



Purchasing Division

## Invitation for Bid

IFB-4564-18-DH  
2018 Sewer Line Replacement Project – Phase B

### **Responses Due:**

Thursday, September 20, 2018 prior to 3:30 pm MDT

**Accepting Electronic Responses Only**

**Responses Only Submitted Through the Rocky Mountain E-Purchasing System (RMEPS)**

**<https://www.rockymountainbidssystem.com/default.asp>**

(Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. 800-835-4603)

### **Purchasing Representative:**

Duane Hoff, Senior Buyer

**[duaneh@gjcity.org](mailto:duaneh@gjcity.org)**

970-244-1545

This document has been developed specifically to solicit competitive responses for this solicitation, and may not be the same as previous City of Grand Junction solicitations. All vendors are urged to thoroughly review this solicitation prior to responding. Submittal by **FAX, EMAIL or HARD COPY IS NOT ACCEPTABLE** for this solicitation.

# Invitation for Bids

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# **1. Instructions to Bidders**

- 1.1. **Purpose:** The City of Grand Junction is soliciting competitive bids from qualified and interested companies for all labor, equipment, and materials required for the **2018 Sewer Line Replacement Project – Phase B**. All dimensions and scope of work should be verified by Contractors prior to submission of bids.

## **IFB Questions:**

Duane Hoff, Senior Buyer  
[duaneh@gjcity.org](mailto:duaneh@gjcity.org)

- 1.2. **Mandatory Pre-Bid Meeting:** **Prospective bidders are required to attend a mandatory pre-bid meeting on Thursday, September 13, 2018 at 10:30 am.** Meeting location shall be in the City Council Auditorium at City Hall, located at 250 North 5<sup>th</sup> Street, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).
- 1.3. **The Owner:** The Owner is the City of Grand Junction, Colorado and is referred to throughout this Solicitation. The term Owner means the Owner or his authorized representative.
- 1.4. **Submission:** **Each bid shall be submitted in electronic format only, and only through the Rocky Mountain E-Purchasing website (<https://www.rockymountainbidssystem.com/default.asp>).** *This site offers both “free” and “paying” registration options that allow for full access of the Owner’s documents and for electronic submission of proposals. (Note: “free” registration may take up to 24 hours to process. Please Plan accordingly.)* Please view our “**Electronic Vendor Registration Guide**” at <http://www.gjcity.org/business-and-economic-development/bids/> for details. (Purchasing Representative does not have access or control of the vendor side of RMEPS. If website or other problems arise during response submission, vendor **MUST** contact RMEPS to resolve issue prior to the response deadline. **800-835-4603**)
- 1.5. **Modification and Withdrawal of Bids Before Opening.** Bids may be modified or withdrawn by an appropriate document stating such, duly executed and submitted to the place where Bids are to be submitted at any time prior to Bid Opening.
- 1.6. **Printed Form for Price Bid:** All Price Bids must be made upon the Price Bid Schedule attached, and should give the amounts both in words and in figures, and must be signed and acknowledged by the bidder.

The Offeror shall specify a unit price in figures for each pay item for which a quantity is given and shall provide the products (in numbers) of the respective unit prices and quantities in the Extended Amount column. The total Bid price shall be equal to the sum of all extended amount prices. When an item in the Price Bid Schedule provides a choice to be made by the Offeror, Offeror's choice shall be indicated in accordance with the specifications for that particular item and thereafter no further choice shall be permitted.

Where the unit of a pay item is lump sum, the lump sum amount shall be shown in the "extended amount" column and included in the summation of the total Bid.

All blank spaces in the Price Bid Schedule must be properly filled out.

Bids by corporations must be executed in the corporate name by the president or vice president or other corporate office accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown below the signature.

Bids by partnerships must be executed in the partnership name and signed by a partner whose title must appear under the signature and the official address of the partnership must be shown below the signature.

All names must be typed or printed below the signature.

The Offeror's Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Contractor's Bid Form.

The contact information to which communications regarding the Bid are to be directed must be shown.

- 1.7. **Exclusions:** No oral, telephonic, emailed, or facsimile bid will be considered
- 1.8. **Contract Documents:** The complete IFB and bidder's response compose the Contract Documents. Copies of bid documents can be obtained from the City Purchasing website, <http://www.gjcity.org/business-and-economic-development/bids/> .
- 1.9. **Additional Documents:** The July 2010 edition of the "City Standard Contract Documents for Capital Improvements Construction", Plans, Specifications and other Bid Documents are available for review or download on the Public Works & Planning/Engineering page at [www.gjcity.org](http://www.gjcity.org). Electronic copies may be obtained on a CD format at the Department of Public Works and Planning at City Hall.
- 1.10. **Definitions and Terms:** See Article I, Section 3 of the General Contract Conditions in the *Standard Contract Documents for Capital Improvements Construction*.
- 1.11. **Examination of Specifications:** Bidders shall thoroughly examine and be familiar with the project Statement of Work. The failure or omission of any Offeror to receive or examine any form, addendum, or other document shall in no way relieve any Offeror from any obligation with respect to his bid. The submission of a bid shall be taken as evidence of compliance with this section. Prior to submitting a bid, each Offeror shall, at a minimum:
  - a. Examine the *Contract Documents* thoroughly;
  - b. Visit the site to familiarize themselves with local conditions that may in any manner affect cost, progress, or performance of the Work;

- c. Become familiar with federal, state, and local laws, ordinances, rules, and regulations that may in any manner affect cost, progress or performance of the Work;
- d. Study and carefully correlate Bidder's observations with the *Contract Documents*, and;
- e. Notify the Engineer of all conflicts, errors, ambiguities or discrepancies in or among the *Contract Documents*

On request, the Owner will provide each Offeror access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of a Bid. It shall be the Offeror's responsibility to make or obtain any additional examinations, investigations, explorations, tests and studies and obtain any additional information and data which pertain to the physical conditions (including without limitation, surface, subsurface and underground utilities) at or contiguous to the site or otherwise which may affect cost, progress or performance of the work and which the Offeror deems necessary to determine its Bid for performing the work in accordance with the time, price and other terms and conditions of the Contract Documents. Location of any excavation or boring made by Offeror shall be subject to prior approval of Owner and applicable agencies. Offeror shall fill all holes, restore all pavements to match the existing structural section and shall clean up and restore the site to its former condition upon completion of such exploration. The Owner reserves the right to require the Offeror to execute an access agreement with the Owner prior to accessing the site.

The lands upon which the Work is to be performed, rights of way, and access thereto, and other lands designated for use by Contractor in performing the Work, are identified on the Drawings.

Information and data reflected in the *Contract Documents* with respect to underground utilities at or contiguous to the site are based upon information and data furnished to the Owner and the Engineer by the owners of such underground utilities or others, and the Owner does not assume responsibility for the accuracy or completeness thereof, unless it is expressly provided otherwise in the *Contract Documents*.

By submission of a Bid, the Offeror shall be conclusively presumed to represent that the Offeror has complied with every requirement of these Instructions to Bidders, that the *Contract Documents* are not ambiguous and are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

- 1.12. Questions Regarding Statement of Work:** Any information relative to interpretation of Scope of Work or specifications shall be requested of the Purchasing Representative, in writing, in ample time prior to the response time.
- 1.13. Addenda & Interpretations:** If it becomes necessary to revise any part of this solicitation, a written addendum will be posted electronically on the City's website at <http://www.gjcity.org/business-and-economic-development/bids/> . The Owner is not bound by any oral representations, clarifications, or changes made in the written

specifications by Owner, unless such clarification or change is provided in written addendum form from the City Purchasing Representative.

- 1.14. **Taxes:** The Owner is exempt from State retail and Federal tax. The bid price must be net, exclusive of taxes.
- 1.15. **Sales and Use Taxes:** The Contractor and all Subcontractors are required to obtain exemption certificates from the Colorado Department of Revenue for sales and use taxes in accordance with the provisions of the General Contract Conditions. Bids shall reflect this method of accounting for sales and use taxes on materials, fixtures and equipment.
- 1.16. **Offers Binding 60 Days:** Unless additional time is required by the Owner, or otherwise specified, all formal offers submitted shall be binding for sixty (60) calendar days following opening date, unless the Bidder, upon request of the Purchasing Representative, agrees to an extension.
- 1.17. **Collusion Clause:** Each bidder by submitting a bid certifies that it is not party to any collusive action or any action that may be in violation of the Sherman Antitrust Act. Any and all bids shall be rejected if there is evidence or reason for believing that collusion exists among bidders. The Owner may, or may not, accept future bids for the same services or commodities from participants in such collusion.
- 1.18. **Disqualification of Bidders:** A Bid will not be accepted from, nor shall a Contract be awarded to, any person, firm, or corporation that is in arrears to the Owner, upon debt or contract, or that has defaulted, as surety or otherwise, upon any obligation to the Owner, or that is deemed irresponsible or unreliable.

Bidders may be required to submit satisfactory evidence that they are responsible, have a practical knowledge of the project bid upon and that they have the necessary financial and other resources to complete the proposed Work.

Either of the following reasons, without limitation, shall be considered sufficient to disqualify a Bidder and Bid:

- a. More than one Bid is submitted for the same Work from an individual, firm, or corporation under the same or different name; and
  - b. Evidence of collusion among Bidders. Any participant in such collusion shall not receive recognition as a Bidder for any future work of the Owner until such participant has been reinstated as a qualified bidder.
- 1.19. **Public Disclosure Record:** If the bidder has knowledge of their employee(s) or sub-contractors having an immediate family relationship with a City/County employee or elected official, the bidder must provide the Purchasing Representative with the name(s) of these individuals. These individuals are required to file an acceptable "Public Disclosure Record", a statement of financial interest, before conducting business with the City/County.

## **2. General Contract Conditions for Construction Projects**

- 2.1. The Contract:** This Invitation for Bid, submitted documents, and any negotiations, when properly accepted by the City/County, shall constitute a contract equally binding between the City/County and Contractor. The contract represents the entire and integrated agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either written or oral. The contract may be amended or modified with Change Orders, Field Orders, or Addendums.
- 2.2. The Work:** The term Work includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.
- 2.3. Execution, Correlation, Intent, and Interpretations:** The Contract Documents shall be signed in not less than triplicate by the Owner (City/County) and Contractor. City/County will provide the contract. By executing the contract, the Contractor represents that he/she has visited the site, familiarized himself with the local conditions under which the Work is to be performed, and correlated his observations with the requirements of the Contract Documents. The Contract Documents are complementary, and what is required by any one, shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment and other items necessary for the proper execution and completion of the scope of work as defined in the technical specifications and drawings contained herein. All drawings, specifications and copies furnished by the City/County are, and shall remain, City/County property. They are not to be used on any other project, and with the exception of one contract set for each party to the contract, are to be returned to the owner on request at the completion of the work.
- 2.4. The Owner:** The Owner is the City of Grand Junction, Colorado and is referred to throughout the Contract Documents. The term Owner means the Owner or his authorized representative. The Owner shall, at all times, have access to the work wherever it is in preparation and progress. The Contractor shall provide facilities for such access. The Owner will make periodic visits to the site to familiarize himself generally with the progress and quality of work and to determine, in general, if the work is proceeding in accordance with the contract documents. Based on such observations and the Contractor's Application for Payment, the Owner will determine the amounts owing to the Contractor and will issue Certificates for Payment in such amounts, as provided in the contract. The Owner will have authority to reject work which does not conform to the Contract documents. Whenever, in his reasonable opinion, he considers it necessary or advisable to insure the proper implementation of the intent of the Contract Documents, he will have authority to require the Contractor to stop the work or any portion, or to require special inspection or testing of the work, whether or not such work can be then be fabricated, installed, or completed. The Owner will not be responsible for the acts or omissions of the Contractor, and sub-Contractor, or any of their agents or employees, or any other persons performing any of the work.
- 2.5. Contractor:** The Contractor is the person or organization identified as such in the Agreement and is referred to throughout the Contract Documents. The term Contractor

means the Contractor or his authorized representative. The Contractor shall carefully study and compare the General Contract Conditions of the Contract, Specification and Drawings, Scope of Work, Addenda and Modifications and shall at once report to the Owner any error, inconsistency or omission he may discover. Contractor shall not be liable to the Owner for any damage resulting from such errors, inconsistencies or omissions. The Contractor shall not commence work without clarifying Drawings, Specifications, or Interpretations.

- 2.6. Sub-Contractors:** A sub-contractor is a person or organization who has a direct contract with the Contractor to perform any of the work at the site. The term sub-contractor is referred to throughout the contract documents and means a sub-contractor or his authorized representative.
- 2.7. Award of Sub-Contractors & Other Contracts for Portions of the Work:** Contractor shall submit with their bid response to the Owner, in writing for acceptance, a list of the names of the sub-contractors or other persons or organizations proposed for such portions of the work as may be designated in the proposal requirements, or, if none is so designated, the names of the sub-contractors proposed for the principal portions of the work. Prior to the award of the contract, the Owner shall notify the successful Contractor in writing if, after due investigation, has reasonable objection to any person or organization on such list. If, prior to the award of the contract, the Owner has a reasonable and substantial objection to any person or organization on such list, and refuses in writing to accept such person or organization, the successful Contractor may, prior to the award, withdraw their proposal without forfeiture of proposal security. If the successful Contractor submits an acceptable substitute with an increase in the proposed price to cover the difference in cost occasioned by the substitution, the Owner may, at their discretion, accept the increased proposal or may disqualify the Contractor. If, after the award, the Owner refuses to accept any person or organization on such list, the Contractor shall submit an acceptable substitute and the contract sum shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate Change Order shall be issued. However, no increase in the contract sum shall be allowed for any such substitution unless the Contractor has acted promptly and responsibly in submitting a name with respect thereto prior to the award.
- 2.8. Quantities of Work and Unit Price:** Materials or quantities stated as unit price items in the Bid are supplied only to give an indication of the general scope of the Work, and are as such, estimates only. The Owner does not expressly or by implication agree that the actual amount of Work or material will correspond therewith, and reserves the right after award to increase or decrease the quantity of any unit item of the Work without a change in the unit price except as set forth in Article VIII, Section 70 of the *General Contract Conditions*. The City also reserves the right to make changes in the Work (including the right to delete any bid item in its entirety or add additional bid items) as set forth in Article VIII, Sections 69 through 71 of the *General Contract Conditions*.
- 2.9. Substitutions:** The materials, products and equipment described in the *Solicitation Documents* shall be regarded as establishing a standard of required performance, function, dimension, appearance, or quality to be met by any proposed substitution. No substitution will be considered prior to receipt of Bids unless the Offeror submits a written request for approval to the City Purchasing Division at least ten (10) days prior to the



date for receipt of Bids. Such requests for approval shall include the name of the material or equipment for which substitution is sought and a complete description of the proposed substitution including drawings, performance and test data, and other information necessary for evaluation, including samples if requested. The Offeror shall set forth changes in other materials, equipment, or other portions of the Work including changes of the work of other contracts, which incorporation of the proposed substitution would require to be included. The Owner's decision of approval or disapproval of a proposed substitution shall be final. If the Owner approves a proposed substitution before receipt of Bids, such approval will be set forth in an Addendum. Offerors shall not rely upon approvals made in any other manner.

- 2.10. Supervision and Construction Procedures:** The Contractor shall supervise and direct the work, using his best skill and attention. He shall be solely responsible for all construction means, methods, techniques, sequences and procedures and for coordinating all portions of the work under the contract.
- 2.11. Warranty:** The Contractor warrants to the Owner that all materials and equipment furnished under this contract will be new unless otherwise specified, and that all work will be of good quality, free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards may be considered defective. If required by Owner, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment. If within ten (10) days after written notice to the Contractor requesting such repairs or replacement, the Contractor should neglect to make or undertake with due diligence to the same, the City may make such repairs or replacements. All indirect and direct costs of such correction or removal or replacement shall be at the Contractor's expense. The Contractor will also bear the expenses of making good all work of others destroyed or damaged by the correction, removal or replacement of his defective work.
- 2.12. Permits, Fees, & Notices:** The Contractor shall secure and pay for all permits, governmental fees and licenses necessary for the proper execution and completion of the work. The Contractor shall give all notices and comply with all laws, ordinances, rules, regulations and orders of any public authority bearing on the performance of the work. If the Contractor observes that any of the Contract Documents are at variance in any respect, he shall promptly notify the Owner in writing, and any necessary changes shall be adjusted by approximate modification. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, rules and regulations, and without such notice to the Owner, he shall assume full responsibility and shall bear all costs attributable.
- 2.13. Responsibility for Those Performing the Work:** The Contractor shall be responsible to the Owner for the acts and omissions of all his employees and all sub-contractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.
- 2.14. Use of the Site:** The Contractor shall confine operations at the site to areas permitted by law, ordinances, permits and the Contract Documents, and shall not unreasonably encumber the site with any materials or equipment.

**2.15. Cleanup:** The Contractor at all times shall keep the premises free from accumulation of waste materials or rubbish caused by his operations. At the completion of work he shall remove all his waste materials and rubbish from and about the project, as well as all his tools, construction equipment, machinery and surplus materials.

**2.16. Insurance:** The Contractor shall secure and maintain such insurance policies as will provide the coverage and contain other provisions specified in the General Contract Conditions, or as modified in the Special Contract Conditions.

The Contractor shall file a copy of the policies or Certificates of Insurance acceptable to the City with the Engineer within ten (10) Calendar Days after issuance of the Notice of Award. These Certificates of Insurance shall contain a provision that coverage afforded under the policies shall not be canceled unless at least thirty (30) Calendar Days prior written notice has been given to the City.

**2.17. Indemnification:** The Contractor shall defend, indemnify and save harmless the Owner, and all its officers, employees, insurers, and self-insurance pool, from and against all liability, suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the Contractor, or of any Contractor's agent, employee, sub-contractor or supplier in the execution of, or performance under, any contract which may result from proposal award. Contractor shall pay any judgment with cost which may be obtained against the Owner growing out of such injury or damages.

**2.18. Miscellaneous Conditions:** Material Availability: Contractors must accept responsibility for verification of material availability, production schedules, and other pertinent data prior to submission of bid. It is the responsibility of the bidder to notify the Owner immediately if materials specified are discontinued, replaced, or not available for an extended period of time. OSHA Standards: All bidders agree and warrant that services performed in response to this invitation shall conform to the standards declared by the US Department of Labor under the Occupational Safety and Health Act of 1970 (OSHA). In the event the services do not conform to OSHA standards, the Owner may require the services to be redone at no additional expense to the Owner.

**2.19. Time:** Time is of the essence with respect to the time of completion of the Project and any other milestones or deadline which are part of the Contract. It will be necessary for each Bidder to satisfy the City of its ability to complete the Work within the Contract Time set forth in the Contract Documents. The Contract Time is the period of time allotted in the Contract Documents for completion of the work. The date of commencement of the work is the date established in a Notice to Proceed. If there is no Notice to Proceed, it shall be the date of the Contract or such other date as may be established therein, or as established as entered on the Bid Form. The Date of Substantial Completion of the work or designated portions thereof is the date certified by the Owner when construction is sufficiently complete, in accordance with the Contract Documents.

**2.20. Progress & Completion:** The Contractor shall begin work on the date of commencement as defined in the Contract, and shall carry the work forward expeditiously with adequate forces and shall complete it within the contract time.

**2.21. Payment & Completion:** The Contract Sum is stated in the Contract and is the total amount payable by the Owner to the Contractor for the performance of the work under the Contract Documents. Upon receipt of written notice that the work is ready for final inspection and acceptance and upon receipt of application for payment, the Owner's Project Manager will promptly make such inspection and, when he finds the work acceptable under the Contract Documents and the Contract fully performed, the Owner shall make payment in the manner provided in the Contract Documents.

**2.22. Bid Bond:** Each Bid shall as a guaranty of good faith on the part of the Bidder be accompanied by a Bid Guaranty consisting of: a certified or cashier's check drawn on an approved national bank or trust company in the state of Colorado, and made payable without condition to the City; or a **Bid Bond** written by an approved corporate surety in favor of the City. The amount of the Bid Guaranty shall not be less than 5% of the total Bid amount. Once a Bid is accepted and a Contract is awarded, the apparent successful bidder has ten calendar days to enter into a contract in the form prescribed and to furnish the bonds with a legally responsible and approved surety. Failure to do so will result in forfeiture of the Bid Guaranty to the City as Liquidated Damages.

Each bidder shall guaranty its total bid price for a period of sixty (60) Calendar Days from the date of the bid opening.

**2.23. Performance & Payment Bonds:** Contractor shall furnish a Performance and a Payment Bond, each in an amount at least equal to that specified for the contract amount as security for the faithful performance and payment of all Contractor's obligations under the Contract Documents. These bonds shall remain in effect for the duration of the Warranty Period (as specified in the Special Conditions). Contractor shall also furnish other bonds that may be required by the Special Conditions. All bonds shall be in the forms prescribed by the Contract Documents and be executed by such sureties as (1) are licensed to conduct business in the State of Colorado and (2) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Accounts, U.S. Treasury Department. All bonds signed by an agent must be accompanied by a certified copy of the Authority Act. If the surety on any bond furnished by the Contractor is declared bankrupt, or becomes insolvent, or its rights to do business in Colorado are terminated, or it ceases to meet the requirements of clauses (1) and (2) of this section, Contractor shall within five (5) days thereafter substitute another bond and surety, both of which shall be acceptable to the City.

**2.24. Retention:** The Owner will deduct money from the partial payments in amounts considered necessary to protect the interest of the Owner and will retain this money until after completion of the entire contract. The amount to be retained from partial payments will be five (5) percent of the value of the completed work, and not greater than five (5) percent of the amount of the Contract. When the retainage has reached five (5) percent of the amount of the Contract no further retainage will be made and this amount will be retained until such time as final payment is made.

**2.25. Liquidated Damages for Failure to Enter Into Contract: CITY ONLY** Should the Successful Bidder fail or refuse to enter into the Contract within ten Calendar Days from the issuance of the Notice of Award, the City shall be entitled to collect the amount of such Bidder's Bid Guaranty as Liquidated Damages, not as a penalty but in consideration of the mutual release by the City and the Successful Bidder of all claims arising from the City's issuance of the Notice of Award and the Successful Bidder's failure to enter into the Contract and the costs to award the Contract to any other Bidder, to re-advertise, or otherwise dispose of the Work as the City may determine best serves its interest.

**2.26. Liquidated Damages for Failure to Meet Project Completion Schedule: CITY ONLY** If the Contractor does not achieve Final Completion by the required date, whether by neglect, refusal or any other reason, the parties agree and stipulate that the Contractor shall pay liquidated damages to the City for each such day that final completion is late. As provided elsewhere, this provision does not apply for delays caused by the City. The date for Final Completion may be extended in writing by the Owner.

The Contractor agrees that as a part of the consideration for the City's awarding of this Contract liquidated damages in the daily amount of **\$350.00** is reasonable and necessary to pay for the actual damages resulting from such delay. The parties agree that the real costs and injury to the City for such delay include hard to quantify items such as: additional engineering, inspection and oversight by the City and its agents; additional contract administration; inability to apply the efforts of those employees to the other work of the City; perceived inefficiency of the City; citizens having to deal with the construction and the Work, rather than having the benefit of a completed Work, on time; inconvenience to the public; loss of reputation and community standing for the City during times when such things are very important and very difficult to maintain.

The Contractor must complete the Work and achieve final completion included under the Bid Schedule in the number of consecutive calendar days after the City gives its written Notice to Proceed. When the Contractor considers the entire Work ready for its intended use, Contractor shall certify in writing that the Work is substantially complete. In addition to the Work being substantially complete, Final Completion date is the date by which the Contractor shall have fully completed all clean-up, and all items that were identified by the City in the inspection for final completion. Unless otherwise stated in the Special Conditions, for purposes of this liquidated damages clause, the Work shall not be finished and the Contract time shall continue to accrue until the City gives its written Final Acceptance.

If the Contractor shall fail to pay said liquidated damages promptly upon demand thereof after having failed to achieve Final Completion on time, the City shall first look to any retainage or other funds from which to pay said liquidated damages; if retainage or other liquid funds are not available to pay said liquidated damages amounts, the Surety on the Contractor's Performance Bond and Payment Bond shall pay such liquidated damages. In addition, the City may withhold all, or any part of, such liquidated damages from any payment otherwise due the Contractor.

Liquidated damages as provided do not include any sums to reimburse the City for extra costs which the City may become obligated to pay on other contracts which were delayed or extended because of the Contractor's failure to complete the Work within the Contract Time. Should the City incur additional costs because of delays or extensions to other

contracts resulting from the Contractor's failure of timely performance, the Contractor agrees to pay these costs that the City incurs because of the Contractor's delay, and these payments are separate from and in addition to any liquidated damages.

The Contractor agrees that the City may use its own forces or hire other parties to obtain Substantial or Final Completion of the work if the time of completion has elapsed and the Contractor is not diligently pursuing completion. In addition to the Liquidated Damages provided for, the Contractor agrees to reimburse the City for all expenses thus incurred.

- 2.27. Contingency/Force Account:** Contingency/Force Account work will be authorized by the Owner's Project Manager and is defined as minor expenses to cover miscellaneous or unforeseen expenses related to the project. The expenses are not included in the Drawings, Specifications, or Scope of Work and are necessary to accomplish the scope of this contract. Contingency/Force Account Authorization will be directed by the Owner through an approved form. Contingency/Force Account funds are the property of the Owner and any Contingency/Force Account funds, not required for project completion, shall remain the property of the Owner. Contractor is not entitled to any Contingency/Force Account funds, that are not authorized by Owner or Owner's Project Manager.
- 2.28. Protection of Persons & Property:** The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. Contractor shall erect and maintain, as required by existing safeguards for safety and protection, and all reasonable precautions, including posting danger signs or other warnings against hazards promulgating safety regulations and notifying owners and users of adjacent utilities. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct by the Contractor in the execution of the work, or in consequence of the non-execution thereof by the Contractor, he shall restore, at his own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding, or otherwise restoring as may be directed, or it shall make good such damage or injury in an acceptable manner.
- 2.29. Changes in the Work:** The Owner, without invalidating the contract, may order changes in the work within the general scope of the contract consisting of additions, deletions or other revisions, the contract sum and the contract time being adjusted accordingly. All such changes in the work shall be authorized by Change Order and shall be executed under the applicable conditions of the contract documents. A Change Order is a written order to the Contractor signed by the Owner issued after the execution of the contract, authorizing a change in the work or an adjustment in the contract sum or the contract time. The contract sum and the contract time may be changed only by Change Order.
- 2.30. Claims for Additional Cost or Time:** If the Contractor wishes to make a claim for an increase in the contract sum or an extension in the contract time, he shall give the Owner written notice thereof within a reasonable time after the occurrence of the event giving rise to such claim. This notice shall be given by the Contractor before proceeding to execute the work, except in an emergency endangering life or property in which case the Contractor shall precede in accordance with the regulations on safety. No such claim

shall be valid unless so made. Any change in the contract sum or contract time resulting from such claim shall be authorized by Change Order.

- 2.31. Minor Changes in the Work:** The Owner shall have authority to order minor changes in the work not involving an adjustment in the contract sum or an extension of the contract time and not inconsistent with the intent of the contract documents.
- 2.32. Field Orders:** The Owner may issue written Field Orders which interpret the Contract Documents in accordance with the specifications, or which order minor changes in the work in accordance with the agreement, without change in the contract sum or time. The Contractor shall carry out such Field Orders promptly.
- 2.33. Uncovering & Correction of Work:** The Contractor shall promptly correct all work rejected by the Owner as defective or as failing to conform to the contract documents whether observed before or after substantial completion and whether or not fabricated installed or completed. The Contractor shall bear all costs of correcting such rejected work, including the cost of the Owner's additional services thereby made necessary. If within one (1) year after the date of completion or within such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the contract documents, any of the work found to be defective or not in accordance with the contract documents, the Contractor shall correct it promptly after receipt of a written notice from the Owner to do so unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discover of condition. All such defective or non-conforming work under the above paragraphs shall be removed from the site where necessary and the work shall be corrected to comply with the contract documents without cost to the Owner. The Contractor shall bear the cost of making good all work of separate Contractors destroyed or damaged by such removal or correction. If the Owner prefers to accept defective or non-conforming work, he may do so instead of requiring its removal and correction, in which case a Change Order will be issued to reflect an appropriate reduction in the payment or contract sum, or, if the amount is determined after final payment, it shall be paid by the Contractor.
- 2.30. Amendment:** No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All amendments to the contract shall be made in writing by the Owner.
- 2.31. Assignment:** The Contractor shall not sell, assign, transfer or convey any contract resulting from this IFB, in whole or in part, without the prior written approval from the Owner.
- 2.32. Compliance with Laws:** Bids must comply with all Federal, State, County and local laws governing or covering this type of service and the fulfillment of all ADA (Americans with Disabilities Act) requirements.
- 2.33. Confidentiality:** All information disclosed by the Owner to the Contractor for the purpose of the work to be done or information that comes to the attention of the Contractor during the course of performing such work is to be kept strictly confidential.

- 2.34. Conflict of Interest:** No public official and/or City/County employee shall have interest in any contract resulting from this IFB.
- 2.35. Contract Termination:** This contract shall remain in effect until any of the following occurs: (1) contract expires; (2) completion of services; (3) acceptance of services or, (4) for convenience terminated by either party with a written *Notice of Cancellation* stating therein the reasons for such cancellation and the effective date of cancellation.
- 2.36. Employment Discrimination:** During the performance of any services per agreement with the Owner, the Contractor, by submitting a Bid, agrees to the following conditions:
- 2.36.1.** The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, handicap, or national origin except when such condition is a legitimate occupational qualification reasonably necessary for the normal operations of the Contractor. The Contractor agrees to post in conspicuous places, visible to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.
- 2.36.2.** The Contractor, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, shall state that such Contractor is an Equal Opportunity Employer.
- 2.36.3.** Notices, advertisements, and solicitations placed in accordance with federal law, rule, or regulation shall be deemed sufficient for the purpose of meeting the requirements of this section.
- 2.37. Affirmative Action:** In executing a Contract with the City, the Contractor agrees to comply with Affirmative Action and Equal Employment Opportunity regulations presented in the General Contract Conditions.
- 2.38. Immigration Reform and Control Act of 1986 and Immigration Compliance:** The Offeror certifies that it does not and will not during the performance of the contract employ illegal alien workers or otherwise violate the provisions of the Federal Immigration Reform and Control Act of 1986 and/or the immigration compliance requirements of State of Colorado C.R.S. § 8-17.5-101, *et.seq.* (House Bill 06-1343).
- 2.39. Ethics:** The Contractor shall not accept or offer gifts or anything of value nor enter into any business arrangement with any employee, official, or agent of the Owner.
- 2.40. Failure to Deliver:** In the event of failure of the Contractor to deliver services in accordance with the contract terms and conditions, the Owner, after due oral or written notice, may procure the services from other sources and hold the Contractor responsible for any costs resulting in additional purchase and administrative services. This remedy shall be in addition to any other remedies that the Owner may have.
- 2.41. Failure to Enforce:** Failure by the Owner at any time to enforce the provisions of the contract shall not be construed as a waiver of any such provisions. Such failure to

enforce shall not affect the validity of the contract or any part thereof or the right of the Owner to enforce any provision at any time in accordance with its terms.

- 2.42. Force Majeure:** The Contractor shall not be held responsible for failure to perform the duties and responsibilities imposed by the contract due to legal strikes, fires, riots, rebellions, and acts of God beyond the control of the Contractor, unless otherwise specified in the contract.
- 2.43. Independent Contractor:** The Contractor shall be legally considered an Independent Contractor and neither the Contractor nor its employees shall, under any circumstances, be considered servants or agents of the Owner. The Owner shall be at no time legally responsible for any negligence or other wrongdoing by the Contractor, its servants, or agents. The Owner shall not withhold from the contract payments to the Contractor any federal or state unemployment taxes, federal or state income taxes, Social Security Tax or any other amounts for benefits to the Contractor. Further, the Owner shall not provide to the Contractor any insurance coverage or other benefits, including Workers' Compensation, normally provided by the Owner for its employees.
- 2.44. Nonconforming Terms and Conditions:** A bid that includes terms and conditions that do not conform to the terms and conditions of this Invitation for Bid is subject to rejection as non-responsive. The Owner reserves the right to permit the Contractor to withdraw nonconforming terms and conditions from its bid prior to a determination by the Owner of non-responsiveness based on the submission of nonconforming terms and conditions.

Items for non-responsiveness may include, but not be limited to:

- a. Submission of the Bid on forms other than those supplied by the City;
- b. Alteration, interlineation, erasure, or partial detachment of any part of the forms which are supplied herein;
- c. Inclusion of unauthorized additions conditional or alternate Bids or irregularities of any kind which may tend to make the Bid incomplete, indefinite, or ambiguous as to its meaning;
- d. Failure to acknowledge receipt of any or all issued Addenda;
- e. Failure to provide a unit price or a lump sum price, as appropriate, for each pay item listed except in the case of authorized alternative pay items;
- f. Failure to list the names of Subcontractors used in the Bid preparation as may be required in the Solicitation Documents;
- g. Submission of a Bid that, in the opinion of the Owner, is unbalanced so that each item does not reasonably carry its own proportion of cost or which contains inadequate or unreasonable prices for any item;
- h. Tying of the Bid with any other bid or contract; and



- i. Failure to calculate Bid prices as described herein.

**2.45. Evaluation of Bids and Offerors:** The Owner reserves the right to:

- reject any and all Bids,
- waive any and all informalities,
- negotiate final terms with the Successful Bidder, and
- disregard any and all nonconforming, nonresponsive or conditional Bids.

Discrepancies between words and figures will be resolved in favor of words. Discrepancies between Unit Prices and Extended Prices will be resolved in favor of the Unit Prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. The corrected extensions and totals will be shown in the tabulation of Bids.

The Owner may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items of material or equipment) proposed for those portions of the work as to which the identity of Subcontractors and other persons and organizations must be submitted. Operating costs, maintenance considerations performance data, and guarantees of materials and equipment may also be considered by the Owner.

The Owner will conduct such investigations as deemed necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Offeror, proposed Subcontractors and other persons and organizations to do the Work in accordance with the *Contract Documents* to the City's satisfaction within the Contract Time.

The Offeror shall furnish the Owner all information and data requested by the Owner to determine the ability of the Offeror to perform the Work. The Owner reserves the right to reject the Bid if the evidence submitted by, or investigation of such Offeror fails to satisfy the Owner that such Offeror is properly qualified to carry out the obligations of the Contract and to complete the Work contemplated therein.

By submitting a Bid, each Offeror authorizes the Owner to perform such investigation of the Offeror as the Owner deems necessary to establish the responsibility, qualifications and financial ability of the Offeror and, by its signature thereon, authorizes the Owner to obtain reference information concerning the Offeror and releases the party providing such information and the Owner from any and all liability to the Offeror as a result of such reference information so provided.

The Owner reserves the right to reject the Bid of any Offeror who does not pass any evaluation to the Owner's satisfaction.

If the Contract is to be awarded, it will be awarded to the Offeror who, by evaluation, the Owner determines will best meet the Owner's interests.

The Owner reserves the right to accept or reject the Work contained in any of the Price Bid Schedules or alternates, either in whole or in part.

**2.46. Award of Contract:** Unless otherwise indicated, a single award will be made for all the bid items in an individual bid schedule. In the event that the Work is contained in more than one Bid Schedule, the City may award Schedules individually or in combination. In the case of two Bid Schedules which are alternative to each other, only one of such alternative Schedules will be awarded. Within forty-five (45) Calendar Days of Bid Opening, the City will issue a Notice of Award to the Successful Bidder which will be accompanied by four (4) unsigned copies of the Contract and the Performance and Payment Bond forms. Within ten (10) Calendar Days thereafter, the Successful Bidder shall sign and deliver four (4) copies of the Contract, Performance Bond, Payment Bond and Certificates of Insurance to the City. Within ten (10) Calendar Days thereafter, the City will deliver two (2) fully executed counterparts of the Contract to the Contractor. No contract shall exist between the Successful Bidder and the City and the Successful Bidder shall have no rights at law or in equity until the Contract has been duly executed by the City.

The Successful Bidder's failure to sign and submit a Contract and other documents set forth in this Paragraph within the prescribed time shall be just cause of annulment of the award, and forfeiture of the Bid Guaranty. The award of Contract may then be made to the next qualified Bidder in the same manner as previously prescribed.

**2.47. Ownership:** All plans, prints, designs, concepts, etc., shall become the property of the Owner.

**2.48. Oral Statements:** No oral statement of any person shall modify or otherwise affect the terms, conditions, or specifications stated in this document and/or resulting agreement. All modifications to this request and any agreement must be made in writing by the Owner.

**2.49. Patents/Copyrights:** The Contractor agrees to protect the Owner from any claims involving infringements of patents and/or copyrights. In no event shall the Owner be liable to the Contractor for any/all suits arising on the grounds of patent(s)/copyright(s) infringement. Patent/copyright infringement shall null and void any agreement resulting from response to this IFB.

**2.50. Remedies:** The Contractor and Owner agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

**2.51. Venue:** Any agreement as a result of responding to this IFB shall be deemed to have been made in, and shall be construed and interpreted in accordance with, the laws of the City of Grand Junction, Mesa County, Colorado.

**2.52. Expenses:** Expenses incurred in preparation, submission and presentation of this IFB are the responsibility of the company and cannot be charged to the Owner.

**2.53. Sovereign Immunity:** The Owner specifically reserves its right to sovereign immunity pursuant to Colorado State Law as a defense to any action arising in conjunction to this agreement.

**2.54. Non-Appropriation of Funds:** The contractual obligation of the Owner under this contract is contingent upon the availability of appropriated funds from this fiscal year budget as approved by the City Council or Board of County Commissioners from this fiscal year only. State of Colorado Statutes prohibit obligation of public funds beyond the fiscal year for which the budget was approved. Anticipated expenditures/obligations beyond the end of the current Owner's fiscal year budget shall be subject to budget approval. Any contract will be subject to and must contain a governmental non-appropriation of funds clause.

**2.55. Cooperative Purchasing:** Purchases as a result of this solicitation are primarily for the City/County. Other governmental entities may be extended the opportunity to utilize the resultant contract award with the agreement of the successful provider and the participating agencies. All participating entities will be required to abide by the specifications, terms, conditions and pricings established in this Bid. The quantities furnished in this bid document are for only the City/County. It does not include quantities for any other jurisdiction. The City or County will be responsible only for the award for its jurisdiction. Other participating entities will place their own awards on their respective Purchase Orders through their purchasing office or use their purchasing card for purchase/payment as authorized or agreed upon between the provider and the individual entity. The City/County accepts no liability for payment of orders placed by other participating jurisdictions that choose to piggy-back on our solicitation. Orders placed by participating jurisdictions under the terms of this solicitation will indicate their specific delivery and invoicing instructions.

**2.56. Keep Jobs in Colorado Act:** Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a). If Contractor claims it is entitled to a waiver pursuant to C.R.S. §8-17-101(1), Contractor shall state that there is insufficient Colorado labor to perform the work such that compliance with Article 17 would create an undue burden that would substantially prevent a project from proceeding to completion, and shall include evidence demonstrating the insufficiency and undue burden in its response.

Unless expressly granted a waiver by the Owner pursuant to C.R.S. §8-17-101(1), Contractor shall be responsible for ensuring compliance with Article 17 of Title 8, Colorado Revised Statutes requiring 80% Colorado labor to be employed on public works. Contractor shall, upon reasonable notice provided by the Owner, permit the Owner to inspect documentation of identification and residency required by C.R.S. §8-17-101(2)(a).

**2.56.1.** "Public project" is defined as:

- (a) any construction, alteration, repair, demolition, or improvement of any land, building, structure, facility, road, highway, bridge, or other public improvement suitable for and intended for use in the promotion of the public health, welfare, or safety and any maintenance programs for the upkeep of such projects

- (b) for which appropriate or expenditure of moneys may be reasonably expected to be \$500,000.00 or more in the aggregate for any fiscal year
- (c) except any project that receives federal moneys.

### **3. Statement of Work**

- 3.1. GENERAL:** The City of Grand Junction is soliciting competitive bids from qualified and interested companies for all labor, equipment, and materials required for the **2018 Sewer Line Replacement Project – Phase B**. All dimensions and scope of work should be verified by Contractors prior to submission of bids.

NOTE: The descriptions of the pay items listed in the Price Bid Schedule for this Project may not agree with those listed in the Standard Specifications. Payment for all Work performed, as required in the Contract Documents, will be in accordance with the items and units listed in the Price Bid Schedule.

The performance of the Work for this Project shall conform to the General Contract conditions presented in the City of Grand Junction's Standard Contract Documents for Capital Improvements Construction, revised July 2010, except as specifically modified or supplemented herein or on the Construction Drawings.

- 3.2. PROJECT DESCRIPTION:** The Project generally consists of installing 4,280 LF of new sanitary sewer pipe and 550 LF of new domestic water pipe. For sewer there is approximately 2,050 LF of 8" SDR-35 sewer pipe, 1,385 LF of Certa-Flo SDR-21 sewer pipe (pipe bursting method), 153 LF of 10" SDR-35 sewer, 650 LF of 4" SDR-35 sewer pipe, 19 new sewer manholes, and 86 sewer connections. For domestic water there is approximately 440 LF of 10" C-900 PVC pipe, 72 LF of 6" C-900 PVC pipe, and miscellaneous water fittings and valves. Project includes restoration of disturbed areas including; gravel and asphalt road surfaces, driveways, and concrete replacement. Work will also include restoration of disturbed landscape areas. This project also includes fittings, landscape restoration, and related appurtenances.

#### **3.3. SPECIAL CONDITIONS & PROVISIONS:**

- 3.3.1 Mandatory Pre-Bid Meeting:** Prospective bidders are required to attend a mandatory pre-bid meeting on Thursday, September 13, 2018 at 13:00 am. Meeting location shall be in the City Council Auditorium at City Hall, located at 250 North 5<sup>th</sup> Street, Grand Junction, CO. The purpose of this visit will be to inspect and to clarify the contents of this Invitation for Bids (IFB).

#### **3.3.2 QUESTIONS REGARDING SOLICIATION PROCESS/SCOPE OF WORK:**

Duane Hoff, Senior Buyer  
City of Grand Junction  
[duaneh@gjcity.org](mailto:duaneh@gjcity.org)

**3.3.3 Project Manager:** The Project Manager for the Project is Lee Cooper, Project Engineer, who can be reached at (970) 256-4155. During Construction, all notices, letters, submittals, and other communications directed to the City shall be addressed and mailed or delivered to:

City of Grand Junction  
Department of Public Works and Utilities  
Attn: Lee Cooper, Project Engineer/Manager  
2145 River Road  
Grand Junction, CO 81505

**3.3.4 Affirmative Action:** The Contractor is not required to submit a written Affirmative Action Program for the Project.

**3.3.5 Pricing:** Pricing shall be all inclusive to include but not be limited to: all labor, equipment, supplies, materials, freight (F.O.B. Destination – Freight Pre-paid and Allowed to each site), travel, mobilization costs, fuel, set-up and take down costs, and full-time inspection costs, and all other costs related to the successful completion of the project.

The Owner shall not pay nor be liable for any other additional costs including but not limited to: taxes, shipping charges, insurance, interest, penalties, termination payments, attorney fees, liquidated damages, etc.

**3.3.6 Freight/Shipping:** All freight/shipping shall be F.O.B. Destination – Freight Pre-Paid and Allowed to the project site(s), Grand Junction, CO.

Contractor must meet all federal, state, and local rules, regulations, and requirements for providing such services.

**3.3.7 Contract:** A binding contract shall consist of: (1) the IFB and any amendments thereto, (2) the bidder's response (bid) to the IFB, (3) clarification of the bid, if any, and (4) the City's Purchasing Department's acceptance of the bid by "Notice of Award" or by "Purchase Order". All Exhibits and Attachments included In the IFB shall be incorporated into the contract by reference.

A. The contract expresses the complete agreement of the parties and, performance shall be governed solely by the specifications and requirements contained therein.

B. Any change to the contract, whether by modification and/or supplementation, must be accomplished by a formal contract amendment signed and approved by and between the duly authorized representative of the bidder and the City Purchasing Division or by a modified Purchase Order prior to the effective date of such modification. The bidder expressly and explicitly understands and agrees that no other method and/or no other document, including acts and oral communications by or from any person, shall be used or construed as an amendment or modification to the contract.

**3.3.8 Time of Completion:** The scheduled time of Completion for the Project is **75 Calendar Days** from the starting date specified in the Notice to Proceed.

Completion is achieved when site cleanup and all punch list items (resulting from the final inspection) have been completed. Completion shall have the meaning set forth in Article I, Section 3 (Definitions and Terms) of the General Contract Conditions.

**3.3.9 Working Days and Hours:** The working days and hours shall be as stated in the General Contract Conditions, Section VI, or as mutually agreed upon in the preconstruction meeting with the following exception:

- All work shall be performed between the hours of 7:00 am to 5:00 pm, Monday thru Friday, unless there's an emergency that requires the contractor to work later than 5:00 pm or work on the weekend.
- Crossing Patterson Road with new sewer shall be done as night work. Hours of operation for night time work shall be performed between the hours of 6:00 pm to 6:00 am (12-hour period).

**3.3.10 Licenses and Permits:** Contractor is responsible for obtaining all necessary licenses and permits required for Construction, at Contractors expense. See Section 2.10. Contractor shall supply to Owner all copies of finalized permits.

**3.3.11 Permits:** The following permits are required for the Project and will be obtained by the City at no cost to the Contractor:

None

The following permits are required for the Project and shall be obtained and paid for by the Contractor, with the costs included in the total bid price for the Project:

- Colorado Department of Public Health and Environment Dewatering Permit. (If necessary due to the presence of groundwater) For more information, contact the Colorado Dept. of Public Health and Environment: [www.cdphe.state.co.us/wq/PermitsUnit/wqcdpmt.html](http://www.cdphe.state.co.us/wq/PermitsUnit/wqcdpmt.html) Approximately 7 – 10 days is required for processing of the permit application. The Contractor should begin preparing the permit application immediately upon notice of award.

**3.3.12 City Furnished Materials:** The City will furnish the following materials for the Project:

- AutoCAD sewer line drawings for survey stake-out.
- Door hangers for the Contractor/City Inspector to handout to area properties (as required).
- Variable message boards for upcoming construction locations

**3.3.13 Project Newsletters:** Periodic newsletters for the Project will be prepared and distributed by the City during the project period. The newsletters will include general information about the Project including interruptions in utility services, street closures, parking restrictions, project schedule and the names and telephone

numbers of the contacts for the City and Contractor. The first newsletter will be mailed approximately two weeks before the Contractor commences work.

During construction, the City may require the help of the Contractor in handing out door hangers and notifying property owners/residents/tenants of the construction schedule.

**3.3.14 Project Sign:** Project signs, if any, will be furnished and installed by the City.

**3.3.15 Authorized Representatives of the City:** Those authorized to represent the City shall include the Purchasing Agent, Engineers, and Inspectors employed by the City, only.

**3.3.16 Traffic Control:** The Contractor shall provide and maintain traffic control in accordance with the approved Traffic Control Plan and the *Manual on Uniform Traffic Control Devices (MUTCD)*. The traffic control plan shall be presented to the Project Engineer at or prior to the pre-construction meeting for review and approval. The following requirements and limitations shall apply to the traffic control:

No personal driveway and/or access point to a property shall be left inaccessible at the end of each work day or over a weekend; and no construction equipment shall be parked in front of a driveway and/or access point during Contractor's non-working hours. When a driveway and/or access point has to be closed off due to construction activity, the Contractor shall provide advanced notification to the affected resident(s) at least two-days prior to closure and arrange an alternative access point to the property. Refer to General Contract Condition 26 – Maintenance of Access and Services.

Special conditions for traffic control:

1. All trenches shall be backfilled or protected at the end of each working day and access restored to all driveways. If trenches are left open at night, the trenches will be limited to 30 feet in length. The entire perimeter of the excavation shall be barricaded with construction equipment or temporary construction fence and caution tape.
2. At all times during the project, the contractor must ensure access is available for the U.S. Postal Service, trash collection trucks, school buses, emergency vehicles, etc., per the General Contract Conditions.
3. The Contractor shall adhere to all traffic control requirements when working within City right-of-way.
4. Detours shall be provided when a section of road is closed to through traffic for sewer construction. Residents, employees, property owners shall have access to their respected properties during sewer construction.



**3.3.17 Clean-Up:** The Contractor shall clear the construction site of all trash and on-site waste daily, including scrap from construction materials. The costs for all clean-up work shall be considered incidental and will not be paid for separately.

**3.3.18 Quality Control Testing:** As part of the project, the Contractor shall provide Quality Control testing per Table 1 in the Quality Control (QC) and Quality Assurance (QA) section within the City of Grand Junction’s Standard Specifications for Road and Bridge Construction, and Table 101 within the Standard Specifications for the Construction of Underground Utilities. Table 1 and Table 101 provide the testing frequencies.

The Contractor shall provide test frequencies for Full-Time inspection. The testing agency shall meet the minimum requirements as stated in the Standard Specifications section. A submittal of qualified personnel shall be submitted at or before the preconstruction meeting. This submittal shall include all certifications held by the tester assigned to the project. The following items will require QC testing:

- Backfill compaction – Backfill shall be placed in horizontal layers not to exceed 8-inches in loose lift thickness. If the Project Engineer allows the native material to be used for trench backfill, completion of a Proctor analysis will be required by the QC testing agency on the native backfill material.
- Aggregate Base Course (Class 6) – (If necessary, completion of a Proctor analysis will be required by the QC testing agency)
- Hot Bituminous Pavement
- Concrete

**Method of Measurement:**

Testing for QC will not be measured, but will be paid for on a Lump Sum basis.

**Basis of Payment:**

<u>Pay Item</u>	<u>Pay Unit</u>
Quality Control Testing	Lump Sum

A report shall be generated by the testing firm that documents all tests including any re-tests results or failed tests. Included in the test reports shall be station locations of each test and the test results. All test results shall be presented to the Project Engineer prior to final payment and/or final acceptance of the project.

The City will perform and/or contract the Quality Assurance (QA) testing for this project.

**3.3.19 Schedule of Submittals:** Contractor shall provide these specific submittals at or before the preconstruction meeting:

- Construction schedule submitted at or prior to the pre-construction meeting
- Hourly rate table for labor and equipment to be used on this project.
- Sewer Pipe SDR-35 PVC
- Domestic Water Pipe (C-900, SDR-18 PVC)

- Certa-Flo Restrained Joint PVC Sewer Pipe
- Pipe Bursting Means and Methods
- Service Wye fittings
- Service Saddle Fittings
- Water valves and fittings
- Manholes
- Ring and Covers
- Pipe to Manhole Connection
- Invert Epoxy Material
- Bedding Gradation, Type A
- Imported Trench Backfill gradation (Class 3)
- Granular Stabilization Material (Type B)
- Base course gradation, Proctor Curve (Class 6)
- Flow-Fill Material
- Concrete mix design, CDOT Class D, 4,500 psi mix
- Hot Bituminous Pavement Mix Design
- Concrete Washout Facility

**3.3.20 Uranium Mill Tailings:** If uranium mill tailings are encountered during the excavation for the sewer line, the Contractor shall load the mill tailings into a separate haul truck and dispose of the uranium mill tailings at the City of Grand Junction shops facility per City of Grand Junction Standard Specifications – Section 202 and Section 203.

**3.3.21 Fugitive Petroleum or Other Contamination:** It is anticipated that soil contamination from fugitive petroleum or other contaminants will not be encountered with the Project.

**3.3.22 Excess Material:** All excess materials shall be disposed in accordance with General Contract Condition Section 50.

**3.3.23 Existing Utilities and Structures:** The location of existing utilities and structures shown on the Plans are approximate. All underground utilities were **not** potholed. It is the responsibility of the Contractor to locate and protect all structures and utilities in accordance with General Contract Condition Section 37. The Contractor shall coordinate with the utility companies any necessary relocation of utilities and schedule his work accordingly. Conflicts between water and gas lines and/or storm drain pipe may be encountered. At such conflicts, the Contractor shall relocate the water and/or gas lines. Payment for waterline relocations will be paid for using the Minor Contract Revision line item assigned to the Project. Payment for gas line and all dry utility relocations will not be paid for separately but shall be included in the total cost of the Project.

If the Contractor discovers a conflict with an existing utility (either horizontal or vertical), the Contractor shall contact the Engineer to assist in resolving the conflict. The Contractor shall be prepared to move to another location on the project and allow the City and Utility provider time to investigate the problem and propose a solution. Relocating the work site from one location to another as a result of vertical or

horizontal conflicts with existing utilities shall be considered incidental to the cost of installing the new sanitary sewer main and services.

**3.3.24 Incidental Items:** Any item of work not specifically identified or paid for directly, but which is necessary for the satisfactory completion of any paid items of work, will be considered as incidental to those items, and will be included in the cost of those items.

**3.3.25 Existing Property Pins and Survey Monuments:** The City of Grand Junction did not perform an exhaustive search for existing property pins when compiling survey data for this Project. Property pins and survey monuments have been shown on the construction drawings that were found in the field. The Contractor shall be responsible for locating, protecting and resetting property pins when and where necessary, including those shown on the plans, and including those not shown but found in the field during the course of the work. The cost of locating, protecting, referencing and resetting of property pins is incidental to the Construction Surveying pay item. The cost of referencing and resetting of survey monuments shall be paid for as described in Section 629 – Survey Monumentation within the July 2010 Standard Contract Documents.

**3.3.26 Interruption of Utilities and Services:** The Contractor shall notify all property owners affected by the interruption of utilities and other services caused by the Contractor's operations associated with this Project. Such notice shall be given at least 24 hours prior to the interruption. Notice shall be given for, but not limited to, the interruption of domestic water, sanitary sewer, trash pickup, mail delivery and changes in access to the property. Notice can be given via a newsletter and/or a door hanger. When an interruption will occur but was not stated in a newsletter, the Contractor shall, at a minimum, provide written notice and deliver to the resident/occupant; when the resident/occupant is not home at delivery time, the notice shall be attached to the door. Such notices shall provide contact information for the Contractor, the City Inspector and the City Project Engineer.

The Contractor will be required to notify property owners/tenants and City of Grand Junction Sanitation Division, 970-244-1570, when the alley will be blocked due to construction and direct them to move trash containers to the street for pickup. When alley construction is complete and the alley is open to traffic, the Contractor shall notify property owners/tenants to move their trash containers back to the alley for pickup. The Contractor should use door hangers and notify the property/owner tenant at least 24 hours in advance of their trash pickup to move their containers to the street. The door hanger should note the date that trash pickup will be moved to the street from the alley.

**3.3.27 Existing Concrete Sidewalks, Pans, Fillets, Curbs and Gutters:** The majority of the existing curb, gutters and sidewalks are in good serviceable condition. The Contractor will need to protect all of the concrete adjacent to the sewer line replacement. If the concrete is damaged during the construction of the sewer line as a result of the Contractor's operation, the Contractor will be responsible for its replacement at no cost to the City. The Contractor, the City Project Inspector, and the City Project Engineer should walk, photograph, and record any concrete that is

deemed to be damaged before the sewer line replacement is started in a particular area.

**3.3.28 Asphalt/Concrete Repair on Streets:** Asphalt and concrete replacement on streets shall be performed as soon as possible following the completion of subsurface work. The Contractor shall construct and maintain a temporary driving surface (road base or asphalt millings derived from the Project) for the period between completion of subsurface construction and restoration of the permanent asphalt or concrete surface. The temporary driving surface shall be maintained free of ruts and potholes during the period prior to permanent restoration. Installation and maintenance of the temporary driving surface shall not be paid for separately, but shall be incidental to the Project.

**3.3.29 Bypass Sewage Pumping:** By-pass pumping will be required for this project. The exact flow rates of the sewer lines being replaced are unknown.

The contractor shall provide and maintain adequate pumping equipment, force main piping and other necessary appurtenances in order to maintain reliable sanitary sewer service in all sanitary sewer lines as required for construction.

The contractor shall be responsible for any damage to personal property as a result of the bypass pumping operation. Refer to the Bypass Pumping Special Provision, Section 104.2.e for more information regarding bypass pumping.

**3.3.30 Payment for Damage to Private Property beyond Easement Limits/ROW Limits:** Easement and Rights of Way (ROW) lines are indicated on the Construction Plans. Any and all damage to improvements outside of easements and ROW, and/or outside the Construction Limit lines shall be repaired at the Contractor's expense. There will be no additional payment made for restoration of sod, landscaping, gravel, concrete or asphalt driveways, irrigation systems, decorative borders, fences, etc. beyond the property line or the construction easements as shown on the plan set.

**3.3.31 Subsurface Conditions:** A geotech report was not completed for this sewer project.

**3.3.32 Temporary Steel Plating:** If the Contractor chooses to use steel plates to protect an open trench section, the cost for supplying and securely placing the steel plates will not be paid for separately, but shall be included in the work.

**3.3.33 Construction Dewatering:** All construction dewatering must meet the requirements specified in the CDPHE Dewatering Permit. Construction dewatering will be considered incidental and will not be measured and paid for separately.

**3.3.34 Sanitary Sewer Service Locations:** The location of sewer services shown on the construction drawings are based on TV inspection videos of the existing sanitary sewer main. The Contractor shall determine which services are active and which are inactive by using dye, tracing the line with a snake and locator, or smoking the service. The Contractor shall notify and obtain permission from the property owner prior to placing dye or smoke in the service. The Construction drawings show approximate locations of services within the ROW.

**3.3.35 Manhole Grade Rings:** Concrete grade rings, shims and non-shrink grout shall not be used on the sewer manhole sections. Approved grade rings for this project shall be either HDPE Adjusting Rings by LadTech, Inc., or Expanded Polypropylene grade rings by Cretex Pro-Ring.

Grade rings shall be installed per the manufacturer's recommendations and directions. Caulk and sealants shall be approved by the manufacturer and shall be applied per the manufacturer's recommendation. The top grade ring shall match as close as possible the cross-slope of the existing roadway surface. Both manufacturers of grade rings provide grade rings that can accommodate the existing roadway cross-slope.

**3.3.36 Project Location Work Schedule:** The Project shall start either on the Patterson Road segment of the project or start with the sewer and waterline installation on 28 ¼ Road.

The reason for this schedule is so the sewer line replacement and waterline replacement is completed during warmer temperatures for the asphalt patching operations.

Due to the heavy traffic volumes along Patterson Road, the new sewer line crossing on Patterson Road shall be completed as night time work. The sewer installation on Beechwood Street and the sewer along the south side of Patterson Road can be completed during the daytime working hours.

**3.4. SCOPE OF WORK:** The Project generally consists of installing 4,280 LF of new sanitary sewer pipe and 550 LF of new domestic water pipe. For sewer there is approximately 2,050 LF of 8" SDR-35 sewer pipe, 1,385 LF of Certa-Flo SDR-21 sewer pipe (pipe bursting method), 153 LF of 10" SDR-35 sewer, 650 LF of 4" SDR-35 sewer pipe, 19 new sewer manholes, and 86 sewer connections. For domestic water there is approximately 440 LF of 10" C-900 PVC pipe, 72 LF of 6" C-900 PVC pipe, and miscellaneous water fittings and valves. Project includes restoration of disturbed areas including; gravel and asphalt road surfaces, driveways, and concrete replacement. Work will also include restoration of disturbed landscape areas. This project also includes fittings, landscape restoration, and related appurtenances.

**3.5. Attachments:**

- Appendix A: Project Submittal Form
- Appendix B: Project Special Provisions
- Construction Plans

**3.6. Contractor Bid Documents:** For Contractor's convenience, the following is a list of forms/items to be submitted with the Contractor's bid response. However, should a form/item not be listed in this section, but required in the solicitation documents, it is the Contractor's responsibility to ensure all forms/items are submitted.

- **Contractor's Bid Form**
- **Price Bid Schedule**

**3.7. IFB TENTATIVE TIME SCHEDULE:**

Invitation for Bids available:	September 7, 2018
Mandatory Pre-Bid Meeting:	September 13, 2018
Inquiry deadline, no questions after this date:	September 17, 2017
Addendum Posted	December 15, 2017
Submittal deadline for proposals (Bid Opening)	September 20, 2017
City Council Approval	October 3, 2018
Notice of Award & Contract Execution	October 4, 2018
Bonding & Insurance Cert. due	October 11, 2018
Preconstruction meeting	October 11, 2018
Work begins no later than	October 15, 2018
Final Completion	<b>75 Calendar Days</b> from Notice to Proceed

City Holidays (No Work): N/A

## **4. Contractor's Bid Form**

**Bid Date:** \_\_\_\_\_

**Project:** IFB-4564-18-DH "2018 Sewer Line Replacement Project – Phase B"

**Bidding Company:** \_\_\_\_\_

**Name of Authorized Agent:** \_\_\_\_\_

**Email** \_\_\_\_\_

**Telephone** \_\_\_\_\_ **Address** \_\_\_\_\_

**City** \_\_\_\_\_ **State** \_\_\_\_\_ **Zip** \_\_\_\_\_

The undersigned Bidder, in compliance with the Invitation for Bids, having examined the Instruction to Bidders, General Contract Conditions, Statement of Work, Specifications, and any and all Addenda thereto, having investigated the location of, and conditions affecting the proposed work, hereby proposes to furnish all labor, materials and supplies, and to perform all work for the Project in accordance with Contract Documents, within the time set forth and at the prices stated below. These prices are to cover all expenses incurred in performing the work required under the Contract Documents, of which this Contractor's Bid Form is a part.

The undersigned Contractor does hereby declare and stipulate that this offer is made in good faith without collusion or connection to any person(s) providing an offer for the same work, and that it is made in pursuance of, and subject to, all terms and conditions of the Instructions to Bidders, the Specifications, and all other Solicitation Documents, all of which have been examined by the undersigned.

The Contractor also agrees that if awarded the Contract, to provide insurance certificates within ten (10) working days of the date of Notification of Award. Submittal of this offer will be taken by the Owner as a binding covenant that the Contractor will be prepared to complete the project in its entirety.

The Owner reserves the right to make the award on the basis of the offer deemed most favorable, to waive any formalities or technicalities and to reject any or all offers. It is further agreed that this offer may not be withdrawn for a period of sixty (60) calendar days after closing time. Submission of clarifications and revised offers automatically establish a new thirty day (30) period.

Prices in the bid proposal have not knowingly been disclosed with another provider and will not be prior to award.

- Prices in this bid proposal have been arrived at independently, without consultation, communication or agreement for the purpose of restricting competition.
- No attempt has been made nor will be to induce any other person or firm to submit a bid proposal for the purpose of restricting competition.
- The individual signing this bid proposal certifies they are a legal agent of the offeror, authorized to represent the offeror and is legally responsible for the offer with regard to supporting documentation and prices provided.
- Direct purchases by the City of Grand Junction are tax exempt from Colorado Sales or Use Tax. Tax exempt No. 98-903544. The undersigned certifies that no Federal, State, County or Municipal tax will be added to the above quoted prices.
- City of Grand Junction payment terms shall be Net 30 days.
- Prompt payment discount of \_\_\_\_\_ percent of the net dollar will be offered to the Owner if the invoice is paid within \_\_\_\_\_ days after the receipt of the invoice.

RECEIPT OF ADDENDA: the undersigned Contractor acknowledges receipt of Addenda to the Solicitation, Specifications, and other Contract Documents.

State number of Addenda received: \_\_\_\_\_.

It is the responsibility of the Bidder to ensure all Addenda have been received and acknowledged.  
*By signing below, the Undersigned agree to comply with all terms and conditions contained herein.*

**Company:** \_\_\_\_\_

**Authorized Signature:** \_\_\_\_\_

**Title:** \_\_\_\_\_

## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
1	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line)	650.	Lin. Ft.	\$ _____	\$ _____
2	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	2,050.	Lin. Ft.	\$ _____	\$ _____
3	108.2	8" Gravity Sewer Pipe (Certa-Flo Pipe) (Certa-Flo PVC Gravity Sewer Pipe) (SDR-21) (ASTM D-2241) (Joint Type: Certa-Lok Restrained Joint Integral Bell) (Includes Pipe-Bursting Installation Equipment)	1,385.	Lin. Ft.	\$ _____	\$ _____
4	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	153.	Lin. Ft.	\$ _____	\$ _____
5	108.2	12" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	20.	Lin. Ft.	\$ _____	\$ _____
6	108.2	15" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	20.	Lin. Ft.	\$ _____	\$ _____
7	108.2	Water Main (4") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	20.	Lin. Ft.	\$ _____	\$ _____
8	108.2	Water Main (6") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	72.	Lin. Ft.	\$ _____	\$ _____
9	108.2	Water Main (8") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	20.	Lin. Ft.	\$ _____	\$ _____
10	108.2	Water Main (10") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	440.	Lin. Ft.	\$ _____	\$ _____
11	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated materail) (Assumed Unit Weight = 133 lbs/ft <sup>3</sup> )	1,000.	Ton	\$ _____	\$ _____
12	108.3	8" x 4" Sewer Service Tap ( Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	42.	Each	\$ _____	\$ _____



## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
13	108.3	8" x 4" Sewer Service Tap (Tapping Saddle) (To be used on the Certa-Flo pipe) (Includes saddle and all fittings required to align and connect the sewer service pipe to the sewer tap)	40.	Each	\$ _____	\$ _____
14	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4.	Each	\$ _____	\$ _____
15	108.3	Sewer Service Clean-out Ring and Cover (Castings Inc. CO-8030-CI or Approved Equal) (Includes concrete collar in unpaved areas per City Std. Detail SS-07)	86.	Each	\$ _____	\$ _____
16	108.3	Inside Drop System (8") by RELINER/ Duran, Inc. or Approved Equal (Includes all new 316 Stainless Steel fasteners, brackets, and bolts)	1.	Each	\$ _____	\$ _____
17	108.3	Gate Valve (4") (MJ)	2.	Each	\$ _____	\$ _____
18	108.3	Gate Valve (6") (MJ)	3.	Each	\$ _____	\$ _____
19	108.3	Gate Valve (8") (MJ)	1.	Each	\$ _____	\$ _____
20	108.3	Gate Valve (10") (MJ)	2.	Each	\$ _____	\$ _____
21	108.3	Tee (10" x 4")	2.	Each	\$ _____	\$ _____
22	108.3	Tee (10" x 6") (Swivel Tee)	3.	Each	\$ _____	\$ _____
23	108.3	Tee (10" x 8") (Swivel Tee)	1.	Each	\$ _____	\$ _____
24	108.3	Elbow (10" x 45-deg) (MJ)	8.	Each	\$ _____	\$ _____
25	108.3	Fire Hydrant Assembly	2.	Each	\$ _____	\$ _____
26	108.3	6" Offset Fittings (D=18") (MJxMJ) (Use as necessary due to a utility conflict)	4.	Each	\$ _____	\$ _____
27	108.3	8" Offset Fittings (D=18") (MJxMJ) (Use as necessary due to a utility conflict)	4.	Each	\$ _____	\$ _____
28	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Includes HDPE or Polypropylene manhole grade rings)	15.	Each	\$ _____	\$ _____

## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
29	108.5	Sanitary Sewer Basic Manhole (48" I.D.) (Epoxy Coated Inverts) (Includes HDPE or Polypropylene manhole grade rings)	4.	Each	\$ _____	\$ _____
30	108.5	Manhole Barrel Section (D>5') (48" I.D.)	45.	Vert. Ft.	\$ _____	\$ _____
31	108.5	Connect to Existing Manhole (8" pipe)	1.	Each	\$ _____	\$ _____
32	108.7	Granular Stabilization Material (Type B) (Crushed Rock) (18" Thick Min.) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 138 lbs/ft <sup>3</sup> )	500.	Ton	\$ _____	\$ _____
33	202	Removal of Existing Pipe (Size & type as shown on plans)	2,250.	Lin. Ft.	\$ _____	\$ _____
34	202	Abandon Pipe (Abandon pipe by plugging ends with concrete)	2.	Each	\$ _____	\$ _____
35	202	Abandon Existing Sewer Service Tap (Use either a PVC cap or Concrete)	1.	Each	\$ _____	\$ _____
36	202	Removal of Asphalt Mat (Full Depth)	780.	Sq. Yd.	\$ _____	\$ _____
37	202	Removal of Asphalt Mat (Planing) (2" Thick for T-Top Section)	1,220.	Sq. Yd.	\$ _____	\$ _____
38	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, and landscape borders)	370.	Sq. Yd.	\$ _____	\$ _____
39	202	Removal of Sod	30.	Sq. Yd.	\$ _____	\$ _____
40	202	Removal of Manhole	17.	Each	\$ _____	\$ _____
41	202	Abandon Existing Water Valve (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material)	1.	Each	\$ _____	\$ _____
42	202	Removal of Existing Fire Hydrant (Return Hydrant to City Water Dept.)	2.	Each	\$ _____	\$ _____
43	202	Removal of Existing Water Valve	6.	Each	\$ _____	\$ _____

## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
44	202	Removal of Tree	2.	Each	\$ _____	\$ _____
45	203	Disposal of Radioactive Material (Dispose at City Shops, 333 West Ave.)	50.	Cu. Yd.	\$ _____	\$ _____
46	206	Structure Backfill (Flow-Fill) (As Required)	100.	Cu. Yd.	\$ _____	\$ _____
47	208	Storm Drain Inlet Protection (Silt-Sack) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	6.	Each	\$ _____	\$ _____
48	208	Concrete Washout Facility	1.	Lump Sum	---	\$ _____
49	210	Repair Damage to Unlocated Irrigation Lines (Various Sizes and Materials) (1" to 15")	3.	Each	\$ _____	\$ _____
50	210	Reset Landscape Ground Cover (Landscape Rock) (Match in Kind)	30.	Sq. Yd.	\$ _____	\$ _____
51	210	Reset Sprinkler System (Complete in Place)	2.	Each	\$ _____	\$ _____
52	210	Adjust Valve Boxes to Finish Grade	2.	Each	\$ _____	\$ _____
53	210	Adjust Manhole Rim to Finish Grade	1.	Each	\$ _____	\$ _____
54	212	Sod (Includes 4" Thick of Topsoil placed prior to sod placement)	30.	Sq. Yd.	\$ _____	\$ _____
55	304	Aggregate Base Course (Class 6) (6" thick)	1,600.	Sq. Yd.	\$ _____	\$ _____
56	304	Aggregate Base Course (Class 6) (15" thick)	750.	Sq. Yd.	\$ _____	\$ _____
57	401	Hot Bituminous Pavement (Patching) (3 " Thick) (Grading SX, PG 64-22) (GYR.=75) (One 3" Lift)	800.	Sq. Yd.	\$ _____	\$ _____
58	401	Hot Bituminous Pavement (Patching) (4" Thick) (Grading SX, PG 64-22) (GYR.=75) (Two 2" Lift Bottom Mats) (Patterson Road)	28.	Sq. Yd.	\$ _____	\$ _____
59	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR.=75) (One 2" Top Mat) <b>(T-Top)</b>	1,425.	Sq. Yd.	\$ _____	\$ _____
60	407	Emulsified Asphalt (Tack Coat)	225.	Gallon	\$ _____	\$ _____

## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
61	412	Concrete Pavement (8" Thick) (Alley Patching) (Patching shall be completed per City Std. Detail C-32 and includes steel tie-bars) (CDOT Class D, 4,500 psi @ 28-days) (Includes Joint Sealant)	66.	Sq. Yd.	\$ _____	\$ _____
62	608	Concrete Sidewalk (4" thick) (CDOT Class D, 4,500 psi @ 28-days)	8.	Sq. Yd.	\$ _____	\$ _____
63	608	Concrete Curb and Gutter (2' Wide) (CDOT Class D, 4,500 psi @ 28-days)	20.	Lin. Ft.	\$ _____	\$ _____
64	608	Monolithic Vertical Curb, Gutter, & Sidewalk (7' Wide) (Per City Std. Detail C-02) (CDOT Class D, 4,500 psi @ 28-days)	200.	Lin. Ft.	\$ _____	\$ _____
65	608	Concrete Driveway Section ( 8" Thick) (CDOT Class D, 4,500 psi @ 28-days) (Refer to Construction Plans for style of Driveway Section C-07, C-08, C-09)	110.	Sq. Yd.	\$ _____	\$ _____
66	608	Concrete Intersection Corner (Per City Std. Detail C-21, Alternate Ramp) (Match Existing Radius) (CDOT Class D, 4,500 psi @ 28-days)	29.	Sq. Yd.	\$ _____	\$ _____
67	608	Concrete Drainage Pan (Match in Kind) (8" Thick)	8.	Sq. Yd.	\$ _____	\$ _____
68	608	Detectable Warnings (Wet Set)	8.	Sq. Ft.	\$ _____	\$ _____
69	608	Cap Top Half of Sewer Pipe in Concrete per City Std. Detail GU-04 (20' long) (If necessary)	4.	Each	\$ _____	\$ _____
70	608	Encase Sewer Pipe in Concrete per City Std. Detail GU-04 (20' long) (If necessary)	2.	Each	\$ _____	\$ _____
71	620	Portable Sanitary Facility	1.	Each	\$ _____	\$ _____
72	625	Construction Surveying (Includes As-Built Drawings)	1.	Lump Sum	---	\$ _____
73	626	Mobilization	1.	Lump Sum	---	\$ _____
74	629	Survey Monumentation (Complete in Place) (Reference and Reset)	1.	Each	\$ _____	\$ _____
75	630	Traffic Control (Complete in Place)	1.	Lump Sum	---	\$ _____

## Bid Schedule: 2018 Sewerline Replacement Project - Phase B

Item No.	CDOT, City Ref.	Description	Quantity	Units	Unit Price	Total Price
76	630	Traffic Control Plan	1.	Lump Sum	---	\$ _____
77	630	Flagging	1,000.	Hour	\$ _____	\$ _____
78	SC 3.3.18	Quality Control Testing	1.	Lump Sum	---	\$ _____
79	Pump	Bypass Sewage Pumping (As deemed necessary by Contractor)	1.	Lump Sum	---	\$ _____
MCR		Minor Contract Revisions	---	---	---	\$ 75,000.00
<b>Bid Amount:</b>						<b>\$ _____</b>

**Bid Amount:**

\_\_\_\_\_ **dollars**

<b>Contractor Name:</b>
<b>Contractor Address:</b>
<b>Contractor Phone #:</b>

The undersigned Bidder proposes to subcontract the following portion of Work:

<u>Name &amp; address of Sub-Contractor</u>	<u>Description of work to be performed</u>	<u>% of Contract</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

The undersigned Bidder acknowledges the right of the City to reject any and all Bids submitted and to waive informalities and irregularities therein in the City's sole discretion.

By submission of the Bid, each Bidder certifies, and in the case of a joint Bid each party thereto certifies as to his own organization, that this Bid has been arrived at independently, without collusion, consultation, communication, or agreement as to any matter relating to this Bid with any other Bidder or with any competitor.

# **Appendix A**

## **Project Submittal Form**

## PROJECT SUBMITTAL FORM

PROJECT: **2018 Sewer Line Replacement Project – Phase B**

CONTRACTOR:

PROJECT ENGINEER: Lee Cooper

Description	Date Received	Resubmittal Requested	Resubmittal Received	Date Accepted
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### STREET CONSTRUCTION

Base course gradation, Proctor curve (Class 6)				
Hot Mix Bituminous Pavement Mix Design (PG 64-22, 75 GYR.)				
Concrete Mix Design, CDOT Class D (4,500 psi)				

### SEWER LINE CONSTRUCTION

Gravity Sewer Pipe (SDR-35 PVC)				
Certa-Flo Joint Restrained PVC Sewer Pipe (SDR-21)				
Pipe Bursting Means & Methods and Certifications				
Imported Trench Backfill				
Granular Stabilization Material (Type B)				
Pipe Fittings – Wye Fittings, Saddle Fittings				
48" I.D. Sewer Manhole and barrel sections				
Pipe to Manhole Connection Detail				
Manhole Ring and Covers				
HDPE or Polypropylene Grade Rings				
Invert Epoxy Coating Material				
Flow-Fill				
Pipe Bedding Material, Type A				

### WATERLINE CONSTRUCTION

Pipe – AWWA C-900 PVC, DR-18				
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Description	Date Received	Resubmittal Requested	Resubmittal Received	Date Accepted
Fittings – Elbows, Tees, Tapping Saddles, Corp. Stops, Crosses, Couplings, Curb Stops				
Valves - 4", 6", 8", 10" Gate Valves				
Tracing Wire & Splices				
Valve Box				
Fire Hydrant Assembly				
Mechanical Joint Restraints				
<b>EROSION CONTROL / STORMWATER MANAGEMENT</b>				
Inlet Basin Protection				
Concrete Washout				
<b>PERMITS, PLANS, OTHER</b>				
Traffic Control Plan(s)				
Contractor's Construction Schedule				
CDPHE Dewatering Permit (If Necessary)				
Hourly Labor and Equipment Rate Tables				

# **Appendix B**

## **Project Special Provisions**

**2018 Sewer Line Replacement Project – Phase B**

**SPECIAL PROVISIONS**

**GENERAL:**

The descriptions of the pay items listed in the Bid Schedule for this Project may not agree with those listed in the Standard Specifications. Payment for all Work performed, as required in the Contract Documents, will be in accordance with the items and units listed in the Bid Schedule.

**STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION:**

The *City of Grand Junction Standard Specifications for Road and Bridge Construction* are hereby modified or supplemented for this Project by the following modifications to *The Standard Specifications for Road and Bridge Construction*, State Department of Highways, Division of Highways, State of Colorado:

**SECTION 601 – STRUCTURAL CONCRETE**

Section 601 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 601.02 from the City of Grand Junction Standard Specifications and replace with the following:

Concrete for construction of curbs, gutters, sidewalks, irrigation structures, curb ramps, driveway approaches, corner fillets, drainage pans, median cover, and trails shall be CDOT Class D concrete per the 2017 CDOT Standard Specifications for Road and Bridge Construction (Red Book).

- Minimum field compressive strength: 4,500 psi at 28 days
- Air Content: 6% +/- 1.5%
- Maximum water cement ratio: 0.45
- Maximum slump at delivery shall be 4-inches. In the event that the concrete slump from the first truck of the day exceeds 5-inches the load will be rejected. Subsequent batches shall be adjusted so that the slump at delivery does not exceed 4-inches.

## **STANDARD SPECIFICATIONS FOR CONSTRUCTION OF WATER LINES, SANITARY SEWERS, STORM DRAINS, UNDERDRAINS AND IRRIGATION SYSTEMS**

The City of Grand Junction *Standard Specifications for Construction of Water Lines, Sanitary Sewers, Storm Drains, Underdrains and Irrigation Systems* are hereby modified for this Project as follows:

### **SECTION 104 – INSTALLATION OF PIPE AND APPURTENANCES**

Section 104 of the Standard Specifications is hereby revised for this project as follows:

Subsection 104.2.a, Laying Gravity Flow Pipe, shall include the following:

### **SECTION 02750 – PIPE BURSTING**

#### **PART 1 - GENERAL**

##### **1.01 WORK INCLUDED:**

This specification covers the rehabilitation of sewers lines using pipe bursting. This process will split or fracture the existing pipe while simultaneously installing a new pipe.

The CONTRACTOR shall be responsible for all associated work, including maintaining existing water or sewer service, dealing with existing utilities, reconnecting existing services and protecting existing structures and foundations against damage due to pipe bursting. Any repairs of any damaged utilities or structures during pipe bursting operations must be acceptable to the ENGINEER and OWNER. The completed work must provide a complete and satisfactory installation covering all incidental work necessary for the methods used.

For pipe bursting, the replacement line will follow the existing mainline shown on the project drawings. Pipe bursting must be static; the pneumatic method is NOT allowed. The Contractor will furnish all labor, equipment, materials, tools and appurtenances necessary or proper for the performance and completion of the pipe bursting.

##### **1.02 CONTRACTOR QUALIFICATIONS:**

The CONTRACTOR, or the subcontractor performing the work, shall be certified by the pipe bursting equipment manufacturer as a fully trained user of the pipe bursting equipment. Operation of the pipe bursting equipment shall be performed by trained personnel. The CONTRACTOR shall present evidence to prove to the satisfaction of the ENGINEER that he, or the subcontractor performing the work, has had previous experience in sewer pipe installation of this nature.

The pipe bursting CONTRACTOR shall have actively engaged in the installation of pipe using pipe bursting on at least two (2) pipe bursting projects in similar size and scope. The CONTRACTOR'S pipe bursting subcontractor shall keep the same supervisor on this Project until the pipe bursting installation on the project is satisfactorily completed.

Statement of Qualifications from two (2) past projects documenting pipe bursting experience shall include:

1. Project name and location, pipe sizes and lengths, Owner's name, address, telephone number, contact person, date and duration of work, additional information on the project, and contents handled by pipeline.
2. Supervisory field personnel and historical information of sewer pipe bursting experience. At least one of the field supervisors listed must be at the site when pipe bursting operations are in progress.

### 1.03 RESPONSIBILITY:

The pipe bursting CONTRACTOR shall have complete responsibility for installation of the new joint restrained PVC pipe within the existing sewer main, locate and reconnect all services, protect and repair any damage to other existing utilities in the vicinity of the work or any other features or structures that may be damaged during construction, and to supervise all aspects of the work as required by these Contract Documents. If upsizing the existing main to sizes shown on the plans results in the need to bore out a portion of the existing main prior to installing the new pipe, that work shall be included.

The CONTRACTOR shall be responsible for making any investigations into site or soil conditions or any other existing conditions that he deems necessary in order to prepare his bid and execute the work. All work shall be completed within the rights-of-way or easements available, or the CONTRACTOR shall obtain written permission to occupy any additional properties.

The CONTRACTOR shall abide by the conditions of any obtained construction, access or regulatory permits. And shall provide construction traffic control in compliance with City requirements.

### 1.04 SUBMITTALS:

Submittals will be required for all qualifications, processes, and materials in accordance with this section. Submittals shall include all equipment proposed for pipe bursting. A detailed description of the complete process proposed for the replacement of the sewer main by pipe bursting shall also be submitted. This includes excavations, service locations and reconnections, maintaining the design sewer slope, and the process to upsize the space for the new pipe.

Specifically, submittals to be provided must include, but are not necessarily limited to the following:

- A. Statement of Qualifications from two (2) past pipe bursting project similar in size and scope.
- B. Detailed construction procedures and layout plans, including sequence of construction and how the CONTRACTOR will maintain the pipe slope between manhole locations.
- C. Method of installing pipe to the pipe slope shown in the construction plans.
- D. Method of locating and reconnecting service lines.
- E. Method of establishing and utilizing the launching and receiving pits.

- F. Method of bypass pumping around any sewer bursting operation as necessary.
- G. Information on all equipment proposed for pipe bursting operations.
- H. Any other information required to provide a complete understanding of the proposed construction methods.

## PART 2 - EXECUTION

The pipe bursting processes shall comply with manufacturer's requirements and the Specifications. All materials shall be transported, handled and stored as recommended by the manufacturer and so as not to damage them.

CONTRACTOR shall employ a static pipe bursting method to satisfactorily install the new pipe. CONTRACTOR shall be responsible for and promptly repair any damage to any existing facilities or structures during the pipe installation.

The pipe bursting tool shall be designed to force its way through the existing pipe materials by fragmenting the pipe and compressing the old pipe sections into the surrounding soil as it progresses. A properly sized bursting unit shall be used to create sufficient room for the new pipe.

CONTRACTOR shall locate all existing services, laterals, and any features that may impact the pipe bursting operation before pipe bursting. It includes a set-up for bypass pumping for sewers, if necessary. Once the bursting is completed all services must be reconnected to the new pipe within the time requirements.

## LOCATION AND PROTECTION OF UNDERGROUND UTILITIES

- i. Correct location and verification of all underground utilities that may impact the pipe bursting installation is the responsibility of the Contractor, regardless of any locations shown on the drawings or previous surveys completed.
- ii. Utility location and notification services shall be contacted by the Contractor prior to the start of construction.
- iii. All existing lines and underground utilities shall be positively identified, including exposing those facilities that are located within an envelope of possible impact by the pipe bursting installation as determined for the specific site conditions. It is the Contractor and pipe bursting system operator's responsibility to determine this envelope of safe offset from existing utilities. This will include, but is not limited to, soil conditions, utility proximity and material, and pipe bursting system and equipment.

The pipe bursting unit (head) shall be remotely controlled and locatable, so that its location can be accurately determined at any time. The pipe bursting unit shall be able to data log the pull force. CONTRACTOR shall provide data logs of the pull force required for each bursting segment. The pull force shall not exceed the limits of the restrained joint PVC pipe set by the pipe manufacturer.

Insertion pits shall be of sufficient length to allow the bursting head and new restrained joint PVC pipe to enter the host pipe at an angle that will maintain the grade of the existing sanitary sewer pipe.

If any newly installed pipe does not satisfactorily comply with these requirements, it shall be removed and replaced by the CONTRACTOR. This includes replacing any defective joints, and any section of pipe with a gash, abrasion or other flaw with a depth equal to 10% of the wall thickness.

Lubrication shall be used if in the opinion of the CONTRACTOR such lubrication is necessary to ensure the successful completion of the job. Any lubricants used shall not negatively impact the environment.

An appropriate relaxation period shall be allowed prior to making service connections and connecting to manholes. The relaxation period shall be appropriate with and dependent upon site conditions, as determined by the CONTRACTOR.

Any material that enters the pipe during the pipe bursting operation shall be removed by the CONTRACTOR. The CITY will video the completed section to verify the construction.

CONTRACTOR shall make excavations as needed to connect to existing pipes, locate, expose and protect utility crossings, or to install appurtenances to the main or other connections, services, laterals, or fittings. This work shall comply with other specification sections as appropriate.

Following completion of the work, the CONTRACTOR shall provide a complete set of as-built drawings to the ENGINEER. These drawings shall accurately show all connections, appurtenances, pipe slope, fittings, services, etc; the depth and location of the pipe, and other details from construction.

### PART 3 – TESTING AND ACCEPTANCE

After the new joint restrained PVC pipe is installed and all services are reconnected, the line shall be inspected per specification Section 105 – Pipeline Testing. The City will provide the CCTV inspection.

### **END OF SECTION 02750**

### **SECTION 105 – PIPELINE TESTING**

Delete **Section 105.2**. The City of Grand Junction will not require the new sanitary sewer main to be pressure or leakage tested.

All sanitary sewer mains shall be deflection tested using a Mandrel and will be closed captioned (CCTV) inspected prior to final acceptance.

# 2018 SEWER LINE REPLACEMENTS PHASE B

## SEPTEMBER, 2018

- 1 — **Cover Sheet**
- 2 — **Standard Abbreviations, Legend and Symbols**
- 3 — **Summary of Approximate Quantities**
- 4 — **Project Control Map**
- 5 — **Project Location Map**
- 6 — **Grand Mesa Avenue Sag Repair**
- 7-9 — **Alley Grand Avenue to Gunnison Avenue & 15th Street to 16th Street Sewer**
- 10-12 — **Alley Grand Avenue to Gunnison Avenue & 16th Street to 17th Street Sewer**
- 13 — **Alley Chipeta Avenue to Gunnison Avenue & 17th Street to 18th Street Sewer**
- 14-16 — **28 1/4 Road Sewer**
- 17 — **Brittany Drive Sewer**
- 18-19 — **28 1/4 Road Sidewalk Replacement**
- 20-21 — **28 1/4 Road Waterline**
- 22-23 — **Patterson Road Sewer**

NOTE: NOTIFY AFFECTED UTILITY VENDOR 48 HOURS PRIOR TO EXCAVATIONS THAT WILL EXPOSE UTILITY LINES. THE COVER SHEET WILL HAVE A LISTING OF UTILITY VENDORS AND TELEPHONE NUMBERS.

REVISION	DESCRIPTION	DATE
REVISION $\Delta$	_____	_____
REVISION $\Delta$	_____	_____
REVISION $\Delta$	_____	_____
REVISION $\Delta$	_____	_____

UTILITIES AND AGENCIES									
AGENCY	NAME	POSITION	ROLE	MAILING ADDRESS	STREET ADDRESS	CITY, STATE	VOICE-WK	FAX	
GRAND JUNCTION, CITY OF	LEE COOPER	PROJECT ENGINEER	PROJECT ENGINEER	333 WEST AVE., BLDG C	333 WEST AVE., BLDG C	GRAND JCT., CO 81501	(970) 256-4155	(970) 256-4022	
GRAND JUNCTION, CITY OF	LEE COOPER	PROJECT ENGINEER	SANITARY SEWER	333 WEST AVE., BLDG C	333 WEST AVE., BLDG C	GRAND JCT., CO 81501	(970) 256-4155	(970) 256-4022	
GRAND VALLEY IRRIGATION CO.	PHIL BERTRAND		IRRIGATION	688 26 ROAD	688 26 ROAD	GRAND JCT., CO 81506	(970) 242-2762		
CHARTER	CHUCK WEIDMAN	MANAGER	CABLE TV	2502 FORESIGHT CIRCLE	2502 FORESIGHT CIRCLE	GRAND JCT., CO 81504	(970) 245-8750	(970) 245-6803	
U.S. WEST/QWEST	CHRIS JOHNSON	ENGINEER	TELEPHONE	2524 BLICHMANN AVE	2524 BLICHMANN AVE	GRAND JCT., CO 81504	(970) 244-4311	(970) 240-4349	
UTE WATER	DARYL MOORE	SUPERVISOR	WATER	PO BOX 460		GRAND JCT., CO 81502	(970) 242-7491	(970) 242-9189	
XCEL	DAN STEINKIRCHNER	UNIT MANAGER	GAS, ELECTRIC	2538 BLICHMANN AVE	2538 BLICHMANN AVE	GRAND JCT., CO 81506	(970) 244-2656	(970) 244-2661	



*Public Works*  
*Engineering Division*

Know what's below.  
Call before you dig.

**DRAWING STATUS:**  
 PROGRESS  
 FINAL CONSTRUCTION DRAWINGS  
 ASBUILT

**DESIGNED BY:**  
 LEE COOPER, PROJECT ENGINEER 2018

**REVIEWED BY:**  
 RANDI KIM, UTILITIES DIRECTOR 2018

**AUTHORIZED FOR CONSTRUCTION**

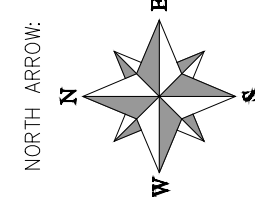
**ACCEPTED AS CONSTRUCTED**  
 RANDI KIM, UTILITIES DIRECTOR 2018

LEE COOPER, PROJECT ENGINEER 2018



**SYMBOLS**

	BENCH MARK
	CATCH BASIN
	CLEAN OUT
	CURB STOP
	FIRE HYDRANT
	GUY WIRE ANCHOR
	HEADGATE
	IRRIGATION PUMP
	MAILBOX
	MANHOLE (ELECTRIC)
	MANHOLE (GAS)
	MANHOLE (SANITARY/STORM)
	MANHOLE (TELEPHONE)
	MANHOLE (TV)
	MANHOLE (WATER)
	METER (GAS)
	METER (WATER)
	PEDESTAL (TELEPHONE)
	PEDESTAL (TV)
	PROPERTY PIN
	PULL BOX
	REDUCER FITTING
	SIGN OR POST (SIGN TYPE NOTED)
	SPRINKLER HEAD
	STREET LIGHT
	SURVEY MONUMENT (CITY)
	SURVEY MONUMENT (TYPE NOTED)
	TEST HOLE
	TRAFFIC PAINT MARKING
	TRAFFIC SIGNAL POLE AND MAST ARM
	UTILITY POLE
	VALVE (GAS)
	VALVE (IRRIGATION)
	VALVE (WATER)
	VEGETATION (HEDGE OR BUSH)
	VEGETATION (TREE STUMP)
	VEGETATION (TREE) (CALIPER SIZE NOTED)
	WATER HYDRANT
	WEIR
	YARD LIGHT



NORTH ARROW:  
 BAR SCALE:  
 HORIZONTAL: 1" = 20 ft.  
 0 5 10 20

**LEGEND**

	PROPOSED CONCRETE CURB AND GUTTER
	PROPOSED CONCRETE CURB, GUTTER, & SIDEWALK
	PROPOSED CONCRETE SIDEWALK
	PROPOSED "WET" UTILITIES (CONSTRUCTION NOTE WILL INDICATE TYPE, SIZE, AND MATERIAL OF NEW MAIN)
	RAIL ROAD
	RETAINING WALL
	STRIPING (CONTINUOUS WHITE)
	STRIPING (DASHED WHITE)
	STRIPING (CONTINUOUS YELLOW)
	STRIPING (DASHED YELLOW)
	TOP OF SLOPE
	CONTOUR LINES (SHOWN BETWEEN TOP & TOE)
	TOE OF SLOPE
	TRAFFIC DETECTOR LOOP
	UTILITY LINE (ABANDON) (THIS CASE A WATER LINE)
	UTILITY LINE (CABLE TV)
	UTILITY LINE (ELECTRIC)
	UTILITY LINE (FIBER OPTIC)
	UTILITY LINE (GAS)
	UTILITY LINE (HIGH VOLTAGE OVERHEAD POWER)
	UTILITY LINE (OVERHEAD POWER)
	UTILITY LINE (OVERHEAD TELEPHONE)
	UTILITY LINE (SANITARY SEWER)
	UTILITY LINE (SANITARY SEWER FORCE MAIN)
	UTILITY LINE (SANITARY SEWER SERVICE)
	UTILITY LINE (STORM SEWER)
	UTILITY LINE (STORM SEWER, PERFORATED)
	UTILITY LINE (STORM/SANITARY SEWER SEWER COMBINATION)
	UTILITY LINE (TELEPHONE)
	UTILITY LINE (WATER)

**LEGEND**

	BSWMP
	DRAINAGE BASIN BOUNDARY
	ASBESTOS CEMENT
	ANCHORED STRAW BALES
	BSWMP
	SILT FENCE
	BUILDING
	CONCRETE CURB AND GUTTER
	CONCRETE CURB, GUTTER, & SIDEWALK
	CONCRETE DITCH
	CONCRETE SIDEWALK
	CULVERT
	EARTH DITCH
	EDGE OF GRAVEL
	EDGE OF PAVEMENT
	FENCE (BARBED WIRE)
	FENCE (CHAIN LINK)
	FENCE (IRON)
	FENCE (PLASTIC)
	FENCE (TEMPORARY CONSTRUCTION)
	FENCE (WOOD)
	FENCE (WOVEN WIRE)
	GUARD RAIL
	HATCHING: ASPHALT REMOVAL
	HATCHING: CONCRETE REMOVAL
	HATCHING: STAGING AREA
	LINE (CENTER OF IMPROVEMENTS)
	LINE (CITY LIMITS)
	LINE (CONTROL)
	LINE (EASEMENT)
	LINE (MONUMENT/SECTION)
	LINE (PROPERTY)
	LINE (RIGHT OF WAY)
	MATCH LINE SEE SHEET NO. ?
	PIPE (IRRIGATION)
	PIPE (SIPHON)

**ABBREVIATIONS**

AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY & TRANSPORTATION OFFICIALS
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT
AP	ANGLE POINT
ASB	ANCHORED STRAW BALES
ASB	ASBESTOS CEMENT
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BACK OF CURB
BF	BUTTERFLY VALVE
BOW	BACK OF WALK
BCR	BEGIN CURB RETURN
BSWMP	BOTTOM STORM WATER MANAGEMENT PRACTICES
CH	CHORD
CAP	CORRUGATED ALUMINUM PIPE
CDOT	COLORADO DEPARTMENT OF TRANSPORTATION
CI	CAST IRON
C.G.& SW	CURB, GUTTER & SIDEWALK
C	CENTER LINE
CMP	CLEAR GATED METAL PIPE
CO	CLEAN OUT
COMB	COMBINATION (AS IN STORM SEWER AND SANITARY SEWER)
CONC	CONCRETE
CSM	CITY SURVEY MONUMENT
CSP	CORRUGATED STEEL PIPE
CU	COPPER
DI	DUCTILE IRON
DWY	DRIVEWAY
END	END CURB RETURN
EGR	EDGE OF GUTTER
EL	ELEVATION
EP	EDGE OF PAVEMENT
EX	EXISTING
FB	FULL BODY
FC	FACE OF CURB
FG	FINISHED GRADE
FL	FLANGE
FM	FORCE MAIN
F0	FIBER OPTICS
FS	FAR SIDE
FTG	FOOTING
G	GAS
GB	GAS BREAK
GV	GATE VALVE
GV	GATE VALVE
HBP	HOT BITUMINOUS PAVEMENT
HDPE	HIGH DENSITY POLYETHYLENE
INV	INVERT
IRR	IRRIGATION
L	LENGTH OF ARC
LC	LONG CHORD
LI	LONG INLET
LS	LONG SHORT
LS	LONG SHORT
LT	LEFT
MB	MAILBOX
MCSM	MESA COUNTY SURVEY MONUMENT
MH	MANHOLE
MJ	MECHANICAL JOINT
MU	MATERIAL UNAVAILABLE
N/A	NOT APPLICABLE
NIP	NOT IN CONTRACT
NOP	NO ONE PERSON
NRCP	NON-REINFORCED CONCRETE PIPE
NS	NEAR SIDE
NTS	NOT TO SCALE
OHP	OVERHEAD POWER
OHT	OVERHEAD TELEPHONE
OP	OPEN
PCC	PORTLAND CEMENT CONCRETE
PE	POLYETHYLENE
PERF	PERFORATED
PI	POINT OF INTERSECTION
PIP	PLASTIC IRRIGATION PIPE
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PT	POINT OF TANGENCY
PVC	POLYVINYL CHLORIDE
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RED'D	REQUIRED
RG	RESTRAINED GLANDS
RL	LONG RADIUS
RLW	RADIUS POINT
RR	RAIL ROAD
RS	SHORT RADIUS
RT	RIGHT
S	SLOPE
SAN	SANITARY
SC	SHORT CHORD
SC	SCHEDULE
SCH	SCHEDULE
SCH	SCHEDULE
SF	SILT FENCE
SL	SECTION LINE
SSRB	STANDARD SPECIFICATIONS FOR ROAD & BRIDGE CONSTRUCTION
SSUJ	STANDARD SPECIFICATIONS FOR UNDERGROUND UTILITIES
STA	STATION
STL	STEEL
T	TANGENT
TAN	LENGTH OF TANGENT
TC	TOP OF CURB
TH	TEST HOLE
TV	TELEVISION
(TYP)	TYPICAL
UU	UNDERGROUND UTILITIES
V	VERTICAL CURVE
VCP	VERTICAL CURVE POINT
VPC	VERTICAL POINT OF CURVATURE
VPCC	VERTICAL POINT OF COMPOUND CURVATURE
VPFC	VERTICAL POINT OF REVERSE CURVATURE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WATER
Δ	DELTA ANGLE

**PUBLIC WORKS ENGINEERING DIVISION**



SCALES: PLAN & PROFILE  
 HORIZONTAL: 1" =  
 VERTICAL: 1" =

DESIGN BY	HMC/JCS	DATE	2016
CHECKED BY	JW	DATE	2016
APPROVED BY	ICP	DATE	2016

REVISION	Δ	DATE	
REVISION	Δ	DATE	
REVISION	Δ	DATE	
REVISION	Δ	DATE	

Item No.	CDOT City Ref.	Description	Quantity	Units	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79																																																																																																																																																																																										
1	108.2	4" Sewer Pipe Service (SDR-35 PVC) (Includes cost of connection to the existing sewer service line)	650	Lin. Ft.	108.3	Sewer Service Clean-out Ring and Cover (Castings Inc. CO-8030-CI or Approved Equal) (Includes concrete collar in unpaved areas per City Std. Detail SS-07)	86	Each	202	Removal of Asphalt Mat (Planning) (2" Thick for T-Top Section)	1,220	Sq. Yd.	401	Hot Bituminous Pavement (Patching) (2" Thick) (Grading SX, PG 64-22) (GYR=75) (One 2" Top Mat) (T-Top)	1,425	Sq. Yd.	2	108.2	8" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	2,050	Lin. Ft.	202	Removal of Concrete (Includes, but not limited to, curb, gutter, sidewalk, driveway, slabs, V-pans, curb ramps, intersection corners, aprons, and landscape borders)	370	Sq. Yd.	407	Emulsified Asphalt (Tack Coat)	225	Gallon	3	108.2	8" Gravity Sewer Pipe (Certa-Flo Pipe) (Certa-Flo PVC Gravity Sewer Pipe) (SDR-21) (ASTM D-2241) (Joint Type: Certa-Lok Restrained Joint Integral Bell) (Includes Pipe-Bursting Installation Equipment)	1,385	Lin. Ft.	202	Removal of Sod	30	Sq. Yd.	412	Concrete Pavement (8" Thick) (Alley Patching) (Patching shall be completed per City Std. Detail C-32 and includes steel tie-bars) (CDOT Class D, 4,500 psi @ 28-days) (Includes Joint Sealant)	66	Sq. Yd.	4	108.2	10" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	153	Lin. Ft.	202	Removal of Manhole	17	Each	608	Concrete Sidewalk (4" thick) (CDOT Class D, 4,500 psi @ 28-days)	8	Sq. Yd.	5	108.2	12" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	20	Lin. Ft.	202	Abandon Existing Water Valve (Close valve, remove top half of existing valve box, fill cavity to finished subgrade with flow-fill material)	1	Each	608	Concrete Curb and Gutter (2' Wide) (CDOT Class D, 4,500 psi @ 28-days)	20	Lin. Ft.	6	108.2	15" Gravity Sewer Pipe (SDR-35 PVC) (Includes cost of connection to the existing sewer pipe)	20	Lin. Ft.	202	Removal of Existing Fire Hydrant (Return Hydrant to City Water Dept.)	2	Each	608	Monolithic Vertical Curb, Gutter, & Sidewalk (7' Wide) (Per City Std. Detail C-02) (CDOT Class D, 4,500 psi @ 28-days)	200	Lin. Ft.	7	108.2	Water Main (4") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	20	Lin. Ft.	202	Removal of Existing Water Valve	6	Each	608	Concrete Driveway Section ( 8" Thick) (CDOT Class D, 4,500 psi @ 28-days) (Refer to Construction Plans for style of Driveway Section C-07, C-08, C-09)	110	Sq. Yd.	8	108.2	Water Main (6") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	72	Lin. Ft.	206	Structure Backfill (Flow-Fill) (As Required)	100	Cu. Yd.	608	Concrete Intersection Corner (Per City Std. Detail C-21, Alternate Ramp) (Match Existing Radius) (CDOT Class D, 4,500 psi @ 28-days)	29	Sq. Yd.	9	108.2	Water Main (8") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	20	Lin. Ft.	208	Storm Drain Inlet Protection (Silt-Sack) (Includes Maintenance & Removal of Debris, & Removal of Inlet Protection)	6	Each	608	Concrete Drainage Pan (Match in Kind) (8" Thick)	8	Sq. Ft.	10	108.2	Water Main (10") (C-900 PVC, DR-18) (Includes cost of connection to existing waterline / valve / fitting)	440	Lin. Ft.	210	Repair Damage to Unlocated Irrigation Lines (Various Sizes and Materials) (1" to 15")	3	Each	608	Cap Top Half of Sewer Pipe in Concrete (If necessary)	4	Each	11	108.2	Imported Trench Backfill (Class 3) (Includes haul and disposal of unsuitable excavated material) (Assumed Unit Weight = 133 lbs/ft <sup>3</sup> )	1,000	Ton	210	Reset Landscape Ground Cover (Landscape Rock) (Match in Kind)	30	Sq. Yd.	12	108.3	8" x 4" Sewer Service Tap ( Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	42	Each	210	Reset Sprinkler System (Complete in Place)	2	Each	620	Portable Sanitary Facility	1	Each	13	108.3	8" x 4" Sewer Service Tap (Tapping Saddle) (To be used on the Certa-Flo pipe) (Includes saddle and all fittings required to align and connect the sewer service pipe to the sewer tap)	40	Each	210	Adjust Valve Boxes to Finish Grade	2	Each	625	Construction Surveying (Includes As-Built Drawings)	1	Lump Sum	14	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	210	Adjust Manhole Rim to Finish Grade	1	Each	626	Mobilization	1	Lump Sum	15	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	210	Sod (Includes 4" Thick of Topsoil placed prior to sod placement)	30	Sq. Yd.	629	Survey Monumentation (Complete in Place) (Reference and Reset)	1	Each	16	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	304	Aggregate Base Course (Class 6) (6" thick)	1,600	Sq. Yd.	630	Traffic Control (Complete in Place)	1	Lump Sum	17	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	304	Aggregate Base Course (Class 6) (15" thick)	750	Sq. Yd.	630	Traffic Control Plan	1	Lump Sum	18	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	401	Hot Bituminous Pavement (Patching) (3" Thick) (Grading SX, PG 64-22) (GYR=75) (One 3" Lift)	800	Sq. Yd.	630	Flagging	1,000	Hour	19	108.3	10" x 4" Sewer Service Tap (Full Body Wye) (Includes Wye and all fittings required to align and connect the sewer service pipe to the sewer tap)	4	Each	401	Hot Bituminous Pavement (Patching) (4" Thick) (Grading SX, PG 64-22) (GYR=75) (Two 2" Lift Bottom Mats) (Patterson Road)	28	Sq. Yd.	630	Quality Control Testing	1	Lump Sum	20	108.3	10" x 4" Sewer Service Tap (Full Depth)	780	Sq. Yd.	630	Bypass Sewage Pumping (As deemed necessary by Contractor)	1	Lump Sum

REVISION  DATE \_\_\_\_\_

REVISION  DATE \_\_\_\_\_

REVISION  DATE \_\_\_\_\_

REVISION  DATE \_\_\_\_\_

DRAWN BY \_\_\_\_\_ DATE 2016

DESIGNED BY \_\_\_\_\_ DATE 2016

CHECKED BY \_\_\_\_\_ DATE 2016

APPROVED BY \_\_\_\_\_ DATE 2016

SCALES: PLAN & PROFILE

HORIZONTAL: 1" = \_\_\_\_\_

VERTICAL: 1" = \_\_\_\_\_



Grand Junction  
C O L O R A D O

PUBLIC WORKS  
ENGINEERING DIVISION

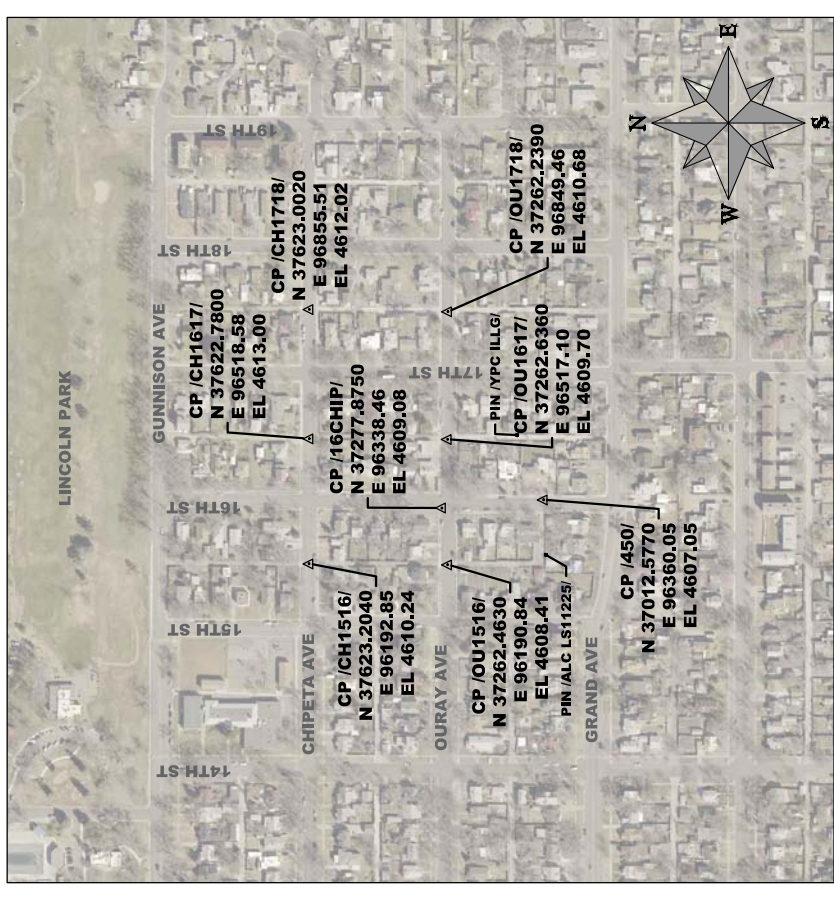
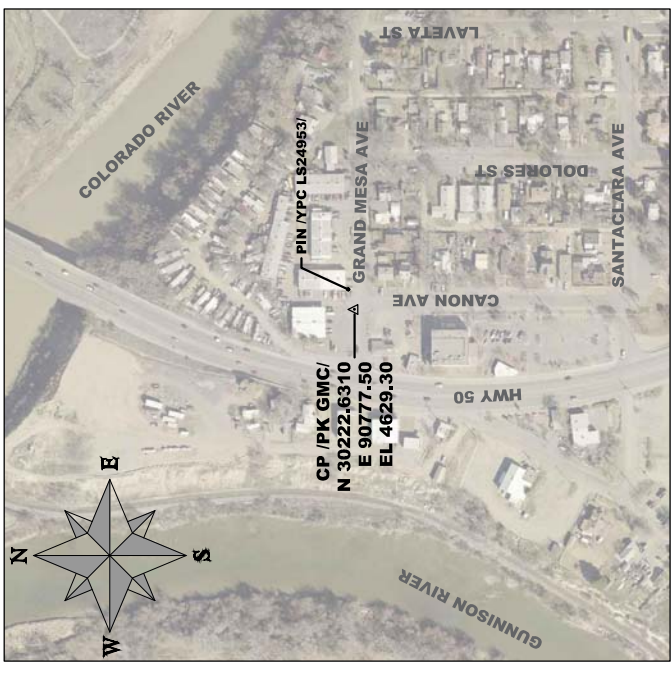
2018 SEWER LINE REPLACEMENTS  
PHASE B

3



# PROJECT CONTROL MAP

PROJECT NUMBER F001630



REVISION	DESCRIPTION	DATE	DRAWN BY	HMC/JCS	DATE	2016
REVISION						
REVISION						
REVISION						

CHECKED BY JW DATE 2016  
 APPROVED BY JCP DATE 2016

SCALES: PLAN & PROFILE  
 HORIZONTAL: 1" = 500'  
 VERTICAL: 1" = 50'



PUBLIC WORKS  
 ENGINEERING DIVISION

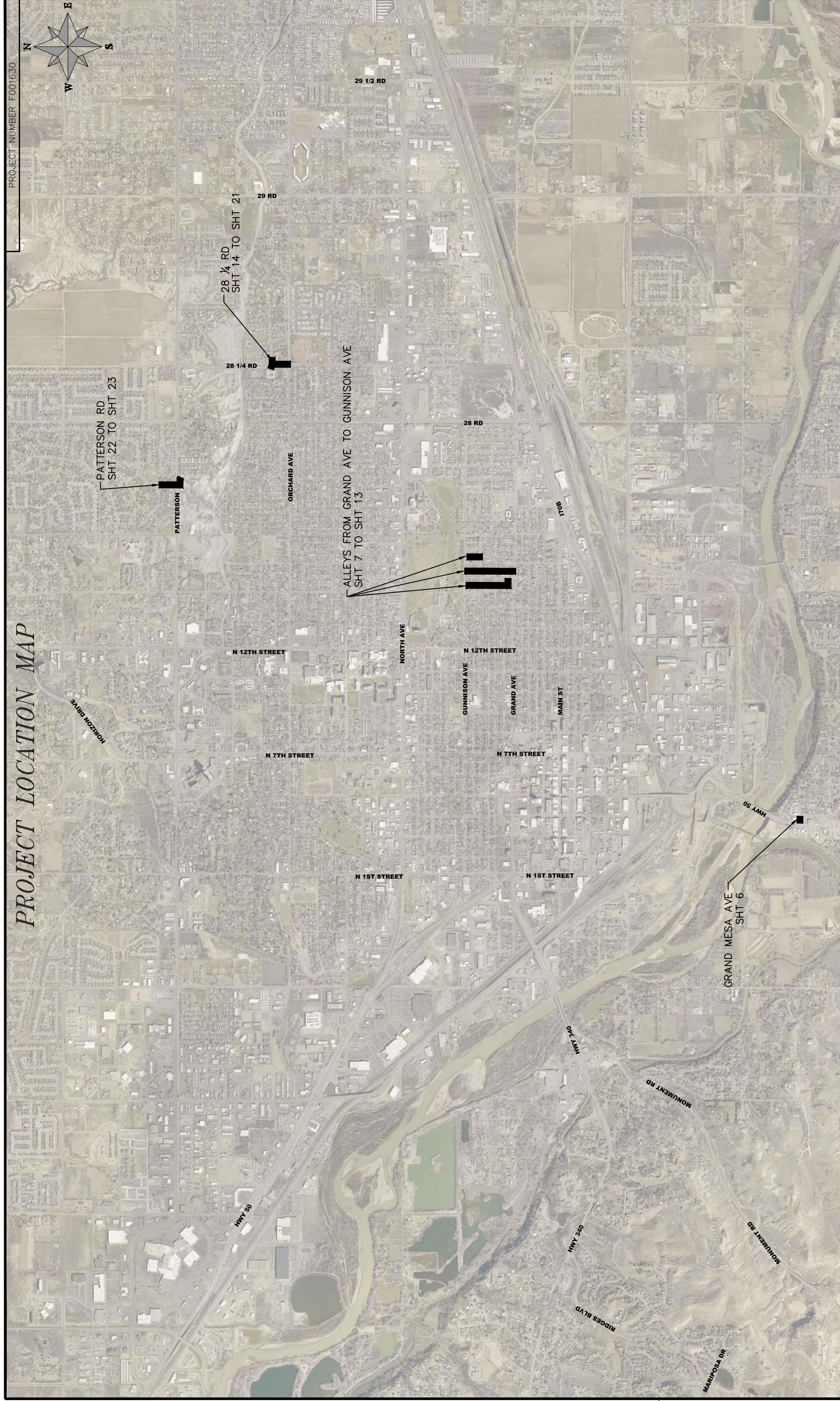
2018 SEWER LINE REPLACEMENTS  
 PHASE B

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# PROJECT LOCATION MAP

PROJECT NUMBER F001630

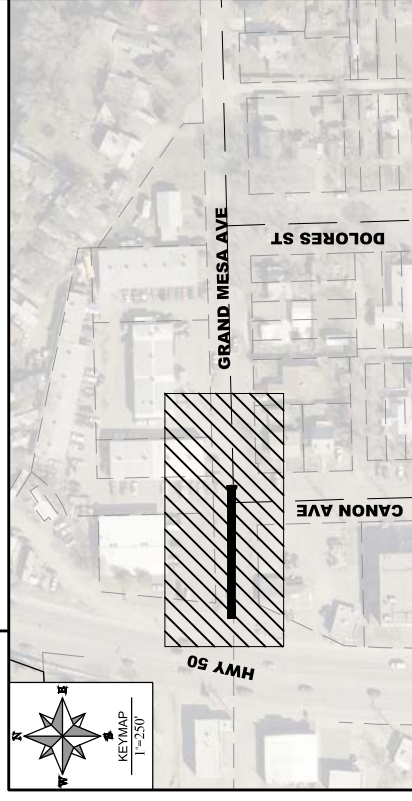
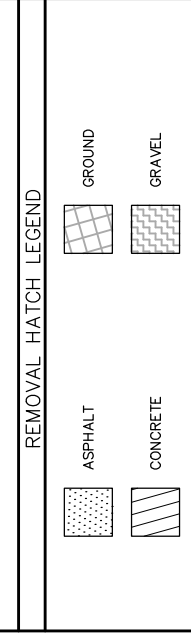


<p>REVISION <math>\Delta</math></p> <p>REVISION <math>\Delta</math></p> <p>REVISION <math>\Delta</math></p> <p>REVISION <math>\Delta</math></p>	<p>DESCRIPTION</p> <p>DATE</p>	<p>DRAWN BY HMC/JCS DATE 2016</p> <p>DESIGNED BY HMC/JCS DATE 2016</p> <p>CHECKED BY JW DATE 2016</p> <p>APPROVED BY TGP DATE 2016</p>	<p>SCALES: PLAN &amp; PROFILE</p> <p>HORIZONTAL: 1" = 2000'</p> <p>300' 1000' 2000'</p> <p>VERTICAL: 1" =</p>		<p>PUBLIC WORKS ENGINEERING DIVISION</p>	<p>2018 SEWER LINE REPLACEMENTS PHASE B</p>	<p>5</p>
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- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 104 210 - ADJUST MANHOLE RIM TO GRADE
- 110 629 - REFERENCE AND RESET SURVEY MONUMENT
- 311 102.11/108.5 - CONNECT INTO EXISTING MANHOLE (8" PIPE) (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-08)
- 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 333 INSTALL NEW 8" INSIDE DROP SYSTEM BY RELINER/Duron Inc. OR APPROVED EQUAL BY THE PROJECT ENGINEER. REPLACE OLD STAINLESS STEEL BRACKETS WITH NEW STAINLESS STEEL BRACKETS. COST OF NEW INSIDE DROP SYSTEM ALSO INCLUDES THE REMOVAL OF THE EXISTING DROP SYSTEM INSIDE THE MANHOLE. ALL FASTENERS AND BOLTS SHALL BE 316 STAINLESS STEEL.
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
- 363 BYPASS PUMPING (AS DEEMED NECESSARY BY CONTRACTOR)
- 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING SEWER PIPES.
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH)
- 846 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.

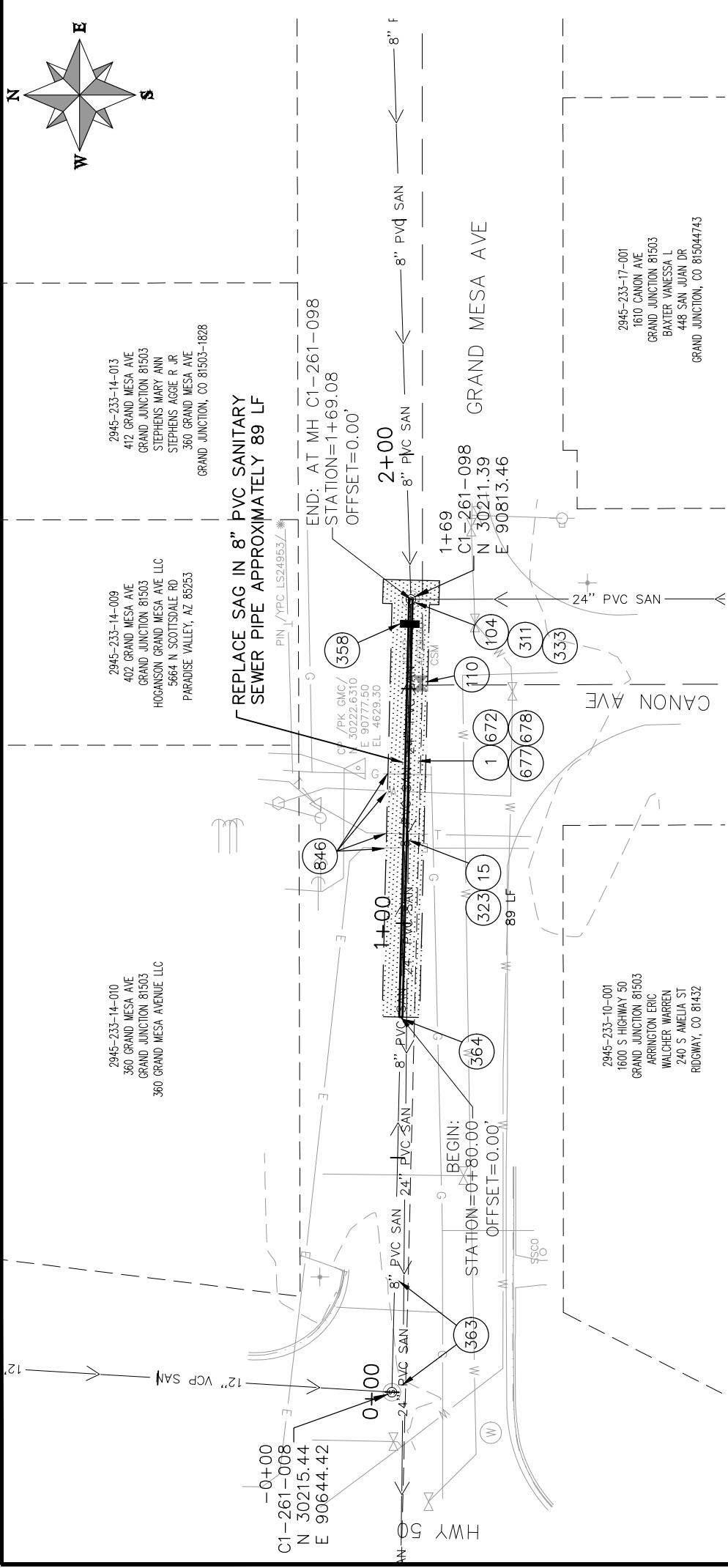


SCALES: PLAN & PROFILE

HORIZONTAL: 1" = 30'
VERTICAL: 1" = 7.5'

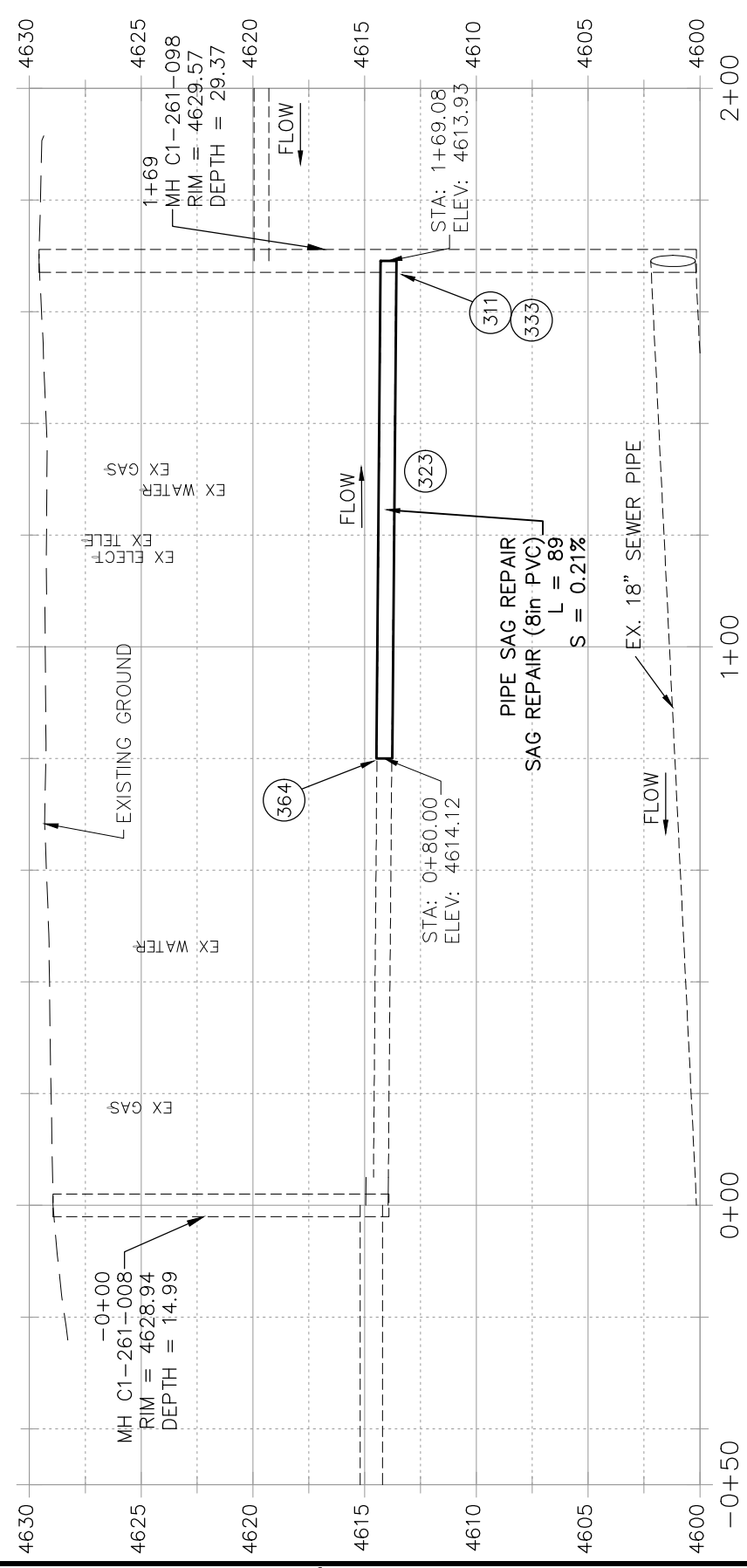
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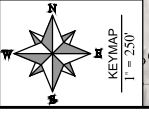
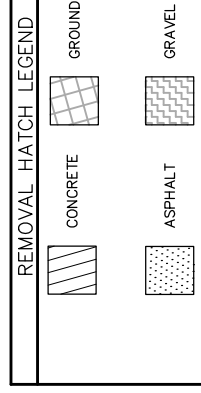
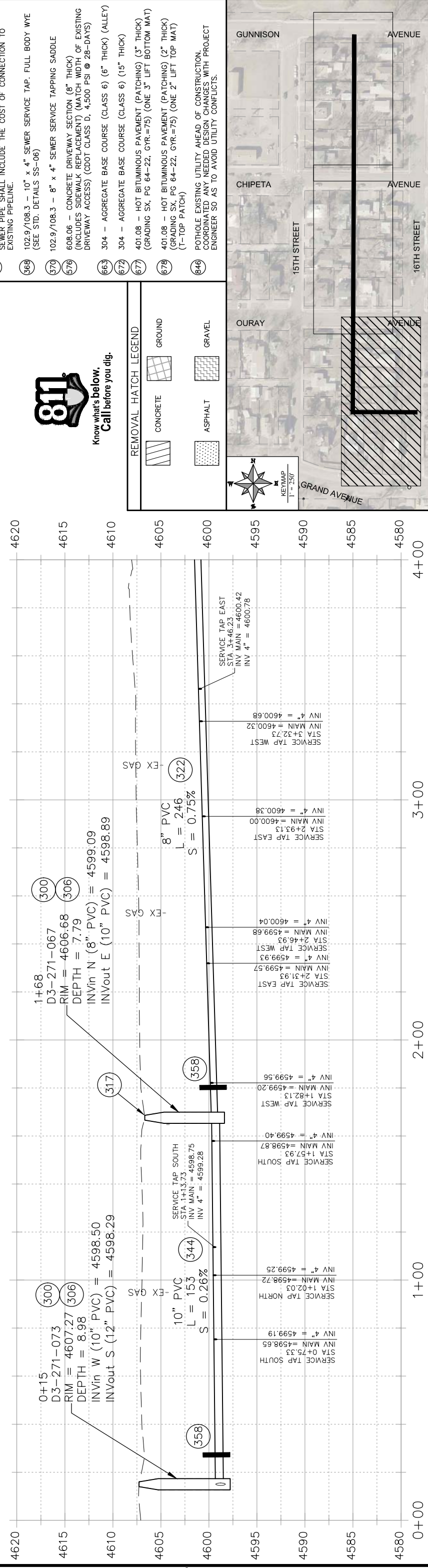
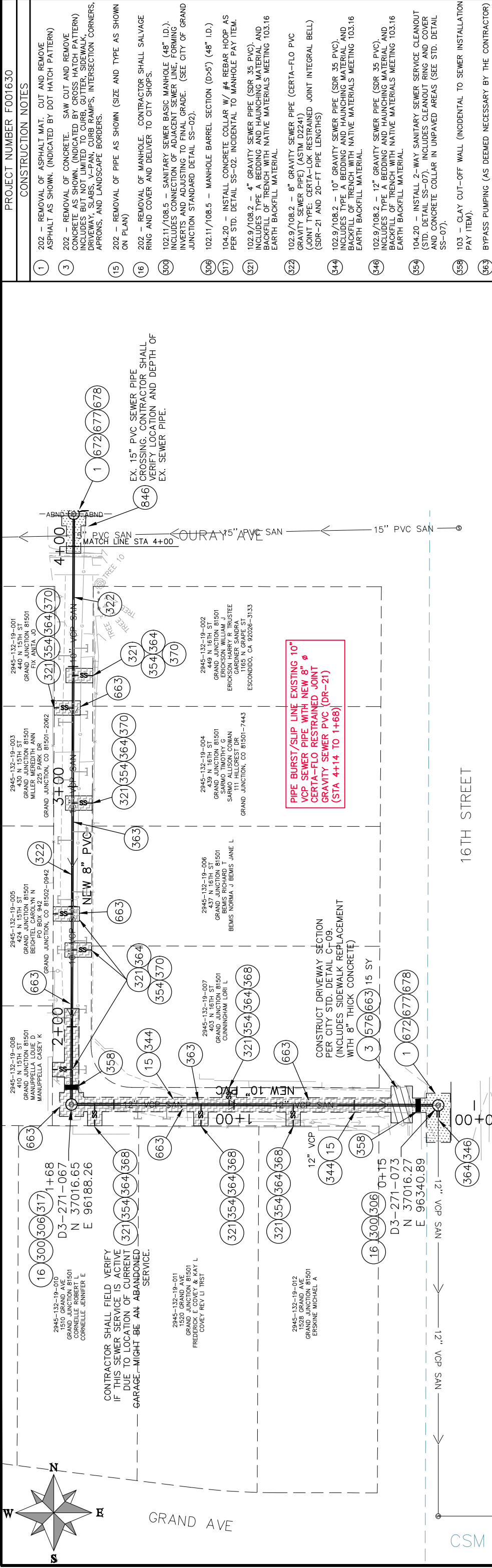
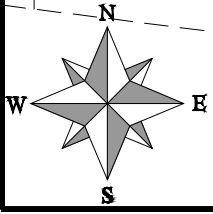
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NOTES:

- ADJUST THE NEW 8" INSIDE DROP SYSTEM (BY RELINER/Duron Inc.) SO THAT THE FUNNEL DEVICE IS LOCATED SLIGHTLY BELOW THE INVERT OF THE OUTLET PIPE SO THE CITY'S CCTV INSPECTION CAMERA HAS ACCESS INTO THE SEWER PIPE WITHOUT GETTING HUNG UP ON THE FUNNEL DEVICE.
- CONTRACTOR SHALL DETERMINE THE SLOPE OF THE NEW SEWER PIPE THAT IS REPLACING THE EXISTING SAG SECTION BY GETTING ELEVATIONS ON THE MANHOLE INLET ELEVATION AND THE EXISTING PIPE ELEVATION AT OR NEAR STATION 0+80. THE PIPE SLOPE SHOWN ON THIS SHEET MAY DIFFER FROM WHAT IS DETERMINED IN THE FIELD.





PROJECT NUMBER F001630

CONSTRUCTION NOTES

- 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APPROVES, AND LANDSCAPE BORDERS.
- 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.) INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 102.11/108.5 - MANHOLE BARREL SECTION (D=5') (48" I.D.)
- 104.20 - INSTALL CONCRETE COLLAR W/ #4 REBAR HOOP AS PER STD. DETAIL SS-02. INCIDENTAL TO MANHOLE PAY ITEM.
- 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 102.9/108.2 - 8" GRAVITY SEWER PIPE (CERTA-FLO PVC GRAVITY SEWER PIPE) (ASTM D2241) (JOINT TYPE: CERTA-LOK RESTRAINED JOINT INTEGRAL BELL) (SDR-21 AND 20-FT PIPE LENGTHS)
- 102.9/108.2 - 10" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 102.9/108.2 - 12" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
- 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
- BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR)
- CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
- 102.9/108.3 - 10" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAILS SS-06)
- 102.9/108.3 - 8" x 4" SEWER SERVICE TAPPING SADDLE
- 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (INCLUDES SIDEWALK REPLACEMENT) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDDOT CLASS D, 4,500 PSI @ 28-DAYS)
- 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
- 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
- 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
- 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH)
- POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.

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 DESIGNED BY HMC/JCS DATE 2016  
 CHECKED BY JUV DATE 2016  
 APPROVED BY TGP DATE 2016

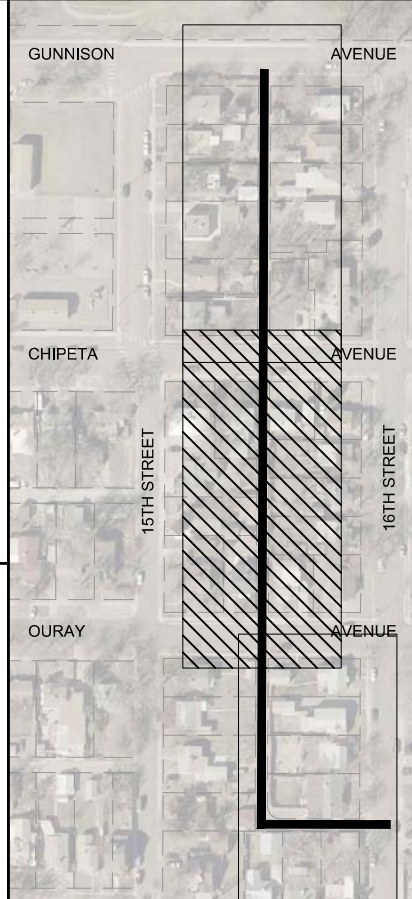
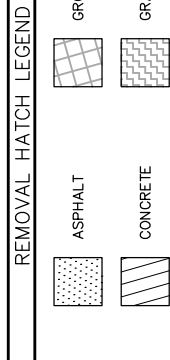
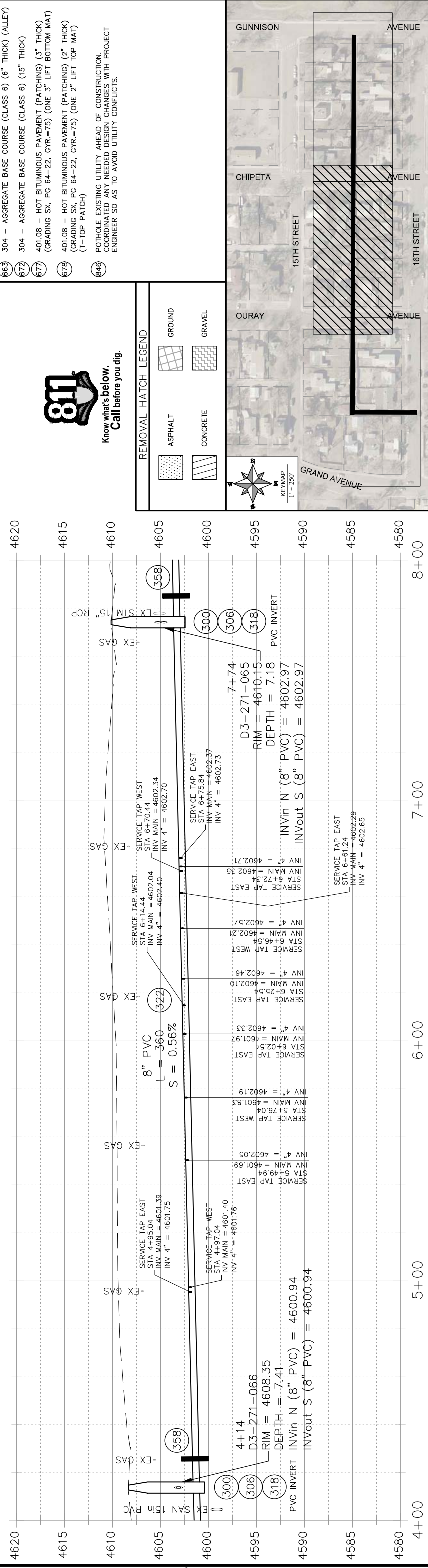
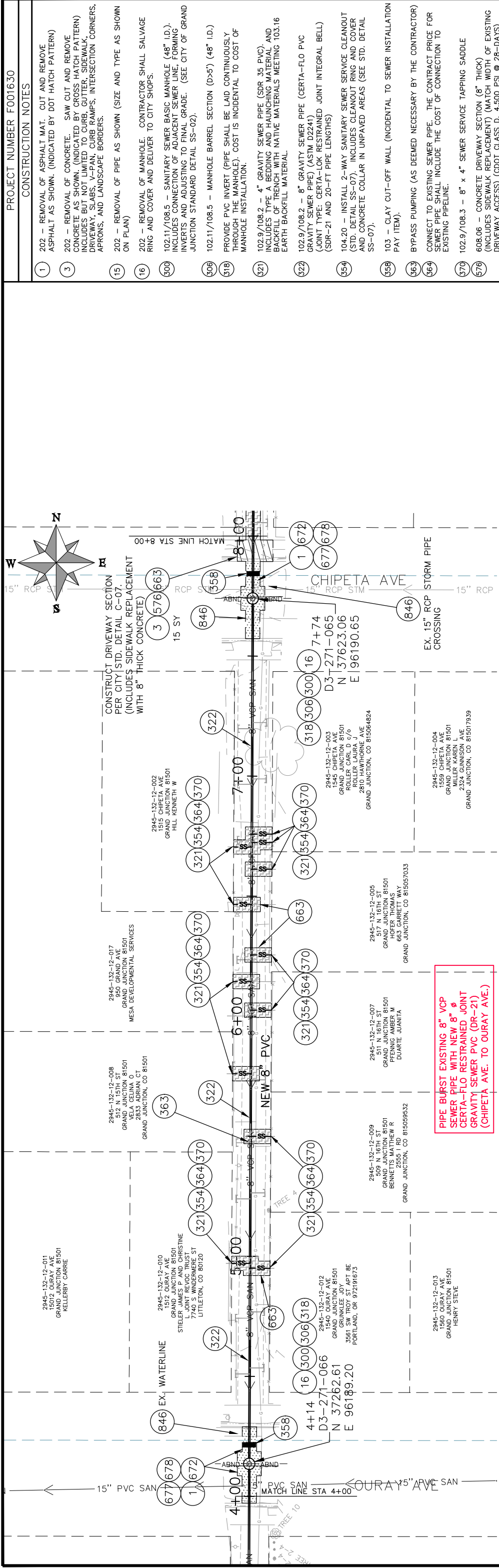
SCALES: PLAN & PROFILE  
 HORIZONTAL: 1" = 40'  
 VERTICAL: 1" = 10'

CITY OF **Grand Junction** COLORADO  
 PUBLIC WORKS ENGINEERING DIVISION

2018 SEWER LINE REPLACEMENTS  
 PHASE B  
 ALLEY GRAND AVE-GUNNISON AVE & 15th ST-16th ST

7





PROJECT NUMBER F001630

- CONSTRUCTION NOTES
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
  - 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
  - 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
  - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
  - 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
  - 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5") (48" I.D.)
  - 318 PROVIDE PVC INVERT (PIPE SHALL BE LAID CONTINUOUSLY THROUGH THE MANHOLE). COST IS INCIDENTAL TO COST OF MANHOLE INSTALLATION.
  - 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 322 102.9/108.2 - 8" GRAVITY SEWER PIPE (CERTA-FLO PVC GRAVITY SEWER PIPE) (ASTM D2241) (JOINT TYPE: CERTA-LOK RESTRAINED JOINT INTEGRAL BELL) (SDR-21 AND 20-FT PIPE LENGTHS)
  - 354 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
  - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
  - 363 BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR)
  - 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
  - 370 102.9/108.3 - 8" x 4" SEWER SERVICE TAPPING SADDLE
  - 376 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (INCLUDES SIDEWALK REPLACEMENT) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDOT CLASS D, 4,500 PSI @ 28-DAYS)
  - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
  - 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
  - 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SK, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
  - 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SK, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1"-TOP PATCH)
  - 646 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.

CITY OF  
**Grand Junction**  
COLORADO

PUBLIC WORKS  
ENGINEERING DIVISION

2018 SEWER LINE REPLACEMENTS  
PHASE B  
ALLEY GRAND AVE-GUNNISON AVE & 15th ST-16th ST

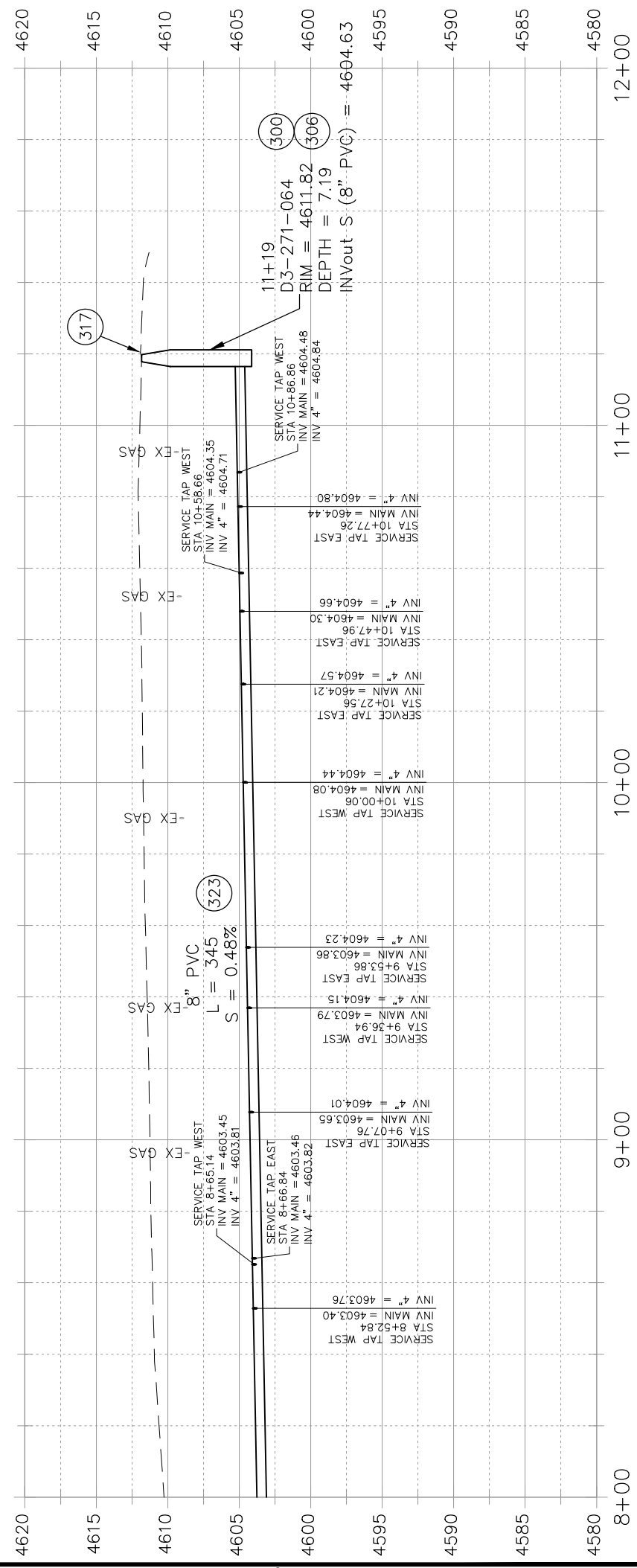
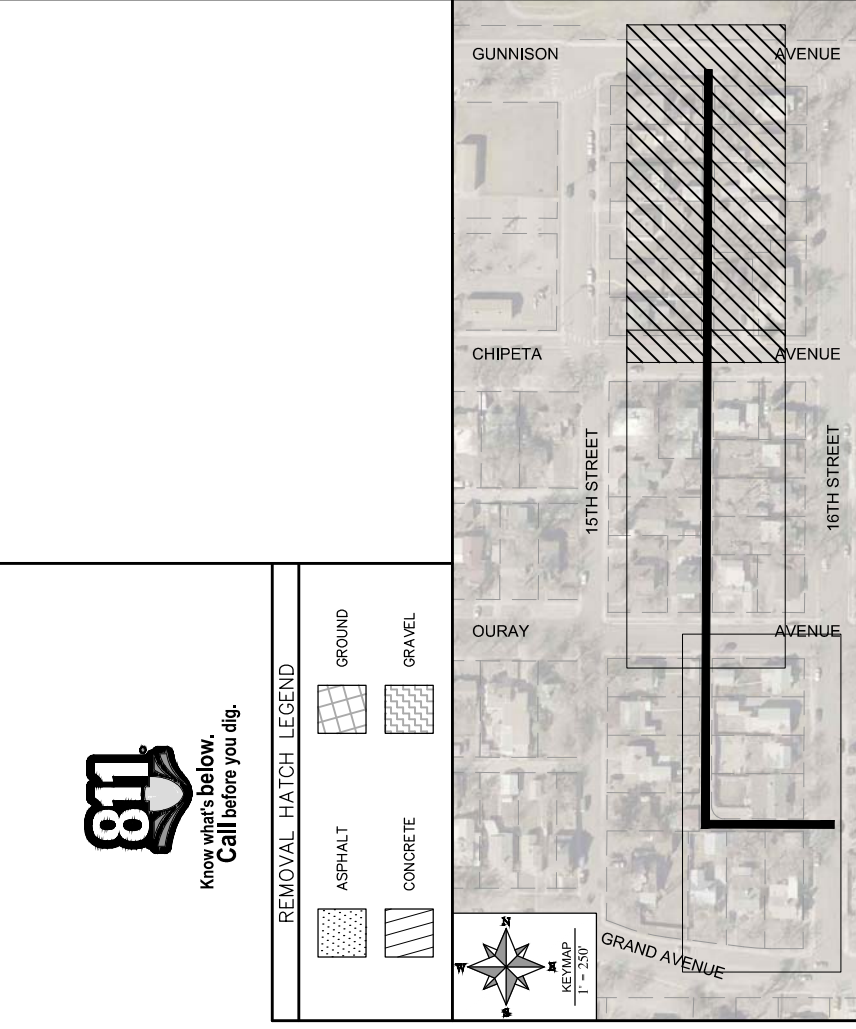
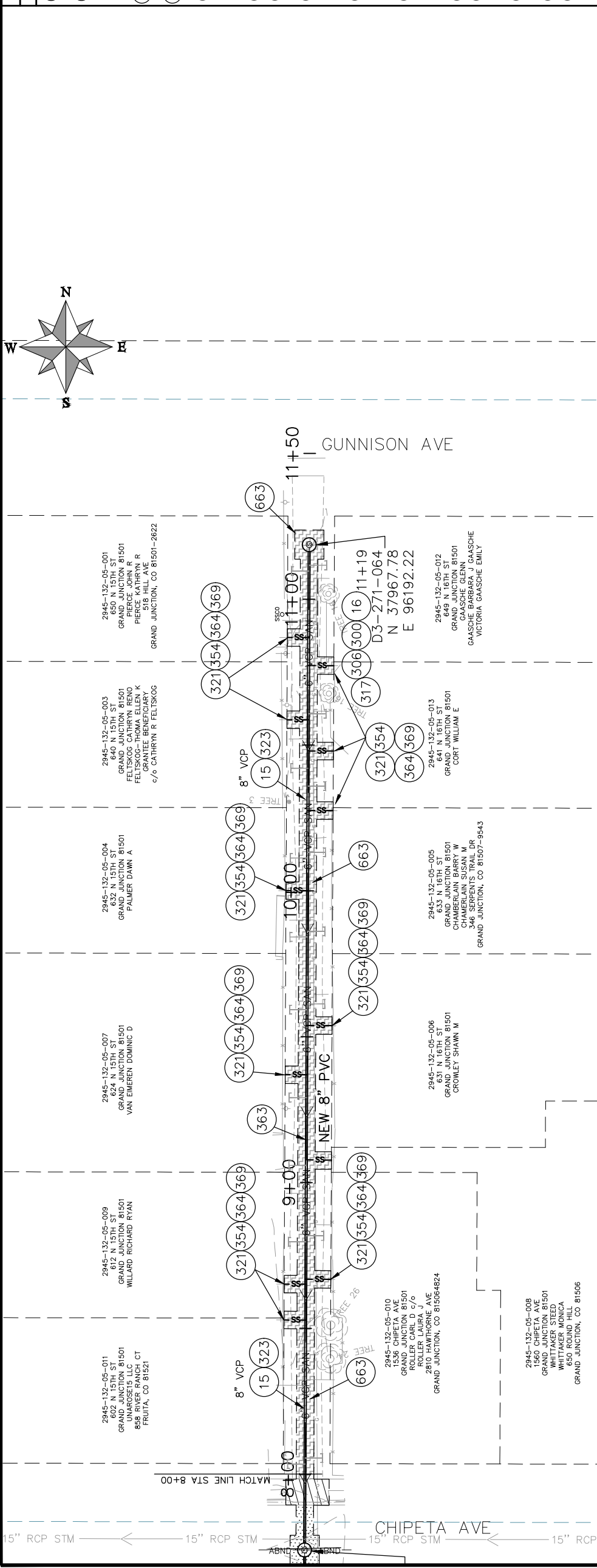
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REVISION	DESCRIPTION	DATE
REVISION Δ XXX		201X
REVISION Δ XXX		201X
REVISION Δ XXX		201X
REVISION Δ XXX		201X

SCALE	PLAN & PROFILE
HORIZONTAL: 1" = 40'	
VERTICAL: 1" = 10'	

DATE	DATE	DATE	DATE
DESIGNED BY HMC/JCS	DATE 2016	CHECKED BY HMC/JCS	DATE 2016
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- PROJECT NUMBER F001630
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  - 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
  - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
  - 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.) INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
  - 306 102.11/108.5 - MANHOLE BARREL SECTION (D>S) (48" I.D.)
  - 317 104.20 - INSTALL CONCRETE COLLAR W/ #4 REBAR HOOP AS PER STD. DETAIL SS-02. INCIDENTAL TO MANHOLE PAY ITEM.
  - 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 354 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
  - 363 BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR)
  - 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
  - 369 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAILS SS-06)
  - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
  - 846 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.



REVISION Δ XXX DATE 201X

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SCALES: PLAN & PROFILE

HORIZONTAL: 1" = 40'

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**Grand Junction**  
CITY OF COLORADO

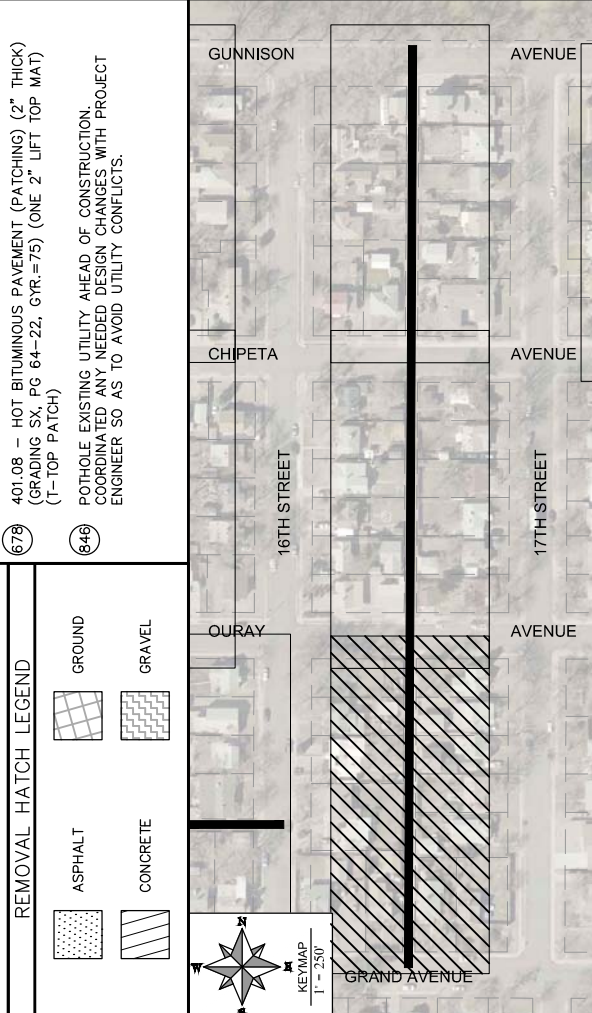
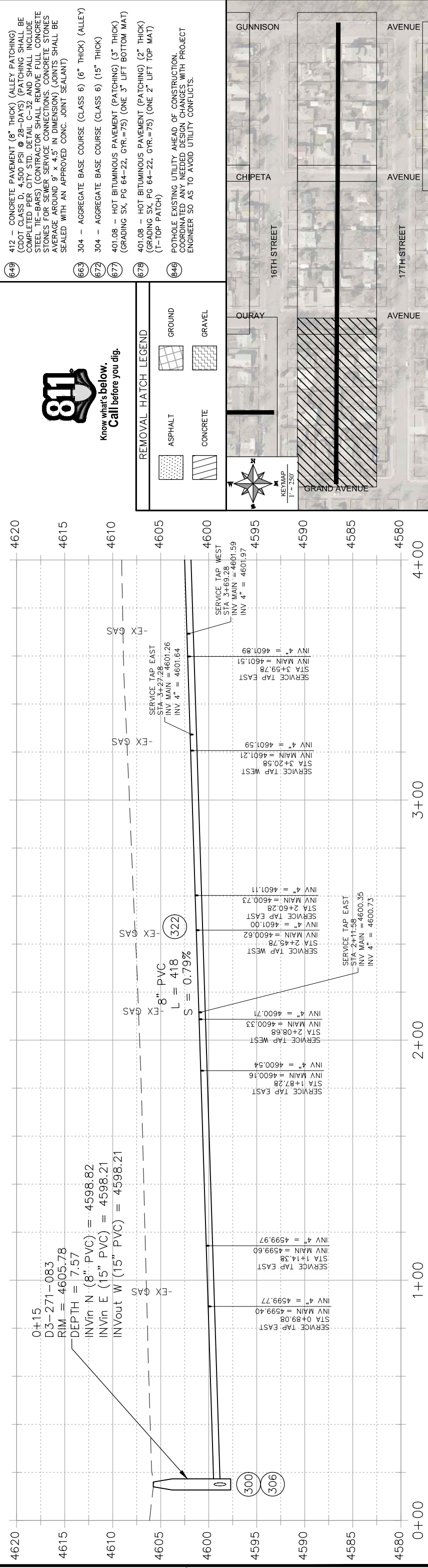
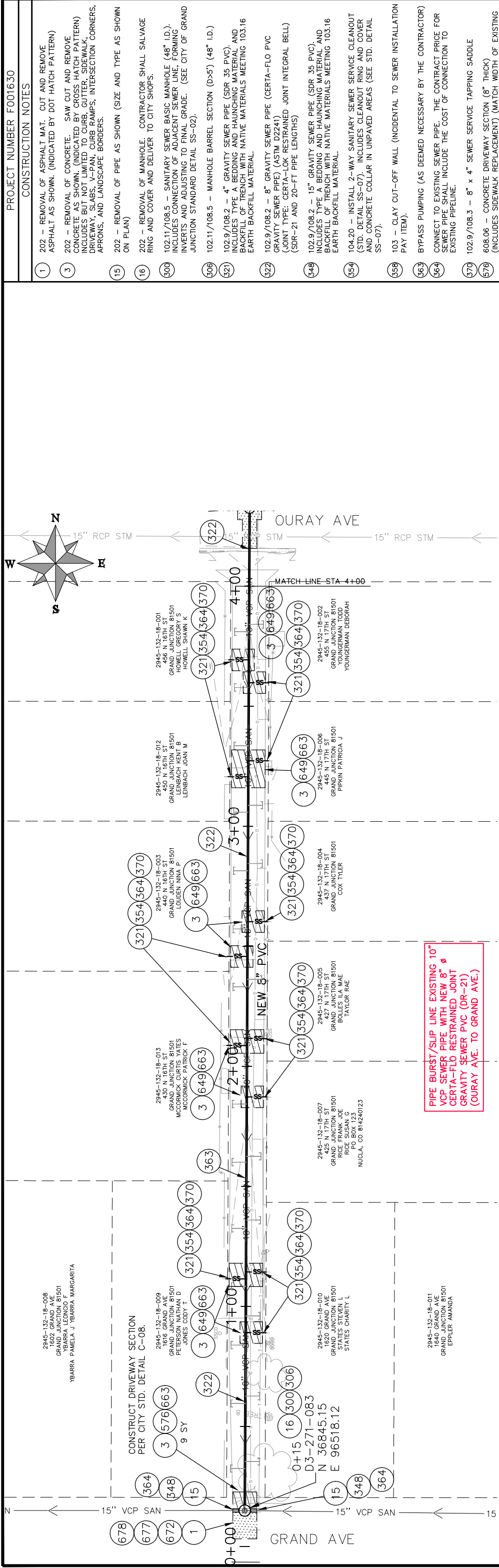
PUBLIC WORKS  
ENGINEERING DIVISION

2018 SEWER LINE REPLACEMENTS  
PHASE B

ALLEY GRAND AVE-GUNNISON AVE & 15th ST-16th ST

9





- PROJECT NUMBER F001630**
- CONSTRUCTION NOTES**
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
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  - 306 102.11/108.5 - MANHOLE BARREL SECTION (D=5') (48" I.D.)
  - 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
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  - 348 102.9/108.2 - 15" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 354 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
  - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
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  - 370 102.9/108.3 - 8" x 4" SEWER SERVICE TAPPING SADDLE
  - 576 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (INCLUDES SIDEWALK REPLACEMENT) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDOT CLASS D, 4,500 PSI @ 28-DAYS)
  - 649 412 - CONCRETE PAVEMENT (8" THICK) (ALLEY PATCHING) (CDOT CLASS D, 4,500 PSI @ 28-DAYS) (PATCHING SHALL BE COMPLETED PER CITY STD. DETAIL C-32 AND SHALL INCLUDE STEEL TIE-BARS) (CONTRACTOR SHALL REMOVE FULL CONCRETE STONES FOR SEWER SERVICE CONNECTIONS. CONCRETE STONES AVERAGE AROUND 9" x 4.5" IN DIMENSION) (JOINTS SHALL BE SEALED WITH AN APPROVED CONC. JOINT SEALANT)
  - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
  - 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
  - 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
  - 679 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1"-TOP PATCH)
  - 686 POT HOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.

**CITY OF Grand Junction COLORADO**

**PUBLIC WORKS ENGINEERING DIVISION**

**2018 SEWER LINE REPLACEMENTS PHASE B**

**ALLEY GRAND AVE-GUNNISON AVE & 16th ST-17th ST**

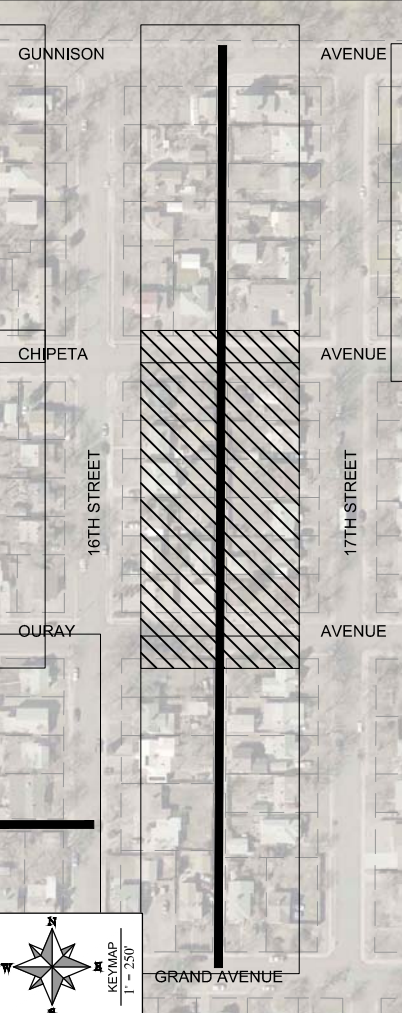
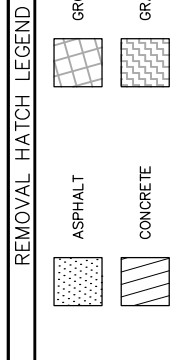
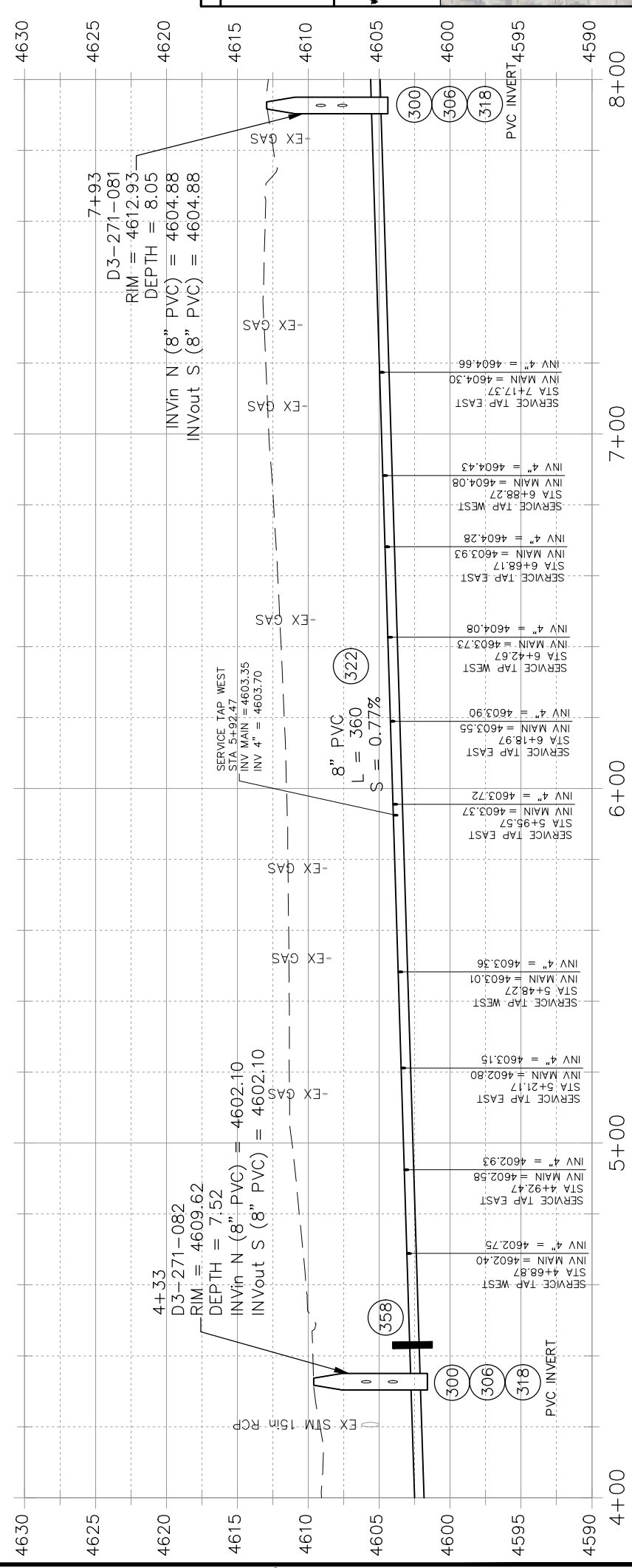
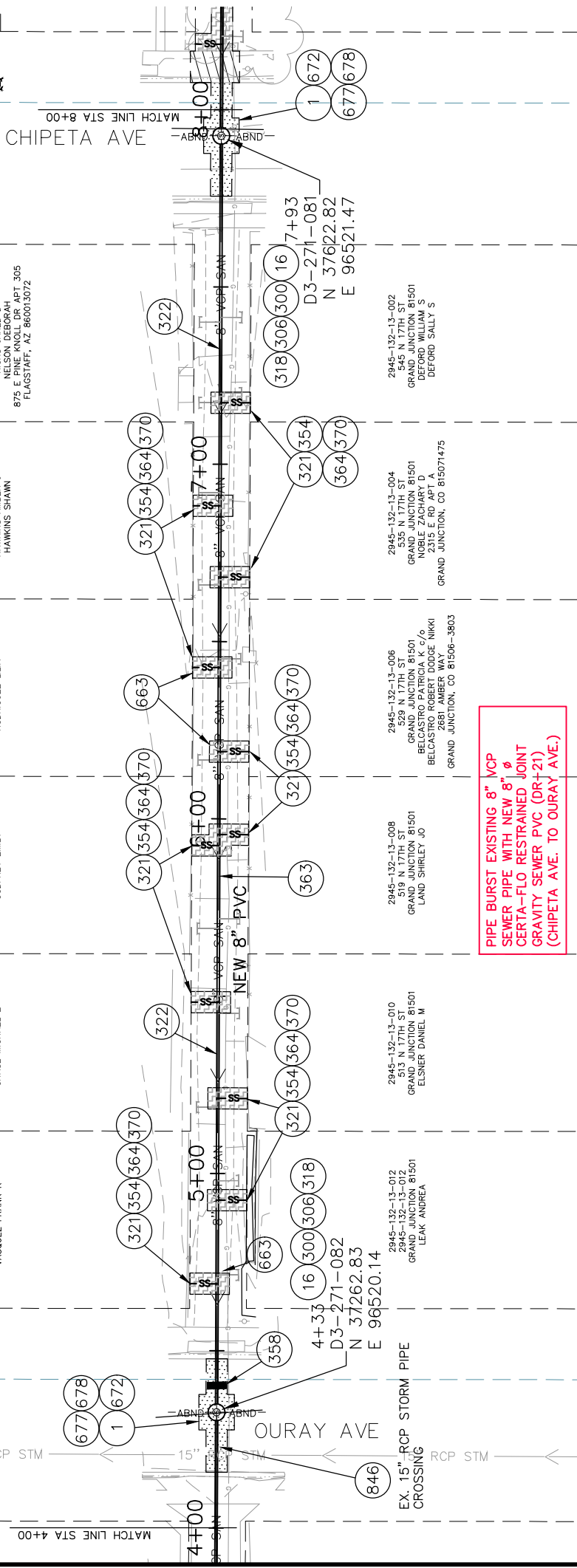
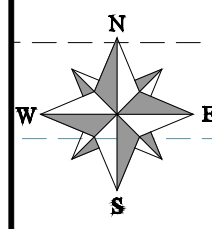
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REVISION	DESCRIPTION	DATE	DRAWN BY	HMC/JCS	DATE	2016
REVISION Δ XXX		201X				
REVISION Δ XXX		201X				
REVISION Δ XXX		201X				
REVISION Δ XXX		201X				

SCALES: PLAN & PROFILE  
 HORIZONTAL: 1" = 40'  
 10' 20' 40'  
 VERTICAL: 1" = 10'  
 0' 2.5' 5' 10'

DRAWN BY HMC/JCS DATE 2016  
 DESIGNED BY HMC/JCS DATE 2016  
 CHECKED BY JUV DATE 2016  
 APPROVED BY TGP DATE 2016

- CONSTRUCTION NOTES
- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
  - 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
  - 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
  - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
  - 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.) INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
  - 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5") (48" I.D.) PROVIDE PVC INVERT (PIPE SHALL BE LAID CONTINUOUSLY THROUGH THE MANHOLE). COST IS INCIDENTAL TO COST OF MANHOLE INSTALLATION.
  - 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 322 102.9/108.2 - 8" GRAVITY SEWER PIPE (CERTA-FLO PVC GRAVITY SEWER PIPE) (ASTM D2241) (JOINT TYPE: CERTA-LOK RESTRAINED JOINT INTEGRAL BELL) (SDR-21 AND 20-FT PIPE LENGTHS)
  - 354 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
  - 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
  - 363 BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR) CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
  - 370 102.9/108.3 - 8" x 4" SEWER SERVICE TAPPING SADDLE
  - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
  - 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
  - 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, CYR.=75) (ONE 3" LIFT BOTTOM MAT)
  - 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, CYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH)
  - 846 POT HOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.



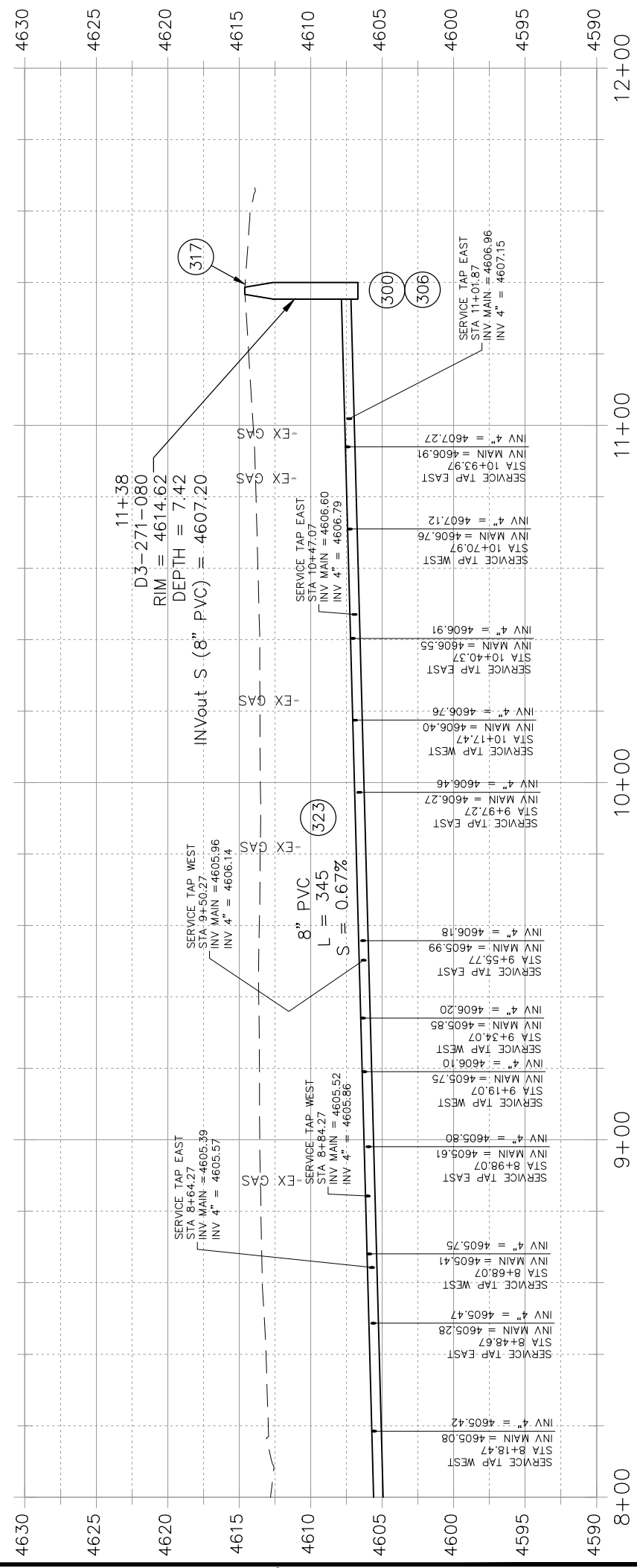
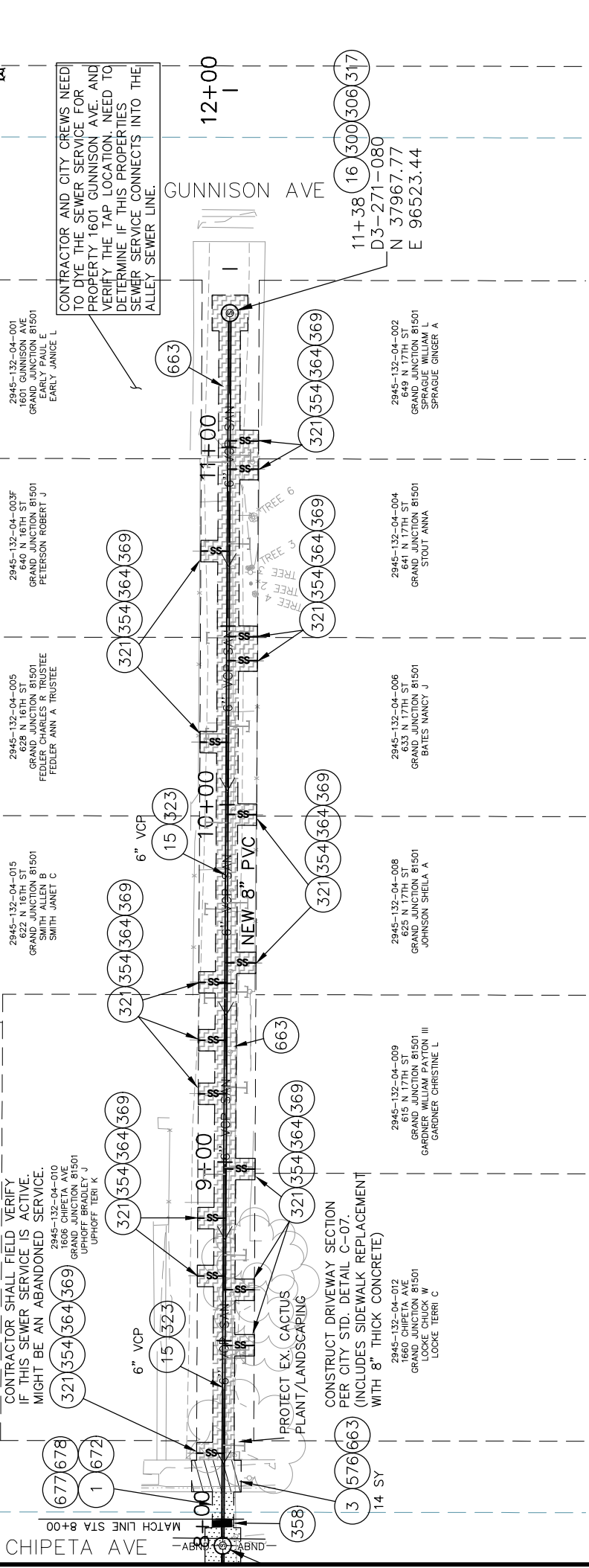
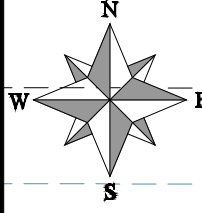
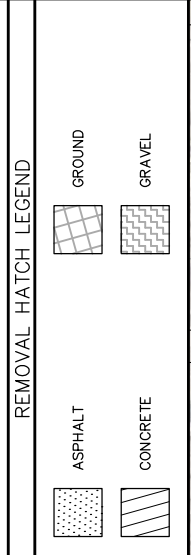
REVISION	DESCRIPTION	DATE
REVISION Δ XXX		201X
REVISION Δ XXX		201X
REVISION Δ XXX		201X
REVISION Δ XXX		201X

DRAWN BY	HMC/JCS	DATE	2016
DESIGNED BY	HMC/JCS	DATE	2016
CHECKED BY	JUV	DATE	2016
APPROVED BY	ICP	DATE	2016



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  - 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
  - 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
  - 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5) (48" I.D.)
  - 317 104.20 - INSTALL CONCRETE COLLAR W/ #4 REBAR HOOP AS PER STD. DETAIL SS-02. INCIDENTAL TO MAINHOLE PAY ITEM.
  - 321 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
  - 354 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
  - 356 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
  - 363 BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR)
  - 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
  - 369 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAILS SS-06)
  - 376 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (INCLUDES SIDEWALK REPLACEMENT) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
  - 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (ALLEY)
  - 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK)
  - 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
  - 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH)
  - 646 POT HOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.



SCALES: PLAN & PROFILE

HORIZONTAL: 1" = 40'
VERTICAL: 1" = 10'

DESCRIPTION	DATE
REVISION Δ XXX	201X
REVISION Δ XXX	201X
REVISION Δ XXX	201X
REVISION Δ XXX	201X

DATE	HMC/JCS	DATE	DATE
2016	2016	2016	2016
2016	2016	2016	2016
2016	2016	2016	2016





CONSTRUCTION NOTES

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- 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 104 210 - ADJUST MANHOLE RIM TO GRADE
- 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.). INCLUDES CONNECTION OF ADJACENT SEWER LINES, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5') (48" I.D.)
- 319 EPOXY COAT MANHOLE INVERT. COST OF EPOXY COATING IS INCIDENTAL TO COST OF MANHOLE INSTALLATION. EPOXY REQUIRES 36 HOURS MIN. FOR CURE TIME. CONTRACTOR SHALL PLAN AND SCHEDULE ACCORDINGLY FOR EPOXY CURE TIME. (REFER TO CITY UTILITY SPEC. 102.11 FOR EPOXY INFORMATION)
- 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL ABOVE SEWER LINE) (FIELD VERIFY)
- 355 104.40 - CAP TOP HALF OF SEWER IN CONCRETE PER STD. DETAIL GU-04. (WATER LINE LESS THAN 18" TO SEWER LINE)
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
- 363 BYPASS PUMPING (AS DEEMED NECESSARY BY CONTRACTOR)
- 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING SEWER PIPES.
- 602 608.06 - CONCRETE CURB AND GUTTER (2' WIDE)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (CURB AND GUTTER)
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS AND AS DIRECTED BY PROJECT ENGINEER)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR-75) (ONE 3" LIFT BOTTOM MAT) (APPLIES ONLY TO TRENCH AREAS)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR-75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

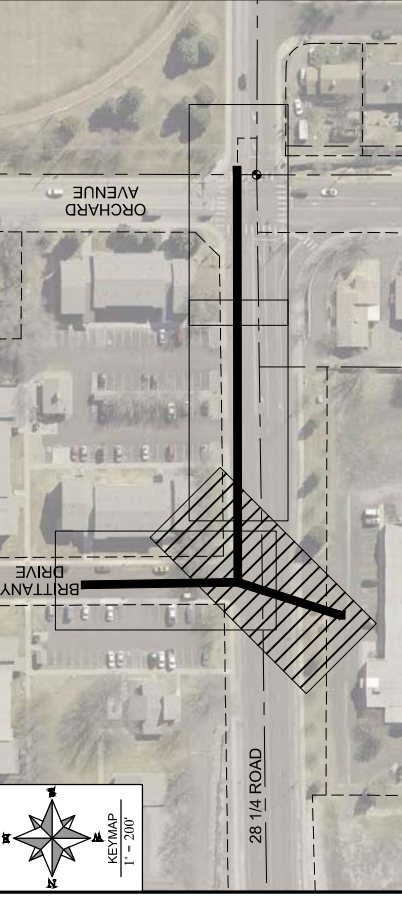
NOTES:

FULL-DEPTH ASPHALT REMOVAL SHALL OCCUR ALONG UTILITY TRENCH ALIGNMENTS PER CITY STD. DETAIL GU-03 AND ALONG THE SIDEWALK REMOVAL AREAS ON 28 1/4 ROAD. THE ASPHALT AREAS BETWEEN THE CURB AND REMOVAL AREAS SHALL RECEIVE A 2-INCH ASPHALT LIFT AND 2-INCH OVERLAY. THE CONTRACTOR AND PROJECT ENGINEER/INSPECTOR SHALL DETERMINE THE LIMITS OF FULL-DEPTH ASPHALT REMOVAL ALONG THE SIDEWALK REMOVAL LIMITS TO ENSURE PROPER ROADWAY DRAINAGE IS ACHIEVED.



Know what's below.  
Call before you dig.

REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE



2018 SEWER LINE REPLACEMENTS  
PHASE B  
28 1/4 RD SEWER LINE

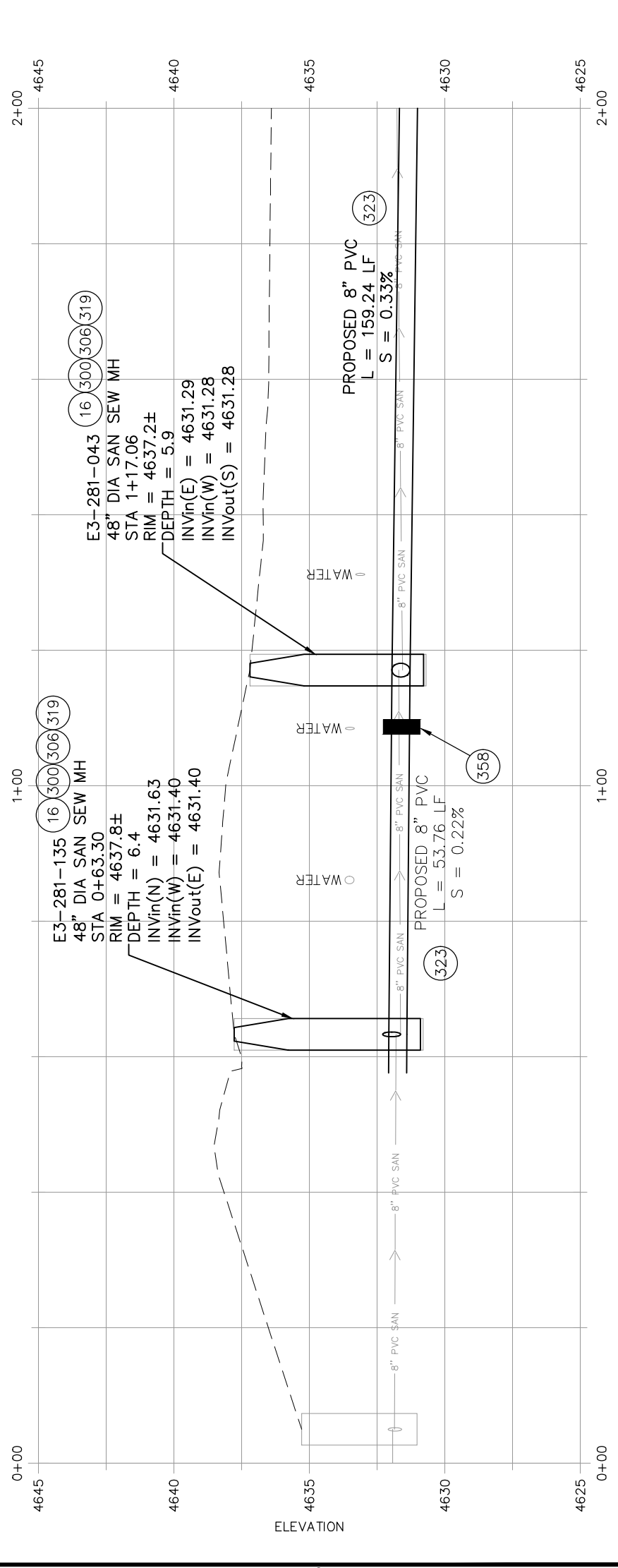
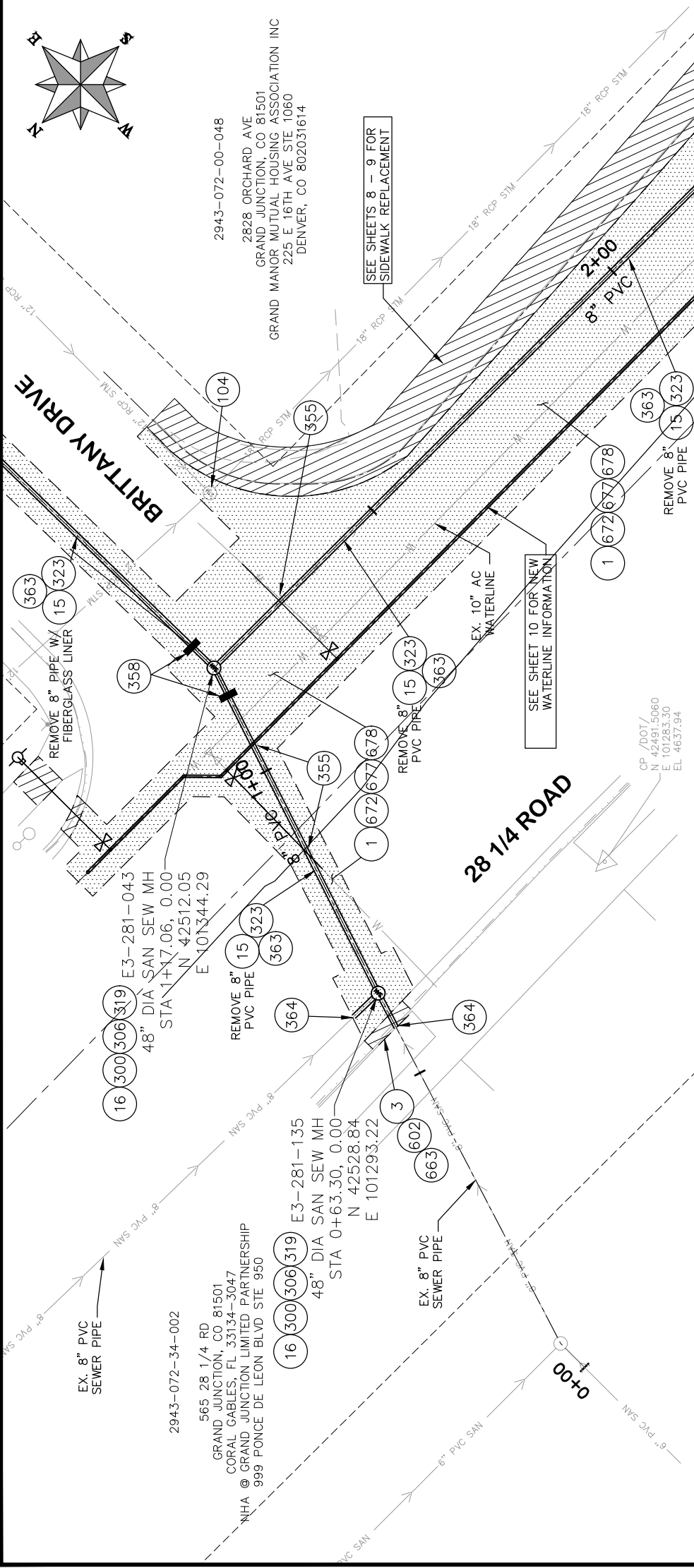
PUBLIC WORKS  
ENGINEERING DIVISION



SCALES: PLAN & PROFILE  
HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

REVISION	DATE	DESCRIPTION	DRAWN BY	DATE
1				
2				
3				

REVISION	DATE	DESCRIPTION	DRAWN BY	DATE
1				
2				
3				



CONSTRUCTION NOTES

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- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
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- 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.), INCLUDES CONNECTION OF ADJACENT SEWER LINES, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5') (48" I.D.)
- 319 EPOXY COAT MANHOLE INVERT. COST OF EPOXY COATING IS INCIDENTAL TO COST OF MANHOLE INSTALLATION. EPOXY REQUIRES 36 HOURS MIN. FOR CURE TIME. CONTRACTOR SHALL PLAN AND SCHEDULE ACCORDINGLY FOR EPOXY CURE TIME. (REFER TO CITY UTILITY SPEC. 102.11 FOR EPOXY INFORMATION)
- 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 355 104.40 - CAP TOP HALF OF SEWER IN CONCRETE PER STD. DETAIL GU-04. (WATER LINE LESS THAN 18" ABOVE SEWER LINE)
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
- 363 BYPASS PUMPING (AS DEEMED NECESSARY BY CONTRACTOR)
- 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING SEWER PIPES.
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS AND AS DIRECTED BY PROJECT ENGINEER)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR=75) (ONE 3" LIFT BOTTOM MAT) (APPLIES ONLY TO TRENCH AREAS)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

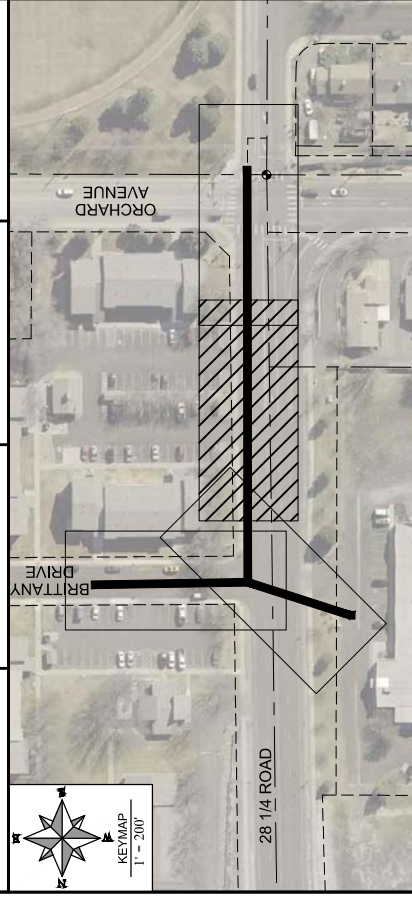
NOTES:

- FULL-DEPTH ASPHALT REMOVAL SHALL OCCUR ALONG UTILITY TRENCH ALIGNMENTS PER CITY STD. DETAIL GU-03 AND ALONG THE SIDEWALK REMOVAL AREAS ON 28 1/4 ROAD. THE ASPHALT PERCS BETWEEN THE FULL-DEPTH REMOVAL AREAS SHALL RECEIVE A 2-INCH ASPHALT MILL AND 2-INCH COVERLAY. THE CONTRACTOR AND PROJECT ENGINEER/CITY INSPECTOR SHALL DETERMINE THE LIMITS OF FULL-DEPTH ASPHALT REMOVAL ALONG THE SIDEWALK REMOVAL LIMITS TO ENSURE PROPER ROADWAY DRAINAGE IS ACHIEVED.

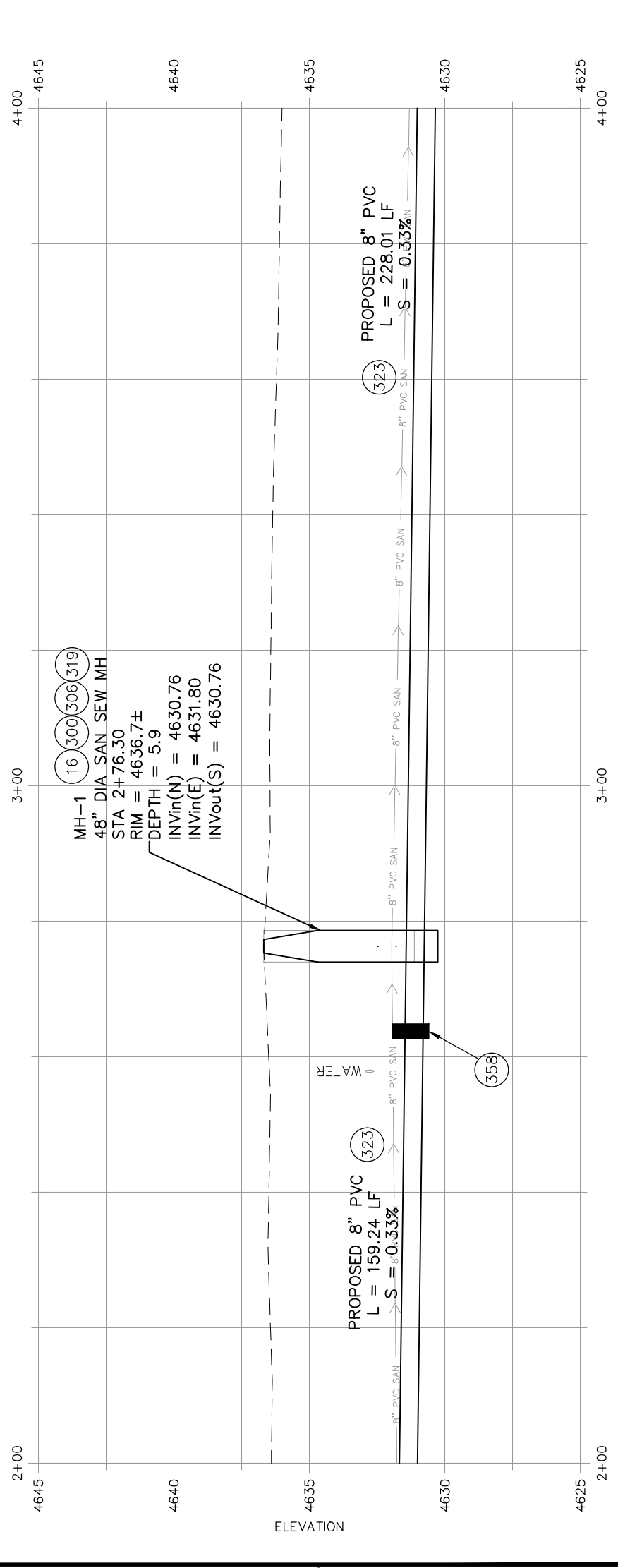
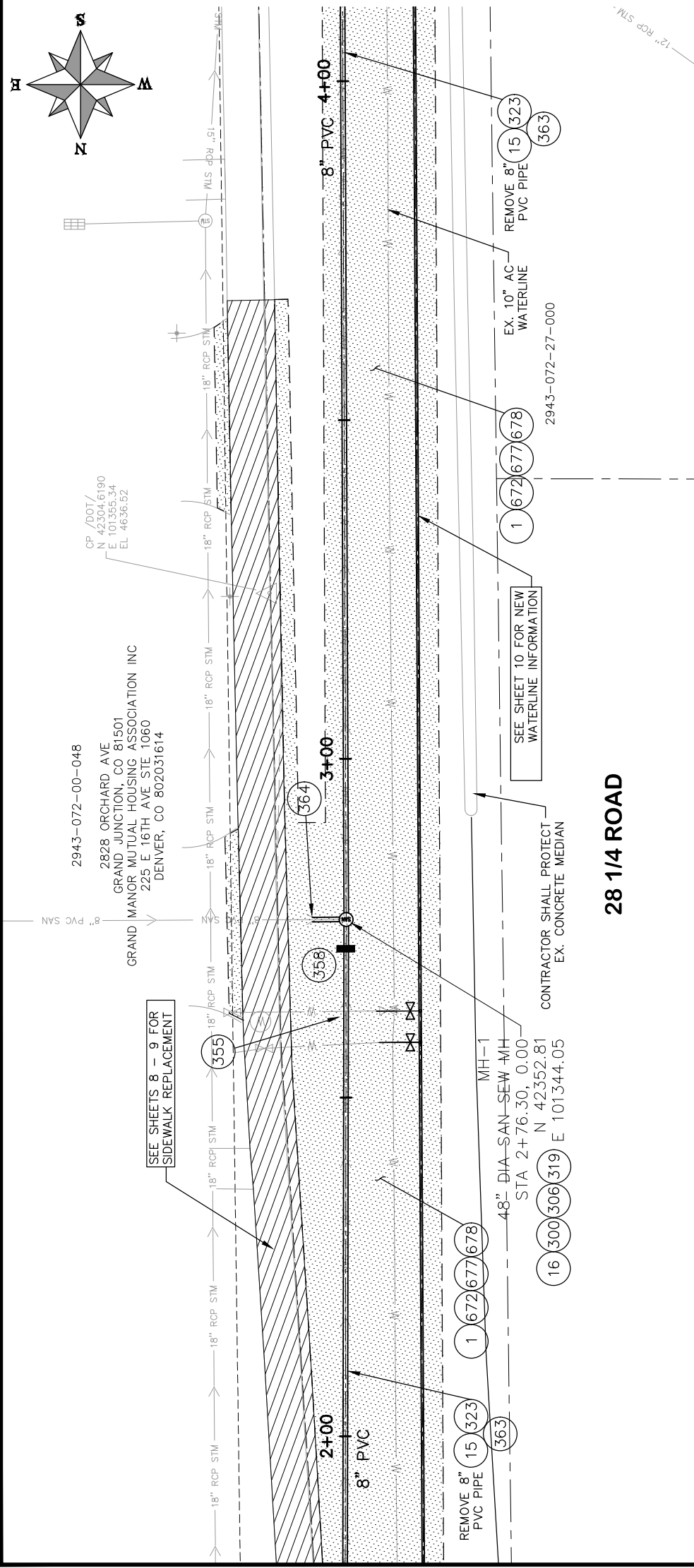


Know what's below.  
Call before you dig.

REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1				
2				
3				
4				





PROJECT NO. F001630

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 16 202 - REMOVAL OF MANHOLE. CONTRACTOR SHALL SALVAGE RING AND COVER AND DELIVER TO CITY SHOPS.
- 300 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.), INCLUDES CONNECTION OF ADJACENT SEWER LINES, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 306 102.11/108.5 - MANHOLE BARREL SECTION (D>5') (48" I.D.)
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- 323 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC). INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL
- 355 104.40 - CAP TOP HALF OF SEWER IN CONCRETE PER STD. DETAIL GU-04. (WATER LINE LESS THAN 18" ABOVE SEWER LINE) (FIELD VERIFY)
- 358 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM)
- 363 BYPASS PUMPING (AS DEEMED NECESSARY BY THE CONTRACTOR)
- 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING SEWER PIPES.
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS AND AS DIRECTED BY PROJECT ENGINEER)
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- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 780 208 - STORM DRAIN INLET PROTECTION (SILT SACK STYLE) (INCLUDES MAINTENANCE AND REMOVAL OF DIRT AND DEBRIS)

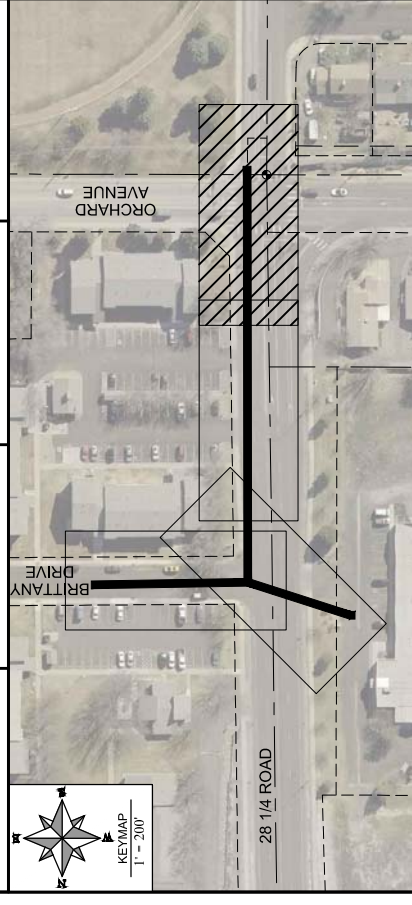
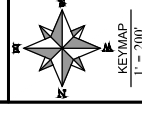
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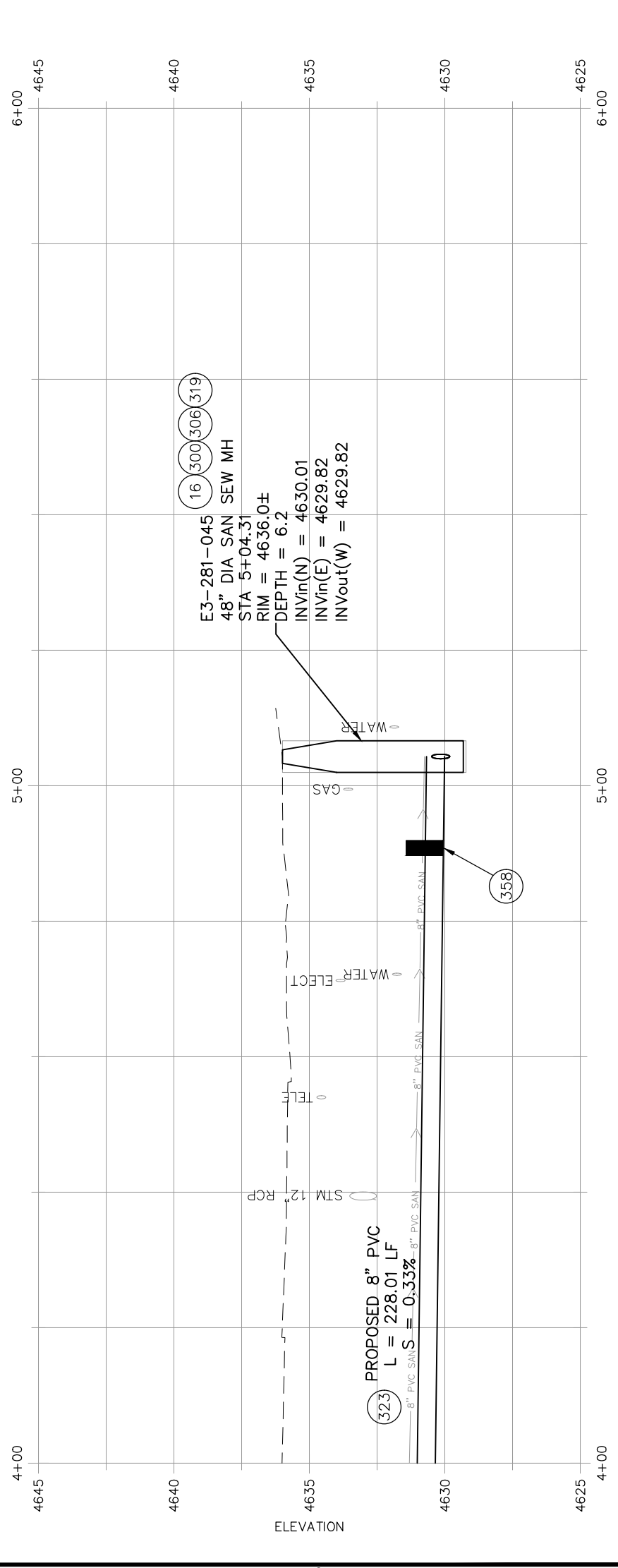
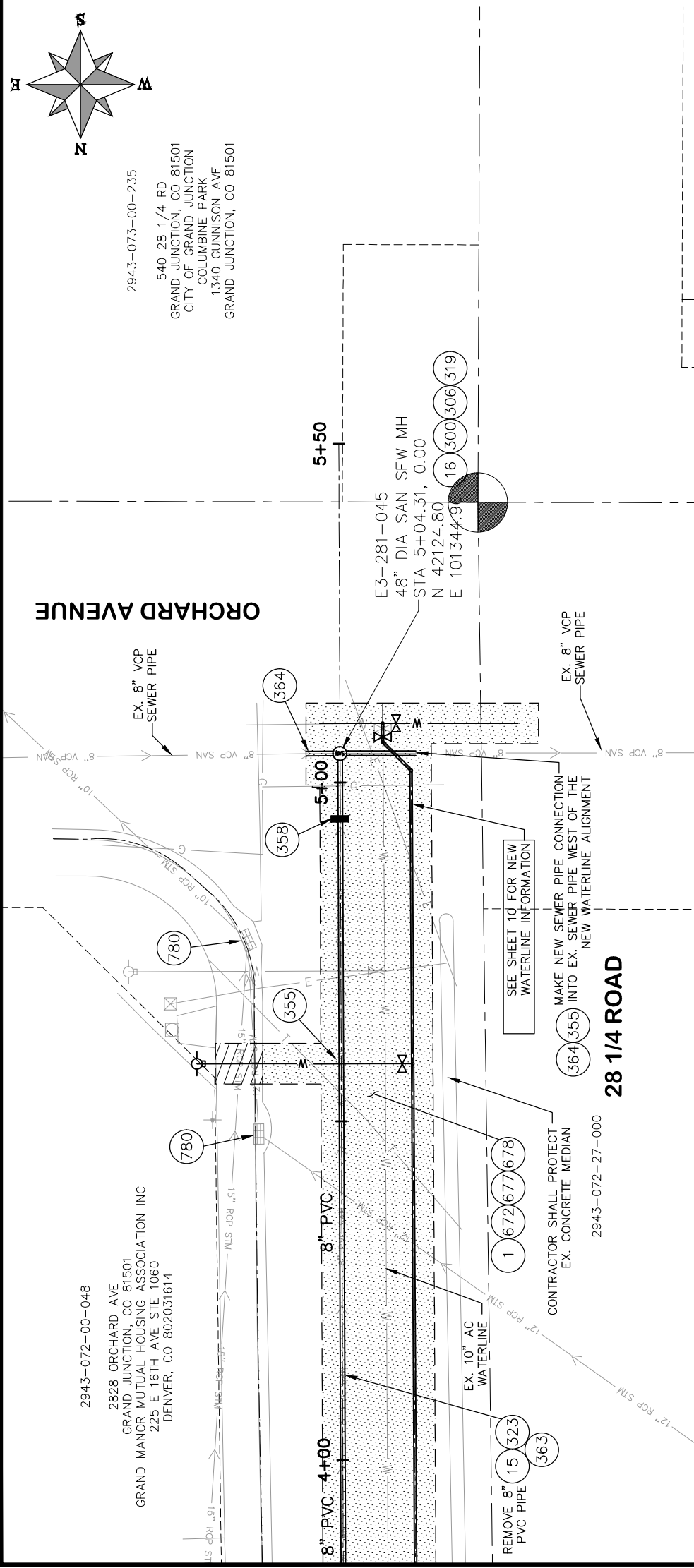
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	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE



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SCALE: PLAN & PROFILE	HORIZONTAL: 1" = 20'
	VERTICAL: 1" = 5'



2943-072-00-048  
2828 ORCHARD AVE  
GRAND JUNCTION, CO 81501  
GRAND MANOR MUTUAL HOUSING ASSOCIATION INC  
225 E 16TH AVE STE 1060  
DENVER, CO 802031614

2943-073-00-235  
540 28 1/4 RD  
GRAND JUNCTION, CO 81501  
CITY OF GRAND JUNCTION  
COLUMBINE PARK  
1340 GUNNISON AVE  
GRAND JUNCTION, CO 81501

REMOVE 8" PVC PIPE  
15 323  
363  
CONTRACTOR SHALL PROTECT EX. CONCRETE MEDIAN  
2943-072-27-000

SEE SHEET 10 FOR NEW WATERLINE INFORMATION  
MAKE NEW SEWER PIPE CONNECTION INTO EX. SEWER PIPE WEST OF THE NEW WATERLINE ALIGNMENT  
364 355  
CONTRACTOR SHALL PROTECT EX. CONCRETE MEDIAN  
2943-072-27-000

PROJECT NO. F001630

CONSTRUCTION NOTES

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- 363 BYPASS PUMPING (AS DEEMED NECESSARY BY CONTRACTOR)
- 364 CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING SEWER PIPES.
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS AND AS DIRECTED BY PROJECT ENGINEER)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, CYR=75) (ONE 3" LIFT BOTTOM MAT) (APPLIES ONLY TO TRENCH AREAS)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, CYR=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

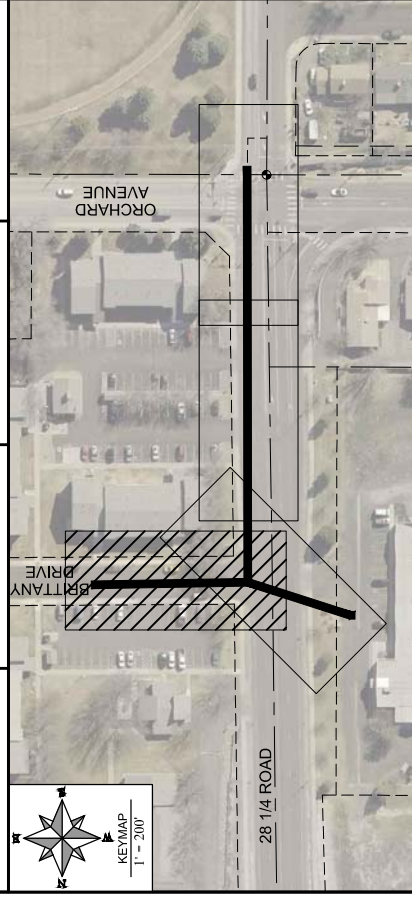
NOTES:

- FULL-DEPTH ASPHALT REMOVAL SHALL OCCUR ALONG UTILITY TRENCH ALIGNMENTS PER CITY STD. DETAIL GU-03 AND ALONG THE SIDEWALK REMOVAL AREAS ON 28 1/4 ROAD. THE ASPHALT AREAS BETWEEN THE FULL-DEPTH REMOVAL AREAS SHALL RECEIVE ASPHALT MILL AND FINCH ASPHALT. THE CONTRACTOR AND PROJECT ENGINEER/CITY INSPECTOR SHALL DETERMINE THE LIMITS OF FULL-DEPTH ASPHALT REMOVAL ALONG THE SIDEWALK REMOVAL LIMITS TO ENSURE PROPER ROADWAY DRAINAGE IS ACHIEVED.



Know what's below.  
Call before you dig.

REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE



2018 SEWER LINE REPLACEMENTS  
PHASE B  
BRITTANY DR SEWER LINE

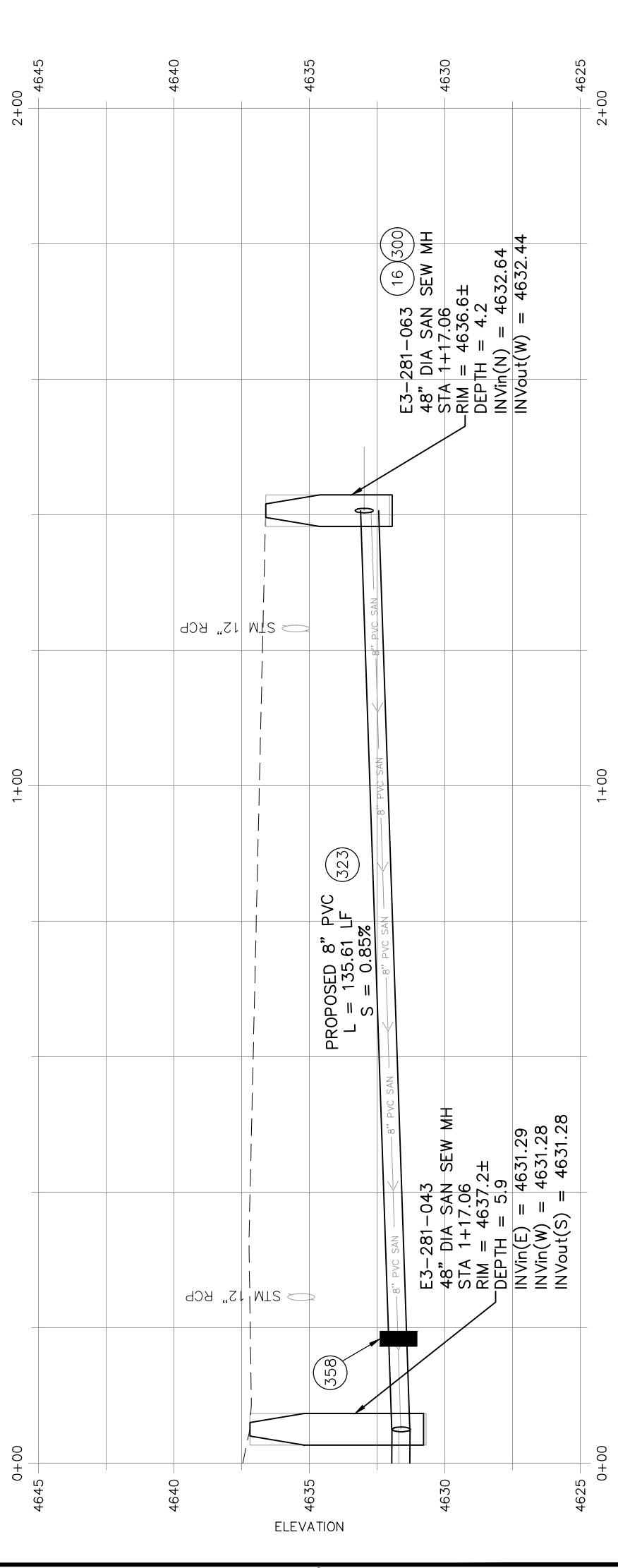
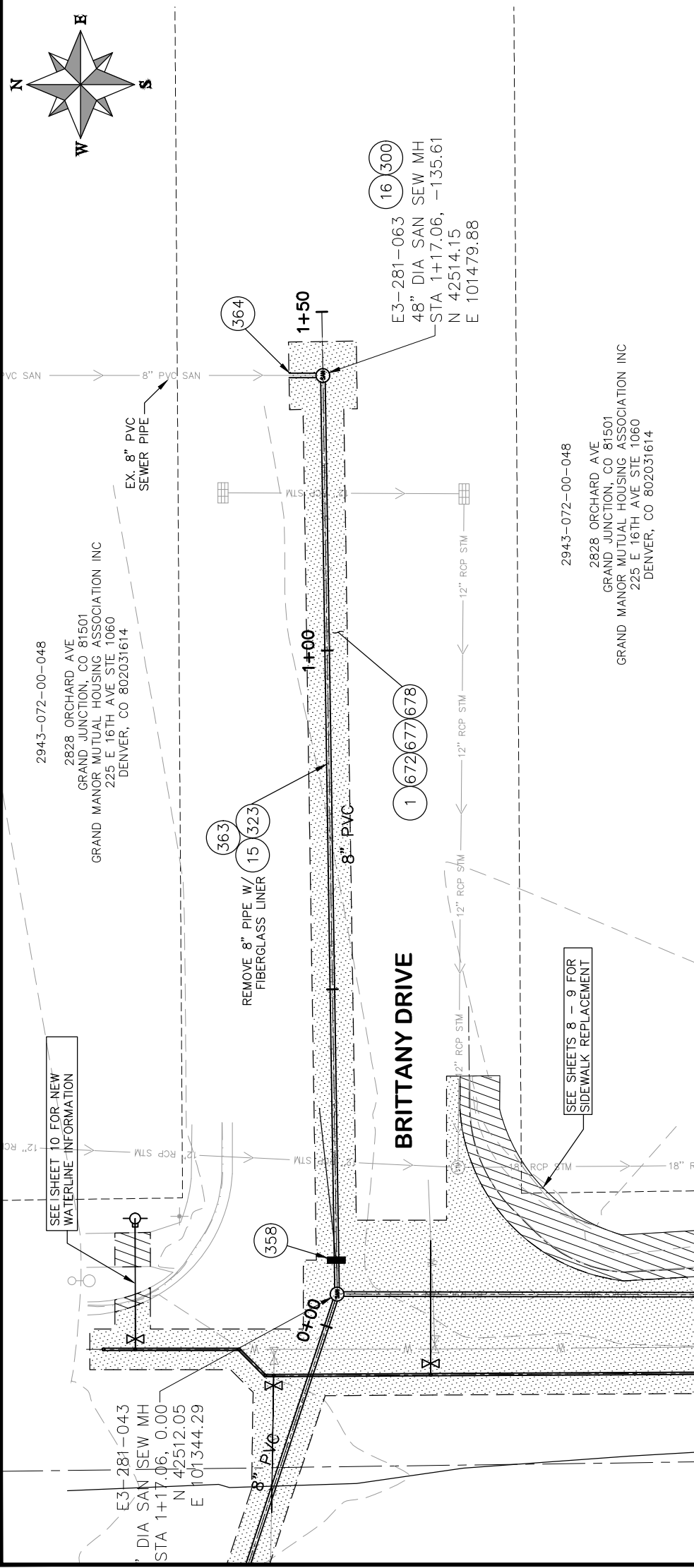
PUBLIC WORKS  
ENGINEERING DIVISION



SCALES: PLAN & PROFILE  
HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
1				

REVISION	DESCRIPTION	DATE	DESIGNED BY	DATE
1				



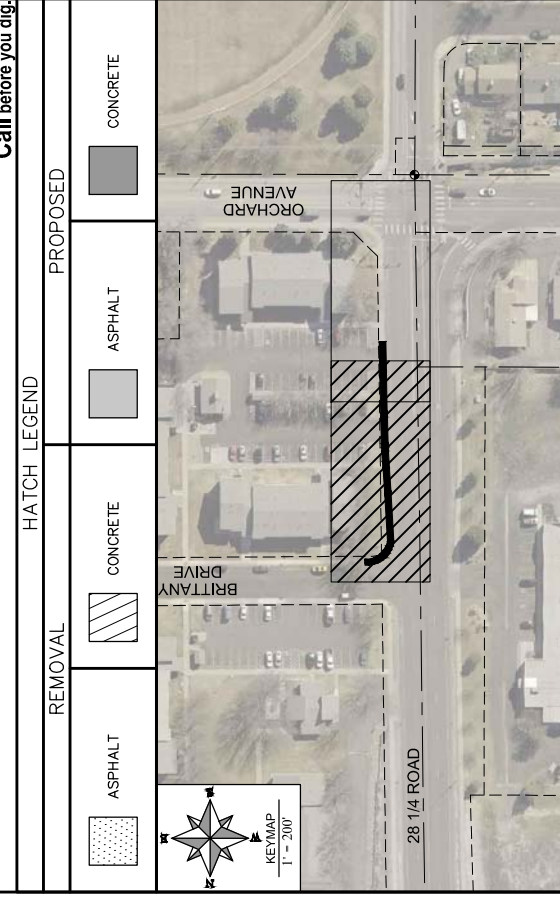
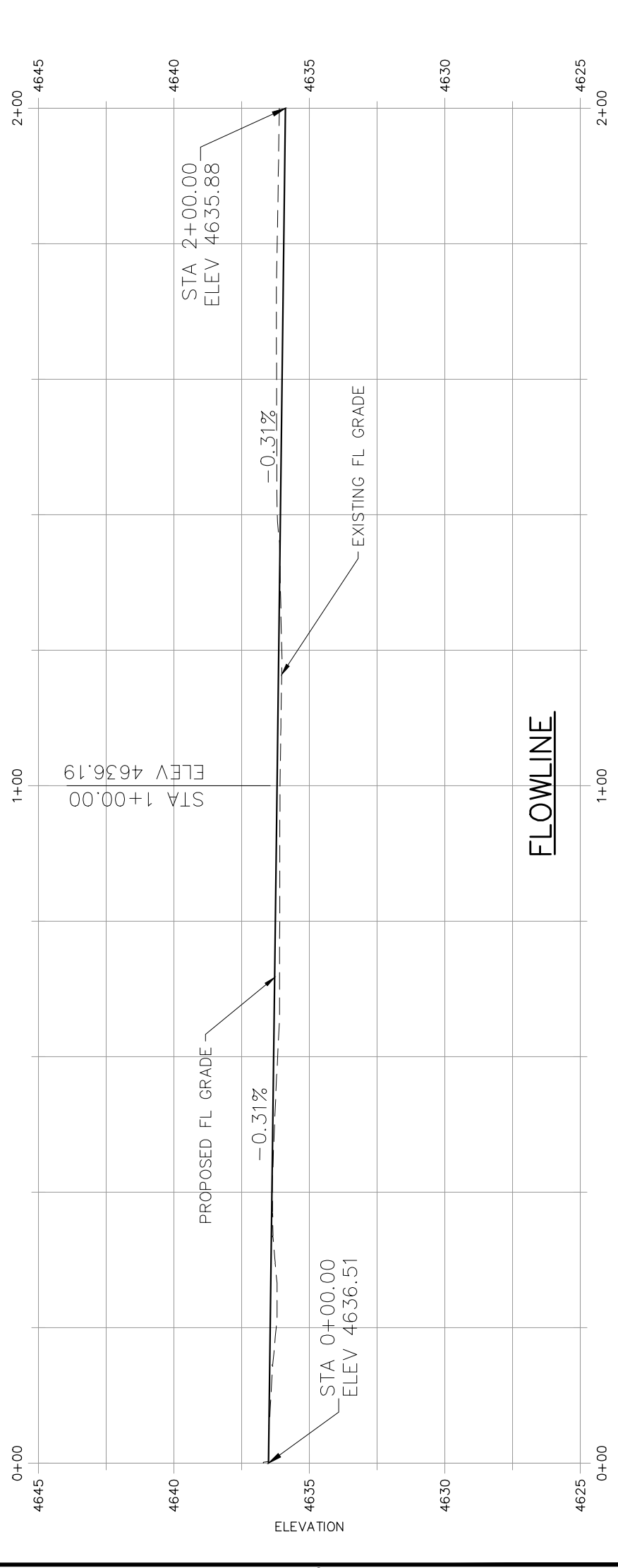
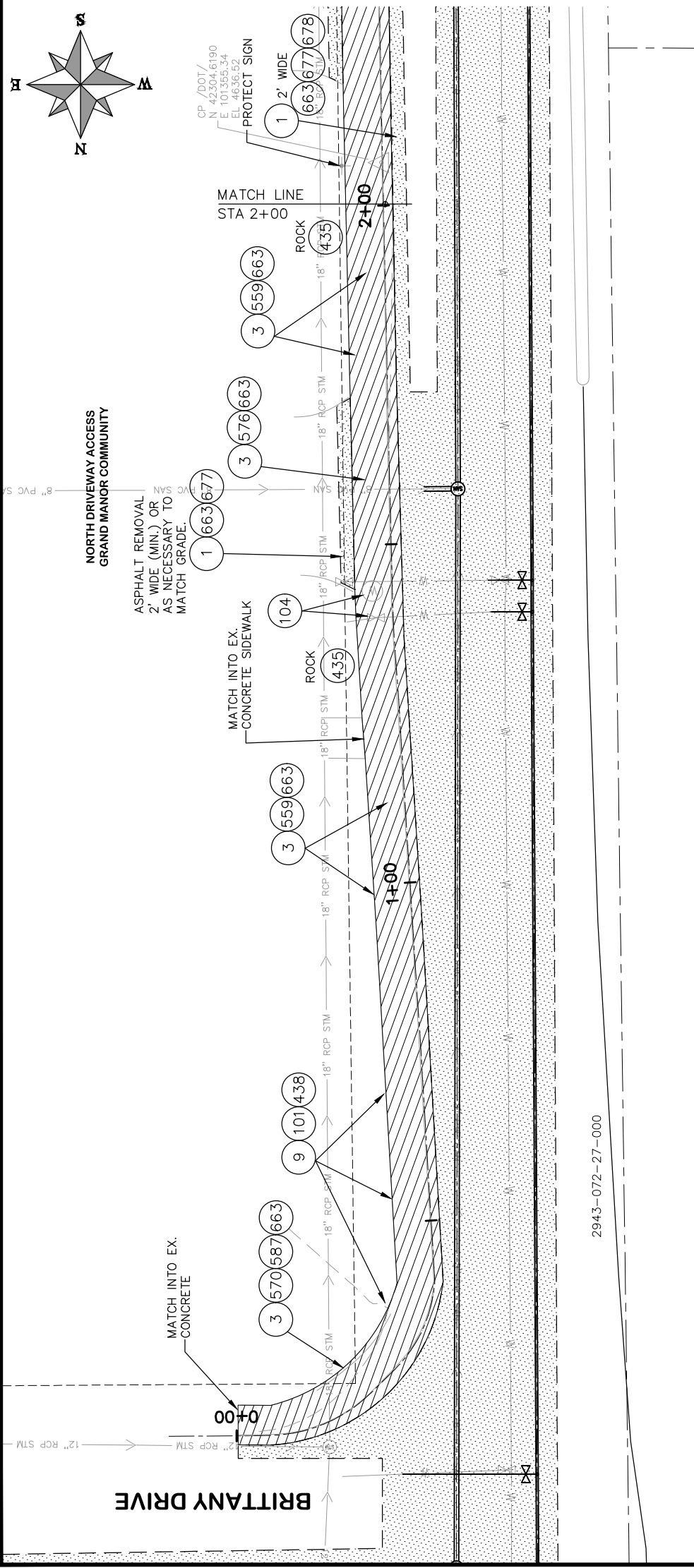
\\landproj\2018 SEWER LINE REPLACEMENTS PHASE B\DWG\14-21\_28\_25 Rd.dwg, 17/9/4/2018 5:22:32 PM



PROJECT NO. F001630

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 9 202 - REMOVAL OF SOD (AS NECESSARY)
- 101 210 - RESET SPRINKLER SYSTEM (AS NECESSARY) (COMPLETE IN PLACE)
- 104 210 - ADJUST VALVE BOXES TO FINISH GRADE
- 435 210 - RESET LANDSCAPE APPURTENANCE (ROCK)
- 438 212 - SOD (INCLUDES 4" THICK OF TOPSOIL PLACED PRIOR TO SOD PLACEMENT)
- 559 608.06 - MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (7' WIDE) (PER CITY STD. DETAIL C-02) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
- 570 608.06 - DETECTABLE WARNINGS (WET SET)
- 576 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (PER CITY STD. DETAIL C-08) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
- 587 608.06 - CONCRETE INTERSECTION CORNER (MATCH EXISTING RADIUS) (BUILD PER CITY STD. DETAIL C-21, ALTERNATE RAMP, CURVE) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (CURB, GUTTER, AND SIDEWALK)
- 67 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, C1R.=75) (ONE 3" LIFT BOTTOM MAT)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, C1R.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH) (SEE CITY STD. DETAIL GU-03)



REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE

<p>REVISION <math>\Delta</math> _____ DATE _____</p> <p>REVISION <math>\Delta</math> _____ DATE _____</p> <p>REVISION <math>\Delta</math> _____ DATE _____</p> <p>REVISION <math>\Delta</math> _____ DATE _____</p>	<p>DESIGN BY _____ DATE _____</p> <p>CHECKED BY _____ DATE _____</p> <p>APPROVED BY _____ DATE _____</p>	<p>SCALES: PLAN &amp; PROFILE</p> <p>HORIZONTAL: 1" = 20'</p> <p>VERTICAL: 1" = 5'</p>	<p><b>Grand Junction</b> CITY OF COLORADO</p>	<p>PUBLIC WORKS ENGINEERING DIVISION</p>	<p>2018 SEWER LINE REPLACEMENTS PHASE B 28 1/4 RD SIDEWALK REPLACEMENT</p>	<p>18</p>
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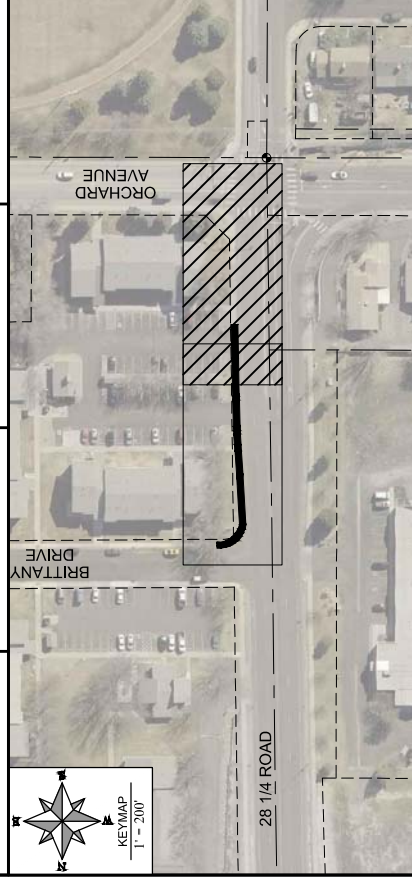
PROJECT NO. F001630

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 435 210 - RESET LANDSCAPE APPURTENANCE (ROCK)
- 559 608.06 - MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (7' WIDE) (PER CITY STD. DETAIL C-02) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
- 576 608.06 - CONCRETE DRIVEWAY SECTION (8" THICK) (PER CITY STD. DETAIL C-08) (MATCH WIDTH OF EXISTING DRIVEWAY ACCESS) (CDDT CLASS D, 4,500 PSI @ 28-DAYS)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (CURB, GUTTER, AND SIDEWALK)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH) (SEE CITY STD. DETAIL GU-03)



REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE



2018 SEWER LINE REPLACEMENTS  
PHASE B  
28 1/4 RD SIDEWALK REPLACEMENT

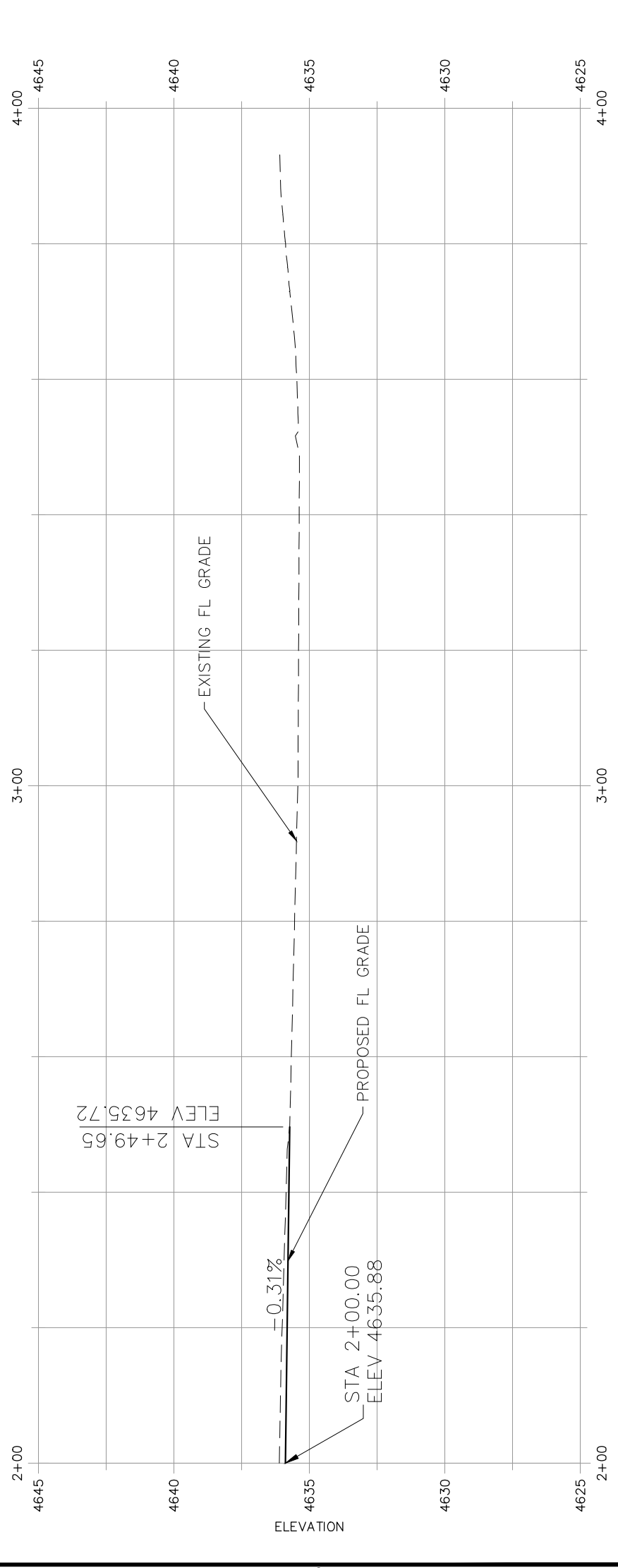
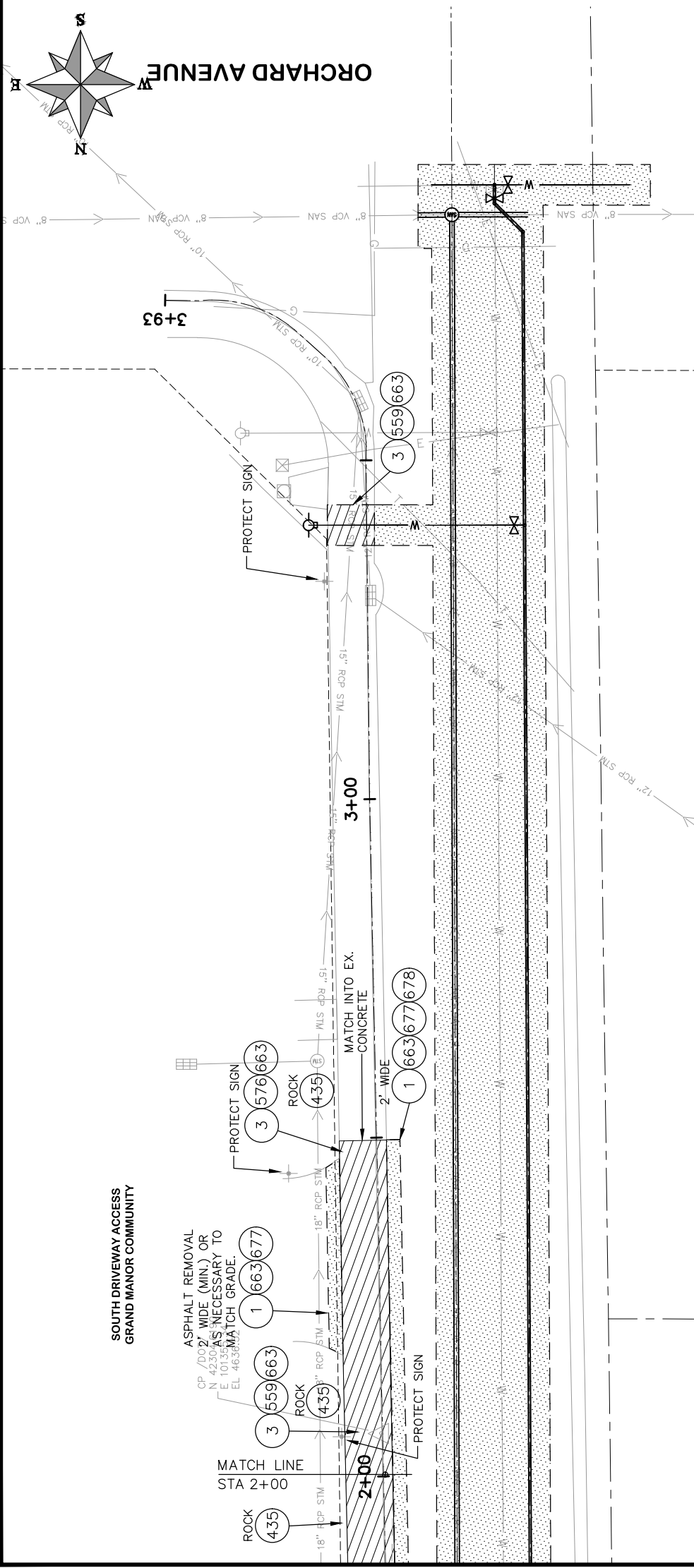
PUBLIC WORKS  
ENGINEERING DIVISION



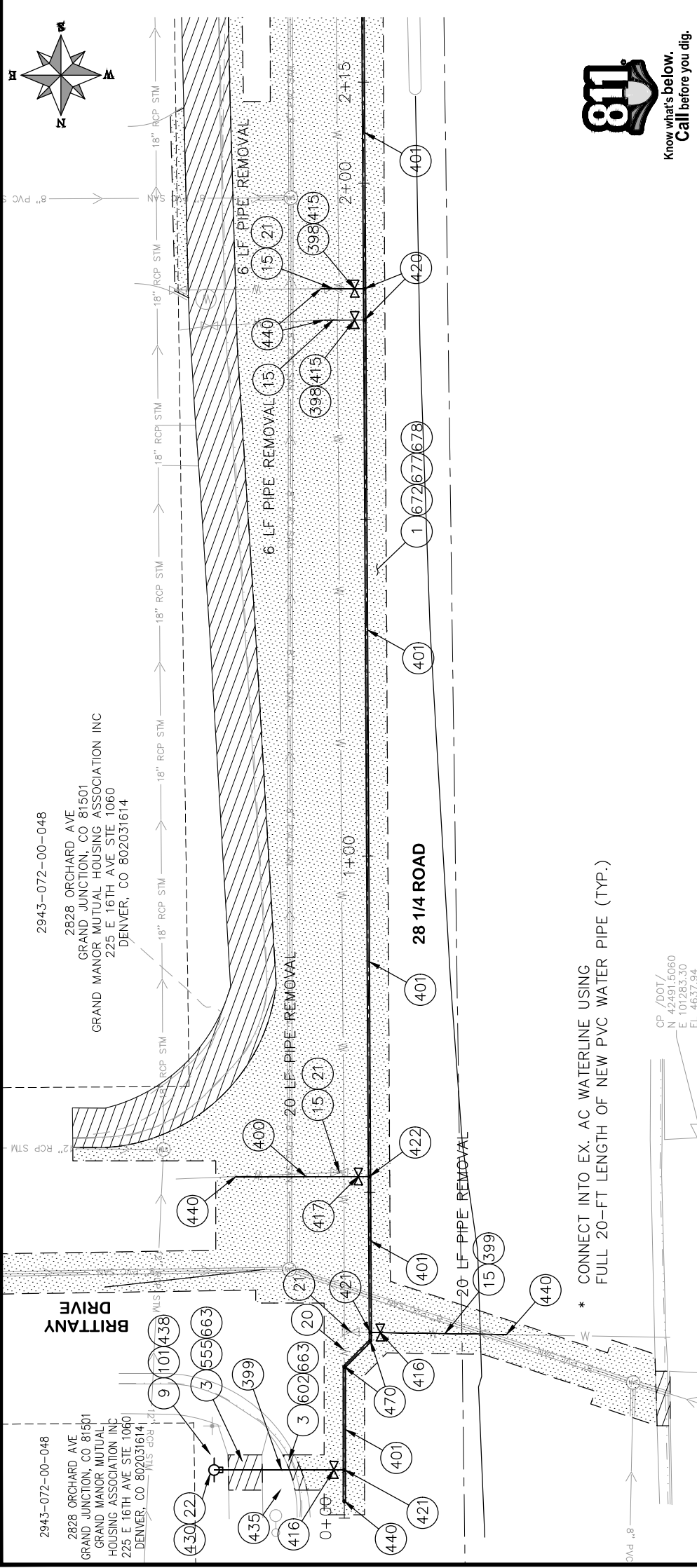
SCALES: PLAN & PROFILE  
HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

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DESIGNED BY ALC \_\_\_\_\_ DATE 2018  
CHECKED BY ALC \_\_\_\_\_ DATE 2018  
APPROVED BY MJC \_\_\_\_\_ DATE 2018

REVISION	DESCRIPTION	DATE

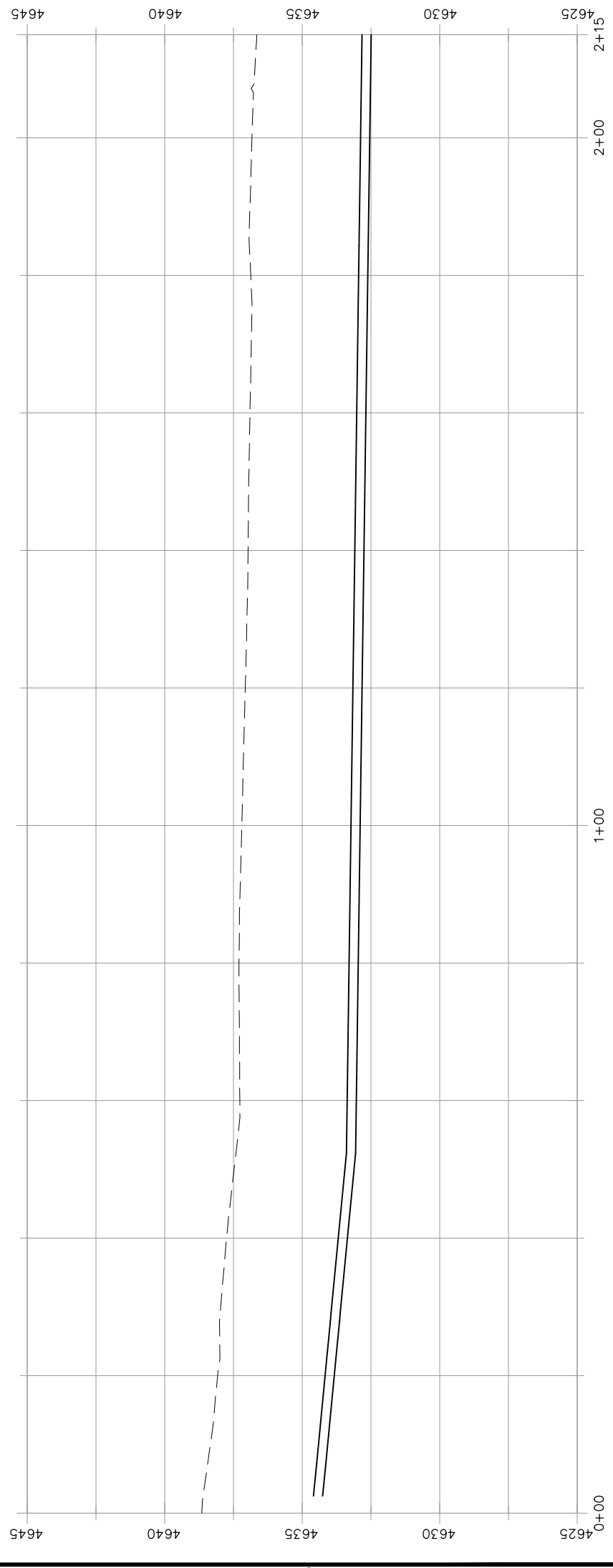






\* CONNECT INTO EX. AC WATERLINE USING FULL 20-FT LENGTH OF NEW PVC WATER PIPE (TYP.)

CP /DOT/  
N 42491.5060  
E 101283.30  
EL. 4637.94



REVISION	DESCRIPTION	DATE	DRAWN BY	DATE
20				
18				
17				
16				



PUBLIC WORKS  
ENGINEERING DIVISION

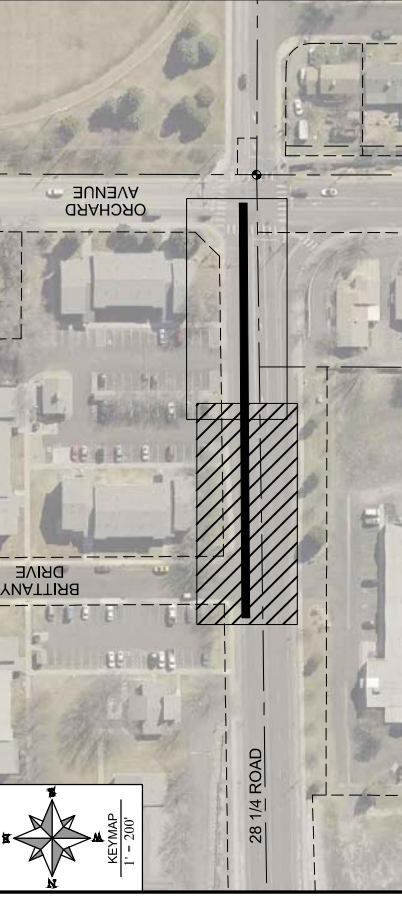
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HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'

PROJECT NO. F001630

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 9 202 - REMOVAL OF SOD (AS NECESSARY)
- 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 21 202 - REMOVE EXISTING WATER VALVE.
- 22 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS.
- 101 210 - RESET SPRINKLER SYSTEM (AS NECESSARY) (COMPLETE IN PLACE)
- 398 102.7/108.2 - 4" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 399 102.7/108.2 - 6" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 400 102.7/108.2 - 8" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 401 102.7/108.2 - 10" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 415 102.8b/108.3 - 4" GATE VALVE (M/J)
- 416 102.8b/108.3 - 6" GATE VALVE (M/J)
- 417 102.8b/108.3 - 8" GATE VALVE (M/J)
- 418 102.8b/108.3 - 10" GATE VALVE (M/J)
- 420 102.8/108.3 - 10" x 4" TEE
- 421 102.8/108.3 - 10" x 6" TEE
- 422 102.8/108.3 - 10" x 8" TEE
- 439 102.8/108.3 - FIRE HYDRANT ASSEMBLY
- 435 210 - RESET LANDSCAPE APPURTENANCE (ROCK)
- 438 212 - SOD (INCLUDES 4" THICK OF TOPSOIL PLACED PRIOR TO SOD PLACEMENT)
- 440 CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
- 470 102.8/108.3 - 10", 45' ELBOW
- 555 608.06 - CONCRETE SIDEWALK (4" THICK)
- 559 608.06 - MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (7" WIDE) (PER CITY STD. DETAIL C-02) (COST CLASS D, 4,500 PSI @ 28-DAYS)
- 602 608.06 - CONCRETE CURB AND GUTTER (2' WIDE)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (CURB, GUTTER, AND SIDEWALK)
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 3" LIFT BOTTOM MAT) (APPLIES ONLY TO TRENCH AREAS)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (T-TOP PATCH) (SEE CITY STD. DETAIL GU-03)

REMOVAL		PROPOSED	
	ASPHALT		CONCRETE
	CONCRETE		ASPHALT

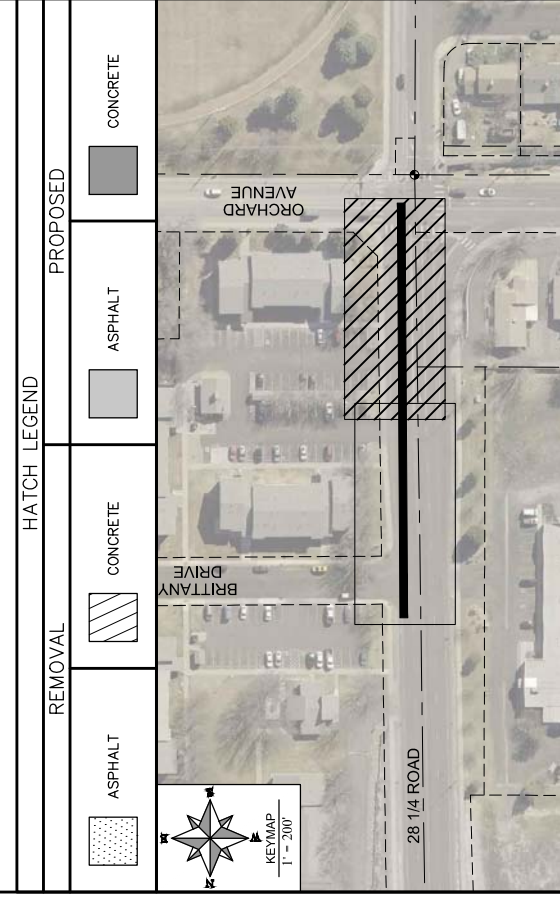
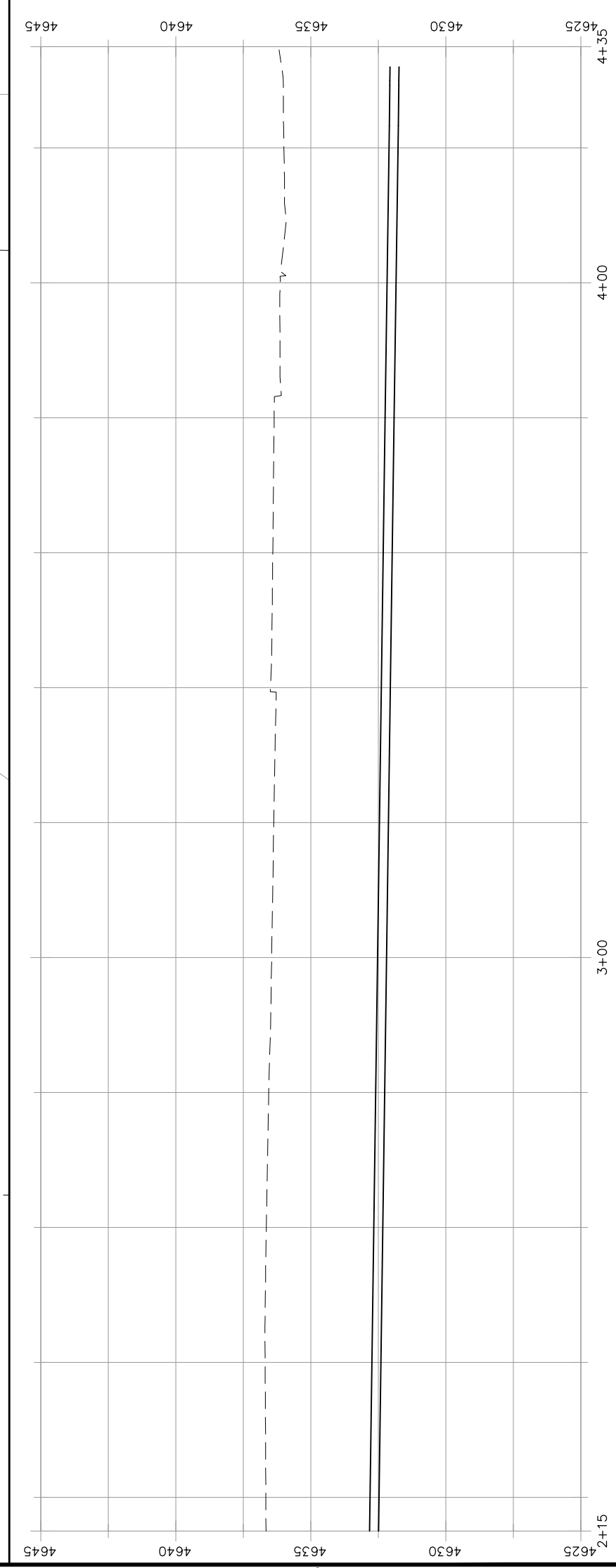
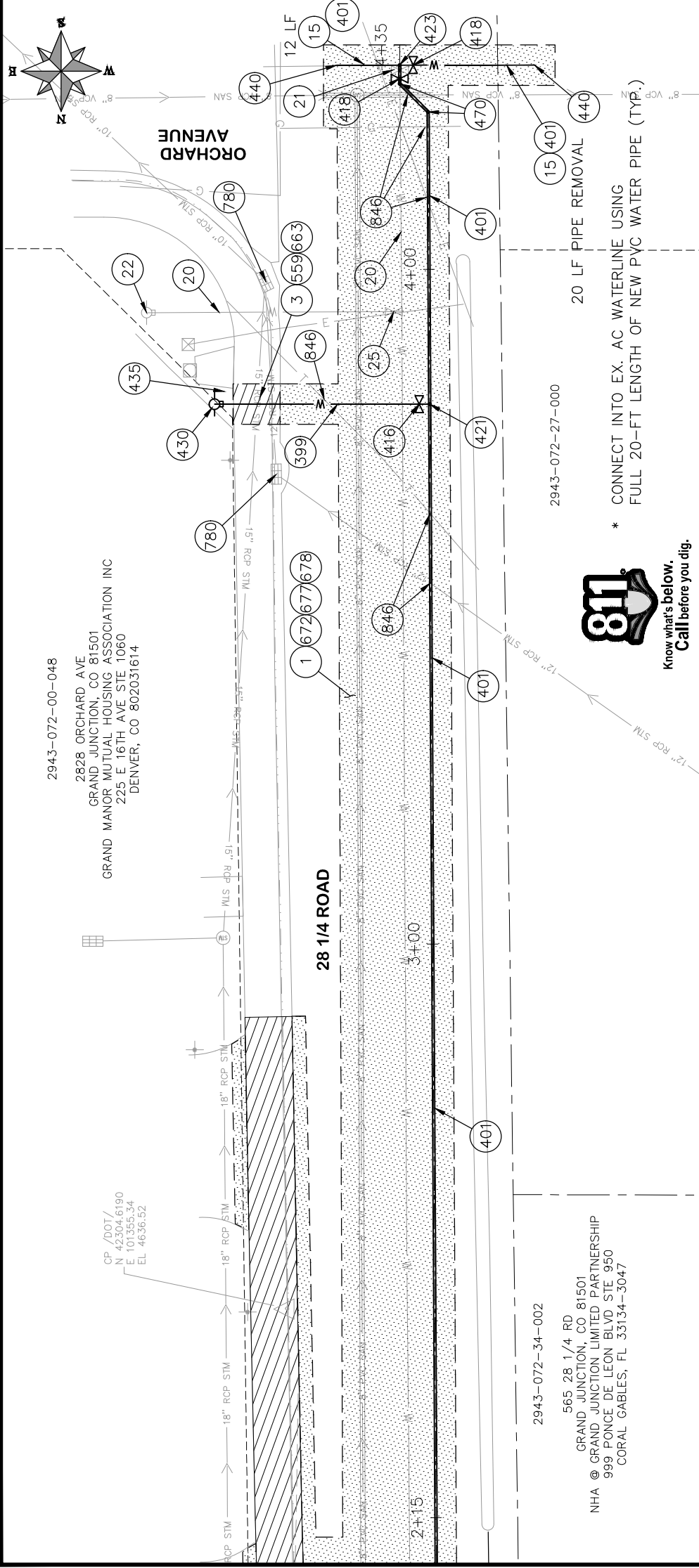


2018 SEWER LINE REPLACEMENTS  
PHASE B  
28 1/4 RD WATER LINE

PROJECT NO. F001630

CONSTRUCTION NOTES

- 1 202 - REMOVAL OF ASPHALT MAT. CUT AND REMOVE ASPHALT AS SHOWN. (INDICATED BY DOT HATCH PATTERN)
- 3 202 - REMOVAL OF CONCRETE. SAW CUT AND REMOVE CONCRETE AS SHOWN. (INDICATED BY CROSS HATCH PATTERN) INCLUDES BUT NOT LIMITED TO CURB, GUTTER, SIDEWALK, DRIVEWAY, SLABS, V-PAN, CURB RAMPS, INTERSECTION CORNERS, APRONS, AND LANDSCAPE BORDERS.
- 15 202 - REMOVAL OF PIPE AS SHOWN (SIZE AND TYPE AS SHOWN ON PLAN)
- 20 202 - ABANDON PIPE. ABANDON BY PLUGGING REMAINING ENDS WITH CONCRETE.
- 21 202 - REMOVE EXISTING WATER VALVE.
- 22 202 - REMOVE EXISTING FIRE HYDRANT AND RETURN TO CITY SHOPS.
- 25 202 - ABANDON EXISTING WATER VALVE. CLOSE VALVE, REMOVE TOP HALF OF EXISTING VALVE BOX, FILL CAVITY TO FINISHED SUBGRADE WITH FLOW-FILL MATERIAL.
- 559 103 - CLAY CUT-OFF WALL (INCIDENTAL TO WATER PIPE INSTALLATION PAY ITEM)
- 599 102.7/108.2 - 4" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 599 102.7/108.2 - 6" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 401 103.7/108.2 - 10" WATER MAIN PIPE (C-900 PVC, SDR-18) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 416 102.8b/108.3 - 6" GATE VALVE (M)
- 418 102.8b/108.3 - 10" GATE VALVE (M)
- 421 102.8/108.3 - 10" x 6" TEE
- 422 102.8/108.3 - 10" x 8" TEE
- 423 102.8/108.3 - 10" x 10" TEE
- 430 102.8/108.3 - FIRE HYDRANT ASSEMBLY
- 435 210 - RESET LANDSCAPE APPURTENANCE (ROCK)
- 440 CONNECT TO EXISTING WATER PIPE/VALVE/FITTING. THE CONTRACT UNIT PRICE FOR WATER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
- 470 102.8/108.3 - 10", 45' ELBOW
- 559 608.06 - MONOLITHIC VERTICAL CURB, GUTTER AND SIDEWALK (7' WIDE) (PER CITY STD. DETAIL C-02) (COST CLASS D, 4,500 PSI @ 28-DAYS)
- 663 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK) (CURB, GUTTER, AND SIDEWALK)
- 672 304 - AGGREGATE BASE COURSE (CLASS 6) (15" THICK) (APPLIES ONLY TO TRENCH AREAS)
- 677 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (3" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 678 401.08 - HOT BITUMINOUS PAVEMENT (PATCHING) (2" THICK) (GRADING SX, PG 64-22, GYR.=75) (ONE 2" LIFT TOP MAT) (1-TOP PATCH) (SEE CITY STD. DETAIL GU-03)
- 780 208 - STORM DRAIN INLET PROTECTION (SILT SACK STYLE) (INCLUDES MAINTENANCE AND REMOVAL OF DIRT AND DEBRIS)
- 846 POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. TRANSITION WATER PIPE AS NEEDED TO MAINTAIN 18" CLEARANCE MINIMUM ABOVE SEWER PIPES AND 6" CLEARANCE MINIMUM ABOVE OR BELOW OTHER UTILITY LINES.



REMOVAL		HATCH LEGEND		PROPOSED	
	ASPHALT		CONCRETE		ASPHALT
	CONCRETE		CONCRETE		CONCRETE

2943-072-00-048  
2828 ORCHARD AVE  
GRAND JUNCTION, CO 81501  
GRAND MANOR MUTUAL HOUSING ASSOCIATION INC  
225 E 16TH AVE STE 1060  
DENVER, CO 802031614

CP /DOT/  
N 42304.6190  
E 101355.34  
EL 4636.52

2943-072-34-002  
565 28 1/4 RD  
GRAND JUNCTION, CO 81501  
NHA @ GRAND JUNCTION LIMITED PARTNERSHIP  
999 PONCE DE LEON BLVD STE 950  
CORAL GABLES, FL 33134-3047

21

2018 SEWER LINE REPLACEMENTS  
PHASE B  
28 1/4 RD WATER LINE

PUBLIC WORKS  
ENGINEERING DIVISION

**Grand Junction**  
COLORADO

REVISION DATE  
DESIGNED BY ALC DATE 2018  
CHECKED BY ALC DATE 2018  
APPROVED BY MJC DATE 2018

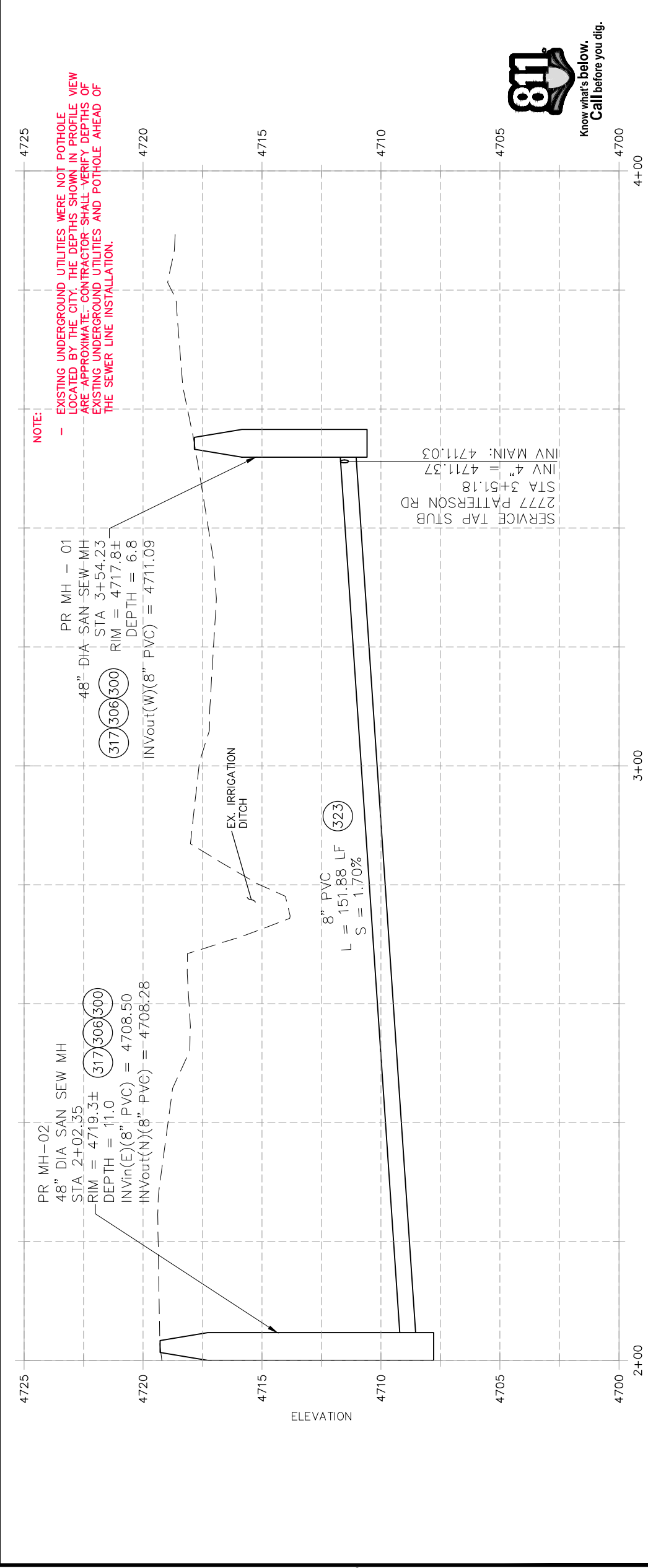
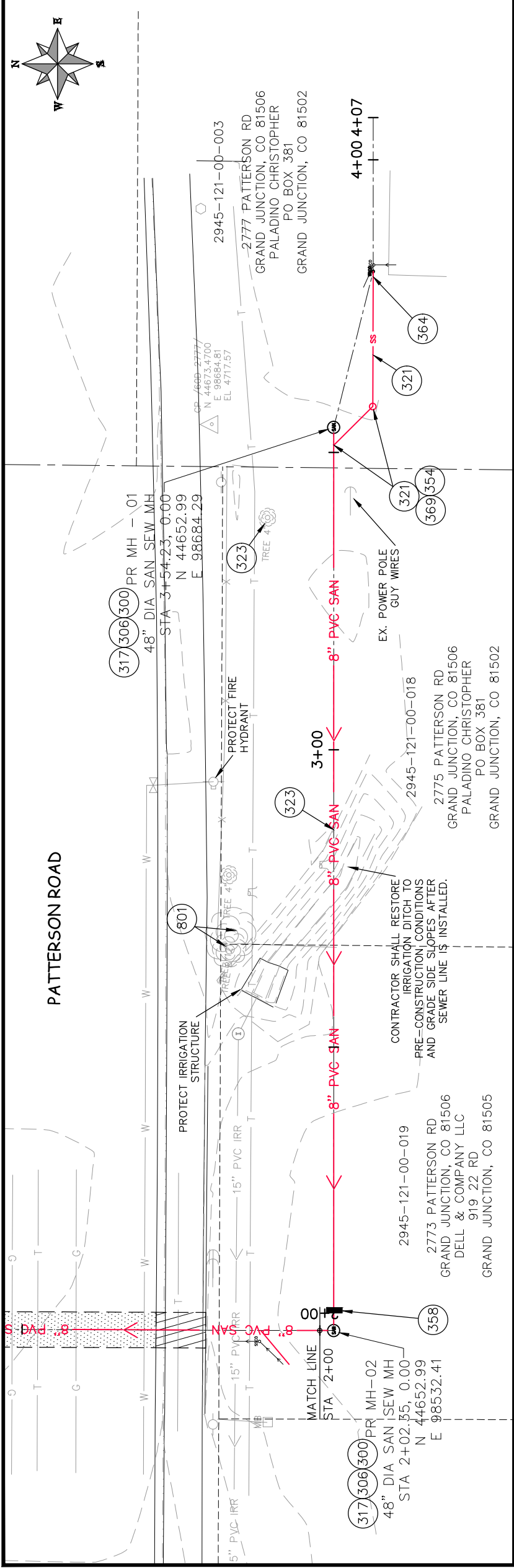
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HORIZONTAL: 1" = 20'  
VERTICAL: 1" = 5'





CONSTRUCTION NOTES

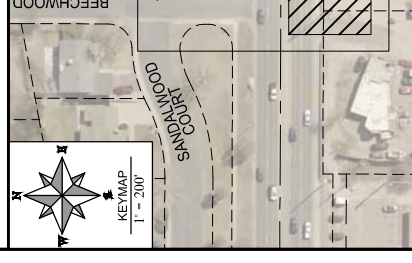
- 4 - REMOVAL OF TREE (SIZE AS SHOWN ON PLAN)
- 102.11/108.5 - SANITARY SEWER BASIC MANHOLE (48" I.D.), INCLUDES CONNECTION OF ADJACENT SEWER LINE, FORMING INVERTS AND ADJUSTING TO FINAL GRADE. (SEE CITY OF GRAND JUNCTION STANDARD DETAIL SS-02).
- 102.11/108.5 - MANHOLE BARREL SECTION (D>S) (48" I.D.)
- 104.20 - INSTALL CONCRETE COLLAR W/ #4 REBAR HOOP AS PER STD. DETAIL SS-02. INCIDENTAL TO MANHOLE PAY ITEM.
- 102.9/108.2 - 4" GRAVITY SEWER PIPE (SDR 35 PVC) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 102.9/108.2 - 8" GRAVITY SEWER PIPE (SDR 35 PVC) INCLUDES TYPE A BEDDING AND HAUNCHING MATERIAL AND BACKFILL OF TRENCH WITH NATIVE MATERIALS MEETING 103.16 EARTH BACKFILL MATERIAL.
- 104.20 - INSTALL 2-WAY SANITARY SEWER SERVICE CLEANOUT (STD. DETAIL SS-07). INCLUDES CLEANOUT RING AND COVER AND CONCRETE COLLAR IN UNPAVED AREAS (SEE STD. DETAIL SS-07).
- 103 - CLAY CUT-OFF WALL (INCIDENTAL TO SEWER INSTALLATION PAY ITEM).
- CONNECT TO EXISTING SEWER PIPE. THE CONTRACT PRICE FOR SEWER PIPE SHALL INCLUDE THE COST OF CONNECTION TO EXISTING PIPELINE.
- 102.9/108.3 - 8" x 4" SEWER SERVICE TAP. FULL BODY WYE (SEE STD. DETAILS SS-06)
- 304 - AGGREGATE BASE COURSE (CLASS 6) (6" THICK)
- PROTECT TREE
- POTHOLE EXISTING UTILITY AHEAD OF CONSTRUCTION. COORDINATED ANY NEEDED DESIGN CHANGES WITH PROJECT ENGINEER SO AS TO AVOID UTILITY CONFLICTS.



**NOTE:**  
 - EXISTING UNDERGROUND UTILITIES WERE NOT POTHOLE LOCATED BY THE CITY. THE DEPTHS SHOWN IN PROFILE VIEW ARE APPROXIMATE. CONTRACTOR SHALL VERIFY DEPTHS OF EXISTING UNDERGROUND UTILITIES AND POTHOLE AHEAD OF THE SEWER LINE INSTALLATION.

REMOVAL HATCH LEGEND

ASPHALT	GROUND
CONCRETE	GRAVEL



REVISION	DATE	DRAWN BY	HMC	DATE	2018
REVISION	DATE	DESIGNED BY	ALC	DATE	2018
REVISION	DATE	CHECKED BY	ALC	DATE	2018
REVISION	DATE	APPROVED BY	ALC	DATE	2018

SCALES: PLAN & PROFILE  
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CITY OF  
**Grand Junction**  
 COLORADO

PUBLIC WORKS  
 ENGINEERING DIVISION

2018 SEWER LINE REPLACEMENTS  
 PHASE B  
 2777 PATTERSON SEWER PLAN & PROFILE

23