DON PEDRO HYDROELECTRIC PROJECT FERC NO. 2299

AMENDMENT OF APPLICATION

EXHIBIT G - PROJECT MAPS











Prepared by: Turlock Irrigation District P.O. Box 949 Turlock, CA 95381

and

Modesto Irrigation District P.O. Box 4060 Modesto, CA 95352

September 2017



EXHIBIT G – PROJECT BOUNDARY MAPS

The following excerpt from the Code of Federal Regulations (CFR) at 18 CFR § 4.41(h) describes the required content of this Exhibit¹.

Exhibit G is a map of the project that must conform to the specifications of \S 4.39. In addition to the other components of Exhibit G, the applicant must provide the project boundary data in a georeferenced electronic format – such as ArcView shape files, GeoMedia files, MapInfo files, or any similar format. The electronic boundary data must be potentially accurate to ± 40 ft, in order to comply with the National Map Accuracy Standards for maps at a 1:24,000 scale (the scale of the USGS quadrangle maps). The electronic exhibit G data must include a text file describing the map projection used (i.e., UTM, State Plane, Decimal Degrees, etc.), the map datum (i.e., North American 27, North American 83, etc.) and the units of measurement (i.e., feet, meters, miles, etc.). Three sets of the maps must be submitted on CD or other appropriate electronic media. If more than one sheet is used, for the paper maps, the sheets must be numbered consecutively, and each sheet must bear a small insert sketch showing the entire project and indicating that portion of the project depicted on that sheet. Each sheet must contain a minimum of three known reference points. The latitude and longitude coordinates, or stat plane coordinates, of each reference point must be shown. If at any time after the application is filed there is any change in the project boundary, the applicant must submit, within 90 days following the completion of project construction, a final Exhibit G showing the extent of such changes. The map must show:

- (1) Location of the project and principal features. The map must show the location of the project as a whole with reference to the affected stream or other body of water and, if possible, to a nearby town or any other permanent monuments or objects, such as roads, transmissions lines or other structures, that can be noted on the map and recognized in the field. The map must also show the relative locations and physical interrelationships of the principal project works and other features described under paragraph (b) of this section (Exhibit A).
- (2) Project Boundary. The map must show a project boundary enclosing all project works and other features described under paragraph (b) of this section (Exhibit A) that are to be licensed. If accurate survey information is not available at the time the application is filed, the applicant must so state, and a tentative boundary may be submitted. The boundary must enclose only those lands necessary for operation and maintenance of the project and for other project purposes, such as recreation, shoreline control, or protection of environmental resources (see paragraph (f) of this section (Exhibit E)). Existing residential, commercial, or other structures may be included within the boundary only to the extent that underlying lands are needed for project purposes (e.g., for flowage, public recreation, shoreline control, or protection of environmental resources). If the boundary is on land covered by a public survey, ties must be shown on the map at sufficient points to permit accurate platting of the position of the boundary relative to the lines of the public land survey, the best available legal description of the

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¹ 18 CFR 4.51(h) cross-references Exhibit G requirements published at 18 CFR 4.41(h).

position of the boundary must be provided, including distances and directions from fixed monuments or physical features. The boundary must be described as follows:

- (i) Impoundments.
 - (A) The boundary around a project impoundment must be described by one of the following:
 - (1) Contour lines, including the contour elevation (preferred method);
 - (2) Specified courses and distances (meets and bounds);
 - (3) If the project lands are covered by a public land survey, lines upon or parallel to the lines of the survey; or
 - (4) Any combination of the above methods.
 - (B) The boundary must be located no more than 200 feet (horizontal measurement) from the exterior margin of the reservoir, defined by the normal maximum surface elevation, except where deviations may be necessary in describing the boundary according to the above methods or where additional lands are necessary for project purposes, such as public recreation, shoreline control, or protection of environmental resources.
- (ii) Continuous features. The boundary around linear (continuous) project features such as access roads, transmission lines, and conduits may be described by specified distances from center lines or offset lines of survey. The width of such corridors must not exceed 200 feet unless good cause is shown for a greater width. Several sections of a continuous feature may be shown on a single sheet with information showing the sequence of contiguous sections.
- (iii) Noncontinuous features.
 - (A) The boundary around noncontinuous project works such as dams, spillways, and powerhouses must be described by one of the following:
 - (1) Contour lines;
 - (2) Specified courses and distances:
 - (3) If the project lands are covered by a public land survey, lines upon or parallel to the lines of the survey; or
 - (4) Any combination of the above methods.
 - (B) The boundary must enclose only those lands that are necessary for safe and efficient operation and maintenance of the project or for other specified project purposes, such as public recreation or protection of environmental resources.
- (3) Federal lands. Any public lands and reservations of the United States (Federal lands) [see 16 U.S.C. 796 (1) and (2)] that are within the project boundary, such as lands administered by the U.S. Forest Service, Bureau of Land Management, or National Park Service, or Indian tribal lands, and the boundaries of those Federal lands, must be identified as such on the map by:
 - (i) Legal subdivisions of a public land survey of the affected area (a protraction of identified township and section lines is sufficient for this purpose); and
 - (ii) The Federal agency, identified by symbol or legend, that maintains or manages each identified subdivision of the public land survey within the project boundary; or

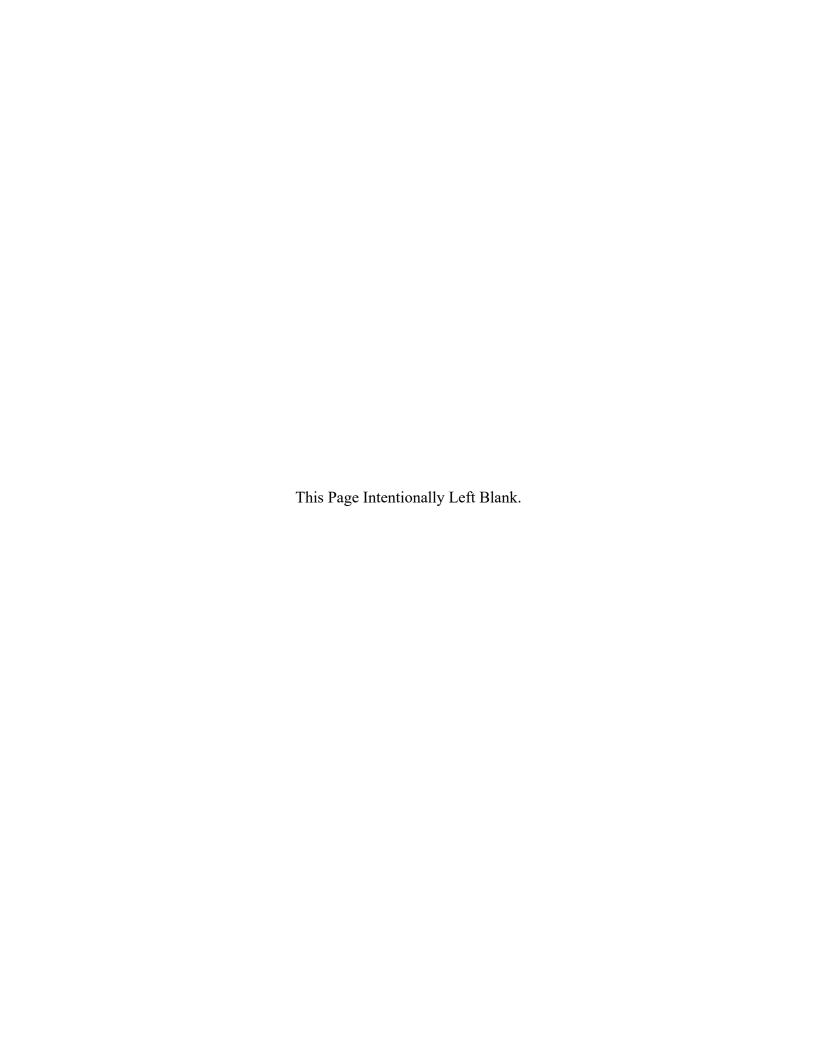
- (iii) In the absence of a public land survey, the location of the Federal lands according to the distances and directions from fixed monuments or physical features. When a Federal survey monument or a Federal bench mark will be destroyed or rendered unusable by the construction of project works, at least two permanent, marked witness monuments or bench marks must be established at accessible points. The maps show the location (and elevation, for bench marks) of the survey monument or bench mark which will be destroyed or rendered unusable, as well as of the witness monuments or bench marks. Connecting courses and distances from the witness monuments or bench marks to the original must also be shown.
- (iv) The project location must include the most current information pertaining to affected federal lands as described under § 4.81(b)(5).
- (4) Non-Federal lands. For those lands within the project boundary not identified under paragraph (h)(3) of this section, the map must identify by legal subdivision:
 - (i) Lands owned in fee by the applicant and lands that the applicant plans to acquire in fee; and
 - (ii) Lands over which the applicant has acquired or plans to acquire rights to occupancy and use other than fee title, including rights acquired or to be acquired by easement or lease

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1.0 PROJECT BOUNDARY MAPS

This Exhibit G contains maps depicting the Project Boundary for the Don Pedro Hydroelectric Project in Appendix G-1. Appendix G-1 contains the 28 sheets that comprise the Exhibit G maps. The Exhibit G maps have been prepared in accordance with FERC's regulations and show the relative locations and physical relationships within the approved Project Boundary. The principal civil works and other features depicted on the Exhibit G maps are described in detail in Exhibit A and Exhibit F of this application. The proposed boundary shown on Exhibit G-28 is tentative and has not yet been surveyed by the Districts, as allowed by FERC regulations at 18 CFR §4.41(h)(2).

Appendix G-2 contains updated copies of FERC Form-587 identifying the Exhibit G Project Boundary maps associated with federal lands. The Project occupies approximately 4,802 acres of federal land within the Bureau of Land Management's Sierra Resource Management Unit.



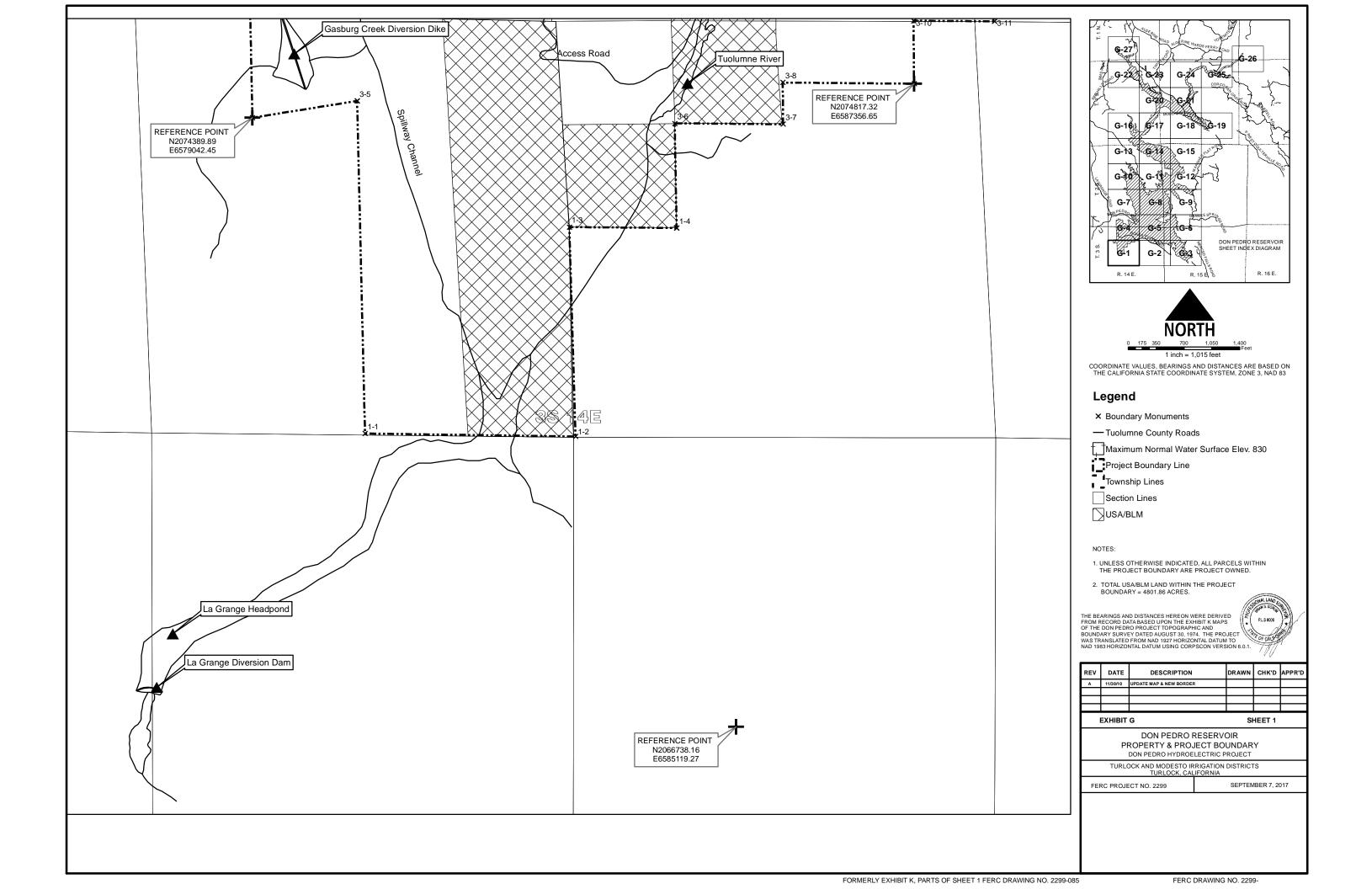
DON PEDRO HYDROELECTRIC PROJECT FERC NO. 2299

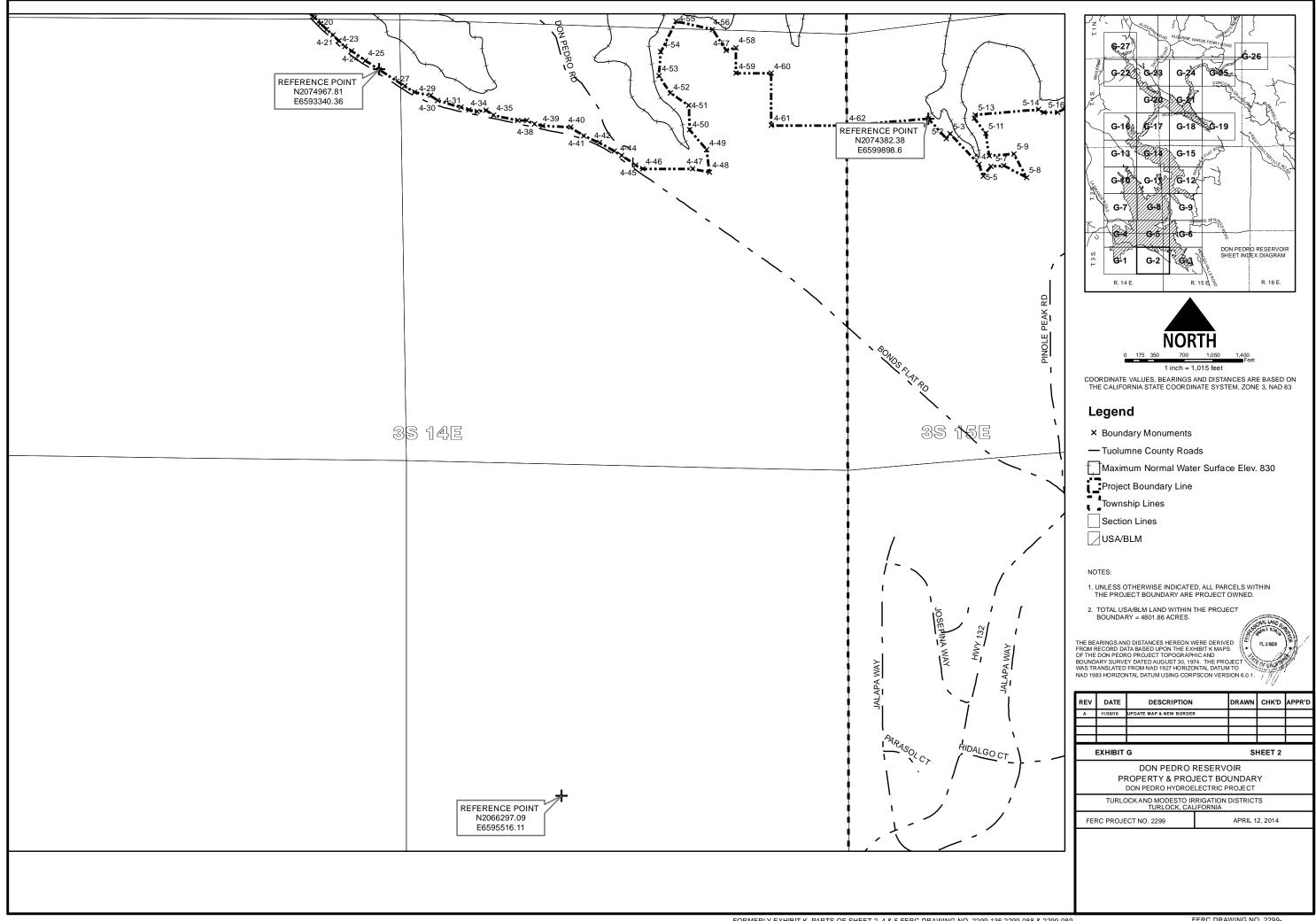
AMENDMENT OF APPLICATION

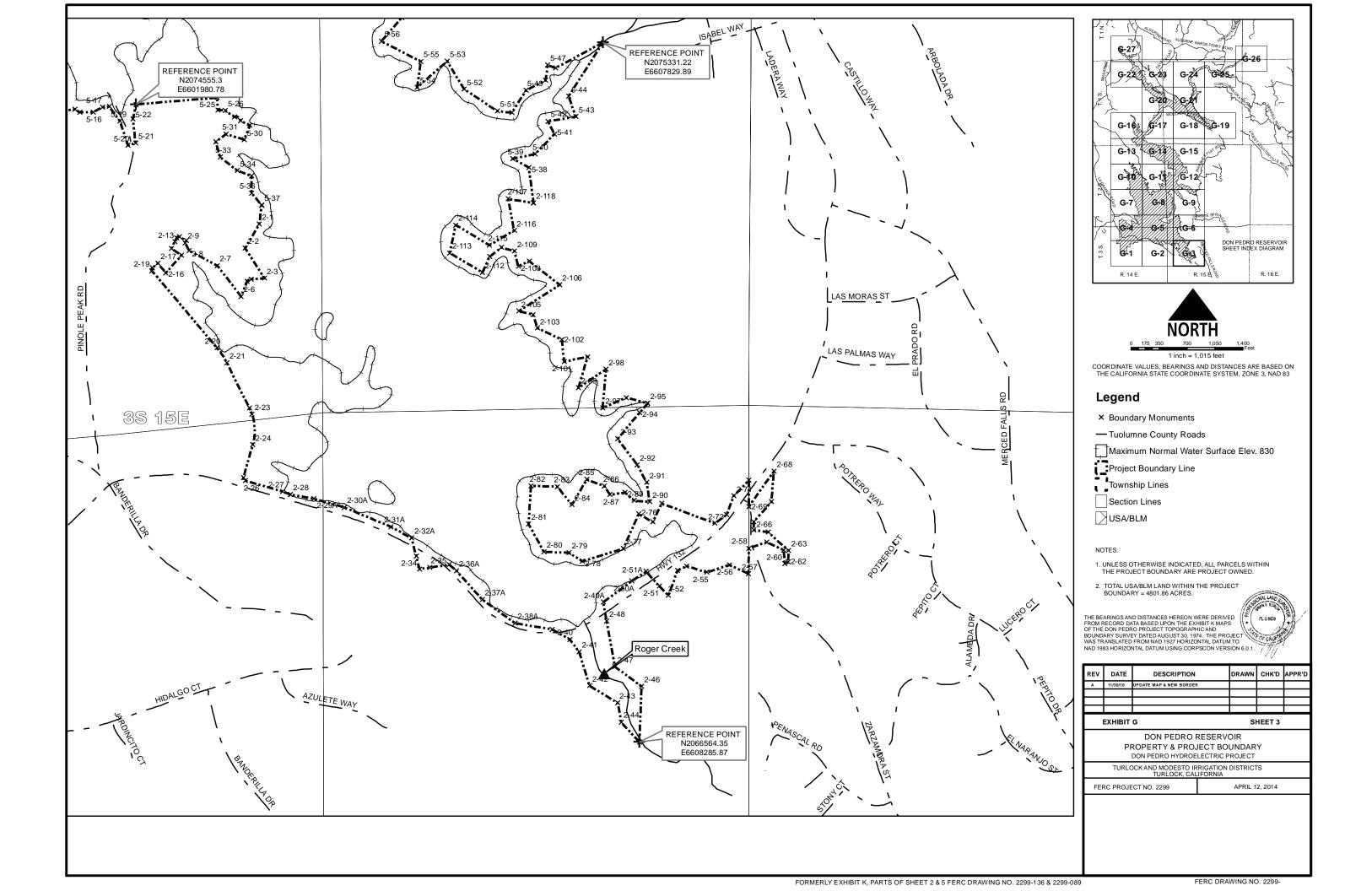
EXHIBIT G - PROJECT MAPS

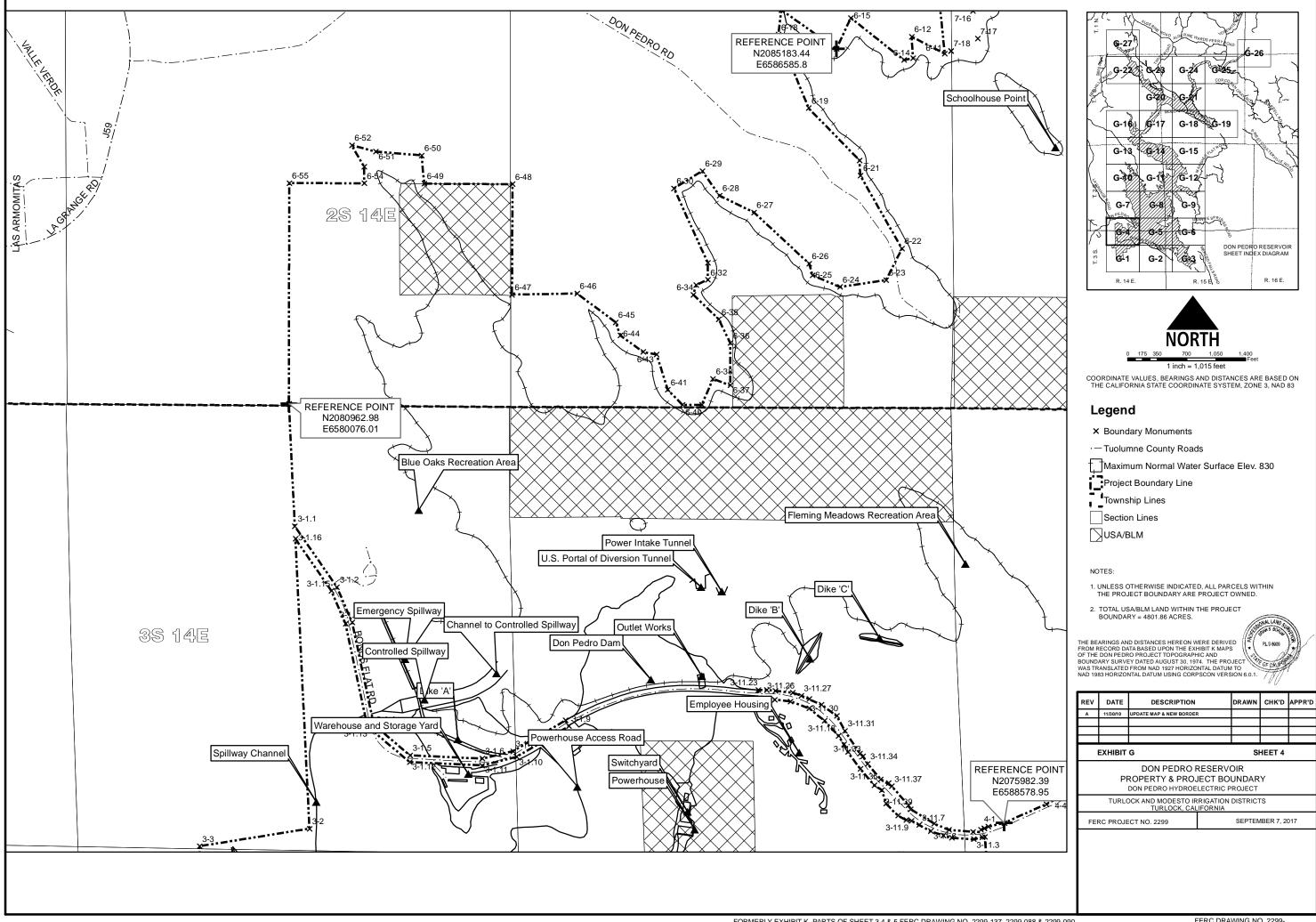
APPENDIX G-1 MAPS

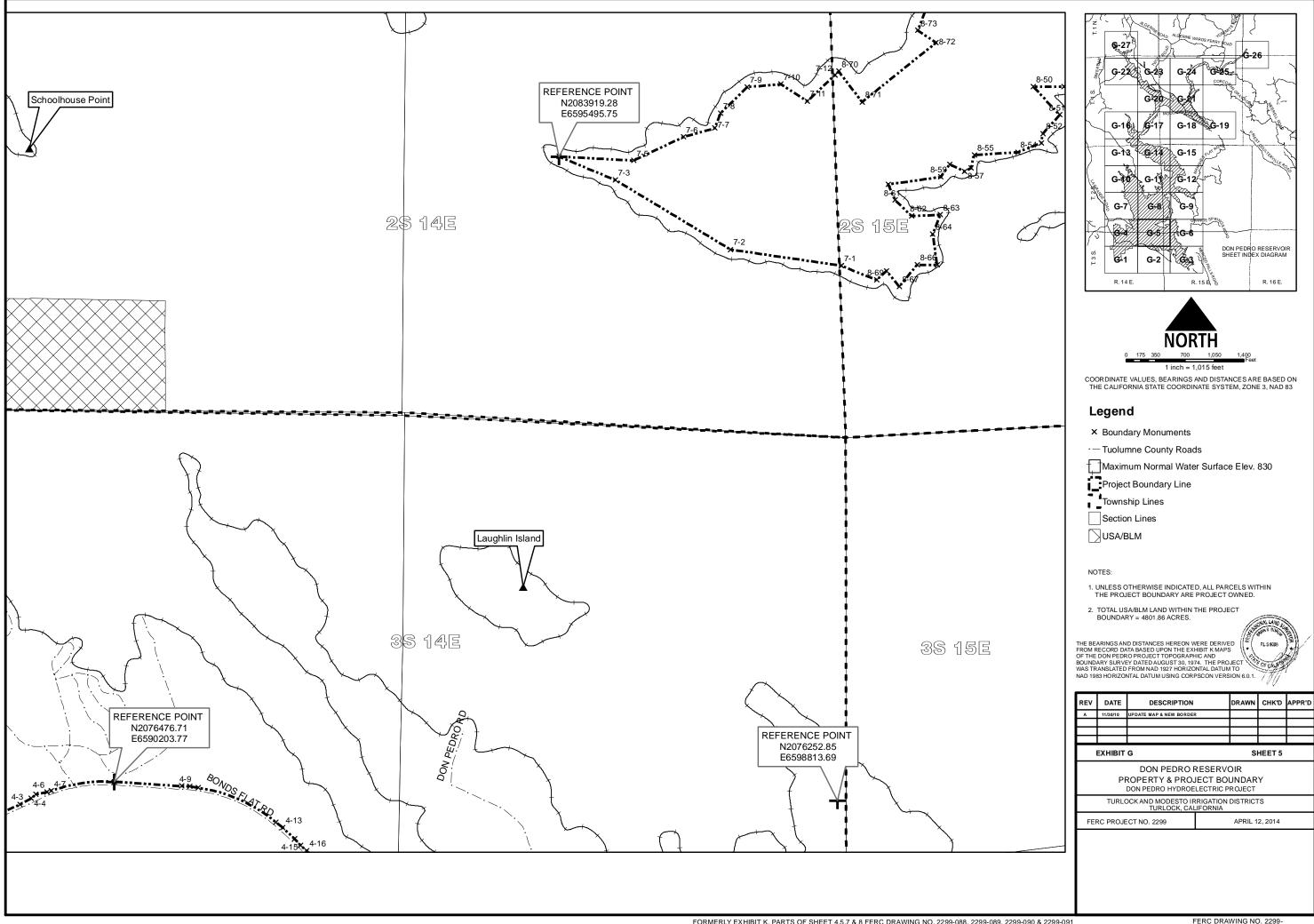


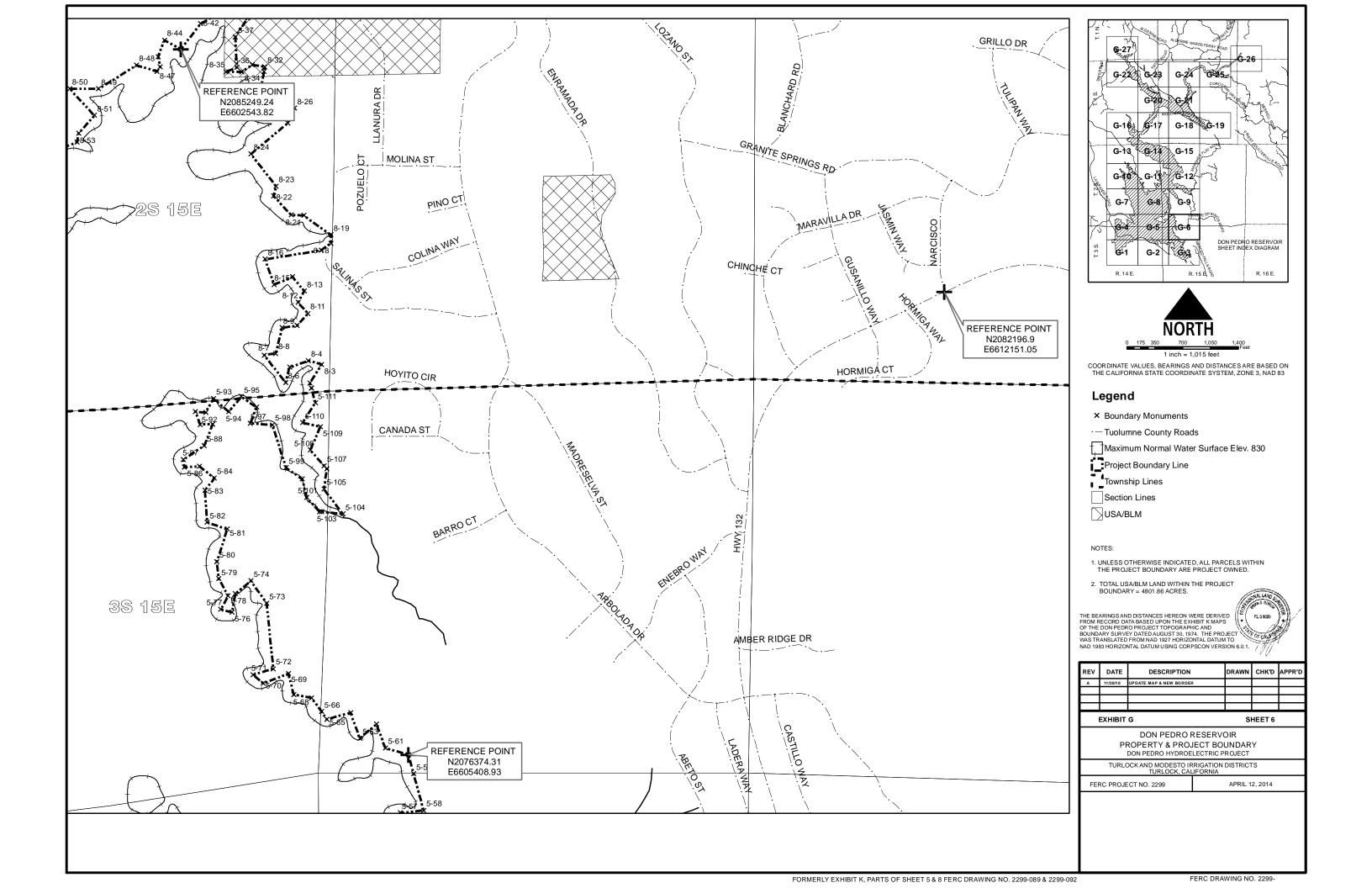


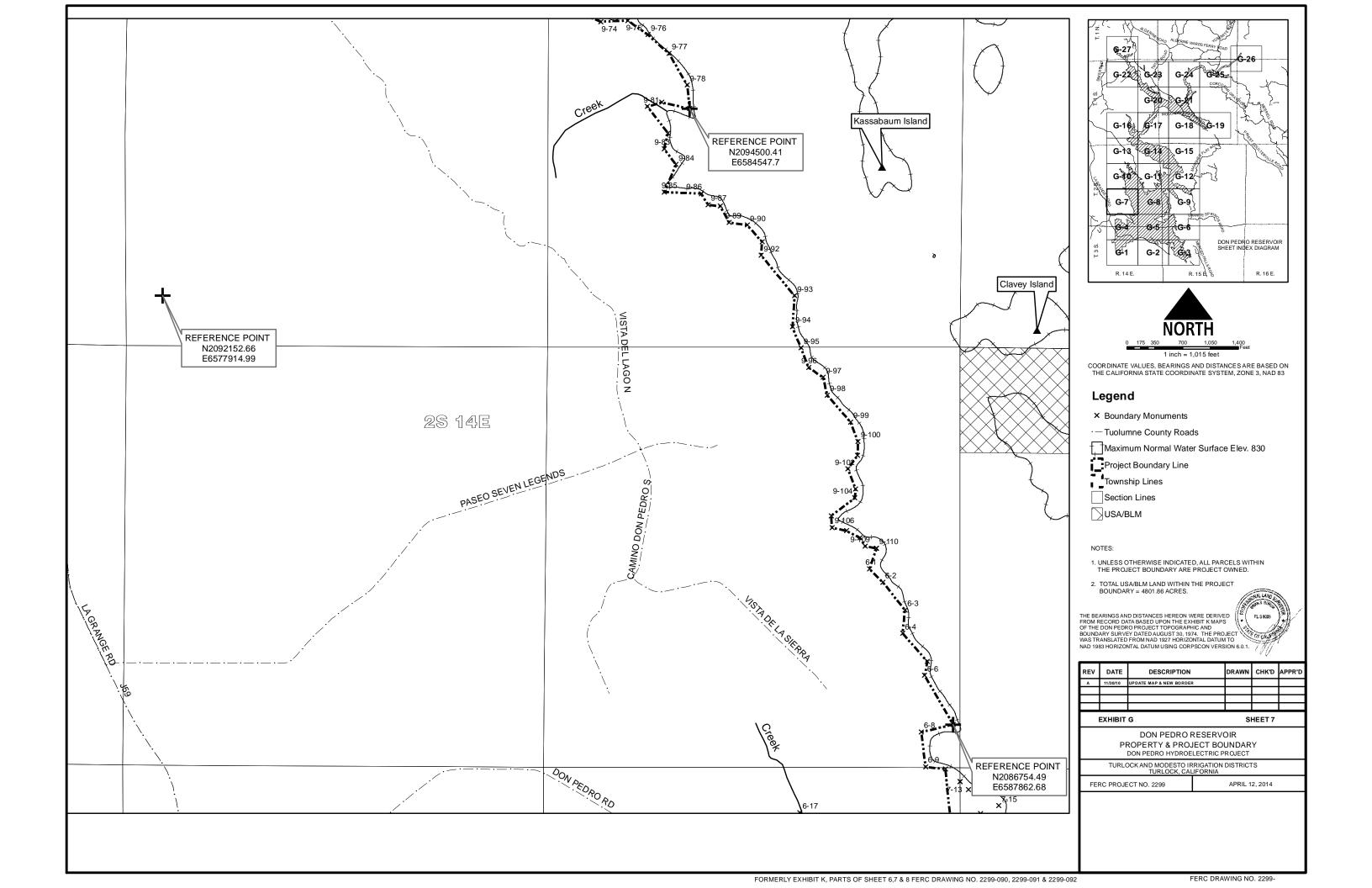


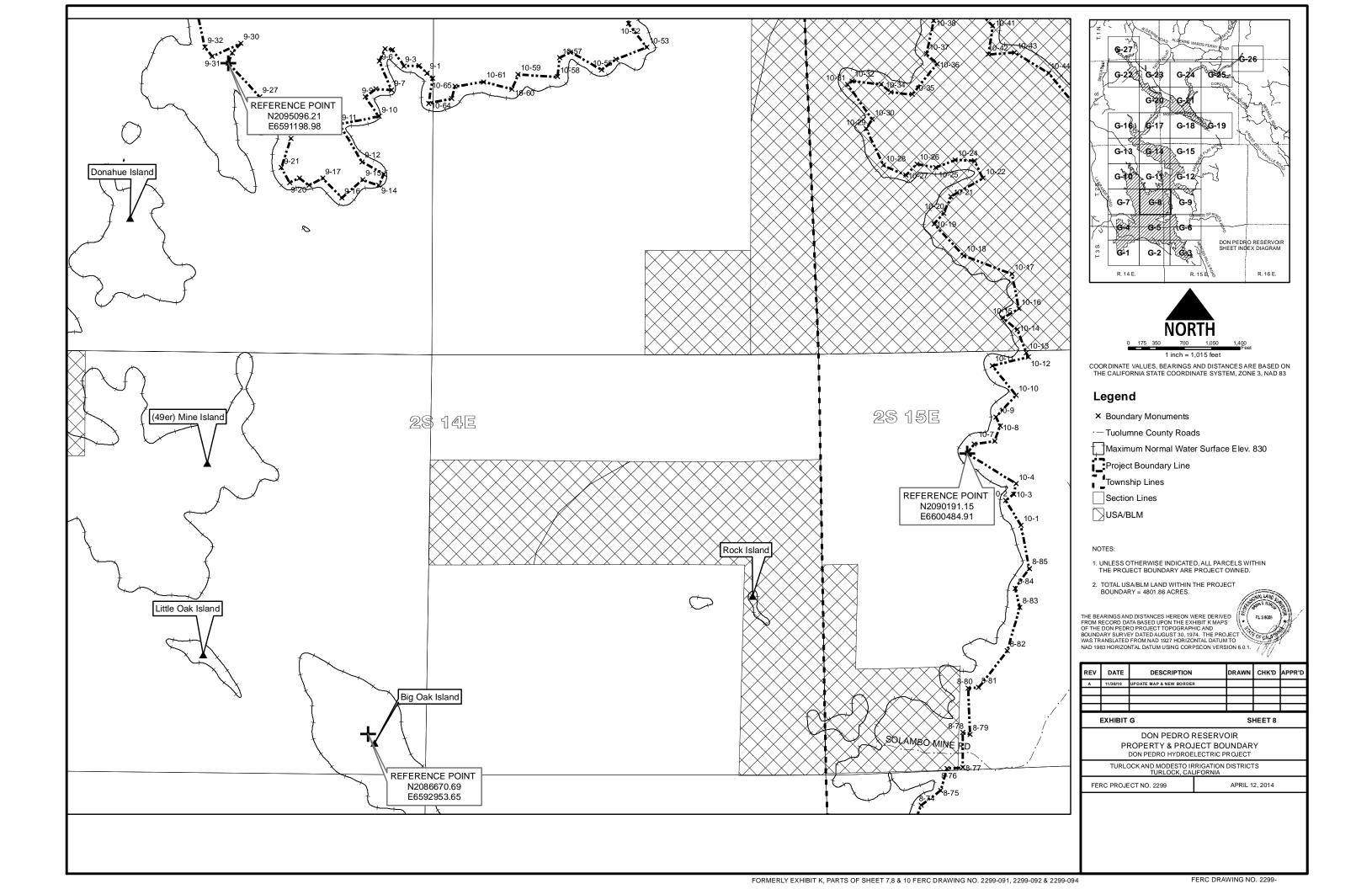


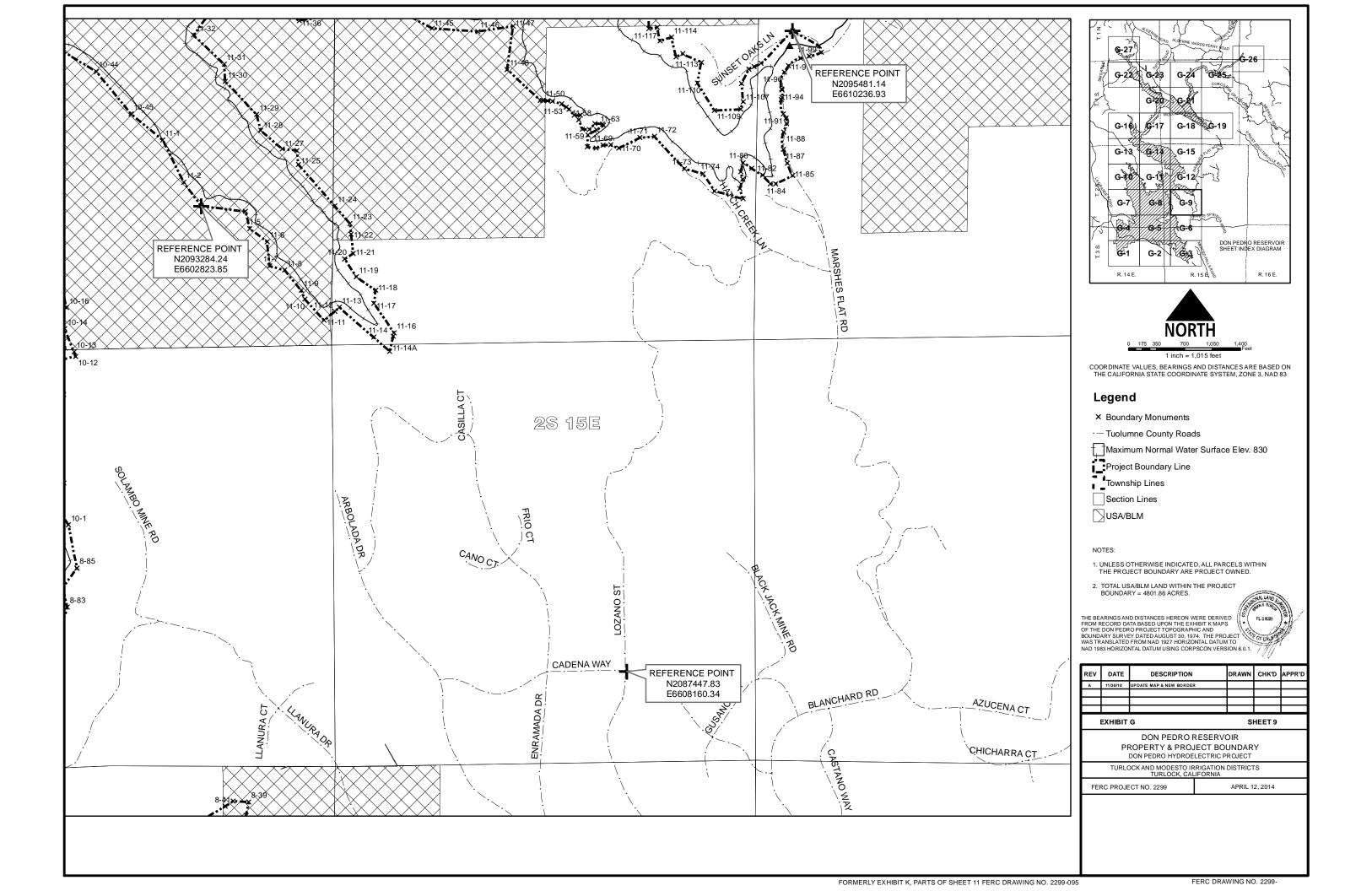


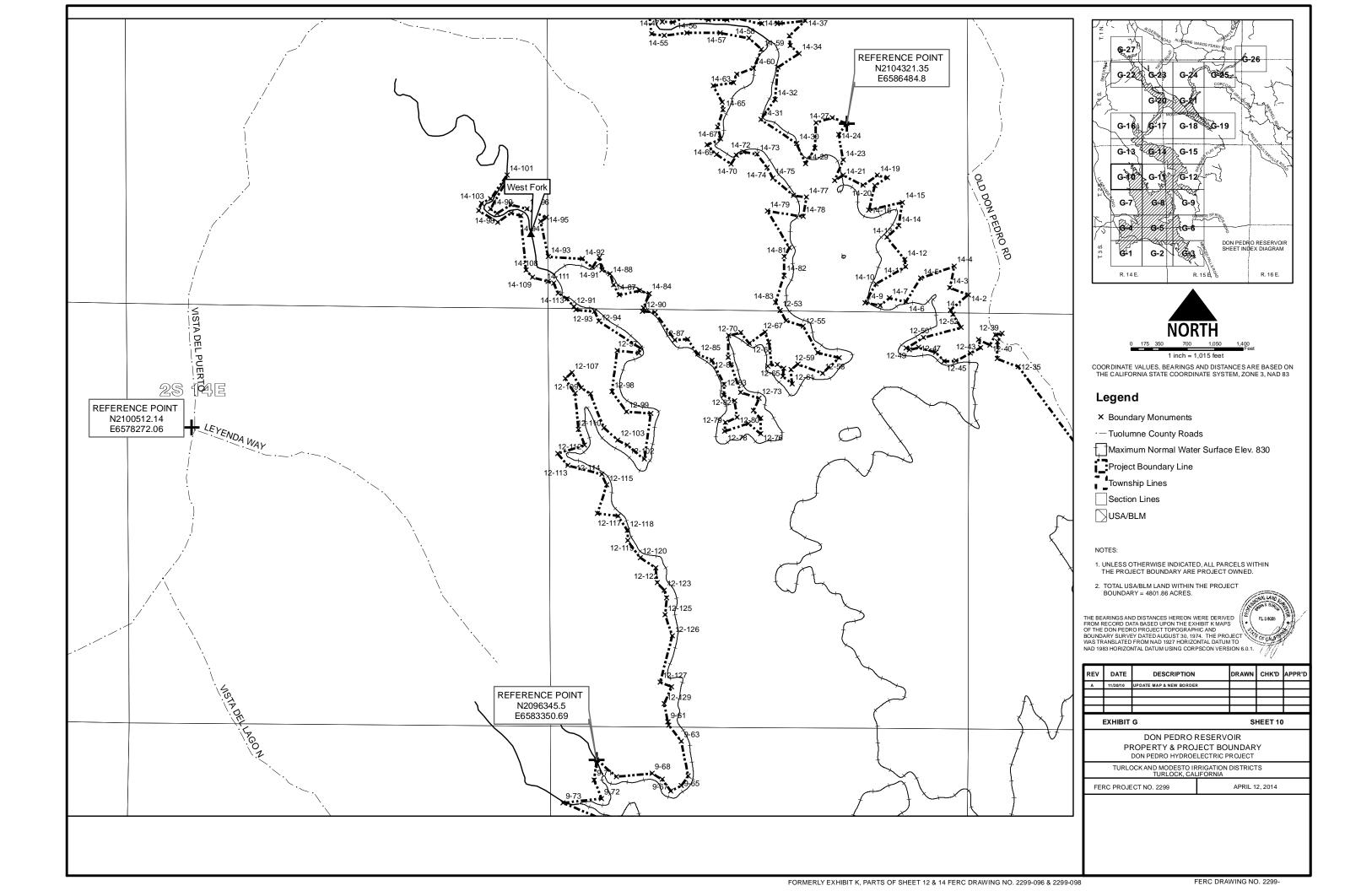


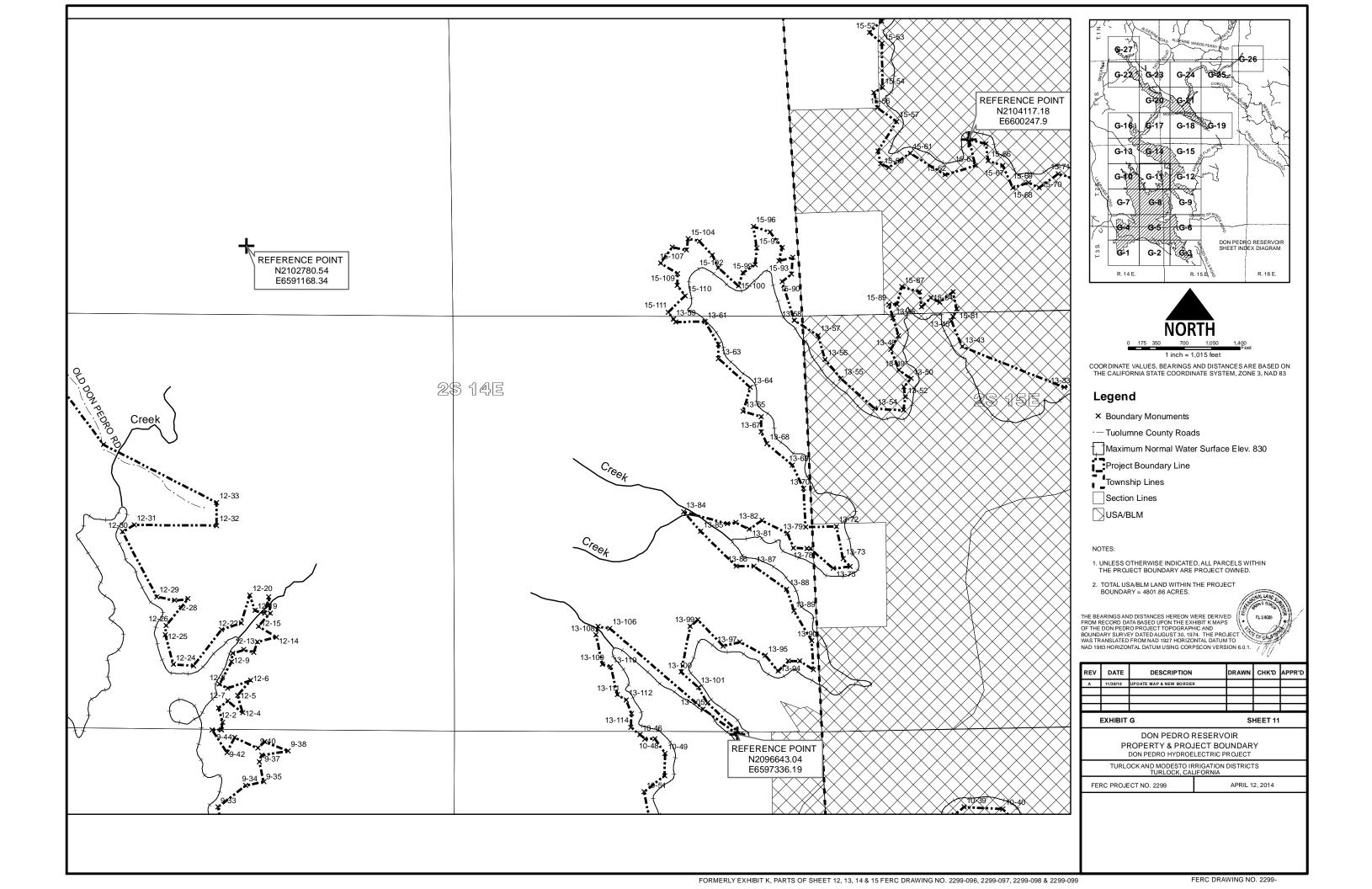


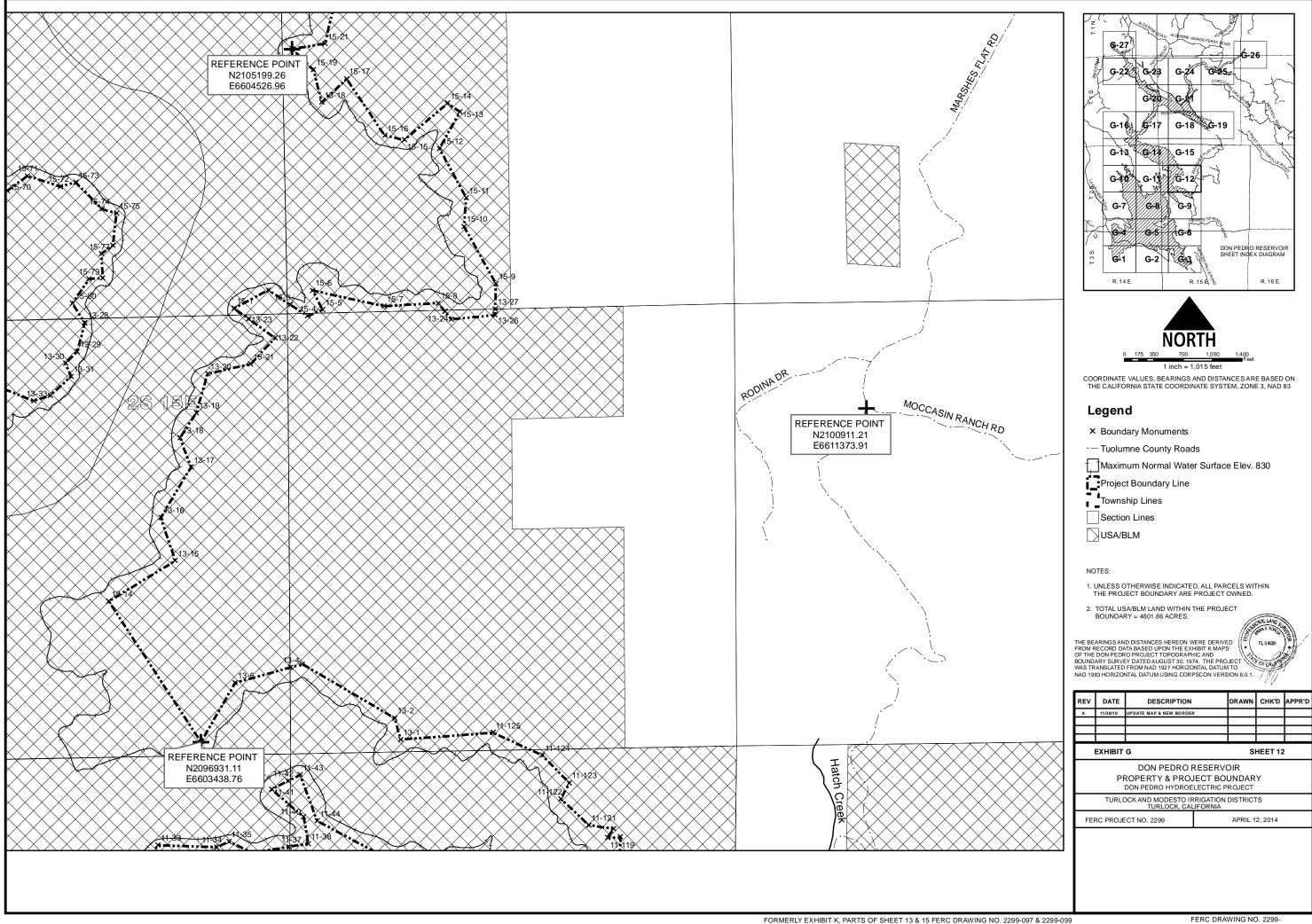


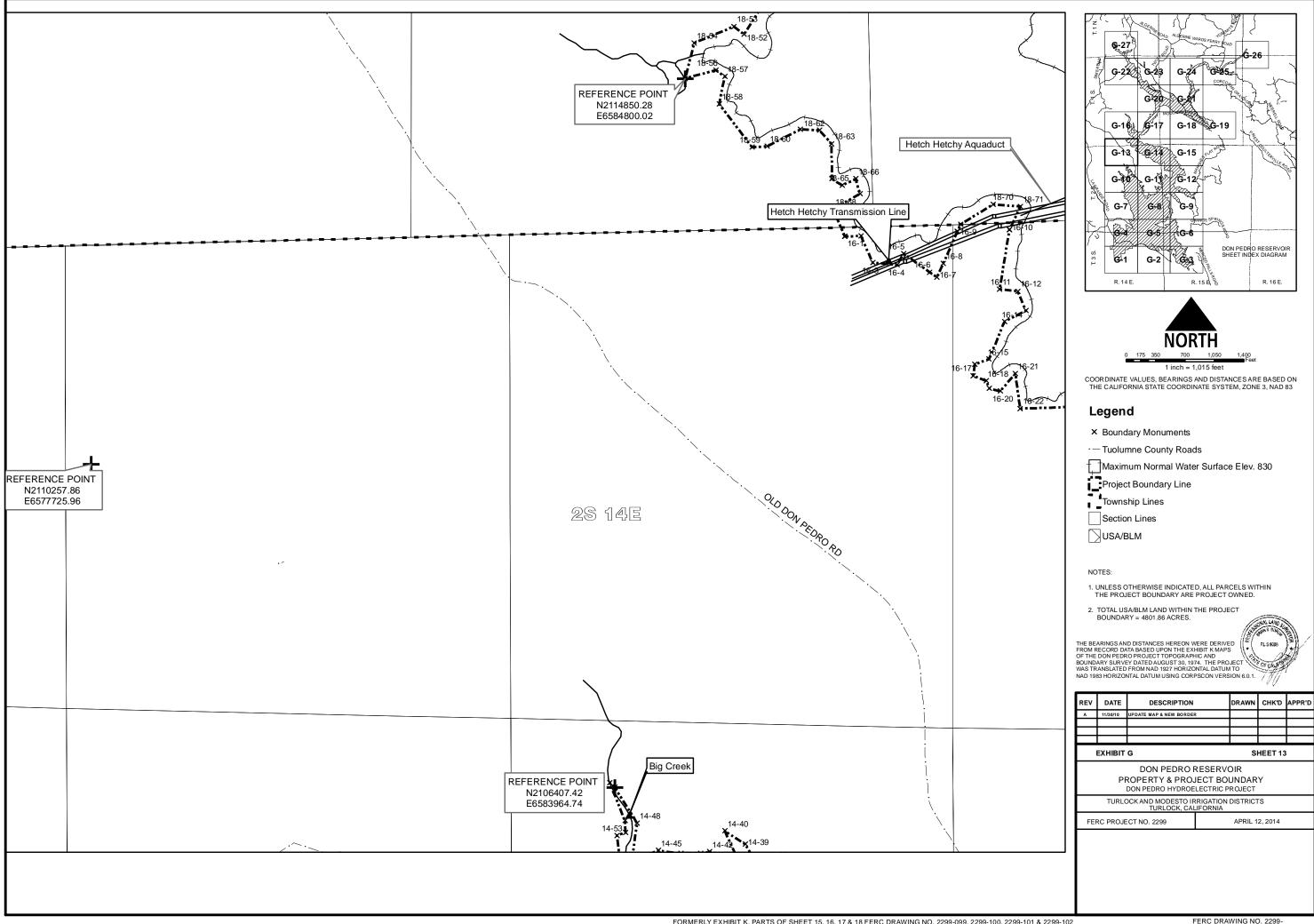


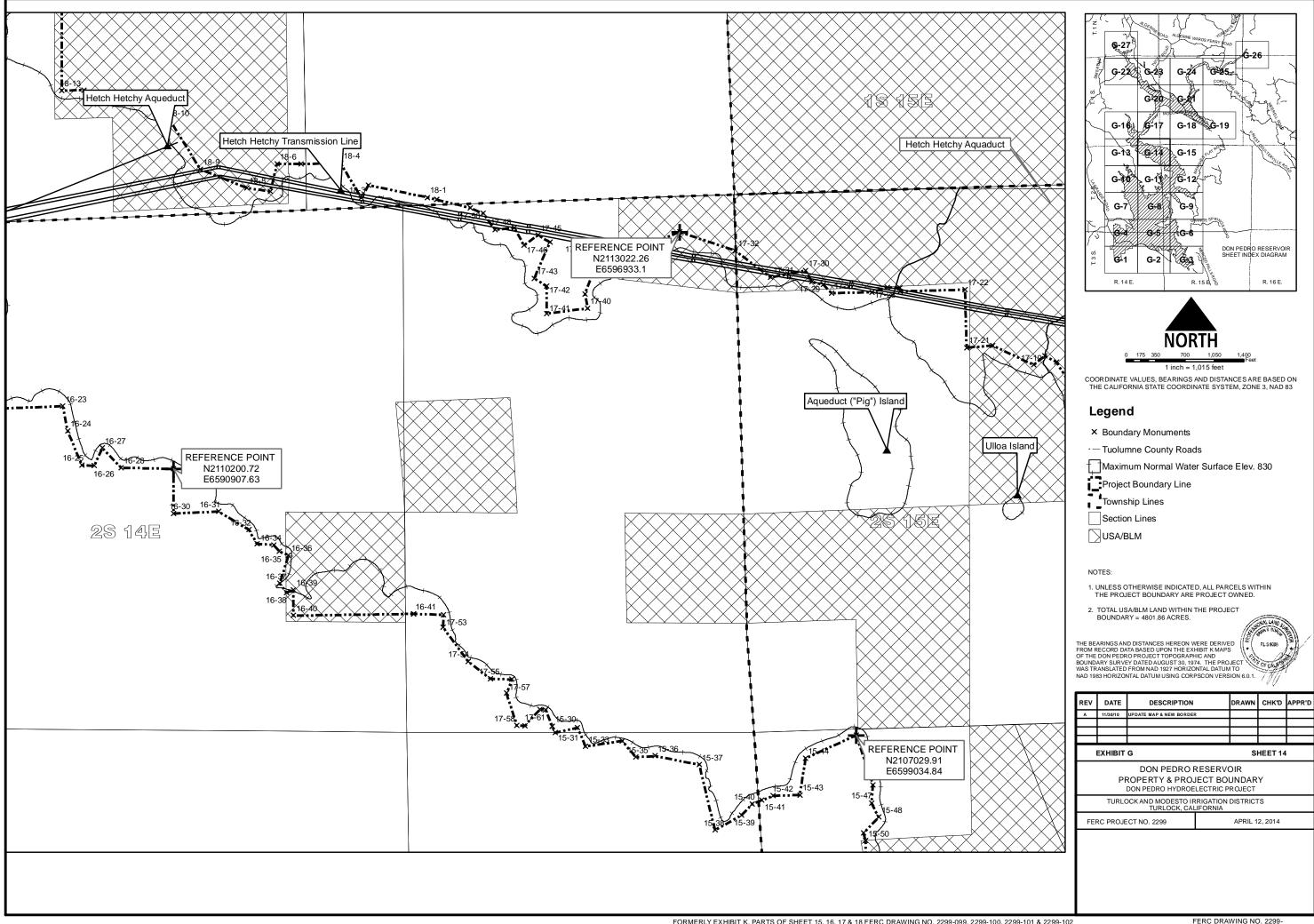


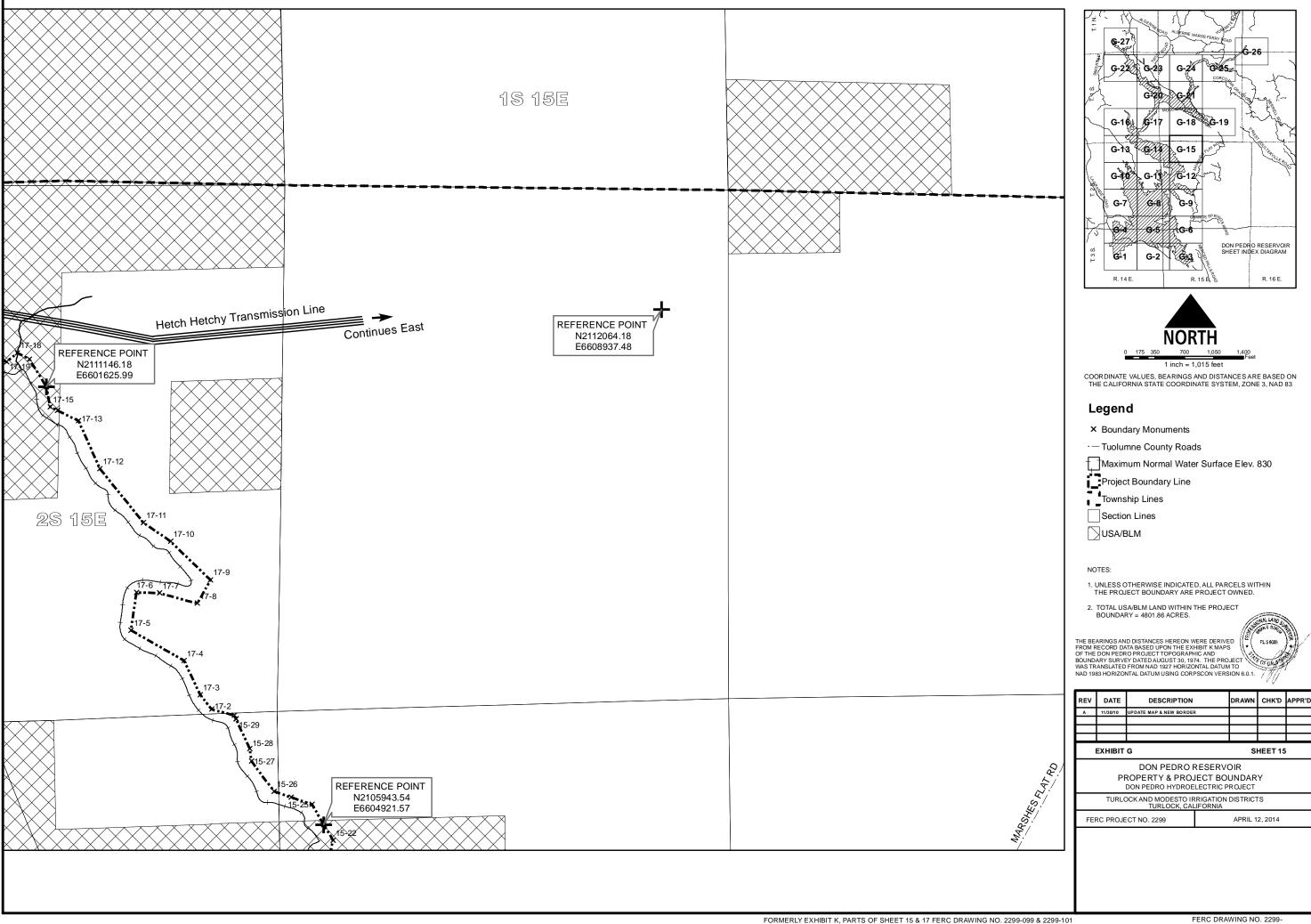


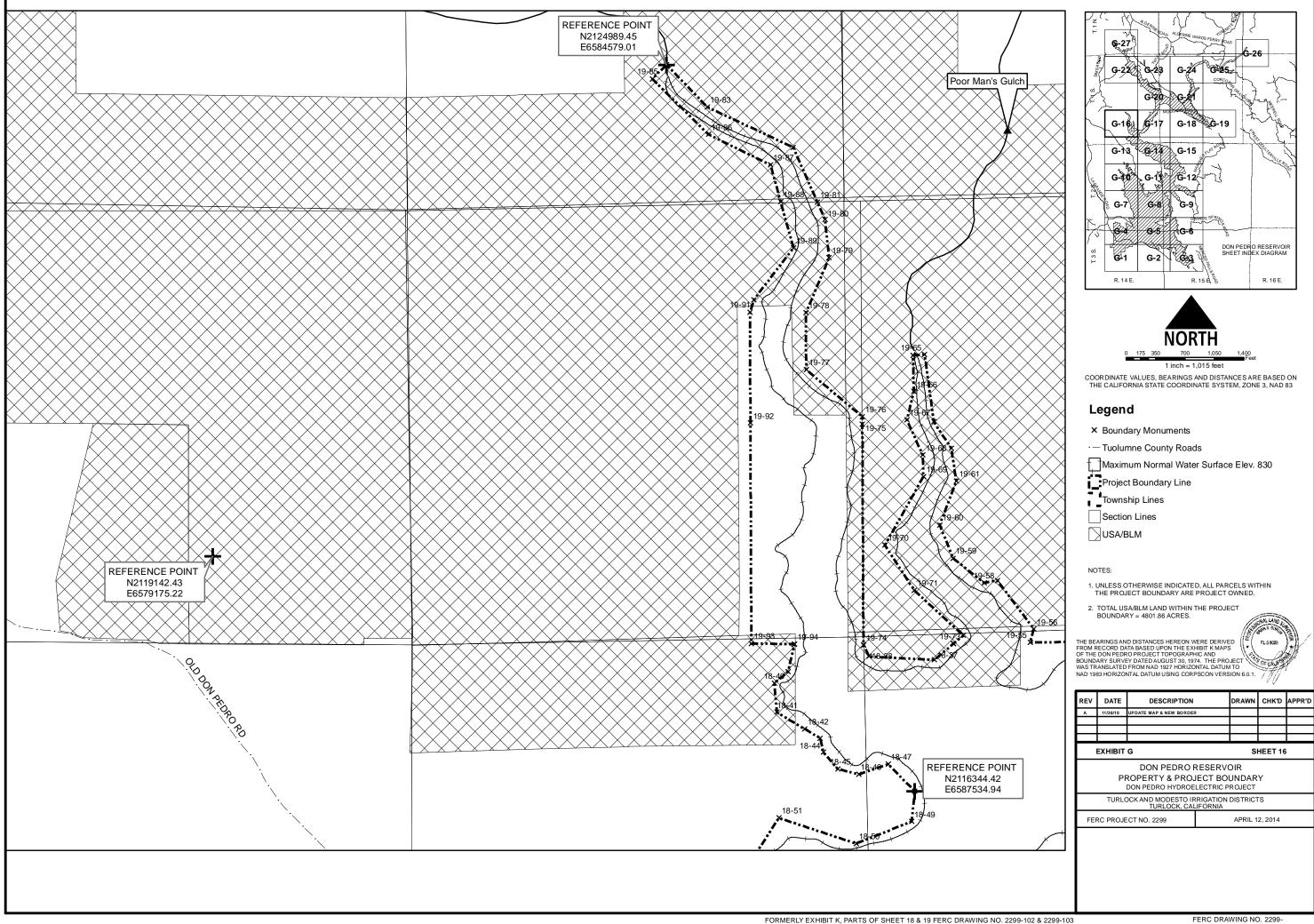


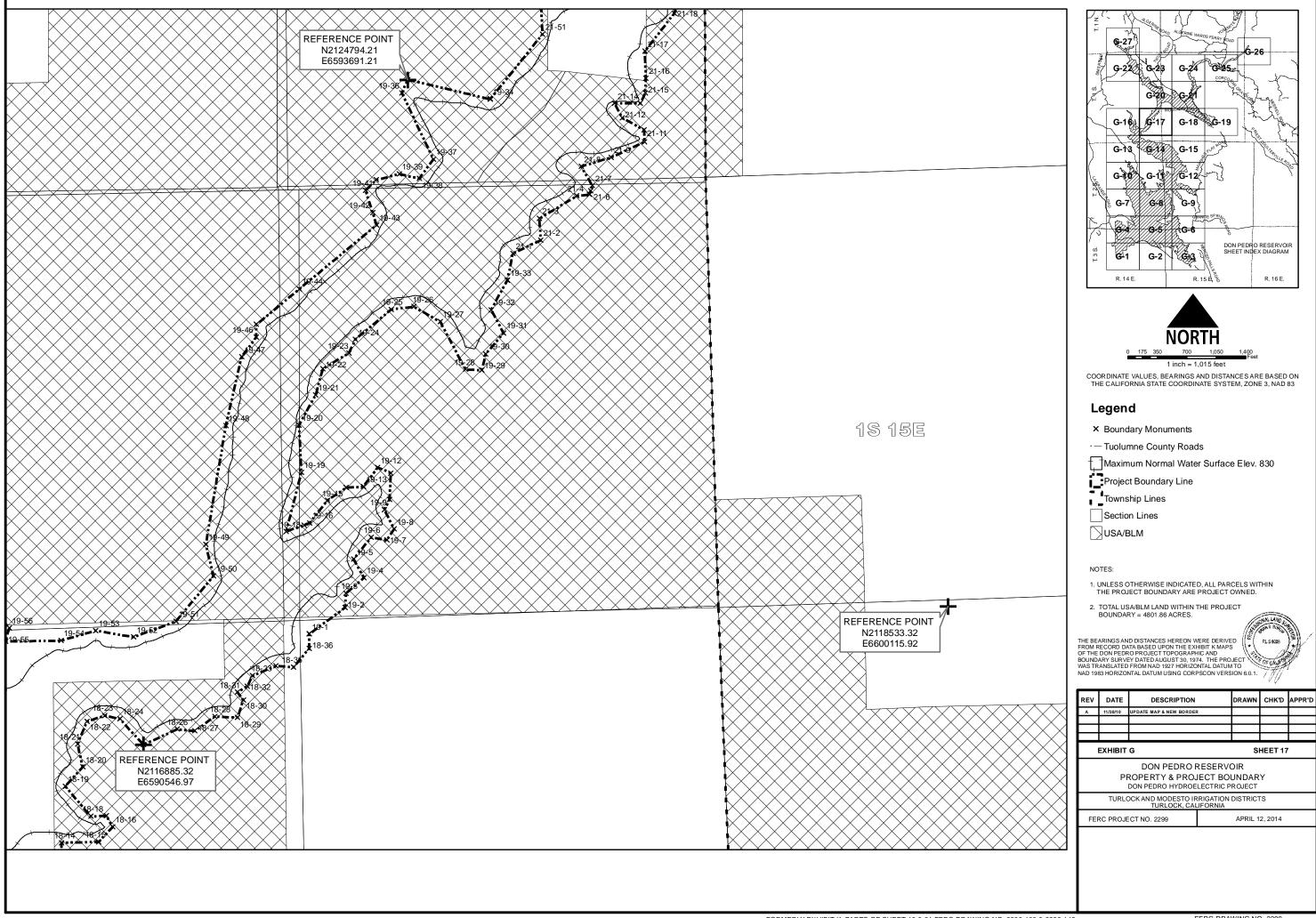


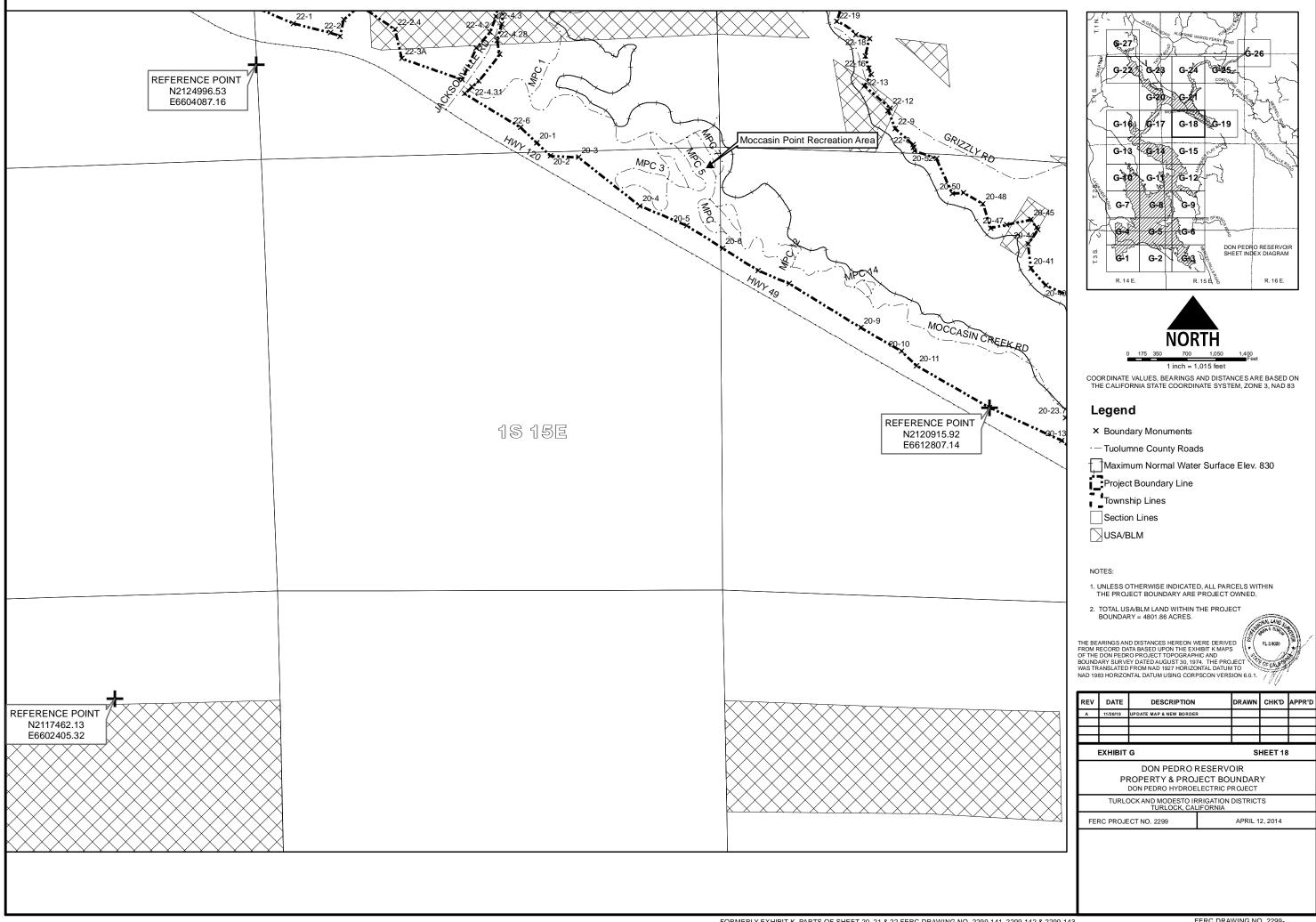


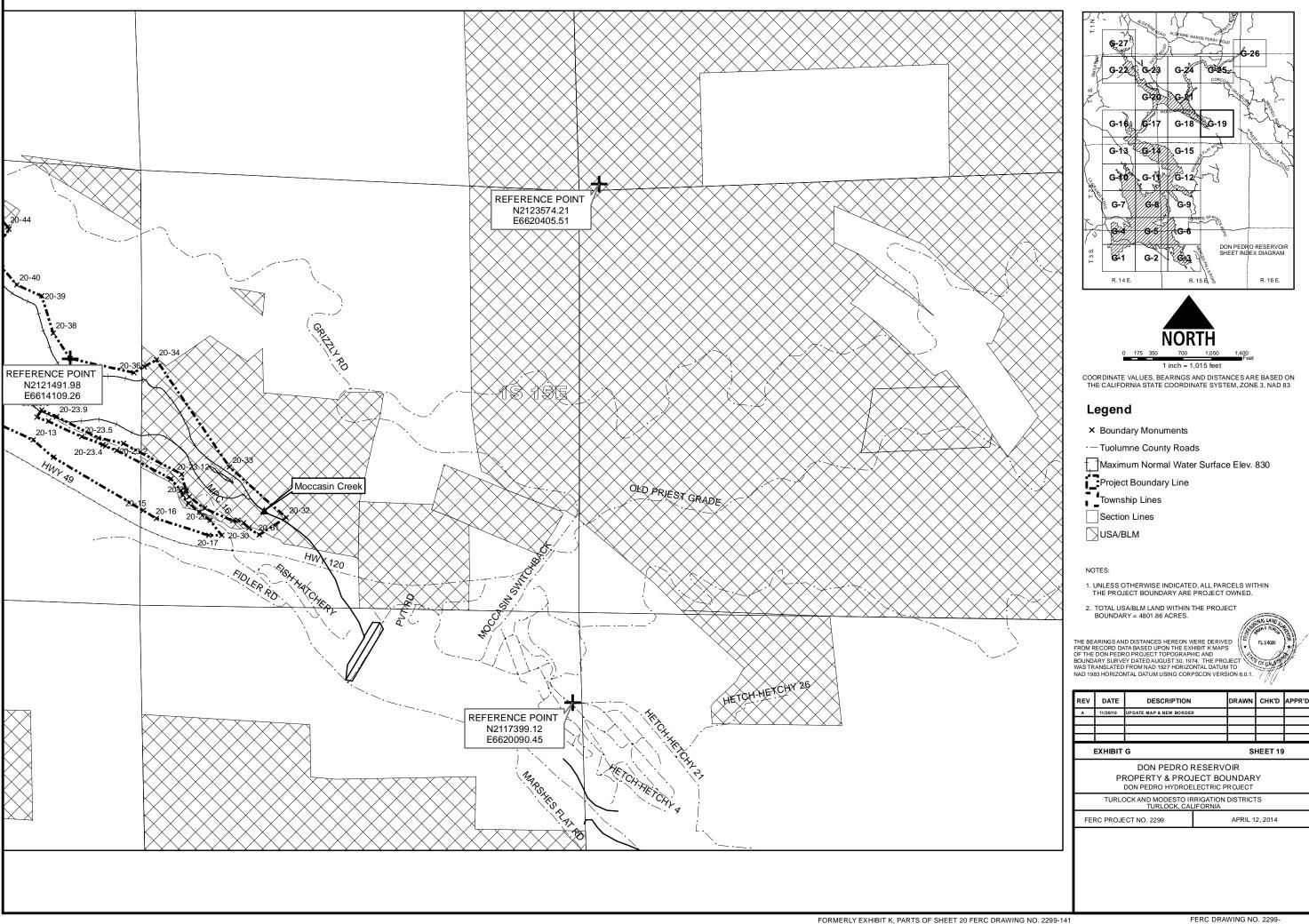


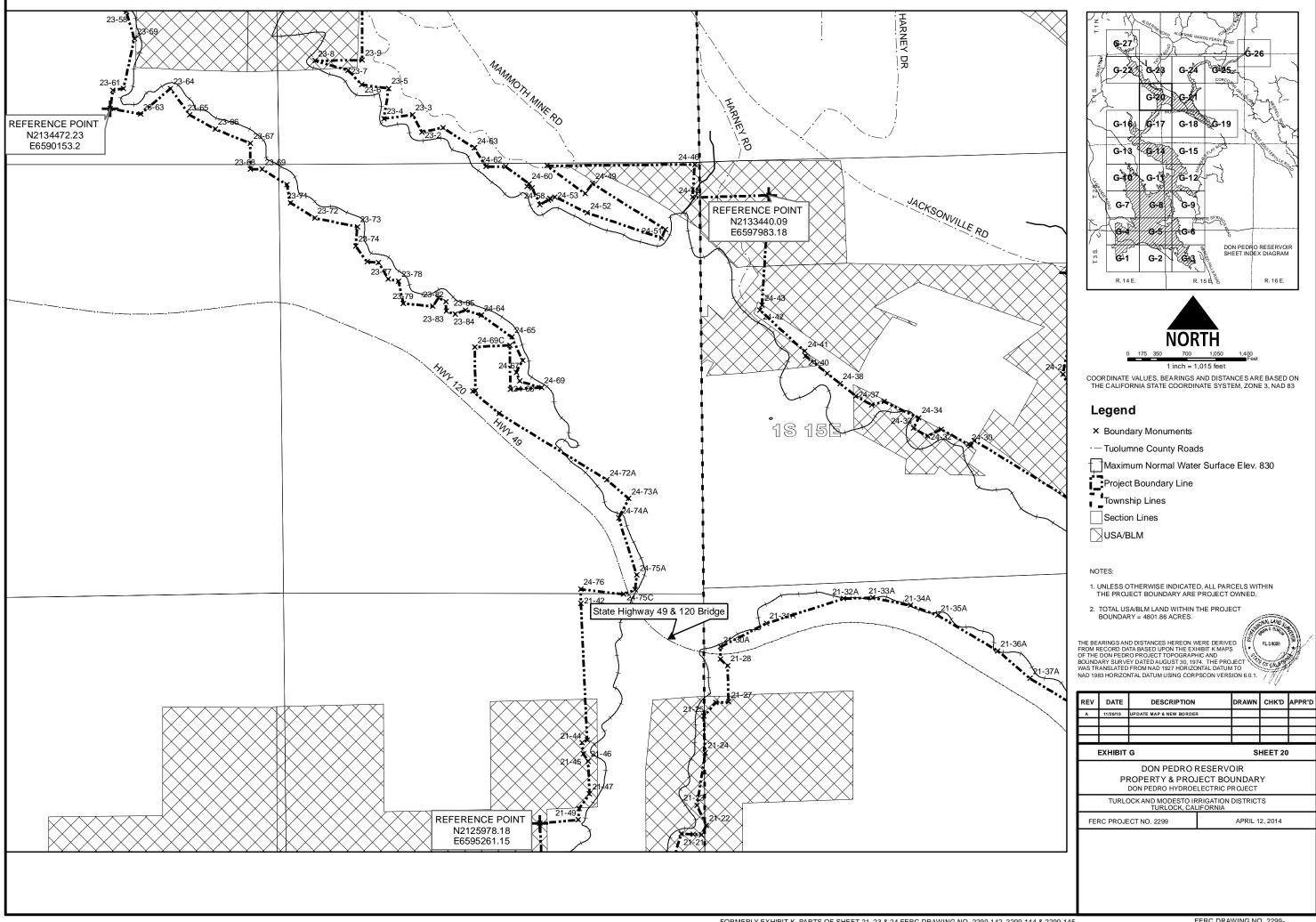


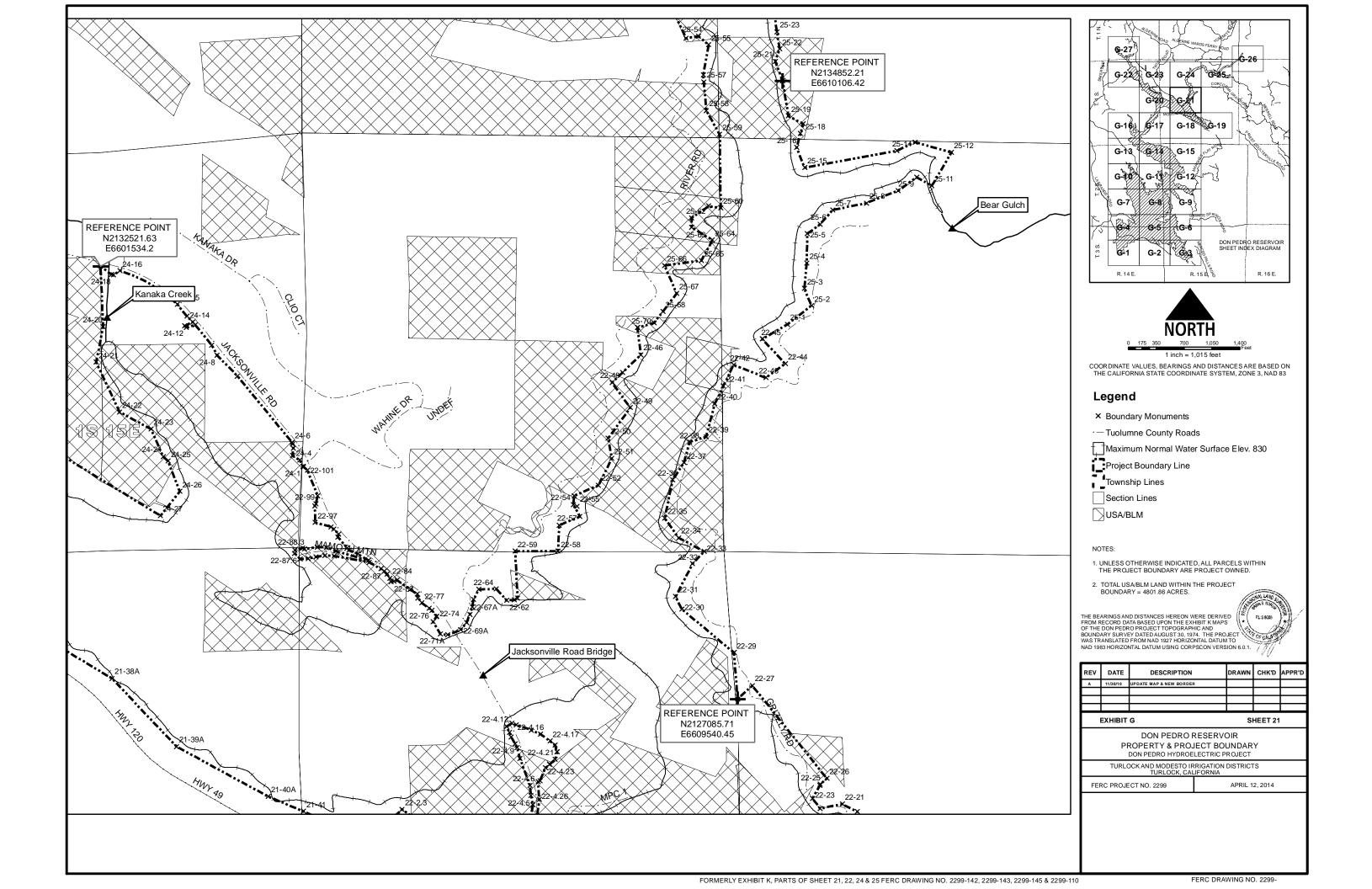


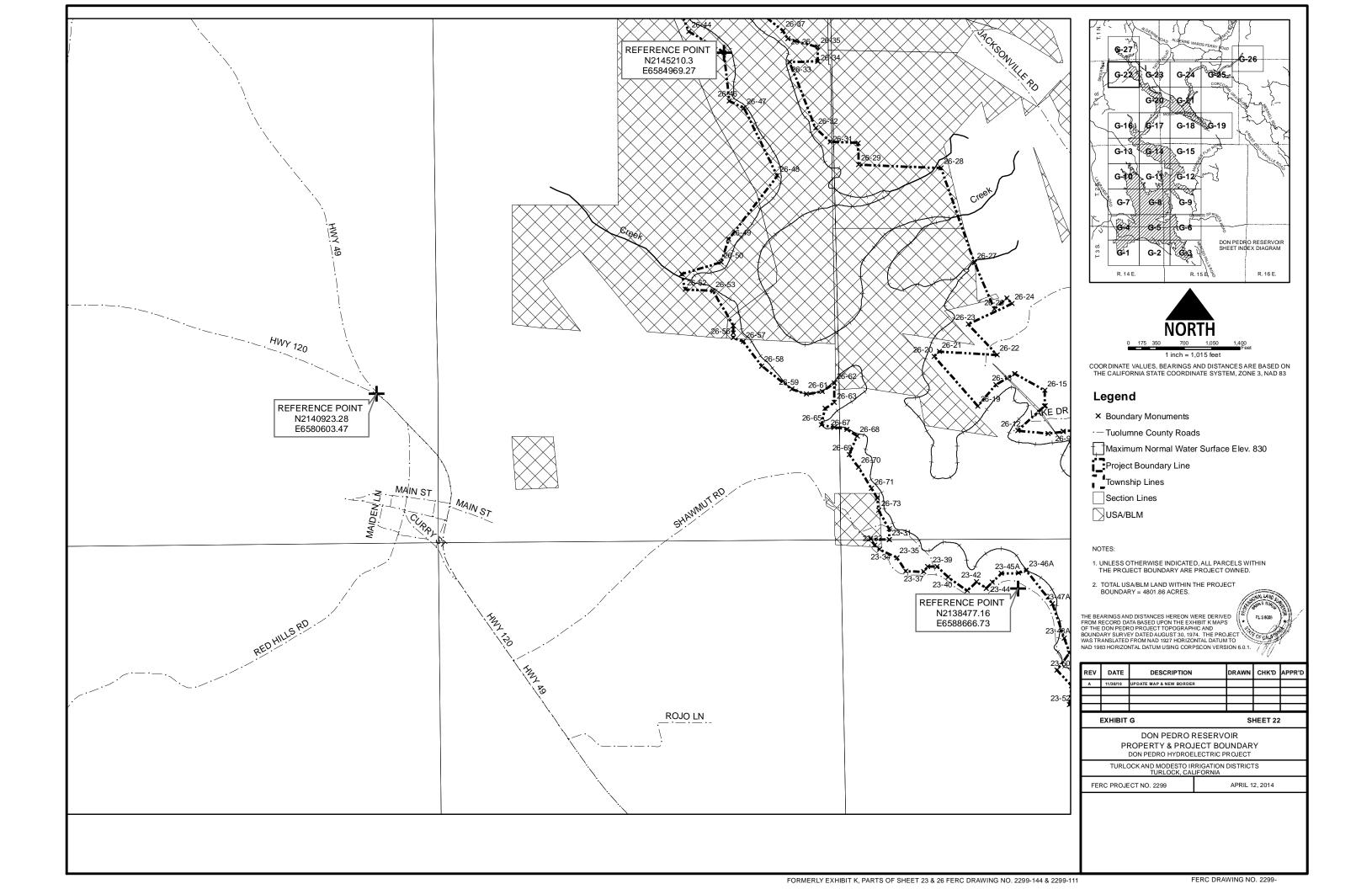


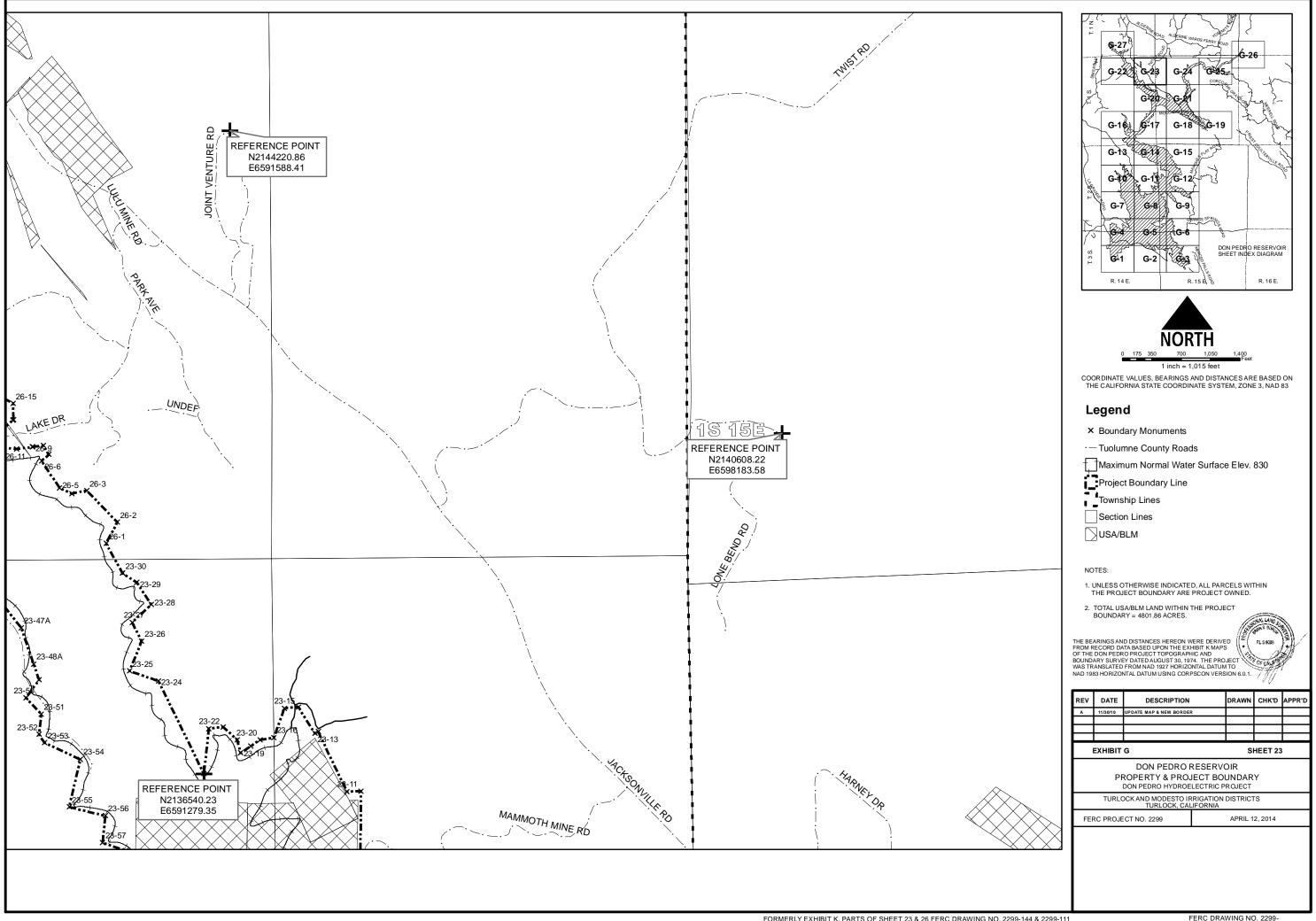


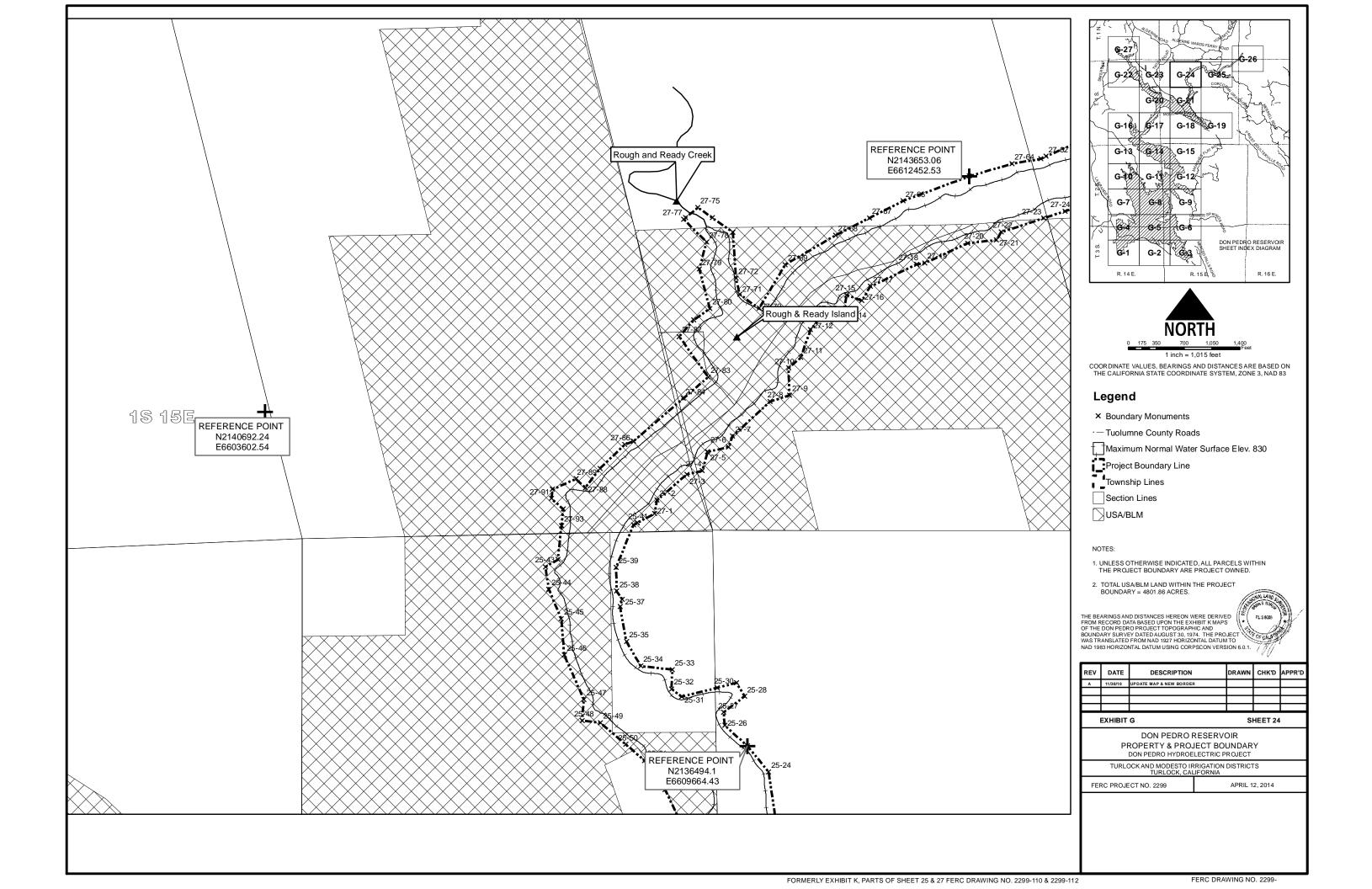


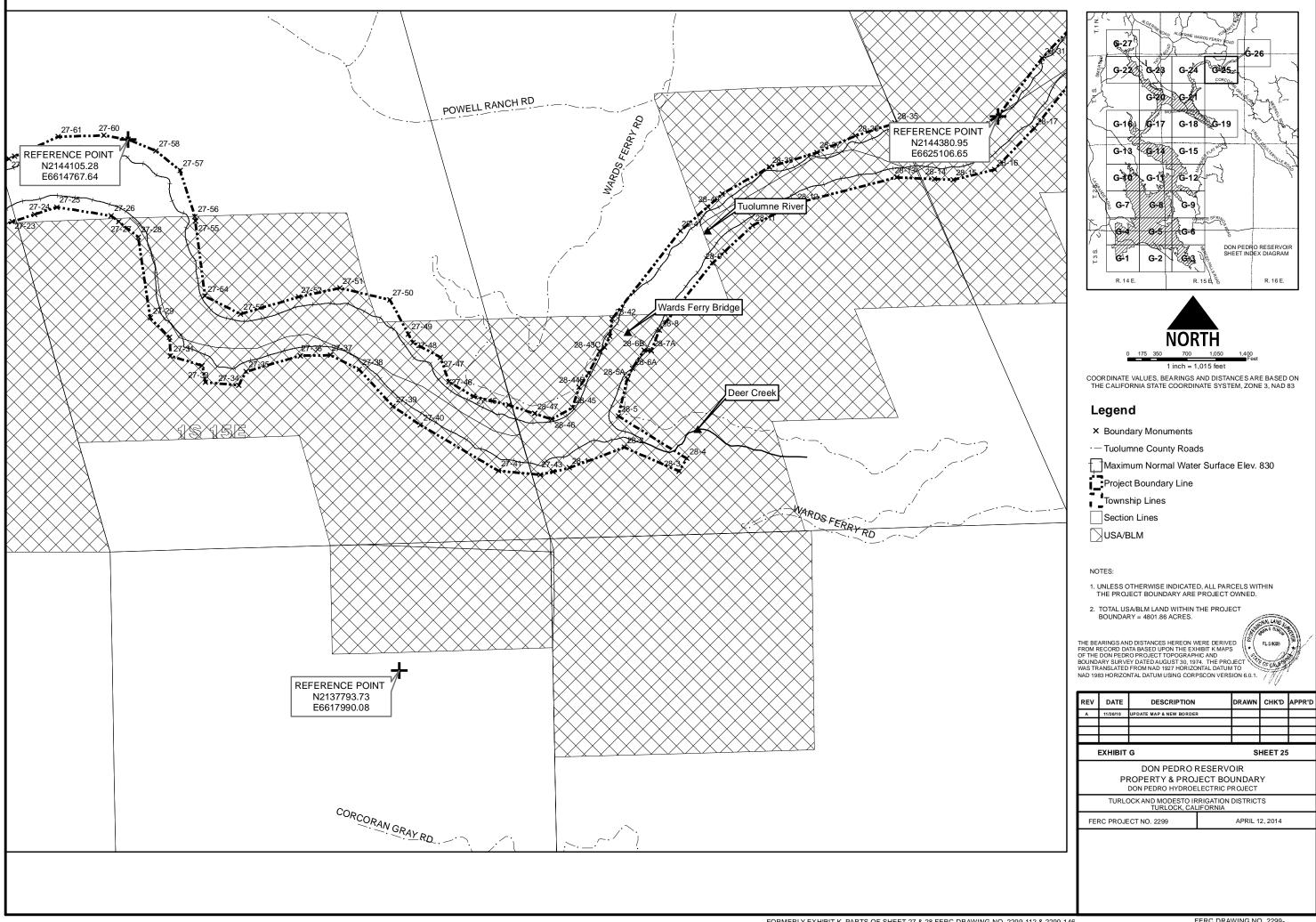


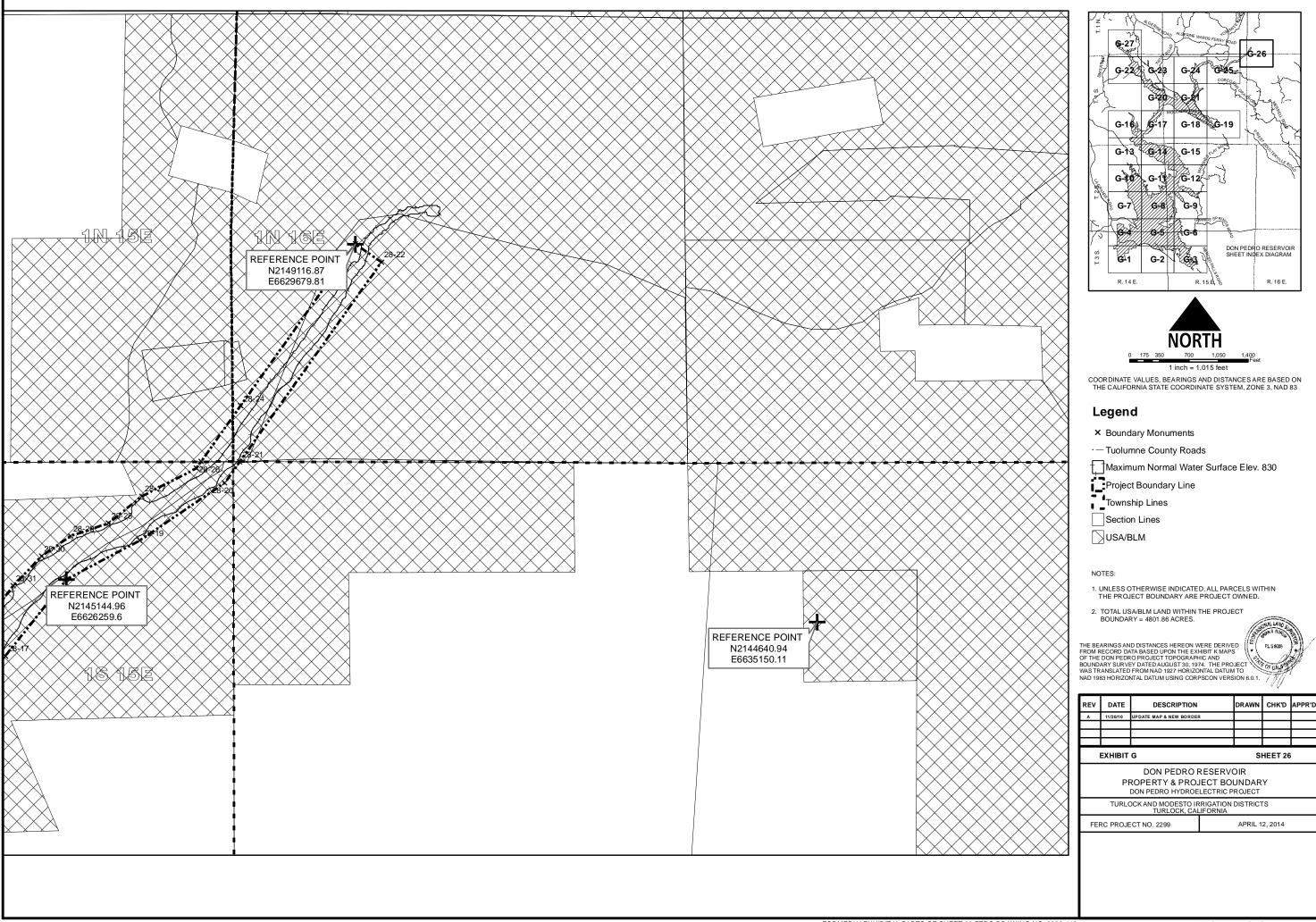


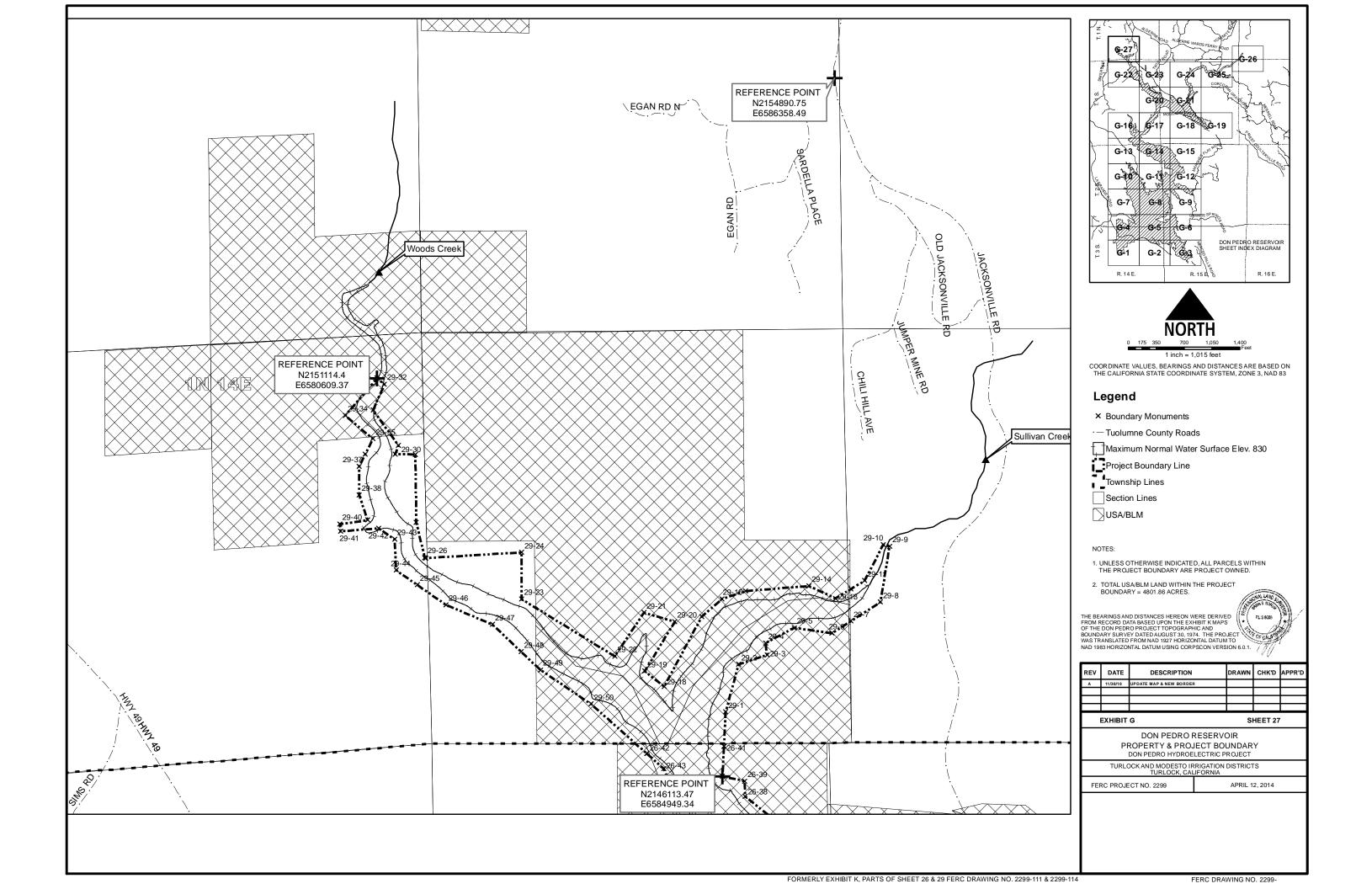


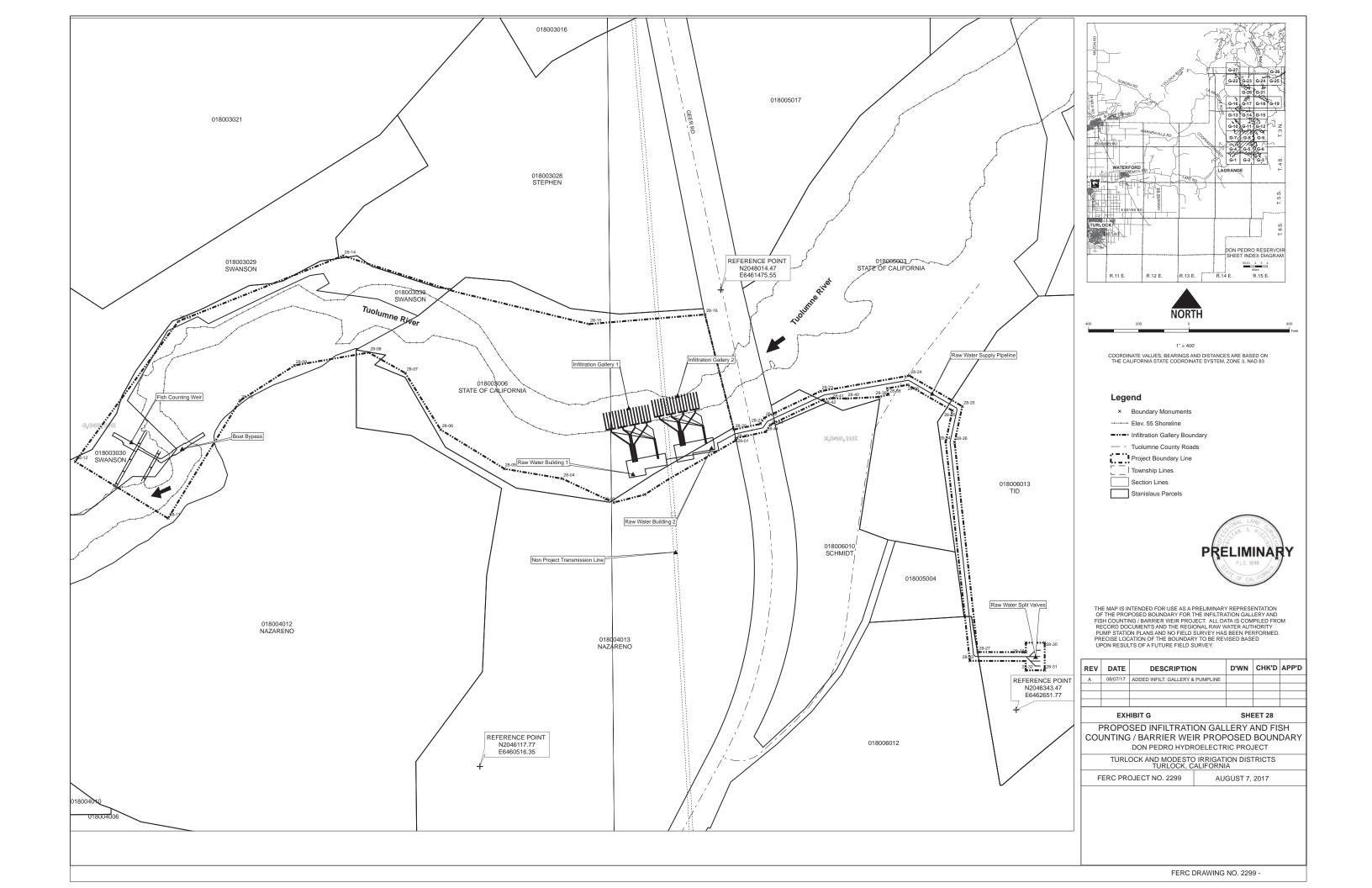












DON PEDRO HYDROELECTRIC PROJECT FERC NO. 2299

AMENDMENT OF APPLICATION

EXHIBIT G - PROJECT MAPS

APPENDIX G-2 FERC FORM-587



Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | FORNIA | | 2. FEI | RC PROJECT NO. | P-2299 | |
|--|--------------------------------------|--------------------|-------------|-------------------|--------|--|
| 3. TOWNSHIP 3S RANGE 14E MERIDIAN Mt. Diablo | | | | | | |
| 4. Che | eck one: | | | Check one: | | |
| | icense Preliminary Perm | nit | | Pending × Issued | | |
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| 30 | 29 | 28 | 27 | 26 | 25 | |
| 31 | 32 | 33 | 34 | 35 | 36 | |
| . | 32 | | | | | |
| 6. contact's n | ame Tim Bachelde | PF | | | | |
| telephone | no. <u>(^{207.239.3874}</u> | <u>)</u> | | | | |
| Date subm | itted October 11, 2 | 017 | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | FORNIA | | 2. FER | 2. FERC PROJECT NO. P-2299 | | | |
|------------------|-------------------------------------|--------------------|---------------|----------------------------|---------------|--|--|
| 3. TOWNSHIP | 2S | RANG | E 14E | MERIDIA | Mt. Diablo | | |
| 4. Che | eck one: | | | Check one: | | | |
| | icense Preliminary Perm | nit | | Pending X Issued | I | | |
| If preliminary p | ermit is issued, ç | give expiration da | ate: | | | | |
| | 5. | EXHIBIT SHEE | T NUMBERS O | R LETTERS | | | |
| Section 6 | 5 | 4 | 3 | 2 G-14 | 1 G-14 | | |
| 7 | 8 | 9 | 10 | 11 | 12 | | |
| 18 | 17 | 16 | 15 | 14 | 13 | | |
| 19 | 20 | 21 | 22 | 23 | 24 G-8 | | |
| 30 | 29 | 28 | 27 | 26 G-7, G-8 | 25 G-8 | | |
| 31 | 32 | 33 G-4 | 34 G-4 | 35 G-4, G-5 | 36 | | |
| telephone | ame Tim Bachelde no. (207.239.3874 |)_ | | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | FORNIA | | _ 2. FER | C PROJECT NO. | P-2299 |
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| 3. TOWNSHIP | 2S | RANGE | 15E | MERIDIAN | Mt. Diablo |
| 4. Che | eck one: | | | Check one: | |
| | icense Preliminary Perm | iit | | Pending sued | |
| If preliminary p | ermit is issued, ç | give expiration date | e: | | _ |
| | 5. | EXHIBIT SHEET | NUMBERS O | R LETTERS | |
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| 7 G-11, G-12, G-14, G-15 | 8 G-12, G-15 | 9 | 10 | 11 | 12 |
| 18 G-11, G-12 | 17 G-12 | 16 | 15 | 14 | 13 |
| 19 G-8, G-9, G-11, G-12 | 20 G-9, G-12 | 21 | 22 | 23 | 24 |
| 30 G-8 | 29 | 28 | 27 | 26 | 25 |
| 31 G-6, G-9 | 32 | 33 | 34 | 35 | 36 |
| telephone ı | ame Tim Bachelde no. (207.239.3874 itted October 11, |). | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALIFORNIA 2. FERC PROJECT NO. P-2299 | | | | | | | |
|---|----------|--------------|---------------------|----------------------------|----------------------|--|--|
| 3. TOWNSHIP | 18 | RANG | E 14E | MERIDIA | Mt. Diablo | | |
| 4. Che | eck one: | | | Check one: | | | |
| <u>X</u> License Preliminary Permit Pending X Issued | | | | | | | |
| If preliminary permit is issued, give expiration date: | | | | | | | |
| | 5 | EXHIBIT SHEE | T NUMBERS O | RIFTTERS | | | |
| Section 6 | 5 | 4 | 3 G-22, G-27 | 2 G-22 | 1 | | |
| 7 | 8 | 9 | 10 | 11 G-20, G-22, G-23 | 12 G-20, G-23 | | |
| 18 | 17 | 16 | 15 | 14 | 13 G-20 | | |
| 19 | 20 | 21 | 22 G-16 | 23 | 24 G-17, G-20 | | |
| 30 | 29 | 28 | 27 G-16 | 26 G-16, G-17 | 25 G-17 | | |
| 31 | 32 | 33 | 34 G-16 | 35 G-14, G-16, G-17 | 36 | | |
| 6. contact's name Tim Bachelder telephone no. (207.239.3874) Date submitted October 11, 2017 | | | | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALIFORNIA | | | | C PROJECT NO | D. P-2299 | | | |
|--|---|----------------------|-------------|--------------|------------|--|--|--|
| 3. TOWNSHIP | 18 | RANG | E 15E | MERIDIA | Mt. Diablo | | | |
| 4. Che | eck one: | | | Check one: | | | | |
| | x License Pending Preliminary Permit x Issued | | | | | | | |
| If preliminary permit is issued, give expiration date: | | | | | | | | |
| | 5. | EXHIBIT SHEE | T NUMBERS O | R LETTERS | | | | |
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| | G-24 | G-24 | G-25 | G-25 | G-25, G-26 | | | |
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| | G-21, G-24 | G-21 | | | | | | |
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| G-20, G-21 | G-21 | G-21 | | | | | | |
| 19 G-20, G-21 | 20 G-18, G-21 | 21 G-18, G-21 | 22 | 23 | 24 | | | |
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| 30 | 29 | G-18, G-19 | G-19 | 20 | 23 | | | |
| 31 | 32 | 33 | 34 | 35 | 36 | | | |
| telephone | ame <u>Tim Bachelde</u> no. <u>(207.239.3874</u> |)_ | | | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | STATE CALIFORNIA 2. FERC PROJECT NO. P-2299 | | | | | |
|--|--|--------------------|-------------|----------|------------|--|
| 3. TOWNSHIP1S RANGE16E | | | | MERIDIAN | Mt. Diablo | |
| 4. Che | eck one: | Check one: | | | | |
| X License Preliminary Permit Pending X Issued | | | | | | |
| If preliminary p | ermit is issued, g | jive expiration da | ate: | | | |
| | 5 | EXHIBIT SHEE | T NUMBERS O | RIFTTERS | | |
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| 31 | 32 | 33 | 34 | 35 | 36 | |
| telephone | ame <u>Tim Bachelde</u> no. (<u>207.239.3874</u> itted <u>October 11, 2</u> |)_ | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | FORNIA | | 2. FER | RC PROJECT NO. | P-2299 |
|------------------|--|--------------------|----------------|-------------------|------------|
| 3. TOWNSHIP | 1N | RANG | E 14E | MERIDIAN | Mt. Diablo |
| 4. Che | | | | | |
| | icense Preliminary Perm | iit | | Pending X Issued | |
| If preliminary p | ermit is issued, g | give expiration da | ate: | | _ |
| | 5. | EXHIBIT SHEE | T NUMBERS O | R LETTERS | |
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| 30 | 29 | 28 G-27 | 27 | 26 | 25 |
| 31 | 32 | 33 G-27 | 34 G-27 | 35 | 36 |
| telephone | ame <u>Tim Bachelde</u> no. (207.239.3874 itted October 11, 2 | <u> </u> | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALIFOR | RNIA | | 2. FERC P | ROJECT NO. P-2 | 2299 |
|---------------------------------|----------------------|------------------|---------------|----------------|------------|
| 3. TOWNSHIP 11 | N | RANGE _ | 15E | _ MERIDIAN _M | lt. Diablo |
| 4. Check | one: | | C | heck one: | |
| × Licer Preli | ise minary Permit | | X | Pending Issued | |
| If preliminary perm | it is issued, give e | expiration date: | | | |
| | 5 FXI | IIRIT SHEET N | IUMBERS OR LI | ETTERS | |
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| 19 | 20 | 21 | 22 | 23 | 24 |
| 30 | 29 | 28 | 27 | 26 | 25 |
| 31 | 32 | 33 | 34 | 35 G-26 | 36 |
| 6. contact's name telephone no. | 207.239.3874 | | | | |
| Date submitted | October 11, 2017 | | | | |

Public Land States (Rectangular Survey System Lands)

| 1. STATE CALI | TATE CALIFORNIA 2. FERC PROJECT NO. P-2299 | | | | | |
|---|--|--------------------|-------------|------------|------------|--|
| 3. TOWNSHIP | 1N | RANG | E 16E | MERIDIAN | Mt. Diablo | |
| 4. Che | eck one: | | | Check one: | | |
| License Preliminary Permit Issued | | | | | | |
| If preliminary p | ermit is issued, g | jive expiration da | ate: | | <u> </u> | |
| | 5. | EXHIBIT SHEE | T NUMBERS O | R LETTERS | | |
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| 13 | 20 | 21 | 22 | 23 | 24 | |
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| 30 | 29 | 28 | 27 | 26 | 25 | |
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| 31 G-26 | 32 | 33 | 34 | 35 | 36 | |
| 0-20 | | | | | | |
| 6 contact's n | ame Tim Bachelde | r | | | | |
| | | | | | | |
| telephone | no. <u>(^{207.239.3874}</u> |) | | | | |
| Date subm | itted October 11. | 2017 | | | | |

