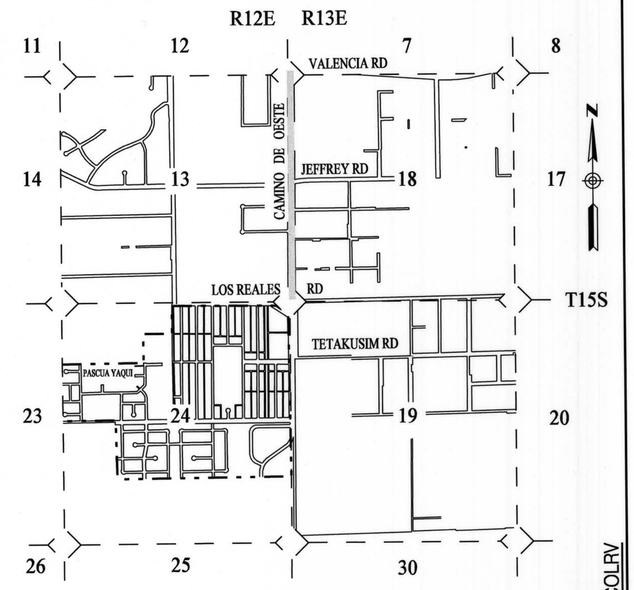
PCDOT W.O. NO. 4COLRV

ANN DAY	DISTRICT #1
RAMON VALADEZ, CHAIRMAN	DISTRICT #2
SHARON BRONSON	DISTRICT #3
RAYMOND J. CARROLL	DISTRICT #4
RICHARD ELIAS	DISTRICT #5

THIS PROJECT IS LOCATED IN SUPERVISOR DISTRICTS #3 & #5

GENERAL PROJECT DESCRIPTION

ROADWAY WIDENING IMPROVEMENTS TO 1.0 MILE OF EXISTING CAMINO DE OESTE TO A THREE-LANE ROADWAY FROM LOS REALES ROAD TO VALENCIA ROAD.



Location Map

A PORTION OF SECTION 13, T-15S, R-12E AND SECTION 18, T-15S, R-13E, G&SRM
PIMA COUNTY, ARIZONA
3" = 1 MILE

SHEET INDEX

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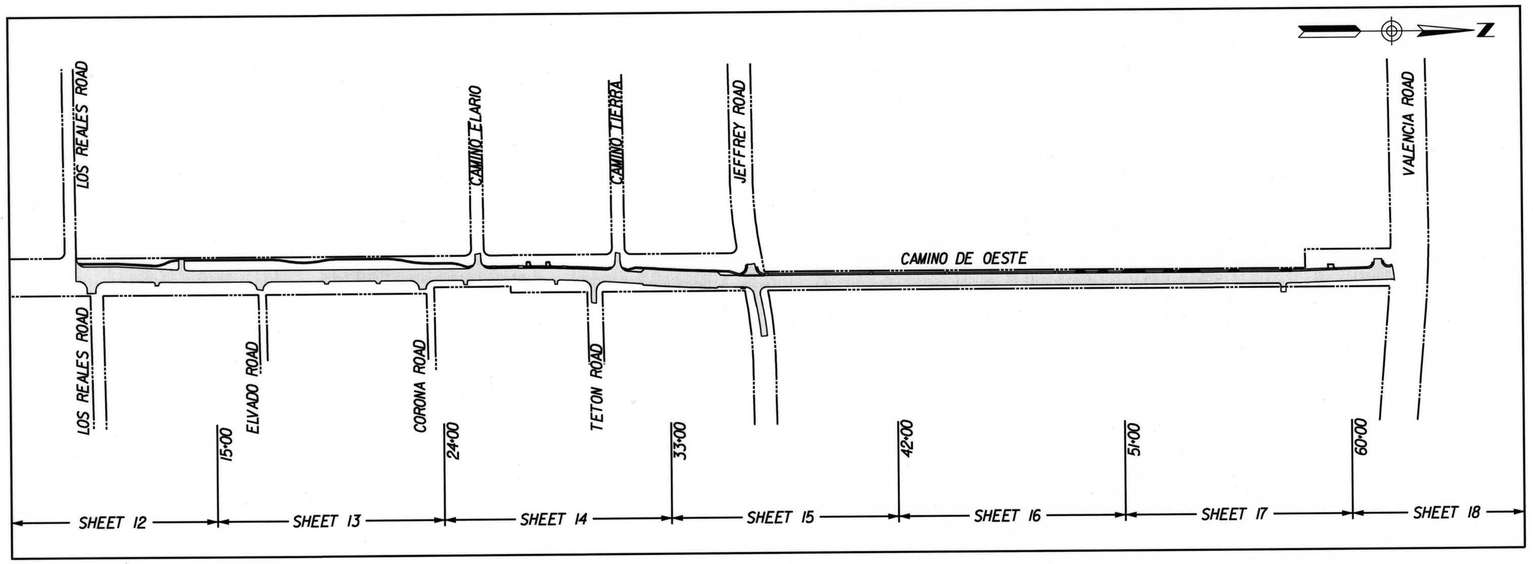

INDEX TO PLAN SHEETS

N.T.S.

FINAL PLANS
DECEMBER 2011

Robin Allen P.E. — 1-13-12
CITY OF TUCSON, WATER DEPARTMENT — DATE

No.	Revisions	Engineer	Date
No.	As Built	Engineer	Date

Registered Professional Engineer (Civil) CERTIFICATE NO. 5599 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

Pima County Department of Transportation
201 N. Stone Ave. 3rd floor Tucson, Arizona 85701
Phone Number: 740-6410
Priscilla S. Cornelio, P.E. Director

Reviewed by	Engineer	Date
Mgr. Trans Engr.		1/9/2012
Mgr. Traffic Engr.		1/9/12
Mgr. Field Engr.		1-9-12

Approved: 1/9 2012
Director

RS ENGINEERING
595 S. MEYER AVE., Tucson, AZ 85701
(520) 791-3933 • FAX: (520) 791-9405
WWW.RSENGINEERING.COM

Two working days before you dig CALL FOR THE BLUESTAKES 1-800-782-5348 Blue Stake Center CALL COLLECT

CAMINO DE OESTE, TUCSON, ARIZONA PROJECT NO. 4COLRV

E:\10\00\3.20 Construction Docs\Civil\10lt+01.dgn

NOTICE TO CONTRACTORS:

(1) ALL CONSTRUCTION SHALL CONFORM TO THE PIMA COUNTY/CITY OF TUCSON STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC IMPROVEMENTS, 2003 EDITION, EXCEPT AS MODIFIED.

(2) UTILITY LOCATIONS SHOWN ON PLANS WERE COMPILED BASED ON THE BEST INFORMATION AVAILABLE TO THE DEPARTMENT. UTILITY INFORMATION IS NOT INTENDED TO BE EXACT OR COMPLETE. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL DETERMINE THE LOCATION OF ALL UTILITIES WITH THE APPROPRIATE ORGANIZATION. THE CONTRACTOR SHALL CONTACT "BLUE STAKE" AT 1-800-782-5348 TWO (2) FULL WORKING DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

(3) ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE REQUIREMENTS OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2009 EDITION, THE SPECIAL PROVISIONS AND REVISIONS AFTER 2009.

(4) RIGHT-OF-WAY ENCROACHMENTS SHALL BE REMOVED ONLY BY ORDER OF PIMA COUNTY, UNLESS OTHERWISE NOTED.

(5) REMOVAL OF ALL CACTI AND NATIVE PLANTS SHALL BE IN ACCORDANCE WITH THE LATEST PROVISIONS OF THE "ARIZONA NATIVE PLANT LAW", A.R.S., CHAPTER 7, (A.R.S. SECTION 3-901, ET SEQ.).

(6) IF CULTURAL RESOURCES ARE FOUND DURING CONSTRUCTION, ALL WORK MUST STOP AND PIMA COUNTY CULTURAL RESOURCES AND HISTORIC PRESERVATION OFFICE MUST BE CONTACTED IMMEDIATELY @ 520-740-6451.

(7) IF HAZARDOUS MATERIALS ARE FOUND DURING CONSTRUCTION, ALL ACTIVITY IN THE IMMEDIATE VICINITY WILL CEASE AND THE PIMA COUNTY ENGINEER WILL BE NOTIFIED.

(8) THE CONTRACTOR SHALL REMOVE AND RELOCATE, AS DIRECTED BY THE ENGINEER, ALL MAILBOXES, FENCES, GATES, SIGNS, POSTS, PIPES, PRIVATE IRRIGATION, PRIVATE ELECTRICAL & LIGHTING, ETC. WITHIN THE RIGHT-OF-WAY AND CONSTRUCTION EASEMENT AREAS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO OTHER ITEMS OF WORK EXCEPT WHEN THE BIDDING SCHEDULE CONTAINS SPECIFIC ITEMS ON A UNIT BASIS.

(9) ALL PERMANENT TRAFFIC CONTROL SIGNS AND PAVEMENT MARKINGS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR.

(10) BASIS OF COORDINATES IS NAD83 (HARN92) 1ST ORDER, ARIZONA STATE PLANE INTERNATIONAL FEET (SPIF), CENTRAL ZONE 0202, AND TRANSLATED TO SURFACE COORDINATES USING THE FOLLOWING FORMULAS:
SURFACE NORTHING = (SPIF-N / 0.999857267) - 390,000
SURFACE EASTING = (SPIF-E / 0.999857267) - 900,000

(11) BASIS OF BEARING IS THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 19, TOWNSHIP 15 SOUTH, RANGE 13 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA. THE BEARING BEING NORTH 00°00'41" EAST AS MEASURED BETWEEN A PIMA COUNTY DOT - CITY OF TUCSON GEODETIC CONTROL POINT, HP01, BEING THE WEST ONE QUARTER CORNER OF SAID SECTION 19, A FOUND 3¼INCH BRONZE DISK STAMPED "US DEPT. OF THE INTERIOR, BLM¼S19, 1983" AND A PIMA COUNTY DOT - CITY OF TUCSON GEODETIC CONTROL POINT, HN01, BEING THE NORTHWEST CORNER OF SAID SECTION 19, A FOUND 3¼INCH BRONZE DISK STAMPED "US DEPT. OF THE INTERIOR, BLM S18/S19, 1983".

(12) BASIS OF ELEVATION IS A PIMA COUNTY BENCH MARK DESIGNATED "OESTE 1" WITH AN NAVD88 ELEVATION OF 2567.46, A FOUND 3¼INCH ALUMINUM DISK ON A CONCRETE CYLINDER STAMPED "PIMA COUNTY HIGHWAY DEPT REFERENCE MARK", BEING A REFERENCE MARKER 106.07 FEET NORTHWEST OF THE WEST ONE QUARTER CORNER OF SECTION 18, TOWNSHIP 15 SOUTH, RANGE 13 EAST, GILA AND SALT RIVER MERIDIAN, PIMA COUNTY, ARIZONA.

(13) CROSS SECTIONS AND PIMA COUNTY STANDARD DETAILS ARE PROVIDED FOR INFORMATION ONLY.

(14) DESIGN SPEED AND POSTED SPEED FOR CAMINO DE OESTE = 45 MPH.
DESIGN SPEED AND POSTED SPEED FOR JEFFREY = 40 MPH.

(15) DESIGN VEHICLE = LARGE SEMITRAILER WB-50 (CAMINO DE OESTE), SCHOOL BUS S-BUS-36 (JEFFREY), AND SINGLE-UNIT TRUCK SU (INTERSECTING STREETS).

(16) EXISTING TOPOGRAPHIC CONDITIONS SHOWN ON THE PLAN SHEETS REFLECT CONDITIONS AS OF MARCH 2011.

(17) THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS, ALLEYS, AND MAILBOXES DURING CONSTRUCTION, AND NOT RESTRICT EMERGENCY VEHICLES, U.S. POSTAL DELIVERY, SOLID WASTE COLLECTIONS, AND/OR ACCESS TO THE ADJACENT PROPERTIES, EXCEPT AS APPROVED BY THE ENGINEER.

NOTICE TO CONTRACTORS:

(18) THE CONTRACTOR SHALL ADJUST ALL WATER METERS, VALVE BOXES, STORM DRAIN MANHOLES, AND SEWER MANHOLES AND CLEANOUTS TO FINISH GRADE IN ACCORDANCE WITH THE STANDARD DETAILS AND REQUIREMENTS OF THE AGENCY HAVING JURISDICTION FOR THE SPECIFIC UTILITY. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE OTHER ITEMS OF WORK, EXCEPT WHEN THE BIDDING SCHEDULE CONTAINS SPECIFIC ITEMS ON A UNIT BASIS.

(19) EXCESS EXCAVATED MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO PIMA COUNTY.

(20) SOILS INFORMATION WILL BE MADE AVAILABLE TO PROSPECTIVE BIDDERS IN THE GEOTECHNICAL REPORT DATED MAY 23, 2011 BY TERRACON (PROJECT NO. 63115030). SOILS INFORMATION PROVIDED SHALL BE FOR INFORMATION PURPOSES ONLY. THIS INFORMATION WAS DEVELOPED AS ACCURATELY AS POSSIBLE BY THE METHODS USED. PIMA COUNTY ACCEPTS NO RESPONSIBILITY FOR ANY CONDITIONS ENCOUNTERED WHICH VARY FROM THE INFORMATION PROVIDED.

(21) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CARE AND MAINTENANCE OF EXISTING IMPROVEMENTS AND VEGETATION IN THE WORK AREA.

(22) OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED BEFORE PROCEEDING WITH THE WORK.

(23) ALL STATIONING SHOWN ON THE PLANS AND PROFILES IS ALONG THE CONSTRUCTION CONTROL LINE UNLESS OTHERWISE NOTED.

(24) SWG REQUESTS THE CONTRACTOR USE EXTREME CAUTION WHEN CROSSING EXISTING GAS FACILITIES LOCATED WITHIN THE PROJECT LIMITS. PLEASE BE AWARE THAT SWG REQUIRES A MINIMUM ONE-FOOT SEPARATION FROM DISTRIBUTION FACILITIES AND A TWO-FOOT SEPARATION FROM HIGH PRESSURE FACILITIES WITH ANY PROPOSED STRUCTURES. ALL INFORMATION IS PROVIDED FOR REFERENCE USE ONLY. POTHOLING AND BLUE STAKE ARE SUGGESTED FOR BEST ACCURACY WHEN LOCATING SWG FACILITIES.

(25) SWG REQUESTS A STAND-BY WHEN THE CONTRACTOR IS WORKING WITHIN 10 FEET OF HIGH PRESSURE GAS FACILITIES. THE CONTRACTOR MUST CALL (520) 794-6021 TO SCHEDULE THE STAND-BY A MINIMUM OF 24 HOURS IN ADVANCE.

(26) SWG ANTICIPATES ADJUSTMENT OF GAS VALVES DURING CONSTRUCTION; THESE VALVES WILL NEED TO BE PROTECTED AND ADJUSTED TO THE FINAL GRADE DURING THE ROADWAY CONSTRUCTION. THE CONTRACTOR MUST CONTACT SWG FOR ADJUSTING VALVES AT LEAST TWO WEEKS PRIOR TO THE START OF CONSTRUCTION BY CALLING (520) 794-6208.

LEGEND:

- RIGHT-OF-WAY LINE
- ACCESS CONTROL
- SECTION LINE
- CONSTRUCTION C/L
- PROPERTY LINE
- EXISTING EDGE OF PAVEMENT
- EXISTING CURB
- EXISTING GUARDRAIL
- EXISTING SIDEWALK
- EXISTING CMP
- EXISTING FLOWLINE
- EXISTING CHAIN LINK FENCE
- EXISTING FENCE
- OHE — EXISTING OVERHEAD ELECTRIC
- T — EXISTING TELEPHONE LINE
- W — EXISTING WATER LINE
- S — EXISTING SEWER LINE
- G — EXISTING GAS LINE
- SD — EXISTING STORM DRAIN LINE
- EXISTING POWER POLE
- EXISTING POWER POLE W/ RISER
- EXISTING GUY WIRE
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC MANHOLE
- EXISTING VAULT
- EXISTING LIGHT POLE
- EXISTING LIGHT POLE WITH MAST
- EXISTING TRAFFIC LIGHT
- EXISTING TELEPHONE MANHOLE
- TEL — EXISTING TELEPHONE PEDESTAL
- CATV — EXISTING CABLE TV PEDESTAL
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING FIRE HYDRANT
- EXISTING IRRIGATION CONTROL VALVE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEANOUT
- EXISTING GAS METER
- EXISTING GAS VALVE
- EXISTING DRAINAGE MANHOLE
- EXISTING BOLLARD
- EXISTING SIGN
- EXISTING MAILBOX
- EXISTING AIR RELEASE VALVE
- EXISTING CORROSION TEST STATION
- PROPOSED EASEMENT
- C — TOP OF CUT
- F — TOP OF FILL
- TRANSITION: CUT TO FILL
- PROPOSED HANDRAIL
- PROPOSED ELECTRICAL SLEEVE
- PROPOSED IRRIGATION SLEEVE

R S ENGINEERING AND THE REGISTRANT SEALING THESE DOCUMENTS HAVE MADE REFERENCE TO AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS, AS REQUIRED BY THE AGENCY. SINCE THE DEVELOPMENT OF THE REFERENCED AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS WERE NOT UNDER DIRECT SUPERVISION OF R S ENGINEERING OR THE REGISTRANT, R S ENGINEERING OR THE REGISTRANT CAN NOT ASSUME ANY LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE AGENCY'S STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS REFERENCED HEREIN.

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SCALE: 1" = N/A

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE GENERAL NOTES AND LEGEND

E:\1101\00\3.20 Construction Docs\Civil\1101lt02.dgn 12/12/2011

CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1,SEE TYPICAL SECTIONS

2.1 TRIM,TACK,AND JOIN TO EXISTING PAVEMENT

3.1 CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209,
PAID FOR AS BID ITEM 9080001

3.2 CONNECT NEW VERTICAL CURB TO EXISTING VERTICAL CURB PER PC/COT STD DTL 211

3.3 CONSTRUCT CONCRETE CURB TERMINAL SECTION PER PC/COT STD DTL 212.
PAID FOR AS BID ITEM 9080090

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213.
PAID FOR AS BID ITEM 9080402

3.5 CONSTRUCT CONCRETE VALLEY GUTTER PER PC/COT STD DTL 208.
PAID FOR AS BID ITEM 9080131

3.6 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213, MODIFIED D=1.5'
PAID FOR AS BID ITEM 9080402

4.1 CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200.
PAID FOR AS BID ITEM 9080201

4.2 MATCH CONCRETE SIDEWALK NEW TO EXISTING PER PC/COT STD DTL 203

4.3 CONSTRUCT TYPE 2 CONCRETE SIDEWALK SCUPPER PER PC/COT STD DTL 205.5,
MODIFIED (6 CELLS).SEE ROADWAY DETAIL RD8,PAID FOR AS BID ITEM 5030082

4.4 CONSTRUCT TYPE 2 CONCRETE SIDEWALK SCUPPER PER PC/COT STD DTL 205.5,
MODIFIED (8 CELLS).SEE ROADWAY DETAIL RD8,PAID FOR AS BID ITEM 5030082

5.1 CONSTRUCT CURB ACCESS RAMP PER PC/COT STD DTL 207,TYPE 1,SEE ROADWAY
DETAILS,PAID FOR AS BID ITEM 9080280

5.2 CONSTRUCT CURB ACCESS RAMP PER PC/COT STD DTL 207,TYPE 2,SEE ROADWAY
DETAILS,PAID FOR AS BID ITEM 9080281

5.3 CONSTRUCT CONCRETE LANDING, SEE ROADWAY DETAIL RD5,
PAID FOR AS BID ITEM 9080292

6.1 CONSTRUCT CONCRETE DRIVEWAY APRON PER PC/COT STD DTL 206,SEE ROADWAY DETAIL RD1,
PAID FOR AS BID ITEM 9080301

6.2 CONSTRUCT ASPHALT DRIVEWAY,SEE ROADWAY DETAIL RD2

7.1 CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103,
PAID FOR AS BID ITEM 9090002

7.2 CONSTRUCT SURVEY MONUMENT FRAME AND COVER PER PC/COT STD DTL 103,
PAID FOR AS BID ITEM 9090021

8.1 INSTALL IRRIGATION SLEEVES PER IRRIGATION PLANS,SEE GEOMETRY PLANS FOR LOCATIONS

8.2 INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS,SEE GEOMETRY PLANS FOR LOCATIONS

9.1 CONSTRUCT LONGITUDINAL CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP).SEE ROADWAY DETAIL RD3

9.2 CONSTRUCT TRANSVERSE CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP).SEE ROADWAY DETAIL RD4

10.1 INSTALL DUMPED RIPRAP FLUSH WITH TOP OF GRADE D50=6",1-FOOT THICK,WITH FILTER FABRIC
MIRAFI 180N OR EQUIVALENT,PAID FOR AS BID ITEM 9130001

10.2 INSTALL DUMPED RIPRAP FLUSH WITH TOP OF GRADE D50=9",1.5-FEET THICK,WITH FILTER FABRIC
MIRAFI 180N OR EQUIVALENT,PAID FOR AS BID ITEM 9130001

10.3 INSTALL HAND PLACED RIPRAP (GROUTED) PER TYPICAL SECTION A (DETAIL A)
PAID FOR AS BID ITEM 9130009

11 6'x6' LOOP BY OTHERS (PCDOT)

RELOCATION/ADJUSTMENT NOTES:

1.1 ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300,
PAID FOR AS BID ITEM 5103101

1.2 ADJUST WATER METER BOX AND COVER TO FINISHED GRADE

3.1 POWER POLES/LIGHT POLES TO BE RELOCATED BY OTHERS

3.2 ELECTRICAL BOX/TELEPHONE BOX/PEDESTAL TO BE REMOVED/ADJUSTED
OR RELOCATED BY OTHERS

4.1 GAS LINE TO BE RELOCATED BY SOUTHWEST GAS

4.2 ADJUST GAS VALVE COVER TO GRADE BY OTHERS

6.1 PROTECT IN PLACE

7.1 RELOCATE MAILBOX PER PC/COT STD DTL 102,
PAID FOR AS BID ITEM 2020061

SCHEDULE OF BENCHMARKS

BM #	NORTHING	EASTING	ELEVATION	DESCRIPTION
97	17483.469	64474.901	2561.37	Set #4 RB tag PCDOT REF
98	17483.485	64324.909	2561.47	Set PK Nail
99	17983.534	64326.995	2559.47	Set #4 RB tag PCDOT REF
101	18227.940	64474.944	2560.82	Fd 3.5in PCHD Disk
102	18483.669	64472.952	2561.05	Set #4 RB tag PCDOT REF
103	18483.597	64329.920	2559.98	Set #4 RB tag PCDOT REF
104	18983.603	64324.709	2560.19	Set #4 RB tag PCDOT REF
105	18983.718	64471.754	2562.05	Set #4 RB tag PCDOT REF
106	19533.680	64472.542	2562.60	Set #4 RB tag PCDOT REF
107	19533.701	64327.496	2561.03	Set #4 RB tag PCDOT REF
108	19983.905	64469.262	2562.67	Set #4 RB tag PCDOT REF
109	19983.705	64327.310	2562.23	Set #4 RB tag PCDOT REF
110	20518.133	64469.098	2565.11	Set #4 RB tag PCDOT REF
111	20984.034	64474.138	2568.63	Set #4 RB tag PCDOT REF
112	21384.052	64474.368	2573.15	Set #4 RB tag PCDOT REF
113	21984.114	64474.609	2579.90	Set #4 RB tag PCDOT REF
394	20518.158	64323.928	2564.57	Fd #4 RB LS4080
338	22155.575	64474.306	2581.81	Fd 1.5in ACP RLS21774
339	22849.630	64474.887	2592.63	Fd 1.5in ACP RLS21774
340	22921.671	64474.969	2593.23	Fd 1in Plastic Cap unreadable

HORIZONTAL CONTROL MONUMENTS

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	18250.5978	69711.3878	2591.07	2"BCSM punch only flush N.G.
2	20893.6621	69695.1345	2615.44	1/2" RB RLS 51025 flush N.G.
3	20894.1652	69695.3015	2615.37	5/8" RB RLS19833 flush N.G.
4	23536.4263	69679.1932	2593.02	3 1/4" BLM Disk up 1.3' N.G.
5	18041.3220	59057.6242	2558.89	2" BCSM P.Y.T.casing dwn 0.5' pvmt
6	20684.9263	59036.7912	2533.36	2 1/2" GLO disk up 1.2' N.G.
7	23328.9127	59016.3293	2552.21	2" Alum disk RLS 29881 dwn 0.1' pvmt
8	15483.1628	64399.4606	2577.73	3-1/4" BLM CAP,dwn 0.4' N.G.
9	18099.3562	64399.9697	2558.75	1" ACP "RLS 22759" In Casing dwn 1.0' pvmt
10	18152.6499	64399.9967	2558.21	3-1/4" BLM CAP In Casing dwn 1.1' pvmt
11	19486.9593	64399.3736	2561.31	2" BCSM dwn 0.3' pvmt
12	20743.1986	64398.8995	2565.64	2" BCSM flush pvmt
13	20820.7637	64398.9736	2565.75	2" BCSM dwn 0.4' N.G.
14	22154.6791	64399.2136	2582.29	3-1/4" BLM CAP up 0.5' N.G.
15	23388.1821	64400.2367	2603.24	3" BRASS DISK In Casing dwn 0.7' pvmt
16	23488.2314	64400.1537	2604.29	3" BRASS DISK In Casing dwn 0.7' pvmt
17	23512.5579	67033.2466	2612.27	3-1/4" BLM CAP up 0.6' N.G.
18	23357.7248	61662.3229	2574.05	3" BRASS DISK In Casing dwn 0.6' pvmt
19	20713.5594	61680.8106	2549.73	2" BCSM dwn 0.1' pvmt
20	18076.3810	61698.8972	2557.26	1" ACP "RLS 22759" dwn 0.1' N.G.
21	18201.4458	67047.7566	2618.85	3-1/4" BLM CAP up 2.2' N.G.
22	20857.0889	67040.2696	2584.90	5/8" RB dwn 0.7' pvmt
23	20895.4843	64323.8328	2567.46	3-1/2" AC on Conc Cylinder up 0.8' N.G.- B.O.E."OESTE 1"

NOTE:
ALL NORTHINGS AND EASTINGS SHOWN ARE SURFACE COORDINATES.

CONTRACTOR SHALL RECONSTRUCT/RESET ALL HORIZONTAL CONTROL MONUMENTS
AFFECTED BY CONSTRUCTION

LENGTH OF PROJECT

CAMINO DE OESTE STA 9+44.62 TO STA 61+71.33

GROSS LENGTH = 5,226.71' (0.99 MILE)

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT
(PAID AS ROADWAY EXCAVATION)

2 REMOVE EXISTING SIGN

3 SIGN TO BE REMOVED BY THE PASCUA YAQUI TRIBE

4 REMOVE TRAFFIC SIGNAL LOOP AND EQUIPMENT

EARTHWORK QUANTITIES

ROADWAY EXCAVATION	12,601 CY
STRUCTURAL EXCAVATION	277 CY
SHRINKAGE (20%)	-2,576 CY
*EXIST ASPHALT PAVEMENT REMOVAL	957 CY
AVAILABLE EXCAVATION	10,302 CY
ROADWAY EMBANKMENT	810 CY
GROUND COMPACTION (0.2)	162 CY
NET EMBANKMENT DEMAND	972 CY
WASTE	9,330 CY

*INCLUDED IN ROADWAY EXCAVATION QUANTITY
(QTY.ESTIMATED FROM PCDOT PAVEMENT CORING DATA)

ROADWAY EXCAVATION PAID FOR AS BID ITEM 2030300

ABBREVIATIONS

ABC	AGGREGATE BASE COURSE
AC	ASPHALTIC CONCRETE
BCR	BEGIN CURB RETURN
BCSM	BRASS CAP SURVEY MONUMENT
BLDG.	BUILDING
BM	BENCH MARK
B.O.E.	BASIS OF ELEVATION
CB	CATCH BASIN
C/L	CONTROL LINE
CMP	CORRUGATED METAL PIPE
CFS	CUBIC FEET PER SECOND
CONC.	CONCRETE
CONSTR. C/L	CONSTRUCTION CONTROL LINE
DE	DRAINAGE EASEMENT
DIA. OR Ø	DIAMETER
DIP	DUCTILE IRON PIPE
DWG.	DRAWING
E	EAST
ECR	END CURB RETURN
ELEV. OR EL.	ELEVATION
EXIST.	EXISTING
FD. OR FND.	FOUND
F/L	FLOW LINE
FT. OR '	FOOT OR FEET
G	GUTTER
INV.	INVERT
LF	LINEAR FEET
LT.	LEFT
MH	MANHOLE
MIN.	MINIMUM
N	NORTH
NE	NORTHEAST
N.T.S.	NOT TO SCALE
NW	NORTHWEST
PVMT.	PAVEMENT
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PRC	POINT OF REVERSE CURVE
R/W	RIGHT OF WAY
S	SOUTH
SSD	STOPPING SIGHT DISTANCE
SE	SOUTHEAST
SM	SURVEY MONUMENT
SMH	SANITARY MANHOLE
STA.	STATION
STD.	STANDARD
SW	SOUTHWEST
S.Y.	SQUARE YARDS
TCE	TEMPORARY CONSTRUCTION EASEMENT
TYP.	TYPICAL
W	WEST
AOR	AXIS OF ROTATION

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV

CAMINO DE OESTE NOTES, BENCHMARKS AND ABBREVIATIONS

SCALE: 1" = N/A | SHEET 3 OF 57

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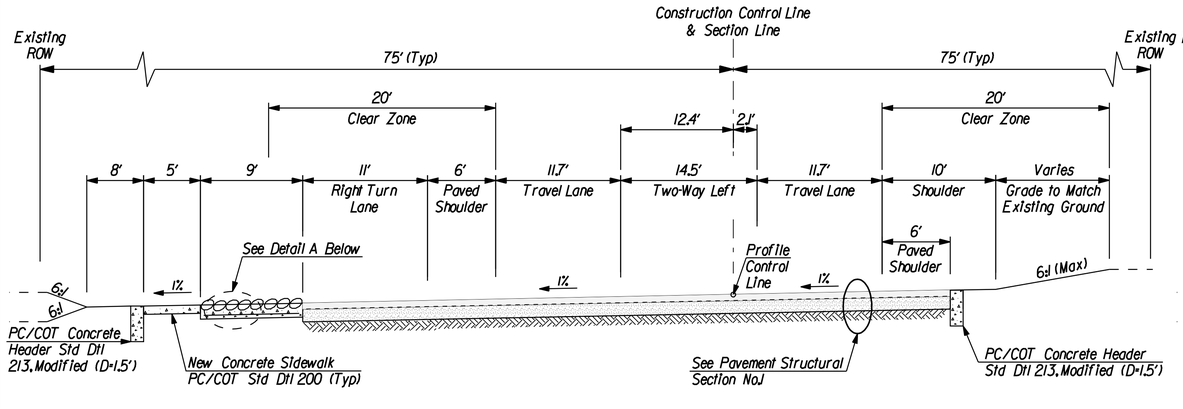
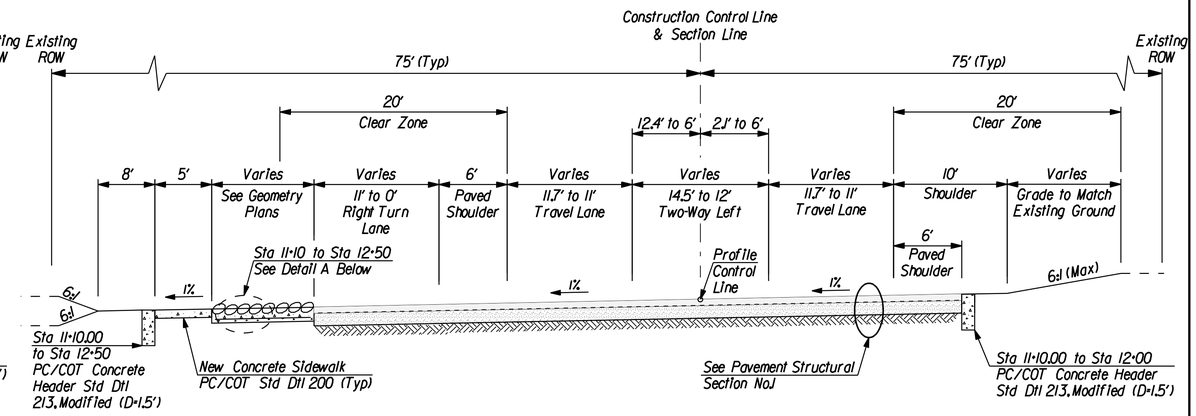


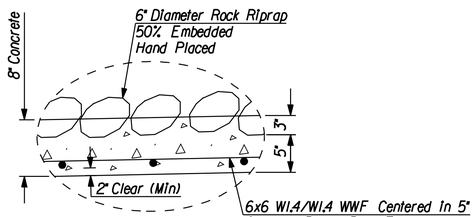
(A) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 9+44.62 TO STA 11+10.00



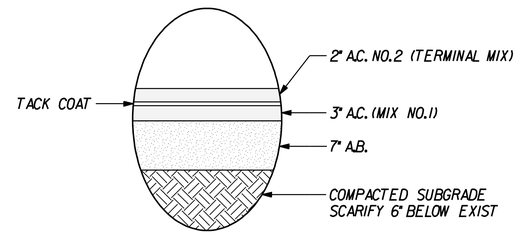
(B) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 11+10.00 TO STA 14+00.00



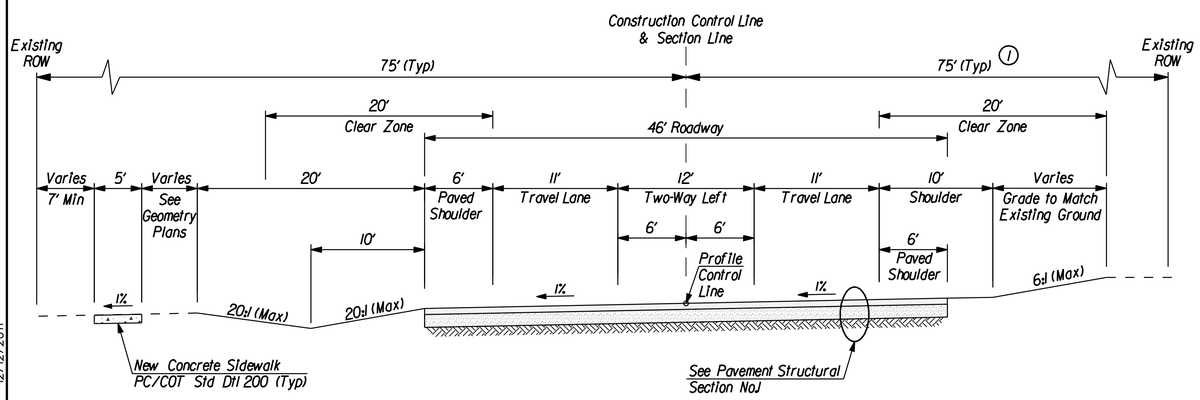
Detail A

NTS



PAVEMENT STRUCTURAL SECTION NO.1

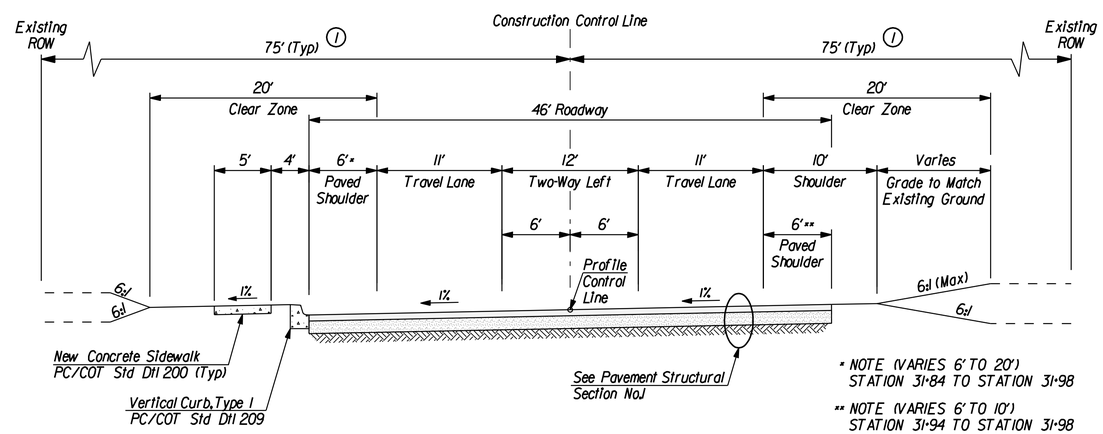
N.T.S.



(C) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 14+00.00 TO STA 24+94.62

(1) STA 23+65.10 TO STA 26+68.99
ROW (RT) = 50 FEET



* NOTE (VARIES 6' TO 20')
STATION 31+84 TO STATION 31+98

** NOTE (VARIES 6' TO 10')
STATION 31+94 TO STATION 31+98

(D) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 24+94.62 TO STA 31+98.00

(1) STA 23+65.10 TO STA 26+68.99
ROW (RT) = 50 FEET

STA 26+90.16 TO STA 31+98.00
ROW (LT) VARIES FROM 75 FEET TO 96.6 FEET
ROW (RT) VARIES FROM 75 FEET TO 53.9 FEET

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SCALE: 1" = NTS

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

TYPICAL SECTIONS

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

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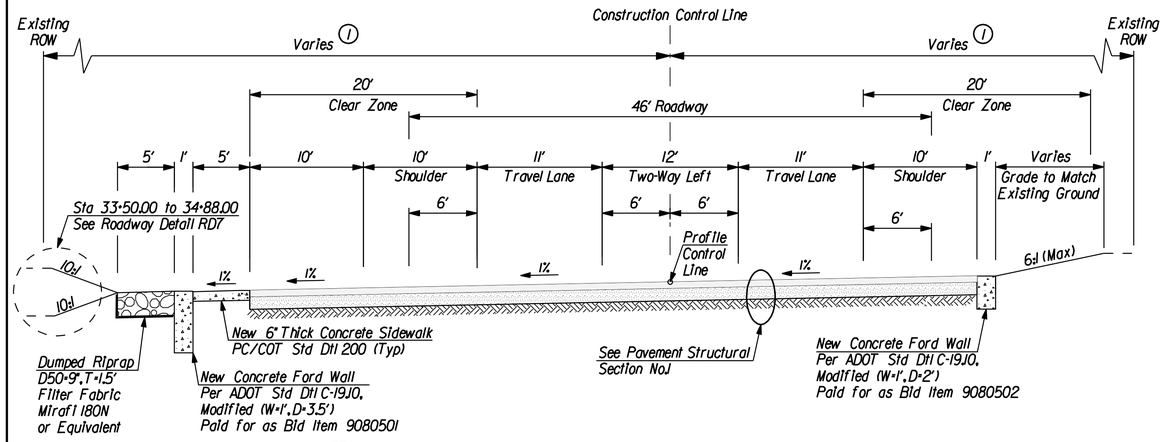
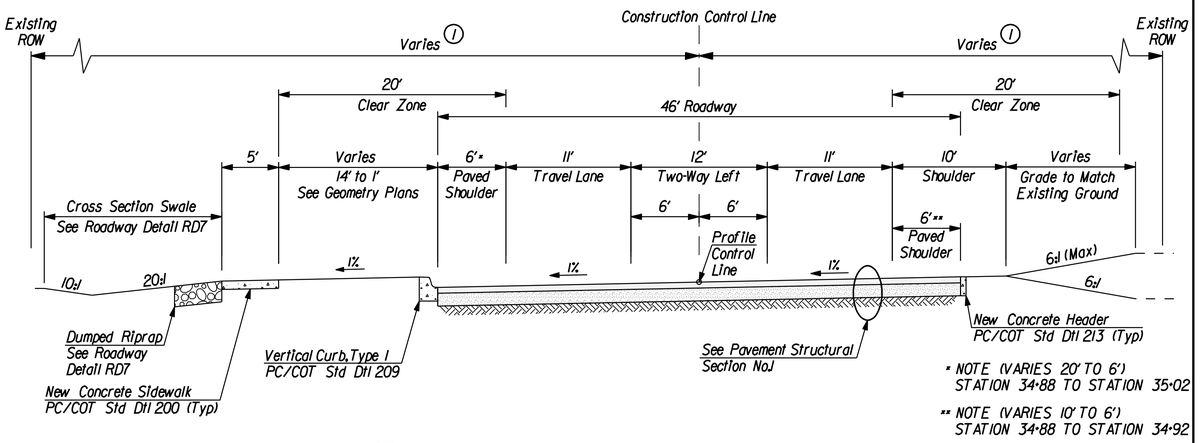


(E) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 31+98.00 TO STA 34+88.00 DRAINAGE CROSSING

(1) ROW (LT) VARIES FROM 96.6 FEET TO 110.7 FEET
ROW (RT) VARIES FROM 53.9 FEET TO 39.4 FEET



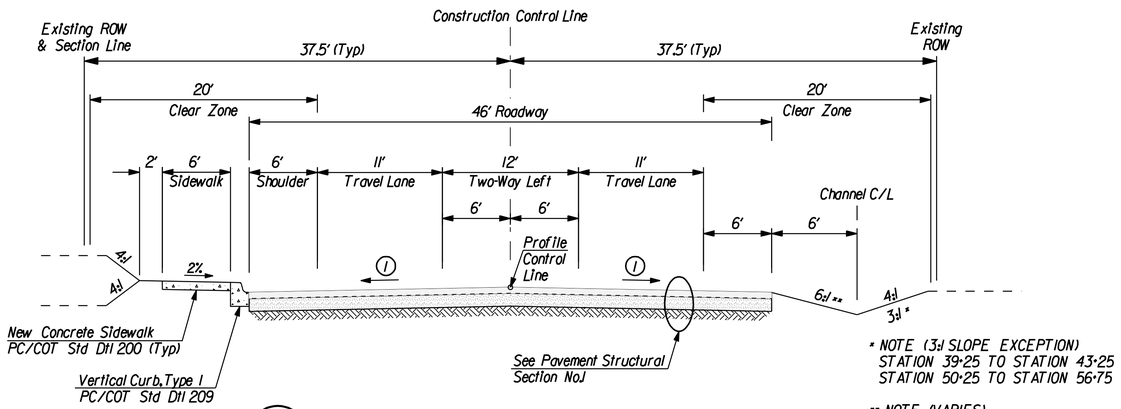
* NOTE (VARIES 20' TO 6')
STATION 34+88 TO STATION 35+02

** NOTE (VARIES 10' TO 6')
STATION 34+88 TO STATION 34+92

(F) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 34+88.00 TO STA 36+36.02

(1) ROW (LT) VARIES FROM 110.7 FEET TO 111.8 FEET
ROW (RT) VARIES FROM 39.4 FEET TO 37.5 FEET



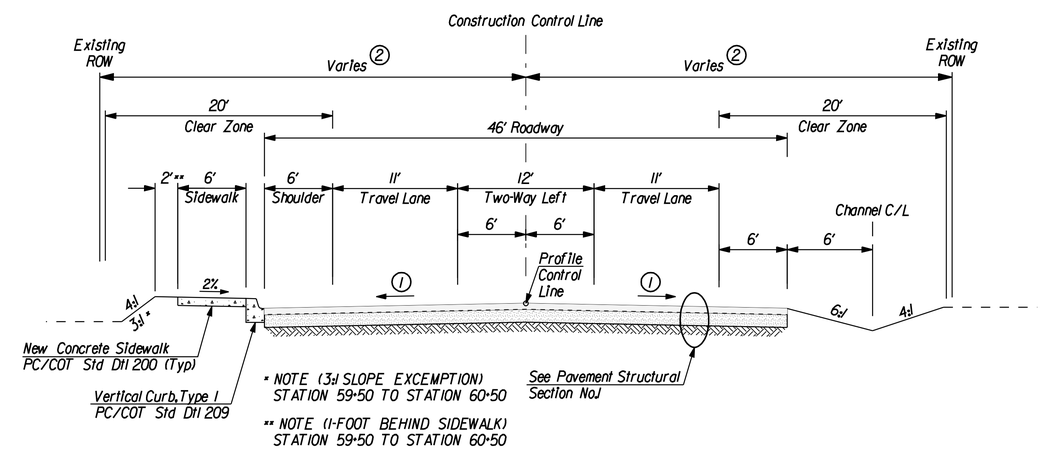
* NOTE (3:1 SLOPE EXCEPTION)
STATION 39+25 TO STATION 43+25
STATION 50+25 TO STATION 56+75

** NOTE (VARIES)
STATION 36+50 TO STATION 40+00
SEE PLAN/PROFILE SHEETS FOR CHANNEL ELEVATIONS

(G) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 36+36.02 TO STA 56+55.34

(1) CROSS SLOPE VARIES, SEE PLAN AND PROFILE SHEETS FOR SUPERELEVATION DIAGRAM



* NOTE (3:1 SLOPE EXCEMPTION)
STATION 59+50 TO STATION 60+50

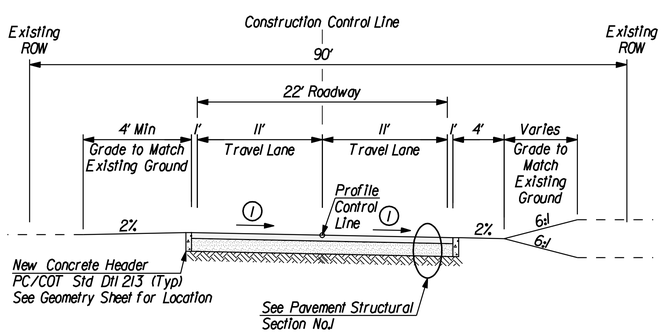
** NOTE (1-FOOT BEHIND SIDEWALK)
STATION 59+50 TO STATION 60+50

(H) PROPOSED CAMINO DE OESTE TYPICAL SECTION

STA 56+55.34 TO STA 61+71.33

(1) CROSS SLOPE VARIES, SEE PLAN AND PROFILE SHEETS FOR SUPERELEVATION DIAGRAM

(2) ROW (LT) VARIES FROM 35 FEET TO 110 FEET
ROW (RT) VARIES FROM 37.5 FEET TO 50 FEET



(I) PROPOSED JEFFREY ROAD TYPICAL SECTION

STA 600+49.47 TO 602+21.98

(1) CROSS SLOPE VARIES, SEE PLAN AND PROFILE SHEETS FOR SUPERELEVATION DIAGRAM

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SCALE: 1" = NTS

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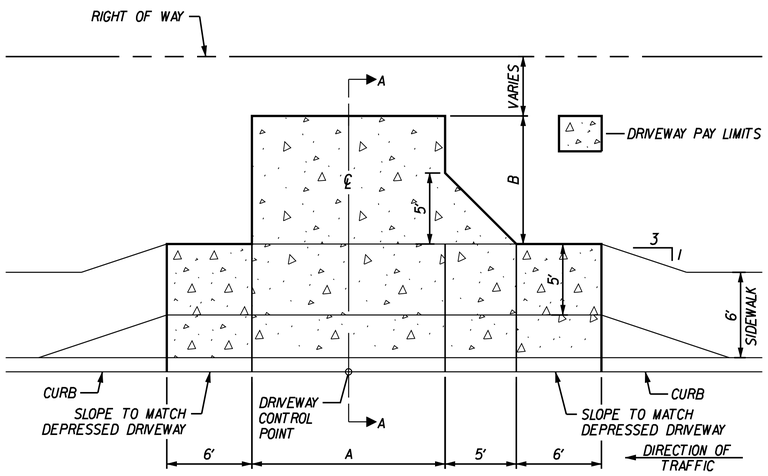
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

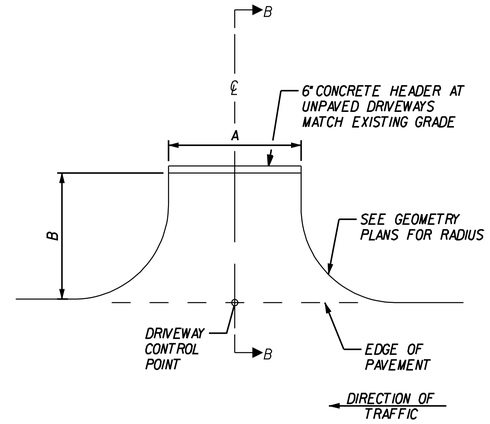
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
TYPICAL SECTIONS

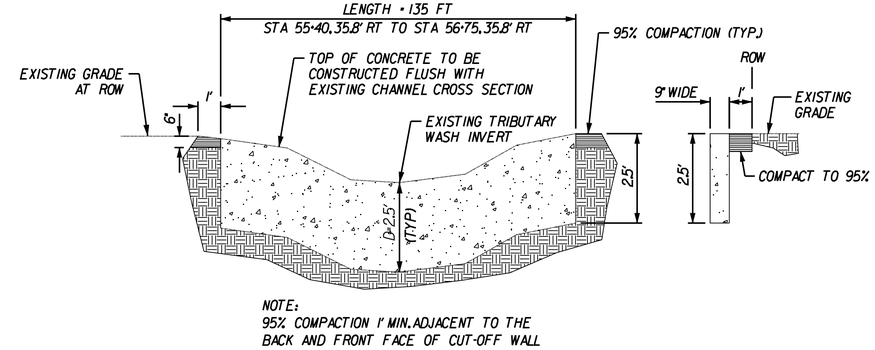
E:\1101\00\3.20 Construction Docs\Civil\1101ts02.dgn 12/12/2011



PLAN VIEW



PLAN VIEW

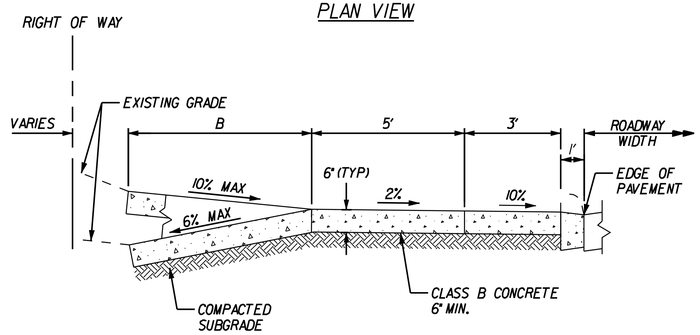


NOTE:
95% COMPACTION 1' MIN. ADJACENT TO THE BACK AND FRONT FACE OF CUT-OFF WALL

RD3 LONGITUDINAL CONCRETE CUTOFF WALL

N.T.S.

REF: CONSTRUCTION NOTE (9J)
PAID FOR AS BID ITEM 6010720



SECTION A-A

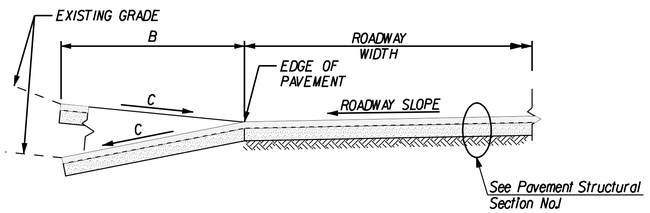
DRIVEWAY SCHEDULE			
STATION/OFFSET	DETAIL	A	B
27+39.25, 23.00' LT	RD1	14.0'	15.0'
28+16.50, 23.00' LT	RD1	14.0'	15.0'
49+25.26, 23.00' LT	RD1	14.0	5.0'
50+15.13, 23.00' LT	RD1	14.0	5.0'
51+11.53, 23.00' LT	RD1	14.0	5.0'
51+62.53, 23.00' LT	RD1	14.0'	5.0'
52+76.71, 23.00' LT	RD1	14.0'	5.0'
53+33.84, 23.00' LT	RD1	14.0'	5.0'
53+79.86, 23.00' LT	RD1	14.0'	5.0'
55+34.90, 23.00' LT	RD1	14.0'	3.0'
57+43.00, 23.00' LT	RD1	14.0'	3.0'
* 59+23.42, 23.00' LT	RD1	22.0'	15.0'

* NOTE:
6' SIDEWALK ALIGNMENT SHALL BE CONSTRUCTED AT BACK OF CURB

RD1 PC/COT STD. DTL. 206 DRIVEWAY APRON

N.T.S. (SEE STD DTL 206, SHEET 10, FOR MORE INFORMATION)

REF: CONSTRUCTION NOTE (6J)
PAID FOR AS BID ITEM 9080301



SECTION B-B

DRIVEWAY SCHEDULE				
STATION/OFFSET	DETAIL	A	B	C
12+66.20, 21.50' RT	RD2	14.0'	13.5'	0.50%
13+64.36, 25.20' LT	RD2	22.0'	44.8'	-0.52%
19+39.36, 23.00' RT	RD2	14.0'	10.0'	0.98%
21+43.77, 23.00' RT	RD2	14.0'	10.0'	0.18%
24+89.70, 23.00' RT	RD2	14.0'	17.0'	0.58%
28+50.18, 23.00' RT	RD2	10.0'	17.0'	-0.08%
57+33.00, 23.00' RT	RD2	20.0'	35.2' *	2.00% **
61+09.20, 23.00' LT	RD2	30.0'	37.0'	3.65%

* NOTE:
PAVEMENT SHALL END AT RIGHT OF WAY

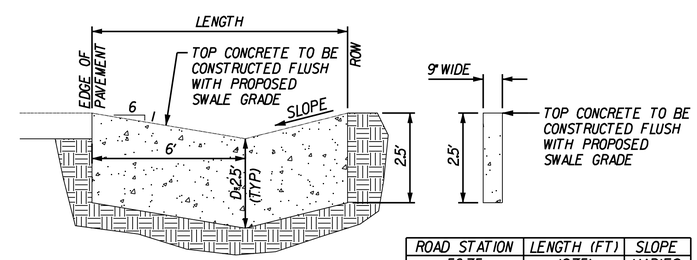
** NOTE:
PAVEMENT SLOPE OF -2.0% SHALL BE MAINTAINED FOR AN ADDITIONAL 12-FEET BEFORE SLOPE (C) BEGINS

NOTE:
SEE GEOMETRY PLANS AND ASPHALT DRIVEWAY PROFILES FOR MORE INFORMATION

RD2 ASPHALT DRIVEWAY

N.T.S.

REF: CONSTRUCTION NOTE (6.2)



NOTE:
95% COMPACTION 1' MIN. ADJACENT TO THE BACK AND FRONT FACE OF CUT-OFF WALL

ROAD STATION	LENGTH (FT)	SLOPE
56+75	12.75'	VARIES
55+40	12.75'	VARIES
50+50	14.5	3:1
45+50	14.5	4:1
40+50	14.5	3:1

RD4 TRANSVERSE CONCRETE CUTOFF WALL

N.T.S.

REF: CONSTRUCTION NOTE (9.2)
PAID FOR AS BID ITEM 6010720

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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE ROADWAY DETAILS

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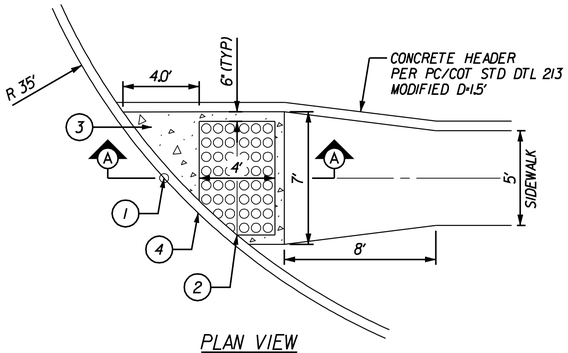
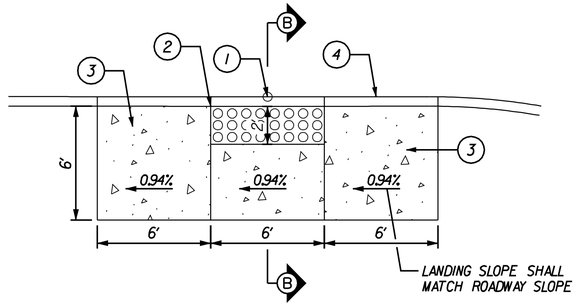
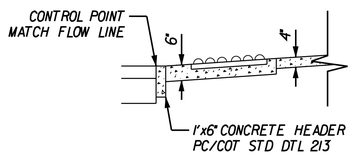


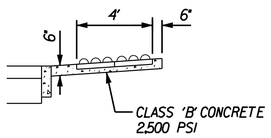
PLAN VIEW
STA 9+55.68, 63.04' LT



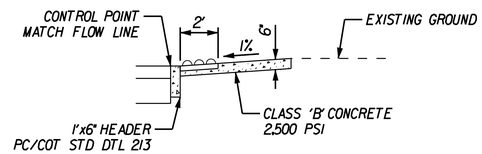
PLAN VIEW
STA 35+91.72, 23.00' RT



PROFILE VIEW



SECTION A-A



SECTION B-B

1. CONCRETE LANDING CONTROL POINT. SEE PLANS FOR LOCATION
2. DETECTABLE WARNING STRIP. SEE PC/COT STD DTL 207
3. ROUGH BROOM FINISH
4. CONCRETE HEADER PER PC/COT STD DTL 213

NOTES:

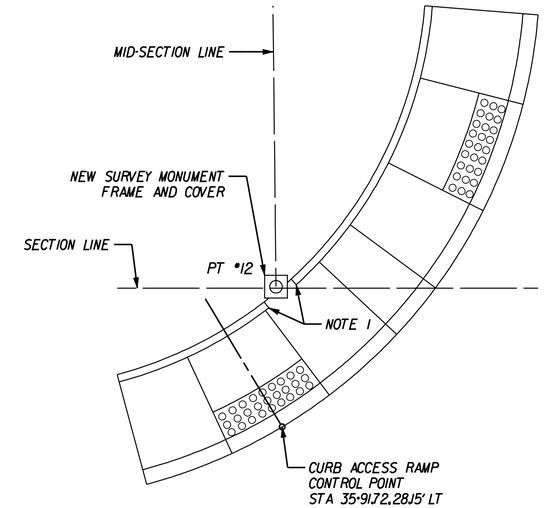
1. SEE PC/COT STD DETAIL 207 FOR ADDITIONAL CONSTRUCTION NOTES
2. SEE STD DETAIL 200 FOR JOINT REQUIREMENTS
3. SEE PROJECT PLANS FOR CONCRETE LANDING LOCATION

RD5 CONCRETE LANDING WITH DETECTABLE WARNING STRIP

N.T.S.

STA 9+55.68, 63.04' LT
STA 35+91.72, 23.00' RT

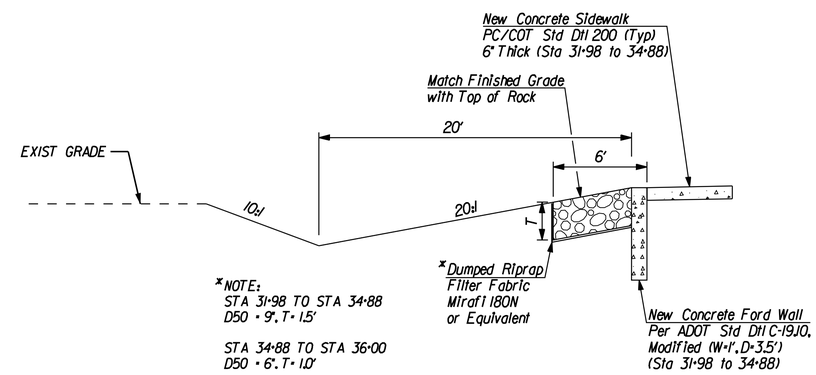
REF: CONSTRUCTION NOTE 5.3
PAID FOR AS BID ITEM 9080292



NOTE 1:
BREAK CURB AND ALLOW FOR PLACEMENT OF SURVEY MONUMENT.
KEEP CURB 3-INCHES CLEAR OF MONUMENT SLAB. TOP OF FRAME AND COVER SHALL MATCH SIDEWALK GRADE

RD6 SURVEY MONUMENT FRAME & COVER IN CURB ACCESS RAMP

N.T.S. (SEE STD DTLS 103 & 207 FOR MORE INFORMATION)



*NOTE:
STA 31+98 TO STA 34+88
D50 = 9", T= 1.5'

STA 34+88 TO STA 36+00
D50 = 6", T= 1.0'

RD7 CROSS SECTION SWALE

N.T.S.

STA 33+50.00 TO 36+36.02 LT

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SCALE: 1" = NTS | SHEET 7 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

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CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
CAMINO DE OESTE ROADWAY DETAILS

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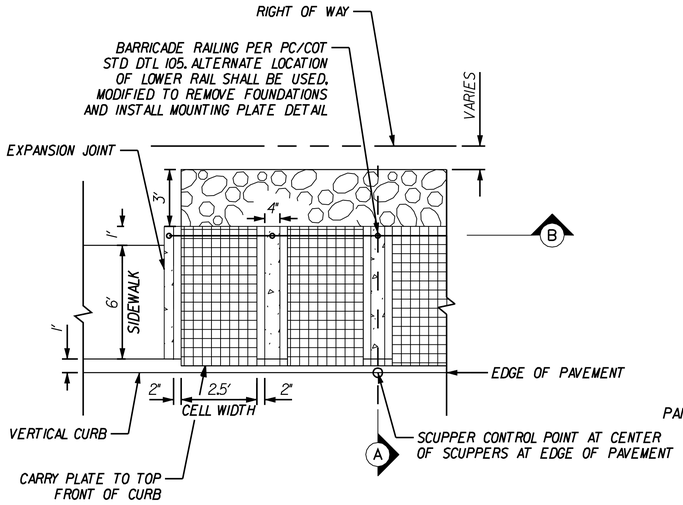
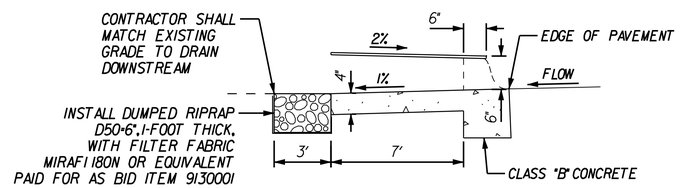


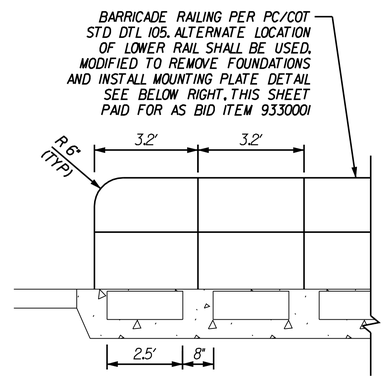
PLAN VIEW (6 CELLS)

STA 48+34.91, STA 44+00.00
STA 41+00.00, STA 36+84.91

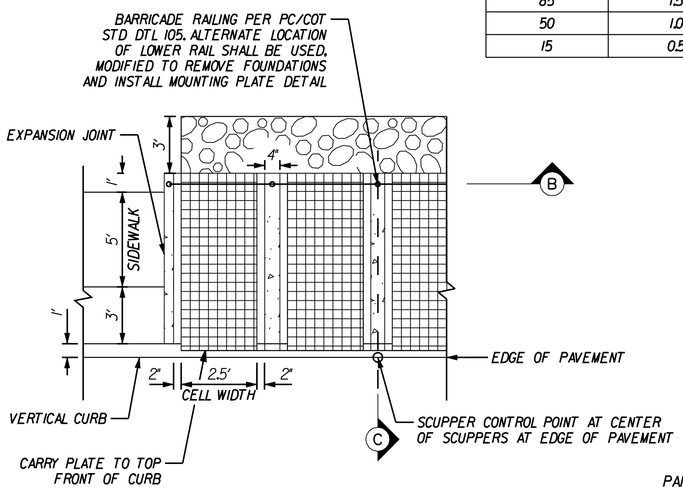


SECTION A-A

RIPRAP GRADATION LIMITS	
% PASSING	SIZE
100	2.0 D50
85	1.5 D50
50	1.0 D50
15	0.5 D50

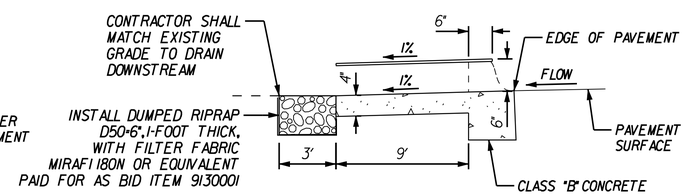


SECTION B-B



PLAN VIEW (8 CELLS)

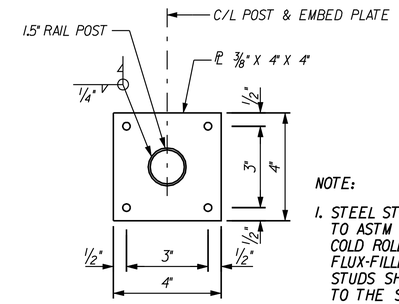
STA 26+02.72, STA 27+80.18
STA 28+82.93



SECTION C-C

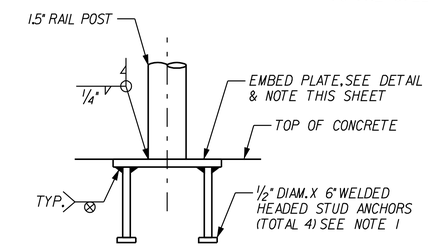
RD8 PC/COT STD.DTL.205 MODIFIED SIDEWALK SCUPPER TYPE 2

N.T.S. (SEE STD DTL 205 FOR MORE INFORMATION)

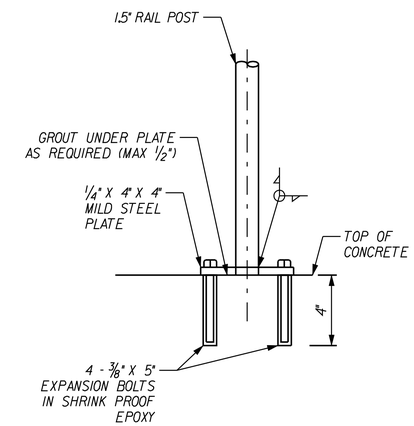


NOTE:

1. STEEL STUD CONNECTORS SHALL CONFORM TO ASTM A108, GRADE C-1015, C-1018, OR C-1020 COLD ROLLED STEEL. SOLID OR GRANULAR FLUX-FILLED STUDS SHALL BE USED. THE STUDS SHALL BE AUTOMATICALLY END WELDED TO THE STEELPLATES WITH COMPLETE FUSION.



EMBEDDED PLATE DETAIL (OPTION 1)



EXPANSION BOLT DETAIL (OPTION 2)

RD9 MOUNTING PLATE DETAIL

N.T.S.

COST ASSOCIATED WITH THIS DETAIL SHALL BE CONSIDERED INCIDENTIAL TO THE COST OF BID ITEM NO.9330001 BARRICADE RAILING (PC/COT STD DTL 105)

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WWW.RSENGINEERING.COM

SCALE: 1" = NTS | SHEET 8 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE ROADWAY DETAILS

E:\1101\001\3.20 Construction Docs\Civil\1101d103.dgn 12/12/2011

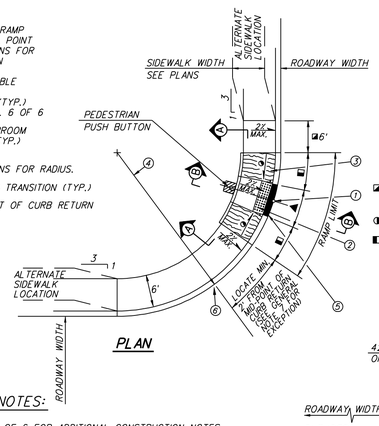
2070LB.DWG 01/09

ISSUED: 04/10
REVISED: 11/11

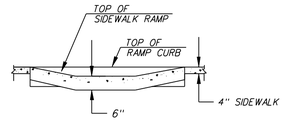
STANDARD DETAIL
TYPE 1 CURB ACCESS RAMP
PIMA COUNTY D.O.T. DETAIL

DETAIL NO. 207
SHEET 1 OF 6

① ACCESS RAMP CONTROL POINT SEE PLANS FOR LOCATION
② DETECTABLE WARNING 6' x 2' (TYP.) SEE SHT. 6 OF 6
③ ROUGH BROOM FINISH (TYP.)
④ SEE PLANS FOR RADIUS.
⑤ BLENDED TRANSITION (TYP.)
⑥ MID-POINT OF CURB RETURN



PLAN



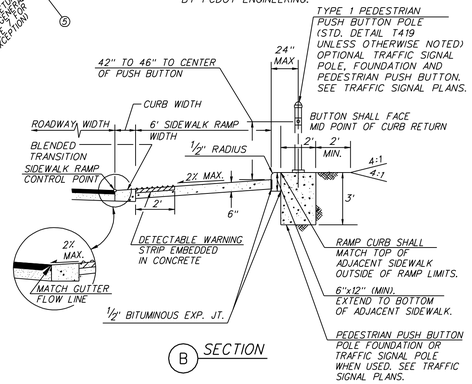
A SECTION

◪ PROVIDE MINIMUM OF 6' OF SIDEWALK ALONG CURBLINE (TYP.)
◑ SLOPE 5% MIN. & 8.33% (12:1) MAX.
◧ 6' MINIMUM, 15' MAXIMUM
▲ 6' WIDE AT BACK OF CURB
■ BLENDED TRANSITION

✕ PEDESTRIAN PUSH BUTTON AND POLE SHALL BE PLACED ONLY WHEN APPLICABLE AND APPROVED BY PCDOT ENGINEERING.

GENERAL NOTES:

1. SEE SHEET 6 OF 6 FOR ADDITIONAL CONSTRUCTION NOTES.
2. PEDESTRIAN PUSH BUTTON POLE OR TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL INFORMATION.
3. SEE STD. DETAIL 200 FOR JOINT REQUIREMENTS.
4. RAMP JOINTS ALONG RETURNS SHALL BE RADIAL FROM THE BACK OF CURB OR BACK OF DETECTABLE WARNING STRIP.
5. SEE PROJECT PLANS FOR RAMP LOCATION. CURB ACCESS RAMP SHOULD BE ORIENTED TO ALIGN WITH THE CROSSWALK OR STOP BAR, MEDIAN REFUGE AREA, AND WITH THE OPPOSITE ACCESS RAMP IN THE DIRECTION OF PEDESTRIAN TRAVEL.
6. DRAINAGE INLETS ARE NOT PERMITTED WITHIN CROSSWALKS OR WITHIN 10' OF AN ACCESS RAMP.
7. CURB ACCESS RAMP LOCATION IS NOT RESTRICTED WITHIN CURB RADII ON LOCAL STREETS AND RESIDENTIAL COLLECTORS WITH A MAXIMUM 2,500 VEHICLES PER DAY AND WHICH IS NOT ADJACENT TO A MAJOR ARTERIAL.



B SECTION

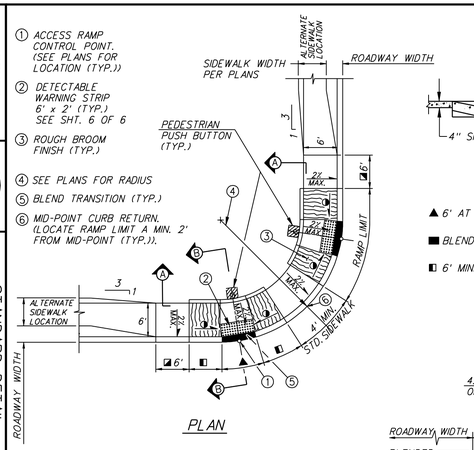
2070LA.DWG 01/09

ISSUED: 04/10
REVISED: 11/11

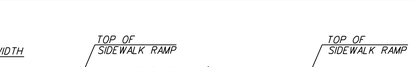
STANDARD DETAIL
TYPE 1 CURB ACCESS RAMP
DUAL RAMP CONFIGURATION
PIMA COUNTY D.O.T. DETAIL

DETAIL NO. 207
SHEET 2 OF 6

① ACCESS RAMP CONTROL POINT. (SEE PLANS FOR LOCATION (TYP.))
② DETECTABLE WARNING STRIP 6' x 2' (TYP.) SEE SHT. 6 OF 6
③ ROUGH BROOM FINISH (TYP.)
④ SEE PLANS FOR RADIUS
⑤ BLEND TRANSITION (TYP.)
⑥ MID-POINT CURB RETURN. (LOCATE RAMP LIMIT A MIN. 2' FROM MID-POINT (TYP.)).



PLAN

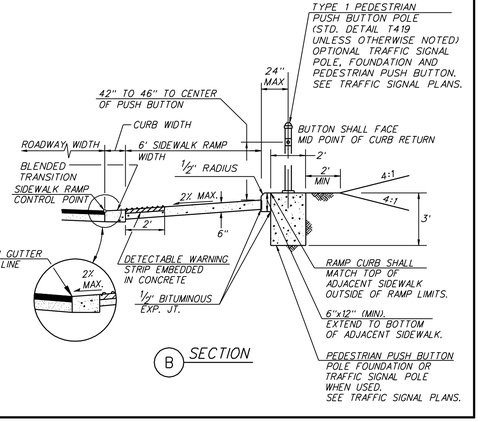


A SECTION

▲ 6' AT BACK OF CURB
■ BLENDED TRANSITION
◧ 6' MINIMUM, 15' MAXIMUM
◪ PROVIDE MINIMUM OF 6' OF SIDEWALK ALONG CURBLINE (TYP.)
◑ SLOPE 5% MIN. & 8.33% (12:1) MAX.

GENERAL NOTES:

1. SEE SHEET 6 OF 6 FOR ADDITIONAL CONSTRUCTION NOTES.
2. PEDESTRIAN PUSH BUTTON POLE OR TRAFFIC SIGNAL POLE. SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL INFORMATION.
3. SEE STD. DETAIL 200 FOR JOINT REQUIREMENTS.
4. RAMP JOINTS ALONG RETURNS SHALL BE RADIAL FROM THE BACK OF CURB OR BACK OF DETECTABLE WARNING STRIP.
5. SEE PROJECT PLANS FOR RAMP LOCATION. CURB ACCESS RAMP SHOULD BE ORIENTED TO ALIGN WITH THE CROSSWALK OR STOP BAR, MEDIAN REFUGE AREA, AND WITH THE OPPOSITE ACCESS RAMP IN THE DIRECTION OF PEDESTRIAN TRAVEL.
6. DRAINAGE INLETS ARE NOT PERMITTED WITHIN CROSSWALKS OR WITHIN 10' OF AN ACCESS RAMP.

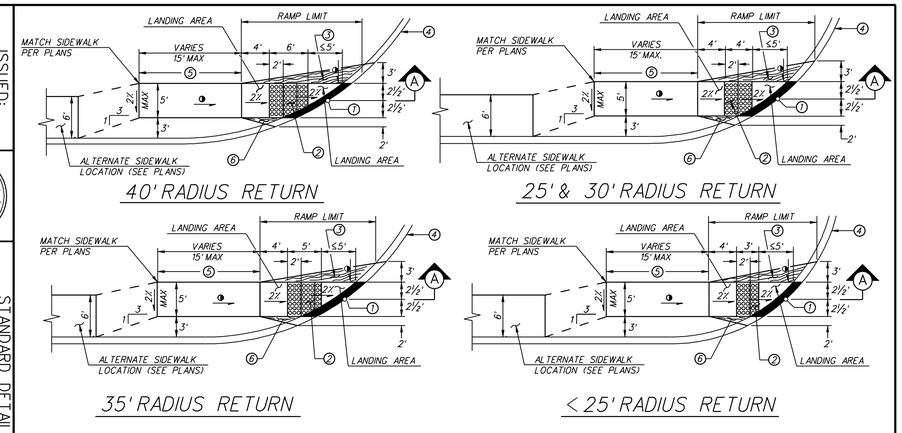


B SECTION

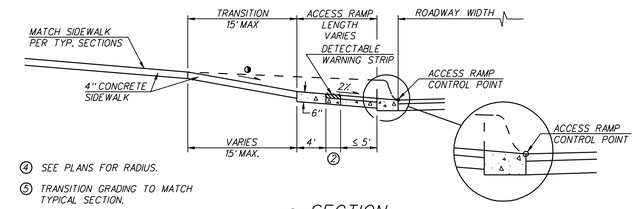
ISSUED: 5/11
REVISED: 11/11

STANDARD DETAIL
TYPE 2 CURB ACCESS DIRECTIONAL RAMP
PIMA COUNTY D.O.T. DETAIL

DETAIL NO. 207
SHEET 3 OF 6



◑ SLOPE: 5% MIN. AND 8.33% (12:1) MAX.
■ BLENDED TRANSITION.
① ACCESS RAMP CONTROL POINT. SEE PLANS FOR LOCATION. (SIDEWALK MID-POINT).
② DETECTABLE WARNING STRIP. FOR LENGTH SEE DETAILS ABOVE.
③ ROUGH BROOM FINISH. 1/4" DEEP SCORED JOINT SHALL BE PLACED PERPENDICULAR TO DIRECTION OF TRAVEL AT THE MIDWAY POINT OF ACCESS RAMP LENGTH.
④ SEE PLANS FOR RADIUS.
⑤ TRANSITION GRADING TO MATCH TYPICAL SECTION.
⑥ ROUGH BROOM FINISH.



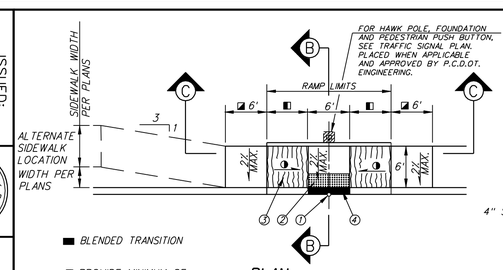
A SECTION
N.T.S.

2070LD.DWG 01/09

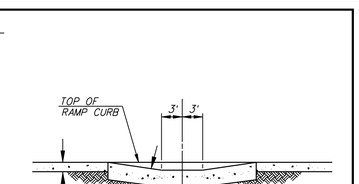
ISSUED: 05/10
REVISED: 11/11

STANDARD DETAIL
TYPE 3 SINGLE CURB ACCESS RAMP
PIMA COUNTY D.O.T. DETAIL

DETAIL NO. 207
SHEET 4 OF 6



PLAN



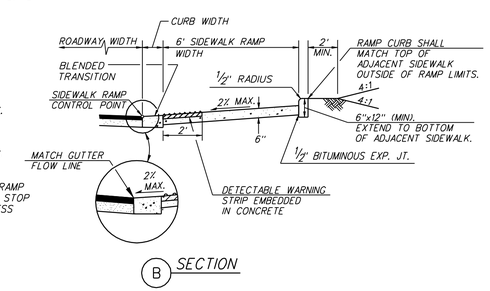
C SECTION

■ BLENDED TRANSITION
◪ PROVIDE MINIMUM OF 6' OF SIDEWALK ALONG CURBLINE (TYP.)
◑ SLOPE 5% MIN. & 8.33% (12:1) MAX.
◧ 6' MINIMUM, 15' MAXIMUM

① ACCESS RAMP CONTROL POINT. SEE PLANS FOR LOCATION (TYP.)
② DETECTABLE WARNING STRIP 6' x 2' (TYP.) SEE SHT. 6 OF 6
③ ROUGH BROOM FINISH, (TYP.)
④ BLENDED TRANSITION

GENERAL NOTES:

1. SEE SHEET 6 OF 6 FOR ADDITIONAL CONSTRUCTION NOTES.
2. SEE STD. DETAIL 200 FOR JOINT REQUIREMENTS.
3. DRAINAGE INLETS ARE NOT PERMITTED WITHIN CROSSWALKS OR WITHIN 10' OF AN ACCESS RAMP.
4. SEE PROJECT PLANS FOR RAMP LOCATION. CURB ACCESS RAMP SHOULD BE ORIENTED TO ALIGN WITH THE CROSSWALK OR STOP BAR, MEDIAN REFUGE AREA, AND WITH THE OPPOSITE ACCESS RAMP IN THE DIRECTION OF PEDESTRIAN TRAVEL.



B SECTION

NOTE:
DETAILS PROVIDED BY PIMA COUNTY DEPARTMENT OF TRANSPORTATION.
THESE DETAILS ARE FOR USE ONLY WITH THE CAMINO DE OESTE, LOS REALES TO VALENCIA ROAD 4COLRV PROJECT, AND CANNOT BE USED ON ANY OTHER PROJECT

R S ENGINEERING AND THE REGISTRANT SEALING THESE DOCUMENTS HAVE MADE REFERENCE TO AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS, AS REQUIRED BY THE AGENCY. SINCE THE DEVELOPMENT OF THE REFERENCED AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS WERE NOT UNDER DIRECT SUPERVISION OF R S ENGINEERING OR THE REGISTRANT, R S ENGINEERING OR THE REGISTRANT CAN NOT ASSUME ANY LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE AGENCY'S STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS REFERENCED HEREIN.

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SCALE: 1" = NTS

PRISCILLA S. CORNELIO, P.E., DIRECTOR
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

		DATE
DESIGNED	PCDOT	12/11
DRAWN	PCDOT	12/11
CHECKED	PCDOT	12/11
PROJ. ENGR.	PCDOT	12/11

STAGE V PLANS FOR INFORMATION ONLY

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE ROADWAY DETAILS

E:\1101\00\3.20 Construction Docs\Civil\1101dtl04.dgn 12/12/2011

20702D.DWG 08/02/00 11:12

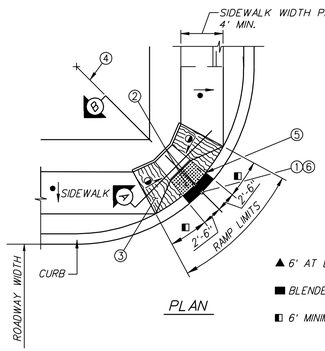
ISSUED: 10/88
REVISED: 11/11

STANDARD DETAIL
TYPE 4 CURB ACCESS RAMP
PIMA COUNTY D.O.T. DETAIL

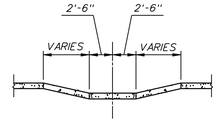
DETAIL NO. 207
SHEET 5 OF 6

① ACCESS RAMP CONTROL POINT. (SEE PLANS FOR LOCATION (TYP.))
② DETECTABLE WARNING STRIP 5'x 2' (TYP.) SEE SHT. 6 OF 6
③ ROUGH BROOM FINISH (TYP.)
④ SEE PLANS FOR RADIUS
⑤ BLENDED TRANSITION (TYP.)
⑥ MID-POINT CURB RETURN. OFFSET FROM MID-POINT IS ALLOWED.

CROSS SLOPE 2% MAX



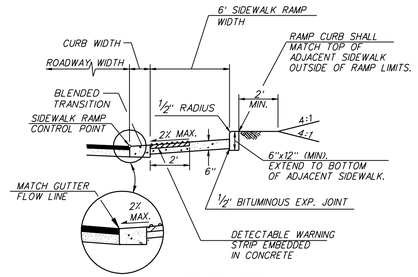
PLAN



A SECTION

DEPRESSED CURB AT SIDEWALK RAMP

▲ 6' AT BACK OF CURB
■ BLENDED TRANSITION
◧ 6' MINIMUM, 15' MAXIMUM
◑ SLOPE 5% MIN. & 8.33% (12:1) MAX.



B SECTION

GENERAL NOTES:

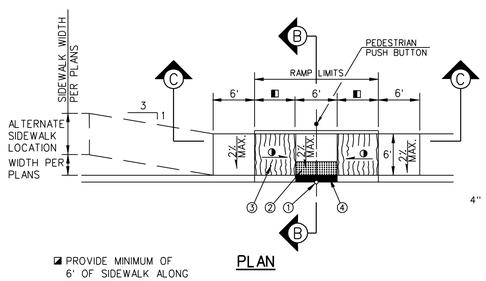
1. FOR USE ONLY WITHIN LOCAL STREETS AND RESIDENTIAL COLLECTORS WITH A MAXIMUM 2,500 VEHICLES PER DAY AND WHICH IS NOT ADJACENT TO A MAJOR ARTERIAL.
2. SEE SHEET 6 OF 6 FOR ADDITIONAL CONSTRUCTION NOTES.
3. SEE STD. DETAIL 200 FOR JOINT REQUIREMENTS.
4. RAMP JOINTS ALONG RETURNS SHALL BE RADIAL FROM THE BACK OF CURB OR BACK OF DETECTABLE WARNING STRIP.
5. SEE PROJECT PLANS FOR RAMP LOCATION.
6. DRAINAGE INLETS ARE NOT PERMITTED WITHIN CROSSWALKS OR WITHIN 10' OF AN ACCESS RAMP.

2070LC.DWG 01/09

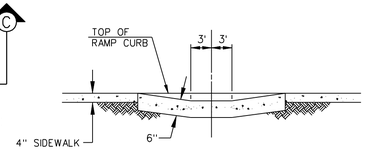
ISSUED: 03/10
REVISED:

STANDARD DETAIL
TYPE 2 MID BLOCK CURB ACCESS RAMP
PIMA COUNTY D.O.T. DETAIL

DETAIL NO. 207
SHEET 3 OF 4



PLAN



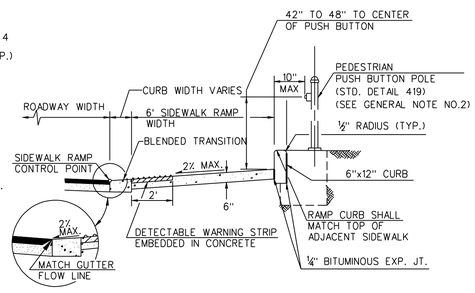
C SECTION

◪ PROVIDE MINIMUM OF 6' OF SIDEWALK ALONG CURBLINE (TYP.)
◑ SLOPE 5% MIN. & 8.33% (12:1) MAX.
◧ 6' MINIMUM, 15' MAXIMUM

① SIDEWALK CONTROL POINT SEE PLANS FOR LOCATION (TYP.)
② DETECTABLE WARNING STRIP 6' x 2' (TYP.) SEE SHT. 4 OF 4
③ ROUGH BROOM FINISH, USE A RIPPLE SURFACE PATTERN (TYP.)
④ BLENDED TRANSITION

GENERAL NOTES:

1. SEE SHEET 4 OF 4 FOR ADDITIONAL CONSTRUCTION NOTES.
2. PEDESTRIAN PUSH BUTTON POLE WHEN SHOWN ON TRAFFIC PLANS. SEE TRAFFIC SIGNAL PLANS FOR ADDITIONAL INFORMATION. THE POLE FOUNDATION SHALL BE NOTCHED AT BACK OF THE RAMP CURB WHEN REQUIRED.
3. SEE STD. DETAIL 200 FOR JOINT REQUIREMENTS.
4. DRAINAGE INLETS ARE NOT PERMITTED WITHIN CROSSWALKS OR WITHIN 10' OF AN ACCESS RAMP.
5. SEE PROJECT PLANS FOR RAMP LOCATION. CURB ACCESS RAMP SHOULD BE ORIENTED TO ALIGN WITH THE CROSSWALK OR STOP BAR, MEDIAN REFUGE AREA, AND WITH THE OPPOSITE ACCESS RAMP IN THE DIRECTION OF PEDESTRIAN TRAVEL.



BLENDED TRANSITION DETAIL

B SECTION

NOTE:
DETAILS PROVIDED BY PIMA COUNTY DEPARTMENT OF TRANSPORTATION.
THESE DETAILS ARE FOR USE ONLY WITH THE CAMINO DE OESTE,LOS REALES TO VALENCIA ROAD 4COLRV PROJECT,AND CANNOT BE USED ON ANY OTHER PROJECT

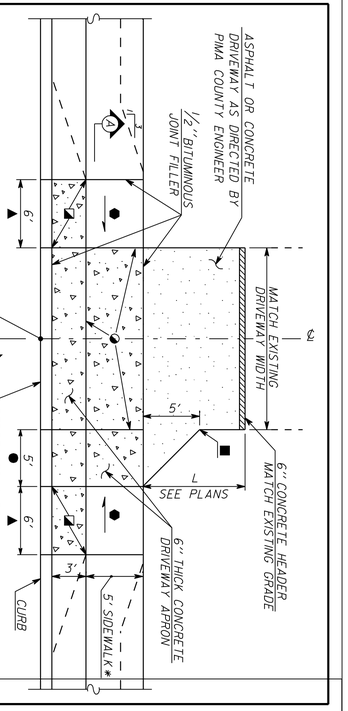
ISSUED: 10/88
REVISED: 4/11

STANDARD DETAIL
DRIVEWAY APRON
PIMA COUNTY D.O.T.

DETAIL NO. 206
SHEET 1 OF 2

ASPHALT OR CONCRETE DRIVEWAY AS DIRECTED BY PIMA COUNTY ENGINEER

1/2" BITUMINOUS JOINT FILLER



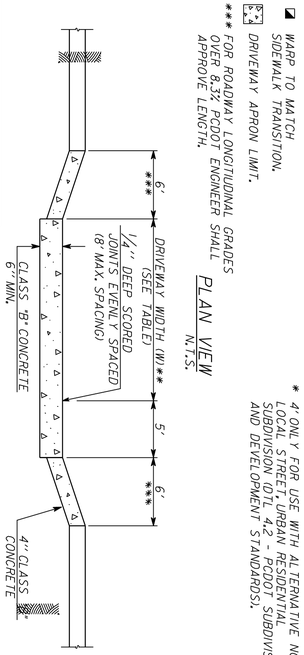
◑ 1/4" DEEP SCORED JOINTS EVENLY SPACED (8' MAX. SPACING).
● SIDEWALK TRANSITION TO DRIVEWAY GRADE AT 12:1 MAX.
▲ SLOPE TO MATCH DEPRESSED CURB.
◪ WARP TO MATCH SIDEWALK TRANSITION.
◧ DRIVEWAY APRON LIMIT.
*** FOR ROADWAY LONGITUDINAL GRADES OVER 8.3% PCDOT ENGINEER SHALL APPROVE LENGTH.

● ADDITIONAL DEPRESSED CURB. LOCATE ON INGRESS SIDE IN THE DIRECTION OF TRAVEL. USE FOR POSTED SPEEDS ≥ 35 mph.
■ BEGIN TRANSITION TO MATCH EXISTING DRIVEWAY WIDTH.
* 4' ONLY FOR USE WITH ALTERNATIVE NO. 2 LOCAL STREET, URBAN RESIDENTIAL SUBDIVISION OPEN. 4' PCDOT SUBDIVISION AND DEVELOPMENT STANDARDS.

PLAN VIEW
N.T.S.

DRIVEWAY WIDTH **

SINGLE RESIDENTIAL	14'
JOINT USE RESIDENTIAL	20'
COMMERCIAL AND INDUSTRIAL (SEE SUBDIVISION AND DEVELOPMENT STREET STANDARDS MANUAL)	24' TO 30'



A SECTION
N.T.S.

** WIDTH MEASURED AT BACK OF CURB. MATCH THE EXISTING DRIVEWAY WIDTH AT THE MATCH POINT, NOT TO EXCEED THE WIDTH SHOWN.

ISSUED: 10/88
REVISED: 10/10

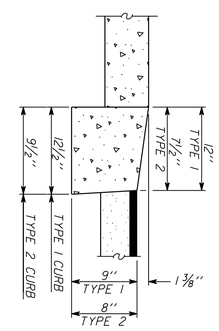
STANDARD DETAIL
DRIVEWAY APRON
PIMA COUNTY DOT

DETAIL NO. 206
SHEET 2 OF 2

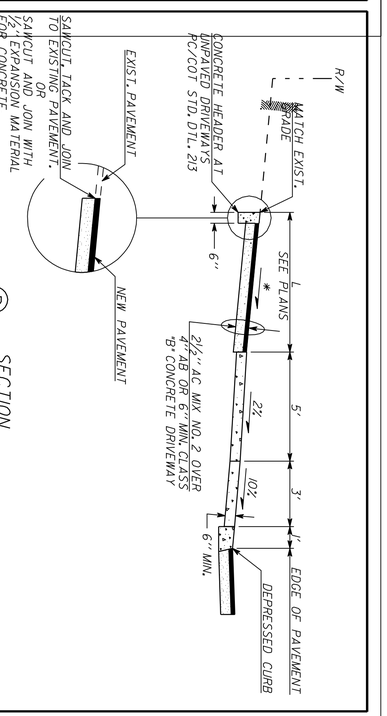
NOTES:
FOR THE DESIGN OF COMMERCIAL DRIVEWAYS, SEE THE PIMA COUNTY SUBDIVISION AND DEVELOPMENT STREET STANDARDS MANUAL.

* GRADE BREAK >8% REQUIRES A VERTICAL CURVE. LENGTH MINIMUM, THE VERTICAL CURVE SHALL NOT ENCROACH ON THE SIDEWALK.

ALL DRIVEWAYS SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT (ADA) DEVIATIONS FROM THE STANDARD DETAIL SHALL BE COORDINATED WITH THE AGENCY.



DEPRESSED CURB DETAIL
N.T.S.



B SECTION
N.T.S.

R S ENGINEERING AND THE REGISTRANT SEALING THESE DOCUMENTS HAVE MADE REFERENCE TO AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS, AS REQUIRED BY THE AGENCY. SINCE THE DEVELOPMENT OF THE REFERENCED AGENCY STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS WERE NOT UNDER DIRECT SUPERVISION OF R S ENGINEERING OR THE REGISTRANT, R S ENGINEERING OR THE REGISTRANT CAN NOT ASSUME ANY LIABILITY FOR THE ACCURACY OR COMPLETENESS OF THE AGENCY'S STANDARD DETAILS, SPECIFICATIONS, AND SUPPLEMENTS REFERENCED HEREIN.

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2070LC.DWG 04/09

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WWW.RSENGINEERING.COM

SCALE: 1" = NTS

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	PCDOT	12/11
DRAWN	PCDOT	12/11
CHECKED	PCDOT	12/11
PROJ. ENGR.	PCDOT	12/11

STAGE V PLANS FOR INFORMATION ONLY

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE ROADWAY DETAILS

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

STAGE V PLANS FOR INFORMATION ONLY

		DATE
DESIGNED	PCDOT	
DRAWN	PCDOT	12/11
CHECKED	PCDOT	12/11
PROJ. ENGR.	PCDOT	12/11

PRISCILLA S. CORNELIO, P.E., DIRECTOR

RS ENGINEERING
596 S. MEYER AVE., TUCSON, AZ 85701
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SCALE: 1" = NTS | SHEET 11 OF 57

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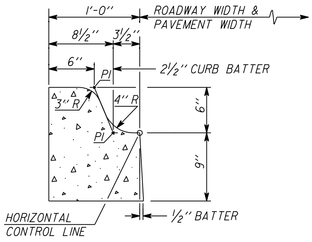
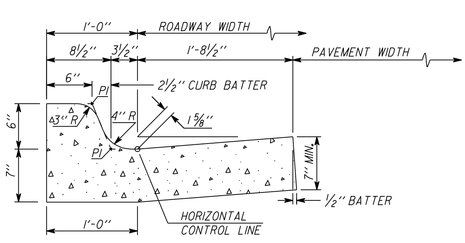
NOTES

1. ALL CONCRETE CURBS AND TRANSITIONS, SHALL BE CLASS "B" CONCRETE.
2. MAXIMUM SPACING ON SCORED JOINTS SHALL BE 10 FEET.
3. ONE HALF INCH THICK EXPANSION JOINTS SHALL BE LOCATED AT TANGENT POINTS IN CURB RETURNS, TRANSITIONS, AND AT A MAXIMUM OF 60 FEET INTERVALS. EXPANSION MATERIAL SHALL ALSO BE PLACED BETWEEN CURBS AND ADJACENT STRUCTURES, SIDEWALKS, DRIVEWAYS AND HANDICAP RAMPS. THE 1/2 INCH JOINT FILLER SHALL EXTEND THE FULL DEPTH OF THE CONCRETE.
4. CONCRETE SHALL BE FINISHED WITH A STEEL TROWEL FOLLOWED BY BRUSHING WITH A FINE BRUSH ALONG THE LENGTH OF THE CURB OR CURB AND GUTTER.
5. ALL FLOW LINES OF CONCRETE GUTTERS SHALL BE TROWELED TO AN ACCURATE GRADE.
6. WHEN THE SLOPE OF THE PAVEMENT IS AWAY FROM THE CURB AND GUTTER THE SLOPE OF THE GUTTER SHALL MATCH THE PAVEMENT CROSS SLOPE.
7. THE HEIGHT OF THE WEDGE CURB SHALL BE DETERMINED BY THE DRAINAGE CONTAINMENT REQUIRED.
8. SINGLE CURB AND CURB AND GUTTER MAY BE CONSTRUCTED BY THE USE OF FORMS OR MAY BE SLIP FORMED.
9. ALL EXPOSED EDGES AND HAND TOOLED JOINTS SHALL BE FINISHED WITH A TOOL HAVING A 1/4 INCH RADIUS UNLESS A LARGER RADIUS IS INDICATED BY THE APPLICABLE STANDARD DETAIL OR PROJECT PLANS.

ISSUED:	STANDARD DETAIL	DETAIL NO.
10/88	CONCRETE CURB	209
REVISED:	PIMA COUNTY DOT	
08/10		SHEET 3 OF 3



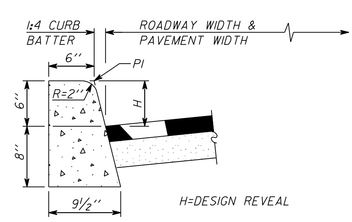
CONCRETE VERTICAL CURB-TYPE (I)
N.T.S.



CONCRETE VERTICAL CURB AND GUTTER TYPE - I(G)
N.T.S.

REFER TO NOTES SHEET 3 OF 3

ISSUED:	STANDARD DETAIL	DETAIL NO.
10/88	CONCRETE CURB	209
REVISED:	PIMA COUNTY DOT	
08/10		SHEET 1 OF 3



CONCRETE VERTICAL CURB-TYPE 2
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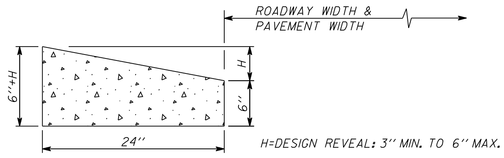
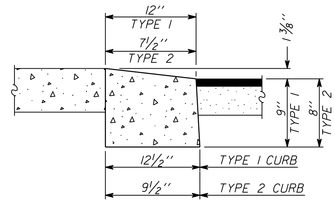


CONCRETE WEDGE CURB
N.T.S.

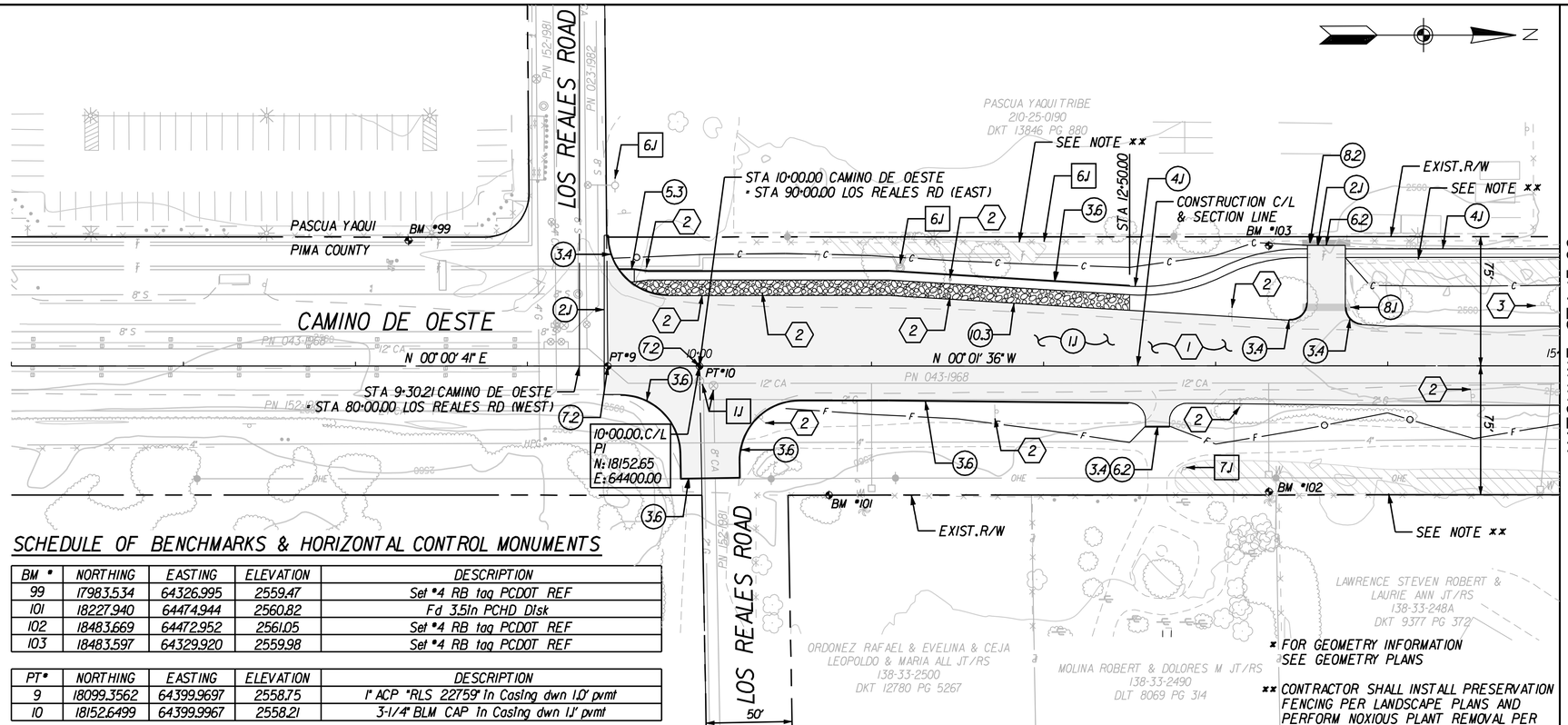


DEPRESSED CURB DETAIL
N.T.S.

REFER TO NOTES SHEET 3 OF 3

ISSUED:	STANDARD DETAIL	DETAIL NO.
10/88	CONCRETE CURB	209
REVISED:	PIMA COUNTY DOT	
08/10		SHEET 2 OF 3

NOTE:
DETAILS PROVIDED BY PIMA COUNTY DEPARTMENT OF TRANSPORTATION. THESE DETAILS ARE FOR USE ONLY WITH THE CAMINO DE OESTE.LOS REALES TO VALENCIA ROAD 4COLRV PROJECT.AND CANNOT BE USED ON ANY OTHER PROJECT



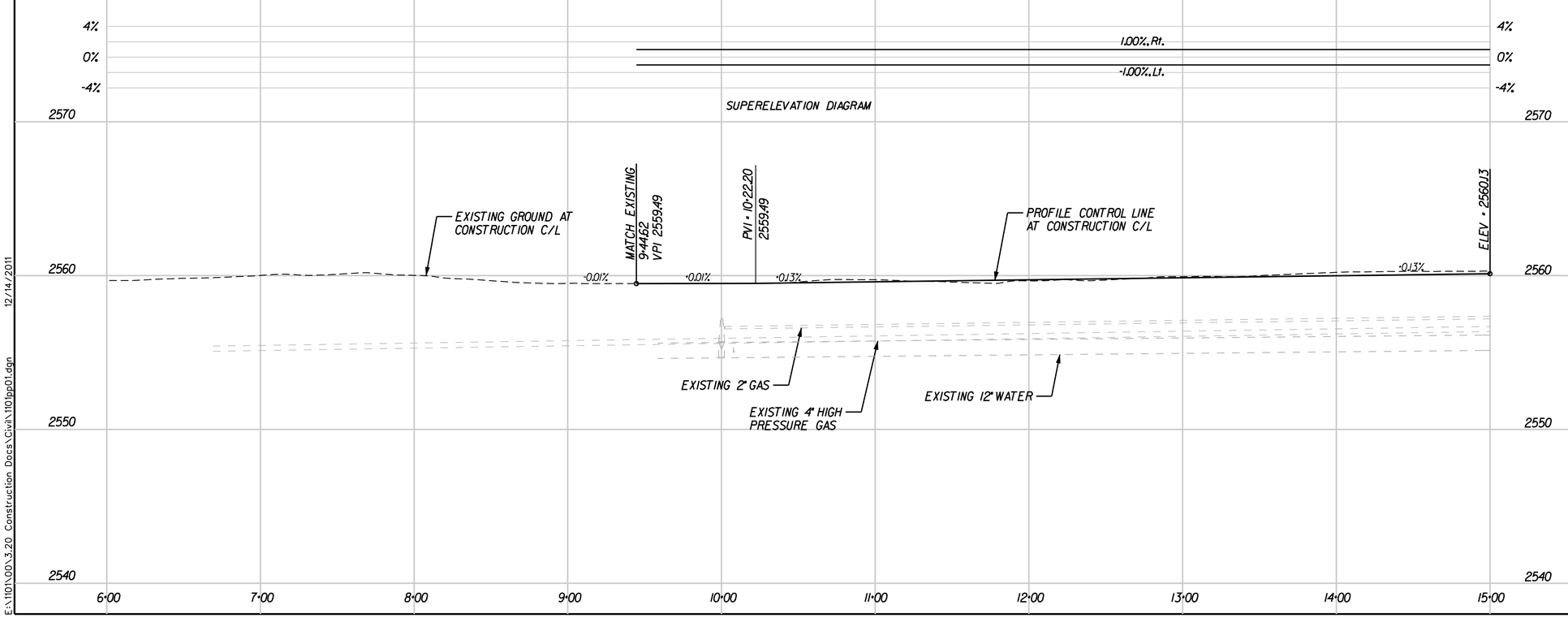
* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING

SCHEDULE OF BENCHMARKS & HORIZONTAL CONTROL MONUMENTS

BM #	NORTHING	EASTING	ELEVATION	DESCRIPTION
99	17983.534	64326.995	2559.47	Set #4 RB tag PCDOT REF
101	18227.940	64474.944	2560.82	Fd 3.5in PCHD Disk
102	18483.669	64472.952	2561.05	Set #4 RB tag PCDOT REF
103	18483.597	64329.920	2559.98	Set #4 RB tag PCDOT REF

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
9	18099.3562	64399.9697	2558.75	1" ACP "RLS 22759" in Casing dwn 1.0' pvmt
10	18152.6499	64399.9967	2558.21	3-1/4" BLM CAP in Casing dwn 1.1' pvmt



CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

3.6 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213, MODIFIED D=1.5'

4.1 CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

5.3 CONSTRUCT CONCRETE LANDING, SEE ROADWAY DETAIL RD5

6.2 CONSTRUCT ASPHALT DRIVEWAY, SEE ROADWAY DETAIL RD2

7.2 CONSTRUCT SURVEY MONUMENT FRAME AND COVER PER PC/COT STD DTL 103

8.1 INSTALL IRRIGATION SLEEVES PER IRRIGATION PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

8.2 INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

10.3 INSTALL HAND PLACED RIPRAP (GROUTED) PER TYPICAL SECTION A (DETAIL A)

RELOCATION/ADJUSTMENT NOTES:

1.1 ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300

6.1 PROTECT IN PLACE

7.1 RELOCATE MAILBOX PER PC/COT STD DTL 102

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

2 REMOVE EXISTING SIGN

3 SIGN TO BE REMOVED BY THE PASCUA YAQUI TRIBE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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SCALES HORIZ. 1" = 40' VERT. 1" = 4'

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE PLAN/PROFILE 6+00 TO 15+00

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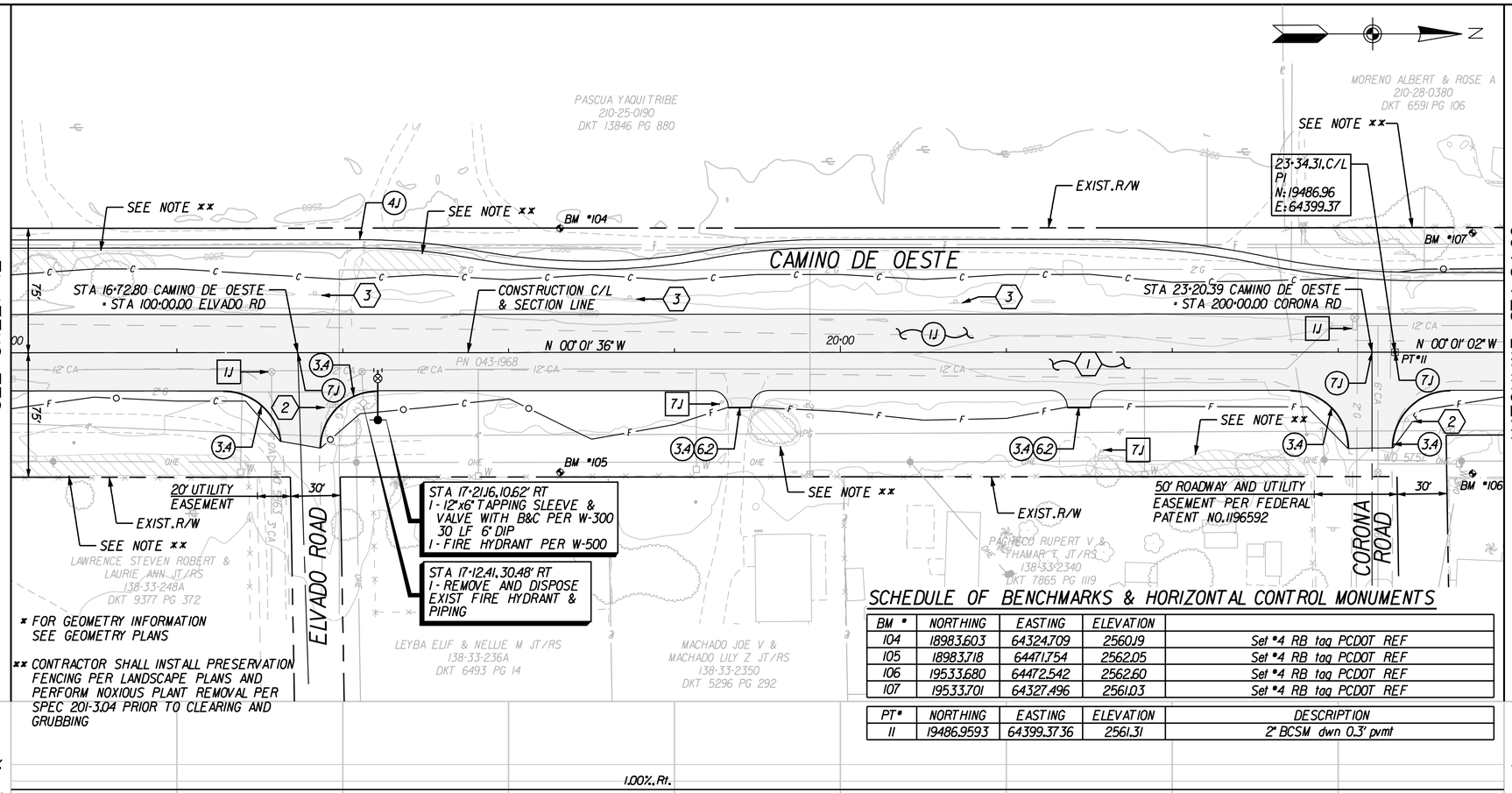
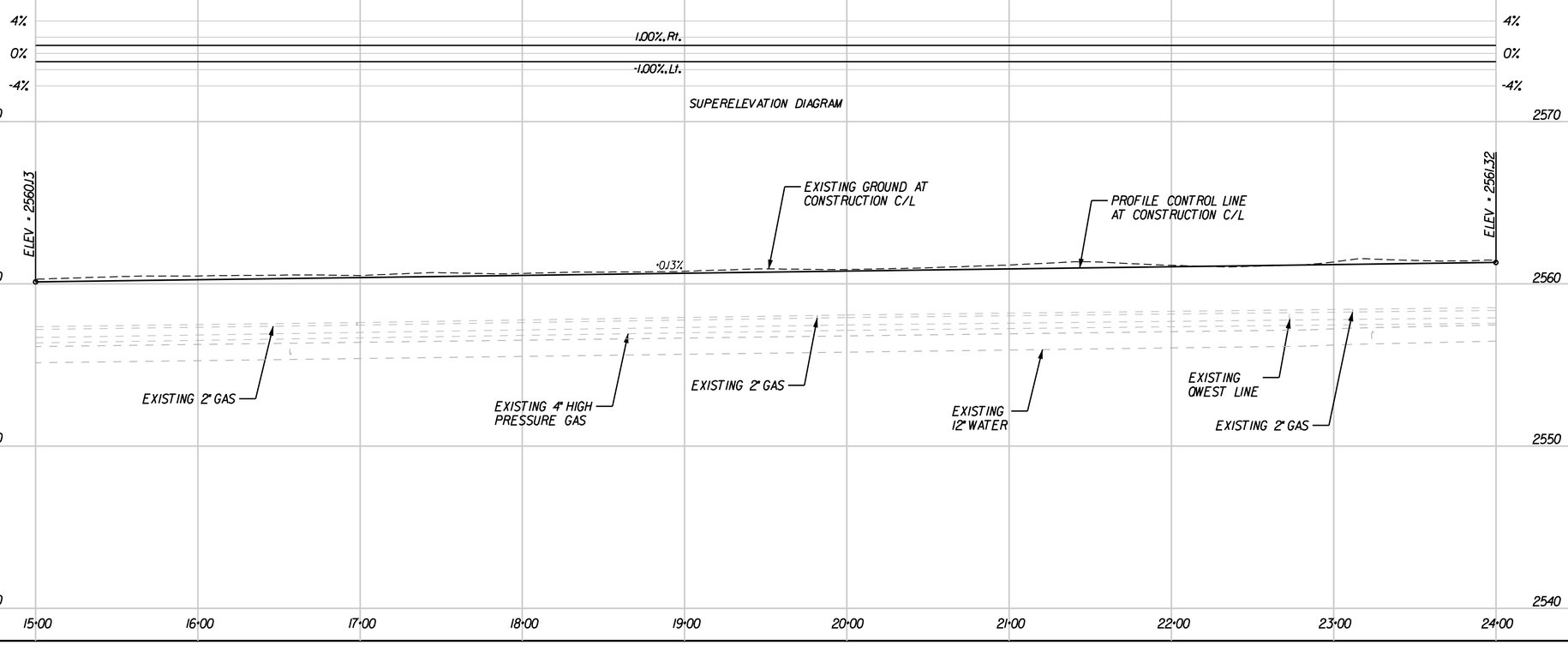


SCHEDULE OF BENCHMARKS & HORIZONTAL CONTROL MONUMENTS

BM #	NORTHING	EASTING	ELEVATION	
104	18983.603	64324.709	2560.19	Set #4 RB tag PCDOT REF
105	18983.718	64471.754	2562.05	Set #4 RB tag PCDOT REF
106	19533.680	64472.542	2562.60	Set #4 RB tag PCDOT REF
107	19533.701	64327.496	2561.03	Set #4 RB tag PCDOT REF

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
11	19486.9593	64399.3736	2561.31	2" BCSM dwn 0.3' pvmt



CONSTRUCTION NOTES:

(1.1) CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

(3.4) CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

(4.1) CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

(6.2) CONSTRUCT ASPHALT DRIVEWAY, SEE ROADWAY DETAIL RD2

(7.1) CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

RELOCATION/ADJUSTMENT NOTES:

1.1 ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300

7.1 RELOCATE MAILBOX PER PC/COT STD DTL 102

REMOVAL NOTES:

(1) REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

(2) REMOVE EXISTING SIGN

(3) SIGN TO BE REMOVED BY THE PASCUA YAQUI TRIBE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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Blue Stake, Center
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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
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DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE PLAN/PROFILE 15+00 TO 24+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

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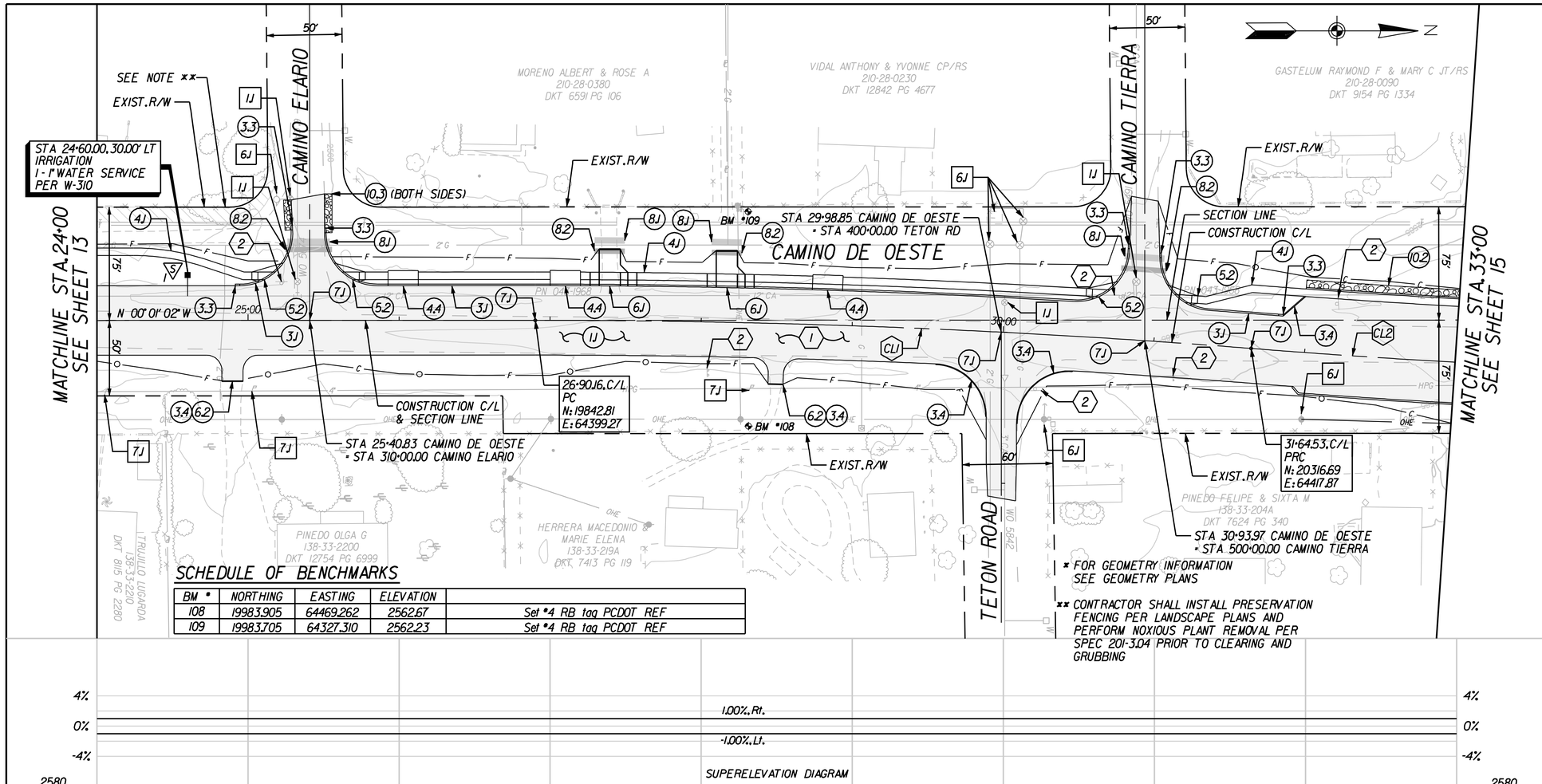
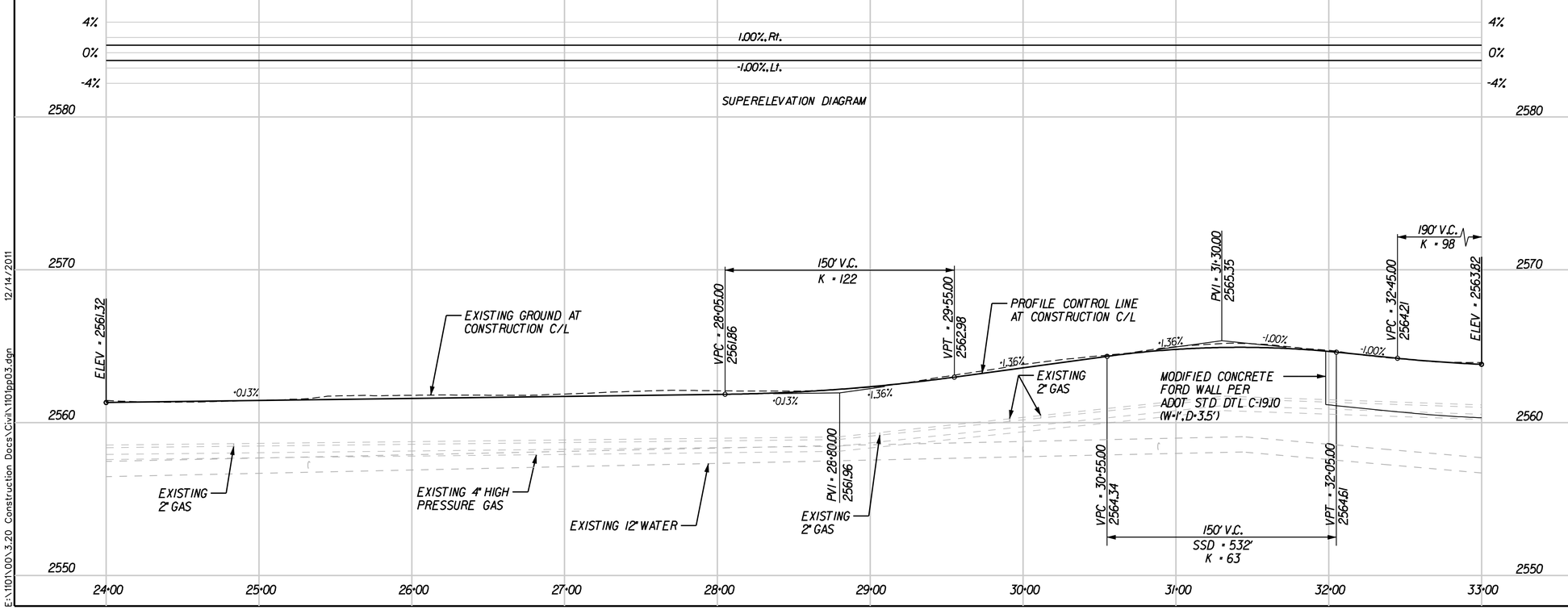


SCHEDULE OF BENCHMARKS

BM #	NORTHING	EASTING	ELEVATION	
108	19983.905	64469.262	2562.67	Set #4 RB tag PCDOT REF
109	19983.705	64327.310	2562.23	Set #4 RB tag PCDOT REF

* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING



SERVICE WORK

CODE	ADDRESS / METER NUMBER/SIZE	PIPE SIZES & QUANT. (IN FEET +/-) 3/4"	1"	1 1/2"	2"
1	STA 24+60.00, 30.00' LT 1"		14		
	TOTAL QUANTITIES OF CU PIPE FOR SERVICE WORK ONLY		14		

CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL1	04° 31' 48"	6000'	474.37'	237.31'
CL2	04° 30' 09"	6000'	471.49'	235.87'

CONSTRUCTION NOTES:

(1.1) CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

(2.1) TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

(3.1) CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209

(3.3) CONSTRUCT CONCRETE CURB TERMINAL SECTION PER PC/COT STD DTL 212

(3.4) CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

(4.1) CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

(4.4) CONSTRUCT TYPE 2 CONCRETE SIDEWALK SCUPPER PER PC/COT STD DTL 205.5, MODIFIED (8 CELLS). SEE ROADWAY DETAIL RD8

(5.2) CONSTRUCT CURB ACCESS RAMP PER PC/COT STD DTL 207, TYPE 2, SEE ROADWAY DETAILS

(6.1) CONSTRUCT CONCRETE DRIVEWAY APRON PER PC/COT STD DTL 206, SEE ROADWAY DETAIL RD1

(6.2) CONSTRUCT ASPHALT DRIVEWAY, SEE ROADWAY DETAIL RD2

(7.1) CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

(8.1) INSTALL IRRIGATION SLEEVES PER IRRIGATION PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

(8.2) INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

(10.2) INSTALL DUMPED RIPRAP FLUSH WITH TOP OF GRADE D50=9", 1.5-FEET THICK, WITH FILTER FABRIC MIRAFI 180N OR EQUIVALENT

(10.3) INSTALL HAND PLACED RIPRAP (GROUTED) PER TYPICAL SECTION A (DETAIL A)

RELOCATION/ADJUSTMENT NOTES:

[1.1] ADJUST WATER VALVE BOX AND COVER TO FINSIHED GRADE PER PC/COT STD DTL W-300

[6.1] PROTECT IN PLACE

[7.1] RELOCATE MAILBOX PER PC/COT STD DTL 102

REMOVAL NOTES:

(1) REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

(2) REMOVE EXISTING SIGN

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA Date signed 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C0LRV

CAMINO DE OESTE PLAN/PROFILE 24+00 TO 33+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

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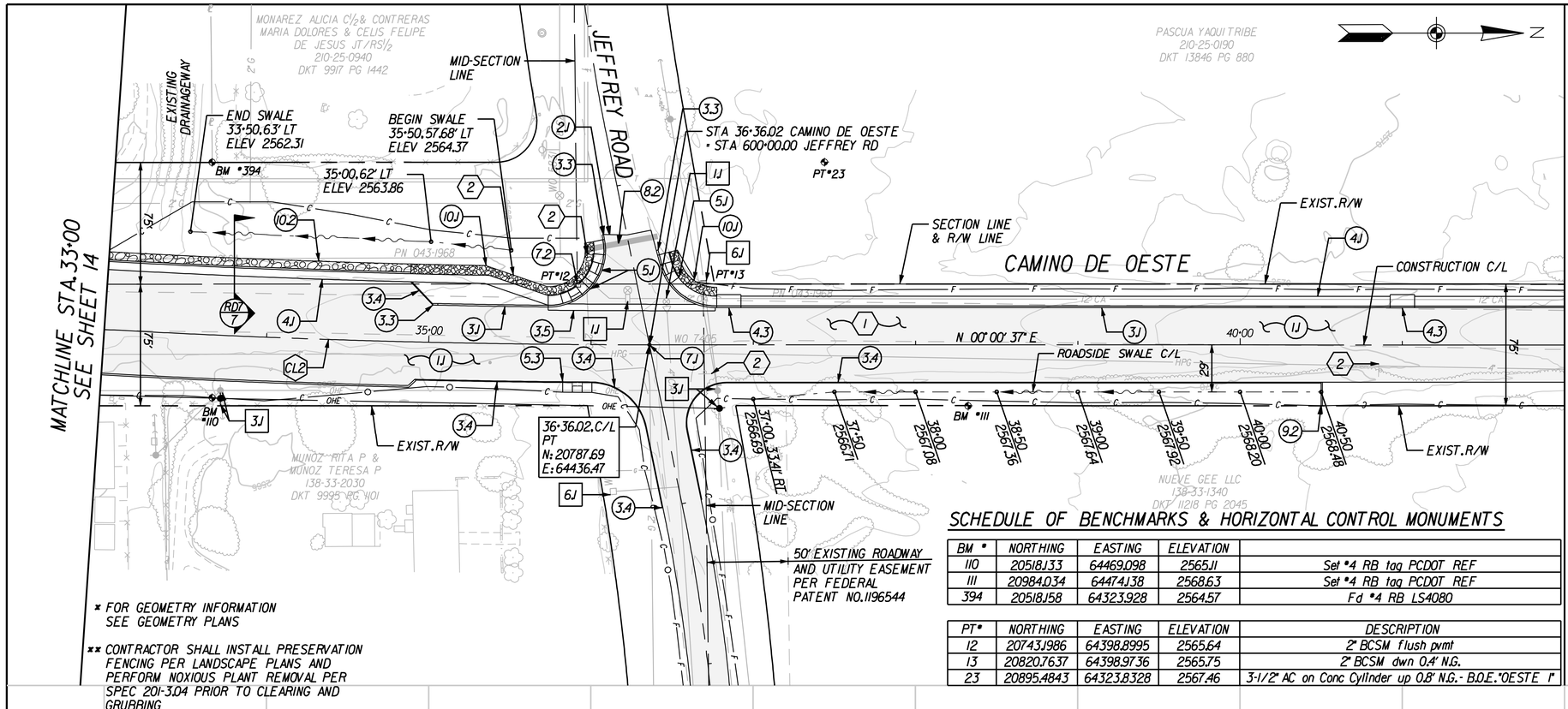


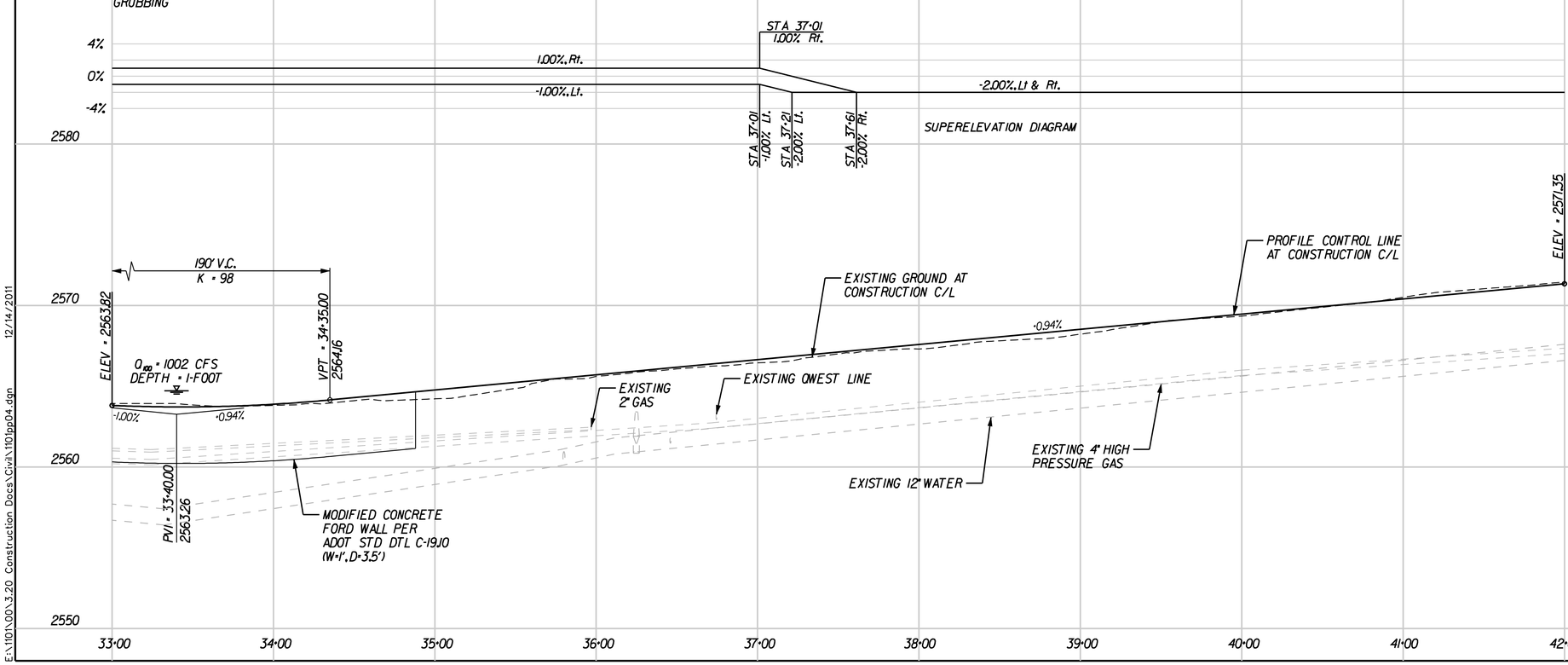
* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING

SCHEDULE OF BENCHMARKS & HORIZONTAL CONTROL MONUMENTS

BM #	NORTHING	EASTING	ELEVATION	
110	20518.133	64469.098	2565.11	Set #4 RB tag PCDOT REF
111	20984.034	64474.138	2568.63	Set #4 RB tag PCDOT REF
394	20518.158	64323.928	2564.57	Fd #4 RB LS4080

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
12	20743.1986	64398.8995	2565.64	2" BCSM flush pvmt
13	20820.7637	64398.9736	2565.75	2" BCSM dwn 0.4' N.G.
23	20895.4843	64323.8328	2567.46	3-1/2" AC on Conc Cylinder up 0.8' N.G. - B.O.E. "OESTE 1"



CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL2	04° 30' 09"	6000'	471.49'	235.87'

CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

3.1 CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209

3.3 CONSTRUCT CONCRETE CURB TERMINAL SECTION PER PC/COT STD DTL 212

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

3.5 CONSTRUCT CONCRETE VALLEY GUTTER PER PC/COT STD DTL 208

4.1 CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

4.3 CONSTRUCT TYPE 2 CONCRETE SIDEWALK SCUPPER PER PC/COT STD DTL 205.5, MODIFIED (6 CELLS). SEE ROADWAY DETAIL RD8

5.1 CONSTRUCT CURB ACCESS RAMP PER PC/COT STD DTL 207, TYPE 1, SEE ROADWAY DETAILS

5.3 CONSTRUCT CONCRETE LANDING, SEE ROADWAY DETAIL RD5

7.1 CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

7.2 CONSTRUCT SURVEY MONUMENT FRAME AND COVER PER PC/COT STD DTL 103, SEE ROADWAY DETAIL RD6

8.2 INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

9.2 CONSTRUCT TRANSVERSE CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP) (STA 40+50) SEE ROADWAY DETAIL RD4

10.1 INSTALL DUMPED RIPRAP FLUSH WITH TOP OF GRADE D50=6", 1-FOOT THICK, WITH FILTER FABRIC MIRAFI 180N OR EQUIVALENT

10.2 INSTALL DUMPED RIPRAP FLUSH WITH TOP OF GRADE D50=9", 1.5-FEET THICK, WITH FILTER FABRIC MIRAFI 180N OR EQUIVALENT

RELOCATION/ADJUSTMENT NOTES:

1.1 ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300

3.1 POWER POLES/LIGHT POLES TO BE RELOCATED BY OTHERS

6.1 PROTECT IN PLACE

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

2 REMOVE EXISTING SIGN

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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SCALES HORIZ. 1" = 40' VERT. 1" = 4'

SHEET 15 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

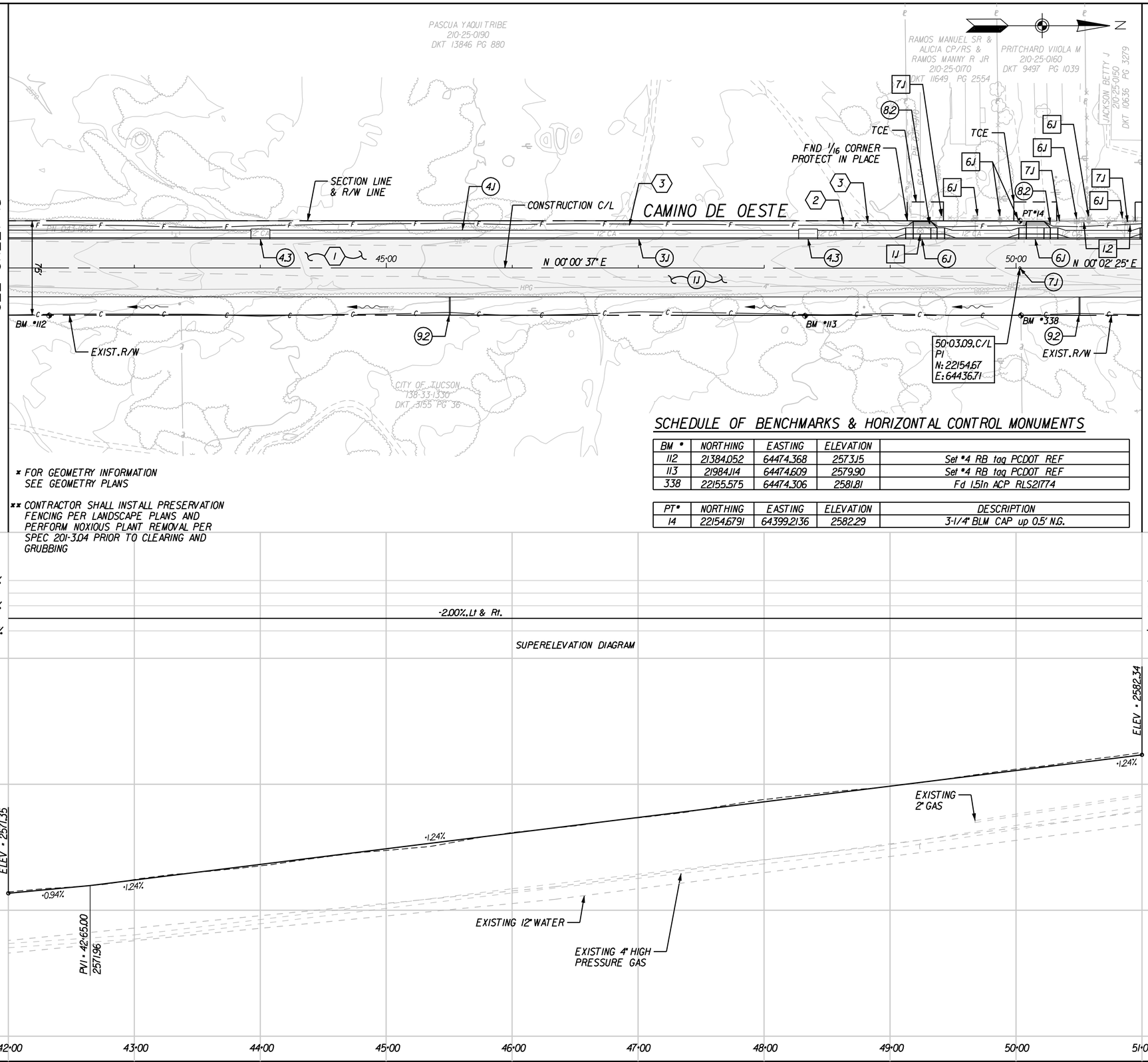
CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
CAMINO DE OESTE PLAN/PROFILE 33+00 TO 42+00

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

E:\1101\00\3.20 Construction Docs\Civil\1101pp04.dgn 12/14/2011



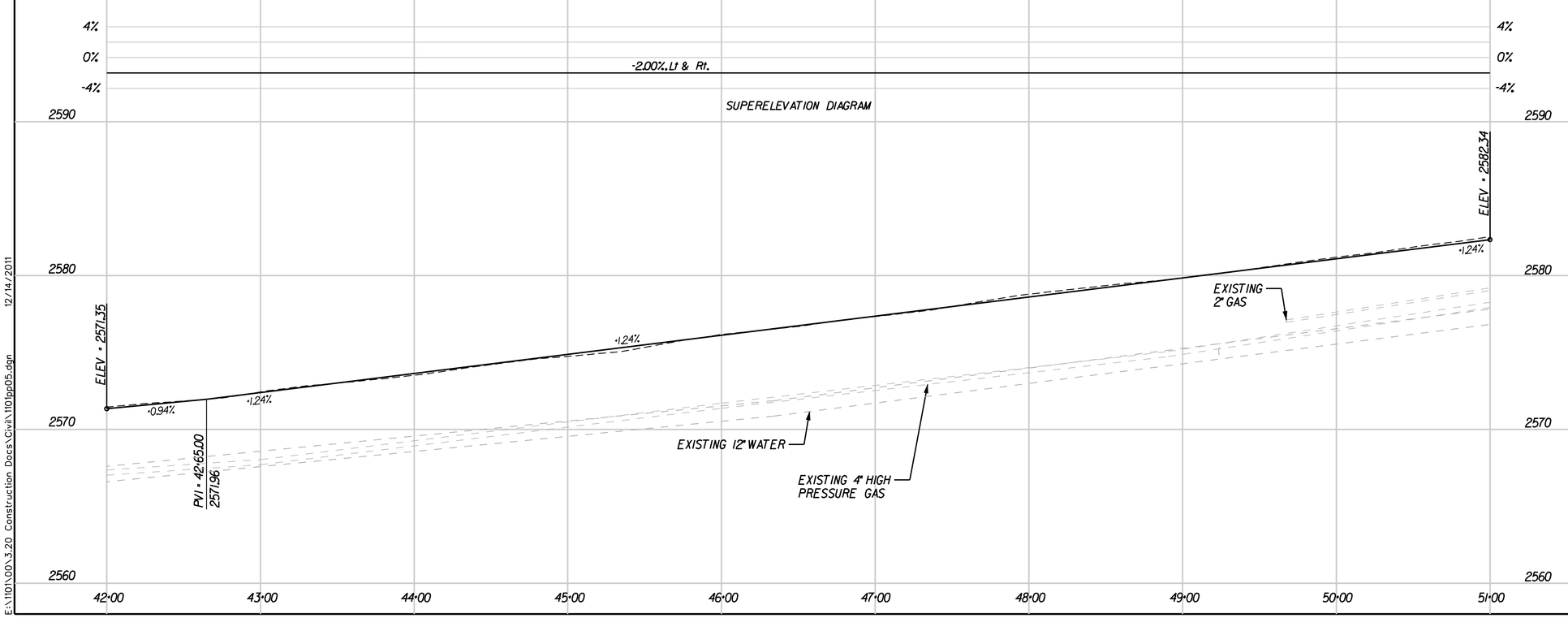
SCHEDULE OF BENCHMARKS & HORIZONTAL CONTROL MONUMENTS

BM #	NORTHING	EASTING	ELEVATION	
112	21384.052	64474.368	2573.15	Set #4 RB tag PCDOT REF
113	21984.114	64474.609	2579.90	Set #4 RB tag PCDOT REF
338	22155.575	64474.306	2581.81	Fd 1.5in ACP RLS21774

PT#	NORTHING	EASTING	ELEVATION	DESCRIPTION
14	22154.6791	64399.2136	2582.29	3-1/4" BLM CAP up 0.5' N.G.

* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING



CONSTRUCTION NOTES:

(1.1) CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

(3.1) CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209

(4.1) CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

(4.3) CONSTRUCT TYPE 2 CONCRETE SIDEWALK SCUPPER PER PC/COT STD DTL 205.5, MODIFIED (6 CELLS). SEE ROADWAY DETAIL RD8

(6.1) CONSTRUCT CONCRETE DRIVEWAY APRON PER PC/COT STD DTL 206, SEE ROADWAY DETAIL RD1

(7.1) CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

(8.2) INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

(9.2) CONSTRUCT TRANSVERSE CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP) (STA 45+50 & STA 50+50) SEE ROADWAY DETAIL RD4

RELOCATION/ADJUSTMENT NOTES:

[1.1] ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300

[1.2] ADJUST WATER METER BOX AND COVER TO FINISHED GRADE

[6.1] PROTECT IN PLACE

[7.1] RELOCATE MAILBOX PER PC/COT STD DTL 102

REMOVAL NOTES:

(1) REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

(2) REMOVE EXISTING SIGN

(3) SIGN TO BE REMOVED BY THE PASCUA YAQUI TRIBE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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SCALES HORIZ. 1" = 40' VERT. 1" = 4'

SHEET 16 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C0LRV

CAMINO DE OESTE PLAN/PROFILE 42+00 TO 51+00

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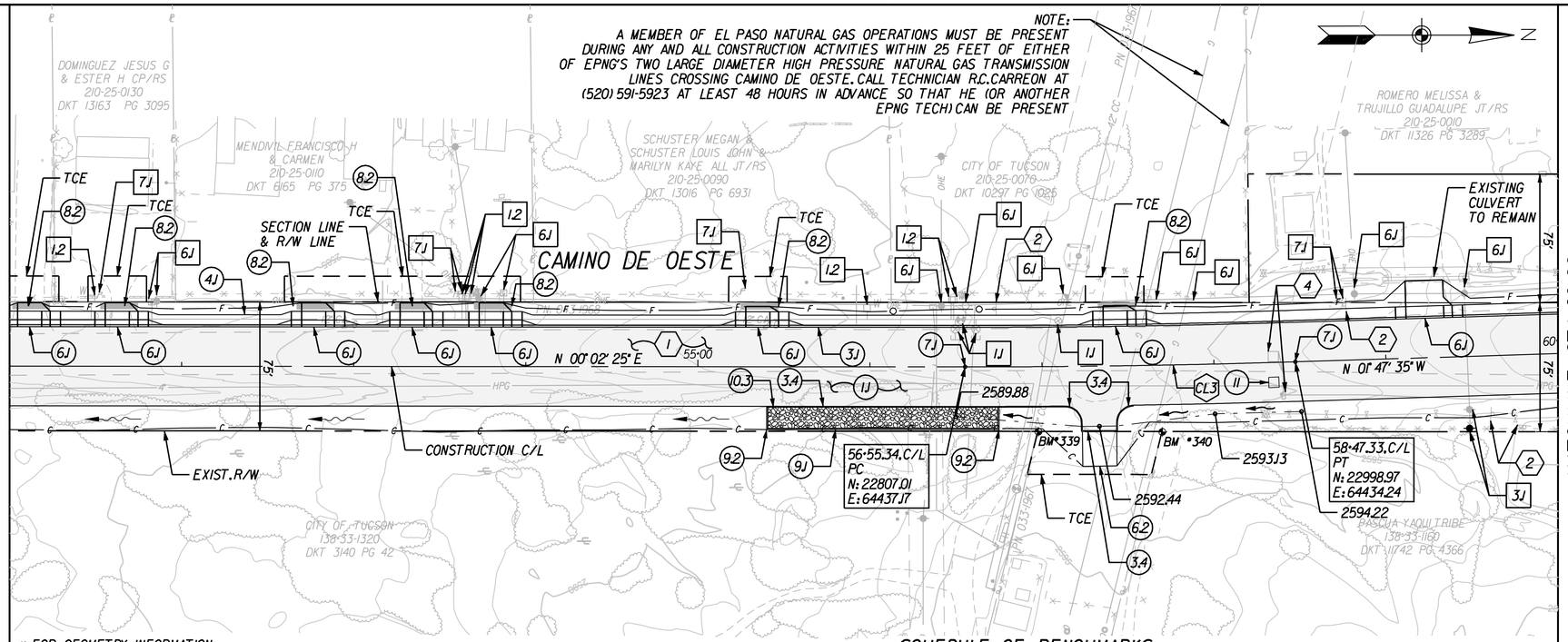


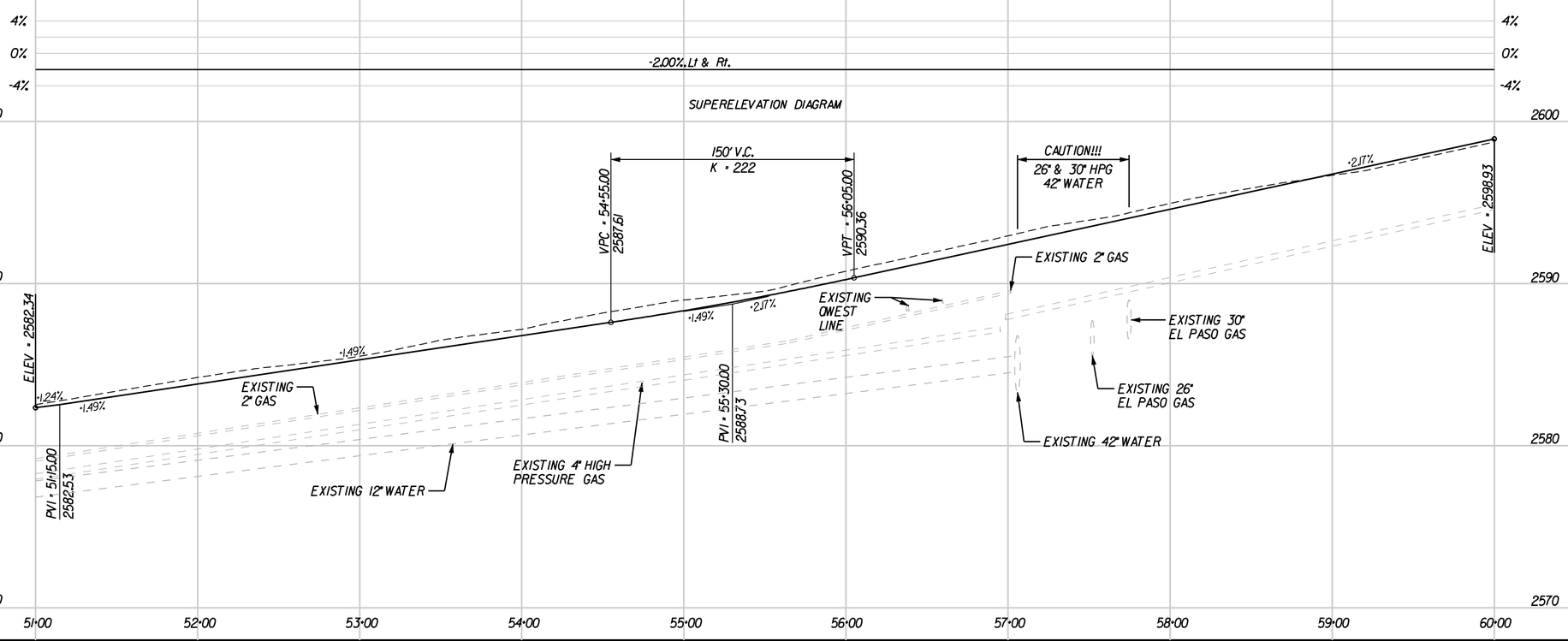
* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING

NOTE:
EXISTING IRRIGATION SYSTEM AND ASSOCIATED EQUIPMENT ON EAST AND WEST SIDE OF ROAD SHALL REMAIN IN PLACE. CONTRACTOR SHALL REPLACE, IN KIND, IF DISTURBED DURING CONSTRUCTION.

SCHEDULE OF BENCHMARKS

BM #	NORTHING	EASTING	ELEVATION	
339	22849.630	64474.887	2592.63	Fd 1.5in ACP RLS21774
340	22921.671	64474.969	2593.23	Fd 1in Plastic Cap unreadable



CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL3	01° 50' 00"	6000'	191.99'	96.00'

CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

3.1 CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

4.1 CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

6.1 CONSTRUCT CONCRETE DRIVEWAY APRON PER PC/COT STD DTL 206, SEE ROADWAY DETAIL RD1

6.2 CONSTRUCT ASPHALT DRIVEWAY, SEE ROADWAY DETAIL RD2

7.1 CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

8.2 INSTALL ELECTRICAL SLEEVES PER SIDEWALK LIGHTING PLANS, SEE GEOMETRY PLANS FOR LOCATIONS

9.1 CONSTRUCT LONGITUDINAL CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP) (STA 55+40 TO STA 56+75) SEE ROADWAY DETAIL RD3

9.2 CONSTRUCT TRANSVERSE CONCRETE CUTOFF WALL (9" WIDE x 2.5' DEEP) (STA 55+40 & 56+75) SEE ROADWAY DETAIL RD4, CONNECT TO LONGITUDINAL CONCRETE CUTOFF WALL

10.3 INSTALL HAND PLACED RIPRAP (GROUTED) PER TYPICAL SECTION A (DETAIL A)

11 6'x6' LOOP BY OTHERS (PCDOT)

RELOCATION/ADJUSTMENT NOTES:

1.1 ADJUST WATER VALVE BOX AND COVER TO FINISHED GRADE PER PC/COT STD DTL W-300

1.2 ADJUST WATER METER BOX AND COVER TO FINISHED GRADE

3.1 POWER POLES/LIGHT POLES TO BE RELOCATED BY OTHERS

6.1 PROTECT IN PLACE

7.1 RELOCATE MAILBOX PER PC/COT STD DTL 102

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

2 REMOVE EXISTING SIGN

4 REMOVE TRAFFIC SIGNAL LOOP AND EQUIPMENT

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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SCALES HORIZ. 1" = 40' VERT. 1" = 4'

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT. ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C0LRV

CAMINO DE OESTE PLAN/PROFILE 51+00 TO 60+00

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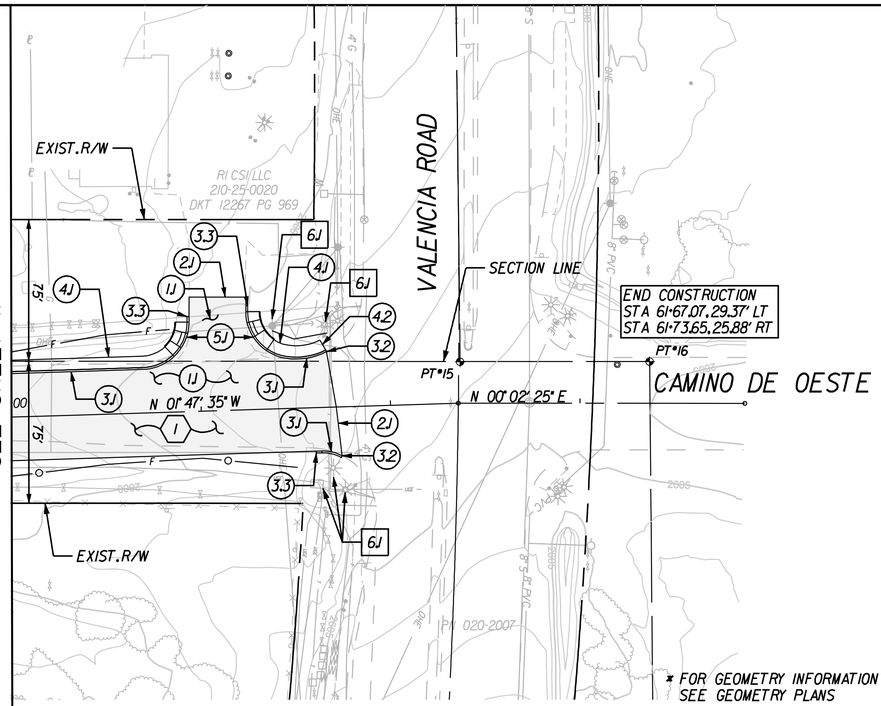


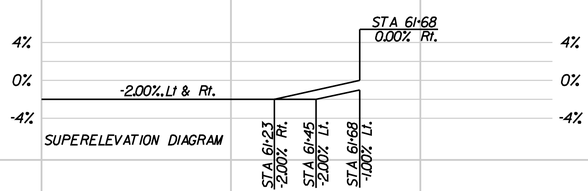
NOTE:
EXISTING IRRIGATION SYSTEM AND ASSOCIATED EQUIPMENT ON EAST AND WEST SIDE OF ROAD SHALL REMAIN IN PLACE. CONTRACTOR SHALL REPLACE, IN KIND, IF DISTURBED DURING CONSTRUCTION.

* FOR GEOMETRY INFORMATION SEE GEOMETRY PLANS

** CONTRACTOR SHALL INSTALL PRESERVATION FENCING PER LANDSCAPE PLANS AND PERFORM NOXIOUS PLANT REMOVAL PER SPEC 201-3.04 PRIOR TO CLEARING AND GRUBBING

SCHEDULE OF BENCHMARKS

BM *	NORTHING	EASTING	ELEVATION	DESCRIPTION
15	23388.1821	644001.2367	2603.24	3" BRASS DISK In Casing dwn 0.7' pvmt
16	23488.2314	644001.1537	2604.29	3" BRASS DISK In Casing dwn 0.7' pvmt



CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

3.1 CONSTRUCT CONCRETE VERTICAL CURB (TYPE 1) PER PC/COT STD DTL 209

3.2 CONNECT NEW VERTICAL CURB TO EXISTING VERTICAL CURB PER PC/COT STD DTL 211

3.3 CONSTRUCT CONCRETE CURB TERMINAL SECTION PER PC/COT STD DTL 212

4.1 CONSTRUCT CONCRETE SIDEWALK PER PC/COT STD DTL 200

4.2 MATCH CONCRETE SIDEWALK NEW TO EXISTING PER PC/COT STD DTL 203

5.1 CONSTRUCT CURB ACCESS RAMP PER PC/COT STD DTL 207, TYPE 1, SEE ROADWAY DETAILS

RELOCATION/ADJUSTMENT NOTES:

6.J PROTECT IN PLACE

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

GRAPHIC SCALE

40 0 20 40 80 160

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		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA, U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C01RV

CAMINO DE OESTE PLAN/PROFILE 60+00 TO 64+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

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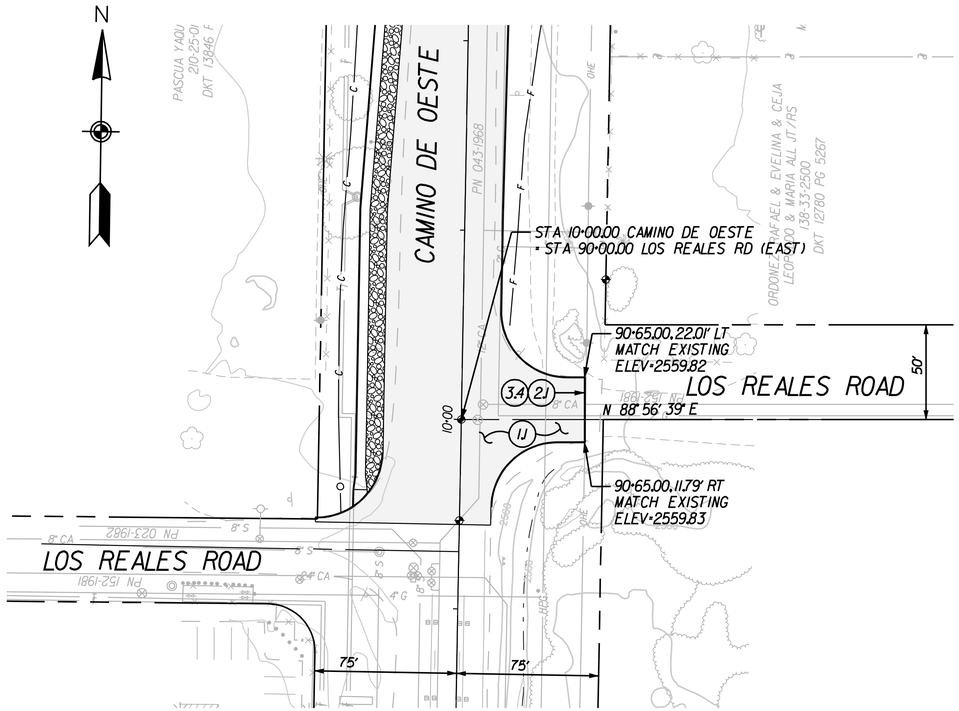

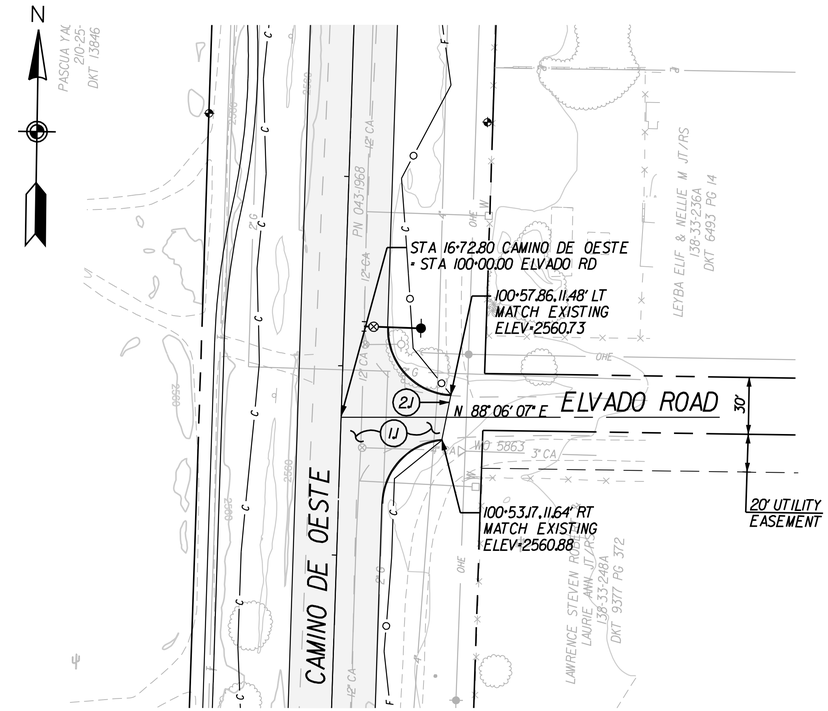

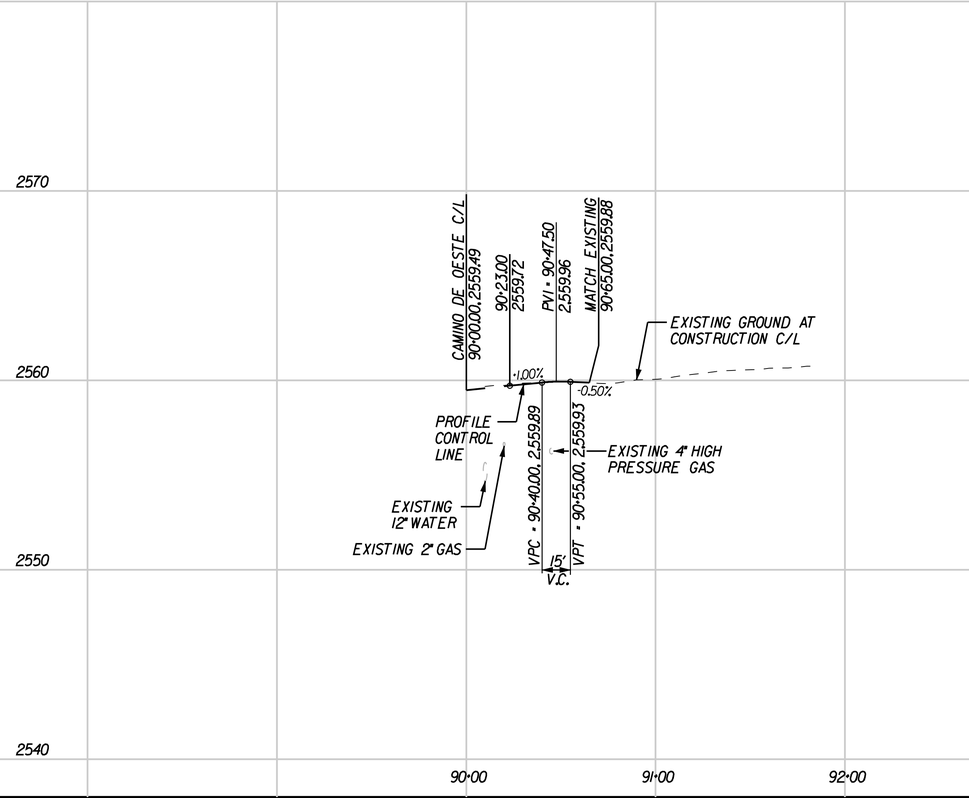

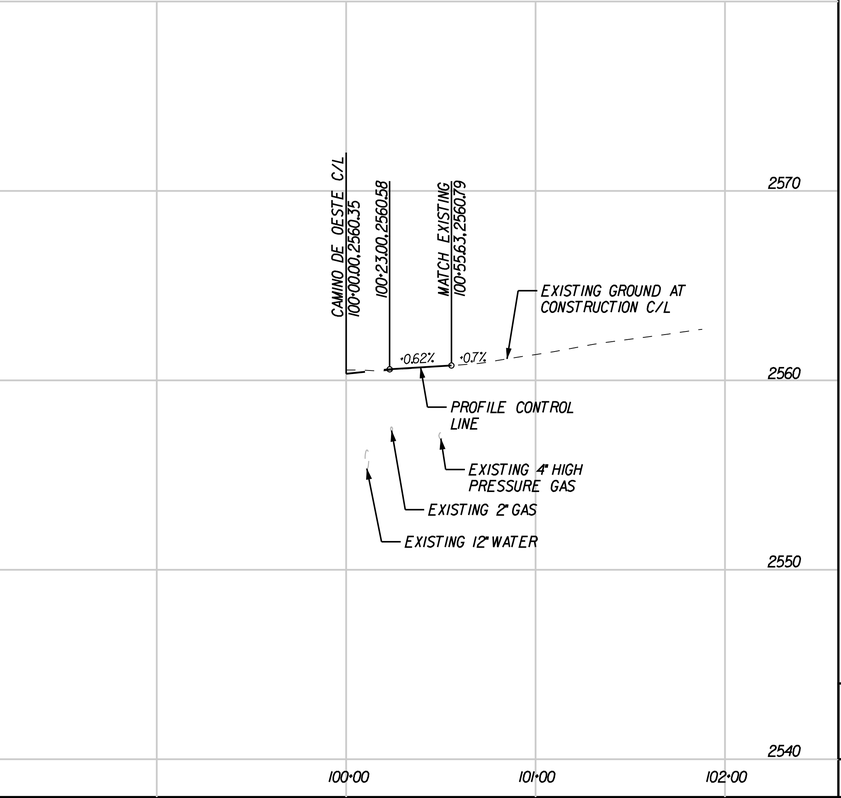

CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV

LOS REALES ROAD AND ELVADO ROAD PLAN/PROFILE

GRAPHIC SCALE

40 0 20 40 80 160

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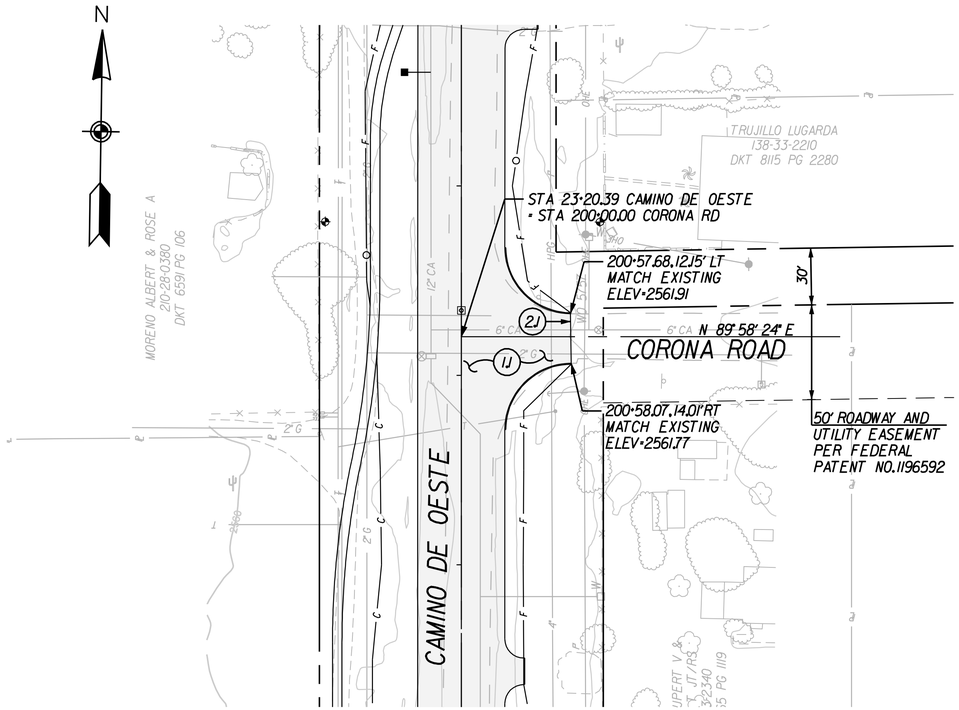
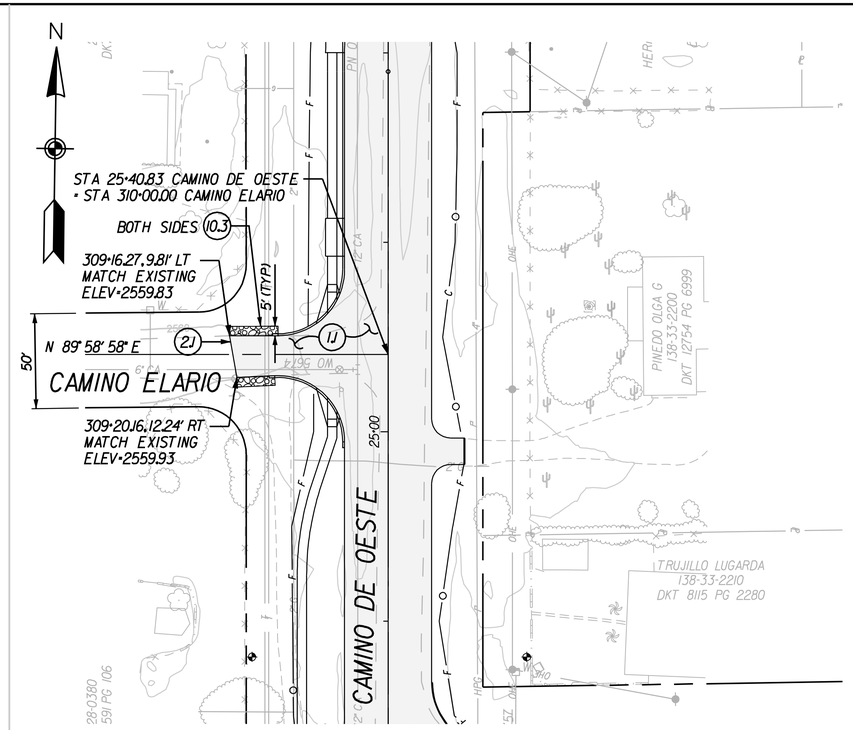


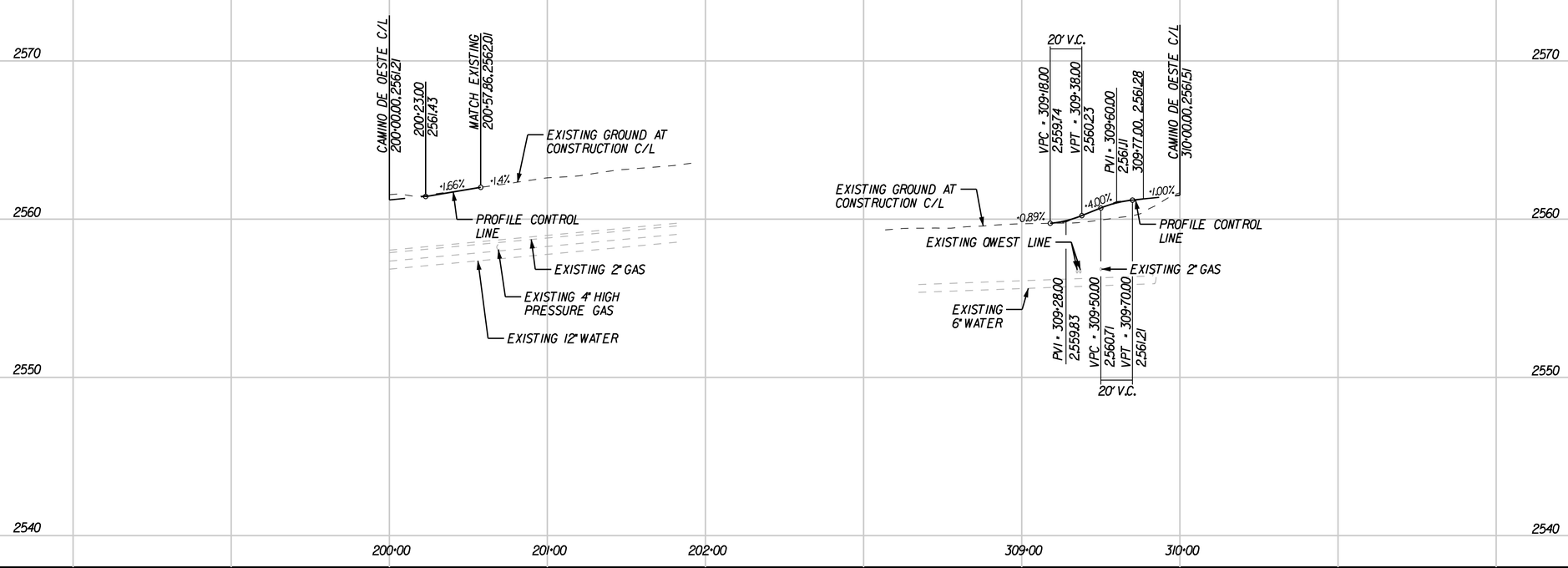


CONSTRUCTION NOTES:

1J CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2J TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

10.3 INSTALL HAND PLACED RIPRAP (GROUTED) PER TYPICAL SECTION A (DETAIL A) PAID FOR AS BID ITEM 913009



GRAPHIC SCALE

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DESIGNED	GV	12/11
DRAWN	GV	12/11
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PROJ. ENGR.	RMS	12/11

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NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PRISCILLA S. CORNELIO, P.E., DIRECTOR

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CORONA ROAD AND CAMINO ELARIO PLAN/PROFILE

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

SHEET 20 OF 57

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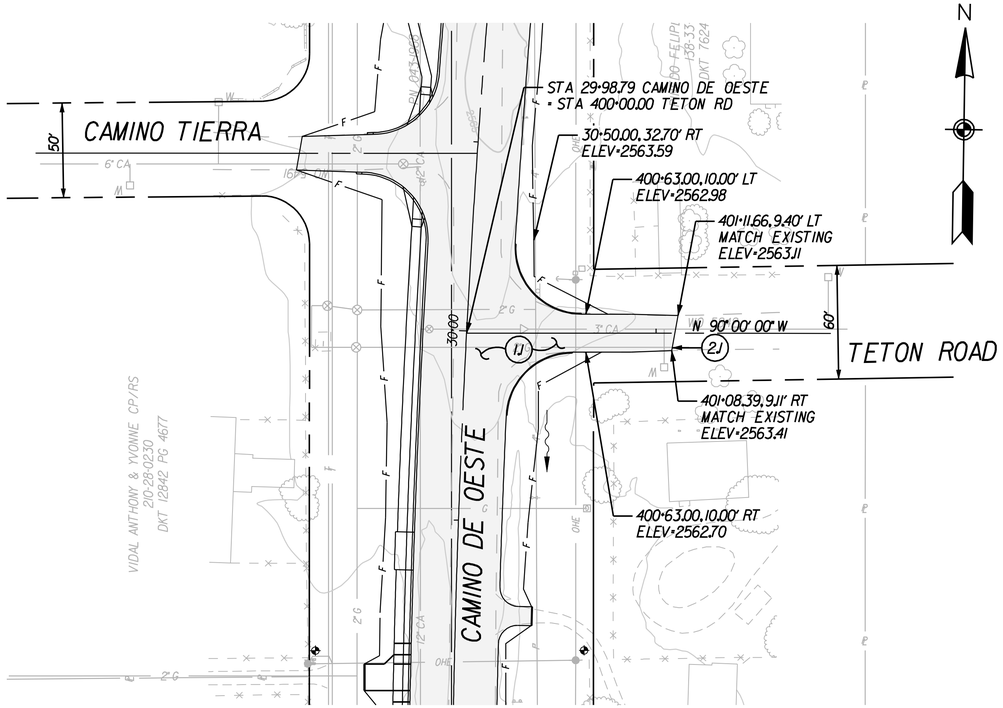
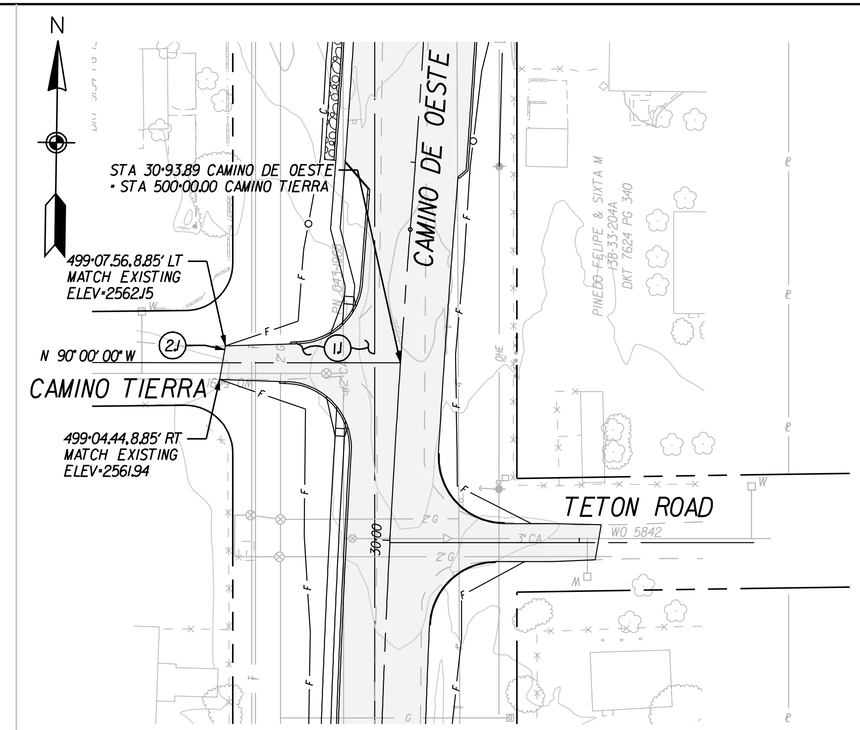
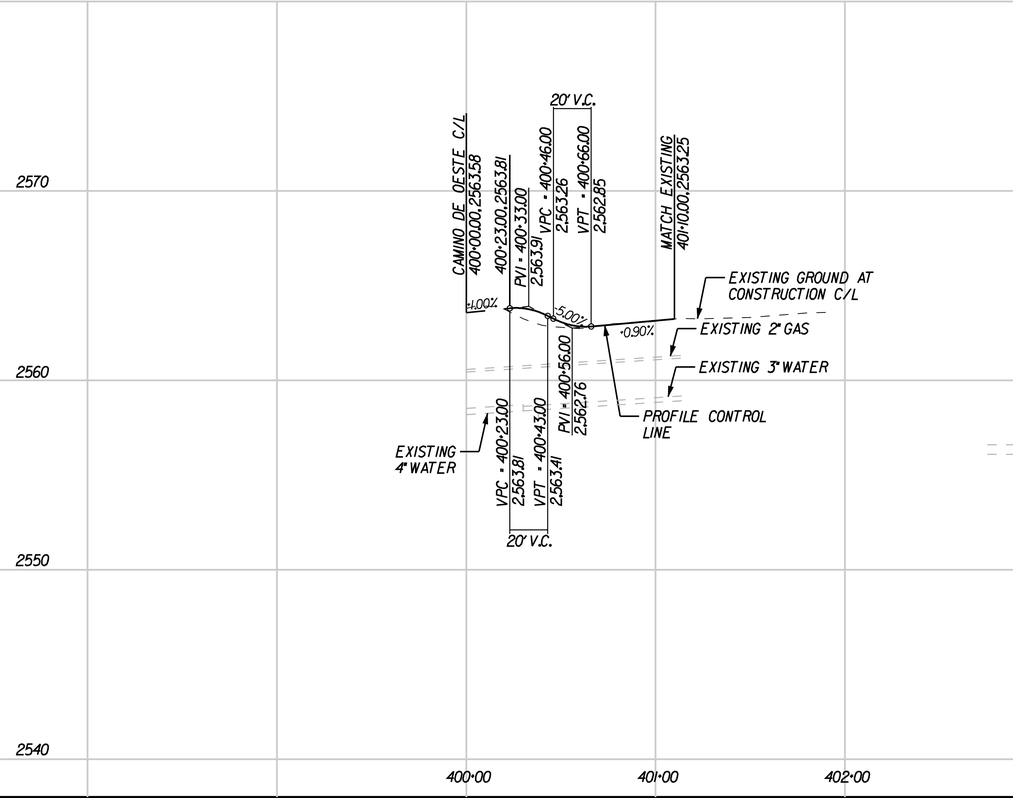


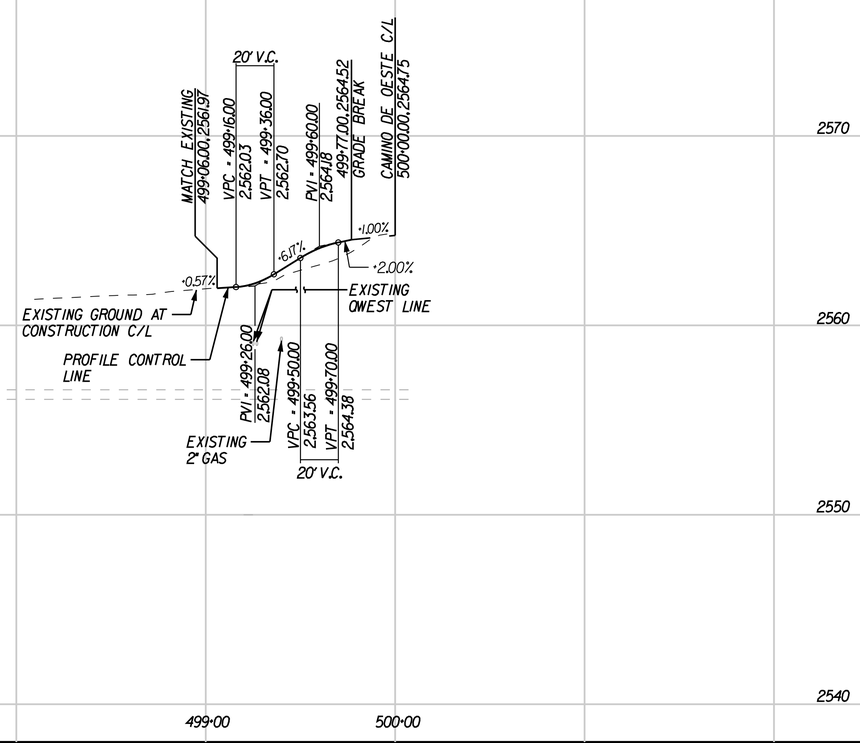


CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTIONS

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT





GRAPHIC SCALE

40 0 20 40 80 160

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

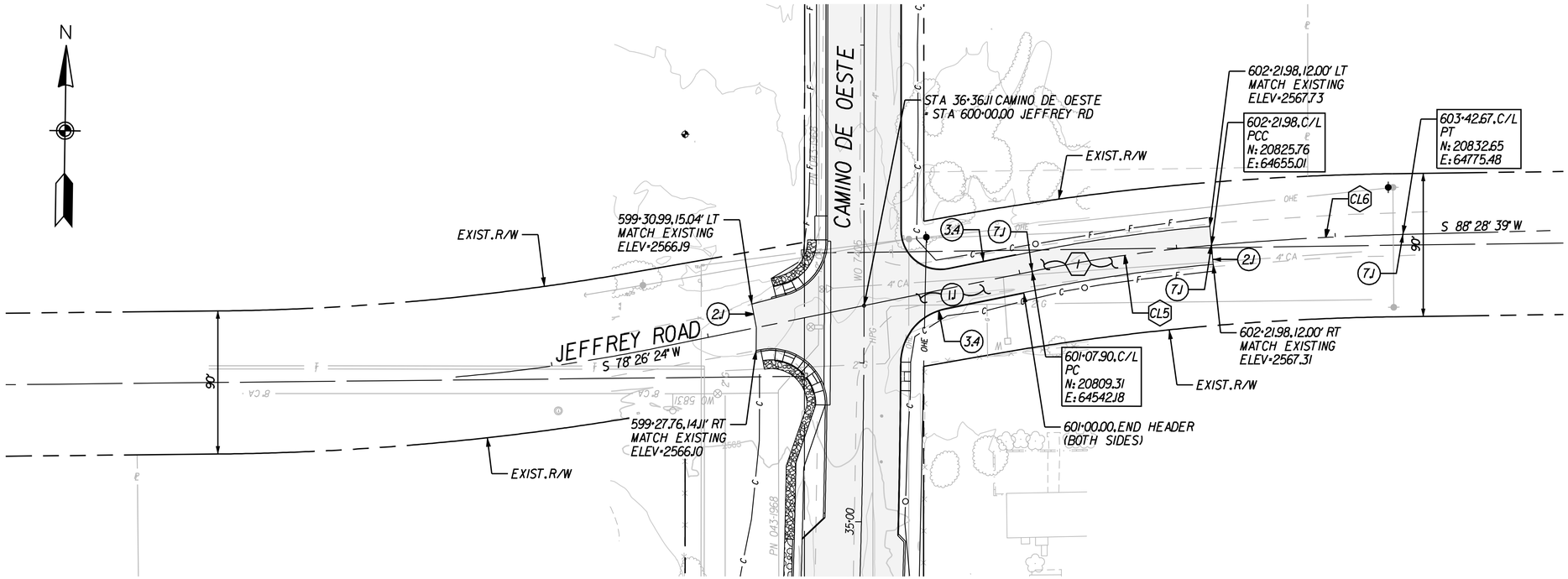
CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

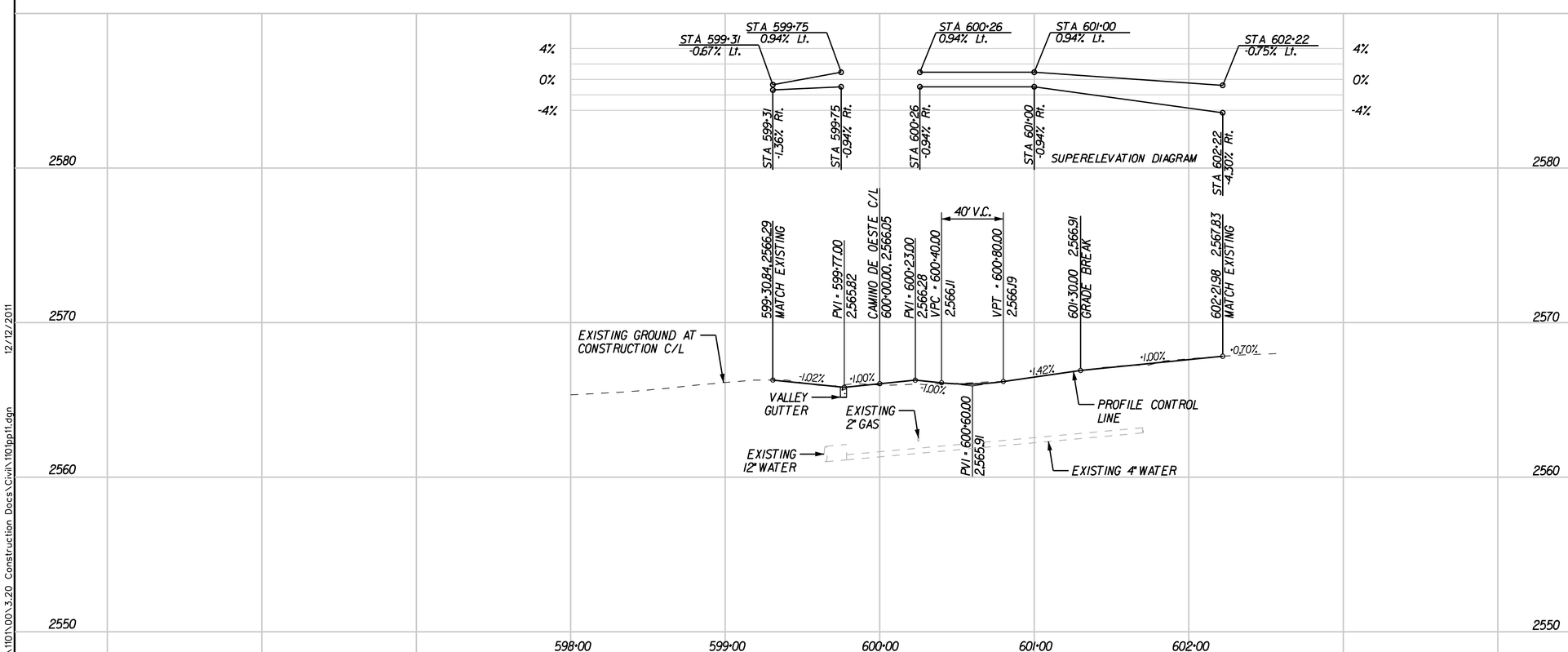
PROJECT NO. 4COLRV

TETON ROAD AND CAMINO TIERRA PLAN/PROFILE

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

E:\110\100\3.20 Construction Docs\Civil\110pp10.dgn 12/12/2011





CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL5	06° 32' 11"	1000'	114.08'	57.10'
CL6	03° 30' 04"	1975'	120.69'	60.36'

CONSTRUCTION NOTES:

1.1 CONSTRUCT AC PER PAVEMENT STRUCTURAL SECTION 1, SEE TYPICAL SECTION

2.1 TRIM, TACK, AND JOIN TO EXISTING PAVEMENT

3.4 CONSTRUCT CONCRETE HEADER PER PC/COT STD DTL 213

7.1 CONSTRUCT SURVEY MONUMENT PER PC/COT STD DTL 103

REMOVAL NOTES:

1 REMOVE EXISTING AC PAVEMENT (PAID AS ROADWAY EXCAVATION)

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	GV	12/11
DRAWN	GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C0LRV

JEFFREY ROAD PLAN/PROFILE

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

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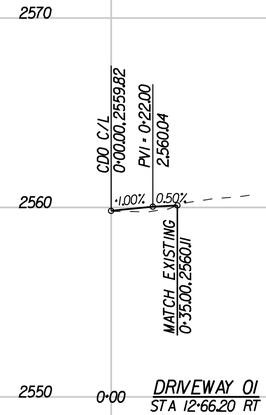
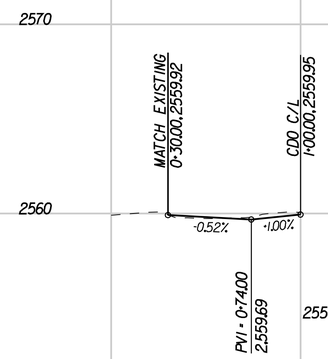
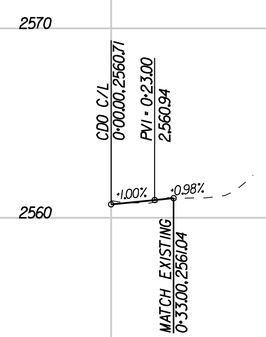


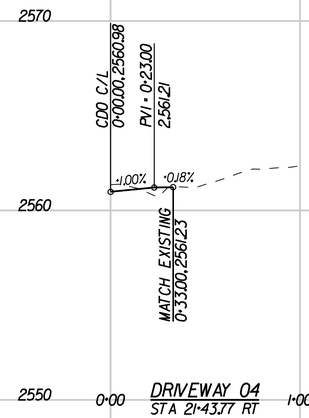
DRIVEWAY 01
STA 12+66.20 RT



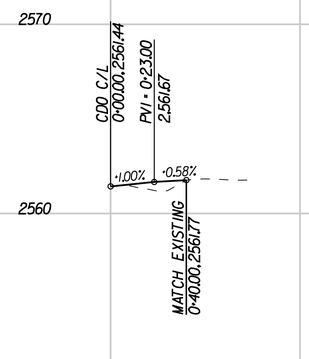
DRIVEWAY 02
STA 13+64.33 LT



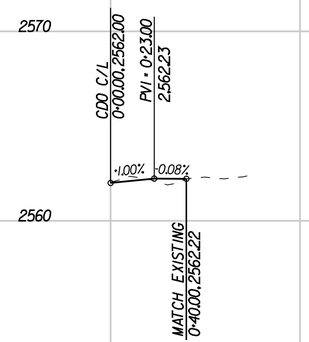
DRIVEWAY 03
STA 19+39.36 RT



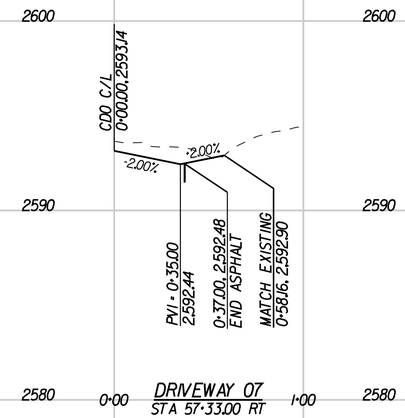
DRIVEWAY 04
STA 21+43.77 RT



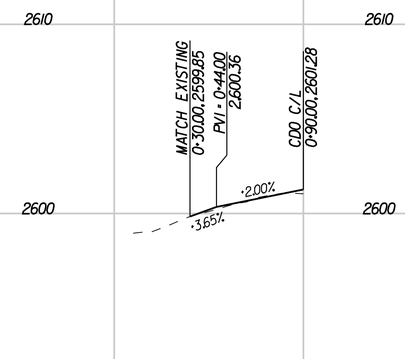
DRIVEWAY 05
STA 24+89.70 RT



DRIVEWAY 06
STA 28+49.92 RT



DRIVEWAY 07
STA 57+33.00 RT



DRIVEWAY 08
STA 61+08.46 LT

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SCALES | HORIZ. 1" = 40' | VERT. 1" = 4'

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL/GV	12/11
DRAWN	KL/GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

ASPHALT DRIVEWAY PROFILES

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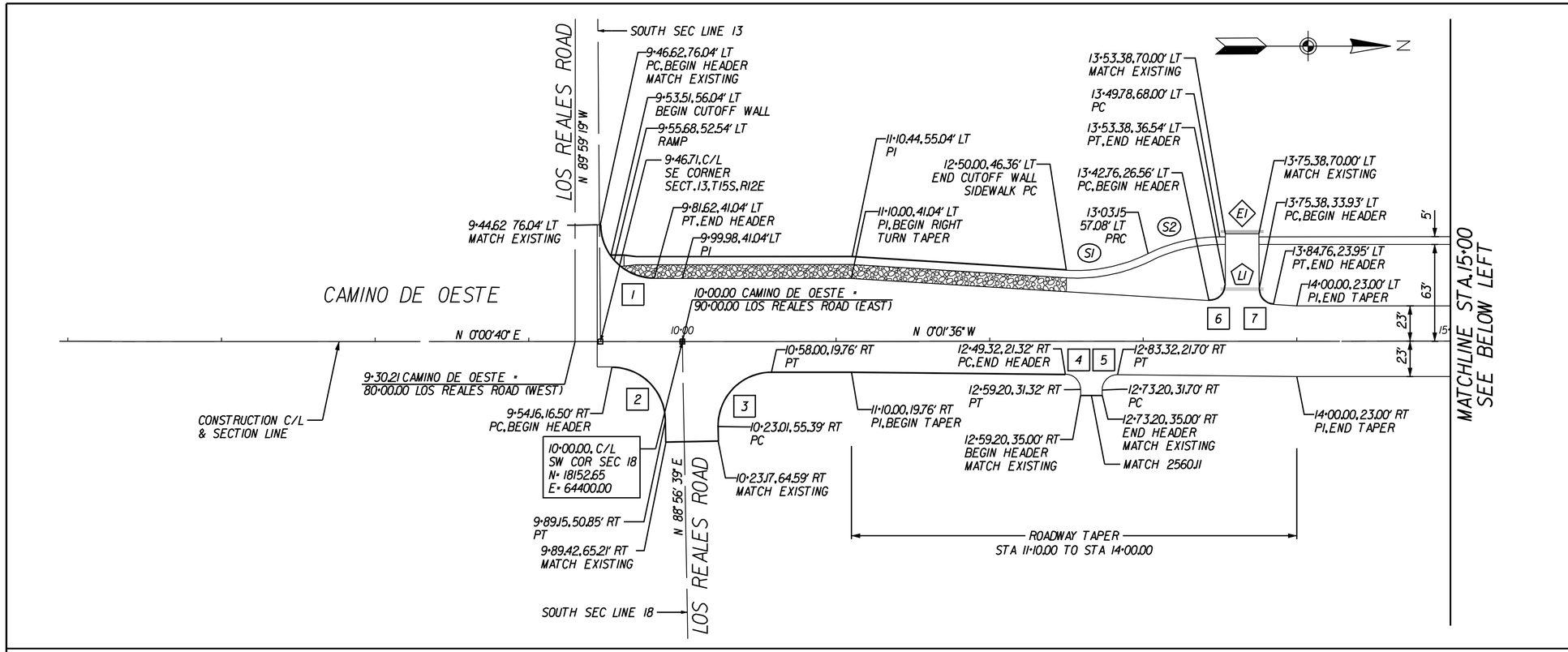

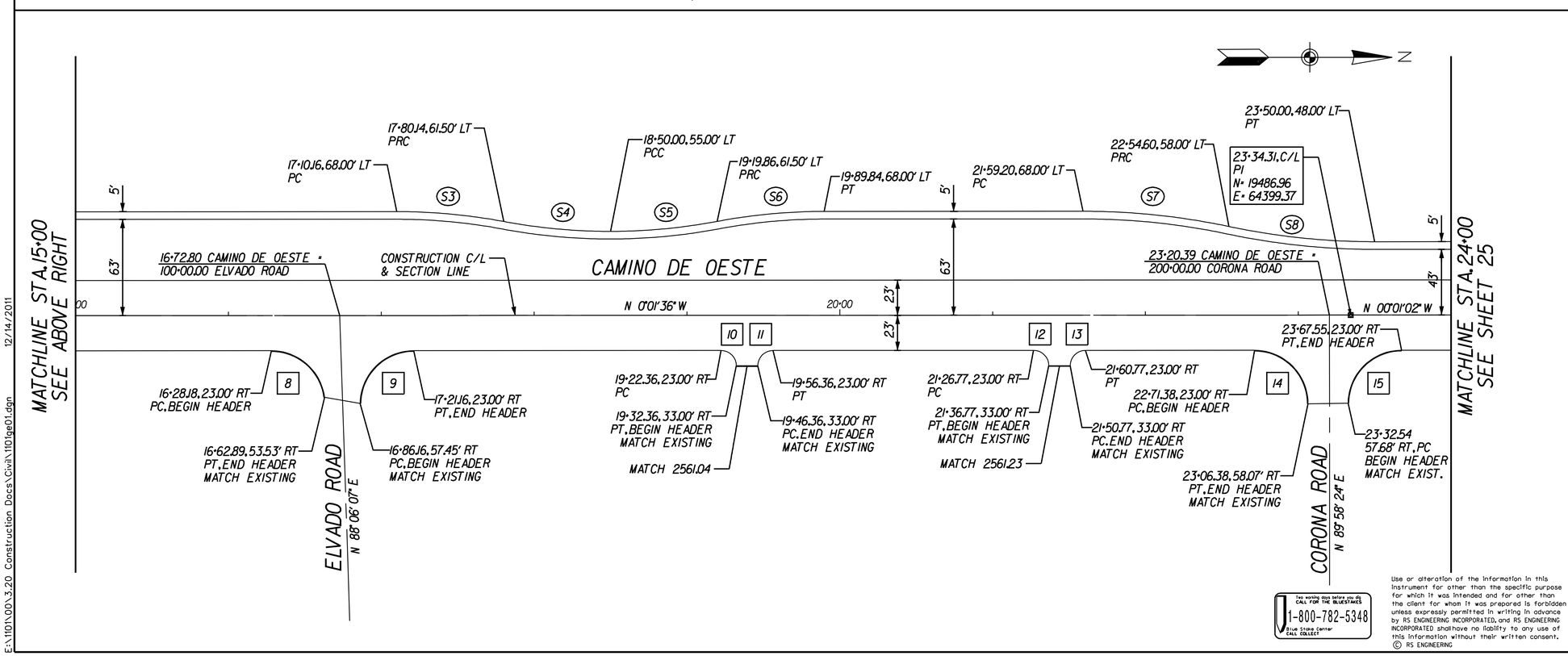

CURVE RETURN DATA				
NO.	DELTA	R	L	T
1	90° 00' 24"	35.00'	54.98'	35.00'
2	88° 55' 58"	35.00'	54.33'	34.35'
3	91° 01' 45"	35.00'	55.61'	35.63'
4	89° 21' 38"	10.00'	15.60'	9.89'
5	90° 38' 22"	10.00'	15.82'	10.11'
6	93° 33' 35"	10.00'	16.33'	10.64'
7	86° 26' 25"	10.00'	15.09'	9.40'
8	82° 39' 24"	35.00'	50.49'	30.78'
9	89° 06' 15"	35.00'	54.43'	34.46'
10	90° 00' 00"	10.00'	15.71'	10.00'
11	90° 00' 00"	10.00'	15.71'	10.00'
12	90° 00' 00"	10.00'	15.71'	10.00'
13	90° 00' 00"	10.00'	15.71'	10.00'
14	90° 06' 38"	35.00'	55.05'	35.07'
15	89° 28' 18"	35.00'	54.66'	34.68'

SIDEWALK CURVE DATA				
NO.	DELTA	R	L	T
S1	29° 55' 30"	105.00'	54.84'	28.06'
S2	26° 21' 56"	105.00'	48.32'	24.59'
S3	10° 36' 46"	380.00'	70.39'	35.29'
S4	10° 35' 38"	380.00'	70.26'	35.23'
S5	10° 35' 38"	380.00'	70.26'	35.23'
S6	10° 36' 46"	380.00'	70.39'	35.29'
S7	11° 58' 10"	460.00'	96.10'	48.22'
S8	11° 58' 12"	460.00'	96.10'	48.23'

ELECTRICAL SLEEVE DATA		
NO.	STA/OFFSET TO STA/OFFSET	LENGTH
E1	13+50.38, 72' LT TO 13+78.38, 72' LT	28'

IRRIGATION SLEEVE DATA		
NO.	STA/OFFSET TO STA/OFFSET	LENGTH
L1	13+50.38, 34' LT TO 13+78.38, 34' LT	28'

GRAPHIC SCALE

0 20 40 80 160

(IN FEET)

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		DATE
DESIGNED	KL/GV	12/11
DRAWN	KL/GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE GEOMETRY PLAN 6+00 TO 24+00

SCALE: 1" = 40'

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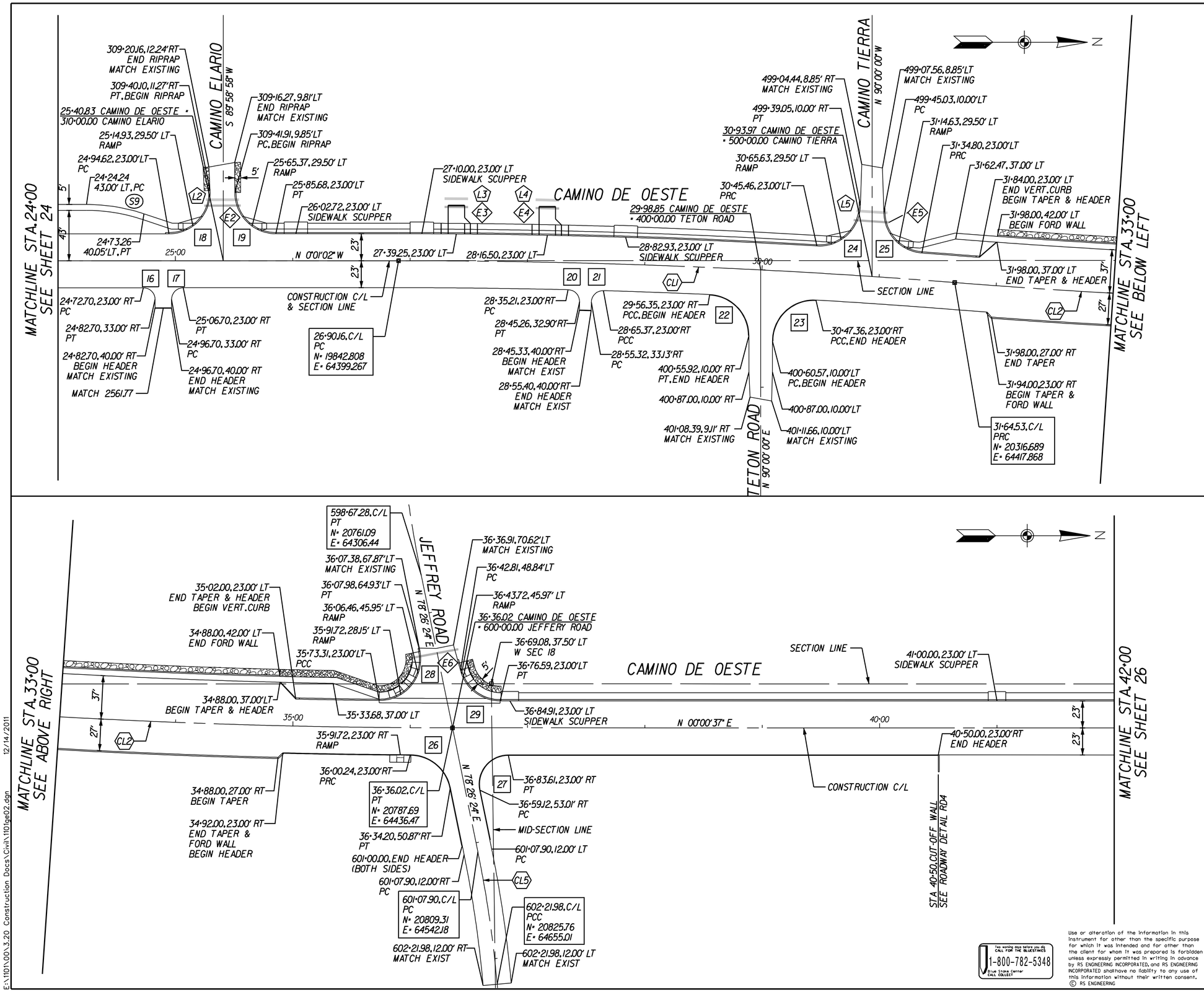

CURVE RETURN DATA				
NO.	DELTA	R	L	T
16	90° 00' 00"	10.00'	15.71'	10.00'
17	90° 00' 00"	10.00'	15.71'	10.00'
18	93° 06' 42"	35.00'	56.88'	36.95'
19	90° 08' 33"	35.00'	55.06'	35.09'
20	89° 30' 12"	10.00'	15.62'	9.91'
21	90° 47' 05"	10.00'	15.85'	10.14'
22	87° 28' 31"	35.00'	53.44'	33.49'
23	93° 23' 38"	35.00'	57.05'	37.14'
24	93° 22' 33"	35.00'	57.04'	37.13'
25	85° 46' 16"	35.00'	52.39'	32.51'
26	78° 01' 13"	35.00'	47.66'	28.35'
27	101° 34' 14"	25.00'	44.32'	30.64'
28	101° 42' 20"	35.00'	62.13'	43.00'
29	74° 50' 02"	35.00'	45.71'	26.78'

CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL1	04° 31' 48"	6000'	474.37'	237.31'
CL2	04° 30' 09"	6000'	471.49'	235.87'
CL5	06° 32' 11"	1000'	114.08'	57.10'

SIDEWALK CURVE DATA				
NO.	DELTA	R	L	T
S9	18° 26' 06"	155.00'	49.87'	25.15'

ELECTRICAL SLEEVE DATA		
NO.	STA/OFFSET TO STA/OFFSET	LENGTH
E2	25+24.67,47' LT TO 25+55.63,47' LT	31'
E3	27+29.14,46' LT TO 27+48.99,46' LT	20'
E4	28+06.10,46' LT TO 28+25.95,46' LT	20'
E5	30+75.25,47' LT TO 31+05.01,47' LT	30'
E6	35+98.50,59' LT TO 36+41.00,67' LT	43'

IRRIGATION SLEEVE DATA		
NO.	STA/OFFSET TO STA/OFFSET	LENGTH
L2	25+26.05,52' LT TO 25+54.25,52' LT	28'
L3	27+29.10,53' LT TO 27+48.92,53' LT	20'
L4	28+05.96,53' LT TO 28+25.79,53' LT	20'
L5	30+77.02,55' LT TO 31+03.23,55' LT	27'

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SCALE: 1" = 40'

SHEET 25 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C01RV

CAMINO DE OESTE GEOMETRY PLAN 24+00 TO 42+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

		DATE
DESIGNED	KL/GV	12/11
DRAWN	KL/GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

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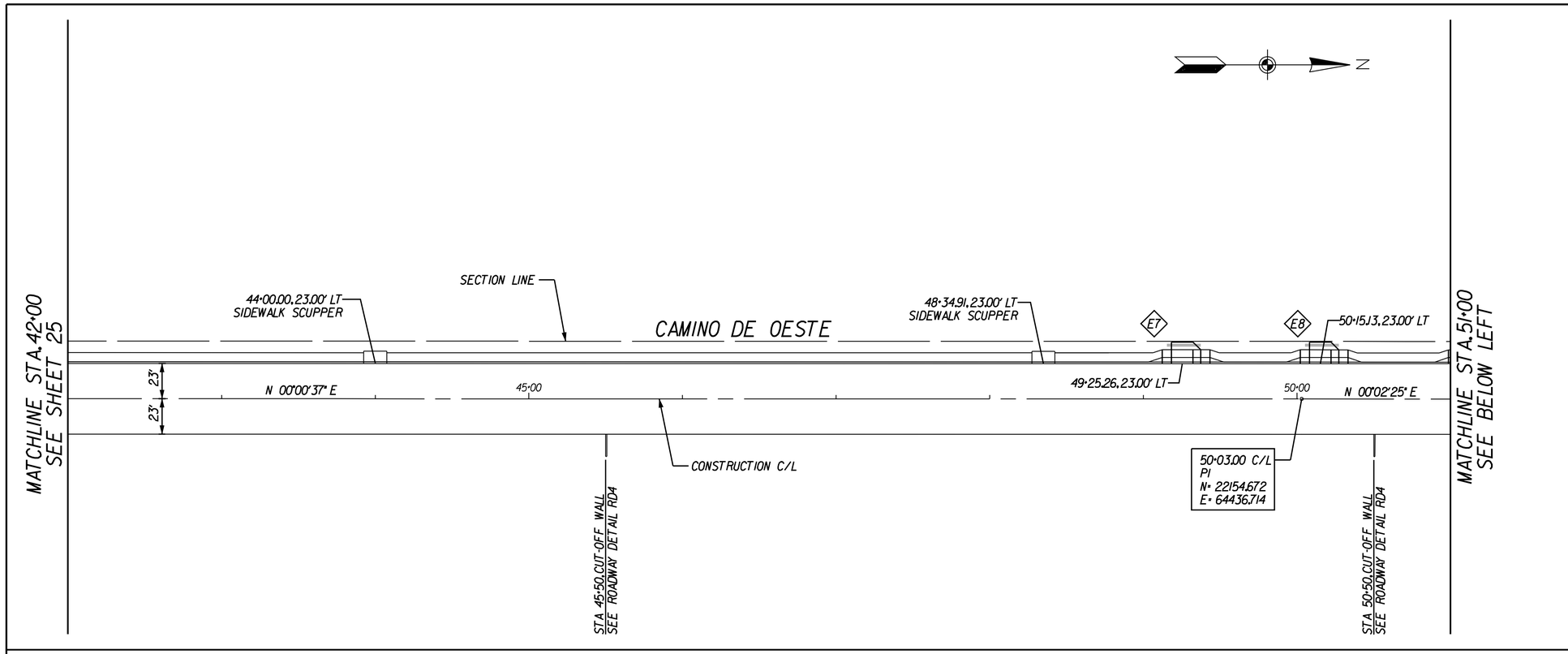

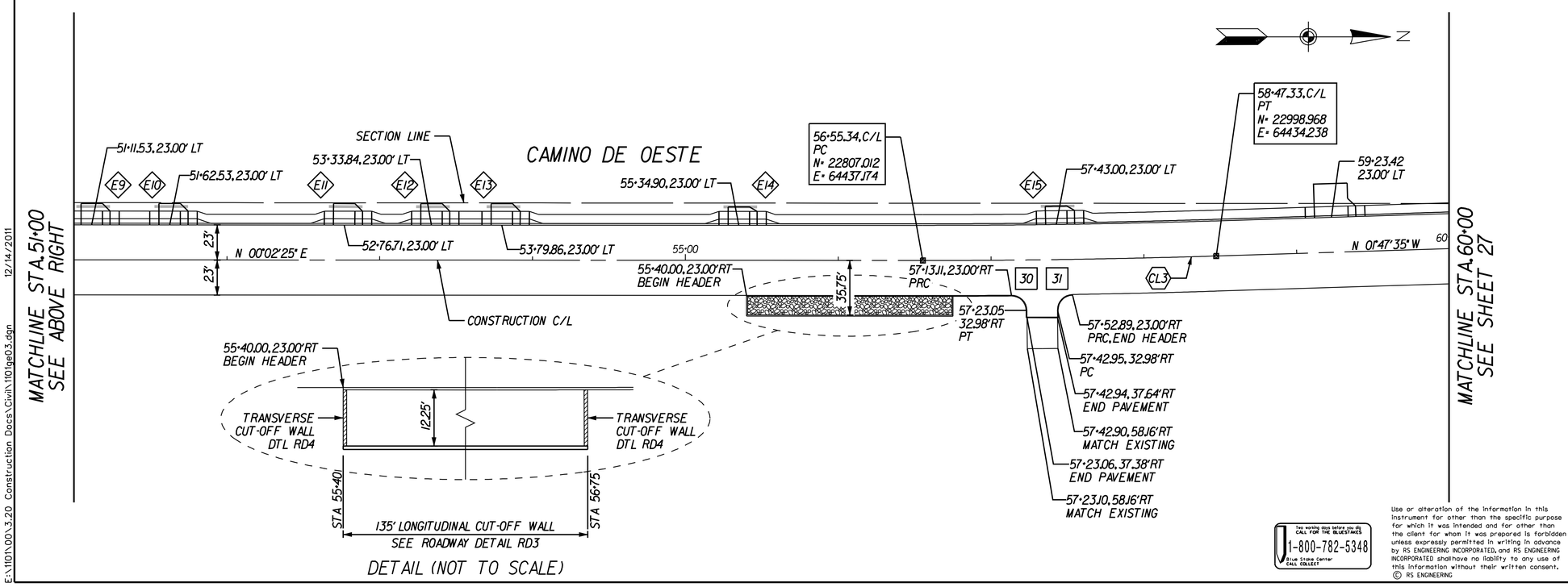

DETAIL (NOT TO SCALE)

CURVE RETURN DATA				
NO.	DELTA	R	L	T
30	89° 48' 36"	10.00'	15.67'	9.97'
31	89° 48' 36"	10.00'	15.67'	9.97'

CONSTRUCTION C/L CURVE DATA				
NO.	DELTA	R	L	T
CL3	01° 50' 00"	6000'	191.99'	96.00'

ELECTRICAL SLEEVE DATA		
NO.	STA/OFFSET TO STA/OFFSET	LENGTH
E7	49+15.26, 35' LT TO 49+37.26, 35' LT	22'
E8	50+05.13, 35' LT TO 50+27.13, 35' LT	22'
E9	51+01.53, 35' LT TO 51+23.53, 35' LT	22'
E10	51+52.53, 35' LT TO 51+74.53, 35' LT	22'
E11	52+66.71, 35' LT TO 52+88.71, 35' LT	22'
E12	53+23.84, 35' LT TO 53+45.84, 35' LT	22'
E13	53+69.86, 35' LT TO 53+91.86, 35' LT	22'
E14	55+24.90, 35' LT TO 55+46.90, 35' LT	22'
E15	57+32.94, 35' LT TO 57+55.07, 35' LT	22'

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GRAPHIC SCALE
40 0 20 40 80 160
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SCALE: 1" = 40'

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL/GV	12/11
DRAWN	KL/GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil)
CERTIFICATE NO. 51598
GREGORY D. VEGA
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
CAMINO DE OESTE GEOMETRY PLAN 42+00 TO 60+00

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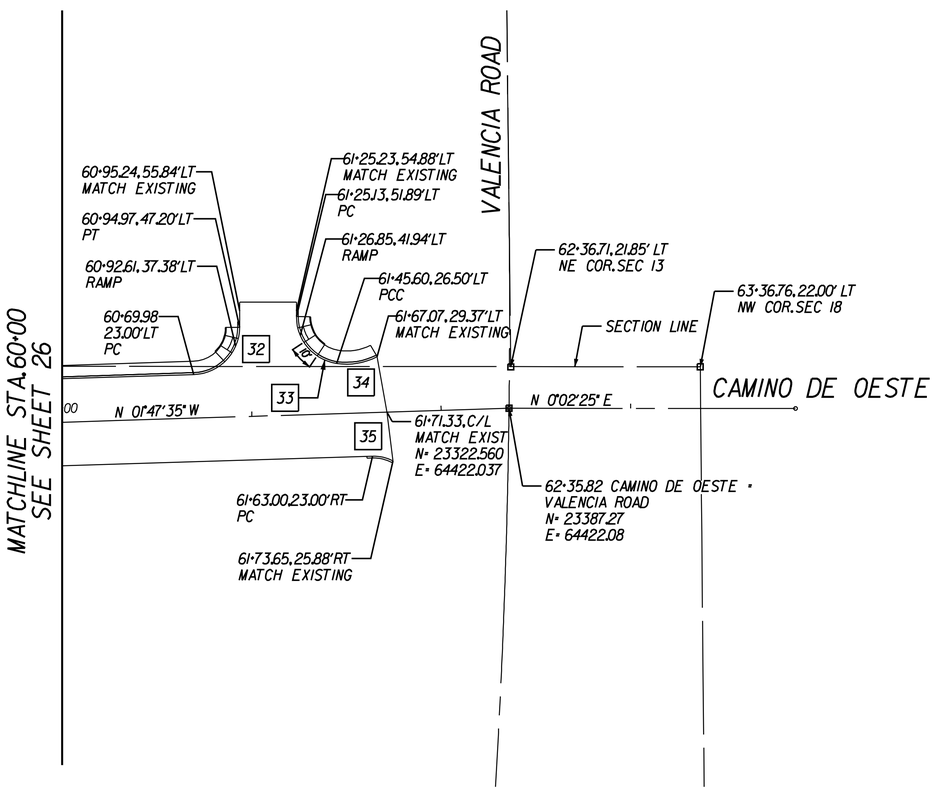

CURVE RETURN DATA				
NO.	DELTA	R	L	T
32	88° 10' 00"	25.00'	38.47'	24.21'
33	81° 25' 60"	25.00'	35.53'	21.52'
34	36° 02' 10"	35.00'	22.01'	11.38'
35	30° 15' 55"	21.13'	11.16'	5.71'

GRAPHIC SCALE

40 0 20 40 80 160

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SCALE: 1" = 40'

SHEET 27 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV

CAMINO DE OESTE GEOMETRY PLAN 60+00 TO 69+00

PRISCILLA S. CORNELIO, P.E., DIRECTOR

DESIGNED	KL/GV	12/11
DRAWN	KL/GV	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 51598 GREGORY D. VEGA DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 12-31-13

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

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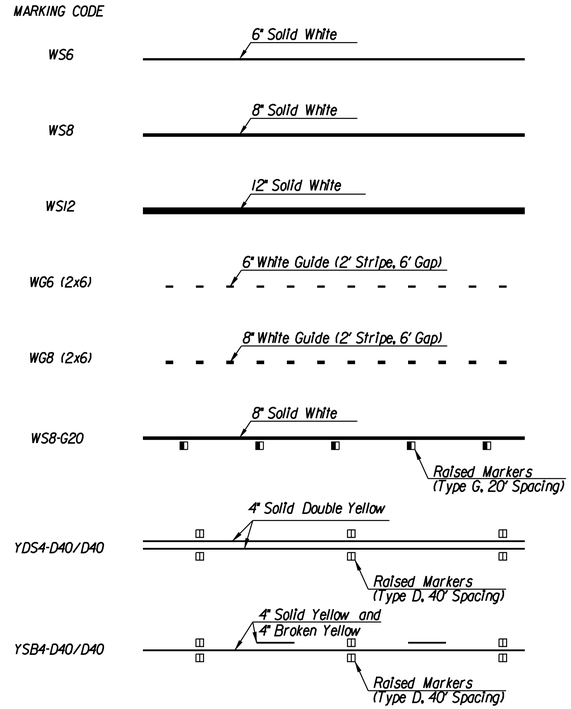
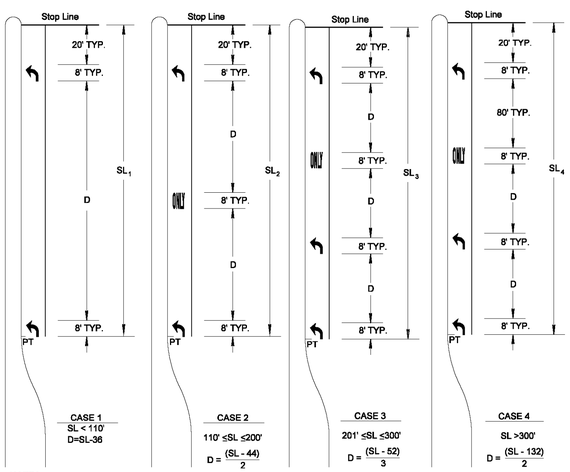
PAVEMENT MARKING DETAILS



KEY:

SL - Storage Length (feet)

D - Distance between Arrows and Legends (feet)



NOTES:

1. These details also apply to right-turn lanes.
2. For dual turn lanes, dimensions shall be the same for each lane.
3. SL dimension is from stop line to end of turn lane.
4. Pavement arrows and "ONLY" legend markings shall be used at signalized intersections with dual left turn bays. Pavement legends shall be used at single left turn bays at signalized intersections within County jurisdiction. Pavement legends may be used at single left turn bays within City jurisdiction at the discretion of the Traffic Engineer.
5. Right turn bays equal to 50' or less may use single arrow legend 20' from stop line.

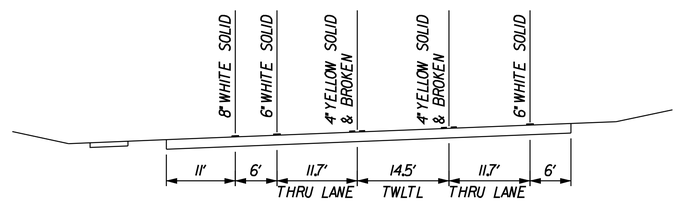
ISSUED	PCDOT and TDOT Traffic Engineering Division	SHEET NO.
October 2000	PAVEMENT MARKING STANDARDS	4-12
REVISED August 2008	Spacing between Pavement Arrows and "ONLY" Legend for Turn Lanes	

RAISED PAVEMENT MARKER TYPES

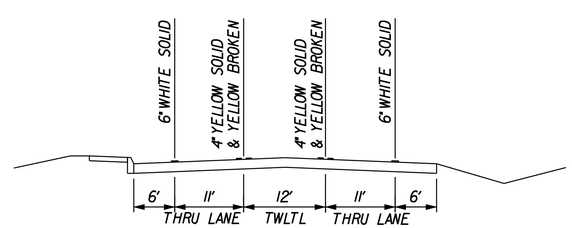
Type	Description	Symbol
D	Yellow Two-Way (Reflective)	
F	Blue/Blue Two-Way (Reflective)	
G	Clear One-Way (Reflective)	

PAVEMENT MARKING QUANTITIES (STATION TO STATION MEASUREMENT)

Item		Total Pavement Markings	Bid Item No.
Permanent Thermoplastic Pavement Marking	WS6	9373 LF	7040010
	WS8	470 LF	7040010
	WS12 (0.09" THICK)	180 LF	7040110
	WG6 (2X6)	640 LF	7040010
	WG8 (2X6)	290 LF	7040010
	WS8-G20	450 LF	7040010
	YSB4-D40/D40	1,25 x 8482 LF	7040020
	YDS4-D40/D40	2 x 844 LF	7040020
	SINGLE ARROW	8 EA	7040030
	ONLY	4 EA	7040060
	BIKE W/ARROW SYMBOL	4 EA	7050080
Raised Pavement Markers	Type D Markers	466 EA	7060025
	Type F Markers	3 EA	7060040
	Type G Markers	23 EA	7060030
Painted Pavement Marking		28,576 LF	7080001



SECTION A-A



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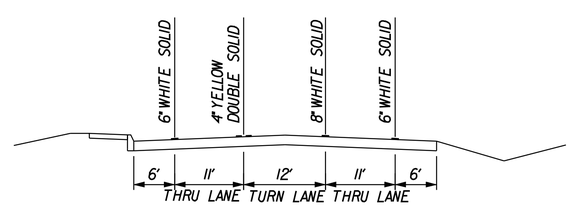

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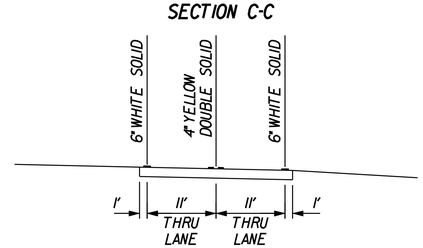

SECTION D-D

GENERAL NOTES PAVEMENT MARKING

1. ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA COUNTY/CITY OF TUCSON (PC/COT) STANDARD SPECIFICATIONS AND THE STANDARD DETAILS FOR PUBLIC IMPROVEMENTS.THE SPECIAL PROVISIONS AND THE APPROVED PLANS. ALL PAVEMENT MARKING SHALL BE INSTALLED IN ACCORDANCE WITH THE PC/COT PAVEMENT MARKING DESIGN MANUAL.
2. THE STRIPING CONTRACTOR SHALL CONTACT THE PIMA COUNTY PAVEMENT MARKING SUPERVISOR (520-740-2624) AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY PAVEMENT MARKING BEING INSTALLED TO SCHEDULE INSPECTION OF PAVEMENT MARKING.
3. THE PERMANENT PAVEMENT MARKINGS MAY BE MODIFIED AS DIRECTED BY THE TRAFFIC ENGINEER.
4. DESIGN SPEED AND POSTED SPEED FOR CAMINO DE OESTE = 45 MPH.
   DESIGN SPEED AND POSTED SPEED FOR JEFFREY = 40 MPH.
   DESIGN SPEED FOR ALL OTHER INTERSECTING STREETS = 25 MPH
   DESIGN VEHICLE = LARGE SEMITRAILER WB-50 (CAMINO DE OESTE).
   SCHOOL BUS S-BUS-36 (JEFFREY).AND SINGLE-UNIT TRUCK SU (INTERSECTING STREETS).
5. ALL LANE DIMENSIONS ARE MEASURED FROM THE CENTER OF LANE LINE.CENTER OF DOUBLE LANE LINE.OR EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.
6. THE PAVEMENT MARKINGS DRAWINGS ARE SCHEMATIC ONLY.THE CONTRACTOR SHALL FOLLOW ALL DIMENSIONS.DETAILS.AND STANDARDS WHEN INSTALLING PAVEMENT STRIPING.SYMBOLS.LEGENDS.AND MARKERS.
7. PAINTED LAYOUT STRIPING SHALL BE 15 MILS (0.015") THICK WATER BASED PAINT PLACED ON THE PAVEMENT SURFACE.PAINTED LAYOUT STRIPING SHALL BE INSTALLED WITHIN FIVE WORKING DAYS OF THE PAVEMENT SURFACE BEING COMPLETED.
8. PAINTED LAYOUT SYMBOLS AND LEGENDS SHALL BE APPLIED AT THE SAME TIME AS THE PAINTED LAYOUT STRIPING.WITH THE EXCEPTION OF BIKE LANE SYMBOLS.
9. THE FINAL LONGITUDINAL STRIPING SHALL BE 60 MIL (0.060") THICK HOT SPRAYED THERMOPLASTIC REFLECTORIZED STRIPING PLACED OVER THE PAINTED LAYOUT STRIPING WITHIN 21 TO 30 CALENDAR DAYS AFTER COMPLETION OF THE FINAL PAVEMENT SURFACE.ALL OTHER MARKINGS SHALL BE APPLIED AT THE SAME TIME AS THE FINAL LONGITUDINAL STRIPING.
10. ALL FINAL TRANSVERSE STRIPING SHALL BE HOT-SPRAYED 90 MIL THERMOPLASTIC STRIPING (0.090").
    ALL PAVEMENT SYMBOLS AND LEGENDS (EXCEPT BIKE LANE SYMBOLS) SHALL BE HOT SPRAYED 90 MIL THERMOPLASTIC PAVEMENT MARKING (0.090").BIKE LANE SYMBOLS SHALL BE EXTRUDED THERMOPLASTIC,PREFORMED APPLICATIONS.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LAYOUT AND INSTALLATION OF PAVEMENT MARKINGS ON FINAL SURFACE COURSE FOLLOWING ONE CONTROL LINE PER DIRECTION OF TRAVEL CONSISTING OF CONTROL POINTS THAT HAVE BEEN SET TO NO MORE THAN 50 FEET APART.IN TANGENT SECTIONS OF THE ROAD WHERE THE PAVEMENT MARKING PATTERN DOES NOT CHANGE, THE CONTROL POINTS CAN BE SET AT 200 FEET APART.
12. THE LAYOUT AND INSPECTIONS OF ALL PAVEMENT MARKINGS SHALL BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO THE APPLICATION OF THE MATERIALS.
13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE FINAL SURFACE COURSE IS PLACED SO THAT THE CONSTRUCTION JOINT IS NO MORE THAN ONE FOOT OFFSET FROM THE FINAL STRIPING.
14. ALL RAISED PAVEMENT MARKERS (RPMs) SHALL BE INSTALLED SO THAT THE REFLECTIVE FACE OF EACH MARKER IS FACING THE DIRECTION OF TRAFFIC AND IS PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.TYPE C PAVEMENT MARKERS SHALL BE INSTALLED SO THAT THE CLEAR REFLECTIVE FACE OF EACH MARKER IS FACING APPROACHING TRAFFIC AND PERPENDICULAR TO THE DIRECTION OF TRAFFIC FLOW.
15. AT INTERSECTION APPROACHES ON ROADWAYS WITH MEDIANS.TYPE C RPMs SHALL BE PLACED AS PER PC/COT STANDARDS.
16. ALL RAISED PAVEMENT MARKERS (RPMs) SHALL BE INSTALLED PER THE CURRENT EDITION OF THE PC/COT PAVEMENT MARKING MANUAL. AVAILABLE ONLINE AT http://dot.pima.gov/trafeng/DesignManual/PavementManual.pdf
17. BLUE RAISED PAVEMENT MARKERS SHALL BE PLACED ADJACENT TO FIRE HYDRANTS AS SHOWN IN THE LATEST EDITION OF THE PC/COT PAVEMENT MARKING DESIGN MANUAL.
18. ALL REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SECTION 701 OF THE PC/COT STANDARD SPECIFICATIONS.PAINTING OVER EXISTING STRIPING DOES NOT CONSTITUTE APPROVED STRIPING OBLITERATION.
19. FOR PRIVATE DEVELOPMENT PROJECTS.THE DESIGN CONSULTANT/PROJECT MANAGER SHALL BE REQUIRED TO PRODUCE AS-BUILT STRIPING PLANS WITHIN 90 DAYS OF STRIPING COMPLETION.
20. UNLESS OTHERWISE NOTED.ALL PAVEMENT MARKINGS SHALL BE INSTALLED BY THE CONTRACTOR.
21. FINAL INSPECTION/ACCEPTANCE OF PAVEMENT MARKINGS SHALL BE PERFORMED BY THE TRAFFIC ENGINEER.

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SCALE: 1" = NTS

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

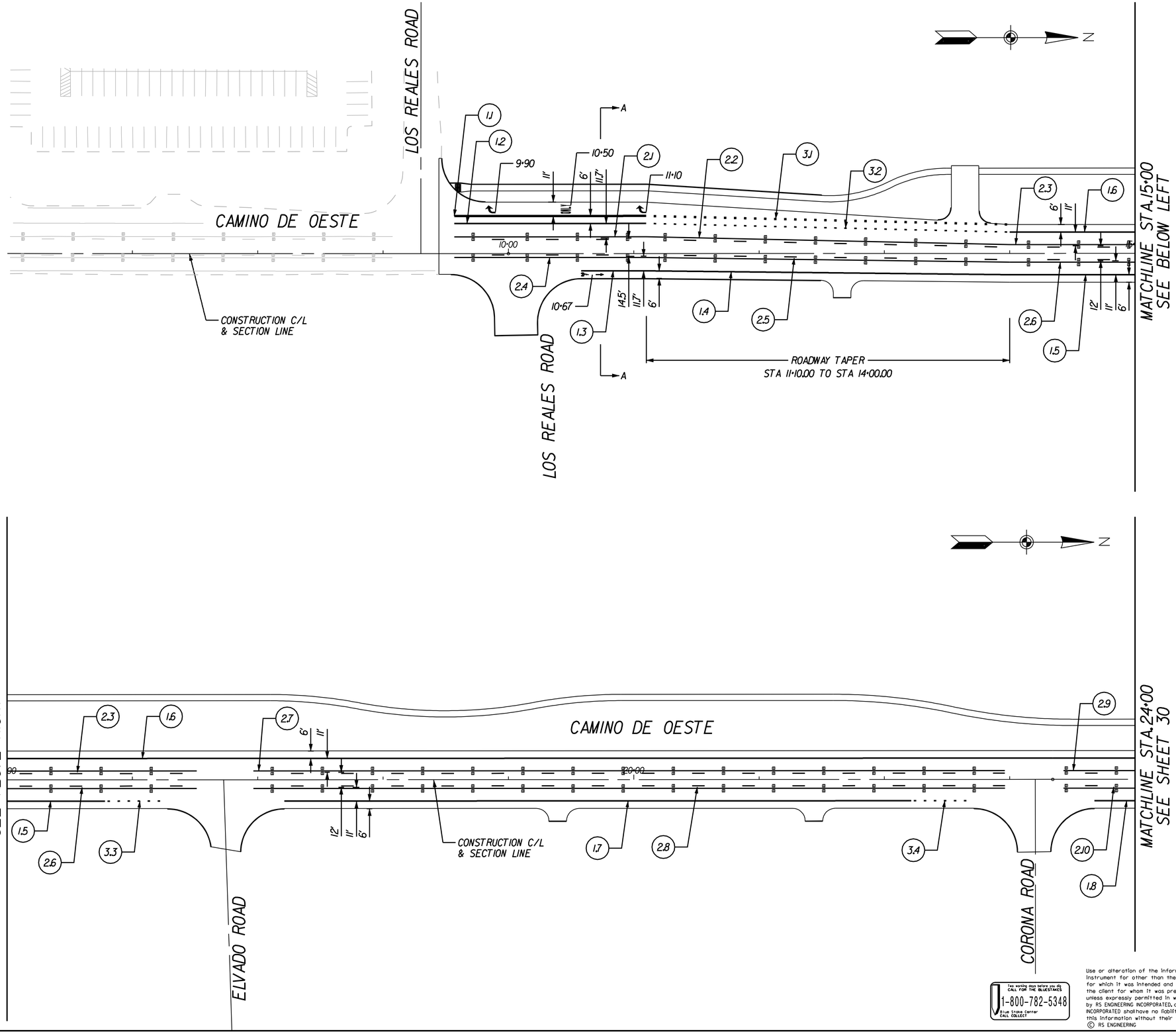
CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE STRIPING NOTES

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

		DATE
DESIGNED	GV/KL	12/11
DRAWN	GV/KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

E:\1101\DOV\3.20 Construction Docs\Civil\1101st01.dgn 12/14/2011



LINE NUMBER	LINE CODE	BEGINNING STATION, OFFSET	ENDING STATION, OFFSET
1.1	WS8	9+56.87, 30.04' LT	11+10.00, 30.04' LT
1.2	WS6	9+56.87, 24.04' LT	11+10.00, 24.04' LT
1.3	WS6	10+58.00, 13.76' RT	11+10.00, 13.76' RT
1.4	WS6	11+10.00, 13.76' RT	14+00.00, 17.00' RT
1.5	WS6	14+00.00, 17.00' RT	15+78.18, 17.10' RT
1.6	WS6	14+00.00, 17.00' LT	24+94.62, 17.00' LT
1.7	WS6	17+21.16, 17.00' RT	22+21.38, 17.00' RT
1.8	WS6	23+67.55, 17.00' RT	29+06.21, 17.00' RT
2.1	YSB4-D40/D40	9+56.87, 12.37' LT	11+10.00, 12.37' LT
2.2	YSB4-D40/D40	11+10.00, 12.37' LT	14+00.00, 6.00' LT
2.3	YSB4-D40/D40	14.00.00, 6.00' LT	16+51.29, 6.00' LT
2.4	YSB4-D40/D40	9+56.87, 2.11' RT	11+10.00, 2.11' RT
2.5	YSB4-D40/D40	11+10.00, 2.11' RT	14+00.00, 6.00' RT
2.6	YSB4-D40/D40	14+00.00, 6.00' RT	16+51.29, 6.00' RT
2.7	YSB4-D40/D40	16+96.60, 6.00' LT	22+96.15, 6.00' LT
2.8	YSB4-D40/D40	16+96.60, 6.00' RT	22+96.15, 6.00' RT
2.9	YSB4-D40/D40	23+42.92, 6.00' LT	25+20.03, 6.00' LT
2.10	YSB4-D40/D40	23+42.92, 6.00' RT	25+20.03, 6.00' RT
3.1	WG8(2X6)	11+10.00, 30.04' LT	14+00.00, 23.00' LT
3.2	WG6(2X6)	11+10.00, 24.04' LT	14+00.00, 17.00' LT
3.3	WG6(2X6)	15+78.18, 17.00' RT	16+28.18, 17.00' RT
3.4	WG6(2X6)	22+21.38, 17.00' RT	22+71.38, 17.00' RT

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SHEET 29 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV

CAMINO DE OESTE STRIPING PLAN 6+00 TO 24+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

PRISCILLA S. CORNELIO, P.E., DIRECTOR

Registered Professional Engineer (Civil) 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

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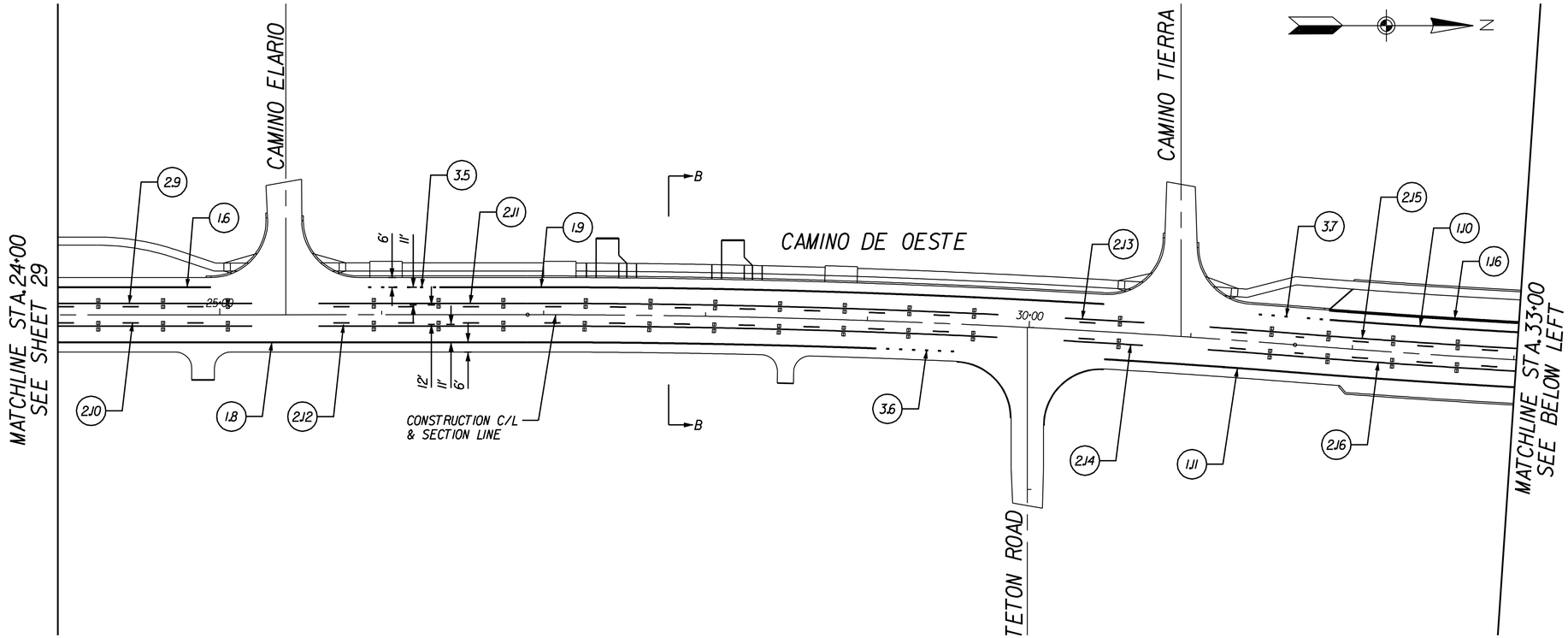

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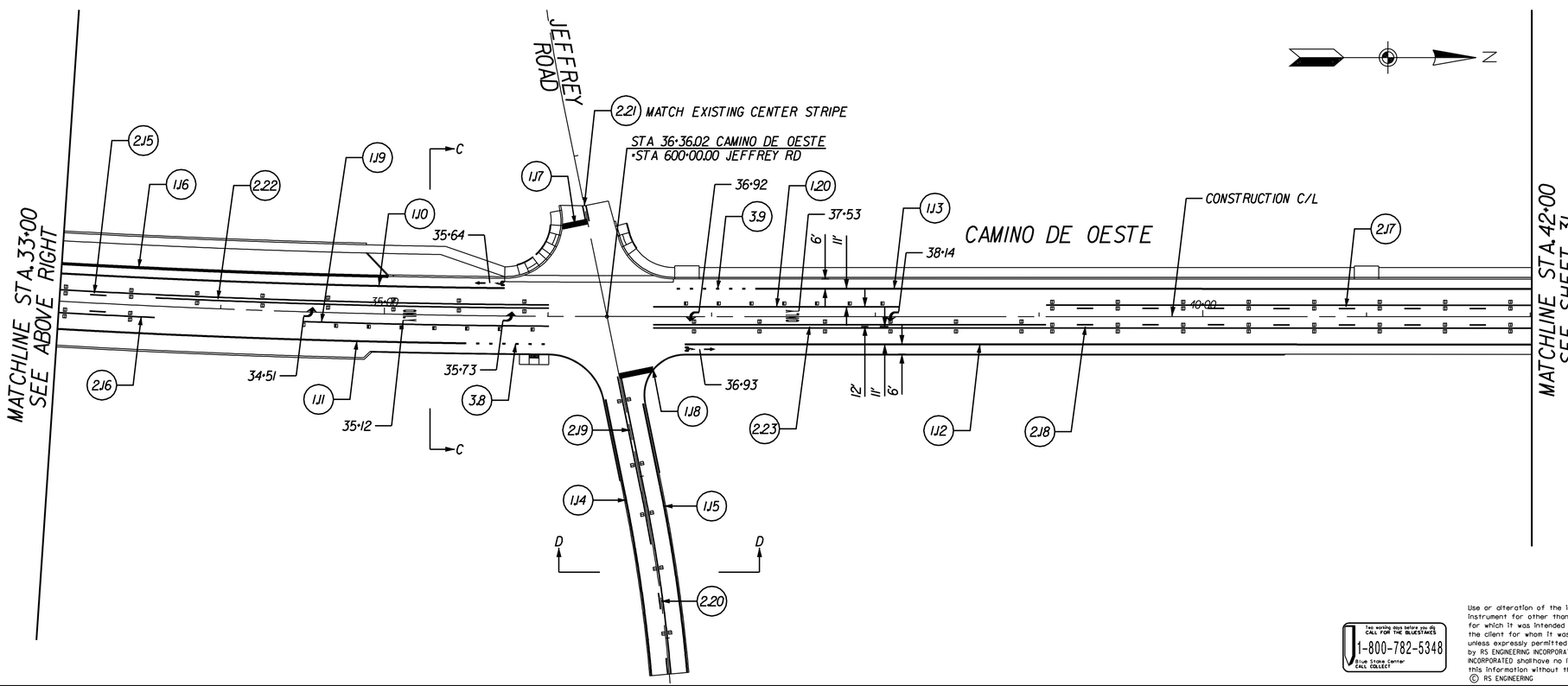
1.8	WS6	23+67.55, 17.00' RT	29+06.21, 17.00' RT
1.9	WS6	26+35.68, 17.00' LT	30+45.46, 17.00' LT
1.10	WS6	31+84.77, 17.00' LT	35+73.31, 17.00' LT
1.11	WS6	30+47.36, 17.00' RT	35+50.38, 17.00' RT
1.12	WS6	36+83.61, 17.00' RT	61+67.83, 17.00' RT
1.13	WS6	37+26.59, 17.00' LT	61+68.91, 17.00' LT
1.14	WS6	600+49.45, 11.00' RT	602+21.98, 11.00' RT
1.15	WS6	600+56.57, 11.00' LT	602+21.98, 11.00' LT
1.16	WS8	31+84.00, 23.00' LT	35+02.00, 23.00' LT
1.17	WS12	599+40.75, 0.00' RT	599+40.75, 15.70' RT
1.18	WS12	600+37.20, 0.00' LT	600+37.20, 21.19' LT
1.19	WS8-G20	34+50.75, 6.00' RT	36+00.60, 6.00' RT
1.20	WS8-G20	36+64.24, 6.00' LT	38+14.24, 6.00' LT
2.9	YSB4-D40/D40	23+42.92, 6.00' LT	25+20.03, 6.00' LT
2.10	YSB4-D40/D40	23+42.92, 6.00' RT	25+20.03, 6.00' RT
2.11	YSB4-D40/D40	25+60.90, 6.00' LT	29+80.68, 6.00' LT
2.12	YSB4-D40/D40	25+60.90, 6.00' RT	29+80.68, 6.00' RT
2.13	YSB4-D40/D40	30+21.74, 6.00' LT	30+70.78, 6.00' LT
2.14	YSB4-D40/D40	30+21.74, 6.00' RT	30+70.78, 6.00' RT
2.15	YSB4-D40/D40	31+11.10, 6.00' LT	33+60.00, 6.00' LT
2.16	YSB4-D40/D40	31+11.10, 6.00' RT	33+60.00, 6.00' RT
2.17	YSB4-D40/D40	39+04.00, 6.00' LT	59+16.31, 6.00' LT
2.18	YSB4-D40/D40	39+04.00, 6.00' RT	59+16.31, 6.00' RT
2.19	YD4-D40/D40	600+37.20, 0.00' LT	601+41.90, 0.00' LT
2.20	YSB4-D40/D40	601+41.90, 0.00' LT	602+21.98, 0.00' LT
2.21	YD4-D40/D40	599+30.88, 0.00' LT	599+40.75, 0.00' LT
2.22	YD4-D40/D40	33+60.00, 6.00' LT	36+00.00, 6.00' LT
2.23	YD4-D40/D40	36+64.24, 6.00' RT	39+04.24, 6.00' RT
3.5	WG6(2X6)	25+85.68, 17.00' LT	26+35.68, 17.00' LT
3.6	WG6(2X6)	29+06.21, 17.00' RT	29+56.35, 17.00' RT
3.7	WG6(2X6)	31+34.80, 17.00' LT	31+84.77, 17.00' LT
3.8	WG6(2X6)	35+50.38, 17.00' RT	36+00.24, 17.00' RT
3.9	WG6(2X6)	36+76.59, 17.00' LT	37+26.59, 17.00' LT



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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

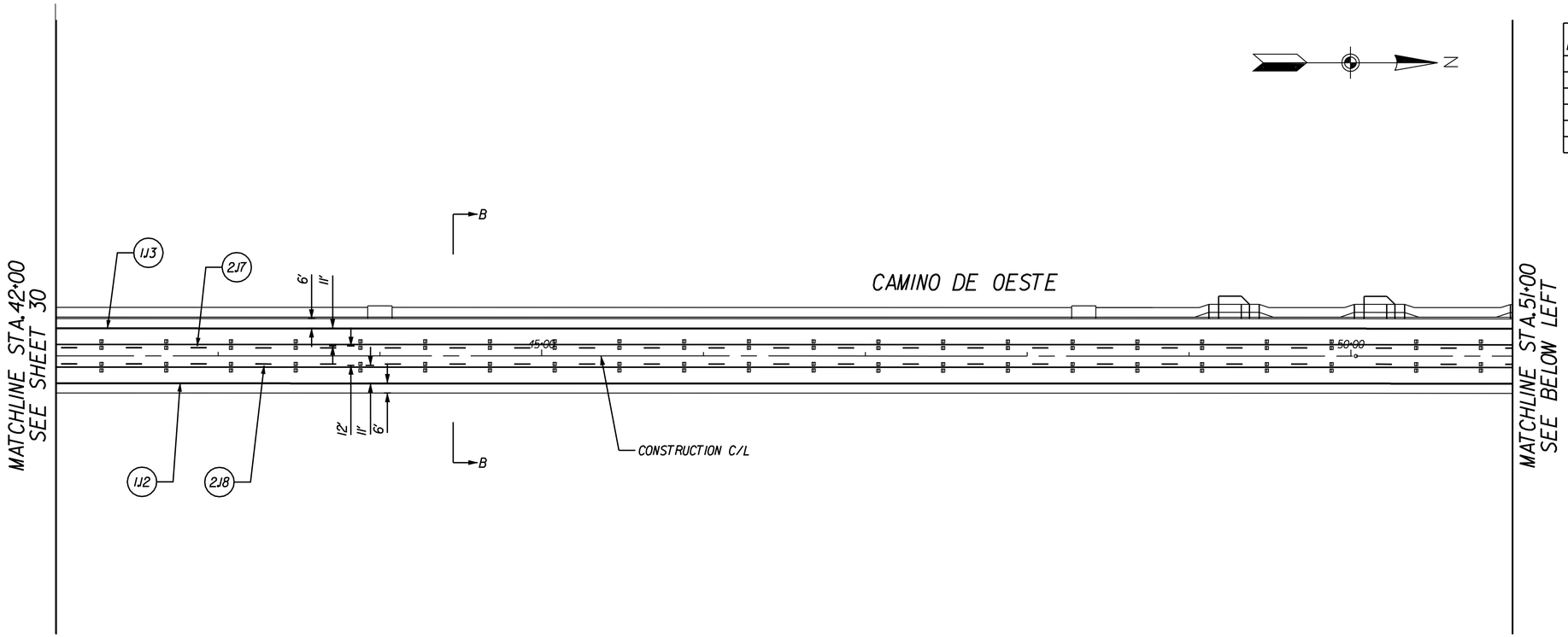
NO.	REVISION DESCRIPTION	DATE	DIV./SECT.ENGR.

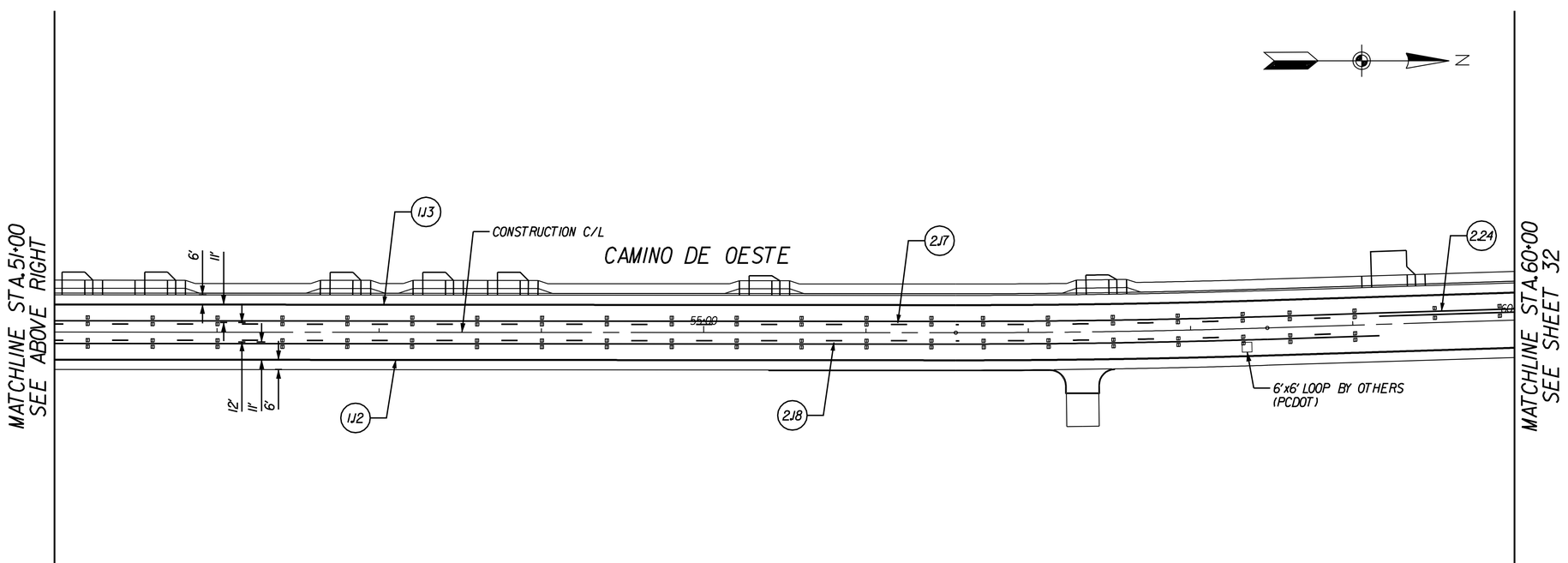
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
CAMINO DE OESTE STRIPING PLAN 24+00 TO 42+00

E:\1101\00\3.20 Construction Docs\Civil\1101st03.dgn 12/12/2011

LINE NUMBER	LINE CODE	BEGINNING STATION, OFFSET	ENDING STATION, OFFSET
1J2	WS6	36+83.61, 17.00' RT	61+67.83, 17.00' RT
1J3	WS6	37+26.59, 17.00' LT	61+68.91, 17.00' LT
2J7	YSB4-D40/D40	39+04.00, 6.00' LT	59+16.31, 6.00' LT
2J8	YSB4-D40/D40	39+04.00, 6.00' RT	59+16.31, 6.00' RT
2.24	YD4-D40/D40	59+16.31, 6.00' LT	61+65.77, 6.00' LT





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SHEET 31 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

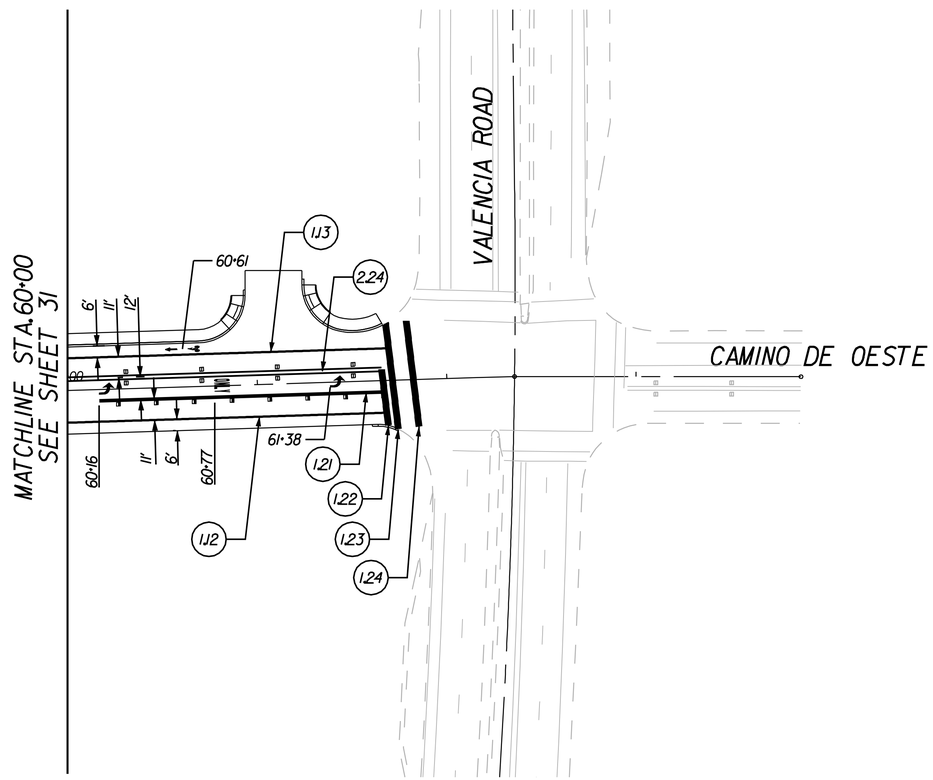
Registered Professional Engineer (Civil) 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE STRIPING PLAN 42+00 TO 60+00

E:\1101\00\3.20 Construction Docs\Civil\1101st04.dgn 12/12/2011



LINE NUMBER	LINE CODE	BEGINNING STATION, OFFSET	ENDING STATION, OFFSET
1.12	WS6	36+83.61, 17.00' RT	61+67.83, 17.00' RT
1.13	WS6	37+26.59, 17.00' LT	61+68.91, 17.00' LT
1.21	WS8-G20	60+16.31, 6.00' RT	61+66.85, 6.00' RT
1.22	WS12	61+65.77, 6.00' LT	61+68.43, 23.71' RT
1.23	WS12	61+68.62, 30.16' LT	61+73.65, 25.88' RT
1.24	WS12	61+79.58, 31.14' LT	61+84.60, 24.90' RT
2.24	YD4-D40/D40	59+16.31, 6.00' LT	61+65.77, 6.00' LT

N

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

Two working days before you dig
CALL FOR THE BLUESTAKES
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Blue Stake Center
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SCALE: 1" = 40'

SHEET 32 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
CAMINO DE OESTE STRIPING PLAN 60+00 TO 69+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PRISCILLA S. CORNELIO, P.E., DIRECTOR

Registered Professional Engineer (Civil)
12/12/11
41947
WAI-KWAN LAM
DATE SIGNED 12-14-11
ARIZONA U.S.A.
EXPIRES 3-31-14

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

E:\1101\00\3.20 Construction Docs\Civil\1101st05.dgn 12/12/2011

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Salvage	Work: Existing: Remain	Sta (ft.)	Offset (ft.)	Panel: Legend	Panel: Provider	Panel: Width (in.)	Panel: Height (in.)	Panel: Area (sq.ft.)	Panel: Type	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft.)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft.)	Overhead: Structure Type	Overhead: Number of Lights	Remarks
Camino De Oeste (Northbound)																								
1	R1-1	X					10+33	55' RT	STOP	CONTR	30	30	6.3	R	1	PI	12							
2	S2	X							STREET SIGN: LOS REALES RD	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 1
3	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 1
4	D11-1	X					10+58	29' RT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							
5	W11-7	X					11+72	30' RT	EQUESTRIAN CROSSING (SYMBOL)	CONTR	36	36	9.0	W	1	PI	14							
6	W7-3aP	X							NEXT 1 MILE	CONTR	24	18	3.0	W	0									MOUNTED ON SIGN 5
7	-				X		13+13	31' RT	ADOPT ROADWAY MEMORY OF Anselmo Valencia	PCDOT	48	24	8.0	-	2	PI	22							FURNISHED BY PCDOT
8	R2-1	X					14+00	32' RT	SPEED LIMIT 45	CONTR	24	30	5.0	R	1	PI	12							
9	R3-9b	X					15+78	32' RT	TWO-WAY LEFT TURN ONLY	CONTR	24	36	6.0	R	1	PI	12							
10	R1-1	X					16+96	57' RT	STOP	CONTR	30	30	6.3	R	1	PI	12							
11	S3	X							STREET SIGN: ELVADO RD	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 10
12	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 10
13	R1-1	X					23+43	58' RT	STOP	CONTR	30	30	6.3	R	1	PI	12							
14	S4	X							STREET SIGN: CORONA RD	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 13
15	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 13
16	W8-33	X					28+05	32' RT	DO NOT ENTER WHEN FLOODED	CONTR	48	24	8	W	2	PI	23							
17	R1-1	X					30+22	59' RT	STOP	CONTR	30	30	6.3	R	1	PI	12							
18	S6	X							STREET SIGN: TETON RD	PCDOT	36	9	2.25	F-DA	0									MOUNTED ON SIGN 17
19	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 17
20	W2-1	X					34+00	32' RT	CROSS ROAD	CONTR	36	36	9	W	2	PI	27							MOUNTED ON SIGN 20
21	S9	X							JEFFREY ROAD	PCDOT	48	12	4	W	0									
22	R1-1	X					36+68	51' RT	STOP	CONTR	30	30	6.3	R	1	PI	12							
23	S7	X							STREET SIGN: JEFFREY	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 22
24	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 22
25	D11-1	X					36+84	32' RT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							
26	R3-9b	X					39+04	32' RT	TWO-WAY LEFT TURN ONLY	CONTR	24	36	6.0	R	1	PI	12							
27	R2-1	X					41+20	32' RT	SPEED LIMIT 45	CONTR	24	30	5.0	R	1	PI	12							
28	D11-1	X					47+13	32' RT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							
29	S10	X					56+29	32' RT	VALENCIA ROAD	PCDOT	52	12	4.3	F-DA	2	PI	20							
30	SPR03-09	X					60+17	32' RT	LEFT ONLY/ THRU-RIGHT	PCDOT	36	30	7.5	R	1	PI	12							

NOTE: All PI POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:

1. The engineer shall verify post lengths and elevations.
2. The engineer may shift a sign in order to achieve a more desirable location.
3. Quantities are approximate and for the contractor's information only.

Panel Types:

RWM: Regulatory, Warning, or Marker
F-DA: Flat-sheet aluminum with direct applied characters

All Stations are along Camino De Oeste construction centerline unless noted otherwise.

Abbreviations:

PCDOT Pima County Department of Transportation
CONTR Contractor

Two working days before you dig CALL FOR THE BLUESTAKES 1-800-782-5348 Blue Stake Center CALL COLLECT

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SCALE: 1" = NTS

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
SIGNING SUMMARY

E:\1101\00\3.20 Construction Docs\Civil\1101sgsum01.dgn 12/12/2011

Sign Number	Sign Code	Work: New	Work: Existing: Replace Panel	Work: Existing: Overlay Panel	Work: Existing: Salvage	Work: Existing: Remain	Sta (ft.)	Offset (ft.)	Panel: Legend	Panel: Provider	Panel: Width (in.)	Panel: Height (in.)	Panel: Area (sq.ft.)	Panel: Type	Ground Mounted: Foundations	Ground Mounted: Posts: Type	Ground Mounted: Posts: Total length (ft.)	Ground Mounted: New Slipbases	Ground Mounted: Retrofit Slipbases	Ground Mounted: Stringer Type	Ground Mounted: Stringer Length (ft.)	Overhead: Structure Type	Overhead: Number of Lights	Remarks
Camino De Oeste (Southbound)																								
31	R3-5R	X					9+80	46' LT	RIGHT TURN ONLY	CONTR	30	36	7.5	R	1	PI	12							
32	R3-5F	X							RIGHT LANE	CONTR	30	12	2.5	R	0									MOUNTED ON SIGN 31
33	SPW03-06	X					10+45	46' LT	NOT A COUNTY MAINTAINED ROAD	PCDOT	36	36	9.0	W	1	PI	13							
34	R3-5R	X					11+10	46' LT	RIGHT TURN ONLY	CONTR	30	36	7.5	R	1	PI	12							MOUNTED ON SIGN 34
35	R3-5F	X							RIGHT LANE	CONTR	30	12	2.5	R	0									
36	-				X		12+00	43' LT	ENTERING BLACK WASH FLOODWAY	PCDOT	30	24	5.0	R	1	PI	11							FURNISHED BY PCDOT
37	-				X				LEAVING BLACK WASH FLOODWAY	PCDOT	30	24	5.0	R										FURNISHED BY PCDOT/ MOUNTED BACK SIDE OF SIGN 36
38	-				X		13+00	50' LT	PASCUA YAQUI RESERVATION	PCDOT	72	48	24.0	-	2	PI	26							FURNISHED BY PCDOT
39	-				X		13+00	38' LT	POLICE DEPT- CLICK IT OR TICKET	PCDOT	36	24	6.0	-	2	PI	22							FURNISHED BY PCDOT
40	-				X				POLICE DEPT- NO DRINK & DRIVE	PCDOT	36	24	6.0	-										FURNISHED BY PCDOT/ MOUNTED BACK SIDE OF SIGN 39
41	R2-1	X					14+00	32' LT	SPEED LIMIT 35	CONTR	24	30	5.0	R	1	PI	13							
42	R4-4	X							BEGIN RIGHT TURN LANE YIELD TO BIKE	CONTR	36	30	7.5	R	0									MOUNTED ON SIGN 41
43	R1-1	X					25+20	59' LT	STOP	CONTR	30	30	6.3	R	1	PI	12							
44	S5	X							STREET SIGN: CAMINO ELARIO	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 43
45	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 43
46	R1-1	X					30+70	58' LT	STOP	CONTR	30	30	6.3	R	1	PI	12							
47	S8	X							STREET SIGN: CAMINO TIERRA	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 46
48	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 46
49	R2-1	X					31+58	27' LT	SPEED LIMIT 45	CONTR	24	30	5.0	R	1	PI	12							
50	R3-9b	X					33+60	45' LT	TWO-WAY LEFT TURN ONLY	CONTR	24	36	6.0	R	1	PI	12							
51	D11-1	X					35+73	32' LT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							
52	R1-1	X					35+97	66' LT	STOP	CONTR	30	30	6.3	R	1	PI	12							
53	S7	X							STREET SIGN: JEFFREY ROAD	PCDOT	42	9	2.6	F-DA	0									MOUNTED ON SIGN 52
54	S1	X							STREET SIGN: CAMINO DE OESTE	PCDOT	42	6	1.8	F-DA	0									MOUNTED ON SIGN 52
55	W8-33	X					37+60	33' LT	DO NOT ENTER WHEN FLOODED	PCDOT	48	24	8	W	2	PI	23							
56	W2-1	X					38+76	33' LT	CROSS ROAD	CONTR	36	36	9.0	W	2	PI	27							
57	S9	X							JEFFREY ROAD	PCDOT	48	12	4.0	W	0									MOUNTED ON SIGN 56
58	D11-1	X					47+13	32' LT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							
59	-				X		48+62	32' LT	ADOPT ROADWAY IN MEMORY OF Anselmo Valencia	PCDOT	48	24	8.0	-	2	PI	22							FURNISHED BY PCDOT
60	W11-7	X					55+16	32' LT	EQUESTRIAN CROSSING (SYMBOL)	CONTR	36	36	9.0	W	1	PI	14							
61	W7-3aP	X							NEXT 1 MILE	CONTR	24	18	3.0	W	0									MOUNTED ON SIGN 60
62	R2-1	X					57+19	32' LT	SPEED LIMIT 45	CONTR	24	30	5.0	R	1	PI	12							
63	R3-9b	X					59+00	32' LT	TWO-WAY LEFT TURN ONLY	CONTR	24	36	6.0	R	1	PI	12							
64	D11-1	X					60+40	32' LT	BIKE ROUTE	CONTR	24	18	3.0	W	1	PI	11							

NOTE: All PI POSTS SHALL BE SINGLE SQUARE TUBE POST, 2 INCH.

Notes:

1. The engineer shall verify post lengths and elevations.
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3. Quantities are approximate and for the contractor's information only.

Panel Types:

RWM: Regulatory, Warning, or Marker
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All Stations are along Camino De Oeste construction centerline unless noted otherwise.

Abbreviations:

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CONTR Contractor

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SCALE: 1" = NTS

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C01RV
SIGNING SUMMARY

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

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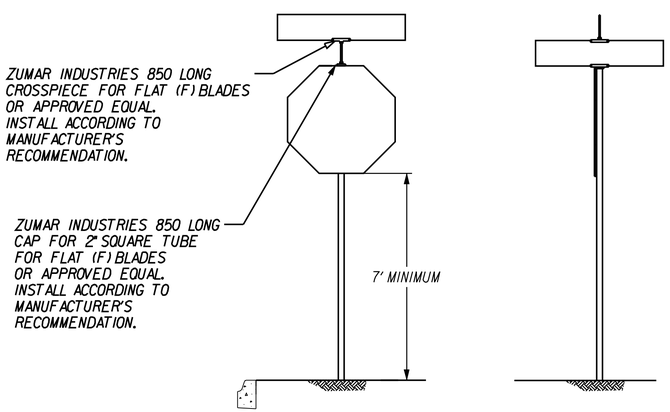
GENERAL SIGNING NOTES:

1. ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA COUNTY/CITY OF TUCSON (PC/COT) STANDARD SPECIFICATIONS AND THE STANDARD DETAILS FOR PUBLIC IMPROVEMENTS; THE SPECIAL PROVISIONS AND THE PLANS.
2. ALL SIGNS SHALL BE IN COMPLIANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.THE LATEST EDITION OF THE PC/COT TRAFFIC SIGNING DESIGN MANUAL.THE APPROVED PLANS,AND THE SPECIAL PROVISIONS.
3. SIGNS MAY BE MODIFIED AND LOCATIONS ADJUSTED TO FIT CONDITIONS AT THE DISCRETION OF THE TRAFFIC ENGINEER.
4. THE DESIGN SPEED AND THE POSTED SPEED FOR THE ROAD IS 45 MPH.SIGN REPLACEMENT SHALL BE BASED ON THE POSTED SPEED LIMIT.
5. POST LENGTHS INDICATED ON SIGN SUMMARY SHEETS ARE APPROXIMATE.THE CONTRACTOR SHALL VERIFY ACTUAL POST LENGTHS.
6. ALL PERFORATED POSTS SHALL BE INSTALLED IN A CONCRETE FOUNDATION,UNLESS OTHERWISE DIRECTED BY THE TRAFFIC ENGINEER.
7. ALL SIGN STATION LOCATIONS ARE APPROXIMATE.THE CONTRACTOR SHALL VERIFY ACTUAL SIGN LOCATIONS WITH THE TRAFFIC ENGINEER PRIOR TO THE INSTALLATION OF ALL SIGNS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL WORK WITH BLUE STAKE AND FOR INSTALLING ALL TRAFFIC SIGNS IN THE FIELD.
9. ON PIMA COUNTY PROJECTS,ALL OVERHEAD MOUNTED SIGNS SHALL BE DIAMOND GRADE SHEETING,TYPE XI. SCHOOL SIGNS SHALL BE FLUORESCENT YELLOW/GREEN,DIAMOND GRADE SHEETING,TYPE XI.ALL OTHER SIGNS SHALL BE HIGH INTENSITY PRISMATIC SHEETING,TYPE IV.
10. ON CITY OF TUCSON PROJECTS,ALL SIGN PANELS SHALL HAVE TYPE II SHEETING.
11. ALL NEW SIGNS SHALL HAVE 0.080 GAUGE ALUMINUM BACKING UNLESS OTHERWISE NOTED.
12. ON PIMA COUNTY PROJECTS,PRIOR TO DISTURBING ANY TRAFFIC SIGNS,A SIGN CONDITION INVENTORY OF ALL EXISTING SIGNING SHALL BE CONDUCTED BY THE CONTRACTOR INDICATING CURRENT SIGN CONDITION, INCLUDING ANY EXISTING DAMAGE OR DEFICIENCIES.THE SIGN CONDITION INVENTORY SHALL BE PROVIDED TO THE SIGN SHOP SUPERVISOR (520-740-2611).
13. ANY SIGNS AND POSTS DESIGNATED ON THE PLANS FOR RE-USE ON THIS PROJECT SHALL BE STOCKPILED IN A MANNER TO AVOID DAMAGE AND MAINTAIN THE INTEGRITY OF THE SIGNS.SAFE STORAGE OF THE STOCKPILE AND PAYMENT FOR DAMAGE TO THE STOCKPILE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
14. ALL SIGNS AND POSTS NOT BEING RE-USED ON THE PROJECT SHALL BE DISMANTLED.STACKED AND DELIVERED TO THE OWNER (CITY OR COUNTY) BY THE CONTRACTOR.THE CONTRACTOR IS RESPONSIBLE FOR THE SAFE STORAGE AT THE CONSTRUCTION SITE UNTIL DELIVERY AND THE SAFE UNLOADING THE SALVAGED MATERIAL.NOTIFICATION OF DELIVERY TO OWNER SHALL BE MADE AT LEAST TWO WORKING DAYS PRIOR TO DELIVERY. CONTACT THE PIMA COUNTY SIGN SHOP AT 1313 S.MISSION ROAD (520-740-2631). CONTACT THE CITY OF TUCSON SIGN SHOP AT 4004 S.PARK (520-791-3154).

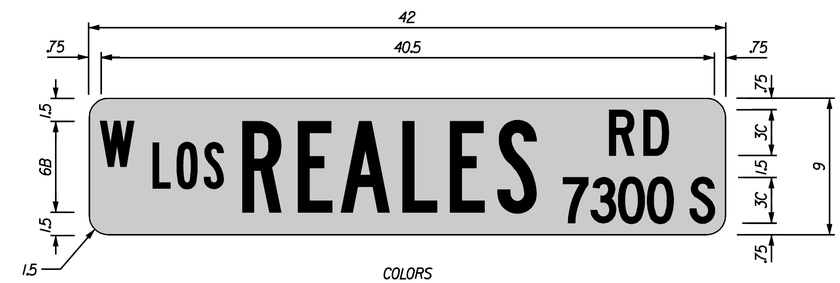


TYPICAL STOP SIGN ASSEMBLY N.T.S.

COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

S1 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

S2 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES

COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

S3 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES

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SCALE: 1" = NTS

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

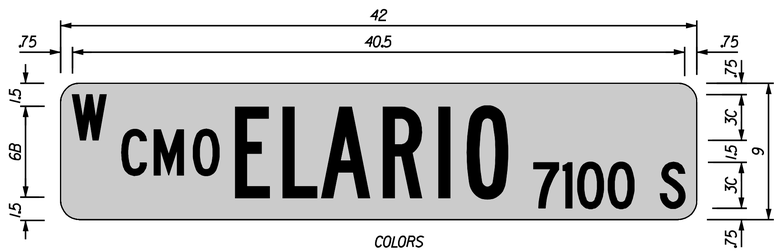
CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
SIGNING PLANS - GENERAL NOTES AND DETAILS

E:\1101\DOX\3.20 Construction Docs\Civil\1101sg01.dgn 12/12/2011

COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

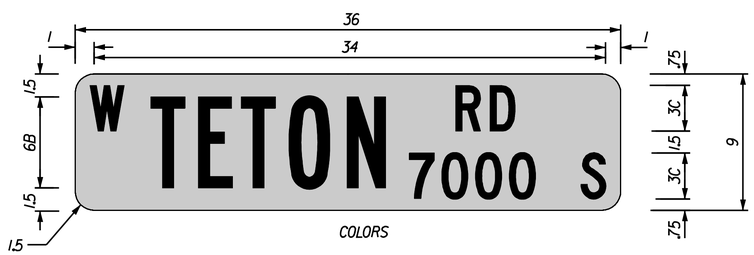
S4 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

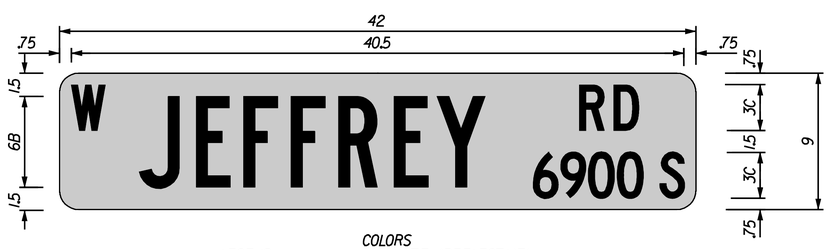
S5 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

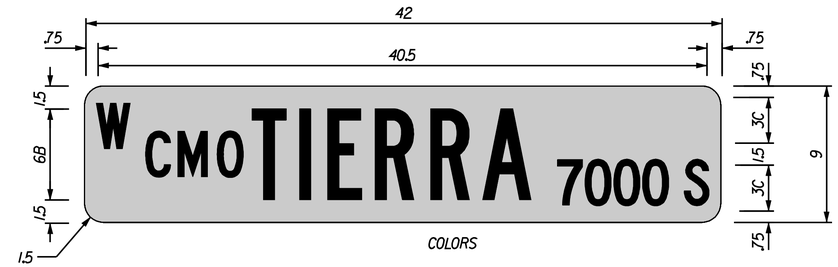
S6 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

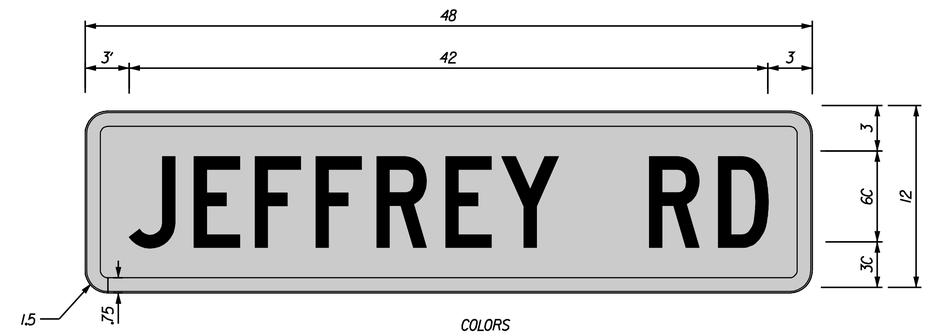
S7 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

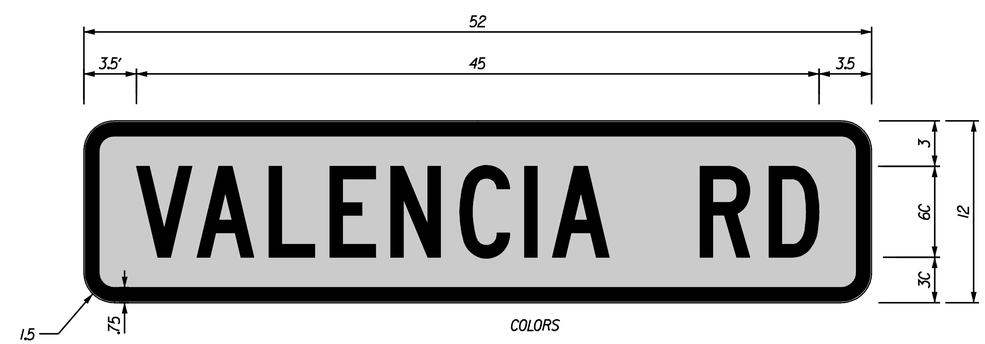
S8 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - BLACK (REFLECTIVE)
BACKGROUND - YELLOW (REFLECTIVE)

S9 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES



COLORS

LEGEND - WHITE (REFLECTIVE)
BACKGROUND - GREEN (REFLECTIVE)

S10 SIGN LAYOUT
N.T.S.
ALL DIMENSIONS ARE NOMINAL INCHES

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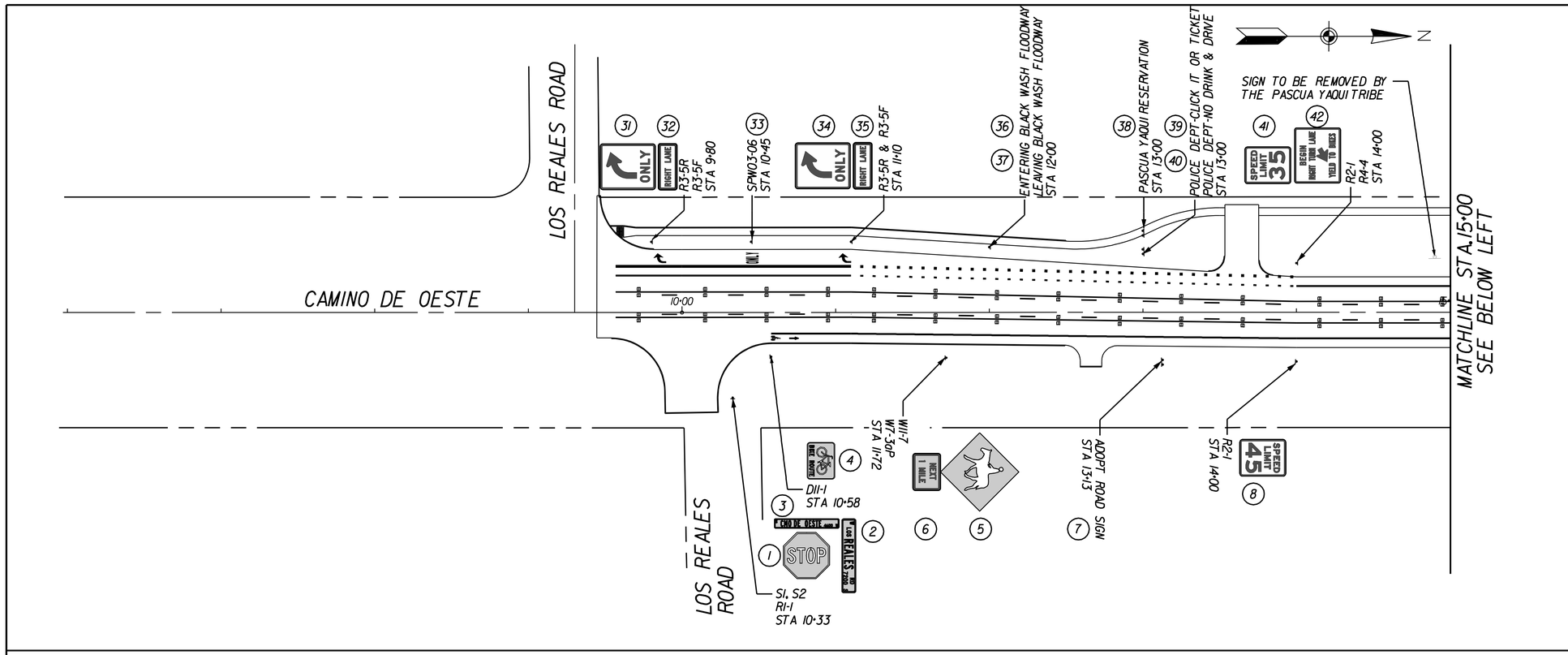

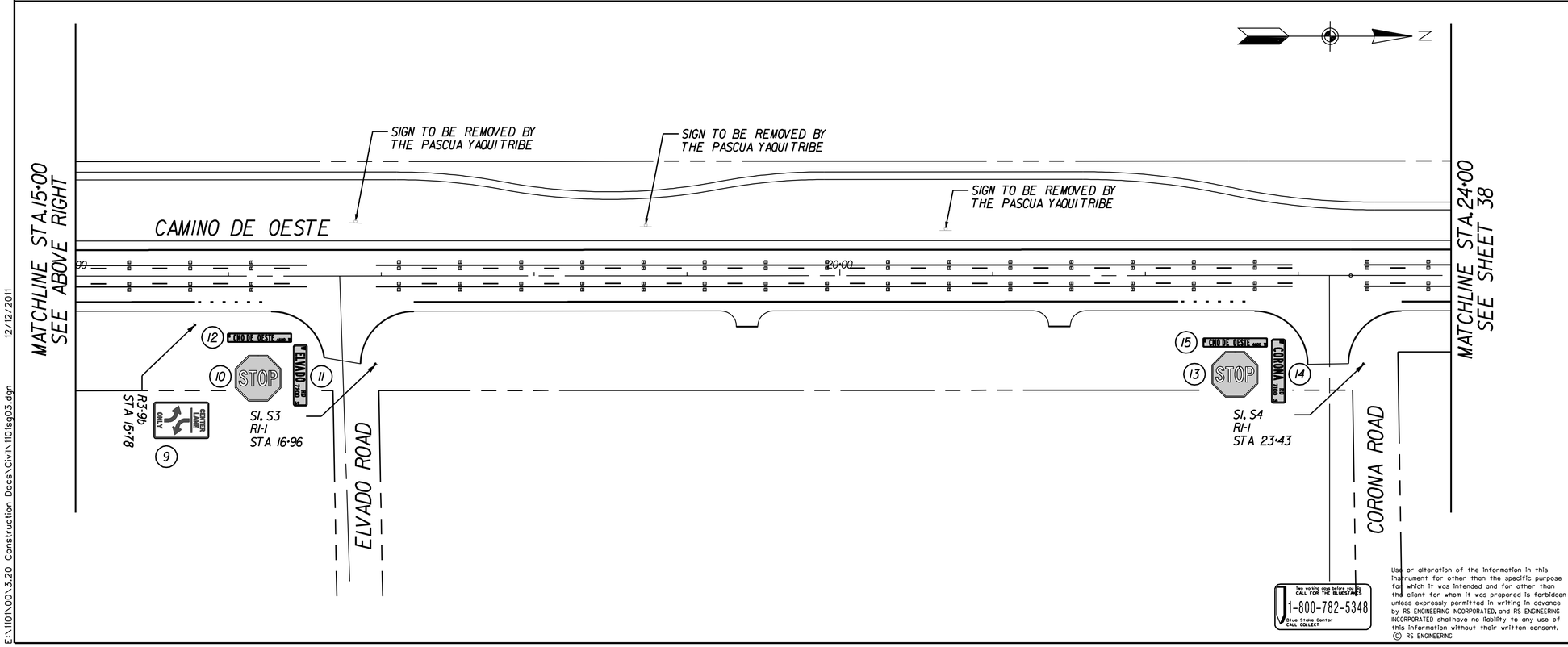

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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SCALE: 1" = 40'

SHEET 37 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

Registered Professional Engineer (Civil) CERTIFICATE NO. 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE SIGNING PLAN 6+00 TO 24+00

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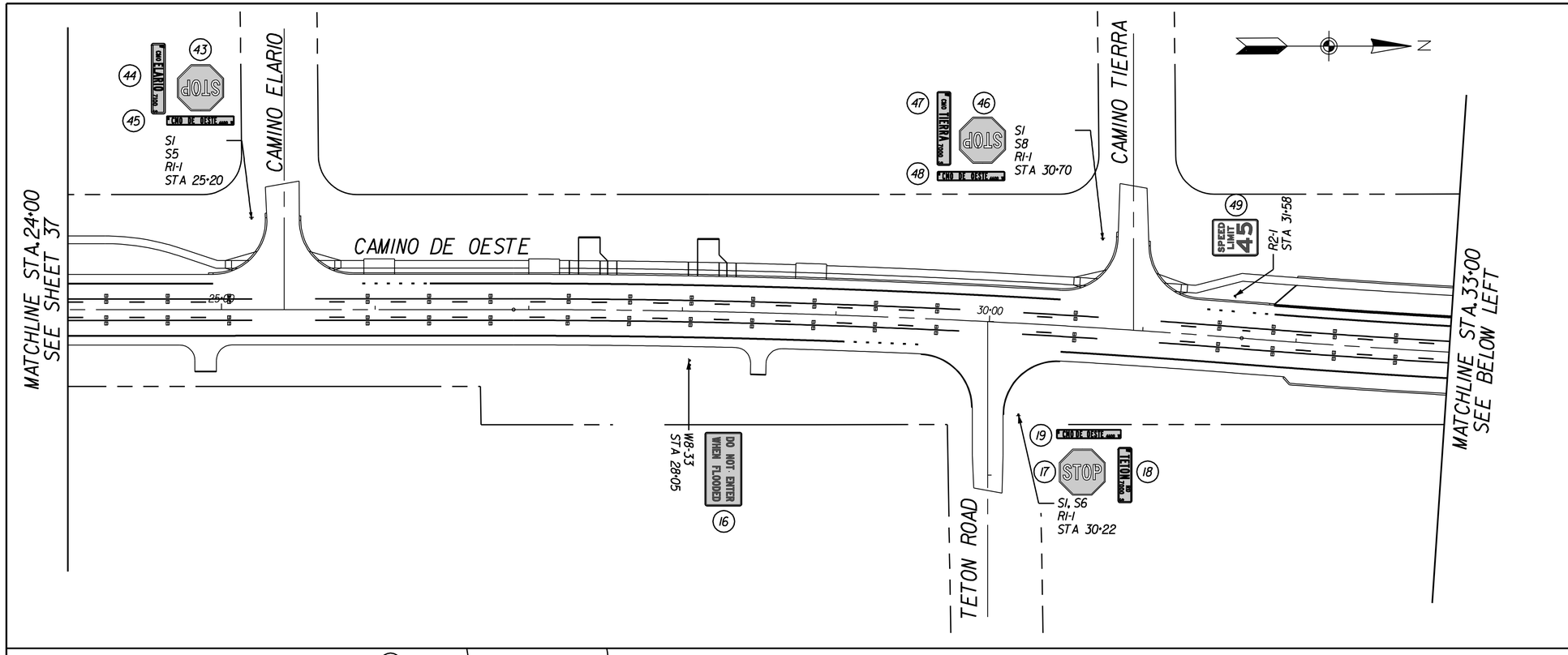

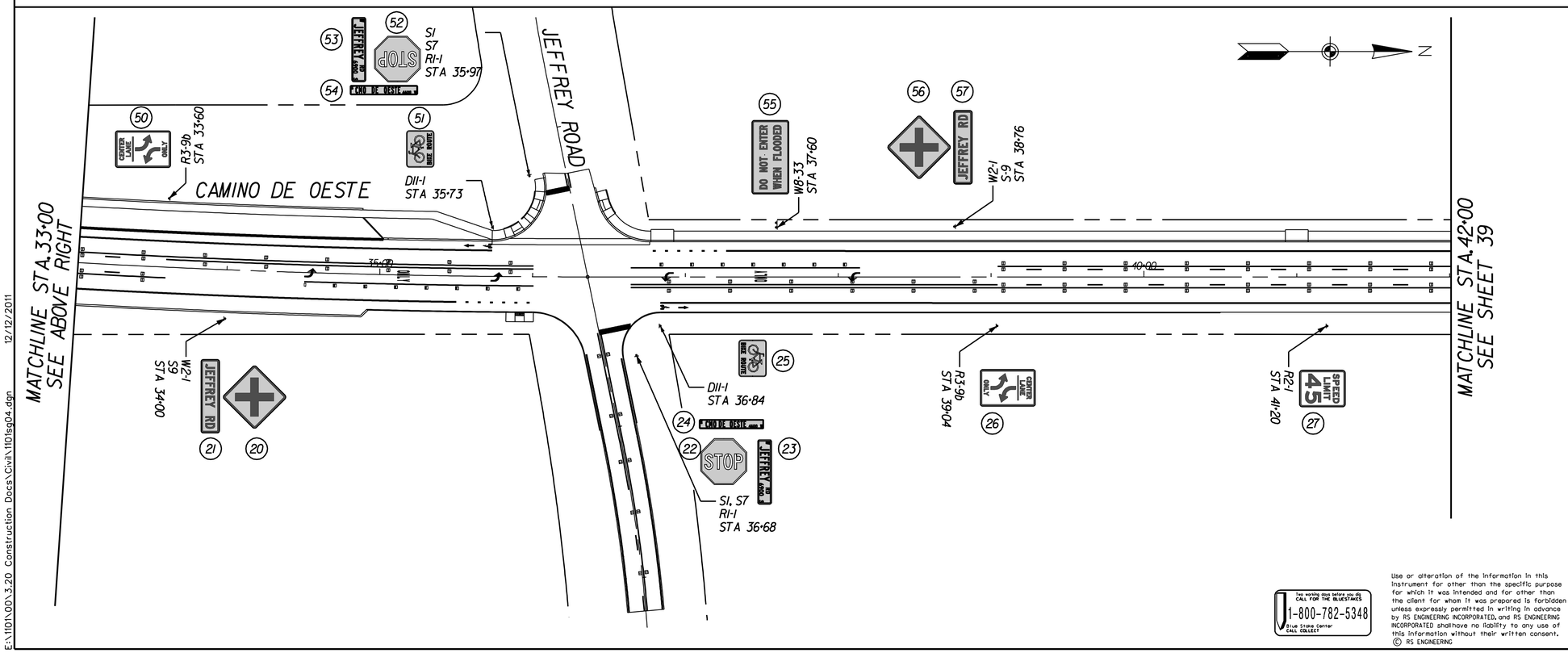

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SHEET 38 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE SIGNING PLAN 24+00 TO 42+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
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PROJ. ENGR.	RMS	12/11

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41947
WAI-KWAN LAM
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ARIZONA U.S.A.
EXPIRES 3-31-14

12/12/2011

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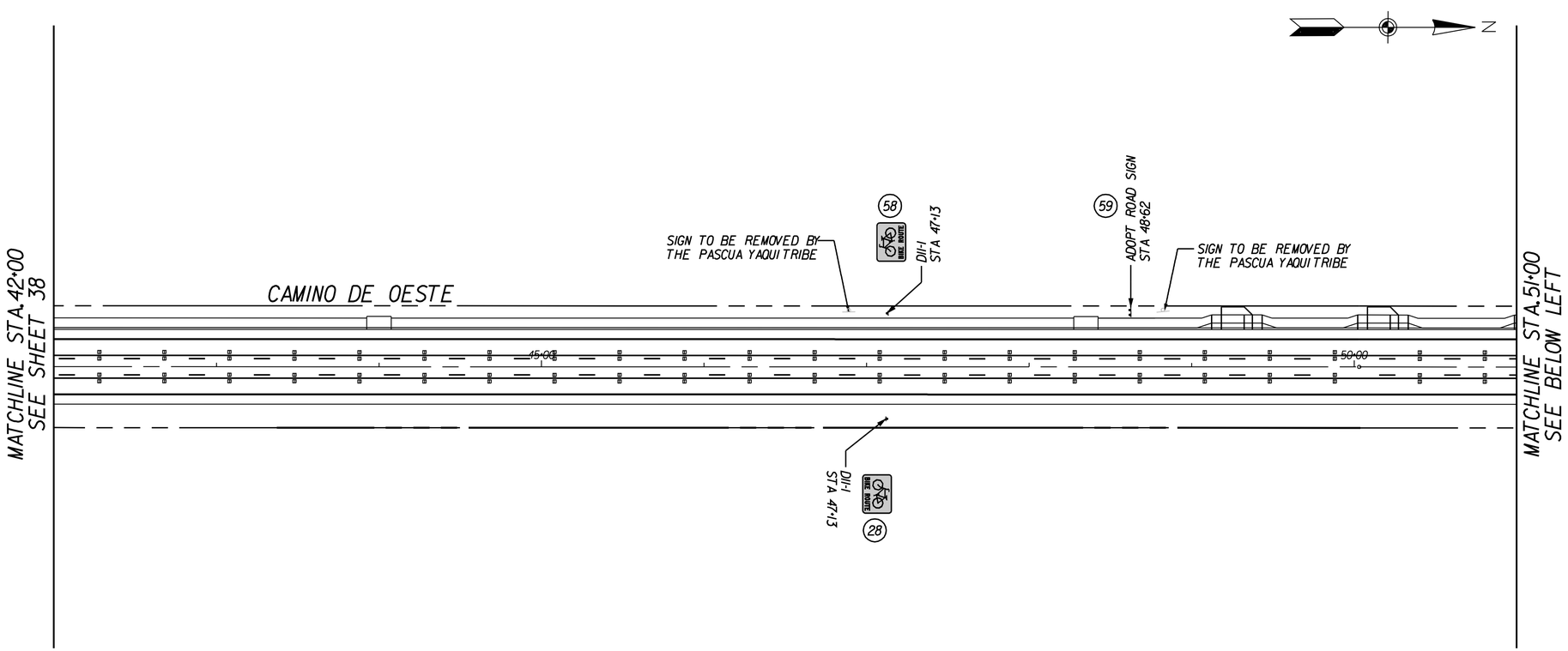

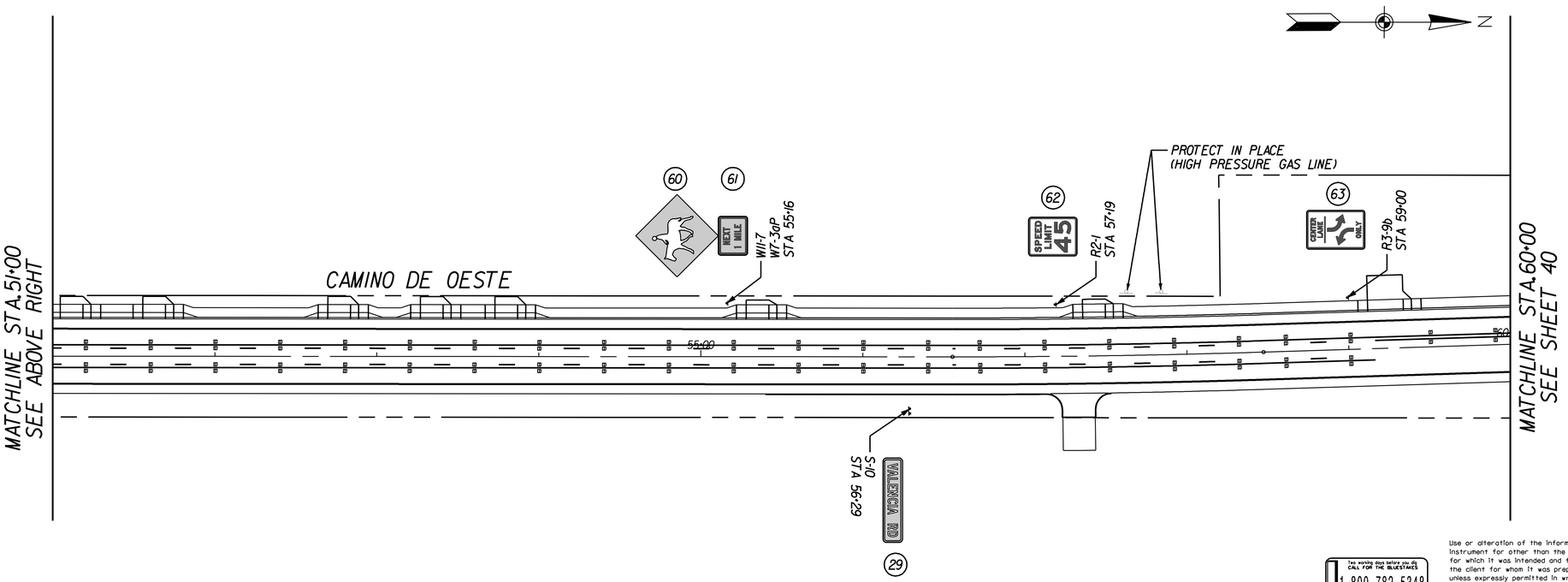

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

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CERTIFICATE NO.
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NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE SIGNING PLAN 42+00 TO 60+00

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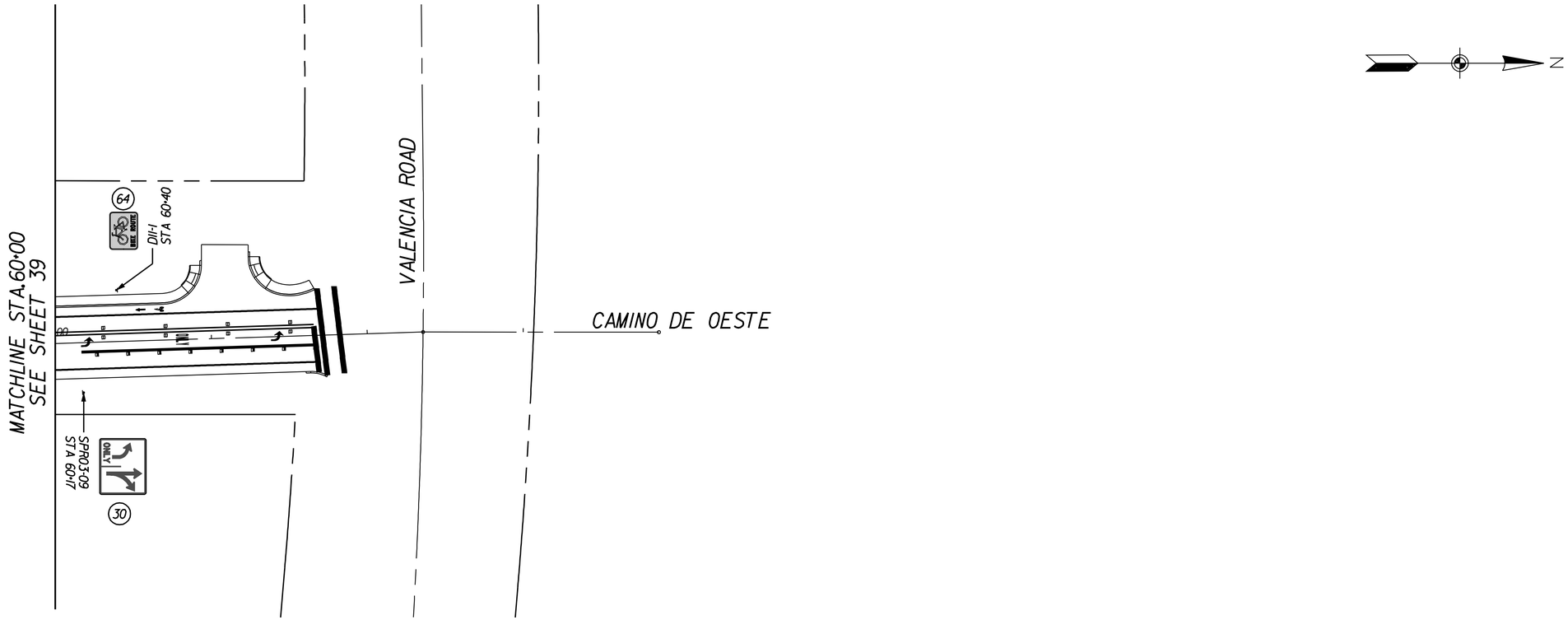

GRAPHIC SCALE

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SHEET 40 OF 57

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Registered Professional Engineer (Civil) 41947 WAI-KWAN LAM DATE SIGNED 12-14-11 ARIZONA U.S.A. EXPIRES 3-31-14

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE SIGNING PLAN 60+00 TO 69+00

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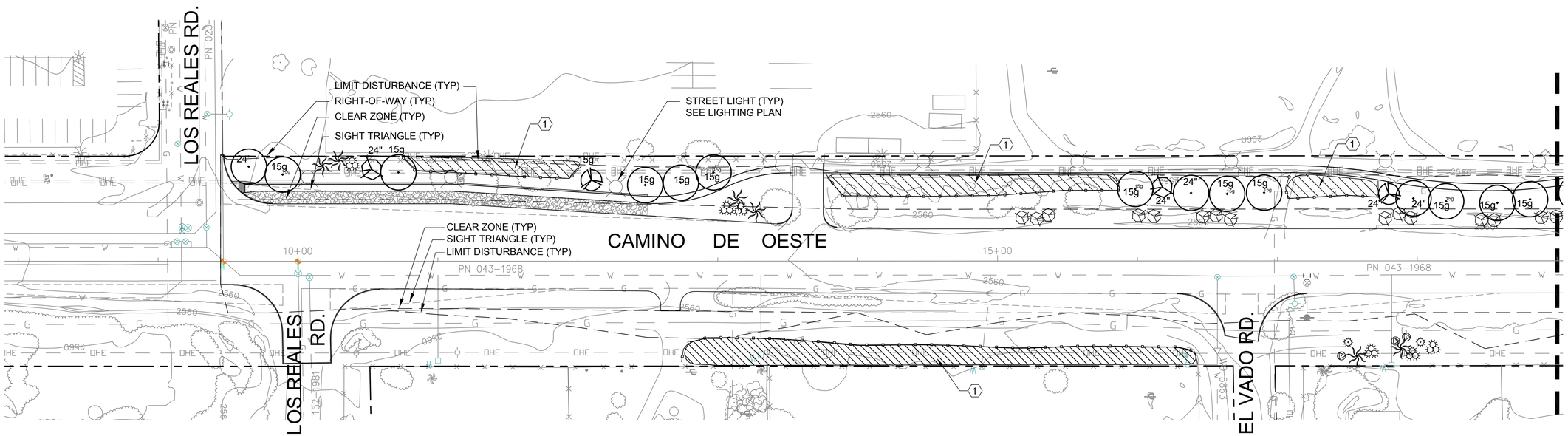

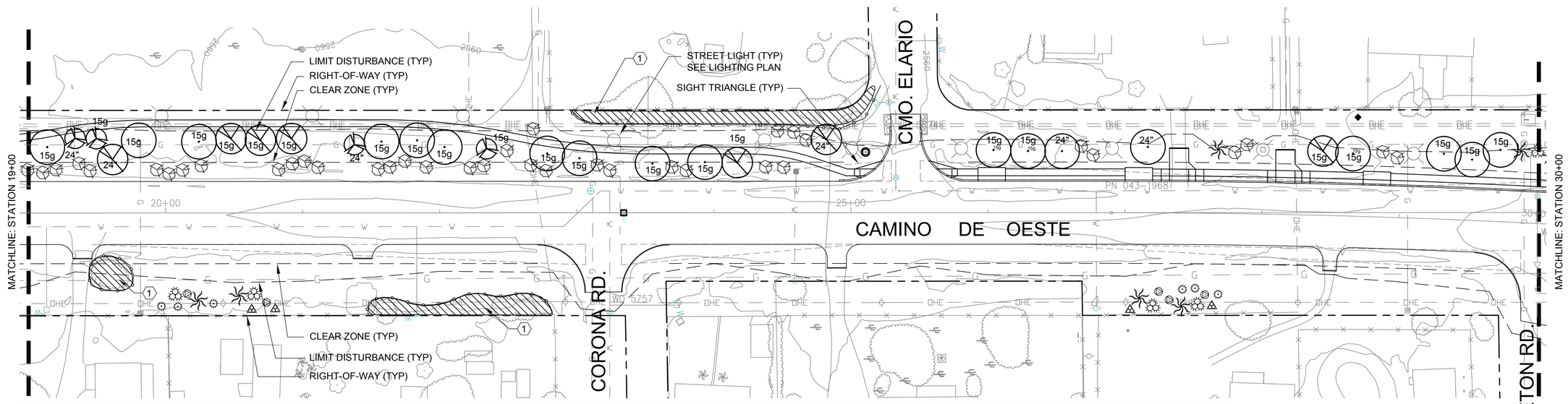

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	BID ITEM NO.
TREES					
	Acacia constricta	Whitethorn Acacia	24" Box	Container sizes shown on plant symbols. All trees to be multi-trunk.	24" BOX = 8061009
	Parkinsonia microphyllum	Foothills Palo Verde	15 Gal - 24" Box		15 GAL = 8061005
	Parkinsonia floridum	Blue Palo Verde	15 Gal - 24" Box		
	Prosopis velutina	Velvet Mesquite	15 Gal - 24" Box		

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	BID ITEM NO.
SHRUBS & CACTI				
	Acacia constricta	Whitethorn Acacia	5 Gal	8061298
	Carnegiea gigantea	Saguaro Cactus	3' Tall	8061602
	Cylindropuntia bigelovii	Teddy Bear Cholla	5 Gal	8061609
	Ferocactus wislizenii	Barrel Cactus	5 Gal	8061609
	Fouqueiria splendens	Ocotillo	5 Gal	8061317

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	BID ITEM NO.
SHRUBS & CACTI				
	Opuntia fulgida	Chainfruit Cholla	5 Gal	8061609
	Opuntia phaeacantha	Prickly Pear	5 Gal	8061609

Note: All areas disturbed by new construction where not covered with permanent pavement to be seeded. In addition, all areas within ROW that are unpaved and devoid of vegetation are to be seeded. See Special Provisions.

Street light luminaire- 16' ht. pole. See Lighting Plan.

Preservation Fence- See Special Provisions.

KEY NOTES

1. EXISTING VEGETATION TO BE PRESERVED IN PLACE. FENCE WITH PRESERVATION FENCING PER SPECIAL PROVISIONS, BID ITEM NO. 2010004. COORDINATE INSTALLATION WITH ENGINEER.

40' 0' 40'
SCALE: 1" = 40'
north

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Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

RS ENGINEERING

SCALE: 1" =

SHEET 41 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

	DATE
DESIGNED	10/11
DRAWN	10/11
CHECKED	10/11
PROJ. ENGR.	

REGISTERED LANDSCAPE ARCHITECT CERTIFICATE NO. 16184 RICHARD W. SCHONFELD Date Signed 12-14-11 ARIZONA, U.S.A.

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
PLANTING PLANS

LA1.0

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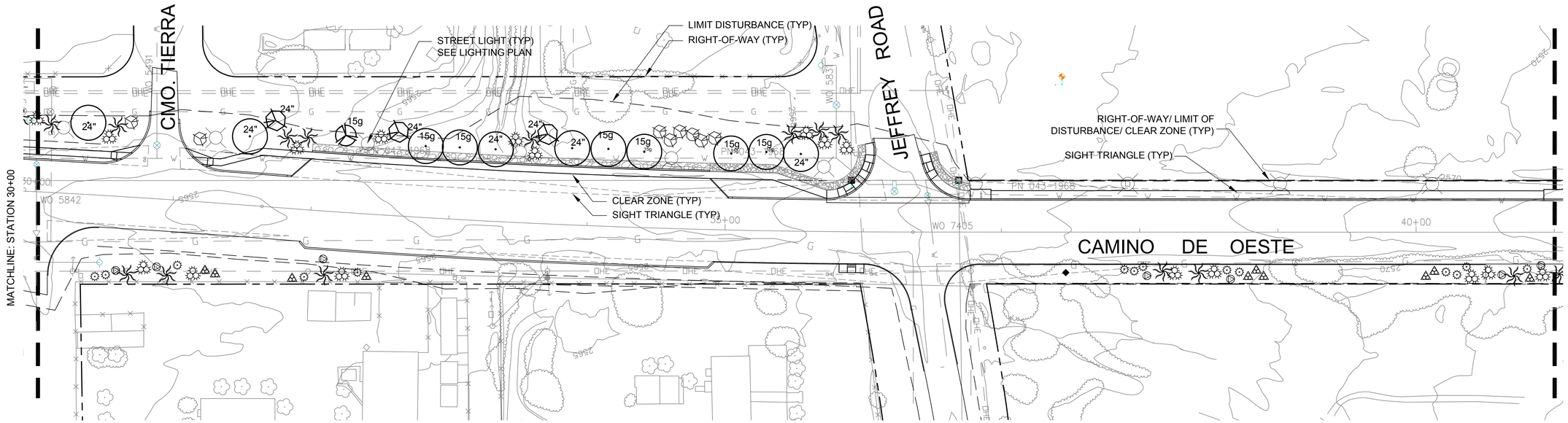

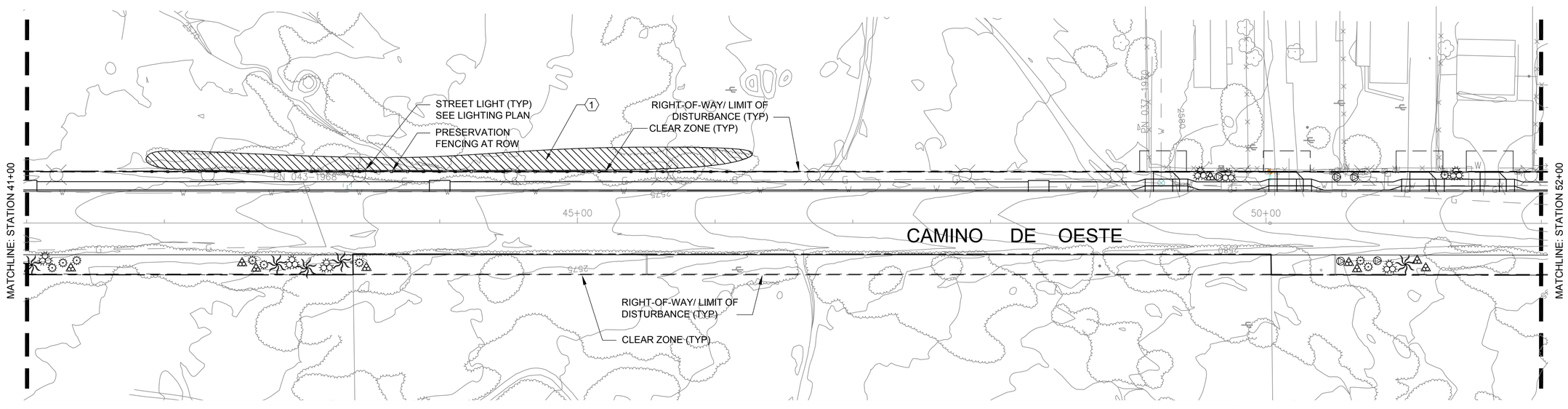

PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	BID ITEM NO.
TREES					
	Acacia constricta	Whitethorn Acacia	24" Box	Container sizes shown on plant symbols. All trees to be multi-trunk.	24" BOX = 8061009 15 GAL = 8061005
	Parkinsonia microphyllum	Foothills Palo Verde	15 Gal - 24" Box		
	Parkinsonia floridum	Blue Palo Verde	15 Gal - 24" Box		
	Prosopis velutina	Velvet Mesquite	15 Gal - 24" Box		

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	BID ITEM NO.
SHRUBS & CACTI				
	Acacia constricta	Whitethorn Acacia	5 Gal	8061298
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	Cylindropuntia bigelovii	Teddy Bear Cholla	5 Gal	8061609
	Ferocactus wislizenii	Barrel Cactus	5 Gal	8061609
	Fouqueiria splendens	Ocotillo	5 Gal	8061317

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	BID ITEM NO.
SHRUBS & CACTI				
	Opuntia fulgida	Chainfruit Cholla	5 Gal	8061609
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Note: All areas disturbed by new construction where not covered with permanent pavement to be seeded. In addition, all areas within ROW that are unpaved and devoid of vegetation are to be seeded. See Special Provisions.

Street light luminaire- 16' ht. pole. See Lighting Plan.

Preservation Fence- See Special Provisions.

KEY NOTES

1. EXISTING VEGETATION TO BE PRESERVED IN PLACE. FENCE WITH PRESERVATION FENCING PER SPECIAL PROVISIONS. BID ITEM NO. 2010004. COORDINATE INSTALLATION WITH ENGINEER.

40' 0' 40'
SCALE: 1" = 40'
north

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

RS ENGINEERING

PRISCILLA S. CORNELIO, P.E., DIRECTOR

	DATE
DESIGNED	10/11
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PROJ. ENGR.	

REGISTERED LANDSCAPE ARCHITECT CERTIFICATE NO. 16161 RICHARD W. SCHONFELD Date Signed 12-14-11 ARIZONA, U.S.A.

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
PLANTING PLANS

LA1.1

SCALE: 1" =

SHEET 42 OF 57

$TIME$
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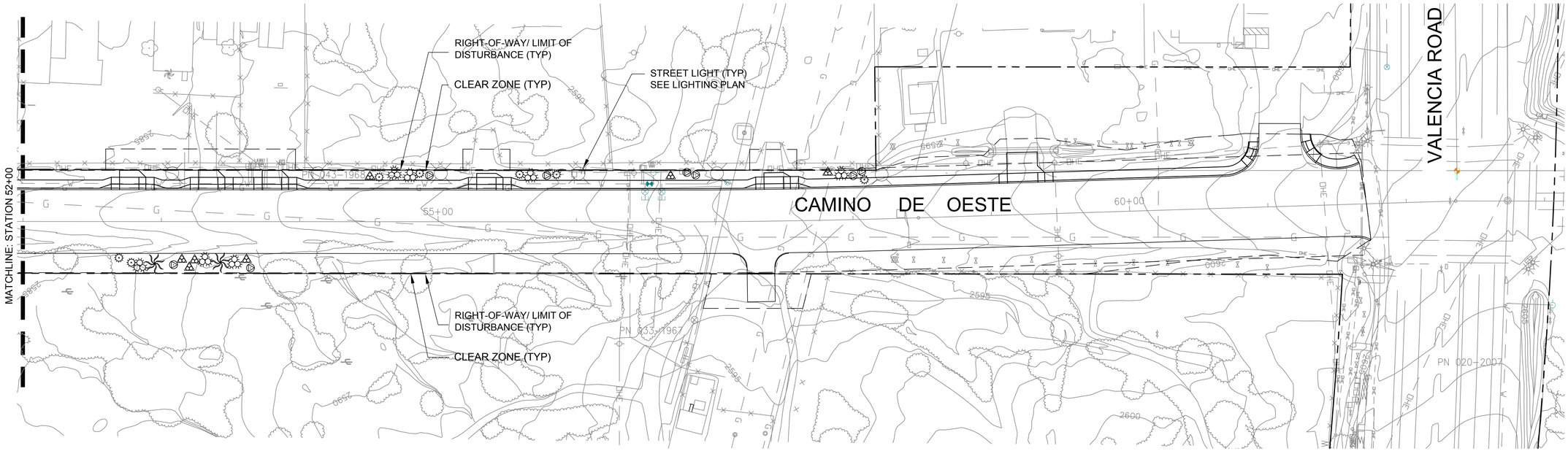
$DATE$



PLANT LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	COMMENTS	BID ITEM NO.
TREES					
	Acacia constricta	Whitethorn Acacia	24" Box	Container sizes shown on plant symbols. All trees to be multi-trunk.	24" BOX = 8061009 15 GAL = 8061005
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SHRUBS & CACTI				
	Opuntia fulgida	Chainfruit Cholla	5 Gal	8061609
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Note: All areas disturbed by new construction where not covered with permanent pavement to be seeded. In addition, all areas within ROW that are unpaved and devoid of vegetation are to be seeded. See Special Provisions.

Street light luminaire- 16' ht. pole. See Lighting Plan.

Preservation Fence- See Special Provisions.

40' 0' 40'
SCALE: 1" = 40'
north

MITIGATION SUMMARY

DISTURBED PROJECT AREA = 11.6 ACRES
TOTAL PLANTABLE AREA = 1.1 ACRES

ESR MULTIPLIER = PLANTABLE AREA / DISTURBED PROJECT AREA.

THE ESR MULTIPLIER FOR CAMINO DE OESTE IS 9%

CALIPER INCHES FOR REQUIRED TREE MITIGATION WAS CALCULATED USING THE FOLLOWING FORMULA (PER SPECIES):
TOTAL CALIPER INCHES X 125% X ESR RATIO (9%)

TOTAL NUMBER OF PLANTS INVENTORIED:
Acacia constricta: 14
Parkinsonia microphylla: 6
Parkinsonia floridum: 11
Prosopis velutina: 51

TOTAL CALIPER INCHES INVENTORIED:
Acacia constricta: 117
Parkinsonia microphylla: 47
Parkinsonia floridum: 46
Prosopis velutina: 370

TOTAL REPLACEMENT CALIPER INCHES REQUIRED:
Acacia constricta - 117x 1.25 x .09 =13.16 cal inches
Parkinsonia microphylla - 47 x 1.25 x .09 = 5.29 cal inches
Parkinsonia floridum - 46 x 1.25 x .09 = 5.16 cal inches
Prosopis velutina - 370 x 1.25 x .09 = 41.63 cal inches

AVERAGE CALIPER INCH PER CONTAINER SIZE:
15 GAL = 1"
24" BOX = 2.5"
36" = 4"
48" = 6"

TOTAL MITIGATION PLANTS REQUIRED & PROVIDED THIS PLAN:

	Container Size	Quantity
Acacia constricta	24" box	5
	15 gal.	0
Parkinsonia microphylla	24" box	2
	15 gal.	1
Parkinsonia floridum-	24" box	1
	15 gal.	5
Prosopis Velutina-	24" box	9
	15 gal.	20

TOTAL CALIPER INCHES PROVIDED:
Acacia constricta 12.5
Parkinsonia microphylla 6
Parkinsonia floridum 7.5
Prosopis velutina 42.5

INVENTORY CARNEGIEA GIGANTEA (SAGUARO)
1 SAGUARO WILL BE REMOVED FROM SITE
HEIGHT = 3'
MITIGATION IS 1:1

(1) REPLACEMENT SAGUARO REQUIRED
SIZE = 2' - 4'

NOTES:
1. 20' CLEAR ZONE (PER CIVIL DESIGN) HAS BEEN DEDUCTED FROM THE PLANTABLE AREA IN THESE CALCULATIONS.
2. TREES AND SAGUAROS CANNOT BE PLANTED WITHIN THE 20' CLEAR ZONE PER THE PROJECT ENGINEER.
3. CALIPER INCHES FOR CONTAINER SIZES WERE OBTAINED FROM THE ESR MANUAL.

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Tucson, Az 85712 (520) 206-9585

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SCALE: 1" =

SHEET 43 OF 57

LA1.2

PRISCILLA S. CORNELIO, P.E., DIRECTOR

	DATE
DESIGNED	10/11
DRAWN	10/11
CHECKED	10/11
PROJ. ENGR.	

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO. 16184
RICHARD W. SCHONFELD
Date Signed 12-14-11
ARIZONA, U.S.A.

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION
CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
PLANTING PLANS

$TIME$
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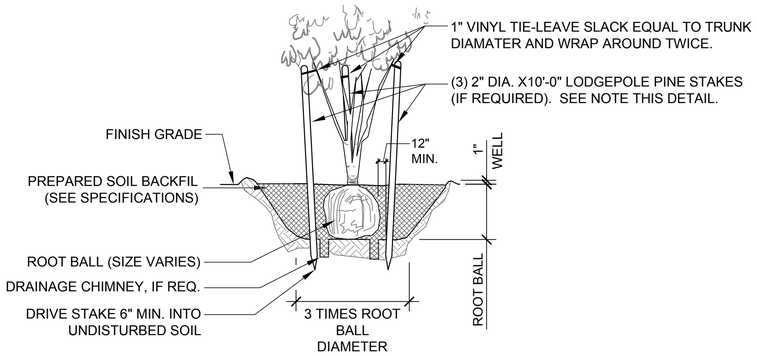
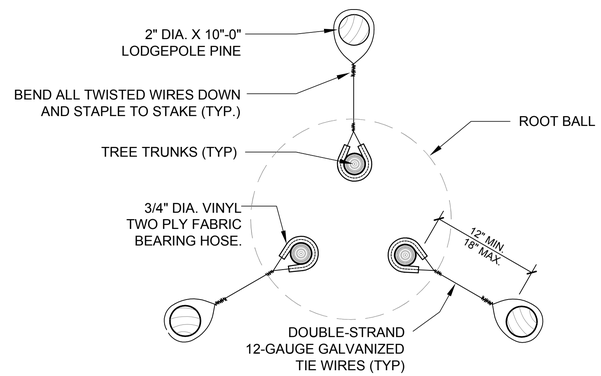
$DATE$



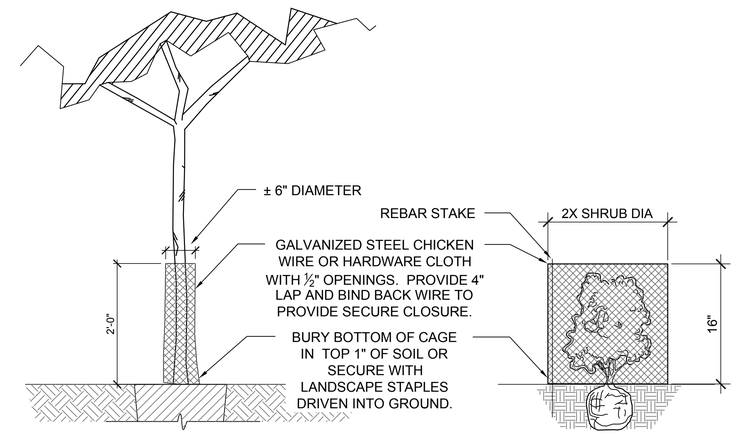
NOTES:
1. NO PLANTS SHALL BE PRUNED EXCEPT @ THE DIRECTION OF THE OWNER'S REPRESENTATIVE
2. STAKE TREE ONLY IF NEEDED (SEE TREE STAKING DETAIL).
3. REMOVE ALL NURSERY STAKES, NURSERY TIE TAPE, POTS, WOODEN BOX SIDES AND BOTTOM BEFORE PLANTING.
4. DO NOT DRIVE STAKES INTO ROOTBALL. SAW STAKES ABOVE TIE TO PREVENT ABRASION TO OTHER BRANCHES. THE NEED TO STAKE WILL BE DETERMINED BY OWNER'S REPRESENTATIVE.

1 TREE STAKING DETAIL-MULTI TRUNK TREE

SCALE: N.T.S.

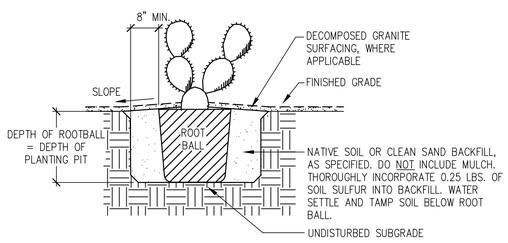


NOTES:
1. TWIST WIRE MIN. 2 TIMES AT ALL LOCATIONS SHOWN.
2. PLACE STAKES MIN. 12" OUTSIDE OF ROOTBALL.
3. DRIVE STAKES A MINIMUM OF 12 INCHES INTO UNDISTURBED SOIL.
4. 2 OF 3 STAKES TO FORM A LINE PARALLEL TO THE ADJACENT SIDEWALK OR CURB.
5. STAPLE WIRE TO STAKE 2 TIMES EACH WIRE.



2 RODENT PROTECTION CAGE FOR TREES & SHRUBS

SCALE: N.T.S.

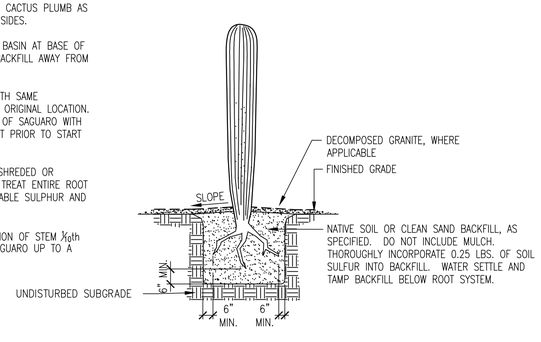


NOTES:
1. DO NOT CREATE A BASIN AT BASE OF PLANT. SLOPE BACKFILL AWAY FROM STEM.
2. SET STEM SUCCULENT SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
3. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENUS OPUNTIA AND OCOTILLO

3 PLANTING - NURSERY STOCK: PRICKLY PEAR, CHOLLA, AND OCOTILLO (CONTAINER GROWN)

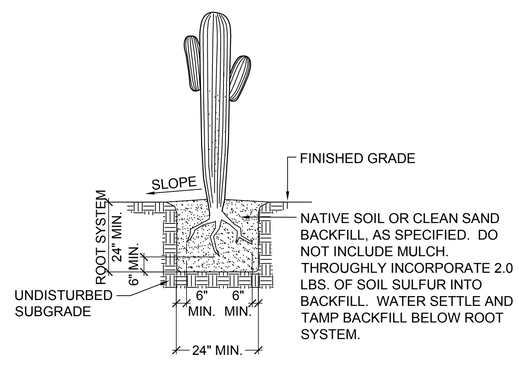
SCALE: N.T.S.

NOTE:
1. SET MAIN STEM OF CACTUS PLUMB AS VIEWED FROM ALL SIDES.
2. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.
3. PLANT SAGUARO WITH SAME ORIENTATION AS IN ORIGINAL LOCATION. MARK NORTH SIDE OF SAGUARO WITH WATER BASED PAINT PRIOR TO START OF SALVAGE WORK.
4. ROOT PRUNE ALL SHREDED OR DAMAGED ROOTS. TREAT ENTIRE ROOT SYSTEM WITH WETTABLE SULPHUR AND AGRI-MYCIN 17.
5. BURY GREEN PORTION OF STEM 1/10th THE HEIGHT OF SAGUARO UP TO A MAXIMUM OF 24".



4 SAGUARO PLANTING - SALVAGED SPECIMEN

SCALE: N.T.S.

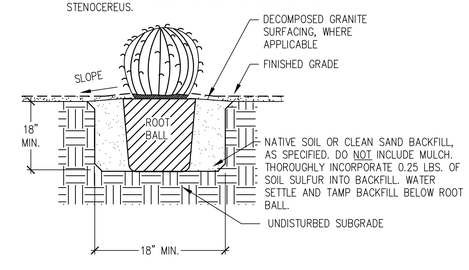


NOTE:
1. SET MAIN STEM OF CACTUS PLUMB AS VIEWED FROM ALL SIDES.
2. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.
3. PLANT SAGUARO WITH SAME ORIENTATION AS IN ORIGINAL LOCATION. MARK NORTH SIDE OF SAGUARO WITH TAG PRIOR TO START OF SALVAGE WORK.
4. ROOT PRUNE ALL SHREDDED OR DAMAGED ROOTS. TREAT ENTIRE ROOT SYSTEM WITH WETTABLE SULPHUR AND AGRI-MYCIN 17.
5. BURY GREEN PORTION OF STEM 1/10th THE HEIGHT OF SAGUARO UP TO A MAXIMUM OF 24".

5 SAGUARO PLANTING - SALVAGED SPECIMEN (<8')

SCALE: N.T.S.

NOTES:
1. DO NOT CREATE A BASIN AT BASE OF CACTUS. SLOPE BACKFILL AWAY FROM STEM.
2. SET CACTUS SO THAT TOP OF ROOT BALL MATCHES ADJACENT GRADE.
3. THIS DETAIL APPLIES TO NURSERY GROWN STOCK OF THE GENERA CARNEGIEA, CEREUS, FERROCACTUS AND STENOCEREUS.



6 PLANTING - NURSERY STOCK: BARREL AND COLUMNAR CACTUS - CONTAINER GROWN

SCALE: N.T.S.

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4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

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SCALE: 1" =

SHEET 44 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

	DATE
DESIGNED	10/11
DRAWN	10/11
CHECKED	10/11
PROJ. ENGR.	

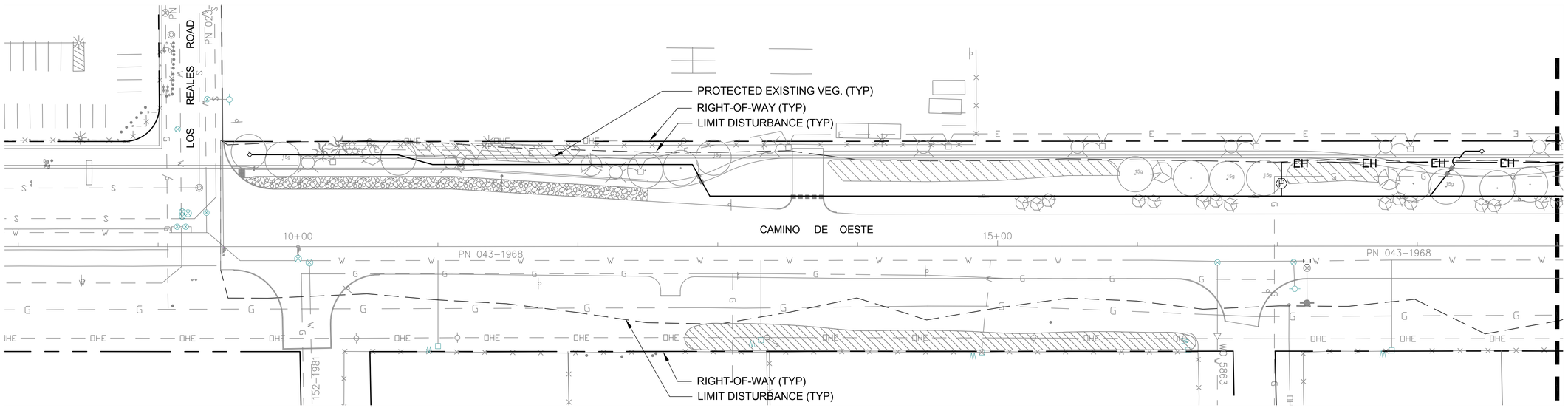
REGISTERED LANDSCAPE ARCHITECT CERTIFICATE NO. 16164 RICHARD W. SCHONFELD Date Signed 12-14-11 ARIZONA, U.S.A.

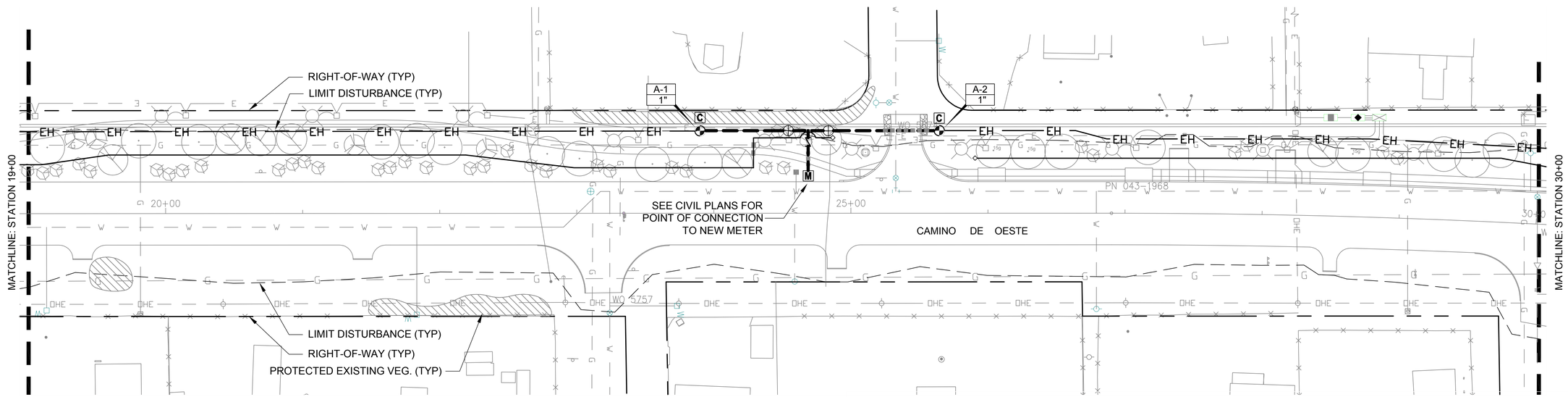
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
PLANTING DETAILS

$TIME$
$FILE$
$DATE$





IRRIGATION LEGEND

SYMBOL	EQUIPMENT	SIZE	MANUFACTURER
C	IRRIGATION CONTROLLER-HUNTER BATTERY OPERATED (1) STATION CONTROLLER INSTALLED IN VALVE BOX (OR APPROVED EQUAL)	1"	HUNTER
	GATE VALVE ASSEMBLY	LINE SIZE	WATTS MODEL WGV
	REDUCED PRESSURE BACKFLOW PREVENTOR	1¼"	FEBCO MODEL 825 Y
M	NEW IRRIGATION METER	3/4"	
P	PRESSURE REGULATOR ASSEMBLY	¾"	SENNINGER PR-HF-30
	REMOTE CONTROL VALVE ASSEMBLY-DRIP	1"	RAINBIRD PEB SERIES + BALL VALVE AND FILTER
A-2 / 1"	STATION NUMBER / VALVE SIZE		

	NEW MAINLINE SCH. 40 PVC	1"	
	EMITTER HEADER - SCH. 40 PVC	1"	
	EMITTER LATERAL SCH. 40 PVC	¾"	
	FLUSHING ENDCAP ASSEMBLY		
	SLEEVE - 2 SIZES MIN. LARGER THAN PIPE INSIDE, 1 PIPE PER SLEEVE.		
NOT SHOWN	SINGLE-OUTLET EMITTER ASSEMBLY		RAINBIRD XERI-BUG
NOT SHOWN	MULTI-OUTLET EMITTER ASSEMBLY		RAINBIRD XERI-BUG XBT SERIES

EMITTER SCHEDULE

SYMBOL	PLANT NAME	EMITTER SIZE	# OF EMITTERS	TOTAL GPH
	TREES			
	Acacia constricta	2	3	6
	Parkinsonia microphyllum	2	3	6
	Parkinsonia floridum	2	3	6
	Prosopis velutina	2	3	6

IRRIGATION NOTES

1. This irrigation plan is schematic. Some components shown larger and farther apart for graphic clarity. All components shall be installed within the property and outside of paved areas wherever possible.
2. The complete irrigation system shall be installed, tested and functional prior to installation of any plant materials.
3. All pipe and wires except mainlines crossing under paved and parking areas to be sleeved.
4. See also Special Provisions.

40' 0' 40'
SCALE: 1" = 40'
north

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

RS ENGINEERING

SCALE: 1" =

SHEET 45 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

DATE	
10/11	DESIGNED
10/11	DRAWN
10/11	CHECKED
	PROJ. ENGR.

REGISTERED LANDSCAPE ARCHITECT
CERTIFICATE NO. 16161
RICHARD W. SCHONFELD
Date Signed 12-14-11
ARIZONA, U.S.A.

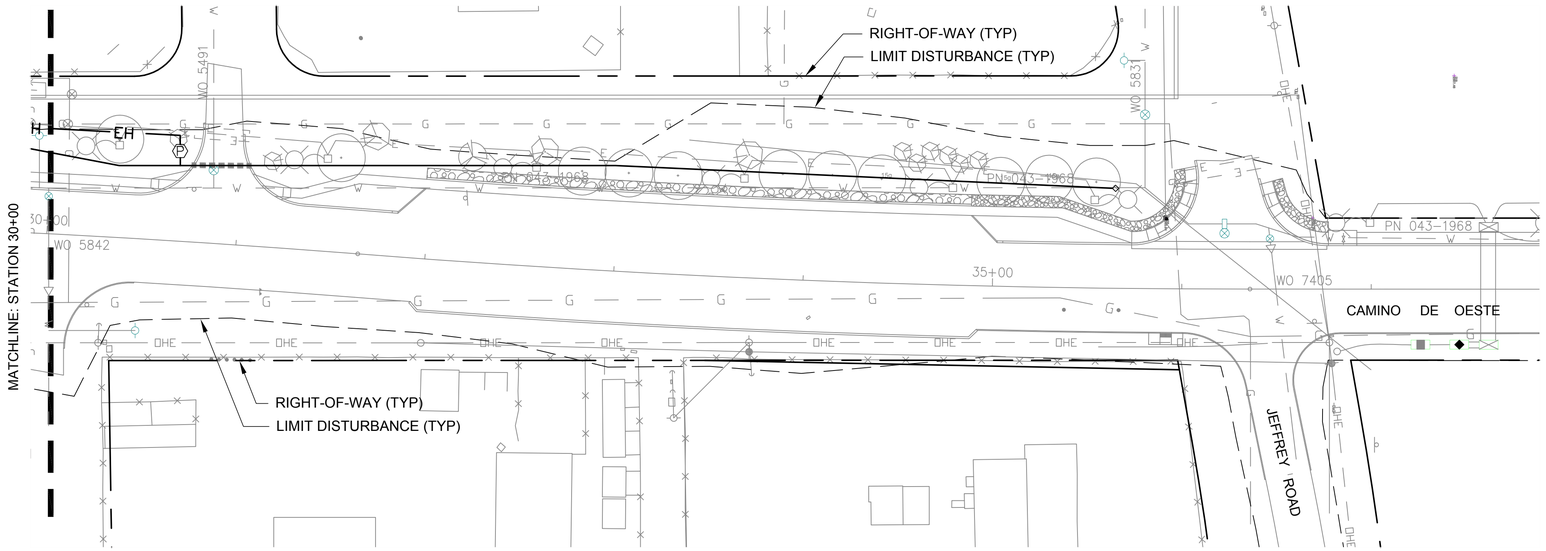
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
IRRIGATION PLANS

IR1.0

$TIME$
$FILE$
$DATE$



IRRIGATION LEGEND

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C	IRRIGATION CONTROLLER- HUNTER BATTERY OPERATED (1) STATION CONTROLLER INSTALLED IN VALVE BOX (OR APPROVED EQUAL)	1"	HUNTER
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A-2 STATION NUMBER; 1" VALVE SIZE			
	NEW MAINLINE SCH. 40 PVC	1"	
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	EMITTER LATERAL SCH. 40 PVC	¾"	
	FLUSHING ENDCAP ASSEMBLY		
	SLEEVE - 2 SIZES MIN. LARGER THAN PIPE INSIDE, 1 PIPE PER SLEEVE.		
NOT SHOWN	SINGLE-OUTLET EMITTER ASSEMBLY		RAINBIRD XERI-BUG
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	Acacia constricta	2	3	6
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	Parkinsonia floridum	2	3	6
	Prosopis velutina	2	3	6
	CACTI			
	Carnegiea gigantea	-	-	-
	Ferocactus wislizenii	-	-	-
	Fouqueiria splendens	-	-	-
	Opuntia phaeacantha	-	-	-

IRRIGATION NOTES

1. This irrigation plan is schematic. Some components shown larger and farther apart for graphic clarity. All components shall be installed within the property and outside of paved areas wherever possible.
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4. See also Special Provisions.

NOT FOR CONSTRUCTION

40' 0' 40'
SCALE: 1" = 40'
north

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

RS ENGINEERING

SCALE: 1" =

SHEET 46 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

	DATE
DESIGNED	10/11
DRAWN	10/11
CHECKED	10/11
PROJ. ENGR.	

REGISTERED LANDSCAPE ARCHITECT CERTIFICATE NO. 20169 RICHARD W. SCHONFELD Date Signed 12-14-11 ARIZONA, U.S.A.

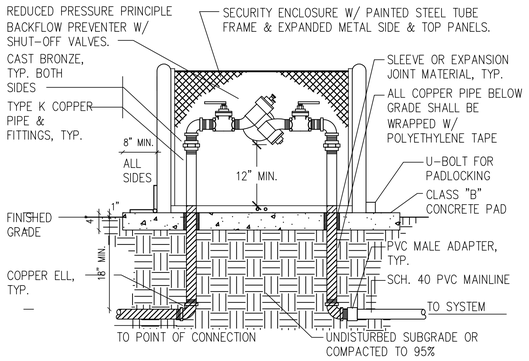
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
IRRIGATION PLANS

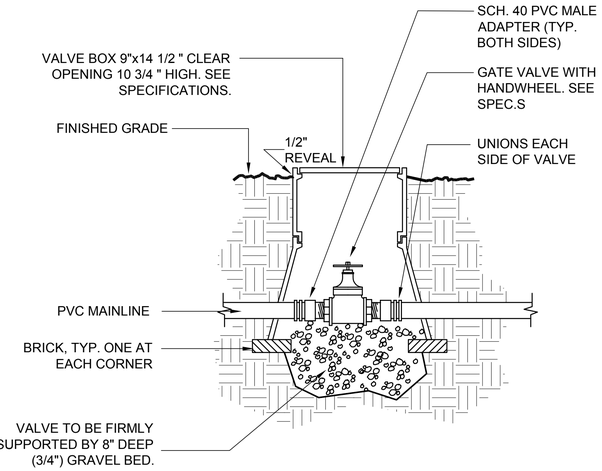
IR1.1

$TIME$
$FILE$
$DATE$



1 REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER IN SECURITY ENCLOSURE

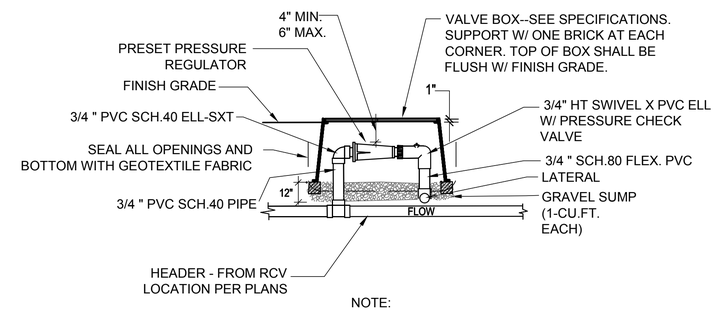
SCALE: N.T.S.



NOTES: 1. COMPACT SOIL AROUND VALVE BOX TO SAME DENSITY AS UNDISTURBED ADJACENT SOIL.
2. VALVE BOX SHALL BE SET 1/2" ABOVE FINISHED GRADE.

2 GATE VALVE ASSEMBLY

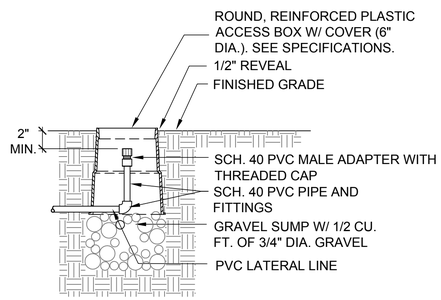
SCALE: N.T.S.



NOTE:
CONTRACTOR SHALL PROVIDE OWNER WITH AN ASSEMBLED UNIT MADE UP OF ONE LIQUID FILL 0-100 PSI PRESSURE GAUGE, A 3' PRESSURE AIR HOSE AND AN AUTOMOTIVE TIRE VALVE CONNECTOR.

3 PRESSURE REGULATOR ASSEMBLY

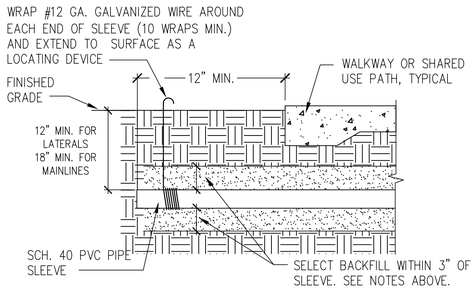
SCALE: N.T.S.



4 EMMITER LATERAL FLUSH

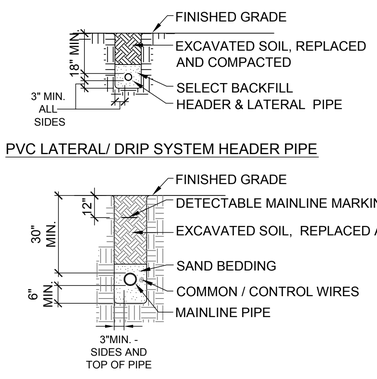
SCALE: N.T.S.

NOTES:
1. SLEEVES UNDER WALKWAYS SHALL BE SCHEDULE 40 PVC PIPE. SIZE SHALL BE AS NOTED ON PLANS.
2. BACKFILL WITHIN 3" OF SLEEVE SHALL BE FREE OF ROCKS AND STONES LARGER THAN 1/4" DIA. IF ROCK CANNOT BE REMOVED FROM EXCAVATED SOIL, PROVIDE CLEAN SAND BEDDING.



5 SLEEVE UNDER WALKWAY OR SHARED USE PATH

SCALE: N.T.S.

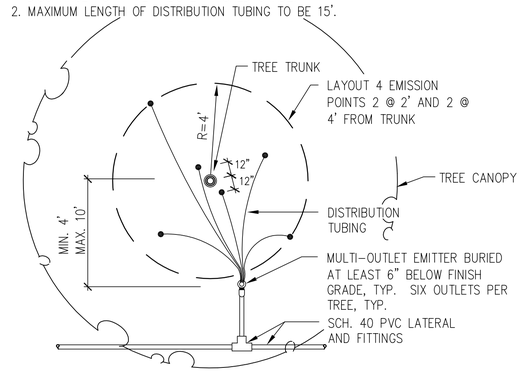


NOTES:
1. SELECT BACKFILL SHALL BE SAND OR SOIL FREE OF ROCKS AND STONES LARGER THAN 1/4" DIA.
2. BACKFILL MATERIAL SHALL BE WATERED IN AND COMPACTED TO DENSITY OF ADJACENT UNDISTURBED SOIL.

6 IRRIGATION TRENCHING

SCALE: N.T.S.

NOTE:
1. LAYOUT DISTRIBUTION TUBING AS SHOWN AND LOCATE DISCHARGE POINT ±2" ABOVE FINISHED GRADE.
2. MAXIMUM LENGTH OF DISTRIBUTION TUBING TO BE 15'.



7 EMITTER DISTRIBUTION TUBING LAYOUT AT TREE-SIX OUTLET

SCALE: N.T.S.

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

RS ENGINEERING

SCALE: 1" =

SHEET 47 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

DESIGNED		10/11
DRAWN		10/11
CHECKED		10/11
PROJ. ENGR.		

REGISTERED LANDSCAPE ARCHITECT CERTIFICATE NO. 16164 RICHARD W. SCHONFELD ARIZONA, U.S.A. Date Signed 12-14-11

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 1713.01
IRRIGATION DETAILS

IR1.3

$TIME$

$FILE$
$DATE$

GENERAL NOTES

1. ALL EQUIPMENT/MATERIALS AND CONSTRUCTION SHALL MEET OR EXCEED THE REQUIREMENTS CONTAINED IN THE CURRENT PIMA COUNTY/CITY OF TUCSON "STANDARD SPECIFICATIONS FOR PUBLIC IMPROVEMENTS" AND "STANDARD DETAILS FOR PUBLIC IMPROVEMENTS", THE SPECIAL PROVISIONS AND THE PLANS.
2. THE EXACT LOCATION OF EACH NEW POLE FOUNDATION, PULL BOX OR ELECTRIC SERVICE FOUNDATION SHALL BE APPROVED BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
3. THE TOP OF THE POLE FOUNDATION SHALL BE LEVEL WITH THE SURROUNDING FINISHED GRADE. IF THE SLOPE OR SHOULDER DROPS OFF FROM FINISHED GRADE, THE CONTRACTOR SHALL GRADE AROUND POLE FOUNDATION. THE TOP OF THE FOUNDATION SHALL EXTEND NO MORE THAN FOUR (4) INCHES ABOVE SURROUNDING FINISHED GRADE.
4. SHALLOW TYPE FOUNDATIONS, IF THEY ARE NECESSARY, SHALL BE PER PC/DOT STD.DLT.T-433. CONTRACTOR SHALL VERIFY BOLT PATTERN AND DIMENSIONS AS MAY BE REQUIRED FOR THE PROJECT. POLE LOCATIONS OF SUCH FOUNDATIONS SHALL BE FIELD IDENTIFIED BY THE INSPECTOR.
5. POLE FOUNDATIONS SHALL MAINTAIN A MINIMUM OF 36 INCHES HORIZONTAL DISTANCE FROM EXISTING WATER MAINS, MEASURED FROM OUTSIDE OF THE FOUNDATION WALL TO THE OUTSIDE OF PIPE WALL.
6. PULL BOXES SHOWN ON PLANS ARE DIAGRAMMATIC REPRESENTATIONS. FINAL LOCATION OF PULL BOX IS ADJACENT TO POLE ONLY AT LOCATIONS PRE APPROVED BY THE INSPECTOR.
7. PULL BOXES SHALL NOT BE INSTALLED WITHIN CONCRETE CURB ACCESS RAMPS OR LANDINGS. IN ADDITION, ANY PULL BOXES INSTALLED BETWEEN THE CURB AND THE PROPOSED/FUTURE SIDEWALK OR BEYOND THE PROPOSED/FUTURE SIDEWALK. AN EXCEPTION TO THIS NOTE WOULD BE PULL BOXES INSTALLED IN A MEDIAN. ANY PULL BOXES INSTALLED ALONG AN UNCURBED ROADWAY SHALL BE INSTALLED TEN (10) FEET FROM EDGE OF PAVEMENT TO EDGE OF PULL BOX WHERE RIGHT-OF-WAY PERMITS OR AS FAR FROM PAVEMENT AS PRACTICAL WHEN THERE IS INSUFFICIENT RIGHT-OF-WAY TO PROVIDE TEN (10) FOOT OFFSET.
8. A 3/4 INCH X 10 FOOT GROUND ROD SHALL BE INSTALLED IN THE NO.7 PULL BOX (WITH THE EXTENSION) ADJACENT TO THE CONTROLLER CABINET. A 3/4 INCH X 10 FOOT GROUND ROD SHALL BE INSTALLED IN THE NO.3 PULL BOX AT THE END OF EACH STREET LIGHT CIRCUIT. TWO GROUND ROD CLAMPS SHALL BE FURNISHED FOR EACH GROUND ROD FOR GROUNDING THE WIRE.
9. ONLY NEW CONDUIT AND CABLE SHALL BE INSTALLED.
10. THE CONDUIT LOCATIONS SHOWN ON PLAN ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR SHALL INSTALL CONDUIT TO AVOID CONFLICTS. ALL CONDUITS SHALL BE INSTALLED WITHIN EXISTING RIGHT-OF-WAY UNLESS OTHERWISE APPROVED.
11. THE CONDUIT LOCATIONS SHOWN ON PLAN ARE DIAGRAMMATIC REPRESENTATIONS ONLY. CONTRACTOR SHALL INSTALL CONDUIT TO AVOID CONFLICTS. ALL CONDUITS SHALL BE INSTALLED BY MEANS OF BORING.
12. ALL CONDUIT SHALL BE INSTALLED A MINIMUM OF 30 INCHES BELOW FINISHED GRADE, EXCEPT WHEN CONDUITS CROSS CULVERTS OR ARE ROUTED ALONG BRIDGE AND WING WALLS. ANY CONDUIT INSTALLED LESS THAN 30 INCHES DEEP SHALL BE ENCASED IN CONCRETE PER PC/COT STANDARD SPECIFICATIONS 732-3.01.
13. ALL ROADWAY STREET LIGHT SYSTEM CONDUIT SHALL BE PVC SCHEDULE 40 UNLESS NOTED OTHERWISE. CONDUIT ADJACENT TO CURB SHALL BE INSTALLED SIX (6) INCHES BACK OF CURB AND 36 INCHES BELOW TOP OF CURB.
14. ALL CONDUITS SHALL BE CLEANED BY COMPRESSED AIR. A PROPERLY SIZED CONDUIT PISTON OR MANDREL SHALL BE PULLED THROUGH THE CONDUIT PRIOR TO CABLE INSTALLATION.
15. CONDUITS FOR FUTURE USE SHALL BE SEALED WITH A PROPERLY SIZED TAPERED POLYETHYLENE DUCT PLUG AT EACH TERMINATION POINT. THE #8 BARE BOND WIRE SHALL BE LOOPED THROUGH THE PLUG PULL TAB AND TWO FEET OF SLACK DOUBLED BACK INTO THE CONDUIT.
16. AVOID PLACING UNDERGROUND CONDUIT OVER EXISTING WATER MAINS AND MAINTAIN 36 INCHES MINIMUM HORIZONTAL SEPARATION, TYPICAL FOR ALL CONDUIT INSTALLATIONS THROUGHOUT PROJECT.
17. ALL POLES SHALL BE WIRED AND GROUNDED PER PC/COT STD.DTL.107, WITH THE EXCEPTION OF THE WIRE TYPE. REFER TO NOTE 18 FOR WIRE SIZE AND TYPE UNLESS OTHERWISE NOTED ON PLANS.
18. TWO #10 AWG-XHHW CONDUCTORS SHALL BE INSTALLED FROM EACH LUMINAIRE TO THE CONCRETE PULL BOX ADJACENT TO THE POLE FOUNDATION, LEAVING THREE FEET OF SLACK FOR EACH CONDUCTOR (MEASURED FROM THE TOP OF THE PULL BOX) IN THE PULL BOX. ROUTE FOUR CONDUCTORS TO THE PHOTOELECTRIC CELL. AN IN -LINE FUSE SHALL BE INSTALLED FOR EACH LUMINAIRE IN THE ASSOCIATED PULL BOX.
19. DUAL ARC TUBE LAMPS SHALL BE USED ON ALL LUMINAIRES.
20. THE STREET LIGHTING PHOTOELECTRIC CELL SHALL BE MOUNTED ON THE LUMINAIRE POLE CLOSEST TO THE STREET LIGHTING CONTROLLER OR, IF A CONTROLLER IS NOT REQUIRED, THE LUMINAIRE POLE CLOSEST TO THE METER PEDESTAL.
21. THE TUCSON ELECTRIC POWER COMPANY CONSTRUCTION DEPARTMENT (918-8300) SHALL BE CONTACTED BY THE CONTRACTOR TO VERIFY THE LOCATION OF THE ELECTRIC SERVICE CONNECTION AT THE INTERSECTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING AND BACKFILLING THE TRENCH AND INSTALLING ANY NECESSARY SLEEVES UNDER SIDEWALKS OR DRIVEWAYS IN WHICH THE ELECTRIC SERVICE CABLE IN CONDUIT (CIC) IS TO BE INSTALLED BY TEP.
22. A MINIMUM OF TEN (10) FOOT RADIAL CLEARANCE SHALL BE MAINTAINED BETWEEN ALL METALLIC PARTS AND OVERHEAD ELECTRIC CONDUCTORS WHILE INSTALLING POLES AND LUMINAIRES. BLUE STAKE SHALL BE CONTACTED IF CONTRACTOR REQUIRES OVERHEAD PROTECTION.
23. A MINIMUM HORIZONTAL SEPARATION OF 24 INCHES SHALL BE MAINTAINED FROM ALL GAS LINES.
24. THE TRAFFIC SIGNAL OPERATION AT EXISTING SIGNALIZED INTERSECTIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT.
25. UPON COMPLETION OF WORK, TRAFFIC CONTROL DEVICES SHALL BE POSTED AND MAINTAINED BY THE CONTRACTOR UNTIL SUCH TIME AS THE WORK IS COMPLETE. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND APPROVED BY THE ENGINEER.
26. THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO DAMAGE WATER FACILITIES THAT ARE IN THE AREA OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY DAMAGE.
27. AT POLE FOUNDATIONS CLOSE TO EXISTING WATER MAINS, MAINTAIN A MINIMUM OF FIVE (5) FEET HORIZONTAL DISTANCE FROM OUTSIDE OF FOUNDATION TO THE OUTSIDE OF THE POLE. MINIMUM HORIZONTAL SEPARATION BETWEEN EXISTING WATER MAINS AND ELECTRICAL CONDUIT. MINIMUM VERTICAL SEPARATION IS ONE (1) FOOT FROM OUTSIDE OF WATER LINE TO OUTSIDE OF ELECTRICAL CONDUIT.
28. AT THE LOCATION WHERE MINIMUM HORIZONTAL SEPARATION CANNOT BE MET, CONTRACTOR SHALL POTHOLE TO DETERMINE EXACT LOCATION OF WATERLINE PRIOR TO INSTALLATION OF POLE AND INSTALLATION SHALL BE APPROVED BY FIELD ENGINEER.

RESPONSIBILITIES

1. THE CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED BY ALL GOVERNMENTAL AGENCIES, WITH THE EXCEPTION THAT PIMA COUNTY MUST JOINTLY OBTAIN THE NPDES PERMIT AND FILE THE NOI AND NOT. FOR WORK BEYOND THE SCOPE OF THE PROJECT LIMITS, PLANS OR SPECIFICATIONS, THE CONTRACTOR SHALL OBTAIN A SEPARATE FLOODPLAIN AND/OR GRADING PERMIT PRIOR TO COMMENCING SUCH WORK.
2. THE CONTRACTOR SHALL CONTACT BLUE STAKE AT 1-800-782-5348, A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION.
3. THE CONTRACTOR SHALL MAINTAIN AND ALLOW ACCESS TO ALL PIMA COUNTY WASTE WATER MANHOLES LOCATED WITHIN THE ROW. ACCESS MUST BE MAINTAINED 24 HOURS PER DAY, SEVEN DAYS PER WEEK. NO ELECTRICAL UTILITIES MAY BE PLACED WITHIN SIX FEET OF A FORCE MAIN.
4. THE LOCATION OF UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING/POTHOLING UNDERGROUND UTILITIES IN THE VICINITY OF THE PROPOSED POLE FOUNDATIONS. THE CONTRACTOR IS ALSO RESPONSIBLE FOR VERIFYING CLEARANCE BETWEEN OVERHEAD LINES AND STREET LIGHTING EQUIPMENT PRIOR TO INSTALLATION OF POLES AND FOUNDATIONS.
5. ANY EQUIPMENT AND/OR UTILITIES WITHIN THE PROJECT LIMITS THAT ARE DAMAGED OR DESTROYED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE SOLE EXPENSE OF THE CONTRACTOR.
6. THE CONTRACTOR SHALL SUPPLY AND INSTALL THE FOLLOWING EQUIPMENT AND MATERIALS AS SPECIFIED IN THE PLANS: STEEL POLE ANCHOR BOLTS (WITH NUTS AND WASHERS), CONCRETE POLE FOUNDATIONS WITH REINFORCEMENT (WHERE SPECIFIED), CONCRETE PULL BOXES, ELECTRICAL CONDUIT, GROUND RODS AND CONNECTORS, BARE BOND WIRE AND ALL OTHER CONDUCTORS, POLES, MAST ARMS, LUMINAIRES, PHOTOCELLS, ELECTRIC SERVICE PEDESTAL(S) AND CONCRETE FOUNDATION(S) AND ALL OTHER APPURTENANCES NECESSARY FOR THE INSTALLATION AND OPERATION OF THE STREET LIGHTS, EXCEPT AS MODIFIED IN THE PLANS.
7. THE CONTRACTOR SHALL CAREFULLY DISASSEMBLE AND SALVAGE ALL TRAFFIC SIGNAL AND STREET LIGHTING EQUIPMENT THAT IS NO TO REMAIN OR BE RELOCATED, EXCEPT EXISTING WIRELESS COMMUNICATIONS AND PTZ CAMERA EQUIPMENT. ALL OF THE EQUIPMENT SHALL BE SAFELY STORED AT THE CONSTRUCTION SITE UNTIL IT IS SAFELY RETURNED TO THE PCDOT MAINTENANCE YARD, 1313 S. MISSION RD. THE EQUIPMENT SHALL BE SAFELY UNLOADED BY THE CONTRACTOR. CONTACT SIGNAL SHOP SUPERVISOR (520-740-5887) AT LEAST TWO (2) WORKING DAYS PRIOR TO RETURNING THE EQUIPMENT.
8. WHEN APPLICABLE, THE CONTRACTOR SHALL SALVAGE AND REPLANT ANY LANDSCAPING VEGETATION THAT MAY BE DAMAGED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE OPERATIONS DEPARTMENT'S PUBLIC WORKS SUPERVISOR (520-740-5969) BEFORE ANY PLANTS ARE MOVED.
9. WHEN APPLICABLE, THE CONTRACTOR SHALL REPAIR/RESTORE ANY LANDSCAPE IRRIGATION COMPONENTS DAMAGED BY CONSTRUCTION ACTIVITY TO THEIR ORIGINAL CONDITION.
10. THE CONTRACTOR SHALL VISIT SITE AND OBSERVE AND NOTE CONDITIONS FOR CONDUIT, POLE FOUNDATIONS, PULL BOXES, ETC. PRIOR TO SUBMITTING BID TO DETERMINE ALL INSTALLATION REQUIREMENTS.

LEGEND

EXISTING	PROPOSED	
		#7 PULL BOX WITH EXTENSION
		#3-1/2 PULL BOX
		#5 PULL BOX
		#7 PULL BOX
		TRAFFIC SIGNAL CONTROL CABINET W/FOUNDATION
		SERVICE CABINET W/FOUNDATION
		TYPE I STREET LIGHTING CONTROLLER
		CONDUIT RUN
		SIDEWALK LIGHT POLE
		LUMINAIRE W/MAST ARM
		LUMINAIRE W/PHOTOCELL AND MAST ARM
		METRO STREET NAME SIGN
		PEDESTRIAN PUSHBUTTON
		POLE OR POST AS INDICATED ON PLANS
A	A	POLE KEY LETTER
1	1	CONDUIT RUN NUMBER

EXISTING

G	GAS LINE
T	TELEPHONE LINE
E	ELECTRIC LINE
S	SEWER LINE
W	WATER LINE
CTV	CABLE TV LINE
F.O.	FIBER OPTIC LINE
	PROPERTY LINE

DESIGN SPEED = 45 MPH

CLEAR ZONE = 20 FEET

INDEX OF LIGHTING PLANS

E0 GENERAL NOTES, LEGEND, INDEX OF LIGHTING PLANS
E1 PLAN SHEET
E2 PLAN SHEET
E3 PLAN SHEET
E4 PLAN SHEET
E5 PLAN SHEET
E6 PLAN SHEET
E7 PLAN SHEET
E8 POLE, CONDUCTOR AND PANEL SCHEDULES
E9 TYPE I LIGHTING CABINET (MODIFIED)

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

Two working days before you dig CALL FOR THE BLUESTAKES 1-800-782-5348 Blue Stake Center CALL COLLECT

Use or alteration of the information in this instrument for other than the specific purpose for which it was intended and for other than the client for whom it was prepared is forbidden unless expressly permitted in writing in advance by RS ENGINEERING INCORPORATED, and RS ENGINEERING INCORPORATED shall have no liability to any use of this information without their written consent. © RS ENGINEERING

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WWW.RSENGINEERING.COM

RAALCALA' & Associates, Inc.
consulting electrical engineering
2560 N Coyote Dr., Suite 103
Tucson, Az. 85745
(520) 623-7773

RAAI JOB#: 11008

E0

DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (ELECTRICAL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

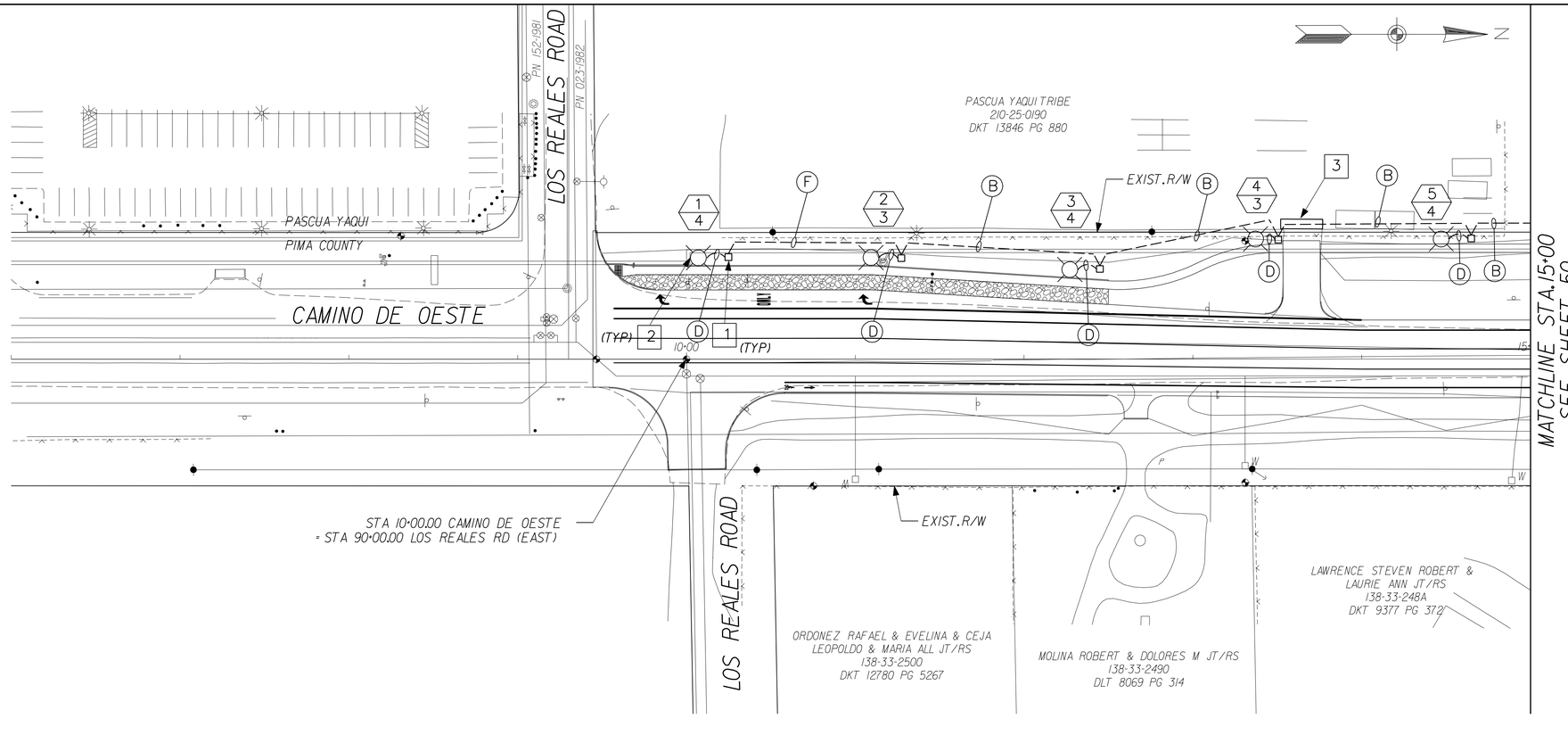
PRISCILLA S. CORNELIO, P.E., DIRECTOR

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C01RV
SIDEWALK LIGHTING PLANS

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

C:\Documents and Settings\Aaron Box\Desktop\ALCALA JOBS 2011\11008 - Camino De Oeste\11008-E0.dgn



DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

PROJECT NOTES:

A. REFER TO SHEET E0 FOR ADDITIONAL NOTES AND REQUIREMENTS.

B. CONDUIT ROUTE SHOWN FOR REFERENCE ONLY. ACTUAL ROUTE COULD BE DIFFERENT TO AVOID FIELD DISCOVERED CONFLICTS.

C. ALL POLES SHALL BE AS INDICATED ON THE POLE SCHEDULE AND SPECIAL PROVISIONS UNLESS NOTED OTHERWISE ON THE PLAN.

D. ALL LUMINAIRES ARE MOUNTED ON A "SHEPHERD HOOK" STYLE MAST ARM UNLESS NOTED OTHERWISE ON THE PLANS.

E. POLE SHALL BE FIELD IDENTIFIED WITH CIRCUIT DESIGNATION AND CIRCUIT AS INDICATED ON THE PLANS.

F. ALL CONDUITS TO BE MINIMUM OF 36" BELOW FINISHED GRADE. ANY CONDUIT LESS THAN 36" DEEP SHALL BE ENCASED IN CONCRETE. 6 INCHES ALL AROUND.

G. TYPICAL ALL PULL BOX LOCATIONS. PULL BOXES ARE SHOWN DIAGRAMMATICALLY. FINAL LOCATION OF PULL BOX IS ADJACENT TO POLE ONLY OR AT LOCATIONS PRE-APPROVED BY THE INSPECTOR.

H. CONDUITS CROSSING EXISTING STREETS, DRIVEWAY/ ALLEYWAY APRONS, AND EXISTING SIDEWALKS NOT BEING RECONSTRUCTED SHALL USE BORING METHOD UNLESS NOTED OTHERWISE. UNDISTURBED AREAS ARE INDICATED IN THE ROADWAY PLAN & PROFILE PLANS. BORING METHOD TO BE AN INCIDENTAL COST TO THE CONDUIT INSTALLATION.

I. REFER TO POLE SCHEDULE FOR EXACT POLE LOCATION.

J. REFER TO CONDUIT SCHEDULE FOR CONDUIT AND WIRE SIZE.

K. ALL POLE SHAFTS TO BE 16 FT IN LENGTH. CONTRACTOR TO VERIFY IF POLE IS TO HAVE BREAKAWAY BASE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION.

L. CONTRACTOR TO FIELD VERIFY ALL POLE LOCATIONS PRIOR TO DRILLING AS NOT TO INTERFERE WITH UTILITIES, SIDEWALK OR RIGHT OF WAY.

M. THE SIDEWALK LUMINAIRES ARE TO FACE THE SIDEWALK AT ALL LOCATIONS.

N. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE. (TYP).

KEY NOTES:

1 NO. 3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 INSTALL 4"C SLEEVE FOR SIDEWALK LIGHTING CONDUIT. EXTEND SLEEVE 2 FT EACH SIDE OF ROADWAY PAVEMENT.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

Two working days before you dig CALL FOR THE BLUESTAKES
1-800-782-5348
Blue Stake Center CALL COLLECT

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& Associates, Inc.
consulting electrical engineering
2560 N. Coyote Dr., Suite 103
Tucson, Az. 85745
(520) 623-7773

RAAI JOB#: 11008

E1

SCALES	HORIZ. 1" = 40'
	VERT. 1" = 4'

SHEET 49 OF 57

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A.
EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

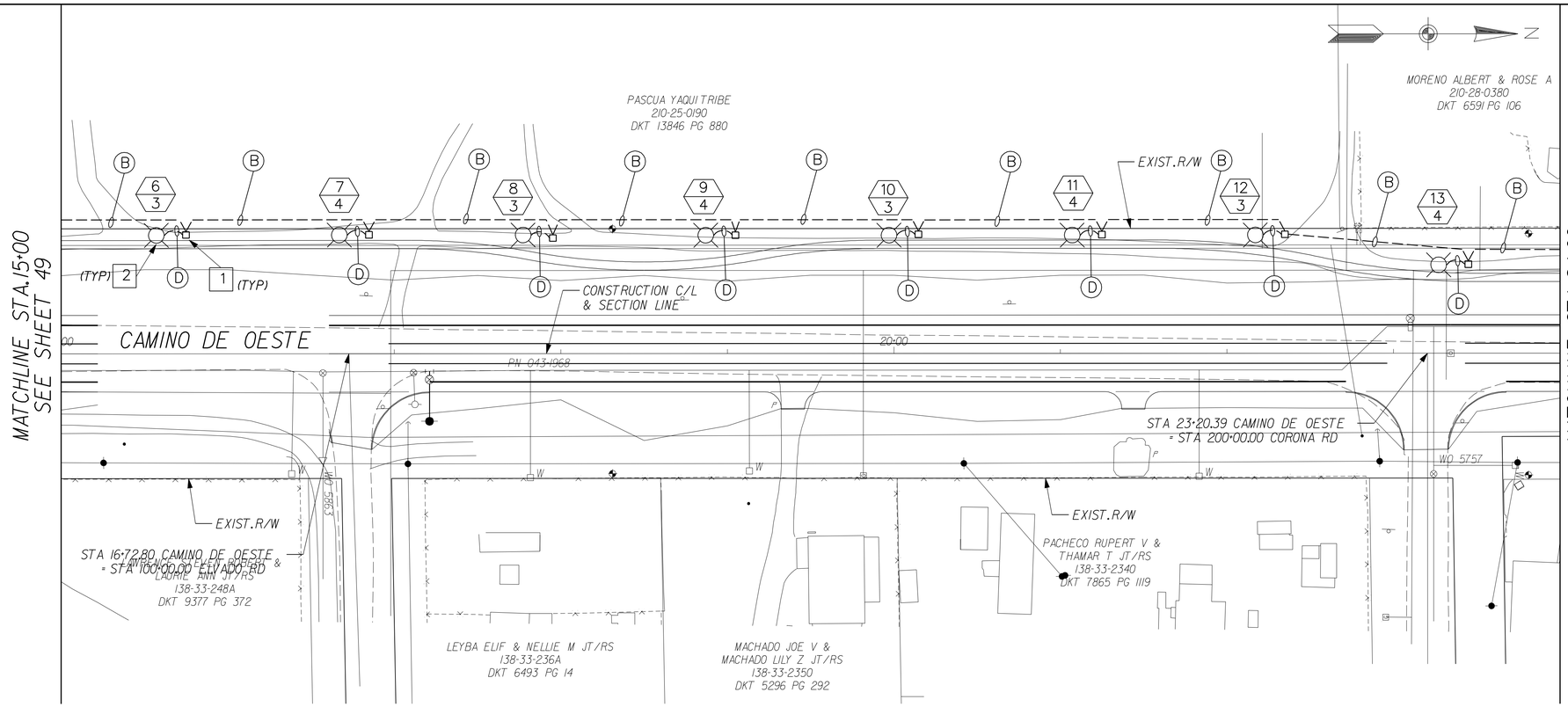
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

SIDEWALK LIGHTING PLANS 6+00 TO 15+00

C:\Documents and Settings\Aaron Baxter\My Documents\ALCALA JOBS 2011\11008 - Camino De Oeste\11008-E1.dgn



DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

PROJECT NOTES:

A. REFER TO SHEET E0 FOR ADDITIONAL NOTES AND REQUIREMENTS.

B. CONDUIT ROUTE SHOWN FOR REFERENCE ONLY. ACTUAL ROUTE COULD BE DIFFERENT TO AVOID FIELD DISCOVERED CONFLICTS.

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D. ALL LUMINAIRES ARE MOUNTED ON A "SHEPHERD HOOK" STYLE MAST ARM UNLESS NOTED OTHERWISE ON THE PLANS.

E. POLE SHALL BE FIELD IDENTIFIED WITH CIRCUIT DESIGNATION AND CIRCUIT AS INDICATED ON THE PLANS.

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G. TYPICAL ALL PULL BOX LOCATIONS. PULL BOXES ARE SHOWN DIAGRAMMATICALLY. FINAL LOCATION OF PULL BOX IS ADJACENT TO POLE ONLY OR AT LOCATIONS PRE-APPROVED BY THE INSPECTOR.

H. CONDUITS CROSSING EXISTING STREETS, DRIVEWAY/ ALLEYWAY APRONS, AND EXISTING SIDEWALKS NOT BEING RECONSTRUCTED SHALL USE BORING METHOD UNLESS NOTED OTHERWISE. UNDISTURBED AREAS ARE INDICATED IN THE ROADWAY PLAN & PROFILE PLANS. BORING METHOD TO BE AN INCIDENTAL COST TO THE CONDUIT INSTALLATION.

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J. REFER TO CONDUIT SCHEDULE FOR CONDUIT AND WIRE SIZE.

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L. CONTRACTOR TO FIELD VERIFY ALL POLE LOCATIONS PRIOR TO DRILLING AS NOT TO INTERFERE WITH UTILITIES, SIDEWALK OR RIGHT OF WAY.

M. THE SIDEWALK LUMINAIRES ARE TO FACE THE SIDEWALK AT ALL LOCATIONS.

N. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE. (TYP).

KEY NOTES:

1 NO. 3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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RAAI JOB#: 11008

E2

SCALES	HORIZ. 1" = 40'
	VERT. 1" = 4'

SHEET 50 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV

SIDEWALK LIGHTING PLANS 15+00 TO 24+00

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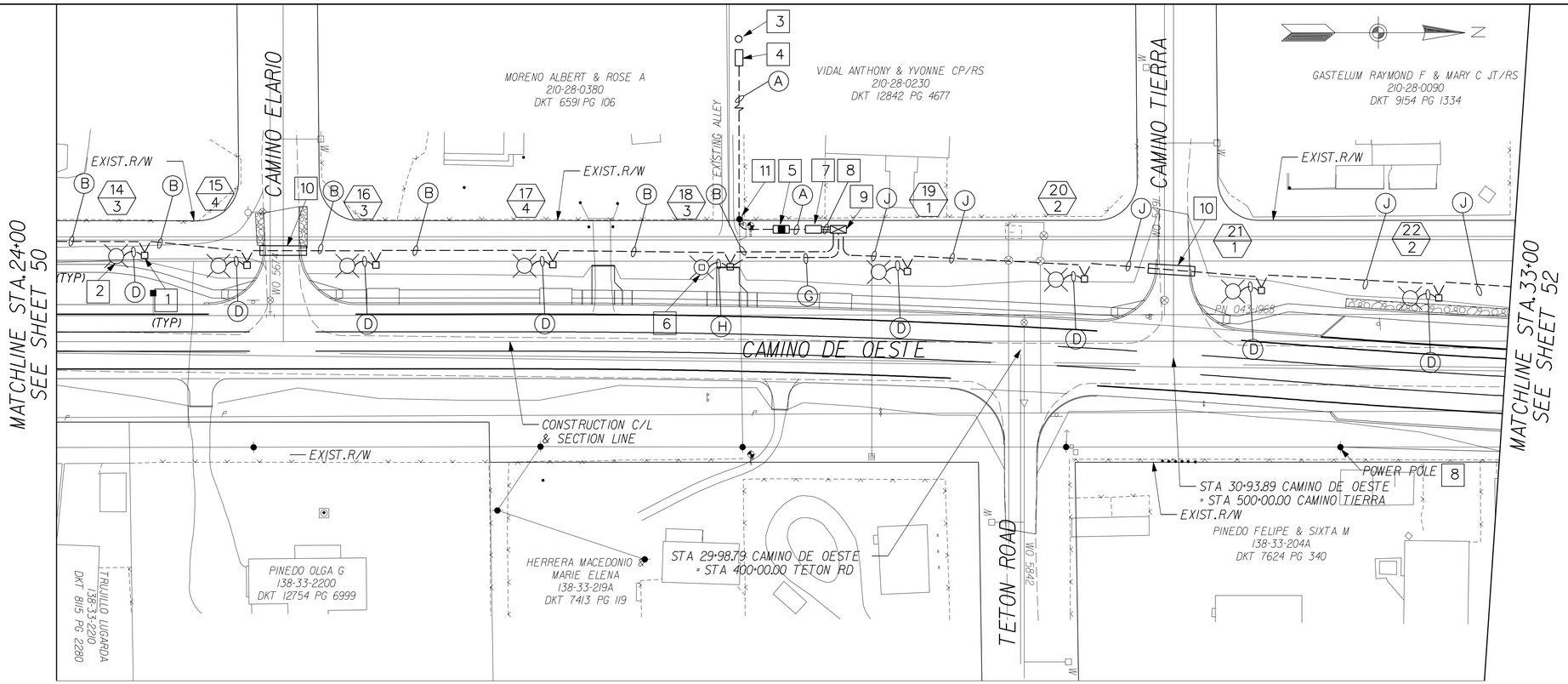

DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

KEY NOTES: (CONT.)

9 NO.7 PULL BOX WITH EXTENSIONS. INSTALL PER PIMA COUNTY STANDARDS.

10 INSTALL 4"C SLEEVE FOR SIDEWALK LIGHTING CONDUIT. EXTEND SLEEVE 2 FT EACH SIDE OF ROADWAY PAVEMENT.

11 EXISTING 20 FT TELEPHONE POLE APPROXIMATELY 200 FT EAST OF TRICO POLE (KEYNOTE 3).

PROJECT NOTES:

A. REFER TO SHEET E0 FOR ADDITIONAL NOTES AND REQUIREMENTS.

B. CONDUIT ROUTE SHOWN FOR REFERENCE ONLY. ACTUAL ROUTE COULD BE DIFFERENT TO AVOID FIELD DISCOVERED CONFLICTS.

C. ALL POLES SHALL BE AS INDICATED ON THE POLE SCHEDULE AND SPECIAL PROVISIONS UNLESS NOTED OTHERWISE ON THE PLAN.

D. ALL LUMINAIRES ARE MOUNTED ON A "SHEPHERD HOOK" STYLE MAST ARM UNLESS NOTED OTHERWISE ON THE PLANS.

E. POLE SHALL BE FIELD IDENTIFIED WITH CIRCUIT DESIGNATION AND CIRCUIT AS INDICATED ON THE PLANS.

F. ALL CONDUITS TO BE MINIMUM OF 36" BELOW FINISHED GRADE. ANY CONDUIT LESS THAN 36" DEEP SHALL BE ENCASED IN CONCRETE, 6 INCHES ALL AROUND.

G. TYPICAL ALL PULL BOX LOCATIONS. PULL BOXES ARE SHOWN DIAGRAMMATICALLY. FINAL LOCATION OF PULL BOX IS ADJACENT TO POLE ONLY OR AT LOCATIONS PRE-APPROVED BY THE INSPECTOR.

H. CONDUITS CROSSING EXISTING STREETS, DRIVEWAY/ ALLEYWAY APRONS, AND EXISTING SIDEWALKS NOT BEING RECONSTRUCTED SHALL USE BORING METHOD UNLESS NOTED OTHERWISE. UNDISTURBED AREAS ARE INDICATED IN THE ROADWAY PLAN & PROFILE PLANS. BORING METHOD TO BE AN INCIDENTAL COST TO THE CONDUIT INSTALLATION.

I. REFER TO POLE SCHEDULE FOR EXACT POLE LOCATION.

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K. ALL POLE SHAFTS TO BE 16 FT IN LENGTH. CONTRACTOR TO VERIFY IF POLE IS TO HAVE BREAKAWAY BASE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION.

L. CONTRACTOR TO FIELD VERIFY ALL POLE LOCATIONS PRIOR TO DRILLING AS NOT TO INTERFERE WITH UTILITIES, SIDEWALK OR RIGHT OF WAY.

M. THE SIDEWALK LUMINAIRES ARE TO FACE THE SIDEWALK AT ALL LOCATIONS.

N. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE. (TYP).

KEY NOTES:

1 NO.3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 EXISTING TRICO POLE TO BE USED FOR SERVICE POWER (100A, 120/240V, 1 PH, 3 W).

4 EXISTING TRICO JUNCTION BOX FOR CONNECTING NEW SERVICE LATERAL. COORDINATE WITH TRICO FOR SERVICE DWGS.

5 THE ELECTRICAL SERVICE SHALL BE INSTALLED PER TRICO REQUIREMENTS. THE METER PEDESTAL SHALL BE A MYERS 125 AMP 120/240V METER PEDASTAL MODEL NUMBER MUEG16-125WTB PER PCDOT STANDARDS. THE METER PEDESTAL FOUNDATION SHALL BE PER PCDOT STANDARD DETAIL T180I.

6 CONTRACTOR TO FURNISH AND INSTALL NEMA RATED TWIST-LOCK PHOTO CONTROL ON STREET LIGHT. PHOTO CONTROL TO FACE NORTH.

7 LIGHTING CONTROLLER CABINET, TYPE 1 (MODIFIED). INSTALL PER PIMA COUNTY STANDARDS. POWER DISTRIBUTION TO BE 240V, 1 PHASE.

8 CONDUITS Ⓑ, Ⓒ, Ⓖ FROM LIGHTING CABINET TO PULL BOX.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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& Associates, Inc.
consulting electrical engineering
2560 N. Coyote Dr., Suite 103
Tucson, Az. 85745
(520) 623-7773

RAAI JOB#: 11008

E3

DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

PRISCILLA S. CORNELIO, P.E., DIRECTOR

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

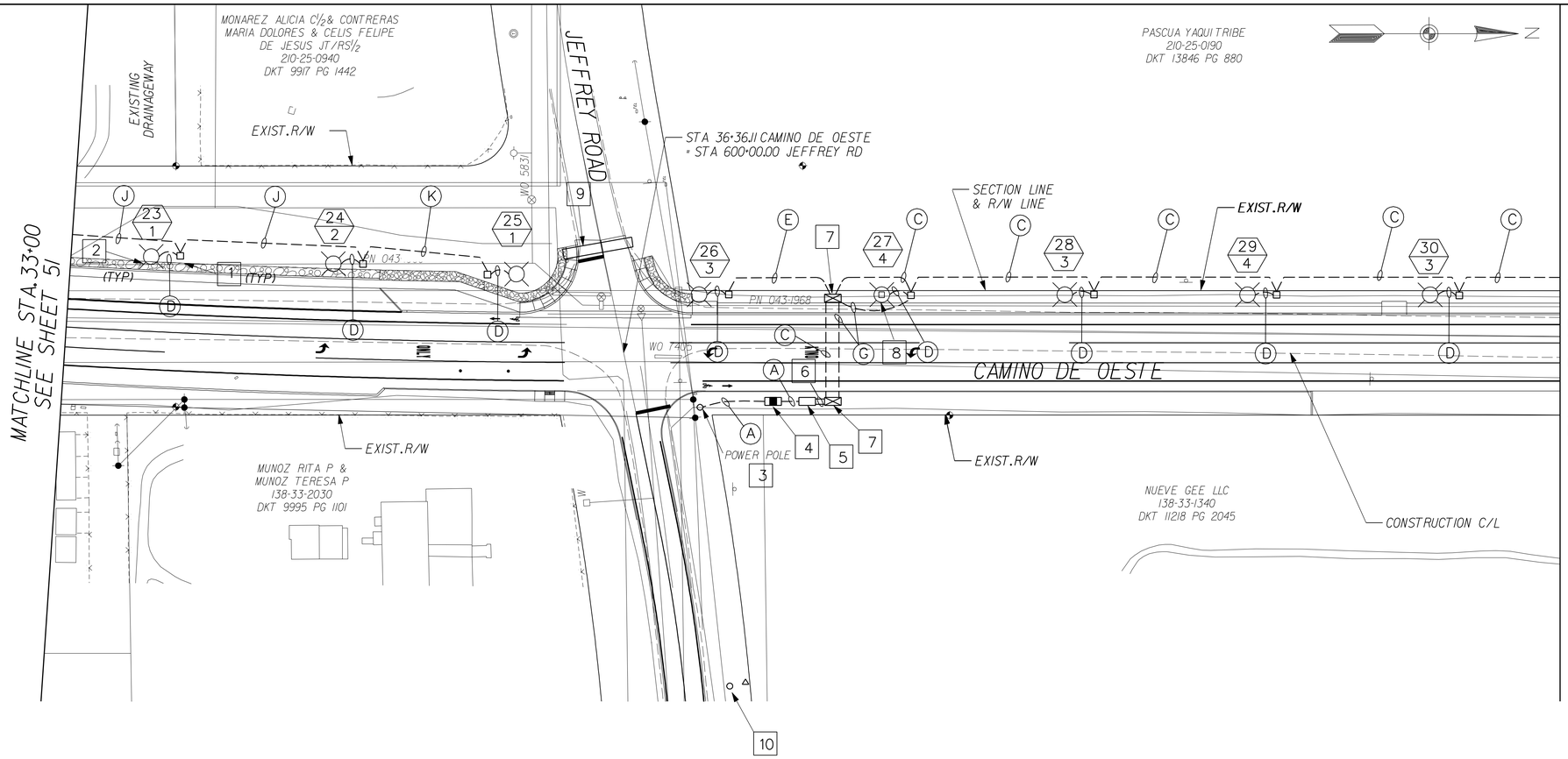
PROJECT NO. 4COLRV

SIDEWALK LIGHTING PLANS 24+00 TO 33+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

SHEET 51 OF 57

C:\Documents and Settings\Aaron Baxter\My Documents\Aaron Baxter\Top\ALCALA JOBS 2011\11008 - Camino De Oeste\11008-E3.dgn



DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

KEY NOTES: (CONT.)

7 NO.7 PULL BOX WITH EXTENSIONS. INSTALL PER PIMA COUNTY STANDARDS.

8 FURNISH AND INSTALL NEMA RATED TWIST-LOCK PHOTO CONTROL ON STREET LIGHT. PHOTO CONTROL TO FACE NORTH.

9 INSTALL 4"C. EMPTY SLEEVE. EXTEND 2 FT EACH SIDE OF ROADWAY PAVEMENT.

10 EXISTING TEP POLE WITH POLE MOUNTED TRANSFORMER.

PROJECT NOTES:

A. REFER TO SHEET E0 FOR ADDITIONAL NOTES AND REQUIREMENTS.

B. CONDUIT ROUTE SHOWN FOR REFERENCE ONLY. ACTUAL ROUTE COULD BE DIFFERENT TO AVOID FIELD DISCOVERED CONFLICTS.

C. ALL POLES SHALL BE AS INDICATED ON THE POLE SCHEDULE AND SPECIAL PROVISIONS UNLESS NOTED OTHERWISE ON THE PLAN.

D. ALL LUMINAIRES ARE MOUNTED ON A "SHEPHERD HOOK" STYLE MAST ARM UNLESS NOTED OTHERWISE ON THE PLANS.

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K. ALL POLE SHAFTS TO BE 16 FT IN LENGTH. CONTRACTOR TO VERIFY IF POLE IS TO HAVE BREAKAWAY BASE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION.

L. CONTRACTOR TO FIELD VERIFY ALL POLE LOCATIONS PRIOR TO DRILLING AS NOT TO INTERFERE WITH UTILITIES, SIDEWALK OR RIGHT OF WAY.

M. THE SIDEWALK LUMINAIRES ARE TO FACE THE SIDEWALK AT ALL LOCATIONS.

N. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE. (TYP).

KEY NOTES:

1 NO.3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 CONTRACTOR TO COORDINATE WITH T.E.P. TO OBTAIN 120/240V, 100A, 3 WIRE SERVICE DROP.

4 THE ELECTRICAL SERVICE SHALL BE INSTALLED PER TEP REQUIREMENTS AND IN ACCORDANCE WITH TEP STANDARD DETAILS SR 409 AND SR 452. THE METER PEDESTAL SHALL BE A MYERS 125 AMP 120/240V METER PEDESTAL MODEL NUMBER MUEG16-125WTB PER PCDOT STANDARDS. THE METER PEDESTAL SHALL BE PER PCDOT STANDARD DETAIL T1801.

5 LIGHTING CONTROLLER CABINET, TYPE I (MODIFIED). INSTALL PER PIMA COUNTY STANDARDS. POWER DISTRIBUTION TO BE 240V, 1 PHASE.

6 CONDUITS (C) AND (G) FROM LIGHTING CABINET TO PULL BOX.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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consulting electrical engineering
2560 N. Coyote Dr., Suite 103
Tucson, Az. 85745
(520) 623-7773

RAAI JOB#: 11008

E4

		DATE
DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

PRISCILLA S. CORNELIO, P.E., DIRECTOR

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

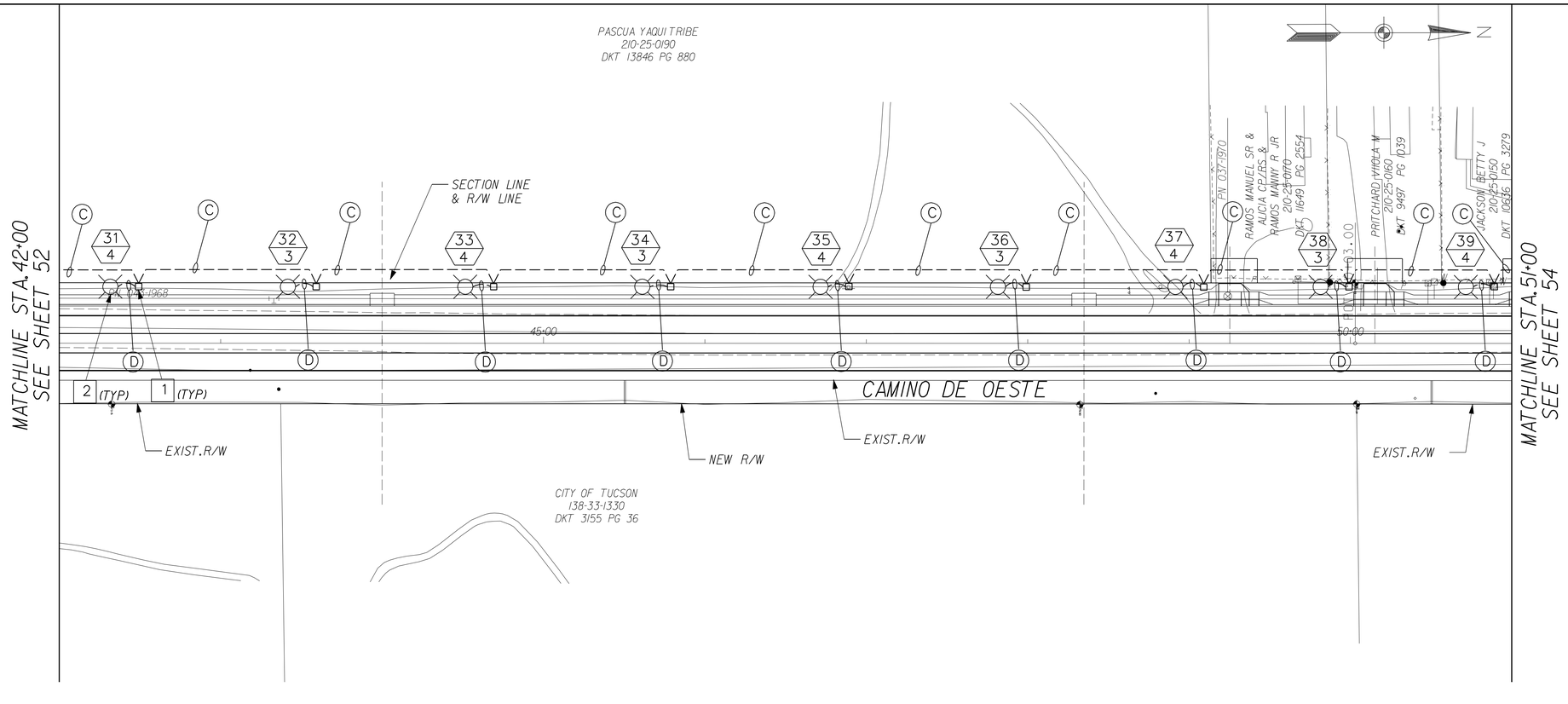
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
SIDEWALK LIGHTING PLANS 33+00 TO 42+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

SHEET 52 OF 57

C:\Documents and Settings\Aaron Box\Desktop\ALCALA JOBS 2011\11008 - Camino De Oeste\11008-E4.dgn



PROJECT NOTES:

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KEY NOTES:

1 NO.3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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RAAI JOB#: 11008

E5

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	VERT. 1" = 4'

SHEET 53 OF 57

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C0LRV
SIDEWALK LIGHTING PLANS 42+00 TO 51+00

		DATE
DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

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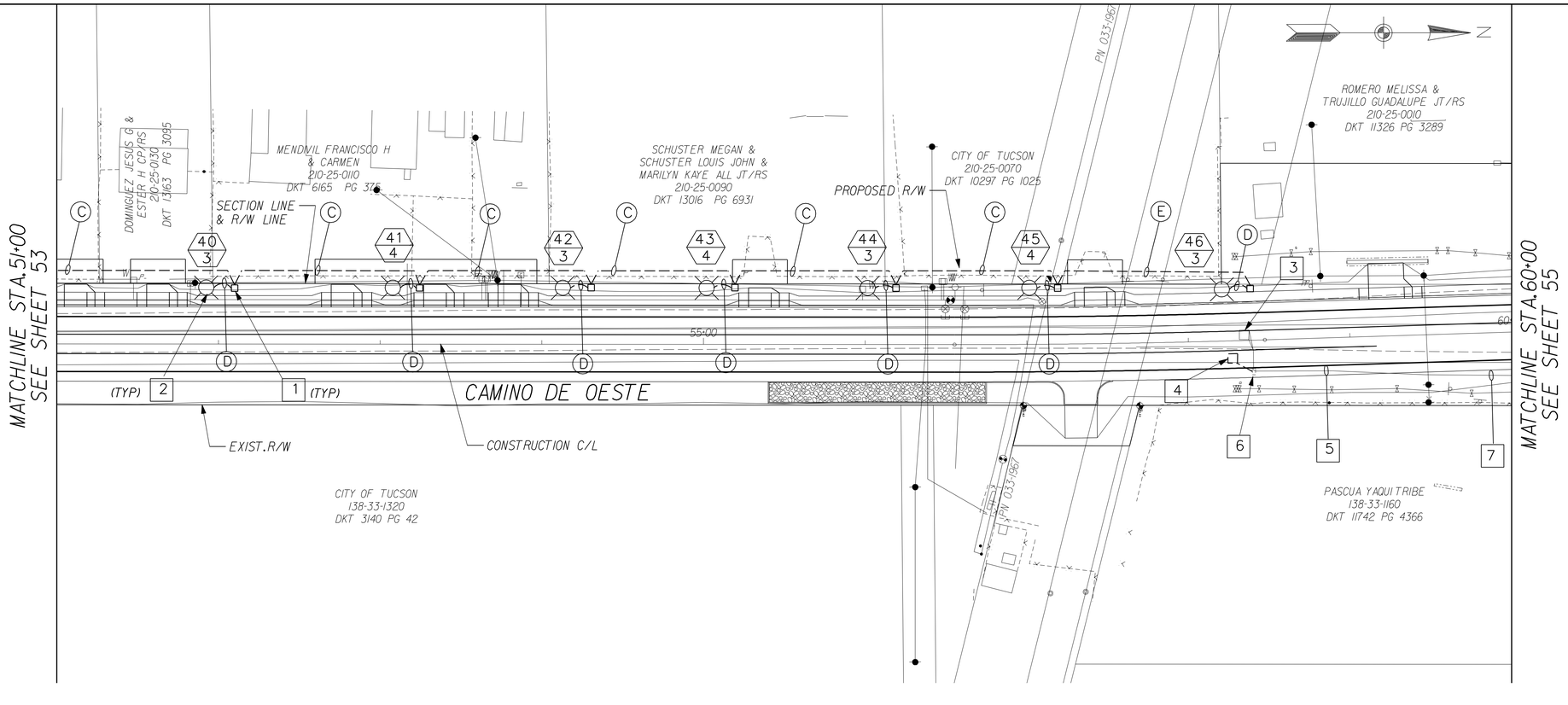

DRAWING REFLECTS ALL UPDATES OF BASE FILES AS OF 12-08-11

KEY NOTES:(CONT.)

6 EXISTING PULL BOX.

7 EXISTING LEAD-IN CABLE CONDUIT. PROTECT IN PLACE FOR REUSE.

PROJECT NOTES:

A. REFER TO SHEET E0 FOR ADDITIONAL NOTES AND REQUIREMENTS.

B. CONDUIT ROUTE SHOWN FOR REFERENCE ONLY. ACTUAL ROUTE COULD BE DIFFERENT TO AVOID FIELD DISCOVERED CONFLICTS.

C. ALL POLES SHALL BE AS INDICATED ON THE POLE SCHEDULE AND SPECIAL PROVISIONS UNLESS NOTED OTHERWISE ON THE PLAN.

D. ALL LUMINAIRES ARE MOUNTED ON A "SHEPHERD HOOK" STYLE MAST ARM UNLESS NOTED OTHERWISE ON THE PLANS.

E. POLE SHALL BE FIELD IDENTIFIED WITH CIRCUIT DESIGNATION AND CIRCUIT AS INDICATED ON THE PLANS.

F. ALL CONDUITS TO BE MINIMUM OF 36" BELOW FINISHED GRADE. ANY CONDUIT LESS THAN 36" DEEP SHALL BE ENCASED IN CONCRETE. 6 INCHES ALL AROUND.

G. TYPICAL ALL PULL BOX LOCATIONS. PULL BOXES ARE SHOWN DIAGRAMMATICALLY. FINAL LOCATION OF PULL BOX IS ADJACENT TO POLE ONLY OR AT LOCATIONS PRE-APPROVED BY THE INSPECTOR.

H. CONDUITS CROSSING EXISTING STREETS, DRIVEWAY/ALLEYWAY APRONS, AND EXISTING SIDEWALKS NOT BEING RECONSTRUCTED SHALL USE BORING METHOD UNLESS NOTED OTHERWISE. UNDISTURBED AREAS ARE INDICATED IN THE ROADWAY PLAN & PROFILE PLANS. BORING METHOD TO BE AN INCIDENTAL COST TO THE CONDUIT INSTALLATION.

I. REFER TO POLE SCHEDULE FOR EXACT POLE LOCATION.

J. REFER TO CONDUIT SCHEDULE FOR CONDUIT AND WIRE SIZE.

K. ALL POLE SHAFTS TO BE 16 FT IN LENGTH. CONTRACTOR TO VERIFY IF POLE IS TO HAVE BREAKAWAY BASE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION.

L. CONTRACTOR TO FIELD VERIFY ALL POLE LOCATIONS PRIOR TO DRILLING AS NOT TO INTERFERE WITH UTILITIES, SIDEWALK OR RIGHT OF WAY.

M. THE SIDEWALK LUMINAIRES ARE TO FACE THE SIDEWALK AT ALL LOCATIONS.

N. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE.(TYP).

KEY NOTES:

1 NO.3 1/2 PULL BOX. INSTALL PER PIMA COUNTY STANDARDS.

2 150W LUMINAIRE. REFER TO POLE SCHEDULE FOR ADDITIONAL INFORMATION AND REQUIREMENTS.

3 EXISTING ADVANCE LOOP (PHASE 6). PROTECT IN PLACE UNTIL ROADWAY PAVEMENT REMOVAL.

4 NEW 6'X6' ADVANCE PULSE LOOP (PHASE 6). CENTER IN EACH LANE. INSTALL AT 330 FT FROM NEW STOP BAR.(BY OTHERS)

5 EXISTING LOOP DETECTOR LEAD-IN CABLE CONDUIT. PROTECT IN PLACE FOR REUSE.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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1-800-782-5348
Blue Stake Center CALL COLLECT

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RAAI JOB#: 11008

E6

DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PRISCILLA S. CORNELIO, P.E., DIRECTOR

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C01LRV
SIDEWALK LIGHTING PLANS 51+00 TO 60+00

SCALES HORIZ. 1"= 40' VERT. 1"= 4'

SHEET 54 OF 57

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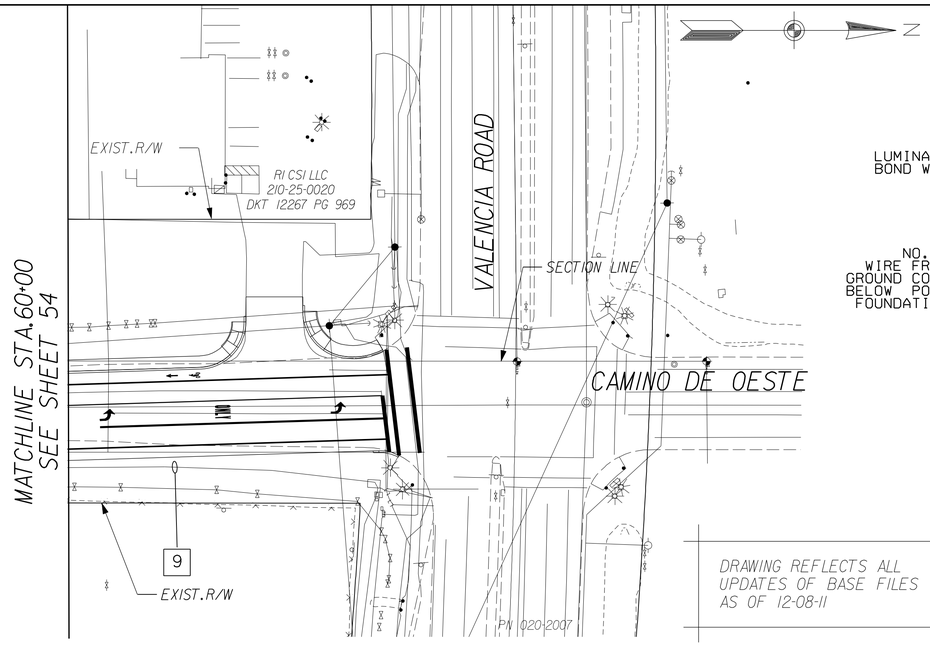

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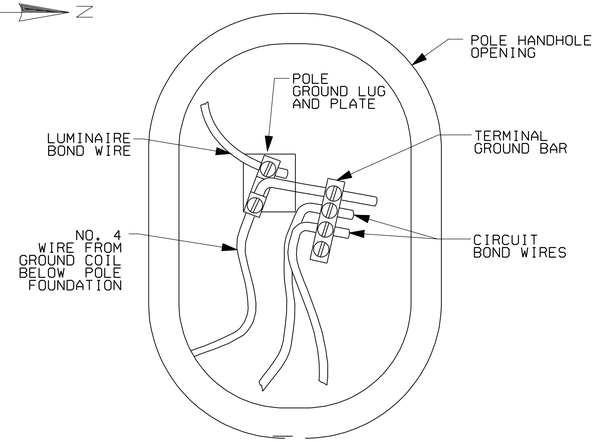
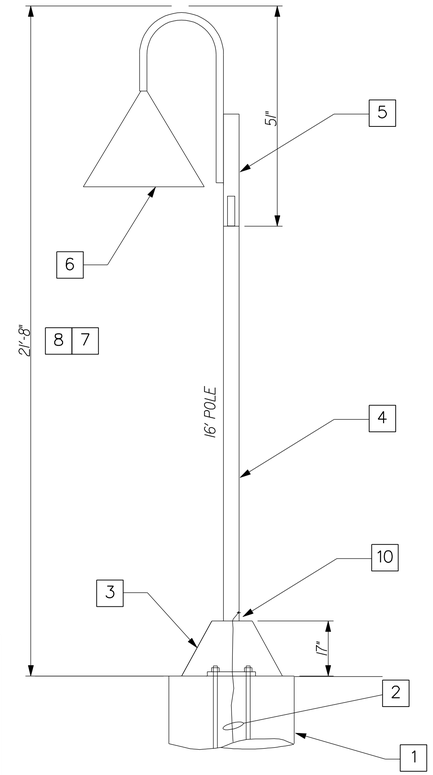


B GROUND LUG DETAIL
NOT TO SCALE



A POLE AND LUMINAIRE DETAIL
NOT TO SCALE

KEY NOTES: DETAILS A AND B

1 POLE FOUNDATION WITH ANCHOR BOLTS. REFER TO DETAILS 1 AND 2 THIS SHEET.

2 #4 B.C. GROUND WIRE DOWN TO 25 FT OF COILED WIRE AT BASE OF FOUNDATION.

3 BREAKAWAY BASE FOR POLES INDICATED IN THE POLE SCHEDULE. REFER TO KEYNOTE 3 OF POLE SCHEDULE.

4 16 FT POLE SHAFT PER KEYNOTE 1 OF POLE SCHEDULE.

5 SHEPHERD'S HOOK MAST ARM TENON MOUNTED TO TOP OF POLE SHAFT. REFER TO KEYNOTE 2 OF POLE SCHEDULE.

6 FULL CUT OFF LUMINAIRE PENDANT MOUNTED TO END OF HOOK MAST ARM. REFER TO KEYNOTE 2 OF POLE SCHEDULE.

7 HEIGHT ABOVE FINISHED GRADE WITH BREAKAWAY BASE.

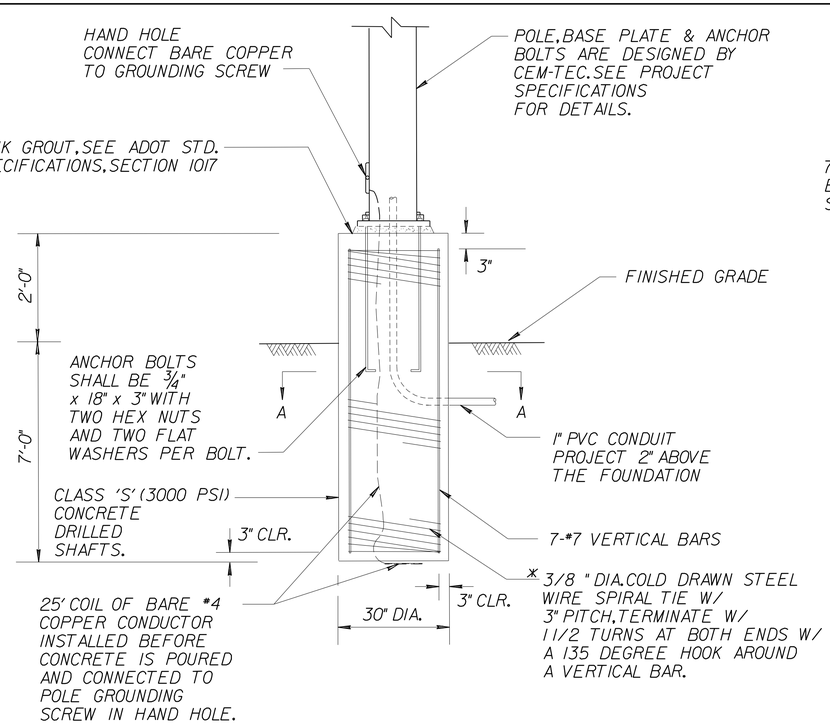
8 HEIGHT ABOVE FINISHED GRADE WITHOUT BREAKAWAY BASE IS 20'-3".

9 EXISTING LEAD-IN CABLE CONDUIT. PROTECT IN PLACE FOR REUSE.

10 REFER TO DETAIL 'B' THIS SHEET FOR ADDITIONAL TERMINATION REQUIREMENTS.

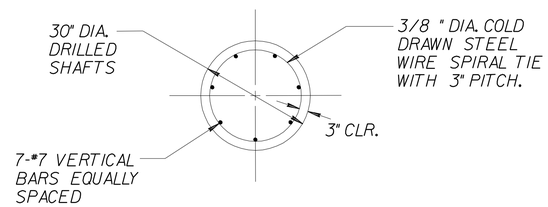
PROJECT NOTES:

A. CONTRACTOR IS TO POTHOLE IN THE LOCATION WHERE LESS THAN 5' HORIZONTAL SEPARATION & APPROVAL BY FIELD ENGINEER PRIOR TO INSTALLATION OF POLE (TYP).



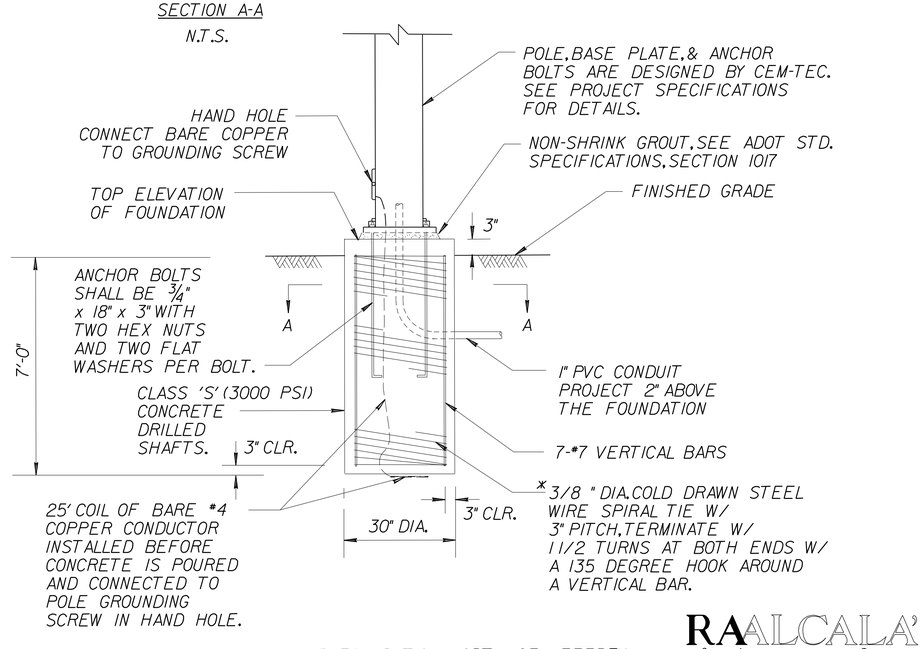
DETAIL 2 - POLE FOUNDATION SOUTH OF JEFFREY

N.T.S.



SECTION A-A

N.T.S.



DETAIL 1 - POLE FOUNDATION NORTH OF JEFFREY

N.T.S.

KEY NOTES: DETAILS 1 AND 2

1. THE UPPER 1'-0" OF ANCHOR BOLTS SHALL BE GALVANIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A153.
2. FOR POLE AND BASE DETAILS, SEE CEM-TEC PLANS.
3. DRILLED SHAFTS SHALL BE ADOT CLASS 'S' CONCRETE AND PLACED AGAINST UNDISTURBED MATERIAL OR COMPACTED EMBANKMENT
4. DRILLED SHAFTS SHALL BE FORMED 6" MIN. BELOW GROUND SURFACE.
5. COMPACTED BACK FILL SHALL BE IN PLACE PRIOR TO ERECTING POLE.

THE POLE FOUNDATION DETAILS AND NOTES ON THIS SHEET HAVE BEEN PROVIDED BY PIMA COUNTY DOT FOR USE ON THIS PROJECT.

* THE SPIRAL REINFORCEMENT SHALL CONFORM TO AASHTO, 17TH EDITION, SECTION 4.5.16.6 AND THE INFORMATION PROVIDED ON THIS SHEET.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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RAAI JOB#: 11008

E7

DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

PRISCILLA S. CORNELIO, P.E., DIRECTOR

PROFESSIONAL ENGINEER (ELECTRICAL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. REGISTRATION EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4C01RV
SIDEWALK LIGHTING PLANS 60+00 TO 64+00

SCALES HORIZ. 1" = 40' VERT. 1" = 4'

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1 POLE SCHEDULE - TRICO SERVICE AREA

POLE NUMBER	CIRCUIT NUMBER	POLE LOCATION INFORMATION STATION	POLE LOCATION INFORMATION OFFSET FROM TL	FOUNDATION INFORMATION BASE TYPE	2 LUMINAIRE INFORMATION OTHER INFORMATION	WATTAGE	QTY.
1	4	10+07	36 L		FULL CUTOFF	150 HPS	1
2	3	11+09	36 L				
3	4	12+27	32 L				
4	3	13+37	53 L				
5	4	14+47	54 L				
6	3	15+57	54 L				
7	4	16+67	54 L				
8	3	17+77	54 L				
9	4	18+87	54 L				
10	3	19+97	54 L				
11	4	21+07	54 L				
12	3	22+17	54 L				
13	4	23+27	36 L				
14	3	24+37	36 L				
15	4	25+00	30 L				
16	3	25+80	30 L				
17	4	26+90	30 L				
18	3	27+00	30 L				
19	1	28+08	30 L				
20	2	30+18	30 L				
21	1	31+28	30 L				
22	2	32+38	34 L				
23	1	33+49	34 L				
24	2	34+60	34 L				
25	1	35+70	30 L		FULL CUTOFF	150	1

TL = TRAVEL ROADWAY EDGELINE

1 POLE SCHEDULE - TEP SERVICE AREA

POLE NUMBER	CIRCUIT NUMBER	POLE LOCATION INFORMATION STATION	POLE LOCATION INFORMATION OFFSET FROM TL	FOUNDATION INFORMATION BASE TYPE	2 LUMINAIRE INFORMATION OTHER INFORMATION	WATTAGE	QTY.
26	3	36+81	18 L	3 BREAKAWAY BASE			
27	4	37+81	18 L				
28	3	39+01	18 L				
29	4	40+11	18 L				
30	3	41+21	18 L				
31	4	42+31	18 L				
32	3	43+41	18 L				
33	4	44+51	18 L				
34	3	45+61	18 L				
35	4	46+71	18 L				
36	3	47+81	18 L				
37	4	48+91	18 L				
38	3	49+81	18 L				
39	4	50+71	18 L				
40	3	51+92	18 L				
41	4	53+08	18 L				
42	3	54+13	18 L				
43	4	55+02	18 L				
44	3	56+02	18 L				
45	4	57+02	18 L				
4 46	3	58+21	15 L	BREAKAWAY	FULL CUTOFF	150	1

TL = TRAVEL ROADWAY EDGELINE

CIRCUIT SCHEDULE

PANELBOARD: LIGHTING CABINET VOLTAGE: 120/240 1 PH. 3 WIRE 10 K MIN AIC

TYPE: TRICO AREA MOUNTING INSIDE LIGHTING CABINET 100 AMP MAIN AT METER PEDESTAL

BRANCH CIRCUITS

CIRCUIT DESCRIPT.	CKT NO.	C/B	WIRE SIZE	VA/PHASE A	VA/PHASE B	WIRE SIZE	C/B	CKT NO.	CIRCUIT DESCRIPT.
– CIRCUIT 1 – –	1	20A/2P	6	432	927	4	20A/2P	2	– CIRCUIT 3 – –
	3		6		432 972	4		4	
– CIRCUIT 2 – –	5	20A/2P	6	324	972	4	20A/2P	6	– CIRCUIT 4 – –
	7		6		324 972	4		8	
– SPARE – –	9	20A/2P	–	–		–	20A/2P	10	– SPARE – –
	11		–		–	–		12	
LIGHTING				2808	2808	TOTAL CODE LOAD = 7020 VA			
+ 25% OF CONTINUOUS LOAD				702	702	MAX. CODE CURRENT = 29.25 AMPS			
TOTAL CONNECTED LOAD				3510	3510				

CIRCUIT SCHEDULE

PANELBOARD: LIGHTING CABINET VOLTAGE: 120/240 1 PH. 3 WIRE 10 K MIN AIC

TYPE: TEP AREA MOUNTING INSIDE LIGHTING CABINET 100 AMP MAIN AT METER PEDESTAL

BRANCH CIRCUITS

CIRCUIT DESCRIPT.	CKT NO.	C/B	WIRE SIZE	VA/PHASE A	VA/PHASE B	WIRE SIZE	C/B	CKT NO.	CIRCUIT DESCRIPT.
– CIRCUIT 1 SPARE –	1	20A/2P	6	– 1296		4	20A/2P	2	– CIRCUIT 3 – –
	3		6		– 1296	4		4	
– CIRCUIT 2 SPARE –	5	20A/2P	6	– 1080		4	20A/2P	6	– CIRCUIT 4 – –
	7		6		– 1080	4		8	
– SPARE – –	9	20A/2P	–	–		–	20A/2P	10	– SPARE – –
	11		–		–	–		12	
LIGHTING				2376	2376	TOTAL CODE LOAD = 5940 VA			
+ 25% OF CONTINUOUS LOAD				594	594	MAX. CODE CURRENT = 24.75 AMPS			
TOTAL CONNECTED LOAD				2970	2970				

CONDUCTOR SCHEDULE

AWG.	CONDUIT RUN / CONDUIT SIZE INCHES	A	B	C	D	E	F	G	H	J ‡	K
	CONDUIT SIZE INCHES	2 1/2"	2"	2"	1"	2"	1"	1"	1"	2"	2"
	QUANTITY OF CONDUCTORS										
1	POWER SERVICE	3									
4	LIGHTING			4		2					
6	LIGHTING		4				2				
8	LIGHTING									4	2
10	LIGHTING				2				2		
10	GRN INS (GND) (*)				1				1		
6	GRN INS BOND (GND) (*)	1									
8	BARE CU (GND) (*)		1	1		1	1			1	1
12	PE CELL							3	3		
12	GRN INS (GND)							1	1		

* = FLEX CONDUIT

(*) + GREEN INSULATION PER ADOT DWG. NO. T.S. 1-6

‡ = LETTER INOT USED

KEY NOTES - POLE SCHEDULE

1. POLE TO BE 4 1/2 INCH DIA.0.125" THICK.ROUND STRAIGHT SHAFT.16 FT LONG PLUS 3 3/8 INCH X 0.188 INCH THICK WALL X 11 INCH LONG TENON. TYPICAL ALL POLES.BASE PLATE TO BE 3/4" X 8" SQUARE WITH 15/16 INCH DIA.HOLES ON 8 INCH BOLT CIRCLE.
2. EUROTIQUE MUNICH SERIES MOUNTED TO EUROTIQUE ARMS EAJ4/1 SHEPHERD HOOK MAST ARM.
3. BREAKAWAY BASE.CEM-TEC TB 2-17 (FOR POLE TYPE A). BOLT HOLE CIRCLE TO MATCH POLE BASE.
4. POLE CENTER IS 3'+0" EAST OF SECTION LINE.

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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(520) 623-7773
RAAI JOB#: 11008

E8

DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

PRISCILLA S. CORNELIO, P.E., DIRECTOR

REGISTERED PROFESSIONAL ENGINEER 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A. EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
SIDEWALK LIGHTING PLANS

SCALES HORIZ. 1"= 40' VERT. 1"= 4'

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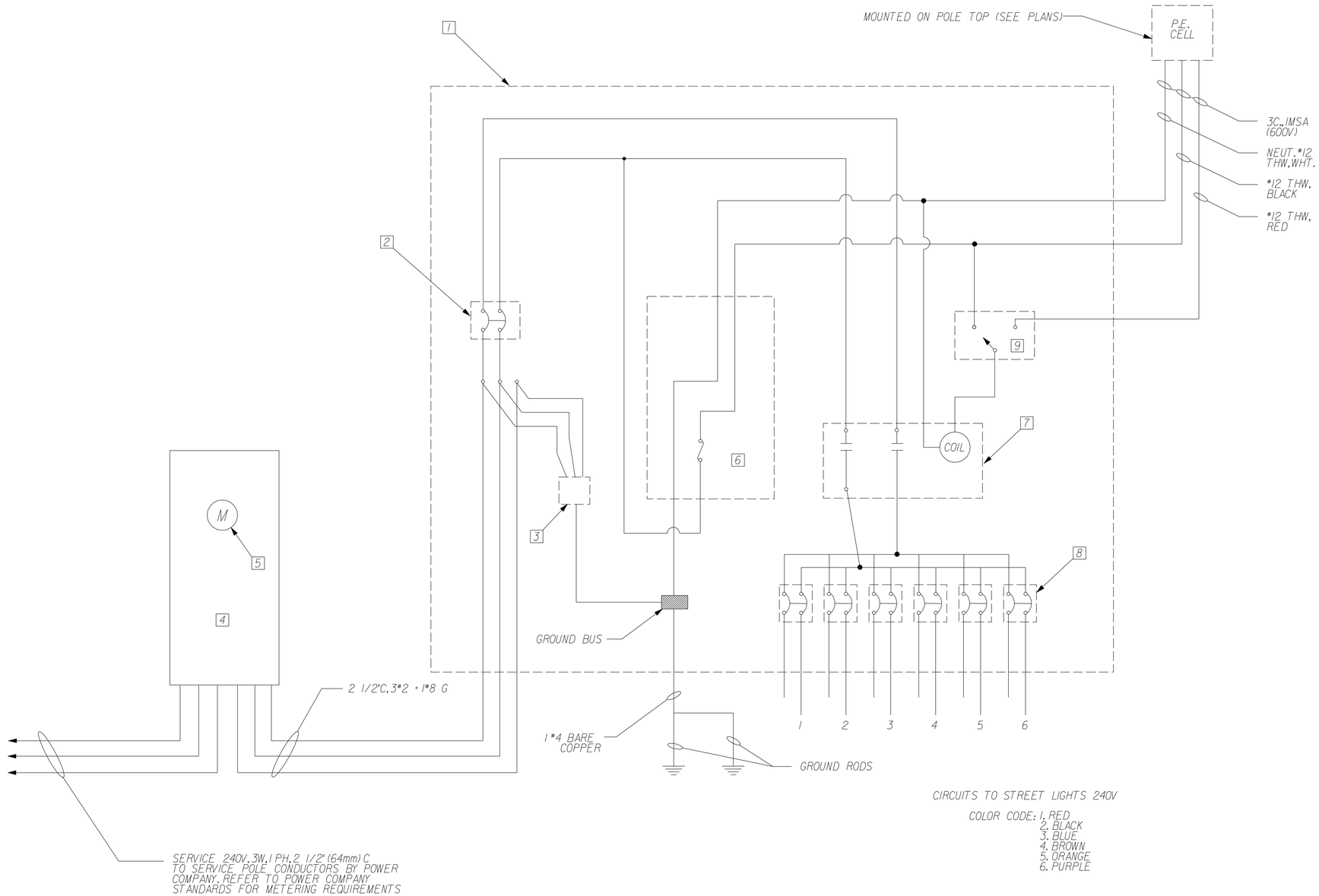

CIRCUITS TO STREET LIGHTS 240V

COLOR CODE: 1. RED
2. BLACK
3. BLUE
4. BROWN
5. ORANGE
6. PURPLE

TYPE 1 STREET LIGHTING CABINET (MODIFIED FOR 240V, 1 PH OPERATION)

C NOT TO SCALE

KEY NOTES: PIMA COUNTY/COT

1. LIGHTING CABINET. COT DETAIL DRAWING T325 MODIFIED FOR 240V, 1PH SERVICE.
2. 100A, 2P, 240V. MAIN BREAKER IN CABINET.
3. SECONDARY TYPE LIGHTING ARRESTOR 3W, 600V MAX TO GROUND.
4. MAIN CB IN METER PEDESTAL, 125A, 2P, 240V.
5. METER PER UTILITY COMPANY REQUIREMENTS.
6. 120V FUSE BLOCK AND FUSE FOR P.E. CELL AND CONTACTOR COIL POWER. 5A FUSE.
7. 100A, 2P, LIGHTING CONTACTOR.
8. PANEL PER SHEET E8 OR INDIVIDUAL MOUNT 2P, 20A CB'S
9. H-O-A SELECTOR SWITCH.

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	ROB ALCALA II	12/11
DRAWN	SANDY COOPER	12/11
CHECKED	ROB ALCALA II	12/11
PROJ. ENGR.	ROBERT A. ALCALA	12/11

REGISTERED PROFESSIONAL ENGINEER (CIVIL) 14857 ROBERT A. ALCALA DATE SIGNED 12-15-11 ARIZONA, U.S.A.
EXPIRES 3/31/2014

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
SIDEWALK LIGHTING PLANS

GRAPHIC SCALE

40 0 20 40 80 160

(IN FEET)

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RAAI JOB#: 11008

E9

SCALES	HORIZ. 1" = 40'	SHEET 57 OF 57
	VERT. 1" = 4'	

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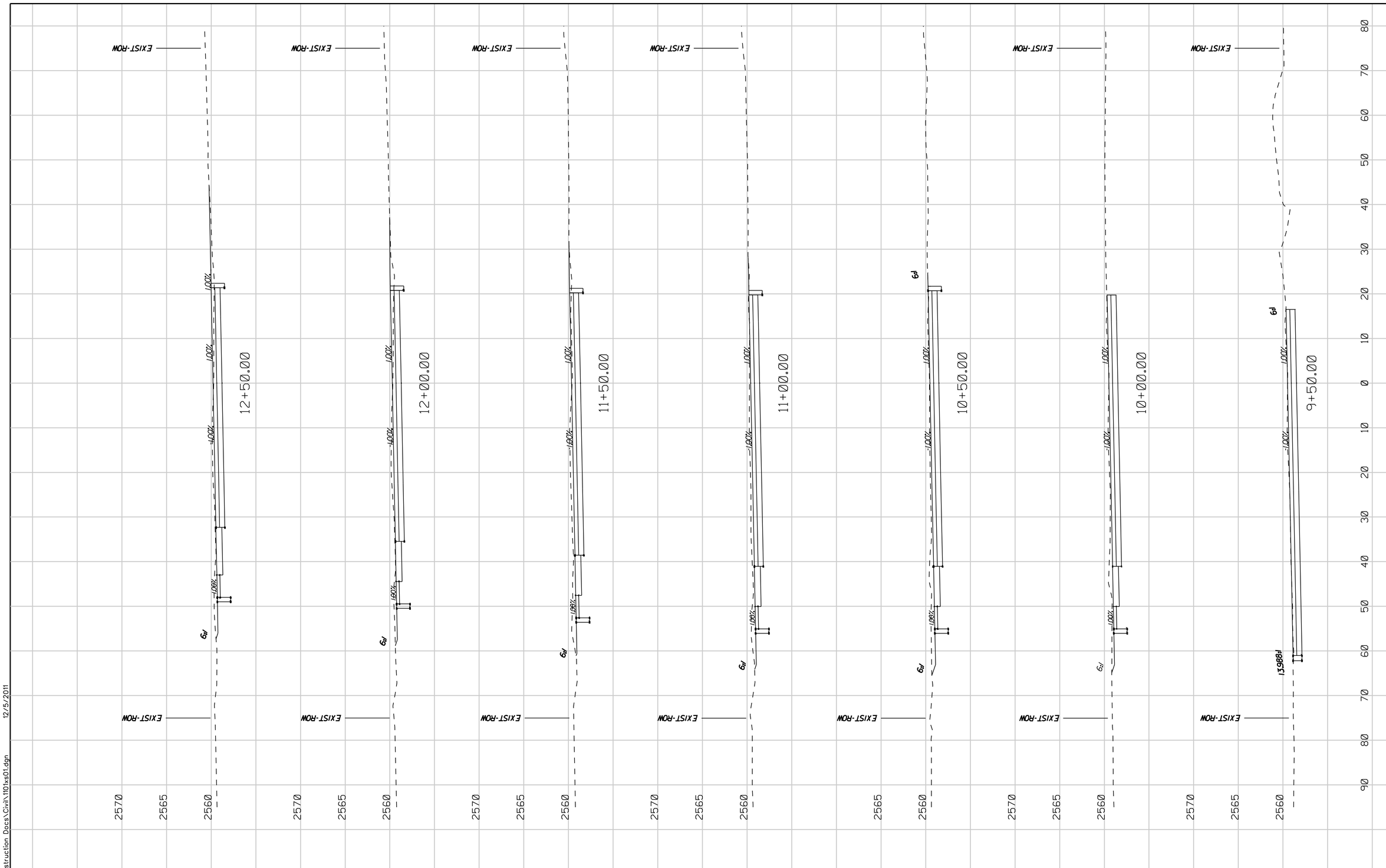

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SCALES HORIZ. 1" = 10'
VERT. 1" = 5'

SHEET 1 OF 16

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

STAGE V PLANS
FOR INFORMATION
ONLY

NO.	REVISION	DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C0LRV

CAMINO DE OESTE: STA 9+50 TO 12+50

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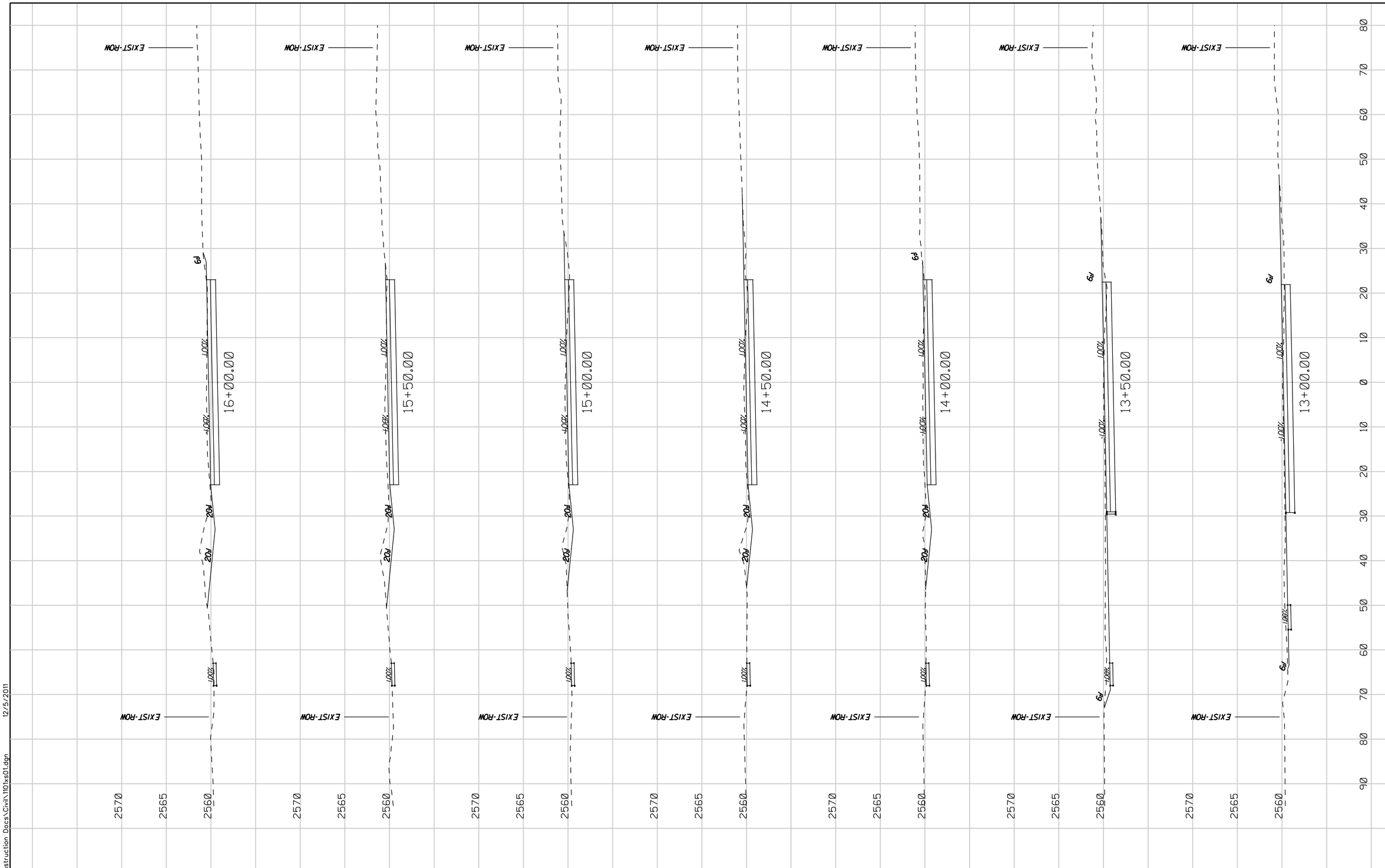

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

STAGE V PLANS FOR INFORMATION ONLY

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 13+00 TO 16+00

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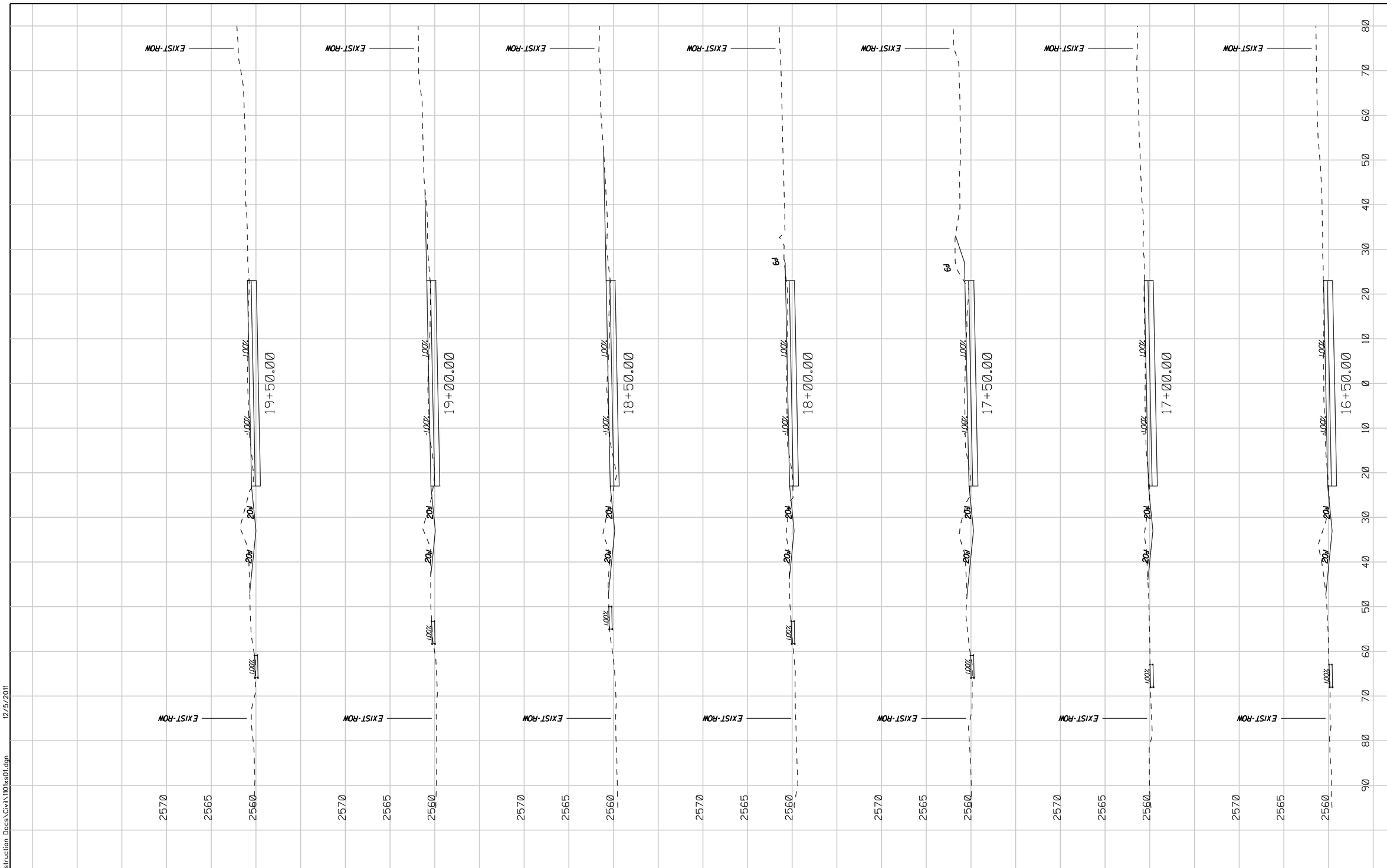
SCALES	HORIZ. 1" = 10'	SHEET 2 OF 16
	VERT. 1" = 5'	



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SHEET 3 OF 16

PRISCILLA S. CORNELIO, P.E., DIRECTOR

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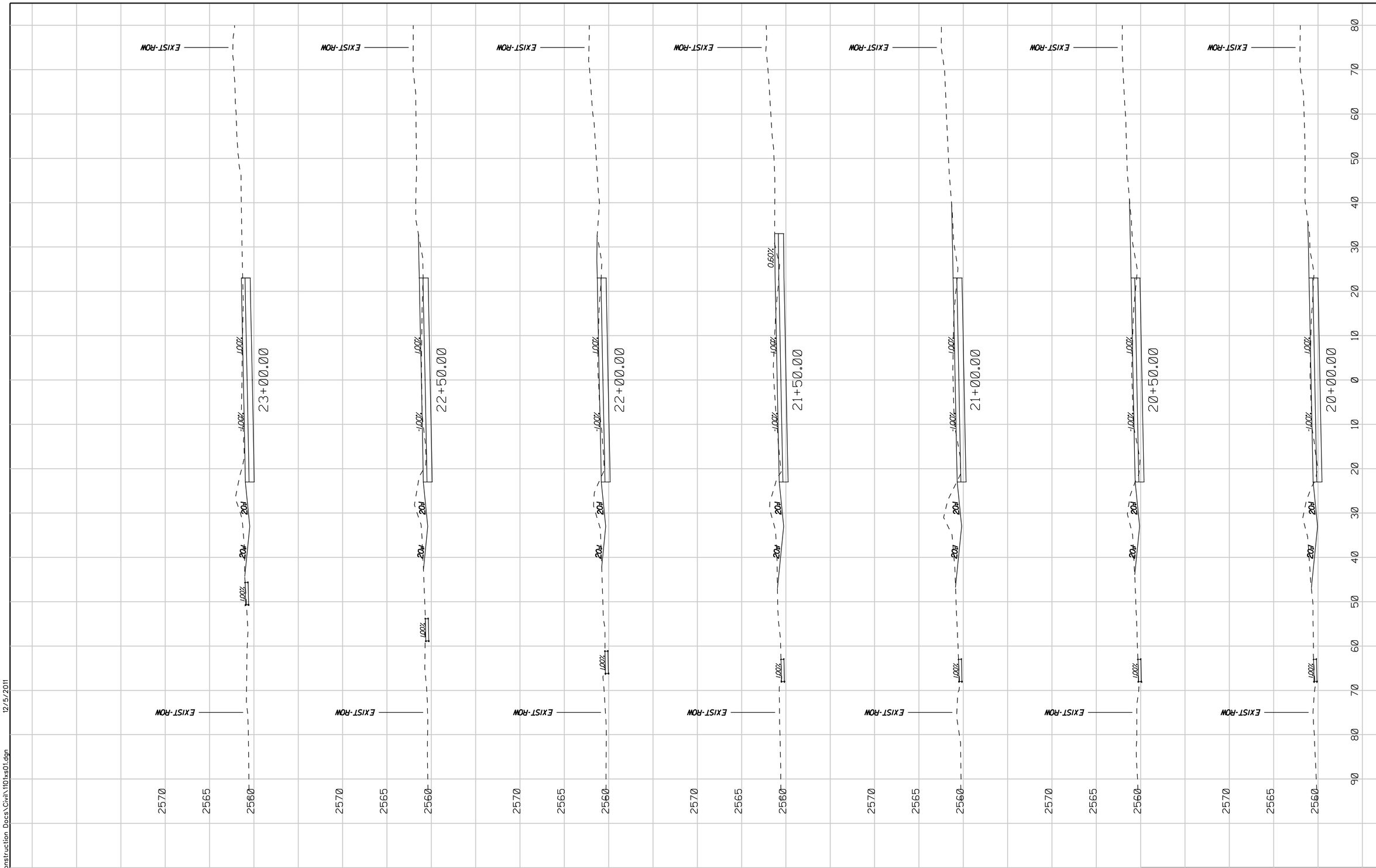
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 16+50 TO 19+50



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SHEET 4 OF 16

PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
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DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

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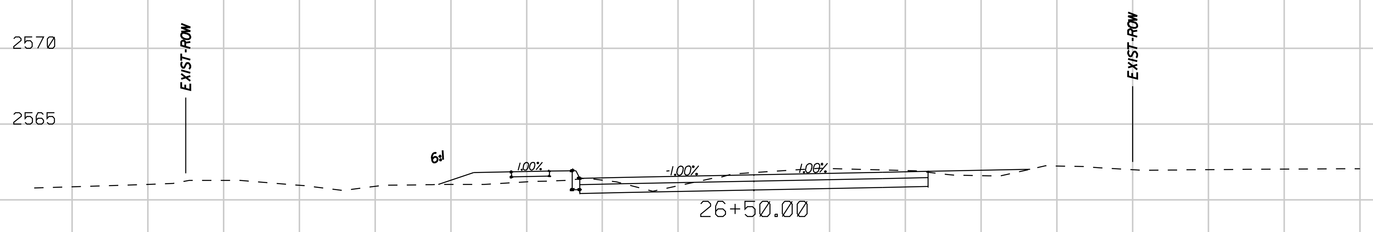
NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

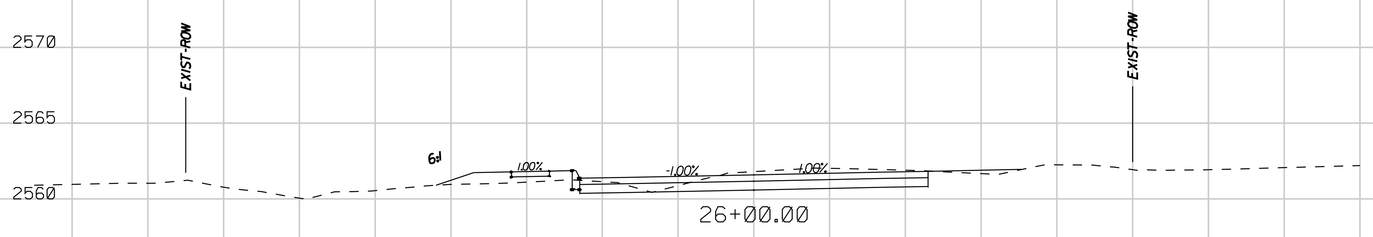
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

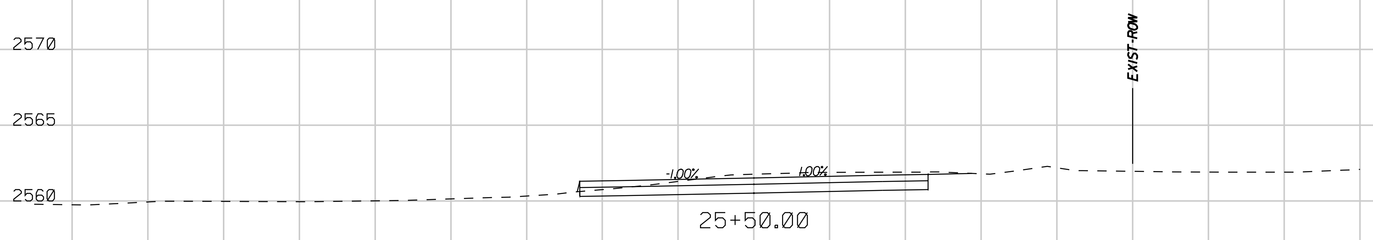
CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

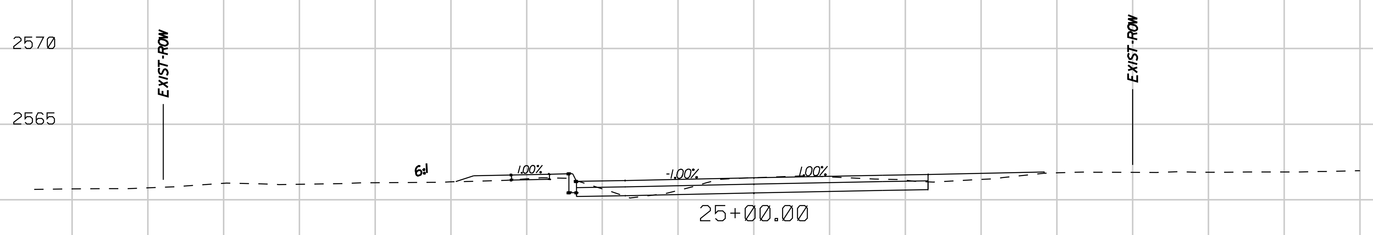
PROJECT NO. 4COLRV

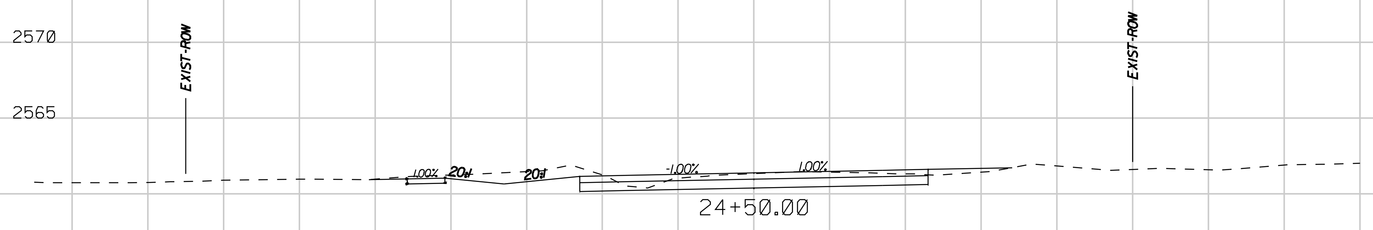
CAMINO DE OESTE: STA 20+00 TO 23+00

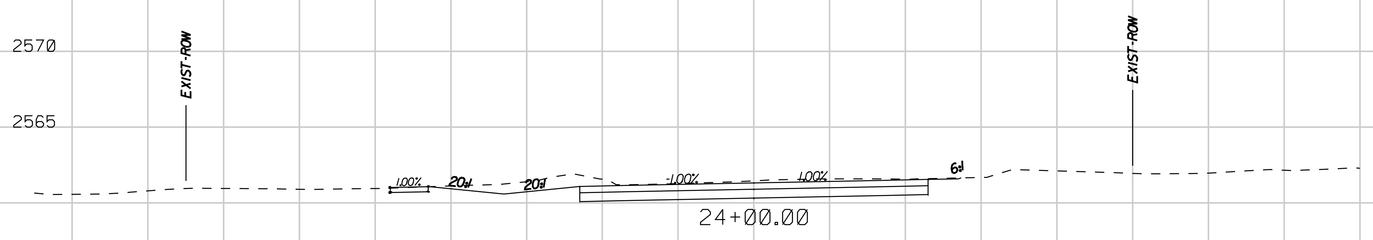


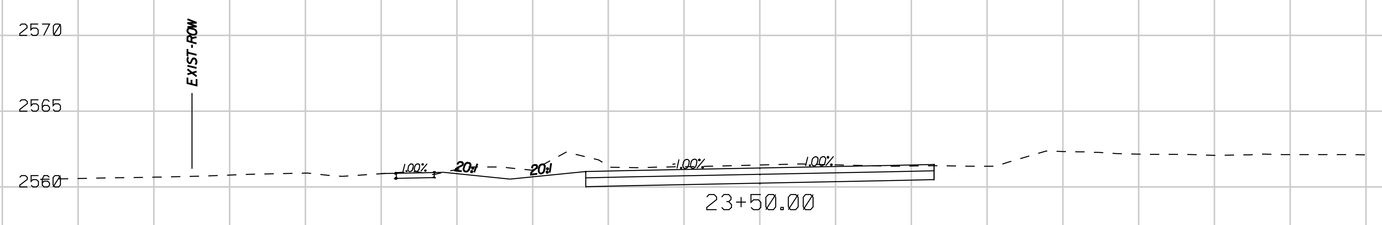












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PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 23+50 TO 26+50

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

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DESIGNED	KL	12/11
DRAWN	KL	12/11
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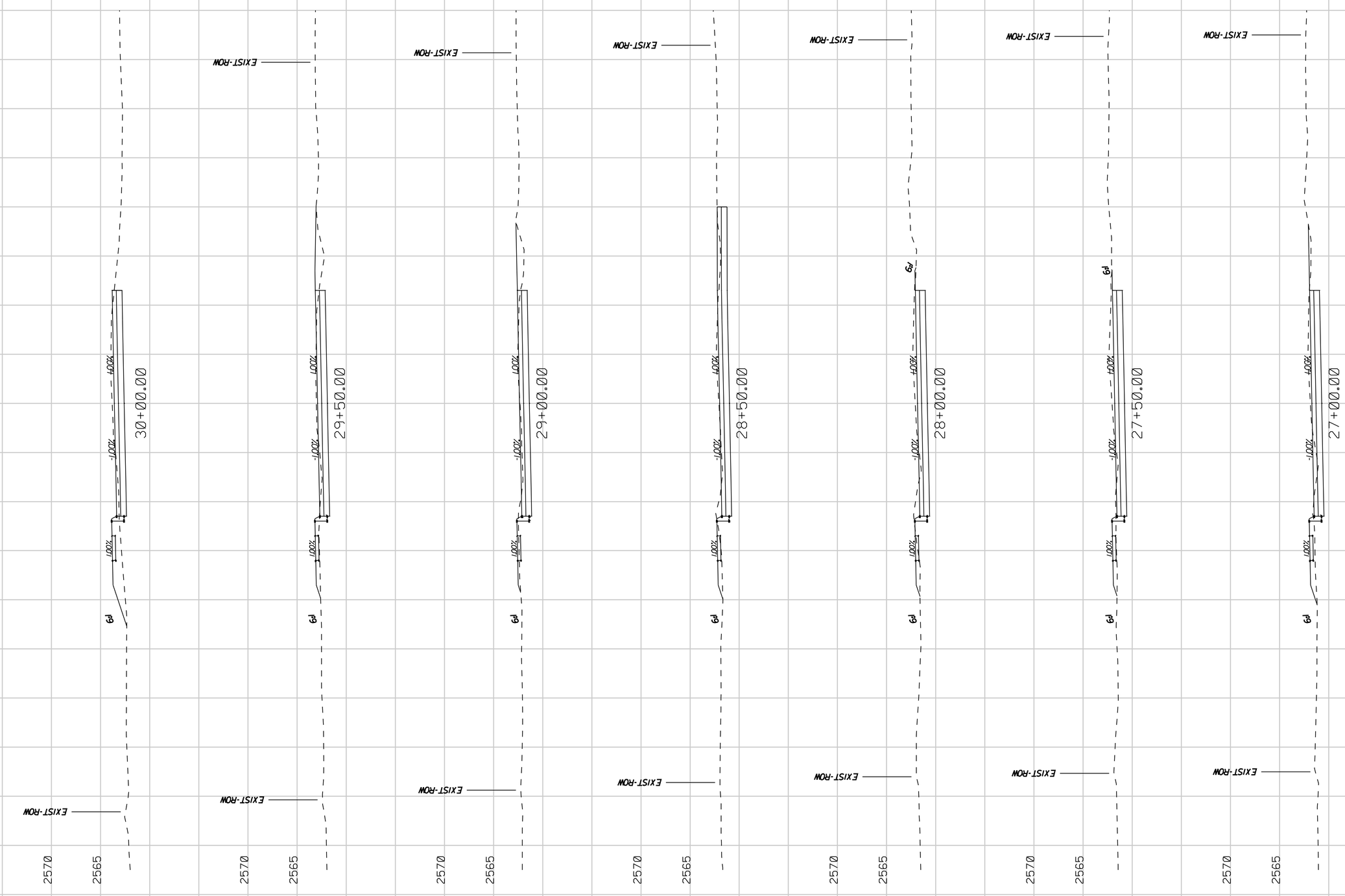

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

		DATE
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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 27+00 TO 30+00

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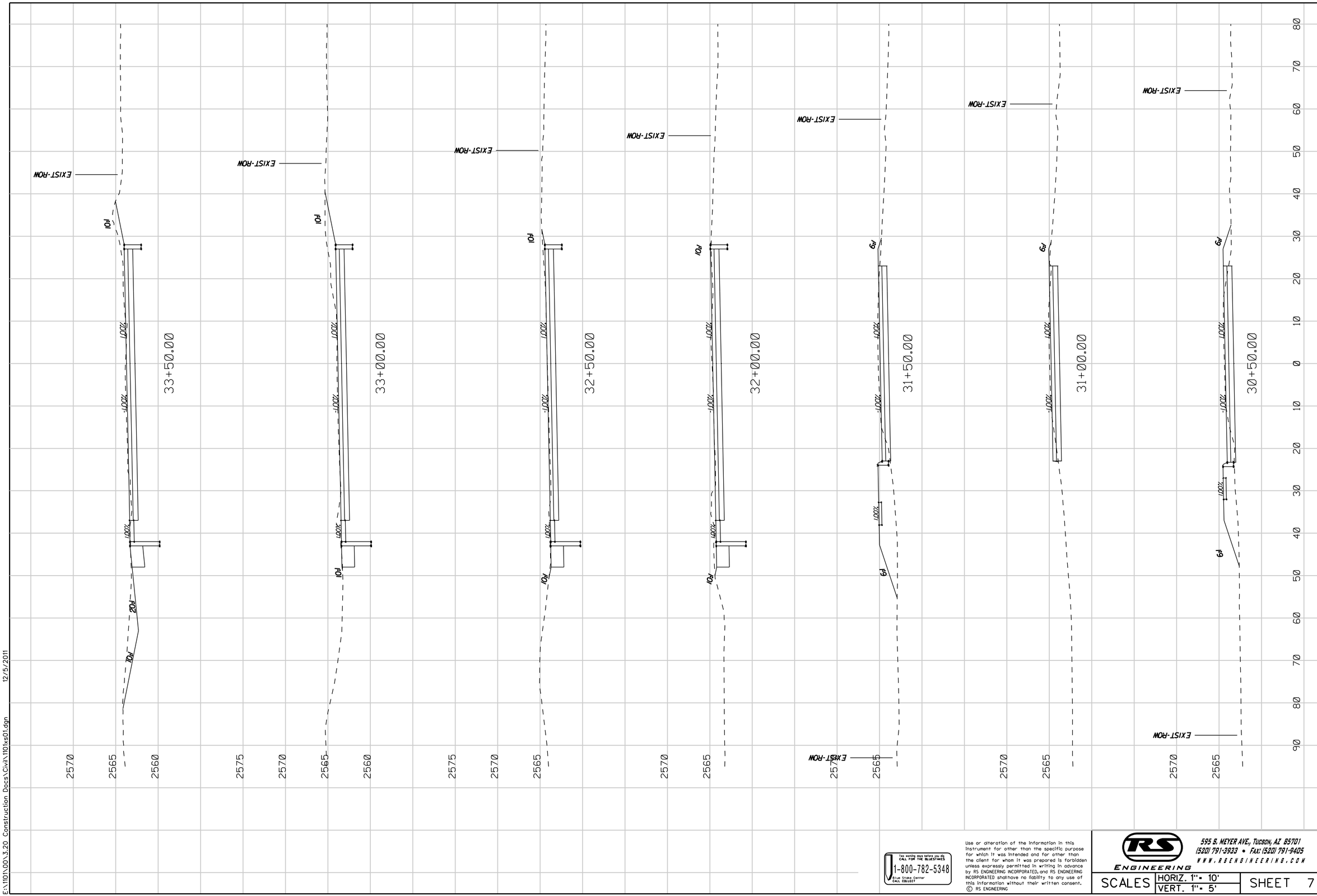

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DESIGNED	KL	12/11
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CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 30+50 TO 33+50

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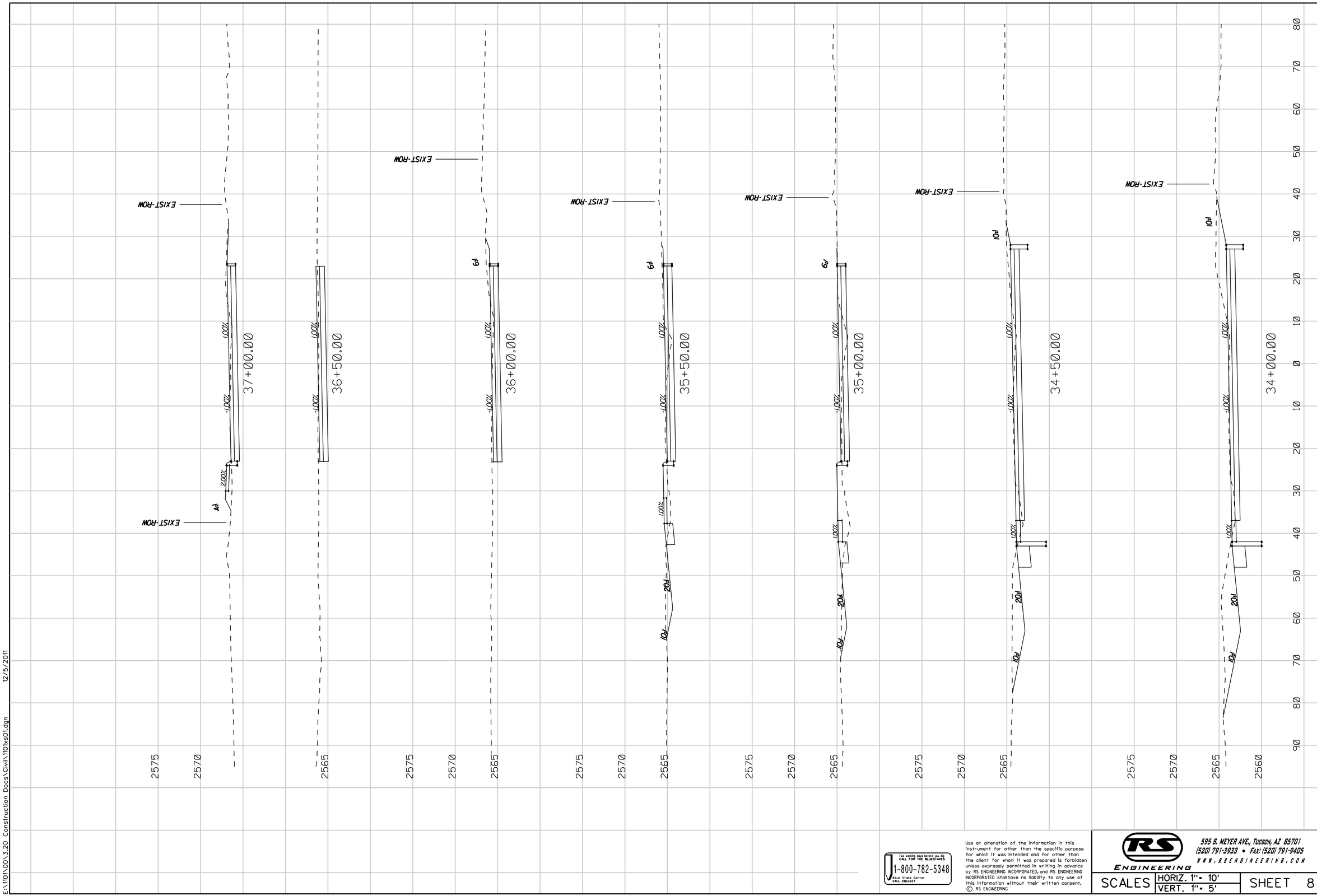

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SHEET 8 OF 16

PRISCILLA S. CORNELIO, P.E., DIRECTOR

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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
CAMINO DE OESTE: STA 34+00 TO 37+00

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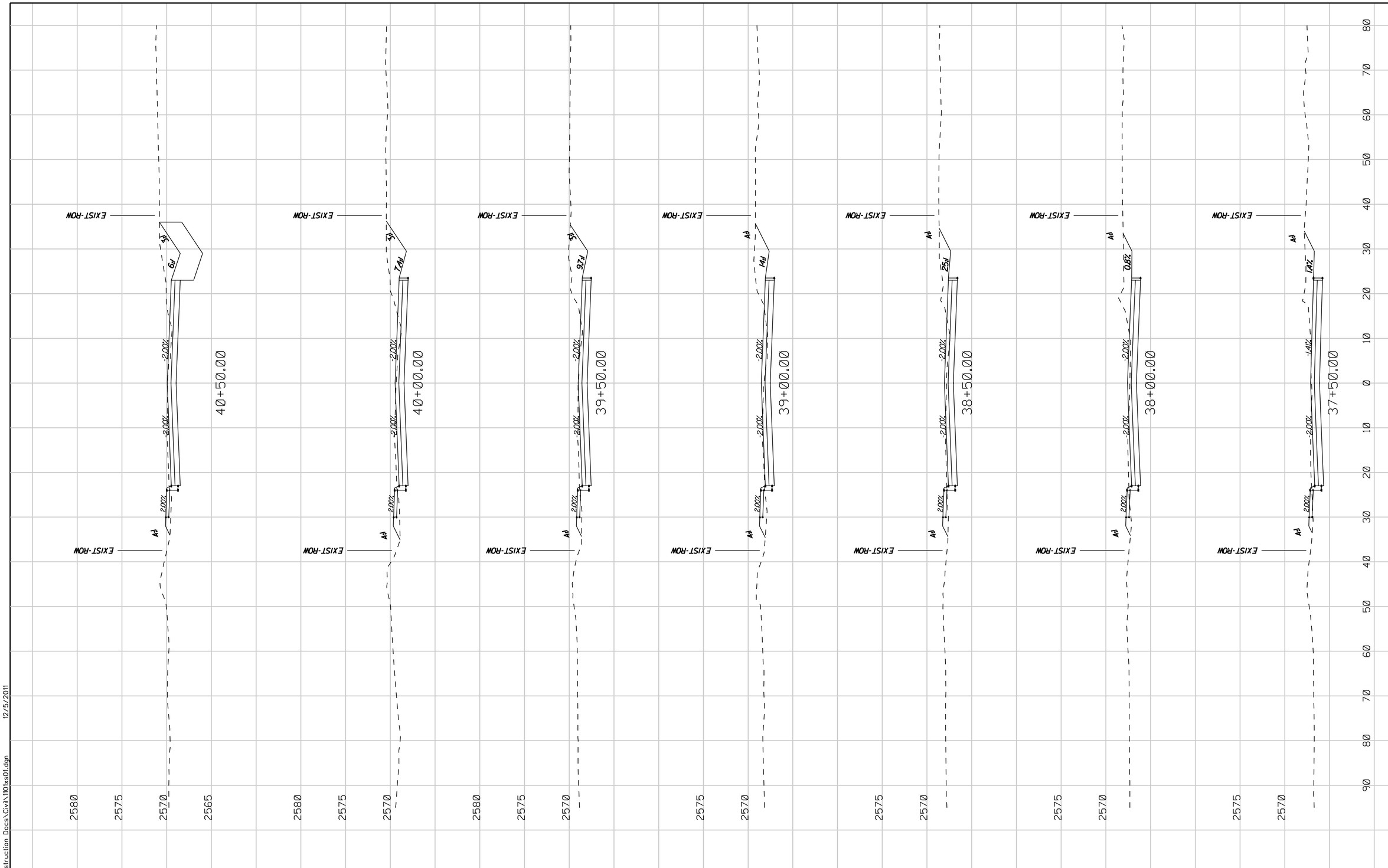

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CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 37+50 TO 40+50

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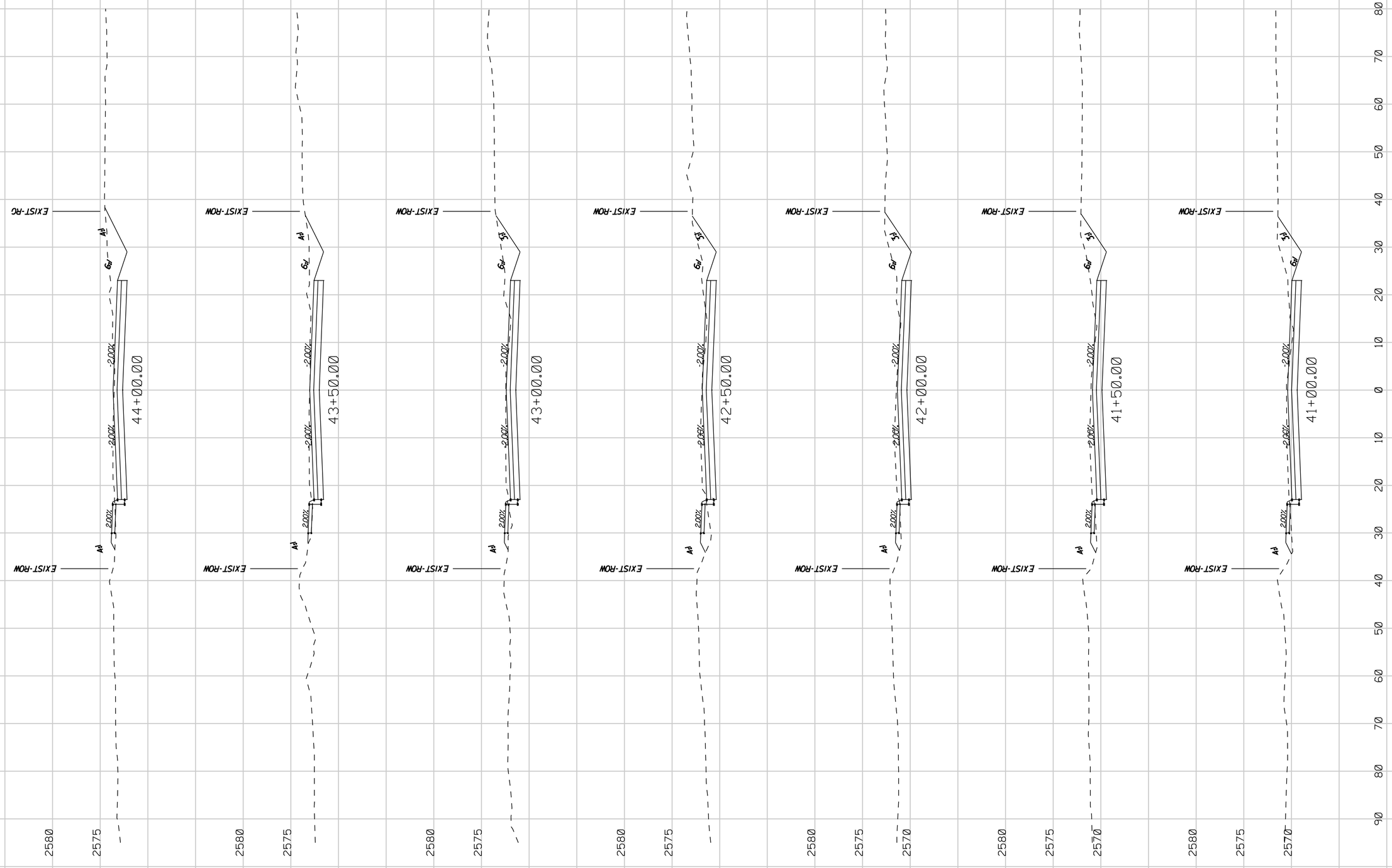

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CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 41+00 TO 44+00

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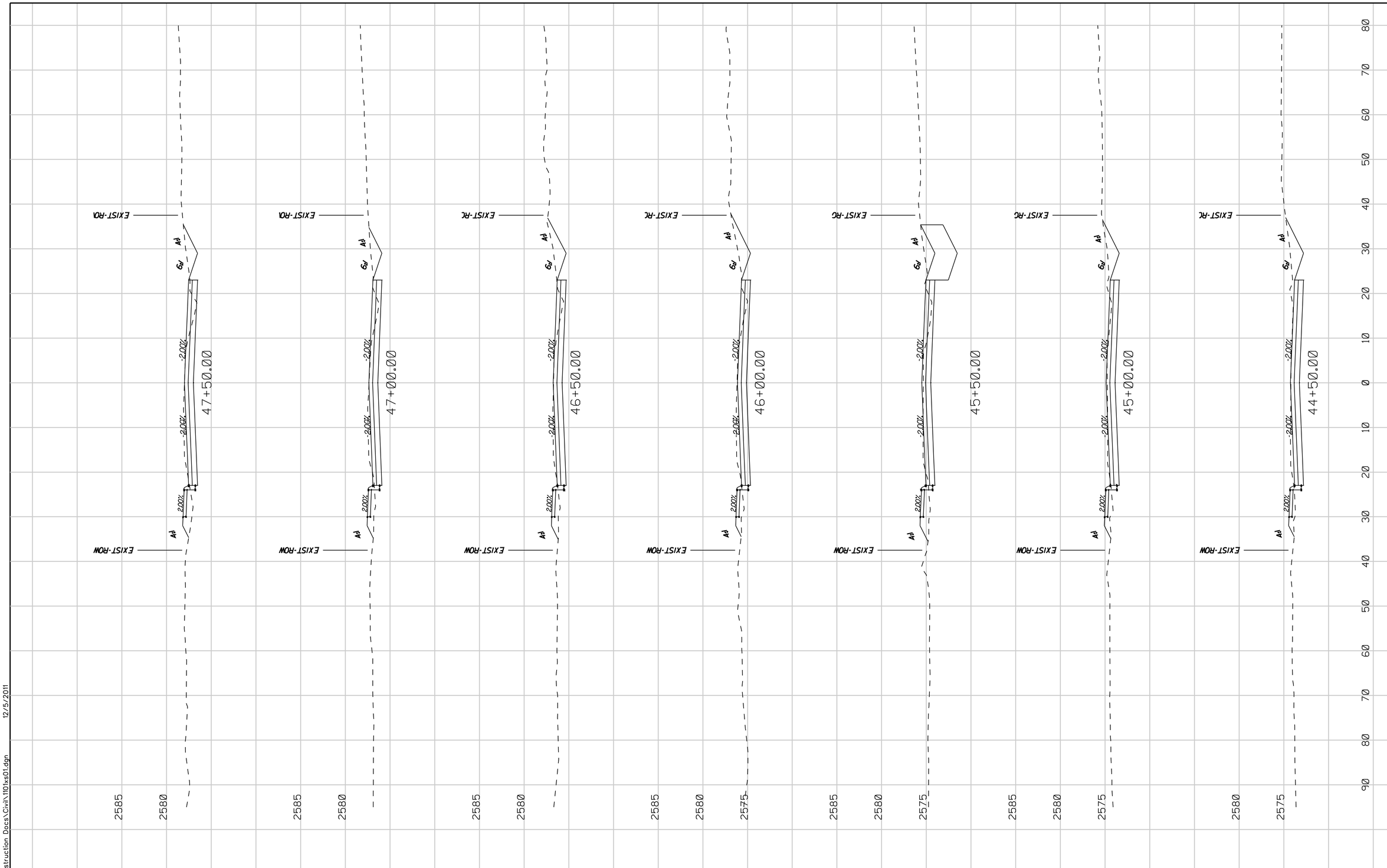

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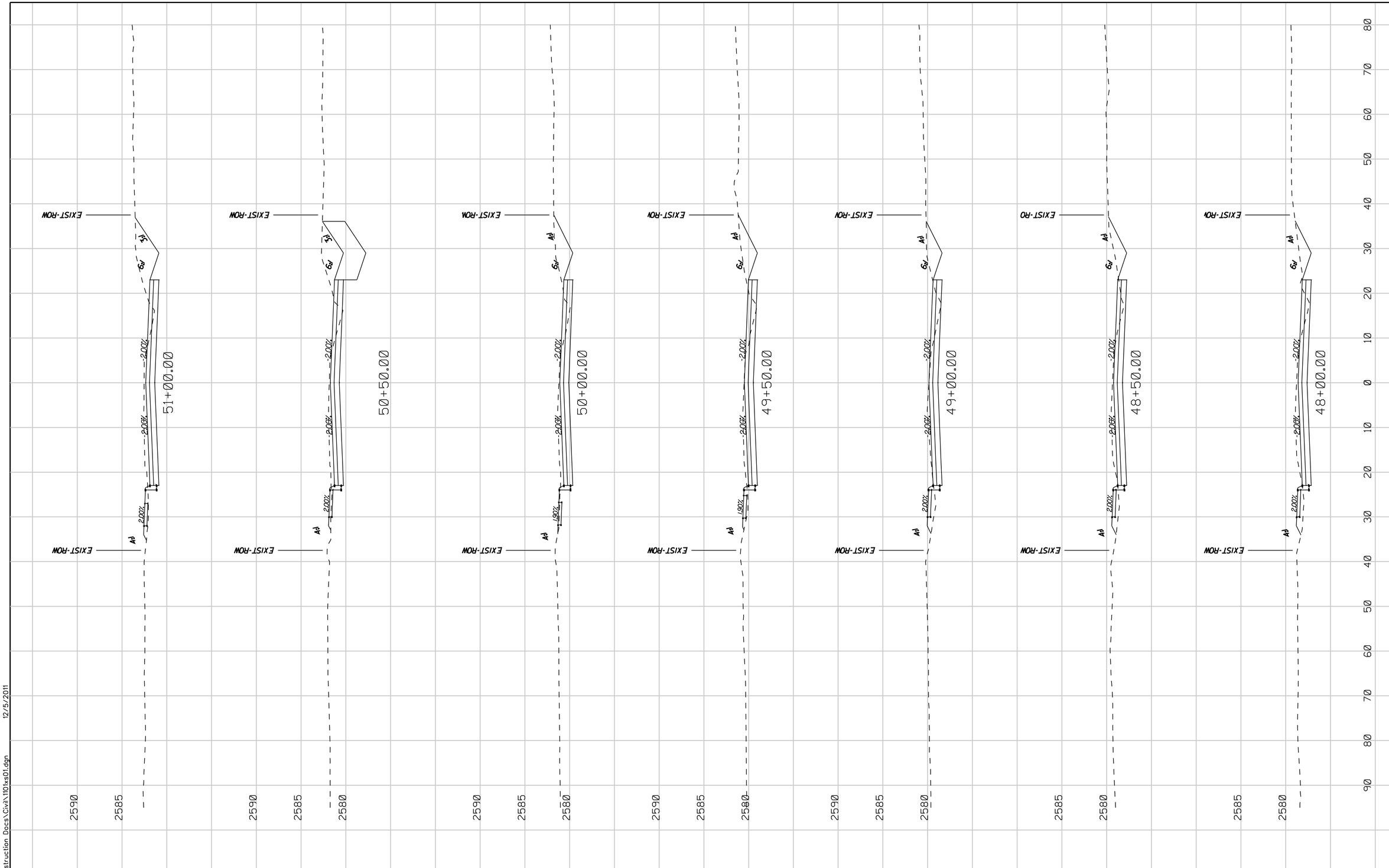
CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4C01RV

CAMINO DE OESTE: STA 44+50 TO 47+50



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SHEET 12 OF 16

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 48+00 TO 51+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

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		DATE
DESIGNED	KL	12/11
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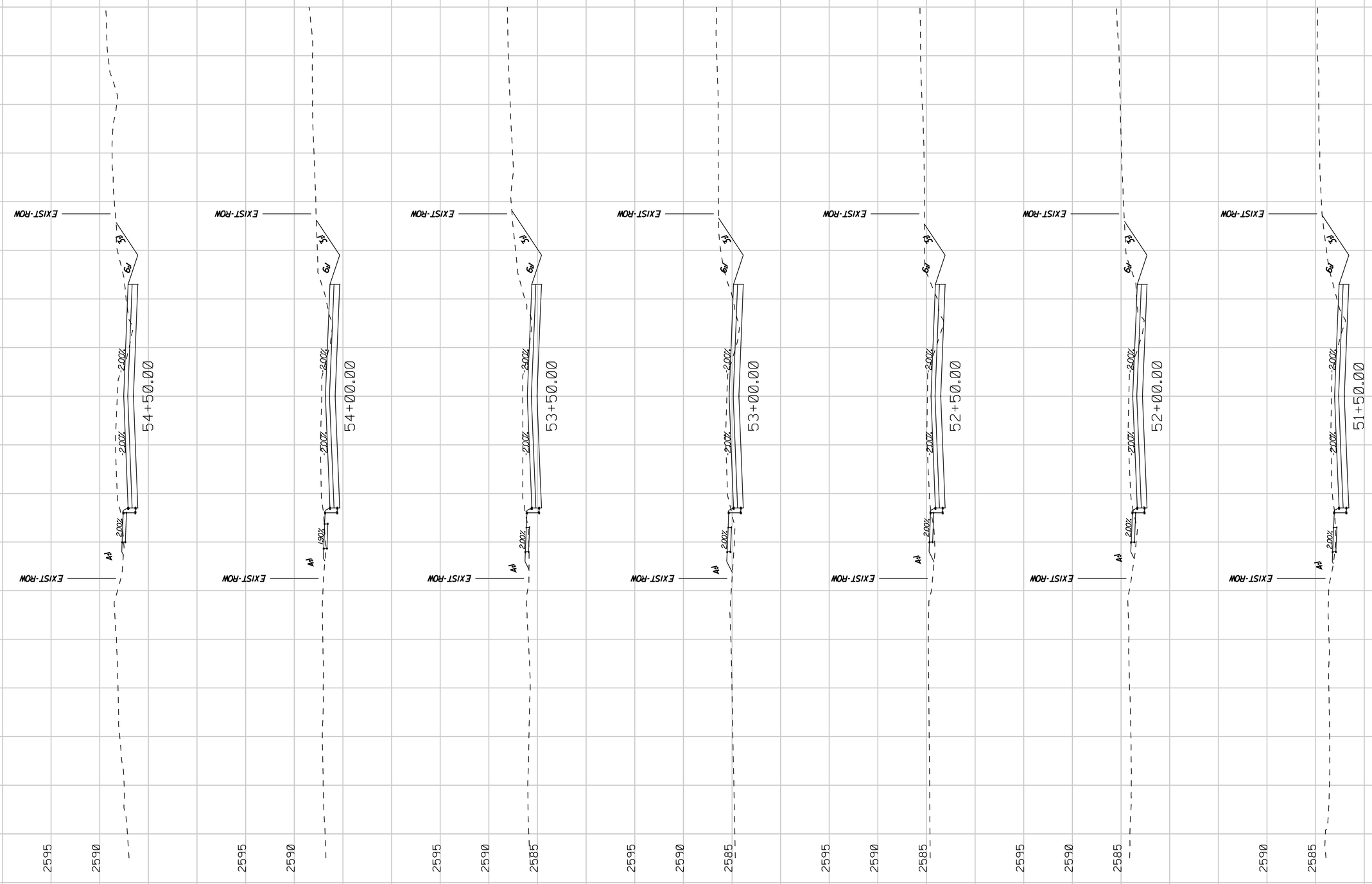
PROJ. ENGR.	RMS	12/11



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		DATE
DESIGNED	KL	12/11
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CHECKED	JP	12/11
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PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE: LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 51+50 TO 54+50

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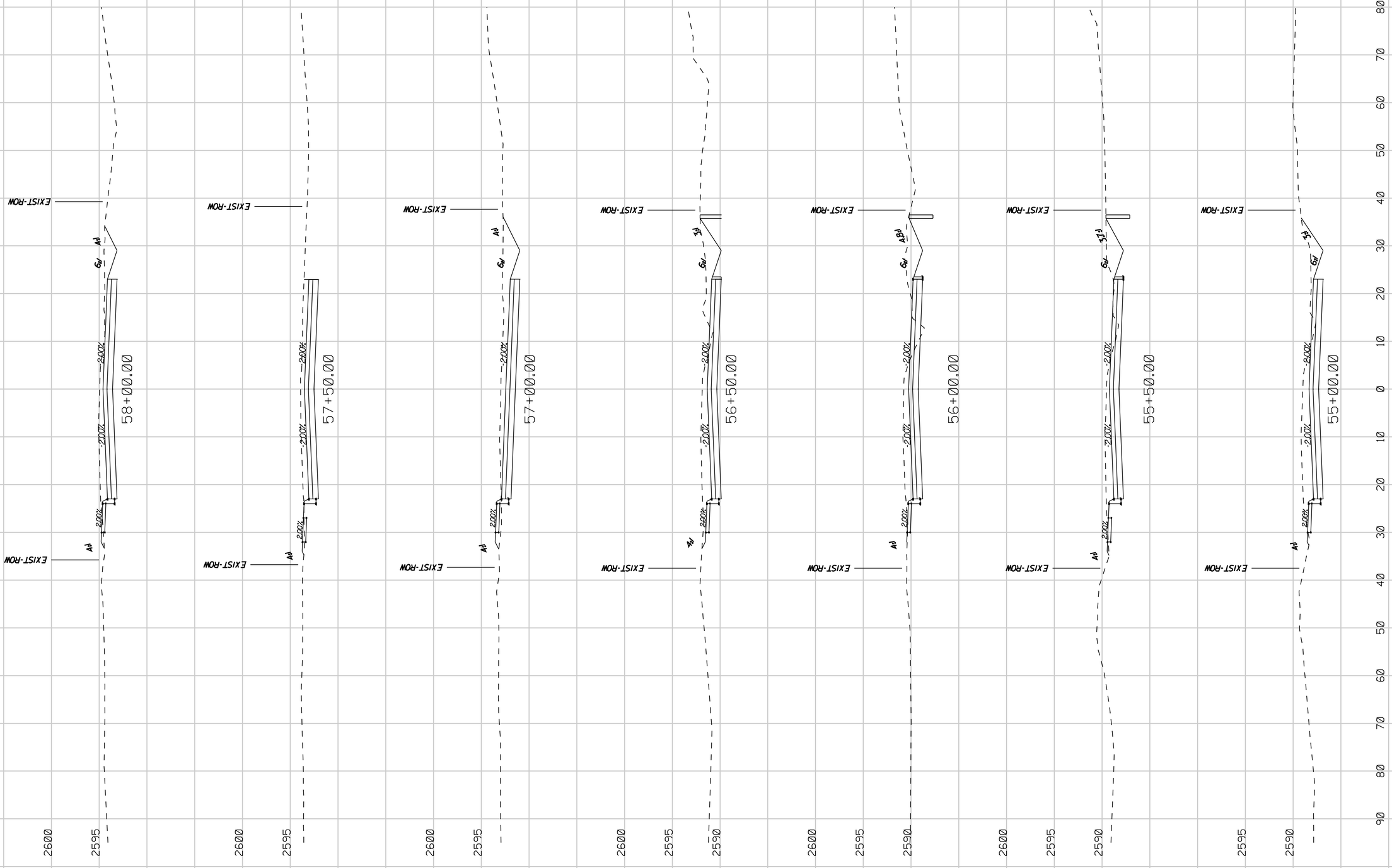

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VERT. 1" = 5'

SHEET 14 OF 16

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PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 55+00 TO 58+00

STAGE V PLANS
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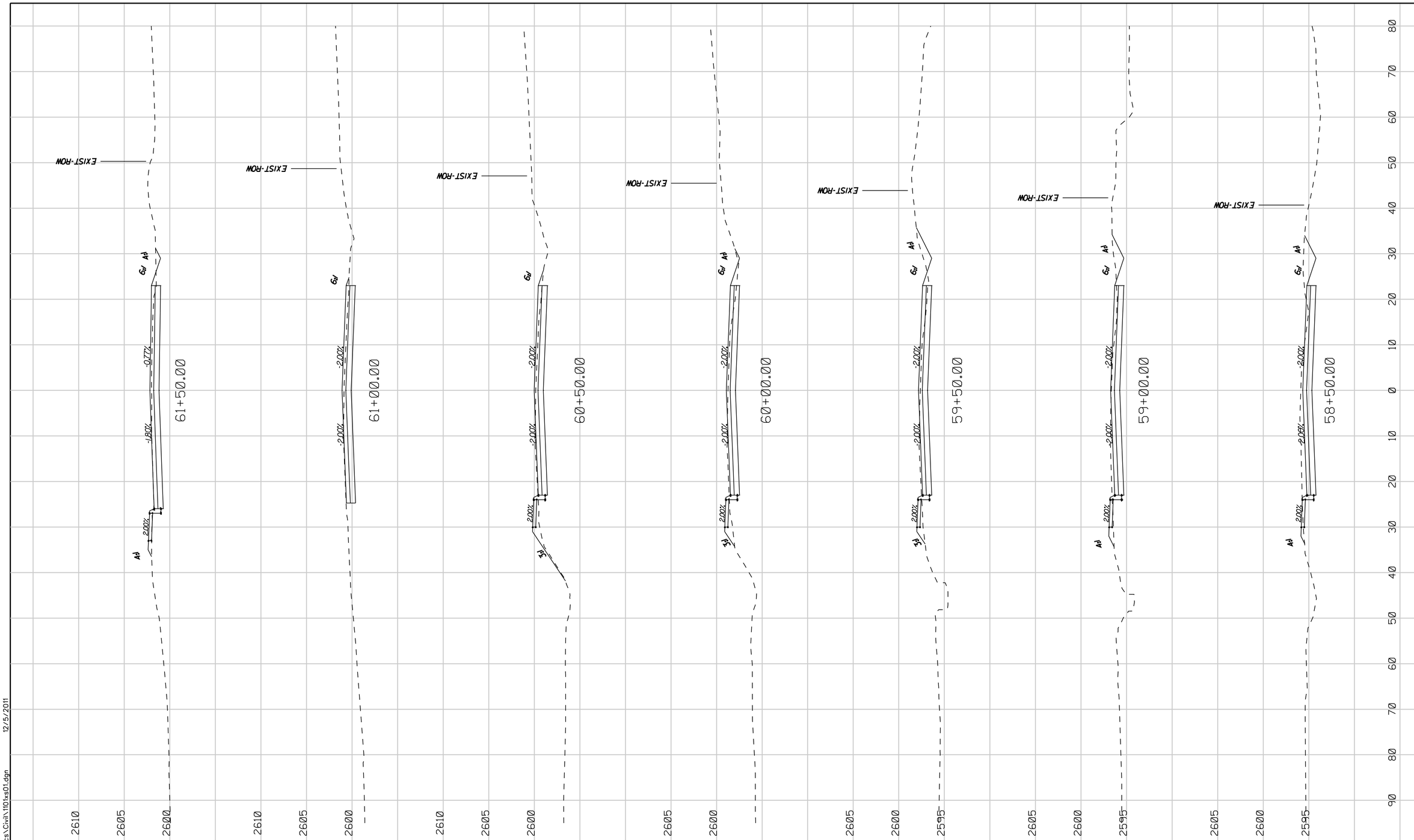
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE



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		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11

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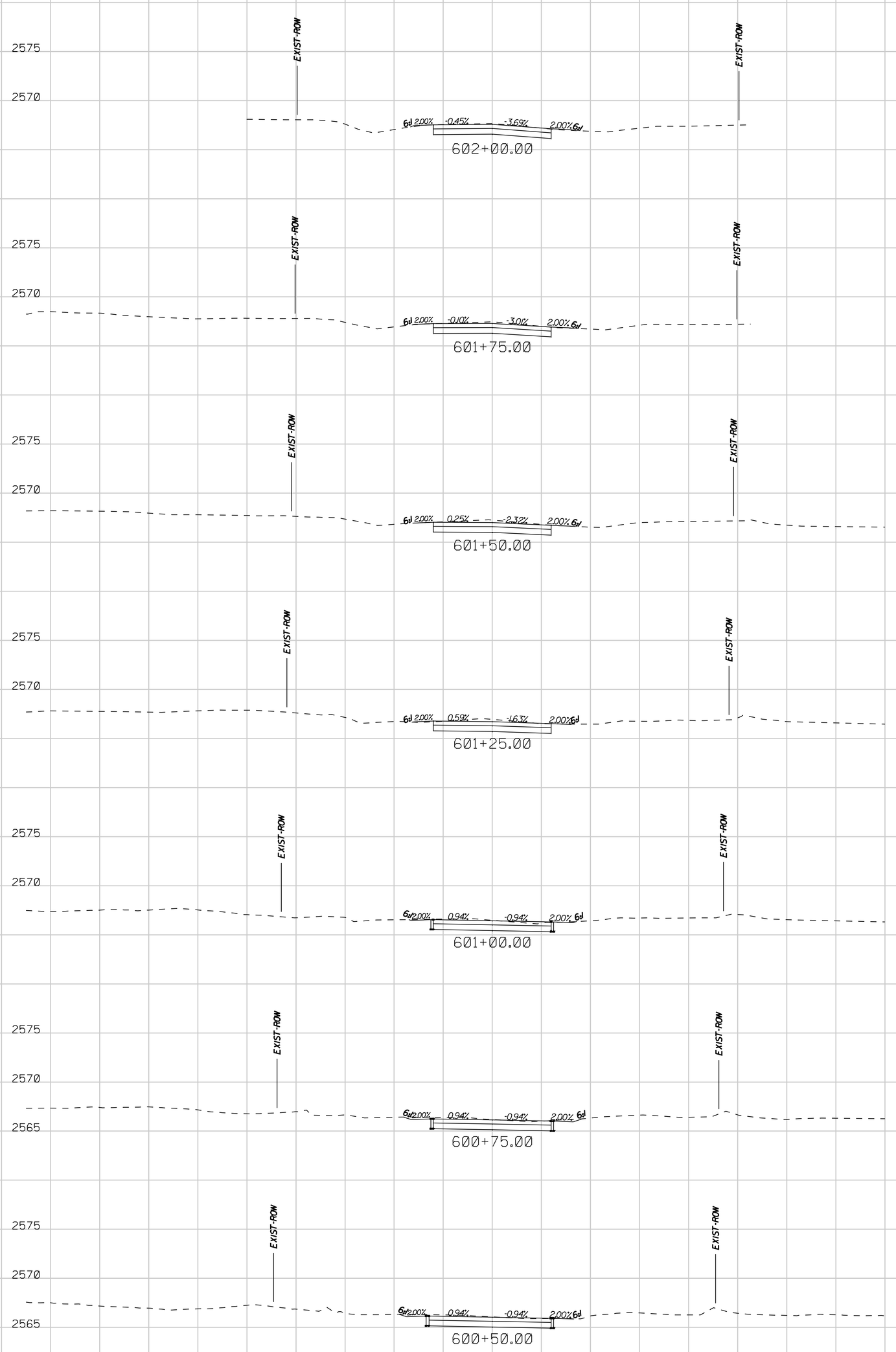
PIMA COUNTY DEPARTMENT OF TRANSPORTATION

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD

PROJECT NO. 4COLRV

CAMINO DE OESTE: STA 58+50 TO 61+50



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SCALES
HORIZ. 1" = 10'
VERT. 1" = 5'

SHEET 16 OF 16

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

PRISCILLA S. CORNELIO, P.E., DIRECTOR

CAMINO DE OESTE:
LOS REALES ROAD TO VALENCIA ROAD
PROJECT NO. 4COLRV
JEFFREY ROAD: STA 600+50 TO 602+00

NO.	REVISION DESCRIPTION	DIV./SECT.ENGR.	DATE

STAGE V PLANS FOR INFORMATION ONLY

		DATE
DESIGNED	KL	12/11
DRAWN	KL	12/11
CHECKED	JP	12/11
PROJ. ENGR.	RMS	12/11