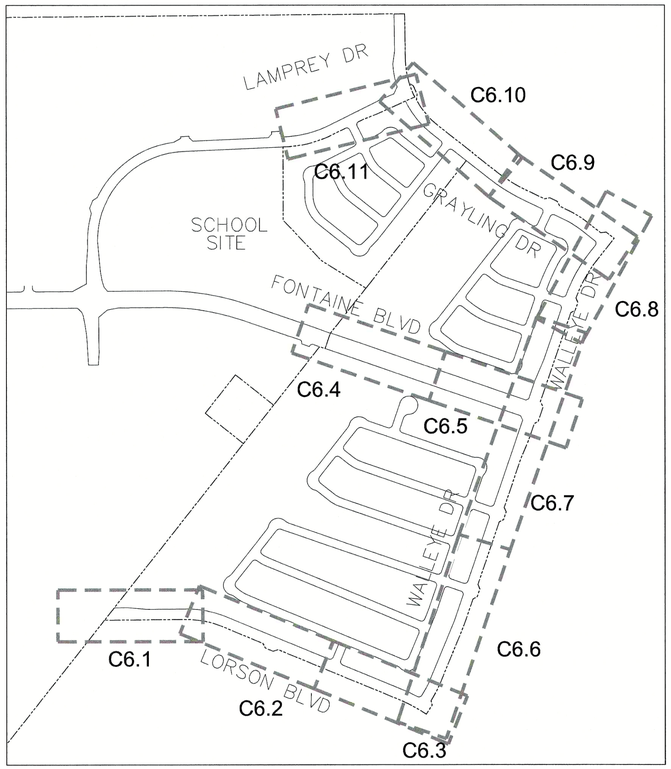
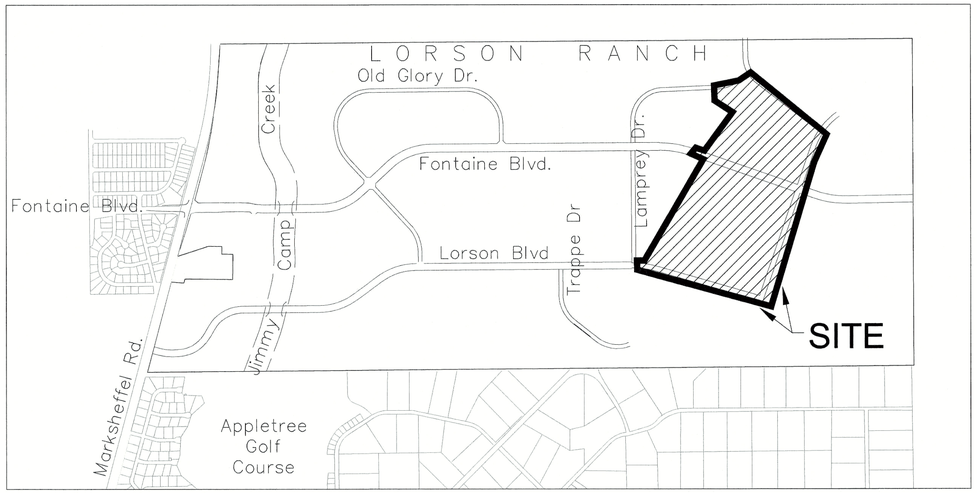
CONSTRUCTION PLANS
FOR

THE HILLS AT LORSON RANCH COLLECTOR STREETS

STREET, STORM SEWER, WATERMAIN, SANITARY SEWER CONSTRUCTION PLANS



KEY MAP
NO SCALE



VICINITY MAP
NO SCALE

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811 Know what's below. Call before you dig.

CALL 2–BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

WATER / SANITARY
WIDEFIELD WATER AND SANITATION DISTRICT
8495 FONTAINE BLVD.
COLORADO SPRINGS, CO 80925
719–390–7111

CABLE
COMCAST
P.O. BOX 173838
DENVER, CO 80217
970–641–4774

ELECTRIC
MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN RD.
COLORADO SPRINGS, CO 80831
719–495–2283

TELEPHONE
CENTURYLINK
7925 INDUSTRY ROAD
COLORADO SPRINGS, CO 80939
719–278–4651

GAS
BLACK HILLS ENERGY
7060 ALLEGRE ST.
FOUNTAIN, CO 80817
719–393–6639

EL PASO COUNTY
PLANNING AND COMMUNITY DEVELOPMENT
2880 INTERNATIONAL CIRCLE
COLORADO SPRINGS, CO 80910
719–520–6300

SECURITY FIRE PROTECTION DISTRICT
400 SECURITY BOULEVARD
SECURITY, CO 80911
719–392–7121

BASIS OF BEARING
BEARINGS ARE BASED ON THE SOUTH LINE OF THE NORTH HALF OF SECTION 23, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN AS BEING SOUTH 8941'52" WEST. THE EAST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 3–1/2" ALUMINUM CAP MONUMENT AND THE WEST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 2–1/2" ALUMINUM CAP MONUMENT

BENCHMARK
FIMS MONUMENT F204 LOCATED AT THE NORTHWEST CORNER OF FONTAINE BLVD AND COTTONWOOD GROVE DR.
ELEVATION 5724.072 (N.G.V.D. 29)

TRAFFIC CONTROL NOTE
THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES AND MONITORING NECESSARY TO SAFELY COMPLETE THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS IN CONFORMANCE WITH M.U.T.C.D. GUIDELINES. THE CONTRACTOR SHALL COMPLETE ALL NECESSARY WORK FOR PLAN REVIEW, PERMITS AND PROCESSING. TRAFFIC CONTROL WILL NOT BE PAID SEPARATELY BUT IS INCLUDED IN THE COST OF THE PROJECT.

LEGEND
- SUBDIVISION BOUNDARY
- EXISTING AND PROPOSED RIGHT OF WAY
- EXISTING AND PROPOSED LOT LINES
- EXISTING AND PROPOSED EASEMENTS
- STREET CENTERLINE
- PROPOSED CURB AND GUTTER
- EX–W — EXISTING WATERMAIN
- W–8 — PROPOSED WATERMAIN
- SS–8 — EXISTING SANITARY SEWER
- SS–8 — PROPOSED SANITARY SEWER
- SS–24 — EXISTING 24" SANITARY SEWER
- G — EXISTING GASMAIN
- E — EXISTING UNDERGROUND ELECTRIC
- OHE — EXISTING OVERHEAD ELECTRIC
- TV — EXISTING CABLE TV
- T — EXISTING PHONE OR FIBER OPTIC
- EXISTING STORM DRAIN
- PROPOSED STORM SEWER
- S — EXISTING MANHOLES
- PROPOSED SANITARY AND STORM MANHOLES
- EXISTING AND PROPOSED WATERMAIN VALVES
- EXISTING AND PROPOSED FIRE HYDRANT
- EXISTING UTILITY POLE
- PROPOSED STORM SEWER INLET

DEVELOPER'S STATEMENT
THE UNDERSIGNED OWNER/DEVELOPER HAS READ AND WILL COMPLY WITH ALL THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

BUSINESS NAME Lorson, LLC
BY JEFF MARK DATE NOVEMBER 12, 2020
TITLE MANAGER
ADDRESS 212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, CO 80903

PREPARED FOR:
LORSON, LLC
N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, CO 80903
719–635–3200
CONTACT: JEFF MARK

PREPARED BY:
CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
719–570–1100
CONTACT: RICHARD L. SCHINDLER P.E.

AS-BUILT FOR
WATER / SANITARY SEWER
JULY 12, 2022

ACCEPTED for FILE
Engineering Review
06/16/2023 1:16:24 PM
Jeff Rice - EPC Engineering
EPC Department of Public Works

DISTRICT APPROVAL (WATER)
THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

DATE 11/18/2020 BY Robert V Dankert
PROJECT NO.

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

DISTRICT APPROVAL (WASTEWATER)
THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

DATE 11/18/2020 BY Robert V Dankert
PROJECT NO.

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

PUDSP-20-003
CDR 20-007

CONSTRUCTION APPROVAL
COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUALS VOLUME 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED. IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE TWO YEARS THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION

JENNIFER IRVINE, COUNTY ENGINEER/ECM ADMINISTRATOR
CONDITIONS:

* APPROVED
Engineering Department
12/16/2020 7:36:05 AM
dsdnijkamp
EPC Planning & Community Development Department

ENGINEER'S APPROVAL
THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

RICHARD L. SCHINDLER P.E. #33997
FOR AND ON BEHALF OF CORE ENGINEERING GROUP

AS-BUILT
STREET/STM
DEC 29, 2022

COLORADO REGISTERED RICHARD L. SCHINDLER #33997 PROFESSIONAL ENGINEER 11-12-2020

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MINN. 55306
PH: 719-570-1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@cegi.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

NO.	DESCRIPTION	DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

THE HILLS AT LORSON RANCH
COLLECTOR STREET
CONSTRUCTION PLANS

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C0.1
TOTAL SHEETS: 58

CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.

2. EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM DREXEL, BARRELL & CO., JULY, 2005. SUPPLEMENTAL SURVEY DATA WAS OBTAINED FOR MARKSHEFFEL ROAD FROM M&S CIVIL GROUP IN NOVEMBER, 2016. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.

3. DEPTH OF MOISTURE–DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
BASE OF ALL CUTS AND FILLS – 12 INCHES,
FULL DEPTH OF ALL EMBANKMENTS

4. THE CONTRACTOR IS RESPONSIBLE FOR THE RE–ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.

5. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.

6. PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF–ROLLED WITH A LOADED 988 FRONT–END LOADER OR SIMILAR HEAVY RUBBER TIRED VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER–EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTMM D–698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A–6 AND A–7–6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D–1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A–7–6 SOILS BELOW FULL–DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX–INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.

7. SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED, DISPOSED OF AND REPLACED WITH APPROVED MATERIALS.

8. FILL SHALL BE PLACED IN 8–INCH MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED PRIOR TO SUCCESSIVE LIFTS.

9. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
   - HAY BALE BARRIERS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
   - SILT FENCE WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
   - TEMPORARY SEDIMENTATION BASINS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
   - MULCHING AND SEEDING OF EXCESSIVE SLOPED AREAS AS NEEDED OR AS DIRECTED BY THE ENGINEER.
   - TEMPORARY VEHICLE TRACKING CONTROL AS NEEDED AND/OR DIRECTED BY THE ENGINEER.
   - CONCRETE WASH AREAS.
   - INLET PROTECTION.

   THESE AND ALL EROSION CONTROL BEST MANAGEMENT PRACTICES AS SHOWN IN THE GRADING AND EROSION CONTROL PLANS SHALL BE STRICTLY ADHERED TO.

10. FINISHED CONTOURS/SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES. ALL PAVEMENT SUBGRADES ARE BASED ON THE COMPOSITE ASPHALT PAVEMENT RECOMMENDATIONS MADE IN THE "GEOTECHNICAL STUDY" FOR LORSON RANCH.

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

1. *ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.*

2. *CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).*

3. *CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:*
   a. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
   b. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
   c. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   d. CDOT M & S STANDARDS

4. *NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER–THE–FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.*

5. *IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.*

6. *CONTRACTOR SHALL SCHEDULE A PRE–CONSTRUCTION MEETING WITH PLANNING AND COMMUNITY DEVELOPMENT (PCD) – INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.*

7. *IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS–ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.*

8. *CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.*

9. *ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.*

10. *CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.*

11. *ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.*

12. *SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.*

13. *SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PUBLIC WORKS DEPARTMENT AND MUTCD CRITERIA.*

14. *CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PUBLIC WORKS DEPARTMENT, INCLUDING WORK WITHIN THE RIGHT–OF–WAY AND SPECIAL TRANSPORT PERMITS.*

15. *THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF–SITE DISTURBANCE, GRADING, OR CONSTRUCTION.*

STORM SEWER NOTES:

1. *CONTRACTOR SHALL USE "TYLOX SUPER SEAL" OR APPROVED EQUL JOINT GASKET FOR ALL RCP STORM SEWER JOINTS*

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

THE HILLS AT LORSON RANCH
STREET / STORM SEWER
NOTES

COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER
11-12-2020

DATE: NOV 12, 2020

PROJECT NO. 100.061

SHEET NUMBER C1.2a

TOTAL SHEETS: 58

WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION.

2. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.

3. THE DEVELOPER OR HIS ENGINEER HAS LOCATED ALL FIRE HYDRANTS AND FUTURE SERVICE STUBS. ANY REQUIRED REALIGNMENT, EITHER HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER.

4. ALL DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHEYLENE TUBING, BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED.

5. ALL DUCTILE IRON PIPE SHALL BE DOUBLE BONDED. DIP SHALL HAVE CATHODIC PROTECTION USING NO. 6 WIRE WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET.

6. PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.

7. ALL FITTINGS SHALL BE DUCTILE IRON -MECHANICAL JOINT AND HAVE 9 LB. MAGNESIUM ANODES AT EVERY FITTING.

8. THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT (390-7111) A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.

9. THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.

10. THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.

11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.

12. ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.

13. THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.

14. ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.

15. DISINFECTION SHALL BE ACCOMPLISHED BY GLUING TABLETS TO THE TOP OF THE LINE. POWDER OR GRANULER HTH SHALL NOT BE USED. SEE WIDEFIELD SPECS FOR FURTHER DEFINITION OF DISINFECTION TECHNIQUES.

16. CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.

17. ALL WATER LINES 6" AND LARGER, AND ALL SEWER LINES 8" AND LARGER, SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.

18. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. TO SET THE PRE-CONSTRUCTION CONFERENCE, CONTACT BRANDON BERNARD-WATER DEPARTMENT MANAGER AND/OR JASON DREESEN, WASTEWATER DEPARTMENT MANAGER OF THE WIDEFIELD WATER AND SANITATION DISTRICT AT 719-955-0548 FOR A TIME. NO PRE-CONSTRUCTION CONFERENCE TIMES WILL BE SET UNTIL 4 SETS OF SIGNED DRAWINGS ARE RECEIVED BY THE WIDEFIELD W & S DISTRICT. PRE-CONSTRUCTION DATE /INITIALS

WIDEFIELD WATER AND SANITATION DISTRICT UTILITY CONSTRUCTION NOTES

1. ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE CATHODIC PROTECTION AND 9 LB MAGNESIUM ANODES AT EVERY FITTING.

2. ALL FIRE HYDRANTS SHALL BE GUARDIAN K-81D HYDRANT KENNEDY VALVE OR AMERICAN AVK SERIES 2700, (MODERN)

UNDERDRAIN CONSTRUCTION NOTES

1. SUMP PUMP DISCHARGES FROM HOUSES MUST DISCHARGE TO UNDERGROUND UNDERDRAIN LATERALS, OPEN SPACE, PONDS, OR SWALES AND ARE NOT ALLOWED TO FLOW OVER PUBLIC SIDEWALK OR CURB/GUTTER.

2. ALL PVC UNDERDRAIN MAINS SHALL BE 4" PVC, SDR 35.

3. UNDERDRAIN LATERALS SHALL BE 3" PVC, SDR 35

4. UNDERDRAIN CLEANOUT BOXES ON THE MAINS SHALL BE A CAST IRON TWO PIECE HEAVY DUTY VALVE BOX MANUFACTURED BY STAR PIPE PRODUCTS OR APPROVED EQUAL. THE TOP PIECE SHALL BE 16" TALL AND THE BOTTOM PIECE SHALL BE 36" TALL.

5. PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.

6. ALL FITTINGS SHALL BE DUCTILE IRON -MECHANICAL JOINT AND HAVE 1 LB. MAGNESIUM ANODES AT EVERY FITTING.

7. THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.

8. THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.

9. ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.

10. THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY THE CONTRACTOR AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO.	DESCRIPTION	DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD - GRAYLING DR
LORSON BLVD-WALLEYE DR-LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

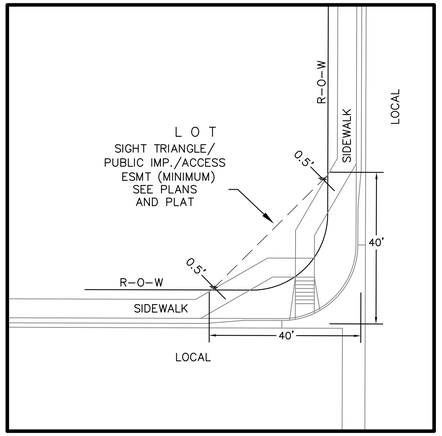
THE HILLS AT LORSON RANCH
SANITARY SEWER/WATERMAIN NOTES

COLORADO REGISTERED PROFESSIONAL ENGINEER
RICHARD L. SCHINDLER
NO. 33997
11-12-2020

DATE:
NOV 12, 2020

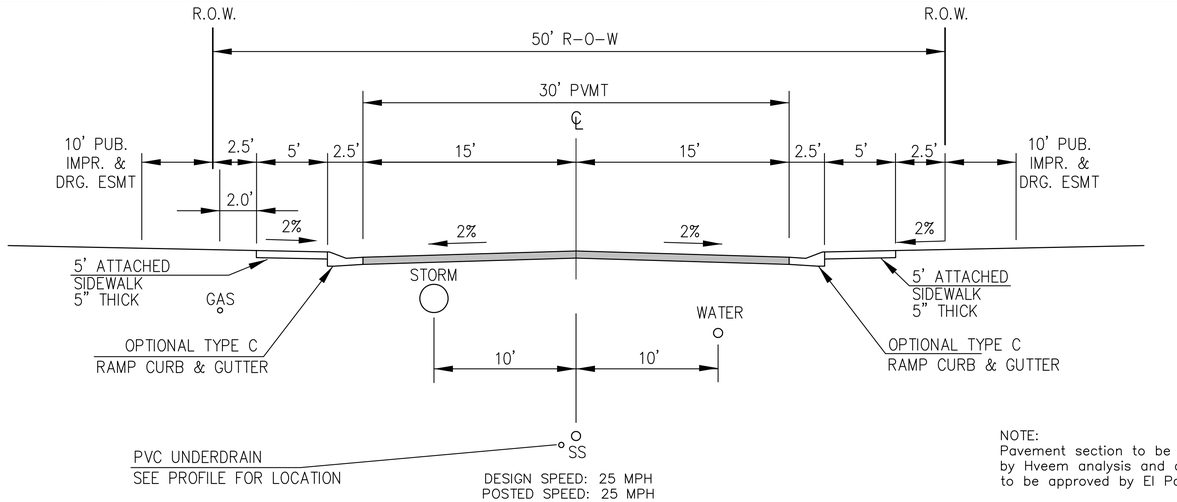
PROJECT NO.
100.061

SHEET NUMBER
C1.2b
TOTAL SHEETS: 58



LOCAL ROADWAY SIGHT TRIANGLE
PUBLIC IMPROVEMENT ESMT.
NOT TO SCALE

NOTE:
ADDITIONAL PUBLIC IMPROVEMENT EASEMENTS ARE REQUIRED WHERE SIDEWALK ENCROACHES INTO THE PRIVATE LOTS. SEE CONSTRUCTION DRAWINGS AND THE FINAL PLAT. SEE CONSTRUCTION DRAWINGS AND PLAT FOR SIGHT TRIANGLES

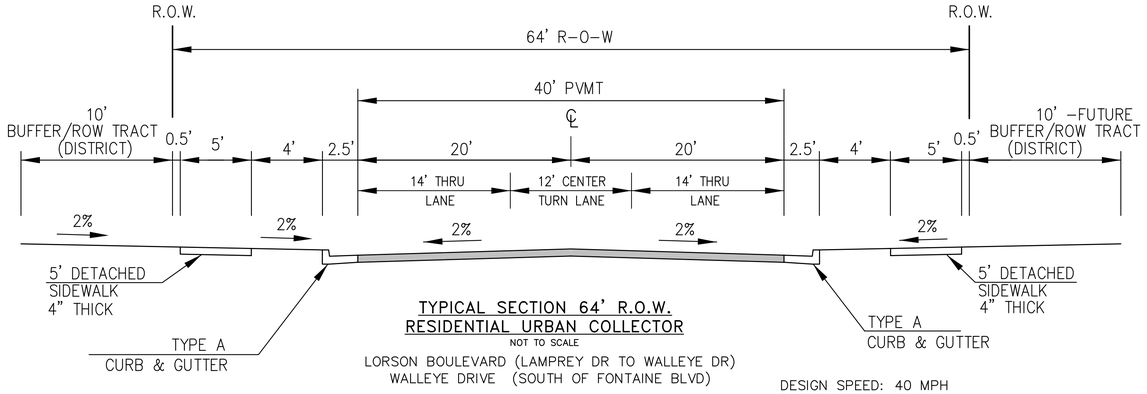


DESIGN SPEED: 25 MPH
POSTED SPEED: 25 MPH

TYPICAL SECTION 50' R.O.W.
RESIDENTIAL URBAN LOCAL
NOT TO SCALE

BROOKTROUT TR, SPLAKE ST, LAKE TROUT DR,
SANDERLING ST, SCRUB JAY TR, YELLOWTHROAT TER, MURRELET DR

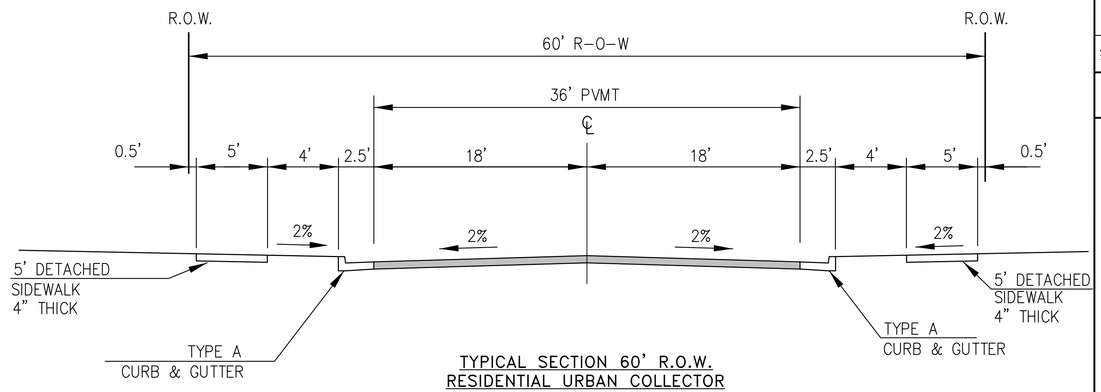
NOTE:
Pavement section to be determined by Hveem analysis and design. Design to be approved by El Paso County PCD Engineering



TYPICAL SECTION 64' R.O.W.
RESIDENTIAL URBAN COLLECTOR
NOT TO SCALE

LORSON BOULEVARD (LAMPREY DR TO WALLEYE DR)
WALLEYE DRIVE (SOUTH OF FONTAINE BLVD)

DESIGN SPEED: 40 MPH
POSTED SPEED: 35 MPH

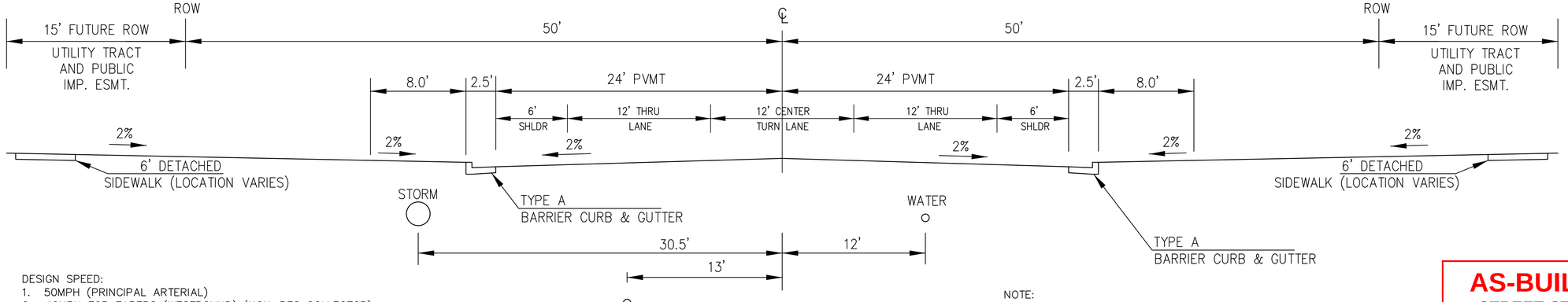


TYPICAL SECTION 60' R.O.W.
RESIDENTIAL URBAN COLLECTOR
NOT TO SCALE

WALLEYE DRIVE (NORTH OF FONTAINE)
GRAYLING DRIVE
LAMPREY DRIVE

DESIGN SPEED: 40 MPH
POSTED SPEED: 35 MPH

NOTE:
Pavement section to be determined by Hveem analysis and design. Design to be approved by PCD Engineering



DESIGN SPEED:
1. 50MPH (PRINCIPAL ARTERIAL)
2. 40MPH FOR TAPERS (WESTBOUND) (NON-RES COLLECTOR)

TYPICAL SECTION 100' R.O.W.
FONTAINE BLVD
NOT TO SCALE

NOTE:
Pavement section to be determined by Hveem analysis and design. Design to be approved by El Paso County PCD and Engineering

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD - GRAYLING DR
LORSON BLVD-WALLEYE DR-LAMPREY DR
COLORADO SPRINGS, COLORADO

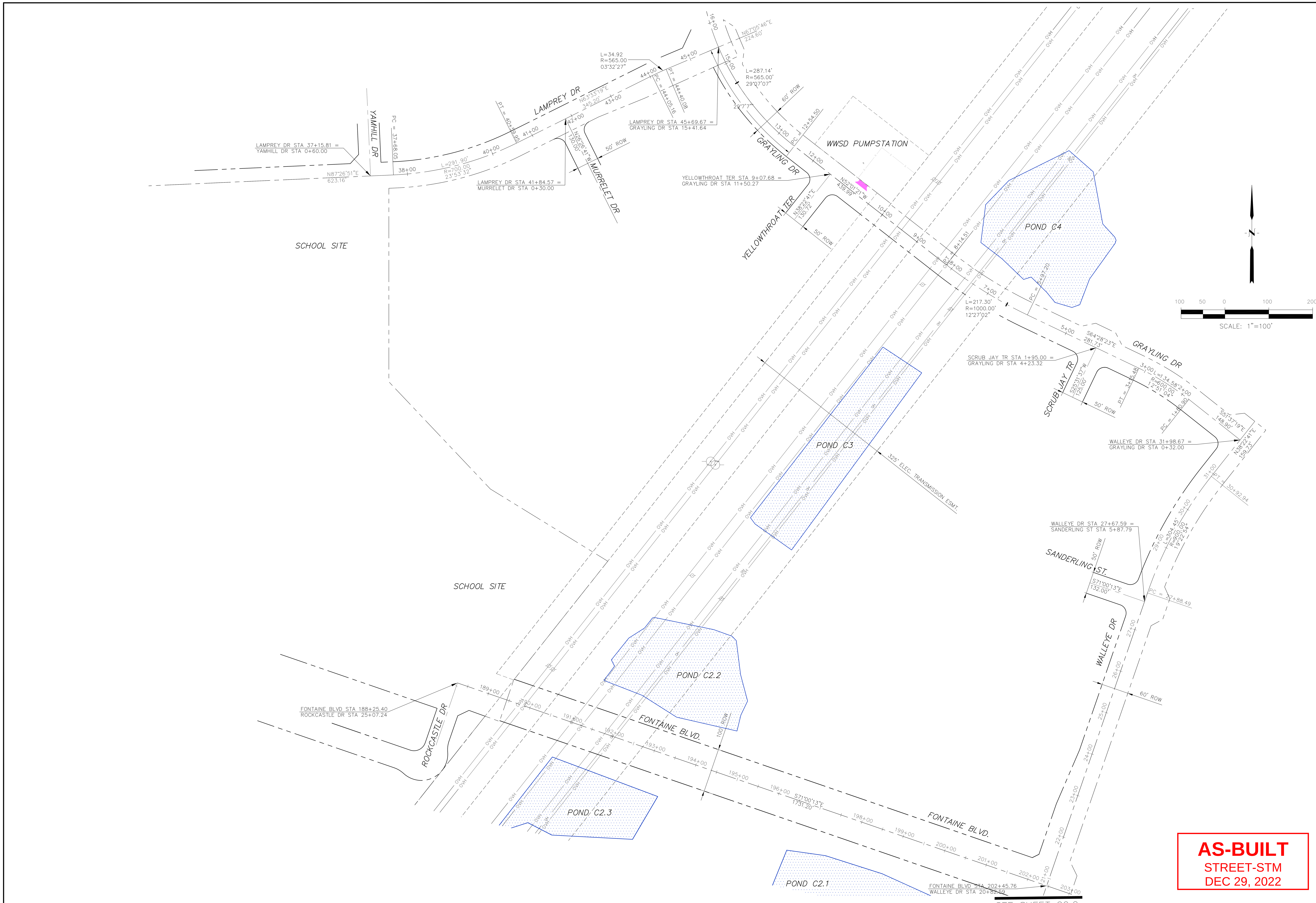
NO. | DESCRIPTION | DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

TYPICAL SECTIONS

COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER 11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C1.3
TOTAL SHEETS: 58



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO.	DESCRIPTION	DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

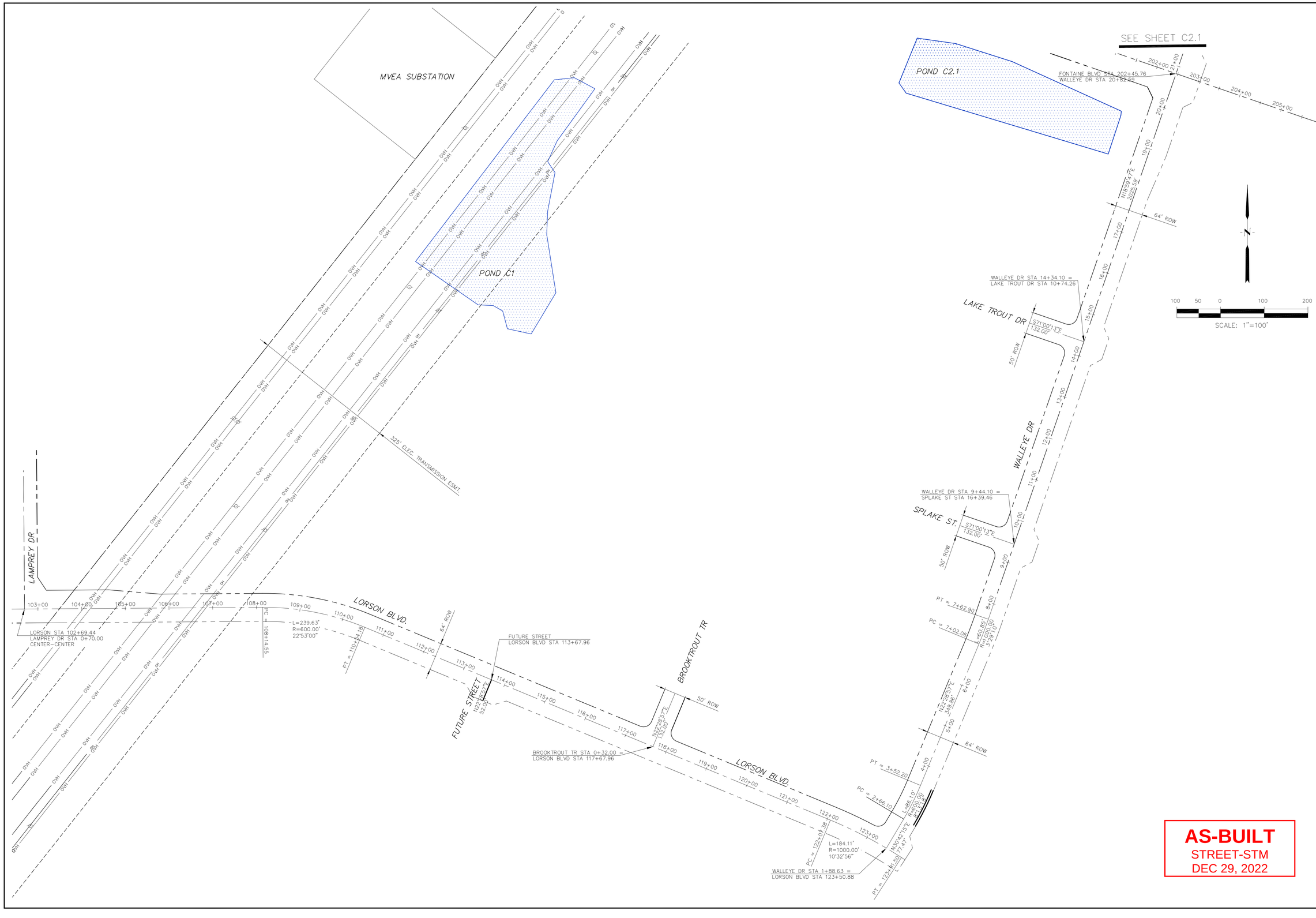
HORIZONTAL CONTROL PLAN

COLORADO REGISTERED PROFESSIONAL ENGINEER
RICHARD L. SCHINDLER
33997
11-12-2020
[illegible]

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C2.1
TOTAL SHEETS: 58



AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreengineeringgroup.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WALLEYE DR. LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

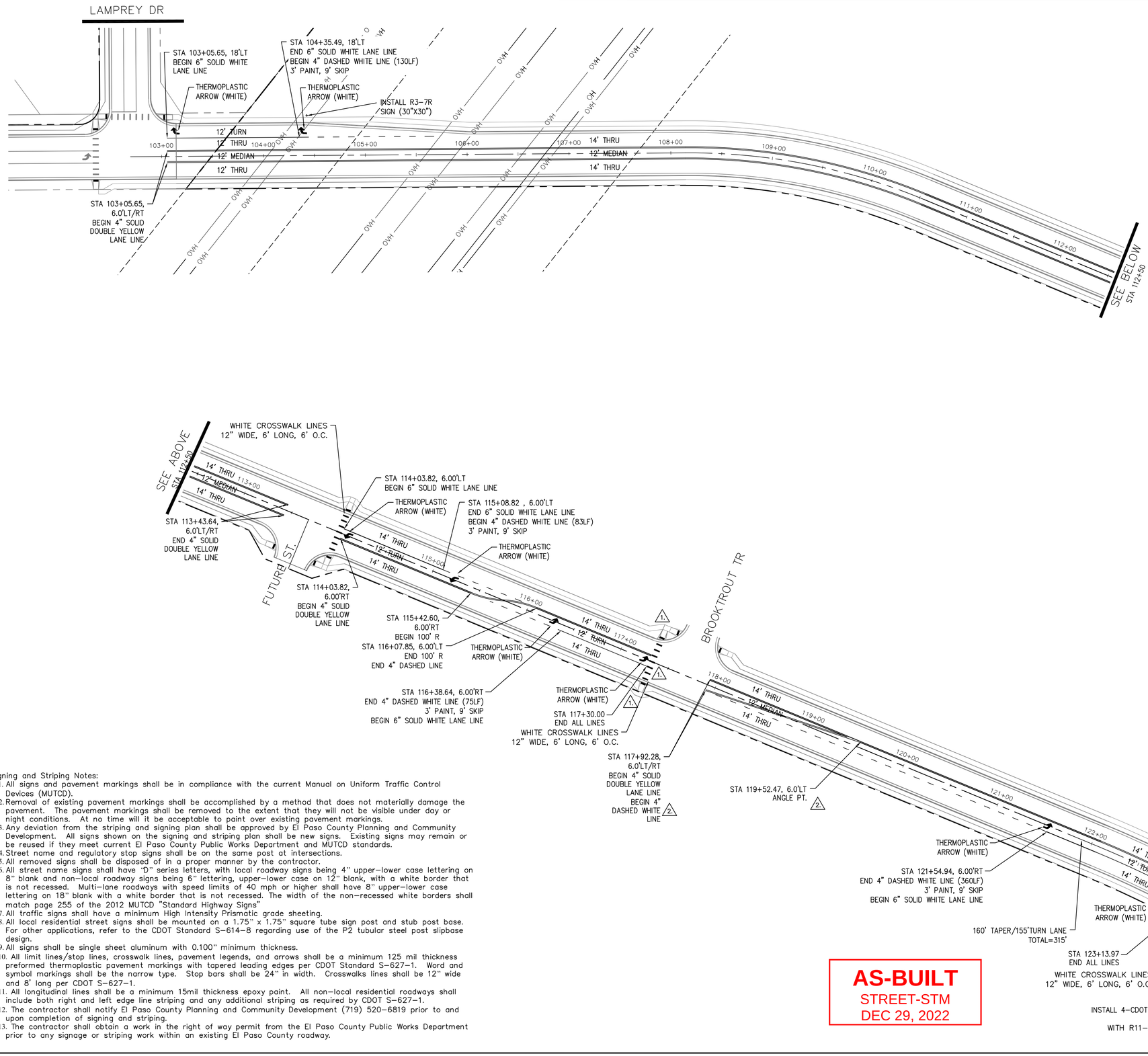
HORIZONTAL CONTROL PLAN

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C2.2
TOTAL SHEETS: 58



Signing and Striping Notes:

1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County Public Works Department and MUTCD standards.
4. Street name and regulatory stop signs shall be on the same post at intersections.
5. All removed signs shall be disposed of in a proper manner by the contractor.
6. All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs"
7. All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
8. All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
9. All signs shall be single sheet aluminum with 0.100" minimum thickness.
10. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalks lines shall be 12" wide and 8' long per CDOT S-627-1.
11. All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
12. The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping.
13. The contractor shall obtain a work in the right of way permit from the El Paso County Public Works Department prior to any signage or striping work within an existing El Paso County roadway.

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: RLS@coegi.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS/CROSSINGS	12/17/2020
2.	MODIFY STRIPING FOR TURN LANES	05/11/2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD - GRAYLING DR
LORSON BLVD - MILLER FARM RD - LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

LORSON BLVD
SIGNING & STRIPING PLAN

COLORADO REGISTERED PROFESSIONAL ENGINEER 33997 5-11-2021

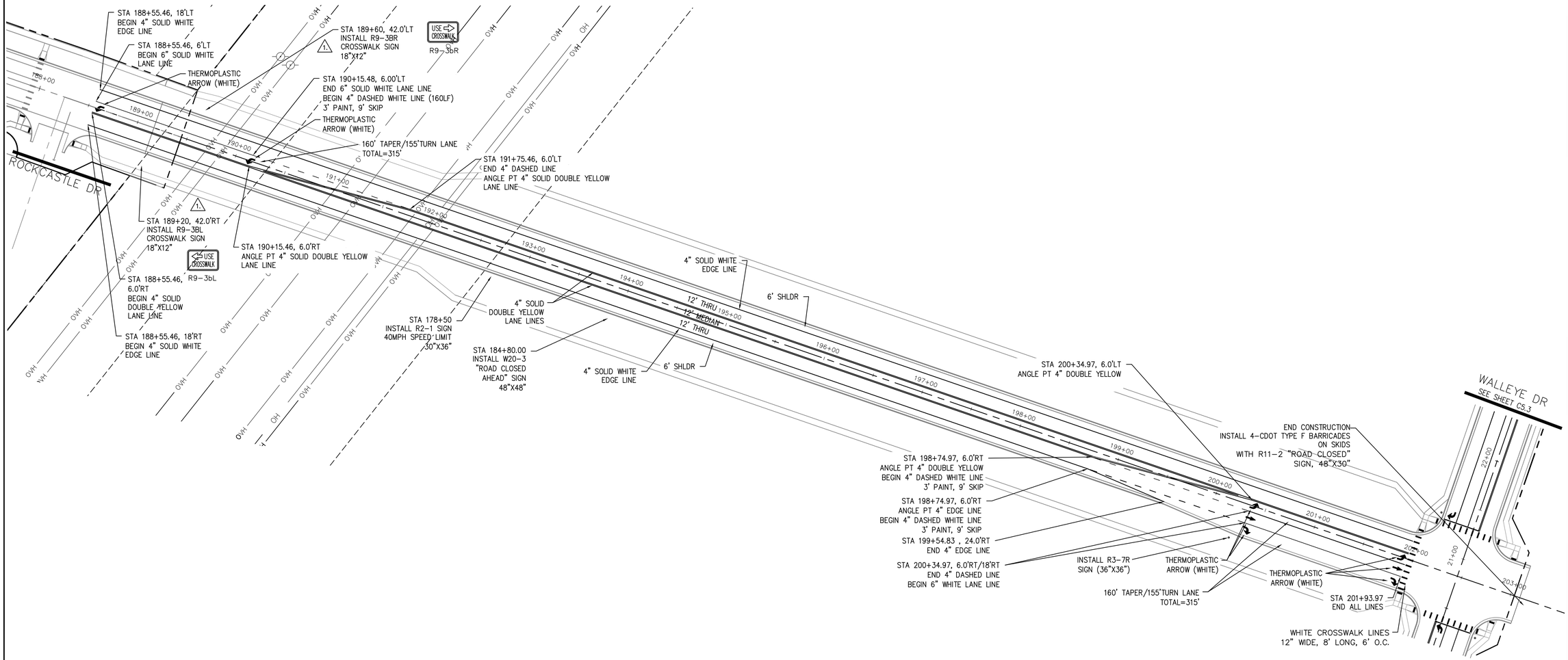
COLORADO REGISTERED PROFESSIONAL ENGINEER 33997 11-12-2020

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C5.1

TOTAL SHEETS: 58



Signing and Striping Notes:

1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County Public Works Department and MUTCD standards.
4. Street name and regulatory stop signs shall be on the same post at intersections.
5. All removed signs shall be disposed of in a proper manner by the contractor.
6. All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs"
7. All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
8. All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
9. All signs shall be single sheet aluminum with 0.100" minimum thickness.
10. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalks lines shall be 12" wide and 8' long per CDOT S-627-1.
11. All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
12. The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping.
13. The contractor shall obtain a work in the right of way permit from the El Paso County Public Works Department prior to any signage or striping work within an existing El Paso County roadway.

AS-BUILT
STREET-STM
DEC 29, 2022

SCALE: 1"=50'

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coregi.com

NO.	DESCRIPTION	DATE
1.	MOVE PEDESTRIAN CROSSING SIGNS	12/17/2020

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. & GRAYLING DR.
LORSON BLVD. & MEADOWLAKE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

FONTAINE BLVD.
SIGNING & STRIPING PLAN

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C5.2

TOTAL SHEETS: 58

LORSON BLVD.
SEE SHEET C5.1

INSTALL STREET NAME SIGN
INSTALL R1-1
6" LETTERS, 12" PLATE
Lorson Blvd.
Walleye Dr.
STOP
R1-1

WHITE STOP BAR
12" WIDE, 26' LONG

210' TAPER/155'TURN LANE
TOTAL=365'

INSTALL R3-7R
SIGN (30"X30")

STA 2+35.71, 6.00'RT/LT
BEGIN 6" WHITE LANE LINE
BEGIN 4" SOLID DOUBLE YELLOW LINE

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 3+88.70, 6.00'LT
END 6" SOLID WHITE LANE LINE
BEGIN 4" DASHED WHITE LINE (160LF)
3' PAINT, 9' SKIP

STA 3+88.70, 6.0'RT
ANGLE PT. DOUBLE YELLOW

STA 6+00.85, 6.00'LT
END 4" DASHED WHITE LINE
ANGLE PT 4" DOUBLE YELLOW

STA 5+94.62, 6.00'RT
BEGIN 4" DASHED WHITE LINE (160LF)
3' PAINT, 9' SKIP
ANGLE PT 4" DOUBLE YELLOW

STA 7+62.90, 6.00'LT
ANGLE PT 4" DOUBLE YELLOW

THERMOPLASTIC
ARROW (WHITE)

STA 7+62.90, 6.00'RT
END 4" DASHED WHITE LINE
BEGIN 6" WHITE LANE LINE

STA 9+08.61
END ALL LINES

WHITE CROSSWALK LINES
12" WIDE,
6' LONG, 6' O.C.

160' TAPER/145'TURN LANE
TOTAL=305'

SPLAKE ST

STA 9+79.50, 6.00'RT/LT
BEGIN 6" WHITE LANE LINE
BEGIN 4" SOLID DOUBLE YELLOW LINE

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 11+57.97 ,
6.00'RT
BEGIN 100' R

STA 12+23.22,
6.00'LT
END 100' R

THERMOPLASTIC
ARROW (WHITE)

STA 12+72.97, 6.00'RT
END 4" DASHED WHITE LINE (115LF)
3' PAINT, 9' SKIP
BEGIN 6" SOLID WHITE LANE LINE

LAKE TROUT DR

THERMOPLASTIC
ARROW (WHITE)

STA 13+98.79
END ALL LINES

WHITE CROSSWALK
LINES
12" WIDE,
6' LONG, 6' O.C.

STA 914+69.55, 6.00'RT/LT
BEGIN 6" WHITE LANE LINE
BEGIN 4" SOLID DOUBLE YELLOW

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 16+00
SEE BELOW

FONTAINE BLVD.
SEE SHEET C5.2

INSTALL STREET NAME SIGN
INSTALL R1-1
8" LETTERS, 18" PLATE
Fontaine Blvd.
Walleye Dr.
STOP
R1-1

160' TAPER/155'TURN LANE
TOTAL=315'

INSTALL R3-7R
SIGN (30"X30")

THERMOPLASTIC
ARROW (WHITE)

STA 22+89.59, 6.0'LT/18'LT
BEGIN 4" DASHED LINE
3' PAINT, 9' SKIP
END 6" WHITE LANE LINES

STA 24+49.59 , 6.0'LT/18'LT
END 4" DASHED LINES
ANGLE PT 4" DOUBLE YELLOW

WHITE STOP BAR
12" WIDE, 36' LONG

THERMOPLASTIC
ARROW (WHITE)

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 21+30.59
BEGIN 6" WHITE LANE LINE
(6.00'LT/18.00'LT)
BEGIN 4" SOLID DOUBLE YELLOW LINE
(6.00'RT)

STA 22+89.59, 6.0'RT
ANGLE PT 4" DOUBLE YELLOW
BEGIN 4" DASHED LINE
3' PAINT, 9' SKIP

STA 24+17.37, 18'RT
BEGIN 4" DASHED LINE
3' PAINT, 9' SKIP

STA 25+00
SEE BELOW

STA 121+54.94, 6.00'RT
END 6" SOLID WHITE LANE LINE
BEGIN 4" DASHED WHITE LINE (112LF)
3' PAINT, 9' SKIP

STA 17+84.25, 6.00'LT
END 100' R
END 4" DASHED WHITE LINE

THERMOPLASTIC
ARROW (WHITE)

STA 18+75.59, 6.00'LT
ANGLE PT 4" DOUBLE
YELLOW

STA 16+00
SEE ABOVE

STA 16+24.41, 6.00'RT
BEGIN 100' R
BEGIN 4" DASHED WHITE LINE

STA 17+15.59,
6.00'RT/18'RT
BEGIN 4" DASHED WHITE
LINE (160LF)
3' PAINT, 9' SKIP
ANGLE PT 4" DOUBLE
YELLOW

STA 18+75.59, 6.0'RT/18'RT
END 4" DASHED LINE
BEGIN 6" WHITE LANE LINE

205' TAPER/155'TURN LANE
TOTAL=360'

160' TAPER/155'TURN LANE
TOTAL=315'

THERMOPLASTIC
ARROW (WHITE)

STA 20+35.09
END ALL LINES

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

WHITE STOP BAR
12" WIDE, 36'
LONG

INSTALL STREET NAME SIGN
INSTALL R1-1
8" LETTERS, 18" PLATE
Fontaine Blvd.
Walleye Dr.
STOP
R1-1

SANDERLING ST

STA 25+77.29, 18.00'RT
END 4" DASHED LINE
BEGIN 6" WHITE LANE LINE

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 25+00
SEE ABOVE

THERMOPLASTIC
ARROW (WHITE)

STA 25+28.67, 6.0'RT
END 4" DASHED LINE
BEGIN 6" WHITE LANE LINE

240' TAPER/200' TURN
LANE
TOTAL=440'

THERMOPLASTIC
ARROW (WHITE)

STA 27+32.16
END ALL LINES

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

STA 28+03.31
BEGIN 6" WHITE LANE LINE (6.00'LT)
BEGIN 4" SOLID DOUBLE YELLOW LINE
(6.00'RT)

STA 29+02.77, 6.0'LT
BEGIN 4" DASHED LINE
3' PAINT, 9' SKIP
END 6" WHITE LANE LINE

STA 29+34.66,
6.00'RT
BEGIN 100' R
BEGIN 4"
DASHED LINE
3' PAINT, 9'
SKIP

STA 30+00.49,
6.00'LT
END 100' R
END 4' DASHED
LINE

160' TAPER/65'TURN LANE
TOTAL=227'

STA 30+92.94, 6.0'RT
END 4" DASHED LINE
BEGIN 6" WHITE LANE LINE

THERMOPLASTIC
ARROW (WHITE)

THERMOPLASTIC
ARROW (WHITE)

STA 31+60.07
END ALL LINES

WHITE CROSSWALK LINES
12" WIDE, 6' LONG, 6' O.C.

GRAYLING DR.
SEE SHEET C5.4

END CONSTRUCTION
INSTALL 2-CDOT TYPE F BARRICADES
ON SKIDS
WITH R11-2 "ROAD CLOSED"
SIGN, 48"X30"

-N-

50 25 0 50 100
SCALE: 1"=50'

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
5-11-2021
PROFESSIONAL ENGINEER

AS-BUILT
STREET-STM
DEC 29, 2022

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO.	DESCRIPTION	DATE
1.	MODIFY STRIPING FOR TURN LANES	05/11/2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD / GRAYLING DR
LORSON BLVD / WALLEYE DR / LAMPRON DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

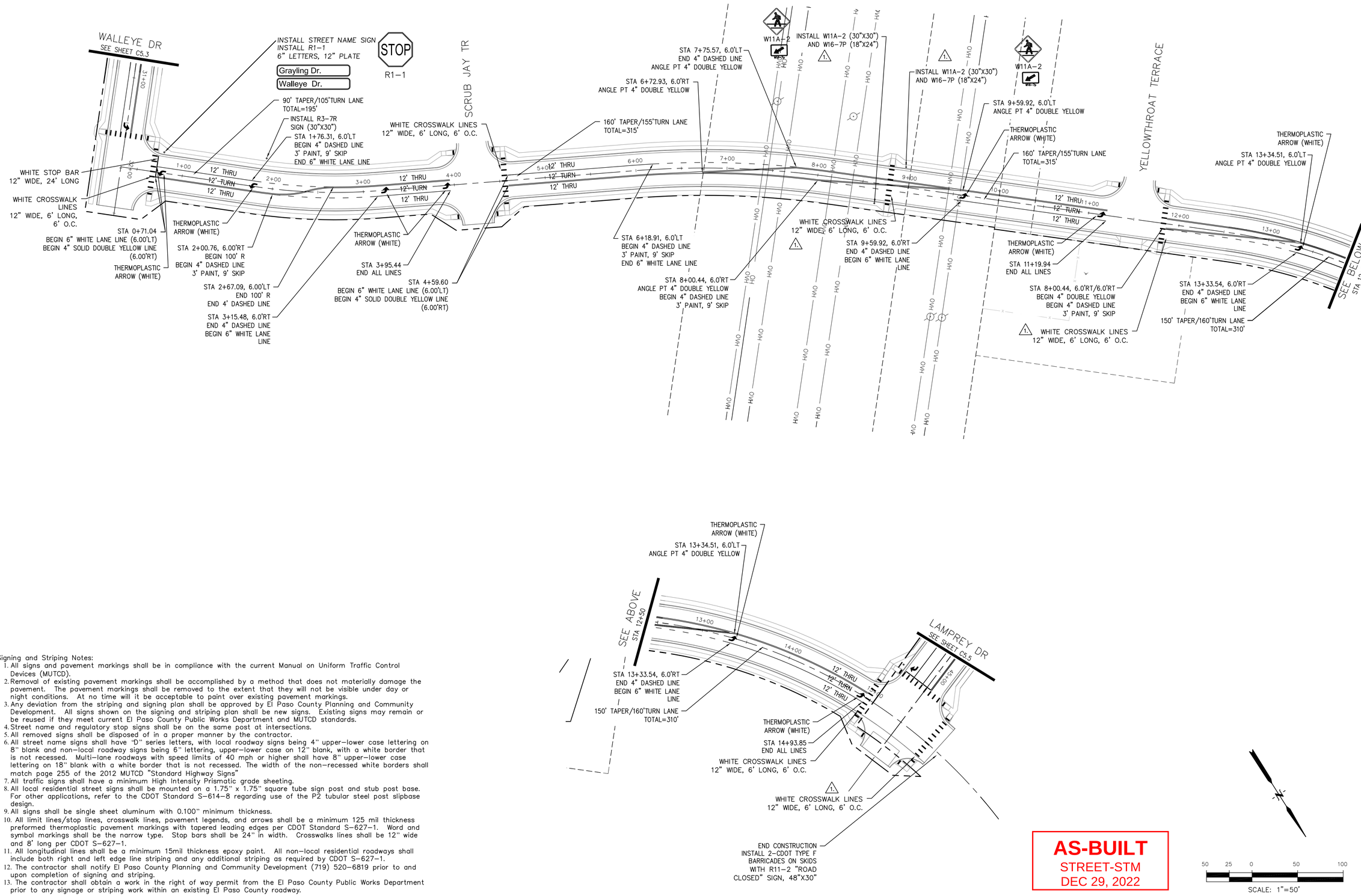
WALLEYE DR
SIGNING & STRIPING PLAN

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C5.3

TOTAL SHEETS: 58



Signing and Striping Notes:

1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
2. Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they will not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.
3. Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County Public Works Department and MUTCD standards.
4. Street name and regulatory stop signs shall be on the same post at intersections.
5. All removed signs shall be disposed of in a proper manner by the contractor.
6. All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case on 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 40 mph or higher shall have 8" upper-lower case lettering on 18" blank with a white border that is not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs"
7. All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
8. All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
9. All signs shall be single sheet aluminum with 0.100" minimum thickness.
10. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per CDOT Standard S-627-1. Word and symbol markings shall be the narrow type. Stop bars shall be 24" in width. Crosswalks lines shall be 12" wide and 8' long per CDOT S-627-1.
11. All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as required by CDOT S-627-1.
12. The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping.
13. The contractor shall obtain a work in the right of way permit from the El Paso County Public Works Department prior to any signage or striping work within an existing El Paso County roadway.

AS-BUILT
STREET-STM
DEC 29, 2022

50 25 0 50 100
SCALE: 1"=50'

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@coegi.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS/CROSSINGS	12/17/2020

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD - GRAYLING DR
GRAYLING DR - MILITE DR/LAMPREY DR
LORSON BLVD
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

GRAYLING DRIVE
SIGNING & STRIPING PLAN

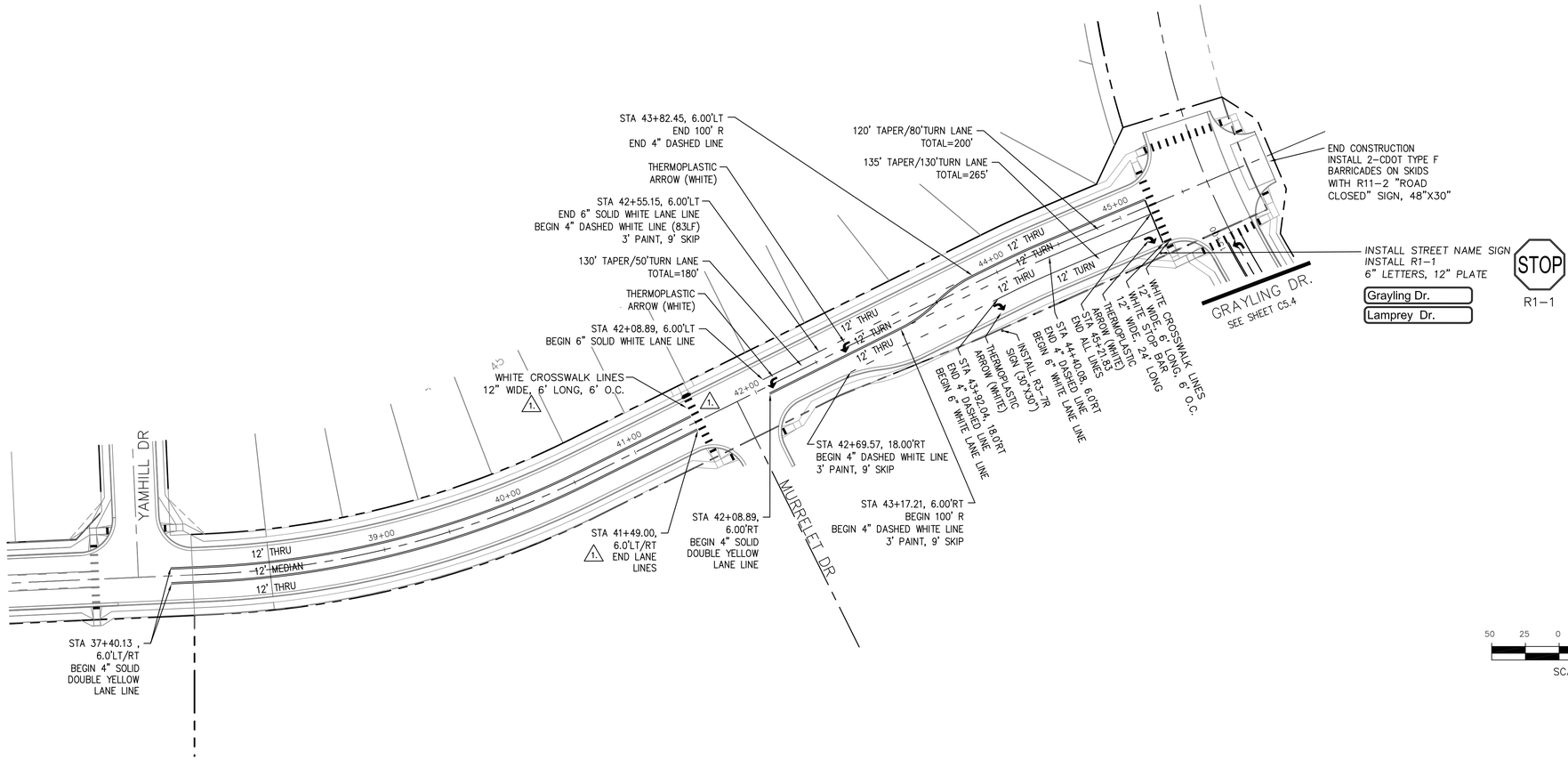
COLORADO REGISTERED RICHARD L. SCHINDLER 33997 PROFESSIONAL ENGINEER 11-12-2020

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C5.4

TOTAL SHEETS: 58



AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS/CROSSINGS	12/17/2020

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
CONTAINE BLVD FROM GRAYLING DR
TO LAMPREY DR AND LAMPREY DR
LORSON RANCH EAST
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

LAMPREY DR
SIGNING & STRIPING PLAN

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C5.5

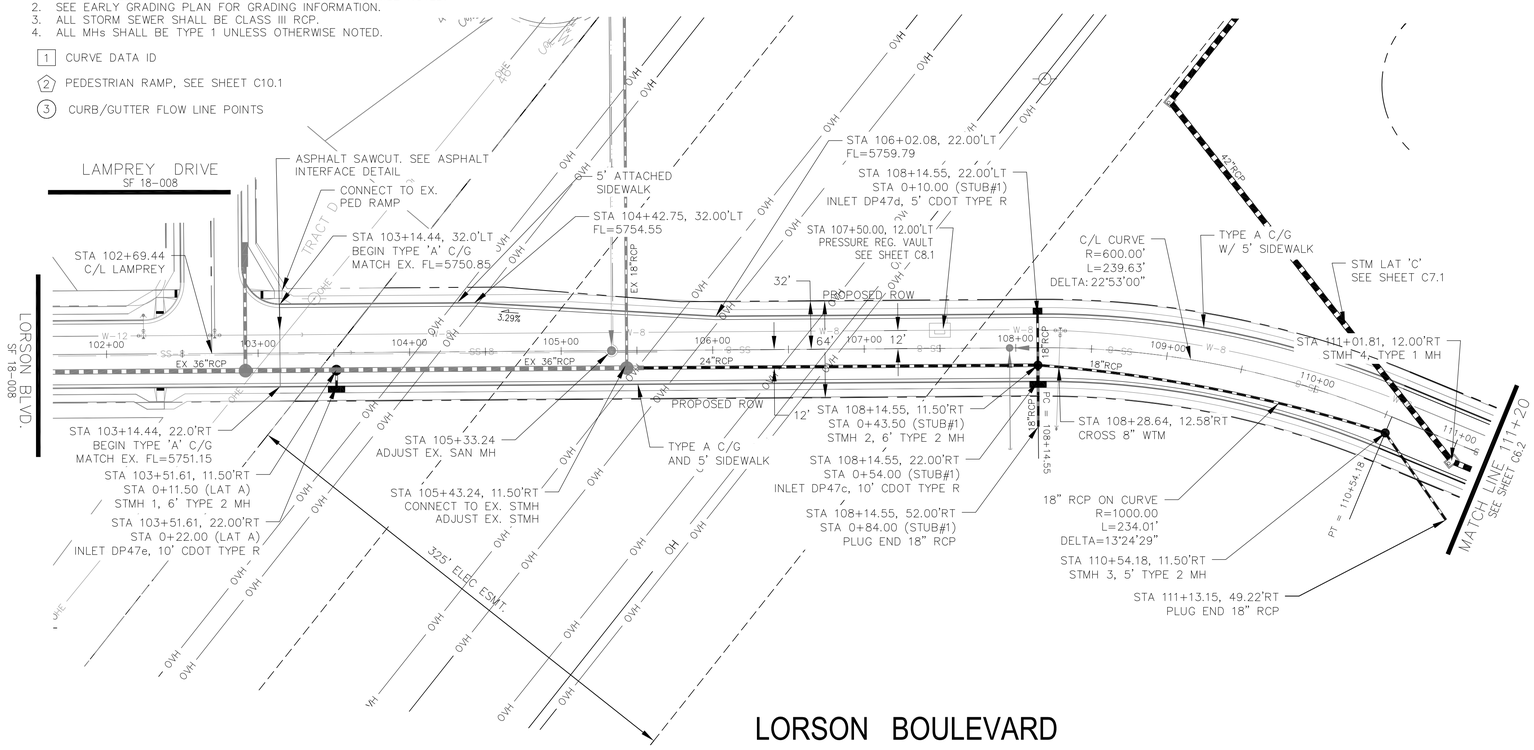
TOTAL SHEETS: 58

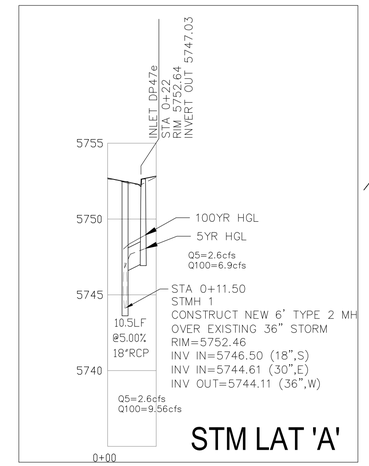
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

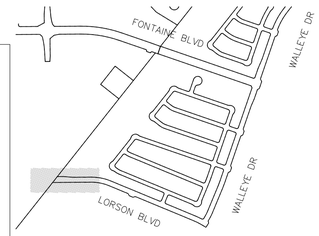
(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

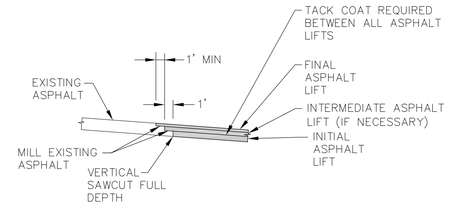
(3) CURB/GUTTER FLOW LINE POINTS



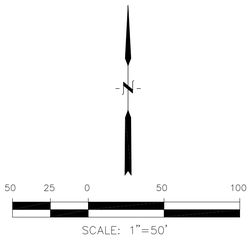




KEY MAP

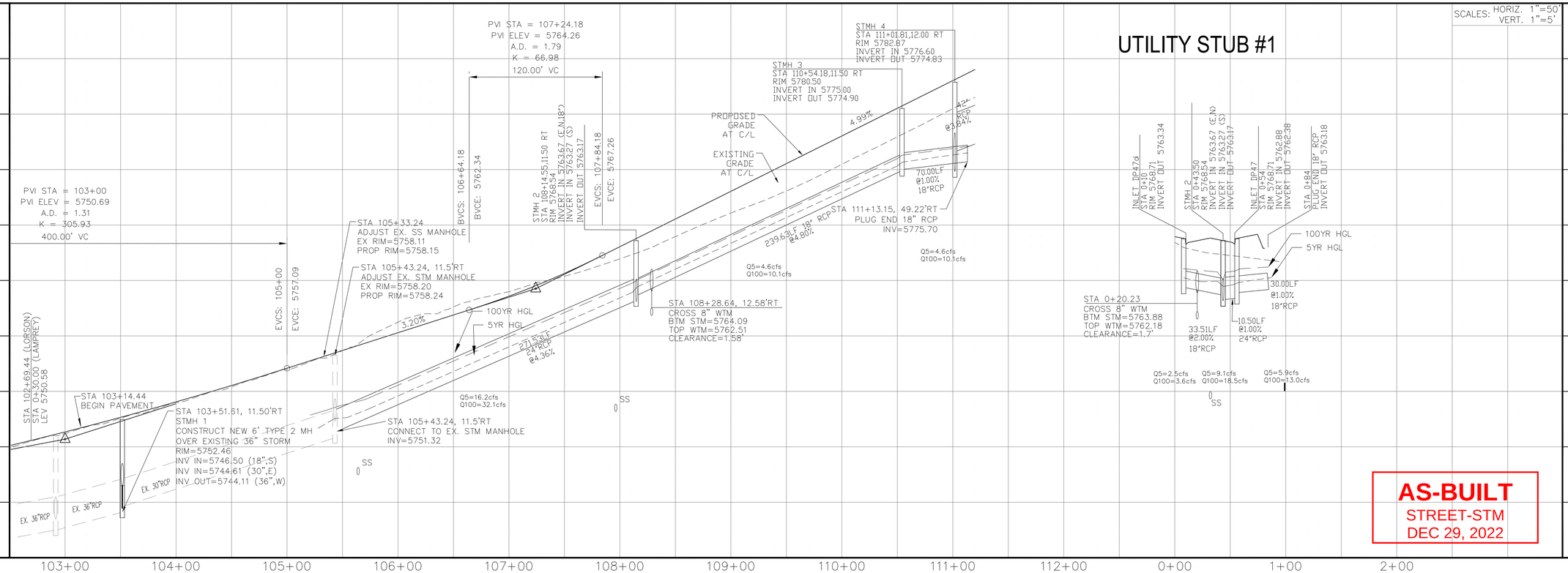


ASPHALT INTERFACE



LORSON BOULEVARD

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



UTILITY STUB #1

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DRIVE
LORSON BLVD. WALLEYE DRIVE
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
LORSON BOULEVARD
STA 103+00 TO STA 111+20

COLORADO REGISTERED RICHARD L. SCHINDLER 33997 PROFESSIONAL ENGINEER 11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.1
TOTAL SHEETS: 58

NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

[1] CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
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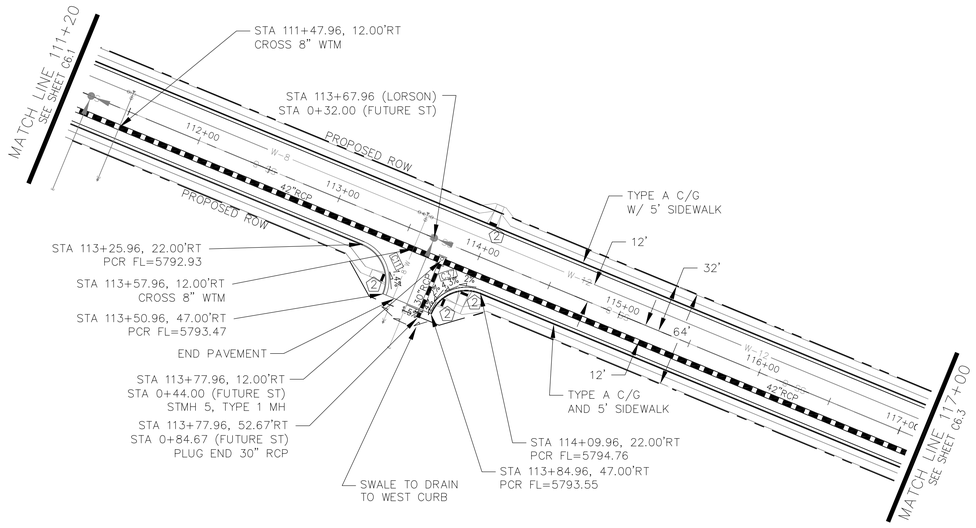
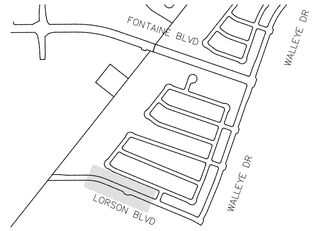
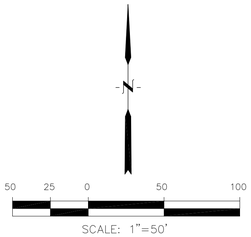
C37	39.27'	25.00	90°00'00"

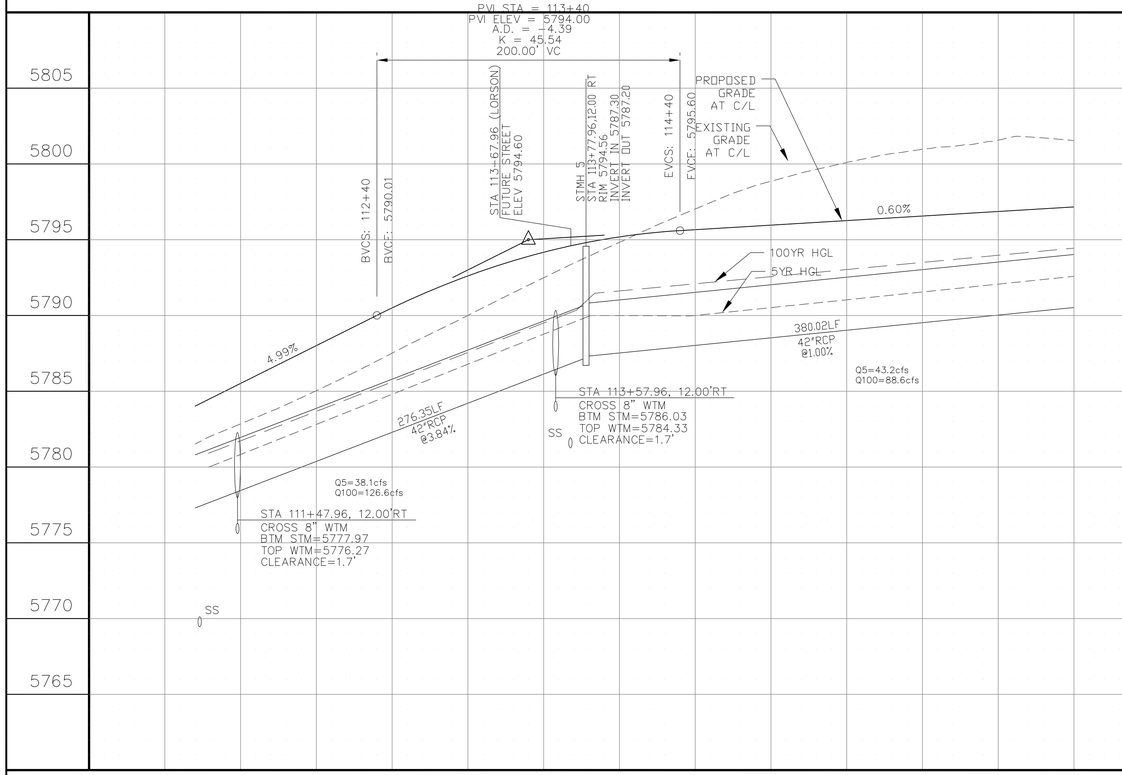




KEY MAP

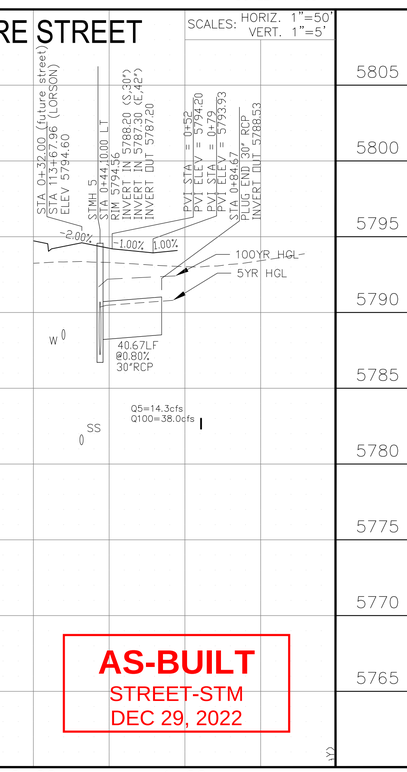


LORSON BOULEVARD



FUTURE STREET

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY
LORSON BLVD, WALLEYE DR, LARKRAY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
LORSON BOULEVARD
STA 111+20 TO STA 117+00

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C6.2
TOTAL SHEETS: 58

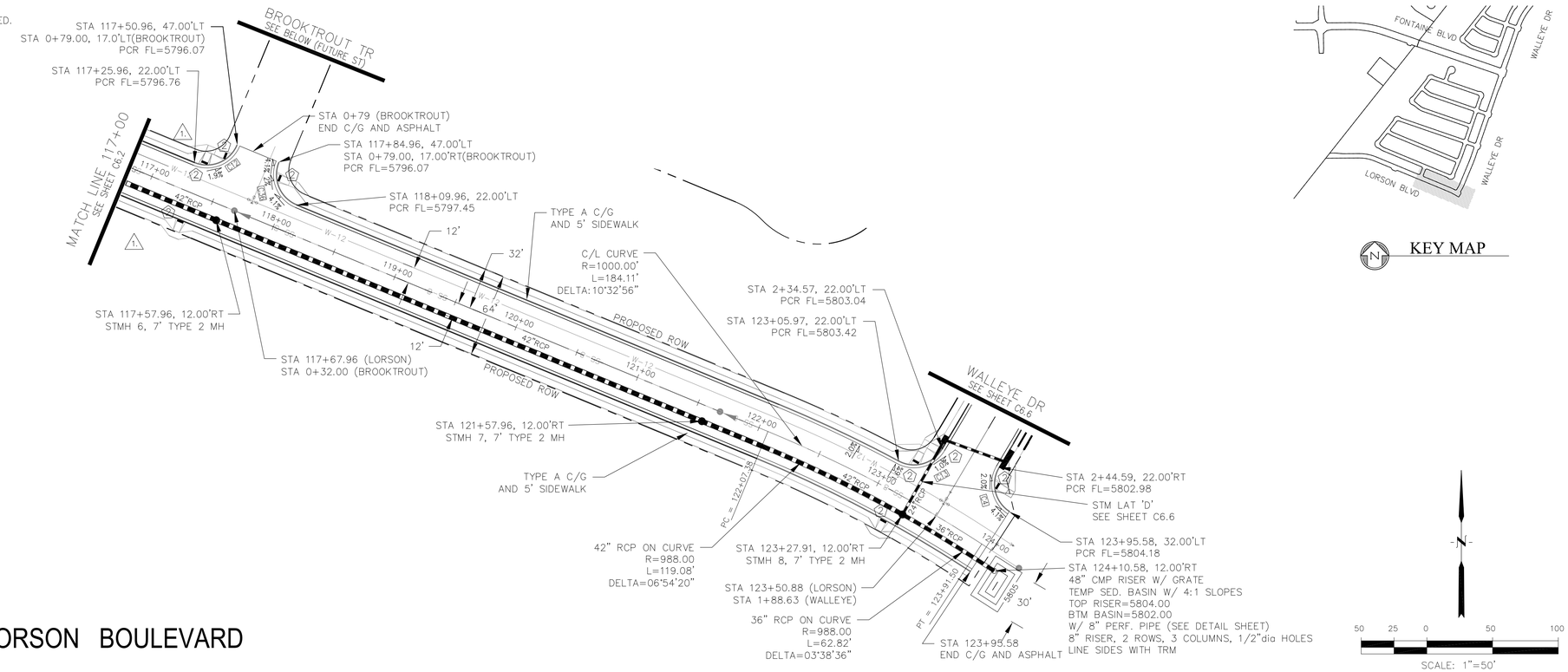
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

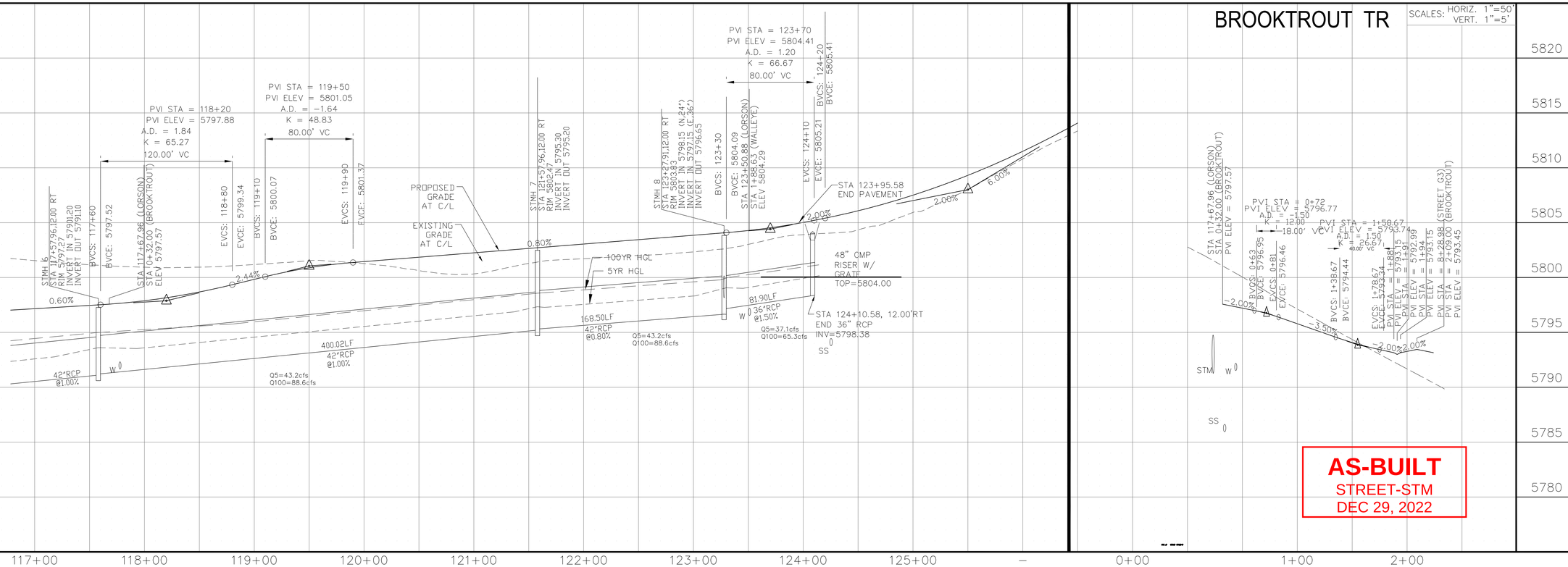
(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C4	38.25'	25.00	87°40'22"
C12	39.27'	25.00	90°00'00"
C13	38.15'	25.00	87°25'38"
C36	39.27'	25.00	90°00'00"





CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS /CROSSINGS	12/17/2020
2.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY,
LORSON BLVD, WALLEYE DR, HARVEST DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

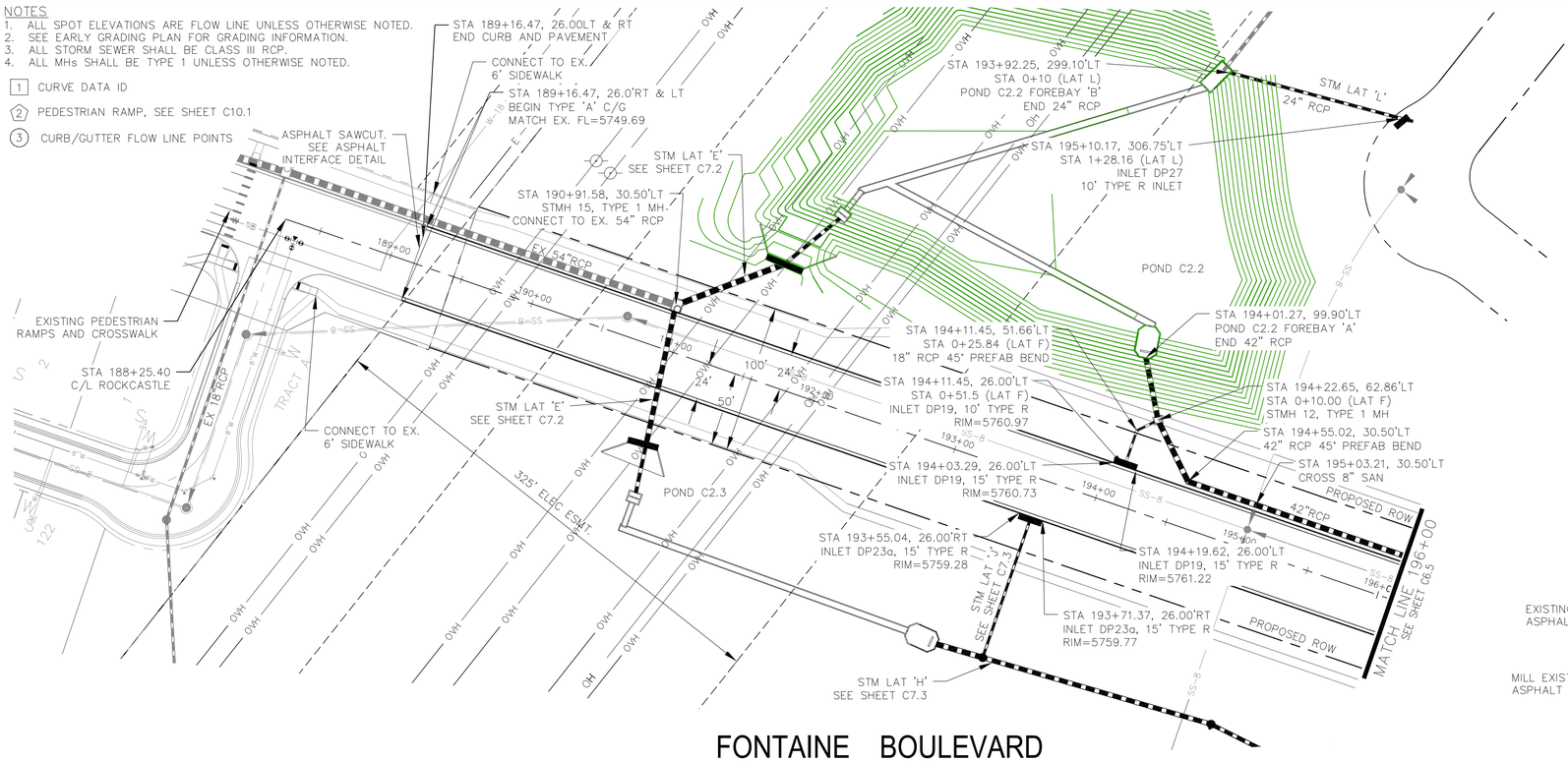
STREET & STORM SEWER PLAN/PROFILE
LORSON BOULEVARD
STA 117+00 TO STA 124+25

COLORADO REGISTERED PROFESSIONAL ENGINEER 33997 11-12-2020

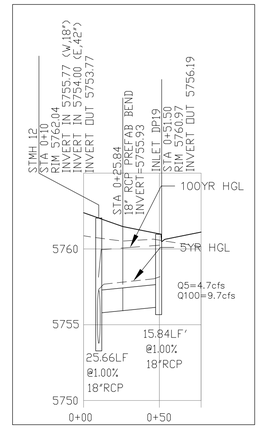
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.3
TOTAL SHEETS: 58

NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

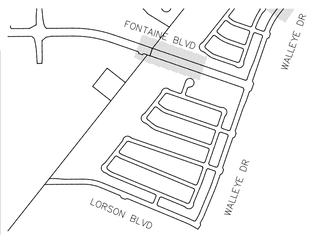
(1) CURVE DATA ID
(2) PEDESTRIAN RAMP, SEE SHEET C10.1
(3) CURB/GUTTER FLOW LINE POINTS



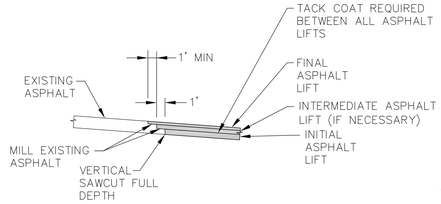
FONTAINE BOULEVARD



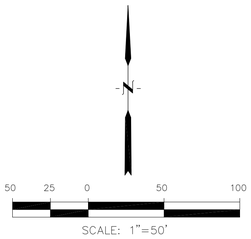
STORM LATERAL 'F'

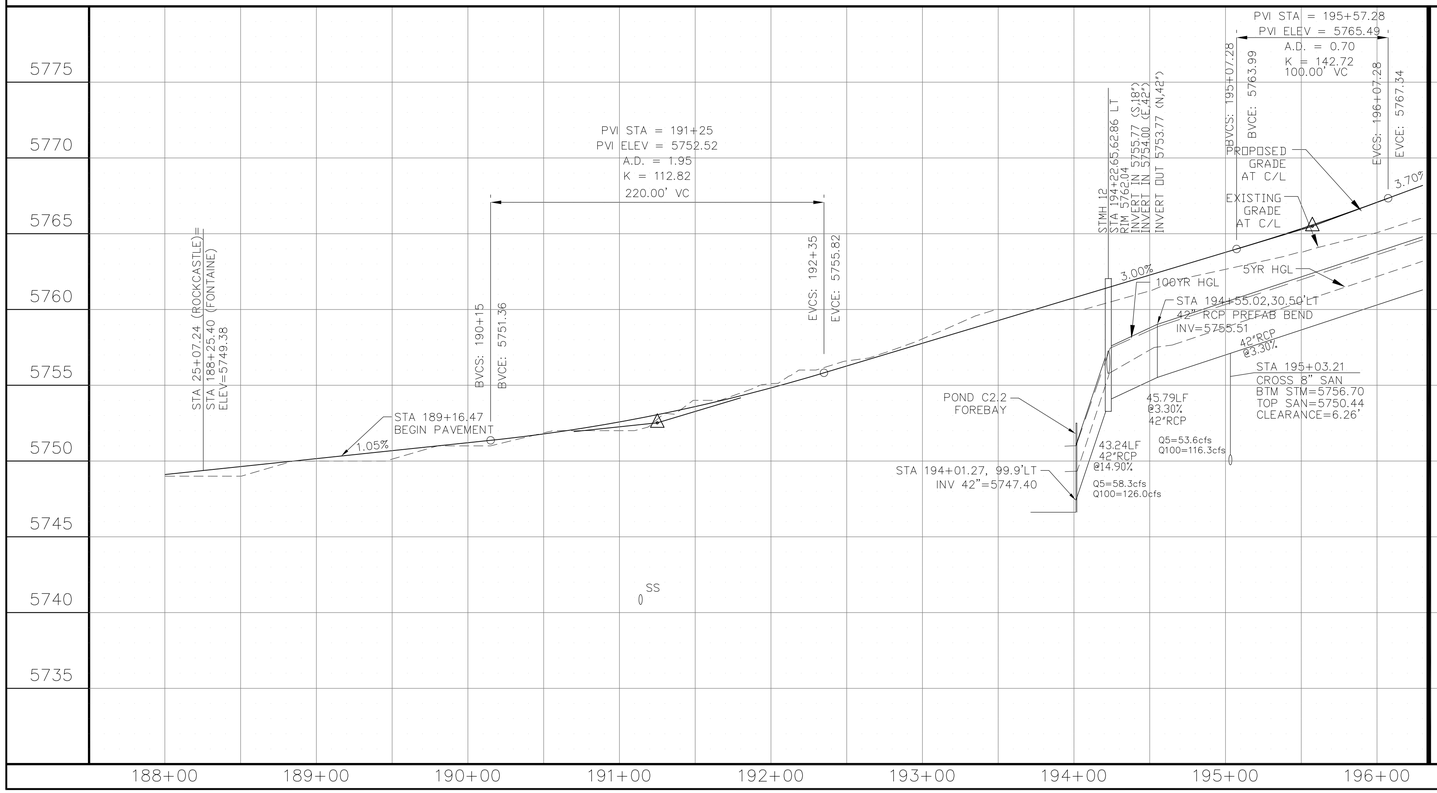


KEY MAP

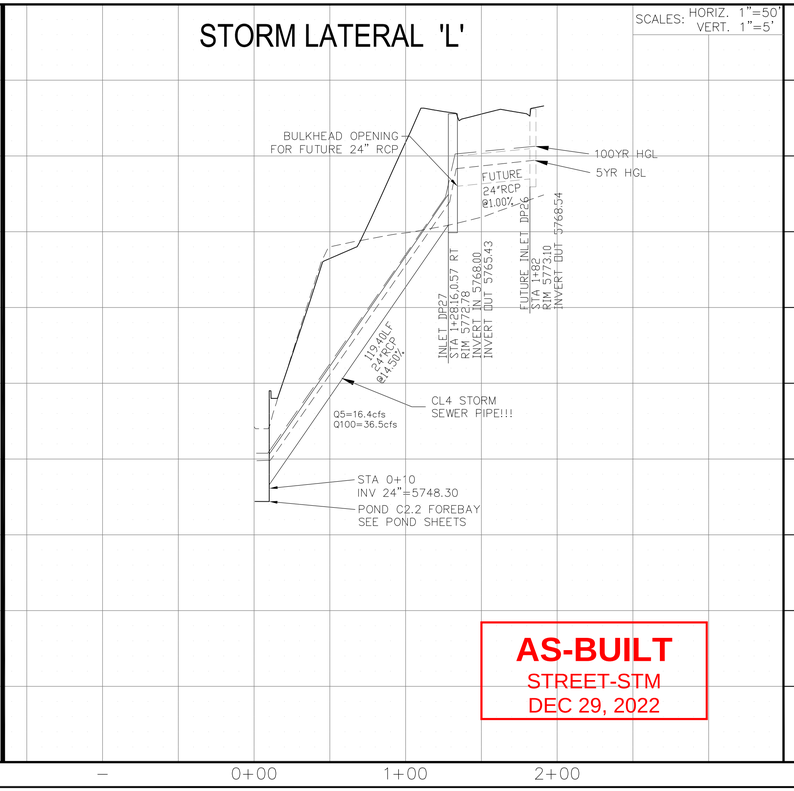


ASPHALT INTERFACE





STORM LATERAL 'L'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING WAY
WALLEYE DR. & LARKSPUR DR
LORSON BLVD. & WALLEYE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
FONTAINE BOULEVARD
STA 189+16 TO STA 196+00

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.4
TOTAL SHEETS: 58

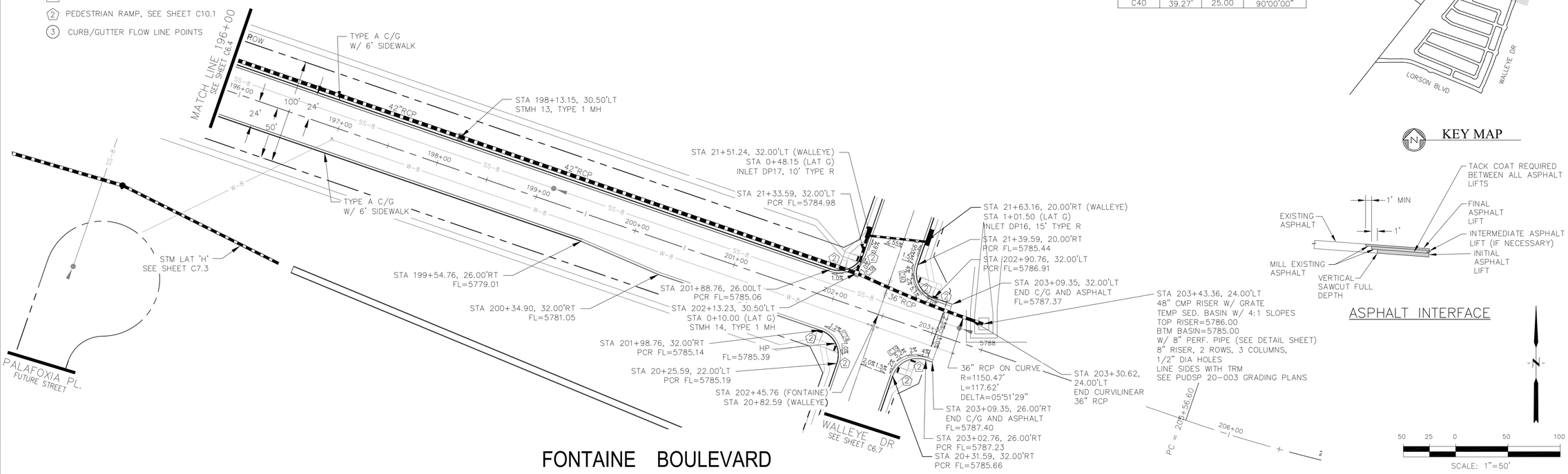
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

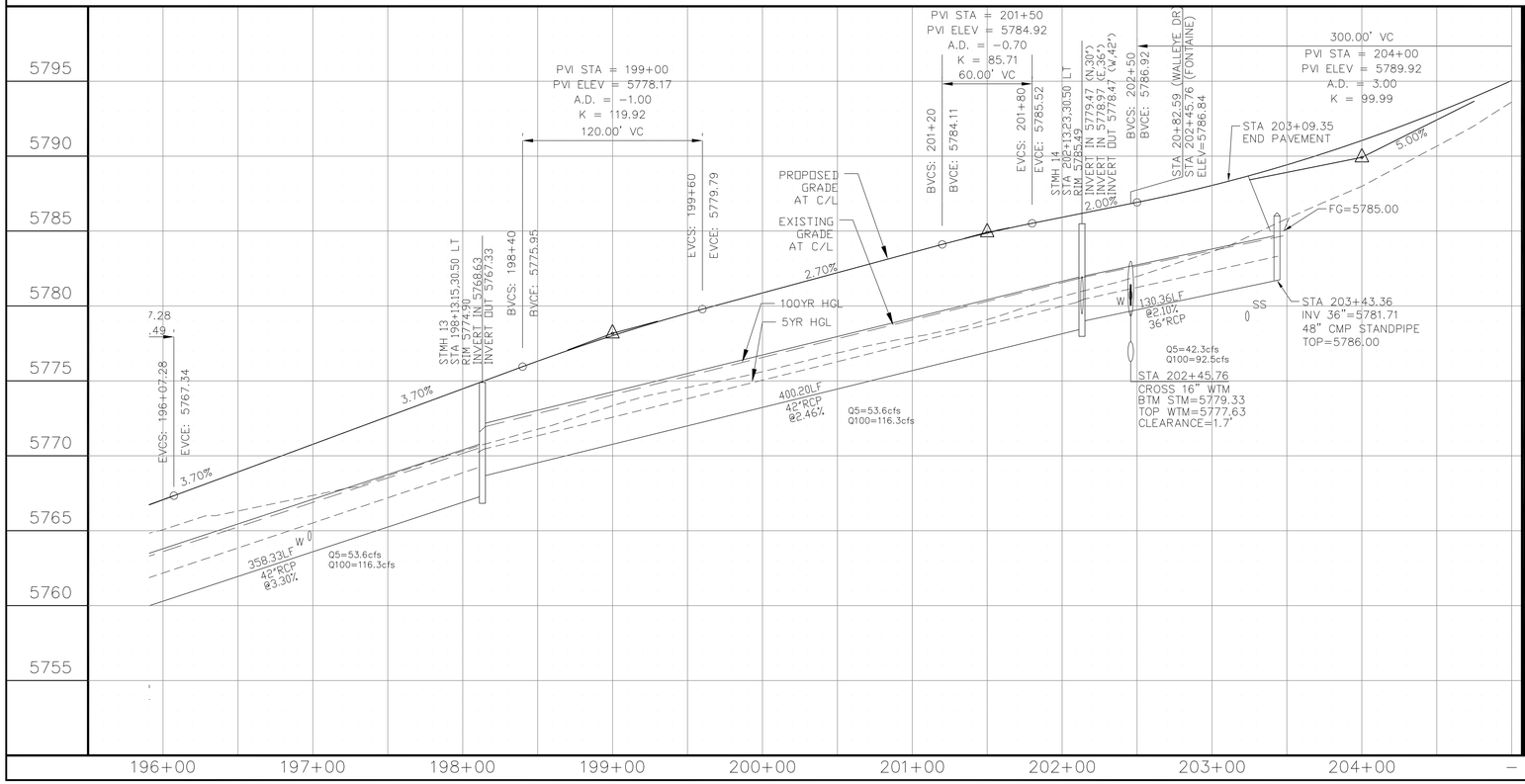
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C24	39.27'	25.00	90°00'00"
C38	39.27'	25.00	90°00'00"
C39	39.27'	25.00	90°00'00"
C40	39.27'	25.00	90°00'00"



FONTAINE BOULEVARD

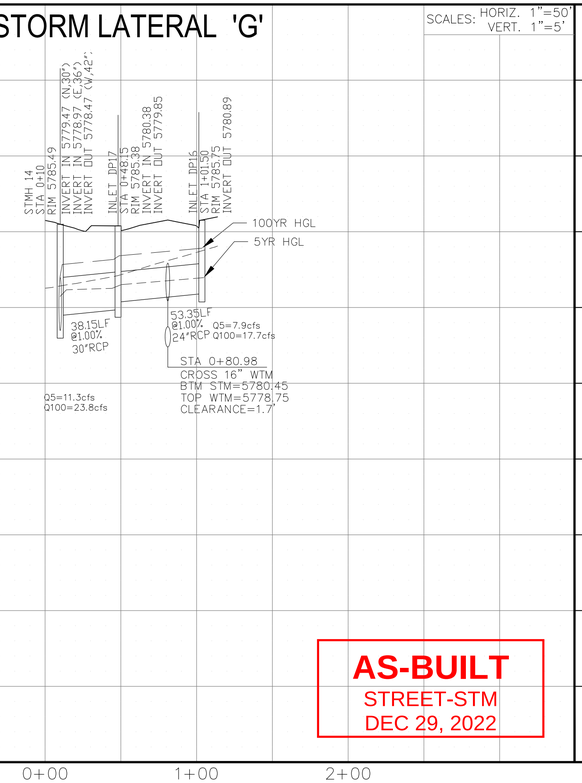
KEY MAP

ASPHALT INTERFACE



STORM LATERAL 'G'

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING WAY,
LORSON BLVD, WALLEYE DR, ALMEDA DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
FONTAINE BOULEVARD
STA 196+00 TO STA 203+25

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C6.5
TOTAL SHEETS: 58

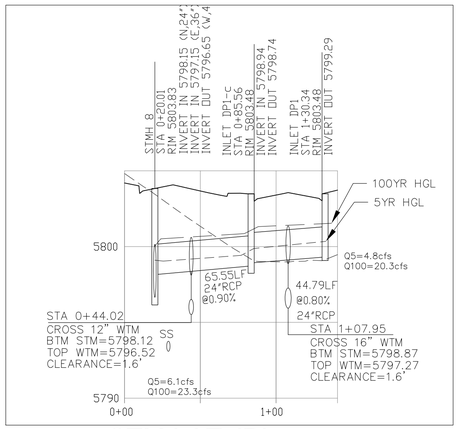
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

(1) CURVE DATA ID

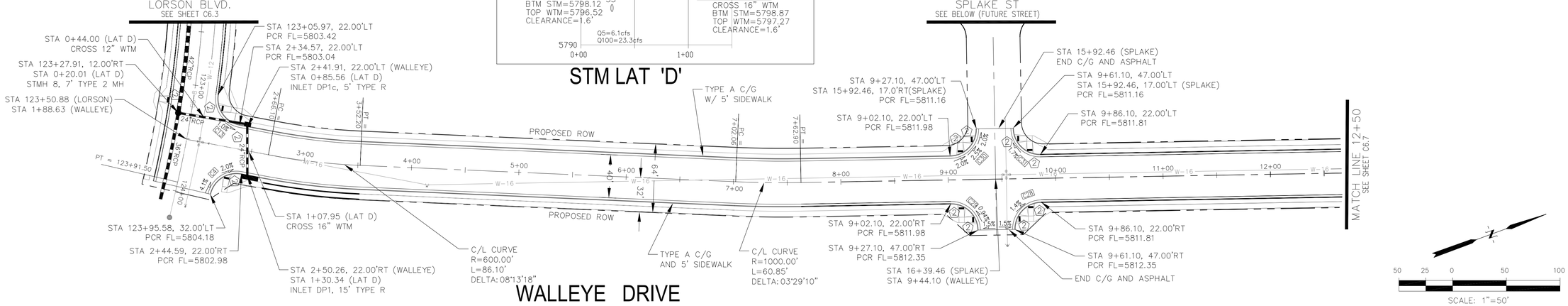
(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

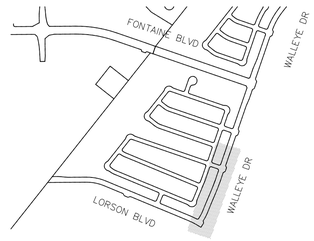
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C4	38.25'	25.00	87°40'22"
C13	38.15'	25.00	87°25'38"
C28	39.27'	25.00	90°00'00"
C29	39.27'	25.00	90°00'00"
C30	39.27'	25.00	90°00'00"
C31	39.27'	25.00	90°00'00"



STM LAT 'D'

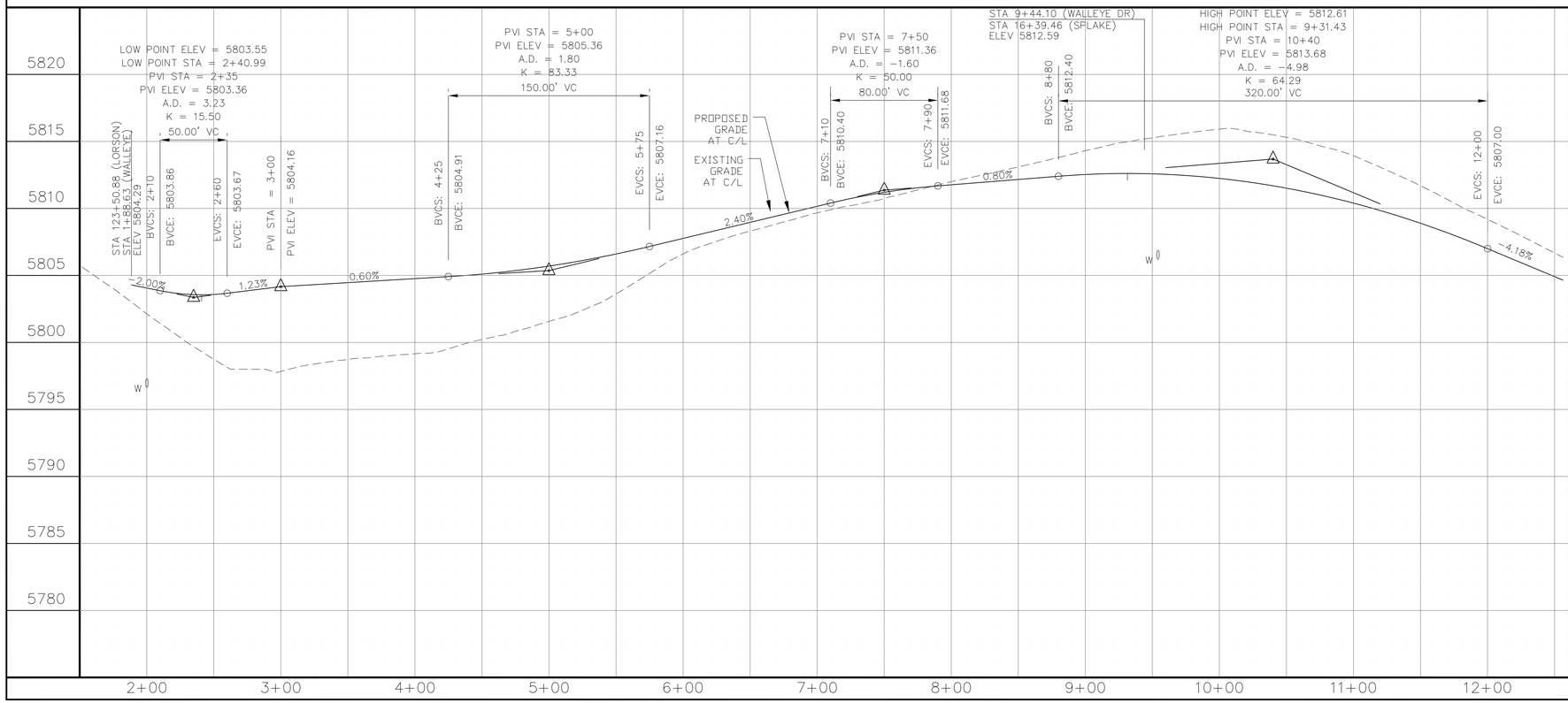


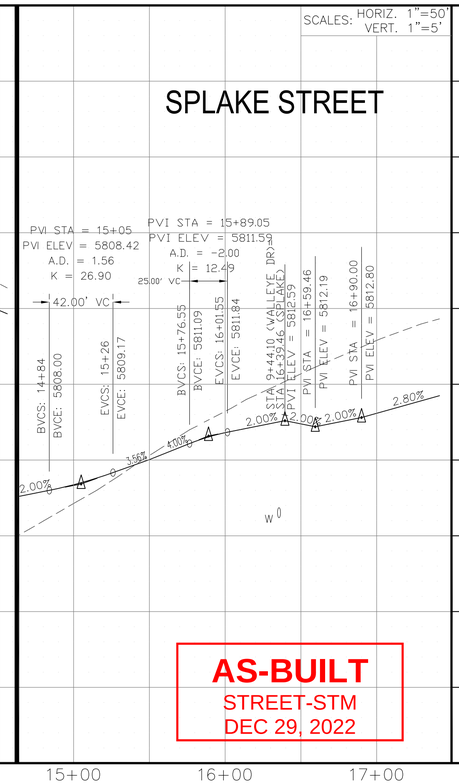
WALLEYE DRIVE



KEY MAP

50 25 0 50 100
SCALE: 1"=50'





AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLAND KEY
LORSON BLVD. WALLEYE DR. MARTEC DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
WALLEYE DR & SPLAKE ST
STA 2+00 TO STA 12+50

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.6
TOTAL SHEETS: 58

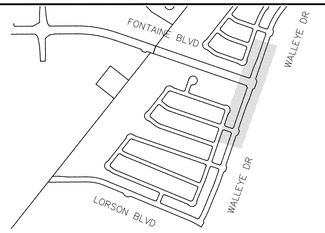
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

(1) CURVE DATA ID

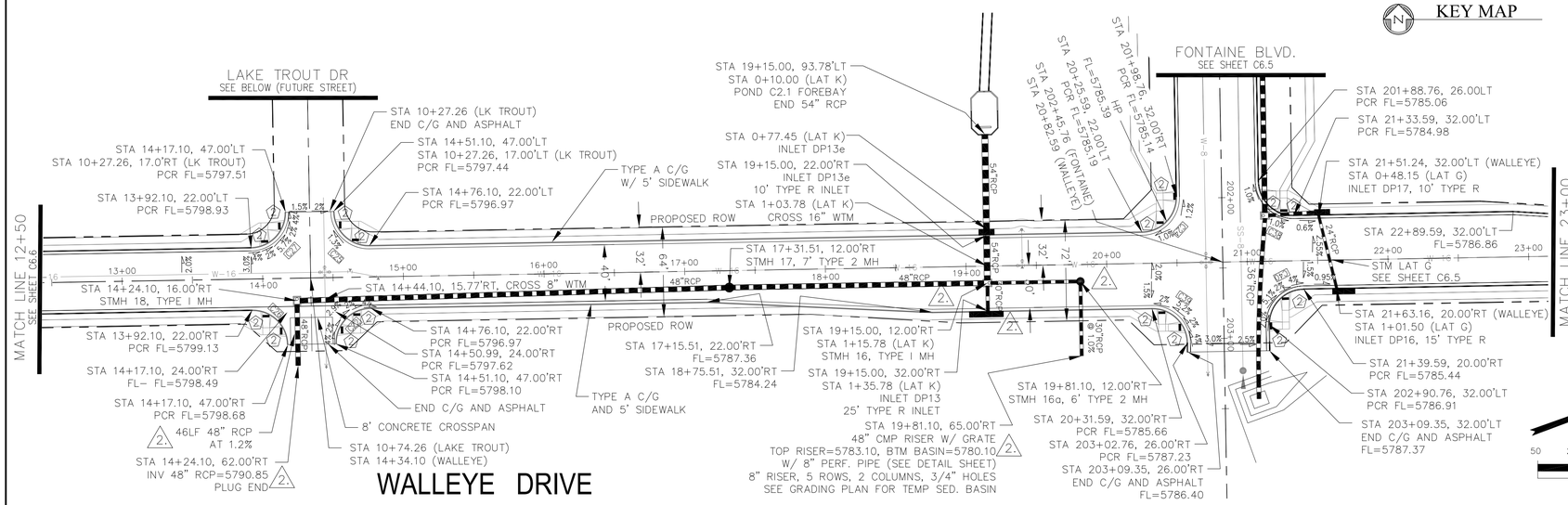
(2) PEDESTRIAN RAMP, SEE SHEET C10.1

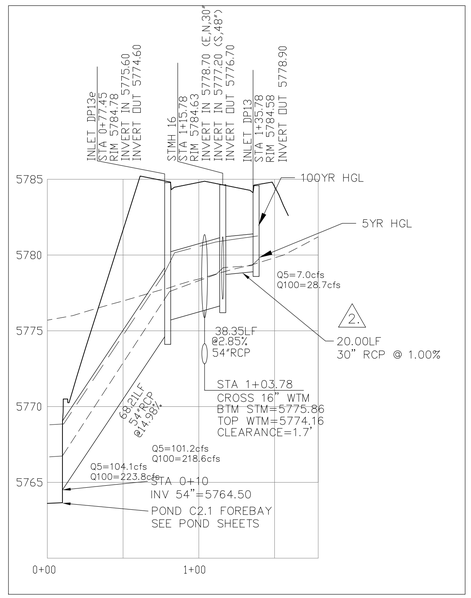
(3) CURB/GUTTER FLOW LINE POINTS

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C22	39.27'	25.00	90°00'00"
C24	39.27'	25.00	90°00'00"
C25	39.27'	25.00	90°00'00"
C26	39.27'	25.00	90°00'00"
C27	39.27'	25.00	90°00'00"
C38	39.27'	25.00	90°00'00"
C39	39.27'	25.00	90°00'00"
C40	39.27'	25.00	90°00'00"



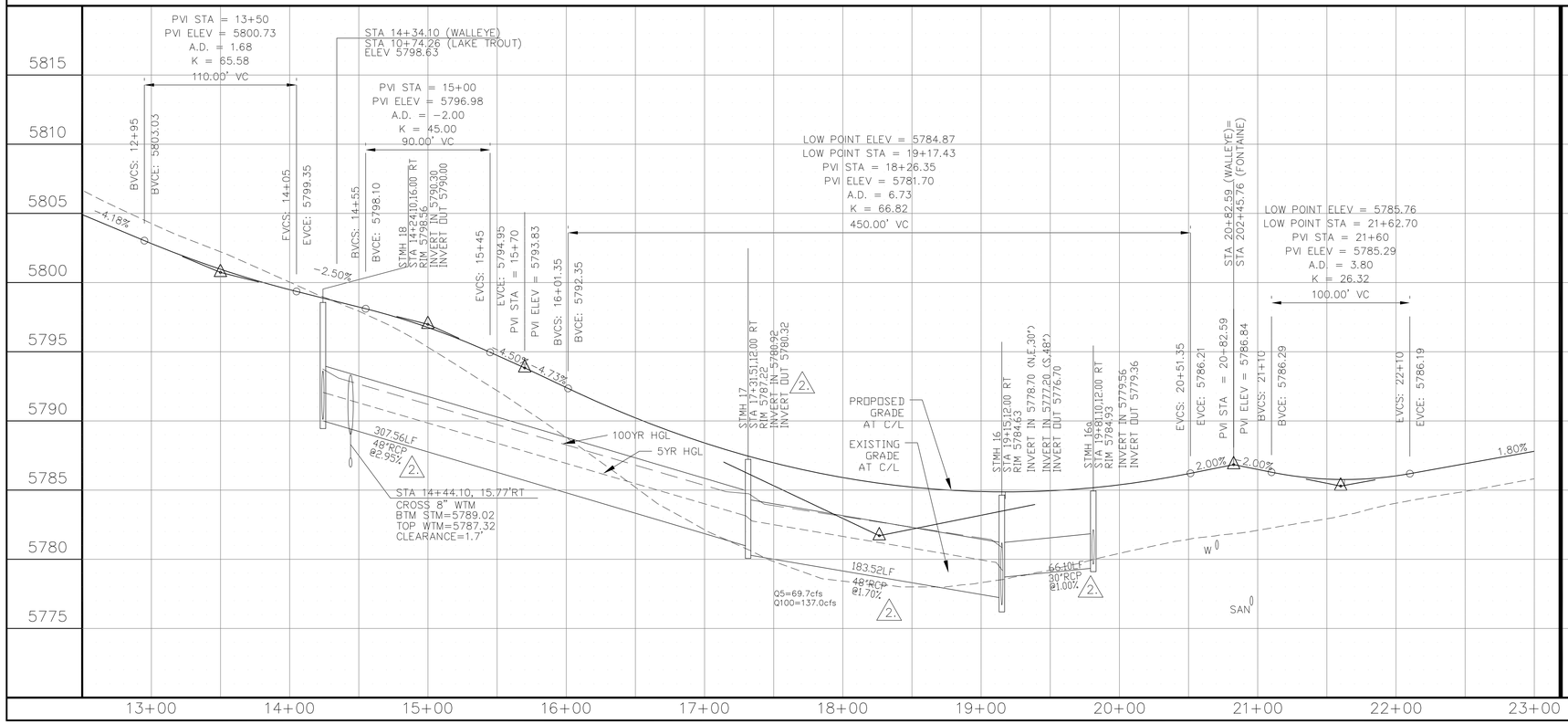
KEY MAP

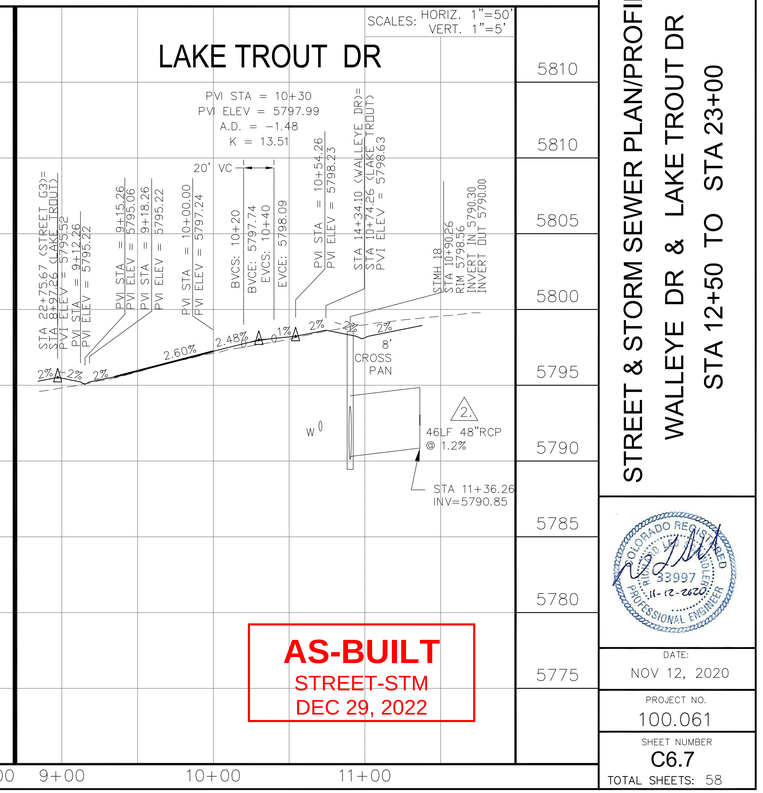




STM LATERAL 'K'

50 25 0 50 100
SCALE: 1"=50'





AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ecg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021
2.	UPSIZE TO 48" IN WALLEYE, ADD 30" STM AND MH, CHANGED TO 30" A1 INLET DP13	MARCH 3, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY, WALLEYE DR & LAKE TROUT DR
LORSCON BLVD TO WALLEYE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
WALLEYE DR & LAKE TROUT DR
STA 12+50 TO STA 23+00

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.7
TOTAL SHEETS: 58

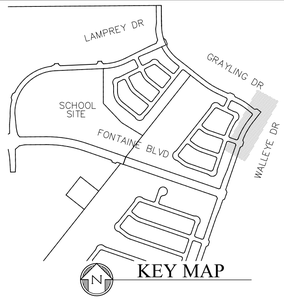
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

[1] CURVE DATA ID

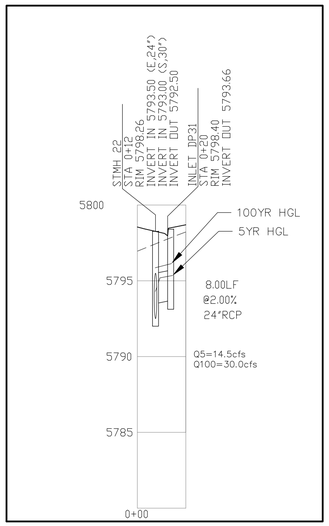
(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

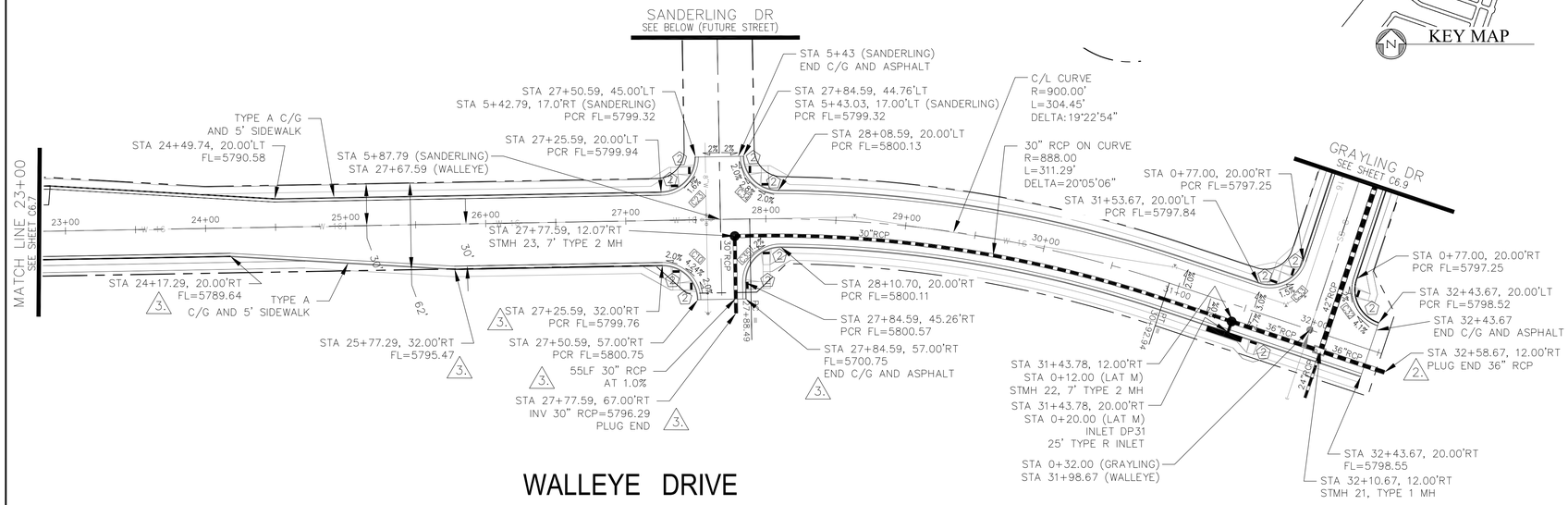
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C10	39.27'	25.00	90°00'00"
C23	39.27'	25.00	90°00'00"
C32	39.27'	25.00	90°00'00"
C33	39.27'	25.00	90°00'00"
C34	38.71'	25.00	88°43'15"
C35	39.89'	25.00	91°24'50"



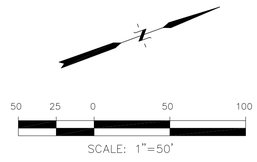
KEY MAP

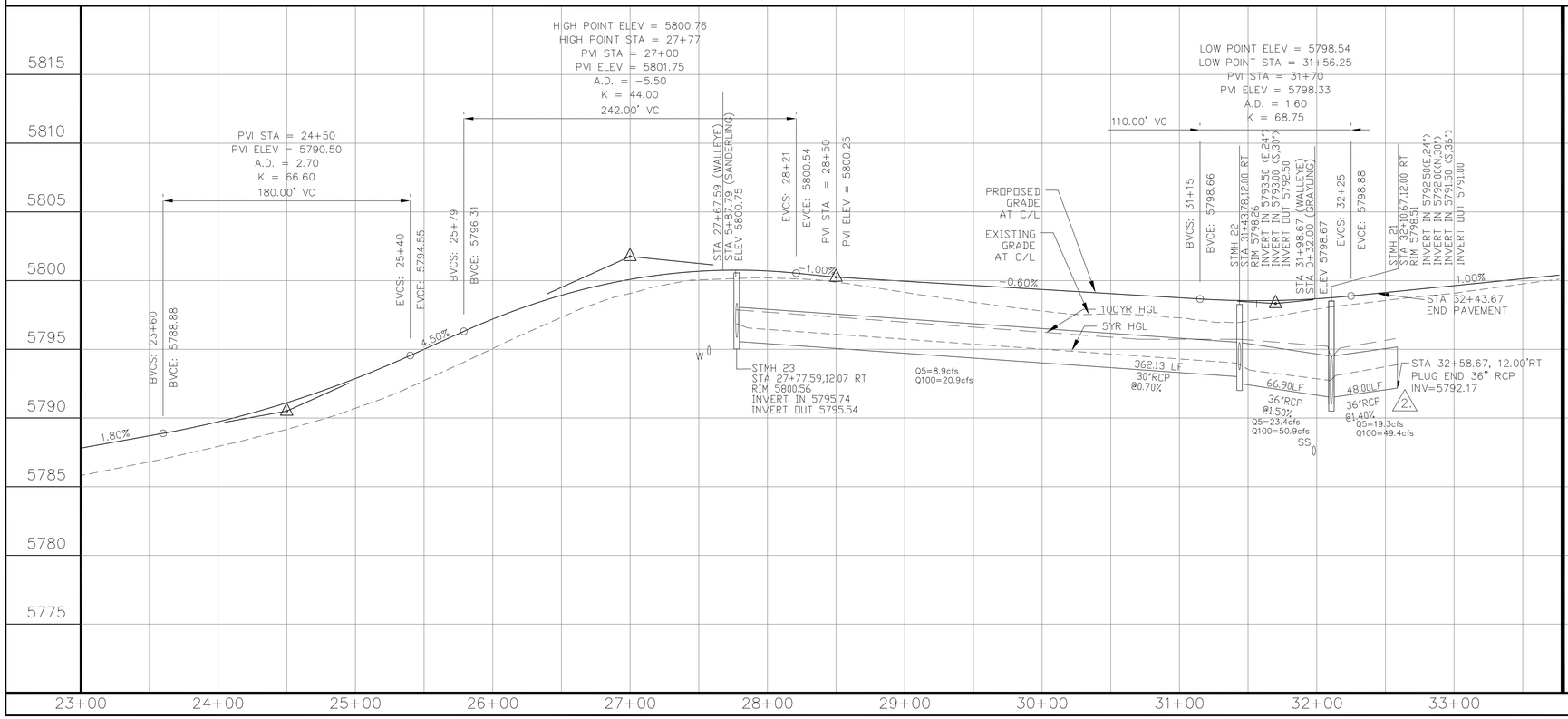


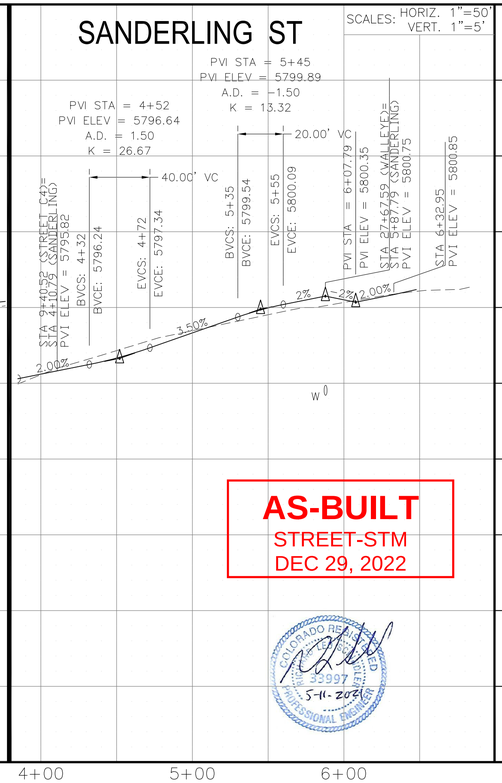
STM LATERAL 'M'



WALLEYE DRIVE







AS-BUILT
STREET-STM
DEC 29, 2022

5-11-2021

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN. 12, 2021
2.	CHANGE STUB TO 36"	MARCH 18, 2021
3.	ADD RIGHT TURN LANE AT SANDERLING	MAY 11, 2021

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, WALLEYE DR & LAMPREY DR
LORSON RANCH SUBDIVISION FILING 1E
COLORADO SPRINGS, COLORADO

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ecg1.com

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
WALLEYE DR & SANDERLING ST
STA 23+00 TO STA 32+75

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C6.8
TOTAL SHEETS: 58

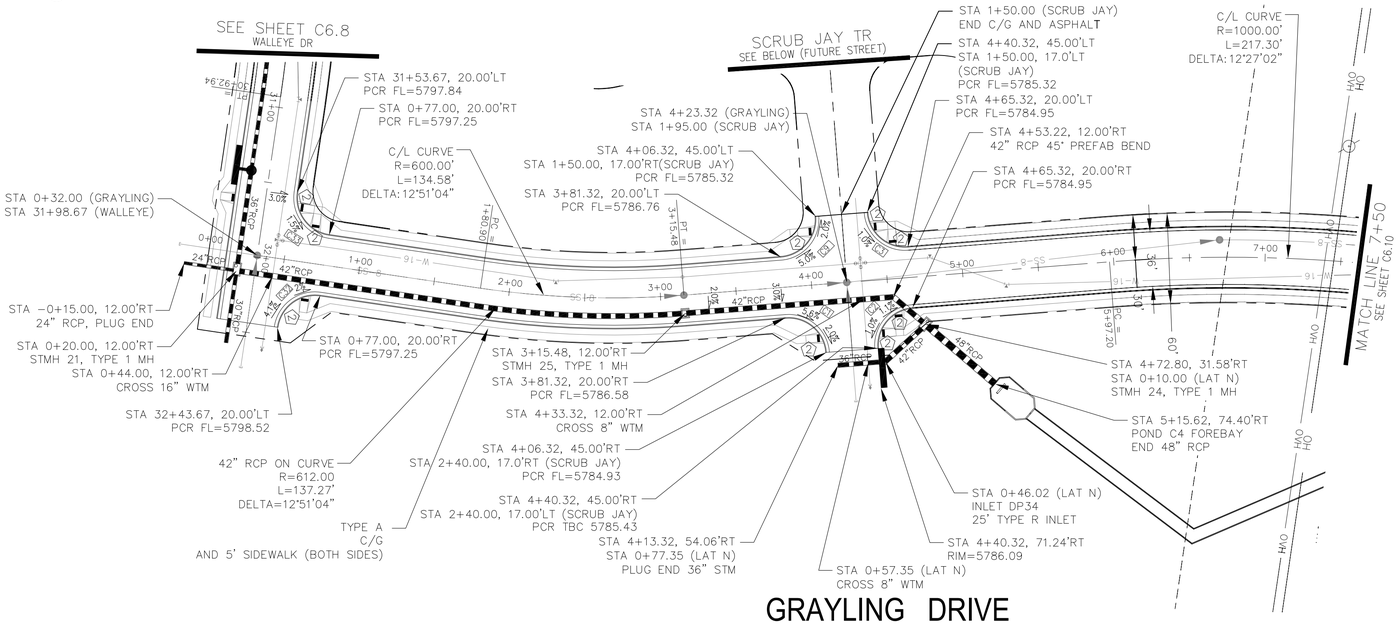
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

[1] CURVE DATA ID

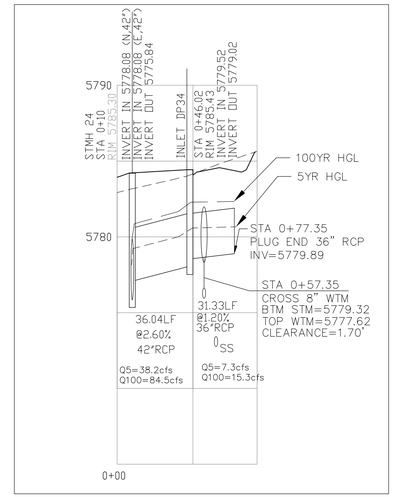
(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

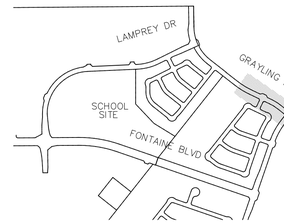
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	39.27'	25.00	90°00'00"
C2	39.27'	25.00	90°00'00"
C3	39.27'	25.00	90°00'00"
C9	39.27'	25.00	90°00'00"
C32	39.27'	25.00	90°00'00"
C33	39.27'	25.00	90°00'00"



GRAYLING DRIVE

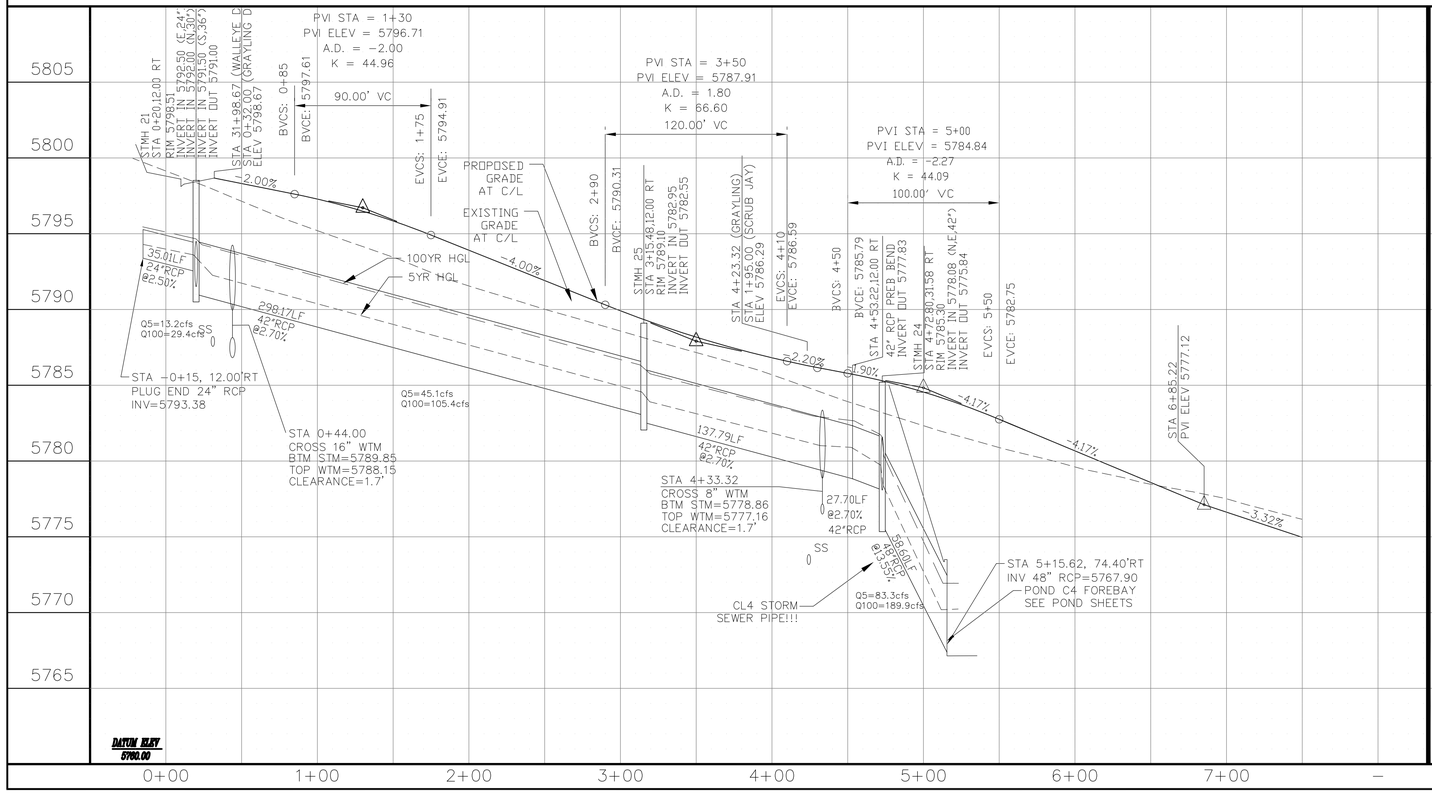


STM LAT 'N'

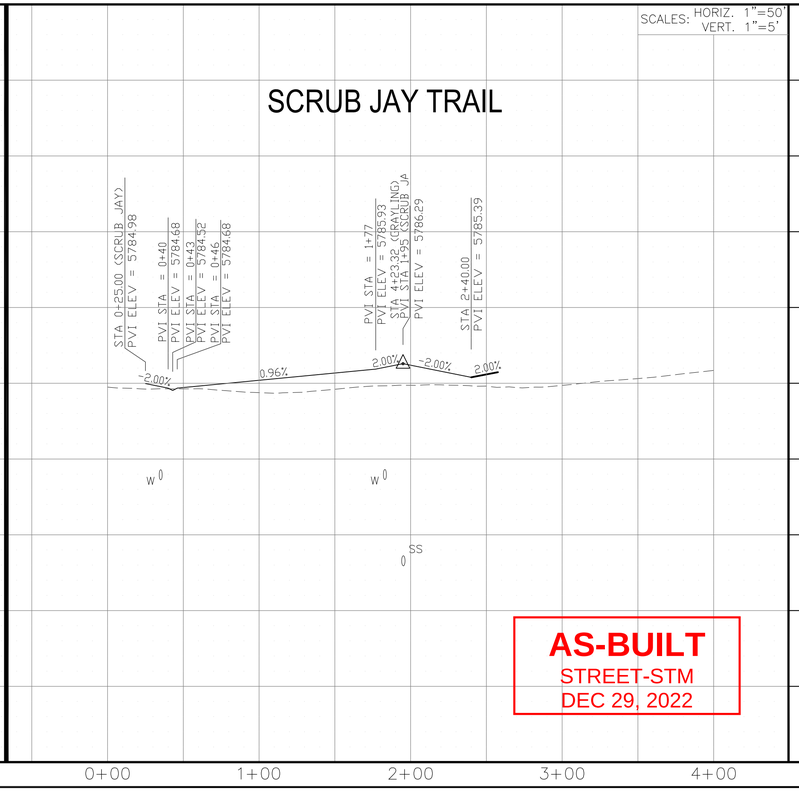


KEY MAP

SCALE: 1"=50'



SCRUB JAY TRAIL



AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, WALLEYE DR & LAMPREY DR
LORSON RANCH FILING 5E, 5F & 5G
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
GRAYLING DR & SCRUB JAY TR
STA 0+00 TO STA 7+50

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.9
TOTAL SHEETS: 58

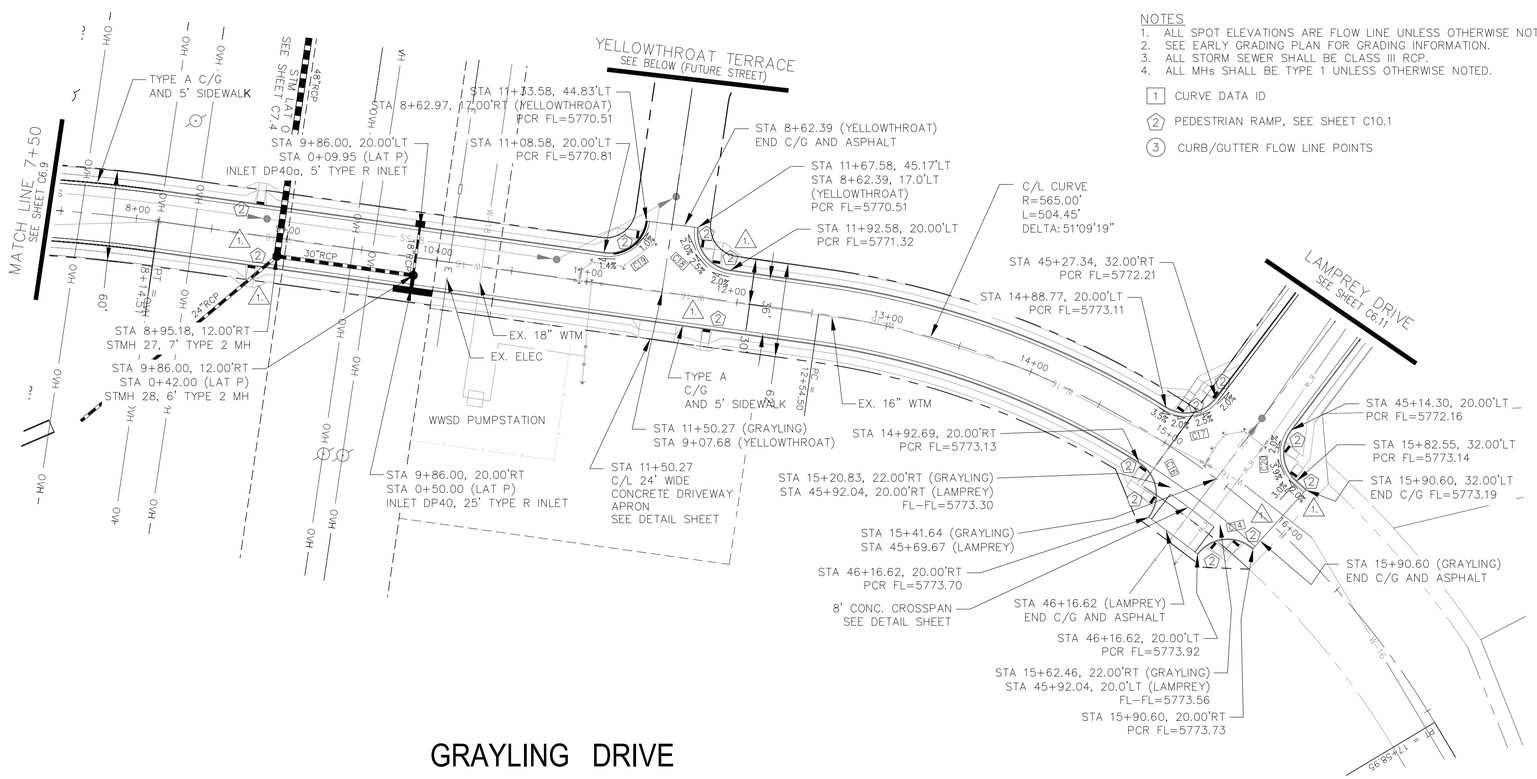
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

(1) CURVE DATA ID

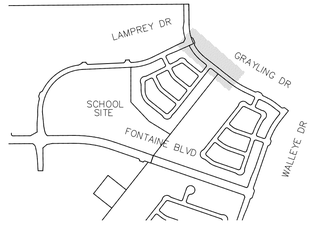
(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

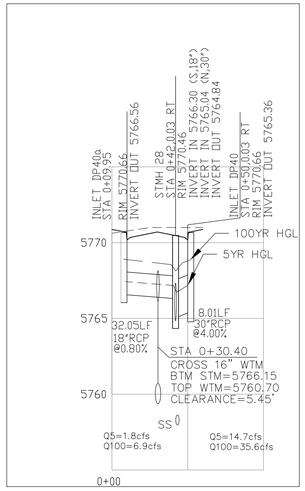
CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C14	41.44'	25.00	94°57'52"
C16	41.44'	25.00	94°57'52"
C17	36.93'	25.00	84°38'18"
C18	39.44'	25.00	90°24'02"
C19	39.10'	25.00	89°35'58"
C20	37.46'	25.00	85°51'04"



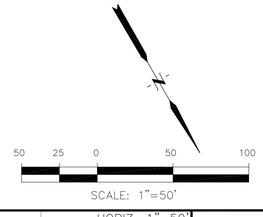
GRAYLING DRIVE



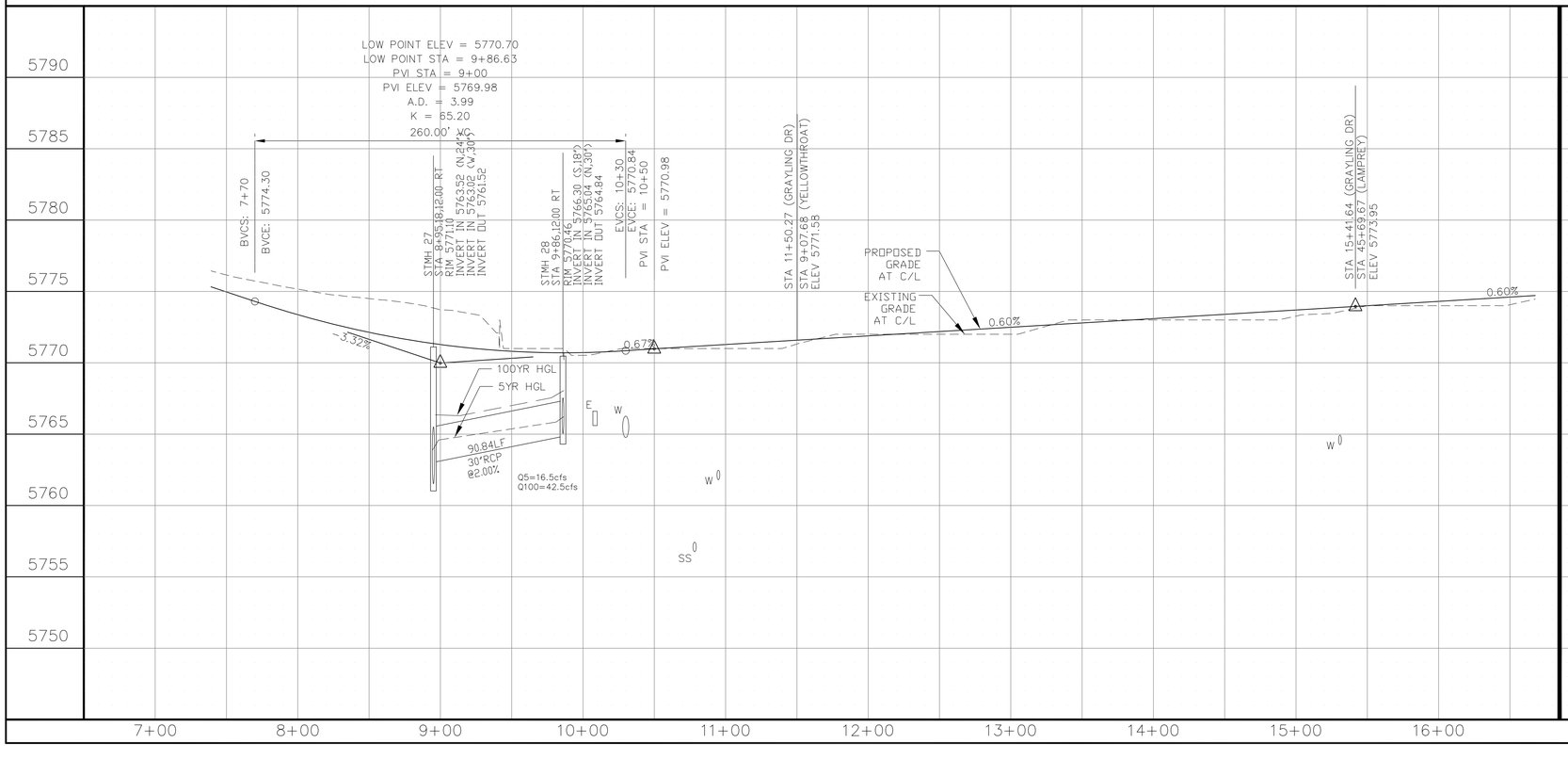
KEY MAP

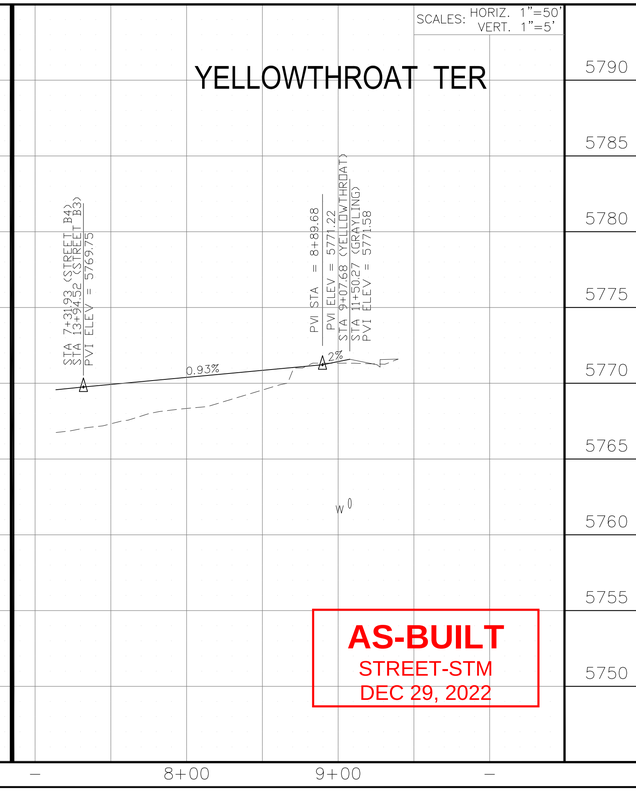


STM LAT 'P'



SCALE: 1"=50'





AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS/CROSSINGS	12/17/2020

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, LAMPREY DR
WALLEYE DR, WALLEYE TER.
LORSON RANCH
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
GRAYLING DR & YELLOWTHROAT TER.
STA 7+50 TO STA 16+00

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C6.10
TOTAL SHEETS: 58

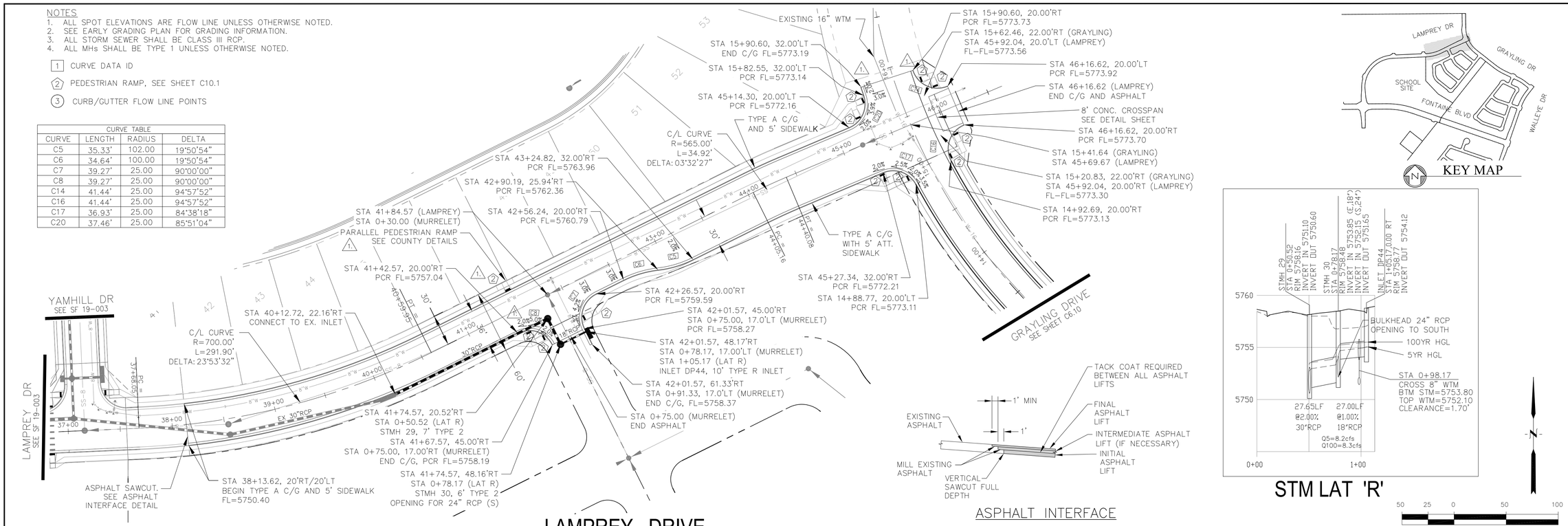
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

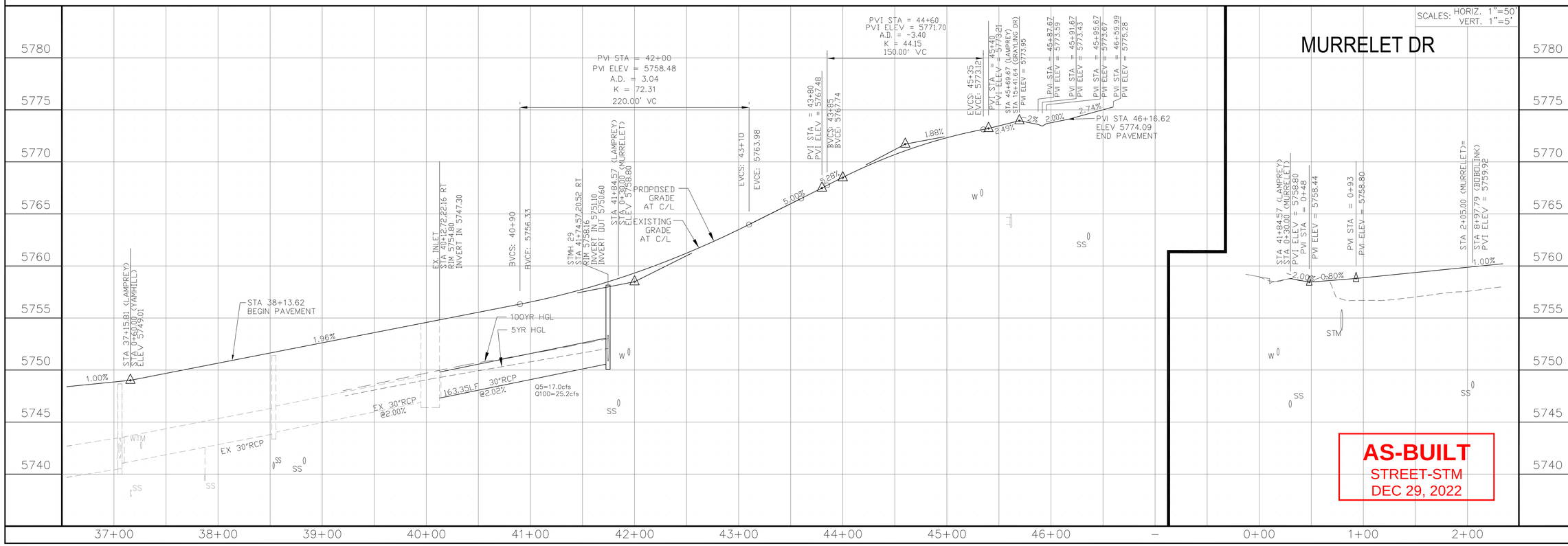
(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C5	35.33'	102.00	19°50'54"
C6	34.64'	100.00	19°50'54"
C7	39.27'	25.00	90°00'00"
C8	39.27'	25.00	90°00'00"
C14	41.44'	25.00	94°57'52"
C16	41.44'	25.00	94°57'52"
C17	36.93'	25.00	84°38'18"
C20	37.46'	25.00	85°51'04"





CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	ADD PEDESTRIAN RAMPS/CROSSINGS	12/17/2020

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, CO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR. LAMPREY DR
LORSON RANCH EAST, WALLEYE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
LAMPREY DR AND MURRELET DR
STA 37+15 TO STA 46+00

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020
RICHARD L. SCHINDLER

DATE: NOV 12, 2020

PROJECT NO. 100.061

SHEET NUMBER C6.11

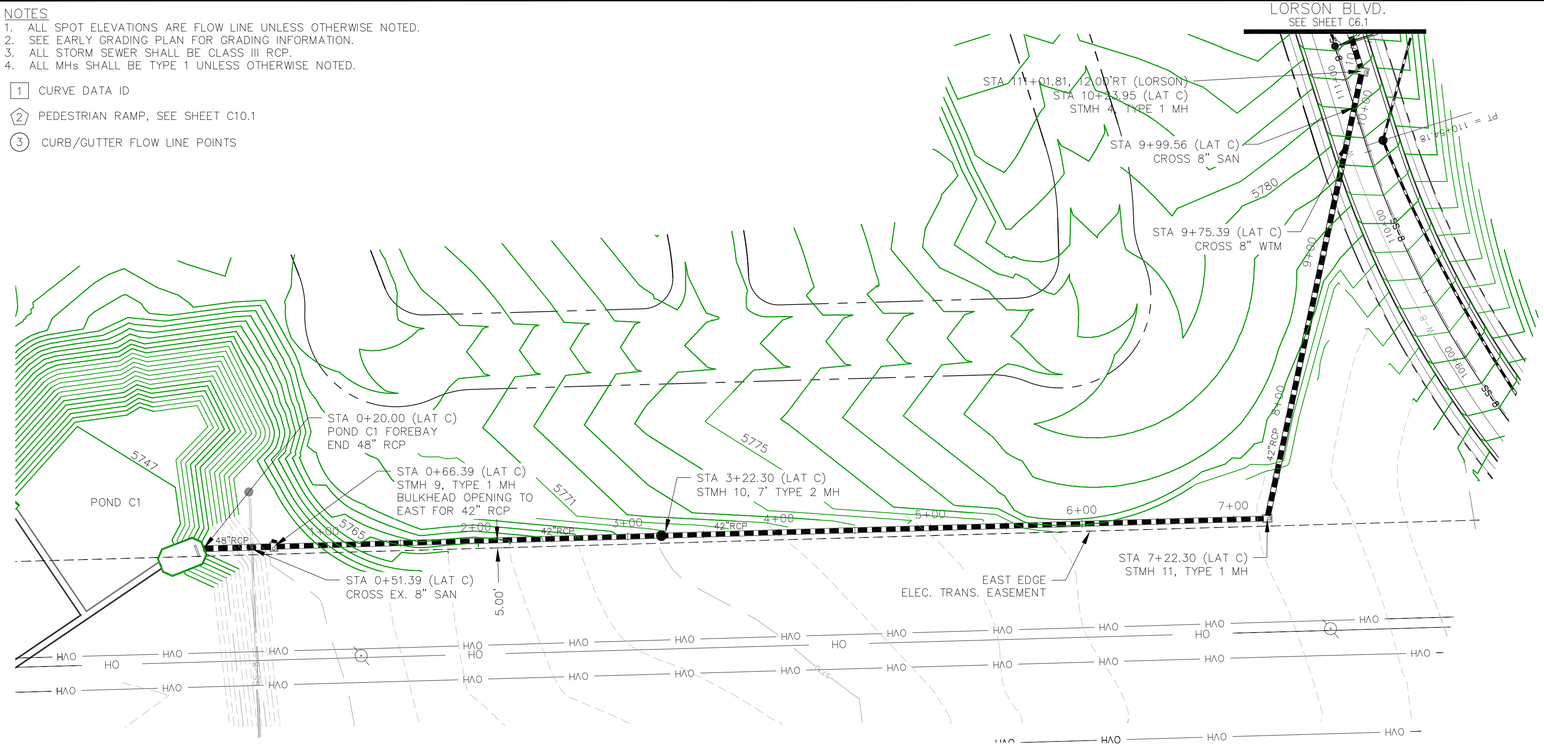
TOTAL SHEETS: 58

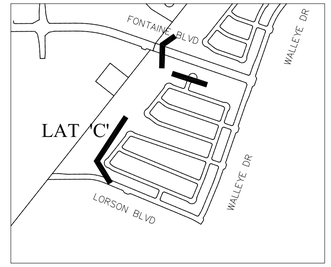
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

[1] CURVE DATA ID

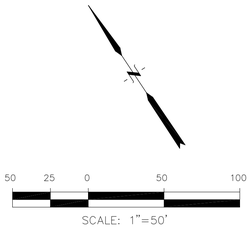
[2] PEDESTRIAN RAMP, SEE SHEET C10.1

[3] CURB/GUTTER FLOW LINE POINTS



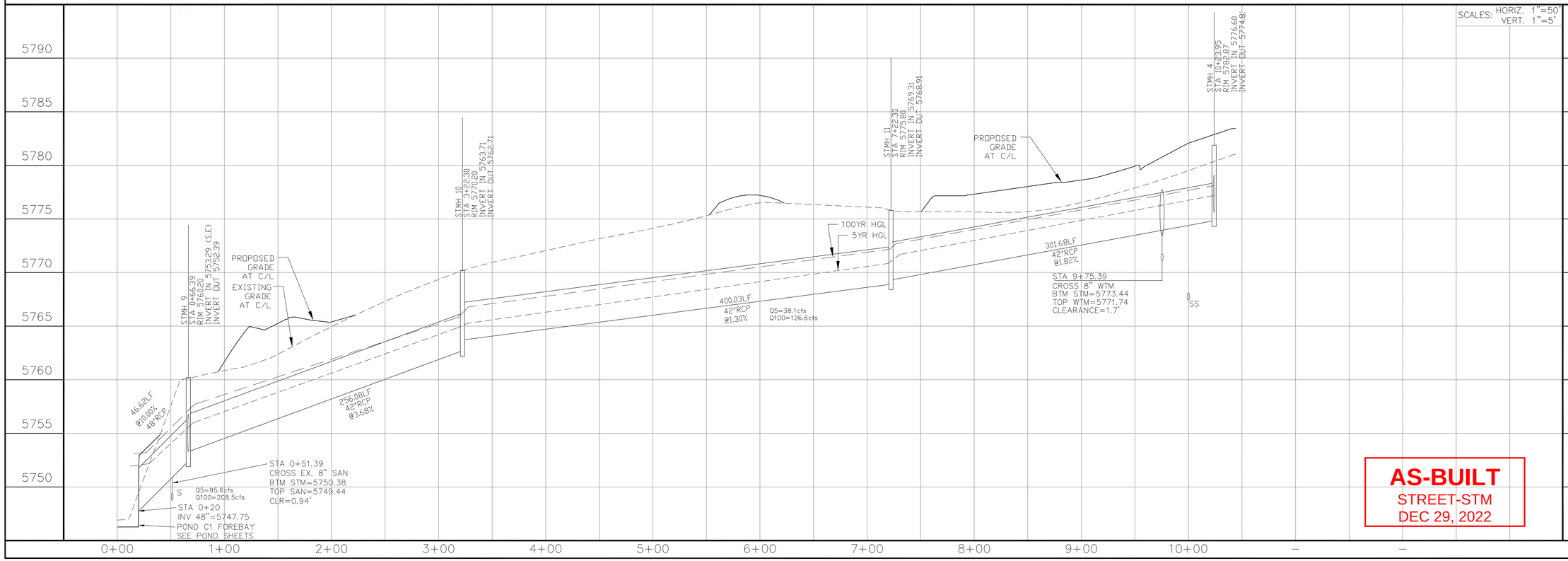


KEY MAP



SCALE: 1"=50'

STORM LATERAL 'C'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ecg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. & RAYLAND DR.
LORSON BLVD. & WALLEYE DR./HARVEY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
STORM LATERAL 'C'
-

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE:
NOV 12, 2020

PROJECT NO.
100.061

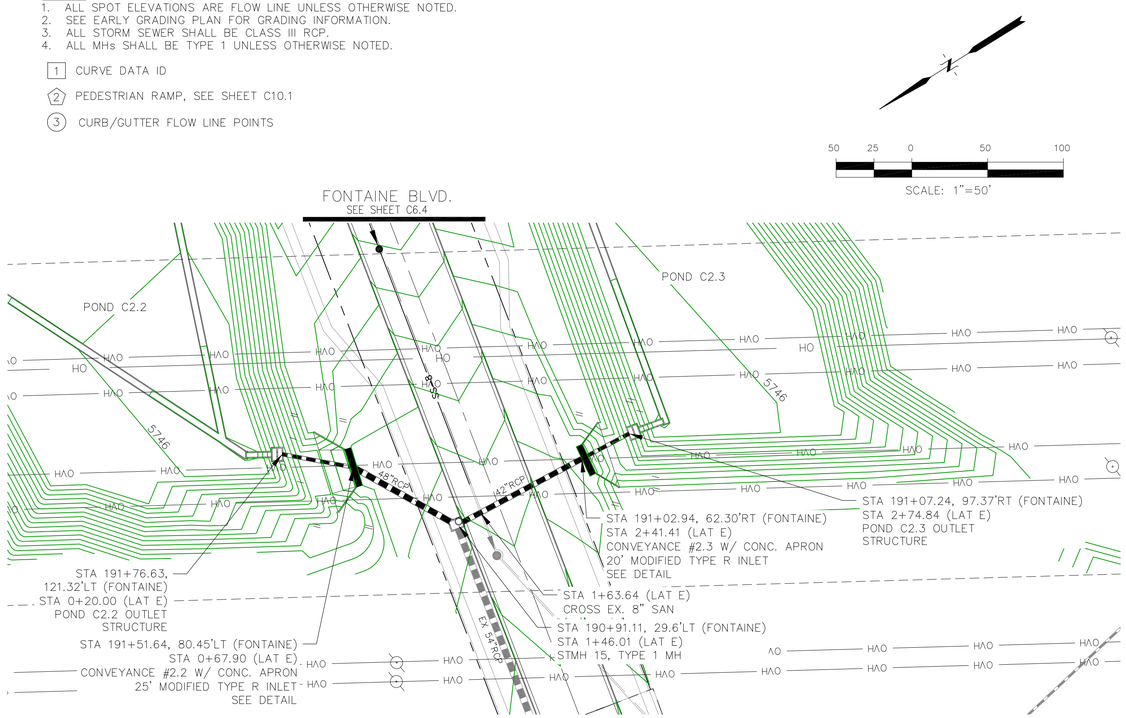
SHEET NUMBER
C7.1
TOTAL SHEETS: 58

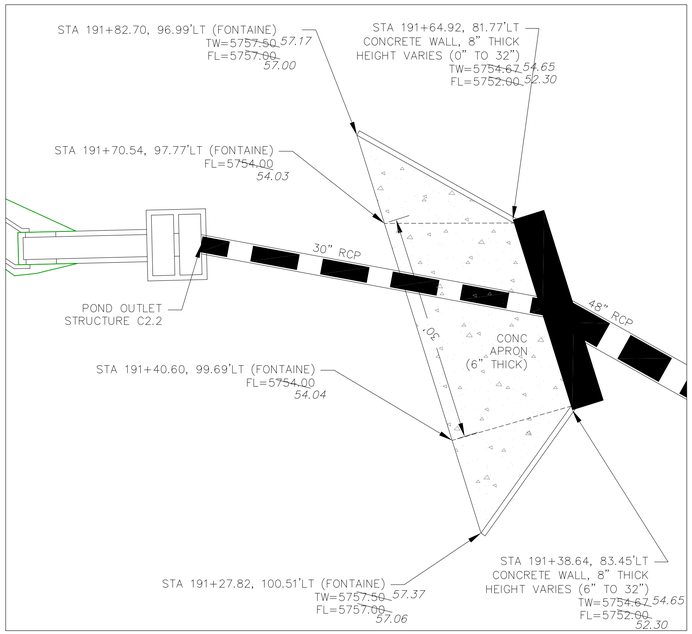
NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

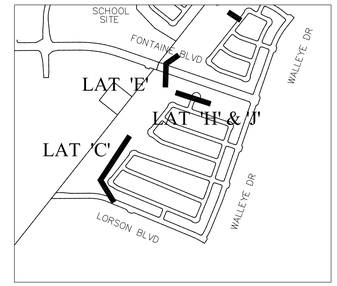
(3) CURB/GUTTER FLOW LINE POINTS





CONVEYANCE STRUCTURE #2.2

SCALE: 1"=10'



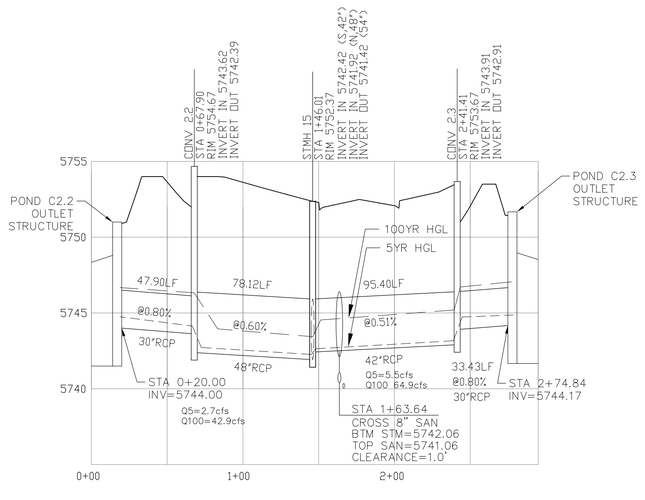
KEY MAP

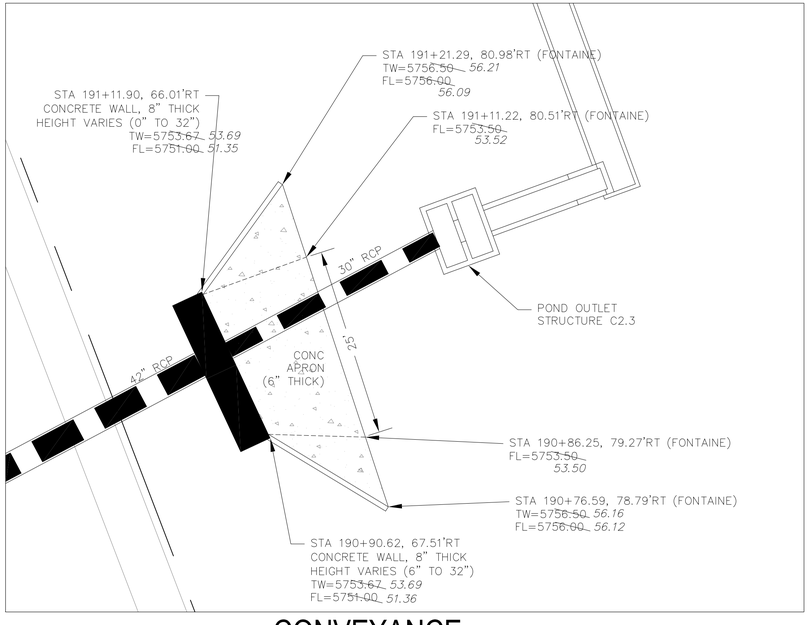
CONVEYANCE STRUCTURE #2.2 NOTES:

1. 25' CDOT TYPE R INLET WITH MODIFIED THROAT OPENING
2. THROAT OPENING = 24"
3. EXTEND 1.25" GALVANIZED STEEL ROD SUPPORTS (TYPE R INLET) TO ACCOMODATE 24" THROAT OPENING
4. CONCRETE APRON TO BE REINFORCED WITH NO. 4 REBAR, 24" O.C. BOTH WAYS. REBAR TO EXTEND INTO CONCRETE WALL W/ NO. 4 "L" BARS, 18" O.C.
5. CONCRETE WALLS SHALL HAVE A MINIMUM OF TWO HORIZONTAL NO. 4 BARS

6. 24" THROAT OPENING TO INCLUDE SAFETY GRATE.

STORM LATERAL 'E'





CONVEYANCE STRUCTURE #2.3

SCALE: 1"=10'

CONVEYANCE STRUCTURE #2.3 NOTES:

1. 20' CDOT TYPE R INLET WITH MODIFIED THROAT OPENING
2. THROAT OPENING = 24"
3. EXTEND 1.25" GALVANIZED STEEL ROD SUPPORTS (TYPE R INLET) TO ACCOMODATE 24" THROAT OPENING
4. CONCRETE APRON TO BE REINFORCED WITH NO. 4 REBAR, 24" O.C. BOTH WAYS. REBAR TO EXTEND INTO CONCRETE WALL W/ NO. 4 "L" BARS.
5. CONCRETE WALLS SHALL HAVE A MINIMUM OF TWO HORIZONTAL NO. 4 BARS

6. 24" THROAT OPENING TO INCLUDE SAFETY GRATE.

AS-BUILT
DATE: 09/30/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rich@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY
BLVD, WALLEYE DR, HAMMERY DR
LORSON BLVD, WALLEYE DR, HAMMERY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
STORM LATERAL 'E'
CONVEYANCE #2.2 & #2.3

COLORADO REGISTERED PROFESSIONAL ENGINEER
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

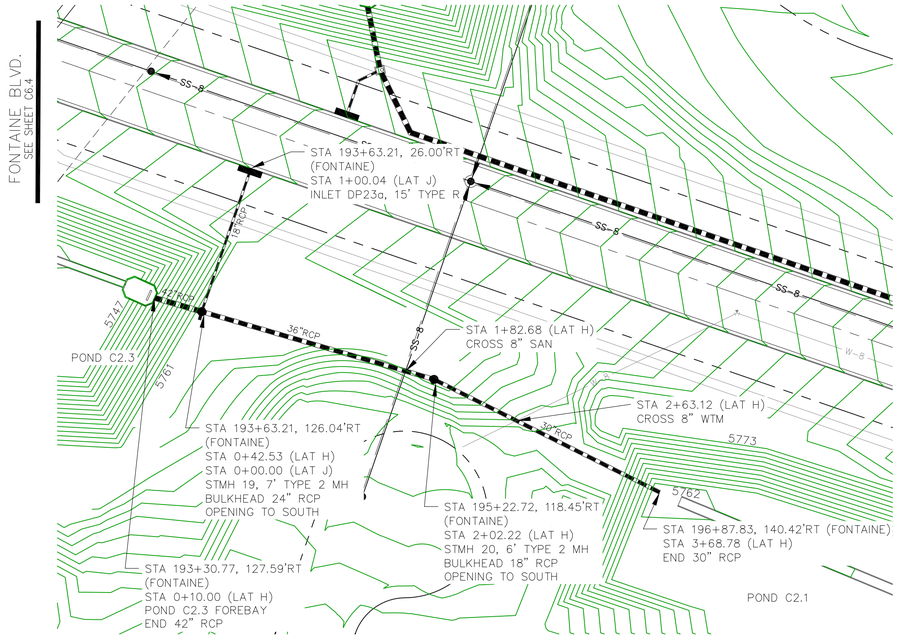
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C7.2
TOTAL SHEETS: 58

NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

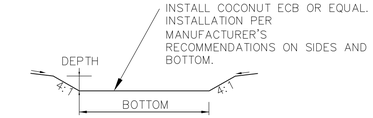
(1) CURVE DATA ID

(2) PEDESTRIAN RAMP, SEE SHEET C10.1

(3) CURB/GUTTER FLOW LINE POINTS

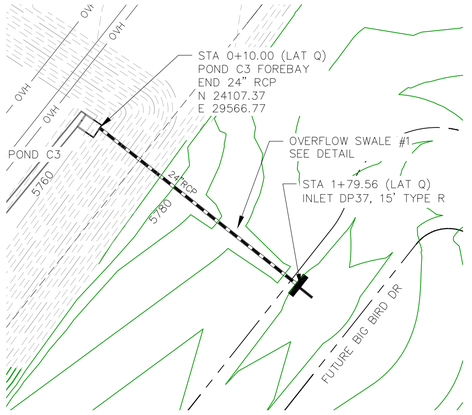


STORM LATERAL 'H'

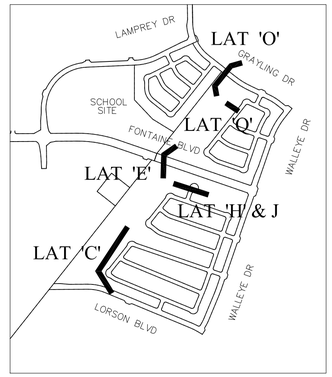


OVERFLOW SWALE #1
BIG BIRD DR TO POND C3

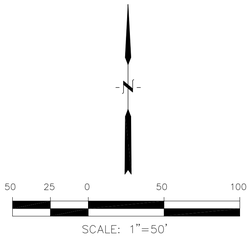
BOTTOM=10'
DEPTH=1.0'
VELOCITY=4.81 ft/s
SLOPE=1.40%
Q100=27.50cfs
FLOW DEPTH=0.48'



STORM LATERAL 'Q'



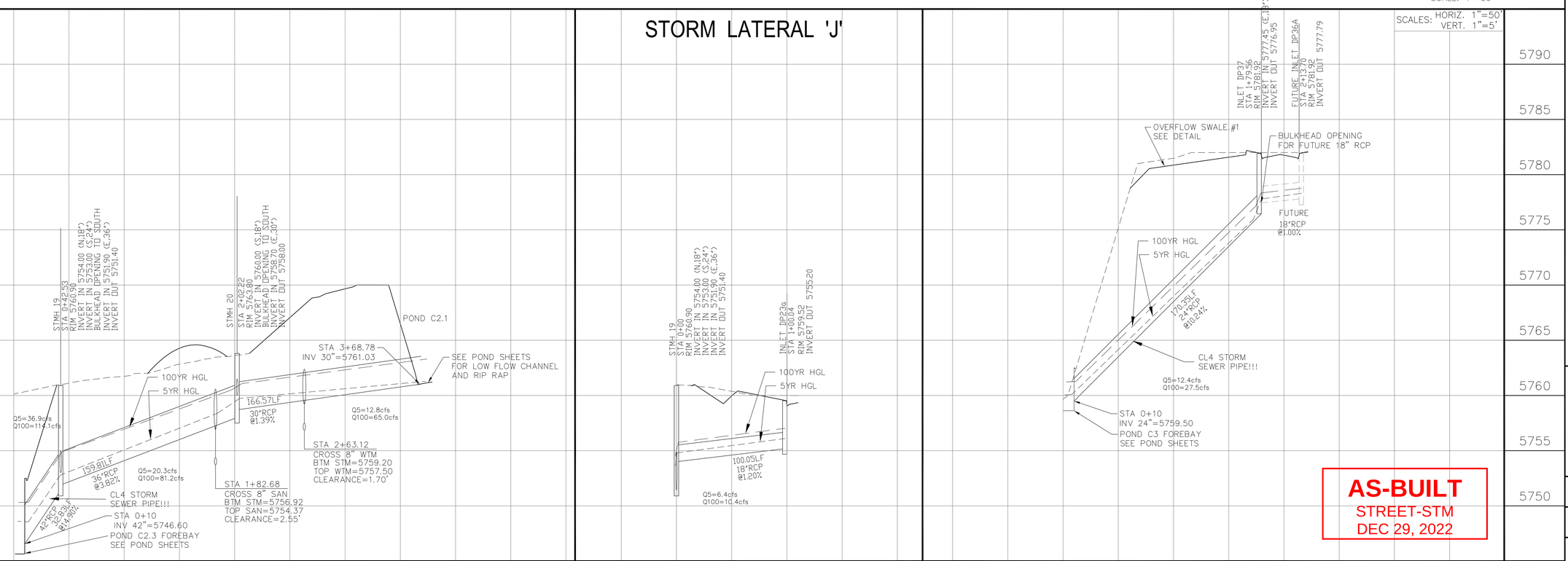
KEY MAP



SCALE: 1"=50'

STORM LATERAL 'J'

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rich@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, LAMPREY DR
LORSON BLVD, WALLEYE DR, HAWKEYE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
STORM LATERAL 'H' & 'J'
STORM LATERAL 'Q'

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

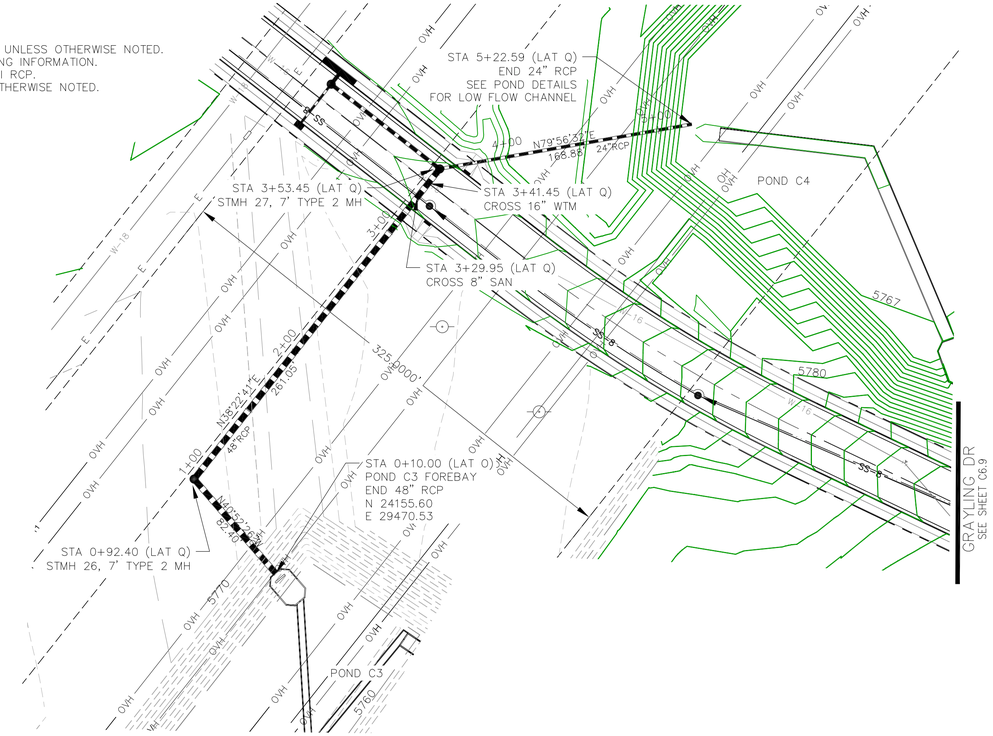
SHEET NUMBER
C7.3
TOTAL SHEETS: 58

NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE EARLY GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHs SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

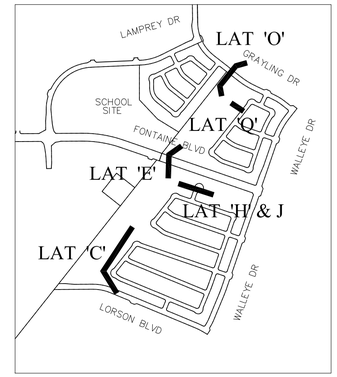
[1] CURVE DATA ID

[2] PEDESTRIAN RAMP, SEE SHEET C10.1

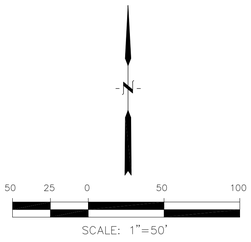
[3] CURB/GUTTER FLOW LINE POINTS



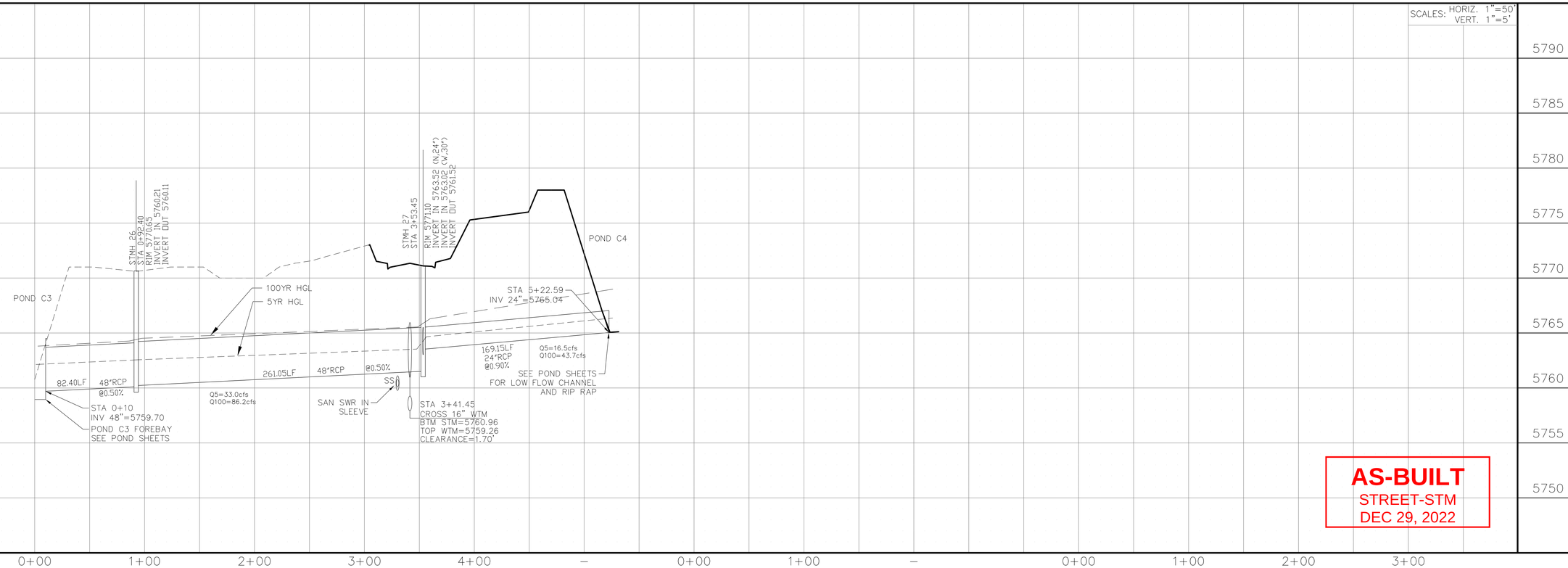
STORM LATERAL 'O'



KEY MAP



SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
STREET-STM
DEC 29, 2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreengr.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR,
LORSON BLVD, WALLEYE DR, LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

STREET & STORM SEWER PLAN/PROFILE
STORM LATERAL 'O'
-

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

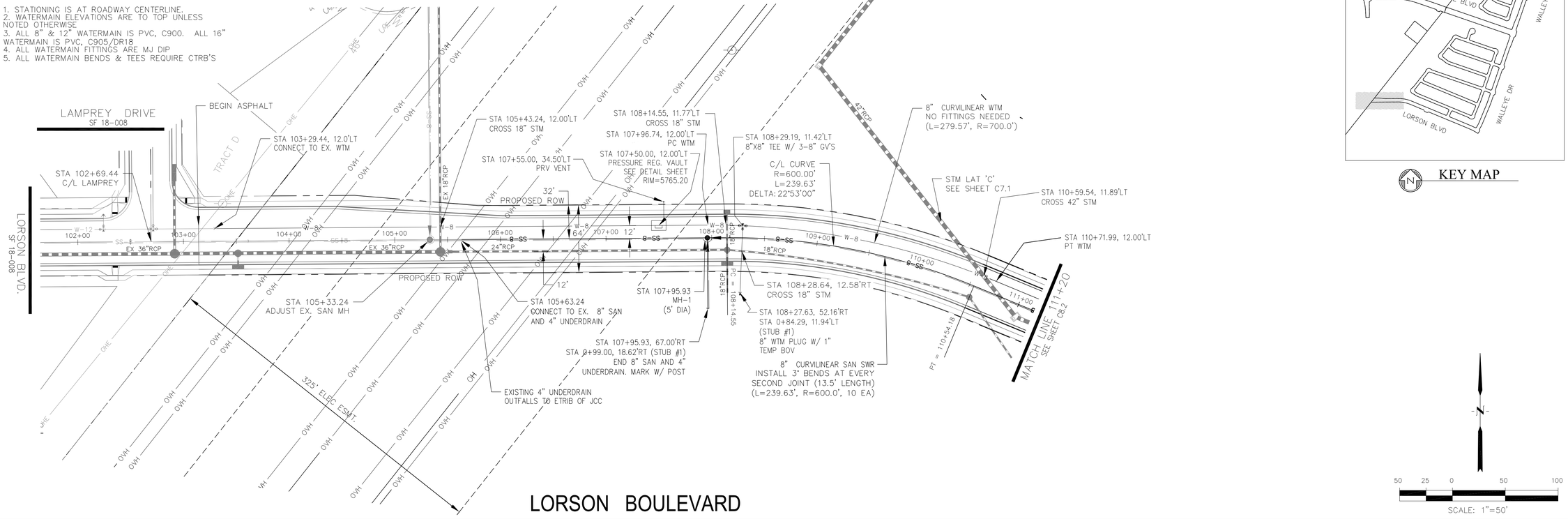
DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C7.4
TOTAL SHEETS: 58

NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

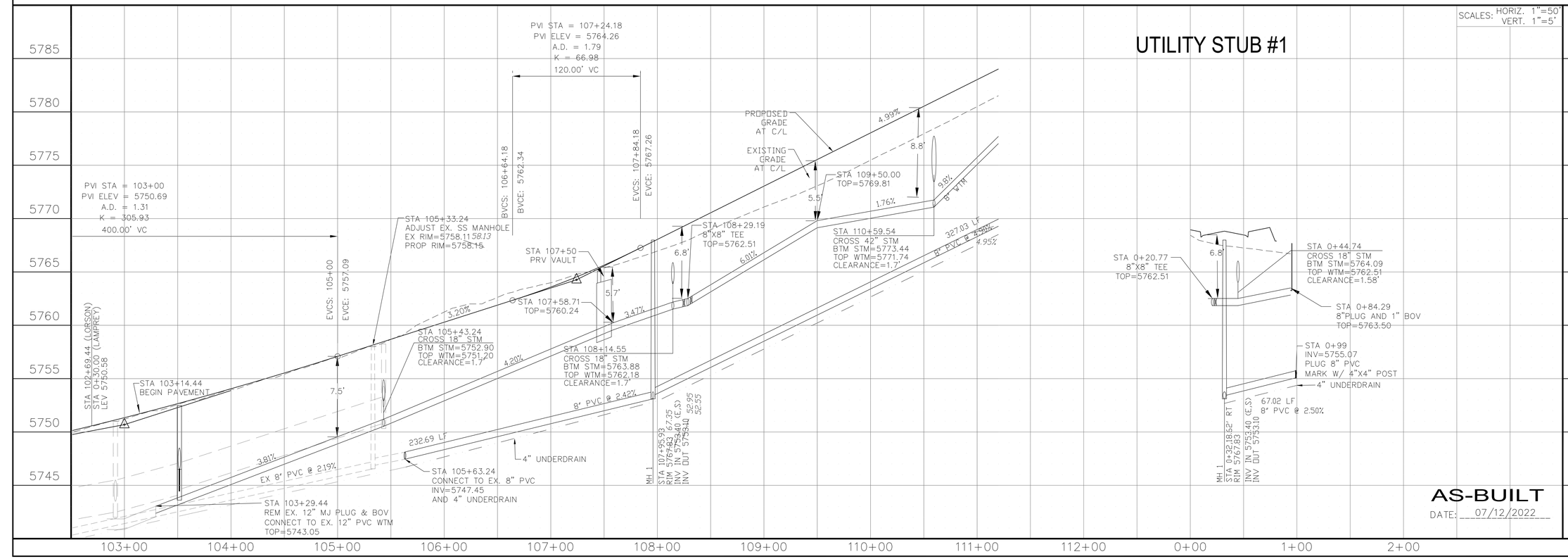


LORSON BOULEVARD

KEY MAP

SCALES: HORIZ. 1"=50'
VERT. 1"=5'

UTILITY STUB #1



AS-BUILT
DATE: 07/12/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DRIVE, LORSON BLVD, WALLEYE DRIVE, MARTINGALE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

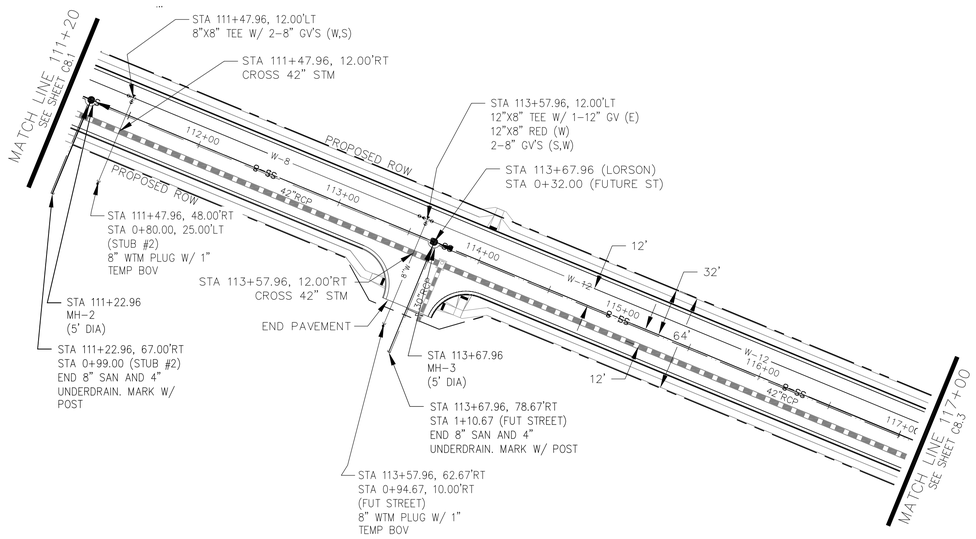
WTM AND SANITARY PLAN/PROFILE
LORSON BOULEVARD
STA 103+00 TO STA 111+20

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

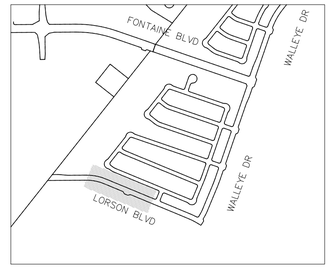
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.1
TOTAL SHEETS: 58

NOTES

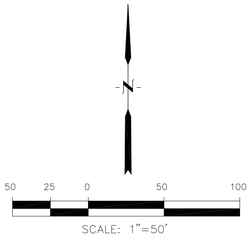
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



LORSON BOULEVARD

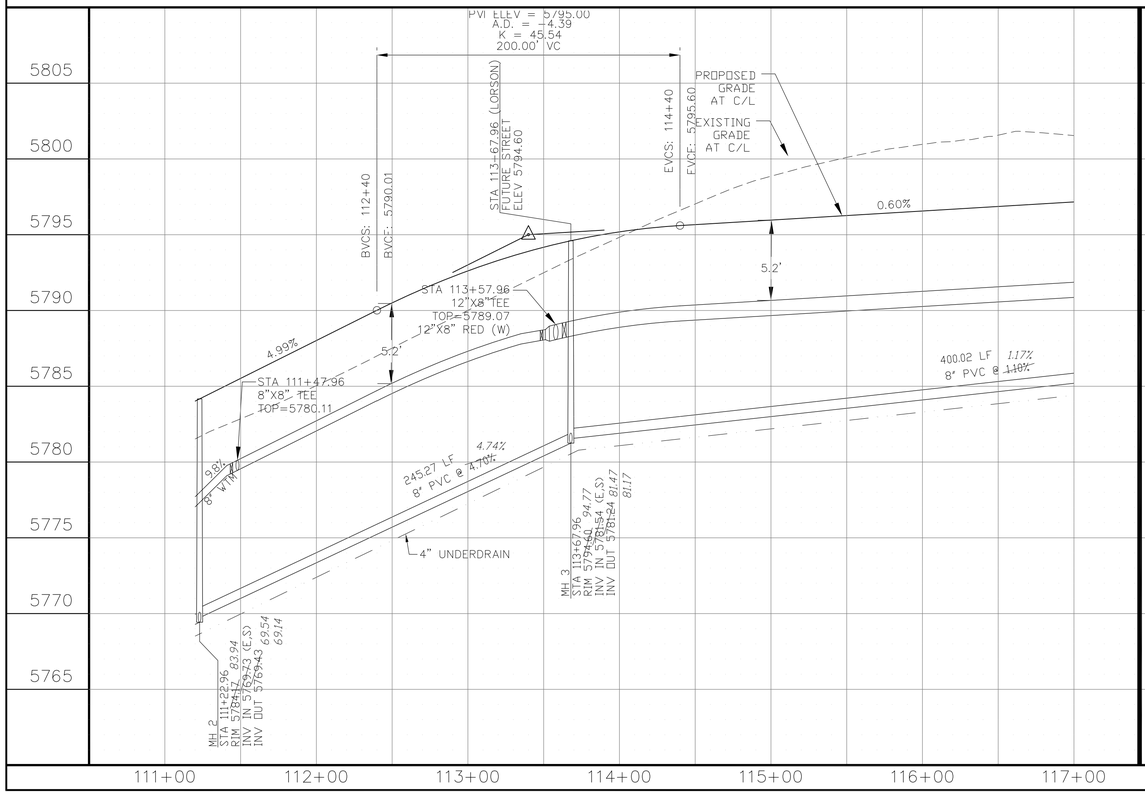


KEY MAP

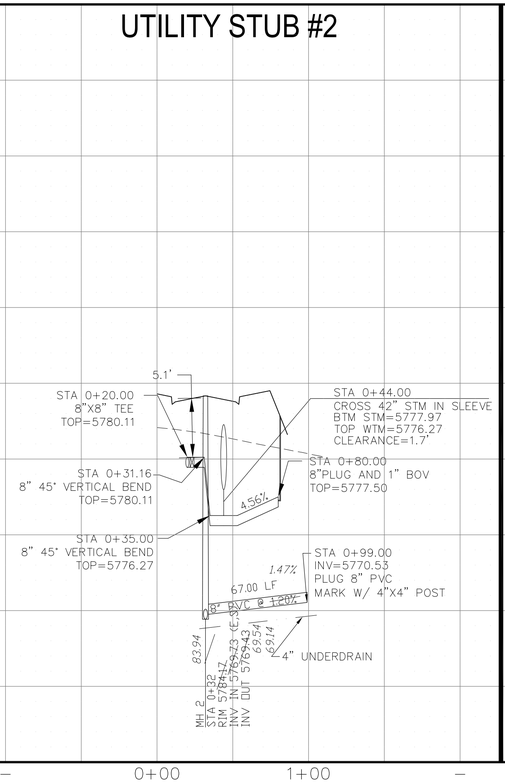


50 25 0 50 100

SCALE: 1"=50'

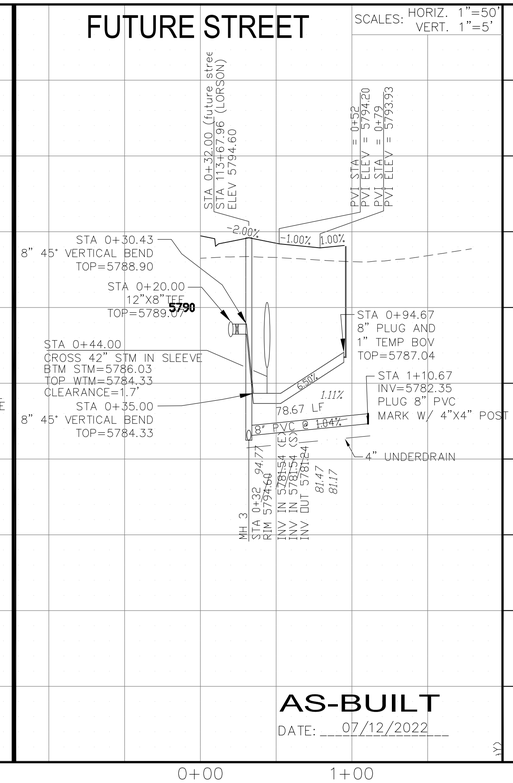


UTILITY STUB #2



FUTURE STREET

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND DR, LORSON BLVD, WALLEYE DR & HARVEY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

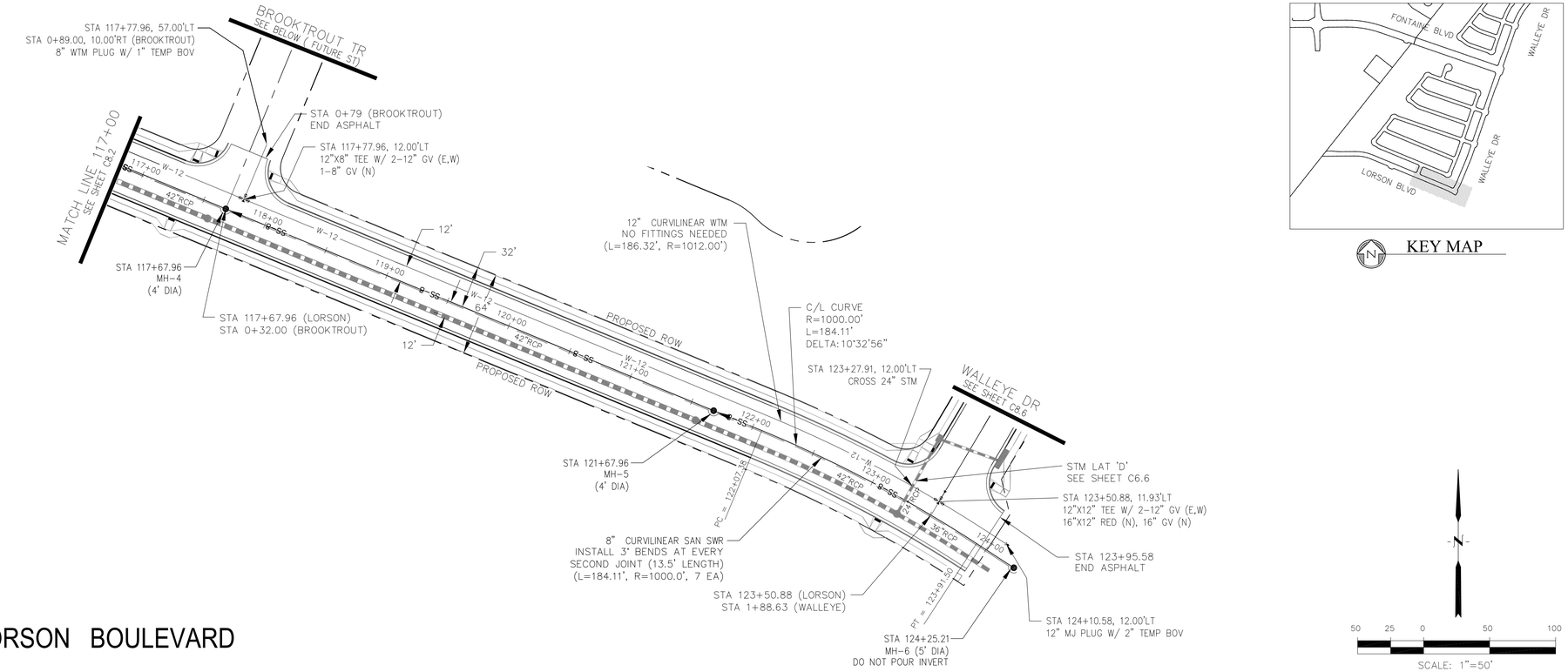
WTM AND SANITARY PLAN/PROFILE
LORSON BOULEVARD
STA 111+20 TO STA 117+00

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020
RICHARD L. SCHINDLER
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.2
TOTAL SHEETS: 58

NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

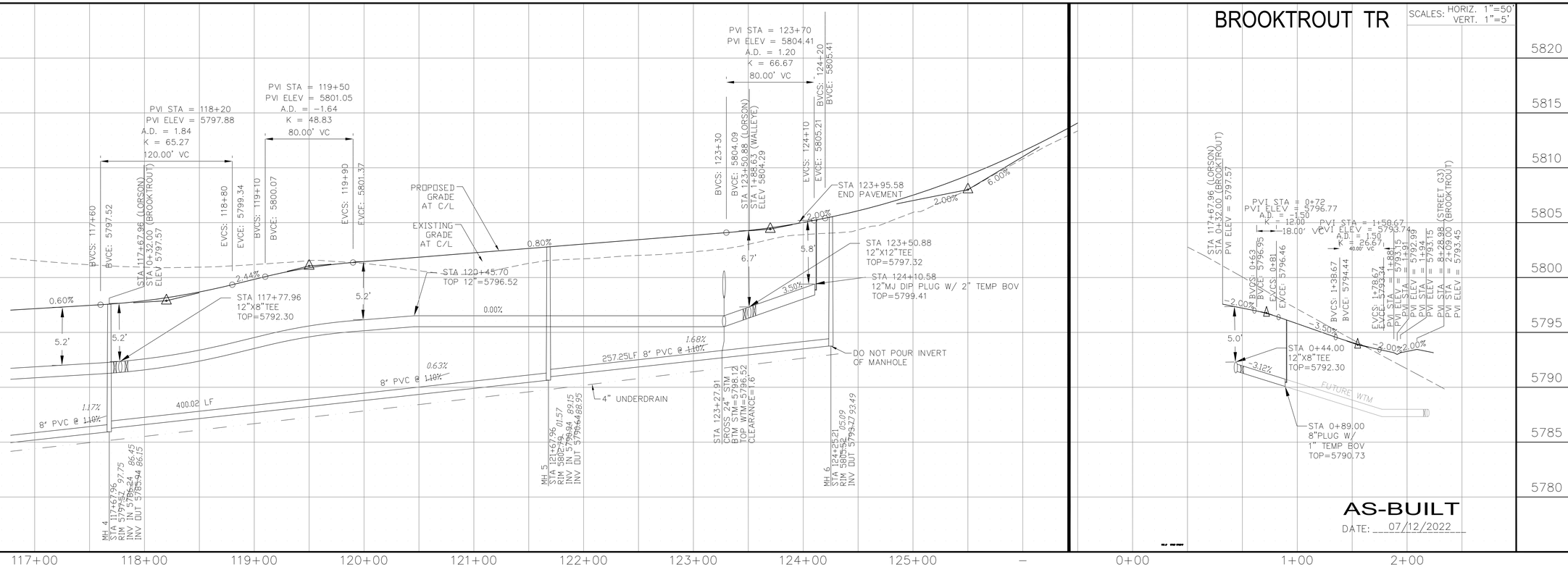


KEY MAP

SCALE: 1"=50'

BROOKTROUT TR

SCALES: HORIZ. 1"=50'
VERT. 1"=5'



AS-BUILT
DATE: 07/12/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coregi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY, LORSON BLVD, WALLEYE DR & HARVEY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

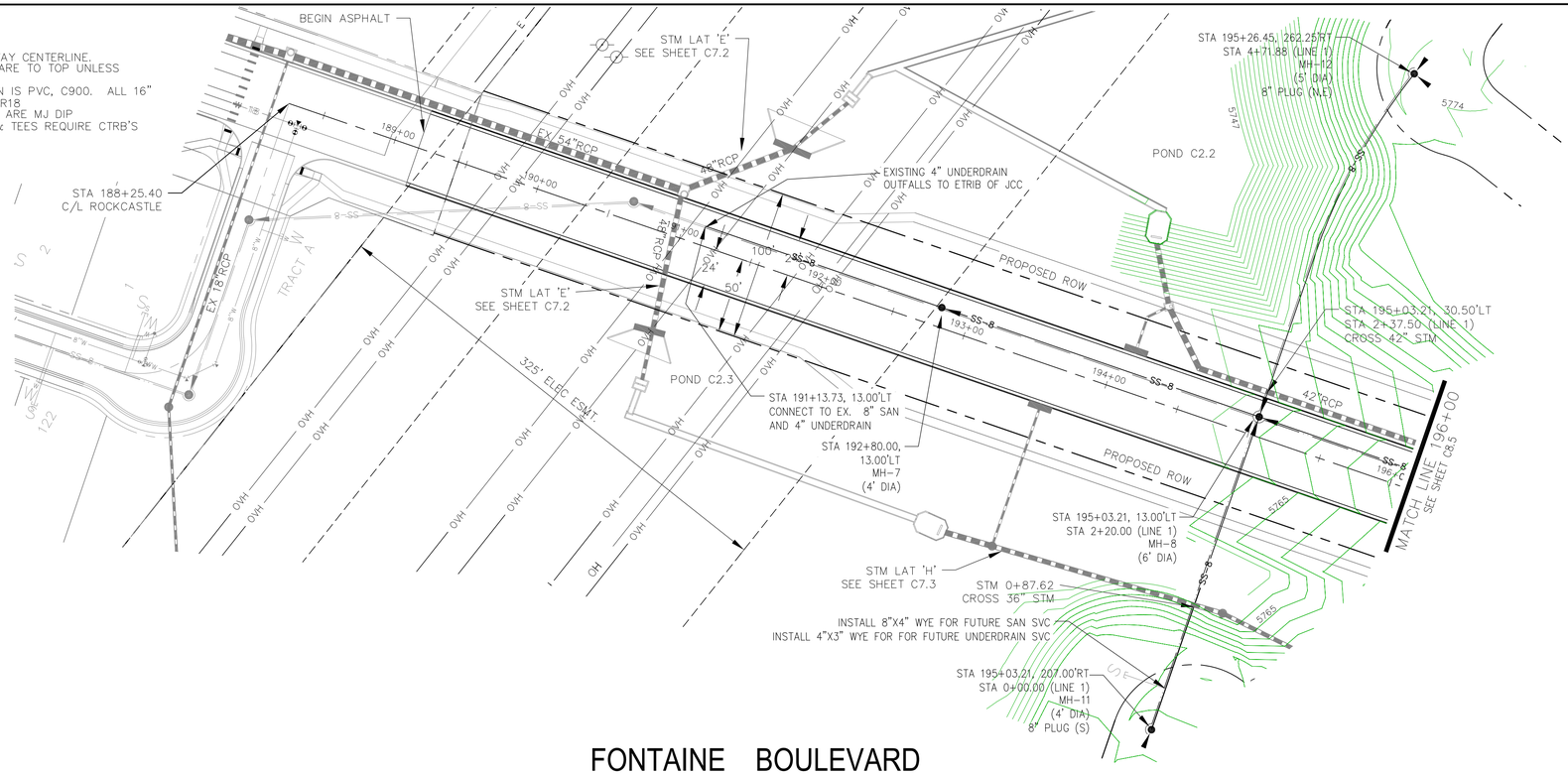
WTM AND SANITARY PLAN/PROFILE
LORSON BOULEVARD
STA 117+00 TO STA 124+25

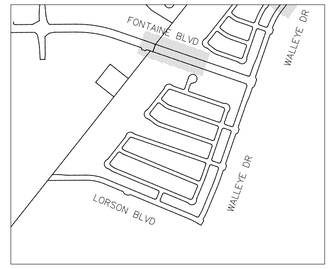
COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.3
TOTAL SHEETS: 58

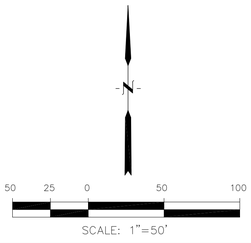
NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18.
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

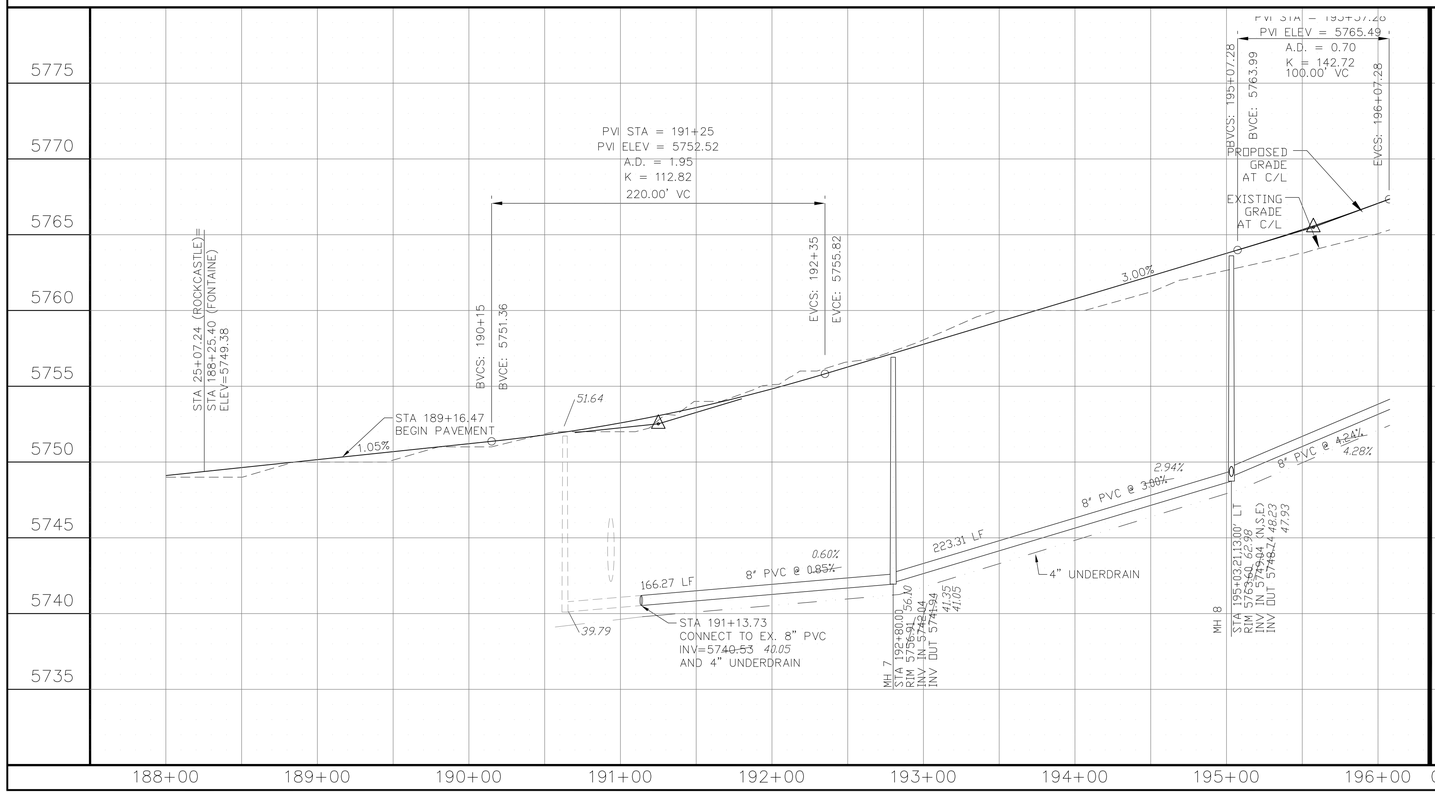


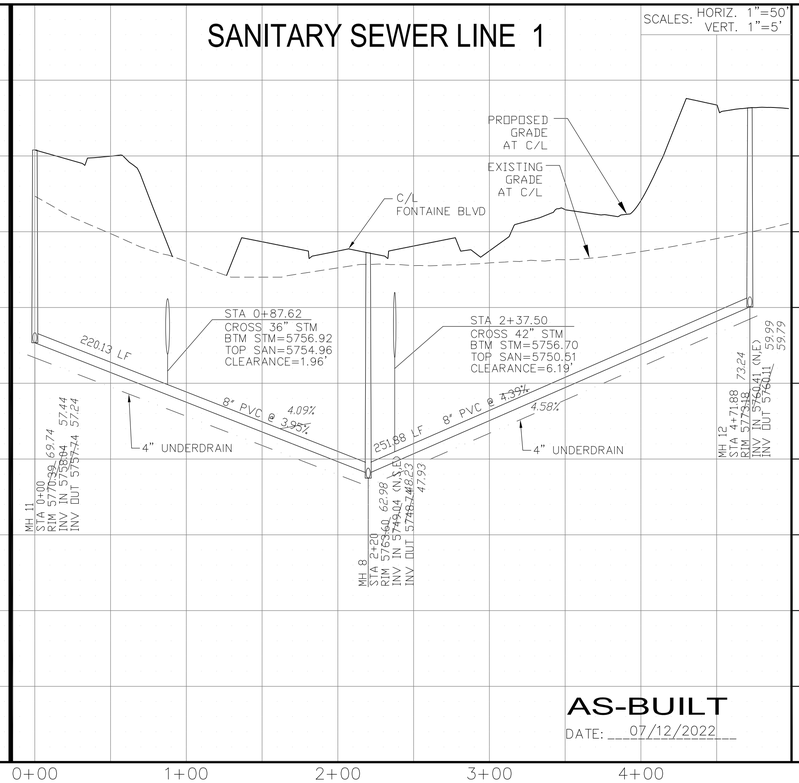


KEY MAP



FONTAINE BOULEVARD





AS-BUILT
DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WALLEYE DR. LAMPREY DR
COLORADO SPRINGS, COLORADO

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

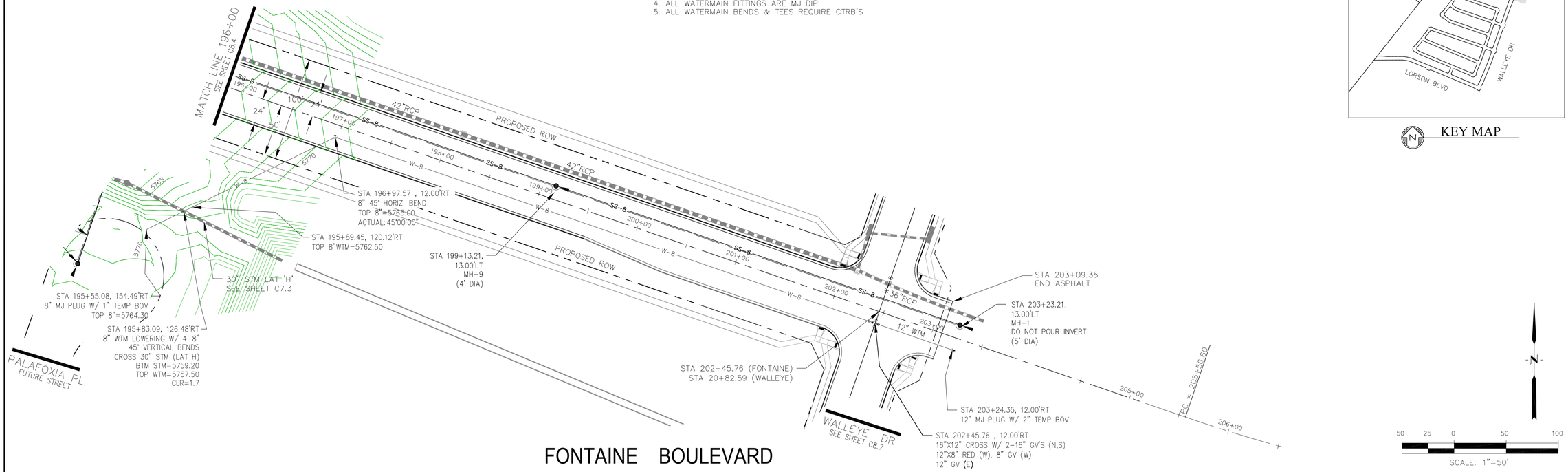
WTM & SANITARY PLAN/PROFILE
FONTAINE BOULEVARD
STA 189+16 TO STA 196+00

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.4
TOTAL SHEETS: 58

NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

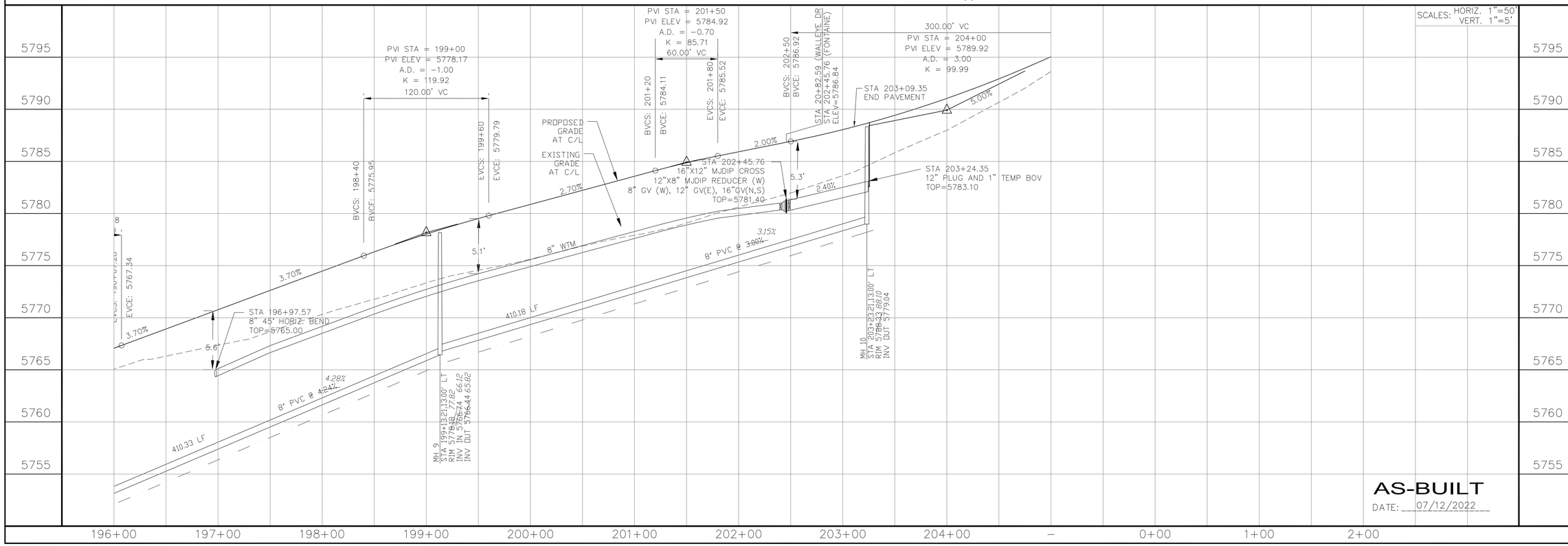


FONTAINE BOULEVARD

KEY MAP

50 25 0 50 100

SCALE: 1"=50'



AS-BUILT
DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND DR, WALLEYE DR, HARVEY DR
LORSON BLVD, WALLEYE DR TO HARVEY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

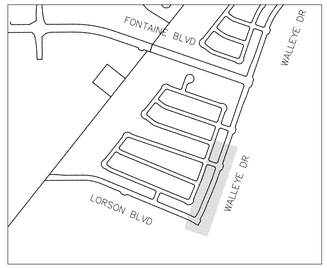
WTM AND SANITARY PLAN/PROFILE
FONTAINE BOULEVARD
STA 196+00 TO STA 203+25

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

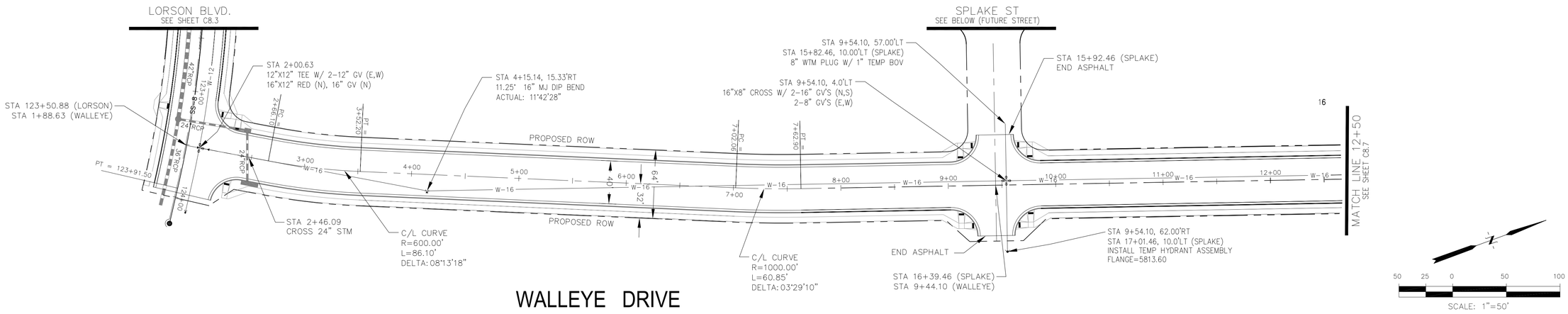
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.5
TOTAL SHEETS: 58

NOTES

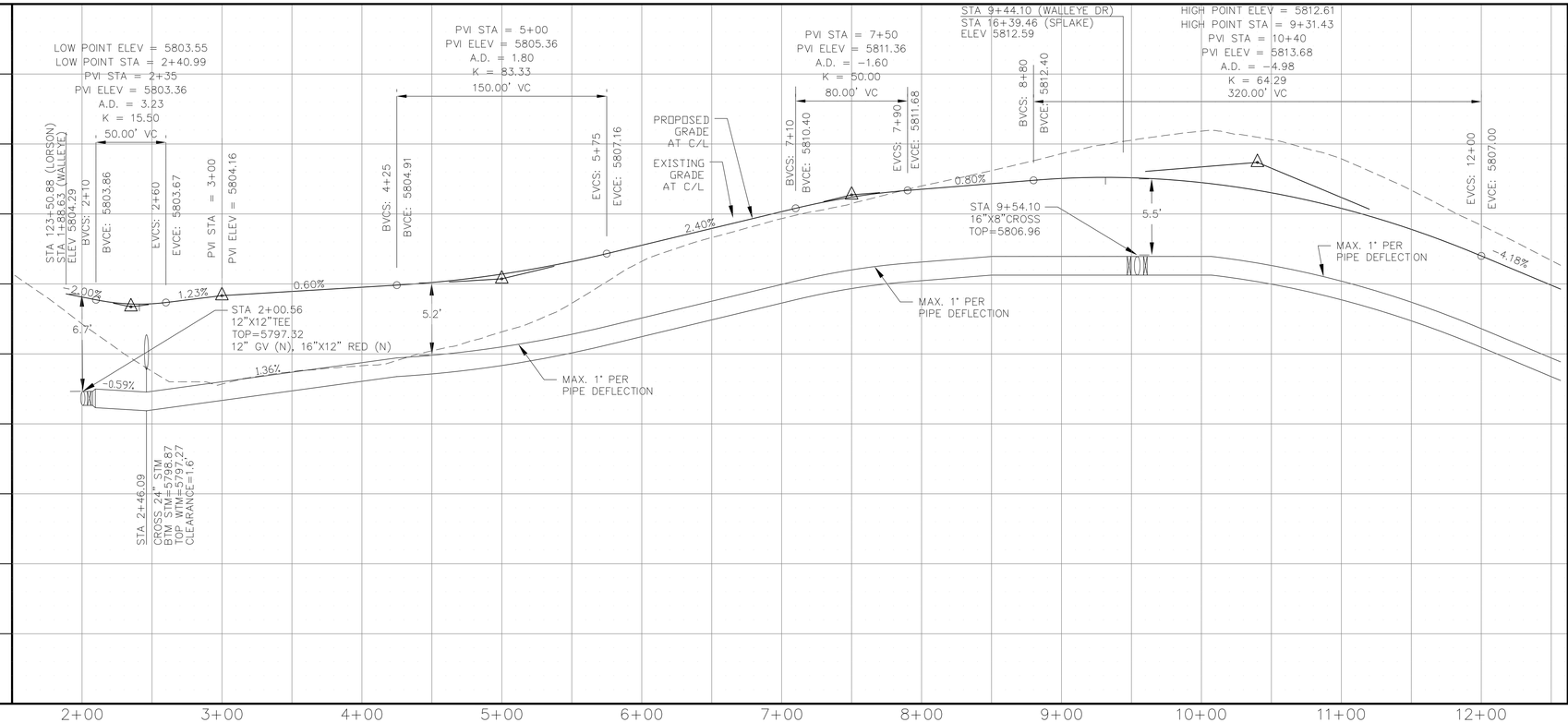
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

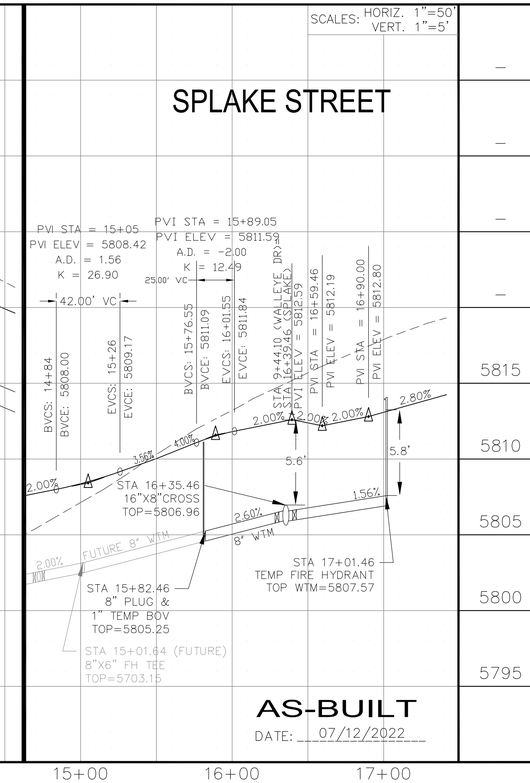


KEY MAP



WALLEYE DRIVE





CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY, LORSON BLVD, WALLEYE DR & MARY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WTM AND SANITARY PLAN/PROFILE
WALLEYE DR & SPLAKE ST
STA 2+00 TO STA 12+50

COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020

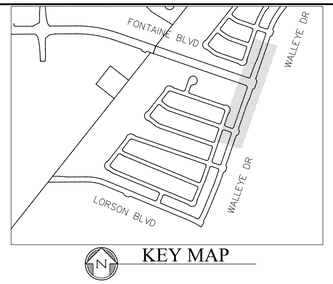
PROJECT NO. 100.061

SHEET NUMBER C8.6

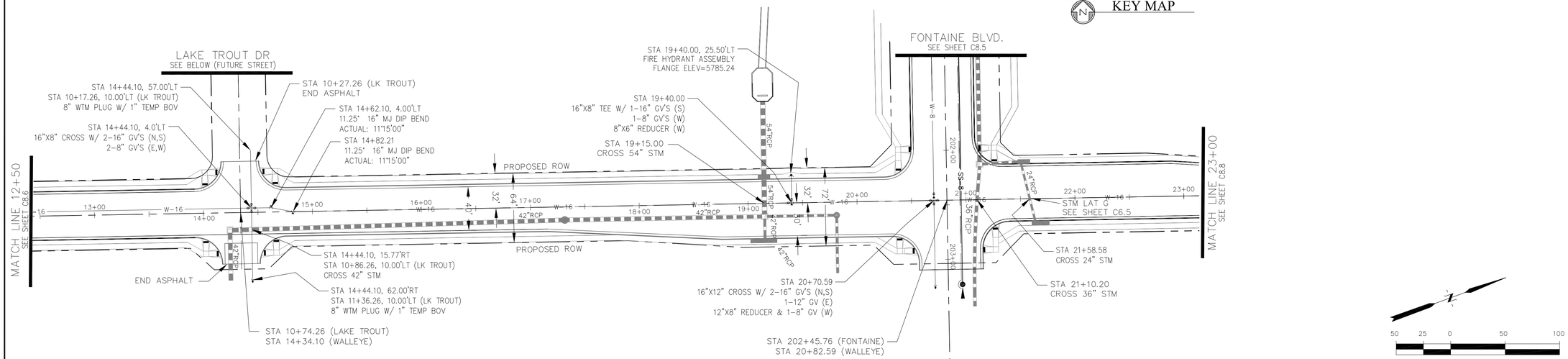
TOTAL SHEETS: 58

NOTES

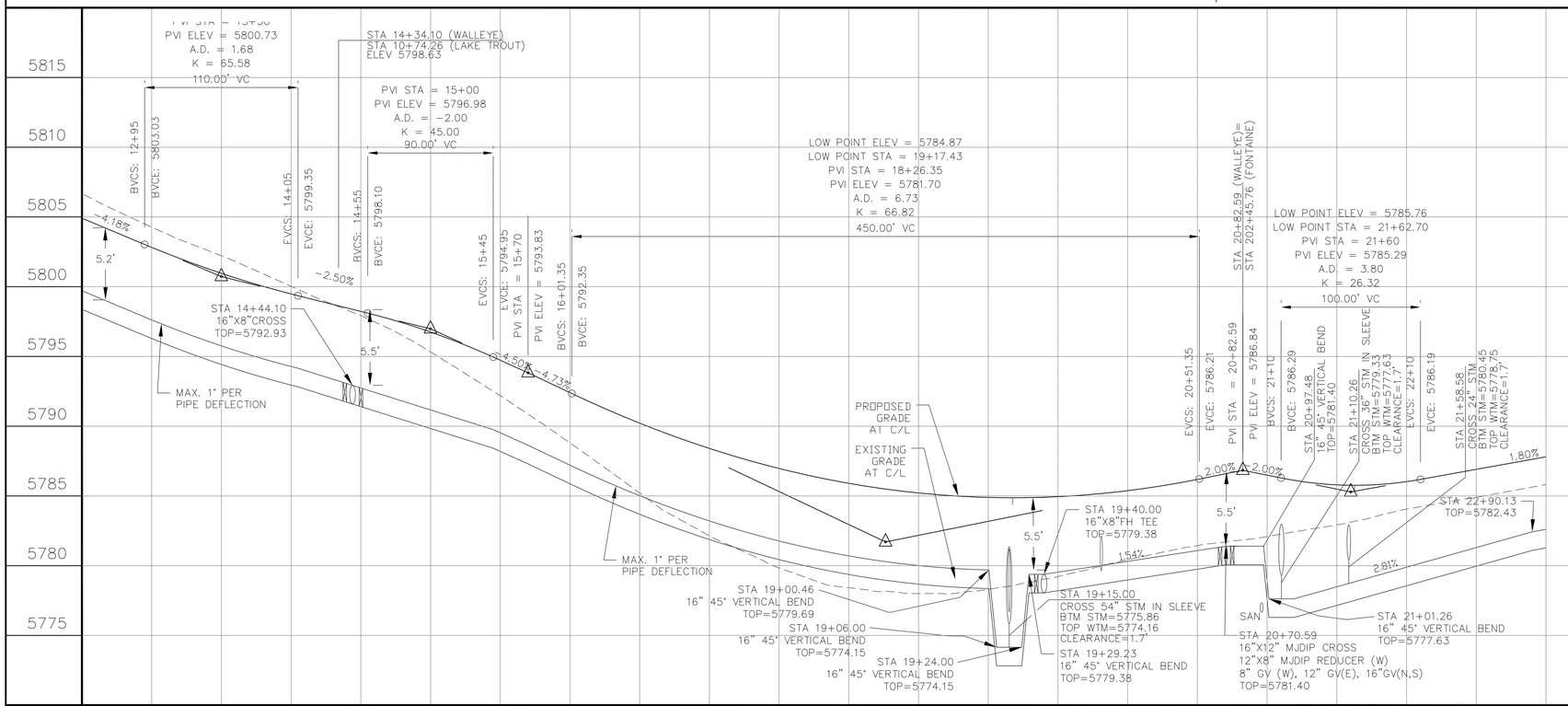
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

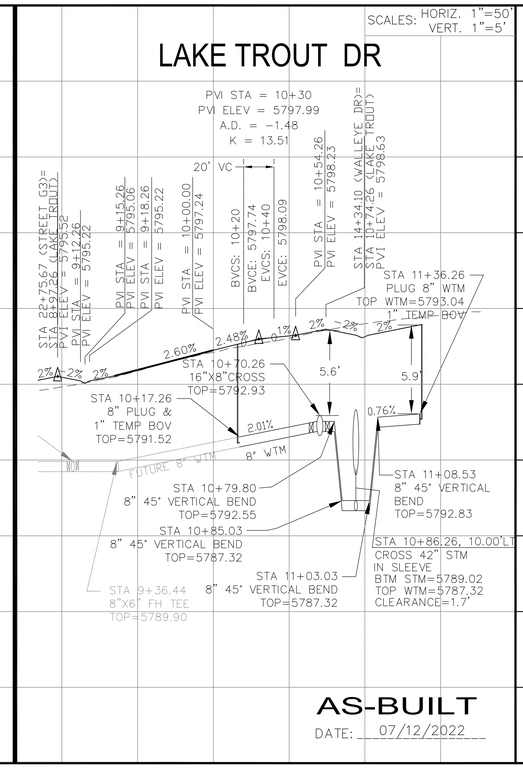


KEY MAP



WALLEYE DRIVE





AS-BUILT
DATE: 07/12/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreeg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLAND KEY
LORSON BLVD, WALLEYE DR, LARKEY DR
COLORADO SPRINGS, COLORADO

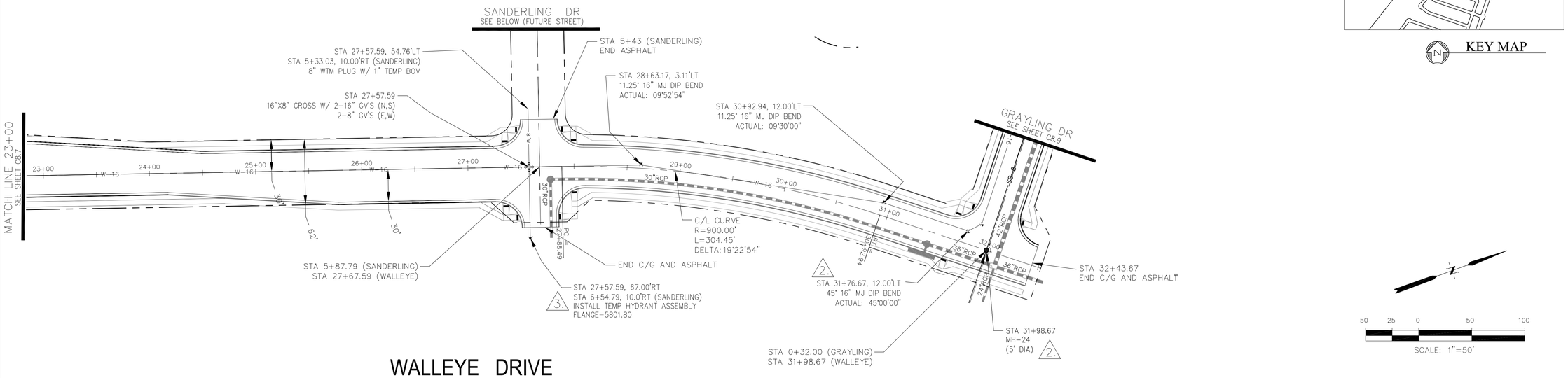
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

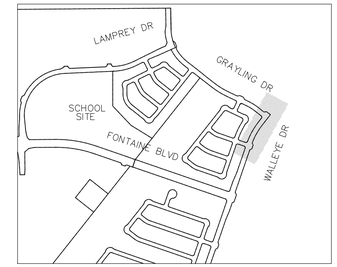
WTM AND SANITARY PLAN/PROFILE
WALLEYE DR & LAKE TROUT DR
STA 12+50 TO STA 23+00

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.7
TOTAL SHEETS: 58

NOTES

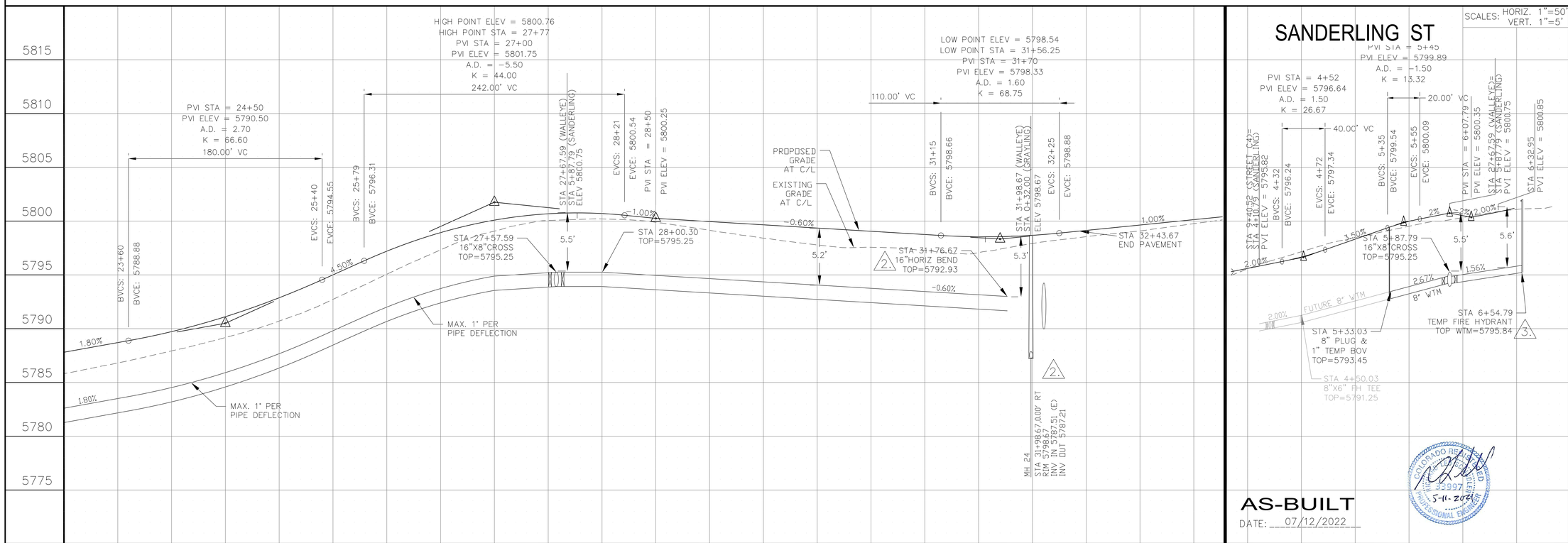
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18.
4. ALL WATERMAIN FITTINGS ARE MJ DIP.
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S





KEY MAP

SCALE: 1"=50'



CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021
2.	WTM & SAN CHANGE AT GRAYLING	FEB 25, 2021
3.	WTM CHANGE AT WALLEYE/SANDERLING	MAY 11, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, WALLEYE DR, LAMPREY DR
LORSON RANCH FILING 4 & 5
COLORADO SPRINGS, COLORADO

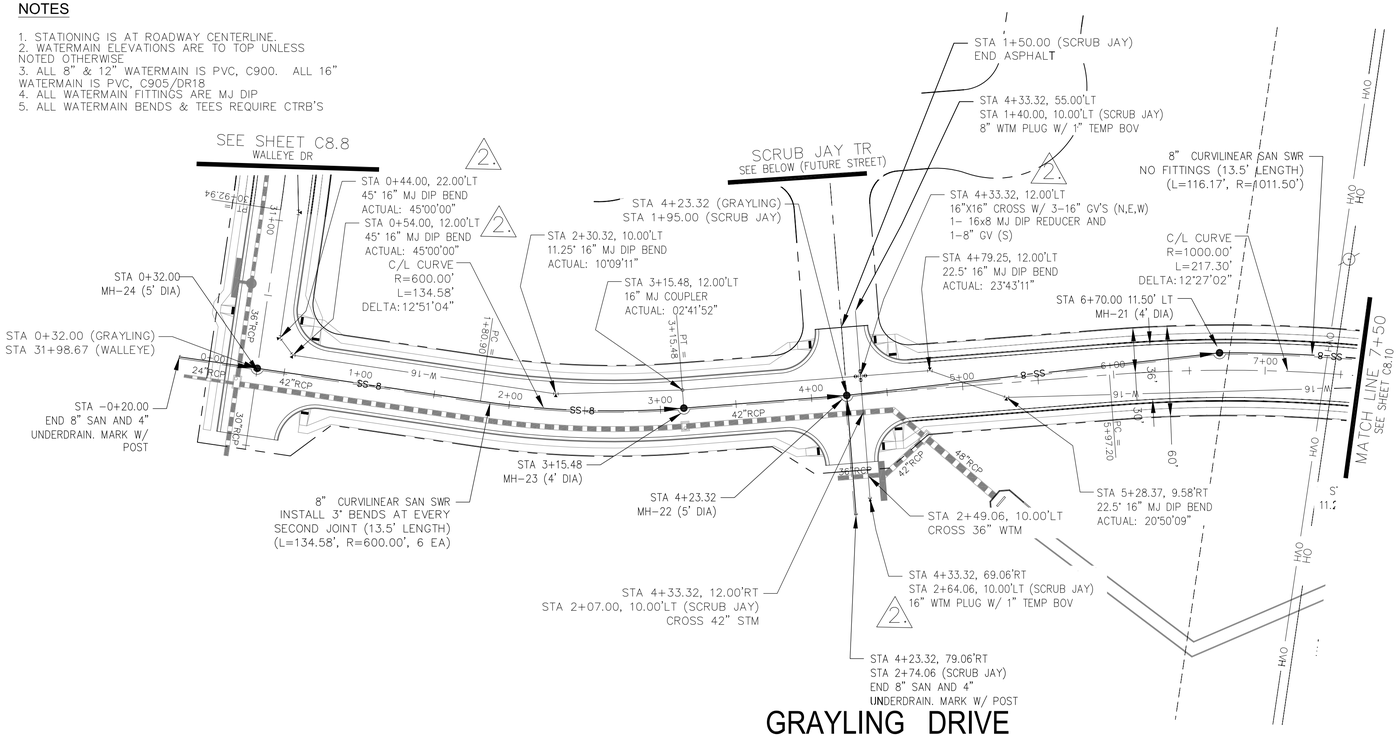
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WTM AND SANITARY PLAN/PROFILE
WALLEYE DR & SANDERLING ST
STA 23+00 TO STA 32+75

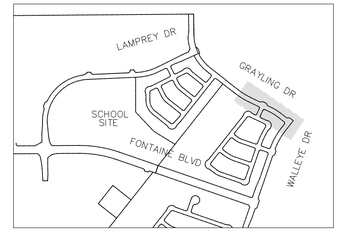
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.8
TOTAL SHEETS: 58

NOTES

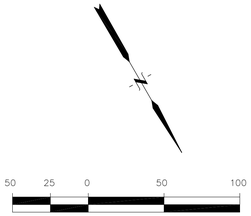
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S

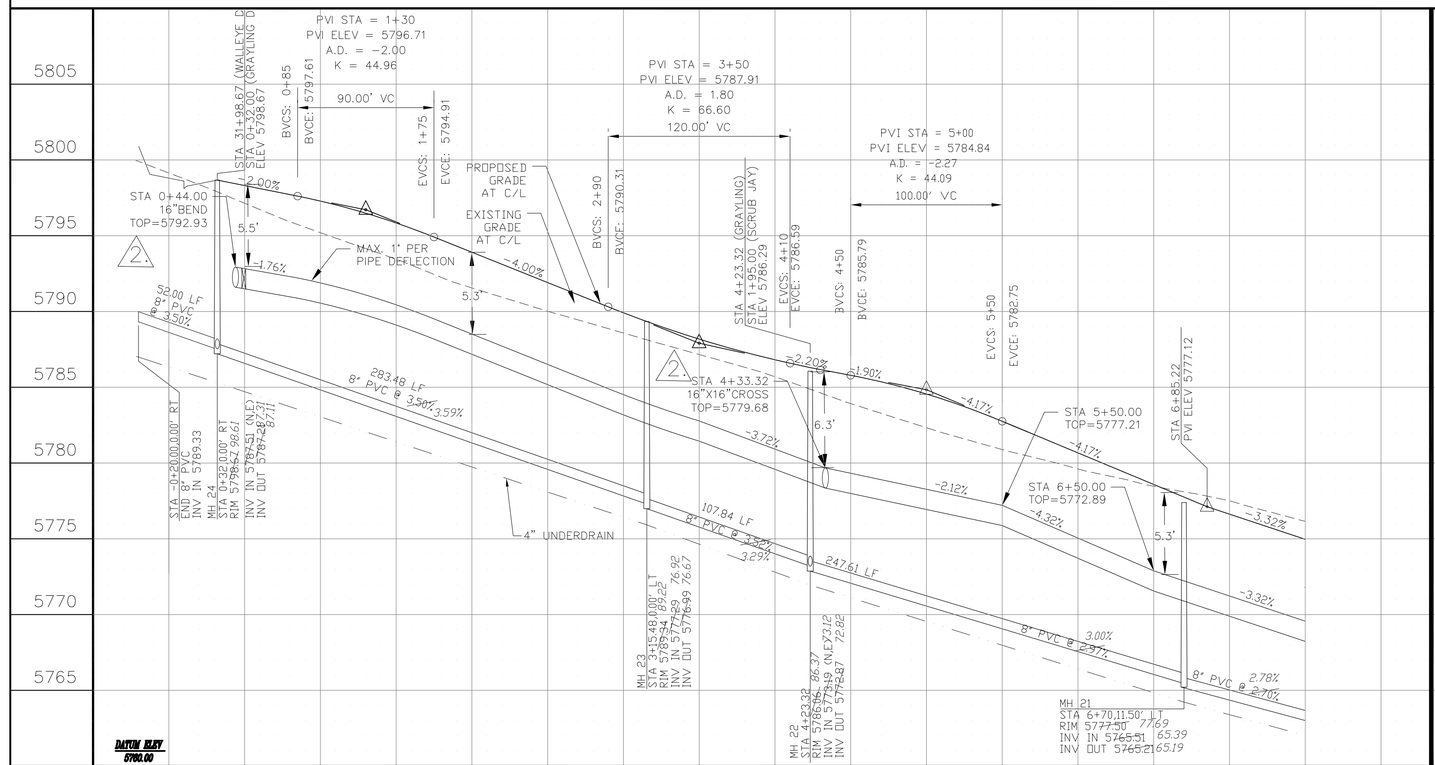


GRAYLING DRIVE

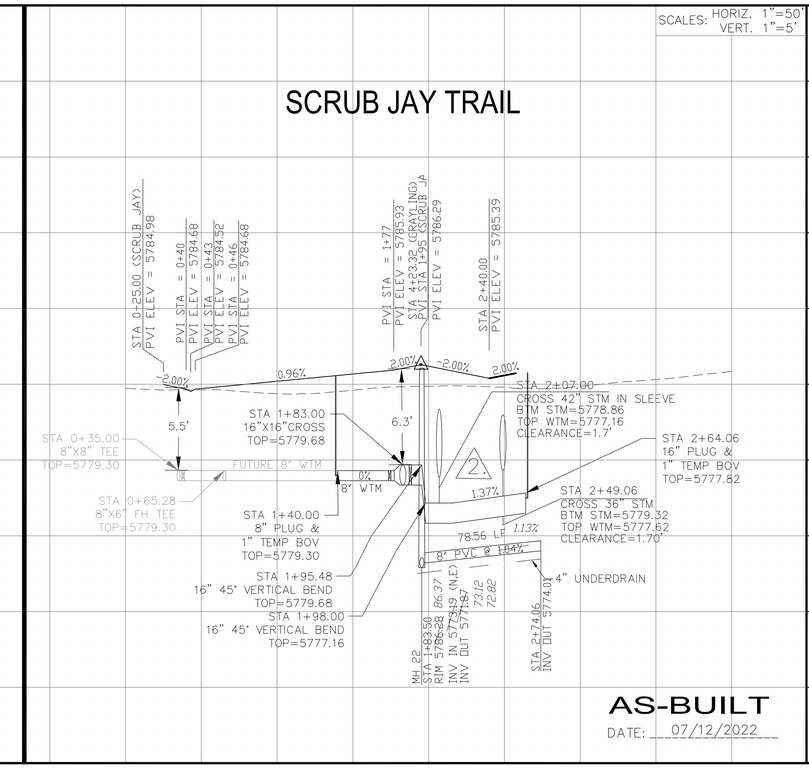


KEY MAP





SCRUB JAY TRAIL



AS-BUILT
DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021
2.	WTM CHANGE AT SCRUB JAY AND WALLEYE	FEB 25, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

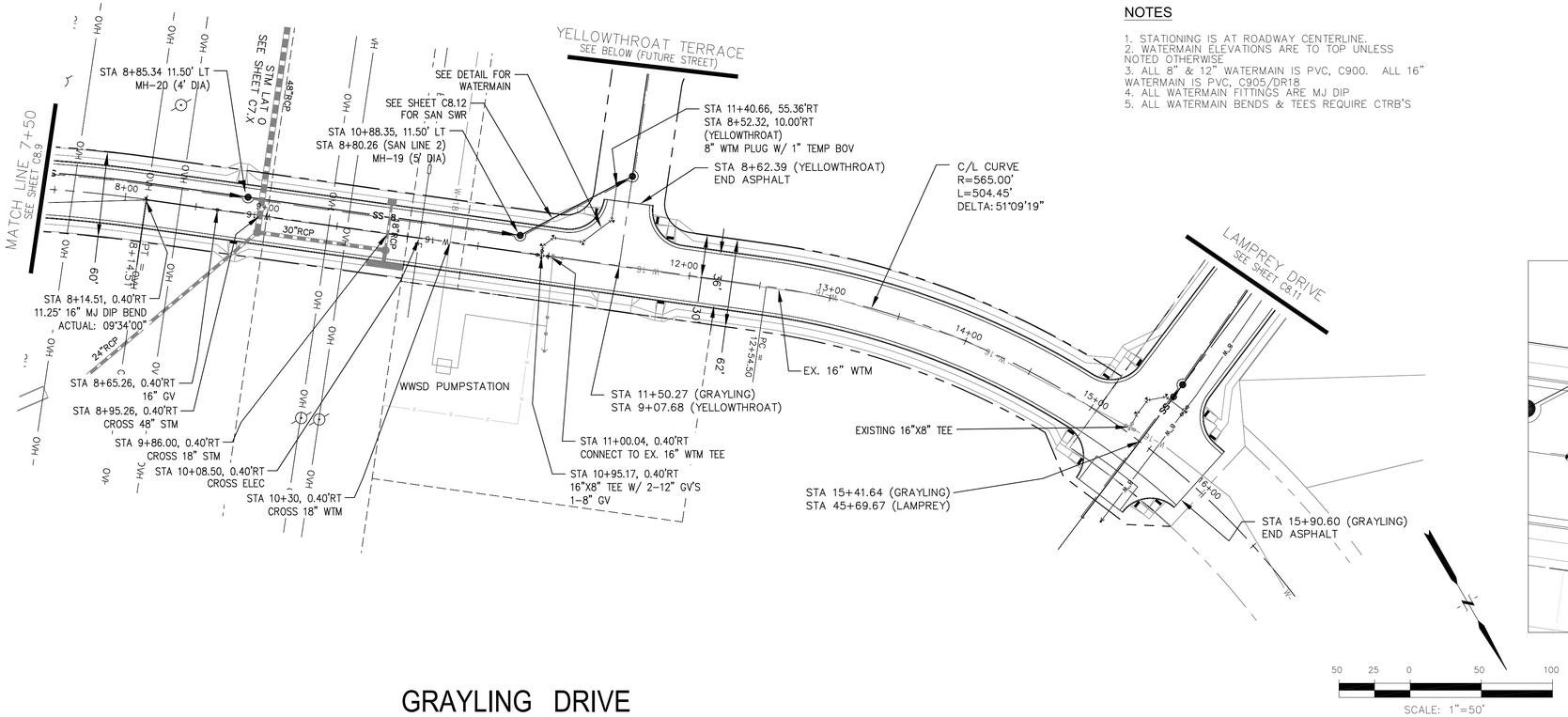
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, WALLEYE DR, LAMPREY DR
LORSON BLVD, WILLOW SPRINGS RD
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WTM AND SANITARY PLAN/PROFILE
GRAYLING DR & SCRUB JAY TR
STA 0+00 TO STA 7+50

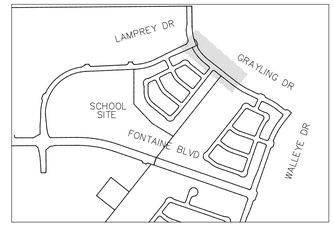
COLORADO REGISTERED
RICHARD L. SCHINDLER
32997
11-12-2020
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.9
TOTAL SHEETS: 58

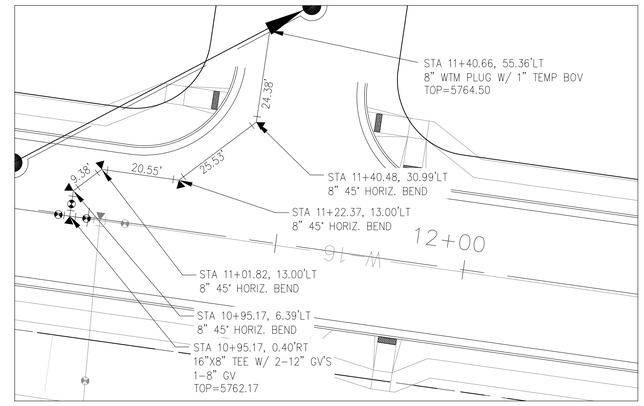


NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



KEY MAP



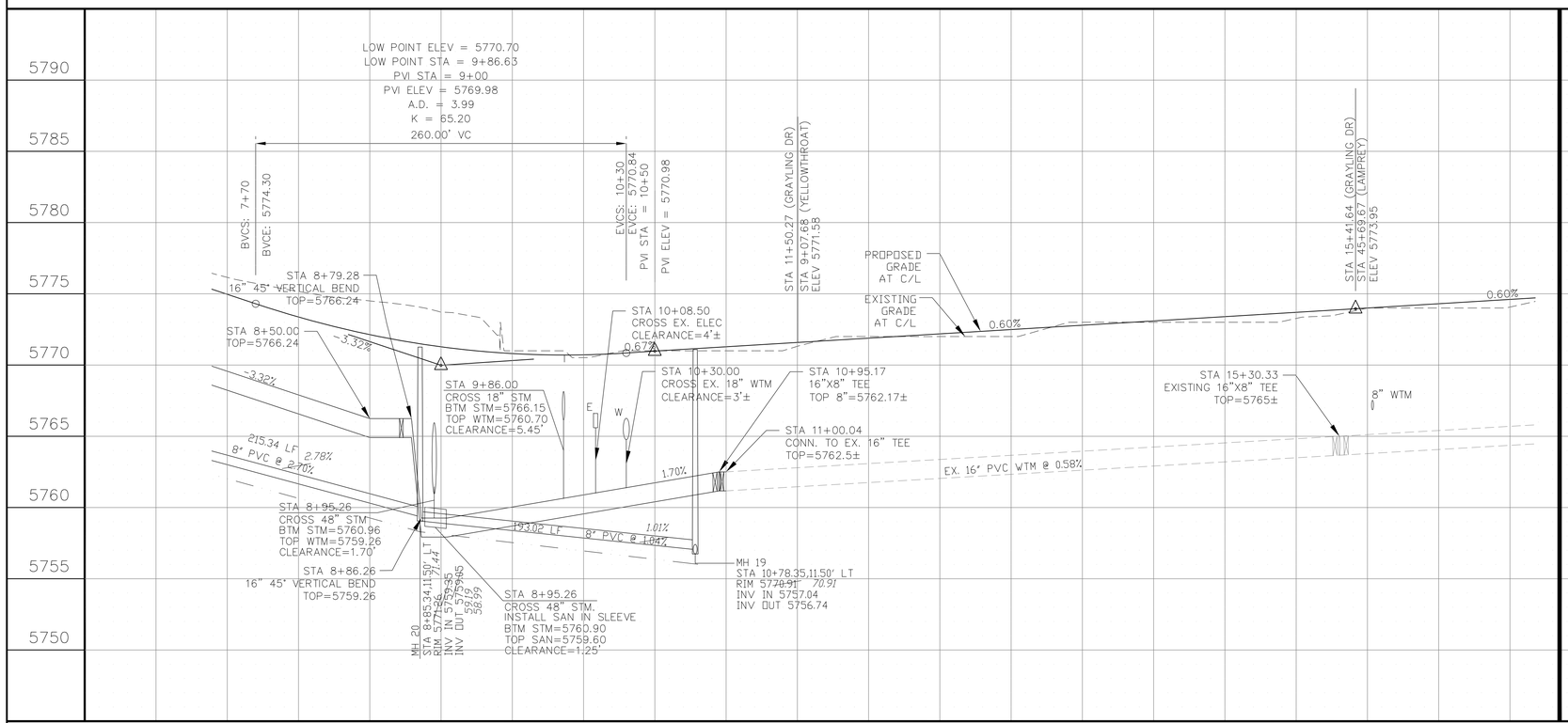
WATERMAIN DETAIL

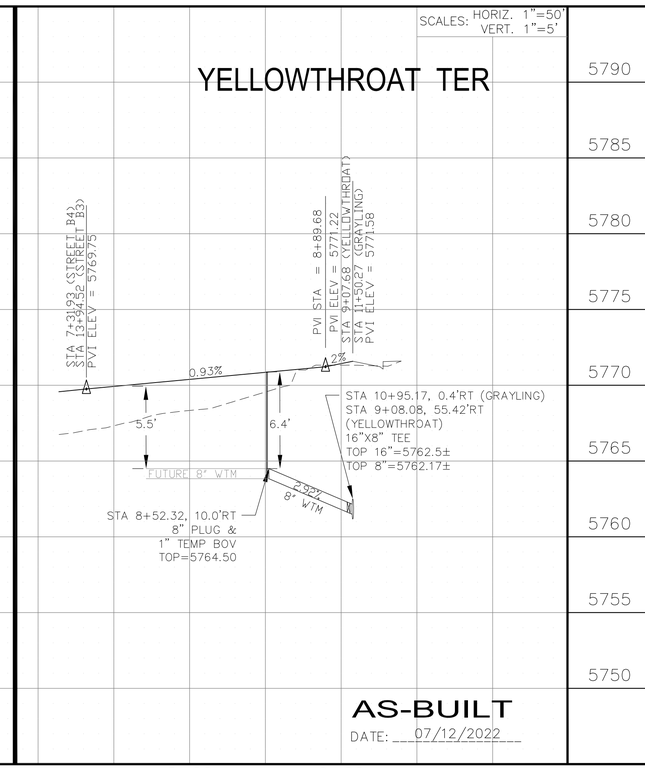
SCALE: 1"=20'

GRAYLING DRIVE

50 25 0 50 100

SCALE: 1"=50'





AS-BUILT

DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, LAMPREY DR
LORSON RANCH, WALLEYE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WTM AND SANITARY PLAN/PROFILE
GRAYLING DR & YELLOWTHROAT TER.
STA 7+50 TO STA 16+00

DATE: NOV 12, 2020

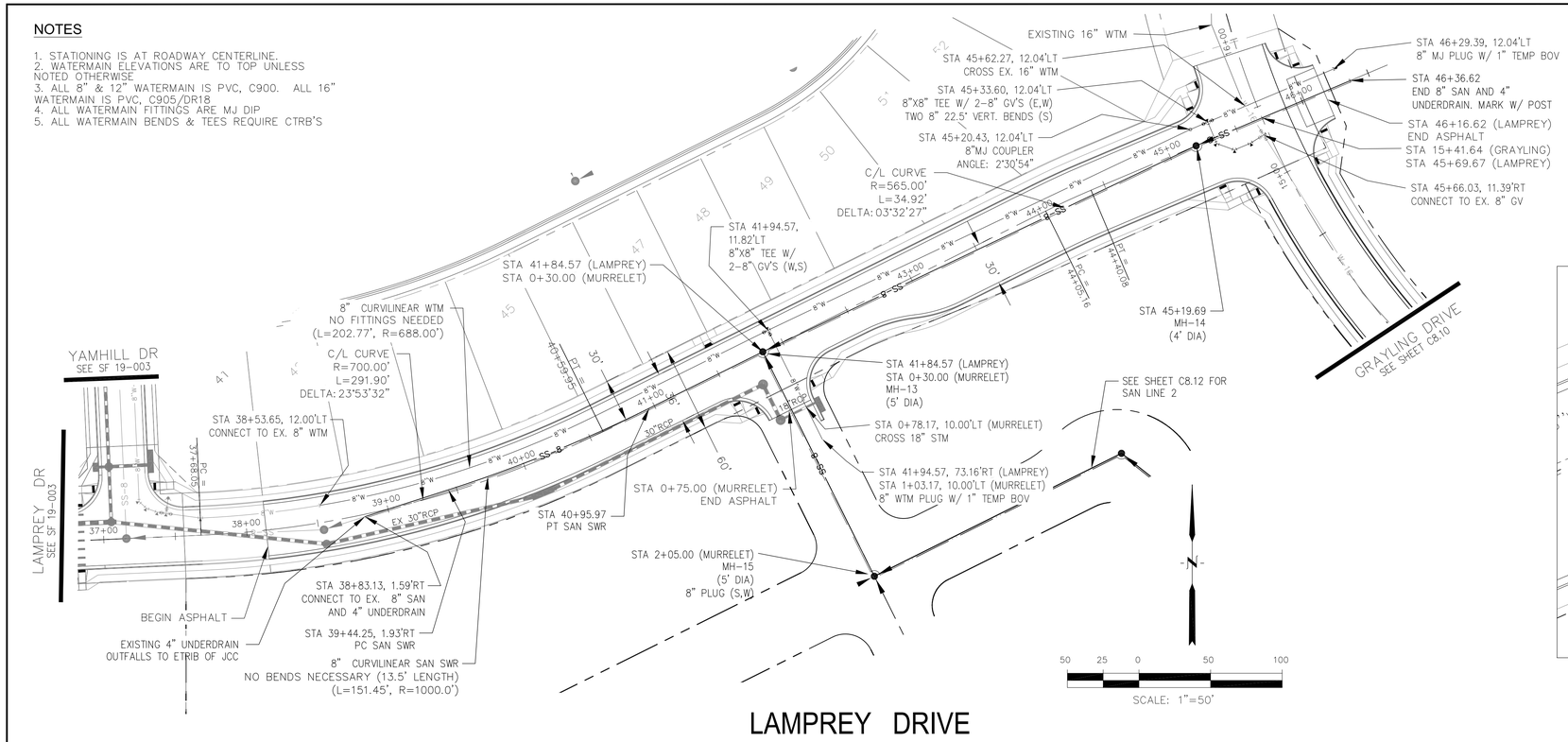
PROJECT NO. 100.061

SHEET NUMBER C8.10

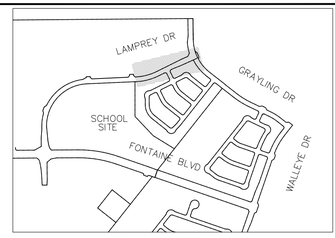
TOTAL SHEETS: 58

NOTES

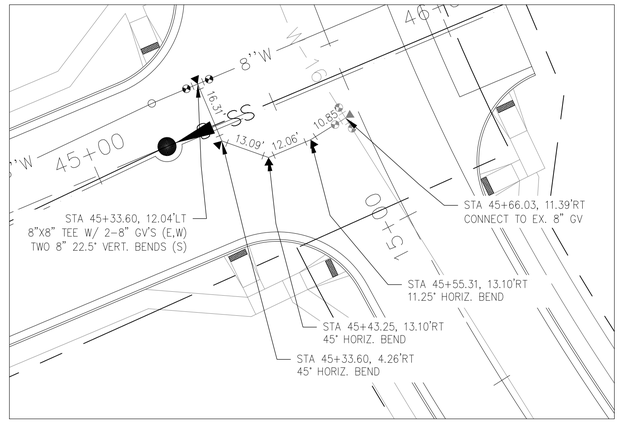
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



LAMPREY DRIVE

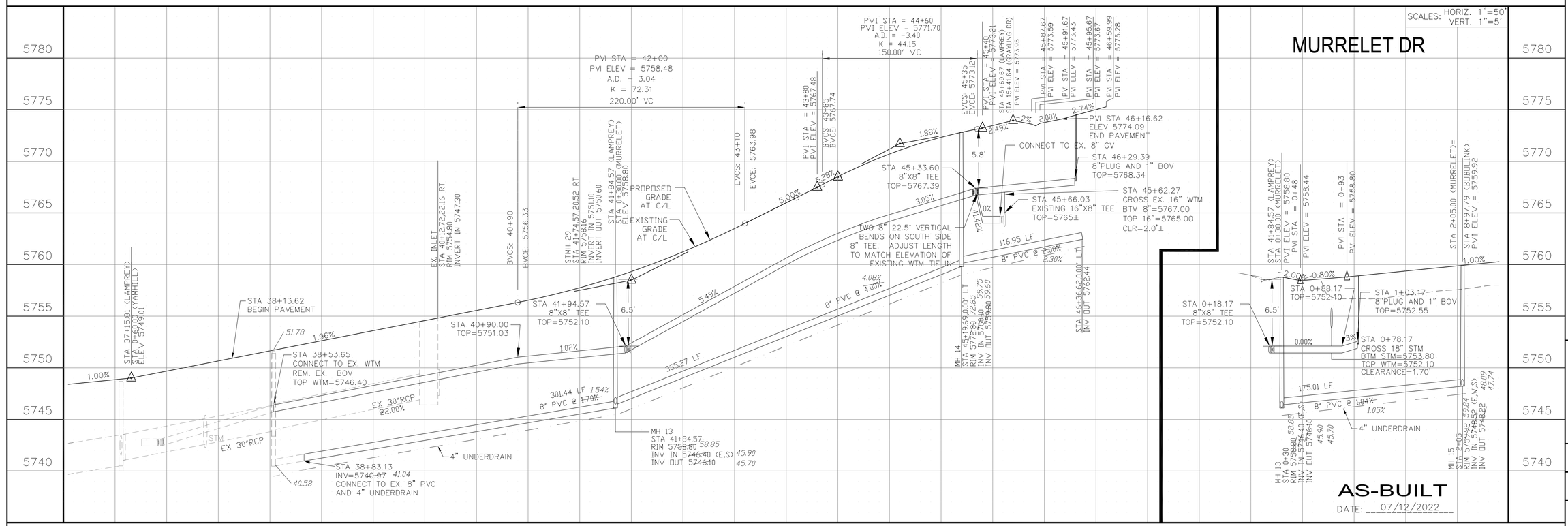


KEY MAP



WATERMAIN DETAIL

SCALE: 1"=20'



AS-BUILT

DATE: 07/12/2022

WTM AND SANITARY PLAN/PROFILE
LAMPREY DR AND MURRELET DR
STA 37+15 TO STA 46+00

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, WALLEYE DR, LAMPREY DR
LORSON BLVD TO MURRELET DR
COLORADO SPRINGS, COLORADO

NO.	DESCRIPTION	DATE

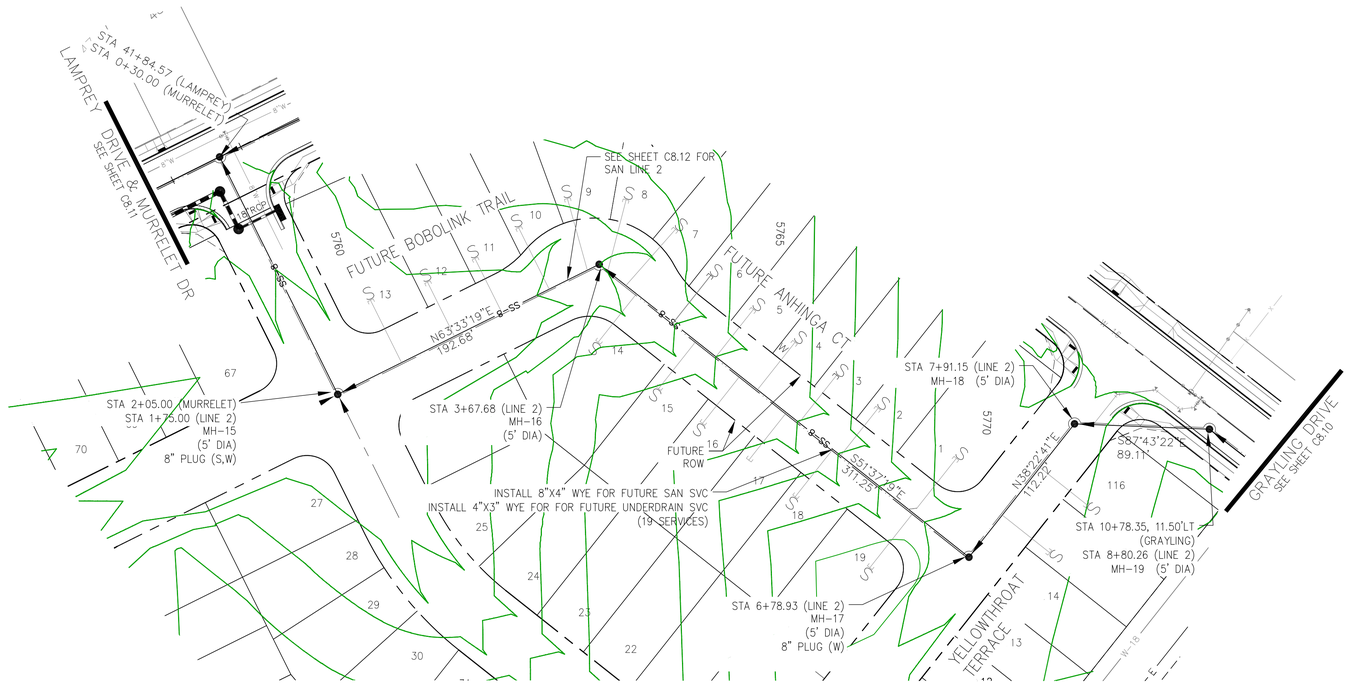
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

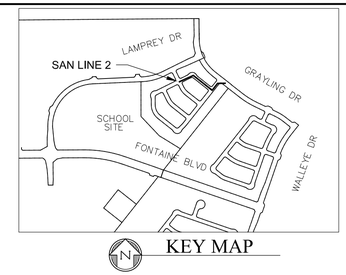
COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.11
TOTAL SHEETS: 58

NOTES

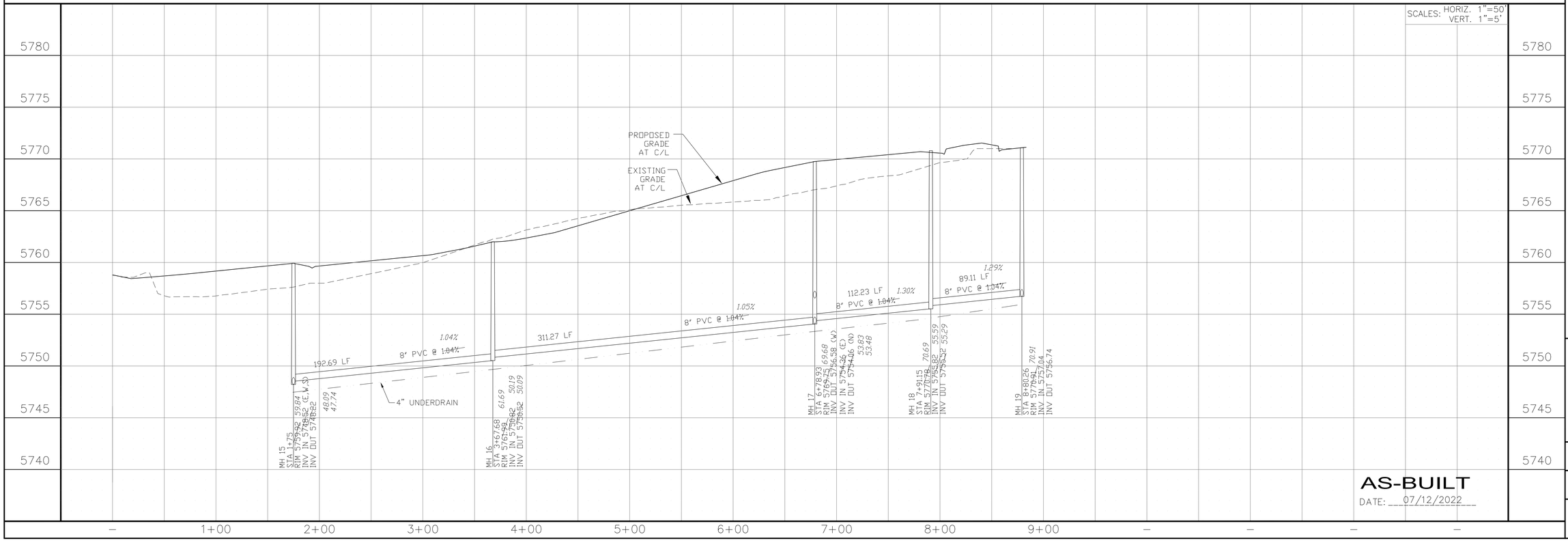
1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
3. ALL 8" & 12" WATERMAIN IS PVC, C900. ALL 16" WATERMAIN IS PVC, C905/DR18
4. ALL WATERMAIN FITTINGS ARE MJ DIP
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S





KEY MAP

SAN SWR LINE 2



AS-BUILT
DATE: 07/12/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg1.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

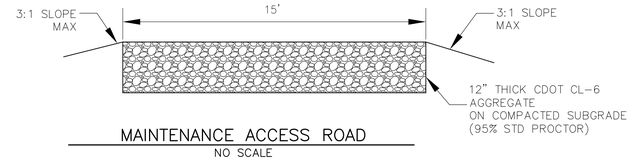
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD, GRAYLING DR, LAMPREY DR
LORSON BLVD, WALLEYE DR, MURRELET DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

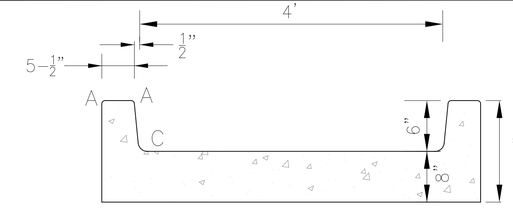
SANITARY SEWER PLAN/PROFILE
LINE 2
STA 1+75 TO STA 8+80

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C8.12
TOTAL SHEETS: 58



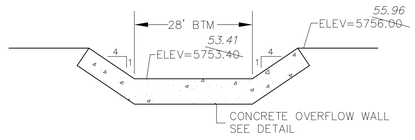
MAINTENANCE ACCESS ROAD
NO SCALE



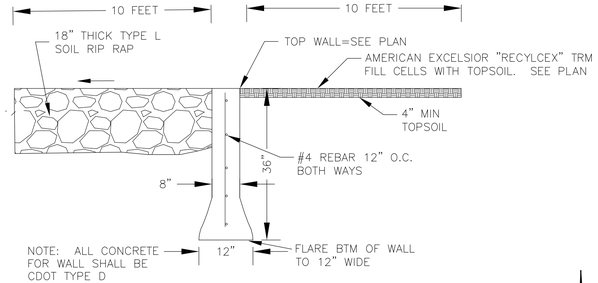
CONCRETE LOW FLOW CHANNEL DETAIL
NO SCALE

LENGTH FOR RADII
A = 1/2"
C = 1-1/2"

POND C1
EMERGENCY OVERFLOW
BTM=5753.40, TOP=5756.00
BTM WIDTH=28', 4:1 SIDE SLOPES
FLOW DEPTH=1.44'

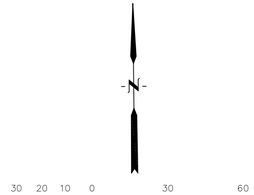


POND C1
EMERGENCY OVERFLOW
PROFILE
SCALE: NTS



POND CONCRETE OVERFLOW WALL
NO SCALE

AS-BUILT
DATE: 09/30/2022



SCALE: 1"=30'

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreengineering.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WHALETOE DR. HARPOON DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

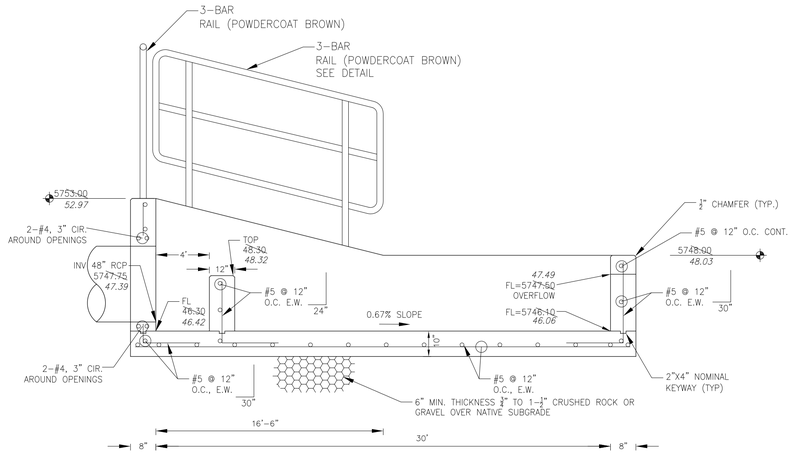
POND C1
FOREBAY, LOW FLOW CHANNEL AND OUTLET STRUCTURE LAYOUT

COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER
11-12-2020

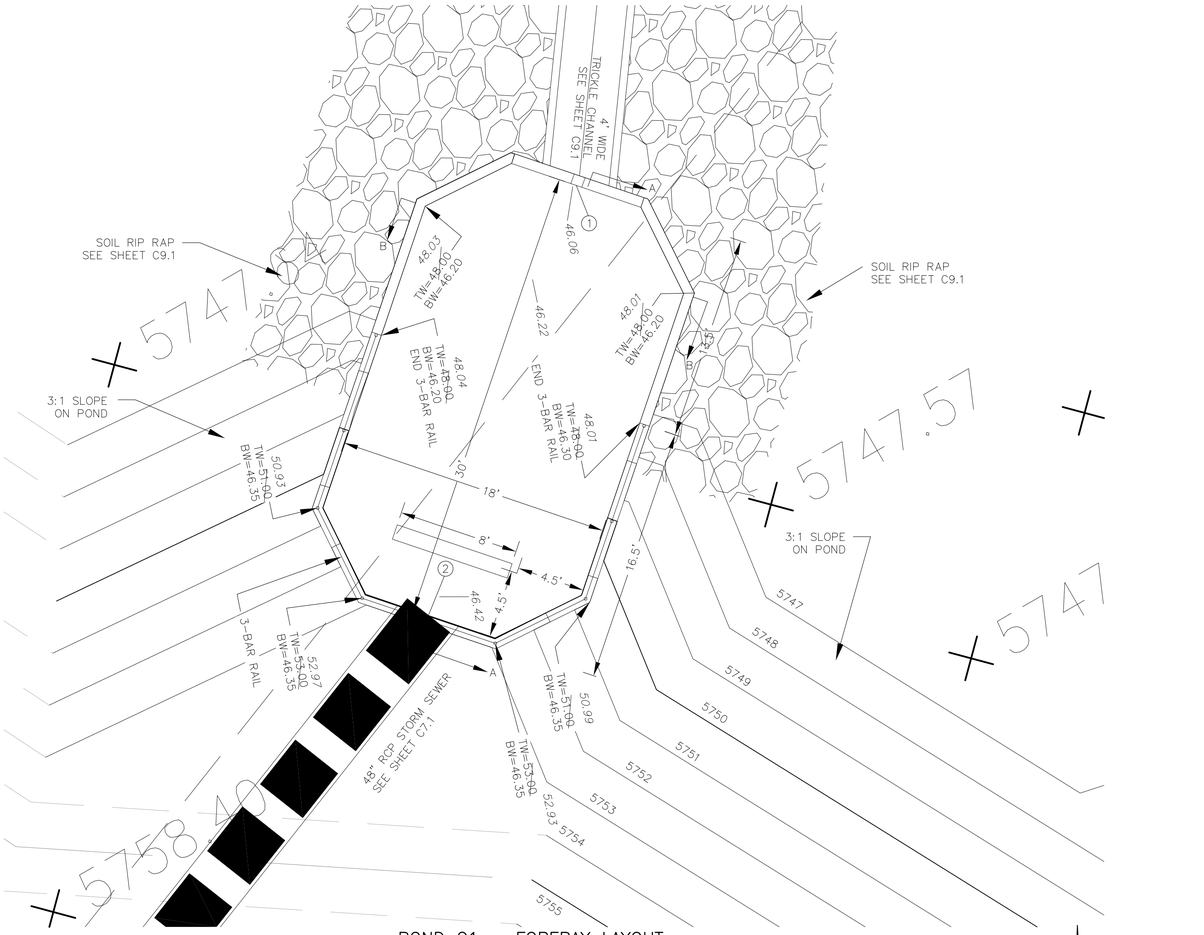
DATE: NOV 12, 2020

PROJECT NO. 100.061

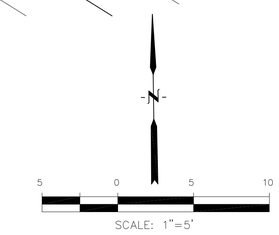
SHEET NUMBER C9.1
TOTAL SHEETS: 58



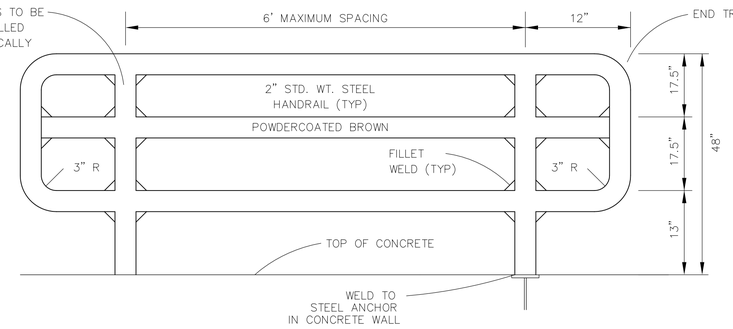
FOREBAY SECTION A–A
NO SCALE



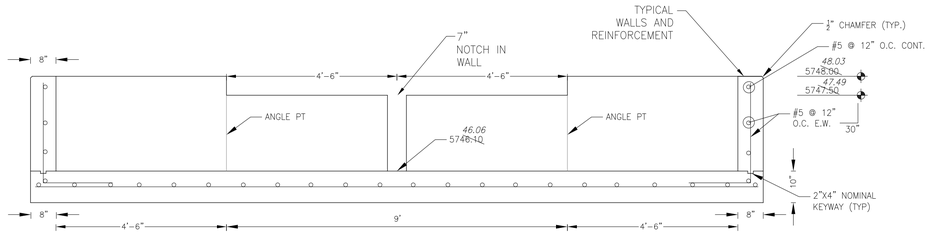
POND C1 – FOREBAY LAYOUT
SCALE: 1"=5'



SCALE: 1"=5'



3–BAR RAIL DETAIL
NO SCALE



FOREBAY SECTION B–B
NO SCALE

NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	22469.08	28305.90	5746.10	FOREBAY BOTTOM
2	22440.71	28296.15	5746.30	FOREBAY BOTTOM, INV 48"=5747.75

AS-BUILT
DATE: 09/30/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreg1.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. GRAYLAND DR.
LORSON BLVD. WHITE DOE HAVEN PT. DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

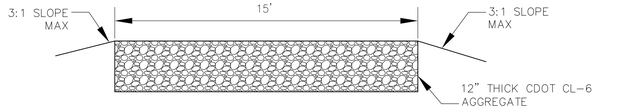
POND C1
FOREBAY NO. 2
FOREBAY DETAILS

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

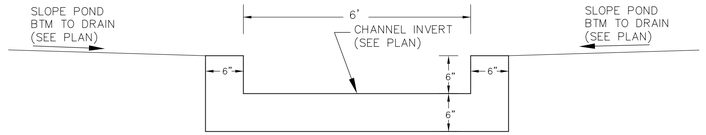
DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C9.2
TOTAL SHEETS: 58

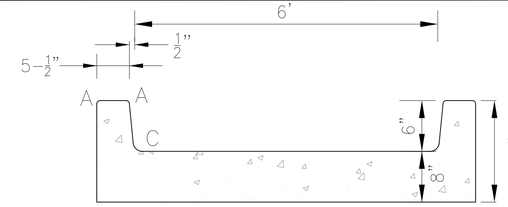


MAINTENANCE ACCESS ROAD
NO SCALE



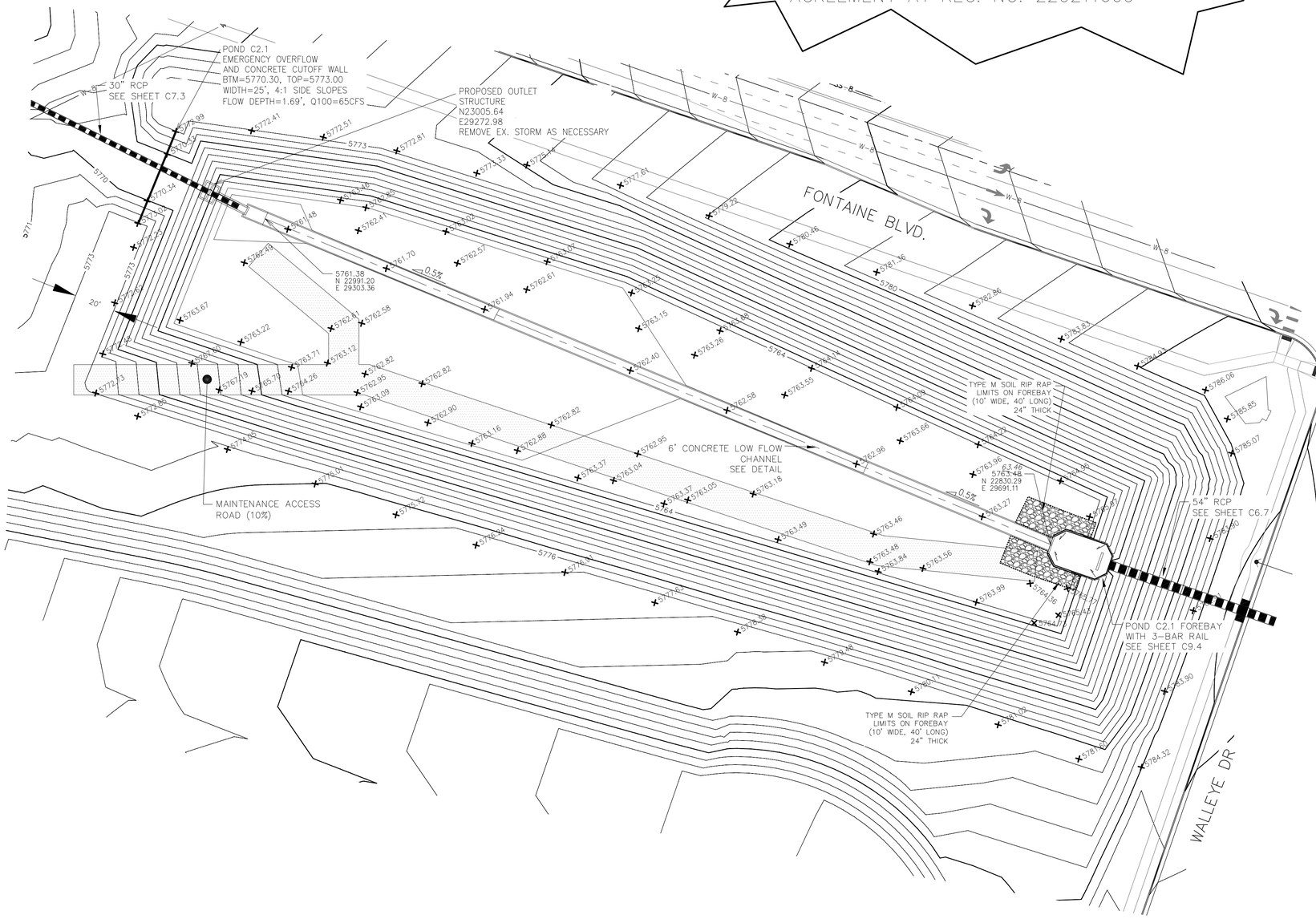
CONCRETE LOW FLOW CHANNEL
N.T.S.

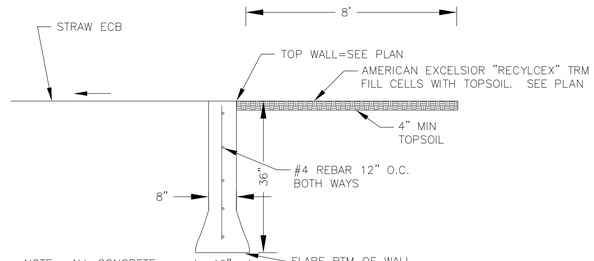
POND C2.1 IS LOCATED IN TRACT G, THE HILLS AT LORSON RANCH FILING NO. 1. SEE MAINTENANCE AGREEMENT AT REC. NO. 220211669



CONCRETE LOW FLOW CHANNEL DETAIL
NO SCALE

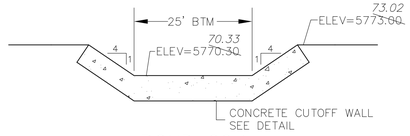
LENGTH FOR RADII
A = 1/2"
C = 1-1/2"





POND CONCRETE CUTOFF WALL
NO SCALE

POND C2.1
EMERGENCY OVERFLOW
AND CONCRETE CUTOFF WALL
BTM=5770.30, TOP=5773.00
WIDTH=25', 4:1 SIDE SLOPES
FLOW DEPTH=1.69', Q100=65CFS



POND C2.1
EMERGENCY OVERFLOW
AND CONCRETE CUTOFF WALL
PROFILE
SCALE: NTS

AS-BUILT
DATE: 09/30/2022

N

30 20 10 0 30 60
SCALE: 1"=30'

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ecgi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WALLEYE DR. MARY RC DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

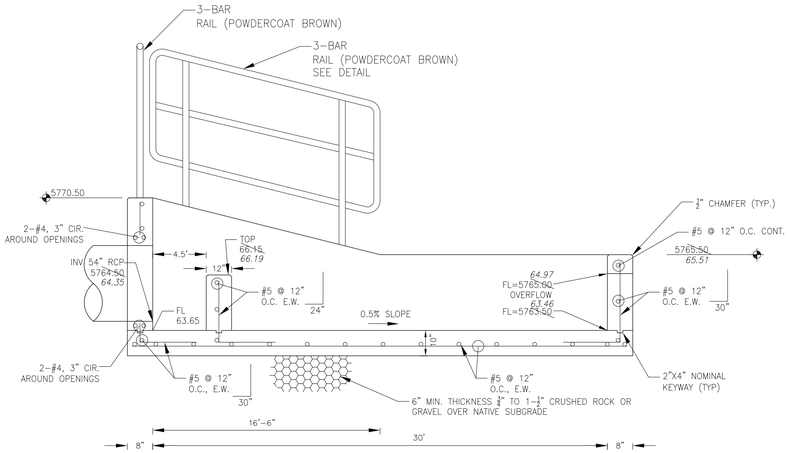
POND C2.1
FOREBAY AND LOW FLOW CHANNEL
LAYOUT

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

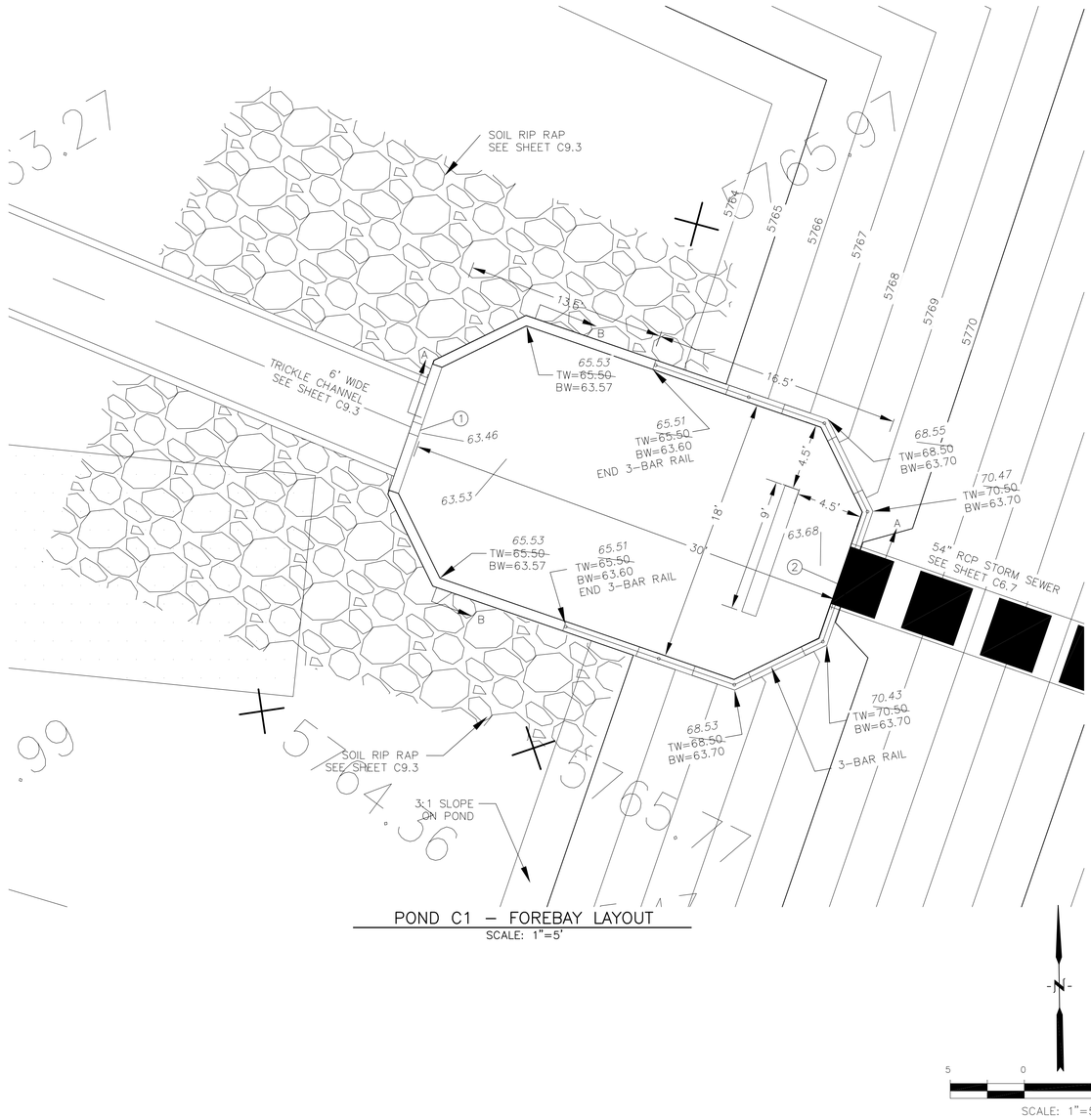
DATE:
NOV 12, 2020

PROJECT NO.
100.061

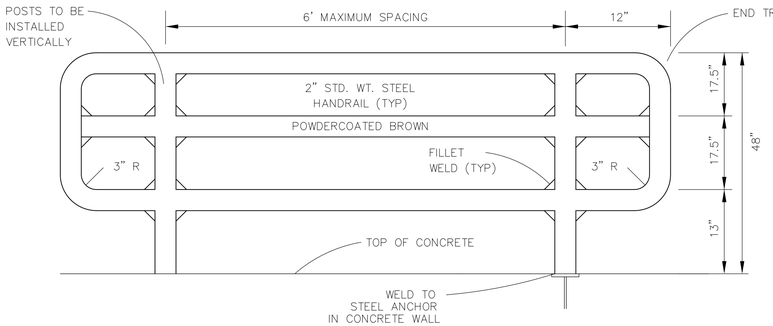
SHEET NUMBER
C9.3
TOTAL SHEETS: 58



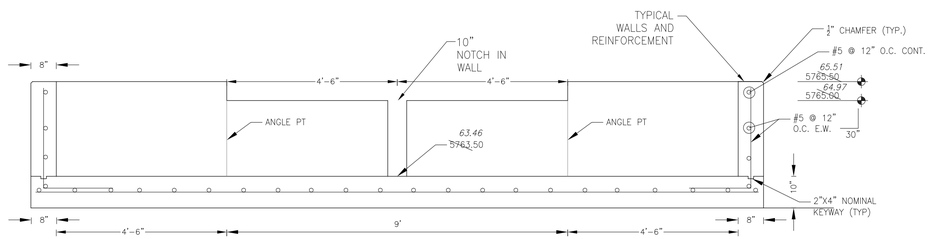
FOREBAY SECTION A–A
NO SCALE



POND C1 – FOREBAY LAYOUT
SCALE: 1"=5'



3–BAR RAIL DETAIL
NO SCALE



FOREBAY SECTION B–B
NO SCALE

NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	22830.08	29691.75	5763.50	FOREBAY BOTTOM
2	22820.31	29720.11	5763.65	FOREBAY BOTTOM, INV 54"=5764.50

AS-BUILT
DATE: 09/30/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coregi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. GRAYLAND DR.
LORSON BLVD. WALTE DRAKE DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

POND C2.1

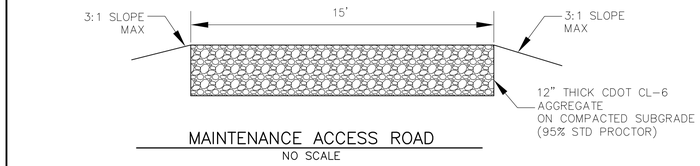
FOREBAY DETAILS

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

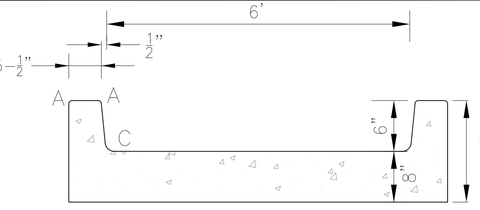
DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C9.4
TOTAL SHEETS: 58



MAINTENANCE ACCESS ROAD
NO SCALE



CONCRETE LOW FLOW CHANNEL DETAIL
NO SCALE

LENGTH FOR RADII
A = 1/2"
C = 1-1/2"

AS-BUILT
DATE: 09/30/2022

30 20 10 0 30 60
SCALE: 1"=30'

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WHITE DOE LANE DR.
COLORADO SPRINGS, COLORADO

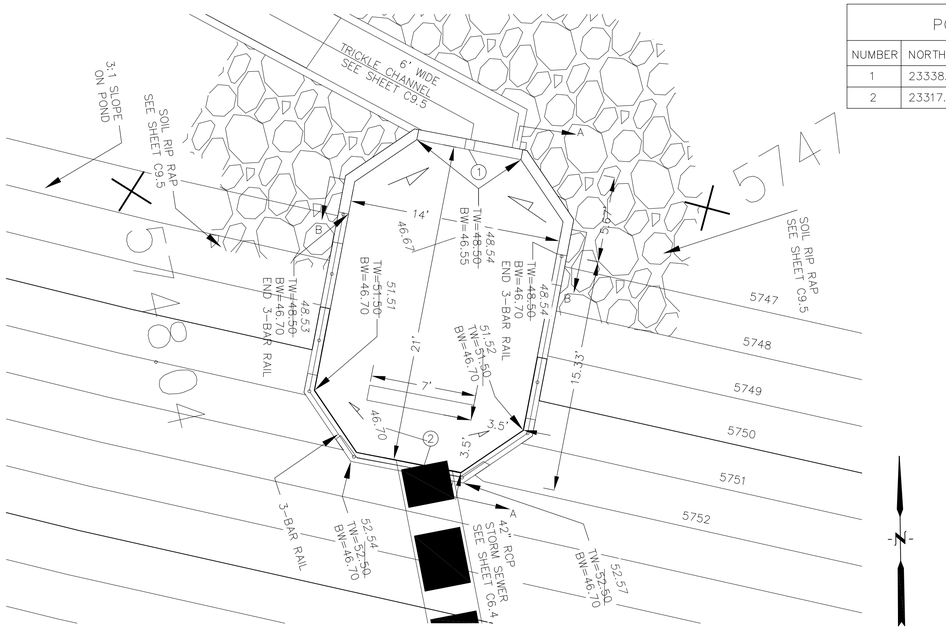
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

POND C2.2 & C2.3
FOREBAY, LOW FLOW CHANNEL
AND OUTLET STRUCTURE LAYOUT

COLORADO REGISTERED RICHARD L. SCHINDLER 33997 11-12-2020 PROFESSIONAL ENGINEER

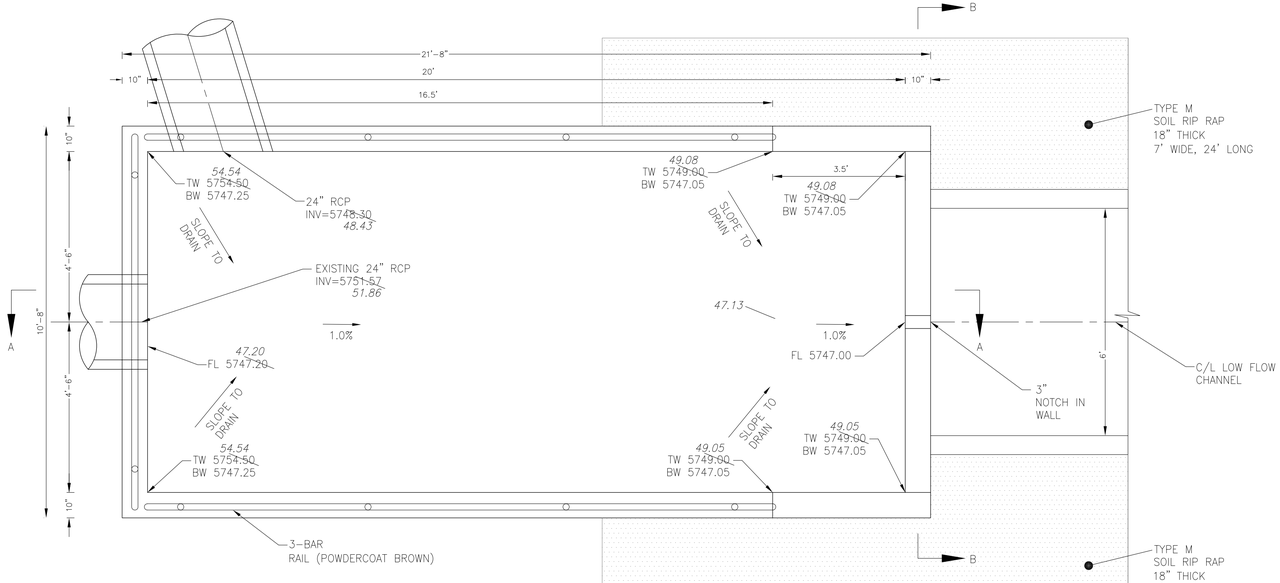
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.5
TOTAL SHEETS: 58

POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	23338.41	29100.32	5746.50	FOREBAY BOTTOM
2	23317.59	29097.36	5746.62	FOREBAY BOTTOM, INV 42"=5747.70

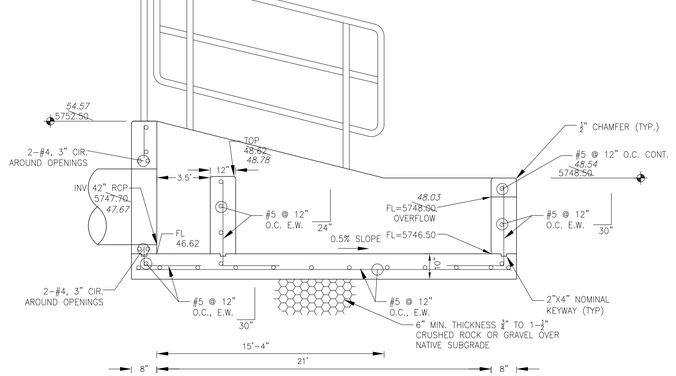


POND C2.2 – FOREBAY 'A' LAYOUT
SCALE: 1"=5'

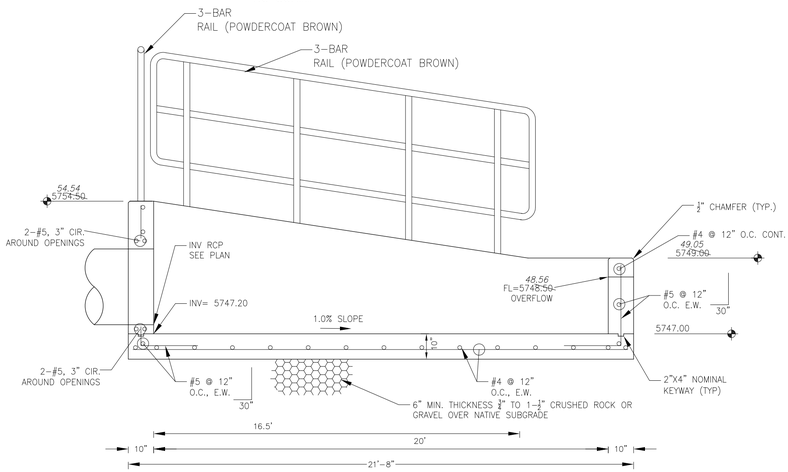
SCALE: 1"=5'



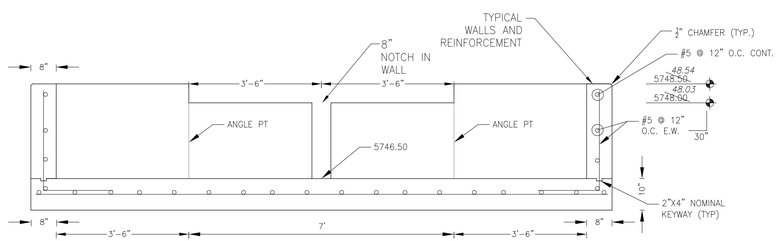
POND C2.2 – FOREBAY 'B' LAYOUT
NO SCALE



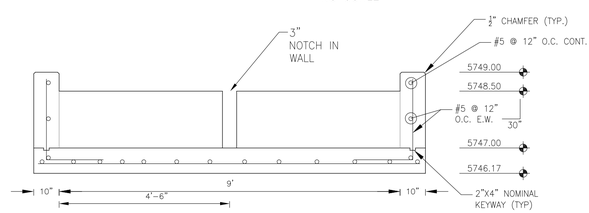
FOREBAY 'A' SECTION A–A
NO SCALE



FOREBAY 'B' SECTION A–A
NO SCALE



FOREBAY 'A' SECTION B–B
NO SCALE



FOREBAY 'B' SECTION B–B
NO SCALE

NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

AS-BUILT
DATE: 09/30/2022

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
CONTAINE BLVD. GRAYLING DR.
FINAL PLAT, WILLETE DR. HAMPTON PARK DR
LORSON BLVD. TO MARKSHEFFEL RD.
COLORADO SPRINGS, COLORADO

NO.	DESCRIPTION	DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

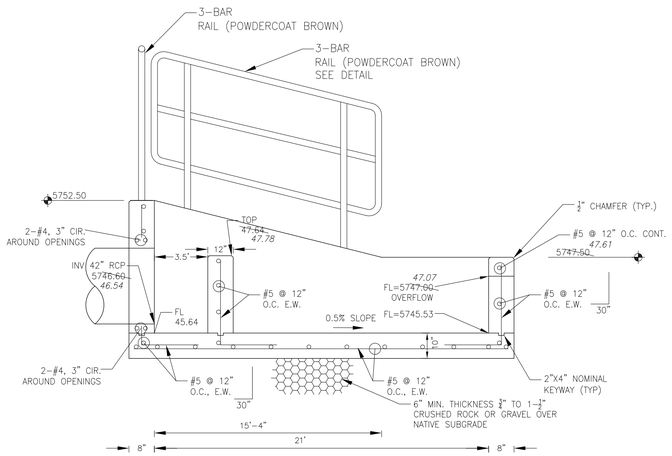
POND C2.2

FOREBAY DETAILS

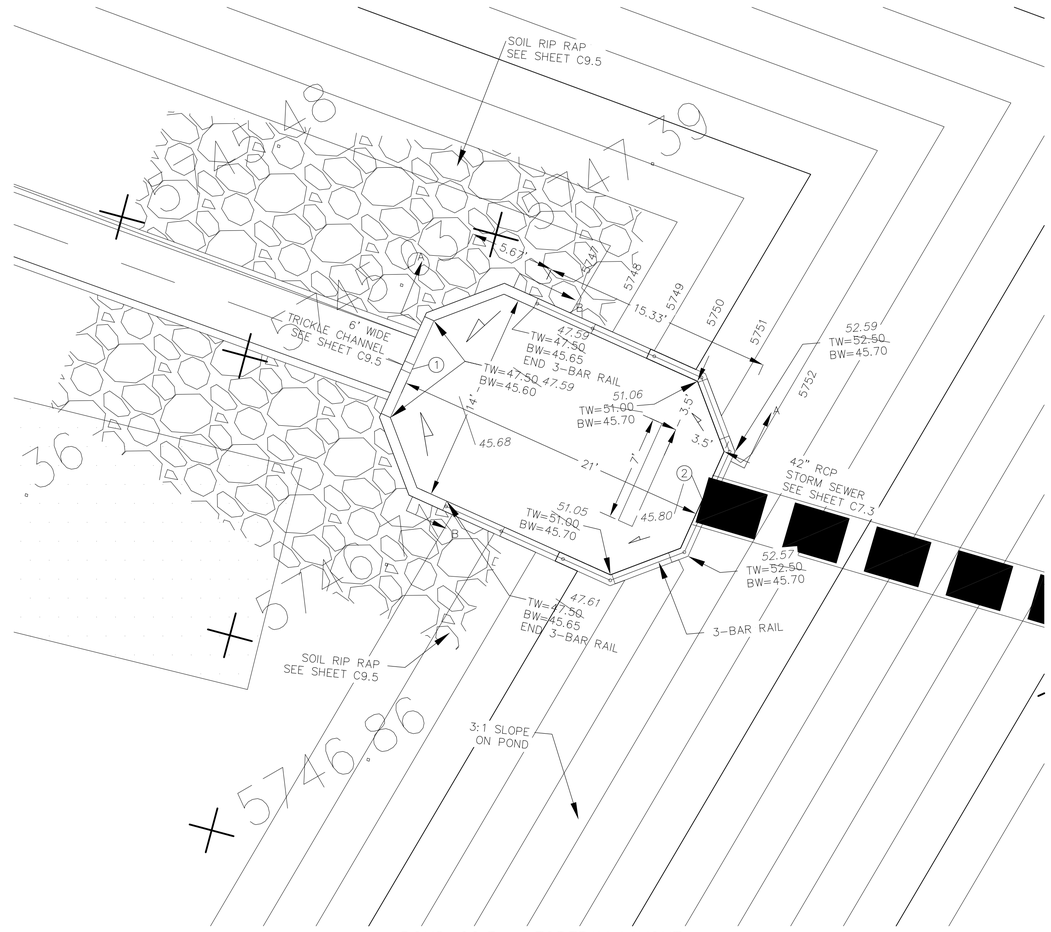
DATE:
NOV 12, 2020

PROJECT NO.
100.061

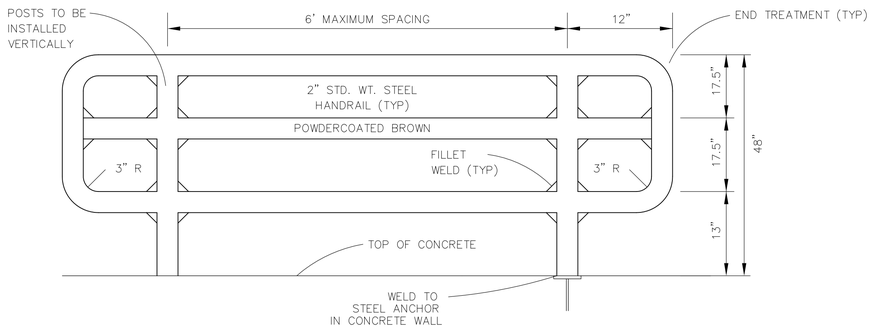
SHEET NUMBER
C9.6
TOTAL SHEETS: 58



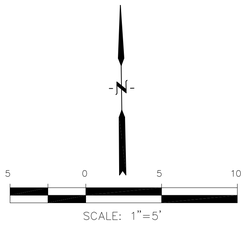
FOREBAY SECTION A-A
NO SCALE



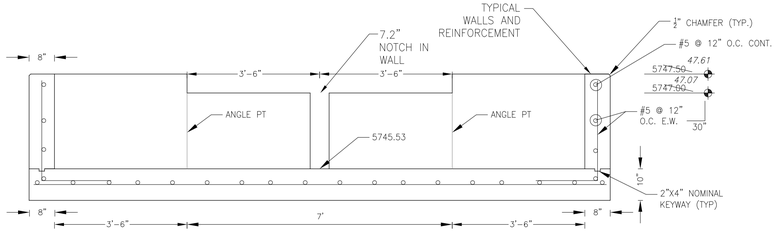
POND C2.3 - FOREBAY LAYOUT
SCALE: 1"=5'



3-BAR RAIL DETAIL
NO SCALE



SCALE: 1"=5'



FOREBAY SECTION B-B
NO SCALE

NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	23134.06	28937.51	5745.53	FOREBAY BOTTOM
2	23125.44	28956.66	5745.64	FOREBAY BOTTOM, INV 42"=5746.50

AS-BUILT
DATE: 09/30/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreengineeringgroup.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. & GRAYLAND DR
LORSON BLVD. & VALLE DEL MAR DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

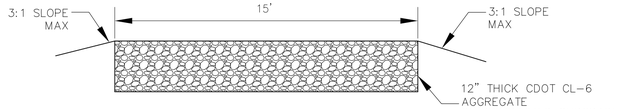
POND C2.3
FOREBAY DETAILS

COLORADO REGISTERED
RICHARD L. SCHINDLER
33997
11-12-2020
PROFESSIONAL ENGINEER

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C9.7
TOTAL SHEETS: 58



MAINTENANCE ACCESS ROAD
NO SCALE

CONCRETE LOW FLOW CHANNEL DETAIL WITH 8" CURBHEAD
NO SCALE

LENGTH FOR RADII
A = 1/2"
C = 1-1/2"

POND C3 EMERGENCY OVERFLOW PROFILE
SCALE: NTS

POND C3 OVERFLOW SWALE

NOTE: ALL CONCRETE FOR WALL SHALL BE CDOT TYPE D

POND OVERFLOW CONCRETE WALL
NO SCALE

AS-BUILT
DATE: 09/30/2022

N

30 20 10 0 30 60
SCALE: 1"=30'

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

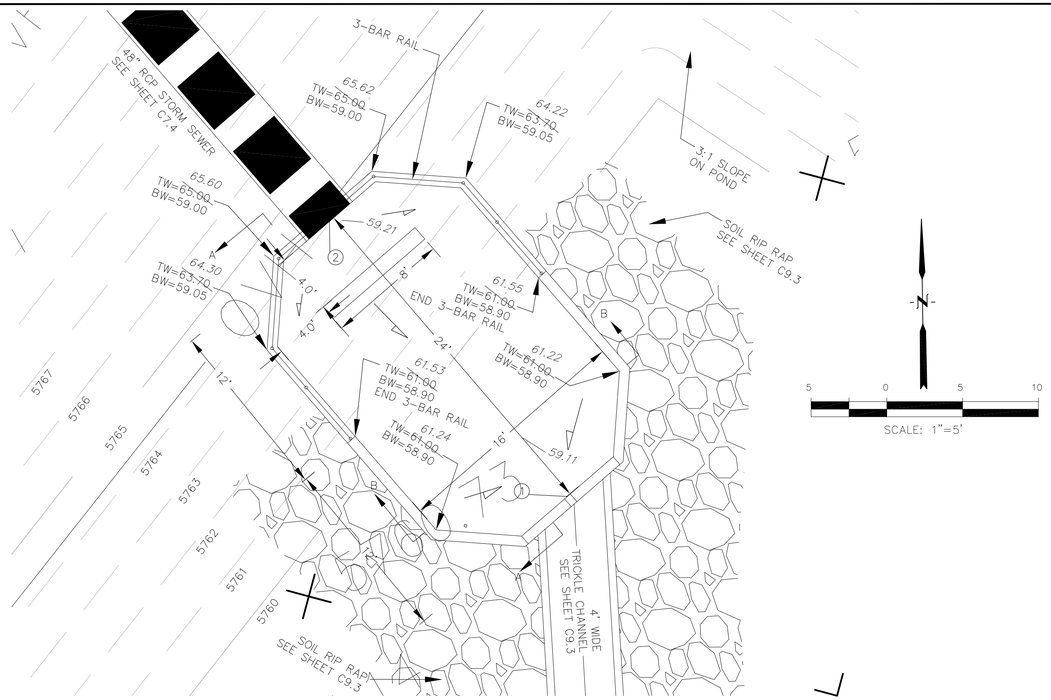
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WILLETTE DR. HARVEST DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

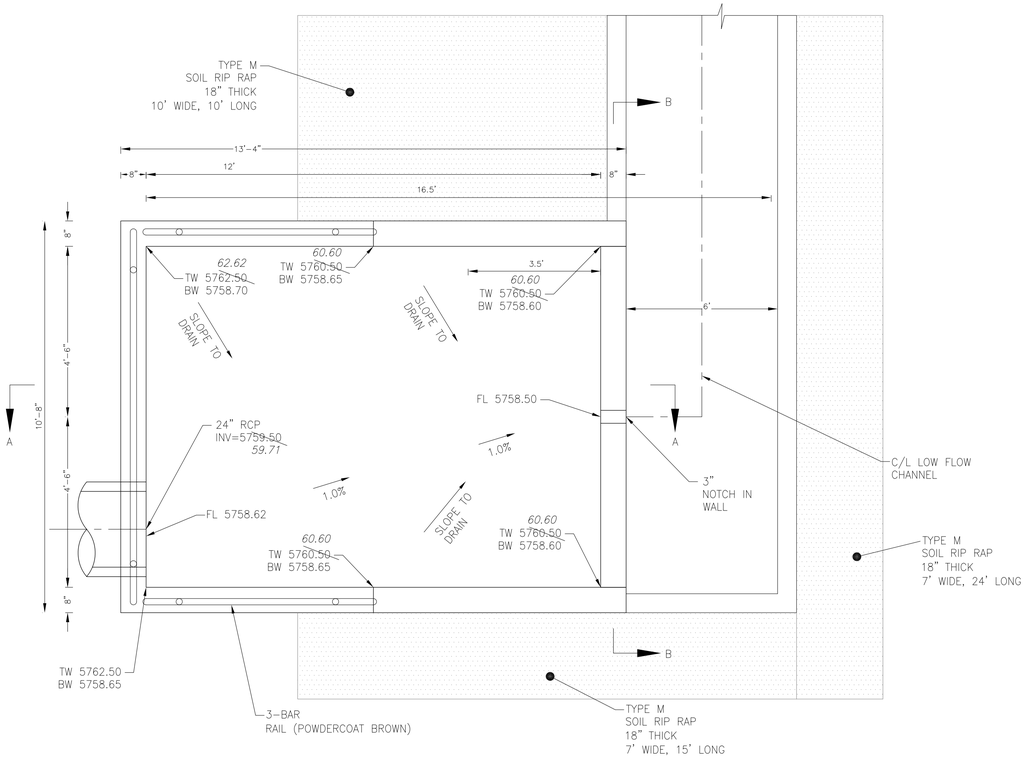
POND C3 FOREBAY, LOW FLOW CHANNEL AND OUTLET STRUCTURE LAYOUT

COLORADO REGISTERED RICHARD L. SCHINDLER 33997 11-12-2020 PROFESSIONAL ENGINEER

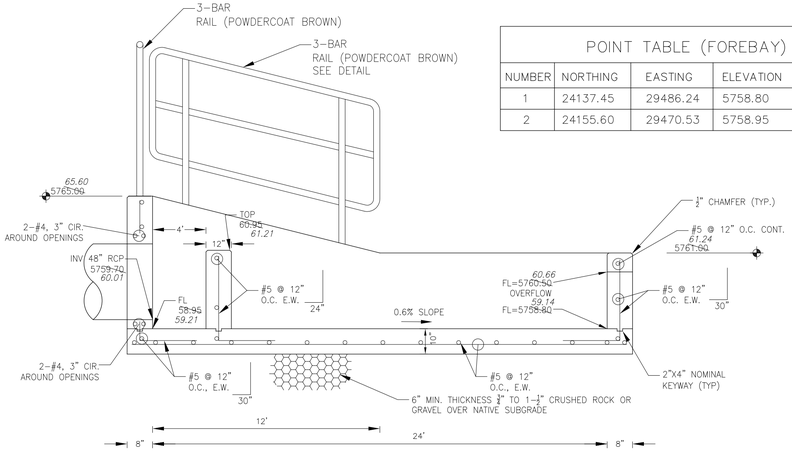
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.8
TOTAL SHEETS: 58



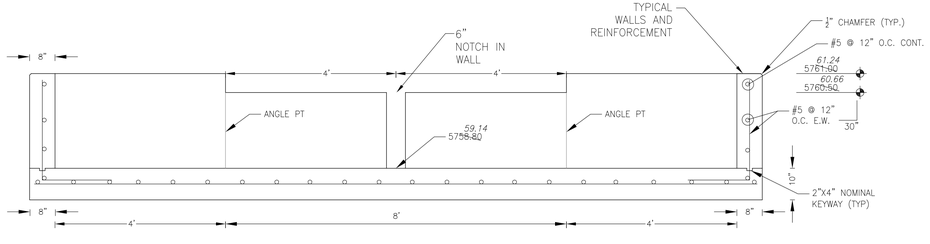
POND C3 – FOREBAY 'A' LAYOUT
SCALE: 1"=5'



POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	24137.45	29486.24	5758.80	FOREBAY BOTTOM
2	24155.60	29470.53	5758.95	FOREBAY BOTTOM, INV 48"=5759.70



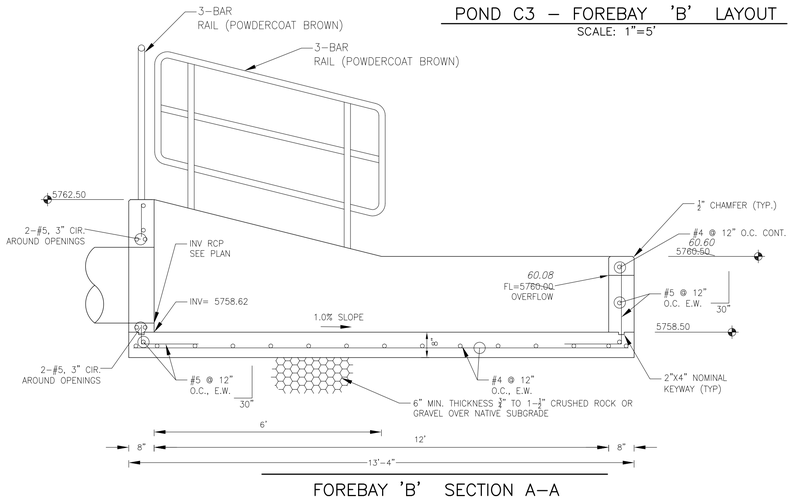
FOREBAY 'A' SECTION A–A
NO SCALE



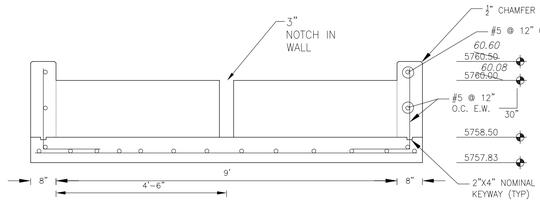
NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

FOREBAY 'A' SECTION B–B
NO SCALE

POND C3 – FOREBAY 'B' LAYOUT
SCALE: 1"=5'



FOREBAY 'B' SECTION A–A
NO SCALE



FOREBAY 'B' SECTION B–B
NO SCALE

AS-BUILT
DATE: 09/30/2022

CORE
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15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coregi.com

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. & GRAYLING DR.
FONTAINE BLVD. & WHITE ROCK DR
LORSON RANCH NORTH FILING 4
COLORADO SPRINGS, COLORADO

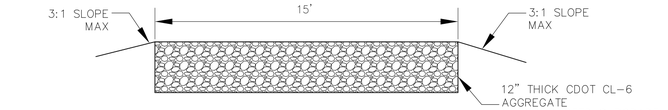
NO.	DESCRIPTION	DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

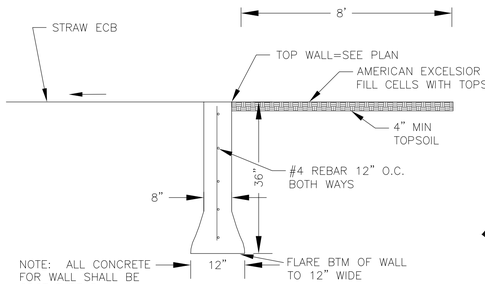
POND C3
FOREBAY DETAILS

COLORADO REGISTERED
RICHARD L. SCHINDLER
No. 33997
11-12-2020
PROFESSIONAL ENGINEER

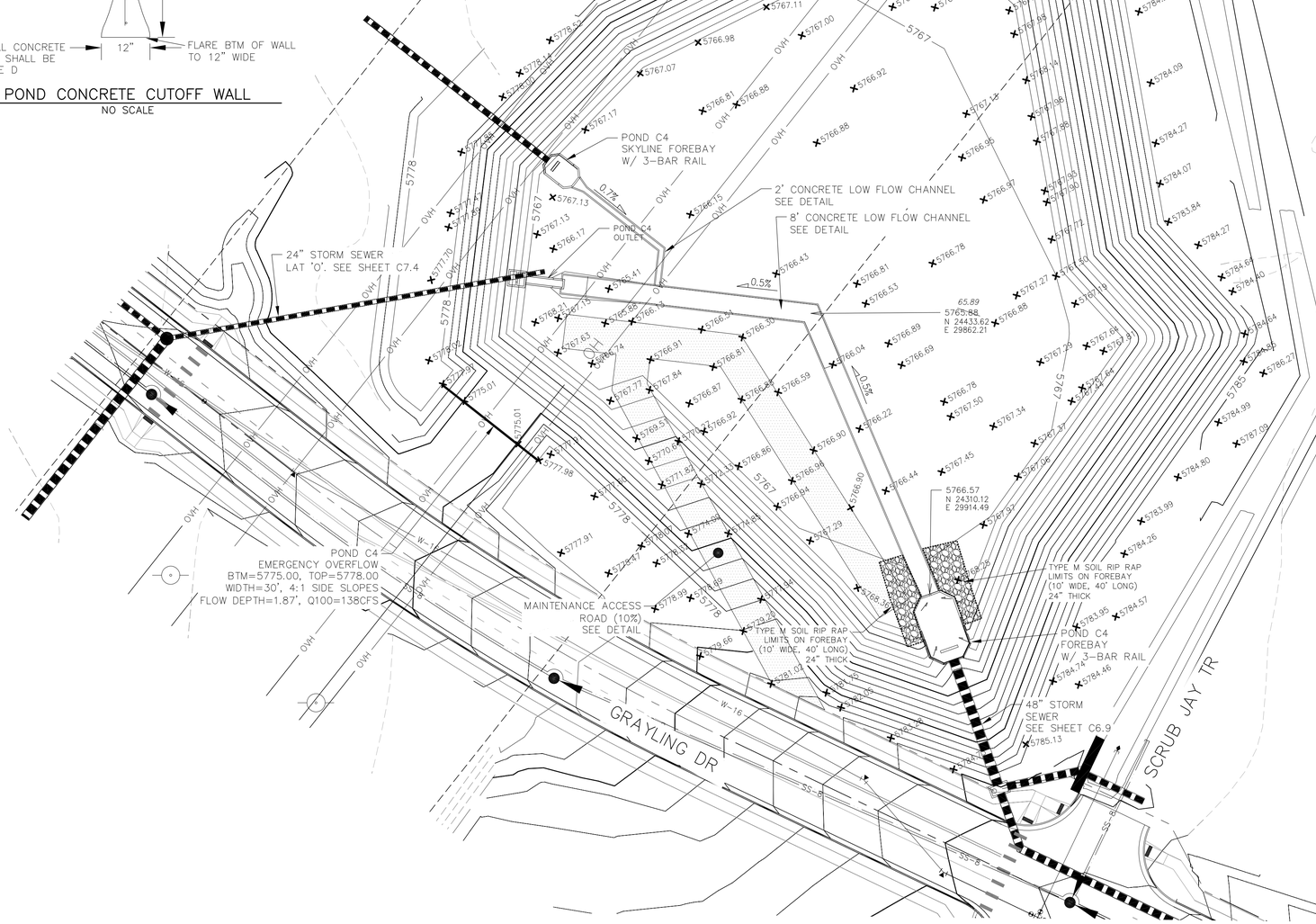
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.9
TOTAL SHEETS: 58

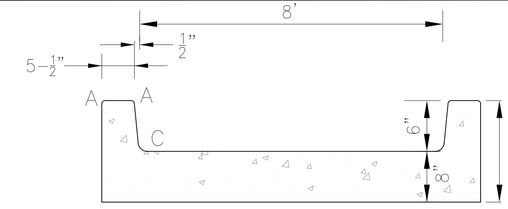


MAINTENANCE ACCESS ROAD
NO SCALE



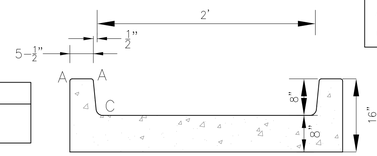
POND CONCRETE CUTOFF WALL
NO SCALE



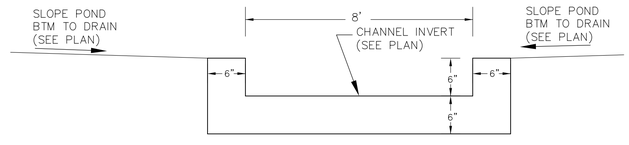


CONCRETE LOW FLOW CHANNEL DETAIL
NO SCALE

LENGTH FOR RADII
A = 1/2"
C = 1-1/2"

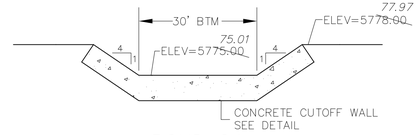


CONCRETE LOW FLOW CHANNEL DETAIL WITH 8" CURBHEAD
NO SCALE



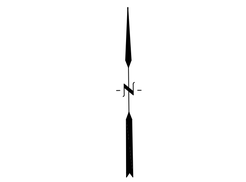
CONCRETE LOW FLOW CHANNEL
N.T.S.

POND C4
EMERGENCY OVERFLOW
AND CONCRETE CUTOFF WALL
BTM=5775.00, TOP=5778.00
WIDTH=30', 4:1 SIDE SLOPES
FLOW DEPTH=1.87', Q100=138CFS



POND C4
EMERGENCY OVERFLOW
AND CONCRETE CUTOFF WALL
PROFILE
SCALE: NTS

AS-BUILT
DATE: 09/30/2022



SCALE: 1"=30'

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

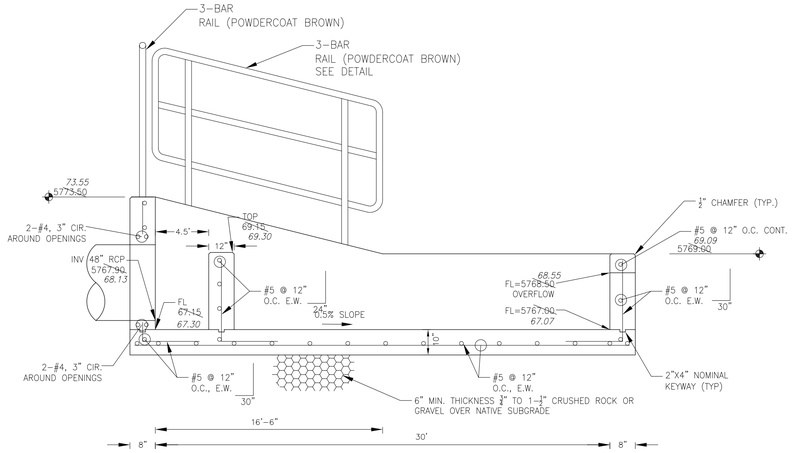
PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD. & GRAYLING DR.
LORSON RANCH FILING 1E, PHASE 1A & GRAYLING DR
COLORADO SPRINGS, COLORADO

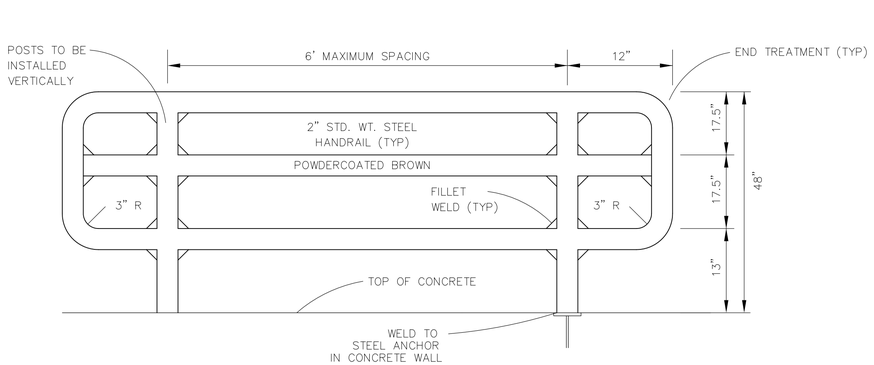
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

POND C4 FOREBAY & LOW FLOW CHANNEL LAYOUT

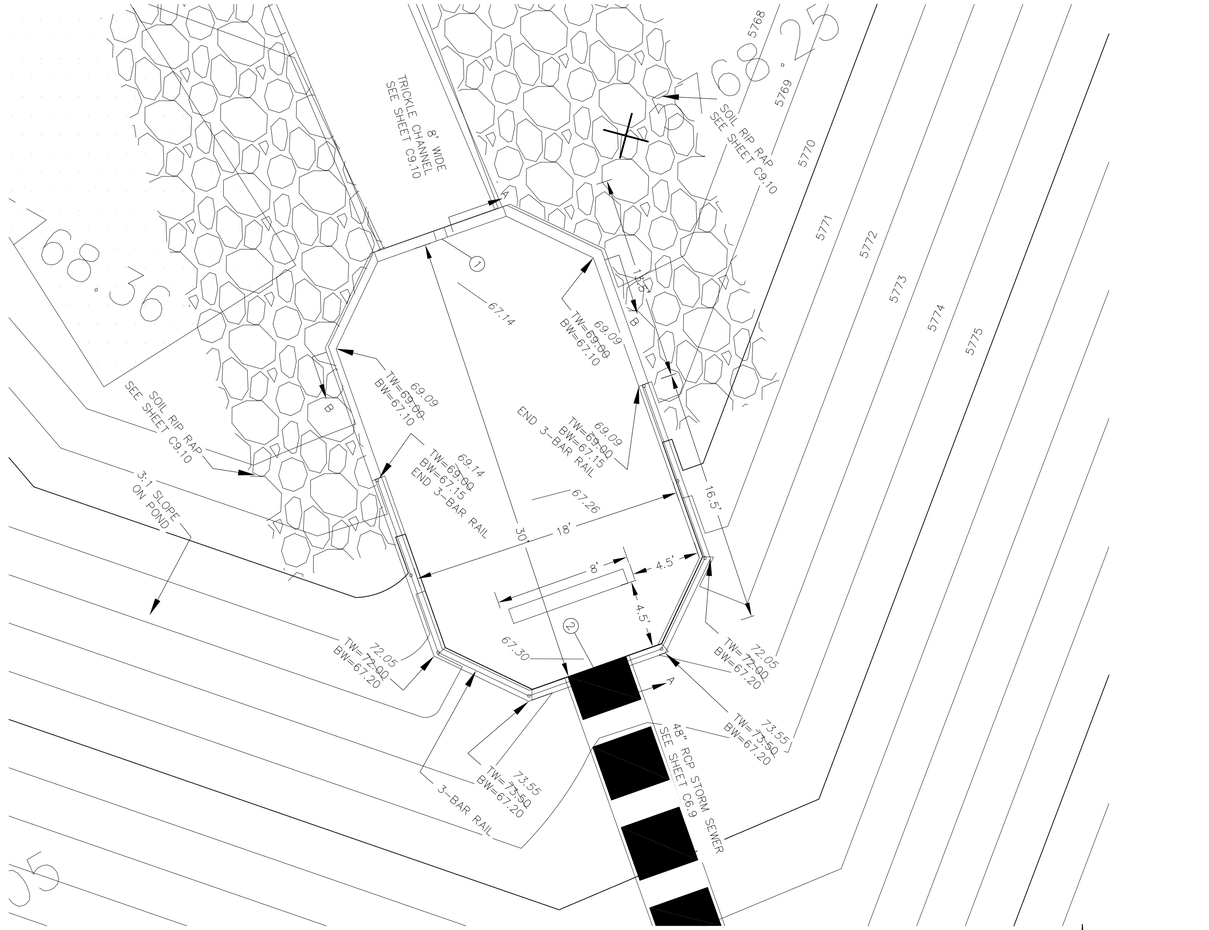
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.10
TOTAL SHEETS: 58



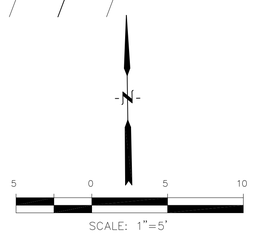
FOREBAY SECTION A-A
NO SCALE



3-BAR RAIL DETAIL
NO SCALE

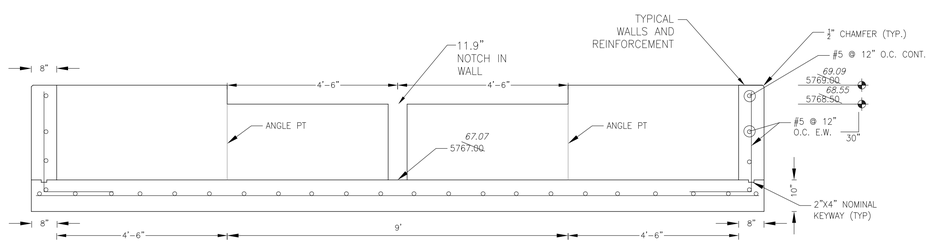


POND C4 - FOREBAY LAYOUT
SCALE: 1"=5'



SCALE: 1"=5'

POINT TABLE (FOREBAY)				
NUMBER	NORTHING	EASTING	ELEVATION	NOTES
1	24309.51	29914.77	5767.00	FOREBAY BOTTOM
2	24281.30	29924.99	5767.15	FOREBAY BOTTOM, INV 48"=5767.90



FOREBAY SECTION B-B
NO SCALE

NOTE: ALL CONCRETE FOR FOREBAY SHALL BE CDOT TYPE D

AS-BUILT
DATE: 09/30/2022

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@cegi.com

NO.	DESCRIPTION	DATE
1.	RAISE SITE 1' EAST OF POWERLINES	JAN 12, 2021

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD. GRAYLAND DR.
LORSON BLVD. WHALETAIL DR. HARRIER DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

POND C4

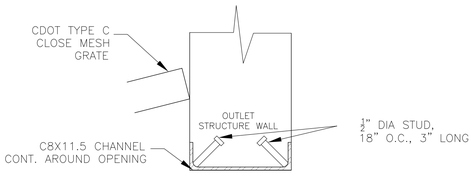
FOREBAY DETAILS

COLORADO REGISTERED PROFESSIONAL ENGINEER
RICHARD L. SCHINDLER
33997
11-12-2020

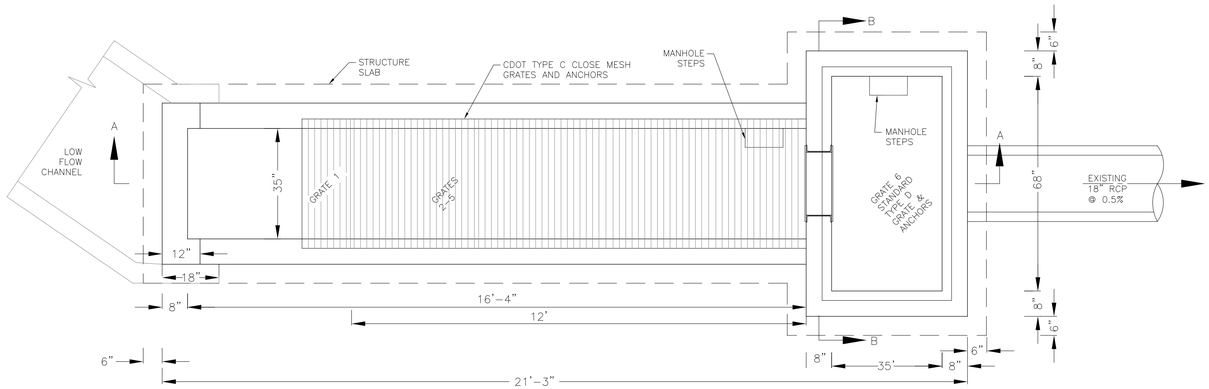
DATE:
NOV 12, 2020

PROJECT NO.
100.061

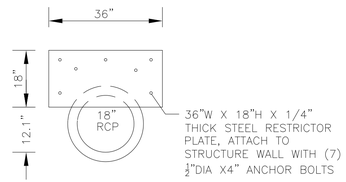
SHEET NUMBER
C9.11
TOTAL SHEETS: 58



DETAIL A
NO SCALE

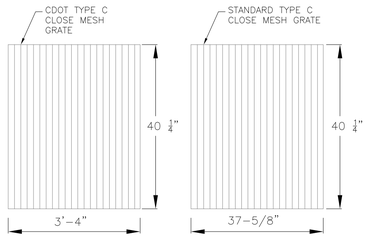


OUTLET STRUCTURE DETAIL – PLAN VIEW
NO SCALE



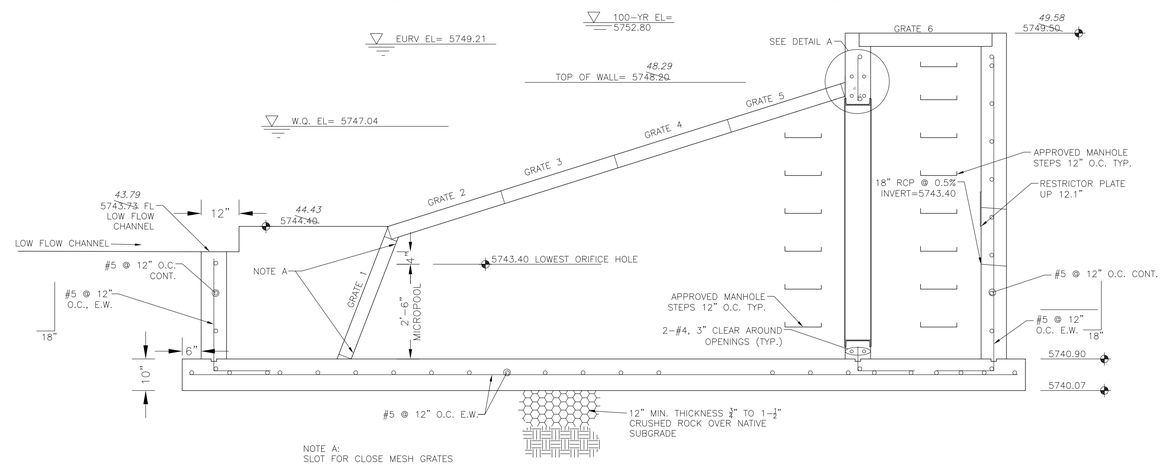
OUTLET RESTRICTOR PLATE
NO SCALE

NOTE:
AFTER CONCRETE STRUCTURE HAS BEEN POURED ALL GRATE DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO GRATE CONSTRUCTION



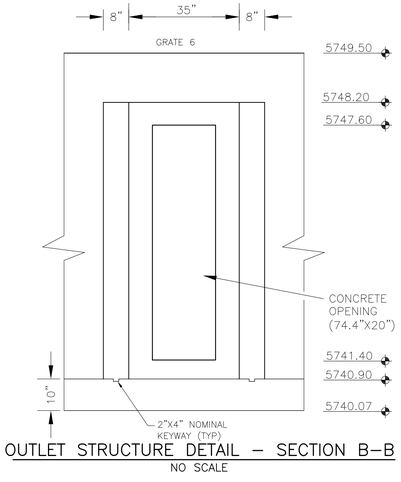
GRATE 1
NO SCALE

GRATES 2,3,4,5
NO SCALE

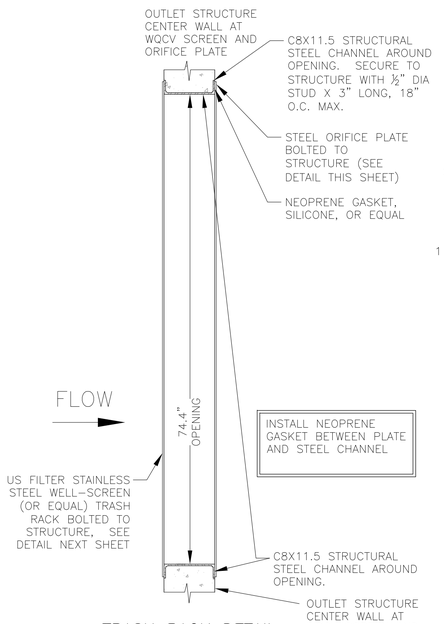


NOTE A:
SLOT FOR CLOSE MESH GRATES

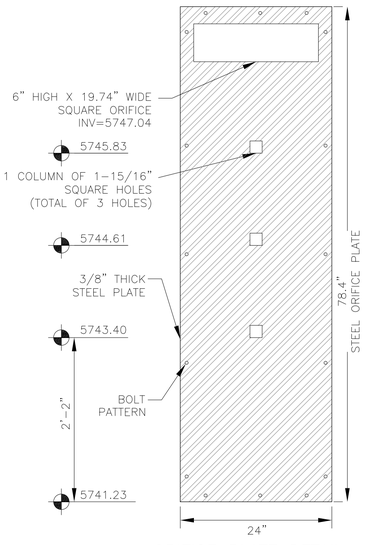
OUTLET STRUCTURE DETAIL – SECTION A–A
NO SCALE



OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE



TRASH RACK DETAIL
NO SCALE



ORIFICE PLATE DETAIL
NO SCALE

OUTLET STRUCTURE, FOREBAY, AND DRAIN CHANNEL NOTES:

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL COMPONENTS OF THE OUTLET STRUCTURE.
2. GRADE 60 REINFORCING STEEL REQUIRED. SEE TABLE FOR THE MINIMUM LAP SPLICE LENGTH FOR REINFORCING BARS. ALL REINFORCING STEEL SHALL HAVE A TWO–INCH MINIMUM CLEARANCE FROM EDGE OF CONCRETE, UNLESS OTHERWISE NOTED.

BAR SIZE	#4	#5	#6
MIN. SPLICE LENGTH	1'–3"	1'–7"	2'–0"

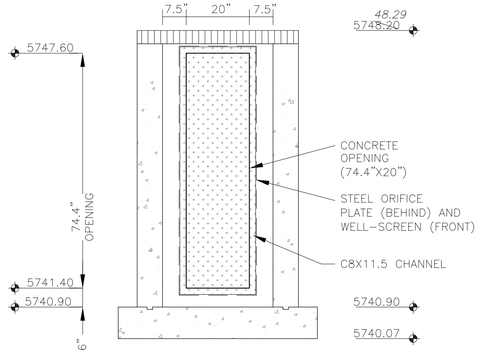
3. CONCRETE FOR THE OUTLET STRUCTURE AND FOREBAY SHALL BE CDOT CLASS D CONCRETE.
4. CONCRETE FOR DRAIN CHANNELS SHALL BE CDOT CLASS B CONCRETE
5. EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M–213. EXPANSION JOINT MATERIAL SHALL BE ½" THICK, SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE AND THE JOINT SHALL BE SEALED, REFER TO DETAILS.
6. ALL EXPOSED CONCRETE CORNERS SHALL HAVE A ¾" CHAMFER UNLESS OTHERWISE NOTED.
7. SUBGRADE TO BE 12" THICK CLEAN FILL COMPACTED TO 95% STANDARD PROCTOR DENSITY PER ASTM M698 UNDER STRUCTURE.
8. REFER TO POND DETAILS FOR PRESEDIMENTATION/FOREBAY DESIGN.
9. ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING CONSTRUCITON OF OUTLET STRUCTURE TO SCHEDULE OBSERVATION VISITS FOR STRUCTURES.

WQCV WELL–SCREEN NOTES:

1. Well–Screen shall be stainless steel and attached by stainless steel bolts along edge of the mounting frame.

2. WQCV Well Screen
- Type of Screen: Stainless steel #93 Vee Wire (Johnson Vee Wire (tm) Stainless Steel Screen or equivalent with 60% open area)
- Screen slot opening dimension: 0.139" (Screen #93 Vee Wire Slot Opening)
- Type and Size of Support Rod: TE 0.074"X0.50"
- Spacing of Support Rod (O.C.): 1.0 Inch
- Total Screen Thickness: 0.655"
- Carbon Steel Holding Frame Type: 3/4" x 1.0" angle

AS-BUILT
DATE:___09/30/2022



OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreengrg.com

NO.	DESCRIPTION	DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
CONTAINE BLVD. GRAYLING DR.
LORSON BLVD. TO WALTE DOUGLAS DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

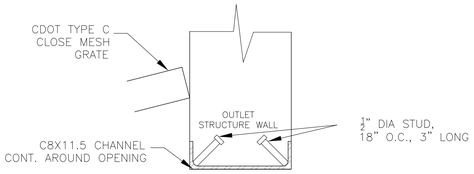
POND C1
FULL SPECTRUM
OUTLET STRUCTURE DETAILS

COLORADO REGISTERED 33997 11-12-2020 PROFESSIONAL ENGINEER

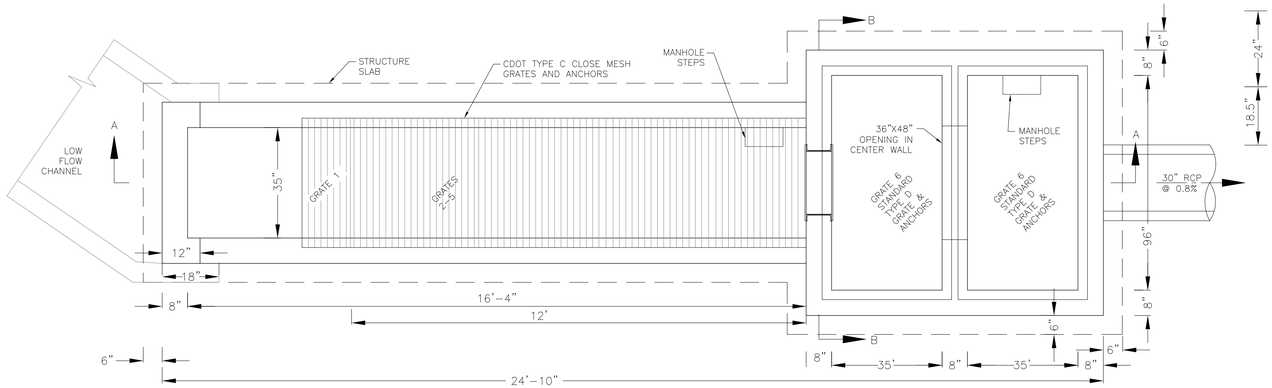
DATE:
NOV 12, 2020

PROJECT NO.
100.061

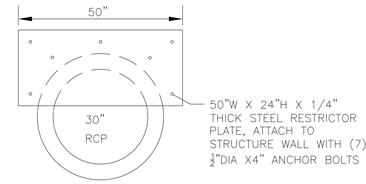
SHEET NUMBER
C9.12
TOTAL SHEETS: 58



DETAIL A
NO SCALE

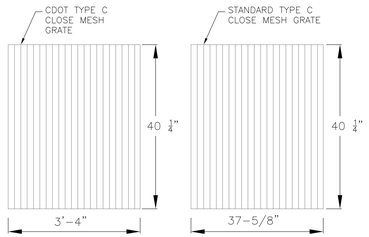


OUTLET STRUCTURE DETAIL – PLAN VIEW
NO SCALE



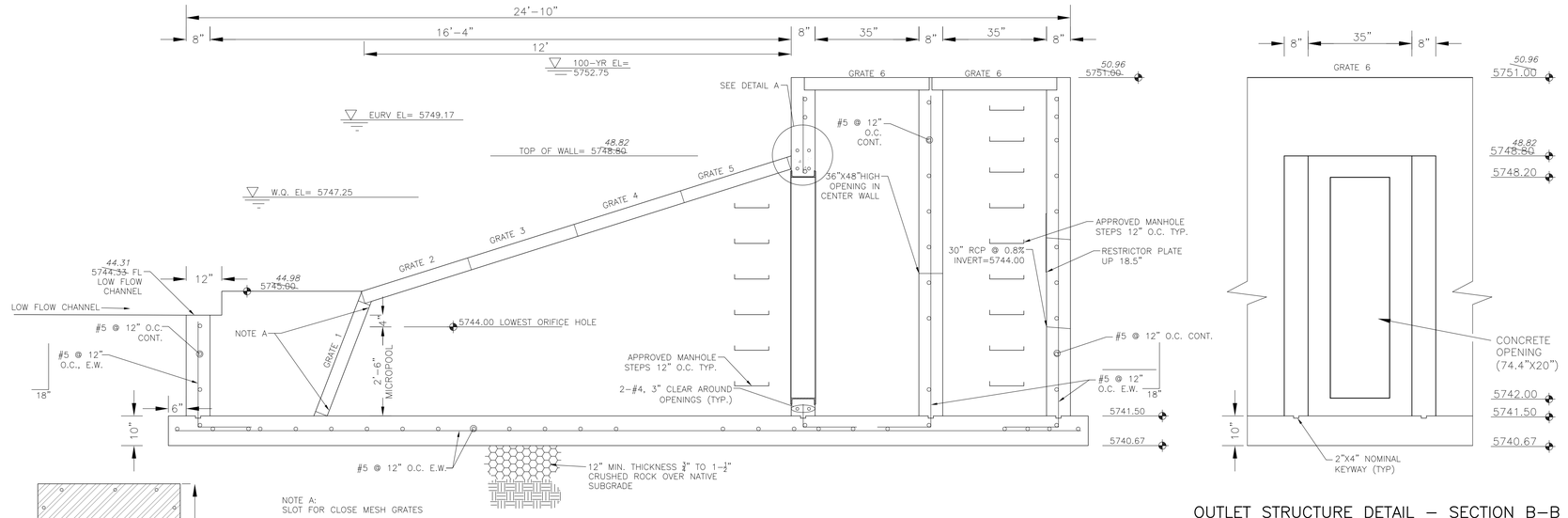
OUTLET RESTRICTOR PLATE
NO SCALE

NOTE:
AFTER CONCRETE STRUCTURE HAS BEEN POURED ALL GRATE DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO GRATE CONSTRUCTION



GRATE 1
NO SCALE

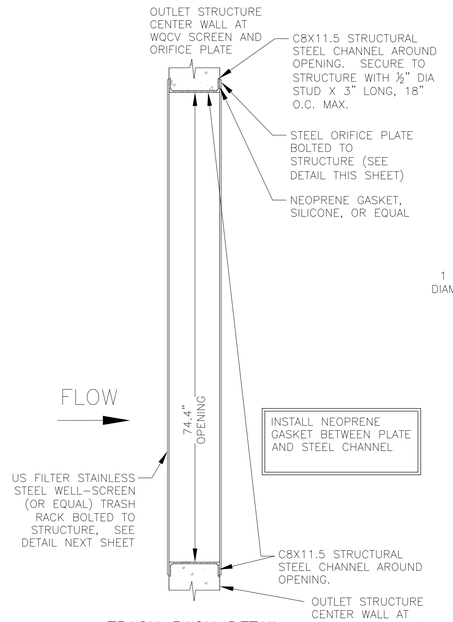
GRATES 2,3,4,5
NO SCALE



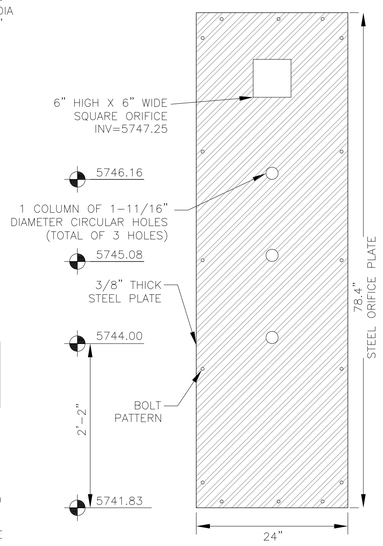
NOTE A:
SLOT FOR CLOSE MESH GRATES

OUTLET STRUCTURE DETAIL – SECTION A–A
NO SCALE

OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE



TRASH RACK DETAIL
NO SCALE



ORIFICE PLATE DETAIL
NO SCALE

OUTLET STRUCTURE, FOREBAY, AND DRAIN CHANNEL NOTES:

1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR ALL COMPONENTS OF THE OUTLET STRUCTURE.
2. GRADE 60 REINFORCING STEEL REQUIRED. SEE TABLE FOR THE MINIMUM LAP SPLICE LENGTH FOR REINFORCING BARS. ALL REINFORCING STEEL SHALL HAVE A TWO–INCH MINIMUM CLEARANCE FROM EDGE OF CONCRETE, UNLESS OTHERWISE NOTED.

BAR SIZE	#4	#5	#6
MIN. SPLICE LENGTH	1'–3"	1'–7"	2'–0"

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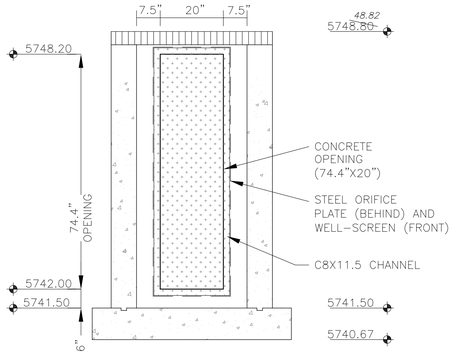
4. CONCRETE FOR DRAIN CHANNELS SHALL BE CDOT CLASS B CONCRETE
5. EXPANSION JOINT MATERIAL SHALL MEET AASHTO SPECIFICATION M–213. EXPANSION JOINT MATERIAL SHALL BE ½" THICK, SHALL EXTEND THE FULL DEPTH OF CONTACT SURFACE AND THE JOINT SHALL BE SEALED, REFER TO DETAILS.
6. ALL EXPOSED CONCRETE CORNERS SHALL HAVE A ¾" CHAMFER UNLESS OTHERWISE NOTED.
7. SUBGRADE TO BE 12" THICK CLEAN FILL COMPACTED TO 95% STANDARD PROCTOR DENSITY PER ASTM M698 UNDER STRUCTURE.
8. REFER TO POND DETAILS FOR PRESEDIMENTATION/FOREBAY DESIGN.
9. ENGINEER SHALL BE NOTIFIED PRIOR TO BEGINNING CONSTRUCITON OF OUTLET STRUCTURE TO SCHEDULE OBSERVATION VISITS FOR STRUCTURES.

WQCV WELL–SCREEN NOTES:

1. Well–Screen shall be stainless steel and attached by stainless steel bolts along edge of the mounting frame.

2. WQCV Well Screen
- Type of Screen: Stainless steel #93 Vee Wire (Johnson Vee Wire (tm) Stainless Steel Screen or equivalent with 60% open area)
- Screen slot opening dimension: 0.139" (Screen #93 Vee Wire Slot Opening)
- Type and Size of Support Rod: TE 0.074"X0.50"
- Spacing of Support Rod (O.C.): 1.0 Inch
- Total Screen Thickness: 0.655"
- Carbon Steel Holding Frame Type: 3/4" x 1.0" angle

AS-BUILT
DATE: 09/30/2022



OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ecg1.com

DESCRIPTION | DATE | NO.

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

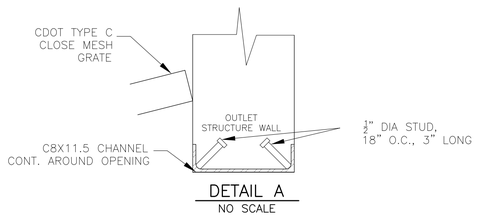
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
CONTAINE BLVD. GRAYLING DR.
LORSON BLVD. WALLETE DR. HARPER PKY. DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

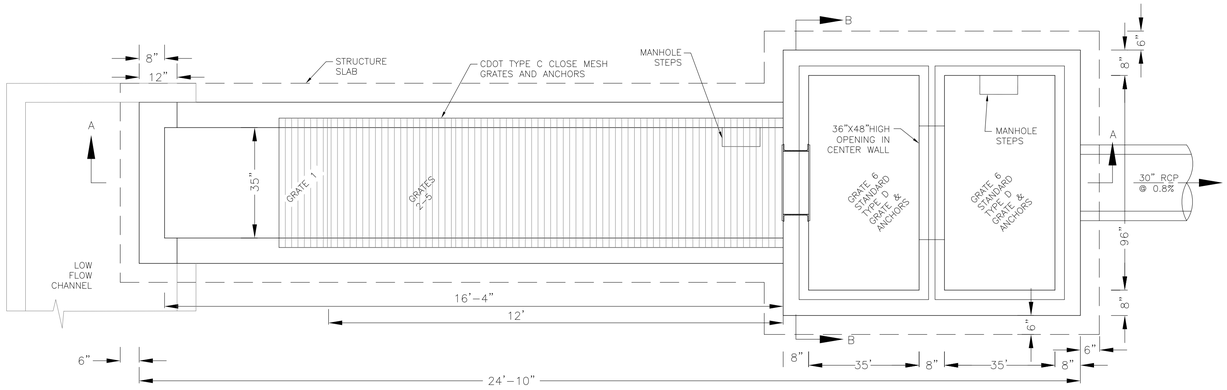
COLORADO REGISTERED PROFESSIONAL ENGINEER
33997
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.13
TOTAL SHEETS: 58

POND C2.2
FULL SPECTRUM
OUTLET STRUCTURE DETAILS



DETAIL A
NO SCALE



OUTLET STRUCTURE DETAIL – PLAN VIEW
NO SCALE

NOTE:
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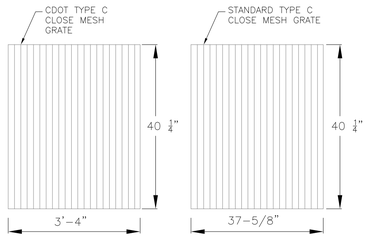
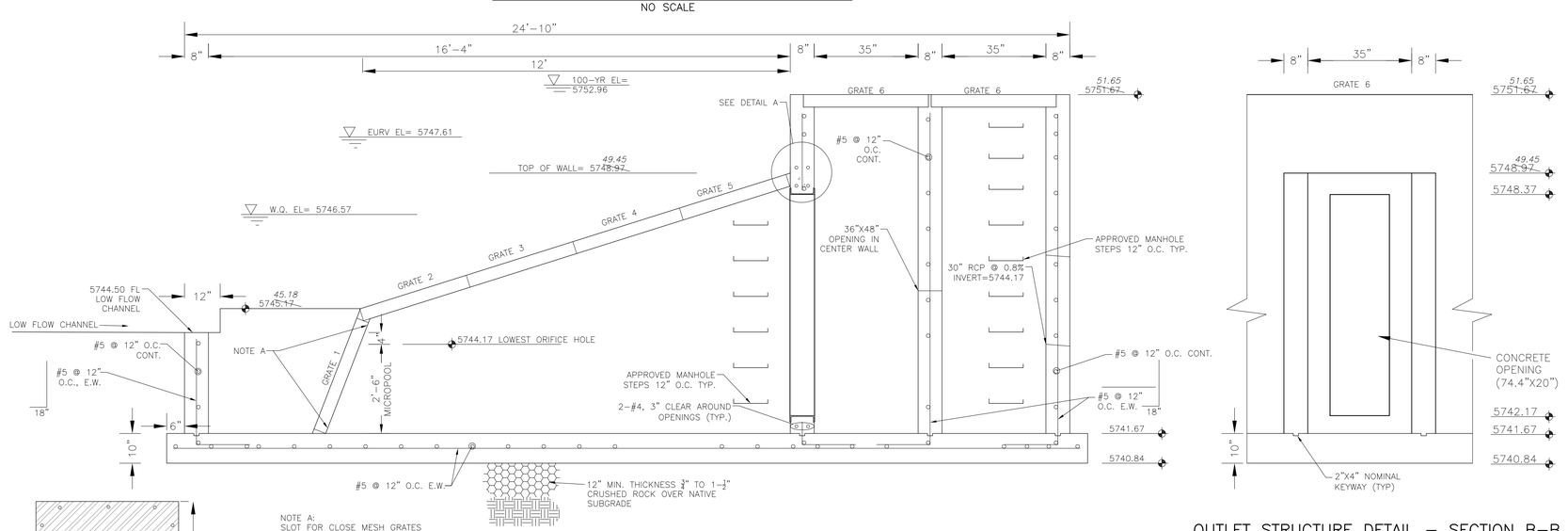


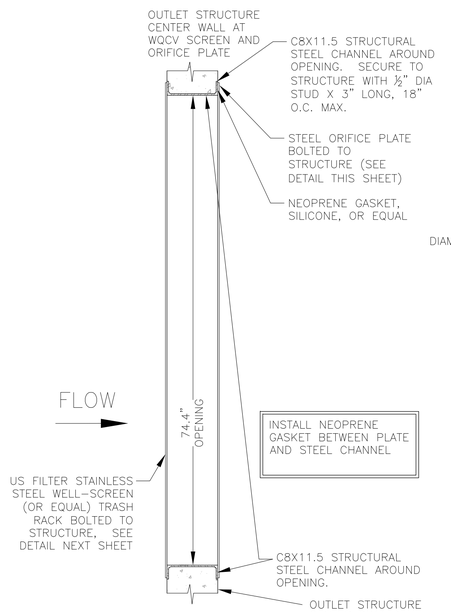
GRATE 1
NO SCALE

GRATES 2,3,4,5
NO SCALE

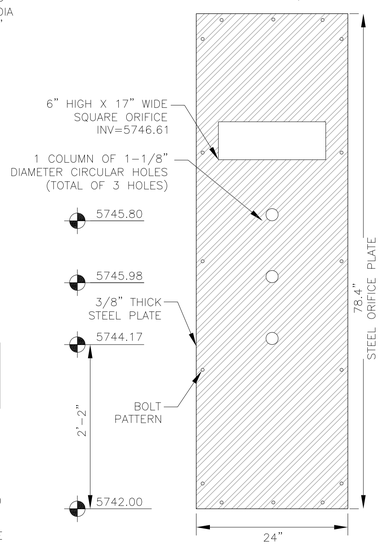


OUTLET STRUCTURE DETAIL – SECTION A–A
NO SCALE

OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE



TRASH RACK DETAIL
NO SCALE



ORIFICE PLATE DETAIL
NO SCALE

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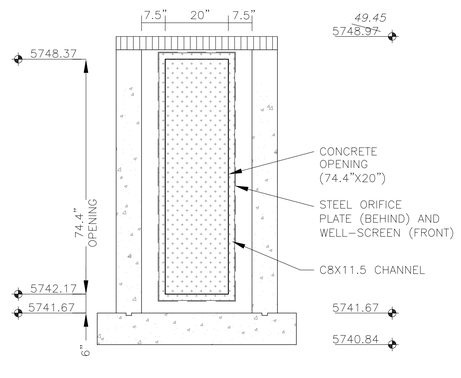
- Total Screen Thickness: 0.655"
- Carbon Steel Holding Frame Type: 3/4" x 1.0" angle

AS-BUILT
DATE: 09/30/2022



OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@coreeg.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
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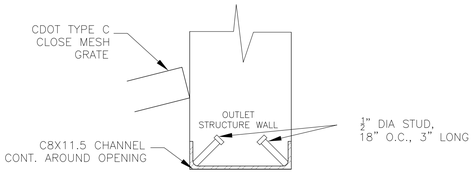
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
CONTAINE BLVD. GRAYLING DR.
LORSON BLVD. VALLEY HI DR. LARKS DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

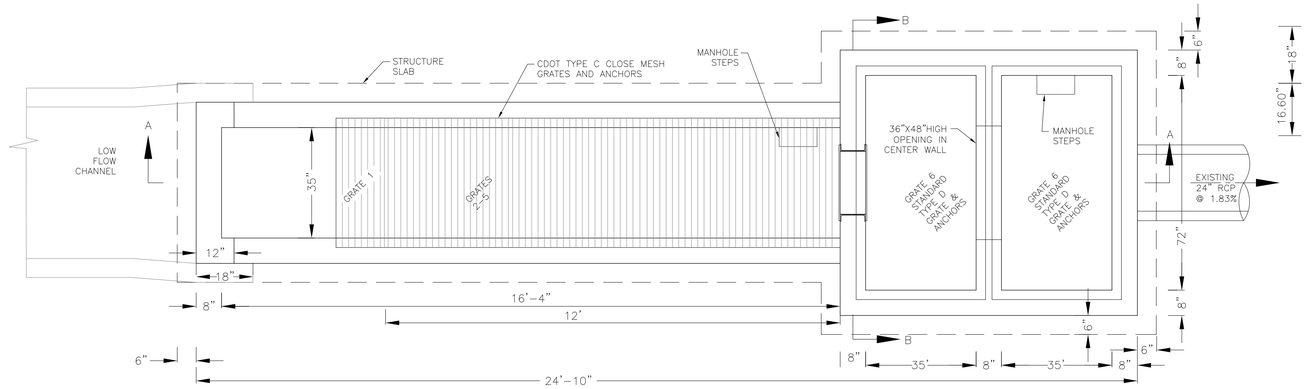
POND C2.3
FULL SPECTRUM
OUTLET STRUCTURE DETAILS

COLORADO REGISTERED RICHARD L. SCHINDLER 33997 11-12-2020 PROFESSIONAL ENGINEER

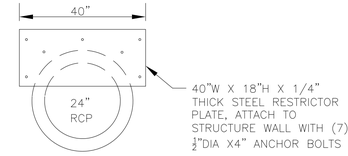
DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.14
TOTAL SHEETS: 58



DETAIL A
NO SCALE



OUTLET STRUCTURE DETAIL – PLAN VIEW
NO SCALE



OUTLET RESTRICTOR PLATE
NO SCALE

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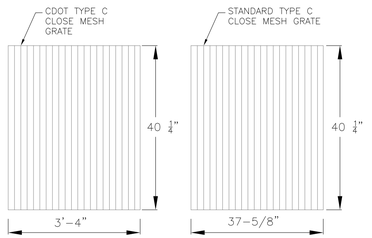
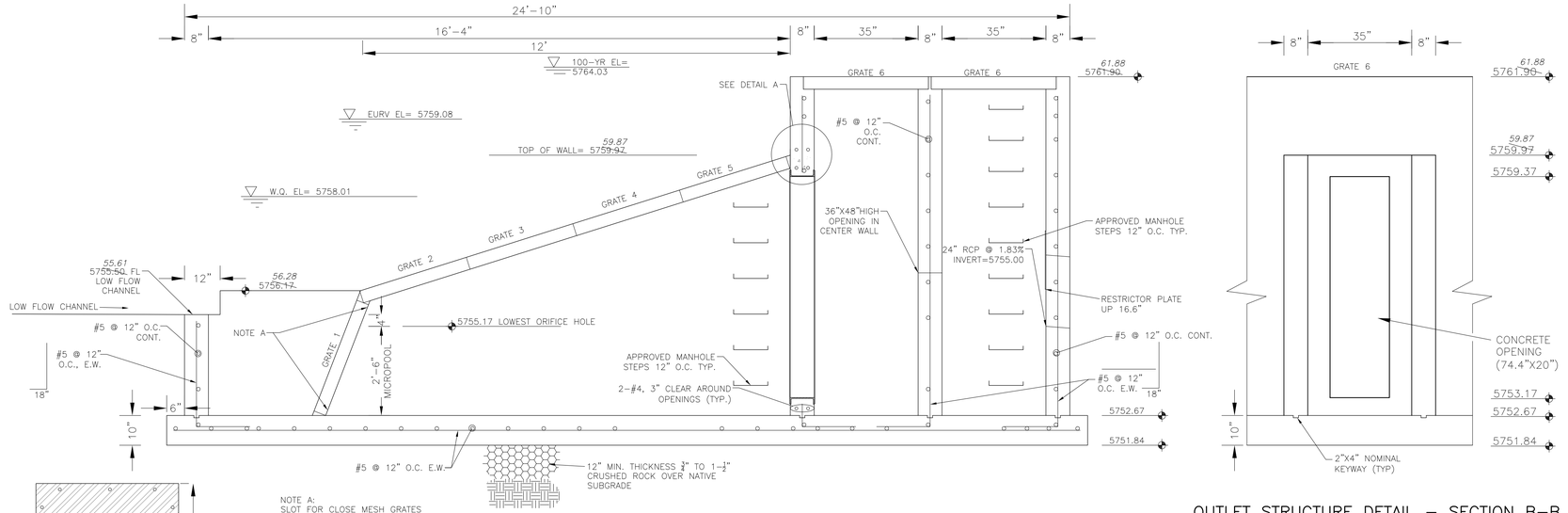


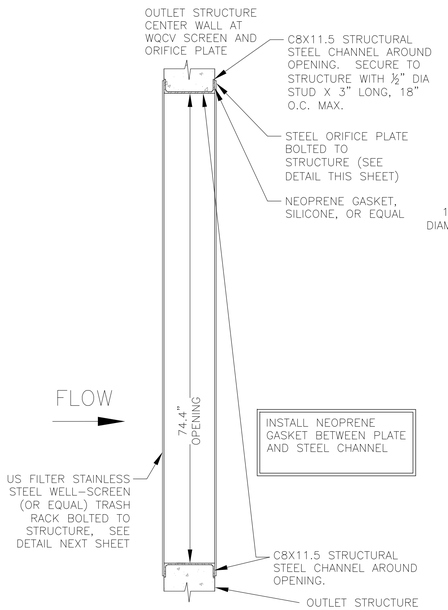
GRATE 1
NO SCALE

GRATES 2,3,4,5
NO SCALE

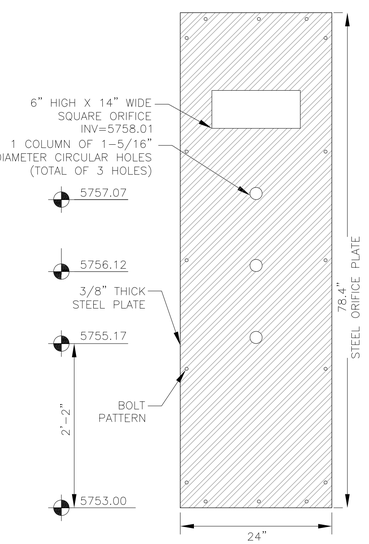


OUTLET STRUCTURE DETAIL – SECTION A–A
NO SCALE

OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE



TRASH RACK DETAIL
NO SCALE



ORIFICE PLATE DETAIL
NO SCALE

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- Total Screen Thickness: 0.655"
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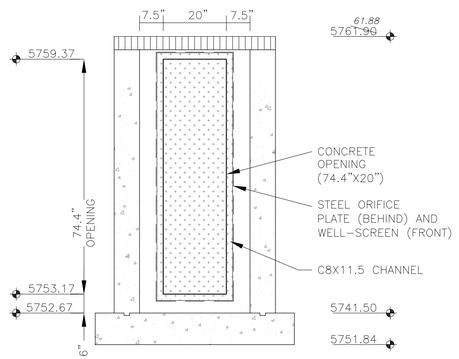
AS-BUILT
DATE: 09/30/2022



OUTLET STRUCTURE DETAIL – SECTION B–B
NO SCALE

CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rlschindler@ceg.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
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PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
CONTAINE BLVD. GRAYLING DR.
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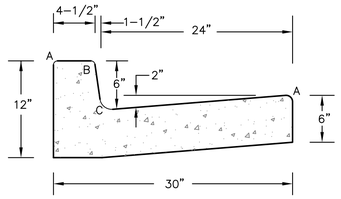
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

POND C3
FULL SPECTRUM
OUTLET STRUCTURE DETAILS

COLORADO REGISTERED PROFESSIONAL ENGINEER
RICHARD L. SCHINDLER
PE 33997
11-12-2020
PROFESSIONAL ENGINEER

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C9.15
TOTAL SHEETS: 58

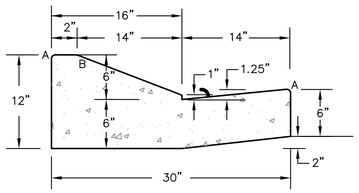


TYPE 'A'

VERTICAL CURB AND GUTTER

SCALE 1" = 1'–0"

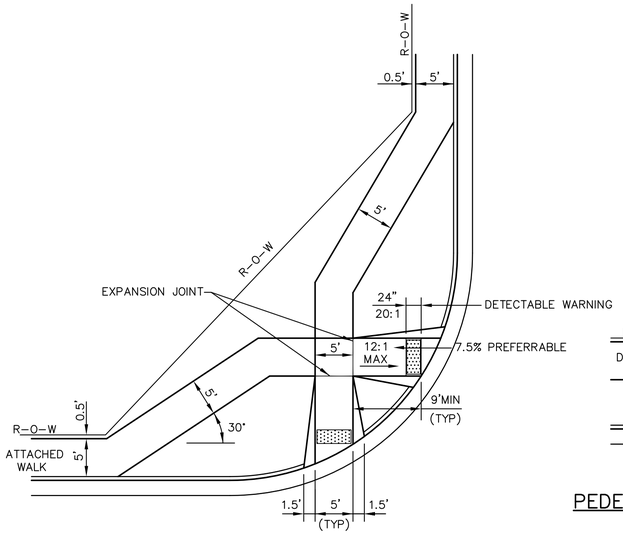
LENGTH FOR RADII
A = 1/8" TO 1/4"
B = 1–1/2"
C = 1–1/2" TO 2"

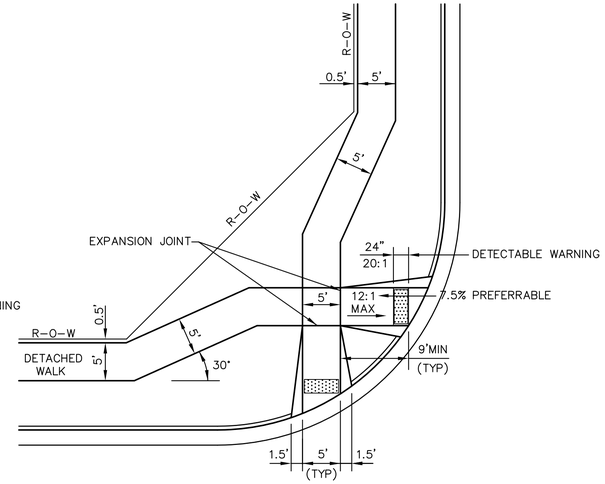


TYPE 'C'

OPTIONAL TYPE C RAMP CURB AND GUTTER

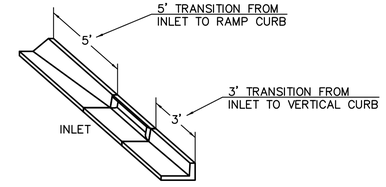
SCALE 1" = 1'





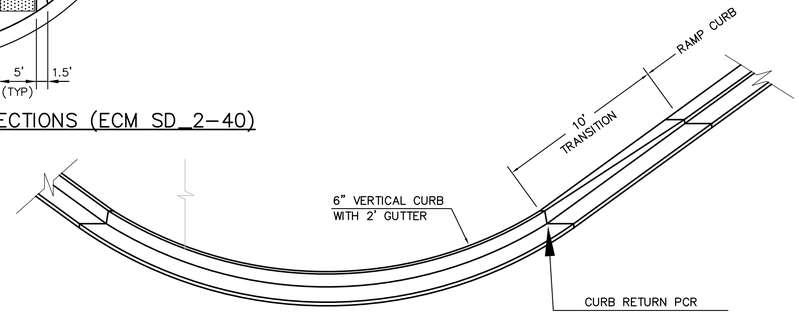
PEDESTRIAN RAMPS AT INTERSECTIONS (ECM SD_2–40)

NO SCALE



CURB INLET DETAIL

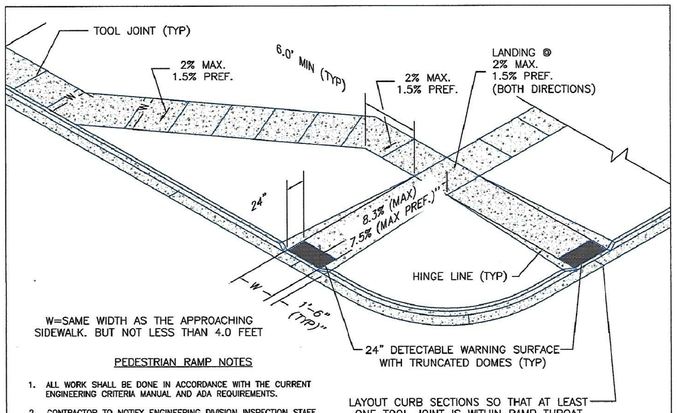
NTS



CURB TRANSITION DETAIL

NTS

CURB DETAILS (ECM SD_2–20)



W=SAME WIDTH AS THE APPROACHING SIDEWALK. BUT NOT LESS THAN 4.0 FEET

PEDESTRIAN RAMP NOTES

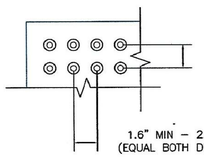
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
3. PEDESTRIAN CURB RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON–COLORED, NON–SCORED, COARSE BROOM FINISH.
4. PEDESTRIAN CURB RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 8.3% MAXIMUM RUNNING RAMP SLOPE DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS. SEE ECM SECTION 6.3.6 FOR PEDESTRIAN PUSHBUTTON LOCATION REQUIREMENTS.
5. DETECTABLE WARNING SURFACE SHALL START A MINIMUM OF 6" BUT NOT MORE THAN 8" FROM THE FLOWLINE OF THE CURB AT ANY POINT.
6. DETECTABLE WARNING SURFACE SHALL BE PREFABRICATED, CAST IRON (PATINA NATURAL FINISH) AND IN ACCORDANCE WITH ECM CHAPTER 6 AND SD_2–42. THERMOPLASTIC TRUNCATED DOMES AND PAVERS WILL NOT BE ACCEPTED.
7. THE DETECTABLE WARNING SURFACE SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
8. PEDESTRIAN CURB RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4' MINIMUM.
9. ALL PEDESTRIAN CURB RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID–BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL SUBJECT TO APPROVAL.
10. DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED PEDESTRIAN CURB RAMP AREAS AND LANDINGS ARE PROHIBITED.
11. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A RAMP SHALL NOT EXCEED 5%.

GENERAL NOTES

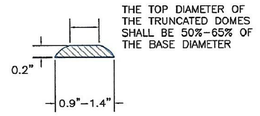
1. WHERE THE 1'–6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA (PEDESTRIAN CIRCULATION PATH), THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
2. PEDESTRIAN WALKWAY (PEDESTRIAN ACCESS ROUTE) AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.

6/23/20	Pedestrian Curb Ramp Detail	
DATE APPROVED:	Standard Drawing	
Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2–41
DEPARTMENT OF PUBLIC WORKS		

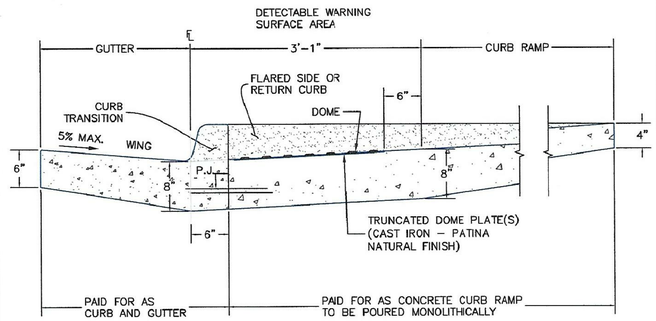
TRUNCATED DOME DETAILS



DOME SPACING



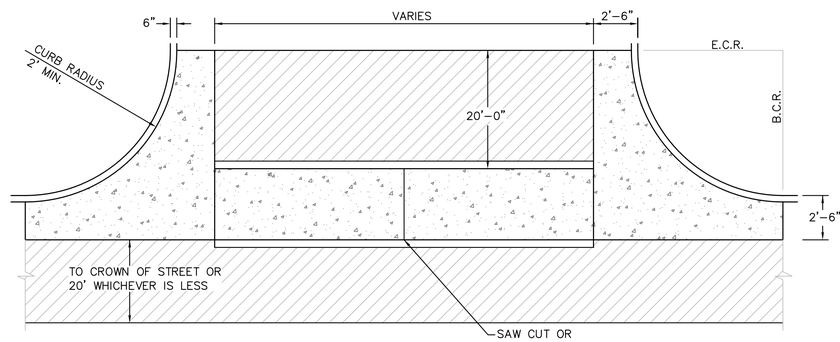
ELEVATION VIEW



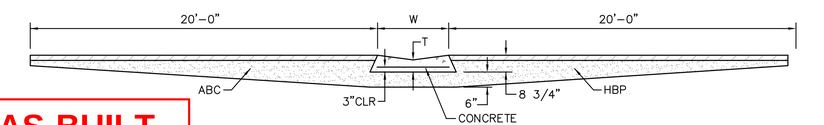
P.J.= PERMISSABLE JOINT WITH EPOXY–COATED DEFORMED NO. 4 BARS CONFORMING TO AASHTO M 284 AT 18 IN. SPACING

SIDE CROSS SECTION VIEW OF
DETECTABLE WARNING SURFACE, CURB AND GUTTER

6/23/20	Detectable Warning Surface Details	
DATE APPROVED:	Standard Drawing	
Jennifer E. Irvine	REVISION DATE: 6/23/20	FILE NAME: SD_2–42
DEPARTMENT OF PUBLIC WORKS		



PLAN VIEW



SECTION A – A

TYPICAL CROSSPAN LAYOUT (ECM SD_2–26)

NO SCALE

NOTES
1. W = WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, 10' FOR ARTERIAL ROADS.
2. T = SQUARED–OFF RETURN TO BE POURED MONOLITHIC 8" PCC, OR 9" FOR COLLECTORS MINIMUM WITH 6x6 – 4,4 WWF OR #4 @ 18"E.W.
3. ▨ = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).
4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

AS-BUILT
STREET-STM
DEC 29, 2022

CORE ENGINEERING GROUP
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NO.	DESCRIPTION	DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635–3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

ROADWAY DETAIL SHEET

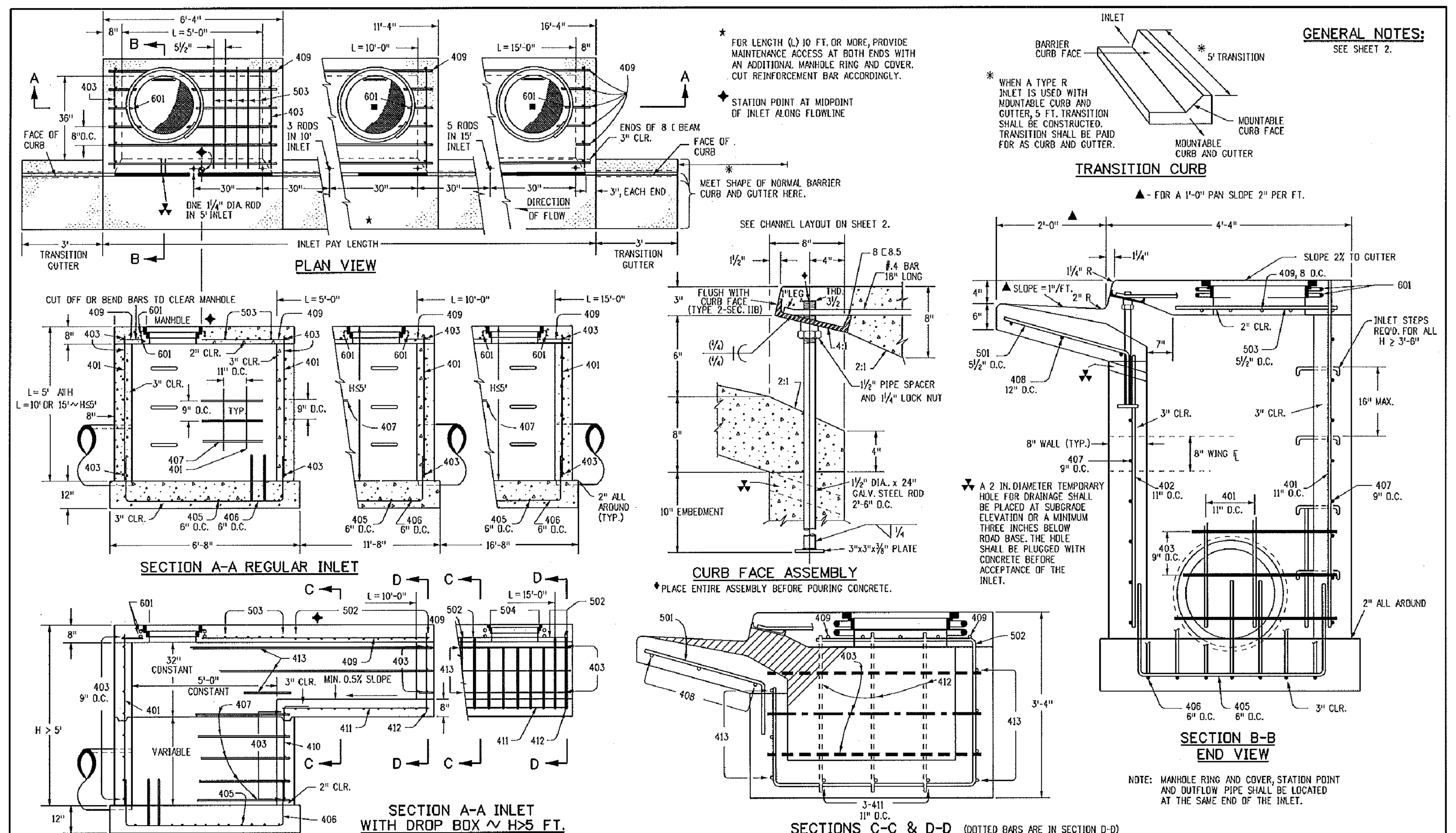
COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER 11-12-2020

DATE: NOV 12, 2020

PROJECT NO. 100.061

SHEET NUMBER C10.1

TOTAL SHEETS: 58



GENERAL NOTES: SEE SHEET 2.

Computer File Information	
Creation Date: 07/04/12	Initials: DD
Last Modification Date: 07/04/12	Initials: LTA
Full Path: www.coloradodot.info/business/designsupport	
Drawing File Name: 6040120102.dgn	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	

Sheet Revisions — Date: / Comments:

Colorado Department of Transportation
4201 East Arkansas Avenue
Denver, Colorado 80222
Phone: (303) 757-9083
Fax: (303) 757-9820
Project Development Branch DD/LTA

CURB INLET TYPE R
Issued By: Project Development Branch July 4, 2012
STANDARD PLAN NO. M-604-12
Sheet No. 1 of 2

MARK	BAR # OR SIZE	O.C. SPACING	TYPE	ALL INLETS L = 5 FT. NO. REQ'D.	ALL INLETS L = 5 FT. LENGTH	INLETS: H ≤ 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 10 FT. LENGTH	INLETS: H ≤ 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 15 FT. LENGTH	INLETS: H > 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 10 FT. LENGTH	INLETS: H > 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 15 FT. LENGTH
401	4	11"	II	15	*	21	*	26	*	11	*	11	*
402	4	11"	II	7	*	13	*	18	*	7	*	7	*
403	4	9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406	4	6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408	4	12"	II	3	6'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	16'-0"
409	4	8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410	4	11"	VII							3		3	*
411	4	11"	II							3	5'-2"	3	10-2"
412	4	11"	II							3	2'-9"	3	2'-9"
413	4	9"	II							7	10'-10"	7	15'-10"
501	5	5½"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502	5	5½"	III							11	11'-5"	17	11'-5"
503	5	5½"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	6	3'-6"
504	5	5½"	IX									5	8'-4"
601	6	2½"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
■8[8.5				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				2 BARS, 1 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—	4 BARS, 3 RODS	—	8 BARS, 5 RODS	—

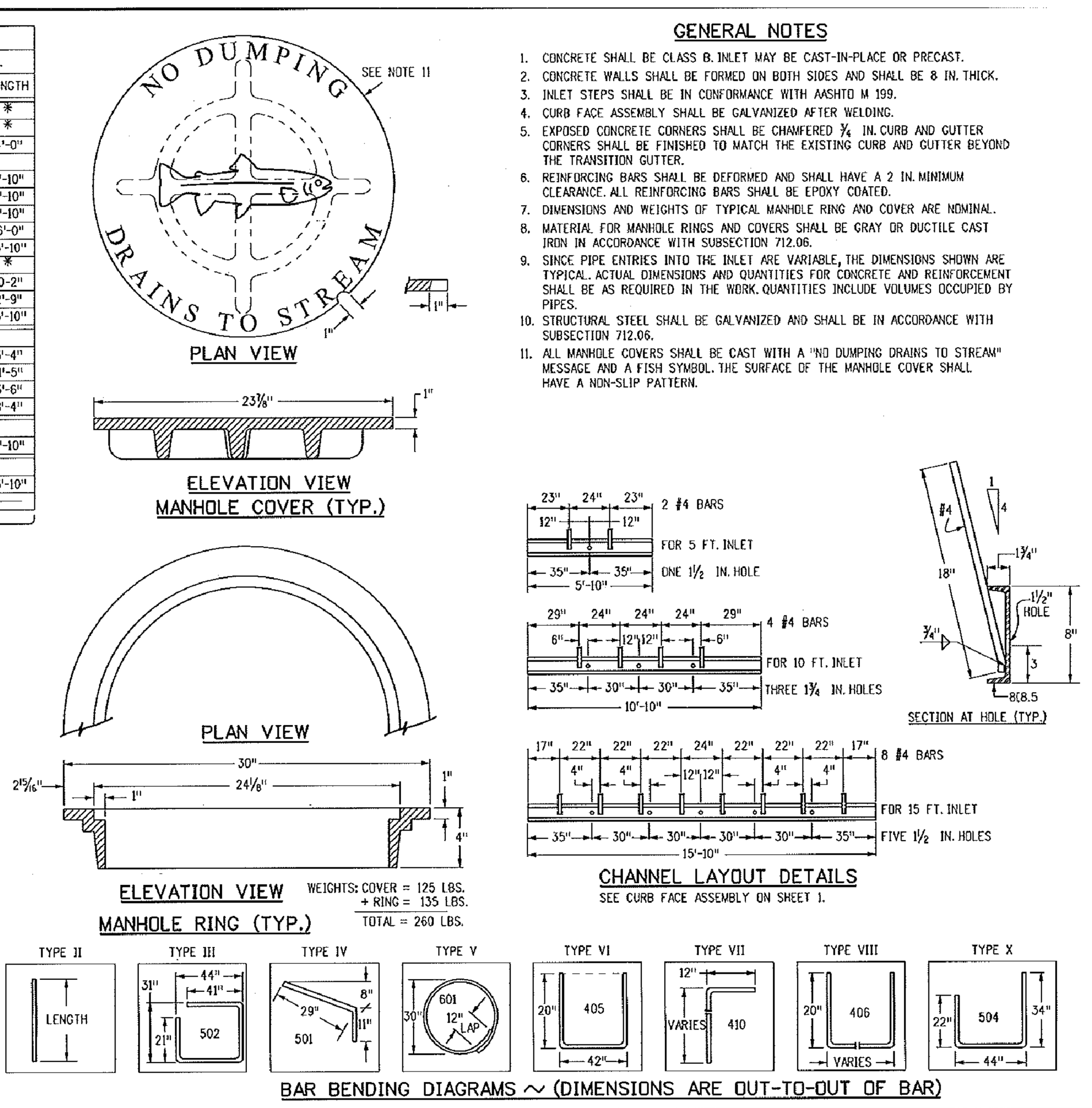
* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #4, 18 IN. BARS (SEE CHANNEL LAYOUT).
REGULAR INLETS — DROP BOX INLETS

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	LENGTH 402	LENGTH 410	NO. REQ'D. REGULAR 403	NO. REQ'D. REGULAR 407	NO. REQ'D. DROP BOX 403	NO. REQ'D. DROP BOX 407	L = 5 FT. CONC. CU. YDS.	L = 5 FT. STEEL LBS.	L = 10 FT. CONC. CU. YDS.	L = 10 FT. STEEL LBS.	L = 15 FT. CONC. CU. YDS.	L = 15 FT. STEEL LBS.
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.0	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

NOTES: FOR L = 5 FT., L = 10 FT., AND L = 15 FT.
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 IN. THICK.
3. INLET STEPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾ IN. CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 IN. MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
11. ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL. THE SURFACE OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.

Computer File Information	
Creation Date: 07/04/12	Initials: DD
Last Modification Date: 07/04/12	Initials: LTA
Full Path: www.coloradodot.info/business/designsupport	
Drawing File Name: 6040120202.dgn	
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	

Sheet Revisions — Date: / Comments:

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Denver, Colorado 80222
Phone: (303) 757-9083
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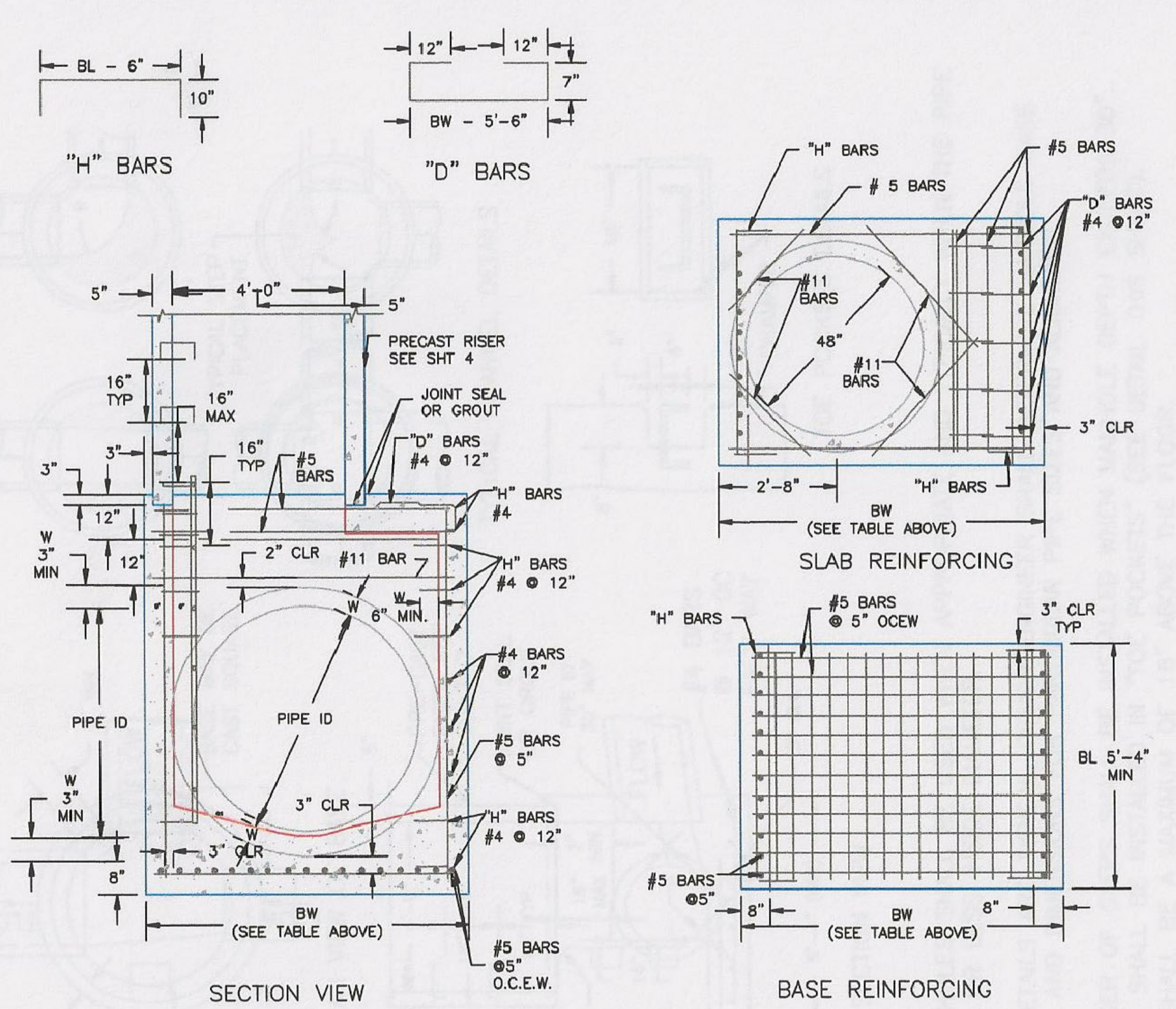
Project Development Branch DD/LTA

CURB INLET TYPE R
Issued By: Project Development Branch July 4, 2012
STANDARD PLAN NO. M-604-12
Sheet No. 2 of 2



PIPE ID	BW
48" AND SMALLER	6'-4"
54"	6'-10"
60" AND LARGER	OD + 16"

NOTES

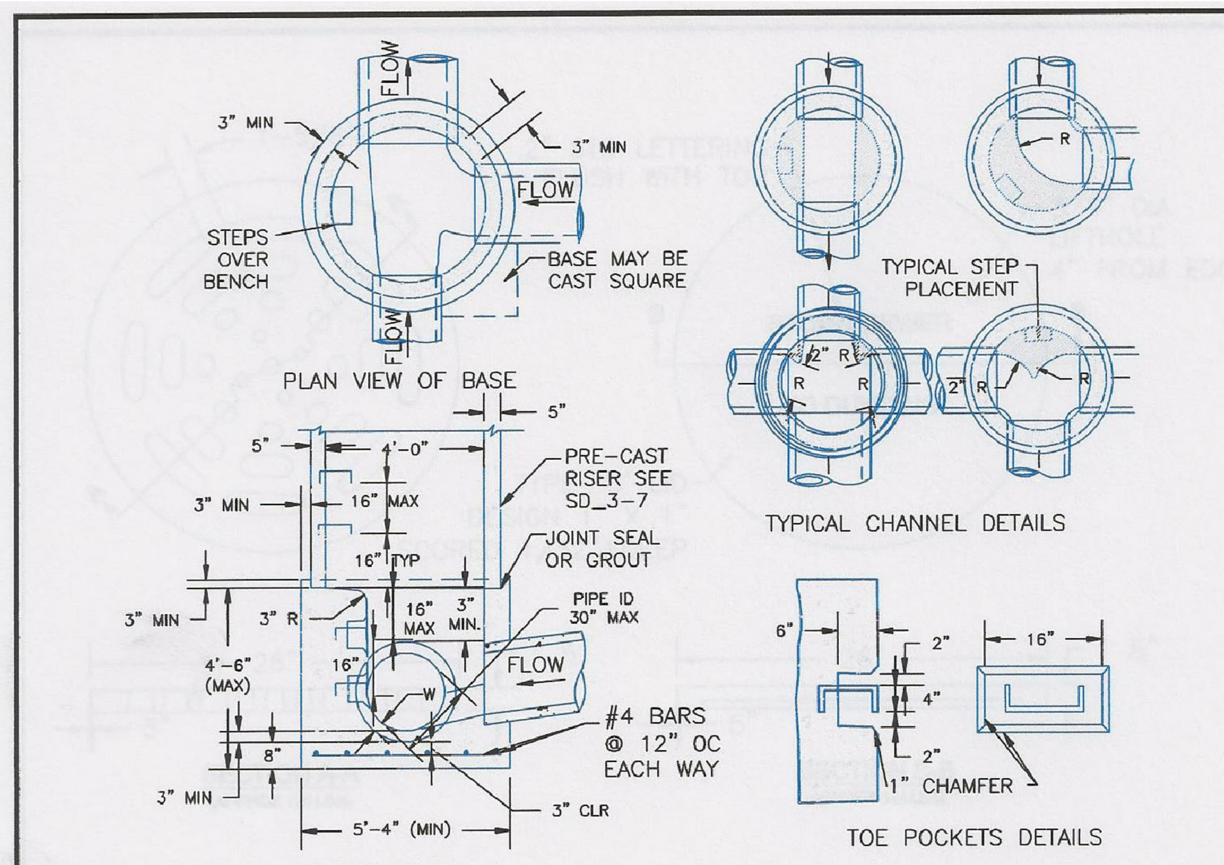
1. TYPE I MANHOLE SHALL BE USED WHEN APPROPRIATE AND TYPICALLY FOR PIPE SIZES LARGER THAN 30 INCHES I.D..
2. VIEW AND DETAILS SHOWN ARE TYPICAL FOR STRAIGHT THROUGH DESIGN ONLY. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
3. EITHER LADDER OR STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". LOWEST STEP SHALL BE BE A MAXIMUM OF 16" ABOVE THE FLOOR.
4. FLOOR OF THE MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1 MAX., ½" PER FT. MIN). FLOOR SHALL BE SHAPED AND CHANNELED; SEE SD_3-2 FOR TYPICAL CHANNEL DETAILS.

SCALE: NOT TO SCALE

7/9/09
DATE APPROVED:
André Brackin
DEPARTMENT OF TRANSPORTATION

Storm Sewer Manhole Detail
Type I
Standard Drawing
REVISION DATE: 7/9/09
FILE NAME: SD_3-1

EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



NOTES

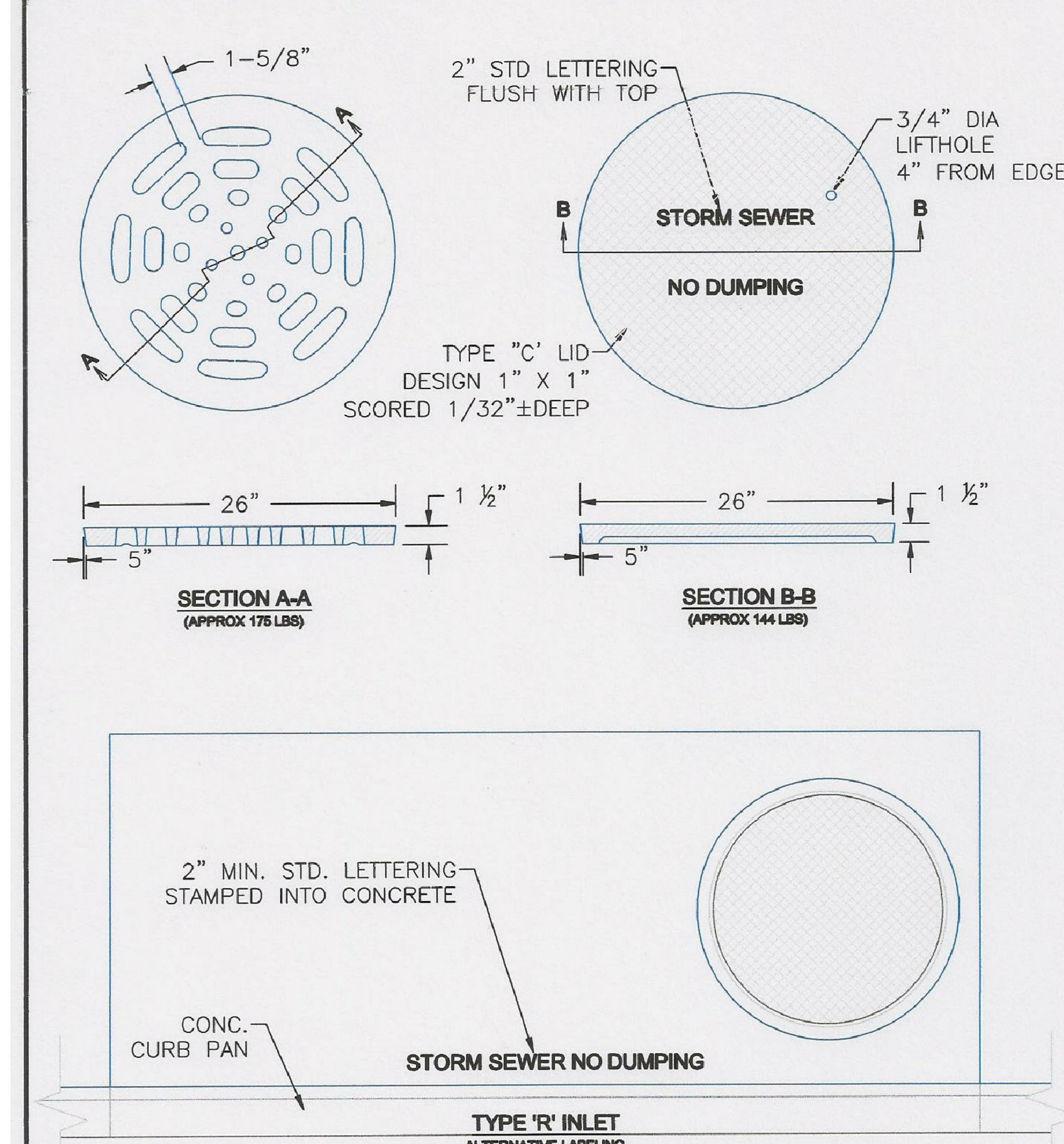
1. TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
2. VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
3. EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.
4. PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.
5. BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., ½" PER FOOT. MIN.).
6. FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1., ½" PER FT. MIN.) . FLOOR SHALL BE SHAPED AND CHANNELED; SEE DETAILS THIS SHEET.

SCALE: NOT TO SCALE

DATE APPROVED:
André P. Brackin
DEPARTMENT OF TRANSPORTATION

Storm Sewer Manhole Detail
Type II
Standard Drawing
REVISION DATE: 11/10/04
FILE NAME: SD_3-2

EL PASO COUNTY DEPARTMENT OF TRANSPORTATION



SCALE: NOT TO SCALE

9/16/10
DATE APPROVED:
André P. Brackin
DEPARTMENT OF TRANSPORTATION

Storm Sewer Manhole Details
Standard Drawing
REVISION DATE: 9/16/10
FILE NAME: SD_3-5

EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

AS-BUILT
STREET-STM
DEC 29, 2022

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PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO.	DESCRIPTION	DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

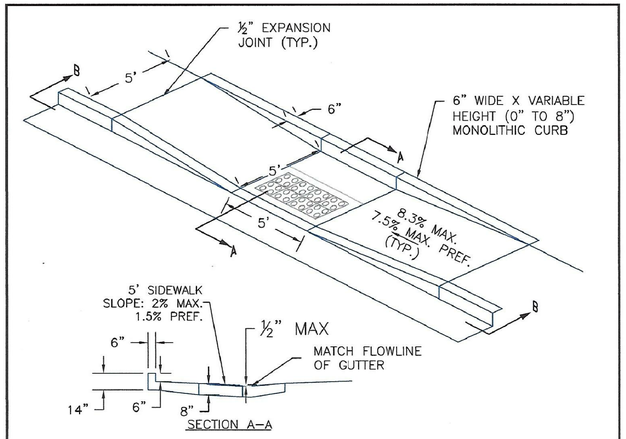
PROJECT:
THE HILLS COLLECTOR
STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

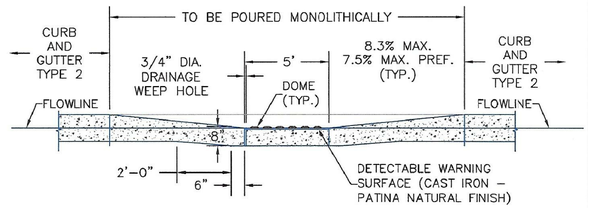
STORM SEWER DETAILS

COLORADO REGISTERED PROFESSIONAL ENGINEER 33997 11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C10.2
TOTAL SHEETS: 58



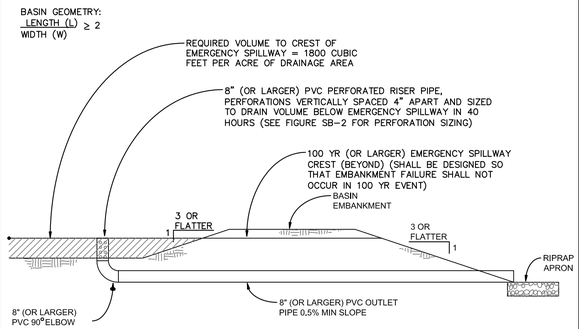
SECTION A–A



SECTION B–B

SCALE: NOT TO SCALE

6/23/20 DATE APPROVED: Jennifer E. Irvine DEPARTMENT OF PUBLIC WORKS	Parallel Pedestrian Curb Ramp Detail Standard Drawing REVISION DATE: 6/23/20 FILE NAME: SD_2–50	DEPARTMENT OF PUBLIC WORKS



SEDIMENT BASIN

NTS

SEDMENT BASIN NOTES

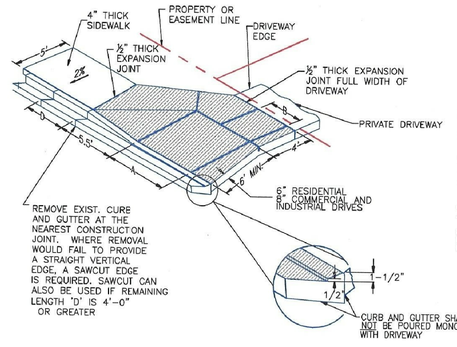
INSTALLATION REQUIREMENTS

1. SEDIMENT BASINS SHALL BE INSTALLED BEFORE ANY CLEARING AND/OR GRADING IS UNDERTAKEN.
2. THE AREA UNDER WHICH THE EMBANKMENT IS TO BE INSTALLED SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ALL VEGETATION AND ROOT MAT.
3. THE OUTLET OF THE BASIN SHALL BE DESIGNED TO DRAIN ITS VOLUME IN 40 HOURS.
4. THE OUTLET IS TO BE LOCATED AT THE FURTHEST DISTANCE FROM THE INLET OF THE BASIN. BAFFLES MAY BE NEEDED TO INCREASE THE FLOW LENGTH AND SETTLING TIME.
5. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL WITH A MINIMUM OF 15% PASSING A #200 SIEVE. EXCAVATED SOIL CAN BE USED IF IT MEETS THIS REQUIREMENT.
6. EMBANKMENT IS TO BE COMPACTED TO AT LEAST 90% OF MAXIMUM DENSITY AND WITHIN 2% OF OPTIMUM MOISTURE CONTENT ACCORDING TO ASTM D 698.
7. WHEN A BASIN IS INSTALLED NEAR A RESIDENTIAL AREA, FOR SAFETY REASONS, A SIGN SHALL BE POSTED AND THE AREA SECURED WITH A FENCE.

MAINTENANCE REQUIREMENTS

1. CONTRACTOR SHALL INSPECT SEDIMENT BASINS AFTER EACH RAINFALL, AT LEAST DAILY DURING PROLONGED RAINFALL, AND WEEKLY DURING PERIODS NO RAINFALL.
2. SEDIMENT BASINS SHALL BE CLEANED OUT BEFORE SEDIMENT HAS FILLED HALF THE VOLUME OF THE BASIN.
3. SEDIMENT BASINS SHALL REMAIN OPERATIONAL AND PROPERLY MAINTAINED UNTIL THE SITE AREA IS PERMANENTLY STABILIZED WITH ADEQUATE VEGETATIVE COVER AND/OR OTHER PERMANENT STRUCTURE AS APPROVED BY THE CITY.

City of Colorado Springs Stormwater Quality	Figure SB–1 Sediment Basin Construction Detail and Maintenance Requirements



NOTES

1. PROVIDE CENTERLINE CONSTRUCTION OR TOOL JOINT WHEN DRIVEWAY WIDTH (EDGE TO EDGE) IS 14' OR GREATER.
2. ALL TOOL JOINTS SHALL BE A MINIMUM OF 1-½" DEEP.
3. WHEN REPLACING EXISTING CURB AND GUTTER WITH NEW DRIVEWAY, ENTIRE CURB AND GUTTER SECTION SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER (VARIABLE–CURB–HEIGHT) AS SHOWN. DO NOT BREAK CURB FROM GUTTER SECTION.
4. FLARED PORTION OF DRIVEWAY SHALL BE POURED MONOLITHIC WITH MAIN RECTANGULAR PORTION OF DRIVEWAY.
5. WHERE THERE IS MORE THAN ONE DRIVEWAY ON A LOT, THE SPACING OF THE DRIVEWAYS SHALL MEET REQUIREMENTS IN ECM.
6. WHERE AN EXISTING SIDEWALK IS IN PLACE, AND ITS THICKNESS IS LESS THAN 6" (RESIDENTIAL) OR 8" (COMMERCIAL AND INDUSTRIAL) THE SIDEWALK THROUGH THE DRIVEWAY SHALL BE REMOVED AND REPLACED WITH PORTLAND CEMENT CONCRETE AT THE REQUIRED THICKNESS.
7. WHEN A DRIVEWAY IS TO BE TAKEN OUT OF SERVICE, THE ENTIRE LENGTH OF CURB AND GUTTER SHALL BE REMOVED AND REPLACED WITH NEW CURB AND GUTTER MATCHING THE ABUTTING SECTIONS.
8. ALL PROVISIONS IN THE LAND DEVELOPMENT CODE SHALL BE MET, WITH REGARD TO MINIMUM SETBACK FROM INTERSECTION AND SIDE PROPERTY LINES, MINIMUM SPACING, MAXIMUM WIDTH, ETC.

TOOLS JOINT SPACING		
DRIVEWAY WIDTH	A	B
12'	6'	3'
14'	7'	3'–6"
16'	8'	4'
18'	9'	4'–6"
20'	10'	5'
22'	11'	5'–6"
24'	8'	4'
26'	8'–8"	4'–4"
28'	9'–4"	4'–8"
30'	10'	5'

SCALE: NOT TO SCALE

8/11/1' DATE APPROVED: André P. Brackin DEPARTMENT OF TRANSPORTATION	Driveway Detail With Attached Sidewalk Standard Drawing REVISION DATE: 11/10/04 FILE NAME: SD_2–24	EL PASO COUNTY DEPARTMENT OF TRANSPORTATION

AS-BUILT
STREET-STM
DEC 29, 2022

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(719) 635-3200
CONTACT: JEFF MARK

PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD – GRAYLING DR
LORSON BLVD–WALLEYE DR–LAMPREY DR
COLORADO SPRINGS, COLORADO

NO.	DESCRIPTION	DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

CREEKSIDE SOUTH AT
LORSON RANCH FIL. NO. 1
ROADWAY DETAIL SHEET

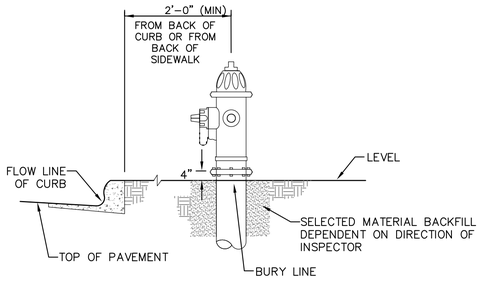
COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER
11-12-2020

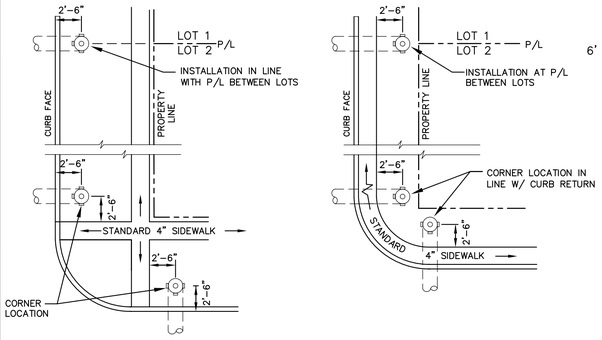
DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C10.3

TOTAL SHEETS: 58





DETACHED SIDEWALK LOCATION
NO SCALE

ATTACHED SIDEWALK LOCATION
NO SCALE

NOTE
ALL HYDRANTS SHALL BE GUARDIAN K-81D OR AVK SERIES 2700.

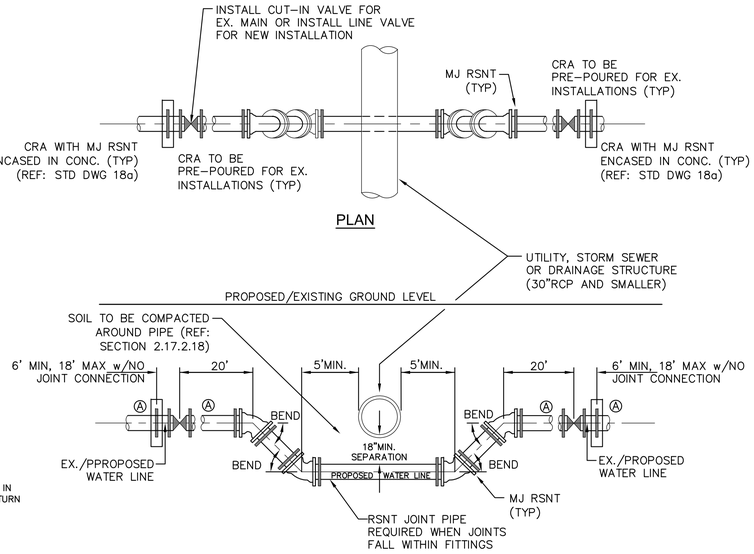
NOTES

1. HYDRANT NOZZLE SHALL BE POSITIONED AT RIGHT ANGLES TO CURB. IF NO CURB OR SIDEWALK EXIST, NOZZLE SHALL BE PLACED AT RIGHT ANGLE TO STREET OR ALLEY.

2. HYDRANTS WILL BE PLACED A MINIMUM OF 5.0 FEET FROM ANY UTILITY OR DRAINAGE STRUCTURE (TO BE CO-ORDINATED WITH JOINT TRENCH INSTALLATION)

3. ANY HYDRANT BEING INSTALLED WITH CONDITIONS OTHER THAN THOSE MENTIONED AND/OR DETAILED BELOW WILL REQUIRE SIGNED APPROVAL FROM SECURITY FIRE PROTECTION DISTRICT.

FIRE HYDRANT LOCATIONS
NO SCALE



ELEVATION
30"RCP AND SMALLER - UTILITY STRUCTURE
NO SCALE

GENERAL NOTES

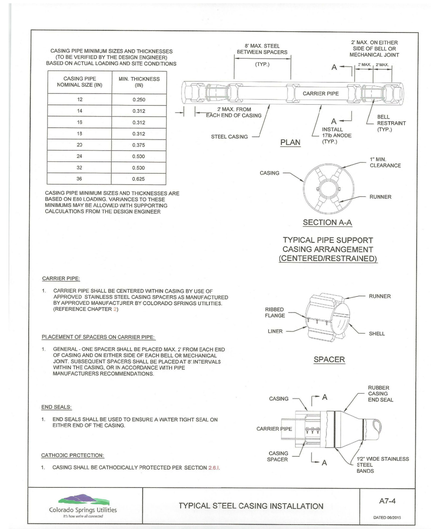
1. D.I.P. PIPE REQUIRED IN LOWERINGS (AT THE DISCRETION OF THE WRD/INSPECTOR PVC PIPE MAYBE APPROVED).

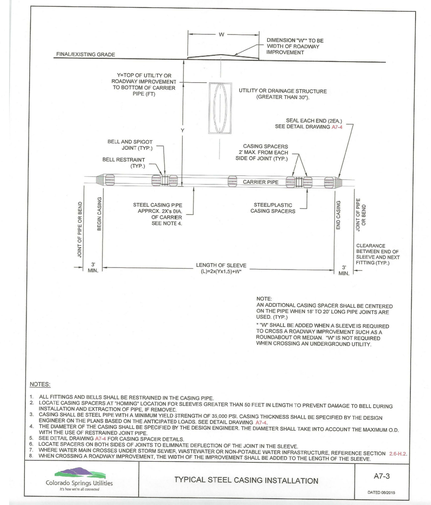
2. Ⓐ LOWERINGS TO BE CATHODIC PROTECTED UNDER THE DIRECTION OF THE WRD INSPECTOR. (17 lb).

3. ALL FITTINGS SHALL HAVE MJ RSNTS. SEE DRAWINGS NO. 27, 28 & SECTION 5.14 OF THE WRD SPECIFICATIONS.

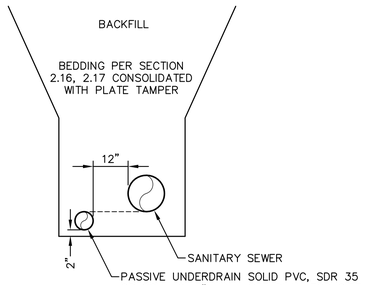
4. EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND INSPECTOR'S DIRECTION'S.

LOWERING DETAIL WITH MJ RSNT FITTINGS AND RSNT JOINT PIPE (w/APPROVAL OF W.R.D.)
(PER CSU STANDARD # 20a)
NO SCALE



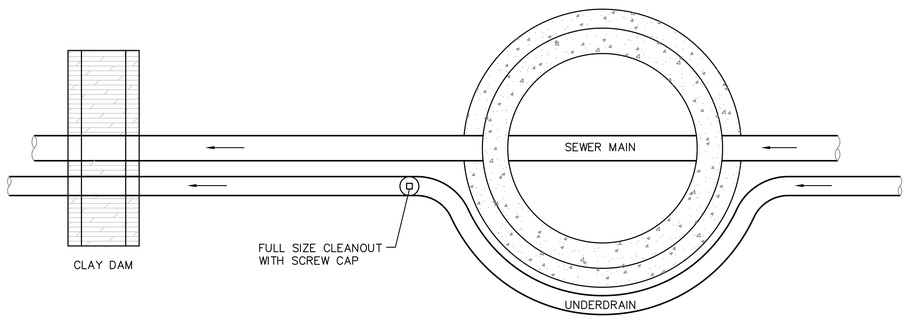


AS-BUILT
STREET-STM
DEC 29, 2022

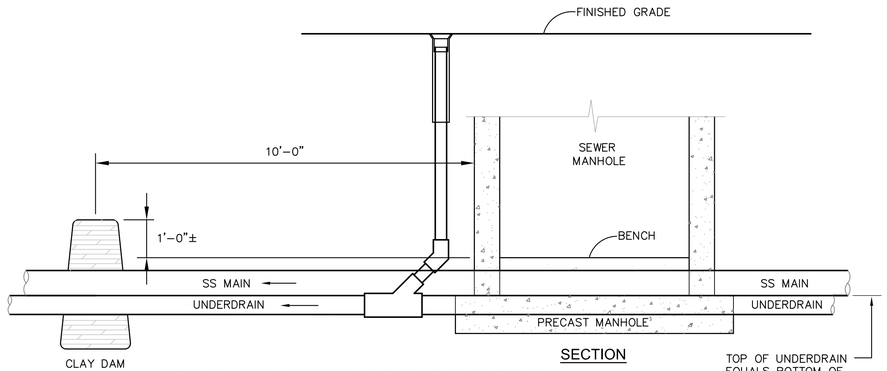


SANITARY SEWER PASSIVE UNDERDRAIN DETAIL
(PER CSU STANDARD # WW-11A)
NO SCALE

NOTE:
POINT OF DISCHARGE TO PUBLIC SYSTEM IS REQUIRED.
UNDERDRAIN CONNECTIONS SHALL BE 3" SCH 40.



PLAN



SECTION

GROUNDWATER UNDERDRAIN CLEANOUT (PASSIVE) LOCATIONS OUTSIDE MANHOLE
(PER CSU STANDARD # WW-12)
NO SCALE

CORE
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PH: 719.570.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

NO. | DESCRIPTION | DATE

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
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(719) 635-3200
CONTACT: JEFF MARK

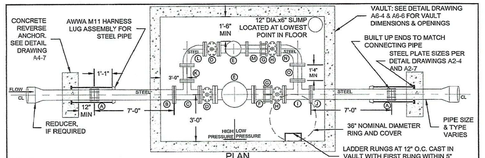
PROJECT:
THE HILLS COLLECTOR STREET CONSTRUCTION
FONTAINE BLVD - GRAYLING DR
LORSON BLVD-WALLEYE DR-LAMPREY DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WATER/SEWER DETAILS

COLORADO REGISTERED 33997 PROFESSIONAL ENGINEER
11-12-2020

DATE: NOV 12, 2020
PROJECT NO. 100.061
SHEET NUMBER C12.1
TOTAL SHEETS: 58



PLAN
NOT TO SCALE

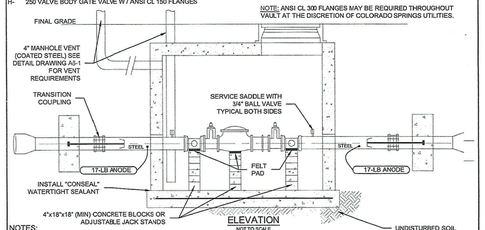
PRV MATERIALS:

A - DRESSER COUPLINGS
B - FLANGE (ANSI CL 300) x SPIGOT STEEL FITTING (7'-0" STEEL TAILPIECE)
C - FLANGE x FLANGE (ANSI CL 300) STEEL TEE
D - 250 VALVE BODY GATE VALVE W / ANSI CL 300 FLANGES
E - CLASS 300 VALVE BODY, DI, CLA-VAL REGULATORS
F - FLANGE (ANSI CL 300) x SPIGOT STEEL FITTING
G - RESTRAINED FLANGE ADAPTOR
H- 250 VALVE BODY GATE VALVE W / ANSI CL 150 FLANGES

PRV MATERIALS:

I- FLANGE x F.ANGE (ANSI CL 150) STEEL TEE
J- FLANGE (ANSI CL 150) x SPIGOT STEEL FITTING (7'-0" TAILPIECE)
K- FLANGE x FLANGE (ANSI CL 300) STEEL SPOOL PIECE
L- FLANGE x F.ANGE (ANSI CL 300) STEEL 90° ELBOW
M- FLANGE (ANSI CL 300) x SPIGOT STEEL FITTING
N- FLANGE x FLANGE (ANSI CL 150) STEEL 90° ELBOW
O- FLANGE x F.ANGE (ANSI CL 150) STEEL SPOOL PIECE

NOTE: ANSI CL 300 FLANGES MAY BE REQUIRED THROUGHOUT VAULT AT THE DISCRETION OF COLORADO SPRINGS UTILITIES.



ELEVATION
NOT TO SCALE

NOTES:
1. ALL GATE VALVES SHALL BE 250 PSI, TESTED TO AWWA C509/C515 WITH FLANGED ENDS TO ASME/ANSI B16.1.
2. ALL PRESSURE REGULATORS SHALL BE CLA-VAL (ASTM A536) WITH ASME/ANSI B16.42/B16.5, CL 300 FLANGES.
3. ALL STEEL PIPE DIMENSIONS SHALL COMPLY WITH ANSI/AWWA C208-07.
4. ALL STEEL PIPE FLANGE DIMENSIONS FOR OUTSIDE AND INSIDE DIAMETER OF FLANGE, BOLT CIRCLE PATTERN, NUMBER OF BOLTS AND DIAMETER OF BOLT HOLES SHALL COMPLY WITH ANSI B16.42 / B16.5, CL 150 OR CL 300. ALL STEEL PIPE FLANGE THICKNESS SHALL COMPLY WITH ANSI/AWWA C207-07, CLASS E.
5. JOINT HARNESS TIE BOLTS AND LUGS SHALL CONFORM TO AWWA M11 FOR STEEL PIPE.
6. REFER TO DETAIL DRAWINGS A6-4 AND A6-5 FOR VAULT DIMENSIONS AND DETAILS.
7. A SITE SPECIFIC DESIGN SHALL BE REQUIRED FOR ALL PRESSURE REGULATOR STATIONS WITH PRESSURE REGULATORS LARGER THAN 12 INCH.
8. ALL MATERIALS SHALL BE SUPPLIED AND INSTALLED BY THE CONTRACTOR. INTERNAL COMPONENTS MAY BE REIMBURSED BY COLORADO SPRINGS UTILITIES. SEE CHAPTER 2.
9. ALL CONCRETE VAULTS SHALL BE DESIGNED FOR HS-20 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD.
10. STEEL PIPE SHALL BE COATED PER SECTION 4.4.B.7.

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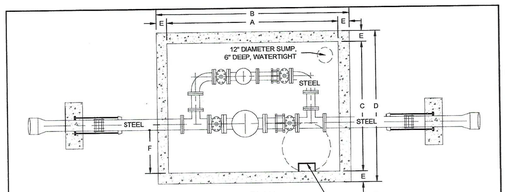
PRESSURE REGULATOR STATIONS
6", 8" & 12"
COMPONENT CONFIGURATION & MATERIALS

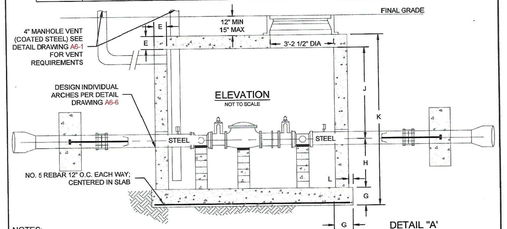
A6-3

DATED 01/2017

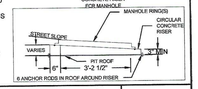


PLAN
NOT TO SCALE

	PRV VAULT SIZE	A	B	C	D	E	F	G	H	J	K	L
MAIN SIZE	6" & 8"	12'-6"	13'-10"	8'-0"	5'-4"	0'-8"	3'-0"	0'-10"	3'-2"	3'-6"	9'-2"	0'-4"
MAIN SIZE	12"	14'-6"	16'-0"	9'-0"	10'-4"	0'-8"	3'-0"	0'-10"	3'-2"	3'-6"	9'-2"	0'-4"



NOTES:
1. ALL CONCRETE WORK SHALL COMPLY WITH COLORADO SPRINGS UTILITIES STANDARD SPECIFICATIONS AND THE LATEST ACI-318 CODE.
2. ALL CONCRETE VAULTS SHALL BE DESIGNED FOR HS-20 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD.
3. VAULTS FOR PRESSURE REGULATOR STATIONS LARGER THAN 12 INCH WILL BE SPECIFICALLY DESIGNED BY THE ENGINEER AND APPROVED BY COLORADO SPRINGS UTILITIES.
4. SHOP DETAIL DRAWINGS FOR ALL VAULTS ARE REQUIRED AND WILL BE APPROVED BY COLORADO SPRINGS UTILITIES.
5. FOR VAULT OPENINGS SEE PER DETAIL DRAWING A6-6.
6. STEEL PIPE SHALL BE COATED PER SECTION 4.4.B.7.



DETAIL "A"
CONCRETE RISER FOR MANHOLE

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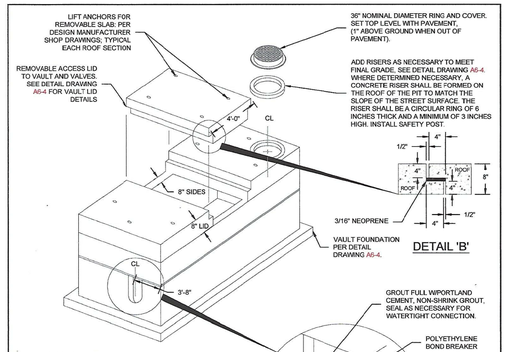
PRESSURE REGULATOR STATIONS
6", 8" & 12"
VAULT DIMENSIONS

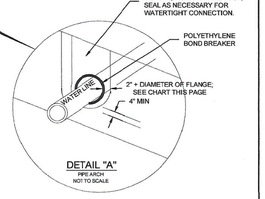
A6-4

DATED 01/2017



ISOMETRIC VIEW OF 12" & LARGER REGULATOR VAULT

MAIN SIZE	FLANGE SIZE	OPENING SIZE
6"	12 1/2 "	16 1/2 "
8"	15"	19"
12"	20 1/2 "	24 1/2 "



NOTES:
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2. ALL CONCRETE VAULTS SHALL BE DESIGNED FOR HS-20 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD.
3. VAULTS FOR PRESSURE REGULATOR STATIONS LARGER THAN 12 INCH WILL BE SPECIFICALLY DESIGNED BY THE ENGINEER AND APPROVED BY COLORADO SPRINGS UTILITIES.
4. SHOP DETAIL DRAWINGS FOR ALL VAULTS ARE REQUIRED AND WILL BE APPROVED BY COLORADO SPRINGS UTILITIES.
5. ROOF SLABS FOR 6" & 8" PRESSURE REGULATOR VAULTS SHALL BE SINGLE SLAB.
6. VENT HOLES PLACED PER SITE REQUIREMENTS. FOR VENT HOLE REQUIREMENTS SEE DETAIL DRAWING A6-1.

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PRESSURE REGULATOR STATIONS
6", 8" & 12"
VAULT OPENINGS

A6-6

DATED 06/2015

AS-BUILT
STREET-STM
DEC 29, 2022

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CONTACT: RICHARD L. SCHINDLER, P.E.
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COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WATER/SEWER
DETAILS

DATE:
NOV 12, 2020

PROJECT NO.
100.061

SHEET NUMBER
C12.2

TOTAL SHEETS: 58