

Chase Bank

Lot 4A-1, Heritage Hills Filing No. 1-F 2nd Amendment - Civil Construction Plans

Lone Tree, Colorado

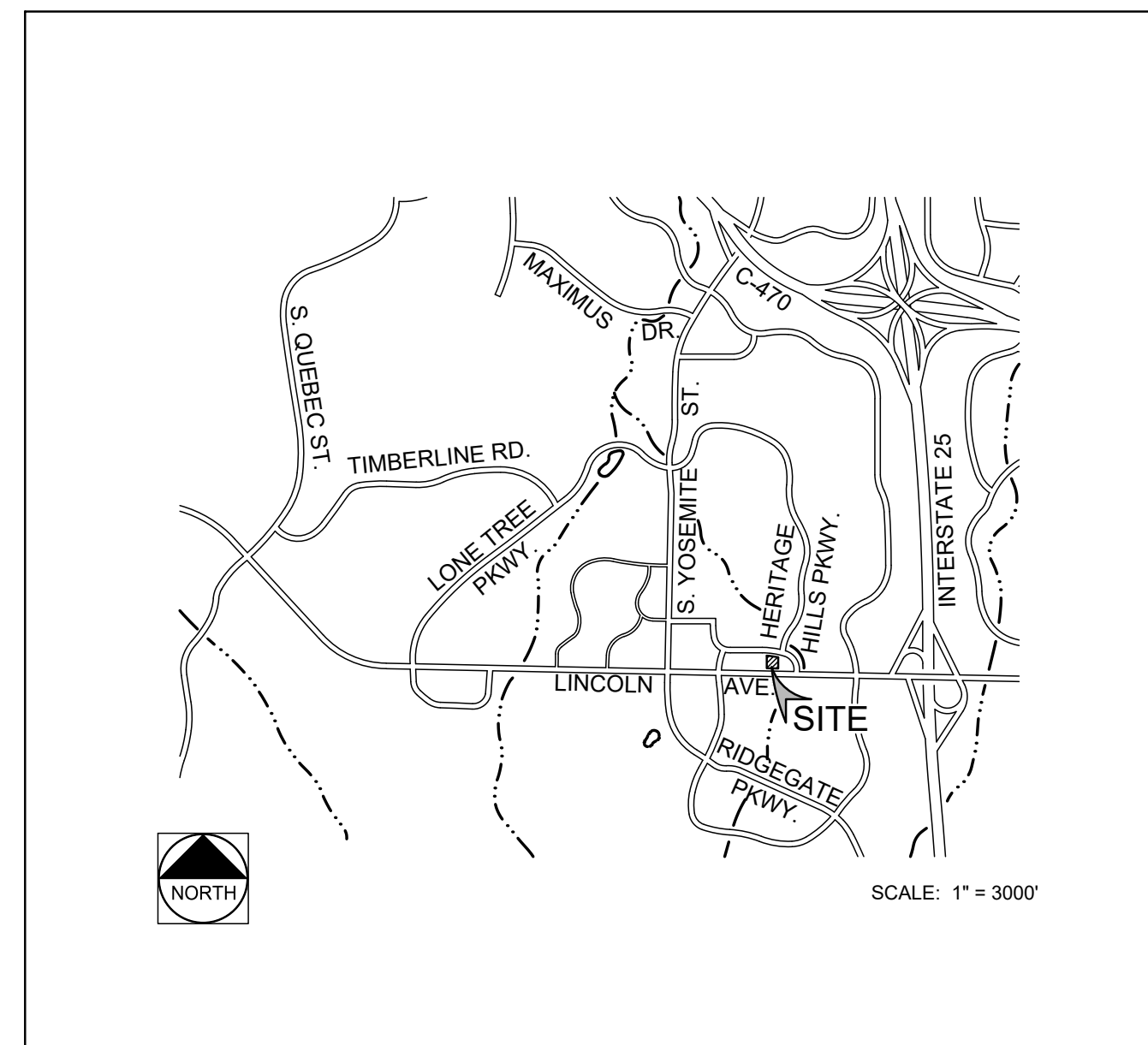
Southwest Quarter of Section 10, T6S, R67W of the 6th Principal Meridian

INDEX OF DRAWINGS

1	C0.0	COVER SHEET
*		ALT/NSPS LAND TITLE SURVEY
*	C0.1	GENERAL NOTES
2	CD1.1	DEMOLITION PLAN
3	C1.1	SITE PLAN
*	C1.2	SITE LAYOUT PLAN
4	C2.1	GRADING PLAN
5	C2.2	DRAINAGE PLAN
*	C3.0	UTILITY COVER SHEET
*	C3.1	GENERAL NOTES
*	C3.2	WATER ONLY PLAN
6	C3.3	OVERALL UTILITY PLAN
*	C3.91	UTILITY DETAILS
*	C3.92	UTILITY DETAILS
7	C4.0	GESC COVER SHEET
8	C4.1	INITIAL GESC PLAN
9	C4.2	INTERIM GESC PLAN
10	C4.3	FINAL GESC PLAN
11	C4.4	GESC NOTES & DETAILS
12	C4.5	GESC NOTES & DETAILS
13	C4.6	GESC NOTES & DETAILS
14	C9.1	DETAILS
15	C9.2	DETAILS
16	C9.3	DETAILS
17	C9.4	DETAILS
18	C9.5	DETAILS

* NOT A PART OF THE CITY OF LONE TREE SUBMITTAL SET.

LOCATION MAP



CITY OF LONE TREE GENERAL NOTES

- THE CITY OF LONE TREE ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE ENGINEERING DIVISION HAS REVIEWED THE DOCUMENT AND FOUND IT IN GENERAL CONFORMANCE WITH THE CITY OF LONE TREE SUBDIVISION RESOLUTION OR APPROVED VARIANCE TO THOSE REGULATIONS. THE CITY OF LONE TREE ENGINEER, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY, OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. THE OWNER AND ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.
- ALL ROADWAY CONSTRUCTION SHALL CONFORM TO CURRENT DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE CITY OF LONE TREE ENGINEERING DIVISION. THE CITY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS, INSPECTION SECTION, (303) 662-8112, A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION, AND/OR BEFORE RESTARTING CONSTRUCTION AFTER A SHUTDOWN OF MORE THAN 10 DAYS.
- LOCATION OF EXISTING FACILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION. FOR INFORMATION, CONTACT: UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) AT (800) 922-1987 OR 811.
- THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY (SIGNED BY BOTH THE DESIGN ENGINEER AND CITY OF LONE TREE) OF THE CONSTRUCTION PLANS AND GESC REPORT AND PLAN, AND ONE (1) COPY OF THE DOUGLAS COUNTY ROADWAY DESIGN AND CONSTRUCTION STANDARDS AT THE JOB SITE AT ALL TIMES.
- ALL PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER, OR OTHER PURPOSES ARE LISTED AND REFERENCED BELOW:
NOT APPLICABLE
- A ROW/CONSTRUCTION PERMIT MUST BE OBTAINED BEFORE ANY WORK WITHIN EXISTING OR PROPOSED PUBLIC ROW. THE PERMIT APPLICATION MUST BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR REVIEW/PROCESSING A MINIMUM OF 7 DAYS PRIOR TO REQUESTED START FOR THE WORK IN THE ROW.
- A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO THE CITY OF LONE TREE ENGINEER FOR ACCEPTANCE WITH THE PERMIT APPLICATION. AN EXCAVATION OR PUBLIC IMPROVEMENTS CONSTRUCTION PERMIT WILL NOT BE ISSUED WITHOUT AN APPROVED TRAFFIC CONTROL PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION.
- THE CONSTRUCTION PLANS SHALL BE CONSIDERED VALID FOR TWO (2) YEARS FROM THE DATE OF CITY OF LONE TREE ACCEPTANCE/APPROVAL. IF APPLICABLE CONSTRUCTION PERMITS HAVE NOT BEEN OBTAINED, AND CONSTRUCTION STARTED WITHIN THAT TIME, THESE PLANS SHALL BE VOID AND WILL BE SUBJECT TO RE-REVIEW AND RE-ACCEPTANCE BY THE CITY OF LONE TREE.
- CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE ENGINEER INSPECTOR WHEN WORKING OUTSIDE OF THE PUBLIC RIGHT-OF-WAY ON ANY FACILITY WHICH WILL BE CONVEYED TO THE CITY, URBAN DRAINAGE AND FLOOD CONTROL DISTRICT, OR OTHER SPECIAL DISTRICT FOR MAINTENANCE (STORM SEWER, ENERGY DISSIPATORS, DETENTION OUTLET STRUCTURES, OR OTHER DRAINAGE INFRASTRUCTURES). FAILURE TO NOTIFY ENGINEERING INSPECTOR TO ALLOW THEM TO INSPECT THE CONSTRUCTION MAY RESULT IN NON-ACCEPTANCE OF THE FACILITIES/INFRASTRUCTURE BY CITY AND/OR URBAN DRAINAGE.

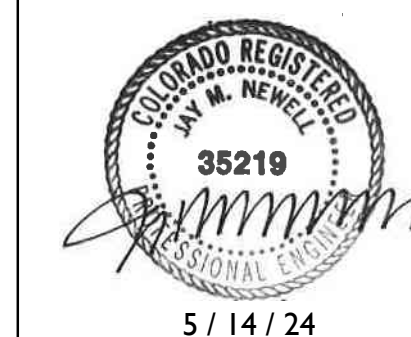
CONTACTS

OWNER/DEVELOPER:
CHASE BANK
2620 E. CAMELBACK RD.
SCOTTSDALE, AZ 85016
JUDITH A. VAN HOUTEN
(602) 221-4772

ENGINEER:
FARNSWORTH GROUP
5613 DTC PKWY.
GREENWOOD VILLAGE, CO 80111
JAY M. NEWELL
(303) 692-8838

ENGINEERING NOTE

THESE CONSTRUCTION PLANS FOR LOT 4A-1, HERITAGE HILLS FILING NO. 1-F, 2ND AMENDMENT WERE PREPARED BY ME (OR UNDER MY DIRECT SUPERVISION) IN ACCORDANCE WITH THE REQUIREMENTS OF DOUGLAS COUNTY'S ROADWAY DESIGN AND CONSTRUCTION STANDARDS, STORM DRAINAGE DESIGN AND TECHNICAL CRITERIA, AND THE GRADING, EROSION AND SEDIMENT CONTROL MANUAL.



JAY M. NEWELL, PE
FOR AND ON BEHALF OF FARNSWORTH GROUP, INC.

NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.



City of Lone Tree

Date

These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block

PROJECT:

**Chase Bank
Lone Tree, Colorado**

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

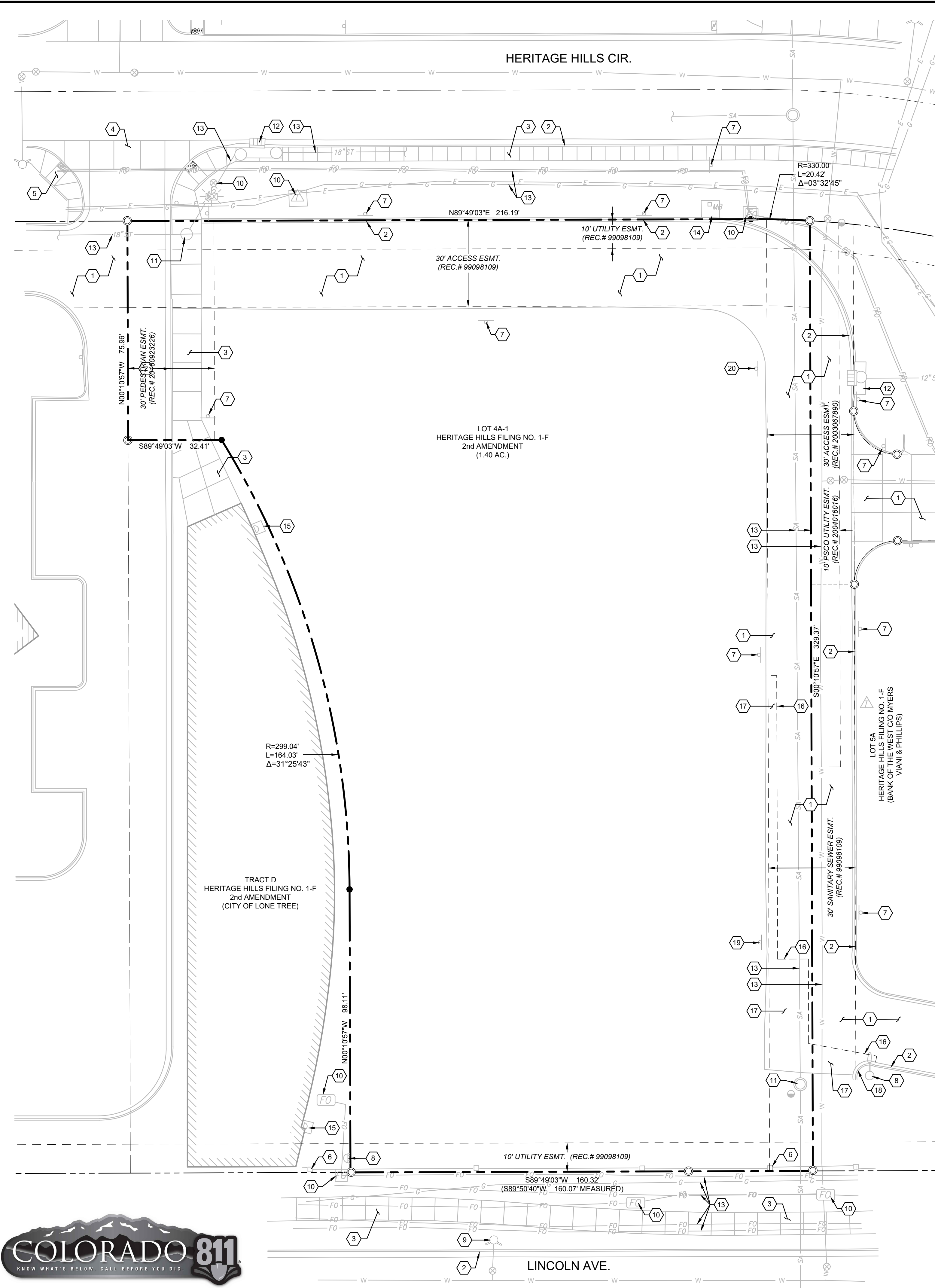
SHEET TITLE:

COVER SHEET

SHEET NUMBER:

C0.0

PROJECT NO.: 0231559.00



1 DEMOLITION PLAN
SCALE: 1" = 20'

Present | A:\2023\1559\00 - APM Lone Tree\CD1.1_Demo - 021559.00.dwg | 4/29/2024 9:46 AM |



KEY NOTES

- 1 EXISTING PAVEMENT TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 2 EXISTING CURB AND GUTTER TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 3 EXISTING SIDEWALK TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 4 EXISTING CONCRETE PAVEMENT TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 5 EXISTING CURB RAMP TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 6 EXISTING FENCE TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 7 EXISTING TRAFFIC SIGN TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 8 EXISTING SITE LIGHT TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 9 EXISTING HYDRANT TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 10 EXISTING UTILITY APPURTENANCE, VAULT, AND/OR ASSOCIATED CONCRETE PAD TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 11 EXISTING MANHOLE TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 12 EXISTING INLET TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 13 EXISTING UTILITY LINE TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 14 EXISTING MAILBOX AND CONCRETE PAD TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 15 EXISTING DOWNSPOUT TO REMAIN AND BE PROTECTED THROUGHOUT DEMOLITION AND CONSTRUCTION.
- 16 SAWCUT EXISTING PAVEMENT, CURB, AND GUTTER AS SHOWN. RE: SHEETS C1.1, C2.1, AND C3.1 FOR ADDITIONAL INFORMATION.
- 17 REMOVE EXISTING PAVEMENT AS SHOWN.
- 18 REMOVE EXISTING CURB AND GUTTER AS SHOWN.
- 19 REMOVE EXISTING TRAFFIC SIGN. COORDINATE RETURN OF SIGN TO LOCAL JURISDICTION, PRIOR TO DISPOSAL.
- 20 REMOVE AND RELOCATE EXISTING TRAFFIC SIGN. RE: SHEET C1.1.

LEGEND

	PROPERTY LINE
	ADJACENT LOT LINE
	RIGHT-OF-WAY LINE
	SECTION LINE
	CENTER LINE
	EXISTING EASEMENT
	EXISTING BUILDING/STRUCTURE
	EXISTING EDGE OF ASPHALT
	EXISTING CONCRETE
	EXISTING SIDEWALK
	EXISTING CURB & GUTTER
	EXISTING FENCE
	EXISTING ELECTRIC LINE
	EXISTING OVERHEAD ELECTRIC LINE
	EXISTING TELEPHONE LINE
	EXISTING OVERHEAD TELEPHONE LINE
	EXISTING GAS LINE
	EXISTING FIBER OPTIC LINE
	EXISTING WATER LINE
	EXISTING STORM SEWER
	EXISTING ROOF DRAIN
	EXISTING SANITARY SEWER
	EXISTING POST - BOLLARD
	EXISTING SIGN
	EXISTING MAILBOX
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM SEWER MANHOLE
	EXISTING DOWNSPOUT - SURFACE
	EXISTING INLET - CURB TYPE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING IRRIGATION CONTROL BOX
	EXISTING ELECTRIC MANHOLE
	EXISTING ELECTRIC PEDESTAL
	EXISTING ELECTRIC LIGHT - AREA / YARD
	EXISTING ELECTRIC LIGHT - STREET
	EXISTING ELECTRIC TRANSFORMER
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING FIBER OPTIC VAULT
	EXISTING FIBER OPTIC PEDESTAL

GENERAL NOTES

1. ALL DEMOLITION, REMOVAL, DISPOSAL AND ABANDONMENT OF UTILITIES, STRUCTURES, SITE IMPROVEMENTS AND SITE FURNISHINGS SHALL BE IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REQUIREMENTS.
2. CONTRACTOR SHALL VERIFY ALL UTILITY MAIN AND LATERAL LOCATIONS AND EXISTING SITE CONDITIONS PRIOR TO PROCEEDING WITH DEMOLITION. ANY SITE CONDITIONS THAT ARE NOT AS SHOWN ON THE DEMOLITION PLAN MUST BE REPORTED TO CONSTRUCTION MANAGER PRIOR TO BID.
3. CONTRACTOR SHALL REMOVE OR RELOCATE EXISTING UTILITIES PER UTILITY COMPANY REQUIREMENTS. CONTRACTOR SHALL COORDINATE REMOVALS AND/OR RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANY AND CONSTRUCTION MANAGER PRIOR TO DEMOLITION.
4. THE CONTRACTOR SHALL VERIFY ALL UTILITIES HAVE BEEN DISCONNECTED AS REQUIRED FOR THE WORK.
5. CONTRACTOR SHALL ERECT BARRIERS, FENCES, GUARDRAILS, ENCLOSURES, ETC. TO PROTECT THE SITE. THE PROTECTION PLAN MUST BE REVIEWED BY CONSTRUCTION MANAGER PRIOR TO PROCEEDING WITH DEMOLITION.
6. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL (SIGNS, BARRICADES, FLAGMEN, LIGHTS, ETC) IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS, DISPOSAL SHALL BE TRANSPORTED TO AN APPROVED LANDFILL OR OTHER APPROVED FACILITY.
7. THE CONTRACTOR SHALL FILL AND COMPACT BASEMENTS, CESSPOOLS, AND OTHER LARGE EXCAVATED AREAS WITH CLEAN FILL SUITABLE TO CONSTRUCTION MANAGER AND IN ACCORDANCE WITH RECOMMENDATIONS OBTAINED FROM THE GEOTECHNICAL INVESTIGATION OR GEOTECHNICAL ENGINEER. GRADE TO MATCH EXISTING OR PROPOSED FINISH GRADE.
8. CONTRACTOR SHALL COORDINATE ALL SALVAGE WITH CONSTRUCTION MANAGER PRIOR TO DEMOLITION.
9. THE CONTRACTOR SHALL FILL AND COMPACT BASEMENTS, CESSPOOLS, AND OTHER LARGE EXCAVATED AREAS WITH CLEAN FILL SUITABLE TO CONSTRUCTION MANAGER AND IN ACCORDANCE WITH RECOMMENDATIONS OBTAINED FROM THE GEOTECHNICAL INVESTIGATION OR GEOTECHNICAL ENGINEER. GRADE TO MATCH EXISTING OR PROPOSED FINISH GRADE.
10. CONTRACTOR SHALL COORDINATE ALL SALVAGE WITH CONSTRUCTION MANAGER PRIOR TO DEMOLITION.
11. ALL UNDERGROUND STORM SEWER, WATER, SANITARY SEWER, GAS, ELECTRIC, AND OTHER UTILITY LOCATIONS, AND EXISTING SITE APPURTENANCES AND FURNISHINGS ARE BASED ON THE ALTAIR SURVEY PREPARED FOR THE SITE AND FROM MAPS PROVIDED BY THE CITY AND ARE TO BE CONSIDERED APPROXIMATE ONLY. IF CONTRACTOR DOES NOT ACCEPT MAPPING AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, THEN HE SHALL, AT HIS EXPENSE, HAVE A SURVEY PREPARED BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO CONSTRUCTION MANAGER FOR ACCEPTANCE AND APPROVAL. ALL QUESTIONS IN REGARD TO DEMOLITION SHALL BE SUBMITTED TO CONSTRUCTION MANAGER IN WRITING PRIOR TO BID.
12. CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED FOR DEMOLITION OF WORK SHOWN.
13. CONTRACTOR SHALL PROTECT ALL EXISTING SURVEY MONUMENTATION AND BENCHMARK(S). CONTRACTOR SHALL HAVE A LICENSED SURVEYOR REPLACE ANY DAMAGED OR DISTURBED MONUMENTATION AT THE CONTRACTOR'S COST.
14. CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, FEATURES, IMPROVEMENTS, AND UTILITIES (OVERHEAD OR UNDERGROUND) AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION. CONTRACTOR WILL BE RESPONSIBLE FOR ALL RESULTANT COSTS DUE TO SUCH DAMAGES.
15. THIS PLAN PROVIDES GENERAL DEMOLITION INFORMATION ONLY, AND DOES NOT NECESSARILY REPRESENT ALL ITEMS REQUIRED TO BE DEMOLISHED.
16. REFER TO SHEET C0.0 AND C0.1 FOR ADDITIONAL GENERAL NOTES.

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

City of Lone Tree

Date

These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block

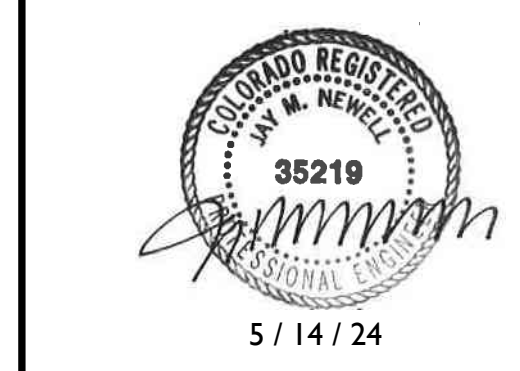


Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



PROJECT:

**Chase Bank
Lone Tree, Colorado**

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

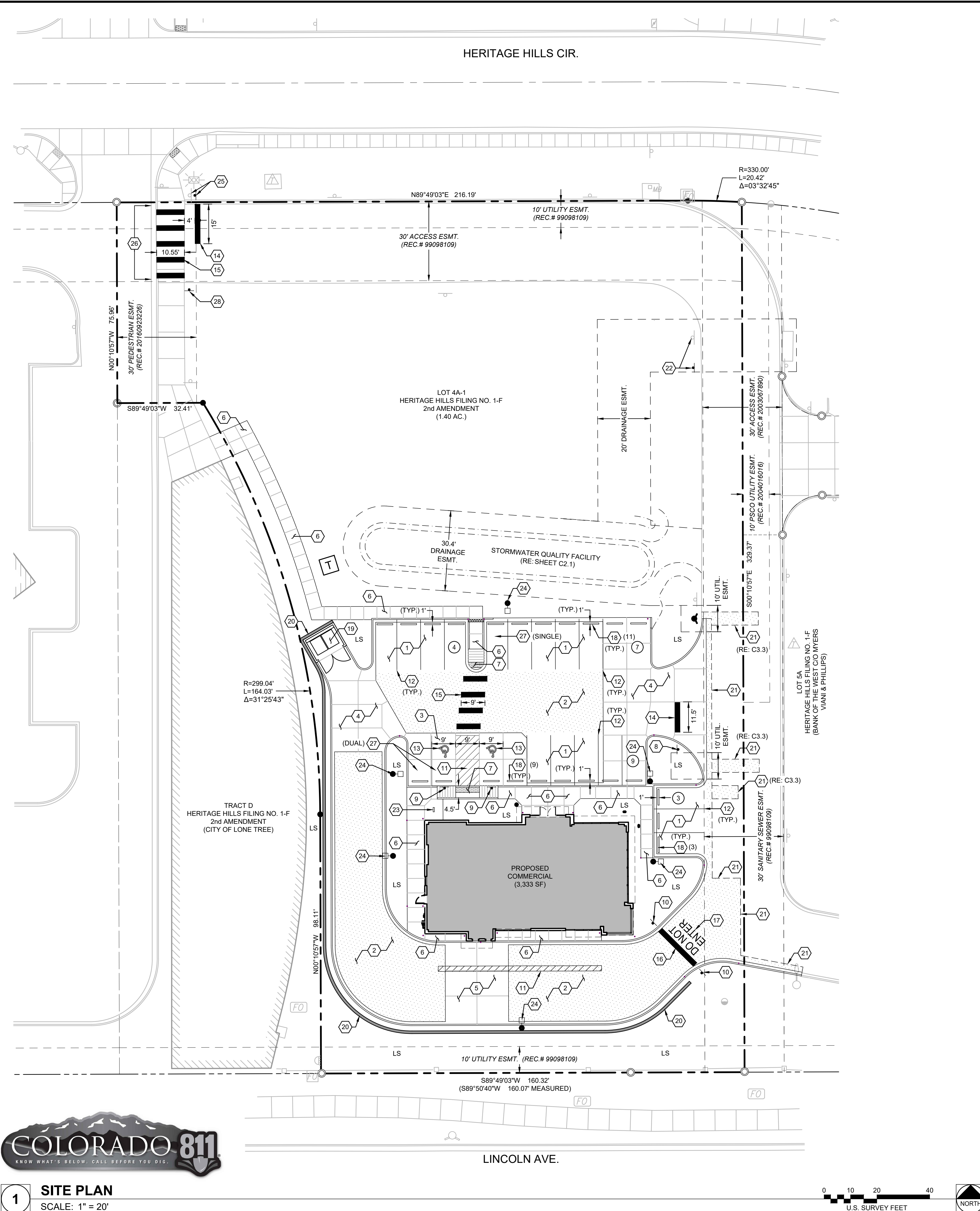
SHEET TITLE:

DEMOLITION PLAN

SHEET NUMBER:

CD1.1

PROJECT NO.: 0231559.00



- ### KEY NOTES
- CONSTRUCT LIGHT DUTY ASPHALT PAVEMENT (MINIMUM), SEE PAVING NOTE (THIS SHEET).
 - CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT (MINIMUM), SEE PAVING NOTE (THIS SHEET).
 - CONSTRUCT LIGHT DUTY INTEGRALLY COLORED BLACK CONCRETE PAVEMENT WITH #4 REINFORCING AT 18" O.C.E.W. SEE PAVING NOTE (THIS SHEET) AND SITE LAYOUT PLAN FOR ADDITIONAL JOINT INFORMATION. COLOR ADDITIVE SHALL BE 9.5 LBS OF "GRAPHITE" PER SACK OF CEMENT.
 - CONSTRUCT HEAVY DUTY CONCRETE PAVEMENT WITH #4 REINFORCING AT 18" O.C.E.W. SEE PAVING NOTE (THIS SHEET) AND SITE LAYOUT PLAN FOR ADDITIONAL JOINT INFORMATION.
 - CONSTRUCT HEAVY DUTY INTEGRALLY COLORED BLACK CONCRETE PAVEMENT WITH #4 REINFORCING AT 18" O.C.E.W. SEE PAVING NOTE (THIS SHEET) AND SITE LAYOUT PLAN FOR ADDITIONAL JOINT INFORMATION. COLOR ADDITIVE SHALL BE 9.5 LBS OF "GRAPHITE" PER SACK OF CEMENT.
 - CONSTRUCT PRIVATE CONCRETE SIDEWALK. RE: SHEET C9.1, DETAIL 1.
 - CONSTRUCT PRIVATE CURB RAMP; TYPE AS SHOWN. RE: SHEET C9.1, DETAIL 2.
 - INSTALL "STOP" SIGN. RE: SHEET C9.1, DETAIL 3.
 - INSTALL HANDICAP PARKING SIGN. INCLUDE "VAN" PLACARD WHERE SHOWN. RE: SHEET C9.1, DETAIL 3.
 - INSTALL "DO NOT ENTER" SIGN. RE: SHEET C9.1, DETAIL 3.
 - PAINT 4-INCH WIDE WHITE DIAGONAL STRIPES 2-FEET ON-CENTER WITH 4-INCH WIDE WHITE BORDER STRIPES AS SHOWN.
 - PAINT 4-INCH WIDE, WHITE PARKING LOT STRIPES AS SHOWN.
 - PAINT HANDICAP SYMBOL. RE: SHEET C9.1, DETAIL 4.
 - PAINT OR INSTALL 2-FT WIDE WHITE STOP BAR AT LENGTH PER PLAN, AS SHOWN.
 - PAINT OR INSTALL 2-FT WIDE WHITE PEDESTRIAN CROSSWALK BARS AT LENGTH PER PLAN, 6-FEET ON CENTER.
 - PAINT OR INSTALL 2-FT WIDE BY 18.5-FOOT LONG WHITE STOP BAR AS SHOWN.
 - PAINT OR INSTALL "DO NOT ENTER" WITH 3-FOOT HIGH LETTER(S) ±2.4-FEET ON CENTER AS SHOWN.
 - INSTALL WHEEL STOPS. RE: ARCH. PLANS.
 - CONSTRUCT TRASH ENCLOSURE. RE: ARCH. PLANS.
 - CONSTRUCT RETAINING WALL. RE: SHEET C1.2 FOR HORIZONTAL LAYOUT AND SHEET C3.1 FOR FINISH GRADE AT TOP OF WALL AND BOTTOM WALL ELEVATIONS. REFER TO PLANS UNDER SEPARATE COVER FOR CONSTRUCTION DETAIL(S).
 - SAWCUT EXISTING PAVEMENT, CURB, AND GUTTER AS SHOWN. RE: SHEETS CD.1, C2.1, AND C3.1 FOR ADDITIONAL INFORMATION.
 - RELOCATE OR INSTALL "NO PARKING FIRE LANE" SIGN TO MATCH EXISTING. RE: SHEET C9.1, DETAIL 3 FOR POLE AND BASE.
 - INSTALL BIKE RACK. RE: SHEET C9.1, DETAIL 8.
 - INSTALL SITE LIGHTING, INCLUDING BUT NOT LIMITED TO BASE, POLE, FIXTURE, AND CONNECTION HARDWARE. RE: C3.1.
 - RELOCATE OR INSTALL "STOP" SIGN TO MATCH EXISTING. RE: SHEET C9.1, DETAIL 3 FOR POLE AND BASE.
 - REMOVE AND REPLACE CRACKED AND/OR UNEVEN CONCRETE PANELS AT TRAIL CROSSING. COORDINATE WITH CITY PRIOR TO CONSTRUCTION.
 - CONSTRUCT SINGLE OR DUAL EV CAPABLE PARKING STALL(S) (SEE PLAN). CONTRACTOR SHALL COORDINATE WITH ARCHITECT AND OWNER CONSTRUCTION MANAGER FOR ADDITIONAL INFORMATION REGARDING SPECIFIC IMPROVEMENTS REQUIRED INCLUDING, BUT NOT LIMITED TO, CHARGING STATION FOUNDATION, CONCRETE PAD, ANCHORING SYSTEM(S), PROTECTIVE CURBING AND/OR BOLLARD(S), SERVICE CONDUIT(S), AND PULL BOXES PRIOR TO CONSTRUCTION.
 - INSTALL WAYFINDING SIGN. RE: SHEET C9.1, DETAIL 3.

LEGEND

	PROPERTY LINE
	ADJACENT LOT LINE
	RIGHT-OF-WAY LINE
	CENTER LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING BUILDING/STRUCTURE
	EXISTING EDGE OF ASPHALT
	EXISTING SIDEWALK
	EXISTING CURB & GUTTER
	HEAVY DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	PROPOSED SIDEWALK
	PROPOSED CURB & GUTTER
	EXISTING FENCE
	SAWCUT LINE
	PARKING COUNT
	LANDSCAPE AREA
	PROPOSED MANHOLE
	EXISTING POST - BOLLARD
	EXISTING SIGN
	EXISTING MAILBOX
	EXISTING SANITARY SEWER MANHOLE
	EXISTING DOWNSPOUT - SURFACE
	EXISTING INLET - CURB TYPE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING IRRIGATION CONTROL BOX
	EXISTING ELECTRIC PEDESTAL
	EXISTING ELECTRIC LIGHT - STREET
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING FIBER OPTIC VAULT
	EXISTING FIBER OPTIC PEDESTAL

- ### GENERAL NOTES
- REFER TO SHEET C0.0 AND C0.1 FOR ADDITIONAL GENERAL NOTES.
 - CONTRACTOR SHALL CONFIRM WITH THE CITY WHICH CITY OF LONE TREE SIGNAGE AND STRIPING NOTES ARE APPLICABLE TO THE ON SITE CONSTRUCTION, PRIOR TO CONSTRUCTION.
- ### PAVING NOTE
- ALL PAVING, INCLUDING CURB, GUTTER, AND SIDEWALK, TO BE INSTALLED OUTSIDE OF THE RIGHT OF WAY SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL INVESTIGATION PAVEMENT RECOMMENDATIONS INCLUDING, BUT NOT LIMITED TO, THE PAVEMENT SECTION, MATERIAL, AND SUBGRADE PREPARATION. THE CONTRACTOR SHALL COORDINATE APPROVAL FOR INSTALLATION OF ANY ALTERNATE RECOMMENDATIONS INCLUDED IN THE INVESTIGATION OR DESIRED MODIFICATIONS TO THE RECOMMENDATIONS WITH THE OWNER/DEVELOPER AND/OR THEIR CONSTRUCTION MANAGER PRIOR TO BID AND PRIOR TO CONSTRUCTION. FOR GEOTECHNICAL INVESTIGATIONS WHICH DO NOT SPECIFICALLY ADDRESS CURB, GUTTER, SIDEWALK AND SIMILAR IMPROVEMENTS NOT SUBJECT TO VEHICULAR LOADS, CONCRETE SHALL BE CDOT CLASS B, IN ACCORDANCE WITH CDOT STANDARDS AND SPECIFICATIONS.
- ### CONSTRUCTION MANAGER COORD. NOTE
- THE CONTRACTOR IS TO COORDINATE THE MATERIALS PROVISION, PLACEMENT, ORIENTATION, LAYOUT AND INSTALLATION OF ANY PROTOTYPICAL SITE APPURTENANCES WITH THE OWNER/DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION. THIS INCLUDES, BUT IS NOT LIMITED TO, SITE DIRECTIONAL RESTRICTION / COMPLIMENTARY PYLON / MONUMENT SIGNAGE, CLEARANCE BAR, DETECTOR LOOPS, DIRECTIONAL PAVEMENT MARKINGS, AND ASSOCIATED CONDUITS.

- ### CITY OF LONE TREE SIGNAGE AND STRIPING NOTES
- ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MOST RECENT VERSION OF THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE "COLORADO SUPPLEMENTAL MUTCD" AND THE DOUGLAS COUNTY "ROAD AND CONSTRUCTION STANDARDS MANUAL". FURTHER SPECIFICATIONS AND ILLUSTRATIONS ARE LOCATED IN THE COLORADO DIVISION OF HIGHWAYS "M AND S STANDARDS".
 - DELINEATION OF ROADWAYS SHALL BE AS SPECIFIED IN THE COLORADO "M AND S MANUAL".
 - SPECIAL CARE SHALL BE TAKEN IN SIGN LOCATION TO ENSURE AN UNOBSTRUCTED VIEW OF EACH SIGN. STREET NAME SIGNS SHALL BE MOUNTED SO THAT THEY CAN BE SEEN FROM ALL DIRECTIONS OF TRAVEL.
 - INSTALLATION OF SIGNS SHALL CONFORM TO THE MUTCD MOUNTING HEIGHT REQUIREMENTS, INCLUDING A 7-FOOT MINIMUM HEIGHT FROM THE BOTTOM OF THE LOWEST SIGN PANEL TO THE TOP GRADE OF SIDEWALK.
 - ALL NEWLY INSTALLED TRAFFIC SIGNS SHALL MEET THE MINIMUM RETRO-REFLECTIVITY AND ILLUMINATION STANDARDS AS SET FORTH BY THE MUTCD (LATEST EDITION). THESE MINIMUM REQUIREMENTS SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION.
 - DIAMOND GRADE MATERIAL SHALL BE USED ON ALL STOP SIGNS.
 - THE CONTRACTOR INSTALLING SIGNS IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL UNDERGROUND UTILITIES. LONE TREE PUBLIC WORKS SHALL BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO INSTALLATION AT 303-662-8112.
 - FOLLOWING INSTALLATION, THE CONTRACTOR SHALL NOTIFY THE CITY OF LONE TREE PUBLIC WORKS DEPARTMENT, 303-662-8112. A FIELD INSPECTION OF LOCATION AND INSTALLATION OF ALL SIGNS SHALL BE PERFORMED BY PUBLIC WORKS. ALL DISCREPANCIES IDENTIFIED DURING THE FIELD INSPECTION MUST BE CORRECTED BEFORE THE TWO-YEAR WARRANTY PERIOD WILL BEGIN.
 - SIGNAGE AND STRIPING HAS BEEN DETERMINED BY INFORMATION AVAILABLE AT THE TIME OF REVIEW. PRIOR TO INITIATION OF THE WARRANTY PERIOD, LONE TREE RESERVES THE RIGHT TO REQUIRE MODIFICATIONS TO EXISTING OR INSTALLATION OF ADDITIONAL SIGNAGE AND/OR STRIPING IF THEY DETERMINE THAT AN UNFORESEEN CONDITION WARRANTS SUCH MODIFICATION ACCORDING TO THE MUTCD OR THE CDOT M AND S STANDARDS. ALL SIGNAGE AND STRIPING SHALL FALL UNDER THE REQUIREMENTS OF THE TWO (2) YEAR WARRANTY PERIOD FOR NEW CONSTRUCTION.
 - FINAL STRIPING AND CROSSWALK LAYOUT TO BE APPROVED BY THE CITY OF LONE TREE PRIOR TO INSTALLATION. LONE TREE PUBLIC WORKS SHALL BE CONTACTED A MINIMUM OF 72 HOURS PRIOR TO INSTALLATION AT 303-662-8112.
 - CROSSWALKS SHALL:
 - BE CONSTRUCTED USING 125 MIL. PREFORMED THERMOPLASTIC.
 - LINE UP WITH THE HANDICAP RAMPS AT BOTH ENDS.
 - BE CENTERED ON LANE LINES SO AS TO BE STRADDLED BY VEHICLES.
 - ALL PAVEMENT MARKINGS SHALL BE AS FOLLOWS:
 - FOR CONCRETE SURFACE: METHYL METHACRYLATE OR EPOXY PAINT.
 - FOR ASPHALT SURFACE: PAINT, 90 MIL. PREFORMED THERMOPLASTIC, INLAIN MARKING TAPE, METHYL METHACRYLATE, OR EPOXY PAINT.
 - TURN ARROWS AND ONLY: 125 MIL. PREFORMED THERMOPLASTIC.
 - ALL PAVEMENT MARKING SHALL BE PRECEDED BY THE APPROPRIATE SURFACE PREPARATION.
 - ANY SIGNAGE AND/OR OTHER TRAFFIC CONTROL DEVICES REMOVED SHALL BE RETURNED TO THE CITY OF LONE TREE.
 - TYPE III LIGHTED BARRICADES SHALL BE SET AT ENDS OF ROADWAYS, SEPARATING FINISHED AND UNFINISHED CONSTRUCTION AREAS AND WILL BE MAINTAINED BY THE CONTRACTOR/DEVELOPER.

- ### CAUTION - NOTICE TO CONTRACTOR
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

City of Lone Tree	_____
Date	_____
These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.	
Engineering Division Acceptance Block	_____



Farnsworth GROUP
 5613 DTC PARKWAY, SUITE 1100
 GREENWOOD VILLAGE, COLORADO 80111
 (303) 692-8838 / info@f-w.com

www.f-w.com
 Engineers | Architects | Surveyors | Scientists

ISSUE:
 # DATE: DESCRIPTION:



5 / 14 / 24

PROJECT:

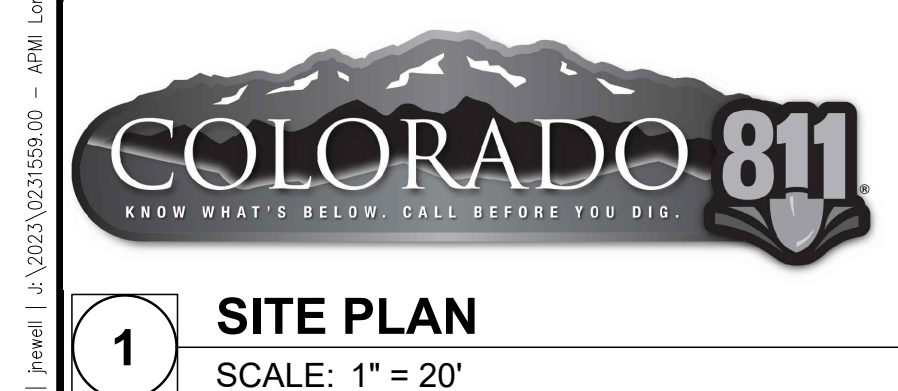
**Chase Bank
 Lone Tree, Colorado**

9550 Heritage Hills Circle
 Lone Tree, Colorado 80124

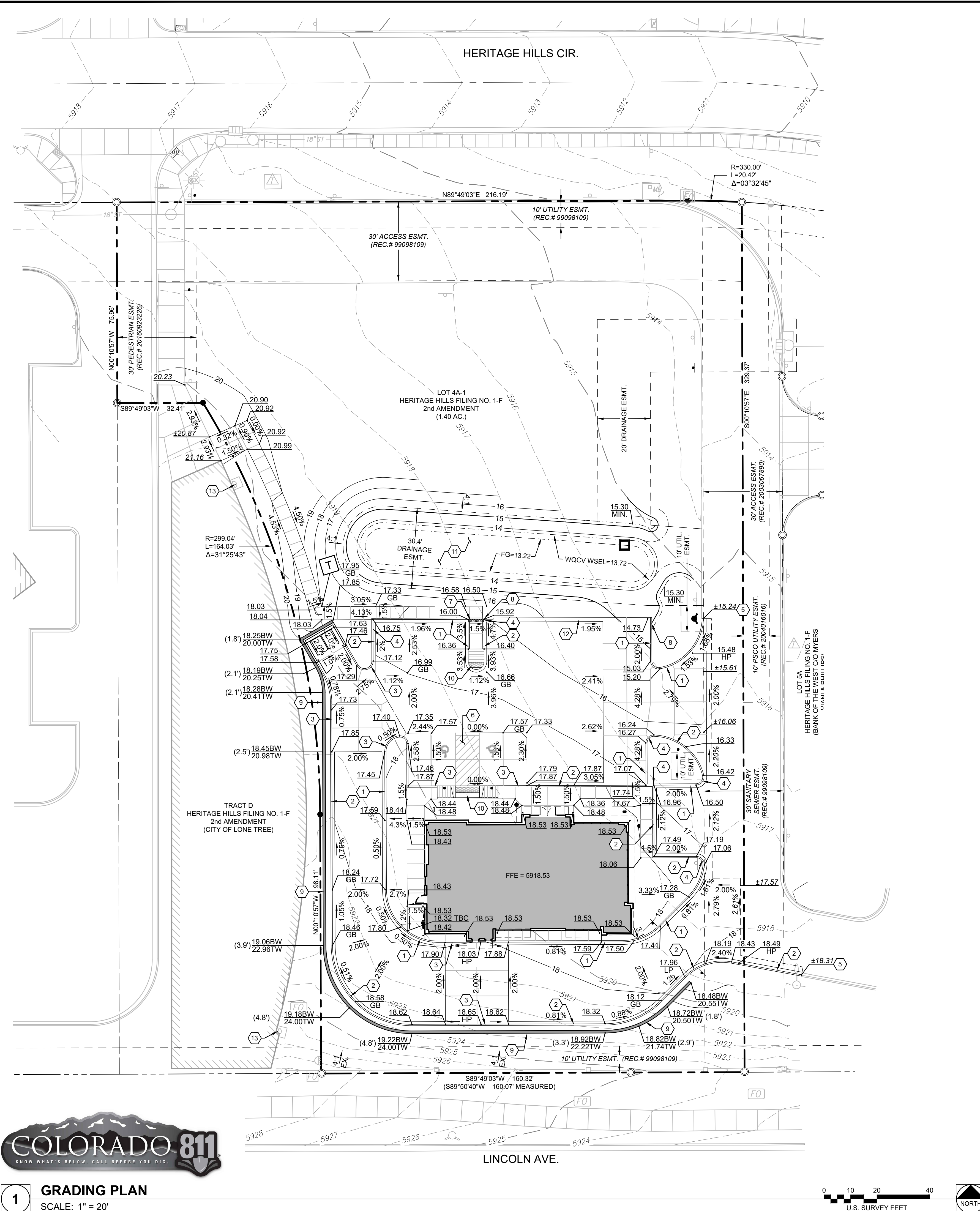
DATE: 04/29/2024
 DESIGNED: JMN
 DRAWN: JMN
 REVIEWED: JMN

FIELD BOOK NO.:
 SHEET TITLE:
SITE PLAN
 SHEET NUMBER:
C1.1
 PROJECT NO.: 0231559.00

Present | A:\2023\0231559.00 - APW Lone Tree\04_Drawing\DWG\C1.1_Site - 0231559.00.dwg | 4/29/2024 1:51 PM



1 SITE PLAN
 SCALE: 1" = 20'



1 GRADING PLAN
SCALE: 1" = 20'

- ### KEY NOTES
- CONSTRUCT 6-INCH VERTICAL CONCRETE CURB AND GUTTER WITH 1-FOOT CATCH PAN. RE: SHEET C9.1, DETAIL 5.
 - CONSTRUCT 6-INCH VERTICAL CONCRETE CURB AND GUTTER WITH 1-FOOT SPILL PAN. RE: SHEET C9.1, DETAIL 5.
 - CONSTRUCT 6-INCH VERTICAL CONCRETE CURB MONOLITHIC TO THE ADJOINING PAVING. SHEET C9.1, DETAIL 5.
 - CONSTRUCT TRANSITION POINT BETWEEN SPILL AND CATCH CURB.
 - CONSTRUCT CURB AND GUTTER TO MATCH LINE AND GRADE OF EXISTING CURB AND GUTTER AND/OR EDGE OF ASPHALT.
 - CONSTRUCT HANDICAP PARKING AREA - NO GRADES GREATER THAN 1.5% IN ANY DIRECTION. CONTRACTOR TO VERIFY WITH CONSTRUCTION MANAGER AT FORM SET OR REMAIN SOLELY RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF ANY NON-ADA CONFORMING INSTALLATIONS.
 - CONSTRUCT SIDEWALK CHASE. RE: SHEET C9.1, DETAIL 6.
 - TAPER CURB HEAD AS SHOWN. RE: SHEET C9.1, DETAIL 7.
 - CONSTRUCT RETAINING WALL. RE: SHEET C1.1. REFER TO PLANS UNDER SEPARATE COVER FOR CONSTRUCTION DETAIL(S).
 - CONSTRUCT PRIVATE CURB RAMP. RE: SHEET C1.1.
 - CONSTRUCT STORMWATER QUALITY FACILITY. RE: SHEET C2.2 AND SHEET C9.5, DETAIL 1.
 - CONSTRUCT FLUSH CONCRETE CURB (W/ NO CURB HEAD) AND GUTTER WITH 1-FOOT PAN. RE: SHEET C9.1, DETAIL 5.
 - FILL AND COMPACT ERODED GRADE; REPAIR / REPLACE / RECONSTRUCT CONCRETE SPLASHBLOCK AND RIP RAP PROTECTION TO MATCH EXISTING.

LEGEND

	PROPERTY LINE
	ADJACENT LOT LINE
	RIGHT-OF-WAY LINE
	SECTION LINE
	CENTER LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING BUILDING/STRUCTURE
	EXISTING EDGE OF ASPHALT
	EXISTING CONCRETE
	EXISTING SIDEWALK
	EXISTING CURB & GUTTER
	CONCRETE PAVEMENT
	PROPOSED SIDEWALK
	PROPOSED CURB & GUTTER
	EXISTING FENCE
	SAWCUT LINE
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING SPOT GRADE
	PROPOSED SPOT GRADE
	EXISTING SLOPE
	PROPOSED SLOPE
	TBC
	HP
	LP
	FG
	EG
	TC
	FL
	EC
	ME
	MF
	LS
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	PROPOSED STORM SEWER
	PROPOSED ROOF DRAIN
	PROPOSED MANHOLE
	EXISTING POST - BOLLARD
	EXISTING SIGN
	EXISTING MAILBOX
	EXISTING SANITARY SEWER MANHOLE
	EXISTING STORM SEWER MANHOLE
	EXISTING DOWNSPOUT - SURFACE
	EXISTING INLET - CURB TYPE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING IRRIGATION CONTROL BOX
	EXISTING ELECTRIC MANHOLE
	EXISTING ELECTRIC PEDESTAL
	EXISTING ELECTRIC LIGHT - AREA / YARD
	EXISTING ELECTRIC LIGHT - STREET
	EXISTING ELECTRIC TRANSFORMER
	EXISTING COMMUNICATIONS MANHOLE
	EXISTING FIBER OPTIC VAULT
	EXISTING FIBER OPTIC PEDESTAL

GENERAL NOTES

1. REFER TO SHEET C0.0 AND C0.1 FOR ADDITIONAL GENERAL NOTES.

ACCESSIBLE DESIGN & CONSTRUCTION

1. THE DESIGN INFORMATION PROVIDED IS INTENDED TO MEET APPLICABLE ADA STANDARDS. THE CONTRACTOR SHALL REFER TO THE U.S. DEPT. OF JUSTICE, "2010 ADA STANDARDS FOR ACCESSIBLE DESIGN" (ANY ANY LOCAL REGULATIONS IF APPLICABLE) FOR INFORMATION PERTINENT TO THE DESIGN INCLUDING, BUT NOT LIMITED TO DIMENSIONS, TOLERANCES, AND RELATED SPECIFICATIONS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADA COMPLIANCE AND CONFIRMATION OF SUCH COMPLIANCE FOR ALL RELATED CONSTRUCTION IMPROVEMENTS.

BENCHMARK

AS DESCRIBED ON THE ALTA/NPS LAND TITLE SURVEY PREPARED BY FARNSWORTH GROUP, DATED 9/15/2023.

"NATIONAL GEODETIC SURVEY (NGS) BENCHMARK "JOG", LOCATED ON THE EAST SIDE OF INTERSTATE HIGHWAY 25 AND NORTHEAST OF THE JUNCTION OF STATE HIGHWAY 470 AND INTERSTATE HIGHWAY 25, ON ROAD RIGHT-OF-WAY, ON PROPERTY OWNED BY THE STATE OF COLORADO.

ELEVATION: 5893.00 FEET (NAVD 1988 DATUM)."

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

City of Lone Tree

Date

These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



PROJECT:

**Chase Bank
Lone Tree, Colorado**

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024
DESIGNED: JMN
DRAWN: JMN
REVIEWED: JMN

FIELD BOOK NO.:

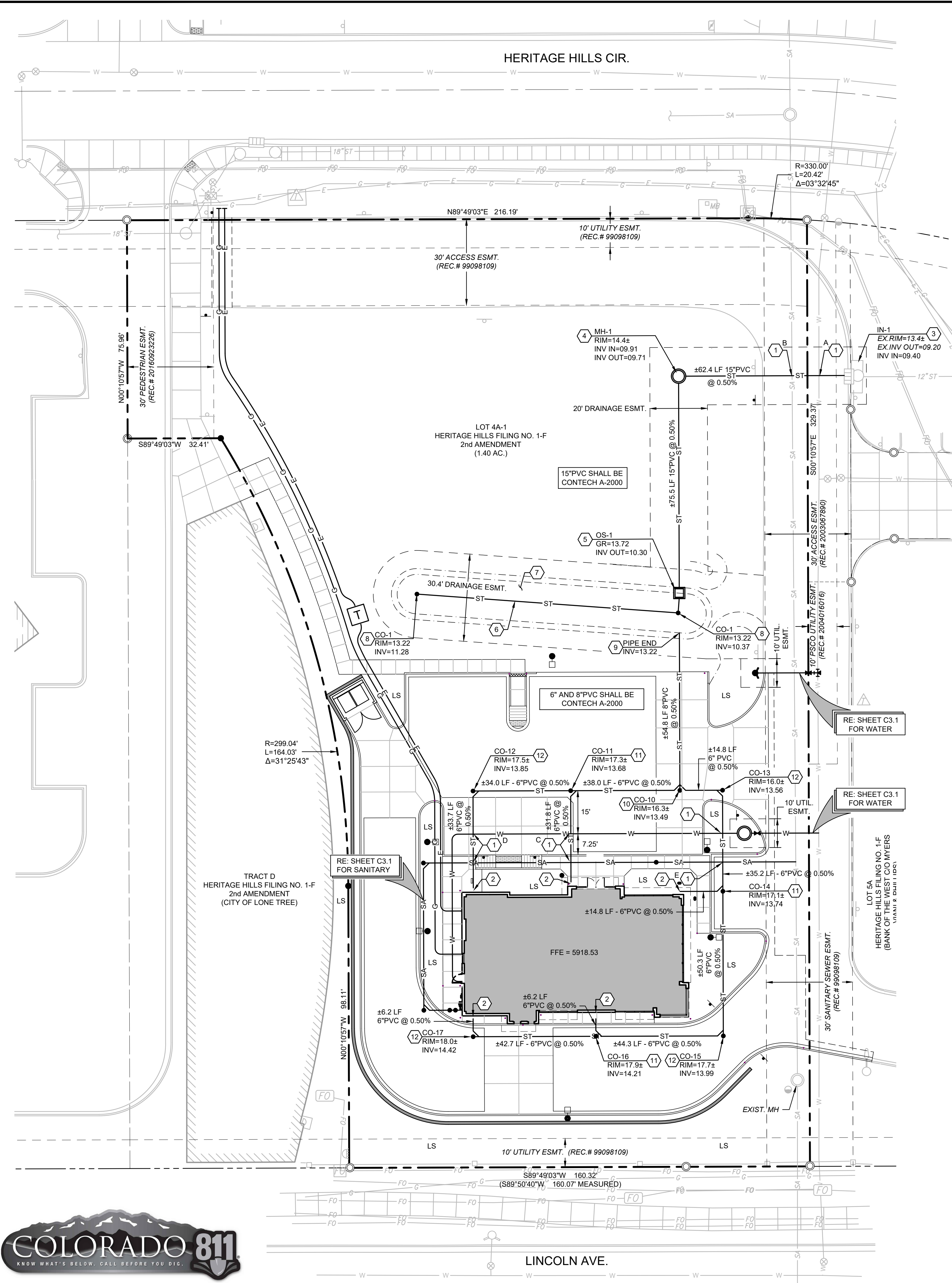
SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

C2.1

PROJECT NO.: 0231559.00



1 DRAINAGE PLAN
SCALE: 1" = 20'

KEY NOTES

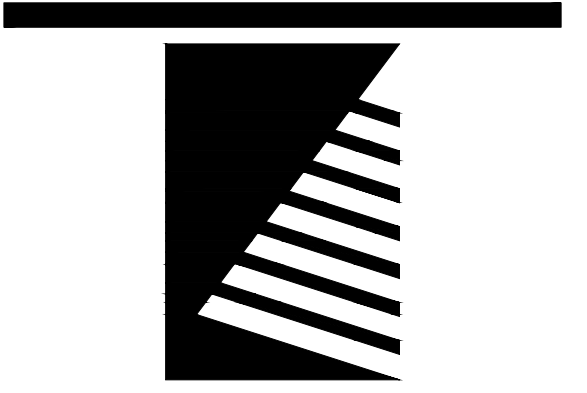
- 1 CAUTION - UTILITY CROSSING! CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF CROSSING UTILITIES PRIOR TO CONSTRUCTION AND PROVIDE ADEQUATE CLEARANCES BETWEEN EXISTING/PROPOSED UTILITY INSTALLATIONS. CONTRACTOR TO CONFIRM INVERTS AND UTILITY PROVIDER ALLOWABLE CLEARANCES PRIOR TO CONSTRUCTION. RE: UTILITY CROSSING TABLE FOR ADDITIONAL INFORMATION.
- 2 INSTALL (2) 6" PVC 45° VERTICAL BENDS FOR ROOF DRAIN/DOWNSPOUT CONNECTION. COORDINATE FINAL LOCATION WITH ARCH. PLANS. RE: ARCH. PLANS FOR CONNECTION DETAIL TO ROOF DRAIN/DOWNSPOUT.
- 3 CONNECT PROPOSED STORM SEWER TO EXISTING STORM SEWER INLET. RE: SHEET C9.4, DOUGLAS COUNTY STANDARD DETAIL SP.60b.
- 4 CONSTRUCT 5-FOOT DIA. FLAT TOP MANHOLE. RE: SHEET C9.3, DOUGLAS COUNTY STANDARD DETAILS SP.43a THROUGH SP.45.
- 5 CONSTRUCT INLET TYPE C, POND OUTLET STRUCTURE WITH BOLTED DOWN CLOSE MESH GRATE. RE: SHEET C9.4, DOUGLAS COUNTY STANDARD DETAILS SP.35.a THROUGH SP.35.c; AND SHEET C9.5, DETAIL 1.
- 6 CONSTRUCT UNDERDRAIN. RE: SHEET C9.5, DETAIL 1.
- 7 CONSTRUCT BIORETENTION FACILITY. RE: SHEET C9.5, DETAIL 1.
- 8 CONSTRUCT UNDERDRAIN CLEANOUT. RE: SHEET C9.5, DETAIL 1.
- 9 CONSTRUCT CONCRETE PIPE END SECTION. RE: SHEET C9.2, DETAIL 1.
- 10 INSTALL (1) 8"x6" PVC HORIZONTAL DOUBLE "WYE" WITH (2) 6" PVC HORIZONTAL 45° BENDS, (2) 8" PVC VERTICAL 45° BENDS, CLEANOUT RISER AND LID. RE: SHEET C9.5, DETAIL 6.
- 11 INSTALL (1) 8"x6" PVC HORIZONTAL "WYE" WITH (1) 6" PVC HORIZONTAL 45° BEND, (1) 6"x6" PVC VERTICAL "WYE" WITH (1) 6" PVC VERTICAL 45° BEND, CLEANOUT RISER AND LID. RE: SHEET C9.5, DETAIL 6.
- 12 INSTALL (1) 8"x6" PVC HORIZONTAL "WYE" WITH (1) 6" PVC HORIZONTAL 45° BEND, (2) 6" PVC VERTICAL 45° BENDS, CLEANOUT RISER AND LID. RE: SHEET C9.5, DETAIL 6.

LEGEND

- PROPERTY LINE
- ADJACENT LOT LINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- CENTER LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING BUILDING/STRUCTURE
- EXISTING EDGE OF ASPHALT
- EXISTING CONCRETE
- EXISTING SIDEWALK
- EXISTING CURB & GUTTER
- CONCRETE PAVEMENT
- PROPOSED SIDEWALK
- PROPOSED CURB & GUTTER
- EXISTING FENCE
- SAWCUT LINE
- 5280 --- EXISTING MAJOR CONTOUR
- 5281 --- EXISTING MINOR CONTOUR
- 80 --- PROPOSED MAJOR CONTOUR
- 81 --- PROPOSED MINOR CONTOUR
- 10.00% --- EXISTING SPOT GRADE
- 10.00 --- PROPOSED SPOT GRADE
- 1.00% --- EXISTING SLOPE
- 1.00% --- PROPOSED SLOPE
- LS --- LANDSCAPE AREA
- EXISTING STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED STORM SEWER
- PROPOSED ROOF DRAIN
- PROPOSED MANHOLE
- EXISTING POST - BOLLARD
- EXISTING SIGN
- EXISTING MAILBOX
- EXISTING SANITARY SEWER MANHOLE
- EXISTING STORM SEWER MANHOLE
- EXISTING DOWNSPOUT - SURFACE
- EXISTING INLET - CURB TYPE
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING IRRIGATION CONTROL BOX
- EXISTING ELECTRIC MANHOLE
- EXISTING ELECTRIC PEDESTAL
- EXISTING ELECTRIC LIGHT - AREA / YARD
- EXISTING ELECTRIC LIGHT - STREET
- EXISTING ELECTRIC TRANSFORMER
- EXISTING COMMUNICATIONS MANHOLE
- EXISTING FIBER OPTIC VAULT
- EXISTING FIBER OPTIC PEDESTAL

GENERAL NOTES

1. REFER TO SHEET C0.0 AND C0.1 FOR ADDITIONAL GENERAL NOTES.
- | CROSSING | UTIL. ABOVE | INV. | UTIL. BELOW | TOP OF PIPE | CLEARANCE |
|----------|-------------|-------|-------------|------------------------|-----------|
| A | STORM | 09.46 | WATER | 07.06 (FIELD VERIFIED) | 2.40' |
| B | STORM | 09.51 | SANITARY | 94.12 | 15.39' |
| C | STORM | 13.81 | SANITARY | 11.53 | 2.28' |
| D | STORM | 13.98 | SANITARY | 12.21 | 1.77' |
| E | STORM | 13.69 | SANITARY | 10.48 | 3.21' |
- BENCHMARK**
- AS DESCRIBED ON THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY FARNSWORTH GROUP, DATED 9/15/2023:
- "NATIONAL GEODETIC SURVEY (NGS) BENCHMARK "JOG" LOCATED ON THE EAST SIDE OF INTERSTATE HIGHWAY 25 AND NORTHEAST OF THE JUNCTION OF STATE HIGHWAY 470 AND INTERSTATE HIGHWAY 25, ON ROAD RIGHT-OF-WAY, ON PROPERTY OWNED BY THE STATE OF COLORADO.
- ELEVATION: 5893.00 FEET (NAVD 1988 DATUM)."



Farnsworth GROUP
5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



PROJECT:

**Chase Bank
Lone Tree, Colorado**

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

DRAINAGE PLAN

SHEET NUMBER:

City of Lone Tree

Date

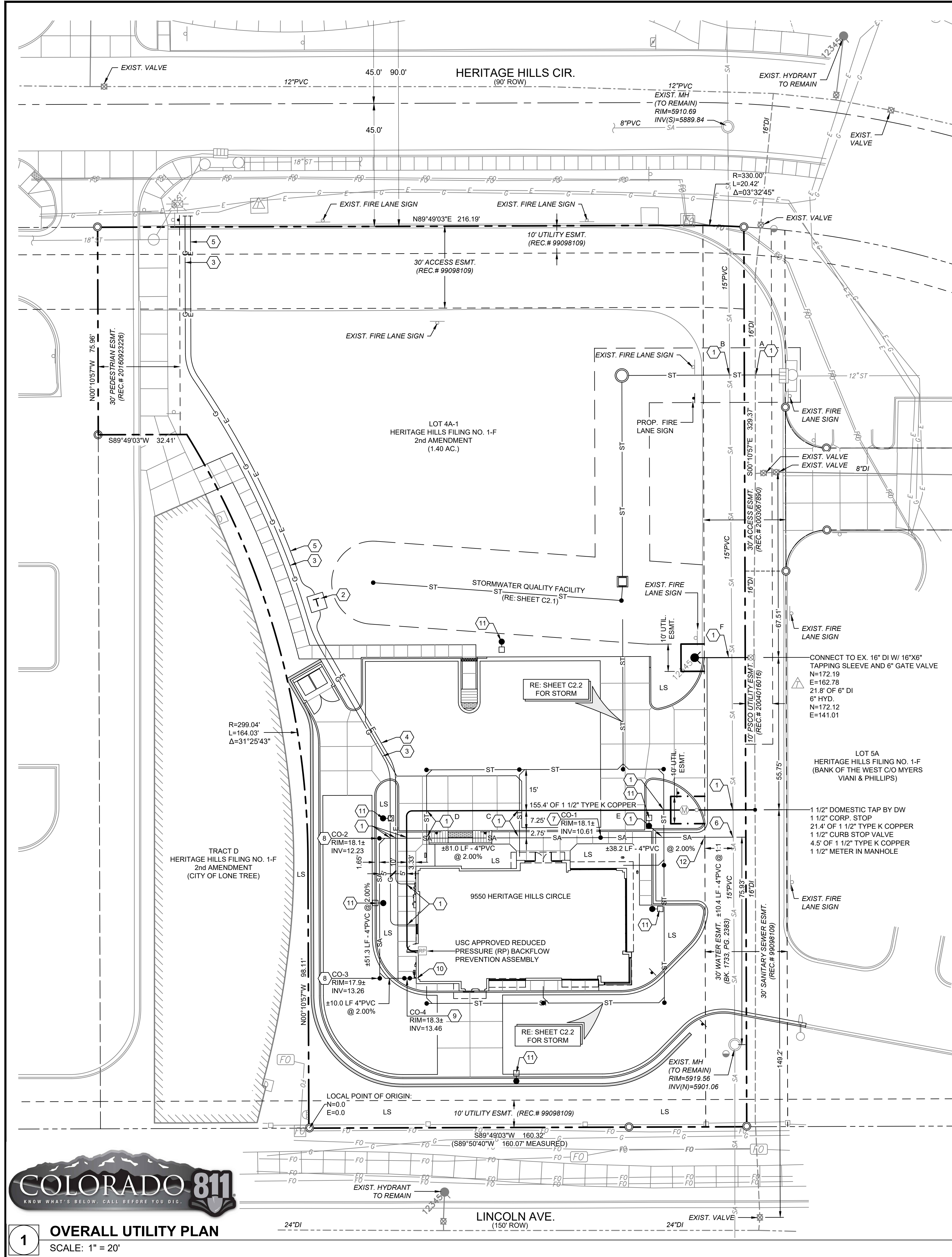
These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block

C2.2

PROJECT NO.: 0231559.00





GENERAL NOTES

1. REFER TO SHEET C0.0, C0.1, C3.1, C3.91 AND C3.92, FOR ADDITIONAL GENERAL NOTES.

DRY UTILITY NOTE

1. PRIOR TO CONSTRUCTION - CONTRACTOR TO VERIFY THE EXACT SIZE, ALIGNMENT, AND CONNECTION POINTS WITH THE DRY UTILITY PROVIDERS. THE CONTRACTOR IS RESPONSIBLE FOR ALL PROVISIONS AND INSTALLATIONS REQUIRED OF ALL DRY UTILITY APPURTENANCES (INCLUDING, BUT NOT LIMITED TO, TRENCHING, CONDUITS, PULL BOXES, ETC.) REQUIRED FOR SERVICE CONNECTION THAT ARE NOT INCLUDED IN THE UTILITY PROVIDER'S SCOPE.

UTILITY CROSSING TABLE

CROSSING	UTIL. ABOVE	INV.	UTIL. BELOW	TOP OF PIPE	CLEARANCE
A	STORM	09.46	WATER	07.06 (FIELD VERIFIED)	2.40'
B	STORM	09.51	SANITARY	94.12	15.39'
C	STORM	13.81	SANITARY	11.53	2.28'
D	STORM	13.98	SANITARY	12.21	1.77'
E	STORM	13.69	SANITARY	10.48	3.21'
F	WATER	±11.00'	SANITARY	97.58	13.42'

DESIGN = 4.5' DEEP FROM EXIST. GRADE

BENCHMARK

AS DESCRIBED ON THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY FARNSWORTH GROUP, DATED 9/15/2023.
 "NATIONAL GEODETIC SURVEY (NGS) BENCHMARK "JOG" LOCATED ON THE EAST SIDE OF INTERSTATE HIGHWAY 25 AND NORTHEAST OF THE JUNCTION OF STATE HIGHWAY 470 AND INTERSTATE HIGHWAY 25, ON ROAD RIGHT-OF-WAY, ON PROPERTY OWNED BY THE STATE OF COLORADO.
 ELEVATION: 5893.00 FEET (NAVD 1988 DATUM)."

FLOODPLAIN

AS DESCRIBED ON THE ALTA/NSPS LAND TITLE SURVEY PREPARED BY FARNSWORTH GROUP, DATED 9/15/2023.
 "FLOOD INSURANCE RATE MAP NUMBER 08035C0042G WITH AN EFFECTIVE DATE OF MARCH 16, 2016, THE PROPERTY LIES WITHIN ZONE X, AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN."

KEY NOTES

- CAUTION - UTILITY CROSSING! CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF CROSSING UTILITIES PRIOR TO CONSTRUCTION AND PROVIDE ADEQUATE CLEARANCES BETWEEN EXISTING/PROPOSED UTILITY INSTALLATIONS. CONTRACTOR TO CONFIRM INVERTS AND UTILITY PROVIDER ALLOWABLE CLEARANCES PRIOR TO CONSTRUCTION.
- PROPOSED LOCATION OF TRANSFORMER PAD. CONTRACTOR SHALL VERIFY EXACT LOCATION AND SIZE WITH UTILITY PROVIDER PRIOR TO INSTALLATION. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONCRETE PAD AND CONDUIT AS REQUIRED BY THE UTILITY PROVIDER. CONTRACTOR SHALL COORDINATE SAID WORK WITH THE UTILITY PROVIDER.
- APPROXIMATE ALIGNMENT AND CONNECTION POINTS FOR PROPOSED GAS SERVICE. SEE DRY UTILITY NOTE, THIS SHEET.
- APPROXIMATE ALIGNMENT AND CONNECTION POINTS FOR PROPOSED SECONDARY ELECTRIC SERVICE. SEE DRY UTILITY NOTE, THIS SHEET.
- APPROXIMATE ALIGNMENT AND CONNECTION POINTS FOR PROPOSED PRIMARY ELECTRIC SERVICE. SEE DRY UTILITY NOTE, THIS SHEET.
- CONSTRUCT SANITARY SEWER SERVICE CONNECTION TO MAIN. RE: SHEET C3.92, SOUTHGATE STANDARD DETAIL SS-15.
- CONSTRUCT SANITARY SEWER CLEANOUT. RE: SHEET C3.92, SOUTHGATE STANDARD DETAIL SS-24.
- INSTALL (1) 4"x4" PVC HORIZONTAL "WYE" WITH CLEANOUT. RE: SHEET C3.92, SOUTHGATE STANDARD DETAIL SS-24.
- INSTALL (2) CLEANOUTS, BACK TO BACK IN OPPOSING DIRECTIONS. RE: C3.92, SOUTHGATE STANDARD DETAIL SS-24.
- REFER TO PLUMBING PLANS FOR CONTINUATION OF THE DOMESTIC AND GREASE EFFLUENT LINES WITHIN THE BUILDING SPACE.
- CONTRACTOR TO PROVIDE AND INSTALL CONDUITS, PULL BOXES, AND WIRING FOR SITE LIGHTING, TYPICAL. REFERENCE SITE ELECTRIC PLANS FOR SIZING, RUN TERMINUS, AND OTHER WIRING REQUIREMENTS. RE: ARCH. PLANS.
- INSTALL (1) 45° VERTICAL BEND.

CAUTION - NOTICE TO CONTRACTOR

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
 GREENWOOD VILLAGE, COLORADO 80111
 (303) 692-8838 / info@f-w.com

www.f-w.com
 Engineers | Architects | Surveyors | Scientists

ISSUE:
 # DATE: DESCRIPTION:



PROJECT:

**Chase Bank,
 Lone Tree, Colorado**

9550 Heritage Hills Circle,
 Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

OVERALL UTILITY PLAN

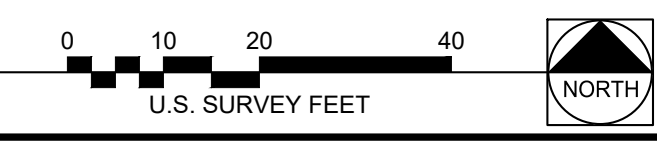
SHEET NUMBER:

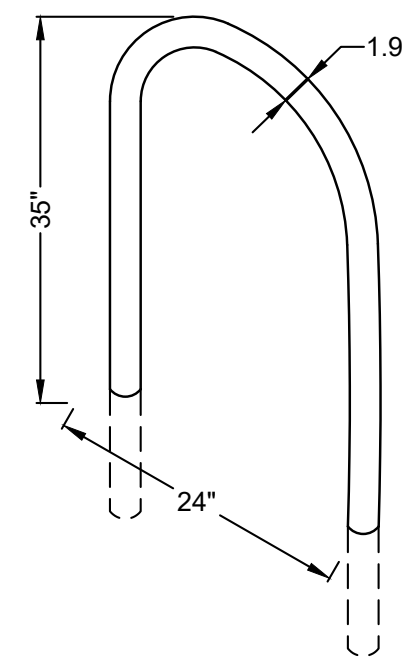
C3.3

PROJECT NO.: 0231559.00



1 OVERALL UTILITY PLAN
 SCALE: 1" = 20'

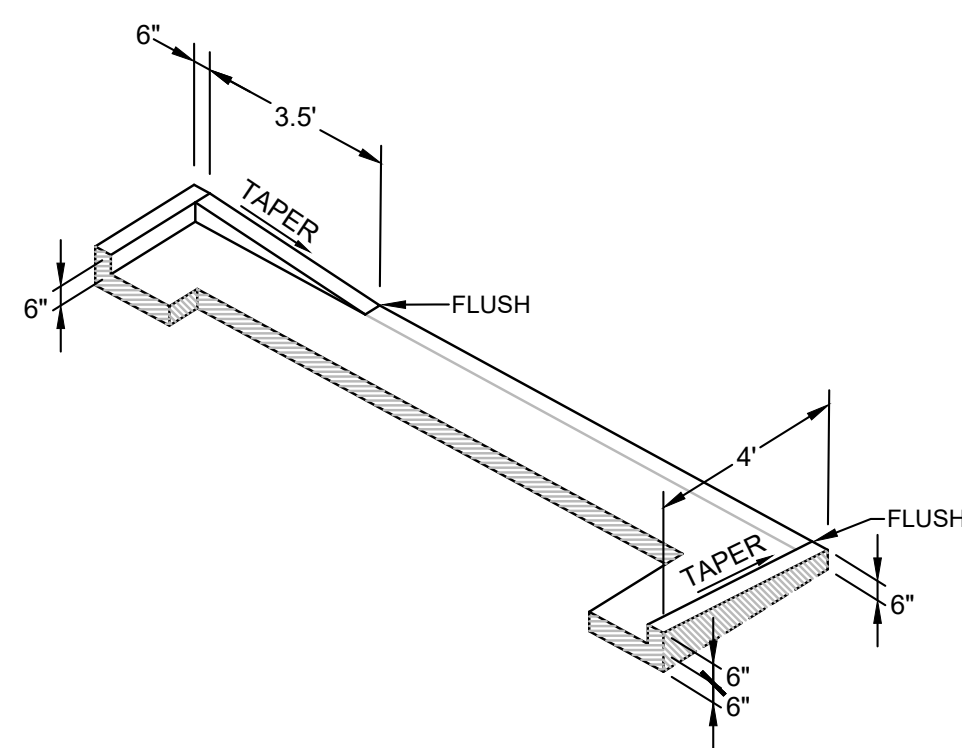




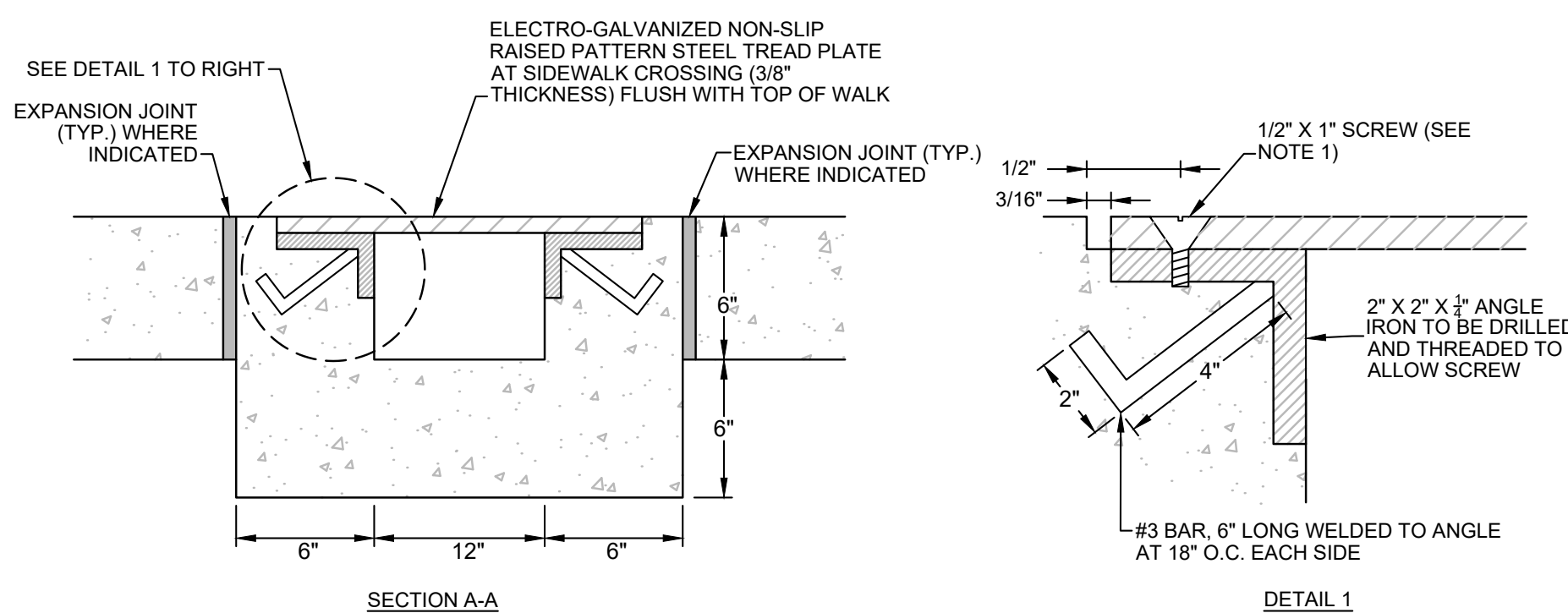
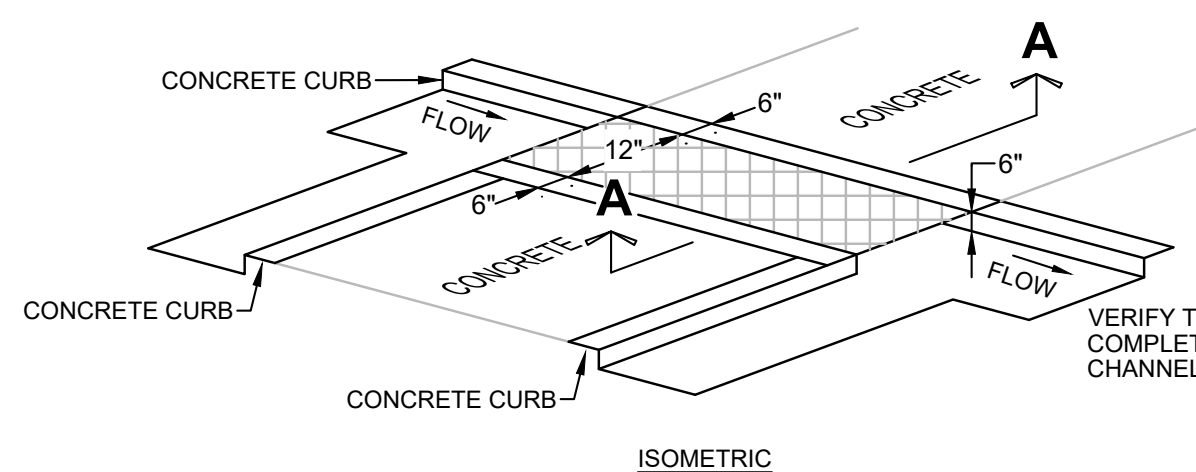
PRODUCT NAME: DERO HOOP RACK
AS MANUFACTURED BY DERO BIKE RACKS
BIKES PARKED PER UNIT: 2
MATERIALS: 1.5" SCHEDULE 40 PIPE (1.9" OD) STAINLESS STEEL

- NOTES:
1. INSTALL RACK IN THE DIRECTION AND LOCATION AS SHOWN ON PLAN. MIN. 30" FROM BUILDING OR EDGE OF PAVEMENT, 36" O.C.
 2. IN GROUND MOUNT INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 3. HOT DIPPED GALVANIZED FINISH

7 BIKE RACK
SCALE: NOT TO SCALE

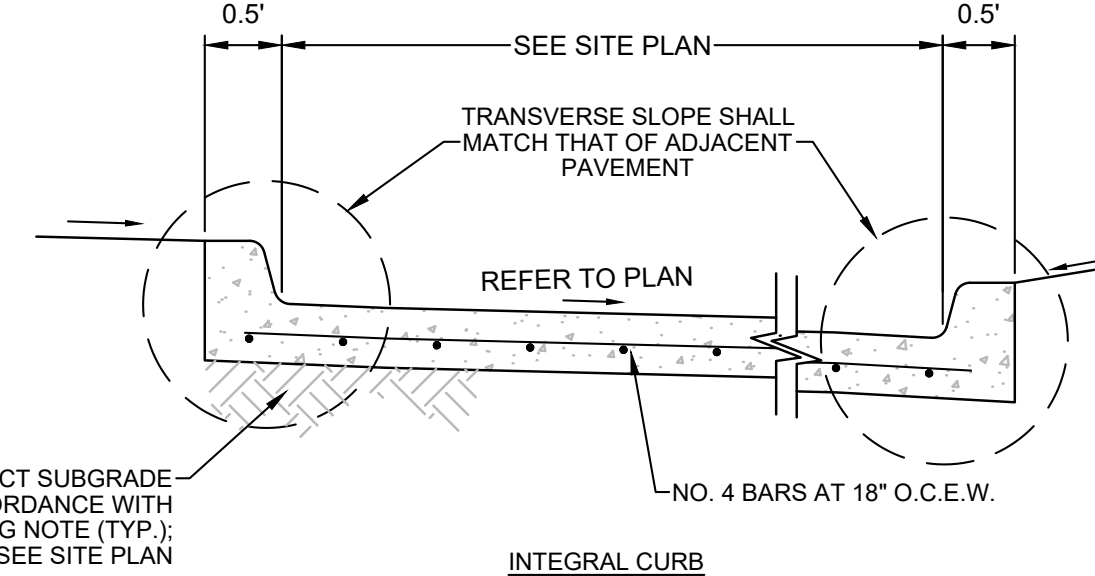
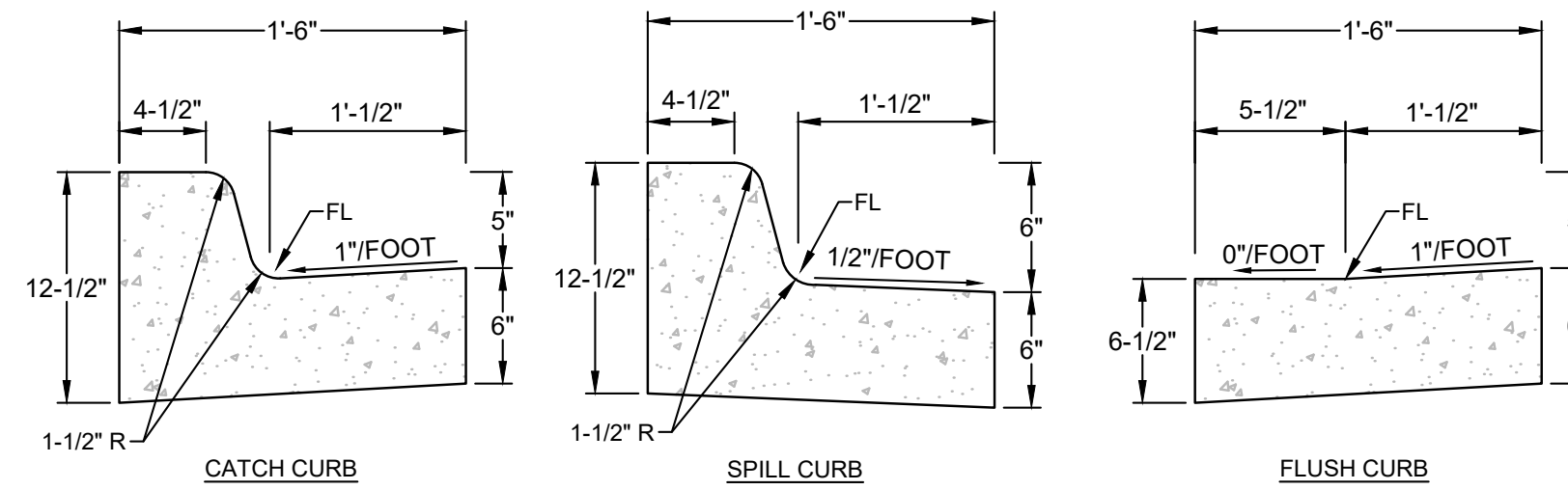


7 CURB HEAD TAPER
SCALE: NOT TO SCALE



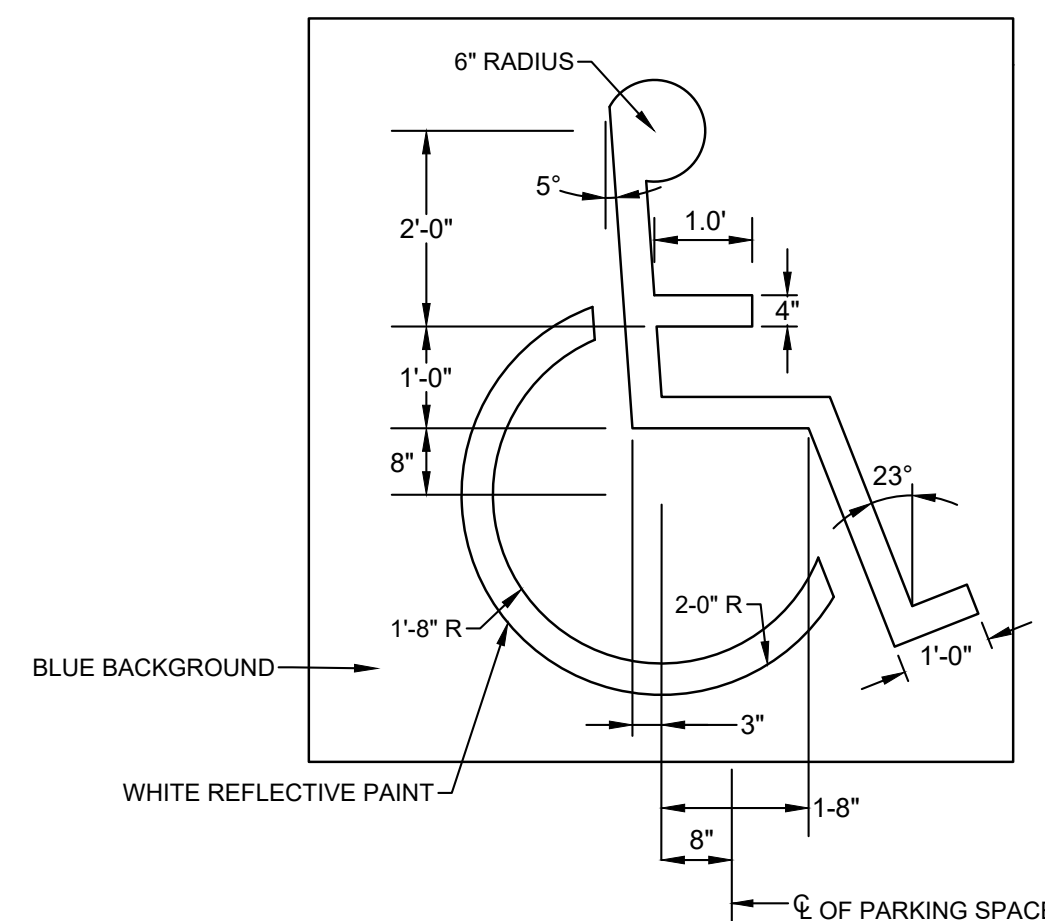
- NOTES:
1. 1/2" x 1" F.H. MACHINE SCREW(S) AT 2'-4" O.C. COUNTER SUNK FLUSH W/ PLATE

6 PRIVATE SIDEWALK CHASE
SCALE: NOT TO SCALE

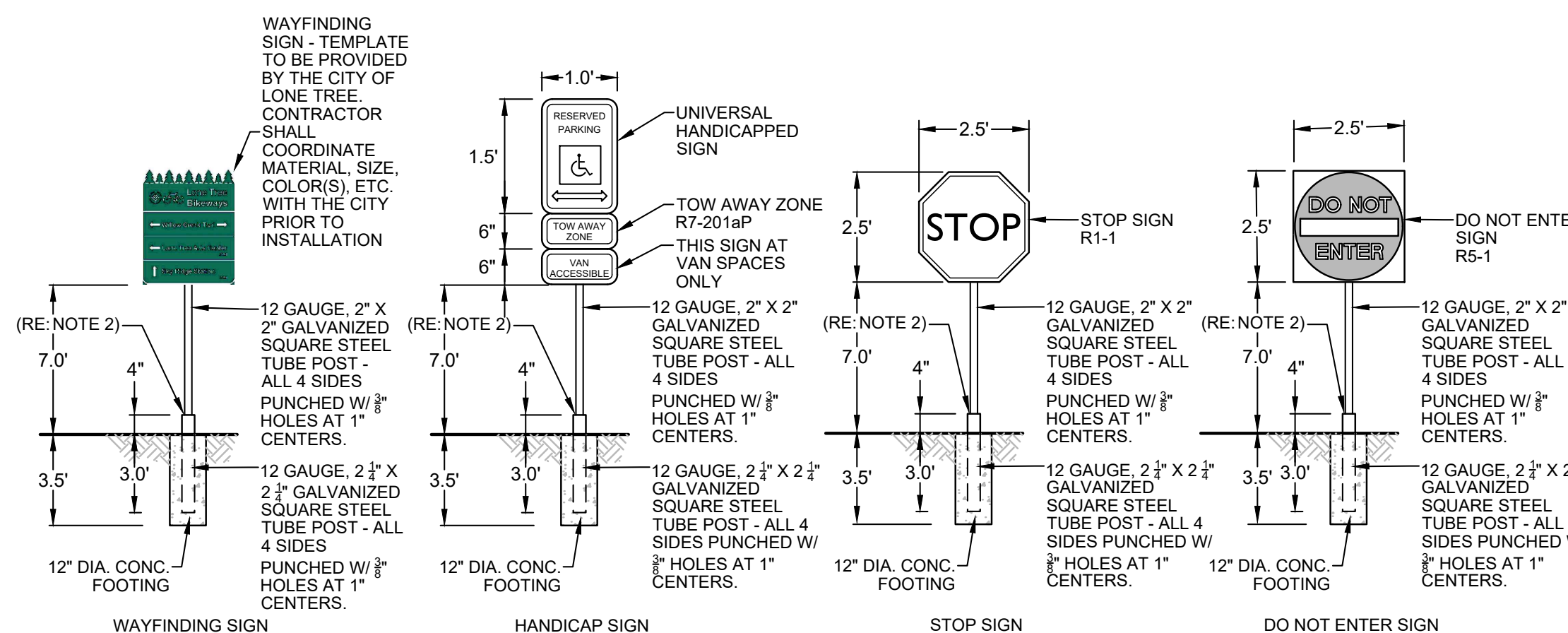


CONCRETE FOR CURB & GUTTER SHALL BE IN ACCORDANCE WITH PAVING NOTE; SEE SITE PLAN UNLESS CONCRETE FOR INTEGRAL VEHICULAR PAVEMENT IS MORE STRINGENT

5 PRIVATE CURB AND GUTTER
SCALE: NOT TO SCALE

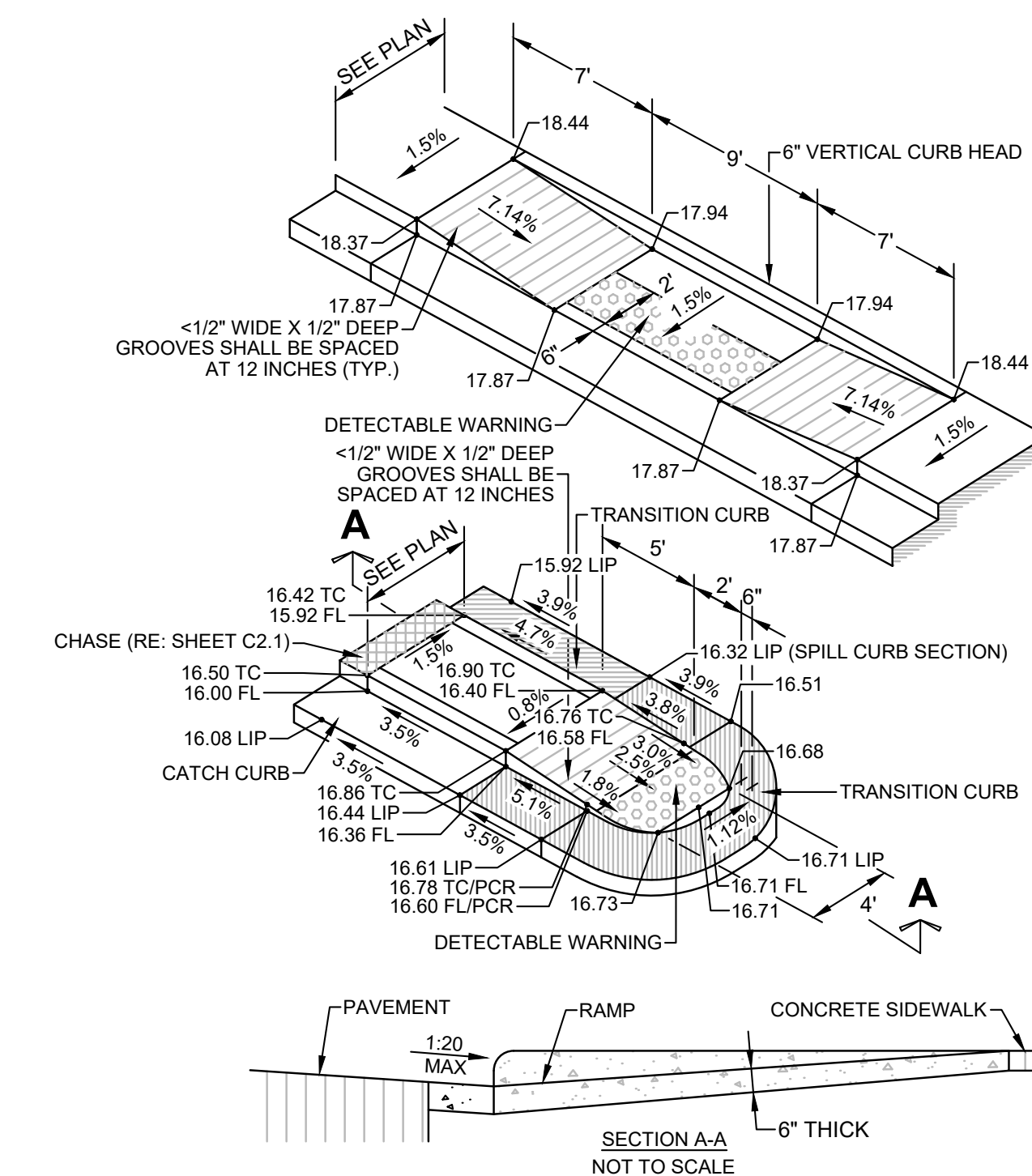


4 HANDICAP SYMBOL
SCALE: NOT TO SCALE



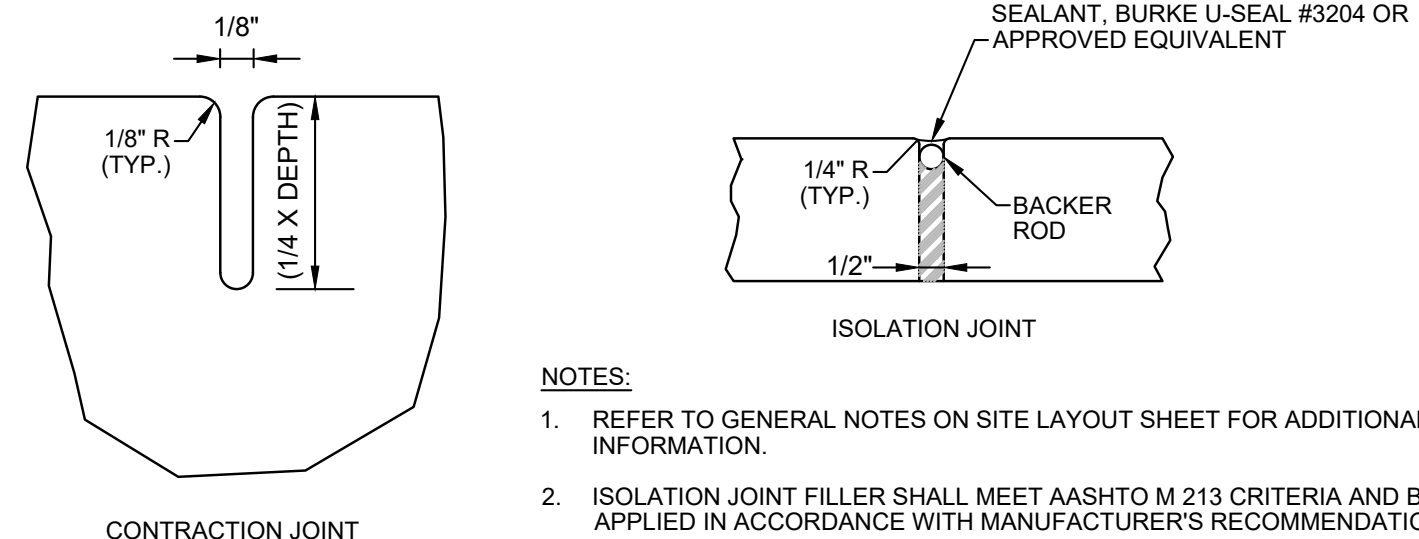
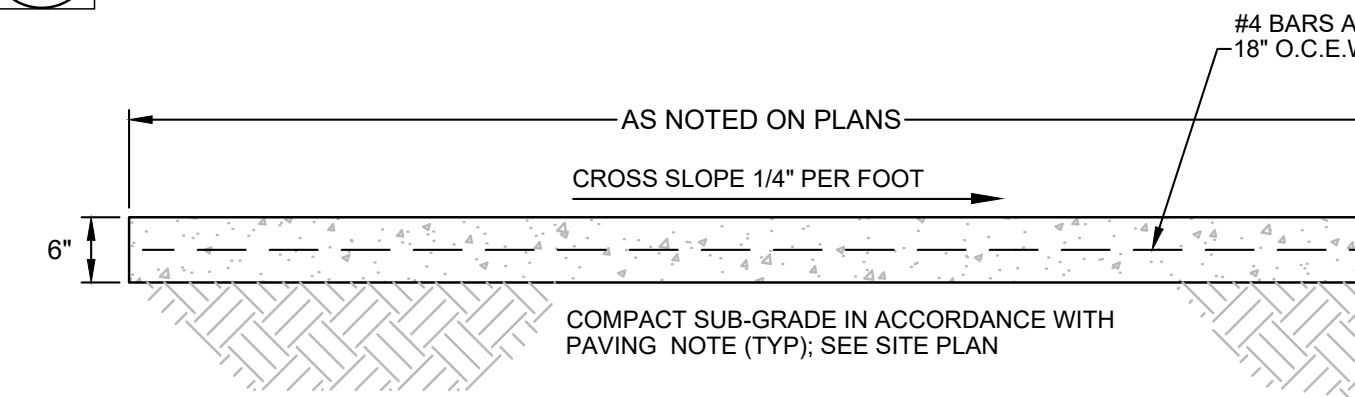
- NOTES:
1. PROVIDE TRAFFIC CONTROL SIGNS (INCLUDING, BUT NOT LIMITED TO POST(S) AND MOUNTING) COMPLYING WITH U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION'S MANUAL "UNIFORM TRAFFIC CONTROL DEVICES," CDOT M & S STANDARD PLANS, DOUGLAS COUNTY ROADWAY DESIGN & CONSTRUCTION STANDARDS (INCLUDING BUT NOT LIMITED TO THE SIGNAGE & STRIPING SUPPLEMENT), AND AS SPECIFIED HEREIN.
 2. INSTALL KLEEN BREAK MODEL 425 ANCHOR IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

3 ON SITE TRAFFIC SIGNAGE
SCALE: NOT TO SCALE



- NOTES:
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL STANDARDS AND SPECIFICATIONS.
 2. CONCRETE FOR SIDEWALK RAMP SHALL BE IN ACCORDANCE WITH PAVING NOTE; SEE SITE PLAN.
 3. RAMP AND WINGS SHALL BE POURED MONOLITHICALLY.
 4. MINIMUM WIDTH OF RAMP SHALL BE EQUAL TO THE WIDTH OF THE APPROACH WALK AND RAMP. SLOPES SHALL NOT BE STEEPER THAN 1:12.
 5. NORMAL GUTTER FLOWLINE AND PROFILE SHALL BE MAINTAINED THROUGH THE RAMP AREA. CONTRACTOR SHALL ADJUST PAVEMENT AND GUTTER IMMEDIATELY ADJACENT TO BOTTOM OF CURB RAMP TO ENSURE COUNTER SLOPE IS NO STEEPER THAN 1:20.
 6. RAMP SURFACE SHALL HAVE A COARSE BROOM FINISH WITH STRIATIONS PERPENDICULAR TO THE DIRECTION OF RAMP SLOPE.
 7. A 1/2" ISOLATION JOINT SHALL BE REQUIRED WHERE THE CONCRETE RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
 8. COMPACT SUBGRADE IN ACCORDANCE WITH PAVING NOTE (TYP.); SEE SITE PLAN.
 9. REFER TO GRADING PLAN FOR SPECIFIC RAMP ELEVATIONS.
 10. CONSTRUCT DETECTABLE WARNINGS IN ACCORDANCE WITH DOUGLAS COUNTY STANDARD DETAILS SP-18a THROUGH SP-18d, SHEET C9.2.

2 PRIVATE CURB RAMP
SCALE: NOT TO SCALE



- NOTES:
1. REFER TO GENERAL NOTES ON SITE LAYOUT SHEET FOR ADDITIONAL INFORMATION.
 2. ISOLATION JOINT FILLER SHALL MEET AASHTO M 213 CRITERIA AND BE APPLIED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
 3. SIDEWALK SURFACE SHALL HAVE A COARSE BROOM FINISH WITH STRIATIONS PERPENDICULAR TO THE DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED IN CIVIL AND/OR ARCH. PLANS.
 4. CONCRETE SHALL BE IN ACCORDANCE WITH PAVING NOTE; SEE SITE PLAN.
 5. UNLESS OTHERWISE SPECIFIED IN THE GEOTECHNICAL STUDY, CONCRETE SHALL BE A MINIMUM 6" THICK WITH NO. 4 BARS, 18" O.C.E.W.

1 PRIVATE SIDEWALK
SCALE: NOT TO SCALE

City of Lone Tree

Date

These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



5 / 14 / 24

PROJECT:

Chase Bank Lone Tree, Colorado

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

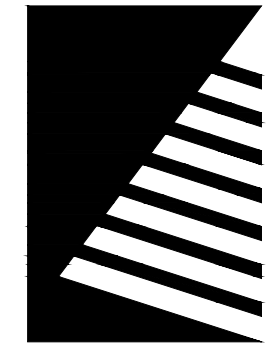
DETAILS

SHEET NUMBER:

C9.1

PROJECT NO.: 0231559.00

I:\Projects\14\2023\0231559.00 - APW Lone Tree\QA_Drawing\031_Details - 0231559.00.dwg 14/29/2024 12:04 PM



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



5 / 14 / 24

PROJECT:

Chase Bank Lone Tree, Colorado

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

DETAILS

SHEET NUMBER:

C9.2

PROJECT NO.: 0231559.00

Panel Installation Notes:

- DETECTABLE WARNING PANELS, 24" X 24" OR 24" X 30" IN SIZE, SHALL BE PREFABRICATED REDDISH WITH TRUNCATED DOMES AND COMPLY WITH ADA REQUIREMENTS. ONLY FULL PANELS SHALL BE USED TO OBTAIN SPECIFIC RAMP THROAT WIDTH, (I.E. TWO 24" PANELS FOR A 4' RAMP, TWO 30" PANELS FOR A 5' RAMP, ETC.)
- PRIOR TO START OF WORK, CONTRACTOR SHALL SUBMIT, TO DOUGLAS COUNTY FOR APPROVAL, A SAMPLE PANEL AND DOCUMENTATION FROM THE MANUFACTURER. PANEL SURFACE SHALL HAVE A MINIMUM OF 70% LIGHT REFLECTIVITY CONTRAST WITH THE ADJOINING SURFACE. PANELS SHALL ONLY BE SELECTED FROM THE APPROVED PRODUCT LIST BELOW.

PRODUCT NAME	MANUFACTURER	PRODUCER SUPPLIER CODE
CAST-DWD	Pioneer Detectable, LLC	GEN130004
Cost-In-Place Tactile	ADA Solutions, Inc.	GEN10123
DURALAST	EJ USA, Inc.	GEN130020
Detectable Warning Paving Slab	StoneBit Concepts	GEN100341
TriWay Dome-Tile	Strongo, LLC	GEN100343
TuffTile Cast Iron Tile/Radius-Wedge (CIP)	TuffTile, Inc.	GEN150088
- PANELS SHALL BE PLACED AS SHOWN, WITH DOME PATTERN IN A SQUARE GRID AND ALIGNED IN THE DIRECTION OF TRAVEL. A STEEL TEMPLATE SHALL BE USED TO ENSURE PROPER ALIGNMENT AND UNIFORM GRADE.
- REMOVE THE PROPER AMOUNT OF CONCRETE WITHIN THE TEMPLATE FOR AN ACCURATE INSTALLATION. ONCE TO THE PROPER DEPTH, FLOAT THE AREA TO RECEIVE THE PANELS UNTIL A SMOOTH PASTE HAS DEVELOPED.
- WET THE BACK SIDE OF EACH PANEL AND TROWEL SOME CONCRETE PASTE OR APPROVED BONDING AGENT OVER THE WET SURFACE FOR BETTER ADHERENCE.
- SET THE FIRST PANEL ON THE FRESHLY PREPARED SURFACE. DO NOT PRESS DOWN HARD ON THE PANEL, BUT PREFERABLY TWIST FROM SIDE TO SIDE. SET PANEL WITH RUBBER Mallet TO PROPER DEPTH SO THAT THE BASE OF THE TRUNCATED DOME IS AT THE SAME ELEVATION AS THE ADJOINING RAMP SURFACE.
- SET SUCCESSIVE PANELS WITH A TIGHT BUTT JOINT AGAINST THE PREVIOUSLY SET PANEL. PROVIDE A 1/8" GAP BETWEEN PANELS.
- FLOAT FRESH CONCRETE AROUND PANELS. FINISH AND BROOM SURROUNDING CONCRETE AS SPECIFIED. CLEAN ANY CONCRETE OFF PANELS WITH A SPONGE.
- PROVIDE 1" DEEP TOOL JOINTS AT CORNERS OF DETECTABLE WARNING AREA, AND TOOL AROUND PANELS WITH 3/8" RADIUS EDGER.
- WHEN CUT PANELS ARE REQUIRED, CUT SECTIONS SHALL NOT SIGNIFICANTLY IMPACT OVERALL TRUNCATED DOMES PATTERN AND CUT DOMES SHALL BE BEVELED AT A 45-DEGREE ANGLE TO CREATE A SMOOTH TRANSITION.
- ANY PANELS THAT ARE DAMAGED DURING TRANSPORT OR INSTALLATION WILL BE REJECTED AND SHALL NOT BE INSTALLED.
- CLEAN OUT 3/8" JOINT(S) BETWEEN PANELS AND SEAL WITH EPOXY.
- SETTING TRUNCATED DOME PANELS IN SAND BEDDING OR OTHER NON-CEMENTITIOUS BEDDING MATERIALS SHALL NOT BE ALLOWED.

CURB RAMP WITH PANEL DETECTABLE WARNING AREA INSTALLATION

Issued: 05/2013
Revised: 09/2017
Drawing No. **SP.18b**

CURB RAMP GENERAL NOTES:

- IN ACCORDANCE WITH CRS43-2-107(2), ADA COMPLIANT CURB RAMP SHALL BE PROVIDED AT ALL PEDESTRIAN CROSSINGS AND AT PUBLIC TRANSPORTATION STOPS WHERE WALKWAYS INTERSECT A CURB. THESE LOCATIONS USUALLY INCLUDE, BUT ARE NOT LIMITED TO STREET CROSSINGS AT INTERSECTIONS AND AT DESIGNATED MID-BLOCK LOCATIONS.
- THE FOLLOWING CURB RAMP TYPES ARE GENERAL REPRESENTATIONS. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT), M STANDARD PLANS, LATEST EDITION PROVIDE ADDITIONAL ACCEPTABLE DETAILS. SEE DETAILED RAMP LAYOUTS ON THE PLANS FOR CONSTRUCTION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF DOUGLAS COUNTY.
- SIDEWALKS SHALL BE RAMPED WHERE A DRIVEWAY IS EXTENDED ACROSS THE WALK.
- DETAILS SHOWN IN THE PLAN SHALL APPLY TO ALL CONSTRUCTION OR RECONSTRUCTION OF STREETS, CURBS OR SIDEWALKS PER CURB RAMP DETAILS.
- IN NEW CONSTRUCTION, RAMP AND CURB MAY BE POURED MONOLITHICALLY.
- RAMP AND WINGS SHALL BE POURED MONOLITHICALLY.
- MINIMUM WIDTH OF RAMP SHALL BE 4 FEET AND RAMP SLOPES SHALL NOT BE STEEPER THAN 7.5%.
- MAINTAIN BACK OF WALK ELEVATION AT 1.5% SLOPE FROM TOP OF CURB.
- CONCRETE FOR SIDEWALK RAMP SHALL BE CLASS "D".
- A 1/2" EXPANSION JOINT SHALL BE REQUIRED WHERE THE CONCRETE RAMP JOINS ANY RIGID PAVEMENT OR STRUCTURE.
- DRAINAGE STRUCTURES SHALL NOT BE PLACED IN LINE WITH RAMP. LOCATION OF THE RAMP SHALL TAKE PRECEDENCE OVER LOCATION OF THE DRAINAGE STRUCTURE.

DETECTABLE WARNING AREA NOTES

- DETECTABLE WARNING AREAS SHALL BE INSTALLED WITHIN CURB RAMP AT ALL SIDEWALK/STREET TRANSITIONS, AS DESCRIBED BY THE AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES (ADAAG), LATEST REVISION.
- DETECTABLE WARNING DEVICES SHALL BE TRUNCATED DOME WARNING DEVICES. COLOR SHALL BE BRICK RED, TILE RED, OR OTHER EQUIVALENT COLOR TO PROVIDE COLOR CONTRAST WITH ADJACENT SURFACES, AS REQUIRED BY ADAAG SECTION 4.29.2. THE COUNTY ENGINEER MUST APPROVE THE TRUNCATED DOME WARNING AREA COLOR PRIOR TO CONSTRUCTION.
- CONTRASTING COLOR REQUIREMENT SHALL BE MET BY TRUNCATED DOME SECTIONS AND NOT BY USE OF COLORED CONCRETE.
- DETECTABLE WARNING SHALL BE ON CDOT'S APPROVED MATERIALS LIST. A SAMPLE OF THE DETECTABLE WARNING (TRUNCATED DOMES) TO BE USED ON THE PROJECT SHALL BE SUBMITTED TO AND ACCEPTED BY THE COUNTY ENGINEER PRIOR TO CONSTRUCTION.
- ALL DETECTABLE WARNING AREAS SHALL START A MINIMUM OF 6 INCHES AND A MAXIMUM OF 5 FEET FROM THE FLOW LINE OF THE CURB UNLESS INSTALLED AT CUT-THROUGH REFUGE ISLANDS, IN WHICH CASE THE DWA WILL START AT THE EDGE OF THE ISLAND. ALL DETECTABLE WARNING AREAS SHALL BE 24 INCHES IN LENGTH AND COVER THE COMPLETE WIDTH OF THE RAMP AREA ONLY.
- SURFACE APPLIED TRUNCATED DOME PANELS ARE ONLY ALLOWED ON PRE-EXISTING CURB RAMP AND ARE NOT ALLOWED IN NEW CONSTRUCTION.

APPROVED BY DOUGLAS COUNTY
Janet Herman
JANET HERMAN, P.E.
DIRECTOR OF PUBLIC WORKS ENGINEERING
DATE 06/18/2021

CURB RAMP & DETECTABLE WARNING AREA NOTES

Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.18a**

GENERAL NOTES:

- DETECTABLE WARNING PAVERS SHALL BE PREFABRICATED REDDISH INTEGRALLY COLORED TRUNCATED DOMES SURFACED CONCRETE OR MASONRY PAVERS. PAVERS SHALL MEET THE REQUIREMENTS OF ASTM C 902 OR ASTM C 936 AND COMPLY WITH ADA REQUIREMENTS.
- PRIOR TO START OF WORK, CONTRACTOR SHALL SUBMIT, TO DOUGLAS COUNTY FOR APPROVAL, A SAMPLE PAVES AND DOCUMENTATION FROM THE MANUFACTURER. PAVERS SURFACE SHALL HAVE A MINIMUM OF 70% LIGHT REFLECTIVITY CONTRAST WITH THE ADJOINING SURFACE.
- WELL FOR PAVERS SHALL BE ACCURATELY BLOCKED OUT TO ENSURE PROPER DEPTH, ALIGNMENT, AND UNIFORM GRADE. ONLY FULL WIDTH PAVERS SHALL BE USED TO OBTAIN SPECIFIED RAMP THROAT WIDTH.
- PAVERS SHALL BE PLACED IN THE RUNNING PATTERN SHOWN, DOMES PLACED IN A SQUARE GRID AND ALIGNED IN THE DIRECTION OF TRAVEL. PAVERS SHALL BE INSTALLED SO THAT THE BASES OF THE TRUNCATED DOMES ARE AT THE SAME ELEVATION AS THE ADJOINING RAMP SURFACE.
- SAND FOR BEDDING MATERIAL SHALL CONFORM TO ASTM C 33. SAND TO BE PLACED BETWEEN JOINTS SHALL CONFORM TO ASTM C 144.
- BEDDING SAND SHALL BE SCREED TO THE APPROPRIATE DEPTH PRIOR TO THE PAVERS INSTALLATION. A PLATE VIBRATOR SHALL BE USED TO EMBED THE PAVERS INTO THE SAND. ANY PAVERS THAT ARE DAMAGED DURING TRANSPORTATION OR INSTALLATION WILL BE REJECTED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- WHEN CUT PAVERS ARE REQUIRED, CUT SECTIONS SHALL NOT SIGNIFICANTLY IMPACT OVERALL TRUNCATED DOMES PATTERN AND CUT DOMES SHALL BE BEVELED AT A 45-DEGREE ANGLE TO CREATE A SMOOTH TRANSITION.
- JOINT SPACING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, BUT SHALL NOT BE MORE THAN 3/8". JOINTS SHALL BE FILLED COMPLETELY WITH SAND. EXCESS SAND SHALL BE REMOVED BY SWEEPING.
- DETECTABLE WARNING PAVERS SHALL ONLY BE USED WITH PRIOR APPROVAL BY THE COUNTY.

CURB RAMP WITH PAVES DETECTABLE WARNING AREA INSTALLATION

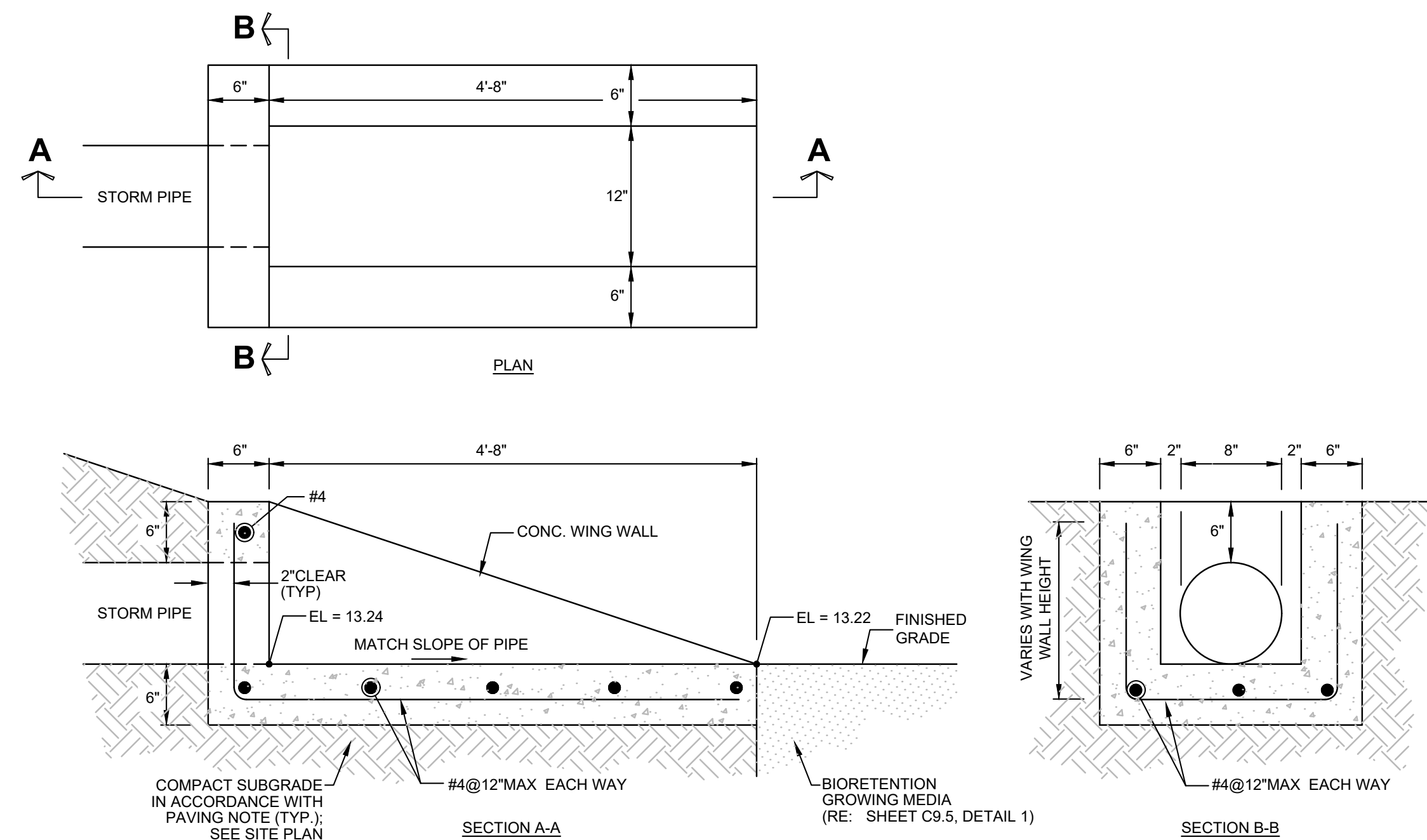
Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.18d**

Paver Installation Notes:

- DETECTABLE WARNING PAVERS SHALL BE PREFABRICATED REDDISH INTEGRALLY COLORED TRUNCATED DOMES SURFACED CONCRETE OR MASONRY PAVERS. PAVERS SHALL MEET THE REQUIREMENTS OF ASTM C 902 OR ASTM C 936 AND COMPLY WITH ADA REQUIREMENTS.
- PRIOR TO START OF WORK, CONTRACTOR SHALL SUBMIT, TO DOUGLAS COUNTY FOR APPROVAL, A SAMPLE PAVES AND DOCUMENTATION FROM THE MANUFACTURER. PAVERS SURFACE SHALL HAVE A MINIMUM OF 70% LIGHT REFLECTIVITY CONTRAST WITH THE ADJOINING SURFACE.
- WELL FOR PAVERS SHALL BE ACCURATELY BLOCKED OUT TO ENSURE PROPER DEPTH, ALIGNMENT, AND UNIFORM GRADE. ONLY FULL WIDTH PAVERS SHALL BE USED TO OBTAIN SPECIFIED RAMP THROAT WIDTH.
- PAVERS SHALL BE PLACED IN THE RUNNING PATTERN SHOWN, DOMES PLACED IN A SQUARE GRID AND ALIGNED IN THE DIRECTION OF TRAVEL. PAVERS SHALL BE INSTALLED SO THAT THE BASES OF THE TRUNCATED DOMES ARE AT THE SAME ELEVATION AS THE ADJOINING RAMP SURFACE.
- SAND FOR BEDDING MATERIAL SHALL CONFORM TO ASTM C 33. SAND TO BE PLACED BETWEEN JOINTS SHALL CONFORM TO ASTM C 144.
- BEDDING SAND SHALL BE SCREED TO THE APPROPRIATE DEPTH PRIOR TO THE PAVERS INSTALLATION. A PLATE VIBRATOR SHALL BE USED TO EMBED THE PAVERS INTO THE SAND. ANY PAVERS THAT ARE DAMAGED DURING TRANSPORTATION OR INSTALLATION WILL BE REJECTED AND SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- WHEN CUT PAVERS ARE REQUIRED, CUT SECTIONS SHALL NOT SIGNIFICANTLY IMPACT OVERALL TRUNCATED DOMES PATTERN AND CUT DOMES SHALL BE BEVELED AT A 45-DEGREE ANGLE TO CREATE A SMOOTH TRANSITION.
- JOINT SPACING SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, BUT SHALL NOT BE MORE THAN 3/8". JOINTS SHALL BE FILLED COMPLETELY WITH SAND. EXCESS SAND SHALL BE REMOVED BY SWEEPING.
- DETECTABLE WARNING PAVERS SHALL ONLY BE USED WITH PRIOR APPROVAL BY THE COUNTY.

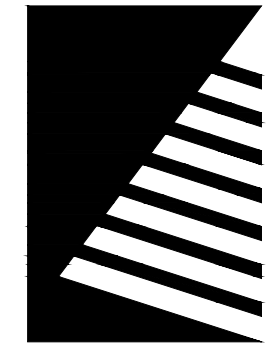
CURB RAMP WITH PAVES DETECTABLE WARNING AREA INSTALLATION

Issued: 05/2013
Revised: 05/2021
Drawing No. **SP.18c**



1 CONCRETE PIPE OUTLET

I:\Projects\1_A\2023\0231559.00 - APW Lone Tree\04_Drawing\DWG\C9.2_Details - 0231559.00.dwg | 4/29/2024 12:04 PM



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE # DATE: DESCRIPTION:

MANHOLE BOX BASE

REFERENCE: CDOT M & S STANDARDS M-604-20

MANHOLES

Issued: 05/2013
Revised: _____
Drawing No. **SP.43a**

GENERAL NOTES

- SINCE ALL PIPE ENTRIES INTO THE BASE ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK.
- THE PRECAST FLAT TOP MAY BE USED ON ANY MANHOLE. THE ECCENTRIC CONE MAY BE USED WHEN THE MANHOLE "H" HEIGHT IS AT LEAST 6'.
- THE MH RING (FRAME) SHALL BE SET ON CONCRETE GRADE RINGS. THE FRAME SHALL BE SURROUNDED WITH A CONCRETE COLLAR IN UNPAVED AREA AND CONCRETE PAVEMENT, OR FULL DEPTH ASPHALT IN ASPHALT PAVEMENT. SEE DETAILS ON SHEETS 2 AND 3.
- DESIGN OF BOX BASE IS BASED ON STRAIGHT RUNS OF CONDUIT OR CHANGE IN DIRECTION OF LESS THAN 45°. SPECIAL DESIGN IS REQUIRED FOR 45° OR GREATER.
- PRECAST MANHOLES AND REINFORCEMENT SHALL CONFORM TO ASTM C 478 (ASHTO M 199).
- CAST-IN-PLACE MANHOLES SHALL BE CLASS D CONCRETE.
- STEPS SHALL BE REQUIRED WHEN THE MANHOLE DEPTH EXCEEDS 3'-6" AND SHALL BE IN ACCORDANCE WITH ASHTO M 199.
- ALL REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI. VERTICAL STEEL SHALL BE PLACED AT L OF WALL. ALL BARS SHALL HAVE A 2" MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
- IF ANY REBAR HAS TO BE CUT ON THE JOB SITE, THE EXPOSED BARE STEEL SHALL BE IMMEDIATELY COVERED WITH A MANUFACTURE APPROVED EPOXY PAINT PRIOR TO POUR.
- ALL PIPE ENTRIES INTO THE BASE OF MANHOLE SHALL BE CONNECTED BY OPEN CHANNELIZATION ADJUSTED FOR PIPE SIZE, SHAPE, SLOPE, AND DIRECTION OF FLOW. DETAILS SHOWN ARE TYPICAL. FOR INSTALLATIONS WITH ALL INVERTS OF SAME RELATIVE ELEVATION, SPECIAL BASE/CHANNEL DETAILS WILL BE SHOWN ON THE PLANS.
- FLOW CHANNELS AND INVERTS SHALL BE FORMED BY SHAPING WITH CLASS B CONCRETE.
- STUB-OUTS SHALL EXTEND A MINIMUM OF 1 PIPE SECTION BEYOND OUTSIDE WALL SURFACE OF MANHOLE AND BE SATISFACTORILY PLUGGED.
- CHECK WITH THE LOCAL GOVERNMENT AUTHORITY FOR ANY ADDITIONAL SANITARY SEWER SPECIFICATIONS, DETAILS, OR REGULATIONS.
- THE SLOPE OF THE MANHOLE COVER SHALL MATCH THE ROADWAY PROFILE AND CROSS SLOPE.

SECTION A-A
(STEEL IN BOTTOM OF BASE)

REFERENCE: CDOT M & S STANDARDS M-604-20

MANHOLES

Issued: 05/2013
Revised: _____
Drawing No. **SP.43b**

TYPICAL CHANNELIZATION DETAILS

REFERENCE: CDOT M & S STANDARDS M-604-20

MANHOLES

Issued: 05/2013
Revised: _____
Drawing No. **SP.43c**

QUANTITIES FOR CONCRETE MANHOLE BOX BASE											
MARK	SIZE	TYPE	WT. #/FT.	BAR	60"	66"	72"	78"	84"	96"	FORMULAS
401	4	I	0.668	NO. REQ'D. (LENGTH WEIGHT #)	18 8'-8"	18 9'-3"	18 10'-0"	18 11'-0"	18 11'-6"	18 12'-2"	401 BAR LENGTH = 32"+2W+I.D.
402	4	II	0.668	NO. REQ'D. (LENGTH WEIGHT #)	5 8'-0"	5 8'-7"	5 9'-2"	5 9'-4"	5 9'-6"	5 9'-6"	402 BAR LENGTH = I.D. + 2W
501	5	I	1.043	NO. REQ'D. (LENGTH WEIGHT #)	17 8'-0"	17 8'-7"	17 9'-2"	17 9'-4"	17 9'-6"	17 9'-6"	501 BAR LENGTH = 24" + I.D. + 2W
502	5	I	1.043	NO. REQ'D. (LENGTH WEIGHT #)	23 5'-0"	23 5'-7"	23 6'-2"	23 6'-4"	23 6'-6"	23 6'-6"	502 NUMBER BARS REQ'D. = 3 + (24+I.D.+2W+1) / 5
503	5	II	1.043	NO. REQ'D. (LENGTH WEIGHT #)	16 13'-5"	16 14'-0"	16 14'-7"	16 15'-0"	16 15'-6"	16 16'-1"	503 NUMBER BARS REQ'D. = 2(13+I.D.+2W+1) / 12
504	5	I	1.043	NO. REQ'D. (LENGTH WEIGHT #)	14 12'-6"	14 13'-1"	14 13'-8"	14 14'-1"	14 14'-4"	14 14'-6"	504 NUMBER BARS REQ'D. = 2(2W+I.D.+4) / 12
1101	11	I	5.313	NO. REQ'D. (LENGTH WEIGHT #)	4 164.7	4 177.1	4 189.5	4 214.3	4 239.1	4 263.9	1101 BAR LENGTH = 21" + I.D. + 2W
1102	11	I	5.313	NO. REQ'D. (LENGTH WEIGHT #)	4 164.7	4 177.1	4 189.5	4 214.3	4 239.1	4 263.9	BENDING
1103	11	I	5.313	NO. REQ'D. (LENGTH WEIGHT #)	3 78.7	3 87.7	3 96.7	3 105.7	3 114.7	3 123.7	TYPE I STRAIGHT
											TYPE II 4'-9"
											TYPE III 16"+W+I.D./2
REINFORCING STEEL TOTAL					1,037.5	1,127.2	1,204.0	1,380.2	1,501.6		
CONCRETE - CUBIC YARDS - TOTAL					6.6	7.3	8.0	9.5	11.1		

NOTE: QUANTITIES ARE BASED ON SAME SIZE PIPE ENTRANCE TO AND EXIT FROM BASE AND A 4 FT. MANHOLE ENTRANCE INTO TOP SLAB OF BASE.

LEGEND

- SUITABLE SUBGRADE
- GRANULAR BEDDING MATERIAL
- CONCRETE

MANHOLE BASES:

- THE BASE SLAB SHALL BE POURED MONOLITHICALLY WITH BOTTOM RISER SECTION.
- MANHOLE BASES SHALL FIT THE CONDITIONS AND LOCATIONS FOR WHICH THEY ARE INTENDED WITHOUT ANY FIELD MODIFICATIONS. ANY MANHOLE BASE WHICH REQUIRES FIELD CUTTING OR MODIFICATION IN ORDER TO FIT THE LOCATIONS INTENDED WILL BE REJECTED BY THE ENGINEER AND REMOVED AND REPLACED BY THE CONTRACTOR AT NO COST TO THE DEPARTMENT.
- MANHOLE BASES SHALL BE BEDDED ON AN APPROVED GRANULAR BEDDING MATERIAL AS SHOWN ABOVE.

SECTION B-B

SECTION C-C

CAST-IN-PLACE SLAB BASE

REFERENCE: CDOT M & S STANDARDS M-604-20

MANHOLES

Issued: 05/2013
Revised: _____
Drawing No. **SP.43d**

FLAT TOP SECTION DETAIL

SECTION A-A
MANHOLE RING AND COVER

REFERENCE: CDOT M & S STANDARDS M-604-20

MANHOLES

Issued: 05/2013
Revised: _____
Drawing No. **SP.43e**

MANHOLE AND INLET STEPS

GENERAL NOTES

- ASTM SPECIFICATIONS:
A. ASTM C-478
B. ASTM A-615 GRADE 60 (STEEL REBAR)
C. ASTM 2146-69, TYPE III, GRADE 16906 (POLYPROPYLENE).
- STEPS INSTALLED IN MANHOLE BARREL SECTIONS OR VERTICAL WALLS OF STRUCTURES SHALL HAVE A 90° LEG AND SHALL PROJECT FROM THE WALL 6".
- STEPS INSTALLED IN MANHOLE CONE SECTIONS SHALL HAVE AN 80° LEG AND SHALL PROJECT FROM THE WALL 4 3/8".
- ALL STEPS SHALL HAVE A PENETRATION DEPTH INTO THE WALL OF 3/8".
- STEPS SHALL BE INSTALLED BY THE "PRESS-FIT" METHOD UTILIZING A SPECIALLY TAPERED PIN TO FORM THE INSERT HOLE AS SHOWN FOLLOWING MANUFACTURER'S RECOMMENDED PROCEDURE AND SHALL NOT BE GROUTED IN PLACE.
- INSTALLED STEPS SHALL BE CAPABLE OF WITHSTANDING A PULL OUT FORCE OF 2500 LB. PER LEG FOR A MINIMUM PERIOD OF TWO MINUTES.
- PINS MUST BE SMOOTH AND CONTINUOUSLY TAPERED. DIMENSIONS OF THE PIN AND THE INSERTED PORTION OF THE MANHOLE STEP ARE TYPICAL ONLY. DOUGLAS COUNTY INSTALLATIONS REQUIRE A MATCHED COMBINATION OF A TAPERED INSERT PIN AND MANHOLE STEP, AS RECOMMENDED OR REQUIRED BY SPECIFIC MANUFACTURER OF THE STEP TO BE USED.
- THIS STEP CAN ALSO BE USED IN TOE POCKET INSTALLATIONS PROVIDED 5" TOE CLEARANCE IS ALLOWED.

POLYPROPYLENE REINFORCED PLASTIC STEP

REFERENCE: CITY AND COUNTY OF DENVER DRAWING NUMBER S-750

MANHOLE AND INLET STEPS

Issued: 05/2013
Revised: _____
Drawing No. **SP.45**



PROJECT:

Chase Bank Lone Tree, Colorado

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

DETAILS

SHEET NUMBER:

C9.3

PROJECT NO.: 0231559.00

MATERIAL	SPECIFICATION	SUBMITTALS	TESTING	NOTES		
BIORETENTION GROWING MEDIA (SOIL + ORGANICS)	SOIL	PARTICLE SIZE DISTRIBUTION AND NUTRIENT ANALYSIS REQUIRED.		PERCENTAGES ARE IN WEIGHT		
	ORGANICS					
LANDSCAPE MULCH	SHREDDED HARDWOOD			BIORETENTION SOIL REQUIRED. AGED 6 MONTHS (MINIMUM). NO WEED FABRIC ALLOWED.		
	CDOT FILTER MATERIAL (CLASS B OR C)	MASS PERCENTAGE PASSING SQUARE MESH SIEVE				
UNDERDRAIN AGGREGATE	SIEVE SIZE	CLASS B	CLASS C	PARTICLE SIZE DISTRIBUTION REQUIRED.		
		37.5 mm (1.5") 19.0 mm (0.75") 4.75 mm (NO. 4) 1.18 mm (NO. 16) 300 um (NO. 50) 150 um (NO. 100) 75 um (NO. 200)	100 20 - 60 10 - 30 0 - 10 0 - 3		100 60 - 100 10 - 30 0 - 10 0 - 3	
UNDERDRAIN PIPE	PIPE DIA. AND TYPE	MAX. SLOT WIDTH	MAX. OPEN AREA	REQUIRED	MUST CONFORM TO ASTM F949. THERE SHALL BE NO EVIDENCE OF SPLITTING, CRACKING, OR BREAKING WHEN THE PIPE IS TESTED PER ASTM TEST METHOD D2412 IN ACCORDANCE WITH F949 SECTION 7.5 AND ASTM F794 SECTION 8.5.	CONTECH A-2000 SLOTTED PIPE.

GENERAL NOTES

- CONCRETE SHALL BE CLASS D. INLET SHALL BE CAST-IN-PLACE.
- REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2" IN. CLEARANCE, CUT OR BEND AROUND PIPES AS REQUIRED. IF ANY REBAR HAS TO BE CUT ON THE JOB SITE, THE EXPOSED REBAR SHALL BE IMMEDIATELY COVERED WITH A MANUFACTURE APPROVED EPOXY PAINT PRIOR TO POUR.
- CONCRETE SLOPE PAVING SHALL INCLUDE FIBERMESH AT 1/8 LBS./CY. OF CONCRETE.
- STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH COOT STANDARD SPECIFICATIONS, SUBSECTION 712.06.
- STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS OTHERWISE SPECIFIED.
- CLOSE MESH GRATES ARE ACCEPTED BY DOUGLAS COUNTY THROUGH WRITTEN VARIANCE.
- STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT.-4 IN. AND SHALL CONFORM TO ASTM M 199.
- SEE STANDARD DETAIL SD-3 FOR REINFORCEMENT AROUND THE PIPE OPENING.
- CONCRETE SLOPE AND SLOPE PAVING WILL BE REQUIRED WHEN SHOWN ON PLANS.

QUANTITIES FOR ONE INLET

H	CONCRETE (CU. YDS)	STEEL (LBS.)	NO. STEPS (REQ'D)
2'-0"	0.9	75	0
3'-0"	1.0	80	0
3'-6"	1.2	98	0
4'-0"	1.3	101	1
4'-6"	1.4	116	2
5'-0"	1.5	122	2
5'-6"	1.7	137	2
6'-0"	1.8	142	3
6'-6"	1.9	158	3
7'-0"	2.0	163	3
7'-6"	2.2	179	4
8'-0"	2.3	184	4
8'-6"	2.4	199	4
9'-0"	2.5	205	5
10'-0"	2.7	225	5
10'-6"	3.0	235	6
11'-0"	3.4	251	6

PIPE INSIDE DIAMETER SHALL BE 30 IN. OR LESS. CONCRETE AND STEEL QUANTITIES ARE FOR ONE ENTIRE INLET BEFORE DEDUCTION FOR VOLUME OCCUPIED BY PIPE. WEIGHT OF STEEL INCLUDES A RING FOR THE MAXIMUM PIPE DIAMETER.

BAR LIST FOR H=2 FT.-6 IN. AND BENDING DIAGRAM

MARK	NO. REQ'D	HEIGHT	LENGTH
401	2	2'-3"	7'-11"
401	6	2'-3"	8'-3"
402	5	3'-7"	15'-0"

IN CASES OF SKewed PIPE, THIS DIMENSION TO BE SHOWN ON PLANS.

ADD ONE BAR FOR EACH FT. INCREASE OF "H" ABOVE 2 FT. - 6 IN.

402 BARS WILL BE EQUALLY SPACED FROM EACH OTHER.

REFERENCE: CDOT M & S STANDARDS M-604-10

INLET TYPE C

Issued: 05/2013

Revised:

Drawing No. **SP.35a**

INLET WITH DITCH PAVING

SECTION B-B

INLET CONNECTED TO A CROSS CULVERT

SECTION A-A

INLET ON GRADE (FLOW FROM ONE DIRECTION)

SECTION A-A

INLET AT BOTTOM OF VERTICAL CURVE (FLOW FROM TWO DIRECTIONS)

REFERENCE: CDOT M & S STANDARDS M-604-10

INLET TYPE C

Issued: 05/2013

Revised:

Drawing No. **SP.35b**

CROSS SECTION

SECTION A-A

PIPE CONNECTION DETAIL TO EXISTING INLET

REFERENCE: CDOT M & S STANDARDS M-604-10

INLET TYPE C

Issued: 05/2013

Revised:

Drawing No. **SP.60b**

SECTION D-D

SECTION E-E

STANDARD INLET GRATE

GRATE INSTALLATION DETAIL

REFERENCE: CDOT M & S STANDARDS M-604-10

INLET TYPE C

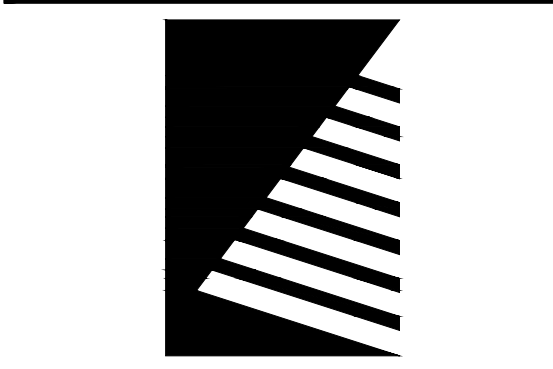
Issued: 05/2013

Revised:

Drawing No. **SP.35c**

1 BIORETENTION MATERIALS

SCALE: NOT TO SCALE



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE: # DATE: DESCRIPTION:



PROJECT:

Chase Bank Lone Tree, Colorado

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

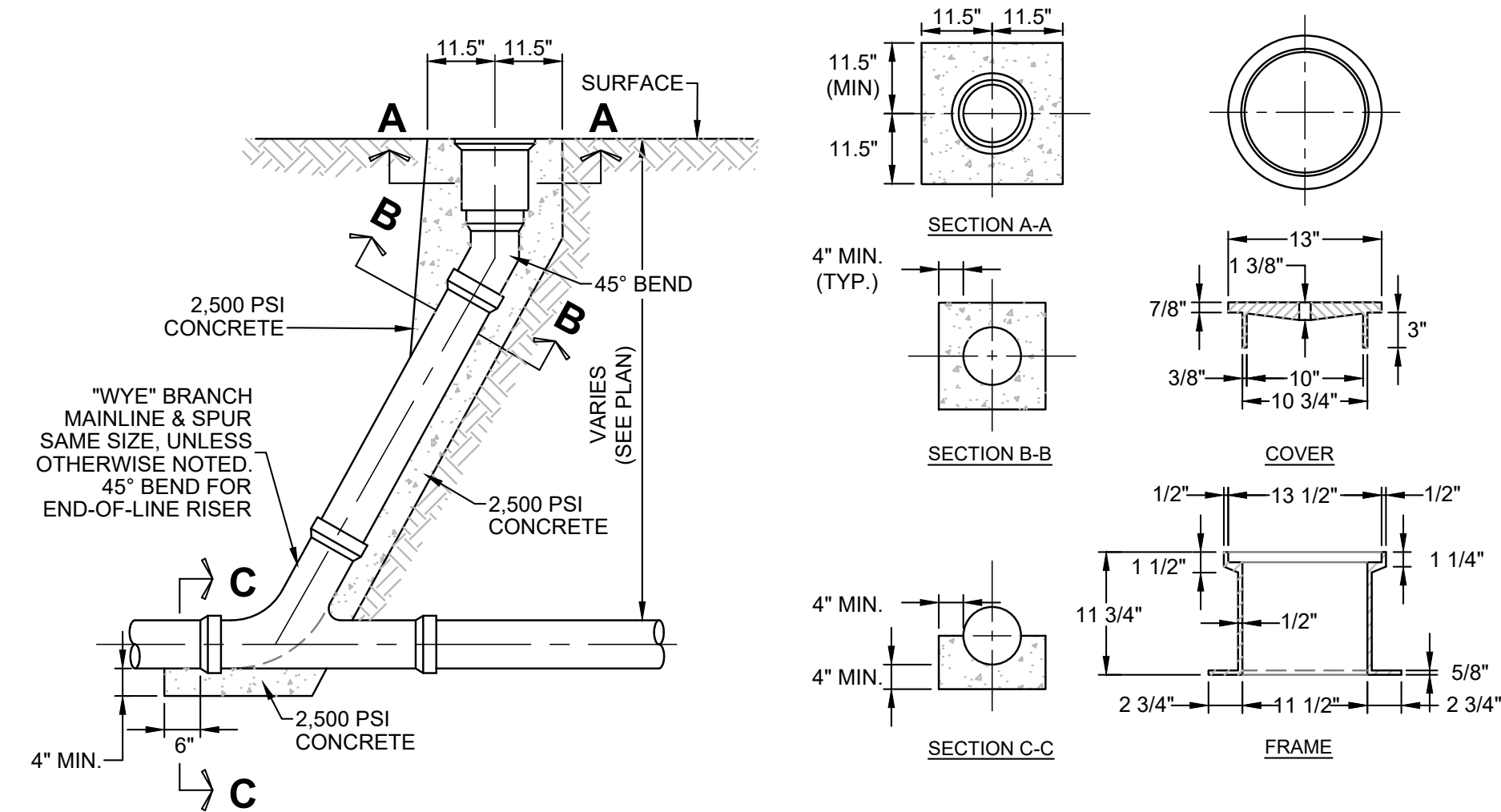
DETAILS

SHEET NUMBER:

C9.4

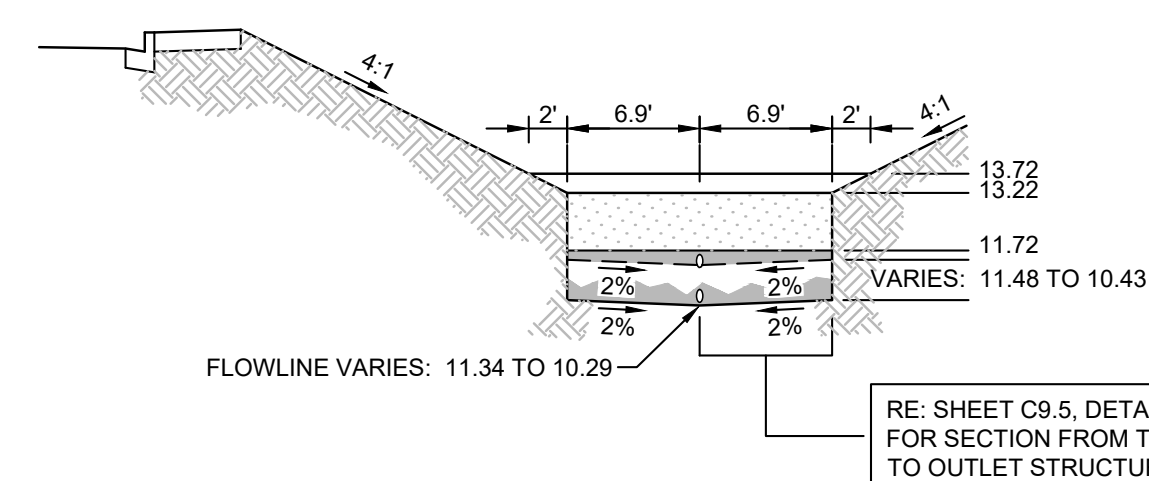
PROJECT NO.: 0231559.00

I:\Present\1A\2023\0231559.00 - APM Lone Tree\04_Drawing\DWG\03_L_Details - 0231559.00.dwg | 4/29/2024 12:04 PM

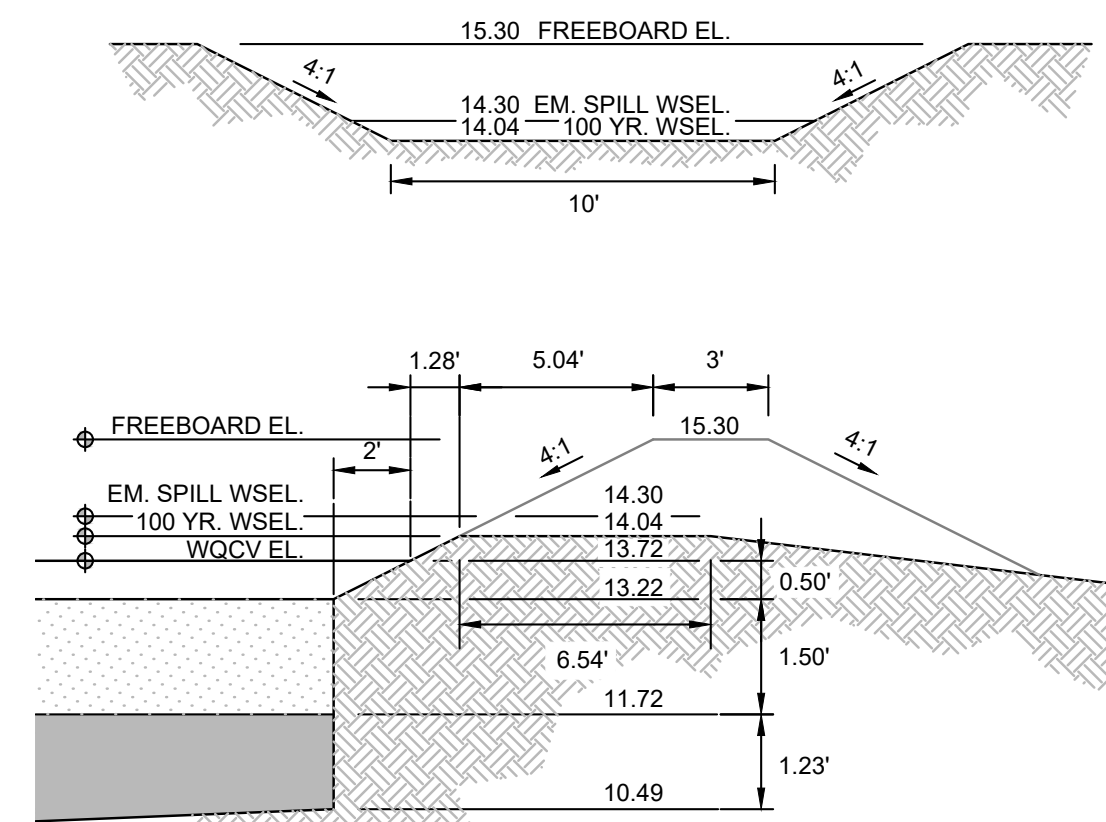


6 IN-LINE / END-OF-LINE CLEANOUT RISER
SCALE: NOT TO SCALE

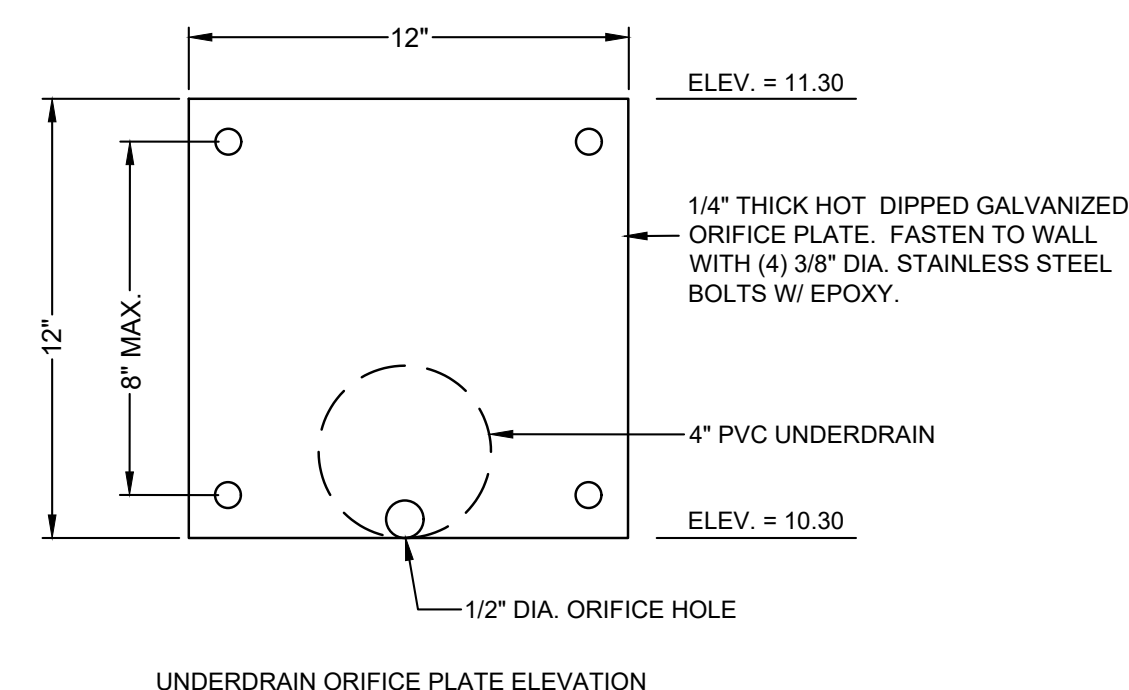
NOTES:
BIORETENTION POND MATERIALS INCLUDING GROWING MEDIA, UNDERDRAIN AGGREGATE, AND UNDERDRAIN PIPE SHALL CONFORM TO MHFD, USDCM, VOL. 3, CH. 4, SECTION T-W, TABLE B-1. RE: SHEET C9.4, DETAIL 1.



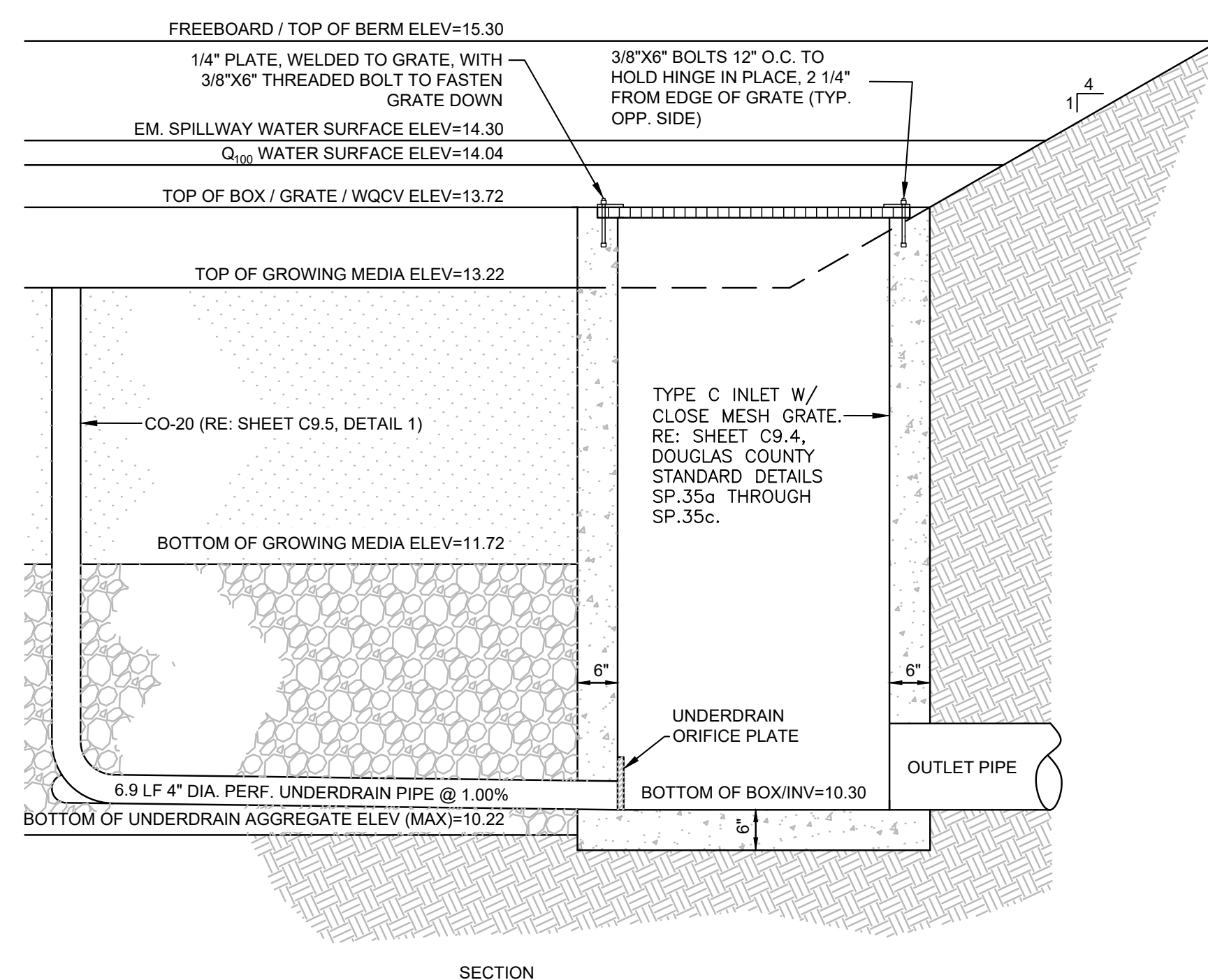
3 BIORETENTION POND SECTION
SCALE: 1" = 10'



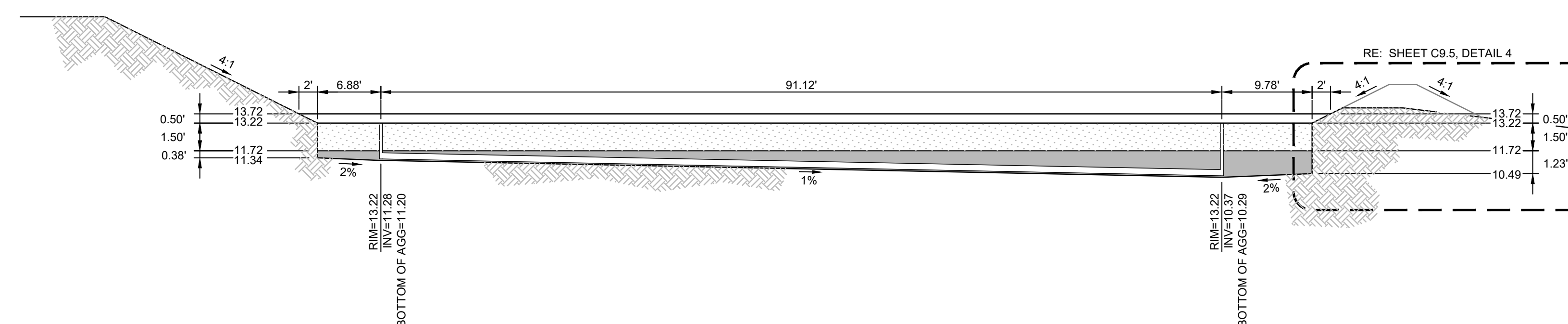
4 EMERGENCY SPILLWAY
SCALE: NOT TO SCALE



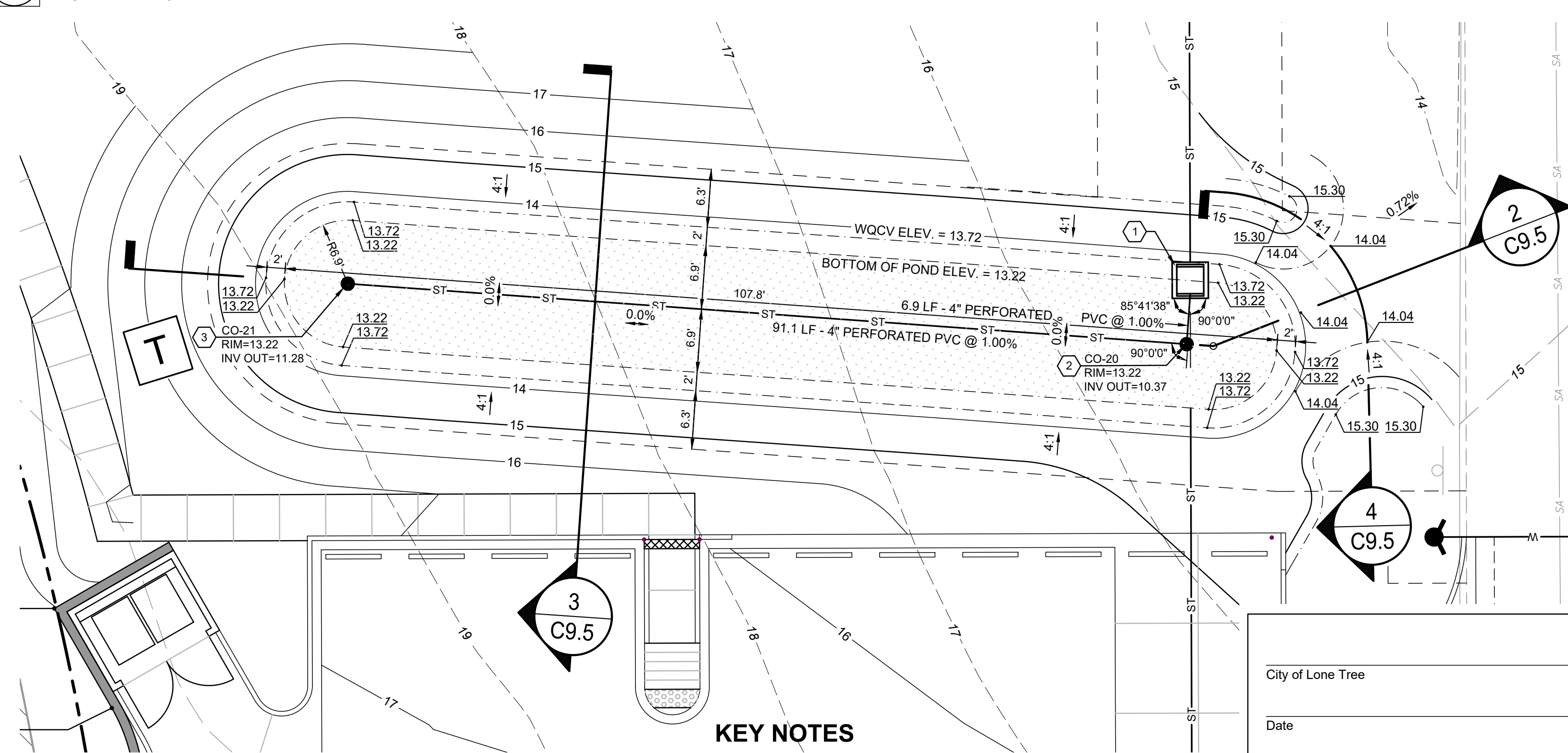
5 OUTLET STRUCTURE
SCALE: NOT TO SCALE



2 BIORETENTION POND SECTION
SCALE: 1" = 10'



1 BIORETENTION POND PLAN
SCALE: 1" = 10'



KEY NOTES

- CONSTRUCT INLET TYPE C, POND OUTLET STRUCTURE WITH BOLTED DOWN CLOSE MESH GRATE. RE: SHEET C9.4, DOUGLAS COUNTY STANDARDS DETAILS SP35.a THROUGH SP35.c; AND SHEET C9.5, DETAIL 5.
- INSTALL (1) 4"x4" PVC HORIZONTAL "WYE" WITH (1) 4" PVC HORIZONTAL 45° BEND, (2) 4" PVC VERTICAL 45° BENDS, CLEANOUT RISER AND LID. RE: SHEETS C9.5, DETAIL 6.
- INSTALL (2) 4" PVC VERTICAL 45° BENDS, CLEANOUT RISER AND LID. RE: SHEETS C9.5, DETAIL 6.

City of Lone Tree

Date

These construction plans have been reviewed by the City of Lone Tree for street and drainage, signage and striping, and grading and erosion control improvements only.

Engineering Division Acceptance Block



Farnsworth GROUP

5613 DTC PARKWAY, SUITE 1100
GREENWOOD VILLAGE, COLORADO 80111
(303) 692-8838 / info@f-w.com

www.f-w.com
Engineers | Architects | Surveyors | Scientists

ISSUE:
DATE: DESCRIPTION:



PROJECT:

**Chase Bank
Lone Tree, Colorado**

9550 Heritage Hills Circle
Lone Tree, Colorado 80124

DATE: 04/29/2024

DESIGNED: JMN

DRAWN: JMN

REVIEWED: JMN

FIELD BOOK NO.:

SHEET TITLE:

DETAILS

SHEET NUMBER:

C9.5

PROJECT NO.: 0231559.00

I:\pwworking\2023\0231559.00 - APM Lone Tree\04_Drainage\DWG\C9.1_Details - 0231559.00.dwg | 4/29/2024 12:04 PM |