

**PROJECT MANUAL FOR
WELLNESS PARK BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON COUNTY, IA**

**March 2020
Project #10322002**



Prepared By:


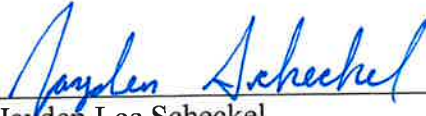
**MSA Professional Services, Inc.
400 Ice Harbor Drive
Dubuque, IA 52001**

**PROJECT MANUAL FOR
WELLNESS PARK BALL FIELDS AND
ROADWAY
CITY OF WASHINGTON
WASHINGTON COUNTY, IA**

PREPARED FOR: City of Washington
215 E. Washington Street
Washington, IA 52353

PREPARED BY: MSA Professional Services
400 Ice Harbor Drive, Suite 110
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(563) 582-3973

MSA PROJECT NO: 10322002

 SEAL	<p>I hereby certify that this engineering document was prepared by me or under my direct personal supervision and that I am a duly licensed Professional Engineer under the laws of the State of Iowa.</p> <p> <u>03/06/2020</u> Jayden Lee Scheckel Date License Number P25324 My license renewal date is 12/31/2020 Pages or sheets covered by this seal: Entire Specification</p> <hr/> <hr/> <hr/>
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PROJECT MANUAL FOR
WELLNESS PARK BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON COUNTY, IA

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NOTICE OF PUBLIC HEARING & LETTING

Sealed bids will be received by the City of Washington at the office of the City Clerk, City Hall, 215 E. Washington Street, Washington, Iowa until 10:00 a.m. on the 1st day of April, 2020 for the construction of sports fields, roadway paving, and work incidental thereto described in general as the “2020 Wellness Park Ball Fields and Roadway Project” and as described in detail in the specifications for said improvements now on file in the office of the Clerk.

The City Council will hold a Public Hearing on the proposed specifications and form of contract at 6:00 p.m. on the 17th day of March, 2020 in the Fire Station Training Room, 215 East Washington Street, Washington, Iowa. At the Hearing the City will receive and consider any objections made by interested party to the specifications or proposed form of Contract.

Bids received by the prescribed time will be presented to the City Council and considered at this meeting.

Bids are to include all labor, materials and equipment needed to complete the work as outlined in the plans and specifications. Work will be done according to the specifications and to generally accepted standards accepted by the industry for this type of work. Bidder is required to furnish Performance and Payment Bonds to cover this project.

Bids shall be accompanied by a bid bond, certified check or cashiers check in the amount of at least five percent (5%) of the total bid amount. If a certified check or cashiers check is used it shall be drawn on a bank or credit union in Iowa and made payable to the Treasurer of the City. The bond will be forfeited or the checks cashed if the bidder fails to execute a contract for this work.

Within ten (10) days after notification of acceptance of the bid, the awarded bidder must furnish an acceptable certificate of insurance for liability, auto and workers compensation. No bid may be withdrawn within sixty (60) days after bid opening.

Payment to the contractor will be made based on monthly estimates provided by the contractor. The City will pay ninety-five percent (95%) of the value of work completed during the preceding calendar month, providing the work done to date is acceptable. Should there be questions or problems the City Council will determine how much of the estimate will be paid and the corrective measures needed. Estimates are to be provided to the City no later than the first Wednesday of each month. City staff will review and check the work and monthly estimates and approve for payment within two weeks. Such monthly payment will in no way be construed as an act of acceptance to any or all of the work partially or totally completed.

Final payment to the Contractor will be made no earlier than thirty-one (31) days from and after final acceptance of the work by the City Council and subject to the conditions and in accordance with the provisions of Chapter 573 of the Code of Iowa. No such partial or final payment will be due until the Contractor has certified that the materials, labor and services involved in each instance have been paid by the Contractor.

1
2 The successful Bidder will be required to furnish a corporate surety bond in an amount equal to
3 one hundred percent (100%) of the contract price, said Bond to be issued by a responsible surety
4 approved by the City and authorized to do business in the State of Iowa, and shall guarantee the
5 faithful performance of the contract and the terms and conditions therein contained and the
6 maintenance of the "2020 Wellness Park Ball Fields and Roadway Project" for a period of not less
7 than five (5) years, in good repair from the time of acceptance of the improvements by the City.
8

9 All work under this contract should be completed by November 30, 2020 unless the City otherwise
10 approves.
11

12 By virtue of statutory authority, preference will be given to products and provisions grown and
13 coal produced within the State of Iowa, and to Iowa domestic labor, to the extent lawfully required
14 under Iowa Statutes; provided, however, the award of the Contract will be made to the lowest
15 responsible Bidder submitting the lowest responsible bid, which shall be determined without
16 regard to state or local law whereby preference is give on factors other than the amount of the bid.
17

18 The City hereby reserves the right to reject any or all bids and to waive informality and
19 irregularities as it may deem to be in the best interests of the City.
20

21 The BIDDING DOCUMENTS may be examined at the offices of MSA Professional Services,
22 Inc., Dubuque, Iowa; and the City of Washington. A plan holders list will be updated interactively
23 on our web address at <http://www.msa-ps.com> under Bids.
24

25 Effective July 1, 2010, per Senate File 2389 Iowa Code Chapter 26.3, paper copies of the
26 BIDDING DOCUMENTS may be obtained at the office of MSA Professional Services, Inc., 400
27 Ice Harbor Drive, Dubuque, IA 52001 upon receipt of a refundable deposit of \$75.00 for half size
28 (11" x 17") sets of plans. Any plan holder upon returning the BIDDING DOCUMENTS within
29 14 days after award of the project and in good condition will be refunded their deposit.
30

31 Additionally, copies of the BIDDING DOCUMENTS are available at www.questcdn.com. You
32 may download the digital plan documents at no charge by inputting Quest eBidDoc #6866945 on
33 the website's Project Search page. Please contact QuestCDN.com at 952-233-1632 or
34 info@questcdn.com for assistance in free membership registration, downloading, and working
35 with the digital project information.
36

37
38 **CITY OF WASHINGTON**
39

40
41

Jaron P. Rosien, Mayor
42

43 ATTEST:
44

45

Illa Earnest, City Clerk
46

INSTRUCTIONS TO BIDDERS
TABLE OF ARTICLES

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4	Examination of Bidding Documents, Other Related Data and Site
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12	Preparation of Form
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INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. *BIDDER* - The individual or entity who submits a Bid directly to OWNER.
 - B. *Issuing Office* - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered.
 - C. *Successful BIDDER* - The lowest responsible BIDDER submitting a responsive Bid to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the fee, if any, stated in the Advertisement or Invitation to Bid may be obtained from the Issuing Office or Quest CDN. The fee will be refunded to each document holder of record who returns a complete set of Bidding Documents in good condition within 14 days after the award of the project.
- 2.02 Complete sets of Bidding Documents must be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.03 OWNER and ENGINEER, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate BIDDER's qualifications to perform the Work, within five days of OWNER's request, BIDDER shall submit written evidence such as financial data, previous experience, present commitments, and other such data as may be called for below.
- A. Each Bid must contain evidence of BIDDER's qualification to do business in the state where the project is located or covenant to obtain such qualification prior to award of the contract.
- 3.02 BIDDER is advised to carefully review those portions of the Bid Form requiring BIDDER's representations and certifications.

1 **ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA**
2 **AND SITE**

3 4.01 On request, OWNER will provide BIDDER access to the Site to conduct such
4 examinations, investigations, explorations, tests and studies as BIDDER deems necessary
5 for submission of a Bid. BIDDER shall fill all holes and clean up and restore the Site to
6 its former condition upon completion of such explorations, investigations, tests and studies.
7 BIDDER shall comply with all applicable Laws and Regulations relative to excavation and
8 utility locates.
9

10 4.02 Reference is made to Article 7 of the Supplementary Conditions for the identification of
11 the general nature of other work that is to be performed at the Site by OWNER or others
12 (such as utilities and other prime contractors) that relates to the Work contemplated by
13 these Bidding Documents. On request, OWNER will provide to each BIDDER for
14 examination access to or copies of contract documents (other than portions thereof related
15 to price) for such other work.
16

17 A. Paragraph 6.13.C of the General Conditions indicates that if an OWNER safety
18 program exists, it will be noted in the Supplementary Conditions.
19

20 4.03 It is the responsibility of each BIDDER before submitting a Bid to:
21

22 A. examine and carefully study the Bidding Documents, and the other related data
23 identified in the Bidding Documents;
24

25 B. visit the Site and become familiar with and satisfy BIDDER as to the general, local,
26 and Site conditions that may affect cost, progress, and performance of the Work;
27

28 C. become familiar with and satisfy BIDDER as to all federal, state, and local Laws
29 and Regulations that may affect cost, progress, and performance of the Work;
30

31 D. consider the information known to BIDDER; information commonly known to
32 contractors doing business in the locality of the Site; information and observations
33 obtained from visits to the Site; the Bidding Documents; and the Site-related reports
34 and drawings identified in the Bidding Documents, with respect to the effect of
35 such information, observations, and documents on (1) the cost, progress, and
36 performance of the Work; (2) the means, methods, techniques, sequences, and
37 procedures of construction to be employed by BIDDER, including applying any
38 specific means, methods, techniques, sequences, and procedures of construction
39 expressly required by the Bidding Documents; and (3) BIDDER's safety
40 precautions and programs;
41

42 E. agree at the time of submitting its Bid that no further examinations, investigations,
43 explorations, tests, studies, or data are necessary for the determination of its Bid for
44 performance of the Work at the price(s) bid and within the times required, and in
45 accordance with the other terms and conditions of the Bidding Documents;
46

- 1 F. become aware of the general nature of the work to be performed by OWNER and
2 others at the Site that relates to the Work as indicated in the Bidding Documents;
3
4 G. promptly give ENGINEER written notice of all conflicts, errors, ambiguities, or
5 discrepancies that BIDDER discovers in the Bidding Documents and confirm that
6 the written resolution thereof by ENGINEER is acceptable to BIDDER; and
7
8 H. determine that the Bidding Documents are generally sufficient to indicate and
9 convey understanding of all terms and conditions for the performance of the Work.
10

11 4.04 The submission of a Bid will constitute an incontrovertible representation by BIDDER that
12 BIDDER has complied with every requirement of this Article 4, that without exception the
13 Bid is premised upon performing and furnishing the Work required by the Bidding
14 Documents and applying any specific means, methods, techniques, sequences, and
15 procedures of construction that may be shown or indicated or expressly required by the
16 Bidding Documents, that BIDDER has given ENGINEER written notice of all conflicts,
17 errors, ambiguities, and discrepancies that BIDDER has discovered in the Bidding
18 Documents and the written resolutions thereof by ENGINEER are acceptable to BIDDER,
19 and that the Bidding Documents are generally sufficient to indicate and convey
20 understanding of all terms and conditions for performing and furnishing the Work.
21

22 **ARTICLE 5 - SITE AND OTHER AREAS**

23 5.01 The Site is identified in the Bidding Documents. Easements for permanent structures or
24 permanent changes in existing facilities are to be obtained and paid for by OWNER unless
25 otherwise provided in the Bidding Documents. All additional lands and access thereto
26 required for temporary construction facilities, construction equipment or storage of
27 materials and equipment to be incorporated in the Work are to be obtained and paid for by
28 CONTRACTOR.
29

30 **ARTICLE 6 - INTERPRETATIONS AND ADDENDA**

31 6.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to
32 ENGINEER in writing. Interpretations or clarifications considered necessary by
33 ENGINEER in response to such questions will be issued by Addenda mailed or delivered
34 to all parties recorded by ENGINEER as having received the Bidding Documents.
35 Questions received less than ten days prior to the date for opening of Bids may not be
36 answered. Only questions answered by Addenda will be binding. Oral and other
37 interpretations or clarifications will be without legal effect.
38

39 6.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed
40 advisable by OWNER or ENGINEER.
41

42 **ARTICLE 7 - BID SECURITY**

43 7.01 A Bid must be accompanied by Bid security made payable to OWNER in an amount of 5%
44 of BIDDER's maximum Bid price and in the form of a certified or bank check or a Bid

Bond (on the form attached) issued by a surety meeting the requirements of Paragraph 5.01 and 5.02 of the General Conditions.

7.02 The Bid security of Successful BIDDER will be retained until such BIDDER has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful BIDDER fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may annul the Notice of Award and the Bid security of that BIDDER will be forfeited.

7.03 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within thirty days after the Bid opening.

7.04 The Bid security of Successful BIDDER will be retained until such BIDDER has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful BIDDER fails to execute and deliver the Contract Documents and furnish the required contract security within 15 days after the Notice of Award, OWNER may consider BIDDER to be in default, annul the Notice of Award, and the Bid security of that BIDDER will be forfeited. The Bid security of other Bidders whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the earlier of seven days after the Effective Date of the Agreement or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be returned.

7.05 Bid security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 8 - CONTRACT TIMES

8.01 The number of days within which, or the dates by which, milestones and the remainder of the work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 9 - LIQUIDATED DAMAGES

9.01 Provisions for liquidated damages, if any, are set forth in the Agreement.

ARTICLE 10 - SUBSTITUTE AND "OR-EQUAL" ITEMS

10.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or "or-equal" items. Whenever it is specified or described in the Bidding Documents that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the Effective Date of the Agreement.

ARTICLE 11 - SUBCONTRACTORS, SUPPLIERS AND OTHERS

11.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to OWNER in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful BIDDER, and any other BIDDER so requested, shall within five days after Bid opening, submit to OWNER a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by OWNER. If OWNER or ENGINEER, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, OWNER may, before the Notice of Award is given, request apparent Successful BIDDER to submit a substitute.

11.02 If apparent Successful BIDDER declines to make any such substitution, OWNER may award the Contract to the next lowest BIDDER that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any BIDDER. Any Subcontractor, Supplier, individual, or entity so listed and against which OWNER or ENGINEER makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER and ENGINEER subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.

11.03 CONTRACTOR shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom CONTRACTOR has reasonable objection.

11.04 Manufacturer's and suppliers of equipment and products wishing to obtain approval for use within this project, shall submit the following information for consideration by ENGINEER, a minimum of 14 days prior to bid opening. All information submitted after 14 days prior to bid opening may be considered at the sole discretion of the ENGINEER. Alternate equipment or products that have meet substantial compliance with the specifications, based upon ENGINEER's judgment, shall be listed within an Addendum prior to BID. CONTRACTOR shall bear the sole responsibility and cost associated with the use of non approved equipment.

A. Specific Product Literature or cut sheets identifying the product in question.

B. Line - by - Line exemptions to specific specifications applicable to the product in question.

ARTICLE 12 - PREPARATION OF FORM

12.01 The Bid Form is included with the Bidding Documents. Additional COPIES may be obtained from ENGINEER or the Issuing Office.

- 1 12.02 All blanks on the Bid form shall be completed by printing in ink and the Bid signed in ink.
2 Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid
3 price shall be indicated for each unit price item listed therein. In the case of optional
4 alternatives the words “No Bid”, “No Change”, or “Not applicable” may be entered.
5
6 12.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-
7 president or other corporate officer accompanied by evidence of authority to sign. The
8 corporate seal shall be affixed and attested by the secretary or an assistant secretary. The
9 corporate address and state of incorporation shall be provided on the Bid Form.
10
11 12.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner,
12 (whose title must appear under the signature), accompanied by evidence of authority to
13 sign. The official address of the partnership shall be shown.
14
15 12.05 A Bid by a limited liability company shall be executed in the name of the firm by a member
16 and accompanied by evidence of authority to sign. The state of formation of the firm and
17 the official address of the firm shall be shown.
18
19 12.06 A Bid by an individual shall show the BIDDER’s name and official address.
20
21 12.07 A Bid by a joint venture shall be executed by each joint venturer in the manner indicated
22 on the Bid form. The official address of the joint venture must be provided on the Bid
23 Form.
24
25 12.08 All names shall be printed in ink below the signatures.
26
27 12.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which
28 shall be filled in on the Bid Form.
29
30 12.10 Postal and e-mail address and telephone number for communications regarding the Bid
31 shall be shown.
32
33 12.11 The Bid shall contain evidence of BIDDER’s authority and qualification to do business in
34 the state or locality where the Project is located, or BIDDER shall covenant in writing to
35 obtain such qualification prior to award of the Contract and attach such covenant to the
36 Bid. BIDDER’s state contractor license number, if any, shall also be shown on the Bid
37 Form.
38

39 **ARTICLE 13 - BASIS OF BID; COMPARISON OF BIDS**

- 40 13.01 *Unit Price*
41
42 A. BIDDERS shall submit a Bid on a unit price basis for each item of Work listed in
43 the Bid schedule.
44
45 B. The total of all estimated prices will be the sum of the products of the estimated
46 quantity of each item and the corresponding unit price. The final quantities and

Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.

- C. Discrepancies between the multiplication of units of Work and unit 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. Discrepancies between word and figures will be resolved in favor of the words.

13.02 Allowances

- A. For cash allowances the Bid price shall include such amounts as the BIDDER deems proper for CONTRACTOR's overhead, costs, profit, and other expenses on account of cash allowances, if any, named in the Contract Documents, in accordance with Paragraph 11.02.B of the General Conditions.

ARTICLE 14 - SUBMITTAL OF BID

- 14.01 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement for Bid or Invitation to Bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of BIDDER, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation "BID ENCLOSED". A mailed Bid shall be addressed to City Of Washington, City Hall, 215 E. Washington Street, Washington, IA 52353.

ARTICLE 15 - MODIFICATION AND WITHDRAWAL OF BID

- 15.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 15.02 If within 24 hours after Bids are opened, any BIDDER files a duly signed written notice with OWNER and promptly thereafter demonstrates to the reasonable satisfaction of OWNER that there was a material and substantial mistake in the preparation of its Bid, that BIDDER may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that BIDDER will be disqualified from further bidding on the Work.

ARTICLE 16 - OPENING OF BIDS

- 16.01 Bids will be opened at the time and place indicated in the Advertisement for Bid or Invitation to Bid and, unless obviously nonresponsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

1 **ARTICLE 17 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE**

2 17.01 All Bids will remain subject to acceptance for the period of time stated in the Bid form, but
3 OWNER may, in its sole discretion, release any Bid and return the Bid security prior to the
4 end of this period.
5

6 **ARTICLE 18 - EVALUATION OF BIDS AND AWARD OF CONTRACT**

7 18.01 OWNER reserves the right to reject any or all Bids, including without limitation,
8 nonconforming, nonresponsive, unbalanced, or conditional Bids. OWNER further
9 reserves the right to reject the Bid of any BIDDER whom it finds, after reasonable inquiry
10 and evaluation, to not be responsible. OWNER may also reject the Bid of any BIDDER if
11 OWNER believes that it would not be in the best interest of the Project to make an award
12 to that BIDDER. OWNER also reserves the right to waive all informalities not involving
13 price, time, or changes in the Work and to negotiate contract terms with the Successful
14 BIDDER.
15

16 18.02 More than one Bid for the same Work from an individual or entity under the same or
17 different names will not be considered. Reasonable grounds for believing that any
18 BIDDER has an interest in more than one Bid for the Work may be cause for
19 disqualification of that BIDDER and the rejection of all Bids in which that BIDDER has
20 an interest.
21

22 18.03 In evaluating Bids, OWNER will consider whether or not the Bids comply with the
23 prescribed requirements, and such alternates, unit prices and other data, as may be
24 requested in the Bid form or prior to the Notice of Award.
25

26 18.04 In evaluating Bidders, OWNER will consider the qualifications of Bidders and may
27 consider the qualifications and experience of Subcontractors, Suppliers, and other
28 individuals or entities proposed for those portions of the Work for which the identity of
29 Subcontractors, Suppliers, and other individuals or entities must be submitted as provided
30 in the Supplementary Conditions.
31

32 18.05 OWNER may conduct such investigations as OWNER deems necessary to establish the
33 responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors,
34 Suppliers, individuals, or entities to proposed for those portions of the Work in accordance
35 with the Contract Documents.
36

37 18.06 If the Contract is to be awarded, OWNER will award the Contract to the BIDDER whose
38 Bid is in the best interests of the project and determined to be the lowest responsive,
39 responsible bidder.
40

41 **ARTICLE 19 - CONTRACT SECURITY AND INSURANCE**

42 19.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions,
43 sets forth OWNER's requirements as to performance and payment Bonds and insurance.

1 When the Successful BIDDER delivers the executed Agreement to OWNER, it shall be
2 accompanied by such bonds.
3

4 **ARTICLE 20 - SIGNING OF AGREEMENT**

5 20.01 When OWNER issues a Notice of Award to the Successful BIDDER, it shall be
6 accompanied by the required number of unsigned counterparts of the Agreement along
7 with all the other Contract Documents which are identified in the Agreement as attached
8 thereto. Within 15 days thereafter, Successful BIDDER shall sign and deliver the required
9 number of counterparts of the Agreement and attached documents to OWNER. Within 10
10 days thereafter, OWNER shall deliver one fully signed counterpart to Successful BIDDER
11 with a complete set of the Drawings with appropriate identification.
12

13 **ARTICLE 21 - SALES AND USE TAXES**

14 21.01 OWNER is designated a Tax Exempt Entity. As such, CONTRACTOR, and any
15 subcontractors, under this contract, shall be provided a Tax Exempt Certificate and
16 authorization letter from the OWNER. Tax Exempt certificate and authorization letter shall
17 be used by CONTRACTOR to secure building materials or equipment intended for
18 completion of this project without payment of sales tax. CONTRACTOR is not mandated
19 to complete Iowa Department of Revenue Form 35002 – Iowa Contractor’s Statement upon
20 execution of agreement. CONTRACTOR agrees to this method of sales tax exemption
21 and it shall not be modified during the course of construction.
22

23 **ARTICLE 22 - RETAINAGE**

24 22.01 Provisions concerning CONTRACTORS’ rights to deposit securities in lieu of retainage
25 are set forth in the Agreement.

BID

WELLNESS PARK BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON COUNTY, IA

PROJECT #10322002

TABLE OF ARTICLES

<u>Article</u>	<u>Article</u>
<u>Number</u>	
1	Bid Recipient
2	Bidder's Acknowledgements
3	Bidder's Representations
4	Bidder's Certification
5	Basis of Bid
6	Time of Completion
7	Attachments to this Bid
8	Defined Terms
9	Bid Submittal

ARTICLE 1 - BID RECIPIENT

1.01 This Bid is submitted to:

City Of Washington
215 E. Washington Street
Washington, IA 52353

1.02 The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDERS ACKNOWLEDGEMENTS

2.01 BIDDER accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that BIDDER may agree to in writing upon request of OWNER.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

3.01 In submitting this Bid, BIDDER represents that:

A. BIDDER has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of all which is hereby acknowledged.

Addendum No.

Addendum Date

B. BIDDER has visited the Site and become familiar with and is satisfied as to the general, local and Site conditions that may affect cost, progress, and performance of the Work.

C. BIDDER is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress and performance of the Work.

D. BIDDER has considered the information known to BIDDER; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means,

methods, techniques, sequences, and procedures of construction to be employed by BIDDER, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents; and (3) BIDDER's safety precautions and programs.

- E. Based on the information and observations referred to in Paragraph 3.01.E above, BIDDER does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- F. BIDDER is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. BIDDER has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that BIDDER has discovered in the Bidding Documents, and the written resolution thereof by ENGINEER is acceptable to BIDDER.
- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.

ARTICLE 4 - BIDDER'S CERTIFICATION

4.01 BIDDER certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization or corporation;
- B. BIDDER has not directly or indirectly induced or solicited any other BIDDER to submit a false or sham Bid;
- C. BIDDER has not solicited or induced any individual or entity to refrain from bidding; and
- D. BIDDER has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of OWNER, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive OWNER of the benefits of free and open competition;

3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of OWNER, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 - BASIS OF BID

5.01 BIDDER will complete the Work in accordance with the Contract Documents for the following price(s):

ITEM NO.	ITEM DESCRIPTION	EST QTY	UNITS	UNIT PRICE	TOTAL PRICE
DIVISION 2: EARTHWORK					
2.01	EXCAVATION, CLASS 13	1	LS	\$	\$
2.02	SUBGRADE PREPERATION	12,079	SY	\$	\$
2.03	SPECIAL BACKFILL,	5,624	TONS	\$	\$
DIVISION 3: TRENCH & TRENCHLESS CONSTRUCTION					
3.01	GRANULAR TRENCH BACKFILL	852	LF	\$	\$
DIVISION 4: SEWERS & DRAINS					
4.01	SANITARY SEWER, SDR-35, 4"	22	LF	\$	\$
4.02	SANITARY SEWER CLEANOUT	1	EA	\$	\$
4.03	STORM SEWER CLEANOUT	5	EA	\$	\$
4.04	STORM SEWER, HDPE, 6"	208	LF	\$	\$
4.05	STORM SUBDRAIN, HDPE, 6"	382	LF	\$	\$
4.06	STORM SEWER, HDPE, 15"	668	LF	\$	\$
4.07	STORM SEWER, RCP, 15"	247	LF	\$	\$
4.08	STORM SEWER, RCP, 18"	356	LF	\$	\$
4.09	FLARED END SECTION, STEEL, 15"	1	EA	\$	\$
4.10	FLARED END SECTION, RCP, 18"	1	EA	\$	\$
DIVISION 5: WATER MAINS & APPURTENANCES					
5.01	WATER SERVICE, COPPER, 1-1/2"	360	LF	\$	\$
5.02	CORPORATION STOP, 1-1/2"	3	EA	\$	\$
5.03	CURB STOP & BOX, 1-1/2"	4	EA	\$	\$
5.04	WATER SERVICE CONNECTION	3	EA	\$	\$
5.05	VALVE BOX ADJUSTMENT	10	EA	\$	\$
5.06	HYDRANT ADJUSTMENT	5	EA	\$	\$
DIVISION 6: STRUCTURES FOR SANITARY & STORM SEWERS					
6.01	MANHOLE, SW-401, 48"	4	EA	\$	\$
6.02	INTAKE, SW-501	2	EA	\$	\$

BIDDER _____

6.03	NYLOPLAST DRAIN BASIN, 30"	4	EA	\$	\$
6.04	SANITARY MANHOLE ADJUSTMENT, MINOR	5	EA	\$	\$
6.05	GREASE TRAP	1	LS	\$	\$
DIVISION 7: STREETS & RELATED WORK					
7.01	PCC PAVEMENT, 6"	10,812	SY	\$	\$
7.02	PCC PAVEMENT, 7"	5,500	SY	\$	\$
7.03	PCC PAVEMENT W/INTEGRAL CURB, 7"	1,872	SY	\$	\$
7.04	DETECTABLE WARNINGS	112	SF	\$	\$
7.05	GRANULAR SURFACING, 6"	1,259	SY	\$	\$
DIVISION 8: TRAFFIC CONTROL					
8.01	PAINTED PAVEMENT MARKINGS	865	SF	\$	\$
DIVISION 9: SITE WORK & LANDSCAPING					
9.01	CONVENTIONAL SEEDING	44,527	SY	\$	\$
9.02	TURF SEEDING	39,690	SY	\$	\$
9.03	FERTILIZER FOR SEEDING	84,233	SY	\$	\$
9.04	HYDROMULCHING FOR SEEDING	84,233	SY	\$	\$
9.05	SWPPP	1	LS	\$	\$
9.06	EROSION CONTROL BLANKET	2,820	SY	\$	\$
9.07	RIP RAP	29	SY	\$	\$
9.08	SILT FENCE	5,704	LF	\$	\$
9.09	STABILIZED CONSTRUCTION ENTRANCE	1	EA	\$	\$
9.10	INLET PROTECTION	11	EA	\$	\$
9.11	FLOW TRANSITION MAT	400	SF	\$	\$
9.12	CHAIN LINK FENCE, 6' HEIGHT	4,186	LF	\$	\$
9.13	CHAIN LINK FENCE, 10' HEIGHT	216	LF	\$	\$
9.14	CHAIN LINK FENCE, 18' HEIGHT (BACKSTOP)	488	LF	\$	\$
9.15	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT	12	EA	\$	\$
DIVISION 11: MISCELLANEOUS					
11.01	MOBILIZATION	1	LS	\$	\$
11.02	CONCRETE WASHOUT	1	LS	\$	\$
11.03	SKINNED INFIELD, 4"	9,168	SY	\$	\$
11.04	GRANULAR SURFACE, 4"	467	SY	\$	\$
11.05	SAND BASE, VOLLEYBALL	1,475	SY	\$	\$
11.06	BORDER EDGING	1,450	LF	\$	\$
11.07	CONCESSION STRUCTURE, COMPLETE	1	LS	\$	\$

BIDDER _____

11.08	DUGOUT STRUCTURE, COMPLETE	8	EA	\$	\$
11.09	IRRIGATION SYSTEM, BASEBALL FIELDS	1	LS	\$	\$
11.10	IRRIGATION SYSTEM, SOCCER FIELD	1	LS	\$	\$
11.11	BASEBALL FIELD 1 EQUIPMENT	1	LS	\$	\$
11.12	BASEBALL FIELD 2 EQUIPMENT	1	LS	\$	\$
11.13	BASEBALL FIELD 3 EQUIPMENT	1	LS	\$	\$
11.14	BASEBALL FIELD 4 EQUIPMENT	1	LS	\$	\$
11.15	SAND VOLLEYBALL COURT EQUIPMENT	1	LS	\$	\$
11.16	FLAGPOLE ARRANGEMENT	1	LS	\$	\$
11.17	REMOVABLE BOLLARD	2	EA	\$	\$
11.18	FENCE TOP PROTECTION, OUTFIELD FENCE	2,046	LF	\$	\$
DIVISION 12: ELECTRICAL					
12.01	SITE ELECTRICAL CONDUIT	1	LS	\$	\$

TOTAL: Items #2.01-#12.01

\$ _____

ALTERNATE 1

A.01	CHAIN LINK FENCE, 6' HEIGHT, UPGRADE	4,594	LF	\$	\$
A.02	CHAIN LINK FENCE, 10' HEIGHT, UPGRADE	200	LF	\$	\$
A.03	CHAIN LINK FENCE, 18' HEIGHT BACKSTOP, UPGRADE	496	LF	\$	\$
A.04	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT, UPGRADE	12	EA	\$	\$
A.05	BASEBALL FIELD LIGHTING (FIELD 1)	1	LS	\$	\$
A.06	BASEBALL FIELD LIGHTING (FIELD 2)	1	LS	\$	\$
A.07	SOCCER FIELD LIGHTING	1	LS	\$	\$
A.08	FENCE TOP PROTECTION, FOUL LINE FENCE	1,300	LF	\$	\$

TOTAL: Items #A.01-#A.08

\$ _____

BID ALTERNATIVES

Alternative Bid items are listed above. OWNER shall have the right to accept the Base Bid and any combination of the respective Bid Alternatives. Failure to supply Base Bid and Alternative Bids may invalidate Bid.

BID EVALUATION

The OWNER shall have the right to award to the responsible Bidder providing the lowest total sum of Base Bid and any selected combination of Alternative Bids. The decision for basis of award is at the sole discretion of the OWNER.

Unit prices have been computed in accordance with Paragraph 11.03.B of the General Conditions.

BIDDER acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities determined as provided in the Contract Documents.

ARTICLE 6 - TIME OF COMPLETION

6.01 BIDDER agrees that the Milestone of infield material installed and playing turf seeded shall be on or before June 15, 2020. BIDDER agrees that the remainder of project work will be substantially completed on or before October 30, 2020 and will be completed and ready for final payment in accordance with Paragraph 14.07 of the General Conditions on or before November 30, 2020.

6.02 BIDDER accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 - ATTACHMENTS TO THE BID

7.01 The following documents are submitted with and made a condition of this Bid:

A. Required Bid security in the form of _____

B. List of Proposed Subcontractors

C. List of Proposed Suppliers

1
2
3
4
5

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 - BID SUBMITTAL

If BID is submitted by:

An Individual

Name (typed or printed): _____

By: _____

(SEAL)

(Individual's signature)

Doing business as: _____

Business address: _____

Phone No.: _____ FAX No.: _____ E-MAIL: _____

A Partnership

Partnership Name: _____ (SEAL)

By: _____ (SEAL)

(Signature of general partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Business address: _____

Phone No.: _____ FAX No.: _____ E-MAIL: _____

A Corporation

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____ (SEAL)

(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest: _____

(Signature -- Indicate Title of Attesting Signature)

Business address: _____

Phone No.: _____ FAX No.: _____ E-MAIL: _____

Date of Qualification to do business in Iowa is ____ / ____ / ____.

BIDDER _____

A Joint Venture

Name of Joint Venturer: _____

First Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Business address: _____

Phone No.: _____ FAX No.: _____ E-MAIL: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

Business address: _____

Phone No.: _____ FAX No.: _____ E-MAIL: _____

SUBMITTED on _____, _____.

State Contractor License No. _____ . (if applicable)

Bidder Status Form

To be completed by all bidders

Part A

Please answer "Yes" or "No" for each of the following:

☐ Yes ☐ No

My company is authorized to transact business in Iowa.
(To help you determine if your company is authorized, please review the worksheet on the next page).

☐ Yes ☐ No

My company has an office to transact business in Iowa.

☐ Yes ☐ No

My company's office in Iowa is suitable for more than receiving mail, telephone calls, and e-mail.

☐ Yes ☐ No

My company has been conducting business in Iowa for at least 3 years prior to the first request for bids on this project.

☐ Yes ☐ No

My company is not a subsidiary of another business entity or my company is a subsidiary of another business entity that would qualify as a resident bidder in Iowa.

If you answered "Yes" for each question above, your company qualifies as a resident bidder. Please complete Parts B and D of this form.

If you answered "No" to one or more questions above, your company is a nonresident bidder. Please complete Parts C and D of this form.

To be completed by resident bidders

Part B

My company has maintained offices in Iowa during the past 3 years at the following addresses:

Dates: _____ / _____ / _____ to _____ / _____ / _____

Address: _____

City, State, Zip: _____

Dates: _____ / _____ / _____ to _____ / _____ / _____

Address: _____

City, State, Zip: _____

Dates: _____ / _____ / _____ to _____ / _____ / _____

Address: _____

City, State, Zip: _____

You may attach additional sheet(s) if needed.

To be completed by non-resident bidders

Part C

1. Name of home state or foreign country reported to the Iowa Secretary of State:

2. Does your company's home state or foreign country offer preferences to bidders who are residents?

☐ Yes ☐ No

3. If you answered "Yes" to question 2, identify each preference offered by your company's home state or foreign country and the appropriate legal citation.

You may attach additional sheet(s) if needed.

To be completed by all bidders

Part D

I certify that the statements made on this document are true and complete to the best of my knowledge and I know that my failure to provide accurate and truthful information may be a reason to reject my bid.

Firm Name:

Signature:

Date:

Worksheet: Authorization to Transact Business

This worksheet may be used to help complete Part A of the Resident Bidder Status form. If at least one of the following describes your business, you are authorized to transact business in Iowa.

- ☐ Yes ☐ No My business is currently registered as a contractor with the Iowa Division of Labor.
- ☐ Yes ☐ No My business is a sole proprietorship and I am an Iowa resident for Iowa income tax purposes.
- ☐ Yes ☐ No My business is a general partnership or joint venture. More than 50 percent of the general partners or joint venture parties are residents of Iowa for Iowa income tax purposes.
- ☐ Yes ☐ No My business is an active corporation with the Iowa Secretary of State and has paid all fees required by the Secretary of State, has filed its most recent biennial report, and has not filed articles of dissolution.
- ☐ Yes ☐ No My business is a corporation whose articles of incorporation are filed in a state other than Iowa, the corporation has received a certificate of authority from the Iowa secretary of state, has filed its most recent biennial report with the secretary of state, and has neither received a certificate of withdrawal from the secretary of state nor had its authority revoked.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in this state and the statement has not been canceled.
- ☐ Yes ☐ No My business is a limited liability partnership which has filed a statement of qualification in a state other than Iowa, has filed a statement of foreign qualification in Iowa and a statement of cancellation has not been filed.
- ☐ Yes ☐ No My business is a limited partnership or limited liability limited partnership which has filed a certificate of limited partnership in this state, and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited partnership or a limited liability limited partnership whose certificate of limited partnership is filed in a state other than Iowa, the limited partnership or limited liability limited partnership has received notification from the Iowa secretary of state that the application for certificate of authority has been approved and no notice of cancellation has been filed by the limited partnership or the limited liability limited partnership.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in Iowa and has not filed a statement of termination.
- ☐ Yes ☐ No My business is a limited liability company whose certificate of organization is filed in a state other than Iowa, has received a certificate of authority to transact business in Iowa and the certificate has not been revoked or canceled.

BID BOND

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (*Name and Address*):

SURETY (*Name and Address of Principal Place of Business*):

OWNER (*Name and Address*):

BID

Bid Due Date:

Description (*Project Name and Include Location*):

BOND

Bond Number:

Date (*Not earlier than Bid due date*):

Penal sum _____ \$ _____
(Words) (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER**SURETY**

Bidder's Name and Corporate Seal (Seal)

Surety's Name and Corporate Seal (Seal)

By: _____
Signature

By: _____
Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Note: Above addresses are to be used for giving any required notice. Provide execution by any additional parties, such as joint venturers, if necessary.

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

NOTICE OF AWARD

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Bidder: _____

Bidder's Address: *[send Notice of Award Certified Mail, Return Receipt Requested]*

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for _____

[Indicate total Work, alternates, or sections of Work awarded.]

The Contract Price of your Contract is _____ Dollars (\$ _____).

[Insert appropriate data if unit prices are used. Change language for cost-plus contracts.]

_____ copies of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

_____ sets of the Drawings will be delivered separately or otherwise made available to you immediately.

You must comply with the following conditions precedent within [15] days of the date you receive this Notice of Award.

1. Deliver to the Owner [] fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Contract security [Bonds] as specified in the Instructions to Bidders (Article 20), General Conditions (Paragraph 5.01), and Supplementary Conditions (Paragraph SC-5.01).
3. Other conditions precedent:

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract Documents.

Owner
By: _____
Authorized Signature

Title

Copy to Engineer

1 **AGREEMENT**

2
3 THIS AGREEMENT is by and between CITY OF WASHINGTON (hereinafter called OWNER)
4 and _____ (hereinafter called CONTRACTOR).
5

6 OWNER and CONTRACTOR, hereby agree as follows:
7

8 **ARTICLE 1 - WORK**

9 1.01 CONTRACTOR shall complete all Work as specified or indicated in the Contract
10 Documents. The Work is generally described as follows: Wellness Park Ball Fields And
11 Roadway, City of Washington, Washington County, IA.
12

13 **ARTICLE 2 - THE PROJECT**

14 2.01 The Project for which the Work under the Contract Documents may be the whole or only
15 a part is generally described as follows: Wellness Park Ball Fields And Roadway, City Of
16 Washington, Washington County, IA.
17

18 **ARTICLE 3 - ENGINEER**

19 3.01 The Project has been designed by MSA Professional Services, Inc., 400 Ice Harbor Drive,
20 Dubuque, IA 52001 which is to act as OWNER's representative, assume all duties and
21 responsibilities, and have the rights and authority assigned to Engineer in the Contract
22 Documents in connection with the completion of the Work in accordance with the Contract
23 Documents.
24

25 **ARTICLE 4 - CONTRACT TIMES**

26 4.01 *Time of the Essence*
27

28 A. All time limits for Milestones, if any, Substantial Completion, and completion and
29 readiness for final payment as stated in the Contract Documents are of the essence
30 of the Contract.
31

32 4.02 *Dates for Substantial Completion and Final Payment*
33

34 A. Milestone of infield material installed and playing turf seeded shall be on or before
35 June 15, 2020. The remainder of project work will be substantially completed on
36 or before October 30, 2020 and completed and ready for final payment in
37 accordance with Paragraph 14.07 of the General Conditions on or before November
38 30, 2020.
39

1 4.03 *Liquidated Damages*

- 2
- 3 A. CONTRACTOR and OWNER recognize that time is of the essence as stated in
- 4 Paragraph 4.01 above and that OWNER will suffer financial loss if the Work is not
- 5 completed within the times specified in Paragraph 4.02 above, plus any extensions
- 6 thereof allowed in accordance with Article 12 of the General Conditions. The
- 7 parties also recognize the delays, expense and difficulties involved in proving in a
- 8 legal or arbitration proceeding the actual loss suffered by OWNER if the Work is
- 9 not completed on time. Accordingly, instead of requiring any such proof, OWNER
- 10 and CONTRACTOR agree that as liquidated damages for delay (but not as a
- 11 penalty) CONTRACTOR shall pay OWNER \$500 for each day that expires after
- 12 the time specified in Paragraph 4.02 above for Substantial Completion until the
- 13 Work is substantially complete. After Substantial Completion, if CONTRACTOR
- 14 shall neglect, refuse or fail to complete the remaining Work within the Contract
- 15 Time or any proper extension thereof granted by OWNER, CONTRACTOR shall
- 16 pay OWNER \$1000 for each day that expires after the time specified in Paragraph
- 17 4.02 above for completion and readiness for final payment until the Work is
- 18 completed and ready for final payment.
- 19

20 **ARTICLE 5 - CONTRACT PRICE**

- 21 5.01 OWNER shall pay CONTRACTOR for completion of the Work in accordance with the
- 22 Contract Documents an amount in current funds equal to the sum of the amounts
- 23 determined pursuant to Paragraph 5.01.A. and 5.01.B below:
- 24

- 25 A. For all Unit Price Work, an amount equal to the sum of the established unit price
- 26 for each separately identified item of Unit Price Work times the actual quantity of
- 27 that item. The Bid prices for Unit Price Work set forth as of the Effective Date of
- 28 the Agreement are based on estimated quantities. As provided in Paragraph 11.03
- 29 of the General Conditions, estimated quantities are not guaranteed, and
- 30 determinations of actual quantities and classifications are to be made by Engineer
- 31 as provided in Paragraph 9.07 of the General Conditions.
- 32

- 33 B. For all Work, at the prices stated in Contractor's Bid, attached hereto as an exhibit.
- 34

35 **ARTICLE 6 - PAYMENT PROCEDURES**

36 6.01 *Submittal and Processing of Payments*

- 37
- 38 A. CONTRACTOR shall submit Applications for Payment no later than the first
- 39 Wednesday of each month in accordance with Article 14 of the General Conditions.
- 40 Applications for Payment will be processed by ENGINEER as provided in the
- 41 General Conditions.
- 42

1 6.02 *Progress Payments; Retainage*

2
3 A. OWNER shall make progress payments on account of the Contract Price on the
4 basis of CONTRACTOR's Applications for Payment within two weeks after the
5 first Wednesday of each month as provided in Paragraphs 6.02.A.1 below. All such
6 payments will be measured by the schedule of values established as provided in
7 Paragraph 2.07.A of the General Conditions (and in the case of Unit Price Work
8 based on the number of units completed) or, in the event there is no schedule of
9 values, as provided in Division 01-General Requirements.

10
11 1. Prior to Substantial Completion, progress payments will be made in an
12 amount equal to the percentage indicated below but, in each case, less the
13 aggregate of payments previously made and less such amounts as
14 ENGINEER may determine or OWNER may withhold, including but not
15 limited to liquidated damages, in accordance with Paragraph 14.02 of the
16 General Conditions.

17
18 a. 95% of Work completed (with the balance being retainage); and

19
20 b. Estimates may include any fabricated or manufactured materials and
21 components specified, previously paid for by the CONTRACTOR
22 and delivered to the Work or properly stored and suitable for
23 incorporation in the Work embraced in the contract. Invoices
24 showing the amount of the fabricated or manufactured materials and
25 components specified must be submitted with proof of payment by
26 the CONTRACTOR prior to being considered for payment.
27 Retainage shall be as outlined in paragraph 6.02A.1.a. above.

28
29 B. Upon achieving Substantial Completion as defined in Supplementary Conditions
30 14.04, and elsewhere within these contract documents, OWNER shall pay an
31 amount sufficient to increase total payments to CONTRACTOR to the value of the
32 Contract Price, less 200% of the value of labor and materials yet to be completed
33 for the project, as determined by ENGINEER, and shown on the tentative list of
34 items to be completed or corrected attached to the certificate of Substantial
35 Completion.

36
37 6.03 *Final Payment*

38
39 A. Upon final completion and acceptance of the Work in accordance with Paragraph
40 14.07 of the General Conditions, OWNER shall pay the remainder of the Contract
41 Price as recommended by ENGINEER as provided in said Paragraph 14.07.

42
43 **ARTICLE 7 - INTEREST**

44 7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall
45 bear interest at the rate of 5.0% per annum.

ARTICLE 8 - CONTRACTOR'S REPRESENTATIONS

8.01 In order to induce OWNER to enter into this Agreement, CONTRACTOR makes the following representations:

- A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
- B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the work.
- D. CONTRACTOR has considered the information known to Contractor; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Contract Documents; and (3) CONTRACTOR's safety precautions and programs.
- E. Based on the information and observations referred to in Paragraph 8.01.E above, CONTRACTOR does not consider that further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
- F. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.
- G. CONTRACTOR has given ENGINEER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.
- H. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

ARTICLE 9 - CONTRACT DOCUMENTS

9.01 *Contents*

A. The Contract Documents consist of the following:

1. This Agreement (pages 00 52 00-1 to 00 52 00-8, inclusive).
2. Performance Bond (pages 00 61 13.13-1 to 00 61 13.13-3, inclusive).
3. Payment Bond (pages 00 61 13.16-1 to 00 61 13.16-3, inclusive).
4. General Conditions (pages 00 72 00-1 to 00 72 00-69, inclusive).
5. Supplementary Conditions (pages 00 73 00-1 to 00 73 00-14, inclusive).
6. Specifications as listed in the table of contents of the Project Manual bearing the title: Wellness Park Ball Fields and Roadway, City of Washington, Washington County, IA.
7. Drawings consisting of 112 sheets with each sheet bearing the following title: Wellness Park Ball Fields and Roadway, City of Washington, Washington County, IA.
8. Addenda (Numbers ____ to ____, inclusive).
9. Exhibits to this Agreement (enumerated as follows):
 - a. CONTRACTOR'S Bid (pages 00 41 00-1 to 00 41 00-10, inclusive).
 - b. Documentation submitted by CONTRACTOR prior to Notice of Award (pages 00 51 00-1, inclusive).
 - c. List other required attachments (if any), such as documents required by funding or lending agencies.
 - (i) *N/A*.
10. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - a. Notice to Proceed (pages 00 55 00-1, inclusive).
 - b. Written Amendment(s);
 - c. Work Change Directive(s);

d. Change Order(s).

e. Field Order(s).

B. The documents listed in Paragraphs 9.01.A are attached to this Agreement (except as expressly noted otherwise above).

C. There are no Contract Documents other than those listed above in this Article 9.

D. The Contract Documents may only be amended, modified, or supplemented as provided in Paragraph 3.04 of the General Conditions.

ARTICLE 10 - MISCELLANEOUS

10.01 Terms

A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 Assignment of Contract

A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 Successors and Assigns

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

10.04 Severability

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agrees that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

1
2 10.05 *Contractor's Certifications*
3

4 A. CONTRACTOR certifies that it has not engaged in corrupt, fraudulent, collusive,
5 or coercive practices in competing for or in executing the Contract. For the
6 purposes of this Paragraph 10.05:

- 7 1. "corrupt practice" means the offering, giving, receiving, or soliciting of any
8 thing of value likely to influence the action of a public official in the bidding
9 process or in the Contract execution;
10 2. "fraudulent practice" means an intentional misrepresentation of facts made
11 (a) to influence the bidding process or the execution of the Contract to the
12 detriment of OWNER, (b) to establish Bid or Contract prices at artificial
13 non-competitive levels, or (c) to deprive OWNER of the benefits of free and
14 open competition;
15 3. "collusive practice" means a scheme or arrangement between two or more
16 BIDDERS, with or without the knowledge of OWNER, a purpose of which
17 is to establish Bid prices at artificial, non-competitive levels; and
18 4. "coercive practice" means harming or threatening to harm, directly or
19 indirectly, persons or their property to influence their participation in the
20 bidding process or affect the execution of the Contract.
21
22

1 IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement.
2 Counterparts have been delivered to OWNER and CONTRACTOR. All portions of the Contract
3 Documents have been signed or have been identified by OWNER and CONTRACTOR or on their
4 behalf.

5
6 This Agreement will be effective on _____, ____ (which is the Effective Date of
7 the Agreement).

8	36
9 OWNER:	37 CONTRACTOR:
10	38
11 CITY OF WASHINGTON	39
12	40
13	41
14	42
15 By:_____	43 By:_____
16 Jaron Rosien, Mayor	44
17	45
18 (Corporate Seal)	46 (Corporate Seal)
19	47
20 Attest _____	48 Attest _____
21 Illa Earnest	49
22	50
23 Address for giving notices:	51 Address for giving notices:
24	52
25 215 E. Washington Street	53
26 Washington, IA 52353	54
27	55
28 (If OWNER is a corporation, attach evidence	56 License No. _____
29 of authority to sign. If OWNER is a public	57 (where applicable)
30 body, attach evidence of authority to sign and	58
31 resolution or other documents authorizing	59 Agent for service of process:
32 execution of this Agreement.)	60
33	61
34	62 (If Contractor is a corporation, a partnership,
	63 or a joint venture, attach evidence of
	64 authority to sign.)

NOTICE TO PROCEED

Date: _____

Project: _____

Owner: _____

Owner's Contract No.: _____

Contract: _____

Engineer's Project No.: _____

Contractor: _____

Contractor's Address: *[send Certified Mail, Return Receipt Requested]*

You are notified that the Contract Times under the above Contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents. In accordance with Article 4 of the Agreement, the date of Substantial Completion is _____, and the date of readiness for final payment is _____ [(or) the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and Owner must each deliver to the other (with copies to Engineer and other identified additional insureds and loss payees) certificates of insurance which each is required to purchase and maintain in accordance with the Contract Documents.

Also, before you may start any Work at the Site, you must:

_____ [add other requirements].

(Contractor)

Owner

Received by: _____

Given by: _____

Authorized Signature

(Title)

Title

Date

Date

Copy to Engineer

PERFORMANCE BOND

CONTRACTOR *(Name and Address)*:

SURETY *(Name and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:\$

Description *(Name and Location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount:\$

Modifications to this Bond Form: ☐ None ☐ See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy

available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows:

FOR INFORMATION ONLY – (*Name, Address and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or other party*):

PAYMENT BOND

CONTRACTOR *(Name and Address)*:

SURETY *(Name and Address of Principal Place of Business)*:

OWNER *(Name and Address)*:

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount: \$

Description *(Name and Location)*:

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract)*:

Amount: \$

Modifications to this Bond Form: ☐ None ☐ See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. **Definitions**
 - 16.1 **Claim:** A written statement by the Claimant including at a minimum:
 1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;

4. A brief description of the labor, materials, or equipment furnished;
 5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 7. The total amount of previous payments received by the Claimant; and
 8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas,

power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

- 16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
18. Modifications to this Bond are as follows:

FOR INFORMATION ONLY – (*Name, Address, and Telephone*)

Surety Agency or Broker:

Owner's Representative (*Engineer or other*):

Contractor's Application For Payment No. _____

To (Owner):	Application Period:	Application Date:
Project:	From (Contractor):	Notice to Proceed Date:
	Contract:	Via (Engineer)
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

Application for Payment

Change Order Summary

Approved Change Orders		
Number	Additions	Deductions
TOTALS	\$0.00	\$0.00
NET CHANGE BY CHANGE ORDERS	\$0.00	

1. ORIGINAL CONTRACT PRICE	\$ _____
2. Net change by Change Orders	\$ _____
3. CURRENT CONTRACT PRICE (Line 1 ± 2)	\$ _____
4. TOTAL COMPLETED AND STORED TO DATE (Column G on Progress Estimate)	\$ _____
5. RETAINAGE:	
a. ____ % x \$ _____ Work Completed	\$ _____
b. ____ % x \$ _____ Stored Material	\$ _____
c. Total Retainage (Line 5a + Line 5b)	\$ _____
6. AMOUNT ELIGIBLE TO DATE (Line 4 - Line 5c)	\$ _____
7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application)	\$ _____
8. AMOUNT DUE THIS APPLICATION	\$ _____
9. BALANCE TO FINISH, PLUS RETAINAGE (Column I on Progress Estimate + Line 5 above)	\$ _____

Contractor's Certification

The undersigned Contractor certifies that: (1) all previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

By:	Date:
-----	-------

Payment of:	\$ _____	(Line 8 or other - attach explanation of other amount)
is recommended by:	_____	_____
	(Engineer)	(Date)
Payment of:	\$ _____	(Line 8 or other - attach explanation of other amount)
is approved by:	_____	_____
	(Owner)	(Date)
Approved by:	_____	_____
	Funding Agency (if applicable)	(Date)

Progress Estimate

Contractor's Application

For (contract):					Application Number:						
Application Period:					Application Date:						
A				B	C	D	E	F	G	H	I
Item		Bid Quantity	Unit Price	Bid Value	Work Completed			Materials Presently Stored (not in C or D)	Total Completed and Stored to Date		Balance to Finish (B - G)
Bid Item No.	Description				From Previous Application	Quantity this Period	Value this Application		\$ (C + E + F)	% (G / B)	
Totals											

Stored Material Summary

Contractor's Application

For (contract):					Application Number:				
Application Period:					Application Date:				
A	B	C	D		E		F		G
Invoice No.	Shop Drawing Transmittal No.	Materials Description	Stored Previously		Stored this Month		Incorporated in Work		Materials Remaining in ($\bar{D} + E - F$)
			Date (Month/Year)	Amount (\$)	Amount (\$)	Subtotal	Date (Month/Year)	Amount (\$)	
Totals									

Field Order
No. _____

Date of Issuance: _____

Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Attention:

You are hereby directed to promptly execute this Field Order issued in accordance with General Conditions Paragraph 9.04.A, for minor changes in the Work without changes in Contract Price or Contract Times. If you consider that a change in Contract Price or Contract Times is required, please notify the Engineer immediately and before proceeding with this Work.

Reference:

(Specification Section(s))

(Drawing(s) / Detail(s))

Description:

[illegible]

Attachments:

Engineer:

Receipt Acknowledged by Contractor:

Date:

Copy to Owner

Work Change Directive

No. _____

Date of Issuance: _____

Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:		Date of Contract:
Contractor:		Engineer's Project No.:

Contractor is directed to proceed promptly with the following change(s):

Item No.	Description

Attachments (list documents supporting change):

Purpose for Work Change Directive:

Authorization for Work described herein to proceed on the basis of Cost of the Work due to:

- ☐ Nonagreement on pricing of proposed change.
- ☐ Necessity to expedite Work described herein prior to agreeing to changes on Contract Price and Contract Time.

Estimated change in Contract Price and Contract Times:

Contract Price \$ _____ (increase/decrease) Contract Time _____ days (increase/decrease)

Recommended for Approval by Engineer:	Date
Authorized for Owner by:	Date
Received for Contractor by:	Date
Received by Funding Agency (if applicable):	Date:

Change Order

No. _____

Date of Issuance: _____ Effective Date: _____

Project:	Owner:	Owner's Contract No.:
Contract:	Date of Contract:	
Contractor:	Engineer's Project No.:	

The Contract Documents are modified as follows upon execution of this Change Order:

Description:

Attachments (list documents supporting change):

CHANGE IN CONTRACT PRICE:

Original Contract Price:

\$ _____

[Increase] [Decrease] from previously approved Change Orders
No. _____ to No.: _____

\$ _____

Contract Price prior to this Change Order:

\$ _____

[Increase] [Decrease] of this Change Order:

\$ _____

Contract Price incorporating this Change Order:

\$ _____

CHANGE IN CONTRACT TIMES:

Original Contract Times: ☐ Working days ☐ Calendar days

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders
No. _____ to No.: _____

Substantial completion (days): _____

Ready for final payment (days): _____

Contract Times prior to this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

[Increase] [Decrease] of this Change Order:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

Contract Times with all approved Change Orders:

Substantial completion (days or date): _____

Ready for final payment (days or date): _____

RECOMMENDED:

By: _____
Engineer (Authorized Signature)

Date: _____
Approved by Funding Agency (if applicable):

ACCEPTED:

By: _____
Owner (Authorized Signature)

Date: _____

ACCEPTED:

By: _____
Contractor (Authorized Signature)

Date: _____

Date: _____

Change Order

Instructions

A. GENERAL INFORMATION

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. COMPLETING THE CHANGE ORDER FORM

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

Certificate of Substantial Completion

Project:

Owner:

Owner's Contract No.:

Contract:

Engineer's Project No.:

This [tentative] [definitive] Certificate of Substantial Completion applies to:

☐ All Work under the Contract Documents:

☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

☐ Amended Responsibilities

☐ Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer

Date

Accepted by Contractor

Date

Accepted by Owner

Date

Release of Claims

RELEASE OF CLAIMS

CONTRACTOR, on behalf of itself, its subsidiaries, its affiliated entities, and each of their partners, respective shareholders, directors, officers, employees, agents, and attorneys and their predecessors, successors, and assigns (collectively "CONTRACTOR") hereby waives, releases and discharges OWNER, its officers, directors, employees and agents from and all actions, causes of action, claims and liabilities of any kind which in any manner arise from, relate to or are involved by CONTRACTOR's WORK on the PROJECT as defined by the CONTRACT DOCUMENTS. The waived, released and discharged actions, causes of action, claims and liabilities shall be forever barred once CONTRACTOR accepts final payment.

CONTRACTOR

By: _____

Name: _____
PRINT

Title: _____

Date: _____

OWNER

By: _____

Name: _____
PRINT

Title: _____

Date: _____

1 **Statement of Final Completion and Owner's Acceptance of the Work**

STATEMENT OF FINAL COMPLETION
AND
OWNER'S ACCEPTANCE OF THE WORK

PROJECT: _____ _____ _____ _____	ENGINEER / _____ ARCHITECT: _____ _____ _____ _____
OWNER: _____ _____ _____ _____	CONTRACTOR: _____ _____ _____ _____

I, the undersigned Engineer / Architect of the above designated project, do hereby state that:

1. The construction provided for pursuant to CONTRACT DOCUMENTS including all approved amendments and Change Orders, hereafter called the WORK between the OWNER and CONTRACTOR has been completed and to the best of my knowledge and belief, is in substantial compliance with the provisions of the CONTRACT DOCUMENTS.
2. The final payment authorized hereto and made a part hereof is a complete and accurate summary of the WORK performed in accordance with the CONTRACT DOCUMENTS.
3. The total cost of the WORK as completed is _____.

I recommend, under the provisions of the CONTRACT DOCUMENTS, that the WORK be accepted and that the final payment be made.

Engineer / Architect

By _____ Date _____

The CONTRACTOR shall guarantee materials and equipment furnished and construction performed by providing a PERFORMANCE BOND which shall remain in full force and effect for a period of one year from date of acceptance by OWNER.

(Note if Statement of Substantial Completion was issued then effective date of Bond is as approved by the OWNER on Statement of Substantial Completion)

Accepted By CONTRACTOR

Accepted BY OWNER

By _____

By _____

Title _____

Title _____

Date _____

Date _____

This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by

ENGINEERS JOINT CONTRACT DOCUMENTS COMMITTEE

and

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NATIONAL SOCIETY OF PROFESSIONAL ENGINEERS

Endorsed by



CONSTRUCTION SPECIFICATIONS INSTITUTE

These General Conditions have been prepared for use with the Suggested Forms of Agreement Between Owner and Contractor (EJCDC C-520 or C-525, 2007 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other. Comments concerning their usage are contained in the Narrative Guide to the EJCDC Construction Documents (EJCDC C-001, 2007 Edition). For guidance in the preparation of Supplementary Conditions, see Guide to the Preparation of Supplementary Conditions (EJCDC C-800, 2007 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument which is evidence of the agreement between Owner and Contractor covering the Work.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Asbestos*—Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 5. *Bid*—The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 6. *Bidder*—The individual or entity who submits a Bid directly to Owner.
 7. *Bidding Documents*—The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 8. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid security of acceptable form, if any, and the Bid Form with any supplements.
 9. *Change Order*—A document recommended by Engineer which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 10. *Claim*—A demand or assertion by Owner or Contractor seeking an adjustment of Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 11. *Contract*—The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

12. *Contract Documents*—Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
13. *Contract Price*—The moneys payable by Owner to Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
14. *Contract Times*—The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any; (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by Engineer's written recommendation of final payment.
15. *Contractor*—The individual or entity with whom Owner has entered into the Agreement.
16. *Cost of the Work*—See Paragraph 11.01 for definition.
17. *Drawings*—That part of the Contract Documents prepared or approved by Engineer which graphically shows the scope, extent, and character of the Work to be performed by Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
18. *Effective Date of the Agreement*—The date indicated in the Agreement on which it becomes effective, but if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
19. *Engineer*—The individual or entity named as such in the Agreement.
20. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
21. *General Requirements*—Sections of Division 1 of the Specifications.
22. *Hazardous Environmental Condition*—The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto.
23. *Hazardous Waste*—The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
24. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
25. *Liens*—Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
26. *Milestone*—A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all the Work.

27. *Notice of Award*—The written notice by Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, Owner will sign and deliver the Agreement.
28. *Notice to Proceed*—A written notice given by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work under the Contract Documents.
29. *Owner*—The individual or entity with whom Contractor has entered into the Agreement and for whom the Work is to be performed.
30. *PCBs*—Polychlorinated biphenyls.
31. *Petroleum*—Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
32. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor's plan to accomplish the Work within the Contract Times.
33. *Project*—The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
34. *Project Manual*—The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the table(s) of contents.
35. *Radioactive Material*—Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
36. *Resident Project Representative*—The authorized representative of Engineer who may be assigned to the Site or any part thereof.
37. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
38. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
39. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

40. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
41. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by Owner which are designated for the use of Contractor.
42. *Specifications*—That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.
43. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
44. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
45. *Successful Bidder*—The Bidder submitting a responsive Bid to whom Owner makes an award.
46. *Supplementary Conditions*—That part of the Contract Documents which amends or supplements these General Conditions.
47. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or Subcontractor.
48. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
49. *Unit Price Work*—Work to be paid for on the basis of unit prices.
50. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.

51. *Work Change Directive*—A written statement to Contractor issued on or after the Effective Date of the Agreement and signed by Owner and recommended by Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 *Terminology*

- A. The words and terms discussed in Paragraph 1.02.B through F are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.

B. *Intent of Certain Terms or Adjectives:*

1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day:*

1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.

D. *Defective:*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or

- c. has been damaged prior to Engineer's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide:*

1. The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words "perform" or "provide," when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. When "furnish," "install," "perform," or "provide" is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of Contractor, "provide" is implied.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may reasonably request) which Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor up to ten printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the

Agreement. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Agreement, whichever date is earlier.

2.04 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), Contractor shall submit to Engineer for timely review:
 - 1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract Documents;
 - 2. a preliminary Schedule of Submittals; and
 - 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit instructions, receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.07 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference attended by Contractor, Engineer, and others as appropriate will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete

and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.

1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that reasonably may be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the indicated result will be provided whether or not specifically called for, at no additional cost to Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by Engineer as provided in Article 9.

3.02 *Reference Standards*

- A. Standards, Specifications, Codes, Laws, and Regulations
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the

performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy which Contractor discovers, or has actual knowledge of, and shall obtain a written interpretation or clarification from Engineer before proceeding with any Work affected thereby.
2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) any standard, specification, manual, or code, or (c) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. the provisions of any standard, specification, manual, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Amending and Supplementing Contract Documents*

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.

- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 - 1. A Field Order;
 - 2. Engineer's approval of a Shop Drawing or Sample (subject to the provisions of Paragraph 6.17.D.3); or
 - 3. Engineer's written interpretation or clarification.

3.05 *Reuse of Documents*

- A. Contractor and any Subcontractor or Supplier shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions; or
 - 2. reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

3.06 *Electronic Data*

- A. Unless otherwise stated in the Supplementary Conditions, the data furnished by Owner or Engineer to Contractor, or by Contractor to Owner or Engineer, that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies govern.
- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within 60 days, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the 60-day acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS; REFERENCE POINTS

4.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work. Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in Owner's furnishing the Site or a part thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
 - 1. those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
 - 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 - 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed either:

1. is of such a nature as to establish that any “technical data” on which Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. is of such a nature as to require a change in the Contract Documents; or
3. differs materially from that shown or indicated in the Contract Documents; or
4. is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;

then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, Engineer will promptly review the pertinent condition, determine the necessity of Owner’s obtaining additional exploration or tests with respect thereto, and advise Owner in writing (with a copy to Contractor) of Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments:*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. Contractor knew of the existence of such conditions at the time Contractor made a final commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. the existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and

contiguous areas required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such final commitment; or

- c. Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefor as provided in Paragraph 10.05. However, neither Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data provided by others; and
2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all such information and data;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents;
 - c. coordination of the Work with the owners of such Underground Facilities, including Owner, during construction; and
 - d. the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated:*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer. Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the

consequences of the existence or location of the Underground Facility. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.

2. If Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment in Contract Price or Contract Times, Owner or Contractor may make a Claim therefor as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* The Supplementary Conditions identify those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at the Site.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:
 1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any "technical data" or any such other data, interpretations, opinions or information.

- C. Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work. Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible.
- D. If Contractor encounters a Hazardous Environmental Condition or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 4.06.E.
- E. Contractor shall not be required to resume Work in connection with such condition or in any affected area until after Owner has obtained any required permits related thereto and delivered written notice to Contractor: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, either party may make a Claim therefor as provided in Paragraph 10.05.
- F. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefor as provided in Paragraph 10.05. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.

- H. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 4.06.H shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of Contractor's obligations under the Contract Documents. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the 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 Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed each bond.
- C. If the surety on any bond furnished by Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the requirements of Paragraph 5.01.B, Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverages so required. Such surety and insurance companies shall also

meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. Contractor shall deliver to Owner, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Owner or any other additional insured) which Contractor is required to purchase and maintain.
- B. Owner shall deliver to Contractor, with copies to each additional insured and loss payee identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by Contractor or any other additional insured) which Owner is required to purchase and maintain.
- C. Failure of Owner to demand such certificates or other evidence of Contractor's full compliance with these insurance requirements or failure of Owner to identify a deficiency in compliance from the evidence provided shall not be construed as a waiver of Contractor's obligation to maintain such insurance.
- D. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor.
- E. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner in the Contract Documents.

5.04 *Contractor's Insurance*

- A. Contractor shall purchase and maintain such insurance as is appropriate for the Work being performed and as will provide protection from claims set forth below which may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 - 2. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees;
 - 3. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees;
 - 4. claims for damages insured by reasonably available personal injury liability coverage which are sustained:

- a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom; and
 6. claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:
1. with respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, be written on an occurrence basis, include as additional insureds (subject to any customary exclusion regarding professional liability) Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insureds, and include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such additional insureds, and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby;
 2. include at least the specific coverages and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
 3. include contractual liability insurance covering Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
 4. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
 5. remain in effect at least until final payment and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
 6. include completed operations coverage:
 - a. Such insurance shall remain in effect for two years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to Owner and any such additional insured of continuation of such insurance at final payment and one year thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 5.04, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, Owner shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
1. include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee;
 2. be written on a Builder's Risk "all-risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions.
 3. include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
 4. cover materials and equipment stored at the Site or at another location that was agreed to in writing by Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by Engineer;
 5. allow for partial utilization of the Work by Owner;
 6. include testing and startup; and
 7. be maintained in effect until final payment is made unless otherwise agreed to in writing by Owner, Contractor, and Engineer with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.
- B. Owner shall purchase and maintain such equipment breakdown insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors,

members, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as a loss payee.

- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 30 days prior written notice has been given to Owner and Contractor and to each other loss payee to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.
- E. If Contractor requests in writing that other special insurance be included in the property insurance policies provided under this Paragraph 5.06, Owner shall, if possible, include such insurance, and the cost thereof will be charged to Contractor by appropriate Change Order. Prior to commencement of the Work at the Site, Owner shall in writing advise Contractor whether or not such other insurance has been procured by Owner.

5.07 *Waiver of Rights*

- A. Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insureds or loss payees thereunder. Owner and Contractor waive all rights against each other and their respective officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors and Engineer, and all other individuals or entities identified in the Supplementary Conditions as loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner as trustee or otherwise payable under any policy so issued.

- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them for:
1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with Owner and made payable to Owner as fiduciary for the loss payees, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. Owner shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof, and the Work and the cost thereof covered by an appropriate Change Order.
- B. Owner as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within 15 days after the occurrence of loss to Owner's exercise of this power. If such objection be made, Owner as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, Owner as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, Owner as fiduciary shall give bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within 10 days after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other

party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR'S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. Contractor shall not be responsible for the negligence of Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

6.02 *Labor; Working Hours*

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without Owner's written consent (which will not be unreasonably withheld) given after prior written notice to Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.
- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and “Or-Equals”*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to Engineer for review under the circumstances described below.
 - 1. “Or-Equal” Items: If in Engineer’s sole discretion an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a

proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:
 - 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole; and
 - 3) it has a proven record of performance and availability of responsive service.
- b. Contractor certifies that, if approved and incorporated into the Work:
 - 1) there will be no increase in cost to the Owner or increase in Contract Times; and
 - 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

2. *Substitute Items:*

- a. If in Engineer's sole discretion an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
- b. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefor. Requests for review of proposed substitute items of material or equipment will not be accepted by Engineer from anyone other than Contractor.
- c. The requirements for review by Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented by the General Requirements, and as Engineer may decide is appropriate under the circumstances.
- d. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - 1) shall certify that the proposed substitute item will:
 - a) perform adequately the functions and achieve the results called for by the general design,
 - b) be similar in substance to that specified, and
 - c) be suited to the same use as that specified;
 - 2) will state:

- a) the extent, if any, to which the use of the proposed substitute item will prejudice Contractor's achievement of Substantial Completion on time,
 - b) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and
 - c) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
- 3) will identify:
- a) all variations of the proposed substitute item from that specified, and
 - b) available engineering, sales, maintenance, repair, and replacement services; and
- 4) shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by Engineer. Contractor shall submit sufficient information to allow Engineer, in Engineer's sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer's Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No "or equal" or substitute will be ordered, installed or utilized until Engineer's review is complete, which will be evidenced by a Change Order in the case of a substitute and an approved Shop Drawing for an "or equal." Engineer will advise Contractor in writing of any negative determination.
- D. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.

- F. *Contractor's Expense*: Contractor shall provide all data in support of any proposed substitute or "or-equal" at Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom Owner may have reasonable objection. Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to Owner in advance for acceptance by Owner by a specified date prior to the Effective Date of the Agreement, and if Contractor has submitted a list thereof in accordance with the Supplementary Conditions, Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of Owner or Engineer to reject defective Work.
- C. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract Documents:
1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other individual or entity; nor
 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with Contractor.
- E. Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with Engineer through Contractor.
- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

- G. All Work performed for Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as a loss payee on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against Owner, Contractor, Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insureds or loss payees (and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. If Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work. However, it shall not be Contractor's responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in Contract Price or Contract Times. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

6.10 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

- 1. Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.

2. Should any claim be made by any such owner or occupant because of the performance of the Work, Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
 3. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to Engineer for Owner.

6.13 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

1. all persons on the Site or who may be affected by the Work;
 2. all the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 3. other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as Engineer may require.

1. *Shop Drawings:*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

2. *Samples:*

- a. Submit number of Samples specified in the Specifications.
 - b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.
- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.

C. Submittal Procedures:

1. Before submitting each Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
2. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review and approval of that submittal.
3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to Engineer for review and approval of each such variation.

D. Engineer's Review:

1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. Engineer's review and approval shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 6.17.C.3 and Engineer has given written approval of each

such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures:*

1. Contractor shall make corrections required by Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.

6.18 *Continuing the Work*

- A. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on representation of Contractor's warranty and guarantee.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:
 1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal or the issuance of a notice of acceptability by Engineer;

6. any inspection, test, or approval by others; or
7. any correction of defective Work by Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable .
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 6.20.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:
 1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
 2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

6.21 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable law.
- B. If professional design services or certifications by a design professional related to systems, materials or equipment are specifically required of Contractor by the Contract Documents,

Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.

- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. Owner may perform other work related to the Project at the Site with Owner's employees, or through other direct contracts therefor, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. written notice thereof will be given to Contractor prior to starting any such other work; and
 - 2. if Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefor as provided in Paragraph 10.05.
- B. Contractor shall afford each other contractor who is a party to such a direct contract, each utility owner, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected. The duties and responsibilities of Contractor under this Paragraph are for the benefit of such utility owners and

other contractors to the extent that there are comparable provisions for the benefit of Contractor in said direct contracts between Owner and such utility owners and other contractors.

- C. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 7, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in Supplementary Conditions:
 - 1. the individual or entity who will have authority and responsibility for coordination of the activities among the various contractors will be identified;
 - 2. the specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. the extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of Owner.
- B. Each other direct contract of Owner under Paragraph 7.01.A shall provide that the other contractor is liable to Owner and Contractor for the reasonable direct delay and disruption costs incurred by Contractor as a result of the other contractor's wrongful actions or inactions.
- C. Contractor shall be liable to Owner and any other contractor under direct contract to Owner for the reasonable direct delay and disruption costs incurred by such other contractor as a result of Contractor's wrongful action or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

8.02 *Replacement of Engineer*

- A. In case of termination of the employment of Engineer, Owner shall appoint an engineer to whom Contractor makes no reasonable objection, whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

8.04 *Pay When Due*

A. Owner shall make payments to Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

A. Owner's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

8.06 *Insurance*

A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

A. Owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on Owner's Responsibilities*

A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents.

8.12 *Compliance with Safety Program*

- A. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed pursuant to Paragraph 6.13.D.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. Engineer will be Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in the Contract Documents.

9.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor's executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer's efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer's visits and observations are subject to all the limitations on Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of Engineer's visits or observations of Contractor's Work, Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. If Owner and Engineer agree, Engineer will furnish a Resident Project Representative to assist Engineer in providing more extensive observation of the Work. The authority and responsibilities of any such Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on Owner and also on Contractor, who shall perform the Work involved promptly. If Owner or Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefor as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. Engineer will have authority to reject Work which Engineer believes to be defective, or that Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.
- B. In connection with Engineer's authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, see Paragraph 6.21.
- C. In connection with Engineer's authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with Engineer's authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. All matters in question and other matters between Owner and Contractor arising prior to the date final payment is due relating to the acceptability

of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to Engineer in writing within 30 days of the event giving rise to the question.

- B. Engineer will, with reasonable promptness, render a written decision on the issue referred. If Owner or Contractor believes that any such decision entitles them to an adjustment in the Contract Price or Contract Times or both, a Claim may be made under Paragraph 10.05. The date of Engineer's decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. Engineer's written decision on the issue referred will be final and binding on Owner and Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, Engineer will not show partiality to Owner or Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with, the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative, if any, and assistants, if any.

9.10 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Engineer has been informed pursuant to Paragraph 6.13.D.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 *Authorized Changes in the Work*

- A. Without invalidating the Contract and without notice to any surety, Owner may, at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If Owner and Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefor as provided in Paragraph 10.05.

10.02 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.D.

10.03 *Execution of Change Orders*

- A. Owner and Contractor shall execute appropriate Change Orders recommended by Engineer covering:
 - 1. changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 *Notification to Surety*

- A. If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Engineer's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Engineer for decision. A decision by Engineer shall be required as a condition precedent to any exercise by Owner or Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to Engineer and the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within 60 days after the start of such event (unless Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in Contract Times shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to Engineer and the claimant within 30 days after receipt of the claimant's last submittal (unless Engineer allows additional time).
- C. *Engineer's Action:* Engineer will review each Claim and, within 30 days after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. deny the Claim in whole or in part;
 - 2. approve the Claim; or
 - 3. notify the parties that the Engineer is unable to resolve the Claim if, in the Engineer's sole discretion, it would be inappropriate for the Engineer to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that Engineer does not take action on a Claim within said 30 days, the Claim shall be deemed denied.
- E. Engineer's written action under Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon Owner and Contractor, unless Owner or Contractor

invoke the dispute resolution procedure set forth in Article 16 within 30 days of such action or denial.

- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by Owner, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 11.01.B, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.
 3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.

4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
 - g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

11.02 Allowances

A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. Contractor agrees that:
 - a. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and

- b. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance:*

1. Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Owner or Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement; and
 2. there is no corresponding adjustment with respect to any other item of Work; and
 3. Contractor believes that Contractor is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the

Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.

B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:

1. where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
2. where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
3. where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).

C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:

1. a mutually acceptable fixed fee; or
2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 12.01.C.2.a and 12.01.C.2.b is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent of the amount paid to the next lower tier Subcontractor;
 - d. no fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and

- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefor as provided in Paragraph 12.02.A. Delays beyond the control of Contractor shall include, but not be limited to, acts or neglect by Owner, acts or neglect of utility owners or other contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If Owner, Engineer, or other contractors or utility owners performing other work for Owner as contemplated by Article 7, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- C. If Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of Owner, or other causes not the fault of and beyond control of Owner and Contractor, then Contractor shall be entitled to an equitable adjustment in Contract Times, if such adjustment is essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.C.
- D. Owner, Engineer, and their officers, directors, members, partners, employees, agents, consultants, or subcontractors shall not be liable to Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Contractor on or in connection with any other project or anticipated project.
- E. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delays within the control of Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor. Defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. for inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. that costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in Paragraph 13.04.C; and
 - 3. as otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to Owner and Engineer.

- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of Engineer, it must, if requested by Engineer, be uncovered for Engineer's observation and replaced at Contractor's expense.
- B. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05.
- D. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, Contractor may make a Claim therefor as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of written notice, Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by Engineer, remove it from the Project and replace it with Work that is not defective. Contractor shall pay all claims,

costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).

- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions:
1. repair such defective land or areas; or
 2. correct such defective Work; or
 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by Contractor.
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

- E. Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to Engineer's recommendation of final payment, Engineer) prefers to accept it, Owner may do so. Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness) and for the diminished value of the Work to the extent not otherwise paid by Contractor pursuant to this sentence. If any such acceptance occurs prior to Engineer's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, Owner may make a Claim therefor as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by Contractor to Owner.

13.09 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer in accordance with Paragraph 13.06.A, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, Owner may, after seven days written notice to Contractor, correct, or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, take possession of Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and Owner shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, Owner may make a Claim therefor as

provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to Owner or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.

2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:
 - a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
 - a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract Documents; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
 - a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the moneys paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in

Paragraph 14.02.B.2. Engineer may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in Engineer's opinion to protect Owner from loss because:

- a. the Work is defective, or completed Work has been damaged, requiring correction or replacement;
- b. the Contract Price has been reduced by Change Orders;
- c. Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or
- d. Engineer has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. Payment Becomes Due:

1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. Reduction in Payment:

1. Owner may refuse to make payment of the full amount recommended by Engineer because:
 - a. claims have been made against Owner on account of Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;
 - c. there are other items entitling Owner to a set-off against the amount recommended; or
 - d. Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If Owner refuses to make payment of the full amount recommended by Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, when Contractor remedies the reasons for such action.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1 and subject to interest as provided in the Agreement.

14.03 *Contractor's Warranty of Title*

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete (except for items specifically listed by Contractor as incomplete) and request that Engineer issue a certificate of Substantial Completion.
- B. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a tentative certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the tentative certificate during which to make written objection to Engineer as to any provisions of the certificate or attached list. If, after considering such objections, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the tentative certificate to Owner, notify Contractor in writing, stating the reasons therefor. If, after consideration of Owner's objections, Engineer considers the Work substantially complete, Engineer will, within said 14 days, execute and deliver to Owner and Contractor a definitive certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as Engineer believes justified after consideration of any objections from Owner.
- D. At the time of delivery of the tentative certificate of Substantial Completion, Engineer will deliver to Owner and Contractor a written recommendation as to division of responsibilities pending final payment between Owner and Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless Owner and Contractor agree otherwise in writing and so inform Engineer in writing prior to Engineer's issuing the definitive certificate of Substantial Completion, Engineer's aforesaid recommendation will be binding on Owner and Contractor until final payment.
- E. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
1. Owner at any time may request Contractor in writing to permit Owner to use or occupy any such part of the Work which Owner believes to be ready for its intended use and substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 14.04.A through D for that part of the Work.
 2. Contractor at any time may notify Owner and Engineer in writing that Contractor considers any such part of the Work ready for its intended use and substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, Contractor may make application for final payment following the procedure for progress payments.

2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.6;
 - b. consent of the surety, if any, to final payment;
 - c. a list of all Claims against Owner that Contractor believes are unsettled; and
 - d. complete and legally effective releases or waivers (satisfactory to Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien.

B. Engineer's Review of Application and Acceptance:

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract Documents have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of payment and present the Application for Payment to Owner for payment. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. Payment Becomes Due:

1. Thirty days after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Engineer, less any sum Owner is entitled to set off against Engineer's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 Final Completion Delayed

- A. If, through no fault of Contractor, final completion of the Work is significantly delayed, and if Engineer so confirms, Owner shall, upon receipt of Contractor's final Application for Payment

(for Work fully completed and accepted) and recommendation of Engineer, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by Contractor to Engineer with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

14.09 *Waiver of Claims*

A. The making and acceptance of final payment will constitute:

1. a waiver of all Claims by Owner against Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from Contractor's continuing obligations under the Contract Documents; and
2. a waiver of all Claims by Contractor against Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by notice in writing to Contractor and Engineer which will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if Contractor makes a Claim therefor as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

A. The occurrence of any one or more of the following events will justify termination for cause:

1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);
2. Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
3. Contractor's repeated disregard of the authority of Engineer; or

4. Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving Contractor (and surety) seven days written notice of its intent to terminate the services of Contractor:
 1. exclude Contractor from the Site, and take possession of the Work and of all Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by Contractor (without liability to Contractor for trespass or conversion);
 2. incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere; and
 3. complete the Work as Owner may deem expedient.
 - C. If Owner proceeds as provided in Paragraph 15.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) sustained by Owner arising out of or relating to completing the Work, such excess will be paid to Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
 - D. Notwithstanding Paragraphs 15.02.B and 15.02.C, Contractor's services will not be terminated if Contractor begins within seven days of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than 30 days of receipt of said notice.
 - E. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due Contractor by Owner will not release Contractor from liability.
 - F. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for (without duplication of any items):

1. completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;
 3. all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 4. reasonable expenses directly attributable to termination.
- B. Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of Contractor, (i) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (ii) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (iii) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner and Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. Either Owner or Contractor may request mediation of any Claim submitted to Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association and the other party to the Contract. Timely submission of the request shall stay the effect of Paragraph 10.05.E.

- B. Owner and Contractor shall participate in the mediation process in good faith. The process shall be concluded within 60 days of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the Claim is not resolved by mediation, Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding 30 days after termination of the mediation unless, within that time period, Owner or Contractor:
 - 1. elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agrees with the other party to submit the Claim to another dispute resolution process; or
 - 3. gives written notice to the other party of the intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the state in which the Project is located.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SUPPLEMENTARY CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract (No. C-700, 2007 Edition). All provisions which are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions will have the meanings indicated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

SC-2.02 Copies of Documents

SC-2.02 Delete Paragraph 2.02.A in its entirety and insert the following in its place:

- A. OWNER shall furnish to CONTRACTOR up to three printed or hard copies of the Drawings and Project Manual. Additional copies will be furnished upon request at the cost of reproduction.

SC-4.02 Subsurface and Physical Conditions

Delete Paragraphs 4.02.A and 4.02.B in their entirety and insert the following:

- A. No reports or explorations or tests of subsurface conditions at or contiguous to the Site are known to the OWNER or ENGINEER.

SC-4.06 Hazardous Environmental Condition

SC-4.06 Delete Paragraphs 4.06.A and 4.06.B in their entirety and insert the following:

- A. No reports or drawings of Hazardous Environmental Conditions at or contiguous to the Site are known to the OWNER or ENGINEER.
- B. Not Used.

SC 5.04 Contractor's Liability Insurance

SC-5.04.B.6.a Replace with the following:

- a. Such insurance shall remain in effect for three years after final payment.

SC-5.04 Add the following new paragraph immediately after Paragraph 5.04.B:

C. The limits of liability for the insurance required by Paragraph 5.04 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations, and possess a financial rating of A- or better:

1. Workers' Compensation, and related coverages under Paragraphs 5.04.A.1 and A.2 of the General Conditions:

- | | | |
|----|---|--|
| a. | State: | Statutory |
| b. | Applicable Federal
(e.g., Longshoreman's): | Statutory |
| c. | Employer's Liability: | |
| | | Bodily Injury by Accident - \$100,000
Each Accident |
| | | Bodily Injury by Disease - \$100,000
Each Employee |
| | | Bodily Injury by Disease - \$500,000
Policy Limit |

2. Contractor's General Liability under Paragraphs 5.04.A.3 through A.6 of the General Conditions which shall include completed operations and product liability coverages:

- | | | |
|----|--|-------------|
| a. | General Aggregate (per project) | \$2,000,000 |
| b. | Products-Completed
Operations Aggregate | \$2,000,000 |
| c. | Personal and Advertising Injury | \$1,000,000 |
| d. | Each Occurrence (Bodily Injury
and Property Damage) | \$1,000,000 |
| e. | Property Damage liability
insurance will provide Explosion,
Collapse, and Underground coverages
where applicable. | |

Provide X, C,
U Standard

3. Excess or Umbrella Liability:

- | | | |
|--|-------------------|-------------|
| | General Aggregate | \$5,000,000 |
| | Each Occurrence | \$5,000,000 |

4. Automobile Liability under Paragraph 5.04.A.6 of the General Conditions:

- | | | |
|----|---|-------------|
| a. | Combined Single Limit
(Bodily Injury and Property Damage
Each Accident) | \$1,000,000 |
|----|---|-------------|

- 1 5. The Contractual Liability coverage required by Paragraph 5.04.B.3 of the
2 General Conditions shall provide coverage for not less than the following
3 amounts:
- | | |
|---|-------------|
| 4 a. Bodily Injury: | |
| 5 Each Person | \$1,000,000 |
| 6 Each Accident | \$2,000,000 |
| 7 b. Property Damage: | |
| 8 Each Accident | \$1,000,000 |
| 9 Annual Aggregate | \$2,000,000 |

10
11 **SC 5.06.A Property Insurance**

12
13 SC-5.06.A. Delete Paragraph 5.06.A in its entirety and insert the following in its place:

- 14
15 A. CONTRACTOR shall purchase and maintain property insurance upon the
16 Work at the Site in the amount of the full replacement cost thereof. CONTRACTOR
17 shall be responsible for any deductible or self-insured retention. This insurance shall:
- 18
- 19 1. include the interests of OWNER, CONTRACTOR, Subcontractors,
20 ENGINEER, and the officers, directors, partners, employees, agents and
21 other consultants and subcontractors of any of them each of whom is
22 deemed to have an insurable interest and shall be listed as a primary insured
23 or loss payee;
 - 24 a. CITY OF WASHINGTON
 - 25 b. MSA Professional Services, Inc.
 - 26
 - 27
 - 28 2. be written on a Builder's Risk "all-risk" policy, "installation floater" or open
29 peril or special causes of loss policy form that shall at least include
30 insurance for physical loss and damage to the Work, temporary buildings,
31 falsework, and materials and equipment in transit, at job site, or at a
32 temporary location, and shall insure against at least the following perils or
33 causes of loss: fire, lightning, extended coverage, theft, vandalism and
34 malicious mischief, earthquake, collapse, debris removal, demolition
35 occasioned by enforcement of Laws and Regulations, water damage (if
36 applicable), and such other perils or causes of loss as may be specifically
37 required by the Supplementary Conditions;
 - 38
 - 39 3. include expenses incurred in the repair or replacement of any insured
40 property (including but not limited to fees and charges of engineers and
41 architects);
 - 42
 - 43 4. cover materials and equipment stored at the Site or at another location that
44 was agreed to in writing by OWNER prior to being incorporated in the

1 Work, provided that such materials and equipment have been included in
2 an Application for Payment recommended by ENGINEER;

3
4 5. allow for partial utilization of the Work by OWNER;

5
6 6. include testing and startup; and

7
8 7. be maintained in effect until final payment is made unless otherwise agreed
9 to in writing by OWNER, CONTRACTOR and ENGINEER with 30 days
10 written notice to each other loss payee to whom a certificate of insurance
11 has been issue; and

12
13 8. comply with the requirements of Paragraph 5.06.C of the General
14 Conditions.

15
16 SC-5.06 Delete Paragraph 5.06.B and replace with the following:

17
18 B. CONTRACTOR shall purchase and maintain *equipment breakdown insurance*,
19 and any other additional property insurance required by Laws and Regulations,
20 which insurance will include the interest of OWNER, CONTRACTOR,
21 Subcontractors, and ENGINEER, and the officers, directors, partners, employees,
22 agents, consultants and subcontractors of each and any of them, each of whom is
23 deemed to have an insurable interest and shall be listed as a loss payee.

24
25 **SC-5.08 Receipt and Application of Insurance Proceeds**

26
27 SC-5.08 Delete Paragraphs 5.08.A. and 5.08.B. and replace with the following.

28
29 A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be
30 adjusted with CONTRACTOR and made payable to CONTRACTOR as fiduciary
31 for the insureds, as their interests may appear, subject to the requirements of any
32 applicable mortgage clause and of Paragraph 5.08.B. CONTRACTOR shall deposit
33 in a separate account any money so received and shall distribute it in accordance
34 with such agreement as the parties in interest may reach. If no other special
35 agreement is reached, the damaged Work shall be repaired or replaced, the moneys
36 so received applied on account thereof.

37 B. CONTRACTOR as fiduciary shall have power to adjust and settle any loss with the
38 insurers unless one of the parties in interest shall object in writing within 15 days
39 after the occurrence of loss to CONTRACTOR's exercise of this power. If such
40 objection be made, CONTRACTOR as fiduciary shall make settlement with the
41 insurers in accordance with such agreement as the parties in interest may reach. If
42 no such agreement among the parties in interest is reached, CONTRACTOR as
43 fiduciary shall adjust and settle the loss with the insurers and, if required in writing
44 by any party in interest, CONTRACTOR as fiduciary shall give bond for the proper
45 performance of such duties.

1
2 **SC-6.06 Concerning Subcontractors, Suppliers, and Others**
3

4 SC-6.06 Add the new paragraph immediately after paragraph 6.06.G:
5

- 6 H. OWNER may furnish to any Subcontractor or Supplier, to the extent practicable,
7 information about amounts paid to CONTRACTOR on account of Work performed
8 for CONTRACTOR by a particular Subcontractor or Supplier.
9

10 **SC-6.10 Taxes**
11

12 SC-6.10 Add a new paragraph immediately after Paragraph 6.10.A:
13

- 14 B. OWNER is exempt from payment of sales and compensating use taxes of the State
15 of Iowa and of cities and counties thereof on all materials to be incorporated into
16 the work.
17
18 1. OWNER will furnish the required certificates of tax exemption to
19 CONTRACTOR for use in the purchase of supplies and materials to be
20 incorporated into the WORK.
21
22 2. OWNER's exemption does not apply to construction tools, machinery,
23 equipment, or other property purchased by or leased by CONTRACTOR,
24 or to supplies or materials not incorporated into the WORK.
25

26 **SC-6.17 Shop Drawings and Samples**
27

28 SC-6.17 Add the following new paragraphs immediately after Paragraph 6.17.E:
29

- 30 F. CONTRACTOR shall furnish required submittals with sufficient information and
31 accuracy in order to obtain required approval of an item with no more than three
32 submittals. ENGINEER will record ENGINEER's time for reviewing subsequent
33 submittals of Shop Drawings, samples or other items requiring approval and
34 CONTRACTOR shall reimburse OWNER for ENGINEER's charges for such time.
35
36 G. In the event that CONTRACTOR requests a change of a previously approved item,
37 CONTRACTOR shall reimburse OWNER for ENGINEER's charges for its review
38 time unless the need for such change is beyond the control of CONTRACTOR.
39
40

1 **SC-7.04 Claims Between Contractors**

2
3 SC-7.04 Add the following paragraph(s) immediately after Paragraph GC-7.03:
4

5 **SC-7.04 Claims Between Contractors**
6

- 7 A. Should CONTRACTOR cause damage to the work or property of any separate
8 contractor at the Site, or should any claim arising out of CONTRACTOR's
9 performance of the Work at the Site be made by any other contractor against
10 CONTRACTOR, OWNER, ENGINEER, or the construction coordinator, then
11 CONTRACTOR (without involving OWNER, ENGINEER, or construction
12 coordinator) shall either (1) remedy the damage, (2) agree to compensate the other
13 contractor for remedy of the damage, or (3) remedy the damage and attempt to settle
14 with such other contractor by agreement, or otherwise resolve the dispute by
15 arbitration or at law.
16
- 17 B. CONTRACTOR shall, to the fullest extent permitted by Laws and Regulations,
18 indemnify and hold harmless OWNER, ENGINEER, the construction coordinator
19 and the officers, directors, partners, employees, agents and other consultants and
20 subcontractors of each and any of them from and against all claims, costs, losses
21 and damages (including, but not limited to, fees and charges of engineers,
22 architects, attorneys, and other professionals and court and arbitration costs) arising
23 directly, indirectly or consequentially out of any action, legal or equitable, brought
24 by any other contractor against OWNER, ENGINEER, consultants, or the
25 construction coordinator to the extent said claim is based on or arises out of
26 CONTRACTOR's performance of the Work. Should another contractor cause
27 damage to the Work or property of CONTRACTOR or should the performance of
28 work by any other contractor at the Site give rise to any other Claim,
29 CONTRACTOR shall not institute any action, legal or equitable, against OWNER,
30 ENGINEER, or the construction coordinator or permit any action against any of
31 them to be maintained and continued in its name or for its benefit in any court of
32 before any arbiter which seeks to impose liability on or to recover damages from
33 OWNER, ENGINEER, or the construction coordinator on account of any such
34 damage or Claim.
35
- 36 C. If CONTRACTOR is delayed at any time in performing or furnishing Work by any
37 act or neglect of another contractor, and OWNER and CONTRACTOR are unable
38 to agree as to the extent of any adjustment in Contract Times attributable thereto,
39 CONTRACTOR may make a Claim for an extension of times in accordance with
40 Article 12. An extension of the Contract Times shall be CONTRACTOR's
41 exclusive remedy with respect to OWNER, ENGINEER, and construction
42 coordinator for any delay, disruption, interference, or hindrance caused by any
43 other contractor. This paragraph does not prevent recovery from OWNER,
44 ENGINEER, ENGINEER's consultant, or construction coordinator for activities
45 that are their respective responsibilities.

1
2 **SC-8.11 Evidence of Financial Arrangements**
3

4 SC-8.11 Add the following new paragraph immediately after Paragraph 8.11.A:
5

- 6 B. On request of CONTRACTOR prior to the execution of any Change Order
7 involving a significant increase in the Contract Price, OWNER shall furnish to
8 CONTRACTOR reasonable evidence that adequate financial arrangements have
9 been made by OWNER to enable OWNER to fulfill the increased financial
10 obligations to be undertaken by OWNER as a result of such Change Order.
11

12 **SC-9.03 Project Representative**
13

14 SC-9.03 Add the following new paragraphs immediately after Paragraph 9.03.A:
15

- 16 B. The Resident Project Representative (RPR) will be ENGINEER's employee or
17 agent at the Site, will act as directed by and under the supervision of ENGINEER,
18 and will confer with ENGINEER regarding RPR's actions. RPR's dealings in
19 matters pertaining to the Work in general shall be with ENGINEER and
20 CONTRACTOR. RPR's dealings with Subcontractors shall be through or with the
21 full knowledge and approval of CONTRACTOR. The RPR shall:
22
- 23 1. *Schedules*: Review the progress schedule, schedule of Shop Drawing and
24 Sample submittals, and schedule of values prepared by CONTRACTOR
25 and consult with ENGINEER concerning acceptability.
 - 26 2. *Conferences and Meetings*: Attend meetings with CONTRACTOR, such
27 as preconstruction conferences, progress meetings, job conferences and
28 other project-related meetings, and prepare and circulate copies of minutes
29 thereof.
30
 - 31 3. *Liaison*:
32 a. Serve as ENGINEER's liaison with CONTRACTOR, working
33 principally through Contractor's authorized representative, assist in
34 providing information regarding the intent of the Contract
35 Documents.
36 b. Assist ENGINEER in serving as OWNER's liaison with
37 CONTRACTOR when Contractor's operations affect OWNER's
38 on-Site operations.
39 c. Assist in obtaining from OWNER additional details or information,
40 when required for proper execution of the Work.
41
 - 42 4. *Interpretation of Contract Documents*: Report to ENGINEER when
43 clarifications and interpretations of the Contract Documents are needed and
44 transmit to CONTRACTOR clarifications and interpretations as issued by
45 ENGINEER.

5. *Shop Drawings and Samples:*
 - a. Record date of receipt of Samples and approved Shop Drawings.
 - b. Receive Samples which are furnished at the Site by CONTRACTOR, and notify ENGINEER of availability of Samples for examination.
6. *Modifications:* Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report such suggestions, together with RPR's recommendations, to ENGINEER. Transmit to CONTRACTOR in writing decisions as issued by ENGINEER.
7. *Review of Work and Rejection of Defective Work:*
 - a. Conduct on-Site observations of CONTRACTOR's work in progress to assist ENGINEER in determining if the Work is in general proceeding in accordance with the Contract Documents.
 - b. Report to ENGINEER whenever RPR believes that any part of Contractor's work in progress will not produce a completed Project that conforms generally to the Contract Documents or will imperil the integrity of the design concept of the completed Project as a functioning whole as indicated in the Contract Documents, or has been damaged, or does not meet the requirements of any inspection, test or approval required to be made; and advise ENGINEER of that part of work in progress that RPR believes should be corrected or rejected or should be uncovered for observation, or requires special testing, inspection or approval.
8. *Inspections, Tests, and System Startups:*
 - a. Verify that tests, equipment, and systems start-ups and operating and maintenance training are conducted in the presence of appropriate OWNER's personnel, and that CONTRACTOR maintains adequate records thereof.
 - b. Observe, record, and report to ENGINEER appropriate details relative to the test procedures and systems start-ups.
9. *Records:*
 - a. Record names, addresses, fax numbers, e-mail addresses, web site locations, and telephone numbers of all CONTRACTORS, Subcontractors, and major Suppliers of materials and equipment.
 - b. Maintain records for use in preparing Project documentation.
10. *Reports:*
 - a. Furnish to ENGINEER periodic reports as required of progress of the Work and of CONTRACTOR's compliance with the progress schedule and schedule of Shop Drawing and Sample submittals.

- b. Draft and recommend to ENGINEER proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from CONTRACTOR.
- c. Immediately notify ENGINEER of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, damage to property by fire or other causes, or the discovery of any Hazardous Environmental Condition.

11. *Payment Requests:* Review Applications for Payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to ENGINEER, noting particularly the relationship of the payment requested to the schedule of values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.

12. *Certificates, Operation and Maintenance Manuals:* During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Specifications to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to ENGINEER for review and forwarding to OWNER prior to payment for that part of the Work.

13. *Completion:*

- a. Participate in a Substantial Completion inspection, assist in the determination of Substantial Completion and the preparation of lists of items to be completed or corrected.
- b. Participate in a final inspection in the company of ENGINEER, OWNER, and CONTRACTOR and prepare a final list of items to be completed and deficiencies to be remedied.
- c. Observe whether all items on the final list have been completed or corrected and make recommendations to ENGINEER concerning acceptance and issuance of the Notice of Acceptability of the Work.

C. The RPR shall not:

- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).
- 2. Exceed limitations of ENGINEER's authority as set forth in the Contract Documents.
- 3. Undertake any of the responsibilities of CONTRACTOR, Subcontractors, Suppliers, or Contractor's superintendent.
- 4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work unless such advice or directions are specifically required by the Contract Documents.

5. Advise on, issue directions regarding, or assume control over safety practices, precautions, and programs in connection with the activities or operations of OWNER or CONTRACTOR.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by ENGINEER.
7. Accept Shop Drawing or Sample submittals from anyone other than CONTRACTOR.
8. Authorize OWNER to occupy the Project in whole or in part.

SC-11.03 Unit Price Work

SC-11.03.D Delete Paragraph 11.03.D in its entirety and insert the following in its place:

- D. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
1. if the Bid price of a particular item of Unit Price Work amounts to 10 percent or more of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by CONTRACTOR differs by more than 25 percent from the estimated quantity of such item indicated in the Agreement; and
 2. if there is no corresponding adjustment with respect to any other item of Work; and
 3. if CONTRACTOR believes that CONTRACTOR has incurred additional expense as a result thereof or if OWNER believes that the quantity variation entitles OWNER to an adjustment in the unit price, either OWNER or CONTRACTOR may make a Claim for an adjustment in the Contract Price in accordance with Article 10 if the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

SC-12.01 Change of Contract Price

SC-12.01.C Contractor's Fee. Delete the semicolon at the end of GC 12.01.C.2.c, and add the following language:

, provided, however, that on any subcontracted work the total maximum fee to be paid by OWNER under this subparagraph shall be no greater than 27 percent of the costs incurred by the Subcontractor who actually performs the work;

SC-14.02 Progress Payments

SC-14.02.C.1. Delete Paragraph 14.02.C.1 in its entirety and insert the following in its place:

1. The Application for Payment with ENGINEER's recommendations will be presented to the OWNER for consideration. If the OWNER finds the Application for Payment acceptable, the recommended amount less any reduction under the provisions of Paragraph 14.02.D will become due in accordance with the Agreement ARTICLE 6 - PAYMENT PROCEDURES, and the OWNER will make payment to the CONTRACTOR.

SC-14.04 Substantial Completion

Delete Paragraph 14.04A from General Conditions in its entirety and insert the following:

A. In accordance with IAC§26.13, there are four triggers for deeming a project substantially complete. When any one of the four triggers below are met, CONTRACTOR shall notify OWNER and ENGINEER in writing that the entire Work is Substantially Complete (except for items specifically listed by CONTRACTOR as incomplete) and request that ENGINEER issue a Certificate of Substantial Completion.

1. The project has been substantially completed in general accordance with terms and provisions of the contract, or
2. The project is substantially complete so that the governmental entity can occupy or utilize the public improvements, or designated portion of the public improvement for its intended purpose. This trigger is not applicable to highway, bridge or culvert projects, or
3. The public improvement or the highway, bridge or culvert project has been designated substantially complete by the architect, or engineer, authorized to make such a certification, or the authorized contract representative, or
4. The project is substantially complete when the governmental entity is occupying or utilizing the public improvement for its intended purposes. This trigger does not apply to highway, bridge or culvert project.

SC-14.07 Final Payment

Add the following new paragraph immediately after Paragraph 14.07C.

D. Early Release of Retainage

1. In lieu of meeting the requirement for Final Completion as outlined in sections 14.06 and 14.07 in the General Conditions, and as modified in related contract documents, the CONTRACTOR may request Early Release of Retainage upon meeting the requirements for Substantial Completion identified under Section 14.04 of the Supplementary Conditions.

2. Prior to applying for the release of retained funds, the CONTRACTOR must notify all known subcontractors and suppliers that a request for the early release of retainage funds will be made to the public entity, and shall furnish releases or waivers as specified in Section 14.07 A.

a. Text of Notice shall be as follows:

“You are hereby notified that (name of contractor) will be requesting an early release of funds on a public improvement project or highway, bridge, or culvert project designated as (name of project) for which you have or may have provided labor or materials. The request will be made pursuant to Iowa Code Section 38.13. The request may be filed with (name of governmental entity) after ten calendar days from the date of this notice. The purpose of the request is to have (name of governmental entity) release and pay funds for all work that has been performed and charged to (name of governmental entity) as of the date of this notice. This notice is provided in accordance with Iowa Code Section 38.13”

3. Upon issuance of Certificate of Substantial Completion, the CONTRACTOR may apply for partial release of retained funds.

- a. The OWNER then has thirty days (30) to pay the retained funds. If such payment is not made, interest begins to accrue at a rate of prime plus one percent.
- b. At the time of the request for release of retainage, the OWNER has the right to retain an amount equal to two hundred percent of the value of labor or materials yet to be provided to complete the project and that amount may be withheld until such labor and materials are provided.
- c. The OWNER may also withhold from the retention twice the amount of any claims of sub contractors or suppliers which have been properly filed in compliance with current Iowa Administrative Code.
- d. Within the 30-day period herein identified, the OWNER shall pay the retained as stipulated. Should OWNER withhold payment of retention, OWNER shall provide an itemization of work to be done, or other justification for withholding of funds, within same 30 day stipulated period.

SC-16.01 Methods and Procedure

SC-16.01 Delete Paragraph 16.01.C in its entirety and insert the following in its place:

- C. If the Claim is not resolved by mediation, ENGINEER’s action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final

and binding 30 days after termination of the mediation unless, within that time period, OWNER or CONTRACTOR:

1. elects in writing to demand arbitration of the Claim, pursuant to Paragraph SC-16.02, or
2. agrees with the other party to submit the Claim to another dispute resolution process.

SC-16.02 Add the following new paragraph immediately after Paragraph 16.01.

SC-16.02 Arbitration

- A. All Claims or counterclaims, disputes, or other matters in question between OWNER and CONTRACTOR arising out of or relating to the Contract Documents or the breach thereof (except for Claims which have been waived by the making or acceptance of final payment as provided by Paragraph 14.09) including but not limited to those not resolved under the provisions of Paragraphs SC-16.01.A and 16.01.B will be decided by arbitration in accordance with the rules of The American Arbitration Association under the Construction Industry Mediation Rules of the American Arbitration Association, subject to the conditions and limitations of this Paragraph SC-16.02. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.
- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to ENGINEER for information. The demand for arbitration will be made within the 30 day period specified in Paragraph SC-16.01.C, and in all other cases within a reasonable time after the Claim or counterclaim, dispute, or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such Claim or other dispute or matter in question would be barred by the applicable statute of limitations.
- C. No arbitration arising out of or relating to the Contract Documents shall include by consolidation, joinder, or in any other manner any other individual or entity (including ENGINEER, and ENGINEER's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and

1 2. such other individual or entity is substantially involved in a question of law
2 or fact which is common to those who are already parties to the arbitration
3 and which will arise in such proceedings.
4

5 D. The award rendered by the arbitrator(s) shall be consistent with the agreement of
6 the parties, in writing, and include: (i) a concise breakdown of the award; (ii) a
7 written explanation of the award specifically citing the Contract Document
8 provisions deemed applicable and relied on in making the award.
9

10 E. The award will be final. Judgment may be entered upon it in any court having
11 jurisdiction thereof, and it will not be subject to modification or appeal, subject to
12 provisions of the Controlling Law relating to vacating or modifying an arbitral
13 award.
14

15 F. The fees and expenses of the arbitrators and any arbitration service shall be shared
16 equally by OWNER and CONTRACTOR.

SECTION 01 11 00

SUMMARY OF WORK

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. Grading and re-shaping of certain areas of the site for roadway paving, trail paving, and installation of baseball fields, soccer fields, sand volleyball courts, and concession structure.
- B. Installation of concession structure and associated utilities.
- C. Complete installation of 4 baseball fields including, but not limited to, skinned infield, turf outfield, fencing, irrigation system, and various baseball equipment items.
- D. Complete installation of 1 soccer field including, but not limited to, turf playing field, irrigation system, and various soccer equipment items. Also shall install turf playing field for second soccer field.
- E. Complete installation of 4 sand volleyball courts including, but not limited to, sand playing area, subdrain, and various sand volleyball equipment items.
- F. Roadway paving, trail paving, and parking lot paving.

END OF SECTION

SECTION 01 14 00

WORK RESTRICTIONS AND PROVISIONS

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS

- A. The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by the reference thereto.
1. Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways, current edition.
 2. State of Iowa, Department of Transportation, Standard Specifications for Highway and Structure Construction, Current Edition at time of bid opening.
 3. Iowa Statewide Urban Design and Specifications (SUDAS), current edition.

1.03 DESCRIPTION OF WORK (N/A)

1.04 RELATED WORK ELSEWHERE

- A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS (N/A)

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (N/A)

PART 2 PRODUCTS AND MATERIALS (N/A)

PART 3 CONSTRUCTION METHODS

3.01 EXAMINATIONS

- A. Contractor shall obtain complete data at the site and inspect surfaces that are to receive the work before proceeding with assembling, fitting or erecting his work under this contract. The Contractor shall notify the Engineer in writing in the case of discrepancies between existing work and drawings, and of any defects in surfaces that are to receive the Contractor's work. The Engineer will direct the remedy of applicable surfaces.
- B. Information pertaining to existing conditions that appear on the drawings is based on available records. While such data has been collected with reasonable care, there is no expressed or implied guarantee that conditions so indicated are entirely

representative of those actually existing or that unexpected developments may not occur. All data included was provided to assist the Contractor in the investigation of conditions. The Contractor is responsible for the interpretation of the data provided.

C. The Contractor shall become acquainted with the location of underground service, utilities, structures, etc., which may be encountered or be affected by the Contractor's work, and shall be responsible for any damage caused by neglect to provide proper precautions or protection.

D. Utility Locations. Contractor shall be responsible for locating and verifying all utilities on the project and also all relocations where necessary. Typically the utilities require the request for locate be made a minimum of three working days before the Contractor begins work in the area. The utilities shown on the contract drawings are approximate in location, depth, number, and type.

E. Contractor shall verify grades, lines, levels, locations, and dimensions as shown on drawings and report any errors or inconsistencies to the Engineer before commencing work. Starting of work by the Contractor shall imply acceptance of existing conditions.

3.02 STORAGE AND HANDLING

A. Contractor or the Contractor's authorized representative must be present to accept delivery of all equipment and material shipments. The Owner's employees will not knowingly accept, unload, or store anything delivered to the site for the Contractor's use. Inadvertent acceptance of delivered items by any representative of the Owner shall not constitute acceptance or responsibility to assume all liability for any equipment or material delivered to the job site.

B. Any material or equipment removed from the present construction shall be the property of the Owner and disposition shall be as directed by the Owner or stockpiled at locations shown on the contract drawings. All salvaged materials shall be removed in a workmanlike manner and carefully transported to Owner's storage area. The Contractor shall coordinate the salvaging of items with the Owner.

C. Contractor shall confine all operations, equipment, apparatus, and storage of materials to the immediate area of work to the greatest possible extent. Contractor shall ascertain, observe, and comply with all rules and regulations in effect on the project site, including, but not limited to parking and traffic regulations, use of walks, security restrictions and hours of allowable ingress and egress.

D. The storage of materials on the grounds shall be in strict accordance with the instructions of the Owner.

1. All materials affected by moisture shall be stored on platforms and protected from the weather in accordance with manufacturer recommendations.

2. Should it be necessary at any time to move material storage platforms, the Contractors shall move same at the Contractor's expense, when directed by the Owner.

3. Areas used for storage of materials shall be repaired and restored by the Contractor.

E. The Owner assumes no responsibility for materials stored on the site. The Contractor shall assume full responsibility for damage due to the storage of materials.

F. During the construction of this project, materials, storage areas, and earth stockpiles shall be located so as not to interfere with the installation of the utilities nor cause damage to existing structures or utilities.

3.03 WORK RESTRICTIONS AND PROVISIONS

A. Notification. The Contractor shall notify the Owner and the Engineer 72 hours in advance of beginning work. Notice must also be given to the Owner and the Engineer for each subsequent day the Contractor will be working.

B. Operation During Construction. The existing facilities shall remain completely operational during construction. The Contractor shall be responsible to see that the facilities are operating as they should. Sequence of operations or place of commencement may be determined by the Engineer as deemed to best serve the needs and convenience of the Owner, or as necessity of occasion requires.

C. Starting of work implies acceptance of the work of others. Removal and replacement of work applied to defective surfaces, in order to correct defects, shall be done at the expense of the Contractor who applied work to defective surfaces.

D. Access to Work. Representatives of the State and Federal Regulatory Agencies and Owner shall have access to the work and on-site records at all times.

E. Project Log. A project log shall be maintained showing daily progress of work. Engineer and Owner shall have access to this logbook and the project schedule at all times.

F. Existing pipes, electrical work, and all other utilities encountered, which may interfere with new work, shall be rerouted, capped, cut off, or replaced by the Contractor.

G. Dust and Noise. Contractor shall make an effort to keep dust and noise to a minimum during construction. The dispersion of dust from construction related activities shall, until acceptance of work, be minimized by the application of water or other acceptable materials or covers. Noise from any construction activities shall only be allowed during approved working hours. This includes preparation, organizational and clean-up work. Work hours are limited to weekdays between 7 a.m. and 7 p.m. unless specifically stated elsewhere in these specifications or

approved during construction by the Owner and Engineer in writing. Only maintenance of traffic and/or erosion control activities are allowed outside of these times.

H. Contractor shall confine equipment, apparatus, storage of materials and operations to limits by specific direction of the Owner or Engineer and shall not bring material onto the site until they are needed for the progress of the work.

I. Cleaning. Contractor shall be responsible for all cleaning required within the technical sections of the specifications governing work under the Contractor's jurisdiction as well as for keeping all work areas, passageways, and all other areas of the premises free of rubbish, debris and scrap which may be caused by the Contractor's operations or that of the Subcontractors.

1. Remove rubbish, debris, and scrap promptly upon its accumulation and in no event later than the end of each week.
2. Combustible waste shall be removed immediately or stored in fire resistive containers until disposed of in an approved manner.
3. Spillage of oil, grease, or other liquids which could cause a slippery or otherwise hazardous situation or stain a finished surface, shall be cleaned up immediately.
4. Dust, dirt, and other foreign matter shall be removed completely from all internal surfaces of all mechanical and electrical units, cabinets, ducts, pipes, etc.
5. Dirt, soil, fingerprints, stains and the like, shall be completely removed from all exposed finished surfaces.
6. If rubbish and debris is not removed, or surfaces cleaned as specified above, the Owner reserves the right to have said work done by others and the related cost(s) will be deducted from monies due the Contractor.

J. Disposal of Demolished Materials. Remove from the site all debris, rubbish, and other materials resulting from demolition operations. Storage of removed materials will not be permitted on the site. If burning is allowed, the Contractor shall obtain all required permits.

K. Mail Service.

1. Temporary relocation of mailboxes. If the Postal Carrier cannot deliver mail to the properties affected by the construction of utilities or roadway, the Contractor shall provide temporary mailboxes or shall relocate existing mailboxes to an accessible site. Contractor shall relocate mailboxes to their new location and set to proper height, as directed by an authorized representative of the US Postal Service. Mailboxes shall be reset as close to original location as possible, unless otherwise noted, while maintaining proper height and location requirements of the US Postal Service, upon restoration of regular postal service. If mailboxes, bases or posts are damaged during removal, it shall be the Contractor's responsibility to replace the damaged part prior to reinstallation. Contractor shall not be

1 responsible for correction of existing deficient mailboxes, bases, or posts.
2 Owner and Engineer shall be notified of such instances immediately.

- 3 2. Final relocation of mailboxes. If the Postal Carrier can deliver mail to
4 affected properties during construction, Contractor shall maintain
5 reasonable access to said mailboxes. Upon completion of the project,
6 Contractor shall relocate mailboxes to a location and height that meets the
7 US Postal Service requirements along affected roadways.

- 8 L. Street Signs. The Contractor shall salvage and reinstall all signs affected by
9 construction. All signs to be removed shall be done in a workmanlike manner and
10 carefully transported to Owner's storage area. If signs, sign bases or posts are
11 damaged during removal, it shall be the Contractor's responsibility to replace said
12 sign, base or post prior to reinstallation.

- 13 M. Garbage Collection. Garbage and/or recycling collection will continue throughout
14 the project. Contractor shall provide temporary access to garbage vehicles
15 throughout the project area or assist with garbage collection in areas inaccessible
16 to vehicular traffic during the project.

17 3.04 OPERATION AND PROTECTION

- 18 A. Contractor shall schedule his work as to minimize the inconvenience to the Owner
19 and residents adjacent to the project.

- 20 B. Traffic Control. The Contractor shall meet the requirements for traffic control in
21 accordance with the Manual on Uniform Traffic Control Devices. All structures
22 and equipment shall be constructed, installed, and operated with guards, controls,
23 and other devices in place.

- 24 C. The Contractor shall provide protection as follows:

- 25 1. Protection. The Contractor shall provide and maintain proper barricades,
26 fences, signal lights, or watchmen to properly protect the work, persons,
27 animal and property against injury. The cost of protection shall be
28 incidental to the contract and no extra payment will be allowed therefore.
29 2. Provide, erect, and maintain all required barricades, guard rails, temporary
30 walkways, etc., of sufficient size and strength necessary for protection of
31 stored material and equipment; adjacent to or within project area; adjoining
32 property and the building(s) as well as to prevent accidents to the public and
33 the workmen at the job site.
34 3. Provide and maintain proper shoring and bracing for existing underground
35 utilities encountered during excavation work, to protect them from collapse
36 or other type of damage until such time as they are to be removed,
37 incorporated into the new work, or can be properly backfilled upon
38 completion of new work.
39 4. Provide protection against rain, snow, wind, ice, storms or heat so as to
40 maintain all work, materials, apparatus, and fixtures, incorporated in the
41 work or stored on the site, free from injury or damage. At the end of the

- day's work, cover all new work likely to be damaged. Remove snow and ice as necessary for safety and proper execution of the work.
5. Protect the building and foundations from damage at all times from rain and groundwater. Provide all equipment and enclosures as necessary to provide this protection.
 6. Damaged property shall be repaired or replaced in order to return it to preconstruction conditions.
 7. Protect materials, work, and equipment, not normally covered by above protection, until construction proceeds to a point where the general building protection of the area where located, dispenses with the necessity therefore. Protect work outside of the building lines such as trenches and open excavations, as specified above.
 8. Take any and all necessary precautions to protect Owner's property as well as adjacent property, including trees, shrubs, buildings, sanitary sewers, water piping, gas piping, electric conduit or cable, etc., from any and all damage which may result due to work on this project.
 9. Repair work outside of property line in accordance with the requirements of the authority having jurisdiction.
 10. Repair any work damaged by failure to provide proper and adequate protection to its original state to the satisfaction of the Owner or remove and replace with new work at the Contractor's expense.
 11. Tree Protection. Trees shall be protected from damage and scarring. Do not injure trunks, branches, or roots of trees that are to remain. No trees shall be removed without the approval of the Owner. Tree branches in the way of construction operations shall be carefully pruned prior to construction. Do cutting and trimming only as approved and as directed by the Owner. Do not operate equipment or vehicles within the drip line of a tree to be preserved. Any roots exposed during construction shall be cut clean. Ripping of the roots with excavation equipment shall not be allowed.
 12. All survey monuments, property stakes, etc., which are encountered during the construction are to be preserved and undisturbed. The Engineer shall be notified of all such items immediately upon discovery. Failure to preserve such monuments will not be allowed and replacement shall be at the Contractor's expense.

PART 4 MEASUREMENT AND PAYMENT

4.01 GENERAL

- A. Work restrictions and provisions shall be paid for at the bid price in accordance with one of the following methods, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.
- B. All work specified herein shall be considered in each of the measurement and payment method(s) stipulated, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.

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A.

END OF SECTION

SECTION 01 31 13

PROJECT COORDINATION

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. The General Contractor or his appointed representative shall act as the project coordinator. He shall generally be charged with all duties of a project coordinator including, but not limited to, being responsible for conditions of the contract, administrative requirements, subcontractor's scheduling and cooperation, compliance with specifications and drawings, and all other work related requirements.

- B. Contractor shall coordinate the work with adjacent work and shall cooperate with all other Contractors so as to facilitate the general progress of the work. Each Contractor shall afford all other Contractors every reasonable opportunity for the installation of their work and for the storage of their material. In no case will any Contractor be permitted to exclude from the premises or work, any other Contractor or employees thereof, or interfere with any Contractor in the executing or installation of the work.

- C. Each Contractor shall perform its work in proper sequence in relation to that of other Contractors and as approved by the Engineer. Any cost caused by defective or ill-timed work shall be borne by the Contractors responsible therefore.

- D. Contractor shall arrange the work and dispose of materials so as not to interfere with the work or storage of materials of others and each shall join their work to that of others in accordance with the intent of the drawings and specifications.

- E. All Contractors shall work in cooperation with each other and fit their work into the structure as job conditions may demand. All final decisions as to right-of-way and run of pipes and ducts, etc., shall be made by the Engineer or the Owner.

- F. It shall be the responsibility of the Contractor to keep constant check on the progress of the work so that each particular trade can insure proper preparation for installation of that Contractor's work and not cause delay in the progress of the work. It shall further be the responsibility of the Contractor to periodically make inspections of work in progress and to notify the Engineer when work is complete in compliance with specifications and drawings.

1 G. A project log shall be maintained showing daily progress of work. The Engineer
2 and Owner shall have access to this log book and the project schedule at all times.

3 1.04 RELATED WORK ELSEWHERE

4 A. Procurement and Contracting Requirements - Division 00 (All Sections)

5 1.05 SUBMITTALS (NONE)

6 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

7 PART 2 PRODUCTS AND MATERIALS (N/A)

8 PART 3 CONSTRUCTION METHODS (N/A)

9 PART 4 MEASUREMENT AND PAYMENT (N/A)

10
11 END OF SECTION

SECTION 01 31 19

PROJECT MEETINGS

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. Preconstruction Meeting. A Preconstruction Meeting will be scheduled and conducted by the Engineer and shall be attended by representatives of the Owner, Contractor and all subcontractors as deemed required by the Engineer. The purpose of the meeting will be to identify all project participants, review project requirements and specifications, establish the method of making pay requests and other matters that may be deemed necessary to be discussed. At this meeting, the Contractor shall submit the proposed construction schedule for review, consensus by the parties and approval. The Contractor shall also submit a schedule of values for the work to be used as the accounting format for all progress payments.

- B. Construction Progress Meetings. Brief weekly meetings, as deemed necessary by the Engineer, will be held and shall be attended by all Contractors. The purpose of the meeting will be to coordinate work schedules, review the project progress and other matters that may be deemed necessary to be discussed.

1. A construction progress meeting agenda shall be prepared as deemed necessary by the Engineer. The Contractor is encouraged to prepare a schedule for proposed activities and an abstract of completed activities for progress meetings to assist the engineer and to expedite meetings.
2. All construction progress meeting attendees shall be fully prepared prior to the meeting and shall be ready to discuss issues raised as they relate to their work. This shall include, but not be limited to, providing revised schedules, milestone activities, specific requirements for subordinate construction and any proposed or completed changes required for their work.

1.04 RELATED WORK ELSEWHERE

- A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS (NONE)

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

- 1 PART 2 PRODUCTS AND MATERIALS (N/A)
- 2 PART 3 CONSTRUCTION METHODS (N/A)
- 3 PART 4 MEASUREMENT AND PAYMENT (N/A)
- 4
- 5 END OF SECTION

SECTION 01 32 16

CONSTRUCTION PROGRESS SCHEDULE

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. Submit preliminary Construction Progress Schedule in accordance with General Conditions prior to pre-construction conference.

- B. The Contractor shall comply with and the Work shall be completed in accordance with the following construction schedule:

1. Award Contract (April 7th - Tentative)
2. Milestone A Substantial Completion. Milestone A shall be completed by June 15, 2020. Milestone A shall include all skinned infield installation and turf outfield seeding, excluding final turf restoration and project closeout.
3. Substantial Completion. Substantial completion shall be completed by October 30, 2020. Substantial completion shall include all remaining project work other than Milestone A.
4. Final Completion. The project shall be completed by November 30, 2020. Final Completion shall include final project closeout punchlist.
5. Within 30 days of final completion, submit final project closeout documentation inclusive of lien waivers, affidavit of compliance with prevailing wage rate determination, and final pay request.

1.04 RELATED WORK ELSEWHERE

- A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS

- A. Furnish four (4) copies of preliminary schedule, and subsequent revisions thereof, to Engineer three (3) days before each progress meeting.

- B. Within three (3) days after monthly progress meetings, furnish four (4) copies of revised schedule to Engineer. Furnish revised schedule to Subcontractors as appropriate.

- C. Failure to submit schedules on a timely basis shall be considered cause for withholding progress payments.

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

PART 2 PRODUCTS AND MATERIALS (N/A)

PART 3 CONSTRUCTION METHODS

3.01 FORM OF SCHEDULE

A. Prepare schedule in form of horizontal bar chart.

1. Provide separate horizontal bar for each trade, activity or operation.
2. Provide continuous vertical line to identify first working day of each week.
3. Scale and space to allow for notations and future revisions.

3.02 CONTENT OF SCHEDULE

A. Show complete sequence of construction by activity or operation.

B. Show dates for beginning and completion of each major element of construction and installation dates for major equipment items. Include:

1. Each individual task of construction.
2. Procurement of equipment and systems including Shop Drawing submittals, Engineer's review of submittals, shop tests, and delivery dates.
3. Identification of Work that will affect existing plant operations.
4. Services of manufactures' representatives.
5. Startup dates for major equipment.
6. Field tests.
7. Dates of Substantial and Final completion.
8. Subcontractor Work items.
9. MBE, WBE, and SBE activities.
10. O&M data activities
11. Contractor-provided training.

C. Show projected percentage of completion for each activity as of first day of each month.

3.03 REVISIONS TO SCHEDULE

A. Each month Contractor shall receive update information from Subcontractors and Suppliers that shall be included in current schedule. Revised schedule shall indicate changes such as:

1. Major changes in scope.
2. Activities modified since previous submittal.
3. Revised projections of progress and completion.
4. Other identifiable changes.

B. Provide narrative report to define following:

1. Problem area and anticipated delays and their impact on schedule.
2. Corrective action recommended and its effect.

3.04 MONTHLY PROGRESS MEETINGS

- A. Once each month Construction Progress Schedule will be reviewed. Progress will be reviewed:
 - 1. To identify those activities started and completed during previous period.
 - 2. For remaining duration required to complete each activity started, but not completed.
 - 3. For durations of selected activities not yet started.
 - 4. For effect of Change Orders and proposed sequencing.
- B. Update schedule accordingly.

3.05 DELAYS AND RECOVERY

- A. If, at any time during the Project, Contractor fails to complete activity by its latest scheduled completion date, Contractor shall, within five (5) working days, submit to Engineer written statement as to how and when work force will be reorganized to return to current construction schedule.
- B. If, during schedule review meetings, it becomes apparent that milestone completion dates or Contract completion dates will not be met, Contractor shall take some or all of the following actions:
 - 1. Increase construction staffing in such quantities and crafts as shall eliminate backlog of Work.
 - 2. Increase number of working hours per shift, shifts per day, Work days per week, amount of construction equipment or combination of foregoing sufficient to substantially eliminate backlog of Work.
 - 3. Reschedule Work activities to achieve concurrency of accomplishment
- C. Under no circumstances will addition of equipment or construction forces, increasing working hours or other method, manner or procedure to return to current Construction Progress Schedule be considered justification for Contract modification or treated as acceleration.

PART 4 MEASUREMENT AND PAYMENT

4.01 CONSTRUCTION PROGRESS SCHEDULE

- A. General. Construction Progress Schedule shall be paid for at the bid price in accordance with one of the following methods, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.
 - 1. Construction Progress Schedule, Lump Sum. When so provided, payment for construction progress schedule shall be made at the contract lump sum price bid or as specified in Special Procedures - Division 01.
 - 2. Construction Progress Schedule, Inclusive. When no quantity is provided, construction progress schedule shall be considered inclusive to payment for work associated with administration.

SECTION 01 32 23

SURVEY AND LAYOUT DATA

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

A. Applicable provisions of Division 1 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

A. The Engineer shall supply all line and grade staking necessary for grading, storm sewer, sanitary sewer, paving, and fencing. Stakes shall be placed once respectively for each utility as well as grading and paving activities. CONTRACTOR shall be responsible for replacement of any stakes negligently disturbed as determined by the ENGINEER.

B. CONTRACTOR shall give ENGINEER 72 hour notice when staking is required.

C. CONTRACTOR shall immediately upon entering the site for purpose of beginning work, locate general reference points and take such action as necessary to prevent their destruction. CONTRACTOR must exercise proper precaution to verify accuracy of stakes in relation to dimensions on plan drawings and respective to the existing conditions in the field and will be held responsible for any error resulting from failure to exercise such precaution.

D. All concrete forms and string lines shall be observed and approved in the field by ENGINEER or OWNER prior to concrete placement. CONTRACTOR shall provide 24 hour notice of any anticipated formwork inspection. CONTRACTOR shall be responsible for all costs associated with any removals, adjustments, or modifications required for flatwork placed without ENGINEER or OWNER approval of formwork.

1.04 RELATED WORK ELSEWHERE

A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS (NONE)

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

PART 2 PRODUCTS AND MATERIALS (N/A)

PART 3 CONSTRUCTION METHODS (N/A)

1 PART 4 MEASUREMENT AND PAYMENT

2

3

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. The work under this section shall cover furnishing submittal information as required by the contract drawings, other specification sections and as specified herein.

1.04 RELATED WORK ELSEWHERE

- A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS

- A. As soon as possible after Notice to Proceed, submit brochures of catalog cuts and specifications for all new equipment. Submittal of product data shall comply with the requirements for shop drawings.
- B. Prior to fabrication or installation, submit shop drawings for approval. Each submittal shall consist a minimum of five copies directed to the Engineer. Three will be retained, of which one will be transmitted to the Owner, and two will be returned to the Contractor. Should more than two copies of approved shop drawings be necessary for Contractor's use and distribution, Contractor shall supply additional sufficient number of shop drawings for review as required.
- C. Shop drawings shall include layout details, schedules, setting instructions, and manufacturer's literature. Concrete reinforcing steel shop drawings shall include a concrete pouring sequence for structures with vertical construction joints.
1. Shop drawings shall be identified with the name of the project, numbered consecutively and bear the stamp of approval of the Contractor as evidence that all drawings have been checked by the Contractor for accuracy and compatibility with contract requirements. Drawings not so checked and noted will be returned without being examined.
 2. Partial lists will not be considered; shop drawings for each part of work shall be complete in one submittal.

- 1 D. If information on previously submitted shop drawings is altered, in addition to the
2 notations made by the Engineer, the Contractor shall bring all changes to the
3 attention of the Engineer. Corrections or changes indicated on reviewed shop
4 drawings shall not be considered an order for extra work.
- 5 E. Shop drawings will not be considered reviewed unless they bear the stamp of
6 approval and signature of the Engineer. Drawings will be reviewed for general
7 design only. Dimensions and fit of units of various parts shall be the Contractor's
8 responsibility.
- 9 F. Prior to work at the site, submit samples allowing reasonable time for review and
10 testing. Submit samples in sufficient quantity (minimum of five), of adequate size
11 showing quality, type, color range, finish and texture. Label each sample stating
12 material, description, applicable specification sections, intended use, project
13 name, and Contractor's name.
- 14 G. Order no materials subject to sample review until receipt of written shop drawing
15 review. Materials installed shall match reviewed samples. No review of samples
16 shall be taken in itself to change or modify contract requirements beyond the
17 expressed stipulations of the review letter.
- 18 H. All shop drawings for major equipment must be reviewed and delivery dates
19 scheduled prior to performing any work at the site. A revised work schedule shall
20 be submitted weekly showing corrected delivery dates.

21 1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS

- 22 A. Prior to substantial completion, the Contractor shall provide the Engineer with
23 four operation and maintenance manuals covering each item of equipment
24 furnished or installed under his contract as follows:
- 25 1. Supplier and manufacturer's name, address, telephone number, and local
26 representative's name, address and telephone number. Sources of service
27 and parts and a list of local repair services, supply houses and potential
28 sources for the types of repairs and equipment parts.
 - 29 2. Complete and accurate set of as-built drawings including drawing
30 dimensions, schematics of hydraulics, wiring, and piping.
 - 31 3. Warranties and bonds shall be included in manual.
 - 32 4. Catalog literature complete with test data and performance data and
33 ratings.
 - 34 5. Specify equipment function, normal operating and limiting conditions.
 - 35 6. Assembly, installation, alignment, adjusting and checking instructions.
 - 36 7. Operating instructions for start-up, shutdown, routine and normal
37 operation.
 - 38 8. Emergency operating instructions indicating range and flexibility during
39 emergencies.

9. Detailed service information including schedule of recommended maintenance.
10. Troubleshooting, common operating problems, problems that might occur in unit/process. List probable causes and discuss control/prevention.
11. Detailed safety section covering the operation and maintenance of unit. Contractor shall supply a complete list of equipment service numbers, model numbers, electrical requirements, manufacturer's names, etc.
12. The correct model number shall be designated where the literature covers more than one model.
13. For items assembled by the Contractor, the Contractor shall write and provide duplicate operation and maintenance instructions.
14. Data shall be folded to 8-1/2 inch x 11 inch size and placed into hard cover binders. Material shall be grouped according to specifications section and filed behind individual filing tab pages on which the following is to be typed: Item, Manufacturer, Contractor's Order Number, Supplier's Order Number, Manufacturer's Order Number.
15. Manuals shall be delivered to the Engineer for approval prior to job completion.

1.07 PERMITS AND APPROVALS

- A. Obtain and submit copies of all permits, code inspections, and approval documents, as specified.

1.08 CONSTRUCTION SCHEDULE

- A. Submit a minimum of five copies of a schedule of operation prior to construction. The schedule shall provide for activities of the various trades and shall be sequenced to provide a minimum of interruption to the operation of existing facilities. Allow ample time for the Owner to alter operations as required by the construction of the various components of the work. Revised and updated construction schedule shall be provided throughout the construction as deemed necessary and requested by the Engineer.
- B. The construction schedule shall be supplemented by a list of shop drawings, dates they will be submitted for approval and a reasonable time allowance for review.

1.09 START-UP REPORTS

- A. Where equipment startup by a factory-trained representative is required, a minimum of three copies of the start-up report shall be submitted which describe the representative's activities and installation approval.
 1. Start-up report shall be a typewritten document containing descriptive information specifically identifying the piece by equipment, all tests conducted and the results of the tests.

2. Start-up role log, with the dated signatures of those conducting and accepting all start-up instructions and tests shall be provided as part of the report.

B. Substantial completion will not be issued until all start-up reports have been submitted.

1.10 RECORD DRAWINGS

A. The Engineer will provide the Contractor with a suitable set of contract drawings on which daily records of changes and deviations from contract shall be recorded. All buried or concealed piping, conduit, or similar items shall be located by dimensions and elevations on the record drawings.

1. The daily record of changes shall be the responsibility of Contractor's field superintendent. No arbitrary mark-ups will be permitted.

2. At completion of the project, the Contractor shall submit the marked-up record drawings to the Owner.

PART 2 PRODUCTS AND MATERIALS (N/A)

PART 3 CONSTRUCTION METHODS (N/A)

PART 4 MEASUREMENT AND PAYMENT

4.01 SUBMITTALS

A. General. Submittals shall be paid for at the bid price in accordance with one of the following methods, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.

1. Shop Drawings, Inclusive. The cost for all submittals as shop drawings and samples shall be considered inclusive to payment for work in the respective equipment or associated construction or utility, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.

2. Operation/Maintenance Manuals and Instructions, Inclusive. The cost related to obtaining and submitting Operations/Maintenance Manuals and Instructions as specified shall be considered inclusive to payment for work scheduled under this contract. Final payment will not be certified until manuals have been received and approved.

3. Construction Schedule, Inclusive. The cost for the construction schedule shall be considered inclusive to the payment for work associated with construction, unless otherwise indicated in the Bid Schedule or Special Procedures - Division 01.

4. Start-up Reports, Inclusive. The cost for all submittals as start-up reports and samples shall be considered inclusive to payment for work in the respective equipment or associated construction or utility, unless indicated otherwise in the Bid Schedule or Special Procedures - Division 01.

5. Record Drawings, Inclusive. The cost for the record drawings shall be considered inclusive to the payment for work associated with construction, unless otherwise indicated in the Bid Schedule or Special Procedures - Division 01.

4.02 PERMITS AND APPROVALS, INCLUSIVE

A. The cost related to obtaining all permits, code inspections and approval documents as specified shall be considered inclusive to payment for work specified under this contract, unless otherwise indicated in the Bid Schedule or Special Procedures - Division 01.

END OF SECTION

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES SUBMITTAL LOG

Page 1 of 2

PROJECT: WELLNESS PARK BALL FIELDS AND ROADWAY

MSA PROJECT NO: 10322002-1C

CONTRACTOR:

Spec Section #	Spec Section Title/Product	Date Rec'd	Min. # Req'd	# Submitted	Submittal/Revision #	Referred		Date Reviewed	Action					# copies to			
						To	Date Sent		Reviewed with no Comments	Reviewed with Comments as Noted	Amend and Resubmit	Rejected	Date Ret'd	Contractor	Owner	Field	File
SUDAS	Concrete Accessories		6														
SUDAS	Concrete Reinforcing		6														
SUDAS	Cast-In-Place Concrete		6														
SUDAS	Geosynthetics for Earthwork		6														
SUDAS	Riprap		6														
SUDAS	Concrete Sidewalk, Steps and		6														
SUDAS	Concrete Curb and Gutter		6														
SUDAS	Pavement Markings		6														
SUDAS	Chain Link Fences and Gates		6														
SUDAS	Topsoil Placement Grading		6														
SUDAS	Seeding		6														
SUDAS	Sanitary Sewer Testing and		6														
SUDAS	Manhole Sealing		6														

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES SUBMITTAL LOG

Page 2 of 2

PROJECT: WELLNESS PARK BALL FIELDS AND ROADWAY

MSA PROJECT NO: 10322002-1C

CONTRACTOR:

Spec Section #	Spec Section Title/Product	Date Rec'd	Min. # Req'd	# Submitted	Submittal/Revision #	Referred		Date Reviewed	Action					# copies to			
						To	Date Sent		Reviewed with no Comments	Reviewed with Comments as Noted	Amend and Resubmit	Rejected	Date Ret'd	Contractor	Owner	Field	File
SUDAS	Precast Concrete Utility Structures		6														
SUDAS	Water Utilities		6														
SUDAS	Water Utility Distribution Piping		6														
SUDAS	Water Utility Distribution Equipment		6														
SUDAS	Public Sanitary Utility Sewerage		6														
SUDAS	Public Storm Utility Drainage		6														
SUDAS	Storm Drainage Manholes, Frames, and Covers		6														

1 SECTION 01 35 00

2
3 SPECIAL PROCEDURES

4
5 CONTENTS: Work under this section is intended to supplement and/or modify the individual
6 specifications. This section does not relieve the Contractor from fulfilling all items in said
7 sections.

8 DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS

9 00.01 SPECIFICATION EXPLANATION

- 10 A. The governing specifications for this work shall be the 2020 Edition of the
11 SUDAS Standard Specifications. The Special Procedures items will supplement
12 or supersede the standard specifications, and are noted for each item in the
13 Estimate Reference Table in the plan set.

14 00.02 BID QUANTITIES

- 15 A. All Bid Quantities are estimated. The Contractor shall field verify all quantities
16 and work prior to submitting a Bid. Final quantities shall be adjusted to reflect
17 the field installed quantities. The unit price in the Bid shall not be adjusted
18 though final quantities may vary. Lump sum prices shall not be adjusted. The
19 Engineer's estimate of quantities as shown in the Bid is approximate and the right
20 is reserved by the Owner to increase or decrease said quantities.

21 DIVISION 01 - GENERAL REQUIREMENTS

- 22 A. Vehicular access to all properties must be maintained throughout construction
23 Contractor shall use aggregate surfacing per the estimate reference to maintain
24 driveway during utility construction.
- 25 B. The project site shall be left as clean as is practicable at the end of each working
26 day, with no trash or piles of debris visible on site.
- 27 C. Protection of Excavations – Incidental to the work, all excavations, when not
28 directly under construction, shall be securely fenced to prevent entry by and
29 potential injury to workers and the public.
- 30 D. Shop Drawings – Information and cut sheets on all materials and products to be
31 used on the project shall be supplied to the City for review prior to incorporating
32 them into the project.
- 33 F. Utility Relocation – Contractor shall be responsible for coordinating with utilities
34 as necessary to facilitate moving of existing utilities.

1 01.02 01 41 26 PERMITS

A. The acquisition of an NPDES General Permit No.2 has been acquired and is located in Appendix A of the project manual. CONTRACTOR and subcontractors shall be required to sign certification on SWPPP plan sheet.

6 END OF SECTION

SECTION 01 41 26

PERMITS

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

A. The Contractor shall comply in all ways with the requirements of the following permits:

I. Iowa NPDES General Permit No.2

1.04 RELATED WORK ELSEWHERE

A. Procurement and Contracting Requirements - Division 00 (All Sections)

1.05 SUBMITTALS (NONE)

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

PART 2 PRODUCTS AND MATERIALS (N/A)

PART 3 CONSTRUCTION METHODS (N/A)

PART 4 MEASUREMENT AND PAYMENT (N/A)

END OF SECTION

SECTION 01 45 00

QUALITY CONTROL

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. The work under this section shall cover all labor, materials, tools and equipment necessary for quality control for all work performed under this contract as indicated on the contract drawings, other specification sections and specified herein.

1.04 RELATED WORK ELSEWHERE

- A. Procurement and Contracting Requirements - Division 00 (All Sections)

- B. Submittals - Division 01

- C. Material and Equipment - Division 01

1.05 SUBMITTALS (NONE)

1.06 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS (NONE)

1.07 QUALITY ASSURANCE

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce work of specified quality.

- B. Comply with manufacturers' instructions, including each step in sequence.

- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Engineer before proceeding.

- D. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

- E. Perform work by persons qualified to produce workmanship of specified quality.

- 1 F. Secure products in place with positive anchorage devices designed and sized to
2 withstand stresses, vibration, physical distortion, or disfigurement.

3 1.08 TOLERANCES

- 4 A. Monitor tolerance control of installed products to produce acceptable work. Do
5 not permit tolerances to accumulate.
- 6 B. Comply with manufacturers' tolerances. Should manufacturers' tolerances
7 conflict with Contract Documents, request clarification from Engineer before
8 proceeding.
- 9 C. Adjust products to appropriate dimensions; position before securing products in
10 place.

11 1.09 REFERENCES

- 12 A. For products or workmanship specified by association, trade, or other consensus
13 standards, comply with requirements of the standard, except when more rigid
14 requirements are specified or are required by applicable codes.
- 15 B. Conform to reference standard by date of issue current on date of Contract
16 Documents, except where a specific date is established by code.
- 17 C. Obtain copies of standards where required by product specification sections.
- 18 D. The contractual relationship, duties, and responsibilities of the parties in Contract
19 nor those of the Engineer shall not be altered from the Contract Documents by
20 mention or inference otherwise in any reference document.

21 1.10 MOCK-UP

- 22 A. Tests will be performed under provisions identified in this section and identified
23 in the respective product specification sections.
- 24 B. Assemble and erect specified items with specified attachment and anchorage
25 devices, flashings, seals, and finishes.
- 26 C. Accepted mock-ups are representative of the quality required for the work.
- 27 D. Where mock-up has been accepted by Engineer and is specified in product
28 specification sections to be removed; remove mock-up and clear area when
29 directed to do so.

1.11 INSPECTING AND TESTING LABORATORY SERVICES

- A. Owner will appoint the services of an independent firm to perform inspecting and testing. Owner shall contract and pay for services.
- B. The independent firm will perform inspections, tests, and other services specified in individual specification sections and as required by the Engineer or the Owner.
- C. Inspecting, testing, and source quality control may occur on or off the project site. Perform off-site inspecting or testing as required by the Engineer or the Owner.
- D. Reports will be submitted by the independent firm to the Engineer indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- E. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm 24 hours prior to expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional samples and tests required for Contractor's use.
- F. Testing or inspecting does not relieve Contractor to perform Work to contract requirements.
- G. Retesting required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the Engineer. Payment for retesting will be charged to the Contractor by deducting inspecting or testing charges from the Contract Sum/Price.

1.12 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, and test, adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- C. Submit report within 30 days of observation to Engineer for information.

1 PART 2 PRODUCTS AND MATERIALS (N/A)
2 PART 3 CONSTRUCTION METHODS (N/A)
3 PART 4 MEASUREMENT AND PAYMENT (N/A)
4
5 END OF SECTION

SECTION 01 77 00

CLOSEOUT PROCEDURES

PART 1 GENERAL

1.01 APPLICABLE PROVISIONS

- A. Applicable provisions of Division 01 shall govern work of this section.

1.02 APPLICABLE PUBLICATIONS (NONE)

1.03 DESCRIPTION OF WORK

- A. The work under this section shall cover: starting of systems; demonstration and instructions; testing, adjusting and balancing; operation and maintenance data; protecting installed and completed construction; final cleaning; manuals for materials and finishes; manual for equipment and systems; spare parts and maintenance products; product warranties, guarantees and bonds; project closeout procedures; and maintenance service.
- B. The Contractor shall assume the responsibility for the protection of all finished construction until accepted by the Owner. The Contractor shall repair and restore any and all damage to finished work to the satisfaction of the Engineer.
- C. The Contractor shall require each trade to clean the premises of accumulations of surplus materials and rubbish caused by their activities. Burning of rubbish on site will not be permitted.

1.04 RELATED WORK ELSEWHERE

- A. (ALL SECTIONS)

1.05 OPERATION/MAINTENANCE MANUALS AND INSTRUCTIONS

- A. Provide operation and maintenance manuals covering each item of equipment furnished. Submit manuals to Engineer prior to "Substantial Completion" in accordance with Submittals - Division 01 of these specifications, and as specified herein.
- B. Submit data bound in 8-1/2 x 11 inch (A4) text pages, three D side ring binders with durable plastic covers.
- C. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS", title of project, and subject matter of binder when multiple binders are required.

- D. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- E. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- F. Contents: Prepare Table of contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Architect/Engineer, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by specification section. For each category, identify names, addresses, and telephone numbers of Subcontractors and supplier. Identify the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for [special] finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals of warranties and bonds.

1.06 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. Clean interior and exterior glass, surfaces exposed to view; remove temporary labels, stains and foreign substances.
- C. Clean equipment and fixtures to sanitary condition with cleaning materials appropriate to surface and material being cleaned.
- D. Clean filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean site; sweep paved areas, rake clean landscaped surfaces.

1 G. Remove waste and surplus materials, rubbish, and construction facilities from site.

2 1.07 STARTING OF SYSTEMS

3 A. Coordinate schedule for start-up of various equipment and systems.

4 B. Notify Engineer and Owner seven days prior to start-up of each item.

5 C. Verify each piece of equipment or system has been checked for proper lubrication,
6 drive rotation, belt tension, control sequence, and for conditions which may cause
7 damage.

8 D. Verify tests, meter readings, and specified electrical characteristics agree with
9 those required by equipment or system manufacturer.

10 E. Verify wiring and support components for equipment are complete and tested.

11 F. Execute start-up under supervision of applicable manufacturer's representative
12 and Contractors' personnel in accordance with manufacturers' instructions.

13 G. When specified in individual specification Sections, require manufacturer to
14 provide authorized representative to be present at site to inspect, check, and
15 approve equipment or system installation prior to start-up, and to supervise
16 placing equipment or system in operation.

17 H. Submit a written report in accordance with Submittals-Division 01 that equipment
18 or system has been properly installed and is functioning correctly.

19 1.08 DEMONSTRATION AND INSTRUCTIONS

20 A. Demonstrate operation and maintenance of products to Owner's personnel two
21 weeks prior to date of Substantial Completion.

22 B. For equipment or systems requiring seasonal operation, perform demonstration for
23 other season within six months.

24 C. Utilize operation and maintenance manuals as basis for instruction. Review
25 contents of manual with Owner's personnel in detail to explain all aspects of
26 operation and maintenance.

27 D. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing,
28 maintenance, and shutdown of each item of equipment at schedule time, at
29 equipment location.

30 E. Prepare and insert additional data in operations and maintenance manuals when
31 need for additional data becomes apparent during instruction.

- F. Required instruction time for each item of equipment and system is specified in individual sections.

1.09 TESTING, ADJUSTING AND BALANCING

- A. The completed Work in accordance with requirements of the contract documents when ready in all respects for use by the Owner shall be subjected to a performance test at operating conditions.
- B. Submit reports to Engineer indicating observations and results of tests and indicating compliance or non-compliance with requirements of Contract Documents. Make all adjustments necessary to fulfill requirements and to comply with the instructions and recommendations of manufacturers, and to comply with all codes and regulations.

1.10 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

1.11 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed Shop Drawings, Product Data, and Samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.

- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates utilized.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings [and Shop Drawings]: Legibly mark each item to record actual construction including:
 - 1. Measured depths of foundations in relation to finish first floor datum.
 - 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 3. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the work.
 - 4. Field changes of dimension and detail.
 - 5. Details not on original Contract Drawings.
- G. Submit documents to Engineer prior to claim for final Application for Payment.

1.12 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form within 10 days after final inspection.
- E. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom manufactured products.

- F. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- G. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- H. Additional Requirements: As specified in individual product specification sections.
- I. Include listing in Table of Contents for design data, with tabbed fly sheet and space for insertion of data.

1.13 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes 15 days prior to final inspection. Draft copy be reviewed and returned after final inspection, with Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit two sets of revised final volumes in final form with 10 days after final inspection.
- E. Each Item of Equipment and Each System: Include description of unit or system, and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- F. Panelboard Circuit Directories: Provide electrical service characteristics, control, and communications typed.
- G. Include color-coded wiring diagrams as installed.
- H. Operating Procedures: Include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and special operating instructions.

- I. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- J. Include servicing and lubrication schedule, and list of lubricants required.
- K. Include manufacturer's printed operation and maintenance instructions.
- L. Include sequence of operation by controls manufacturer.
- M. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- N. Include control diagrams by controls manufacturer as installed.
- O. Include Contractor's coordination drawings, with color-coded piping diagrams as installed.
- P. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- Q. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- R. Include test and balancing reports as specified in Quality Control – Division 01.
- S. Additional Requirements: As specified in individual product specification sections.
- T. Include listing in Table of Contents for design data, with tabbed dividers and space for insertion of data.

1.14 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual specification sections.
- B. Deliver to Project site and place in location as directed by Owner; obtain receipt prior to final payment.

1.15 PRODUCT WARRANTIES, GUARANTEES AND BONDS

- A. Obtain warranties, guarantees and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.

- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include Table of Contents and assemble in three D side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals within ten days after Date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

1.16 LOOSE AND DETACHABLE PARTS

- A. The Contractor shall retain all loose and small detachable parts of apparatus and equipment furnished under this contract, until completion of the work and shall turn them over to the Owner.

1.17 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for Engineer's review.
- B. Provide submittals to Engineer for presentation to Owner required by authorities having jurisdiction.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.
- D. Owner will occupy all portions of building as specified in Summary of Work – Division 01.

- 1 PART 2 PRODUCTS AND MATERIALS (N/A)
- 2 PART 3 CONSTRUCTION METHODS (N/A)
- 3 PART 4 MEASUREMENT AND PAYMENT (N/A)
- 4
- 5 END OF SECTION

SECTION 26 56 68
EXTERIOR ATHLETIC LIGHTING

Lighting System with LED Light Source

PART 1 GENERAL

1.01 SUMMARY

- A. Work covered by this section of the specifications shall conform to the contract documents, engineering plans as well as state and local codes.
- B. The purpose of these specifications is to define the lighting system performance and design standards for Washington Wellness Park using an LED Lighting source. The manufacturer / contractor shall supply lighting equipment to meet or exceed the standards set forth in these specifications.
- C. The sports lighting will be for the following venues:
 - 1. Baseball 1
 - 2. Baseball 2
 - 3. Soccer
- D. The primary goals of this sports lighting project are:
 - 1. Guaranteed Light Levels: Selection of appropriate light levels impact the safety of the players and the enjoyment of spectators. Therefore light levels are guaranteed to not drop below specified target values for a period of 25 years.
 - 2. Environmental Light Control: It is the primary goal of this project to minimize spill light to adjoining properties and glare to the players, spectators and neighbors.
 - 3. Cost of Ownership: In order to reduce the operating budget, the preferred lighting system shall be energy efficient and cost effective to operate. All maintenance costs shall be eliminated for the duration of the warranty.
 - 4. Control and Monitoring: To allow for optimized use of labor resources and avoid unneeded operation of the facility, customer requires a remote on/off control system for the lighting system. Fields should be proactively monitored to detect luminaire outages over a 25-year life cycle. All communication and monitoring costs for 25-year period shall be included in the bid.

1.02 LIGHTING PERFORMANCE

- A. Illumination Levels and Design Factors: Playing surfaces shall be lit to an average target illumination level and uniformity as specified in the chart below. Lighting calculations shall be developed and field measurements taken on the grid spacing with the minimum number of grid points specified below. Appropriate light loss factors shall be applied and submitted for the basis of design. Average illumination level shall be measured in accordance with the IESNA LM-5-04 (IESNA Guide for Photometric Measurements of Area and Sports Lighting Installations). Illumination levels shall not to drop below desired

target values in accordance to IES RP-6-15, Page 2, Maintained Average Illuminance and shall be guaranteed for the full warranty period.

Area of Lighting	Average Target Illumination Levels	Maximum to Minimum Uniformity Ratio	Grid Points	Grid Spacing
Baseball 1	50FC infield 30FC outfield	2:1 infield 2.5:1 outfield	25 infield 78 outfield	30' x 30'
Baseball 2	50FC infield 30FC outfield	2:1 infield 2.5:1 outfield	25 infield 78 outfield	30' x 30'
Soccer	30	2.5:1	77	30' x 30'

- B. Color: The lighting system shall have a minimum color temperature of 5700K and a CRI of 75.
- C. Mounting Heights: To ensure proper aiming angles for reduced glare and to provide better playability, minimum mounting heights shall be as described below. Higher mounting heights may be required based on photometric report and ability to ensure the top of the field angle is a minimum of 10 degrees below horizontal.

# of Poles	Pole Designation	Pole Height
16	A1-A4, B1-B4, C1-C4, S1-S4	70'

1.03 ENVIRONMENTAL LIGHT CONTROL

- A. Light Control Luminaires: All luminaires shall utilize spill light and glare control devices including, but not limited to, internal shields, louvers and external shields. No symmetrical beam patterns are accepted.
- B. Spill Light and Glare Control: To minimize impact on adjacent properties, spill light and candela values must not exceed the following levels taken at 3 feet above grade.

Baseball Fields	Average	Maximum
150' from field edge Horizontal Footcandles	0.5 fc	1 fc
150' from field edge Max Vertical Footcandles	0.5 fc	1 fc
150' from field edge Max Candela	7,000 cd	

Soccer Field	Average	Maximum
150' from field edge Horizontal Footcandles	0.5 fc	1 fc
150' from field edge Max Vertical Footcandles	0.5 fc	1 fc
150' from field edge Max Candela	5,000 cd	

- C. Spill Scans: Spill scans must be submitted indicating the amount of horizontal and vertical footcandles along the specified lines. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights. Illumination level shall be measured in accordance with the IESNA LM-5-04 after 1 hour warm up.

- D. The first page of a photometric report for all luminaire types proposed showing horizontal and vertical axial candle power shall be provided to demonstrate the capability of achieving the specified performance. Reports shall be certified by a qualified testing laboratory with a minimum of five years experience or by a manufacturer's laboratory with a current accreditation under the National Voluntary Laboratory Accreditation Program for Energy Efficient Lighting Products. A summary of the horizontal and vertical aiming angles for each luminaire shall be included with the photometric report.

PART 2 PRODUCT

2.01 SPORTS LIGHTING SYSTEM CONSTRUCTION

- A. Manufacturing Requirements: All components shall be designed and manufactured as a system. All luminaires, wire harnesses, drivers and other enclosures shall be factory assembled, aimed, wired and tested.
- B. Durability: All exposed components shall be constructed of corrosion resistant material and/or coated to help prevent corrosion. All exposed carbon steel shall be hot dip galvanized per ASTM A123. All exposed aluminum shall be powder coated with high performance polyester or anodized. All exterior reflective inserts shall be anodized, coated, and protected from direct environmental exposure to prevent reflective degradation or corrosion. All exposed hardware and fasteners shall be stainless steel, passivated and coated with aluminum-based thermosetting epoxy resin for protection against corrosion and stress corrosion cracking. Structural fasteners may be carbon steel and galvanized meeting ASTM A153 and ISO/EN 1461 (for hot dipped galvanizing), or ASTM B695 (for mechanical galvanizing). All wiring shall be enclosed within the cross-arms, pole, or electrical components enclosure.
- C. System Description: Lighting system shall consist of the following:
1. Galvanized steel poles and cross-arm assembly.
 2. Non-approved pole technology:
 - a. Square static cast concrete poles will not be accepted.
 - b. Direct bury steel poles which utilize the extended portion of the steel shaft for their foundation will not be accepted due to potential for internal and external corrosive reaction to the soils and long term performance concerns.
 3. Lighting systems shall use concrete foundations. See Section 2.4 for details.
 - a. For a foundation using a pre-stressed concrete base embedded in concrete backfill the concrete shall be air-entrained and have a minimum compressive design strength at 28 days of 3,000 PSI. 3,000 PSI concrete specified for early pole erection, actual required minimum allowable concrete strength is 1,000 PSI. All piers and concrete backfill must bear on and against firm undisturbed soil.
 - b. For anchor bolt foundations or foundations using a pre-stressed concrete base in a suspended pier or reinforced pier design pole erection may occur after 7 days. Or after a concrete sample from the same batch achieves a certain strength.
 4. Manufacturer will supply all drivers and supporting electrical equipment

- a. Remote drivers and supporting electrical equipment shall be mounted approximately 10 feet above grade in aluminum enclosures. The enclosures shall be touch-safe and include drivers and fusing with indicator lights on fuses to notify when a fuse is to be replaced for each luminaire. Disconnect per circuit for each pole structure will be located in the enclosure. Integral drivers are not allowed.
 - b. Manufacturer shall provide surge protection at the pole equal to or greater than 40 kA for each line to ground (Common Mode) as recommended by IEEE C62.41.2_2002.
- 5. Wire harness complete with an abrasion protection sleeve, strain relief and plug-in connections for fast, trouble-free installation.
- 6. All luminaires, visors, and cross-arm assemblies shall withstand 150 mi/h winds and maintain luminaire aiming alignment.
- 7. Control cabinet to provide remote on-off control and monitoring of the lighting system. See Section 2.3 for further details.
- 8. Manufacturer shall provide lightning grounding as defined by NFPA 780 and be UL Listed per UL 96 and UL 96A.
 - a. Integrated grounding via concrete encased electrode grounding system.
 - b. If grounding is not integrated into the structure, the manufacturer shall supply grounding electrodes, copper down conductors, and exothermic weld kits. Electrodes and conductors shall be sized as required by NFPA 780. The grounding electrode shall be minimum size of 5/8 inch diameter and 8 feet long, with a minimum of 10 feet embedment. Grounding electrode shall be connected to the structure by a grounding electrode conductor with a minimum size of 2 AWG for poles with 75 feet mounting height or less, and 2/0 AWG for poles with more than 75 feet mounting height.

D. Safety: All system components shall be UL listed for the appropriate application.

2.02 ELECTRICAL

- A. Electric Power Requirements for the Sports Lighting Equipment:
 - 1. Electric power: 480 Volt, 3 Phase
 - 2. Maximum total voltage drop: Voltage drop to the disconnect switch located on the poles shall not exceed three (3) percent of the rated voltage.
- B. Energy Consumption: The kW consumption for the field lighting system shall be 115 kW.

2.03 CONTROL

- A. Instant On/Off Capabilities: System shall provide for instant on/off of luminaires.
- B. Lighting contactor cabinet(s) constructed of NEMA Type 4 aluminum, designed for easy installation with contactors, labeled to match field diagrams and electrical design. Manual off-on-auto selector switches shall be provided.

- C. Dimming: System shall provide for 3-stage dimming (high-medium-low). Dimming will be set via scheduling options (Website, app, phone, fax, email)
- D. Remote Lighting Control System: System shall allow owner and users with a security code to schedule on/off system operation via a web site, phone, fax or email up to ten years in advance. Manufacturer shall provide and maintain a two-way TCP/IP communication link. Trained staff shall be available 24/7 to provide scheduling support and assist with reporting needs.
- E. The owner may assign various security levels to schedulers by function and/or fields. This function must be flexible to allow a range of privileges such as full scheduling capabilities for all fields to only having permission to execute “early off” commands by phone. Scheduling tool shall be capable of setting curfew limits.
- F. Controller shall accept and store 7-day schedules, be protected against memory loss during power outages, and shall reboot once power is regained and execute any commands that would have occurred during outage.
- G. Remote Monitoring System: System shall monitor lighting performance and notify manufacturer if individual luminaire outage is detected so that appropriate maintenance can be scheduled. The controller shall determine switch position (manual or auto) and contactor status (open or closed).
- H. Management Tools: Manufacturer shall provide a web-based database and dashboard tool of actual field usage and provide reports by facility and user group. Dashboard shall also show current status of luminaire outages, control operation and service. Mobile application will be provided suitable for IOS, Android and Blackberry devices.
- I. Hours of Usage: Manufacturer shall provide a means of tracking actual hours of usage for the field lighting system that is readily accessible to the owner.
 - 1. Cumulative hours: shall be tracked to show the total hours used by the facility
 - 2. Report hours saved by using early off and push buttons by users.
- J. Communication Costs: Manufacturer shall include communication costs for operating the control and monitoring system for a period of 25 years.
- K. Communication with luminaire drivers: Control system shall interface with drivers in electrical components enclosures by means of powerline communication.

2.04 STRUCTURAL PARAMETERS

- A. Wind Loads: Wind loads shall be based on the 2015 International Building Code. Wind loads to be calculated using ASCE 7-10, an ultimate design wind speed of 115 MPH and exposure category C.
- B. Pole Structural Design: The stress analysis and safety factor of the poles shall conform to 2013 AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaires, and Traffic Signals (LTS-6).

- C. Foundation Design: The foundation design shall be based on soil parameters as outlined in the geotechnical report. If no geotechnical report is available, the foundation design shall be based on soils that meet or exceed those of a Class 5 material as defined by 2015 IBC Table 1806.2.

PART 3 EXECUTION

3.01 SOIL QUALITY CONTROL

- A. It shall be the Contractor's responsibility to notify the Owner if soil conditions exist other than those on which the foundation design is based, or if the soil cannot be readily excavated. Contractor may issue a change order request / estimate for the Owner's approval payment for additional costs associated with:
 - 1. Providing engineered foundation embedment design by a registered engineer in the State of Iowa for soils other than specified soil conditions;
 - 2. Additional materials required to achieve alternate foundation;
 - 3. Excavation and removal of materials other than normal soils, such as rock, caliche, etc.

3.02 DELIVERY TIMING

- A. Delivery Timing Equipment On-Site: The equipment must be on-site 4-6 weeks from receipt of approved submittals and receipt of complete order information.

3.03 FIELD QUALITY CONTROL

- A. Illumination Measurements: Upon substantial completion of the project and in the presence of the Contractor, Project Engineer, Owner's Representative, and Manufacturer's Representative, illumination measurements shall be taken and verified. The illumination measurements shall be conducted in accordance with IESNA LM-5-04.
- B. Field Light Level Accountability
 - 1. Light levels are guaranteed not to fall below the target maintained light levels for the entire warranty period of 25 years. These levels will be specifically stated as "guaranteed" on the illumination summary provided by the manufacturer.
 - 2. The contractor/manufacturer shall be responsible for conducting initial light level testing and an additional inspection of the system, in the presence of the owner, one year from the date of commissioning of the lighting.
 - 3. The contractor/manufacturer will be held responsible for any and all changes needed to bring these fields back to compliance for light levels and uniformities. Contractor/Manufacturer will be held responsible for any damage to the fields during these repairs.
- C. Correcting Non-Conformance: If, in the opinion of the Owner or his appointed Representative, the actual performance levels including footcandles and uniformity ratios are not in conformance with the requirements of the performance specifications and submitted information, the Manufacturer shall be required to make adjustments to meet specifications and satisfy Owner.

3.04 WARRANTY AND GUARANTEE

- A. 25-Year Warranty: Each manufacturer shall supply a signed warranty covering the entire system for 25 years from the date of shipment. Warranty shall guarantee specified light levels. Manufacturer shall maintain specifically-funded financial reserves to assure fulfillment of the warranty for the full term. Warranty does not cover weather conditions events such as lightning or hail damage, improper installation, vandalism or abuse, unauthorized repairs or alterations, or product made by other manufacturers.
- B. Maintenance: Manufacturer shall monitor the performance of the lighting system, including on/off status, hours of usage and luminaire outage for 25 years from the date of equipment shipment. Parts and labor shall be covered such that individual luminaire outages will be repaired when the usage of any field is materially impacted. Manufacturer is responsible for removal and replacement of failed luminaires, including all parts, labor, shipping, and equipment rental associated with maintenance. Owner agrees to check fuses in the event of a luminaire outage.

PART 4 DESIGN APPROVAL

4.01 PRE-BID SUBMITTAL REQUIREMENTS

- A. Design Approval: The owner / engineer will review pre-bid submittals per section 4.0.B from all the manufacturers to ensure compliance to the specification 10 days prior to bid. If the design meets the design requirements of the specifications, a letter and/or addendum will be issued to the manufacturer indicating approval for the specific design submitted.
- B. All submissions must provide a complete submittal package for approval as outlined in Submittal Information at the end of this section at least 10 days prior to bid. Special manufacturing to meet the standards of this specification may be required. An addendum will be issued prior to bid listing any other approved lighting manufacturers and designs.
- C. All listed manufacturers not pre-approved shall submit the information at the end of this section at least 10 days prior to bid. An addendum will be issued prior to bid; listing approved lighting manufacturers and the design method to be used.
- D. Bidders are required to bid only products that have been approved by this specification or addendum by the owner or owner's representative. Bids received that do not utilize an approved system/design, will be rejected.

REQUIRED SUBMITTAL INFORMATION FOR ALL MANUFACTURERS (NOT PRE-APPROVED) 10 DAYS PRIOR TO BID

*All items listed below are mandatory, shall comply with the specification and be submitted according to pre-bid submittal requirements. Complete the Yes/No column to indicate compliance (Y) or noncompliance (N) for each item. **Submit checklist below with submittal.***

Yes/ No	Tab	Item	Description
	A	Letter/ Checklist	Listing of all information being submitted must be included on the table of contents. List the name of the manufacturer's local representative and his/her phone number. Signed submittal checklist to be included.
	B	Equipment Layout	Drawing(s) showing field layouts with pole locations
	C	On Field Lighting Design	Lighting design drawing(s) showing: <ul style="list-style-type: none"> a. Field Name, date, file number, prepared by b. Outline of field(s) being lighted, as well as pole locations referenced to the center of the field (x & y), Illuminance levels at grid spacing specified c. Pole height, number of fixtures per pole, horizontal and vertical aiming angles, as well as luminaire information including wattage, lumens and optics d. Height of light test meter above field surface. e. Summary table showing the number and spacing of grid points; average, minimum and maximum illuminance levels in foot candles (fc); uniformity including maximum to minimum ratio, coefficient of variance (CV), coefficient of utilization (CU) uniformity gradient; number of luminaires, total kilowatts, average tilt factor; light loss factor.
	D	Off Field Lighting Design	Lighting design drawing showing initial spill light levels along the boundary line (defined on bid drawings) in footcandles. Lighting design showing glare along the boundary line in candela. Light levels shall be taken at 30-foot intervals along the boundary line. Readings shall be taken with the meter orientation at both horizontal and aimed towards the most intense bank of lights.
	E	Photometric Report	Provide first page of photometric report for all luminaire types being proposed showing candela tabulations as defined by IESNA Publication LM-35-02. Photometric data shall be certified by laboratory with current National Voluntary Laboratory Accreditation Program or an independent testing facility with over 5 years experience.
	F	Performance Guarantee	Provide performance guarantee including a written commitment to undertake all corrections required to meet the performance requirements noted in these specifications at no expense to the owner. Light levels must be guaranteed to not fall below target levels for warranty period.
	G	Structural Calculations	Pole structural calculations and foundation design showing foundation shape, depth backfill requirements, rebar and anchor bolts (if required). Pole base reaction forces shall be shown on the foundation drawing along with soil bearing pressures. Design must be stamped by a structural engineer in the state of Iowa, if required by owner. (May be supplied upon award).
	H	Control & Monitoring System	Manufacturer of the control and monitoring system shall provide written definition and schematics for automated control system. They will also provide ten (10) references of customers currently using proposed system in the state of Iowa.
	I	Electrical Distribution Plans	Manufacturer bidding an alternate product must include a revised electrical distribution plan including changes to service entrance, panels and wire sizing, signed by a licensed Electrical Engineer in the state of Iowa.
	J	Warranty	Provide written warranty information including all terms and conditions. Provide ten (10) references of customers currently under specified warranty in the state of Iowa.
	K	Project References	Manufacturer to provide a list of ten (10) projects where the technology and specific fixture proposed for this project has been installed in the state of Iowa. Reference list will include project name, project city, installation date, and if requested, contact name and contact

			phone number.
	L	Product Information	Complete bill of material and current brochures/cut sheets for all product being provided.
	M	Delivery	Manufacturer shall supply an expected delivery timeframe from receipt of approved submittals and complete order information.
	N	Non-Compliance	Manufacturer shall list all items that do not comply with the specifications. If in full compliance, tab may be omitted.
	O	Environmental Light Control Design	Environmental glare impact scans must be submitted showing the maximum candela from the field edge on a map of the surrounding area.

The information supplied herein shall be used for the purpose of complying with the specifications for Washington Wellness Park. By signing below I agree that all requirements of the specifications have been met and that the manufacturer will be responsible for any future costs incurred to bring their equipment into compliance for all items not meeting specifications and not listed in the Non-Compliance section.

Manufacturer: _____ **Signature:** _____

Contact Name: _____ **Date:** ____/____/____

Contractor: _____ **Signature:** _____

1
2
3
4

APPENDIX A
NPDES General Permit #2



DEPARTMENT OF NATURAL RESOURCES
NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
NOTICE OF GENERAL PERMIT COVERAGE UNDER
GENERAL PERMIT NO. 2

STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY

This notice of general permit coverage for a storm water discharge associated with construction activity is issued pursuant to the authority of section 402 (b) of the Clean Water Act (U.S.C. 1342(b)), Iowa Code 455B.174, and subrule 567--64.4(2), Iowa Administrative Code. A Notice of Intent has been filed with the Iowa Department of Natural Resources that this storm water discharge complies with the terms and conditions of NPDES General Permit No. 2. Authorization is hereby issued to discharge storm water associated with industrial activity as defined in Part VIII of the Iowa Department of Natural Resources NPDES General Permit No. 2 in accordance with the terms and conditions set forth in the permit.

Owner:

**CITY OF WASHINGTON
215 E. WASHINGTON ST.
WASHINGTON IA 52353
(319)653-6584**

Contact:

**JAYDEN SCHECKEL
MSA PROFESSIONAL SERVICES
400 ICE HARBOR DR., SUITE 100
DUBUQUE IA 52001
(563)584-2892**

Permit Coverage Issued To:

**WELLNESS PARK - CONSTRUCTION
625 18TH ST. WEST
in WASHINGTON, WASHINGTON COUNTY
located at**

1/4 Section	Section	Township	Range
SE,NE	7,18	75	7W

Coverage Provided Through:

4/1/2021

NPDES Permit Discharge Authorization Number:

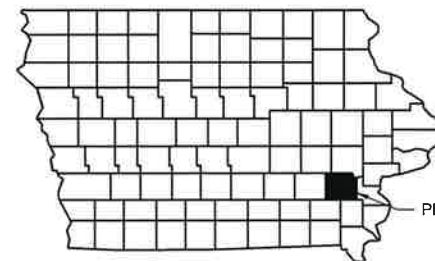
32729 - 32435

Discharge Authorization Date:

4/11/2018

**Project Description: GRADING AND UTILITIES FOR FUTURE WELLNESS PARK
43.7 ACRES**

WELLNESS PARK BALL FIELDS AND ROADWAY CITY OF WASHINGTON WASHINGTON COUNTY, IOWA



PROJECT LOCATION



LOCATION MAP
NOT TO SCALE

NOTE:
UTILITY LOCATIONS SHOWN ON PLANS
ARE APPROXIMATE AND CONTRACTOR
SHALL HAVE APPROPRIATE UTILITY
MARK EXACT LOCATIONS PRIOR TO
CONSTRUCTION.

DESIGN STANDARDS

SUDAS 2020 DESIGN STANDARDS AND SPECIFICATIONS ARE THE GOVERNING DOCUMENTS FOR THIS PROJECT. MODIFICATIONS TO THESE SPECIFICATIONS ARE NOTED IN THE ESTIMATE REFERENCE TABLE HEREIN. CONSTRUCTION SHALL COMPLY WITH ALL RELEVANT LOCAL, COUNTY, AND STATE ORDINANCES, CODES, AND PERMITS.

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C7-C9	SCHEDULE OF QUANTITIES
C10	TYPICAL SECTIONS
D1-D12	DETAILS
SWPPP1	STORMWATER POLLUTION PREVENTION PLAN NOTES
SWPPP2	STORMWATER POLLUTION PREVENTION PLAN
A0	CONCESSION STAND TITLE SHEET
A1	SCHEMATIC SITE PLAN
A2	SCHEMATIC PLAN
A3	ELECTRICAL PLAN
A4	SCHEMATIC EXTERIOR ELEVATIONS
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A6	DUGOUT
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G10	GRADING PLAN - 7TH ST & D AVE INTERSECTION
G11	GRADING PLAN - 7TH ST & E AVE INTERSECTION
STRM1	STORM SEWER PLAN & PROFILE - 7TH ST & E AVENUE
STRM2	STORM SEWER PLAN & PROFILE - BASEBALL FIELDS
STRM3	STORM SEWER PLAN & PROFILE - SAND VOLLEYBALL
WATR1	WATER SERVICE PLAN & PROFILE - BASEBALL FIELDS
WATR2	WATER SERVICE PLAN - SOCCER FIELDS
SSWR1	SANITARY SEWER PLAN & PROFILE - BASEBALL FIELDS
E1	OVERALL ELECTRICAL PLAN
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J1	JOINTING PLAN - 7TH STREET
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XS1-XS3	CROSS SECTIONS - 7TH STREET
XS4-XS18	CROSS SECTIONS - E AVENUE
XS19-XS20	CROSS SECTIONS - WATER TOWER ENTRANCE
XS21-XS25	CROSS SECTIONS - WELLNESS PARK TRAIL

LEGEND

	EXISTING WATER MAIN
	EXISTING GATE VALVE & HYDRANT
	WATER SERVICE & CURB STOP
	PROPOSED WATERMAIN, VALVE, & HYDRANT
	PROPOSED WATER SERVICE & CURB STOP
	EXISTING SANITARY SEWER & MANHOLE
	EXISTING FORCEMAIN
	EXISTING STORM SEWER & INLET
	PROPOSED STORM SEWER & INLET
	PROPOSED MANHOLE & SEWER MAIN
	BURIED ELECTRIC
	BURIED GAS & VALVE
	BURIED CABLE TELEVISION
	BURIED TELEPHONE
	BURIED FIBER OPTICS
	OVERHEAD UTILITY
	RAILROAD TRACKS
	EXISTING CURB & GUTTER
	PROPOSED CURB & GUTTER
	EXISTING SIDEWALK
	PROPOSED SIDEWALK
	EXISTING CULVERT PIPE
	PROPOSED CULVERT PIPE
	FENCE LINE
	DRAINAGE ARROW
	SILT FENCE
	RIGHT-OF-WAY
	BASELINE
	PROPERTY LINE
	TREE LINE
	BENCHMARK
	IRON PIPE
	IRON ROD
	CONTROL POINT
	UTILITY POLE & GUY
	SOIL BORING
	LIGHT POLE
	PEDESTAL
	STREET SIGN
	MAILBOX
	FLAGPOLE
	TREE - DECIDUOUS
	TREE - CONIFEROUS
	TREE TO BE REMOVED

UTILITIES

GAS AND ELECTRIC:

ALLIANT ENERGY
220 EAST 3RD STREET
24 HR. NUMBER
1-800-255-4268

MAINTENANCE & CONSTRUCTION:

CITY OF WASHINGTON
215 EAST WASHINGTON STREET
WASHINGTON, IA 52353
(319)-653-2947
JJ BELL - MAINTENANCE AND
CONSTRUCTION SUPERVISOR

PARKS AND RECREATION:

CITY OF WASHINGTON
215 EAST WASHINGTON STREET
WASHINGTON, IA 52353
(319)-321-4886
NICK PACHA - PARK SUPERINTENDENT

WASHINGTON COUNTY CONSERVATION BOARD:

CITY OF WASHINGTON
2943 HIGHWAY 92
AINSWORTH, IA 52201
(319)-657-2400
ZACH ROZMUS - EXECUTIVE DIRECTOR



EMERGENCY

POLICE:

EMERGENCY
911
NON-EMERGENCY
WASHINGTON POLICE DEPARTMENT
215 EAST WASHINGTON STREET
WASHINGTON, IA 52353
(319)-653-2256

FIRE

EMERGENCY
911
NON-EMERGENCY
WASHINGTON FIRE DEPARTMENT
215 EAST WASHINGTON STREET
WASHINGTON, IA 52353
(319)-653-2239



1-800-292-8989
www.iowaonecall.com



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME
OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY
LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
IOWA.

JAYDEN LEE SCHECKEL
DATE: 03/06/2020

MY LICENSE RENEWAL DATE IS DECEMBER 31, 2020

MY LICENSE NUMBER IS, P25324

PAGES OR SHEETS COVERED BY THIS SEAL:

ALL SHEETS EXCEPT A0, A1, A2, A3, A4, A5, A6

PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				

PLOT DATE: 3/6/2020 10:59 AM, P:\1032002\1032002\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg



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(563) 582-3973 www.msa-ps.com
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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

TITLE SHEET

PROJECT NO.
10322002
SHEET
T1

ITEM NO.	ITEM DESCRIPTION	EST QTY	UNITS
DIVISION 2: EARTHWORK			
2.01	EXCAVATION, CLASS 13	1	LS
2.02	SUBGRADE PREPERATION	12,079	SY
2.03	SPECIAL BACKFILL	5,624	TONS
DIVISION 3: TRENCH & TRENCHLESS CONSTRUCTION			
3.01	GRANULAR TRENCH BACKFILL	852	LF
DIVISION 4: SEWERS & DRAINS			
4.01	SANITARY SEWER, SDR-35, 4"	22	LF
4.02	SANITARY SEWER CLEANOUT	1	EA
4.03	STORM SEWER CLEANOUT	5	EA
4.04	STORM SEWER, HDPE, 6"	208	LF
4.05	STORM SUBDRAIN, HDPE, 6"	382	LF
4.06	STORM SEWER, HDPE, 15"	668	LF
4.07	STORM SEWER, RCP, 15"	247	LF
4.08	STORM SEWER, RCP, 18"	356	LF
4.09	FLARED END SECTION, STEEL, 15"	1	EA
4.10	FLARED END SECTION, RCP, 18"	1	EA
DIVISION 5: WATER MAINS & APPURTENANCES			
5.01	WATER SERVICE, COPPER, 1-1/2"	360	LF
5.02	CORPORATION STOP, 1-1/2"	3	EA
5.03	CURB STOP & BOX, 1-1/2"	4	EA
5.04	WATER SERVICE CONNECTION	3	EA
5.05	VALVE BOX ADJUSTMENT	10	EA
5.06	HYDRANT ADJUSTMENT	5	EA
DIVISION 6: STRUCTURES FOR SANITARY & STORM SEWERS			
6.01	MANHOLE, SW-401, 48"	4	EA
6.02	INTAKE, SW-501	2	EA
6.03	NYLOPLAST DRAIN BASIN, 30"	4	EA
6.04	SANITARY MANHOLE ADJUSTMENT, MINOR	5	EA
6.05	GREASE TRAP	1	LS
DIVISION 7: STREETS & RELATED WORK			
7.01	PCC PAVEMENT, 6"	10,812	SY
7.02	PCC PAVEMENT, 7"	5,500	SY
7.03	PCC PAVEMENT W/INTEGRAL CURB, 7"	1,872	SY
7.04	DETECTABLE WARNINGS	112	SF
7.05	GRANULAR SURFACING, 6"	1,259	SY
DIVISION 8: TRAFFIC CONTROL			
8.01	PAINTED PAVEMENT MARKINGS	865	SF
DIVISION 9: SITE WORK & LANDSCAPING			
9.01	CONVENTIONAL SEEDING	44,527	SY
9.02	TURF SEEDING	39,690	SY
9.03	FERTILIZER FOR SEEDING	84,233	SY
9.04	HYDROMULCHING FOR SEEDING	84,233	SY
9.05	SWPPP	1	LS
9.06	EROSION CONTROL BLANKET	2,820	SY
9.07	RIP RAP	29	SY
9.08	SILT FENCE	5,704	LF
9.09	STABILIZED CONSTRUCTION ENTRANCE	1	EA
9.10	INLET PROTECTION	11	EA
9.11	FLOW TRANSITION MAT	400	SF
9.12	CHAIN LINK FENCE, 6' HEIGHT	4,186	LF
9.13	CHAIN LINK FENCE, 10' HEIGHT	216	LF
9.14	CHAIN LINK FENCE, 18' HEIGHT (BACKSTOP)	488	LF
9.15	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT	12	EA

DIVISION 11: MISCELLANEOUS			
11.01	MOBILIZATION	1	LS
11.02	CONCRETE WASHOUT	1	LS
11.03	SKINNED INFIELD, 4"	9,168	SY
11.04	GRANULAR SURFACE, 4"	467	SY
11.05	SAND BASE, VOLLEYBALL	1,475	SY
11.06	BORDER EDGING	1,450	LF
11.07	CONCESSION STRUCTURE, COMPLETE	1	LS
11.08	DUGOUT STRUCTURE, COMPLETE	8	EA
11.09	IRRIGATION SYSTEM, BASEBALL FIELDS	1	LS
11.10	IRRIGATION SYSTEM, SOCCER FIELD	1	LS
11.11	BASEBALL FIELD 1 EQUIPMENT	1	LS
11.12	BASEBALL FIELD 2 EQUIPMENT	1	LS
11.13	BASEBALL FIELD 3 EQUIPMENT	1	LS
11.14	BASEBALL FIELD 4 EQUIPMENT	1	LS
11.15	SAND VOLLEYBALL COURT EQUIPMENT	1	LS
11.16	FLAGPOLE ARRANGEMENT	1	LS
11.17	REMOVABLE BOLLARD	2	EA
11.18	FENCE TOP PROTECTION (OUTFIELD FENCE)	2,046	LF
DIVISION 12: ELECTRICAL			
12.01	SITE ELECTRICAL CONDUIT	1	LS

ALTERNATE 1			
A.01	CHAIN LINK FENCE, 6' HEIGHT, UPGRADE	4,594	LF
A.02	CHAIN LINK FENCE, 10' HEIGHT, UPGRADE	200	LF
A.03	CHAIN LINK FENCE, 18' HEIGHT BACKSTOP,	496	LF
A.04	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT,	12	EA
A.05	BASEBALL FIELD LIGHTING (FIELD 1)	1	LS
A.06	BASEBALL FIELD LIGHTING (FIELD 2)	1	LS
A.07	SOCCER FIELD LIGHTING	1	LS
A.08	FENCE TOP PROTECTION (FOUL LINE	1,300	LF

PROJECT DATE: .	DRAWN BY: JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY: JLS	-	-	-	-
	CHECKED BY: JRH	-	-	-	-
PLOT DATE: 3/6/2020 10:59 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg					



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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

QUANTITIES

PROJECT NO:
10322002
SHEET
C1

100-4A 10-29-02					100-4A 10-29-02				
ESTIMATE REFERENCE INFORMATION					ESTIMATE REFERENCE INFORMATION				
Item No.	Description				Item No.	Description			
2.01	EXCAVATION, CLASS 13 (LS) The item shall be measured and paid by the lump sum bid price. Bid item shall include all items listed in Section 2010 Part 1.08.E.3. Bid item shall also include the stripping, salvaging, and respreading of topsoil. Topsoil shall be respread on all areas that are to be seeded. Raw Cut = 16,700 CY Raw Fill = 20,200 CY. Fill factor of 1.25 was used. Cut and fill quantities are estimated from top of finish grade to top of existing ground. Existing ground surface is a combination of asbuilt survey ground shots with proposed surface from mass grading project in the summer of 2018. Site has been previously mass graded in the summer of 2018, along with rock subbase installed for 7th Street, E Avenue, and parking lot. The intersection of 7th Street with E Avenue will primarily be fill in order to bring proposed intersection up to grade. The baseball fields will be graded/reshaped to accommodate the baseball field layout. The soccer fields will be regraded to generate earthwork for fill areas. Contractor to verify earthwork quantities prior to bidding. No additional payment will be made.				4.04	STORM SEWER, HDPE, 6" (LF) The item shall be measured and paid according to Section 4020 Part 1.08.A. Item shall also include all connections to roof downspouts, bends, wyes, tees, and all other fittings and appurtenances required to complete the work. Pipe material shall meet the requirements of Section 4020 Part 2.01.F. Pipe joints shall be Watertight Joints meeting requirements of ASTM D3212. Pipe bedding shall be class F-3 as identified in SW-103 of detail sheets. Final backfill for pipes underneath proposed pavement shall be granular trench backfill (Bid Item 3.01). Final backfill shall be compacted to 98% Standard Proctor density underneath pavements.			
2.02	SUBGRADE PREPARATION (SY) Measurement will be the square yardage area of the proposed pavement under which the subgrade preparation is performed, plus an additional 1-foot on each side of 7th Street and E Avenue. Payment will be according to Section 2010 Part 1.08.G. Bid quantity is the subgrade area where 6-inch granular subbase is being proposed. Subgrade areas underneath proposed pavement areas where 2-inch granular subbase is being proposed has previously been prepared during the mass grading of site in the summer of 2018. See plans for location of proposed 6-inch granular subbase.				4.05	STORM SUBDRAIN, HDPE, 6" (LF) The item shall be measured and paid according to Section 4020 Part 1.08.A. Item shall also include all bends, wyes tees, and all other fittings and appurtenances required to complete the work. Pipe material shall meet the requirements of Section 4020 Part 2.01.F. Pipe joints shall be Watertight Joints meeting the requirements of ASTM D3212. Pipe envelope material shall be porous backfill meeting the requirements of Iowa DOT Gradation #29. See Sand Volleyball Subdrain Detail in plans for pipe envelope section. Woven geotextile separation fabric as shown in Sand Volleyball Subdrain Detail shall be considered inclusive to subdrain bid item. Woven geotextile fabric shall be used on entire length of subdrain pipe, even when located outside of sand volleyball court.			
2.03	SPECIAL BACKFILL (TONS) Measurement will be the tonnage of special backfill placed underneath the proposed pavement area, plus an additional 1-foot on each side of 7th Street and E Avenue. Payment will be according to Section 2010 Part 1.08.I.2. Special backfill depths vary from approximately 2" to 6". Special backfill shall extend 1-foot behind back-of-curb for 7th Street, and 1-foot beyond edge-of-pavement for E Avenue. See plans for location of proposed 2-inch special backfill and 6-inch special backfill. Special backfill shall be in accordance with Section 2010 Part 2.04.D.1. Any additional rock needed outside of defined limits will not be paid for.				4.06	STORM SEWER, HDPE, 15" (LF) The item shall be measured and paid according to Section 4020 Part 1.08.A. Item shall also include any connections to existing storm sewer and/or structures, all bends, wyes, tee, and all other fittings and appurtenances required to complete the work. Pipe material shall be Watertight Joints meeting the requirements of ASTM D3223. Specific pipe lengths to be perforated pipe. See sheet STRM3 for location of perforated pipe. Pipe bedding shall be class F-3 as identified in SW-103 of detail sheets. Pipe envelope for perforated pipe sections shall be wrapped in woven geotextile separation fabric as shown in SW-103 of detail sheets. Final backfill for pipes underneath proposed pavement shall be granular trench backfill (Bid Item 3.01). Final backfill shall be compacted to 98% Standard Proctor density underneath pavements.			
3.01	GRANULAR TRENCH BACKFILL (LF) Measurement will be by the linear foot along the centerline of pipe for which granular trench backfill is installed. Payment will be at the unit price per linear foot for which granular trench backfill is installed. Granular backfill shall be used to backfill storm sewer, sanitary sewer, and water main/services underneath proposed pavement areas from the top of specified pipe bedding to proposed subgrade level. All granular trench backfill for irrigation piping and electrical conduit shall be considered inclusive to the respective irrigation system or electrical bid items. If no bid item is listed for respective utility, cost of granular trench backfill under proposed pavement will be considered inclusive to respective utility or service line. Granular trench backfill shall extend horizontally 1-foot beyond the limits of paving. Granular trench backfill material shall consist of limestone screenings, fill lime, or Iowa DOT Gradation #32. Backfill shall be compacted to 98% of Standard Proctor density between -1% to +3% of optimum moisture content. The contractor shall supply the Engineer with load tickets to verify the type, source, and amount of material used.				4.07	STORM SEWER, RCP, 15" (LF) The item shall be measured and paid according to Section 4020 Part 1.08.A. Item shall also include any connections to existing storm sewer structures. Pipe material shall meet the requirements of Section 4020 Part 2.01.A. Pipe bedding shall be class R-2 as identified in SW-102 of detail sheets. All pipe joints shall have an O-ring gasket complying with ASTM C 443. Final backfill of 15" RCP underneath pavements shall be granular trench backfill (Bid Item 3.01). Final backfill shall be compacted to 98% Standard Proctor density underneath pavements.			
4.01	SANITARY SEWER, SDR-35, 4" (LF) The item shall be measured and paid according to Section 4010 Part 1.08.E. Item shall also include all removal or abandonment of existing sanitary sewer, dewatering, connections to existing sanitary sewer, bends, wyes, tees, risers, and all other fittings and appurtenances required to complete the work. Pipe material shall meet the requirements of Section 4010 Part 2.01.A for SDR-35. Pipe shall be green in color. Pipe bedding shall be class F-3 as identified in SW-103 of detail sheets. Final backfill for pipes underneath proposed pavement shall be granular trench backfill (Bid Item 3.01). Final backfill shall be compacted to 98% Standard Proctor density underneath pavements.				4.08	STORM SEWER, RCP, 18" (LF) The item shall be measured and paid according to Section 4020 Part 1.08.A. Item shall also include any connections to existing storm sewer structures. Pipe material shall meet the requirements of Section 4020 Part 2.01.A. Pipe bedding shall be class R-2 as identified in SW-102 of detail sheets. All pipe joints shall have an O-ring gasket complying with ASTM C 443. Final backfill of 18" RCP underneath pavements shall be granular trench backfill (Bid Item 3.01). Final backfill shall be compacted to 98% Standard Proctor density underneath pavements.			
4.02	SANITARY SEWER CLEANOUT (EA) The item shall be measured and paid according to Section 4010 Part 1.08.I. Sanitary cleanout riser pipe to be same size as service pipe. Sanitary cleanout riser pipe shall be PVC per Section 4010 Part 2.04.C.1. Casting shall be Neenah R-1975-A2. Lids for sanitary cleanout castings shall be marked "Sanitary".				4.09	FLARED END SECTION, STEEL, 15" (EA) The item shall be measured and paid according to Section 4030 Part 1.08.B. Item shall also include pipe apron guards. Flared End Section shall be steel by Advanced Drainage Systems (ADS). Apron guard material shall be according to Section 4030 Part 2.04.			
4.03	STORM SEWER CLEANOUT (EA) The item shall be measured and paid according to Section 4010 Part 1.08.I. Storm cleanout riser pipe to be same size as service pipe. Storm cleanout riser pipe shall be PVC per Section 4010 Part 2.04.C.1. Casting shall be Neenah R-1975-A2. Lids for storm cleanout castings shall be marked "Storm".				4.10	FLARED END SECTION, RCP, 18" (EA) The item shall be measured and paid according to Section 4030 Part 1.08.B. Item shall also include apron footing and pipe apron guards. Apron guard material shall be according to Section 4030 Part 2.04.			
					5.01	WATER SERVICE, COPPER, 1-1/2" (LF) The item shall be measured and paid according to Section 5010 Part 1.08.E.1. Pipe material shall meet the requirements of Section 5010 Part 2.07.B.1. Copper tubing shall be furnished in coils. Underground joints in copper tubing water service lines shall be constructed by compression fittings. Final backfill for services underneath proposed pavement shall be sand compacted to 98% Standard Proctor density underneath pavements.			
					5.02	CORPORATION STOP, 1-1/2" (EA) The item shall be measured and paid according to Section 5010 Part 1.08.E.2. Corporation stops shall be plug type and have AWWA inlet threads and flare outlet for copper tubing. Corporation stops shall be one of following: 1) Mueller Series H 15000 w/Flare, 2) Mueller Series H 15000 w/ 110 Compression. Bid item shall also include tapping saddles. Tapping saddles shall be Smith Blair 317 or approved equivalent.			

100-4A 10-29-02					100-4A 10-29-02				
ESTIMATE REFERENCE INFORMATION									
Item No.		Description							
5.03		CURB STOP & BOX, 1-1/2" (EA) The item shall be measured and paid according to Section 5010 Part 1.08.E.3. Curb stops shall be ball type Minneapolis pattern with flare connection for copper tubing. Curb stops shall be one of the following: 1) Mueller Series H 15154 w/Flare, 2) Mueller Series H 15154 Compression. Curb boxes shall be installed for each curb stop. Curb boxes shall be Buffalo type with screw type extension, minimum diameter 2.5-inches. Provide non-threaded cast iron base. Manufacturer shall be Tyler Union 6500 Screw Type. All rods shall be stainless steel. Item shall also include casting in pavement areas as shown in Curb Stop Box in Pavement Detail in plans. Casting shall be Tyler Union 6850 or 6860.							
5.04		WATER SERVICE CONNECTION (EA) The item shall be measured and paid per each water service connection made to the existing water main. The work shall include all labor, equipment, any necessary dewatering, and excavation required to connect water service to existing water main.							
5.05		VALVE BOX ADJUSTMENT (EA) The item shall be measured and paid according to Section 5020 Part 1.08.F. Valve boxes shall be adjusted to final grade in accordance with Section 5020 Part 3.04. Valve stem shall also be extended, if necessary, in accordance with Section 5020 Part 2.03.C.							
5.06		HYDRANT ADJUSTMENT (EA) The item shall be measured and paid according to Section 5020 Part 1.08.H. Fire hydrant adjustment to be in accordance with Section 5020 Part 3.04.D. For hydrant adjustments located in pavement areas, expansion joint shall be placed around hydrant barrel where concrete will abut to barrel.							
6.01		MANHOLE, SW-401, 48" (EA) The item shall be measured and paid according to Section 6010 Part 1.08.A. Manhole shall be precast and meet the requirements of Section 6010 Part 2. Casting frame and grate shall be Neenah R-2651. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.3.							
6.02		INTAKE, SW-501 (EA) The item shall be measured and paid according to Section 6010 Part 1.08.B. Intakes shall meet the requirements of Section 6010 Part 2. Casting frame and grate shall be Neenah R-3246-AL with Neenah R-3000-A environotice curb plate "Dump No Waste, Drains to Fresh Water". Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.3. Backfill material for intakes located in pavement areas shall consist of limestone screenings, fill lime, or Iowa DOT Gradation #32. Backfill shall be compacted to 98% of Standard Proctor density between -1% to +3% of optimum moisture content.							
6.03		NYLOPLAST DRAIN BASIN, 30" (EA) The item shall be measured and paid according to Section 6010 Part 1.08.B. Drain basins shall be manufactured by Nyloplast and have sump insert installed in structure during fabrication of intake. Casting frame and grate to be Nyloplast Ductile Iron Model #3099CGS. Backfill material for drain basins located in pavement areas shall consist of limestone screenings, fill lime, or Iowa DOT Gradation #32. Backfill shall be compacted to 98% of Standard Proctor density between -1% to +3% of optimum moisture content.							
6.04		SANITARY MANHOLE ADJUSTMENT, MINOR (EA) The item shall be measured and paid according to Section 6010 Part 1.08.E. Adjustment rings shall be Cretex Pro-Ring Expanded Polypropylene in accordance with Section 6010 Part 2.09.3.							
6.05		GREASE TRAP (LS) The item shall be measured and paid by the lump sum bid price. Unit price includes, but is not limited to: excavation; furnishing and installing grease trap; furnishing placing, and compacting bedding and backfill material; and any necessary fittings and appurtenances required to install complete grease trap. Grease trap shall be epoxy coated fabricated steel for exterior installation, with multi-weir baffle assembly, integral deep seal trap, removable integral flow control, and epoxy coated steel cover with gasket, securing handle, and enzyme injection port. Provide with heavy duty traffic rated cover. Grease trap unit shall have 4" bedding of Class 1 material. Final backfill material shall consist of limestone screenings, fill lime, or Iowa DOT Gradation #32. Backfill shall be compacted to 98% of Standard Proctor density between -1% to +3% of optimum moisture content. Grease trap shall be rated for 75 GPM flow and 150 LB grease capacity.							

100-4A 10-29-02					100-4A 10-29-02				
ESTIMATE REFERENCE INFORMATION									
Item No.		Description							
11.10		IRRIGATION SYSTEM, SOCCER FIELDS (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with furnishing and installing complete irrigation system. Complete irrigation system to include all required plumbing and electrical in order to provide a complete operable irrigation system. Irrigation system shall be supply water to Soccer Field 1. System to include, but not limited to, the following items: a) Hunter PVG-151 electric zone valves b) Hunter I20 sprinkler heads c) 18-13 strand zone wiring d) SDR 200 main line piping e) Manual shut-off valve on each line f) Hunter I Core control panel g) pedestal for controller h) Hot Box fiberglass enclosure by Hubbell Power Systems. Contractor to provide irrigation design/layout for Soccer Field 1. Irrigation water source will be provided with (1) 1-1/2” water service line located to the south of Soccer Field 1.							
11.11		BASEBALL FIELD 1 EQUIPMENT (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with installing list of Owner provided equipment according to the respective Manufacturer’s recommendation. Owner to provide the list of following items: a) Pitchers mound, b) 1st, 2nd, and 3rd bases c) Home plate, d) Picnic tables, e) Bleachers/benches, f) Bullpen pitchers mound, g) Anchors for pennant location, h) Trash receptacles, i) Foul poles. This list is not all inclusive, and Owner may provide other equipment not listed above. Contractor to install all items for Baseball Field 1 provided by Owner. Coordinate with City of Washington.							
11.12		BASEBALL FIELD 2 EQUIPMENT (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with installing list of Owner provided equipment according to the respective Manufacturer’s recommendation. Owner to provide the list of following items: a) Pitchers mound, b) 1st, 2nd, and 3rd bases, c) Home plate, d) Picnic tables, e) Bleachers/benches, f) Bullpen pitchers mound, g) Anchors for pennant location, h) Trash receptacles, i) Foul poles. This list is not all inclusive, and Owner may provide other equipment not listed above. Contractor to install all items for Baseball Field 2 provided by Owner. Coordinate with City of Washington.							
11.13		BASEBALL FIELD 3 EQUIPMENT (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with installing list of Owner provided equipment according to the respective Manufacturer’s recommendation. Owner to provide the list of following items: a) Pitchers mound, b) 1st, 2nd, and 3rd bases, c) Home plate, d) Picnic tables, e) Bleachers/benches, f) Bullpen pitchers mound, g) Anchors for pennant location, h) Trash receptacles, i) Foul poles. This list is not all inclusive, and Owner may provide other equipment not listed above. Contractor to install all items for Baseball Field 3 provided by Owner. Coordinate with City of Washington.							
11.14		BASEBALL FIELD 4 EQUIPMENT (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with installing list of Owner provided equipment according to the respective Manufacturer’s recommendation. Owner to provide the list of following items: a) Pitchers mound, b) 1st, 2nd, and 3rd bases, c) Home plate, d) Picnic tables, e) Bleachers/benches, f) Bullpen pitchers mound, g) Anchors for pennant location, h) Trash receptacles, i) Foul poles. This list is not all inclusive, and Owner may provide other equipment not listed above. Contractor to install all items for Baseball Field 4 provided by Owner. Coordinate with City of Washington.							
11.15		SAND VOLLEYBALL COURT EQUIPMENT (LS) The item shall be paid at the lump sum bid price. No measurement will be made. Lump sum price shall include all costs associated with installing list of Owner provided equipment according to the respective Manufacturer’s recommendation. Owner to provide the list of following items: a) Poles for netting, b) Netting. This list is not all inclusive, and Owner may provide other equipment not listed above. Contractor to install all items for Sand Volleyball Courts provided by Owner. Coordinate with City of Washington.							

ESTIMATE REFERENCE INFORMATION

[illegible]

		NO.	DATE	REVISION	BY
PROJECT DATE: .	DRAWN BY: JLS	-	-	-	-
	DESIGNED BY: JLS	-	-	-	-
	CHECKED BY: JR32	-	-	-	-

PLOT DATE: 3/6/2020 11:00 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg



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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

ESTIMATE REFERENCE INFORMATION

PROJECT NO.
10322002

SHEET
C6

SCHEDULE FOR DIVISION 2 ITEMS							
					2.01	2.02	2.03
ALIGNMENT	LOCATION STATION	OFFSET	FROM STATION	TO STATION	EXCAVATION, CLASS 13	SUBGRADE PREPERATION	SPECIAL BACKFILL
					LS	SY	TONS
ENTIRE PROJECT					1		
7TH STREET	ROADWAY					637	354
7TH STREET	SIDEWALK					209	82
7TH STREET	DRIVEWAY RIGHT					85	33
7TH ST & E AVE	INTERSECTION					537	209
E AVENUE	ROADWAY					1122	1059
E AVENUE	TRAIL					3133	1216
E AVENUE	PARKING LOT ENTRANCE RT						40
E AVENUE	PARKING LOT ENTRANCE RT						61
TOWER ENTRANCE						303	118
WELLNESS TRAIL						417	226
PARKING LOT							38
BASEBALL FIELDS						5636	2188
TOTAL					1	12079	5624

SCHEDULE FOR DIVISION 3 ITEMS					
					3.01
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	GRANULAR TRENCH BACKFILL
					LF
7TH ST & E AVE	7TH STREET CROSSING		B6	B5	31
7TH ST & E AVE	E AVENUE CROSSING		B4	B3	42
BASEBALL FIELDS INTERIOR (STORM SEWER)			C2	C1	50
BASEBALL FIELDS INTERIOR (STORM SEWER)			C2	C5	111
BASEBALL FIELDS INTERIOR (STORM SEWER)			C5	C6	104
BASEBALL FIELDS INTERIOR (STORM SEWER)			C2	C7	104
BASEBALL FIELDS INTERIOR (STORM SEWER)			C3	C10	99
BASEBALL FIELDS INTERIOR (STORM SEWER)			C8	-	5
BASEBALL FIELDS INTERIOR (STORM SEWER)			C4	C15	99
BASEBALL FIELDS INTERIOR (STORM SEWER)			C13	-	5
BASEBALL FIELDS INTERIOR (SANITARY SEWER)					22
BASEBALL FIELDS INTERIOR (WATER MAIN)			1-1/2" SERVICE		180
TOTAL					852

SCHEDULE FOR DIVISION 4 ITEMS														
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	4.01	4.02	4.03	4.04	4.05	4.06	4.07	4.08	4.09	4.10
					SANITARY SEWER, SDR- 35, 4"	SANITARY SEWER CLEANOUT	STORM SEWER CLEANOUT	STORM SEWER, HDPE, 6"	STORM SUBDRAIN, HDPE, 6"	STORM SEWER, HDPE, 15"	STORM SEWER, RCP, 15"	STORM SEWER, RCP, 18"	FLARED END SECTION, STEEL, 15"	FLARED END SECTION, RCP, 18"
					LF	EA	EA	LF	LF	LF	LF	LF	EA	EA
7TH ST & E AVE	1000+60.06	0.00	B1											1
7TH ST & E AVE			B2	B1								59		
7TH ST & E AVE			B3	B2								185		
7TH ST & E AVE			B4	B3							156			
7TH ST & E AVE			B5	B4							25			
7TH ST & E AVE			B6	B5							31			
BASEBALL FIELDS	2000+12.07	0.00	C1										1	
BASEBALL FIELDS			C2	C1						269				
BASEBALL FIELDS			C5	C2						111				
BASEBALL FIELDS			C6	C5						104				
BASEBALL FIELDS			C7	C2						104				
BASEBALL FIELDS			C10	C3				99						
BASEBALL FIELDS			-	C8				5						
BASEBALL FIELDS			C15	C4				99						
BASEBALL FIELDS			-	C13				5						
BASEBALL FIELDS	2004+85.05	82.58 RT	C19				1							
BASEBALL FIELDS	2004+85.05	27.58 RT	C18				1							
BASEBALL FIELDS	5000+15.67	1.39 RT	3G			1								
BASEBALL FIELDS			-	3H	9									
BASEBALL FIELDS			3H	3F	3									
BASEBALL FIELDS			-	3J	4									
BASEBALL FIELDS			3J	3I	3									
BASEBALL FIELDS			3I	3H	3									
SAND VOLLEYBALL			D4	D3					191					
SAND VOLLEYBALL			D5	D2					191					
SAND VOLLEYBALL			D3	D2						40				
SAND VOLLEYBALL			D2	D1						40				
SAND VOLLEYBALL			D1	4								112		
SAND VOLLEYBALL	3000+10.57	0.00	D4				1							
SAND VOLLEYBALL	3000+10.57	40.00 RT	D5				1							
SAND VOLLEYBALL	3002+01.57	3.00 LT	D6				1							
WELLNESS TRAIL											35			
TOTAL					22	1	5	208	382	668	247	356	1	1

PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: 3/6/2020 11:00 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg						



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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

SCHEDULE OF QUANTITIES

PROJECT NO:
10322002
SHEET
C7

SCHEDULE FOR DIVISION 5 ITEMS										
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	5.01	5.02	5.03	5.04	5.05	5.06
					WATER SERVICE, COPPER, 1-1/2"	CORPORATION STOP, 1-1/2"	CURB STOP & BOX, 1-1/2"	WATER SERVICE CONNECTION	VALVE BOX ADJUSTMENT	HYDRANT ADJUSTMENT
					LF	EA	EA	EA	EA	EA
BASEBALL FIELDS	4000+93.02	0.00			85	1	1	1		
BASEBALL FIELDS	4000+92.93	8.00 LT			75	1	1	1		
BASEBALL FIELDS	4000+25.54	43.00 LT			20		1			
BASEBALL FIELDS									1	1
SOCCER FIELDS					180	1	1	1		
E AVENUE	121+40.00								1	1
E AVENUE	121+70.00								1	
E AVENUE	132+23.00								2	1
E AVENUE	134+25.00								1	
TOWER ENTRANCE	302+05.00								2	
WELLNESS TRAIL	203+00.00								1	1
WELLNESS TRAIL	205+75.00								1	1
TOTAL					360	3	4	3	10	5

SCHEDULE FOR DIVISION 6 ITEMS									
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	6.01	6.02	6.03	6.04	6.05
					MANHOLE, SW-401, 48"	INTAKE, SW-501	NYLOPLAST DRAIN BASIN, 30"	SANITARY MANHOLE ADJUSTMENT, MINOR	GREASE TRAP
					EA	EA	EA	EA	LS
7TH ST & E AVE	1001+19.47	0.00		B2	1				
7TH ST & E AVE	1003+04.04	0.00		B3	1				
7TH ST & E AVE	1004+59.36	0.00		B4	1				
7TH ST & E AVE	1004+83.86	0.00		B5		1			
7TH ST & E AVE	1005+14.86	0.00		B6		1			
BASEBALL FIELDS	2002+80.61	0.00		C2			1		
BASEBALL FIELDS	2003+90.79	0.00		C5			1		
BASEBALL FIELDS	2004+95.04	0.00		C6			1		
BASEBALL FIELDS	2002+80.61	104.25 RT		C7			1		
BASEBALL FIELDS	5000+21.35	0.00		3E				1	
BASEBALL FIELDS	5000+08.85	2.00 RT		3J					1
SAND VOLLEYBALL	3002+81.07	0.00		D1	1				
E AVENUE	121+00.26	0.65 RT		1A				1	
E AVENUE	124+00.27	0.48 RT		2A				1	
E AVENUE	127+99.14	0.45 RT		3A				1	
E AVENUE	131+98.06	0.34 RT		4A				1	
TOTAL					4	2	4	5	1

SCHEDULE FOR DIVISION 7 ITEMS									
ALIGNMENT	LOCATION STATION	OFFSET	FROM STA	TO STA	7.01	7.02	7.03	7.04	7.05
					PCC PAVEMENT, 6"	PCC PAVEMENT, 7"	PCC PAVEMENT W/INTEGRAL CURB, 7"	DETECTABLE WARNINGS	GRANULAR SURFACING, 6"
					SY	SY	SY	SF	SY
7TH STREET					211		1363	10	
7TH ST & E AVE	INTERSECTION						403	62	
7TH ST & E AVE	YMCA CONNECTION						106		
7TH STREET	12+65.00		DRIVEWAY RT			22			67
E AVENUE					3135	5478			
E AVENUE	133+60.00		PARKING LOT ENTRANCE RT		240				69
E AVENUE	135+00.00		PARKING LOT ENTRANCE RT		396				75
TOWER ENTRANCE									303
WELLNESS TRAIL					907			40	
PARKING LOT					287				745
BASEBALL FIELDS					5636				
TOTAL					10812	5500	1872	112	1259

SCHEDULE FOR DIVISION 8 ITEMS					
ALIGNMENT	LOCATION STATION	OFFSET	FROM STA	TO STA	8.01
					PAINTED PAVEMENT MARKINGS
					SF
7TH STREET					220
7TH ST & E AVE	INTERSECTION				645
TOTAL					865

SCHEDULE FOR DIVISION 9 ITEMS																			
					9.01	9.02	9.03	9.04	9.05	9.06	9.07	9.08	9.09	9.10	9.11	9.12	9.13	9.14	9.15
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	CONVENTIONAL SEEDING	TURF SEEDING	FERTILIZER FOR SEEDING	HYDROMULCHING FOR SEEDING	SWPPP	EROSION CONTROL BLANKET	RIP RAP	SILT FENCE	STABILIZED CONSTRUCTION ENTRANCE	INLET PROTECTION	FLOW TRANSITION MAT	CHAIN LINK FENCE, 6' HEIGHT	CHAIN LINK FENCE, 10' HEIGHT	CHAIN LINK FENCE, 18' HEIGHT (BACKSTOP)	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT
					SY	SY	SY	SY	LS	SY									
ENTIRE PROJECT					44527		44527	44527	1	2820	29	5704	1	11	400				
BASEBALL FIELD 1						6661	6661	6661								1086	54	139	3
BASEBALL FIELD 2						6034	6042	6042								1007	54	105	3
BASEBALL FIELD 3						6661	6661	6661								1086	54	139	3
BASEBALL FIELD 4						6034	6042	6042								1007	54	105	3
SOCCER FIELD 1						7150	7150	7150											
SOCCER FIELD 2						7150	7150	7150											
TOTAL					44527	39690	84233	84233	1	2820	29	5704	1	11	400	4186	216	488	12

PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: 3/6/2020 11:00 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg						



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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

SCHEDULE OF QUANTITIES

PROJECT NO:
10322002
SHEET
C8

SCHEDULE FOR DIVISION 11 ITEMS																						
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	11.01	11.02	11.03	11.04	11.05	11.06	11.07	11.08	11.09	11.10	11.11	11.12	11.13	11.14	11.15	11.16	11.17	11.18
					MOBILIZATION	CONCRETE WASHOUT	SKINNED INFIELD, 4"	GRANULAR SURFACE, 4"	SAND BASE, VOLLEYBALL	BORDER EDGING	CONCESSION STRUCTURE, COMPLETE	DUGOUT STRUCTURE, COMPLETE	IRRIGATION SYSTEM, BASEBALL FIELDS	IRRIGATION SYSTEM, SOCCER FIELD	BASEBALL FIELD 1 EQUIPMENT	BASEBALL FIELD 2 EQUIPMENT	BASEBALL FIELD 3 EQUIPMENT	BASEBALL FIELD 4 EQUIPMENT	SAND VOLLEYBALL COURT EQUIPMENT	FLAGPOLE ARRANGEMENT	REMOVABLE BOLLARD	FENCE TOP PROTECTION (OUTFIELD FENCE)
					LS	LS	SY	SY	SY	LF	LS	EA	LS	LS	LS	LS	LS	LS	LS	LS	EA	LF
ENTIRE PROJECT					1	1					1		1	1	1	1	1	1	1	1	2	
BASEBALL FIELD 1							2889			174		2										538
BASEBALL FIELD 2							1695			174		2										485
BASEBALL FIELD 3							2889			174		2										538
BASEBALL FIELD 4							1695			174		2										485
BATTING CAGES								467		260												
SAND VOLLEYBALL COURTS									1475	494												
TOTAL					1	1	9168	467	1475	1450	1	8	1	1	1	1	1	1	1	1	2	2046

SCHEDULE FOR DIVISION 12 ITEMS					
					12.01
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	SITE ELECTRICAL CONDUIT
					LS
ENTIRE PROJECT					1
TOTAL					1

SCHEDULE FOR ALTERNATE 1 ITEMS													
					A.01	A.02	A.03	A.04	A.05	A.06	A.07	A.08	
ALIGNMENT	LOCATION STATION	OFFSET	FROM STRUCTURE	TO STRUCTURE	CHAIN LINK FENCE, 6' HEIGHT, UPGRADE	CHAIN LINK FENCE, 10' HEIGHT, UPGRADE	CHAIN LINK FENCE, 18' HEIGHT BACKSTOP, UPGRADE	CHAIN LINK GATE, 10' WIDTH, 6' HEIGHT, UPGRADE	BASEBALL FIELD LIGHTING (FIELD 1)	BASEBALL FIELD LIGHTING (FIELD 2)	SOCCER FIELD LIGHTING	FENCE TOP PROTECTION (FOUL LINE FENCE)	
					LF	LF	LF	EA	LS	LS	LS	LF	
BASEBALL FIELD 1					1186	50	143	3	1			338	
BASEBALL FIELD 2					1111	50	105	3		1		312	
BASEBALL FIELD 3					1186	50	143	3				338	
BASEBALL FIELD 4					1111	50	105	3				312	
BATTING CAGES													
SAND VOLLEYBALL COURTS													
SOCCER FIELD											1		
TOTAL					4594	200	496	12	1	1	1	1300	

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	JLS	-	-	-	-
	DESIGNED BY:	JLS	-	-	-
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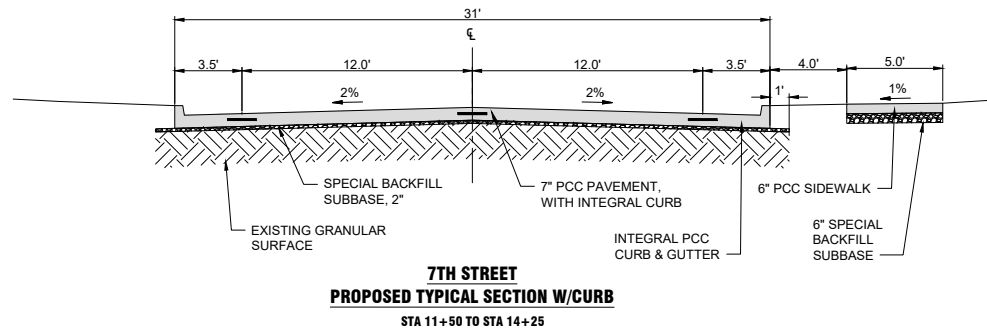
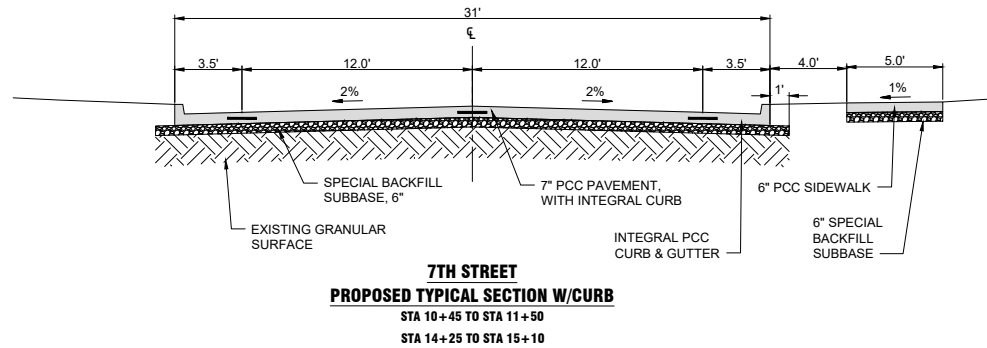


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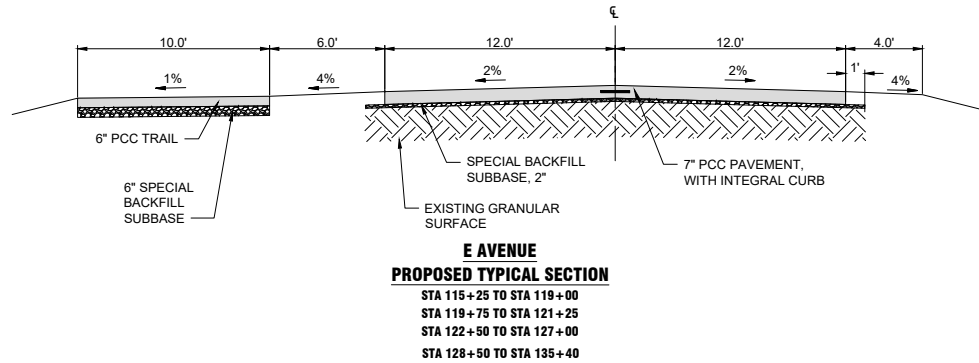
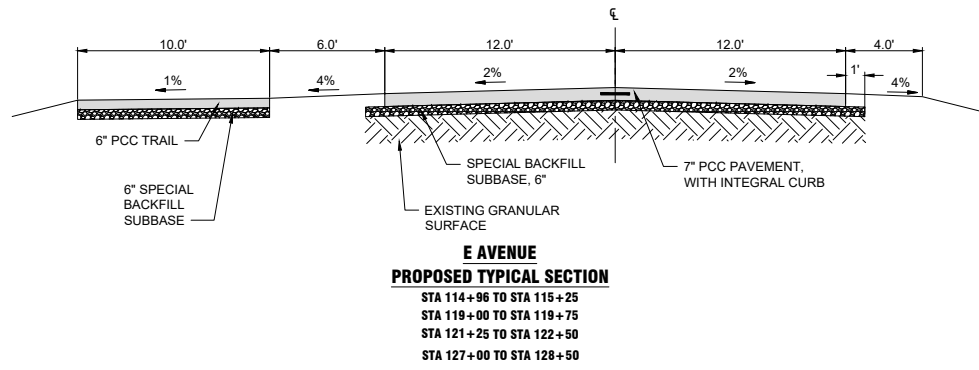
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SCHEDULE OF QUANTITIES

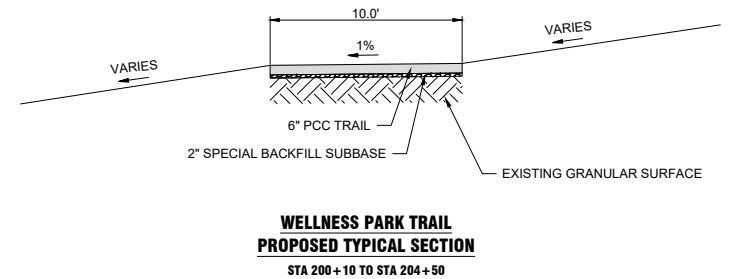
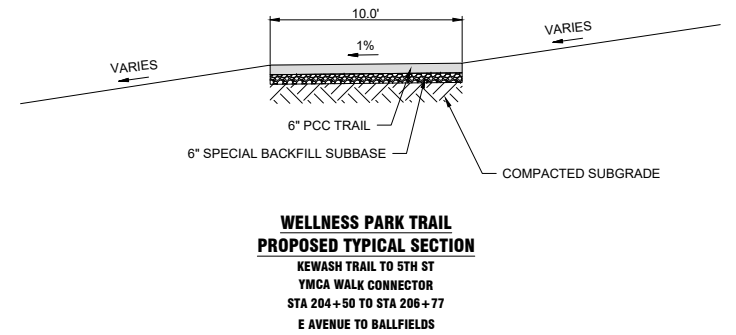
PROJECT NO:
10322002
SHEET
C9



7TH STREET TYPICAL SECTIONS
SCALE: NONE



E AVENUE TYPICAL SECTIONS
SCALE: NONE



WELLNESS TRAIL TYPICAL SECTIONS
SCALE: NONE

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
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	DESIGNED BY:	JLS	-	-	-
	CHECKED BY:	JRH	-	-	-
PLOT DATE: 3/6/2020 11:00 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg					

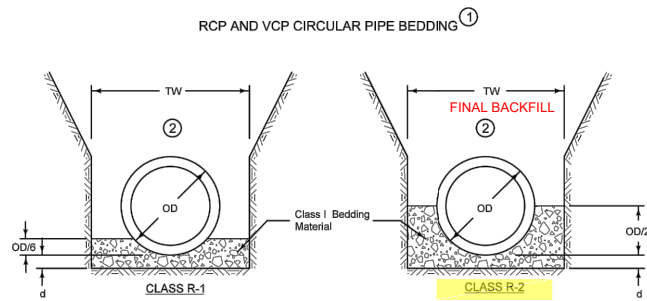


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TYPICAL SECTIONS

PROJECT NO:
10322002
SHEET
C10



- Refer to sheet 2 for bury depth restrictions.
- Use Bedding Class R-1 or R-2 unless specified otherwise.
 - Place remainder of bedding and backfill materials as specified in the contract documents.

Key

OD = Outside diameter of pipe

OS = Outside span of pipe

TW = Trench width at top of pipe:
Min. = OD+18 inches
Max. = 1.25xOD+12 inches OR
54 inches (whichever is greater)

d = Depth of bedding material below pipe:
OD/8 or OS/8, OR 4 inches
(whichever is greater)

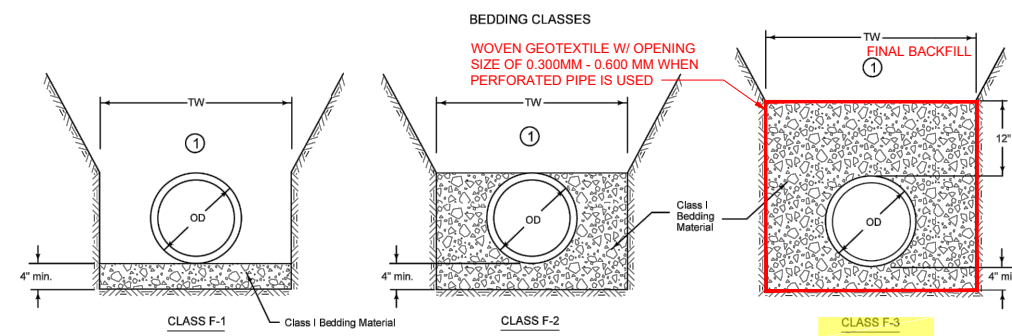
CLASS III RCP

Pipe Diameter (in)	Class R-1 Bedding	Class R-2 Bedding	Class R-3 & R-4 Bedding		
			No Steel	As=0.4%	As=1.0%
12	7"	10"	15'	19'	27'
15	8"	10"	16'	19'	27'
18	8"	11"	16'	20'	40'
21	8"	11"	18'	28'	40'
24	8"	12"	23'	36'	40'
27	10"	15"	30'	40'	40'
30	11"	15"	29'	40'	40'
33	11"	15"	28'	40'	40'
36	11"	15"	27'	40'	40'
42	11"	15"	28'	38'	40'
48	11"	15"	28'	36'	40'
54	11"	15"	28'	34'	40'
60	11"	15"	25'	33'	40'
66	11"	15"	24'	32'	40'
72	11"	15"	24'	32'	40'

As = Area of Steel Reinforcing

SUDAS	IOWADOT	REVISION 3 04-16-19
FIGURE 3010.102	STANDARD ROAD PLAN	SW-102
SHEET 1 of 2		
REVISIONS: Changed Class 1 to Class I in CLASS R-5 Vertical Elliptical detail.		
<div>Paul D. Wigand</div> <div>SUDAS DIRECTOR</div>		
<div>Scott Miller</div> <div>DESIGN METHODS ENGINEER</div>		
RIGID GRAVITY PIPE TRENCH BEDDING		

FIGURE 3010.103 SHEET 1 OF 1



- Place remainder of bedding and backfill materials as specified in the contract documents.
- Minimum depth of bury 12 inches or as specified by the manufacturer.

ALLOWABLE BEDDING CLASSES

PIPE MATERIAL	STORM SEWER	SANITARY SEWER
Ductile Iron	F-1, F-2, F-3	F-1, F-2, F-3
HDPE	F-2, F-3	Not allowed
Polypropylene	F-2, F-3	F-3
PVC	F-2, F-3	F-3

Key

OD = Outside diameter of pipe

TW = Trench width at top of pipe:
Min. = OD+18 inches OR 1.25xOD+12 inches
(whichever is greater)

PVC PIPE

Pipe Diameter (in)	ASTM D 3034			ASTM F 679	ASTM F 949	ASTM F 1803	ASTM D 2680
	Solid Wall			Solid Wall	Corrug. Exterior	Closed Profile	Composite (Truss Type)
	SDR 23.5	SDR 26	SDR 35	SDR 35			
8	30'	28'	24'	---	24'	---	32'
10	30'	28'	24'	---	24'	---	32'
12	30'	28'	24'	---	24'	---	32'
15	30'	28'	24'	---	24'	---	32'
18	---	---	---	24'	24'	---	---
21	---	---	---	24'	24'	24'	---
24	---	---	---	24'	24'	24'	---
27	---	---	---	24'	---	24'	---
30	---	---	---	24'	24'	24'	---
33	---	---	---	24'	---	---	---
36	---	---	---	24'	24'	24'	---
42	---	---	---	24'	---	24'	---
48	---	---	---	24'	---	24'	---
54	---	---	---	---	---	24'	---
60	---	---	---	---	---	24'	---

DUCTILE IRON, AWWA C151, CLASS 52

Pipe Diameter (in)	Class F-1 Bedding	Class F-2 Bedding	Class F-3 Bedding
4	40'	40'	40'
6	40'	40'	40'
8	40'	40'	40'
10	40'	40'	40'
12	37'	40'	40'
14	31'	40'	40'
16	28'	37'	40'
18	25'	34'	40'
20	23'	32'	40'
24	20'	29'	38'
30	18'	23'	31'
36	18'	22'	30'
42	17'	21'	29'
48	16'	19'	27'
54	16'	19'	27'

HDPE PIPE

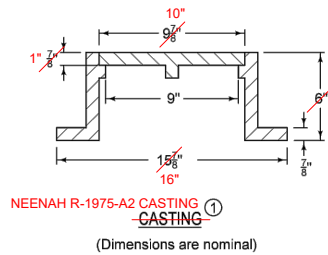
Pipe Diameter (in)	AASHTO M 254
12	8'
15	9'
18	9'
24	9'
30	9'
36	9'
42	8'
48	8'
54	8'
60	8'

POLYPROPYLENE PIPE

Pipe Diameter (in)	ASTM F 2764
12	24'
15	25'
18	22'
24	20'
30	22'
36	21'
42	22'
48	23'
54	21'
60	21'

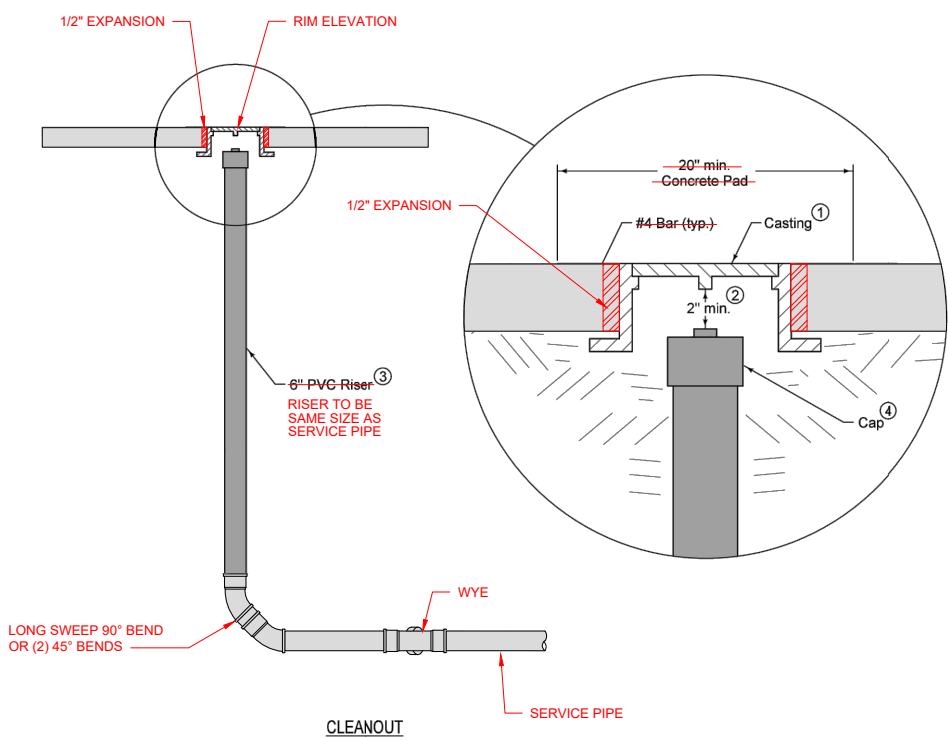
SUDAS	IOWADOT	REVISION 3 04-16-19
FIGURE 3010.103	STANDARD ROAD PLAN	SW-103
SHEET 1 of 1		
REVISIONS: Removed ASTM F 2776 from Polypropylene Pipe table. Changed Class 1 to Class I in the CLASS F-2 and CLASS F-3 details.		
<div>Paul D. Wigand</div> <div>SUDAS DIRECTOR</div>		
<div>Scott Miller</div> <div>DESIGN METHODS ENGINEER</div>		
FLEXIBLE GRAVITY PIPE TRENCH BEDDING		

- LID SHALL BE MARKED "SANITARY" FOR SANITARY CLEANOUTS, AND MARKED "STORM" FOR STORM CLEANOUTS
- Do not allow casting to bear on top of riser pipe.
- RISER SHALL BE PVC PER SECTION 4010 PART 2.04.C.1
- Threaded PVC cap or iron body ferrule with brass screw plug

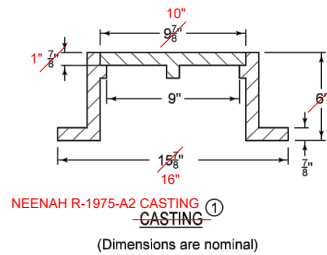


SUDAS	IOWADOT	REVISION 1 04-17-18
FIGURE 4010.203	STANDARD ROAD PLAN	SW-203
SHEET 1 of 1		
REVISIONS: Replaced Iowa DOT and SUDAS logos.		
<div>Paul D. Wigand</div> <div>SUDAS DIRECTOR</div>		
<div>Brian Smith</div> <div>DESIGN METHODS ENGINEER</div>		
CLEANOUT IN NON-PAVEMENT AREAS SANITARY SEWER CLEANOUT		

FIGURE 4010.203 SHEET 1 OF 1



- LID SHALL BE MARKED "SANITARY" FOR SANITARY CLEANOUTS, AND MARKED "STORM" FOR STORM CLEANOUTS
- Do not allow casting to bear on top of riser pipe.
- RISER SHALL BE PVC PER SECTION 4010 PART 2.04.C.1
- Threaded PVC cap or iron body ferrule with brass screw plug



SUDAS	IOWADOT	REVISION 1 04-17-18
FIGURE 4010.203	STANDARD ROAD PLAN	SW-203
SHEET 1 of 1		
REVISIONS: Replaced Iowa DOT and SUDAS logos.		
<div>Paul D. Wigand</div> <div>SUDAS DIRECTOR</div>		
<div>Brian Smith</div> <div>DESIGN METHODS ENGINEER</div>		
CLEANOUT IN PAVEMENT AREAS SANITARY SEWER CLEANOUT		

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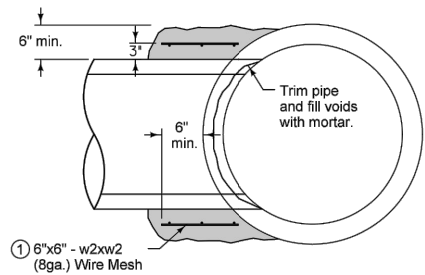
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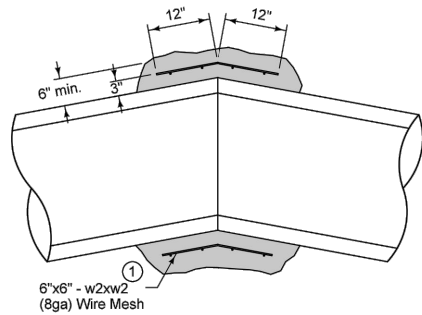
DETAILS

PROJECT NO:
10322002

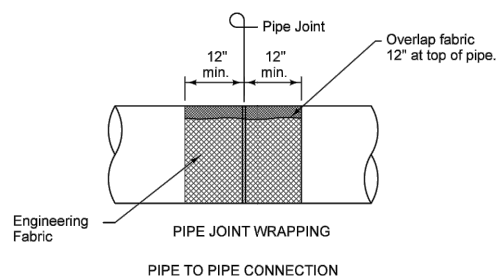
SHEET
D1



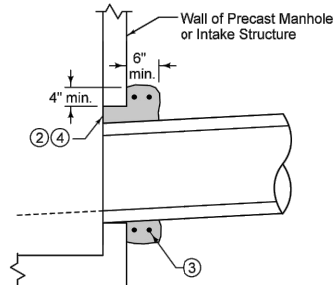
TYPE PC-1 CONCRETE COLLAR CONNECTION



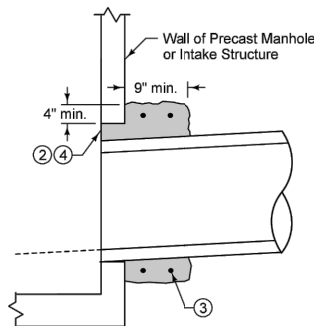
TYPE PC-2 CONCRETE COLLAR CONNECTION



PIPE TO PIPE CONNECTION



CONCRETE COLLAR FOR PIPES 12" AND SMALLER



CONCRETE COLLAR FOR PIPES GREATER THAN 12"

PIPE TO STRUCTURE CONNECTION

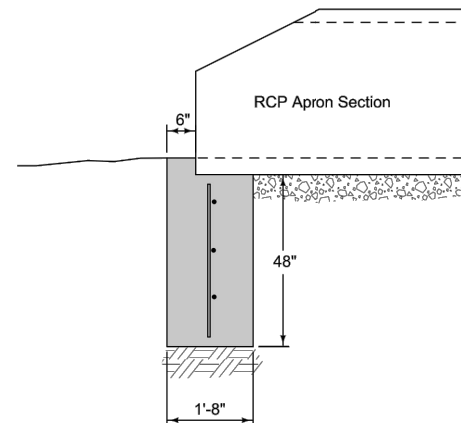
- 1 Lap ends of wire mesh a minimum of 6 inches.
- 2 Concrete collar is required when annular space between the outside of the pipe and the wall of the structure is 2 inches or greater.
- 3 Provide two #4 hoop bars in concrete collar. Lap bars a minimum of 6 inches.
- 4 Trowel concrete flush with inside wall of structure.

SUDAS **IOWADOT** **SW-211**

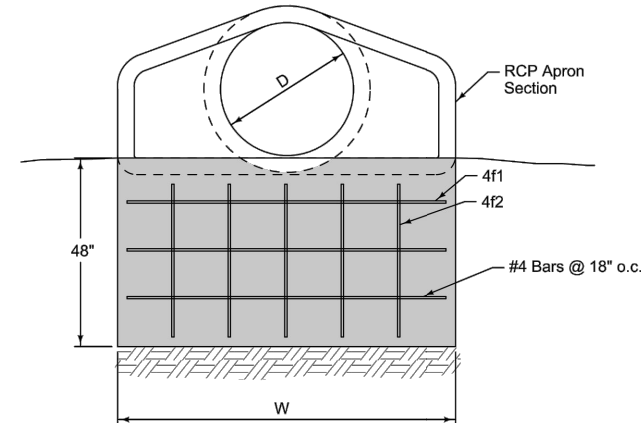
FIGURE 4020.211 STANDARD ROAD PLAN SHEET 1 of 1

REVISIONS: Removed "Invert" callout on Pipe to Structure View. Retitled and replaced old Iowa DOT and SUDAS logos with new logos.

STORM SEWER PIPE CONNECTIONS



TYPICAL SECTION



ELEVATION

REINFORCING BAR LIST

D	W	Mark	Size	Length	Count
12"	2'-4"	4f1	4	2'-0"	3
		4f2	4	3'-8"	2
15"	2'-10 1/2"	4f1	4	2'-6 1/2"	3
		4f2	4	3'-8"	2
18"	3'-5"	4f1	4	3'-1"	3
		4f2	4	3'-8"	3
24"	4'-6"	4f1	4	4'-2"	3
		4f2	4	3'-8"	3
30"	5'-7"	4f1	4	5'-3"	3
		4f2	4	3'-8"	4
36"	6'-8"	4f1	4	6'-4"	3
		4f2	4	3'-8"	5
42"	7'-3"	4f1	4	6'-11"	3
		4f2	4	3'-8"	5

D	W	Mark	Size	Length	Count
48"	7'-10"	4f1	4	7'-6"	3
		4f2	4	3'-8"	6
54"	8'-5"	4f1	4	8'-1"	3
		4f2	4	3'-8"	6
60"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
66"	8'-11"	4f1	4	8'-7"	3
		4f2	4	3'-8"	6
72"	10'-0"	4f1	4	9'-8"	3
		4f2	4	3'-8"	7
78"	10'-7"	4f1	4	10'-3"	3
		4f2	4	3'-8"	7
84"	11'-1"	4f1	4	10'-9"	3
		4f2	4	3'-8"	8

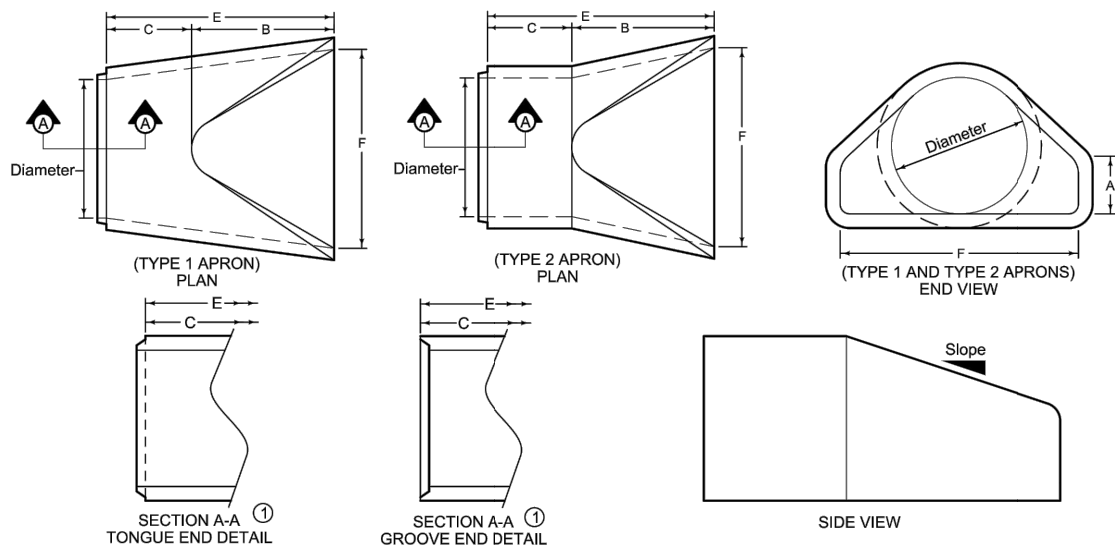
SUDAS **4030.221**

REVISION 1 10-21-14

SHEET 1 of 1

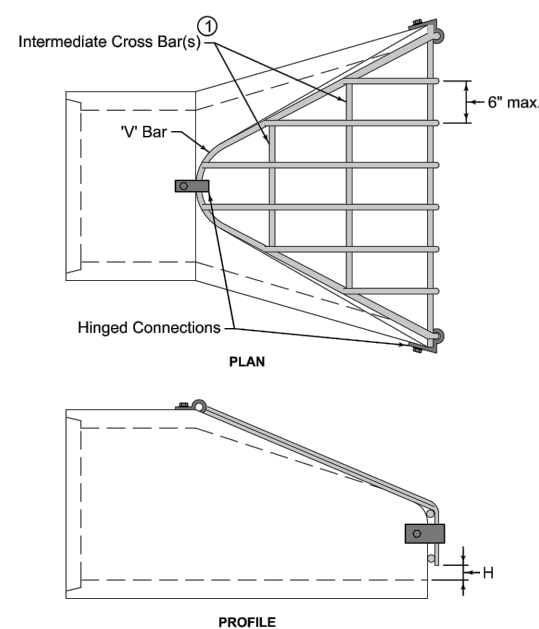
SUDAS Standard Specifications

RCP APRON SECTION FOOTING



Dimension 'E' shown is the minimum and is considered the design length. Adjust for any difference between the actual length of concrete apron installed and the length indicated below for the length of concrete culvert pipe furnished.

- 1 Tongue end used on inlet end section. Groove end used on outlet end section.



Provide guard dimensions to fit with type of apron provided. Ensure 'V' Bar completely rests on apron.

- 1 All guards must include at least one intermediate cross bar. If pipe diameter, or equivalent diameter, is 60 inches or greater, use two intermediate cross bars equally spaced.

TYPE 1 APRONS						
DIAM.	SLOPE	A	B	MINIMUM		F
				C	E	
12"	2.4:1	4"	2'-0"	4'-2"	6'-2"	2'-0"
15"	2.4:1	6"	2'-3"	3'-10"	6'-1"	2'-6"
18"	2.3:1	9"	2'-3"	3'-10"	6'-1"	3'-0"
21"	2.4:1	9"	3'-0"	3'-11"	6'-1"	3'-5"
24"	2.5:1	9 1/2"	2'-6"	3'-7 1/2"	6'-1 1/2"	4'-0"
27"	2.5:1	10 1/2"	4'-1"	2'-0"	6'-1 1/2"	4'-4"
30"	2.5:1	12"	4'-6"	1'-7 1/2"	6'-1 1/2"	5'-0"
36"	2.5:1	15"	5'-3"	2'-9"	8'-0"	6'-0"
42"	2.5:1	21"	5'-3"	2'-9"	8'-0"	6'-6"
48"	2.5:1	24"	6'-0"	2'-0"	8'-0"	7'-0"
54"	1.8:1	27"	5'-0"	3'-0"	8'-0"	7'-6"
60"	1.6:1	29 1/2"	5'-0"	3'-0"	8'-0"	8'-0"
66"	1.7:1	30"	6'-0"	2'-3"	8'-3"	8'-0"
72"	1.6:1	30"	6'-6"	1'-9"	8'-3"	9'-0"
78"	1.8:1	36"	7'-6"	1'-9"	9'-3"	9'-6"
84"	1.3:1	29 1/2"	6'-9"	2'-6 1/2"	9'-3 1/2"	10'-0"

TYPE 2 APRONS						
DIAM.	SLOPE	A	B	MINIMUM		F
				C	E	
12"	2.4:1	4"	2'-0"	4'-2"	6'-2"	2'-0"
15"	2.4:1	6"	2'-3"	3'-10"	6'-1"	2'-6"
18"	2.3:1	9"	2'-3"	3'-10"	6'-1"	3'-0"
21"	2.4:1	9"	3'-0"	3'-11"	6'-1"	3'-5"
24"	2.5:1	9 1/2"	2'-6"	3'-7 1/2"	6'-1 1/2"	4'-0"
27"	2.5:1	10 1/2"	4'-1"	2'-0"	6'-1 1/2"	4'-4"
30"	2.5:1	12"	4'-6"	1'-7 1/2"	6'-1 1/2"	5'-0"
36"	2.5:1	15"	5'-3"	2'-9"	8'-0"	6'-0"
42"	2.5:1	21"	5'-3"	2'-9"	8'-0"	6'-6"
48"	2.5:1	24"	6'-0"	2'-0"	8'-0"	7'-0"
54"	1.9:1	24 1/2"	5'-5"	2'-7"	8'-0"	7'-6"
60"	1.4:1	24 1/2"	5'-0"	3'-0"	8'-0"	8'-0"
66"	1.7:1	30"	6'-0"	2'-3"	8'-3"	8'-0"
72"	1.4:1	24"	6'-6"	1'-9"	8'-3"	9'-0"
78"	1.8:1	36"	7'-6"	1'-9"	9'-3"	9'-6"
84"	1.5:1	23 1/2"	7'-3 1/2"	1'-9"	9'-3 1/2"	10'-0"

SUDAS **4030.222**

REVISION New 10-18-16

SHEET 1 of 1

SUDAS Standard Specifications

CIRCULAR CONCRETE APRONS

FIGURE 4030.224 SHEET 1 OF 1

ROUND		ARCH		ELLIPTICAL	
PIPE SIZE	H	EQUIVALENT DIAMETER	H	EQUIVALENT DIAMETER	H
12"	2 1/4"	18" to 24"	4"	18"	3"
15"	3"	30" to 36"	5"	24"	4"
18" - 24"	4"	42" to 54"	6"	30" to 36"	5"
27" - 36"	5"	60" to 72"	7"	42" to 54"	6"
42" - 54"	6"			60"	7"
60" - 72"	7"				
78" - 90"	8"				

BAR SIZES			
PIPE SIZE (DIA. or EQUIV.)	HOLE DIA. REQ'D.	BOLT DIA.	BAR SIZE
12" - 24"	3/4"	3/8"	3/4"
27" - 48"	1"	1/2"	1"
54" - 90"	1 1/4"	3/4"	1 1/4"
up to 24" eq.	3/4"	3/8"	3/4"
30" to 48"	1"	1/2"	1"
54" to 72"	1 1/4"	3/4"	1 1/4"
up to 24" eq.	3/4"	3/8"	3/4"
30" to 48"	1"	1/2"	1"
54" to 60"	1 1/4"	3/4"	1 1/4"
BOLT LENGTH = PIPE WALL THICKNESS + 3 1/2"			

SUDAS **4030.224**

REVISION New 10-18-16

SHEET 1 of 1

SUDAS Standard Specifications

CONCRETE PIPE APRON GUARD

PROJECT DATE:

DRAWN BY: JLS

DESIGNED BY: JLS

CHECKED BY: JRH

PLOT DATE: 3/6/2020 11:00 AM, P:\10300s\10320s\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg

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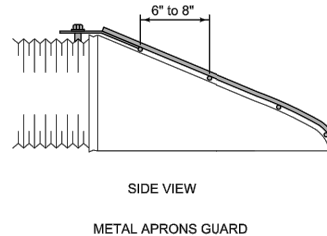
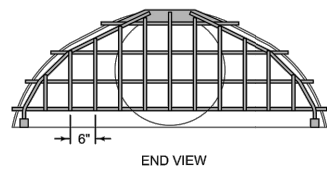
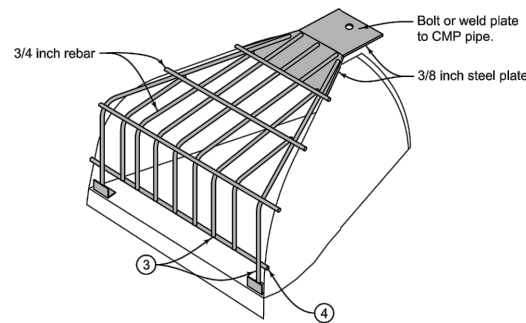
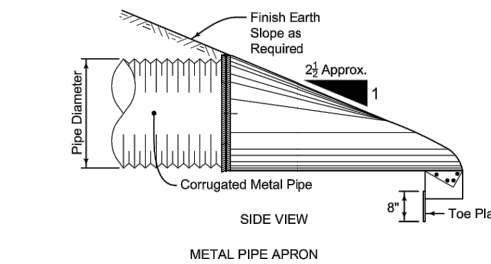
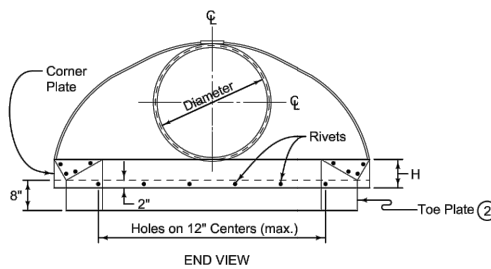
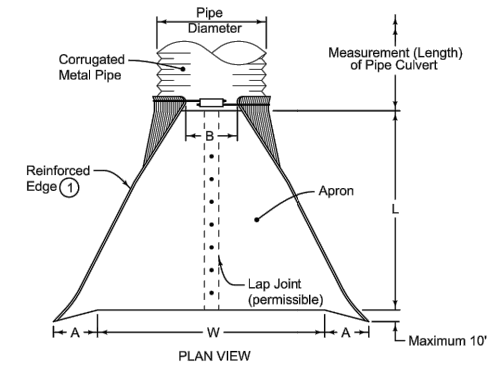
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BALL FIELDS AND ROADWAY
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WASHINGTON, IOWA

DETAILS

PROJECT NO.
10322002

SHEET
D2



- On sizes 80 inches and larger, supplement the reinforced edge with a galvanized stiffener angle attached with bolts.
- Install a galvanized toe plate (of the same gage metal as apron) on all aprons 24 inch diameter and larger.
- Hold inside bars up 3 inches off bottom of apron. Extend outside bars to bottom of apron and attach to 2 inch by 2 inch by 1/4 inch steel angle.
- When specified, extend bottom cross bar through apron.

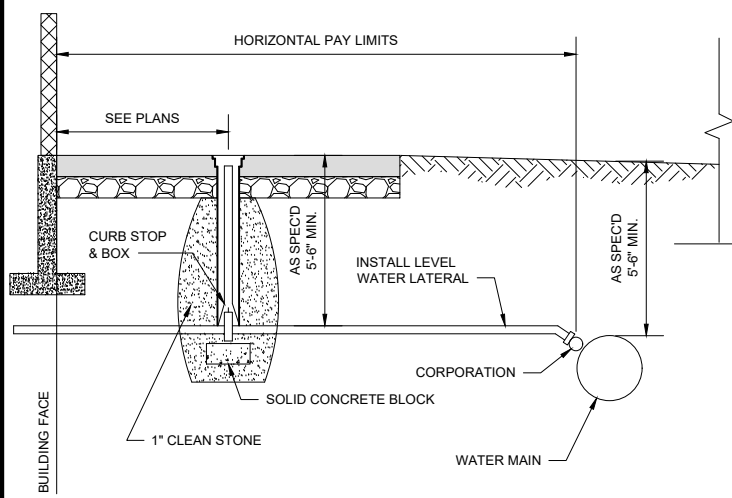
DIMENSIONS					
PIPE DIAM.	A (±1")	B MAX.	H (±1")	L (±1")	W (±2")
8"	4 1/2"	1"	3"	8 3/4"	12"
8"	5 1/2"	3"	4"	14 1/4"	16"
10"	7 1/2"	6"	6"	21"	24"
12"	9 1/2"	6"	6"	21"	24"
15"	6"	8"	6"	26"	30"
18"	7"	9"	6"	31"	36"
21"	8 1/2"	11"	6"	36"	42"
24"	9 1/2"	12"	6"	42"	48"
30"	12"	15"	7 1/2"	52 1/2"	60"
36"	14"	18"	9"	63"	72"
42"	16"	21"	10 1/2"	73 1/2"	84"
48"	18"	27"	12"	84"	90"
54"	18"	30"	12"	84"	102"
60"	18"	33"	12"	87"	114"
66"	18"	36"	12"	87"	120"
72"	18"	39"	12"	87"	126"
78"	18"	42"	12"	87"	132"
84"	18"	45"	12"	87"	138"
90"	24"	37"	11"	87"	144"
96"	25"	36"	12"	87"	150"

SUDAS

REVISION
New 10-18-18
4030.225
SHEET 1 of 1

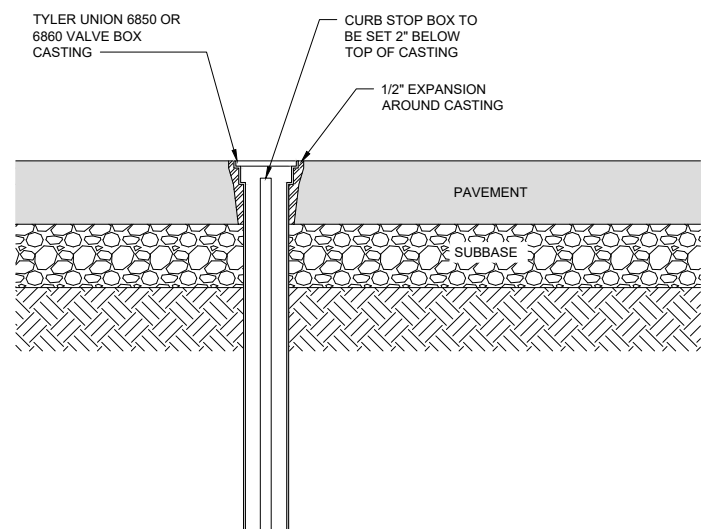
SUDAS Standard Specifications

METAL PIPE APRONS
AND APRON GUARDS

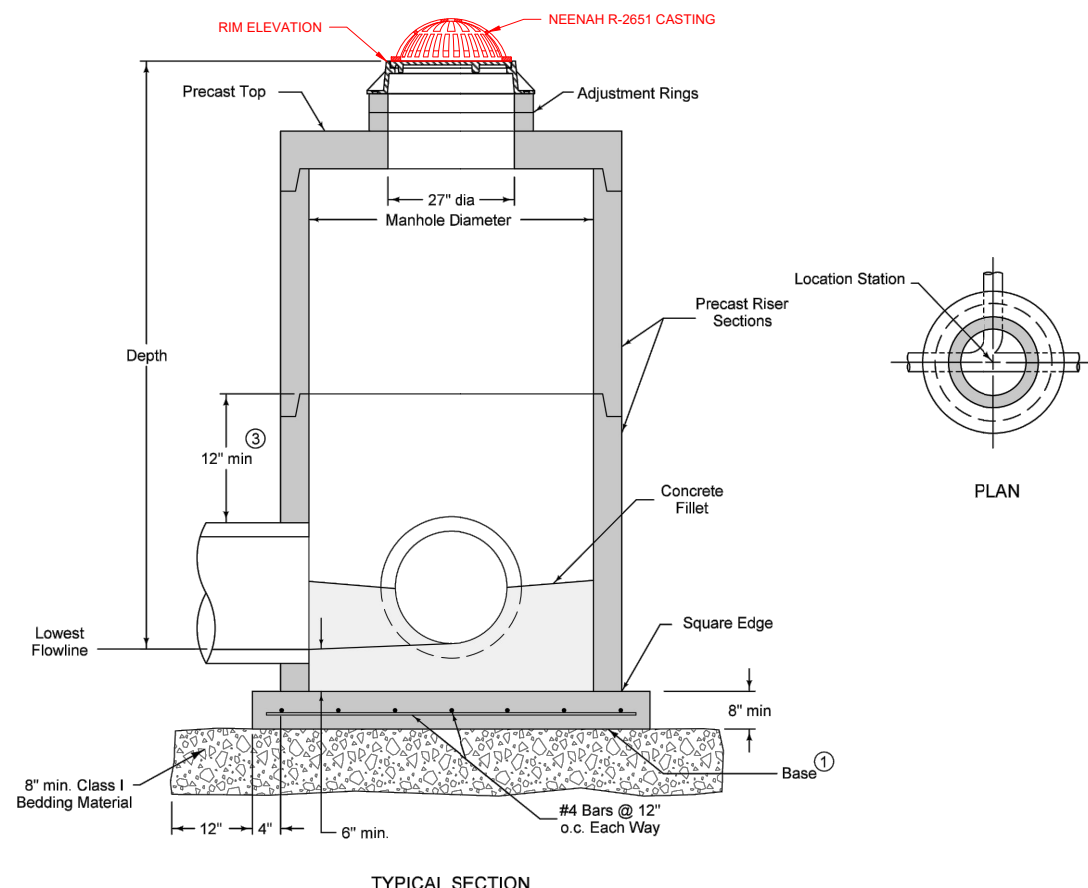


- GENERAL NOTES:
- SEE PLANS AND SPECIFICATIONS FOR SIZE AND TYPE OF CURB STOP AND BOX CORPORATION AND SERVICE LINE.

WATER SERVICE DETAIL
SCALE: NONE



CURB STOP BOX IN PAVEMENT
SCALE: NONE



- Cast-in-place base shown. If base is precast integral with bottom riser, the footprint of the base is not required to extend beyond the outer edge of the riser.
- For additional configurations, maintain a minimum of 12 inches of concrete between vertical edges of pipe openings.
- 12 inch minimum riser height above all pipe openings.

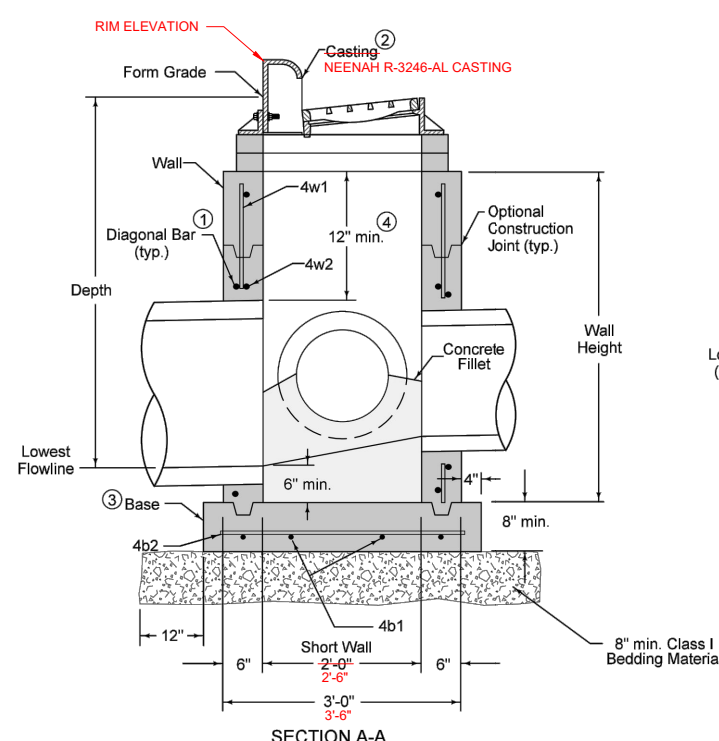
Manhole Diameter (inches)	Maximum Pipe Diameter (inches) for 2 Pipes	
	At 180° Separation	At 90° Separation
48	24	18
60	36	24
72	42	30
84	48	36
96	60	42

REVISION
2 04-21-20
SW-401
SHEET 1 of 1

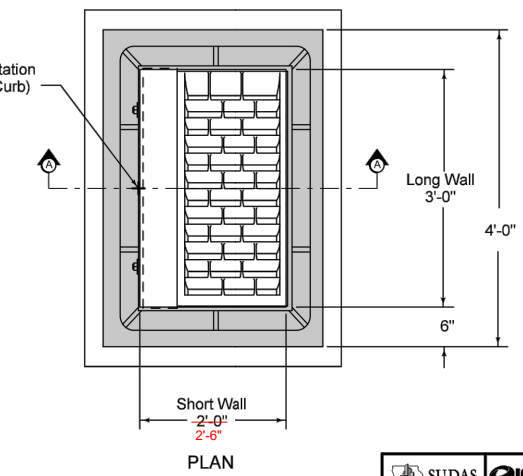
FIGURE 6010.401 STANDARD ROAD PLAN

REVISIONS: Added Class I Bedding Material and removed steps.
Paul D. Weigand DESIGN METHOD ENGINEER
Scott Miller DESIGN METHOD ENGINEER

CIRCULAR STORM SEWER
MANHOLE



REINFORCING BAR LIST						
Mark	Size	Location	Shape	Length	Count	Spacing
4w1	4	Walls	—	Wall Height minus 4"	14	12"
4w2	4	Long Walls	—	3'-8"	Varies	12"
4w3	4	Short Walls	—	2'-8"	Varies	12"
4b1	4	Base	—	4'-2"	4	10"
4b2	4	Base	—	3'-8"	5	10"



MAXIMUM PIPE DIAMETERS		
Pipe Location	Precast Structure	Cast-in-place Structure
Short Wall	15"	18"
Long Wall	24"	30"

- Refer to SW-514 for boxout details.
- Install four #4 diagonal bars at all pipe openings.
 - CASTING SHALL HAVE NEENAH R-3000-A ENVIRONOTICE CURB PLATE "DUMP NO WASTE, DRAINS TO FRESH WATER"
 - Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
 - 12 inch minimum wall height above all pipes.

REVISION
3 04-21-20
SW-501
SHEET 1 of 1

FIGURE 6010.501 STANDARD ROAD PLAN

REVISIONS: Added Class I Bedding Material.
Paul D. Weigand DESIGN METHOD ENGINEER
Scott Miller DESIGN METHOD ENGINEER

SINGLE GRATE INTAKE

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	.	.		.
	DESIGNED BY:	JLS	.		.
	CHECKED BY:	JRH	.		.
PLOT DATE: 3/6/2020 11:00 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\T1 TITLE SHEET.dwg					

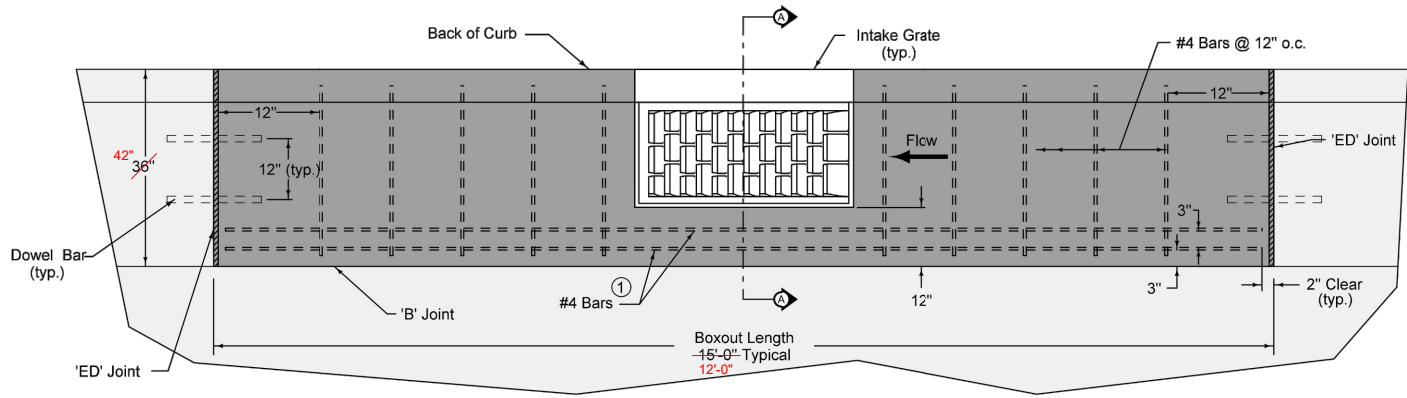
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WASHINGTON, IOWA

DETAILS

PROJECT NO: 10322002
SHEET D3

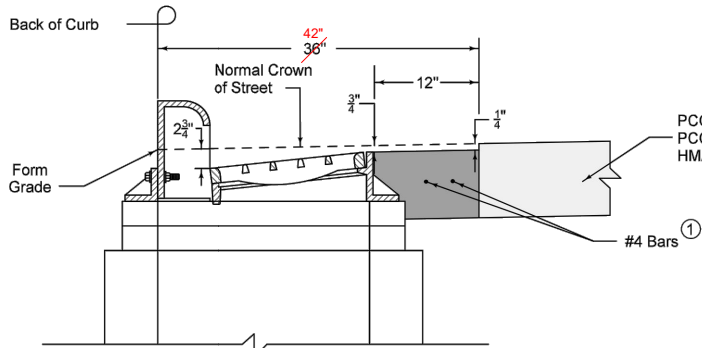


BOXOUT IN PCC PAVEMENT AND PCC BASE WITH HMA OVERLAY





Transverse joint spacing on new concrete pavement is controlled by the intake boxout. Adjust adjacent joint spacing as required to accommodate boxouts.

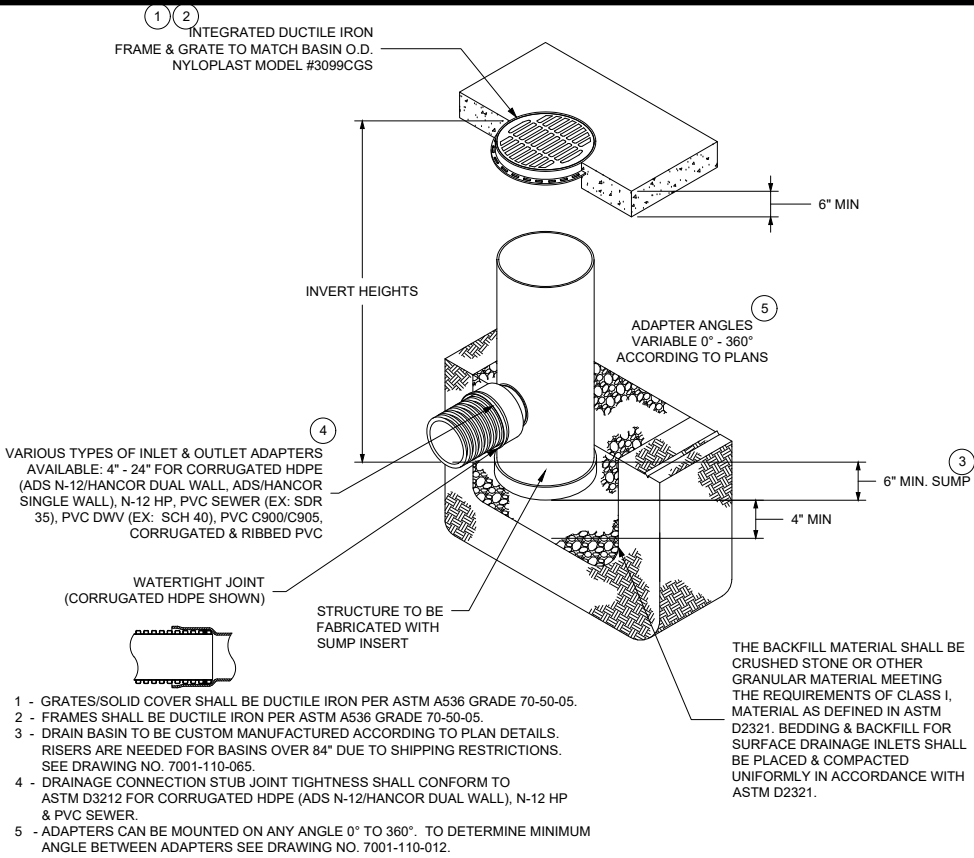
For retrofit intakes, match existing concrete pavement joints. Stop any transverse pavement joints that do not conform to the minimum spacing requirements at the edge of the boxout.

① Center bars vertically within slab.



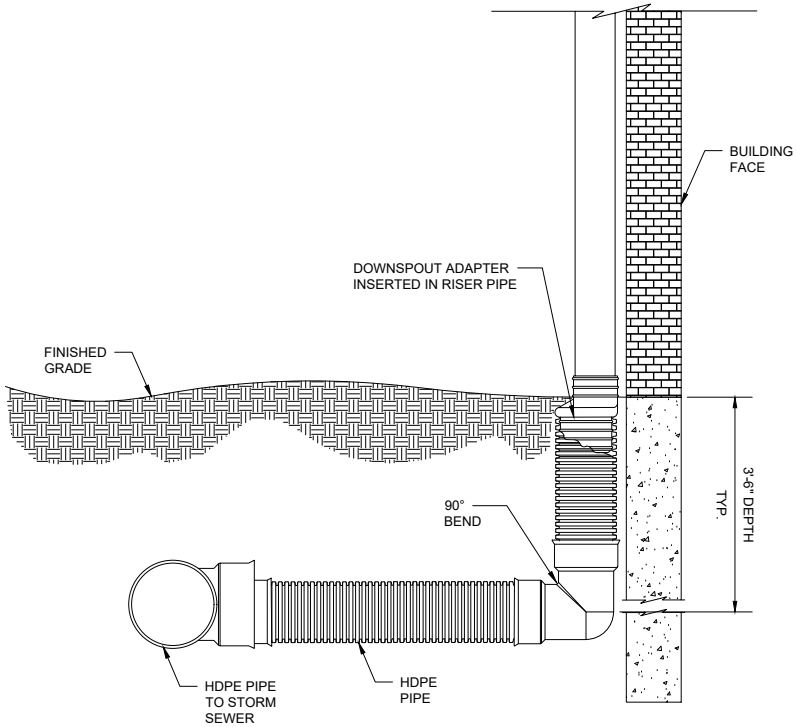
SECTION A-A

 SUDAS	 IOWADOT	REVISION	
		1	04-17-18
FIGURE 6010.514	STANDARD ROAD PLAN	SW-514	
		SHEET 1 of 3	
REVISIONS: Added dimension to back of grate. Updated line work and Iowa DOT and SUDAS logos.			
 			
SUDAS DIRECTOR		DESIGN METHODS ENGINEER	
BOXOUT FOR GRATE INTAKES			



- 1 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 2 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.
- 3 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-065.
- 4 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.
- 5 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

NYLOPLAST DRAIN BASIN, 30" DETAIL
SCALE: NONE



UNDERGROUND ROOF DRAIN DETAIL
SCALE: NONE

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	JLS	-	-	-	-
	DESIGNED BY:	JLS	-	-	-
	CHECKED BY:	JRH	-	-	-
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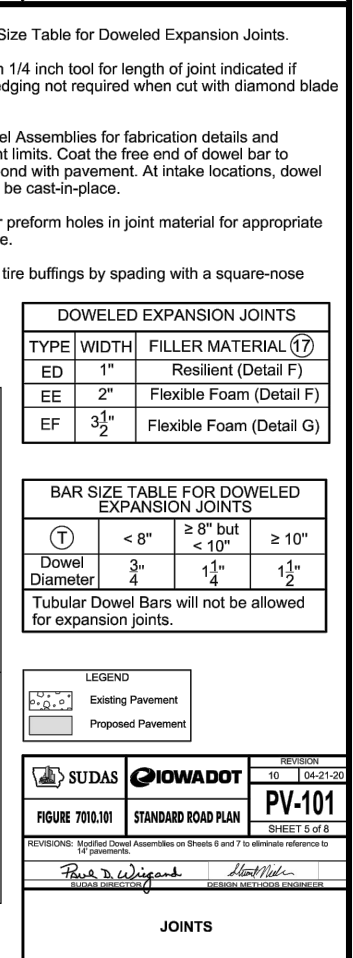
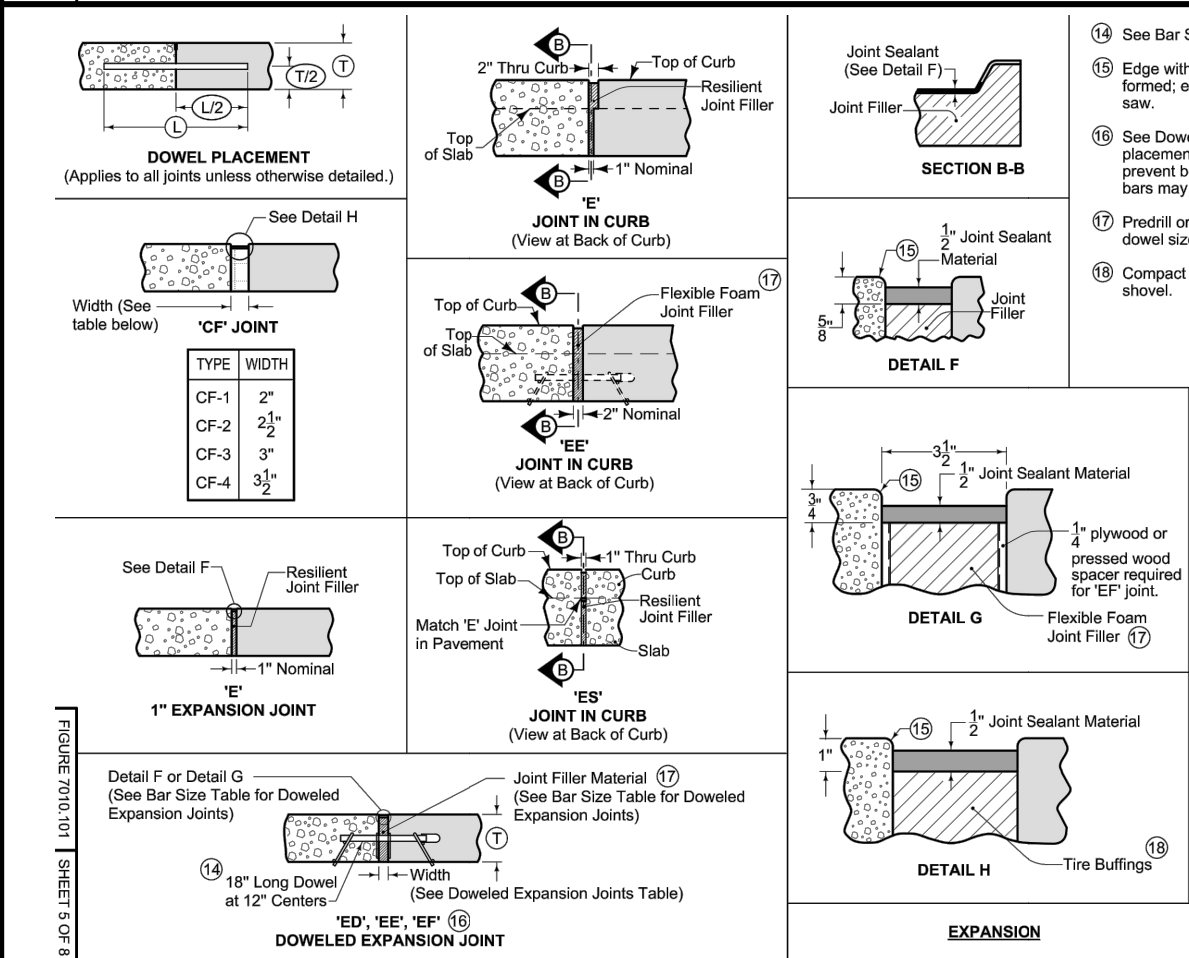
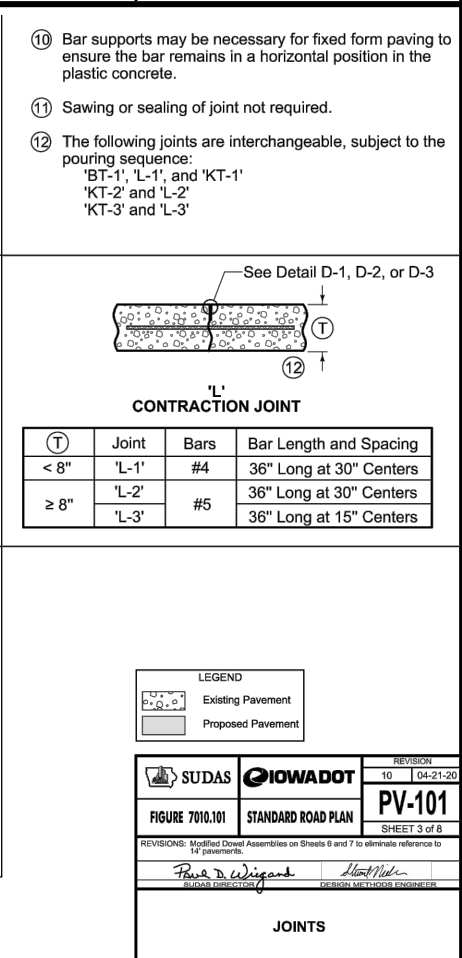
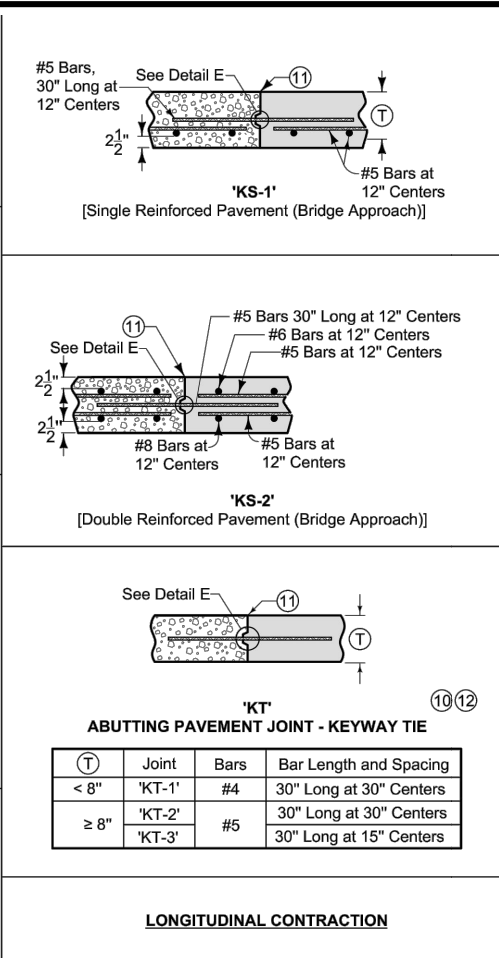
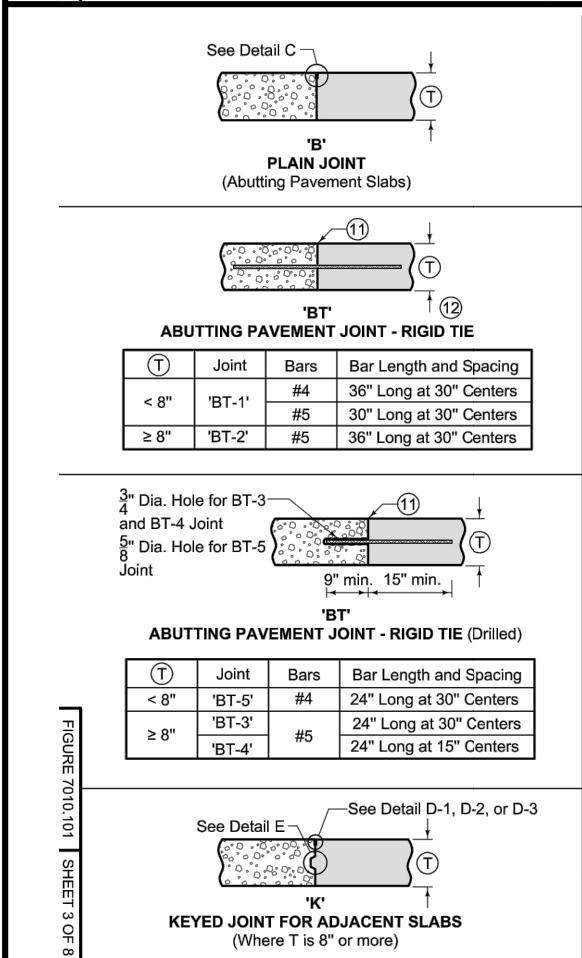
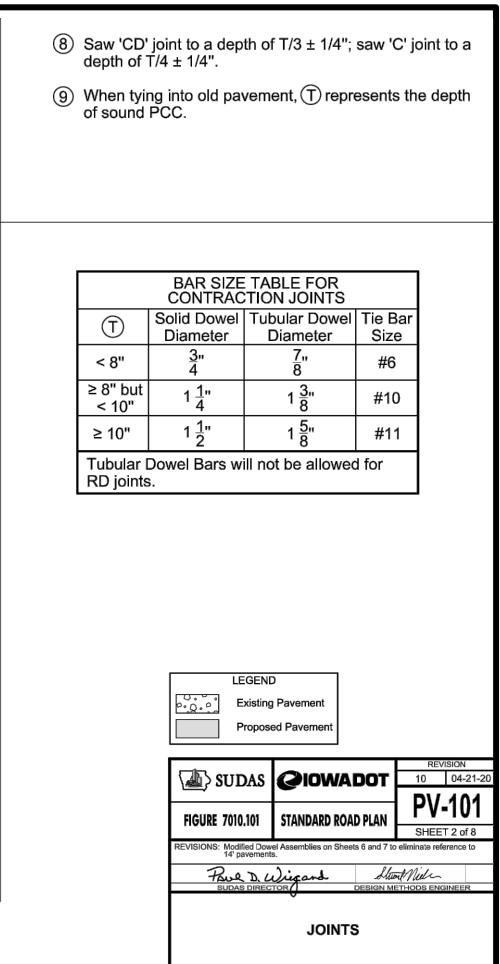
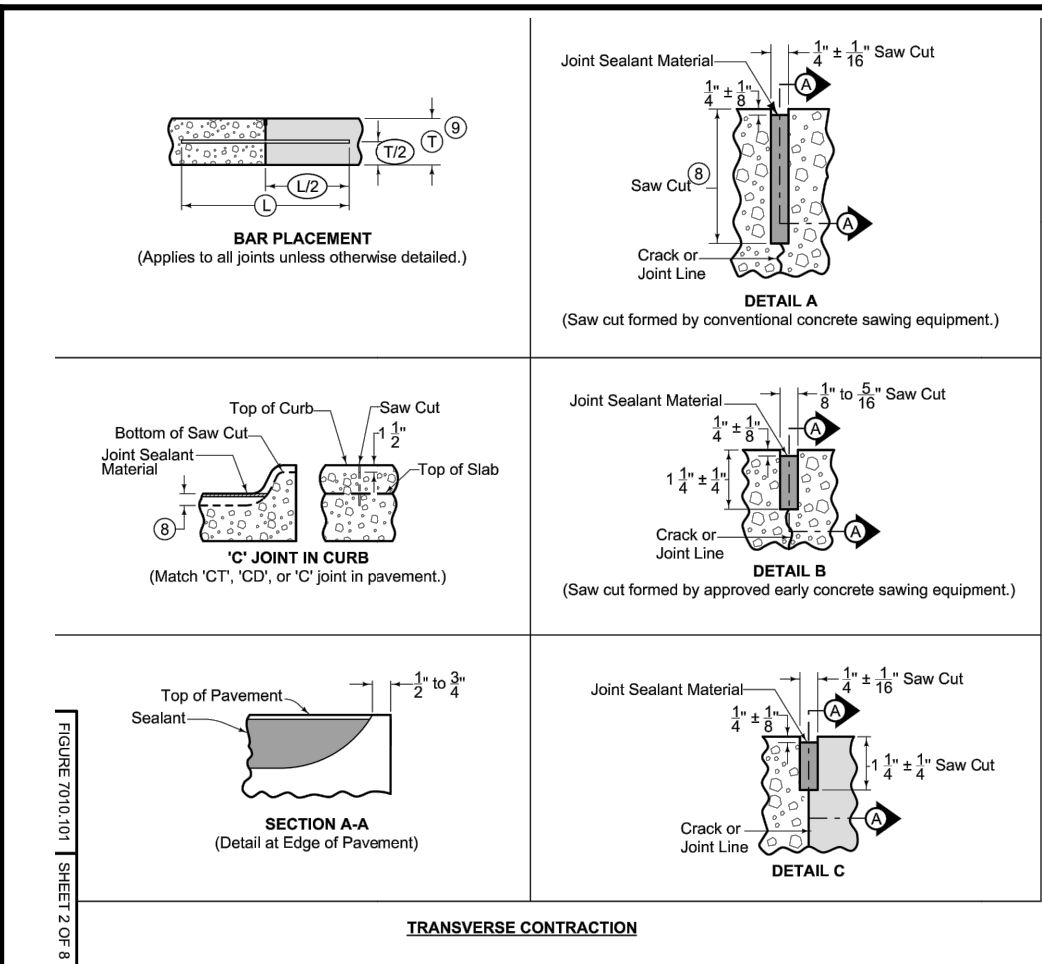
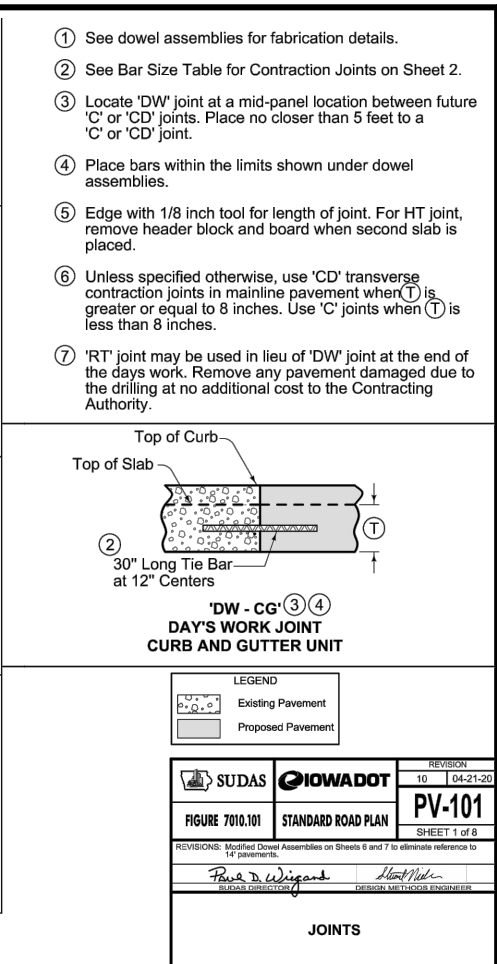
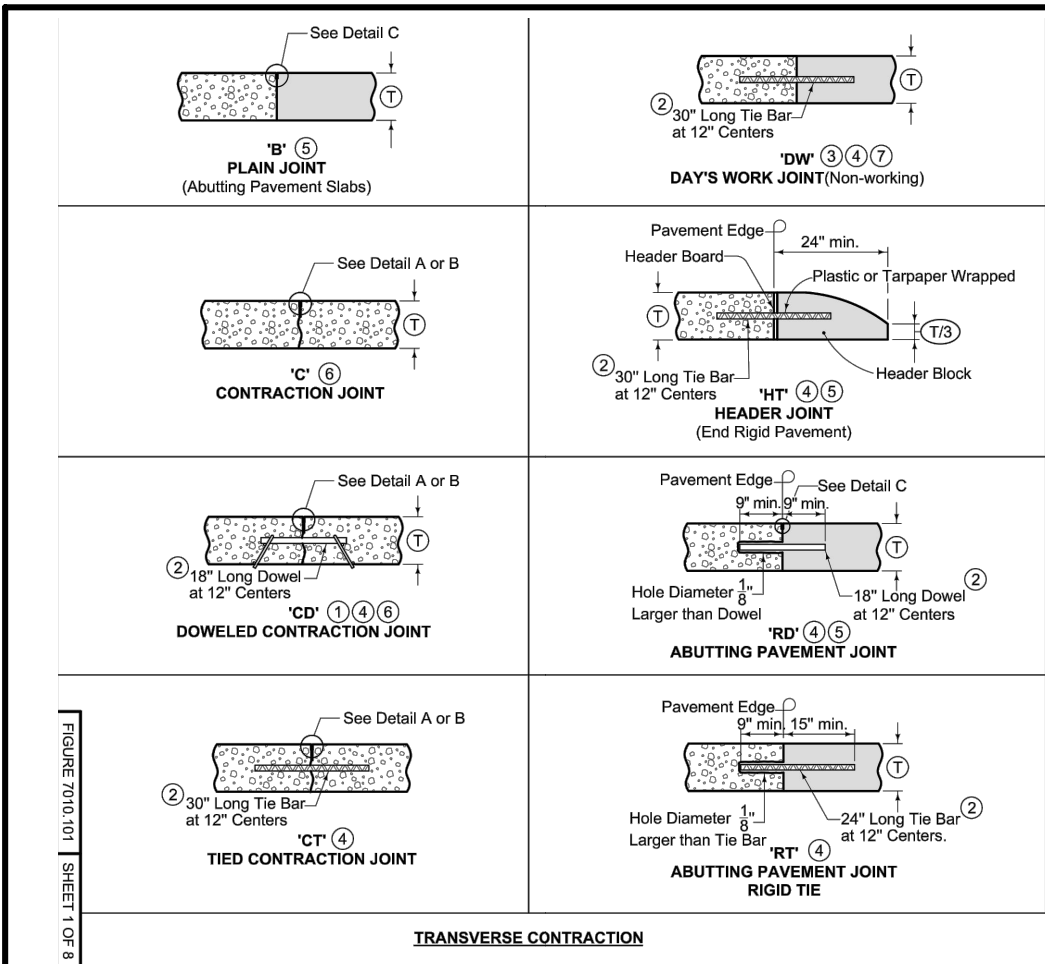


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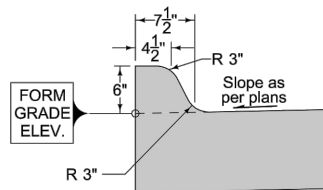
DETAILS

PROJECT NO:
10322002
SHEET
D4

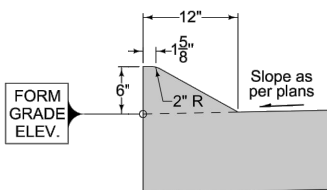


PROJECT DATE:	DRAWN BY: JLS	NO.	DATE	REVISION	BY:
DESIGNED BY: JLS					
CHECKED BY: JRH					

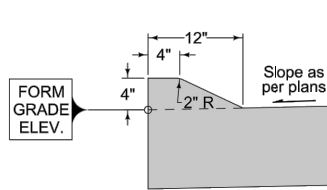
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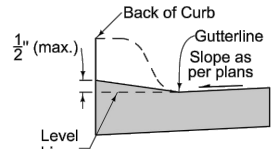
6" STANDARD CURB



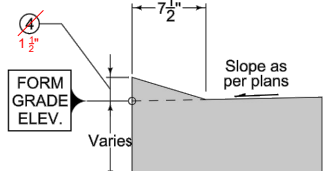
6" SLOPED CURB



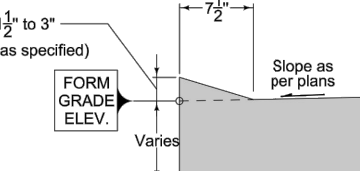
4" SLOPED CURB



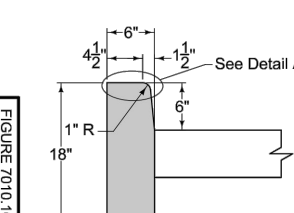
DROP CURB AT SIDEWALK



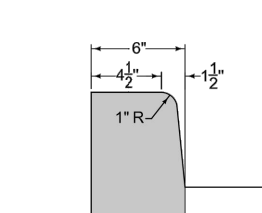
DRIVEWAY DROP CURB
(Iowa Department of Transportation is not the Contracting Authority)



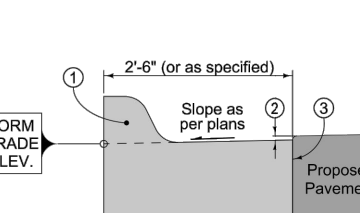
DRIVEWAY DROP CURB
(Iowa Department of Transportation is the Contracting Authority)



BEAM CURB*
*For short replacement sections, match existing curb profile



DETAIL A



CURB AND GUTTER UNIT

For joint details, see PV-101.

- 6 inch Standard Curb, 6 inch Sloped Curb, or 4 inch Sloped Curb as specified.
- 1/8 inch if Proposed Pavement is HMA. No elevation difference if Proposed Pavement is PCC.
- 'BT', 'KT', or 'L' joint if Proposed Pavement is PCC. 'B' joint if Proposed Pavement is HMA.
- 0 to 2 inches for residential entrances. 1 1/2 to 3 inches for industrial or commercial entrances.

FIGURE 7010.102

STANDARD ROAD PLAN

REVISION

5 04-21-20

PV-102

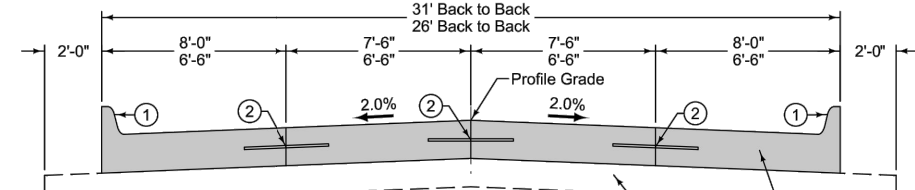
SHEET 1 of 2

REVISIONS: Split DRIVEWAY DROP CURB detail into two details. Added new circle note 4 on Sheet 1. Renumbered circle note on Sheet 5.

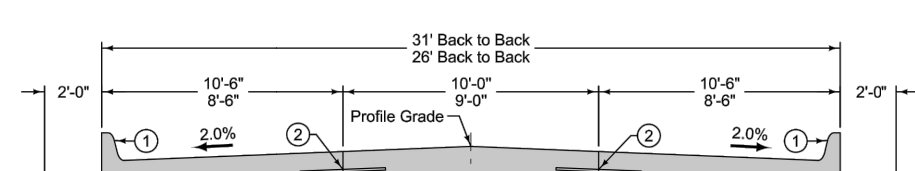
By: *Paul D. Wiegand* SUDAS DIRECTOR

By: *Scott Miller* DESIGN METHOD ENGINEER

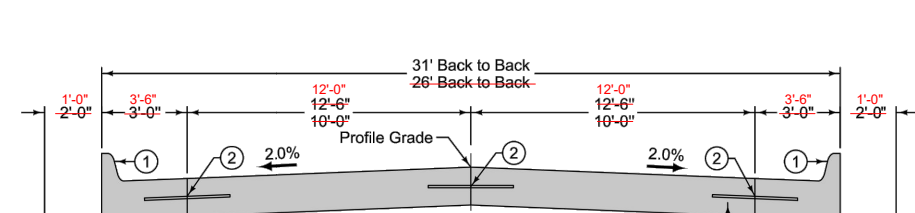
PCC CURB DETAILS



QUARTER POINT JOINTING



THIRD POINT JOINTING



GUTTERLINE JOINTING

- 6 inch standard curb.
- BT, KT, or L joint depending on pavement thickness and construction staging.
- Subbase or subgrade as specified.
- Unless otherwise specified in the contract documents.
- No dowels within 24" of the back of curb. With gutterline joint, place first dowel 6 inches from the joint. See Figure 7010.101, Sheet 8.

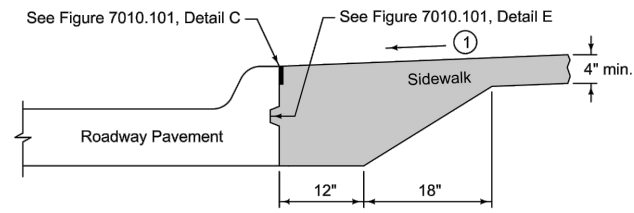
TRANSVERSE JOINT REQUIREMENTS ④		
Pavement Thickness	Transverse Joint Type	Transverse Joint Spacing
6"	C	12'
7"	C	15'
8"	CD ⑤	15'
9"	CD ⑤	15'
≥10"	CD ⑤	20'

FIGURE 7010.901

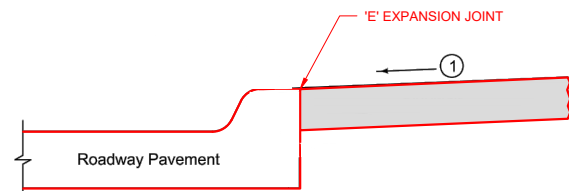
SHEET 1 of 1

SUDAS Standard Specifications

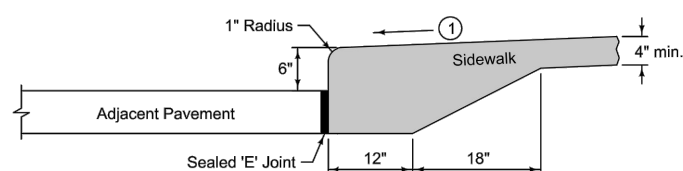
PCC PAVEMENT JOINTING



DETAIL 1



DETAIL 2



DETAIL 3

For new sidewalk with new curb and gutter, comply with Detail 1 or Detail 2. Comply with Detail 3 for new sidewalk adjacent to existing pavement or when specified in the contract documents.

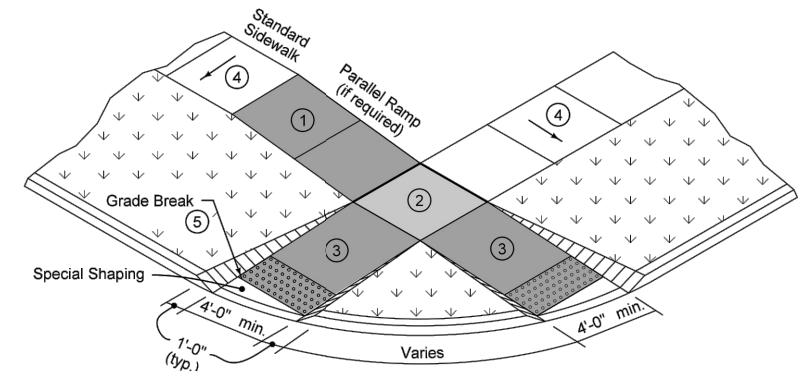
- Target cross slope of 1.5% with a maximum cross slope of 2.0%.

FIGURE 7030.202

SHEET 1 of 1

SUDAS Standard Specifications

CURB DETAILS FOR CLASS A SIDEWALK



- Key
- Curb Ramp
 - Turning Space
 - Detectable warning
 - Grass

- Parallel Curb Ramp: If normal sidewalk elevation cannot be achieved with the perpendicular ramp between the street and landing due to limited ramp length, provide a parallel ramp to make up the elevation difference between the landing and the standard sidewalk. The length of the parallel ramp is not required to exceed 15 feet, regardless of the resulting slope. Do not exceed 8.3% slope for parallel ramps shorter than 15 feet.
- Turning Space: Target slope of 1.5% with maximum slope perpendicular to the travel directions of 2.0%. Minimum 4 feet by 4 feet.
- Perpendicular Curb Ramp: Target running slope of 6.25% with maximum running slope of 8.3%.
- Target cross slope of 1.5% with a maximum cross slope of 2.0%.
- Match pedestrian street crossing cross slope or flatter.

FIGURE 7030.207

SHEET 1 of 1

SUDAS Standard Specifications

CURB RAMP FOR CLASS B OR C SIDEWALK

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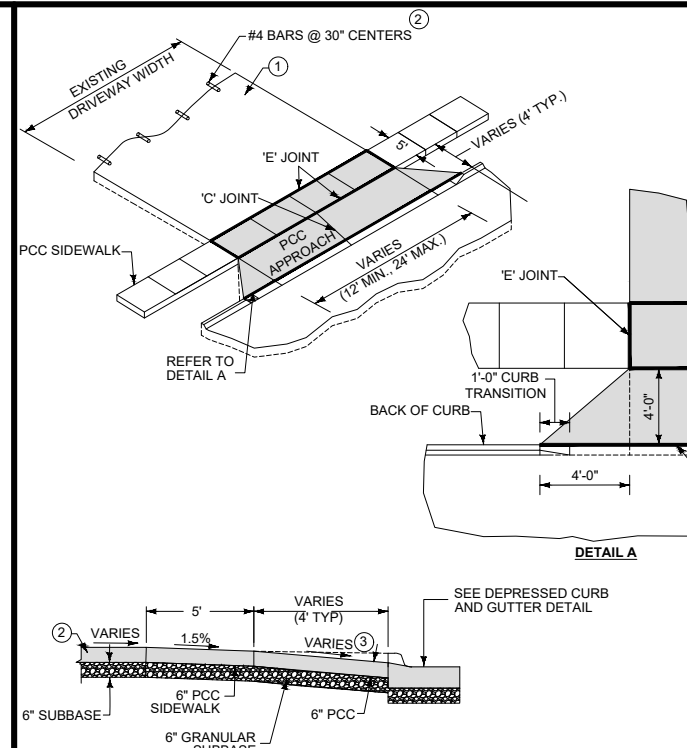
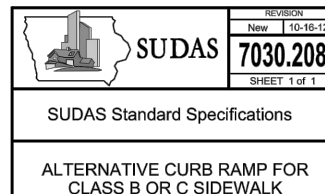
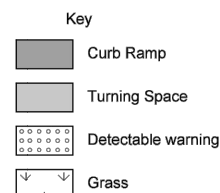
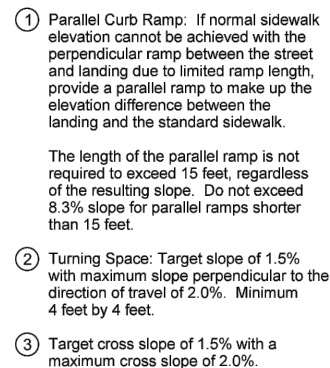
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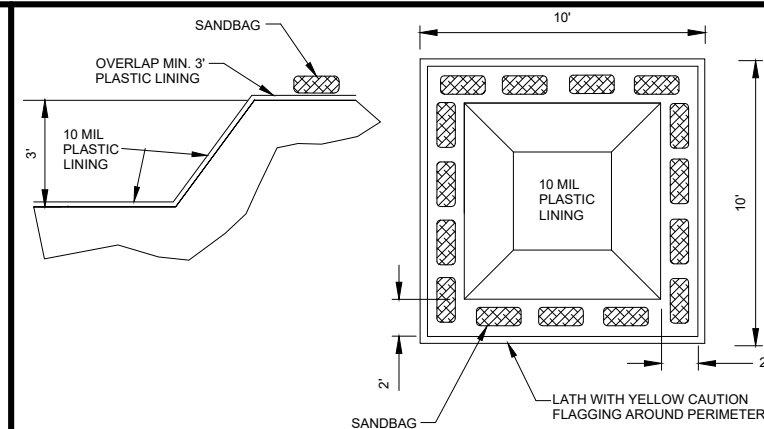
DETAILS

PROJECT NO:	10322002
SHEET	D6



NOTES

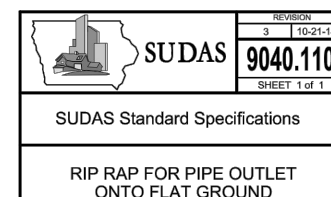
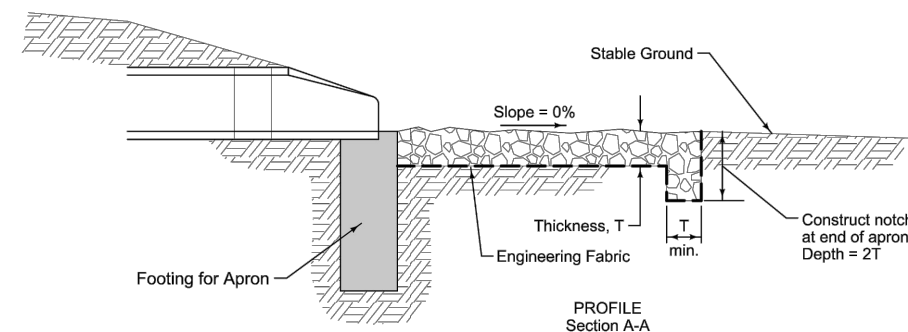
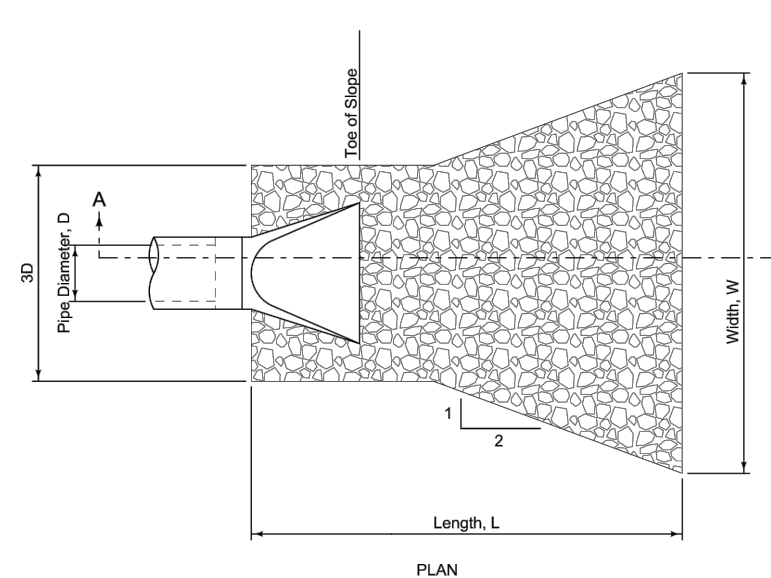
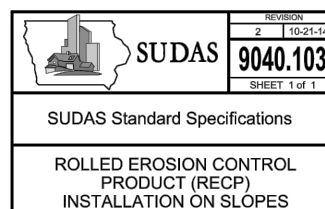
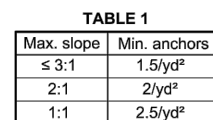
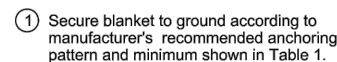
- ① SEE PLANS FOR DRIVEWAY MATERIAL
- ② PCC MATCHING SLAB SHALL HAVE #4 BARS AT 30" CENTERS EACH WAY IF EXISTING SLAB IS PCC.
- ③ TYPICAL SLOPE = 11.38%

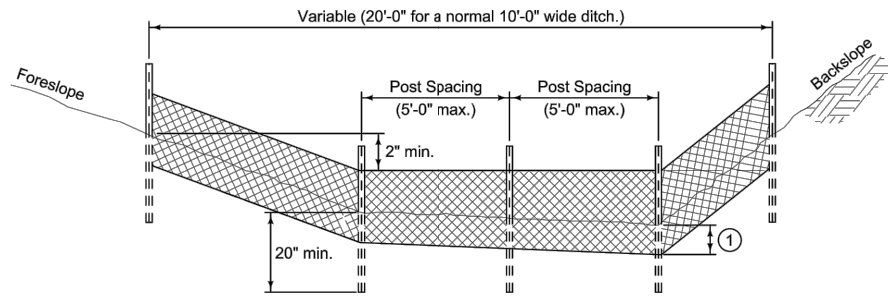


NOTES:

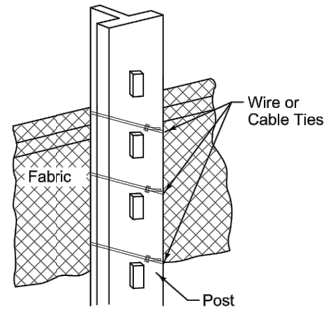
1. WASHOUT FACILITY SHALL NOT BE LOCATED WITHIN 50-FT UPSTREAM OF STORM DRAINS, OPEN DITCHES OR WATER BODIES.
2. WASHOUT FACILITIES MUST BE CLEANED OR NEW FACILITIES CONSTRUCTED ONCE THE FACILITY IS 75% FULL. HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF. IF THE FACILITY IS TO BE REUSED, LINE THE STRUCTURE WITH NEW 10 MIL POLYETHYLENE SHEETING FREE OF HOLES OR TEARS.
3. A SIGN SHALL BE POSTED ADJACENT TO THE FACILITY TO INFORM CONCRETE EQUIPMENT OPERATORS OF THE FACILITY. THE JOB SITE SUPERINTENDENT SHALL ENSURE THAT CONCRETE EQUIPMENT OPERATORS USE THE WASHOUT FACILITY.
4. IF NECESSARY, A CRUSHED STONE PATH SHALL BE CONSTRUCTED TO PROVIDE EASE OF ACCESS FOR EQUIPMENT.
5. WHEN THE FACILITY IS NO LONGER REQUIRED, THE HARDENED CONCRETE SHALL BE REMOVED AND DISPOSED OF, THE MATERIALS USED TO CONSTRUCT THE FACILITY SHALL BE REMOVED, AND THE HOLE BACKFILLED AND THE SURROUNDING AREA REPAIRED.

CONCRETE WASHOUT DETAIL
SCALE: NONE





TYPICAL SILT FENCE DITCH CHECK



ATTACHMENT TO POST

- Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).

REVISION

2 10-21-14

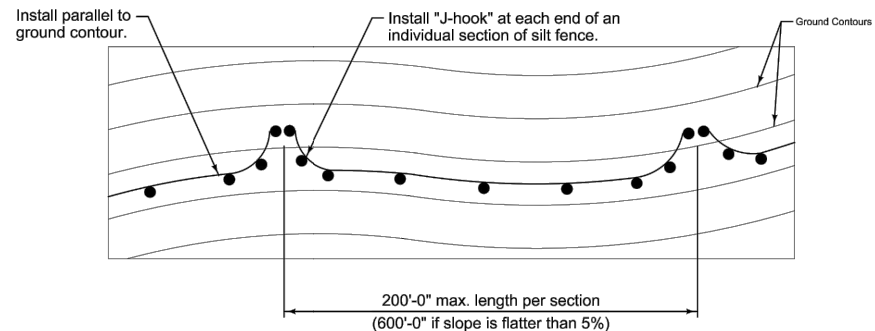
SUDAS

9040.119

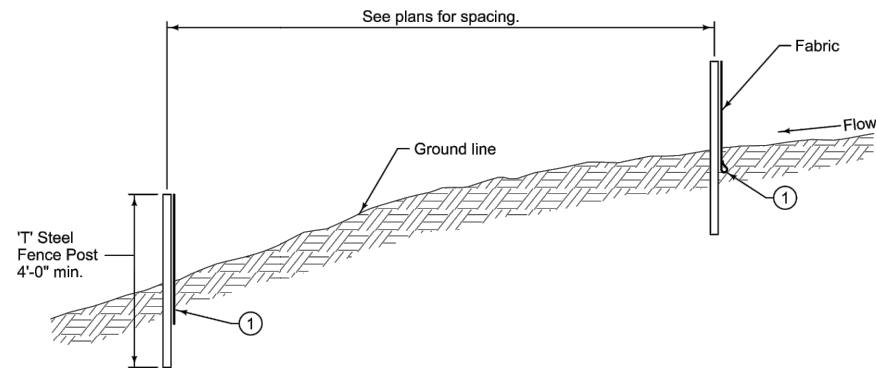
SHEET 1 of 2

SUDAS Standard Specifications

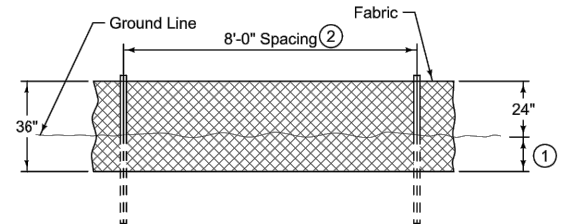
SILT FENCE



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Plan View)



TYPICAL SILT FENCE INSTALLATION ON LONGITUDINAL SLOPES
(Profile View)



DETAILS OF SILT FENCE ON LONGITUDINAL SLOPES

- Insert 12 inches of fabric a minimum of 6 inches deep (fabric may be folded below the ground line).
- Reduce post spacing to 5'-0" at water concentration areas, or as required to adequately support fence.

REVISION

2 10-21-14

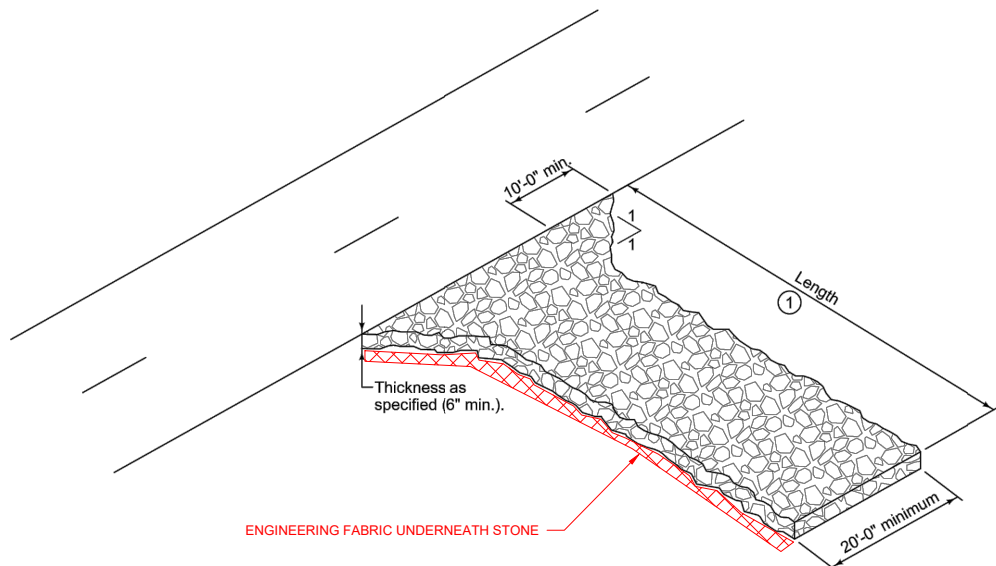
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9040.119

SHEET 2 of 2

SUDAS Standard Specifications

SILT FENCE



ENGINEERING FABRIC UNDERNEATH STONE

- Entrance length: 50 foot minimum (30 foot for single family residential), or as specified in the contract documents. Length of entrance may be increased if sediment track-out occurs.

REVISION

2 10-21-14

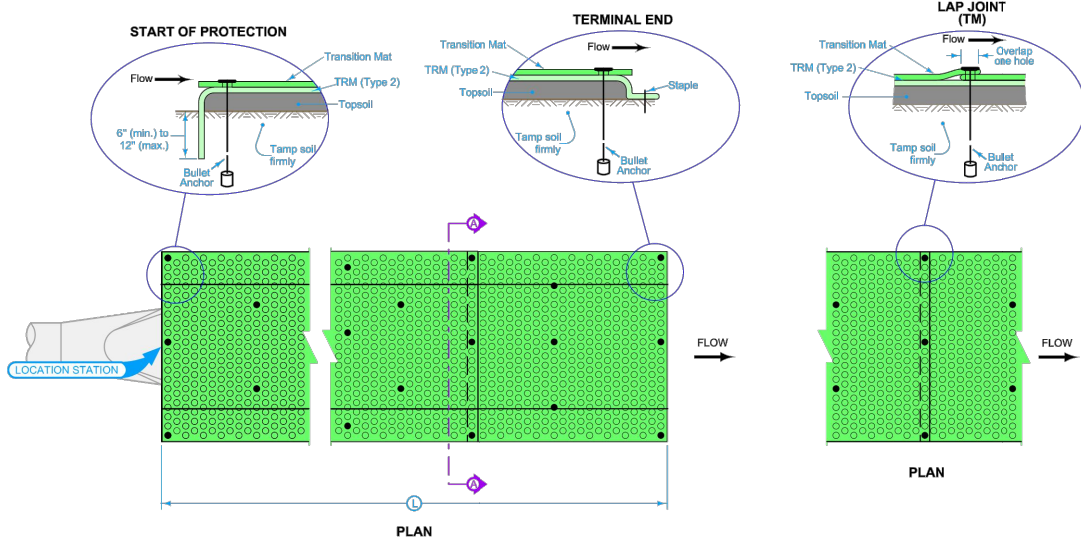
SUDAS

9040.120

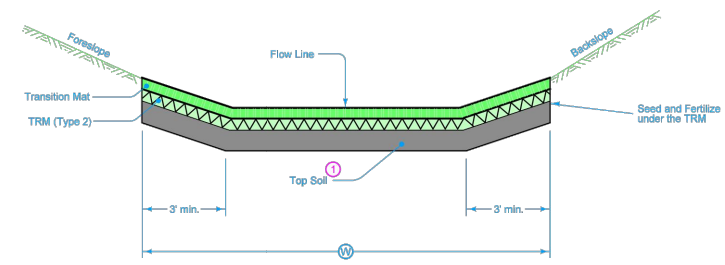
SHEET 1 of 1

SUDAS Standard Specifications

STABILIZED CONSTRUCTION ENTRANCE



TM
TRM (Type 2)



SECTION A-A

Refer to Standard Road Plan [EC-104](#) for the placement of the TRM.
Place at same thickness as surrounding area. Refer to T Sheets to determine topsoil thickness for the surrounding area.

Possible Contract Items:
Transition Mat
Possible Tabulation:
100-09

REVISION

3 04-17-18

STANDARD ROAD PLAN

EC-105

SHEET 1 of 1

APPROVED BY DESIGN METHOD ENGINEER

TRANSITION MAT (TM)

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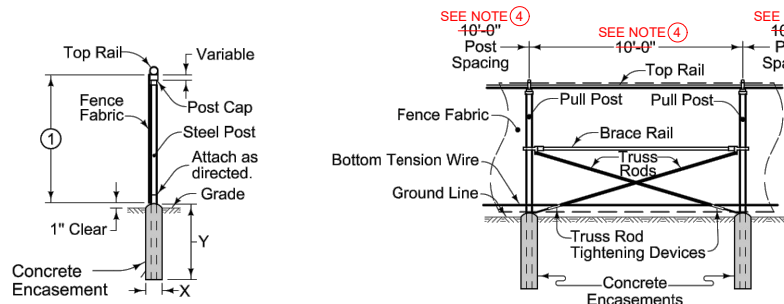


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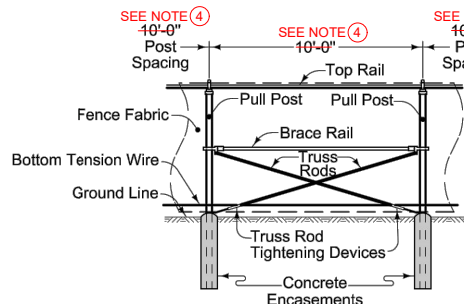
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POST INSTALLATION



PULL POST INSTALLATION

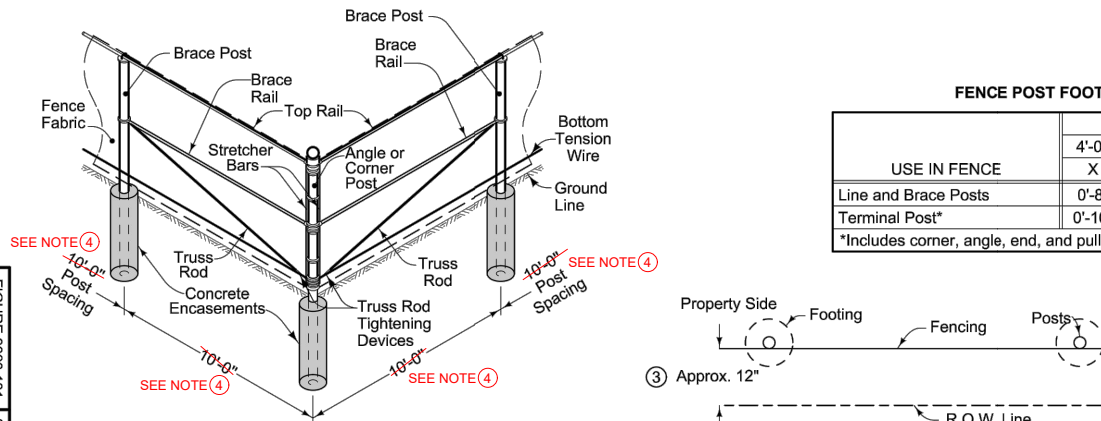
Place fence fabric on roadway side of post. For certain curves, stream crossings, or other locations, the Contractor has the option to place fabric on the side of the post away from the roadway.

- 1 Fabric width as specified in the contract documents.
- 2 For fence heights greater than 8 feet, the depth of the fence post footing is 3 feet plus 3 inches for each 1 foot in height over 8 feet.
- 3 Install the fence on the roadway side of the right-of-way when specified in the contract documents.
- 4 FENCE POST SPACING, BURY DEPTH, AND FOOTING TO BE DETERMINED BY CONTRACTOR AND/OR FENCING SUPPLIER FENCE TO ACCOMMODATE THE PLACEMENT OF ADVERTISING BANNER(S) AND ASSOCIATED WIND LOAD FROM BANNER(S).

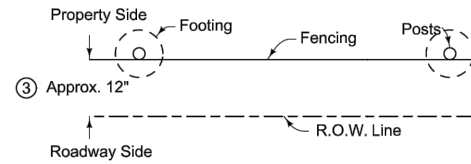
FENCE POST FOOTING DEPTH AND DIAMETER

USE IN FENCE	FENCE HEIGHT					
	4'-0" and less		Over 4'-0" to 8'-0"		Over 8'-0"	
	X	Y	X	Y	X	Y
Line and Brace Posts	0'-8"	3'-0"	0'-10"	3'-0"	1'-0"	2
Terminal Post*	0'-10"	3'-0"	1'-0"	3'-0"	1'-4"	2

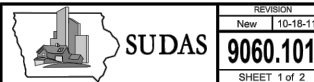
*Includes corner, angle, end, and pull posts.



ANGLE OR CORNER POST INSTALLATION

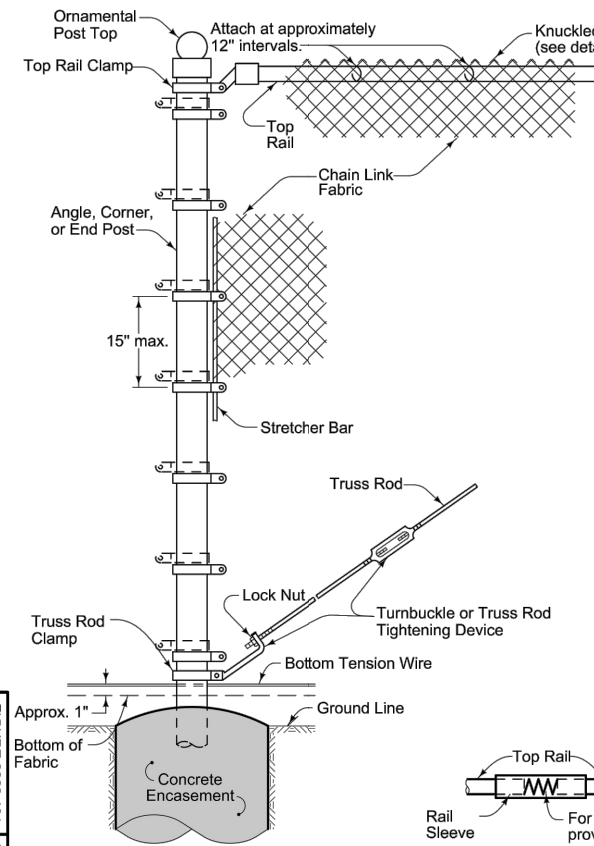


PLAN OF FENCE

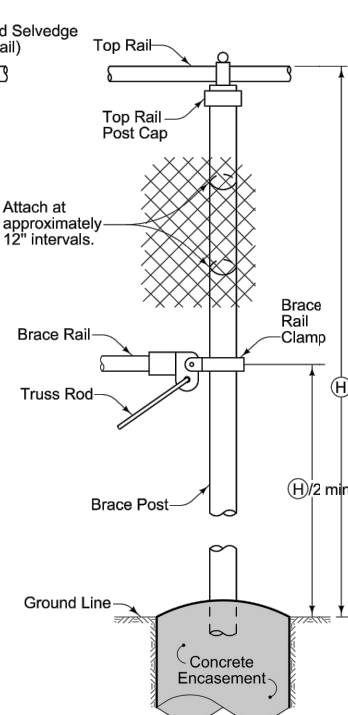


SUDAS Standard Specifications

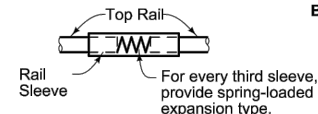
CHAIN LINK FENCE



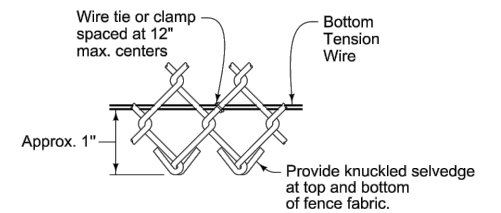
ANGLE, CORNER, OR END POST ASSEMBLY



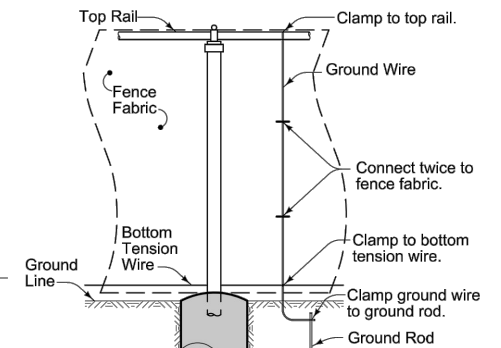
BRACE POST ASSEMBLY



RAIL SLEEVE



BOTTOM TENSION WIRE AND KNUCKLED SELVEGE

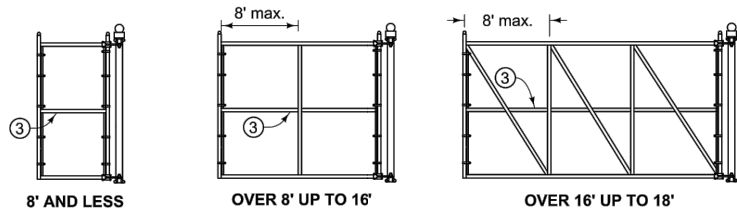


GROUND ROD INSTALLATION



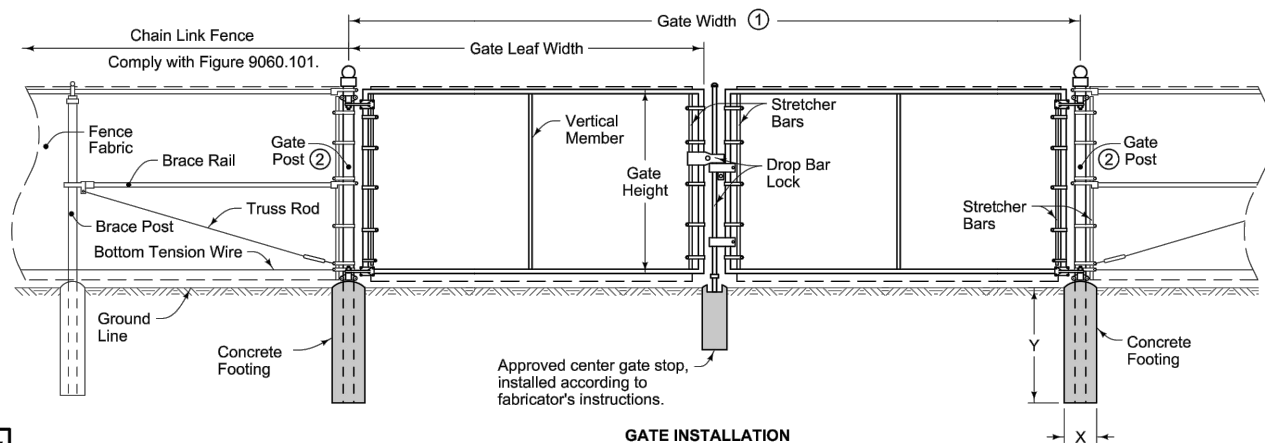
SUDAS Standard Specifications

CHAIN LINK FENCE



FRAME PATTERNS FOR VARIOUS GATE OPENINGS

- 1 Double swing gate is required only for widths greater than 16 feet. Exact details of gate design are subject to approval of the Engineer. Furnish gate with approved stop, latch, and means for locking. Install as recommended by the manufacturer.
- 2 End post used to terminate run of fence if no gate is proposed.
- 3 Horizontal members are required only if the fabric height is 8 feet or greater.



GATE INSTALLATION

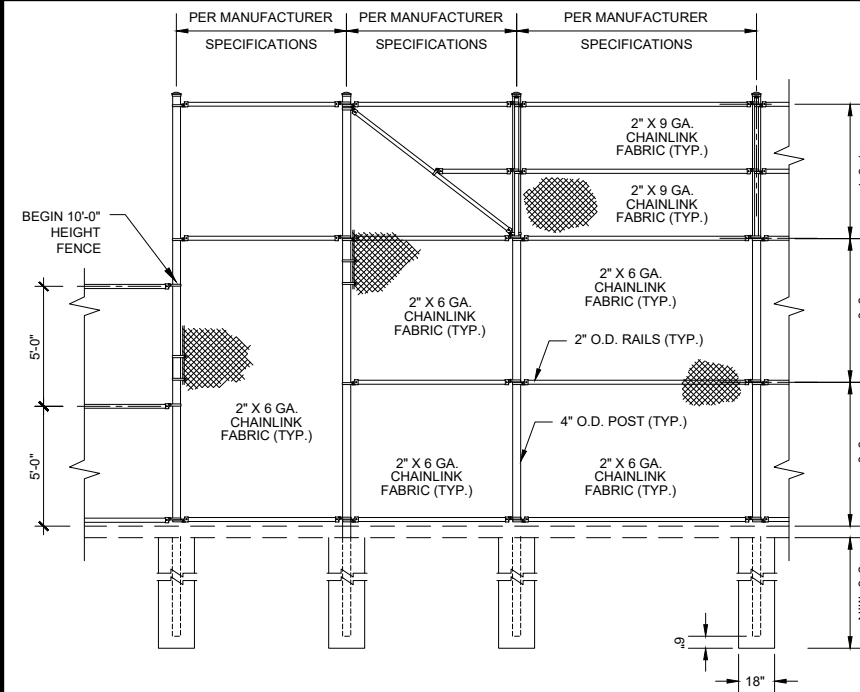
GATE POST FOOTING DEPTH AND DIAMETER

GATE HEIGHT	GATE LEAF WIDTH	X	Y
6'-0" or less	4'-0" or less	0'-10"	3'-0"
6'-0" or less	over 4'-0" to 10'-0"	0'-12"	3'-0"
6'-0" or less	over 10'-0" to 18'-0"	1'-2"	3'-0"
over 6'-0"	6'-0" or less	0'-10"	3'-0"
over 6'-0"	over 6'-0" to 12'-0"	1'-0"	3'-0"
over 6'-0"	over 12'-0" to 18'-0"	1'-4"	3'-6"
over 6'-0"	over 18'-0" to 24'-0"	1'-6"	4'-0"

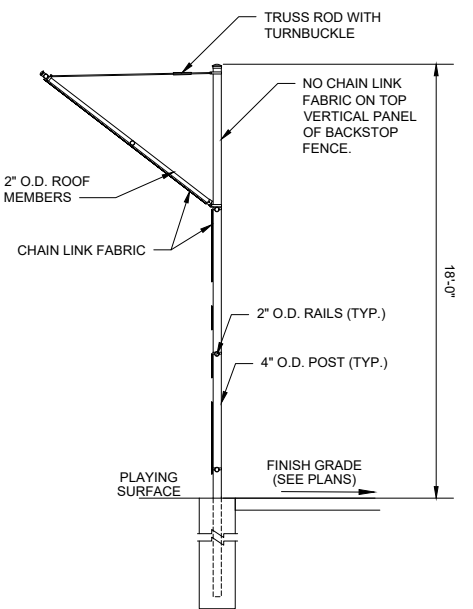


SUDAS Standard Specifications

CHAIN LINK GATE



ELEVATION



SECTION

- GENERAL NOTES:
1. UNLESS NOTED OTHERWISE, ALL POSTS AND RAILS TO BE SCHEDULE 40 GALVANIZED.
 2. UNLESS NOTED OTHERWISE, ALL FABRIC TO BE GALVANIZED.
 3. UNLESS NOTED OTHERWISE, ALL FASTENERS AND CHAIN LINK FENCE ACCESSORY ITEMS TO BE GALVANIZED.
 4. NO ALUMINUM TIES SHALL BE PERMITTED.
 5. CHAIN LINK FABRIC ON BOTTOM TWO PANELS OF ENTIRE BACKSTOP SHALL BE 6 GAUGE.

BACKSTOP FENCE DETAIL
SCALE: NONE

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DESIGNED BY: JLS	-	-	-	-
CHECKED BY: JRH	-	-	-	-

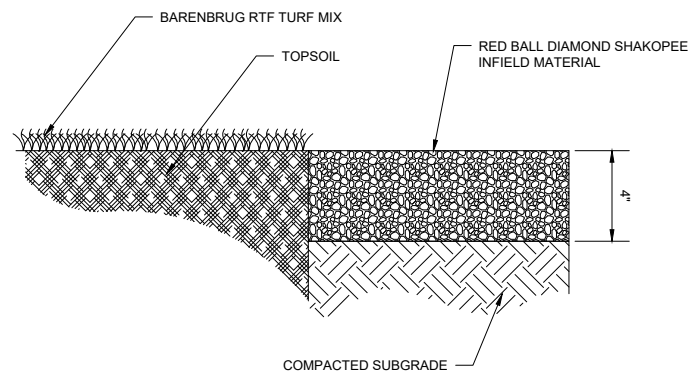


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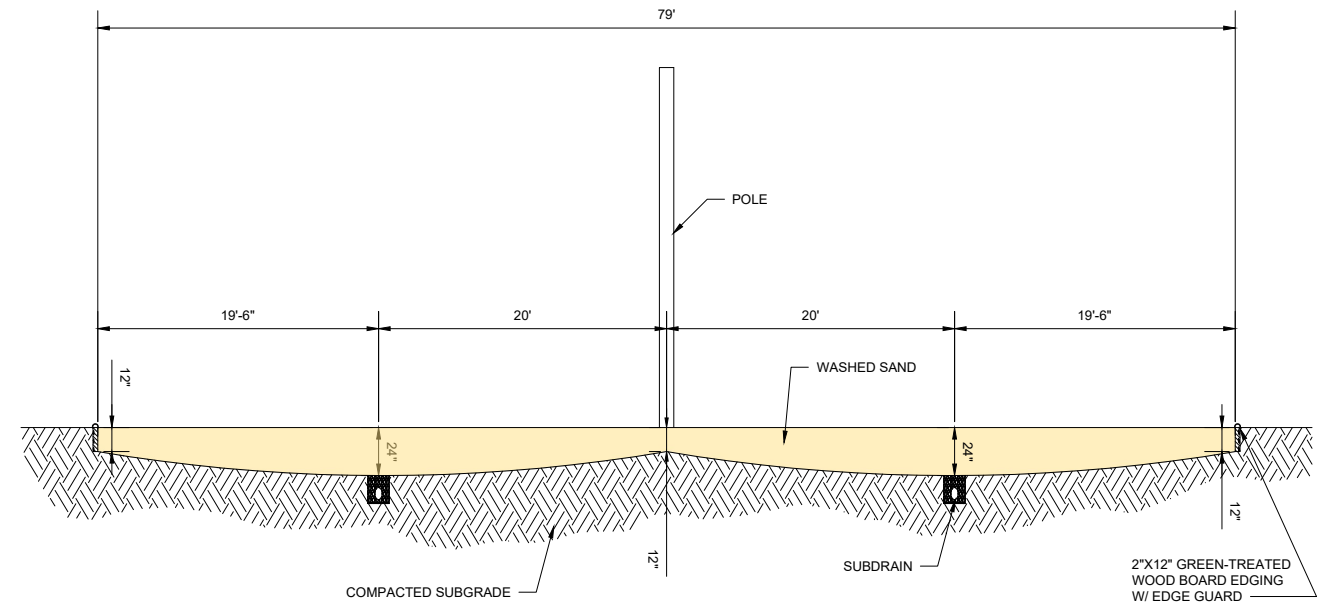
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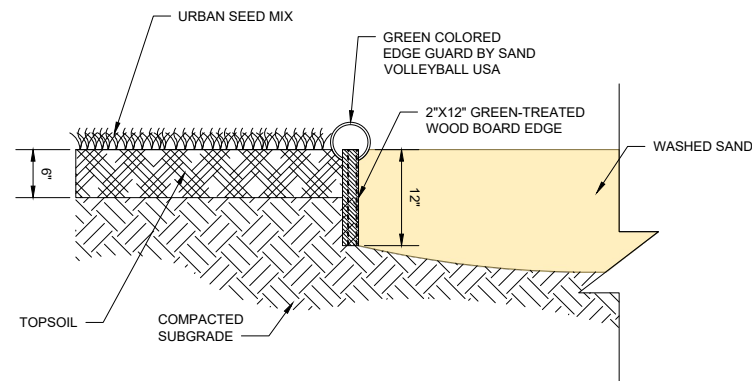
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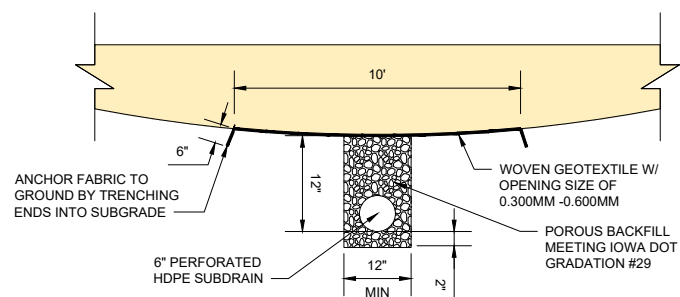
INFELD MATERIAL TYPICAL SECTION
SCALE: NONE



SAND VOLLEYBALL TYPICAL SECTION
SCALE: NONE

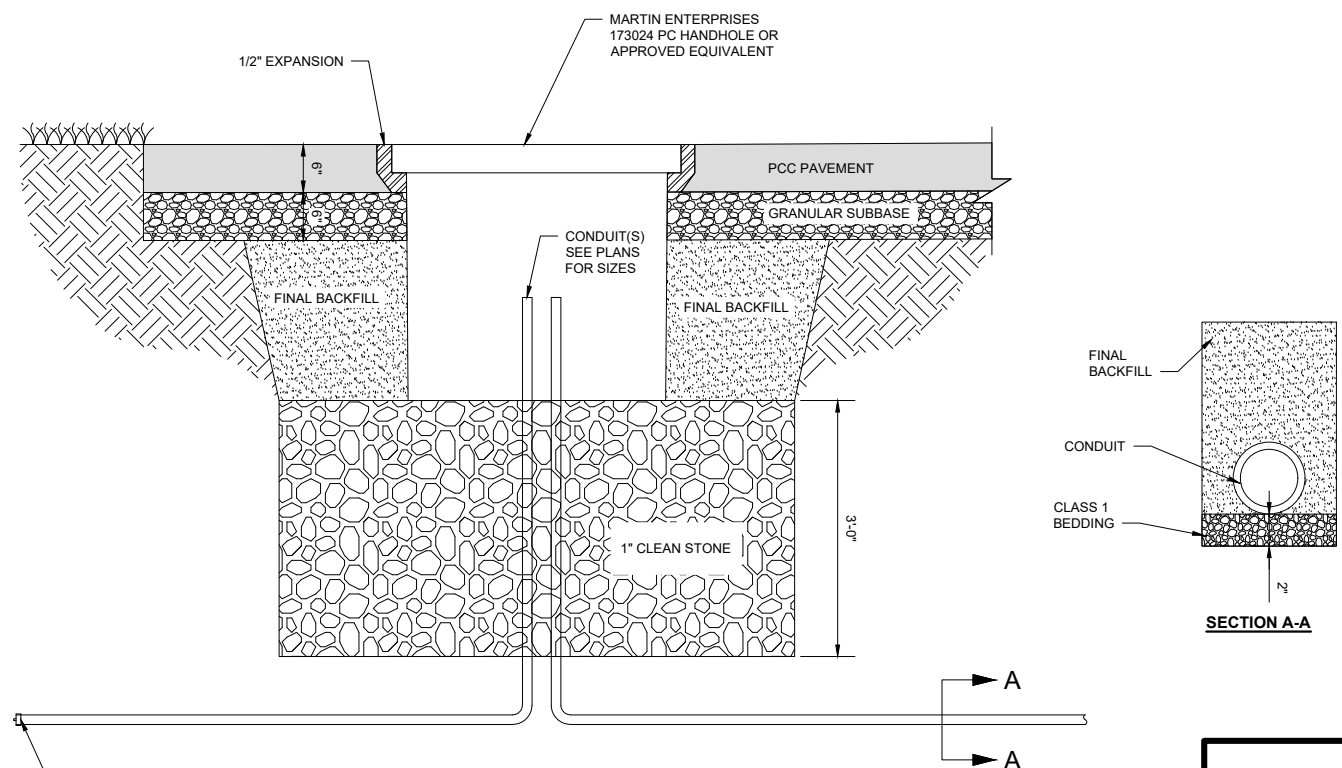


SAND VOLLEYBALL EDGE DETAIL



SAND VOLLEYBALL SUBDRAIN DETAIL

SAND VOLLEYBALL EDGE & SUBDRAIN DETAIL
SCALE: NONE



HANDHOLE DETAIL
SCALE: NONE

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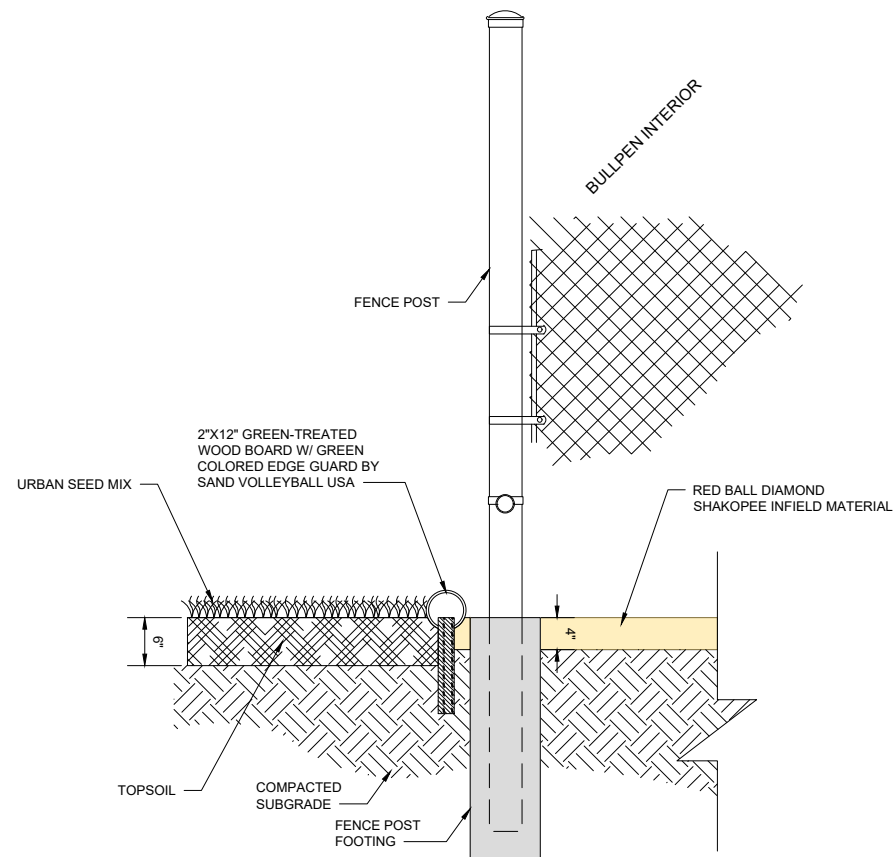


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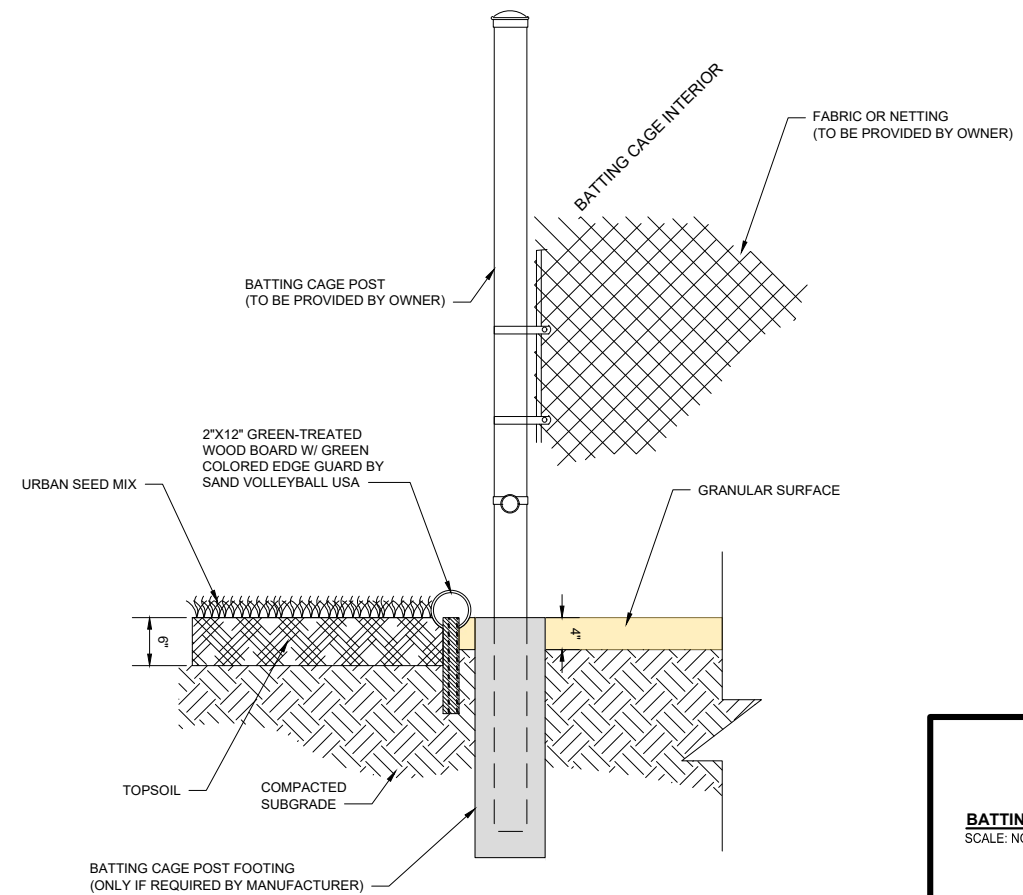
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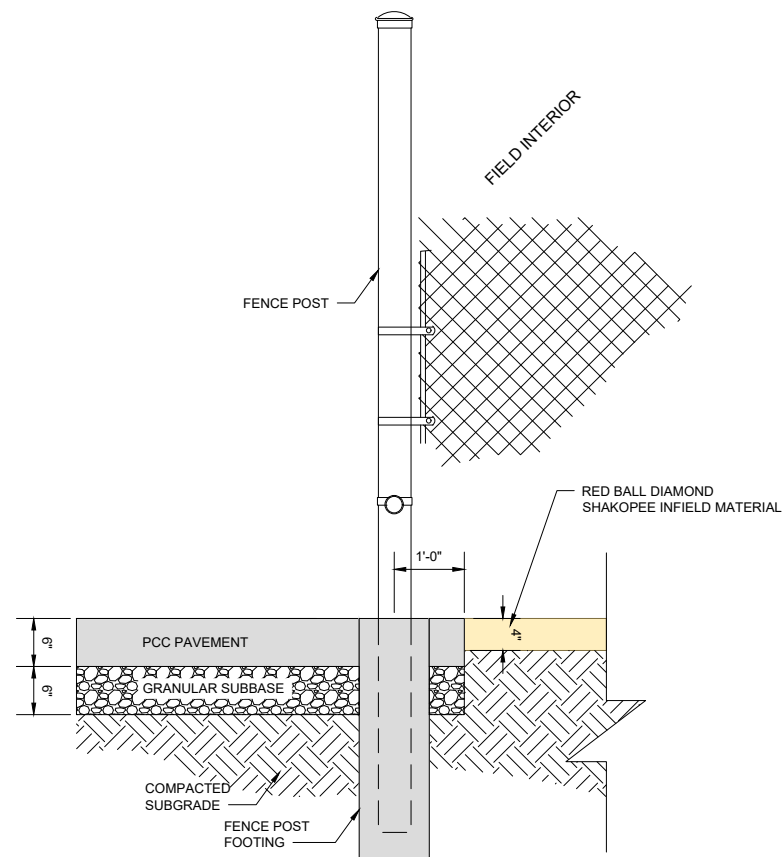
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SHEET
D10



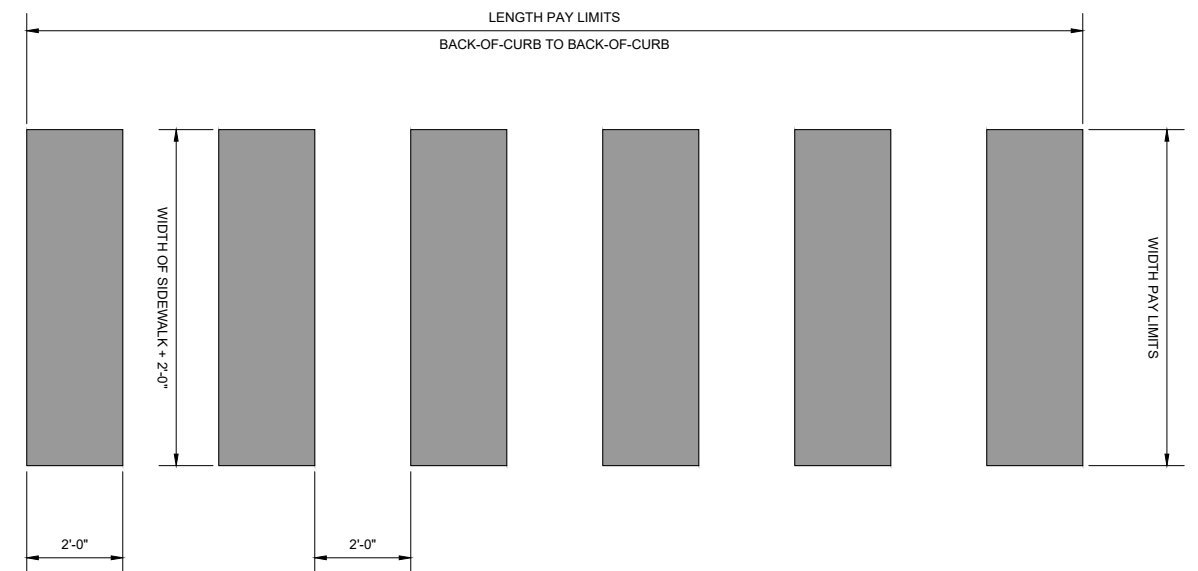
BULLPEN EDGING DETAIL
SCALE: NONE



BATTING CAGE EDGING DETAIL
SCALE: NONE



**CONCRETE AT BASEBALL
FIELD FENCING DETAIL**
SCALE: NONE



**CROSSWALK PAVEMENT
MARKING DETAIL**
SCALE: NONE

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	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-

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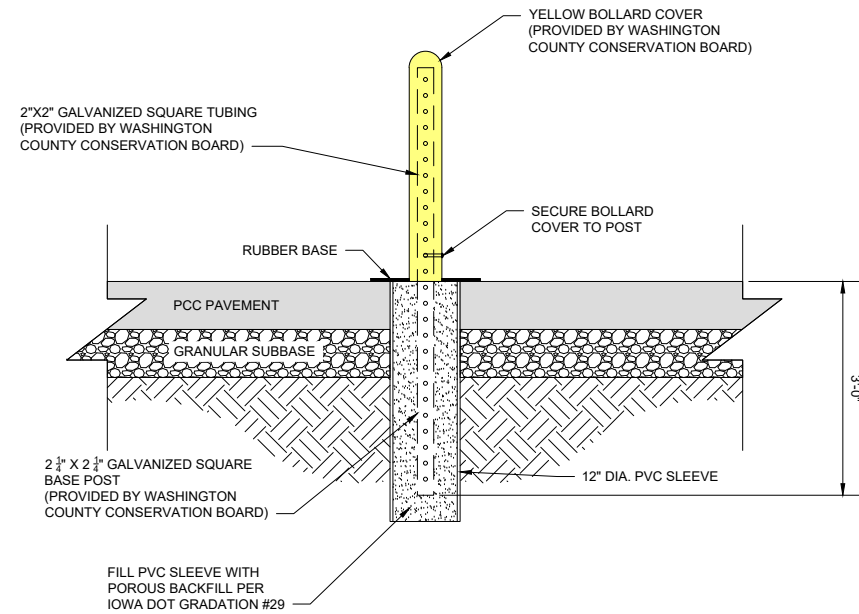


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PROJECT NO:
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REMOVABLE BOLLARD DETAIL
SCALE: NONE

PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-

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DETAILS

PROJECT NO:
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D12

CONTROLS

1. PRIOR TO BEGINNING GRADING, EXCAVATION, OR CLEARING AND GRUBBING OPERATIONS, SILT FENCE OR FILTER SOCKS AND INLET PROTECTION SHALL BE PLACED ALONG THE PERIMETER OF ALL AREAS TO BE DISTURBED AT ANY LOCATION WHERE RUNOFF CAN MOVE OFFSITE AND INTO INLETS.
2. VEGETATION IN AREAS NOT INCLUDED IN THE CONSTRUCTION AREA SHALL BE PRESERVED.
3. AS AREAS REACH THEIR FINAL GRADE, THE LOCATION OF EROSION CONTROLS MAY NEED TO BE CHANGED OR ADDITIONAL CONTROLS MAY NEED TO BE PLACED.
4. OFF-SITE VEHICLE TRACKING OF SEDIMENTS SHALL BE MINIMIZED. ROADWAYS ADJACENT TO THE PROJECT SITE SHALL BE CLEANED OF SEDIMENT DAILY.
5. STABILIZATION PRACTICES, INCLUDING TEMPORARY OR PERMANENT SEEDING AND/OR MULCHING SHALL BE INITIATED ON ALL DISTURBED AREAS IMMEDIATELY WHENEVER CLEARING, GRADING, EXCAVATING OR OTHER EARTH DISTURBING ACTIVITIES HAVE PERMANENTLY CEASED ON ANY PORTION OF THE SITE AND WILL NOT RESUME FOR A PERIOD EXCEEDING 14 CALENDAR DAYS.
6. CONTRACTOR DISPOSAL OF UNUSED CONSTRUCTION MATERIALS AND CONSTRUCTION MATERIAL WASTES SHALL COMPLY WITH APPLICABLE STATE AND LOCAL WASTE DISPOSAL, SANITARY SEWER, AND SEPTIC SYSTEM REGULATIONS.
7. STOCKPILE AREAS WHICH REMAIN FOR MORE THAN 7 DAYS SHALL BE SEEDED, MULCHED, AND ENCLOSED BY SILT FENCE.
8. DUST CONTROL MEASURES SHALL BE EMPLOYED IF DUST IS CREATED AND THERE IS POTENTIAL FOR AIR AND/OR WATER POLLUTION FROM DUST TRANSPORTED BY WINDS. DUST CONTROL MEASURES SUCH AS SPRINKLING/IRRIGATION, MULCHING, OR OTHER APPROPRIATE MEASURES SHALL BE EMPLOYED AS NECESSARY.
9. THE CONTRACTOR SHALL PLACE ANY OTHER CONTROLS CONSISTENT WITH CURRENT BMPs AS DEEMED NECESSARY TO CONTROL RUNOFF FROM EXPOSED SITES.
10. CONTRACTOR MAY LOCATE A PORTABLE REST ROOM FACILITY ONSITE IN A LOCATION WHERE CONTACT WITH STORM WATER DISCHARGE IS MINIMIZED. WASTES SHALL BE COLLECTED AND DISPOSED OF IN COMPLIANCE WITH LOCAL AND STATE REGULATIONS.

INSPECTIONS

1. QUALIFIED PERSONNEL (PROVIDED BY THE DISCHARGER) SHALL INSPECT DISTURBED AREAS OF THE CONSTRUCTION SITE THAT HAVE NOT BEEN STABILIZED WITH PERENNIAL VEGETATIVE COVER OF SUFFICIENT DENSITY TO PRECLUDE EROSION AT LEAST ONCE EVERY SEVEN CALENDER DAYS.
2. DISTURBED AREAS AND AREAS USED FOR STORAGE OF MATERIALS SHALL BE INSPECTED FOR EVIDENCE OF POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE OBSERVED TO ENSURE THAT THEY ARE OPEATING CORRECTLY. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR OFFSITE SEDIMENT TRACKING. DISCHARGE LOCATIONS SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS.
3. THE CONTRACTOR SHALL IMMEDIATELY BEGIN CORRECTIVE ACTION ON ALL DEFICIENCIES FOUND.
4. THIS INSPECTION MAY REQUIRE REVISIONS TO THE DESCRIPTION OF POTENTIAL POLLUTANT SOURCES AND POLLUTION PREVENTION MEASURES IDENTIFIED IN THE PLAN. THE CONTRACTOR SHALL IMPLEMENT ALL REVISIONS TO THE PLAN DEEMED NECESSARY AND COMPLETE SUCH CHANGES TO THE PLAN WITHIN 7 CALENDAR DAYS OF THE INSPECTION.
5. CONTRACTOR IS RESPONSIBLE TO MAINTAIN WEEKLY INSPECTION REPORTS FOR THE PROJECT. WEEKLY REPORTS NEED TO BE SIGNED BY A CERTIFIED EROSION CONTROL TECHNICIAN. THE WRITTEN REPORT SHALL SUMMARIZE THE SCOPE OF THE INSPECTION, THE NAMES AND QUALIFICATIONS OF THE INSPECTORS, THE DATE, AND THE OBSERVATIONS MADE AND ACTIONS TAKEN SHALL BE MADE AND RETAINED AS PART OF THE SWPPP. THE REPORT SHALL BE SIGNED IN ACCORDANCE WITH PART VI.G OF THE PERMIT.

CONSTRUCTION SEQUENCE

1. INSTALL TRACKING PAD AND PLACING SILT FENCE AS SHOWN.
2. GRADE SITE. AS SITE BROUGHT TO FINAL GRADE AS SLOPES SHALL BE STABILIZED WITH APPROPRIATE CONTROL MEASURES.
3. PROTECT STORM SEWER ACCORDINGLY.
4. SEED AND MULCH SITE. ONCE STABILIZED WITH A FULL CATCH OF GRASS, REMOVE PERIMETER SILT FENCE.
5. REMOVE REMAINING CONSTRUCTION DEBRIS AND TEMPORARY EROSION CONTROL MEASURES FROM SITE.

KEEPING PLANS CURRENT

THIS SWPPP WAS PREPARED PRIOR TO THE COMMENCEMENT OF SOIL DISTURBING ACTIVITIES. THE PERMITTEE SHALL AMEND THE PLAN WHENEVER THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS SIGNIFICANT EFFECT ON THE POTENTIAL DISCHARGE OF POLLUTANTS TO THE WATERS OF THE UNITED STATES AND WHICH HAS NOT BEEN ADDRESSED IN THE PLAN OR IF THE SWPPP PROVES TO BE INEFFECTIVE. SEE PART VI.C OF THE PERMIT FOR COMPLETE REQUIREMENTS REGARDING UPDATING OF THE SWPPP.

ALL CONTRACTORS/SUBCONTRACTORS SHALL CONDUCT THEIR OPERATIONS IN A MANNER THAT MINIMIZES EROSION AND PREVENTS SEDIMENT FROM LEAVING THE PROJECT SITE. THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE AND INSTALLATION OF THE EROSION CONTROL PLAN (ECP) FOR THEIR ENTIRE CONTRACT. THIS RESPONSIBILITY SHALL BE FURTHER SHARED WITH SUBCONTRACTORS WHOSE WORK IS A SOURCE OF POTENTIAL POLLUTION AS DEFINED IN THIS ECP.

NON-STORM WATER DISCHARGES

NON-STORM DISCHARGES MAY OCCUR FROM SUBSURFACE DRAINS, WATER LINE FLUSHING, GROUNDWATER DE-WATERING, VEHICLE WASHING, AND SPRINGS. DISCHARGES SHALL BE DIRECTED TO A STABILIZED AREA OR TO APPROPRIATE CONTROL MEASURES PRIOR TO DISCHARGING OFFSITE.

SITE DESCRIPTION

THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS FOR CONSTRUCTION ACTIVITIES ASSOCIATED WITH GRADING AND UTILITY INSTALLATION FOR THE WASHINGTON WELLNESS PARK LOCATED IN SE 1/4, SECTION 7, T75N, R7W WASHINGTON, WASHINGTON COUNTY, IOWA AND NE 1/4, SECTION 18, T75N, R7W WASHINGTON, WASHINGTON COUNTY, IOWA.

THE EROSION CONTROL PLAN COVERS APPROXIMATELY 43.67 ACRES WITH AN ESTIMATED 18.19 ACRES BEING DISTURBED.

THE EROSION CONTROL PLAN IS LOCATED PRIMARILY IN SOILS AND SUB-SOILS CONSISTING OF SILT LOAMS AND LOAMS. THE ESTIMATED RUNOFF COEFFICIENT (C) FOR THE SITE AFTER COMPLETION WILL BE 0.58.

REFER TO THIS SHEET, SHEET SWPPP2, AND DETAIL SHEETS FOR CONTROL DETAILS AND SITE MAP INDICATING PATTERNS, TYPICAL SLOPES, ARES OF DISTURBANCE, MAJOR STRUCTURAL, AND NONSTRUCTURAL CONTROLS, ETC.

RUNOFF FROM THIS SITE WILL BE DISCHARGED UNNAMED TRIBUTARY TO WEST FORK CROOKED CREEK TO EAST FORK CROOKED CREEK TO CROOKED CREEK TO SKUNK RIVER THE MISSISSIPPI RIVER.

NOTICE OF DISCONTINUATION

WITHIN 30 DAYS AFTER FINAL STABILIZATION, THE OPERATOR OR OWNER OF THE FACILITY SHALL SUBMIT A NOTICE OF DISCONTINUATION TO THE IOWA DEPARTMENT OF NATURAL RESOURCES.

I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT THAT AUTHORIZES THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE CONSTRUCTION SITE AS PART OF THIS CERTIFICATION. FURTHER, BY MY SIGNATURE, I UNDERSTAND THAT I AM BECOMING A CO-PERMITTEE, ALONG WITH THE OWNER(S) AND OTHER CONTRACTORS AND SUBCONTRACTORS SIGNING SUCH CERTIFICATIONS, TO THE IOWA DEPARTMENT OF NATURAL RESOURCES NPDES GENERAL PERMIT NO. 2 FOR "STORM WATER DISCHARGE ASSOCIATED WITH INDUSTRIAL ACTIVITY FOR CONSTRUCTION ACTIVITIES" AT THE IDENTIFIED SITE. AS A CO-PERMITTEE, I UNDERSTAND THAT I, AND MY COMPANY ARE LEGALLY REQUIRED UNDER THE CLEAN WATER ACT AND THE CODE OF IOWA, TO ENSURE COMPLIANCE WITH THE TERMS AND CONDITIONS OF THE STORM WATER POLLUTION PREVENTION PLAN DEVELOPED UNDER THIS NPDES PERMIT AND THE TERMS OF THIS NPDES PERMIT.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED, BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE AND ACCURATE.

THIS CERTIFICATION MUST INCLUDE THE NAME AND TITLE OF THE PERSON PROVIDING THE SIGNATURE; THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE CONTRACTING FIRM; THE ADDRESS (OR OTHER IDENTIFYING DESCRIPTION OF THE SITE; AND THE DATE THE CERTIFICATION IS MADE.

CONTRACTOR CERTIFICATION

ADDRESS OF SITE:_____

CONTRACTOR_____

SIGNATURE_____DATE_____

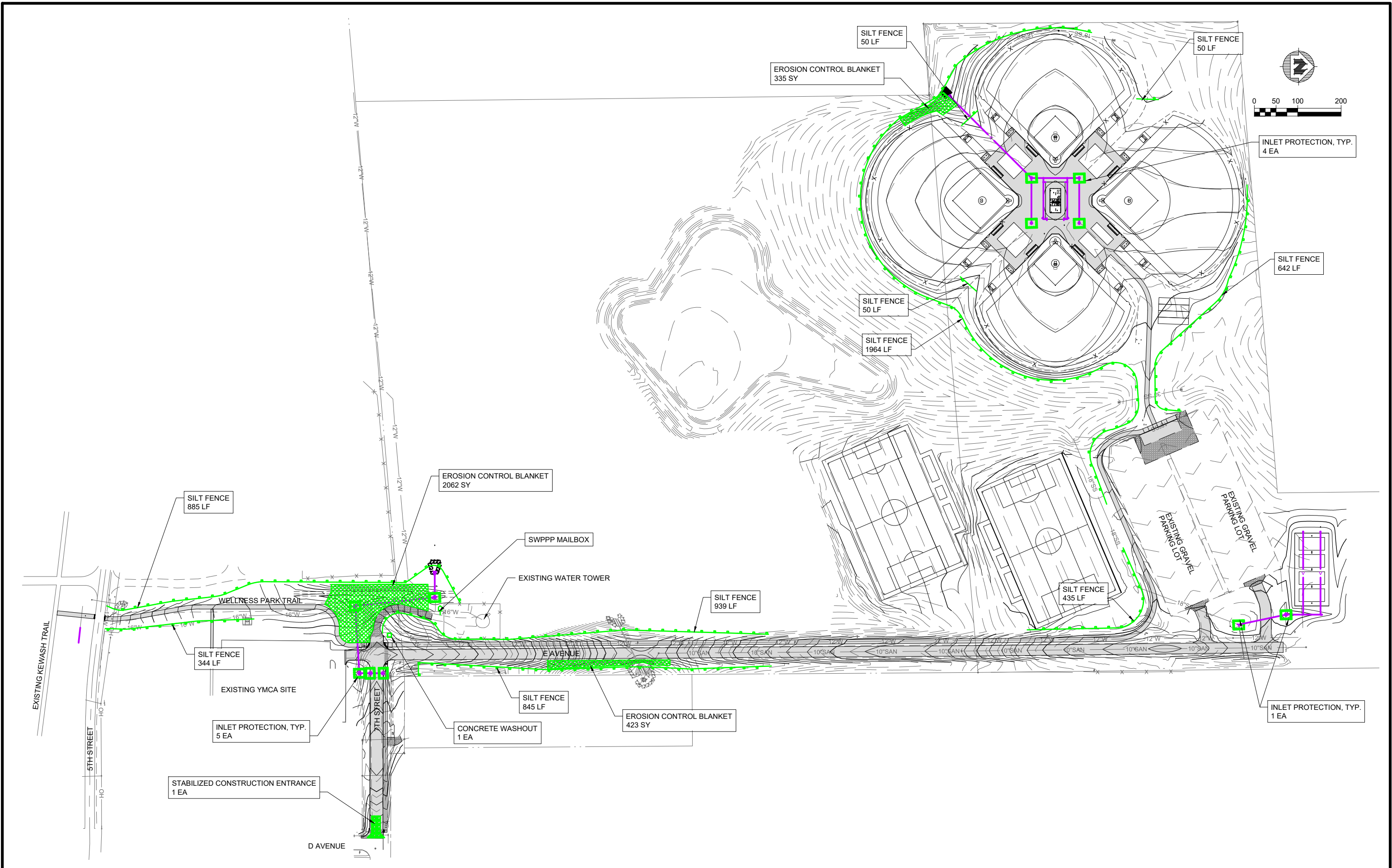
TITLE_____

ADDRESS_____

TELEPHONE_____

SUBCONTRACTORS CERTIFICATION

COMPANYSIGNATUREDATE



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	-	-	-	-
	DESIGNED BY:	JLS	-	-	-
	CHECKED BY:	JRH	-	-	-
PLOT DATE: Thursday, February 13, 2020 1:32:10 PM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SWPPP.dwg					



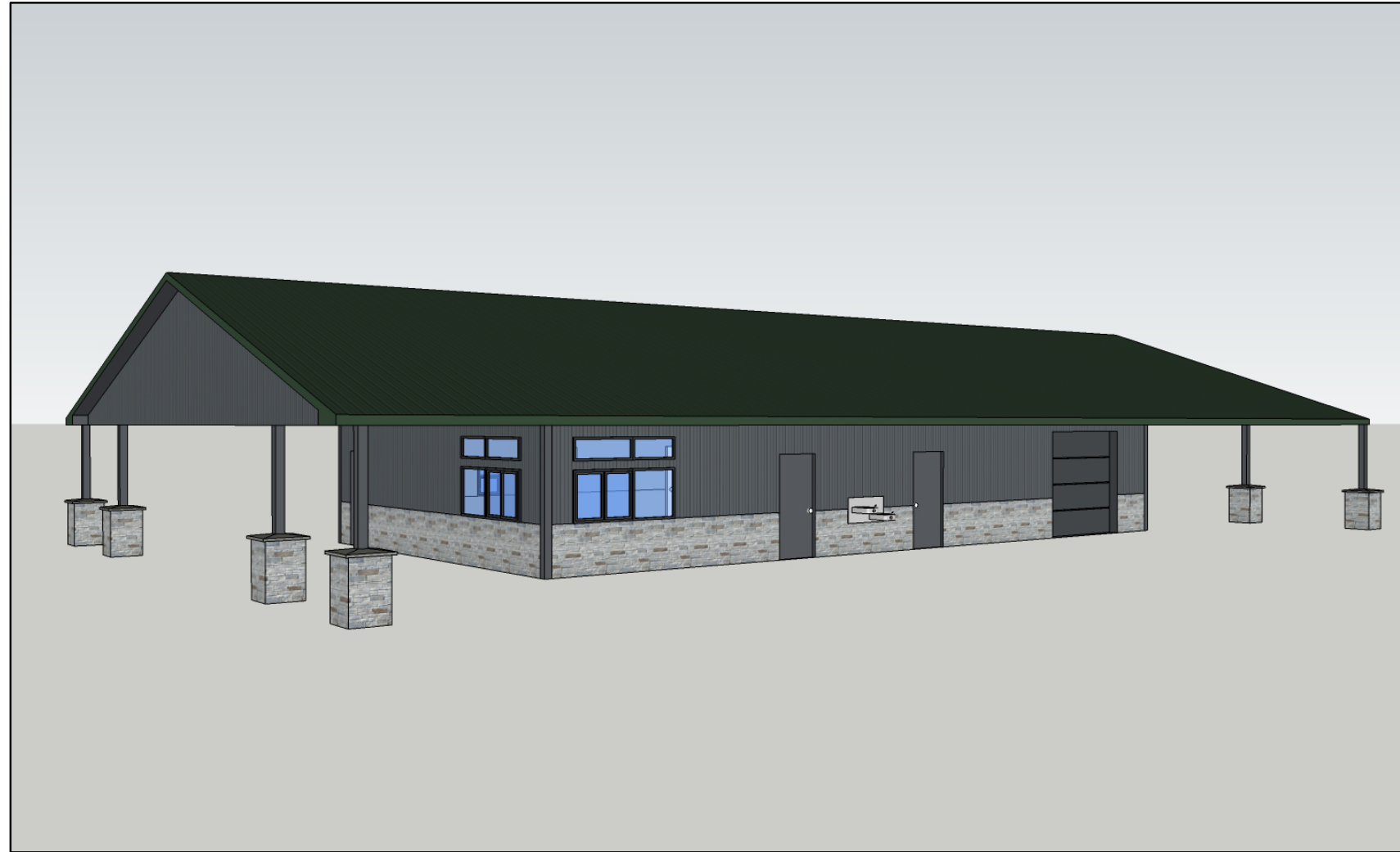
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BALL FIELDS AND ROADWAY
CITY OF WASHINGTON
WASHINGTON, IOWA

STORMWATER POLLUTION PREVENTION PLAN

PROJECT NO:
10322002
SHEET
SWPPP2

CITY OF WASHINGTON



1. Applicable Codes (Editions)
Building Code: 2015 International Building Code (IBC)
Applicable City of Washington Building Ordinances
2. Occupancy Type
Type C "Commercial"
3. Building Description
Type of construction: V-B
4. Is the building sprinkled?
No
5. Occupant Load
Commercial = 10
6. Mechanical systems
Heating: Electric furnace
Cooling: Central Air Conditioning - multi-zone ventilator

A-0	TITLE SHEET
A-1	SCHEMATIC SITE PLAN
A-2	SCHEMATIC FLOOR PLAN
A-3	ELECTRICAL PLAN
A-4	SCHEMATIC EXTERIOR ELEVATIONS
A-5	WALL CONSTRUCTION SECTION
A-6	DUGOUT

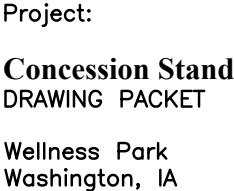
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Washington, IA[illegible]

TITLE SHEET

A-0

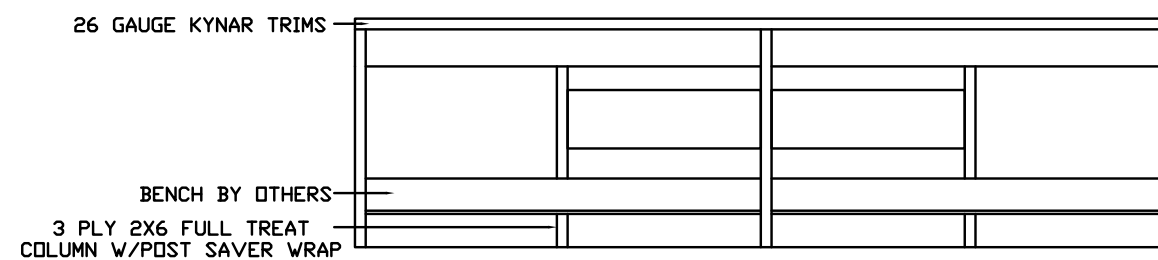
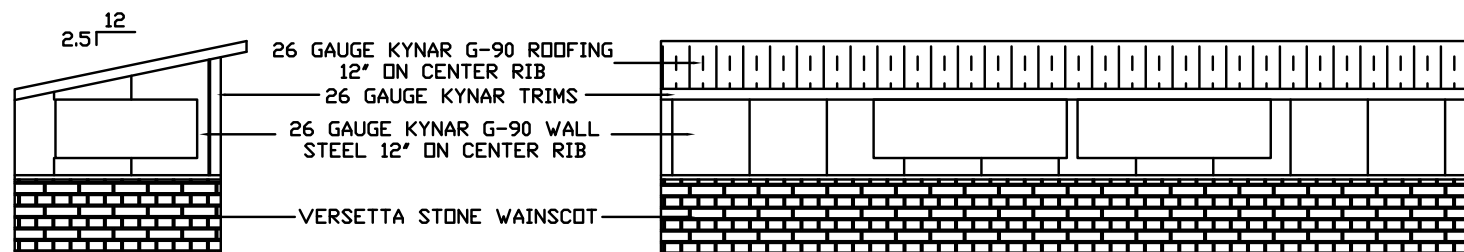
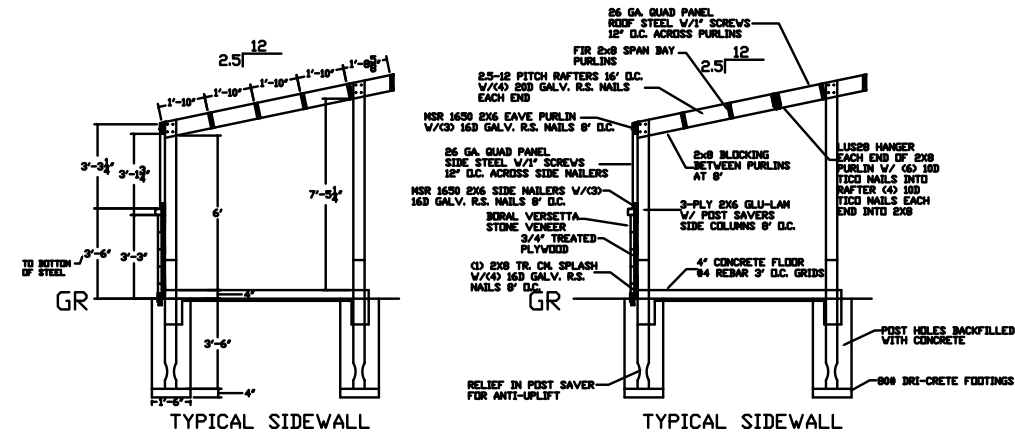
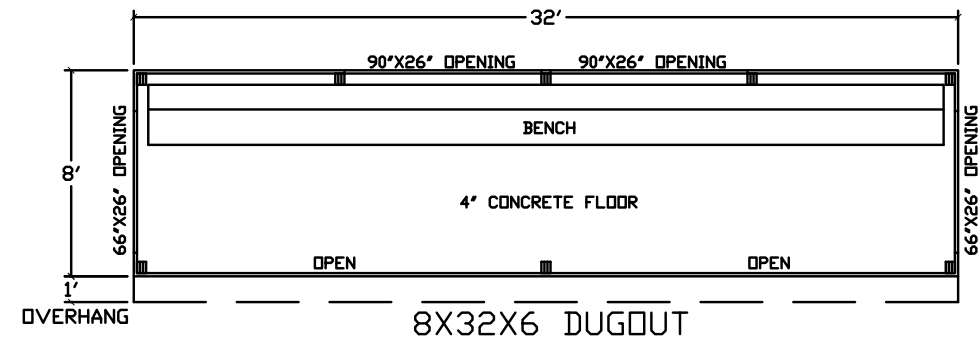
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SCHEMATIC
EXTERIOR
ELEVATIONS



WALL CONSTRUCTION SECTION

(8) LOCATIONS



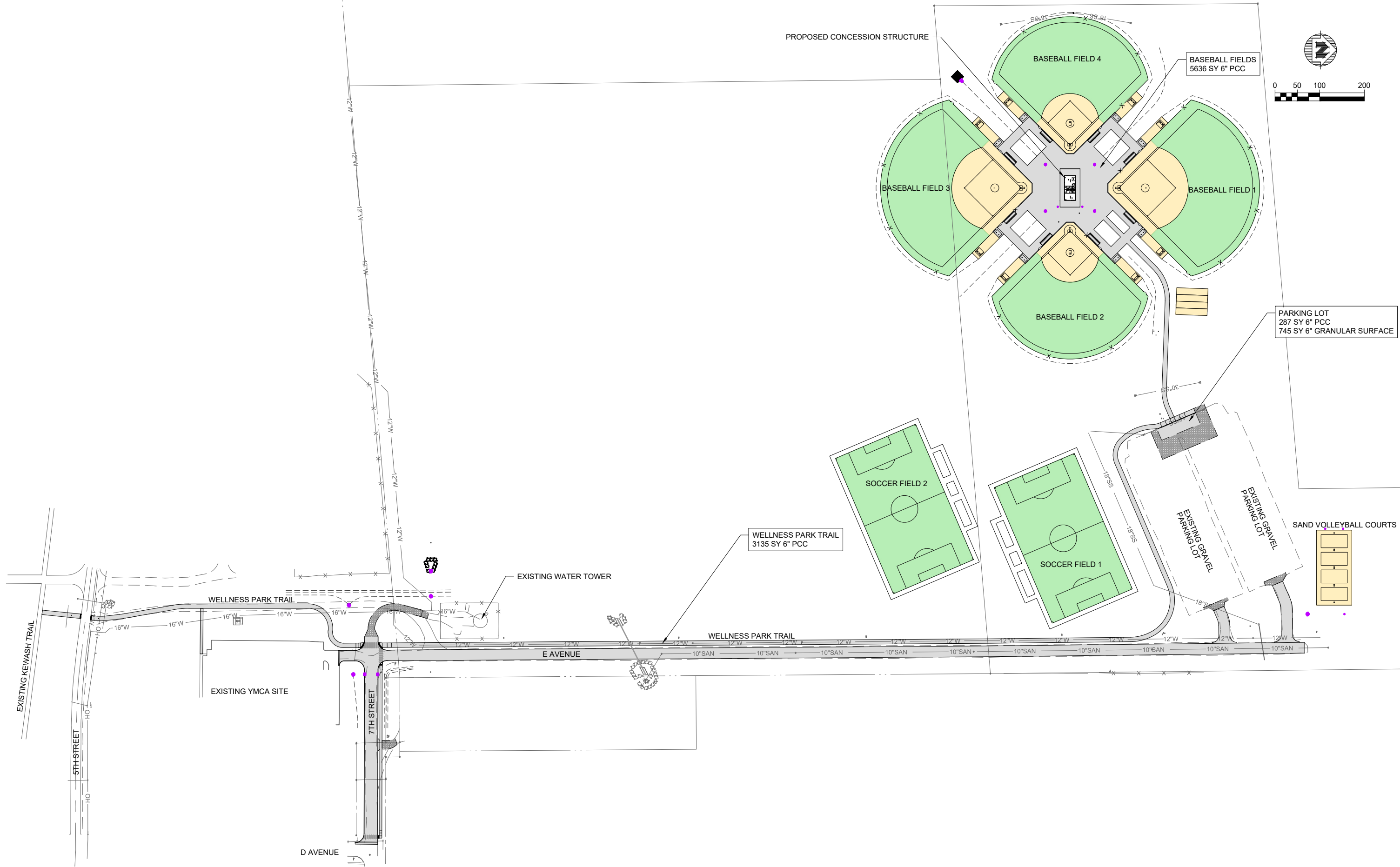
Project:

Concession Stand DRAWING PACKET

Wellness Park
Washington, IA[illegible]

DUGOUT

A-6



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				
PLOT DATE: Friday, March 6, 2020 11:00:47 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg						

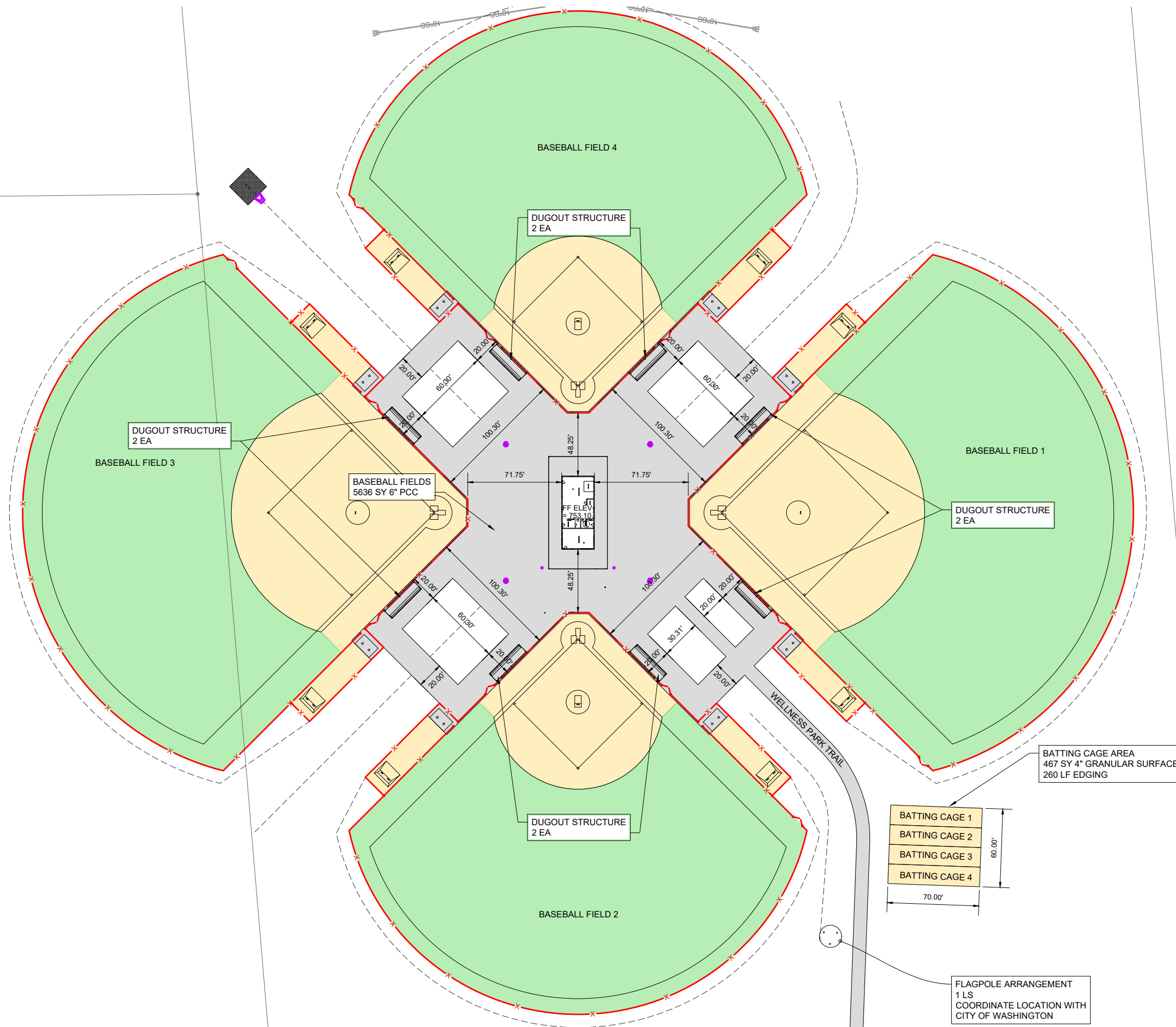


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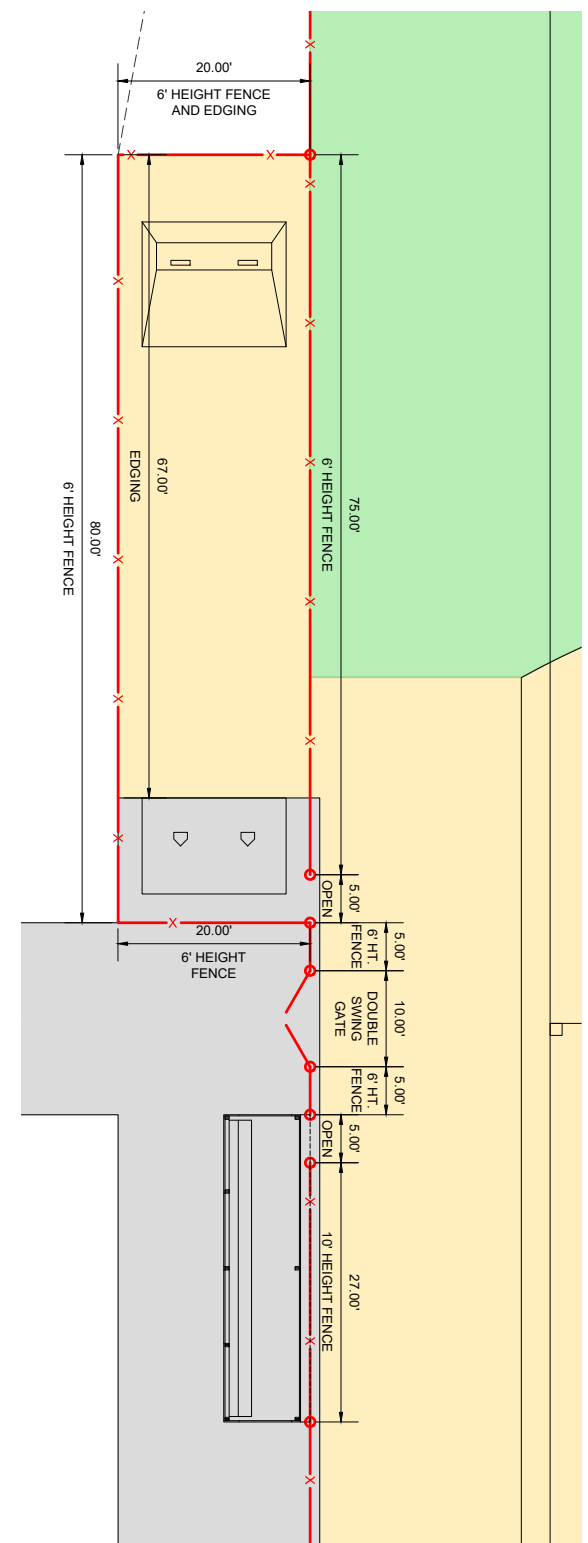
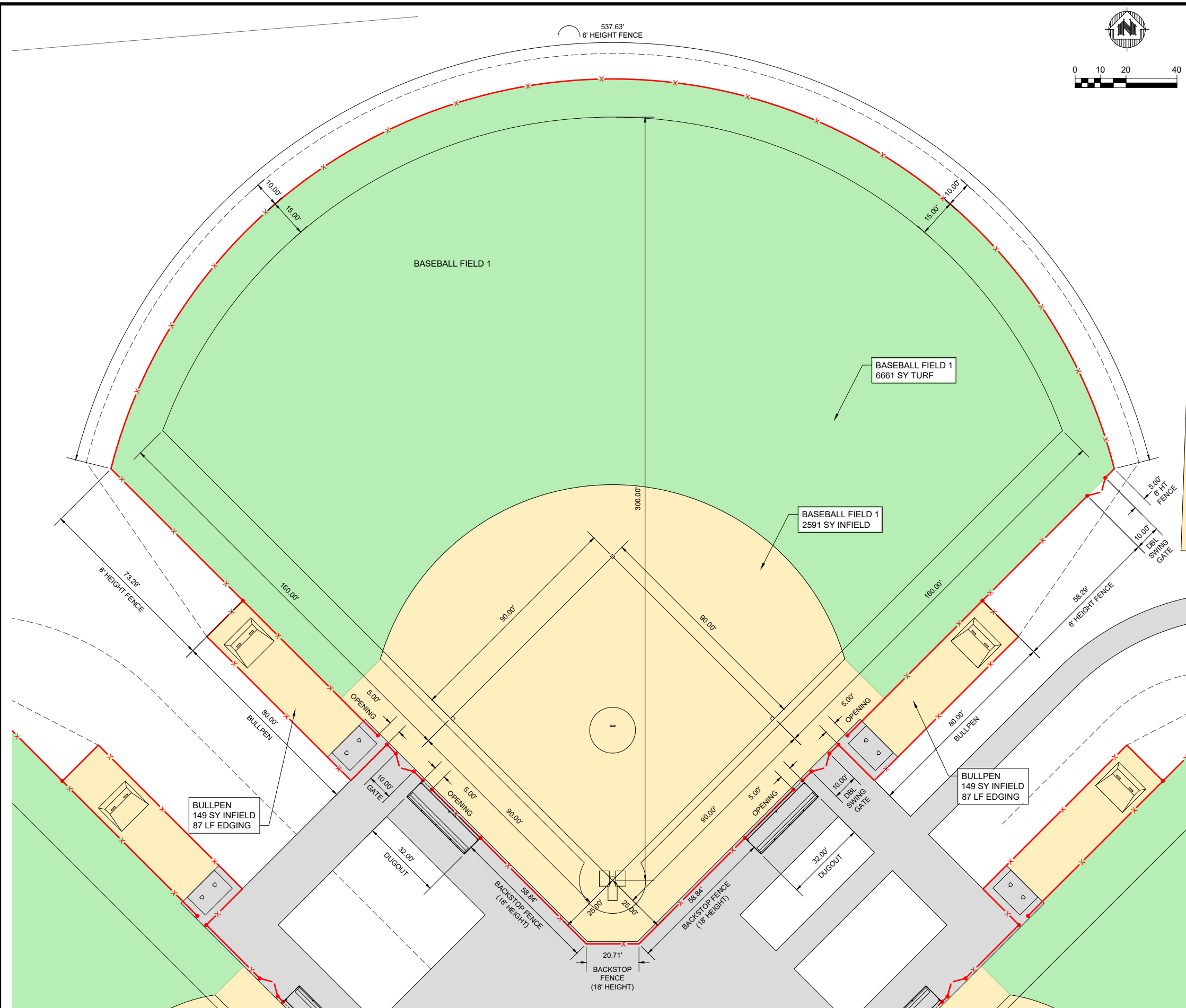
OVERALL SITE PLAN

PROJECT NO:
10322002
SHEET
S1



PROJECT NO.
0322002

SHEET
S2



DUGOUT & BULLPEN LAYOUT DETAIL

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	-	-	-	-
	DESIGNED BY:	-	-	-	-
	JRH	-	-	-	-
	CHECKED BY:	-	-	-	-
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PLOT DATE: Friday, March 6, 2020 11:01:18 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg

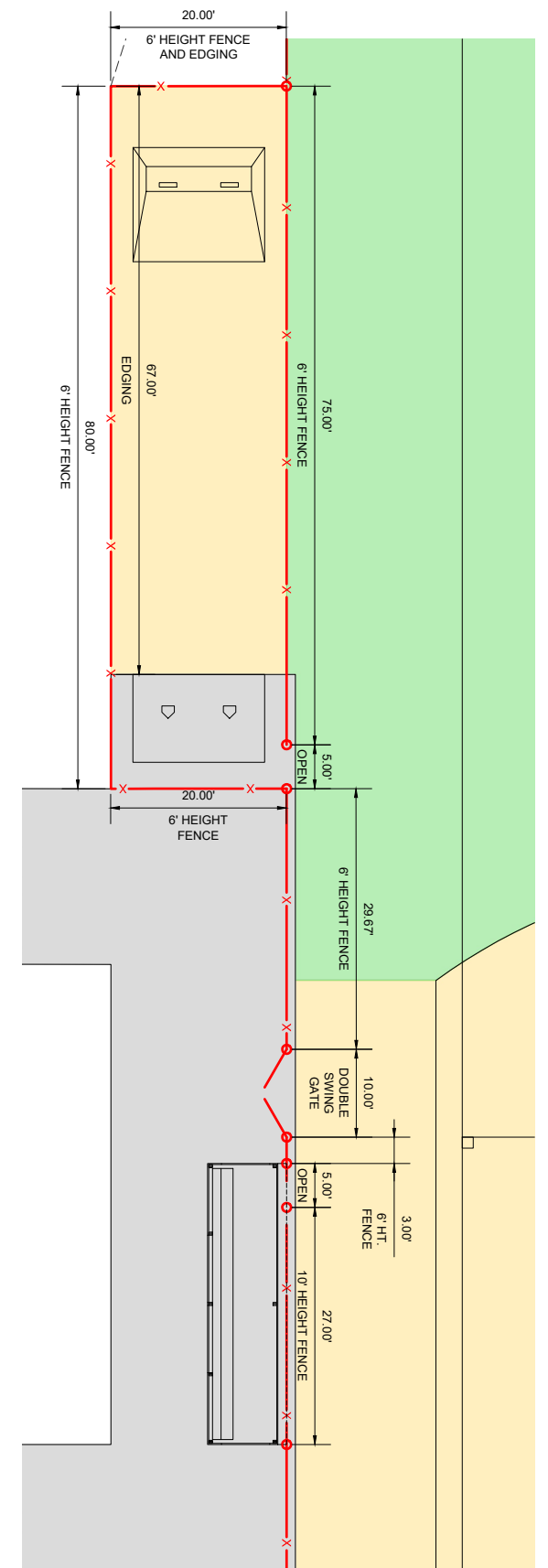
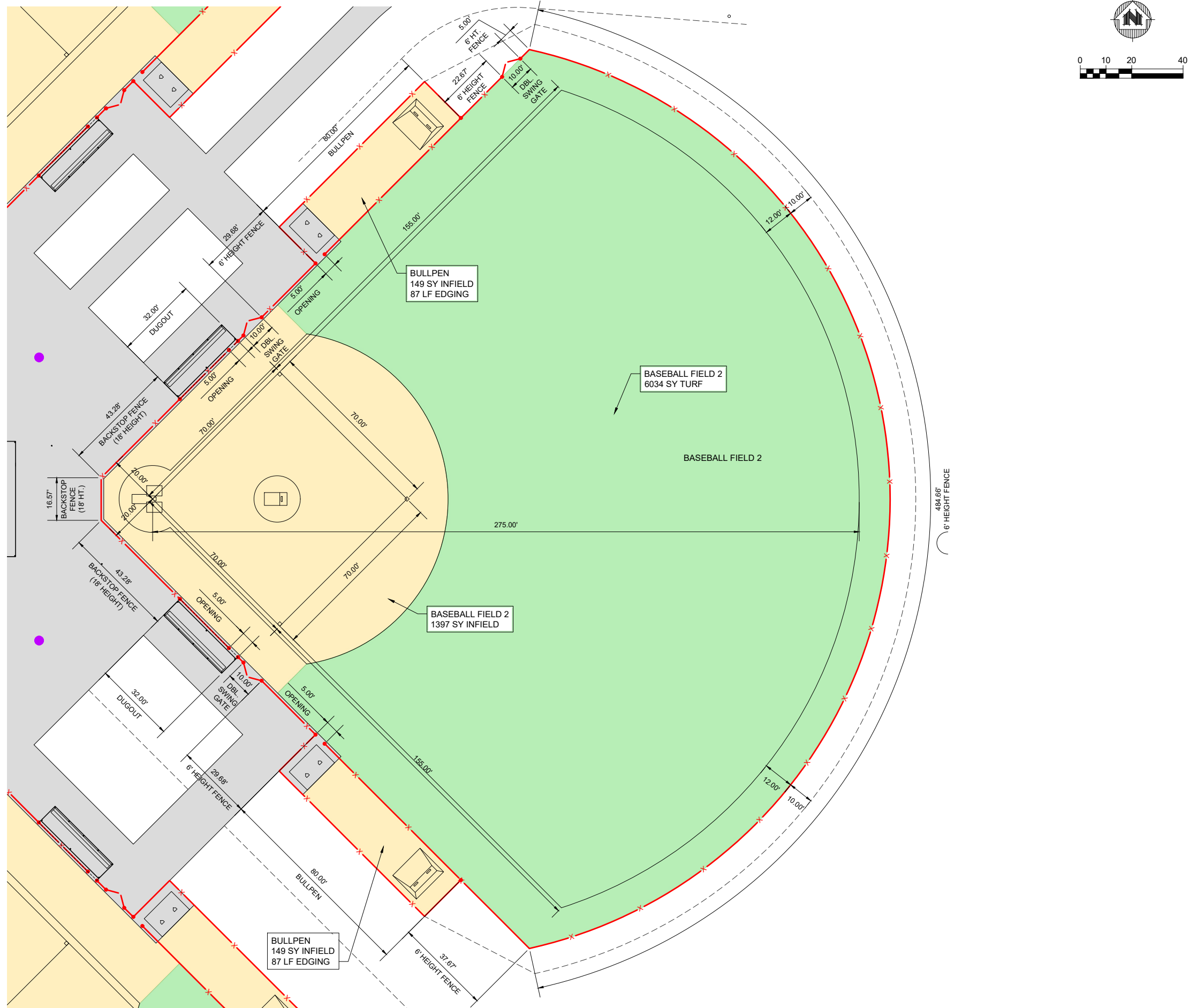


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SITE PLAN - BASEBALL FIELD 1

PROJECT NO:
10322002
SHEET
S4



DUGOUT & BULLPEN LAYOUT DETAIL

PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				
PLOT DATE: Friday, March 6, 2020 11:01:32 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg						

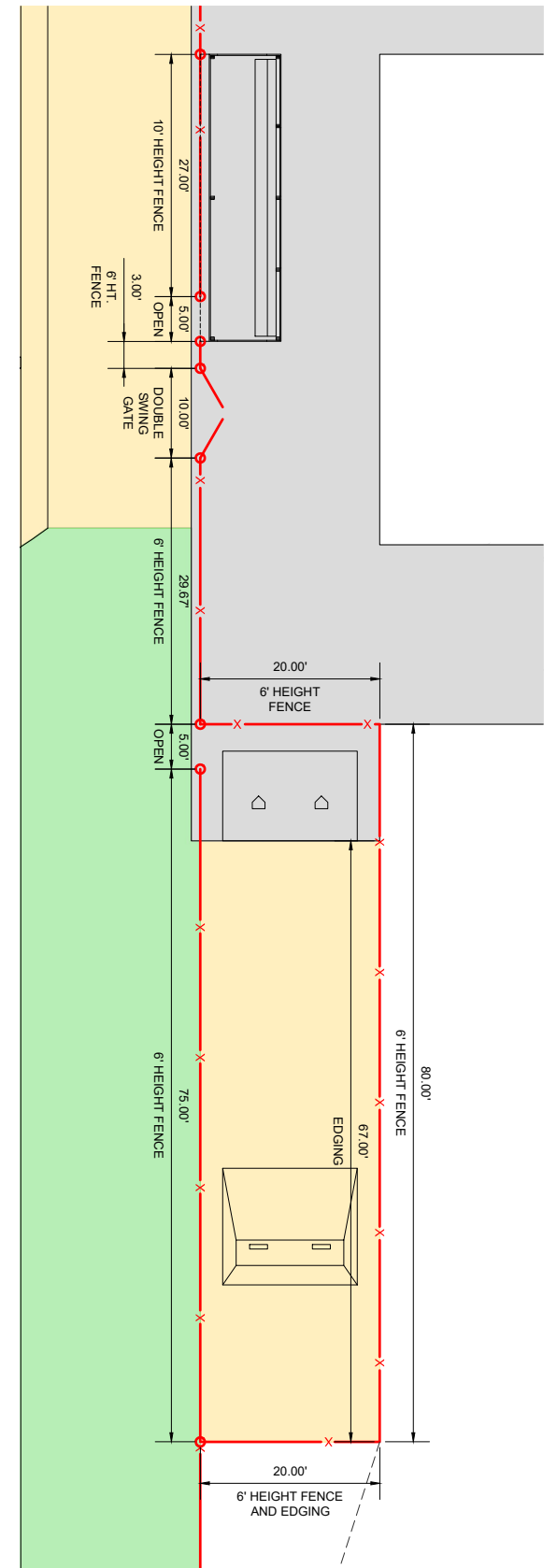
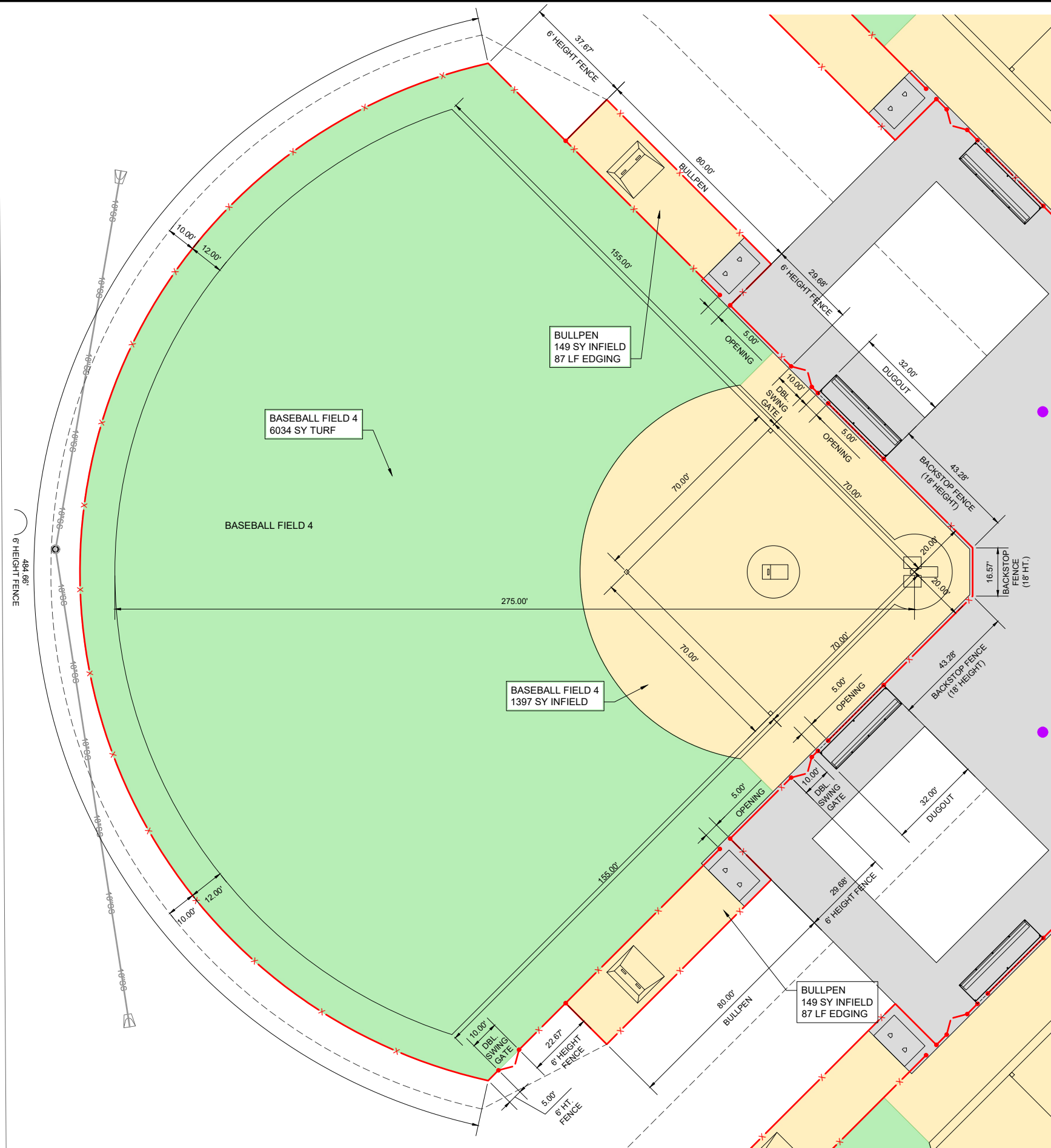


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SITE PLAN - BASEBALL FIELD 2

PROJECT NO:
10322002
SHEET
S5



DUGOUT & BULLPEN LAYOUT DETAIL

PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	-	-	-	-
	DESIGNED BY:	JLS	-	-	-
	CHECKED BY:	JRH	-	-	-
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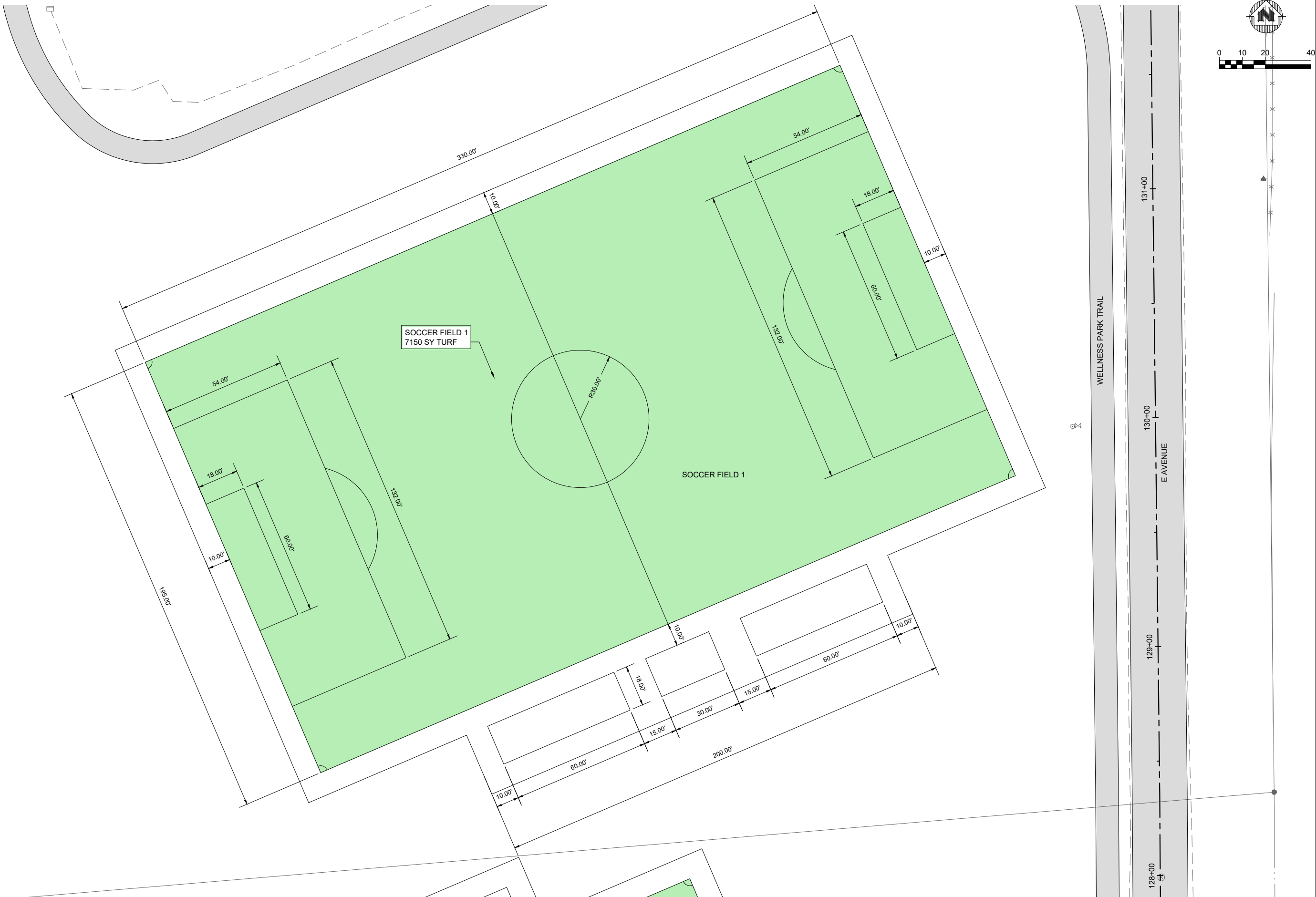


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SITE PLAN - BASEBALL FIELD 4

PROJECT NO:
10322002
SHEET
S7



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
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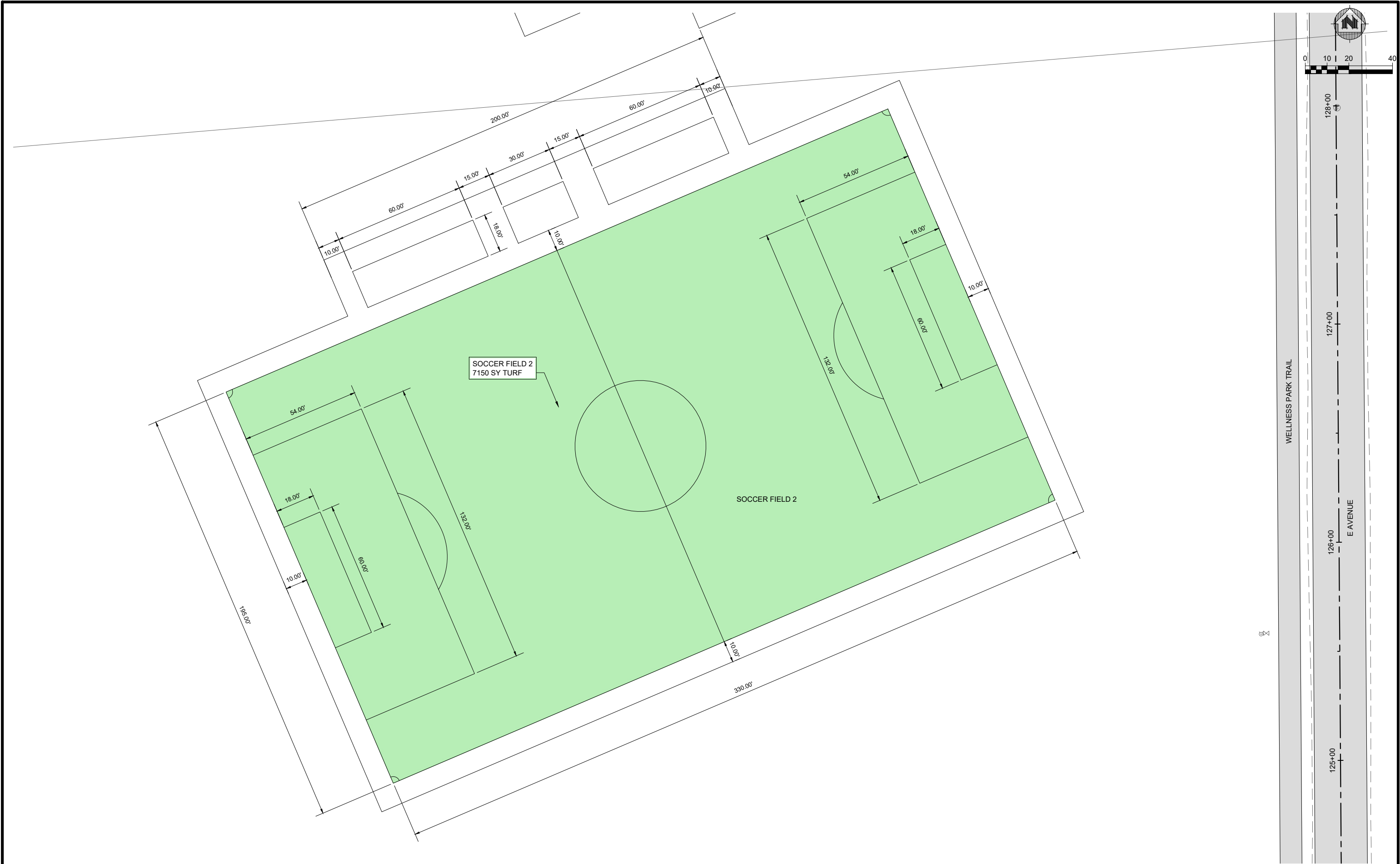


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SITE PLAN - SOCCER FIELD 1

PROJECT NO:
10322002
SHEET
S8



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	CHECKED BY:	JRH	-	-	-	-
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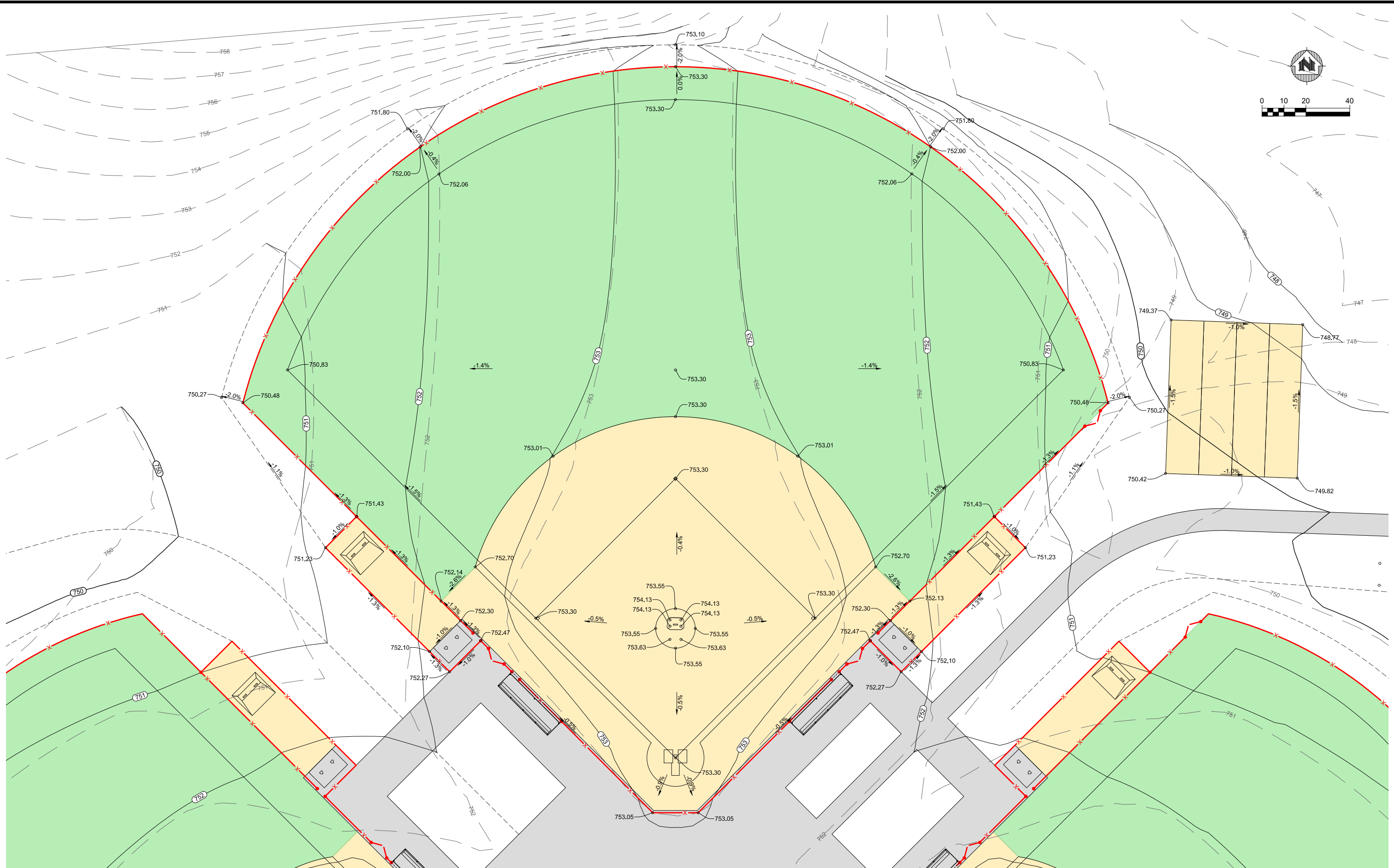


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SITE PLAN - SOCCER FIELD 2

PROJECT NO:
10322002
SHEET
S9



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
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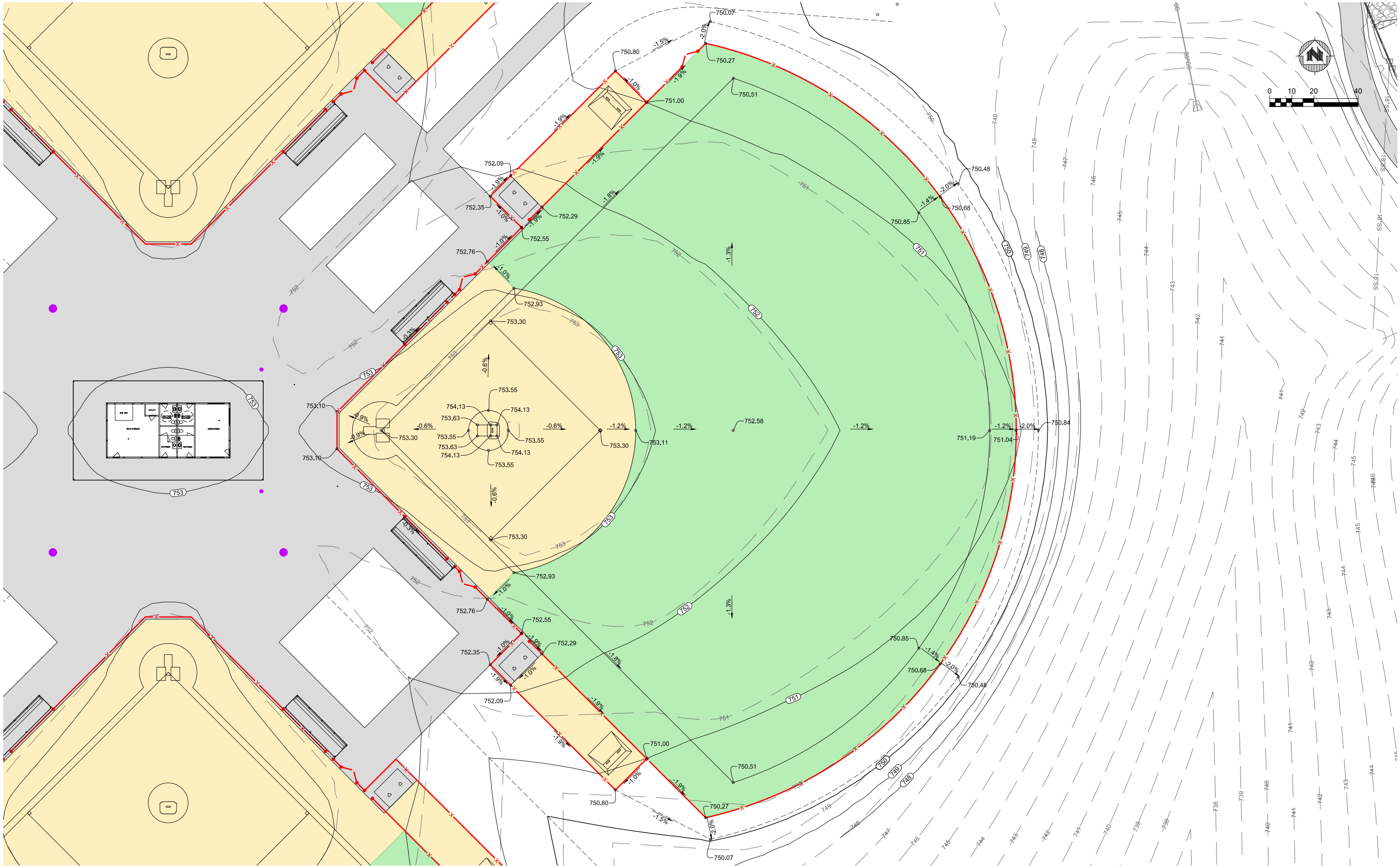


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GRADING PLAN - BASEBALL FIELD 1

PROJECT NO:	10322002
SHEET	G1



		NO.	DATE	REVISION	BY
PROJECT DATE:	DRAWN BY: JLS	-	-	-	-
	DESIGNED BY: JLS	-	-	-	-
	CHECKED BY: JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:02:37 AM, P:\103300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg					

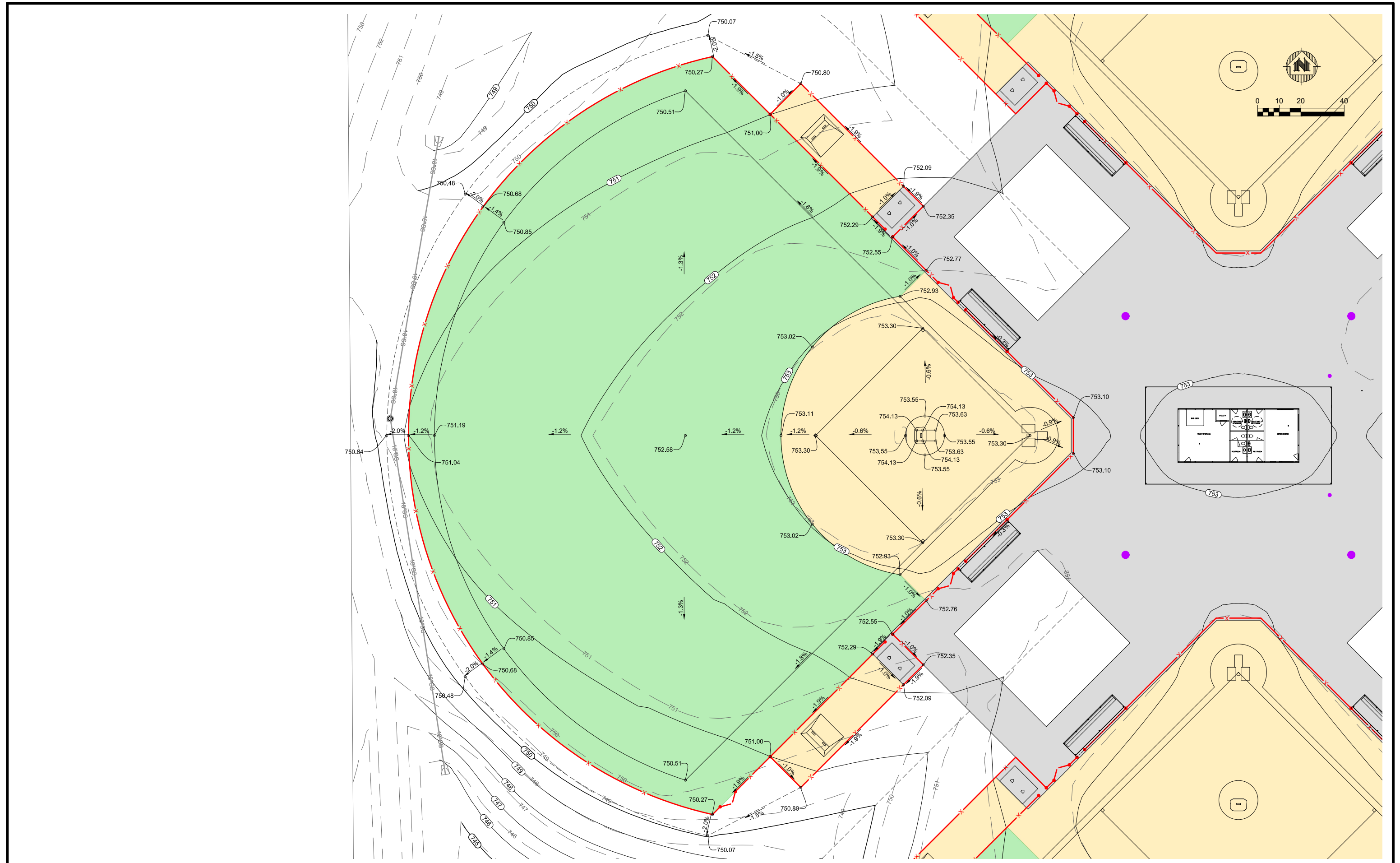


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GRADING PLAN - BASEBALL FIELD 2

PROJECT NO:
10322002
SHEET
G2



		NO.	DATE	REVISION	BY
PROJECT DATE:	DRAWN BY: JLS	-	-	-	-
	DESIGNED BY: JLS	-	-	-	-
	CHECKED BY: JRH	-	-	-	-
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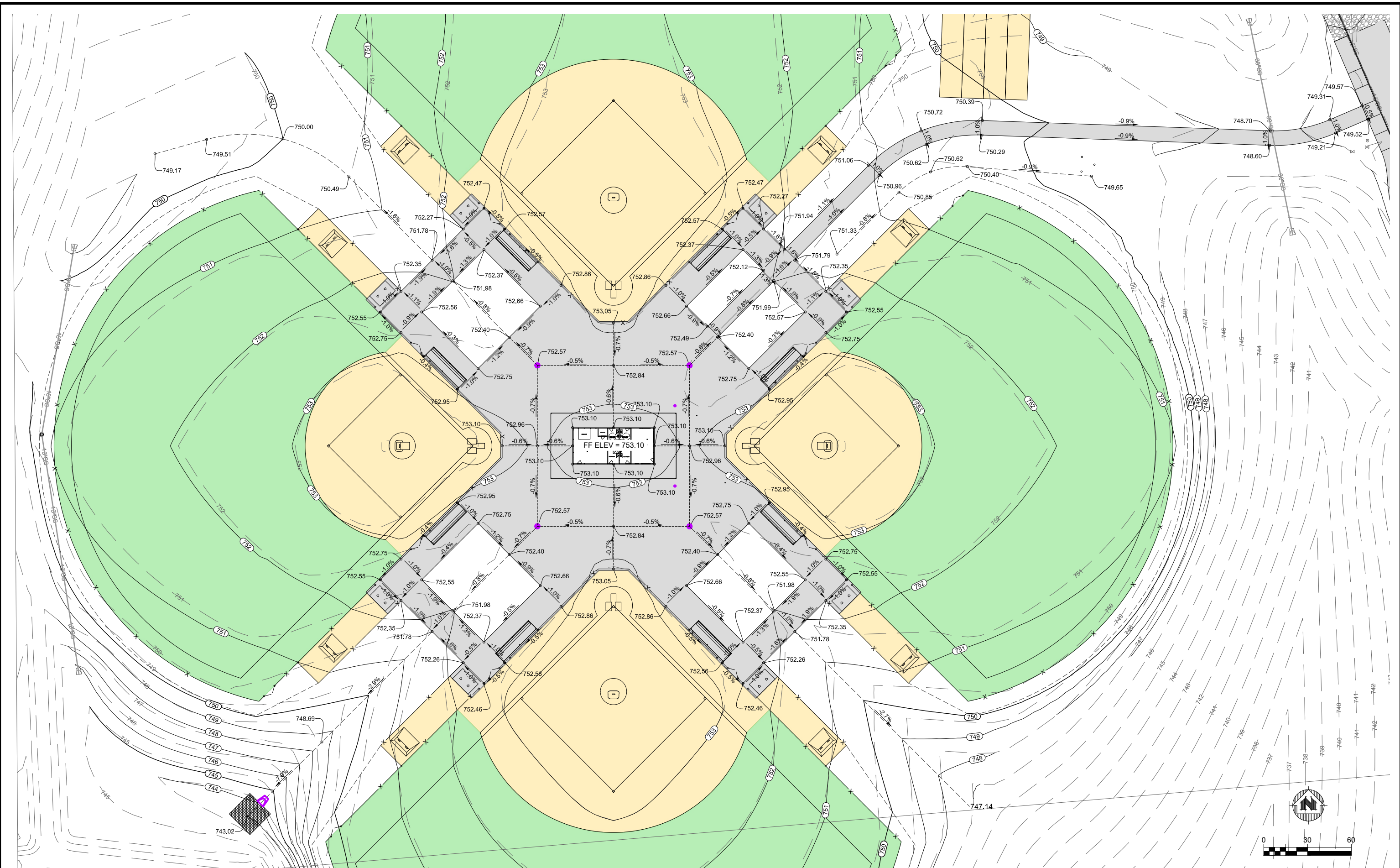
GRADING PLAN - BASEBALL FIELD 4

PROJECT NO:

10322002

SHEET

G4



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	-	-		-
	DESIGNED BY:	-	-		-
	JRH	-	-		-
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GRADING PLAN - CONCESSION STRUCTURE

PROJECT NO:
10322002
SHEET
G5



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				
PLOT DATE: Friday, March 6, 2020 11:03:15 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg						

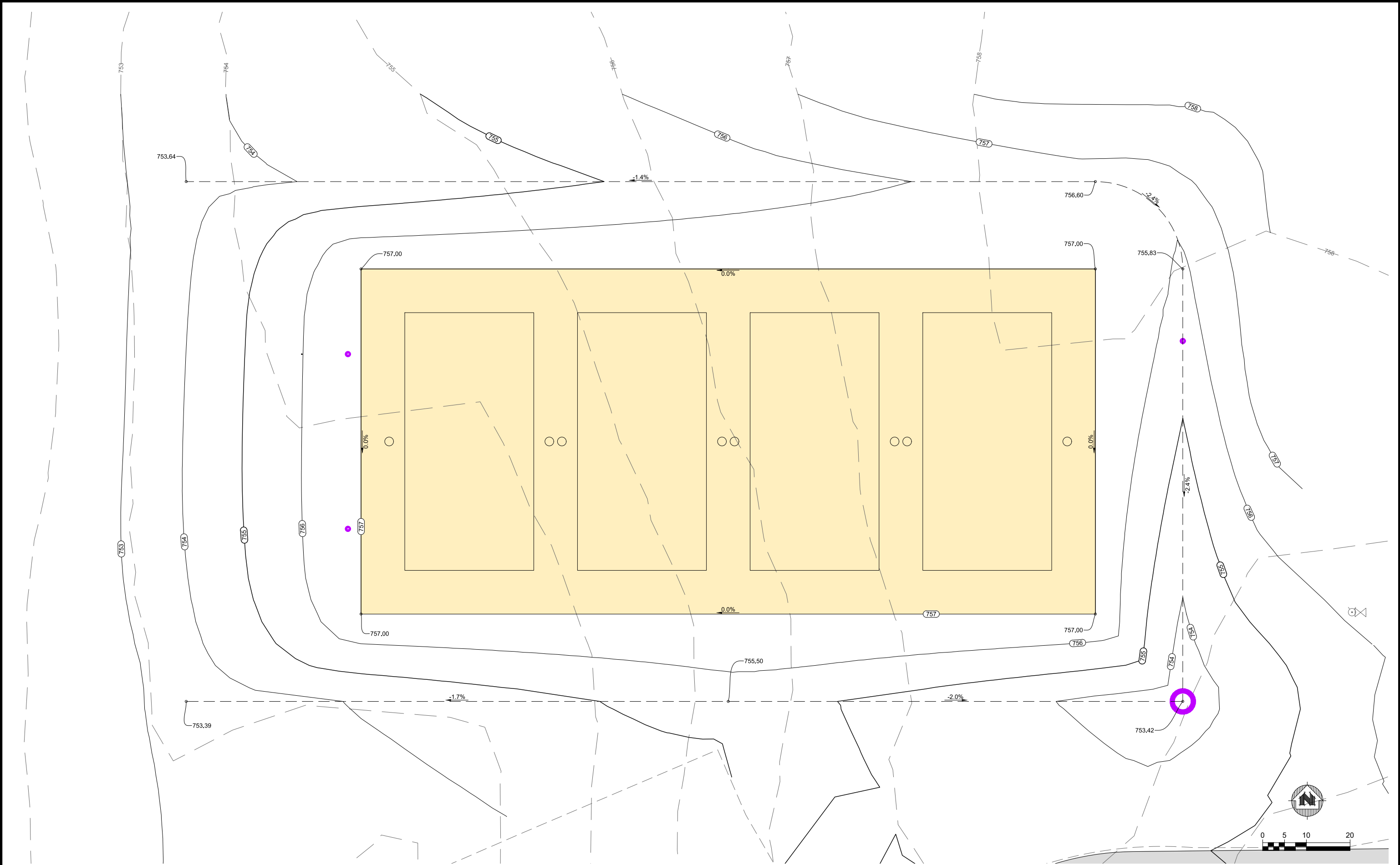


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GRADING PLAN - PARKING LOT & TRAIL

PROJECT NO:
10322002
SHEET
G6



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				
PLOT DATE: Friday, March 6, 2020 11:03:24 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg						

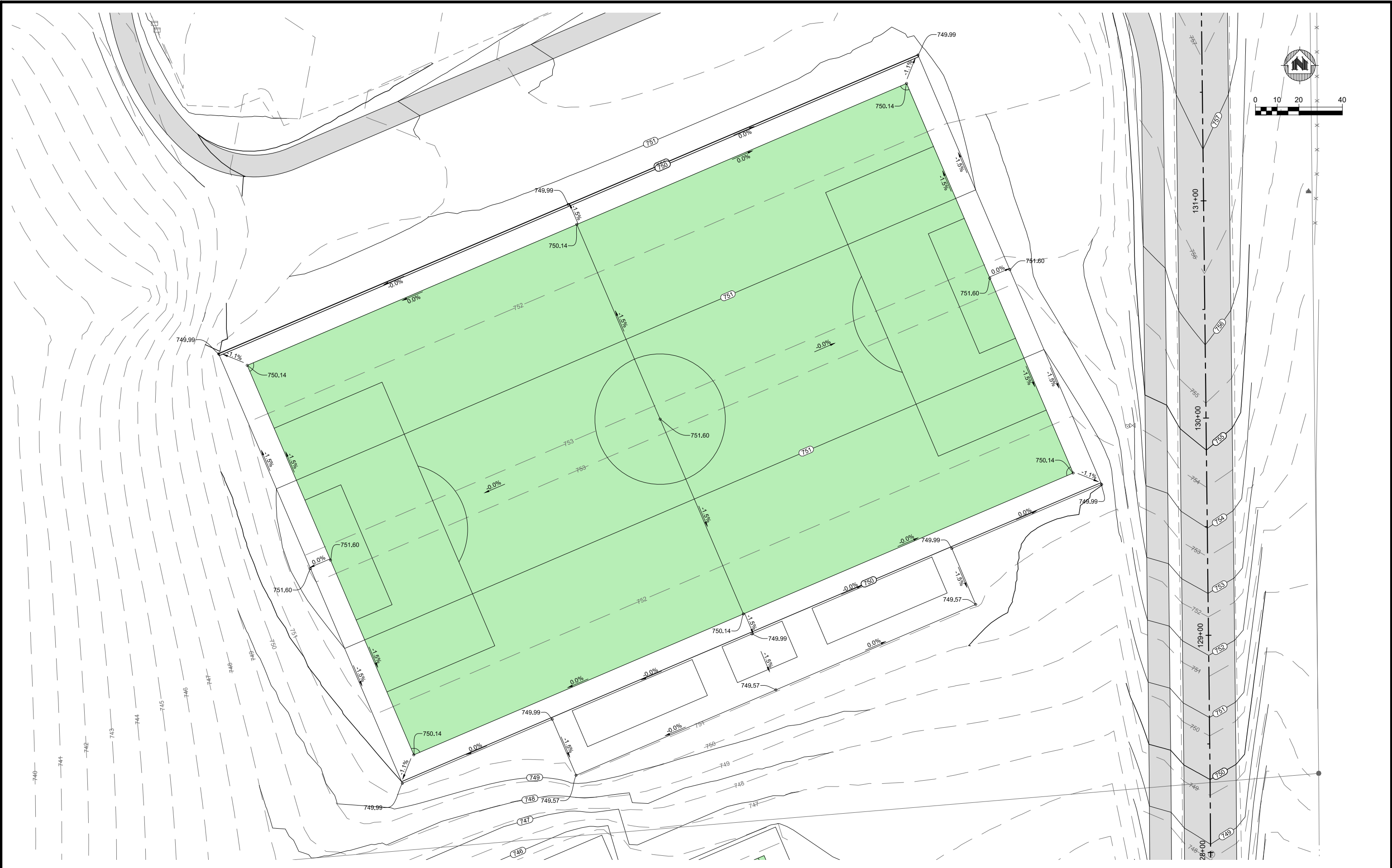


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GRADING PLAN - SAND VOLLEYBALL

PROJECT NO:
10322002
SHEET
G7



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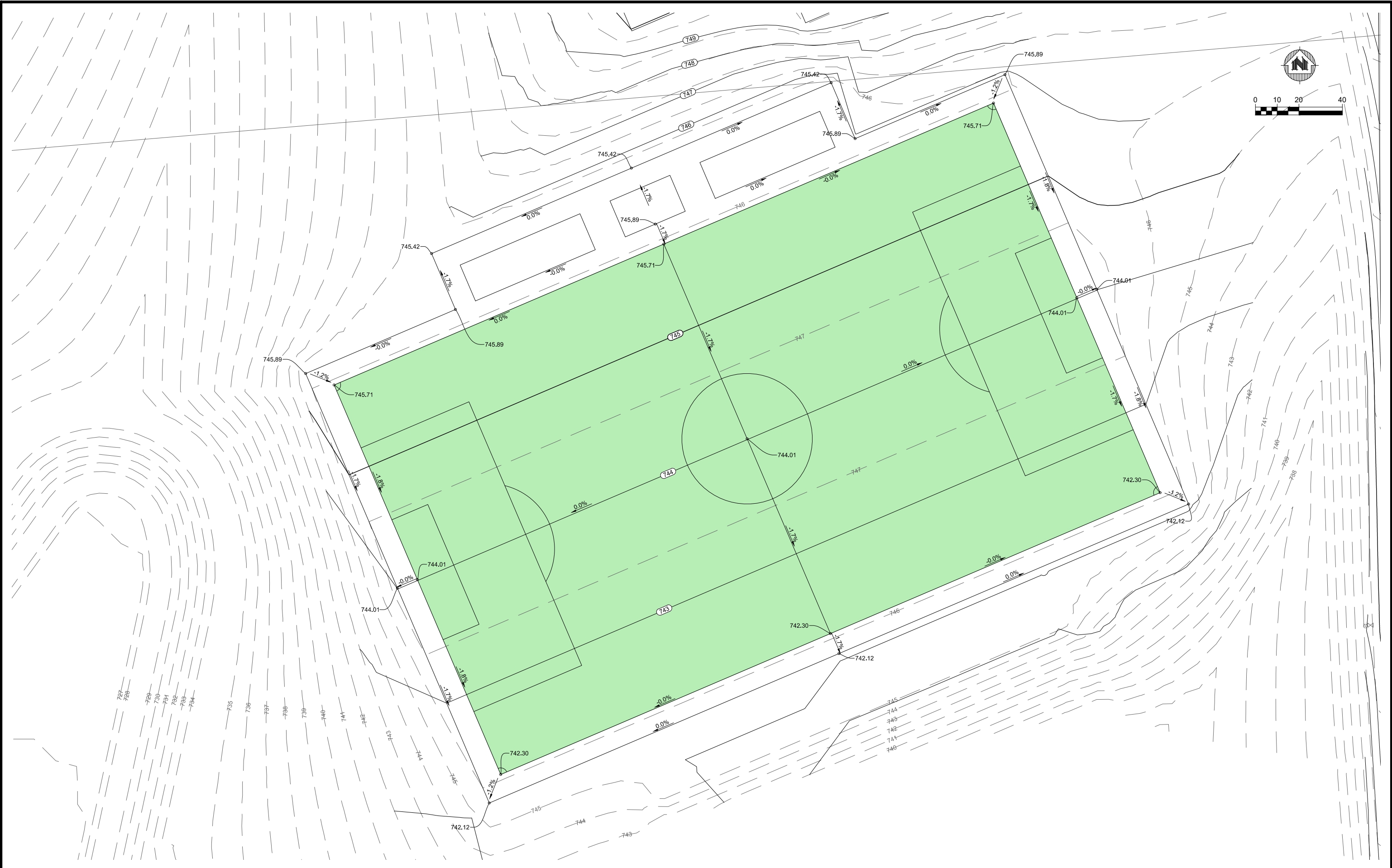


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GRADING PLAN - SOCCER FIELD 1

PROJECT NO:
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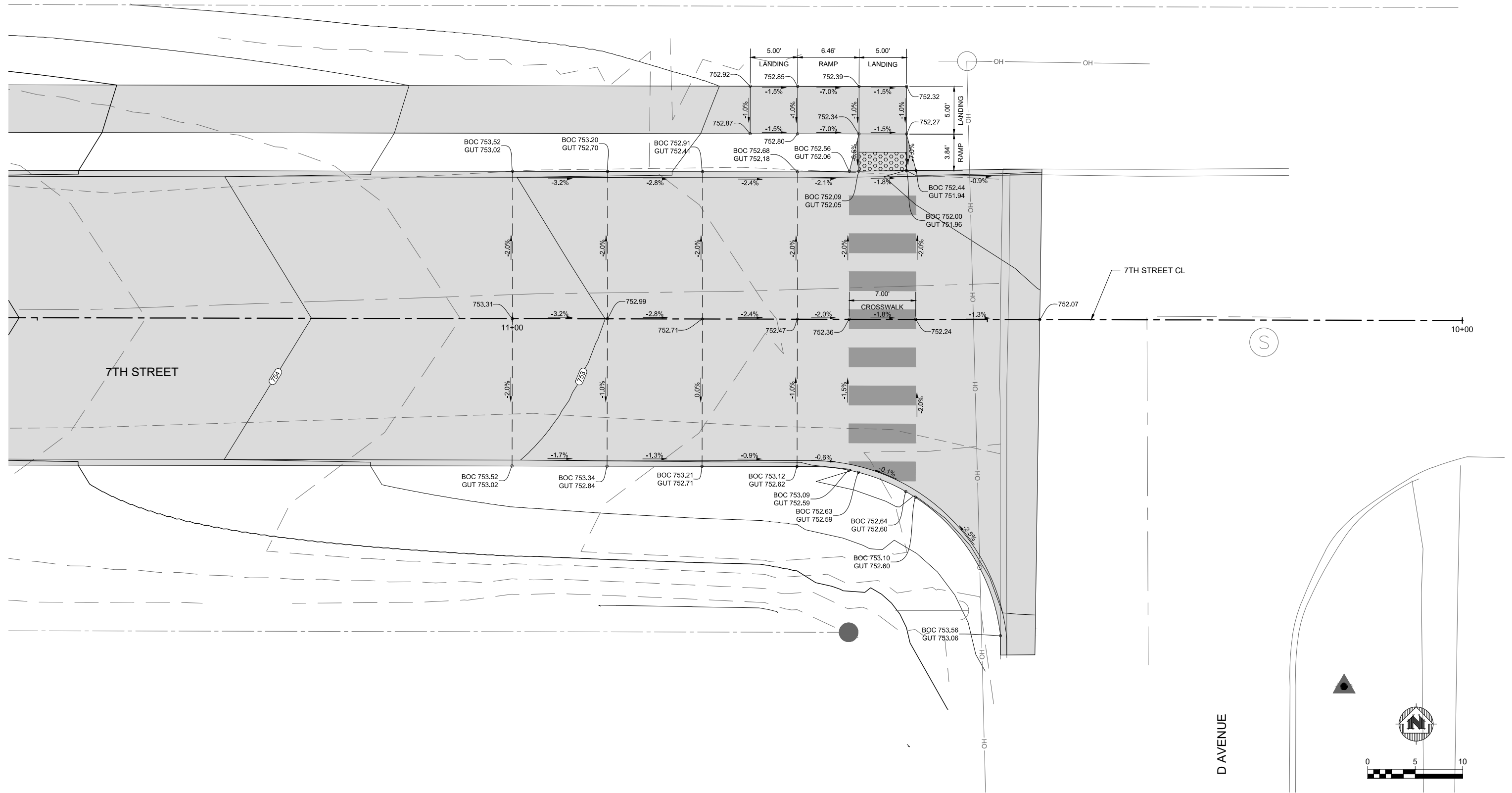


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GRADING PLAN - SOCCER FIELD 2

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PLOT DATE: Friday, March 6, 2020 11:03:51 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SITE PLAN - BASEBALL FIELDS.dwg						



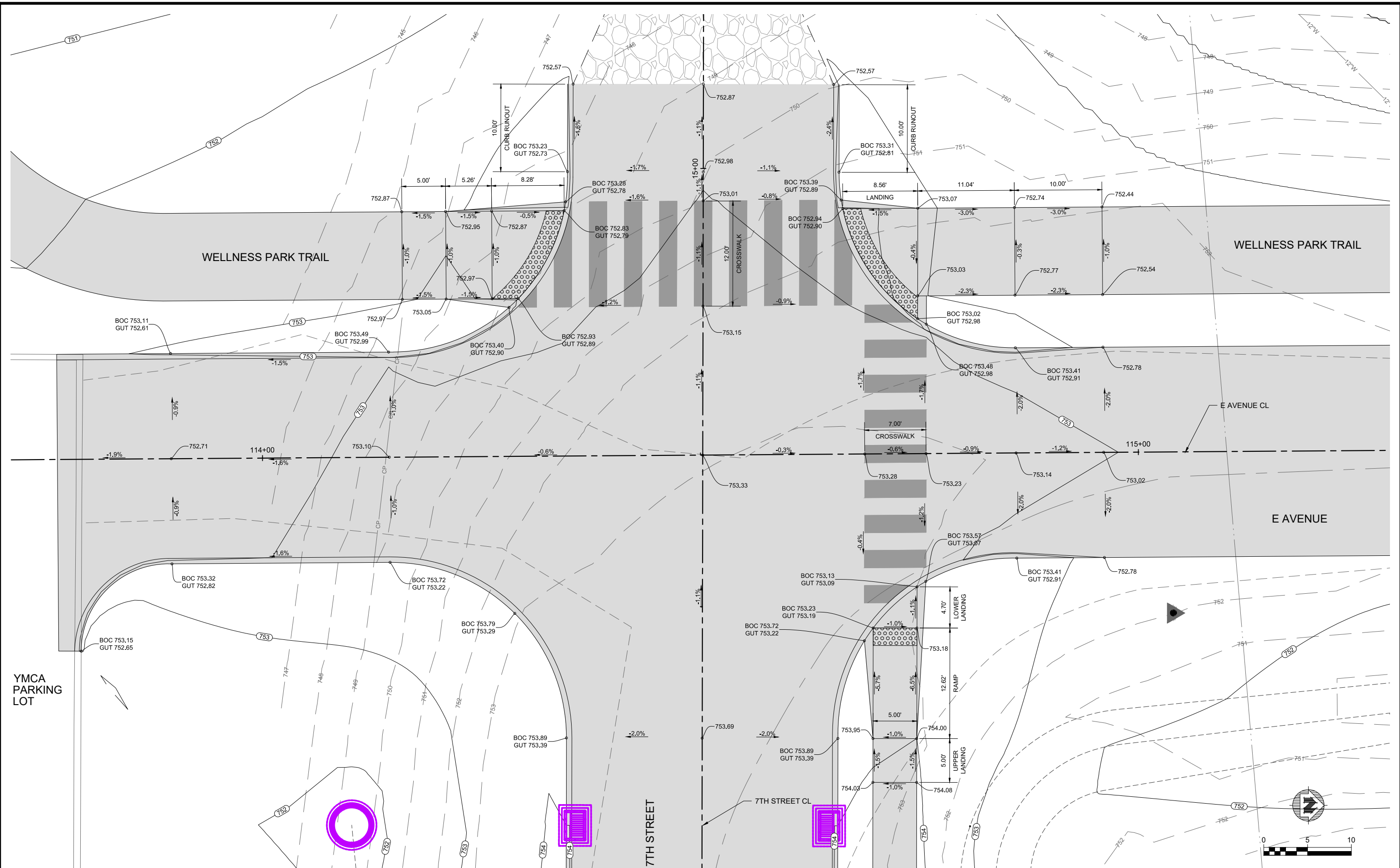
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GRADING PLAN - 7TH ST. & D AVE. INTERSECTION

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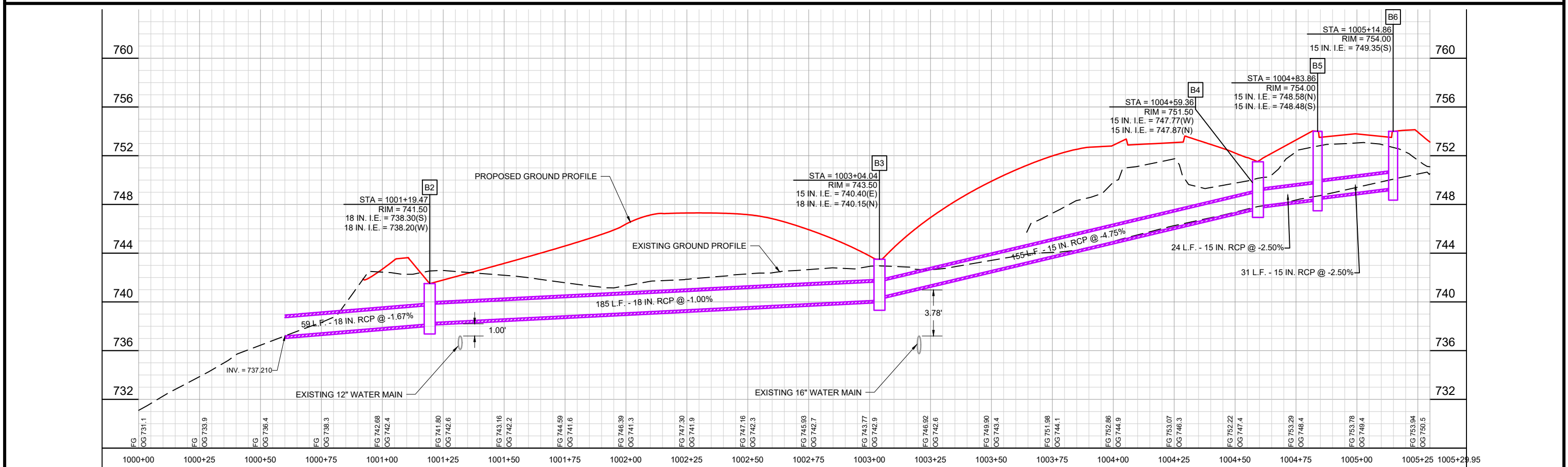
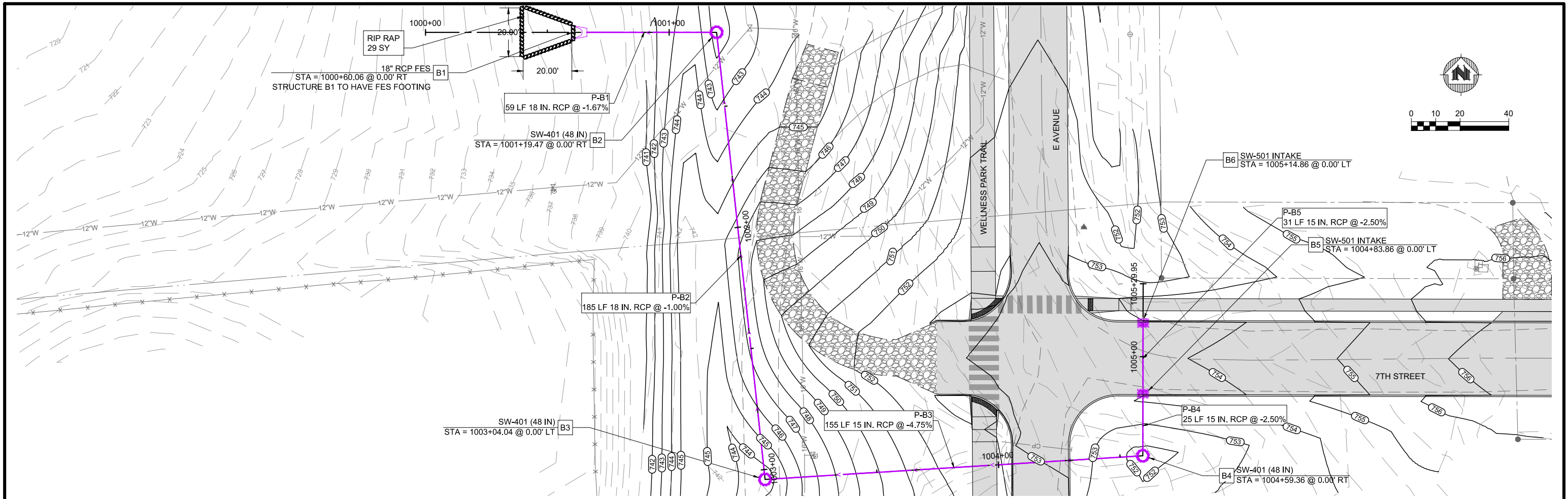


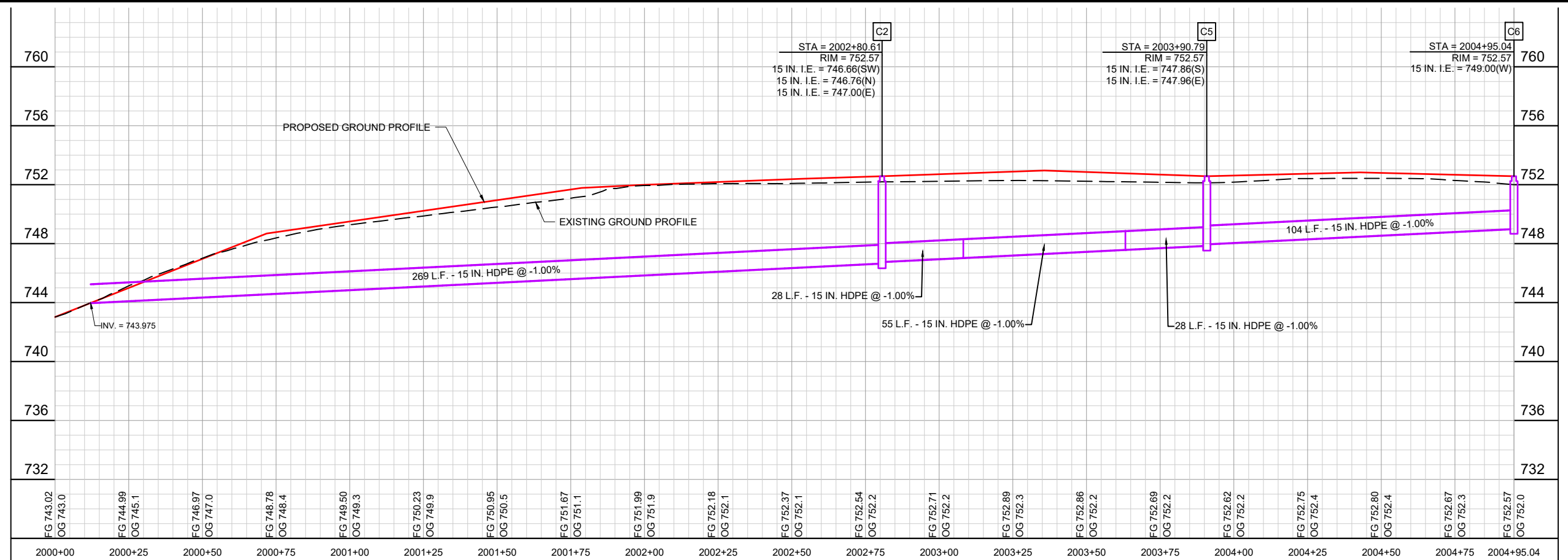
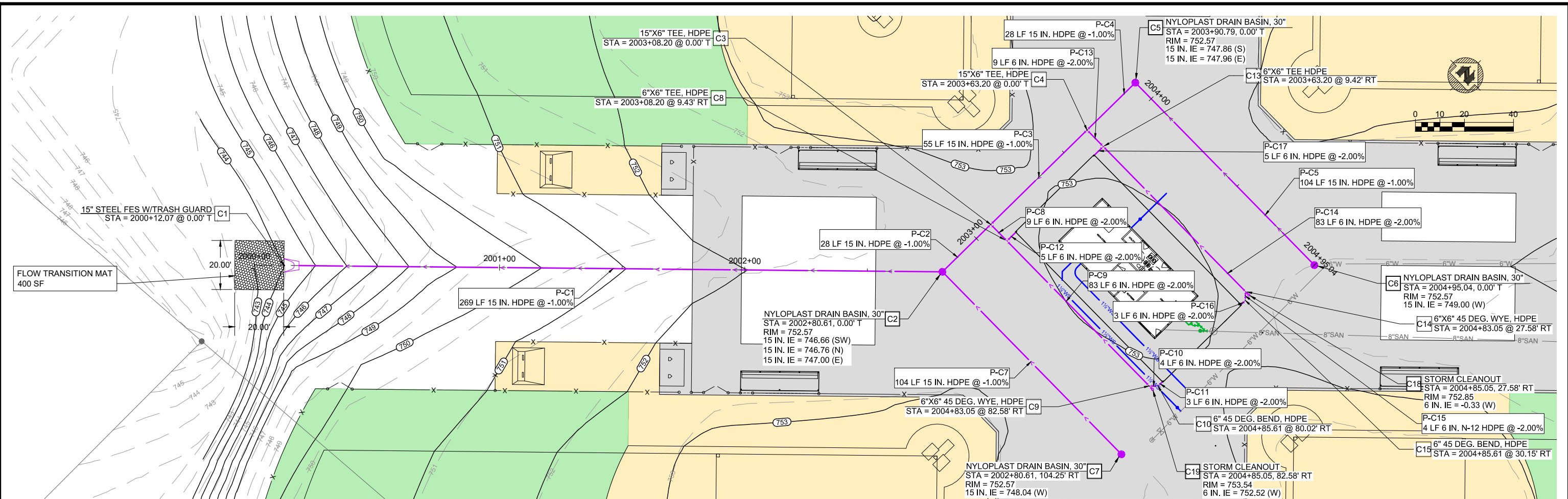
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GRADING PLAN - 7TH ST. & E AVE. INTERSECTION

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PLOT DATE: Friday, March 6, 2020 11:04:11 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\STORM SEWER PLAN & PROFILE - BASEBALL FIELDS.dwg						

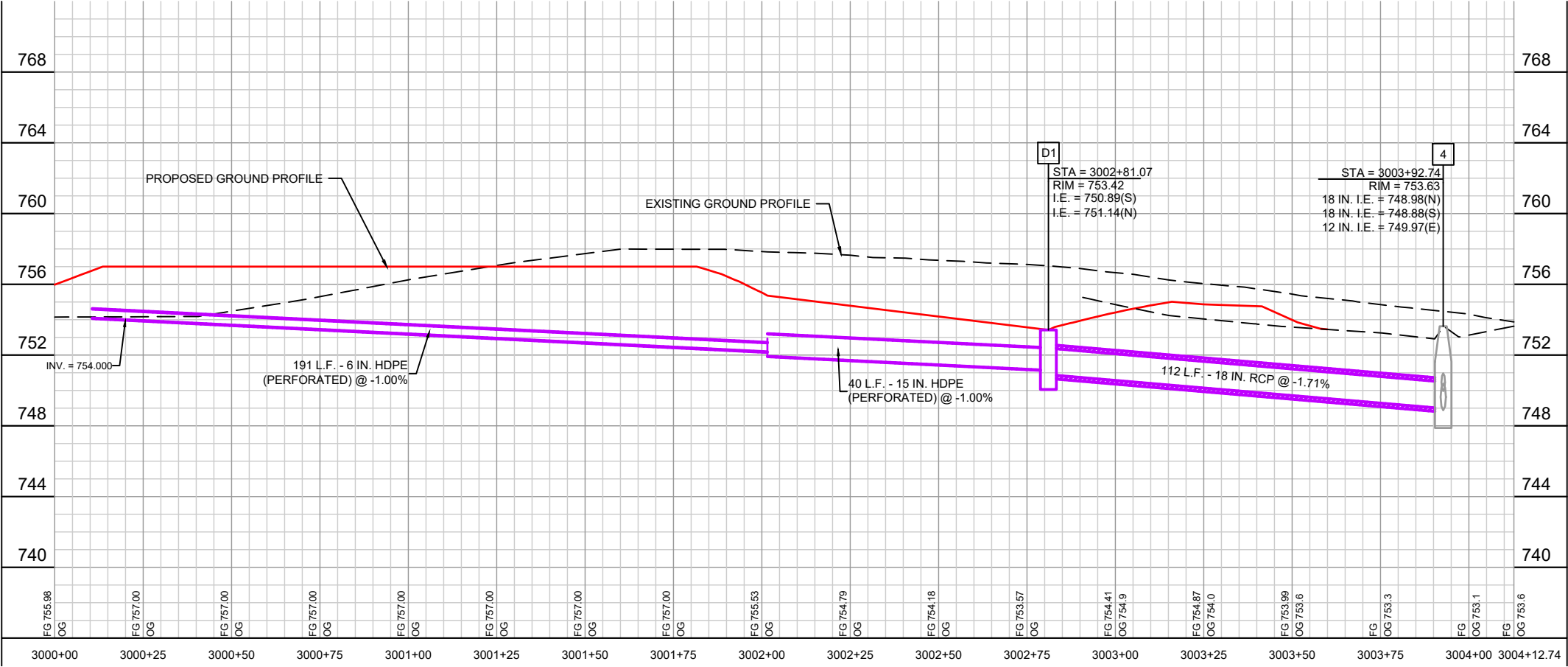
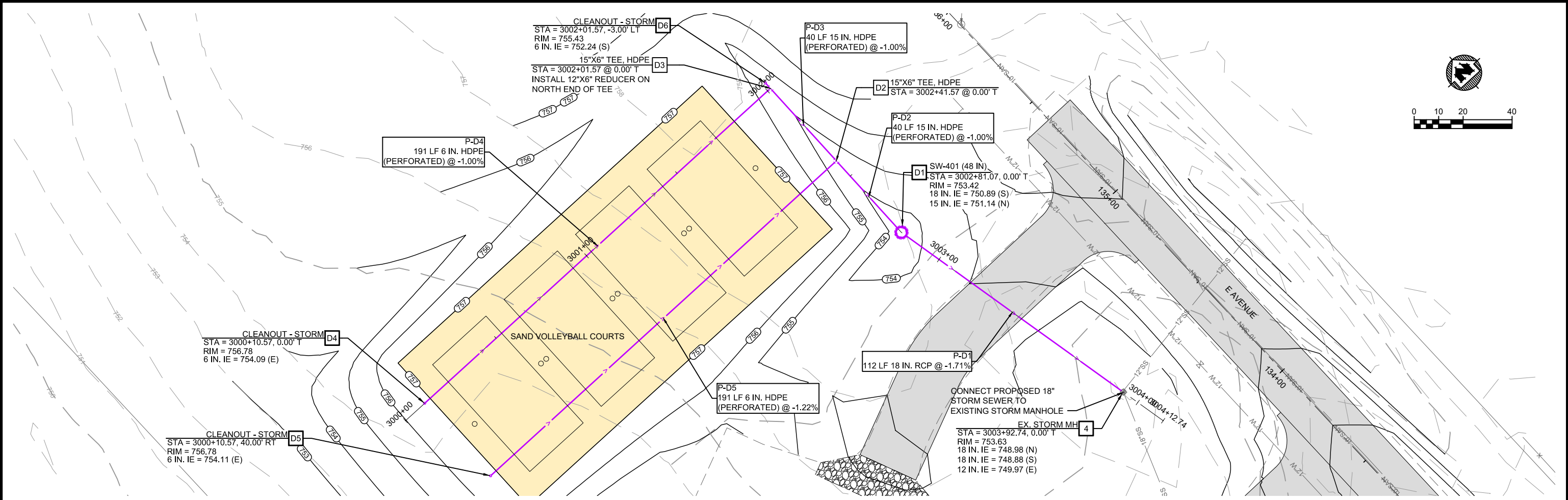


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STORM SEWER PLAN & PROFILE - BASEBALL FIELDS

PROJECT NO:
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SHEET
STRM2



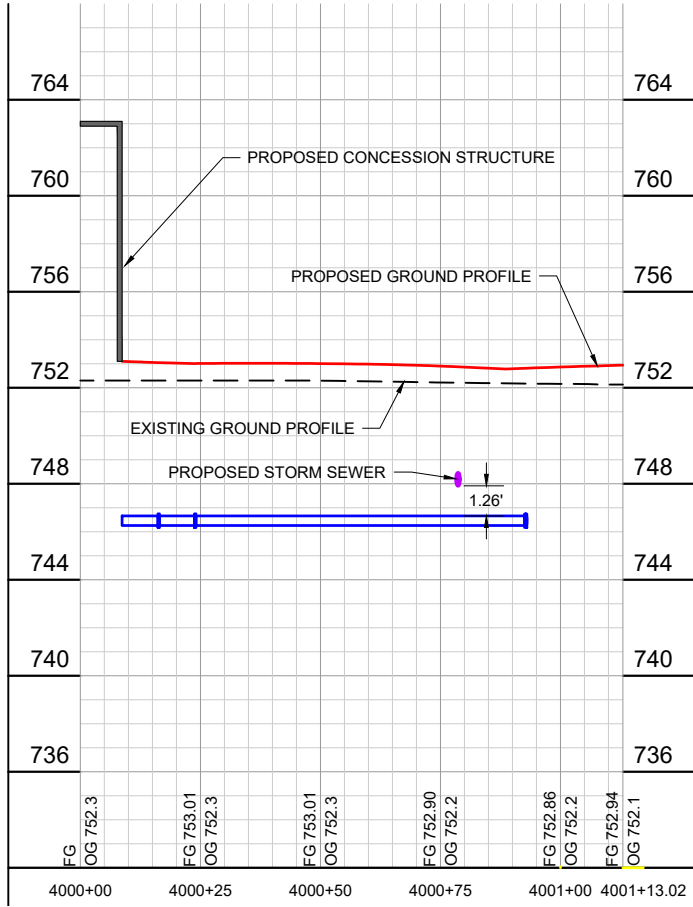
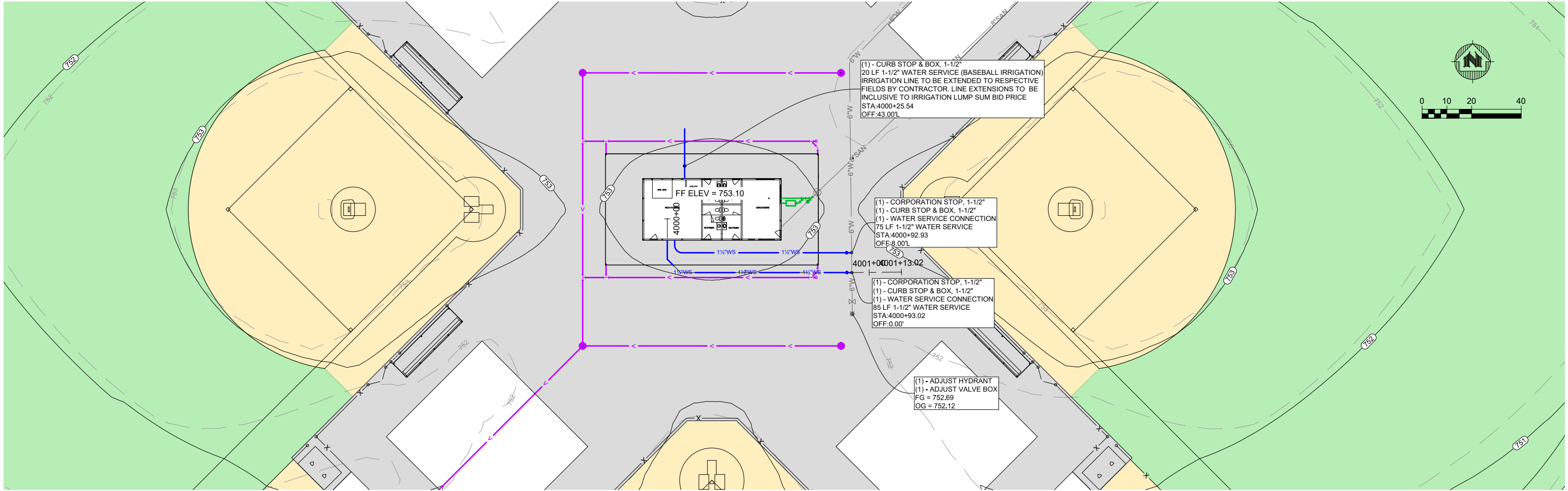
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STORM SEWER PLAN & PROFILE - SAND VOLLEYBALL

PROJECT NO:
10322002
SHEET
STRM3



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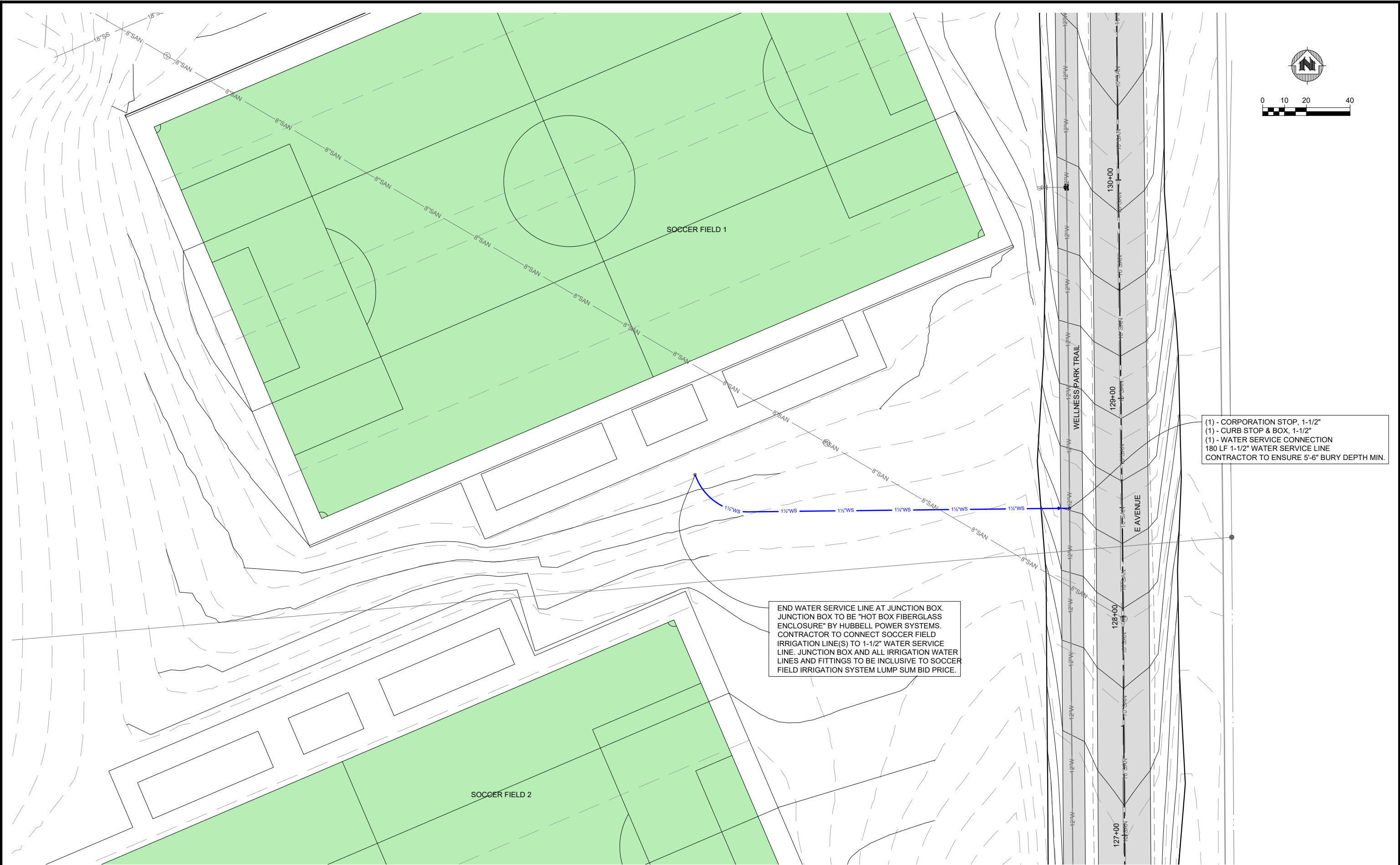


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WATER SERVICE PLAN & PROFILE - BASEBALL FIELDS

PROJECT NO:
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SHEET
WATR1



- (1) - CORPORATION STOP, 1-1/2"
- (1) - CURB STOP & BOX, 1-1/2"
- (1) - WATER SERVICE CONNECTION
- 180 LF 1-1/2" WATER SERVICE LINE
- CONTRACTOR TO ENSURE 5'-6" BURY DEPTH MIN.

END WATER SERVICE LINE AT JUNCTION BOX. JUNCTION BOX TO BE "HOT BOX FIBERGLASS ENCLOSURE" BY HUBBELL POWER SYSTEMS. CONTRACTOR TO CONNECT SOCCER FIELD IRRIGATION LINE(S) TO 1-1/2" WATER SERVICE LINE. JUNCTION BOX AND ALL IRRIGATION WATER LINES AND FITTINGS TO BE INCLUSIVE TO SOCCER FIELD IRRIGATION SYSTEM LUMP SUM BID PRICE.

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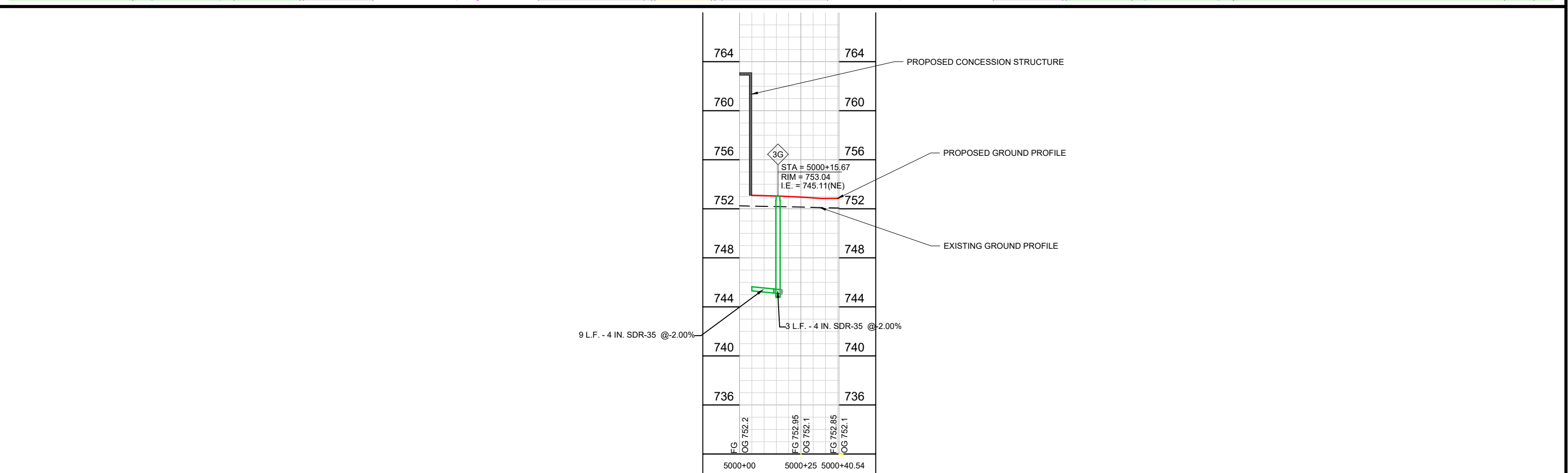
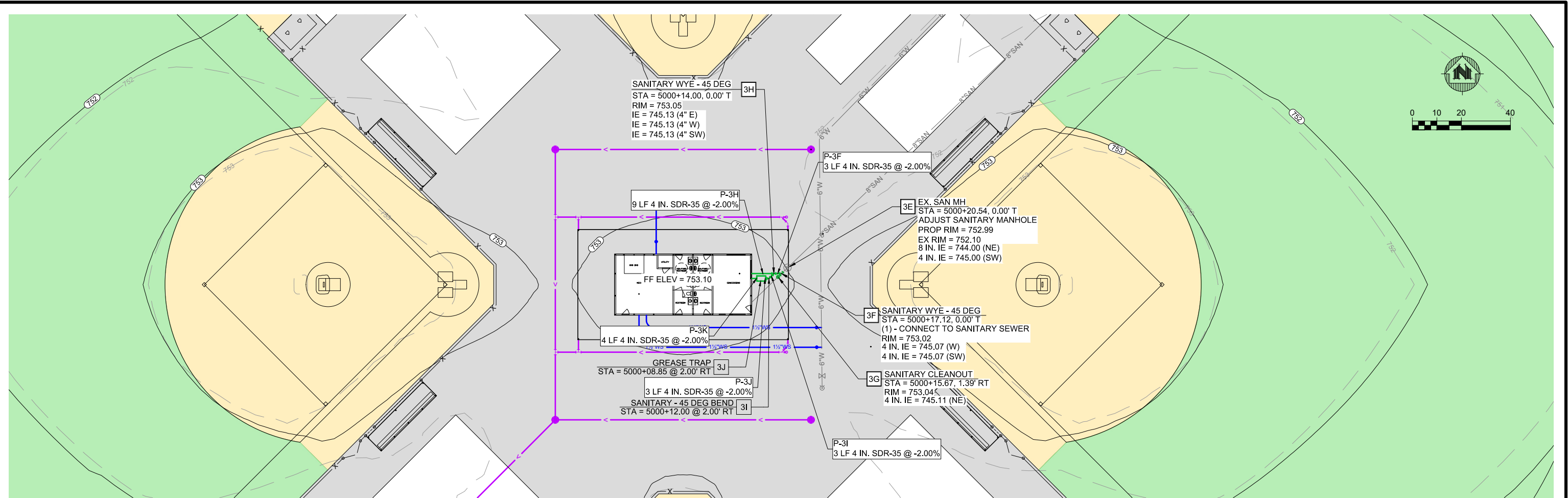


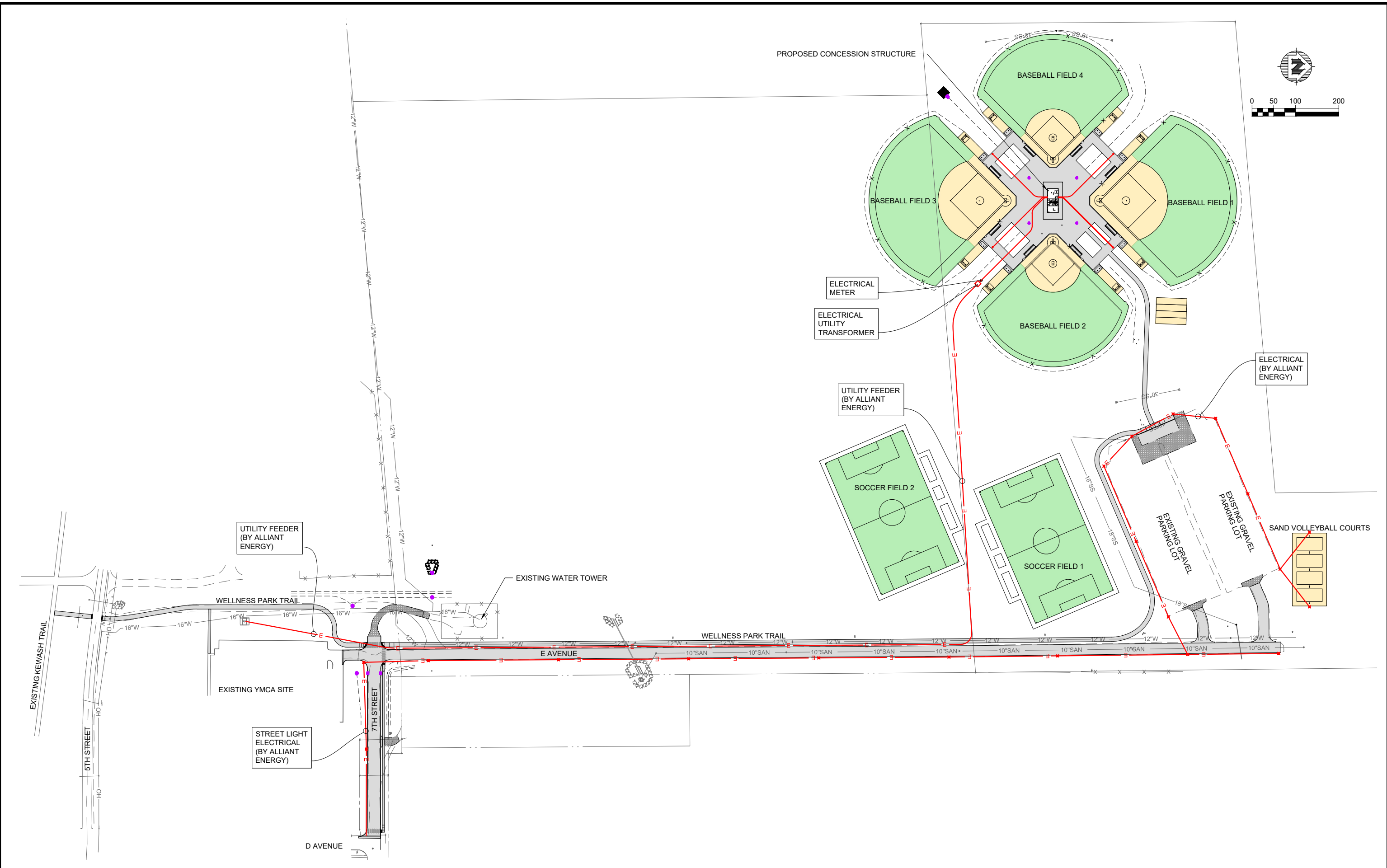
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WATER SERVICE PLAN - SOCCER FIELDS

PROJECT NO:
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WATR2





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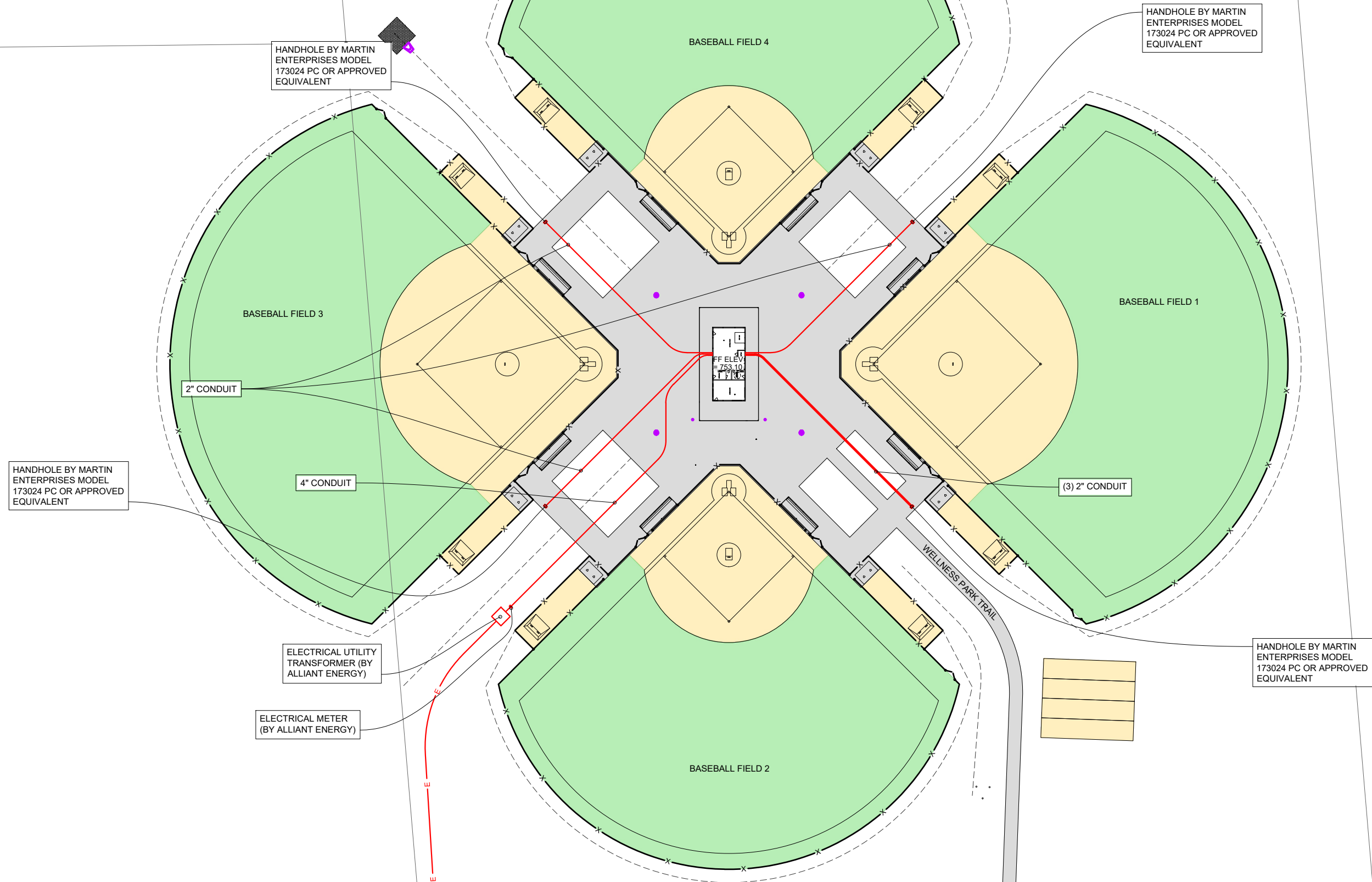
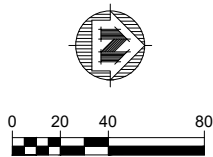


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OVERALL ELECTRICAL PLAN

PROJECT NO:
10322002
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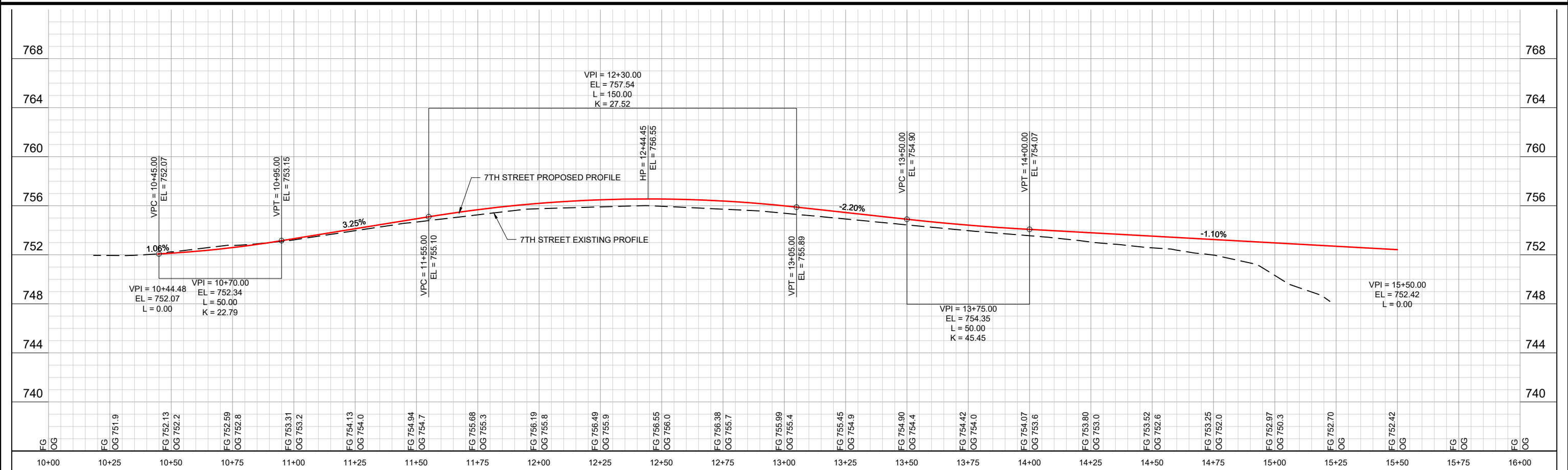
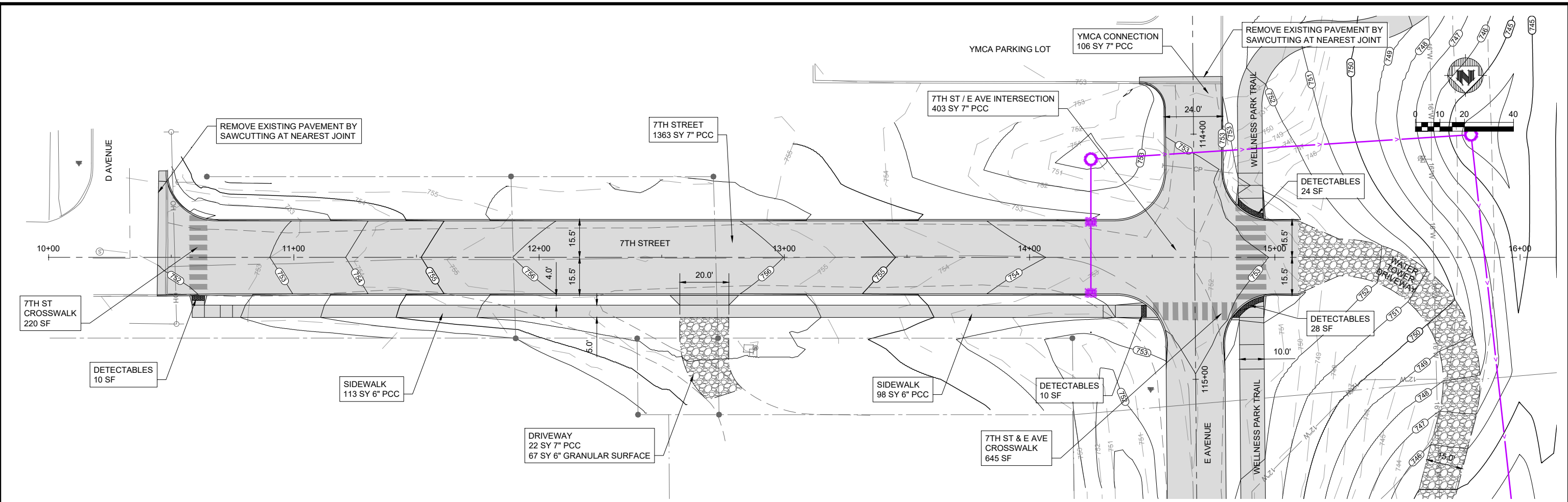


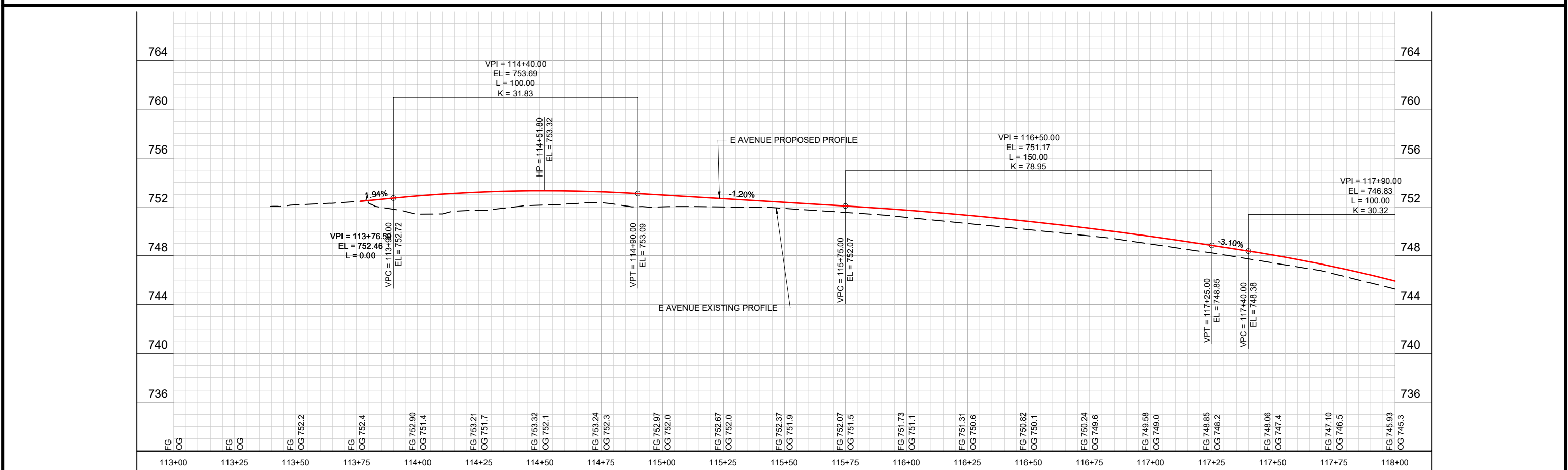
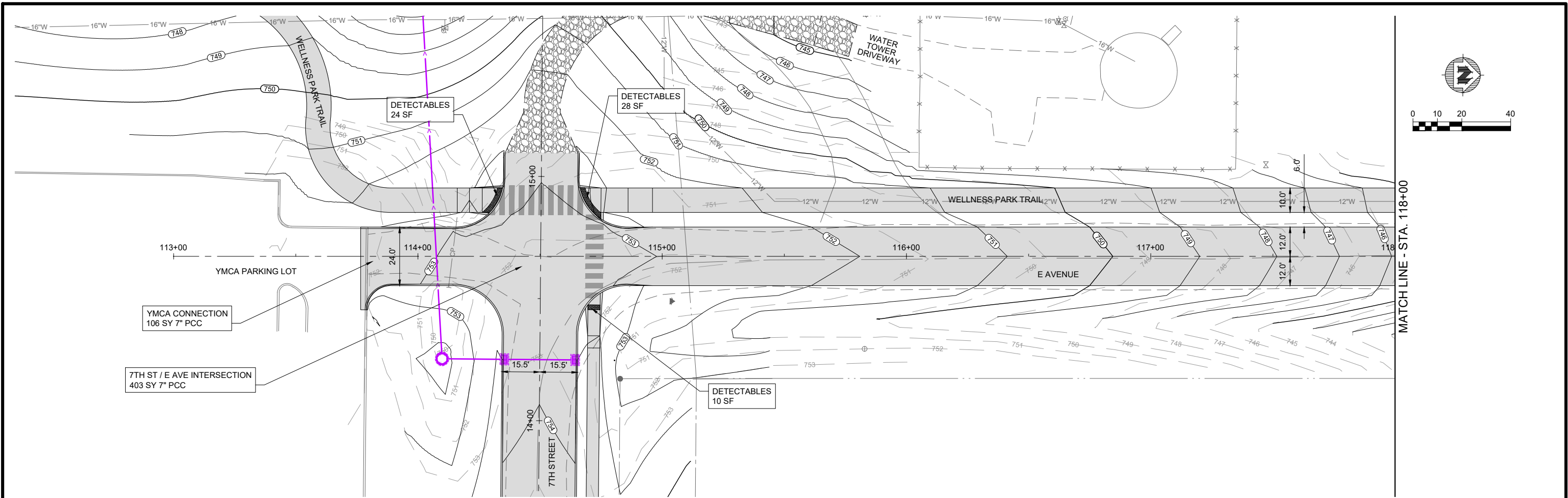
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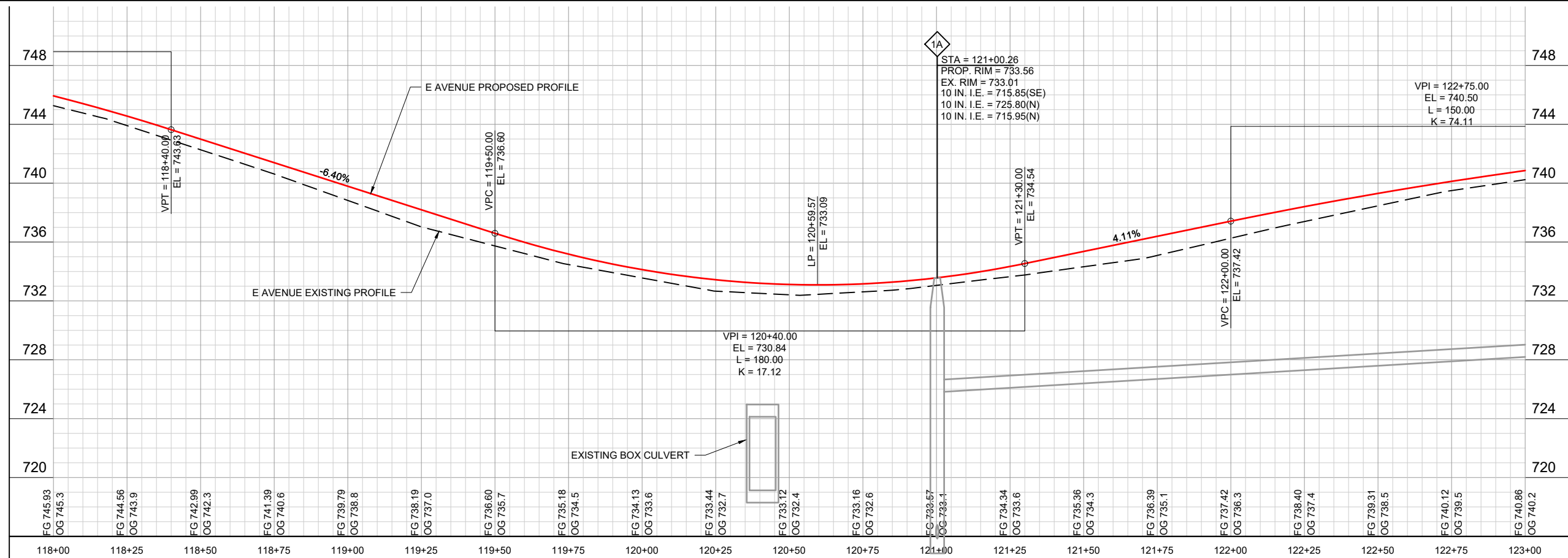
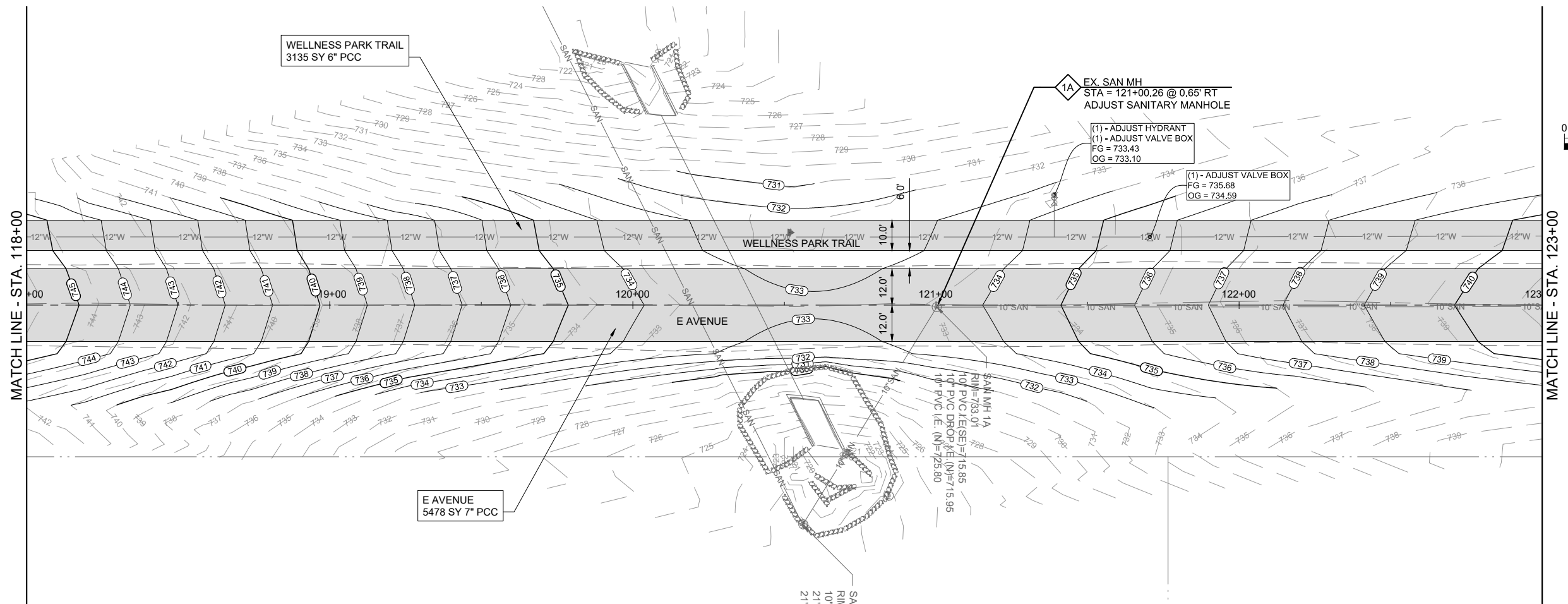
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ELECTRICAL PLAN - CONCESSION STAND

PROJECT NO:
10322002
SHEET
E2







PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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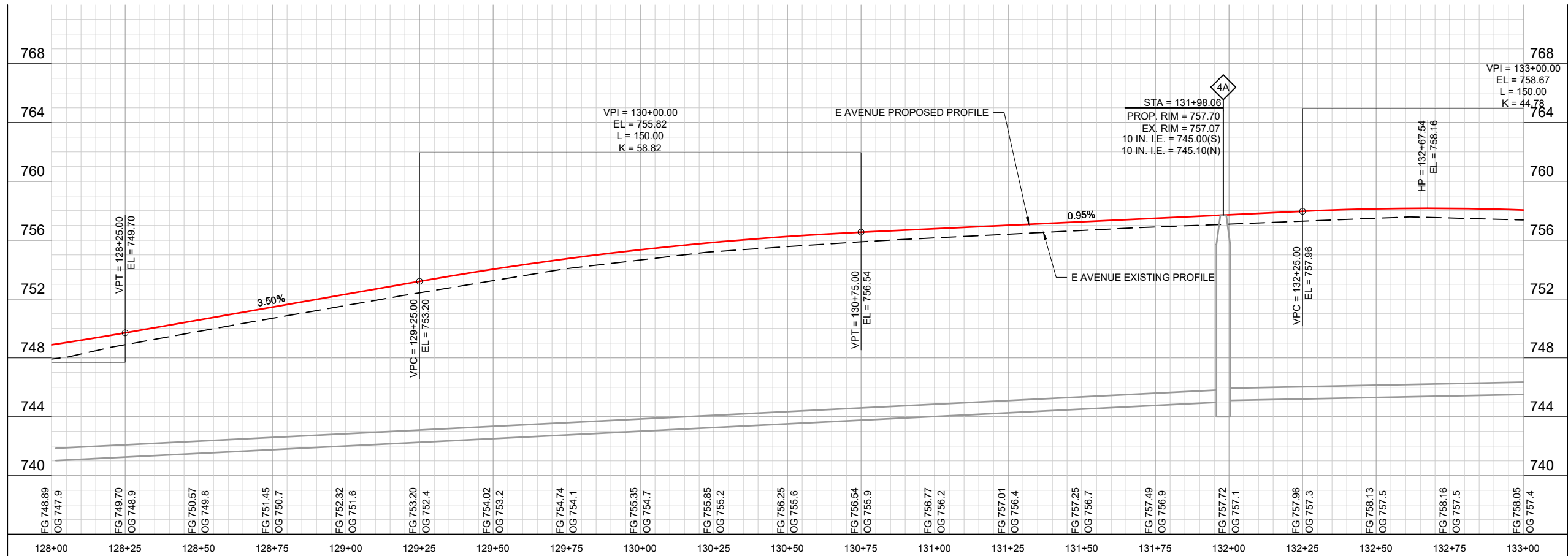
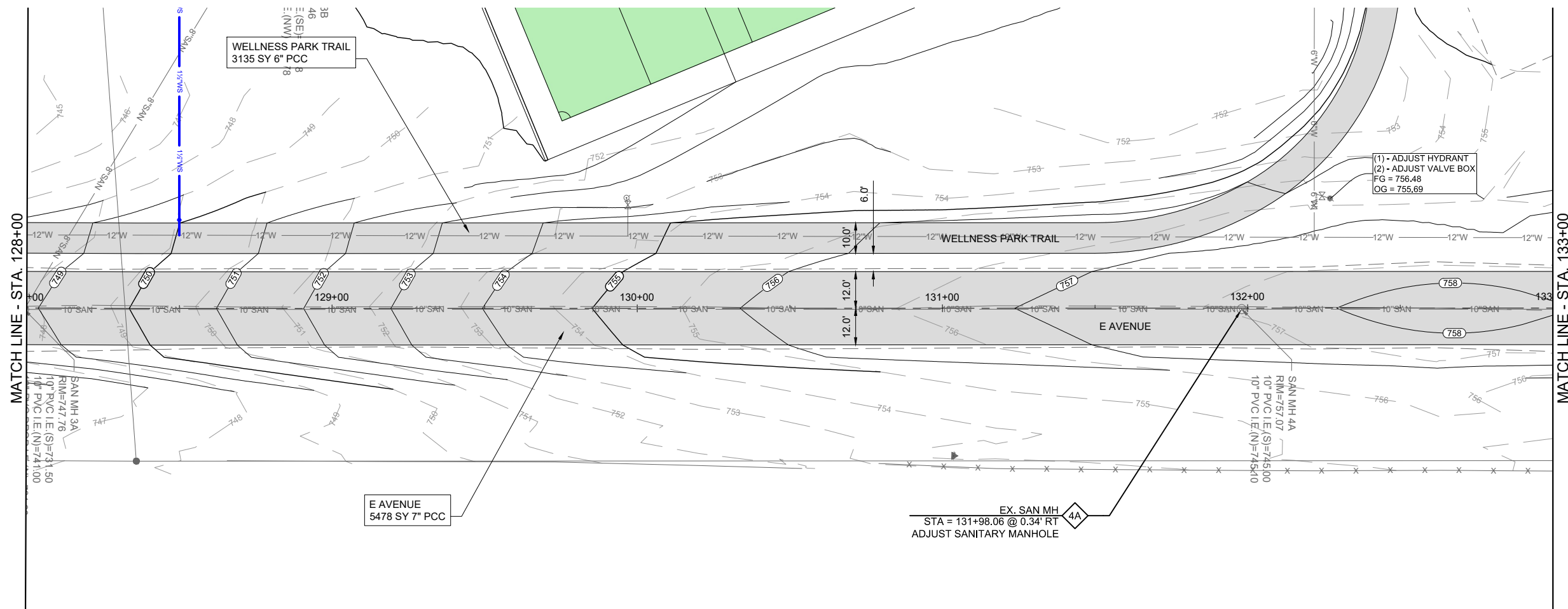


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PLAN AND PROFILE - E AVENUE

PROJECT NO:
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PP3



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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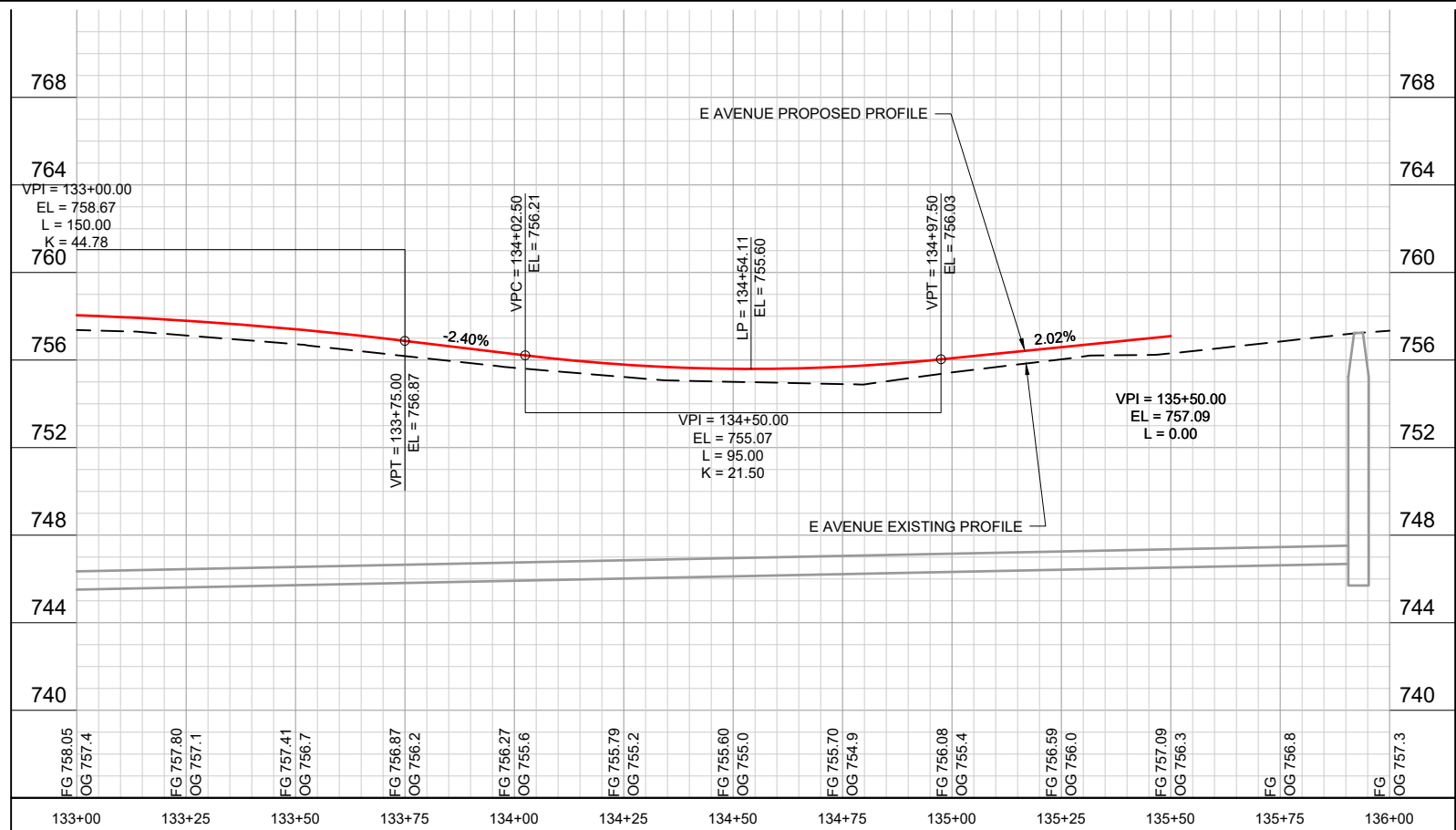
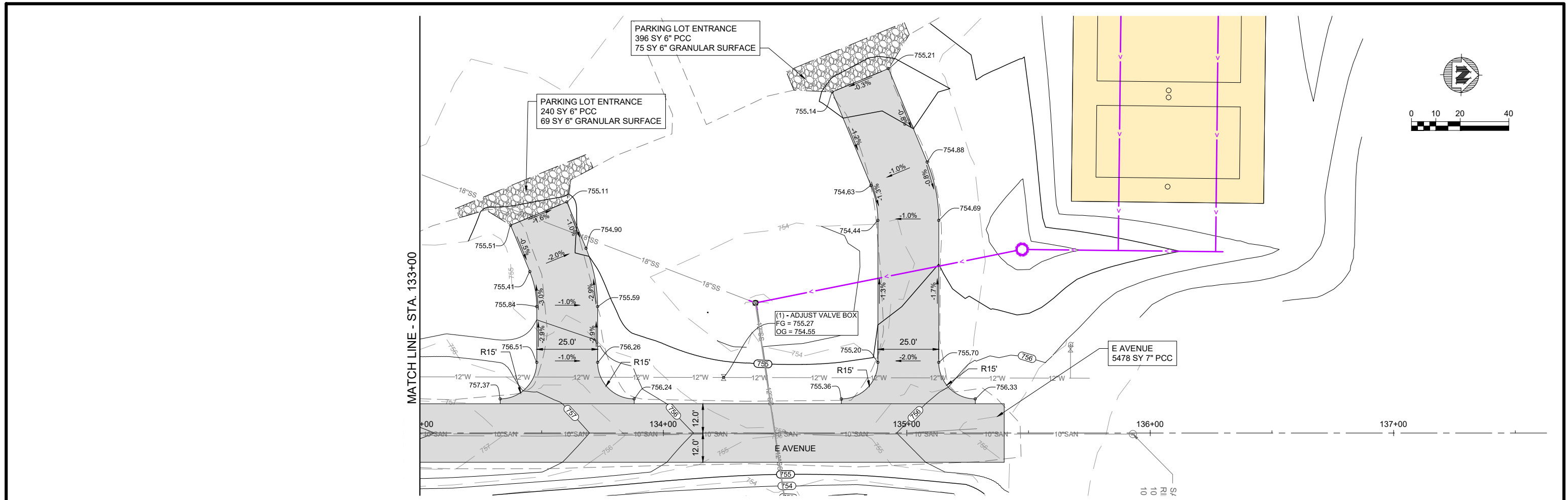


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PLAN AND PROFILE - E AVENUE

PROJECT NO:
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PP5



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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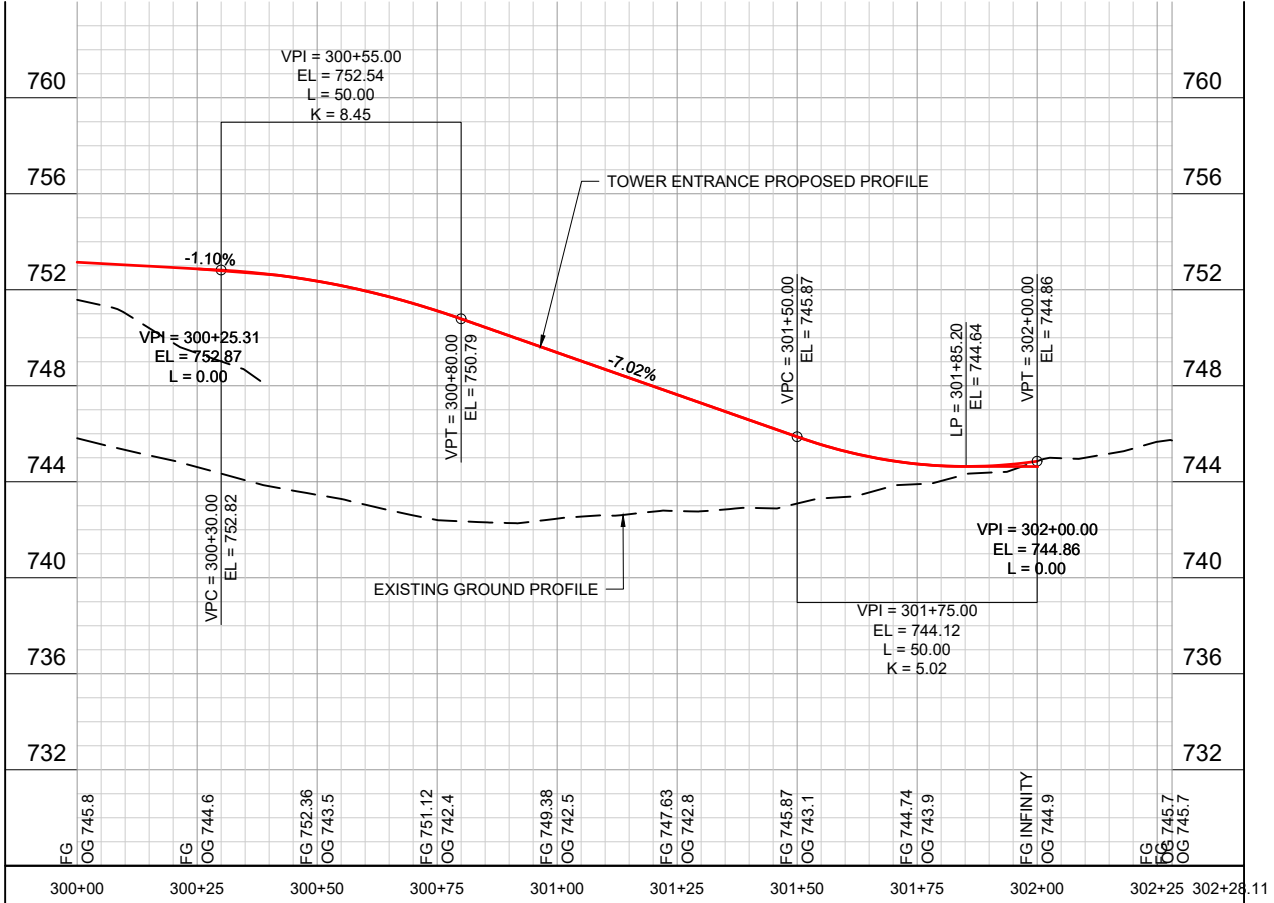
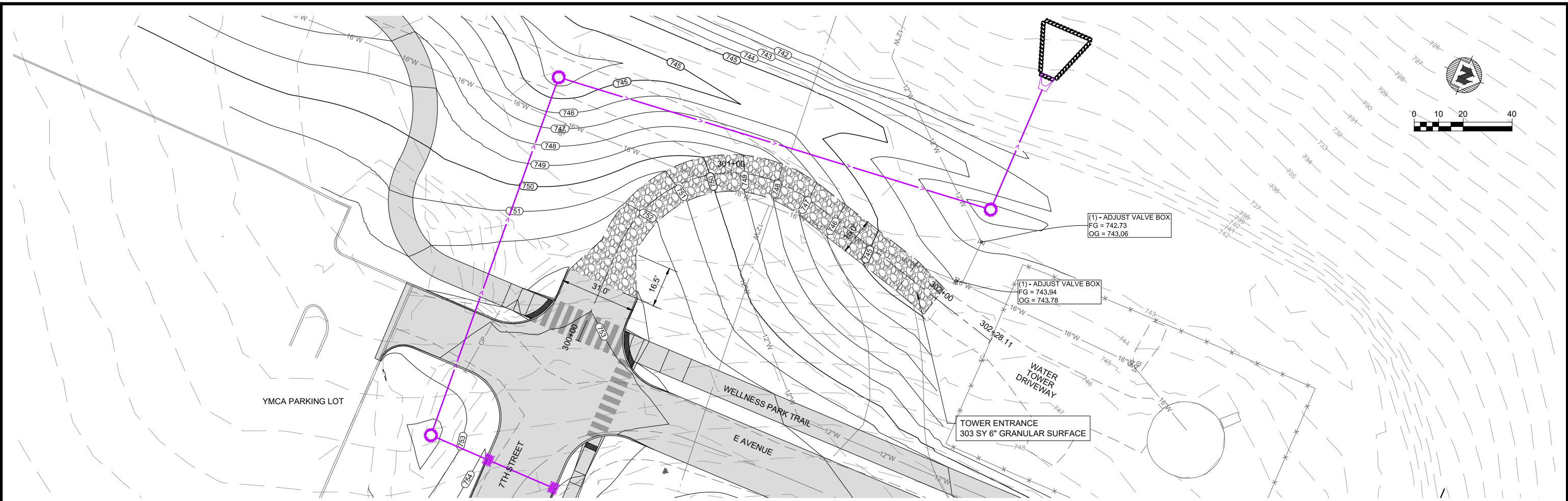


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PLAN AND PROFILE - E AVENUE

PROJECT NO:
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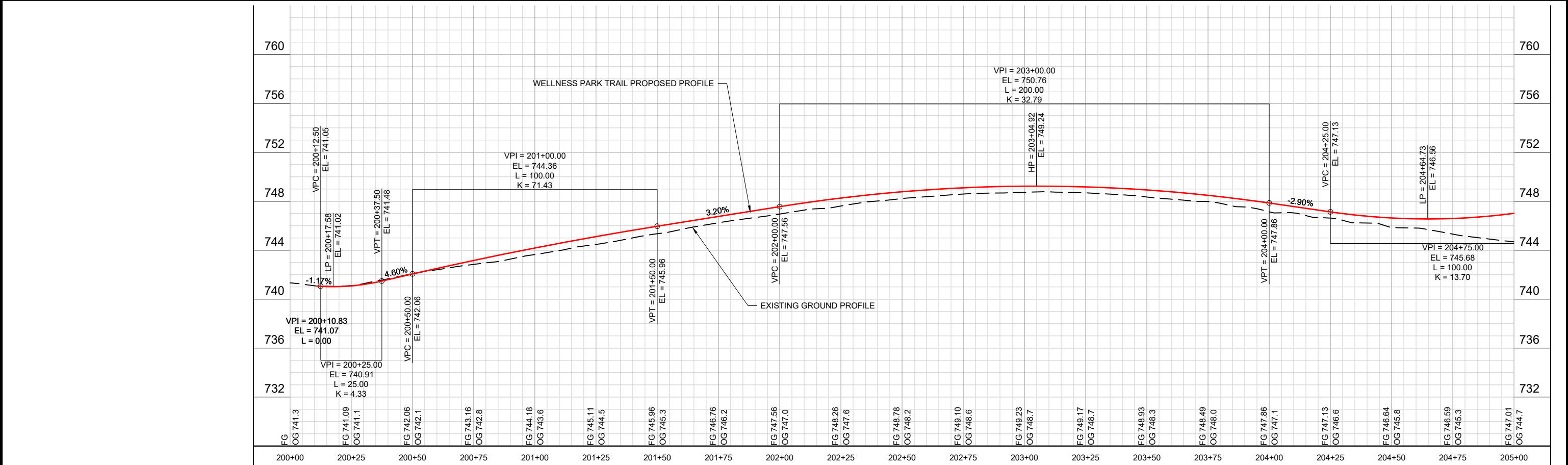
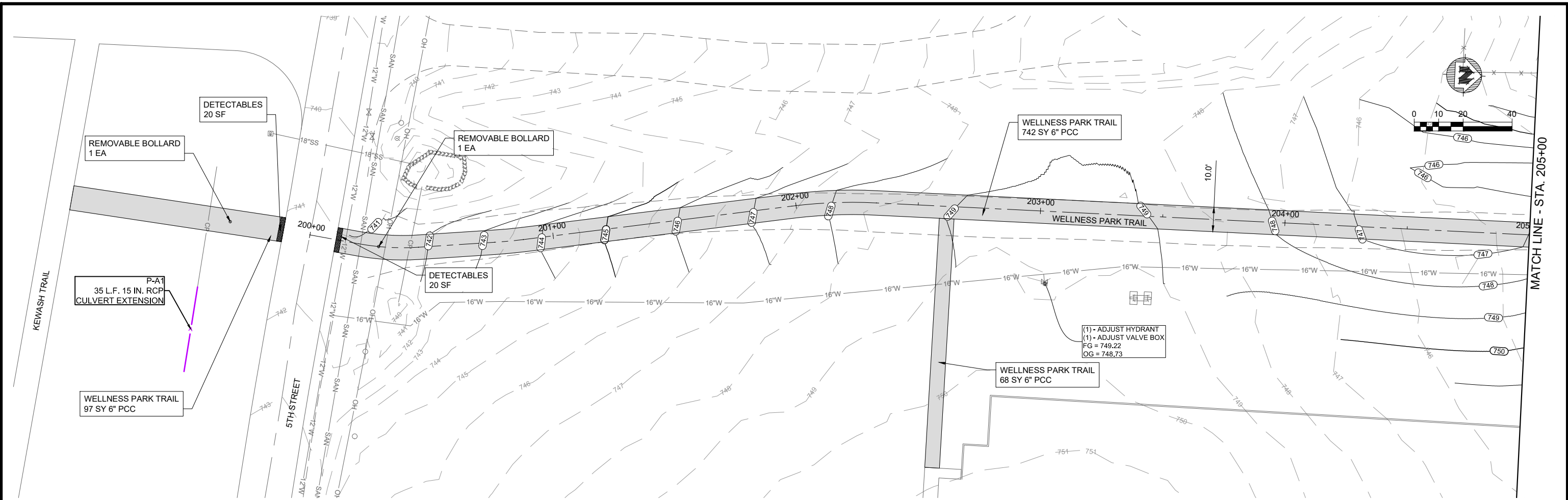


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PLAN AND PROFILE - WATER TOWER ENTRANCE

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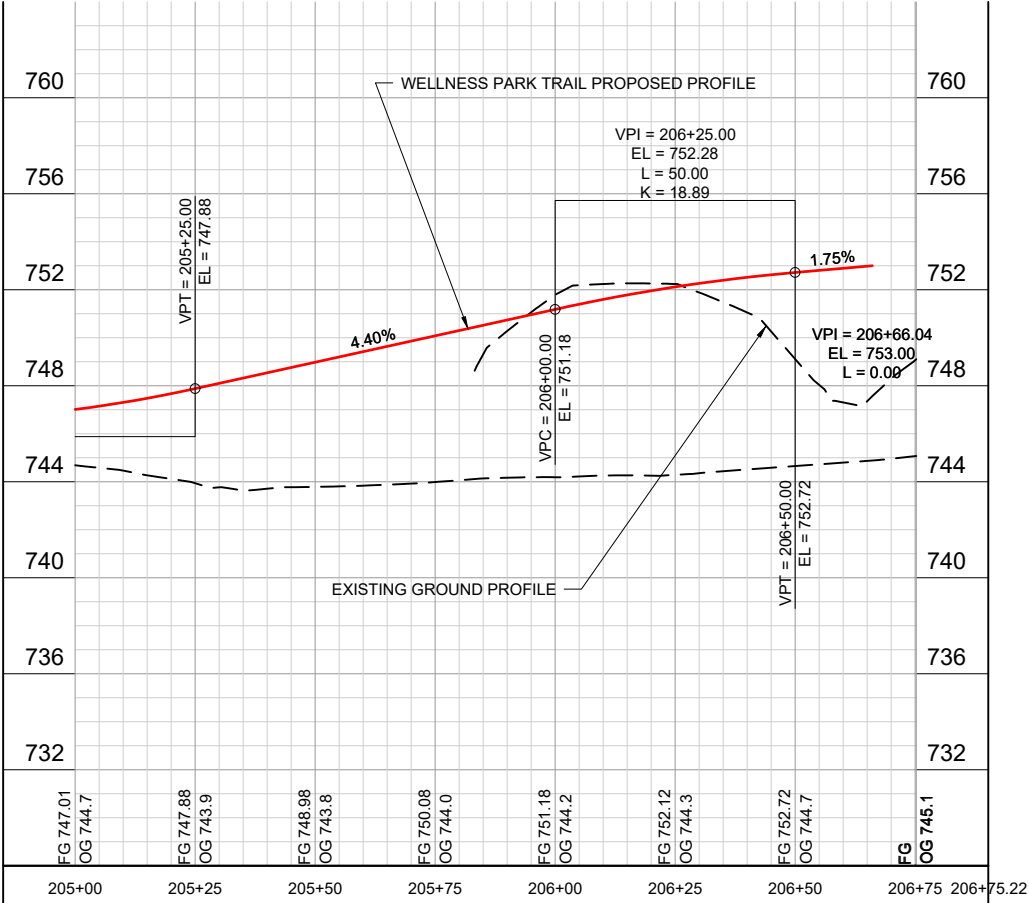
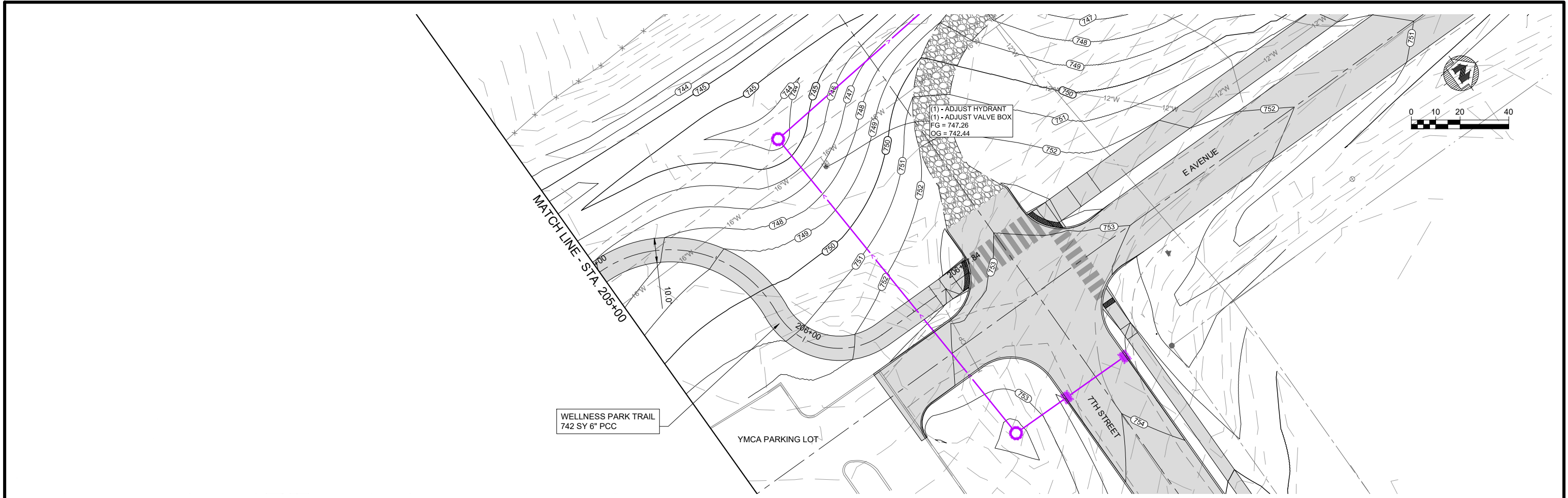


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PLAN AND PROFILE - WELLNESS PARK TRAIL

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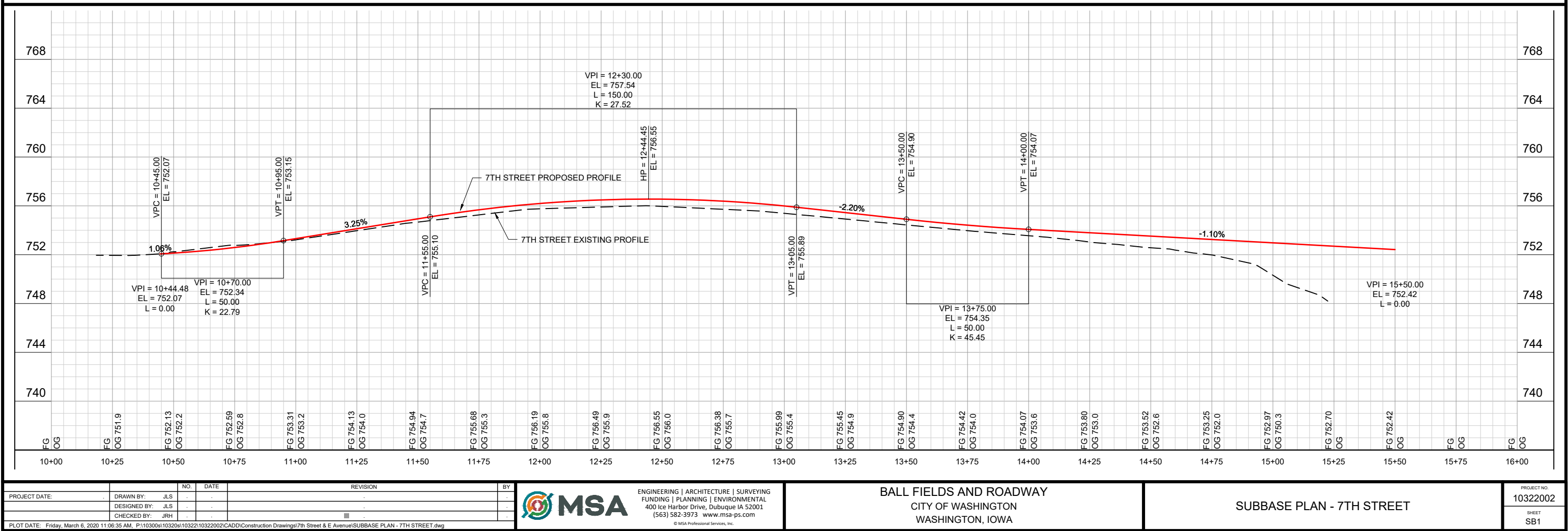
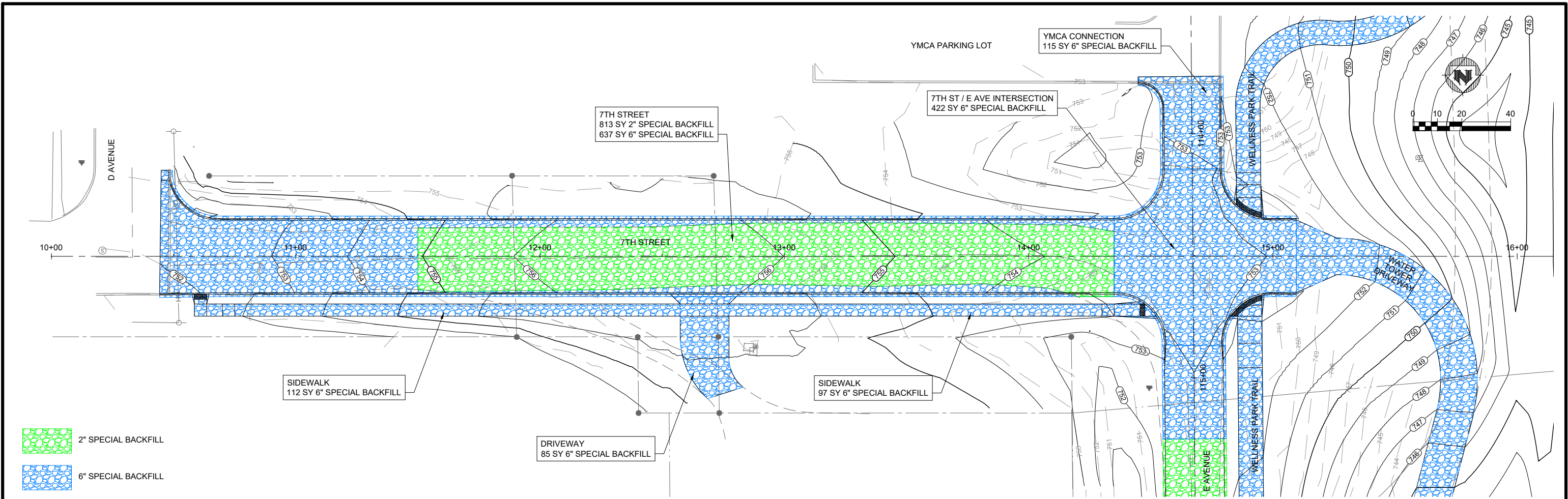
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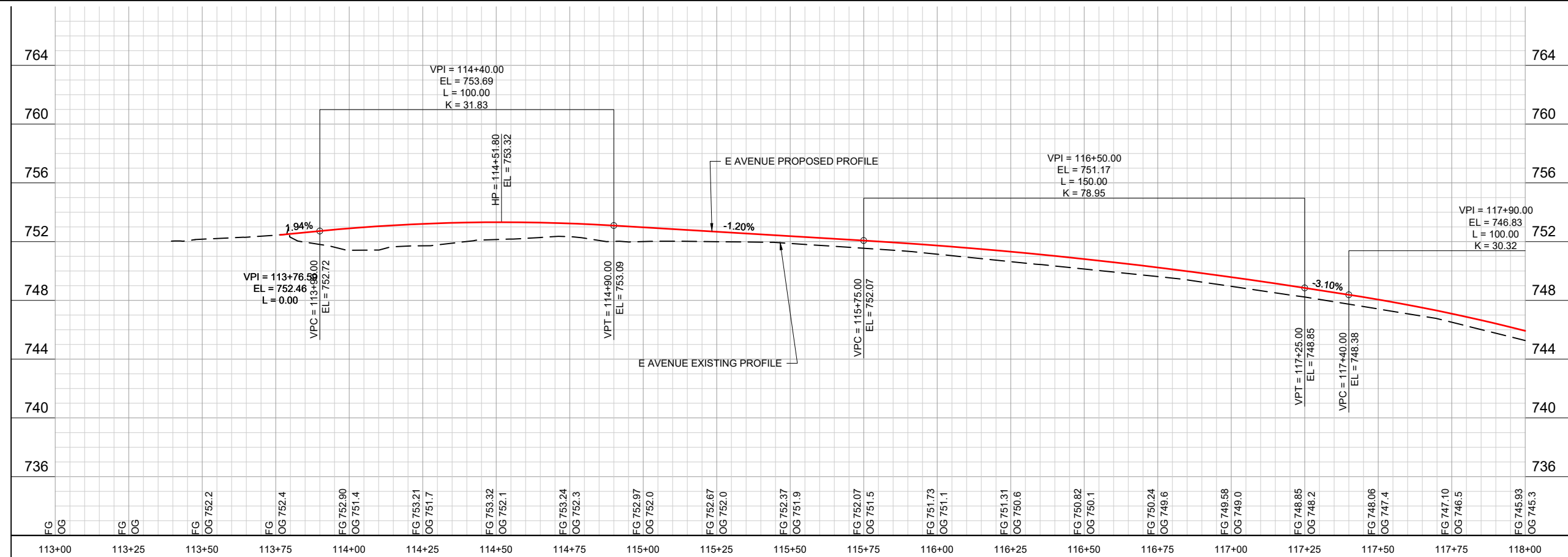
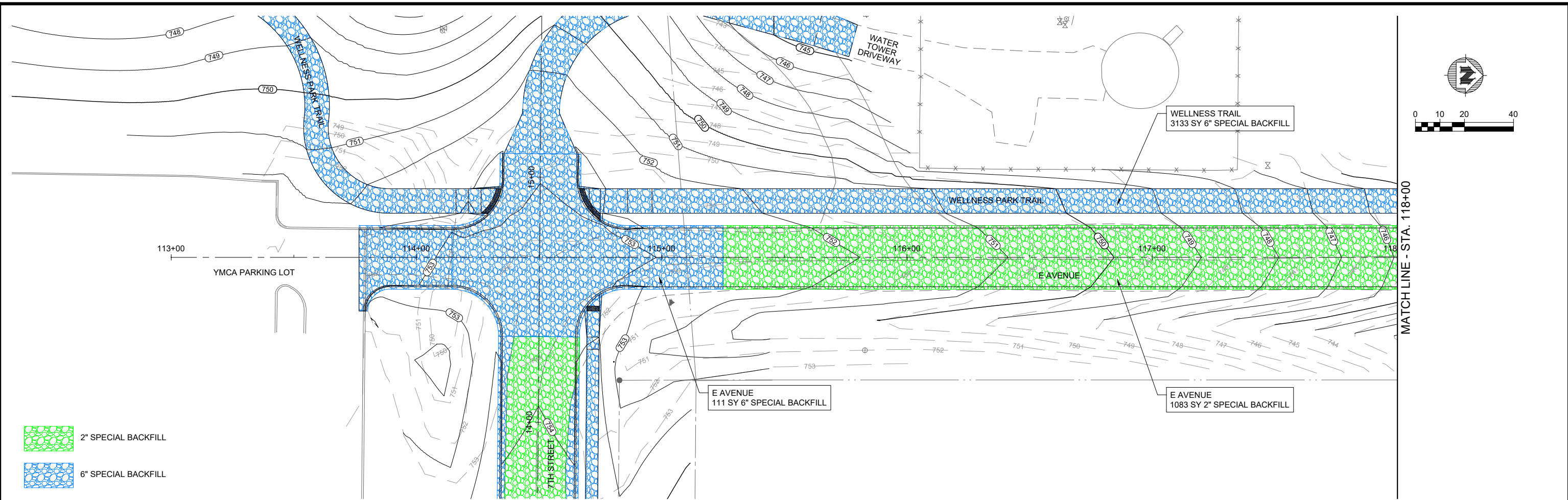
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PLAN AND PROFILE - WELLNESS PARK TRAIL

PROJECT NO:
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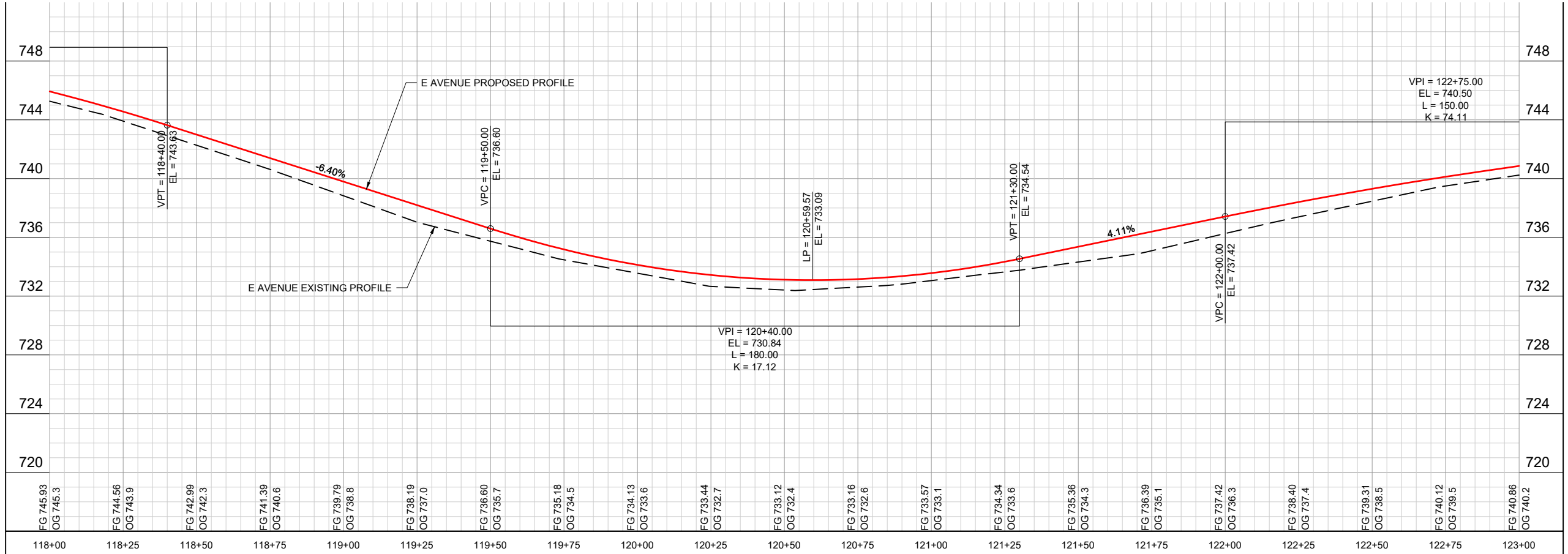
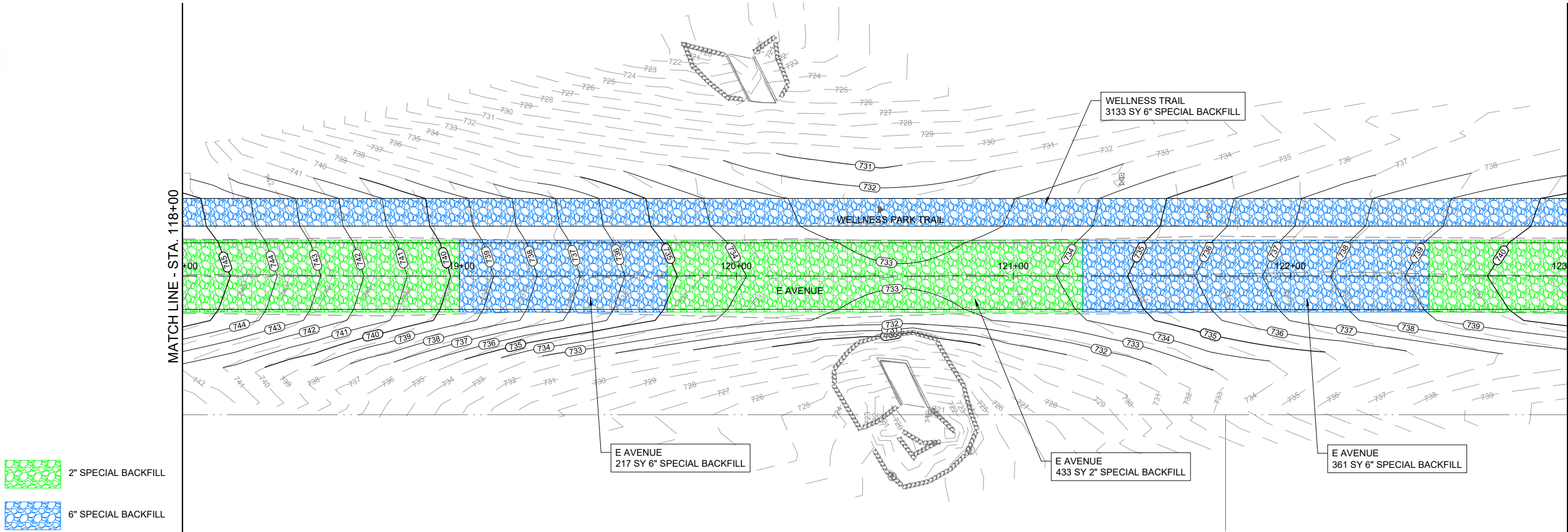


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SUBBASE PLAN - E AVENUE

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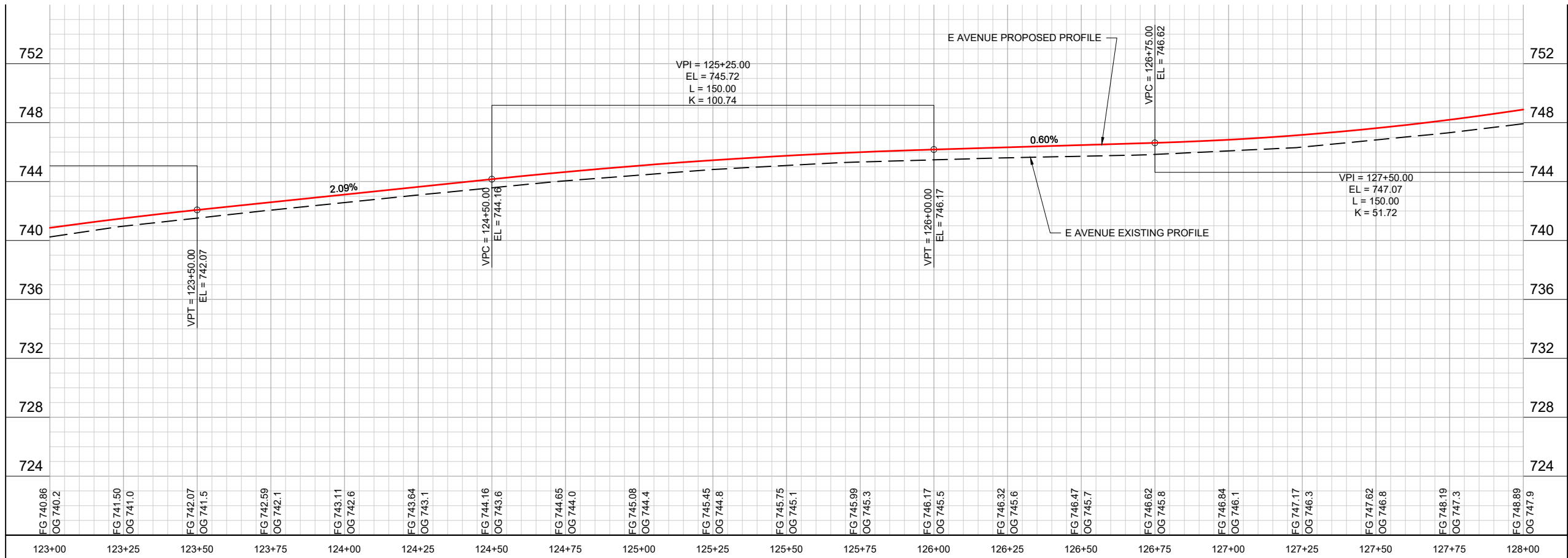
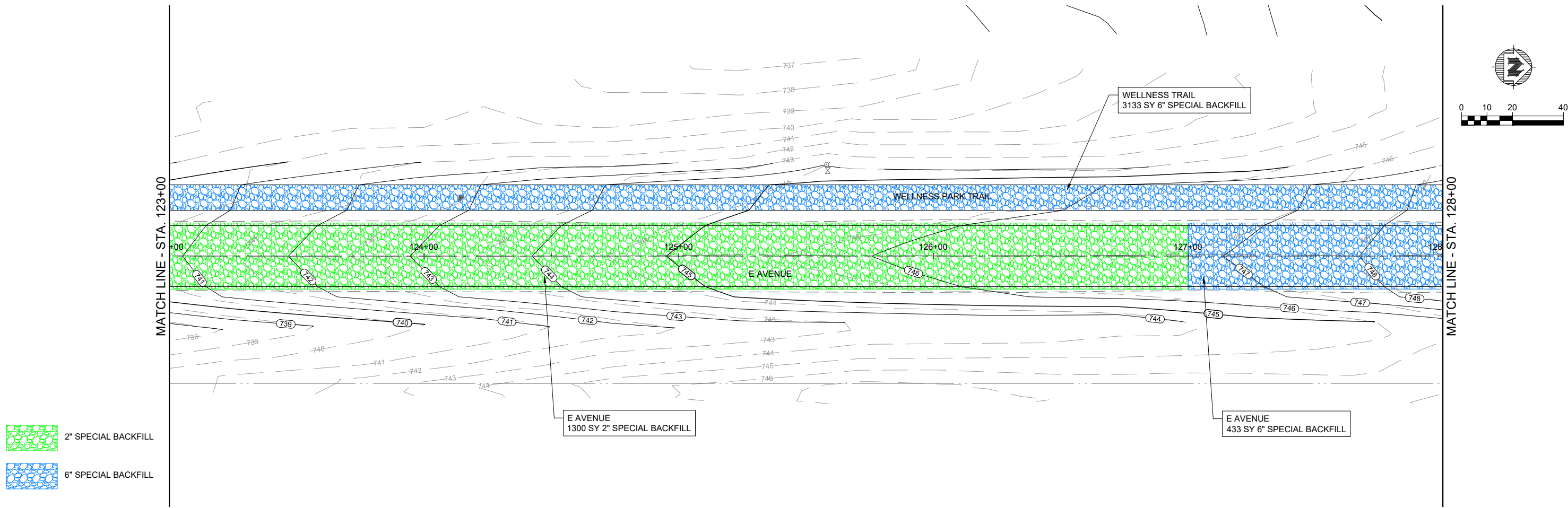


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WASHINGTON, IOWA

SUBBASE PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
SB3



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				

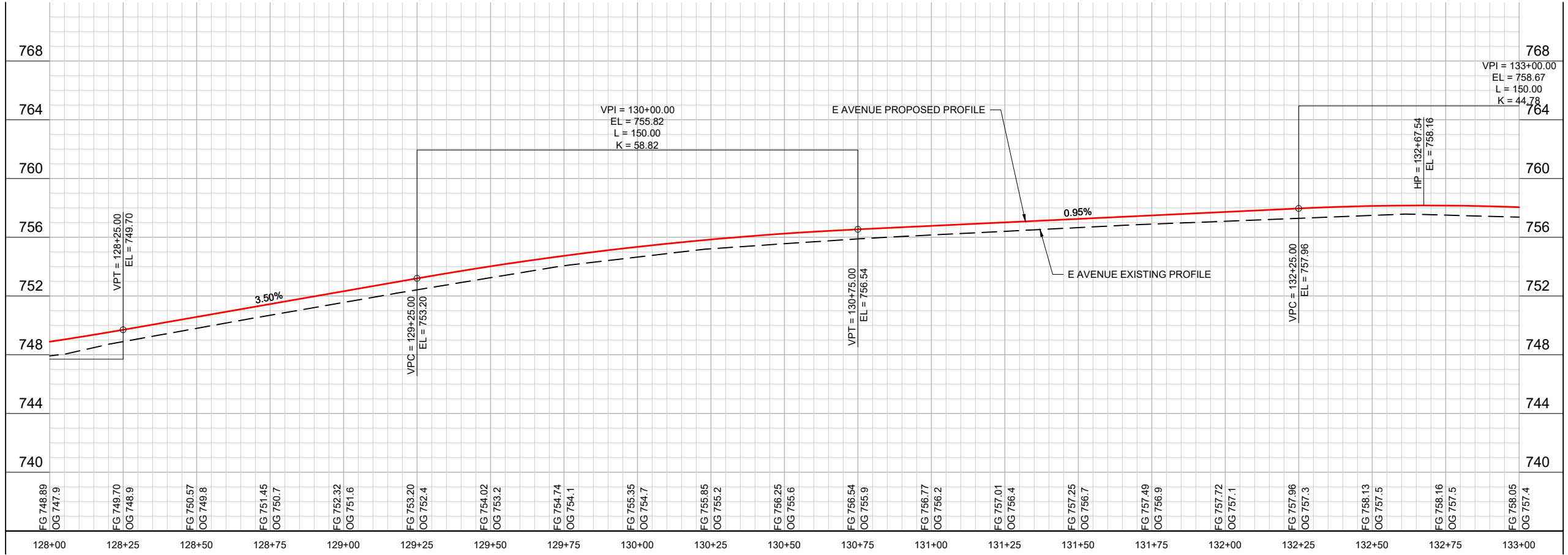
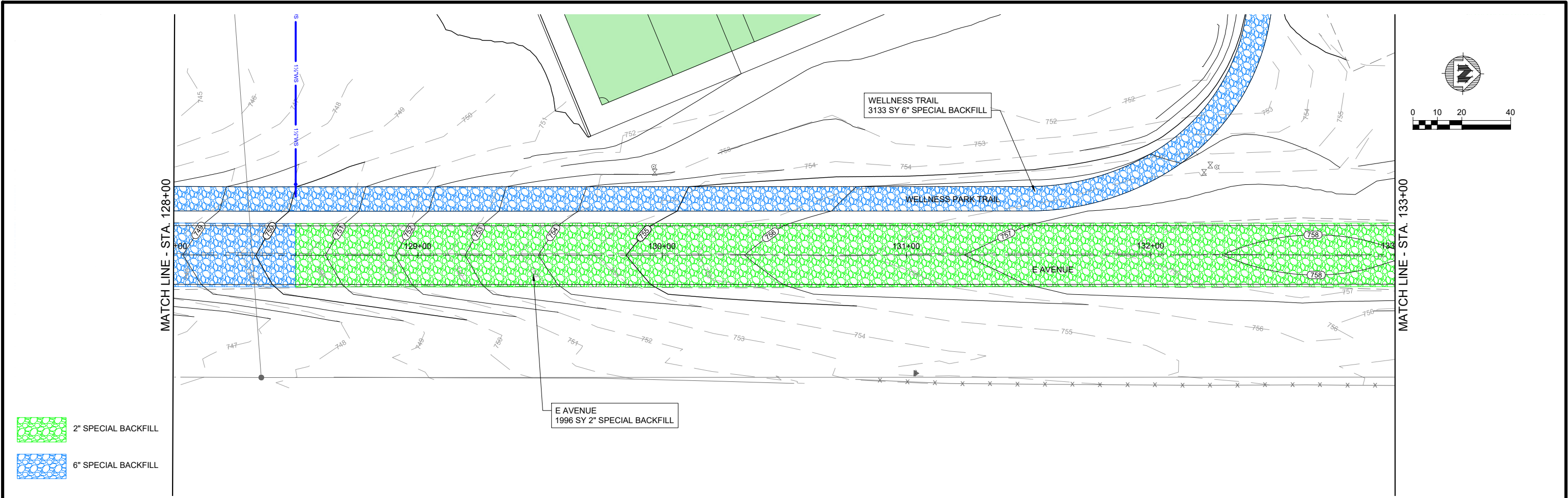


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SUBBASE PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
SB4



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				
PLOT DATE: Friday, March 6, 2020 11:07:21 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SUBBASE PLAN - E AVENUE.dwg						

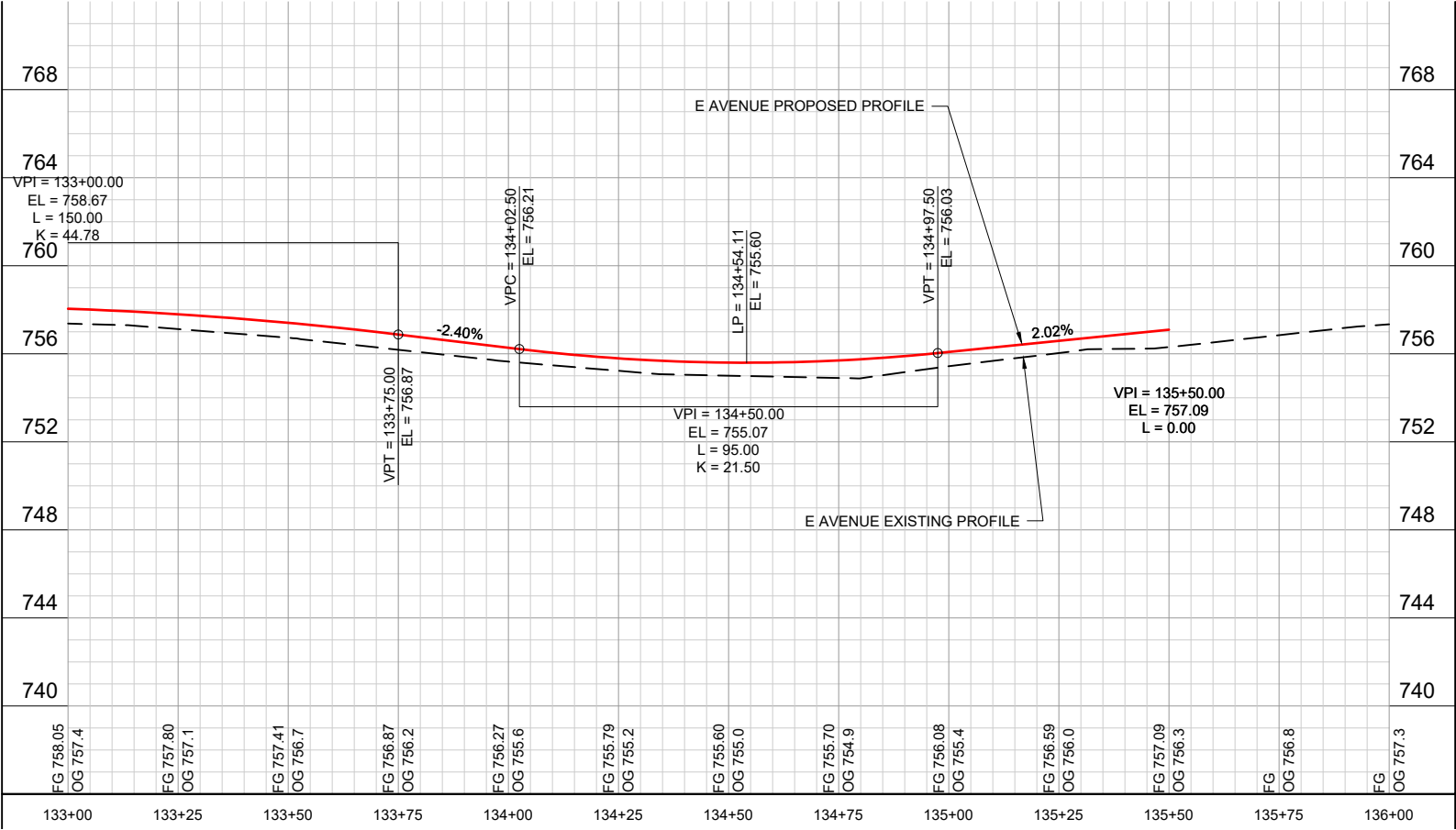
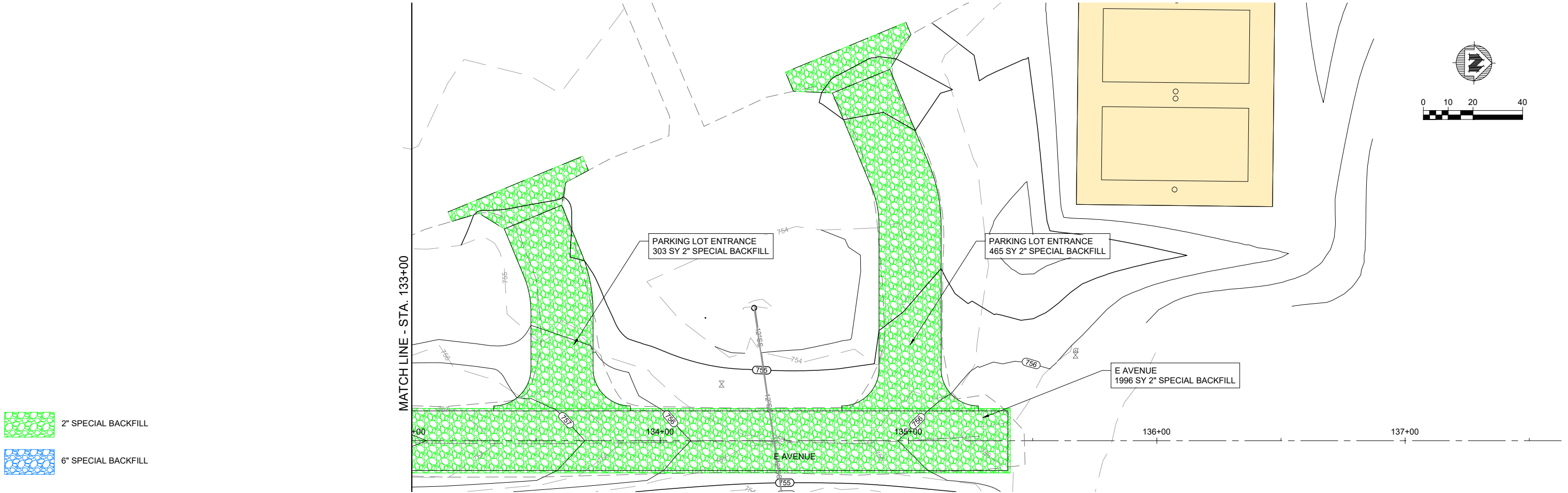


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SUBBASE PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
SB5



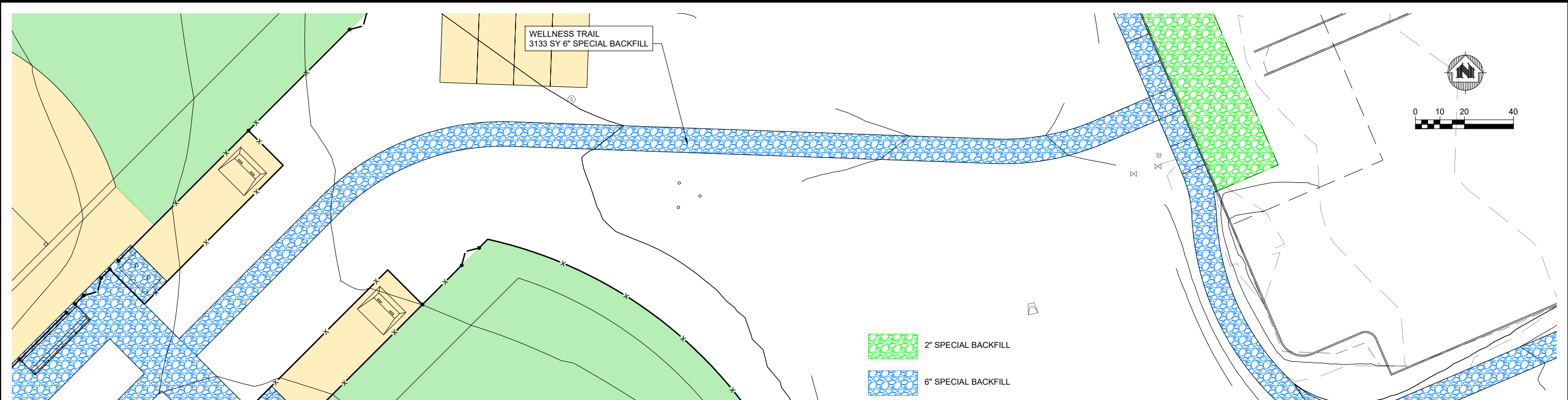
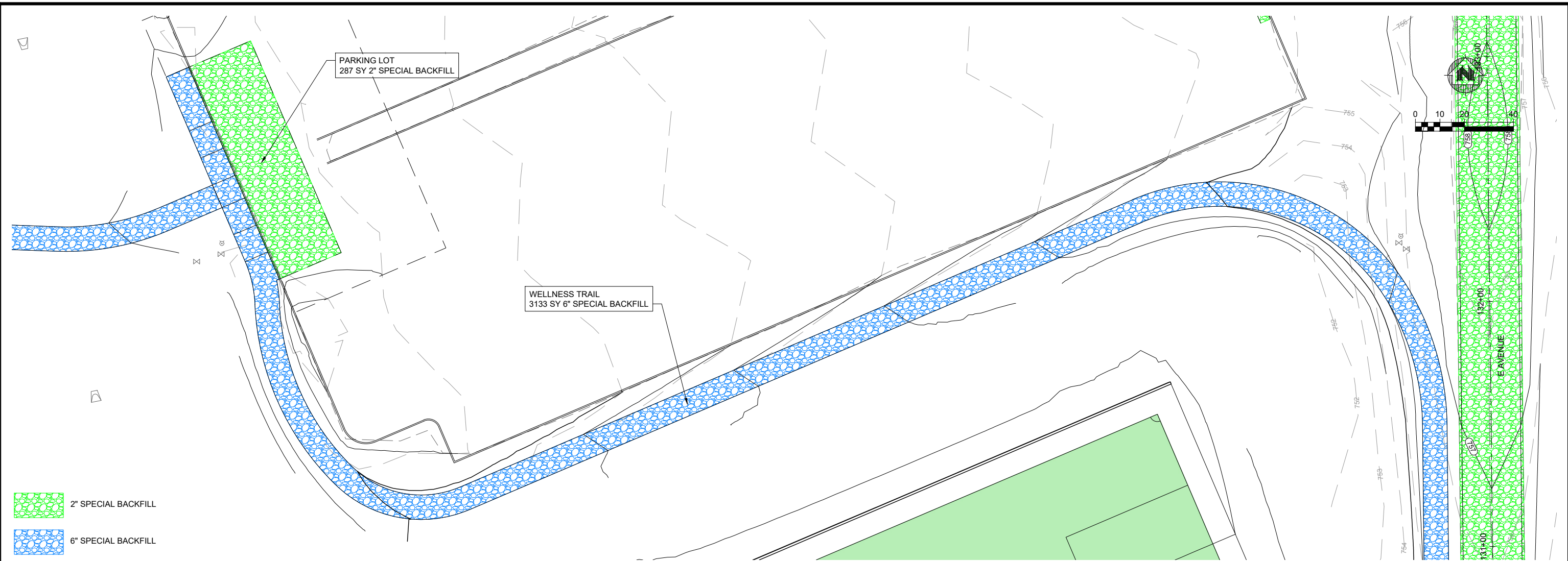
PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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SUBBASE PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
SB6



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
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	DESIGNED BY:	JLS	-	-	-
	CHECKED BY:	JRH	-	-	-
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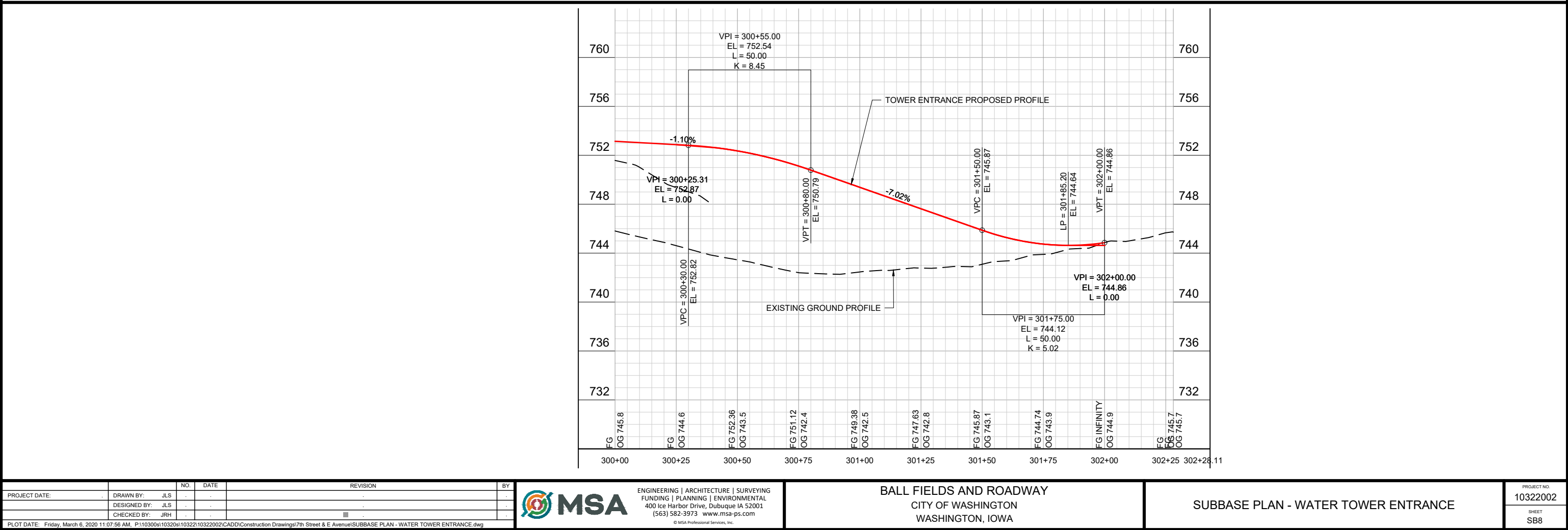
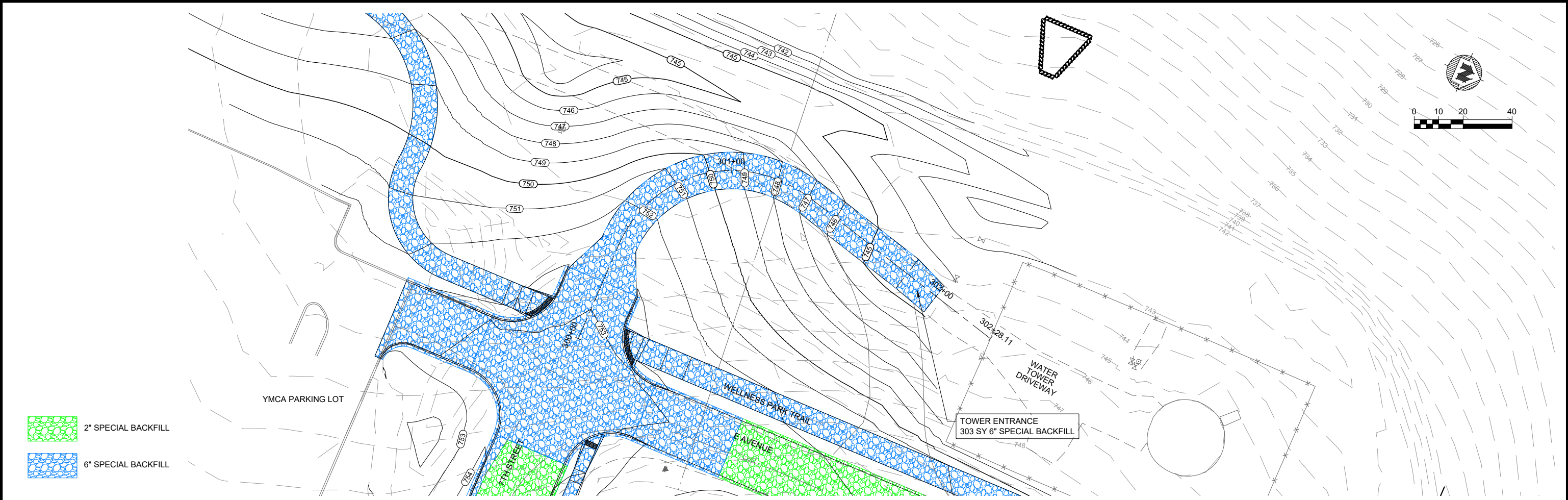


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SUBBASE PLAN - PARKING LOT & TRAIL

PROJECT NO:
10322002
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SB7



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
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PLOT DATE: Friday, March 6, 2020 11:07:56 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SUBBASE PLAN - WATER TOWER ENTRANCE.dwg						

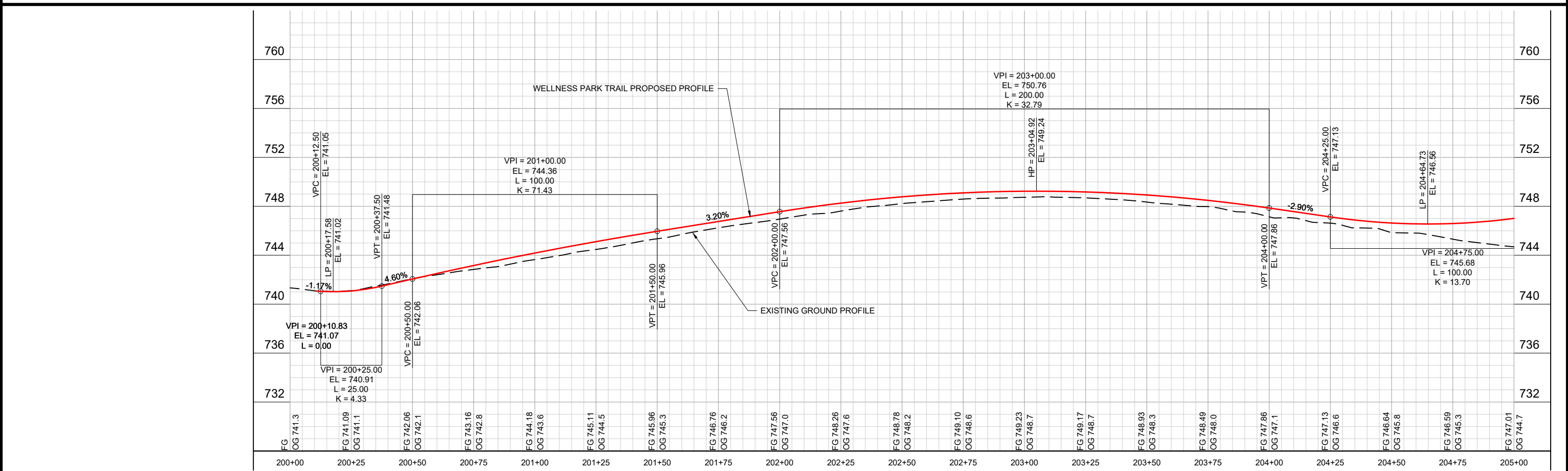
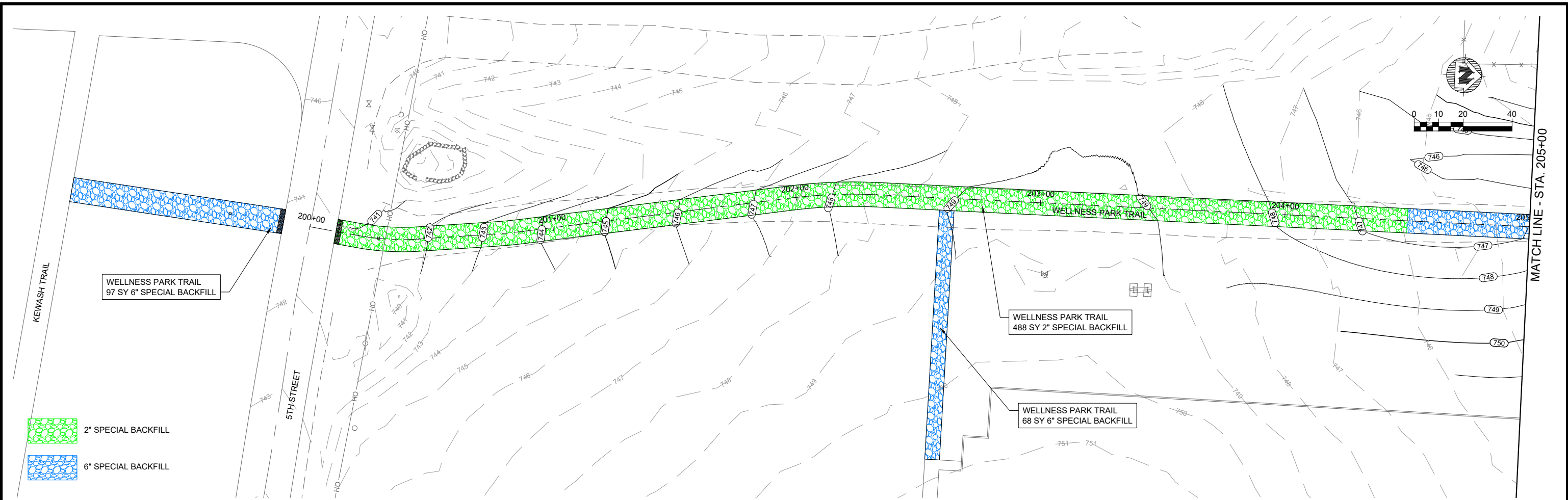


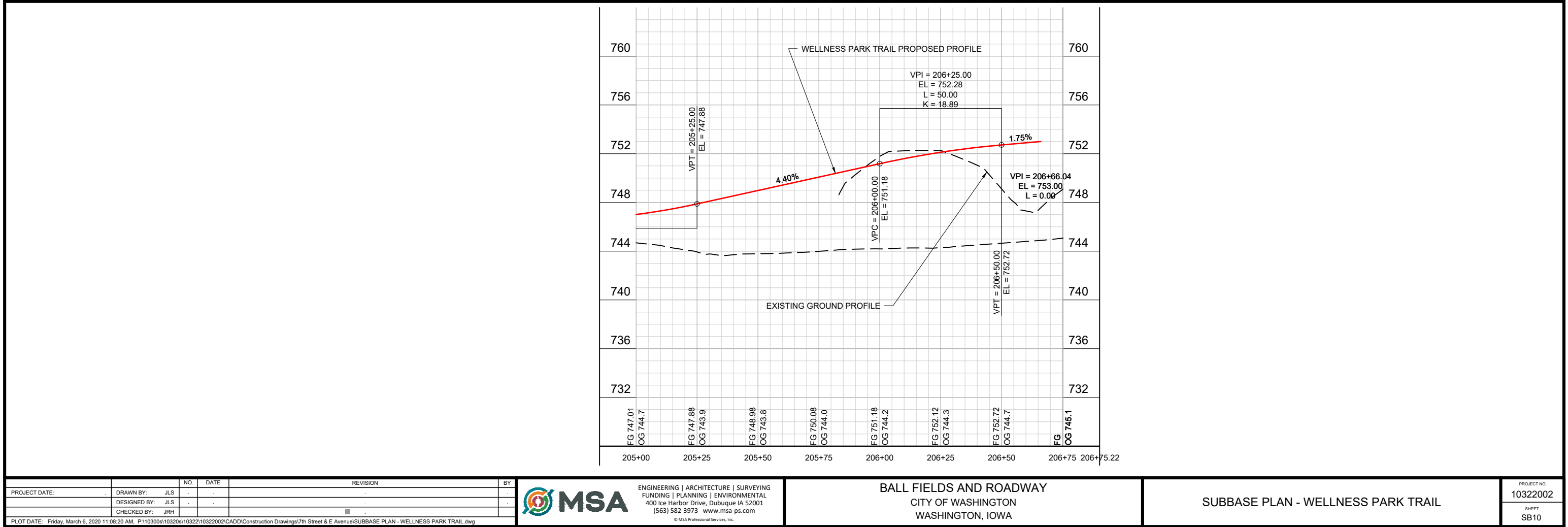
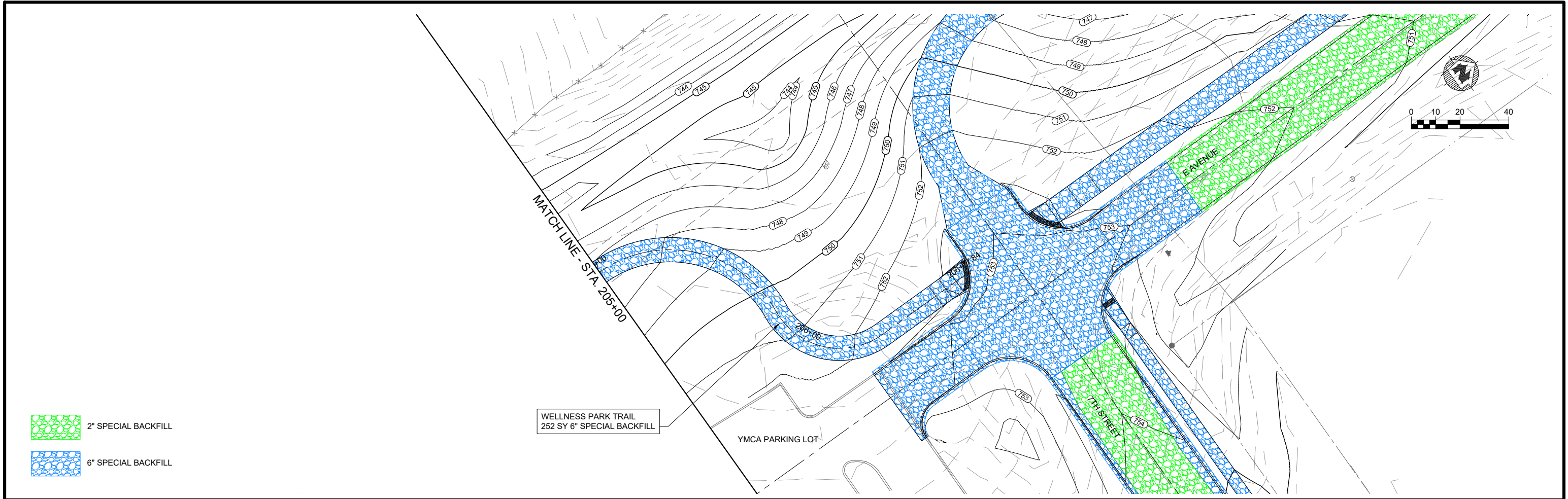
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SUBBASE PLAN - WATER TOWER ENTRANCE

PROJECT NO:
10322002
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SB8





PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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PLOT DATE: Friday, March 6, 2020 11:08:20 AM. P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\SUBBASE PLAN - WELLNESS PARK TRAIL.dwg						

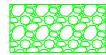
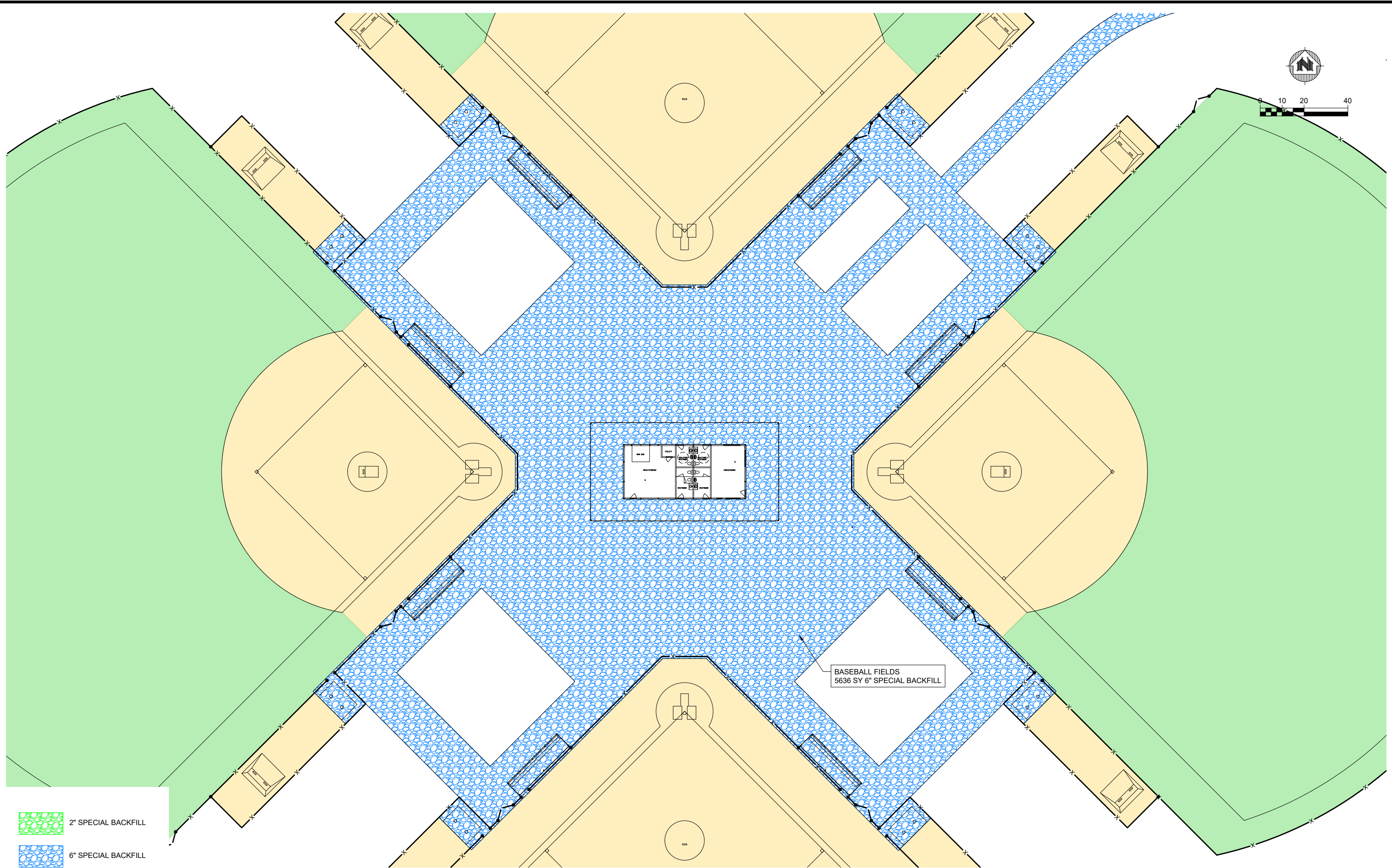


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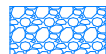
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SUBBASE PLAN - WELLNESS PARK TRAIL

PROJECT NO: 10322002
SHEET SB10



2" SPECIAL BACKFILL



6" SPECIAL BACKFILL

BASEBALL FIELDS
5636 SY 6" SPECIAL BACKFILL

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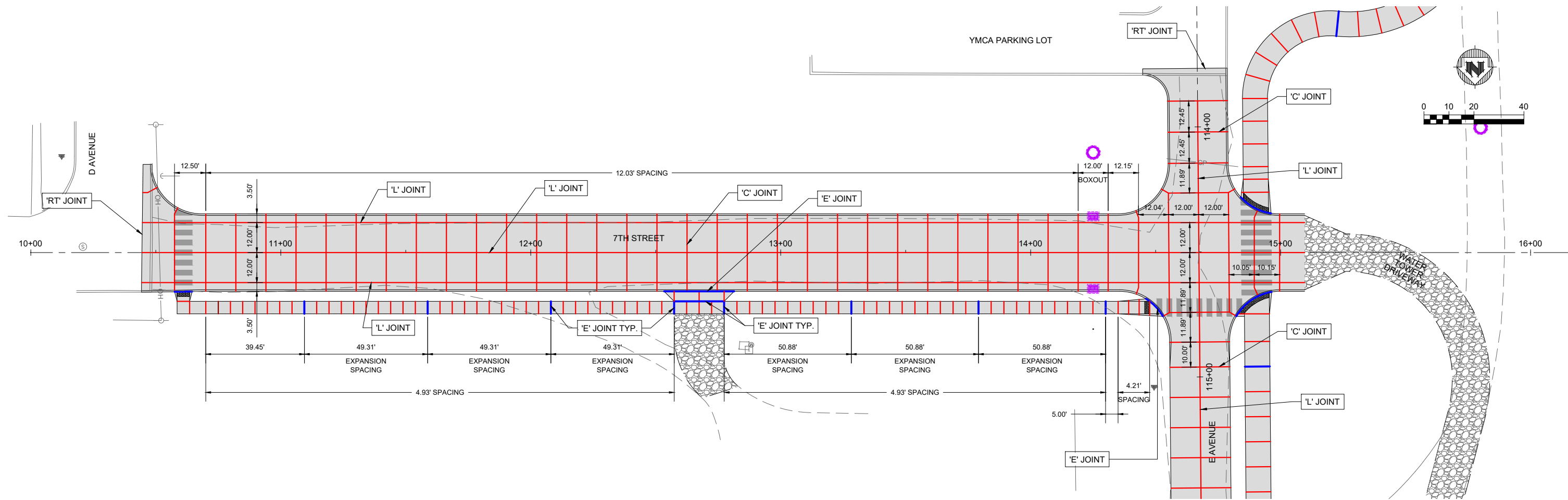


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SUBBASE PLAN - BASEBALL FIELDS

PROJECT NO:
10322002
SHEET
SB11



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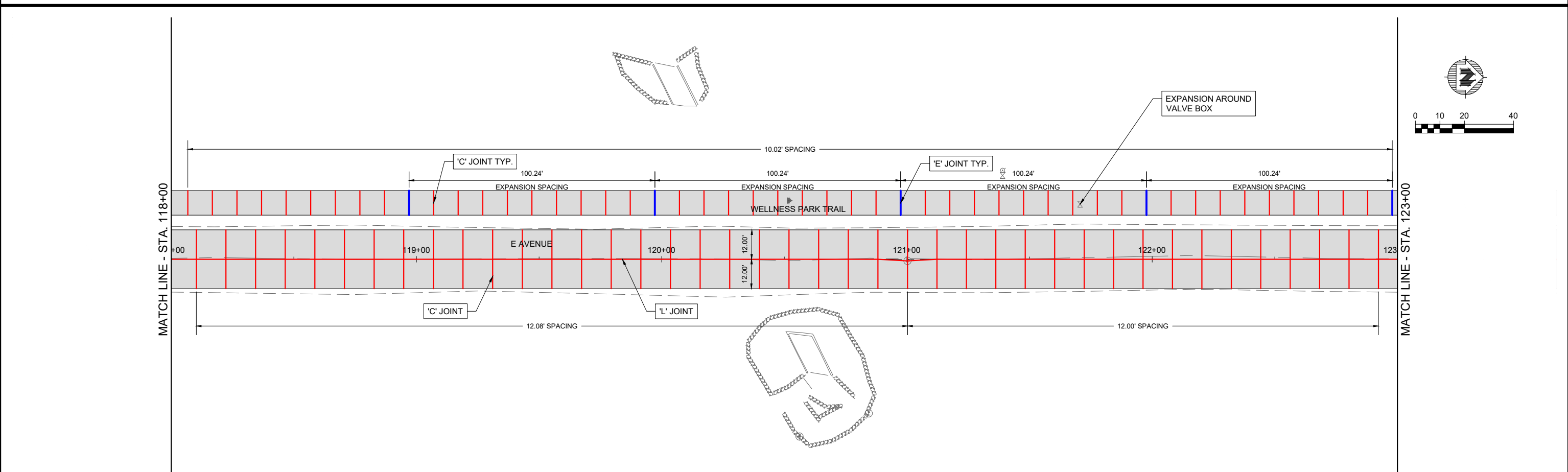
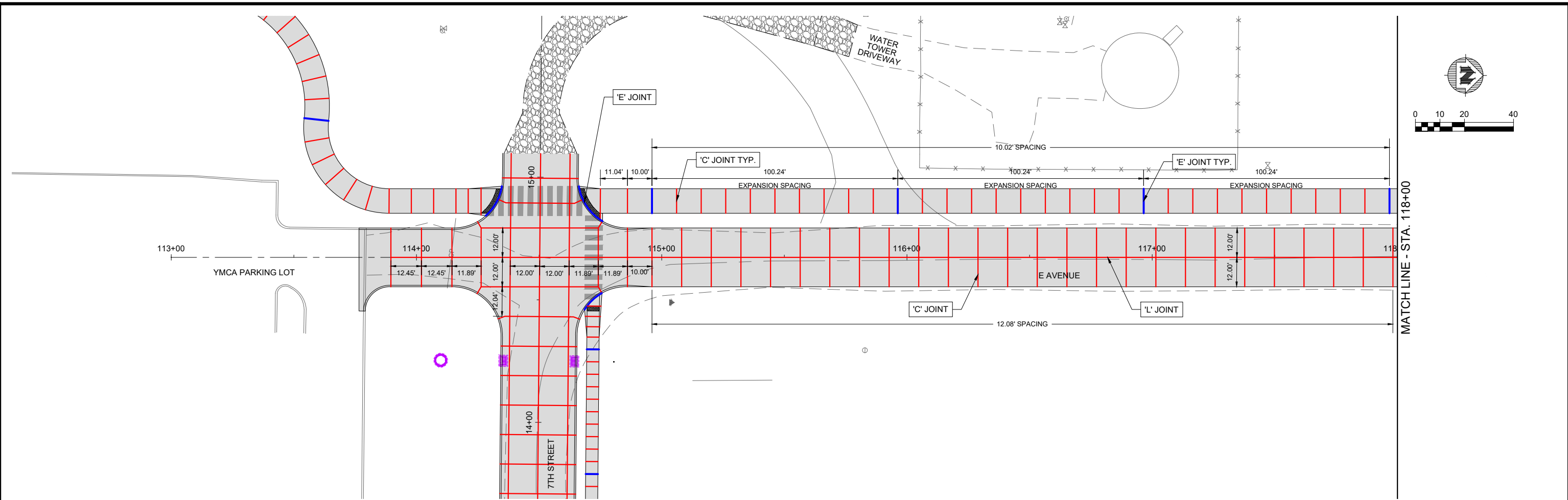


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JOINTING PLAN - 7TH STREET

PROJECT NO:
10322002
SHEET
J1



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				

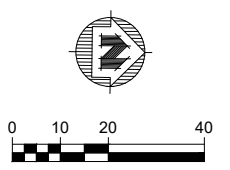
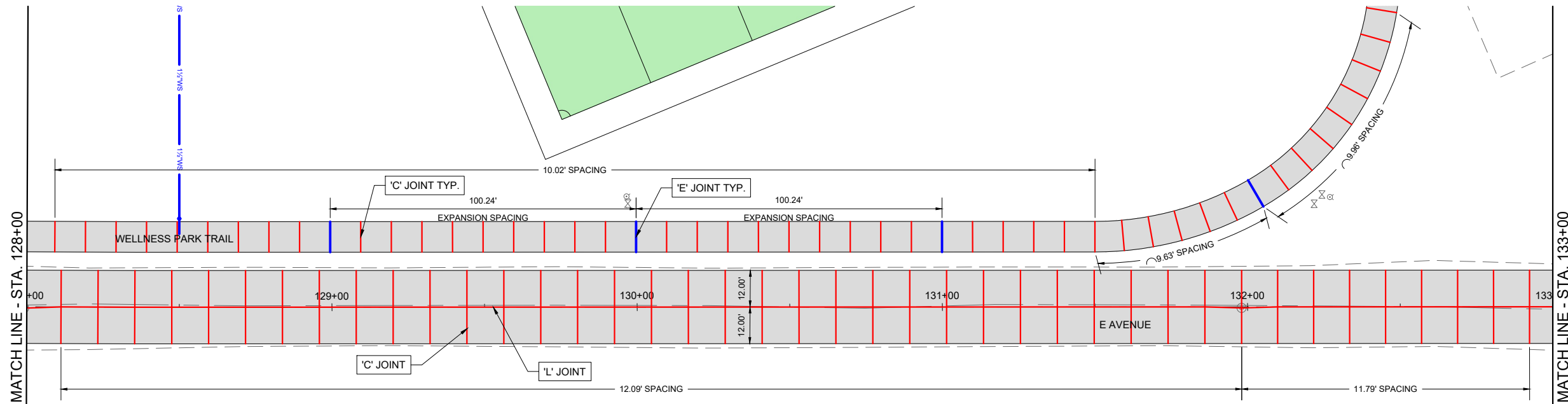
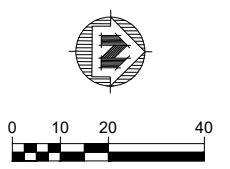
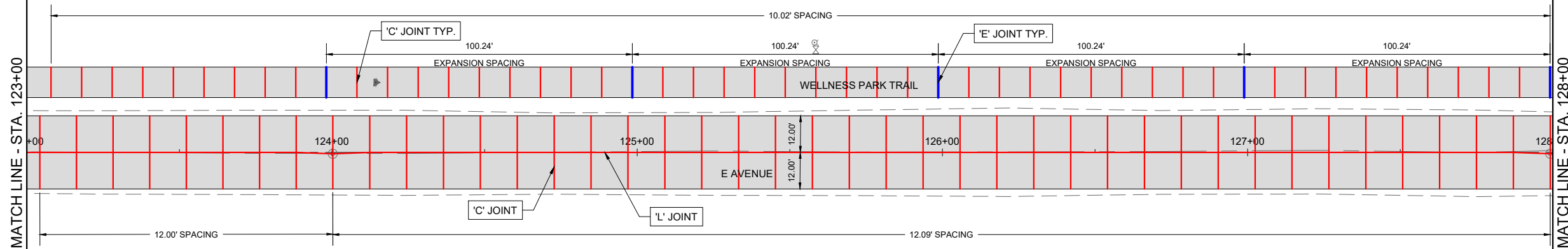
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JOINTING PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
J2



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
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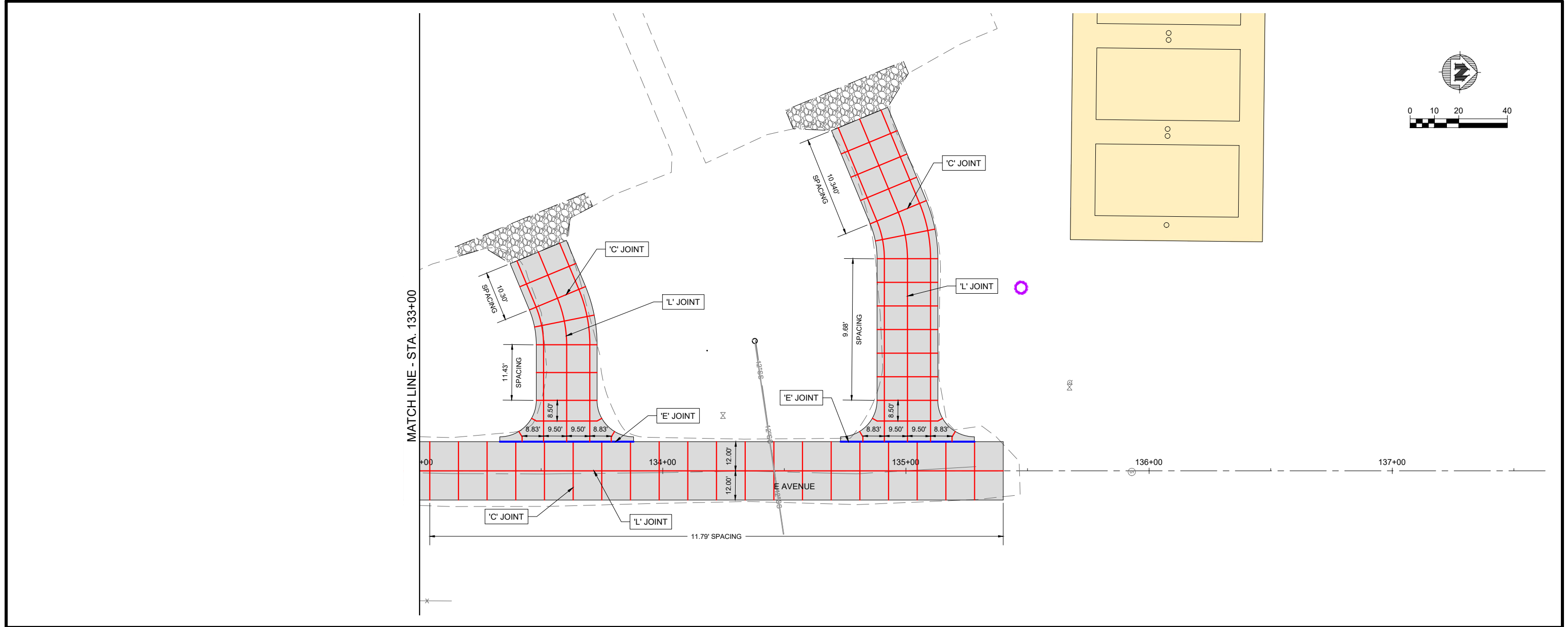


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JOINTING PLAN - E AVENUE

PROJECT NO:
10322002
SHEET
J3



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
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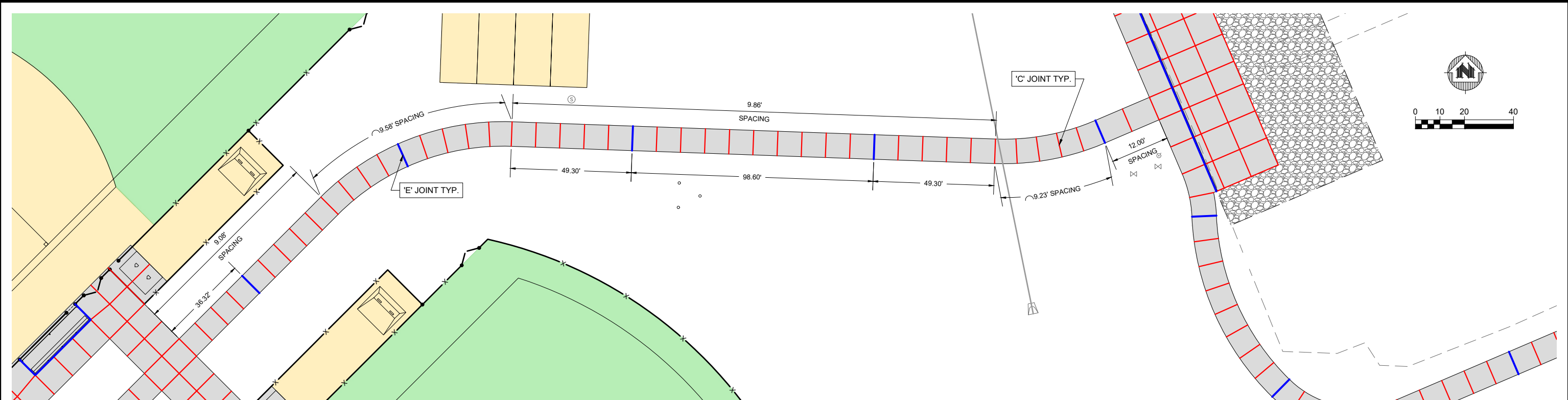
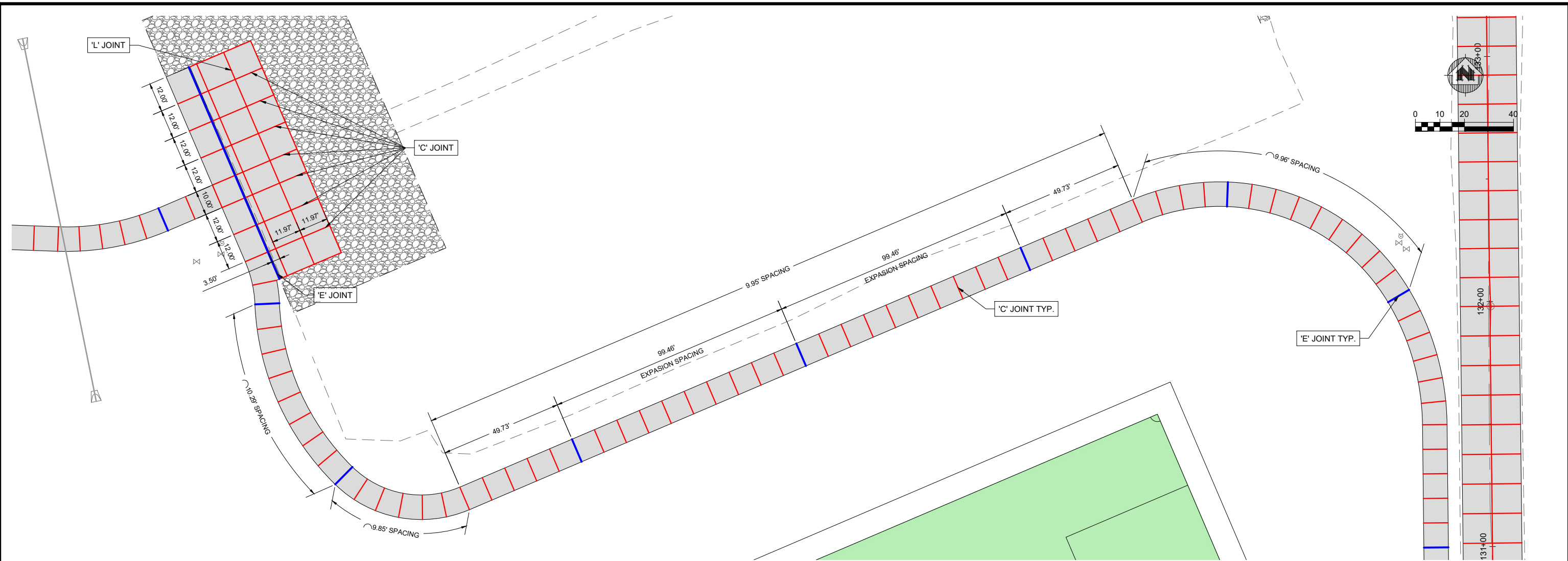


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JOINTING PLAN - E AVENUE

PROJECT NO:
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SHEET
J4



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
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	DESIGNED BY:	JLS	-	-	-
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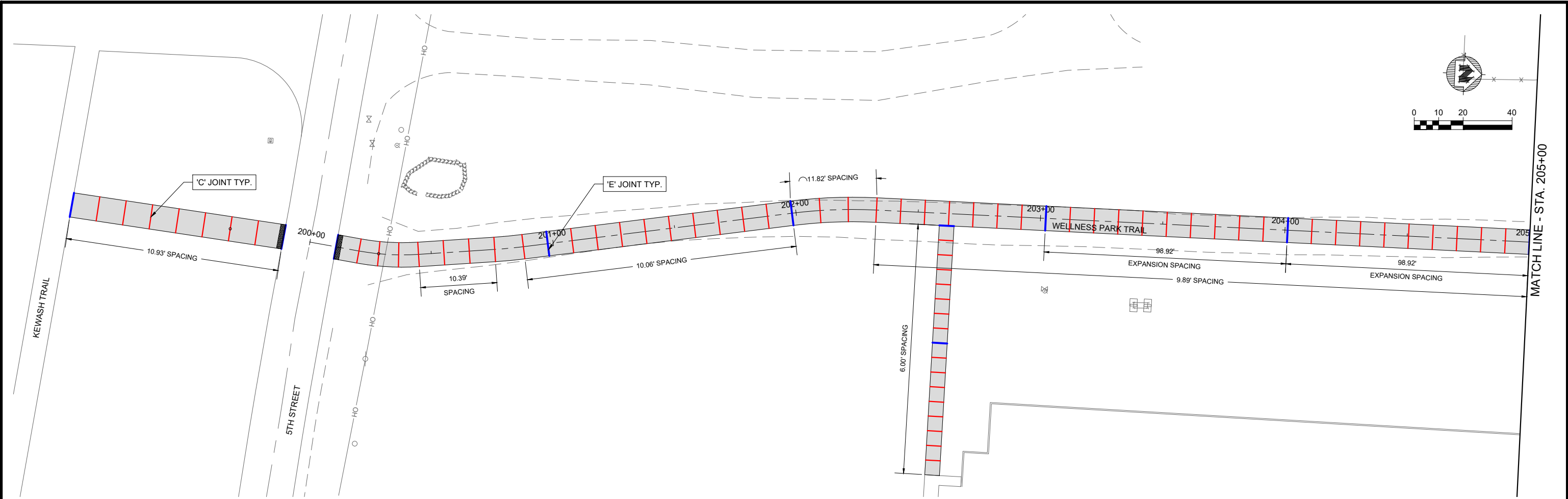


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JOINTING PLAN - PARKING LOT & TRAIL

PROJECT NO:
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J5



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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PLOT DATE: Friday, March 6, 2020 11:09:46 AM, P:\103300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\JOINTING PLAN - WELLNESS PARK TRAIL.dwg						

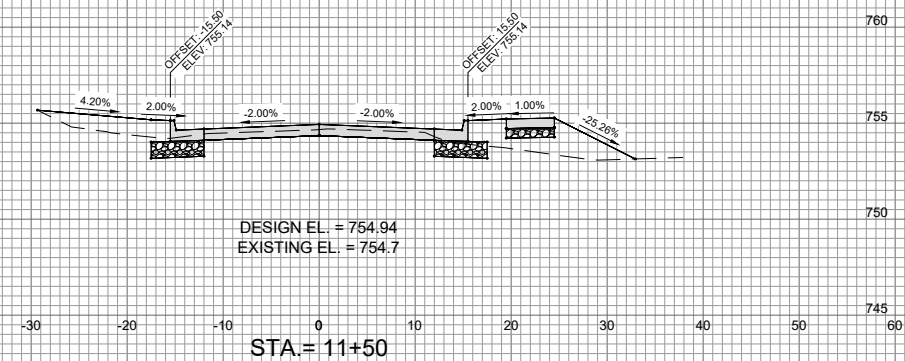
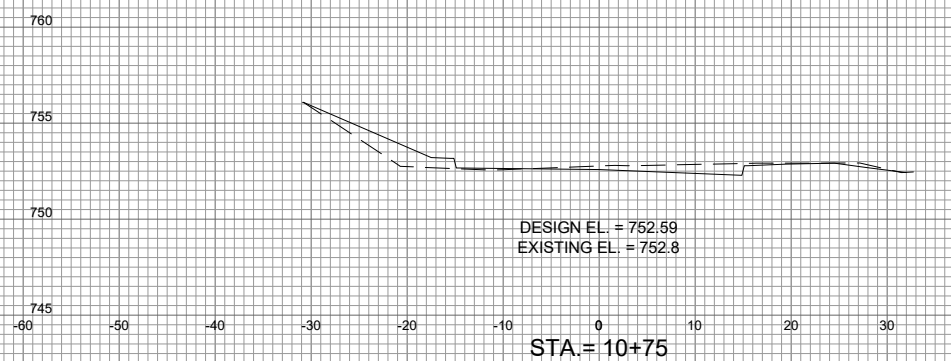
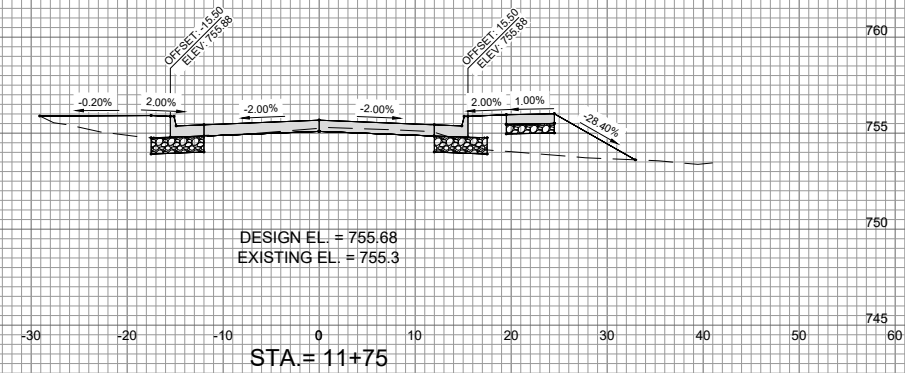
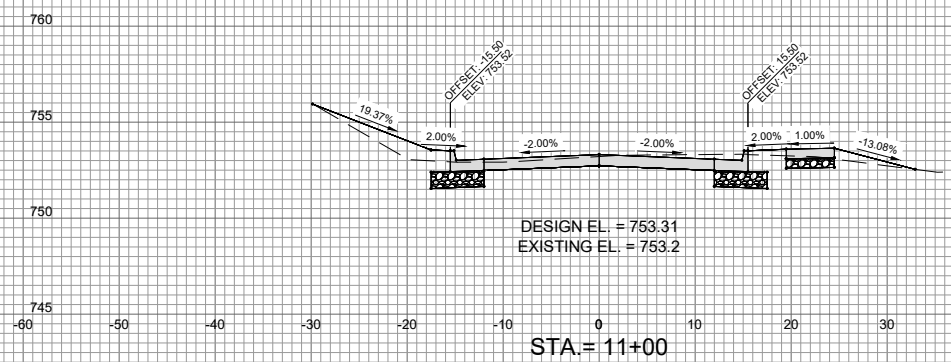
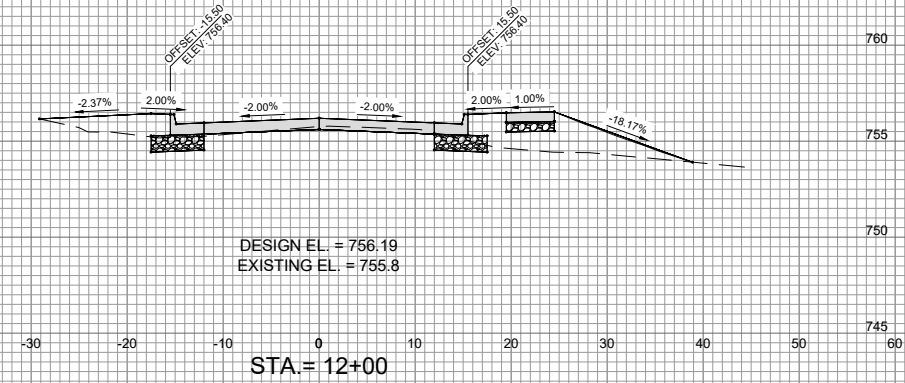
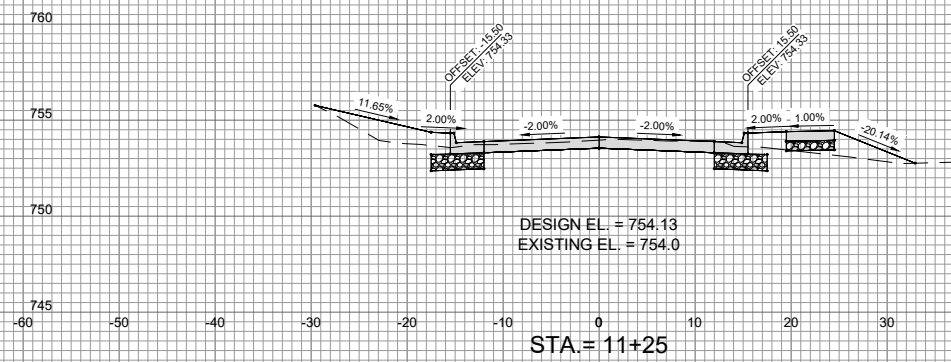


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JOINTING PLAN - WELLNESS PARK TRAIL

PROJECT NO:
10322002
SHEET
J6



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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	CHECKED BY:	JRH	-	-	-	-

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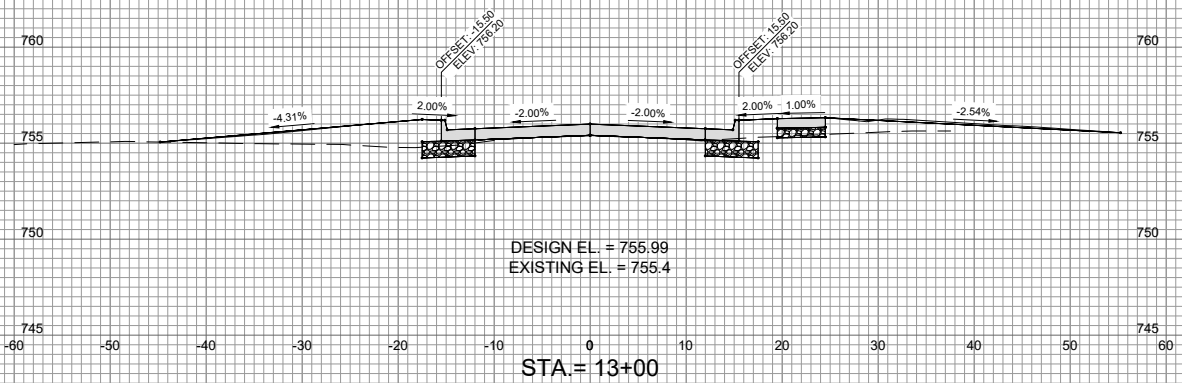
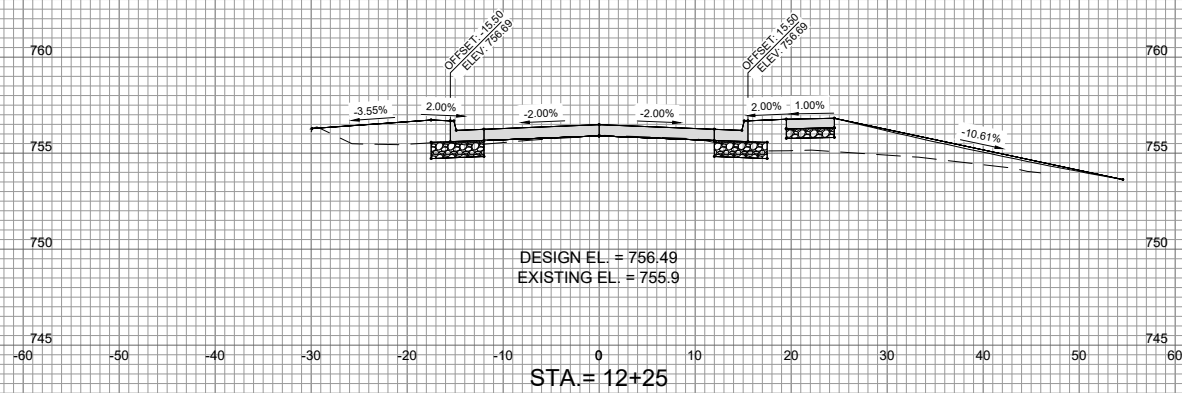
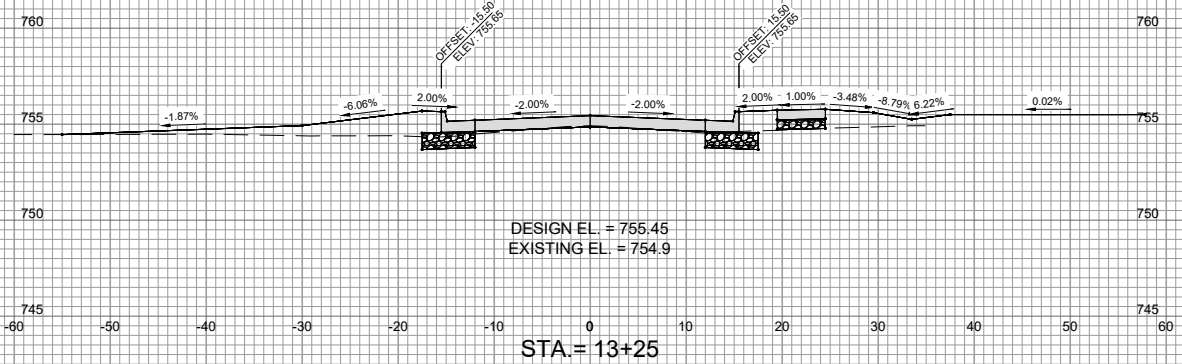
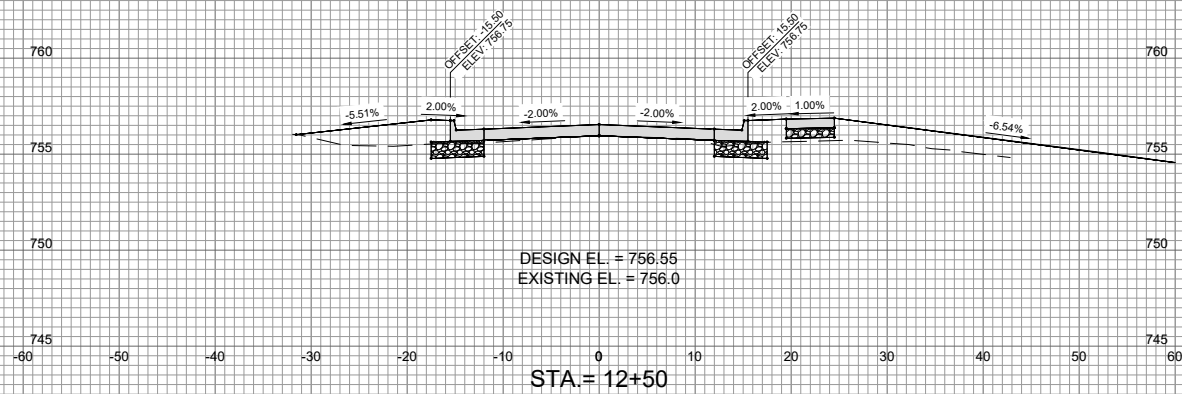
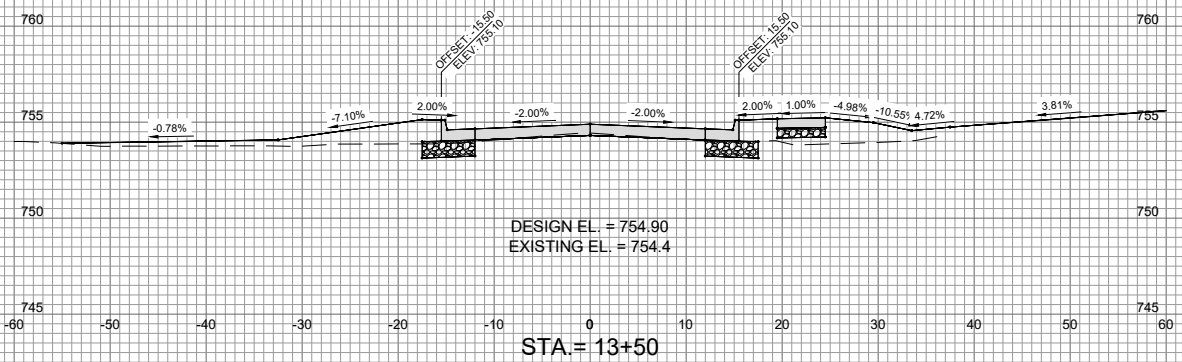
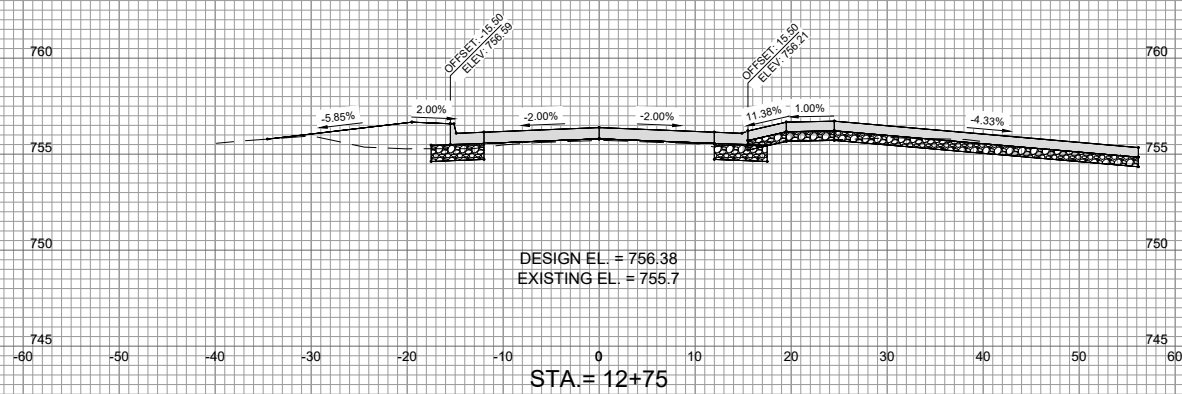


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CROSS SECTIONS - 7TH STREET

PROJECT NO:
10322002
SHEET
XS1



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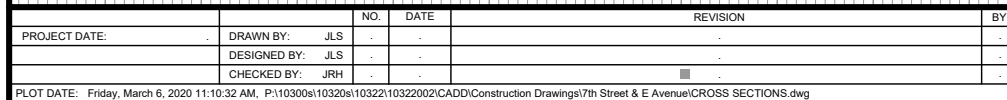
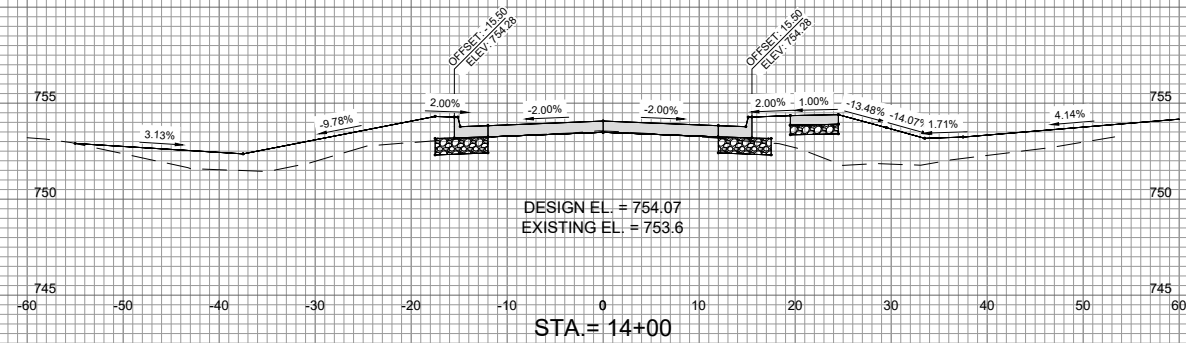


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CROSS SECTIONS - 7TH STREET

PROJECT NO:
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XS2



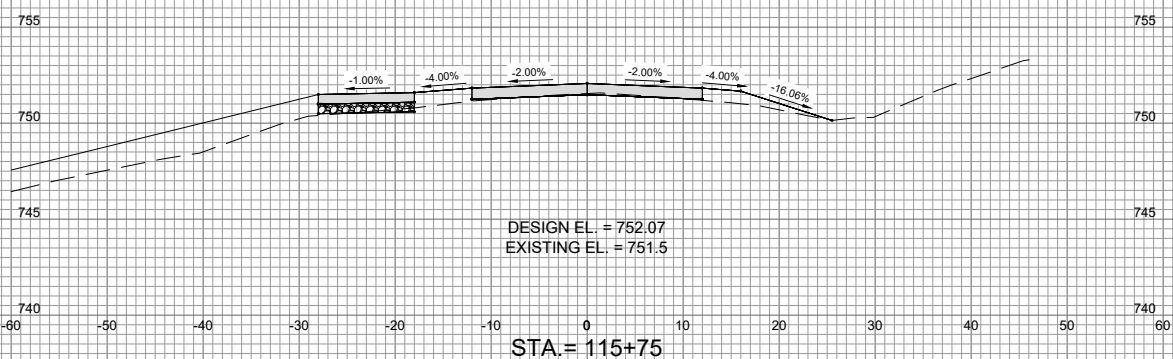
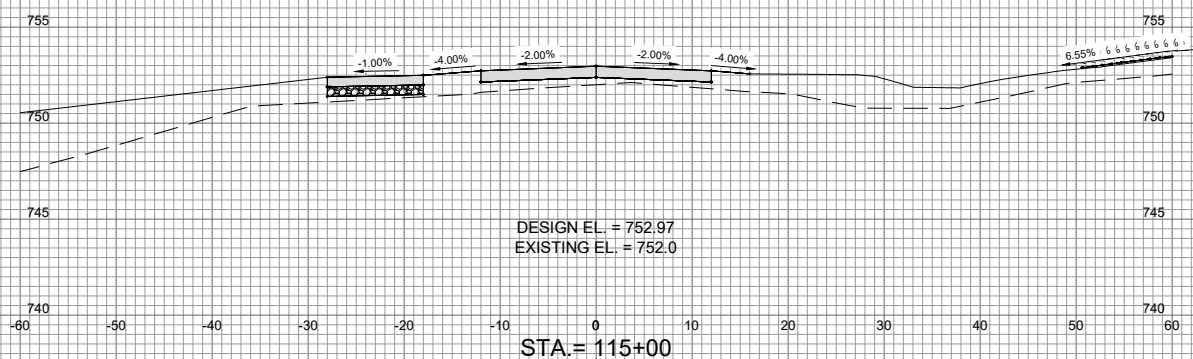
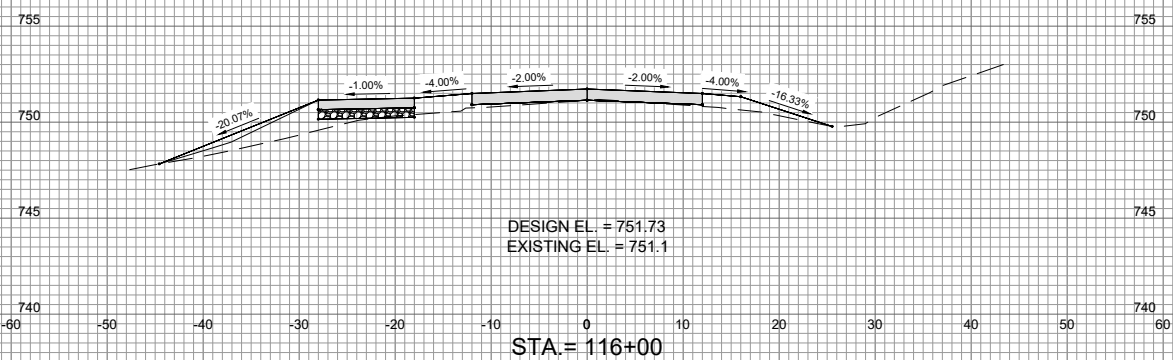
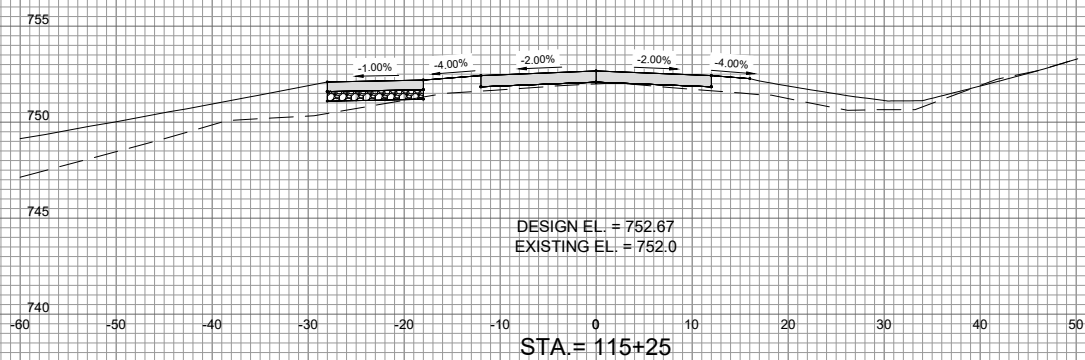
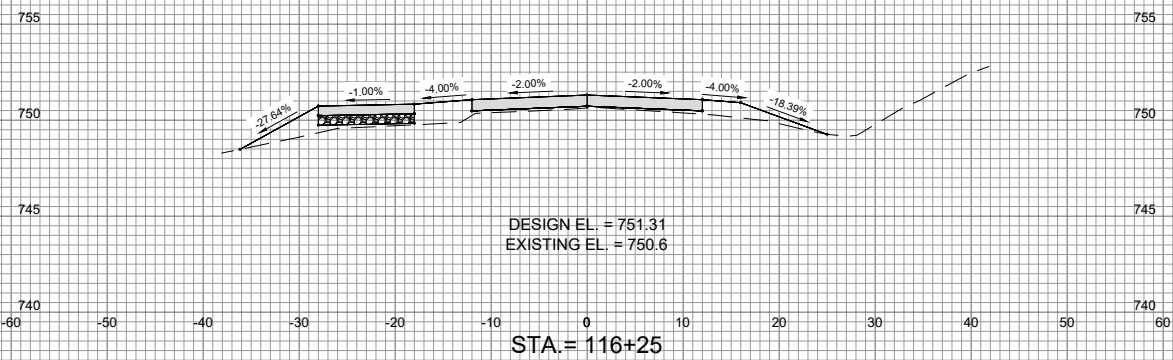
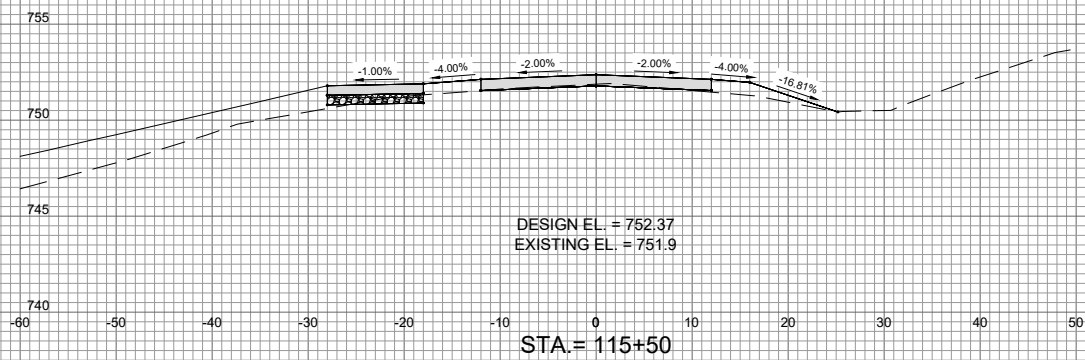
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CROSS SECTIONS - 7TH STREET

PROJECT NO.
10322002

SHEET
XS3



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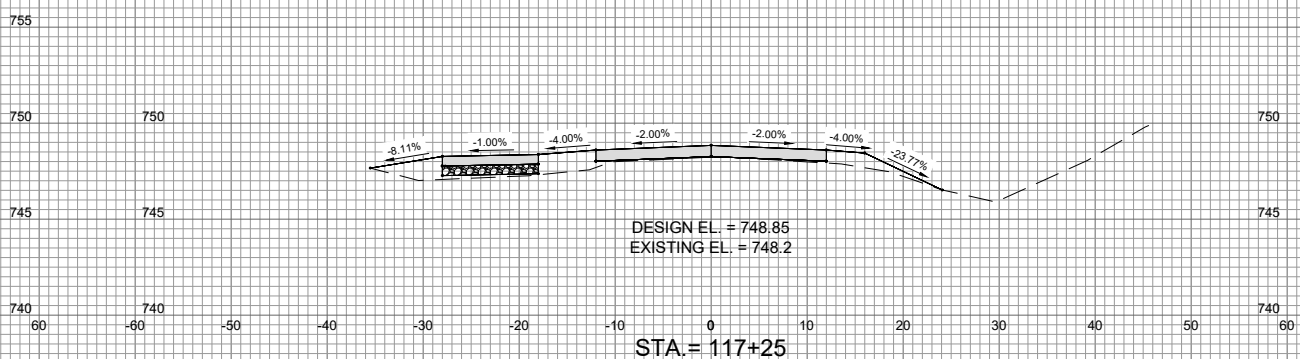
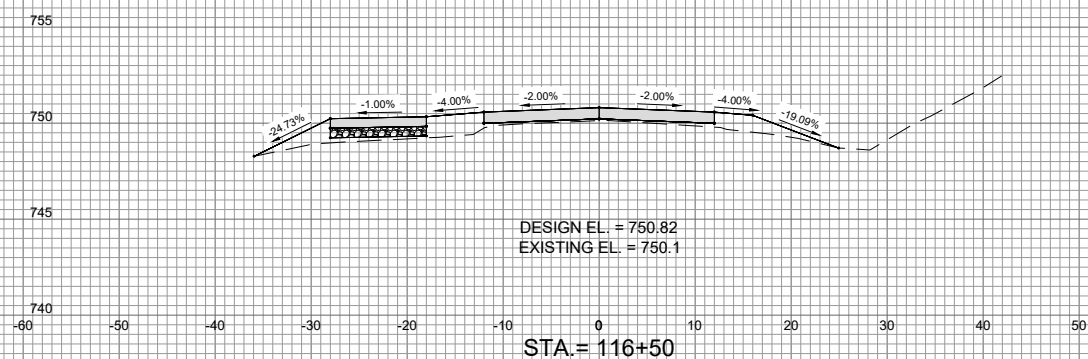
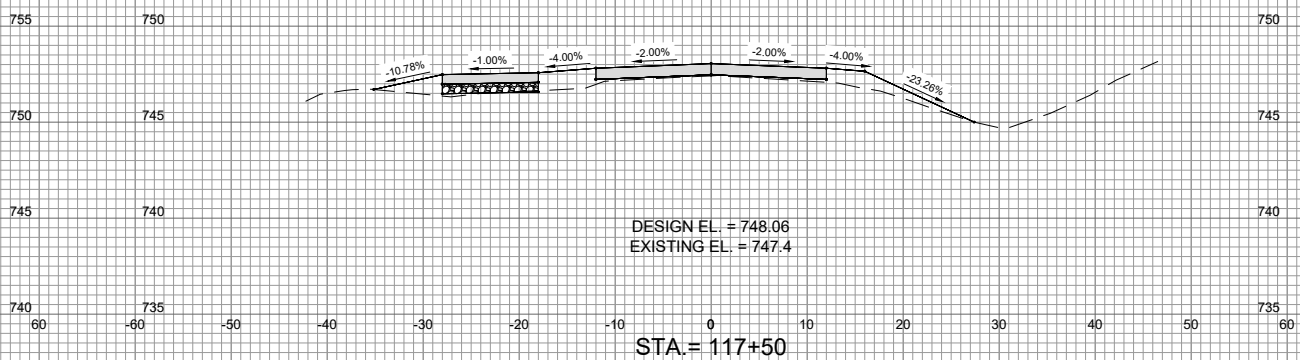
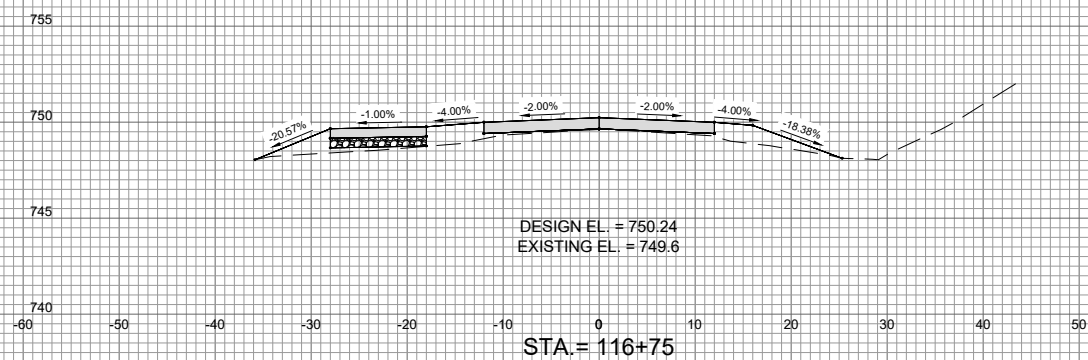
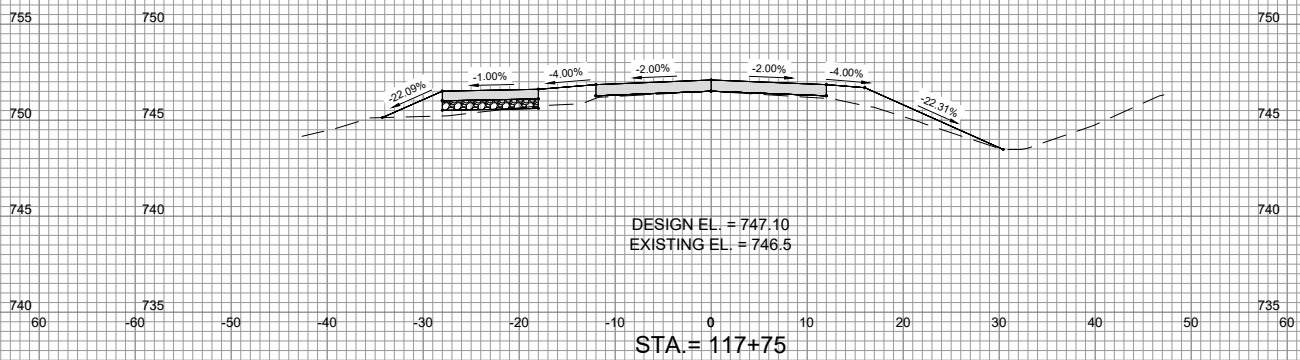
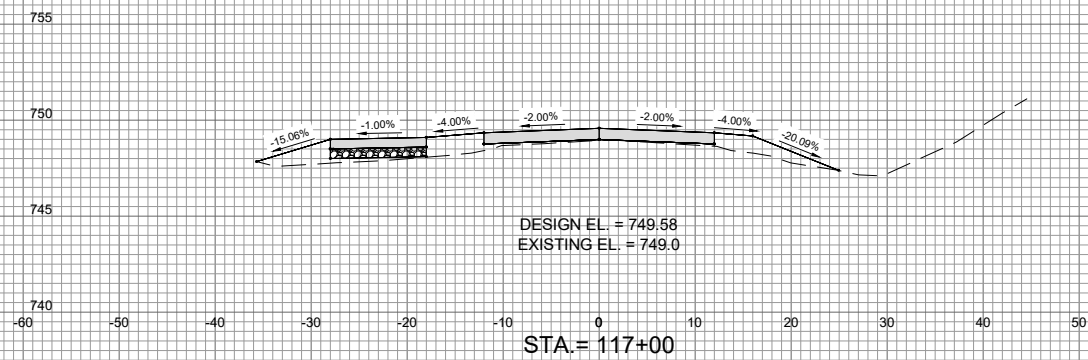


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS4



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:10:57 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

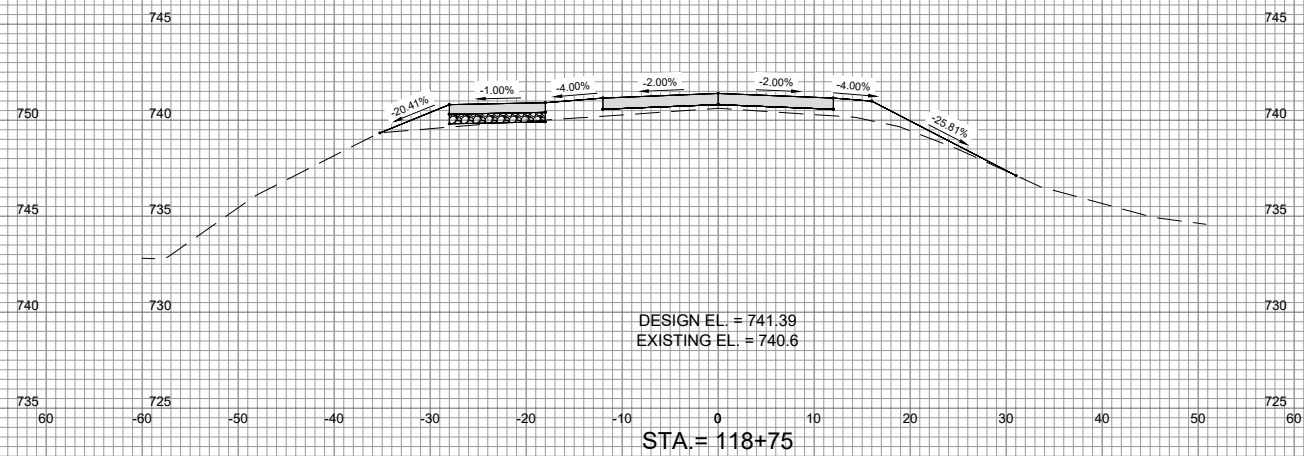
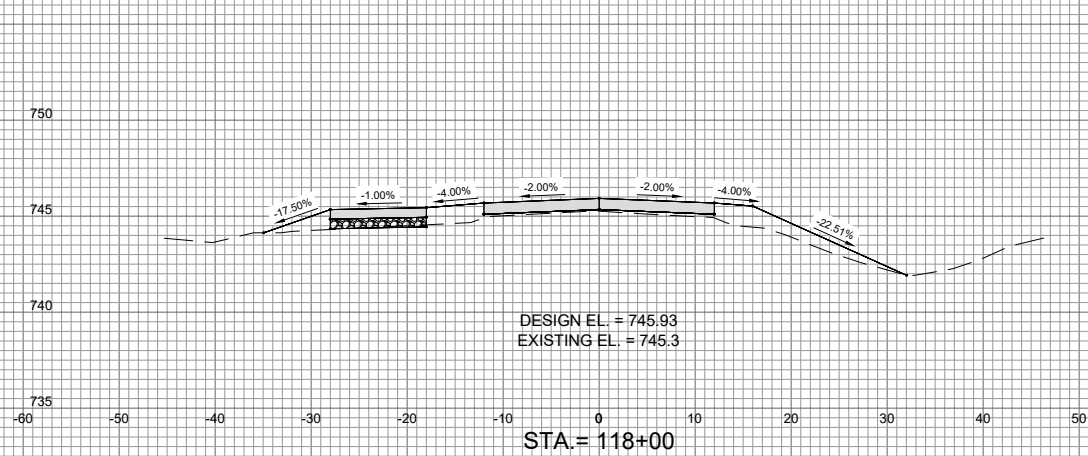
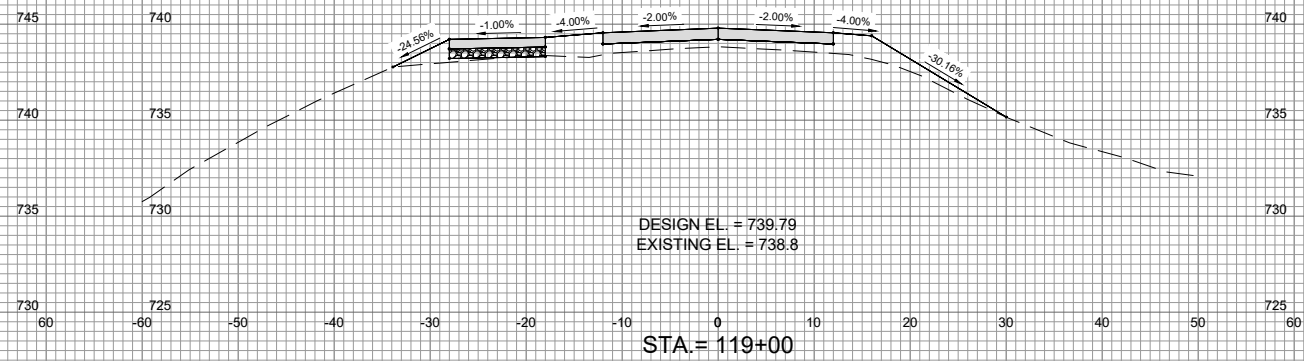
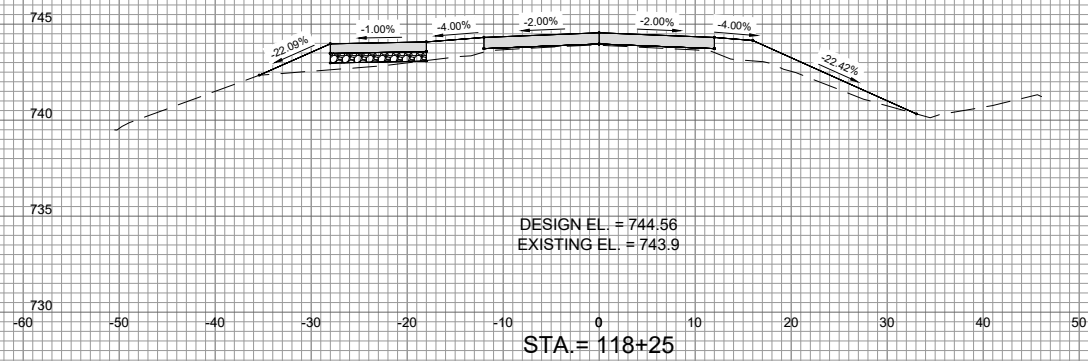
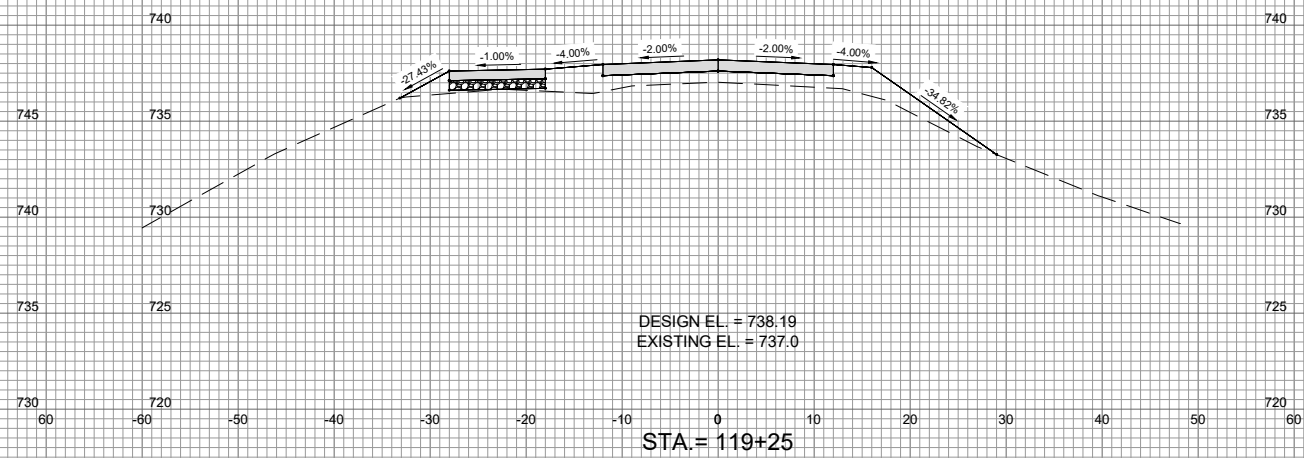
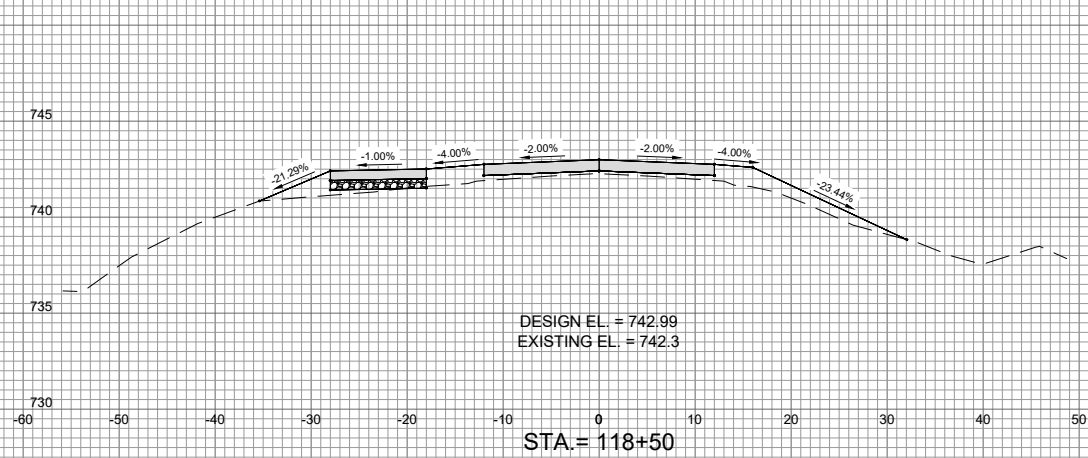


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS5



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS				
	CHECKED BY:	JRH				

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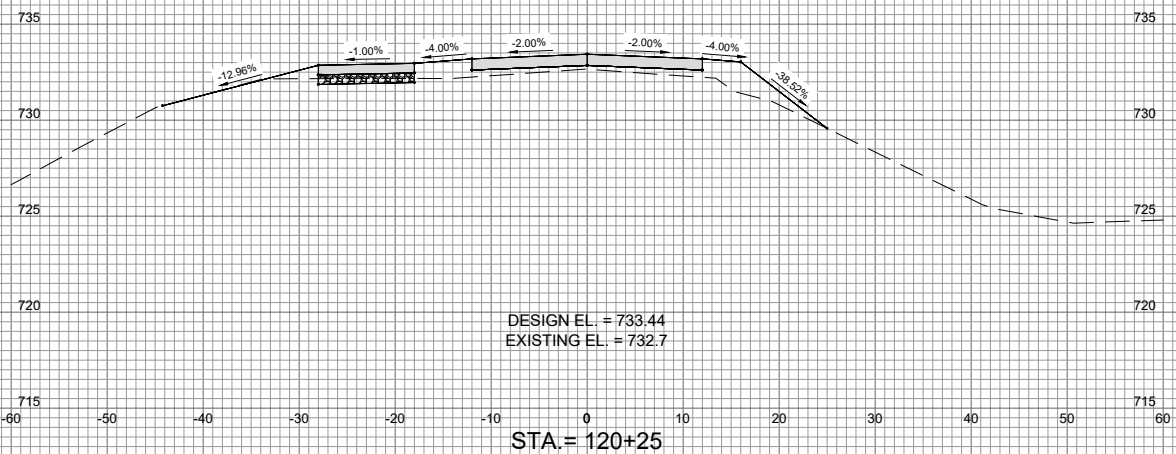
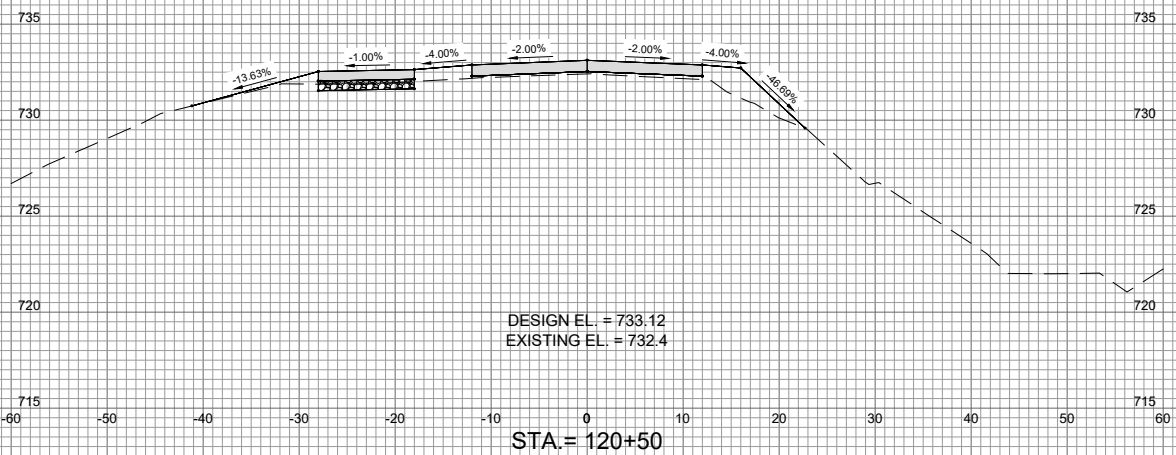
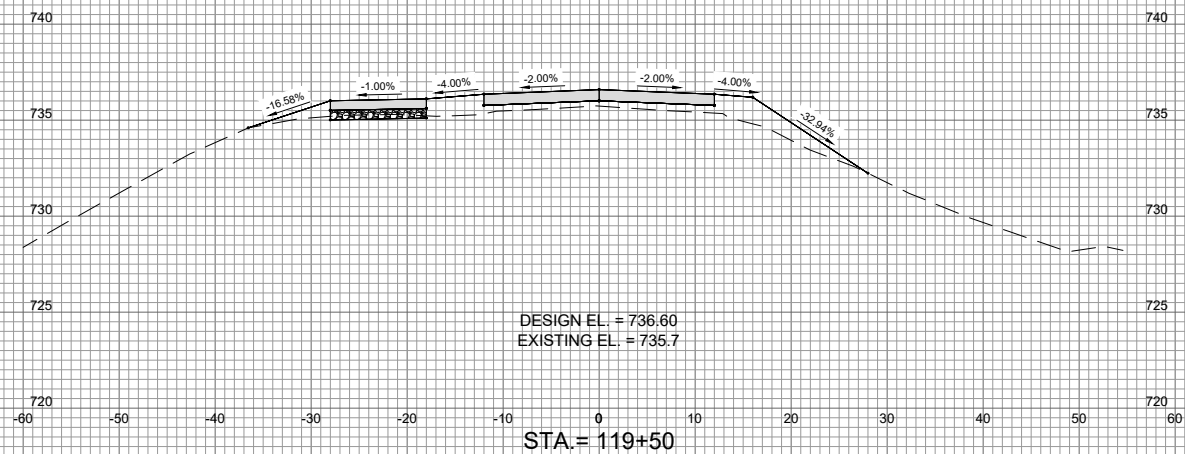
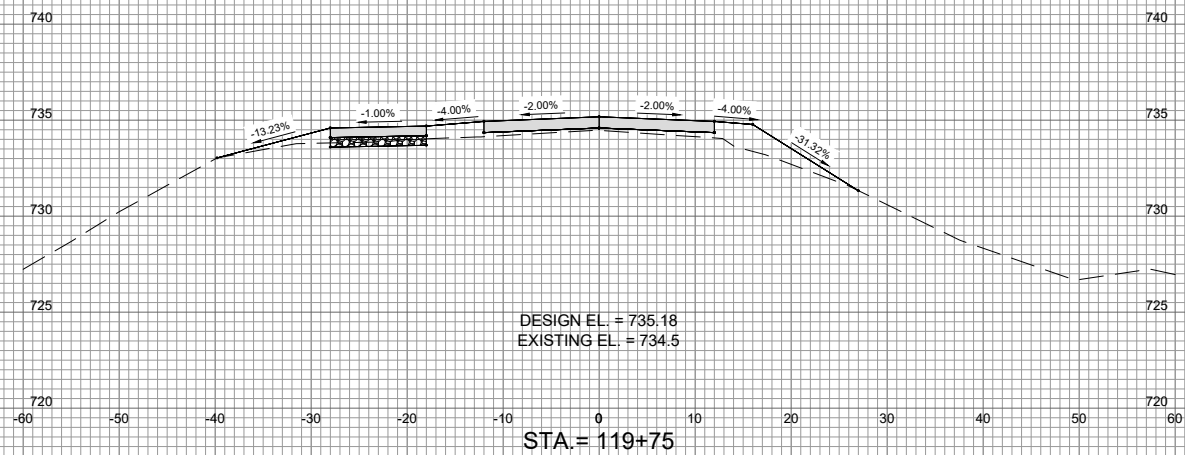
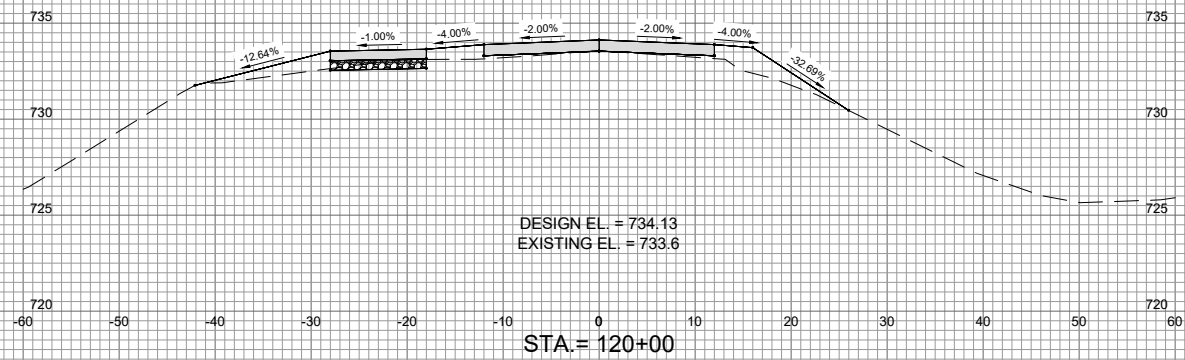


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS6



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-

PLOT DATE: Friday, March 6, 2020 11:11:22 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg

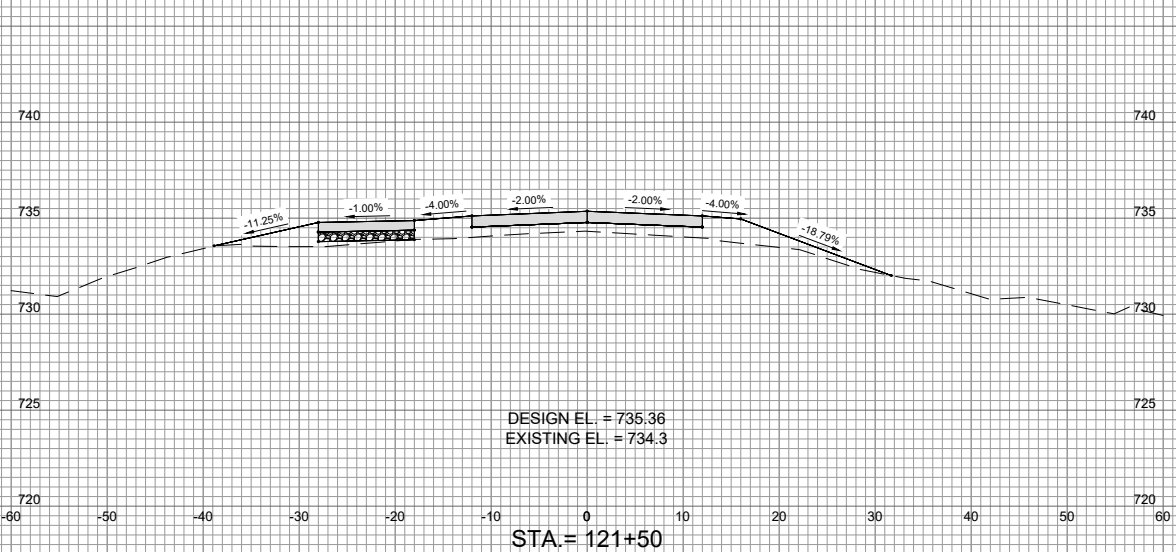
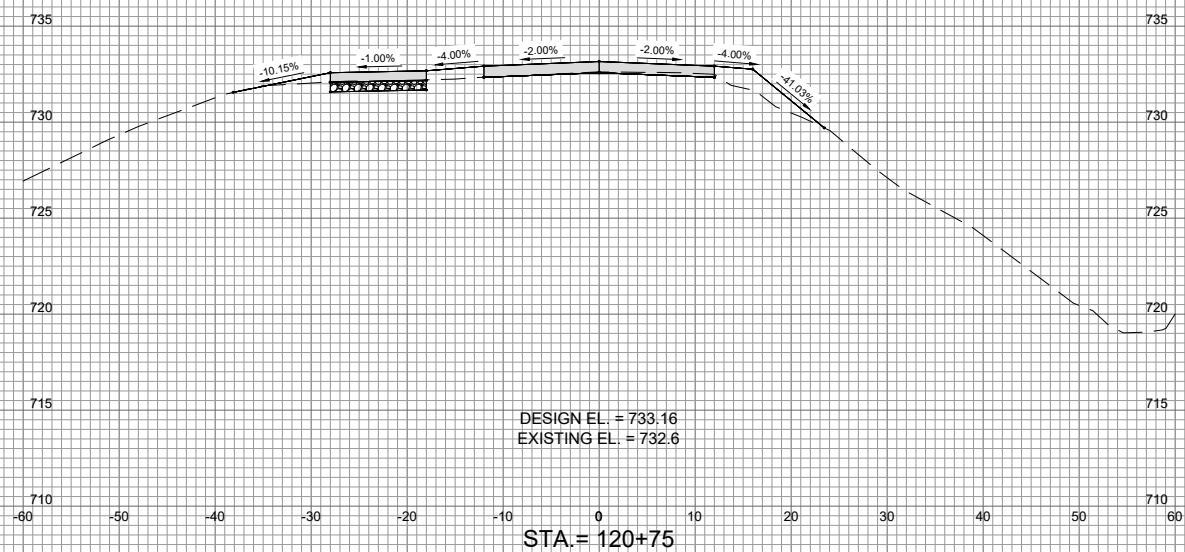
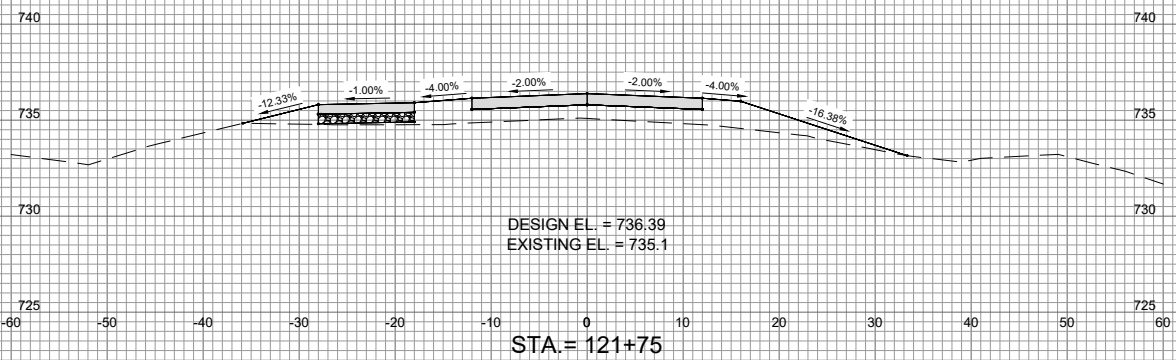
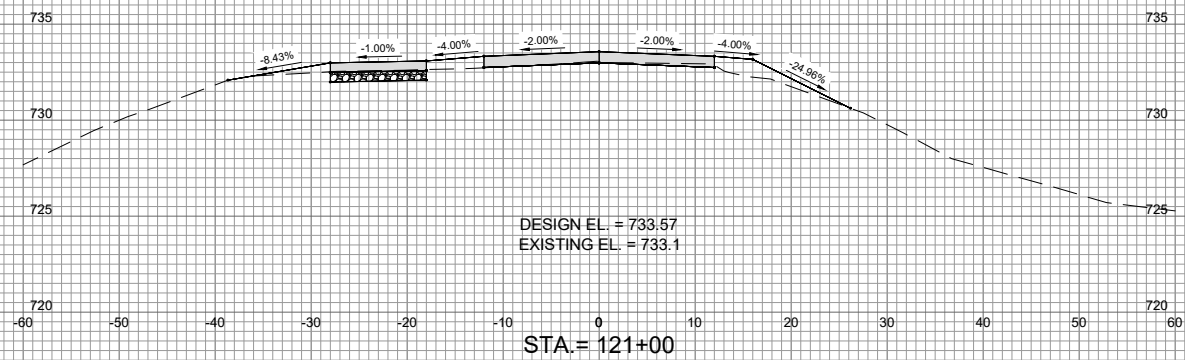
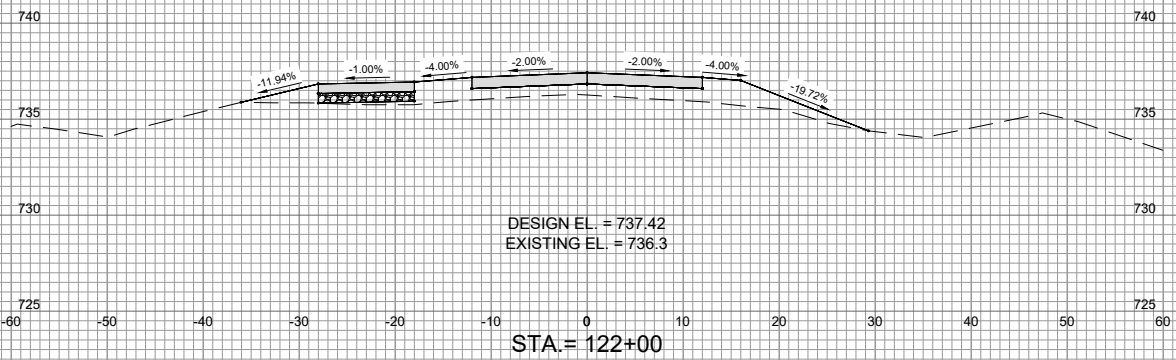
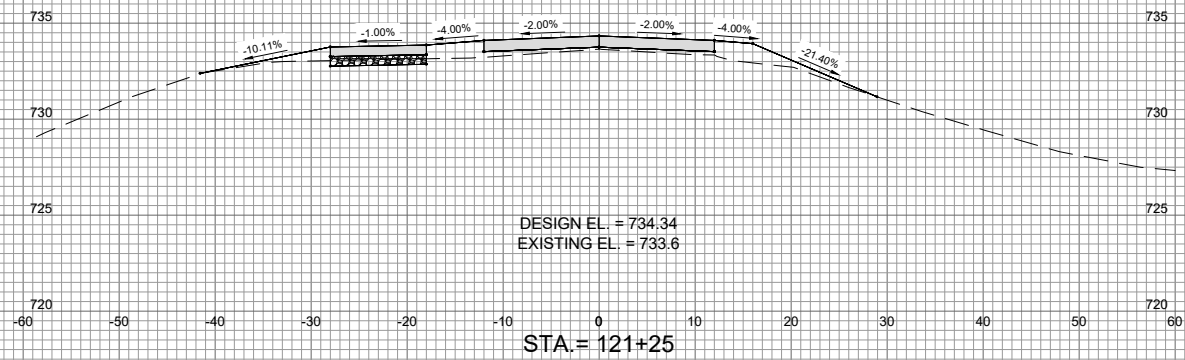


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
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PLOT DATE: Friday, March 6, 2020 11:11:34 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg

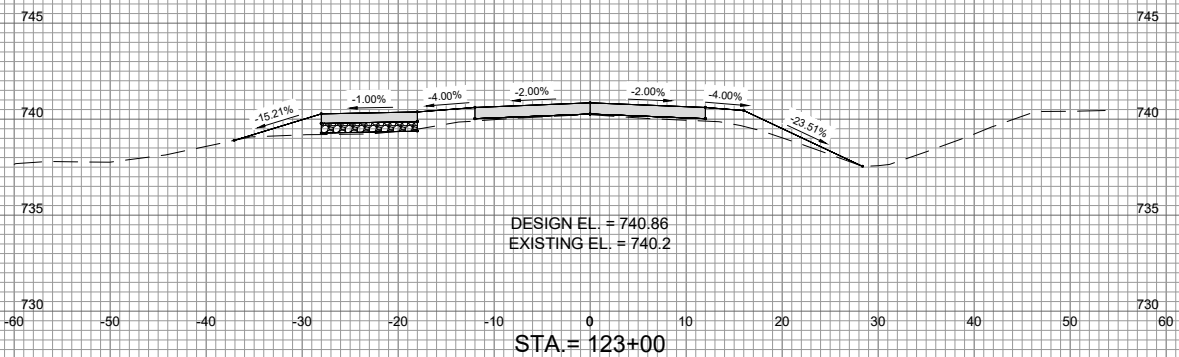
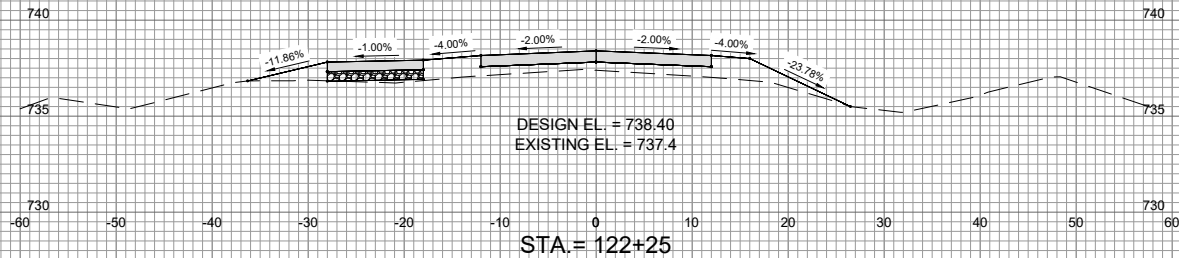
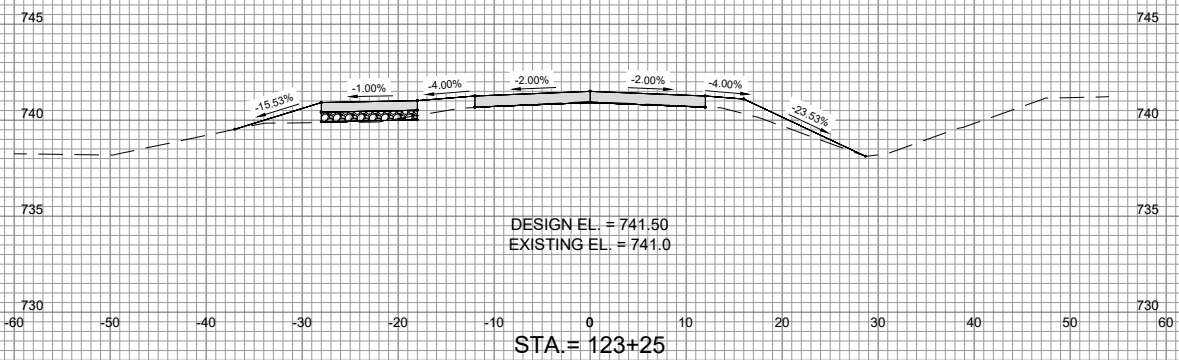
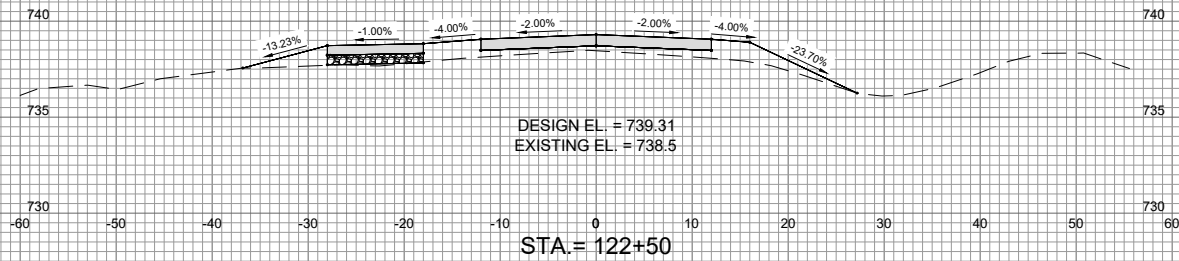
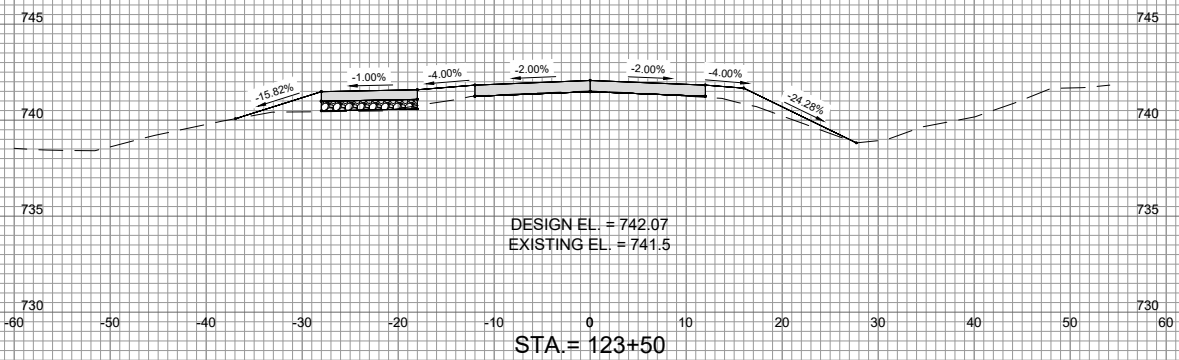
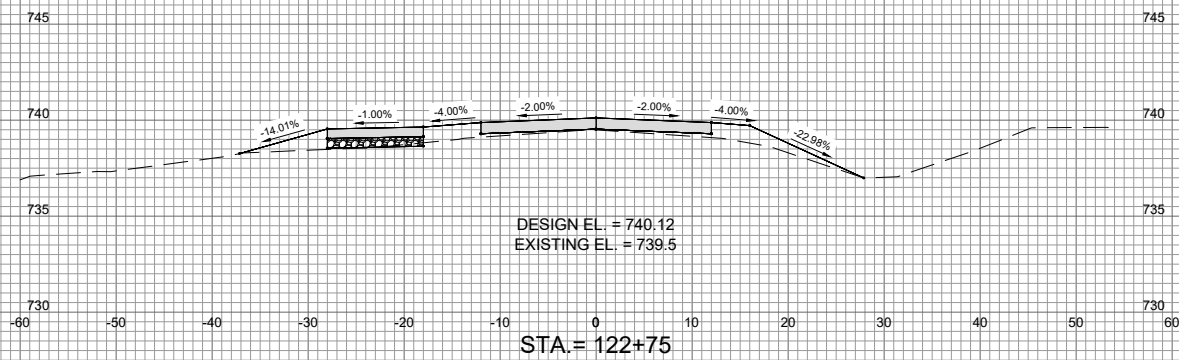


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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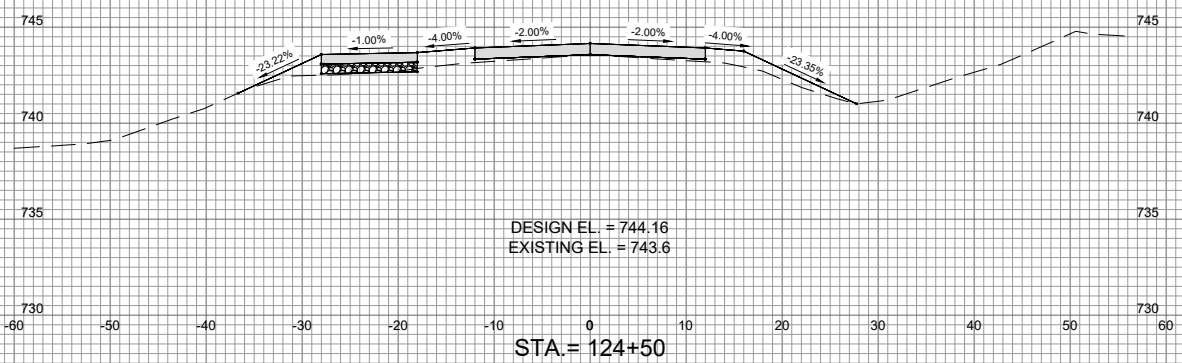
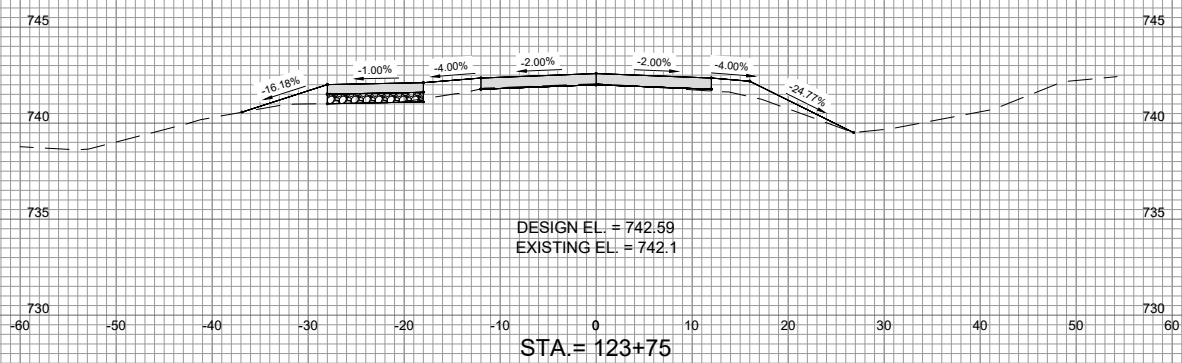
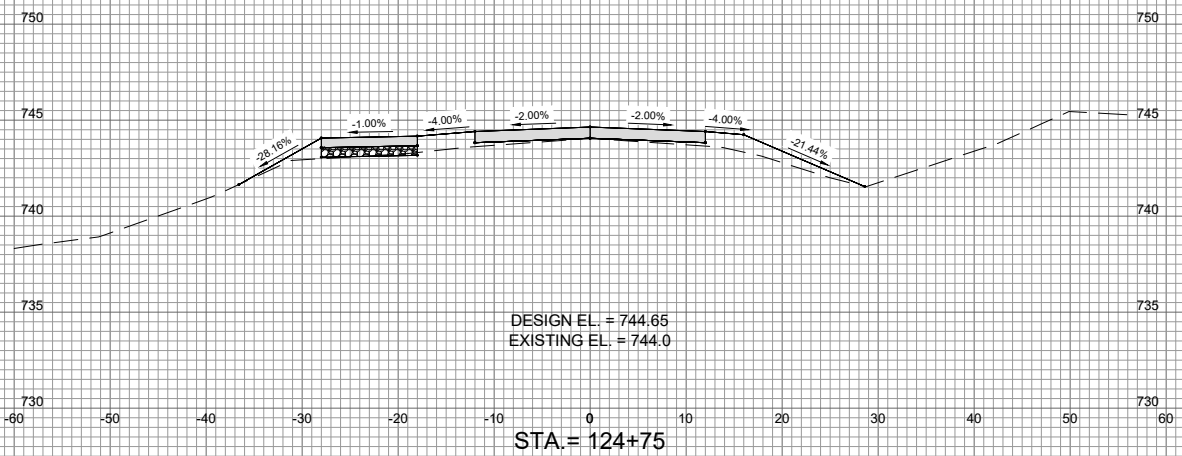
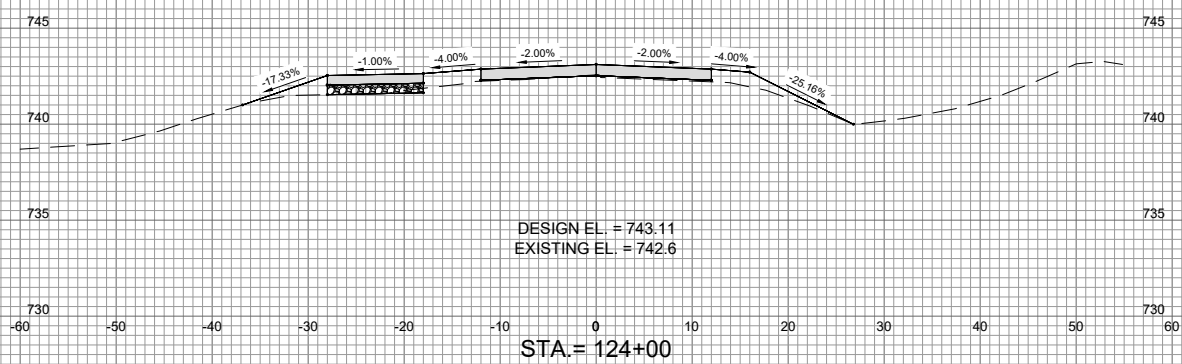
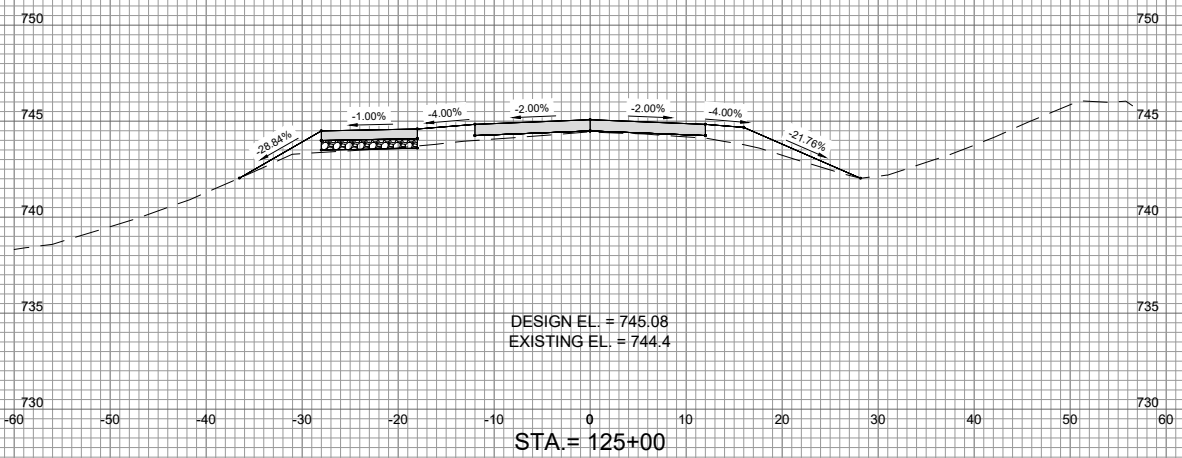
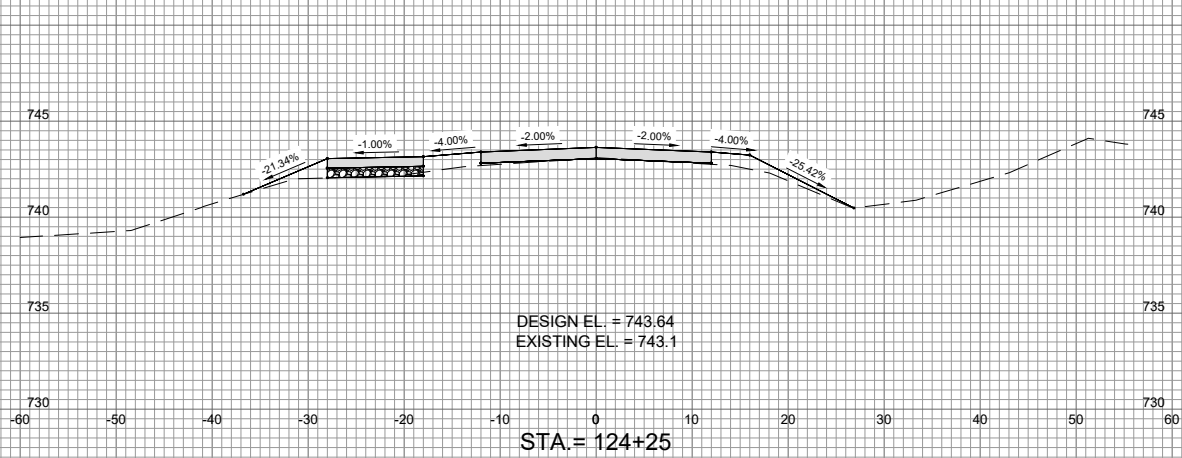


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PROJECT NO:
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PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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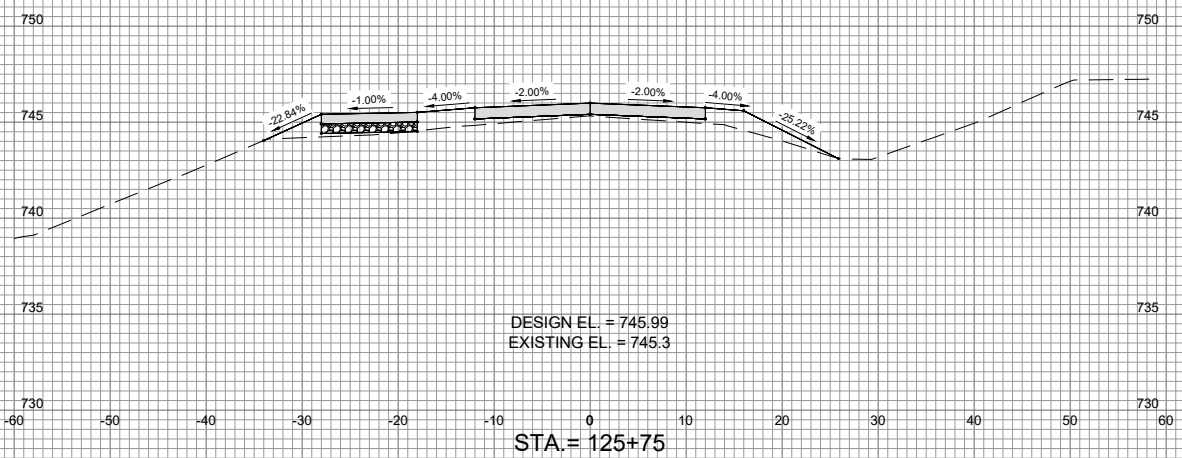
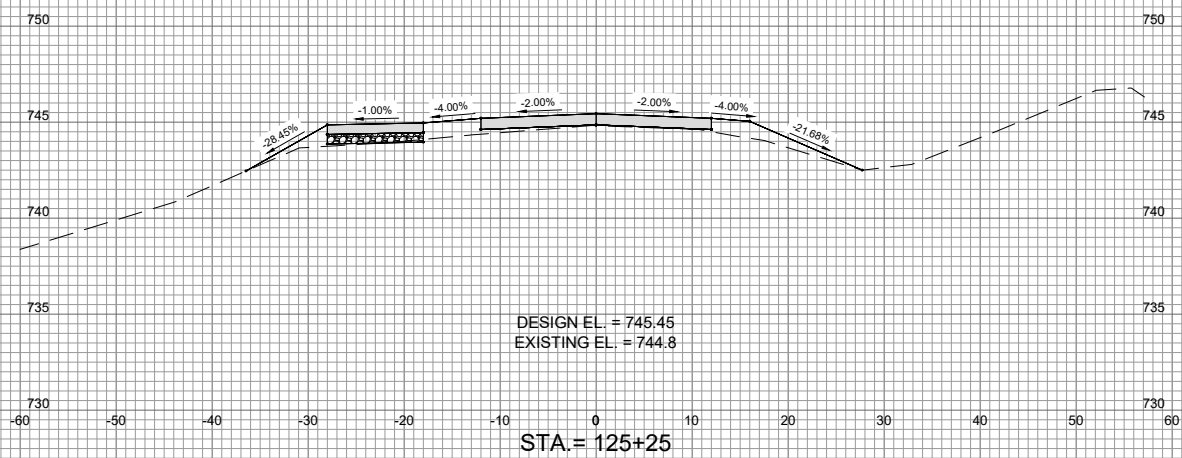
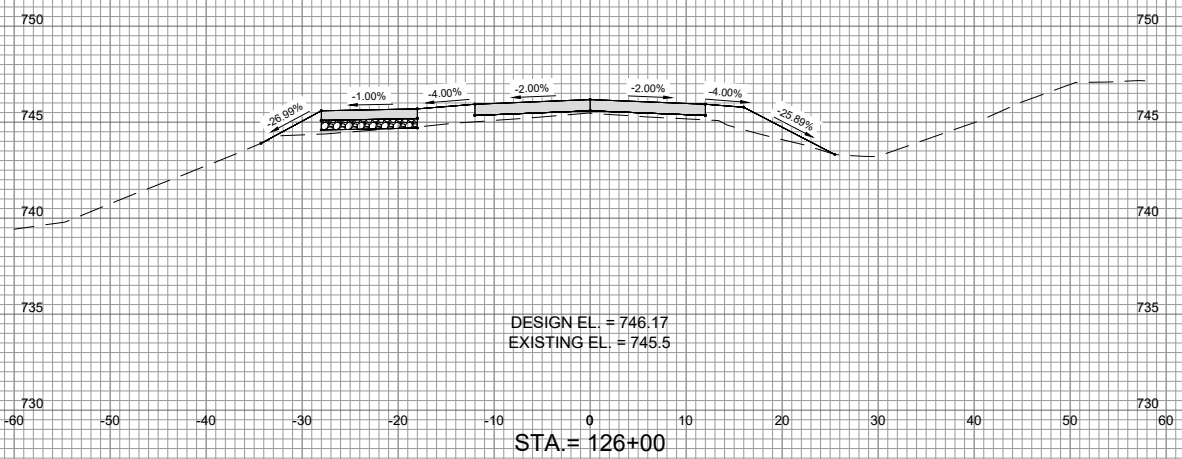
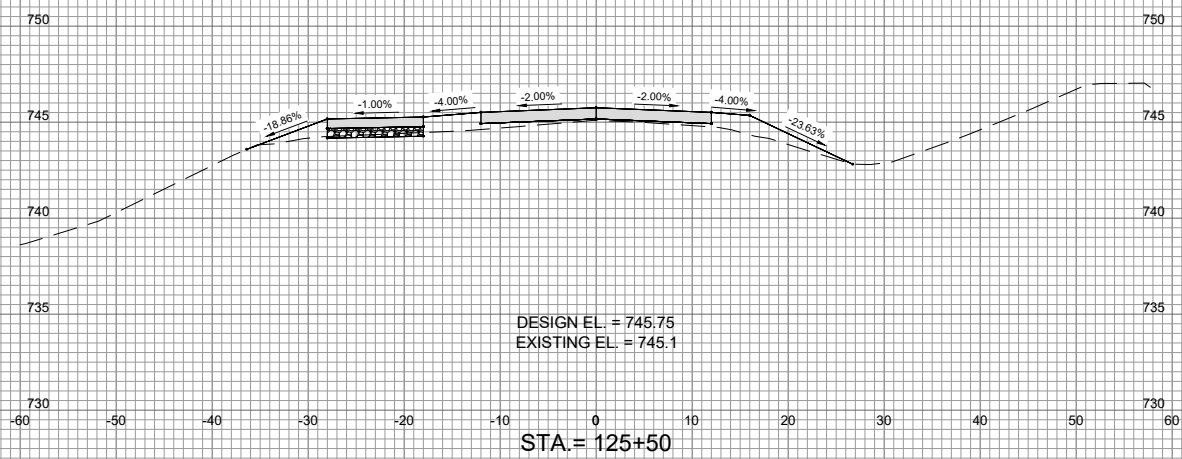


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PROJECT NO:
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PLOT DATE: Friday, March 6, 2020 11:12:12 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

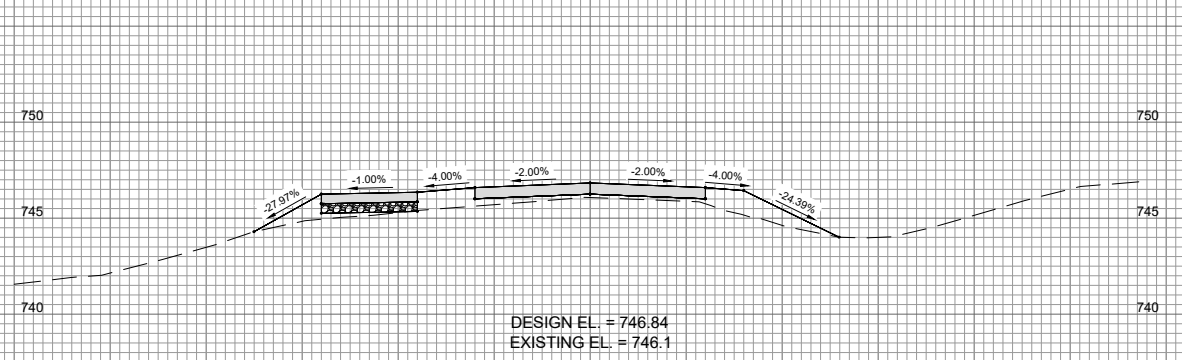
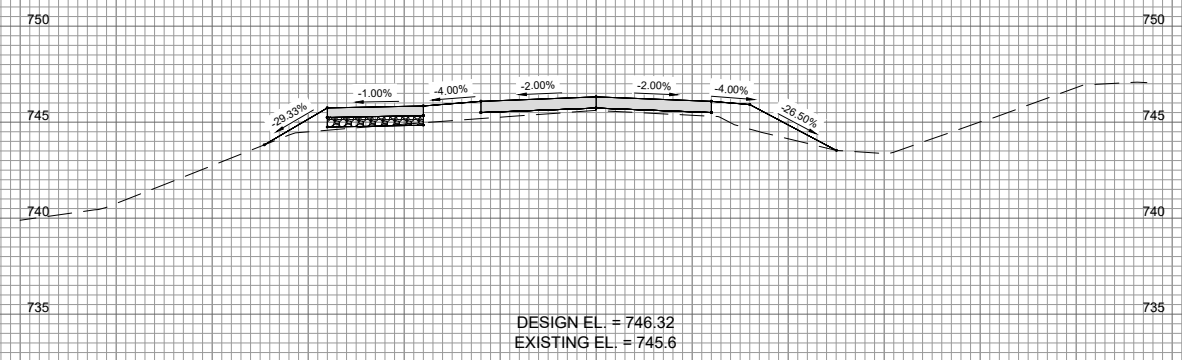
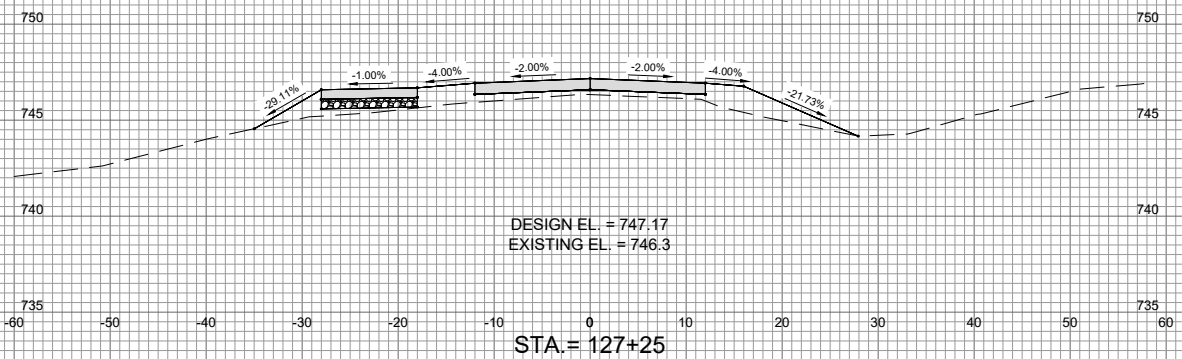
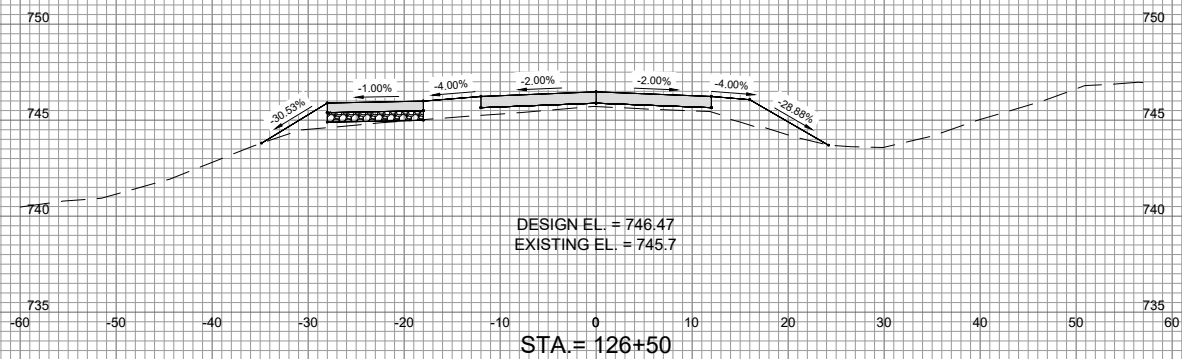
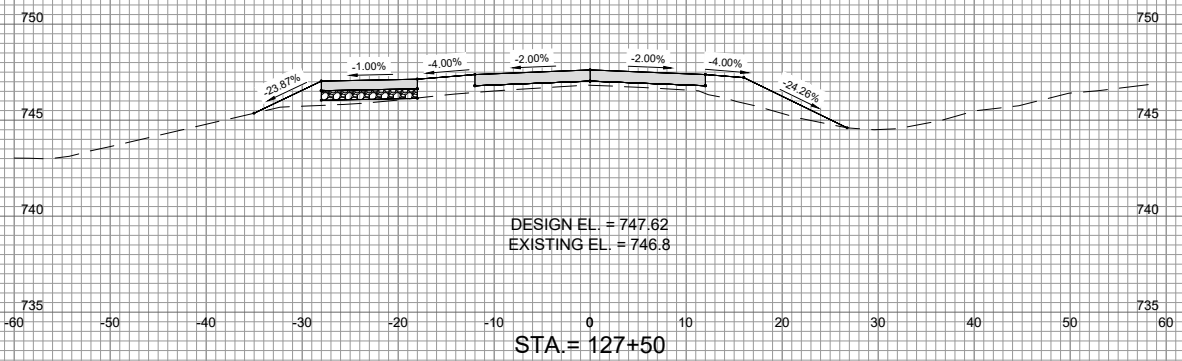
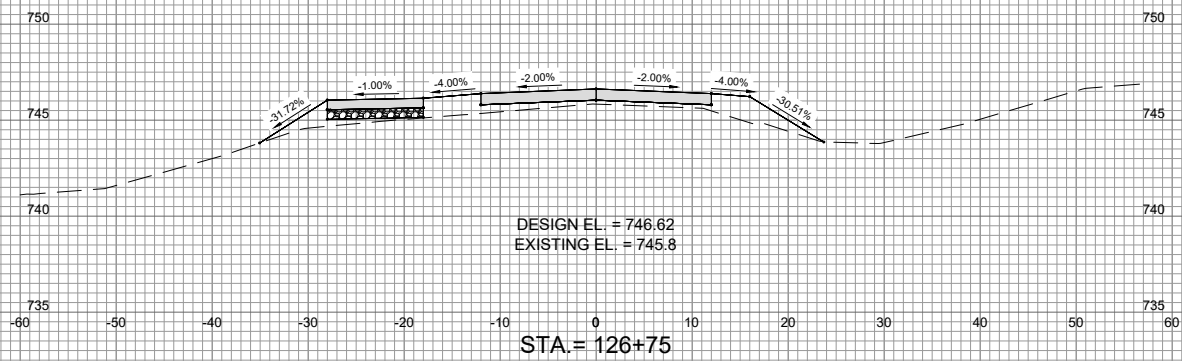


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS11



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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PLOT DATE: Friday, March 6, 2020 11:12:24 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg

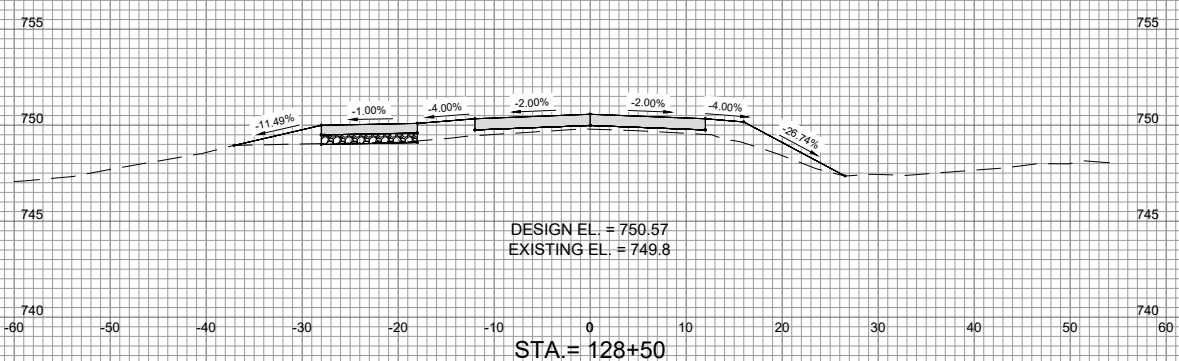
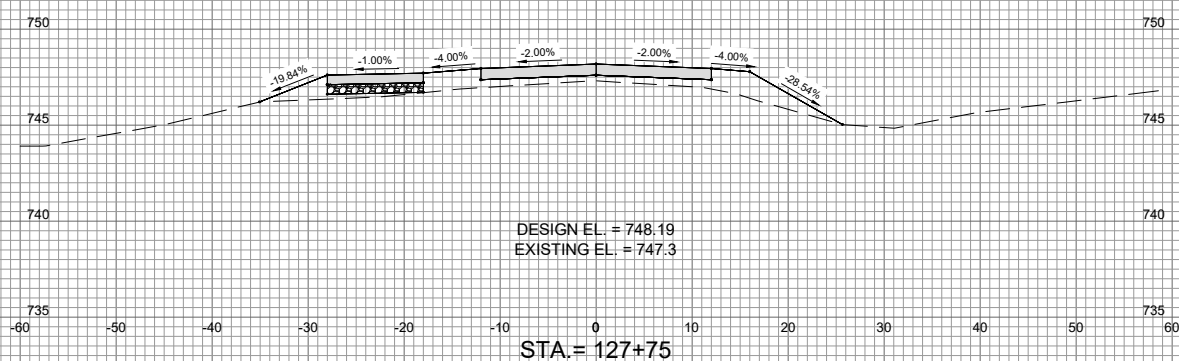
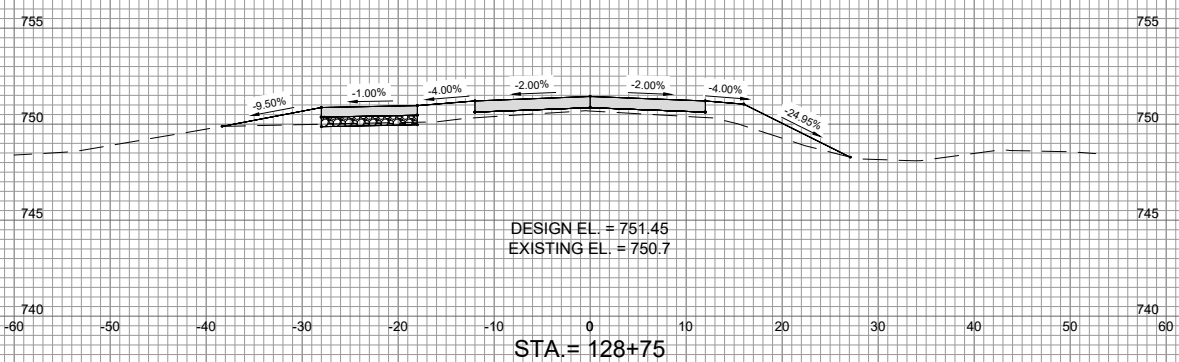
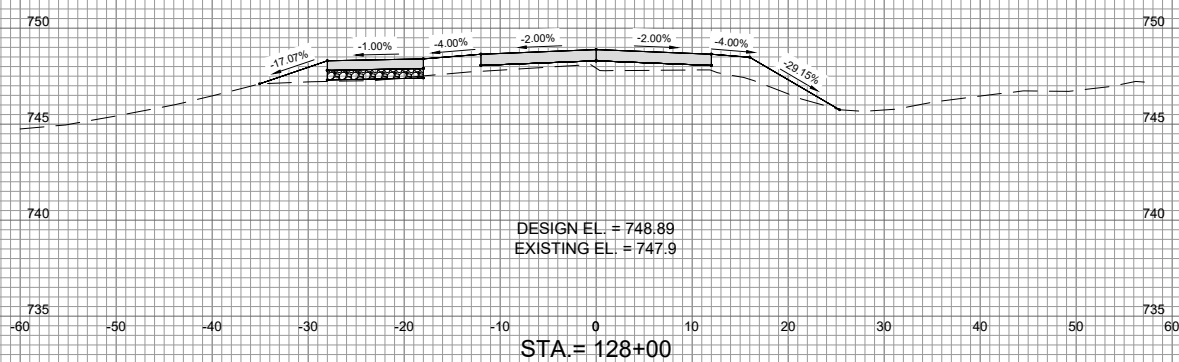
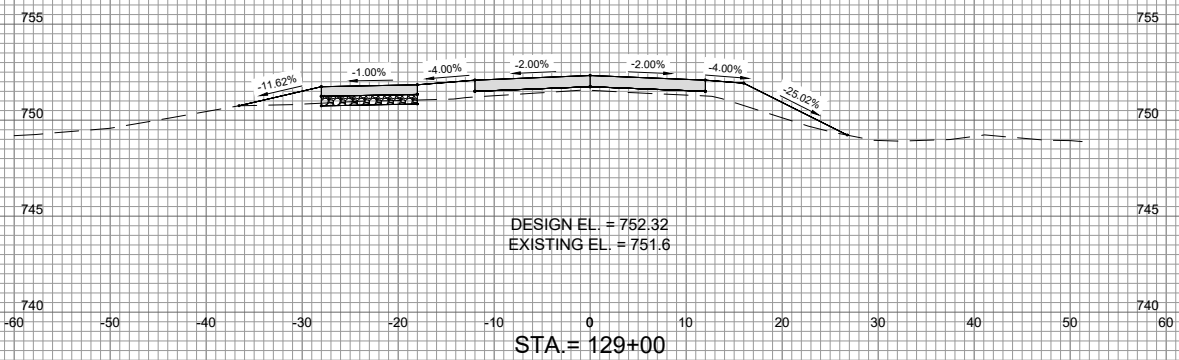
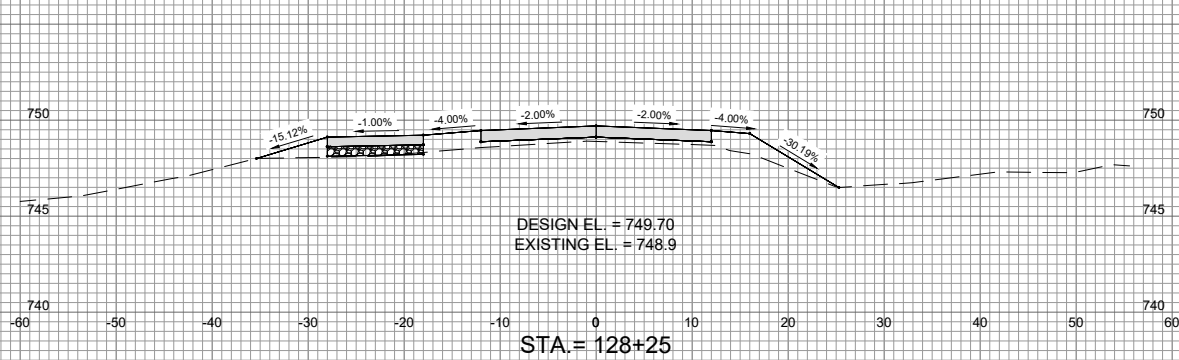


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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XS12



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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PLOT DATE: Friday, March 6, 2020 11:12:37 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

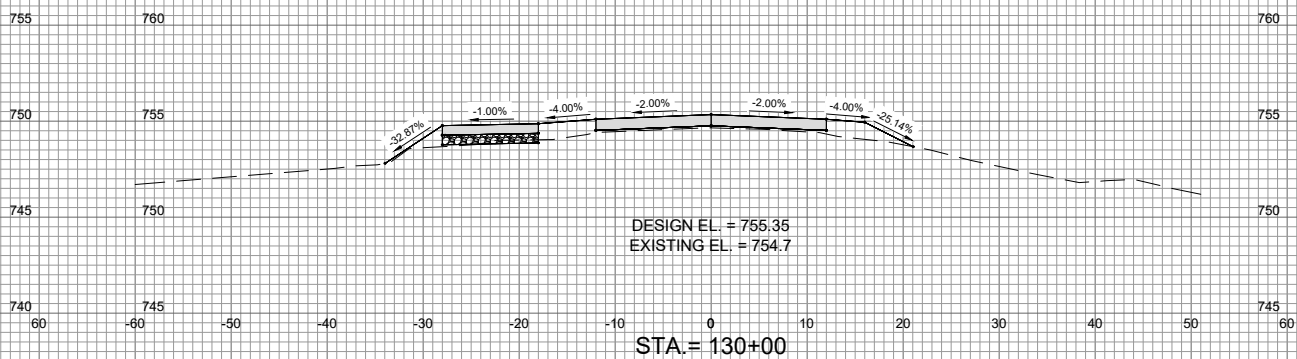
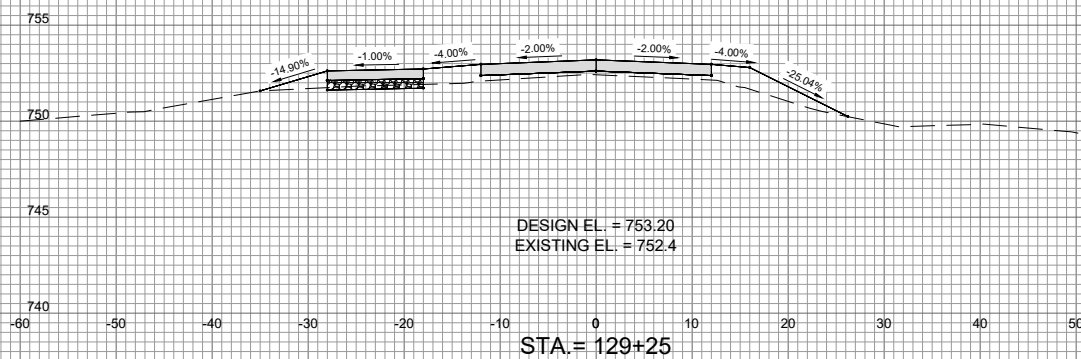
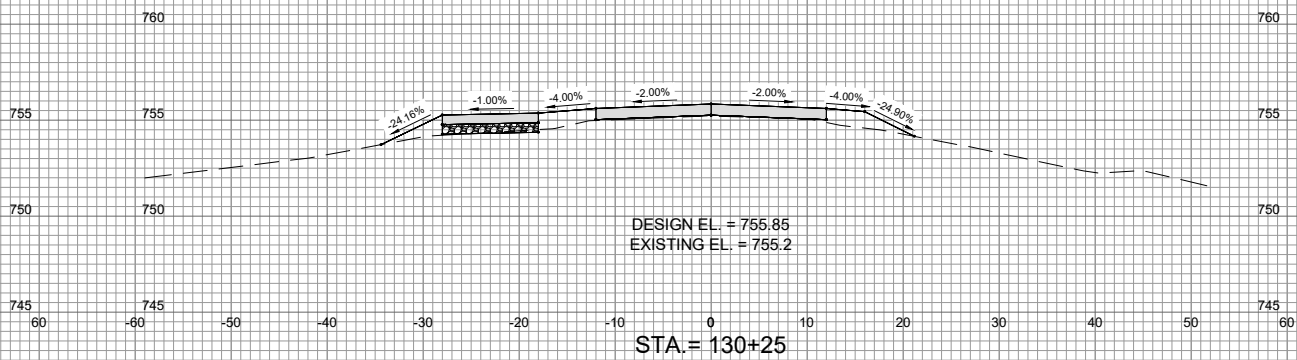
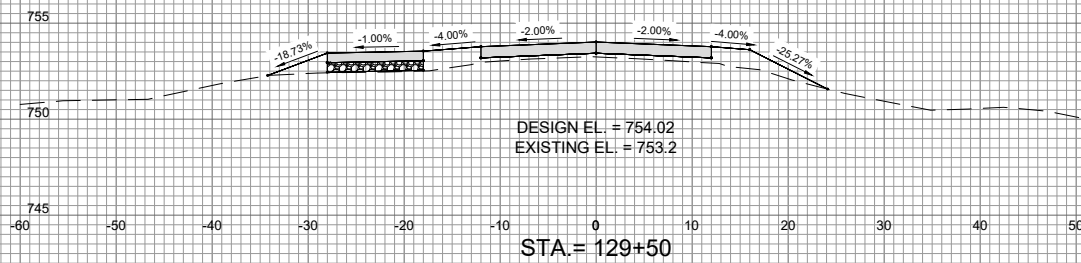
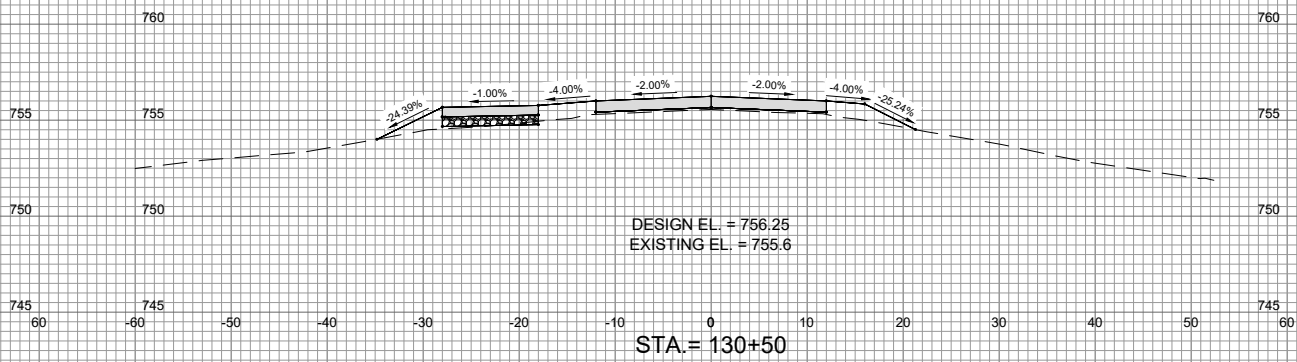
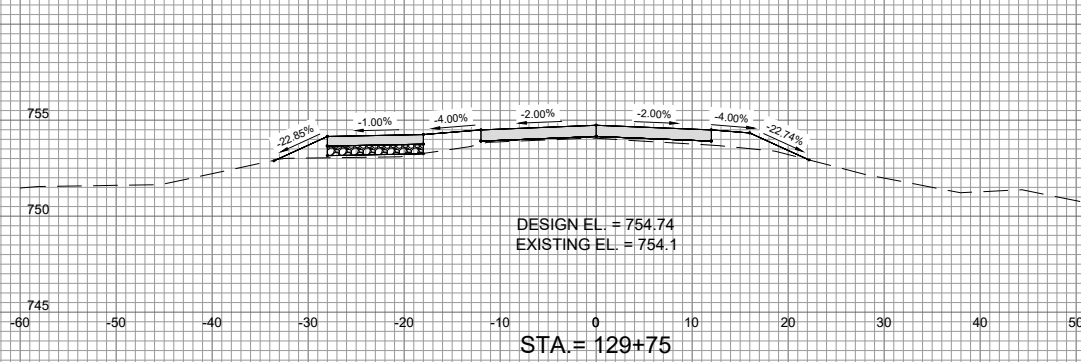


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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PLOT DATE: Friday, March 6, 2020 11:12:49 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg

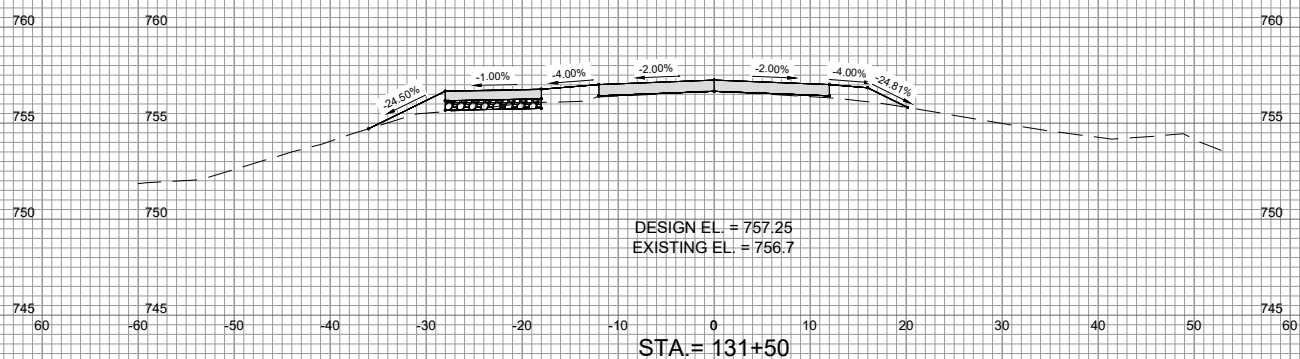
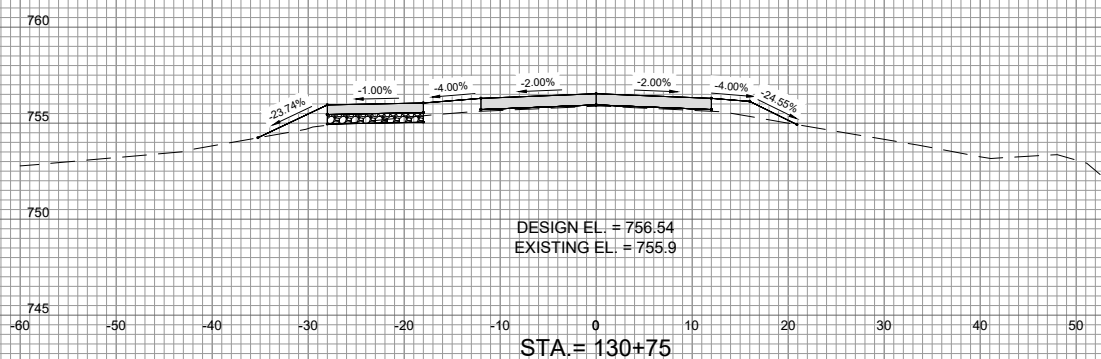
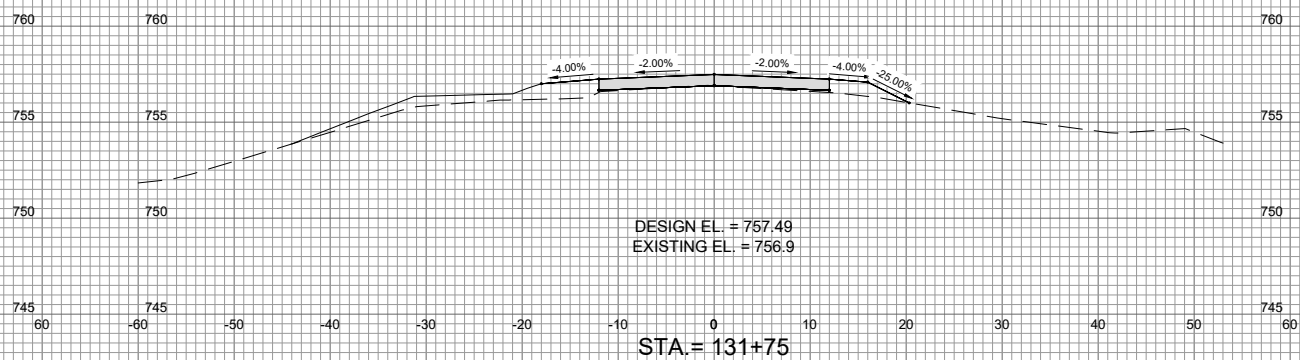
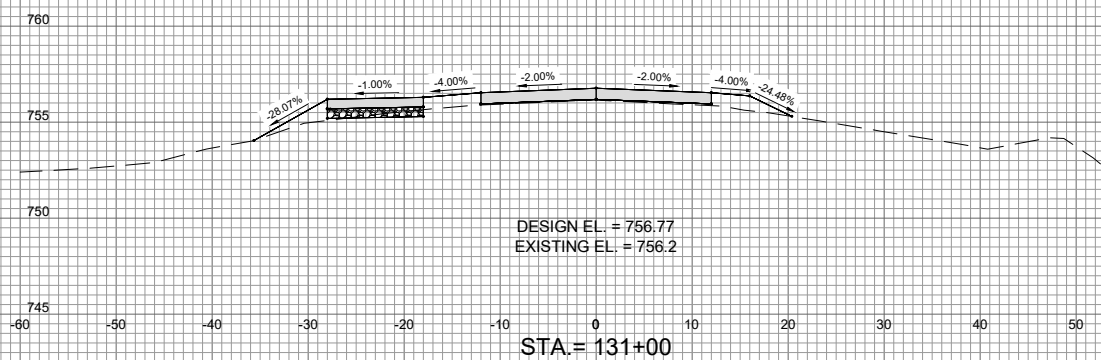
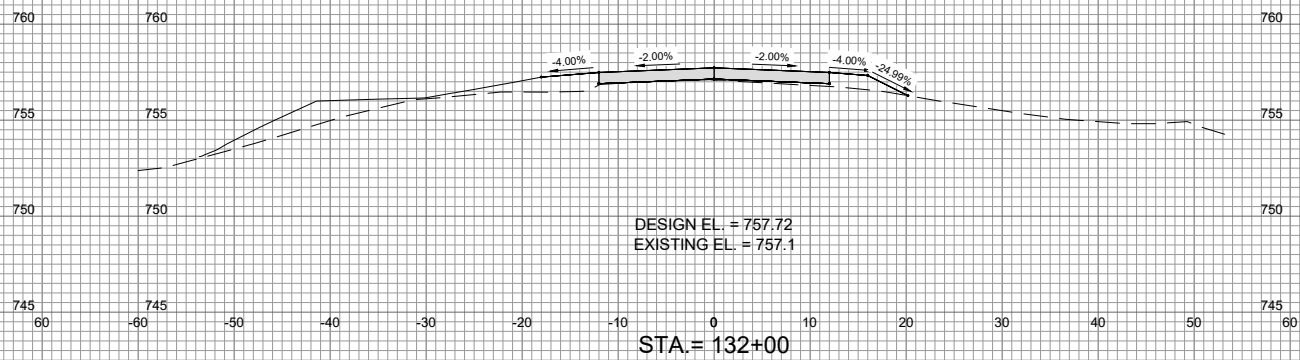
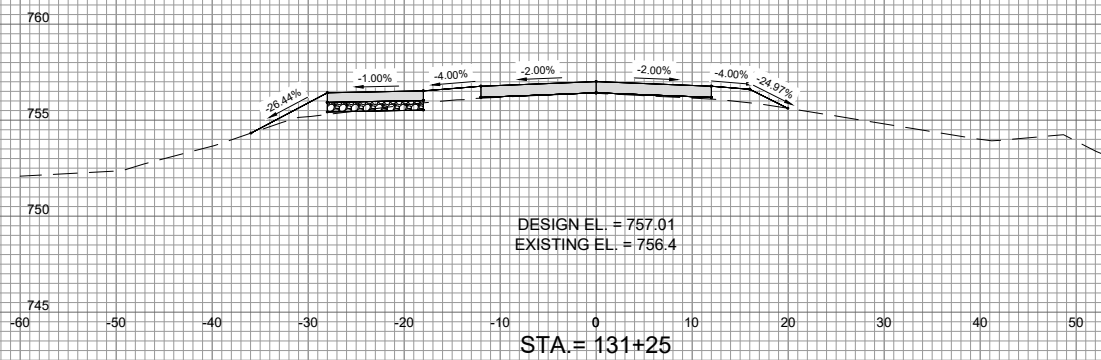


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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	CHECKED BY:	JRH	-	-	-	-
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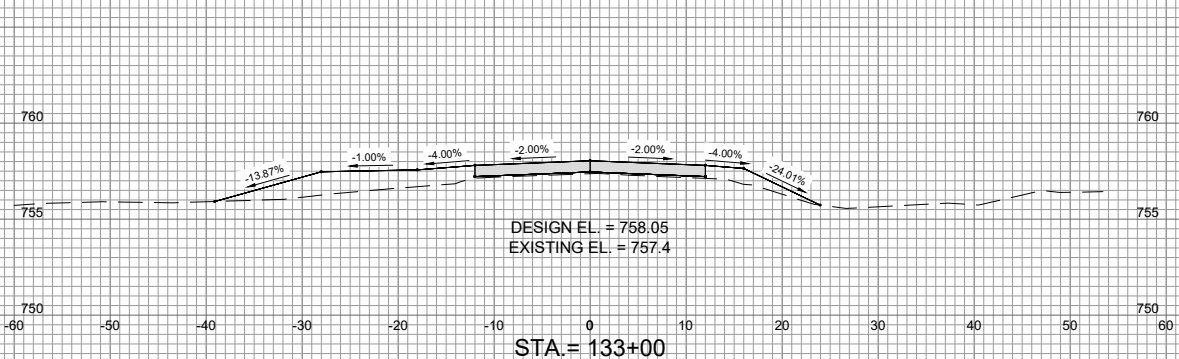
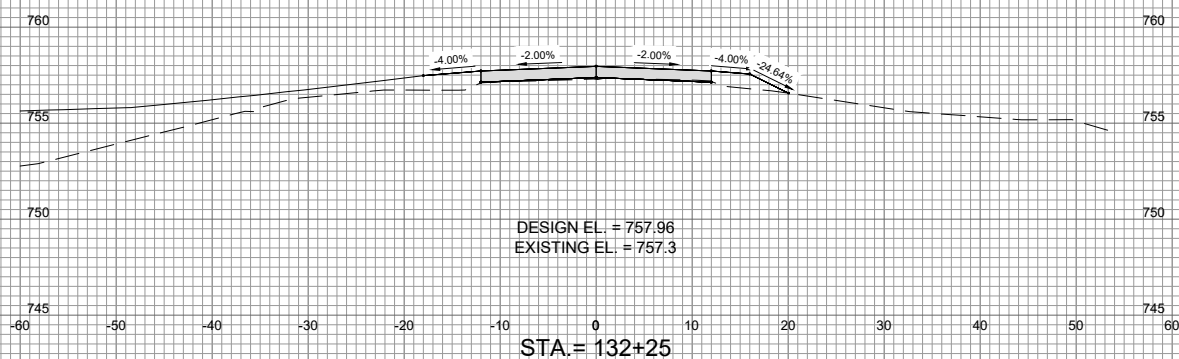
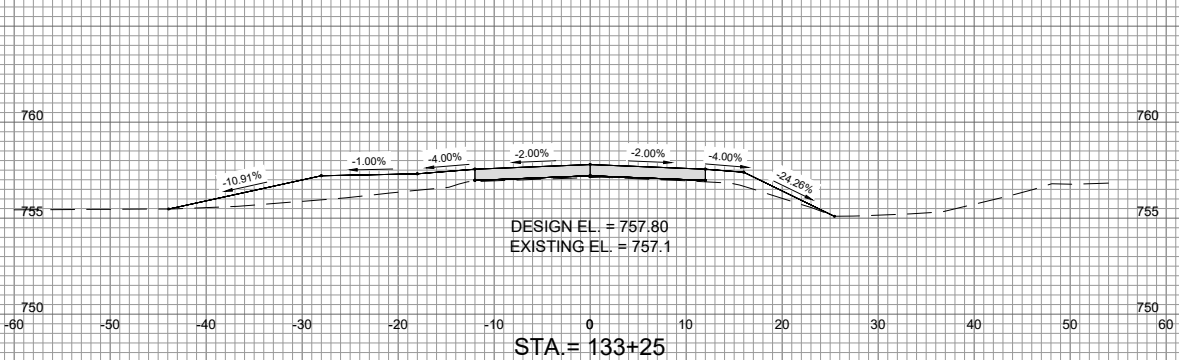
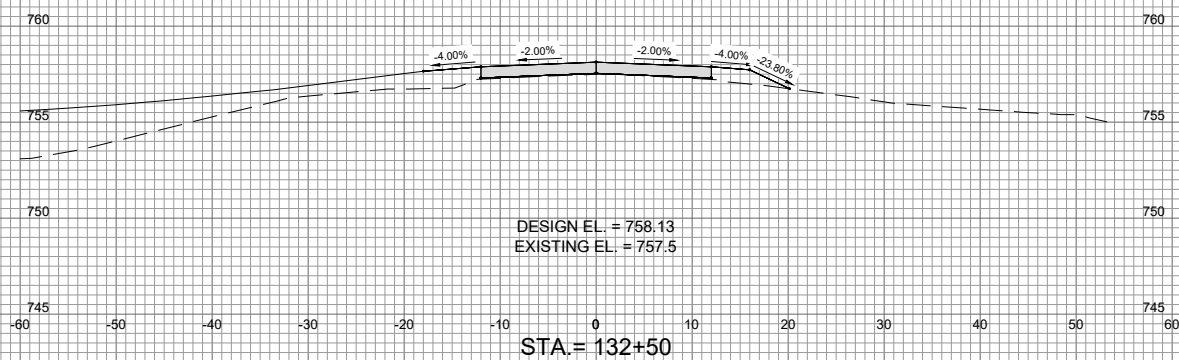
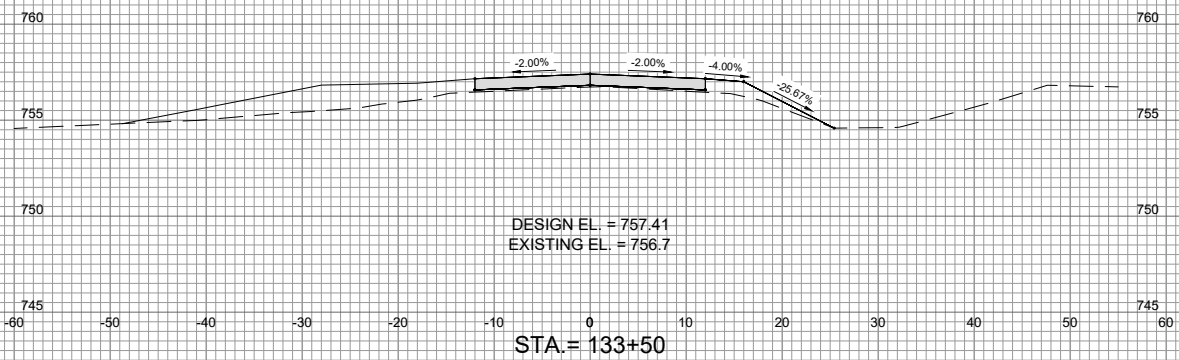
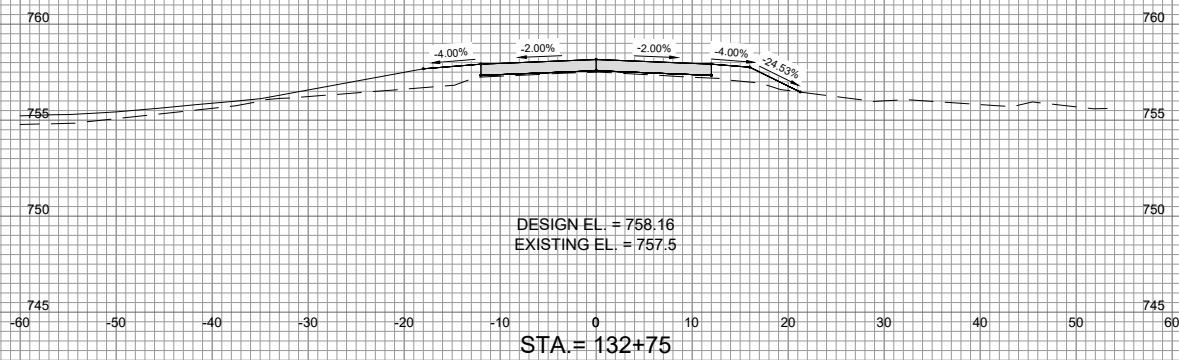


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS15



PROJECT DATE:	DRAWN BY:	NO.	DATE	REVISION	BY:
	JLS	-	-		-
	DESIGNED BY:	JLS	-		-
	CHECKED BY:	JRH	-		-
PLOT DATE: Friday, March 6, 2020 11:13:14 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg					

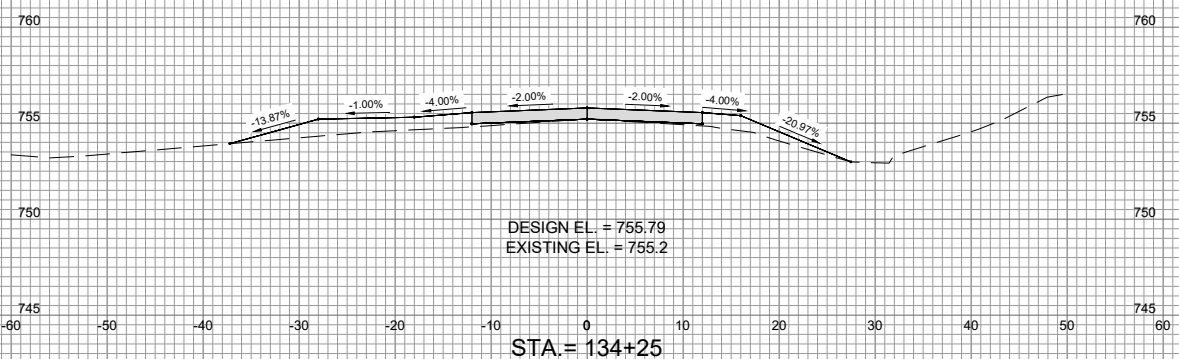
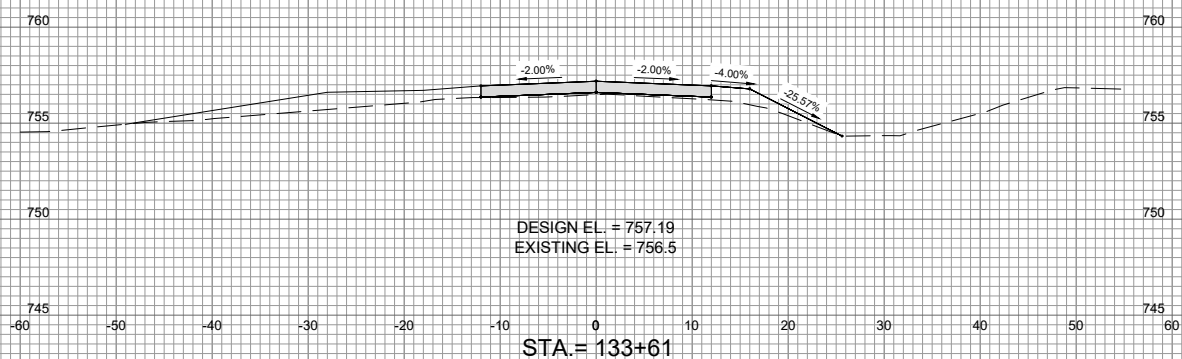
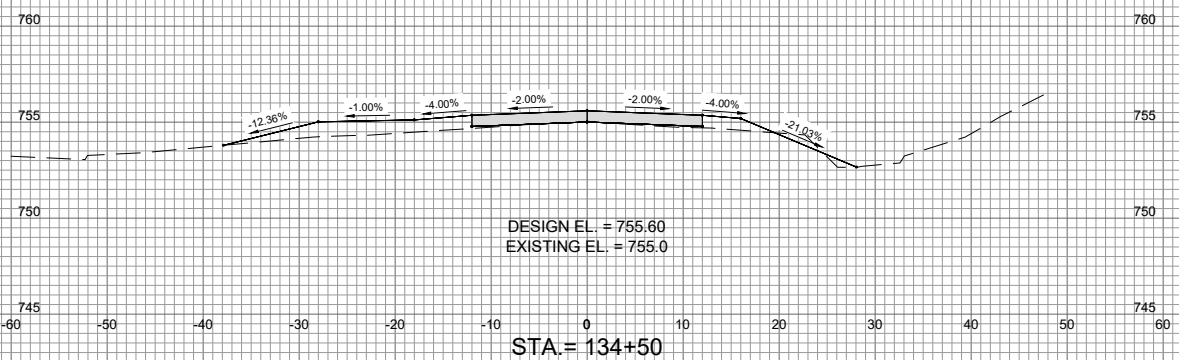
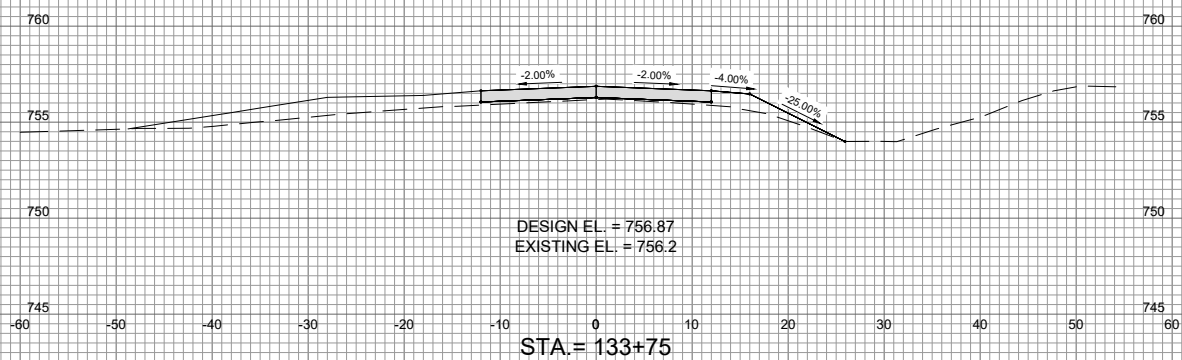
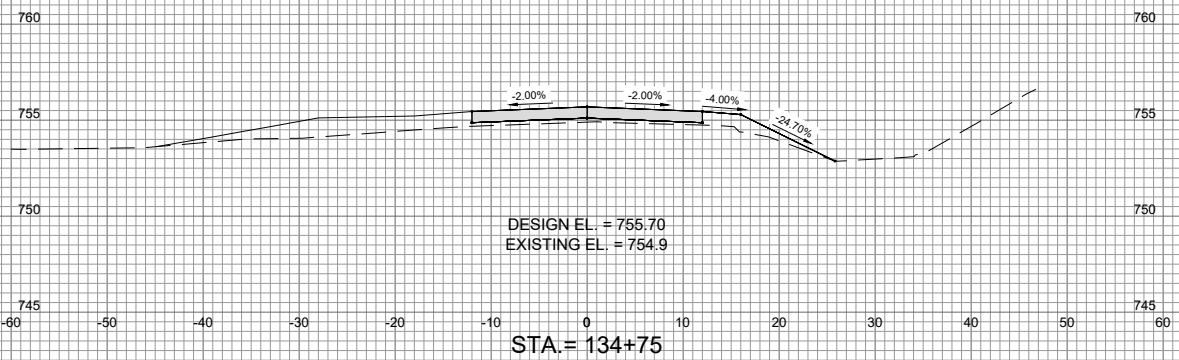
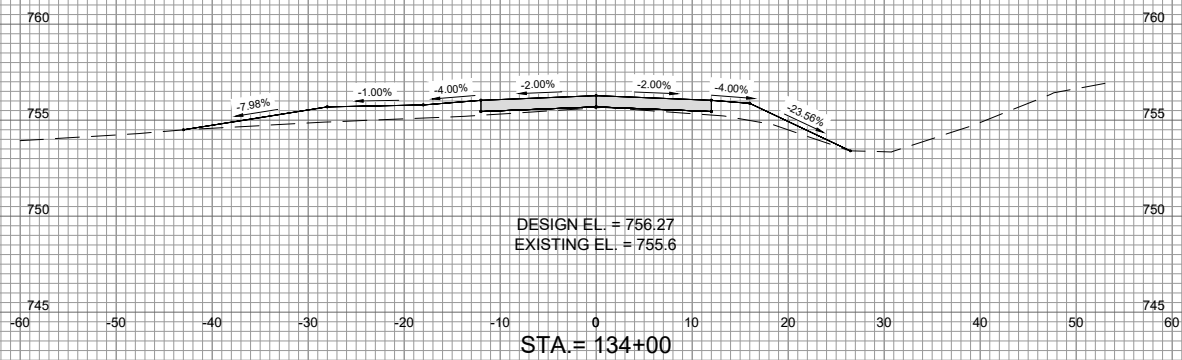


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CROSS SECTIONS - E AVENUE

PROJECT NO:
10322002
SHEET
XS16



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:13:27 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

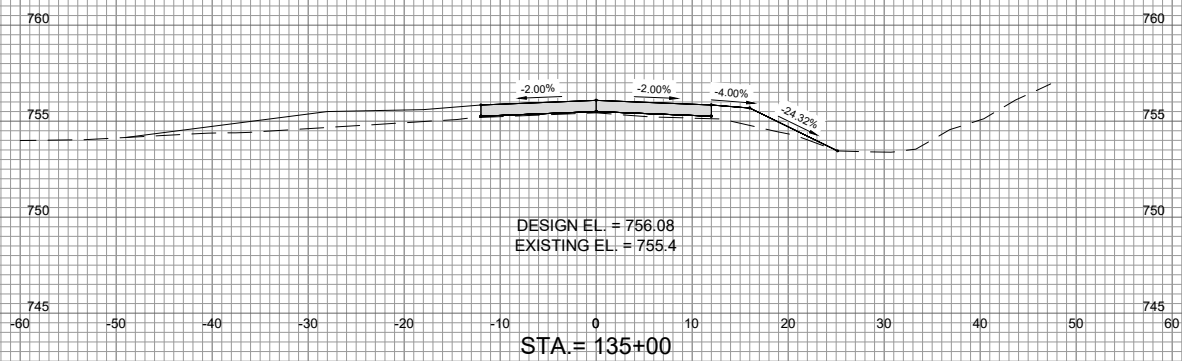
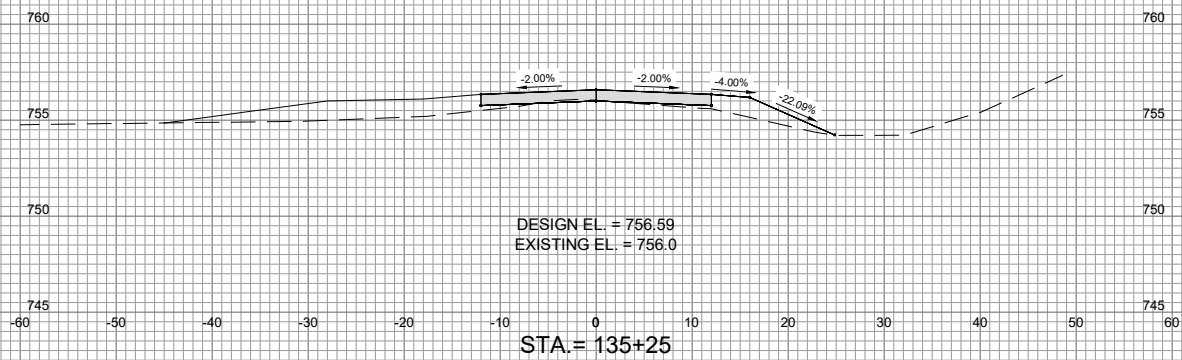


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-

PLOT DATE: Friday, March 6, 2020 11:13:39 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg

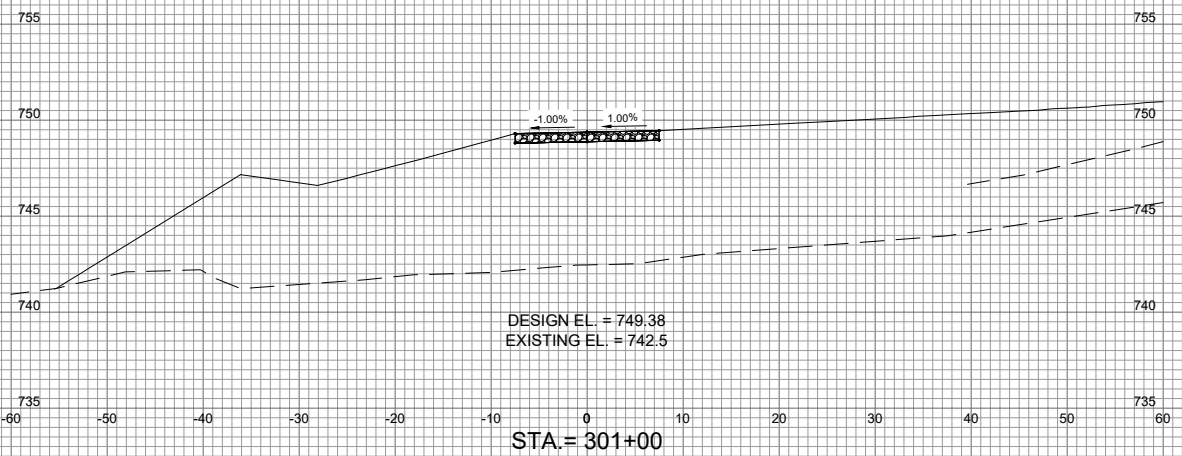
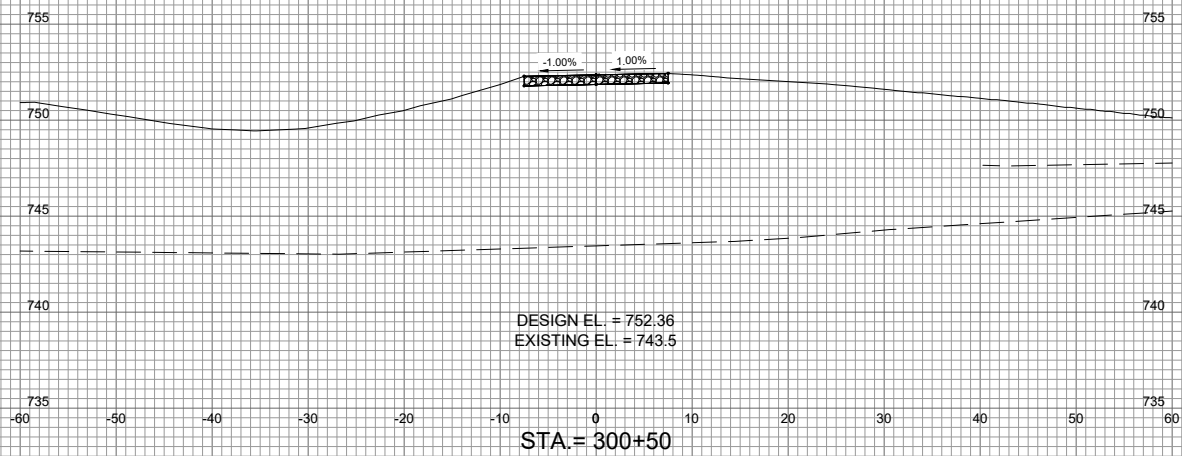
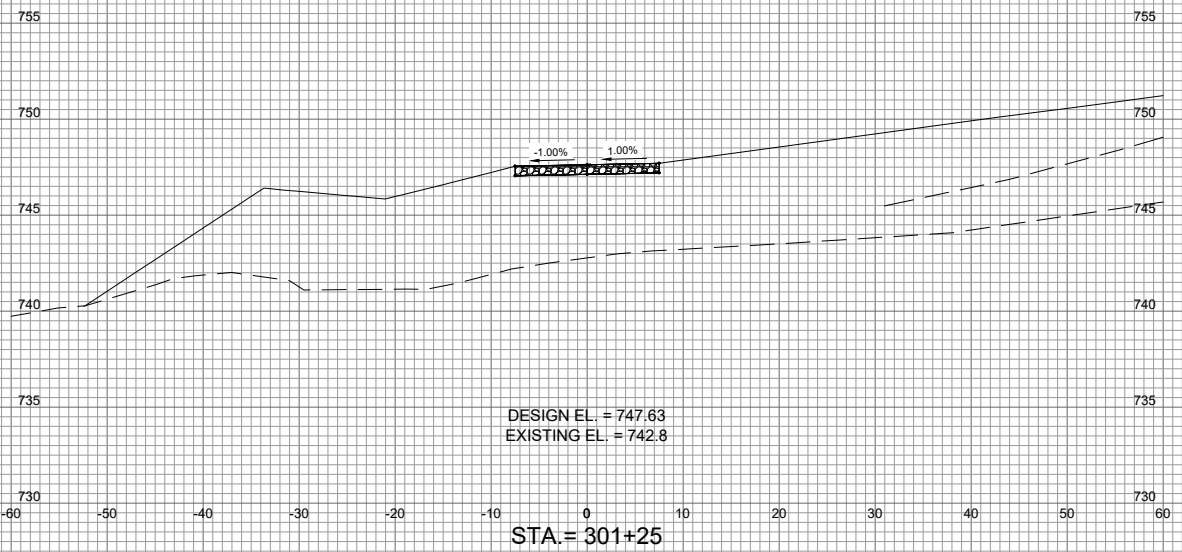
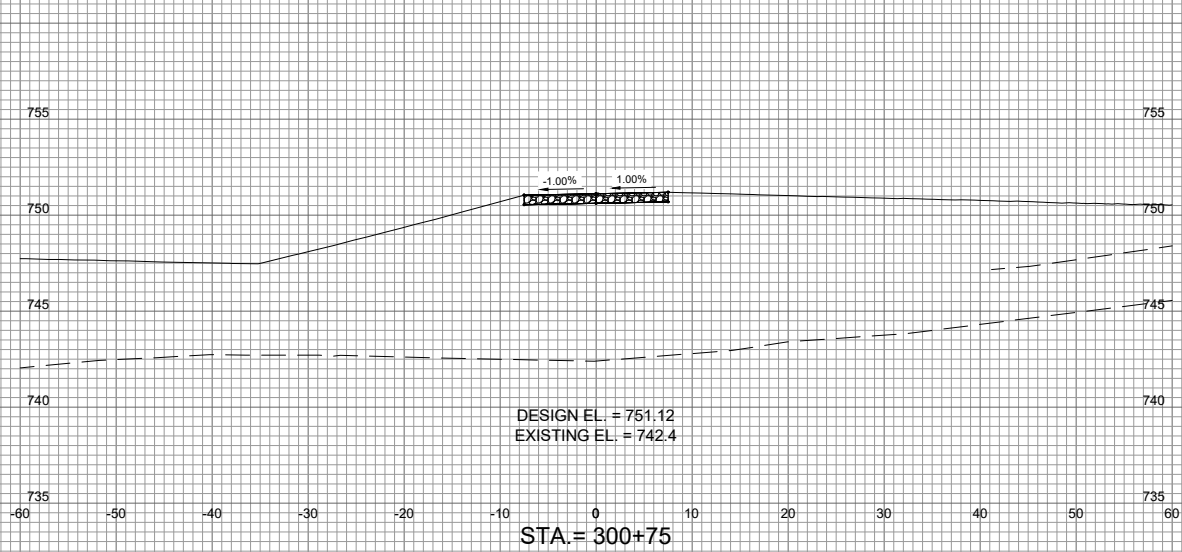


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CROSS SECTIONS - E AVENUE

PROJECT NO:
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SHEET
XS18



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:13:51 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

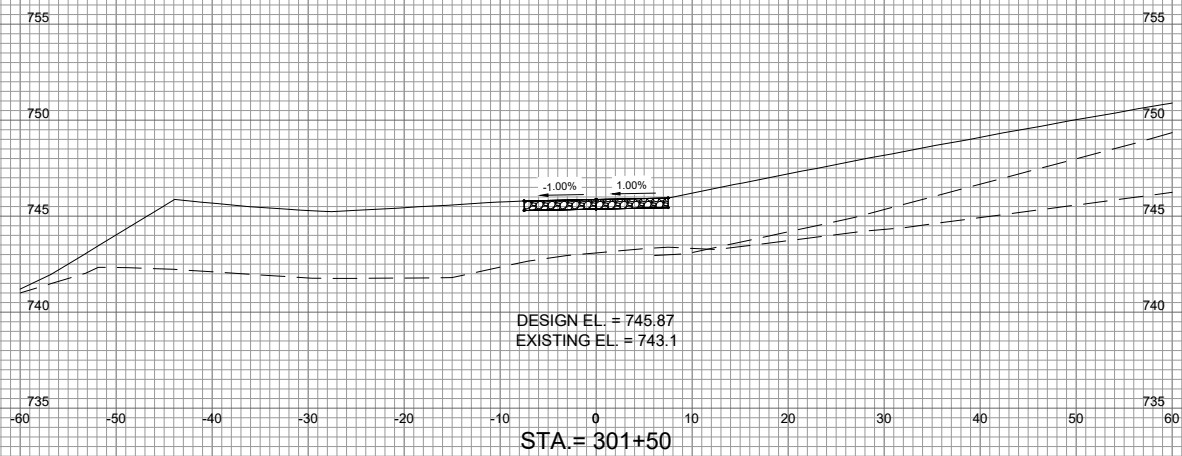
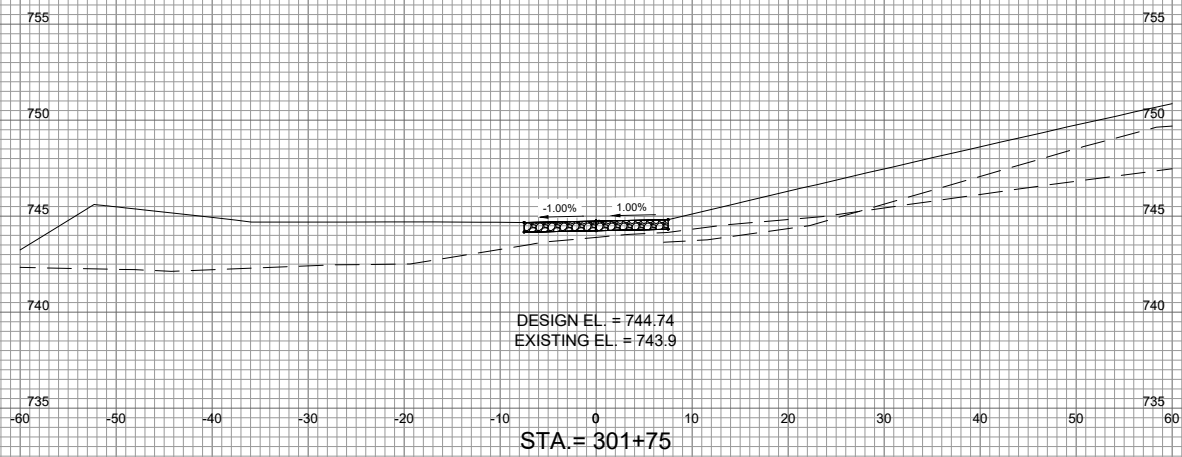


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CROSS SECTIONS - WATER TOWER ENTRANCE

PROJECT NO:
10322002
SHEET
XS19



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
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PLOT DATE: Friday, March 6, 2020 11:14:04 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

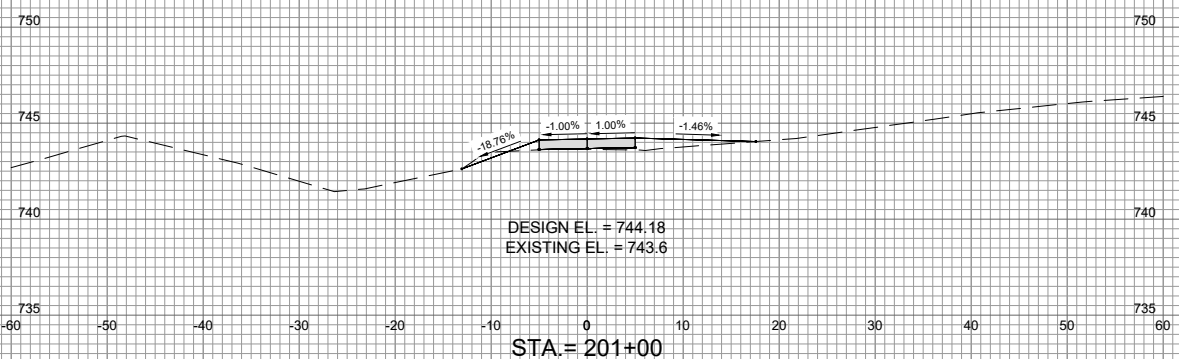
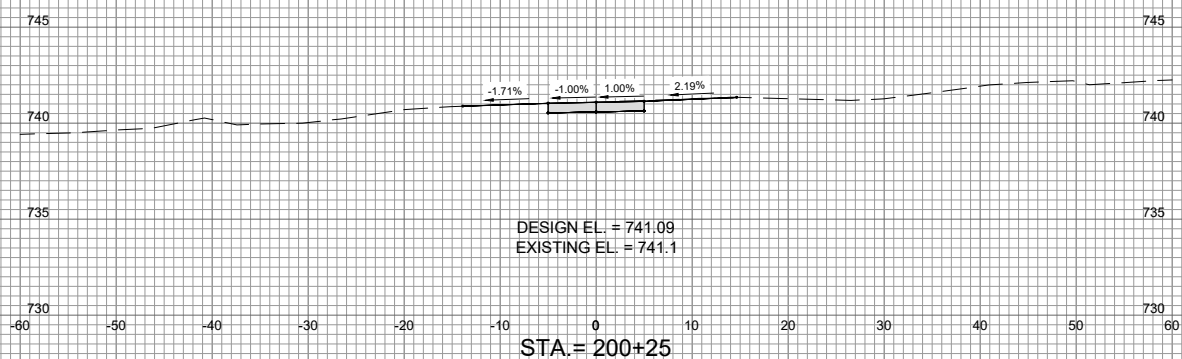
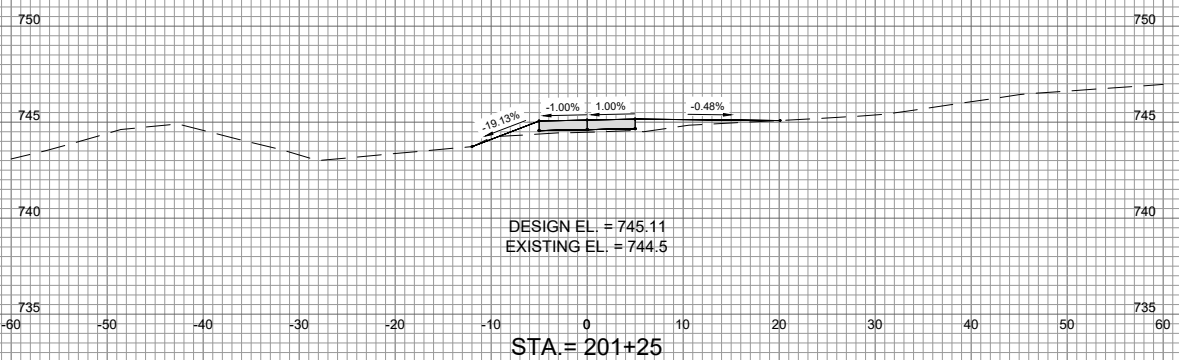
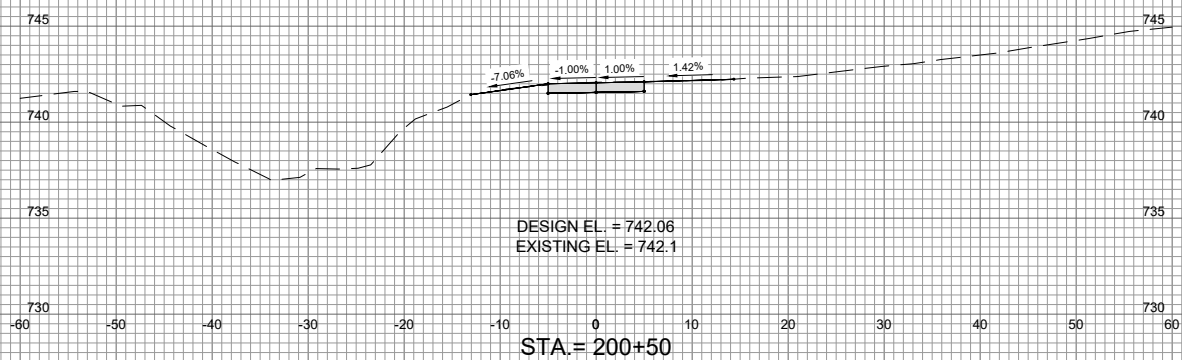
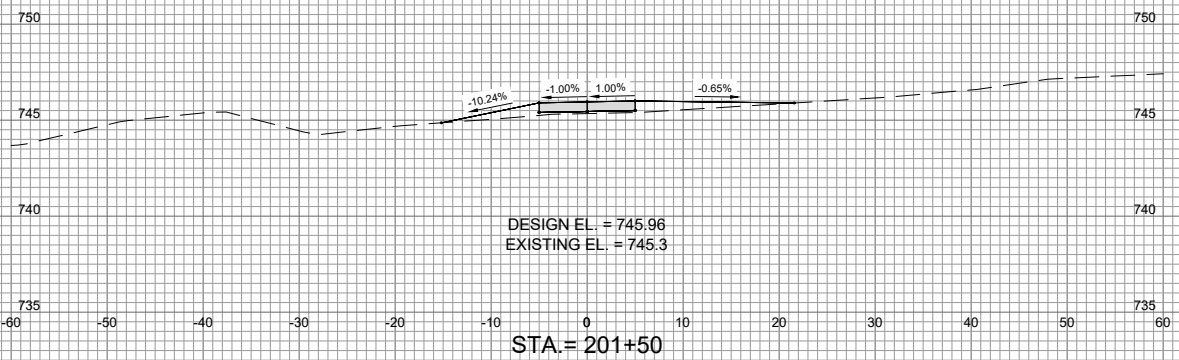
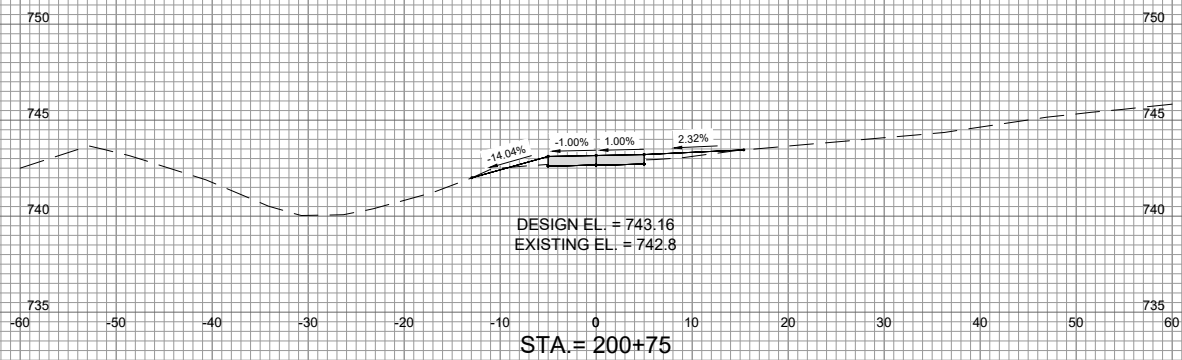


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CROSS SECTIONS - WATER TOWER ENTRANCE

PROJECT NO:
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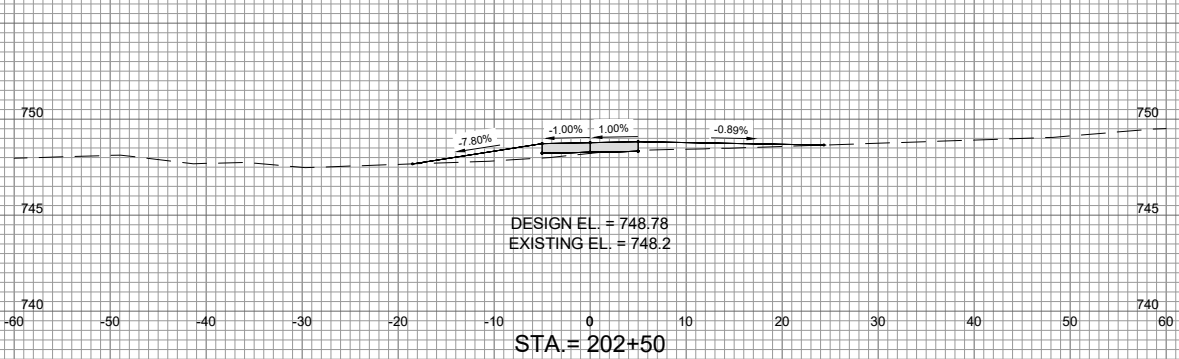
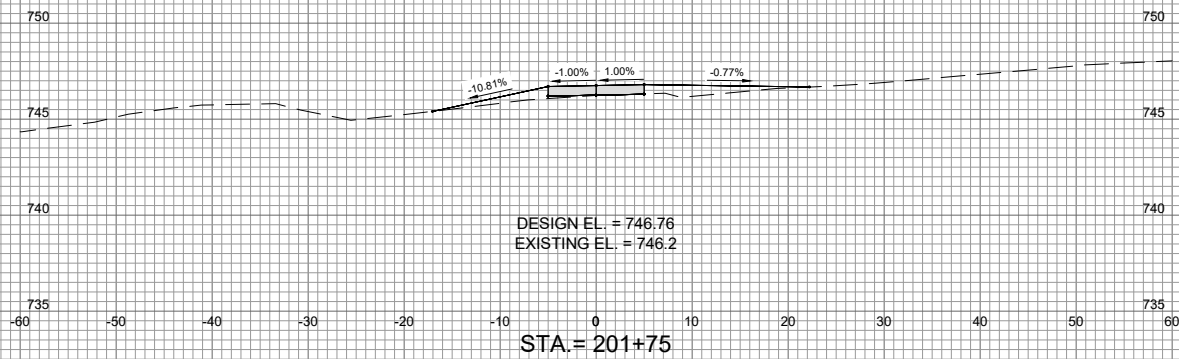
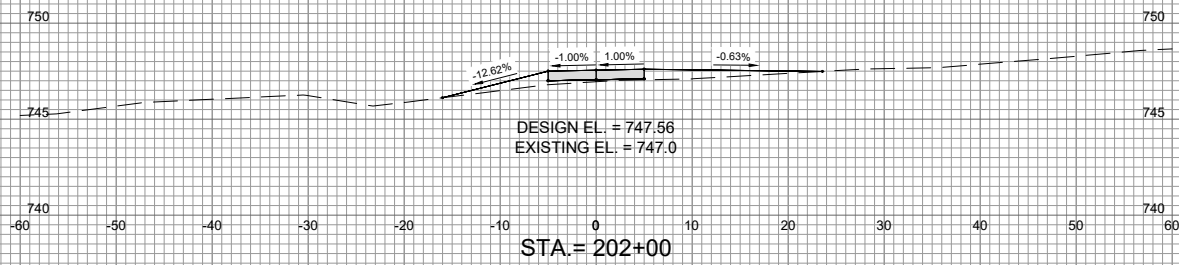
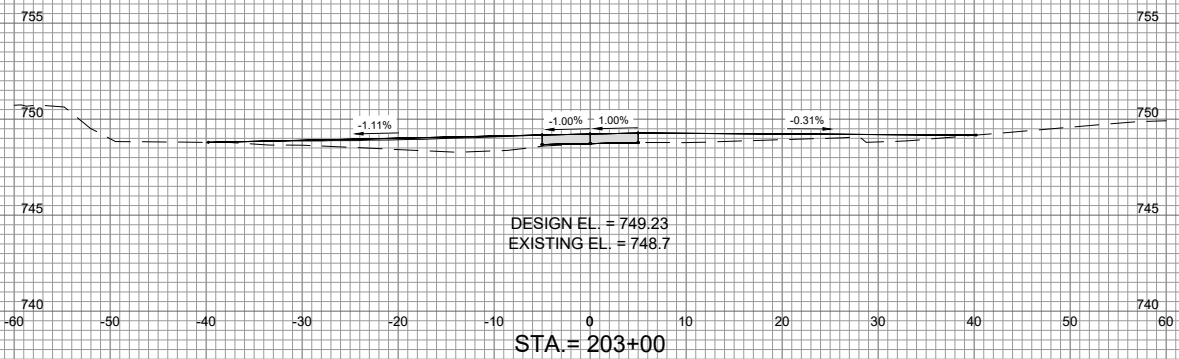
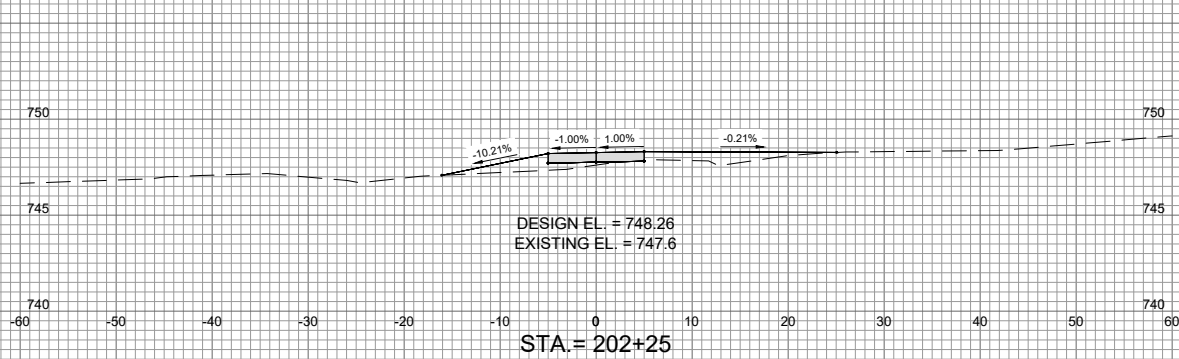


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CROSS SECTIONS - WELLNESS PARK TRAIL

PROJECT NO:
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XS21



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
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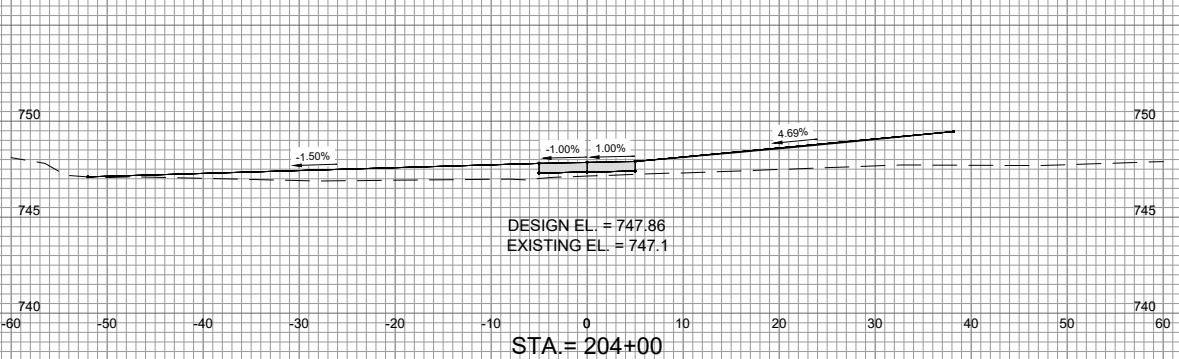
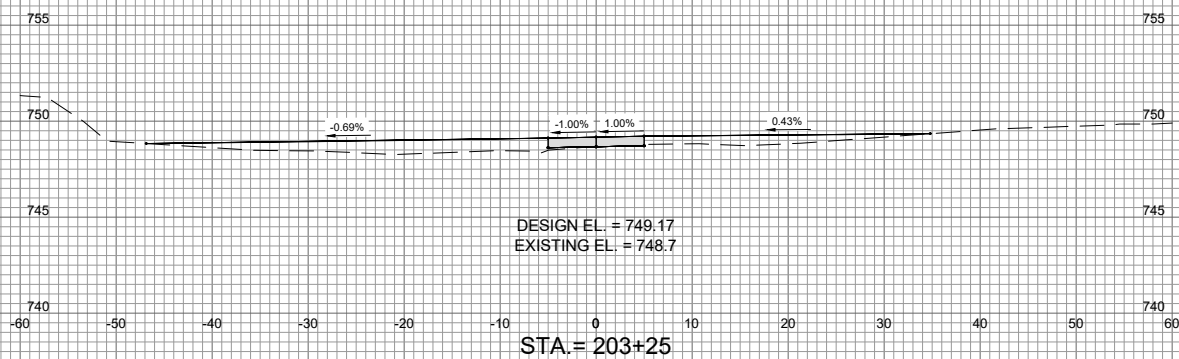
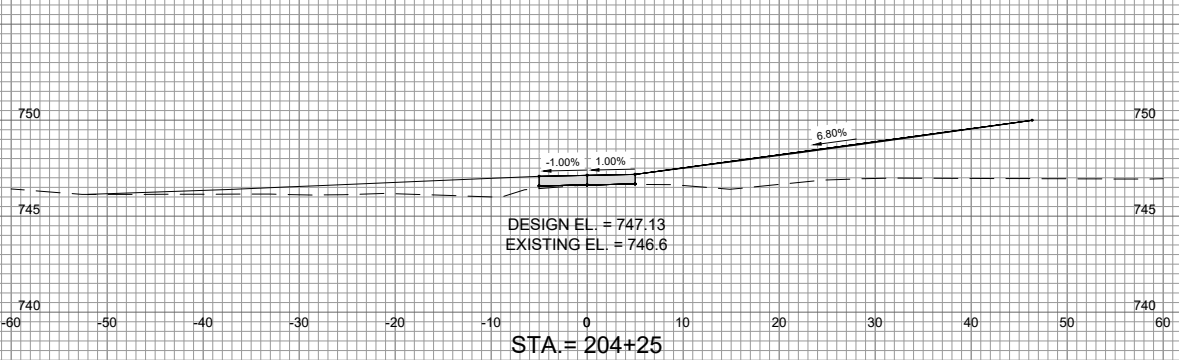
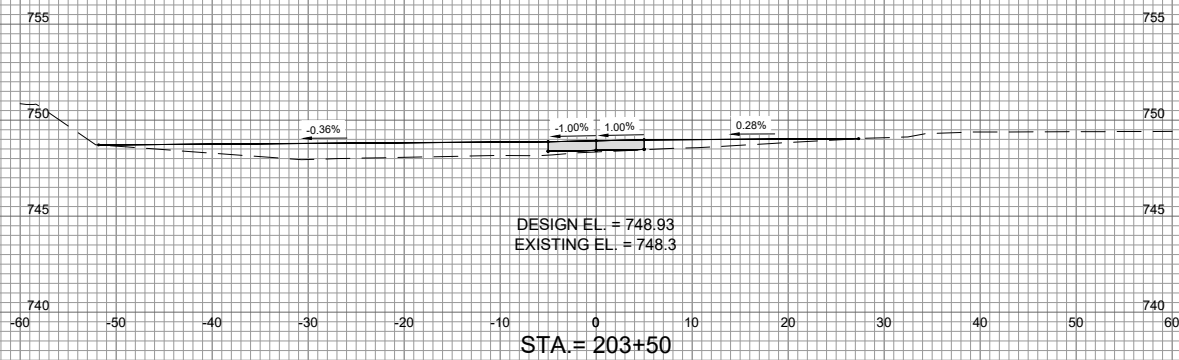
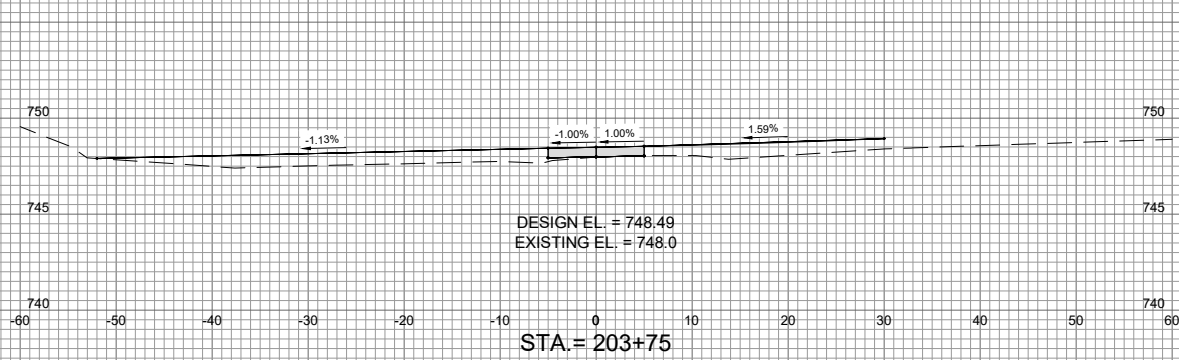


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CROSS SECTIONS - WELLNESS PARK TRAIL

PROJECT NO:
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	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:14:41 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

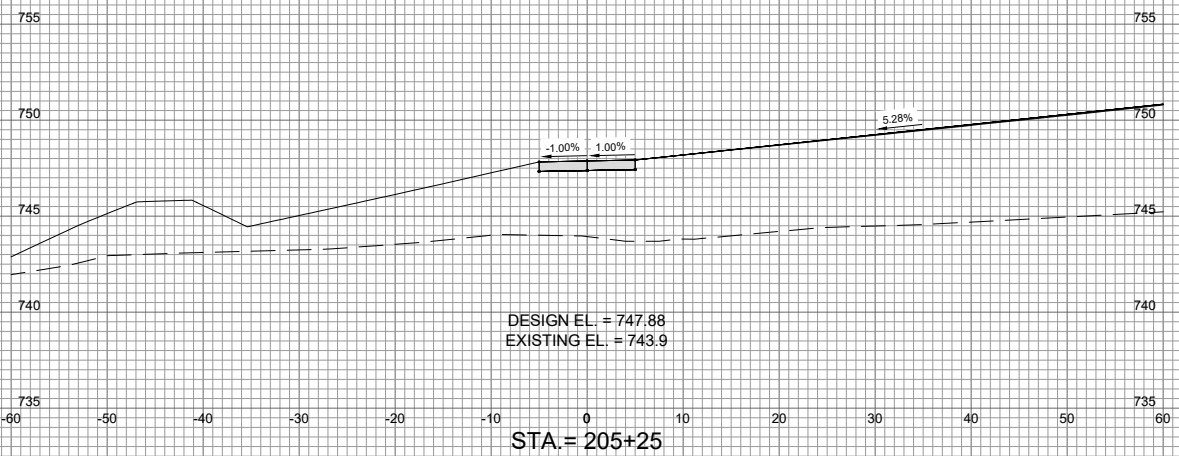
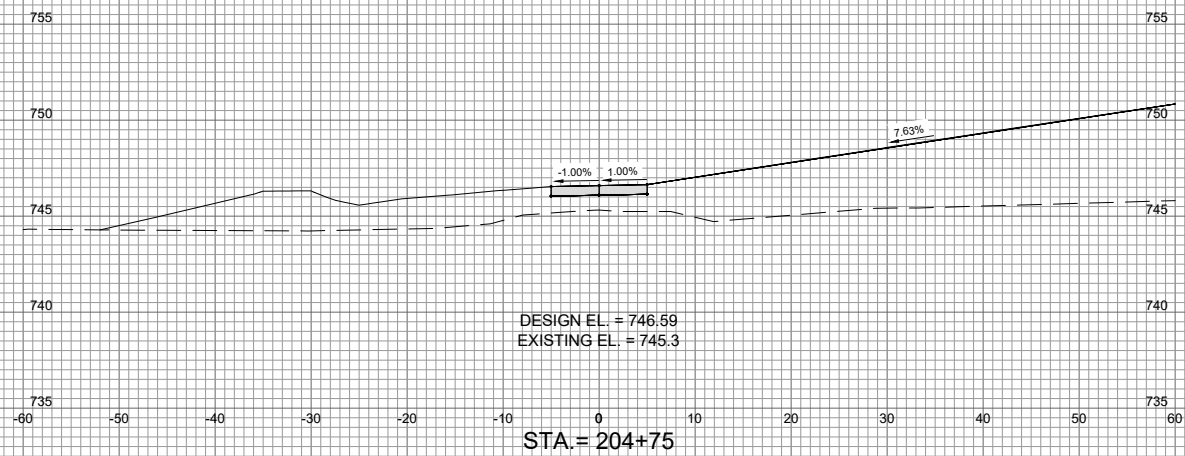
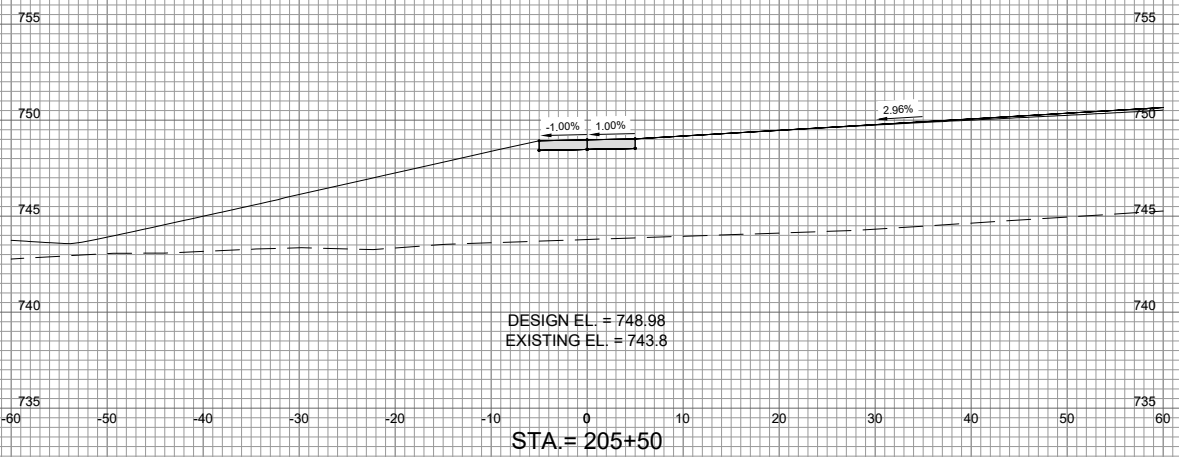
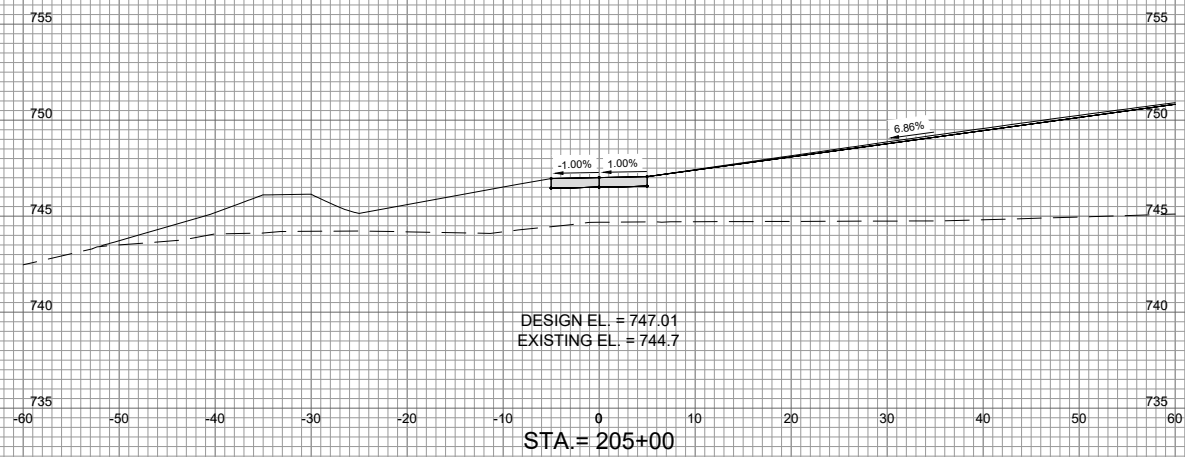


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CROSS SECTIONS - WELLNESS PARK TRAIL

PROJECT NO:
10322002
SHEET
XS23



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-
PLOT DATE: Friday, March 6, 2020 11:14:55 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg						

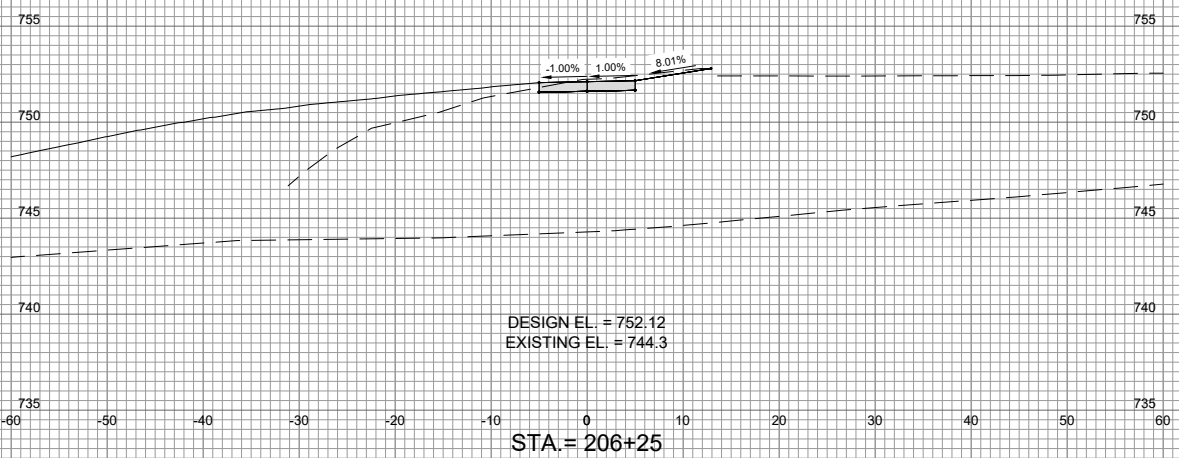
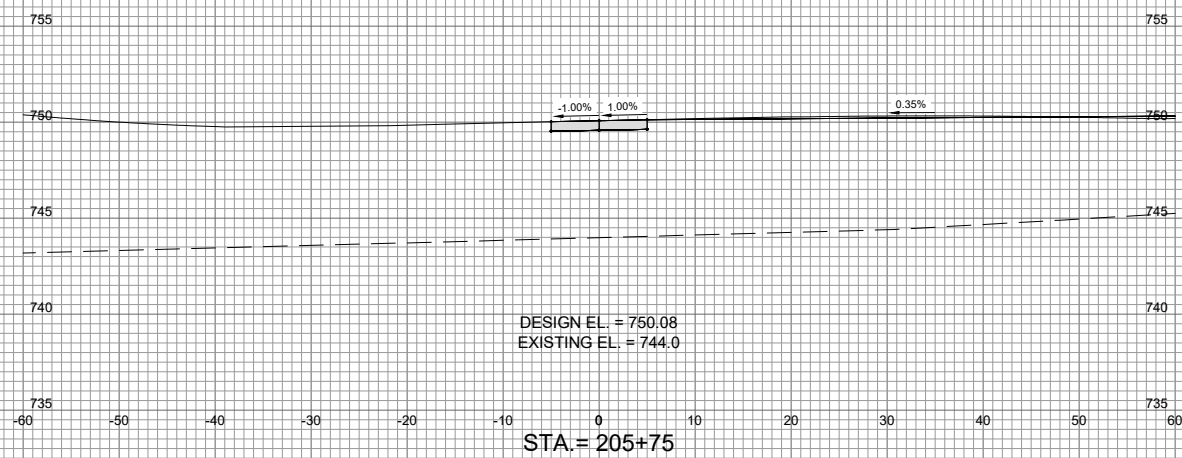
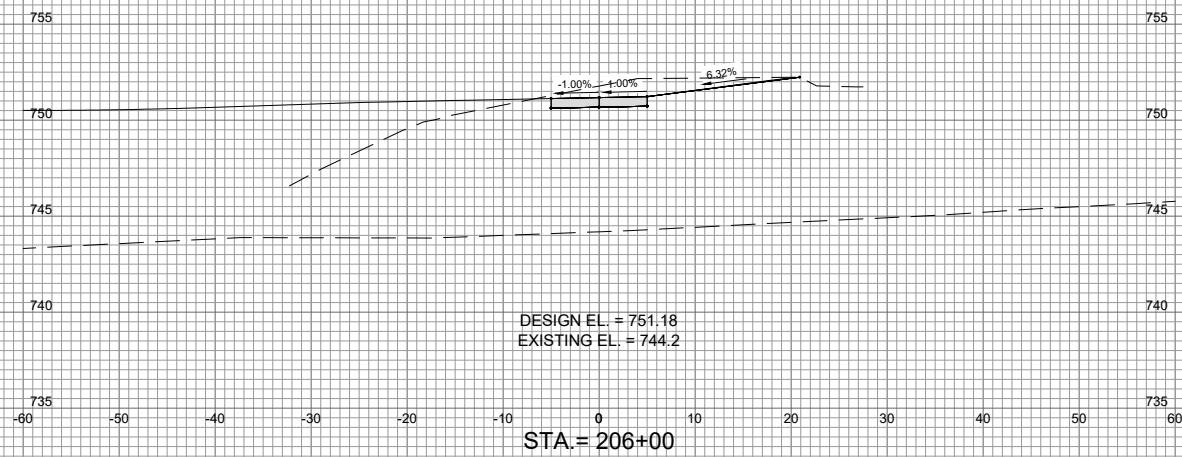


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CROSS SECTIONS - WELLNESS PARK TRAIL

PROJECT NO:
10322002
SHEET
XS24



PROJECT DATE:	DRAWN BY:	JLS	NO.	DATE	REVISION	BY:
	DESIGNED BY:	JLS	-	-	-	-
	CHECKED BY:	JRH	-	-	-	-

PLOT DATE: Friday, March 6, 2020 11:15:07 AM, P:\10300a\10320a\10322\10322002\CADD\Construction Drawings\7th Street & E Avenue\CROSS SECTIONS.dwg



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CROSS SECTIONS - WELLNESS PARK TRAIL

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