

August 5, 2016

**BOARD OF COUNTY COMMISSIONERS  
ORANGE COUNTY, FLORIDA**

**ADDENDUM NO. 6 / IFB NO. Y16-776-PH  
INTERNATIONAL DRIVE POTABLE WATER BOOSTER PUMP STATION**

**BID OPENING DATE: August 9~~11~~, 2016**

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Additions are indicated by **underlining**, deletions are indicated by ~~strikethrough~~.

**The Bid Opening is changed to August 11, 2016**

**A. CLARIFICATIONS**

1. Attached is the Environmental Resource Permit (ERP) related to the access road from Hunter's Creek to the project site. The ERP limits the type of authorized activities within the County's 40-foot wide easement extending from the Hunter's Creek subdivision to the project site. The 40' wide easement is located over the stabilized access road from Hunter's Creek subdivision.

As noted in the attached ERP, there are areas of the stabilized access road from Hunter's Creek crossing through forested wetlands. The areas of the existing Hunter's Creek access road that are located within forested wetlands can only be regraded/restored as allowed by the attached ERP.

Survey of the forested wetland limits along the Hunter's Creek stabilized access road will be required as part of this project and are to be included in the Contractor's bid price.

**B. PROJECT SPECIFICATIONS**

1. Add Technical Specification 01001 (see attached)

**C. PROJECT DRAWINGS**

1. DRAWING G200  
Replace in its entirety.

**D. ACKNOWLEDGEMENT OF ADDENDA**

The Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date

and time for receipt of proposal.  
All other terms, conditions and specifications remain the same.

Receipt acknowledged by:

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Title

\_\_\_\_\_  
Name of Firm

## SECTION 01001

### GENERAL WORK REQUIREMENTS

#### PART 1 – GENERAL

##### 1.01 NOTICE AND SERVICE

- A. In conformance with the requirements of Notice and Service of the General Conditions, all notices or other papers required to be delivered by the Contractor to the County shall be delivered to the Engineering Division, Attn: Chief Construction Inspector.

##### 1.02 WORK TO BE DONE

- A. The Contractor shall furnish all labor, materials, equipment, tools services and incidentals to complete all work required by these specifications and as shown on the Drawings, at a rate of progress which will ensure completion of the Work within the Contract Time stipulated.
- B. All materials, equipment, skills, tools and labor which is reasonably and properly inferable and necessary for the proper completion of the Work in a substantial manner and in compliance with the requirements stated or implied by these Specifications or Drawings shall be furnished and installed by the Contractor without additional compensation, whether specifically indicated in the Contract Documents or not.
- C. The Contractor shall perform the Work complete, in place, and ready for continuous service, and shall include repairs, testing, permits, clean up, replacements, and restoration required as a result of damages caused during this construction.
- D. The Contractor shall comply with all County, State, Federal, and other codes, which are applicable to the proposed construction Work.
- E. All newly constructed Work shall be carefully protected from injury in any way. No wheeling, walking, or placing of heavy loads on it shall be allowed and all portions damaged shall be reconstructed by the Contractor at his own expense.
- F. Scope of Work: See Section 01010 "Summary of Work" and the Bid Schedule for details.

##### 1.03 DRAWINGS AND PROJECT MANUAL

- A. The Work shall be performed in accordance with the Drawings and Specifications prepared by the County/Professional. All work and materials shall conform to the Orange County Utilities Standards and Construction Specifications Manual, latest edition or as indicated in these Specifications or Drawings.
- B. The Contractor shall verify all dimensions, quantities and details shown on the Drawings, Supplementary Drawings, Schedules, Specifications or other data received from the County/Professional, and shall notify same, in writing, of all errors, omissions, conflicts and discrepancies found therein. Failure to discover or correct errors, conflicts or

discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction or improper operation resulting there from, nor from rectifying such conditions at his own expense.

C. All schedules are given for the convenience of the County and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quantity of materials and equipment included in the Work to be done under this Contract.

D. Intent:

1. All Work called for in the Specifications applicable to this Contract, but not shown on the Drawings in their present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified either in the Drawings or in the Specifications, but involved in carrying out their intent, or in the complete and proper execution of the Work, is required and shall be performed by the Contractor as though it were specifically delineated or described.
2. Items of material, equipment, machinery, and the like may be specified on the Drawings and not in the Specifications. Such items shall be provided by the Contractor in accordance with the specification on the Drawings.
3. The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any Work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made upon that basis.
4. Reference to the following standards of any technical society, organization or body shall be construed to mean the latest standard, code or specification or tentative specification adopted and published at the date of advertisement for bids, even though reference has been made to an earlier standard. Such reference is hereby made a part of the Contract the same as if herein repeated in full and in the event of any conflict between any of these specifications, standard codes or tentative specifications and the Contract Documents, the most stringent shall govern.

AA	Aluminum Association
AASHTO	American Association of State Highway and Transportation Officials
ABPA	Acoustical and Board Products Association
ACI	American Concrete Institute
AFBMA	Anti-Friction Bearing Manufacturer's Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AIEE	American Institute of Electrical Engineers
AIMA	Acoustical and Insulating Materials Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AMCA	American Moving and Conditioning Association
ANSI	American National Standards Institute
API	American Petroleum Institute
APWA	American Public Works Association
AREA	American Railway Engineering Association
ASA	American Standards Association (now ANSI)

ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASSCBC	American Standard Safety Code for Building Construction
ASTM	American Society for Testing and Materials
AWPA	American Wood Preservers Association
AWBP	American Wood Preservers Board
AWS	American Welding Society
AWWA	American Water Works Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard
DOT Spec	Standard Specification for Road and Bridge Construction – Florida Department of Transportation
FAC	Florida Administrative Code
FS	Federal Standard
IEEE	Institute of Electrical and Electronic Engineers
IPCEA	Insulated Power Cable Engineers Association
NBFU	National Board of Fire Underwriters
NBS	National Bureau of Standards
NEC	National Electrical Code
NECA	National Electrical Contractors Association
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
NPT	National Pipe Threads
NSF	National Science Foundation
OSHA	U.S. Department of Labor, Occupational Safety and Health Administration
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PS	United States Products Standards
SAE	Society of Automotive Engineers
SDI	Steel Decks Institute
SJI	Steel Joists Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SSPC	Structural Steel Painting Council
UL	Underwriter's Laboratories, Inc.
USASI	United States of American Standards Institute (Now ANSI)

E. When obtaining data and information from the Drawings, conflicts, errors, and discrepancies shall be resolved from the documents given the following order of precedence:

1. Agreement
2. Change Orders
3. Addenda
4. Supplementary Conditions
5. Instructions to Bidders
6. General Conditions
7. Specifications (Div. 1 through 16)
8. Drawings
9. Dimensions

When measurements are affected by conditions already established or where items are to be fitted into constructed conditions, it shall be the

Contractor's responsibility to verify all such dimensions at the site and the actual job dimensions shall take precedence over scale and figure dimensions on the Drawings.

10. Full-size Drawing
11. Large-scale Drawing
12. Small-scale Drawing
13. Advertisement for Bids
14. Bid
15. Bonds
16. Insurance Certificates
17. Insurance Endorsements
18. Affidavits

#### 1.04 PROTECTION AND RESTORATION

- A. The Contractor shall be responsible for the preservation of all public and private property, and shall use every means of protection necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in other manner acceptable to the County/Professional.
- B. Protection of Trees and Shrubs:
  1. Protect with boxes or other barricades
  2. Do not place excavated material so as to injure trees or shrubs
  3. Install pipelines in short tunnels between and under root systems
  4. Support trees to prevent root disturbance during nearby excavation
- C. Tree and Limb Removal
  1. Tree limbs, which interfere with equipment operation and are approved for pruning, shall be neatly trimmed and the tree cut coated with tree paint.
  2. The County may order the Contractor, for the convenience of the County, to remove trees along the line or trench excavation. The Contractor shall obtain any permits required for removal of trees. Ordered tree removal shall be paid for under the appropriate Contract Items.
- E. Trees or shrubs destroyed by negligence of the Contractor or his employees shall be replaced by him with new stock of similar size and age, at the proper season and at the sole expense of the Contractor.
- D. Lawn Areas - All lawn areas disturbed by construction shall be replaced with like kind to a condition similar or equal to that existing before construction. Where sod is to be removed, it shall be carefully removed, and the same resodded, or the area where sod has been removed shall be restored with new sod in the manner described in the applicable section. Any disturbed area without sod shall be graded and sodded.
- E. Fences - Any fence, or part thereof, that is damaged or removed during the course of the Work shall be replaced or repaired by the Contractor, and shall be left in as good a condition as before the starting of the Work.

- F. Where fencing, walls, shrubbery, grass strips or area must be removed or destroyed incident to the construction operation, the Contractor shall, after completion of the Work, replace or restore to the original condition all such destroyed or damaged landscaping and improvements.
- G. The cost of all labor, materials, equipment, and work for restoration shall be deemed included in the appropriate Contract Item or items, or if no specific item is provided therefore, as part of the overhead cost of the Work, and no additional payment will be made therefore.

#### 1.05 PUBLIC NUISANCE

- A. The Contractor shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, or excessive noise.
- B. Sound levels measured by the County/Professional shall not exceed 45 dBA from 8 p.m. to 8 a.m. or 55 dBA 8 a.m. to 8 p.m. This sound level shall be measured at the exterior of the nearest exterior wall of the nearest residence. Levels at the equipment shall not exceed 85 dBA at any time. Sound levels in excess of these values are sufficient cause to have the Work halted until equipment can be quieted to these levels. Work stoppage by the County/Professional for excessive noise shall not relieve the Contractor of the other portions of this specification including, but not limited to, completion dates and bid amounts.
- E. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

#### 1.06 CONTRACTOR'S PAYMENTS TO COUNTY FOR OVERTIME WORK

- A. County Inspector Work Hours: Normal work hours for the County's inspector(s) are defined as any eight (8) hour period between the hours of 7:00 a.m. and 7:00 p.m. on the weekdays of Monday through Friday. Any County's Inspector(s) work beyond the aforementioned normal work hours shall be requested in writing 48 hours in advance. All overtime and weekend work compensation to the County's Inspector(s) for working beyond the normal working hours are considered overtime compensation and shall be paid for by the Contractor at the overtime pay rate of \$50 per hour. This overtime pay rate is subject to adjustment by the County. The Contractor agrees that the County shall deduct charges for work outside normal work hours and for overtime pay from payments due the Contractor.

#### 1.07 MAINTENANCE OF SERVICE

- A. The proposed work for this project involves the connection to a live, water transmission main within a County owned property. The work also involves connecting to a live 36" potable water transmission main. The CONTRACTOR shall perform their work, taking all proper precautions and safety measures to insure a safe work area. The work shall be so conducted to maintain existing utility systems in operation. All utilities that occupy or are adjacent to the subject construction site are to remain in operation. The CONTRACTOR shall coordinate all construction activities with the Orange County Inspectors and submit a plan for review.
- B. The Contractor shall, prior to interrupting any utility service (water, sewer, etc.) for the purpose of making cut-ins to the existing lines or for any other purposes, contact the County and make arrangements for the interruption which will be satisfactory to the County.

- C. Utility lines that are damaged during construction shall be repaired by the Contractor and service restored within 4 hours of the breakage.

#### 1.08 TRANSFER OF SERVICE

- A. The Contractor shall use temporary plugs or jumper connection in the proposed water lines to control the flow to the facility during the transfer period. The proposed pumping facility shall be constructed while the existing water main is in operation. When the County has accepted the proposed facilities and placed the facility into operation, the transfer of service is complete. The Contractor may begin the work of removing the bypass pumping equipment.

#### 1.09 LABOR

- A. Supervision - The Contractor shall keep the Contract under his own control and it shall be his responsibility to see that the Work is properly supervised and carried on faithfully and efficiently. The Contractor shall supervise the Work personally or shall have a competent, English speaking superintendent or representative, who shall be on the site of the Project at all working hours, and who shall have full authority by the Contractor to direct the performance of the Work and make arrangements for all necessary materials, equipment, and labor without delay.
- B. Jurisdictional Disputes - It shall be the responsibility of the Contractor to pay all costs that may be required to perform any of the Work shown on the Drawings or specified herein to avoid any work stoppages due to jurisdictional disputes. The basis for subletting work in question, if any, shall conform with precedent agreements and decisions on record with the Building and Construction Trades Department, AFL-CIO, dated June, 1973, including any amendments thereto.
- C. Apprenticeship - The Contractor shall comply with all of the requirements of Section 446, Florida Statutes, for all contracts in excess of \$25,000 excluding roadway, highway or bridge contracts and the Contractor agrees to insert in any subcontract under this Contract the requirements of this Article.

#### 1.10 MATERIALS AND EQUIPMENT

##### A. Manufacturer

1. All transactions with the manufacturers or Subcontractors shall be through the Contractor, unless the Contractor shall request and at the County/Professional's option, that the manufacturer or Subcontractor communicate directly with the County/Professional. Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.
2. All workmanship and materials shall be of the highest quality. The equipment shall be the product of manufacturers who are experienced and skilled in the field with an established record of research and development. No equipment will be considered unless the manufacturer has designed and manufactured equipment of comparable type and size and have demonstrated sufficient experience in such design and manufacture.
3. All materials and equipment furnished by the Contractor shall be subject to the inspection, review and acceptance of the County. No material shall be delivered to the work without prior approval of the County/Professional.



4. All apparatus, mechanisms, equipment, machinery, and manufactured articles for incorporation into the Project shall be the new (most current production at time of bid) and unused standard products of recognized reputable manufacturers.
5. Manufactured and fabricated products:
  - a. Design, fabricate and assemble in accord with the best engineering and shop practices.
  - b. Manufacture like parts of duplicate units to standard sizes and gauges, to be interchangeable.
  - c. Any two or more pieces of material or equipment of the same kind, type or classification, and being used for identical types of service, shall be made by the same manufacturer.
  - d. Products shall be suitable for service conditions as specified and as stated by manufacturer.
  - e. Equipment capacities, sizes and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.
  - f. Do not use material or equipment for any purpose other than that for which it is designed or is specified.

#### 1.11 MANUFACTURER'S SERVICE

- A. Where service by the manufacturer is specified to be furnished as part of the cost of the item of equipment, the Work shall be at the Contractor's expense.
- B. The services provided shall be by a qualified manufacturer's service representative to check and verify the completed installation, place the equipment in operation, and instruct the County's operators in the operation and maintenance procedures. Such services are to be for period of time and for the number of trips specified. A working day is defined as a normal 8-hour working day on the job and does not include travel time.
- C. The services shall further demonstrate to the County/Professional's complete satisfaction that the equipment will satisfactorily perform the functions for which it has been installed. See also Section 01650 "Pump Station Start-up and Testing".

#### 1.12 INSPECTION AND TESTING

##### A. General

1. If, in the testing of any material or equipment, it is ascertained by the County/Professional that the material or equipment does not comply with the Contract, the Contractor shall be notified thereof, and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the Work and replace it with acceptable material, without cost to the County.
2. Tests of electrical and mechanical equipment and appliances shall be conducted in accordance with recognized test codes of the ANSI, ASME, or the IEE, except as may otherwise be stated herein.

##### B. Cost

1. County shall employ and pay for the services of an independent testing laboratory to perform testing specifically indicated on the Contract Documents or specified in the Specifications and may at any other time elect to have materials and equipment tested for conformity with the Contract Documents.

2. The cost of field leakage and pressure tests and shop tests of materials and equipment specifically called for in the Contract Documents shall be borne by the Contractor, and such costs shall be deemed to be included in the Contract price.
3. Notify County employed laboratory a minimum of 48 hours sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests. When tests or inspections cannot be performed after such notice, reimburse County for laboratory personnel and travel expenses incurred.
4. The Contractor shall pay for all Work required to uncover, remove, replace, retest, etc. any Work not tested due to the Contractor's failure to provide the 48-hours advance notice or due to failed tests. The Contractor shall also provide compensation for the County/Professional's personnel for required re-testing due to failed or rescheduled testing.

#### C. Shop Testing

1. Each piece of equipment for which pressure, duty, capacity, rating, efficiency, performance, function or special requirements are specified shall be tested in the shop of the manufacturer in a manner which shall conclusively prove that its characteristics comply fully with the requirements of the Contract Documents. No such equipment shall be shipped to the worksite until the County/Professional notifies the Contractor, in writing, that the results of such tests are acceptable.
2. Five copies of the manufacturer's actual shop test data and interpreted results thereof, accompanied by a certificate of authenticity notarized and signed by a responsible official of the manufacturing company, shall be furnished to the County/Professional as a prerequisite for the acceptance of any equipment. The cost of shop tests (excluding cost of County's representative) and of furnishing manufacturer's preliminary and shop test data of operating equipment shall be borne by the Contractor and shall be included in the Contract price.
3. The Contractor shall give notice in writing to the County sufficiently in advance of his intention to commence the manufacture or preparation of materials especially manufactured or prepared for use in or as part of the permanent construction. Such notice shall contain a request for inspection, the date of commencement and the expected date of completion of the manufacture or preparation of materials. Upon receipt of such notice, the County shall arrange to have a representative present at such times during the manufacture as may be necessary to inspect the materials; or he will notify the Contractor that the inspection will be made at a point other than the point of manufacture; or he will notify the Contractor that inspection will be waived.
4. When inspection is waived or when the County/Professional so requires, the Contractor shall furnish to him authoritative evidence in the form of Certificates of Manufacture that the materials to be used in the Work have been manufactured and tested in conformity with the Contract Documents. These certificates shall be notarized and shall include five (5) copies of the results of physical tests and chemical analysis, where necessary, that have been made directly on the product or on similar products of the manufacturer.
5. The Contractor must comply with these provisions before shipping any material. Such inspections by the County shall not release the Contractor from the responsibility for furnishing materials meeting the requirements of the Contract Documents.

D. Field Testing:

1. The County shall employ and pay for services of an independent testing laboratory to perform testing specifically indicated in the Contract Documents. Employment of the laboratory shall in no way relieve Contractor's obligations to perform the Work of the Contract. The Contractor shall provide compensation for retesting of all failed tests.
2. The County may at any time during the progress of the Work, request additional testing beyond that which is specified in the Contract. This testing will be at the County's expense. The Contractor shall assist the testing laboratory personnel in all ways so as to facilitate access to the location of the material or equipment to be tested. Contractor shall:
  - a. Cooperate with laboratory personnel, provide access to the Project.
  - b. Secure and deliver to the laboratory adequate quantities of representative samples of materials proposed to be used and which require testing.
  - c. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes, which require control by the testing laboratory.
3. The following schedule summarizes the responsibilities of various tests that may be required by the Contract Documents. Contractor shall notify the County in advance of work so that arrangements can be made with the testing laboratory.

TEST	NOTES	PAID FOR
Soil Compaction	Pipe Work: Every 300 ft. at each lift of compaction Structures: As a minimum one test per 2000 SF of fill area per lift, or at least 2 tests per structure, per lift. As specified in material specifications sections	County
Low Pressure Air Exfiltration	Each section of gravity sewer pipe between manholes or lift station	Contractor
Hydrostatic Pressure	All segments of pressure piping (24-hour test).	Contractor
Hydrostatic Leakage	All segments of pressure piping (2-hour test).	Contractor
Bacteriological	As required by local and state agencies	County
Asphaltic Concrete Paving	As required by County	County
LBR	Each 600 SY of pavement	County
Concrete	Slump test each delivery, cylinders every 20 CY	County
All Other Testing	As specified in various sections of the Project Manual	As Indicated

E. Demonstration Tests: Upon completion of the Work and prior to final payment, all equipment and piping installed under this Contract shall be subjected to acceptance or demonstration tests as specified or required to provide compliance with the Contract Documents. The Contractor shall furnish all labor, fuel, energy, water and all other equipment necessary for the demonstration tests at no additional cost to the County.

F. Final Inspection: Prior to preparation of the final payment application, a final inspection will be performed by the County to determine if the Work is properly and satisfactorily constructed in accordance with the requirements of the Contract Documents. See also Section 01700 "Project Closeout".

- G. Inspection by existing utility owners: The Contractor shall pay for all inspections during the progress of the Work required and provided by the owner of all existing public utilities paralleling or crossing the Work, as shown on the Drawings. All such inspection fees shall be deemed included in the appropriate Contract Item or items, or if no specific item is provided therefore, as part of the overhead cost of the Work, and no additional payment will be made therefore.
- H. Inspection by Other Agencies: The Florida Department of Transportation, the Florida Department of Environmental Protection, and other authorized governmental agencies shall have free access to the site for inspecting materials and Work, and the Contractor shall afford them all necessary facilities and assistance for doing so. Any instructions to the Contractor resulting from these inspections shall be given through the County. These rights of inspections shall not be construed to create any contractual relationship between the Contractor and these agencies.

### 1.13 PROJECT SITE AND ACCESS

#### A. RIGHT-OF-WAY AND EASEMENTS

1. The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Any earth or other excavated material spilled from trucks shall be removed by the Contractor and the streets cleaned to the satisfaction of the County.
2. The Contractor shall not enter or occupy private land outside of easements, except by written permission of the property owner.
3. At the time of the Pre-Construction meetings, the Contractor shall fully acquaint himself with the status of all easements required for the Work and the possibility of parcels remaining to be acquired, if any. Should easements not be acquired by the County in specific areas of the Work, the Contractor shall sequence and reschedule his work therein so as not to interfere with the progress of work in other areas of the Project. Such rescheduling of Work shall be performed by the Contractor at no additional cost to the County. The County agrees that it will make every effort to acquire all remaining easements with all speed and diligence possible so as to allow the completion of the Work within the Contract time.
- 4. The Contractor shall utilize the International Drive entrance for all construction work including but not limited to deliveries, earthmoving activities and site access. Contractor shall install a minimum of 12" of crushed concrete base gravel road from International Drive through the tunnels and onto the proposed project site. Crushed concrete base shall be in accordance with Article 9 of the OC Road Construction Specifications Public Works. The width of the 12" crushed gravel road shall be at least 14 feet and shall encompass the existing width of the stabilized roadway, which may be greater than 14-foot wide in areas. The north access road between International Drive and the proposed site shall be maintained throughout the project duration and then regraded and restored at final completion such that a minimum of 12" of crushed concrete base gravel road is provided for Orange County Utilities future access to the site. The contractor shall cut the curb on International Drive entrance but shall maintain and protect current stormwater flow pattern. Following the construction activities, the Contractor shall restore the curb to the original condition.**

5. Contractor shall not damage the existing landscaping in any way as part of daily activities. Any landscape that is damaged shall be replaced with landscaping of the same or better condition.
6. There is no access to or from SR 417 via the access road.
7. Tunnels. The contractor shall remove a minimum of 10” of stabilization in the tunnels and pour concrete to be level with the footers in all three tunnels for the entire length of the footers. Concrete shall be minimum 10” thick, 3000 psi concrete with fiber mesh. The Contractor is required to maintain the tunnels for the duration of the work including installation of additional stabilization, concrete or dewatering to maintain stormwater flow.
8. The Contractor shall submit a hauling plan for Orange County Public Works approval to include hauling route, erosion and sedimentation control, wash-down area, MOT, entrance access, curb cutting, flaggers, and stabilization. The hauling plan for the earth moving activities shall only utilize the International Drive entrance. No earthmoving activities shall be permitted through the Town Center Blvd entrance.
9. Town Center Blvd entrance shall only be permitted on a case by case basis and usage is contingent on approval from both OCU and the Hunters Creek Community Association (HCCA). In order to access the Town Center Blvd, the Contractor shall demonstrate that the equipment or delivery is physically unable to enter through the tunnel systems as provided by the north entrance. Refusal by delivery trucks or companies to enter the tunnels or refusal to utilize the International Drive entrance is not an acceptable reason to use the Town Center Blvd entrance. It shall be the Contractor’s responsibility to offload, reload or transport equipment and materials through the tunnels if the delivery and equipment is dropped prior to entering the tunnels. If access is approved, a minimum of 3 business day notice is required prior to delivery to properly notify the homeowners in the vicinity. The delivery hours are between 10am-2pm and Monday through Friday only. Access shall not be permitted to this area without prior approval. This route is subject to seasonal flood-prone areas and the contractor shall be responsible to provide stabilization as required to traverse the route. The two conservations areas shall be protected and restored to existing conditions if disturbed by the Contractor.
10. Following construction, the Contractor shall remove any added stabilization added during construction, remove all existing road, regrade and sod the area shown on the drawings behind the subdivision. The comment is only to call out the area to be sodded so the Contractor can price the work.
11. The Contractor is responsible to maintain the chain-link fences and gates: at the tunnels, International Drive entrance, Town Center Blvd entrance along with installing and maintaining the chain link fence and gat at the Town Center Blvd. entrance as shown on the drawings. The Contractor shall include in the bid potential repeated damage created by the public attempting to access this area. The contractor shall be responsible to restore and repair the access roads, gates and fencing damaged by legal and illegal access to the area throughout the duration of project.

## B. ACCESS

1. Neither the material excavated nor the materials or equipment used in the construction of the Work shall be so placed as to prevent free access to all fire hydrants, valves or manholes.
2. Access to businesses located adjacent to the project site must be maintained at all times. Contractor may prearrange the closing of business access with the business owner. Such prearranged access closing shall not exceed two (2) hours. Property drainage and grading shall be restored and all construction debris removed within 48 hours of backfilling trench.
3. Contractor agrees that representatives of the County and any governmental agents will have access to the Work wherever it is in preparation or progress and that the Contractor shall provide facilities for such access and inspection.

## 1.14 UTILITIES

### A. UTILITY CONSTRUCTION

1. Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, house service connections, vaults, manholes and all other appurtenances and facilities pertaining thereto, whether owned or controlled by governmental bodies or privately owned by individuals, firms or corporations, used to serve the public with transportation, traffic control, gas, electricity, telephone, sewerage, drainage or water. Other public or private property, which may be affected by the Work, shall be deemed included hereunder.
2. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall be removed when no longer required.
3. The length of open trench will be controlled by the particular surrounding conditions, but shall always be confined to the limits described by the County. If any excavation becomes a hazard, or if it excessively restricts traffic at any point, the County may require special construction procedures. As a minimum, the Contractor shall conform to the following restoration procedures:
  - a. Interim Restoration: All excavations shall be backfilled and compacted as specified by the end of each working day. Contractor shall coordinate his construction activity including density tests and inspections to allow sufficient time to achieve this requirement. All driveway cuts shall be backfilled, compacted, and limerock base spread and compacted immediately after installation. Contractor shall coordinate with the individual property owners prior to removing the driveway section. Any utility crossing an existing roadway, parking lot or other paved area shall be patched by the end of the working day.
  - b. All pipe and fittings shall be neatly stored in a location, which will cause the least disturbance to the public. All debris shall be removed and properly disposed of by the end of each working day.

- c. Final Restoration Overlay: After completing all installations, and after testing of the pipe, final restoration shall be performed. In no event shall final restoration begin after substantial completion. Final restoration shall provide a S-III asphaltic overlay as specified in an uninterrupted continuous operation until completion. Any additional restoration required after testing shall be repaired in a timely manner at no additional cost to the County.
- d. Maintenance of all restored facilities shall be the Contractor's responsibility. This maintenance shall be performed on an on-going basis during the course of construction. The Contractor's Progress Schedule shall reflect the above restoration requirements.
- e. Additional Restoration for Work in Business or Commercial Districts: The Contractor shall restore all private property, damaged by construction, to its original condition. Access to residents and properties located adjacent to the project site must be maintained at all times. Property drainage and grading of adjacent properties shall be restored within 24 hours of backfilling trench.

## B. EXISTING UTILITIES

- 1. The locations of all existing underground piping, structures and utilities have been taken from information received from the respective owner. The locations are shown without express or implied representation, assurance, or guarantee that they are complete or correct or that they represent a true picture of underground piping, conduit and cables to be encountered.
- 2. The Contractor shall, at all times in performance of the Work, employ acceptable methods and exercise reasonable care and skill so as to avoid unnecessary delay, injury, damage or destruction of existing public utility installations and structures; and shall, at all times in the performance of the Work, avoid unnecessary interference with, or interruption of, public utility services; and shall cooperate fully with the owners thereof to that end.
- 3. Pipelines shall be located substantially as indicated on the Drawings, but the County reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons. When the location of piping is dimensioned on the Drawings, it shall be installed in that location; when the location of piping is shown on a scaled drawing, without dimensions, the piping shall be installed in the scaled location unless the County approves an alternate location for the piping. Where fittings are noted on the Drawings, such notation is for the Contractor's convenience and does not relieve him from laying and jointing different or additional items where required. The County/Professional may require detailed pipe laying drawings and schedules for project control.
- 4. The Contractor shall exercise care in any excavation to locate all existing piping and utilities. All utilities, which do not interfere with the completed Work, shall be carefully protected against damage. Any existing utilities damaged in any way by the Contractor shall be restored or replaced by the Contractor at his expense as directed by the County. Any existing facilities, which require operation to facilitate repairs, shall be operated only by the owner of the respective utility.
- 5. It is the responsibility of the Contractor to ensure that all utility or other poles, the

stability of which may be endangered by the proximity of excavation, be temporarily stayed and/or shored in position while Work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.

#### C. NOTICES

1. All governmental utility departments and other owners of public utilities, which may be affected by the Work, will be informed in writing by the Contractor two (2) weeks after the execution of the Contract or Contracts covering the Work. Such notice will be sent out in general, and directed to the attention of the governmental utility departments and other owners of public utilities for such installations and structures as may be affected by the Work.
2. The Contractor shall also comply with Florida Statute 553.851 regarding notification of existing gas and oil pipeline company owners. Evidence of such notice shall be furnished to the County within two weeks after the execution of the Contract.
3. It shall be the Contractor's responsibility to contact utility companies at least 72 hours in advance of breaking ground in any area or on any unit of the Work so maintenance personnel can locate and protect facilities, if required by the utility company.
4. The Contractor shall give a minimum 5 working day notice prior to utility personnel interrupting a utility service (water, sewer, etc.) for the purpose of making cut-ins to the existing lines or for any other purposes, contact the utility owner and make arrangements for the utility personnel to isolate the existing lines thus providing interruption which will be satisfactory to the utility owner.

#### D. EXPLORATORY EXCAVATIONS

1. Exploratory excavations shall be conducted by the Contractor for the purpose of locating underground pipelines or structures in advance of the construction. Test pits shall be excavated in areas of potential conflicts between existing and proposed facilities and at piping connections to existing facilities a minimum of 48 hours or 1000 feet in advance of Work. If there is a potential conflict, the Contractor is to notify the County/Professional immediately. Information on the obstruction to be furnished by the Contractor shall include: Location, Elevation, Utility Type, Material and Size. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the County.

#### E. UTILITY CROSSINGS

1. It is intended that wherever existing utilities must be crossed, deflection of the pipe within specified limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the County this procedure is not feasible, he may direct the use of fittings for a utility crossing or conflict transition as detailed on the Drawings.

#### F. RELOCATIONS



1. Relocations shown on the Drawings - Public utility installations or structures, including but not limited to light poles, signs, fences, piping, conduits and drains that interfere with the positioning of the Work which are shown on the Drawings to be removed, relocated, replaced or rebuilt by the Contractor shall be considered as part of the general cost of doing the Work and shall be included in the prices bid for the various contract items. No separate payment shall be made therefore.
2. Relocations not shown on the Drawings
  - a. Where public utility installations or structures are encountered during the course of the Work, and are not indicated on the Drawings or in the Specifications, and when, in the opinion of the County, removal, relocation, replacement or rebuilding is necessary to complete the Work under this contract, such Work shall be accomplished by the utility having jurisdiction, or such Work may be ordered, in writing by the County, for the Contractor to accomplish.
  - b. If such Work is accomplished by the utility having jurisdiction, it will be carried out expeditiously and the Contractor shall give full cooperation to permit the utility to complete the removal, relocation, replacement or rebuilding as required. If such Work is accomplished by the Contractor, it will be paid for as a Change Order.
3. All existing castings, including valve boxes, junction boxes, manholes, hand holes, pull boxes, inlets and similar structures in the areas of construction that are to remain in service and in areas of trench restoration and pavement replacement, shall be adjusted by the Contractor to bring them flush with the surface of the finished Work.
4. All existing utility systems which conflict with the construction of the Work herein, which can be temporarily removed and replaced, shall be accomplished at the expense of the Contractor. Work shall be done by the utility unless the utility approves in writing that the Work may be done by the Contractor.

## 1.15 RELATED CONSTRUCTION REQUIREMENTS

### A. BARRIER AND LIGHTS

1. The Contractor shall exercise extreme care in the conduct of the Work to protect health and safety of the workmen and the public. The Contractor shall provide all protective measures and devices necessary, in conformance with applicable local, state and federal regulations regarding their need and use. Protective measures shall include but are not limited to barricades, warning lights/flashers and safety ropes.
2. All equipment and vehicles operating within ten (10) feet of the roadway shall have flashing strobe lights attached.

### B. DEWATERING AND FLOTATION

1. The Contractor, with his own equipment, shall do all pumping necessary to dewater any part of the Work area during construction operations to insure dry working conditions. The Contractor shall be completely responsible for any tanks,

wet wells or similar structures that may become buoyant during the construction and modification operations due to the ground water or floods and before the structure is put into operation. The proposed final structures have been designed against buoyancy; however the Contractor may employ methods, means and techniques during the various stages of construction (or other conditions), which may affect the buoyancy of structures. Should there be any possibility of buoyancy of a structure, the Contractor shall take the necessary steps to prevent its buoyancy either by increasing the structure's weight, by filling it with approved material or other acceptable methods. Damage to any structures due to floating or flooding shall be repaired or the structures replaced at the Contractor's expense.

#### C. DUST AND EROSION CONTROL

1. The Contractor shall prevent dust nuisance from his operations or from traffic by the use of water and deliquescent salts.
2. Erosion and Sedimentation Control
  - a. Temporary erosion controls include, but are not limited to, grassing, mulching, netting, watering and reseeding on-site surfaces and soil and borrow area surfaces and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the County, FDEP and any other agency having jurisdiction.
  - b. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers, and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the County, FDEP and any other agency having jurisdiction.
  - c. The construction of temporary erosion and sedimentation control facilities shall be in accordance with the technical provision of section 104-6.4 of the 1991 Edition, FDOT Standard Specifications for Road and Bridge Construction.
  - d. Contractor is responsible for providing effective temporary erosion and sediment control measures during construction or until final controls become effective.

#### D. LINES AND GRADES

1. All Work under this Contract shall be constructed in accordance with the lines and grades shown on the Drawings, or as given by the County/Professional. The full responsibility for keeping alignment and grade shall rest upon the Contractor.
2. The Contractor shall, at his own expense, establish all working or construction lines and grades as required from the project control points set by the County, and shall be solely responsible for the accuracy thereof.

3. Water main and forcemain shall have a minimum of 36-inches of cover over the top of the pipe. Cover shall vary to provide long uniform gradient or slope to pipe to minimize air pockets and air release valves. The stationing shown on the Drawings for air and vacuum release valve assemblies are approximate and the Contractor shall field adjust these locations to locate these valves at the highest point in the pipeline installed. All locations must be acceptable by the County.
4. To insure a uniform gradient for gravity pipe and pressure pipe, all lines shall be installed using the following control techniques as a minimum:
  - a. Gravity lines: continuous control, using laser beam technology.
  - b. Pressure lines; control stakes set at 50 ft intervals using surveyors' level instrument.

#### E. CUTTING AND PATCHING

1. The Contractor shall do all cutting, fitting or patching of his portion of the Work that may be required to make the several parts thereof join and coordinate in a manner satisfactory to the County and in accordance with the Drawings and Specifications.
2. Preparation:
  - a. Inspect the existing conditions of the Project, including elements subject to damage and/or movement during cutting and patching.
  - b. Provide adequate temporary support to assure the structural integrity of all facilities during completion of the Work.
3. Performance:
  - a. Execute cutting and demolition by methods, which will prevent damage to other existing facilities and will provide proper surfaces to receive installation of equipment and repair.
  - b. Excavation and backfilling shall be performed in a manner, which will prevent settlement and/or damage to existing facilities.
  - c. All pipes, sleeves, ducts, conduits and other penetration through surfaces shall be made airtight.
  - d. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.

#### F. TEMPORARY CONSTRUCTION

1. Temporary fences: If, during the course of the Work, it is necessary to remove or disturb any fencing, the Contractor shall at his own expense, provide a suitable temporary fence which shall be maintained until the permanent fence is replaced. The County/Professional will be solely responsible for the determination of the necessity for providing a temporary fence and the type of temporary fence to be used.
2. Responsibility for Temporary Structures: In accepting the Contract, the Contractor assumes full responsibility for the sufficiency and safety of all temporary structures or work and for any damage which may result from their failure or their improper construction, maintenance or operation and will indemnify and save harmless the County from all claims, suits or actions and damages or costs of every description arising by reason of failure to comply with the above provisions.

## G. DAILY REPORTS

1. The Contractor shall submit to the County's Representative daily reports of construction activities including non-work days. The reports shall be complete in detail and shall include the following information:
  - a. Days from Notice to Proceed; Days remaining to substantial and final completion.
  - b. Weather information
  - c. Work activities with reference to the Critical Path Method (CPM) schedule activity numbers (including manpower, equipment and daily production quantities for each individual activity.)
  - d. Major deliveries
  - e. Visitors to site
  - f. Test records
  - g. New problems, and
  - h. Other pertinent information
2. A similar report shall be submitted for/by each Subcontractor.
3. The report(s) shall be submitted to the County Representative's Field Office within two (2) days of the respective report date. Each report shall be signed by the Contractor's Superintendent or Project Manager. Pay request will not be processed unless daily reports are current.
4. If a report is incomplete, in error, or contains misinformation, a copy of the report shall be returned by the County Representative to the Contractor's Superintendent or Project Manager with corrections noted. When chronic errors or omissions occur, the Contractor shall correct the procedures by which the reports are produced.

## H. CLEANING

1. During Construction
  - a. During construction of the Work, the Contractor shall, at all times, keep the site of the Work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove the same from any portion of the site if, in the opinion of the County, such material, debris, or rubbish constitutes a nuisance or is objectionable.
  - b. Provide on-site containers for the collection of waste materials, debris and rubbish and remove such from the site periodically by disposal at a legal disposal area away from the site.
  - c. Clean interior spaces prior to the start of finish painting and continue cleaning on an as-needed basis until painting is finished. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces. Use only those cleaning materials and methods recommended by the manufacturer of the surface material to be cleaned. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.
  - d. The Contractor shall remove from the site all surplus materials and temporary structures when no longer necessary to the Work at the direction of the County.

2. Final Cleaning
  - a. At the conclusion of the Work, all equipment, tools, temporary structures and materials belonging to the Contractor shall be promptly taken away, and he shall remove and promptly dispose of all water, dirt, rubbish or any other foreign substances. Employ skilled workmen for final cleaning. Thoroughly clean all installed equipment and materials to a bright, clean, polished and new appearing condition. Remove grease, mastic, adhesives, dust, dirt, stains, fingerprints, labels, and other foreign materials from sight-exposed interior and exterior surfaces. Broom clean exterior paved surfaces; rake clean other surfaces of the grounds.
  - b. The Work shall be left in a condition as shown on the Drawings and the remainder of the site shall be restored to a condition equal or better than what existed before the Work.
  - c. Prior to final completion, or County occupancy, Contractor shall conduct an inspection of interior and exterior surfaces, and all work areas to verify that the entire Work is clean. The County will determine if the final cleaning is acceptable.

#### 1.16 CONSTRUCTION NOT PERMITTED

##### A. USE OF EXPLOSIVES

No blasting shall be done except upon approval by the County and the governmental agency or political subdivision having jurisdiction. When the use of explosives is approved by the County as necessary for the execution of the Work, the Contractor shall use the utmost care so as not to endanger life or property, and assume responsibility for any such damage resulting from his blasting operations, and whenever directed, the number and size of the charges shall be reduced. All explosives shall be stored in a secure manner and all such storage places shall be marked clearly, "DANGEROUS EXPLOSIVES" and shall be in care of competent watchmen. All permits required for the use of explosives shall be obtained by the Contractor at his expense. All requirements of the governmental agency issuing permit shall be observed.

#### **PARTS 2 - PRODUCTS (NOT USED)**

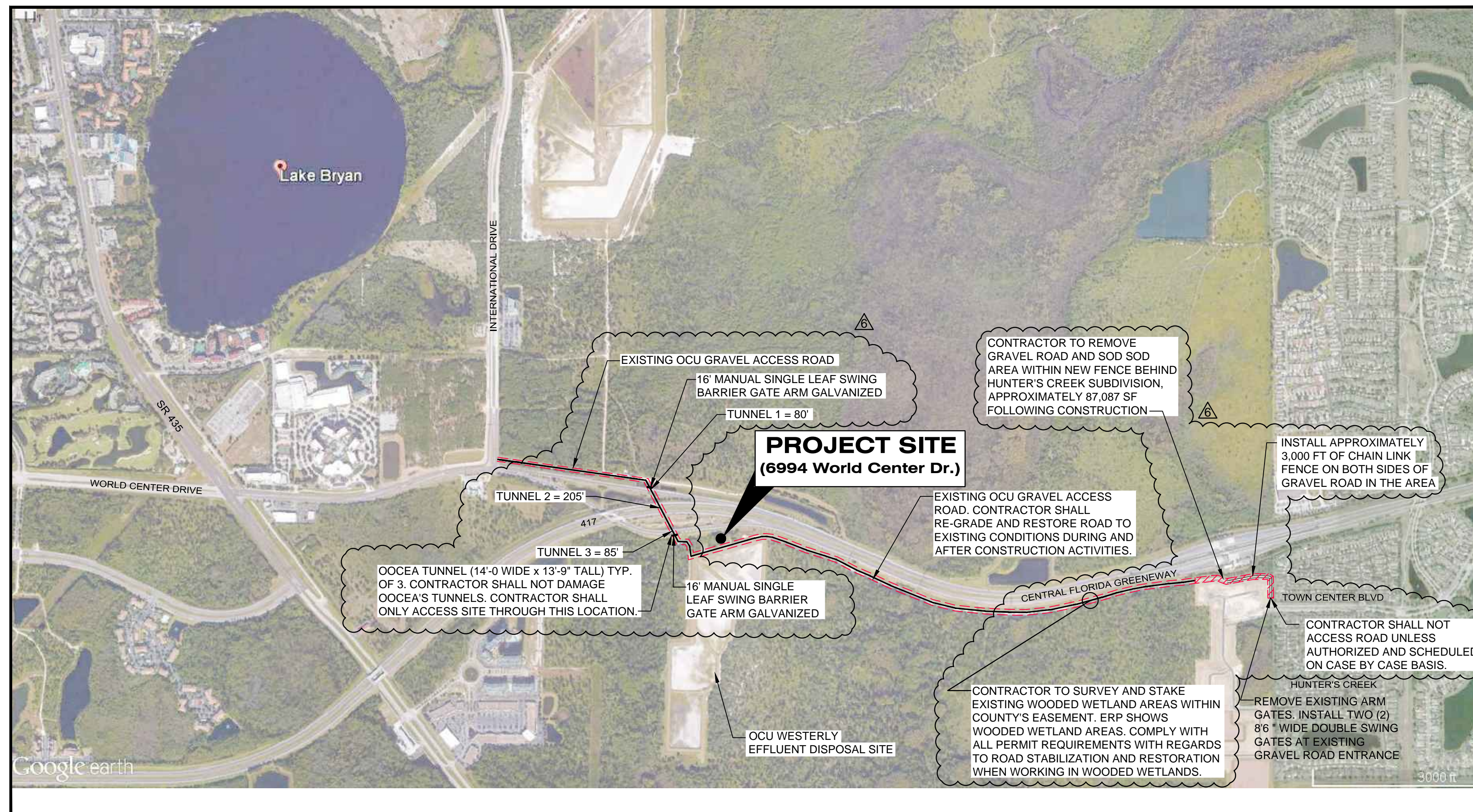
#### **PARTS 3 - EXECUTION (NOT USED)**

**END OF SECTION**

DRAWING INDEX

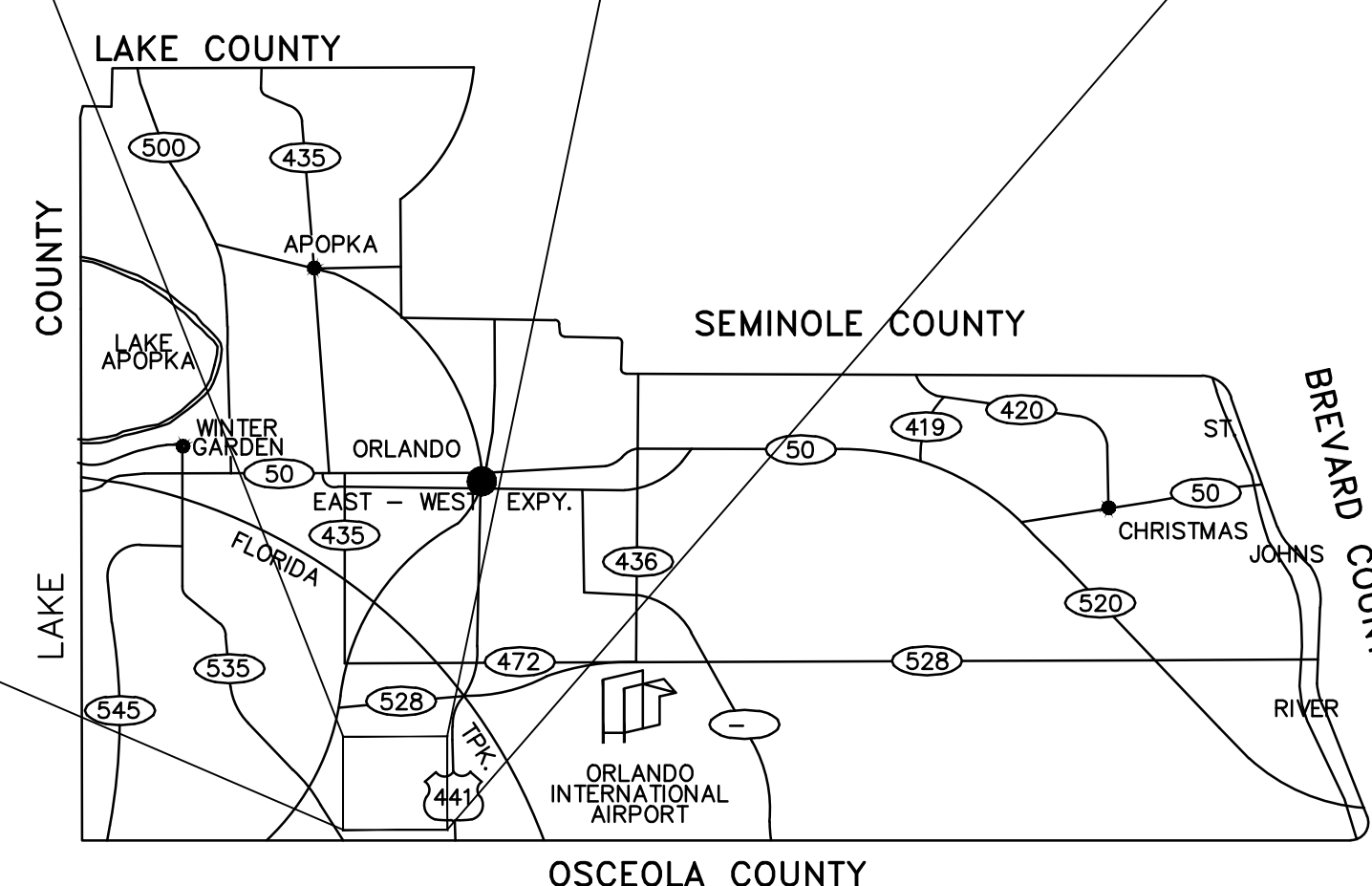
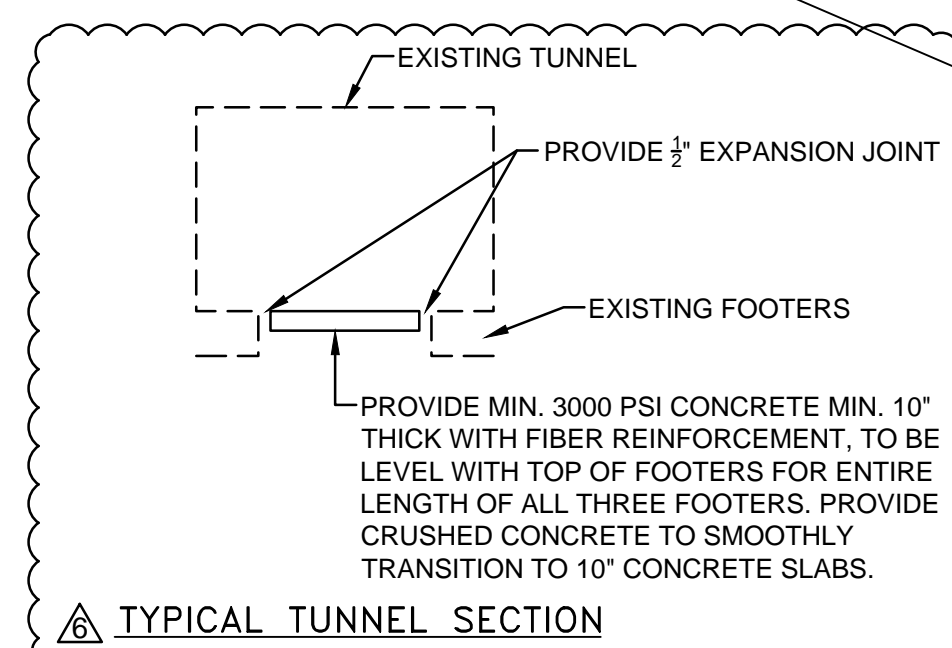
SHEET NO.	DWG. NO.	TITLE
1 OF 49	G100	COVER SHEET
2 OF 49	G200	LOCATION MAP & DRAWING INDEX
3 OF 49	G300	GENERAL NOTES, ABBREVIATIONS AND LEGEND
4 OF 49	V100	SURVEYOR'S NOTES, LEGEND, AND SYMBOLS
5 OF 49	V101	BOUNDARY & TOPOGRAPHIC SURVEY
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7 OF 49	C101	SITE DEMOLITION PLAN
8 OF 49	C102	BOOSTER PUMP STATION - SITE GRADING PLAN
9 OF 49	C103	BOOSTER PUMP STATION - PUMP AND PIPING PLAN
10 OF 49	C104	SUPPLY LINE AND DISCHARGE LINE - YARD PIPING PLAN
11 OF 49	C105	DISCHARGE LINE PROFILE
12 OF 49	C106	SUPPLY LINE PROFILE
13 OF 49	C107	SUPPLY LINE PROFILE
14 OF 49	C108	SECTIONS
15 OF 49	D100	CONSTRUCTION DETAILS
16 OF 49	D110	CONSTRUCTION DETAILS
17 OF 49	D120	CONSTRUCTION DETAILS
18 OF 49	D130	CONSTRUCTION DETAILS
19 OF 49	A 1.0	FLOOR PLAN AND DETAILS
20 OF 49	A1.1	REFLECTED CEILING PLAN
21 OF 49	A1.2	ROOF PLAN AND DETAILS
22 OF 49	A2.0	ELEVATIONS
23 OF 49	A3.0	BUILDING SECTIONS
24 OF 49	A4.0	WALL SECTIONS
25 OF 49	E-01	ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS
26 OF 49	E-02	ELECTRICAL SITE PLAN AND MOTORIZED GATE SYSTEM ELECTRICAL PLAN
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28 OF 49	E-04	ELEMENTARY DIAGRAM AND EQUIPMENT FRONT VIEW
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31 OF 49	E-07	PUMP STATION LIGHTING PLAN
32 OF 49	E-08	PUMP STATION LIGHTNING PROTECTION AND GROUNDING PLAN
33 OF 49	E-09	ELECTRICAL DETAILS
34 OF 49	E-10	ELECTRICAL DETAILS
35 OF 49	I-01	INSTRUMENTATION, NOTES, SYMBOLS AND ABBREVIATIONS
36 OF 49	I-02	PROCESS AND INSTRUMENTATION DIAGRAM - A
37 OF 49	I-03	PROCESS AND INSTRUMENTATION DIAGRAM - B
38 OF 49	H-01	MECHANICAL SYMBOLS, ABBREVIATIONS AND NOTES
39 OF 49	H-02	LOUVER DETAILS
40 OF 49	H-03	MECHANICAL DETAILS
41 OF 49	H-04	HVAC PLAN
42 OF 49	P-01	PLUMBING PLAN
43 OF 49	S1.0	GENERAL NOTES
44 OF 49	S2.0	FOUNDATION PLAN
45 OF 49	S2.1	ROOF PLAN
46 OF 49	S3.0	SECTIONS
47 OF 49	S4.0	ELEVATIONS
48 OF 49	S5.0	STANDARD DETAILS
49 OF 49	X100	ASSET TABLE

LOCATION MAP



ORANGE COUNTY, FLORIDA  
SCALE: 1" = 1,000'

NOTE:  
SEE DRAWINGS FOR SPECIFIC LOCATIONS



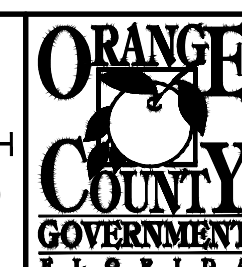
ORANGE COUNTY, FLORIDA  
SCALE: 1" = 50,000'

NOTES:

- CONTRACTOR SHALL SURVEY PROPERTY CORNERS OF OCU'S ACCESS ROAD WHERE NEW FENCING IS PROPOSED. NEW FENCE SHALL BE 6" INSIDE OCU'S PROPERTY BOUNDARIES. REFER TO CHAIN LINK FENCE DETAIL ON SHEET D120 FOR FENCE REQUIREMENTS.
- NO BARB WIRE IS REQUIRED FOR FENCING ALONG ACCESS ROAD.
- CRUSHED CONCRETE SHALL BE IN ACCORDANCE WITH ARTICLE 9 OF THE ORANGE COUNTY ROAD CONSTRUCTION SPECIFICATIONS PUBLIC WORKS.

REV	DATE	DESCRIPTION
7/6	8/3/2016	ADDENDUM NO. 6

LINE IS 2 INCHES  
AT FULL SIZE  
(IF NOT SCALE ACCORDINGLY)



ORANGE COUNTY UTILITIES DEPARTMENT  
ENGINEERING DIVISION  
9-0 CURRY FORD ROAD ORLANDO, FL. 32825



A Full Service A & E Firm  
Architects M/E/P  
Engineers Planners  
Environmental Structural  
Landscape Architects Surveyors  
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Licenses:  
Eng. C.O.A. No. 32-  
Survey L.B. No. 7143  
Arch. Lic. No. AA2600926  
Landscape Lic. No. LC0000238

LOCATION MAP AND  
DRAWING INDEX  
INTERNATIONAL DRIVE POTABLE WATER  
BOOSTER PUMP STATION

DAVID E. MAHLER  
PROFESSIONAL ENGINEER  
FLORIDA LICENSE #50041

OCU FILE NO.: 74251  
DESIGNED BY: NAU  
DRAWN BY: DGH/PD  
CHECKED BY: DEM  
CADD FILE: Location-Sheet Index.dwg

SCALE: AS SHOWN  
DRAWING NO.:  
**G200**  
SHEET: 2 OF 49

BID SET



# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
Orlando, Florida 32803-3767

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard, Jr.  
Secretary

## **Permittee/Authorized Entity:**

Orange County Utilities  
Attn: James Broome, P.E.  
9150 Curry Ford Road  
Orlando, FL 32832  
[jim.broome@ocfl.net](mailto:jim.broome@ocfl.net)

## **Orange County Utilities**

## **Authorized Agent:**

D.J. Silverberg  
Lotspeich & Associates, Inc.  
2711 West Fairbanks Avenue  
Winter Park, FL 32789  
[djsilverberg@lotspeichandassociates.com](mailto:djsilverberg@lotspeichandassociates.com)

**Environmental Resource Permit  
State-owned Submerged Lands Authorization - Not Required**

**U.S. Army Corps of Engineers Authorization - Separate Corps Authorization  
Required**

Permit No.: 48-304412-001

**Permit Issuance Date: February 1, 2011  
Permit Construction Phase Expiration Date: February 1, 2016**



# Florida Department of Environmental Protection

Central District  
3319 Maguire Boulevard, Suite 232  
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Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard, Jr.  
Secretary

## VIA EMAIL

[djsilverberg@lotspeichandassociates.com](mailto:djsilverberg@lotspeichandassociates.com)

[jim.broome@ocfl.net](mailto:jim.broome@ocfl.net)

## **Environmental Resource Permit**

**Permittee: Orange County Utilities**  
**Permit No: 48-304412-001**

## **PROJECT LOCATION**

The activities authorized by this Permit are located adjacent to S.R. 417, beginning at International Drive and continuing east within the right-of-way of Town Center Boulevard, ending just east of John Young Parkway in Orlando and Hunter's Creek, Florida, 34821 and 32837, in Sections 35 and 36, Township 24 South, Range 28 East, and Sections 28, 31, and 32, Township 24 South, Range 29 East in Orange County.

## **AUTHORIZATIONS**

### Project Description

The permittee is authorized to install a 36" potable water main and a 20" reclaimed water main within a 40 foot wide strip of land owned by Orange County. The project will permanently impact 0.365 acres of forested wetlands from the placement of fill, and temporarily impact 1.265 acres of forested wetlands. Restoration of the impacted wetlands will include regrading to pre-existing elevation contours and elevations, along with the allowance of revegetation by natural recruitment of desirable wetland plant communities, although these areas will be periodically maintained to prevent a shrub or forested layer from forming. Authorized activities are depicted on the attached exhibits.

Mitigation to offset the 0.36 acres of permanent forested wetland impacts and 1.26 acres of temporary forested wetland impacts included the purchase of 2.0 credits from TM-Econ Mitigation Bank (4-095-84310-6). Prior to any construction or impacts authorized by this permit, the permittee shall provide the Department with documentation that 2.0 freshwater wetland credits have been deducted from the credit ledger of the TM-Econ Mitigation Bank (4-095-84310-6). Wetland #6 is an isolated wetland that is less than 0.5 acres in size, and does not require any mitigation for the proposed impacts for the installation of the water mains.

**Permittee: Orange County Utilities**  
**File No.: 48-304412-001**  
**Page 2 of 12**

**Permit Expiration: February 1, 2016**



The project described above may be conducted only in accordance with the terms, conditions and attachments contained in this permit. The issuance of this permit does not infer, nor guarantee, nor imply that future permits or modifications will be granted by the Department.

#### Sovereignty Submerged Lands Authorization

As staff to the Board of Trustees, the Department has reviewed the activity described above and has determined the activity is not on submerged lands owned by the State of Florida. Therefore, your project is not subject to the requirements of Chapter 253, Florida Statutes.

#### Federal Authorization

A copy of this permit has been sent to the U.S. Army Corps of Engineers (USACE). The USACE may require a separate permit. Failure to obtain any required federal permits prior to construction could subject you to enforcement action by that agency.

#### Water Quality Certification

This permit constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341.

#### Other Authorizations

You are advised that authorizations or permits for this project may be required by other federal, state or local entities including but not limited to local governments and homeowner's associations. This permit does not relieve you from the requirements to obtain all other required permits or authorizations.

In addition, you are advised that your project may require additional authorizations or permits from the municipality/county in which the project is located. Please be sure to contact the local county building and environmental department to obtain these required authorizations.

#### **PERMIT CONDITIONS/SOVEREIGNTY SUBMERGED LANDS CONDITIONS**

The activities described herein must be conducted in accordance with:

- **The Specific Conditions**
- **The General Conditions**
- **The limits, conditions and locations of work shown in the attached drawings**
- **The term limits of this authorization**

You are advised to read and understand these conditions and drawings prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these conditions and drawings prior to commencing the authorized activities. Failure to comply with these conditions, including any mitigation requirements, shall constitute grounds for revocation of the Permit and appropriate enforcement action by the Department.

Operation of the facility is not authorized except when determined to be in conformance with all applicable rules and this permit/certification as specifically described above.

Permittee: Orange County Utilities

Permit Expiration: February 1, 2016

File No.: 48-304412-001

Page 3 of 12

## **SPECIFIC CONDITIONS - PRIOR TO CONSTRUCTION**

1. Prior to construction of work authorized by this permit, the permittee shall provide written notification of the date of commencement of construction to the Central District Office of the Florida Department of Environmental Protection, 3319 Maguire Boulevard, Suite 232, Orlando, FL 32803-3767.

## **SPECIFIC CONDITIONS - CONSTRUCTION ACTIVITIES**

2. Turbidity must be controlled to prevent violations of water quality pursuant to Rule 62-302.530(70), Florida Administrative Code. Turbidity shall not exceed natural background conditions.
3. A floating turbidity apron/curtain shall be installed around the waterward portion of the project site prior to construction and shall remain in place until construction is completed and turbidity within the work area has returned to background levels. The turbidity barrier shall be inspected at least on a daily basis to ensure that it is functioning properly.
4. Prior to construction, staked silt fences and hay bales shall be installed along the edge of all wetland areas where work is to be conducted. The silt fences and hay bales shall remain in place until all work is completed and the disturbed areas are stabilized with seed or native vegetation.
5. The project shall comply with applicable state water quality standards, including:
  - a. 62-302.500 - minimum criteria for all surface waters at all places and at all times,
  - b. 62-302.500 - Surface waters: general criteria, and
  - c. 62-302.400 - Class III Waters - Recreation - Propagation and maintenance of a healthy, well-balanced population of Fish and Wildlife.
6. All areas disturbed as a result of the installation of the water mains shall be restored to their original pre-existing grade.
7. All turbidity control devices shall be removed from the project area once the disturbed areas have been stabilized or revegetated so that erosion will not occur. The turbidity control devices shall be removed no later than one year from completion of the project. All turbidity control devices shall be disposed of in an upland disposal area.
8. Any wetland areas adjacent to the pipeline which are disturbed as a result of construction activities associated with this project shall be immediately restored to their original elevations and contours. These disturbed areas shall also be replanted with native wetland vegetation with the same species type and densities present in the immediate area within 30 days of the disturbance. All restoration work shall be done to the satisfaction of the Department.

9. This permit authorizes the following: The installation of a 36" potable water main and a 20" reclaimed water main adjacent to S.R. 417 and Town Center Boulevard in Orange County. Construction will result in 0.36 acres of permanent forested wetland impacts and 1.26 acres of temporary forested wetland impacts. All construction details shall comply with the attached drawings.
10. The issuance of the permit does not infer, nor guarantee, nor imply that future permits or modifications will be granted by this Department. This permit does not infer authorization from any other agency.

#### **SPECIFIC CONDITIONS - MITIGATION**

11. Mitigation to offset the 0.36 acres of permanent forested wetland impacts and 1.26 acres of temporary forested wetland impacts included the purchase of 2.0 credits from TM-Econ Mitigation Bank. **Prior to any construction or impacts authorized by this permit**, the permittee shall provide the Department with documentation that 2.0 credits have been deducted from the credit ledger TM-Econ Mitigation Bank SJRWMD permit number 4-095-84310-6.

#### **SPECIFIC CONDITIONS -REPORTING REQUIREMENTS**

12. Within 30 days of completion of work authorized by this permit the permittee shall provide written notification of the date of completion of construction to the Central District Office of the Department of Environmental Protection, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767.
13. Within 30 days after completion of construction of the permitted system, the permittee shall submit a written statement of completion and certification by a registered professional engineer or other appropriate individual as authorized by law, utilizing "Environmental Resource Permit As-Built Certification by a Registered Professional" (Form No. 62-343.900(5), F.A.C.) supplied with this permit. When the completed system differs substantially from the permitted plans, any substantial deviations shall be noted and explained and two copies of as-built drawings submitted to the Department. Submittal of the completed form shall serve to notify the Department that the system is ready for inspection. The statement of completion and certification shall be based on on-site observation of construction (conducted by the registered professional engineer, or other appropriate individual as authorized by law, or under his or her direct supervision) or review of as-built drawings for the purpose of determining if the work was completed in compliance with approved plans and specifications. As-built drawings shall be the permitted drawings revised to reflect any changes made during construction. Both the original and any revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

## GENERAL CONDITIONS

1. All activities authorized by this permit shall be implemented as set forth in the plans, specifications and performance criteria as approved by this permit. Any deviation from the permitted activity and the conditions for undertaking that activity shall constitute a violation of this permit and Part IV, Chapter 373, F.S.
2. This permit or a copy thereof, complete with all conditions, attachments, exhibits, and modifications shall be kept at the work site of the permitted activity. The complete permit shall be available for review at the work site upon request by the Department staff. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.
3. Activities approved by this permit shall be conducted in a manner which does not cause violations of state water quality standards. The permittee shall implement best management practices for erosion and pollution control to prevent violation of state water quality standards. Temporary erosion control shall be implemented prior to and during construction, and permanent control measures shall be completed within 7 days of any construction activity. Turbidity barriers shall be installed and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the permitted work. Turbidity barriers shall remain in place at all locations until construction is completed and soils are stabilized and vegetation has been established. All practices shall be in accordance with the guidelines and specifications described in Chapter 6 of the Florida Land Development Manual; A Guide to Sound Land and Water Management (Department of Environmental Regulation, 1988), unless a project-specific erosion and sediment control plan is approved as part of the permit. Thereafter the permittee shall be responsible for the removal of the barriers. The permittee shall correct any erosion or shoaling that causes adverse impacts to the water resources.
4. The permittee shall notify the Department of the anticipated construction start date within 30 days of the date that this permit is issued. **At least 48 hours prior to commencement** of activity authorized by this permit, the permittee shall submit to the Department an "Environmental Resource Permit Construction Commencement" notice (Form No. 62-343.900(3), F.A.C.) indicating the actual start date and the expected completion date.
5. When the duration of construction will exceed one year, the permittee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.
6. **Within 30 days after completion of construction** of the permitted activity, the permittee shall submit a written statement of completion and certification by a registered

professional engineer or other appropriate individual as authorized by law, utilizing the supplied "Environmental Resource Permit As-Built Certification by a Registered Professional" (Form No. 62-343.900(5), F.A.C.). The statement of completion and certification shall be based on on-site observation of construction or review of as-built drawings for the purpose of determining if the work was completed in compliance with permitted plans and specifications. This submittal shall serve to notify the Department that the system is ready for inspection. Additionally, if deviation from the approved drawings are discovered during the certification process, the certification must be accompanied by a copy of the approved permit drawings with deviations noted. Both the original and revised specifications must be clearly shown. The plans must be clearly labeled as "as-built" or "record" drawing. All surveyed dimensions and elevations shall be certified by a registered surveyor.

7. The operation phase of this permit shall not become effective: until the permittee has complied with the requirements of condition (6) above, has submitted a **"Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase"** (Form No. 62-343.900(7), F.A.C.); the Department determines the system to be in compliance with the permitted plans and specifications; and the entity approved by the Department in accordance with Sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications Within the South Florida Water Management District - August 1995, accepts responsibility for operation and maintenance of the system. The permit shall not be transferred to such approved operation and maintenance entity until the operation phase of the permit becomes effective. Following inspection and approval of the permitted system by the Department, the permittee shall initiate transfer of the permit to the approved responsible operating entity if different from the permittee. Until the permit is transferred pursuant to Section 62-343.110(1)(d), F.A.C., the permittee shall be liable for compliance with the terms of the permit.
8. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the initiation of the permitted use of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of the phase or portion of the system to a local government or other responsible entity.
9. For those systems that will be operated or maintained by an entity that will require an easement or deed restriction in order to enable that entity to operate or maintain the system in conformance with this permit, such easement or deed restriction must be recorded in the public records and submitted to the Department along with any other final operation and maintenance documents required by sections 9.0 and 10.0 of the Basis of Review for Environmental Resource Permit Applications Within the South Florida Water Management District - August 1995, prior to lot or unit sales or prior to the

completion of the system, whichever occurs first. Other documents concerning the establishment and authority of the operating entity must be filed with the Secretary of State where appropriate. For those systems which are proposed to be maintained by the county or municipal entities, final operation and maintenance documents must be received by the Department when maintenance and operation of the system is accepted by the local government entity. Failure to submit the appropriate final documents will result in the permittee remaining liable for carrying out maintenance and operation of the permitted system and any other permit conditions.

10. Should any other regulatory agency require changes to the permitted system, the permittee shall notify the Department in writing of the changes prior to implementation so that a determination can be made whether a permit modification is required.
11. This permit does not eliminate the necessity to obtain any required federal, state, local and special district authorizations prior to the start of any activity approved by this permit. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee, or convey any rights or privileges other than those specified in the permit and Chapter 40E-4 or Chapter 40E-40, F.A.C.
12. The permittee is hereby advised that Section 253.77, F.S. states that a person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, the title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund without obtaining the required lease, license, easement, or other form of consent authorizing the proposed use. Therefore, the permittee is responsible for obtaining any necessary authorizations from the Board of Trustees prior to commencing activity on sovereignty lands or other state-owned lands.
13. The permittee is advised that the rules of the South Florida Water Management District require the permittee to obtain a water use permit from the South Florida Water Management District prior to construction dewatering, unless the work qualifies for a general permit pursuant to subsection 40E-20.302(4), F.A.C., also known as the "No Notice" rule.
14. The permittee shall hold and save the Department harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any system authorized by the permit.
15. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.

16. The permittee shall notify the Department in writing within 30 days of any sale, conveyance, or other transfer of ownership or control of a permitted system or the real property on which the permitted system is located. All transfers of ownership or transfers of a permit are subject to the requirements of section 62-343.130, F.A.C. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations prior to the sale, conveyance or other transfer of the system.
17. Upon reasonable notice to the permittee, Department authorized staff with proper identification shall have permission to enter, inspect, sample and test the system to insure conformity with the plans and specifications approved by the permit.
18. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the appropriate Department office.
19. The permittee shall immediately notify the Department in writing of any previously submitted information that is later discovered to be inaccurate.

## **NOTICE OF RIGHTS**

This action is final and effective on the date filed with the Clerk of the Department unless a petition for an administrative hearing is timely filed under Sections 120.569 and 120.57, F.S., before the deadline for filing a petition. On the filing of a timely and sufficient petition, this action will not be final and effective until further order of the Department. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice.

### Petition for Administrative Hearing

A person whose substantial interests are affected by the Department's action may petition for an administrative proceeding (hearing) under Sections 120.569 and 120.57, F.S. Pursuant to Rule 28-106.201, F.A.C., a petition for an administrative hearing must contain the following information:

- (a) The name and address of each agency affected and each agency's file or identification number, if known;
- (b) The name, address, and telephone number of the petitioner; the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests are or will be affected by the agency determination;
- (c) A statement of when and how the petitioner received notice of the agency decision;

(d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;

(e) A concise statement of the ultimate facts alleged, including the specific facts that the petitioner contends warrant reversal or modification of the agency's proposed action;

(f) A statement of the specific rules or statutes that the petitioner contends require reversal or modification of the agency's proposed action, including an explanation of how the alleged facts relate to the specific rules or statutes; and

(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wishes the agency to take with respect to the agency's proposed action.

The petition must be filed (received by the Clerk) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000. Also, a copy of the petition shall be mailed to the applicant at the address indicated above at the time of filing.

#### Time Period for Filing a Petition

In accordance with Rule 62-110.106(3), F.A.C., petitions for an administrative hearing by the applicant must be filed within 21 days of receipt of this written notice. Petitions filed by any persons other than the applicant, and other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 21 days of publication of the notice or within 21 days of receipt of the written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who has asked the Department for notice of agency action may file a petition within 21 days of receipt of such notice, regardless of the date of publication. The failure to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the discretion of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

#### Extension of Time

Under Rule 62-110.106(4), F.A.C., a person whose substantial interests are affected by the Department's action may also request an extension of time to file a petition for an administrative hearing. The Department may, for good cause shown, grant the request for an extension of time. Requests for extension of time must be filed with the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, before the applicable deadline for filing a petition for an administrative hearing. A timely request for extension of time shall toll the running of the time period for filing a petition until the request is acted upon.



Mediation

Mediation is not available in this proceeding.

FLAWAC Review

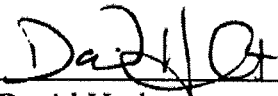
The applicant, or any party within the meaning of Section 373.114(1)(a) or 373.4275, F.S., may also seek appellate review of this order before the Land and Water Adjudicatory Commission under Section 373.114(1) or 373.4275, F.S. Requests for review before the Land and Water Adjudicatory Commission must be filed with the Secretary of the Commission and served on the Department within 20 days from the date when the order is filed with the Clerk of the Department.

Judicial Review

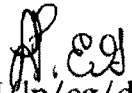
Any party to this action has the right to seek judicial review pursuant to Section 120.68, F.S., by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this action is filed with the Clerk of the Department.

Executed in Orange County, Florida

STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION

  
\_\_\_\_\_  
David Herbster  
Program Administrator  
Submerged Lands & Environmental  
Resource Program

Date: 1. FEB. 2011

  
DH/lp/eg/dv

**Attachments:**

Exhibit 1, Project Drawings and Design Specs., 27 pages  
Commencement notice /62-343.900(3)  
Annual status report/62-343.900(4)  
As-built certification/62-343.900(5)  
Inspection certification/62-343.900(6)  
Transfer construction to operation phase/ 62-343.900(7)  
Application for transfer of an ERP permit/62-343.900(8)

Permittee: Orange County Utilities  
File No.: 48-304412-001  
Page 11 of 12

Permit Expiration: February 1, 2016



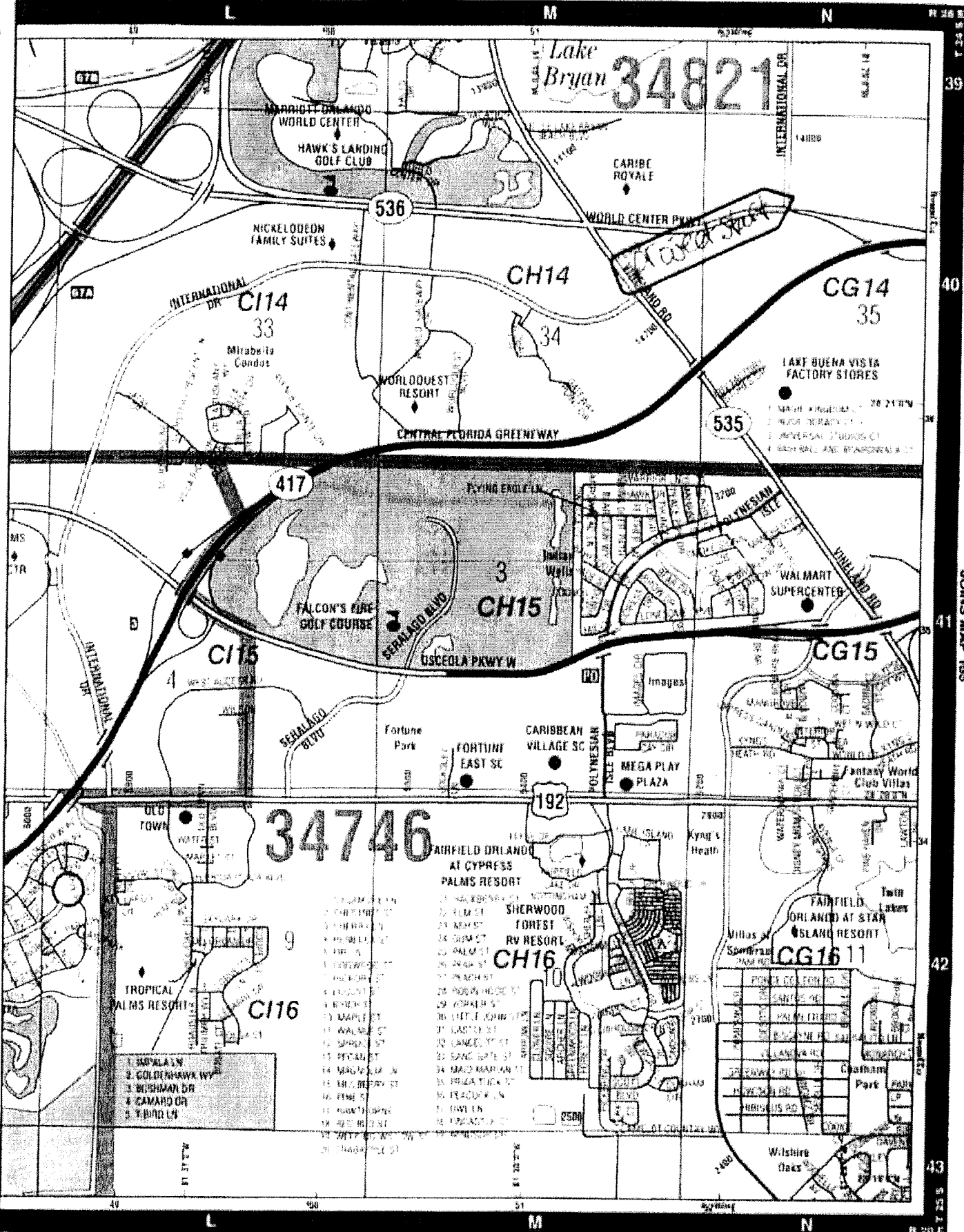
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# Map 164

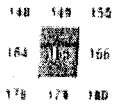
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*11/1/18*



JOINS MAP 148



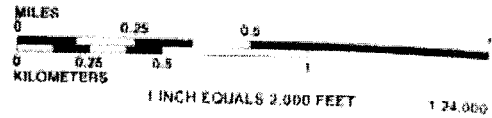
JOINS MAP 155



Map 165

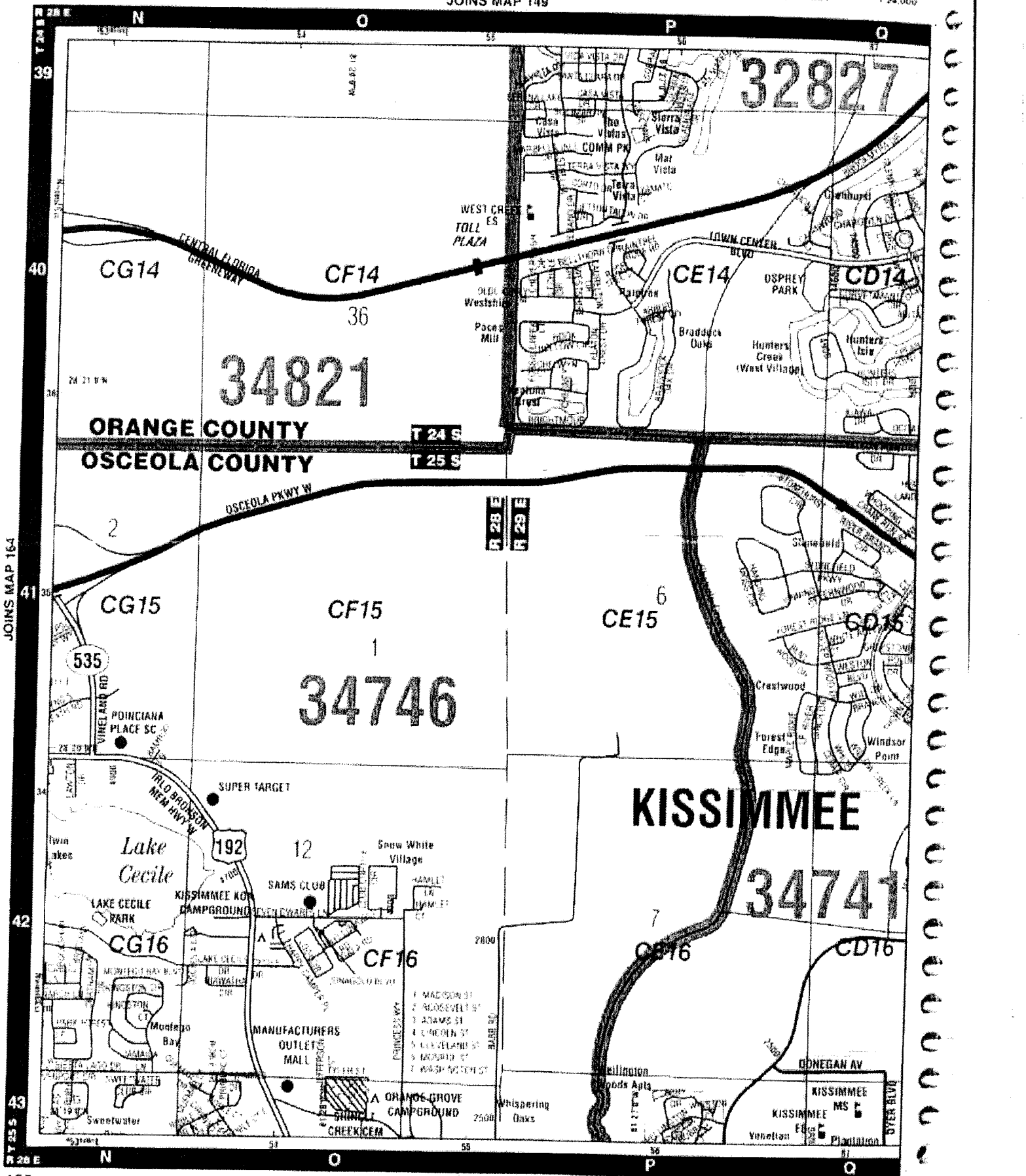
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FIRM 18-30140-001  
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# Map 165



JOINS MAP 149

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JOINS MAP 164

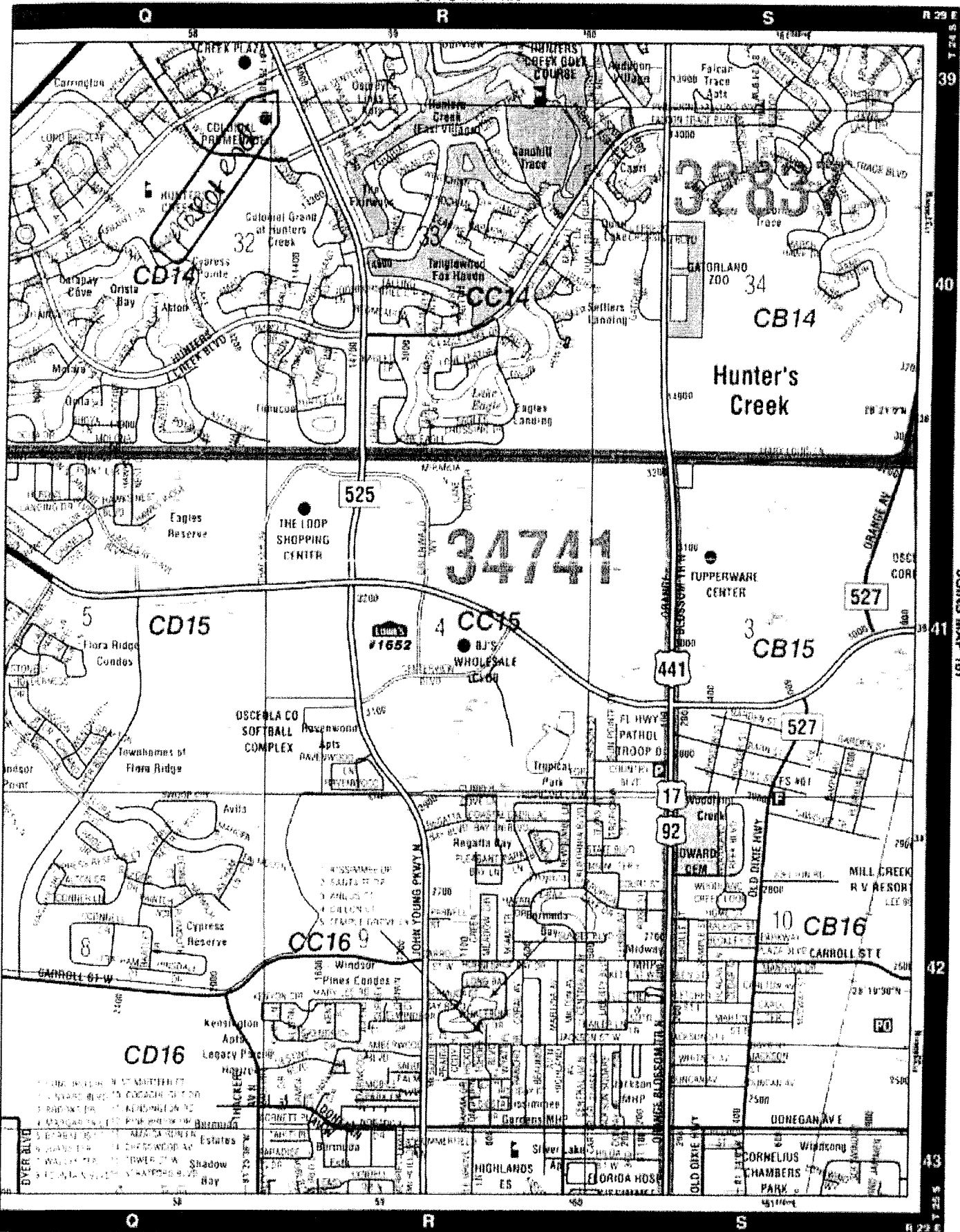


# Map 166

*pg. 30 of 27*  
 148-30141-2001  
 Orange Co Utilities

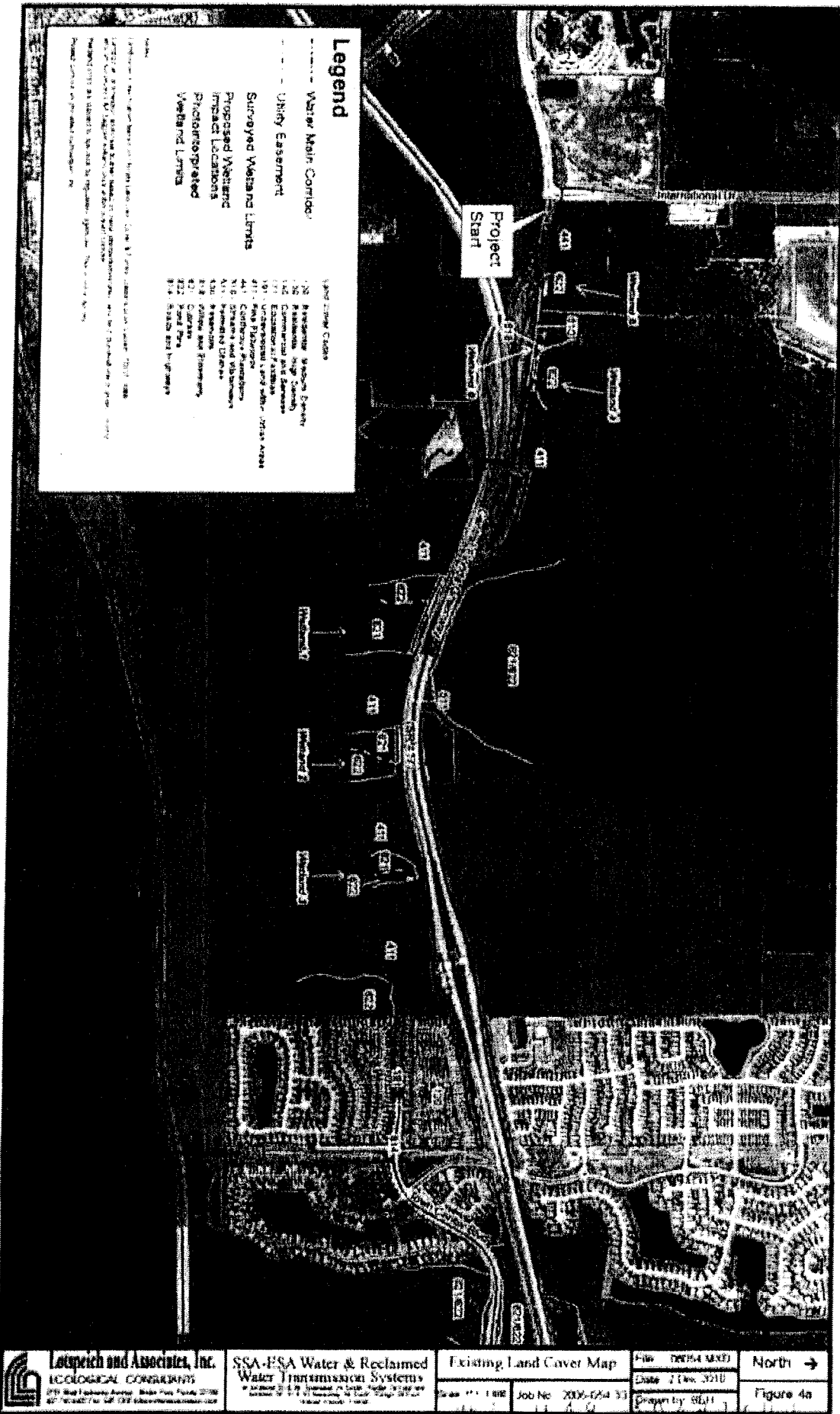


JOINS MAP 150



JOINS MAP 167

JOINS MAP 180



### Legend

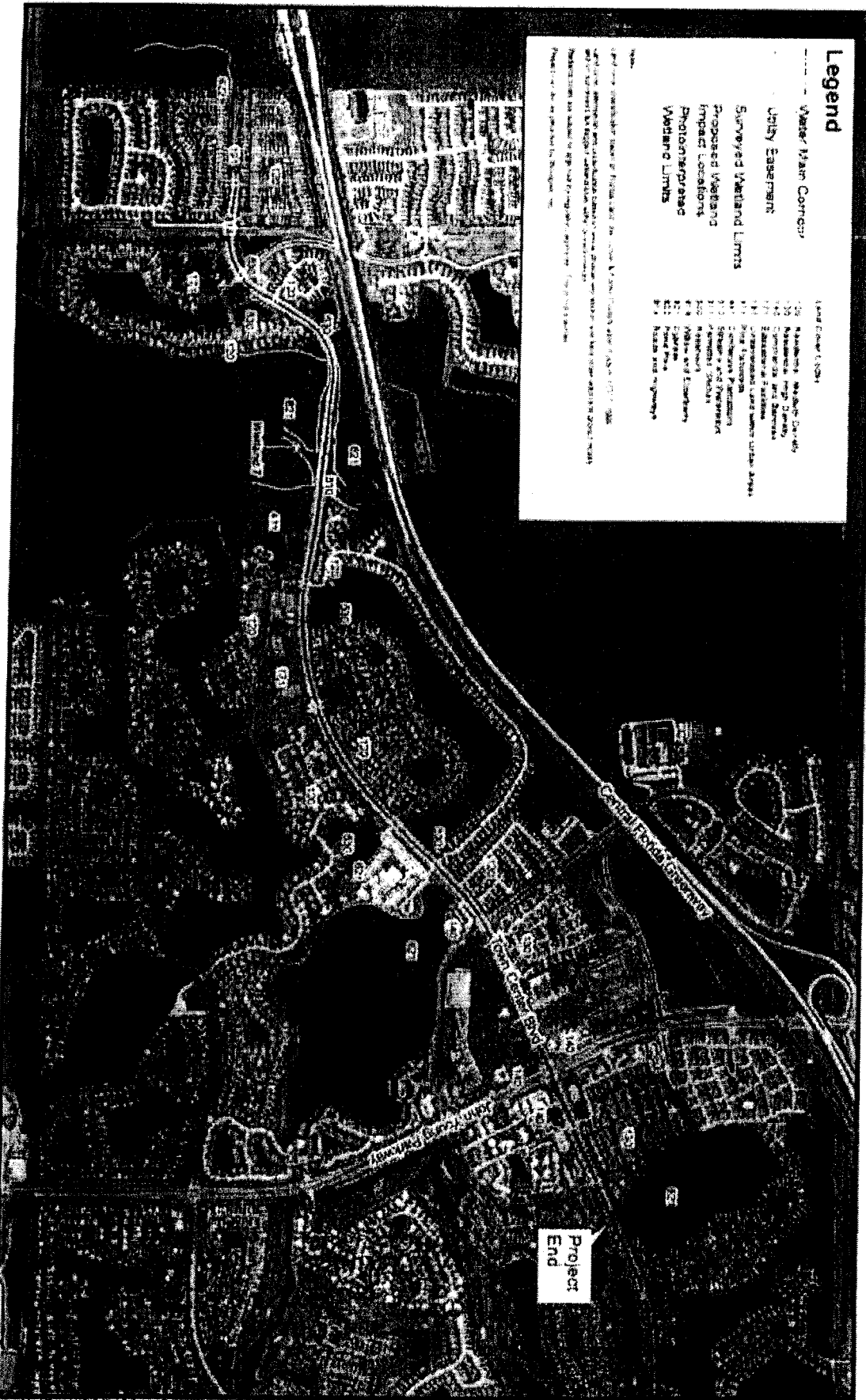
**Water Main Corridor:**

- Utility Easement
- Surveyed Wetland Limits
- Proposed Wetland Impact Locations
- Photointerpreted Wetland Limits

**Land Use Codes**

- 02 Residential Single Family
- 03 Residential Single Family
- 04 Residential Single Family
- 05 Residential Single Family
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Pg. 4 of 2  
 File # 445-30412  
 Orange Co.  
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**Legend**

- Water Main Corridor
- Utility Easement
- Surveyed Wetland Limits
- Proposed Wetland Impact Locations
- Photointerpreted Wetland Limits

Land Cover Codes

- 01 Residential Medium Density
- 02 Residential High Density
- 03 Commercial and Business
- 04 Institutional
- 05 Transportation and water utility areas
- 06 Bare Earth/Open
- 07 Wetlands
- 08 Sparse and Disturbed
- 09 Forested Open
- 10 Forested
- 11 Forested
- 12 Forested
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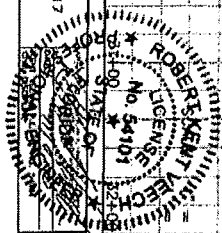
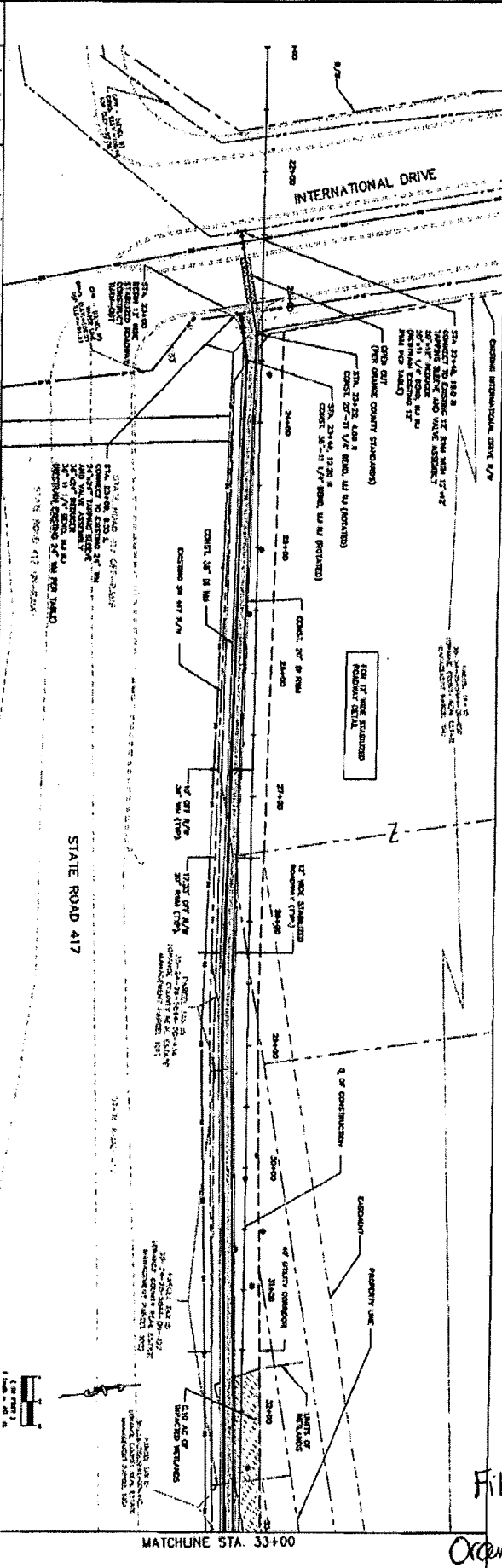
JAN 12 '11 48 - 30441200

Project End

of 5/2/07  
 File # 48-304412-001  
 Orange  
 utilities

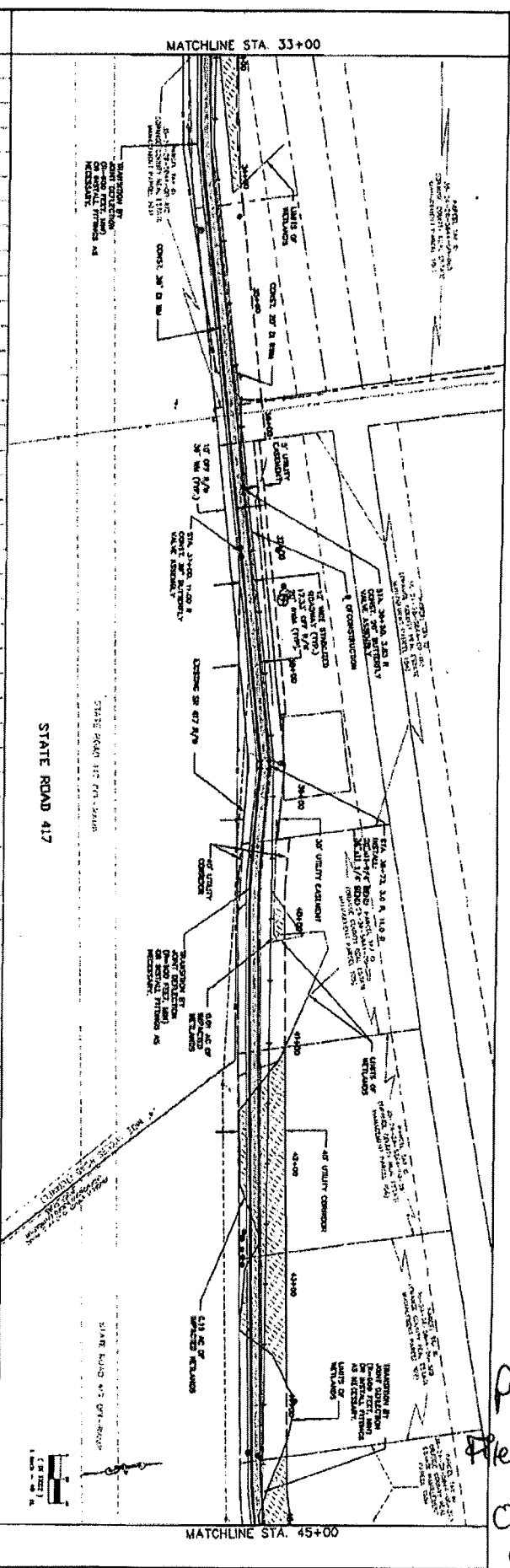
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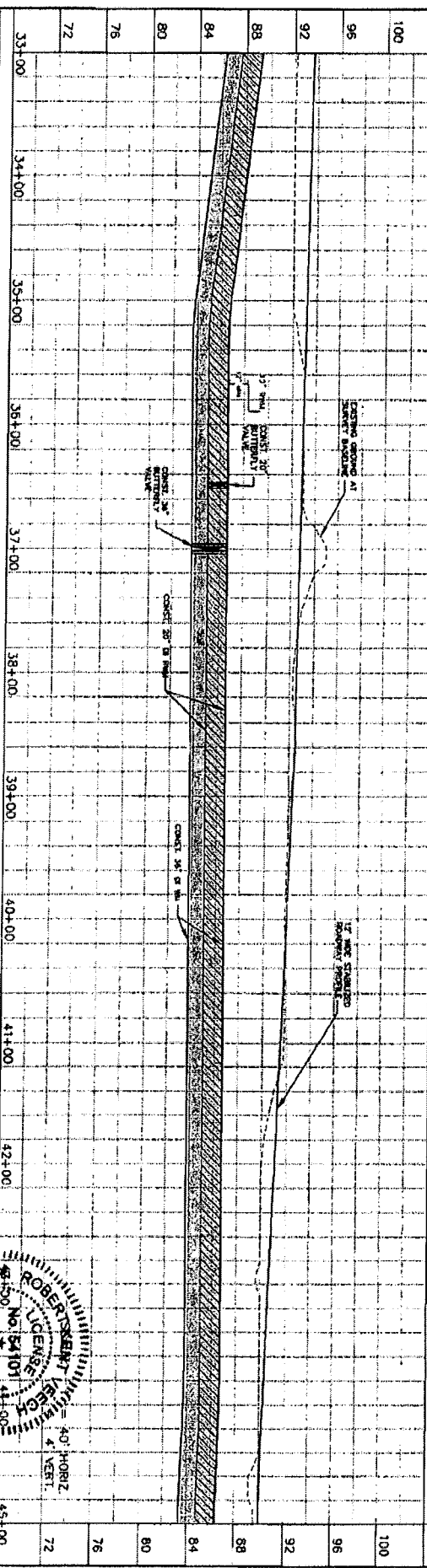


pg. 6 of 2  
 File # 48-304412-001  
 Orange Co. Utility





pg. 7 of 2  
 File # 48-304412-001  
 Orange Co. Utilities



NO.	DATE	REVISION	BY	CHECKED	DATE	PROJECT NO.	SHEET NO.
REVISIONS 1. 11/15/00 2. 11/15/00 3. 11/15/00			DRAWN BY J. SPARKS		PROJECT NO. 48-304412		
CHECKED BY J. SPARKS			DATE 11/15/00		SHEET NO. OF 10 34		
PROJECT NO. 48-304412			SHEET NO. 10		OF 34		



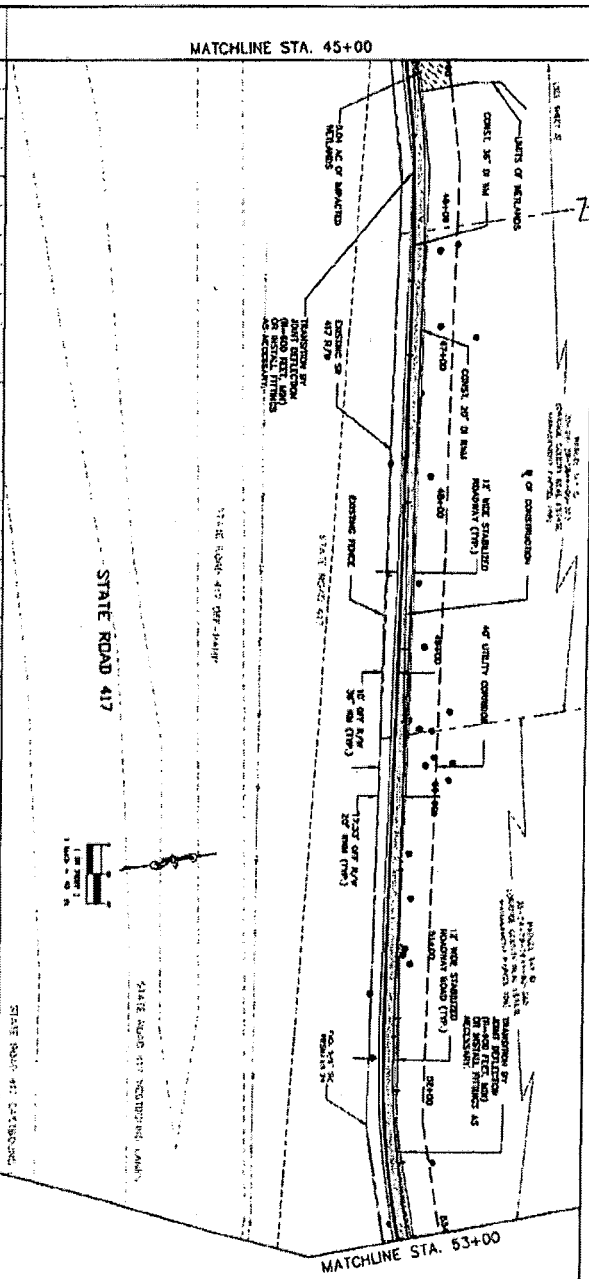
JAN 12 11 48 - 304412001

SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH POTABLE WATER MAIN & 20-INCH  
 RECLAIMED WATER MAIN  
 (FROM INTERNATIONAL DRIVE TO EAST OF JOHN YOUNG PARKWAY)

PLAN/PROFILE  
 SR 417  
 STA. 33+00 TO STA. 45+00

JAN 12 '11 48 - 304412001

96	45+00	46+00	47+00	48+00	49+00	50+00	51+00	52+00	53+00	96
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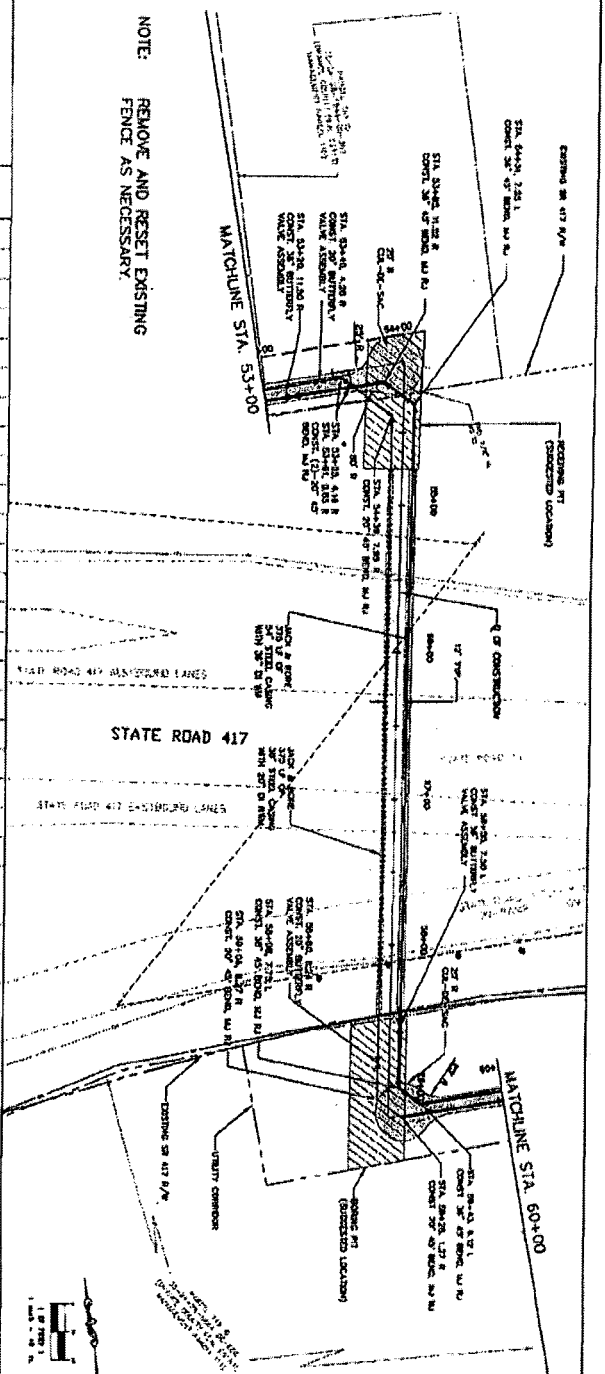
PLAN/PROFILE  
SR 417  
STA. 45+00 TO STA. 53+00

36-INCH POTABLE WATER MAIN & 20-INCH RECLAIMED WATER MAIN (FROM ADJACENT STATE TO EAST OF JOHN TONGUE PARKWAY)

ROBERT KENT VEECH  
No. 54101  
LICENSE  
STATE OF CALIFORNIA

DATE: OCTOBER 2008  
SCALE: AS SHOWN  
PROJECT NO.: 48-304412-001

pg. 8 of 27  
File # 48-304412-001  
Orange Co. Utilities



NOTE: REMOVE AND RESET EXISTING FENCE AS NECESSARY.

STATION	DESCRIPTION	STATION	DESCRIPTION
52+00		53+00	
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		55+00	
		56+00	
		57+00	
		58+00	
		59+00	
		60+00	

NO.	DATE	BY	REVISION

WOODCOUNT  
 SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH POTABLE WATER MAIN & 20-INCH RECLAIMED WATER MAIN  
 (FROM INTERNATIONAL DRIVE TO EAST OF JOHN VAUGHN PARKWAY)

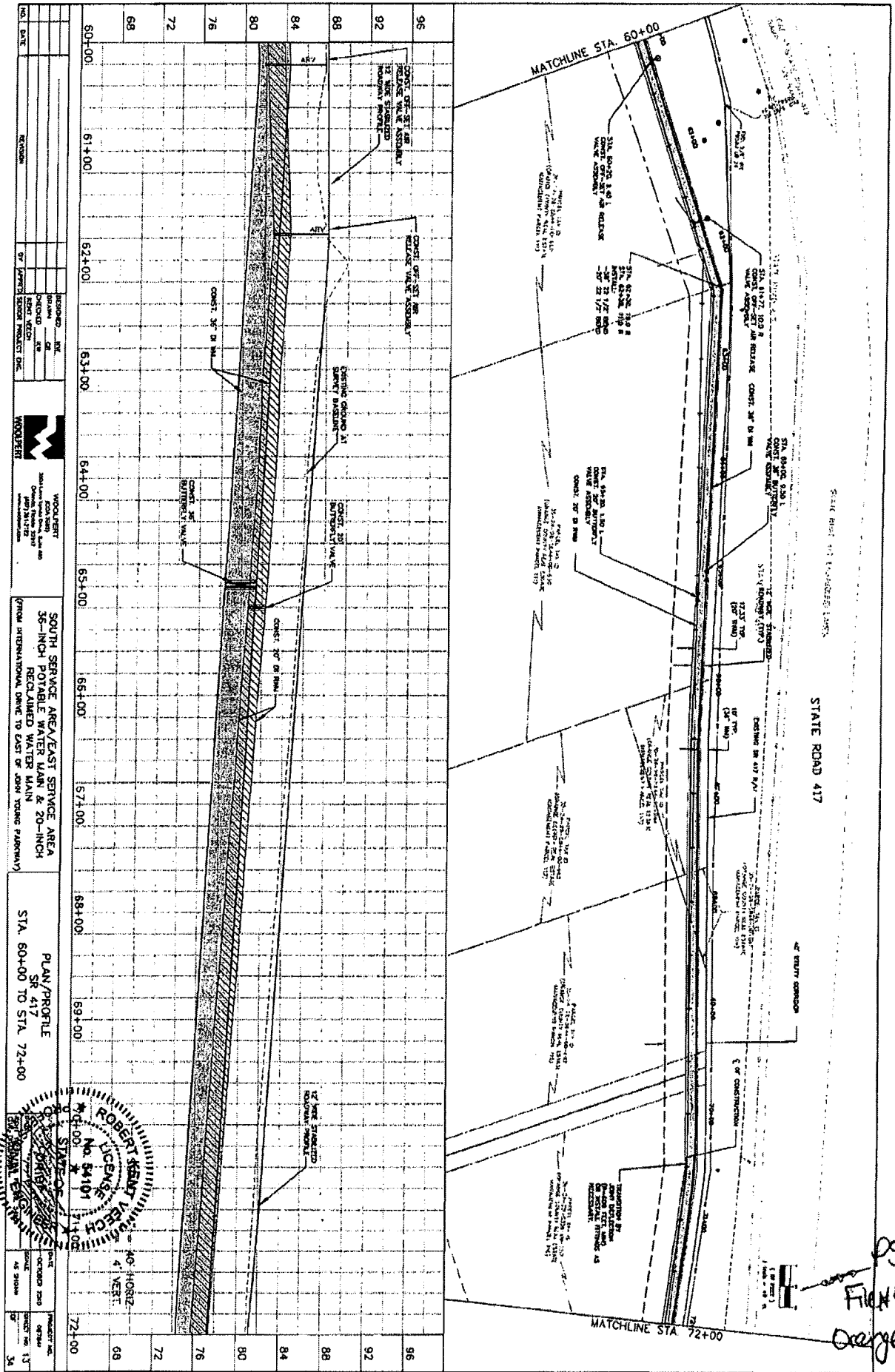
PLAN/PROFILE  
 SR 417  
 STA. 53+00 TO STA. 60+00

STATE OF TEXAS  
 ROBERT G. BENTLEY  
 LICENSE NO. PA101  
 40' HORIZ.  
 4' VERT.

DATE 12-11-48 - 30441200

pg-9 of 2  
 File # 48-30442-001  
 Ome Co. Utilities

JAN 17 '11 48 - 30441700



NO.	DATE	REVISION	BY	APP'D	DESCRIPTION

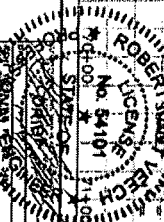
DESIGNED BY	WOODRUFF
CHECKED BY	WOODRUFF
IN CHARGE	WOODRUFF
DATE	

PROJECT NO.	SR 417
SECTION	PLAN/PROFILE
DATE	

PROJECT NO.	SR 417
SECTION	PLAN/PROFILE
DATE	



STATE ROAD 417 - TOWN OF LENOIR, N.C.

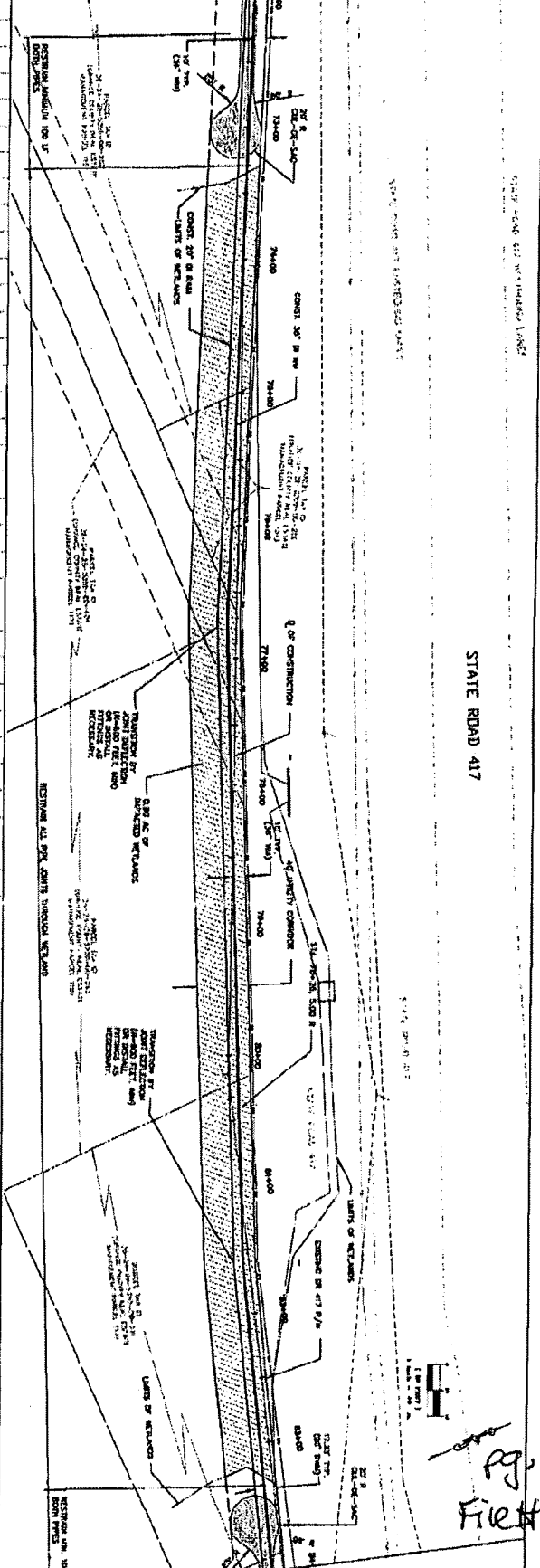
STATE ROAD 417

pg. 10 of 27  
 File # 48-30441700  
 Orange Co. Utilities

STATE ROAD 417

MATCHLINE STA. 72+00

MATCHLINE STA. 84+00



92	72+00	73+00	74+00	75+00	76+00	77+00	78+00	79+00	80+00	81+00	82+00	83+00	84+00
88													
84													
80													
76													
72													
68													
64													

NO. DATE	REVISION	BY	DATE

DESIGNED BY	
CHECKED BY	
DATE	
PROJECT NO.	
SHEET NO.	

**WOOD BRIDGE**

36-INCH PORTABLE WATER MAIN & 20-INCH RECLAIMED WATER MAIN FROM INTERNATIONAL DRIVE TO EAST OF JOHN TRING PARKWAY

**PLAN/PROFILE**  
SR 417  
STA. 72+00 TO STA. 84+00

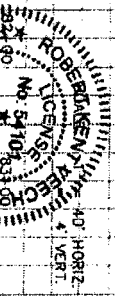


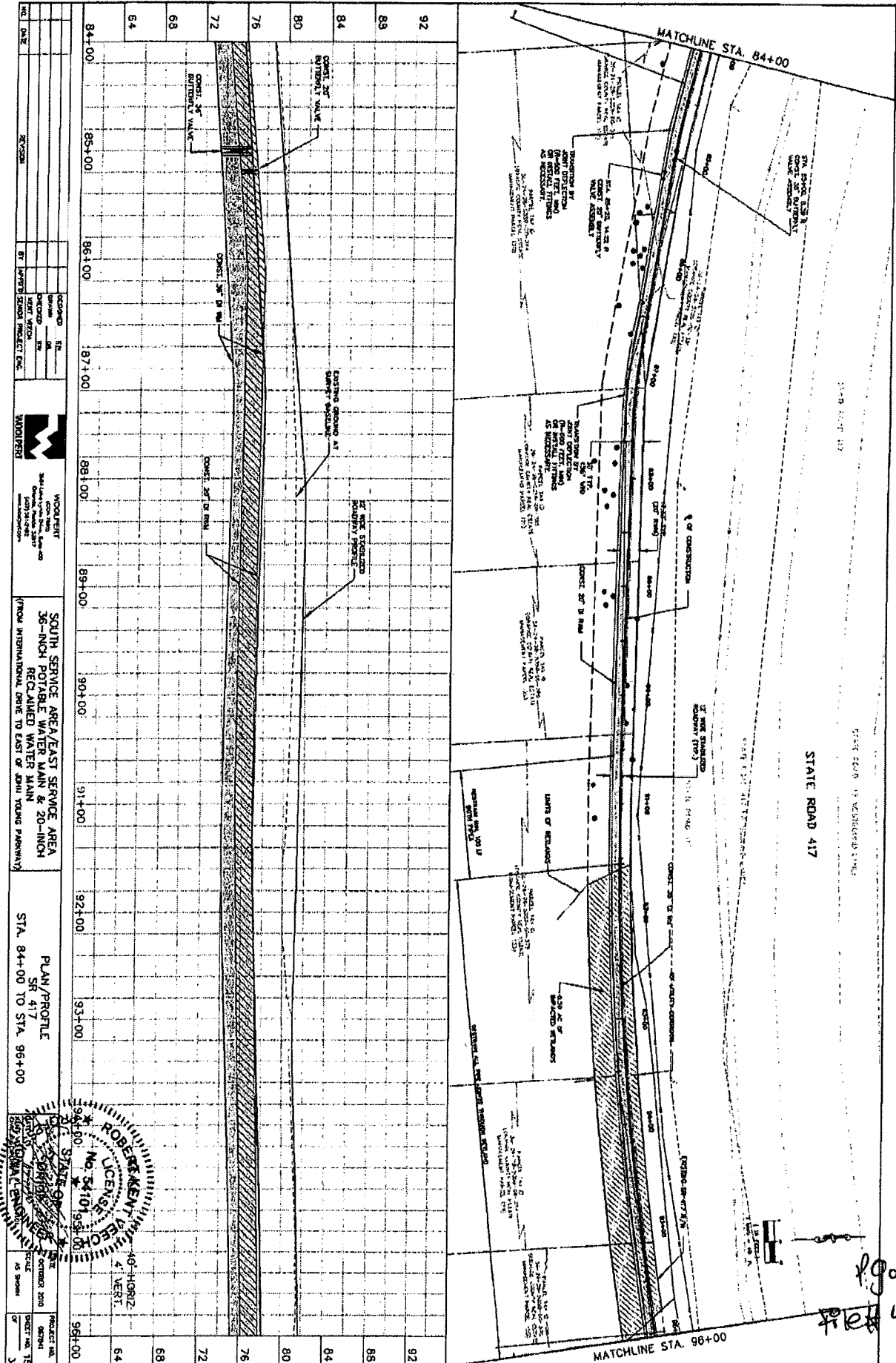
Fig. 11 of 27  
File # 48-304412-001  
Orange Co. Utilities

JAN 12 11 48 - 304412001

STATE ROAD 417

MATCHLINE STA. 84+00

MATCHLINE STA. 98+00



NO.	DATE	REVISION	BY

84+00 85+00 86+00 87+00 88+00 89+00 90+00 91+00 92+00 93+00 94+00 96+00

92 89 84 80 76 72 68 64

CONCRETE 20\"/>

EXISTING GROUND AT 20' INTERVALS

12 IN. RISE SCHEDULED FOR EVERY 100'

CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

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CONCRETE 20\"/>

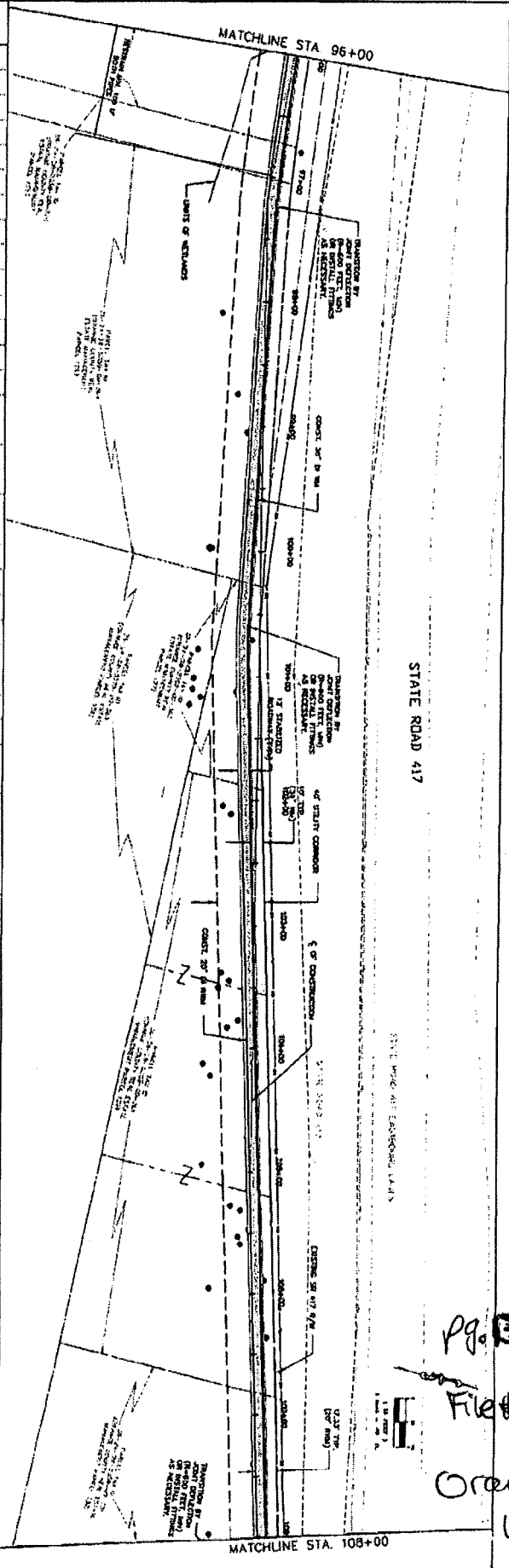
CONCRETE 20\"/>

CONCRETE 20\"/>

CONCRETE 20\"/>

JAN 12 '11 48 - 30441200

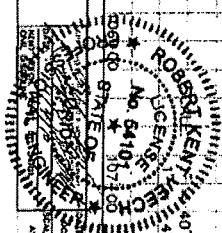
pg. 10 of 27  
 File 48-30441-001  
 Orange Co. Utilities



STATION	96+00	97+00	98+00	99+00	100+00	101+00	102+00	103+00	104+00	105+00	106+00	107+00	108+00
92													
88													
84													
80													
76													
72													
68													
64													

SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH PORTABLE WATER MAIN & 20-INCH  
 RECLAIMED WATER MAIN  
 FROM INTERNATIONAL DRIVE TO EAST OF JOHN YOUNG PARKWAY

PLAN/PROFILE  
 SR 417  
 STA. 96+00 TO STA. 108+00



PROJECT NO. 48-304412-001  
 SHEET NO. 18  
 OF 34

STATE ROAD 417

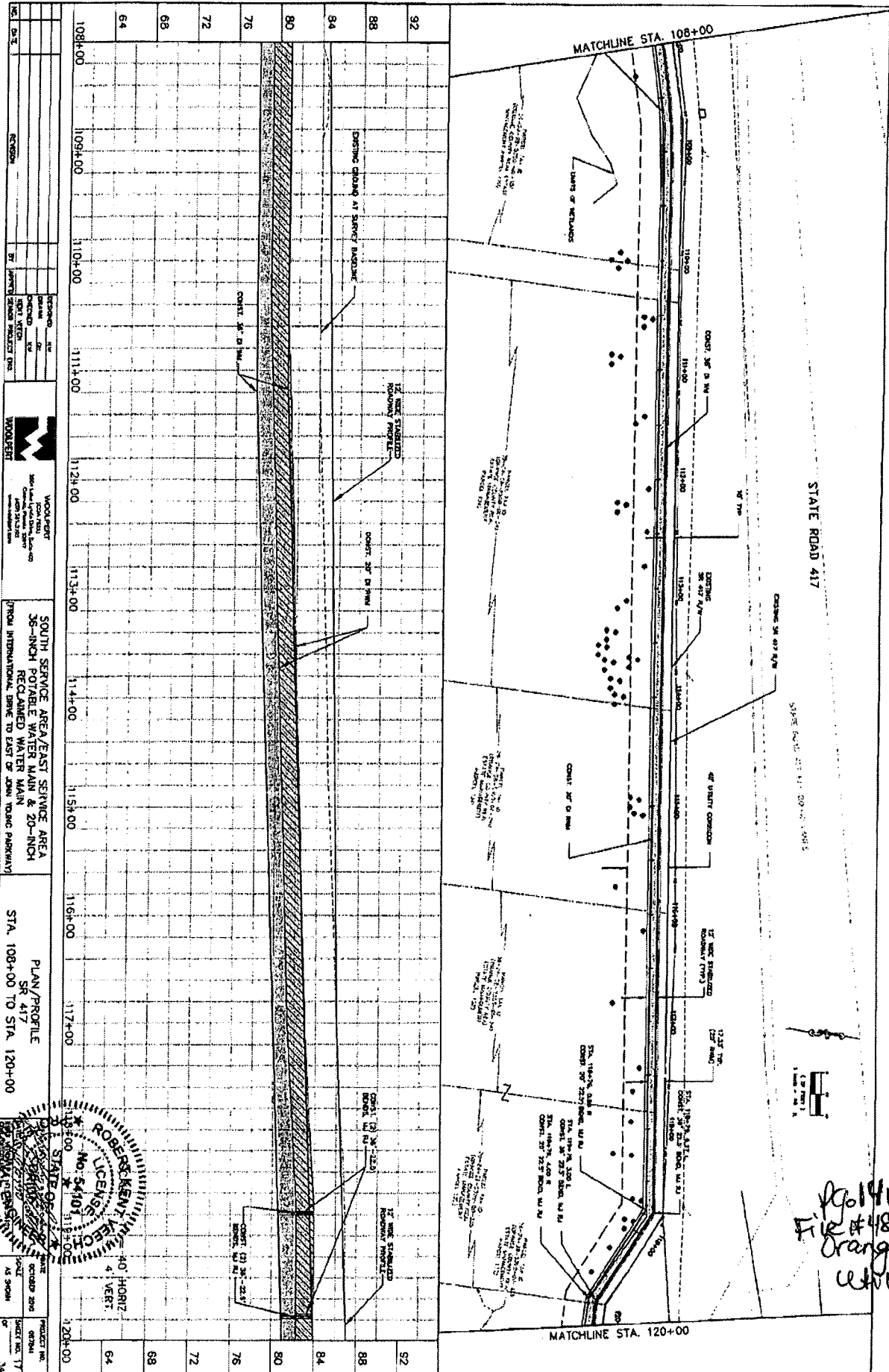
Pg. 3 of 27  
 File # 48-304412-001  
 Orange Co. Utilities

JAN 12 11 48 - 304412001

STATE ROAD 417

MATCHLINE STA. 108+00

MATCHLINE STA. 120+00



108+00	109+00	110+00	111+00	112+00	113+00	114+00	115+00	116+00	117+00	120+00
92										92
88										88
84										84
80										80
76										76
72										72
68										68
64										64

WOODS BROTHERS  
 3000 S. Orange Ave., Suite 100  
 Orange, CA 92668  
 (714) 961-1111

SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH POTABLE WATER MAIN & 20-INCH  
 RECLAIMED WATER MAIN TO EAST OF JOHN TOANG PARKWAY

PLAN/PROFILE  
 SR 417  
 STA. 108+00 TO STA. 120+00

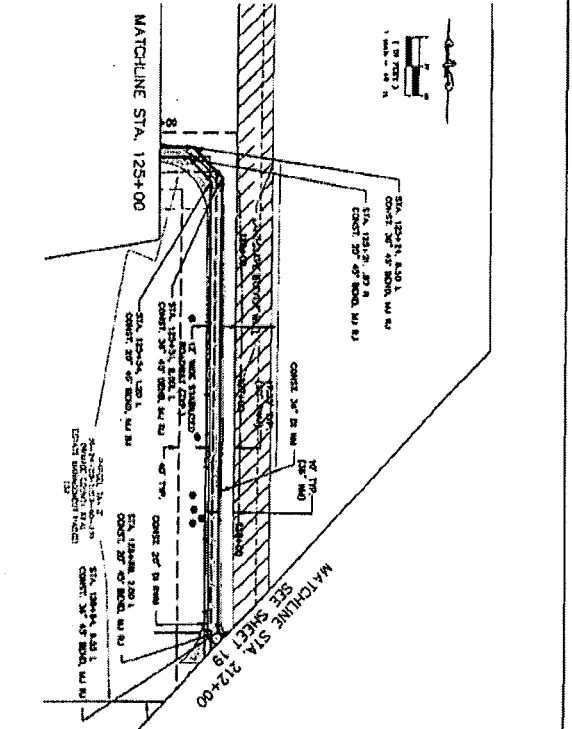
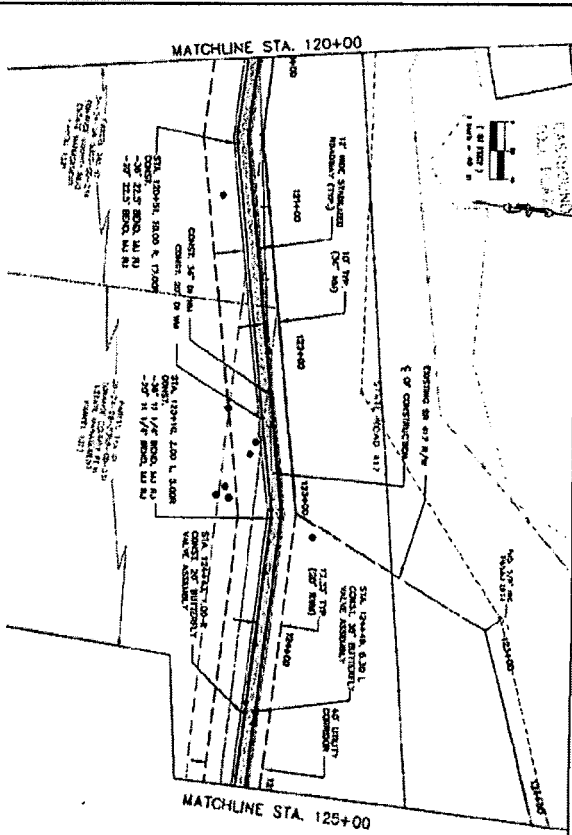
PROJECT NO.  
 087941  
 SHEET NO. 17  
 OF 34

ROBERT KENT WEECH  
 LICENSE NO. 54101  
 40' HORIZ  
 4" VERT

Page 1 of 2  
 File # 48-304412-001  
 Orange Co.  
 Utilities

JAN 12 '11 4 8 - 3 0 4 4 1 2 0 0 1





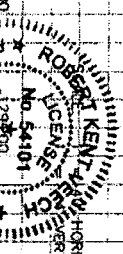
96	120+00	121+00	122+00	123+00	124+00	125+00	126+00	127+00	128+00	129+00
92										
88										
84										
80										
76										
72										
68										

REVISIONS  
 NO. DATE BY  
 1  
 2  
 3  
 4  
 5  
 6  
 7  
 8  
 9  
 10

APPROVED: [Signature]  
 PROJECT: [Project Name]  
 DATE: [Date]

SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH POTABLE WATER MAIN & 20-INCH  
 FROM INTERNATIONAL DRIVE TO EAST OF JOHN TOLSON PARKWAY

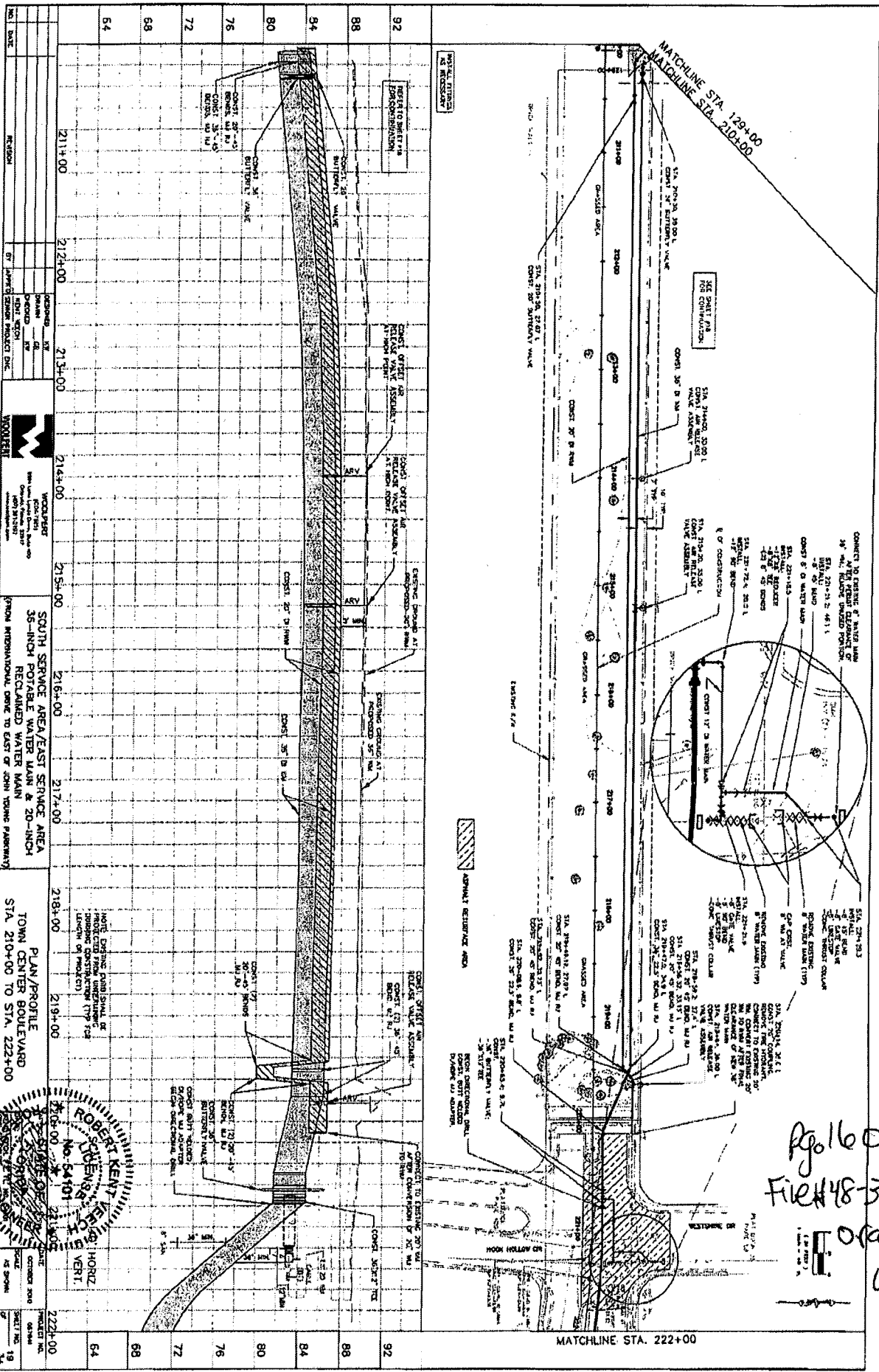
PLAN/PROFILE  
 SR 417  
 STA. 120+00 TO STA. 129+09.67



Pgs 15 of 27  
 File # 48-304412001  
 Orange Co. Utilities

JAN 12 '11 4 8 - 304412001

Fig 16 of 27  
 File # 48-304412001  
 Orange Co. Utilities



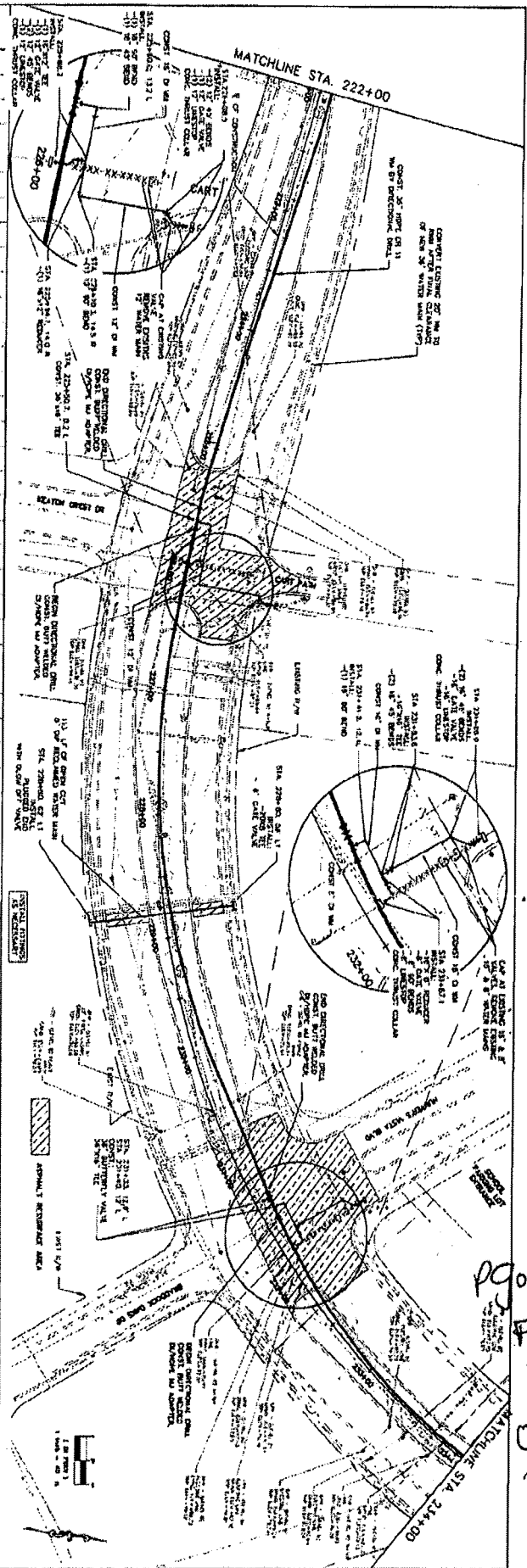
SCOUR SERVICE AREA/EAST SERVICE AREA  
 36-INCH PORTABLE WATER MAIN & 20-INCH  
 FROM MINORANA DRIVE TO EAST OF JOHN YOUNG PARKWAY

TOWN CENTER BOULEVARD  
 STA. 210+00 TO STA. 222+00

**ROBERT KENT ENGINEERS**  
 1000 S. GARDEN ST.  
 SUITE 100  
 ANAHEIM, CA 92805  
 (714) 771-1111  
 No. 54101

PROJECT NO. 08386  
 SHEET NO. 18  
 DATE: OCTOBER 2010

JAN 12 '11 48 - 304412001



92	222+00	223+00	224+00	225+00	226+00	227+00	228+00	229+00	230+00	231+00	232+00	233+00	234+00
88													
84													
80													
76													
72													
68													
64													
92													
88													
84													
80													
76													
72													
68													
64													

WOODBERT  
 300 East Main Street  
 Orange, California 92667  
 (714) 962-1234  
 WWW.WOODBERT.COM

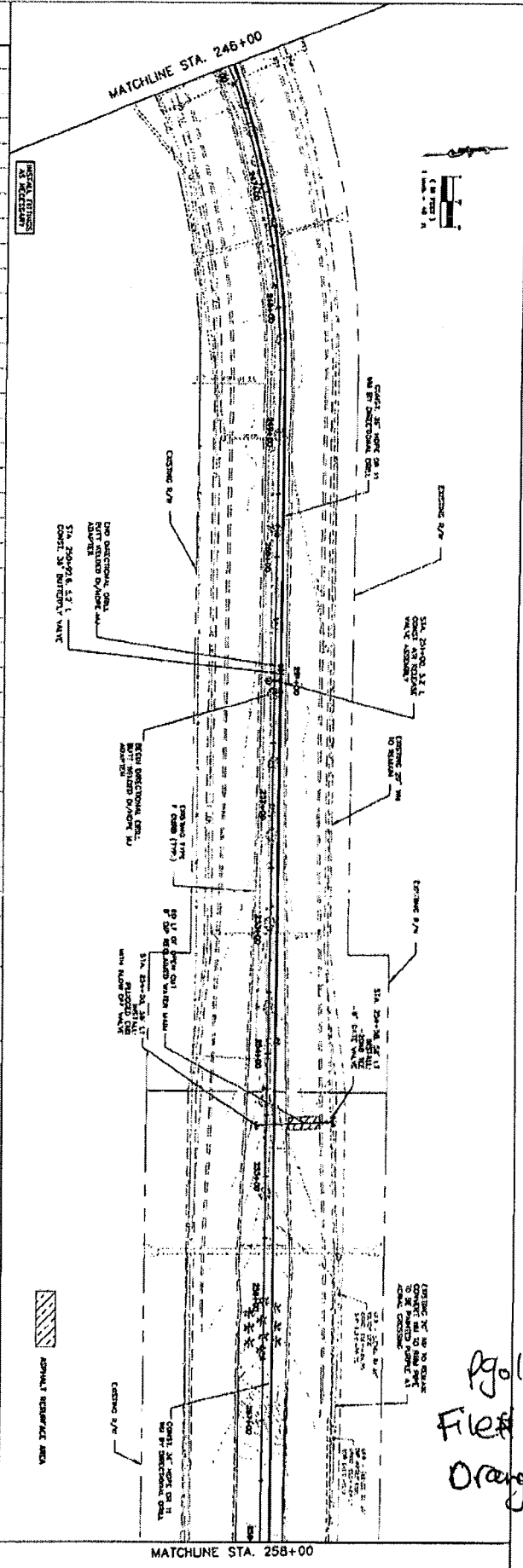
WOODBERT  
 300 East Main Street  
 Orange, California 92667  
 (714) 962-1234  
 WWW.WOODBERT.COM

WOODBERT  
 300 East Main Street  
 Orange, California 92667  
 (714) 962-1234  
 WWW.WOODBERT.COM

pg 17 of 27  
 File # 48-  
 30412-00  
 Orange Co.  
 Utilities

JAN 12 '11 48 - 304412001

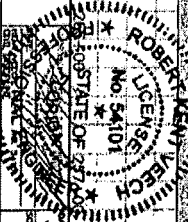




NO.	DATE	REVISION
84	248+00	247+00
80	248+00	249+00
76	248+00	250+00
72	248+00	251+00
68	248+00	252+00
64	248+00	253+00
60	248+00	254+00
56	248+00	255+00

WOODLIEB  
 35-INCH PORTABLE WATER MAIN & 20-INCH RECLAIMED WATER MAIN  
 SOUTH SERVICE AREA/EAST SERVICE AREA  
 PRIOR RECONSTRUCTION, DRIVE TO EAST OF JOHN YOUNG PARKWAY

SCALE  
 1" = 40' HORIZ  
 1" = 4' VERT



PLAN/PROFILE  
 TOWN CENTER BOULEVARD  
 STA. 246+00 TO STA. 258+00

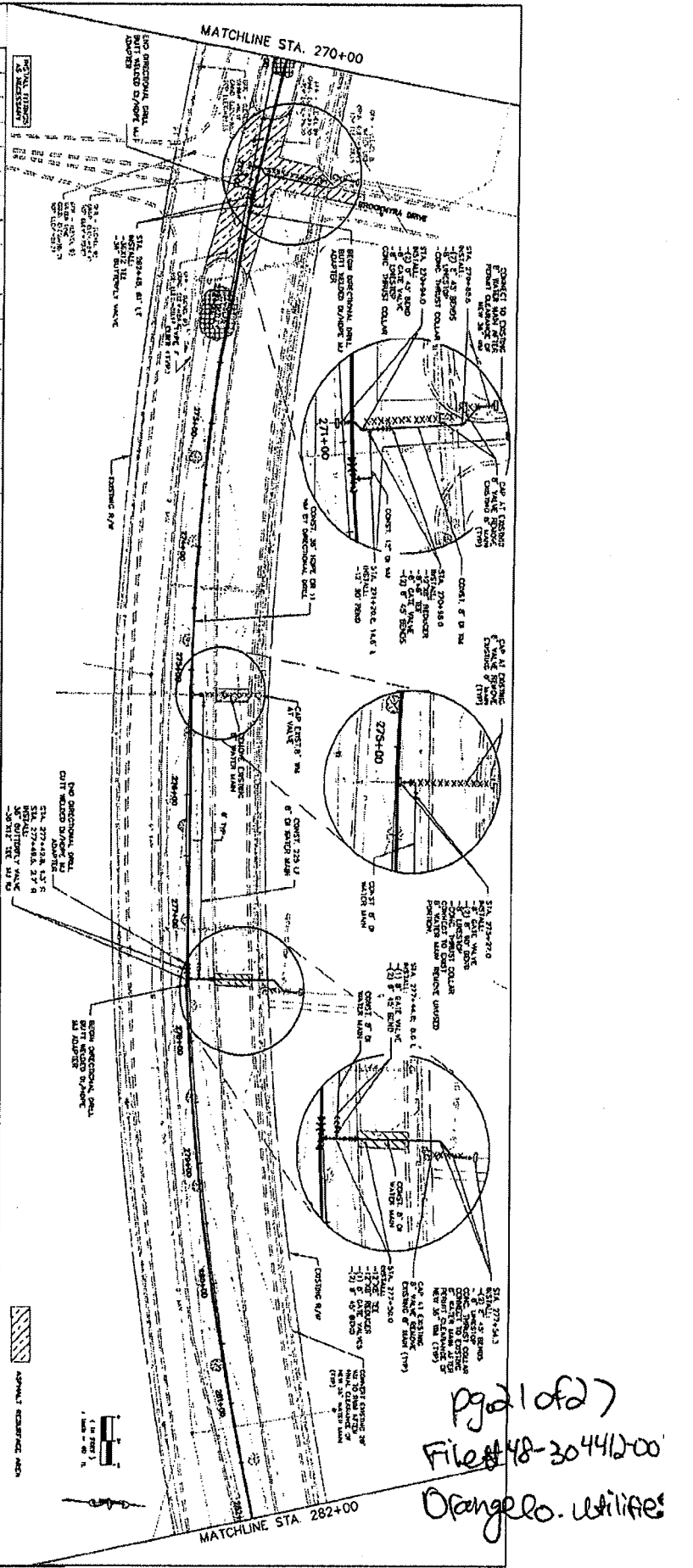
pg. 19 of 27  
 File # 48-304412-0  
 Orange Co. Utilities

JAN 12 '11 48 - 304412001

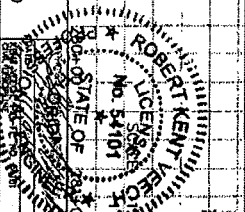


JAN 12 '11 48 - 304412001

92	270+00	271+00	272+00	273+00	274+00	275+00	276+00	277+00	278+00	279+00	280+00
88											
84											
80											
76											
72											
68											
64											



pg 2 of 2  
 File # 48-3044200  
 Orangelco. utilities



DATE: 08/26/09  
 SCALE: 40' HORIZ, 4' VERT.  
 PROJECT NO.: 48-3044200  
 SHEET NO.: 24  
 OF 34

JAN 12 '11 48 - 304412001

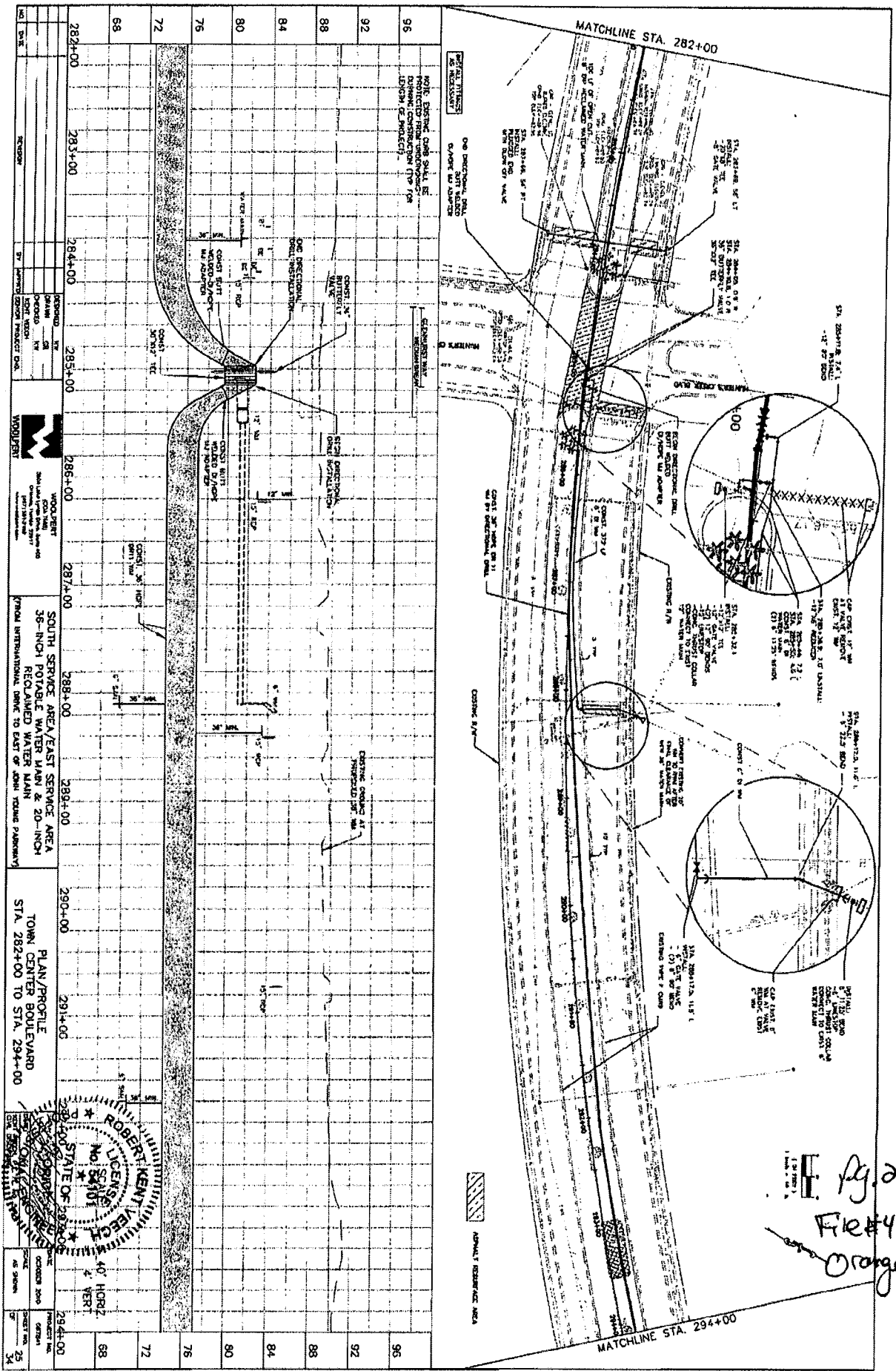


Fig. 200f27  
 File # 48-304412001  
 Orange Co  
 Utilities

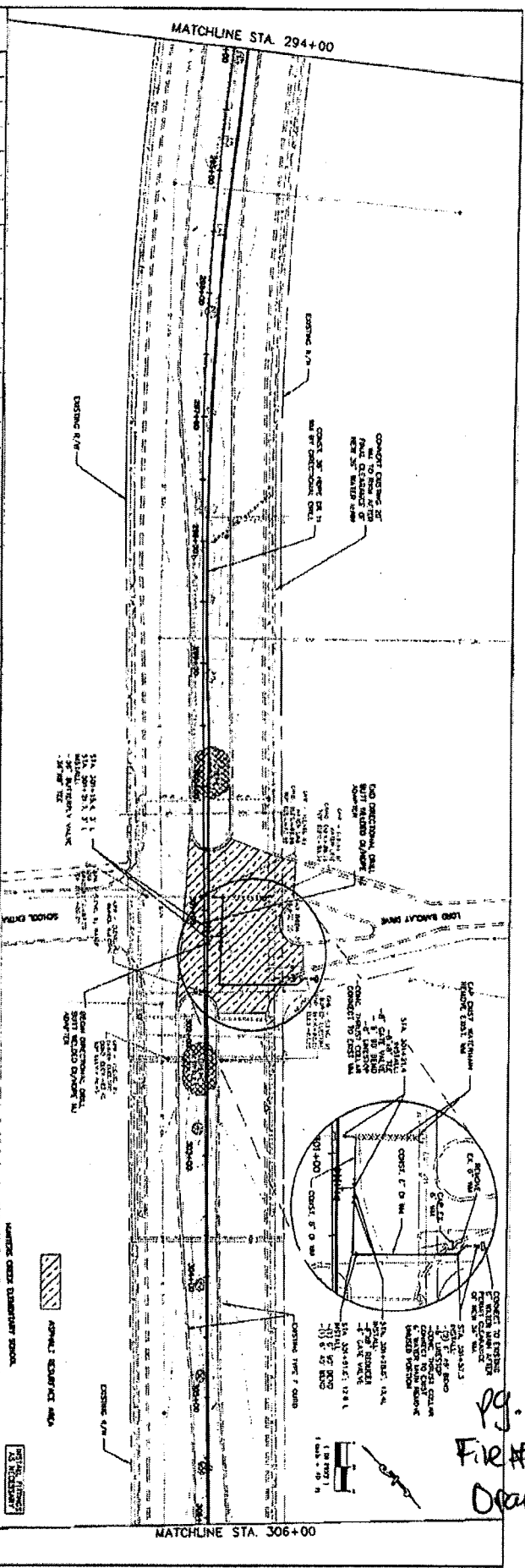
NO.	DATE	REVISION	BY	CHKD.	APP'D.	DESCRIPTION
96						NOTE: EXISTING CURB SHALL BE... DIMENSION CONSTRUCTION TYPE PER... LENGTH OF PROJECT -
92						
88						
84						
80						
76						
72						
68						
282+00	283+00	284+00	285+00	286+00	287+00	288+00
289+00	290+00	291+00	292+00	293+00	294+00	

PROJECT NO. 48-304412001  
 SHEET NO. 25  
 OF 25  
 DATE 1/11/11  
 PROJECT NAME  
 SHEET NO. 25  
 OF 25  
 DATE 1/11/11  
 PROJECT NAME  
 SHEET NO. 25  
 OF 25  
 DATE 1/11/11  
 PROJECT NAME



JAN 12 '11 48 - 304412001

96	2944+00	2954+00	2964+00	2974+00	2984+00	2994+00	3004+00	3014+00	3024+00	3034+00	3044+00
92											
88											
84											
80											
76											
72											
68											

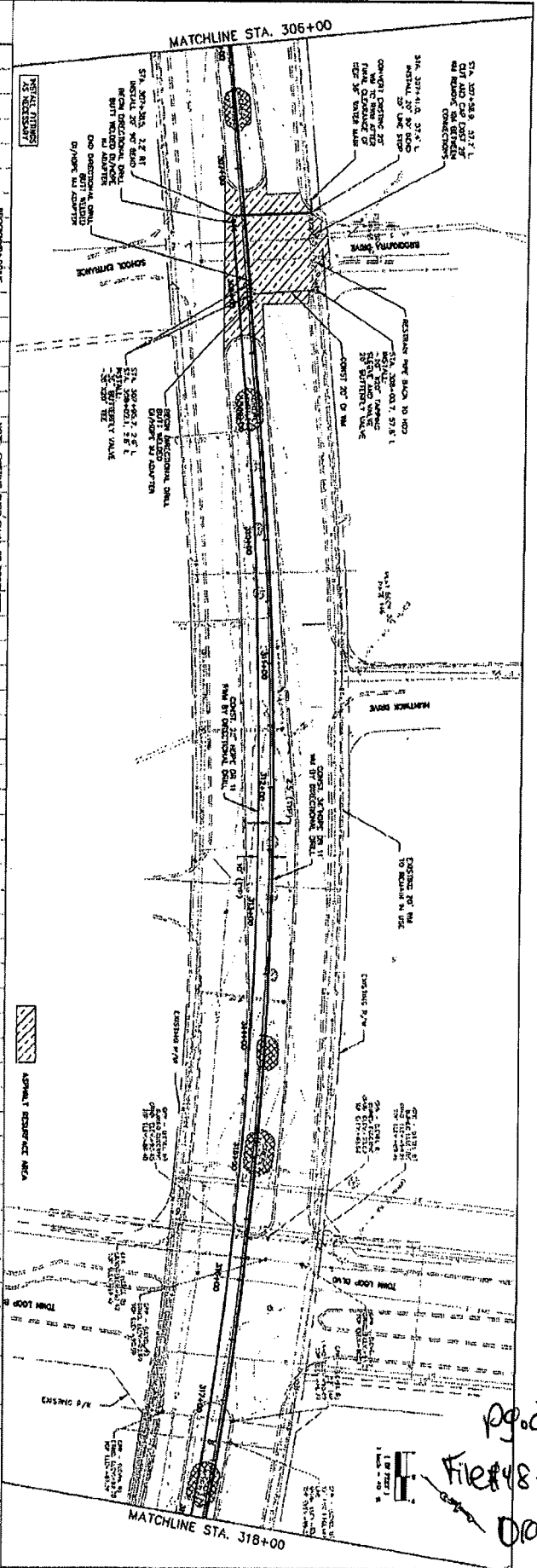


**ROBERT KENT REICH**  
 LICENSE NO. 54101  
 STATE OF CALIFORNIA  
 CIVIL ENGINEER

**40' HORIZ. SCALE**  
**4" VERT. SCALE**

PROJECT NO. 48-304412001  
 SHEET NO. 26 OF 34

pg. 23 of 21  
 File # 48-304412001  
 Orange Co. Utilities



NO.	DATE	REVISION
96	306+00	307+00
92	308+00	309+00
88	310+00	311+00
84	312+00	313+00
80	314+00	315+00
76	316+00	317+00
72	318+00	

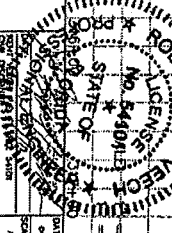
306+00	307+00	308+00	309+00	310+00	311+00	312+00	313+00	314+00	315+00	316+00	317+00	318+00
--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------	--------

NO.	DATE	REVISION
96	306+00	307+00
92	308+00	309+00
88	310+00	311+00
84	312+00	313+00
80	314+00	315+00
76	316+00	317+00
72	318+00	

36-INCH PORTABLE WATER MAIN & 20-INCH RECLAIMED WATER MAIN (FROM INTERNATIONAL DRIVE TO EAST OF JOHN TOWNS PARKWAY)

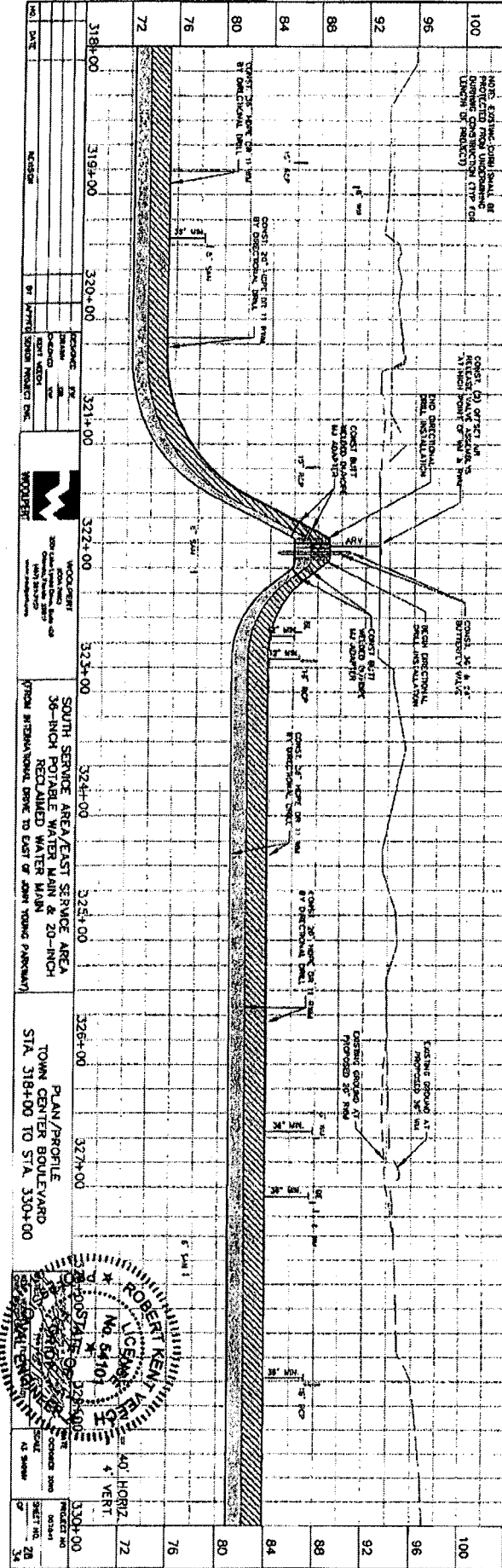
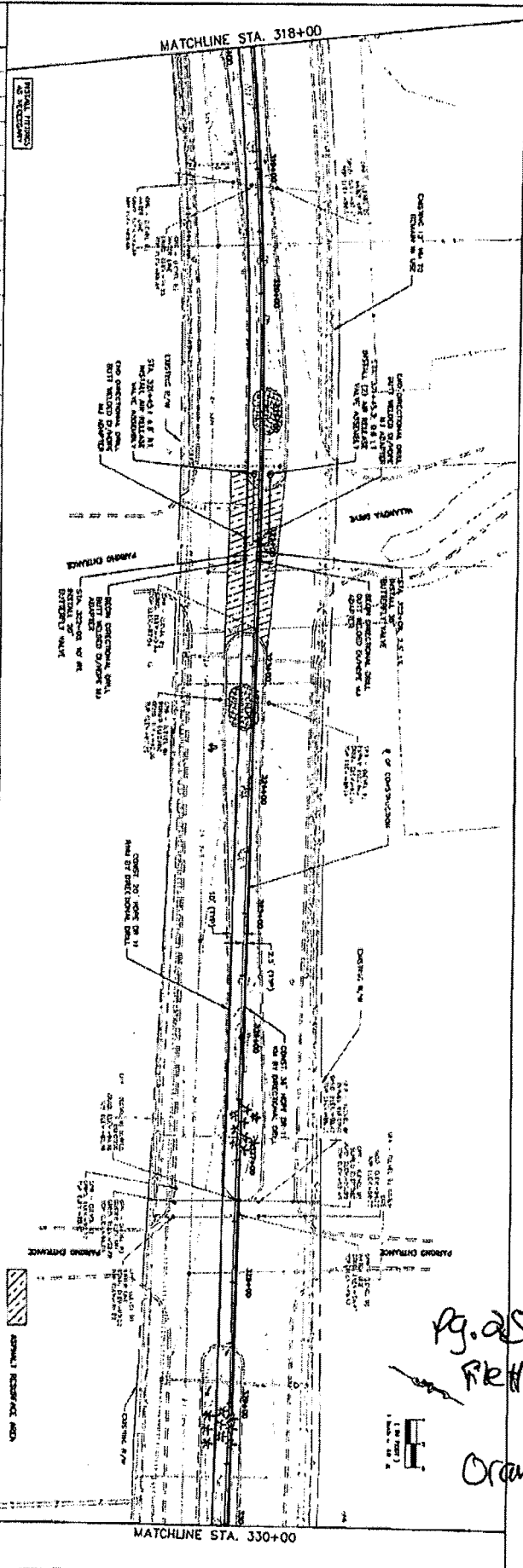
PLAN/PROFILE TOWN CENTER BOULEVARD STA. 306+00 TO STA. 318+00



DATE: OCTOBER 2009  
 SCALE: AS SHOWN  
 SHEET NO.: 34

pg. 24 of 27  
 File # 48-30442-001  
 Orange Co. Utilities

JAN 12 '11 48 - 304412001



NO.	DATE	REVISION	BY	APPROVED	SCALE

100 NORTH EASTING, CONTINUAL, BE  
 96 CONST. CO. OFFICE, 111  
 92 CONST. CO. OFFICE, 111  
 88 CONST. CO. OFFICE, 111  
 84 CONST. CO. OFFICE, 111  
 80 CONST. CO. OFFICE, 111  
 76 CONST. CO. OFFICE, 111  
 72 CONST. CO. OFFICE, 111

318+00 319+00 320+00 321+00 322+00 323+00 324+00 325+00 326+00 327+00 328+00 329+00 330+00

SOUTH SERVICE AREA/EAST SERVICE AREA  
 36-INCH POTABLE WATER MAIN & 20-INCH  
 RECLAIMED WATER MAIN  
 (FROM INTERNATIONAL DRIVE TO EAST OF JOHN YOUNG PARKWAY)

PLAN/PROFILE  
 TOWN CENTER BOULEVARD  
 STA. 318+00 TO STA. 330+00

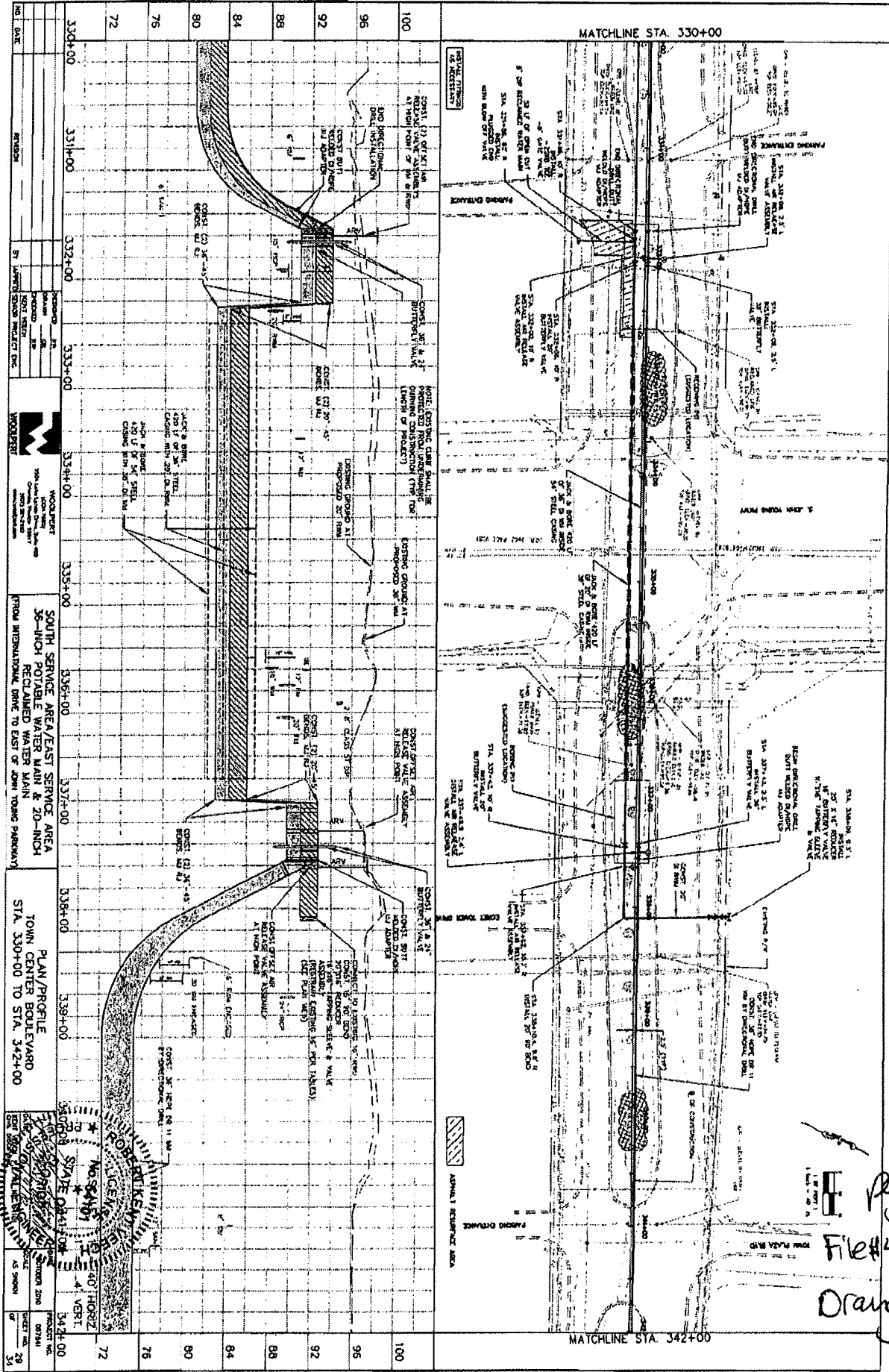
1100-00  
 72  
 76  
 80  
 84  
 88  
 92  
 96  
 100

40' HORIZ.  
 4' VERT.

ROBERT KENT  
 U.C.S. No. 54101  
 12/28/05 STA. 318+00 TO 330+00

Pg. 25 of 27  
 File # 48-20442-001  
 Orange Co. Utilities

JAN 12 '11 4 8 - 3 0 4 4 1 2 0 0 1



100	330+00	331+00	332+00	333+00	334+00	335+00	336+00	337+00	338+00	339+00	340+00	341+00	342+00
96													
92													
88													
84													
80													
76													
72													

JAN 12 '11 48-304412001

48-304412001  
 File# 48-304412001  
 Orange Co. Utilities

