

Contract Documents, or both, consisting of interconnected system of encased underground ducts and aboveground conduits, handholes, manholes, and junction boxes to distribute communications cabling. The Telecommunications Pathway System shall support Structured Cabling System (SCS) as defined in ANSI/TIA/EIA and ISO/IEC compliant standards referenced in this Specification Section.

- B. Locations of conduit and duct routing, manholes and handholes are shown in approximate locations unless dimensions are indicated. Contractor shall route and locate to complete the pathway system.
- C. Use metallic conduits above ground, and rigid plastic underground conduits for underground installations.
- D. The work shall include materials, equipment and apparatus not specifically mentioned herein or noted on the Contract Drawings but which are necessary to make a complete working ANSI/TIA/EIA and ISO/IEC compliant pathway system.

### 1.3 OMISSIONS

- A. Omission in the Specification of any provision herein described shall not be construed as to relieve Contractor of any responsibility or obligation requisite to the complete and satisfactory delivery, operation, and support of the telecommunications infrastructure defined in this Specification section.

### 1.4 DEFINITIONS

- A. Unless otherwise specified or indicated, technical terms used in this specification shall be as defined in ANSI/TIA/EIA-758A, ANSI/TIA/EIA-568-B, TIA/EIA-569-B, TIA/EIA-606-A, and ANSI J-STD-607-A standards.

### 1.5 DEVIATION FROM ANSI/TIA/EIA STANDARDS

- A. If Contractor feels that deviation from a given standard is warranted, it shall submit a written deviation request to County. The request shall, at a minimum, indicate the standard from which there is a proposed deviation, the substitution being proposed in place of the standard, the reason the request is being made, and an explanation of the justifications (economic, technical or otherwise) for the deviation. Contractor shall not incorporate any deviations without written approval from County.

### 1.6 SUBMITTALS

- A. Notwithstanding requirements in other Sections of the Contract Documents, provide four (4) copies of each submittal (and re-submittal item) required under this Section for review, comments, and approval by County. Where applicable, County will return two (2) copies to Contractor.
- B. Personnel Qualification
  - 1. Contractor shall have on staff a minimum of one (1) BICSI designated Registered Communications Distribution Designer (RCDD), who has a minimum three (3) years of verifiable experience in installation of telecommunications infrastructure of similar complexities. Submit for review and approval, technical certifications, resume, and project references of this field project engineer.
- C. Project Management Plan

1. The project plan shall be specific to the project, containing detail tasks, timetables, durations, coordination issues, network diagrams, critical path, staffing numbers and responsibilities for both Contractor and County.
2. Project schedules shall be submitted electronically in MS Project 2007; each and every field in Task Information shall be filled out completely.

D. Shop Drawings

1. Submit, for review and approval by County, a complete set of shop drawings, which shall be based on the design intent and criteria represented in this and other Specification Section of the Construction Documents. It shall show quantities and part numbers for all components including conduits, manholes, handholes, junction boxes, and all other associated components.
2. Shop drawings shall include, but not be limited to, plan and elevation drawings of every manhole, handhole, and junction box, fabrication and installation drawings, seismic bracing and anchoring drawings, coordination drawings for use on site, Contractor's engineering calculations, methods of construction and/or installation as may be required to show that the materials, component, accessories, or systems and the positions thereof conform to the requirements of this specification or regulatory requirements and submissions, or both.
3. Shop drawings shall establish the actual detail of all fabricated or installed items, indicate correct relation to adjoining work, and amplify design details in accurate relation to physical spaces.
4. Shop drawing for below grade components shall include proposed depths and clearances from existing utility information within 25-feet of proposed telecommunications infrastructure.
5. Submittals shall be initialed or signed by the Contractor, showing the date and the Contractor's legitimate firm name.
6. By submitting shop drawings and product data, the Contractor represents that it has carefully reviewed and verified materials, quantities, field measurements, existing underground facility, and field construction criteria related thereto. It also represents that the Contractor has checked, coordinated, and verified that information contained within shop drawings and product data conform to the requirements of the work and of the Contract Documents. The Contractor remains responsible for the design concept expressed in the Contract Documents.
7. County's approval of shop drawings and product data submitted by the Contractor shall not relieve the Contractor of responsibility for deviations from requirements of the contract documents, unless the Contractor has specifically informed County in writing of such deviation at the time of submittal, and County has given written approval of the specific deviation. The Contractor shall continue to be responsible for deviations from requirements of the contract documents not specifically noted by the Contractor in writing, and specifically approved by County in writing.
8. County's approval of shop drawings and product data shall not relieve the contractor of responsibility for errors or omissions of the design submitted and accepted by County in such shop drawings and product data.
9. County's review and approval, or other appropriate action upon shop drawings and product data, is for the limited purpose of checking for conformance with information given and design concept expressed in the contract documents. County's review of such submittals is not conducted for the purpose of determining accuracy and completeness of other details such as quantities, or for substantiating instructions for installation, all of which remain the responsibility of the Contractor as required by the Contract Documents. The review shall not

constitute approval of safety precautions or of construction means, methods, techniques, sequences, or procedures.

- E. Construction Site Safety Policy and Procedure Manual
  - 1. Submit a copy of Contractor’s Construction Site Safety Policy and Procedures Manual; it shall conform to California Code of Regulations, Title 8, Chapter 4, Subchapters 4, 7, 19, 20, and 21.
- F. Record (As-Built) Drawings
  - 1. As-built information shall be revision clouding format on scaled construction drawings. Indicate location of all underground routes, if different than original drawing.
  - 2. All documentation and drawings shall be provided in an electronic format (AutoCAD for drawings, MS Excel or MS Project for schedule, etc) and supplied on CD-ROM.
  - 3. Record drawings shall include all existing utility within 25-feet of the telecommunications infrastructure installed in accordance with this and other sections of the Contract Documents.
  - 4. As-built drawings shall record ductbank bends (radius and center point) ±1-foot by 0-inch accuracy; and the installed length of each conduit in the ductbank to the nearest footage.

1.7 QUALITY ASSURANCE

- A. Maintain at the job site a minimum of one set of Contract Documents, including approved Shop Drawings, Contract Drawings, Specifications, all Addenda, and Record Drawings. Record Drawings shall consist of redline markups of drawings, specifications and spreadsheets, including manhole/handhole butterfly drawings.
- B. Work shall be performed in workmanlike manner and in accordance with the approved submittals and Contract Documents. Any products not installed to the quality detailed in these specifications and approved in the submittal process shall be replaced by the Contractor to the satisfaction of County at no additional cost to the County.
- C. Authorized County personnel will at all times have access to the work wherever it is in preparation or progress. Contractor shall provide safe and proper facilities for such access, observation and inspection.
- D. Provide to County Inspector for her/his signature a copy of the delivery receipt for each concrete delivery; it shall include date, strength ordered, and location used. Contractor shall keep all Inspector-signed copies to be included in Closeout Documents.

1.8 CONTRACTOR WARRANTY

- A. Provide a two-year service warranty against defects in materials and workmanship
  - 1. Warranty period shall commence upon acceptance of the work by County of Riverside.

1.9 INDEMNIFICATION

- A. Contractor shall indemnify and hold harmless County of Riverside, its agents, and employees from or on account of any injuries or damages, received or sustained by any person or persons, during or on account of any operation connected with this Contract; or by consequence of any negligence (excluding negligence by County of Riverside, its agents, or employees) in connection with the same; or by use of any improper materials or by or on account of any act or omission of said Contractor or its subcontractors,

- agents, servants, or employees. Contractor further agrees to indemnify and hold harmless County of Riverside, its agents, or employees, against claims or liability arising from or based upon the violation of any federal, state, county, city, or other applicable laws, bylaws, ordinances, or regulations by Contractor, its agents, associates, or employees.
- B. The indemnification provided above shall obligate Contractor to defend at its own expense or to provide for such defense, at County of Riverside's option, of all and any claims of liability and all suits and actions of every name and description that may be brought against County of Riverside which may result from the operations and activities under this Contract whether the installation operations be performed by Contractor, its subcontractor, or by anyone directly or indirectly employed by either.
- C. The award of this Contract shall obligate Contractor to comply with the foregoing indemnity provision; however, the collateral obligation of insuring this indemnity shall be complied with as set forth.

#### 1.10 SAFETY

- A. Contractor shall take the necessary precautions and bear the sole responsibility for the safety of the methods employed in performing the work. Contractor shall at all times comply with the regulations set forth by federal, state, and local laws, rules, and regulations.
1. The National Fire Protection Code, National Electrical Safety Codes, California Occupational Safety and Health Administration regulations shall be adhered to during all installation activities.
  2. Contractor shall indemnify and hold harmless County from and against all liabilities, suits, damages, costs, and expenses (including attorney's fees and court costs) which may be imposed on County because of Contractor, its subcontractor, or supplier's failure to comply with the regulations stated herein.

### PART 2 – PRODUCTS

#### 2.1 GENERAL

- A. All materials shall be new and free from defects. Defective equipment or equipment damaged in the course of installation or test shall be replaced.

#### 2.2 UNDERGROUND SPACES

- A. Underground spaces shall be placed in accordance with orientation shown on Contract Drawings.
- B. Manholes shall be precast and conform to all applicable ASTM standards, including C478 with 28 day 6,000 psi minimum compressive strength concrete and designed for AASHTO H-20 loading per AASHTO HB 14. Incidental and miscellaneous accessories supplied with a manhole shall be supplied by the same manufacturer.
1. Manholes shall be Type A, end wall entrance only, with center conduit window. Unless noted otherwise, nominal inside diameters of manholes shall be 5'0" WX 10'6" LX 6'6" H; Utility Vault/Oldcastle Precast Model: Riverside County I.T. Dwg# 070-XC10-4177-001. No substitutions permitted.
  2. Covers shall be circular and made of cast iron suitable for AASHTO H-20 loading; be provisioned with a clear opening of 30 inches in diameter; with

additional McGard Fibershield cover #RVRSD32A.548 marked "County Communications" and be equipped with a locking mechanism. The ring shall be field stamped with manhole identification numbering provided by County. Upper side of the cover shall be welded with the letters "RCIT" in integral letters no less than 2 inches high.

3. Tongue-and-groove double sealed joints shall be furnished on mating edges of pre-cast components. The joints shall firmly interlock adjoining components and be sealed with watertight joint sealant in accordance with the manufacturer's installation guidelines.
4. Four 7/8" hot-dip galvanized steel pulling iron shall be provisioned in each entrance wall; a sump of 12 inches in diameter shall be provisioned.
5. Double bay, heavyweight cable racking with adjustable arms shall be furnished in the center of each manhole side walls. The racks shall be attached with adjustable inserts set in the concrete walls. Corner standoff brackets shall be provided, 6 to 8 inches from wall. Racking and hardware shall be galvanized.
6. Steps shall be provisioned at the neck of manholes to meet conditions. Each manhole shall be furnished with a detachable galvanized steel ladder, secured to a top support arm in the manhole. Hardware shall be steel, hot dip galvanized after fabrication.
7. Two ground rods shall be furnished in each manhole. The ground rods shall be a minimum of 8 feet long by 5/8 inches in diameter; and be placed in two corners diagonally across from each other. Provide #6 pigtailed for connection to interior ground conductors.
8. For existing manholes, new ducts shall enter the manhole with factory-formed bell end of the conduit, and a seal around the conduit shall be applied after installation. Existing manholes shall be retrofitted with the required racking, and grounding and bonding.
9. The reinforcing steel in the walls of manholes shall be bonded together and brazed to the bronze inserts of each section of the manhole per the manufacturer's manhole specifications. The ground inserts shall be attached to the steel rebar to provide a point of attachment for the ground wires or bonding ribbon. The inserts shall be bronze, flush mounted, and brazed to the rebar cage of all the sections of the manholes (bottom, intermediate, and roof sections).
10. The inside wall and ceiling of manholes shall be finished with one coat of white, waterproof coating.

C. Handholes shall be precast and conform to all applicable ASTM standards, including C478 with 28 day 5500 psi minimum compressive strength concrete and designed for AASHTO H-20 loading if located in a roadway and to AASHTO H-10 otherwise. Incidental and miscellaneous accessories supplied with a manhole shall be supplied by the same manufacturer.

1. Unless noted otherwise, handholes shall be 4'0"Wx4'0"Lx3'0"H; Utility Vault Model Number 3100-3 or pre-approved equal.
2. Covers shall be that of rectangular diamondplate, equipped with a self latching stainless steel slam lock, recessed lift inserts, lock down bolts, and labeled with 1/8" high letters stating "RIV CO IT". Conform to AASHTO H20 loading if located in a roadway and to AASHTO H10 loading otherwise.
3. Two 7/8" hot-dip galvanized steel pulling iron shall be provisioned in each entrance wall; a sump of 6 inches in diameter shall be provisioned.
4. Hardware shall be steel, hot dip galvanized after fabrication.

5. Two ground rods shall be furnished in each handhole. The ground rods shall be a minimum of 8 feet long by 5/8 inches in diameter; and be placed in two corners diagonally across from each other. Provide #4/0 pigtails for connection to interior ground conductors.
6. Double bay, heavyweight cable racking with adjustable arms shall be furnished in the center of each manhole side walls. The racks shall be attached with adjustable inserts set in the concrete walls. Corner standoff brackets shall be provided, 6 to 8 inches from wall. Racking and hardware shall be galvanized.
7. Conduits entering a handhole shall be aligned on opposite walls at the same elevation.
8. The reinforcing steel in the walls of handholes shall be bonded together and brazed to the bronze inserts of each section of the manhole per the manufacturer's manhole specifications. The ground inserts shall be attached to the steel rebar to provide a point of attachment for the ground wires or bonding ribbon. The inserts shall be bronze, flush mounted, and brazed to the rebar cage of all the sections of the manholes and handholes (bottom, intermediate, and roof sections).
9. The inside wall and ceiling of handholes shall be finished with one coat of white, waterproof coating.
10. For existing manholes, new ducts shall enter the manhole with factory-formed bell end of the conduit, and a seal around the conduit shall be applied after installation. Existing manholes shall be retrofitted with the required racking, and grounding and bonding.

### 2.3 CONDUITS AND DUCTBANKS

#### A. Underground Installations:

1. Unless noted otherwise, underground conduits and ductbanks shall be of 4" diameter Schedule 40 PVC ducts with a factory formed bell on one end for interconnecting segments. Ducts shall be equipped with seal plugs in all manholes/handholes and expansion rubber seal plugs within all buildings. High impact spacers shall be provisioned in all multi-duct systems.
2. Underground conduits and ductbanks shall be encased with a minimum of 3,000 psi concrete; concrete shall be a minimum of three inch concrete at the top, bottom and side of ducts.
3. Provide a minimum of two (2) vertical reinforcement bars spaced every three feet and four (4) #5 continuous horizontal reinforcement bars the entire length of the ductbank. Fasten the horizontal reinforcement steel with vertical reinforcement bars, and also into the connecting walls of manholes, vaults and buildings, etc. to protect against shearing.
4. Where ductbanks penetrate foundation or footings of building, rigid metallic conduits with expandable rubber shields shall be used. Conduits entering building shall transition from PVC to rigid metallic conduits from a distance of 24 inches beyond the exterior of the foundation to six inches within the building. Conduits entering building shall slope downward away from the building.
5. When entering an existing building or manhole, core drill existing walls and waterproof using a mechanical seal of assembled rubber links properly sized for the pipe and tighten in place, in accordance with the manufacturer's instruction, after the new conduit is installed.
6. Ducts entering manholes and handholes shall be furnished with bell ends flush to the inside walls.

7. Furnish and install 6" wide electronically detectable warning tape 24" above concrete encased underground conduits and ductbanks. Warning tape shall be orange in color, and shall have a non-degradable imprint "Caution Fiber Optic Cable Buried Below".
8. All ducts shall be capped with duct plugs, Tyco Electronics P/N MP0236.
- B. In wet and damp locations, furnish and install hot dip galvanized rigid steel conduits, ANSI/NEMA FB1 fittings and accessories.
- C. In dry locations, furnish and install electrical metallic tubing (EMT).
- D. Hot-dipped galvanized straps shall be used with all metallic conduits.
- E. Conduit runs shall contain no more than two (2) 90 degree bends and have an aggregate bend of no more than one-hundred and eighty (180) degrees without a pull box. Pull boxes to be installed in straight sections only and be sized in accordance with BICSI design guidelines.
- F. Conduit must be securely fastened in place by means of approved screws, anchors, supports and fastenings. Arrangement and method of fastening conduit shall be consistent with approved shop drawings.
- G. Conduit expansion fittings together with bonding jumper shall be provided where each conduit run crosses an expansion joint in concrete structure. Expansion fitting shall be installed on one side of joint with its sliding sleeve flush with joint and a length of bonding jumper in expansion joint equal to at least three times nominal width of joint.
- H. Furnish and install pull rope in every installed conduit and conduits between pull points, that is, manholes, handholes, and junction boxes. Pull rope shall be new 1/4" polypropylene over polyester rope with a minimum 1700 lb. tensile strength.

#### 2.4 METALLIC PULL BOXES

- A. Outdoor metallic pull boxes shall be NEMA-3R rated, equipped with weatherproof locking cover, and be sized in accordance with BICSI design guidelines.

#### 2.5 FIRESTOPPING

- A. Firestopping materials shall be of Underwriters Laboratories-listed intumescent materials and conform to both flame and temperature ratings in accordance with local building codes.
- B. Firestop assemblies shall be tested in a configuration that is representative of actual field conditions in accordance with ASTM E814 and UL 1479.

### PART 3 – EXECUTION

#### 3.1 GENERAL

- A. Contractor shall ensure its field personnel comply with federal, state, and local safety rules, including Cal/OSHA at all times during the duration of the work.
- B. Contractor shall obtain all required permits and notifications, submit a copy to County prior to commencing work.
- C. Contractor shall install Work in accordance with Public Works Standards and use only materials that are new.
- D. Contractor shall not encroach on private properties adjacent to the work without written permission of the property owners.

## 3.2 SAFETY

- A. Contractor shall be responsible for the safety of the public and its workers in accordance with Cal/OSHA and all applicable regulatory codes and regulations.
- B. Contractor shall ensure that a copy of its Cal/OSHA-compliant Construction Site Safety Policy and Procedures be kept onsite and that its field personnel are properly trained to comply with safety guidelines at all times.
- C. Contractor shall immediately protect with a barrier when covers of manholes, handholes, or vaults are removed. Contractor shall ensure that its employees do not smoke in manholes and all other confined spaces
- D. Prior to entering manholes and unventilated vaults, Contractor shall test for gas in accordance with ANSI/IEEE C2-2007 National Electrical Safety Code, including but not limited to:
  - 1. The atmosphere shall be tested to ensure appropriate level of oxygen and that there is no combustible or flammable gas(es); where combustible or flammable gas(es) are detected the manhole or vault shall be ventilated and made safe prior to entry.
  - 2. Provision shall be made for adequate supply of air.
- E. Contractor shall ensure that approved traffic control plan is implemented and followed at all times.
- F. Contractor shall comply with utility One-Calls and City or other utility coordination requirements.

## 3.3 EXCAVATION AND TRENCHING

- A. Examination
  - 1. Verify routing and termination locations of duct bank prior to excavation for rough-in.
  - 2. Verify locations of manholes and handholes prior to excavation for installation.
- B. Existing Utilities
  - 1. Contractor shall locate and protect all existing utilities, whether noted in the Contract Documents or discovered during the work. Upon discovery of any discrepancies or utility not identified in the Contract Documents, Contractor shall immediately notify County.
  - 2. Verify exact location of existing utility lines where work crosses existing utilities and where connections are to be made by test hole before starting work. Notify utility companies, municipalities, County, and other involved jurisdictions when excavation occurs within vicinity of existing underground service such as sewers, water, electric, gas, and telephone.
  - 3. Repair or replace utility lines damaged or injured as directed and approved by the involved jurisdiction
  - 4. Extend existing duct bank installations using materials and methods compatible with existing installation.
- C. Removal of Water
  - 1. Grade to prevent surface water from flowing into all excavations and trenches. Provide pumps, hoses, pipe, labor and fuel, necessary to keep excavations free of water accumulation. Discharge water in manner not to undermine or disturb existing or adjacent structures or land. Do not discharge dirt, backfill, debris, into sanitary or storm drainage systems.
- D. Job Completion



1. On completion of the work, clean the entire site; remove surplus earth, large stones and debris, to off-site legal disposal. Remove tools and equipment and leave the entire area in a neat condition.
2. Repave, reseed and completely restore the area to the condition prior to the start of excavation and trenching work.

#### 3.4 MANHOLES AND HANDHOLES

- A. Excavation dimensions for manholes and handholes shall comply with Manufacturers Specifications and ASTM C891.
- B. Precast maintenance holes and handholes shall be free from damaged joint surfaces, cracks, or other damage that would permit infiltration. Repair of defects is not acceptable.
- C. The top of installed handholes and manhole covers shall be flush with existing grade.
- D. Provide 10" deep bedding base of 1" river run gravel in the bottom of the excavation. Bedding shall be level and well compacted by a minimum of four passes with a plate type mechanical vibrator. Do not set manholes and handholes prior to inspection and signoff by County.
- E. Contractor shall not place any manholes until sections of the ducts to adjoining manholes or handholes have been proven feasible by digging test holes.
- F. Ensure ducts are installed and aligned on opposite walls at the same elevation.
- G. Two "knock-outs" shall be provided on each sidewall of the manhole with no conduits entering.
- H. Install and seal precast sections in accordance with ASTM C891.
- I. Finish grade shall be established prior to placing manholes and handholes. Install precast neck and shaft sections to bring manhole cover to finished elevation.
- J. Install drains in manholes and connect to 4" pipe terminating in 1/3 cubic yard crushed gravel bed.
- K. Do not backfill prior to inspection and signoff by County Inspector.
- L. Jointly with County, inspect manholes and handholes three (3) months after completion of construction for indications of water ingress. Where leakage is observed, remove water and seal leak sources. Reinspect after 2 months and reseal remaining leak sources. Repeat process at 2 month intervals until all leaks are corrected.

#### 3.5 CONDUITS AND DUCTBANKS

- A. Installed underground conduits and ducts shall not be less than 36 inches below finished grade. Measurement shall be taken from the top of the conduit or duct.
- B. The layout of conduits and ductbanks shall be parallel and perpendicular to property and building lines.
- C. Conduits shall maintain a 3" separation from each other and be supported on factory fabricated, non-metallic, duct/conduit support spacers. The spacers shall be modular, keyed interlocking type, "built-up" to accommodate quantity, size orientation and spacing of installed conduits. The spacers shall maintain a constant distance between adjacent conduit supports and hold conduits in place during conduit encasement and trench backfill operations. The utilization of rebar rods along the conduit length will be required to prevent the "rising" of the conduits during concrete encasement. Minimum support spacer installation interval along with length of conduits shall be not less than 8 feet.
- D. Conduits shall be separated from adjacent conduits of similar systems (100 volts and less) by a minimum of 2 inches; conduits for non-power systems (100 volts or less to ground)

- shall be separated by a minimum of 6 inches from power circuits (over 100 volts to ground).
- E. Conduits shall be separated from hot water piping, exhaust flues/chimneys and steam piping by a minimum of 12 inches.
  - F. PVC rigid-non-metallic-type schedule 40 conduit, of any size and any location shall be continuously concrete encased the full length of the conduit installation.
  - G. Direct burial of ducts and conduits shall not be permitted. Concrete for encasement of underground conduits shall be 3,000 PSI 28 days cure strength with a maximum of  $\frac{3}{4}$ " gravel. Concrete encasement of conduits shall be continuous without voids. The encasement shall extend 3-inches past the edges of all conduits on all sides of duct.
  - H. Cleanout conduits as work progresses and securely plug all open ends to prevent water, mud or debris from entering the duct.
  - I. Where ductbanks enter manholes they shall be centered as nearly as possible to the center between roof and floor and end walls.
  - J. Ducts entering manhole or handhole shall be placed at right angles to the short walls and shall be sealed.
  - K. Provide metallic elbows where conduits rise out of ground.
  - L. The use of 90-degree elbows or condulets (LB's) is not permitted.
  - M. Seal all conduits watertight prior to pour.
  - N. Provide bell ends at each conduit termination.
  - O. Clean and repair existing duct bank.
  - P. Install conduit and duct with a drain slope of  $\frac{1}{4}$ " per foot; if not possible due to inadequate natural slope or long duct runs, install drain slope of 3" per 100 feet. Slope conduit toward manholes and away from building entrances.
  - Q. Bends shall consist of a single arc of a minimum 12.5-foot radius; if 90-degree elbows are needed in the conduit run, a factory-made sweep of no less than 10 times the diameter of the 4" duct. No conduit run shall exceed a total of 180 degrees of bend between any two points, considering both vertical and horizontal sweeps. Under no condition shall the bend radius be less than ten (10) times the duct diameter. Bending conduit in the field using manual or mechanical methods is not acceptable; the distance of less than ten (10) feet between two 90-degree sweeps shall not be permitted.
  - R. When the bends in a section of duct exceeds 180 degrees, or when the length of the section of duct exceeds 600 feet, additional handholes shall be installed, whether or not shown on Contract drawings.
  - S. In extreme locations where ductbanks cannot be encased in concrete but pass under paved surfaces capable of supporting motor vehicle traffic, Contractor shall transition conduit to PVC coated rigid steel a minimum of 10' outside the footprint of the paved surface.
  - T. After installation of communications conduits and prior to the pouring concrete encasement, the Contractor shall pull a test mandrel with a diameter  $\frac{1}{4}$  inch smaller than the conduit and 6 inches long through each conduit end-to-end. County shall be notified at least 24 hours before this procedure. Do not pour concrete prior to inspection and signoff by County Inspector.
  - U. After the concrete encasement has cured, the Contractor again shall pull a test mandrel with a diameter  $\frac{1}{4}$  inch smaller than the conduit and 6 inches long through each conduit end-to-end. County shall be notified at least 24 hours before this procedure. Each conduit shall be cleaned with a bristle brush to remove any debris. After acceptance of the result by the County Inspector, backfill up to 24" above concrete encasement; install 6" wide metallic warning tape every 15 feet above conduits and ductbanks, request an inspection by County. Do backfill above the tape prior to inspection and signoff by County Inspector.

### 3.6 PULL ROPE

- A. Pull rope shall be placed as a single continuous length in every new duct section and be secured at each end.

### 3.7 PENETRATIONS

- A. Caulk and seal cable access penetrations in walls, ceilings and other parts of the building in accordance with California Building Code and as interpreted by authority having jurisdiction over this project. Seal openings around electrical penetrations through fire resistance-rated wall, partitions, floors, or ceilings in accordance with applicable code requirements.
- B. Copies of Underwriter Laboratories-listed firestopping assemblies shall be submitted to County for approval prior to installation of any materials

### 3.8 BONDING/GROUNDING

- A. Furnish and install grounding and bonding components in accordance with ANSI/TIA J-STD-607-A, IEEE C2, and NFPA 70. Non-current-carrying metal parts in manholes and handholes shall be connected to a ground rod with a No. 4/0 bare copper ground conductor and ground clamp.
- B. Bonding conductors shall be routed with a minimum number of bends; bonding connections shall utilize listed bolts, crimp pressure connectors, clamps, or lugs. Exothermic welding shall be used.
- C. Multiple bus bars shall be directly bonded together with a No. 4/0 copper conductor.
- D. Test grounding to ensure electrical continuity of bonding and grounding connections. Measure ground resistance at each ground rod and submit equipment printed test results to County.

### 3.9 VIDEO SCOPE INSPECTION

- A. County may direct Contractor to inspect any or all sections of ducts installed by Contractor; the cost will be borne by County. Any substandard conditions revealed by video scope inspection shall be corrected by Contractor with no additional cost to the County.

END OF SECTION

## SECTION 31 05 13

## SOILS FOR EARTHWORK

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Subsoil materials.
- B. Related Sections:
  - 1. Section 31 23 17 - Trenching.
  - 2. Section 31 23 23 - Fill.

## 1.2 UNIT PRICES - MEASUREMENT AND PAYMENT

- A. Subsoil:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes excavating existing subsoil, supplying subsoil materials, stockpiling.

## 1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
  - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
  - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 2. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
  - 3. ASTM D2487 - Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

## 1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Maintain one copy on site.

PART 2 – PRODUCTS

2.1 SOURCE QUALITY CONTROL

- A. Testing and Analysis of Subsoil Material: Perform in accordance with ASTM D698.
- B. When tests indicate materials do not meet specified requirements, change material and retest.

PART 3 – EXECUTION

3.1 EXCAVATION

- A. Excavate subsoil from areas designated.
- B. Stockpile excavated material meeting requirements for subsoil materials.
- C. Remove excess excavated materials - subsoil not intended for reuse, from site.
- D. Remove excavated materials not meeting requirements for subsoil materials from site.

3.2 STOCKPILING

- A. Stockpile materials on site at locations designated by Architect/Engineer.
- B. Stockpile in sufficient quantities to meet Project schedule and requirements.
- C. Separate differing materials with dividers or stockpile apart to prevent mixing.
- D. Prevent intermixing of soil types or contamination.
- E. Direct surface water away from stockpile site to prevent erosion or deterioration of materials.
- F. Stockpile unsuitable / hazardous materials on impervious material and cover to prevent erosion and leaching, until disposed of.

3.3 STOCKPILE CLEANUP

- A. Remove stockpile, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.
- B. When borrow area is indicated, leave area in clean and neat condition. Grade site surface to prevent free standing surface water.

END OF SECTION

## SECTION 31 23 16

## EXCAVATION

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Soil densification.
  - 2. Excavating for roads and parking areas.
  - 3. Excavating for slabs-on-grade.
  - 4. Excavating for site structures.
  
- B. Related Sections:
  - 1. Section 31 23 17 - Trenching: Trenching.
  - 2. Section 31 23 23 - Fill.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Excavating Soil Materials:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes general excavating to required elevations, loading and placing materials in stockpile. Over Excavating: Payment will not be made for over excavated work nor for replacement materials.

## 1.3 REFERENCES

- A. ASTM International:
  - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
  - 3. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
  
- B. Local utility standards when working within 24 inches of utility lines.

## 1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal Procedures.
  
- B. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.
  
- C. Shop Drawings: Indicate soil densification grid for each size and configuration footing requiring soils densification.

## 1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Maintain one copy of each document on site.

## PART 2 – EXECUTION

## 2.1 PREPARATION

- A. Call Local Utility Line Information (Dig Alert) service at 1.800.227.2600 not less than 2 working days before performing Work.
  - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum.
- C. Protect utilities indicated to remain from damage.
- D. Protect plant life, lawns, and other features remaining as portion of final landscaping.
- E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

## 2.2 EXCAVATION

- A. Underpin adjacent structures that may be damaged by excavation work.
- B. Excavate subsoil to accommodate building foundations, slabs-on-grade, paving, and site structures.
- C. Compact disturbed load bearing soil in direct contact with foundations to original bearing capacity; perform compaction in accordance with Section 31 23 23 and Section 31 23 17.
- D. Do not interfere with 45 degree bearing splay of foundations.
- E. Grade top perimeter of excavation to prevent surface water from draining into excavation.
- F. Trim excavation. Remove loose matter.
- G. Remove lumped subsoil, boulders, and rock greater than 6 inches. Remove larger material as specified in Section 31 23 23.
- H. Notify Architect/Engineer of unexpected subsurface conditions.
- I. Correct areas over excavated as directed by Architect/Engineer.
- J. Remove excess and unsuitable material from site.
- K. Repair or replace items indicated to remain damaged by excavation.

2.3 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Request visual inspection of bearing surfaces by inspection agency before installing subsequent work.

2.4 PROTECTION

- A. Prevent displacement or loose soil from falling into excavation; maintain soil stability.
- B. Protect structures, utilities and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth operations.

PART 3 – EXECUTION

Not Used.

END OF SECTION



SECTION 31 23 17

TRENCHING

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Covers:
  - 1. Excavating trenches for utilities from 2 feet outside building to utility service.
  - 2. Compacted fill from top of utility bedding to subgrade elevations.
  - 3. Backfilling and compaction.
  
- B. Related Sections:
  - 1. Section 31 05 13 - Soils for Earthwork: Soils for fill.
  - 2. Section 31 23 23 - Fill: Backfilling.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Trenching:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes excavating to required elevations, protecting excavation, and stockpiling excavated materials. Over Excavating: Payment is not made for over excavated work nor for replacement materials.
  
- B. Subsoil Fill:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- C. Structural Fill:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes furnishing fill material, stockpiling, shaping substrate surface, placing where required, and compacting.
  
- D. Granular Fill:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- E. Concrete Fill:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes furnishing materials, forming, mixing and placing where required, and curing.

1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
  - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

- B. ASTM International:
  1. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
  2. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  3. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
  4. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
  5. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
  6. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil Aggregate by Nuclear Methods (Shallow Depth).

1.4 DEFINITIONS

- A. Utility: Any buried pipe, duct, conduit, or cable.

1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal Procedures.
- B. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan, if applicable.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Maintain one copy of each document on site.

1.7 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.8 COORDINATION

- A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 – EXECUTION

2.1 LINES AND GRADES

- A. Lay pipes to lines and grades indicated on Drawings.
  1. Architect/Engineer reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.

- B. Use laser-beam instrument with qualified operator to establish lines and grades.

\*\*\*\*\* [OR] \*\*\*\*\*

- C. Maintain grade alignment of pipe using string line parallel with grade line and vertically above centerline of pipe.
1. Establish string line on level batter boards at intervals of not more than 25 feet.
  2. Install batter boards spanning trench, rigidly anchored to posts driven into ground on both sides of trench.
  3. Set three adjacent batter boards before laying pipe to verify grades and line.
  4. Determine elevation and position of string line from elevation and position of offset points or stakes located along pipe route.
  5. Do not locate pipe using side lines for line or grade.

## 2.2 PREPARATION

- A. Call Local Utility Line Information (Dig Alert) service at 1.800.227.2600 not less than 2 working days before performing Work.
1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum locations.
- C. Protect plant life, lawns, and other features remaining as portion of final landscaping.
- D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Maintain and protect above and below grade utilities indicated to remain.
- F. Establish temporary traffic control and detours when trenching is performed in public right-of-way. Relocate controls and reroute traffic as required during progress of Work. Follow provided Traffic Plans.

## 2.3 TRENCHING

- A. Excavate subsoil required for utilities.
- B. Remove lumped subsoil, boulders, and large rocks.
- C. Do not advance open trench more than 300 feet ahead of installed pipe.
- D. Cut trenches to width indicated on Drawings. Remove water or materials that interfere with Work.
- E. Excavate bottom of trenches maximum 2 feet wider than outside diameter of pipe.
- F. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and pipe.
- G. Do not interfere with 45 degree bearing splay of foundations.

- H. When Project conditions permit, slope side walls of excavation starting 3 feet above top of pipe. When side walls can not be sloped, provide sheeting and shoring to protect excavation as specified in this section.
- I. When subsurface materials at bottom of trench are loose or soft, excavate to greater depth as directed by Architect/Engineer until suitable material is encountered.
- J. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Native or Class II Base and compact to density equal to or greater than requirements for subsequent backfill material.
- K. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.
- L. Correct over excavated areas with compacted backfill as specified for authorized excavation or replace with fill concrete as directed by Architect/Engineer.
- M. Remove excess subsoil not intended for reuse, from site.

2.4 SHEETING AND SHORING

- A. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- B. Support trenches more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.
- C. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.
- D. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

2.5 BACKFILLING

- A. Backfill trenches to contours and elevations with fill materials.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, or spongy subgrade surfaces.
- C. Place fill material in continuous layers and compact in accordance with schedule at end of this section.
- D. Employ placement method that does not disturb or damage foundation perimeter drainage and / or utilities in trench.
- E. Maintain optimum moisture content of fill materials to attain required compaction density.
- F. Do not leave more than 50 feet of trench open at end of working day.

- G. Protect open trench to prevent danger to the public.

2.6 TOLERANCES

- A. Top Surface of Backfilling Under Paved Areas: Plus or minus 1 inch from required elevations.
- B. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.

2.7 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Perform laboratory material tests in accordance with ASTM D1557 AND AASHTO T180.
- C. Perform in place compaction tests in accordance with the following:
  - 1. Density Tests: ASTM D1556, ASTM D2167, or ASTM D6938.
  - 2. Moisture Tests: ASTM D6938.
- D. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.
- E. Frequency of Tests: Every 300 feet of trench.

2.8 PROTECTION OF FINISHED WORK

- A. Section 01 70 00 - Execution and Closeout Requirements: Protecting Installed Construction.
- B. Reshape and re-compact fills subjected to vehicular traffic during construction.

2.9 SCHEDULE

- A. Storm and Sanitary Piping:
  - 1. Cover pipe and bedding per drawings.
  - 2. Compact uniformly to minimum 95 percent of maximum density.
- B. Duct Bank:
  - 1. Cover duct and bedding per drawings.
  - 2. Compact uniformly to minimum 95 percent of maximum density.

PART 3 – EXECUTION

Not Used.

END OF SECTION

## SECTION 31 23 23

## FILL

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Backfilling building perimeter to subgrade elevations.
  - 2. Backfilling site structures to subgrade elevations.
  - 3. Fill under slabs-on-grade.
  - 4. Fill under paving.
  - 5. Fill for over-excavation.
  
- B. Related Sections:
  - 1. Section 03 30 00 - Cast-In-Place Concrete: Concrete materials.
  - 2. Section 31 23 16 - Excavation.
  - 3. Section 31 23 17 - Trenching: Backfilling of utility trenches.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Fill Type - Native Soil:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill materials, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- B. Fill Type - Sand (SE 30) and Class II Base:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- C. Concrete Fill:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill material, forming, mixing and placing where required, and curing.

## 1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
  - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
  
- B. ASTM International:
  - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 2. ASTM D1556 - Standard Test Method for Density of Soil in Place by the Sand-Cone Method.

- 3. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
- 4. ASTM D4253 - Standard Test Methods for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table.

PART 2 – PRODUCTS

2.1 FILL MATERIALS

- A. Fill: Type - Native Soil. Must remove all large rocks (6" and greater) and dirt must be clean of miscellaneous debris (wood, trash, construction debris, organic, and/or contaminants).
- B. Fill: Type - Sand (SE 30), and Class II Base in accordance with SSPWC Section 200 1.1 and Section 200 1.2.
- C. Concrete: as specified in Section 03 30 00 with compressive strength of 3,000 psi.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify subdrainage, installation has been inspected.
- B. Verify structural ability of unsupported walls to support loads imposed by fill.

3.2 PREPARATION

- A. Compact subgrade to density requirements for subsequent backfill materials.
- B. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Class II Base fill and compact to density equal to or greater than requirements for subsequent fill material.
- C. Scarify subgrade surface to depth of 4 inch.
- D. Proof roll to identify soft spots; fill and compact to density equal to or greater than requirements for subsequent fill material.

3.3 BACKFILLING

- A. Backfill areas to contours and elevations.
- B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, spongy subgrade surfaces.
- C. Place material in continuous layers as follows:
  - 1. Native Soil, Sand, and Class II Base Fill: Maximum 12 inches compacted depth.

- D. Employ placement method that does not disturb or damage other work.
- E. Maintain optimum moisture content of backfill materials to attain required compaction density.
- F. Backfill against supported foundation walls. Do not backfill against unsupported foundation walls.
- G. Backfill simultaneously on each side of unsupported foundation walls until supports are in place.
- H. Slope grade away from building minimum 2 inches in 10 ft, unless noted otherwise.
- I. Make gradual grade changes. Blend slope into level areas.
- J. Remove surplus backfill materials from site.
- K. Leave fill material stockpile areas free of excess fill materials.

3.4 TOLERANCES

- A. Top Surface of Backfilling Within Building Areas: Plus or minus 1 inch from required elevations.
- B. Top Surface of Backfilling Under Paved Areas: Plus or minus 1 inch from required elevations.
- C. Top Surface of General Backfilling: Plus or minus 1 inch from required elevations.

3.5 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Perform in place compaction tests in accordance with the following:
  - 1. Density Tests: ASTM D1556, ASTM D2167, or ASTM D6938.
  - 2. Moisture Tests: ASTM D6938.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- D. Frequency of Tests: Every 150' linear feet of trench, and around all Electrical Vaults.
- E. Proof roll compacted fill surfaces under slabs-on-grade, and paving,

3.6 PROTECTION OF FINISHED WORK

- A. Section 01 70 00 - Execution and Closeout Requirements: Protecting Installed Construction.
- B. Reshape and re-compact fills subjected to vehicular traffic.



## SECTION 32 11 23

## AGGREGATE BASE COURSES

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Aggregate base course.
- B. Related Sections:
  - 1. Section 31 23 17 - Trenching: Backfilling.
  - 2. Section 31 23 23 - Fill: Backfilling.
  - 3. Section 32 12 16 - Asphalt Paving: Asphalt Paving Mix.
  - 4. Section 32 13 13 - Concrete Paving: Finishing.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Coarse Aggregate Fill Type: Class II Base:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

## 1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
  - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- B. ASTM International:
  - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.
  - 3. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).

## 1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Maintain one copy of each document on site.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Coarse Aggregate Fill: Class II Base

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify substrate has been inspected, gradients and elevations are correct, and is dry.

3.2 PREPARATION

- A. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and re-compacting.
- B. Do not place fill on soft, muddy, or frozen surfaces.

3.3 AGGREGATE PLACEMENT

- A. Place aggregate in maximum 6 inch layers and compact to specified density.
- B. Level and contour surfaces to elevations and gradients indicated.
- C. Add small quantities of fine aggregate to coarse aggregate as appropriate to assist compaction.
- D. Maintain optimum moisture content of fill materials to attain required compaction density.
- E. Use mechanical tamping equipment in areas inaccessible to compaction equipment.

3.4 TOLERANCES

- A. Maximum Variation From Flat Surface: 1/4 inch measured with 10 foot straight edge.
- B. Maximum Variation From Thickness: 1/4 inch.
- C. Maximum Variation From Elevation: 1/2 inch.

3.5 FIELD QUALITY CONTROL

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Compaction testing will be performed in accordance with ASTM D1556.

- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- D. Frequency of Tests: Every 150 lineal feet of Conduit Trench.

3.6 SCHEDULES

- A. Under Asphalt Pavement:
  - 1. Compact placed aggregate materials uniformly to achieve minimum 95 percent of maximum density.
- B. Under Concrete Pavement:
  - 1. Compact placed aggregate materials uniformly to achieve minimum 95 percent of maximum density.

END OF SECTION

## SECTION 32 12 16

## ASPHALT PAVING

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Asphaltic concrete paving, wearing, binder and base course.
  - 2. Surface sealer.
  - 3. Aggregate subbase course.
  
- B. Related Sections:
  - 1. Section 31 23 23 - Fill: Backfilling.
  - 2. Section 32 11 23 - Aggregate Base Courses: Aggregate Placement.
  - 3. Section 32 17 23 – Pavement Markings.
  - 4. Section 33 71 19 – Electrical Underground Ducts and Manholes.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Aggregate Base Course:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- B. Asphalt Pavement Mix (Base Course):
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes preparing base, primer, tack coating surfaces, placing, compacting and rolling, testing. Includes mix design, supplying to site, testing.
  
- C. Asphalt Pavement Mix (Wearing Course):
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes primer, tack coating surfaces, placing, compacting and rolling, testing. Includes mix design, supplying to site, testing.
  
- D. Tack Coat:
  - 1. Basis of Measurement: By square yard.
  - 2. Basis of Payment: Includes preparing surfaces and applying.

## 1.3 REFERENCES

- A. Asphalt Institute:
  - 1. AI MS-2 - Mix Design Methods for Asphalt Concrete and Other Hot-Mix Types.
  - 2. AI MS-19 - Basic Asphalt Emulsion Manual.
  
- B. ASTM International:

1. ASTM D946 - Standard Specification for Penetration-Graded Asphalt Cement for Use in Pavement Construction.
2. ASTM D3381 - Standard Specification for Viscosity-Graded Asphalt Cement for Use in Pavement Construction.

1.4 PERFORMANCE REQUIREMENTS

- A. Paving: Designed for parking and main street arteries.

1.5 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal Procedures.
- B. Product Data: Submit product information and mix design.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Comply with "Standard Specifications" of State of California, Department of Transportation (CALTRANS) July 2002.
- C. Mixing Plant: Conform to Public Work's standard.
- D. Obtain materials from same source throughout.
- E. Maintain one copy of each document on site.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Product Storage and Handling Requirements.
- B. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F, or surface is wet.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Asphalt Cement: ASTM D946. In accordance with Public Work's standards.
- B. Aggregate for Base Course Mix: In accordance with Public Work's standards.
- C. Aggregate for Wearing Course Mix: In accordance with Public Work's standards.
- D. Tack Coat: Homogeneous, medium curing, liquid asphalt. In accordance with Public Works standards.

## 2.2 ASPHALT PAVING MIX

- A. Use dry material to avoid foaming. Mix uniformly.
- B. Base Course: Type B, 3/4-inch maximum, medium grading, Caltrans Standard Specification Section 39. Bitumen ratio shall be selected by the supplier in accordance with paragraph 39-2.02 of the Caltrans Standard Specifications. In accordance with Public Works standards.
- C. Wearing Course: In accordance with Public Works standards.
- D. Prime Coat: Liquid asphalt, Grade SC-70, Caltrans Standard Specification, Section 93 and in accordance with Public Works standards.
- E. Tack Coat and Seal Coat: Emulsified asphalt, Grade SS-1, Caltrans Standard Specifications, Section 94.

## 2.3 SOURCE QUALITY CONTROL AND TESTS

- A. Submit proposed mix design of each class of mix for review prior to beginning of Work.

## PART 3 – EXECUTION

## 3.1 EXAMINATION

- A. Verify compacted subgrade and that subbase is dry and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.
- C. Verify manhole frames are installed in correct position and elevation.

## 3.2 SUBBASE

- A. Prepare subbase in accordance with Public Work's standards.

## 3.3 PREPARATION - PRIMER

- A. Apply primer in accordance with Public Work's standards.
- B. Use clean sand to blot excess primer.

## 3.4 PREPARATION - TACK COAT

- A. Apply tack coat in accordance with Public Work's standards.
- B. Apply tack coat to contact surfaces of curbs and gutters.
- C. Coat surfaces of manhole frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

3.5 PLACING ASPHALT PAVEMENT - SINGLE COURSE

- A. Install Work in accordance with Public Work's standards.
- B. Place asphalt within 24 hours of applying primer or tack coat.
- C. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- D. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.

3.6 TOLERANCES

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Scheduled Compacted Thickness: Within 1/4 inch.
- C. Variation from Indicated Elevation: Within 1/2 inch.

3.7 PROTECTION OF FINISHED WORK

- A. Section 01 70 00 - Execution and Closeout Requirements: Protecting Installed Construction.
- B. Immediately after placement, protect pavement from mechanical injury for 24 hours or until surface temperature is less than 140 degrees F.

END OF SECTION

## SECTION 32 13 13

## CONCRETE PAVING

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Concrete sidewalks.
  - 2. Concrete curbs and gutters.
  - 3. Concrete parking areas and roads.
  - 4. Aggregate base course.
  
- B. Related Sections:
  - 1. Section 31 23 23 - Fill: Backfilling.
  - 2. Section 32 11 23 - Aggregate Base Courses.
  - 3. Section 32 12 16 - Asphalt Paving.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Aggregate Base Course:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes supplying fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.
  
- B. Concrete Pavement:
  - 1. Basis of Measurement: By cubic yard.
  - 2. Basis of Payment: Includes forms, reinforcement, concrete, accessories, placing, finishing, curing, and testing.

## 1.3 REFERENCES

- A. American Concrete Institute:
  - 1. ACI 301 - Specifications for Structural Concrete.
  - 2. ACI 304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
  
- B. ASTM International:
  - 1. ASTM C33 - Standard Specification for Concrete Aggregates.
  - 2. ASTM C94/C94M - Standard Specification for Ready-Mixed Concrete.
  - 3. ASTM C150 - Standard Specification for Portland Cement.

## 1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Requirements for submittals.
  
- B. Product Data: Submit data on admixtures.



1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301 and Section 03 30 00.
- B. Perform Work in accordance with Public Work's standard.
- C. Maintain one copy of each document on site.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Product Storage and Handling Requirements.
- B. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

PART 2 – PRODUCTS

2.1 FORM MATERIALS

- A. Form Materials: Conform to ACI 301.
- B. Joint Filler: ASTM D1751 - ½” thick.

2.2 REINFORCEMENT

- A. Reinforcing Steel: ASTM A615/A615M; 40 ksi yield grade; deformed billet steel bars; unfinished finish.
- B. Dowels: ASTM A615/A615M; 40 ksi yield grade, plain steel, unfinished finish.

2.3 CONCRETE MATERIALS

- A. Concrete Materials: As specified in Section 03 30 00. Provide in accordance with Public Work's standards.
- B. Fine and Coarse Mix Aggregates: ASTM C33.
- C. Water: Potable, not detrimental to concrete.

2.4 ACCESSORIES

- A. Membrane Curing Compound: ASTM C1315 Type I, Class A.

2.5 CONCRETE MIX - BY PERFORMANCE CRITERIA

- A. Mix and deliver concrete in accordance with ASTM C94/C94M, Option A.
- B. Select proportions for normal weight concrete in accordance with ACI 301 Method 1.

- C. Provide concrete to the following criteria:
  - 1. Compressive Strength: 2,500 psi at 28 days.
  - 2. Slump: 4 to 5 inches.
  - 3. Maximum Water/Cement Ratio: 0.55.
- D. Use accelerating admixtures in cold weather only when approved by the Architect/Engineer in writing. Use of admixtures will not relax cold weather placement requirements.
- E. Use calcium chloride only when approved by the Architect/Engineer in writing.
- F. Use set retarding admixtures during hot weather only when approved by the Architect/Engineer in writing.

### PART 3 – EXECUTION

#### 3.1 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
- B. Verify gradients and elevations of base are correct.

#### 3.2 SUBBASE

- A. Prepare subbase in accordance with Public Work's standards.

#### 3.3 PREPARATION

- A. Moisten base to minimize absorption of water from fresh concrete.
- B. Coat surfaces of manhole frames with oil to prevent bond with concrete pavement.

#### 3.4 FORMING

- A. Place and secure forms to correct location, dimension, profile, and gradient.
- B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.
- C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

#### 3.5 REINFORCEMENT

- A. Place reinforcement in accordance with Public Work's standards.
- B. Place reinforcement as indicated.
- C. Place dowels to achieve pavement and curb alignment as detailed.

**3.6 PLACING CONCRETE**

- A. Place concrete in accordance with Public Work's standards.
- B. Ensure reinforcement, inserts, embedded parts, formed joints are not disturbed during concrete placement.
- C. Place concrete continuously over the full width of the panel and between predetermined construction joints. Do not break or interrupt successive pours such that cold joints occur.

**3.7 JOINTS**

- A. Place joints at 15 foot intervals. Align curb, gutter, and sidewalk joints.
- B. Provide scored joints at 5 feet intervals between sidewalks and curbs, and between curbs and pavement.

**3.8 FINISHING**

- A. Sidewalk Paving: Light broom.
- B. Curbs and Gutters: Light broom.
- C. Direction of Texturing: Transverse to pavement direction.
- D. Place curing compound on exposed concrete surfaces immediately after finishing.

**3.9 JOINT SEALING**

- A. Separate pavement from vertical surfaces with ½" inch thick joint filler.

**3.10 TOLERANCES**

- A. Maximum Variation of Surface Flatness: 1/4 inch in 10 ft.
- B. Maximum Variation From True Position: 1/4 inch.

**3.11 FIELD QUALITY CONTROL**

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.
- B. Testing firm will take cylinders and perform slump tests in accordance with ACI 301.
- C. One additional test cylinder will be taken during cold weather and cured on site under same conditions as concrete it represents.
- D. One slump test will be taken for each set of test cylinders taken.

- E. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.12 PROTECTION

- A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Do not permit pedestrian vehicular traffic over pavement for 3 days minimum after finishing.

3.13 SCHEDULES

- A. Concrete Sidewalks and Median Barrier: 3,000 psi 28 day concrete, 4 inches thick, buff color Portland cement.
- B. V-Gutters: 2,500 psi 28 day concrete, buff color Portland cement.
- C. Parking Area Pavement: 4,000 psi 28 day concrete, 5 inches thick, 6/6 - 6 x 6 inch mesh reinforcement, wood float finish.

END OF SECTION

SECTION 32 17 23  
PAVEMENT MARKINGS

PART 1 – GENERAL

1.1 SUMMARY

- A. Description: Orange Street is to be repaved at a later date, by another contractor under separate contract sometime after the fulfillment of this contract. As part of this contract, the Contractor will restore any portion of the street that was damaged during construction per the plans and specifications. Any striping disturbed in association with this contract shall be restored to its original condition and purpose. The Contractor shall replace any damaged or missing striping. New striping will be considered temporary and therefore paint may be substituted in areas where Thermoplastic may have otherwise been called out. Paint may be utilized for temporary pavement delineation. Said temporary pavement delineation must match the alignment, spacing, color, and paint requirements of the permanent paint. This work shall consist of applying painted traffic stripes, (traffic lines) and pavement markings at all locations that were damaged, or removed, as a result of construction associated with this contract, including all parking stalls.
- B. Conformance: Striping and pavement markings shall conform to the provisions of Section 210, "Paint and Protective Coating", and 310-5.6 "Painting Traffic Striping, Pavement Markings and Curb Markings" of the Standard Specifications for Public Works Construction, 2006 Edition.
- C. One-Way Street: Orange Street between 10<sup>th</sup> and 11<sup>th</sup> is a one-way street.

PART 2 – PRODUCTS

2.1 DESCRIPTION

- A. Striping: This work shall consist of furnishing and applying painted traffic stripes and pavement markings.

2.2 MATERIALS

- A. Reference: Specifications for painted materials may be found in the Standard Specifications For Public Works Construction, Sections 210 and 310.
- B. No thermoplastic: Paint may be used as a temporary substitute for thermoplastic.

PART 3 – EXECUTION

3.1 APPLICATION

- A. General: Contractor shall provide all labor, material, and appurtenances necessary to complete the signing and striping per the plans and specifications.

- B. **Markers:** Existing pavement markers which are damaged during construction shall be removed and replaced by the Contractor at the Contractor's expense.
- C. **Through Traffic:** There must be a least one lane available at all times for through vehicle traffic.
- D. **Alignment:** All work necessary to establish satisfactory alignment for stripes and all layout work required for pavement markings shall be performed by the Contractor with any device or method that will not damage the pavement nor conflict with other traffic control devices.
- E. **Temporary Delineation:** Temporary pavement delineation, including but not limited to raised flexible reflective tabs and/or reflective adhesion tape, shall be installed and maintained by the Contractor during or between construction stages and operations for the purpose of providing traffic control and public safety as described in the Standard Specifications and/or these Special Provisions. Installation and maintenance of all temporary pavement delineation shall not be considered as "extra work". Payment for temporary pavement delineation shall be considered as included in the Contract price(s) paid for the other Contract items unless specifically identified as a separate Contract item.
- F. **Extra Work:** Temporary and/or permanent pavement delineation performed by the Contractor at the direction of Engineer or Director of Transportation for reasons or circumstances beyond the Contractor's control (excluding weather related construction delays) shall be considered as "extra work".
- G. **Reflective Tape:** When using raised flexible reflective tabs or reflective adhesion tape for temporary pavement delineation along the direction of travel (longitudinal lines), temporary stripes shall be placed on the pavement surface at a 6 inch or 12 inch offset left of the proposed permanent pavement stripe.
- H. **Temporary Lane Delineation:** When reflective adhesive tape is used for lane delineation, a minimum of 3-foot strip of tape shall be placed at 12-foot intervals (gaps) regardless of the posted speed for the zone requiring temporary striping. When raised reflective tabs are used for lane delineation, the tab spacing shall not exceed 24 feet. Raised flexible reflective tabs shall not be utilized for limit lines (stop bars) or crosswalks.

### 3.2 TOLERANCES AND APPEARANCE

- A. **Edges:** Completed traffic stripes shall have clean and well-defined edges without running or deformation, shall be uniform, shall be straight on tangent alignment and shall be on a true arc on curved alignment. The widths of completed traffic stripes shall not deviate more than 1/4 inch on tangent nor more than 1/2 inch on curves from the widths shown on the plans. The completed pavement markings shall have clean and well-defined edges without running or deformation and shall conform to the dimensions shown on the plans, except that minor variations may be accepted by the Engineer.
- B. **Broken Traffic Stripes:** The lengths of the gaps and individual stripes that form broken traffic stripes shall not deviate more than 2 inches from the lengths shown on the plans.

The lengths of the gaps and individual stripes shall be of such uniformity throughout the entire length of each broken traffic stripe that a normal striping machine will be able to repeat the pattern and superimpose additional stripes upon the traffic stripe being applied.

- C. Clean Up: Drips, overspray, improper markings and paint material tracked by traffic shall be immediately removed from the pavement surface by methods approved by the City Engineer. All this removal work shall be at the Contractor's expense.

### 3.3 PROTECTION FROM DAMAGE

- A. Protection: The Contractor shall take special care to protect existing reflective pavement markers and shall, at the Contractor's expense, replace all reflective pavement markers damaged or removed during construction.
- B. Drying Time: Newly placed traffic stripes and pavement markings shall be protected from damage by public traffic or other causes until the paint has thoroughly dried.

### 3.4 ADDITIONAL SIGNS

- A. Additional Signs: The Contractor shall be responsible for the installation of additional signs and markings not included in the signing and striping plan within the project areas, or on roadways adjacent to the project boundaries, upon request of the Director of Transportation or his designee to improve traffic safety on the roads under the jurisdiction of the City. Additional signage shall be paid for by the City.

### 3.5 MEASUREMENT AND PAYMENT

- A. Quantity Measurements: Quantity of traffic striping and marking shall be measured by linear foot, square feet, or lump sum item complete in place. Single 4" and 8" stripes shall be measured by the linear foot. Double 4" stripes shall be measured by the linear foot and shall include both stripes. Marking installation shall be measured by the square foot.
- B. Contractor Convenience: Temporary pavement painting for the convenience of the Contractor, including costs for sandblasting of existing lines and markings, shall be at the Contractor's expense.
- C. Unit Pricing: Payment for striping and pavement marking installation shall be made at the respective contract unit prices and shall include furnishing all labor, material, tools, equipment, traffic control, and incidentals necessary to apply the striping and pavement markings as shown on the plans and/or as directed by the Engineer.

END OF SECTION

SECTION 33 01 31

MANHOLE GRADE ADJUSTMENT

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Covers:
  - 1. Raising manhole frames and covers.
  - 2. Replacing manhole frames and covers.
- B. Related Sections:
  - 1. Section 32 12 16 - Asphalt Paving.

1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Raising Manhole Frames and Covers:
  - 1. Basis of Measurement: By each.
  - 2. Basis of Payment: Includes removal and reinstalling manhole frame and cover, manhole rings and joint sealant.
- B. Repairing Manhole Frames and Covers:
  - 1. Basis of Measurement: By each.
  - 2. Basis of Payment: Includes removal of old frame and cover, installing new frame and cover, and joint sealant.

1.3 REFERENCES

- A. ASTM International:
  - 1. ASTM A48/A48M - Standard Specification for Gray Iron Castings.
  - 2. ASTM C531 -Standard Test Method for Linear Shrinkage and Coefficient of Thermal Expansion of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes.
  - 3. ASTM C642 - Standard Test Method for Density, Absorption, and Voids in Hardened Concrete.
  - 4. ASTM C990 - Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants.
  - 5. ASTM F593 - Standard Specification for Stainless Steel Bolts, Hex Cap Screws, and Studs.
  - 6. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.

1.4 SUBMITTALS

- A. Section 01 33 00 - Submittal Procedures: Submittal Procedures.



- B. Product Data: Submit manhole covers and riser rings construction, features, configuration, and dimensions.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 CLOSEOUT SUBMITTALS

- A. Section 01 70 00 - Execution and Closeout Requirements: Closeout Procedures.
- B. Project Record Documents: Record actual grade adjustment elevation of manhole.

1.6 QUALITY ASSURANCE

- A. Perform Work in accordance with Public Work's standard.
- B. Maintain one copy of each document on site.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product Delivery Requirements & Product Storage and Handling Requirements.
- B. Accept materials on site in undamaged, unopened container, bearing manufacturer's original labels. Inspect for damage.
- C. Protect materials from damage by storage in secure location.

1.8 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

PART 2 – PRODUCTS

2.1 MANHOLE FRAMES AND COVERS

- A. Manhole Frame and Cover Manufacturers:
  - 1. Obtain through Utility Vault (Electrical Vault Supplier)
  - 2. Or Approved Equal.
  - 3. Substitutions: Section 01 60 00 - Product Requirements.
- B. Furnish materials in accordance with Public Work's standards.
- C. Product Description: ASTM A48/A48M, Class 30B Cast iron construction, machined flat bearing surface, removable bolted lid, closed; Traffic Rated load rating; sealing gasket; cover molded with identifying "RIV CO" name.

2.2 RISER RINGS

A. Manufacturers:

1. Obtain through Utility Vault (Electrical Vault Supplier)
2. Or Approved Equal.

2.3 PAVING RESTORATION

- A. Restore bituminous paving areas in accordance with Section 32 12 16.

PART 3 – EXECUTION

Not Used.

END OF SECTION

## SECTION 33 05 24

## UTILITY HORIZONTAL DIRECTIONAL DRILLING

## PART 1 – GENERAL

## 1.1 SUMMARY

- A. Section Covers:
  - 1. Excavation for approach trenches and pits.
  - 2. Horizontal directional drilling.
  - 3. Pipe.
  
- B. Related Sections:
  - 1. Section 03 30 00 - Cast-In-Place Concrete.
  - 2. Section 31 23 16 - Excavation.
  - 3. Section 31 23 17 - Trenching.
  - 4. Section 31 23 23 - Fill.
  - 5. Section 33 71 19 – Electrical Underground Ducts and Manholes.

## 1.2 UNIT PRICE - MEASUREMENT AND PAYMENT

- A. Horizontal Directional Drilling:
  - 1. Basis of Measurement: By linear foot.
  - 2. Basis of Payment: Includes excavation, drilling, pipe, conduit, accessories, tests, and backfill.

## 1.3 REFERENCES

- A. American Association of State Highway and Transportation Officials:
  - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
  
- B. ASTM International:
  - 1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft<sup>3</sup> (600 kN-m/m<sup>3</sup>)).
  - 2. ASTM D1557 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft<sup>3</sup> (2,700 kN-m/m<sup>3</sup>)).
  - 3. ASTM D6938 - Standard Test Method for In-Place Density and Water Content of Soil and Soil Aggregate by Nuclear Methods (Shallow Depth).
  - 4. ASTM F1962 - Standard Guide for Use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit Under Obstacles, Including River Crossings.
  
- C. National Utility Contractors Association:
  - 1. NUCA - HDD Installation Guidelines.

1.4 DESIGN REQUIREMENTS

A. Design Criteria:

1. Drilling Steering System: Remote with continuous electronic monitoring of boring depth and location.
2. Maximum distance for single bores and between boring pits:

Pipe Size	Boring Distance
1 to 1-1/2 inches	400 feet
2 to 2-1/2 inches	350 feet
3 to 6 inches	300 feet

3. Ratio of Reaming Diameter to Pipe Outside Diameter:

- a. Nominal Pipe Diameter of 6 Inches and smaller: 1.5 maximum.
- b. Nominal pipe diameter larger than 6 Inches: Submit recommended ratio and reaming procedures for review.

1.5 SUBMITTALS

A. Section 01 33 00 - Submittal Procedures: Submittal Procedures.

B. Shop Drawings:

1. Submit technical data for equipment, method of installation, and proposed sequence of construction.
2. Include information pertaining to pits, dewatering, method of spoils removal, equipment size and capacity, equipment capabilities including installing pipe on radius, type of drill bit, drilling fluid, method of monitoring line and grade and detection of surface movement, name plate data for drilling equipment and mobile spoils removal unit.

C. Product Data:

1. Identify source of water used for drilling.
2. Submit copy of approvals and permits for use of water source.

1.6 CLOSEOUT SUBMITTALS

A. Section 01 70 00 - Execution and Closeout Requirements: Closeout Procedures.

B. Project Record Documents: Record actual locations of pipe and invert elevations.

C. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

D. Record actual depth of pipe at 25 feet intervals.

E. Record actual horizontal location of installed pipe.

- F. Show depth and location of abandoned bores.

#### 1.7 QUALITY ASSURANCE

- A. Perform work in accordance with the following:
  - 1. NUCA HDD Installation Guidelines.
  - 2. ASTM F1962.
- B. Perform Work in accordance with Public Work's standard.
- C. Maintain one copy of each document on site.

#### 1.8 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

#### 1.9 DELIVERY, STORAGE, AND HANDLING

- A. Section 01 60 00 - Product Requirements: Product Delivery Requirements & Product Storage and Handling Requirements.
- B. Provide temporary end caps and closures on piping and fittings until pipe is installed.
- C. Protect pipe from entry of foreign materials and water by temporary covers, completing sections of work, and isolating parts of completed system.
- D. Accept products on site in manufacturer's original containers or configuration. Inspect for damage.
- E. Use shipping braces between layers of stacked pipe. Stack piping lengths no more than 3 layers high.
- F. Store field joint materials indoors in dry area in original shipping containers. Maintain storage temperature of 60 to 85 degrees F.
- G. Support pipes with nylon slings during handling.

#### 1.10 ENVIRONMENTAL REQUIREMENTS

- A. Section 01 60 00 - Product Requirements: Product Storage and Handling Requirements.
- B. Conduct operations so as not to interfere with, interrupt, damage, destroy, or endanger integrity of surface or subsurface structures or utilities, and landscape in immediate or adjacent areas.

#### 1.11 COORDINATION

- A. Coordinate work with Public Works, utilities within construction area, and County of Riverside.

PART 2 – PRODUCTS

2.1 DRILLING FLUID

- A. Drilling Fluid: Liquid bentonite clay slurry; totally inert with no environmental risk.

2.2 PIPE

- A. Type:
  1. Conductor Casing: Carbon Steel Schedule 10.
  2. Substitutions: Section 01 60 00 - Product Requirements.

\*\*\*\*\* [OR] \*\*\*\*\*

- B. Furnish materials in accordance with Public Work's standards.
- C. Electrical Conduit: Rigid Non-Metallic Schedule 40 PVC coated electrical conduit. Must meet or exceed NEMA TC 6 requirements. Trade size #4 (OD 114.30mm – ID 102.26mm).

2.3 FILL MATERIALS

- A. Subsoil Fill: Excavated and reused soil with no rocks over 6 inches in diameter or foreign matter.

2.4 WATER SOURCE

- A. Water: Potable, obtained from City of Riverside.

2.5 UNDERGROUND PIPE MARKERS

- A. Trace Wire: Electronic detection materials for non-conductive piping products.
  1. Unshielded 10 gauge copper wire.
  2. Conductive tape.

PART 3 – EXECUTION

3.1 EXAMINATION

- A. Verify connection to existing area size, location, and invert elevations are in accordance with Drawings.

3.2 PREPARATION

- A. Call Local Utility Line Information (Dig Alert) service at 1.800.227.2600 not less than 2 working days before performing Work.
  1. Request underground utilities to be located and marked within and surrounding construction areas.

- B. Locate, identify, and protect utilities indicated to remain from damage.
- C. Identify required lines, levels, contours, and datum locations.
- D. Protect plant life, lawns, and other features remaining as portion of final landscaping.
- E. Protect bench marks, survey control points, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- F. Establish pipe elevations with not less than 3 feet of cover.
- G. Establish minimum separation between conductor casing and other services as specified on the drawings.

### 3.3 DEWATERING

- A. Intercept and divert surface drainage, precipitation, and groundwater away from excavation through use of dikes, curb walls, ditches, pipes, sumps or other means.
- B. Develop and maintain substantially dry subgrade during drilling and pipe installation.
- C. Comply with Public Work's requirements for discharging water.

### 3.4 EXISTING WORK

- A. Maintain access to existing facilities, and services indicated to remain.

### 3.5 EXCAVATION

- A. Excavate subsoil as specified in Section 31 23 16.
- B. Excavate approach trenches and pits as site conditions require. Minimize number of access pits.
- C. Provide sump areas to contain drilling fluids.
- D. Install excavation supports as specified in Section 31 23 16.
- E. Restore areas after completion of drilling and carrier pipe installation.

### 3.6 DRILLING

- A. Drill pilot bore with vertical and horizontal alignment as indicated on Drawings.
- B. Guide drill remotely from ground surface to maintain alignment by monitoring signals transmitted from drill bit.
  - 1. Monitor depth, pitch, and position.
  - 2. Adjust drill head orientation to maintain correct alignment.

- C. Inject drilling fluid into bore to stabilize hole, remove cuttings, and lubricate drill bit and pipe.
- D. Continuously monitor drilling fluid pumping rate, pressure, viscosity, and density while drilling pilot bore, back reaming, and installing pipe to ensure adequate removal of soil cuttings and stabilization of bore.
  - 1. Provide relief holes when required to relieve excess pressure.
  - 2. Minimize heaving during pullback.
- E. Calibrate and verify electronic monitor accuracy during first 50 feet of bore in presence of Architect/Engineer before proceeding with other drilling. Excavate minimum of four test pits spaced along first 50 feet bore to verify required accuracy. When required accuracy is not met, adjust equipment or provide new equipment capable of meeting required accuracy.
- F. After completing pilot bore, remove drill bit.

### 3.7 DRILLING OBSTRUCTIONS

- A. When obstructions are encountered during drilling, notify Architect/Engineer immediately. Do not proceed around obstruction without Architect/Engineer's approval.
- B. For conditions requiring more than 3 feet deviation in horizontal alignment, submit new shop drawings to Architect/Engineer for approval before resuming work.
- C. Maintain adjusted bore alignment within easement or right-of-way.

### 3.8 PIPE INSTALLATION

- A. After completing pilot bore, remove drill bit. Install reamer and pipe pulling head.
  - 1. Select reamer with minimum bore diameter required for pipe installation.
- B. Attach pipe to pipe pulling head. Pull reamer and pipe to entry pit along pilot bore.
- C. Inject drilling fluid through reamer to stabilize bore and lubricate pipe.
- D. Install piping with horizontal and vertical alignment as shown on Drawings. Protect and support pipe being pulled into bore so pipe moves freely and is not damaged during installation.
- E. Do not exceed pipe manufacturer's recommended pullback forces.
- F. Install trace wire continuous with each bore. Splice trace wire only at intermediate bore pits. Tape or insulate trace wire to prevent corrosion and maintain integrity of pipe detection.
  - 1. Terminate trace wire for each pipe run at structures along pipe system.
  - 2. Provide extra length of trace wire at each structure, so trace wire can be pulled 3 feet out top of structure for connection to detection equipment.
  - 3. Test trace wire for continuity for each bore before acceptance.



**3.9 SLURRY REMOVAL AND DISPOSAL**

- A. Contain excess drilling fluids at entry and exit points until recycled or removed from site. Provide recovery system to remove drilling spoils from access pits.
- B. Remove, transport and legally dispose of drilling spoils.
  - 1. Do not discharge drilling spoils in sanitary sewers, storm sewers, or other drainage systems.
  - 2. When drilling in suspected contaminated soil, test drilling fluid for contamination before disposal.
- C. When drilling fluid leaks to surface, immediately contain leak and barricade area from vehicular and pedestrian travel before resuming drilling operations.
- D. Complete cleanup of drilling fluid at end of each work day.

**3.10 BACKFILL**

- A. Install backfill as specified in Section 31 23 23.
- B. Backfill approach trenches and pits with subsoil fill to contours and elevations as indicated on Drawings.
- C. Compact subsoil fill as specified in Section 31 23 23 to minimum 95 percent of maximum density.

**3.11 ERECTION TOLERANCES**

- A. Maximum Variation From Horizontal Position: 12 inches.
- B. Maximum Variation From Vertical Elevation: 2 inches.
- C. Minimum Horizontal and Vertical Clearance From Other Utilities: 12 inches.
- D. When pipe installation deviates beyond specified tolerances, abandon bore, remove installed pipe, re-bore, and reinstall pipe in correct alignment.
- E. Fill abandoned bores greater than 3 inches in diameter with grout or flowable fill material.

**3.12 FIELD QUALITY CONTROL**

- A. Section 01 70 00 - Execution and Closeout Requirements: Field inspecting, testing, adjusting, and balancing.

**3.13 MANUFACTURER'S FIELD SERVICES**

- A. Furnish services of manufacturer's field representative experienced in installation of drilling equipment and products furnished under this specification for not less than 14

man-days on-site for installation, inspection and field testing, and instructing Owner's personnel in the use and maintenance of drilling equipment.

- B. Certify that equipment for drilling has been properly set-up and is ready for drilling.

3.14 CLEANING

- A. Upon completion of drilling and pipe installation, remove drilling spoils, debris, and unacceptable material from approach trenches and pits. Clean up excess slurry from ground.
- B. Restore approach trenches and pits to original condition.
- C. Remove temporary facilities for drilling operations.

END OF SECTION



OFFICE OF  
CLERK OF THE BOARD OF SUPERVISORS  
1st FLOOR, COUNTY ADMINISTRATIVE CENTER  
P.O. BOX 1147, 4080 LEMON STREET  
RIVERSIDE, CA 92502-1147  
PHONE: (951) 955-1060  
FAX: (951) 955-1071

KECIA HARPER-IHEM  
Clerk of the Board of Supervisors

KIMBERLY A. RECTOR  
Assistant Clerk of the Board

January 20, 2011

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RIVERSIDE, CA 92501

FAX (951) 368-9018  
E-MAIL: [legals@pe.com](mailto:legals@pe.com)

**RE: NOTICE INVITING BIDS: DOWNTOWN VOICE & DATA RE-ROUTE**

To Whom It May Concern:

Attached is a copy for publication in your newspaper for **TWO (2) TIMES:**  
**Mondays, January 24 and January 31, 2011.**

We require your affidavit of publication immediately upon completion of the last publication.

Your invoice must be submitted to this office in duplicate, WITH TWO CLIPPINGS OF THE PUBLICATION.

**NOTE: PLEASE COMPOSE THIS PUBLICATION INTO A SINGLE COLUMN FORMAT.**

Thank you in advance for your assistance and expertise.

Sincerely,

*McGil*

Cecilia Gil, Board Assistant to  
KECIA HARPER-IHEM, CLERK OF THE BOARD

**Gil, Cecilia**

---

**From:** PE Legals [legals@pe.com]  
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**To:** Gil, Cecilia  
**Subject:** RE: FOR PUBLICATION: Downtown Voice & Data Re-route project

Received for publication on Jan. 24 & 31

Thank You!

**enterprisemedia**

Publisher of the Press-Enterprise

Maria G. Tinajero • Legal Advertising Department  
1-800-880-0345 • Fax: 951-368-9018 • email: [legals@pe.com](mailto:legals@pe.com)

Please Note: Deadline is 10:30 AM two (2) business days prior to the date you would like to publish.  
\*\*Additional days required for larger ad sizes\*\*

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**From:** Gil, Cecilia [mailto:[CCGIL@rcbos.org](mailto:CCGIL@rcbos.org)]  
**Sent:** Thursday, January 20, 2011 11:53 AM  
**To:** PE Legals  
**Subject:** FOR PUBLICATION: Downtown Voice & Data Re-route project

Here's the one I asked for some space for...a Notice Inviting Bids, for publication on **2 Mondays: Jan. 24 and Jan. 31, 2011**. Please confirm. THANK YOU!

*Cecilia Gil*

Board Assistant to the  
Clerk of the Board of Supervisors  
951-955-8464

**THE COUNTY ADMINISTRATIVE CENTER IS CLOSED EVERY FRIDAY UNTIL FURTHER NOTICE.  
PLEASE CONSIDER THE ENVIRONMENT BEFORE PRINTING.**

## NOTICE INVITING BIDS

COUNTY OF RIVERSIDE, herein called Owner, invites sealed proposals for:

### **Downtown Voice and Data Re-Route Project - Orange and 10<sup>th</sup> Street**

This Project involves installing new communication infrastructure in Downtown Riverside for the Riverside County Information Technology (RCIT) Department. A new communications vault and concrete encased conduits will be installed in Orange Street south of and within the intersection with 10<sup>th</sup> Street. All installation and termination of wires will be the responsibility of RCIT. Installation includes intercepting and connecting to existing conduits on 10<sup>th</sup> Street, and connecting to existing stubs on Orange Street.

Proposals shall be delivered to the Clerk of the Board of Supervisors, on the 1st floor of the County Administrative Center located at 4080 Lemon Street, Riverside, CA 92501 no later than **10:00 am on Monday, February 14<sup>th</sup> 2011** and will be promptly opened in public at said address.

Each Proposal shall be in accordance with the Plans, Specifications, and other Contract Documents and prepared by the Economic Development Agency, County of Riverside. A nonrefundable fee of (\$65.00) will be charged for each set of Plans and Specifications furnished to Contractors. An additional nonrefundable fee will be charged for each set of Plans and Specifications furnished that are requested to be mailed to Contractors. Plans and Specifications may be obtained from Mission Reprographics, 2050E. La Cadena Drive Suite L Riverside, CA 92507, 951-686-8828.

Pursuant to the Labor Code, the Governing Board of the Owner has obtained from the Director of the Department of Industrial Relations, State of California, his determination of general prevailing rates of per diem wages applicable to the work, and for holiday and overtime work, including employer payments for health and welfare, pension, vacation, and similar purposes, as set forth on the schedule which is on file at the principal office of the Owner, and which will be made available to any interested person upon request.

The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification of either; A – General Engineering Contractor, or B – General Building Contractor. A mandatory pre-bid job walk inspection will be held on February 7<sup>th</sup>, 2011 at 10:00a.m., meeting at the North East corner of the intersection of Orange and 10<sup>th</sup> Streets, in Riverside California. No bids will be accepted from bidders who have not attended the pre-bid job walk.

For further information, contact Dennis Downs at the Economic Development Agency, located at 3403 10<sup>th</sup> Street, Suite 400, Riverside, CA 92501 whose telephone number is (951) 955-0391.

Dated: January 20, 2011

Kecia Harper-Ihem, Clerk of the Board  
By: Cecilia Gil, Board Assistant

**enterprise media**

# Legal Advertising Invoice

THE PRESS-ENTERPRISE 

THE BUSINESS PRESS 



① BILLING PERIOD 01/30/11 - 01/31/11 | ② ADVERTISING/CLIENT NAME BOARD OF SUPERVISORS  
 ⑤ BILLING DATE 01/31/11 | FOR BILLING INFORMATION CALL (951) 368-9713 | ④ PAGE NO 1  
 ③ TOTAL AMOUNT DUE 392.50 | \* UNAPPLIED AMOUNT | ⑦ TERMS OF PAYMENT Due Upon Receipt

⑨ REMITTANCE ADDRESS  
 POST OFFICE BOX 12009  
 RIVERSIDE, CA 92502-2209

⑩ BILLED ACCOUNT NAME AND ADDRESS  
 BOARD OF SUPERVISORS  
 COUNTY OF RIVERSIDE  
 P.O. BOX 1147  
 RIVERSIDE CA 92502

⑥ BILLED ACCOUNT NUMBER 045202 | REP NO LE04

Statement #: 56580137 Amount Paid \$ \_\_\_\_\_ Your Check # \_\_\_\_\_

**PLEASE DETACH AND RETURN UPPER PORTION WITH YOUR REMITTANCE**

⑩ DATE	⑪ REFERENCE	⑫ ⑬ ⑭ DESCRIPTION-OTHER COMMENTS/CHARGES	⑮ SAU SIZE ⑯ BILLED UNITS	⑰ RATE	⑱ GROSS AMOUNT	⑲ NET AMOUNT
01/24	4266443 CO	DOWNTOWN VOICE AND DATE RE ROU Class : 10 Ctext Ad# 10532562 Placed By : Cecilia Gil	157 L	1.30		204.10
01/31	4266443 CO	DOWNTOWN VOICE AND DATE RE ROU Class : 10 Ctext Ad# 10532562 Placed By : Cecilia Gil	157 L	1.20		188.40

*EDA*  
*3.43 of*  
*09/28/10*

RECEIVED RIVERSIDE COUNTY  
 CLERK / BOARD OF SUPERVISORS  
 2011 FEB -7 PM 3:30

① CURRENT NET AMOUNT DUE	② 30 DAYS	60 DAYS	OVER 90 DAYS	* UNAPPLIED AMOUNT	⑳ PLEASE PAY THIS AMOUNT
					392.50

**enterprise media**  
 THE PRESS-ENTERPRISE   
 P.O. BOX 12009  
 RIVERSIDE, CA 92502-2209  
 FAX (951) 368-9026

**ADVERTISING STATEMENT/INVOICE**  \* UNAPPLIED AMOUNTS ARE INCLUDED IN TOTAL AMOUNT DUE

②① STATEMENT NUMBER	②② BILLING PERIOD	②③ BILLED ACCOUNT NUMBER	②④ ADVERTISER/CLIENT NUMBER	②⑤ ADVERTISER/CLIENT NAME
56580137	01/30/11 - 01/31/11	045202		BOARD OF SUPERVISORS

# THE PRESS-ENTERPRISE

3450 Fourteenth Street  
Riverside CA 92501-3878  
951-684-1200  
951-368-9018 FAX

**PROOF OF PUBLICATION  
(2010, 2015.5 C.C.P.)**

Press-Enterprise

PROOF OF PUBLICATION OF

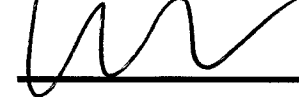
Ad Desc.: Downtown Voice and Date Re Route

I am a citizen of the United States. I am over the age of eighteen years and not a party to or interested in the above entitled matter. I am an authorized representative of THE PRESS-ENTERPRISE, a newspaper of general circulation, printed and published daily in the County of Riverside, and which newspaper has been adjudicated a newspaper of general circulation by the Superior Court of the County of Riverside, State of California, under date of April 25, 1952, Case Number 54446, under date of March 29, 1957, Case Number 65673 and under date of August 25, 1995, Case Number 267864; that the notice, of which the annexed is a printed copy, has been published in said newspaper in accordance with the instructions of the person(s) requesting publication, and not in any supplement thereof on the following dates, to wit:

01-24-11  
01-31-11

I Certify (or declare) under penalty of perjury that the foregoing is true and correct.

Date: Jan. 31, 2011  
At: Riverside, California



BOARD OF SUPERVISORS  
P.O. BOX 1147  
COUNTY OF RIVERSIDE  
RIVERSIDE CA 92502

Ad #: 10532562

PO #:

Agency #: \_\_\_\_\_

Ad Copy:

## NOTICE INVITING BIDS

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### Downtown Voice and Data Re-Route Project - Orange and 10th Street

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The Contract General Conditions for this project will contain provisions allowing successful contractor to substitute securities for monies withheld by the County to ensure performance (Public Contract Code 22300).

A Performance Bond and Payment Bond shall be required for this Project.

The Contractor will be required, per Public Contracts Code, Section 3300 and for this contract, to have a State of California contractor's license classification of either; A - General Engineering Contractor, or B - General Building Contractor. A mandatory pre-bid job walk inspection will be held on February 7th, 2011 at 10:00a.m., meeting at the North East corner of the intersection of Orange and 10th Streets, in Riverside California. No bids will be accepted from bidders who have not attended the pre-bid job walk.

For further information, contact Dennis Downs at the Economic Development Agency, located at 3403 10th Street, Suite 400, Riverside, CA 92501 whose telephone number is (951) 955-0391.

Dated: January 20, 2011

Kecia Harper-Ihem, Clerk of the Board

By: Cecilia Gil, Board Assistant

1/24, 31

# MEMORANDUM

---



RIVERSIDE COUNTY COUNSEL

February 22, 2011

TO: Jane Jennings / Cecilia Gil  
Clerk of the Board

FROM: Neal Kipnis  
Deputy County Counsel

A handwritten signature in black ink, appearing to read "Neal", is written over the printed name of the sender.

RE: Downtown Voice and Data Re-Route Project

The low bid from VCI Construction is approved as to form by this office, and is returned along with the other bids to your office.

Please let me know if I can be of any further assistance.

Attachments

cc: Dennis Downs, EDA – by email only



## Bid Summary

TO:	Pamela J. Walls County Counsel	PROJECT:	Downtown Voice & Data Re-Route
FROM:	Cecilia Gil      955-8464 Clerk of the Board	BID DATE:	2/14/11
Project Mgr:	Dennis Downs - EDA (951) 955-0391	BID TIME:	10:00 a.m.
		ITEM/DATE:	3.43 of 09/28/10

**(PLEASE REFER ALL QUESTIONS TO THE PROJECT MANAGER)**

### CONTRACTORS

### BID AMOUNT

---

VCI Construction  
1921 w. 11<sup>TH</sup> St.  
Upland, CA 91786  
(909) 946-0905

Base Bid:      \$126,646.00  
Const. Ins.    \$ 5.07  
Deductible:    \$50,000.00

---

Herman Weissker, Inc.  
1645 Brown Avenue  
Riverside, CA 92509  
(951) 826-8800

Base Bid:      \$163,330.00  
Const. Ins.    \$1,500.00  
Deductible:    \$1,000.00

---

Perry C. Thomas Const., Inc.  
240 W. Duarte Rd.  
Monrovia, CA 91016  
(626) 303-4483

Base Bid:      \$179,604.00  
Const. Ins.    \$3,592.00  
Deductible:    \$5,000.00

---

PTM General Eng. Services, Inc.  
5942 Acorn St.  
Riverside, CA 92504  
(951) 710-1000

Base Bid:      \$181,773.00  
Const. Ins.    \$1,750.00  
Deductible:    \$1,000.00

---

The Fishel Company  
1366 Dublin Road  
Columbus, OH 43215  
(614) 274-8100

Base Bid:      \$198,550.41  
Const. Ins.    \$3,893.14  
Deductible:    \$10,000.00

---

Unique Performance Construction Inc.  
1931 Newport Blvd.  
Costa Mesa, CA 92627  
(949) 645-5025

Base Bid:      \$219,500.00  
Const. Ins.    \$1,000.00  
Deductible:    \$3,000.00

---

Irish Construction  
2641 River Avenue  
Rosemead, CA 91770  
(626) 288-8530

Base Bid:      \$261,840.00  
Const. Ins.    \$1,000.00  
Deductible:    \$5,000.00

**RECEIVED**  
FEB 16 2011  
COUNTY COUNSEL  
TC  
NRK

**Bid Bond**

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned VCI Telcom, Inc. dba VCI Construction as Principal, and Federal Insurance Company as Surety, are hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of Ten Percent of Amount Bid Dollars (\$ 10% ) for the payment of such sum, well and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns.

WHEREAS, the said Principal is herewith submitting its Proposal for the Downtown Voice and Data Re-Route Project - Orange and 11th Street

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded the Contract upon said Proposal and shall, within the required number of days after the notice of such award, execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the costs of the damages experienced by the Owner as a result of such refusal, including but not limited to, publication cost, the difference in money between the amount of the bid of the said Principal and the amount for which the obligee may legally contract with another party to perform the said work if such amount be in excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's liability exceed the penal sum hereof.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their separate seals this 14th day of February, 2011, the name and corporate seal of each corporate party being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of its governing body.

VCI Telcom, Inc. dba VCI Construction

(Firm Name - Principal)

1921 W. 11th Street, Upland, CA 91786

(Business Address)

By Roy E. Brown

(Original Signature)

(Title)

Federal Insurance Company

(Corporation Name - Surety)

15 Mountain View Road, Warren, NJ, 07059

(Business Address)

By [Signature]

(Original Signature) DiLynn Guern, Attorney-in-Fact

Affix Seal  
If  
Corporation

Affix  
Corporate  
Seal

# CALIFORNIA ALL-PURPOSE ACKNOWLEDGEMENT

State of COLORADO

County of ARAPAHOE


On February 14, 2011 before me, Melissa Nesavich  
Date Name and Title of Notary

personally appeared DiLynn Guern  
Name and or Names of Signer(s)

Who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

Witness my hand and official seal

Signature   
Notary Public Signature

Melissa Nesavich



My Commission Expires 08/27/2011

Place Notary Public Seal Above

**OPTIONAL**

*Though the information below is not required by law, it may prove valuable to the persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

## Description of Attached Document

Title or Type of Document Bid Bond: County of Riverside

Document Date February 14, 2011 Number of Pages: 2

Signer's Name: DiLynn Guern

- Individual
- Corporate Officer – Title(s): \_\_\_\_\_
- Partner -  Limited  General
- Guardian or Conservator
- Attorney-in-Fact
- Trustee
- Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_  
Federal Insurance Company

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb

- Individual
- Corporate Officer – Title(s): \_\_\_\_\_
- Partner -  Limited  General
- Guardian or Conservator
- Attorney-in-Fact
- Trustee
- Other: \_\_\_\_\_

Signer is representing \_\_\_\_\_

RIGHT THUMBPRINT  
OF SIGNER  
Top of thumb



**Chubb  
Surety**

**POWER  
OF  
ATTORNEY**

**Federal Insurance Company  
Vigilant Insurance Company  
Pacific Indemnity Company**

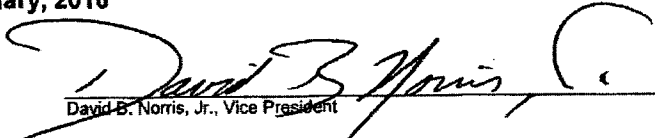
**Attn: Surety Department  
15 Mountain View Road  
Warren, NJ 07059**

**Know All by These Presents, That FEDERAL INSURANCE COMPANY, an Indiana corporation, VIGILANT INSURANCE COMPANY, a New York corporation, and PACIFIC INDEMNITY COMPANY, a Wisconsin corporation, do each hereby constitute and appoint Gloria C. Blackburn of Dallas, Texas and Florietta Acosta, Donald E. Appleby, , Dilynn Guern, Susan J. Lattarulo, Tiffany McGonigle, Kevin W. McMahon, Frank C. Penn, J.R. Richards, Deanna M. Robichaud and Mark Sweigart of Denver, Colorado**

each as their true and lawful Attorney- in- Fact to execute under such designation in their names and to affix their corporate seals to and deliver for and on their behalf as surety thereon or otherwise, bonds and undertakings and other writings obligatory in the nature thereof (other than bail bonds) given or executed in the course of business, and any instruments amending or altering the same, and consents to the modification or alteration of any instrument referred to in said bonds or obligations.

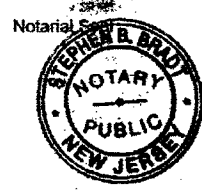
In Witness Whereof, said **FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY** have each executed and attested these presents and affixed their corporate seals on this **21st** day of **January, 2010**

  
Kenneth C. Wendel, Assistant Secretary


  
David B. Norris, Jr., Vice President

STATE OF NEW JERSEY  
County of Somerset ss.

On this **21st** day of **January, 2010** before me, a Notary Public of New Jersey, personally came Kenneth C. Wendel, to me known to be Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY, the companies which executed the foregoing Power of Attorney, and the said Kenneth C. Wendel, being by me duly sworn, did depose and say that he is Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY and knows the corporate seals thereof, that the seals affixed to the foregoing Power of Attorney are such corporate seals and were thereto affixed by authority of the By- Laws of said Companies; and that he signed said Power of Attorney as Assistant Secretary of said Companies by like authority; and that he is acquainted with David B. Norris, Jr., and knows him to be Vice President of said Companies; and that the signature of David B. Norris, Jr., subscribed to said Power of Attorney is in the genuine handwriting of David B. Norris, Jr., and was thereto subscribed by authority of said By- Laws and in the deponent's presence.



**STEPHEN B. BRADT**  
Notary Public, State of New Jersey  
No. 2321067  
Commission Expires Oct. 25, 2014

  
Notary Public

**CERTIFICATION**

Extract from the By- Laws of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY:

"All powers of attorney for and on behalf of the Company may and shall be executed in the name and on behalf of the Company, either by the Chairman or the President or a Vice President or an Assistant Vice President, jointly with the Secretary or an Assistant Secretary, under their respective designations. The signature of such officers may be engraved, printed or lithographed. The signature of each of the following officers: Chairman, President, any Vice President, any Assistant Vice President, any Secretary, any Assistant Secretary and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Assistant Secretaries or Attorneys- in- Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached."

I, Kenneth C. Wendel, Assistant Secretary of FEDERAL INSURANCE COMPANY, VIGILANT INSURANCE COMPANY, and PACIFIC INDEMNITY COMPANY (the "Companies") do hereby certify that

- (i) the foregoing extract of the By- Laws of the Companies is true and correct,
- (ii) the Companies are duly licensed and authorized to transact surety business in all 50 of the United States of America and the District of Columbia and are authorized by the U.S. Treasury Department; further, Federal and Vigilant are licensed in Puerto Rico and the U.S. Virgin Islands, and Federal is licensed in American Samoa, Guam, and each of the Provinces of Canada except Prince Edward Island; and
- (iii) the foregoing Power of Attorney is true, correct and in full force and effect.

Given under my hand and seals of said Companies at Warren, NJ this

**14th day of February, 2011**



  
Kenneth C. Wendel, Assistant Secretary

IN THE EVENT YOU WISH TO NOTIFY US OF A CLAIM, VERIFY THE AUTHENTICITY OF THIS BOND OR NOTIFY US OF ANY OTHER MATTER, PLEASE CONTACT US AT ADDRESS LISTED ABOVE, OR BY Telephone (908) 903- 3493 Fax (908) 903- 3656  
e-mail: surety@chubb.com

# ACKNOWLEDGMENT

Bid Bond for the County of Riverside

State of California  
County of San Bernardino )

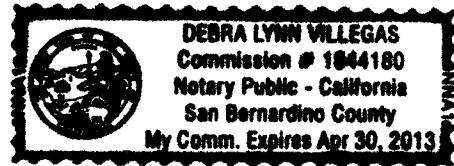
On February 11, 2011 before me, Debra Lynn Villegas Notary Public  
(insert name and title of the officer)

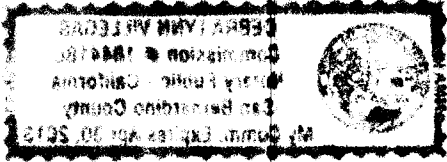
personally appeared Roy E Brown Vice President  
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are  
subscribed to the within instrument and acknowledged to me that he/she/they executed the same in  
his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the  
person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing  
paragraph is true and correct.

WITNESS my hand and official seal.

Signature Debra Lynn Villegas (Seal)





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For further information, contact Dennis Downs at the Economic Development Agency, located at 3403 10<sup>th</sup> Street, Suite 400, Riverside, CA 92501 whose telephone number is (951) 955-0391.

## INSTRUCTIONS TO BIDDERS

- A. **FORM OF PROPOSAL:** The Proposal must be made on the attached Contractor's Proposal Form which must be filled out completely, dated and signed by the bidder or duly authorized agent in accordance with the directions on the Proposal Form. Each Proposal shall include a complete list of the Subcontractors proposed for every portion of the work, in accordance with Public Contract Code, Section 4100-4114, inclusive.
- B. **SUBMISSION OF THE PROPOSAL:** Signed copies of each Proposal shall be sealed in an envelope labeled with Title of Bid and Opening Time. Proposals shall be submitted at the place designated in the Notice Inviting Bids at or before the time specified in said notice. Before that time a proposal may be withdrawn, but only in person by the bidder or someone authorized by him in writing, and not by telephone or telegram.
- C. **DRAWINGS AND SPECIFICATIONS:** All drawings, herein enclosed, become a part of the Bid Documents. Additional sets may be provided if requested by bidders and deemed necessary and if there is sufficient time, for the sum of Fifty Five dollars (\$65.00) per set plus an additional fee per set for mailing if required. Plans and Specifications may be obtained from Mission Reprographics, located at 2050 E. La Cadena Dr. Suite L, Riverside, 951-686-882, Attn: Mario Silva. All fees are due at the time of request and must be paid by check or money order made payable to "Mission Reprographics".
- D. **INTERPRETATION OF THE DOCUMENTS:** Discrepancies in and omissions from the Plans, Specifications or other Contract Documents or questions as to their meaning shall, at once, be brought to the attention of the Owner. Any interpretation of the Documents will be made only by Addenda duly issued and a copy of such Addenda will be mailed or delivered to each person or firm receiving a set of such documents. The Owner will not be responsible for any other explanations or interpretations. Should anything in the scope of the work or any of the sections of the Specifications be of such nature as to be apt to cause disputes between the various trades involved, such information shall be promptly called to the attention of the Owner.
- E. **ADDENDA TO THE DOCUMENTS:** The Owner reserves the right to issue such Addenda to the documents as it may desire at any time prior to the time fixed for receiving Proposals. A copy of all such Addenda will be promptly mailed or delivered to each bidder. The number and date of each Addenda shall be listed on the Contractor's Proposal in the space provided.
- F. **OWNER'S RESERVATION OF RIGHTS:** The Owner reserves the right to reject any or all Proposals and to waive any informalities in a bid or in the bidding. No bidder may withdraw his bid for a period of sixty (60) days after the time set for the opening thereof.
- G. **BIDDER'S CHECK OR BOND:** Each Proposal must be accompanied by a certified or cashier's check or by a bid bond on the form supplied by the Owner, drawn in favor of the Owner in an amount not less than ten percent (10%) of the total Proposal. This check or bond shall be given as a guarantee that the bidder, if awarded the contract, will execute and deliver the Contract Documents and the required Payment and Performance Bonds and proof of insurance in accordance with his Proposal accepted by the Owner. In default of execution of the Contract upon award and/or delivery of said Payment and Performance Bonds, such Proposal bond or check shall be held subject to payment to the Owner of the difference in money between the amount of the bidder's Proposal and the amount for which the Owner may legally contract with another party to perform the said work, together with the costs to the Owner of redrafting, redrawing and publishing documents and papers shall, in addition, be held subject to all other actual damages suffered by the Owner, as set forth on the Contract Documents. Said check or bond will be returned upon the close of the period mentioned in Paragraph F above, and to the successful bidder upon execution of the Contract Documents. **NO BONDS WILL BE ACCEPTED UNLESS SUBMITTED ON THE FORM SUPPLIED BY OWNER.**
- H. **AWARD OF CONTRACT:** The Contract shall be awarded upon a Resolution or Minute Order to that effect duly adopted by the Governing Board of the Owner. Execution of the Contract Documents shall constitute a written memorial thereof.



- I. **ADDITIONAL INFORMATION:** The Owner reserves the right to require of a bidder, information regarding financial responsibility or such other information as the Owner determines is necessary to ascertain whether a bid is in fact the lowest responsible bid submitted, All references to an Architect shall be deemed to refer to the Owner where no Architect has been employed by the Owner.
- J. **PROMPT ACTION BY THE CONTRACTOR:** After the award of the Contract by the Governing Board and within four (4) days after the Agreement Forms are presented to the Contractor for signing, he shall return to the Owner the signed Agreements, along with all necessary Bonds and insurance.
- K. **PRE-BID CONFERENCE:** There will be a mandatory pre-bid conference for this project that will be held at the site. No bids will be accepted from bidders who have not attended the pre-bid conference.
- L. **BIDS:** Under the bidding items listed on the Contractor's Proposal, bidders shall state prices for each basis for bid given hereinafter.
1. Base Bid shall be the entire work complete in accordance with the contract documents, but not including work indicated or specified to be provided under any of the other bid items.
  2. Please note that a separate cost quotation for Contractor's Course of Construction insurance is required per General Conditions Section 2.3.6.

The basis for award will be the qualified bidder with the lowest total of the Base Bid with Course of Construction Insurance and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.

**CONTRACTOR'S PROPOSAL**

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: 02/11/10

Bidder: VCI Construction

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the Construction of the Downtown Voice and Data Re-Route Project - Orange and 10<sup>th</sup> Street, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. N/A Date \_\_\_\_\_

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

One Hundred Twenty Six Thousand

For the total Base Bid Six Hundred Forty Six 00/100 dollars (\$126,646.00), including all applicable taxes, permits, licenses, **AND Course of Construction Insurance.**

(Add or Deduct state which)

Alternate 1            \$ N/A \_\_\_\_\_

Alternate 2            \$ \_\_\_\_\_

Alternate 3            \$ \_\_\_\_\_

Alternate 4            \$ \_\_\_\_\_

And,  
Cost of Contractor's Course of Construction Insurance Five 07/100 dollars (\$ 5.07 )  
and deductible \$ 50,000.00.

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid WITH COURSE OF CONSTRUCTION INSURANCE and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.





**AWARD OF CONTRACT**

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

**BID GUARANTEE**

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: VCI Construction

Type of Organization: Corporation

Signed By: Roy E. Brown

Title of Signer: V. P. OPER.

Address of Bidder: 1921 W. 11th St.

Upland, CA 91786

Affix Seal  
If  
Corporation

Telephone No.: (909) 946-0905

Contractor's License No.: 765716

Classification: C7, C10, & A Expiration Date: 07/31/2011

**LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY**

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

**NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND  
SUBMITTED WITH BID**

State of California ) ss.  
County of ~~Riverside~~  
San Bernardino

Roy Brown, being first duly sworn, deposes and says:

That he or she is Vice President of VCI Construction  
the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Roy E. Brown  
Signature

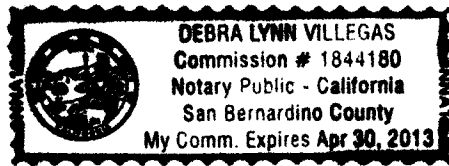
Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

See Attached Surat  
Signature of officer administering oath  
with proper wording

Non-collusion Affidavit to be executed by bidder and submitted with Bid

State of California  
County of San Bernardino

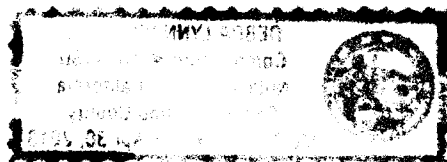
Subscribed and sworn to (or affirmed) before me on this 10th  
day of February, 2011, by Roy E Brown Vice President,  
proved to me on the basis of satisfactory evidence to be the  
person(s) who appeared before me.



(Seal)

Signature

A handwritten signature in cursive script that reads "Debra Lynn Villegas".





CERTIFICATE OF THE SECRETARY  
OF  
VCI TELCOM, INC.

December 5, 2008

I, Vincent A. Mercaldi, the undersigned officer of VCI Telcom, Inc., a duly organized and existing Delaware corporation (the "Company"), hereby certify that I am the duly elected, qualified and acting Secretary of the Company and further certify that the following named persons are the duly, elected, qualified and acting officers of the Company in the office(s) set opposite their respective names:

*RESOLVED*, that the following named persons be, and they hereby are, elected to the office(s) set opposite their respective names to serve in such capacity until they resign or are removed or until the next Annual Meeting of the Board (or execution of a unanimous written consent in lieu thereof) and their respective successors shall have been duly elected or appointed and qualified:

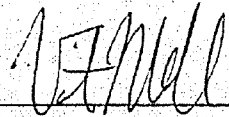
John Xanthos	President
G. Vickers Marovish	Vice President, Chief Financial Officer & Assistant Secretary
James H. Haddox	Vice President & Assistant Secretary
Derrick A. Jensen	Vice President & Assistant Secretary
Tana L. Pool	Vice President & Assistant Secretary
David D. Brittain	Vice President & Assistant Secretary
Peter B. O'Brien	Vice President & Assistant Secretary
Roy E. Brown	Vice President
William C. Burdine	Vice President
Robin Howard Opdyke	Vice President
Kenneth W. Trawick	Vice President
Nicholas M. Grindstaff	Treasurer
Vincent A. Mercaldi	Secretary

*RESOLVED*, that these officers are empowered to carry out the day-to-day business of the Company, subject to the direction and control of the Board and the provisions of the Company's By-laws; and further

*RESOLVED*, that any lawful act heretofore taken by any of the individuals named in the foregoing resolutions in the capacity of the office(s) set opposite their respective names be, and it hereby is, in all respects approved, adopted, ratified and confirmed by the Board as an act of the Company; and further

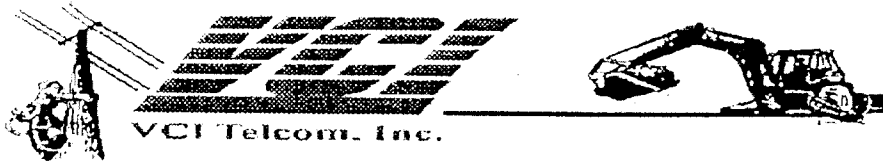
*RESOLVED*, that the Company's Secretary or Assistant Secretary is hereby directed to file with the minutes of meeting of the Board a copy of this unanimous written consent.

IN WITNESS WHEREOF, the undersigned has executed this certificate on behalf of the Company as of the 5th day of December, 2008.

By:  \_\_\_\_\_

Name: Vincent A. Mercaldi

Title: Secretary



***Building tomorrow's  
communication infrastructure today.***

**Company Name: VCI TELCOM, INC.  
D.B.A. VCI Construction**

**A Wholly owned subsidiary of Quanta Services, Inc.** In 1999 VCI Telcom, Inc., became a wholly owned subsidiary of Quanta Services, Inc., which is a public company registered on the New York Stock Exchange with approximately \$3 billion in annual revenues. Electronic copies of Quanta Services, Inc.'s audited financial Statements, Filings with the Securities Exchange Commission, and Code of Ethics and Business Conduct can be obtained from its website at [www.quantaservices.com](http://www.quantaservices.com).

**Company Officers**

**President:** John Xanthos  
**Vice Presidents:** Rob Opdyke  
Roy Brown  
G. Vickers Marovish  
**Treasurer:** Nicholas M. Grindstaff

**Federal Tax ID:** 76-0589274  
**Contractors License Number:** 765716  
**Class:** C7, C10 & A  
**Dunn & Bradstreet Number:** 04-167-1020  
**State ID:** 431-6005-0

**Authorized Check Signers:** John Xanthos, Roy Brown, Rob Opdyke and G. V. Marovish

**Surety Company:** Federal Insurance Co.  
15 Mountain View Dr.  
Warren, NJ 07061-1615  
Gloria Blackburn  
(800) 437-4256

**Insurance Company:** John L. Wortham & Son, LLP  
PO BOX 1388  
Houston, TX 72251  
Sandy Moore  
(713) 526-3366

**Corporate Address:**  
1921 W. 11<sup>th</sup> Street  
Upland, CA 91786  
Phone: 909-946-0905  
Fax: 909-946-0924

**Years in Business:** since 1993  
**Delaware Corporation:** 1999  
**Tax-Exempt:** No

**Parent Company:**  
Quanta Services Inc  
1360 Post Oak Blvd  
Houston, TX 77056-3023  
Phone: 713-985-6427  
Fax: 713-629-7676  
NYSE PWR

**Bank:**  
Bank of America  
PO BOX 381547  
Dallas, TX 75283-1547  
Checking Account Number: 1390029619  
Phone: 800-325-4296

**Credit Reference:**

**Vulcan Materials Co.**

File 55572  
Los Angeles, CA 90074  
Credit Department

**Utility Vault**

PO Box 1390  
Fontana, CA 92334  
Credit Department

**Graybar**

File 57071  
Los Angeles, Ca 90074-7071  
Attn: Credit Department

**Saf-T-Co Supply**

1300 E Normandy Place  
Santa Ana, CA 92705-4138  
Credit Department

**Robertson's**

PO Box 1659  
Corona, CA 92878  
Credit Department

**Cal-Duct Inc.**

PO Box 3724  
South El Monte, CA 91733  
Credit Department



### **VCI Overview**

VCI Telcom, Inc. is a full-service communications contractor – the company constructs and maintains the voice, data, video and control networks that are the basis of modern communication systems. Customers rely on us to build the networks that bring utilities into their organizations and businesses.

Established in 1993 to provide services to the underground, aerial and wireless industries in California, VCI has since expanded its services to include wet utility services. In 1999, VCI was acquired by Quanta Services Inc. (NYSE:PWR), a leading provider of specialized contracting services with annualized revenues of more than \$3 billion dollars.

### **Why Choose VCI Telcom?**

VCI has installed and maintained thousands of miles of conduit to deliver outside plant telecom services. The company has a thorough knowledge of telecom industry requirements and specifications and has spent years obtaining valuable industry experience.

A deep understanding of the California geographic marketplace sets VCI apart from others in the area. Very few communications contractors operating in California are able to provide the qualified manpower and technical expertise that customers expect. VCI has the resources to execute any size project – even under rigid time constraints. Long, established customer relationships demonstrate that VCI is a reliable source of telecom, electric and wet utility services.

### **Our Commitment: Safety, Quality & Continuous Improvement**

VCI prides itself on the ability to respond promptly and competently to customers' needs while maintaining a high standard of employee safety. Another component of the company's plan is to provide a safe job site for crews, subcontractors, customers' workers and the public. At VCI headquarters in Upland, CA, safety instructors provide regular training classes on topics ranging from California and Federal OSHA requirements to the highly specialized safety training required for job classifications. These training sessions allow VCI to serve customers more efficiently and therefore allow a better product.

VCI's organizational philosophies are consistent with the tenets of Total Quality Management, and the company has implemented quality control procedures in all processes and manual work practices. This ensures a quality outcome every time. In addition, emphasis is placed on prevention rather than reaction. Training employees to

establish a personal commitment to quality, and teaching them to rely on self-inspection is a vital component of VCI's superior quality.

The telecom industry is a process-driven environment that is focused on continuous improvement, best practices and world-class performance. VCI's quality program keeps the company on the cutting-edge, offering the best techniques and methodologies to customers. The end result is a value-driven culture committed to maximizing internal efficiencies and streamlining operations.

#### ***Telecommunications Services***

VCI Telcom meets the challenging requirements of today's complex communications systems. Our comprehensive scope of service begins with signal origination and continues through backbone distribution and customer installation. Whether your system is a Headend, Telecommunications Center(TCC), Master Telecommunications Center (MTC), or Network Operation Center (NOC)

#### **VCI Telcom, Inc. & Quanta Services – Teamwork in Action**

VCI Telcom, Inc. is a wholly-owned subsidiary of Quanta Services, a leading provider of specialty contracting services that delivers end-to-end network solutions for the electric power, telecom, broadband cable and gas pipeline industries. Quanta has annualized revenues of more than \$3 billion dollars and is traded on the New York Stock Exchange under the symbol PWR.

Like all subsidiaries of Quanta, VCI operates autonomously and is responsible for partnering directly with its customers to deliver the required services. Being a part of the Quanta family means that VCI has a close working relationship with our sister companies, sharing resources such as manpower and equipment. This gives the company access to unlimited resources to deliver the best products and services to each customer.

Each subsidiary of Quanta offers unique attributes to the company, offering services from the electric power and gas industries to the telecom industry. As a Quanta operating unit, VCI has access to the vast and varied experience of its sister companies. This allows each company to expand and increase its knowledge of the industry and collaborate on new product practices. Partnering with Quanta not only benefits VCI but also each customer with the support of a nationwide company to assist in all of its business needs.

#### **Quanta Services – One Company with Many Capabilities**

Quanta was founded with the vision of creating a team equipped with the resources of the nation's leading contractors, capable of collectively and seamlessly addressing the most comprehensive and complex infrastructure needs. As a team of companies operating with the efficiencies of one powerful entity, Quanta has the knowledge and expertise to handle a full spectrum of projects.

With more than 16,000 employees, an excess of 30,000 pieces of specialized equipment and an average of 25 years experience, Quanta's operating units collectively provide an

unmatched level of expertise. As a result, the company is known for its ability to provide solutions in a variety of industries.

#### Convenient, Efficient and Cost Effective

Quality service separates Quanta from the competition, but the benefits of partnering with Quanta go far beyond the company's scope of services. Quanta's resources enable complete materials and procurement services, therefore the customer can work with Quanta from conception to completion of all projects. Furthermore, the company's customized **service teams are tailored** to meet the varied and specific needs of the customer.

Whether for a regional customer that prefers local labor to reduce costs, or a nationwide company that demands a workforce that can move from state to state, Quanta provides effective services to fully complete each job. The bottom line benefit: a network of unsurpassed talent and resources that enables Quanta to pass economies of scale on to clients. Convenient, efficient and cost effective: that's the Power of Quanta.

1921 West 11<sup>th</sup> St  
Upland, CA 91786  
Phone # 909-946-0905  
Fax # 909-946-0924

California License # 765716  
Class. A, C-10, C-7

**WHY CHOOSE QUANTA?**


**NYSE: PWR**  
Recently named to S&P 500

**PRIMARY MARKETS**

Electric Power  
Gas  
Telecommunications  
Renewable Energy

**PRIMARY SERVICES**

Planning  
Engineering  
Procurement  
Construction  
Operations  
Maintenance

Quanta Services, Inc. (NYSE: PWR) focuses on providing the highest level of professionalism, service and value to our customers in each of the industries we serve.

That philosophy is the driving force behind our success as a leading specialized contracting company delivering comprehensive network solutions to the electric power, gas, telecommunications and renewable energy industries. Our project teams repeatedly demonstrate our commitment, completing all projects and work assignments on time, within budget and to the highest of quality standards. That level of performance doesn't happen by chance.

More than 50 years of experience reside within Quanta's diverse operating units, resulting in a deep understanding of our customers' performance requirements. We combine that experience with our industry-wide perspective, innovative technologies and proprietary methodologies. As the markets we serve change, Quanta keeps pace, actively and strategically growing our knowledge base, capabilities, and geographic reach to better serve the needs of our customers.

Quanta was built on the collective strengths of some of the nation's leading contractors, strategically selected to develop our comprehensive service portfolio and our geographic reach. We are one of the few specialized service providers truly capable of regularly delivering end-to-end solutions on a nationwide basis – from planning, engineering and design through procurement and construction to start up, operations and maintenance. We integrate and manage all work scopes assigned to our companies, subconsultants and subcontractors. This allows our customers to avoid the inefficiencies and expense of working with multiple contractors. With operations in all 50 states and Canada, we have the workforce, resources and expertise to complete projects that are local, regional, national or international in scope.

Our reputation for responsiveness, performance, geographic reach and a comprehensive service offering enables us to establish strong relationships and strategic alliances with a wide range of electric power, gas, telecommunications and cable television companies, as well as commercial, industrial and governmental entities. Our relationships with many of our customers are decades old.

**Our Strengths**
**Quanta by the Numbers**

2008 Revenues: \$3.78 Billion  
Ranked #1 Utility Specialty Contractor,  
#2 Overall Specialty Contractor  
by Engineering News-Record  
Largest underground contractor in U.S.  
Top 5 in horizontal directional drilling  
Strategic operations in all 50 U.S. states,  
Canada and abroad  
Highly trained, mobile workforce of nearly 15,000  
Largest non utility employer of qualified linemen  
Industry-leading fleet of more than 24,000  
pieces of specialty construction equipment  
Diverse customer base includes  
approximately 75% of all investor owned  
utilities in U.S.

**Experience Matters.** After more than 50 years in the industry, Quanta's long-standing, working relationships with customers, regulators, service providers, politicians and other stakeholders has shaped our uniquely practical insight and technical knowledge. Quanta currently delivers a comprehensive and integrated set of planning, engineering, procurement, construction and O&M services target to the specific needs of our primary markets. Those capabilities are matched by some of the best and most complete experience in the contracting industry. Our experience also translates into the ability to leverage our long-term procurement relationships with equipment manufacturers, suppliers and strategic service providers around the globe.

**Shared Objectives.** Quanta's strong focus on customer service is based on shared objectives - financial, continuous improvement, diversity and others. Our customer's success is our success. That translates to a number of benefits, including higher productivity, shorter project timelines, lower total cost of ownership and, ultimately, improved shareholder value. The best measure of our success is the level of repeat business from our growing base of customers.

**Strong Management.** Our executive management team has an average of 30 years of experience within the contracting industry, and our operating unit executives average more than 27 years of experience in their respective industries. Our team also includes several former utility executives and regulators.

**Financial Strength & Stability.** The largest specialized utility contractor in the United States, Quanta continues to strengthen its position, bringing in \$3.78 billion in revenues in 2008. Our continued revenue growth, significant and increasing cash reserves and strong liquidity position provides us with the flexibility to capitalize on new business and growth opportunities.

Quanta Services, Inc.  
1360 Post Oak Boulevard, Suite 2100  
Houston, TX 77056-3023  
P: 713-625-7600 • F: 713-629-7676

These materials are intended strictly as general information about Quanta Services, Inc. and do not constitute the basis of any design advice or contract.

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**WHY CHOOSE QUANTA?**

**Geographic Reach.** Our extensive resource footprint in North America and beyond, allows Quanta to provide the full scope of our services from established local and regional service centers. We are able to staff multiple locations from state to state with proven capacity to ramp up and deploy crews quickly. This capability offers significant advantages to our customers whose operations span multiple states or regions. The scale of our operations also allows us to mobilize significant numbers of employees on short notice for emergency restoration services.

**Unmatched Resources.** Quanta's resources, particularly our workforce of nearly 15,000 highly skilled, experienced and mobile employees, play a significant role in our success. As the largest utility specialty contractor in the U.S., we are also the largest non-utility employer of qualified linemen. Our specialized equipment resources also are unsurpassed in the industry, with more than 24,000 pieces of rolling stock ranging from hybrid pickups to 1600 horsepower trenchers weighing more than 500,000 pounds.

**Regulatory Credibility.** Quanta has a long and credible history of working with local, state, and federal regulatory, political, and legislative entities on industry issues. We have provided expert testimony before public utility commissions and successfully supported regulatory filings and rate cases involving energy delivery infrastructure improvements, reliability improvements, and advanced metering and demand response infrastructures.

**Proprietary Technology.** Our electric power customers benefit from our ability to perform services without interrupting power service to their customers, which we refer to as energized services. We hold a U.S. patent for the exclusive use through 2014 of the LineMaster™ robotic arm, which enhances our ability to deliver these energized services to our customers. Our energized services workforce is specially trained to deliver these services and operate the robotic arm.

**Safety: Our Highest Priority.** Our crews often work under unusual and challenging situations. That's why Quanta places the highest importance on the safety and health of our employees. Our well established, company-wide safety program constantly reinforces our long-standing culture of safety. Quanta consistently achieves better than national industry averages for safety performance. Ultimately, achieving *Zero Accidents* is the most important objective in our work culture.

**Commitment to Quality.** Quanta has a demonstrated, company-wide commitment to provide the highest level of professionalism, service and value to our customers on all work. We are confident of our ability to meet or exceed all project requirements, and routinely put our performance to the test through customer- and project-specific KPIs

**Commitment to the Environment.** We recognize the importance of safeguarding the environment wherever we conduct business. All employees, subcontractors and subconsultants are expected to comply with and promote environmental compliance. Our successful experience with sensitive ecosystems ranges from woodlands to wetlands and deserts to tundra. Many of our projects have received awards for excellence recognizing our ability to operate safely and with environmental sensitivity.

**Commitment to Diversity.** Quanta's culture of diversity starts with our workforce, which consists of approximately 25% minorities, and extends to the subcontractors and suppliers we select for our project teams. Quanta has consistently met or exceeded the diversity goals of a long list of exacting clients, including more than 10 years of successful compliance on a wide range of projects for a major utility that sets industry standards for diversity.



### IMPORTANT

If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

### DISCLAIMER

The Certificate of Insurance on the reverse side of this form does not constitute a contract between the issuing Insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend, or alter the coverage afforded by the policies listed thereon.

### CANCELLATION NOTICE

The **CANCELLATION NOTICE** on the **CERTIFICATE OF INSURANCE** is amended to include the following wording: The Insurance Companies may cancel the described policy(ies) by mailing or delivering ten (10) days written notice of cancellation to the Named Insured for: (1) Non Payment of premium or (2) any other circumstance permitted by state law or policy conditions.

### ADDITIONAL INSURED DISCLAIMER

Coverage for Additional Insureds can vary significantly from policy to policy and thus Additional Insured status does not guarantee protection for all losses. Coverage is subject to actual policy terms and conditions.

**Request for Taxpayer  
 Identification Number and Certification**

Give form to the requester. Do not send to the IRS.

Name (as reported on your income tax return)  
**VCI Telecom, Inc dba VCI Construction**

Business name (if different from above)

Check appropriate box  Individual/Sole proprietor  Corporation  Partnership  Other  Exempt from backup withholding

Address (number, street, and apt. or suite no.)  
**1921 W. 11th St.**

City, state, and ZIP code  
**Upland, CA 91786**

Requester's name and address (optional)  
**IDACOMM, INC.**

List account number(s) here (optional)

**Part I Taxpayer Identification Number (TIN)**

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3.

Social security number  
 | | + | + | | |

or

Employer identification number  
**760589274**

Note: If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

**Part II Certification**

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- I am a U.S. person (including a U.S. resident alien).

Certification instructions: You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. (See the instructions on page 4.)

Sign Here Signature of U.S. person  Date

**Purpose of Form**

A person who is required to file an information return with the IRS, must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

**U.S. person.** Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- Certify that the TIN you are giving is correct (or you are waiting for a number to be issued).
- Certify that you are not subject to backup withholding,

or

- Claim exemption from backup withholding if you are a U.S. exempt payee.

Note: If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

For federal tax purposes you are considered a person if you are:

- an individual who is a citizen or resident of the United States,
- a partnership, corporation, company, or association created or organized in the United States or under the laws of the United States, or

- any estate (other than a foreign estate) or trust. See Regulation section 301.7701-6(a) for additional information.

**Foreign person.** If you are a foreign person, use the appropriate Form W-8 (see Publication 515, Withholding of Tax on Nonresident Aliens and Foreign Entities).

**Nonresident alien who becomes a resident alien.** Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the recipient has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement that specifies the following five items:

- The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
- The treaty article addressing the income.
- The article number (or location) in the tax treaty that contains the saving clause and its exceptions.



State of California  
**CONTRACTORS STATE LICENSE BOARD**  
ACTIVE LICENSE



License Number

**765716**

Business Name

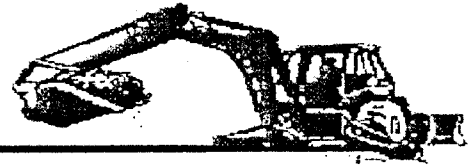
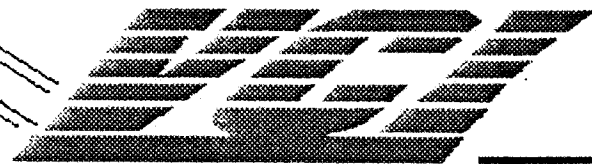
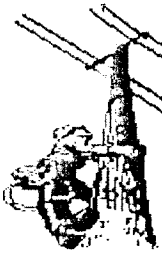
**VCI TELCOM, INC. DBA VCI  
CONSTRUCTION**

Entity **CORP**

Classification **A C10 C-7**

Expiration Date **07/31/2011**





**VCI Telecom, Inc.**

**DRY UTILITIES REFERENCES**

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Name of Project & Location: Various Locations  
 Description: Dry Utilities  
 Owner of Project: **Qwest Communications**  
 4090 Leaverton Ct., Anaheim, CA 92807

Total Value of Construction: \$900,000.00  
 Completion Date: Ongoing  
 Reference: Mike Garrison (805) 701-4157  
 Terry Karner (949) 981-4755

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Name of Project & Location: Various Locations  
 Description: Dry Utilities  
 Owner of Project: **Cable Engineering Services**  
 10640 Sepulveda Blvd. Mission Hills, CA 91345  
 Total Value of Construction: \$1.5 Million 2007- Present  
 Completion Date: Ongoing  
 Reference: Marty Prescott (818) 898-2352 (818) 898-9186 FAX

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Name of Project & Location: Various Locations  
 Description: Dry Utilities & Aerial  
 Owner of Project: **Level 3 Communications**  
 Total Value of Construction: \$2.8 Million – 2004 - Present  
 Completion Date: Ongoing  
 Reference: James Daily (858) 688-7007

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Name of Project & Location: Various Locations  
 Description: Dry Utilities  
 Owner of Project: **MCI/Verizon Business**  
 157 S. Lilac Ave., Rialto, CA 92376  
 Total Value of Construction: \$4.0 Million – 2004 - Present  
 Completion Date: Ongoing  
 Reference: Dan Garden (909) 879-2716  
 Don Beckermann (626) 676-9023

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Name of Project & Location: Various Locations  
 Description: Dry Utilities & Aerial  
 Owner of Project: **AT & T**  
 Total Value of Construction: \$28.0 Million – 2004 - Present  
 Completion Date: Ongoing  
 Reference: Richard Cerniglia (818) 902-0144

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Name of Project & Location: Various Locations  
Description: Dry Utilities & Aerial  
Owner of Project: **Sprint**  
1350 W. Lambert Rd., Ste. B, Brea, CA 92821  
Total Value of Construction: \$3.6 Million – 2004 - Present  
Completion Date: Ongoing  
Reference: Lynn Durrett (591) 334-5754

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Name of Project & Location: Various Locations  
Description: Dry Utilities  
Owner of Project: **Verizon**  
11 S. 4<sup>th</sup> St., Redlands, CA 92373  
Total Value of Construction: \$25.6 Million – 2004 - Present  
Completion Date: Ongoing  
Reference: Richard Casas (909) 307-2639/(909) 335-9436 FAX  
Ron Klein (805) 388-2277

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Name of Project & Location: Underground Utility District (Downtown) – Laguna Bch  
Description: Dry Utilities  
Owner of Project: **City of Laguna Beach**  
505 Forest Ave., Laguna Bch, 92651  
Total Value of Construction: \$920,587.00 2003-2006  
Completion Date: 2006  
Reference: Joe Chiquette (949) 497-3311/(949) 497-0771 FAX

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Name of Project & Location: Various Locations  
Description: Dry Utilities  
Owner of Project: **City of Rancho Mirage**  
69-825 Hwy 111, Rancho Mirage, CA 92270  
Total Value of Construction: \$11.4 Million 2004 - Present  
Completion Date: Ongoing  
Reference: Randy Viegas (760) 770-3224

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Name of Project & Location: Airport Dr., Victorville, CA  
Description: Dry Utilities  
Owner of Project: **City of Victorville**  
1434 Civic Dr., PO Box 5001, Victorville, CA 92393  
Total Value of Construction: \$1.5MM  
Completion Date: Ongoing  
Reference: Charlie Seanez 760-955-5000



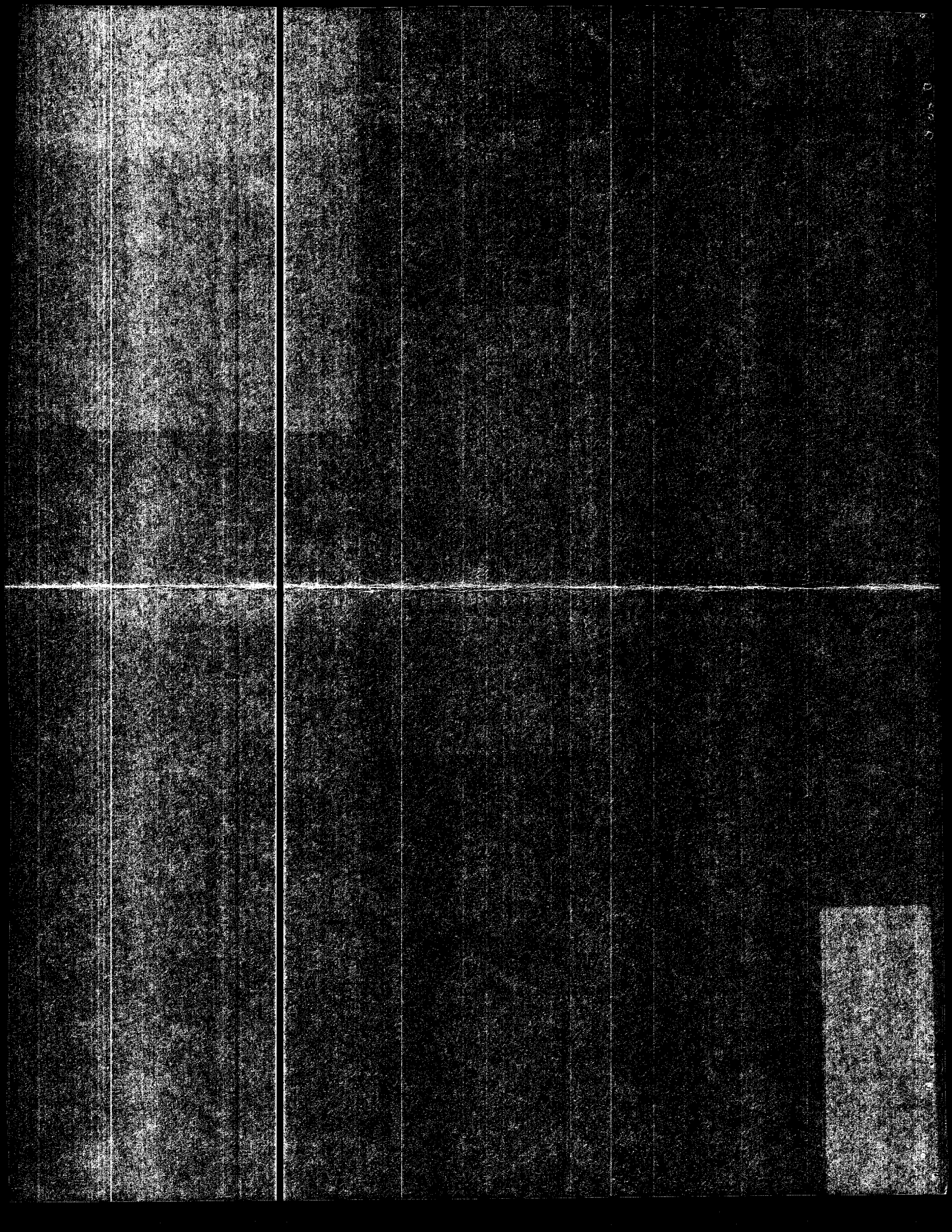
VCI Telcom, Inc. 1921 West 11th Street Upland, CA 91786

County of Riverside  
4080 Lemon Street, 1st Floor  
Riverside, CA 92501  
  
Project Name: Downtown Voice and Data Re-Route  
Project - Orange and 11th Street  
Bid Due: 02/14/11 @ 10:00AM

**SEALED BID RECEIVED**  
**CLERK OF THE BOARD OF SUPERVISORS**

RECEIVED RIVERSIDE COUNTY  
CLERK / BOARD OF SUPERVISORS  
2011 FEB 14 AM 9:21





**CONTRACTOR'S PROPOSAL**

TO THE GOVERNING BOARD OF THE COUNTY OF RIVERSIDE:

Date: 2/11/2011

Bidder: Herman Weissker, Inc.

The undersigned, having carefully examined the proposed site and the Plans and Specifications, the Notice Inviting Bids, the Instructions to Bidders, the Agreement Form, the Bond Forms, the General Conditions for the Construction of the Downtown Voice and Data Re-Route Project - Orange and 10<sup>th</sup> Street, hereby proposes and agrees to furnish all tools, equipment, services, apparatus, facilities, transportation, labor and materials necessary to complete the work in strict conformity with the Plans and Specifications, including all work specified in Addenda numbered and dated:

Addendum No. N/A Date \_\_\_\_\_

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

Addendum No. \_\_\_\_\_ Date \_\_\_\_\_

For the total Base Bid One Hundred Sixty Three Thousand, Three Hundred Thirty Dollars and No dollars (\$163,330.00), Cents. including all applicable taxes, permits, licenses, **AND Course of Construction Insurance.**

(Add or Deduct state which)

Alternate 1            \$ N/A \_\_\_\_\_

Alternate 2            \$ \_\_\_\_\_

Alternate 3            \$ \_\_\_\_\_

Alternate 4            \$ \_\_\_\_\_

And,  
Cost of Contractor's Course of Construction Insurance Fifteen Hundred dollars (\$ 1,500.00) and deductible \$ \*1,000.00.

\*1,000.00 except for Quake or Flood which would be 50K minimum.

Bids must be submitted on all items. Failure to bid on all items may result in the bid being rejected as non-responsive. The basis for award will be the qualified bidder with the lowest total of the Base Bid WITH COURSE OF CONSTRUCTION INSURANCE and all alternates. Alternates may be awarded in any order after determination of the lowest responsible and responsive bidder.





**AWARD OF CONTRACT**

The undersigned fully understands that a Contract is formed upon the acceptance of this Proposal by the Owner and the undersigned further agrees that upon request he will promptly execute and deliver to Owner a written memorial of the Contract together with the required Payment and Performance Bonds and proof of insurance.

**BID GUARANTEE**

The enclosed certified or cashier's check or bidder's bond on approved form, made payable to the Owner in the amount of ten percent of the total bid submitted herewith, is hereby given as a guarantee that the bidder will execute and deliver the above mentioned written memorial and required bonds and insurance if awarded the contract, and in the event that the undersigned fails or refuses to execute and deliver said documents, such check or bond is to be charged with the costs of the damages experienced by the Owner as a result of such failure or refusal, including but not limited to publication costs, the difference in money between the amount of the bid of the said principal and the amount for which obligee may legally contract with another party to perform the said work if such amount be in excess of the former, building lease or rental costs, transportation costs and additional salary costs that result from the delay due to the principal's default on the awarded contract. In no event, however, shall the Surety's liability exceed the penal sum hereof.

Name of Bidder: Herman Weissker, Inc.  
Type of Organization: Corporation  
Signed By: *Ron Politte*  
Title of Signer: Ron Politte, President Affix Seal  
Address of Bidder: Herman Weissker, Inc. If  
1645 Brown Avenue Corporation  
Riverside, CA 92509  
Telephone No.: 951-826-8800  
Contractor's License No.: 183556  
Classification: A B C10 C36 HAZ Expiration Date: 04/30/2012

**LICENSURE STATEMENTS ARE MADE UNDER PENALTY OF PERJURY**

If bidder is a corporation, and signer is not President or Secretary, attach a certified copy of By-Laws or resolution authorizing execution. If bidder is a corporation, affix corporate seal. If signer is an agent, attach Power of Attorney. If bidder is not an individual, list names of other persons authorized to bind the organization.

**NONCOLLUSION AFFIDAVIT TO BE EXECUTED BY BIDDER AND  
SUBMITTED WITH BID**

State of California ) ss.  
County of Riverside )

    **Ron Politte**    , being first duly sworn, deposes and says:

That he or she is     **President**     of     **Herman Weissker, Inc.**      
the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

    *Ron Politte*      
Signature Ron Politte, President

Subscribed and sworn to before me this \_\_\_\_\_ day of \_\_\_\_\_, 2011.

    *see attached*      
Signature of officer administering oath

# CALIFORNIA JURAT WITH AFFIANT STATEMENT

- See Attached Document (Notary to cross out lines 1-6 below)  
 See Statement Below (Lines 1-5 to be completed only by document signer[s], *not* Notary)

1 \_\_\_\_\_  
2 \_\_\_\_\_  
3 \_\_\_\_\_  
4 \_\_\_\_\_  
5 \_\_\_\_\_  
6 \_\_\_\_\_

Signature of Document Signer No. 1 \_\_\_\_\_ Signature of Document Signer No. 2 (if any) \_\_\_\_\_

State of California

County of RIVERSIDE

Subscribed and sworn to (or affirmed) before me on this

11<sup>th</sup> day of FEBRUARY, 2011, by  
Date Month Year

(1) RON POLITTE  
Name of Signer

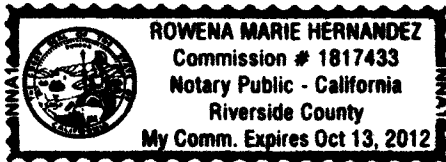
proved to me on the basis of satisfactory evidence to be the person who appeared before me (.) (+)

~~(and~~

(2) \_\_\_\_\_  
Name of Signer

~~proved to me on the basis of satisfactory evidence to be the person who appeared before me.)~~

Signature *[Handwritten Signature]*  
Signature of Notary Public



Place Notary Seal Above

## OPTIONAL

*Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.*

### Further Description of Any Attached Document

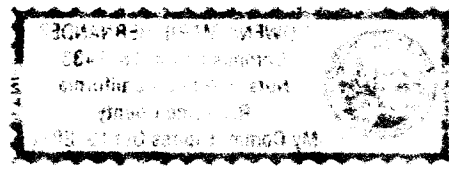
Title or Type of Document: NONCOLLUSION AFFIDAVIT

Document Date: NO DATE Number of Pages: ONE

Signer(s) Other Than Named Above: NO OTHER SIGNERS

RIGHT THUMBPRINT  
OF SIGNER #1  
Top of thumb here

RIGHT THUMBPRINT  
OF SIGNER #2  
Top of thumb here





**Bid Bond**

KNOWN TO ALL MEN BY THESE PRESENTS, that we, the undersigned Herman Weissker, Inc., as Principal; and Fidelity and Deposit\*, as Surety, are hereby held and firmly bound unto the County of Riverside, hereinafter called the "Owner", in the sum of ten percent of the total bid amount Dollars (\$ 10% ) for the payment of such sum, well and truly to be made, do hereby jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. \*Company of Maryland

WHEREAS, the said Principal is herewith submitting its Proposal for the Downtown Voice & Data Re-Route Project

THE CONDITION OF THE ABOVE OBLIGATION IS SUCH, that if the aforesaid Principal shall be awarded the Contract upon said Proposal and shall, within the required number of days after the notice of such award, execute a written memorial of the awarded Contract and submit the required Labor and Material Payment and faithful Performance Bond and proof of insurance, then this obligation shall be null and void; and in the event that the Principal fails and/or refuses to execute and deliver said documents this Bond will be charged with the costs of the damages experienced by the Owner as a result of such refusal, including but not limited to, publication cost, the difference in money between the amount of the bid of the said Principal and the amount for which the obligee may legally contract with another party to perform the said work if such amount be in excess of the former; building lease or rental costs, transportation cost, and additional salary costs that result from the delay due to the Principal's default on the awarded Contract. In no event however, shall the Surety's liability exceed the penal sum hereof.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no way impaired or affected by any extension of the time within which the Owner may accept such bid; and said Surety does hereby waive notice of any such extension.

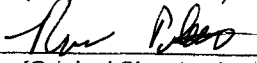
IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their separate seals this 9th day of February, 2011, the name and corporate seal of each corporate party being hereto affixed and those present duly signed by its undersigned representative, pursuant to authority of its governing body.

Herman Weissker, Inc.

(Firm Name - Principal)

1645 Brown Ave., Riverside, CA 92509

(Business Address)

By   
(Original Signature)

Ron Politte, President

(Title)

Fidelity and Deposit Company of Maryland

(Corporation Name - Surety)

801 North Brand Blvd., PH, Glendale, CA 91203

(Business Address)

By   
(Original Signature) Cristin Nolette

Attorney-in-Fact

Affix Seal  
If  
Corporation

Affix  
Corporate  
Seal

**EXTRACT FROM BY-LAWS OF FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

"Article VI, Section 2. The Chairman of the Board, or the President, or any Executive Vice-President, or any of the Senior Vice-Presidents or Vice-Presidents specially authorized so to do by the Board of Directors or by the Executive Committee, shall have power, by and with the concurrence of the Secretary or any one of the Assistant Secretaries, to appoint Resident Vice-Presidents, Assistant Vice-Presidents and Attorneys-in-Fact as the business of the Company may require, or to authorize any person or persons to execute on behalf of the Company any bonds, undertakings, recognizances, stipulations, policies, contracts, agreements, deeds, and releases and assignments of judgements, decrees, mortgages and instruments in the nature of mortgages,...and to affix the seal of the Company thereto."

**CERTIFICATE**

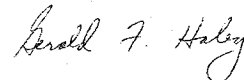
I, the undersigned, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, do hereby certify that the foregoing Power of Attorney is still in full force and effect on the date of this certificate; and I do further certify that the Vice-President who executed the said Power of Attorney was one of the additional Vice-Presidents specially authorized by the Board of Directors to appoint any Attorney-in-Fact as provided in Article VI, Section 2, of the By-Laws of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND.

This Power of Attorney and Certificate may be signed by facsimile under and by authority of the following resolution of the Board of Directors of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND at a meeting duly called and held on the 10th day of May, 1990.

RESOLVED: "That the facsimile or mechanically reproduced seal of the company and facsimile or mechanically reproduced signature of any Vice-President, Secretary, or Assistant Secretary of the Company, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power of attorney issued by the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed."

IN TESTIMONY WHEREOF, I have hereunto subscribed my name and affixed the corporate seal of the said Company,

this 9<sup>th</sup> day of February, 2011.



*Assistant Secretary*

**Power of Attorney**  
**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**

KNOW ALL MEN BY THESE PRESENTS: That the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, a corporation of the State of Maryland, by WILLIAM J. MILLS, Vice President, and GREGORY E. MURRAY, Assistant Secretary, in pursuance of authority granted by Article VI, Section 2, of the By-Laws of said Company, which are set forth on the reverse side hereof and are hereby certified to be in full force and effect on the date hereof, does hereby nominate, constitute and appoint **Cristin NOLETTE, of Irvine, California**, its true and lawful agent and Attorney-in-Fact, to make, execute, seal and deliver, for, and on its behalf as surety, and as its act and deed, **any and all bonds and undertakings**, and the execution of such bonds or undertakings in pursuance of these presents, shall be as binding upon said Company, as fully and amply, to all intents and purposes, as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its office in Baltimore, Md., in their own proper persons. This power of attorney revokes that issued on behalf of Cristin NOLETTE dated October 15, 2008.

The said Assistant Secretary does hereby certify that the extract set forth on the reverse side hereof is a true copy of Article VI, Section 2, of the By-Laws of said Company, and is now in force.

IN WITNESS WHEREOF, the said Vice-President and Assistant Secretary have hereunto subscribed their names and affixed the Corporate Seal of the said FIDELITY AND DEPOSIT COMPANY OF MARYLAND, this 24th day of June, A.D. 2009.

ATTEST:

**FIDELITY AND DEPOSIT COMPANY OF MARYLAND**



*Gregory E. Murray*

*William J. Mills*

*Gregory E. Murray Assistant Secretary*

By:

*William J. Mills*

*Vice President*

State of Maryland }  
City of Baltimore } ss:

On this 24th day of June, A.D. 2009, before the subscriber, a Notary Public of the State of Maryland, duly commissioned and qualified, came WILLIAM J. MILLS, Vice President, and GREGORY E. MURRAY, Assistant Secretary of the FIDELITY AND DEPOSIT COMPANY OF MARYLAND, to me personally known to be the individuals and officers described in and who executed the preceding instrument, and they each acknowledged the execution of the same, and being by me duly sworn, severally and each for himself depose and saith, that they are the said officers of the Company aforesaid, and that the seal affixed to the preceding instrument is the Corporate Seal of said Company, and that the said Corporate Seal and their signatures as such officers were duly affixed and subscribed to the said instrument by the authority and direction of the said Corporation.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my Official Seal the day and year first above written.



*Maria D. Adamski*

*Maria D. Adamski*

*Notary Public*

My Commission Expires: July 8, 2011



WILLIAM M. WASH  
1000 ...  
1000 ...  
1000 ...  
1000 ...