CHILLED WATER LINE FROM 18TH AND COLORADO TO NORLIN

CUB PROJECT NUMBER: CP 159699
UNIVERSITY OF COLORADO AT BOULDER

GENERAL NOTES:
1. THIS DOCUMENT SHOWS PROJECT AVAILABLE DATA. THE CONTRACTOR SHALL MEASURE THE PROJECT FOR THE PURPOSES OF THIS DOCUMENT AND SHALL NOTIFY THE UNIVERSITY OF COLORADO AT BOULDER OF ANY ADDITIONAL DATA OR INFORMATION THAT MAY BE RELEVANT TO THE PROJECT.
2. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE UNIVERSITY OF COLORADO AT BOULDER AND AMERICAN NATIONAL STANDARDS IN ALL ASPECTS OF THE PROJECT. THE CONTRACTOR SHALL NOTIFY THE UNIVERSITY OF COLORADO AT BOULDER OF ANY ADDITIONAL DATA OR INFORMATION THAT MAY BE RELEVANT TO THE PROJECT.
3. CONTRACTOR SHALL NOTIFY THE UNIVERSITY OF COLORADO AT BOULDER OF ANY ADDITIONAL DATA OR INFORMATION THAT MAY BE RELEVANT TO THE PROJECT.

BENCHMARKS:

BASE OF ELEVATIONS AND COORDINATES:

CONTRACTOR'S STAFF ARE RESPONSIBLE FOR THE CORRECTNESS OF THE ABOVE DATA. THE UNIVERSITY OF COLORADO AT BOULDER DISCLAIMS ANY RESPONSIBILITY FOR THE ACCURACY OF THE ABOVE DATA.

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GENERAL NOTES

1. GENERAL:

2. REFERENCED WORK: The general conditions of the contract shall apply to this project, as applicable, and any additional requirements shall be included in the drawings and specifications. All temporary bracing and/or support that may be required as the result of the contractor's construction methods shall be provided and maintained by the contractor.

3. TEMPORARY CONDITIONS:

4. CONSTRUCTION:

5. QUALITY CONTROL:

6. STRUCTURAL CONCRETE:

7. SPECIAL INSPECTIONS:

8. PARTIALS:

9. COMPLETE JOINT PENETRATION (CJP) CONTROL JOINT (CJ):

10. SURFACE AND INTEGRITY:

11. CONCRETE CAPITAL:

12. CONCRETE SPECIAL INSPECTIONS:

13. CEMENT:

14. PIGMENT:

15. SPANS:

16. TEMPORARY BRACING:

17. SUSTAINED LOADS:

18. PERMANENT LOADS:

19. VARIANCE:

20. DRAWINGS:

21. ACCESSORIES:

22. MATERIALS:

23. GENERAL:

24. ACCEPTANCE:

25. COMPLETION:

26. GENERAL:

27. ACCEPTANCE:

28. COMPLETION:

29. GENERAL:

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215. GENERAL:

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217. COMPLETION:

218. GENERAL:

219. ACCEPTANCE:

220. COMPLETION:

221. STRUCTURAL DRAWING LIST

222. STRUCTURAL CONCRETE TESTING

223. CONCRETE NOTES

224. REINFORCING MATERIALS

225. REINFORCING CONCRETE
LAP SPLICES

NOTES:
1. ADJUSTMENTS TO GIVEN LAP LENGTHS:
   1. LAP SPLICE NOTES:
   2. CONCRETE IS CAST BELOW THE BAR
   3. 'TOP' BARS ARE HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12 IN. OF FRESH
   4. GENERAL NOTES:
   5. LAP LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF LAP
   6. SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPlicING DIFFERENT SIZED BARS
   7. 'LTS' = TENSION LAP SPLICE LENGTH, 'LDH' = HOOK DEVELOPMENT LENGTH
   8. 'LCE' = COMPRESSION EMBEDMENT LENGTH,
   9. ALL SPLICES SHALL BE Wired IN CONTACT AND STACKED VERTICALLY
   10. ALL SPLICES ARE 'LTS' UNLESS NOTED OTHERWISE
   11. MANUFACTURER'S REPRESENTATIVE TO PROVIDE CONTRACTOR WITH ON SITE
   12. STRIKE SEALANT FLUSH WITH ADJACENT CONCRETE SURFACE
   13. CLEAN AND PRIME JOINT PER SEALANT MANUFACTURE'S RECOMMENDATIONS.
   14. MANUFACTURES WRITTEN RECOMMENDATIONS
   15. ROUT SURFACE CRACK AS RENEWAL TO MATCH ADJACENT TUNNEL WALLS
   16. MATCH ORIGINAL CONDITION AND LOCATION FOR THE STRUCTURAL REPAIRS.

   - CONCRETE REINFORCING LAP LENGTH SCHEDULE (INCHES)
   - SPLICE AND DEVELOPMENT
   - #6
   - #5
   - #4

   - MANUFACTURER'S REPRESENTATIVE TO PROVIDE CONTRACTOR WITH ON SITE
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   - MATCH ORIGINAL CONDITION AND LOCATION FOR THE STRUCTURAL REPAIRS.
AFTER EXCAVATION IS COMPLETE, CONTACT ENGINEER TO CONFIRM THE LOCATION OF THE TUNNEL LID REPAIRS. FOR BIDDING PURPOSES, ASSUME THE CRACK IS 25 FEET IN LENGTH WITH AN AVERAGE WIDTH OF 1 INCH AT THE INTERIOR SURFACE.

NOTES:
1. SAWCUT A 1/4" DEEP EDGE ON BOTH SIDES OF THE CRACK TO DEFINE THE PATCH LIMITS.
2. REMOVE ALL EXPOSED CONCRETE, DIRT, OIL, AND OTHER SURFACE CONTAMINANTS SURROUNDING THE CRACKED AREA.
3. APPLY #6 @ 12"OC SPACING)

4) DAMPEN THE SURFACE OF THE REPAIR AREA WITH WATER TO ACHIEVE A SATURATED SURFACE DRY (SSD) CONDITION.
5) APPLY A SCRUB COAT OF THE REPAIR MATERIAL INTO THE VOIDS AND PORES OF THE SURFACE DRY (SSD) CONDITION.
6) PLACE SIKA TUBING MANUFACTURED BY Sika, GEL PATCH MANUFACTURED BY BASF, OR APPROVED EQUAL INTO EACH REPAIR AREA.
7) INSTALL AND CURE THE APPROVED REPAIR MORTAR IN STRICT ACCORDANCE WITH THE MANUFACTURER’S WRITTEN RECOMMENDATIONS.

6) PLACE SIKA TUBING MANUFACTURED BY Sika, GEL PATCH MANUFACTURED BY BASF, OR APPROVED EQUAL INTO EACH REPAIR AREA.
7) INSTALL AND CURE THE APPROVED REPAIR MORTAR IN STRICT ACCORDANCE WITH THE MANUFACTURER’S WRITTEN RECOMMENDATIONS.

PROVIDE EXCAVATION SHORING AS REQUIRED BASED ON THE EXISTING SITE WALL FOOTING.

EXISTING CEILING CRACK TO BE SPALLED TO 3/4" AMPLITUDE PRIOR TO PLACING NEW #6 DOWELS AND CONCRETE CAP.

PROTECT ANY (E) FLOOR DRAINS IN THE VICINITY OF THE REPAIRS BY FLUSHING OR OTHER MEANS. CLEAN THE DRAINS FOLLOWING THE COMPLETION OF THE REPAIRS SUCH THAT CONSTRUCTION REMAINS UNDISTURBED.

APPLY A SCRUB COAT OF THE REPAIR MATERIAL INTO THE VOIDS AND PORES OF THE SURFACE DRY (SSD) CONDITION.

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APPLY SIKATOP 123 PLUS MANUFACTURED BY Sika, GEL PATCH MANUFACTURED BY BASF, OR APPROVED EQUAL INTO EACH REPAIR AREA.

PROTECT ANY (E) FLOOR DRAINS IN THE VICINITY OF THE REPAIRS BY FLUSHING OR OTHER MEANS. CLEAN THE DRAINS FOLLOWING THE COMPLETION OF THE REPAIRS SUCH THAT CONSTRUCTION REMAINS UNDISTURBED.

APPLY GRACE TO THE TOP OF THE NEW TUNNEL LID IN ACCORDANCE WITH THE MANUFACTURER’S WRITTEN RECOMMENDATIONS.

APPLY SIKATOP 123 PLUS MANUFACTURED BY Sika, GEL PATCH MANUFACTURED BY BASF, OR APPROVED EQUAL INTO EACH REPAIR AREA.

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PROTECT ANY (E) FLOOR DRAINS IN THE VICINITY OF THE REPAIRS BY FLUSHING OR OTHER MEANS. CLEAN THE DRAINS FOLLOWING THE COMPLETION OF THE REPAIRS SUCH THAT CONSTRUCTION REMAINS UNDISTURBED.
EMBED PLATE, SEE S2.2

CONTRACTOR TO BRACE THE TOP OF THE VERTICAL CHANNEL UNTIL THE CONNECTION TO THE EMBED IS COMPLETE

C6x8.2 VERTICAL 4x3x3/8x0'-5 (LLH) W/ (2) 3/4"Ø A325 BOLTS @ 3" GAGE, THROUGH SHORT SLOTTED HOLES PERPENDICULAR TO THE AXIS OF THE ANGLES

C6x8.2 CROSS MEMBERS, TYP 1/4 3 SIDES

1/2"Ø TITEEN HD ANCHORS 1/4 CHANNEL TO PLATE 1" (+1/2", -0")

NS GROUT ROUGHEN CONCRETE SURFACE AND COAT W/ BONDING AGENT

PL 5/8x4x1'-0 W/ (2) 1/2"Ø TITEEN HD ANCHORS @ 7" GAGE 4'-0" MAX CENTERLINE OF CHANNEL AND PLATE

L5x3x1/4x0'-6 (LLV) PL 1/2x14x1'-2 W/ (8) 3/4"Øx4" HAS TYP 5"

NOTE: CLEAN ALL CORROSION FROM (E) RACK IN THE SPLICE AREA TO ENSURE THE WELDS OCCUR ON SOLID BASE METAL

WHERE A NEW TUNNEL LID IS CONSTRUCTED ABOVE AN EXISTING RACK, INSTALL AN EMBED PLATE PER DTL A. CONTR MAY CUT THE EXISTING RACK VERTICAL AS REQD TO INSTALL LID FRAME WORK, THEN INSTALL RACK EXTENSION AS SHOWN

NOTE: PAINT ANGLE EXTENSIONS WITH A ZINC BASED PAINT FOR FINAL CONDITION

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TRAFFIC CONTROL PLAN FOR
NORTH-WEST LANE CLOSURE

NOTE:
1. THE RIGHT LANE OF THE ROAD WILL BE CLOSED FOR THE
   CONSTRUCTION PERIOD. AN ADDITIONAL METERED STAGING
   AREA WILL BE PROVIDED WEST OF THE ROAD
   CLOSURE FOR ENSURING SAFETY.
2. PLACE THE TEMPORARY TRAFFIC CONTROL DEVICES A PERIOD OF
   TIME AFTER THE ROAD CLOSURE IS ESTABLISHED.
3. ALL THROUGH TRAFFIC, INTERSECTION TRAFFIC, AND OTHER TRAFFIC
   CONTROL DEVICES WILL BE USED TO IMPLEMENT THE ROAD
   CLOSURE.
4. CONTRACTOR SHALL MAINTAIN ACCESS TO CASEROLES STREET FROM
   STREET SHUT OFFS AND CLOSED TRAFFIC LANE OF THE ROAD
   CLOSURE.
5. CONTRACTOR SHALL MAINTAIN ACCESS TO MARKET STREET FROM
   ROAD CLOSURE DURING THE ROAD CLOSURE PERIOD.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO CASEROLES STREET FROM
   ROAD CLOSURE DURING THE ROAD CLOSURE PERIOD.
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10. CONTRACTOR SHALL MAINTAIN ACCESS TO CASEROLES STREET FROM
    ROAD CLOSURE DURING THE ROAD CLOSURE PERIOD.

MATCH LINE - THIS SHEET

TR1.0