BERTHOUD ARBORETUM AT WAGGENER FARM PARK

100% CONSTRUCTION/BID DOCUMENTS

DECEMBER, 12, 2025

23044

800 Berthoud Pkwy, Berthoud, CO 80513



01 *ILLUSTRATIVE SITE PLAN*
NTS

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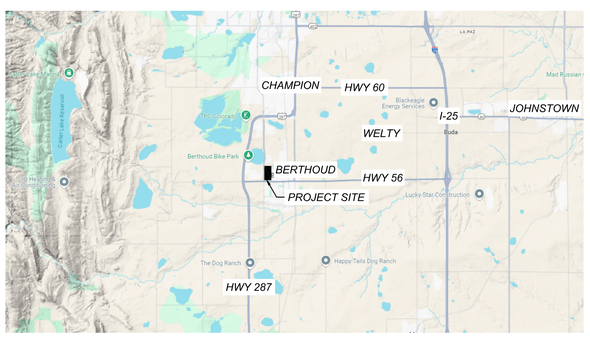
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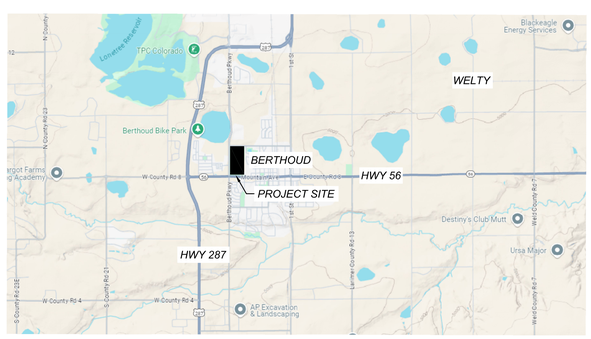
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02 *VICINITY MAP - REGIONAL*
0 1 2 4 MI



03 *VICINITY MAP - LOCAL*
0 .25 .5 1 MI

811 Know what's **below.** **Call** before you dig.
CALL UTILITY NOTIFICATION CENTER OF COLORADO 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

Landscape Architect Prime Consultant
Nicole Horst/Tyler Kiggins
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1130 31st Street, Suite 101
Denver, Colorado 80205
303.628.0003

Civil Engineering
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Jill Bersano, Tom Beal
HydroSystems-KID, Inc.
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Lakewood, CO 80401
303.980.5327

Lighting & Electrical
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Reese Hackman
9781 South Meridian Boulevard, Suite 220
Englewood, CO 80112
720.842.5317

Survey
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Loveland, CO 80537
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Don Hunt
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Thornton, CO 80241
303.962.9325

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Jeremy Olinger, Keith Knoll
Town of Berthoud
807 Mountain Ave
Berthoud, CO 80513
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MARTIN/MARTIN CONSULTING ENGINEERS

wenk

TOWN of BERTHOUD Est. 1888

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGNER FARM PARK

CONSTRUCTION DOCUMENTS

LOCATED IN THE SW 1/4 SECTION 14
TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE 6TH PRINCIPAL MERIDIAN,
CITY OF BERTHOUD, COUNTY OF LARIMER, STATE OF COLORADO

TOWN OF BERTHOUD GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC AND PRIVATE IMPROVEMENTS, COLORADO DEPARTMENT OF TRANSPORTATION, BERTHOUD FIRE PROTECTION DISTRICT REQUIREMENTS, AND ALL APPLICABLE STATE AND LOCAL STANDARDS AND SPECIFICATIONS.

2. THE CONTRACTOR SHALL HAVE IN POSSESSION AT THE JOB SITE AT ALL TIMES ONE (1) SIGNED COPY OF APPROVED PLANS, STANDARDS AND SPECIFICATIONS, AND PERMITS. CONTRACTOR SHALL CONSTRUCT AND MAINTAIN EMERGENCY ACCESS ROUTES TO THE SITE AND STRUCTURE AT ALL TIMES PER THE APPLICABLE BERTHOUD FIRE PROTECTION DISTRICT REQUIREMENTS. THE CONTRACTOR SHALL OBTAIN WRITTEN APPROVAL FOR ANY VARIANCE TO THE ABOVE DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE TOWN ENGINEER OF ANY CONFLICTING STANDARDS OR SPECIFICATIONS. IN THE EVENT OF ANY CONFLICTING STANDARD OR SPECIFICATION, THE MORE STRINGENT OR HIGHER QUALITY STANDARD, DETAIL OR SPECIFICATION SHALL APPLY.

3. THE CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE CODES, LICENSES, STANDARD SPECIFICATIONS, PERMITS, BONDS, ETC., WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK, INCLUDING, BUT NOT LIMITED TO A LOCAL AND STATE GROUNDWATER DISCHARGE AND COLORADO DEPARTMENT OF HEALTH AND ENVIRONMENT (CDPHE) STORMWATER DISCHARGE PERMIT ASSOCIATED WITH CONSTRUCTION ACTIVITY.

4. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY AUTHORIZED TOWN OF BERTHOUD PERSONNEL.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE TOWN ENGINEER, GEOTECHNICAL ENGINEER, AND ALL UTILITY OWNERS, AT LEAST 48 HOURS PRIOR TO START OF ANY CONSTRUCTION, PRIOR TO BACKFILLING, AND AS REQUIRED BY JURISDICTIONAL AUTHORITY AND/OR PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL CONTINUE WITH NOTIFICATIONS THROUGHOUT THE PROJECT AS REQUIRED BY THE STANDARDS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE; INCLUDING, SAFETY OF PERSONS AND PROPERTY DURING THE PERFORMANCE OF WORK. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE TOWN CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR THE CONSTRUCTION SITE.

7. THE CONTRACTOR SHALL PREPARE A TRAFFIC CONTROL PLAN FOR TOWN APPROVAL BY THE TOWN OF BERTHOUD PRIOR TO CONSTRUCTION AND PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FENCING, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THE CONTRACTOR AGREES TO COMPLY WITH THE PROVISIONS OF THE TRAFFIC CONTROL PLAN AND THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD)," PART VI, FOR CONSTRUCTION SIGNAGE AND TRAFFIC CONTROL. ALL TEMPORARY AND PERMANENT TRAFFIC SIGNS SHALL COMPLY TO THE MUTCD WITH REGARD TO SIGN SHAPE, COLOR, SIZE, LETTERING, ETC. UNLESS OTHERWISE SPECIFIED. IF APPLICABLE, PART NUMBERS ON SIGNAGE DETAILS REFER TO MUTCD SIGN NUMBERS.

8. THE TYPE, SIZE, LOCATION, AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE AS SHOWN ON THE DRAWINGS BASED ON INFORMATION BY OTHERS. NOT ALL UTILITIES ARE SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE, SIZE, TYPE, AND LOCATION OF ALL UNDERGROUND UTILITIES WHETHER SHOWN OR NOT ALONG THE ROUTE OF THE WORK. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DATE OF CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY SIZE AND HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING FACILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE TOWN OF ANY DISCREPANCIES. THE ENGINEER AND/OR OWNER ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR COMPLETENESS SHOWN ON PLANS. THE CONTRACTOR SHALL BE FULLY AND SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGES AND COSTS WHICH MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES. THE CONTRACTOR SHALL NOTIFY ALL PUBLIC AND PRIVATE UTILITY COMPANIES AND DETERMINE THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO PROCEEDING WITH GRADING AND CONSTRUCTION. ALL WORK PERFORMED IN THE AREA OF UTILITIES SHALL BE PERFORMED AND INSPECTED ACCORDING TO THE REQUIREMENTS OF THE UTILITY OWNER. LIKEWISE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND MAPPING ANY EXISTING UTILITY (INCLUDING DEPTH) WHICH MAY CONFLICT WITH THE PROPOSED CONSTRUCTION, AND FOR RELOCATING ENCOUNTERED UTILITIES AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL CONTACT AND RECEIVE APPROVAL FROM TOWN ENGINEER AND THE UTILITY OWNER BEFORE RELOCATING ANY ENCOUNTERED UTILITIES. CONTRACTOR RESPONSIBLE FOR SERVICE CONNECTIONS, AND RELOCATING AND RECONNECTING AFFECTED UTILITIES AS COORDINATED WITH UTILITY OWNER AND/OR ENGINEER, INCLUDING NON- MUNICIPAL UTILITIES (TELEPHONE, GAS, CABLE, ETC., WHICH SHALL BE COORDINATED WITH THE UTILITY OWNER). THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE TOWN ENGINEER UPON DISCOVERY OF A UTILITY DISCREPANCY OR CONFLICT. AT LEAST 48 HOURS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE UTILITY NOTIFICATION CENTER OF COLORADO (1-800-922-1987, WWW.UNCC.ORG).

9. ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION." THESE REGULATIONS ARE DESCRIBED IN SUBPART P, PART 1926 OF THE CODE OF FEDERAL REGULATIONS. SHEETING AND SHORING SHALL BE UTILIZED WHERE NECESSARY TO PREVENT ANY EXCESSIVE WIDENING OR SLOUGHING OF THE TRENCH WHICH MAY BE DETRIMENTAL TO HUMAN SAFETY, TO THE PIPE BEING PLACED, TO TREES, OR TO ANY EXISTING STRUCTURE WHERE EXCAVATIONS ARE MADE UNDER SEVERE WATER CONDITIONS. THE CONTRACTOR MAY BE REQUIRED TO USE AN APPROVED PILING INSTEAD OF SHEETING AND SHORING.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. GROUNDWATER TO BE PUMPED SHALL BE TESTED, PERMITTED, AND PUMPED PER THE STATE OF COLORADO AND LOCAL GROUNDWATER DISCHARGING PERMIT REQUIREMENTS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING NEARBY PUBLIC STREETS OF MUD OR DEBRIS DUE TO CONSTRUCTION ACTIVITY INITIATED BY SAID CONTRACTOR ON A DAILY BASIS OR AS OTHERWISE DIRECTED BY AUTHORIZED TOWN PERSONNEL.

12. ALL SURPLUS MATERIALS, TOOLS, AND TEMPORARY STRUCTURES, FURNISHED BY THE CONTRACTOR, SHALL BE REMOVED FROM THE PROJECT SITE BY THE CONTRACTOR. ALL DEBRIS AND RUBBISH CAUSED BY THE OPERATIONS OF THE CONTRACTOR SHALL BE REMOVED, AND THE AREA OCCUPIED DURING CONSTRUCTION ACTIVITIES SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR BETTER, WITHIN 48 HOURS OF PROJECT COMPLETION.

13. PRIOR TO THE BEGINNING OF WORK, A PRECONSTRUCTION CONFERENCE SHALL BE HELD BETWEEN THE TOWN, THE RESPONSIBLE PARTY WHO IS SCHEDULED TO PERFORM THE WORK, THE DESIGNATED ON-SITE FIELD REPRESENTATIVE, THE CONSULTING ENGINEER OR LANDSCAPE PROFESSIONAL, AND ANY OTHER ENTITIES INVOLVED IN THE CONSTRUCTION.

14. THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATION, THE STATE OF COLORADO, MILE HIGH FLOOD DISTRICT "URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3", THE M-STANDARD PLANS OF THE COLORADO DEPARTMENT OF TRANSPORTATION, AND THE APPROVED EROSION CONTROL PLAN. THE TOWN OF BERTHOUD MAY REQUIRE THE CONTRACTOR TO PROVIDE ADDITIONAL EROSION CONTROL MEASURES AT THE CONTRACTOR'S EXPENSE DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE PLANS DO NOT FUNCTION AS INTENDED. THE CONTRACTOR IS RESPONSIBLE FOR PROHIBITING SILT AND DEBRIS LADEN RUNOFF FROM LEAVING THE SITE, AND FOR KEEPING ALL PUBLIC AREAS FREE OF MUD AND DEBRIS. THE CONTRACTOR IS RESPONSIBLE FOR RE- ESTABLISHING FINAL GRADES AND FOR REMOVING ACCUMULATED SEDIMENTATION FROM ALL AREAS INCLUDING SWALES AND DETENTION/WATER QUALITY AREAS. CONTRACTOR SHALL REMOVE TEMPORARY EROSION CONTROL MEASURES AND REPAIR AREAS AS REQUIRED AFTER VEGETATION IS ESTABLISHED AND ACCEPTED BY THE TOWN OF BERTHOUD.

15. DEVELOPMENT PHASING OF ANY PROJECT MUST BE SHOWN ON THE CONSTRUCTION PLANS, APPROVED BY THE TOWN ENGINEER AND MADE A PART OF THE APPLICATION PROCEDURE. NO PHASING SHALL BE PERMITTED UNLESS THIS REQUIREMENT HAS BEEN ADHERED TO.

16. NO WORK SHALL BEGIN UNTIL THE INSTALLING RESPONSIBLE PARTY IS IN POSSESSION OF AN APPROVED SET OF PLANS AND THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC AND PRIVATE IMPROVEMENTS, AND ALL NECESSARY PERMITS FOR THE IMPROVEMENTS HAS BEEN ISSUED BY THE TOWN. TOWN ENGINEERING'S APPROVAL SHALL BE FOR GENERAL CONFORMITY TO THE UTILITY SPECIFICATIONS AND SHALL NOT CONSTITUTE BLANKET APPROVAL OF ALL DIMENSIONS, QUANTITIES AND DETAILS OF THE MATERIAL OR EQUIPMENT SHOWN. NOR SHALL SUCH APPROVAL RELIEVE THE RESPONSIBLE PARTY, CONSULTING ENGINEER, OR LANDSCAPE ARCHITECT OF THEIR RESPONSIBILITY FOR ERRORS CONTAINED IN THE DRAWINGS.

17. THE RESPONSIBLE PARTY SHALL FURNISH REASONABLE AID AND ASSISTANCE REQUIRED BY THE TOWN ENGINEER FOR THE PROPER EXAMINATION OF THE MATERIALS AND WORK. WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACCEPTED WORKMANSHIP PRACTICES AND THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC AND PRIVATE IMPROVEMENTS. ANY WORK NOT ACCEPTED BY THE TOWN ENGINEER SHALL BE REDONE UNTIL COMPLIANCE WITH THESE STANDARDS IS ACHIEVED. INSTRUCTIONS GIVEN BY THE TOWN ENGINEER RELATING TO QUALITY OF MATERIALS AND WORKMANSHIP MUST BE OBEYED AT ONCE BY THE RESPONSIBLE PARTY. THE TOWN SHALL NOT SUPERVISE SET OUT WORK, OR GIVE LINE AND GRADE STAKES.

18. THE MATERIALS USED IN PROJECTS SHALL BE NEW AND SUBJECT TO THE INSPECTION AND APPROVAL OF THE INSPECTOR AT ALL TIMES. THE INSPECTOR HAS THE RIGHT TO PERFORM ANY TESTING DEEMED NECESSARY TO ENSURE COMPLIANCE OF THE MATERIAL WITH THESE STANDARDS. NO MATERIAL SHALL BE USED BEFORE BEING INSPECTED AND APPROVED BY THE INSPECTOR. FAILURE OR NEGLECT ON THE PART OF THE INSPECTOR TO CONDEMN OR REJECT INFERIOR MATERIALS OR WORK SHALL NOT BE CONSTRUED TO IMPLY THEIR ACCEPTANCE SHOULD THEIR INFERIORITY BECOME EVIDENT AT ANY TIME PRIOR TO FINAL ACCEPTANCE OF THE WORK. INSPECTORS HAVE THE AUTHORITY TO REJECT DEFECTIVE OR INFERIOR MATERIALS AND/OR DEFECTIVE WORKMANSHIP AND TO SUSPEND WORK UNTIL SUCH TIME AS THE RESPONSIBLE PARTY SHALL CORRECT THE DISCREPANCIES IN QUESTION.

19. WHENEVER DEFECTIVE MATERIALS AND WORK ARE REJECTED, THE RESPONSIBLE PARTY SHALL PROMPTLY REMOVE SUCH DEFECTIVE MATERIALS AND CONSTRUCTION FROM THE JOB SITE AND REPLACE ALL DEFECTIVE PORTIONS TO THE SATISFACTION OF THE TOWN ENGINEER. IN THE EVENT THE RESPONSIBLE PARTY FAILS TO REMOVE REJECTED ITEMS FROM THE JOB SITE WITHIN A REASONABLE LENGTH OF TIME, THE TOWN ENGINEER MAY ARRANGE FOR SUCH REMOVAL AT THE EXPENSE OF THE RESPONSIBLE PARTY.

20. INSPECTION SHALL NOT RELIEVE THE RESPONSIBLE PARTY FROM ANY OBLIGATION TO PERFORM THE WORK STRICTLY IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS OR ANY MODIFICATIONS THEREOF. WORK NOT SO CONSTRUCTED SHALL BE REMOVED AND CORRECTED BY THE RESPONSIBLE PARTY AT HIS SOLE EXPENSE, WHENEVER SO ORDERED BY THE TOWN ENGINEER, WITHOUT REFERENCE TO ANY PREVIOUS ERROR OR OVERSIGHT IN INSPECTION.

21. EXCEPT IN CASES OF EMERGENCY, MAINTENANCE, OR PROTECTION OF WORK ALREADY COMPLETED, NO WORK SHALL BE ALLOWED BETWEEN THE HOURS OF 7 P.M. AND 7 A.M.; NOR ON SATURDAY, SUNDAY, OR LEGAL HOLIDAYS UNLESS APPROVED BY THE TOWN ENGINEER IN EACH CASE. WHEN ANY INSPECTOR IS REQUIRED TO WORK OUTSIDE THE HOURS OF 7 A.M. TO 4 P.M. ON REGULAR TOWN BUSINESS DAYS, OVERTIME SHALL BE CHARGED TO THE RESPONSIBLE PARTY. HOWEVER, SUCH INSPECTORS SHALL REMAIN EMPLOYEES OF THE TOWN FOR ALL PURPOSES. REQUESTS FOR OVERTIME SHALL BE MADE TO THE TOWN ENGINEER AT LEAST 48 HOURS IN ADVANCE. PAYMENT FOR SUCH OVERTIME WORK SHALL BE MADE TO THE TOWN PRIOR TO FINAL ACCEPTANCE.

22. IN THE EVENT ONE OR MORE INSPECTORS REPRESENTING PRIVATE CONSULTING ENGINEERING FIRMS ARE ALSO INSPECTING A PROJECT ALONG WITH THE TOWN ENGINEER, THE INSTRUCTIONS GIVEN BY THE TOWN ENGINEER SHALL PREVAIL IN THE EVENT OF CONFLICTING INSTRUCTIONS.

23. PROTECT ALL TREES AND VEGETATION. PLACE CONSTRUCTION FENCING AT DRIP LINE OF TREES AND PLANTS NEAR THE WORK ZONE. DEEP WATER TREES WEEKLY. HAND EXCAVATION REQUIRED AT ROOT ZONES WHERE PROPOSED PAVING OR UTILITY WORK IS WITHIN DRIPLINE OF TREES. REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS OR LANDSCAPING IS THE RESPONSIBILITY OF THE CONTRACTOR.

24. THE WORK SHALL BE SURVEYED AND STAKED UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR IN ACCORDANCE WITH THE APPROVED PLANS.

25. RIM AND GRATE ELEVATIONS SHOWN ON PLANS ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE CONTRACTOR SHALL ADJUST RIMS AND OTHER IMPROVEMENTS TO MATCH FINAL PAVEMENT AND FINISHED GRADE ELEVATIONS.

26. THE CONTRACTOR SHALL FURNISH THE ENGINEER OF RECORD A COMPLETE SET OF CONSTRUCTION RECORD DRAWINGS ("AS-BUILTS"), FOR THE CONSTRUCTED IMPROVEMENTS. THE PLANS SHALL SHOW SUFFICIENT DIMENSION TIES TO PERMANENT SURFACE FEATURES FOR ALL BURIED FACILITIES TO ALLOW FOR FUTURE LOCATING. THE PLANS SHALL SHOW FINAL PAVEMENT, FLOW LINE ELEVATIONS, CONTOURS AT POND/DRAINAGE FEATURES (AS SURVEYED AND CERTIFIED BY A COLORADO P.L.S.), MANHOLE, PIPE, AND INLET LOCATIONS, INVERTS, GRATE ELEVATIONS, SIZES OF ALL UTILITIES, AND ANY VARIATIONS FROM THE APPROVED PLAN. FINAL AS-BUILT PLANS PREPARED BY THE ENGINEER OF RECORD SHALL BE PROVIDED TO THE TOWN OF BERTHOUD.



VICINITY MAP
NOT TO SCALE

SHEET LIST

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25	STORM PLAN AND PROFILE	C5.2
26	STORM PLAN AND PROFILE	C5.3
27	STORM PLAN AND PROFILE	C5.4
28	STORM PLAN AND PROFILE	C5.5
29	STORM PLAN AND PROFILE	C5.6
30	STORM PLAN AND PROFILE	C5.7
31	STORMWATER DETAIL SHEET	C5.8
32	EXISTING STORMWATER POND A ENLARGEMENT	C5.11
33	STORMWATER POND B ENLARGEMENT	C5.12
34	WFP PH1- C104	C5.12A
35	STORMWATER POND C ENLARGEMENT	C5.15
36	STORMWATER POND D ENLARGEMENT	C5.16
37	WATER PLAN AND PROFILE	C6.0
38	WATER PLAN AND PROFILE	C6.1
39	WATER DETAIL SHEET	C6.4A
40	WATER DETAIL SHEET	C6.4B
41	ENLARGED HORIZONTAL CONTROL PLAN	C7.0
42	ENLARGED HORIZONTAL CONTROL PLAN	C7.1
43	SIGNAGE, STRIPING AND PAVING PLAN	C8.1
44	SITE DETAILS SHEET	C9.0A

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
	CURB & GUTTER (SPILL)	
	CURB & GUTTER (CATCH)	
	HEAVY DUTY DRIVE LANES	
	CONCRETE/ SIDEWALK	
5750	CONTOURS	5750
	UTILITY CROSSING	#
ST	STORM SEWER	ST
ST	STORM MANHOLE	ST
RD	ROOF DRAIN	RD
	STORM INLET	
	FLARED END SECTION	
SS	SANITARY SEWER	SS
SS	SANITARY MANHOLE	SS
	CLEAN OUT	
W	WATER LINE	W
	WATER VALVE	
	FIRE HYDRANT	
	WATER METER	
IR	IRRIGATION LINE	IR
IRR	IRRIGATION CONTROL	
OHE	OVERHEAD ELECTRIC	
E	ELECTRIC LINE	E
	LIGHT POLE	
	POWER POLE	
ELEC	ELECTRIC METER	
T	TELEPHONE LINE	T
TEL	TELEPHONE PEDESTAL	T
CT	CABLE TV	CT
G	GAS LINE	G
FO	FIBER OPTIC	FO
G.W.	MONITOR WELL	
	SIGN	
	DIRECTION OF FLOW	
	GRADING ARROW	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
ELEV	SPOT ELEVATIONS	ELEV.
DRIVE	DESCRIPTIONS	DRIVE
	LIMITS OF CONSTRUCTION	

ABBREVIATIONS:

APPROX	APPROXIMATE
ARCH	ARCHITECT
BLDG	BUILDING
BM	BENCHMARK
BOC	BACK OF CURB
CL	CENTERLINE
CO	CLEANOUT
CONC	CONCRETE
CONT	CONTOUR
CU	COPPER
DEMO	DEMOLITION
DIA OR ø	DIAMETER
DIM	DIMENSION
DIP	DUCTILE IRON PIPE
DTL.	DETAIL
EL	ELEVATION
ELEC	ELECTRICAL
ESMT	EASEMENT
EX	EXISTING
FDC	FIRE DEPARTMENT CONNECTION
FES	FLARED END SECTION
FFE	FINISHED FLOOR ELEVATION
FGW	FINISHED GRADE AT WALL
FHY	FIRE HYDRANT
FL	FLOW LINE
FT	FOOT
GB	GRADE BREAK
GR	GRATE (AREA OR VALLEY INLETS)
GV	GATE VALVE
HGL	HYDRAULIC GRADE LINE
HORZ	HORIZONTAL
HP	HIGH POINT
INV	INVERT
LF	LINEAL FEET
LP	LOW POINT
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL AND PLUMBING
MH	MANHOLE
MIN	MINIMUM
NTS	NOT TO SCALE
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PL	PROPERTY LINE
PRV	PRESSURE REDUCING VALVE
PVC	POLYVINYL CHLORIDE PIPE
PVMT	PAVEMENT
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
R.O.W.	RIGHT OF WAY
SSWR	SANITARY SEWER
SF	SQUARE FOOT
STA	STATION
STRM	STORM SEWER
STRC	STRUCTURAL
SWLK	SIDEWALK
SY	SQUARE YARD
TELE	TELEPHONE
TB	THRUST BLOCK
TEMP	TEMPORARY
TOC	TOP OF CURB
TPED	TELEPHONE PEDESTAL
TMH	TELEPHONE MAN HOLE
TOW	TOP OF WALL (RE: NOTE BELOW)
TVLT	TELEPHONE VAULT
TYP.	TYPICAL
UD	UNDER DRAIN
VERT	VERTICAL
WMH	WATER MAN HOLE

NOTE: TOW SHALL BE TOP OF WATER ON UTILITY SHEETS ONLY AND TOP OF WALL ON ALL OTHER SHEETS.

COLORADO 811
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

TOWN OF BERTHOUD APPROVAL

ALL WORK SHALL BE CONSTRUCTED TO THE TOWN STANDARDS AND SPECIFICATIONS. THESE PLANS HAVE BEEN REVIEWED BY THE TOWN OF BERTHOUD FOR CONCEPT ONLY AND GENERAL CONFORMANCE WITH THE TOWN'S STANDARDS AND SPECIFICATIONS. THE REVIEW BY THE TOWN OF BERTHOUD DOES NOT IMPLY RESPONSIBILITY BY THE TOWN OF BERTHOUD OR THE TOWN ENGINEER FOR ACCURACY AND CORRECTNESS OF THE PLANS OR CALCULATIONS.

THESE PLANS ARE HEREBY APPROVED FOR ONE YEAR FROM DATE OF THE TOWN ENGINEER'S APPROVAL

APPROVED BY:

_____
TOWN ENGINEER DATE

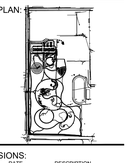
wenk
MARTIN/MARTIN CONSULTING ENGINEERS

TOWN OF BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGNER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

COVER SHEET

SHEET:
C0.0

12/12/2025 11:33 AM

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MARTIN/MARTIN, INC. GENERAL NOTES:

IN ADDITION TO THE TOWN OF BERTHOUD STANDARD NOTES, THE FOLLOWING SHALL APPLY:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS [LATEST REVISION]. ALL STREETS, WATER MAIN, STORM SEWER AND SANITARY SEWER CONSTRUCTION SHALL BE SUBJECT TO TOWN OF BERTHOUD INSPECTION.

2. THE CONTRACTOR SHALL HAVE ONE [1] SIGNED COPY OF PLANS APPROVED BY THE TOWN OF BERTHOUD AND ONE COPY OF THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS ON THE JOB SITE AT ALL TIMES.

3. CONTRACTOR SHALL NOTIFY THE ENGINEER, OWNER AND THE TOWN OF BERTHOUD [48]–HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE–CONSTRUCTION MEETING SHALL BE SCHEDULED WITH THE TOWN OF BERTHOUD ENGINEERING INSPECTOR [24]–HOURS PRIOR TO START OF WORK.

4. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB SITE, INCLUDING, BUT NOT LIMITED TO, SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. TRENCH EXCAVATION AND SHORING, TRAFFIC CONTROL AND SECURITY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

5. THE TOWN OF BERTHOUD/OWNER/ENGINEER CONSTRUCTION REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF THE ADEQUACY OF THE CONTRACTOR'S SAFETY MEASURES IN, ON OR NEAR THE CONSTRUCTION SITE.

6. ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED BY THE MOST RECENT OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION [OSHA] "SAFETY AND HEALTH REGULATIONS FOR CONSTRUCTION." THESE REGULATIONS ARE DESCRIBED IN SUBPART P. PART 1926 OF THE CODE OF FEDERAL REGULATIONS. SHEETING AND SHORING SHALL BE UTILIZED WHERE NECESSARY TO PREVENT ANY EXCESSIVE WIDENING OR SLOUGHING OF THE TRENCH WHICH MAY BE DETRIMENTAL TO HUMAN SAFETY, TO THE PIPE BEING PLACED, OR TO ANY EXISTING SITE IMPROVEMENTS OR STRUCTURES. THE CONTRACTOR MAY BE REQUIRED TO USE AN APPROVED PILING INSTEAD OF SHEETING AND SHORING.

7. CONTRACTOR SHALL OBTAIN ALL PERMITS FOR STREET CUTS, UTILITY INTERRUPTIONS AND TRAFFIC CONTROL.

8. AT LEAST FIVE [5] WORKING DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION, A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO TOWN OF BERTHOUD. THE TRAFFIC CONTROL PLAN SHALL BE PREPARED BY A CERTIFIED TRAFFIC CONTROL SUPERVISOR AND SHALL BE IN CONFORMANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. NO WORK SHALL BEGIN UNTIL ALL TRAFFIC CONTROL DEVICES HAVE BEEN PLACED IN ACCORDANCE WITH THE PLAN. THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN THE TRAFFIC CONTROL DEVICES FOR THE ENTIRE DURATION OF THE PROJECT OR UNTIL THE ROADWAY HAS BEEN OPENED AND THE PERMANENT TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED.

9. ALL TRENCH BACKFILL AND SUBGRADE PREPARATION SHALL BE TESTED TO ENSURE COMPLIANCE WITH TOWN OF BERTHOUD STANDARDS AND SHALL BE TESTED AT TOWN OF BERTHOUD REQUIRED FREQUENCIES BY A TOWN OF BERTHOUD APPROVED PRIVATE SOILS TESTING FIRM. TEST RESULTS SHALL BE SUBMITTED TO, REVIEWED, AND APPROVED BY, THE TOWN OF BERTHOUD ENGINEERING DIVISION PRIOR TO INSTALLING BASE COURSE, ASPHALT OR CONCRETE ON PREPARED SUBGRADE. ALL BASE COURSE DENSITY SHALL ALSO BE TESTED BY THE PRIVATE SOILS FIRM AT TOWN OF BERTHOUD REQUIRED FREQUENCIES TO ENSURE COMPLIANCE WITH TOWN OF BERTHOUD REQUIREMENTS. BASE COURSE TEST RESULTS SHALL ALSO BE APPROVED BY THE TOWN OF BERTHOUD ENGINEERING DIVISION PRIOR TO INSTALLING PAVEMENT. ALL CONCRETE AND ASPHALT PLACED SHALL BE TESTED IN ACCORDANCE WITH TOWN OF BERTHOUD MINIMUM MATERIALS TESTING STANDARDS. TEST RESULTS SHALL BE REVIEWED AND APPROVED BY THE TOWN OF BERTHOUD ENGINEERING DIVISION PRIOR TO INITIATION OF THE REQUIRED [2] YEAR WARRANTY PERIOD.

10. CONTRACTOR SHALL CONFORM TO ALL FEDERAL, STATE AND LOCAL HEALTH AND SAFETY RULES AND REGULATIONS.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONSTRUCTION AND FOR COORDINATING WITH THE APPROPRIATE UTILITY COMPANY FOR ANY UTILITY CROSSINGS REQUIRED. REPAIR OF DAMAGED UTILITIES SHALL BE AT THE CONTRACTORS EXPENSE, INCLUDING BUT NOT LIMITED TO UNKNOWN UNDERGROUND UTILITIES.

12. EXISTING FENCES, TREES, SIDEWALKS, CURBS AND GUTTERS, LANDSCAPING, STRUCTURES, AND IMPROVEMENTS DESTROYED, DAMAGED OR REMOVED DUE TO CONSTRUCTION OF THIS PROJECT SHALL BE REPLACED OR RESTORED IN LIKE KIND AT THE CONTRACTOR'S EXPENSE, UNLESS OTHERWISE INDICATED ON THESE PLANS.

13. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING REASONABLE ACCESS TO AND FROM ALL OF THE ADJACENT PROPERTIES THROUGHOUT THE COURSE OF THE WORK. THE CONTRACTOR SHALL BE REQUIRED TO MEET (INDIVIDUALLY OR COLLECTIVELY) WITH ALL ADJACENT PROPERTY OWNERS WHO'S DRIVEWAY ACCESS WILL BE AFFECTED BY THE WORK, AS CONSTRUCTION CONDITIONS CHANGE AND THE WORK PROGRESSES, THE CONTRACTOR SHALL BE REQUIRED TO PERIODICALLY UPDATE THOSE PROPERTY OWNERS SO THAT THEY ARE KEPT INFORMED ABOUT THEIR ACCESS.

14. OWNER/DEVELOPER SHALL OBTAIN A STORMWATER CONSTRUCTION PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY CONTROL DIVISION, PRIOR TO CLEARING, GRADING, OR EXCAVATING A SITE OF ONE–HALF ACRE OR MORE, OR LESS THAN ONE–HALF ACRE AND PART OF A LARGER DEVELOPMENT. A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE TOWN OF BERTHOUD ENGINEERING DIVISION PRIOR TO THE START OF CLEARING, GRADING OR EXCAVATING OF THE SITE. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.

15. CONTRACTOR SHALL OBTAIN A COLORADO STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT FOR ALL AREAS WHERE DEWATERING IS REQUIRED FROM AN EXCAVATION AND WATER IS DISCHARGED INTO A STORM SEWER, CHANNEL, IRRIGATION DITCH OR ANY WATERS OF THE UNITED STATES. A COPY OF THE APPROVED PERMIT MUST BE SUBMITTED TO THE TOWN OF BERTHOUD ENGINEERING DIVISION PRIOR TO THE START OF ANY DEWATERING. A COPY OF THE APPROVED PERMIT MUST ALSO BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES DURING CONSTRUCTION.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING STORM RUNOFF AND ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS NOR EROSION ON ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. NO CONCRETE SHALL BE PLACED WHERE GROUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS. ANY UNSTABLE AREAS, AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE TOWN OF BERTHOUD, AND THE GEOTECHNICAL ENGINEER AT THE TIME OF OCCURRENCE.

17. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING AND VERIFYING ELEVATIONS OF ALL EXISTING SEWER MAINS, WATER MAINS, CURBS, GUTTERS AND OTHER UTILITIES AT THE POINT OF CONNECTION SHOWN ON THE PLANS, AND AT ANY UTILITY CROSSINGS PRIOR TO INSTALLING ANY OF THE NEW IMPROVEMENTS. IF A CONFLICT EXISTS AND/OR A DESIGN MODIFICATION IS REQUIRED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER TO MODIFY THE DESIGN.

18. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL UTILITIES TO COORDINATE SCHEDULES.

19. CONTRACTOR SHALL NOTIFY ALL BUSINESSES/RESIDENTS IN WRITING 48 HOURS PRIOR TO ANY SHUT–OFF IN SERVICE. THE NOTICES MUST HAVE CONTRACTOR'S PHONE NUMBER AND NAME OF CONTACT PERSON, AND EMERGENCY PHONE NUMBER FOR AFTER HOURS CALLS. ALL SHUT OFFS MUST BE APPROVED BY THE TOWN OF BERTHOUD UTILITY DIVISION, AND TOWN OF BERTHOUD VALVES AND APPURTENANCES SHALL BE OPERATED BY TOWN OF BERTHOUD PERSONNEL, UNLESS WRITTEN PERMISSION IS GIVEN OTHERWISE.

20. ALL PUBLIC IMPROVEMENT WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY A TOWN OF BERTHOUD REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN STANDARD CONSTRUCTION PRACTICES ARE NOT BEING ADHERED TO. THE TOWN OF BERTHOUD RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS ENGINEERING CODE OF STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR BEING AWARE OF, NOTIFYING, COORDINATING AND SCHEDULING ALL INSPECTIONS REQUIRED FOR FINAL APPROVALS AND PROJECT ACCEPTANCE.

21. THE CONTRACTOR SHALL NOT OPERATE ANY CONSTRUCTION VEHICLES NOR PERFORM ANY CONSTRUCTION OPERATIONS BEFORE 7 AM OR AFTER 6 PM, MONDAY THROUGH FRIDAY OR BEFORE 8 AM AND AFTER 5 PM ON SATURDAYS. NO WORK WILL BE ALLOWED ON SUNDAYS OR HOLIDAYS. THE TOWN OF BERTHOUD RESERVES THE RIGHT TO FURTHER RESTRICT OR MODIFY THESE HOURS OF OPERATION IF CONDITIONS WARRANT.

22. REFER TO LANDSCAPE PLANS PREPARED BY WENK ASSOCIATES, INC. FOR [FINAL LANDSCAPE, SPECIALTY LANDSCAPE FEATURES AND TRAIL LAYOUT/DETAILS/MATERIALS]. TRAILS SHOWN ON LANDSCAPE CONSTRUCTION PLANS SHALL BE FIELD FIT TO ATTAIN 4.8% MAX SLOPE AND 2% CROSS SLOPE PER ADA REQUIREMENTS, UNLESS OTHERWISE NOTED.

23. COMPACTION OF ALL TRENCHES MUST BE ATTAINED AND COMPACTION TEST RESULTS SUBMITTED TO THE ENGINEER AND THE TOWN OF BERTHOUD PRIOR TO FINAL ACCEPTANCE.

24. RECORD DRAWINGS SHOWING ALL CHANGES FROM THE APPROVED CONSTRUCTION DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER AND OWNER PRIOR TO INITIATION OF THE REQUIRED 2–YEAR WARRANTY PERIOD. THE RECORD DRAWINGS WILL CONSIST OF A MARKED–UP SET OF "ISSUED FOR CONSTRUCTION" DRAWINGS VERIFYING THE FOLLOWING:
    - ALL LENGTHS, SIZES, AND MATERIALS OF INSTALLED PIPE, MANHOLES, AND ANY OTHER IMPROVEMENT.
    - HORIZONTAL LOCATIONS EITHER BY STATION AND OFFSET, OR BY NORTHING AND EASTING COORDINATES OF ALL MANHOLES, BENDS, CLEANOUTS, VALVES, TAPS, WYES, STUBS, PLUGS, TEES, ETC.
    - INVERT ELEVATIONS OF STORM SEWER AND SANITARY SEWER MANHOLES, INLETS, OUTLETS, STUB ENDS, TOP OF PIPE ELEVATIONS OF EACH UTILITY CROSSING, ETC.
    - CONSTRUCTED SLOPE OF STORM AND SANITARY PIPES BETWEEN MANHOLES AND STRUCTURES.
    - TOP OF PIPE ELEVATION AT REGULAR INTERVALS AND/OR FITTINGS FOR WATER LINES.
    - ELEVATIONS AT FLOWLINE OF CURB AND GUTTER AT DESIGN LOCATIONS AND GRADE BREAKS. ELEVATION OF INLET AND TRENCH DRAIN GRATES. TOP OF CURB AT CURB INLETS.
    - ANY OTHER VARIATIONS FROM THE CONSTRUCTION DOCUMENTS MUST BE CLEARLY NOTED AND DETAILED ON THE PLANS.
    - AS–BUILT FIELD NOTES, FROM WHICH THE RECORD DRAWINGS ARE PREPARED, ARE TO BE PROVIDED AND STAMPED/SIGNED AND DATED BY A COLORADO REGISTERED PROFESSIONAL LAND SURVEYOR.

25. THE CONTRACTOR SHALL WARRANT ALL WORK TO BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF 2–YEARS FROM THE DATE OF ACCEPTANCE INTO THE WARRANTY PERIOD OF ALL CONSTRUCTION CALLED FOR BY THE PUBLIC IMPROVEMENTS AGREEMENT WITH THE TOWN OF BERTHOUD.

26. DURING CONSTRUCTION AND UPON COMPLETION OF CONSTRUCTION, THE SITE SHALL BE CLEANED AND RESTORED TO A CONDITION EQUAL TO, OR BETTER THAN, THAT WHICH EXISTED BEFORE CONSTRUCTION.

27. IF PROVIDED, EARTHWORK QUANTITIES ARE RAW NUMBERS AND HAVE NOT BEEN ADJUSTED TO ACCOUNT FOR [SHRINK, SWELL, COMPACTION, PAVING, UTILITY SPOILS, BUILDING FOUNDATION/BASEMENT ETC.] IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EARTHWORK VALUES.

28. CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT TITLED GEOTECHNICAL INVESTIGATION REPORT – BERTHOUD ARBORETUM AT WAGGENER FARM PARK, DATED JULY 21, 2025, AND PREPARED BY ROCKSOL CONSULTING GROUP, INC. FOR PAVEMENT DESIGN AND RECOMMENDATIONS REGARDING [EXCAVATION, COMPACTION, MATERIALS, EMBANKMENT, PAVEMENT SUBEXCAVATION, MOISTURE CONTROL, AND TOPSOIL REMOVAL AND REPLACEMENT. FINAL PAVEMENT DESIGN TO BE DETERMINED BY THE GEOTECHNICAL ENGINEER AFTER SUBGRADE IS COMPLETE. CONTRACTOR TO COORDINATE THIS WORK]. THE CONSTRUCTION METHODS FOR EXCAVATION/EMBANKMENTS, COMPACTION, AND SUBGRADE PREPARATION SHALL BE IN STRICT CONFORMANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF DISCREPANCIES BETWEEN THE GEOTECHNICAL REPORT RECOMMENDATIONS AND REQUIREMENTS OF THESE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS.

29. THE PRELIMINARY PAVEMENT DESIGN IS 6" THICK OVER A MINIMUM 4" ABC FOR CONCRETE PAVING FOR PEDESTRIAN–ONLY USE SIDEWALK, WITH LIMITED LIGHT–DUTY MAINTENANCE VEHICLES, AND A MINIMUM 6.5" THICK OVER MINIMUM 6" CDOT CLASS 6 ABC WITH WELDED WIRE MESH FOR CONCRETE PAVING FOR ANTICIPATED VEHICLE USAGE AND 4" ASPHALT PAVEMENT OVER 6" ABC FOR PARKING LOT PAVEMENT. SEE SHEET C8.1 FOR PAVEMENT DETAILS.

30. THESE CONSTRUCTION DOCUMENTS ARE INTENDED SOLELY FOR THE CONSTRUCTION OF THE DEVELOPMENT DEPICTED HEREIN. PERIODIC, SYSTEMATIC MAINTENANCE IS NECESSARY FOR THE OWNER TO REALIZE THE DESIGN LIFE AND PERFORMANCE OF THE FACILITIES OF THIS PROJECT. INSPECTION, MAINTENANCE AND REPAIR ARE THE SOLE RESPONSIBILITY OF THE OWNER. THE DESIGN RELIES UPON A RESPONSIBLE EFFORT BY THE OWNER TO MAINTAIN THE FACILITIES, THUS, ANY DAMAGES ARISING OUT OF THE OWNER'S FAILURE TO PERFORM SAID MAINTENANCE ARE BEYOND THE DESIGNERS CONTROL. MARTIN/MARTIN EMPHASIZES THE IMPORTANCE OF A MAINTENANCE PROGRAM AND IF REQUESTED WOULD BE AVAILABLE TO SUBMIT A PROPOSAL FOR ASSISTING THE OWNER IN THE DEVELOPMENT OF A COMPREHENSIVE, SYSTEMATIC MAINTENANCE PROGRAM TO MAINTAIN THE MAJOR INFRASTRUCTURE COMPONENTS OF THIS PROJECT. OWNER SHOULD BE COGNIZANT OF THE IMPORTANCE OF MAINTAINING DRAINAGE PATTERNS AND TO AVOID EXCESSIVE IRRIGATION. THE SOILS TYPICALLY FOUND IN COLORADO ARE SENSITIVE TO EXCESS MOISTURE. THIS COULD POTENTIALLY RESULT IN PAVEMENT/STRUCTURE MOVEMENTS WHICH MAY BE UNACCEPTABLE AND COMPROMISE THE DESIGN INTENT AND FUNCTIONALITY OF THE PROJECT. MARTIN/MARTIN RECOMMENDS THE OWNER MAINTAIN A COMPLETE SET OF SOILS/DRAINAGE REPORTS AND DESIGN PLANS OF THE PROJECT FOR FUTURE REFERENCE.

31. THE PLANS HAVE BEEN PREPARED BY MARTIN/MARTIN IN ACCORDANCE WITH AND IN RELIANCE UPON THE GEOTECHNICAL STUDIES AND RECOMMENDATIONS PER GEOTECHNICAL INVESTIGATION REPORT – BERTHOUD ARBORETUM AT WAGGENER FARM PARK. MARTIN/MARTIN HAS NO RESPONSIBILITY FOR THE FOUNDATION SYSTEMS USED WITHIN THIS DEVELOPMENT. MARTIN/MARTIN SUGGESTS THAT ALL OWNERS, PRESENT AND FUTURE, BECOME AWARE OF THE RISK ASSOCIATED WITH IMPROPER MAINTENANCE OF SLOPES AND DRAINAGE AWAY FROM THE STRUCTURES. MARTIN/MARTIN RECOMMENDS THE FOLLOWING REFERENCE AS A WAY TO BECOME MORE AWARE OF THE UNIQUE SOILS CONDITIONS FOUND WITHIN THIS PROJECT AND WITHIN MUCH OF THE FRONT RANGE AREA.

"A GUIDE TO SWELLING SOIL FOR HOMEBUYERS AND HOMEOWNERS: PUBLISHED BY THE COLORADO GEOLOGICAL SURVEY, SPECIAL PUBLICATION NO. 43.

32. THE FOLLOWING LIMITED SCOPE OF RESPONSIBILITY NOTE MUST BE LOCATED, OR REFERENCED TO A GENERAL NOTE, ADJACENT TO THE P.E. SEAL PER 5.1.5 OF THE COLORADO BYLAWS AND RULES.

THE DESIGN PLANS SHOWN HEREIN WERE DEVELOPED BASED UPON THE GEOTECHNICAL INVESTIGATIONS/ANALYSIS/ENGINEERING CRITERIA DEVELOPED BY ROCKSOL CONSULTING GROUP, INC., AS PRESENTED IN THE GEOTECHNICAL REPORT ENTITLED GEOTECHNICAL INVESTIGATION REPORT – BERTHOUD ARBORETUM AT WAGGENER FARM PARK, DATED JULY 21, 2025 SIGNED AND SEALED BY DONALD HUNT P.E. MARTIN/MARTIN, INC. RELIED UPON THE ENGINEERING ANALYSIS AND CONCLUSIONS OF THIS REPORT IN THE PREPARATION OF THESE CIVIL ENGINEERING PLANS AND DOCUMENTS. NO INDEPENDENT INVESTIGATIONS AND/OR ANALYSIS WAS CONDUCTED BY MARTIN/MARTIN, INC. THESE PLANS WERE PROVIDED TO [THE GEOTECHNICAL ENGINEER] FOR REVIEW AND VERIFICATION THAT THESE PLANS DEVELOPED BY MARTIN/MARTIN PROPERLY INTERPRETED AND APPLIED THE CRITERIA AND RECOMMENDATIONS ESTABLISHED BY THEIR GEOTECHNICAL REPORT FOR THIS PROJECT.

ACCESSIBLE ROUTES:

1. ALL CONSTRUCTION AND VERIFICATION/TESTING SHALL BE IN ACCORDANCE WITH RULES AND REGULATIONS OF LOCAL, STATE AND FEDERAL JURISDICTIONS, AND THE MOST CURRENT REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT ("ADA"); ARCHITECTURAL BARRIERS ACT ACCESSIBILITY STANDARD – ABAAS AS PROVIDED FOR IN THE REGULATIONS OF THE UNITED STATES ACCESS BOARD, UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) – ANSI A117.1 ADDITIONALLY, MEET REQUIREMENTS BY THE UNITED STATES DEPARTMENT OF TRANSPORTATION AND FEDERAL HIGHWAY ADMINISTRATION WHICH REQUIREMENTS ARE PRINCIPALLY LISTED IN 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, PROPOSED GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY ACCESSIBILITY GUIDELINES ("PROWAG") AND LOCAL STANDARDS, FOR ANY ACCESSIBLE ROUTE.

2. NOTES AND REQUIREMENTS WITHIN THE CONSTRUCTION DOCUMENTS ARE A SUPPLEMENT TO, AND NOT A REPLACEMENT FOR THE REFERENCED REGULATIONS.

3. CONTRACTORS ARE TO BE AWARE WHEN REFERRING TO THE ABOVE STANDARDS, RULES AND REGULATIONS THAT PUBLISHED VALUES FOR DIMENSION AND SLOPE ARE FOR FINISHED CONSTRUCTION, NO TOLERANCE IS PERMITTED BELOW MINIMUM AS SHOWN ON DRAWINGS OR ABOVE MAXIMUM VALUES AS INDICATED IN THE APPLICABLE LOCAL, STATE, AND FEDERAL STANDARDS.

4. THE REGULATIONS EXPECT THE CONTRACTORS TO BE KNOWLEDGEABLE OF CONSTRUCTION PRACTICES, AND TO USE APPROPRIATE MEANS AND METHODS TO MEET TOLERANCES AND ENSURE CONSTRUCTION COMPLIES WITH REGULATIONS. ALL CONSTRUCTION OR ALTERATIONS OF ACCESSIBILITY ROUTES (WALKS, RAMPS, ENTRANCES, ETC.) SHALL COMPLY WITH STANDARDS, RULES AND REGULATIONS SET FORTH ABOVE, INCLUDING BUT NOT LIMITED TO 5% MAXIMUM LONGITUDINAL GRADE ON WALKS WITHOUT HANDRAILS, 8.33% MAXIMUM LONGITUDINAL GRADE ON WALKS WITH HANDRAILS, AND LANDINGS 2% MAXIMUM COMPOSITE SLOPE. 2% MAXIMUM CROSS SLOPE ON WALKS, AND 2% MAXIMUM COMPOSITE SLOPE IN ACCESSIBLE PARKING/LOADING AREAS. NO TOLERANCE REGARDING MAXIMUM SLOPE WILL BE ALLOWED.

5. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL COORDINATE WITH OWNER/DEVELOPER, ENGINEER, ARCHITECT OR DESIGNATED OFFICIAL IF RULES AND REGULATIONS OF ACCESSIBILITY ROUTES CANNOT BE MET OR A DISCREPANCY OF REQUIREMENTS ARE INDICATED ON DRAWINGS. IN ADDITION, OWNER/DEVELOPER IS ADVISED THAT REGULAR MAINTENANCE PROGRAMS SHOULD BE IMPLEMENTED AFTER CONSTRUCTION TO KEEP EXISTING ROUTES SAFE, USABLE, AND ACCESSIBLE COMPLIANT.

TOWN OF BERTHOUD SANITARY NOTES:

1. MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE LATEST EDITION OF THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS AND WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY AUTHORIZED TOWN OF BERTHOUD PERSONNEL.

2. NEW SEWER MAINS SHALL BE POLYVINYL CHLORIDE (PVC) ASTM D3034 SDR–35 PIPE AND IN ACCORDANCE WITH THE ABOVE REFERENCED SPECIFICATIONS.

3. CONTRACTOR TO VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO COMMENCING ANY CONSTRUCTION.

4. THE CONTRACTOR SHALL NOTIFY THE TOWN A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO STARTING CONSTRUCTION OR PRIOR TO RESUMING CONSTRUCTION AFTER A BREAK.

5. MAINTAIN A MINIMUM OF 10 FEET HORIZONTAL SEPARATION OUTSIDE DIAMETER TO OUTSIDE DIAMETER BETWEEN WATER MAINS AND ALL SEWER MAINS AND MANHOLES.

6. ALL SEWER MAINS CROSSING WATER MAINS WITH LESS THAN 18 INCHES OF SEPARATION SHALL BE ENCASED IN CONCRETE.

7. RIM ELEVATIONS SHOWN ARE APPROXIMATE AND SHOULD NOT BE TAKEN AS FINAL. ALL MANHOLES SHALL BE FINAL ADJUSTED AFTER PAVING SUCH THAT THE RIM IS ¼ TO ½ INCH BELOW FINISHED ASPHALT. MANHOLES IN UNPAVED AREAS SHALL BE SET SO THAT THE RIM IS 0.5' ABOVE FINISHED GRADE. BURIED MANHOLES ALLOWED IN CULTIVATED FIELDS AS APPROVED BY TOWN ENGINEER. AS–BUILTS SHALL ALLOW FINAL NORTHING/EASTING AND RIM ELEVATION OF ALL BURIED MANHOLES.

8. INVERT (AS–BUILT) DATA SHALL BE COLLECTED BY A LICENSED SURVEYOR ON EACH PIPE INVERT IN A MANHOLE. CENTER OF MANHOLE SURVEYING IS NOT ACCEPTABLE FOR SLOPE CALCULATIONS. RECORD DRAWINGS (AS–BUILTS) MUST DEMONSTRATE CONFORMANCE TO TOWN STANDARDS.

9. THE CONTRACTOR SHALL HAVE A SET OF APPROVED PLANS ON SITE AT ALL TIMES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RECORDING ACTUAL RECORD DRAWING DIMENSIONS AND DISTANCES AS WELL AS SERVICE LOCATIONS ON THESE PLANS AND SUBMITTING THEM TO THE ENGINEER FOR PREPARATION OF RECORD DRAWINGS. THESE DRAWINGS SHALL BE KEPT CURRENT AT ALL TIMES.

10. BEFORE ANY CONSTRUCTION COMMENCES, A PLUG SHALL BE INSTALLED TO PREVENT DRAINAGE THROUGH THE NEW SEWER LINE FROM ENTERING THE EXISTING SEWER LINE. THIS PLUG WILL BE INSTALLED IN THE MANHOLE, WHICH CONNECTS NEW WORK WITH THE EXISTING AND MAY NOT BE REMOVED UNTIL SUBSTANTIAL ACCEPTANCE.

11. UNDERDRAINS, IF INSTALLED, ARE THE RESPONSIBILITY OF THE DEVELOPER. THE TOWN ASSUMES NO LIABILITY FOR ANY PORTION OF OR ANY DAMAGE CAUSED BY UNDERDRAINS. ABSOLUTELY NO PART OF AN UNDERDRAIN SYSTEM, INCLUDING CLEAN OUTS, WILL BE ALLOWED INSIDE OF SANITARY SEWER MANHOLES. ALL UNDERDRAINS SHALL BE INSTALLED BELOW THE SANITARY SEWER AND OFFSET TO THE SIDE. PIPE MATERIAL SHALL BE DIFFERENT COLOR THAN SANITARY SEWER.

12. NO SERVICE LATERALS SMALLER THAN 8–INCH IN DIAMETER SHALL ENTER MANHOLES. SERVICE CROSSINGS OF CURB SHALL BE MARKED WITH A CUT "S" IN CURB FACE. PAINT IS NOT ACCEPTABLE. SERVICE SHALL BE EXTENDED INTO THE LOT A MINIMUM OF 10 FEET.

13. SERVICE CROSSINGS OF CURB SHALL BE MARKED WITH A CUT "S" IN CURB FACE. PAINT IS NOT ACCEPTABLE. SERVICE SHALL BE EXTENDED INTO THE LOT A MINIMUM OF 10 FEET.

14. CONTRACTOR SHALL MARK THE END OF ALL SEWER SERVICES AND MAIN STUBS WITH A CARBONITE COMPOSITE UTILITY MARKER WITH MINIMUM OF FOUR FEET ABOVE GRADE, PAINTED GREEN.

15. ALL 8–INCH PIPES SHALL HAVE SQUEEGEE (CDOT #8 BEDDING) UNLESS OTHERWISE SHOWN OR THE TOWN MAY APPROVE AN ALTERNATE BEDDING IN SPECIAL CASES.LARGER PIPES REQUIRE WASHED OR CURSED ROCK AS SHOWN IN THE CONSTRUCTION SPECIFICATIONS

16. PRIOR TO APPROVAL, ALL SANITARY SEWER PIPES SHALL BE PRESSURE TESTED PER ASTM C924. ALL MANHOLES SHALL BE VACUUM–TESTED PER UNI B–98.

17. PRIOR TO REMOVAL OF PLUGS AT MANHOLES, PIPE SHALL BE JET–CLEANED AND VACUUMED TO REMOVE DEBRIS AND VIDEOED. NOTICE SHALL BE GIVEN TO THE TOWN INSPECTOR ONE (1) WEEK PRIOR TO CLEANING. INSPECTOR MUST BE PRESENT DURING THE OPERATION. ONCE APPROVAL HAS BEEN GIVEN BY INSPECTOR, PLUGS MAY ONLY BE REMOVED AFTER CONDITIONAL ACCEPTANCE BY THE TOWN.

18. THE FINAL RECORDED PLAT AND RECORDED ADDRESS PLAT SHALL BE PROVIDED TO THE TOWN FOR CONDITIONAL ACCEPTANCE.L

19. TWENTY (20) MONTHS AFTER CONSTRUCTION AND PRIOR TO THE EXPIRATION OF WARRANTY, THE DEVELOPER SHALL CAMERA/VIDEO THE SANITARY SEWER LINES AND PROVIDE A DVD TO THE TOWN FOR REVIEW.

TOWN OF BERTHOUD GRADING NOTES:

1. CONSTRUCTION SHALL ADHERE TO THE FOLLOWING SEQUENCE UNLESS OTHERWISE SPECIFIED BY THE TOWN ENGINEER: SANITARY SEWER INSTALLATION, WATER MAIN INSTALLATION, CURB AND GUTTER INSTALLATION, WATER SERVICE INSTALLATION.

2. COMPACTION OF ALL TRENCHES MUST BE ATTAINED AND COMPACTION TEST RESULTS SUBMITTED TO THE ENGINEER AND THE TOWN OF BERTHOUD PRIOR TO FINAL ACCEPTANCE.

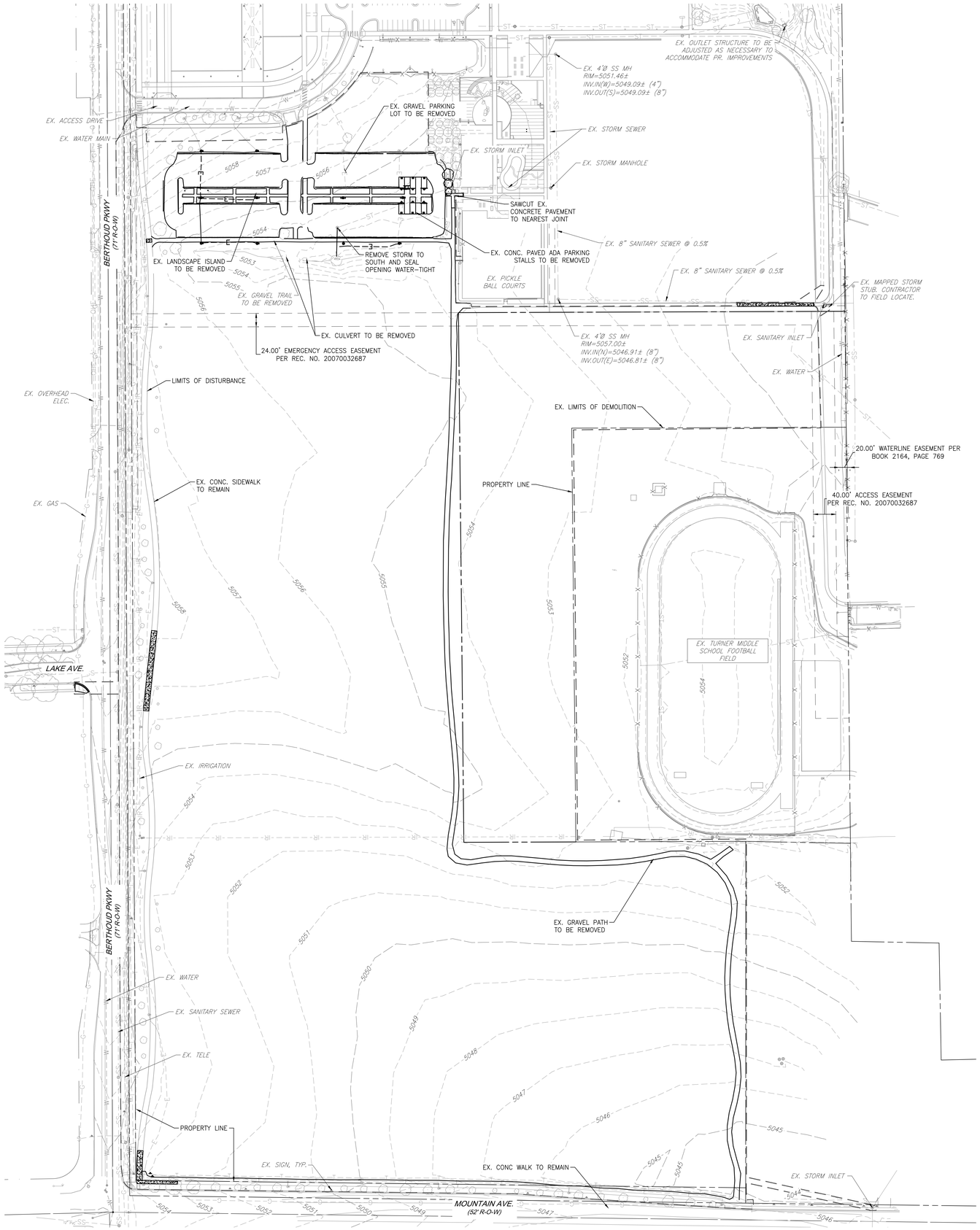
3. ALL WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY A TOWN REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN STANDARD CONSTRUCTION PRACTICES ARE NOT BEING ADHERED TO.

4. DEVELOPER AND BUILDER SHALL REGULARLY PATROL THE PUBLIC LANDS ADJACENT TO THE DEVELOPMENT TO REMOVE CONSTRUCTION DEBRIS AND KEEP THE SITE CLEAN AND SAFE.

5. ALL SITE GRADING (EXCAVATION, EMBANKMENT, AND COMPACTION) SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST SOILS INVESTIGATION FOR THIS PROPERTY AND SHALL FURTHER BE IN CONFORMANCE WITH THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC AND PRIVATE IMPROVEMENTS', LATEST EDITION. A CDPS GENERAL PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES SHALL BE OBTAINED PRIOR TO ANY GRADING BEING PERFORMED ON SITES ONE (1) ACRE OR LARGER IN SIZE. THESE PERMITS CAN BE OBTAINED FROM THE STATE WATER QUALITY CONTROL DIVISION.

6. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.

7.



NOTES:

1. SEE SHEET C0.1 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.

DEMOLITION NOTES:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER IMMEDIATELY OF ANY DISCREPANCIES.
2. LIMITS OF CONSTRUCTION ARE TO BE COORDINATED WITH PROPOSED IMPROVEMENTS. REFER TO APPROVED LAYOUT, GRADING, WATER, STORM, AND SANITARY PLANS.
3. THE CONTRACTOR SHALL COORDINATE ADDITIONAL DEMOLITION REQUIREMENTS AS NECESSARY FOR CONSTRUCTION ACCESS AND STAGING.
4. THE CONTRACTOR SHALL COORDINATE ADDITIONAL DEMOLITION REQUIREMENTS AS SHOWN IN THE ARCHITECTURAL, STRUCTURAL, MEP, IT AND LANDSCAPE PLANS AND SPECIFICATIONS AND NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCY PRIOR TO CONSTRUCTION.
5. BARRIERS/FENCING SHALL BE PROVIDED PRIOR TO SITE DEMOLITION TO PROVIDE FOR THE SAFETY OF WORKERS AND PASSERSBY. THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN EGRESS/ACCESS TO ADJACENT BUILDINGS DURING CONSTRUCTION AND SHALL PROVIDE A BARRIER/FENCING PLAN AND SITE LOGISTICS PLAN TO THE OWNER FOR REVIEW PRIOR TO CONSTRUCTION.
6. PUBLIC ELECTRIC, GAS LINES, AND COMMUNICATION LINES TO BE RELOCATED BY UTILITY PROVIDER. COORDINATE RELOCATION OF PRIVATE UTILITY LINES WITH OWNER.
7. EXISTING UTILITIES NOT SHOWN TO BE REMOVED/RELOCATED ARE TO REMAIN PROTECTED THROUGH OUT CONSTRUCTION. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES. ANY REQUIRED UTILITY OUTAGES SHALL BE COORDINATED WITH THE UTILITY PROVIDER AND OWNER(S) OF AFFECTED PROPERTIES.
8. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLES, RIMS, VALVE BOXES, ELECTRIC VAULT/BOXES, TELECOM VAULT/BOXES, ETC. TO MATCH FINAL GRADE. ALL MANHOLES COVERS, ELECTRICAL BOX COVERS, TELECOM BOX COVERS, ETC. SHALL BE REPLACED WITH NEW COVERS IF DAMAGED.
9. REFER TO SITE ELECTRICAL PLANS FOR LIGHTPOLES TO BE PROTECTED IN PLACE OR RELOCATED.
10. THE CONTRACTOR SHALL PROVIDE FOR DUST CONTROL DURING DEMOLITION TO INCLUDE COVERING OF ALL TRUCKS HAULING DEBRIS OFFSITE, SWEEPING ADJACENT STREETS, AND APPLYING AN APPROVED DUST PALLIATIVE AS NECESSARY.
11. THE CONTRACTOR SHALL SWEEP ALL SEDIMENT, DIRT, MUD & DEBRIS TRACKED OR DEPOSITED ON PUBLIC OR PRIVATE STREETS IMMEDIATELY AND REMEDY THE SOURCE OF TRACKING.
12. CONTRACTOR SHALL STRAIGHT SAWCUT EXISTING ASPHALT PAVEMENT AT DEMOLITION LIMITS. APPLY TACKCOAT AT EDGE PRIOR TO PLACING NEW ASPHALT.
13. ALL NEW CURB AND GUTTER OR CONCRETE PAVEMENT ABUTTING EXISTING CONCRETE PAVEMENT, SIDEWALKS AND CURB AND GUTTER AT DEMOLITION LIMITS SHALL BE CUT AT EXISTING JOINTS WHERE POSSIBLE. ALL CONCRETE PANELS DAMAGED OR PARTIALLY REMOVED FOR CONSTRUCTION SHALL INCLUDE FULL PANEL REPLACEMENT.
14. THE CONTRACTOR SHALL COORDINATE LANDSCAPE DEMOLITION WITH THE OWNER AND LANDSCAPE ARCHITECT AND SALVAGE ITEMS AS DIRECTED BY OWNER. SEE LANDSCAPE'S PLANS FOR TREE, PLANT, AND IRRIGATION SYSTEM DEMOLITION/RELOCATIONS. CONTRACTOR SHALL COORDINATE REMOVAL OR RELOCATION OF EXISTING IRRIGATION SYSTEM WITH OWNER.
15. TREES, LANDSCAPING AND STRUCTURES NOT DESIGNATED FOR DEMOLITION ARE TO REMAIN PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL FOLLOW TREE PROTECTION SPECIFICATION. THE CONTRACTOR SHALL PRESERVE EXISTING VEGETATION OUTSIDE OF THE PROJECT LIMITS.
16. THE CONTRACTOR SHALL COORDINATE SALVAGE OR RELOCATION OF DEMOLITION ITEMS (LIGHTPOLES, SIGNS, FENCES, GATES, ETC.,) WITH THE OWNER AND OTHER DESIGN CONSULTANTS.
17. SEE NOTES SHEET FOR ADDITIONAL NOTES.
18. EXISTING CONDITIONS BASED ON SURVEY DATED SEPTEMBER 4, 2025, BY TAIT & ASSOCIATES.
19. APPROXIMATE AREA OF DEMOLITION SHOWN ON THIS PLAN = 41.76+/- ACRES.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

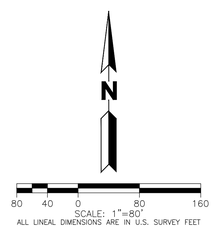
7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

FIELD DRAIN NOTE:

IT IS ANTICIPATED THAT EXISTING FIELD DRAINS WILL BE ENCOUNTERED DURING CONSTRUCTION. CONTRACTOR SHALL PROTECT ALL FIELD DRAINS IN PLACE IF/WHEN FOUND AND MAINTAIN FLOW PATTERNS. ANY FIELD DRAINS THAT ARE BROKEN OR REMOVED SHALL BE REPLACED.

LEGEND

EXISTING		DEMOLITION
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
	ASPHALT	
	CONCRETE/ SIDEWALK	
5750	CONTOURS	
ST	STORM SEWER	ST
ST	STORM MANHOLE	ST
	STORM INLET	
	FLARED END SECTION	
SS	SANITARY SEWER	SS
SS	SANITARY MANHOLE	SS
W	WATER LINE	W
	WATER VALVE	
	FIRE HYDRANT	
WM	WATER METER	
IR	IRRIGATION LINE	IR
IRR	IRRIGATION CONTROL	IRR
OHE	OVERHEAD ELECTRIC	OHE
E	ELECTRIC LINE	E
	LIGHT POLE	
	POWER POLE	
ELEC	ELECTRIC METER	ELEC
T	TELEPHONE LINE	T
TEL	TELEPHONE PEDESTAL	T
CT	CABLE TV	CT
	SIGN	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
G	GAS LINE	G
DRIVE	DESCRIPTIONS	DRIVE



COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

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MARTIN/MARTIN CONSULTING ENGINEERS

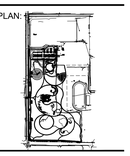
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

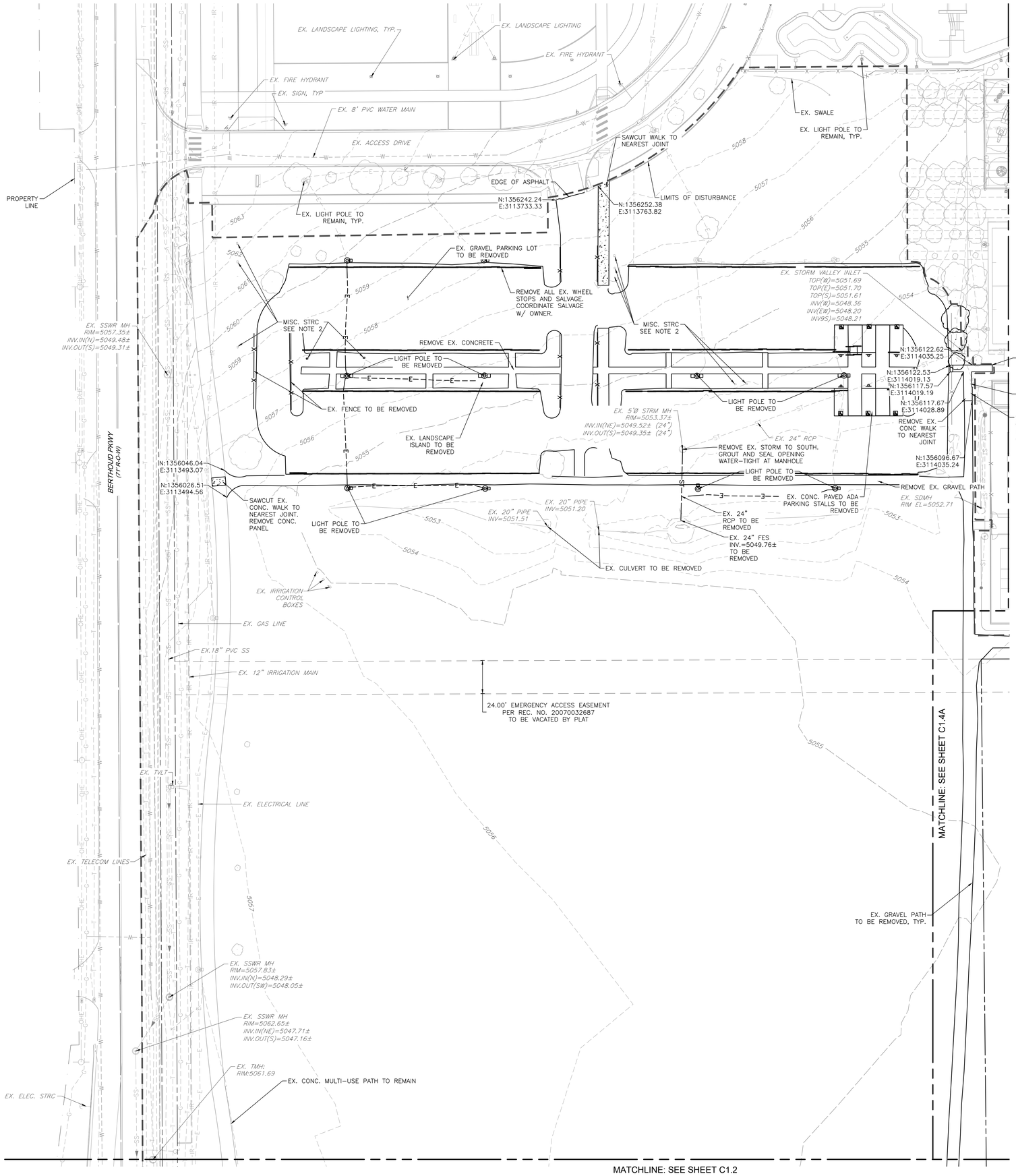
OVERALL EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

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BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

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NOTES:

1. SEE SHEET C1.0 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.
2. MISC. STRUCTURE IDENTIFIED IN SURVEY. UNKNOWN. CONTRACTOR TO IDENTIFY AND COORDINATE REMOVAL OR RELOCATION AS NECESSARY FOR CONSTRUCTION.

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N

30 15 0 30 60

SCALE: 1"=30'

ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

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wenk

MARTIN/MARTIN CONSULTING ENGINEERS

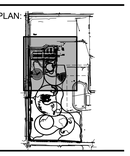
TOWN OF BERTHOUD Est. 1880 Garden Spot of Colorado

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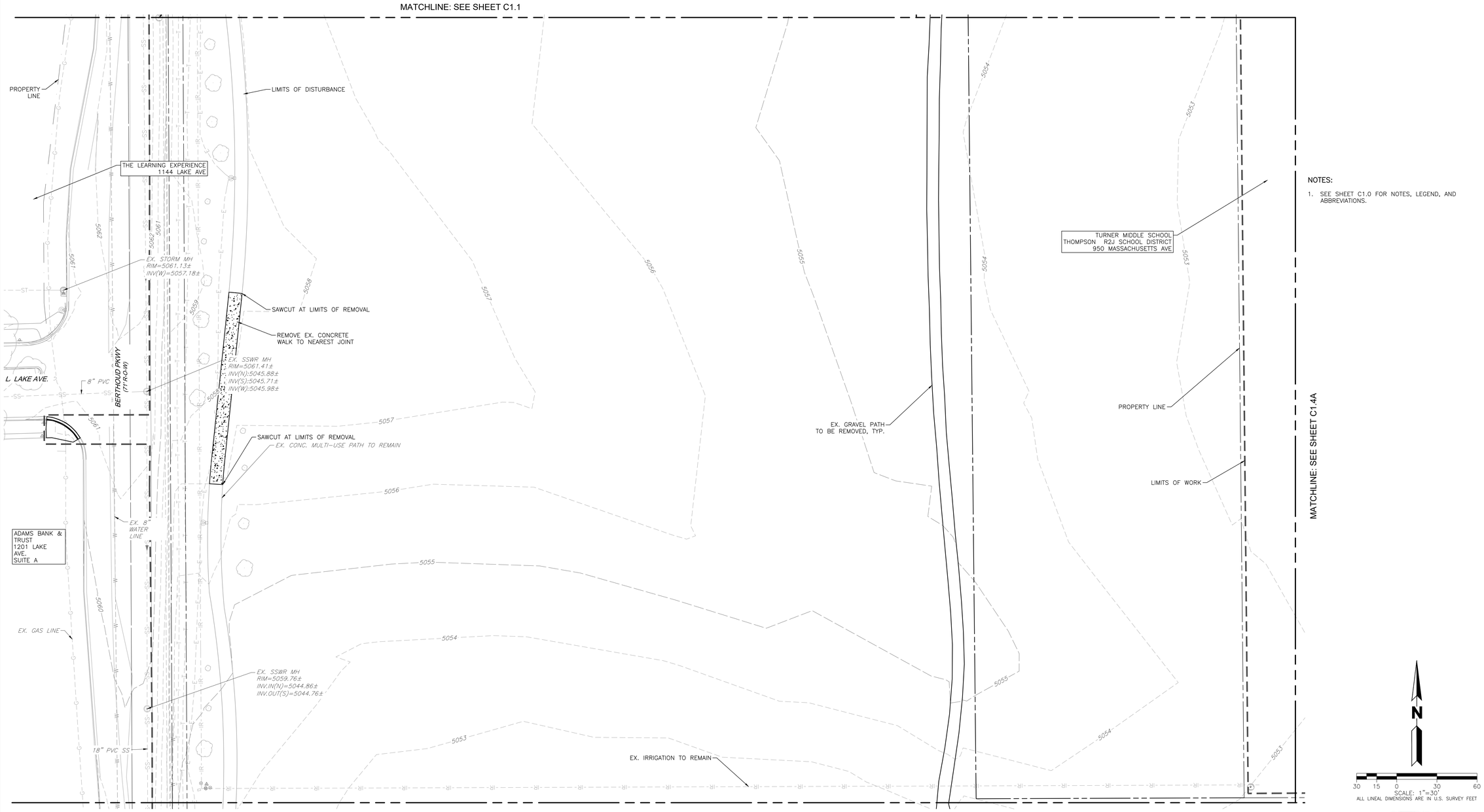
EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

C1.1

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NOTES:

1. SEE SHEET C1.0 FOR NOTES, LEGEND, AND ABBREVIATIONS.

N

30 15 0 30 60

SCALE: 1"=30'

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MATCHLINE: SEE SHEET C1.3

BASIS OF BEARINGS:

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BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

FIELD DRAIN NOTE:

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COLORADO 811
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

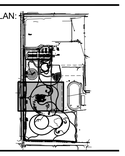
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

C1.2

12/12/2025 11:19 AM

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NOTES:

1. SEE SHEET C1.0 FOR NOTES, LEGEND, AND ABBREVIATIONS.
2. MISC. STRUCTURE IDENTIFIED IN SURVEY. UNKNOWN. CONTRACTOR TO IDENTIFY AND COORDINATE REMOVAL OR RELOCATION AS NECESSARY FOR CONSTRUCTION.

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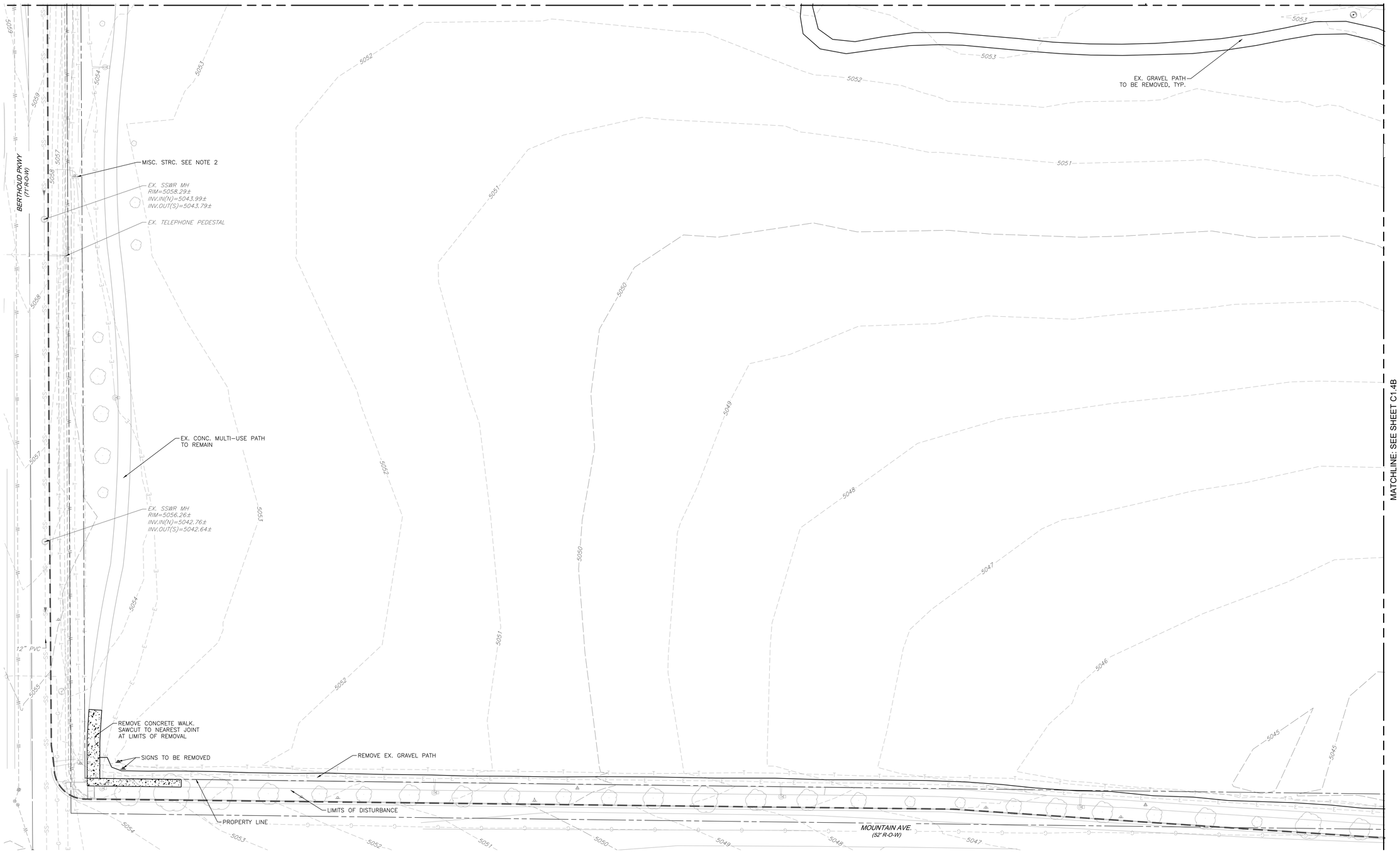
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N

30 15 0 30 60
SCALE: 1"=30'
ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

MATCHLINE: SEE SHEET C1.2



MATCHLINE: SEE SHEET C1.4B

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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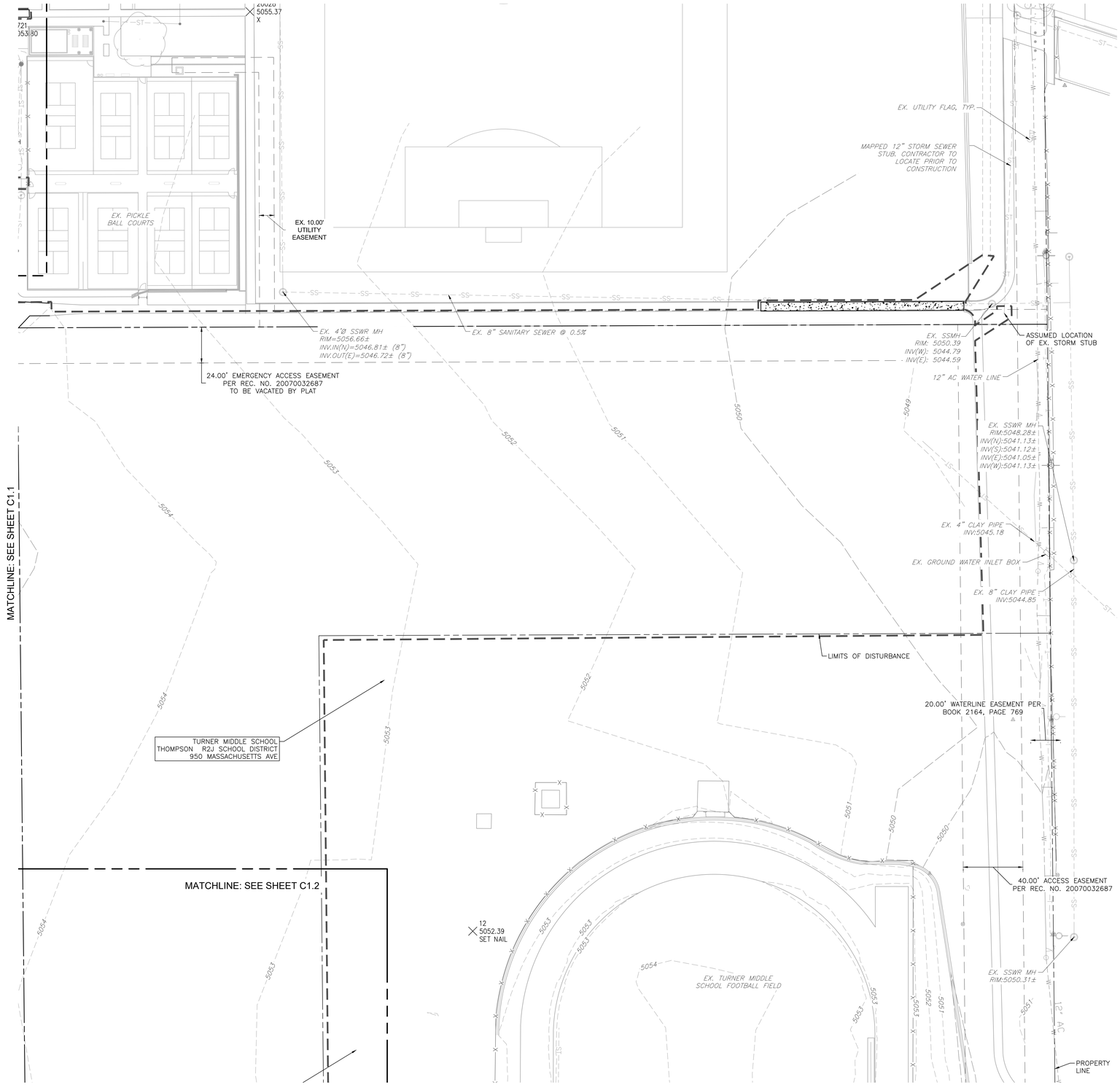
EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

C1.3

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N

30 15 0 30 60

SCALE: 1"=30'

ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

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MARTIN/MARTIN CONSULTING ENGINEERS

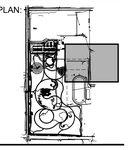
Garden Spot of Colorado

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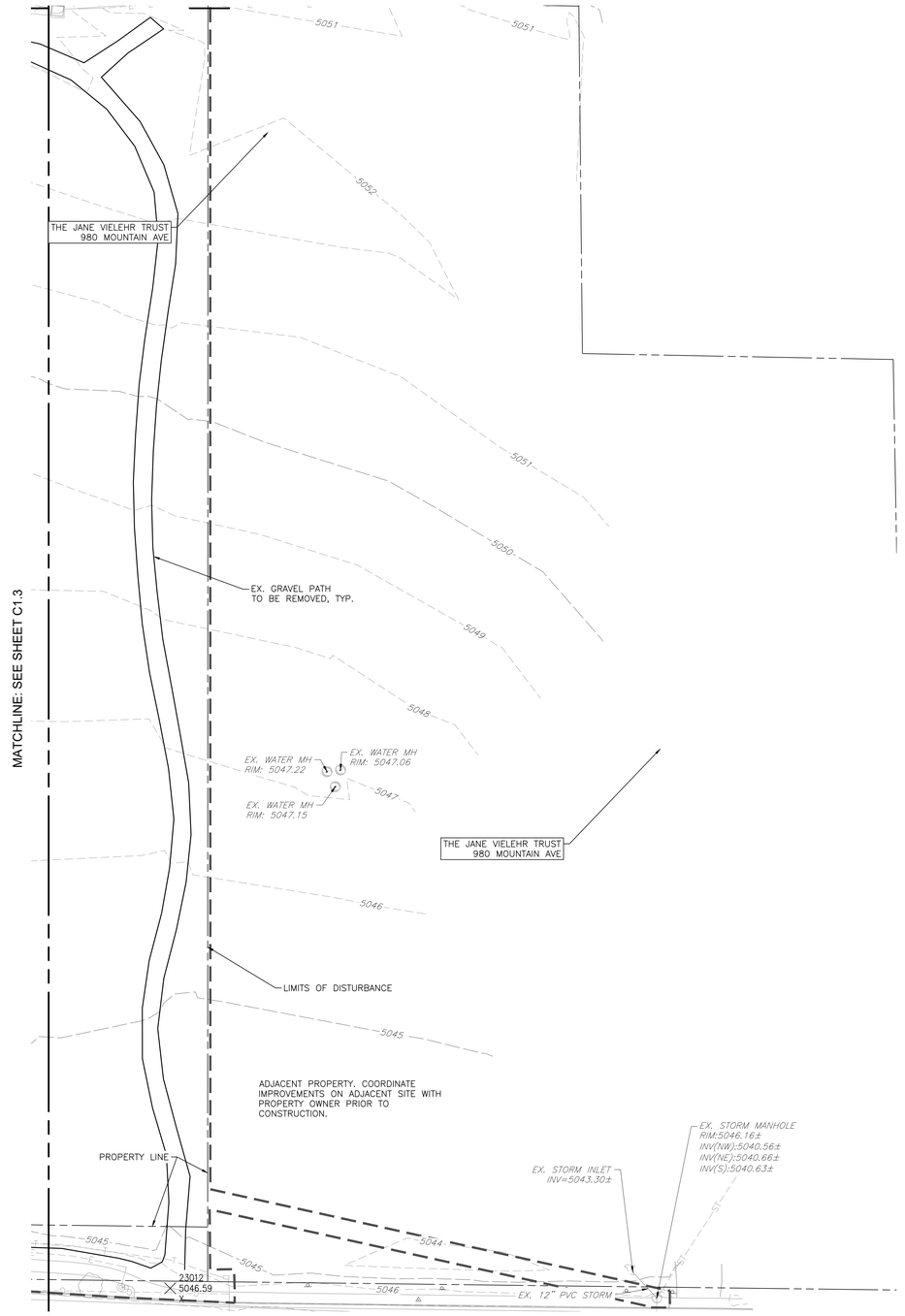
EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

C1.4A

12/12/2025 11:39 AM

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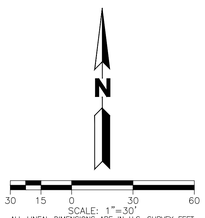
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wenk
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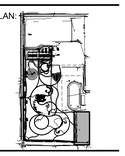
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

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100% CONSTRUCTION DOCUMENTS - DRAFT

EXISTING CONDITIONS AND DEMOLITION PLAN

SHEET:

C1.4B

12/12/2025 11:35 AM

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SIGNAGE, STRIPING AND PAVING NOTES:

1. ALL SIGNING AND STRIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST ADDITION.
2. ALL PRIVATE STRIPING SHOWN IS STANDARD TRAFFIC MARKING PAINT WHITE COLOR, UNLESS OTHERWISE NOTED.
3. ALL SIGNS SHALL BE MOUNTED AT A MINIMUM HEIGHT OF 7' FROM GROUND TO BOTTOM OF SIGN.
4. TRAFFIC SIGN MATERIAL SHALL BE REFLECTIVE ALUMINUM.
5. ALL PROPOSED WALKS SHALL CONNECT TO EXISTING WALK WITH DRILL/DOWEL DETAIL SHOWN ON DETAIL SHEET.
6. SEE DETAIL SHEET FOR HANDICAP RAMP TYPES AND DETAILS.
7. SEE DETAIL SHEETS FOR SITE DETAILS.
8. ISOLATION JOINTS SHALL BE USED IN CONCRETE PAVING AGAINST THE BUILDING.
9. ALL CONCRETE JOINTS SHALL BE SEALED PER SPECIFICATIONS.
10. PAVING RECOMMENDATIONS ARE BASED ON THE "GEOTECHNICAL INVESTIGATION REPORT BERTHOUD ARBORETUM AT WAGGENER FARM PARK" PREPARED BY ROCKSOL CONSULTING GROUP, INC. DATED AUGUST 5, 2024.
11. ALL ADA ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.0% SLOPE IN ANY DIRECTION. CROSS SLOPE ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 2.0%. ALL WALKS SHALL NOT EXCEED 5.0% LONGITUDINAL SLOPE, UNLESS OTHERWISE NOTED AS A RAMP WITH HANDRAILS AND LANDINGS. ADA RAMPS SHALL NOT EXCEED 8.3%

STOP
R1-1
30 X 30
1 STOP SIGN

RESERVED PARKING
R7-8
12 X 18
2 ADA PARKING SIGN

VAN ACCESSIBLE
R7-8B
18 X 9
3 ADA VAN PARKING SIGN

4 BUS LOADING AND UNLOADING ZONE

BUS PARKING ONLY
5 BUS PARKING ONLY SIGN

PICK-UP AND DROP-OFF ONLY NO PARKING
6 LOADING ZONE/DROPOFF ONLY SIGN

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
	UTILITY CROSSING	#
-ST-	STORM SEWER	ST
ST	STORM MANHOLE	
-RD-	ROOF DRAIN	RD
	STORM INLET	
	FLARED END SECTION	
-SS-	SANITARY SEWER	SS
SS	SANITARY MANHOLE	
	CLEAN OUT	
-W-	WATER LINE	W
	WATER VALVE	
	FIRE HYDRANT	
WM	WATER METER	
-IR-	IRRIGATION LINE	IR
IRR	IRRIGATION CONTROL	IRR
-OHE-	OVERHEAD ELECTRIC	
-E-	ELECTRIC LINE	E
	LIGHT POLE	
	POWER POLE	
E/EC	ELECTRIC METER	
-T-	TELEPHONE LINE	T
TEL	TELEPHONE PEDESTAL	T
-CT-	CABLE TV	CT
-G-	GAS LINE	G
	SIGN	
D.W.	MONITOR WELL	
	GRADING ARROW	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
DRIVE	DESCRIPTIONS	DRIVE
ELEV.	SPOT ELEVATIONS	ELEV.
	LIMITS OF CONSTRUCTION	
	PAVEMENT MARKINGS	

PAVING REQUIREMENTS

ASPHALT PAVING:
- MIN. 6" HMA SX(75) 58-28 OVER MIN. 6" CDOT CLASS 6 ABC OVER 12" SCARIFED AND RECONDITIONED SUBGRADE

CONCRETE PARKING LOT PAVING:
- MIN. 6" CLASS P PCCP REINFORCED WITH #3 REBAR @ 24" E.W.O.C OVER MIN. 4" CDOT CLASS 6 ABC OVER 12" SCARIFED AND RECONDITIONED SUBGRADE

PEDESTRIAN AND LIGHT DUTY PAVING:
- MIN. 5" CLASS P PCCP OVER MIN. 8" CDOT CLASS 6 ABC OVER 12" SCARIFED AND RECONDITIONED SUBGRADE

N

30 15 0 30 60
SCALE: 1"=30'
ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

BASIS OF BEARINGS:

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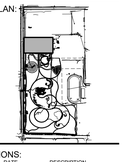
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

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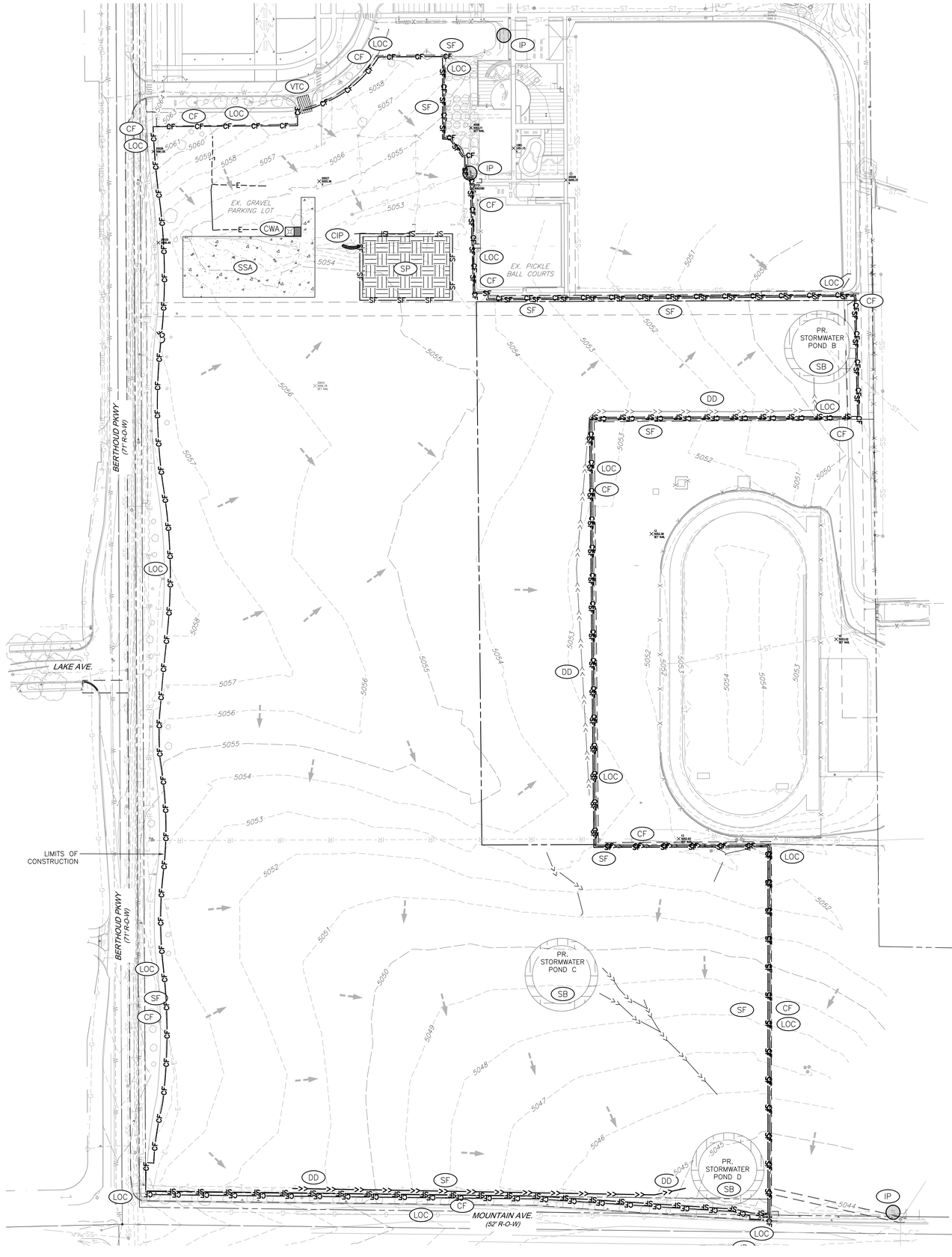
SIGNAGE, STRIPING AND PAVING PLAN

SHEET:

C8.1

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NOTES:

1. SEE SHEETS C0.0 AND C0.1 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.

MARTIN/MARTIN INC. EROSION CONTROL NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION TO PREVENT DAMAGING FLOWS ON THE SITE AND IN THE WATERSHED BELOW THE SITE. CONTROL SYSTEMS SHALL BE INSTALLED PRIOR TO STRIPPING OF NATIVE VEGETATIVE COVER AND AS GRADING PROGRESSES. REFER TO SEDIMENT AND EROSION CONTROL PLANS AND STORM WATER MANAGEMENT PLAN. CONDITIONS IN THE FIELD MAY WARRANT EROSION CONTROL MEASURES IN ADDITION TO WHAT IS SHOWN ON THESE PLANS. THE PLAN MAY BE MODIFIED WITH APPROPRIATE APPROVALS AS FIELD CONDITIONS WARRANT. THE CONTRACTOR SHALL FURNISH ALL STORMWATER MANAGEMENT PLANS (SWMP) AND REPORTS INCLUDING EROSION CONTROL PLANS AND DETAILS NECESSARY TO OBTAIN REQUIRED PERMITS TO ENSURE COMPLIANCE WITH ALL STATE AND LOCAL JURISDICTIONAL REQUIREMENTS.
2. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME.
3. TOPSOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE REVEGETATED. ANY AND ALL STOCKPILES SHALL BE LOCATED AND PROTECTED FROM EROSIVE ELEMENTS.
4. AT ALL TIMES, THE PROPERTY SHALL BE MAINTAINED AND/OR WATERED TO PREVENT WIND-CAUSED EROSION. EARTHWORK OPERATIONS SHALL BE DISCONTINUED WHEN FUGITIVE DUST SIGNIFICANTLY IMPACTS ADJACENT PROPERTY. IF EARTHWORK IS COMPLETE OR DISCONTINUED AND DUST FROM THE SITE CONTINUES TO CREATE PROBLEMS, THE CONTRACTOR SHALL IMMEDIATELY INSTITUTE MITIGATIVE MEASURES AND SHALL CORRECT DAMAGE TO ADJACENT PROPERTY.
5. PERMANENT OR TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED TO DISTURBED AREAS WITHIN 30 DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. UNLESS SPECIFIED OTHERWISE, TEMPORARY VEGETATION SHALL BE INSTALLED ON ALL DISTURBED AREAS WHERE PERMANENT SURFACE IMPROVEMENTS ARE NOT SCHEDULED FOR INSTALLATION WITHIN THREE MONTHS. TEMPORARY VEGETATION SHALL BE A VIGOROUS, DROUGHT TOLERANT, NATIVE SPECIES MIX. PROJECT SCHEDULING SHOULD TAKE ADVANTAGE OF SPRING OR FALL PLANTING SEASONS FOR NATURAL GERMINATION, BUT SEEDED AREAS SHALL BE IRRIGATED, IF CONDITIONS MERIT. REFER TO THE LANDSCAPE PLAN FOR FINAL LANDSCAPING.
6. TEMPORARY FENCES SHALL BE INSTALLED ALONG ALL BOUNDARIES OF THE CONSTRUCTION LIMITS OR PROPERTY LINES AS SHOWN ON THE APPROVED EROSION CONTROL PLAN, TO PREVENT GRADING ON PROPERTY NOT OWNED BY THE OWNER/DEVELOPER. IN ADDITION, THE TOWN OF BERTHOUD MAY REQUIRE ADDITIONAL TEMPORARY FENCES IF FIELD CONDITIONS WARRANT.
7. THE CONTRACTOR SHALL PREVENT SEDIMENT, DEBRIS AND ALL OTHER POLLUTANTS FROM ENTERING THE STORM SEWER SYSTEM DURING ALL DEMOLITION, EXCAVATION, TRENCHING, GRADING OR OTHER CONSTRUCTION OPERATIONS THAT ARE PART OF THIS PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO ADJACENT WATERWAYS, ROADWAYS, WETLANDS, ETC., RESULTING FROM WORK DONE AS PART OF THIS PROJECT.
8. THE CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN INADVERTENTLY DISCHARGED TO, OR ACCUMULATED IN, THE FLOWLINES AND PUBLIC RIGHT-OF-WAY AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT.
9. THE GRADING CONTRACTOR AND/OR THEIR AUTHORIZED AGENTS SHALL ENSURE THAT ALL LOADS OF CUT AND FILL MATERIAL IMPORTED TO OR EXPORTED FROM THIS SITE SHALL BE PROPERLY COVERED TO PREVENT LOSS OF THE MATERIAL DURING TRANSPORT ON PUBLIC ROADWAYS.
10. APPROVED EROSION AND SEDIMENT CONTROL "BEST MANAGEMENT PRACTICES" [BMP] SHALL BE MAINTAINED AND KEPT IN GOOD REPAIR FOR THE DURATION OF THIS PROJECT. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL BMPS WEEKLY AND AFTER SIGNIFICANT PRECIPITATION EVENTS. ALL NECESSARY MAINTENANCE AND REPAIR SHALL BE COMPLETED IN A TIMELY MANNER. ACCUMULATED SEDIMENT AND DEBRIS SHALL BE REMOVED FROM A BMP WHEN THE SEDIMENT LEVEL REACHES ONE HALF THE HEIGHT OF THE BMP OR, AT ANY TIME THAT SEDIMENT OR DEBRIS ADVERSELY IMPACTS THE FUNCTIONING OF THE BMP.
11. WATER USED IN THE CLEANING OF CONCRETE TRUCK DELIVERY CHUTES SHALL BE DISCHARGED INTO A PREDEFINED, BERMED CONTAINMENT AREA ON THE JOB SITE. THE REQUIRED CONTAINMENT AREA IS TO BE BERMED SO THAT WASH WATER IS TOTALLY CONTAINED. WASH WATER DISCHARGED INTO THE CONTAINMENT AREA SHALL BE ALLOWED TO INFILTRATE OR EVAPORATE. DRIED CONCRETE WASTE SHALL BE REMOVED FROM THE CONTAINMENT AREA AND PROPERLY DISPOSED OF. SHOULD A PREDEFINED BERMED CONTAINMENT AREA NOT BE AVAILABLE DUE TO THE PROJECT SIZE, OR LACK OF AN AREA WITH A SUITABLE GROUND SURFACE FOR ESTABLISHING A CONTAINMENT AREA, PROPER DISPOSAL OF READY MIX WASHOUT AND RINSE OFF WATER AT THE JOB SITE SHALL CONFORM TO THE APPROVED TECHNIQUES AND PRACTICES IDENTIFIED IN THE COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT'S TRAINING VIDEO ENTITLED "BUILDING FOR A CLEANER ENVIRONMENT, READY MIX WASHOUT TRAINING", AND ITS ACCOMPANYING MANUAL ENTITLED, "READY MIX WASHOUT GUIDEBOOK, VEHICLE AND EQUIPMENT WASHOUT AT CONSTRUCTION SITES." THE DIRECT OR INDIRECT DISCHARGE OF WATER CONTAINING WASTE CONCRETE TO THE STORM SEWER SYSTEM IS PROHIBITED. INFORMATION ABOUT, OR COPIES OF THE VIDEO AND TRAINING MANUAL ARE AVAILABLE FROM THE WATER QUALITY CONTROL DIVISION, COLORADO DEPARTMENT OF PUBLIC HEALTH & ENVIRONMENT, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, COLORADO 80222-1530, 303-692-3555
12. THE CONTRACTOR SHALL PROTECT ALL STORM SEWER FACILITIES ADJACENT TO ANY LOCATION WHERE PAVEMENT CUTTING OPERATIONS INVOLVING WHEEL CUTTING, SAW CUTTING OR ABRASIVE WATER JET CUTTING ARE TO TAKE PLACE. THE CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ALL WASTE PRODUCTS GENERATED BY SAID CUTTING OPERATIONS ON A DAILY BASIS. THE DISCHARGE OF ANY WATER CONTAMINATED BY WASTE PRODUCTS FROM CUTTING OPERATIONS TO THE STORM SEWER SYSTEM IS PROHIBITED.
13. PAVED SURFACES WHICH ARE ADJACENT TO CONSTRUCTION SITES SHALL BE SWEPT IN A TIMELY MANNER WHEN SEDIMENT AND OTHER MATERIALS ARE TRACKED OR DISCHARGED ON TO THEM. EITHER SWEEPING BY HAND OR USE OF STREET SWEEPERS IS ACCEPTABLE. STREET SWEEPERS USING WATER WHILE SWEEPING IS PREFERRED IN ORDER TO MINIMIZE DUST. FLUSHING OFF PAVED SURFACES WITH WATER IS PROHIBITED.
14. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
15. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
16. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
17. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
18. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
19. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
20. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
21. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
22. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
23. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
24. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
25. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
26. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
27. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
28. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
29. CONTRACTOR MUST HAVE APPROVED SWMP ON SITE AT ALL TIMES.
30. LOCATIONS OF CONCRETE WASHOUT AREA AND STABILIZED STORAGE AREA TO BE DETERMINED IN CONSULTATION WITH THE OWNER PRIOR TO SITE MOBILIZATION. CONCRETE WASHOUT AREA LOCATION CAN NOT RESULT IN HAVING TRUCK EXTENDING INTO A TRAFFIC LANE WHILE WASHING OUT. CONTRACTOR MAY MOVE STOCKPILES, STABILIZED STORAGE AREAS, CONCRETE WASHOUT AREAS, AND/OR VTC DURING CONSTRUCTION. NEW LOCATIONS SHALL BE UPDATED ON THE SWMP POSTED ON THE JOBSITE.
31. ANY DISTURBED AREA WHICH HAS NOT REACHED FINAL STABILIZATION WITHIN 2 WEEKS OF BEING DISTURBED SHALL RECEIVE SURFACE ROUGHENING.
32. DO NOT REMOVE ROCK SOCKS, SILT FENCE, AND INLET PROTECTION UNTIL FINAL STABILIZATION IS ACHIEVED.
33. FOLLOW MANUFACTURER'S INSTRUCTION FOR INSTALLATION OF CONSTRUCTION FENCE.

LEGEND

SF	SILT FENCE	SF
VTC	VEHICLE TRACKING CONTROL	VTC
IP	INLET PROTECTION	IP
OP	OUTLET PROTECTION	OP
CIP	CULVERT INLET PROTECTION	CIP
SSA	STABILIZED STAGING AREA	SSA
SP	STOCKPILE MANAGEMENT W/ PROTECTION	SP
CWA	CONCRETE WASHOUT AREA	CWA
CF	CONSTRUCTION FENCE	CF
RS	ROCK SOCK	RS
DD/DC	DIVERSION DITCHES/ CHANNEL	DD/DC
PS	PERMANENT SEEDING	PS
ECB	EROSION CONTROL BLANKET	ECB
SB	SEDIMENT BASIN	SB
LOC	LIMITS OF CONSTRUCTION	LOC

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

N

80 40 0 80 160

SCALE: 1"=80'

ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

wenk

MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

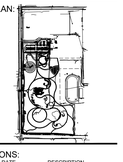
REVIEW SET

NOT FOR CONSTRUCTION

These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.

December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00

DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

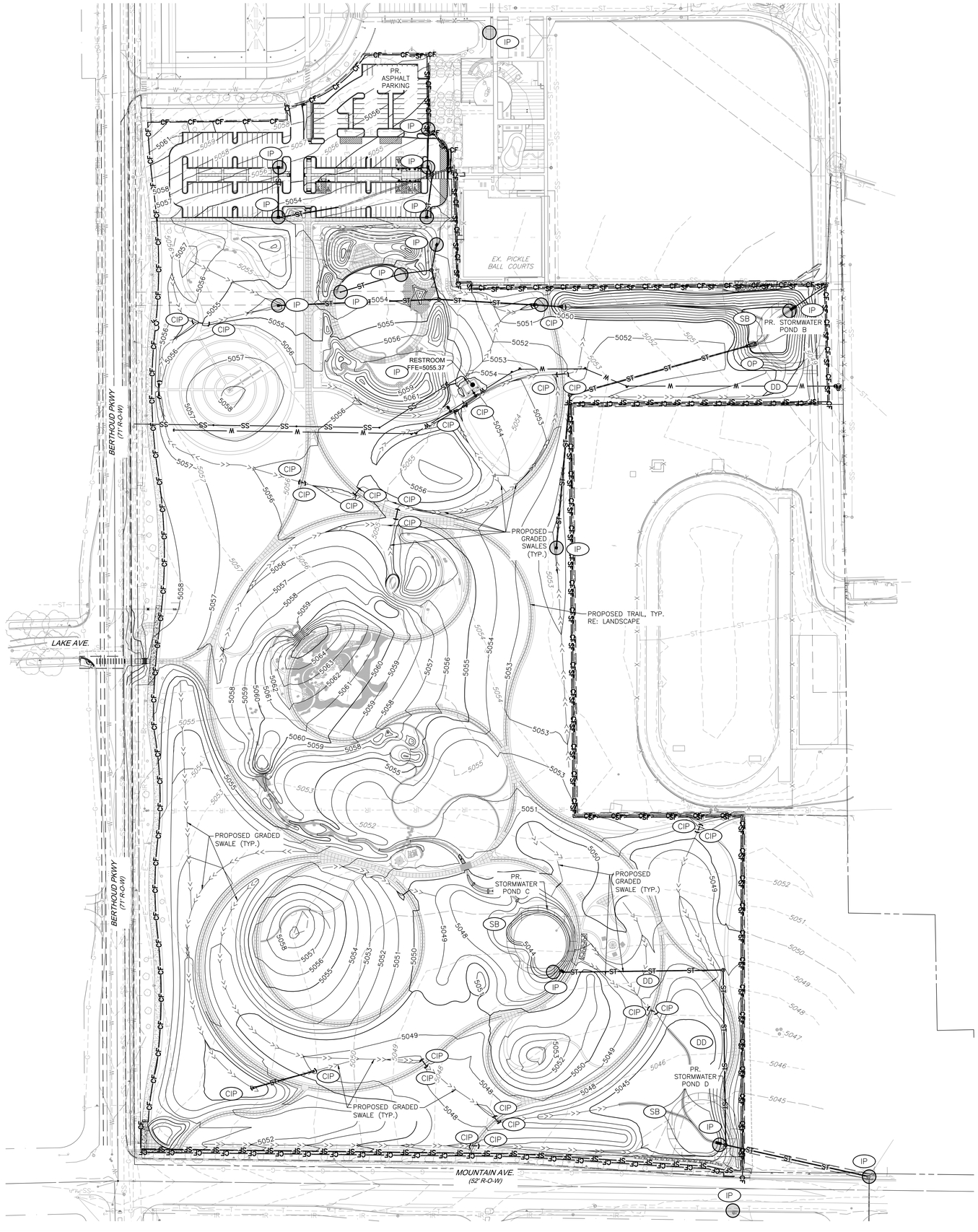
INITIAL EROSION CONTROL PLAN

SHEET:

C2.0A

12/12/2025 11:39 AM

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NOTES:

SEE SHEETS C0.0 AND C0.1 AND C2.0A FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

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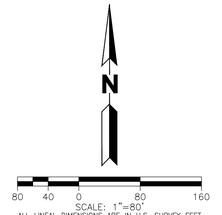
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EROSION & SEDIMENT CONTROL NOTES:

1. THE CONTRACTOR MUST OBTAIN A CONSTRUCTION ACTIVITIES STORMWATER DISCHARGE PERMIT (GENERAL PERMIT) FROM THE WATER QUALITY DIVISION OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) AT LEAST 2 WEEKS PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITIES. PERMIT INFORMATION CAN BE FOUND AT THE WEBSITE ADDRESS: HTTPS://WWW.COLORADO.GOV/PACIFIC/CDPHE/WQ-CONSTRUCTION-GENERAL-PERMITS OR BY CONTACTING CDPHE BY THE FOLLOWING CONTACT INFORMATION: COLORADO DEPARTMENT OF HEALTH, WATER QUALITY CONTROL DIVISION, WQCD–PE–B2, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, COLORADO 80246–1530. THE CONTRACTOR SHALL FURNISH ALL STORMWATER MANAGEMENT PLANS (SWMP) AND REPORTS INCLUDING EROSION AND SEDIMENT CONTROL PLANS AND DETAILS NECESSARY TO OBTAIN REQUIRED PERMITS AND TO ENSURE COMPLIANCE WITH ALL STATE AND LOCAL JURISDICTIONAL REQUIREMENTS.
2. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
4. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
5. APPROPRIATE BMP'S FOR CONSTRUCTION–RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
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7. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OF THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
8. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
9. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
9. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING. DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON–SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
10. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON–CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
11. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
12. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
13. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
14. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
15. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5–DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
16. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
17. APPROPRIATE BMPS FOR CONSTRUCTION–RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.
18. CONTRACTOR MUST HAVE APPROVED SWMP ON SITE AT ALL TIMES.
19. LOCATIONS OF CONCRETE WASHOUT AREA AND STABILIZED STORAGE AREA TO BE DETERMINED IN CONSULTATION WITH THE OWNER PRIOR TO SITE MOBILIZATION. CONCRETE WASHOUT AREA LOCATION CAN NOT RESULT IN HAVING TRUCK EXTENDING INTO A TRAFFIC LANE WHILE WASHING OUT. CONTRACTOR MAY MOVE STOCKPILES, STABILIZED STORAGE AREAS, CONCRETE WASHOUT AREAS, AND/OR VTC DURING CONSTRUCTION. NEW LOCATIONS SHALL BE UPDATED ON THE SWMP POSTED ON THE JOBSITE.
20. SEE EROSION & SEDIMENT CONTROL DETAIL SHEETS FOR EROSION CONTROL DETAILS.
21. ANY DISTURBED AREA WHICH HAS NOT REACHED FINAL STABILIZATION WITHIN 2 WEEKS OF BEING DISTURBED SHALL RECEIVE SURFACE ROUGHENING.
22. ANY DISTURBED AREA WHICH HAS NOT REACHED FINAL STABILIZATION WITHIN 30 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED. MULCH SHOULD BE SPREAD EVENLY AT A RATE OF 2 TONS PER ACRE AND MUST BE TACKED OR FASTENED BY AN APPROVED METHOD SUITABLE FOR THE TYPE OF MULCH USED. THE TEMPORARY SEED MIX (SEE DETAIL SHEET) IS TO BE USED ONLY FOR COMPLIANCE WITH THE SWMP AND SHALL NOT BE INCORPORATED IN THE FINAL LANDSCAPE.
23. DO NOT REMOVE ROCK SOCKS, SILT FENCE, AND INLET PROTECTION UNTIL FINAL STABILIZATION IS ACHIEVED.
24. FOLLOW MANUFACTURER'S INSTRUCTION FOR INSTALLATION OF CONSTRUCTION FENCE.

LEGEND

SF—SF	SILT FENCE	SF
	VEHICLE TRACKING CONTROL	VTC
	INLET PROTECTION	IP
	OUTLET PROTECTION	OP
	CULVERT INLET PROTECTION	CIP
	STABILIZED STAGING AREA	SSA
	STOCKPILE MANAGEMENT W/ PROTECTION	SP
	CONCRETE WASHOUT AREA	CWA
CF—CF	CONSTRUCTION FENCE	CF
	ROCK SOCK	RS
SCL—SCL	SEDIMENT CONTROL LOG	SCL
	DIVERSION DITCHES/ CHANNEL	DD/DC
	PERMANENT SEEDING	PS
	EROSION CONTROL BLANKET	ECB
	SEDIMENT BASIN	SB
	LIMITS OF CONSTRUCTION	LOC



SCALE: 1"=80'

ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2–BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

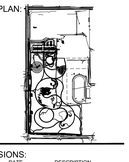
REVIEW SET

NOT FOR CONSTRUCTION

These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.

December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00

DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

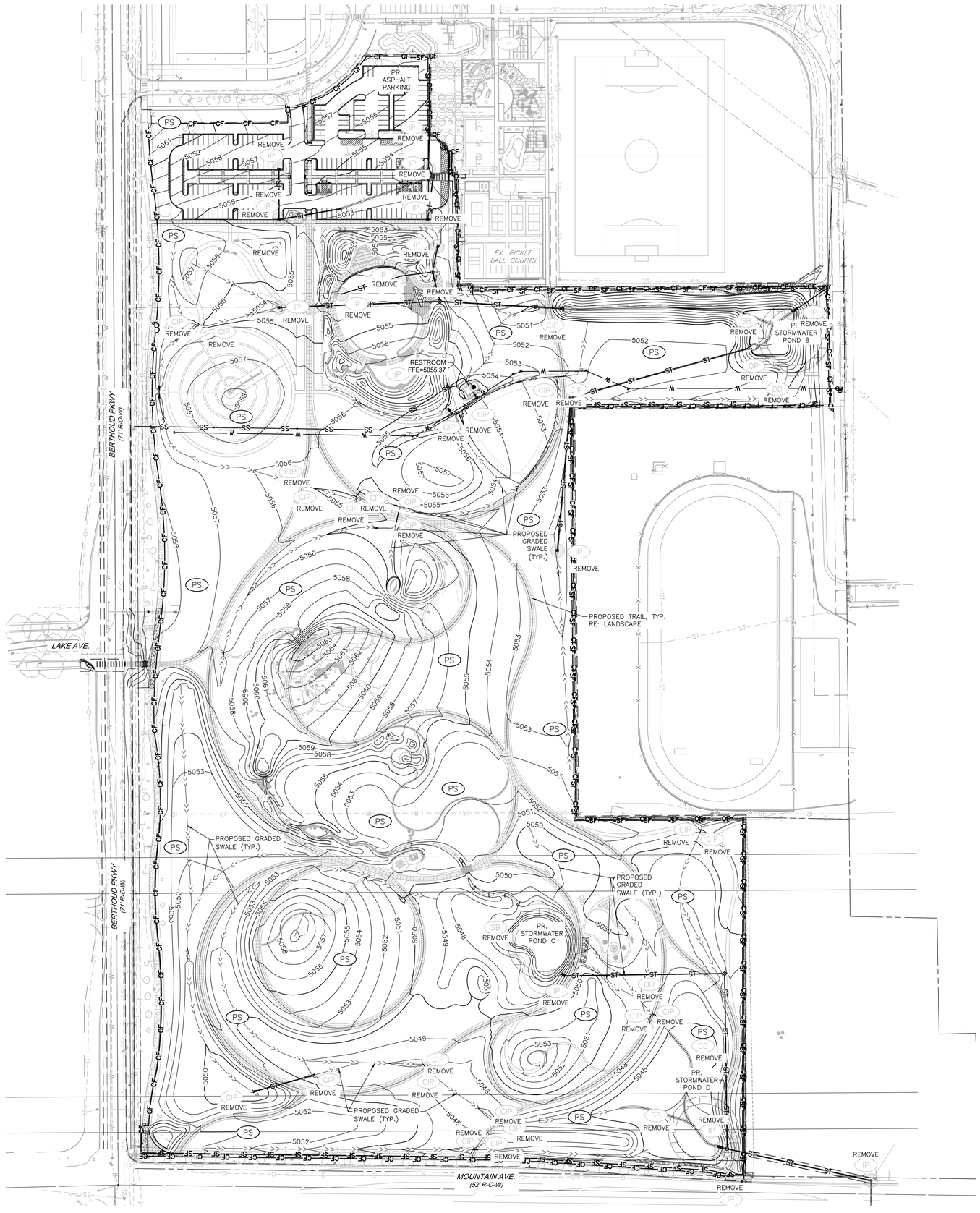
INTERIM EROSION CONTROL PLAN

SHEET:

C2.0B

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NOTES:

1. SEE SHEETS C0.0 AND C0.1 AND C2.0A FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.
2. REFER TO LANDSCAPE PLANS FOR PERMANENT SEEDING DETAILS

NPDES NOTES:

IN THE CASE OF EMERGENCY, CALL 1-877-854-5453
AT WORK PHONE # _____
OR HOME PHONE # _____

1. SEDIMENT FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING STRUCTURAL CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE.
2. STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TACKING, OR WIND.
3. APPROPRIATE BMP'S FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS SHALL BE IMPLEMENTED TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTIES BY WIND OR RUNOFF.
4. RUNOFF FROM EQUIPMENT AND VEHICLE WASHING SHALL BE CONTAINED AT CONSTRUCTION SITES UNLESS TREATED TO REDUCE OR REMOVE SEDIMENT AND OTHER POLLUTANTS.
5. ALL CONSTRUCTION CONTRACTOR AND SUBCONTRACTOR PERSONNEL ARE TO BE MADE AWARE OR THE REQUIRED BEST MANAGEMENT PRACTICES AND GOOD HOUSEKEEPING MEASURES FOR THE PROJECT SITE AND ANY ASSOCIATED CONSTRUCTION STAGING AREAS.
6. AT THE END OF EACH DAY OF CONSTRUCTION ACTIVITY ALL CONSTRUCTION DEBRIS AND WASTE MATERIALS SHALL BE COLLECTED AND PROPERLY DISPOSED IN TRASH OR RECYCLE BINS.
7. CONSTRUCTION SITES SHALL BE MAINTAINED IN SUCH A CONDITION THAT AN ANTICIPATED STORM DOES NOT CARRY WASTES OR POLLUTANTS OFF THE SITE. DISCHARGES OF MATERIAL OTHER THAN STORMWATER ONLY WHEN NECESSARY FOR PERFORMANCE AND COMPLETION OF CONSTRUCTION PRACTICES AND WHERE THEY DO NOT: CAUSE OR CONTRIBUTE TO A VIOLATION OF ANY WATER QUALITY STANDARD; CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR NUISANCE; OR CONTAIN A HAZARDOUS SUBSTANCE IN A QUANTITY REPORTABLE UNDER FEDERAL REGULATIONS 40 CFR PARTS 117 AND 302.
8. POTENTIAL POLLUTANTS INCLUDE BUT ARE NOT LIMITED TO: SOLID OR LIQUID CHEMICAL SPILLS; WASTES FROM PAINTS, STAINS, SEALANTS, GLUES, LIMES, PESTICIDES, HERBICIDES, WOOD PRESERVATIVES AND SOLVENTS; ASBESTOS FIBERS, PAINT FLAKES OR STUCCO FRAGMENTS; FUELS, OILS, LUBRICANTS, AND HYDRAULIC, RADIATOR OR BATTERY FLUIDS; FERTILIZERS, VEHICLE/EQUIPMENT WASH WATER AND CONCRETE WASH WATER; CONCRETE, DETERGENT OR FLOATABLE WASTES; WASTES FROM ANY ENGINE/EQUIPMENT STEAM CLEANING OR CHEMICAL DEGREASING AND SUPERCHLORINATED POTABLE WATER LINE FLUSHING.
MARCH 2004
DURING CONSTRUCTION, PERMITTEE SHALL DISPOSE OF SUCH MATERIALS IN A SPECIFIED AND CONTROLLED TEMPORARY AREA ON-SITE, PHYSICALLY SEPARATED FROM POTENTIAL STORMWATER RUNOFF, WITH ULTIMATE DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REQUIREMENTS.
9. DEWATERING OF CONTAMINATED GROUNDWATER, OR DISCHARGING CONTAMINATED SOILS VIA SURFACE EROSION IS PROHIBITED. DEWATERING OF NON-CONTAMINATED GROUNDWATER REQUIRES A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM PERMIT FROM THE RESPECTIVE STATE REGIONAL WATER QUALITY CONTROL BOARD.
10. GRADED AREAS ON THE PERMITTED AREA PERIMETER MUST DRAIN AWAY FROM THE FACE OF SLOPES AT THE CONCLUSION OF EACH WORKING DAY. DRAINAGE IS TO BE DIRECTED TOWARD DESILTING FACILITIES.
11. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.
12. THE PERMITTEE AND CONTRACTOR SHALL INSPECT THE EROSION CONTROL WORK AND INSURE THAT THE WORK IS IN ACCORDANCE WITH THE APPROVED PLANS.
13. THE PERMITTEE SHALL NOTIFY ALL GENERAL CONTRACTORS, SUBCONTRACTORS, MATERIAL SUPPLIERS, LESSEES, AND PROPERTY OWNERS: THAT DUMPING OF CHEMICALS INTO THE STORM DRAIN SYSTEM OR THE WATERSHED IS PROHIBITED.
14. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES WHEN RAIN IS IMMINENT.
15. ALL REMOVABLE EROSION PROTECTIVE DEVICES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHEN THE 5-DAY RAIN PROBABILITY FORECAST EXCEEDS 40%.
16. SEDIMENTS FROM AREAS DISTURBED BY CONSTRUCTION SHALL BE RETAINED ON SITE USING AN EFFECTIVE COMBINATION OF EROSION AND SEDIMENT CONTROLS TO THE MAXIMUM EXTENT PRACTICABLE, AND STOCKPILES OF SOIL SHALL BE PROPERLY CONTAINED TO MINIMIZE SEDIMENT TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES OR ADJACENT PROPERTIES VIA RUNOFF, VEHICLE TRACKING, OR WIND.
17. APPROPRIATE BMPS FOR CONSTRUCTION-RELATED MATERIALS, WASTES, SPILLS OR RESIDUES SHALL BE IMPLEMENTED AND RETAINED ON SITE TO MINIMIZE TRANSPORT FROM THE SITE TO STREETS, DRAINAGE FACILITIES, OR ADJOINING PROPERTY BY WIND OR RUNOFF.

LEGEND

SF SF	SILT FENCE	SF
	VEHICLE TRACKING CONTROL	VTC
	INLET PROTECTION	IP
	OUTLET PROTECTION	OP
	CULVERT INLET PROTECTION	CIP
	STABILIZED STAGING AREA	SSA
	STOCKPILE MANAGEMENT W/ PROTECTION	SP
	CONCRETE WASHOUT AREA	CWA
CF CF	CONSTRUCTION FENCE	CF
	ROCK SOCK	RS
	DIVERSION DITCHES/ CHANNEL	DD/DC
	PERMANENT SEEDING	PS
	EROSION CONTROL BLANKET	ECB
	SEDIMENT BASIN	SB
	LIMITS OF CONSTRUCTION	LOC

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

N

80 40 0 80 160

SCALE: 1"=80'
ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

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wenk
MARTIN/MARTIN CONSULTING ENGINEERS

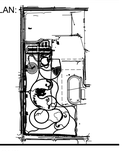
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

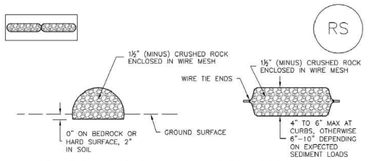
FINAL EROSION CONTROL PLAN

SHEET:

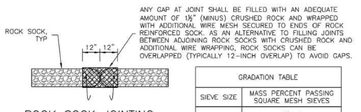
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ROCK SOCK SECTION ROCK SOCK PLAN



ROCK SOCK JOINTING

GRADATION TABLE	
SIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
	NO. 4
2"	100
1½"	90 – 100
1"	20 – 55
¾"	0 – 15
⅜"	0 – 5
MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43, ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.	

ROCK SOCK INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   –LOCATION(S) OF ROCK SOCKS.
2. CRUSHED ROCK SHALL BE 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF ½", RECOMMENDED MINIMUM ROLL WIDTH OF 48"
4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS–1. ROCK SOCK PERIMETER CONTROL

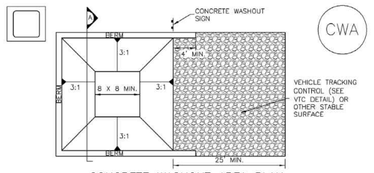
ROCK SOCK MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE ROCK SOCK.
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

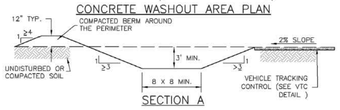
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.



CONCRETE WASHOUT AREA PLAN



SECTION A

CWA–1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

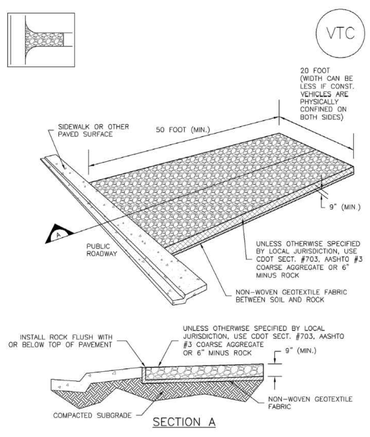
1. SEE PLAN VIEW FOR:
   –CWA INSTALLATION LOCATION.
2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
4. CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

CWA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
5. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
6. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
7. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD).

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



SECTION A

VTC–1. AGGREGATE VEHICLE TRACKING CONTROL

STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

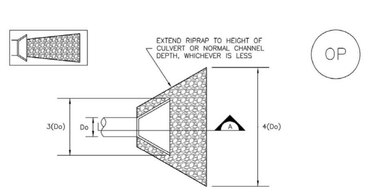
1. SEE PLAN VIEW FOR
   –LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S).
   –TYPE OF CONSTRUCTION ENTRANCE(S)/EXITS(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
2. CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES

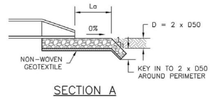
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
5. SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)



TEMPORARY OUTLET PROTECTION PLAN



SECTION A

TABLE OP–1. TEMPORARY OUTLET PROTECTION SIZING TABLE			
PIPE DIAMETER, Do (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5	5	4
	5	10	6
12	5	10	4
	10	13	6
18	10	10	6
	20	16	9
	30	23	12
	40	26	16
24	30	16	9
	40	26	9
	50	26	12
	60	30	16

OP–1. TEMPORARY OUTLET PROTECTION

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF OUTLET PROTECTION.
   –DIMENSIONS OF OUTLET PROTECTION.
2. DETAIL IS INTENDED FOR PIPES WITH SLOPE ≤ 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
3. TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

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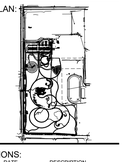
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

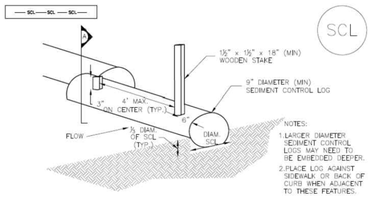
EROSION CONTROL DETAILS

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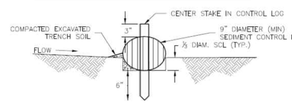
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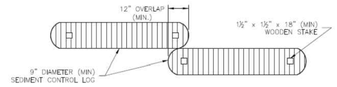
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TRENCHED SEDIMENT CONTROL LOG



SECTION Ⓐ
TRENCHED SEDIMENT CONTROL LOG



LOG JOINTS

SCL-1. TRENCHED SEDIMENT CONTROL LOG

SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

2. SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR TO ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY ⅓ OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING. COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND. 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

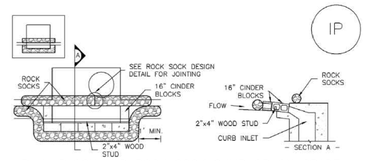
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



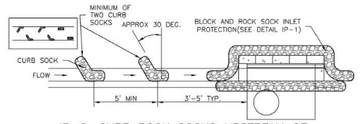
IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

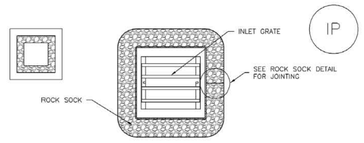
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

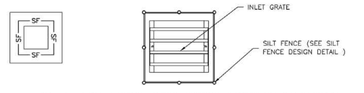
4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES
1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



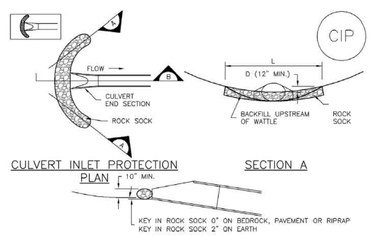
IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.

2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.

3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



CULVERT INLET PROTECTION PLAN

SECTION A

SECTION B

CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR
–LOCATION OF CULVERT INLET PROTECTION.

2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINTING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ⅓ THE HEIGHT OF THE ROCK SOCK.

5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

GENERAL INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
–LOCATION OF INLET PROTECTION.
–TYPE OF INLET PROTECTION (IP-1, IP-2, IP-3, IP-4, IP-5, IP-6)

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.

3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR ¼ OF THE HEIGHT FOR STRAW BALES.

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.

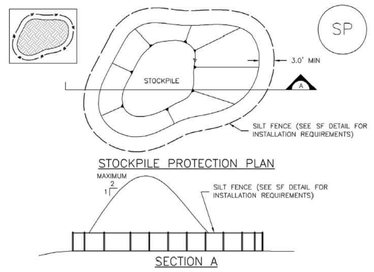
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.



STOCKPILE PROTECTION PLAN

SECTION A

SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
–LOCATION OF STOCKPILES.
–TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30–60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

STOCKPILE PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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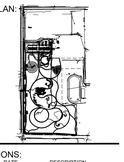
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

EROSION CONTROL DETAILS

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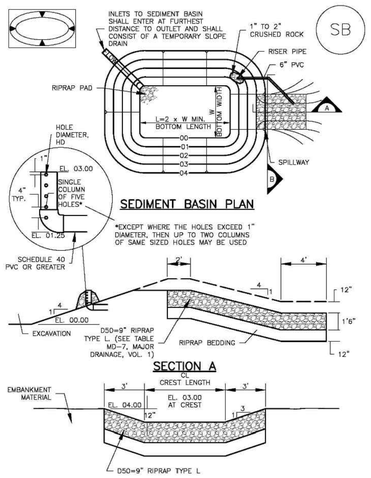


TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN			
Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 ½	2	9/32
2	21	3	11/64
3	28	5	1/4
4	33 ½	6	9/64
5	38 ½	8	7/32
6	43	9	13/64
7	47 ¼	11	15/32
8	51	12	17/32
9	55	13	9/16
10	58 ¼	15	19/64
11	61	16	21/32
12	64	18	1"
13	67 ½	19	1 1/16
14	70 ½	21	1 3/64
15	73 ¼	22	1 3/16

SEDIMENT BASIN INSTALLATION NOTES

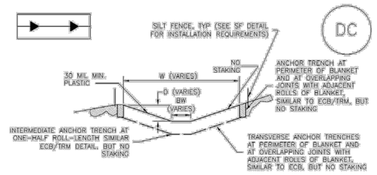
1. SEE PLAN VIEW FOR:
   –LOCATION OF SEDIMENT BASIN.
   –TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
   –FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE DIAMETER, HD.
   –FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
2. FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
3. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND–DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.
4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
6. PIPE SCH 40 OR GREATER SHALL BE USED.
7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SEDIMENT BASIN MAINTENANCE NOTES

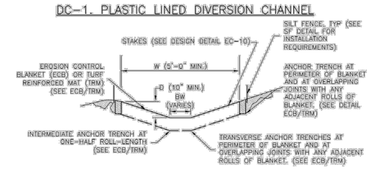
1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
5. SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
6. WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO)

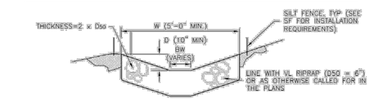
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.



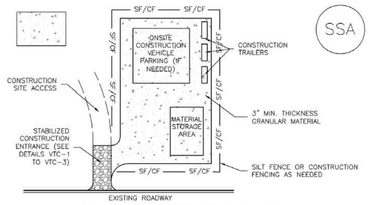
DC–1, PLASTIC LINED DIVERSION CHANNEL



DC–2, GEOTEXTILE OR MAT LINED DIVERSION CHANNEL



DC–3, RIPRAP LINED DIVERSION CHANNEL



SSA–1, STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

1. SEE PLAN VIEW FOR
   –LOCATION OF STAGING AREA(S).
   –CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

STABILIZED STAGING AREA MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

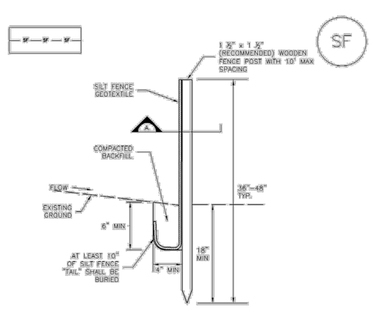
STABILIZED STAGING AREA MAINTENANCE NOTES

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE–ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)



SF–1, SILT FENCE

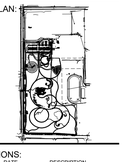
wenk
MARTIN/MARTIN CONSULTING ENGINEERS

Town of Berthoud Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

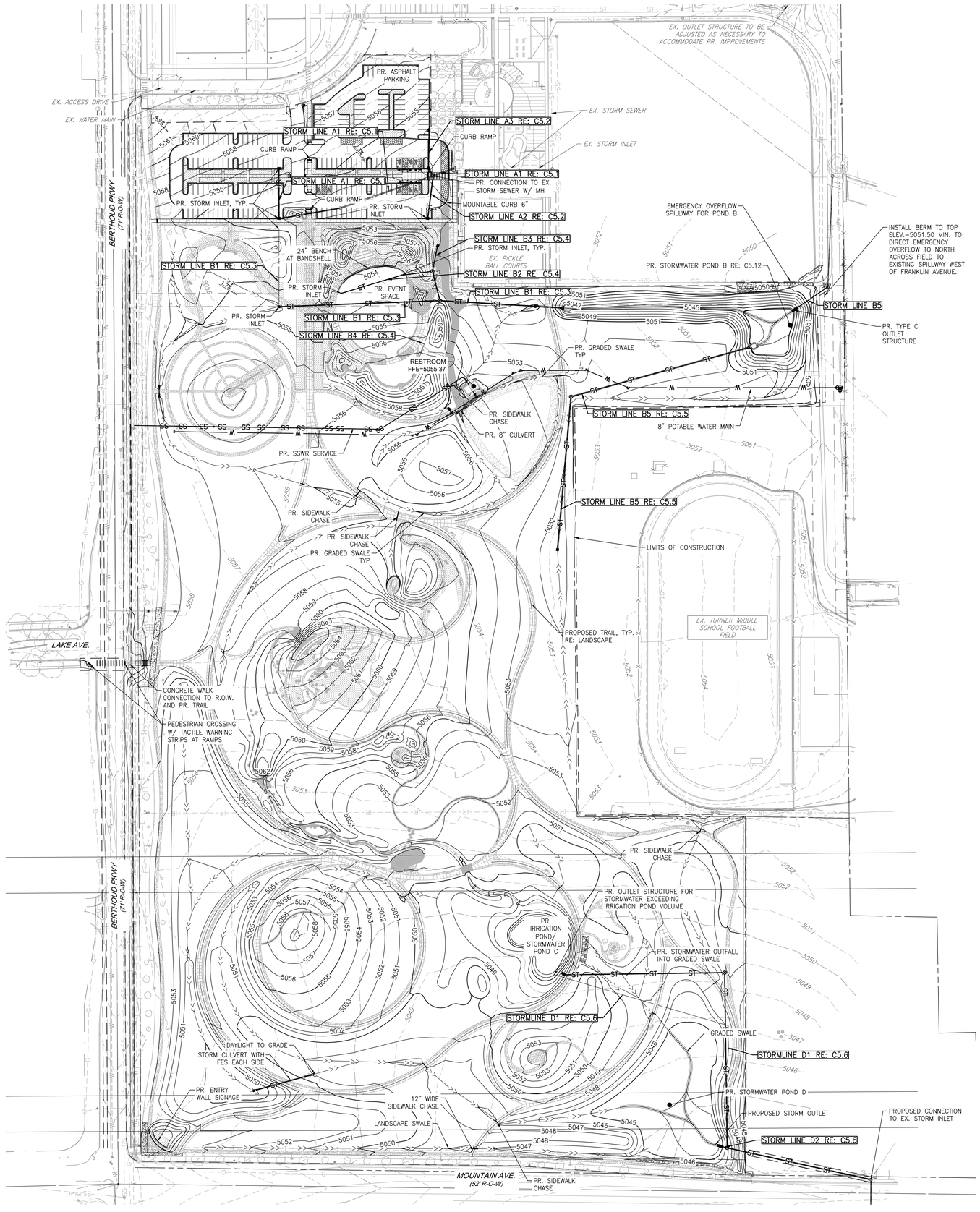
EROSION CONTROL DETAILS

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LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
5750	CONTOURS	5750
ST	STORM SEWER	ST
ST	STORM MANHOLE	
RD	ROOF DRAIN	RD
	INLET	
	FLARED END SECTION	
	SIGN	
	GRADING ARROW	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
DRIVE	DESCRIPTIONS	DRIVE
ELEV.	SPOT ELEVATIONS	ELEV.
	LIMITS OF CONSTRUCTION	

MARTIN/MARTIN INC. GRADING NOTES:

1. ALL SITE GRADING SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST GEOTECHNICAL INVESTIGATION FOR THIS PROPERTY AND SHALL FURTHER BE IN CONFORMANCE WITH THE TOWN OF BERTHOUD'S "STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS," LATEST EDITION.

2. THE GRADING DESIGN SHOWN HEREON HAS BEEN PREPARED IN CONFORMANCE WITH THE REQUIREMENTS OF FHA AND HUD CRITERIA AND TO THE GREATEST EXTENT POSSIBLE, IN ACCORDANCE WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS FOR THIS PROJECT. VARIOUS CONFLICTING DESIGN CRITERIA MAKE TOTAL COMPLIANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS DIFFICULT [ADA, SITE PLAN LAYOUT, ETC.]. THUS, THESE PLANS HAVE BEEN PROVIDED TO THE GEOTECHNICAL ENGINEER FOR REVIEW AND COMMENT RELATIVE TO COMPLIANCE WITH THEIR RECOMMENDATIONS. IF THE GEOTECHNICAL ENGINEER DETERMINES THE DESIGN MAY COMPROMISE THE ACCEPTABLE PERFORMANCE OF THE STRUCTURES AND/OR PAVEMENTS, UPON RECEIPT OF THE WRITTEN COMMENTS FROM THE GEOTECHNICAL ENGINEER, COMMENTS WILL BE DISCUSSED AND RESOLVED WITH THE OWNER AND THE GEOTECHNICAL ENGINEER, AND WILL BE ADDRESSED IN A MANNER AS DIRECTED BY THE OWNER.

3. ALL NEWLY CONSTRUCTED OR ALTERATIONS OF ACCESSIBILITY ROUTES (WALKS, RAMPS, ENTRANCES, ETC.) SHALL COMPLY WITH THE RULES AND REGULATIONS SET FORTH BY ADA, ADAAG, CITY, STATE, FEDERAL OR JURISDICTION HAVING AUTHORITY, INCLUDING BUT NOT LIMITED TO: 5% MAXIMUM GRADE ON WALKS WITHOUT HANDRAILS, 8.33% MAXIMUM GRADE ON WALKS WITH HANDRAILS AND LEVEL LANDINGS (MAXIMUM 2% COMPOSITE SLOPE), 2% MAXIMUM CROSS SLOPE ON WALKS AND 2% MAXIMUM COMPOSITE SLOPE IN ACCESSIBLE PARKING/LOADING AREAS. NO TOLERANCE REGARDING MAXIMUM SLOPES WILL BE ALLOWED. DURING CONSTRUCTION, CONTRACTOR SHALL COORDINATE AS NECESSARY WITH OWNER, DEVELOPER, ENGINEER, ARCHITECT, OR DESIGNATED OFFICIAL IF RULES AND REGULATIONS OF ACCESSIBILITY ROUTES CAN NOT BE MET. IN ADDITION, OWNER IS ADVISED THAT REGULAR MAINTENANCE PROGRAMS SHOULD BE IMPLEMENTED AFTER CONSTRUCTION TO KEEP EXISTING ROUTES SAFE, USABLE, AND ADA COMPLIANT.

4. IT IS THE INTENTION OF THE PROJECT GRADING PLANS TO BE IN STRICT COMPLIANCE WITH, AND OR EXCEED, THE PROJECT'S GEOTECHNICAL ENGINEER'S GRADING RECOMMENDATIONS. IF THE CONTRACTOR BELIEVES A DEVIATION EXISTS BETWEEN THE PLANS AND THE GEOTECHNICAL RECOMMENDATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY AND REQUEST WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH WORK. THE GENERAL CONSTRUCTION SPECIFICATION IS THAT THE MOST RESTRICTIVE REQUIREMENT/RECOMMENDATION GOVERNS THE CONSTRUCTION OF THE PROJECT.

5. GRADING SHOWN HEREON IS DESIGNED TO ADDRESS PROPER DRAINAGE CONSIDERATIONS FOR THE PROTECTION OF THE STRUCTURES AND IMPROVEMENTS WITHIN THE PROJECT. THE COORDINATION OF THIS DESIGN AND COMPLIANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATION WITH THE LANDSCAPE ARCHITECT'S DESIGN, IS THE RESPONSIBILITY OF THE OWNER AND/OR DEVELOPER. MARTIN/MARTIN HIGHLY RECOMMENDS THAT THE LANDSCAPE IMPROVEMENTS BE REVIEWED AND APPROVED FOR COMPLIANCE WITH RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.

6. EXISTING ELEVATIONS SHOWN ON THIS DRAWING HAVE BEEN DEPICTED FROM BEST AVAILABLE INFORMATION AND ARE SHOWN TO THE EXTENT KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING GRADE CONDITIONS AT THE LIMITS OF CONSTRUCTION AND AT LOCATIONS THAT INTERFACE WITH EXISTING OR PROPOSED STRUCTURES AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT CONTRADICT THE ENGINEERS INTENT FOR DRAINAGE PATTERNS, MAXIMUM AND MINIMUM SLOPES, AND PROPOSED ELEVATIONS AS SHOWN ON THE PLAN. THE ENGINEER WILL NOT BE LIABLE FOR ANY COSTS ASSOCIATED WITH CHANGES TO THE DESIGN WITHOUT PROPER NOTIFICATION.

7. PROPOSED CONTOURS AND SPOT ELEVATIONS AS SHOWN HEREIN ARE DEFINED AS FINISHED ELEVATION AFTER PAVING, LANDSCAPING, ETC. CONTRACTOR SHALL COORDINATE WITH GEOTECH FOR PAVEMENT THICKNESS AND LANDSCAPE FOR THICKNESS OF TOPSOIL, SOD AND LANDSCAPE MATERIALS.

   ALL SPOTS ARE TO FLOWLINE UNLESS OTHERWISE NOTED. FG = FINISHED GRADE, FF = FINISH FLOOR, TOF = TOP OF FOUNDATION, HP = HIGH POINT, LP = LOW POINT, TOW = TOP OF WALL [FINISHED GRADE AT BACK OF WALL], BOW = BOTTOM OF WALL [FINISHED GRADE AT FACE OF WALL], GB = GRADE BREAK, FL = FLOWLINE, TOC = TOP OF CURB.

8. ALL ISLANDS ARE TO BE GRADED SUCH THAT THERE IS A POSITIVE DRAINAGE TO ADJACENT CURB AND GUTTER.

9. TEMPORARY CUT/FILL SLOPES SHALL NOT EXCEED A STEEPNESS OF [1:1] (H:V). PERMANENT SLOPES SHALL NOT EXCEED [4:1] (H:V) [UNLESS NOTED OTHERWISE] IN AREAS TO BE SEEDED OR SODDED.

10. CONTRACTOR SHALL ADJUST ALL EXISTING AND PROPOSED MANHOLE RIMS, VALVE BOXES, ETC. TO MATCH FINAL GRADE.

11. REFER TO FINAL DRAINAGE STUDY DATED OCTOBER 3, 2025 PREPARED BY MARTIN/MARTIN, INC. FOR DRAINAGE BASINS, FLOWS, AND INTENDED DRAINAGE PATTERNS.

12. MARTIN/MARTIN IS PROVIDING LINE AND GRADE FOR THE RETAINING WALLS SHOWN HEREON. THE WALL LAYOUT/GRADING SHOWN IS PROVIDED TO THE WALL DESIGNER/CONTRACTOR AS A COURTESY. THE WALL DESIGNER SHALL TAKE INTO CONSIDERATION ALL JURISDICTIONAL REQUIREMENTS, GEOTECHNICAL INFORMATION AND REQUIREMENTS, AND GRADING/DRAINAGE PATTERNS IN THE DESIGN OF THE WALLS. THE RETAINING WALL DESIGN NEEDS TO ACCOMMODATE THE EFFECTS OF UNCONTROLLED RUNOFF FROM UP-GRADIENT OF THE WALLS, INCLUDING HYDROSTATIC PRESSURE AND EROSION. REFER TO GRADING PLANS DATED DECEMBER 12, 2025 PREPARED BY MARTIN/MARTIN FOR PROPOSED GRADING AND TO THE FINAL DRAINAGE REPORT DATED OCTOBER 3, 2025 PREPARED BY MARTIN/MARTIN FOR DRAINAGE BASINS AND PATTERNS.

CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH THE PROPOSED ELEVATIONS SHOWN IN THESE PLANS.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

N

80 40 0 80 160

SCALE: 1"=80'

ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

wenk

MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

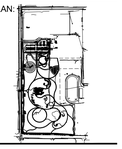
BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION

These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

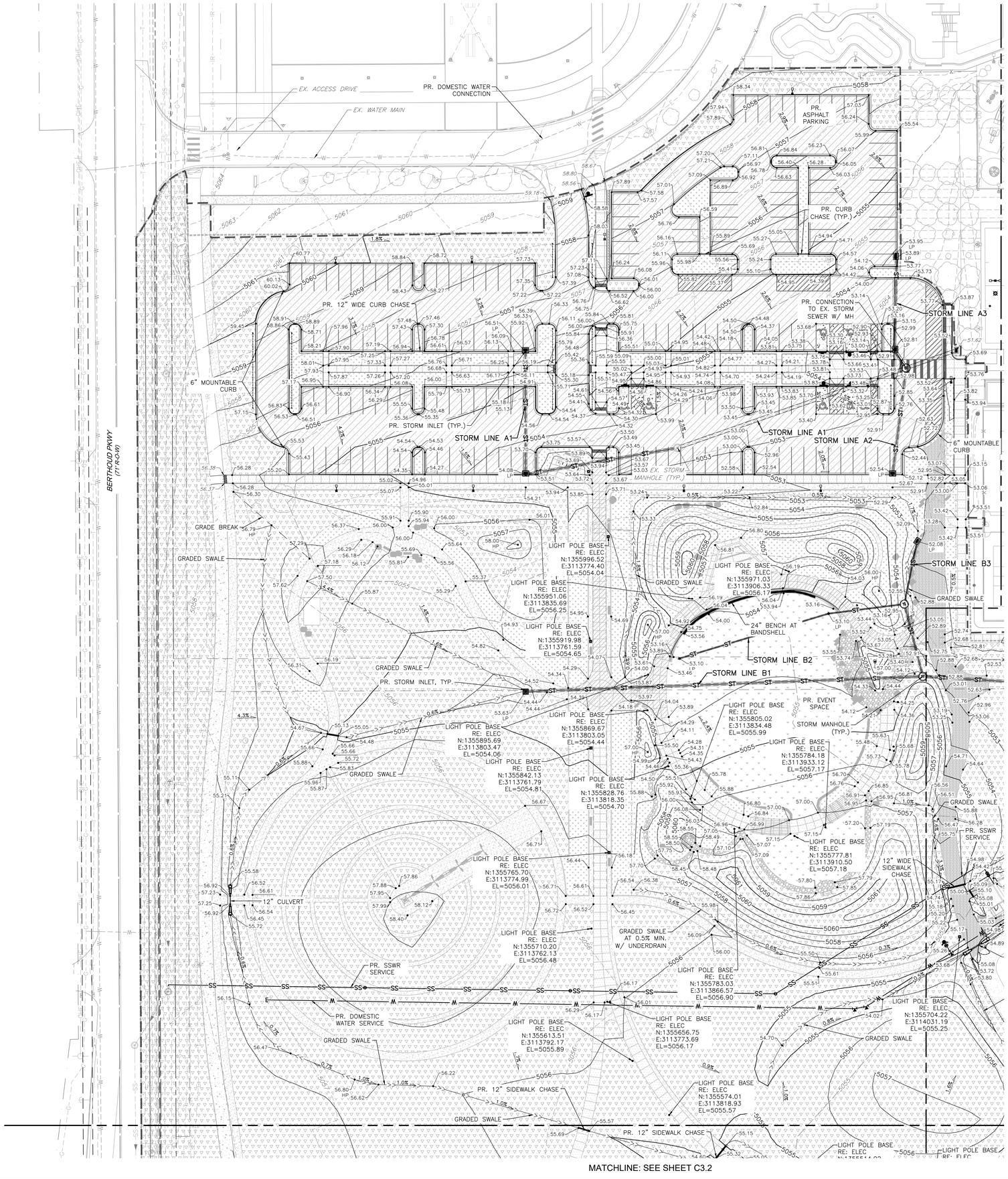
OVERALL GRADING PLAN

SHEET:

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GRADING NOTES:

1. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS AND NOTIFY OWNER, ARCHITECT, AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
2. SPOT ELEVATIONS ON CURB AND GUTTER ARE TO FLOW LINE UNLESS OTHERWISE NOTED.
3. ALL GRADES SHOWN ARE TO FINAL FINISHED SURFACE GRADE AFTER TOPSOIL, SOD, PAVING ETC.
4. MATCH EXISTING GRADE AT LIMITS OF CONSTRUCTION AND AS NOTED. REPORT ANY DISCREPANCIES TO OWNER, ENGINEER, AND ARCHITECT PRIOR TO CONSTRUCTION.
5. ALL ADA ACCESSIBLE PARKING AREAS SHALL NOT EXCEED 2.0% SLOPE IN ANY DIRECTION. CROSS SLOPE ON ALL WALKS SHALL NOT TO EXCEED 2.0%. ALL WALKS SHALL NOT EXCEED 5.0% LONGITUDINAL SLOPE, UNLESS OTHERWISE NOTED AS A RAMP WITH HANDRAILS AND LANDINGS. ADA RAMPS SHALL NOT EXCEED 8.3%. ALL ADA ACCESSIBLE PLAZA AREAS INCLUDING THE COMMON PARK AREAS, SHALL NOT EXCEED 2.0% SLOPE IN ANY DIRECTION.
6. WALKS DIRECTLY ADJACENT TO THE BUILDING SHALL BE SLOPED AT 2% AWAY FROM THE BUILDING TO ACCOUNT FOR ANY SETTLEMENT WITHIN THE FOUNDATION BACKFILL ZONE.
7. SPOT ELEVATIONS FOR LIGHT POLES ARE MEASURED AT FINISH GRADE AT CENTER OF POLE. TOP OF FOUNDATION SHALL BE SET SUFFICIENTLY ABOVE FINISH GRADE.
8. ELEVATIONS FOR TRANSFORMER BOXES/PAD ARE MEASURED AT FINISH LANDSCAPE GRADE AT CENTER OF BOX/PAD. CONTRACTOR SHALL SET BOX/PAD SUFFICIENTLY ABOVE ELEVATION SHOWN ON THESE PLANS IN ORDER TO MAINTAIN THE DRAINAGE AROUND AND AWAY FROM THE BOX/PAD AS SHOWN ON THE DRAWING.
9. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PREPARED BY ROCKSOL CONSULTING GROUP, INC., DATED AUGUST 5, 2024.
10. EXISTING GRADES AND SPOT ELEVATIONS SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM BEST AVAILABLE INFORMATION AND ARE SHOWN TO THE EXTENT KNOWN. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING GRADE CONDITIONS AT THE LIMITS OF CONSTRUCTION AND NOTIFY THE CIVIL ENGINEER OF ANY DISCREPANCIES THAT CONTRADICT THE CIVIL ENGINEERS INTENT FOR DRAINAGE PATTERNS AND MAXIMUM AND MINIMUM SLOPES AS SHOWN ON THE PLAN.
11. FINISHED LANDSCAPE GRADE ADJACENT TO EACH BUILDING SHALL BE TYPICALLY 6" BELOW FINISH FLOOR ELEVATION UNLESS OTHERWISE NOTED. REFER TO THE ARCHITECTURAL PLANS FOR ADDITIONAL REQUIREMENTS WHERE THE LANDSCAPE GRADE IS LESS THAN 6" BELOW THE FINISH FLOOR ELEVATION AT THE BUILDING.
12. A MINIMUM SLOPE OF 5% FOR 10 FEET SHALL BE PROVIDED IN LANDSCAPE AREAS ADJACENT TO ALL BUILDINGS PER IBC 1804.4 OR AS REQUIRED PER GEOTECH.
13. SPOT ELEVATIONS AT BUILDINGS INCLUDING STOOPS, PATIOS AND APRONS ARE TO FINISH. LANDSCAPE OR SITE PAVING GRADES. REFER TO ARCHITECTURAL OR STRUCTURAL PLANS FOR BUILDING SLAB ELEVATIONS.
14. REFER TO LANDSCAPE DRAWINGS FOR HANDRAIL AND/OR GUARDRAIL LOCATIONS & DETAILS.
15. SEE SITE DETAILS SHEETS FOR SITE DETAILS.
16. SEE STORM PLAN SHEETS FOR STORM INFORMATION.
17. SEE COVER SHEET FOR ADDITIONAL NOTES.
18. REFER TO FINAL DRAINAGE STUDY PREPARED BY MARTIN/MATIN, INC. FOR DRAINAGE BASINS, FLOWS, AND INTENDED DRAINAGE PATTERNS.
19. NO PLANTED LANDSCAPE INCLUDING SOD, SHRUBS OR TREES SHALL BE PLACE WITHIN THE FIRST 10' OF THE BUILDING. NO IRRIGATION LINES, DRIP EMITTERS OR SPRAYERS SHALL BE PLACED, SPRAY OR EMIT WITHIN THE FIRST 10' OF THE BUILDING. ANY LANDSCAPE EDGING WITHIN THE FIRST 10' OF THE BUILDING SHALL BE PERFORATED TO ALLOW DRAINAGE TO PASS THROUGH THE EDGING AND FLOW AWAY FROM THE BUILDINGS.
22. ALL LANDSCAPE INLETS AND DRAINAGE PANS ADJACENT TO BUILDINGS SHALL BE AS-BUILT SURVEYED AFTER CONSTRUCTION TO ENSURE CONSTRUCTION CONFORMS TO GEOTECHNICAL RECOMMENDATIONS FOR DRAINAGE AWAY FROM BUILDINGS.
23. A PRE-PAVING AND PRE-LANDSCAPING MEETING IS RECOMMENDED BETWEEN THE CONTRACTOR AND ENGINEER TO DISCUSS SIDEWALK GRADING, ADA PARKING, AND GRADING AWAY FROM BUILDINGS.
24. ALL GRADED SWALES SHALL BE SLOPED AT 0.5%.
25. ALL PEDESTRIAN WALKS SHALL BE CONSTRUCTED TYPICALLY WITH A 1.5% CROSS-SLOPE.

NOTES:

1. SEE SHEET C3.0 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.
2. GRADED SWALES TO BE AT 0.5% MIN.
3. TRAIL SURFACE BEING COORDINATED BETWEEN LANDSCAPE AND TOWN.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

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CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES WITH THE PROPOSED ELEVATIONS SHOWN IN THESE PLANS.

N

30 15 0 30 60

SCALE: 1"=30'

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

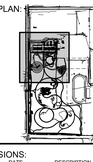
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00

DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

ENLARGED GRADING PLAN

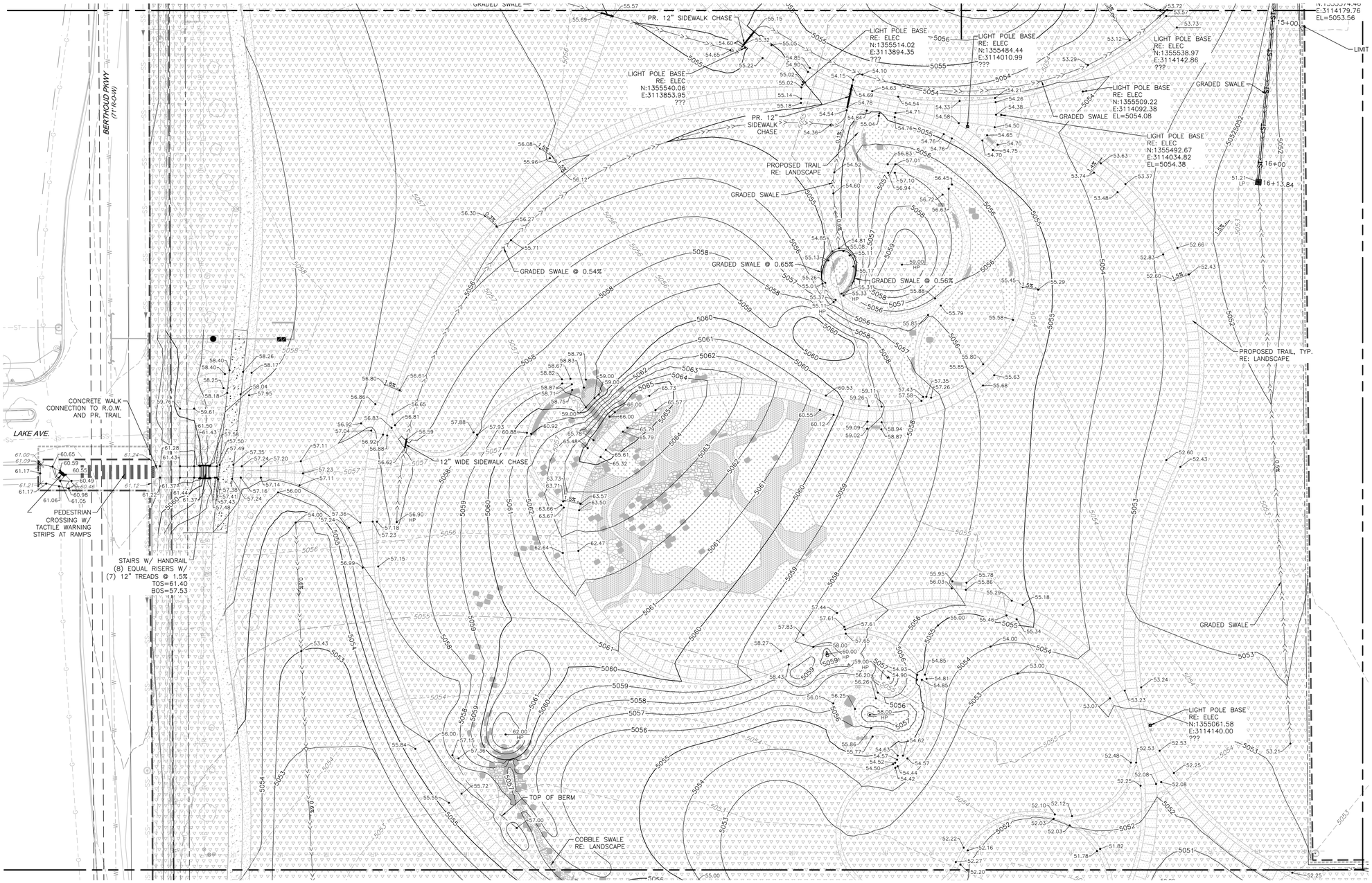
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C3.1

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MATCHLINE: SEE SHEET C3.1



MATCHLINE: SEE SHEET C3.3

MATCHLINE: SEE SHEET C3.4A

NOTES:

1. SEE SHEET C3.0 AND C3.1 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.
2. GRADED SWALES TO BE AT 0.5% MIN.
3. TRAIL SURFACE BEING COORDINATED BETWEEN LANDSCAPE AND TOWN.

BASIS OF BEARINGS:

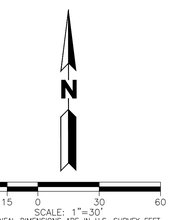
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BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST–SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5–IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

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COLORADO 811
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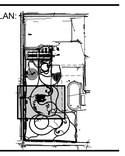
Garden Spot of Colorado

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100% CONSTRUCTION DOCUMENTS - DRAFT

ENLARGED GRADING PLAN

SHEET:

C3.2

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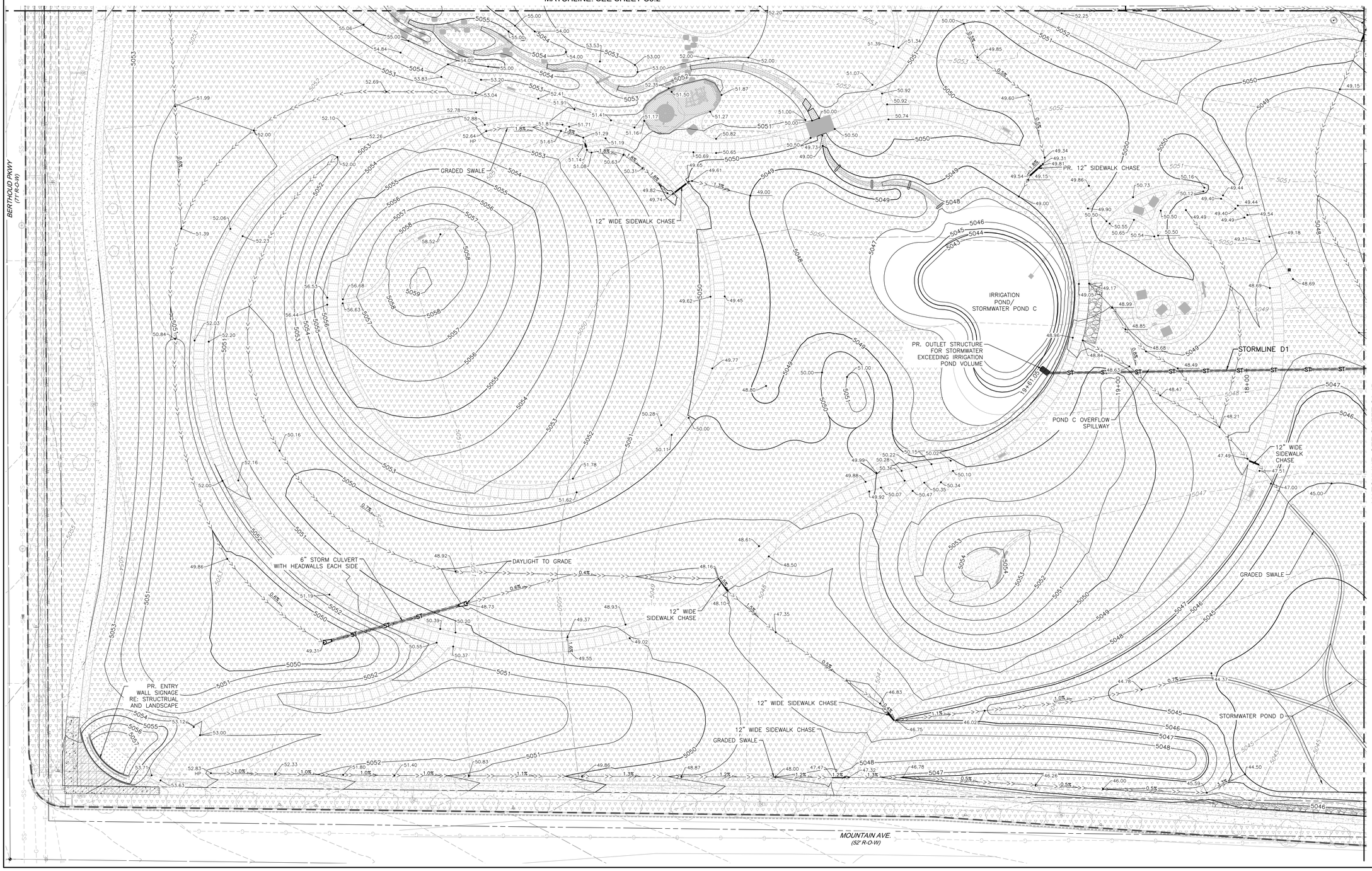
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N

30 15 0 30 60
SCALE: 1"=30'
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MATCHLINE: SEE SHEET C3.2



MATCHLINE: SEE SHEET C3.4B

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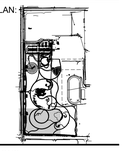
TOWN OF BERTHOUD Est. 1882 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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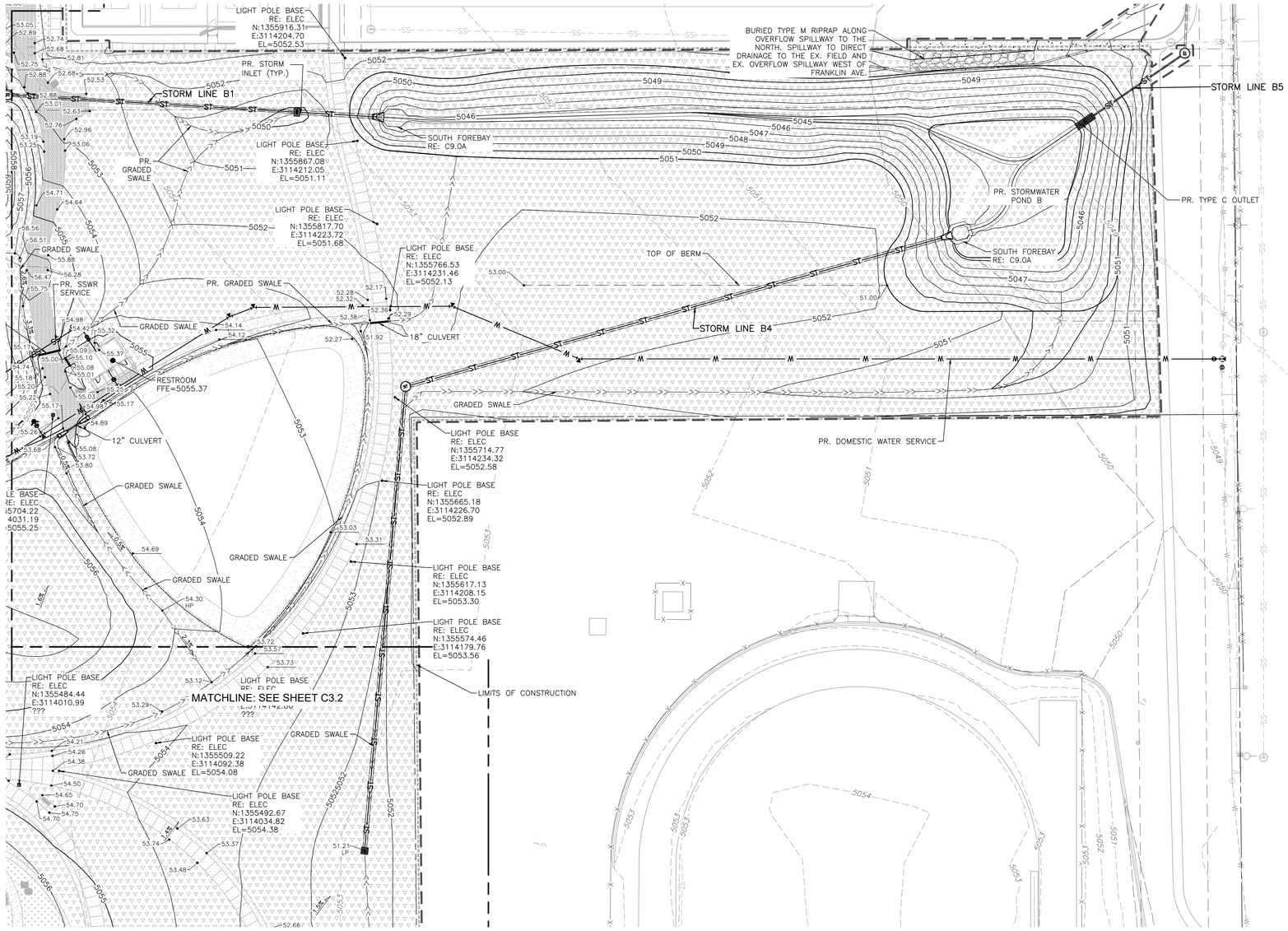
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

ENLARGED GRADING PLAN

SHEET:

C3.3



NOTES:

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TOWN OF BERTHOUD Est. 1880 Garden Spot of Colorado

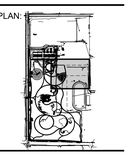
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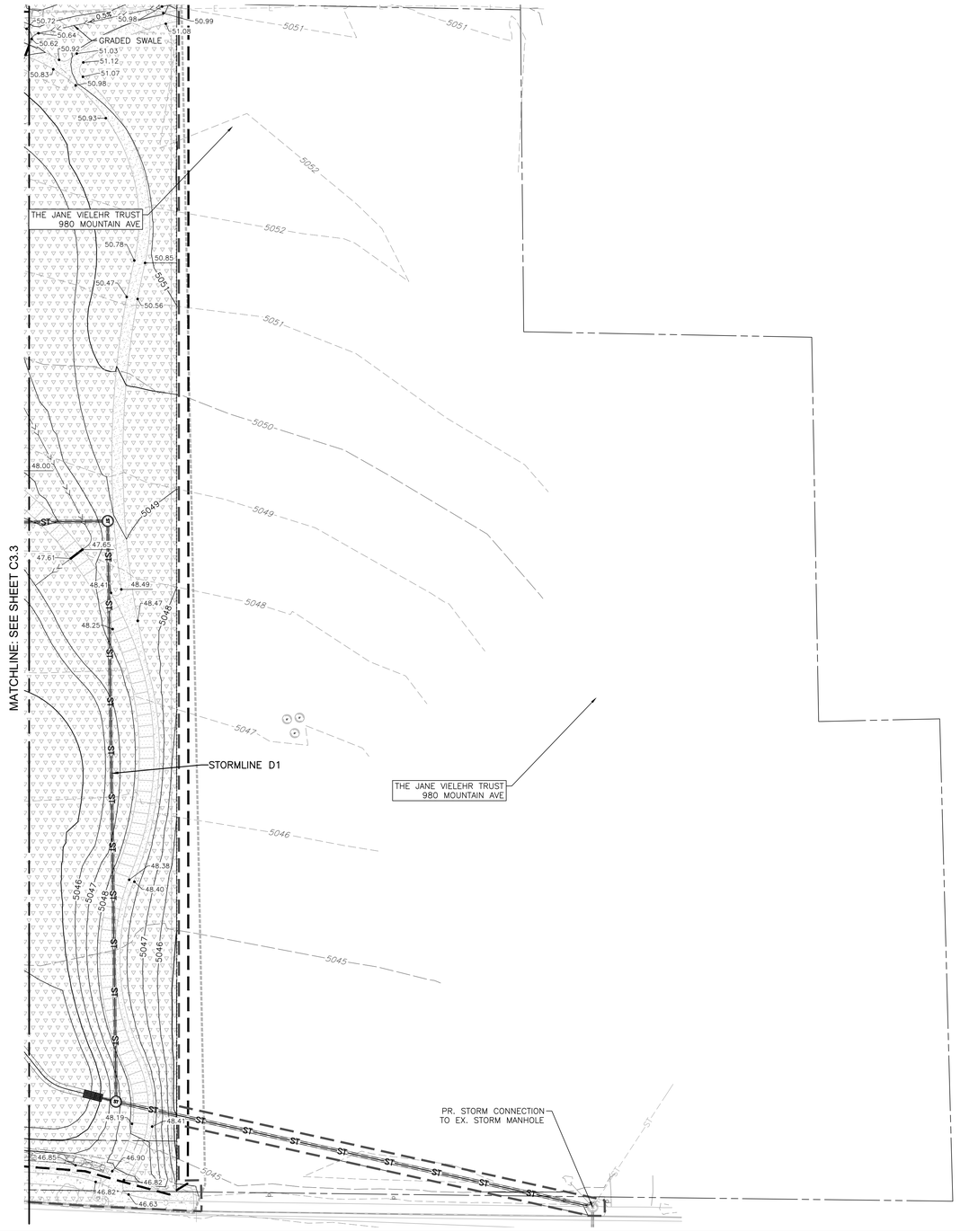
C3.4A

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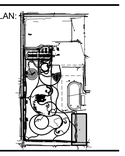
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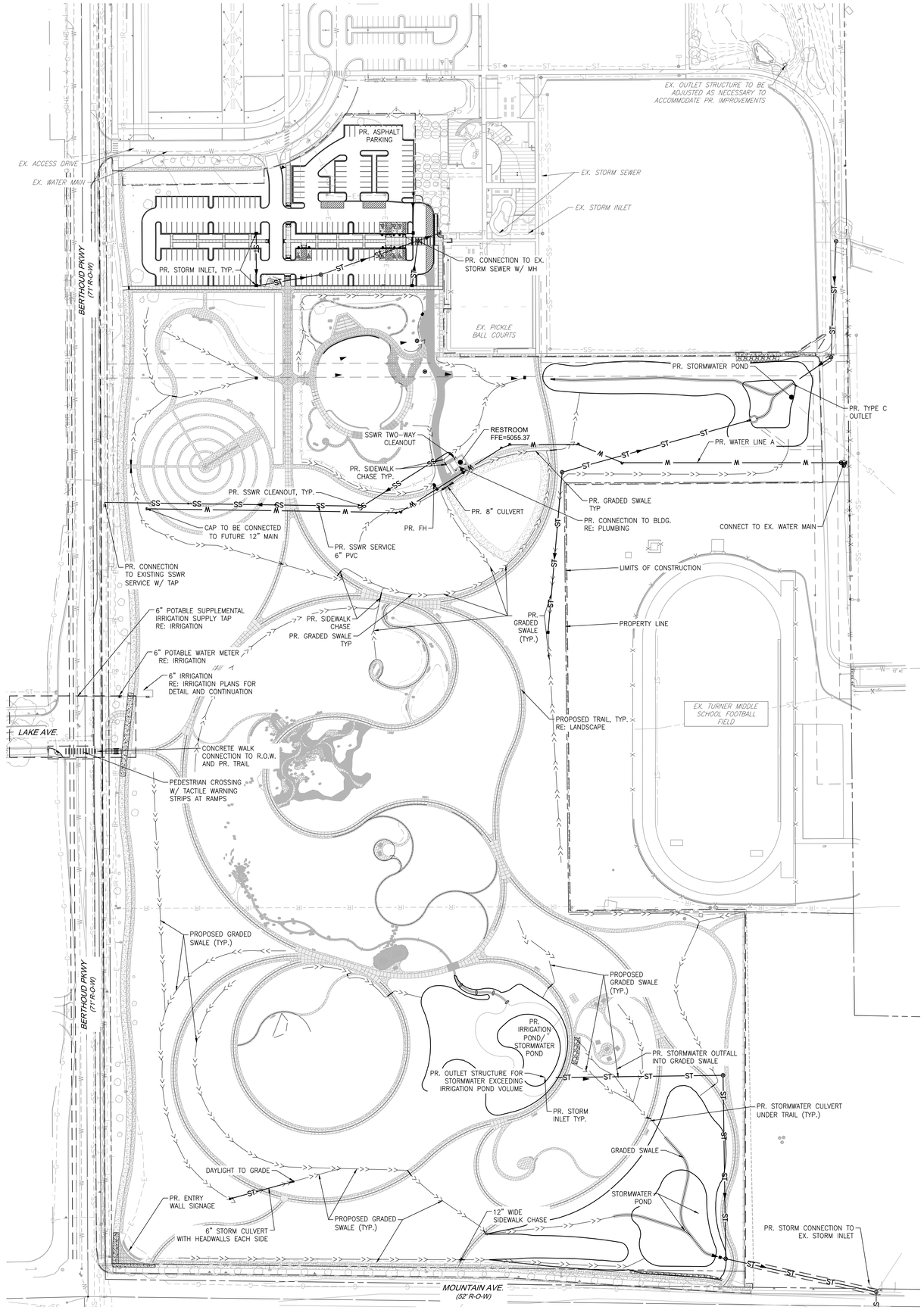
ENLARGED GRADING PLAN

SHEET:

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UTILITY NOTES:

1. THE CONTRACTOR SHALL VERIFY ELEVATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY CONFLICTS.
2. ALL EXISTING AND PROPOSED MANHOLES, VAULTS, VALVE BOXES, HAND-HOLES, ETC., SHALL BE ADJUSTED TO PROPOSED GRADES.
3. THE CONTRACTOR TO COORDINATE UTILITIES AT BUILDING WITH PLUMBING PLANS. NOTIFY ENGINEER OF ANY DISCREPANCIES.
4. RIM ELEVATIONS SHOWN ON THESE PLANS ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. THE PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME AND COVER TO THE REQUIRED FINAL GRADE. THE PIPELINE CONTRACTOR MAY NEED TO REMOVE AND REPLACE THE PRECAST CONE SECTION SUCH THAT THERE IS NO MORE THAN EIGHTEEN (18) INCHES FROM FINISHED GRADE TO THE TOP OF THE MANHOLE CONE SECTION.
5. THE CONTRACTOR SHALL FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT BY ROCKSOL, DATED JULY 21, 2025.
6. THE CONTRACTOR SHALL COORDINATE GAS, ELECTRIC AND COMMUNICATIONS SERVICES WITH UTILITY PROVIDERS. LOCATIONS OF GAS, ELECTRIC AND COMMUNICATIONS LINES SHALL BE COORDINATED WITH PROPOSED IMPROVEMENTS.
7. PROVIDE TWO-WAY CLEANOUTS AT BUILDING SANITARY SEWER AND ROOF DRAIN SERVICE CONNECTIONS AS REQUIRED BY PLUMBING CODE.
8. SEE STORM PLANS FOR STORM SEWER DESIGN. SEE WATER PLANS FOR WATER LINE DESIGN. SEE SANITARY SEWER PLANS FOR SANITARY SEWER DESIGN.
9. WATER LINE CONSTRUCTION SHALL BE PER TOWN OF BERTHOUD STANDARDS & SPECIFICATIONS.
10. SANITARY SEWER CONSTRUCTION SHALL BE PER TOWN OF BERTHOUD STANDARDS & SPECIFICATIONS.
11. STORM SEWER CONSTRUCTION SHALL BE PER TOWN OF BERTHOUD STANDARDS & SPECIFICATIONS.
12. THE CONTRACTOR SHALL ADJUST ALL MANHOLE COVERS, VALVE BOXES, UTILITY BOXES, ETC., TO MATCH FINAL GRADE.
13. THE CONTRACTOR SHALL COORDINATE ALL UTILITY LINE CONNECTIONS AT BUILDING WITH THE MECHANICAL, ELECTRICAL AND PLUMBING PLANS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE PROPERLY NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
14. SEE GRADING PLANS FOR GRADES AT LIGHTPOLES AND TRANSFORMERS. SEE HORIZONTAL CONTROL PLANS FOR COORDINATES OF LIGHTPOLES AND TRANSFORMERS.
15. SEE NOTES SHEETS FOR ADDITIONAL NOTES.
16. SEE STORM SEWER PLANS FOR STORM DESIGN.
17. SEE WATER PLANS FOR WATER DESIGN.
18. SEE SANITARY SEWER FOR SANITARY SEWER DESIGN.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	RETAINING WALL	
	CURB & GUTTER	
	UTILITY CROSSING	#
-ST-	STORM SEWER	ST
ST	STORM MANHOLE	
-RD-	ROOF DRAIN	RD
	STORM INLET	
	FLARED END SECTION	
-SS-	SANITARY SEWER	SS
SS	SANITARY MANHOLE	
	CLEAN OUT	
-W-	WATER LINE	W
	WATER VALVE	
	FIRE HYDRANT	
WM	WATER METER	
-IR-	IRRIGATION LINE	IR
IRR	IRRIGATION CONTROL	IRR
-OHE-	OVERHEAD ELECTRIC	
-E-	ELECTRIC LINE	E
	LIGHT POLE	
	POWER POLE	
E/G/C	ELECTRIC METER	
-T-	TELEPHONE LINE	T
TES	TELEPHONE PEDESTAL	T
-CT-	CABLE TV	CT
-G-	GAS LINE	G
	SIGN	
M.W.	MONITOR WELL	
	GRADING ARROW	
	DECIDUOUS TREE	
	EVERGREEN TREE	
	BUSH/SHRUB	
DRIVE	DESCRIPTIONS	DRIVE
123.45	SPOT ELEVATIONS	123.45

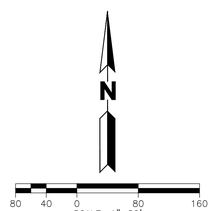
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7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.



COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

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MARTIN/MARTIN CONSULTING ENGINEERS

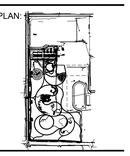
TOWN OF BERTHOUD Est. 1880 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

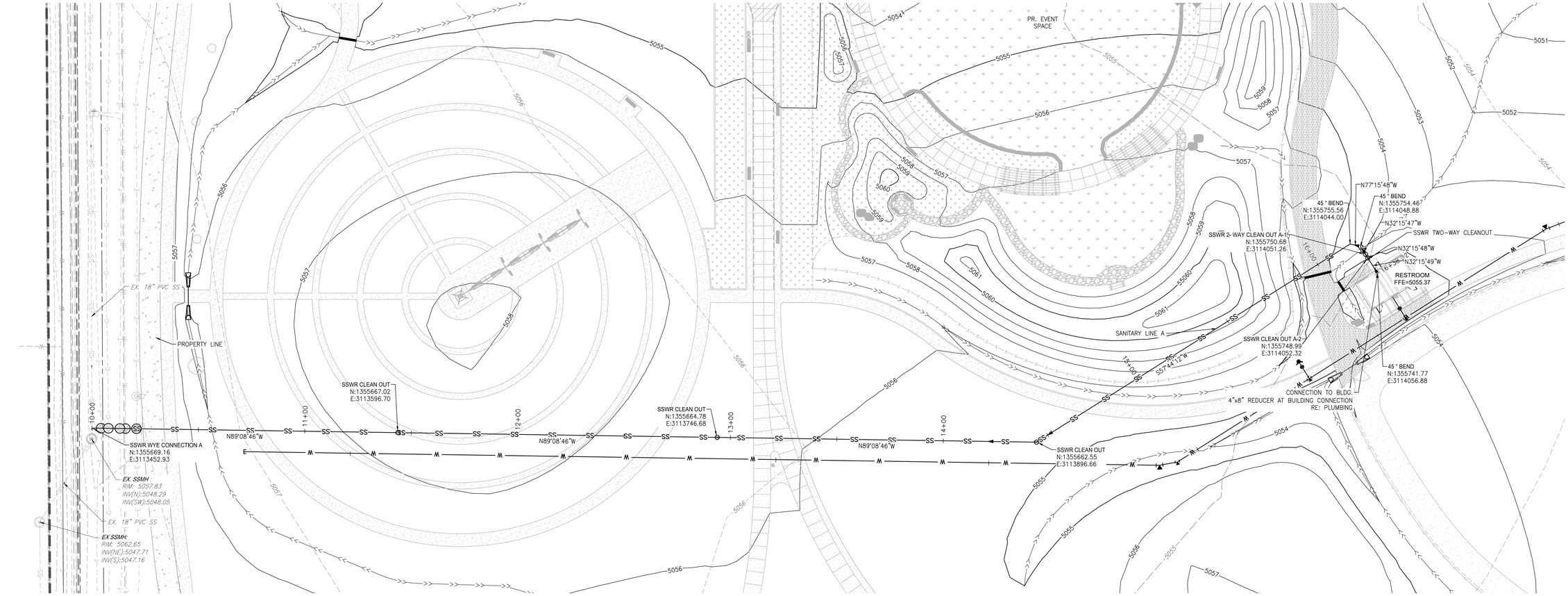
OVERALL UTILITY PLAN

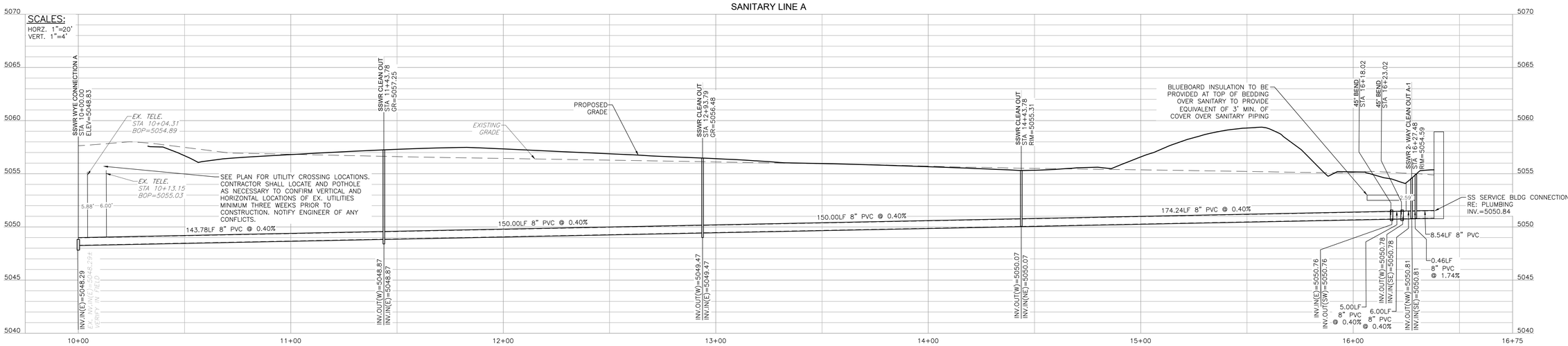
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SANITARY SEWER NOTES:

1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF BERTHOUD STANDARDS AND SPECIFICATIONS.
2. ALL SANITARY SEWER LINES SHALL BE PVC PIPE, ASTM D-3034 SDR 35.
3. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SEWER POINTS OF CONNECTION PRIOR TO CONSTRUCTION OF ANY PROPOSED SEWER.
4. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF TEN FEET (10') HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND WATER MAINS AND SERVICES.
5. STATIONING AND COORDINATES ARE BASED ON CENTER OF MANHOLES AND CLEANOUTS. THEREFORE, DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND STRUCTURE WIDTHS.
6. RIM ELEVATIONS ON CLEANOUTS ARE APPROXIMATE ONLY. CLEANOUT RIMS SHALL BE SET TO FINAL GRADE AT TIME OF PAVING AND LANDSCAPING TO MATCH FINAL PAVING AND LANDSCAPE GRADES.
7. MANHOLE CONES SHALL BE ALIGNED TO PROVIDE A MINIMUM OF THREE FEET (3') CLEARANCE BETWEEN THE MANHOLE RING AND THE LIP OF GUTTER. MANHOLE COVERS SHALL BE PLACED ABOVE MANHOLE STEPS.
8. THE PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME AND COVER TO REQUIRED FINAL GRADE. THE PIPELINE CONTRACTOR MAY NEED TO REMOVE AND REPLACE THE PRECAST MANHOLE CONE SECTION SUCH THAT THERE IS NO MORE THAN EIGHTEEN (18") INCHES FROM FINISHED GRADE TO THE TOP OF THE MANHOLE CONE SECTION.
9. CONTRACTOR TO COORDINATE HORIZONTAL AND VERTICAL LOCATIONS OF UTILITY SERVICE CONNECTIONS TO BUILDING WITH MECHANICAL/PLUMBING PLANS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
10. CONTRACTOR SHALL IMMEDIATELY REMOVE DEBRIS DEPOSITED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
11. NO TREES SHALL BE PLANTED WITHIN TEN (10') FEET OF ANY NEW SANITARY SEWER PIPES.
12. THE CONTRACTOR SHALL COORDINATE ALL SEWER CONNECTIONS AT BUILDING WITH THE PLUMBING PLANS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE PROPERLY NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

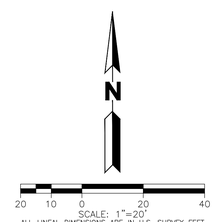
BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

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MARTIN/MARTIN CONSULTING ENGINEERS

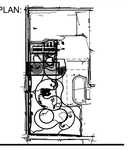
TOWN OF BERTHOUD est. 1880 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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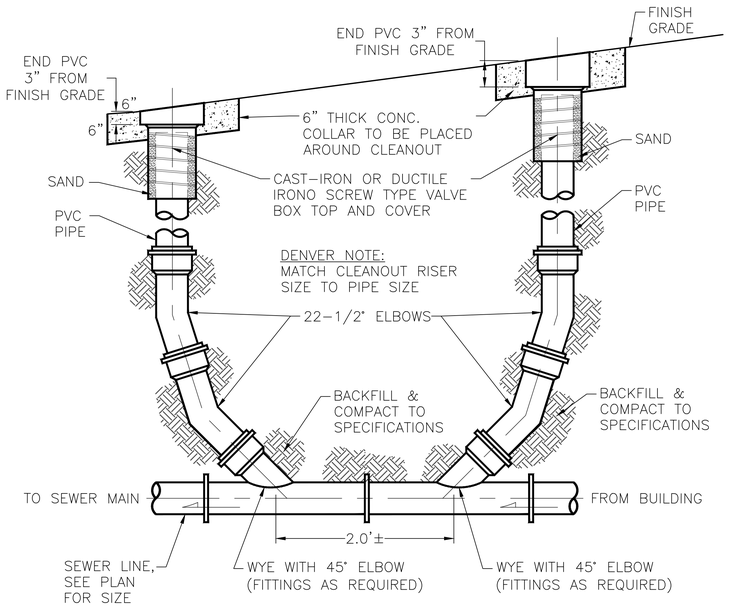
SANITARY PLAN AND PROFILE

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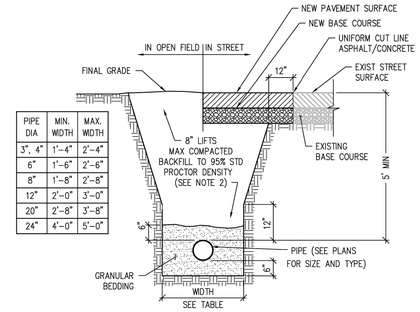
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TWO-WAY SEWER CLEAN-OUT DETAIL

NOT TO SCALE
M/M 2009



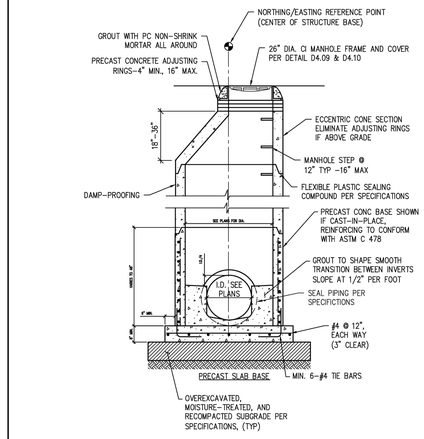
PIPE DIA	MIN. WIDTH	MAX. WIDTH
3", 4"	1'-4"	2'-4"
6"	1'-6"	2'-6"
8"	1'-8"	2'-8"
12"	2'-0"	3'-0"
20"	2'-8"	3'-8"
24"	4'-0"	5'-0"

NOTES:

1. MINIMUM COVER 5' FOR WATER AND SANITARY SEWER
2. COMPACTED BACKFILL TO 90% STD PROCTOR DENSITY IN NON-DRIVING SURFACES AND 95% UNDER PAVEMENT
3. SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED, A CONCRETE CRADLE SHALL BE PLACED WITH 2500PSI CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE
4. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH LOCAL, STATE, FEDERAL, & OSHA SAFETY REGULATIONS
5. PAVING SHALL COMPLY WITH LOCAL AUTHORITY JURISDICTION

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA GENERAL DETAILS	D0.01
TYPICAL TRENCH DETAIL	DATE: 12/2020

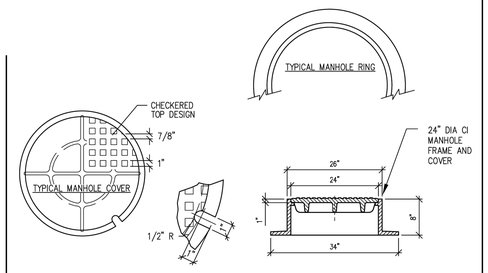


NOTES:

1. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING BASE CONCRETE.
2. BLOCK-OUTS WHEN APPROVED SHALL EXTEND A MAX OF 6" PAST MANHOLE OD AND BE SATISFACTORILY PLUGGED AND SEALED.
3. CONCRETE MANHOLE BASES MAY BE POURED IN PLACE ONLY WITH PRIOR APPROVAL.
4. ALL MORTAR SHALL BE MIXED WITH A TYPE II CEMENT.
5. BENCH MUST HAVE A BRUSHED, NON-SKID SURFACE.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA GENERAL DETAILS	D0.03
STANDARD MANHOLE	DATE: 12/2020

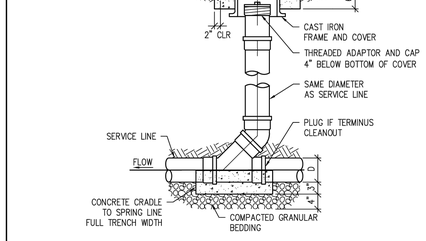


NOTES:

1. ASTM DESIGNATION A-48 CLASS 35B (UNPAINTED) W/ MIN TENSILE STRENGTH KSI (CLASS 25)
2. 1-1/2" LETTERING ON COVER AS REQUIRED (WATER, SEWER, OR STORM). SEE STORM COVER DETAIL ABOVE FOR ADDITIONAL REQUIREMENTS
3. ALL BEARING SURFACES TO BE MATCHED
4. TOTAL MINIMUM WEIGHT APPROXIMATELY 400 LBS CAST IRON ONLY
5. LIFTING NOTCH SHALL NOT EXTEND PAST INSIDE FACE OF RING SEAT
6. MIN FRAME WEIGHT 235 LBS, MIN LID WEIGHT 165 LBS

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA GENERAL DETAILS	D0.04
MANHOLE RING AND COVER - NON-BOLTED	DATE: 12/2020

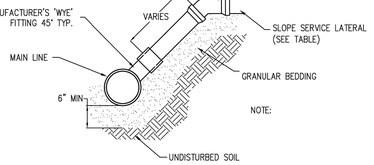


NOTES:

1. CLEANOUT SHALL BE CONSTRUCTED SO THAT SURFACE LOAD WILL NOT BE TRANSFERRED TO MAIN.
2. SERVICE LINE CLEANOUT MAY BE INSTALLED APPROXIMATELY 5 FEET OUTSIDE THE BUILDING FOUNDATION.
3. A CLEANOUT IS REQUIRED ON ALL SERVICE LINES EVERY 100 FEET, AT EVERY "Y" OR AFTER A COMBINED TOTAL 135 DEGREES OF BEND.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA SANITARY SEWER DETAILS	D4.04
SANITARY CLEANOUT	DATE: 12/2020



PIPE SIZE (INCHES)	MINIMUM SLOPE (INCH PER FOOT)
2 1/2 OR LESS	1/4
3 TO 6	1/8
8 OR LARGER	1/16

NOTES:

1. SANITARY SEWER SERVICE TAPS SHALL BE LOCATED ON THE MAIN AT 2'OCLOCK OR 10 O'CLOCK POSITION
2. THE MINIMUM DISTANCE BETWEEN ANY TWO CONSECUTIVE FITTINGS SHALL BE 3 FEET, MEASURED BETWEEN FITTING CENTERLINES
3. SANITARY SEWER SERVICE TAPS SHALL NOT BE MADE WITHIN 3 FEET OF A PIPE JOINT, OR 5 FEET FROM EDGE OF MANHOLE BASE.
4. A MAXIMUM OF FOUR SERVICE TAPS ARE ALLOWED PER 20-FOOT LENGTH OF PIPE
5. USE SDR 35 'WYE', 'TEE'S NOT ALLOWED.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA SANITARY SEWER DETAILS	D4.05
TYPICAL SERVICE CONNECTION	DATE: 12/2020

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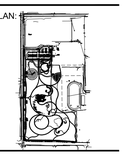
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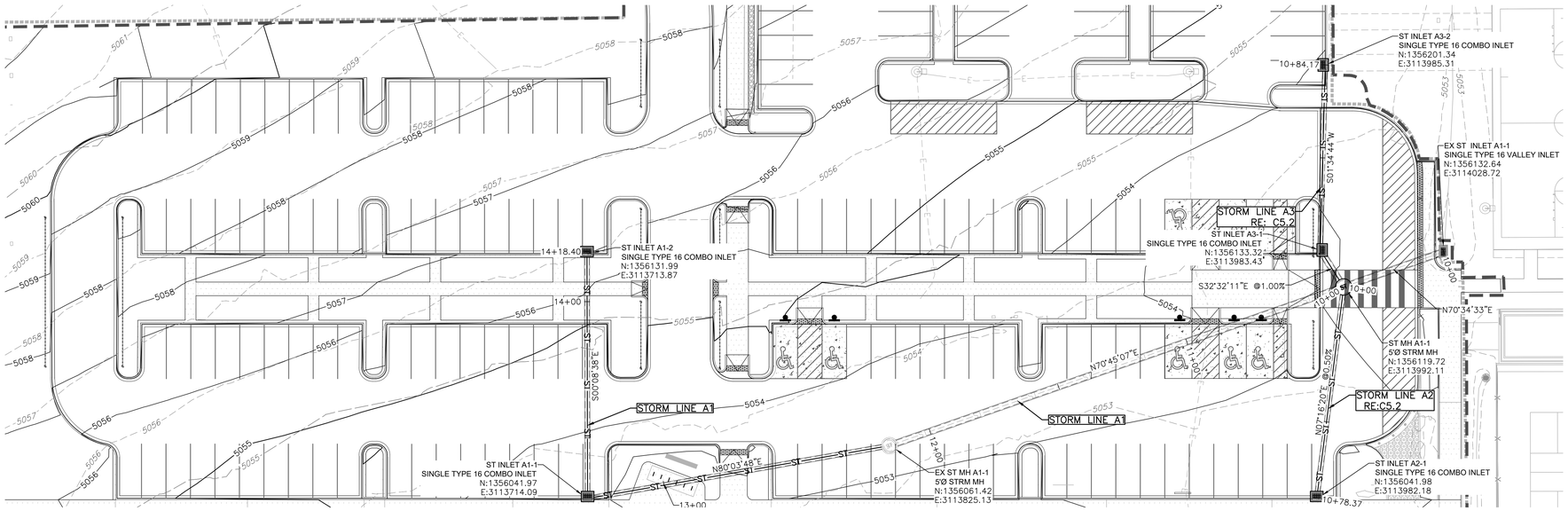
SANITARY DETAIL SHEET

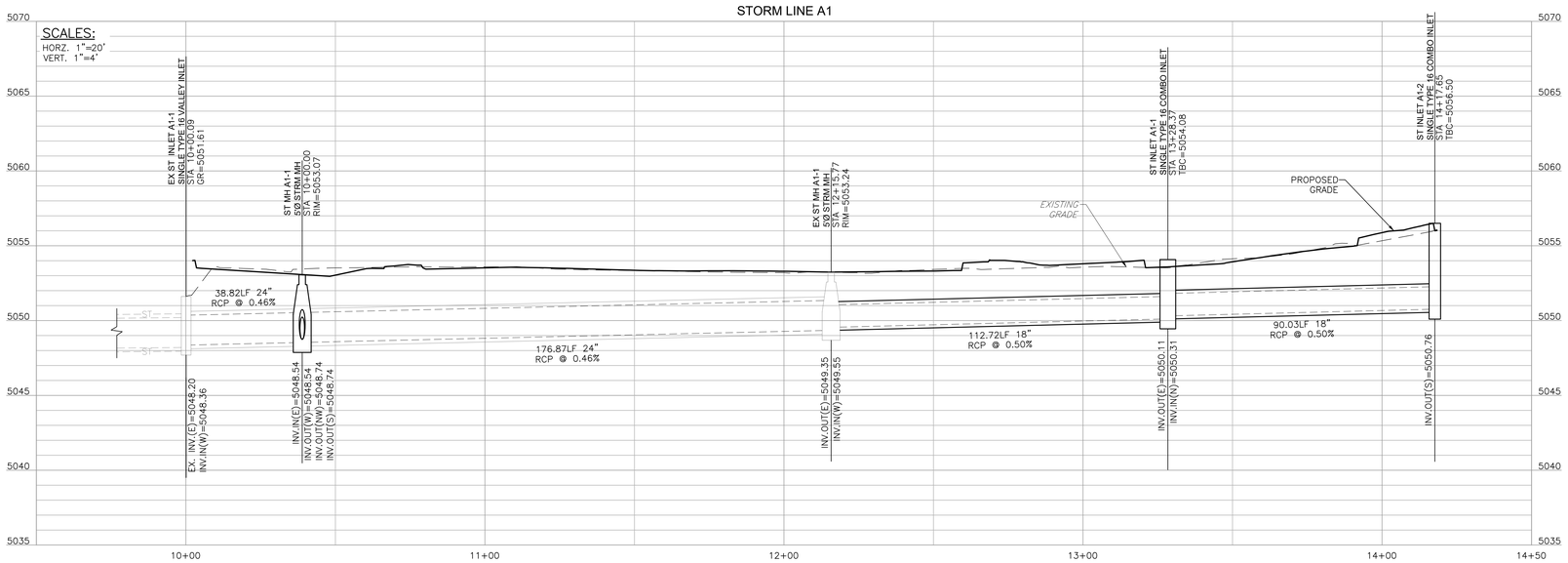
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STORM SEWER NOTES:

1. STORM SEWER SHALL BE INSTALLED PER TOWN OF BERTHOUD STANDARDS & SPECIFICATIONS.
2. STATIONING AND COORDINATES ARE BASED ON CENTER OF MANHOLES, CLEANOUTS AND AREA INLET. STATIONING AND COORDINATES FOR CURB INLETS ARE BASED ON CENTER OF CURB INLET AT FLOWLINE. THEREFORE, DISTANCES SHOWN ON PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND STRUCTURE WIDTHS.
3. ALL RCP STORM SEWER PIPES TO BE CLASS III WITH WATERTIGHT GASKETED JOINTS.
4. STORM SEWER 12" OR SMALLER SHALL BE SDR-35 PVC WITH WATERTIGHT GASKETED JOINTS.
5. ALL NON-PIPED BUILDING DOWNSPOUT SHALL BE FITTED WITH SPLASH BLOCKS OR ROOF DRAIN EXTENSIONS IN ACCORDANCE WITH THE PROJECT GEOTECH REPORT.
6. ALL ON-GRADE CURB INLETS SHALL BE FITTED WITH VANE GRATES.
7. RIM ELEVATIONS ON MANHOLES ARE APPROXIMATE ONLY. MANHOLE RIMS SHALL BE SET TO FINAL GRADE AT TIME OF PAVING TO MATCH FINAL PAVING GRADES.
8. SEE GRADING PLANS FOR ROOF DRAIN AND LANDSCAPE STORM LINES.
9. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SEWER POINTS OF CONNECTION PRIOR TO CONSTRUCTION OF ANY PROPOSED SEWER.
10. RIM ELEVATIONS ON CLEANOUTS ARE APPROXIMATE ONLY. CLEANOUT RIMS SHALL BE SET TO FINAL GRADE AT TIME OF PAVING AND LANDSCAPING TO MATCH FINAL PAVING AND LANDSCAPE GRADES.
11. MANHOLE CONES SHALL BE ALIGNED TO PROVIDE A MINIMUM OF THREE FEET 3' CLEARANCE BETWEEN THE MANHOLE RING AND THE LIP OF GUTTER. MANHOLE COVERS SHALL BE PLACED ABOVE MANHOLE STEPS.
12. THE PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME AND COVER TO REQUIRED FINAL GRADE. THE PIPELINE CONTRACTOR MAY NEED TO REMOVE AND REPLACE THE PRECAST MANHOLE CONE SECTION SUCH THAT THERE IS NO MORE THAN EIGHTEEN (18) INCHES FROM FINISHED GRADE TO THE TOP OF THE MANHOLE CONE SECTION.
13. CONTRACTOR SHALL IMMEDIATELY REMOVE DEBRIS DEPOSITED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
14. NO TREES SHALL BE PLANTED WITHIN TEN 10 FEET OF ANY NEW STORM SEWER PIPES.
15. THE CONTRACTOR SHALL COORDINATE ALL ROOF DRAIN CONNECTIONS AT BUILDING WITH THE PLUMBING PLANS PRIOR TO CONSTRUCTION. THE ENGINEER SHALL BE PROPERLY NOTIFIED OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
16. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF BERTHOUD ENGINEERING STANDARDS, MATERIAL SPECIFICATIONS, AND DRAWINGS [LATEST REVISION]. ALL STORM SEWER CONSTRUCTION SHALL BE APPROVED AND INSPECTED BY THE TOWN OF BERTHOUD.
17. ALL JOINTS AND JOINTING MATERIAL SHALL CONFORM TO THE FOLLOWING MINIMUM REQUIREMENTS. (REFER TO MHFD SPECIFICATION 33 41 00 FOR ADDITIONAL INFORMATION):
    - A. RUBBER GASKET JOINTS FOR TONGUE AND GROOVE OR BELL AND SPIGOT PIPE USING A CONFINED GASKET JOINT SHALL CONSIST OF AN O-RING RUBBER GASKET OR OTHER APPROVED GASKET CONFIGURATION AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM 361, ASTM C443, ASTM C1619, OR ASTM C1628 FOR THE PIPE DESIGNATED. UNLESS OTHERWISE APPROVED BY ENGINEER, THE STANDARD JOINT CONFIGURATION SHALL BE AS NOTED IN MHFD SUBSECTION 3.04.F.
    - B. RUBBER GASKET JOINTS FOR TONGUE AND GROOVE OR BELL AND SPIGOT PIPE USING A SINGLE OFFSET JOINT SHALL CONSIST OF A NON-CIRCULAR RUBBER GASKET OR OTHER APPROVED GASKET CONFIGURATION AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM C76 OR ASTM 361 FOR THE PIPE DESIGNATED. UNLESS OTHERWISE APPROVED BY ENGINEER, THE STANDARD JOINT CONFIGURATION SHALL BE AS NOTED IN SUBSECTION MHFD 3.04.F.
    - C. GASKETS MAY BE NATURAL RUBBER, ISOPRENE OR NEOPRENE CONFORMING TO ASTM C1619.
19. ALL STORM SEWERS SHALL HAVE CLASS "B" BEDDING UNLESS OTHERWISE SHOWN. BEDDING MATERIAL SHALL CONFORM TO ASTM C-33 OR D-448, GRADATION NO. 67.
20. THE FLEXIBLE PLASTIC JOINT SEALING COMPOUND SHALL BE "RAMNEK," RUBBERNECK OR APPROVED EQUAL.
21. THE CONNECTION OF A NEW STORM SEWER TO AN EXISTING MANHOLE/INLET MAY REQUIRE CHANGES IN ELEVATIONS OR MODIFICATION TO EXISTING STRUCTURES. USE OF A PRE-CAST CONCRETE STRUCTURE OR MANHOLE/INLET RECONSTRUCTION IS AT THE DISCRETION OF TOWN OF BERTHOUD.
22. CONTRACTOR SHALL IMMEDIATELY REMOVE DEBRIS DEPOSITED INTO PUBLIC MANHOLES AND OTHER PUBLIC STRUCTURES TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS CAUSING BACKUP INTO PRIVATE PROPERTIES. IF IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
23. NO TREES SHALL BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN TEN [10] FEET OF ANY PUBLIC MANHOLES, PIPES OR INLETS.
24. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATIONS. CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE, SUCH THAT THERE IS NO MORE THAN EIGHTEEN [18] INCHES FROM FINISHED GRADE TO THE TOP OF THE CONE SECTION. THE RIM SHALL BE LEFT 1/8-INCH TO 1/4-INCH BELOW FINISHED ASPHALT.
25. MANHOLE COVERS SHALL BE ALIGNED TO PROVIDE A MINIMUM OF THREE [3] FEET CLEARANCE BETWEEN THE MANHOLE RING AND THE LIP OF GUTTER.
26. STATIONING/COORDINATES SHOWN FOR TYPE 'R' INLETS IS ON FLOWLINE AT CENTER OF INLET. STATIONING/COORDINATES FOR AREA INLETS ARE AT CENTER OF INLET. STATIONING/COORDINATES FOR FLARED END SECTIONS ARE AT CENTER OF FLARED END.
27. SLOPE OF INLET FLOW LINE OR GRATE TO MATCH STREET GRADE UNLESS INLET IS AT A SUMP LOCATION.
28. CONTRACTOR TO COORDINATE HORIZONTAL AND VERTICAL LOCATIONS OF ROOF DRAIN SERVICES AND DOWNSPOUTS WITH PLUMBING AND ARCHITECTURAL PLANS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.

NOTES:

SEE SHEETS C5.0 AND C5.2 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.

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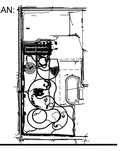
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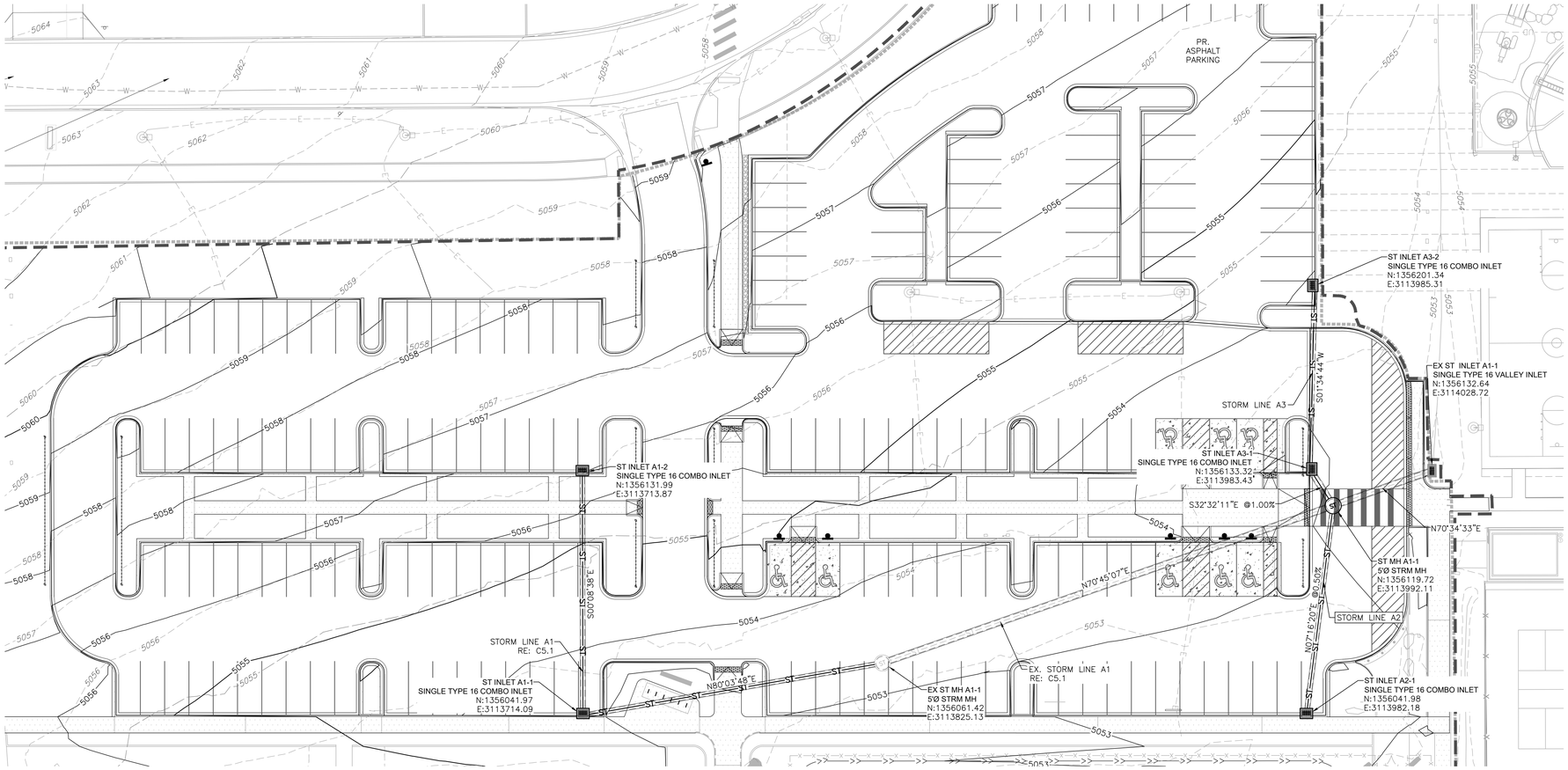
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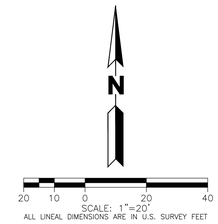
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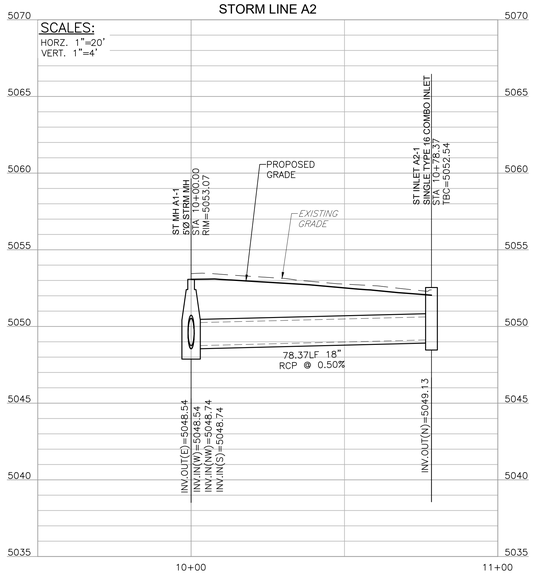
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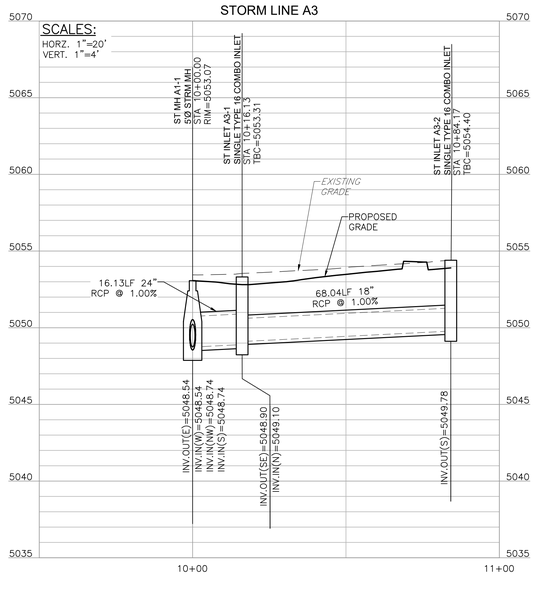




STORM LINE A2



STORM LINE A3



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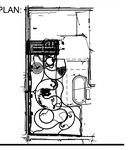
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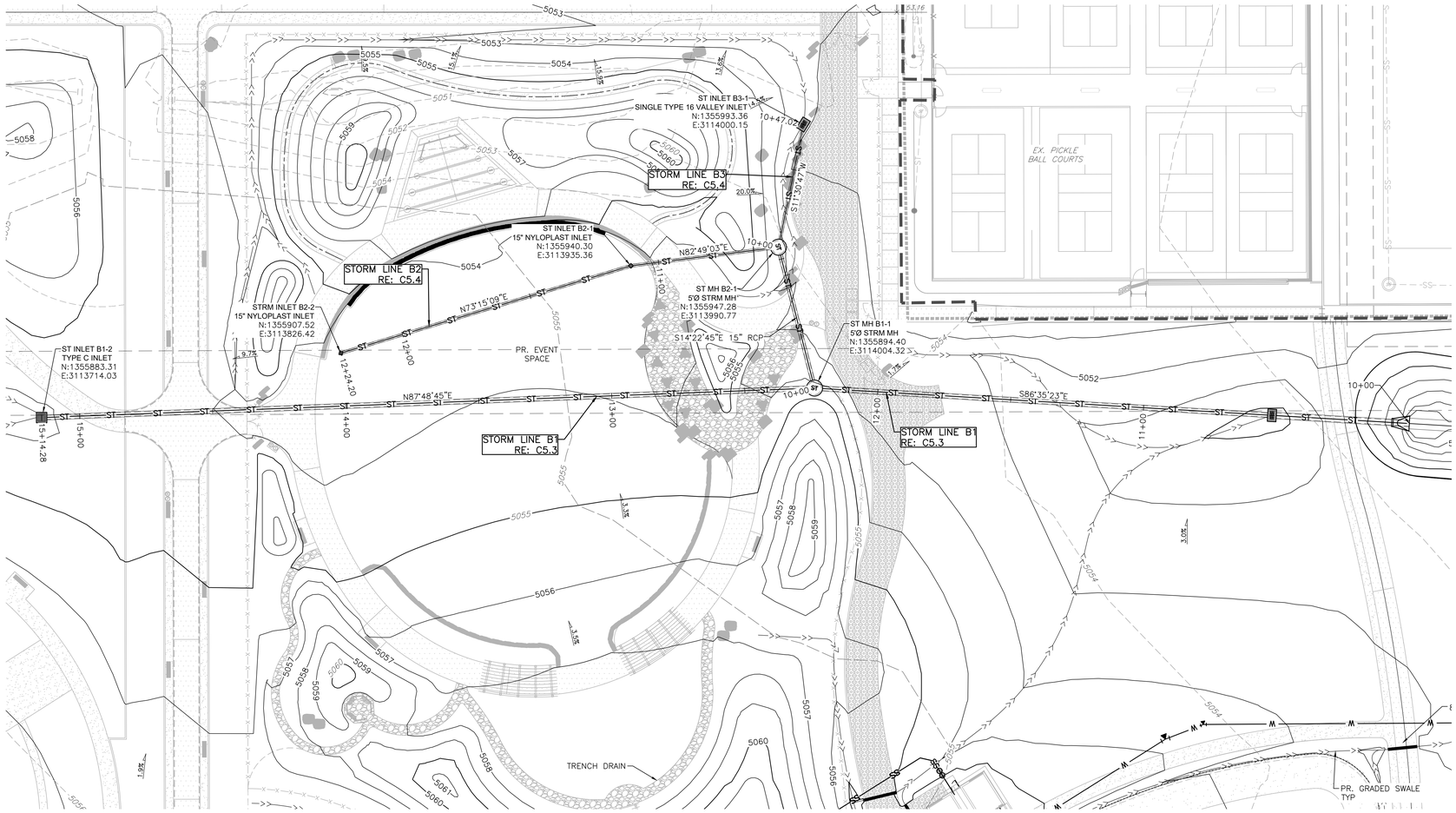
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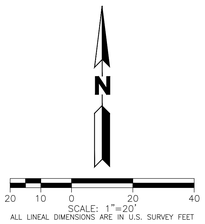
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TRENCH DRAIN NOTES:
1. TRENCH DRAIN SHALL BE ACO KLASSIKDRAIN K100 TRENCH DRAIN (4" WIDE INTERNAL WIDTH) K1 0.5% SLOPED CHANNELS OR APPROVED EQUAL. INSTALL PEDESTRIAN TRAFFIC GRATE (ADA COMPLIANT AND HIGH HEEL SAFE) OR APPROVED EQUAL.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF TRENCH DRAIN LAYOUT PRIOR TO CONSTRUCTION.



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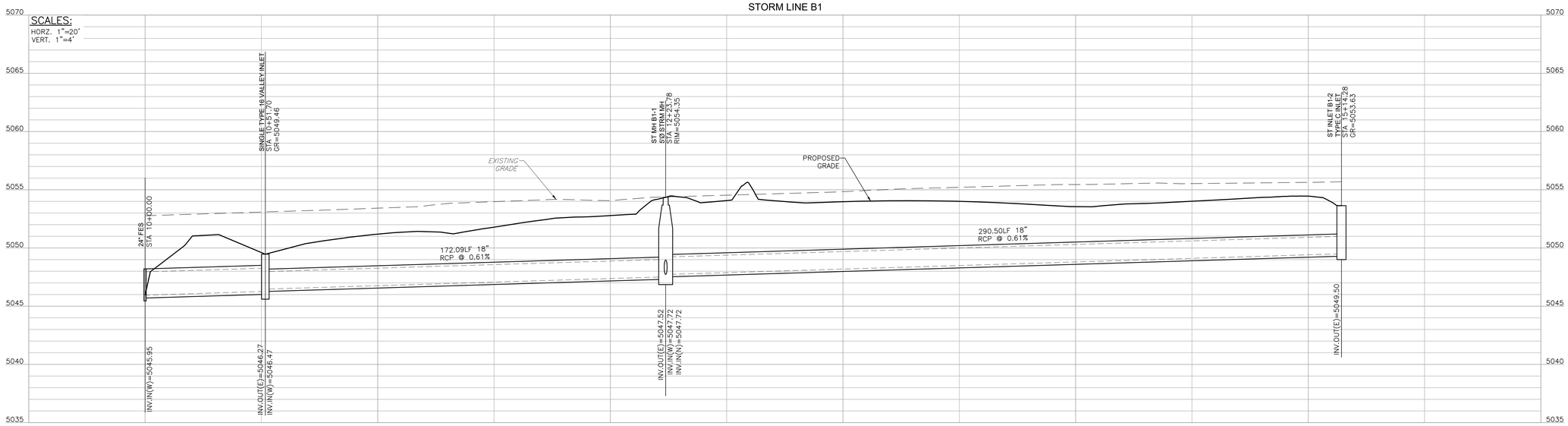
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STORM LINE B1



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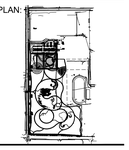
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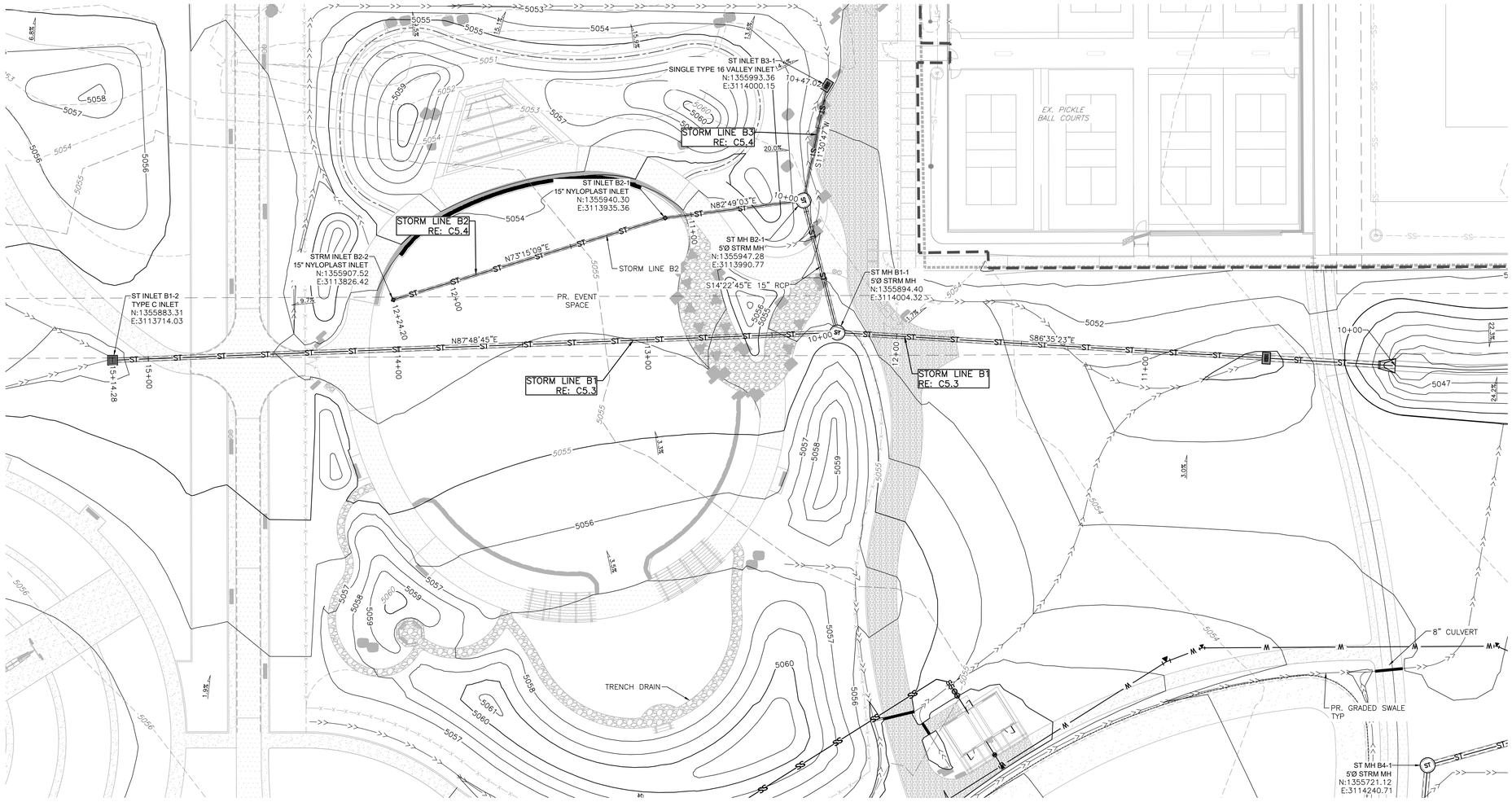
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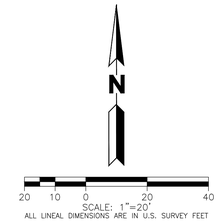
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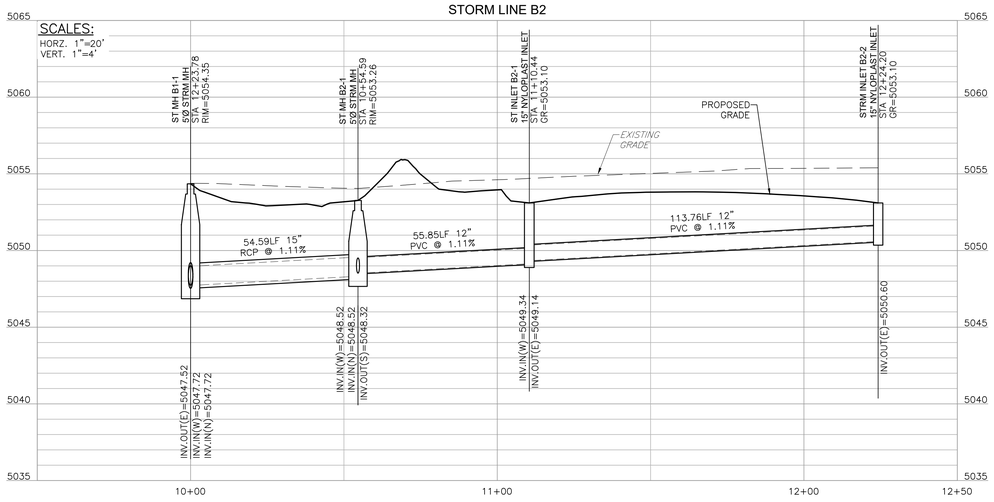
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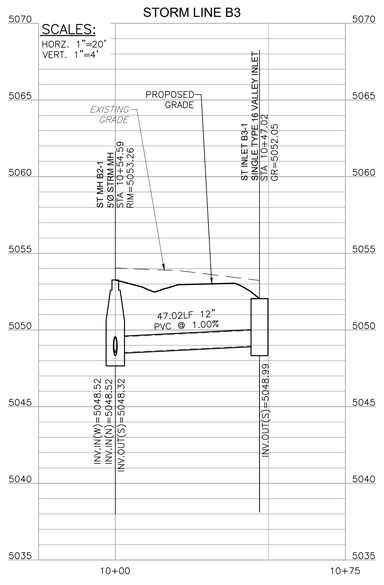
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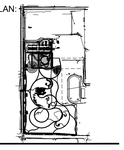
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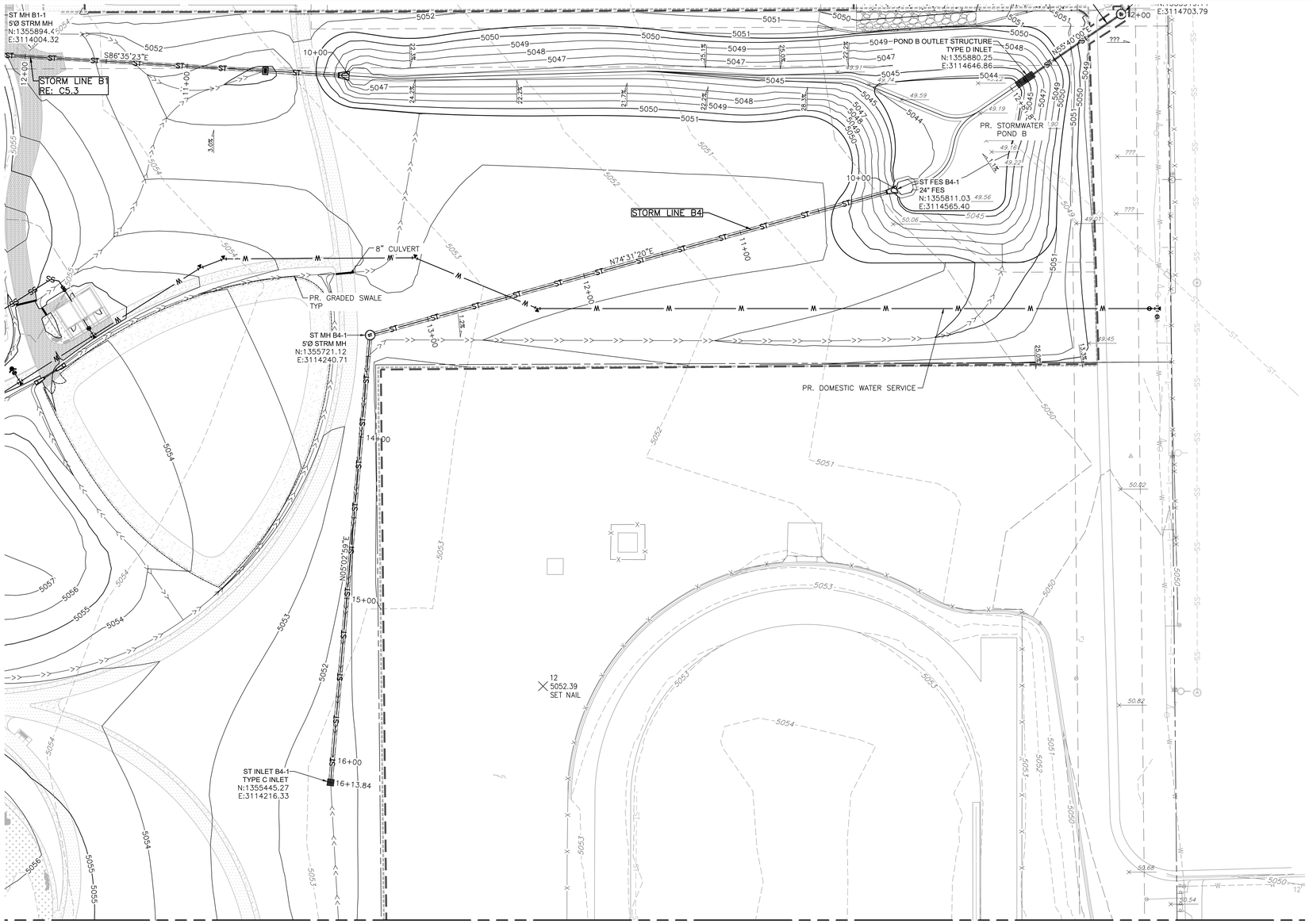
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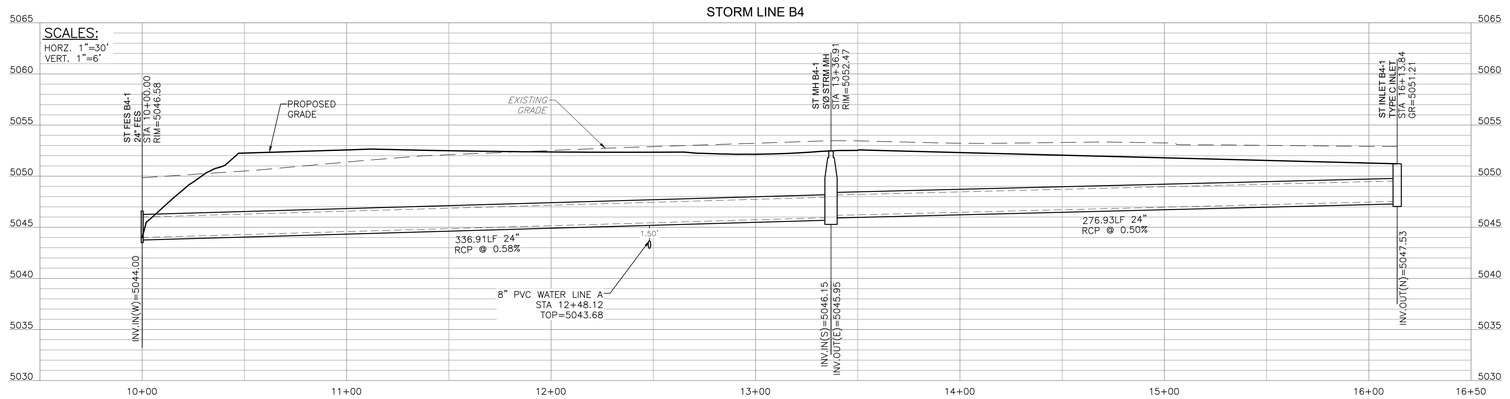
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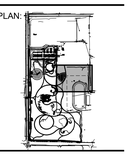


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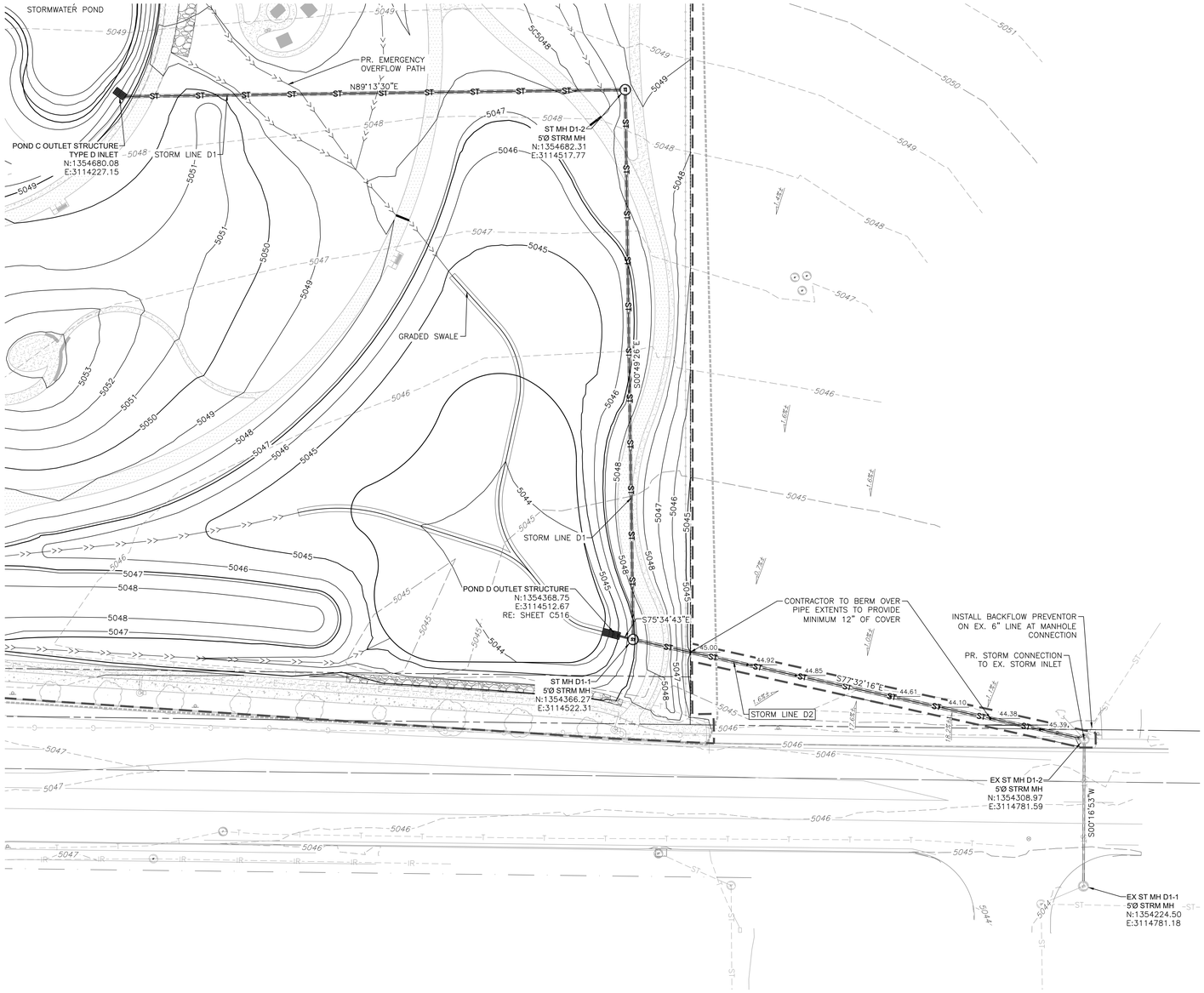
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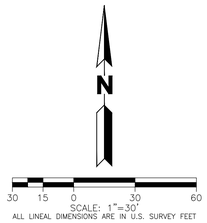
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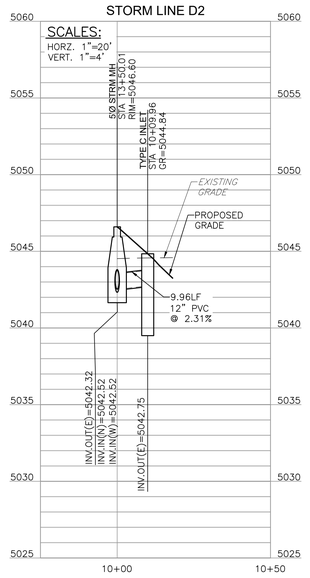
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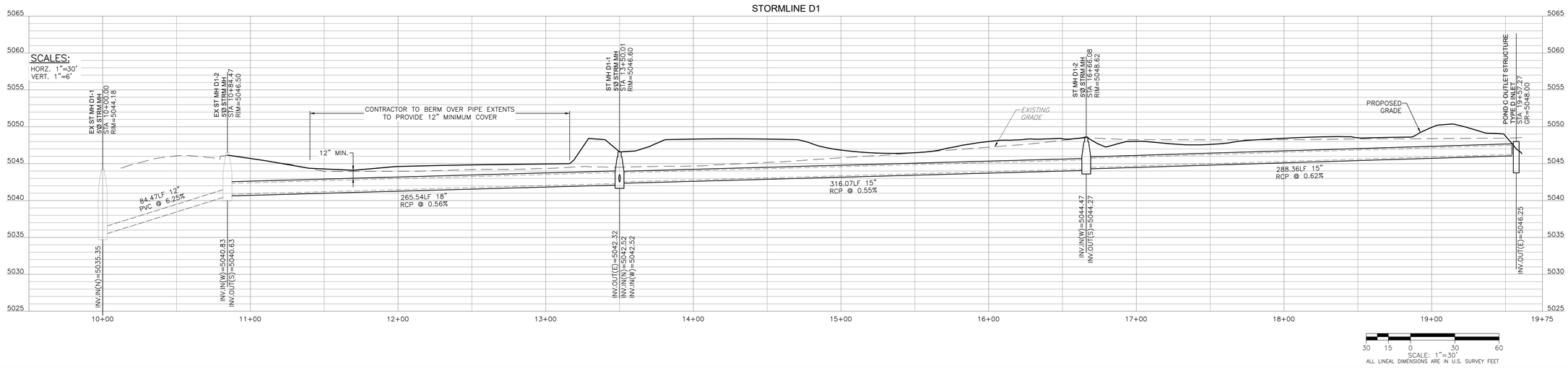
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COLORADO 811
KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2–BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.



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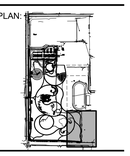
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

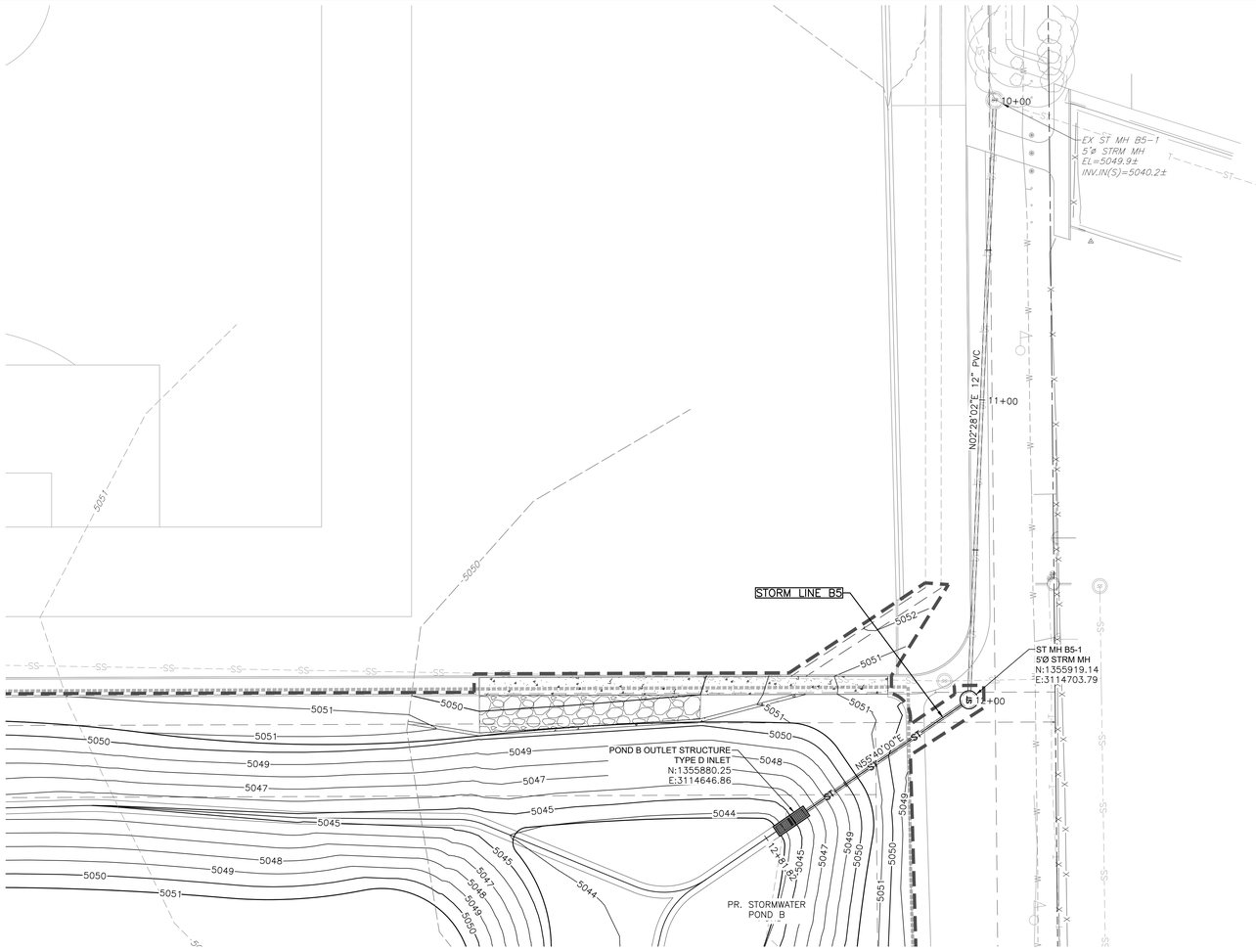
STORM PLAN AND PROFILE

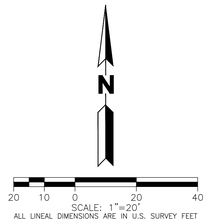
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GRADING NOTE:

EXISTING GRADES, STORM PIPE, AND STRUCTURES ARE BASED ON CIVIL CONSTRUCTION PLANS FOR WAGGENER FARM PARK–PHASE 1, PREPARED BY JVA, DATED JUNE 24, 2020 AND ASI #05, DATED AUGUST 21, 2020. AS–BUILT SURVEY HAS NOT BEEN PERFORMED AND MUST BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. PER CITY RECORD, AN EXISTING 12" STORM SEWER STUB WAS INSTALLED, CAPPED, AND BURIED APPROXIMATELY 200LF SOUTH OF EX. ST MH BH–1 IS LOCATED AT THE APPROXIMATED LOCATION OF THE STUBBED STORM SEWER LINE. SLOPE OF 0.95% ALONG THE STUBBED LINE ASSUMED.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

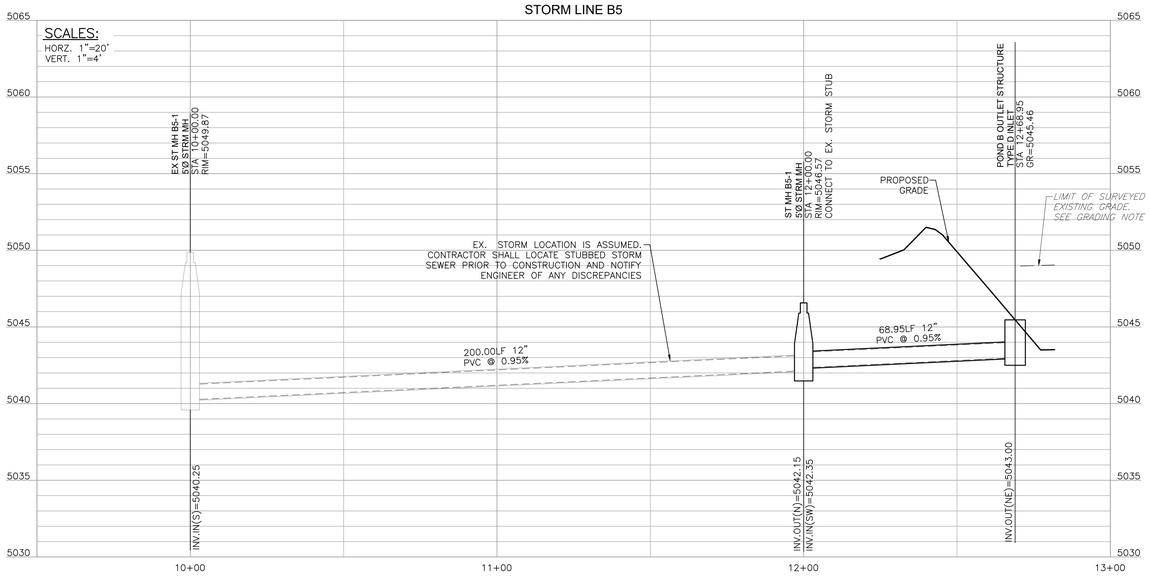
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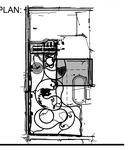
TOWN OF BERTHOUD Est. 1880 — Garden Spot of Colorado

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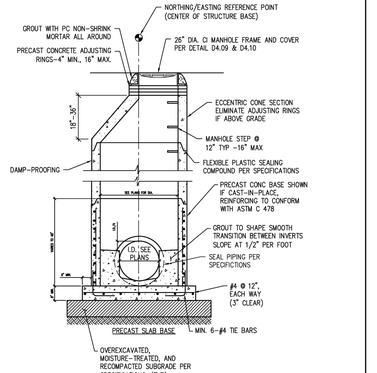
STORM PLAN AND PROFILE

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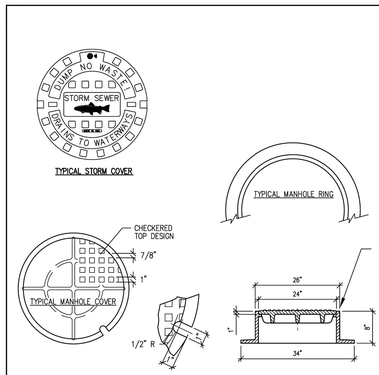


NOTES:

1. SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING OR SHAPING BASE CONCRETE.
2. BLOCK-OUTS WHEN APPROVED SHALL EXTEND A MAX OF 6" PAST MANHOLE OD AND BE SATISFACTORILY PLUGGED AND SEALED.
3. CONCRETE MANHOLE BASES MAY BE POURED IN PLACE ONLY WITH PRIOR APPROVAL.
4. ALL MORTAR SHALL BE MIXED WITH A TYPE II CEMENT.
5. BENCH MUST HAVE A BRUSHED, NON-SKID SURFACE.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA GENERAL DETAILS	D0.03
STANDARD MANHOLE	DATE: 12/2020

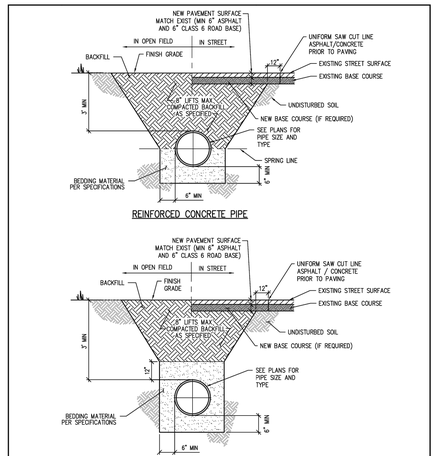


NOTES:

1. ASTM DESIGNATION A-48 CLASS 35B (UNPAINTED) W/ MIN TENSILE STRENGTH KSI (CLASS 25)
2. 1-1/2" LETTERING ON COVER AS REQUIRED (WATER, SEWER, OR STORM). SEE STORM COVER DETAIL ABOVE FOR ADDITIONAL REQUIREMENTS
3. ALL BEARING SURFACES TO BE MATCHED
4. TOTAL MINIMUM WEIGHT APPROXIMATELY 400 LBS CAST IRON ONLY
5. LIFTING NOTCH SHALL NOT EXTEND PAST INSIDE FACE OF RING SEAT
6. MIN FRAME WEIGHT 235 LBS, MIN LID WEIGHT 165 LBS

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA GENERAL DETAILS	D0.04
MANHOLE RING AND COVER – NON-BOLTED	DATE: 12/2020

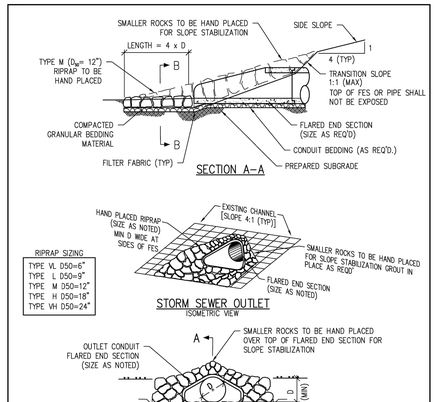


NOTES:

1. IF UNSTABLE MATERIALS ARE FOUND IN TRENCH, OVEREXCAVATE PER SPECIFICATIONS OR AS REQUIRED.
2. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKERS AND THE PROTECTION OF OTHER UTILITIES.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.02
STORM SEWER BEDDING DETAIL	DATE: 12/2020

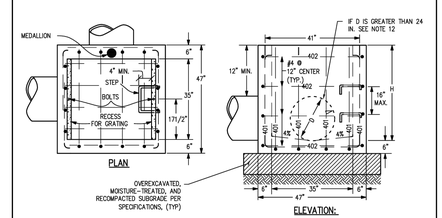


RIPRAP SIZING

TYPE VL	D50=6"
TYPE L	D50=9"
TYPE M	D50=12"
TYPE H	D50=18"
TYPE VH	D50=24"

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.04
RIPRAP APRON SIZING & PLACEMENT AT FLARED END SECTION	DATE: 12/2020

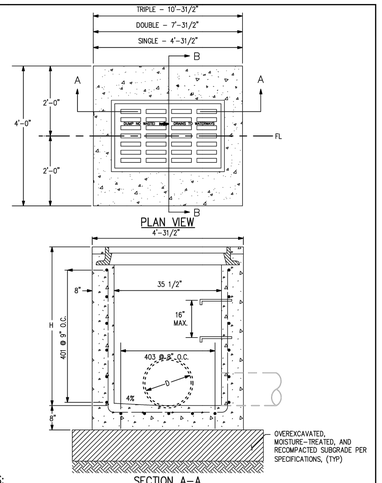


NOTES:

1. INLET TYPE C IS NOT HS-20 RATED AND SHALL NOT BE PLACED IN PAVED ROADWAYS. THIS INLET SHALL BE USED ONLY OUTSIDE PAVED ROADWAYS.
2. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
3. REINFORCING BARS SHALL BE EPOXY COATED AND DEFORMED #4, AND SHALL HAVE A MINIMUM 2 IN. CLEARANCE. CUT OR BEND AROUND PIPES AS REQUIRED
4. CONCRETE SLOPE AND DITCH PAVING SHALL BE IN ACCORDANCE WITH CDOT SECTION 507. REINFORCEMENT FOR CONCRETE SLOPE PAVING SHALL BE 6 X 6 – W1.4 X W1.4 OR 6 X 6 – W2.1 X W2.1.
5. STRUCTURAL STEEL FOR GRATES AND GRATE INSTALLATION HARDWARE SHALL BE GALVANIZED, AND SHALL BE IN ACCORDANCE WITH CDOT SUBSECTION 712.06
6. THE STANDARD INLET GRATES SHALL BE USED ON ALL TYPE C INLETS UNLESS CLOSE MESH GRATES ARE SPECIFIED ON THE PLANS.
7. CLOSE MESH GRATES ARE RECOMMENDED WHERE FOOT TRAFFIC OR BICYCLE ROUTES ARE IN CLOSE PROXIMITY TO GRATE. THIS GRATE IS NOT ADA COMPLIANT OR BICYCLE FRIENDLY AND SHALL NOT BE PLACED DIRECTLY IN SIDEWALKS, CROSSWALKS OR BIKE PATHS.
8. STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT. – 6 IN., AND SHALL CONFORM TO AASHTO M 199.
9. ALL INLETS SHALL HAVE A 4 IN. DIA. METAL MEDALLION WITH A "NO DUMPING DRAINS TO WATERWAYS" MESSAGE ON IT. THE MEDALLION SHALL HAVE A FISH 9. SYMBOL WITH A BLUE BACKGROUND. IT SHALL BE FIRMLY ATTACHED TO THE TOP OF THE INLET WITH A PERMANENT FASTENER.
10. SEE PLANS FOR SIZE AND LOCATION OF PIPE
11. FOR FULL DETAIL INCLUDING BAR LIST, DIMENSIONS AND QTY. TABLE, SEE CDOT DETAIL M-604-10
12. ALL CONNECTED PIPES WITH A DIAMETER (D) GREATER THAN 24" AND/OR ENTERING AT AN ANGLE GREATER THAN 80° A CUSTOM CONC BOX MUST BE CONSTRUCTED. CONTRACTOR TO COORDINATE BOX DIMENSIONS AND SPECS WITH MANUFACTURER.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.05
TYPE C INLET	DATE: 12/2020

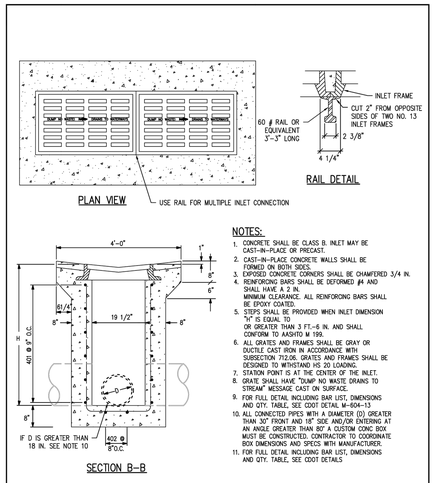


NOTES:

1. FOR FULL DETAIL INCLUDING BAR LIST, DIMENSIONS AND QTY. TABLE, SEE CDOT DETAILS

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.08A
VALLEY INLET (CDOT TYPE 13) (1 OF 2)	DATE: 12/2020

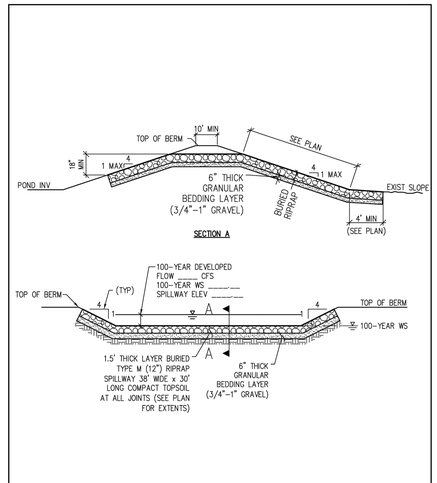


NOTES:

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CAST-IN-PLACE CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES.
3. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 3/4 IN.
4. REINFORCING BARS SHALL BE DEFORMED #4 AND SHALL HAVE A 2 IN. MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE EPOXY COATED.
5. STEPS SHALL BE PROVIDED WHEN INLET DIMENSION "H" IS EQUAL TO OR GREATER THAN 3 FT.–6 IN. AND SHALL CONFORM TO AASHTO M 199.
6. ALL GRATES AND FRAMES SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06. GRATES AND FRAMES SHALL BE DESIGNED TO WITHSTAND HS 20 LOADING.
7. STATION POINT IS AT THE CENTER OF THE INLET.
8. GRATE SHALL HAVE "DUMP NO WASTE DRAINS TO STREAM" MESSAGE CAST ON SURFACE.
9. FOR FULL DETAIL INCLUDING BAR LIST, DIMENSIONS AND QTY. TABLE, SEE CDOT DETAIL M-604-13
10. ALL CONNECTED PIPES WITH A DIAMETER (D) GREATER THAN 30" FRONT AND 18" SIDE AND/OR ENTERING AT AN ANGLE GREATER THAN 80° A CUSTOM CONC BOX MUST BE CONSTRUCTED. CONTRACTOR TO COORDINATE BOX DIMENSIONS AND SPECS WITH MANUFACTURER.
11. FOR FULL DETAIL INCLUDING BAR LIST, DIMENSIONS AND QTY. TABLE, SEE CDOT DETAILS

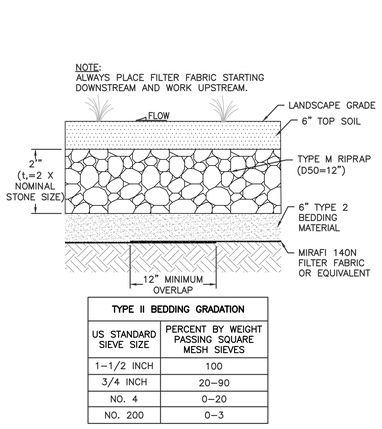
SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.08B
VALLEY INLET (CDOT TYPE 13) (2 OF 2)	DATE:12/2020



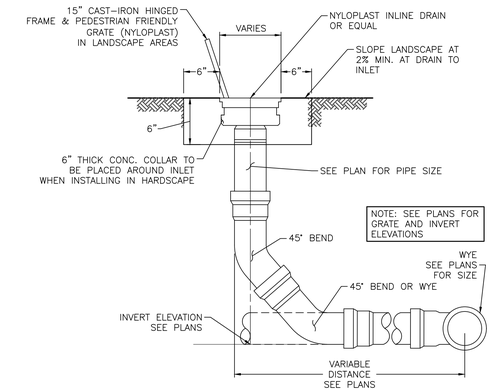
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TOWN OF BERTHOUD STANDARD DESIGN CRITERIA STORM SEWER DETAILS	D6.13
EMERGENCY OVERFLOW	DATE: 12/2020

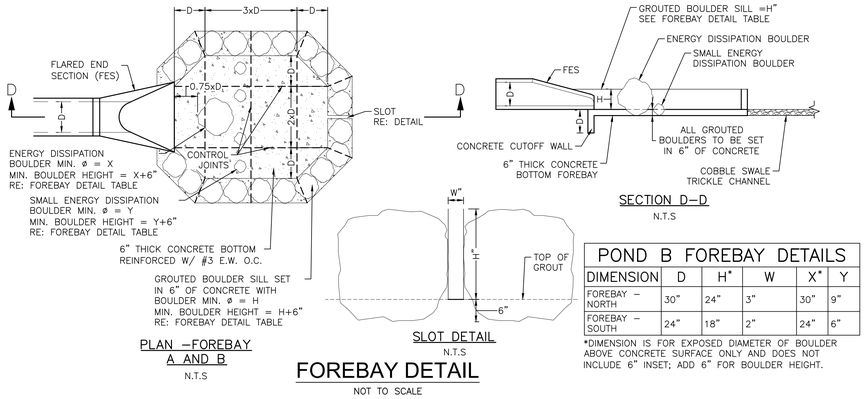


TYPE II BEDDING GRADATION	
US STANDARD SIEVE SIZE	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVES
1-1/2 INCH	100
3/4 INCH	20-90
NO. 4	0-20
NO. 200	0-3

RIPRAP PLACEMENT DETAIL



LANDSCAPE AREA INLET
NOT TO SCALE
M/M 2009



FOREBAY DETAIL
NOT TO SCALE

POND B FOREBAY DETAILS					
DIMENSION	D	H*	W	X*	Y
FOREBAY – NORTH	30"	24"	3"	30"	9"
FOREBAY – SOUTH	24"	18"	2"	24"	6"

*DIMENSION IS FOR EXPOSED DIAMETER OF BOULDER ABOVE CONCRETE SURFACE ONLY AND DOES NOT INCLUDE 6" INSET; ADD 6" FOR BOULDER HEIGHT.

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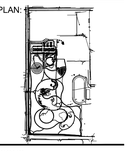
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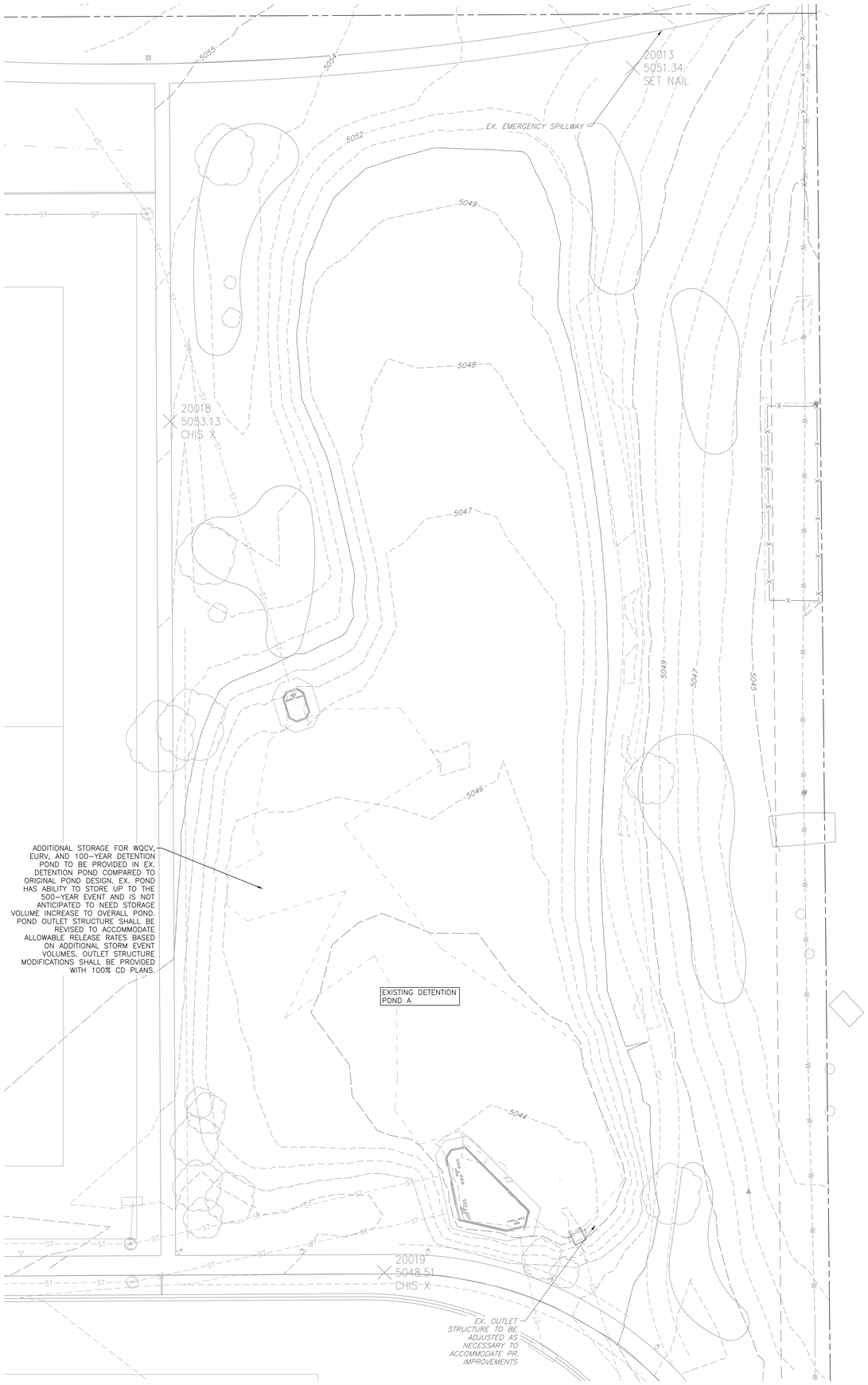
STORMWATER DETAIL SHEET

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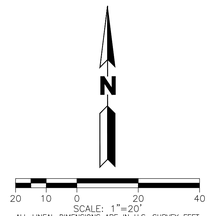
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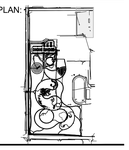
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

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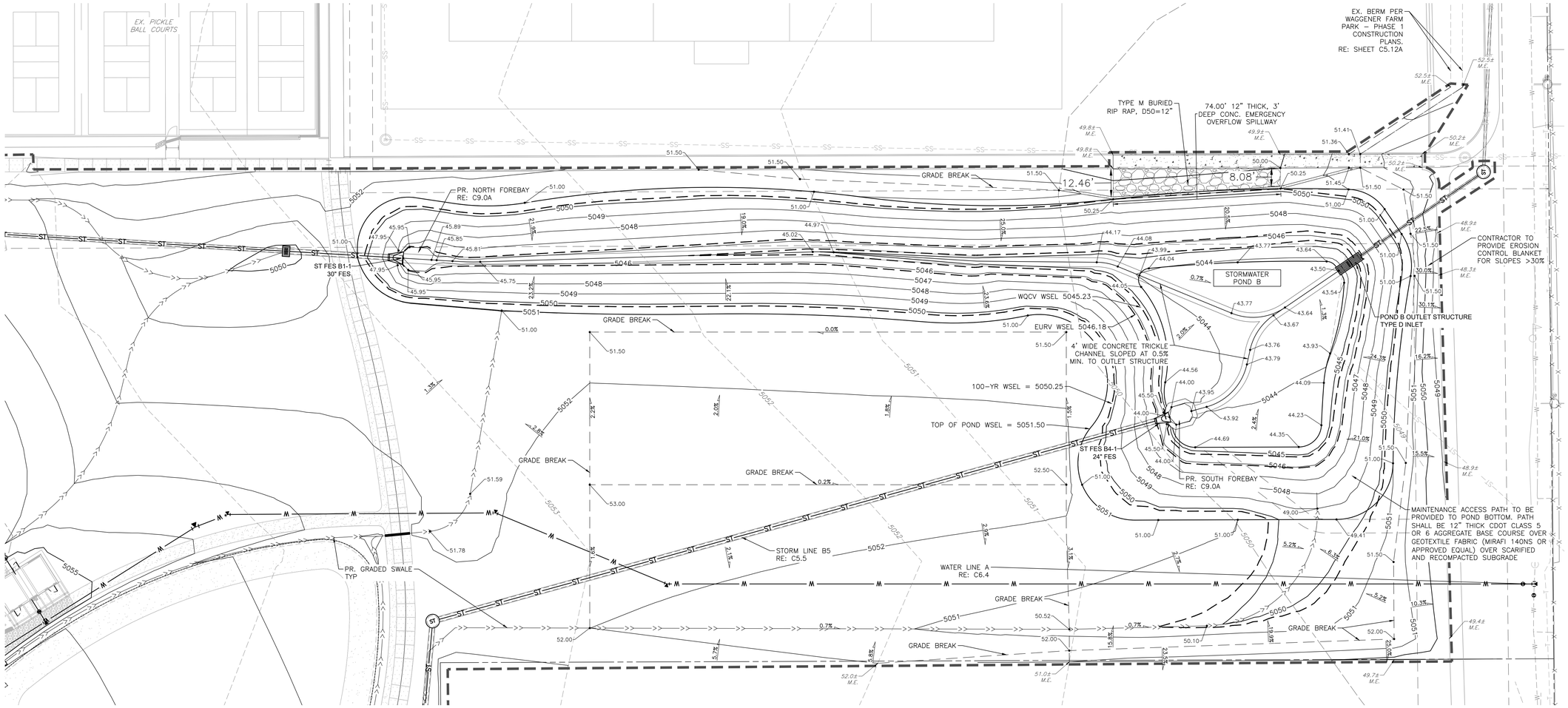
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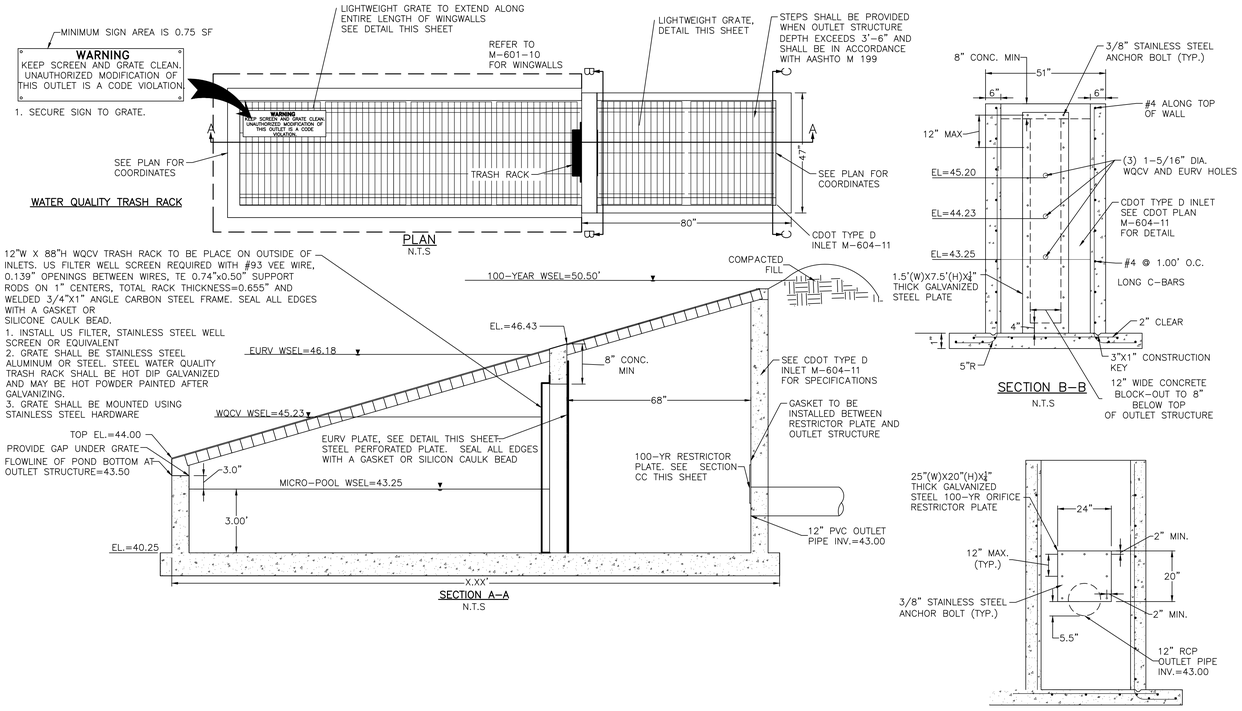
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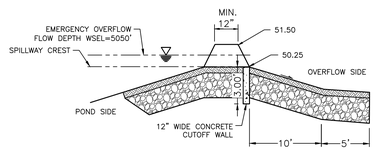
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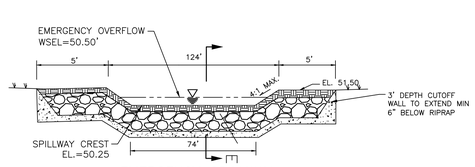
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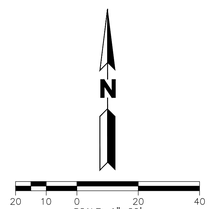
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COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

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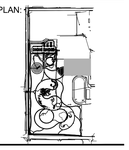
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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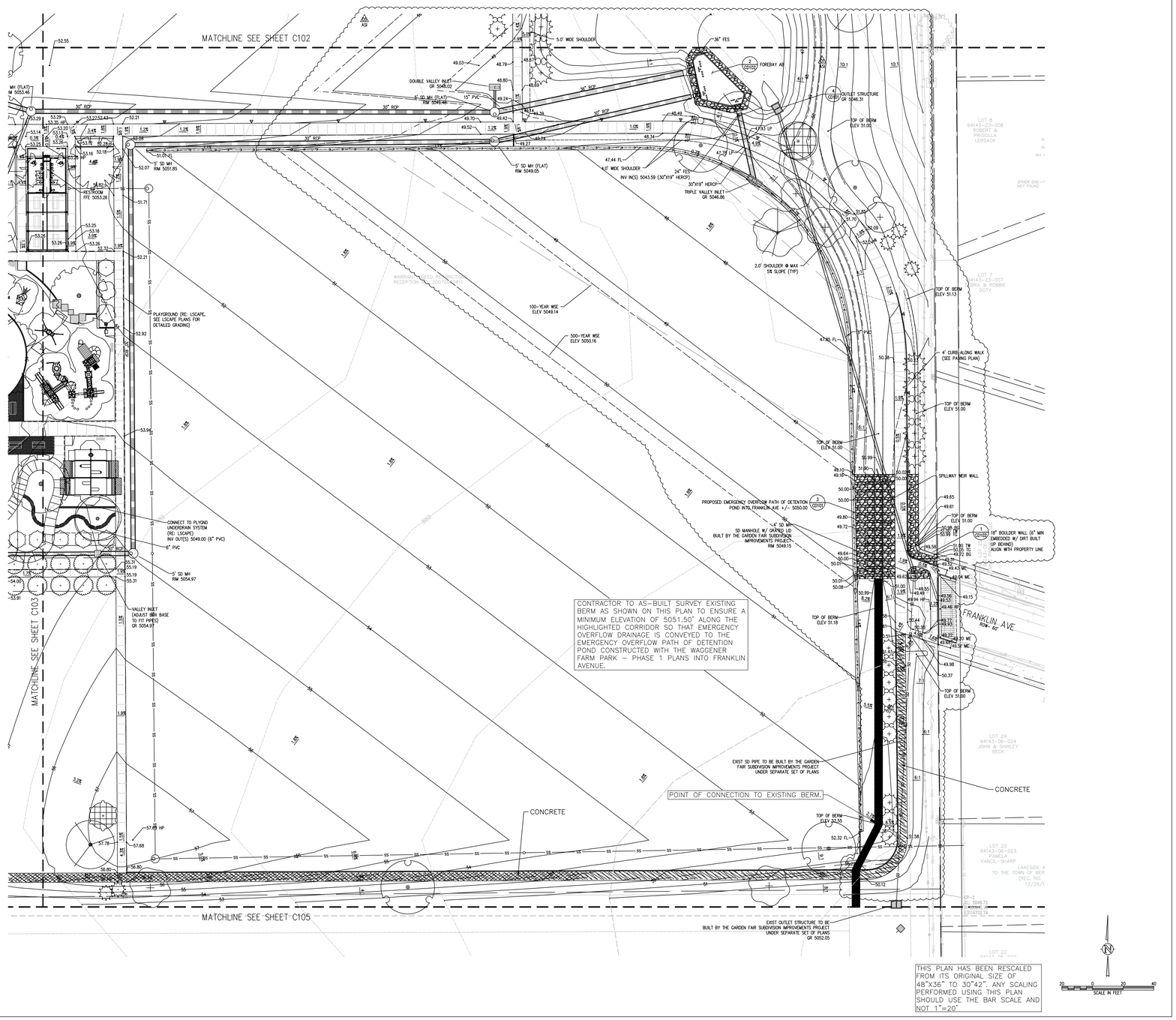
STORMWATER POND B ENLARGEMENT

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KEY PLAN:

Project Number:	2018.59
Issue:	100% CD
Date:	June 24, 2020
Drawn By:	TWW / JPC
Checked By:	KJC / KAT

Revisions:

Description:	Date:
ASI #01	06.24.2020
ASI #05	08.21.2020

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

Sheet title:
DETAILED GRADING PLAN

C104

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PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

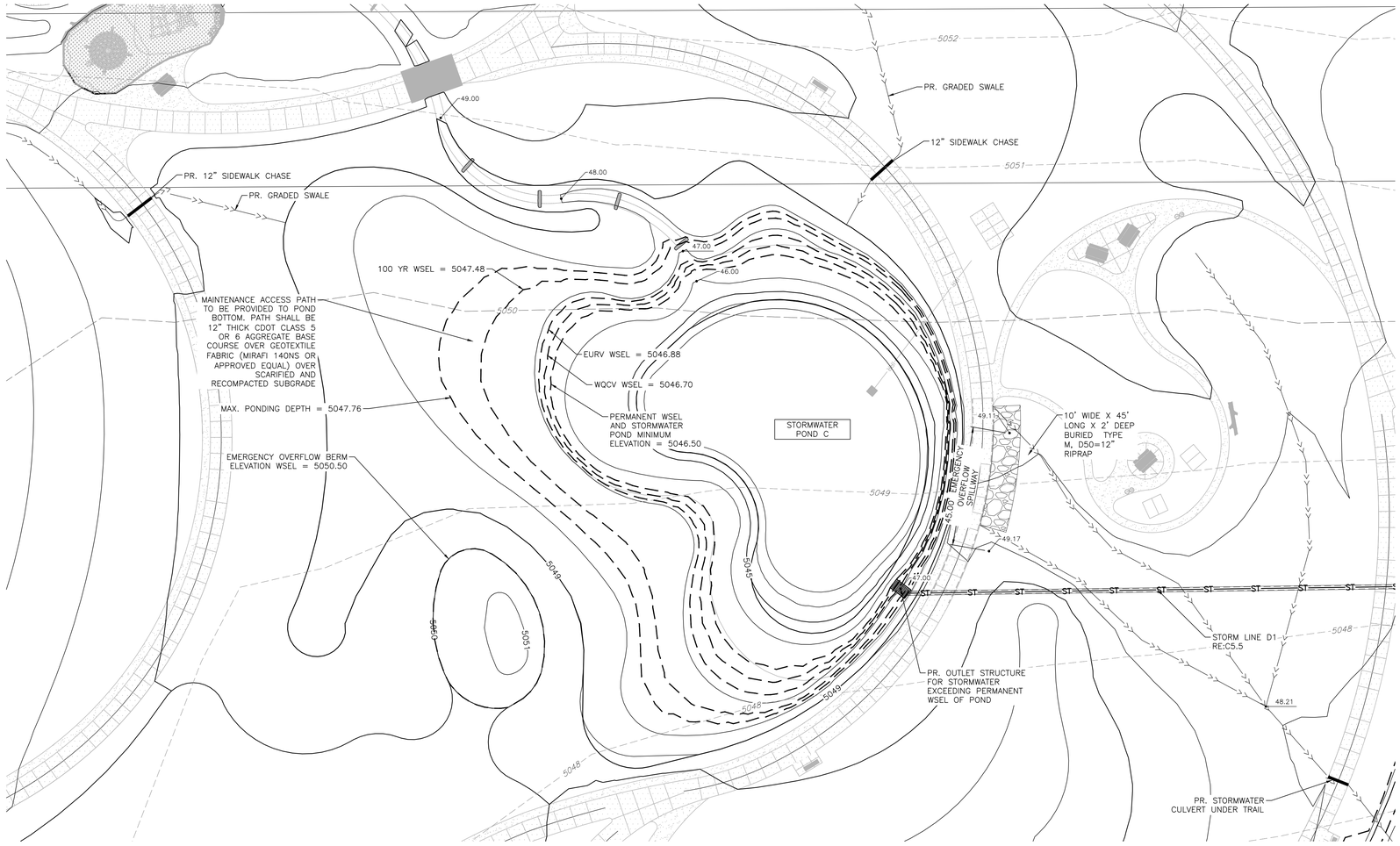
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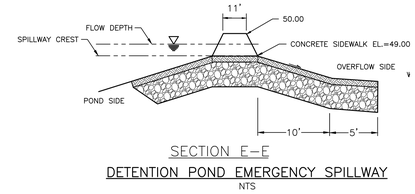
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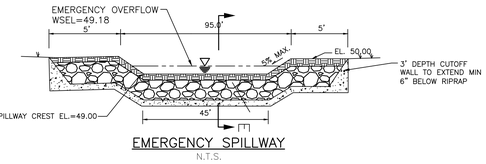




SECTION E-E

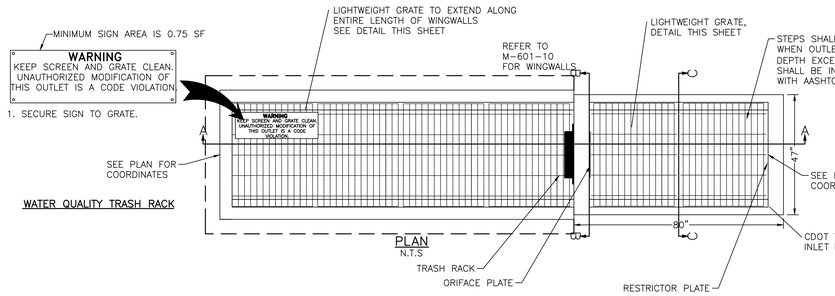
DETENTION POND EMERGENCY SPILLWAY

NTS



EMERGENCY SPILLWAY

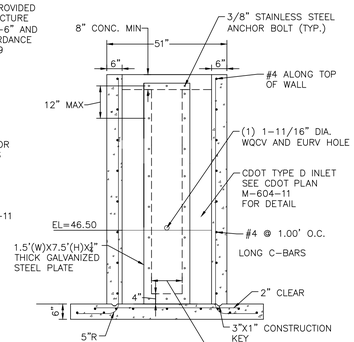
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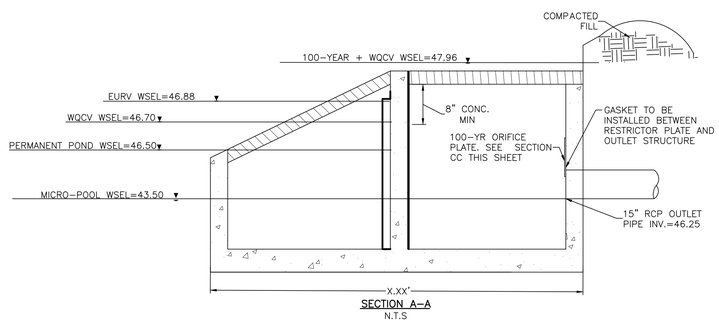
PLAN

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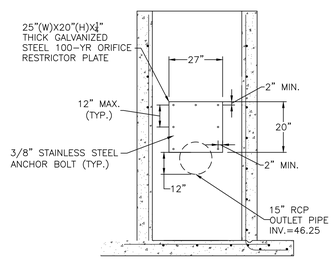
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SECTION A-A

N.T.S



SECTION C-C

N.T.S

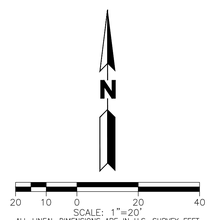
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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

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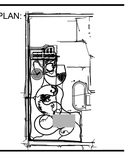
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STORMWATER POND C ENLARGEMENT

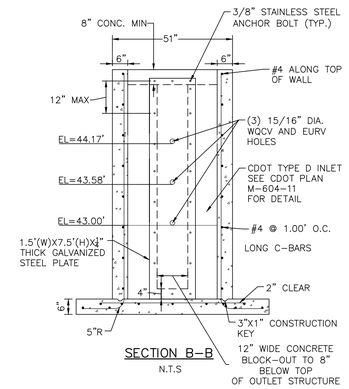
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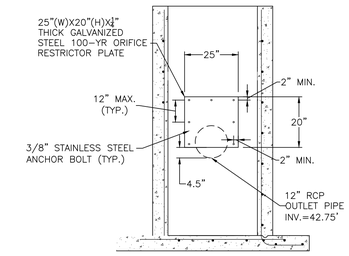
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SECTION B-B
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SECTION C-C
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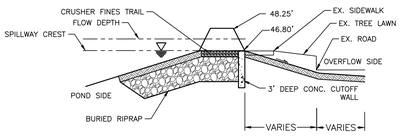
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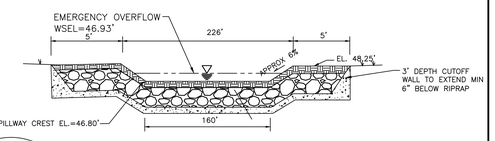
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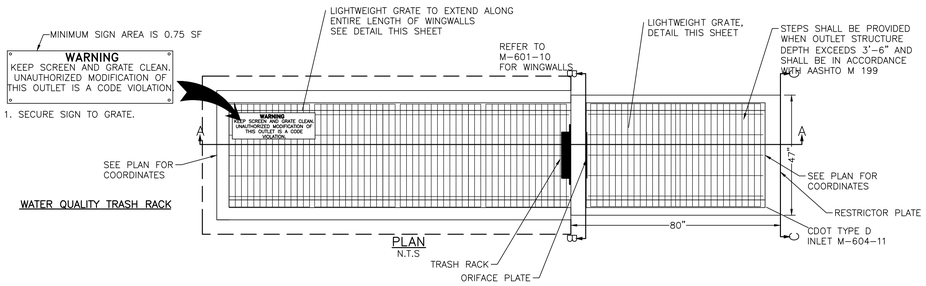
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SECTION E-E
DETENTION POND EMERGENCY SPILLWAY
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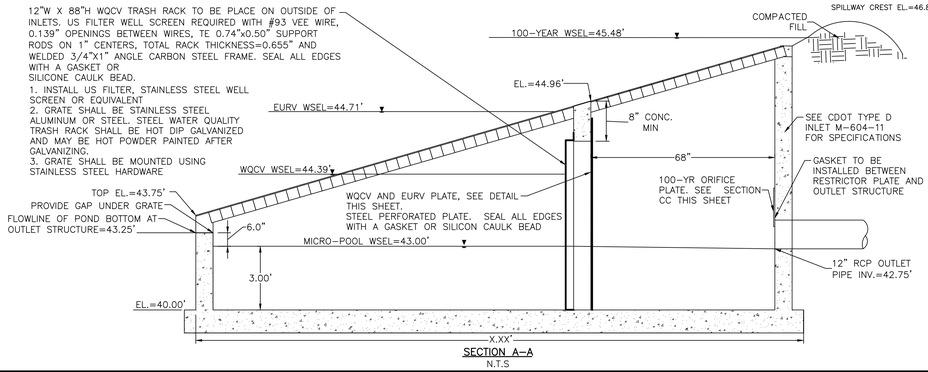


EMERGENCY SPILLWAY
N.T.S.



WATER QUALITY TRASH RACK

PLAN
N.T.S



SECTION A-A
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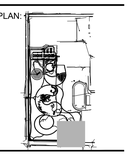
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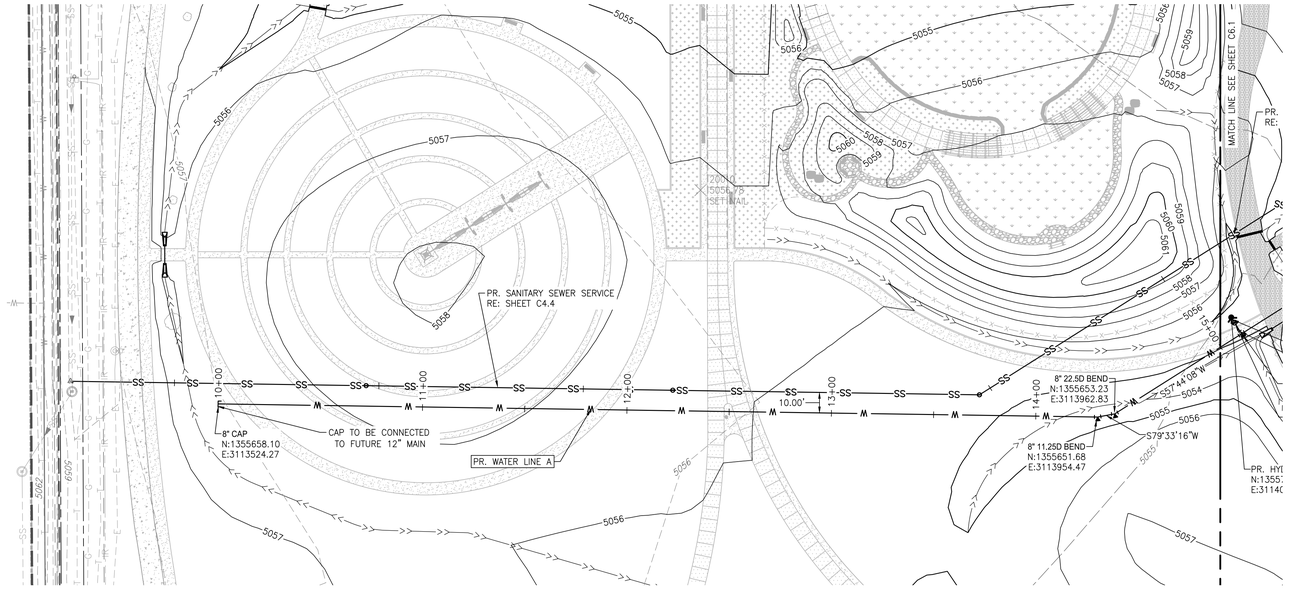
STORMWATER POND D ENLARGEMENT

SHEET:

C5.16

WATER NOTES:

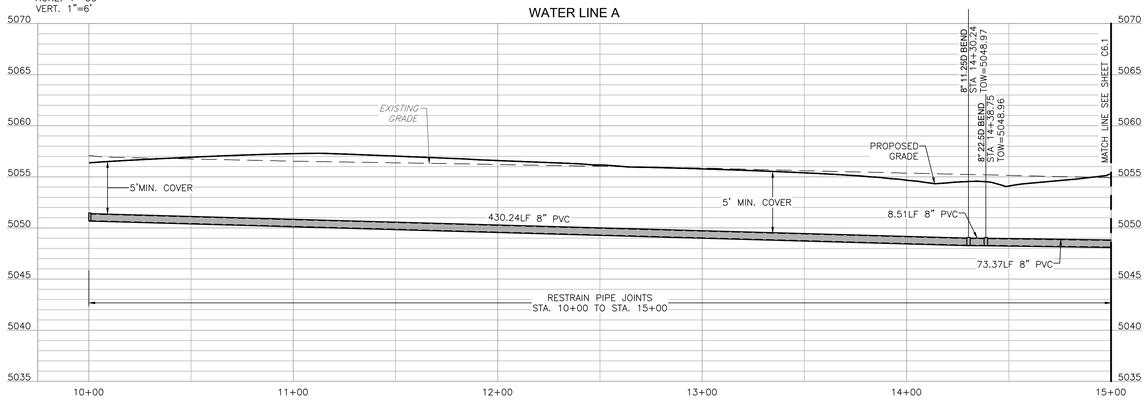
1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF BERTHOUD ENGINEERING STANDARDS, MATERIALS SPECIFICATIONS AND DRAWINGS. ALL MAIN INSTALLATIONS/SYSTEM MODIFICATIONS SHALL BE APPROVED AND INSPECTED BY THE TOWN OF BERTHOUD.
2. ALL WATER MAIN CONSTRUCTION SHALL BE PERFORMED BY A CONTRACTOR LICENSED IN THE TOWN OF BERTHOUD. THE ENGINEER, OWNER AND TOWN OF BERTHOUD SHALL BE NOTIFIED [48] HOURS IN ADVANCE OF ANY PLANNED CONSTRUCTION.
3. ALL WATER MAINS SHALL BE POLYVINYL CHLORIDE [PVC], MANUFACTURED IN ACCORDANCE WITH AWWA STANDARD C-900, CLASS 235 [DR18] ALL FITTINGS SHALL BE MADE FROM GRAY-IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL BE AT A PRESSURE RATING OF 350 PSI AND SHALL BE WRAPPED WITH EIGHT MILLIMETER MINIMUM THICKNESS POLYETHYLENE MATERIAL IN ACCORDANCE WITH AWWA STANDARD C105.
4. ALL PVC WATER MAINS SHALL BE INSTALLED WITH INSULATED NO. 8 AWG, TYP. TYPE UF TAPED ON TOP OF PIPE AS A TRACER WIRE. TRACER WIRE IS TO BE LOOPED UP TO EACH HYDRANT. A CATHODIC PROTECTION BOX IS TO BE SET ON THE RIGHT HAND SIDE OF EACH HYDRANT. THE BOX SHALL HAVE A CAST IRON LOCKING LID WITH A THREE AND ONE-HALF INCH [3-1/2" DIAMETER, EIGHTEEN INCH [18"] LONG PVC BODY. THE CAP WILL NEED A TWO-WIRE CONNECTION POST AS A MINIMUM.
5. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ADJUST ALL WATER VALVE BOXES TO THE REQUIRED FINAL GRADE. IN ADDITION, VALVE EXTENSIONS SHALL BE INSTALLED SUCH THAT A SIX FOOT VALVE KEY CAN OPERATE THE VALVE.
6. NO PIPE SHALL BE BACKFILLED UNTIL IT HAS BEEN INSPECTED BY THE TOWN OF BERTHOUD.
7. THE MANUFACTURER SHALL FURNISH A CERTIFIED STATEMENT THAT ALL OF THE SPECIFIED TESTS AND INSPECTIONS HAVE BEEN MADE AND THE RESULTS THEREOF COMPLY WITH THE REQUIREMENT OF THE APPLICABLE STANDARDS HEREIN SPECIFIED. A COPY OF THE CERTIFICATION WILL BE SENT TO THE TOWN OF BERTHOUD UPON REQUEST.
8. DISTANCES FOR WATER ARE THE HORIZONTAL DISTANCE BETWEEN CENTER OF FITTING TO CENTER OF VALVE, METER, ETC. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
9. MAINTAIN A MINIMUM OF TEN FEET [10'] HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND WATER MAINS AND SERVICES.
10. FOR ALL PIPE INSTALLATIONS, THE DEPTH OF COVER OVER THE PIPE MEASURED FROM OFFICIAL STREET GRADE TO THE TOP OF THE PIPE SHALL BE A MINIMUM OF [5-FEET] AND SHALL BE KNOWN AS THE COVER OVER THE PIPE. IF DIFFICULTIES ARISE WHEN CROSSING INTERFERENCE AND WHERE SPECIFICALLY APPROVED BY TOWN OF BERTHOUD, DEVIATIONS FROM [5-FEET] OF COVER WILL BE PERMITTED. COVER OVER THE PIPE SHALL BE A MINIMUM OF [5-FEET].
11. FIRE HYDRANTS SHALL CONFORM TO TOWN OF BERTHOUD MATERIALS AND SPECIFICATIONS. FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPE, FITTINGS, VALVES, THRUST BLOCKS, RESTRAINTS, AND MATERIALS NECESSARY TO INSTALL THE HYDRANT.
12. INSTALL THRUST BLOCKS AT ALL BENDS, STUBS AND TEES IN WATER LINES. ALL BLOW-OFFS, VALVES AND BENDS SHALL BE RODDED OR MECHANICALLY RESTRAINED PER TOWN OF BERTHOUD DETAILS AS NOTED OR IF SOIL CONDITIONS ARE UNSTABLE OR AS DIRECTED BY THE TOWN OF BERTHOUD.
13. CHLORINATION AND FLUSHING: ALL WATER MAINS SHALL BE INSTALLED AND CHLORINATED PER TOWN OF BERTHOUD'S ENGINEERING STANDARDS. THE LINES SHALL BE CHLORINATED IN ACCORDANCE WITH AWWA C-651, "DISINFECTING WATER MAINS." THE PREFERRED METHOD IS TO USE SUFFICIENT CHLORINE TABLETS TO PRODUCE A 25 MG/L SOLUTION. THESE TABLETS SHOULD BE ADHERED TO THE TOP OF THE PIPE WITH AN ADHESIVE COMPLIANT WITH AWWA C-651. CHLORINATION OF 16 INCH AND LARGER PIPE REQUIRES A CHLORINE SLURRY. THE CHLORINATION OF ANY FINISHED PIPELINE SHALL BE COMPLETED PRIOR TO HYDROSTATIC TESTING.
14. ALL VALVES ARE TO BE LOCATED ON THE PROPERTY LINE EXTENSIONS EXCEPT FOR TAPPING TEES WHERE AN ADDITIONAL VALVE SHALL BE PLACED ON THE TAPPING TEE. OTHER VALVE LOCATIONS MAY BE REQUIRED AS SHOWN ON THE PLANS.
15. WHEN IT IS NECESSARY TO LOWER OR RAISE WATER LINES AT STORM DRAINS AND OTHER UTILITY CROSSINGS, A MINIMUM CLEARANCE OF EIGHTEEN [18"] INCHES SHALL BE MAINTAINED BETWEEN THE OUTSIDE OF PIPES.
16. PRIOR TO INSTALLATION OF WATER MAINS, ROAD CONSTRUCTION MUST HAVE PROGRESSED TO AT LEAST THE "SUB-GRADE" STATE.
17. BEFORE ANY TAPS ARE MADE FROM MAINS, APPLICATION[S] FOR THE TAPS MUST BE RECEIVED AND APPROVED BY THE TOWN OF BERTHOUD.
18. THE WATER QUALITY CONTROL DIVISION OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT [CDPHE] REQUIRES ALL WATER LINE CONTRACTORS TO POSSESS A CURRENT DISCHARGE PERMIT FOR DISCHARGES OF CHLORINATED AND PROCESS WATERS ASSOCIATED WITH THE INSTALLATION OF NEW MAINS OR CONDUITS. CONTACT CDPHE WATER QUALITY CONTROL DIVISION AT 303-692-3517 FOR INFORMATION ON OBTAINING THE REQUIRED PERMIT.
19. CONTRACTOR TO COORDINATE HORIZONTAL AND VERTICAL LOCATIONS OF UTILITY SERVICE CONNECTIONS TO BUILDING WITH MECHANICAL/PLUMBING PLANS PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCIES.
20. CONTRACTOR TO INSTALL WATER MAINS AS SHOWN ON PLANS IN ACCORDANCE WITH MANUFACTURES RECOMMENDATION FOR JOINT INSERTION, VERTICAL AND HORIZONTAL DEFLECTIONS. IF DESIGN ALIGNMENT REQUIRES A HORIZONTAL OR VERTICAL DEFLECTION IN EXCESS OF PIPE MANUFACTURES ALLOWANCES, CONTRACTOR TO SUBMIT TO ENGINEER OF RECORD (EOR) AND AUTHORITIES HAVING JURISDICTION (AHJ) PROPOSED ALTERNATIVE SOLUTIONS TO ACHIEVE THE INTENT OF THE DESIGN ALIGNMENT.



PLAN VIEW: STA 10+00 TO 15+00

SCALES:

HORZ. 1"=30'
VERT. 1"=6'



PROFILE VIEW: STA 10+00 TO 15+00

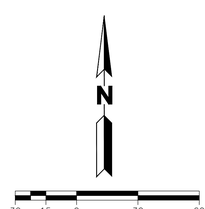
BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST-SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5-IN LOGO CAP. THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.



ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

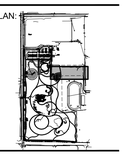
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

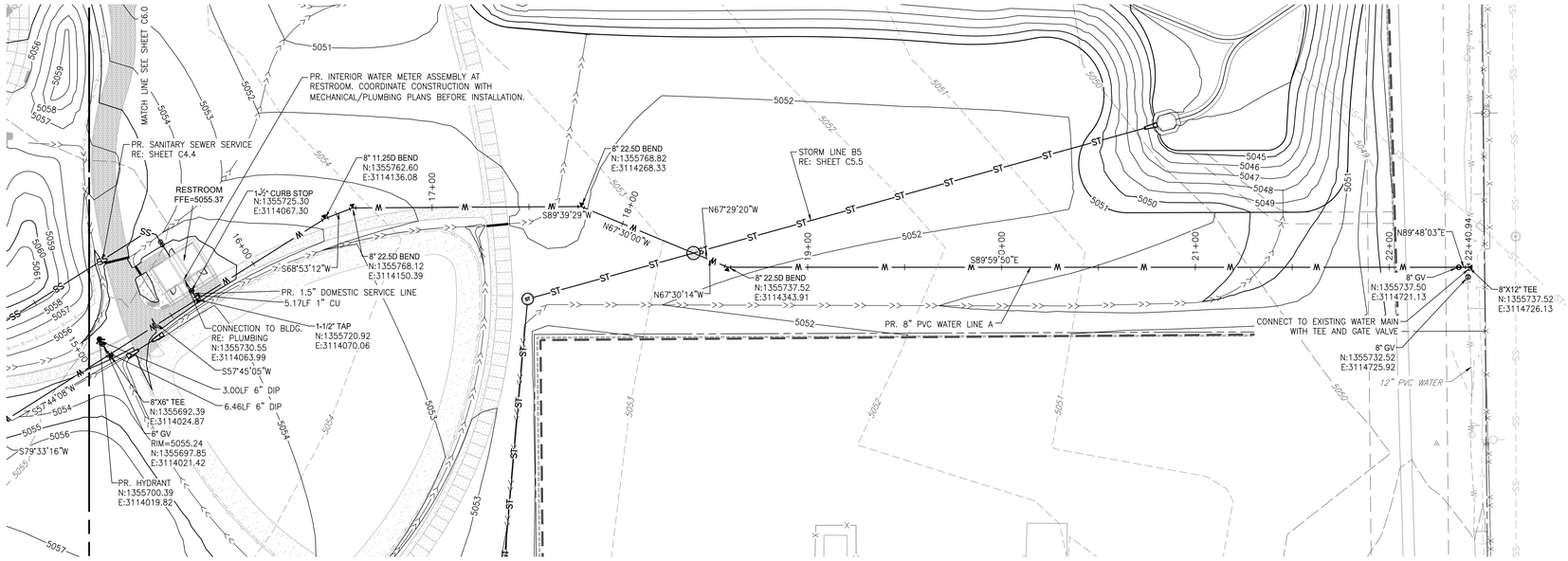
WATER PLAN AND PROFILE

SHEET:

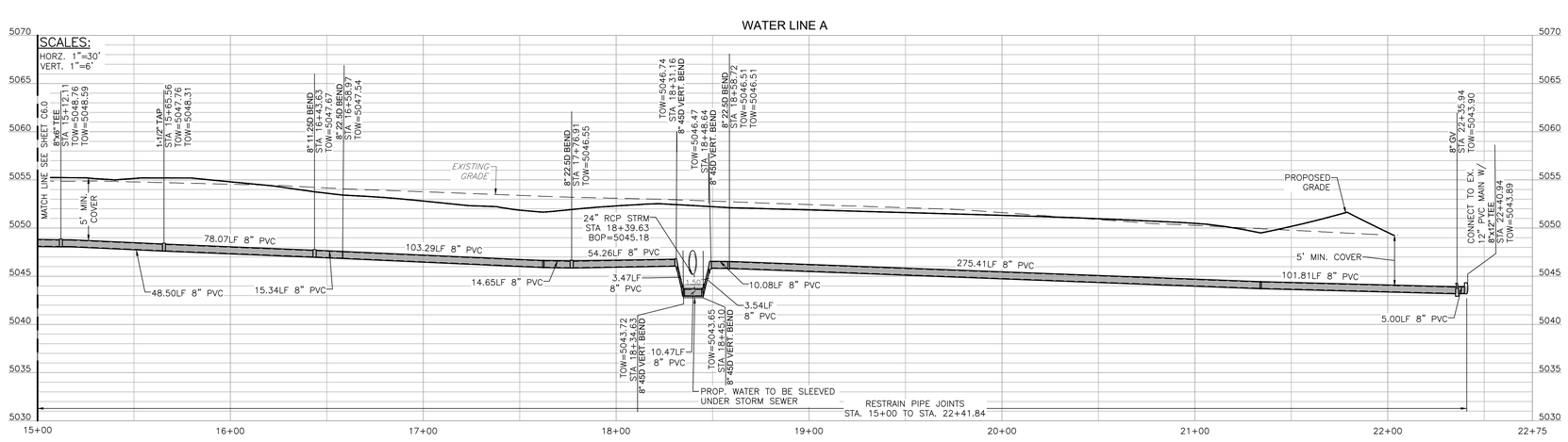
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PLAN VIEW: STA 10+00 TO 16+70.94



PROFILE VIEW: STA 09+50 TO 22+75

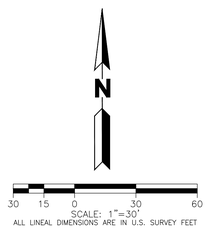
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MARTIN/MARTIN CONSULTING ENGINEERS

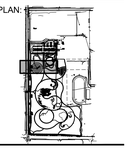
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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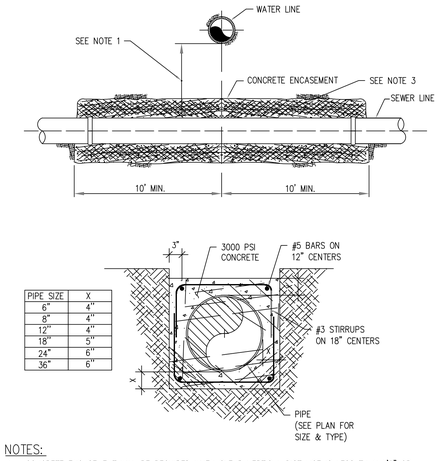
WATER PLAN AND PROFILE

SHEET:

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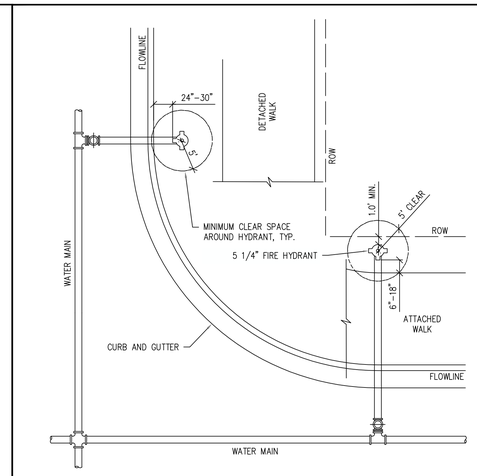
PIPE SIZE	X
6"	4"
8"	4"
12"	4"
18"	5"
24"	6"
36"	6"

NOTES:

1. CONCRETE ENCASEMENT WILL BE REQUIRED WHEN CLEAR VERTICAL DISTANCE IS LESS THAN 1'6" OR HORIZONTAL DISTANCE IS LESS THAN 10' BETWEEN PARALLEL LINES
2. CONCRETE ENCASEMENT REQUIRED IN ALL CASES WHERE SEWER LINE IS ABOVE WATER LINE.
3. MINIMUM WIDTH AND DEPTH ARE 12" + PIPE O.D.
4. PROVIDE FLOWABLE FILL MATERIAL, NO REINFORCEMENT, AT ROAD AND DITCH CROSSINGS, 10' BEYOND EACH SIDE

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D4.07
SANITARY SEWER DETAILS	
PIPE ENCASEMENT	DATE: 12/2020

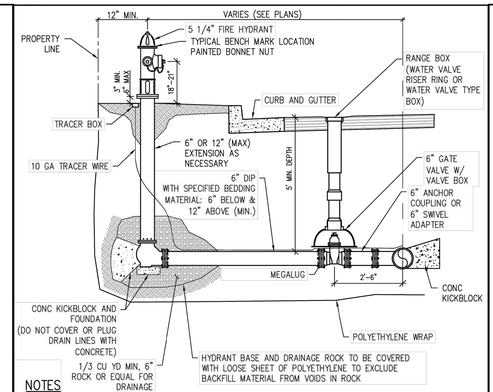


NOTES:

1. HYDRANT TO BE SET AT CURB RETURN
2. VALVES SHALL NOT BE LOCATED UNDER CURB AND GUTTER, OR CONCRETE PAN
3. A 5.0' CLEAR DISTANCE MUST BE MAINTAINED AROUND HYDRANT
4. ALL MEASUREMENTS ARE TO THE OUTSIDE OF THE PIPE

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.01
WATER DETAILS	
FIRELINE CONNECTION WITH MAIN EXTENSION	DATE: 12/2020

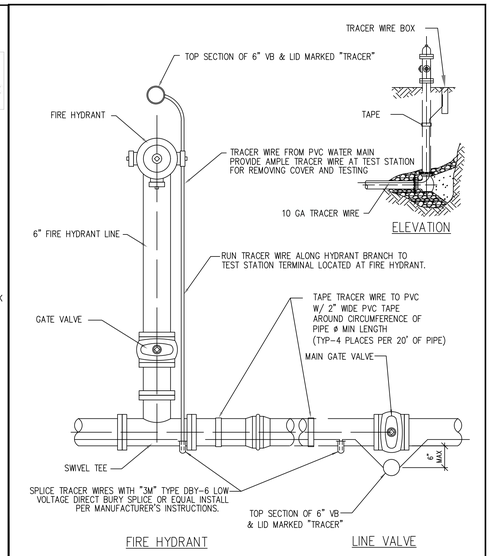


NOTES

1. SHOE AND BARREL SHALL BE CONNECTED WITH HIGH STRENGTH STAINLESS BOLTS AND NUTS
2. HYDRANT SHALL HAVE A FIVE (5') FOOT CLEAR ZONE ON EACH SIDE OF HYDRANT (TEN (10') FOOT EASEMENT AROUND).
3. PUMPER NOZZLE SHALL FACE THE PUBLIC RIGHT-OF-WAY OR REQUIRED FIRE ACCESS ROADWAY.
4. MINIMUM DISTANCE FROM DRIVEWAYS SHALL BE SIX (6) FEET.
5. HYDRANTS SHALL CONFORM TO AND BE TESTED IN ACCORDANCE WITH AWWA SPECIFICATIONS.
6. HYDRANTS SHALL BE MADE OF CAST IRON WITH FULL BRONZE MOUNTINGS.
7. INLET SHALL FIT SIX (6) INCH PIPE WITH BARREL LENGTH SUFFICIENT FOR A FIVE (5) FOOT TRENCH.
8. ONLY TWO (2) HEIGHT EXTENSIONS MAY BE USED PER HYDRANT.
9. HYDRANT BASES SHOULD NOT BE ANY DEEPER THAN SIX (6) FEET FROM THE TOP OF FINISHED GRADE.
10. MAIN VALVE OPENING IN THE HYDRANT SHALL BE NO LESS THAN FIVE (5) INCHES IN DIAMETER.
11. HYDRANTS SHALL BE PLUMBED VERTICALLY WITH PUMPER NOZZLE FACING STREET.
12. NO WATER SERVICE MAIN TAPS SHALL BE MADE TO A DISTRIBUTION MAIN WITHIN FIVE (5) FEET OF A FIRE HYDRANT BRANCH MAIN.
13. NO HORIZONTAL BENDS OR OFFSETS SHALL BE USED IN INSTALLING FIRE HYDRANT BRANCH MAINS.

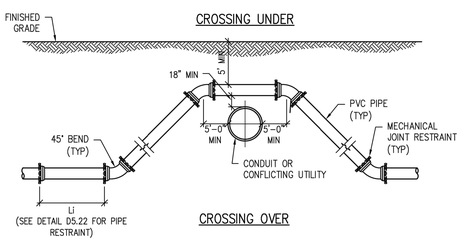
SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.02
WATER DETAILS	
FIRE HYDRANT PROFILE	DATE: 12/2020



SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.03
WATER DETAILS	
FIRELINE TRACER WIRE	DATE:12/2020

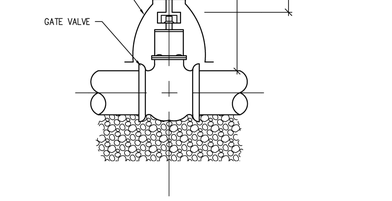


NOTES:

1. CENTER WATER MAIN AT CROSSING TO POSITION JOINTS AS FAR FROM CROSSING AS POSSIBLE.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.11
WATER DETAILS	
CROSSING OVER OR UNDER CONFLICTING UTILITY	DATE: 12/2020

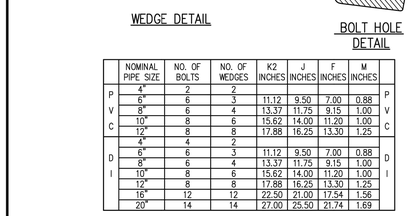


NOTES:

1. CARE SHALL BE TAKEN WHEN INSTALLING VALVES ON' LINES TO ASSURE PROPER SUPPORT OF THE VALVES.
2. WOOD BLOCKS OR 3/4" WASHED ROCK TO BE INSTALLED UNDER THE VALVE TO PROVIDE PROPER SUPPORT WHERE REQUIRED.
3. VALVES SHALL NOT BE PLACED IN CONCRETE CROSS PANS.
4. ELEVATION FOR TOP OF COVER, PLACED IN PAVEMENT, SHALL BE SET IN ACCORDANCE WITH PAVING REQUIREMENTS OF LOCAL JURISDICTION.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.17
WATER DETAILS	
GATE VALVE	DATE: 12/2020



	NOMINAL PIPE SIZE	NO. OF BOLTS	NO. OF WEDGES	K2 INCHES	J INCHES	F INCHES	M INCHES	
P	4"	2	2					P
V	6"	6	3	11.12	9.50	7.00	0.88	V
C	8"	6	4	13.37	11.75	9.15	1.00	C
	10"	8	6	15.62	14.00	11.20	1.00	
	12"	8	8	17.88	16.25	13.30	1.25	
	4"	4	2					
D	6"	6	3	11.12	9.50	7.00	0.88	D
I	8"	6	4	13.37	11.75	9.15	1.00	I
	10"	8	6	15.62	14.00	11.20	1.00	
	12"	8	8	17.88	16.25	13.30	1.25	
	16"	12	12	22.50	21.00	17.54	1.56	
	20"	14	14	27.00	25.50	21.74	1.69	

DIMENSIONS

NOTE:

1. BASED ON "MEGA LUG" PIPE RESTRAINT SYSTEM BY EBAA IRON
2. OTHER MECHANICAL JOINT RESTRAINT DEVICES MUST BE APPROVED BY TOWN ENGINEER BEFORE INSTALLATION.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA	D5.22
WATER DETAILS	
MECHANICAL JOINT RESTRAINT	DATE: 12/2020

wenk

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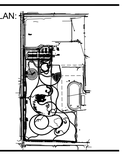
Garden Spot of Colorado

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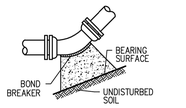
WATER DETAIL SHEET

SHEET:

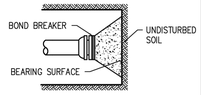
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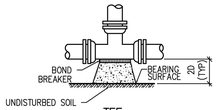
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90° BENDS ONLY



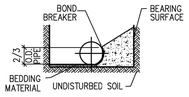
DEAD END



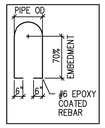
TEE

SIZE OF PIPE	SURFACE AREA (SQ FT) TEE OR DEAD END	90° BENDS
4"	1.50	2.0
6"	3.00	4.5
8"	5.25	8.0
12"	11.25	17.0
16"	19.00	27.00
20"	25.00	35.50
24"	36.00	51.00

MINIMUM BEARING SURFACE AREA
(IN SQUARE FEET)



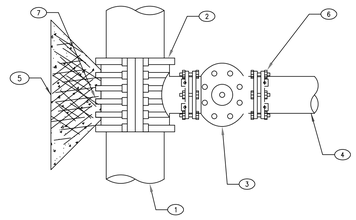
TYPICAL CROSS SECTION



NOTES:
1. BEARING SURFACES SHOWN IN CHART ARE MINIMUM
2. BASED ON 150 PSI INTERNAL PIPE PRESSURE PLUS WATER HAMMER
3. 6", 8", &12" WATER HAMMER = 110 PSI
4. 16", 20" AND 24" WATER HAMMER = 70 PSI
5. BASED ON 3000 PSI SOIL BEARING CAPACITY
6. THRUST BLOCK SHALL NOT INTERFERE W/MECHANICAL JOINT BOLT OPERATOIN

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA WATER DETAILS	D5.23
CONCRETE THRUST BLOCKS 1 OF 2	DATE: 12/2020

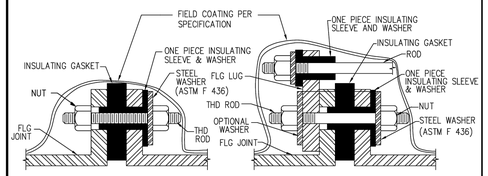


DETAILS:
1. EXISTING MAIN
2. FABRICATED STEEL TAPPING SLEEVE WITH EPOXY SHOP COATING, STAINLESS STEEL BOLTS AND NUTS
3. TAPPING VALVE
4. DOUBLE SPIGOT PIPE
5. CONCRETE KICKBLOCK (SEE KICKBLOCK DETAIL)
6. MECHANICAL JOINT RESTRAINT (IF REQUIRED)
7. BOND BREAKER BETWEEN CONCRETE AND WET TAP SADDLE–8 MIL POLYETHYLENE

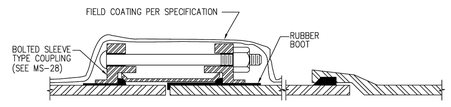
NOTES:
1. DISTRICT MUST BE NOTIFIED AT LEAST 24 HOURS BEFORE TAPPING
2. A TOWN REPRESENTATIVE MUST BE ONSITE DURING TAPPING.

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA WATER DETAILS	D5.25
TAPPING TEE AND VALVE	DATE: 12/2020



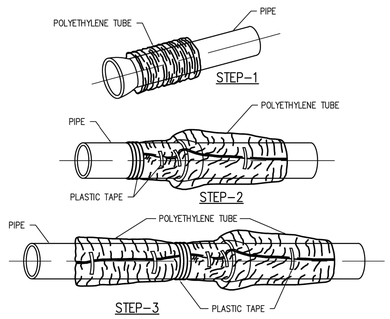
INSULATED JOINT INSULATED ROD



INSULATED BOLTED SLEEVE TYPE COUPLING

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA WATER DETAILS	D5.26
INSULATED JOINT, ROD, AND COUPLING	DATE: 12/2020



FIELD INSTALLATION–POLYETHYLENE WRAP

STEP–1 PLACE TUBE OF POLYETHYLENE MATERIAL AROUND PIPE PRIOR TO LOWERING PIPE INTO TRENCH

STEP–2 PULL THE TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO PIPE AT JOINT FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH THREE CIRCUMFERENTIAL TURNS OF TWO–INCH WIDE PLASTIC TAPE TO HOLD PLASTIC TUBE AROUND SPIGOT END

STEP–3 ADJACENT TUBE OVERLAPS FIRST TUBE AND IS SECURED WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE WILL BE LOOSE. EXCESS MATERIAL AND SHOULD BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED INTO AN OVERLAP ON TOP OF THE PIPE AND HELD IN PLACE BY MEANS OF PIECES OF THE PLASTIC TAPE AT APPROXIMATELY THREE TO FIVE FOOT INTERVALS

NOTE:
1. ALL RODDING TO BE ENCASED IN POLYETHYLENE SEPARATED FROM THE PIPE

SCALE: NTS

TOWN OF BERTHOUD STANDARD DESIGN CRITERIA WATER DETAILS	D5.27
POLYETHYLENE WRAP	DATE: 12/2020

wenk
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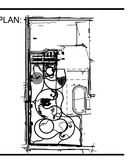
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

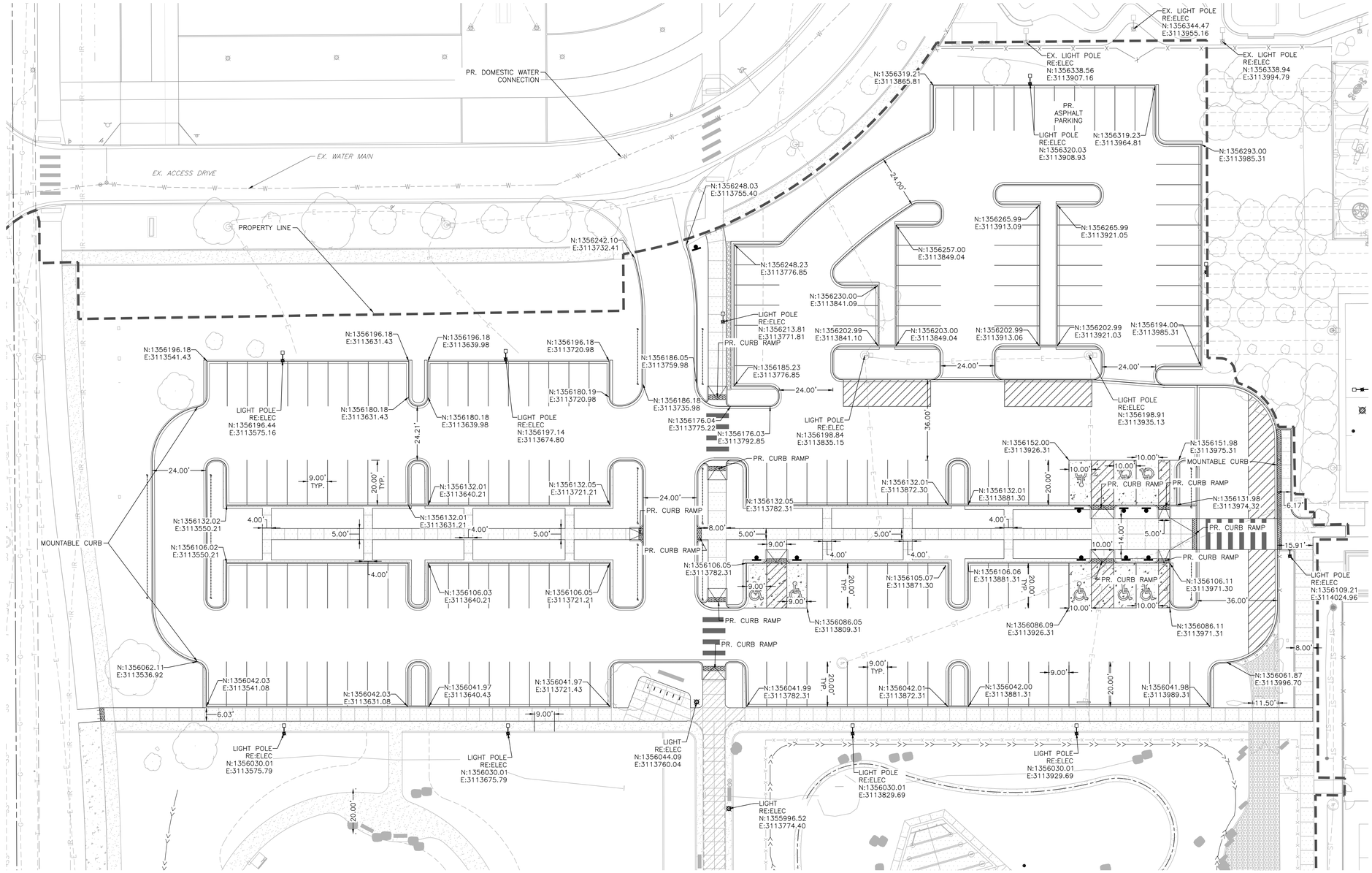
WATER DETAIL SHEET

SHEET:

C6.4B

12/12/2025 11:53 AM

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NOTES:

1. SEE SHEET C3.0 FOR ADDITIONAL NOTES, LEGEND, AND ABBREVIATIONS.
2. PARKING LOT INCLUDES 184 TOTAL, 176 STANDARD STALLS, 4 STANDARD ADA STALLS, AND 4 VAN ACCESSIBLE STALLS.

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	CURB & GUTTER	
	CURB & GUTTER (SPILL)	
	CURB & GUTTER (CATCH)	
	CONCRETE	
	SIGN	
DRIVE	DESCRIPTIONS	DRIVE

BASIS OF BEARINGS:

BEARINGS SHOWN HERON ARE BASED ON THE WESTERLY LINE OF THE SOUTHWEST QUARTER (SW¼) OF SECTION 14, TOWNSHIP 4 NORTH, RANGE 69 WEST OF THE SIXTH PRINCIPLE MERIDIAN, MONUMENTED AT THE SOUTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX, NO MARKINGS AND AT THE NORTHERLY END BY A FOUND NO.6 REBAR WITH 3 1/4" ALUMINUM CAP IN MONUMENT BOX STAMPED: "COLO DEPT OF TRANSPORTATION 2000 PLS 22103", SAID WESTERLY LINE IS ASSUMED TO BEAR S 00°18'09" E, WITH ALL BEARINGS CONTAINED HEREIN RELATIVE THERETO.

BENCHMARK:

NGS J 410 , ELEVATION=5053.35 FT (NAVD 88).

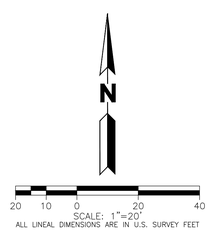
7.5 MILES NORTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH STATE HIGHWAY 66 IN LONGMONT, OR 8.05 MILES SOUTHERLY ALONG U.S. HIGHWAY 287 FROM ITS JUNCTION WITH U.S. HIGHWAY 34 IN LOVELAND, 48.2 FT EAST–SOUTHEAST OF A UTILITY POLE WITH A GUY WORE, 43.0 FT SOUTH OF THE CENTERLINE OF THE HIGHWAY, 25.6 FT WEST OF THE CENTER OF COUNTY ROAD 17 TO THE DATUM POINT IN THROUGH A 5–IN LOGO CAP, THE MARK IS 0.3 METERS W FROM A WITNESS POST. THE MARK IS ABOVE LEVEL WITH THE HIGHWAY.

HORIZONTAL CONTROL NOTES:

1. ALL DIMENSIONS AND COORDINATES ARE GIVEN TO CENTER LINE, FLOWLINE OF CURB, OR FACE OF WALL UNLESS NOTED OTHERWISE.
2. SEE DETAILS ON SITE DETAILS SHEET.
3. REGULAR PARKING STALLS WILL BE 9' WIDE X 20' LONG.
4. COORDINATES FOR TRANSFORMERS ARE GIVEN TO CENTER OF TRANSFORMER. CONTRACTOR TO COORDINATE FINAL LOCATION OF TRANSFORMER AND ROUTING OF ELECTRIC LINES WITH SERVICE PROVIDER.
5. REFER TO LANDSCAPE PLANS FOR WALKS, RAILS, FENCE, LANDSCAPE STRUCTURES, LANDSCAPING, ETC.
6. LIGHT POLE BASES WITHIN THE ARBORETUM ARE LOCATED ON THE GRADING PLANS.

MARTIN/MARTIN INC. SITE HORIZONTAL CONTROL NOTES:

1. ALL RADII FOR TRAILS AND SIDEWALKS SHALL BE A MINIMUM OF [5] FEET.
2. ALL DIMENSIONS, CURVE DATA AND LINE DATA ARE AT FLOWLINE UNLESS OTHERWISE NOTED.
3. ALL PAVEMENT MARKING WITHIN PARKING AREA SHALL BE PAVEMENT MARKING PAINT. ALL PARKING STALLS SHALL BE FOUR INCHES (4") WIDE WHITE PAVEMENT MARKING PAINT. PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH SECTION 627–PAVEMENT MARKINGS, OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION – COLORADO DEPARTMENT OF TRANSPORTATION, LATEST EDITION.
4. ALL CURB AND GUTTER WITHIN PARKING AREA IS SIX INCHES (6") VERTICAL CURB WITH [1'] PAN, UNLESS OTHERWISE NOTED. ALL CURB AND GUTTER WITHIN RIGHT–OF–WAY IS SIX INCHES (6") VERTICAL WITH [2'] PAN UNLESS OTHERWISE NOTED. CURB AND GUTTER SHOWN SHALL BE SPILL TYPE. ALL OTHER AND GUTTER SHALL BE CATCH TYPE.
5. ALL PAVEMENT IS ASPHALT UNLESS OTHERWISE NOTED. REFER TO SHEET C9.0A FOR PAVING DETAIL.
6. FLOWLINE RADIUS IS [1] FOOT UNLESS OTHERWISE NOTED.
7. CONTRACTOR TO SUBMIT JOINT PATTERN FOR CONCRETE PAVEMENT, PRIOR TO CONSTRUCTION, FOR APPROVAL. SEE JOINT DETAILS IN PLANS.
8. REFER TO WENK'S PLANS FOR FINAL SIDEWALK ACCESSIBLE RAMP LAYOUT AND DETAILS AND FOR LANDSCAPING REQUIREMENTS.
9. REFER TO ELECTRICAL PLANS FOR SITE LIGHTING POLE LOCATIONS. COORDINATE ANY DISCREPANCIES WITH ENGINEER PRIOR TO INSTALLATION OF POLE BASES.



ALL LINEAL DIMENSIONS ARE IN U.S. SURVEY FEET

COLORADO 811 KNOW WHAT'S BELOW. CALL BEFORE YOU DIG.

CALL 811 2–BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE OR EXCAVATE FOR MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. UNLESS OTHERWISE NOTED, THE UTILITIES SHOWN ON THIS DRAWING ARE BASED ON INFORMATION PROVIDED BY OTHERS AND DEPICTED AS ASCE (38) QUALITY LEVEL D. IN ACCORDANCE WITH THE PROVISIONS OF COLORADO REVISED STATUTE, TITLE 9, IT IS THE CONTRACTORS RESPONSIBILITY TO CALL COLORADO 811 UTILITY LOCATE SERVICE FOR UTILITY LOCATES BEFORE DIGGING, AND FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UTILITIES (DEPICTED OR NOT DEPICTED) PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

wenk

MARTIN/MARTIN CONSULTING ENGINEERS

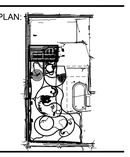
TOWN OF BERTHOUD Est. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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DATE: DECEMBER 12, 2025

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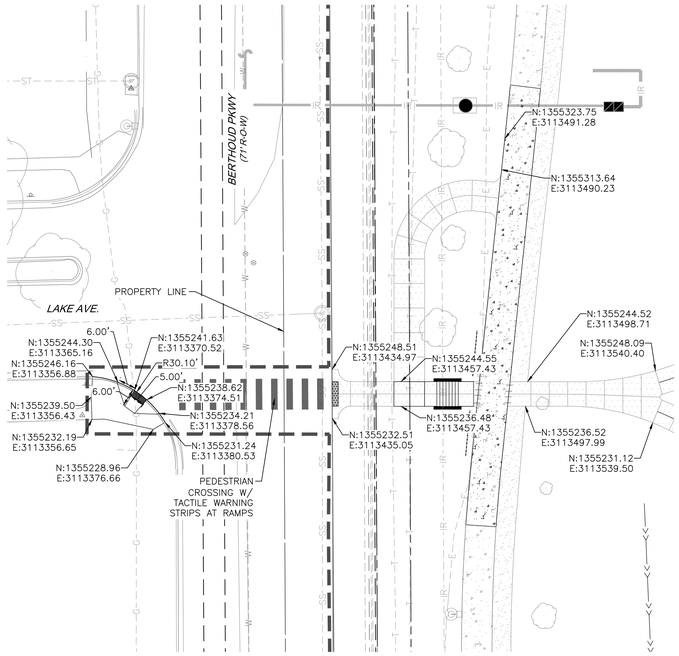
ENLARGED HORIZONTAL CONTROL PLAN

SHEET:

C7.0

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EXISTING		PROPOSED
	PROPERTY LINE	
	RIGHT-OF-WAY LINE	
	SECTION LINE	
	EASEMENT	
	CURB & GUTTER	
	CURB & GUTTER (SPILL)	
	CURB & GUTTER (CATCH)	
	CONCRETE	
	SIGN	
DRIVE	DESCRIPTIONS	DRIVE

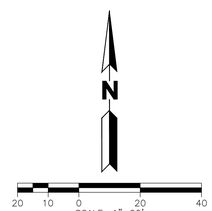
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wenk
MARTIN/MARTIN CONSULTING ENGINEERS

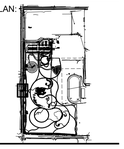
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ENLARGED HORIZONTAL CONTROL PLAN

SHEET:

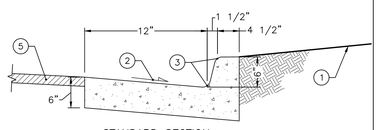
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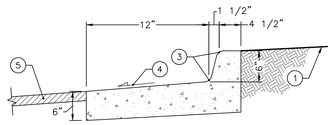
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NOTES:

1. BACKFILL, SEE DETAIL OF CUT/FILL SLOPE
2. SLOPE AT 1" PER FOOT
3. 1 1/2" RADIUS TYPICAL
4. SLOPE AT 1/2" PER FOOT.
5. PAVEMENT, SEE TYPICAL PAVEMENT SECTION



STANDARD SECTION



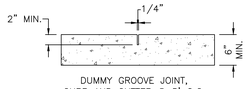
SPILL SECTION

6 INCH VERTICAL CURB AND GUTTER

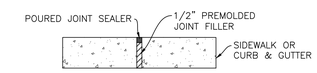
NOT TO SCALE
M/M 2009

NOTES:

1. UNLESS OTHERWISE APPROVED, CONSTRUCT COMBINATION CURB, GUTTER, AND SIDEWALK IN 10' MONOLITHIC SECTIONS WITH CONTRACTION JOINTS BETWEEN SECTIONS.
2. CONSTRUCT SIDEWALK IN 100' TO 120' MONOLITHIC SECTIONS. PROVIDE EXPANSION JOINTS EVERY 100' TO 120'. INSTALL EXPANSION JOINT MATERIAL BETWEEN NEW SIDEWALK AND EXISTING CONCRETE SLABS, POLES, FIRE HYDRANTS, BUILDINGS, ETC. SET EXPANSION JOINT MATERIAL VERTICAL AND WITH THE TOP EDGE BELOW FINISHED SURFACE OF CONCRETE.



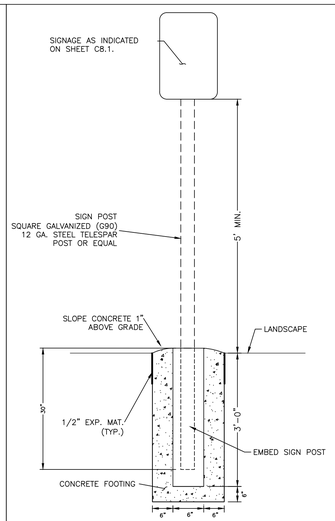
CONTRACTION JOINTS



EXPANSION JOINTS

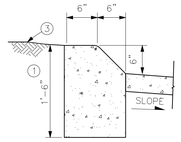
SIDEWALK AND CURB & GUTTER JOINTS

NOT TO SCALE
M/M 2009



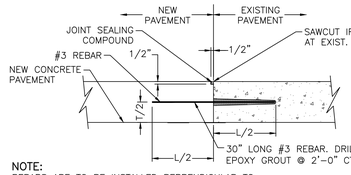
SIGN POST CAST IN CONCRETE FOUNDATION DETAIL

N.T.S.



6" MOUNTABLE CURB

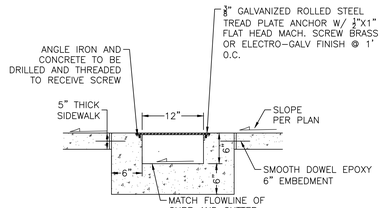
N.T.S.



NOTE:
REBARS ARE TO BE INSTALLED PERPENDICULAR TO THE JOINT AND PARALLEL TO THE PAVEMENT SURFACE.

DETAIL FOR PLACING NEW CONCRETE PAVEMENT ADJACENT TO EXISTING CONCRETE PAVEMENT

NOT TO SCALE
M/M 2009

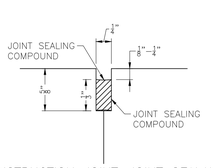


12" WIDE SIDEWALK CHASE

N.T.S.

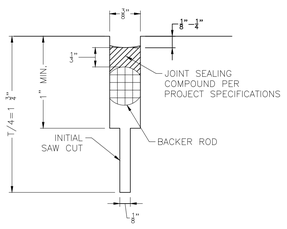
CONCRETE JOINT NOTES:

1. DOWEL BARS ARE 1" Ø, 18" LONG SPACED @ 15" O.C. AND ARE TO BE 12" (MIN.) TO 16" (MAX.) FROM A PANEL CORNER.
2. REBAR IS TO STOP 4"±1" FROM CONSTRUCTION JOINTS AND EXPANSION JOINTS.
3. STRUCTURE EXPANSION JOINTS SHALL BE CONSTRUCTED AROUND THE COMPLETE PERIMETER OF MISCELLANEOUS STRUCTURES OR AS DIRECTED BY THE ENGINEER.
4. MISCELLANEOUS STRUCTURES INCLUDE, BUT ARE NOT LIMITED TO, BUILDINGS, GARAGES, MANHOLES, VAULTS, CATCH BASINS, WALLS, BOLLARDS AND OTHER CONCRETE .
5. TIE BAR TO BE #4 DEFORMED BAR WITH 24" LONG LAP LENGTH PLACED "30" ON CENTER AND ARE TO BE 12" MIN. FROM PANEL CORNER.



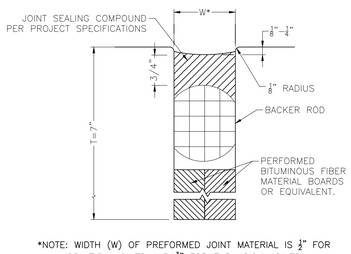
CONSTRUCTION JOINT–JOINT SEALANT

NOT TO SCALE



SAWED CONTRACTION JOINT

NOT TO SCALE

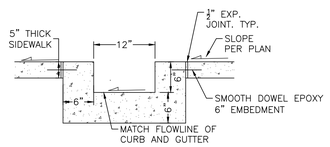


*NOTE: WIDTH (W) OF PREFORMED JOINT MATERIAL IS ½" FOR ISOLATION JOINTS AND ¾" FOR EXPANSION JOINTS.

FORMED EXPANSION OR ISOLATION JOINT

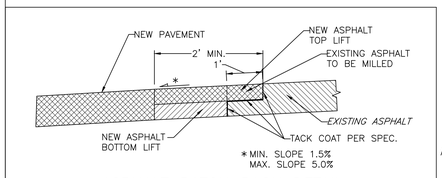
NOT TO SCALE

JOINT SEALING DETAILS



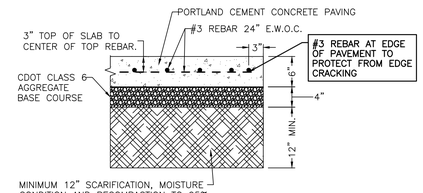
12" WIDE CURB CHASE

N.T.S.



ASPHALT PATCH BACK DETAIL

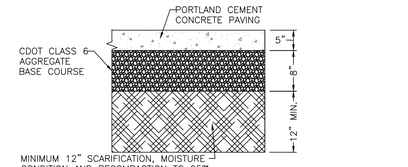
N.T.S.



NOTE:
1. REFER TO GEOTECHNICAL STUDY BY ROCKSOL DATED JULY 21, 2025 FOR GEOTECHNICAL RECOMMENDATIONS.
2. INSTALL EXPANSION JOINT MATERIAL BETWEEN NEW PAVEMENT AND EXISTING CONCRETE SLABS, POLES, FIRE HYDRANTS, BUILDINGS, COLUMNS, ETC. SET EXPANSION JOINT MATERIAL VERTICAL AND WITH THE TOP EDGE BELOW FINISHED SURFACE OF CONCRETE

TYPICAL CONCRETE PAVEMENT SECTION FOR PARKING LOT

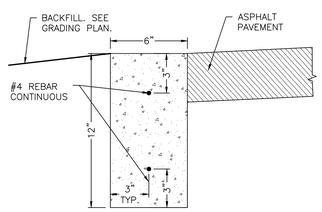
NOT TO SCALE



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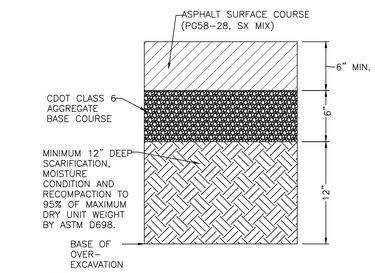
TYPICAL CONCRETE PAVEMENT SECTION FOR PEDESTRIAN PAVEMENT AND LIGHT DUTY VEHICLES

NOT TO SCALE



FLUSH CURB DETAIL

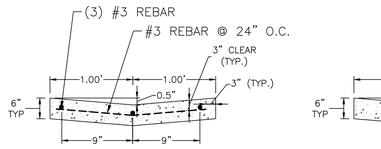
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TYPICAL ASPHALT PAVEMENT SECTION

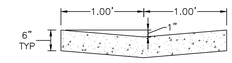
NOT TO SCALE



NOTE:
SAWCUT OR TOOLED JOINT AT 10' O.C.

2' DRIVE AISLE CONCRETE PAN

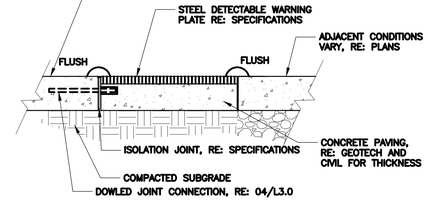
NOT TO SCALE



NOTE:
SAWCUT OR TOOLED JOINT AT 10' O.C.

2' LANDSCAPE CONCRETE PAN

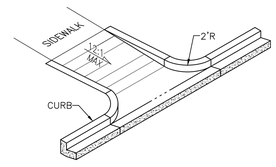
NOT TO SCALE



NOTES:
1. REFERENCE LANDSCAPE PLAN FOR CONCRETE COLOR AND FINISH.
2. REFERENCE SPECIFICATIONS FOR MANUFACTURER, STYLE, AND FINISH OF DETECTABLE WARNING PLATES
3. INSTALL DETECTABLE WARNING PLATES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ADAAG GUIDELINES.

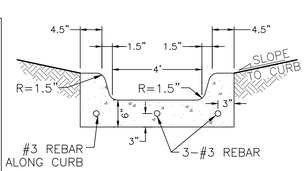
DETECTABLE WARNING

NOT TO SCALE



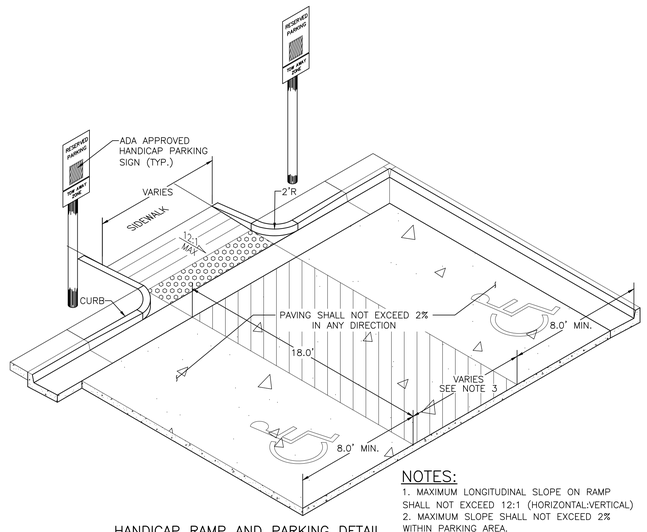
DIRECTIONAL CURB RAMP DETAIL B

N.T.S.



4' WIDE TRICKLE CHANNEL

NOT TO SCALE
M/M 2009



HANDICAP RAMP AND PARKING DETAIL

NOT TO SCALE

NOTES:
1. MAXIMUM LONGITUDINAL SLOPE ON RAMP SHALL NOT EXCEED 12:1 (HORIZONTAL:VERTICAL)
2. MAXIMUM SLOPE SHALL NOT EXCEED 2% WITHIN PARKING AREA.
3. MINIMUM 5' FOR STANDARD ACCESSIBLE SPACE. MINIMUM 8' FOR VAN ACCESSIBLE SPACE
4. SEE PLAN FOR DIMENSIONS.

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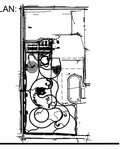
TOWN OF BERTHOUD Est. 1880 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

SITE DETAILS SHEET

SHEET:

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TREE #	BOTANIC NAME	COMMON NAME	RELOCATION REFERENCE SHEET
1	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.8
2	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.3
3	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.13
4	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.13
5	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.5
6	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.8
7	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.6
8	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.6
9	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.19
10	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.3
11	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.3
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14	POPULUS X ACUMINATA	LANCELEAF COTTONWOOD	L2.3
15	ULMUS SPP.	ELM	L2.6
16	PINUS EDULIS	PINON PINE	L2.14
17	PINUS EDULIS	PINON PINE	L2.14
18	ULMUS DAVIDIANA JAPONICA 'DISCOVERY'	DISCOVERY ELM	L2.7
19	POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	L2.3
20	POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	L2.3
21	PINUS PONDEROSA	PONDEROSA PINE	L2.3
22	QUERCUS GAMBELII	GAMBLE OAK	L2.4
23	QUERCUS GAMBELII	GAMBLE OAK	L2.4
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29	QUERCUS MACROCARPA	BUR OAK	L2.4
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31	QUERCUS MUEHLENBERGII	CHINKAPIN OAK	L2.4
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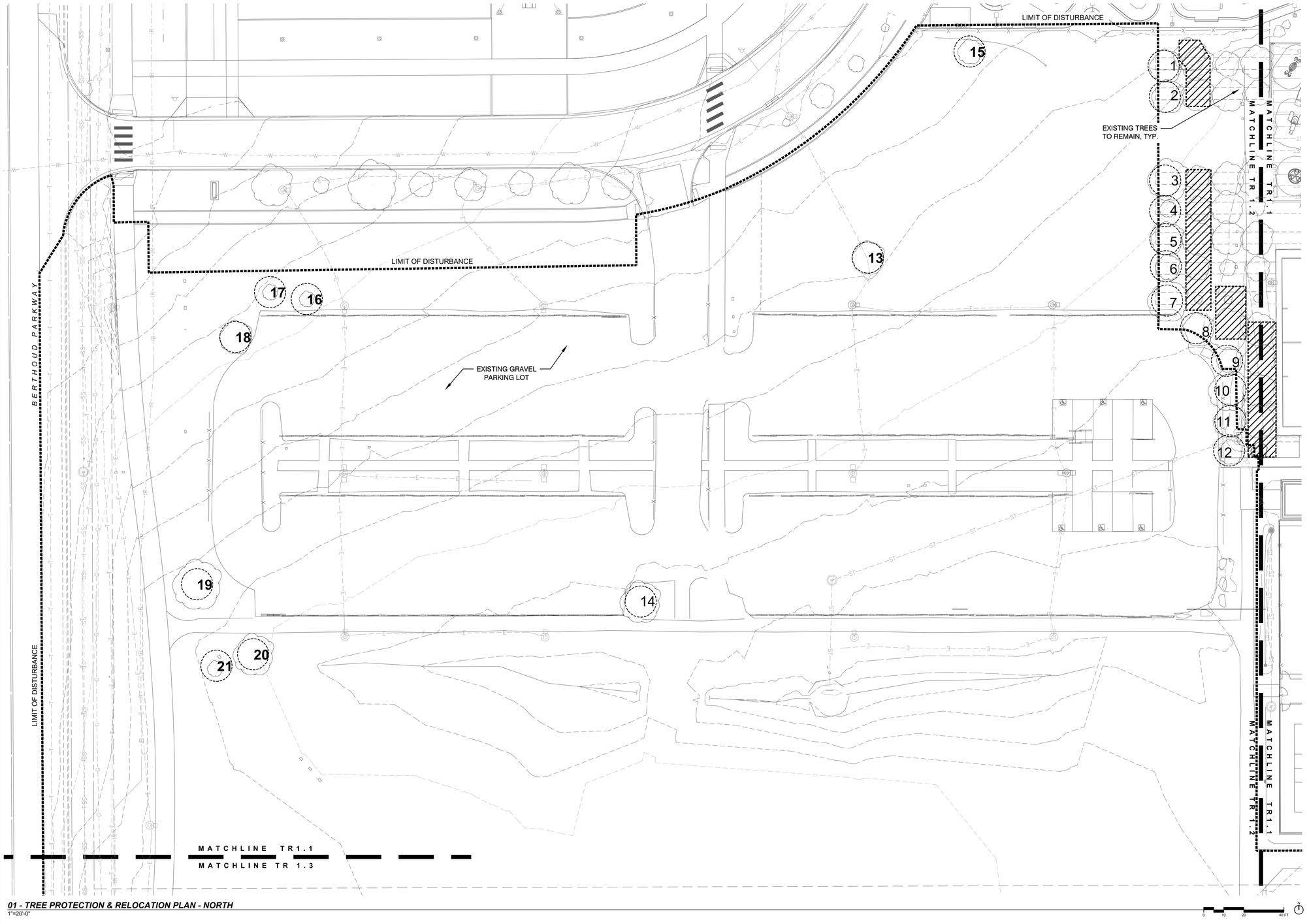
NOTES:
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2. REFER TO PLANTING PLANS FOR PROPOSED LOCATIONS OF RELOCATED TREES

XX TREE TO BE RELOCATED BY THE TOWN OF BERTHOUD

TREE PROTECTION ZONE, RE: 06/L4.13

UTILITY LEGEND

- W — UTILITY, WATER
- ST — ST — UTILITY, STORM
- SS — SS — UTILITY, SANITARY
- E — UTILITY, ELECTRIC
- G — UTILITY, GAS
- IRR — UTILITY, IRRIGATION
- T — UTILITY, TELEPHONE
- INLET
- STORM STRUCTURE
- MANHOLE



01 - TREE PROTECTION & RELOCATION PLAN - NORTH
1"=20'-0"

0 10 20 40 FT

Know what's below. Call before you dig.
CALL UTILITY NOTIFICATION CENTER OF COLORADO 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

TREE PROTECTION AND RELOCATION PLAN

SHEET:

TR 1.1

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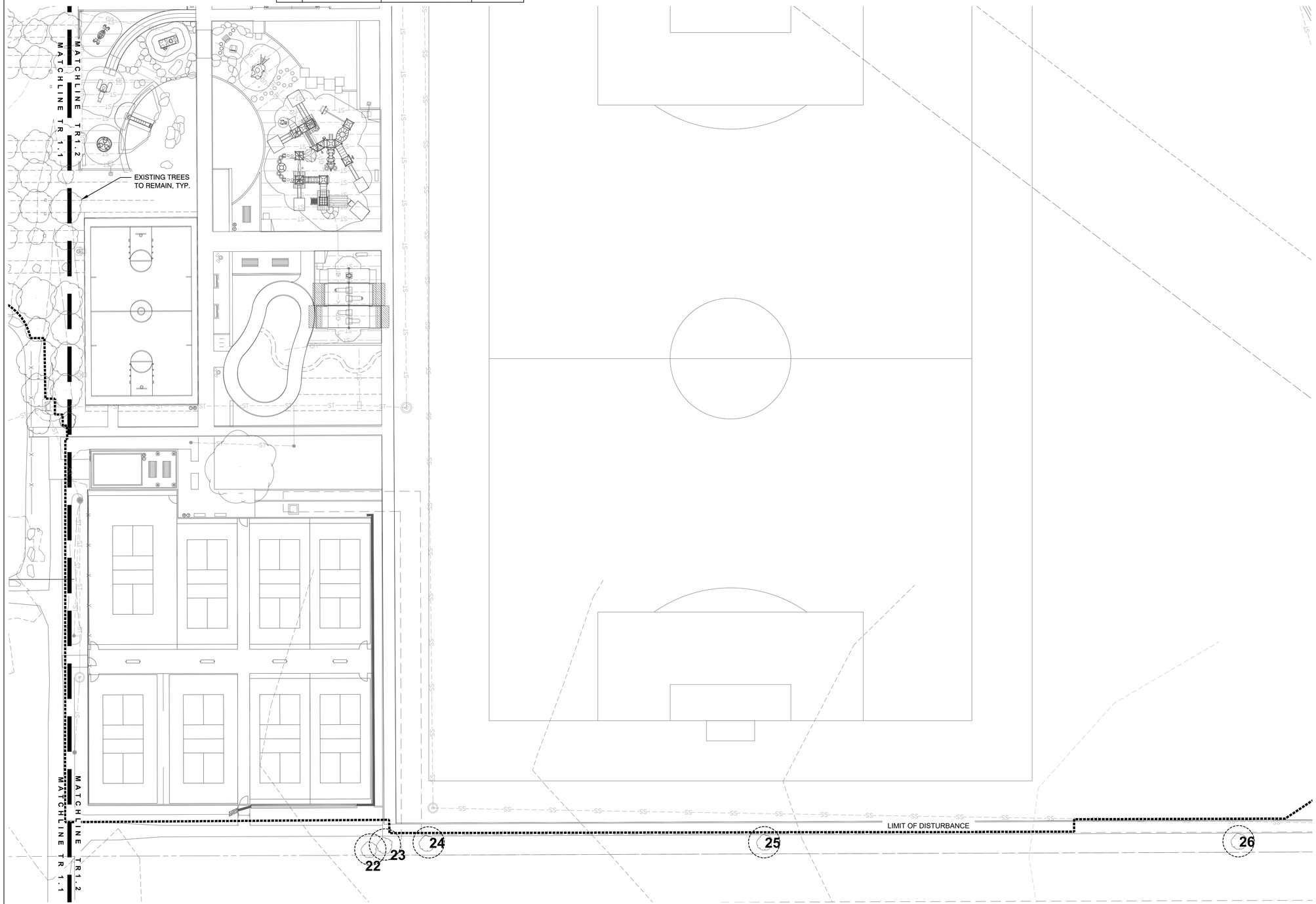
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

TREE PROTECTION AND RELOCATION PLAN

SHEET:

TR 1.2

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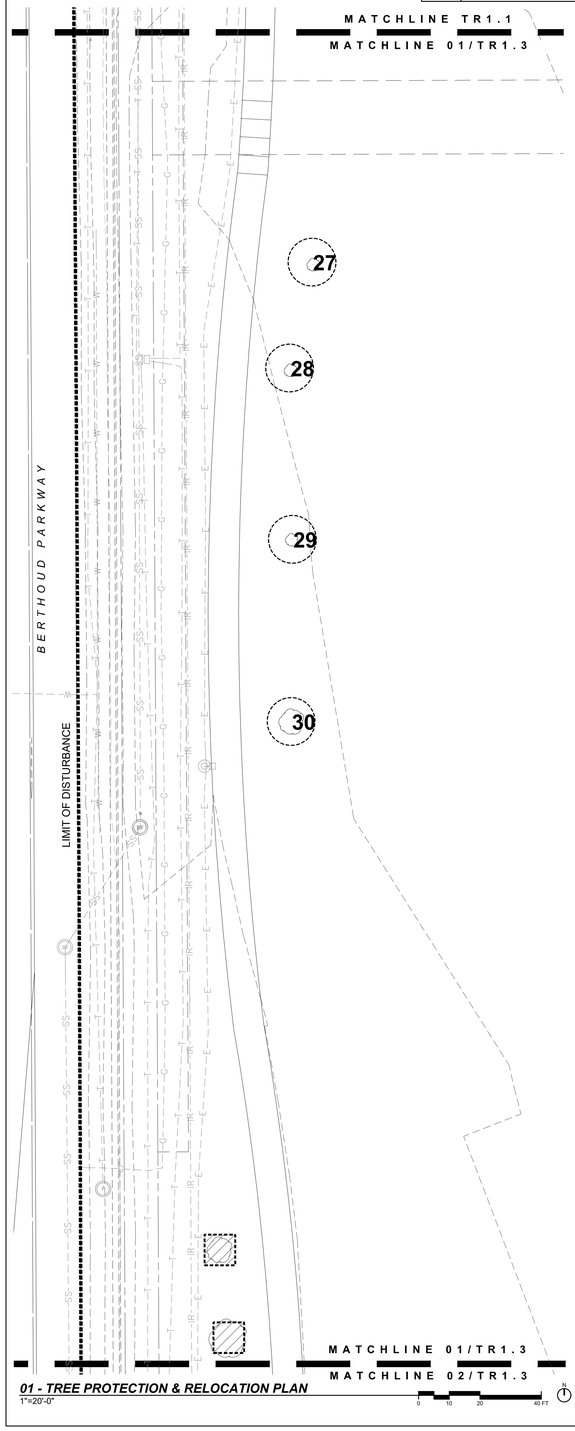
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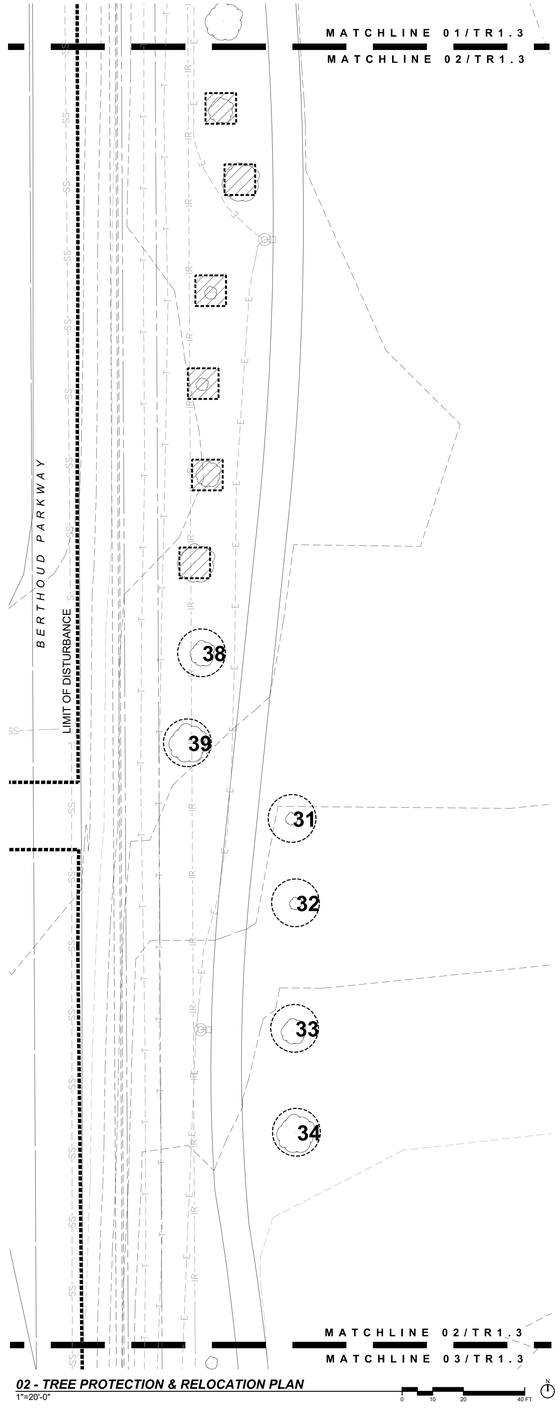
TREE PROTECTION ZONE, RE: 06/L4.13

UTILITY LEGEND

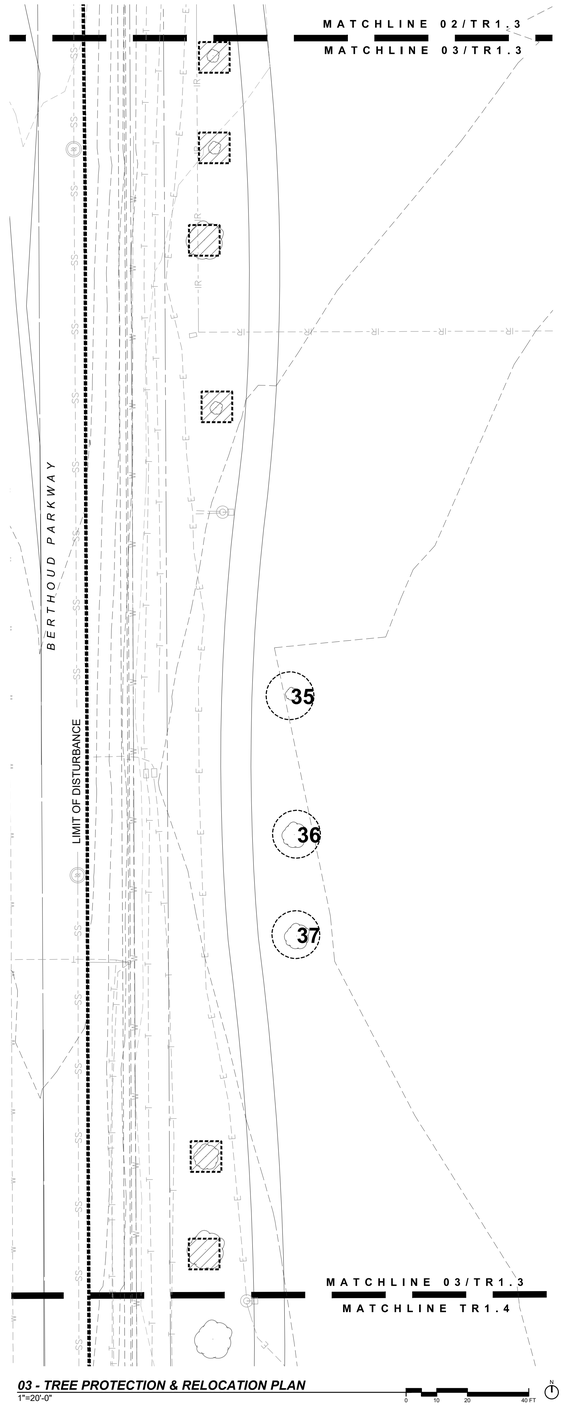
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- INLET
- STORM STRUCTURE
- MANHOLE



01 - TREE PROTECTION & RELOCATION PLAN
1"=20'-0"



02 - TREE PROTECTION & RELOCATION PLAN
1"=20'-0"



03 - TREE PROTECTION & RELOCATION PLAN
1"=20'-0"

Know what's below.
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2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES

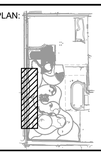
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

TREE PROTECTION AND RELOCATION PLAN

SHEET:

TR 1.3

10/15/2022 10:48 AM

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TREE #	BOTANIC NAME	COMMON NAME	RELOCATION REFERENCE SHEET
1	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.8
2	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.3
3	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.13
4	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.13
5	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.5
6	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.8
7	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.6
8	MALUS X 'SPRING SNOW'	SPRING SNOW CRABAPPLE	L2.6
9	PRUNUS 'SHIROTAE'	MT. FUJI CHERRY	L2.19
10	PYRUS CALLERYANA 'CLEVELAND SELECT'	CLEVELAND SELECT PEAR	L2.3
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13	ULMUS DAVIDIANA JAPONICA 'DISCOVERY'	DISCOVERY ELM	L2.6
14	POPULUS X ACUMINATA	LANCELEAF COTTONWOOD	L2.3
15	ULMUS SPP.	ELM	L2.6
16	PINUS EDULIS	PINON PINE	L2.14
17	PINUS EDULIS	PINON PINE	L2.14
18	ULMUS DAVIDIANA JAPONICA 'DISCOVERY'	DISCOVERY ELM	L2.7
19	POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	L2.3
20	POPULUS ANGUSTIFOLIA	NARROWLEAF COTTONWOOD	L2.3
21	PINUS PONDEROSA	PONDEROSA PINE	L2.3
22	QUERCUS GAMBELII	GAMBLE OAK	L2.4
23	QUERCUS GAMBELII	GAMBLE OAK	L2.4
24	POPULUS X ACUMINATA	LANCELEAF COTTONWOOD	L2.4

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27	PYRUS CALLERYANA	CALLERY PEAR	L2.14
28	PYRUS CALLERYANA	CALLERY PEAR	L2.3
29	QUERCUS MACROCARPA	BUR OAK	L2.4
30	AESCULUS HIPPOCASTANUM	HORSECHESTNUT	L2.2
31	QUERCUS MUEHLENBERGII	CHINKAPIN OAK	L2.4
32	AESCULUS GLABRA	OHIO BUCKEYE	L2.13

33	AESCULUS HIPPOCASTANUM	HORSECHESTNUT	L2.3
34	AESCULUS HIPPOCASTANUM	HORSECHESTNUT	L2.3
35	MACLURA POMIFERA	OSAGE ORANGE	L2.14
36	AESCULUS HIPPOCASTANUM	HORSECHESTNUT	L2.3
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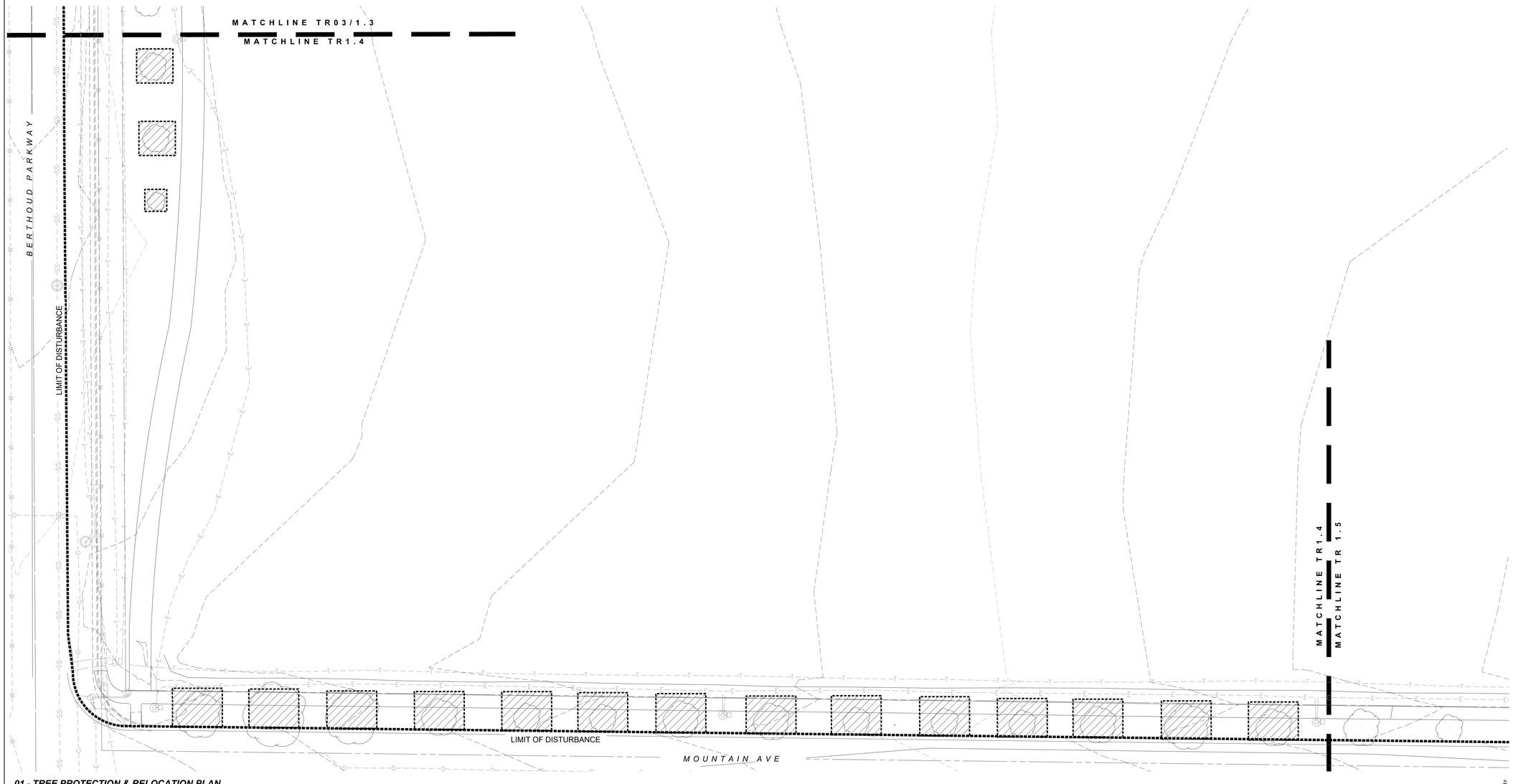
NOTES:
1. TREES TO BE RELOCATED BY THE TOWN OF BERTHOUD FORESTRY CONTACT: PAUL FURNAS TOWN FORESTER & OPEN SPACE SUPERVISOR, 970-532-4256 https://www.berthoud.org/196/Forestry TO COORDINATE TREE REMOVAL AND INSTALLATION TIMING. STORAGE OF TREES DURING CONSTRUCTION BY TOWN OF BERTHOUD.
2. REFER TO PLANTING PLANS FOR PROPOSED LOCATIONS OF RELOCATED TREES

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TREE PROTECTION ZONE, RE: 06/L4.13

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

TREE PROTECTION AND RELOCATION PLAN

SHEET:

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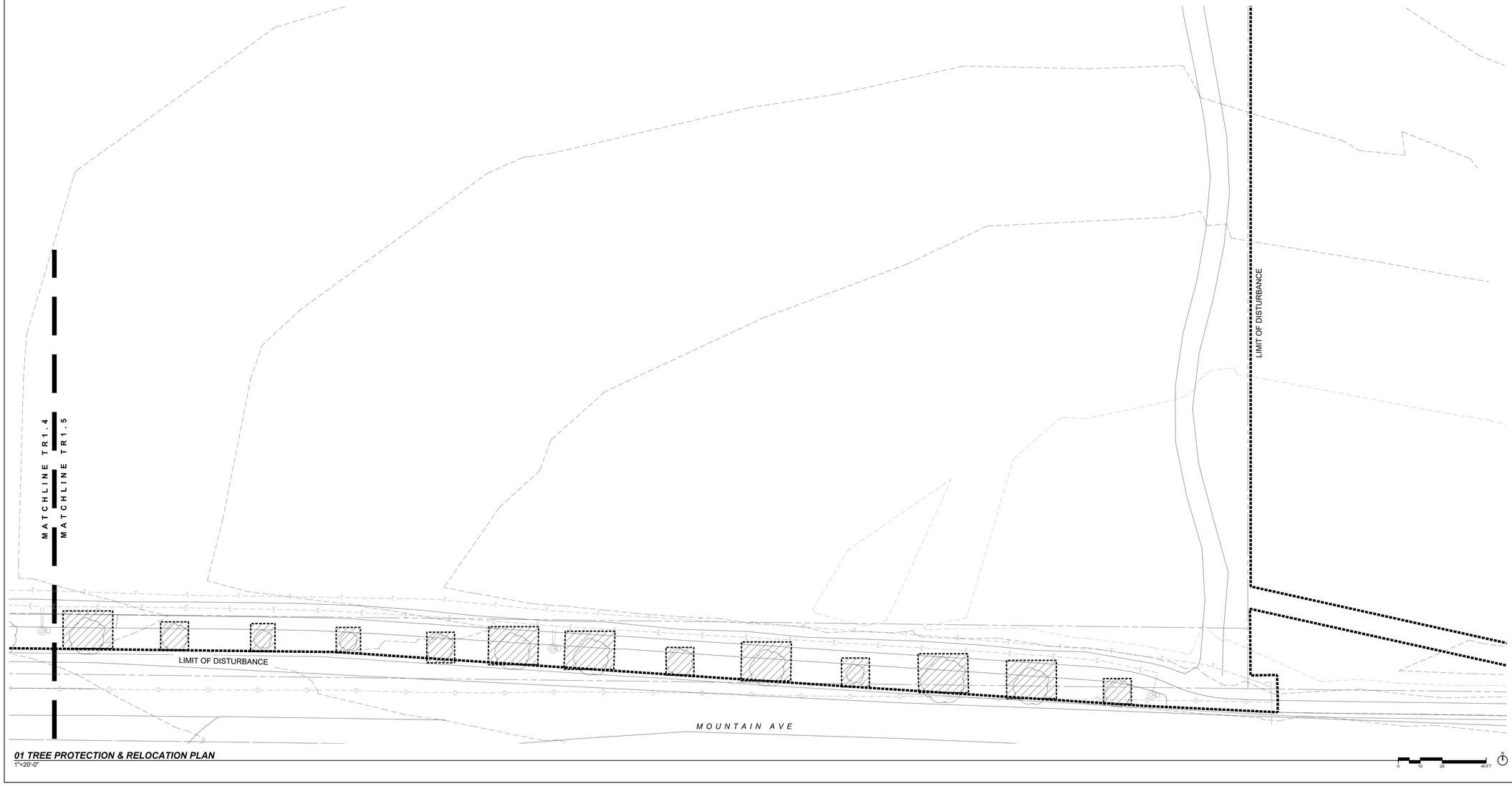
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01 TREE PROTECTION & RELOCATION PLAN
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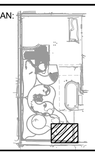
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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

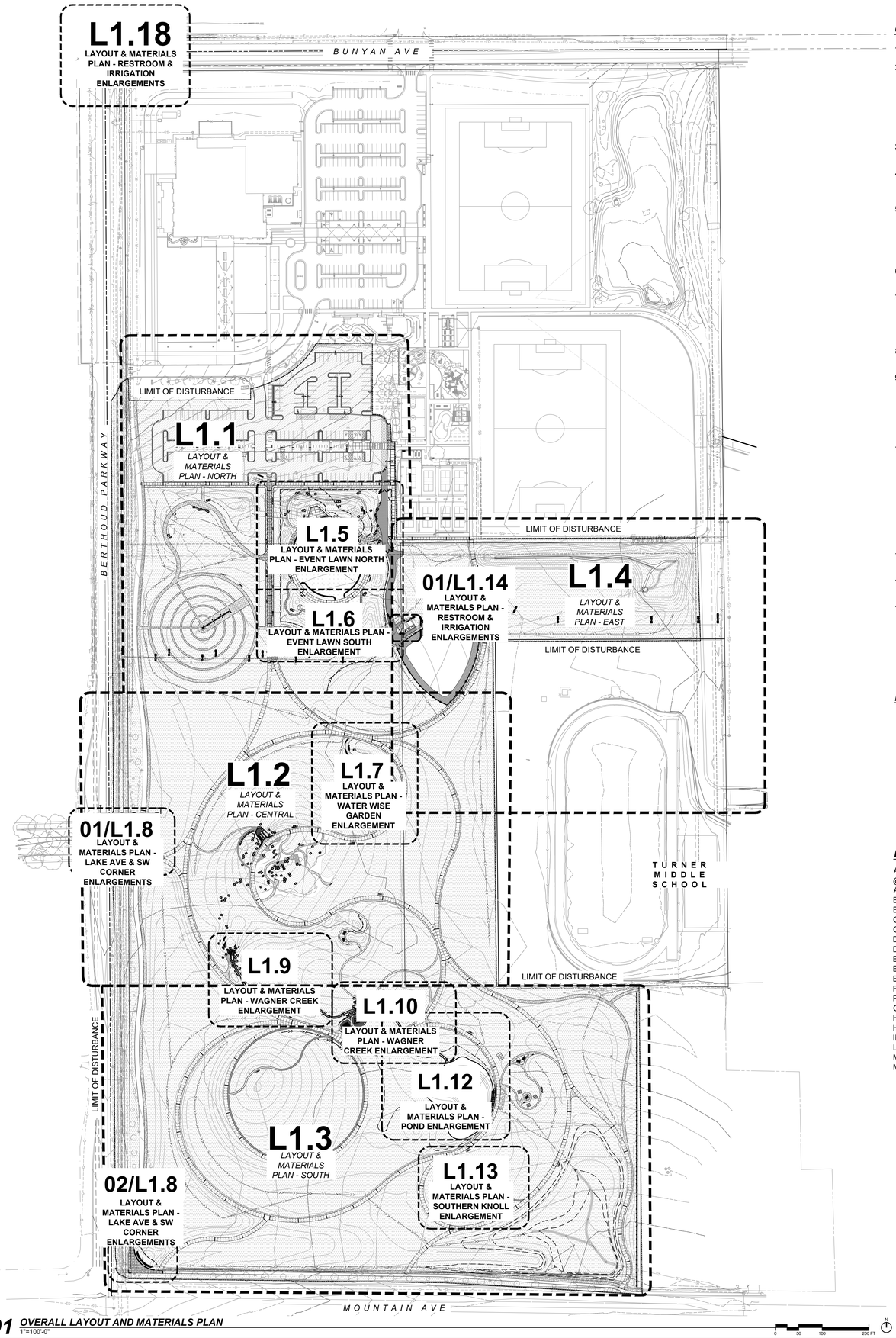
TREE PROTECTION AND RELOCATION PLAN

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01 ***OVERALL LAYOUT AND MATERIALS PLAN***
1"=100'-0"

GENERAL NOTES

1. SURVEY WAS PERFORMED BY TAIT, INC. SURVEY DATED 03/04/25. EXISTING CONTOUR INTERVAL IS 1 FOOT.
2. LOCATIONS OF UTILITIES ARE GRAPHIC ONLY AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 TO LOCATE ALL UTILITIES PRIOR TO COMMENCING WORK. CONTRACTOR SHALL VERIFY LOCATIONS AND BURY DEPTHS OF ALL UTILITIES ON SITE. EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. DAMAGED UTILITIES SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND PROVIDE FOR ADEQUATE DRAINAGE THROUGH THE SITE DURING THE PROCESS OF EXCAVATION, GRADING AND EMBANKMENT. THE GRADE SHALL BE MAINTAINED IN SUCH CONDITION THAT IT IS WELL DRAINED AT ALL TIMES.
3. WORK AND MATERIALS SHALL CONFORM TO TOWN OF BERTHOUD STANDARDS, REGULATIONS, AND CODES FOR DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS.
4. PROPOSED FINISHED GRADES AND PAVEMENTS SHALL ABUT EXISTING CURBS, PAVEMENTS, ETC., IN BOTH LINE AND GRADE. CONTRACTOR SHALL NOTIFY THE TOWN PARKS MANAGER OR DESIGNEE IMMEDIATELY OF ANY DISCREPANCIES.
5. CONTRACTOR SHALL NOT WILLFULLY PROCEED WITH CONSTRUCTION AS DESIGNED WHEN IT IS OBVIOUS THAT PREVIOUSLY UNKNOWN OBSTRUCTIONS AND/OR GRADE DIFFERENCES EXIST THAT MAY NOT HAVE BEEN KNOWN DURING DESIGN. SUCH CONDITIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE TOWN PARKS MANAGER OR DESIGNEE FOR DECISION. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL NECESSARY REVISIONS AND REPAIRS DUE TO FAILURE TO GIVE SUCH NOTIFICATION AT NO ADDITIONAL COST TO THE OWNER.
6. CONTRACTOR SHALL OBTAIN ALL APPLICABLE CODES, LICENSES, PERMITS, BONDS, ETC. NECESSARY TO PERFORM THE PROPOSED WORK AT LEAST 72 HOURS PRIOR TO THE START OF ANY CONSTRUCTION.
7. CONTRACTOR SHALL NOTIFY THE TOWN PARKS MANAGER OR DESIGNEE 72 HOURS PRIOR TO START OF ANY CONSTRUCTION. IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP, THE CONTRACTOR SHALL NOTIFY THE TOWN PARKS MANAGER OR DESIGNEE OF REASON FOR SUSPENSION AND ESTIMATED TIME OF SUSPENSION WITHIN 48 HOURS OF SUSPENSION . CONTRACTOR SHALL NOTIFY THE TOWN PARKS MANAGER OR DESIGNEE 48 HOURS PRIOR TO RESTART OF CONSTRUCTION.
8. CONTRACTOR SHALL OBTAIN TOWN PARKS MANAGER OR DESIGNEE APPROVAL PRIOR TO REMOVAL OF ANY OBSTRUCTION INTERFERING WITH PROPOSED IMPROVEMENTS UNLESS EXPLICITLY STATED IN PLANS.
9. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EXISTING PAVEMENT MARKINGS, SIGNING, LANDSCAPE, IRRIGATION, HARDSCAPE, OR OTHER ITEMS NOT DESIGNATED FOR REMOVAL THAT HAVE BEEN DAMAGED DURING CONSTRUCTION AT CONTRACTOR'S EXPENSE. CONTRACTOR SHALL PROTECT ALL ADJACENT IMPROVEMENTS (BUILDINGS, PARKING LOTS, LANDSCAPE AREAS, ETC.) FROM DAMAGE AND EROSION DUE TO CONSTRUCTION ACTIVITIES. ALL DISTURBED AREAS OFF-SITE SHALL BE RESTORED TO A MINIMUM OF THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE. CONTRACTOR SHALL ADJUST ALL VALVE BOXES AND MANHOLE COVERS TO FINAL GRADE.
10. CONSTRUCTION SITES AND STAGING AREAS MUST BE FENCED AND MAINTAINED IN A SECURE CONDITION AT ALL TIMES. KEEP FENCING AND SURROUNDING AREAS CLEAR OF TRASH AND DEBRIS. ANY CONSTRUCTION DEBRIS OR MUD DROPPED INTO MANHOLES, PIPES, OR TRACKED ONTO EXISTING ROADWAYS SHALL BE REMOVED IMMEDIATELY BY CONTRACTOR. CONTRACTOR SHALL REPAIR ANY EXCAVATIONS OR PAVEMENT FAILURES CAUSED BY CONSTRUCTION WITHIN OR IN THE VICINITY OF THE LIMITS OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE DUE TO CONSTRUCTION AT NO ADDITIONAL COSTS TO OWNER. THE CONTRACTOR SHALL REMOVE ALL SEDIMENT, MUD, AND CONSTRUCTION DEBRIS THAT MAY ACCUMULATE IN THE FLOW LINES, PRIVATE PROPERTY, AND PUBLIC RIGHTS OF WAYS AS A RESULT OF THIS CONSTRUCTION PROJECT. REMOVAL SHALL BE CONDUCTED WITHIN 48 HOURS. RETURN ALL CONSTRUCTION STAGING SITES TO THEIR ORIGINAL CONDITION UPON COMPLETION OF THE CONSTRUCTION PROJECT.
11. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS AT THE JOB SITE, INCLUDING SAFETY OF PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.
12. ALL QUANTITIES ARE BASED ON HORIZONTAL PLAN MEASUREMENTS. CONTRACTOR SHALL MAKE ALLOWANCES FOR SLOPE FACTOR, OVERLAP, TRENCHING, ETC.
13. WORKERS SHALL BE ALERT DURING EXCAVATION FOR VISUAL AND OLFACTORY SIGNS OF CONTAMINATION. IF SOIL CONTAMINATION IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, WORK WILL STOP IMMEDIATELY, AND THE PROCEDURES OUTLINED IN THE CDOT SPECIFICATION 250 ENVIRONMENTAL HEALTH AND SAFETY MANAGEMENT SHALL BE FOLLOWED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REQUIRED WORKERS' HEALTH AND SAFETY. CONTAMINATED SOILS, IF ANY, SHALL BE PROPERLY MANAGED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

LAYOUT AND MATERIALS NOTES

1. DO NOT SCALE THE PLANS. DIMENSIONS SUPERSEDE DRAWING SCALES. VERIFY LAYOUT PRIOR TO EXCAVATION.
2. DIMENSIONS ARE DRAWN TO FACE OF CURB, WALL, AND EDGE UNLESS OTHERWISE SPECIFIED.
3. IF THERE IS A DISCREPANCY BETWEEN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS WILL SUPERSEDE PLANS.
4. CONTRACTOR TO CLEARLY STAKE ALL CORNERS OF PAVED AREAS FOR OWNER'S REPRESENTATIVE'S APPROVAL PRIOR TO SETTING EDGES OR FORMS.
5. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE FOR ALL FORM WORK AT LEAST 24 HOURS PRIOR TO PLACING CURBS, WALLS, FOUNDATIONS, OR PAVEMENTS.

LIST OF ABBREVIATIONS

ARCH	ARCHITECT	MAX	MAXIMUM
@	AT	N.T.S.	NOT TO SCALE
ALT	ALTERNATE	N/A	NOT APPLICABLE
BR	BOTTOM OF RAMP	O.C.	ON CENTER
BS	BOTTOM OF STAIR	PA	PLANTING AREA
CONC	CONCRETE	PERF	PERFORATED
CONT	CONTINUOUS	RAD	RADIUS
DIA	DIAMETER	RE:	REFERENCE
DWGS	DRAWINGS	RIM	RIM ELEVATION
ELEC	ELECTRICAL	SIM	SIMILAR
EX	EXISTING	SQ	SQUARE
EX FL	EXISTING FLOWLINE	SPECS	SPECIFICATIONS
FFE	FIRST FLOOR ELEVATION	SPR	SOUTH PLATTE RIVER
F.G.	FINISHED GRADE	TH	THICK
GALV	GALVANIZED	TYP	TYPICAL
HDPE	HIGH DENSITY POLYETHYLENE	TM	TOP OF MONUMENT
HORIZ	HORIZONTAL	TR	TOP OF RAMP
INV	INVERT	TS	TOP OF STAIRS
LP	LOW POINT	TW	TOP OF WALL
ME	MEET EX. GRADE	W/	WITH
MIN	MINIMUM	VOL	VOLUME

SHEET INDEX

LANDSCAPE

TR1.1	TREE RELOCATION PLAN
TR1.2	TREE RELOCATION PLAN
TR1.3	TREE RELOCATION PLAN
TR1.4	TREE RELOCATION PLAN
TR1.5	TEE RELOCATION PLAN
L0.0	LANDSCAPE COVER SHEET
L1.1	LAYOUT AND MATERIALS PLAN - NORTH
L1.2	LAYOUT AND MATERIALS PLAN - CENTRAL
L1.3	LAYOUT AND MATERIALS PLAN - SOUTH
L1.4	LAYOUT AND MATERIALS PLAN - EAST
L1.5	LAYOUT AND MATERIALS PLAN - EVENT LAWN NORTH ENLARGEMENT
L1.6	LAYOUT AND MATERIALS PLAN - EVENT LAWN SOUTH ENLARGEMENT
L1.7	LAYOUT AND MATERIALS PLAN - WATER WISE GARDEN ENLARGEMENT
L1.8	LAYOUT AND MATERIALS PLAN - LAKE AVE & SW CORNER ENLARGEMENT
L1.9	LAYOUT AND MATERIALS PLAN - WAGGENER CREEK ENLARGEMENT- WEST
L1.10	LAYOUT AND MATERIALS PLAN - WAGGENER CREEK ENLARGEMENT- EAST
L1.11	LAYOUT AND MATERIALS PLAN - CLIMBER & TURTLE ENLARGEMENT
L1.12	LAYOUT AND MATERIALS PLAN - POND ENLARGEMENT
L1.13	LAYOUT AND MATERIALS PLAN - SOUTHERN KNOLL ENLARGEMENT
L1.14	LAYOUT AND MATERIALS PLAN - IRRIGATION & RESTROOM ENLARGEMENT
L1.15	LAYOUT AND MATERIALS PLAN - ALPINE
L1.16	LAYOUT AND MATERIALS PLAN - ROCK SLIDE ENLARGEMENT
L1.17	LAYOUT AND MATERIALS PLAN - MUSIC AREA & VILLAGE ENLARGEMENT
L1.18	LAYOUT AND MATERIALS PLAN - IRRIGATION ENLARGEMENT
L2.0	OVERALL PLANTING PLAN
L2.1	PLANTING SCHEDULE
L2.2	PLANTING PLAN - NORTH
L2.3	PLANTING PLAN - CENTRAL
L2.4	PLANTING PLAN - SOUTH
L2.5	PLANTING PLAN - EAST
L2.6	PLANTING PLAN - WEST PARKING
L2.7	PLANTING PLAN - EAST PARKING
L2.8	PLANTING PLAN - NORTH PARKING
L2.9	PLANTING PLAN - ENTRY WALK
L2.10	PLANTING KEY PLAN - NORTH EVENT LAWN
L2.11	PLANTING PLAN - NORTH EVENT LAWN 01
L2.12	PLANTING PLAN - NORTH EVENT LAWN 02
L2.13	PLANTING PLAN - SOUTH EVENT LAWN
L2.14	PLANTING PLAN - SHRUB GARDEN
L2.15	PLANTING PLAN - WATER WISE
L2.16	PLANTING PLAN - ALPINE GARDEN
L2.17	PLANTING PLAN - MUSIC AREA, SW CORNER & IRRIGATION
L2.20	SOILS AND MULCH PLAN - NORTH
L2.21	SOILS AND MULCH PLAN - SOUTH
L3.0	SITE SECTIONS
L3.1	SITE SECTIONS
L3.2	SITE SECTIONS
L4.0	SITE DETAILS
L4.1	SITE DETAILS
L4.2	SITE DETAILS
L4.3	SITE DETAILS
L4.4	SITE DETAILS
L4.5	SITE DETAILS
L4.6	SITE DETAILS
L4.7	SITE DETAILS
L4.8	SITE DETAILS
L4.9	SITE DETAILS
L4.10	SITE DETAILS
L4.11	SITE DETAILS
L4.12	SITE DETAILS
L4.13	SITE DETAILS
L4.14	SITE DETAILS
L4.15	SITE DETAILS
L5.0	ADD ALT #2

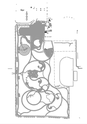
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

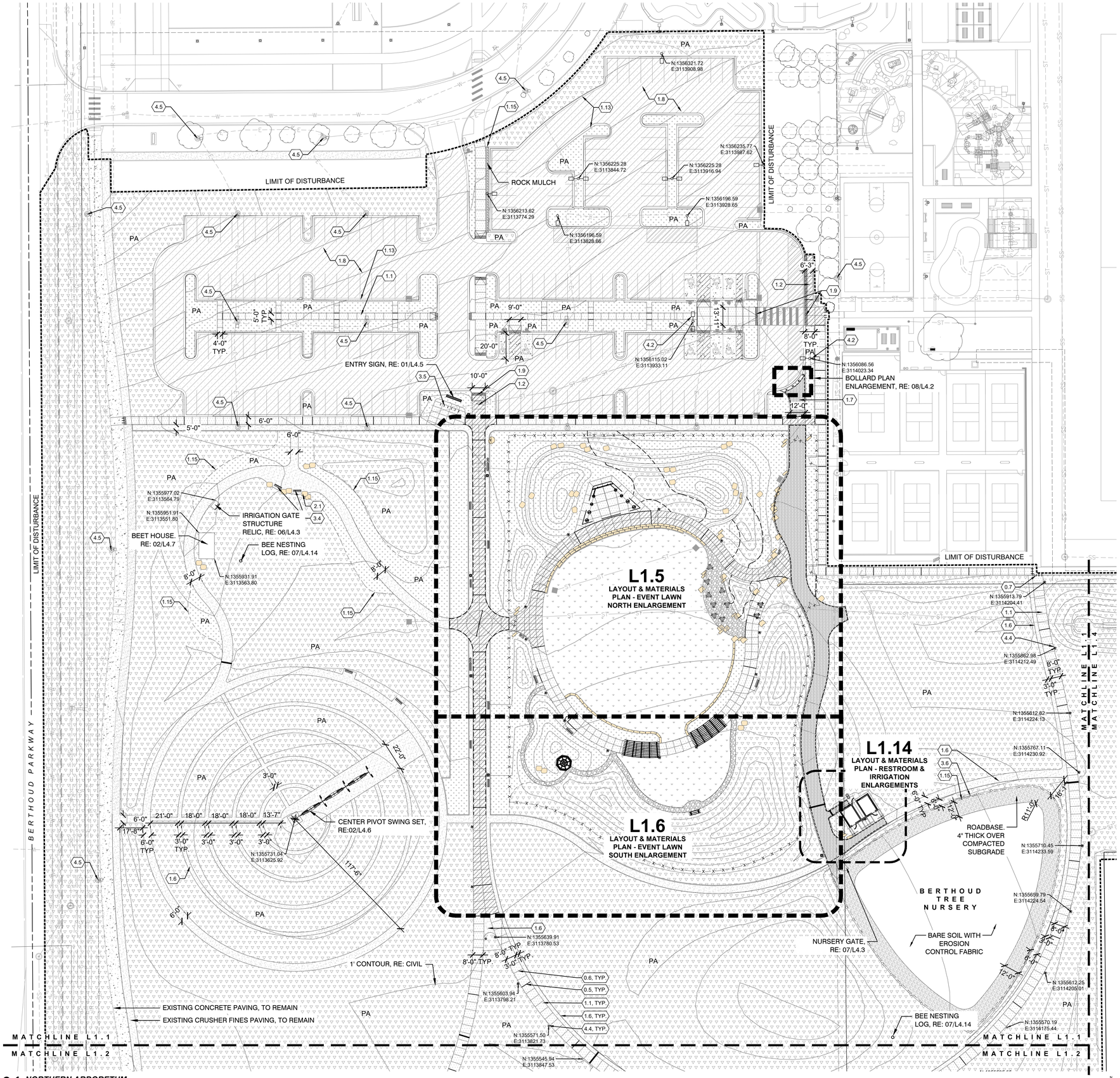
LANDSCAPE COVER SHEET

SHEET:

L0.0

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01 ***NORTHERN ARBORETUM***
1"=30'-0"

LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	09/L4.0
1.5	FLAGSTONE PAVING, MORTAR SET	10/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE: ELEC
4.3	PEDESTRIAN POLE	RE: ELEC
4.4	BOLLARD LIGHT	RE: ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
MH	MANHOLE	RE: CIVIL

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - NORTH

SHEET:

L1.1

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LAYOUT AND MATERIALS LEGEND

LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ 0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
DJ 0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

1.0 PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	09/L4.0
1.5	FLAGSTONE PAVING, MORTAR SET	10/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

2.0 STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

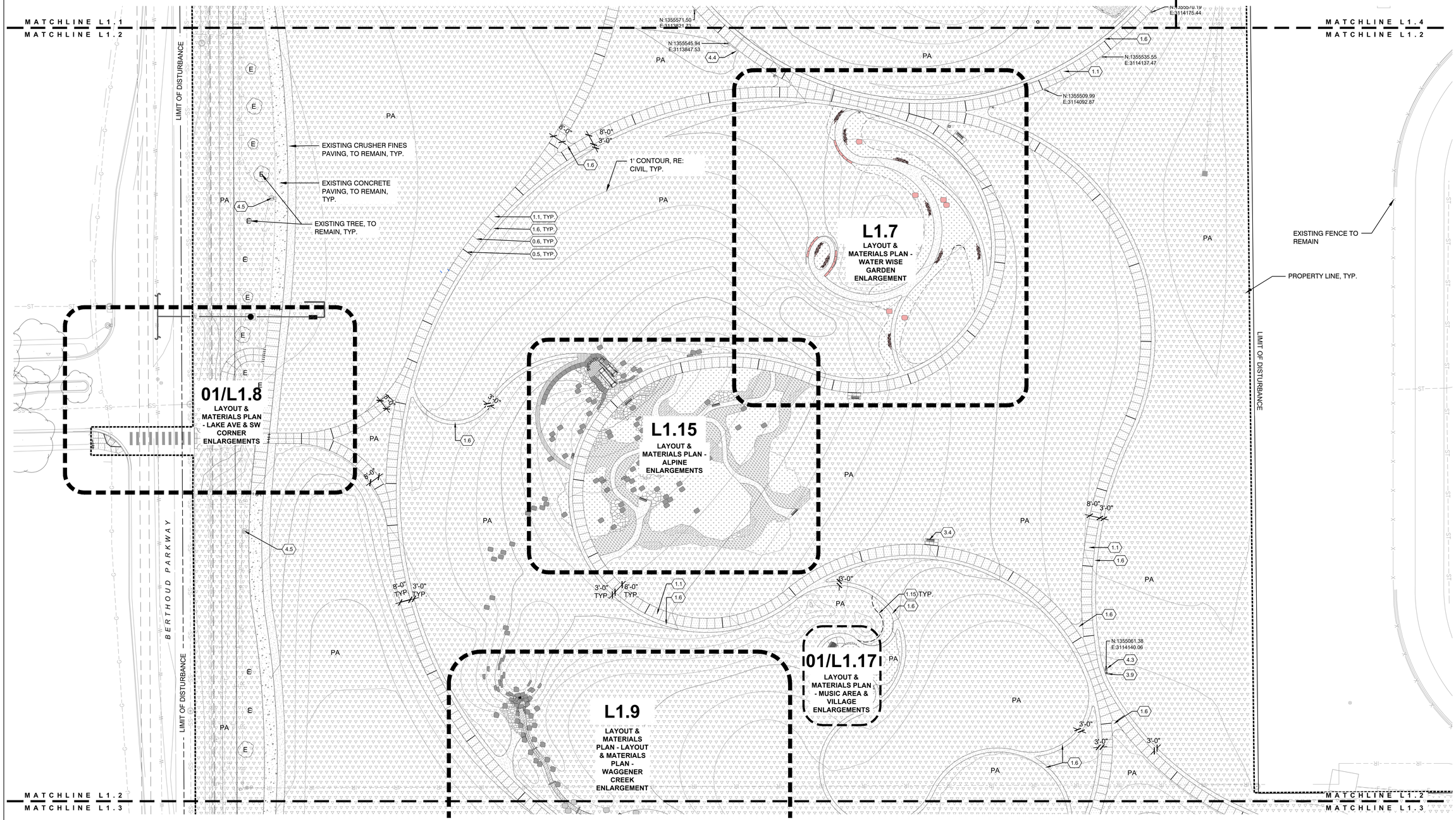
3.0 FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

4.0 LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE: ELEC
4.3	PEDESTRIAN POLE	RE: ELEC
4.4	BOLLARD LIGHT	RE: ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
	MANHOLE	RE: CIVIL



01 *CENTRAL ARBORETUM*
1"=30'-0"

0 15 30 60 FT

10/1/2025 10:48 AM

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MARTIN/MARTIN CONSULTING ENGINEERS
TOWN of BERTHOUD EST. 1988
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - CENTRAL

SHEET:

L1.2

LAYOUT AND MATERIALS LEGEND

(0.0) LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ 0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
DJ 0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

(1.0) PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	09/L4.0
1.5	FLAGSTONE PAVING, MORTAR SET	10/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

(2.0) STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 -	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

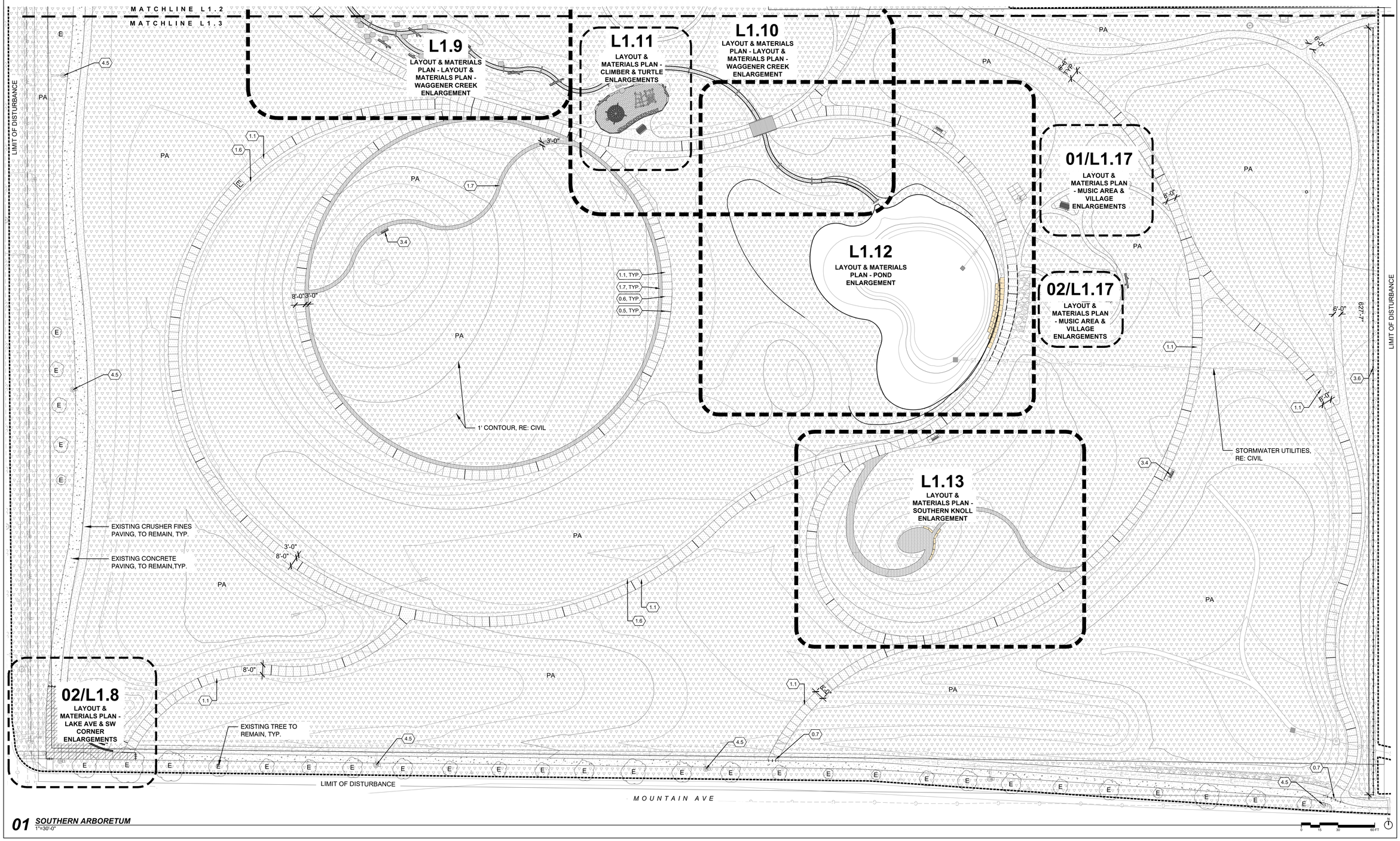
(3.0) FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

(4.0) LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE: ELEC
4.3	PEDESTRIAN POLE	RE: ELEC
4.4	BOLLARD LIGHT	RE: ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

—W—	PROPOSED UTILITY, WATER	RE: CIVIL
—ST—	PROPOSED UTILITY, STORM	RE: CIVIL
—SS—	PROPOSED UTILITY, SANITARY	RE: CIVIL
—W—	EXISTING UTILITY, WATER	RE: CIVIL
—ST—	EXISTING UTILITY, STORM	RE: CIVIL
—SS—	EXISTING UTILITY, SANITARY	RE: CIVIL
—E—	EXISTING UTILITY, ELECTRIC	RE: CIVIL
—G—	EXISTING UTILITY, GAS	RE: CIVIL
—IRR—	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
	MANHOLE	RE: CIVIL



01 SOUTHERN ARBORETUM
1"=30'-0"

0 15 30 60 FT

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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

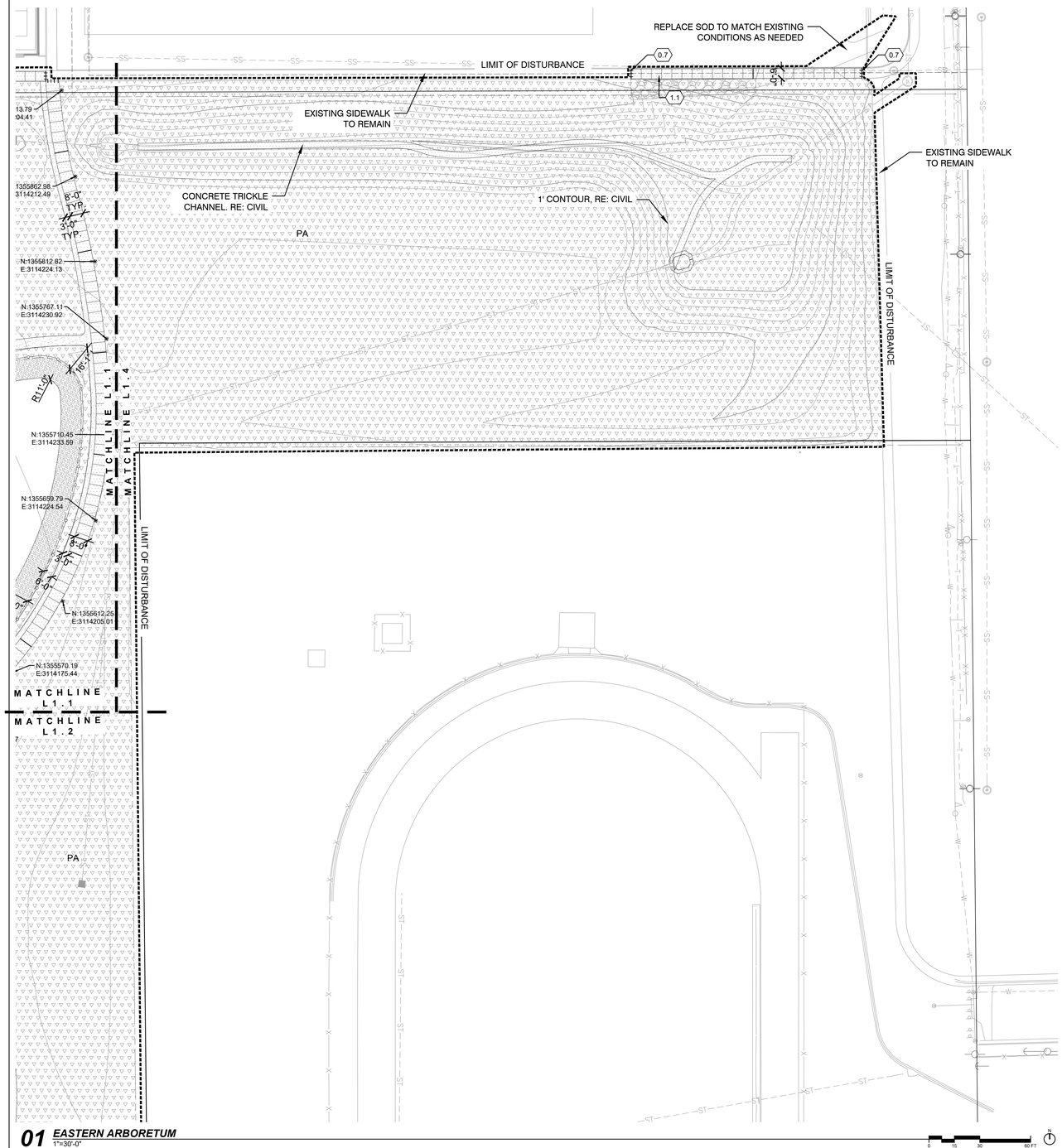
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - SOUTH

SHEET:

L1.3



01 EASTERN ARBORETUM
1"=30'-0"

LAYOUT AND MATERIALS LEGEND

LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ 0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
DJ 0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	09/L4.0
1.5	FLAGSTONE PAVING, MORTAR SET	10/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE: ELEC
4.3	PEDESTRIAN POLE	RE: ELEC
4.4	BOLLARD LIGHT	RE: ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

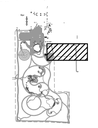
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ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
MH	MANHOLE	RE: CIVIL

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

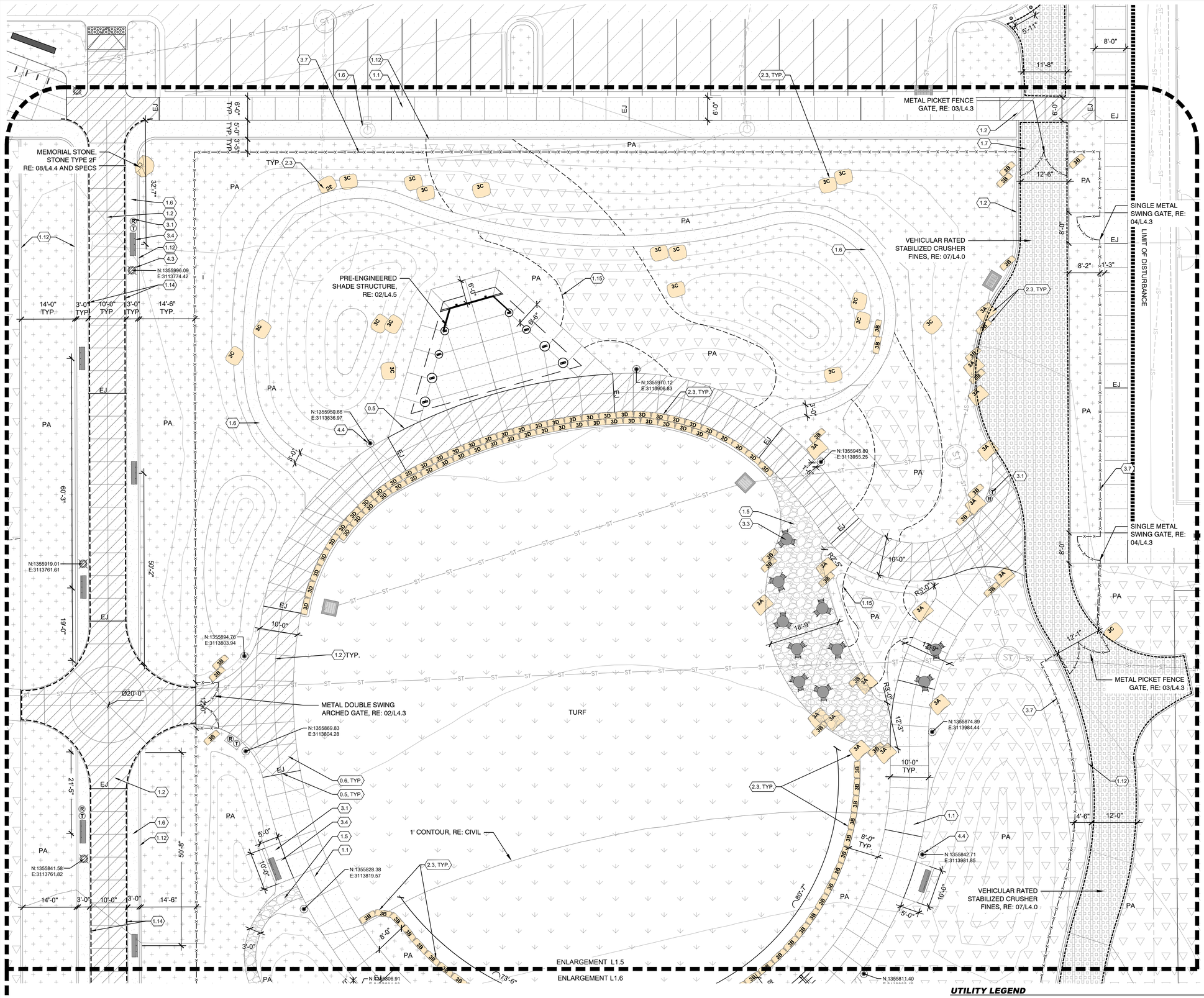
LAYOUT & MATERIALS PLAN - EAST

SHEET:

L1.4

10/1/2025 10:48 AM

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01 EVENT LAWN (NORTH) ENLARGEMENT

1"=10'-0"

LAYOUT AND MATERIALS LEGEND

LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:

1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

0 5 10 20 FT

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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - EVENT LAWN NORTH ENLARGEMENT

SHEET:

L1.5

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LAYOUT AND MATERIALS LEGEND

	LEGEND		DETAIL
	0.1	LIMIT OF DISTURBANCE	NA
	0.2	PROPERTY LINE	NA
	0.3	EASEMENT LINE	NA
	0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ	0.5	EXPANSION JOINT	NA
	0.6	SCORE JOINT	NA
DJ	0.7	DOWELED JOINT	02/L4.0
	0.8	ROAD STRIPING	RE: CIVIL
	0.9	FIRE HYDRANT	RE: CIVIL
	0.10	CONTAINER PLANTING	NA
	0.11	NATIVE SEED	NA
	0.12	TURF	NA
E		EXISTING TREE TO REMAIN	NA

1.0	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

2.0	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

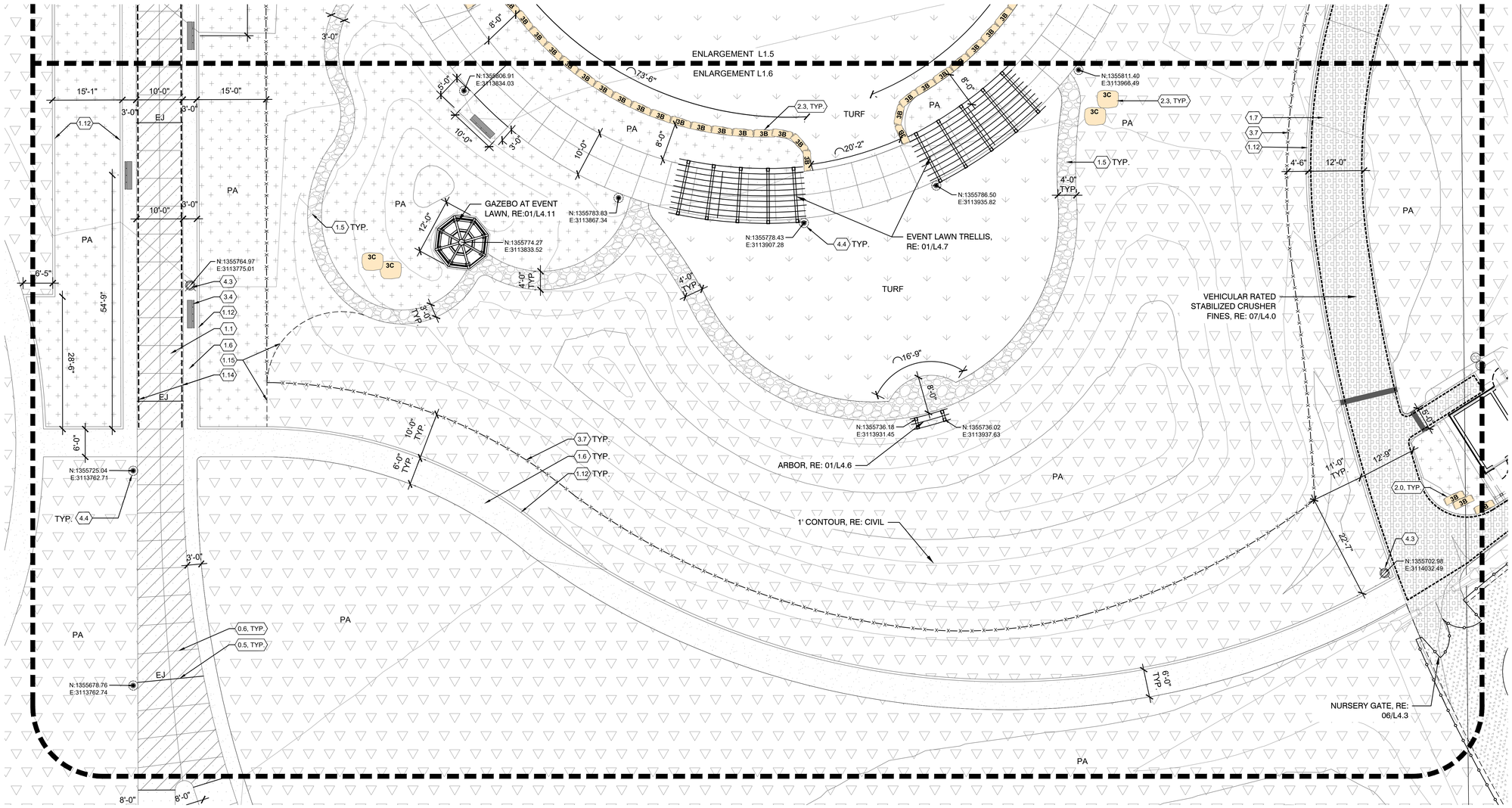
3.0	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

4.0	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL



01 EVENT LAWN (SOUTH) ENLARGEMENT
1"=10'-0"

0 5 10 20 FT

10/15/2025 10:48 AM

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TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

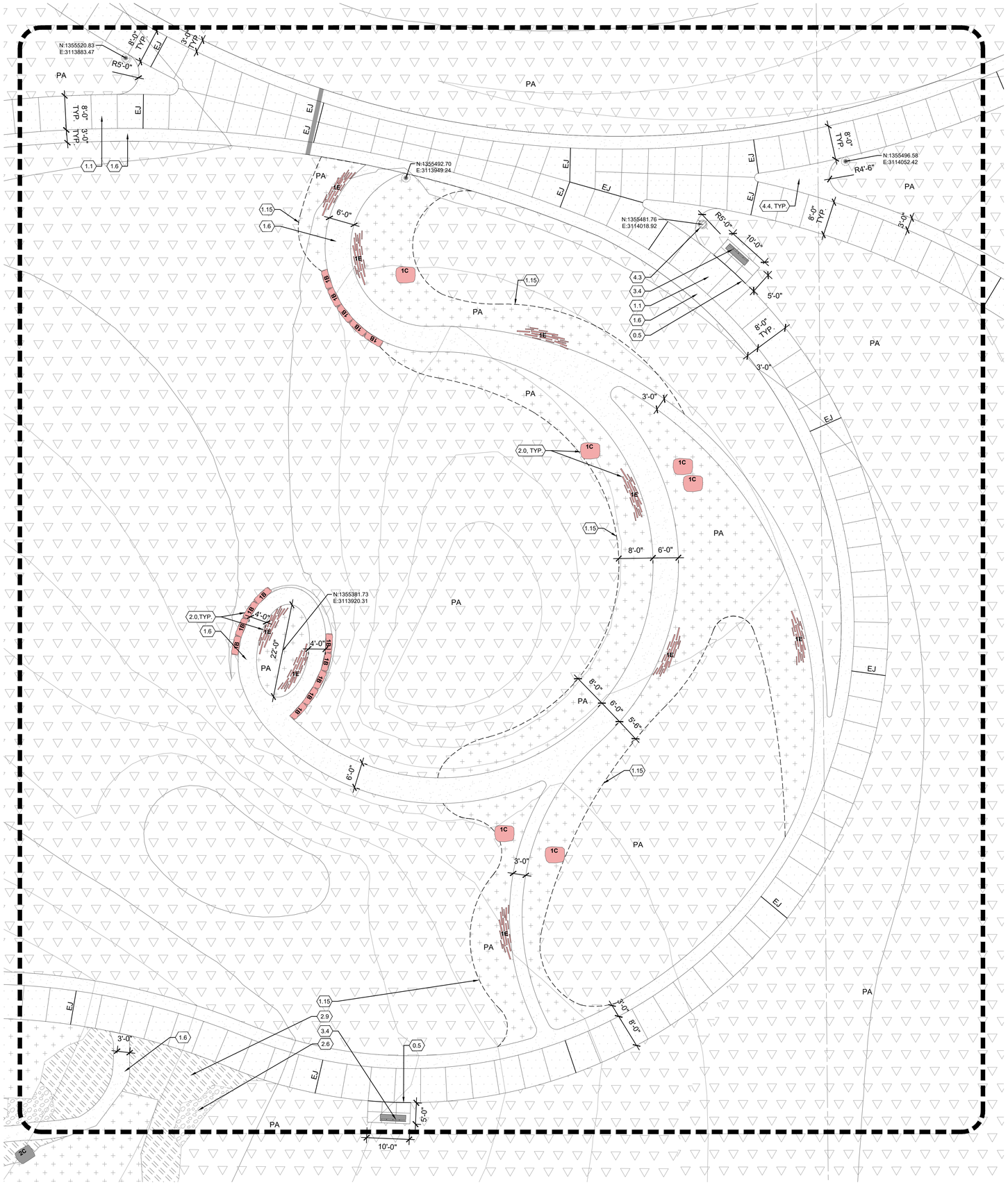
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - EVENT LAWN SOUTH ENLARGEMENT

SHEET:

L1.6



01 WATER WISE GARDEN

1"=10'-0"

0 5 10 20 FT

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
R IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

LAYOUT AND MATERIALS LEGEND

LEGEND			DETAIL
0.0	0.1	LIMIT OF DISTURBANCE	NA
	0.2	PROPERTY LINE	NA
	0.3	EASEMENT LINE	NA
	0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ	0.5	EXPANSION JOINT	NA
	0.6	SCORE JOINT	NA
DJ	0.7	DOWELED JOINT	02/L4.0
	0.8	ROAD STRIPING	RE: CIVIL
	0.9	FIRE HYDRANT	RE: CIVIL
	0.10	CONTAINER PLANTING	NA
	0.11	NATIVE SEED	NA
	0.12	TURF	NA
E		EXISTING TREE TO REMAIN	NA

PAVEMENTS AND BANDS			DETAIL
1.0	1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
	1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
	1.3	EXISTING CONCRETE, TO REMAIN	
	1.4	FLAGSTONE PAVING, SAND SET	10/4.0
	1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
	1.6	CRUSHER FINES PAVING	07/L4.0
	1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
	1.8	ASPHALT PAVING	RE:CIVIL
	1.9	DETECTABLE WARNING	11/L4.0
	1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
	1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
	1.12	CONCRETE MOW BAND	06/L4.0
	1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
	1.14	CONCRETE THICKENED EDGE	05/L4.0
	1.15	STEEL EDGER	08/L4.0
	1.16	LOG EDGE AT EWF	06/L4.13
	1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
	1.18	FALLEN LOG	08/L4.13

STONE			DETAIL
2.0	2.1	STONE SERIES 1	RE: SPECS
	2.2	STONE SERIES 2	RE: SPECS
	2.3	STONE SERIES 3	RE: SPECS
	2.4	STONE SERIES 4	RE: SPECS
	2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
	2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
	2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
	2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
	2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

FURNISHINGS, FENCES, & SIGNAGE			DETAIL
3.0	3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
	3.2	PICNIC TABLE & BENCH	04/L4.2
	3.3	CAFE TABLE & CHAIRS	06/L4.2
	3.4	BENCH	03/L4.2
	3.5	BIKE RACK	02/L4.2
	3.6	POST & RAIL FENCE	04/L4.3
	3.7	METAL PICKET FENCE	01/L4.3
	3.8	BOLLARD - REMOVABLE	07/L4.2
	3.9	DOG WASTE STATION	05/L4.2

LIGHTING / ELECTRICAL			DETAIL
4.0	4.1	PARKING LOT POLE SINGLE	RE: ELEC
	4.2	PARKING LOT POLE DOUBLE	RE:ELEC
	4.3	PEDESTRIAN POLE	RE:ELEC
	4.4	BOLLARD LIGHT	RE:ELEC
	4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:

1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

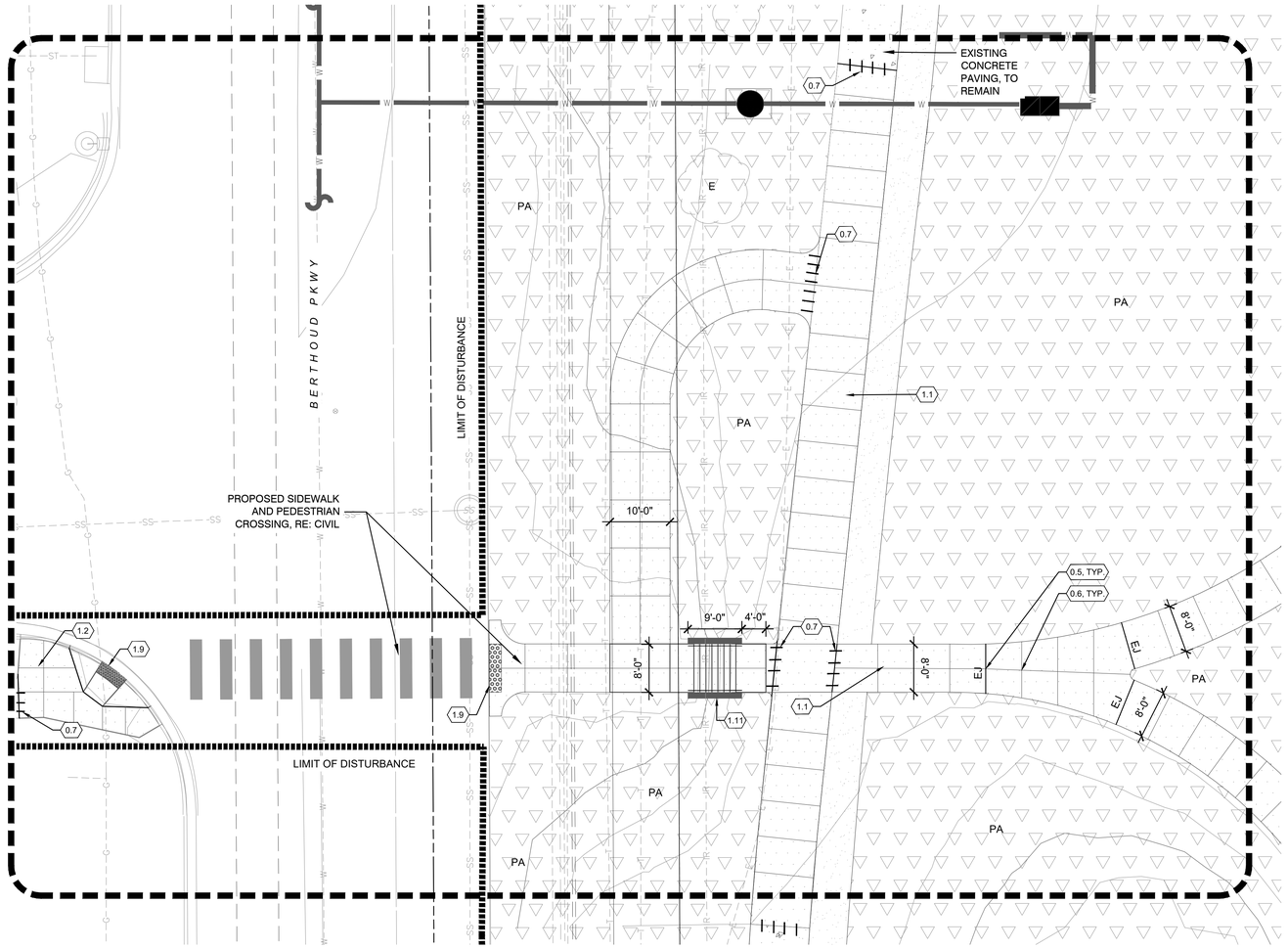
LAYOUT & MATERIALS PLAN - WATER WISE GARDEN ENLARGEMENT

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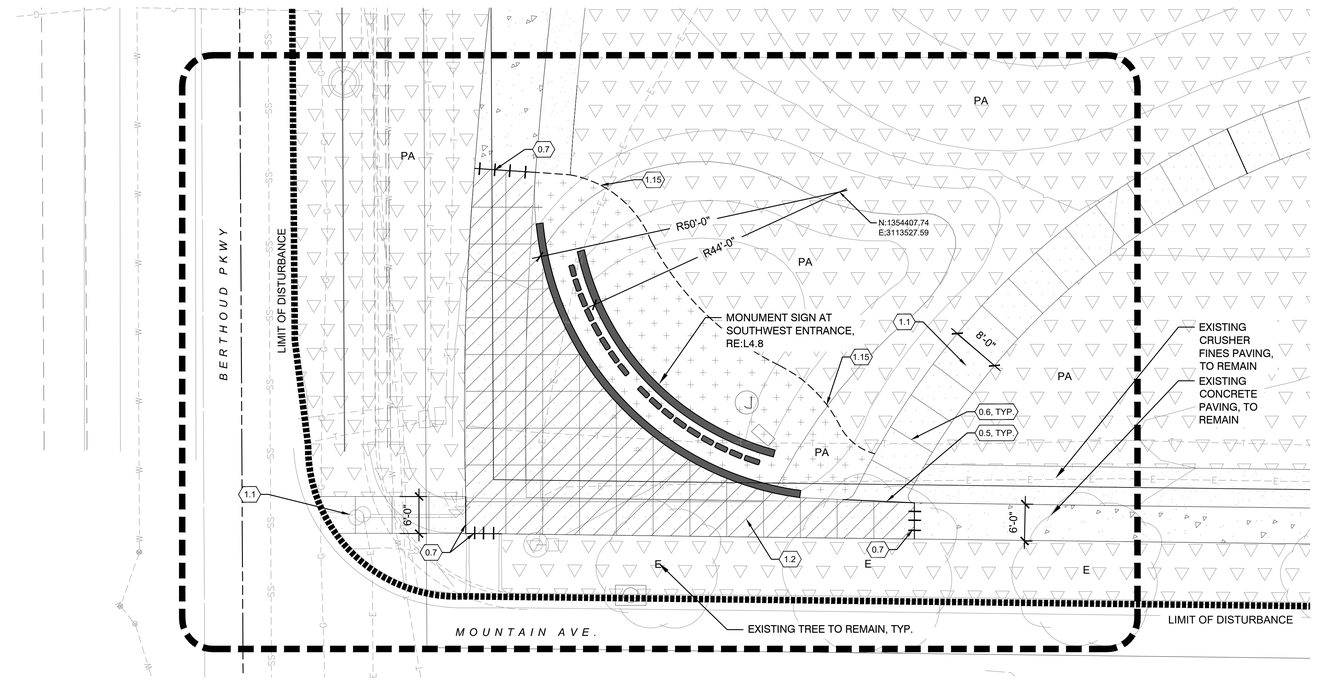
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01 ***LAKE AVENUE CONNECTION - ENLARGEMENT***
1"=10'-0"



02 ***SW CORNER ENTRANCE - ENLARGEMENT***
1"=10'-0"

0 5 10 20 FT

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

LAYOUT AND MATERIALS LEGEND

LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ 0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
DJ 0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

1.0 PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

2.0 STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

3.0 FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

4.0 LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - LAKE AVE & SW CORNER ENLARGEMENTS

SHEET:

L1.8

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LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

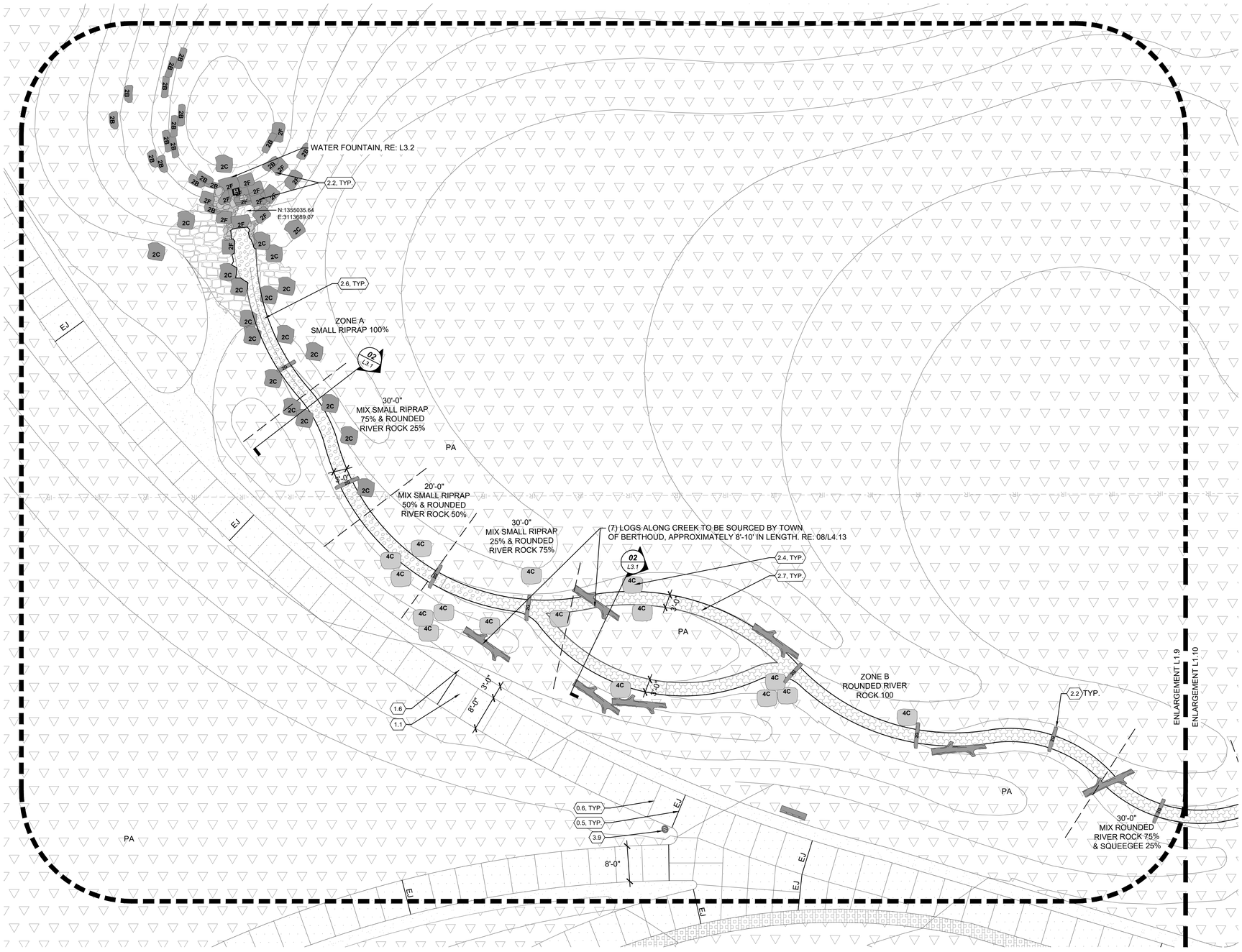
	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

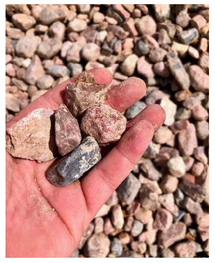


UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL



CREEK BOTTOM ZONE A
SMALL RIPRAP, STONE TYPE 5B



CREEK BOTTOM ZONE B
ROUNDED RIVER ROCK, STONE TYPE 6



CREEK BOTTOM ZONE C
SQUEEGEE, STONE TYPE 7

01 WAGGENER CREEK ENLARGEMENT
1"=10'-0"

10/1/2025 10:48 AM

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - WAGGENER CREEK ENLARGEMENT - WEST

SHEET:

L1.9

LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	1.0 PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	2.0 STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

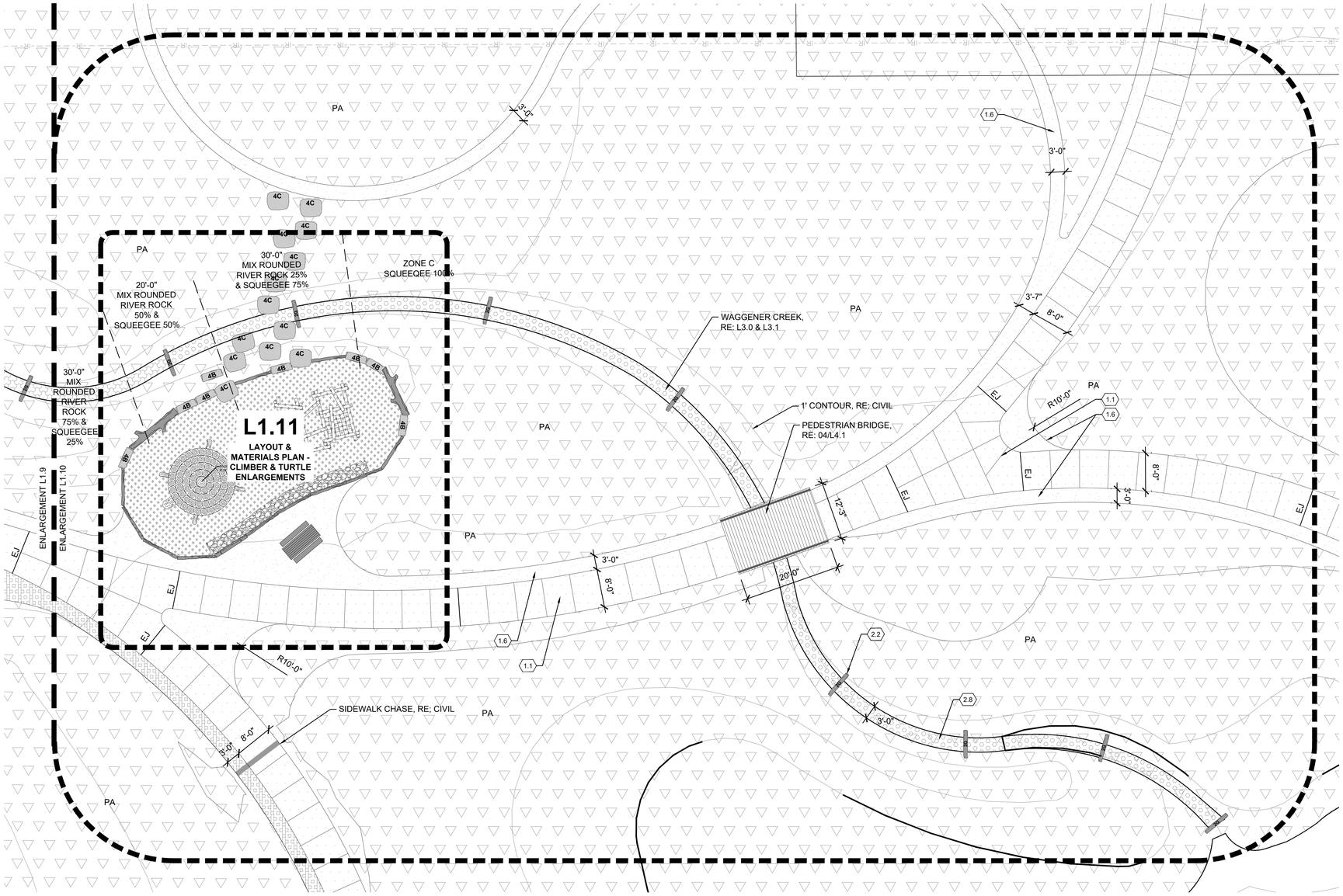
	3.0 FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	4.0 LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

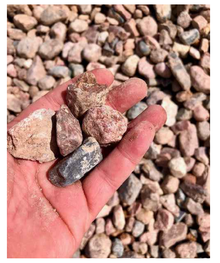


01 **WAGGENER CREEK ENLARGEMENT**
1"=10'-0"

0 5 10 20 FT



CREEK BOTTOM ZONE A
SMALL RIPRAP, STONE TYPE 5B



CREEK BOTTOM ZONE B
ROUNDED RIVER ROCK, STONE TYPE 6



CREEK BOTTOM ZONE C
SQUEEGEE, STONE TYPE 7

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - WAGGENER CREEK ENLARGEMENT

SHEET:

L1.10

10/15/2025 10:48 AM

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LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

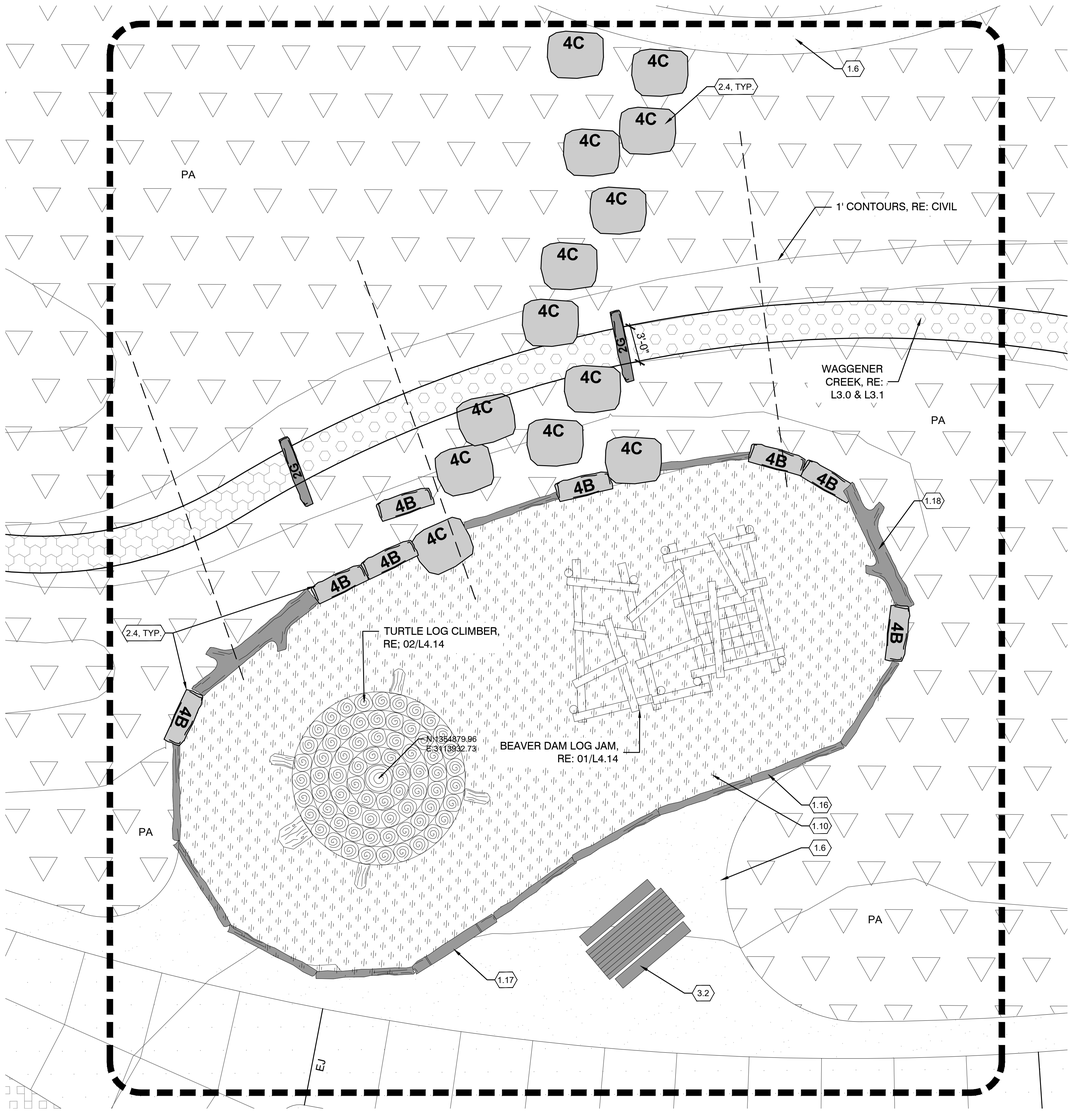
NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

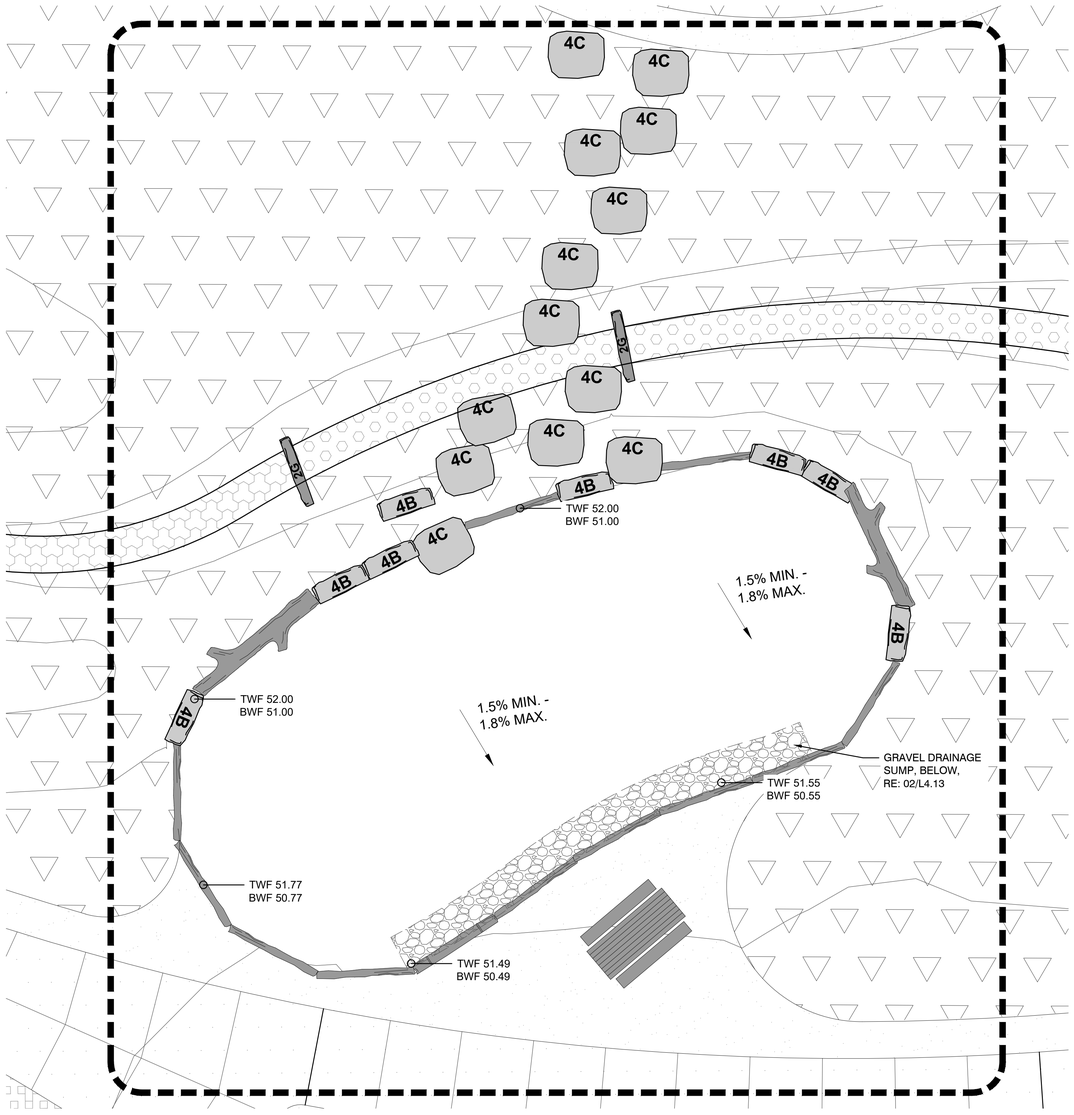
W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
SS	MANHOLE	RE: CIVIL

SUBSURFACE GRADING LEGEND

	1' CONTOUR
	TIE-IN
FG 55.25	FINISH GRADE
TWF 55.25	ELEVATION AT TOP OF ENGINEERED WOOD FIBER
BWF 55.25	ELEVATION AT BOTTOM OF ENGINEERED WOOD FIBER
TW 55.25	TOP OF WALL
BW 55.25	BOTTOM OF WALL/FINISH GRADE
BR 55.25	BOTTOM OF RAMP
INV 55.25	INVERT ELEVATION
BS 55.25	BOTTOM OF STEP/SLOPE
TS 55.25	TOP OF STEP/SLOPE
0.5% MIN.	SLOPE
	GRAVEL DRAINAGE SUMP — RE: 02/L4.11



01 ***CLIMBER & TURTLE ENLARGEMENT***
1"=10'-0"



02 ***SUBSURFACE GRADING PLAN - CLIMBER & TURTLE ENLARGEMENT***
1"= 5'-0"

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

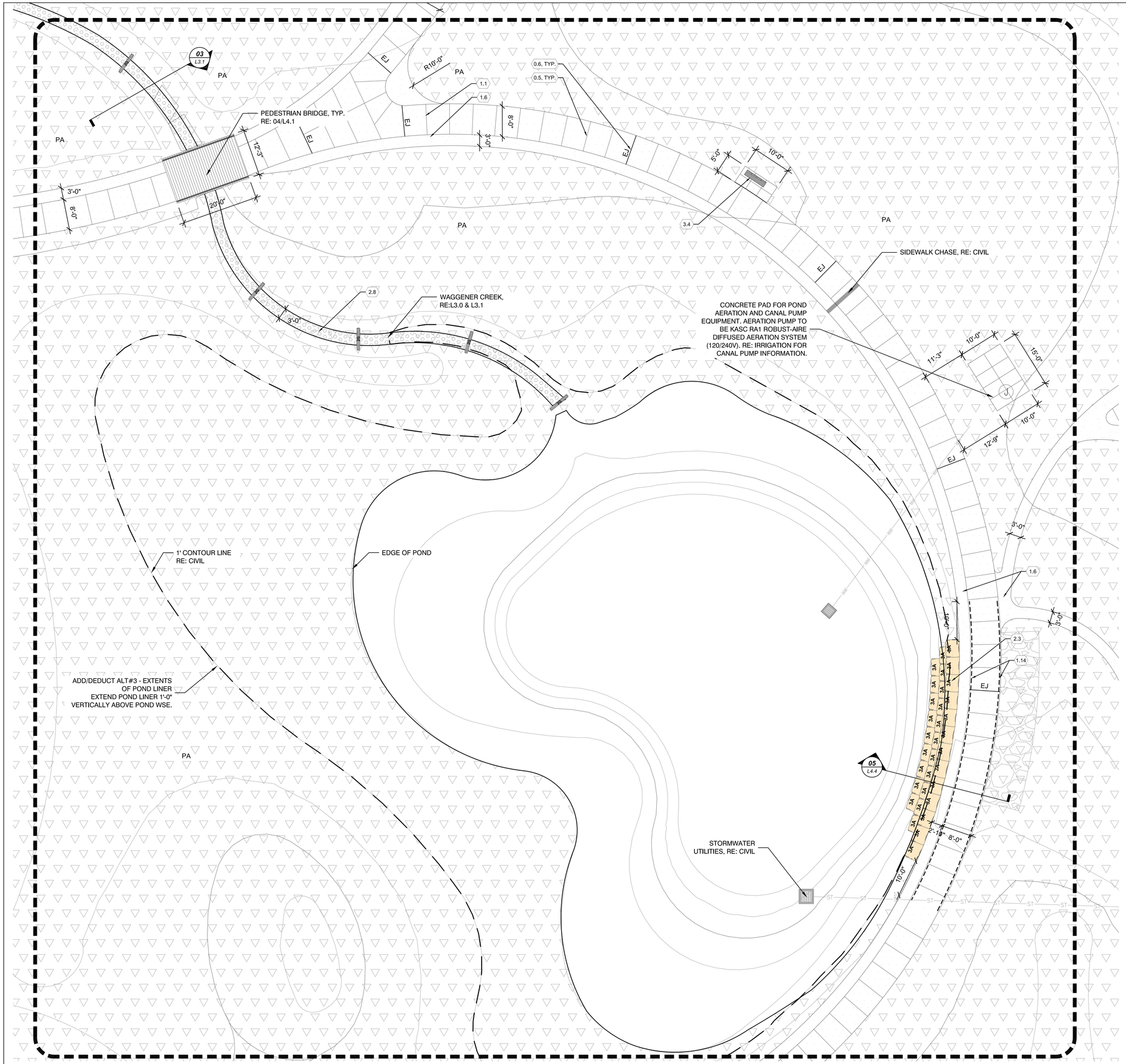
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - CLIMBER & TURTLE ENLARGEMENTS

SHEET:

L1.11



LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:

1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL

01 POND - ENLARGEMENT

1"=10'-0"

0 5 10 20 FT

N

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD AREA ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

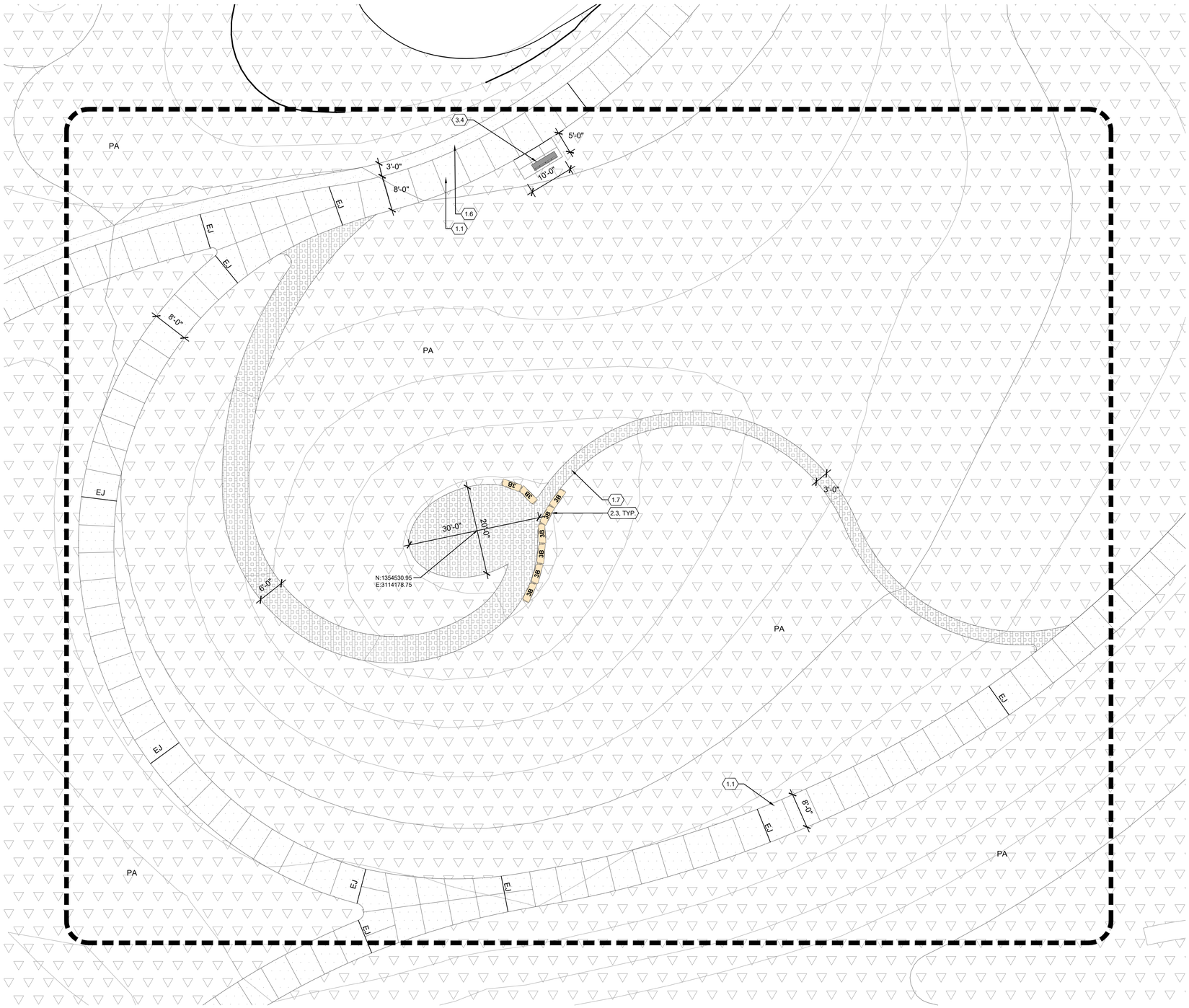
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - POND ENLARGEMENT

SHEET:

L1.12



01 ***SOUTHERN KNOLL - ENLARGEMENT***
1"=10'-0"

0 5 10 20 FT

LAYOUT AND MATERIALS LEGEND

	LEGEND		DETAIL
	0.1	LIMIT OF DISTURBANCE	NA
	0.2	PROPERTY LINE	NA
	0.3	EASEMENT LINE	NA
	0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ	0.5	EXPANSION JOINT	NA
	0.6	SCORE JOINT	NA
DJ	0.7	DOWELED JOINT	02/L4.0
	0.8	ROAD STRIPING	RE: CIVIL
	0.9	FIRE HYDRANT	RE: CIVIL
	0.10	CONTAINER PLANTING	NA
	0.11	NATIVE SEED	NA
	0.12	TURF	NA
E		EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS		DETAIL
	1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
	1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
	1.3	EXISTING CONCRETE, TO REMAIN	
	1.4	FLAGSTONE PAVING, SAND SET	10/4.0
	1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
	1.6	CRUSHER FINES PAVING	07/L4.0
	1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
	1.8	ASPHALT PAVING	RE:CIVIL
	1.9	DETECTABLE WARNING	11/L4.0
	1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
	1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
	1.12	CONCRETE MOW BAND	06/L4.0
	1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
	1.14	CONCRETE THICKENED EDGE	05/L4.0
	1.15	STEEL EDGER	08/L4.0
	1.16	LOG EDGE AT EWF	06/L4.13
	1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
	1.18	FALLEN LOG	08/L4.13

	STONE		DETAIL
1C 1B	2.1	STONE SERIES 1	RE: SPECS
2F 2C 2B 2D	2.2	STONE SERIES 2	RE: SPECS
3A 3C	2.3	STONE SERIES 3	RE: SPECS
3B 3D			
4B 4C	2.4	STONE SERIES 4	RE: SPECS
	2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
	2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
	2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
	2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
	2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE		DETAIL
T R	3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
	3.2	PICNIC TABLE & BENCH	04/L4.2
	3.3	CAFE TABLE & CHAIRS	06/L4.2
	3.4	BENCH	03/L4.2
	3.5	BIKE RACK	02/L4.2
	3.6	POST & RAIL FENCE	04/L4.3
	3.7	METAL PICKET FENCE	01/L4.3
	3.8	BOLLARD - REMOVABLE	07/L4.2
	3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL		DETAIL
	4.1	PARKING LOT POLE SINGLE	RE: ELEC
	4.2	PARKING LOT POLE DOUBLE	RE:ELEC
	4.3	PEDESTRIAN POLE	RE:ELEC
	4.4	BOLLARD LIGHT	RE:ELEC
G	4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL

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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

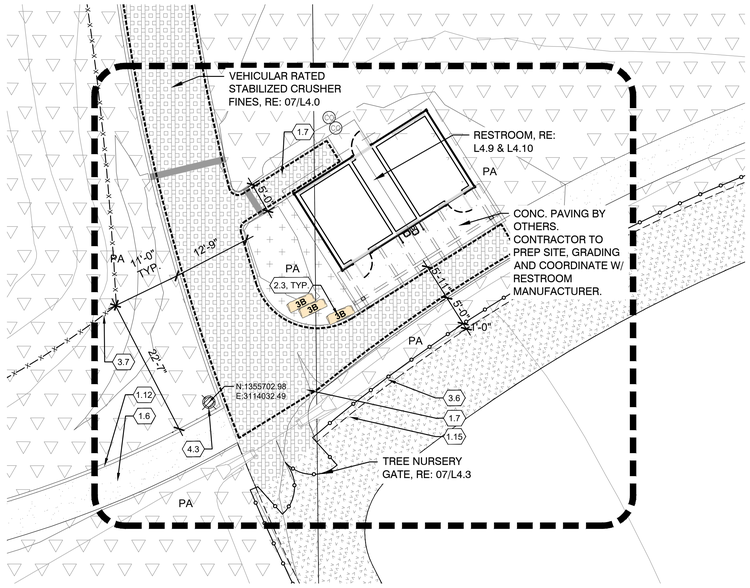
LAYOUT & MATERIALS PLAN - SOUTHERN KNOLL ENLARGEMENT

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01 ***RESTROOM - ENLARGEMENT***
1"=10'-0"

0 5 10 20 FT

LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
R IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

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TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

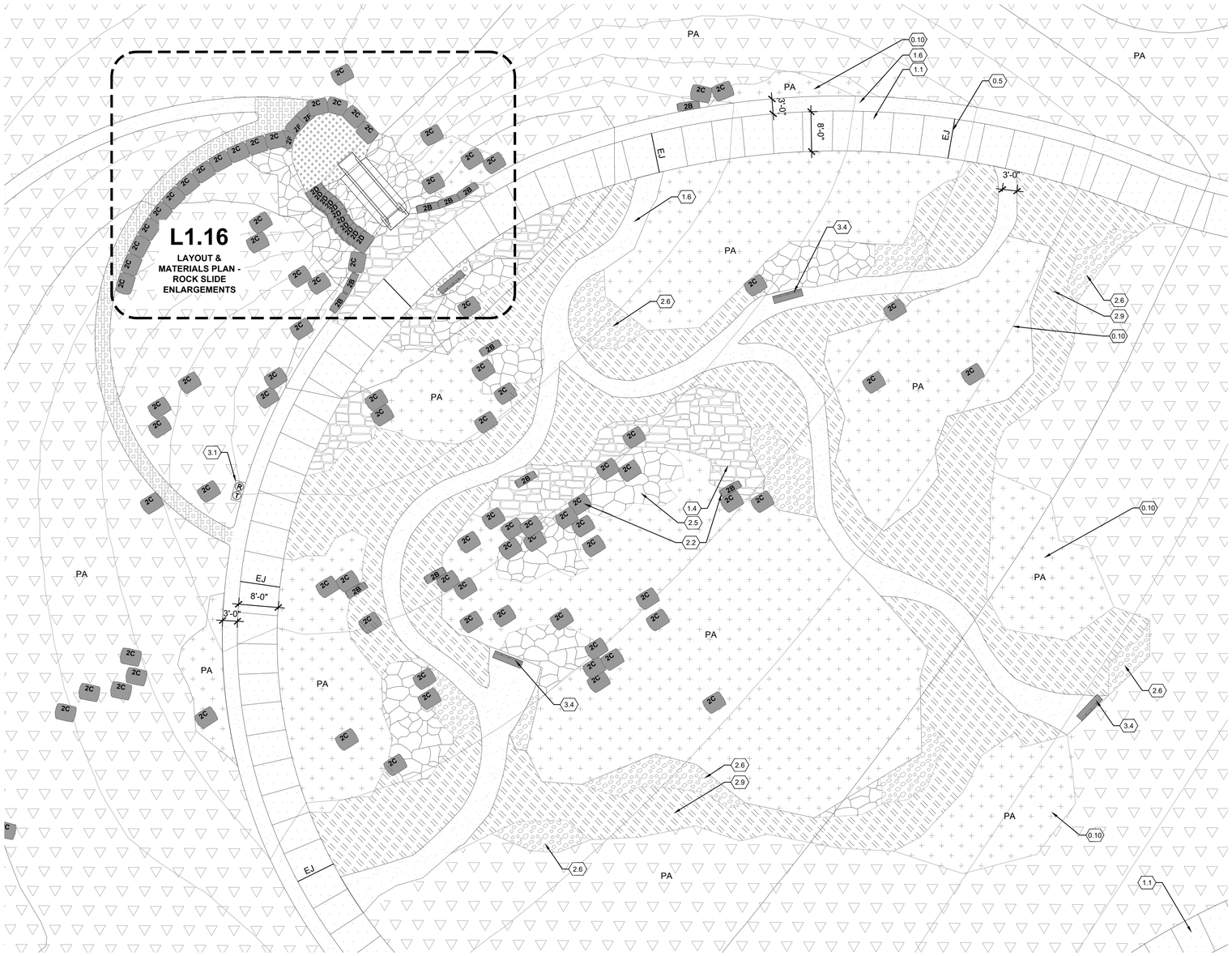
LAYOUT & MATERIALS PLAN - RESTROOM ENLARGEMENTS

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01 ***ALPINE AREA***
1"=10'-0"

0 2.5 5 10 FT

LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

L1.15 - LAYOUT & MATERIALS PLAN - ALPINE ENLARGEMENTS

SHEET:

L1.15

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LAYOUT AND MATERIALS LEGEND

	LEGEND	DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

	FURNISHINGS, FENCES, & SIGNAGE	DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

	LIGHTING / ELECTRICAL	DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

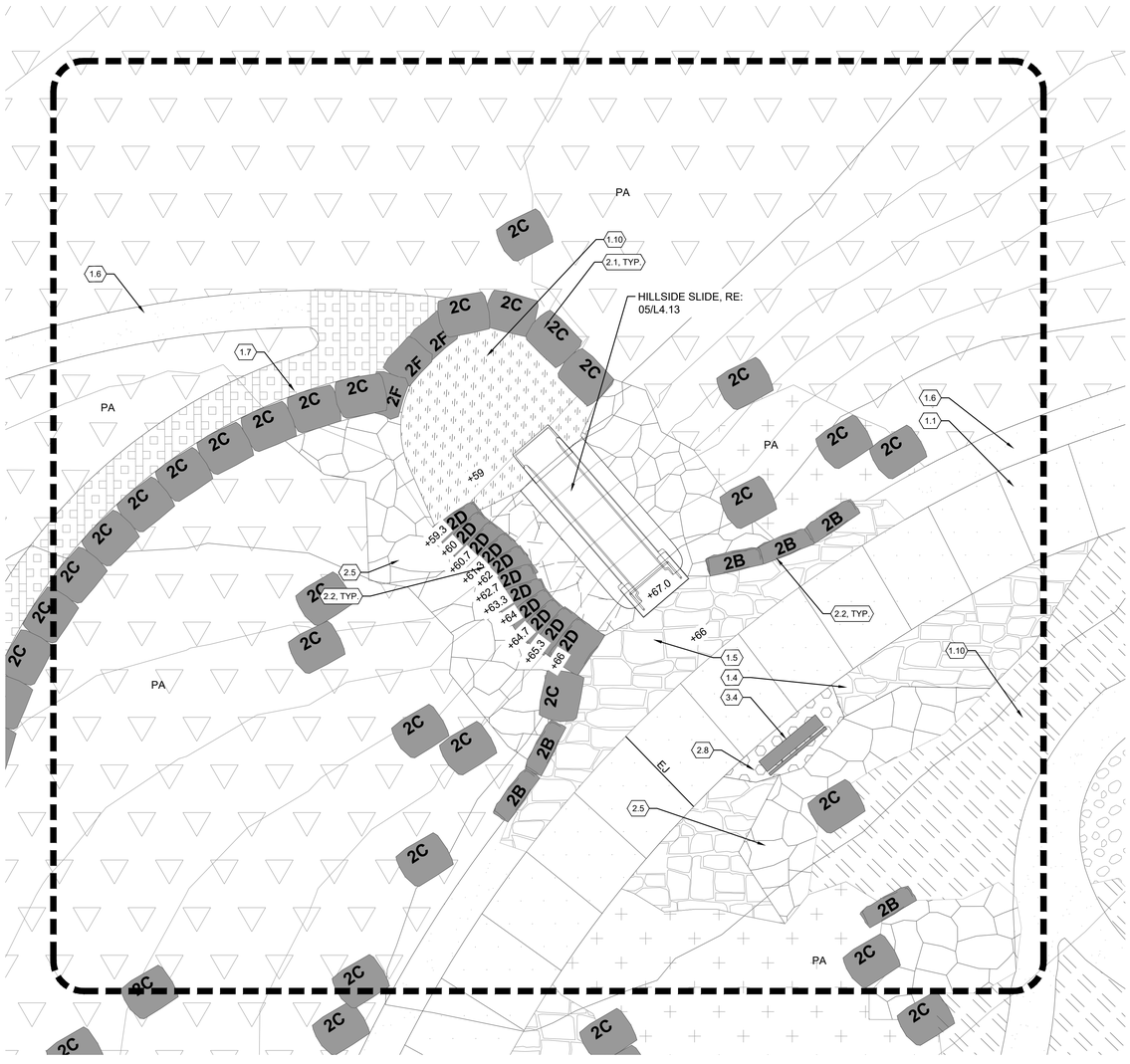
NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.

UTILITY LEGEND

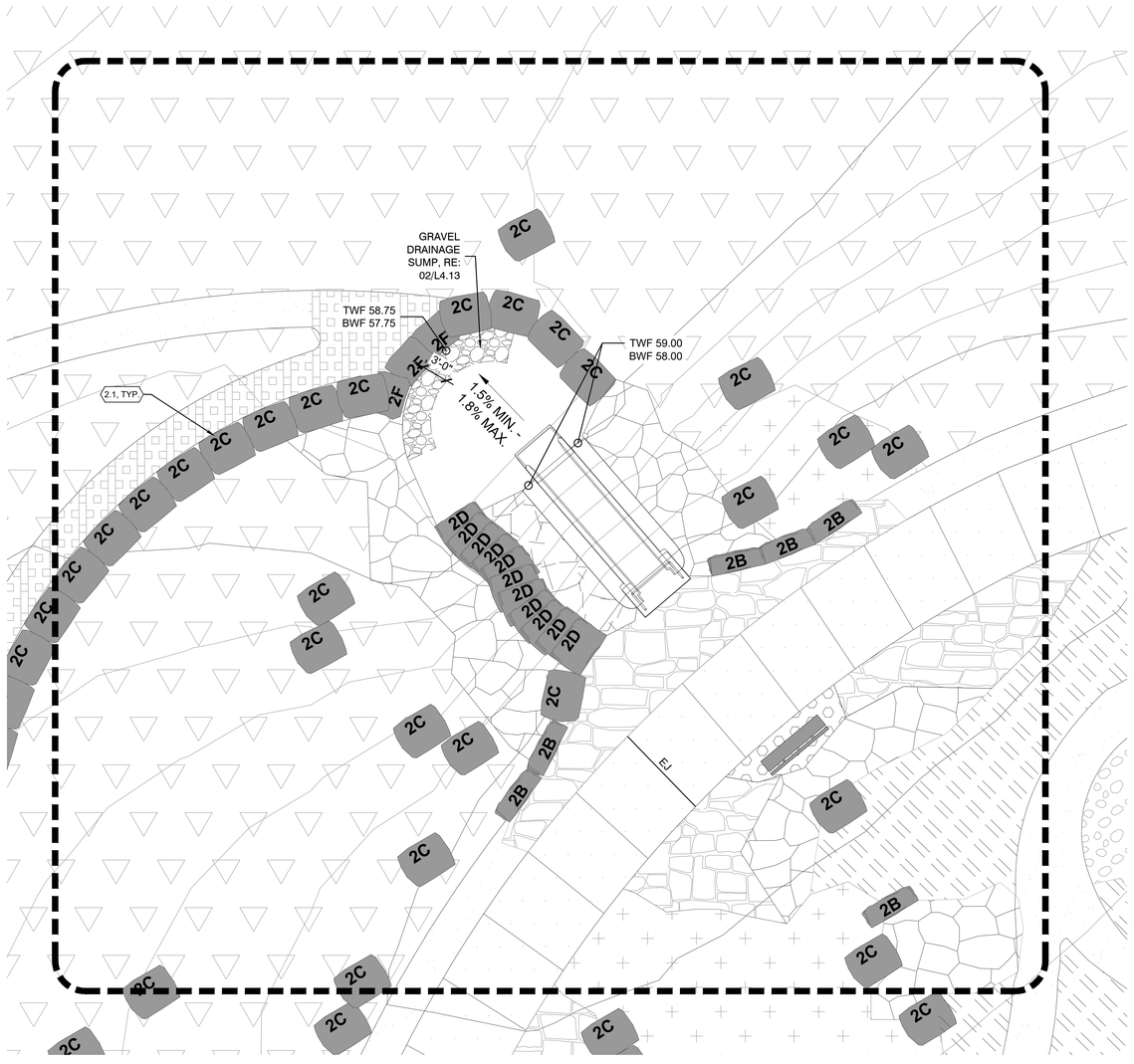
W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IR / RR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

SUBSURFACE GRADING LEGEND

	1' CONTOUR	
	TIE-IN	
FG 55.25	FINISH GRADE	
TWF 55.25	ELEVATION AT TOP OF ENGINEERED WOOD FIBER	
BWF 55.25	ELEVATION AT BOTTOM OF ENGINEERED WOOD FIBER	
TW 55.25	TOP OF WALL	
BW 55.25	BOTTOM OF WALL/FINISH GRADE	
BR 55.25	BOTTOM OF RAMP	
INV 55.25	INVERT ELEVATION	
BS 55.25	BOTTOM OF STEP/SLOPE	
TS 55.25	TOP OF STEP/SLOPE	
0.5% MIN.	SLOPE	
	GRAVEL DRAINAGE SUMP	RE: 02/L4.11



01 ROCK SLIDE
1"=5'-0"



02 SUBSURFACE GRADING PLAN - ROCK SLIDE
1"=5'-0"

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TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

LAYOUT & MATERIALS PLAN - ROCK SLIDE ENLARGEMENTS

SHEET:

L1.16

LAYOUT AND MATERIALS LEGEND

0.0 LEGEND		DETAIL
0.1	LIMIT OF DISTURBANCE	NA
0.2	PROPERTY LINE	NA
0.3	EASEMENT LINE	NA
0.4	SIGHT DISTANCE TRIANGLE	RE: CIVIL
EJ 0.5	EXPANSION JOINT	NA
0.6	SCORE JOINT	NA
DJ 0.7	DOWELED JOINT	02/L4.0
0.8	ROAD STRIPING	RE: CIVIL
0.9	FIRE HYDRANT	RE: CIVIL
0.10	CONTAINER PLANTING	NA
0.11	NATIVE SEED	NA
0.12	TURF	NA
E	EXISTING TREE TO REMAIN	NA

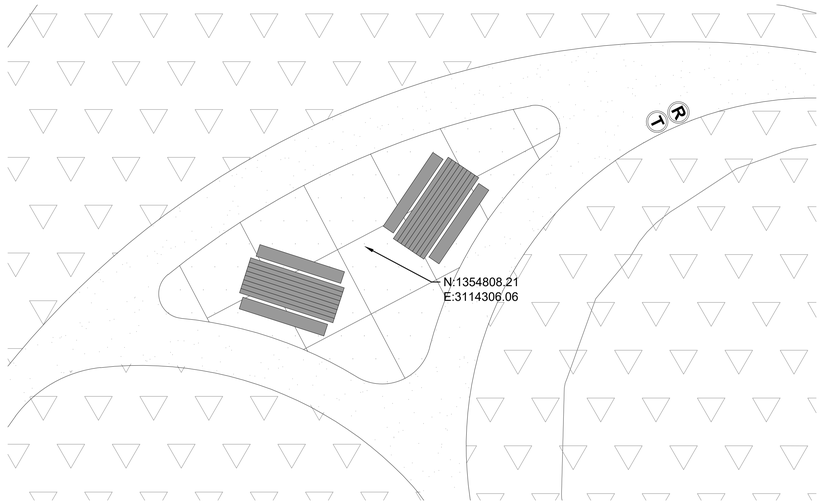
1.0 PAVEMENTS AND BANDS		DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

2.0 STONE		DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

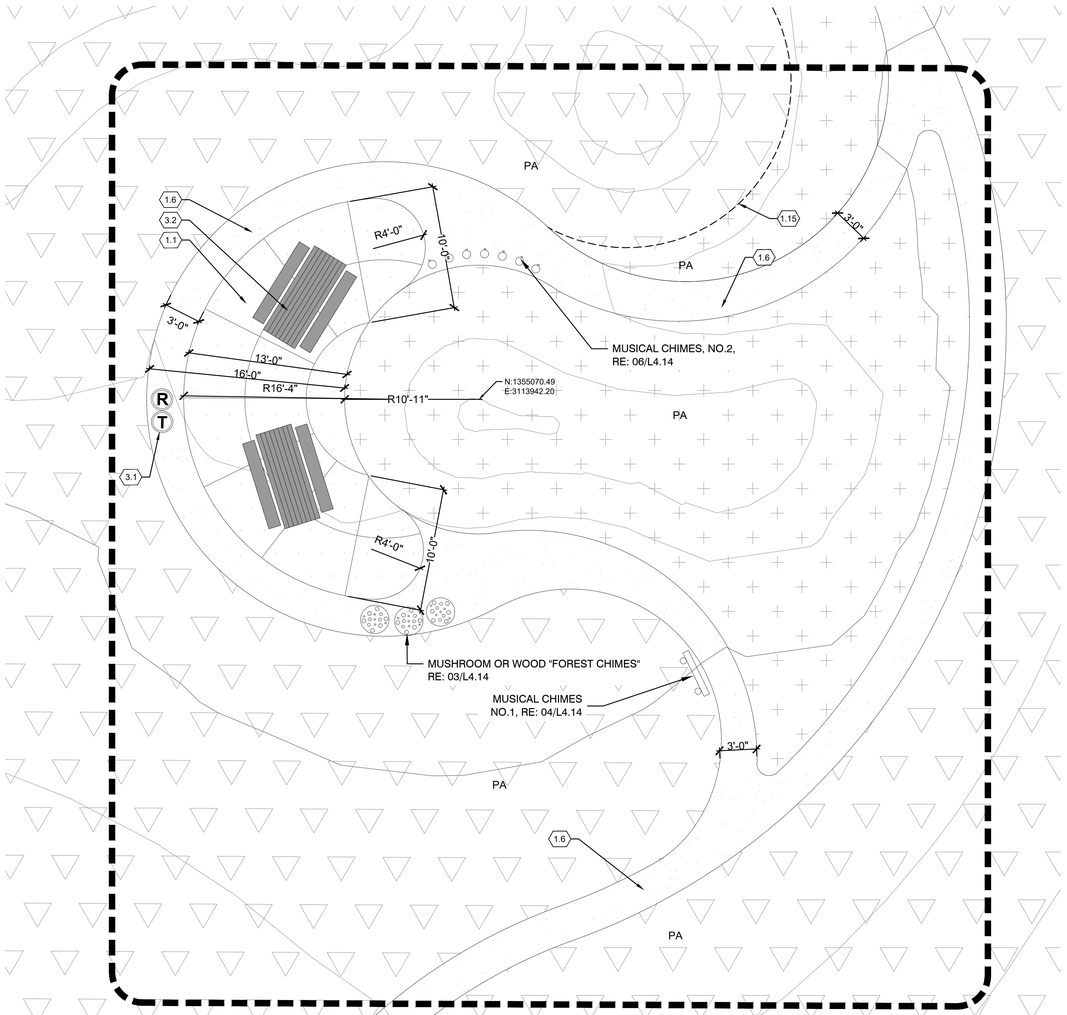
3.0 FURNISHINGS, FENCES, & SIGNAGE		DETAIL
3.1	LITTER/RECYCLING RECEPTACLE	01/L4.2
3.2	PICNIC TABLE & BENCH	04/L4.2
3.3	CAFE TABLE & CHAIRS	06/L4.2
3.4	BENCH	03/L4.2
3.5	BIKE RACK	02/L4.2
3.6	POST & RAIL FENCE	04/L4.3
3.7	METAL PICKET FENCE	01/L4.3
3.8	BOLLARD - REMOVABLE	07/L4.2
3.9	DOG WASTE STATION	05/L4.2

4.0 LIGHTING / ELECTRICAL		DETAIL
4.1	PARKING LOT POLE SINGLE	RE: ELEC
4.2	PARKING LOT POLE DOUBLE	RE:ELEC
4.3	PEDESTRIAN POLE	RE:ELEC
4.4	BOLLARD LIGHT	RE:ELEC
4.5	EXISTING LIGHTS TO REMAIN	RE: ELEC

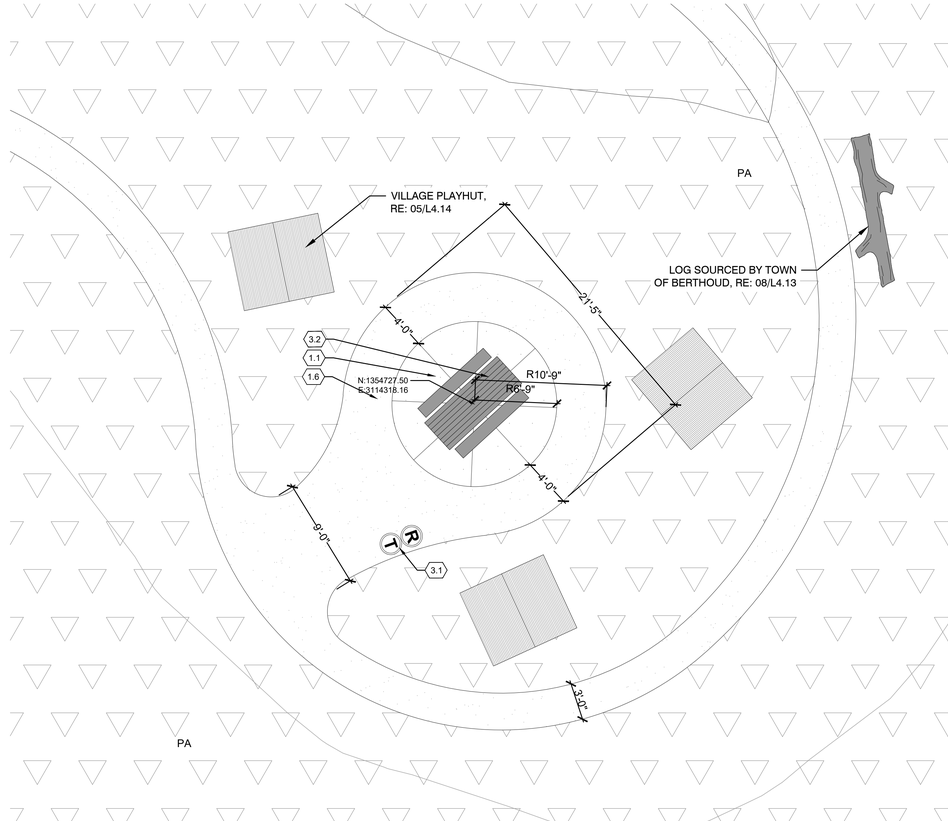
NOTES:
1. ALL MANHOLES, CLEANOUTS, AND DRAINAGE INLETS TO BE LOCATED COMPLETELY WITHIN CONCRETE PAVING OR PLANTING AREAS. MAINTAIN 2'-0" MINIMUM FROM EDGE OF CONCRETE PAVING.
2. OUTSIDE EDGE OF ALL SITE LIGHTING FOOTINGS IN PLANTING AREAS TO BE LOCATED 6" FROM THE EDGE OF PAVING.



03 PICNIC AREA
1"=5'-0"



01 MUSIC AREA
1"=5'-0"



02 VILLAGE
1"=5'-0"

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

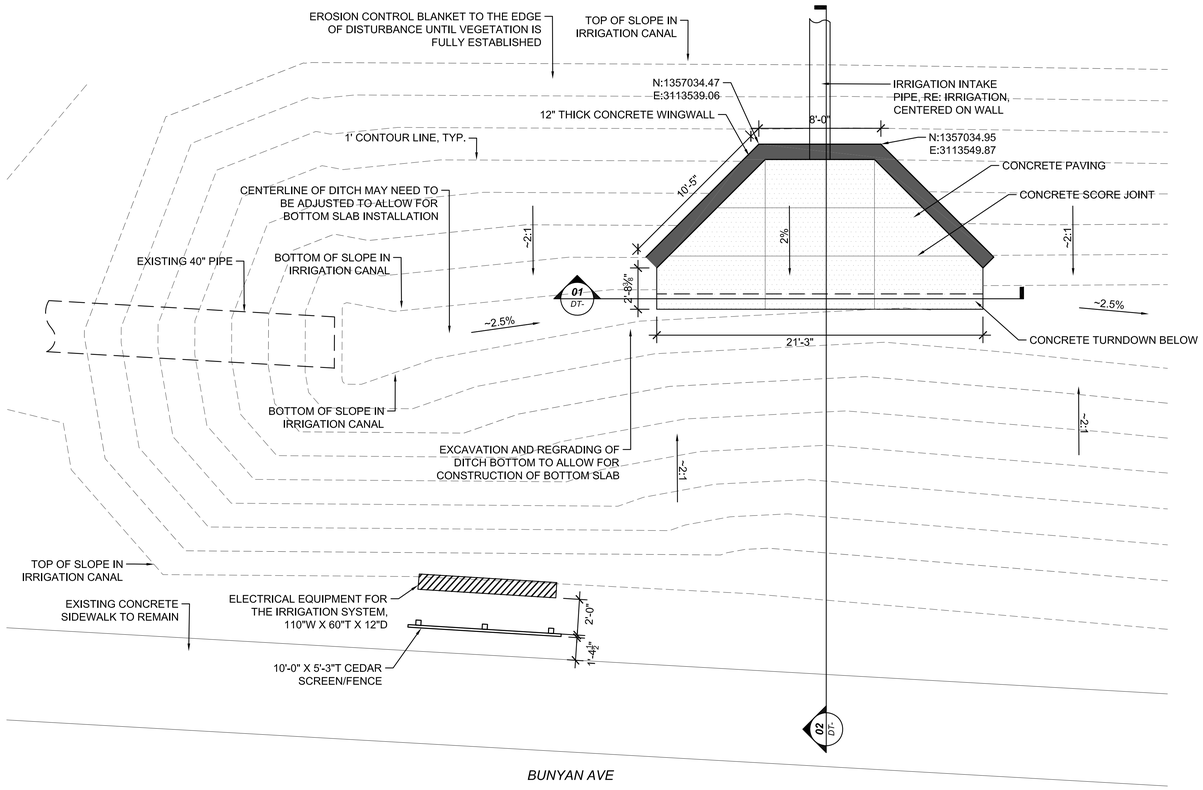
LAYOUT & MATERIALS PLAN - MUSIC AREA & VILLAGE ENLARGEMENTS

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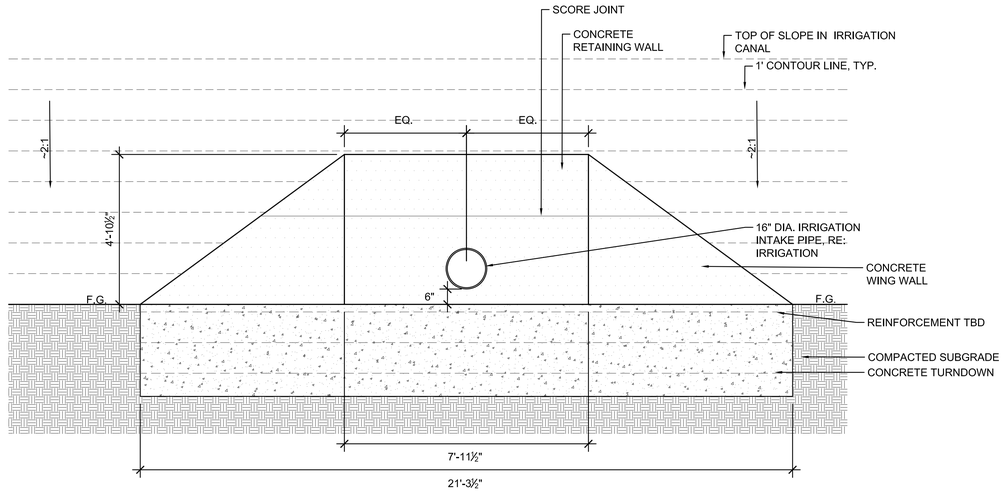
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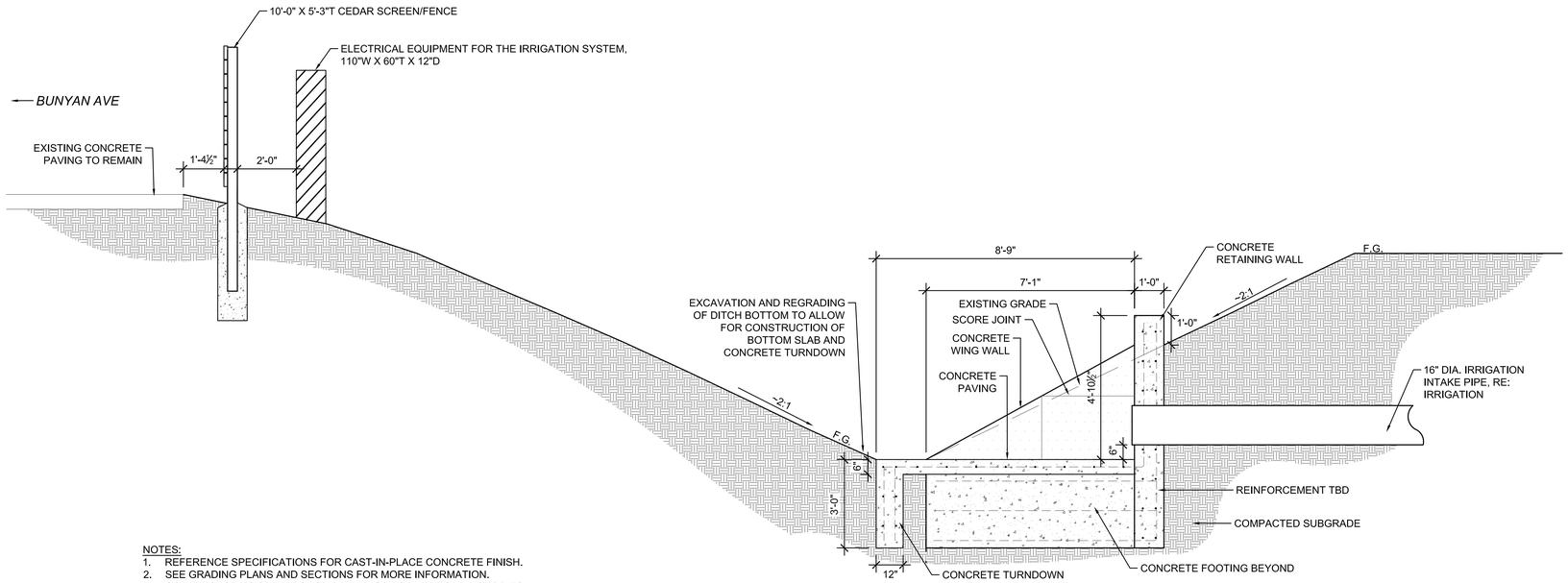
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01 IRRIGATION TURNOUT STRUCTURE PLAN
1"=1'-0"



02 IRRIGATION TURNOUT STRUCTURE SECTION 01
1"=1'-0"



NOTES:
1. REFERENCE SPECIFICATIONS FOR CAST-IN-PLACE CONCRETE FINISH.
2. SEE GRADING PLANS AND SECTIONS FOR MORE INFORMATION.
3. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.

03 IRRIGATION TURNOUT SECTION 02
1"=1'-0"

wenk
MARTIN/MARTIN CONSULTING ENGINEERS
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

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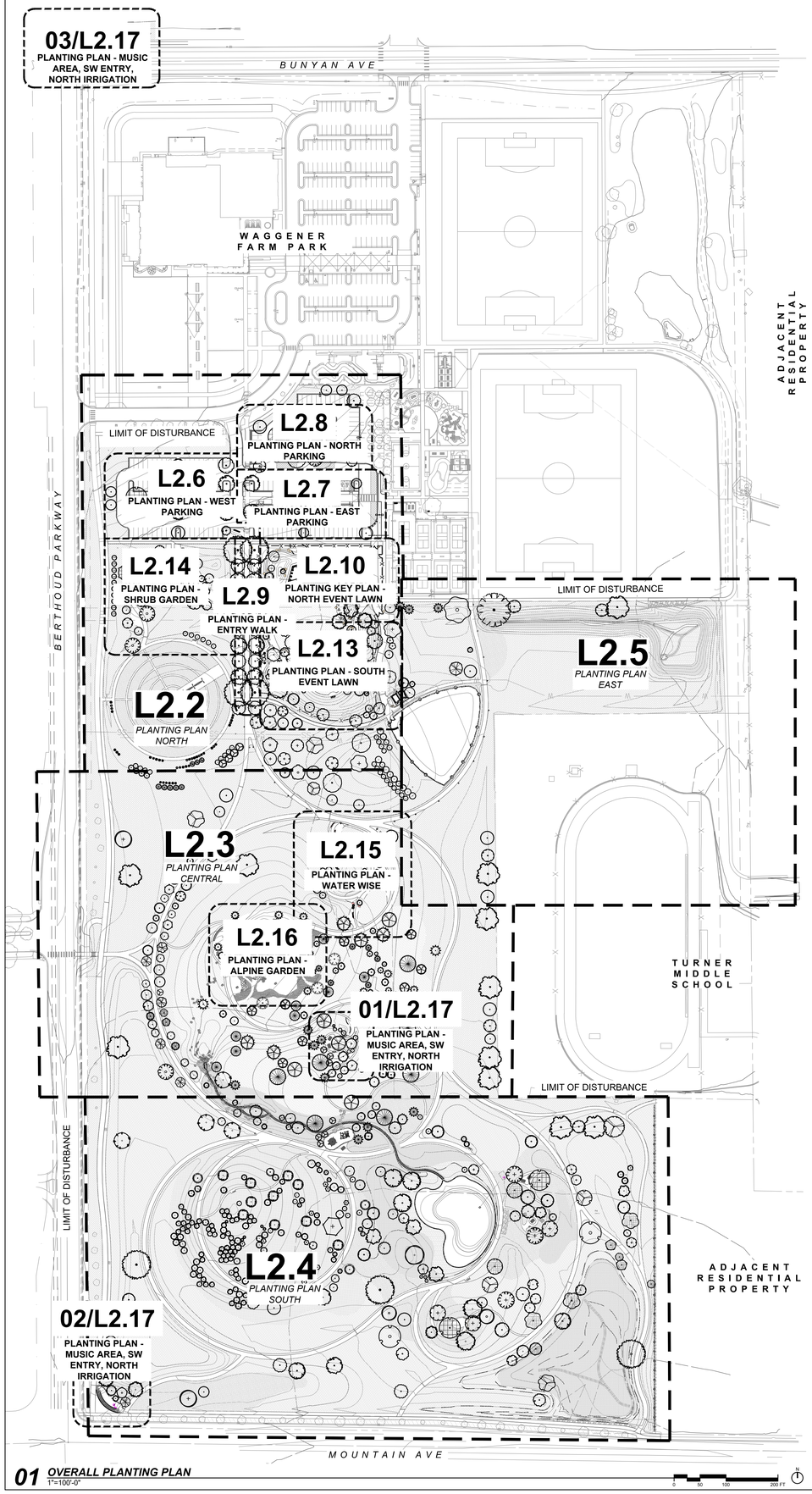
ADD ALTERNATIVE #1 IRRIGATION TURNOUT STRUCTURE

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01 ***OVERALL PLANTING PLAN***
1"=100'-0"

0 50 100 200 FT

N

PLANTING NOTES

1. THE CONTRACTOR SHALL SUPPLY ALL PLANTS IN QUANTITIES SUFFICIENT TO COMPLETE THE WORK SHOWN ON THE PLAN. SHOULD ANY DISCREPANCIES EXIST BETWEEN QUANTITIES SHOWN IN THE PLANT LIST AND THOSE SHOWN IN THE DRAWINGS, THE DRAWINGS SHALL TAKE PRECEDENCE.
2. ALL PLANT MATERIAL SHALL BE REVIEWED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. CONTRACTOR SHALL INSURE PLANT MATERIAL MEET THE SPECIFICATIONS OF THE AMERICAN STANDARDS FOR NURSERY STOCK (LATEST EDITION) AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
3. CONTRACTOR SHALL FURNISH PLANT MATERIALS FREE OF PESTS OR PLANT DISEASES. PRE-SELECTED OR "TAGGED" MATERIAL MUST BE INSPECTED BY THE CONTRACTOR AND CERTIFIED PEST AND DISEASE FREE. IT IS THE CONTRACTOR'S OBLIGATION TO WARRANTY ALL PLANT MATERIALS PER THE SPECIFICATIONS.
4. CONTRACTOR SHALL REVIEW TREE LAYOUT WITH OWNER'S REP. TO DETERMINE CONFLICTS OR INTERFERENCE PRIOR TO STAKING. CONTRACTOR SHALL STAKE PLANT LOCATIONS FOR THE REVIEW BY THE OWNER'S REPRESENTATIVE, PRIOR TO DIGGING PLANTING PITS. THE CONTRACTOR SHALL RELOCATE ANY PLANT AS DIRECTED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLANTING AT NO ADDITIONAL COST TO THE OWNER.
5. ALL LANDSCAPE AREAS SHALL BE COVERED WITH A MINIMUM OF 4 INCH DEPTH MULCH, UNLESS EROSION CONTROL FABRIC IS INSTALLED. SUBMIT MULCH SAMPLE TO LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
6. ANY LANDSCAPE AREAS BEYOND DISTURBED BY CONSTRUCTION OPERATIONS, NOT DIRECTED BY OWNER'S REPRESENTATIVE, SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
7. CONTAMINATION OF PLANTING MIX/TOPSOIL TO REMAIN DURING CONSTRUCTION WILL REQUIRE COMPLETE REPLACEMENT AT CONTRACTOR'S EXPENSE.
8. TREE TAG TYPE A TO BE INSTALLED ON ALL TREES. RE: SPECIFICATIONS FOR ADDITIONAL INFORMATION.
9. CONTRACTOR TO ASSUME TREE STAKING FOR TREE LOCATIONS. COORDINATING WITH LANDSCAPE ARCHITECT AND TOWN FORESTER REQUIRED.

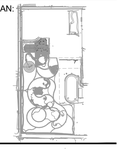
wenk
MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

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OVERALL PLANTING PLAN

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TREE SCHEDULE

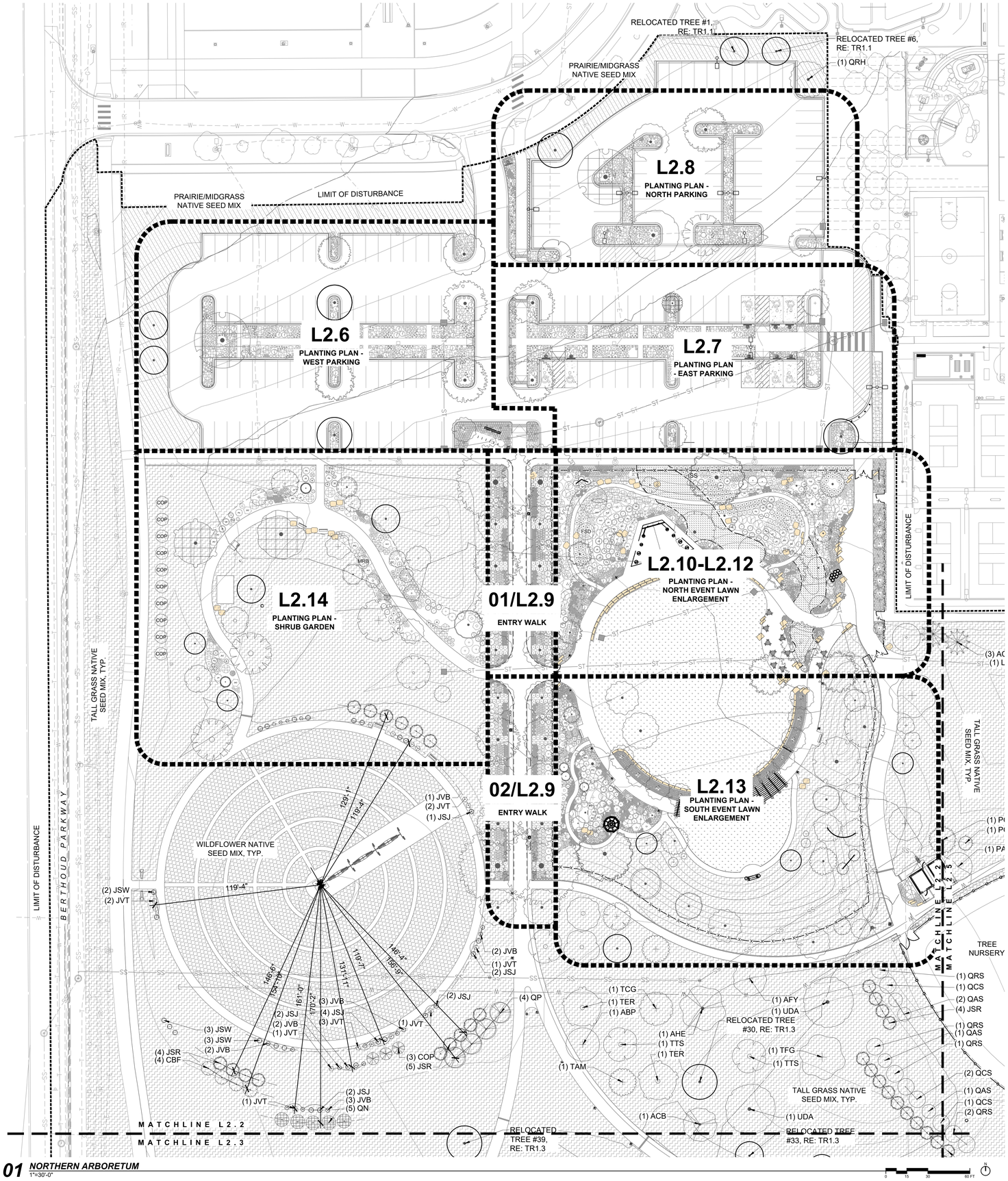
CODE	QTY	BOTANICAL / COMMON NAME	CONT
DECIDUOUS TREES			
AGR	3	ACER GLABRUM / ROCKY MOUNTAIN MAPLE	2.5" CAL
AGB	8	ACER GRANDIDENTATUM / BIGTOOTH MAPLE	2.5" CAL
AGS	2	ACER GRANDIDENTATUM 'SCHMIDT' / ROCKY MOUNTAIN GLOW® MAPLE	2.5" CAL
AGH	2	ACER GRANDIDENTATUM X SACCHARUM 'HIPZAM' / HIGHLAND PARK® MAPLE	2.5" CAL
AGP	3	ACER GRISEUM / PAPERBARK MAPLE	2.5" CAL
AMM	2	ACER MIYABEI 'MORTON' / STATE STREET™ MIYABE MAPLE	2.5" CAL
ANS	2	ACER NEGUNDO 'SENSATION' / SENSATION BOX ELDER	2.5" CAL
APF	2	ACER PLATANOIDES 'FAIRVIEW' / FAIRVIEW NORWAY MAPLE	2.5" CAL
ASC	8	ACER SACCHARUM 'CADDO' / CADDO SUGAR MAPLE	2.5" CAL
AGM	4	ACER TATARICUM 'GARANN' / HOT WINGS® TATARIAN MAPLE	2.5" CAL
ATF	1	ACER TRIFLORUM / THREE FLOWERED MAPLE	2.5" CAL
ATT	4	ALNUS INCANA TENUIFOLIA / THINLEAF ALDER	2.5" CAL
BOW	6	BETULA OCCIDENTALIS / WATER/ROCKY MOUNTAIN BIRCH	2.5" CAL
BPP	3	BETULA PAPYRIFERA / PAPER BIRCH	2.5" CAL
CBE	1	CARPINUS BETULUS / EUROPEAN HORNBEAM	2.5" CAL
CBF	4	CARPINUS BETULUS 'FRANS FONTAINE' / FRANS FONTAINE HORNBEAM	2.5" CAL
CHA	2	CARPINUS CAROLINIANA / AMERICAN HORNBEAM MULTI-TRUNK	2.5" CAL
CSC	2	CATALPA SPECIOSA / NORTHERN CATALPA	2.5" CAL
CJK	2	CERCIDIPHYLLUM JAPONICUM / KATSURA TREE	2.5" CAL
CMM	12	CERCOCARPUS MONTANUS / ALDERLEAF MOUNTAIN MAHOGANY	2.5" CAL
CTF	3	CORYLUS COLURNA / TURKISH FILBERT	2.5" CAL
FSD	1	FAGUS SYLVATICA 'DAWYCK PURPLE' / DAWYCK PURPLE EUROPEAN BEECH	2" CAL
FSP	1	FAGUS SYLVATICA 'PURPUREA TRICOLOR' / VARIEGATED EUROPEAN BEECH	2" CAL
FSR	1	FAGUS SYLVATICA 'RIVERSII' / RIVERS EUROPEAN BEECH	2.5" CAL
GBF	4	GINKGO BILOBA 'FAIRMOUNT' / FAIRMOUNT MAIDENHAIR TREE	2.5" CAL
GBP	1	GINKGO BILOBA 'PRINCETON SENTRY' / PRINCETON SENTRY GINKGO	2.5" CAL
LDE	4	LARIX DECIDUA / EUROPEAN LARCH	2.5" CAL
LKP	1	LARIX KAEMPFERI 'PENDULA' / WEEPING JAPANESE LARCH	2.5" CAL
LSL	5	LARIX SIBIRICA / SIBERIAN LARCH	2.5" CAL
PAM	1	PHELLODENDRON AMURENSE / CORKTREE	2.5" CAL
POA	1	PLATANUS OCCIDENTALIS / AMERICAN SYCAMORE	2.5" CAL
PAE	4	PLATANUS X ACERIFOLIA 'MORTON CIRCLE' / EXCLAMATION!™ LONDON PLANE TREE	2.5" CAL
PAN	1	POPULUS ANGUSTIFOLIA / NARROWLEAF COTTONWOOD	2" CAL
PDS	3	POPULUS DELTOIDES 'SIOUXLAND' / EASTERN COTTONWOOD SIOUXLAND	2" CAL
PDJ	11	POPULUS DELTOIDES MONILIFERA 'JERONIMUS' / JERONIMUS PLAINS COTTONWOOD	2" CAL
PRN	2	POPULUS DELTOIDES X NIGRA / HYBRID POPLAR	2.5" CAL
PTQ	7	POPULUS TREMULOIDES / QUAKING ASPEN	2" CAL
PTP	7	POPULUS TREMULOIDES 'NE ARB' / PRAIRIE GOLD® QUAKING ASPEN	2" CAL
PAX	5	POPULUS X ACUMINATA X SARGENTII 'HIGHLAND' / HIGHLAND COTTONWOOD	2" CAL
QAO	2	QUERCUS ACUTISSIMA / SAWTOOTH OAK	2.5" CAL
QBO	2	QUERCUS BICOLOR / SWAMP WHITE OAK	15 GAL
QBB	10	QUERCUS BUCKLEYI / BUCKLEY OAK	2.5" CAL
QGO	65	QUERCUS GAMBELII / GAMBEL OAK	6` CLUMP
QIS	2	QUERCUS IMBRICARIA / SHINGLE OAK	2.5" CAL
QMO	6	QUERCUS MACROCARPA 'BULLET PROOF' / BULLET PROOF BURR OAK	2.5" CAL
QMU	2	QUERCUS MACROCARPA 'JFS-KW3' / URBAN PINNACLE® OAK	2.5" CAL
QMC	1	QUERCUS MONTANA / CHESTNUT OAK	2.5" CAL
QCO	9	QUERCUS MUEHLENBERGII / CHINKAPIN OAK	2.5" CAL
QP	4	QUERCUS PALUSTRIS 'PRINGREEN' / GREEN PILLAR® PIN OAK	2.5" CAL
QRE	8	QUERCUS ROBUR / ENGLISH OAK	2.5" CAL
QRS	5	QUERCUS ROBUR 'FASTIGIATA' / SKYROCKET® ENGLISH OAK	2.5" CAL
QAS	4	QUERCUS ROBUR X ALBA 'JFS-KW1QX' / STREETSPIRE® OAK	2.5" CAL
QN	5	QUERCUS ROBUR X BICOLOR 'NADLER' / KINDRED SPIRIT® OAK	2.5" CAL
QRH	13	QUERCUS ROBUR X MACROCARPA 'CLEMONS' / HERITAGE® OAK	2.5" CAL
QSO	1	QUERCUS SHUMARDII / SHUMARD OAK	15 GAL
QUW	15	QUERCUS UNDULATA / WAVYLEAF OAK	2.5" CAL
QCS	4	QUERCUS X 'CRIMSCHMIDT' / CRIMSON SPIRE™ OAK	2.5" CAL
SAT	1	SALIX ALBA 'TRISTIS' / GOLDEN WEEPING WILLOW	2.5" CAL
SAV	1	SALIX ALBA VITELLINA / GOLDEN WILLOW	2.5" CAL
SAW	3	SALIX AMYGDALOIDES / PEACH LEAF WILLOW	6` CLUMP
SPW	3	SALIX DISCOLOR / PUSSY WILLOW	2.5" CAL
SHW	2	SALIX INTEGRA 'HAKURO-NISHIKI' / HAKURO-NISHIKI WILLOW (TREE FORM)	2.5" CAL
UDA	3	ULMUS DAVIDIANA JAPONICA 'MORTON' / ACCOLADE® ELM	2.5" CAL
UMG	2	ULMUS X 'MORTON GLOSSY' / TRIUMPH ELM	2.5" CAL
EVERGREEN TREES			
ACW	11	ABIES CONCOLOR / WHITE FIR	8`
ALS	6	ABIES LASIOCARPA / SUBALPINE FIR	8`
CLC	1	CEDRUS LIBANI / LEBANON CEDAR	8`
CIZ	2	CUPRESSUS ARIZONICA GLABRA 'BLUE ICE' / BLUE ICE ARIZONA CYPRESS	8`
HAC	11	HESPEROCYPARIS ARIZONICA 'CRYSTAL FROST' / ARIZONA CYPRESS 'CRYSTAL FROST'	8`
JSJ	13	JUNIPERUS CHINENSIS 'SPARTAN' / SPARTAN JUNIPER	8`
JMO	9	JUNIPERUS MONOSPERMA / ONESEED JUNIPER	8`
JOU	9	JUNIPERUS OSTEOSPERMA / UTAH JUNIPER	8`
JSR	35	JUNIPERUS SCOPULORUM / ROCKY MOUNTAIN JUNIPER	8`
JSS	8	JUNIPERUS SCOPULORUM 'SKYROCKET' / SKYROCKET JUNIPER	8`
JSW	21	JUNIPERUS SCOPULORUM 'WOODWARD' / WOODWARD COLUMNAR JUNIPER	8`
JVH	5	JUNIPERUS VIRGINIANA 'HILLSPIRE' / HILLSPIRE EASTERN REDCEDAR	8`
JVT	18	JUNIPERUS VIRGINIANA 'TAYLOR' / TAYLOR EASTERN REDCEDAR	8`
JVB	14	JUNIPERUS VIRGINIANA BLUE ARROW / BLUE ARROW EASTERN REDCEDAR	8`
MGD	3	METASEQUOIA GLYPTOSTROBOIDES / DAWN REDWOOD	8`
PAC	10	PICEA ABIES 'CUPRESSINA' / CUPRESSINA NORWAY SPRUCE	8`
PES	3	PICEA ENGELMANNII / ENGELMANN SPRUCE	8`
PGD	2	PICEA GLAUCA 'DENSATA' / BLACK HILLS WHITE SPRUCE	8`
PPW	7	PICEA GLAUCA 'PENDULA' / WEEPING WHITE SPRUCE	8`
PPS	6	PICEA PUNGENS / COLORADO SPRUCE	8`
PPF	5	PICEA PUNGENS 'GLAUCA FASTIGIATA' / COLUMNAR BLUE SPRUCE	8`
PGB	5	PICEA PUNGENS 'GLAUCA GLOBOSA' / DWARF GLOBE BLUE SPRUCE	8`
PPD	2	PICEA PUNGENS 'SESTER DWARF' / SESTER DWARF COLORADO SPRUCE	8`
PPC	8	PICEA PUNGENS GLAUCA / COLORADO BLUE SPRUCE	8`
PBE	5	PICEA PUNGENS GLAUCA 'BABY BLUE EYES' / BABY BLUE EYES COLORADO BLUE SPRUCE	8`
PGF	1	PICEA PUNGENS GLAUCA 'FAT ALBERT' / FAT ALBERT COLORADO BLUE SPRUCE	8`
PSH	3	PICEA PUNGENS GLAUCA 'HOOPSII' / HOOPSII BLUE SPRUCE	8`
PAB	7	PINUS ARISTATA / BRISTLECONE PINE	8`
PBL	3	PINUS BUNGEANA / LACEBARK PINE	8`
PCS	1	PINUS CEMBRA / SWISS STONE PINE	8`
PCL	8	PINUS CONTORTA LATIFOLIA / LODGEPOLE PINE	8`
PEP	11	PINUS EDULIS / PINYON PINE	8`
PFL	3	PINUS FLEXILIS / LIMBER PINE	8`
PFV	8	PINUS FLEXILIS 'VANDERWOLF'S PYRAMID' / VANDERWOLF'S PYRAMID LIMBER PINE	8`
PHB	2	PINUS HELDREICHII / BOSNIAN PINE	8`
PHE	3	PINUS HELDREICHII 'EMERALD ARROW' / EMERALD ARROW BOSNIAN PINE	8`
PMP	3	PINUS MONOPHYLLA / SINGLELEAF PIÑON PINE	8`
PMM	9	PINUS MUGO / MUGO PINE	8`
PNA	1	PINUS NIGRA / AUSTRIAN PINE	8`
PNS	2	PINUS NIGRA 'ARNOLD SENTINEL' / ARNOLD SENTINEL AUSTRIAN PINE	8`
PNO	6	PINUS NIGRA 'OREGON GREEN' / OREGON GREEN AUSTRIAN PINE	8`
PPP	4	PINUS PONDEROSA / PONDEROSA PINE	8`
PSS	6	PINUS STROBIFORMIS / SOUTHWESTERN WHITE PINE	8`
PSW	8	PINUS STROBUS / WHITE PINE	8`
PSP	8	PINUS SYLVESTRIS / SCOTCH PINE	8`
PMD	9	PSEUDOTSUGA MENZIESII / DOUGLAS FIR	8`
TDM	4	TAXODIUM DISTICHUM 'MICKELSON' / SHAWNEE BRAVE™ BALD CYPRESS	8`
FLOWERING TREES			
AFY	2	AESCULUS FLAVA / YELLOW BUCKEYE	2.5" CAL
AHE	3	AESCULUS HIPPOCASTANUM / EUROPEAN HORSECHESTNUT	2.5" CAL
APR	1	AESCULUS PAVIA / RED BUCKEYE	2.5" CAL
ABP	1	AESCULUS X 'BERGESON' / PRAIRIE TORCH® BUCKEYE	2.5" CAL
AAS	1	AESCULUS X ARNOLDIANA 'AUTUMN SPLENDOR' / AUTUMN SPLENDOR ARNOLD BUCKEYE	2.5" CAL
ACB	1	AESCULUS X CARNEA 'BRIOTII' / BRIOTII RED HORSECHESTNUT	2.5" CAL
ACF	1	AESCULUS X CARNEA 'FORT MCNAIR' / FORT MCNAIR RED HORSECHESTNUT	2.5" CAL
AAS	14	AMELANCHIER ALNIFOLIA / SASKATOON SERVICEBERRY	2.5" CAL
ACS	5	AMELANCHIER CANADENSIS / SHADBLOW SERVICEBERRY	2.5" CAL
ALA	3	AMELANCHIER LAEVIS / ALLEGHENY SERVICEBERRY	2.5" CAL
AUS	3	AMELANCHIER LAEVIS SPRING FLURRY / SPRING FLURRY ALLEGHENY SERVICEBERRY	2.5" CAL
AUU	1	AMELANCHIER UTAHENSIS / UTAH SERVICEBERRY	2.5" CAL
AGA	4	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY	2.5" CAL
AAB	12	AMELANCHIER X GRANDIFLORA 'AUTUMN BRILLIANCE' / AUTUMN BRILLIANCE APPLE SERVICEBERRY MS	6` CLUMP
CCC	1	CATALPA OVATA / CHINESE CATALPA	2.5" CAL
CSN	4	CATALPA SPECIOSA / NORTHERN CATALPA	2.5" CAL
CSH	1	CATALPA SPECIOSA 'HIAWATHA 2' / HEARTLAND® NORTHERN CATALPA	2.5" CAL
CEP	1	CATALPA X ERUBESCENS 'PURPUREA' / PURPLE HYBRID CATALPA	2.5" CAL
COC	2	CELTIS OCCIDENTALIS 'CHICAGOLAND' / CHICAGOLAND HACKBERRY	2.5" CAL
CCP	3	CELTIS OCCIDENTALIS 'JFS-KSU1' / PRAIRIE SENTINEL® HACKBERRY	15 GAL
CCE	3	CERCIS CANADENSIS / EASTERN REDBUD	2.5" CAL
CAR	2	CERCIS CANADENSIS 'ALBA' / WHITE EASTERN REDBUD	2.5" CAL
CCL	1	CERCIS CANADENSIS 'COVEY' / LAVENDER TWIST® EASTERN REDBUD	2.5" CAL
CCF	7	CERCIS CANADENSIS 'FOREST PANSY' / FOREST PANSY EASTERN REDBUD	2.5" CAL
CCH	2	CERCIS CANADENSIS 'HEARTS OF GOLD' / HEARTS OF GOLD EASTERN REDBUD	6` CLUMP
CKY	5	CLADRASTIS KENTUKEA / AMERICAN YELLOWWOOD	2.5" CAL
CJS	1	CORNUS CONTROVERSA 'JUNE SNOW-JFS' / JUNE SNOW™ GIANT DOGWOOD	2.5" CAL
CMC	1	CORNUS MAS 'GOLDEN GLORY' / GOLDEN GLORY CORNELIAN CHERRY	6` CLUMP
CAH	3	CRATAEGUS AMBIGUA / RUSSIAN HAWTHORN	2.5" CAL
CH	1	CRATAEGUS CRUS-GALLI 'CRUZAM' / CRUSADER® COCKSPUR HAWTHORN	2.5" CAL
CGI	3	CRATAEGUS CRUS-GALLI INERMIS / THORNLESS COCKSPUR HAWTHORN	2.5" CAL
CDD	1	CRATAEGUS DOUGLASII / DOUGLAS HAWTHORN	6` CLUMP
CPW	1	CRATAEGUS PHAENOPYRUM / WASHINGTON HAWTHORN	2.5" CAL
CRH	3	CRATAEGUS RIVULARIS / RIVER HAWTHORN	6` CLUMP
CVW	1	CRATAEGUS VIRIDIS 'WINTER KING' / WINTER KING HAWTHORN	6` CLUMP
CMH	1	CRATAEGUS X MORDENENSIS 'TOBA' / TOBA HAWTHORN	2.5" CAL
GTN	1	GLEDITSIA TRIACANTHOS INERMIS 'HARVE' / NORTHERN ACCLAIM® HONEY LOCUST	2.5" CAL
GTI	2	GLEDITSIA TRIACANTHOS INERMIS 'IMPCOLE' / IMPERIAL® HONEY LOCUST	2.5" CAL
GTS	2	GLEDITSIA TRIACANTHOS INERMIS 'SKYLINE' / SKYLINE HONEY LOCUST	2.5" CAL
GTL	3	GLEDITSIA TRIACANTHOS INERMIS'SHADEMASTER' / THORNLESS HONEY LOCUST - 'SHADEMASTER'	2.5" CAL
GDK	4	GYMNOCLADUS DIOICUS / KENTUCKY COFFEETREE	2.5" CAL
GDP	2	GYMNOCLADUS DIOICUS 'J.C. MCDANIEL' / PRAIRIE TITAN® KENTUCKY COFFEETREE	2.5" CAL
GDD	2	GYMNOCLADUS DIOICUS 'MCKBRANCHED' / DECAF® KENTUCKY COFFEETREE	2.5" CAL
GDA	2	GYMNOCLADUS DIOICUS 'MORTON' / SKINNY LATTE™ KENTUCKY COFFEETREE	2.5" CAL
HMS	4	HEPTACODIUM MICONIOIDES / SEVEN SON FLOWER	2.5" CAL
KPG	2	KOELREUTERIA PANICULATA / GOLDEN RAIN TREE	2.5" CAL
LTT	1	LIRIODENDRON TULIPIFERA / TULIP POPLAR	2.5" CAL
LTF	2	LIRIODENDRON TULIPIFERA 'FASTIGIATA' / COLUMNAR TULIP POPLAR	2.5" CAL
LTE	1	LIRIODENDRON TULIPIFERA 'JFS-OZ' / EMERALD CITY® TULIP POPLAR	2.5" CAL
MAA	2	MAACKIA AMURENSIS / AMUR MAACKIA	2.5" CAL
MSR	1	MAGNOLIA STELLATA 'ROYAL STAR' / ROYAL STAR MAGNOLIA	6` CLUMP
MMS	1	MAGNOLIA X 'SUSAN' / SUSAN MAGNOLIA	6` CLUMP
MDC	1	MALUS X 'DOLGO' / DOLGO CRABAPPLE	2.5" CAL
MIC	1	MALUS X 'INDIAN MAGIC' / INDIAN MAGIC CRABAPPLE	2.5" CAL
MPC	1	MALUS X 'PRAIRIE ROSE' / PRAIRIE ROSE CRABAPPLE	2.5" CAL
MRC	1	MALUS X 'RADIANT' / RADIANT CRABAPPLE	2.5" CAL
MRB	1	MALUS X 'RED BARRON' / RED BARRON CRABAPPLE	2.5" CAL
MRR	1	MALUS X 'ROYAL RAINDROPS' / ROYAL RAINDROPS CRABAPPLE	2.5" CAL
MSC	1	MALUS X 'SARGENTII' / SARGENT CRABAPPLE	2.5" CAL
MTT	1	MALUS X 'THUNDERCHILD' / THUNDERCHILD CRABAPPLE	6` CLUMP
MAK	1	MORUS ALBA 'KINGAN' / KINGAN FRUITLESS MULBERRY	2.5" CAL
OVA	1	OSTRYA VIRGINIANA / AMERICAN HOPHORNBEAM	2.5" CAL
PNK	2	PRUNUS NIGRA 'PRINCESS KAY' / PRINCESS KAY PLUM	2.5" CAL
PPB	4	PRUNUS PADUS / EUROPEAN BIRDCHERRY	2.5" CAL
PVW	4	PRUNUS VIRGINIANA MELANOCARPA / WESTERN CHOKECHERRY	1 GAL
PVM	1	PRUNUS X 'FRANKTHREES' / MT. ST. HELENS® FLOWERING PLUM	2.5" CAL
PVP	11	PRUNUS X 'P002S' / SUCKER PUNCH® CHOKECHERRY	2.5" CAL
PTH	5	PTELEA TRIFOLIATA / COMMON HOPTREE	2.5" CAL
PCB	1	PYRUS CALLERYANA 'AUTUMN BLAZE' / AUTUMN BLAZE CALLERY PEAR	2.5" CAL
PCR	1	PYRUS CALLERYANA 'REDSPIRE' / REDSPIRE CALLERY PEAR	2.5" CAL
SAM	1	SORBUS AUCUPARIA 'MICHRED' / CARDINAL ROYAL® MOUNTAIN ASH	2.5" CAL
SJJ	1	STYPHNOLOBIUM JAPONICUM / JAPANESE PAGODA TREE	2.5" CAL
SPM	1	SYRINGA PEKINENSIS 'MORTON' / CHINA SNOW® PEKING LILAC	6` CLUMP
SRI	4	SYRINGA RETICULATA 'IVORY SILK' / IVORY SILK JAPANESE TREE LILAC	2.5" CAL
TAM	2	TILIA AMERICANA 'MCKSENTRY' / AMERICAN SENTRY® LINDEN	2.5" CAL
TCG	1	TILIA CORDATA 'PNI 6025' / GREENSPIRE™ LITTLELEAF LINDEN	2.5" CAL
TCH	1	TILIA CORDATA X MONGOLICA 'HARVEST GOLD' / HARVEST GOLD LINDEN	2.5" CAL
TTS	6	TILIA TOMENTOSA 'WANDELL' / STERLING SILVER LINDEN	2.5" CAL
TER	2	TILIA X EUCHLORA 'REDMOND' / REDMOND CRIMEAN LINDEN	2.5" CAL
TFG	2	TILIA X FLAVESCENS 'GLENLEVEN' / GLENLEVEN LINDEN	2.5" CAL
XSP	2	XANTHOCERAS SORBIFOLIUM 'PSGAN' / CLEAR CREEK GOLDEN YELLOWHORN	2.5" CAL
VINES			
CM2	6	CAMPSIS X TAGLIABUANA 'MADAME GALEN' / MADAME GALEN TRUMPET VINE	1 GAL
LK	4	LONICERA RETICULATA X PROLIFERA 'KINTZLEY'S GHOST' / KINTZLEY'S GHOST HONEYSUCKLE	1 GAL
LS	10	LONICERA SEMPERVIRENS 'MAGNIFICA' / MAGNIFICA TRUMPET HONEYSUCKLE	1 GAL
LG	10	LONICERA X HECKROTTII 'GOLD FLAME' / GOLD FLAME HONEYSUCKLE	1 GAL
WS	2	WISTERIA SINENSIS / CHINESE WISTERIA	1 GAL

UNDERSTORY SCHEDULE

PLANT SCHEDULE			
CODE	QTY	BOTANICAL / COMMON NAME	SIZE
SHRUBS			
Pb2	3	PHYSOCARPUS OPULIFOLIUS 'MONLO' / DIABOLO® NINEBARK	5 GAL
BULBS			
Tt2	14	TULIPA CLUSIANA 'TUBERGEN'S GEM' / TUBERGEN'S GEM LADY TULIP	BULB
Tt	251	TULIPA TURKESTANICA / TULIP	BULB
Tx	67	TULIPA X 'CATHERINA' / CATHERINA TULIP	BULB
CACTI / SUCCULENTS			
AN	21	AGAVE NEOMEXICANA / NEW MEXICO AGAVE	1 GAL
AA	7	AGAVE PARRYI TRUNCATA / ARTICHOKE PARRY'S AGAVE	1 GAL
Ci	1	CYLINDROPUNTIA IMBRICATA / TREE CHOLLA	5 GAL
WW	5	CYLINDROPUNTIA WHIPPLEI / WHIPPLE CHOLLA	5 GAL
EV	15	ECHINOCEREUS TRIGLOCHIDIATUS / GREEN-FLOWERED HEDGEHOG CACTUS	F15
ET	14	ECHINOCEREUS TRIGLOCHIDIATUS / CLARET CUP CACTUS	F15
HP	7	HESPERALOE PARVIFLORA / RED YUCCA	1 GAL
OB	9	OPUNTIA BASILARIS / BEAVERTAIL PRICKLY PEAR	1 GAL
OC	9	OPUNTIA POLYACANTHA 'CITRUS PUNCH' / CITRUS PUNCH PRICKLY PEAR	F15
OP	23	OPUNTIA POLYACANTHA 'PETER PAN' / PETER PAN PLAINS PRICKLY PEAR	F15
PF	14	PEDIOCACTUS SIMPSONII / SIMPSON'S FOOT CACTUS	F15
SB	14	SEMPERVIVUM X 'RED BEAUTY' / HEN-AND-CHICKS	F15
YB	4	YUCCA BACCATA / BANANA YUCCA	1 GAL
YG	4	YUCCA GLAUCA / SOAPWEED	1 GAL
DECIDUOUS SHRUBS			
Ar3	9	AMELANCHIER ALNIFOLIA 'REGENT' / REGENT SERVICEBERRY	5 GAL
AB	24	ARCTOSTAPHYLOS X COLORADENSIS 'CHIEFTAIN' / CHIEFTAIN MOCK BEARBERRY MANZANITA	5 GAL
AR	37	ARTEMISIA ARBROTANUM 'LEPRECHAUN' / LEPRECHAUN SOUTHERNWOOD	5 GAL
AO	37	ARTEMISIA FILIFOLIA / SAND SAGEBRUSH	1 GAL
AF	220	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
CF	20	CEANOTHUS FENDLERI / FENDLER'S CEANOTHUS	5 GAL
CM	8	CHAMAEBATIARIA MILLEFOLIUM / FERNBUSH	5 GAL
Cb2	17	CORNUS ALBA 'BUD'S YELLOW' / BUD'S YELLOW TATARIAN DOGWOOD	5 GAL
Ck	154	CORNUS SERICEA 'KELSEY'S DWARF' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
Cr	3	COTONEASTER RACEMIFLORUS SOONGORICUS / SUNGARI REDBEAD COTONEASTER	5 GAL
EP	16	ENGELMANNIA PERISTENIA / ENGELMANN'S DAISY	5 GAL
EA	12	EPHEDRA ANTISYPHILITICA / MORMON TEA	5 GAL
EN	145	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
EW	14	ERIOGONUM WRIGHTII WRIGHTII / WRIGHT'S BUCKWHEAT	5 GAL
En2	13	EUONYMUS NANUS TURKESTANICUS / TURKESTAN BURNING BUSH	5 GAL
AP	7	FALLUGIA PARADOXA / APACHE PLUME	5 GAL
FL	35	FORSYTHIA X INTERMEDIA 'LYNWOOD GOLD' / LYNWOOD GOLD FORSYTHIA	5 GAL
HD	5	HOLODISCUS DUMOSUS / ROCK SPIREA	5 GAL
Mr2	135	MAHONIA REPENS / CREEPING MAHONIA	1 GAL
PC	8	PHILADELPHUS LEWISII 'PWY01S' / CHEYENNE® MOCK ORANGE	5 GAL
Pd3	100	PHILADELPHUS X VIRGINALIS 'DWARF SNOWFLAKE' / DWARF SNOWFLAKE MOCKORANGE	5 GAL
Px	100	PHILADELPHUS X VIRGINALIS 'SNOWBELLE' / SNOWBELLE MOCK ORANGE	5 GAL
Pn3	20	PHYSOCARPUS OPULIFOLIUS / NINEBARK	5 GAL
Pd4	152	POTENTILLA FRUTICOSA 'GOLD DROP' / GOLD DROP BUSH CINQUEFOIL	5 GAL
PP	140	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
Rc2	3	RHODODENDRON X 'CUNNINGHAM'S WHITE' / CUNNINGHAM'S WHITE RHODODENDRON	5 GAL
Rg2	103	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
RGS	49	RHUS GLABRA / SMOOTH SUMAC	1 GAL
Ra	54	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	5 GAL
RG3	4	RIBES AUREUM / GOLDEN CURRANT	5 GAL
RC3	5	RIBES CEREUM / WAX CURRANT	5 GAL
Rp	17	RIBES X 'PIXWELL' / PIXWELL GOOSEBERRY	5 GAL
Rb	4	ROSA RUGOSA 'BLANC DOUBLE DE COUBERT' / BLANC DOUBLE DE COUBERT ROSE	5 GAL
RW	15	ROSA WOODSII / WOODS' ROSE	5 GAL
Ri	7	ROSA X 'KORBIN' / ICEBERG FLORIBUNDA ROSE	5 GAL
Rn	6	ROSA X 'NOASCHNEE' / FLOWER CARPET® WHITE GROUNDCOVER ROSE	5 GAL
Rb2	4	ROSA X 'PROBRIL' / BRILLIANT PINK ICEBERG ROSE	5 GAL
SL	28	SALVIA ARGENTEA / SILVER SAGE	5 GAL
Se	8	SAMBUCUS CANADENSIS / AMERICAN ELDERBERRY	5 GAL
Sa2	10	SPIRAEA JAPONICA 'ALBIFLORA' / WHITE JAPANESE SPIREA	5 GAL
Sn	45	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA	5 GAL
SS	1	SPIRAEA SORBIFOLIA / FALSE SPIREA	5 GAL
SM3	5	SPIRAEA THUNBERGII 'OGON' / MELLOW YELLOW™ SPIREA	5 GAL
SO2	12	SPIRAEA X 'NCSX2' / DOUBLE PLAY DOOZIE® SPIREA	1 GAL
SO2	32	SYMPHORICARPOS OCCIDENTALIS / WESTERN SNOWBERRY	5 GAL
SO3	26	SYMPHORICARPOS ORBICULATUS / CORALBERRY	5 GAL
Sm5	32	SYMPHORICARPOS X DOORENBOSII 'MAGIC BERRY' / MAGIC BERRY SNOWBERRY	5 GAL
Sm2	45	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	5 GAL
SS3	3	SYRINGA PUBESCENS MICROPHYLLA 'CHEYENNE' / PINK ON REPEAT™ LILAC	5 GAL
SW	11	SYRINGA VULGARIS 'WEDGEWOOD BLUE' / WEDGEWOOD BLUE LILAC	5 GAL
SX	3	SYRINGA X 'BAILBRIDGET' / FIRST EDITIONS® VIRTUAL VIOLET® LILAC	5 GAL
Vd	2	VIBURNUM DENTATUM 'ARROWWOOD' / ARROWWOOD VIBURNUM	5 GAL

UNDERSTORY SCHEDULE

VM2	5	VIBURNUM DENTATUM 'BLUE MUFFIN' / BLUE MUFFIN ARROWWOOD VIBURNUM	1 GAL
VC	3	VIBURNUM OPULUS 'COMPACTUM' / COMPACT EUROPEAN CRANBERRYBUSH	5 GAL
Vb	1	VIBURNUM PRUNIFOLIUM / BLACKHAW VIBURNUM	5 GAL
WR	6	WEIGELA FLORIDA 'RED PRINCE' / RED PRINCE WEIGELA	5 GAL
WH	5	WEIGELA FLORIDA 'SMNWFMS' / MIDNIGHT WINE SHINE® WEIGELA	5 GAL
EVERGREEN SHRUBS			
JH	12	JUNIPERUS CHINENSIS 'HOLBERT' / HOLBERT JUNIPER	5 GAL
Jm	5	JUNIPERUS COMMUNIS 'MONDAP' / ALPINE CARPET® COMMON JUNIPER	5 GAL
Jw	19	JUNIPERUS HORIZONTALIS 'WILTONII' / BLUE RUG JUNIPER	5 GAL
JB2	17	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	5 GAL
Jb	21	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	5 GAL
JO	31	JUNIPERUS X MEDIA 'OLD GOLD' / OLD GOLD JUNIPER	5 GAL
JS	17	JUNIPERUS X MEDIA 'SEA GREEN' / SEA GREEN JUNIPER	5 GAL
PN2	3	PICEA ABIES 'NIDIFORMIS' / BIRD'S NEST NORWAY SPRUCE	5 GAL
PP4	2	PICEA ABIES 'PENDULA' / WEEPING NORWAY SPRUCE	5 GAL
Pg	5	PICEA PUNGENS 'GLAUCA GLOBOSA' / BLUE GLOBE COLORADO SPRUCE	5 GAL
PU	4	PINUS BANKSIANA 'UNCLE FOGY' / UNCLE FOGY JACK PINE	5 GAL
Pb	7	PINUS MUGO 'BIG TUNA' / BIG TUNA MUGO PINE	5 GAL
PJ	4	PINUS MUGO 'JAKOBSEN' / JAKOBSEN MUGO PINE	5 GAL
PO	6	PINUS MUGO 'LAARHEIDE' / LAARHEIDE GOLDEN MUGO PINE	5 GAL
HC	3	PINUS SYLVESTRIS 'HILLSIDE CREEPER' / HILLSIDE CREEPER SCOTCH PINE	5 GAL
Td2	3	TAXUS X MEDIA 'DENSIFORMIS' / DENSE ANG



01 ***NORTHERN ARBORETUM***
1"=30'-0"

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
MH	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - NORTH

SHEET:

L2.2

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PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

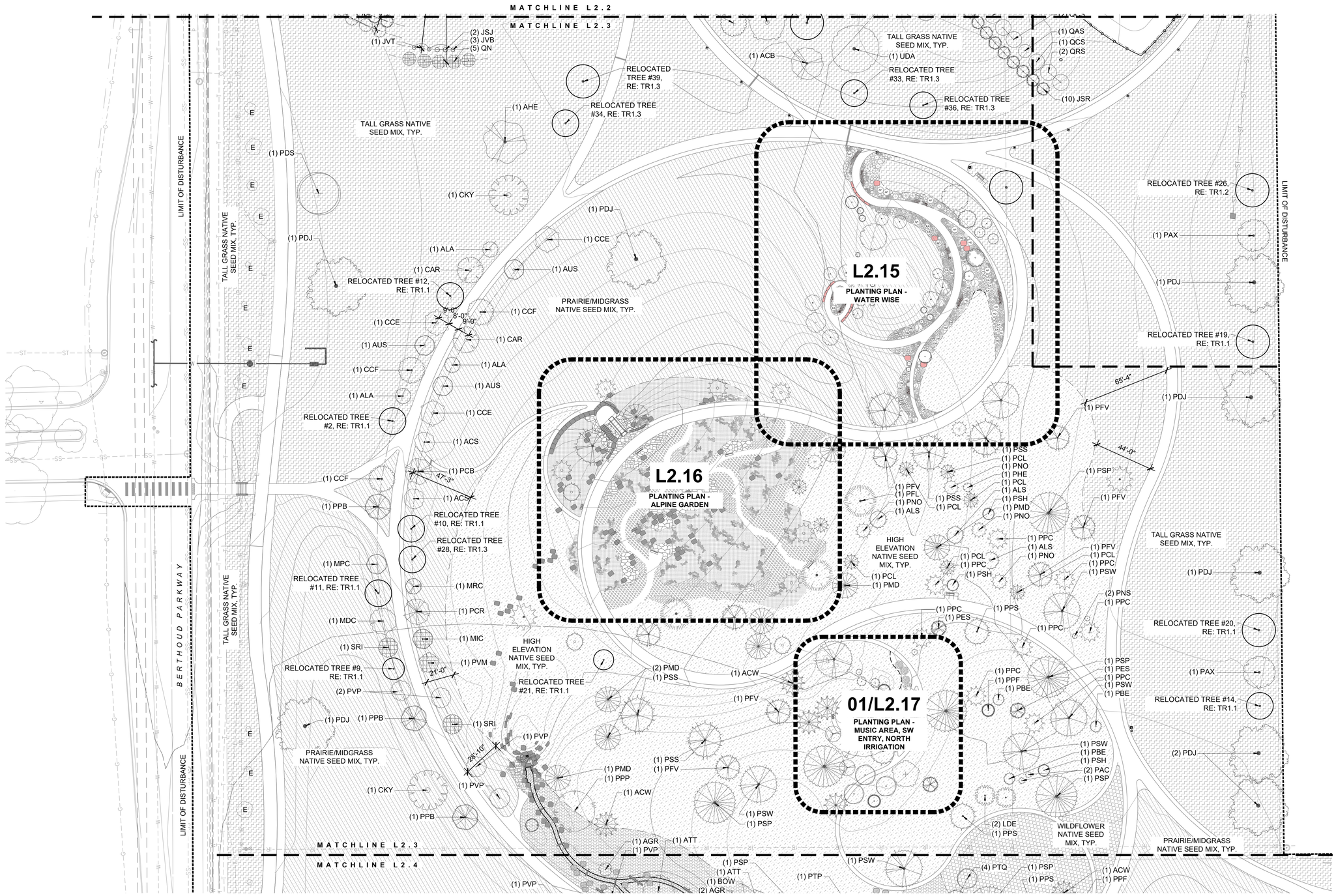
E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
MH	MANHOLE	RE: CIVIL



01 CENTRAL ARBORETUM
1"=30'-0"

0 15 30 60 FT

10/1/2025 10:48 AM

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN CENTRAL

SHEET:

L2.3

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

UTILITY LEGEND

PROPOSED UTILITY, WATER	RE: CIVIL
PROPOSED UTILITY, STORM	RE: CIVIL
PROPOSED UTILITY, SANITARY	RE: CIVIL
EXISTING UTILITY, WATER	RE: CIVIL
EXISTING UTILITY, STORM	RE: CIVIL
EXISTING UTILITY, SANITARY	RE: CIVIL
EXISTING UTILITY, ELECTRIC	RE: CIVIL
EXISTING UTILITY, GAS	RE: CIVIL
EXISTING UTILITY, IRRIGATION	RE: CIVIL
INLET	RE: CIVIL
STORM STRUCTURE	RE: CIVIL
MANHOLE	RE: CIVIL

MATCHLINE L2.3
MATCHLINE L2.4
LIMIT OF DISTURBANCE
BERTHOUD PARKWAY
MOUNTAIN AVE
PRAIRIE/MIDGRASS NATIVE SEED MIX, TYP.
TALLGRASS NATIVE SEED MIX, TYP.
ARID NATIVE SEED MIX, TYP.
RIPARIAN NATIVE SEED MIX, TYP.
WETLAND NATIVE SEED MIX, TYP.
WILDFLOWER NATIVE SEED MIX, TYP.
RELOCATED TREE #22, RE: TR1.2
RELOCATED TREE #23, RE: TR1.2
RELOCATED TREE #24, RE: TR1.2
RELOCATED TREE #29, RE: TR1.3
RELOCATED TREE #31, RE: TR1.3
RELOCATED TREE #37, RE: TR1.3

02/L2.17
PLANTING PLAN - MUSIC AREA, SW ENTRY, NORTH IRRIGATION

01 SOUTHERN ARBORETUM
1"=30'-0"

0 15 30 60 FT

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TOWN of BERTHOUD EST. 1888 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

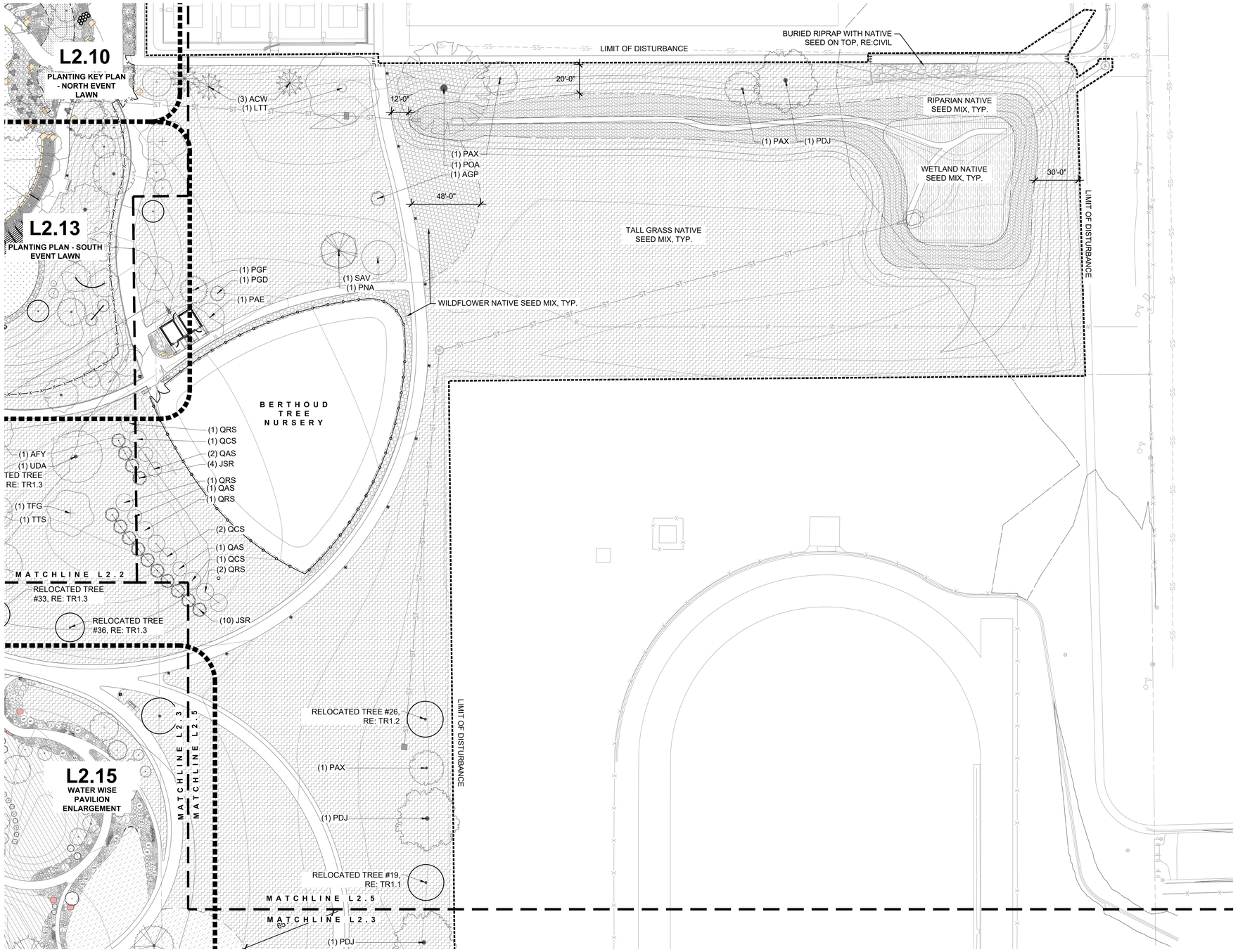
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - SOUTH

SHEET:

L2.4



UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

01 EASTERN ARBORETUM
1"=30'-0"

0 15 30 60 FT

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1882 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - EAST

SHEET:

L2.5

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SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	AF	71	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
	EN	38	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
	Pd4	42	POTENTILLA FRUTICOSA 'GOLD DROP' / GOLD DROP BUSH CINQUEFOIL	5 GAL
	PP	33	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	Rg2	23	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
	Ra	17	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
GRASSES				
	Bc	97	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	F15
	BB	275	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION BLUE GRAMA	F15
	SU	83	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Ap2	40	ARCTOSTAPHYLOS X COLORADENSIS 'PANCHITO' / PANCHITO MANZANITA	5 GAL
PERENNIALS				
	Ae	20	AGASTACHE CANA 'DOUBLE BUBBLE' / DOUBLE BUBBLE MINT	1 GAL
	Am2	41	ALLIUM X 'MILLENIUM' / MILLENIUM ORNAMENTAL ONION	F15
	Ps3	76	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	F15
	Vp	98	VERONICA PECTINATA / WOOLLY CREEPING SPEEDWELL	1 GAL

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

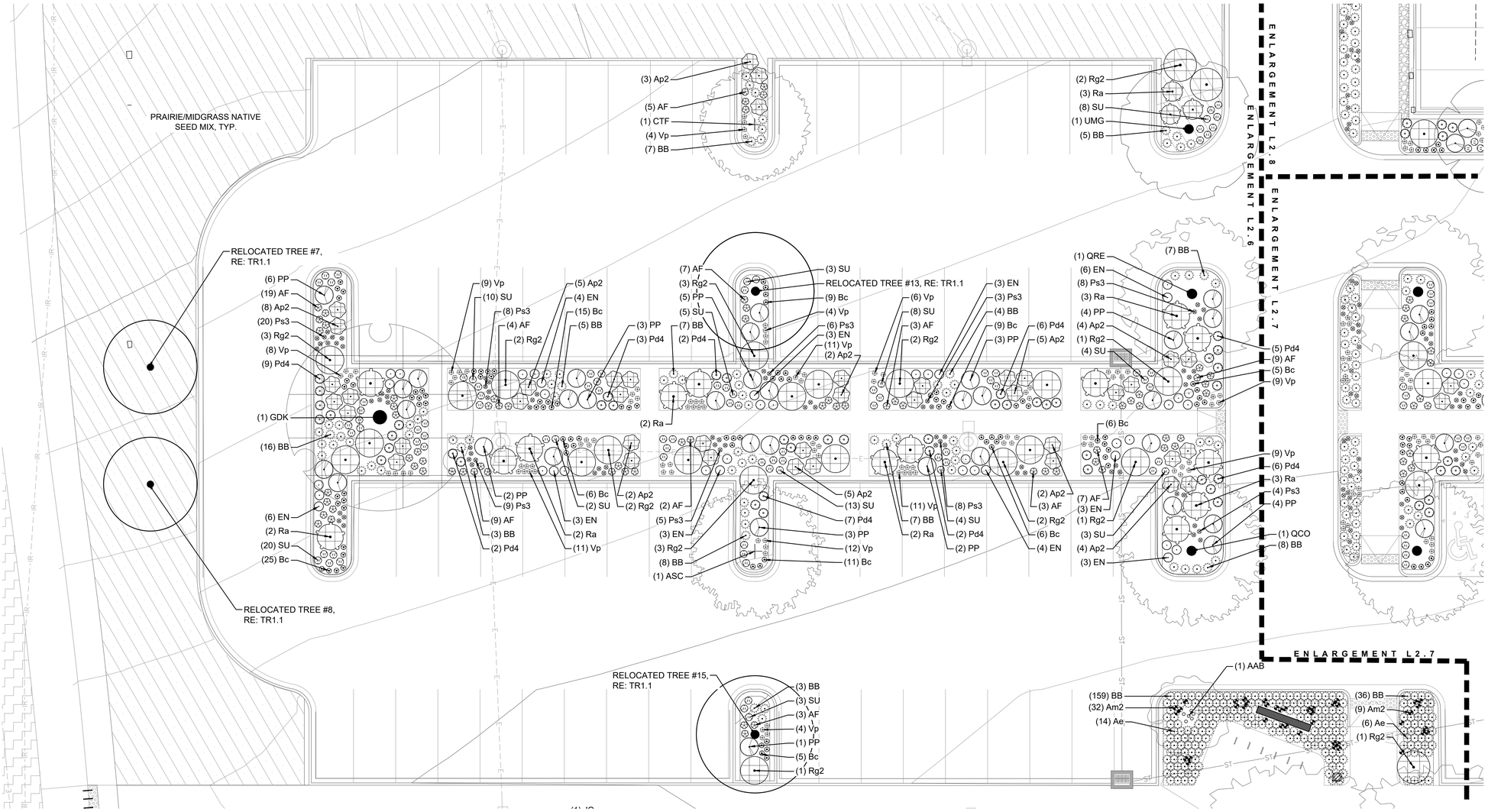
PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE



01 WEST PARKING
1"=10'-0"

0 5 10 20 FT

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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - WEST PARKING

SHEET:

L2.6

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SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	AF	53	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
	EN	34	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
	Pd4	48	POTENTILLA FRUTICOSA 'GOLD DROP' / GOLD DROP BUSH CINQUEFOIL	5 GAL
	PP	42	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	Rg2	30	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
	Ra	6	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
GRASSES				
	Bc	113	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	F15
	BB	108	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION BLUE GRAMA	F15
	SU	80	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Ap2	29	ARCTOSTAPHYLOS X COLORADENSIS 'PANCHITO' / PANCHITO MANZANITA	5 GAL
PERENNIALS				
	Ps3	96	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	F15
	Vp	125	VERONICA PECTINATA / WOOLLY CREEPING SPEEDWELL	1 GAL

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

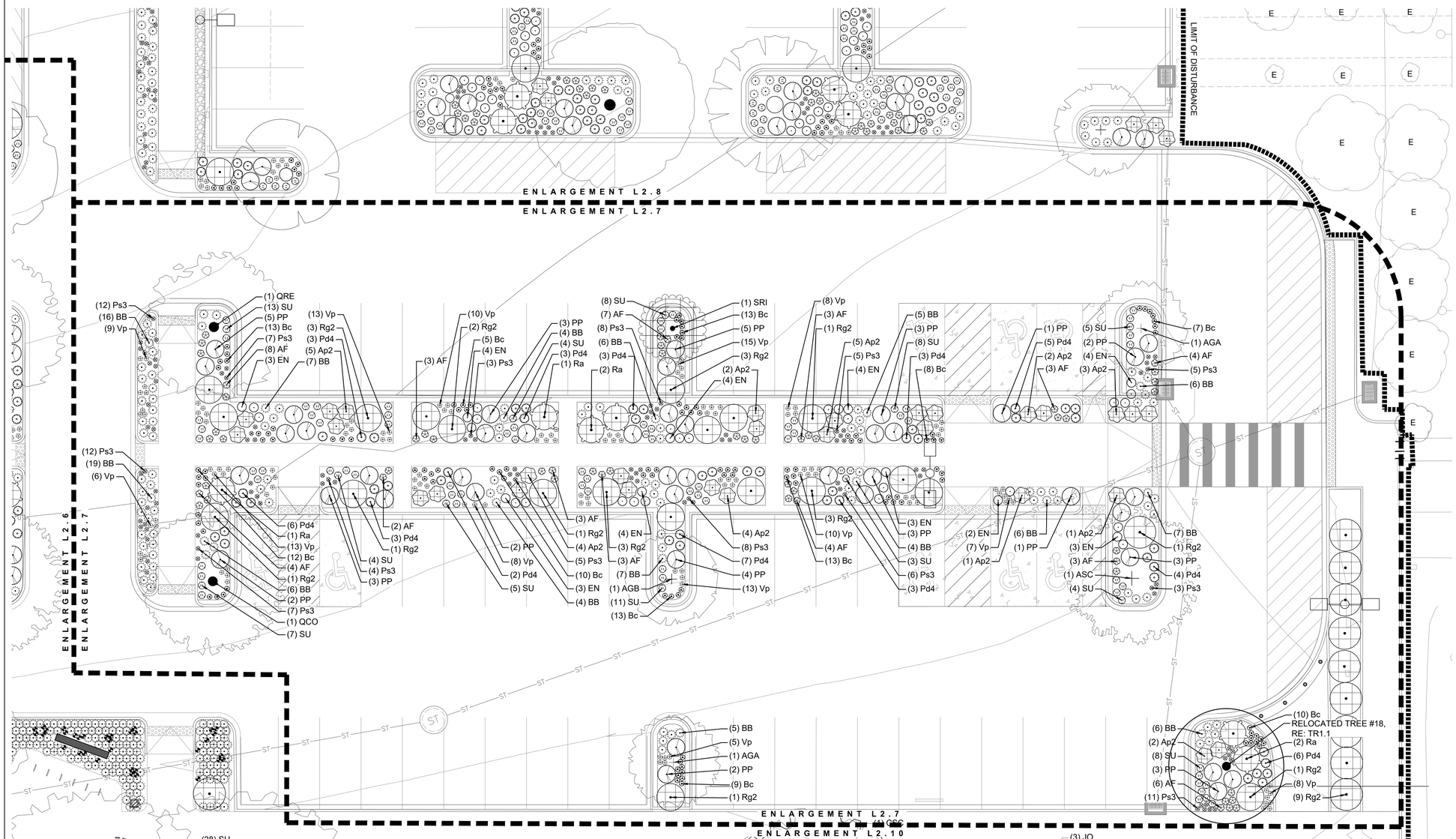
PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE



01 EAST PARKING
1"=10'-0"

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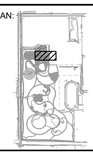
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - EAST PARKING

SHEET:

L2.7

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	AF	58	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
	EN	33	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
	Pd4	62	POTENTILLA FRUTICOSA 'GOLD DROP' / GOLD DROP BUSH CINQUEFOIL	5 GAL
	PP	32	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	Rg2	5	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
	Ra	8	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
GRASSES				
	Bc	133	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	F15
	BB	104	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION BLUE GRAMA	F15
	SU	84	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Ap2	13	ARCTOSTAPHYLOS X COLORADENSIS 'PANCHITO' / PANCHITO MANZANITA	5 GAL
PERENNIALS				
	Ps3	88	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	F15
	Vp	37	VERONICA PECTINATA / WOOLLY CREEPING SPEEDWELL	1 GAL

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

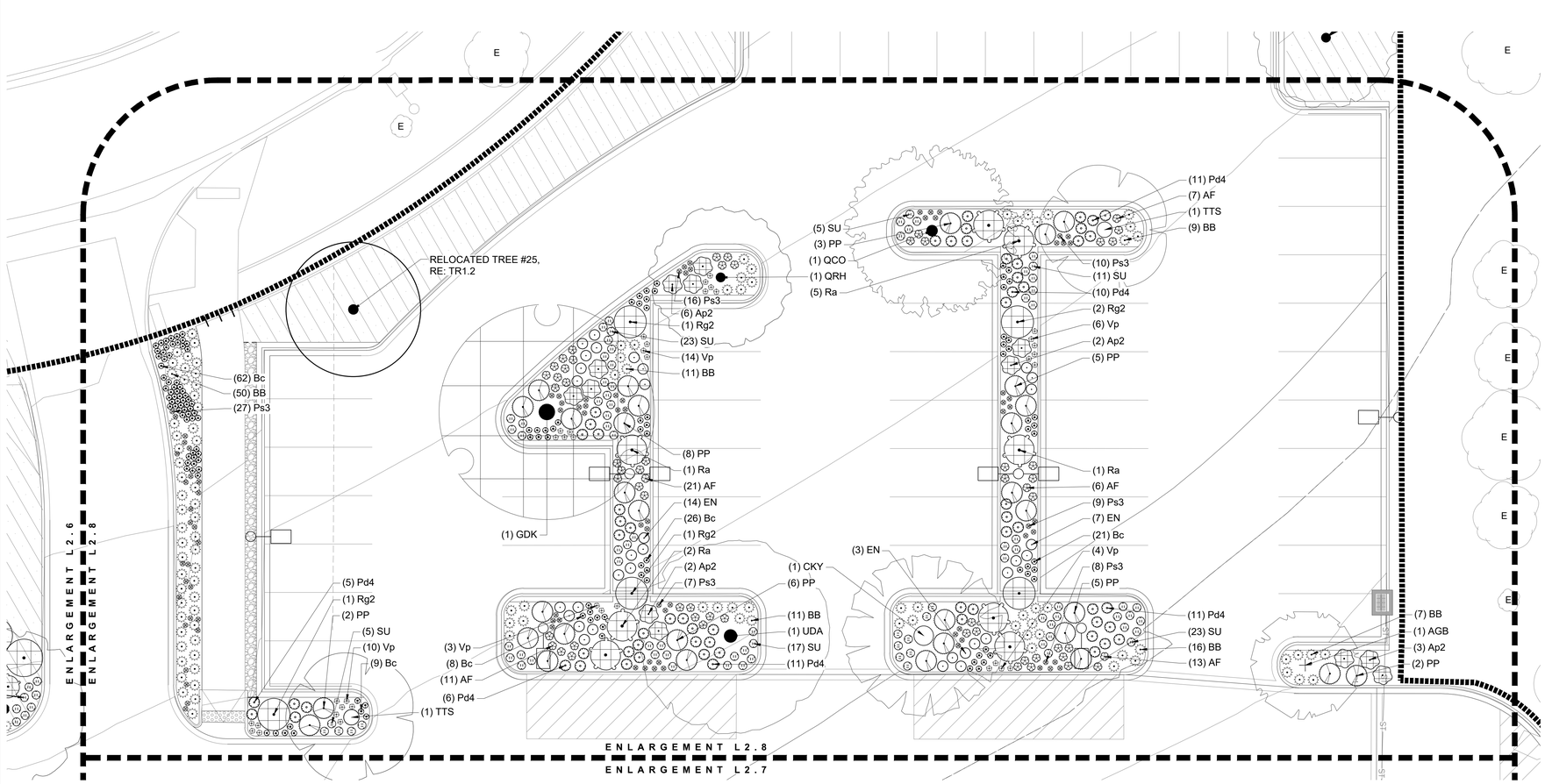
PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE



01 ***NORTH PARKING***
1"=10'-0"

0 5 10 20 FT

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

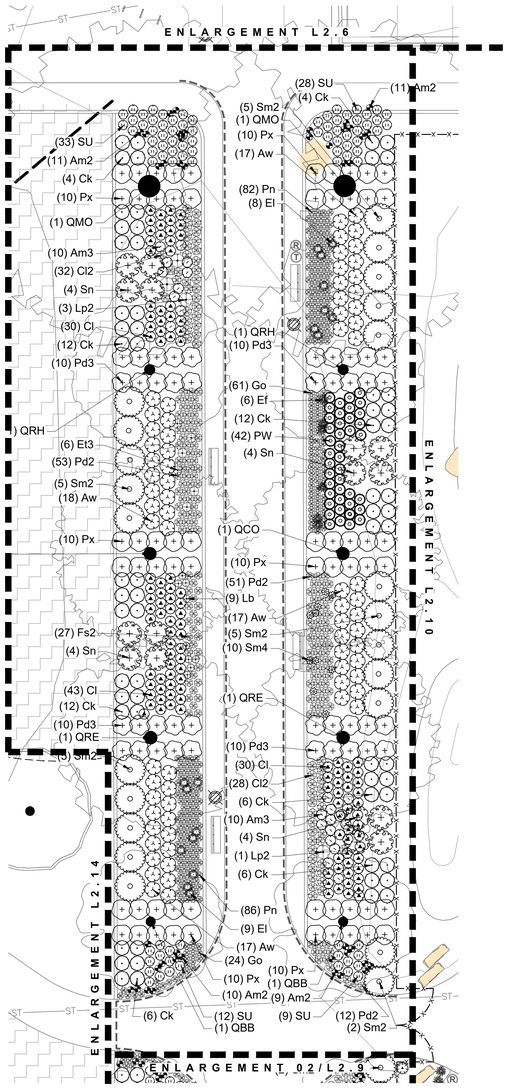
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DATE: DECEMBER 12, 2025

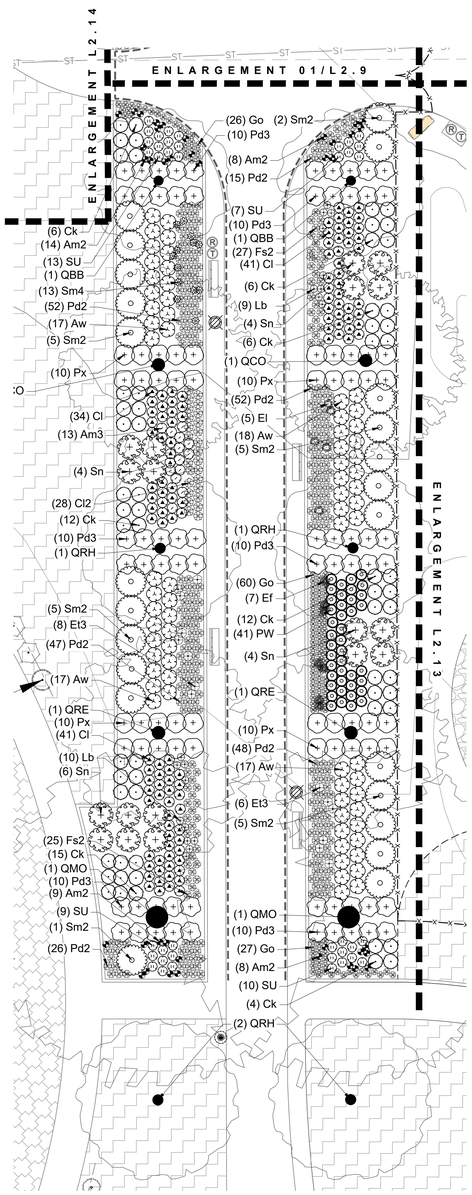
100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - NORTH PARKING

SHEET:

L2.8





01 ***ENTRY WALK NORTH***
1"=10'-0"

02 ***ENTRY WALK SOUTH***
1"=10'-0"

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	Ck	62	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
	Pd3	40	PHILADELPHUS X VIRGINALIS 'DWARF SNOWFLAKE' / DWARF SNOWFLAKE MOCKORANGE	5 GAL
	Px	60	PHILADELPHUS X VIRGINALIS 'SNOWBELLE' / SNOWBELLE MOCK ORANGE	5 GAL
	Sn	16	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA	5 GAL
	Sm2	22	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	5 GAL
GRASSES				
	Aw	70	ANDROPOGON GERARDII 'PWIN01S' / WINDWALKER® BIG BLUESTEM	1 GAL
	Cl	114	CHASMANTHIUM LATIFOLIUM / NORTHERN SEA OATS	1 GAL
	PW	42	PANICUM VIRGATUM 'CHEYENNE SKY' / CHEYENNE SKY PRAIRIE WINDS® SWITCH GRASS	1 GAL
	SU	82	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Cl2	60	CERATOSTIGMA PLUMBAGINOIDES / PLUMBAGO	F15
	Fs2	27	FRAGARIA VESCA AMERICANA / WILD STRAWBERRY	F15
	Go	85	GALIUM ODORATUM / SWEET WOODRUFF	F15
	Pd2	116	PERSICARIA AFFINIS 'BORDER JEWEL' / HIMALAYAN BORDER JEWEL FLEECEFLOWER	F15
	Pn	168	POTENTILLA NEUMANNIANA 'NANA' / SPRING CINQUEFOIL	F15
PERENNIALS				
	Am3	23	ACHILLEA X 'MOONSHINE' / MOONSHINE YARROW	1 GAL
	Am2	41	ALLIUM X 'MILLENIUM' / MILLENIUM ORNAMENTAL ONION	F15
	El	17	ECHINACEA PURPUREA / PURPLE CONEFLOWER	1 GAL
	Ef	6	ECHINACEA PURPUREA 'FRAGRANT ANGEL' / FRAGRANT ANGEL CONEFLOWER	1 GAL
	Et3	6	ECHINACEA PURPUREA 'GREEN TWISTER' / GREEN TWISTER CONEFLOWER	1 GAL
	Lp2	4	LAVANDULA X INTERMEDIA 'PROVENCE' / PROVENCE LAVENDIN	1 GAL
	Lb	9	LINUM LEWISII 'BLUE FLAX' / BLUE FLAX	1 GAL
	Sm4	10	SALVIA CHRYSOPHYLLA / OLYMPUS™ GOLD LEAF SAGE	1 GAL

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	Ck	61	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
	Pd3	60	PHILADELPHUS X VIRGINALIS 'DWARF SNOWFLAKE' / DWARF SNOWFLAKE MOCKORANGE	5 GAL
	Px	40	PHILADELPHUS X VIRGINALIS 'SNOWBELLE' / SNOWBELLE MOCK ORANGE	5 GAL
	Sn	18	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA	5 GAL
	Sm2	23	SYRINGA MEYERI 'PALIBIN' / DWARF KOREAN LILAC	5 GAL
GRASSES				
	Aw	70	ANDROPOGON GERARDII 'PWIN01S' / WINDWALKER® BIG BLUESTEM	1 GAL
	Cl	116	CHASMANTHIUM LATIFOLIUM / NORTHERN SEA OATS	1 GAL
	PW	41	PANICUM VIRGATUM 'CHEYENNE SKY' / CHEYENNE SKY PRAIRIE WINDS® SWITCH GRASS	1 GAL
	SU	39	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Cl2	28	CERATOSTIGMA PLUMBAGINOIDES / PLUMBAGO	F15
	Fs2	52	FRAGARIA VESCA AMERICANA / WILD STRAWBERRY	F15
	Go	113	GALIUM ODORATUM / SWEET WOODRUFF	F15
	Pd2	240	PERSICARIA AFFINIS 'BORDER JEWEL' / HIMALAYAN BORDER JEWEL FLEECEFLOWER	F15
PERENNIALS				
	Am3	13	ACHILLEA X 'MOONSHINE' / MOONSHINE YARROW	1 GAL
	Am2	39	ALLIUM X 'MILLENIUM' / MILLENIUM ORNAMENTAL ONION	F15
	El	5	ECHINACEA PURPUREA / PURPLE CONEFLOWER	1 GAL
	Ef	7	ECHINACEA PURPUREA 'FRAGRANT ANGEL' / FRAGRANT ANGEL CONEFLOWER	1 GAL
	Et3	14	ECHINACEA PURPUREA 'GREEN TWISTER' / GREEN TWISTER CONEFLOWER	1 GAL
	Lb	19	LINUM LEWISII 'BLUE FLAX' / BLUE FLAX	1 GAL
	Sm4	13	SALVIA CHRYSOPHYLLA / OLYMPUS™ GOLD LEAF SAGE	1 GAL

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

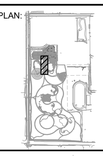
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TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

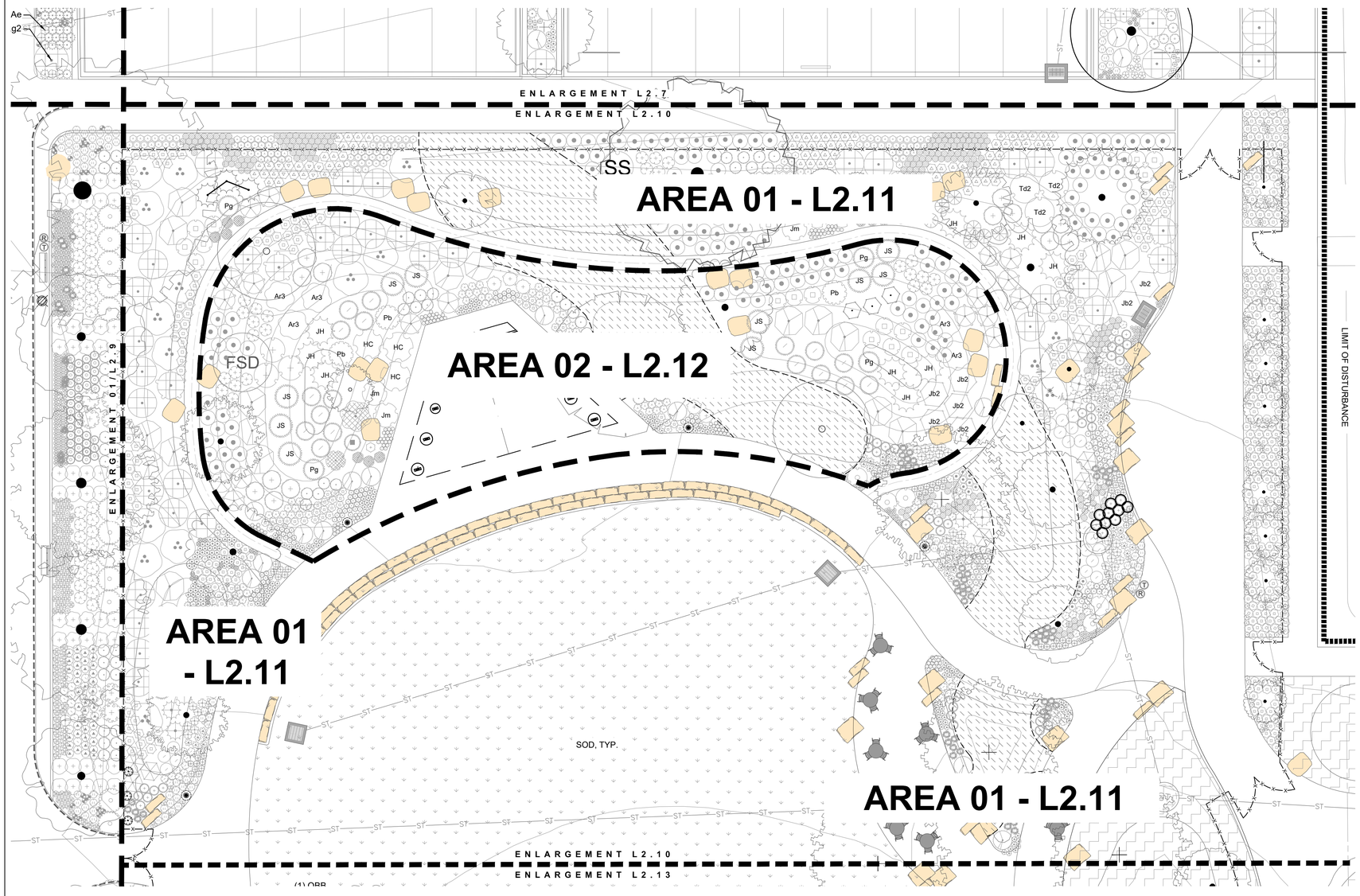
PLANTING PLAN - ENTRY WALK

SHEET:

L2.9

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01 ***KEY PLAN - NORTH EVENT LAWN***
1"=10'-0"

0 5 10 20 FT

N

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING KEY PLAN - NORTH EVENT LAWN

SHEET:

L2.10

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SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
	AB	6	ARCTOSTAPHYLOS X COLORADENSIS 'CHIEFTAIN' / CHIEFTAIN MOCK BEARBERRY MANZANITA	5 GAL
	Ck	7	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
	FL	10	FORSYTHIA X INTERMEDIA 'LYNWOOD GOLD' / LYNWOOD GOLD FORSYTHIA	5 GAL
	Mr2	106	MAHONIA REPENS / CREEPING MAHONIA	1 GAL
	Pn3	10	PHYSOCARPUS OPULIFOLIUS / NINEBARK	5 GAL
	PP	4	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	Rg2	25	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
	RGS	14	RHUS GLABRA / SMOOTH SUMAC	1 GAL
	Ra	3	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
	Rp	7	RIBES X 'PIXWELL' / PIXWELL GOOSEBERRY	5 GAL
	RW	8	ROSA WOODSII / WOODS' ROSE	5 GAL
SS	SS	1	SPIRAEA SORBIFOLIA / FALSE SPIREA	5 GAL
	SO2	6	SYMPHORICARPOS OCCIDENTALIS / WESTERN SNOWBERRY	5 GAL
	SO3	18	SYMPHORICARPOS ORBICULATUS / CORALBERRY	5 GAL
	Sm5	10	SYMPHORICARPOS X DOORENBOSII 'MAGIC BERRY' / MAGIC BERRY SNOWBERRY	5 GAL
EVERGREEN SHRUBS				
JH	JH	3	JUNIPERUS CHINENSIS 'HOLBERT' / HOLBERT JUNIPER	5 GAL
Jm	Jm	3	JUNIPERUS COMMUNIS 'MONDAP' / ALPINE CARPET® COMMON JUNIPER	5 GAL
Jb2	JB2	2	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	5 GAL
	Jb	9	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	5 GAL
	JO	14	JUNIPERUS X MEDIA 'OLD GOLD' / OLD GOLD JUNIPER	5 GAL
JS	JS	2	JUNIPERUS X MEDIA 'SEA GREEN' / SEA GREEN JUNIPER	5 GAL
Pg	Pg	1	PICEA PUNGENS 'GLAUCA GLOBOSA' / BLUE GLOBE COLORADO SPRUCE	5 GAL
Td2	Td2	3	TAXUS X MEDIA 'DENSIFORMIS' / DENSE ANGLO-JAPANESE YEW	5 GAL
GRASSES				
	Bc	119	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	F15
	Bg	361	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	F15
	Sb2	85	SCHIZACHYRIUM SCOPARIUM 'BLAZE' / BLAZE LITTLE BLUESTEM	1 GAL
	SZ	216	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES' / PRAIRIE BLUES LITTLE BLUESTEM	F15
	SO	44	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION' / STANDING OVATION LITTLE BLUESTEM	1 GAL
	St2	125	SCHIZACHYRIUM SCOPARIUM 'TWILIGHT ZONE' / TWILIGHT ZONE LITTLE BLUESTEM	1 GAL
	SU	51	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Au	7	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	5 GAL
	CP	4	CALLIRHOE INVOLUCRATA / PURPLE POPPYMALLOW	5 GAL
	Ec	78	EUONYMUS FORTUNEI 'COLORATUS' / PURPLE-LEAF WINTERCREEPER	1 GAL
	Ss2	51	STACHYS BYZANTINA 'SILVER CARPET' / SILVER CARPET LAMB'S EARS	F15
PERENNIALS				
	Am4	20	ACHILLEA MILLEFOLIUM / COMMON YARROW	F15
	Ah2	4	AMSONIA HUBRICHTII / ARKANSAS BLUESTAR	1 GAL
	AJ	52	AMSONIA JONESII / COLORADO DESERT BLUESTAR	1 GAL
	Al2	33	ASCLEPIAS TUBEROSA / BUTTERFLY MILKWEED	1 GAL
	Al3	9	ASTER LAEVIS / SMOOTH ASTER	1 GAL
	Cb3	46	CARYOPTERIS X CLANDONENSIS 'BLUE MIST' / BLUE MIST BLUEBEARD	1 GAL
	El	50	ECHINACEA PURPUREA / PURPLE CONEFLOWER	1 GAL
	GA	14	GAILLARDIA ARISTATA / BLANKET FLOWER	1 GAL
	Hm	13	HELIANTHUS MAXIMILIANI / MAXIMILIAN SUNFLOWER	1 GAL
	Lb	44	LINUM LEWISII 'BLUE FLAX' / BLUE FLAX	1 GAL
	Mm	34	MONARDA FISTULOSA MENTHIFOLIA / NATIVE LAVENDER BEE-BALM	5 GAL
	Ps3	34	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	F15
	PB3	76	PENSTEMON VIRENS / BLUE MIST PENSTEMON	1 GAL
	RC	118	RATIBIDA COLUMNIFERA / PRAIRIE CONEFLOWER	1 GAL
	Rh	76	RUDBECKIA HIRTA / BLACK-EYED SUSAN	1 GAL
	Sa3	14	SEDUM X 'AUTUMN JOY' / AUTUMN JOY SEDUM	F15
	Sm6	64	SOLIDAGO MULTIRADIATA / ROCKY MOUNTAIN GOLDENROD	1 GAL
	Sp2	4	SYMPHYOTRICHUM NOVAE-ANGLIAE 'PURPLE DOME' / PURPLE DOME NEW ENGLAND ASTER	1 GAL

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
GROUND COVERS				
		2,043 SF	EVENT LAWN MEADOW	
	Am5	212	ACHILLEA MILLEFOLIUM / COMMON YARROW	FLAT
	Bc3	613 SF	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	FLAT
	Bg2	282	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	FLAT
	Ga2	204 SF	GAILLARDIA ARISTATA / BLANKET FLOWER	FLAT
	Ps4	204 SF	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	FLAT
	Sm7	204 SF	SOLIDAGO MULTIRADIATA / ROCKY MOUNTAIN GOLDENROD	FLAT
VINES				
	CM2	3	CAMPSIS X TAGLIABUANA 'MADAME GALEN' / MADAME GALEN TRUMPET VINE	1 GAL

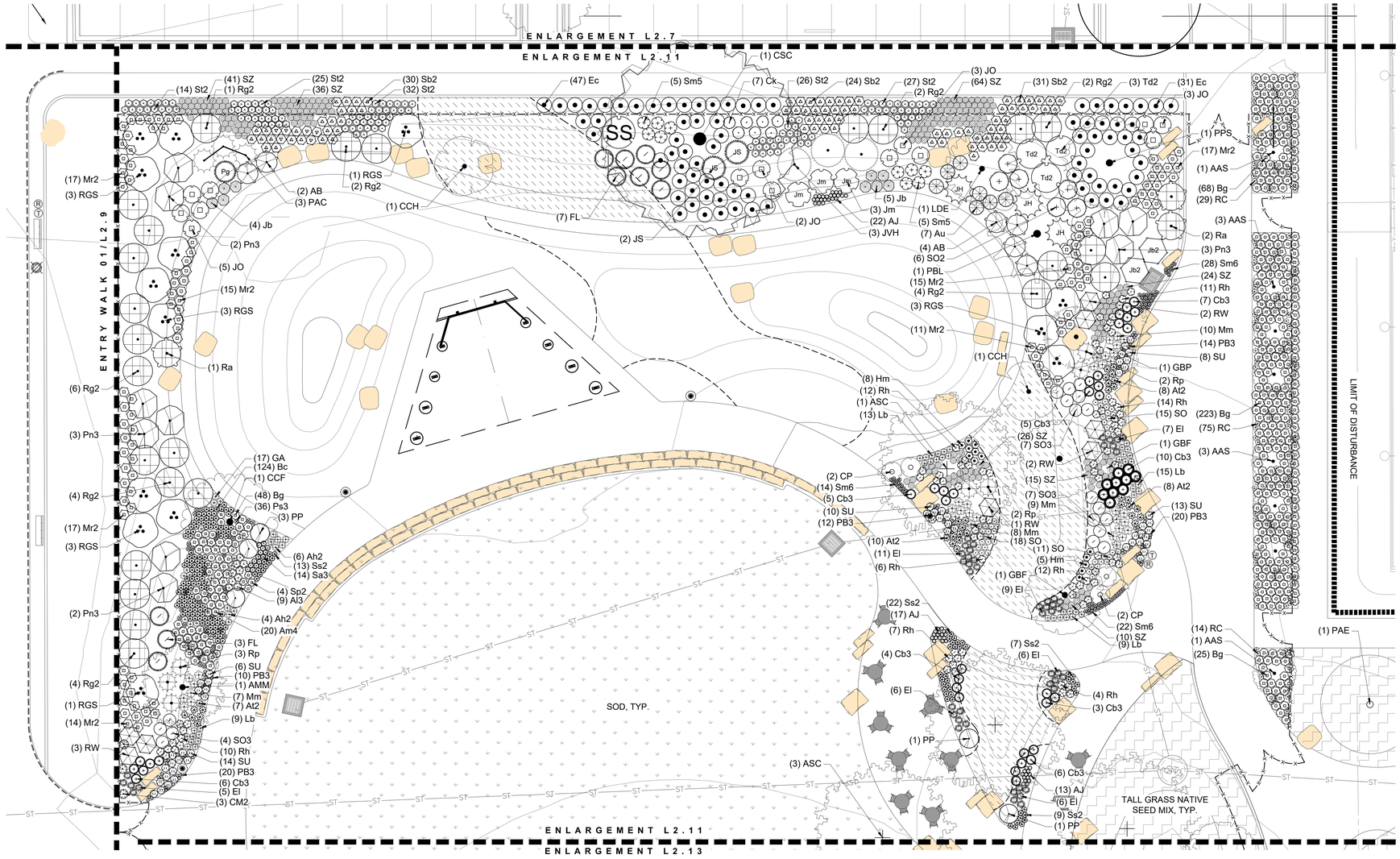
UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD
- E — EXISTING TREE, TO REMAIN
- EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE



01 **NORTH EVENT LAWN AREA 01**
1"=10'-0"

0 5 10 20 FT

wenk
MARTIN/MARTIN CONSULTING ENGINEERS
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - NORTH EVENT LAWN AREA 01

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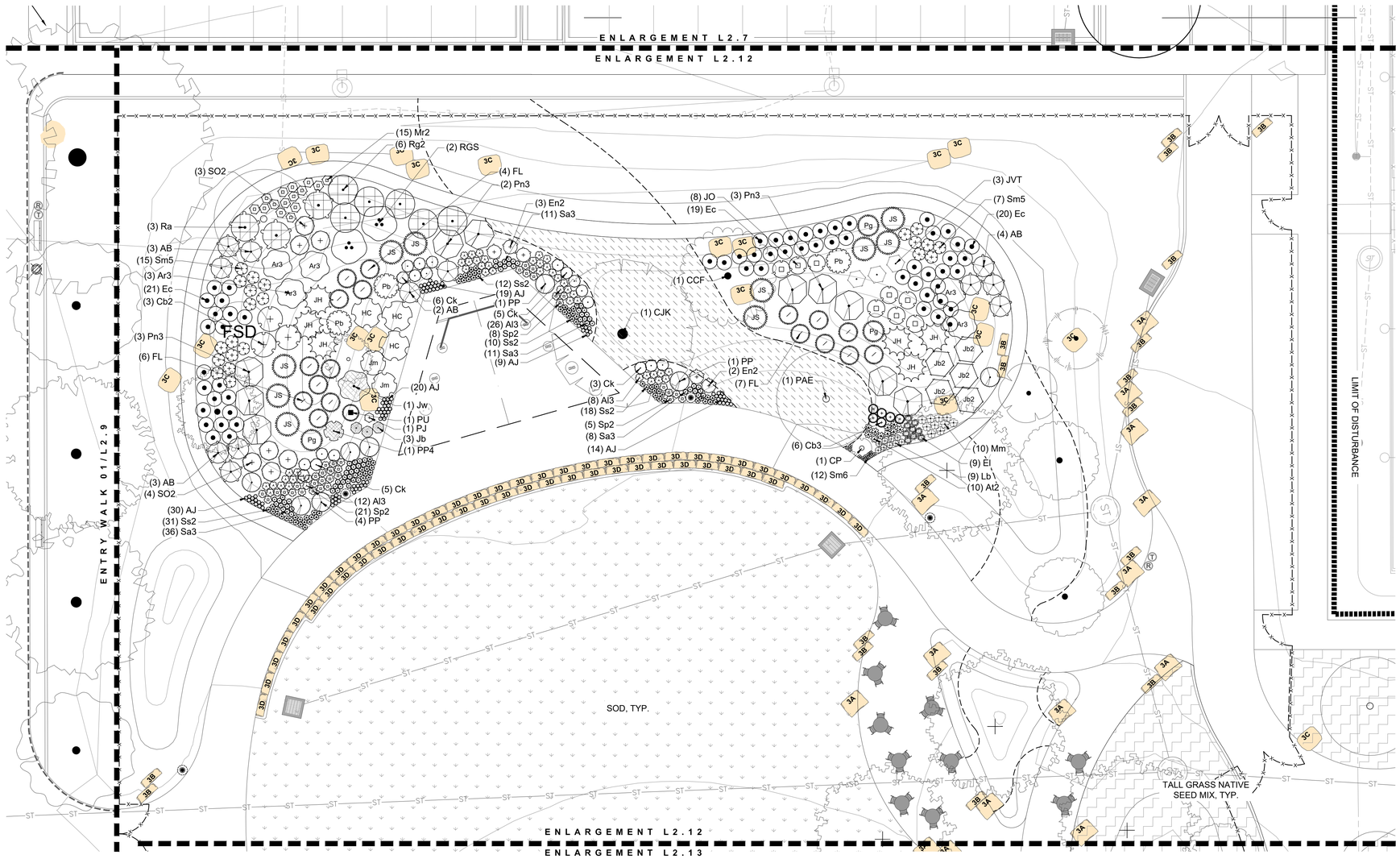
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SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
Ar3	Ar3	5	AMELANCHIER ALNIFOLIA 'REGENT' / REGENT SERVICEBERRY	5 GAL
AB	AB	12	ARCTOSTAPHYLOS X COLORADENSIS 'CHIEFTAIN' / CHIEFTAIN MOCK BEARBERRY MANZANITA	5 GAL
Cb2	Cb2	3	CORNUS ALBA 'BUD'S YELLOW' / BUD'S YELLOW TATARIAN DOGWOOD	5 GAL
Ck	Ck	19	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
En2	En2	5	EUONYMUS NANUS TURKESTANICUS / TURKESTAN BURNING BUSH	5 GAL
FL	FL	17	FORSYTHIA X INTERMEDIA 'LYNWOOD GOLD' / LYNWOOD GOLD FORSYTHIA	5 GAL
Mr2	Mr2	15	MAHONIA REPENS / CREEPING MAHONIA	1 GAL
Pn3	Pn3	10	PHYSOCARPUS OPULIFOLIUS / NINEBARK	5 GAL
PP	PP	8	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
Rg2	Rg2	6	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
RGS	RGS	2	RHUS GLABRA / SMOOTH SUMAC	1 GAL
Ra	Ra	3	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
SO2	SO2	7	SYMPHORICARPOS OCCIDENTALIS / WESTERN SNOWBERRY	5 GAL
Sm5	Sm5	22	SYMPHORICARPOS X DOORENBOSII 'MAGIC BERRY' / MAGIC BERRY SNOWBERRY	5 GAL
EVERGREEN SHRUBS				
JH	JH	6	JUNIPERUS CHINENSIS 'HOLBERT' / HOLBERT JUNIPER	5 GAL
Jm	Jm	2	JUNIPERUS COMMUNIS 'MONDAP' / ALPINE CARPET® COMMON JUNIPER	5 GAL
Jw	Jw	1	JUNIPERUS HORIZONTALIS 'WILTONII' / BLUE RUG JUNIPER	5 GAL
Jb2	JB2	5	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	5 GAL
Jb	Jb	3	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	5 GAL
JO	JO	8	JUNIPERUS X MEDIA 'OLD GOLD' / OLD GOLD JUNIPER	5 GAL
JS	JS	10	JUNIPERUS X MEDIA 'SEA GREEN' / SEA GREEN JUNIPER	5 GAL
PP4	PP4	1	PICEA ABIES 'PENDULA' / WEEPING NORWAY SPRUCE	5 GAL
Pg	Pg	3	PICEA PUNGENS 'GLAUCA GLOBOSA' / BLUE GLOBE COLORADO SPRUCE	5 GAL
PU	PU	1	PINUS BANKSIANA 'UNCLE FOGY' / UNCLE FOGY JACK PINE	5 GAL
Pb	Pb	3	PINUS MUGO 'BIG TUNA' / BIG TUNA MUGO PINE	5 GAL
PJ	PJ	1	PINUS MUGO 'JAKOBSEN' / JAKOBSEN MUGO PINE	5 GAL
HC	HC	3	PINUS SYLVESTRIS 'HILLSIDE CREEPER' / HILLSIDE CREEPER SCOTCH PINE	5 GAL
GROUNDCOVERS				
CP	CP	1	CALLIRHOE INVOLUCRATA / PURPLE POPPYMALLOW	5 GAL
Ec	Ec	60	EUONYMUS FORTUNEI 'COLORATUS' / PURPLE-LEAF WINTERCREEPER	1 GAL
Ss2	Ss2	71	STACHYS BYZANTINA 'SILVER CARPET' / SILVER CARPET LAMB'S EARS	F15
PERENNIALS				
AJ	AJ	92	AMSONIA JONESII / COLORADO DESERT BLUESTAR	1 GAL
At2	At2	10	ASCLEPIAS TUBEROSA / BUTTERFLY MILKWEED	1 GAL
Al3	Al3	46	ASTER LAEVIS / SMOOTH ASTER	1 GAL
Cb3	Cb3	6	CARYOPTERIS X CLANDONENSIS 'BLUE MIST' / BLUE MIST BLUEBEARD	1 GAL
El	El	9	ECHINACEA PURPUREA / PURPLE CONEFLOWER	1 GAL
Lb	Lb	9	LINUM LEWISII 'BLUE FLAX' / BLUE FLAX	1 GAL
Mm	Mm	10	MONARDA FISTULOSA MENTHIFOLIA / NATIVE LAVENDER BEE-BALM	5 GAL
Sa3	Sa3	66	SEDUM X 'AUTUMN JOY' / AUTUMN JOY SEDUM	F15
Sm6	Sm6	12	SOLIDAGO MULTIRADIATA / ROCKY MOUNTAIN GOLDENROD	1 GAL
Sp2	Sp2	34	SYMPHYOTRICHUM NOVAE-ANGLIAE 'PURPLE DOME' / PURPLE DOME NEW ENGLAND ASTER	1 GAL

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT
GROUND COVERS				
		1,204 SF	EVENT LAWN MEADOW	
	Am5	125	ACHILLEA MILLEFOLIUM / COMMON YARROW	FLAT
	Bc3	361 SF	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	FLAT
	Bg2	167	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	FLAT
	Ga2	120 SF	GAILLARDIA ARISTATA / BLANKET FLOWER	FLAT
	Ps4	120 SF	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	FLAT
	Sm7	120 SF	SOLIDAGO MULTIRADIATA / ROCKY MOUNTAIN GOLDENROD	FLAT



01 EVENT LAWN NORTH ENLARGEMENT AREA 02

1"=10'-0"

0 5 10 20 FT

UTILITY LEGEND

W	PROPOSED UTILITY, WATER RE: CIVIL
ST	PROPOSED UTILITY, STORM RE: CIVIL
SS	PROPOSED UTILITY, SANITARY RE: CIVIL
W	EXISTING UTILITY, WATER RE: CIVIL
ST	EXISTING UTILITY, STORM RE: CIVIL
SS	EXISTING UTILITY, SANITARY RE: CIVIL
E	EXISTING UTILITY, ELECTRIC RE: CIVIL
G	EXISTING UTILITY, GAS RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION RE: CIVIL
	INLET RE: CIVIL
	STORM STRUCTURE RE: CIVIL
SS	MANHOLE RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

- E — EXISTING TREE, TO REMAIN
- EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - NORTH EVENT LAWN AREA 02

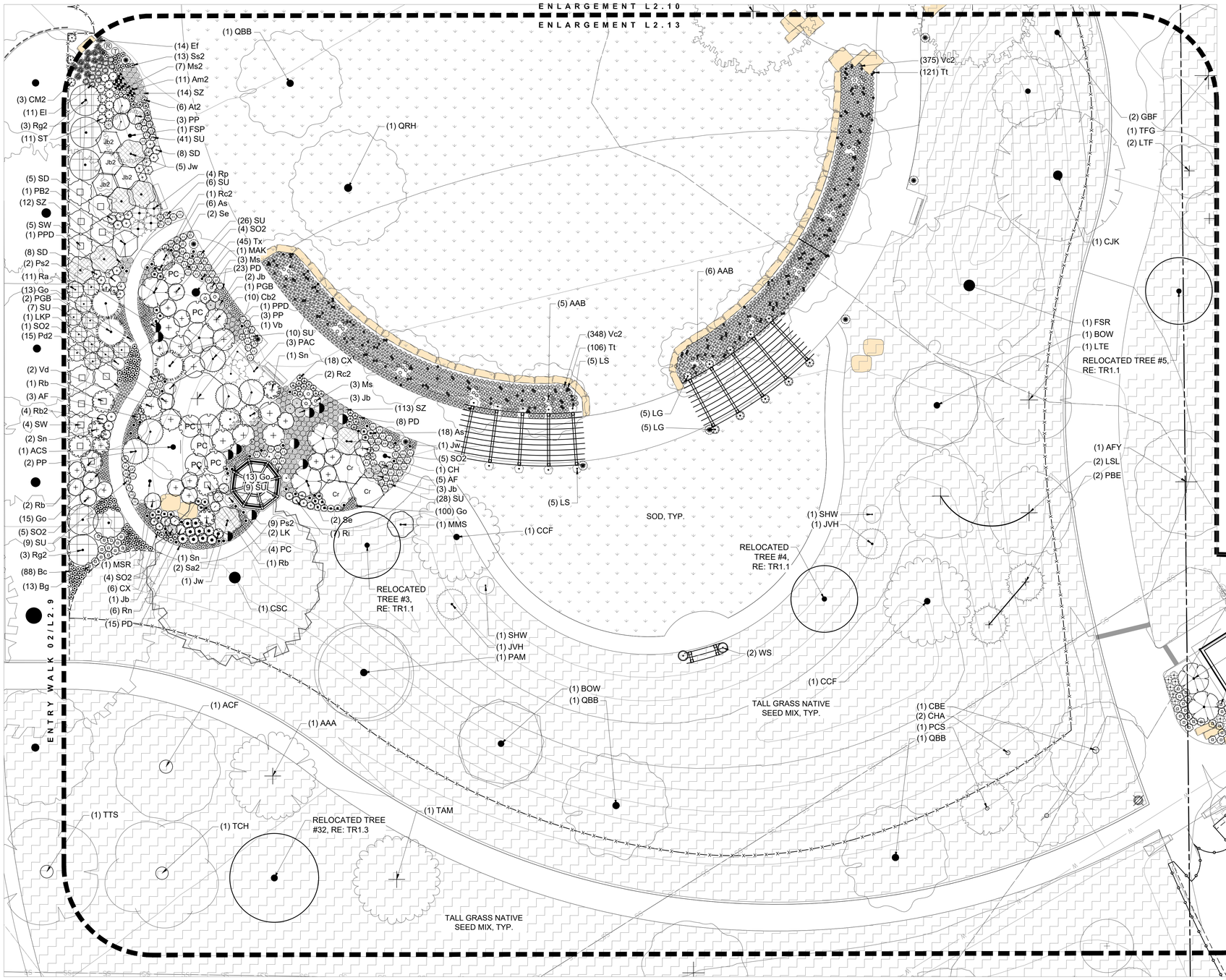
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SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
BULBS				
•	Tt	227	TULIPA TURKESTANICA / TULIP	BULB
⊙	Tx	45	TULIPA X 'CATHERINA' / CATHERINA TULIP	BULB
DECIDUOUS SHRUBS				
	AF	9	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
	Cb2	10	CORNUS ALBA 'BUD'S YELLOW' / BUD'S YELLOW TATARIAN DOGWOOD	5 GAL
Cr	Cr	3	COTONEASTER RACEMIFLORUS SOONGORICUS / SUNGARI REDBEAD COTONEASTER	5 GAL
PC	PC	6	PHILADELPHUS LEWISII 'PWY01S' / CHEYENNE® MOCK ORANGE	5 GAL
	PB2	1	PHYSOCARPUS OPULIFOLIUS 'MONLO' / DIABOLO® NINEBARK	5 GAL
	PP	8	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	Rc2	3	RHODODENDRON X 'CUNNINGHAM'S WHITE' / CUNNINGHAM'S WHITE RHODODENDRON	5 GAL
	Rg2	6	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
	Ra	11	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
	Rp	4	RIBES X 'PIXWELL' / PIXWELL GOOSEBERRY	5 GAL
	Rb	4	ROSA RUGOSA 'BLANC DOUBLE DE COUBERT' / BLANC DOUBLE DE COUBERT ROSE	5 GAL
	Ri	7	ROSA X 'KORBIN' / ICEBERG FLORIBUNDA ROSE	5 GAL
	Rn	6	ROSA X 'NOASCHNEE' / FLOWER CARPET® WHITE GROUNDCOVER ROSE	5 GAL
	Rb2	4	ROSA X 'PROBRIL' / BRILLIANT PINK ICEBERG ROSE	5 GAL
	Se	4	SAMBUCUS CANADENSIS / AMERICAN ELDERBERRY	5 GAL
	Sa2	10	SPIRAEA JAPONICA 'ALBIFLORA' / WHITE JAPANESE SPIREA	5 GAL
	Sn	4	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA	5 GAL
	SO2	19	SYMPHORICARPOS OCCIDENTALIS / WESTERN SNOWBERRY	5 GAL
	SW	9	SYRINGA VULGARIS 'WEDGEWOOD BLUE' / WEDGEWOOD BLUE LILAC	5 GAL
	Vd	2	VIBURNUM DENTATUM 'ARROWWOOD' / ARROWWOOD VIBURNUM	5 GAL
	Vb	1	VIBURNUM PRUNIFOLIUM / BLACKHAW VIBURNUM	5 GAL
EVERGREEN SHRUBS				
	Jw	7	JUNIPERUS HORIZONTALIS 'WILTONII' / BLUE RUG JUNIPER	5 GAL
Jb2	JB2	4	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	5 GAL
	Jb	9	JUNIPERUS SQUAMATA 'BLUE STAR' / BLUE STAR JUNIPER	5 GAL
GRASSES				
	Bc	88	BOUTELOUA CURTIPENDULA / SIDE OATS GRAMA	F15
	Bg	13	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	F15
	CX	24	CAREX MORROWII 'ICE DANCE' / ICE DANCE JAPANESE SEDGE	1 GAL
	Ms	6	MISCANTHUS SINENSIS 'ADAGIO' / ADAGIO EULALIA GRASS	1 GAL
	SZ	139	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES' / PRAIRIE BLUES LITTLE BLUESTEM	F15
	ST	11	SORGHASTRUM NUTANS 'THIN MAN' / THIN MAN INDIAN GRASS	1 GAL
	SU	104	SPOROBOLUS HETEROLEPIS / PRAIRIE DROPSEED	F15
GROUNDCOVERS				
	Go	130	GALIUM ODORATUM / SWEET WOODRUFF	F15
	Pd2	15	PERSICARIA AFFINIS 'BORDER JEWEL' / HIMALAYAN BORDER JEWEL FLEECEFLOWER	F15
	PD	46	PHLOX BIFIDA 'SNOWMASS' / SNOWMASS PHLOX	5 GAL
	Ss2	13	STACHYS BYZANTINA 'SILVER CARPET' / SILVER CARPET LAMB'S EARS	F15
	Vc2	723	VINCA MINOR 'BOWLES' / BOWLES PERIWINKLE	F15
PERENNIALS				
	Am2	11	ALLIUM X 'MILLENIUM' / MILLENIUM ORNAMENTAL ONION	F15
	As	24	ARTEMISIA STELLERIANA 'SILVER BROCADE' / SILVER BROCADE BEACH WORMWOOD	1 GAL
	At2	6	ASCLEPIAS TUBEROSA / BUTTERFLY MILKWEED	1 GAL
	El	11	ECHINACEA PURPUREA / PURPLE CONEFLOWER	1 GAL
	Ef	14	ECHINACEA PURPUREA 'FRAGRANT ANGEL' / FRAGRANT ANGEL CONEFLOWER	1 GAL
	Ms2	7	MONARDA DIDYMA 'GARDENVIEW SCARLET' / GARDENVIEW SCARLET BEE BALM	1 GAL
	Ps2	11	PAEONIA LACTIFLORA 'SHIRLEY TEMPLE' / SHIRLEY TEMPLE PEONY	1 GAL
	SD	21	SALVIA DARCYI 'PSCARL' / VERMILION BLUFFS MEXICAN SAGE	1 GAL
VINES				
	CM2	3	CAMPSIS X TAGLIABUANA 'MADAME GALEN' / MADAME GALEN TRUMPET VINE	1 GAL
	LK	4	LONICERA RETICULATA X PROLIFERA 'KINTZLEY'S GHOST' / KINTZLEY'S GHOST HONEYSUCKLE	1 GAL
	LS	10	LONICERA SEMPERVIRENS 'MAGNIFICA' / MAGNIFICA TRUMPET HONEYSUCKLE	1 GAL
	LG	10	LONICERA X HECKROTTII 'GOLD FLAME' / GOLD FLAME HONEYSUCKLE	1 GAL
	WS	2	WISTERIA SINENSIS / CHINESE WISTERIA	1 GAL



01 ***EVENT LAWN SOUTH ENLARGEMENT***
1"=10'-0"

0 5 10 20 FT

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

wenk
MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

PLANTING PLAN - SOUTH EVENT LAWN

SHEET:

L2.13

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UTILITY LEGEND

-W-	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
-W-	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL

INLET — RE: CIVIL
STORM STRUCTURE — RE: CIVIL
MANHOLE — RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD
- EXISTING TREE, TO REMAIN
- EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

ENLARGEMENT L2.6
ENLARGEMENT L2.14
ENLARGEMENT L2.14
ENLARGEMENT L2.9

(1) JO, (1) Ap2, (1) JS, (1) Cl2, (1) SAM, (19) SO, (9) St2, (10) Sb2, (31) SZ, (1) OVA, (2) Rg2, (1) JO, (1) PPW, (1) SJJ, (1) PO, (1) PN2, (1) PJ, (2) JS, (1) PJ, (2) PN2, (1) PU, (1) JS, (1) PO, (1) Rg2, (2) JSS, (1) PJ, (1) PO, (6) EN, (2) Rp, (1) Rg2, (1) Rg2, (1) Se, (1) Rp, (3) SO3, (1) CMH, (1) CVW, (15) SZ, (15) SO, (1) RG3, (12) St2, RELOCATED TREE #35, RE: TR1.3, TALL GRASS NATIVE SEED MIX, TYP., (9) Mr2, (6) EN, (1) Se, (3) EN, (4) RW, (3) Ra, (1) Ar3, (5) SO3, (1) MTT, (1) MAA, (3) Au, (5) Ck, (2) PP, (1) Ar3, (1) CEP, (1) CPW, (1) CDD, (5) Mr2, (2) Au, (1) MSC, (2) Au, (3) RG3, (3) Au, (5) RC3, (16) Bg, (1) CCL, (2) WH, (3) FL, (3) WH, (3) WR, (2) Sn, (7) SD2, (1) Ar3, (1) PC, (3) Rp, (9) Bg, (3) EN, (17) ST, (3) PP, (1) MRR, (1) APR, (5) Sn, (3) Ra, (5) SM3, (1) Ar3, (5) VM2, (5) FL, (3) WR, (3) VC, (2) SW, (1) SPM, (2) PB2, (1) MAA, (1) CSN, (1) CJS, (3) SS3, (5) SD2, (3) SX, (1) CMC, (4) JSW, (4) JSS, (2) JSW, (4) JVT, (2) JSJ, (6) JSR, (1) JVB, (1) KPG, (1) CKY, (17) SO, (2) Rg2, (3) Sb2, (1) PPW, (8) Sb2, (1) JO, (3) PO, (1) PU, (1) Rg2, (1) PP4, (2) JSS, (1) Cl2, (4) Sb2, (1) KPG, (1) CKY, (1) PPW, (1) Rg2, (1) JO, (1) OVA, (2) Rg2, (1) JO, (1) PPW, (1) SJJ, (1) PO, (1) PN2, (1) PJ, (2) JS, (1) PJ, (2) PN2, (1) PU, (1) JS, (1) PO, (1) Rg2, (2) JSS, (1) PJ, (1) PO, (6) EN, (2) Rp, (1) Rg2, (1) Rg2, (1) Se, (1) Rp, (3) SO3, (1) CMH, (1) CVW, (15) SZ, (15) SO, (1) RG3, (12) St2, RELOCATED TREE #35, RE: TR1.3, TALL GRASS NATIVE SEED MIX, TYP., (9) Mr2, (6) EN, (1) Se, (3) EN, (4) RW, (3) Ra, (1) Ar3, (5) SO3, (1) MTT, (1) MAA, (3) Au, (5) Ck, (2) PP, (1) Ar3, (1) CEP, (1) CPW, (1) CDD, (5) Mr2, (2) Au, (1) MSC, (2) Au, (3) RG3, (3) Au, (5) RC3, (16) Bg, (1) CCL, (2) WH, (3) FL, (3) WH, (3) WR, (2) Sn, (7) SD2, (1) Ar3, (1) PC, (3) Rp, (9) Bg, (3) EN, (17) ST, (3) PP, (1) MRR, (1) APR, (5) Sn, (3) Ra, (5) SM3, (1) Ar3, (5) VM2, (5) FL, (3) WR, (3) VC, (2) SW, (1) SPM, (2) PB2, (1) MAA, (1) CSN, (1) CJS, (3) SS3, (5) SD2, (3) SX, (1) CMC, (4) JSW, (4) JSS, (2) JSW, (4) JVT, (2) JSJ, (6) JSR, (1) JVB, (1) KPG, (1) CKY, (17) SO, (2) Rg2, (3) Sb2, (1) PPW, (8) Sb2, (1) JO, (3) PO, (1) PU, (1) Rg2, (1) PP4, (2) JSS, (1) Cl2, (4) Sb2, (1) KPG, (1) CKY, RELOCATED TREE #27, RE: TR1.3, RELOCATED TREE #16, RE: TR1.1, RELOCATED TREE #17, RE: TR1.1, TALL GRASS NATIVE SEED MIX, TYP., WILDFLOWER NATIVE SEED MIX, TYP., COP, MRB, ST, R T

01 SHRUB GARDEN ENLARGEMENT
1"=10'-0"

0 5 10 20 FT N

PLANT SCHEDULE SHRUB GARDEN

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
DECIDUOUS SHRUBS				
Ar3	Ar3	4	AMELANCHIER ALNIFOLIA 'REGENT' / REGENT SERVICEBERRY	5 GAL
Ck	Ck	5	CORNUS SERICEA 'KELSEYI' / KELSEY'S DWARF RED TWIG DOGWOOD	5 GAL
EN	EN	18	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
FL	FL	8	FORSYTHIA X INTERMEDIA 'LYNWOOD GOLD' / LYNWOOD GOLD FORSYTHIA	5 GAL
Mr2	Mr2	14	MAHONIA REPENS / CREEPING MAHONIA	1 GAL
PC	PC	2	PHILADELPHUS LEWISII 'PWY01S' / CHEYENNE® MOCK ORANGE	5 GAL
PB2	PB2	2	PHYSOCARPUS OPULIFOLIUS 'MONLO' / DIABOLO® NINEBARK	5 GAL
PP	PP	5	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
Rg2	Rg2	8	RHUS AROMATICA 'GRO-LOW' / GRO-LOW FRAGRANT SUMAC	5 GAL
Ra	Ra	6	RHUS TRILOBATA 'AUTUMN AMBER' / AUTUMN AMBER SUMAC	1 GAL
RG3	RG3	4	RIBES AUREUM / GOLDEN CURRANT	5 GAL
RC3	RC3	5	RIBES CEREUM / WAX CURRANT	5 GAL
Rp	Rp	6	RIBES X 'PIXWELL' / PIXWELL GOOSEBERRY	5 GAL
RW	RW	4	ROSA WOODSII / WOODS' ROSE	5 GAL
Se	Se	2	SAMBUCUS CANADENSIS / AMERICAN ELDERBERRY	5 GAL
Sn	Sn	7	SPIRAEA NIPPONICA 'SNOWMOUND' / SNOWMOUND SPIREA	5 GAL
SM3	SM3	5	SPIRAEA THUNBERGII 'OGON' / MELLOW YELLOW™ SPIREA	5 GAL
SD2	SD2	12	SPIRAEA X 'NCSX2' / DOUBLE PLAY DOOZIE® SPIREA	1 GAL
SO3	SO3	8	SYMPHORICARPOS ORBICULATUS / CORALBERRY	5 GAL
SS3	SS3	3	SYRINGA PUBESCENS MICROPHYLLA 'CHEYENNE' / PINK ON REPEAT™ LILAC	5 GAL
SW	SW	2	SYRINGA VULGARIS 'WEDGEWOOD BLUE' / WEDGEWOOD BLUE LILAC	5 GAL
SX	SX	3	SYRINGA X 'BAILBRIDGET' / FIRST EDITIONS® VIRTUAL VIOLET® LILAC	5 GAL
VM2	VM2	5	VIBURNUM DENTATUM 'BLUE MUFFIN' / BLUE MUFFIN ARROWWOOD VIBURNUM	1 GAL
VC	VC	3	VIBURNUM OPULUS 'COMPACTUM' / COMPACT EUROPEAN CRANBERRYBUSH	5 GAL
WR	WR	6	WEIGELA FLORIDA 'RED PRINCE' / RED PRINCE WEIGELA	5 GAL
WH	WH	5	WEIGELA FLORIDA 'SMNWFMS' / MIDNIGHT WINE SHINE® WEIGELA	5 GAL
EVERGREEN SHRUBS				
JH	JH	3	JUNIPERUS CHINENSIS 'HOLBERT' / HOLBERT JUNIPER	5 GAL
Jb2	JB2	6	JUNIPERUS SABINA 'BROADMOOR' / BROADMOOR JUNIPER	5 GAL
JO	JO	3	JUNIPERUS X MEDIA 'OLD GOLD' / OLD GOLD JUNIPER	5 GAL
JS	JS	4	JUNIPERUS X MEDIA 'SEA GREEN' / SEA GREEN JUNIPER	5 GAL
PN2	PN2	3	PICEA ABIES 'NIDIFORMIS' / BIRD'S NEST NORWAY SPRUCE	5 GAL
PP4	PP4	1	PICEA ABIES 'PENDULA' / WEEPING NORWAY SPRUCE	5 GAL
Pg	Pg	1	PICEA PUNGENS 'GLAUCA GLOBOSA' / BLUE GLOBE COLORADO SPRUCE	5 GAL
PU	PU	3	PINUS BANKSIANA 'UNCLE FOGY' / UNCLE FOGY JACK PINE	5 GAL
Pb	Pb	3	PINUS MUGO 'BIG TUNA' / BIG TUNA MUGO PINE	5 GAL
PJ	PJ	3	PINUS MUGO 'JAKOBSEN' / JAKOBSEN MUGO PINE	5 GAL
PO	PO	6	PINUS MUGO 'LAARHEIDE' / LAARHEIDE GOLDEN MUGO PINE	5 GAL
GRASSES				
Bg	Bg	25	BOUTELOUA GRACILIS / BLUE GRAMA GRASS	F15
Sb2	Sb2	25	SCHIZACHYRIUM SCOPARIUM 'BLAZE' / BLAZE LITTLE BLUESTEM	1 GAL
SZ	SZ	46	SCHIZACHYRIUM SCOPARIUM 'PRAIRIE BLUES' / PRAIRIE BLUES LITTLE BLUESTEM	F15
SO	SO	51	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION' / STANDING OVATION LITTLE BLUESTEM	1 GAL
St2	St2	21	SCHIZACHYRIUM SCOPARIUM 'TWILIGHT ZONE' / TWILIGHT ZONE LITTLE BLUESTEM	1 GAL
ST	ST	17	SORGHASTRUM NUTANS 'THIN MAN' / THIN MAN INDIAN GRASS	1 GAL
GROUNDCOVERS				
Au	Au	13	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	5 GAL
Ap2	Ap2	1	ARCTOSTAPHYLOS X COLORADENSIS 'PANCHITO' / PANCHITO MANZANITA	5 GAL

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

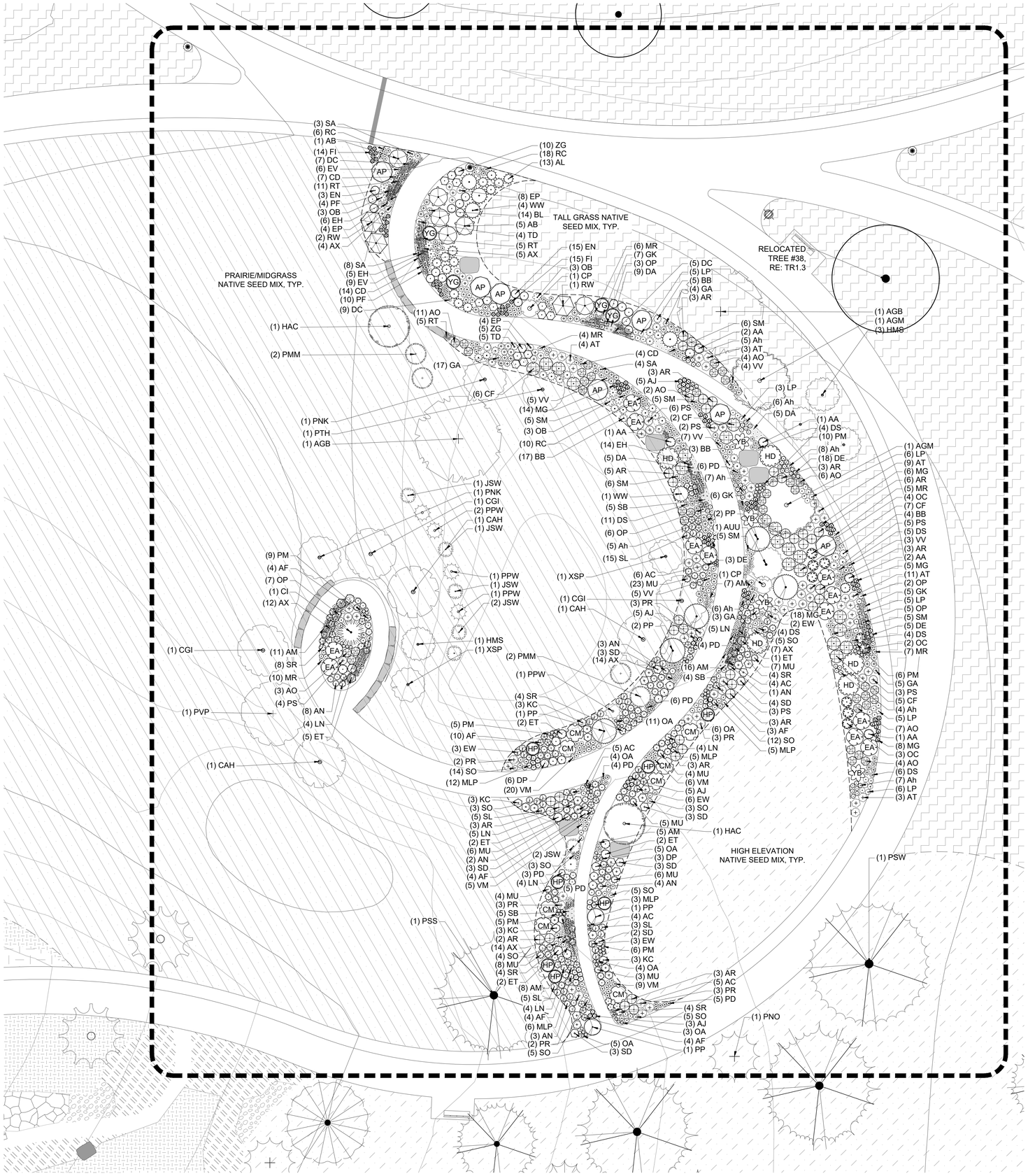
PLANTING PLAN - SHRUB GARDEN

SHEET:

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UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL
E	EXISTING TREE, TO REMAIN	
	EXISTING TREE, RELOCATED, RE: TR1.1	

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED MIX
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

PLANT SCHEDULE WATER WISE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
CACTI / SUCCULENTS				
	AN	21	AGAVE NEOMEXICANA / NEW MEXICO AGAVE	1 GAL
	AA	7	AGAVE PARRYI TRUNCATA / ARTICHOKE PARRY'S AGAVE	1 GAL
	CI	1	CYLINDROPUNTIA IMBRICATA / TREE CHOLLA	5 GAL
	WW	5	CYLINDROPUNTIA WHIPPLEI / WHIPPLE CHOLLA	5 GAL
	EV	15	ECHINOCEREUS VIRIDIFLORUS / GREEN-FLOWERED HEDGEHOG CACTUS	F15
	ET	14	ECHINOCEREUS TRIGLOCHIDIATUS / CLARET CUP CACTUS	F15
HP	HP	7	HESPERALOE PARVIFLORA / RED YUCCA	1 GAL
	OB	9	OPUNTIA BASILARIS / BEAVERTAIL PRICKLY PEAR	1 GAL
	OC	9	OPUNTIA POLYACANTHA 'CITRUS PUNCH' / CITRUS PUNCH PRICKLY PEAR	F15
	OP	23	OPUNTIA POLYACANTHA 'PETER PAN' / PETER PAN PLAINS PRICKLY PEAR	F15
	PF	14	PEDIOCACTUS SIMPSONII / SIMPSON'S FOOT CACTUS	F15
	SB	14	SEMPERVIVUM X 'RED BEAUTY' / HEN-AND-CHICKS	F15
YB	YB	4	YUCCA BACCATA / BANANA YUCCA	1 GAL
YG	YG	4	YUCCA GLAUCA / SOAPWEED	1 GAL
DECIDUOUS SHRUBS				
	AB	6	ARCTOSTAPHYLOS X COLORADENSIS 'CHIEFTAIN' / CHIEFTAIN MOCK BEARBERRY MANZANITA	5 GAL
	AR	37	ARTEMISIA ABROTANUM 'LEPRECHAUN' / LEPRECHAUN SOUTHERNWOOD	5 GAL
	AO	37	ARTEMISIA FILIFOLIA / SAND SAGEBRUSH	1 GAL
	AF	29	ARTEMISIA FRIGIDA / FRINGED WORMWOOD	1 GAL
	CF	20	CEANOTHUS FENDLERI / FENDLER'S CEANOTHUS	5 GAL
CM	CM	8	CHAMAEBATIARIA MILLEFOLIUM / FERNBUSH	5 GAL
	EP	16	ENGELMANNIA PERISTENIA / ENGELMANN'S DAISY	5 GAL
EA	EA	12	EPHEDRA ANTISYPHILITICA / MORMON TEA	5 GAL
	EN	22	ERICAMERIA NAUSEOSA NAUSEOSA / BABY BLUE RABBITBRUSH	5 GAL
	EW	14	ERIOGONUM WRIGHTII WRIGHTII / WRIGHT'S BUCKWHEAT	5 GAL
AP	AP	7	FALLUGIA PARADOXA / APACHE PLUME	5 GAL
HD	HD	5	HOLODISCUS DUMOSUS / ROCK SPIREA	5 GAL
	PP	7	PRUNUS BESSEYI 'P011S' / PAWNEE BUTTES® SAND CHERRY	5 GAL
	RW	3	ROSA WOODSII / WOODS' ROSE	5 GAL
	SL	28	SALVIA ARGENTEA / SILVER SAGE	5 GAL
GRASSES				
	AL	13	ACHNATHERUM CALAMAGROSTIS 'PUND02S' / UNDAUNTED® ALPINE PLUME GRASS	1 GAL
	Ah	48	ACHNATHERUM HYMENOIDES / INDIAN RICEGRASS	1 GAL
	BB	29	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION BLUE GRAMA	F15
FI	FI	29	FESTUCA IDAHOENSIS / IDAHO FESCUE	1 GAL
MG	MG	51	MELINIS NERVIGLUMIS 'PINK CRYSTALS' / PINK CRYSTALS RUBY GRASS	1 GAL
	MU	66	MUHLENBERGIA REVERCHONII 'PUND01S' / UNDAUNTED® RUBY MUHLY	1 GAL
	SO	59	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION' / STANDING OVATION LITTLE BLUESTEM	1 GAL
GROUNDCOVERS				
	LP	30	ANTENNARIA MICROPHYLLA / LITTLELEAF PUSSYTOES	5 GAL
	AM	47	ANTENNARIA PARVIFOLIA 'MCCLINTOCK' / MCCLINTOCK SMALL-LEAF PUSSYTOES	5 GAL
	AX	56	ARENARIA X 'WALLOWA MOUNTAINS' / WALLOWA MOUNTAINS SANDWORT	5 GAL
	CP	2	CALLIRHOE INVOLUCRATA / PURPLE POPPYMALLOW	5 GAL
	DA	19	DELOSPERMA X 'ALAN'S APRICOT' / ALAN'S APRICOT ICE PLANT	5 GAL
	DC	21	DELOSPERMA X 'PJS01S' / GRANITA® RASPBERRY ICE PLANT	5 GAL
	DE	26	DELOSPERMA X 'PJS02S' / GRANITA® ORANGE ICE PLANT	5 GAL
	DP	9	DELOSPERMA X 'PWWG02S' / RED MOUNTAIN FLAME ICE PLANT	5 GAL
	EH	25	EREMOGONE HOOKERI / HOOKER'S SANDWORT	5 GAL
	GK	18	GAZANIA KREBSIANA 'TANAGER' / TANAGER GAZANIA	5 GAL
	MR	32	MARRUBIUM ROTUNDIFOLIUM / SILVERY HOREHOUND	5 GAL
	PD	33	PHLOX BIFIDA 'SNOWMASS' / SNOWMASS PHLOX	5 GAL
	CD	25	PTEROCEPHALUS DEPRESSUS / CARPETING PINCUSHION FLOWER	5 GAL
	SA	15	SEDUM ACRE / GOLDMOSS STONECROP	5 GAL
	SR	24	SEDUM SPURIUM 'RED CARPET' / RED CARPET TWO ROW STONECROP	5 GAL
	RT	21	SPHAEROMERIA CAPITATA / ROCK TANSY	5 GAL
	TD	9	TANACETUM DENSUM AMANI / PARTRIDGE FEATHER	5 GAL
	VV	25	VERBENA BIPINNATIFIDA 'VALLEY LAVENDER' / VALLEY LAVENDER PLAINS VERBENA	5 GAL
	VM	40	VERONICA X 'P018S' / SNOWMASS® BLUE-EYED SPEEDWELL	5 GAL
	ZG	15	ZINNIA GRANDIFLORA 'GOLD ON BLUE' / GOLD ON BLUE ROCKY MOUNTAIN ZINNIA	5 GAL
PERENNIALS				
	AJ	18	AMSONIA JONESII / COLORADO DESERT BLUESTAR	1 GAL
	AC	24	ANCHUSA CAPENSIS / SUMMER FORGET-ME-NOT	1 GAL
	AT	30	ASCLEPIAS TUBEROSA INTERIOR / BUTTERFLY MILKWEED	1 GAL
	BL	14	BERLANDIERA LYRATA / CHOCOLATE DAISY	1 GAL
	DS	34	DIGITALIS OBSCURA 'SUNSET' / SUNSET FOXGLOVE	1 GAL
	GA	29	GAILLARDIA ARISTATA / BLANKET FLOWER	1 GAL
	KC	12	KNIPHOFIA CAULESCENS / TORCH LILY	1 GAL
	LN	26	LINUM NARBONENSE / SPANISH BLUE FLAX	1 GAL
	MLP	31	MERTENSIA LANCEOLATA / PRAIRIE BLUEBELLS	1 GAL
	OA	38	OSTEOSPERMUM X 'AVALANCHE' / AVALANCHE WHITE SUN DAISY	1 GAL
	PM	41	PENSTEMON MENSARUM / GRAND MESA BEARDTONGUE	1 GAL
	PS	23	PENSTEMON PINIFOLIUS 'P019S' / STEPPESUNS® SUNSET GLOW PENSTEMON	1 GAL
	PR	16	PENSTEMON ROSTRIFLORUS / BRIDGE PENSTEMON	1 GAL
	RC	34	RATIBIDA COLUMNIFERA / PRAIRIE CONEFLOWER	1 GAL
	SD	21	SALVIA DARCYI 'PSCARL' / VERMILION BLUFFS MEXICAN SAGE	1 GAL
	SM	32	SPHAERALCEA MUNROANA / MUNRO'S GLOBEMALLOW	1 GAL

01 WATER WISE GARDEN ENLARGEMENT
1"=10'-0"

0 5 10 20 FT

N

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TOWN of BERTHOUD EST. 1888 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

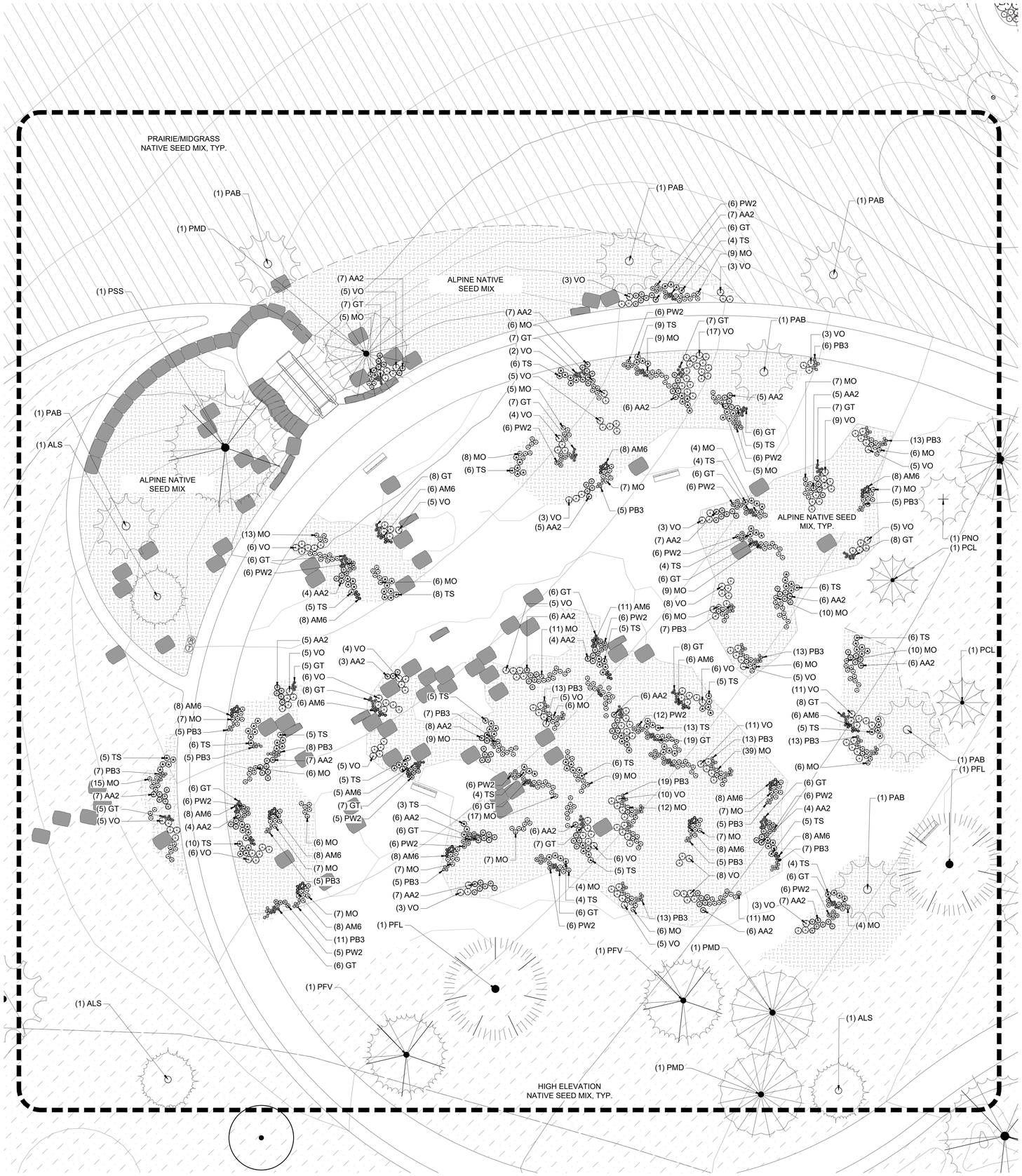
PLANTING PLAN - WATER WISE

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01 ALPINE GARDEN ENLARGEMENT

1"=10'-0"

0 5 10 20 FT. N

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE

PLANT SCHEDULE ALPINE				
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
GRASSES				
	MO	348	MUHLENBERGIA MONTANA / MOUNTAIN MUHLY	F15
PERENNIALS				
	AM6	128	ARMERIA MARITIMA / SEA THRIFT	F15
	AA2	151	ASTER ALPINUS / ALPINE ASTER	F15
	GT	202	GEUM TRIFLORUM / PRAIRIE SMOKE	F15
	PW2	106	PENSTEMON CAESPITOSUS 'P0225' / WAGGON WHEEL BLUEMAT PENSTEMON	1 GAL
	PB3	190	PENSTEMON VIRENS / BLUE MIST PENSTEMON	1 GAL
	TS	158	THYMUS SERPYLLUM / CREEPING THYME	F15
	VO	195	VERONICA OLTENSIS / SPEEDWELL	F15

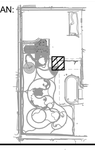
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

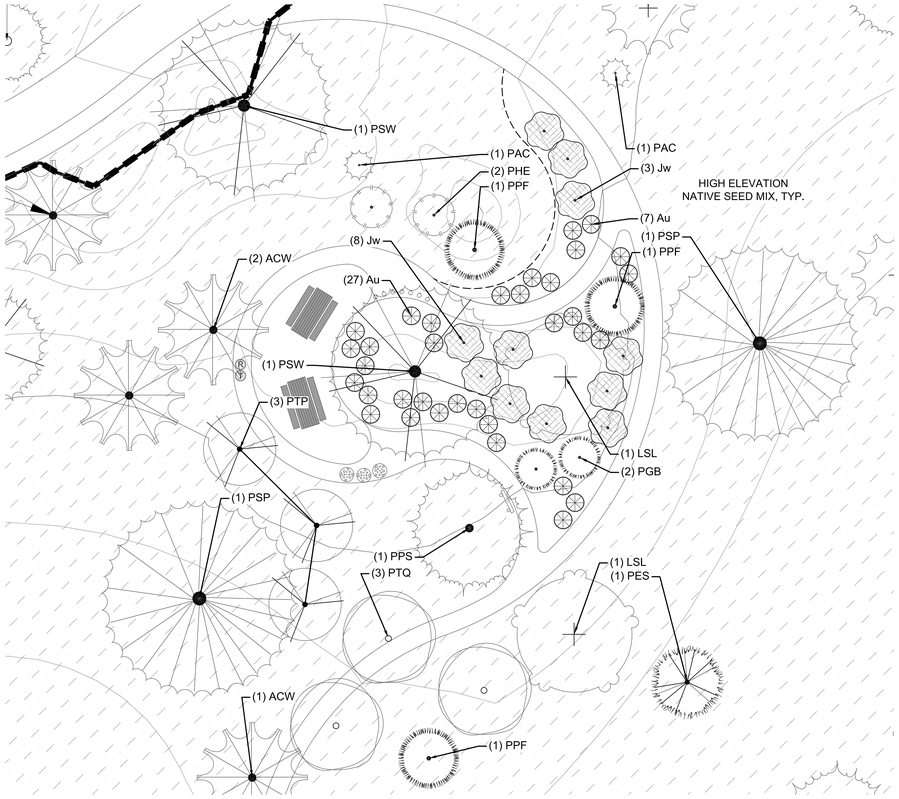
PLANTING PLAN - ALPINE GARDEN

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01 ***PICNIC AREA***
1"=10'-0"

PLANT SCHEDULE PICNIC AREA				
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
EVERGREEN SHRUBS				
	Jw	11	JUNIPERUS HORIZONTALIS 'WILTONII' / BLUE RUG JUNIPER	5 GAL
GROUNDCOVERS				
	Au	34	ARCTOSTAPHYLOS UVA-URSI / KINNIKINNICK	5 GAL

PLANT SCHEDULE SW CORNER				
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE
BULBS				
	Tt2	14	TULIPA CLUSIANA 'TUBERGEN'S GEM' / TUBERGEN'S GEM LADY TULIP	BULB
	Tt	24	TULIPA TURKESTANICA / TULIP	BULB
	Tx	22	TULIPA X 'CATHERINA' / CATHERINA TULIP	BULB
DECIDUOUS SHRUBS				
	Cb2	4	CORNUS ALBA 'BUD'S YELLOW' / BUD'S YELLOW TATARIAN DOGWOOD	5 GAL
	En2	8	EUONYMUS NANUS TURKESTANICUS / TURKESTAN BURNING BUSH	5 GAL
EVERGREEN SHRUBS				
	JO	6	JUNIPERUS X MEDIA 'OLD GOLD' / OLD GOLD JUNIPER	5 GAL
JS	JS	1	JUNIPERUS X MEDIA 'SEA GREEN' / SEA GREEN JUNIPER	5 GAL
Pb	Pb	1	PINUS MUGO 'BIG TUNA' / BIG TUNA MUGO PINE	5 GAL
GRASSES				
	BB	37	BOUTELOUA GRACILIS 'BLONDE AMBITION' / BLONDE AMBITION BLUE GRAMA	F15
	MU	73	MUHLENBERGIA REVERCHONII 'PUND01S' / UNDAUNTED® RUBY MUHLY	1 GAL
GROUNDCOVERS				
	Vc2	182	VINCA MINOR 'BOWLES' / BOWLES PERIWINKLE	F15
PERENNIALS				
	Ps3	21	PENSTEMON STRICTUS / ROCKY MOUNTAIN PENSTEMON	F15
	RC	31	RATIBIDA COLUMNIFERA / PRAIRIE CONEFLOWER	1 GAL

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
SS	MANHOLE	RE: CIVIL

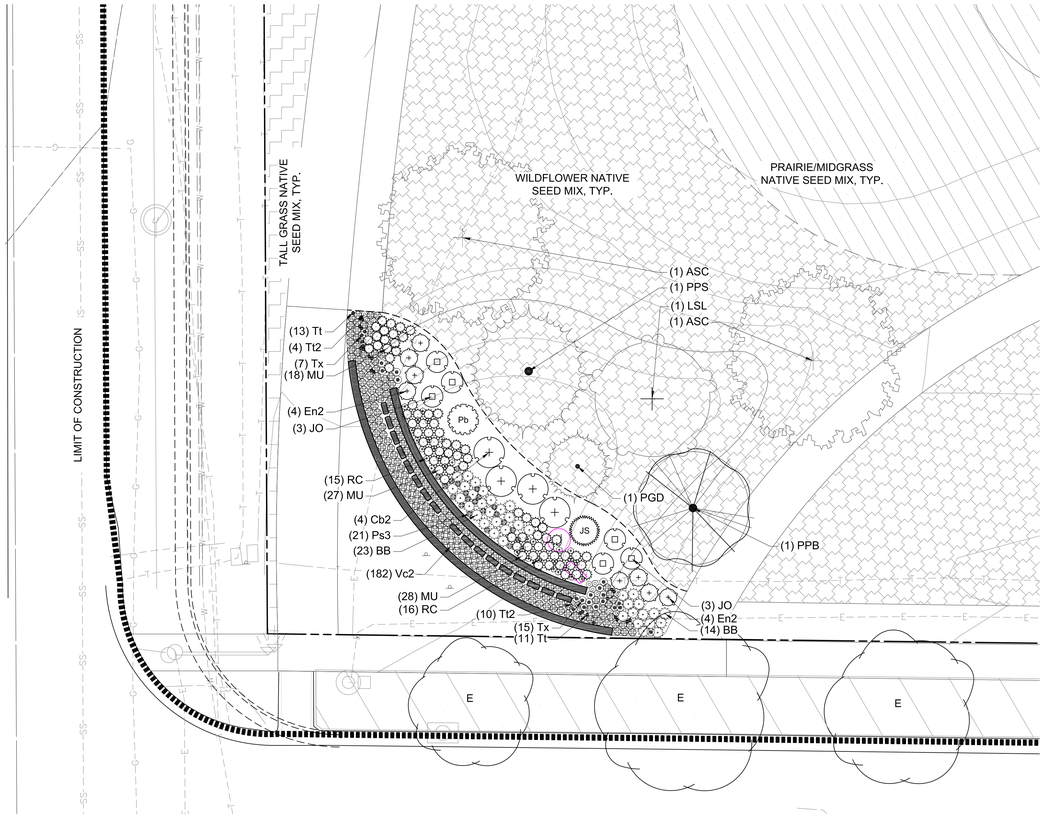
PLANTING LEGEND

- ALPINE NATIVE SEED MIX
- RIPARIAN NATIVE SEED MIX
- WETLAND NATIVE SEED MIX
- WILDFLOWER NATIVE SEED MIX
- TALL GRASS NATIVE SEED MIX
- PRAIRIE/MIDGRASS NATIVE SEED M
- ARID NATIVE SEED MIX
- HIGH ELEVATION NATIVE SEED MIX
- SOD

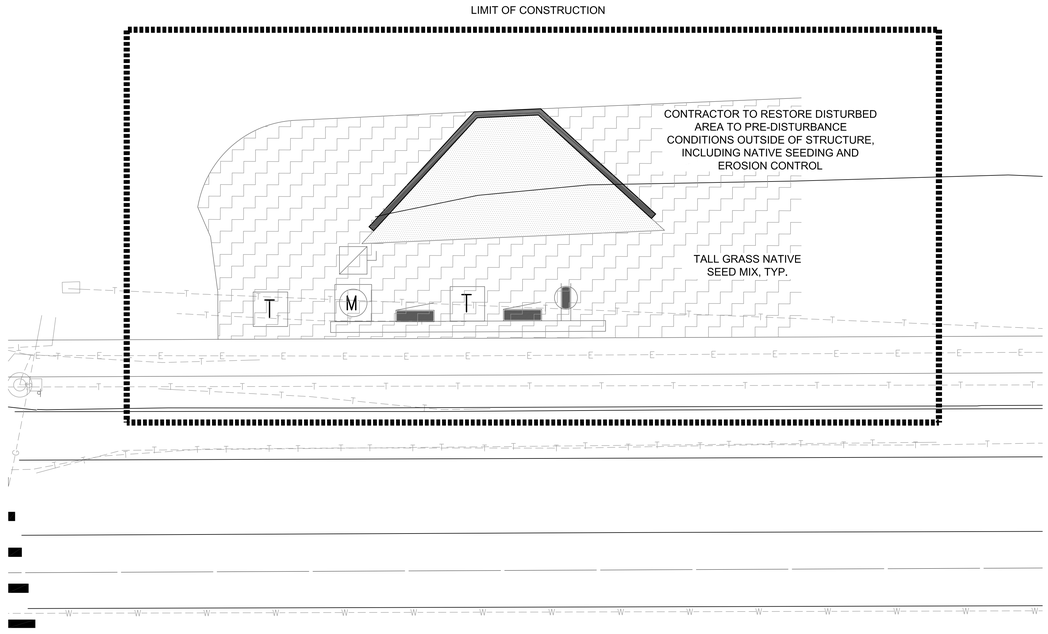
E — EXISTING TREE, TO REMAIN

EXISTING TREE, RELOCATED, RE: TR1.1

NOTES:
1. REFER TO L2.1 FOR THE TREE PLANTING SCHEDULE



02 ***SOUTHWEST ENTRY***
1"=10'-0"



03 ***ADD ALT #1 IRRIGATION TURN DOWN ENLARGMENT***
1"=10'-0"

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN: 03, 01, 02

REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

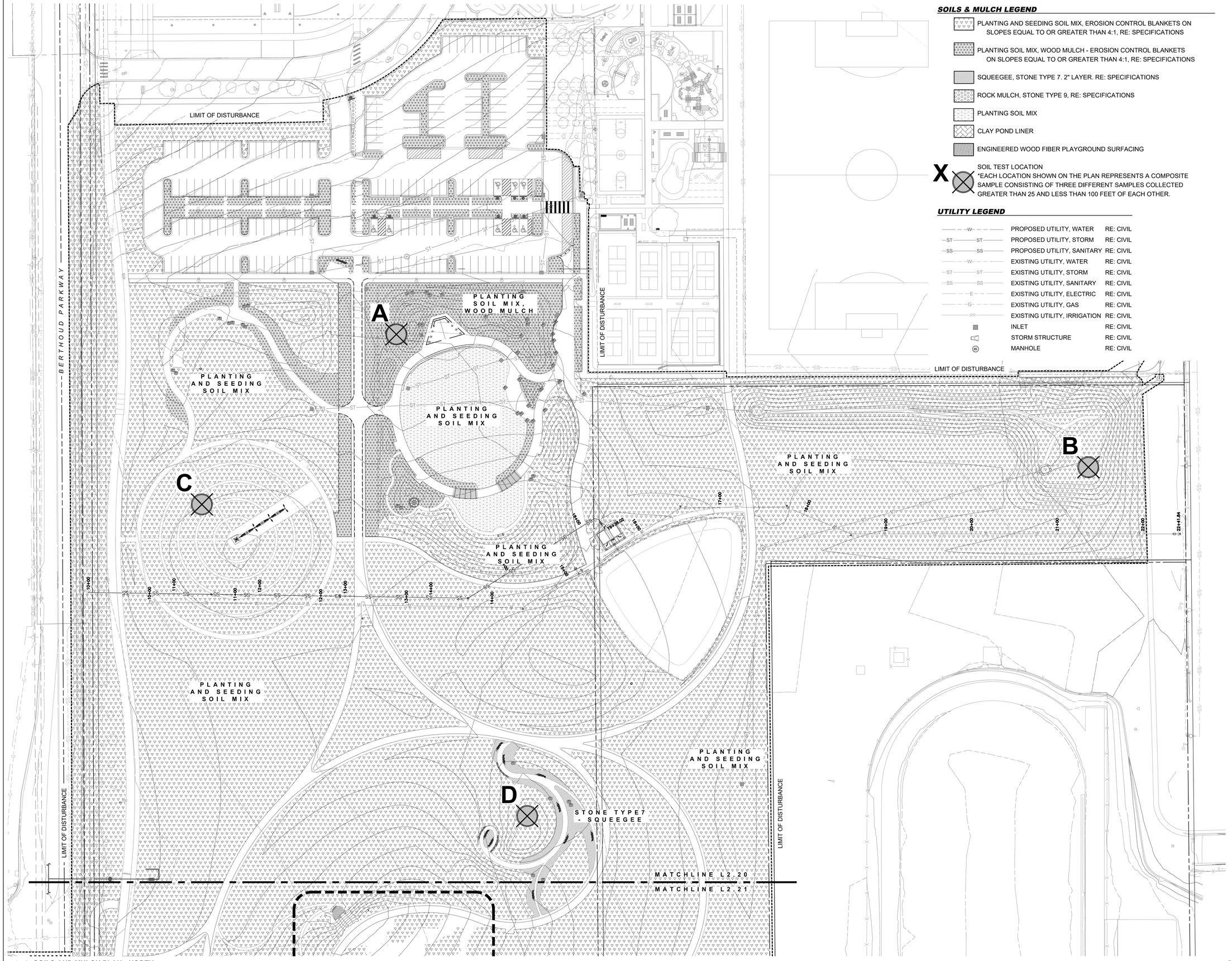
PLANTING PLAN - MUSIC AREA, SW ENTRY, NORTH IRRIGATION

SHEET:

L2.17

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SOILS & MULCH LEGEND

- PLANTING AND SEEDING SOIL MIX, EROSION CONTROL BLANKETS ON SLOPES EQUAL TO OR GREATER THAN 4:1, RE: SPECIFICATIONS
- PLANTING SOIL MIX, WOOD MULCH - EROSION CONTROL BLANKETS ON SLOPES EQUAL TO OR GREATER THAN 4:1, RE: SPECIFICATIONS
- SQUEEGEE, STONE TYPE 7. 2" LAYER. RE: SPECIFICATIONS
- ROCK MULCH, STONE TYPE 9, RE: SPECIFICATIONS
- PLANTING SOIL MIX
- CLAY POND LINER
- ENGINEERED WOOD FIBER PLAYGROUND SURFACING
- X — SOIL TEST LOCATION
  *EACH LOCATION SHOWN ON THE PLAN REPRESENTS A COMPOSITE SAMPLE CONSISTING OF THREE DIFFERENT SAMPLES COLLECTED GREATER THAN 25 AND LESS THAN 100 FEET OF EACH OTHER.

UTILITY LEGEND

W	PROPOSED UTILITY, WATER	RE: CIVIL
ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
ST	EXISTING UTILITY, STORM	RE: CIVIL
SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL
	INLET	RE: CIVIL
	STORM STRUCTURE	RE: CIVIL
	MANHOLE	RE: CIVIL

01 ***SOILS AND MULCH PLAN - NORTH***
1"=40'-0"

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TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

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SOILS AND MULCH PLAN - NORTH

SHEET:

L2.20



SOILS & MULCH LEGEND

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- PLANTING SOIL MIX, WOOD MULCH - EROSION CONTROL BLANKETS ON SLOPES EQUAL TO OR GREATER THAN 4:1, RE: SPECIFICATIONS
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- PLANTING SOIL MIX
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  *EACH LOCATION SHOWN ON THE PLAN REPRESENTS A COMPOSITE SAMPLE CONSISTING OF THREE DIFFERENT SAMPLES COLLECTED GREATER THAN 25 AND LESS THAN 100 FEET OF EACH OTHER.

UTILITY LEGEND

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ST	PROPOSED UTILITY, STORM	RE: CIVIL
SS	PROPOSED UTILITY, SANITARY	RE: CIVIL
W	EXISTING UTILITY, WATER	RE: CIVIL
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SS	EXISTING UTILITY, SANITARY	RE: CIVIL
E	EXISTING UTILITY, ELECTRIC	RE: CIVIL
G	EXISTING UTILITY, GAS	RE: CIVIL
IRR	EXISTING UTILITY, IRRIGATION	RE: CIVIL

01 SOILS AND MULCH PLAN - NORTH
1"=40'-0"

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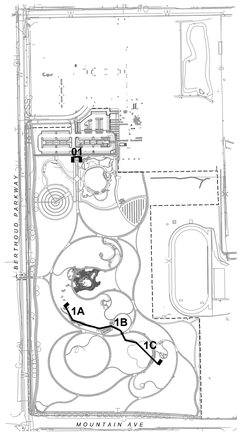
SOILS AND MULCH PLAN - SOUTH

SHEET:

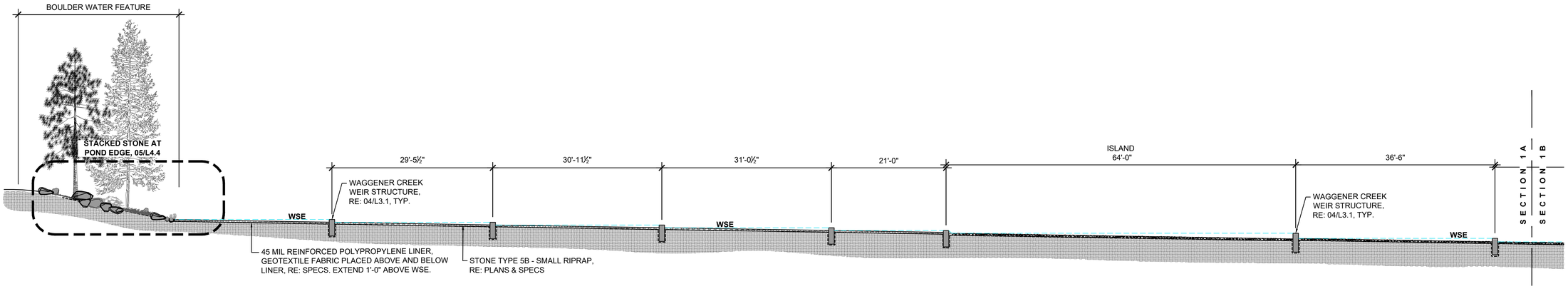
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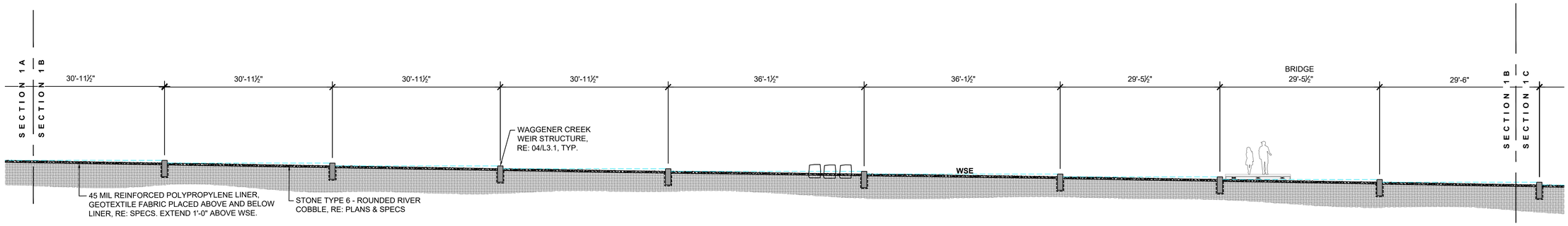
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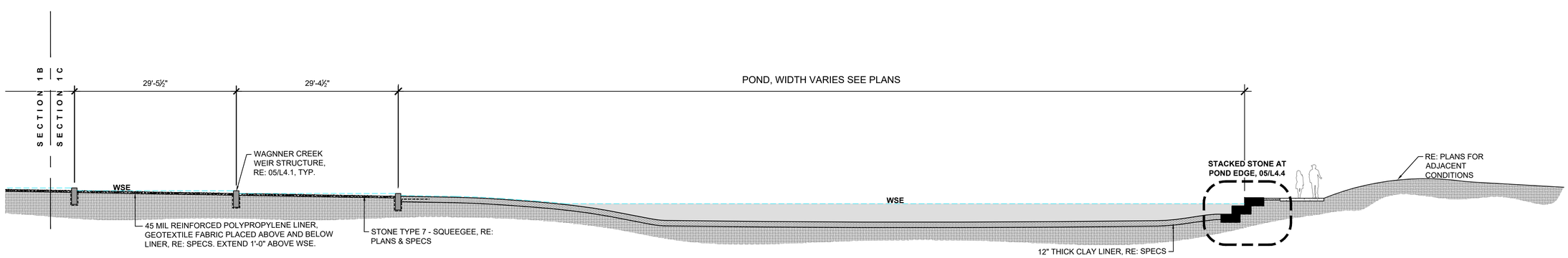
00 ***KEY PLAN***
1"=400'-0"



1A ***SECTION - WAGGENER CREEK***
1-1/2"=1'-0"



1B ***SECTION - WAGGENER CREEK***
1-1/2"=1'-0"



1C ***SECTION - WAGGENER CREEK AND POND***
1-1/2"=1'-0"

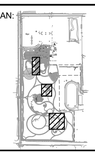
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Garden Spot of Colorado

BERTHOUD AREA ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

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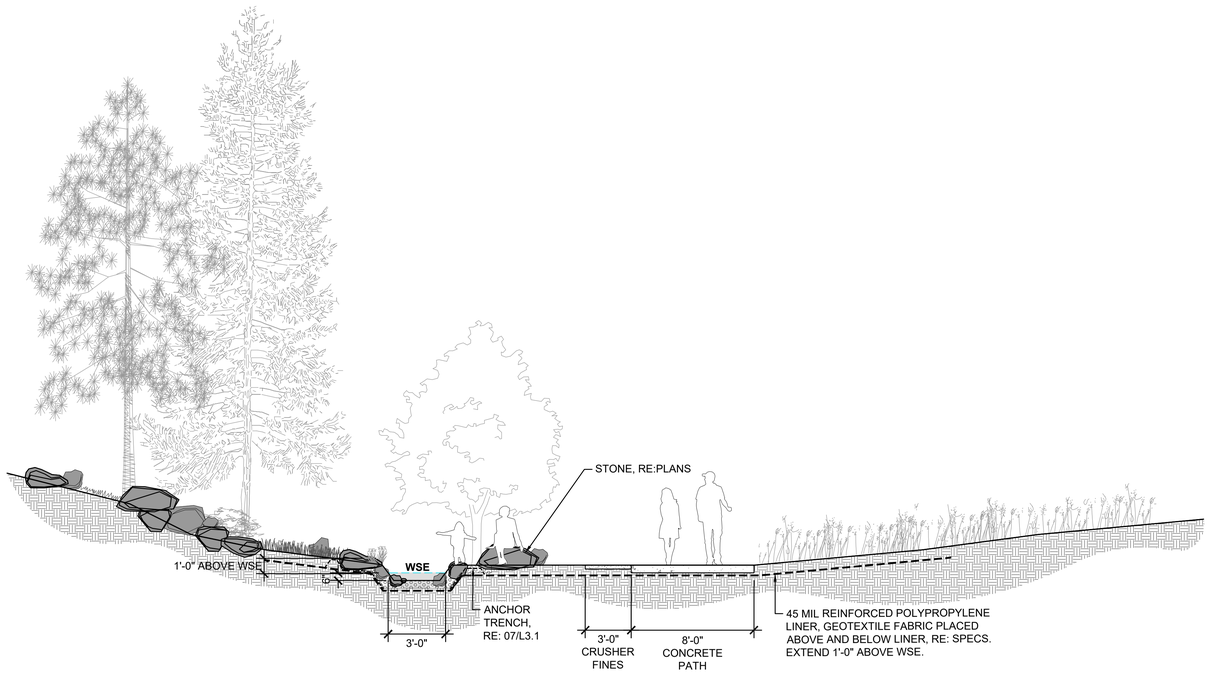
SITE SECTIONS

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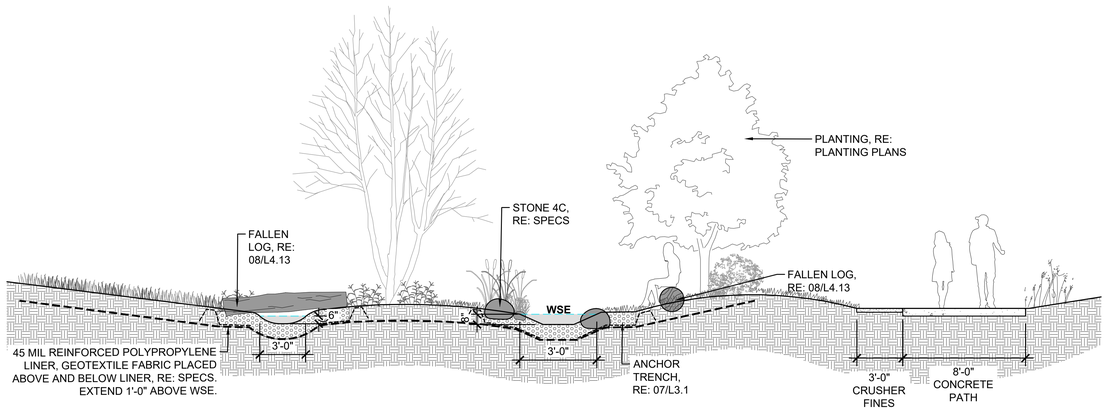
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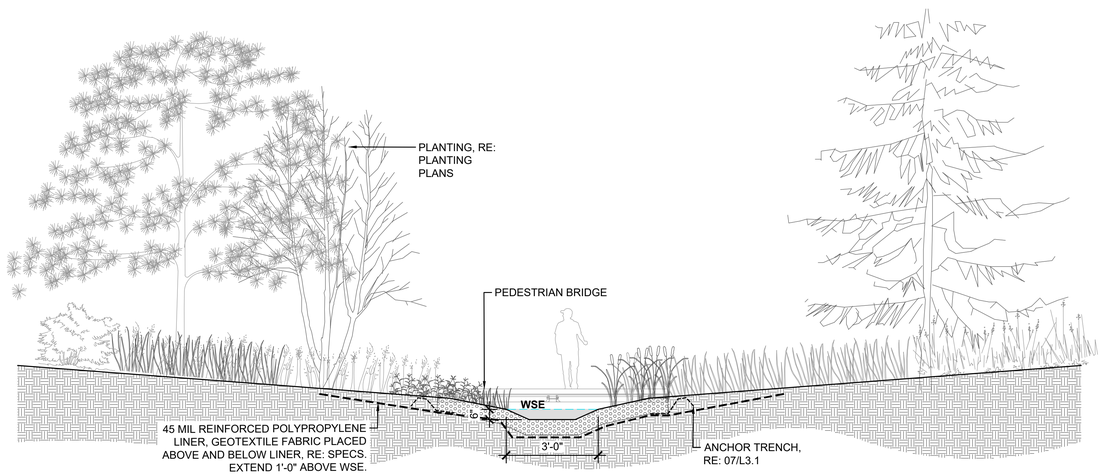
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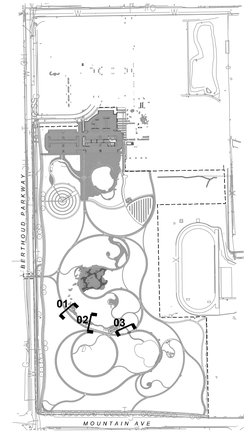
01 ***SECTION - WAGGENER CREEK***
1/4"=1'-0"



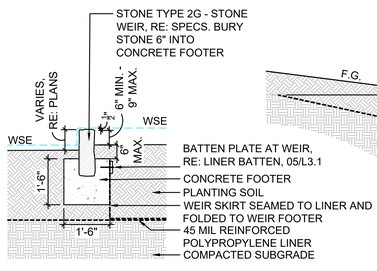
02 ***SECTION - WAGGENER CREEK***
1/4"=1'-0"

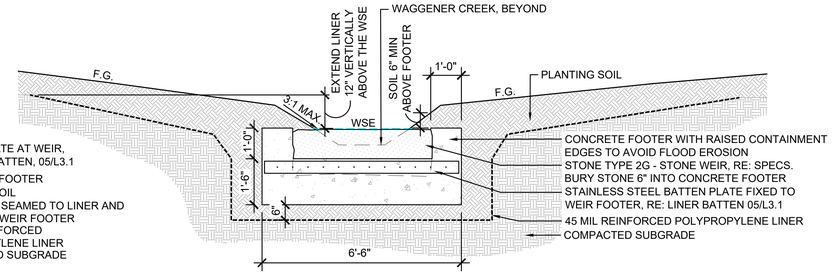


03 ***SECTION - WAGGENER CREEK***
1/4"=1'-0"

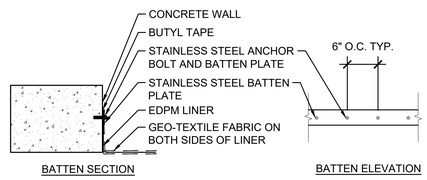


00 ***KEY PLAN***
1"=400'-0"

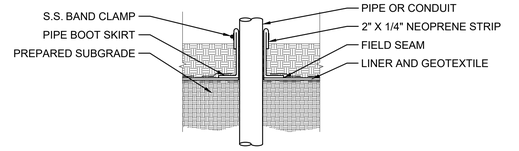




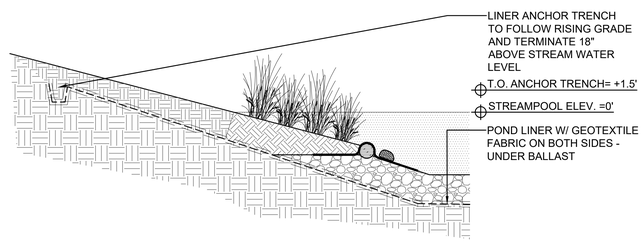
04 ***WAGGENER CREEK WEIR STONE STRUCTURE***
6"= 1'-0"



05 ***LINER BATTEN***
1"=1'-0"



06 ***LINER BATTEN AT PIPE***
1"=1'-0"



07 ***LINER TRENCH***
6"=1'-0"

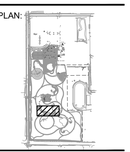
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TOWN of BERTHOUD EST. 1988 — Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

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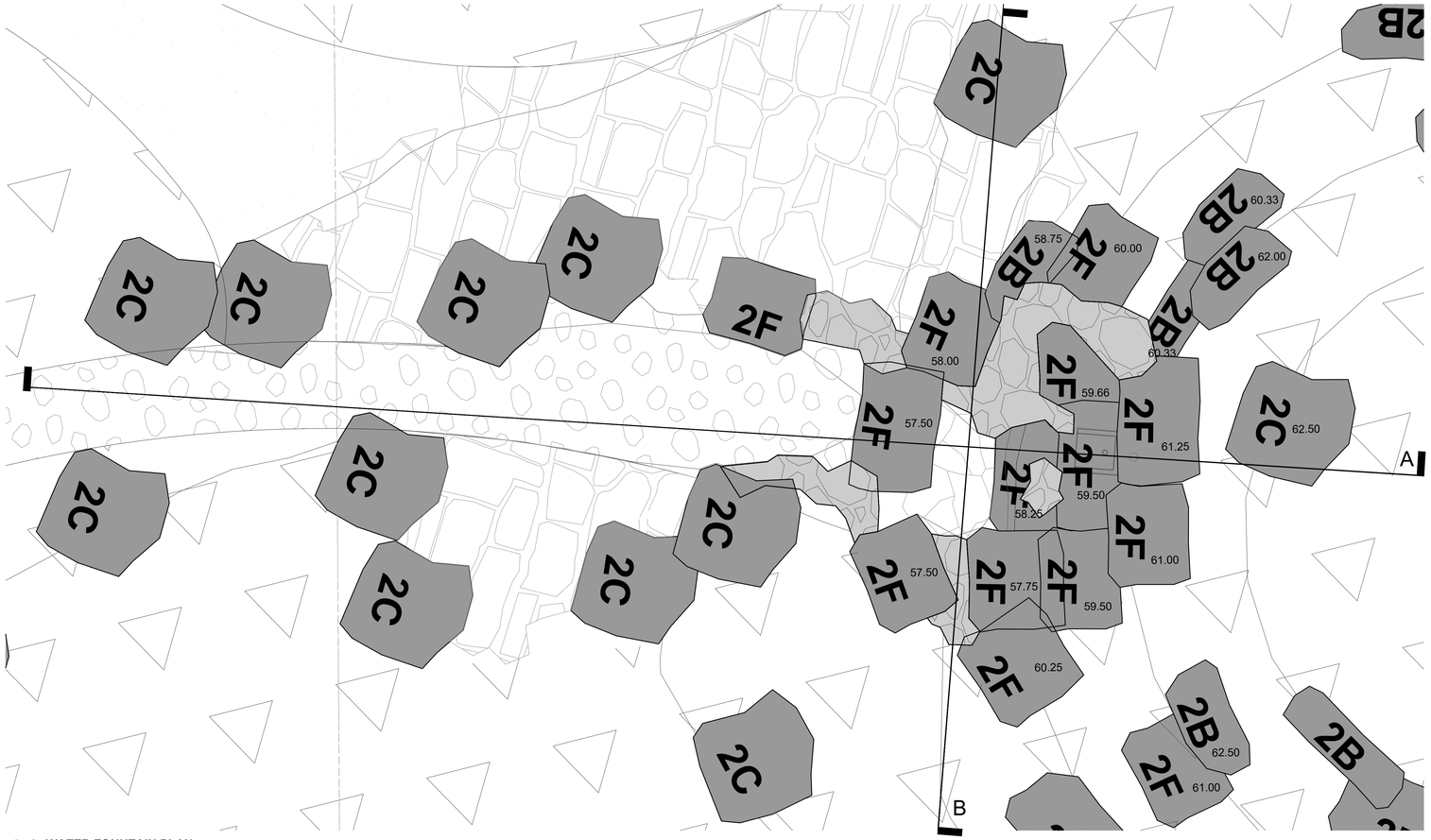
SITE SECTIONS

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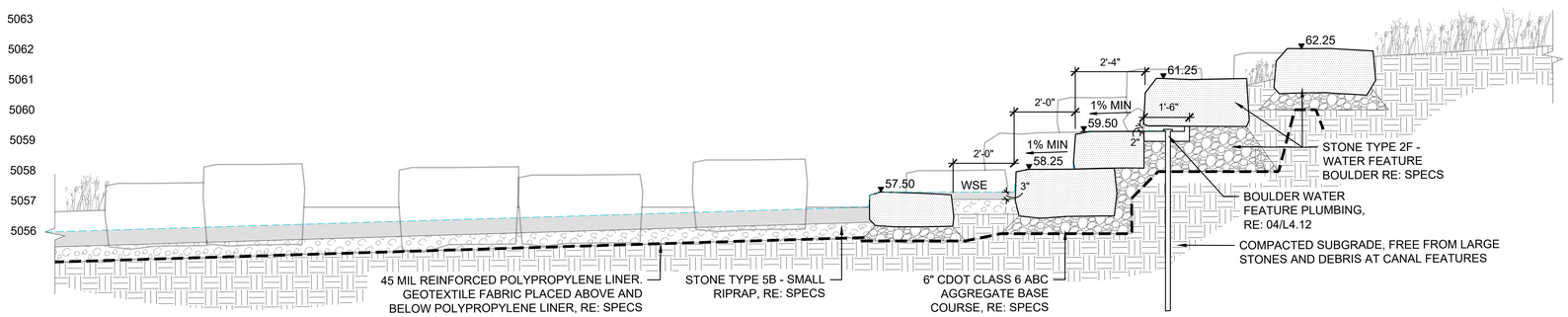
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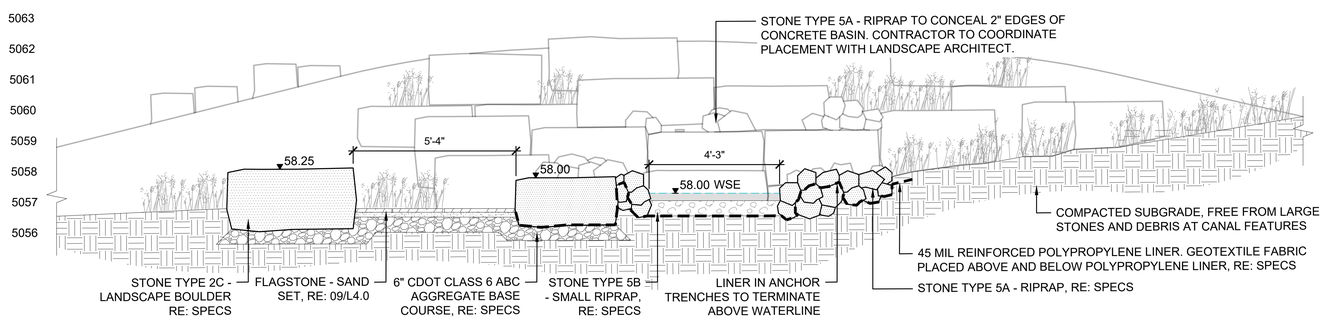
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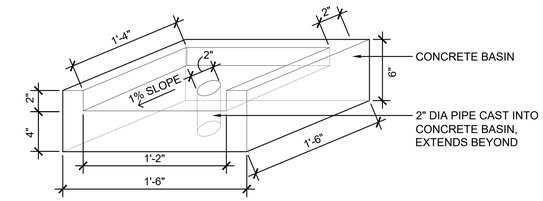
01 WATER FOUNDTAIN PLAN
1/2"=1'-0"



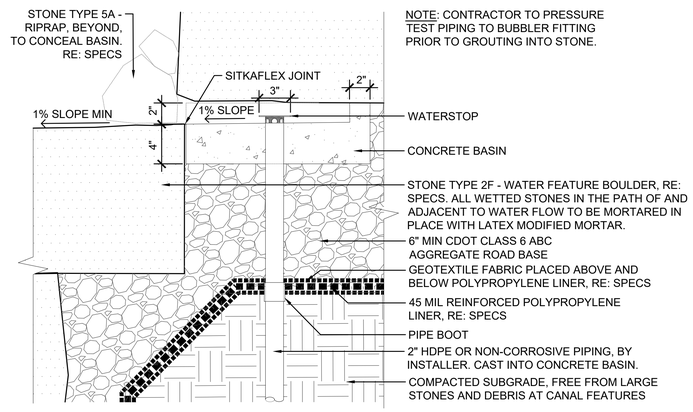
02 SECTION A
1/2"=1'-0"



03 SECTION B
1/2"=1'-0"



CONCRETE BASIN DIAGRAM



SECTION

04 BOULDER WATER FEATURE PLUMBING
NTS

	PAVEMENTS AND BANDS	DETAIL
1.1	CONCRETE PAVING- PEDESTRIAN LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.2	CONCRETE PAVING - VEHICULAR LIGHT BROOM FINISH, TOOLED JOINTS	01/L4.0
1.3	EXISTING CONCRETE, TO REMAIN	
1.4	FLAGSTONE PAVING, SAND SET	10/4.0
1.5	FLAGSTONE PAVING, MORTAR SET	09/L4.0
1.6	CRUSHER FINES PAVING	07/L4.0
1.7	STABLIZED CRUSHER FINES PAVING	07/L4.0
1.8	ASPHALT PAVING	RE:CIVIL
1.9	DETECTABLE WARNING	11/L4.0
1.10	ENGINEERED WOOD FIBER (EWF)	01/L4.11
1.11	CONCRETE STAIRS & HANDRAIL	01,02/L4.1
1.12	CONCRETE MOW BAND	06/L4.0
1.13	CONCRETE CURB AND GUTTER	RE:CIVIL
1.14	CONCRETE THICKENED EDGE	05/L4.0
1.15	STEEL EDGER	08/L4.0
1.16	LOG EDGE AT EWF	06/L4.13
1.17	HORIZONTAL LOG STEP THROUGH	07/L4.13
1.18	FALLEN LOG	08/L4.13

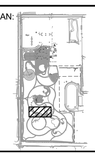
	STONE	DETAIL
2.1	STONE SERIES 1	RE: SPECS
2.2	STONE SERIES 2	RE: SPECS
2.3	STONE SERIES 3	RE: SPECS
2.4	STONE SERIES 4	RE: SPECS
2.5	STONE TYPE 5A - RIPRAP	RE: SPECS
2.6	STONE TYPE 5B - SMALL RIPRAP	RE: SPECS
2.7	STONE TYPE 6 - ROUNDED RIVER COBBLE	RE: SPECS
2.8	STONE TYPE 7 - SQUEEGEE	RE: SPECS
2.9	STONE TYPE 8 - CRUSHED STONE	RE: SPECS

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

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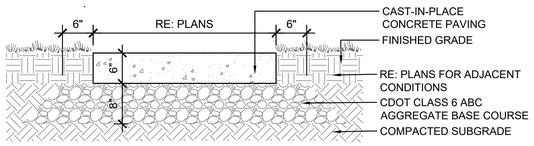
SITE SECTIONS

SHEET:

L3.2

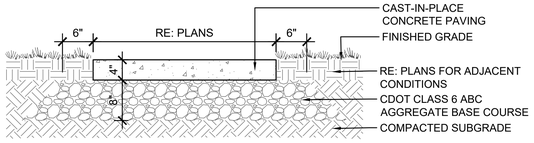
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NOTES:
1. RE: SPECIFICATIONS FOR FINISH.
2. PROVIDE 1/2" TOOLED EDGES AT EXPANSION JOINTS.
3. PROVIDE CONTROL & EXPANSION JOINTS WHERE INDICATED ON PLANS.
4. PROVIDE JOINTS NOT MORE THAN 10'-0" ON CENTER, OR AS INDICATED ON THE PLANS.
5. ALL WALKS TO HAVE 1.8% MAX. CROSS SLOPE.
6. REFERENCE SPECIFICATIONS FOR CONCRETE STRENGTH AND REINFORCEMENT REQUIREMENTS.
7. SEE GEOTECH REPORT FOR ADDITIONAL INFORMATION.

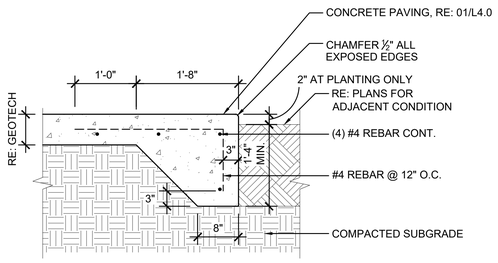
VEHICULAR CONCRETE



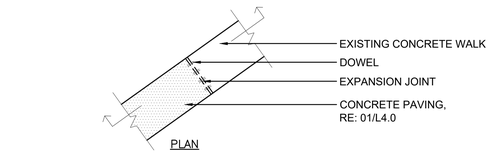
NOTES:
1. RE: SPECIFICATIONS FOR FINISH.
2. PROVIDE 1/2" TOOLED EDGES AT EXPANSION JOINTS.
3. PROVIDE CONTROL & EXPANSION JOINTS WHERE INDICATED ON PLANS.
4. PROVIDE JOINTS NOT MORE THAN 10'-0" ON CENTER, OR AS INDICATED ON THE PLANS.
5. ALL WALKS TO HAVE 1.8% MAX. CROSS SLOPE.
6. REFERENCE SPECIFICATIONS FOR CONCRETE STRENGTH AND REINFORCEMENT REQUIREMENTS.
7. SEE GEOTECH REPORT FOR ADDITIONAL INFORMATION.

PEDESTRIAN CONCRETE

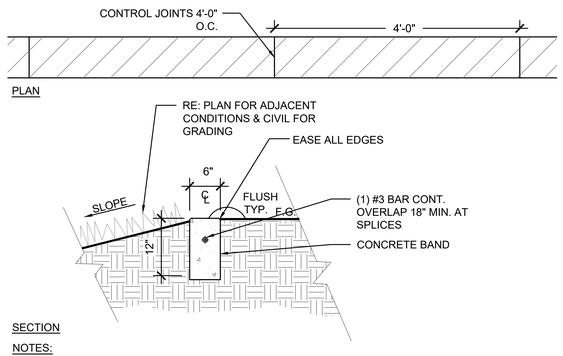
01 CONCRETE PAVING
1"=1'-0"



NOTES:
1. REFER TO CIVIL FOR SUBGRADE DEPTH AND UTILITIES.
2. ALL REINFORCING STEEL SHALL BE EPOXY COATED.

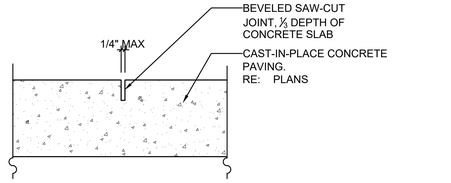


02 DOWELED JOINT
1"=1'-0"

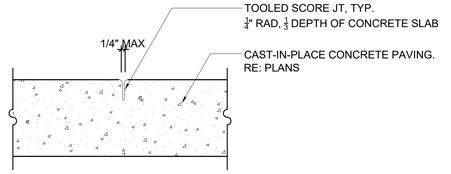


SECTION

NOTES:
1. WHERE TWO CONCRETE MOW BANDS INTERSECT, FORM MAIN BAND AND LET CURE BEFORE FORMING SECOND ADJACENT BAND.
2. WHEN MOW BAND IS ABOVE FINISHED GRADE TOP OF MOW BAND SLOPE SHALL NOT EXCEED 1.5%
3. PROVIDE CONTROL JOINTS AT 4'-0' O.C.



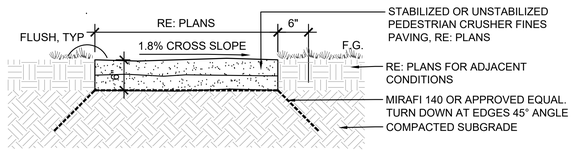
SAW CUT JOINT:
USE IN ALL 'FRACTURED' PAVING AREAS & WHERE INDICATED ON LAYOUT PLANS.



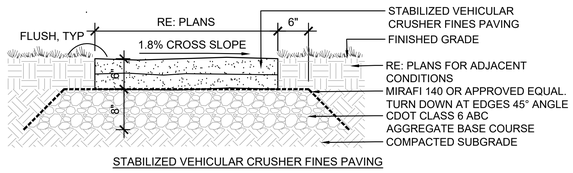
TOOLED JOINT:
ALL JOINTS UNLESS INDICATED OTHERWISE, RE: PLANS.

NOTE:
1.PROVIDE MOCK-UP FOR REVIEW.

03 CONCRETE CONTROL JOINT
1"=1'-0"



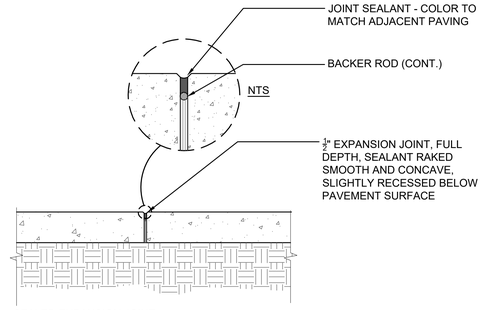
STABILIZED OR UNSTABILIZED PEDESTRIAN CRUSHER FINES PAVING



STABILIZED VEHICULAR CRUSHER FINES PAVING

NOTES:
1. CRUSHER FINES PAVING SHALL BE PLACED IN (2) 3" LIFTS MIN.
2. REFER TO PLANS & SPECIFICATIONS FOR FINISHES.
3. INSTALL CRUSHER FINES PAVING FLUSH WITH ADJACENT HARDSCAPE, TYP.
4. IN AREAS ADJACENT TO TURF, INSTALL CRUSHER FINES PAVING ½" HIGHER THAN FINISH GRADE, TYP. WITH SHARP, STRAIGHT EDGE.
5. CRUSHER FINES IN AREAS STEEPER THAN 5% SHALL BE STABILIZED. REFER TO SPECIFICATIONS FOR MORE INFO. REFER TO PLANS FOR PEDESTRIAN AND VEHICULAR STABILIZED CRUSHER FINES LOCATIC
6. REFER TO SPECS FOR ADDITIONAL INFORMATION.

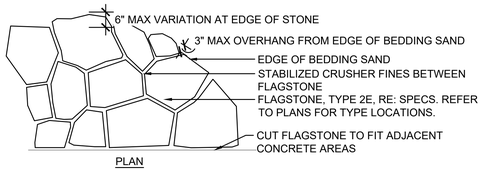
04 CONCRETE EXPANSION JOINT
1"=1'-0"

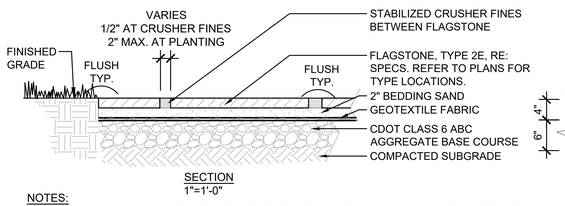


SEALED EXPANSION JOINT

NOTES:
1. REFERENCE SPECIFICATIONS FOR EXPANSION JOINT MATERIAL.
2. REFERENCE PLAN FOR CONTROL JOINT LOCATIONS.
3. CONTRACTOR TO PROVIDE MOCK-UP FOR REVIEW AND APPROVAL.

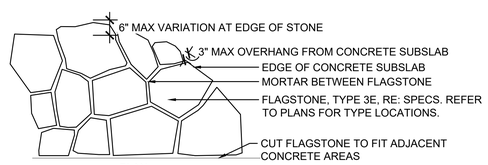
05 CONCRETE THICKENED EDGE
1"=1'-0"

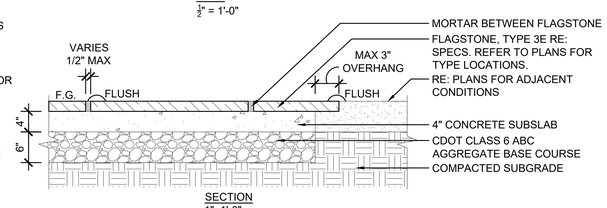




NOTES:
1. REFERENCE PLANS AND SPECIFICATIONS FOR COLOR, STYLE, AND TYPE OF FLAGSTONE. CONTRACTOR SHALL PROVIDE SAMPLE FOR APPROVAL BY OWNER'S REP. PRIOR TO CONSTRUCTION
2. FLAGSTONE PAVING SHALL BE FLUSH WITH SURROUNDING GRADE.
3. SLOPE ALL FLAGSTONE PAVING TO DRAIN.
4. FIELD VERIFY LOCATION OF ALL FLAGSTONE PAVING LIMITS AND LOCATIONS WITH OWNER'S REP. PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EXPECT MINOR FIELD MODIFICATIONS TO LAYOUT BY OWNER'S REP.

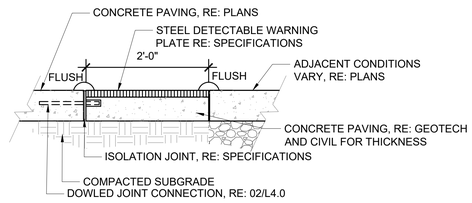
06 CONCRETE MOW BAND
1"=1'-0"



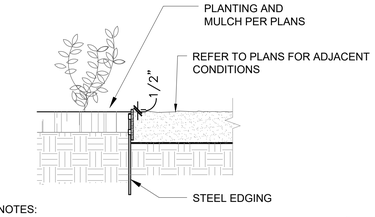


NOTES:
1. REFERENCE PLANS AND SPECIFICATIONS FOR COLOR, STYLE, AND TYPE OF FLAGSTONE. CONTRACTOR SHALL PROVIDE SAMPLE FOR APPROVAL BY OWNER'S REP. PRIOR TO CONSTRUCTION
2. FLAGSTONE PAVING SHALL BE FLUSH WITH SURROUNDING GRADE.
3. SLOPE ALL FLAGSTONE PAVING TO DRAIN.
4. FIELD VERIFY LOCATION OF ALL FLAGSTONE PAVING LIMITS AND LOCATIONS WITH OWNER'S REP. PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL EXPECT MINOR FIELD MODIFICATIONS TO LAYOUT BY OWNER'S REP.

07 CRUSHER FINES PAVING
1"=1'-0"

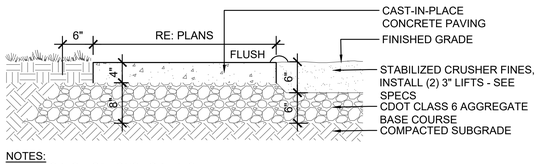


NOTES:
1. REFERENCE PLAN FOR CONCRETE COLOR AND FINISH.
2. REFERENCE SPECIFICATIONS FOR MANUFACTURER, STYLE, AND FINISH OF DETECTABLE WARNING PLATES
3. INSTALL DETECTABLE WARNING PLATES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ADAAG GUIDELINES.



NOTES:
1. STEEL EDGER SHALL BE COMMERCIAL TYPE STEEL EDGING. ¼" X 6" HEIGHT X 16' LENGTH WITH TAPERED STEEL STAKES. INSTALL TOP OF EDGER FLUSH W/GROUND SURFACE.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

08 STEEL EDGER
1"=1'-0"



NOTES:
1. RE: SPECIFICATIONS FOR FINISH.
2. PROVIDE 1/2" TOOLED EDGES AT EXPANSION JOINTS.
3. PROVIDE CONTROL & EXPANSION JOINTS WHERE INDICATED ON PLANS.
4. PROVIDE JOINTS NOT MORE THAN 10'-0" ON CENTER, OR AS INDICATED ON THE PLANS.
5. ALL WALKS TO HAVE 1.8% MAX. CROSS SLOPE.
6. REFERENCE SPECIFICATIONS FOR CONCRETE STRENGTH AND REINFORCEMENT REQUIREMENTS.
7. SEE GEOTECH REPORT FOR ADDITIONAL INFORMATION.

09 FLAGSTONE - SAND SET
1"=1'-0"

10 FLAGSTONE - MORTAR SET
1"=1'-0"

11 DETECTABLE WARNING
1"=1'-0"

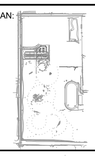
12 CONCRETE WITH CRUSHER FINES PAVING
1"=1'-0"

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

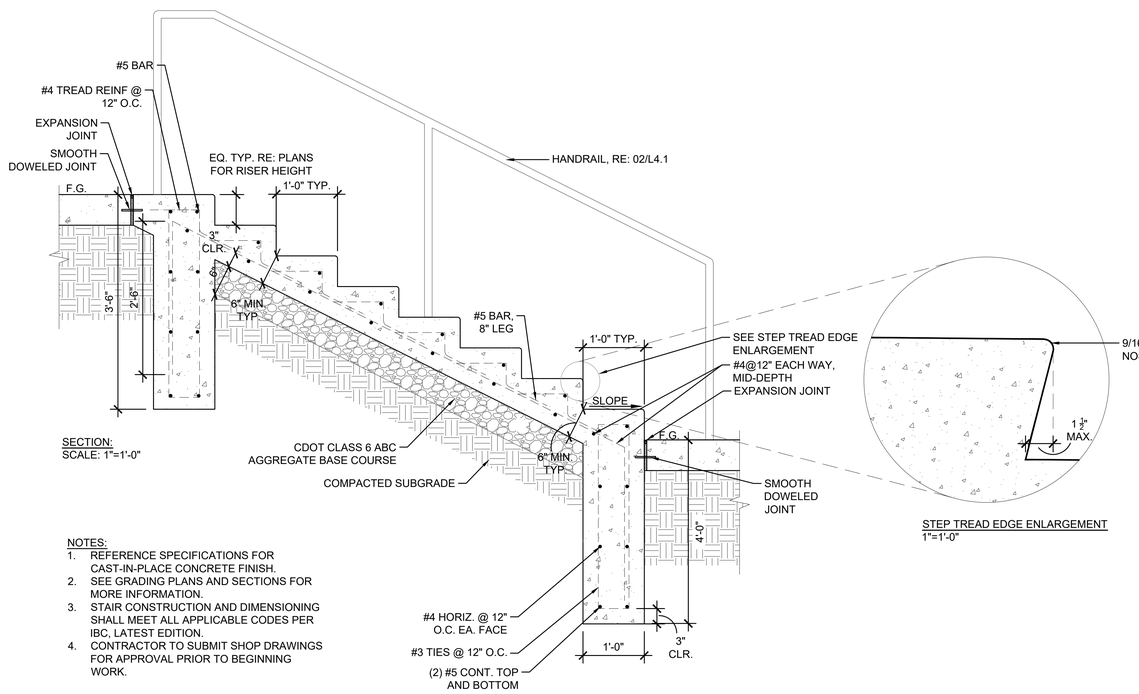
SITE DETAILS

SHEET:

L4.0

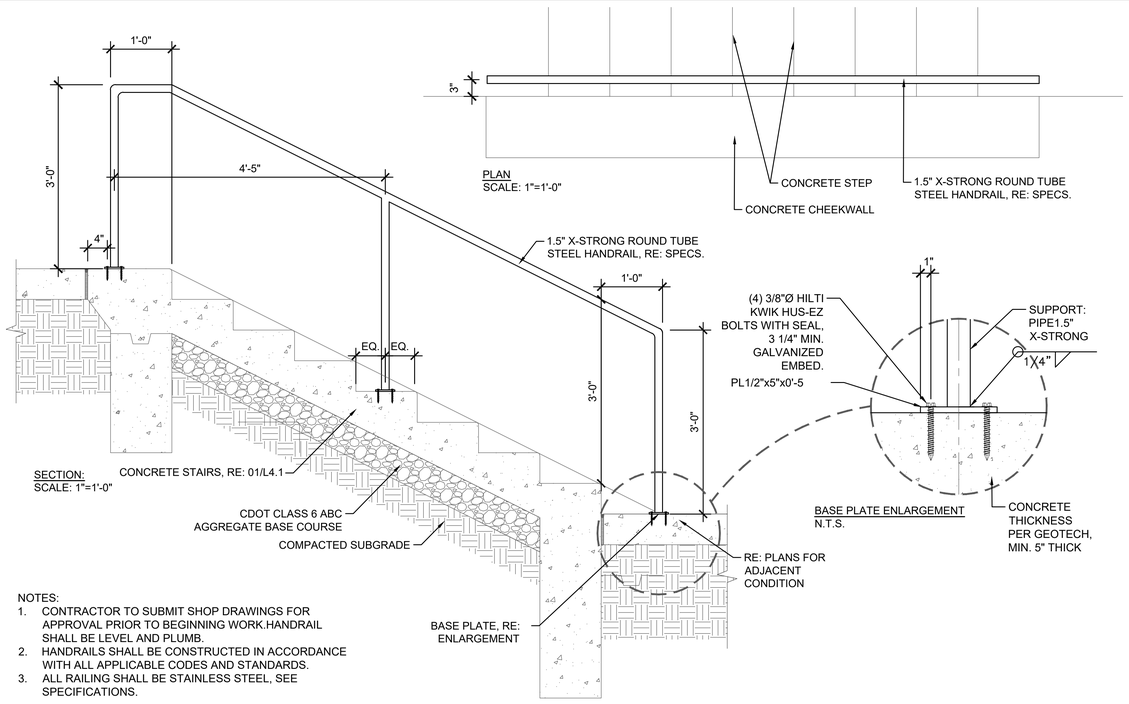
10/16/2022 10:48 AM

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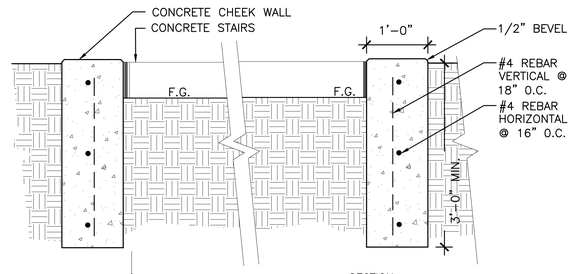
NOTES:
1. REFERENCE SPECIFICATIONS FOR CAST-IN-PLACE CONCRETE FINISH.
2. SEE GRADING PLANS AND SECTIONS FOR MORE INFORMATION.
3. STAIR CONSTRUCTION AND DIMENSIONING SHALL MEET ALL APPLICABLE CODES PER IBC, LATEST EDITION.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.

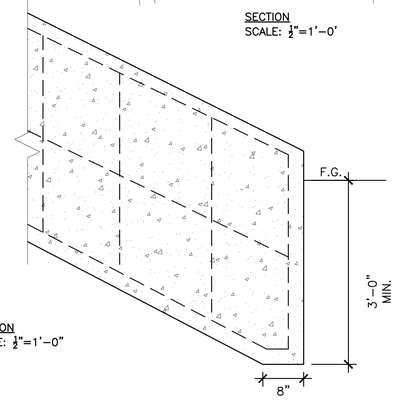
01 CONCRETE STAIRS
1"=1'-0"



NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.HANDRAIL SHALL BE LEVEL AND PLUMB.
2. HANDRAILS SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.
3. ALL RAILING SHALL BE STAINLESS STEEL, SEE SPECIFICATIONS.

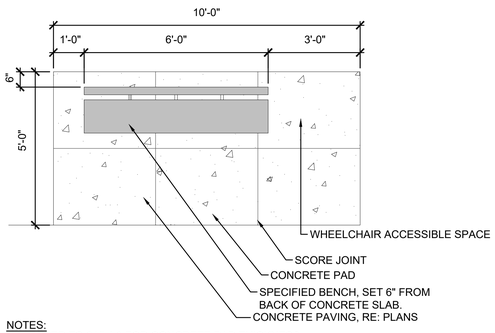
02 HANDRAIL
1"=1'-0"





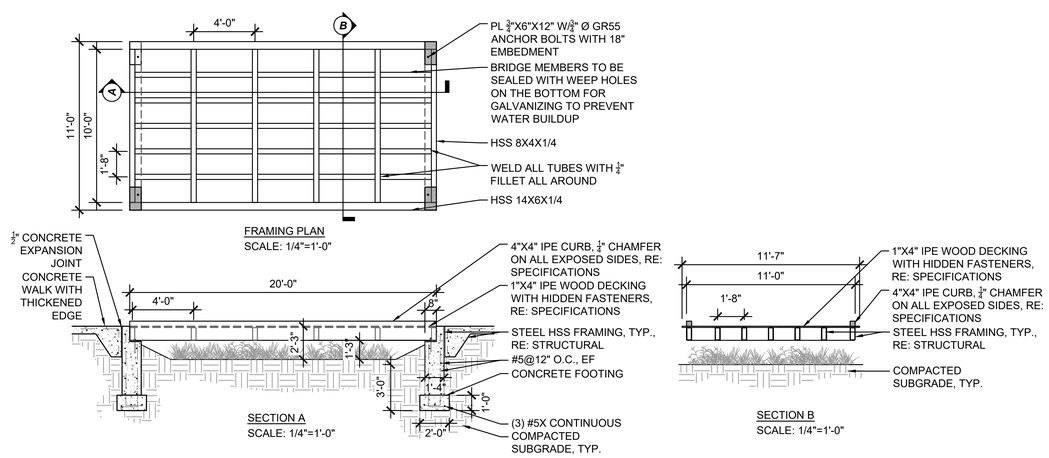
NOTES:
1. SUBMIT SHOP DRAWINGS INCLUDING THE REINFORCEMENT.
2. FOR FINISHED GRADE ELEVATIONS REFER TO GRADING PLAN.
3. RE: SPECS FOR COLOR AND FINISH.
4. FORMS TO BE APPROVED BY THE LANDSCAPE ARCHITECT OR TOWN OF BERTHOUD REPRESENTATIVE PRIOR TO ORDERING CONCRETE.
5. ROUND ALL FINISHED CONCRETE EDGES WITH ½" RADIUS UNLESS OTHERWISE NOTED.

05 CONCRETE CHEEKWALL
1/2"=1'-0"



NOTES:
1. REFER TO 01/L4.0 FOR CONCRETE PAD THICKNESS.
2. FURNISHINGS TO BE SURFACE MOUNT UNLESS SPECIFIED OTHERWISE. INSTALL PER MANUFACTURER INSTRUCTIONS.
3. REFER TO LAYOUT AND MATERIALS PLANS FOR BENCH AND TRASH AND RECEPTACLE LOCATIONS.

03 CONCRETE BENCH PAD
1/2"=1'-0"



NOTES:
1. DRAWINGS SHOWN FOR DESIGN INTENT. CONTRACTOR SHALL DEVELOP AND PROVIDE SHOP DRAWINGS OF ARBOR STRUCTURE, FRAMING DESIGN, CONNECTIONS, AND WELDS FOR APPROVAL BY OWNER'S REP. PRIOR TO CONSTRUCTION. DESIGN OF CONNECTIONS AND WELDS BY FABRICATOR, UNLESS OTHERWISE NOTED.
2. ALL STEEL SHALL BE GALVANIZED STEEL OR COVERED IN PERFORMANCE PAINT.

04 WAGGENER CREEK PEDESTRIAN BRIDGE
NTS

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MARTIN/MARTIN CONSULTING ENGINEERS
TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

SITE DETAILS

SHEET:

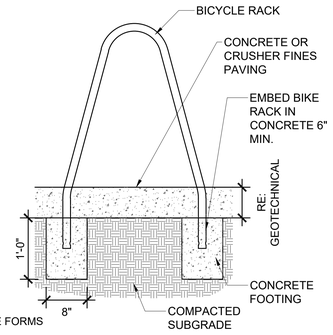
L4.1



LITTER AND RECYCLING RECEPTACLE
MANUFACTURER: FORMS + SURFACES
MODEL: DISPATCH
ASSUME SURFACE MOUNT AT CONCRETE PAVING LOCATIONS AND CONCRETE BASE FOR LOCATIONS ON CRUSHER FINES.
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

01 LITTER AND RECYCLING RECEPTACLE
1"=1'-0"

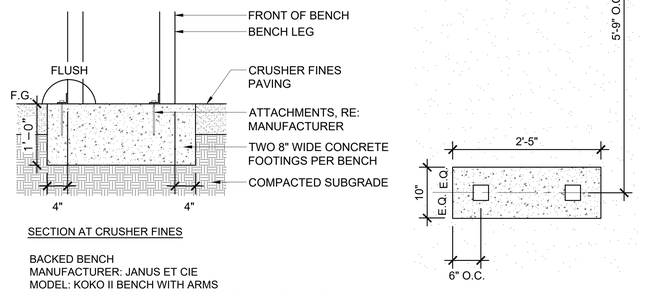




BICYCLE RACK
MANUFACTURER: LANDSCAPE FORMS
MODEL: BOLA BIKE RACK
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

02 BIKE RACK
1"=1'-0"





SECTION AT CRUSHER FINES

PLAN OF BENCH LEGS IN CONCRETE FOOTING

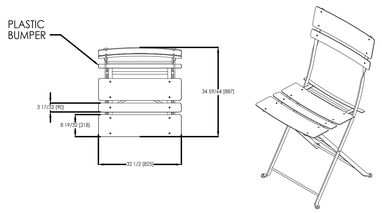
BACKED BENCH
MANUFACTURER: JANUS ET CIE
MODEL: KOKO II BENCH WITH ARMS
REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION

03 BENCH
1"=1'-0"



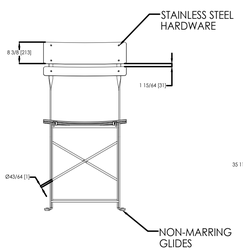
PICNIC TABLE
MANUFACTURER: JANUS ET CIE
MODEL: KOKO II DINING TABLE WITH KOKO II BACKLESS BENCH
NOTES:
1. ASSUME SURFACE MOUNT ON CONCRETE PAD.
2. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

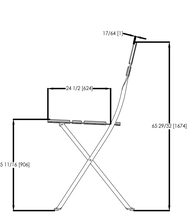
04 PICNIC TABLE & BENCH
1"=1'-0"

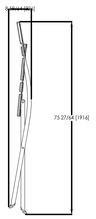


Bravo Bistro Chair, set of 2
Product Drawing
SOLD AS A SET OF 2
Drawing: CS101–01
Dimensions are in inches [mm]

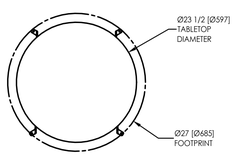
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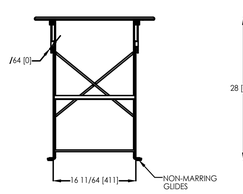


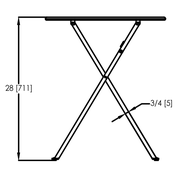


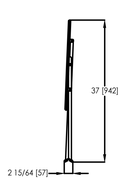
SHOWN IN FOLDED POSITION











SHOWN IN FOLDED POSITION

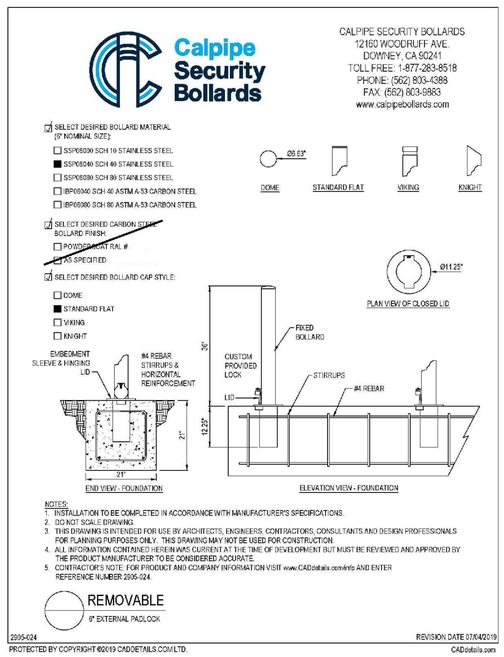
landscapeforms Drawing: CS201–01 Dimensions are in inches [mm]

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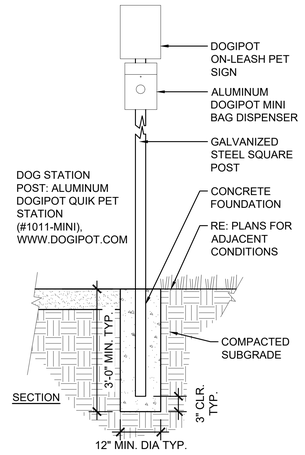
06 CAFE TABLES & CHAIRS
NTS

NOTES:

CONTRACTOR TO SUBMIT SHOP DRAWINGS INCLUDING THE REINFORCEMENT FOR APPROVAL PRIOR TO BEGINNING WORK.

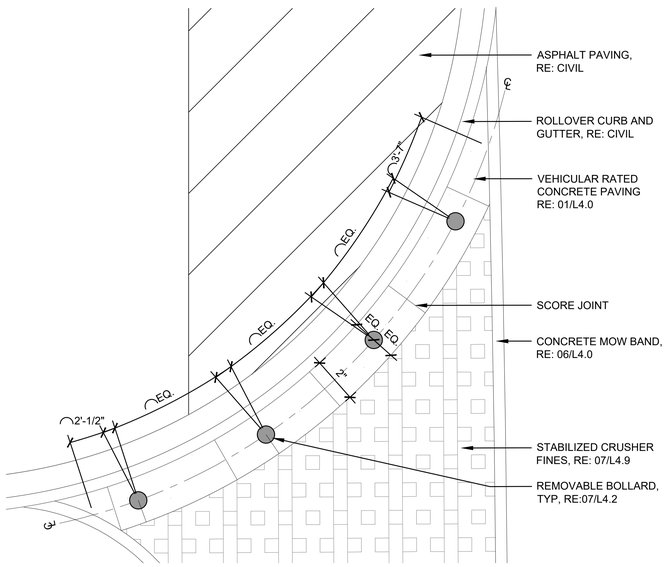


07 REMOVABLE BOLLARD
NTS



SECTION

05 DOG WASTE STATION
NTS



08 BOLLARD PLAN ENLARGEMENT
3/8"=1'0"

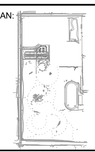
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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

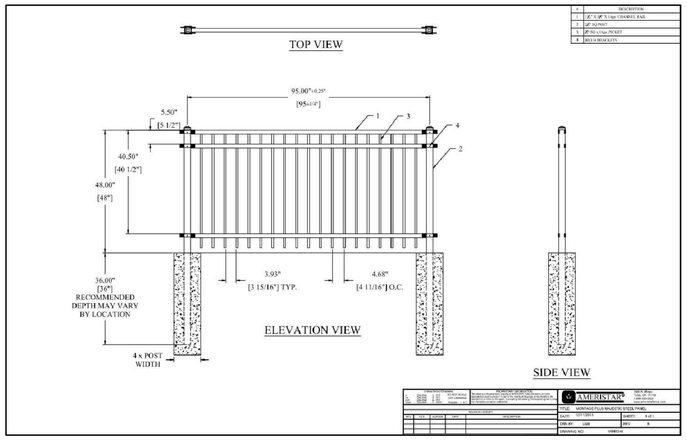
SITE DETAILS

SHEET:

L4.2

10/15/2022 10:48 AM

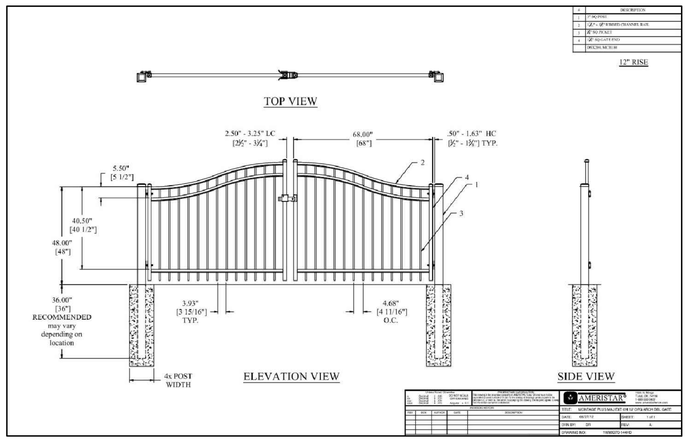
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NOTES:

PRODUCT: MONTAGE PLUS FENCE
MANUFACTURER: AMERISTAR
SIZE: 4' TALL
COLOR: PAINTED BLACK FB100
STYLE: MAJESTIC, 3-RAIL

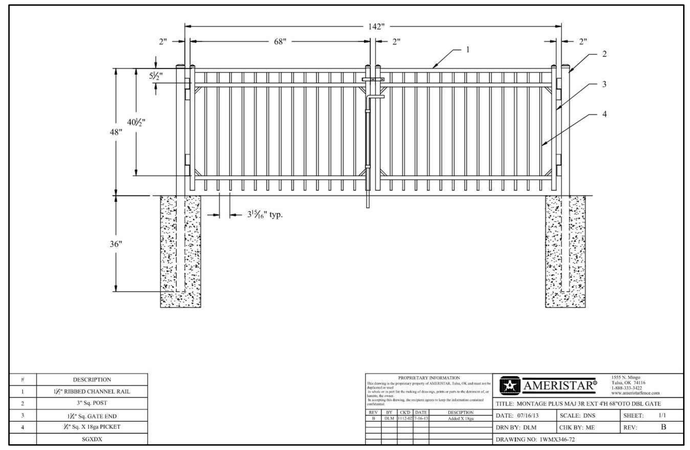
01 METAL PICKET FENCE
NTS



NOTES:

PRODUCT: MONTAGE PLUS, DOUBLE SWING ARCHED GATE
MANUFACTURER: AMERISTAR
SIZE: 4' TALL X 12' WIDE
COLOR: PAINTED BLACK FB100
STYLE: MAJESTIC, 3-RAIL

02 METAL DOUBLE SWING ARCHED GATE
NTS



#	DESCRIPTION
1	12" RIBBED CHANNEL RAIL
2	3" Sq. POST
3	1½" Sq. GATE END
4	3/4" Sq. X 18ga PICKET
	SGXDX

PROPRIETARY INFORMATION
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1555 N. Mingo
Tulsa, OK 74116
1-800-335-3422
www.ameristarfence.com

TITLE: MONTAGE PLUS MAJ 3R EXT 4'H 68'O/TO DBL GATE

REV	BY	CK'D	DATE	DESCRIPTION
B	DLM	[illegible]	08/16	Added X 18ga

DATE: 07/16/13 | SCALE: DNS | SHEET: 1/1
DRN BY: DLM | CHK BY: ME | REV: B
DRAWING NO: 1WMX346-72

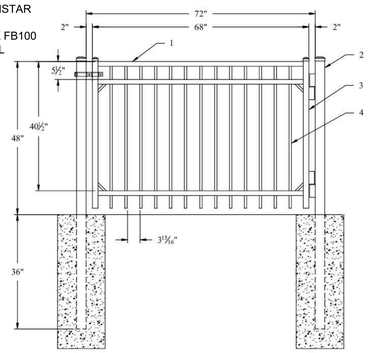
NOTES:

PRODUCT: MONTAGE PLUS, DOUBLE SWING GATE
MANUFACTURER: AMERISTAR
SIZE: 4' TALL X 12' WIDE
COLOR: PAINTED BLACK FB100
STYLE: MAJESTIC, 3-RAIL

03 METAL DOUBLE SWING GATE
NTS

NOTES:

PRODUCT: MONTAGE PLUS
SINGLE SWING GATE
MANUFACTURER: AMERISTAR
SIZE: 4' TALL X 6' WIDE
COLOR: PAINTED BLACK FB100
STYLE: MAJESTIC, 3-RAIL



#	DESCRIPTION
1	12" RIBBED CHANNEL RAIL
2	3" Sq. POST
3	1½" Sq. GATE END
4	3/4" Sq. X 18ga PICKET
	SGBSX1

PROPRIETARY INFORMATION
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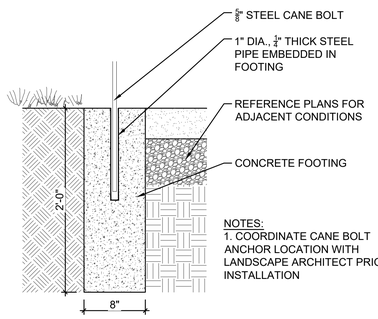
AMERISTAR®
1555 N. Mingo
Tulsa, OK 74116
1-800-335-3422
www.ameristarfence.com

TITLE: MONTAGE PLUS MAJ 3R EXT 4'H 68'O/TO SGL GATE

REV	BY	CK'D	DATE	DESCRIPTION
B	DLM	[illegible]	08/16	Added X 18ga

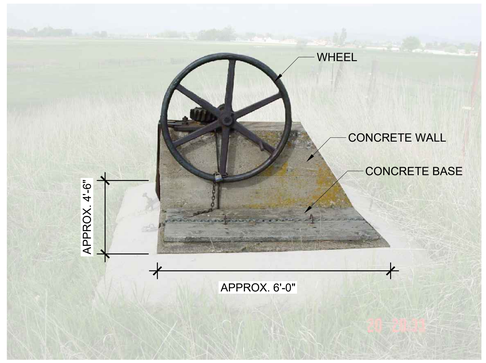
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DRN BY: DLM | CHK BY: ME | REV: B
DRAWING NO: 1WMX346-72

04 SINGLE METAL SWING GATE
NTS



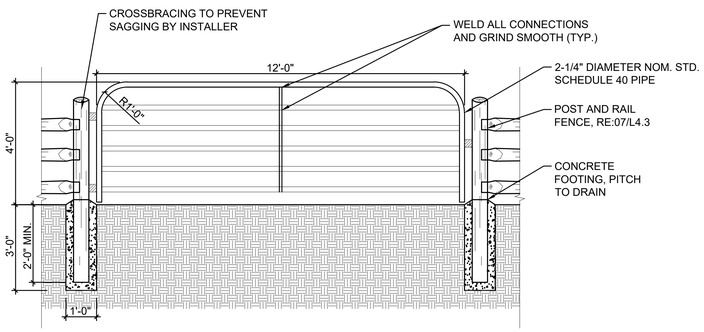
NOTES:
1. COORDINATE CANE BOLT ANCHOR LOCATION WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

05 GATE CANE BOLT CONCRETE ANCHOR
NTS



NOTES:
1. STRUCTURE TO BE PROVIDED BY THE TOWN OF BERTHOUD
2. WHEEL TO BE LOCKED OR WELDED SO THAT IT DOES NOT SPIN. CONTRACTOR TO COORDINATE WITH PROJECT LANDSCAPE ARCHITECT AND THE TOWN OF BERTHOUD.
3. ASSUME COMPACTED SUBGRADE WITH 6" THICK LAYER OF CLASS ABC.
4. SET CONCRETE BASE 3" ABOVE FINISH GRADE.

06 IRRIGATION GATE STRUCTURE RELIC
NTS

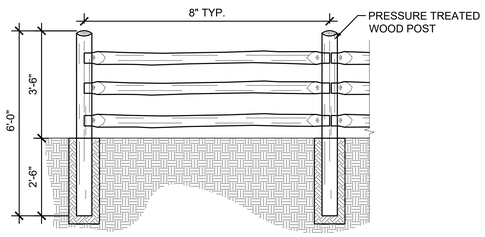


NOTES:
1. USE A TOP STRING TO PREVENT A SEE-SAW EFFECT OF THE FENCE ON UNEVEN TERRAIN.
2. CONTRACTOR TO SUBMIT PRODUCT AND SUPPLIER INFORMATION FOR APPROVAL.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.
4. METAL GATE TO BE PAINTED JET BLACK RAL 9005.
4. SET POSTS AT CORNERS AND ADJACENT TO GATES IN CONCRETE FOOTINGS.

07 NURSERY GATE
NTS

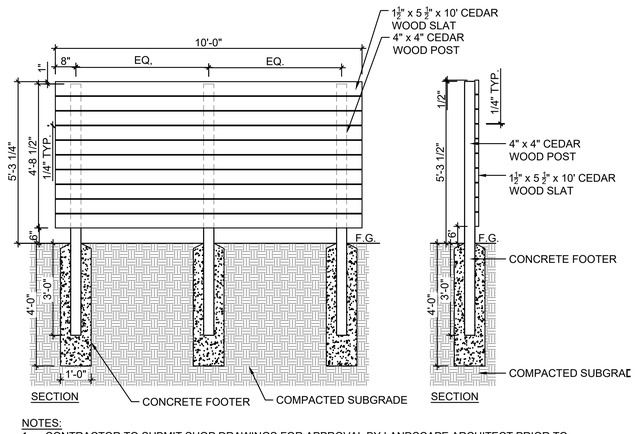


IMAGE FOR DESIGN INTENT ONLY



NOTES:
1. USE A TOP STRING TO PREVENT A SEE-SAW EFFECT OF THE FENCE ON UNEVEN TERRAIN.
2. CONTRACTOR TO SUBMIT PRODUCT AND SUPPLIER INFORMATION FOR APPROVAL.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR APPROVAL PRIOR TO BEGINNING WORK.
4. SET POSTS IN CORNERS AND ADJACENT TO GATES IN CONCRETE FOOTINGS. RE:06/L4.3 FOR CONCRETE FOOTING DETAIL.

08 POST & RAIL FENCE
NTS



NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
2. CONTRACTOR SHALL PROVIDE SAMPLE OF PRODUCTS AND TECHNICAL DATA INCLUDING PROPOSED SCREWS.
3. ALL WOOD SHALL BE CEDAR.
4. KEEP 2'-6" CLEAR FROM ELECTRICAL EQUIPMENT AND THE FENCE/SCREEN.

09 ADD DEDUCT: CEDAR SCREENING FENCE AT IRRIGATION
NTS

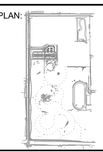
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM | REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

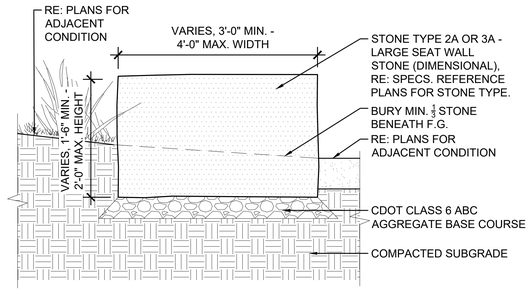
SITE DETAILS

SHEET:

L4.3

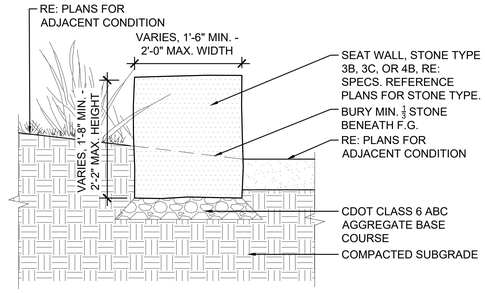
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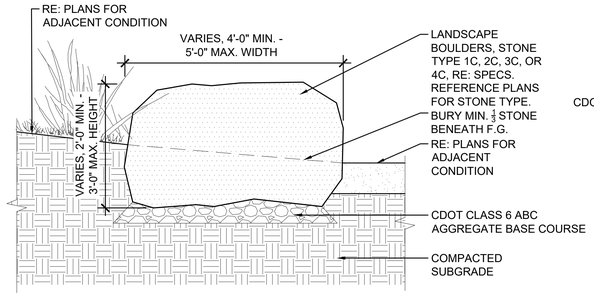
NOTES:
1. REFER TO LAYOUT PLANS FOR LAYOUT OF STONE.
2. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.
3. THE CONTRACTOR SHOULD ANTICIPATE RE-HANDLING OF STONE SLABS TO ACHIEVE DESIRED DESIGN INTENT.
4. CONTRACTOR SHALL FIELD FIT STONE SLABS AS REQUIRED TO MEET DESIRED LINES, LAYOUT, AND GRADES.

01 LARGE SEAT WALL STONE IN LANDSCAPE
1"=1'-0"



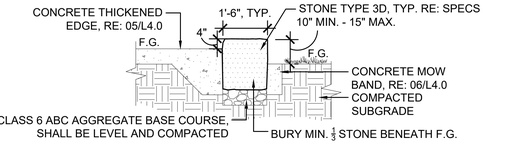
NOTES:
1. REFER TO LAYOUT PLANS FOR LAYOUT OF STONE.
2. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.
3. THE CONTRACTOR SHOULD ANTICIPATE RE-HANDLING OF STONE SLABS TO ACHIEVE DESIRED DESIGN INTENT.
4. CONTRACTOR SHALL FIELD FIT STONE SLABS AS REQUIRED TO MEET DESIRED LINES, LAYOUT, AND GRADES.

02 STONE SEAT WALL
1"=1'-0"

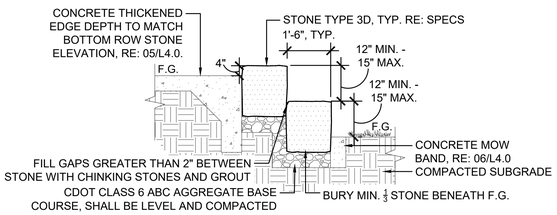


NOTES:
1. REFER TO LAYOUT PLANS FOR LAYOUT OF STONE.
2. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.
3. THE CONTRACTOR SHOULD ANTICIPATE RE-HANDLING OF STONE SLABS TO ACHIEVE DESIRED DESIGN INTENT.
4. CONTRACTOR SHALL FIELD FIT STONE SLABS AS REQUIRED TO MEET DESIRED LINES, LAYOUT, AND GRADES.

03 LANDSCAPE BOULDER
1"=1'-0"



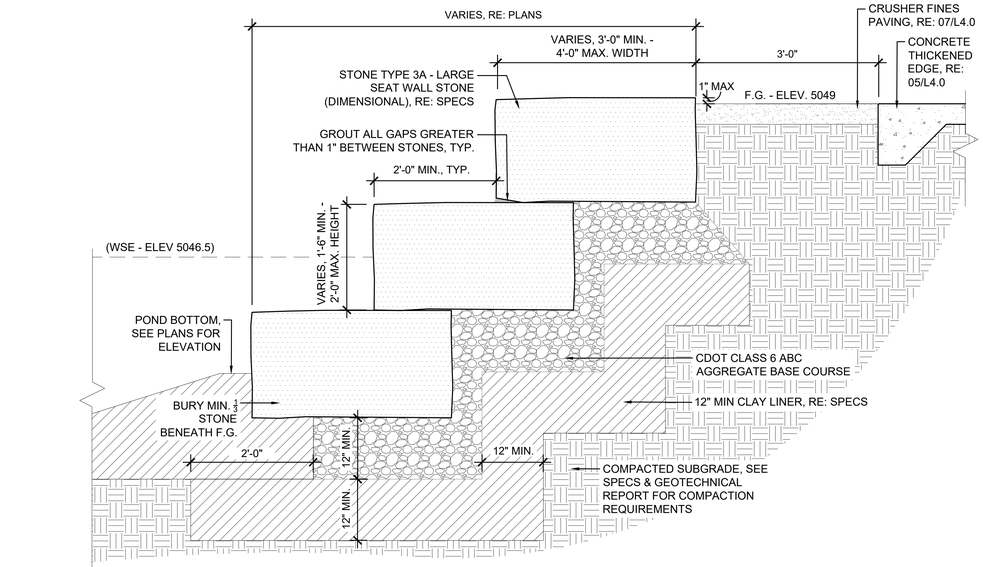
SECTION AT SINGLE STONE LAYER



SECTION AT DOUBLE STONE LAYERS

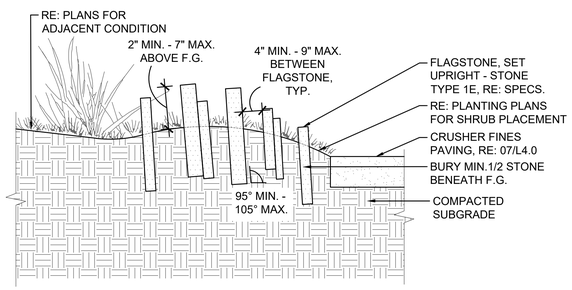
NOTES:
1. GAPS GREATER THAN 1" BETWEEN STONES SHOULD BE FILLED WITH CHINKING STONES AND GROUT. MINIMIZE VISIBILITY OFGROUT TO EXTENT POSSIBLE. SET GROUT BACK 1/2" FROM EXPOSED FACE OF STONE.
2. REFERENCE GRADING PLANS FOR TOP OF STONE ELEVATIONS. CONTRACTOR SHALL VERIFY STONE ELEVATIONS WITH OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
3. REFERENCE LAYOUT PLANS FOR QUANTITY OF STACKED STONES. TOP OF STONE ADJACENT TO CONCRETE WALK SHALL BE MAX. 4" ABOVE FINISHED GRADE. STONE ADJACENT TO GRASS LAWN SHALL BE BURIED MIN. 1/3 BENEATH FINISHED GRADE.
4. SEE PLANS FOR LAYERING OF STONES. REFER TO SECTIONS ABOVE ACCORDINGLY.
5. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.

04 STONE STEPS
1/2"=1'-0"



NOTES:
1. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
2. REFER TO LAYOUT PLANS FOR LAYOUT OF STONE.
3. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.
3. STONE PLACEMENT: PRIOR TO PLACEMENT OF STONE MATERIAL CONTRACTOR SHALL MEET ON SITE WITH THE LANDSCAPE ARCHITECT TO REVIEW PLACEMENT AND AESTHETIC APPROACHES FOR THE STONE PLACEMENT. THE CONTRACTOR SHOULD ANTICIPATE RE-HANDLING OF STONE SLABS TO ACHIEVE DESIRED DESIGN INTENT.
4. CONTRACTOR SHALL FIELD FIT STONE SLABS AS REQUIRED TO MEET DESIRED LINES, LAYOUT, AND GRADES
5. GAPS GREATER THAN 1/2" BETWEEN STONES SHOULD BE FILLED WITH CHINKING STONES AND GROUT. GROUT THICKNESS SHALL BE BETWEEN 1" AND 4". MINIMIZE VISIBILITY OF GROUT TO EXTENT POSSIBLE. SET GROUT BACK 1" FROM EXPOSED FACE OF STONE. GROUT COLOR TO BE APPROVED BY PROJECT LANDSCAPE ARCHITECT.
6. CONTRACTOR TO GRIND ALL EXPOSED STONE EDGES SMOOTH PER THE DIRECTION OF THE LANDSCAPE ARCHITECT.
7. CLAY LINER TO HEAVE MAXIMUM PERMEABILITY RATE OF 1x10^-6 cm/s THROUGH THE SPECIFIED COMPACTED THICKNESS.
8. WHERE CLAY LINER IS LOCATED IN SLOPED AREAS, LINER TO BE INSTALLED IN HORIZONTAL LIFTS ("BENCHED-IN" TO SLOPE) TO ACHIEVE COMPACTION AND MINIMUM VERTICAL CROSS SECTION THICKNESS OF 12" MIN.

05 STACKED STONE AT POND EDGE
1"=1'-0"



NOTES:
1. REFER TO LAYOUT PLANS FOR APPROXIMATE LAYOUT OF STONE.
2. REMOVE ANY ORGANIC MATERIAL PRIOR TO PLACING STONE.
3. CONTRACTOR SHALL FIELD-FIT STONES AND CONFIRM PLACEMENT WITH OWNER'S REPRESENTATIVE. CONTRACTOR SHOULD ANTICIPATE RE-HANDLING OF STONE SLABS TO ACHIEVE DESIRED DESIGN INTENT.
4. CONTRACTOR SHALL FIELD FIT FLAGSTONE AS REQUIRED TO MEET DESIRED LINES, LAYOUT, AND GRADES.

07 FLAGSTONE AT CREVICE GARDEN
1"=1'-0"



IMAGE FOR INTENT.



IMAGE FOR INTENT ONLY.

MEMORIAL STONE AND PLAQUE
PLAQUE MANUFACTURER: CARLSON MEMORIALS, INC., OR APPROVED EQUAL
MATERIALS: STONE TYPE 3F - MEMORIAL STONE, RE: SPECS, AND BRASS METAL PLAQUE
PLAQUE SIZE: APPROXIMATELY 8.5"X11"
NOTES:
1. CONTRACTOR TO COORDINATE STONE SELECTION AT QUARRY WITH LANDSCAPE ARCHITECT.
2. CONTRACTOR TO COORDINATE PLAQUE PLACEMENT WITH LANDSCAPE ARCHITECT.
3. TEXT ON PLAQUE TO BE SUPPLIED BY OTHERS.

08 MEMORIAL STONE
NTS

wenk
MARTIN/MARTIN CONSULTING ENGINEERS
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

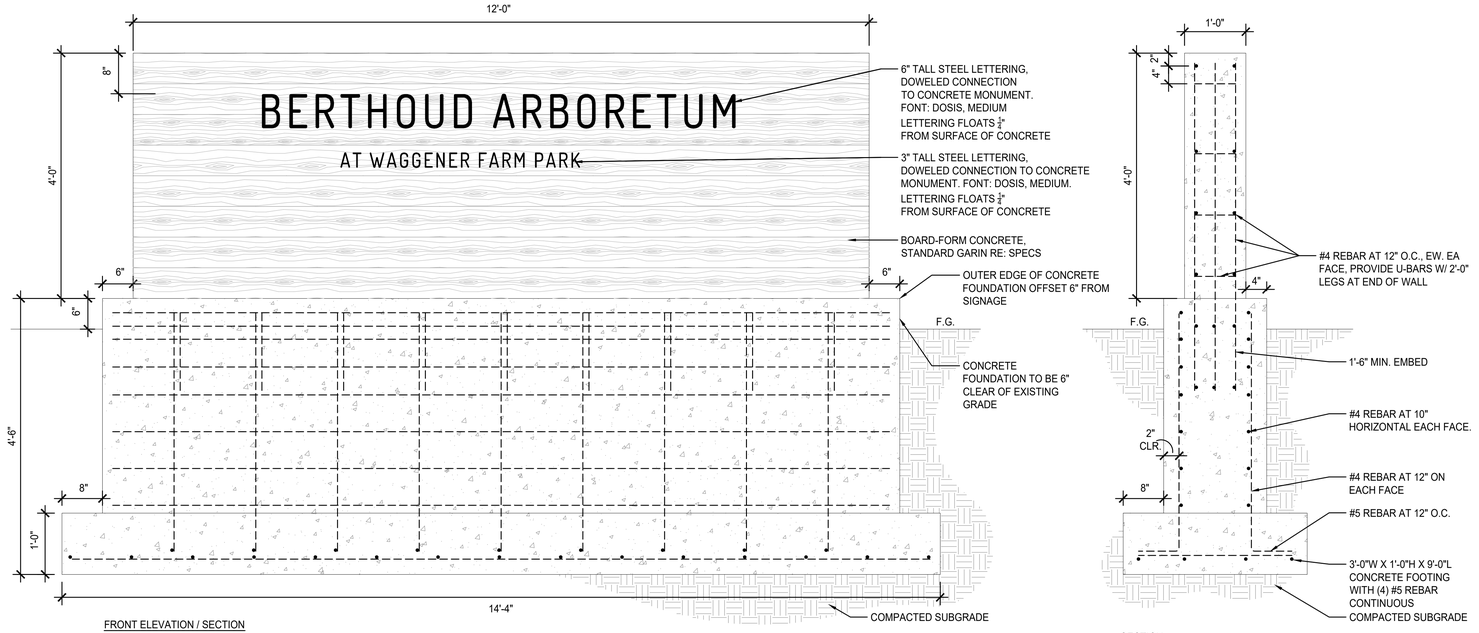
SITE DETAILS

SHEET:

L4.4

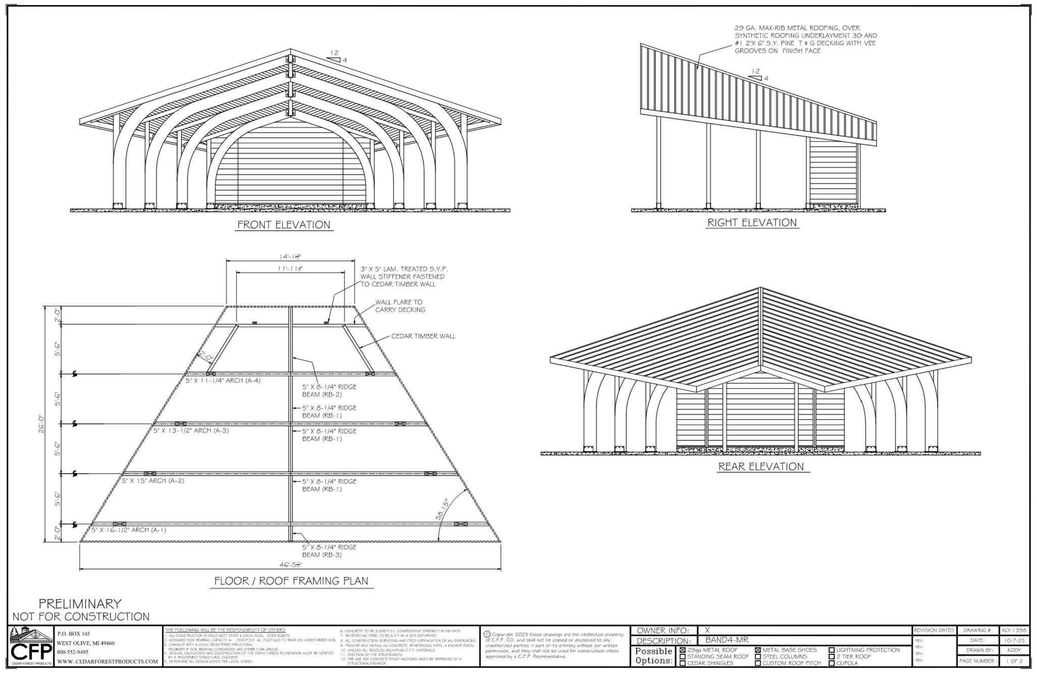
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NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS DEMONSTRATING PREFERRED CONSTRUCTION METHOD, REINFORCING ATTACHMENTS, STEEL LETTERING, AND JOINTING FOR APPROVAL PRIOR TO BEGINNING WORK.

01 *MONUMENT SIGN AT NORTH ENTRY*
1" = 1'-0"



PRELIMINARY
NOT FOR CONSTRUCTION

CFP
P.O. BOX 145
WEST OLIVE, MI 49460
800-552-8405
WWW. CEDARFORESTPRODUCTS.COM

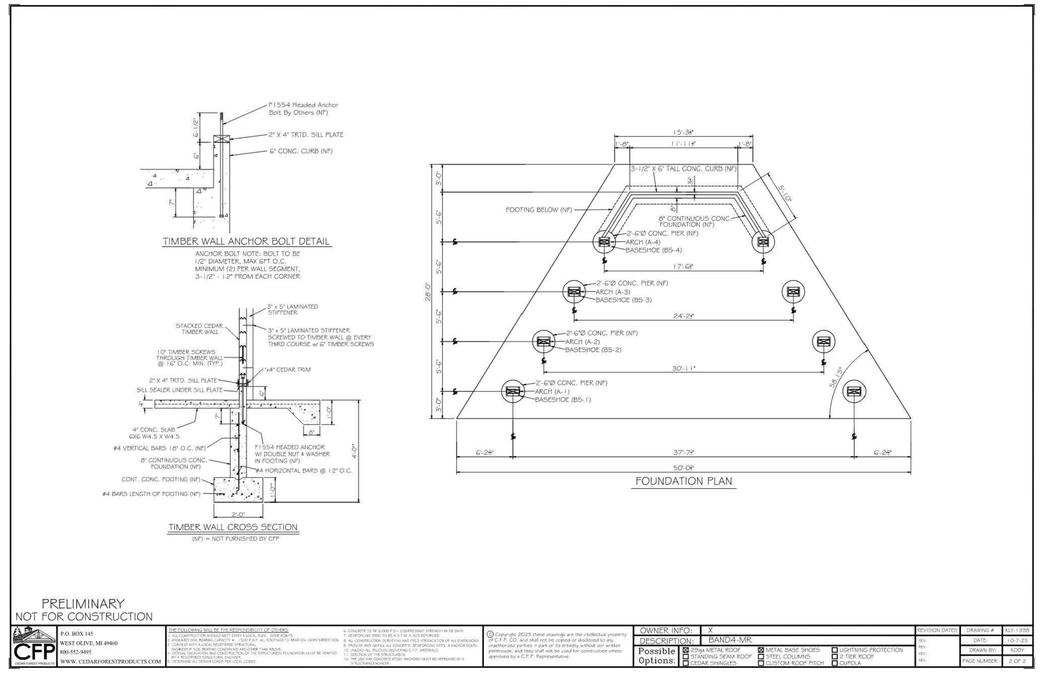
THE FOLLOWING WILL BE THE RESPONSIBILITY OF OTHERS:
• ALL CONSTRUCTION SITEWORK WITH FIRST 4 FEET IN WALL, FOOTING, SLAB, CURB, ETC.
• ADEQUATE SOIL BEARING CAPACITY ▪ 1500 P.S.F. ALL FOOTINGS TO BEAR ON UNDISTURBED SOIL
• BACKFILL AGAINST FOUNDATION WALLS AND SLABS
• SOURCE OF SOIL BEARING EVIDENCE AND LETTER FOR ABOVE
• ALL CONSTRUCTION STAKING AND LAYOUT OF THE BUILDING, FOUNDATION MUST BE VERIFIED BY A REGISTERED LAND SURVEYOR
• WITHDRAW ALL SNOW & ICE FROM THE LOCAL AREA.

G. CONCRETE TO BE 3,000# P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
T. REVERSING WIND, TO BE 5.0 T.M. (4.3 KN ESTIMATED).
B. ALL CONSTRUCTION SURVEYING AND FIELD VERIFICATION OF ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS SHALL BE THE RESPONSIBILITY OF THE ERECTOR.
11. ANCHORAL PACKERS (RESISTING C.F.F. MATERIALS).
12. DESIGN OF THE STRUCTURE(S).
13. ALL ANCHOR BOLTS AND ANCHOR STUDS/ ANCHORS MUST BE APPROVED BY A STRUCTURAL ENGINEER.

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OWNER INFO: X
DESCRIPTION: BAND4-MR
Possible Options: ☒ Shop METAL ROOF ☒ METAL BASE SHOES ☐ LIGHTNING PROTECTION ☐ STANDING SEAM ROOF ☐ STEEL COLUMNS ☐ 2 TIER ROOF ☐ CEDAR SHINGLES ☐ CUSTOM ROOF PITCH ☐ CUPOLA

REVISION DATES	DRAWING #	PLY-1398
REV.	DATE:	10-7-25
REV.	DRAWN BY:	NJOY
REV.	PAGE NUMBER	1 OF 2



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800-552-8405
WWW. CEDARFORESTPRODUCTS.COM

THE FOLLOWING WILL BE THE RESPONSIBILITY OF OTHERS:
• ALL CONSTRUCTION SITEWORK WITH FIRST 4 FEET IN WALL, FOOTING, SLAB, CURB, ETC.
• ADEQUATE SOIL BEARING CAPACITY ▪ 1500 P.S.F. ALL FOOTINGS TO BEAR ON UNDISTURBED SOIL
• BACKFILL AGAINST FOUNDATION WALLS AND SLABS
• SOURCE OF SOIL BEARING EVIDENCE AND LETTER FOR ABOVE
• ALL CONSTRUCTION STAKING AND LAYOUT OF THE BUILDING, FOUNDATION MUST BE VERIFIED BY A REGISTERED LAND SURVEYOR
• WITHDRAW ALL SNOW & ICE FROM THE LOCAL AREA.

G. CONCRETE TO BE 3,000# P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
T. REVERSING WIND, TO BE 5.0 T.M. (4.3 KN ESTIMATED).
B. ALL CONSTRUCTION SURVEYING AND FIELD VERIFICATION OF ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS SHALL BE THE RESPONSIBILITY OF THE ERECTOR.
11. ANCHORAL PACKERS (RESISTING C.F.F. MATERIALS).
12. DESIGN OF THE STRUCTURE(S).
13. ALL ANCHOR BOLTS AND ANCHOR STUDS/ ANCHORS MUST BE APPROVED BY A STRUCTURAL ENGINEER.

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OWNER INFO: X
DESCRIPTION: BAND4-MR
Possible Options: ☒ Shop METAL ROOF ☒ METAL BASE SHOES ☐ LIGHTNING PROTECTION ☐ STANDING SEAM ROOF ☐ STEEL COLUMNS ☐ 2 TIER ROOF ☐ CEDAR SHINGLES ☐ CUSTOM ROOF PITCH ☐ CUPOLA

REVISION DATES	DRAWING #	PLY-1398
REV.	DATE:	10-7-25
REV.	DRAWN BY:	NJOY
REV.	PAGE NUMBER	2 OF 2

NOTES:

PRODUCT: BANDSHELL 4
MANUFACTURER: CEDAR FOREST PRODUCTS
SIZE: ~47'X26'
STAIN: CANYON BROWN
ROOF: 24 GAUGE
ROOF DECKING: SOUTHERN YELLOW PINE, STAINED CANYON BROWN

REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION

02 *PRE-ENGINEERED SHADE PAVILION*
N.T.S

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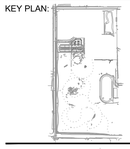
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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

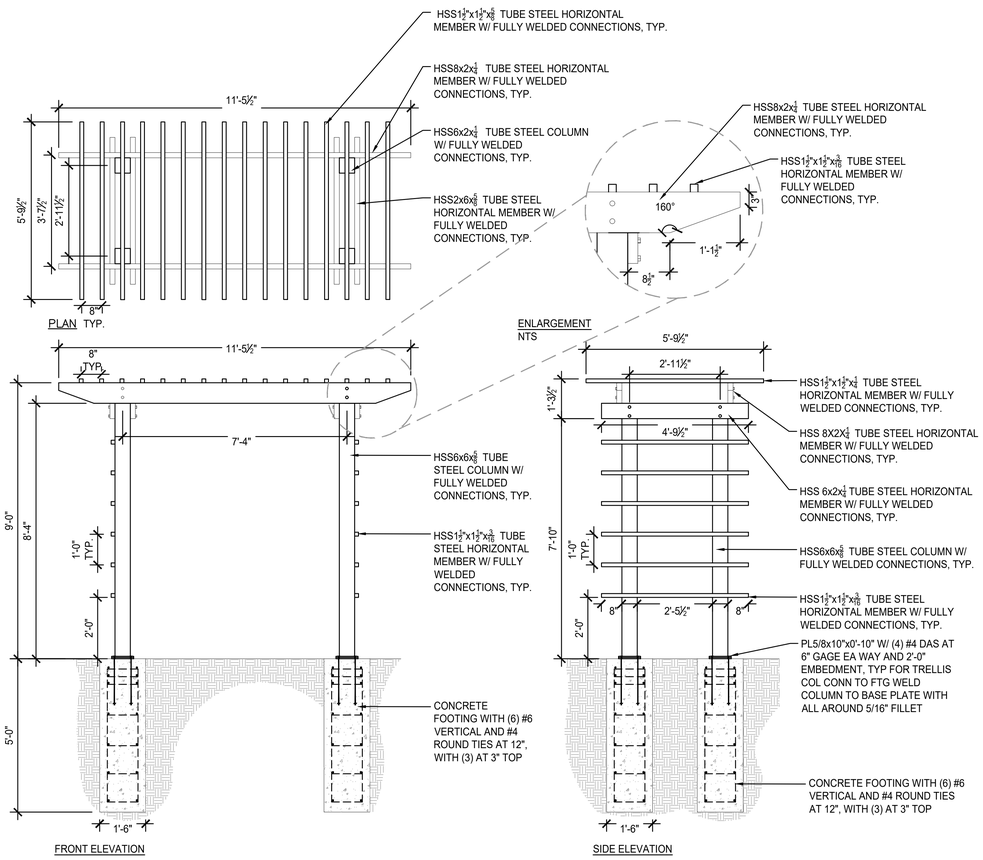
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DATE: DECEMBER 12, 2025

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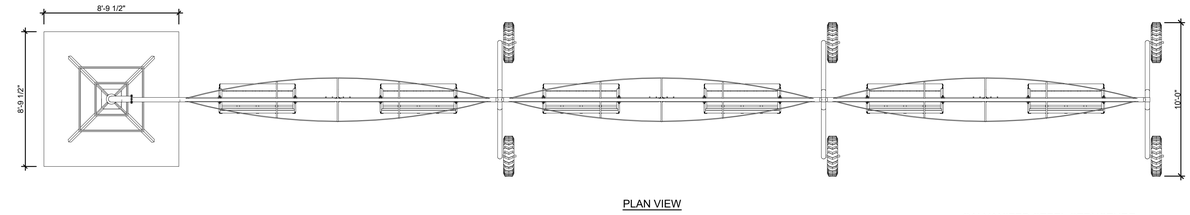
SHEET:

L4.5



NOTES:
1. DRAWINGS SHOWN FOR DESIGN INTENT. CONTRACTOR SHALL DEVELOP AND PROVIDE SHOP DRAWINGS OF ARBOR STRUCTURE, FRAMING DESIGN, CONNECTIONS, AND WELDS FOR APPROVAL BY OWNER'S REP. PRIOR TO CONSTRUCTION. DESIGN OF CONNECTIONS AND WELDS BY FABRICATOR, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL INTEGRITY OF ARBOR (INCLUDING BUT NOT LIMITED TO) FRAMING, FASTENERS, AND HARDWARE.
3. CONTRACTOR SHALL GRIND AND SMOOTH EDGES TO MINIMIZE BURRS AND POINTS. ALL OPEN ENDED TUBES TO BE CAP WELDED.
4. ALL STEEL SHALL GALVANIZED STEEL WITH A HIGH PERFORMANCE PAINT, RAL JET BLACK 9005, MATTE FINISH. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.

01 *ARBOR*
1/2" = 1'-0"



PLAN VIEW

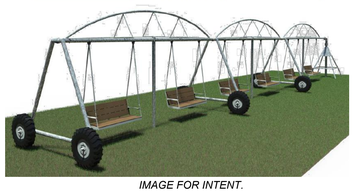
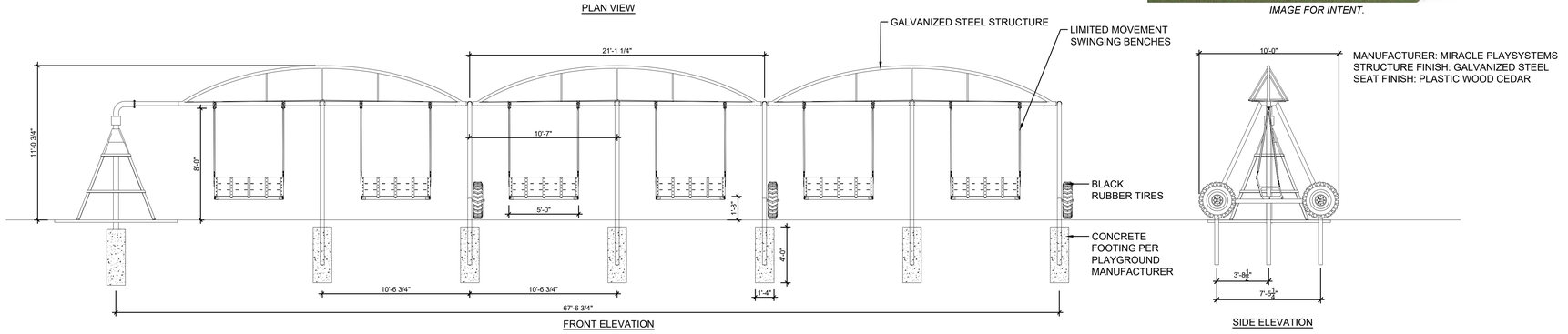


IMAGE FOR INTENT.



FRONT ELEVATION

MANUFACTURER: MIRACLE PLAYSYSTEMS
STRUCTURE FINISH: GALVANIZED STEEL
SEAT FINISH: PLASTIC WOOD CEDAR

SIDE ELEVATION

02 *CENTER PIVOT IRRIGATION SWING*
1/4" = 1'-0"

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TOWN of BERTHOUD EST. 1988 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

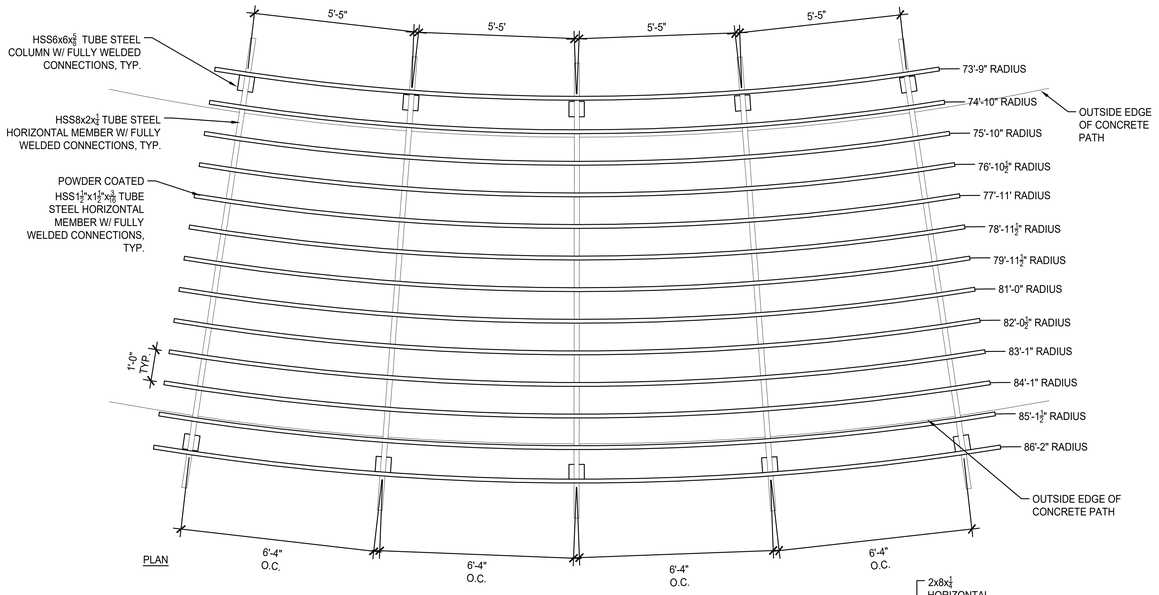
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DATE: DECEMBER 12, 2025

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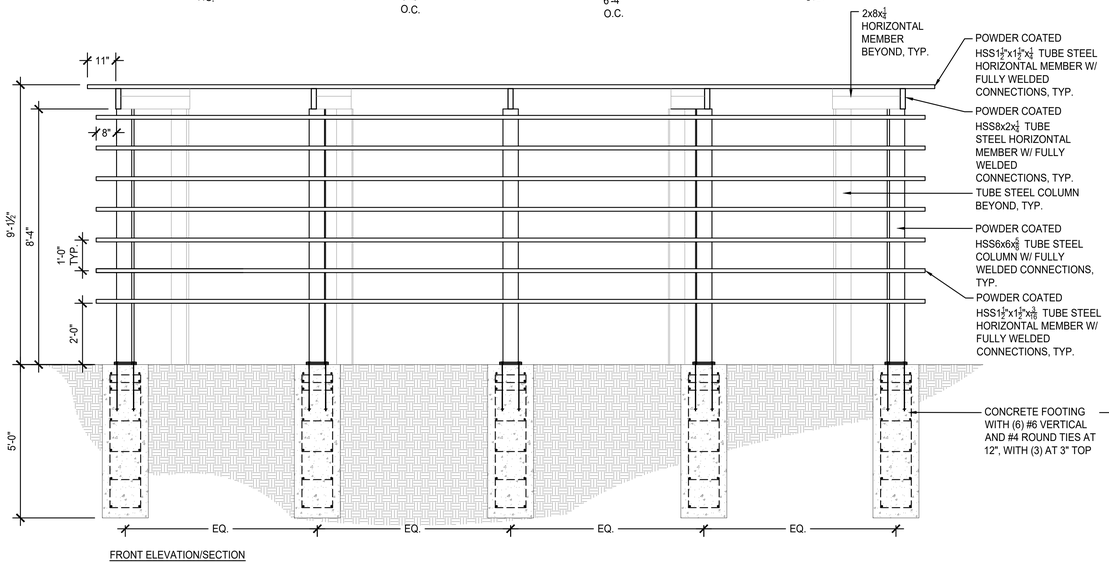
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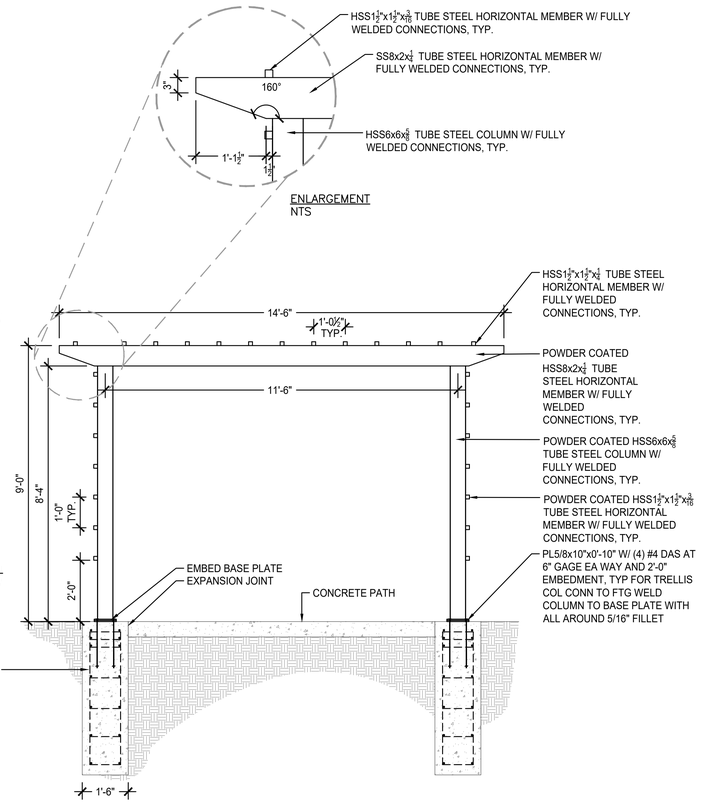


NOTES:

1. DRAWINGS SHOWN FOR DESIGN INTENT. CONTRACTOR SHALL DEVELOP AND PROVIDE SHOP DRAWINGS OF OVERHEAD TRELLIS STRUCTURE, FRAMING DESIGN, CONNECTIONS, AND WELDS FOR APPROVAL BY OWNER'S REP. PRIOR TO CONSTRUCTION. DESIGN OF CONNECTIONS AND WELDS BY FABRICATOR, UNLESS OTHERWISE NOTED.
2. CONTRACTOR IS RESPONSIBLE FOR STRUCTURAL INTEGRITY OF TRELLIS (INCLUDING BUT NOT LIMITED TO) FRAMING, FASTENERS, AND HARDWARE.
3. CONTRACTOR SHALL GRIND AND SMOOTH EDGES TO MINIMIZE BURRS AND POINTS. ALL OPEN ENDED TUBES TO BE CAP WELDED.
4. ALL STEEL SHALL GALVANIZED STEEL WITH A HIGH PERFORMANCE PAINT, RAL JET BLACK 9005, MATTE FINISH. REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. STRUCTURE SHALL BE CONSTRUCTED IN ACCORDANCE WITH ALL APPLICABLE CODES AND STANDARDS.



FRONT ELEVATION/SECTION



SIDE ELEVATION/SECTION

01 EVENT LAWN TRELLIS

1/2"=1'-0"



BEET HOUSE EXISTING CONDITIONS



BEET HOUSE EXISTING CONDITIONS

NOTES:

1. THE BEET HOUSE TO BE RELOCATED IS 12' X 20', TO BE SET ON CONCRETE CAISSONS. A BLOCK WALL THREE BLOCKS TALL SURROUND THE PERIMETER OF THE STRUCTURE. ASSUME EACH BLOCK TO BE 8"T X 8"W X 16"L.
2. BEET HOUSE TO BE DELIVERED TO THE SITE BY OTHERS, CONTRACTOR TO ASSUME COORDINATION, SITE PREP, STRUCTURE UNLOADING AND INSTALLATION, AND CONCRETE CAISSON AND BLOCK WALL DESIGN AND INSTALLATION.
3. CONTRACTOR SHALL DEVELOP AND PROVIDE SIGNED AND STAMPED SHOP DRAWINGS OF THE CONCRETE CAISSONS AND AND BLOCK WALL SURROUNDING THE BASE OF THE STRUCTURE FOR APPROVAL BY OWNER'S REP PRIOR TO THE RELOCATION AND CONSTRUCTION OF THE BEET HOUSE FOUNDATION.

02 BEET HOUSE

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TOWN of BERTHOUD EST. 1888 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

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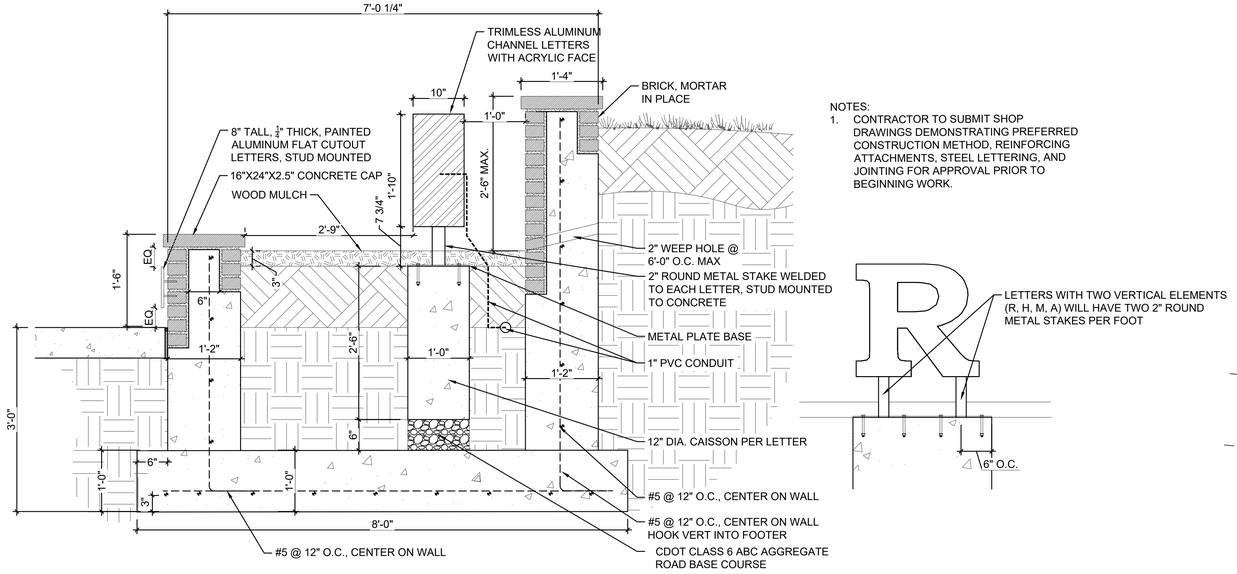
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

SITE DETAILS

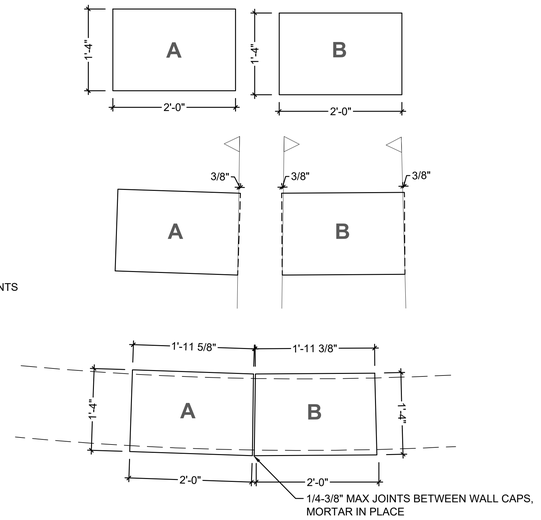
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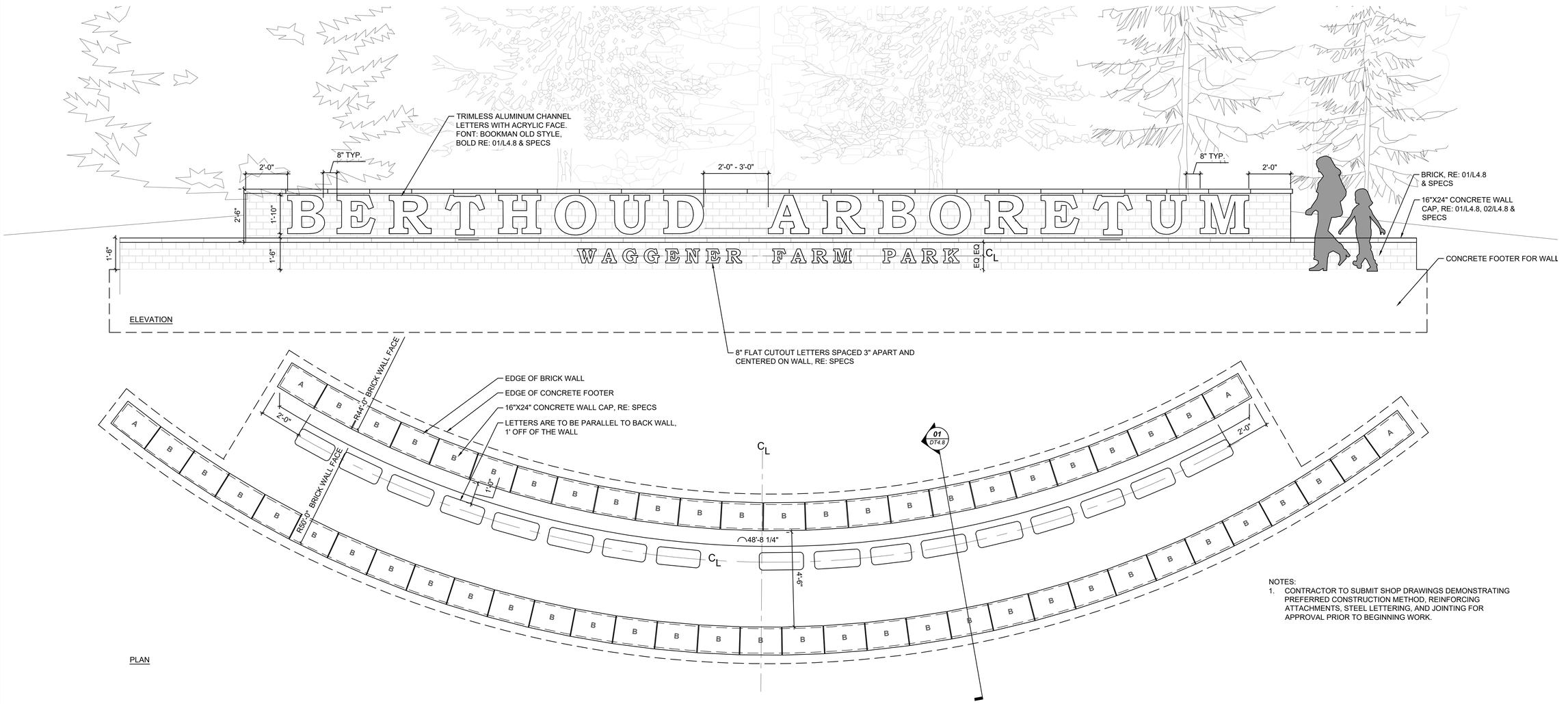


NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS DEMONSTRATING PREFERRED CONSTRUCTION METHOD, REINFORCING ATTACHMENTS, STEEL LETTERING, AND JOINTING FOR APPROVAL PRIOR TO BEGINNING WORK.

01 MONUMENT SIGN AT SOUTHWEST ENTRY - SECTION
1"=1'-0"



03 CONCRETE WALL CAP
1"=1'-0"



NOTES:
1. CONTRACTOR TO SUBMIT SHOP DRAWINGS DEMONSTRATING PREFERRED CONSTRUCTION METHOD, REINFORCING ATTACHMENTS, STEEL LETTERING, AND JOINTING FOR APPROVAL PRIOR TO BEGINNING WORK.

02 MONUMENT SIGN AT SOUTHWEST
1/2"=1'-0"

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Garden Spot of Colorado

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800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:

REVISIONS:

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PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

SITE DETAILS

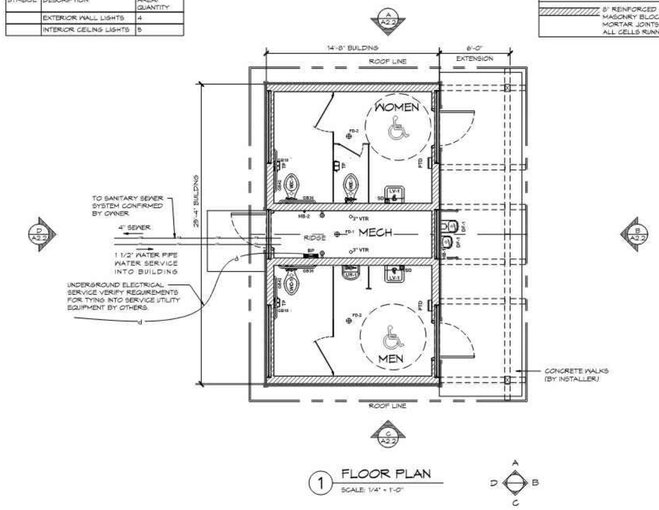
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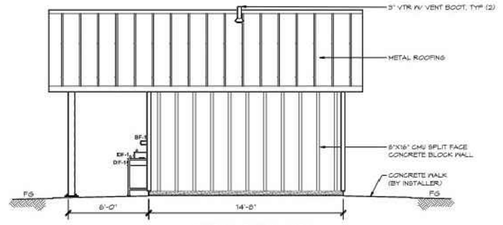
LEGEND		
SYMBOL	DESCRIPTION	AREA/ QUANTITY
	EXTERIOR WALL LIGHTS	4
	INTERIOR CEILING LIGHTS	5

WALL TYPE SCHEDULE

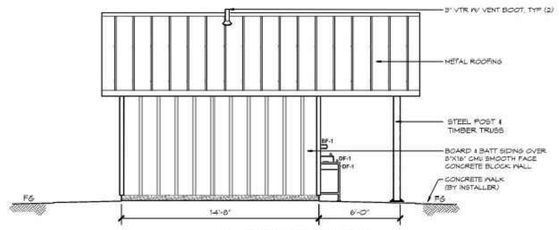
8" REINFORCED CONCRETE MASONRY BLOCK WALL WITH MORTAR JOINTS, GROUTED SOLID ALL CELLS RUNNING BOND PATTERN.



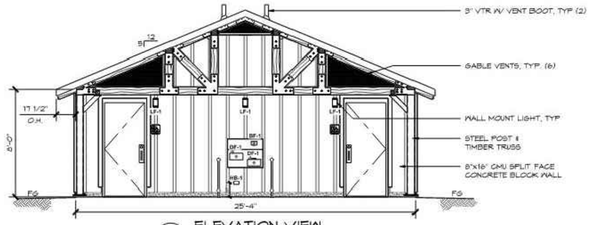
1 FLOOR PLAN
SCALE: 1/4" = 1'-0"



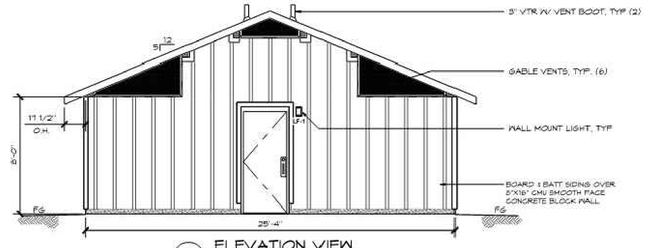
A ELEVATION VIEW
SCALE: 1/4" = 1'-0"



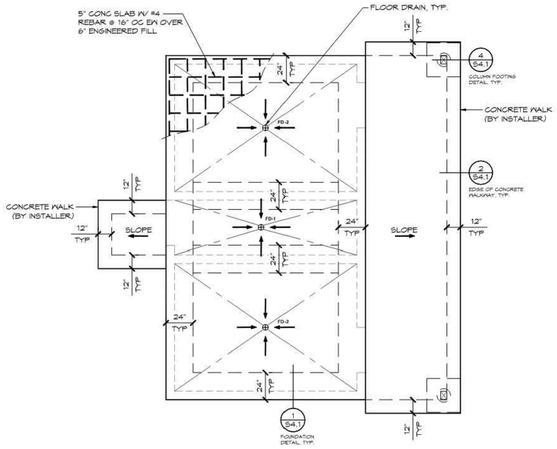
C ELEVATION VIEW
SCALE: 1/4" = 1'-0"



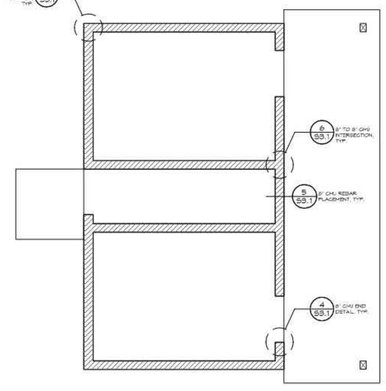
B ELEVATION VIEW
SCALE: 1/4" = 1'-0"



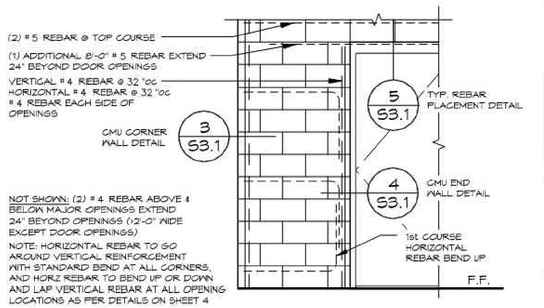
D ELEVATION VIEW
SCALE: 1/4" = 1'-0"



A FOUNDATION PLAN
SCALE: 1/4" = 1'-0"



A STRUCTURAL CMU PLAN
SCALE: 1/4" = 1'-0"

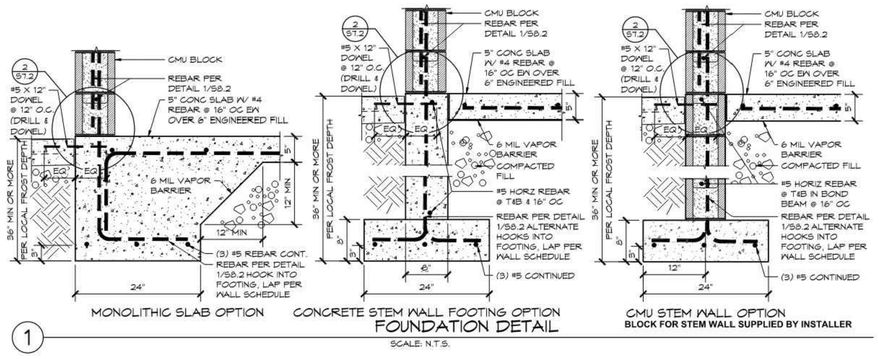


1 CMU REBAR LAYOUT DETAIL
SCALE: 1" = 1'-0"

CMU REBAR SCHEDULE		
REBAR	MIN. LAP	BEND DIAMETER
#4	24"	5" MIN.
#5	30"	3-3/4" MIN.

CMU REBAR NOTES:
- BENDS: MIN. INSIDE BEND DIAMETER SHALL BE NOT LESS THAN 6d AS PER TMS 402-16 SECTION 6.1.6.2
- SPLICES: LAP SPLICES ARE PERMITTED AS PER TMS 402-16 SECTION 6.1.6.1.1

PIPES INSTALLED THROUGH CMU WALL NOTES:
- SUPPLY: THE FIXTURE SUPPLY LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE AND THE PORTION OF PIPE LOCATED IN CMU WALL SHALL BE WRAPPED WITH 10MIL BLACK TAPE
- WASTE PIPE: THE FIXTURE WASTE LINE SHOULD BE BORED A 1/2" LARGER THAN REQUIRED LINE SIZE.



1 FOUNDATION DETAIL
SCALE: N.T.S.

GENERAL NOTES:
- WHEN USING EITHER STEM WALL OPTION RECESS STEM WALL THE THICKNESS OF SLAB AT DOOR THRESHOLD
- PRIVACY WALLS TO HAVE A 30" WIDE x 12" DEEP FOOTING, IF APPLICABLE
- CMU STEM WALL OPTION, CMU BLOCK IS BY INSTALLER
- VERTICAL REBAR IN SLAB/STEM WALL TO MATCH VERTICAL WALL REINFORCEMENT LAP PER WALL SCHEDULE

FOUNDATION DESIGN SHOWN HERE IS PRELIMINARY AND SUBJECT TO CHANGE. FINAL FOUNDATION DESIGN TO BE DETERMINED DURING THE FORTHCOMING FULL DESIGN PHASE FOR THE BUILDING. ANY INCREASED COSTS OR TIME NEEDED TO CONSTRUCT THE FINAL FOUNDATION DESIGN IS BETWEEN THE END OWNER AND THE BUILDING INSTALLER.

NOTES:

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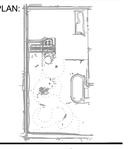
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KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

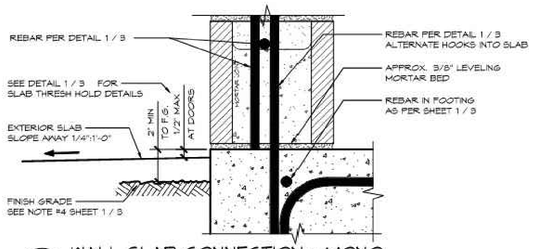
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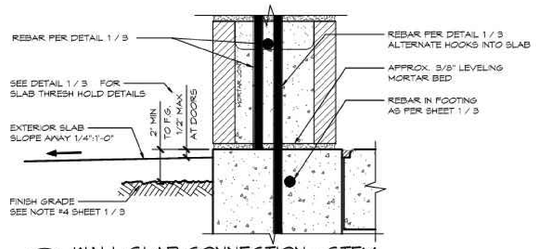
SITE DETAILS

SHEET:

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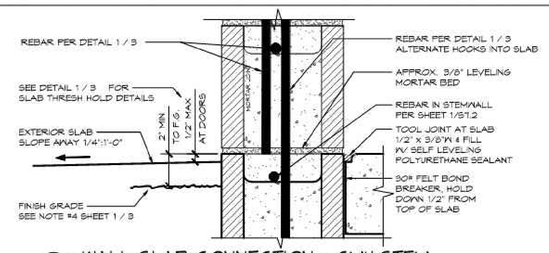


2 WALL-SLAB CONNECTION - MONO
SCALE: 3" = 1'-0"

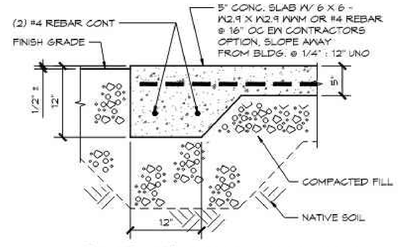


2 WALL-SLAB CONNECTION - STEM
SCALE: 3" = 1'-0"

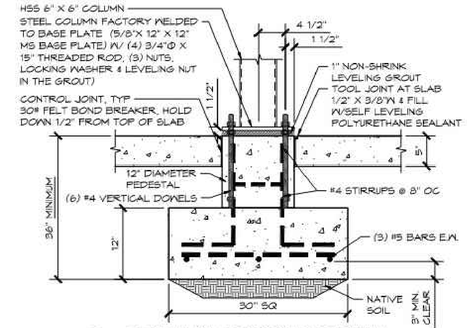
EXTERIOR WALL CONNECTIONS DETERMINED - PER DETAIL 1/4



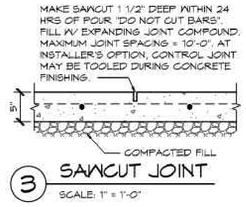
2 WALL-SLAB CONNECTION - CMU STEM
SCALE: 3" = 1'-0"



2 EDGE OF CONC. WALKWAY
SCALE: 1" = 1'-0"



4 COLUMN FOOTING DETAIL
SCALE: 1" = 1'-0"

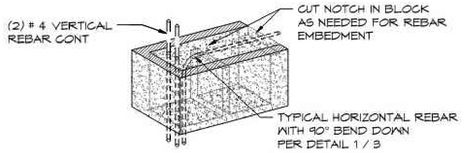


3 SAWCUT JOINT
SCALE: 1" = 1'-0"

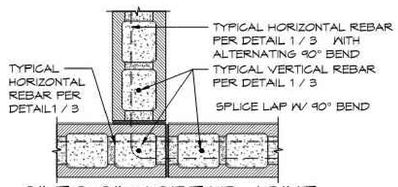
3 MORTAR JOINT
CMU CORNER DETAIL
SCALE: 1" = 1'-0"

NOTE: REBAR INSTALLED AS PER
TMS 602-13/ACI 530.1-13/ASCE 6-13

5 8" CMU REBAR PLACEMENT
SCALE: 1" = 1'-0"



4 MORTAR JOINT
CMU WALL END DETAIL
SCALE: 1" = 1'-0"



6 8" TO 8" MORTAR JOINT
CMU INTERSECTION DETAIL
SCALE: 1" = 1'-0"

NOTES:

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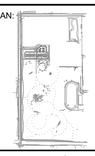
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wenk
MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

SITE DETAILS

SHEET:

L4.10

SCALE: NTS

Model # OSP12-CUP-CUS

Design Criteria: Structure is typically designed for a 25 lb live load and a 90 mph wind load capacity, but can be designed based on specific site requirements upon request. All structural members are ASTM A-500 U.S. grade B steel. Welded connection plates shall be ASTM A-36 hot rolled steel. All fabrication performed to latest AISC standards by AWS Certified welders. All framing connections are done using A325 grade bolts within concealed access openings from above and will later be concealed by the roofing. All roof framing shall be flush against the roof decking to eliminate the possibility of bird nesting.

Tubular Steel Columns and Beams: Standard column dimension shall be 5" x 5" x 3/16" tubular steel welded to 5/8" base plates for surface mounting. Main support beams are 7" x 5" x 3/16" and purlins are 5" x 3" x 1/8". Steel sizes are preliminary and may change due to ongoing review and final engineering.

Roof Deck: 2" x 6" (nominal) #1 Grade, end matched, single tongue and groove with V-joint bottom face, kiln-dried to an average of 15% moisture content, Southern Yellow Pine. #30 roofing felt included.

Roofing: 24 Ga. pre-cut steel Multi-Rib panels with Kynar 500 finish in a variety of colors with white underside. Standard roof slope is a 4/12 pitch with a eave height of 7'-6". Attached to structural framing with exposed self tapping screws painted to match roof color. Matching 24 Ga. trim included.

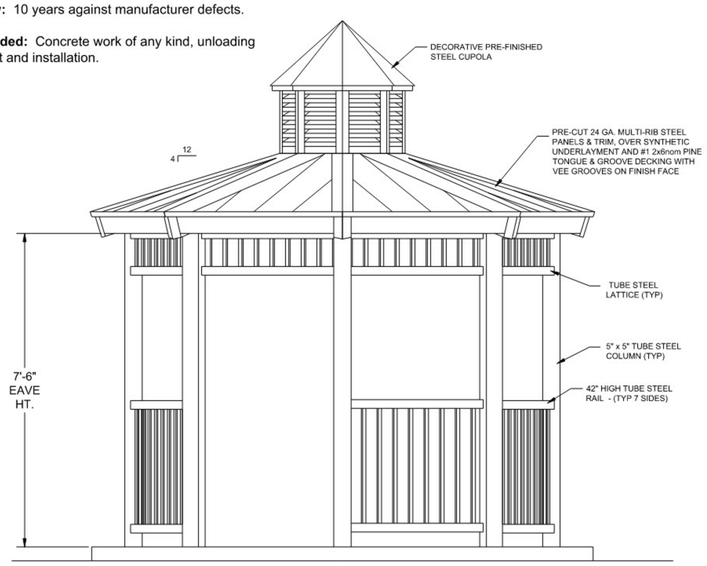
Frame Finish: All steel framework will receive a corrosion protective TGIC Polyester powder coat, electro-statically applied and cured at 400°F. A large selection of standard colors are available.

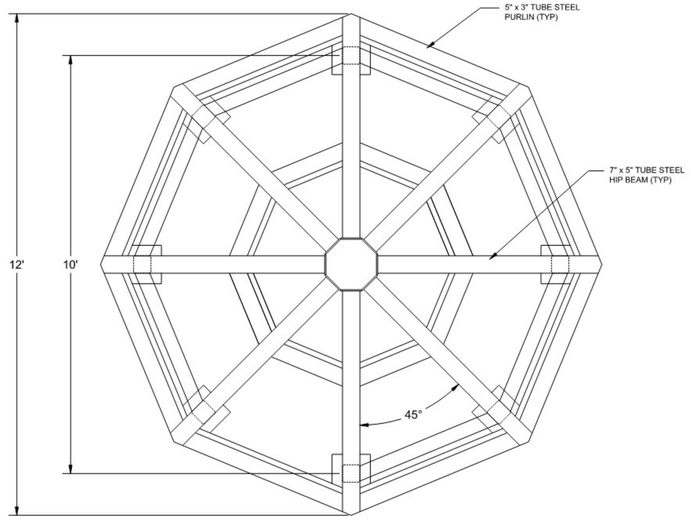
Foundation: All columns need to be anchored to concrete footings (footing design provided separately). Columns can be surface mounted to footings with anchor bolts at or below finish slab elevation or they can be embedded directly into the footing without base plates upon request. Anchor bolts and bracing templates are included. Optional base plate covers are available at an additional cost.

Hardware: All structural hardware and roofing fasteners shall be provided.

Warranty: 10 years against manufacturer defects.

Not Included: Concrete work of any kind, unloading of product and installation.





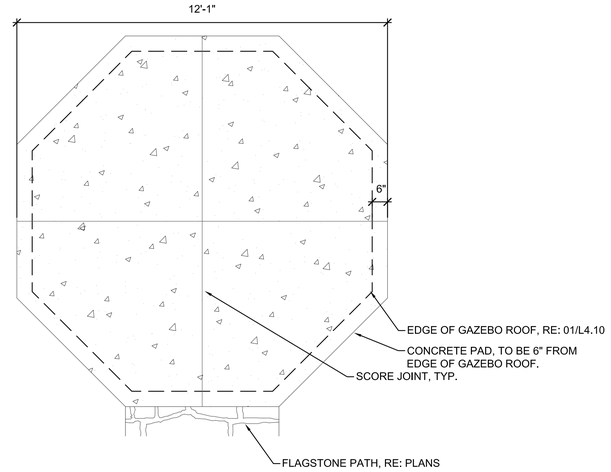
CFP CEDAR FOREST PRODUCTS — P.O. BOX 145, WEST OLIVE, MI 49460, 800-552-9495, WWW.CEDARFORESTPRODUCTS.COM	PRELIMINARY NOT FOR CONSTRUCTION	© Copyright 2024 these drawings are the intellectual property of C.F.P. CO. and shall not be copied or disclosed to any unauthorized parties in part or its entirety without our written permission, and they shall not be used for construction unless approved by a C.F.P. Representative.	MODEL NUMBER: OSP12-CUP-CUS SHOWN WITH STANDARD OPTIONS DESCRIPTION: 12' Custom Octagon Steel Pavilion Possible Options: ☐ 29ga METAL ROOF ☐ METAL BASE SHOES ☐ LIGHTNING PROTECTION ☐ STANDING SEAM ROOF ☐ STEEL COLUMNS ☐ 2 TIER ROOF ☐ CEDAR SHINGLES ☐ CUSTOM ROOF PITCH ☐ CUPOLA	REVISION DATES REV: REV: REV: REV:	DRAWN BY: TEC DATE: 10-18-24 SHEET: 1 OF 1

NOTES:

PRODUCT: OCTAGON STEEL PAVILION
MANUFACTURER: CEDAR FOREST PRODUCTS
SIZE: 12' DIAMETER, 7.5' EAVE
COLOR: TBD
ROOF: 24 GAUGE METAL
ROOF DECKING: SOUTHERN YELLOW PINE, STAINED CANYON BROWN, TO MATCH BANDSHELL.

REFERENCE SPECIFICATIONS FOR ADDITIONAL INFORMATION

01 GAZEBO AT EVENT LAWN
NTS



NOTES:
1. REFER TO LAYOUT AND MATERIALS PLANS FOR GAZEBO LOCATION.
2. CONTRACTOR TO SUBMIT SHOP DRAWINGS INCLUDING THE REINFORCEMENT AND FOOTER CONCRETE PAD CONNECTION FOR APPROVAL PRIOR TO BEGINNING WORK

02 GAZEBO CONCRETE PAD
1/2" = 1'-0"

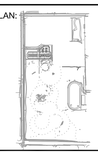
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L4.11

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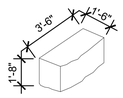
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STONE SERIES 1
- STONE SERIES 1 SHALL BE NATIVE, RED, HAVE NATURALLY ROUNDED EDGES
- SELECT BOULDERS WITH SMOOTH FACE AND AVOID SHARP EDGES

STONE TYPE 1B, SEAT WALL (DIMENSIONAL)

1B

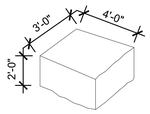
FINISH:NATURAL CLEFT
SIZE
WIDTH: 1'-6" MIN. - 2'-0" MAX
LENGTH: 3'-6" MIN. - 5'-0" MAX.
HEIGHT: 1'-8" MIN. - 2'-2" MAX.



STONE TYPE 1C, LANDSCAPE BOULDER

1C

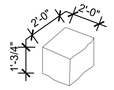
FINISH: NATURAL CLEFT
SIZE
WIDTH: 4-0" MIN - 5'-0" MAX
LENGTH: 3-'0" MIN - 4'-6" MAX
HEIGHT: 2'-0" MIN - 3'-0" MAX



STONE TYPE 1E, FLAGSTONE

1E

FINISH: NATURAL CLEFT
SIZE
WIDTH: 2'-0" MIN - 6'-0" MAX
LENGTH: 2'-0" MIN - 6'-0" MAX
HEIGHT: 1 3⁄4" MIN - 2 1⁄4" MAX



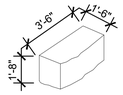
01 STONE SERIES 1
NTS

STONE SERIES 2
- STONE SERIES 2 SHALL BE NATIVE, GRAY STONE
- SELECT BOULDERS WITH SMOOTH FACE AND WITH MOSS WHENEVER POSSIBLE, AND AVOID SHARP EDGES

STONE TYPE 2B, SEAT WALL (DIMENSIONAL)

2B

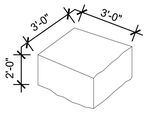
FINISH: NATURAL CLEFT, "GRANITE"
SIZE
WIDTH: 1'-6" MIN. - 2'-0" MAX
LENGTH: 3'-6" MIN. - 5'-0" MAX.
HEIGHT: 1'-8" MIN. - 2'-2" MAX.



STONE TYPE 2C, LANDSCAPE BOULDER

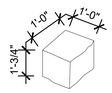
2C

FINISH: NATURAL BLAST, "GRANITE"
SIZE
WIDTH: 3-0" MIN - 5'-0" MAX
LENGTH: 3-'0" MIN - 5'-0" MAX
HEIGHT: 2'-0" MIN - 3'-0" MAX



STONE TYPE 2E, FLAGSTONE, "CHARCOAL"

FINISH: NATURAL CLEFT
SIZE
WIDTH: 1'-0" MIN - 6'-0" MAX
LENGTH: 1'-0" MIN - 6'-0" MAX
HEIGHT: 1 3⁄4" MIN - 2 1⁄4" MAX

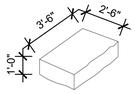


STONE TYPE 2F, WATER FEATURE BOULDER

2F

FINISH: NATURAL BLAST, "GRANITE"
SIZE
WIDTH: 2'-6" MIN - 3'-6" MAX
LENGTH: 3'-6" MIN - 4'-9" MAX
HEIGHT: 1'-0" MIN - 2'3" MAX

ADDITIONAL: STONE TO BE SELECTED AT THE QUARRY WITH LANDSCAPE ARCHITECT.

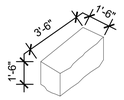


STONE TYPE 2D, STEPS (DIMENSIONAL)

2D

FINISH: SNAP CUT, COLOR MATCH TO STONE SERIES 3
SIZE
WIDTH: 1'-6" MIN. - 2'-0" MAX
LENGTH: 3'-6" MIN. - 4'-6" MAX.
HEIGHT: 1'-6" MIN. - 2'-0" MAX

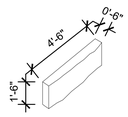
ADDITIONAL: STONE TYPE 2D SHALL BE NATIVE, GRAY "SEBASTIAN BLUE SNAP CUT STEP", OR APPROVED EQUAL. SELECT BOULDERS WITH SMOOTH FACE AND AVOID SHARP EDGES



STONE TYPE 2G, STONE WEIR (DIMENSIONAL)

2G

FINISH: SNAP CUT, COLOR MATCH TO STONE SERIES 3
SIZE
WIDTH: 6" MIN. - 9" MAX.
LENGTH: 4'-6" MIN. - 5'-6" MAX.
HEIGHT: 1'-6" MIN. - 2'-0" MAX



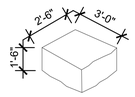
02 STONE SERIES 2
NTS

STONE SERIES 3
- STONE SERIES 3 SHALL BE NATIVE, BUFF/TAN, AND NATURALLY ROUND EDGES, "LAYERED SEDIMENTARY SANDSTONE"
- SELECT BOULDERS WITH SMOOTH FACE AND AVOID SHARP EDGES

STONE TYPE 3A, LARGE SEAT WALL (DIMENSIONAL)

3A

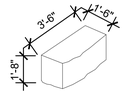
FINISH: NATURAL CLEFT
SIZE
WIDTH: 3'-0" MIN. - 4'-0" MAX
LENGTH: 2'-6" MIN. - 5'-0" MAX.
HEIGHT: 1'-6" MIN. - 2'-0" MAX.



STONE TYPE 3B, SEAT WALL (DIMENSIONAL)

3B

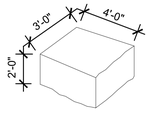
FINISH: NATURAL CLEFT
SIZE
WIDTH: 1'-6" MIN. - 2'-0" MAX
LENGTH: 3'-6" MIN. - 5'-0" MAX.
HEIGHT: 1'-8" MIN. - 2'-2" MAX.



STONE TYPE 3C, LANDSCAPE BOULDER

3C

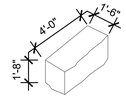
FINISH: NATURAL CLEFT
SIZE
WIDTH: 4-0" MIN - 5'-0" MAX
LENGTH: 3-'0" MIN - 4'-6" MAX
HEIGHT: 2'-0" MIN - 3'-0" MAX



STONE TYPE 3D, STEPS (DIMENSIONAL)

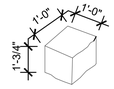
3D

FINISH: NATURAL CLEFT
SIZE
WIDTH: 1'-6"
LENGTH: 4'-0" MIN. - 5'-6" MAX.
HEIGHT: 20"



STONE TYPE 3E, FLAGSTONE

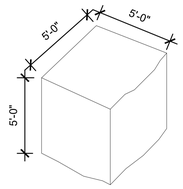
FINISH: NATURAL CLEFT
SIZE
WIDTH: 1'-0" MIN - 6'-0" MAX
LENGTH: 1'-0" MIN - 6'-0" MAX
HEIGHT: 1 3⁄4" MIN - 2 1⁄4" MAX



STONE TYPE 3H, MEMORIAL STONE

3H

FINISH: NATURAL CLEFT
SIZE
WIDTH: 5'-0" MIN - 8'-0" MAX
LENGTH: 5'-0" MIN - 8'-0" MAX
HEIGHT: 5'-0" MIN - 8'-0" MAX



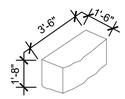
03 STONE SERIES 3
NTS

STONE SERIES 4
- STONE SERIES 4 SHALL BE NATIVE, GRAY/ RED, BE NATURALLY ROUNDED WITH MINIMAL EDGES
- SELECT BOULDERS WITH ROUNDED SHAPE, SMOOTH FACE, AND NO SHARP EDGES

STONE TYPE 4B, SEAT WALL (DIMENSIONAL)

4B

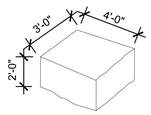
FINISH: NATURAL CLEFT
SIZE
WIDTH: 1'-6" MIN. - 2'-0" MAX
LENGTH: 3'-6" MIN. - 5'-0" MAX.
HEIGHT: 1'-8" MIN. - 2'-2" MAX.



STONE TYPE 4C, LANDSCAPE BOULDER

4C

FINISH: RIVER SMOOTHED
SIZE
WIDTH: 4-0" MIN - 5'-0" MAX
LENGTH: 3-'0" MIN - 4'-6" MAX
HEIGHT: 2'-0" MIN - 3'-0" MAX



04 STONE SERIES 4
NTS

STONE SERIES 5
- STONE SERIES 5 SHALL BE NATIVE, GRAY "RIPRAP".

STONE TYPE 5A, RIPRAP

FINISH: NATURAL BLAST FINISH
SIZE
DIAMETER: 4" MIN - 18" MAX



STONE TYPE 5B, SMALL RIPRAP

TYPE: MOUNTAIN GRANITE (VTR- VEHICLE TRACKING ROCK)
FINISH:
NATURAL BLAST FINISH
SIZE
DIAMETER: 2" MIN - 4" MAX

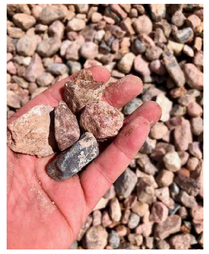


05 STONE SERIES 5
NTS

STONE SERIES 6
- STONE SERIES 6 BE "PLATTE RIVER ROCK"

STONE TYPE 6, ROUNDED RIVER COBBLE

FINISH:
NATURAL BLAST FINISH
SIZE
DIAMETER: 1-1/2"



06 STONE SERIES 6
NTS

STONE SERIES 7
- STONE SERIES 7 SHALL BE "TAN SQUEEGE"
- STONE SHALL BE UNUSED MATERIAL FREE OF SHALE, LAY, FRIABLE MATERIALS, ORGANICS, AND DEBRIS

STONE TYPE 7, SQUEEGEE

COLOR:TAN SQUEEGEE
SIZE RANGE:
1/4" MAXIMUM



07 STONE SERIES 7
NTS

STONE SERIES 8
- STONE SERIES 8 SHALL BE "GRAY GRANITE CRUSHED"
- STONE SHALL BE UNUSED MATERIAL FREE OF SHALE, LAY, FRIABLE MATERIALS, ORGANICS, AND DEBRIS

STONE TYPE 8, CRUSHED STONE

SIZE:
3/8"
COLOR: GRAY



08 STONE SERIES 8
NTS

STONE SERIES 9
- STONE SERIES 9 SHALL BE "CRUSHED BUFF"
- STONE SHALL BE UNUSED MATERIAL FREE OF SHALE, LAY, FRIABLE MATERIALS, ORGANICS, AND DEBRIS

STONE TYPE 9, ROCK MULCH

SIZE:
1 1/2"
COLOR:
BUFF



09 STONE SERIES 9
NTS

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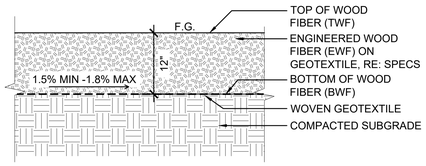
SITE DETAILS

SHEET:

L4.12

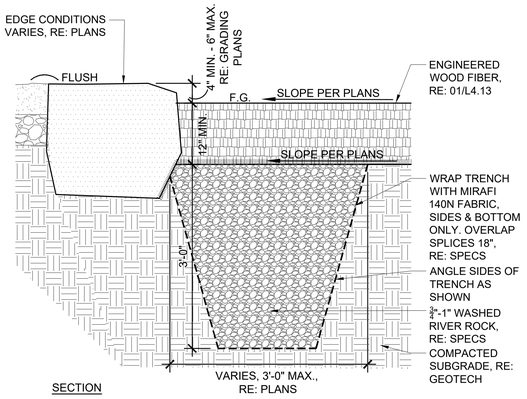
10/1/2022 10:48 AM

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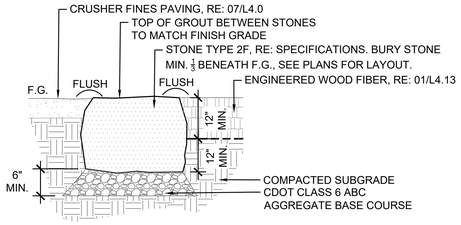
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. WEAR MATS MUST BE INSTALLED UNDER ALL SWINGS & SLIDE EXITS ON TOP OF FABRIC AND UNDER THE EWF TO PRESERVE WARRANTY.
3. EWF TO BE INSTALLED IN 4" LIFTS AND COMPACTED PER MANUFACTURER'S SPECIFICATIONS. IF NOT INSTALLED IN LIFTS, ADDITIONAL EWF WILL BE REQUIRED TO MEET CODE AT FINAL ACCEPTANCE AT THE CONTRACTOR'S EXPENSE.
4. REFER TO SUBSURFACE GRADING PLANS FOR DRAINAGE.

01 ENGINEERED WOOD FIBER (EWF)
1/2"=1'-0"



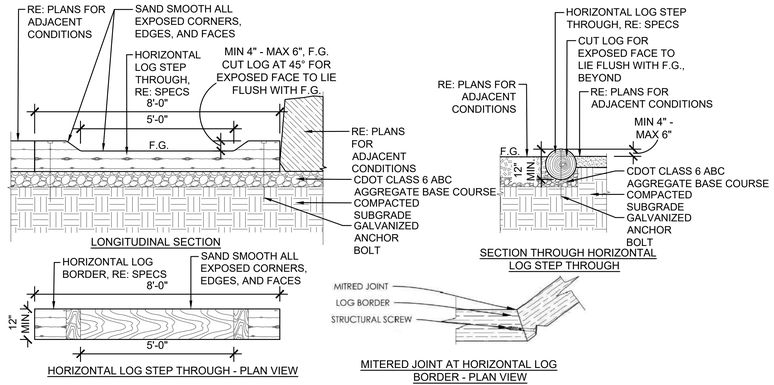
SECTION

02 GRAVEL DRAINAGE SUMP
1/2"=1'-0"



NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
2. WEAR MATS MUST BE INSTALLED UNDER ALL SWINGS & SLIDE EXITS ON TOP OF FABRIC AND UNDER THE EWF TO PRESERVE WARRANTY.
3. EWF TO BE INSTALLED IN 4" LIFTS AND COMPACTED PER MANUFACTURER'S SPECIFICATIONS. IF NOT INSTALLED IN LIFTS, ADDITIONAL EWF WILL BE REQUIRED TO MEET CODE AT FINAL ACCEPTANCE AT THE CONTRACTOR'S EXPENSE.

03 STONE EDGER AT ENGINEERED WOOD FIBER
1/2"=1'-0"

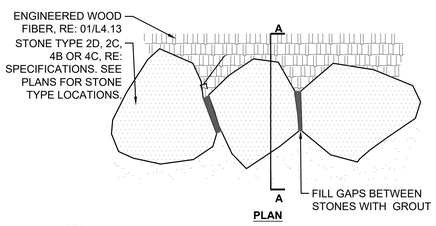


NOTES:
1. LOGS FINISH: EXPOSED FACE AND BARK PEELED FROM EDGES
2. MITER LOGS ONSITE WHERE TOUCHING AND INSTALL BORDER ACCORDING TO THE LAYOUT PLAN.
3. LOGS MUST BE PLACED SO THAT A MINIMUM OF 1/3 THE LOG'S HEIGHT IS BURIED BELOW FINISHED GRADE OF THE LOWEST SURROUNDING SURFACE.
4. GROUT MAY BE USED BETWEEN LOGS TO PREVENT MATERIALS FROM MIGRATING.
5. REVIEW ALL LOGS FOR PROTRUSIONS, USE A GRINDER WITH 36 GRIT GRINDING WHEEL TO SAND PROTRUSIONS FLAT.
6. SHIM GAPS LARGER THAN 1" WITH WOOD AND GROUT IN PLACE. GAPS SMALLER THAN 1" SHALL BE GROUTED.
7. WOOD IN CONTACT WITH SOIL SHALL BE PRETREATED, RE: SPECS.

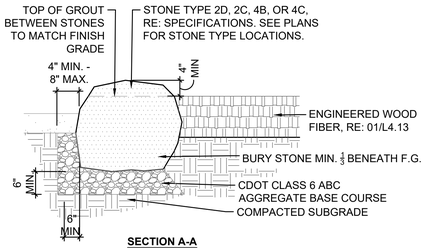


IMAGE FOR INTENT ONLY.

07 HORIZONTAL LOG STEP THROUGH
1/2"=1'-0"



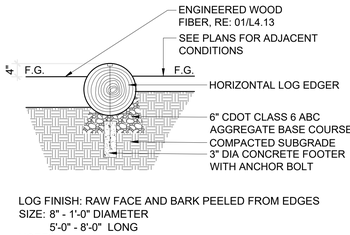
PLAN



SECTION A-A

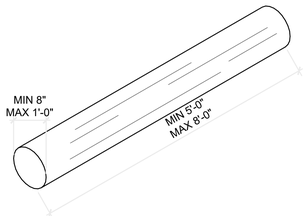
NOTES:
1. GAPS GREATER THAN 3" BETWEEN STONES SHOULD BE FILLED WITH CHINKING STONES AND GROUT. MINIMIZE VISIBILITY OF GROUT TO EXTENT POSSIBLE. SET GROUT BACK ½" FROM EXPOSED FACE OF STONE.
2. GROUT COLOR TO MATCH STONE, SUBMIT SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT.
3. FIBAR SHALL BE 4" MIN. BELOW TOP OF STONE.
4. REFERENCE SPECIFICATIONS FOR STONE TYPE AND STONE DIMENSIONS.

04 BOULDER EDGE AT ENGINEERED WOOD FIBER
1"=1'-0"

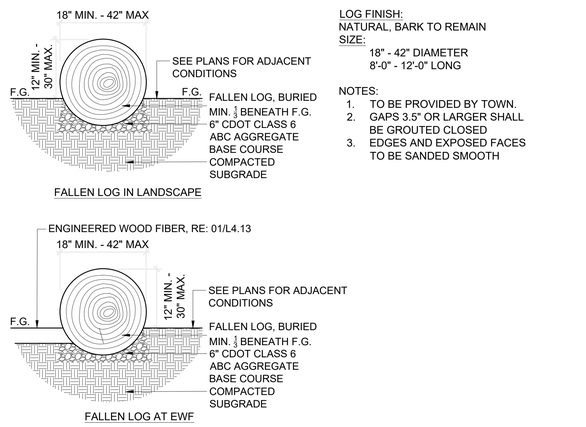


LOG FINISH: RAW FACE AND BARK PEELED FROM EDGES
SIZE: 8" - 1'-0" DIAMETER
5'-0" - 8'-0" LONG

NOTES:
1. LOGS SHALL BE PLACED TO FIT TIGHTLY TOGETHER
2. GROUT MAY BE USED BETWEEN LOGS TO PREVENT MATERIALS FROM MIGRATING
3. GAPS 3.5" OR LARGER SHALL BE GROUTED CLOSED
4. REVIEW ALL LOGS FOR PROTRUSIONS, USE A GRINDER WITH 36 GRIT GRINDING WHEEL TO SAND PROTRUSIONS FLAT.
5. SHIM GAPS LARGER THAN 1" WITH WOOD AND GROUT IN PLACE. GAPS SMALLER THAN 1" SHALL BE GROUTED.
6. WOOD IN CONTACT WITH SOIL SHALL BE PRETREATED, RE: SPECS.



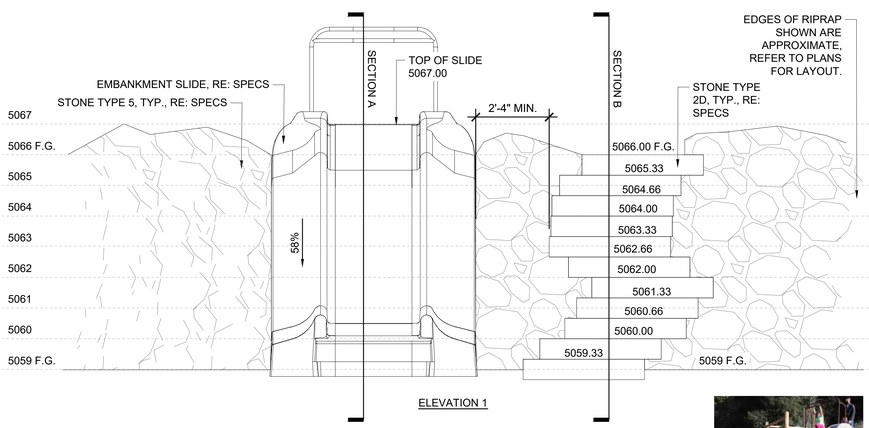
06 LOG EDGE AT EWF
1/2"=1'-0"



LOG FINISH:
NATURAL, BARK TO REMAIN
SIZE:
18" - 42" DIAMETER
8'-0" - 12'-0" LONG

NOTES:
1. TO BE PROVIDED BY TOWN.
2. GAPS 3.5" OR LARGER SHALL BE GROUTED CLOSED
3. EDGES AND EXPOSED FACES TO BE SANDED SMOOTH

08 FALLEN LOG
NTS



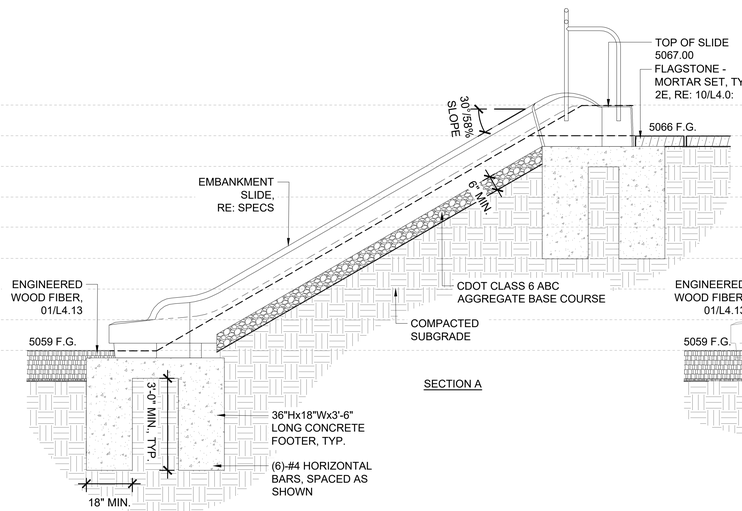
ELEVATION 1

NOTES:
1. SECTION/ELEVATIONS FOR STONE DESIGN INTENT ONLY. SLIDE TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.
2. SLIDE MANUFACTURED BY COLUMBIA CASCADE COMPANY, 1300 S.W. SIXTH AVENUE, SUITE 310, PORTLAND, OREGON. WWW.TIMBERFORM.COM. MODEL NO. 1650-71-EMB EMBANKMENT SLIDE CHUTE. PLASTIC COLOR TAN. METAL COLOR BROWN.
3. SLIDE TO BE INSTALLED PER MANUFACTURER RECOMMENDATIONS.



IMAGE FOR INTENT.

05 HILLSIDE SLIDE
NTS



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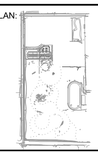
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MARTIN/MARTIN CONSULTING ENGINEERS

TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

SITE DETAILS

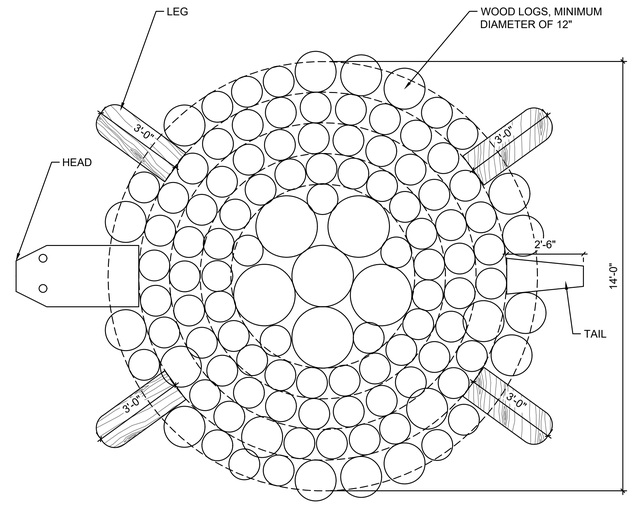
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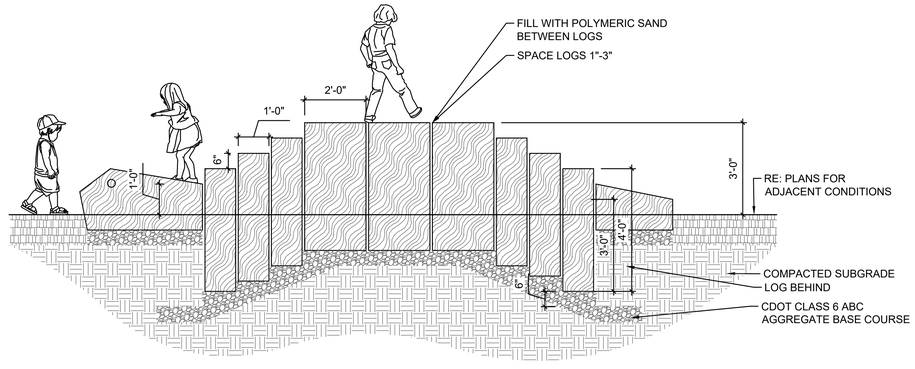


MANUFACTURER: DUNCAN & GROVE
PRODUCT: LOG CLIMBING FRAME NO. 2 ROBINIA
MATERIALS: ROBINIA

01 "BEAVER DAM" LOG JAM
N.T.S



02 TURTLE LOG CLIMBER
1/2"=1'-0"



NOTES:
1. CONTRACTOR TO ENGAGE WITH A LOCAL CHAINSAW ARTIST FOR THE PRODUCTION OF THE HEAD, LEGS, & TAIL. ASSUME COORDINATION WITH TOWN FORESTER & LANDSCAPE ARCHITECT.
2. DRAWINGS SHOWN FOR DESIGN INTENT. CONTRACTOR SHALL DEVELOP SHOP DRAWINGS & CONCEPT SKETCHES FOR APPROVAL OF PROJECT LANDSCAPE ARCHITECT.



MANUFACTURER: WILLY GOAT
PRODUCT: MUSHROOM ENSEMBLE MUSICAL PARK INSTRUMENTS
COLOR: RED & WHITE
MATERIALS: POWDER COATED STEEL FRAME, ANODIZED ALUMINUM HEAD, STAINLESS STEEL HARDWARE

03 MUSHROOM OR WOOD "FOREST WIND" CHIMES
N.T.S



MANUFACTURER: DUNCAN & GROVE
PRODUCT: MUSICAL CHIMES NO.1 ROBINIA
MATERIALS: FSC ROBINIA, 304 STAINLESS STEEL
SIZE: 59" H

04 MUSICAL CHIMES NO. 1 ROBINIA
N.T.S



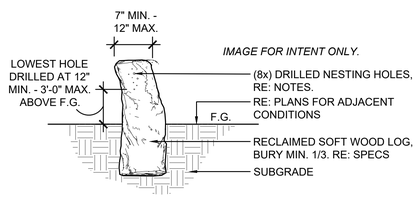
MANUFACTURER: DUNCAN & GROVE
PRODUCT: STILTED PLAYHUT NO.1
MATERIALS: FSC ROBINIA
SIZE: 8' H

05 VILLAGE PLAY HUT
N.T.S



MANUFACTURER: DUNCAN & GROVE
PRODUCT: MUSICAL CHIMES NO. 2 ROBINIA
MATERIALS: FSC ROBINIA

06 MUSICAL CHIMES NO. 2 ROBINIA
N.T.S



NOTES:
1. LOGS SHALL BE RECLAIMED FROM SOFT WOOD TREES. OWNER'S REPRESENTATIVE TO APPROVE WOOD TO BE USED. CONTRACTOR TO PROVIDE, STORE, DRILL AND INSTALL LOGS IN LOCATIONS AS APPROVED BY OWNER'S REPRESENTATIVE.
2. WOOD ABOVE AND IN CONTACT WITH GROUND TO REMAIN UNTREATED.
3. LOGS SHALL BE FREE FROM PESTS.
4. DRILL (1x) NESTING HOLES AT EACH OF THE FOLLOWING DIAMETERS: $\frac{3}{32}$", $\frac{1}{8}$", $\frac{5}{16}$", $\frac{3}{8}$". DRILL (2x) NESTING HOLES AT EACH OF THE FOLLOWING DIAMETERS: $\frac{7}{16}$", $\frac{1}{2}$".
5. DRILL HOLES AT 1" O.C. AND MIN. 1" FROM OUTER EDGES OF LOG.
6. HOLES LESS THAN $\frac{3}{4}$" DIAMETER SHALL BE 3" MIN. - 4" MAX. DEPTH. HOLES GREATER THAN $\frac{3}{4}$" DIAMETER SHALL BE 5" MIN. - 6" MA.X. DEPTH. DO NOT DRILL THROUGH LOG - HOLES SHALL BE CLOSED AT ONE END.
7. REMOVE DEBRIS SUCH AS SPLINTERING WOOD FROM HOLE ENTRANCE. REMOVE DEBRIS SUCH AS SAWDUST FROM INNER HOLES.
8. LOGS SHALL BE ORIENTED WITH HOLES FACING EAST TO SOUTHEAST. OWNER'S REPRESENTATIVE TO CONFIRM ORIENTATION IN FIELD.

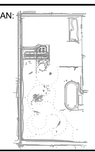
07 BEE NESTING LOG
N.T.S

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

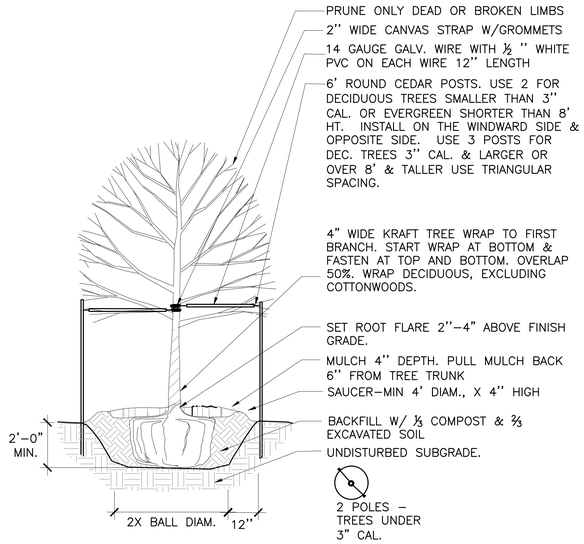
SITE DETAILS

SHEET:

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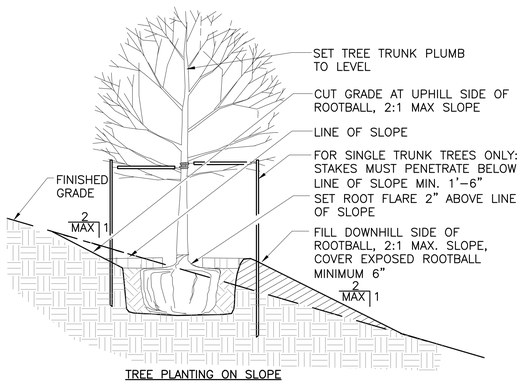
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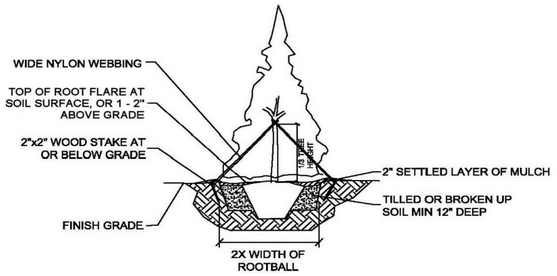


01 TREE PLANTING
1"=1'-0"

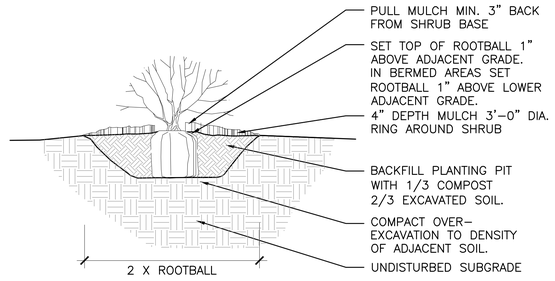
NOTES:
1. SEE SPECIFICATIONS FOR ADDITIONAL PLANTING REQUIREMENTS.
2. CUT AWAY & REMOVE ALL WIRE, OTHER RESTRAINING MATERIAL, AND TOP ⅔ OF BURLAP AFTER PLANT IS SET IN PLANTING HOLE.
3. SCARIFY PIT WALLS.
4. PLUMB AND ORIENT PLANTS FOR BEST APPEARANCE.



TREE PLANTING ON SLOPE

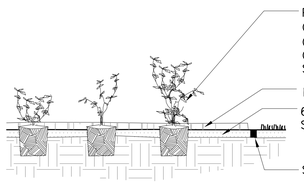


02 TOWN OF BERTHOUD EVERGREEN TREE PLANTING
1"=1'-0"



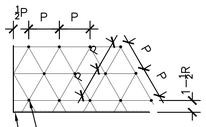
NOTES:
1. SEE SPECS FOR ADDITIONAL PLANTING REQUIREMENTS.
2. PLUMB AND ORIENT PLANTS FOR BEST APPEARANCE.
3. CAREFULLY REMOVE CONTAINER AND SCORE ROOT BALL.

03 SHRUB PLANTING
1"=1'-0"



NOTES:
1. SEE SPECS FOR ADDITIONAL PLANTING REQUIREMENTS.
2. PLUMB AND ORIENT PLANTS FOR BEST APPEARANCE.
3. CAREFULLY REMOVE CONTAINER AND SCORE ROOT BALL.

04 ORNAMENTAL GRASSES AND PERENNIALS
1"=1'-0"

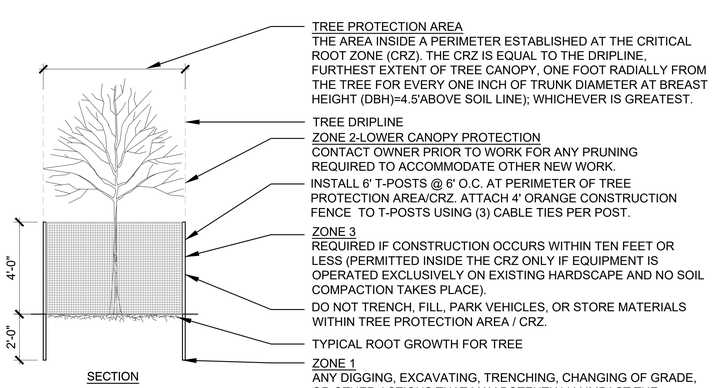


FOR TRIANGULAR SPACING OF SHRUBS, ORNAMENTAL GRASSES, ANNUALS, PERENNIALS AND GROUNDCOVERS, SEE PLANT LIST FOR SPACING DISTANCE.

EDGE OF PAVING, WALL, PLANTER BED, OR LANDSCAPE BORDER, RE: PLAN

P TRIANGULAR	R ROW	AREA PER PLANT, SQ. FT.
6"	5 1/4"	0.22
8"	7"	0.385
10"	8 3/4"	0.60
12"	10 3/8"	0.87
18"	1'–3 5/8"	1.95
24"	1'–8 3/4"	3.46
3'	2'–7"	7.80
4'	3'–6"	13.80

05 PLANT SPACING
1"=1'-0"



SECTION

PLAN

TREE PROTECTION AREA
THE AREA INSIDE A PERIMETER ESTABLISHED AT THE CRITICAL ROOT ZONE (CRZ). THE CRZ IS EQUAL TO THE DRIPLINE, FURTHEST EXTENT OF TREE CANOPY, ONE FOOT RADIALLY FROM THE TREE FOR EVERY ONE INCH OF TRUNK DIAMETER AT BREAST HEIGHT (DBH)=4.5'ABOVE SOIL LINE); WHICHEVER IS GREATEST.

TREE DRIPLINE

ZONE 2-LOWER CANOPY PROTECTION
CONTACT OWNER PRIOR TO WORK FOR ANY PRUNING REQUIRED TO ACCOMMODATE OTHER NEW WORK.

INSTALL 6' T-POSTS @ 6' O.C. AT PERIMETER OF TREE PROTECTION AREA/CRZ. ATTACH 4' ORANGE CONSTRUCTION FENCE TO T-POSTS USING (3) CABLE TIES PER POST.

ZONE 3
REQUIRED IF CONSTRUCTION OCCURS WITHIN TEN FEET OR LESS (PERMITTED INSIDE THE CRZ ONLY IF EQUIPMENT IS OPERATED EXCLUSIVELY ON EXISTING HARDSCAPE AND NO SOIL COMPACTION TAKES PLACE).

DO NOT TRENCH, FILL, PARK VEHICLES, OR STORE MATERIALS WITHIN TREE PROTECTION AREA / CRZ.

TYPICAL ROOT GROWTH FOR TREE

ZONE 1
ANY DIGGING, EXCAVATING, TRENCHING, CHANGING OF GRADE, OR OTHER ACTIONS THAT MAY POTENTIALLY IMPACT THE ROOTING ENVIRONMENT MUST BE AUTHORIZED BY THE OWNER PRIOR TO WORK COMMENCEMENT. WORK WITHIN THE CRZ MUST TAKE PLACE IN ACCORDANCE WITH THE CONDITIONS ESTABLISHED BY THE OWNER.

NOTES:
1. FENCING HEIGHT MUST BE A MINIMUM OF 48".
2. ATTACH "TREE PROTECTION AREA" SIGNS TO FENCING EVERY 50 FEET.
3. CONSTRUCTION FENCE SHALL BE INSTALLED PRIOR TO OTHER BMP'S AND ANY LAND DISTURBING ACTIVITIES.
4. ANY DAMAGED FENCE SHALL BE REPAIRED ON A DAILY BASIS.
5. MULCH TO BE 'NATURAL WOOD MULCH' FROM A-1 ORGANICS.

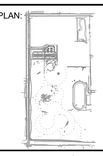
06 TREE PROTECTION
1"=1'-0"

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MARTIN/MARTIN CONSULTING ENGINEERS

Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

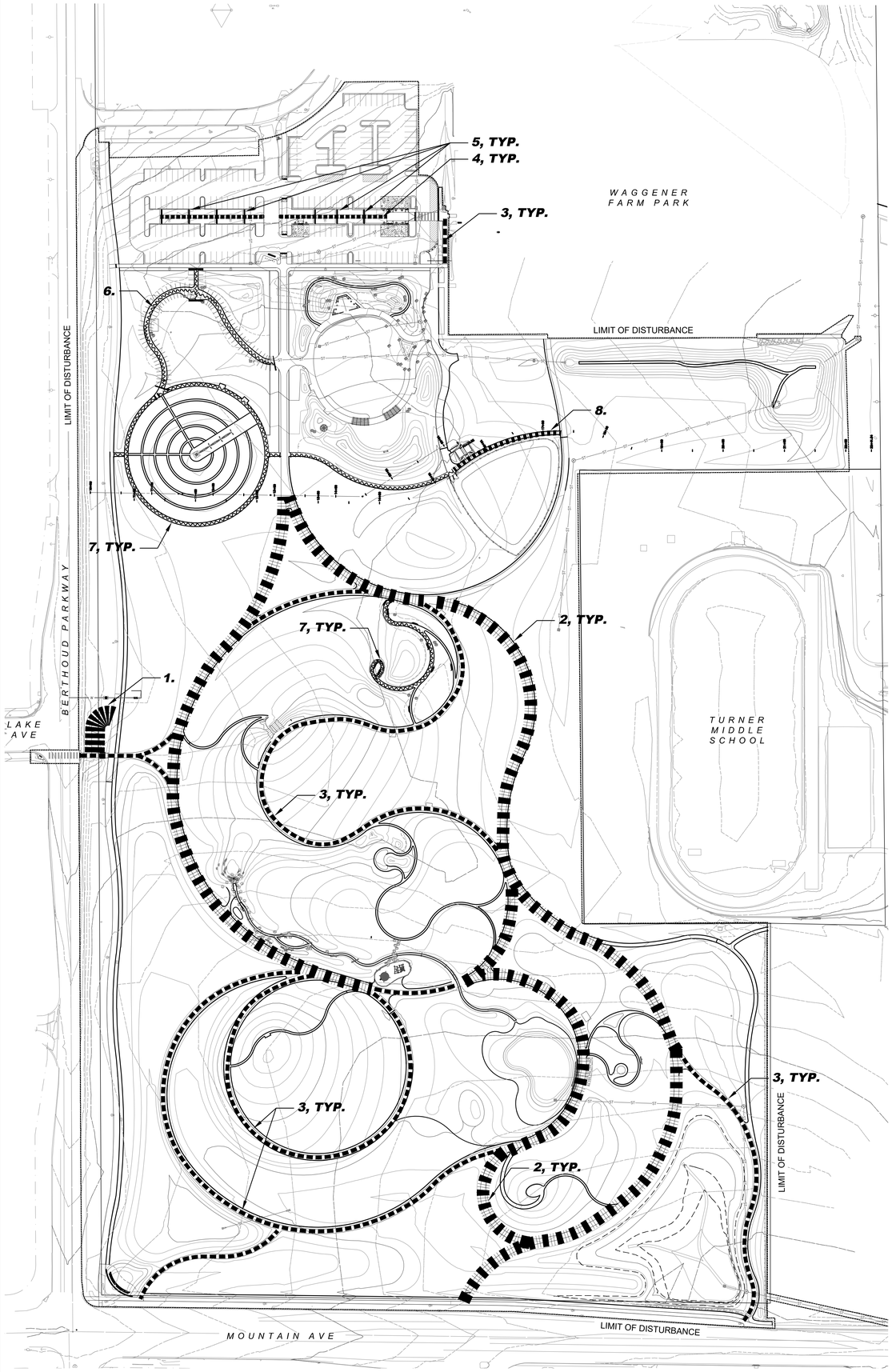
SITE DETAILS

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01 ADD/DEDUCT ALTERNATIVE #1 TRAIL WIDTH

1"=80'-0"

ADD/DEDUCT ALTERNATIVE #2 TRAILS

1. BASE BID: XXXX SF
   10-"0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC
1. DEDUCT ALT: XXXX SF
   6'-0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC

2. BASE BID: XXXX SF
   8'-0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC
2. ADD ALT: XXXX SF
   6'-0" WIDE VEHICULAR CONCRETE TRAIL, 6" CONCRETE, 8" ABC

3.. BASE BID: XXXX SF
   8'-0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC
3. DEDUCT ALT: XXXX SF
   6'-0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC

4. BASE BID: XXXX SF
   5"0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC
4. ADD ALT: XXXX SF
   6'WIDE PEDCESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC

5. BASE BID: XXXX SF
   4"0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC
5. ADD ALT: XXXX SF
   6'WIDE PEDCESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC

6. BASE BID: XXXXX SF
   8"0" WIDE CRUSHER FINES TRAIL
6. DEDUCT ALT: XXXXX SF
   3"0" WIDE CRUSHER FINES TRAIL

7. BASE BID: XXXXX SF
   6"0" WIDE CRUSHER FINES TRAIL
7. DEDUCT ALT: XXXXX SF
   3"0" WIDE CRUSHER FINES TRAIL

8. BASE BID: XXXXX SF
   6"0" WIDE CRUSHER FINES TRAIL
8. ADD ALT: XXXXX SF
   6'-0" WIDE PEDESTRIAN CONCRETE TRAIL, 4" CONCRETE, 8" ABC

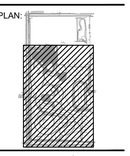
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TOWN of BERTHOUD EST. 1988
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: JM, EM REVIEWED: TK

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION /BID DOCUMENTS

ADD/DEDUCT ALTERNATIVE #2 TRAIL WIDTH

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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	DESCRIPTION	DETAIL NO.
	RAIN BIRD	RD-06-S-P30-NP WITH MPR SERIES NOZZLE	POPUP SPRAY HEAD	1
	RAIN BIRD	RD-06-S-P30-NP WITH SST, CORNER SERIES NOZZLE	POPUP SPRAY HEAD	1
	RAIN BIRD / HUNTER	RD-06-S-P40-NP WITH MP-ROTATOR SERIES NOZZLE (M1-MP-1000, M2-MP-2000, MS-MP3000 & M35-MP3500)	POPUP ROTATOR HEAD	1
MLSMRS MS	RAIN BIRD / HUNTER	RD-06-S-P30-NP WITH ROTATOR SERIES MS-SS, MLS-LCS, MRS -RCS NOZZLE	POPUP ROTATOR HEAD	1
	RAIN BIRD	RD-12-S-P30-NP WITH MPR SERIES NOZZLE	HI-POPUP SPRAY HEAD	3
	RAIN BIRD	RD-12-S-P30-NP WITH SST, CORNER SERIES NOZZLE	HI-POPUP SPRAY HEAD	3
	RAIN BIRD / HUNTER	RD-12-S-P40-NP WITH MP-ROTATOR SERIES NOZZLE (M1-MP-1000, M2-MP-2000, MS-MP3000 & M35-MP3500)	HI-POP ROTATOR HEAD	3
	RAIN BIRD / HUNTER	RD-12-S-P30-NP WITH ROTATOR SERIES MP-SS, MP-LCS, MP-RCS NOZZLE	HI-POP ROTATOR HEAD	3
	HUNTER	I-20-06-SS-R WITH # STANDARD NOZZLE (BLUE)	GEAR DRIVEN ROTOR	2
	HUNTER	I-20-06-SS-R WITH # LOW ANGLE NOZZLE (GRAY)	GEAR DRIVEN ROTOR	2
	HUNTER	I-20-06-SS-R WITH #MPR25 MATCHED PRECIPITATION NOZZLE (RED)	GEAR DRIVEN ROTOR	2
	HUNTER	I-20-06-SS-R WITH #MPR30 MATCHED PRECIPITATION NOZZLE (GREEN)	GEAR DRIVEN ROTOR	2
	HUNTER	I-20-06-SS-R WITH #MPR35 MATCHED PRECIPITATION NOZZLE (TAN)	GEAR DRIVEN ROTOR	2
	HUNTER	I-25-06-SS-R WITH #15 NOZZLES	GEAR DRIVEN ROTOR	2
	HUNTER	I-30 SS-R #A 25 & #30 NOZZLES	GEAR DRIVEN ROTOR	2
	HUNTER	I-20-12-R WITH # STANDARD NOZZLE (BLUE)	HI-POP GEAR DRIVEN ROTOR	4
	HUNTER	I-20-12-R WITH #MPR25 MATCHED PRECIPITATION NOZZLE (RED)	HI-POP GEAR DRIVEN ROTOR	4
	HUNTER	I-20-12-R WITH #MPR30 MATCHED PRECIPITATION NOZZLE (GREEN)	HI-POP GEAR DRIVEN ROTOR	4
	HUNTER	I-20-12-R WITH #MPR35 MATCHED PRECIPITATION NOZZLE (TAN)	HI-POP GEAR DRIVEN ROTOR	4
	RAIN BIRD	PESB-PRS-D SADDLE MOUNT W/DECODER	ELECTRIC CONTROL VALVE	6 & 22
	RAIN BIRD	44- NP	QUICK COUPLING VALVE	5
A B	BASELINE	3200 - PEDESTAL/ RADIO	ELECTRIC CONTROLLER	13 & 16
	FEBCO	880	RP BACKFLOW PREVENTER	26
		2-1/2" AND SMALLER	GATE VALVE	8
		3" AND LARGER	GATE VALVE	9
N/S	OLDCASTLE / CARSON	REFER TO SPECIFICATIONS AND DETAILS	VALVE BOXES - PURPLE	N/S
N/S	MACDONALD	AY 1/4 TURN - 1"	MANUAL DRAIN VALVE	14
	CLA-VAL	W/DECODER	MASTER CONTROL VALVE	22 & 24
	RAIN BIRD	3" PESB WITH DECODER	POND FILL VALVE	6 & 22
	NETAFIM		AIR RELEASE VALVE	15
N/S	LEEMCO		MECHANICAL JOINT RESTRAINTS	10
		CLASS 200 BE - 2½" & SMALLER	PVC MAINLINE	12
		CLASS 200 RT - 3" & LARGER	PVC MAINLINE	10 & 12
		CLASS 200 BE	PVC LATERAL	12
		12" DR11 4710	HDPE SUPPLY PIPE	12
		CLASS 160	PVC SLEEVING	11
	EXISTING		PVC SLEEVING	N/A
	RAIN BIRD	XCZ-100-PRB-COM SADDLE MOUNT W/ DECODER	DRIP VALVE ASSEMBLY	7 & 22
	TORO	BLUE STRIPE	POLY DRIP SUPPLY TUBING - ¾" MIN. WIDTH - POINT SOURCE AND TREES /SHRUBS IN NATIVE	20
N/S	RAIN BIRD	XERI-BUG XFS-PS-06-12-XX W/CHECK VALVE	DRIP EMITTERS	20
			DRIP LINE BLOW-OUT STUB	21
	RAIN BIRD	XQF1012xxP	INLINE DRIP EMITTER HEADERS	28 - 32
	RAIN BIRD	XQF1012xxP	INLINE DRIP EMITTER FOOTERS	28-32
	RAINBIRD	XFS-CVPS-06-12	SUB-SURFACE INLINE DRIP RING EMITTERS (NATIVE)	28 - 32
		XFS-CVPS-06-12	SUB-SURFACE INLINE DRIP RING EMITTERS (SHRUB)	28 - 32
	RAIN BIRD	XFS-CV	SUB-SURFACE DRIP RING (SHRUB)	20
	RAIN BIRD	XFS-CV	SUB-SURFACE DRIP RING (TREE)	25
N/S	BASELINE	BL-5201	VALVE DECODER	22
N/S	BASELINE	BL-SEN	SENSOR DECODER	22 & 26
X	BASELINE	WITH EACH DECODER	SURGE PROTECTION	23
P	PPS	1C-03-NJ-XX-NF-FM-NO-NP	STREAM RECIRCULATION PUMP	A - E
P	PPS	T##V2TG50C01100-90-586B483ONS-S	ARBORETUM SITE PUMP	P1-P5
P	PPS	CB##V2010B00800-020V81B483ONS-S	ARBORETUM BOOSTER PUMP	P6-P8
		DR 11 4710	HDPE STREAM SUPPLY PIPE	N/S
FS	DATA INDUSTRIAL	IR250B 2" WITH SADDLE AND SENSOR DECODER	FLOW SENSOR	33
	HUNTER	WRFWIRELESS	WEATHER SENSOR	18
			CONTROLLER & STATION NO. / CONTROL VALVE SIZE	

IRRIGATION CONSTRUCTION NOTES

1. DRAWINGS AND BASE INFORMATION - ALL BASE AND PLANTING INFORMATION HAVE BEEN PROVIDED BY WENK ASSOCIATES. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY HYDROSYSTEMS*KDI OF ANY DISCREPANCIES BETWEEN THE UTILITY OR PLANTING PLANS AND THE IRRIGATION PLAN. IF CONTRACTOR FAILS TO NOTIFY HYDROSYSTEMS*KDI AND MAKES CHANGES TO THE IRRIGATION SYSTEM DESIGN, HE ASSUMES ALL COSTS AND LIABILITIES ASSOCIATED WITH THOSE FIELD CHANGES. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS. CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.

2. SYSTEM PRESSURE - HYDROSYSTEMS*KDI HAS CONTACTED THE LOCAL WATER DISTRICT THAT SERVES THIS SITE AND THEY HAVE BEEN TOLD THAT THE STATIC WATER PRESSURE IN THIS AREA SHOULD BE 65 PSI. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY PRESSURE PRIOR TO COMMENCING ANY CONSTRUCTION AND NOTIFY HYDROSYSTEMS*KDI OF ANY VARIANCE FROM THE STATED PRESSURE IMMEDIATELY. WRITTEN DOCUMENTATION OF PRESSURE TEST AND RESULTS SHALL BE PROVIDED TO HYDROSYSTEMS*KDI AT CONSTRUCTION ONSET. IF CONTRACTOR FAILS TO FIELD VERIFY PRESSURE AND/OR NOTIFY HYDROSYSTEMS*KDI OR ANY VARIATIONS FROM THIS PRESSURE, THEN HE ASSUMES ALL CONSTRUCTION AND ENGINEERING COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE ACTUAL SITE PRESSURE. THIS SYSTEM HAS BEEN DESIGNED FOR A REQUIRED STATIC PRESSURE OF 65 PSI MINIMUM. (EXISTING POTABLE SUPPLEMENTAL SUPPLY)

3. NON-POTABLE WATER SOURCE - THIS SITE HAS BEEN DESIGNED TO BE IRRIGATED WITH NON-POTABLE WATER. ALL CAPS ON HEADS, VALVE HANDLES, VALVE BOX LIDS SHALL BE CONSTRUCTED OF PURPLE MATERIALS AND LABELED TO INDICATE NON-POTABLE WATER SUPPLY. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING SIGNS NOTIFYING THE PUBLIC OF THE USE OF NON-POTABLE WATER ON THIS SITE. SEE STATE REGULATIONS FOR CONTENT AND SIZE OF NOTATION SIGNS. INSTALLATION CREWS ARE TO BE INFORMED OF THE USE OF NON-POTABLE WATER.

4. IRRIGATION SYSTEM OPERATION INTENT - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE WITHIN A SIX NIGHT PER WEEK, EIGHT HOUR PER NIGHT WATERING WINDOW. ESTABLISHMENT WATERING WILL REQUIRE UP TO TWICE AS MUCH IRRIGATION FOR A FOUR TO SIX WEEK PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A FIVE-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.

BLUEGRASS TURF	2.23" PER WEEK PEAK SEASON
ORNAMENTAL PLANTINGS	0.89" PER WEEK PEAK SEASON
NATIVE SEED MIXES	0.74" PER WEEK PEAK SEASON (TWO SEASONS)

NOTE: IT IS THE INTENT OF THIS DESIGN THAT NATIVE AREAS WOULD ONLY BE IRRIGATED FOR ESTABLISHMENT. SYSTEM WILL REMAIN FOR USE DURING YEARS WITH LESS THAN NORMAL RAINFALL.

5. EQUIPMENT INSTALLATION - IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN PROPERTY LIMITS AND WITHIN LANDSCAPED AREAS. ANY EQUIPMENT OTHER THAN VALVE BOXES OR SLEEVING THAT CONTAINS PIPE OR WIRES SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-0" FROM EDGE OF ANY PAVED SURFACES UNLESS SPECIFICALLY INDICATED ON PLANS. BOXES INSTALLED IN OPEN TURF AREAS SHALL BE KEPT TO EDGES AND STAKED FOR REVIEW IF ALONG HIGH TRAFFIC AREAS. ALL VALVE BOXES SHALL BE PLACED A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SWALES. ALL VALVE BOXES WITHIN PAVEMENT SHALL BE TIER 15 RATED BOXES FOR HEAVY DUTY NON-DELIBERATE TRAFFIC. LID COLOR SHALL MATCH ADJACENT MATERIALS, I.E. GREEN IN TURF, TAN IN WOOD MULCH, GRAY IN STONE MULCH, PURPLE FOR RECLAIMED WATER SYSTEMS (IF REQUIRED). REFER TO LANDSCAPE PLANS FOR MATERIAL COLORS AND TYPES. ALL BOXES SHALL BE INSTALLED TO BE FLUSH WITH GRADE AND IN AN ORDERLY MANNER.

6. PIPING INSTALLATION - IRRIGATION PIPING SHALL MAINTAIN A MINIMUM DISTANCE FROM BUILDING FOUNDATIONS OF 5 FEET OR AS DESCRIBED IN SOILS REPORT, WHICHEVER IS GREATER. NO SPRAY IRRIGATION SHALL OCCUR WITHIN 10 FEET OF THE FOUNDATION. NO DRIP IRRIGATION SHALL OCCUR WITHIN 5 FEET OF THE FOUNDATION UNLESS SOIL MOISTURE SENSORS ARE INSTALLED ON VALVES SERVICING THESE AREAS. ALL IRRIGATION PIPING AND EMISSION DEVICES LOCATED ON TOP OF OR WITHIN BUILDING STRUCTURE SHALL CONFORM TO WATERPROOFING CONSULTANT REQUIREMENTS. PIPE ROUTING MAY BE SHOWN WITHIN THESE DISTANCES FOR GRAPHICAL CLARITY ONLY.

7. MANUAL DRAIN VALVES - CONTRACTOR TO INSTALL ONE MANUAL DRAIN VALVE ON PRESSURE SUPPLY LINE DIRECTLY DOWNSTREAM OF BACKFLOW PREVENTER AND AT ALL LOW POINTS AND DEAD ENDS OF PRESSURE SUPPLY PIPING TO ENSURE COMPLETE DRAINAGE OF SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE LOCATIONS IN-FIELD AND INSTALLATION LOCATIONS SHALL BE NOTED ON AS-BUILTS.

8. POP-UP SPRAY NOZZLES - CONTRACTOR TO INSTALL PLASTIC NOZZLES ON ALL POP-UP SPRAY HEADS. INSTALL 15 SERIES NOZZLES ON ALL HEADS SPACED AT 12' TO 14'. INSTALL 12 SERIES NOZZLES ON ALL HEADS SPACED 10' TO 11'. INSTALL 10 SERIES NOZZLES ON ALL HEADS SPACED AT 8' TO 9'. INSTALL 8 SERIES NOZZLES ON ALL HEADS SPACED AT 6' TO 7'. INSTALL 5' NOZZLES ON ALL HEADS SPACED AT 5'. INSTALL SIDE STRIP NOZZLES ON ALL HEADS WITH AN "S", 10' STRIPS WITH "10S". DESIGNATION AND RIGHT AND LEFT CORNER STRIP NOZZLES ON ALL HEADS WITH AN "L" OR "R" DESIGNATION. VARIABLE ARC NOZZLES SHOULD BE UTILIZED ADJACENT TO CURVILINEAR SHRUB BEDS OR FOR ANY ANGLES THAT ARE NOT A STANDARD NOZZLE ANGLE. WHERE INDICATED, INSTALL LOW FLOW 5G SERIES SQUARE NOZZLES AT SPACING SHOWN.

9. ROTARY SPRAY NOZZLES - RAIN BIRD AT 45 PSI: CONTRACTOR TO INSTALL PLASTIC ROTARY NOZZLES ON ALL POP-UP SPRAY HEADS. INSTALL R-VAN 8-14 SERIES NOZZLES ON HEADS SPACED 9' TO 9'. INSTALL R-VAN 14 SERIES NOZZLES ON ALL HEADS SPACED AT 10' TO 13'. INSTALL R-VAN 18 SERIES NOZZLES ON ALL HEADS SPACED 14' TO 18'. INSTALL R-VAN 24 SERIES NOZZLES ON ALL HEADS SPACED AT 22' TO 24'. INSTALL SIDE STRIP NOZZLES ON ALL HEADS WITH A "S" DESIGNATION AND MP RIGHT AND MP LEFT CORNER STRIP NOZZLES ON ALL HEADS WITH A "L" OR "R" DESIGNATION. UTILIZE MP CORNER SERIES FOR IRRIGATED AREAS THAT NARROW TO AN ANGLE OF LESS THAN 75 DEGREES. VARIABLE ARC SHOULD BE UTILIZED TO AVOID OVERSPRAY ONTO HARD SERVICES OR BEYOND IRRIGATED.

10. DRIP IRRIGATION - REFER TO IRRIGATION DETAIL SHEET FOR DRIP EMITTER QUANTITIES AND PLACEMENT.

11. UNLABELED PIPING - ALL UNLABELED LATERAL PIPING SHALL BE 1" MINIMUM UNLESS OTHERWISE NOTED.

12. SLEEVING - ALL SLEEVING UNDER PAVED SURFACES SHOWN ON PLANS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVING SHALL BE INSTALLED IN THE SIZES AND QUANTITIES SHOWN ON PLANS OR BASED ON THE SCHEDULE BELOW. WHERE SLEEVES ARE SHOWN, BUT NOT LABELED, FOLLOW THE SCHEDULE BELOW. ALL MAINLINE, CONTROL WIRES AND DRIP LINES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVING. ALL MAINLINE SLEEVE LOCATIONS TO INCLUDE A SEPARATE WIRE SLEEVE.

SLEEVED PIPE SIZE/WIRE QUANTITY	REQUIRED SLEEVE SIZE & (QUANTITY)
¾" - 1¼" PIPING	2" PVC (1)
1½" - 2" PIPING	4" PVC (1)
2½" - 3" PIPING	6" PVC (1)
4" - PIPING	8" PVC (1)
6" - PIPING	10" PVC (1)
8" - PIPING	12" PVC (1)
10" - PIPING	14" PVC (10
2 - WIRE DECODER WIRES	2" PVC (1)
COMMUNICATION CABLE	2" PVC (1)

13. 2-WIRE SYSTEM NOTES - CONTRACTOR SHALL INSTALL ALL TWO-WIRE COMPONENTS PER MANUFACTURES RECOMMENDATIONS AND STANDARDS.
    - 13.1. CONTRACTOR SHALL USE ONLY MANUFACTURED 2-WIRE DECODER CABLE (SEE SCHEDULE FOR SPECIFIC 2-WIRE CABLE).
    - 13.2. USE DIFFERENT COLOR 2-WIRE DECODER CABLE FOR EACH AREA SHOWN (BLUE FOR AREA A AND BLACK FOR AREA B).
    - 13.3. ONLY USE SINGLE STATION DECODERS (SEE SCHEDULE FOR SPECIFIC MODEL).
    - 13.4. ONLY USE SENSOR DECODER FOR FLOW SENSOR (SEE SCHEDULE FOR SPECIFIC MODEL) IF INDICATED ON PLANS.
    - 13.5. LOOP 5' OF 2-WIRE DECODER CABLE INTO ALL VALVE BOXES (WITH DECODERS AND SPLICES) FOR MAINTENANCE.
    - 13.6. LOOP 2' OF 2-WIRE DECODER CABLE AS AN EXPANSION LOOP AT ALL CHANGES OF DIRECTION.
    - 13.7. USE ONLY 3M DBR-6 WATERPROOF CONNECTORS ON ALL WIRE SPLICES AND ALL WIRE SPLICES ARE TO BE MADE WITHIN A VALVE BOX WITH CONTROL VALVES OR A SEPARATE 10" ROUND VALVE BOX FOR WIRE SPLICES. INSTALL SURGE PROTECTOR RODS OR PLATES 5 LF. FROM VALVES, DECODERS, AND COMMUNICATION WIRE.
    - 13.8. GROUND ALL DECODERS AND DECODER WIRE A MINIMUM OF EVERY 500', OF WIRE OR EVERY 12TH DECODER AND AT ALL ENDS OF 2-WIRE DECODER CABLE RUN.
    - 13.9. LOOP EXTRA 10' OF 2-WIRE DECODER CABLE INTO A VALVE BOX AT PHASING LINES FOR FUTURE CONNECTION (IF INDICATED ON PLANS).

14. ADJUSTMENT - CONTRACTOR SHALL FINE TUNE/ADJUST THE IRRIGATION SYSTEM TO REDUCE/AVOID OVERSPRAY ONTO HARD SURFACES BY ADJUSTING NOZZLE DIRECTION AND NOZZLE RADIUS.

15. PLANS AND SPECIFICATIONS - CONTRACTOR RESPONSIBLE TO ENSURE WORK CONFORMS TO PLANS AND SPECIFICATIONS. AT ONSET OF CONSTRUCTION, VERIFY PLANS ARE CURRENT. WHERE REQUIRED BY CITY OR TOWN, CONTRACTOR SHALL CONSTRUCT ONLY OFF CITY OR TOWN STAMPED PLANS. REVISIONS TO CITY OR TOWN STAMPED PLANS SHALL CONFORM TO CITY OR TOWN FIELD CHANGE PROCEDURES AND DOCUMENTATION.

16. EXISTING IRRIGATION DAMAGE - CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING IRRIGATION SYSTEMS DAMAGED DURING NEW INSTALLATION. REPAIR OR REPLACEMENT SHALL BE DETERMINED BY OWNER OR OWNER'S REPRESENTATIVE AND PAID FOR BY THE LANDSCAPE CONTRACTOR.

17. EXISTING IRRIGATION COORDINATION - EXISTING IRRIGATION SYSTEM SHALL NOT BE TURNED OFF FOR MORE THAN 24 HOURS MAXIMUM. CONTRACTOR SHALL COORDINATE TURN OFF OF SYSTEM WITH OWNER OR MAINTENANCE STAFF 72 HOURS PRIOR TO ANY NEW CONSTRUCTION.

18. SIMULTANEOUS ZONE OPERATION - THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE MULTIPLE ZONES SIMULTANEOUSLY BASED ON INDIVIDUAL ZONE FLOW. THE DESIGN IS INTENDED TO OPERATE MULTIPLE VALVES, UP TO THE MAXIMUM FLOW IN THE POINT OF CONNECTION NOTE. REFER TO CONTROLLER SPECIFICATION FOR MAXIMUM SIMULTANEOUS VALVE COUNT.

19. WATER BUDGETS AND PROJECTIONS - HYDROSYSTEMS-KDI HAS BASED THE IRRIGATION DESIGN AND THE ASSOCIATED PROJECTED WATER USE UPON SUCH FACTORS AS CITY OR WATER DISTRICT IMPOSED REQUIREMENTS, PUBLISHED PLANT SPECIES WATER NEEDS, SELECTED IRRIGATION METHOD EFFICIENCIES AS REPORTED BY INDEPENDENT TESTING FACILITIES, HISTORICAL WEATHER DATA FOR THE PROJECT LOCATION, AND PROPER MAINTENANCE PROCEDURES. HYDROSYSTEMS*KDI IS NOT RESPONSIBLE, AND ACCEPTS NO RESPONSIBILITY, FOR THE ACTUAL WATER USAGE VARIATION THAT IS A RESULT OF FIELD MODIFICATIONS TO THE SYSTEM NOT MATCHING CONSTRUCTION DOCUMENTS, IMPROPER MAINTENANCE, WASTE DUE TO SYSTEM DAMAGE OR VANDALISM, OR WEATHER CONDITIONS THAT DEVIATE FROM PUBLISHED 30 YEAR HISTORICAL AVERAGES.

20. PRESSURE TESTING - CONDUCT MAINLINE TEST IN PRESENCE OF CONSULTANT. ARRANGE FOR PRESENCE OF CONSULTANT 48 HOURS IN ADVANCE OF TESTING. SUPPLY FORCE PUMP AND ALL OTHER TEST EQUIPMENT. COMPRESSED AIR SHALL NOT BE USED FOR PRESSURE TESTING SYSTEM.
    - A. AFTER BACKFILLING, AND INSTALLATION OF ALL CONTROL VALVES, FILL PRESSURE SUPPLY LINE WITH WATER, AND PRESSURIZE TO 40 PSI OVER THE DESIGNATED STATIC PRESSURE OR 120 PSI, WHICHEVER IS GREATER, FOR A PERIOD OF 2 HOURS.
    - B. LEAKAGE, PRESSURE LOSS - TEST IS ACCEPTABLE IF NO LOSS OF PRESSURE IS EVIDENT DURING THE TEST PERIOD.
    - C. LEAKS - DETECT AND REPAIR LEAKS.
    - D. RETEST SYSTEM UNTIL TEST PRESSURE CAN BE MAINTAINED FOR DURATION OF TEST.
    - E. BEFORE FINAL ACCEPTANCE, PRESSURE SUPPLY LINE SHALL REMAIN UNDER PRESSURE FOR A PERIOD OF 48 HOURS.
    - F. PRESSURE TEST SHALL BE SCHEDULED AND PASSED PRIOR TO SCHEDULING OF SUBSTANTIAL COMPLETION WALK-THROUGH.

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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CALL 3 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

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wenk
MARTIN/MARTIN CONSULTING ENGINEERS
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK
800 Berthoud Pkwy, Berthoud, CO 80513

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DECEBER 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: TB REVIEWED: KD

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

IRRIGATION NOTE AND SCHEDULE

SHEET:
IR1.1

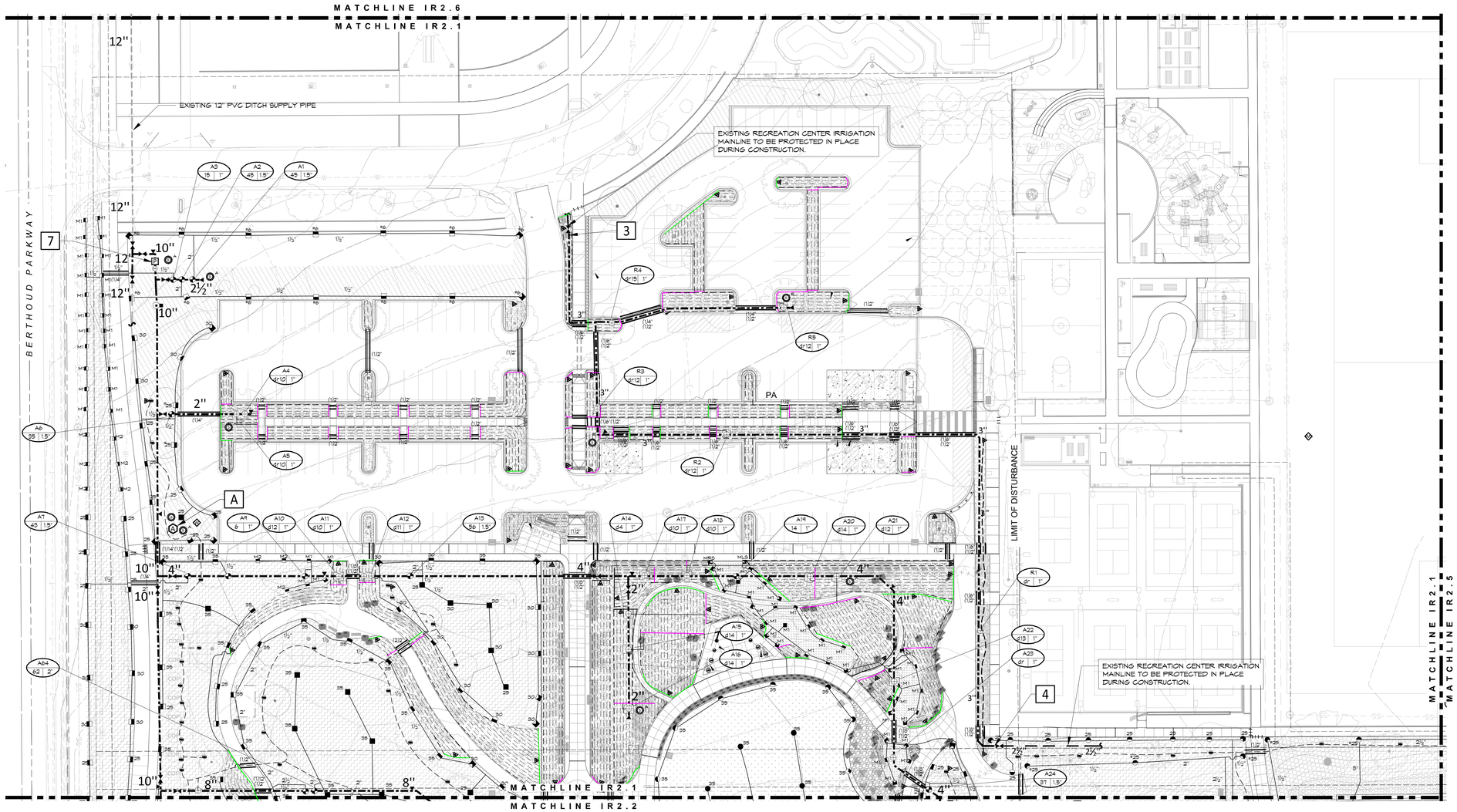
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7 POINT OF CONNECTION #7 - 8" (BID ALTERNATE #2)

PEAK FLOW REQUIREMENT: 800 GPM. REQUIRED STATIC PRESSURE: 60 PSI

LOCATE AND TIE ONTO 8" STUB FROM NEW DITCH SUPPLY PIPE. EXTEND 8" CL200 PVC PIPE AT SAME DEPTH AS DITCH PIPE TO BOOSTER PUMP LOCATION. INSTALL ONE 8" GATE VALVE WITH DRAIN, ONE MANUAL DRAIN VALVE, ONE BOOSTER PUMP (CAPABLE OF 20 PSI BOOST) AS DETAILED, ONE FLOW SENSOR, ONE GATE VALVE, ONE QUICK COUPLING VALVE, ONE MASTER VALVE (NO), AND EXTEND PVC MAINLINE AS SHOWN. CONNECT FLOW SENSOR AND MASTER VALVE TO ASSOCIATED CONTROLLER VIA TWO-WIRE COMMUNICATION CABLE AND PROPER DECODERS PER MANUFACTURER'S REQUIREMENTS. SEE DETAIL SHEET FOR REQUIRED PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF FLOW SENSING UNIT. WORK SHALL CONFORM TO LOCAL CODE. FEES, PERMITS AND INSPECTIONS ASSOCIATED WITH WORK ARE TO BE OBTAINED AND PAID FOR BY CONTRACTOR. 2-WIRE DECODER CABLE SHALL BE EXTENDED INTO BOOSTER PUMP CONTROL PANEL AND CONNECTED TO FLOW SENSOR TERMINALS WITH SENSOR DECODER.



01 ***IRRIGATION NORTHERN ARBORETUM***
1"=30'-0"

0 15 30 60 FT

A CONTROLLER LOCATION "A"

PEDESTAL MOUNT ONE CONTROLLER (REFER TO SCHEDULE FOR MODEL & STATION COUNT), REMOTE READY, AT INDICATED LOCATION. 120 VOLT POWER IS AVAILABLE WITHIN 100 LF. OF CONTROLLER LOCATION FROM ELECTROCAL STUB, BY OTHERS RE=ELECTRICAL. ELECTRICAL WIRE/CONDUIT AND POWER CONNECTION TO CONTROLLER IS BY CONTRACTOR WITH WORK CONFORMING TO LOCAL CODES. CONNECT FLOW SENSOR WITH 2-WIRE DECODER CABLE AND SENSOR DECODER. CONNECT FLOW SENSOR WITH 2-WIRE DECODER CABLE AND VALVE DECODER. FINAL CONTROLLER LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL CONTROL WIRING WITHIN BUILDING SHALL BE INSTALLED IN EMT CONDUIT. MOUNT ONE WEATHER SENSOR ON POLE WHERE THERE IS 20 FT. OF CLEARANCE FROM ANY OVERHANG OR OBSTRUCTING FEATURE. FINAL WEATHER SENSOR LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

3 4 POINT OF CONNECTION #3 & #4- 3"

CONTRACTOR SHALL LOCATE AND TIE ONTO EXISTING 3" PVC IRRIGATION SUPPLY PIPE AND INSTALL ONE LINE SIZE GATE VALVE AND EXTEND NEW 3" PVC PIPE AS SHOWN. CONNECT TO EXISTING IRRIGATION 2-WIRE DECODER CABLE FROM RECREATION CENTER SYSTEM AND EXTEND WITH MAINLINE. Install surge protection

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
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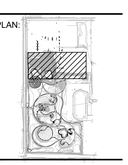
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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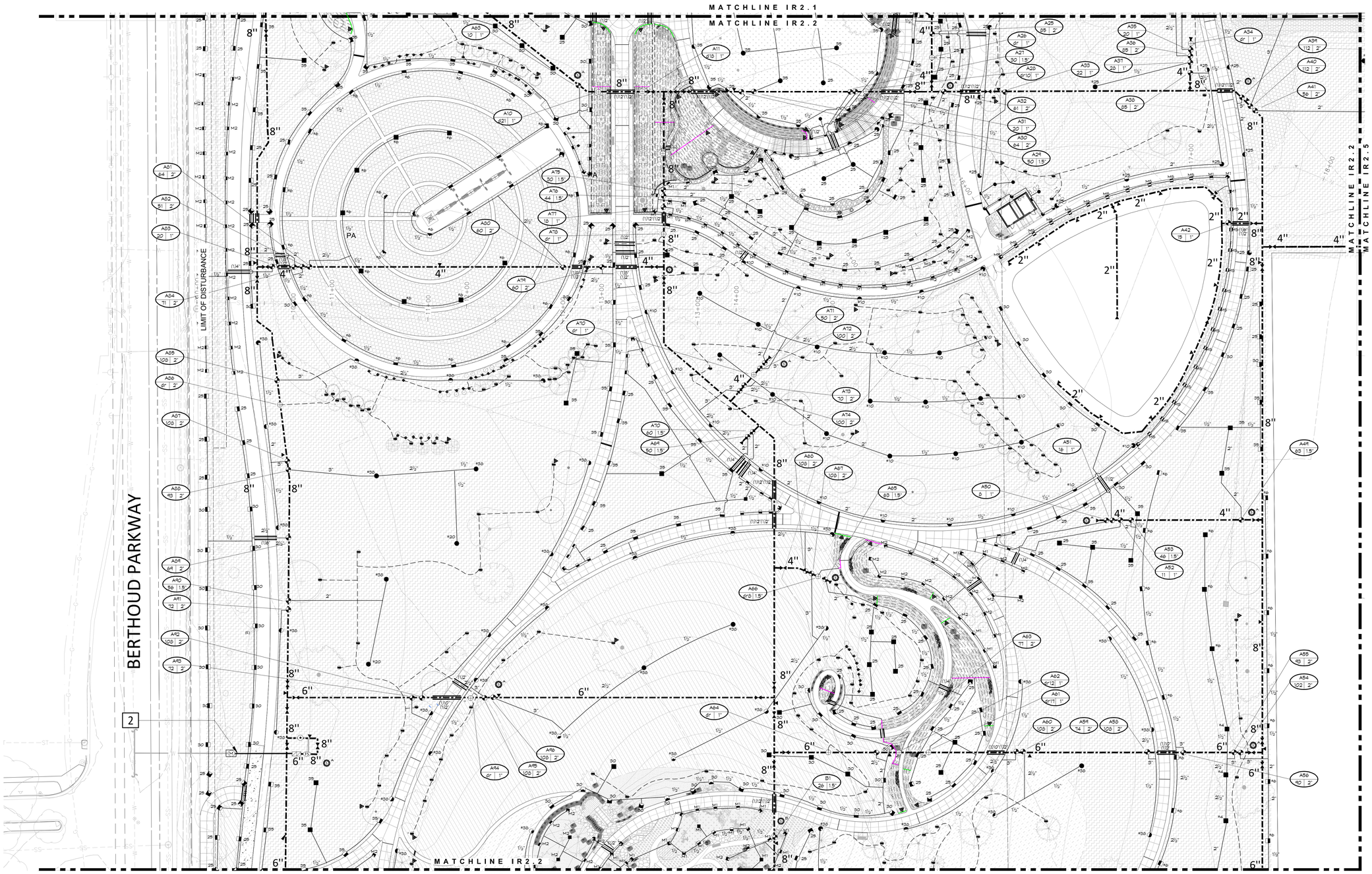
PROJECT NUMBER: 24050.00
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IRRIGATION PLAN

SHEET:

IR2.1



01 ***IRRIGATION CENTRAL ARBORETUM***
1"=30'-0"

0 15 30 60 FT N

2 POINT OF CONNECTION #2 - 6" (BASE BID)

PEAK FLOW REQUIREMENT: 650 GPM. REQUIRED STATIC PRESSURE: 80 PSI

LOCATE AND TIE ONTO 6" STUB LOCATED DOENSTREAM OF NEW 6" METER PIT. EXTEND 6" CL50 D.I. PIPE AT 54" DEPTH TO BACKFLOW PREVENTER LOCATION. INSTALL ONE 6" GATE VALVE WITH DRAIN, ONE 6" REDUCED PRESSURE BACKFLOW PREVENTER AND PROTECTIVE ENCLOSURE, ONE MANUAL DRAIN VALVE, ONE FLOW SENSOR, ONE GATE VALVE, ONE QUICK COUPLING VALVE, ONE MASTER VALVE, AND EXTEND PVC MAINLINE AS SHOWN. CONNECT FLOW SENSOR AND MASTER VALVE TO ASSOCIATED CONTROLLER VIA TWO-WIRE COMMUNICATION CABLE AND PROPER DECODERS PER MANUFACTURER'S REQUIREMENTS. SEE DETAIL SHEET FOR REQUIRED PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF FLOW SENSING UNIT. SEE DETAIL SHEET FOR REQUIRED PIPE LENGTHS UPSTREAM AND DOWNSTREAM OF FLOW SENSING UNIT. WORK SHALL CONFORM TO LOCAL CODE. FEES, PERMITS AND INSPECTIONS ASSOCIATED WITH WORK ARE TO BE OBTAINED AND PAID FOR BY CONTRACTOR. FINAL LOCATION OF BACKFLOW PREVENTER SHALL BE REVIEWED AND APPROVED BY CONSULTANT PRIOR TO START OF WORK.

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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DECEBER 12, 2025

KEY PLAN:

REVISIONS:

#	DATE	DESCRIPTION

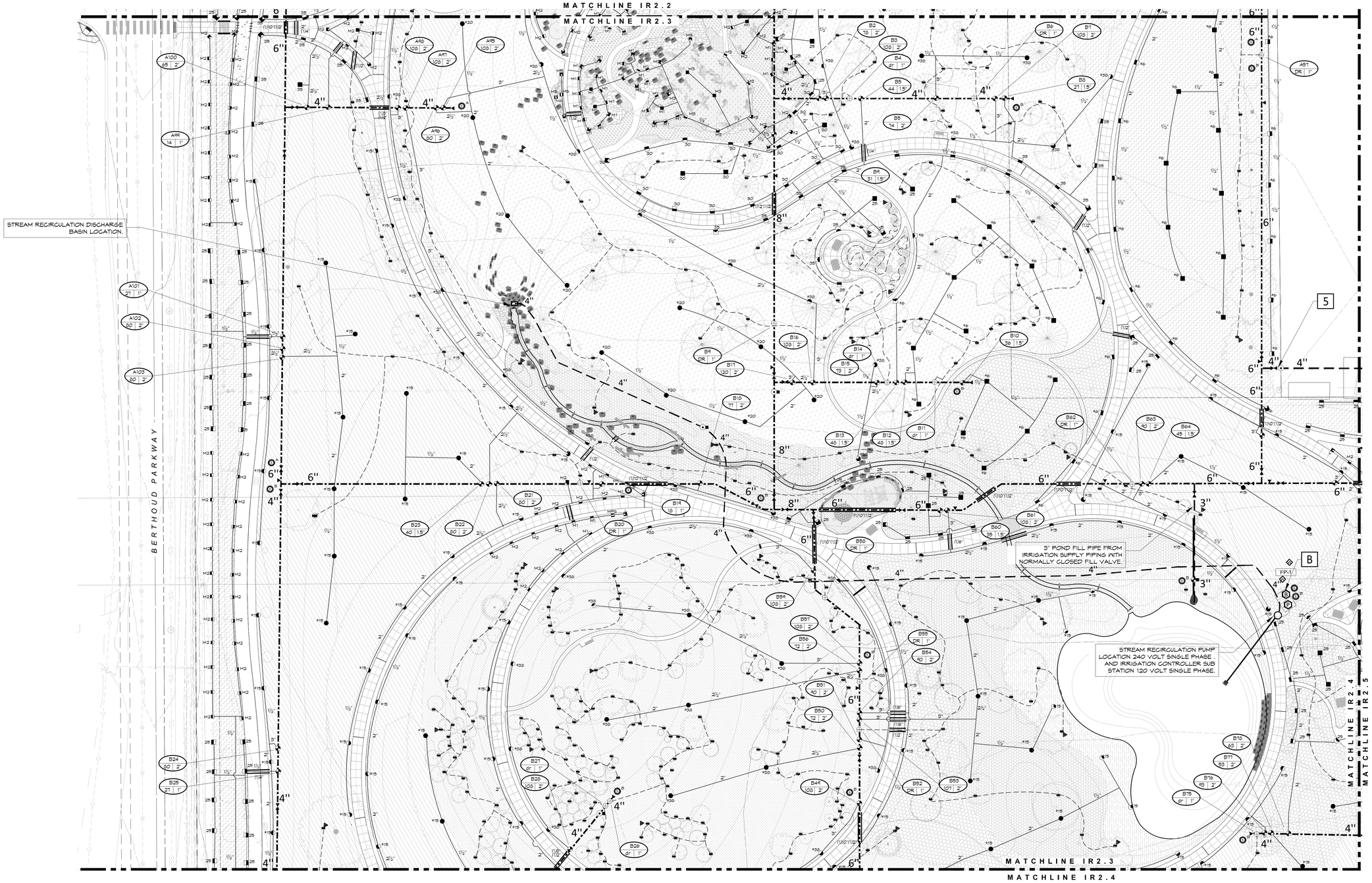
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DATE: DECEMBER 12, 2025

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IRRIGATION PLAN

SHEET:
IR2.2



01 ***IRIGATIN MID ARBORETUM***
1"=30'-0"

0 15 30 60 FT

N

5 POINT OF CONNECTION #5 - 3"

CONTRACTOR SHALL EXTEND 3" IRRIGATION SUPPLY PIPE TO SCHOOL LOCATION AS SHOWN. INSTALL ONE LINE SIZE GATE VALVE, ONE FLOW SENSOR AND COORDINATE CONNECTION TO EXISTING IRRIGATION SYSTEM WITH SCHOOL IRRIGATION PERSONNEL.

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

B CONTROLLER LOCATION "B"

PEDESTAL MOUNT ONE CONTROLLER (REFER TO SCHEDULE FOR MODEL & STATION COUNT), REMOTE READY, AT INDICATED LOCATION. 120 VOLT POWER IS AVAILABLE WITHIN 100 LF. OF CONTROLLER LOCATION FROM ELECTROCAL STUB, BY OTHERS RE-ELECTRICAL. ELECTRICAL WIRE/CONDUIT AND POWER CONNECTION TO CONTROLLER IS BY CONTRACTOR WITH WORK CONFORMING TO LOCAL CODES. CONNECT FLOW SENSOR WITH 2-WIRE DECODER CABLE AND SENSOR DECODER. CONNECT FLOW SENSOR WITH 2-WIRE DECODER CABLE AND VALVE DECODER. FINAL CONTROLLER LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. ALL CONTROL WIRING WITHIN BUILDING SHALL BE INSTALLED IN EMT CONDUIT. MOUNT ONE WEATHER SENSOR ON POLE WHERE THERE IS 20 FT. OF CLEARANCE FROM ANY OVERHANG OR OBSTRUCTING FEATURE. FINAL WEATHER SENSOR LOCATION SHALL BE APPROVED BY OWNER OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.

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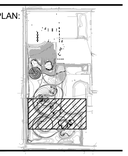
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BERTHOUD ARBORETUM AT WAGGENER FARM PARK

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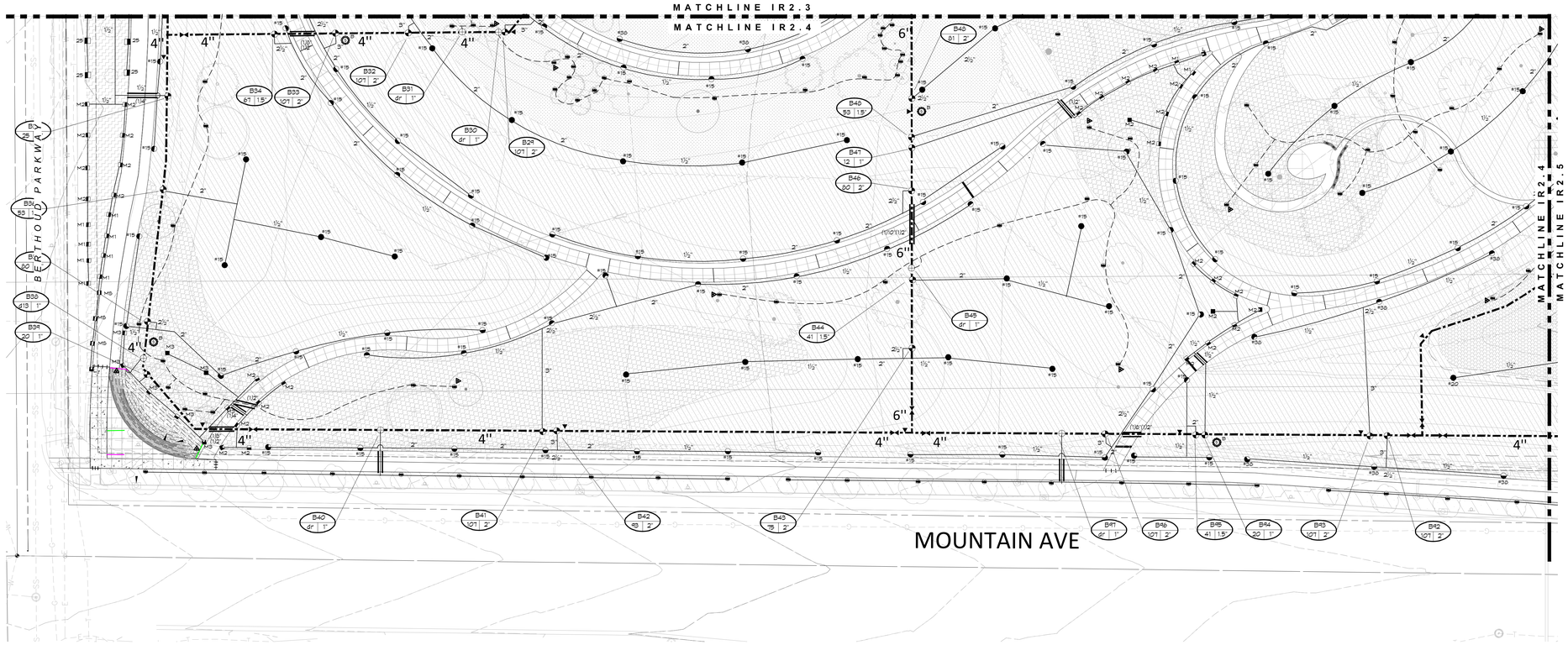
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PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

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IRRIGATION PLAN

SHEET:
IR2.3



01 ***SOUTHERN ARBORETUM***
1"=30'-0"

0 15 30 60 FT

N

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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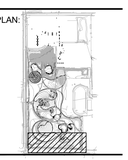
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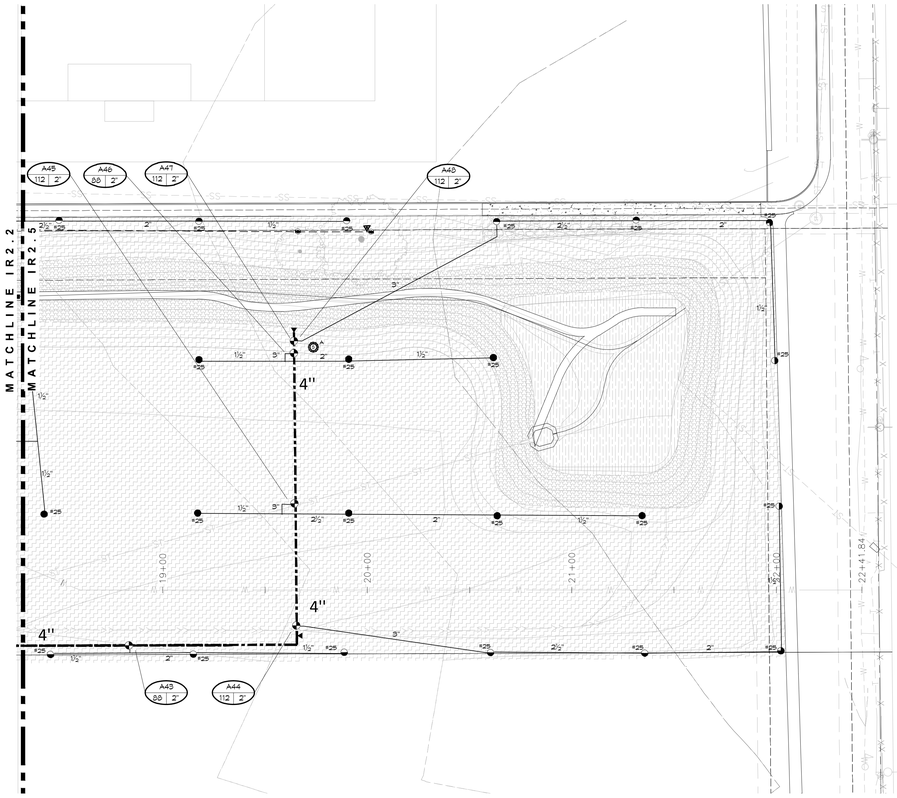
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IRRIGATION PLAN

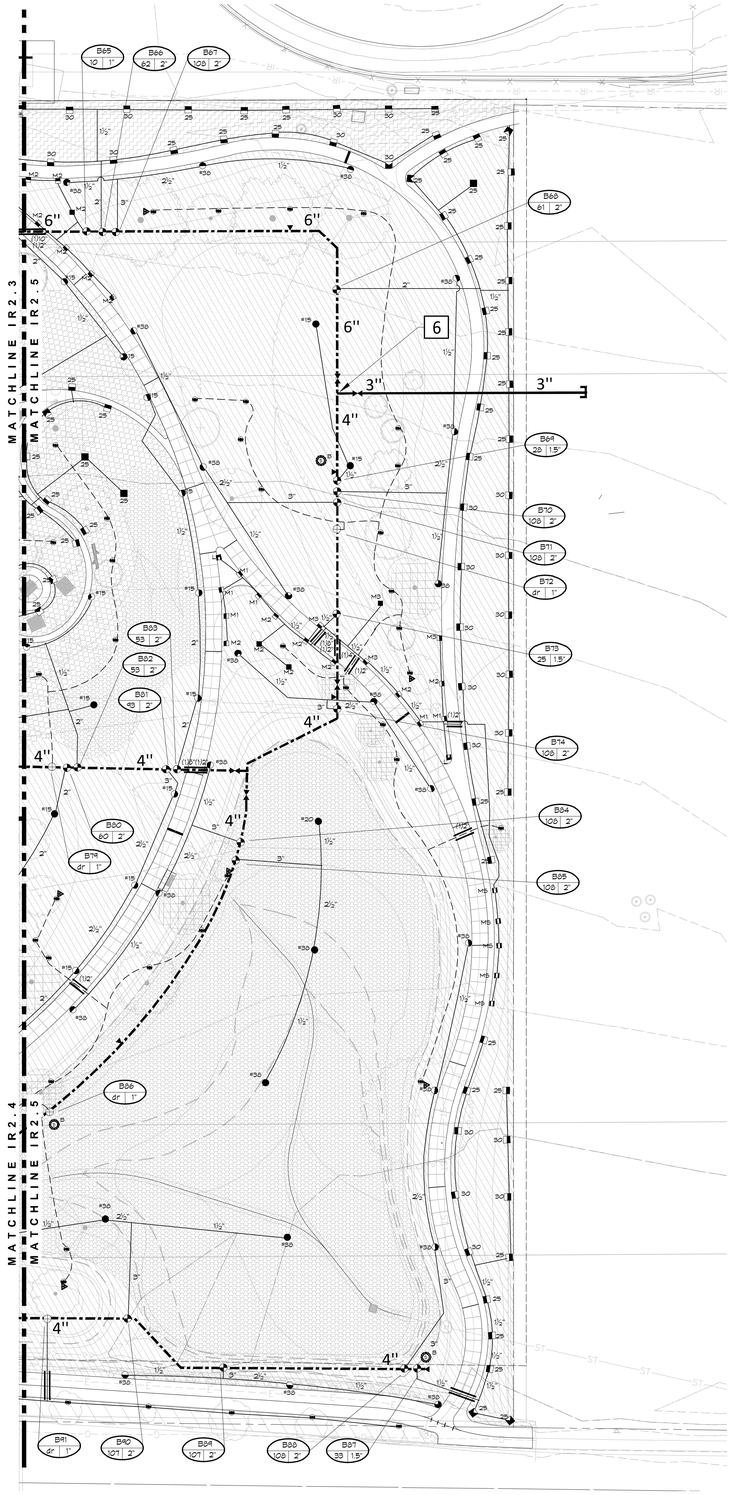
SHEET:

IR2.4



01 ***IRRIGATION EAST CENTRAL***
1"=30'-0"

0 15 30 60 FT



02 ***IRRIGATION SOUTH EAST***
1"=30'-0"

0 15 30 60 FT

6 **POINT OF CONNECTION #6 - 3"**

CONTRACTOR SHALL EXTEND 3" IRRIGATION SUPPLY PIPE TO FARMERS LOT LOCATION AS SHOWN. INSTALL ONE LINE SIZE GATE VALVE, ONE FLOW SENSOR AND COORDINATE CONNECTION TO EXISTING IRRIGATION SYSTEM WITH TOWN AND OWNER.

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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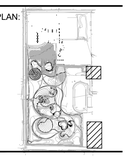
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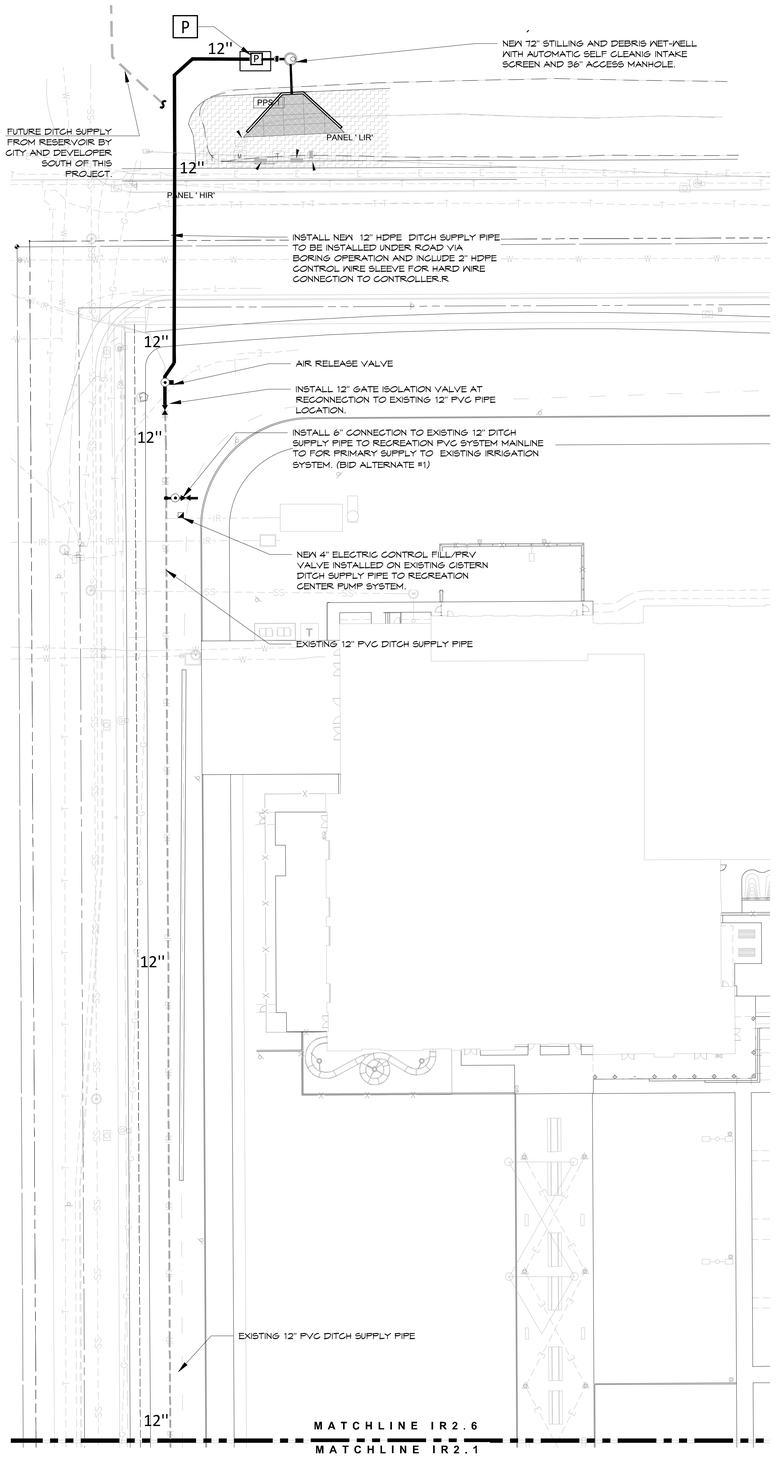
IRRIGATION PLAN

SHEET:
IR2.5

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01 ***IRRIGATION PUMP AND RECREATION CENTER - NORTH***
1"=30'-0"

0 15 30 60 FT

P PUMPING SYSTEM - SITE (BID ALTERNATE #1)

PEAK FLOW REQUIREMENT: 1000 GPM. REQUIRED DISCHARGE PRESSURE: 90 PSI
INSTALL ONE IRRIGATION PUMPING SYSTEM CAPABLE OF 1000 GPM WITH A DISCHARGE PRESSURE OF 90 PSI. IRRIGATION SUPPLY IS FROM ADJACENT IRRIGATION DITCH WITH TURN-OUT STRUCTURE WITH HEAD GATE, STILLING DEBRIS WELL-WELL WITH AUTOMATIC LAKE SCREEN SUPPLIED TO IRRIGATION WET-WELL WITH PVC PIPE AND AND ISOLATION VALVE. 480 VOLT AC THREE PHASE POWER AND TRANSFORMER BYOTHERS.

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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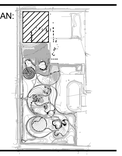
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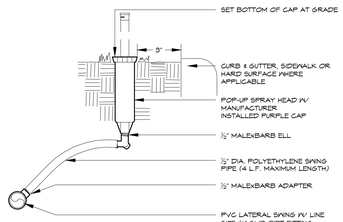
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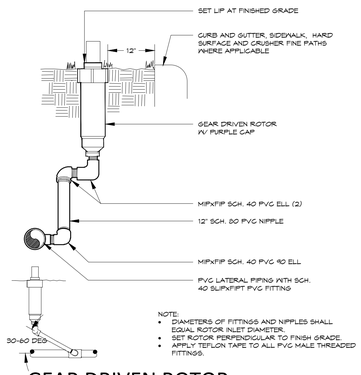
IRRIGATION PLAN

SHEET:
IR2.6



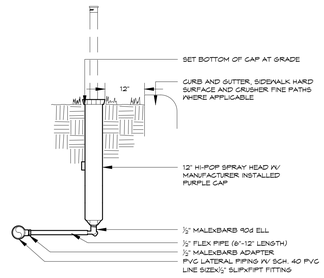
NOTE:
- SET HEAD PERPENDICULAR TO FINISH GRADE.
- APPLY TEFLON TAPE TO MALE PVC THREADED FITTINGS.
- DOUBLE CLAMP 1½" & 2" DIAMETER FITTINGS.

POP-UP SPRAY HEAD 1



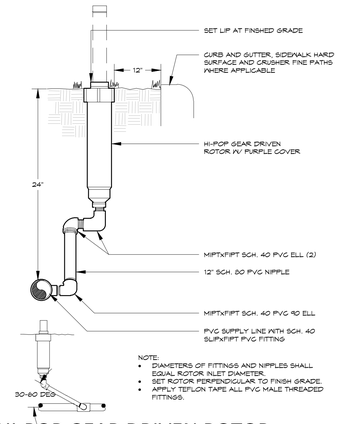
NOTE:
- DIAMETERS OF FITTINGS AND NIPPLES SHALL EQUAL ROTOR INLET DIAMETER.
- SET ROTOR PERPENDICULAR TO FINISH GRADE.
- APPLY TEFLON TAPE TO ALL PVC MALE THREADED FITTINGS.

GEAR DRIVEN ROTOR 2



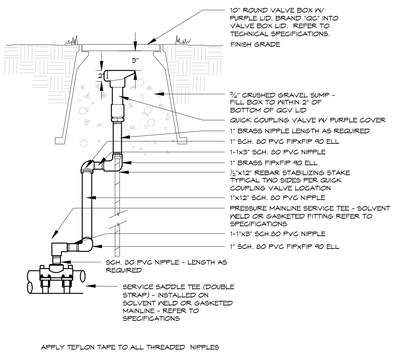
NOTE:
- SET HEAD PERPENDICULAR TO FINISH GRADE SWING.
- FLEX PIPE SHALL BE ATTACHED TO BOTTOM SPRAY HEAD INLET ONLY.
- APPLY TEFLON TAPE TO ALL MALE PVC THREADED FITTINGS AND NIPPLES.

HI-POP SPRAY HEAD 3



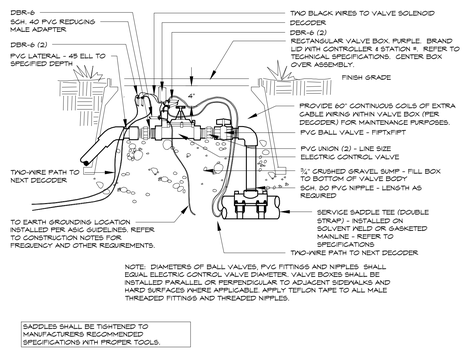
NOTE:
- DIAMETERS OF FITTINGS AND NIPPLES SHALL EQUAL ROTOR INLET DIAMETER.
- SET ROTOR PERPENDICULAR TO FINISH GRADE.
- APPLY TEFLON TAPE ALL PVC MALE THREADED FITTINGS.

HI-POP GEAR DRIVEN ROTOR 4



APPLY TEFLON TAPE TO ALL THREADED NIPPLES

QUICK COUPLING VALVE 5

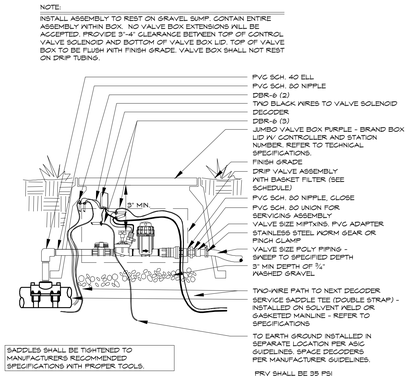


NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIPPLES SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER. VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES (WHERE APPLICABLE). APPLY TEFLON TAPE TO ALL MALE THREADED FITTINGS AND THREADED NIPPLES.

SADDLES SHALL BE TIGHTENED TO MANUFACTURERS RECOMMENDED SPECIFICATIONS WITH PROPER TOOLS.

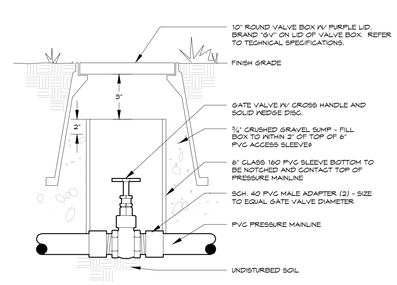
ELECTRIC CONTROL VALVE
TWO-WIRE SYSTEM - PVC PIPE - NON-POTABLE 6

NOTE:
INSTALL ASSEMBLY TO REST ON GRAVEL SUMP. CONTAIN ENTIRE ASSEMBLY WITHIN BOX. NO VALVE BOX EXTENSIONS WILL BE ACCEPTED. PROVIDE 3"-4" CLEARANCE BETWEEN TOP OF CONTROL VALVE SOLENOID AND BOTTOM OF VALVE BOX LID. TOP OF VALVE BOX TO BE FLUSH WITH FINISH GRADE. VALVE BOX SHALL NOT REST ON DRIP TUBING.

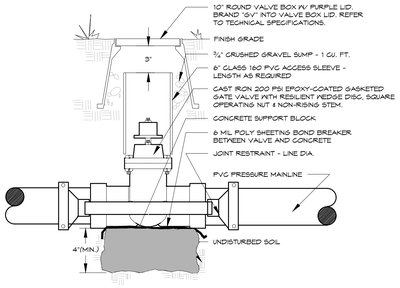


SADDLES SHALL BE TIGHTENED TO MANUFACTURERS RECOMMENDED SPECIFICATIONS WITH PROPER TOOLS.

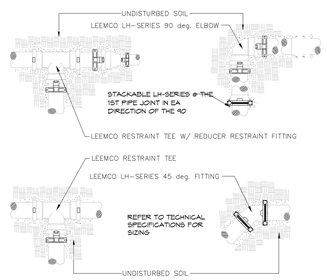
DRIP VALVE
TWO-WIRE SYSTEM - BASKET - POLY PIPE - NON-POTABLE 7



GATE VALVE 8



GATE VALVE
3" and LARGER 9



MECHANICAL RESTRAINT FITTINGS - 3" and LARGER 10

JOINT RESTRAINT INSTALLATION GUIDE

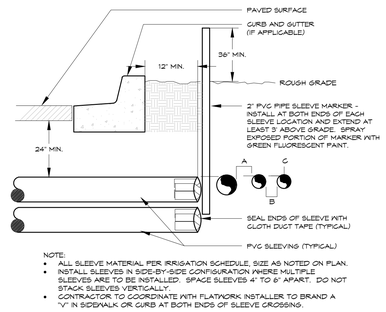
NOTE:
WHEN THE DISTANCE BETWEEN A FITTING AND THE NEXT JOINT IS LESS THAN 20 FEET, THE FOLLOWING TABLE MUST BE USED. THE TABLE BELOW SHOWS THE DISTANCE (IN FEET) BETWEEN JOINTS WITHIN WHICH IF THERE IS A JOINT, IT MUST BE MECHANICALLY RESTRAINED. THE TABLE IS BASED ON 125 PSI, TYPE 3 TRENCH, AND 2-4 FEET DEPTH OF BURY (SMALL TO LARGE) DEPENDING ON PIPE SIZE. FOR OTHER PRESSURE MULTIPLY THE NUMBERS IN THE TABLE (FEET) BY THE ACTUAL PRESSURE AND DIVIDE BY 125.

PIPE	BENDS				STEP REDUCTION			DEAD	GATE
SIZE	11	22	45	90	1	2	3	END	VALVE
2"	1	1	2	6				19	10
2.5"	1	2	4	9	4			23	12
3"	2	3	6	11	8	10		30	15
4"	2	4	9	20	14	20	31	45	23
6"	3	6	13	29	30	40	53	63	31
8"	4	8	15	38	33	55	63	75	38
10"	5	9	19	45	31	56	75	96	48
12"	5	10	21	53	54	58	79	112	56
14"	6	11	24	58	30	70	74	118	58
16"	6	13	27	65	30	54	90	130	65

HARDWARE SIZE AND TORQUE REQUIREMENTS



PIPE SIZE	PIPE O.D.	NO OF BOLTS	BOLT SIZE	TORQUE FT-LB	DIMENSIONS (INCH) A	B	C	D
2"	2.375	2	3/8-16 X 2.5	20	4.1	3.1	4.8	5.0
2.5"	2.875	2	3/8-16 X 2.5	20	5.1	3.1	5.0	5.5
3"	3.500	2	3/8-16 X 2.5	20	5.6	3.4	5.9	6.5
4"	4.500	2	1/2-13 X 3	50	6.7	3.8	7.3	7.6
6"	6.625	2	1/2-13 X 3.5	50	9.0	4.6	9.8	9.9
8"	8.625	4	1/2-13 X 4	50	11.2	5.9	12.0	12.2
10"	10.750	4	5/8-11 X 5.5	100	13.4	7.3	14.8	14.8
12"	12.750	4	5/8-11 X 5.5	100	15.4	8.8	17.5	16.7
14"	15.300	4	5/8-11 X 5.5	100	23.0	9.5	21.0	29.0
16"	17.400	4	5/8-11 X 5.5	100	25.0	10.5	23.5	31.0



NOTE:
- ALL SLEEVE MATERIAL PER IRRIGATION SCHEDULE, SIZE AS NOTED ON PLAN.
- INSTALL SLEEVES IN SIDE-BY-SIDE CONFIGURATION WHERE MULTIPLE SLEEVES ARE TO BE INSTALLED. SPACE SLEEVES 4" TO 6" APART. DO NOT STACK SLEEVES VERTICALLY.
- CONTRACTOR TO COORDINATE WITH FLATWORK INSTALLER TO BRAND A "V" IN SIDEWALK OR CURB AT BOTH ENDS OF SLEEVE CROSSING.

IRRIGATION SLEEVING 11

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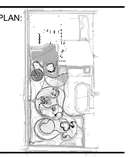
Garden Spot of Colorado

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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KEY PLAN:



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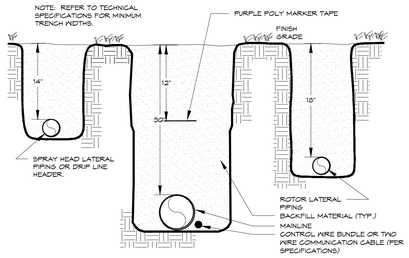
IRRIGATION DETAILS

SHEET:

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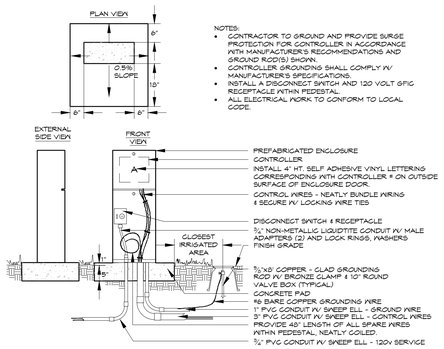
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TRENCH
24"PUR.TAPE

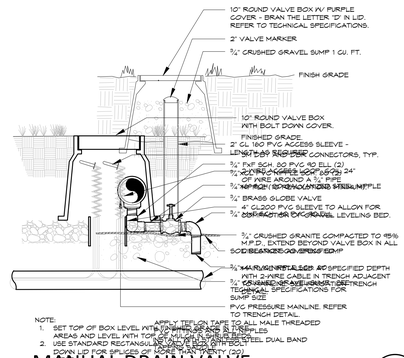
12



NOTES:
- CONTRACTOR TO GROUND AND PROVIDE SURGE PROTECTION FOR CONTROLLER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND GROUND ROD(S) SHOWN.
- CONTROLLER GROUNDING SHALL COMPLY W/ MANUFACTURER'S SPECIFICATIONS.
- INSTALL A DISCONNECT SWITCH AND 120 VOLT GFIC RECEPTACLE WITHIN PEDESTAL.
- ALL ELECTRICAL WORK TO CONFORM TO LOCAL CODE.

ELECTRIC CONTROLLER
PEDESTAL

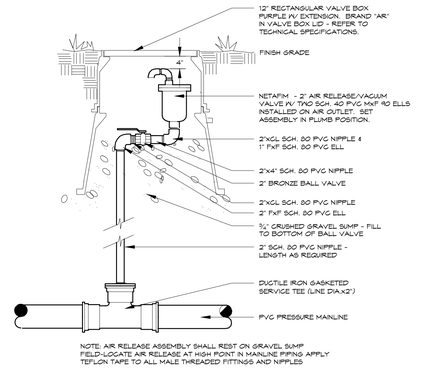
13



NOTE:
1. SET TOP OF BOX LEVEL WITH FINISHED GRADE IN TURF AREAS AND LEVEL WITH TOP OF MULCH IN SHRUB BEDS.
2. USE STANDARD RECTANGULAR VALVE BOX WITH BOLT DOWN LID FOR SPLICES OF LONGER THAN TWENTY (20) WIRES.

MANUAL DRAIN VALVE
WIRE SPLICE BOX
TWO-WIRE SYSTEM

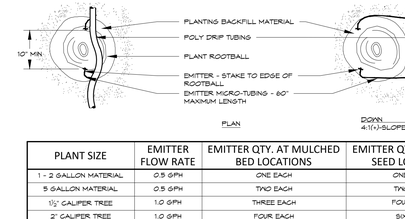
14
X



NOTE: AIR RELEASE ASSEMBLY SHALL REST ON GRAVEL SUMP
FIELD-LOCATE AIR RELEASE AT HIGH POINT IN MAINLINE PIPING APPLY TEFLON TAPE TO ALL MALE THREADED FITTINGS AND NIPPLES

AIR RELIEF VALVE

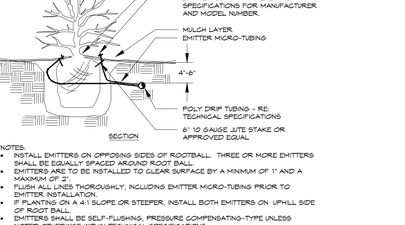
15



GROUNDING MUST MEET ALL MANUFACTURER'S REQUIREMENTS. IN ADDITION, GROUNDING PLATE DESIGN CONSISTS OF ONE VERTICAL 8-FOOT COPPER CLAD GROUNDING ROD (AT LEAST EIGHT FEET FROM THE EQUIPMENT), AND ONE COPPER GROUNDING PLATE PER 40 STATIONS REQUIRING GROUNDING. INSTALL GROUNDING PLATE HORIZONTALLY, THREE FEET DEEP AND 15' FROM THE GROUNDING ROD. SHOULD MULTIPLE RODS/PLATES BE REQUIRED, THEY SHALL BE PLACED A MINIMUM OF 3 LINEAR FEET FROM EACH OTHER. PERFORM CADWELD CONNECTION TO GROUNDING ROD(S) AND PLACEMENT OF GROUNDING PLATE(S) IN OWNER'S PRESENCE PRIOR TO BACKFILL. REFER TO ASIC STANDARDS FOR MORE INFORMATION.

CONTROLLER GROUNDING
TWO-WIRE SYSTEM - Pedestal Mount

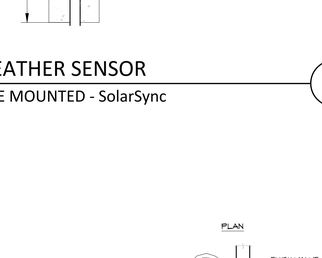
16



NOTE:
1. SET TOP OF BOX LEVEL WITH FINISHED GRADE IN TURF AREAS AND LEVEL WITH TOP OF MULCH IN SHRUB BEDS.
2. USE STANDARD RECTANGULAR VALVE BOX WITH BOLT DOWN LID FOR SPLICES OF MORE THAN TWENTY (20) WIRES.

WIRE SPLICE BOX
TWO-WIRE SYSTEM

17



WEATHER SENSOR
POLE MOUNTED - SolarSync

18



PLANT SIZE	MINIMUM EMITTER QTY. PER TREE
1½" CALIPER TREE	EIGHT EACH
2" CALIPER TREE	TWELVE EACH
2½" CALIPER TREE	SIXTEEN EACH
3" CALIPER TREE	TWENTY EACH
3½" CALIPER TREE	TWENTY-TWO EACH
4" CALIPER TREE	TWENTY-FOUR EACH
6 FT. CONIFEROUS TREE	TWELVE EACH
8 FT. CONIFEROUS TREE	EIGHTEEN EACH

NOTES:
- EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.
- EMITTER FLOW RATE PER SCHEDULE. ONLY USE EMITTERS WITH CHECK VALVE FEATURE. (EXCEPT IN TREE LAWN AREA AT MOUNTAIN AVE. AND TREES AND SHRUBS IN NATIVE USE RAIN BIRD 1" LS DRIPLINE WITH EMITTER SPACING AT 6" RLDG06OB) DO NOT CONNECT 1" DRIPPER LINE TO SHRUB BED DRIPPERLINE ZONES.
- DRIP EMITTER SPACING PER SCHEDULE.

DRIP EMITTER TREE RING

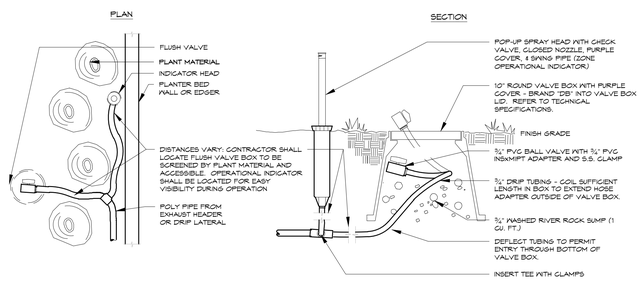
19

PLANT SIZE	EMITTER FLOW RATE	EMITTER QTY. AT MULCHED BED LOCATIONS	EMITTER QTY. AT NATIVE SEED LOCATIONS
1 - 2 GALLON MATERIAL	0.5 GPH	ONE EACH	ONE EACH
5 GALLON MATERIAL	0.5 GPH	TWO EACH	TWO EACH
1½" CALIPER TREE	1.0 GPH	THREE EACH	FOUR EACH
2" CALIPER TREE	1.0 GPH	FOUR EACH	SIX EACH
2½" CALIPER TREE	1.0 GPH	SIX EACH	EIGHT EACH
3" CALIPER TREE	1.0 GPH	EIGHT EACH	TEN EACH
3½" CALIPER TREE	1.0 GPH	NNE EACH	ELEVEN EACH
4" CALIPER TREE	1.0 GPH	TEN EACH	TWELVE EACH
6 FT. CONIFEROUS TREE	1.0 GPH	FOUR EACH	SIX EACH
8 FT. CONIFEROUS TREE	1.0 GPH	SIX EACH	NNE EACH
10 FT. CONIFEROUS TREE	1.0 GPH	EIGHT EACH	TWELVE EACH
12 FT. CONIFEROUS TREE	1.0 GPH	TEN EACH	FOURTEEN EACH

NOTES:
- INSTALL EMITTERS ON OPPOSING SIDES OF ROOTBALL. THREE OR MORE EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL.
- EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A MAXIMUM OF 2".
- FLUSH ALL LINES THOROUGHLY, INCLUDING EMITTER MICRO-TUBING PRIOR TO EMITTER INSTALLATION.
- IF PLANTING ON A 4:1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOT BALL.
- EMITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS NOTED OTHERWISE WITHIN TECHNICAL SPECIFICATIONS.
- DRIP VALVE ZONES ARE DESIGNED TO ACCOUNT FOR DIFFERENCES IN PLANT REQUIREMENTS (HYDROZONES) AND SUN EXPOSURE.
- CONTRACTOR SHALL ENSURE HYDROZONES ARE VALVED SEPARATELY AS SHOWN ON PLAN.
- SITE CONDITIONS MAY DICTATE THAT MULTIPLE SUN EXPOSURES ARE VALVED TOGETHER DURING THE DESIGN PROGESS. CONTRACTOR SHALL ADJUST EMITTER SCHEDULE AS FOLLOWS:
  - ** EMITTER QUANTITIES SHALL REMAIN THE SAME BUT EMITTER GALLONAGES SHALL BE DOUBLED FOR PLANTS WITH SOUTH AND WEST EXPOSURES.
  - ** EMITTER QUANTITIES AND GALLONAGE SHALL BE AS SHOWN IN SCHEDULE FOR PLANTS WITH NORTH AND EAST EXPOSURES.
  - ** PLANTINGS WITH NORTH AND EAST EXPOSURE SHALL DICTATE VALVE RUN-TIMES AND CONTRACTOR SHALL ADJUST SCHEDULING ACCORDINGLY.

DRIP EMITTER
BELOW GRADE

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DRIP FLUSH VALVE
WITH OPERATIONAL INDICATOR - NONPOTABLE

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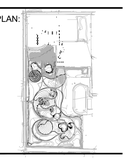
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TOWN of BERTHOUD EST. 1882 Garden Spot of Colorado

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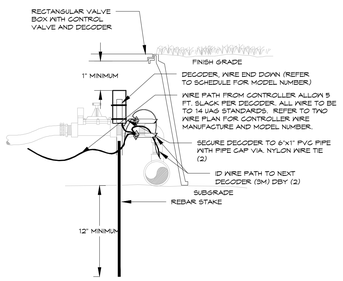
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IRRIGATION DETAILS

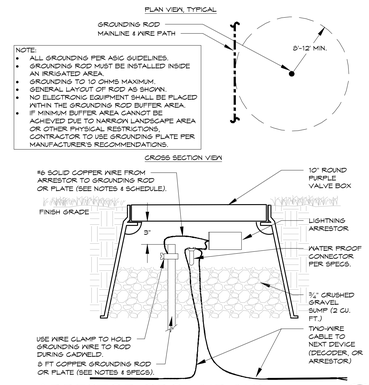
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DECODER INSTALLATION

TWO-WIRE SYSTEM

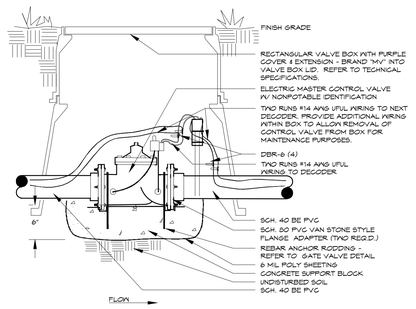
22



ARRESTOR GROUNDING

TWO-WIRE SYSTEM - NON-POTABLE

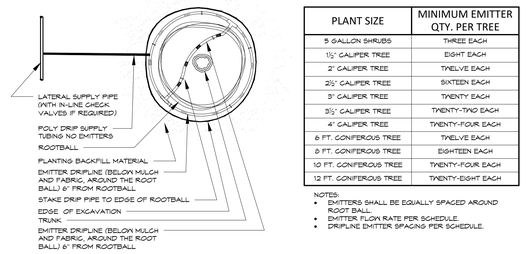
23



CONTROL VALVE - NORMALY CLOSED

VIA DECODER

24



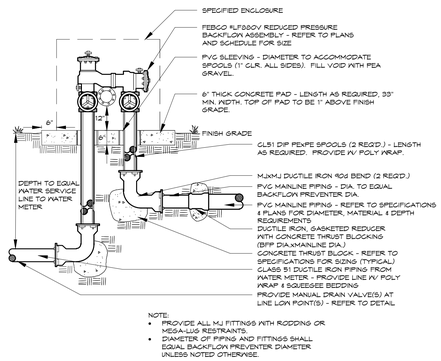
PLANT SIZE	MINIMUM EMITTER QTY. PER TREE
5 GALLON SHRUBS	THREE EACH
1½" CALIPER TREE	EIGHT EACH
2" CALIPER TREE	TWELVE EACH
2½" CALIPER TREE	SIXTEEN EACH
3" CALIPER TREE	TWENTY EACH
3½" CALIPER TREE	TWENTY-TWO EACH
4" CALIPER TREE	TWENTY-FOUR EACH
6 FT. CONIFEROUS TREE	TWELVE EACH
8 FT. CONIFEROUS TREE	EIGHTEEN EACH
10 FT. CONIFEROUS TREE	TWENTY-FOUR EACH
12 FT. CONIFEROUS TREE	TWENTY-EIGHT EACH

NOTES:
- EMITTERS SHALL BE EQUALLY SPACED AROUND ROOT BALL
- EMITTER FLOW RATE PER SCHEDULE
- DRIPLINE EMITTER SPACING PER SCHEDULE

SUBSURFACE EMITTER TREE AND SHRUB RINGS

NATIVE AREA - SUPPLEMENTAL

25



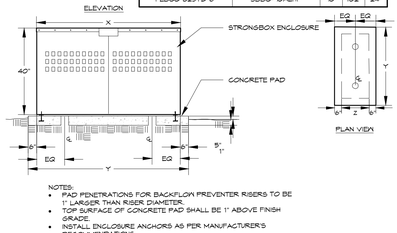
NOTE:
- PROVIDE ALL MJ FITTINGS WITH RODDING OR MEGA-LUG RESTRAINTS.
- DIAMETER OF PIPING AND FITTINGS SHALL EQUAL BACKFLOW PREVENTER DIAMETER UNLESS NOTED OTHERWISE.

BACKFLOW PREVENTER

3" & LARGER - TYPICAL

26

BFP MODEL/SIZE	ENCLOSURE MODEL	X	Y	Z
FEBCO 880-NRS 3"	SBBC-40ALHP	40"	52"	24"
FEBCO 880-NRS 4"	SBBC-40ALHP	40"	52"	24"
FEBCO 880-NRS 6"	SBBC-40W-ALHP	40"	52"	28"
FEBCO 825YD 2½"	SBBC-60ALHP	60"	72"	24"
FEBCO 825YD 3"	SBBC-90ALHP	90"	102"	24"
FEBCO 825YD 4"	SBBC-90ALHP	90"	102"	24"
FEBCO 825YD 6"	SBBC-90ALHP	90"	102"	24"

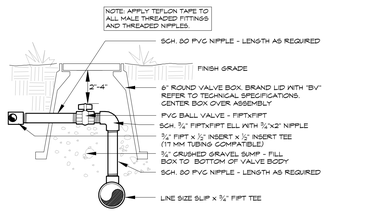


NOTES:
- PAD PENETRATIONS FOR BACKFLOW PREVENTER RISERS TO BE 1" LARGER THAN RISER DIAMETER.
- TOP SURFACE OF CONCRETE PAD SHALL BE 1" ABOVE FINISH GRADE.
- INSTALL ENCLOSURE ANCHORS AS PER MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE OWNER WITH KEYED PADLOCK FOR ENCLOSURE.

BACKFLOW ENCLOSURE

STRONGBOX - 3" & LARGER SYSTEMS

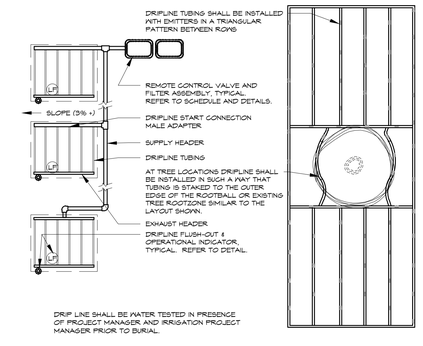
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EMITTER TUBING CONNECTION

with with PVC and ValveBox

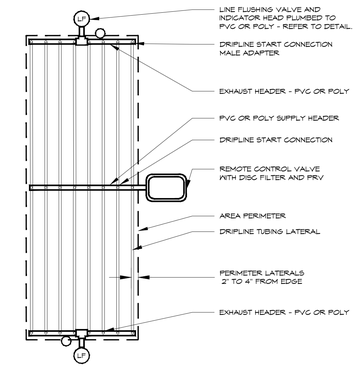
28



EMITTER TUBING LAYOUT

AREAS AROUND TREES - TYPICAL

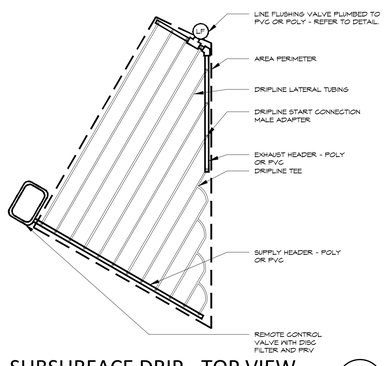
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SUBSURFACE DRIP - TOP VIEW

CENTER FEED LAYOUT - TYPICAL

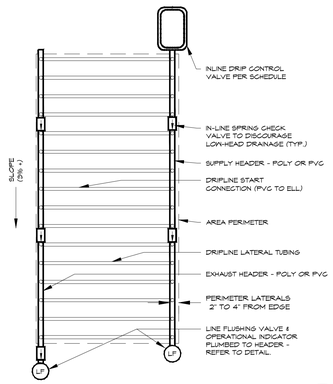
30



SUBSURFACE DRIP - TOP VIEW

IRREGULAR AREAS - TYPICAL

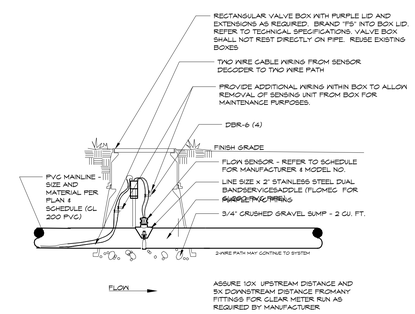
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SUBSURFACE DRIP - TOP VIEW

ON SLOPE - TYPICAL

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FLOW SENSOR - POTABLE TAP

VIA 2-WIRE CABLE - NTS

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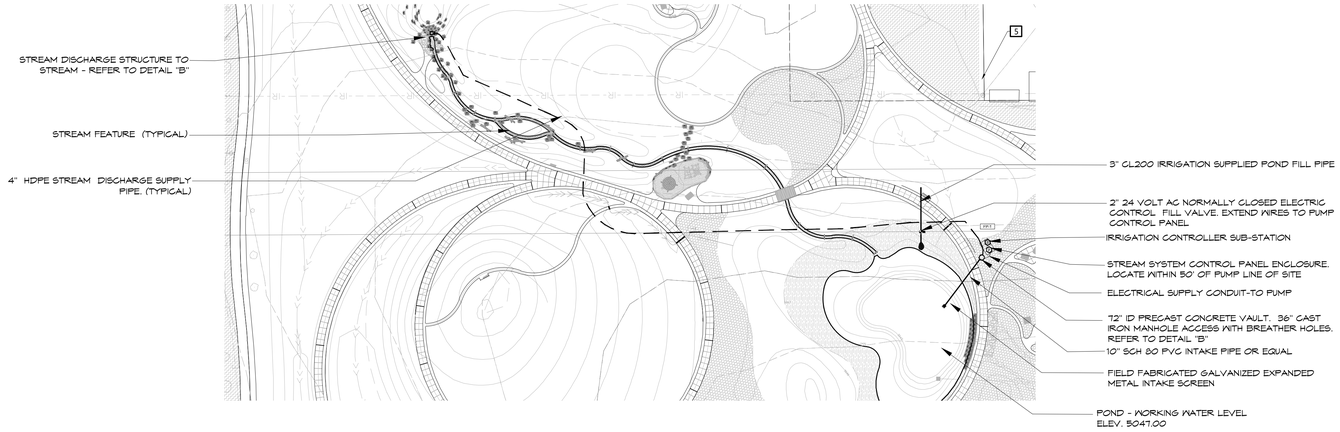
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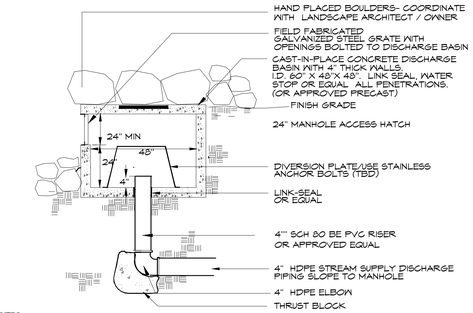


NORTH

RECIRCULATION STREAM LAYOUT - PLAN

SCALE 1"=30'

A



NOTES:
ALL JOINTS SHALL BE SOLVENT WELDED

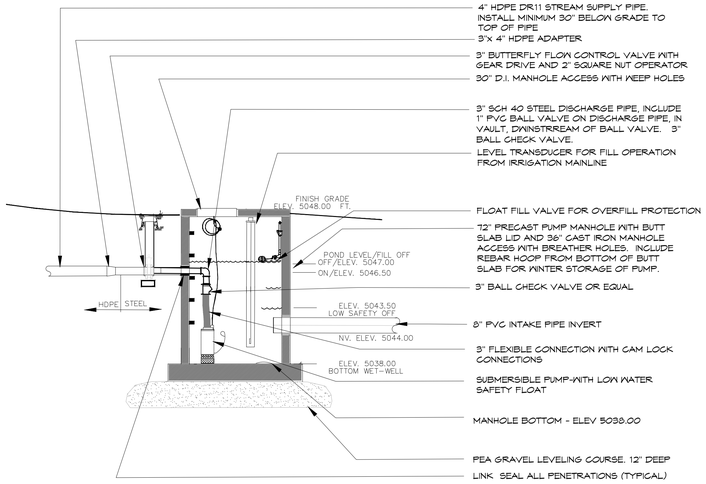
CONCRETE BASIN SHALL BE REINFORCED WITH REBAR AS REQUIRED.

FINAL DISCHARGE CONFIGURATION IS BY CONTRACTOR.

RECIRCULATION DISCHARGE BASIN

NTS

B



PUMPING SYSTEM

NTS

C

A RECIRCULLATION PUMPING SYSTEM

PUMPING SYSTEMS SUBMERSIBLE SOLIDS PUMP DRIVEN BY A 5 HP 240/1/60 SUBMERSIBLE 3500 RPM MOTOR WITH A 6" DISCHARGE AND PUMP STAND. PUMP SHALL BE EQUIPPED WITH LOW WATER SAFETY FLOATS AND CHECK VALVE. (TO OPERATE FROM 240 VOLT SINGLE PHASE POWER WITH VFD DRIVE)
PUMP PANEL SHALL BE A SIMPLEX CONTROL PANEL WITH CIRCUIT BREAKER DISCONNECT, MAGNETIC MOTOR STARTER WITH OL PROTECTION, TERMINAL STRIP FOR FIELD CONNECTIONS, HAND-ON/OFF-AUTO SELECTOR SWITCH, DEAD FRONT OUTER DOOR, TIME CLOCK FOR PUMP ON/OFF FUNCTION, LOW WATER FLOAT FOR SAFETY PUMP OFF, PEDESTAL MOUNT NEMA 3R ENCLOSURE, LIQUID LEVEL FLOATS, SINGLE PHASE MODULE AND A 24 HOUR TIMER.
PUMP SHALL BE CAPABLE OF 120 GPM AT 25 PSI (58 HF) DISCHARGE

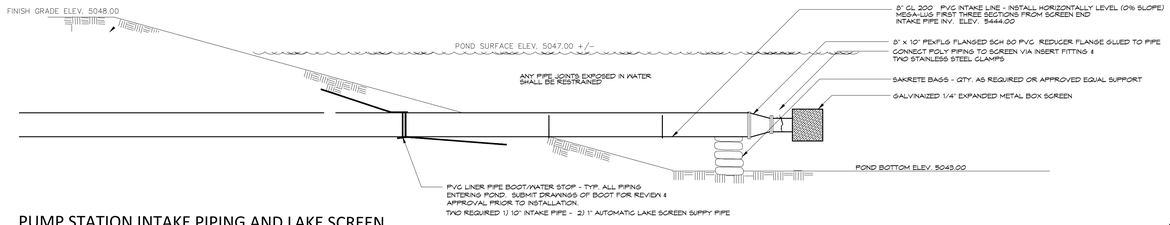
ALL RELATED ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN ONE NEMA 4 ENCLOSURE WITH DEADFRONT PANEL AND LOCKABLE PHYSICAL DISCONNECT MOUNTED OUTSIDE. 50 AMP SINGLE PH FEEDER. (60X60X18) W/12" LEGS

SUBMERSIBLE PUMP
CUSTOM CONTROL PANEL - 240 V 1-PH
TYPE 3R INDUSTRIAL CONTROL PANEL WITH 12" LEGS
VFD - 240 VOLT 1 PH
150 AMP MAIN BREAKER
MUNRO STAND ALONE PROGRAMMING W/ REVERSE PI CONTROL
HOA ON/OFF SWITCH WITH SPEED REOSTAT
TERMINAL BLOCKS LINE/LOAD AND CONTROL
24 HOUR TIMER START STOP FUNCTION
4 DISCHARGE HOSE W/ CAMLOCK FITTINGS (COORDINATE LENGTH)
ONE SET I/O/M MANUALS

REVIEW SYSTEM WITH SUPPLIER FOR ANY POSSIBLE CHANGES AND/OR ADDITIONAL REQUIREMENTS FOR FINAL LOCATION OF CONTROL PANEL.

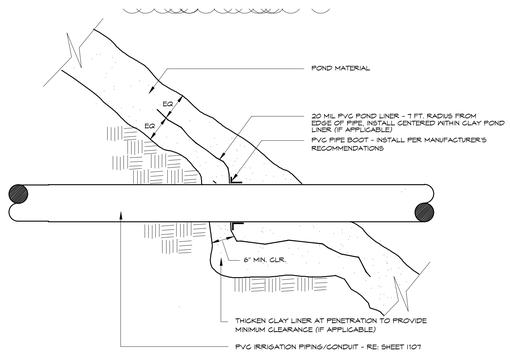
CONSTRUCTION NOTES

1. CONTRACTOR SHALL SUPPLY AND INSTALL SPECIFIED EQUIPMENT
2. CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS BETWEEN ELECTRICAL SUPPLY AND PUMP STATION.
3. ALL NEW PENETRATIONS FOR VAULTS SHALL BE CORE DRILLED AND LINK SEALED
4. EXCESS SOIL GENERATED BY EXCAVATION SHALL BE REMOVED FROM SITE BY CONTRACTOR
5. PROVIDE POSITIVE DRAINAGE AWAY FROM MANHOLE ACCESS
6. CONTRACTOR SHALL REGRADE AND REPAIR ALL DISTURBED AREAS TO MATCH EXISTING CONDITIONS
7. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN SUPPLIER, PUMP MANUFACTURER TO COMPLETE THE INSTALLATION.
8. CONTRACTOR SHALL RESEED ALL DISTURBED AREAS WITH PROPER GRASS MIX
9. PUMP SYSTEM CONTROL PANEL IS A NEMA 3R INDUSTRIAL ELECTRICAL ENCLOSURE WITH 12" SUPPORT LEGS AND REQUIRES A MIN 6" THICK REINFORCED CONCRETE MOUNTING PAD WITH ELECTRICAL CONDUITS. SUBMIT SHOP DRAWINGS AS NEEDED.
10. CONTRACTOR SHALL CALL FOR ALL UTILITY LOCATES PRIOR TO BEGINNING WORK.
11. HYDROSYSTEMSKDI RECOMMENDS CORE DRILLING ALL MANHOLE PENETRATIONS AND LINK-SEALS TO ADJUST FOR ANY POSSIBLE GRADE CHANGES.
12. INSTALL A 1" BALL VALVE IN DISCHARGE PIPE AFTER CHECK VALVE IN MANHOLE. FOR WINTERIZATION OF 4" SUPPLY PIPE IF REQUIRED.
13. REFER TO IRRIGATION SPECIFICATIONS FOR ADDITIONAL INSTALLATION INFORMATION AND HANDLING REQUIREMENTS.
14. ALL ELECTRICAL WIRING REQUIRED FOR PUMP SYSTEM CONTROL ENCLOSURE SHALL BE IN RIGID ELECTRICAL CONDUIT. WORK SHALL CONFORM TO ALL APPLICABLE ELECTRICAL CODES. FEES, ONE LINE DIAGRAMS AND PERMITS ASSOCIATED WITH WORK ARE TO BE OBTAINED AND PAID BY CONTRACTOR.



PUMP STATION INTAKE PIPING AND LAKE SCREEN

D



NOTE: THIS DETAIL APPLIES TO ALL PVC CONDUIT AND PVC PIPE PENETRATIONS THROUGH AND TOO POND ALL POND LOCATIONS.
PROVIDE 5 FT. HORIZONTAL SEPARATION BETWEEN ALL PIPING AT CLAY LINER PENETRATIONS. (IF APPLICABLE)

PIPE PENTRATIONS AT CLAY LINER

E

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BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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DECEBER 12, 2025

KEY PLAN:



REVISIONS:

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DRAWN: TB REVIEWED: KD

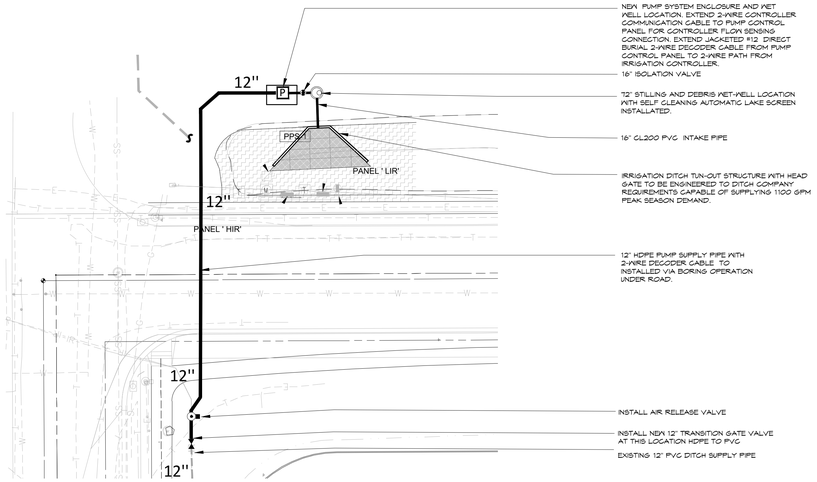
PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

STREAM RECIRCULATION PUMP

SHEET:

IR3.4



NEW PUMP SYSTEM ENCLOSURE AND WET WELL LOCATION. EXTEND 2-WIRE CONTROLLER COMMUNICATION CABLE TO PUMP CONTROL PANEL FOR CONTROLLER FLOW SENSING CONNECTION. EXTEND JACKETED #12 DIRECT BURIAL 2-WIRE DECODER CABLE FROM PUMP CONTROL PANEL TO 2-WIRE PATH FROM IRRIGATION CONTROLLER.

16" ISOLATION VALVE

72" STILLING AND DEBRIS WET-WELL LOCATION WITH SELF CLEANING AUTOMATIC LAKE SCREEN INSTALLATED.

16" CL200 PVC INTAKE PIPE

IRRIGATION DITCH TUN-OUT STRUCTURE WITH HEAD GATE TO BE ENGINEERED TO DITCH COMPANY REQUIREMENTS CAPABLE OF SUPPLYING 1100 GPM PEAK SEASON DEMAND.

12" HDPE PUMP SUPPLY PIPE WITH 2-WIRE DECODER CABLE TO INSTALLED VIA BORING OPERATION UNDER ROAD.

INSTALL AIR RELEASE VALVE

INSTALL NEW 12" TRANSITION GATE VALVE AT THIS LOCATION HDPE TO PVC

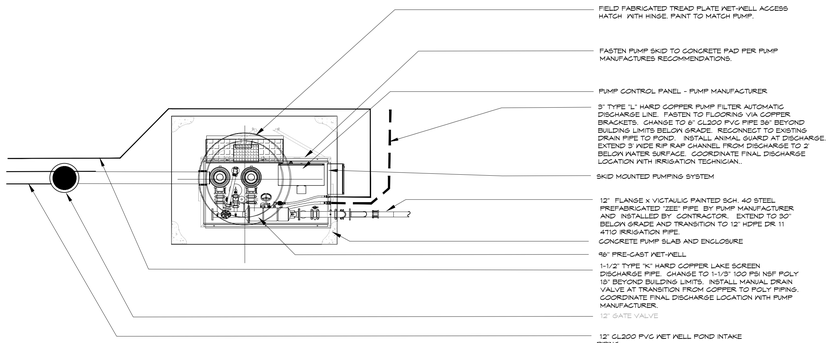
EXISTING 12" PVC DITCH SUPPLY PIPE

811
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PUMP STATION LOCATION - PLAN VIEW

Scale 1" = 30'

P1



FIELD FABRICATED TREAD PLATE WET-WELL ACCESS HATCH WITH HINGE. PAINT TO MATCH PUMP.

FASTEN PUMP SKID TO CONCRETE PAD PER PUMP MANUFACTURES RECOMMENDATIONS.

PUMP CONTROL PANEL - PUMP MANUFACTURER

3" TYPE "L" HARD COPPER PUMP FILTER AUTOMATIC DISCHARGE LINE. FASTEN TO FLOORING VIA COPPER BRACKETS. CHANGE TO 6" CL200 PVC PIPE 36" BEYOND BUILDING LIMITS BELOW GRADE. RECONNECT TO EXISTING DRAIN PIPE TO POND. INSTALL ANIMAL GUARD AT DISCHARGE. EXTEND 3' WIDE RIP RAP CHANNEL FROM DISCHARGE TO 2' BELOW WATER SURFACE. COORDINATE FINAL DISCHARGE LOCATION WITH IRRIGATION TECHNICIAN.

SKID MOUNTED PUMPING SYSTEM

12" FLANGE x VICTAULIC PAINTED SCH. 40 STEEL PREFABRICATED "ZEE" PIPE BY PUMP MANUFACTURER AND INSTALLED BY CONTRACTOR. EXTEND TO 30" BELOW GRADE AND TRANSITION TO 12" HDPE DR 11 4710 IRRIGATION PIPE.

CONCRETE PUMP SLAB AND ENCLOSURE

96" PRE-CAST WET-WELL

1-1/2" TYPE "K" HARD COPPER LAKE SCREEN DISCHARGE PIPE. CHANGE TO 1-1/2" 100 PSI NSF POLY 18" BEYOND BUILDING LIMITS. INSTALL MANUAL DRAIN VALVE AT TRANSITION FROM COPPER TO POLY PIPING. COORDINATE FINAL DISCHARGE LOCATION WITH PUMP MANUFACTURER.

12" GATE VALVE

12" CL300 PVC WET WELL POND INTAKE PIPING

PUMP STATION AND WET WELL - PLAN

Scale 1/4" = 1'

P2

PROJECT NOTES

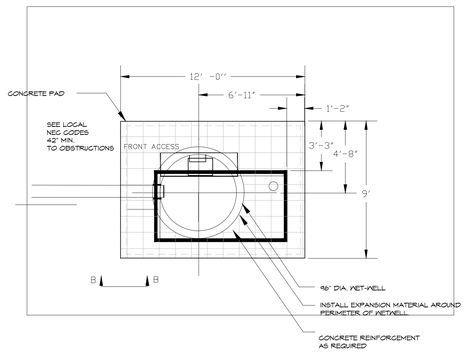
1. CONTRACTOR TO INSTALL A NEW PPS PUMPING SYSTEM SINGLE SKID PUMPING STATION WITHIN SUPPLIED ENCLOSURE AS DETAILED
2. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN CONCRETE CONSTRUCTION, AND NEW PUMP STATION EQUIPMENT REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND INSTALLATION PIPING BETWEEN FINAL PUMP LOCATION AND EXISTING IRRIGATION PIPE CONNECTIONS
4. CONTRACTOR IS RESPONSIBLE FOR ALL WIRE, CONDUIT AND CONNECTIONS BETWEEN ELECTRICAL SERVICE AND PUMPING SYSTEM ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
5. ANY ELECTRICAL PERMITS SHALL BE OBTAINED AND PAID BY CONTRACTOR. ELECTRICAL DRAWINGS REQUIRED FOR PERMITTING SHALL BE PREPARED AND SUBMITTED BY CONTRACTOR
6. ANCHOR PUMPING SYSTEM CONCRETE PAD PER MANUFACTURERS RECOMMENDATIONS
7. CONTRACTOR IS RESPONSIBLE FOR ALL ADDITIONAL EQUIPMENT FOR THE INSTALLATION OF THE PUMPING SYSTEM THAT IS NOT SUPPLIED BY PUMP MANUFACTURER.
8. COMPACT SOIL TO 95% STANDARD PROCTER DENSITY TYPICAL FOR PIPE AND TRENCH INSTALLATION
9. PUMP STATION OFF-LOAD CRANE REQUIREMENTS BY CONTRACTOR
10. COORDINATE REMOVAL OF EXISTING PUMPING STATION WITH OWNERS REPRESENTATIVE FOR REMOVAL OFF SITE.

Pumping System Notes

1. CONTRACTOR TO INSTALL A PRECISION PUMPING SYSTEM (PPS) - QUOTE 25051 MODEL TMVT080GC1100-A0566B 480ONS-S VERTICAL TURBINE SKID MOUNTED PUMP STATION WITH ENCLOSURE AS DETAILED. PUMP STATION SHALL PROVIDE 1000 GPM AT DISCHARGE PRESSURE OF 95 PSI. PUMP STATION SHALL MEET REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, DETAILS AND SPECIFICATIONS. REQUIREMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

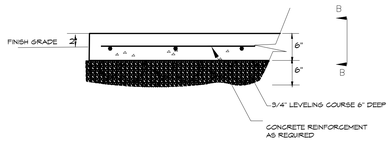
A) VARIABLE FREQUENCY DRIVE WITH TWO 50 HP (PREMIUM EFFICIENTCY MOTORS) PUMP AND ONE 5 HP PRESSURE MAINTENANCE PUMP. PRIMARY PUMPS SHALL BE CAPABLE OF 1100 GPM AT 95 PSI DISCHARGE PRESSURE
B) PUMP PANEL AND CONTROLS PER SPECIFICATIONS. 480 VOLT, 3 PHASE POWER SUPPLY (150 FLA)
C) AUTOMATIC FILTER WITH 200 MICRON SCREEN, FLUSH ASSEMBLY (ISOLATION VALVE, ELECTRIC CONTROL VALVE) AND CHECK VALVE
D) MAGNETIC FLOW METER
E) VFD BY-PASS SWITCH
F) PHASE MONITOR
G) NEMA 4 ENCLOSURE W/ FILTERED COOLING FAN AND INSULATION
H) OWNER TRAINING PER SPECIFICATIONS.
I) PRESSURE RELIEF VALVE
J) 2-POINT LEVEL CONTROL/SAFETY FOR WET WELL
K) SELF-CLEANING SCREEN RETURN LINE ASSEMBLY SHALL CONSIST OF 1.5" BRONZE BALL VALVE, 1\" BRONZE CHECK VALVE, 1-1/2" SOLENOID OPERATED ELECTRIC VALVE AND SINGLE 1\" PRESSURE REDUCING VALVE
L) PUMP STATION SHALL BE ACTIVATED VIA PRESSURE DROP AND DEACTIVATED VIA NO FLOW
M PRESSURE TRANSDUCER
N) LIGHTNING/SURGE ARRESTOR
O) PLC-BASED CONTROLS WITH NON-VOLATILE MEMORY (PLC-SE)
P) OPERATOR INTERFACE DEVICE
Q) ALARM PILOT DEVICES
R) HOA SWITCHES (FOR SYSTEM), ON-OFF SELECTOR SWITCHES (ONE PER PUMP), PUMP RUN LIGHTS (ONE PER EA. PUMP, LAKE SCREEN, FILTER) GENERAL FAULT LIGHT (RED)
S) ELAPSED TIME METERS (INCLUDED IN PLC)
T) SPEED POTENTIOMETER
U) CONTROL POWER TRANSFORMER
V) SYSTEMS DRAINS AND ONE HOSE BIB
W) STATION DISCHARGE ISOLATION VALVE
X) POWDER COATING SYSTEM
Y) POND LEVEL SENSING FOR FILL VALVE OPERATION (24 VOLT AC 2-WIRE SOLENOID)

AA) PUMP MANUFACTURER FABRICATED ENCLOSURE - REFER TO SHEET IR-P2 FOR ADDITIONAL INFORMATION
BB) 8 X 10'VICTAULIC x FLG SCH. 40 STEEL Z-PIPE
CC) DISCHARGE PRESSURE GAUGE
DD) POWER CONTROL MONITOR (LOW VOLTAGE, PHASE IMBALANCE, ETC.)
EE) OPTI-ISOLATOR FOR FLOW SENSING CONNECTION TO CENTRAL CONTROL (VERIFY WITH CENTRAL CONTROL MANUFACTURER)
FF) DRY CONTACT FOR REMOTE SHUT DOWN OF PUMP STATION BY CENTRAL CONTROL 24V AC DECODER (VERIFY WITH CENTRAL CONTROL MANUFACTURER) CONTRACTOR IS RESPONSIBLE FOR ALL WORK AND EQUIPMENT REQUIRED FOR
GG) INSTALLATION NOT LIMITED TO, PUMPING SYSTEM, ENCLOSURE, PIPING, WET WELL AND ELECTRICAL. ANY ADDITIONAL EQUIPMENT NOT SUPPLIED FROM PUMP MANUFACTURER FOR INSTALLATION OF ANY PRODUCT IS THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO ALL MANUFACTURERS RECOMMENDATIONS FOR REQUIRED EQUIPMENT.



PUMP STATION PAD

P5



CONCRETE SLAB EDGE TREATMENT SECTION B-B

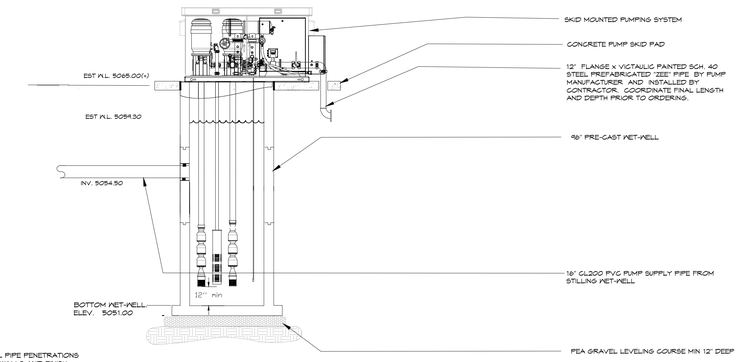
NOT TO SCALE

CONCRETE REQUIREMENTS-
ALL CONCRETE SHALL BE A 4,000 PSI MIX. SUBMIT MIX TO OWNER PRIOR TO PLACING ANY CONCRETE. ALL FORMS AND REBAR SHALL BE PLACED FOR OWNER REVIEW 48 HOURS PRIOR TO PLACEMENT OF CONCRETE. ALL REINFORCING SHALL BE SIZED AS NOTED CONFORMING TO ASTM 706.
CONTRACTOR WILL BE REQUIRED TO PROVIDE ALL MATERIAL REQUIRED TO PROTECT SLAB DURING CURING PERIOD. CONCRETE SLAB SHALL BE MOISTURE CURED WITH A MOISTURE-RETAINING COVER. SLAB SHALL BE BROOM FINISHED.

NOTE:
FILL UNDER SLAB SHALL BE COMPACTED TO 95 SLAB SURFACE SHALL SLOPE TO WET WELL - 1% MAX PROVIDE SLAB W/ MEDIUM BROOM FINISH

GONTRACTOR SHALL STAKE ALL POINT OF CONNECTION AND PUMP EQUIPMENT FOR REVIEW AND APPROVAL OF OWNER PRIOR TO INSTALLATION.

ALL PERMITS AND ANY REQUIRED SHOP DRAWINGS BY CONTRACTOR.

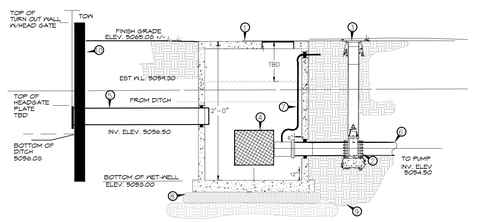


LINK SEAL ALL PIPE PENETRATIONS IN CONCRETE WALLS AND FINISH WITH SHRINK FREE GROUT (TYP) OR APPROVED EQUAL

PUMP STATION AND WET WELL - SECTION

Scale 1/4" = 1'

P3



1. 72" DIA. (I.D.) PREFABRICATED CONCRETE STREAM INTAKE STILLING WET WELL W/ BUTTSLAB TOP AND 36" D.I. M.H. LID. (OR APPROVED EQUAL) ROAD RATED. WATERPROOF ALL JOINTS WITH RAM-NECKING COMPOUND OR EQUAL.
2. 1" M.J NRS GATE ISOLATION VALVE. SUPPLY KEY TO OWNER OF SUFFICIENT LENGTH FOR OPERATION.
3. 10" ROUND GATE VALVE ACCESS BOX WITH 6" PVC ACCESS SLEEVE INSTALL GRAVEL AROUND SLEEVE IN BOX TO 2" BELOW TOP OF SLEEVE - REFER TO DTL #1
4. GLEMMONS CN1400 (10" FLANGE) AUTOMATIC FLUSH INTAKE SCREEN WITH 1.5" POLY PIPE SUPPLY FROM PUMP
5. 12" CLASS 200 PVC WET WELL INTAKE PIPE FROM DITCH TURN-OUT STRUCTURE OPERATION BY HEAD GATE OR TURN-OUT STRUCTURE ISOLATION VALVE.
6. 16" CLASS 200 PVC PUMP WET WELL INTAKE PIPE FROM STILLING WELL STRUCTURE. E.
7. 1.5" POLY AUTOMATIC SCREEN SUPPLY PIPE
8. PEA GRAVEL LEVELING COARSE - PER MANUFACTURERS RECOMMENDATIONS (12" MIN. LEVELING COURSE)
9. UNDISTURBED SOIL (TYP)
10. DITCH TURN OUT WITH HEAD GATE REFER TO TURN OUT DETAIL (TYP)

TURNOUT STILLING WELL

SCALE- NTS

P4

DIRECTORY

IRRIGATION SCHEDULE	IR1.1
IRRIGATION NOTES	IR1.1
IRRIGATION PLANS	IR2.1-IR2.6
IRRIGATION DETAILS	IR3.1-IR3.3
STREAM PUMP	IR3.4
IRRIGATION PUMP	IR3.5
BOOSTER PUMP	IR3.6

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KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: TB REVIEWED: KD

PROJECT NUMBER: 24050.00
DATE: DECEMBER 12, 2025

100% CONSTRUCTION DOCUMENTS - DRAFT

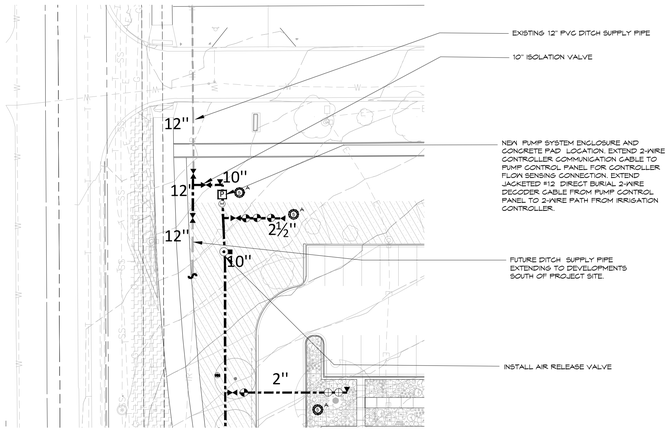
IRRIGATION DETAILS

SHEET:

IR3.5

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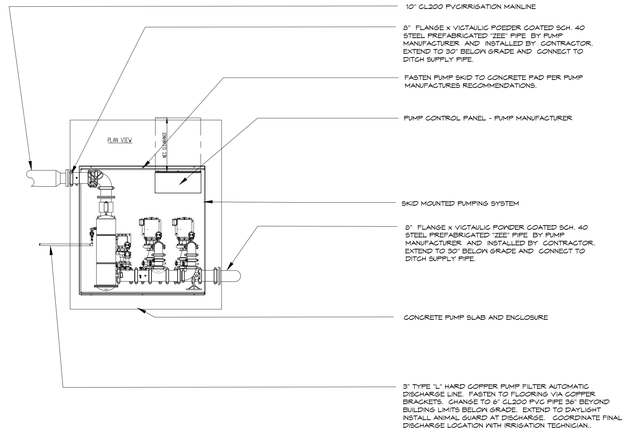


PUMP STATION LOCATION - PLAN VIEW

Scale 1" = 30'

NORTH

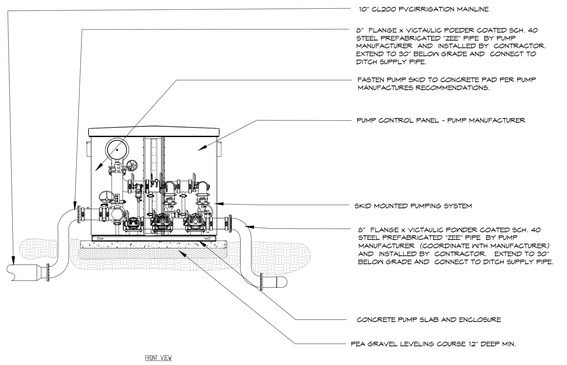
P6



PUMP STATION AND WET WELL - PLAN (BID ALTERANTE #2)

Scale 1/4" = 1'

P2



PUMP STATION - BOOSTER (BID ALT #2)

Scale 1/4" = 1'

P3

PROJECT NOTES

1. CONTRACTOR TO INSTALL A NEW PPS PUMPING SYSTEM SINGLE SKID PUMPING STATION WITHIN EXISTING ENCLOSURE AS DETAILED.
2. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION BETWEEN EXISTING CONCRETE CONSTRUCTION, AND NEW PUMP STATION EQUIPMENT REQUIREMENTS.
3. CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION AND INSTALLATION PIPING BETWEEN FINAL PUMP LOCATION AND EXISTING IRRIGATION PIPE CONNECTIONS
4. CONTRACTOR IS RESPONSIBLE FOR ALL WIRE, CONDUIT AND CONNECTIONS BETWEEN ELECTRICAL SERVICE AND PUMPING SYSTEM ALL WORK SHALL CONFORM TO ALL APPLICABLE CODES
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6. ANCHOR PUMPING SYSTEM CONCRETE PAD PER MANUFACTURERS RECOMMENDATIONS
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8. COMPACT SOIL TO 95% STANDARD PROCTER DENSITY TYPICAL FOR PIPE AND TRENCH INSTALLATION
9. PUMP STATION OFF-LOAD CRANE REQUIREMENTS BY CONTRACTOR
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Pumping System Notes

1. CONTRACTOR TO INSTALL A PRECISION PUMPING SYSTEM (PPS) - MODEL T**V2G010B00800-020V81B483ONS-8 END-SUCTION HORIZONTAL SKID MOUNTED PUMP STATION WITH ENCLOSURE AS DETAILED. PUMP STATION SHALL PROVIDE 800 GPM AT DISCHARGE PRESSURE OF 80 PSI. PUMP STATION SHALL MEET REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS, DETAILS AND SPECIFICATIONS. REQUIREMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING:

A) VARIABLE FREQUENCY DRIVE WITH TAG 50 HP (PREMIUM EFFICIENTCY MOTORS) PUMP AND ONE 15 HP PRESSURE MAINTENANCE PUMP. PRIMARY PUMPS SHALL BE CAPABLE OF 500 GPM AT 50 PSI DISCHARGE PRESSURE
B) PUMP PANEL AND CONTROLS PER SPECIFICATIONS, 460 VOLT, 3 PHASE POWER SUPPLY (45 FLA)
C) AUTOMATIC FILTER WITH 200 MICRON SCREEN, FLUSH ASSEMBLY (ISOLATION VALVE, ELECTRIC CONTROL VALVE) AND CHECK VALVE
D) MAGNETIC FLOW METER
E) VFD BY-PASS SWITCH
F) PHASE MONITOR
G) NEMA 4 ENCLOSURE W/ FILTERED COOLING FAN AND INSULATION
H) OWNER TRAINING PER SPECIFICATIONS.
I) PRESSURE RELIEF VALVE
J) 2-POINT LEVEL CONTROL/SAFETY FOR WET WELL
K) LIQUIDFILLED PRESSUREGAUGES
L) PUMP STATION SHALL BE ACTIVATED VIA PRESSURE DROP AND DEACTIVATED VIA NO FLOW
M PRESSURE TRANSDUCER
N) LIGHTNING/SURGE ARRESTOR
O) PLC-BASED CONTROLS WITH NON-VOLATILE MEMORY (PLC-5E)
P) OPERATOR INTERFACE DEVICE
Q) ALARM PILOT DEVICES
R) HOA SWITCHES (FOR SYSTEM), ON-OFF SELECTOR SWITCHES (ONE PER PUMP), PUMP RUN LIGHTS (ONE PER EA. PUMP, LAKE SCREEN, FILTER) GENERAL FAULT LIGHT (RED)
S) ELAPSED TIME METERS (NCLUDED IN PLC)
T) SPEED POTENTIOMETER
U) CONTROL POWER TRANSFORMER
V) SYSTEMS DRAINS AND ONE HOSE BIB
W) STATION DISCHARGE ISOLATION VALVE
X) POWDER COATING SYSTEM
AA) PUMP MANUFACTURER FABRICATED ENCLOSURE - REFER TO SHEET IR-P2 FOR ADDITIONAL INFORMATION
BB) 8 X 10" AND 10"X8" VICTAULIC x FLG SCH. 40 STEEL POWDER COATED Z-PIPE (COORDINATE WITH PUMP MANUFACTURER)
CC) DISCHARGE PRESSURE GAUGE
DD) POWER CONTROL MONITOR (LOW VOLTAGE, PHASE IMBALANCE, ETC.)
EE) OPTI-ISOLATOR FOR FLOW SENSING CONNECTION TO CENTRAL CONTROL (VERIFY WITH CENTRAL CONTROL MANUFACTURER)
FF) DRY CONTACT FOR REMOTE SHUT DOWN OF PUMP STATION BY CENTRAL CONTROL
24V AC DECODER (VERIFY WITH CENTRAL CONTROL MANUFACTURER) CONTRACTOR IS RESPONSIBLE FOR ALL WORK AND EQUIPMENT REQUIRED FOR
GG) INSTALLATION NOT LIMITED TO: PUMPING SYSTEM, ENCLOSURE, PIPING, WET WELL AND ELECTRICAL. ANY ADDITIONAL EQUIPMENT NOT SUPPLIED FROM PUMP MANUFACTURER FOR INSTALLATION OF ANY PRODUCT IS THE RESPONSIBILITY OF THE CONTRACTOR. REFER TO ALL MANUFACTURERS RECOMMENDATIONS FOR REQUIRED EQUIPMENT.

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DIRECTORY

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100% CONSTRUCTION DOCUMENTS - DRAFT

IRRIGATION DETAILS

SHEET:

IR3.6

ELECTRICAL LEGEND AND ABBREVIATIONS

ABBREVIATIONS

A	AMPERE(S)
AC	ABOVE COUNTER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFI	ARC FAULT CIRCUIT INTERRUPTER
AIC	AMPERES INTERRUPTING CURRENT
ATS	AUTOMATIC TRANSFER SWITCH
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CKT	CIRCUIT
DISC	DISCONNECT
DIST	DISTRIBUTION
(E)	EXISTING, TO REMAIN - MAINTAIN CIRCUIT CONTINUITY TO EXISTING DEVICES.
EC	ELECTRICAL CONTRACTOR OR EMPTY CONDUIT
EF	EXHAUST FAN
(ER)	EXISTING TO RELOCATE - MAINTAIN CIRCUIT CONTINUITY TO DEVICES. REMOVE, RELOCATE OR REWORK ANY CONDUIT AND WIRING TO FACILITATE NEW CONSTRUCTION.
EM	EMERGENCY
(EP)	EXISTING POSITION TO REMAIN, REMOVE EXISTING DEVICE FOR REPLACEMENT. REFERS TO LUMINAIRES, TELECOM DEVICES, SWITCHES, RECEPTACLES, FIRE ALARM DEVICES, ETC. UON, MAINTAIN EXISTING WIRING, OUTLET BOX, RACEWAY, ETC. FOR INSTALLATION OF NEW EQUIPMENT. TELECOM WIRE SHALL BE REMOVED.
EPO	EMERGENCY POWER OFF
EWC	ELECTRIC WATER COOLER
(EX)	EXISTING, REMOVE - MAINTAIN CIRCUIT CONTINUITY DURING AND AFTER DEMOLITION TO EXISTING CIRCUITS AND DEVICES TO REMAIN. REMOVE, RELOCATE OR REWORK ANY CONDUIT AND WIRING TO FACILITATE NEW CONSTRUCTION.
F	FUSE
FLA	FULL LOAD AMPS
G	GROUND
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
HORIZ	HORIZONTAL
HP	HORSEPOWER
IDF	INTERMEDIATE DATA FRAME
IG	ISOLATED GROUND
KV	KILOVOLTS
KVA	KILOVOLT AMPERE(S)
KW	KILOWATT(S)
LTG	LIGHTING
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPS
MCB	MAIN CIRCUIT BREAKER
MDC	MAIN DISTRIBUTION CENTER
MDF	MAIN DATA FRAME
MLO	MAIN LUGS ONLY
MV	MEDIUM VOLTAGE
NL	NIGHT LIGHT/SECURITY LIGHT. CONNECT LIGHTS AHEAD OF LOCAL SWITCHING TO OPERATE CONTINUOUSLY
(NP)	NEW DEVICE AT EXISTING POSITION. PROVIDE NEW LUMINAIRE, TELECOM DEVICE, SWITCH, RECEPTACLE, FIRE ALARM DEVICE, ETC. IN THE SAME LOCATION (ITEM REMOVED AT DEMO). U~~O~~N USE EXISTING WIRING, OUTLET BOX, RACEWAY, ETC. TO THE EXTENT POSSIBLE. TELECOM WIRING SHALL BE NEW.
OAE	OR APPROVED EQUAL
OH	OVERHEAD
P	POLE
PH	PHASE
PNL	PANEL
REC	RECEPTACLE
(RL)	RELOCATED - MAINTAIN CIRCUIT CONTINUITY TO NEW LOCATION OF EXISTING DEVICE(S). REMOVE, RELOCATE OR REWORK ANY CONDUIT AND WIRING TO FACILITATE RELOCATION. FOR LUMINAIRES, CLEAN LENSES AND REPLACE FAILED LAMPS, UNLESS OTHERWISE NOTED. NEW LAMPS ARE TO MATCH EXISTING LAMP'S COLOR TEMPERATURE. FOR WIRING DEVICES, PROVIDE NEW DEVICES AND FACEPLATES UNLESS OTHERWISE NOTED.
SW	SWITCH
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TGB	TELECOMMUNICATIONS GROUNDING BUSBAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUSBAR
UC	UNDERCOUNTER/CABINET
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
V	VOLT(S)
VA	VOLT AMPERES
W	WATT(S) OR WIRE
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

COMMUNICATIONS SYMBOLS

- TELECOMMUNICATIONS OUTLET
  A - (1) VOICE
  B - (1) DATA / (1) COAX / (1) VOICE
  C - (1) VOICE / (1) DATA
  D - (1) VOICE / (2) DATA
  E - (2) VOICE / (2) DATA
  W - (1) VOICE, WITH WALL MOUNT COVER
- IN-FLOOR TELECOMMUNICATIONS OUTLET (VOICE/DATA/OTHER AS DEFINED ABOVE)
- CEILING SPEAKER
- WALL MOUNTED SPEAKER
- INTERCOM STATION
- VOLUME CONTROL STATION
- MICROPHONE JACK
- AMPLIFIER
- CCTV — CLOSED-CIRCUIT TELEVISION CAMERA
- AC XX — CENTRALLY ACCESS CONTROLLED DOOR
- CR — ACCESS CONTROL SYSTEM CARD READER
- CR K — ACCESS CONTROL SYSTEM CARD READER/ KEYPAD COMBINATION DEVICE
- DC — DOOR CONTACT
- EL — ELECTRIC LOCK
- K — KEY PAD
- ML — MAGNETIC LOCK
- B — DOOR BELL CHIME
- WAP — WIRELESS ACCESS POINT. PROVIDE (1) DATA CABLE TERMINATED ABOVE CEILING (SEE DETAIL)

LEGEND NOTES

A. NOT ALL SYMBOLS SHOWN ON THIS LEGEND WILL NECESSARILY BE USED ON ELECTRICAL DRAWINGS.

B. INDICATED MOUNTING HEIGHTS ARE FROM FINISHED FLOOR (OR FINISHED GRADE).

C. FOR DEVICES INDICATED AS ABOVE COUNTER ('AC' ON THE DRAWINGS), COORDINATE MOUNTING HEIGHT WITH THE ARCHITECT.

D. SPECIFIC MOUNTING HEIGHTS SHOWN ON THE DRAWINGS SUPERSEDE MOUNTING HEIGHTS SHOWN ON DETAIL.

E. DEVICES AND SYMBOLS ARE NOT NECESSARILY SHOWN TO SCALE.

REFERENCE SYMBOLS

- ??-? — EQUIPMENT DESIGNATION
- A — REVISION DESIGNATION
- ?? — KEY NOTE DESIGNATION
- ? / ??? — ENLARGED PLAN DESIGNATION
- NORTH ARROW

LIGHTING SYMBOLS

- CEILING LUMINAIRE - SURFACE MOUNT
- CEILING LUMINAIRE - RECESS MOUNT
- CEILING LUMINAIRE - RECESS MOUNT
- WALL MOUNT LUMINAIRE
- PENDANT MOUNT LUMINAIRE
- WALL WASH LUMINAIRE - SURFACE MOUNT
- WALL WASH LUMINAIRE - RECESS MOUNT
- TROFFER LUMINAIRE - SURFACE MOUNT
- TROFFER LUMINAIRE - RECESS MOUNT
- LINEAR PENDANT LUMINAIRE - FILLED CIRCLE INDICATES POWER FEED END (LENGTH AS SHOWN ON DRAWINGS)
- STRIP LUMINAIRE / UNDER CABINET LUMINAIRE (LENGTH AS SHOWN ON DRAWINGS)
- COVE OR SLOT LUMINAIRE (LENGTH AS SHOWN ON DRAWINGS)
- SINGLE FACE EXIT LUMINAIRE - CEILING MOUNTED
- DUAL FACE EXIT LUMINAIRE - CEILING MOUNTED
- SINGLE FACE EXIT LUMINAIRE - WALL MOUNTED
- DUAL FACE EXIT LUMINAIRE - WALL MOUNTED
- EGRESS ARROWS
- TRACK LIGHTING (NUMBER OF HEADS AS SHOWN ON DRAWING)
- EMERGENCY LUMINAIRE WITH INTEGRAL BATTERY PACK
- REMOTE EMERGENCY LIGHTING HEAD
- NIGHT-LIGHT LUMINAIRE
- NIGHT-LIGHT LUMINAIRE, THROUGH THE WALL MOUNTING
- POLE MOUNTED LUMINAIRE
- POST-TOP LUMINAIRE
- POST-TOP TWIN HEAD LUMINAIRE
- BOLLARD LUMINAIRE
- IN-GRADE FLOOD LUMINAIRE
- ABOVE-GRADE FLOOD LUMINAIRE
- STEP-LIGHT LUMINAIRE
- SHADING DENOTES EMERGENCY FIXTURE, UON

LIGHTING CONTROL SYMBOLS

$_ — SWITCH, TYPE AS NOTED BELOW
(BLANK) - SINGLE POLE
2 - DOUBLE POLE
3 - THREE-WAY SWITCH
4 - FOUR-WAY SWITCH
B - PROVIDE BOX AND BLANK COVER PLATE
D - ANALOG DIMMER SWITCH - (LUTRON 'DIVA' OR 'MAESTRO' SERIES, OAE. PROVIDE DIMMER TYPE COMPATIBLE WITH LAMP SOURCE PER DIMMER MANUFACTURER COMPATIBILITY TESTING AND RATED FOR CONNECTED LOAD.)
F - FAN AND/OR FAN/LIGHT SWITCH
K - KEY OPERATED SWITCH
L - SINGLE POLE ILLUMINATED SWITCH - ILLUMINATED WHEN OFF
LV - LOW VOLTAGE SWITCH
OR - OVERRIDE SWITCH FOR PUBLIC AREA LIGHTING CONTROL SYSTEM
P - SWITCH WITH PILOT LIGHT - ILLUMINATED WHEN ON
T - TIMER SWITCH
U - UNDERCABINET SWITCH

$OS_ \ $VS_ — ANALOG OCCUPANCY (OS) OR VACANCY SENSOR (VS) SWITCH - (BLANK)- WATTSTOPPER #DW-100, OAE.
2 - WATTSTOPPER #DW-200, OAE. (DUAL RELAY)
3 - WATTSTOPPER #DW-103, OAE. (THREE-WAY)
V - LUTRON #MS-Z101-X, OAE (0-10V DIM)
D - LUTRON #MSCL-OP153M-X, OAE (120V DIM, 150W)

LC — LIGHTING CONTACTOR

LCP — LIGHTING CONTROL PANEL

PC — PHOTOELECTRIC CELL

OS_ / VS_ — ANALOG OCCUPANCY OR VACANCY SENSOR, WATTSTOPPER MODEL AS LISTED, OAE:
C - CEILING MOUNT #DT-300.
K - CORNER MOUNT #DT-200 WITH MOUNTING ARMATURE.
G - GARAGE CEILING, AS NOTED ON PLANS

$D_ — DIGITAL LIGHTING CONTROL WALL STATION WATTSTOPPER DLM, OR SENSOR SWITCH nLIGHT:
1 - ZONE DIMMER (ENGRAVE "ON" AND "OFF", UON)
2 - (2) BUTTON SCENE (ENGRAVE "ON/RAISE" AND "OFF/LOWER", UON)
3 - WALL OCC. AND DIM SWITCH (ENGRAVE 1 AND 9", UON)
4 - (4) BUTTON SCENE WITH RAISE/LOWER (CUSTOM ENGRAVING)
5 - (4) BUTTON ZONE SWITCH, (2) ON/(2) OFF (CUSTOM ENGRAVING)
6 - WALL OCC. SWITCH (ENGRAVE "ON" AND "OFF")
8 - (8) BUTTON ZONE SWITCH, (4) ON/(4) OFF (CUSTOM ENGRAVING)
P - PARTITION SWITCH

OS D \ VS D_ — DIGITAL LIGHTING CONTROL SYSTEM OCCUPANCY (OS) OR VACANCY (VS) SENSOR, WATTSTOPPER DLM OR SENSOR OR SENSOR SWITCH nLIGHT:
C - CEILING-MOUNT DUAL-TECH #LMDC-100 OR nCM PDT-9
D - CLOSED LOOP DAYLIGHT SENSOR
H - HALLWAY PIR
K - WALL/CORNER-MOUNT DUAL-TECH (WITH MOUNTING BRACKET)
O - OPEN AND CLOSED LOOP DAYLIGHT SENSOR FOR SKYLIGHTS
U - CEILING-MOUNT ULTRASONIC TECHNOLOGY (DLM ONLY)

$W_ — WIRELESS DIGITAL LIGHTING WALL STATION
LUTRON 'VIVE' MODEL, OAE:
1 - ZONE DIMMER, 2-BUTTON RAISE/LOWER
2 - ON/OFF SWITCH
3 - ZONE DIMMER, 3-BUTTON RAISE/LOWER
4 - SCENE SWITCH, 4-BUTTON WITH CUSTOM ENGRAVING #P-J2-4B-GXX-EL2; #PICO-WBX-ADAPT
D - WIRELESS-CONTROLLED MLV WALL BOX DIMMER
E - WIRELESS-CONTROLLED ELV WALL BOX DIMMER

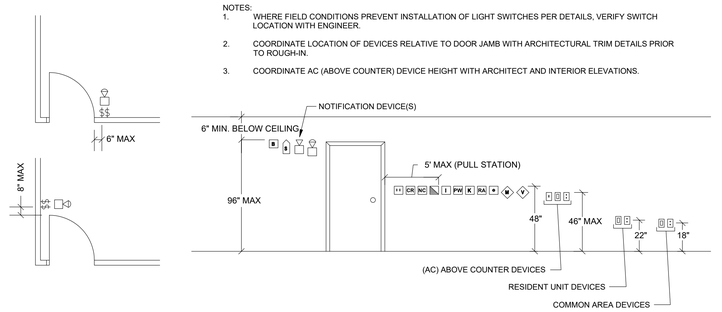
OS W \ VS W_ — WIRELESS OCCUPANCY (OS) OR VACANCY (VS) SENSOR
LUTRON 'VIVE' MODEL, OAE:
C - CEILING PIR SENSOR 360°
W - WALL-MOUNT PIR SENSOR 180°
K - CORNER-MOUNT PIR SENSOR 90°
H - HALLWAY PIR SENSOR 150°
D - CEILING-MOUNT DAYLIGHT SENSOR
V - CEILING FLUSH-MOUNT HUB

VH — LUTRON VIVE HUB, FLUSH MOUNT, UON.
PROVIDE (1) CAT6 TO EACH LOCATION

NOTE: FOR ANALOG, DIGITAL, OR WIRELESS LIGHTING CONTROL, PROVIDE REQUIRED 0-10V OR LINE VOLTAGE DIMMING POWER PACKS/ROOM CONTROLLERS, WIRING, MOUNTING AND FEED ACCESSORIES FOR A COMPLETE AND FUNCTIONING CONTROL SYSTEM.

POWER SYMBOLS

- CIRCUIT BREAKER
- FUSE
- SWITCH
- DRAW-OUT CIRCUIT BREAKER
- G — CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
- G — FUSED SWITCH WITH GROUND FAULT PROTECTION
- M — METER
- A — AMMETER
- V — VOLTMETER
- CURRENT TRANSFORMER (CT)
- POTENTIAL TRANSFORMER (PT)
- G — ENGINE GENERATOR SET
- AUTOMATIC TRANSFER SWITCH
- ENCLOSED CIRCUIT BREAKER
- DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH
- MOTOR STARTER
- COMBINATION MOTOR STARTER / DISCONNECT SWITCH
- T — DRY TYPE TRANSFORMER
- CT — CURRENT TRANSFORMER (CT)
- UTILITY POLE
- GROUNDING ELECTRODE
- GROUND BUSS
- GROUND ROD
- MH — MAN HOLE
- HH — HAND HOLE
- 0.0G — FEEDER SIZE TAG, SEE FEEDER SCHEDULE
- PANEL ? — PANELBOARD
- LOAD CENTER ? — LOAD CENTER
- SURFACE MOUNTED PANELBOARD OR LOAD CENTER
- FLUSH MOUNTED PANELBOARD OR LOAD CENTER
- SINGLE RECEPTACLE
- DUPLEX RECEPTACLE (T = TVSS)
- GFCI PROTECTED DUPLEX RECEPTACLE
- DOUBLE DUPLEX RECEPTACLE
- GFCI PROTECTED DOUBLE DUPLEX RECEPTACLE
- SPLIT WIRED AND/OR SWITCHED RECEPTACLE
- CEILING MOUNTED RECEPTACLE (CR = CORD REEL DEVICE)
- IN-FLOOR DUPLEX RECEPTACLE
- IN-FLOOR DOUBLE DUPLEX RECEPTACLE
- IN-FLOOR COMBINATION RECEPTACLE/COMMUNICATIONS DEVICE
- SPECIAL PURPOSE RECEPTACLE
- JUNCTION BOX
- WALL MOUNTED JUNCTION BOX
- $TO — TOGGLE SWITCH WITH INTEGRAL THERMAL OVERLOADS
- PUSH BUTTON, TYPE AS NOTED
- GA — GENERATOR ANNUNCIATOR
- PLUGMOLD (LENGTH AS SHOWN ON DRAWING)
- SURFACE RACEWAY
- CABLE TRAY (LENGTH AS SHOWN ON DRAWING)
- CONDUIT END BUSHING
- CONDUIT UP
- CONDUIT DOWN
- CONDUIT BREAK SYMBOL



NOTES:
1. WHERE FIELD CONDITIONS PREVENT INSTALLATION OF LIGHT SWITCHES PER DETAILS, VERIFY SWITCH LOCATION WITH ENGINEER.
2. COORDINATE LOCATION OF DEVICES RELATIVE TO DOOR JAMB WITH ARCHITECTURAL TRIM DETAILS PRIOR TO ROUGH-IN.
3. COORDINATE AC (ABOVE COUNTER) DEVICE HEIGHT WITH ARCHITECT AND INTERIOR ELEVATIONS.

1 / E0.0 **DEVICE MOUNTING LOCATION DETAIL**
SCALE: NONE

ELECTRICAL GENERAL NOTES

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VISIT THE SITE PRIOR TO BID TO VERIFY DIMENSIONS AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS. NO EXTRAS WILL BE GIVEN FOR ADDITIONAL WORK WHICH IS REQUIRED RESULTING FROM CONTRACTOR'S FAILURE TO BECOME FAMILIARIZED WITH THE SITE AND FACILITIES.

B. INFORMATION REGARDING THE EXISTING CONDITIONS WAS GATHERED FROM AVAILABLE EXISTING DRAWINGS. THERE ARE NO GUARANTEES AS TO THE ACCURACY OF THIS INFORMATION AND IT IS OFFERED FOR INFORMATION ONLY.

C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL CONNECTIONS TO EXISTING AND NEW SYSTEMS AS NECESSARY TO FACILITATE PROPER CONTINUAL OPERATION OF ALL SYSTEMS AND EQUIPMENT, EXISTING OR NEW, EXCEPT WHERE IN CURRENT AREA OF CONSTRUCTION.

D. MINIMIZE DISTURBANCE AND/OR DAMAGE TO EXISTING FINISHED SURFACES AND FINISHES.

E. THE CONTRACTOR SHALL VERIFY ALL ROUGH-IN REQUIREMENTS FOR ELECTRICALLY OPERATED EQUIPMENT WITH THE EQUIPMENT SUPPLIERS.

F. PROVIDE A SET OF CONSTRUCTION DOCUMENTS TO THE OWNER AND SCHEDULE A MEETING WITH THE OWNER FOR VERIFICATION OF ALL ENGRAVED NAMEPLATES (WHETHER EQUIPMENT OR LIGHTING), ROOM NAMES/NUMBERS FOR PANEL DIRECTORIES AND FINAL LOCATION OF ELECTRICAL ITEMS.

G. COORDINATE ALL POWER OUTAGES WITH THE OWNER AT LEAST TWO WEEKS IN ADVANCE. WRITTEN CONFIRMATION IS REQUIRED. ACTIVITIES PLANNED BY THE OWNER SHALL TAKE PRECEDENCE OVER THE CONTRACTOR'S WORK. NO EXTRA TIME WILL BE ALLOCATED DUE TO CONTRACTOR S FAILURE TO COORDINATE AND SCHEDULE WORK ACCORDINGLY.

H. ALL EXISTING BUILDING AND/OR SITE FEATURES NOT BEING ALTERED BY THIS PROJECT ARE TO BE ' PROTECTED FROM DAMAGE. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING FACILITIES OR EQUIPMENT TO MATCH THE ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.

I. GFI ' FEED-THROUGH ' DEVICES SHALL NOT BE USED TO PROTECT DOWN-STREAM DEVICES ON THE SAME CIRCUIT. PROVIDE SEPARATE GROUND FAULT RECEPTACLES AT EACH LOCATION INDICATED, UON.

J. THE CONTRACTOR SHALL BE AWARE THAT THE EXISTING BUILDING(S) AND ADJACENT SITE WILL BE OCCUPIED AND IN USE DURING THE LENGTH OF THE CONTRACT, 7 DAYS A WEEK. THE CONTRACTOR SHALL CONDUCT OPERATIONS SO THAT THERE WILL BE MINIMUM INTERFERENCE WITH THE CONTINUED OPERATIONS OF THE EXISTING BUILDING AND STAFF. ANY INTERFERENCE OR INCONVENIENCE WITH THE CONTINUED OPERATIONS OF THE BUILDING(S) SHALL BE REVIEWED WITH THE ARCHITECT AND OWNER PRIOR TO APPROVAL.

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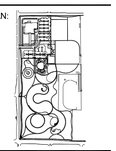
RH ENGINEERING/TECHNOLOGY/LIGHTING reesehackman.com

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: RH REVIEWED: RH

PROJECT NUMBER: 24050.00
DATE: DEC 12, 2025

100% CONSTRUCTION DOCUMENTS

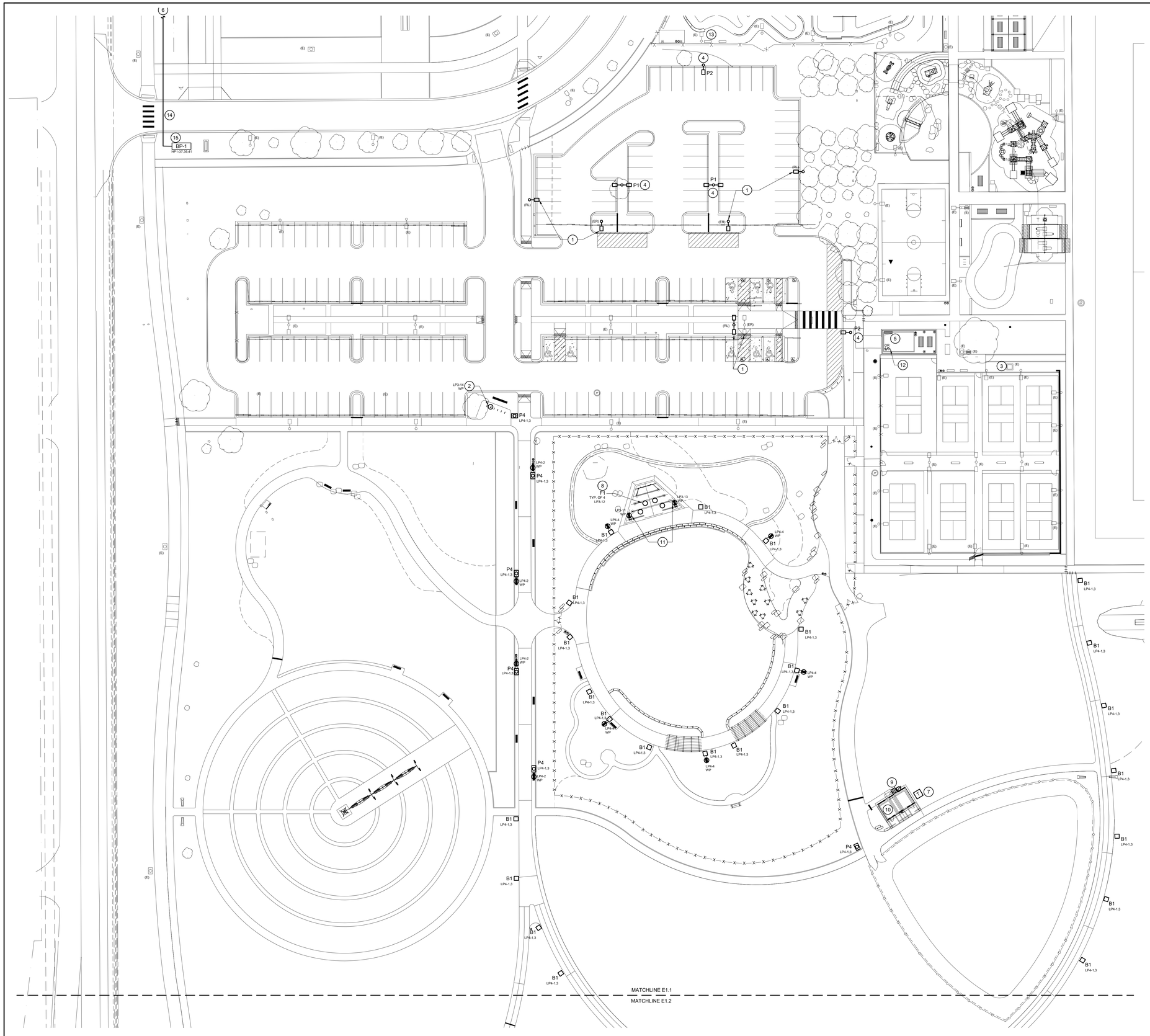
ELECTRICAL LEGEND AND GENERAL NOTES

SHEET:

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ELECTRICAL SITE PLAN - COMMUNITY AREA

1 / E1.1

SCALE: 1"=30'-0"

GENERAL NOTES

(THIS SHEET ONLY)

A. REFER TO E0.0 FOR GENERAL NOTES THAT APPLY TO ALL ELECTRICAL DRAWINGS.

B. REFER TO CIVIL DRAWINGS FOR ALL UNDERGROUND UTILITY LINES. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITY LINES OF ALL TRADES PRIOR TO ANY SITE WORK.

C. PRIOR TO BEGINNING WORK, COORDINATE ALL WORK ON THE SITE WITH THE SITE/CIVIL DRAWINGS. BRING ANY CONFLICTS AND/OR CONCERNS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

D. ALL SITE BRANCH CIRCUITS SHALL BE INSTALLED IN SCHEDULE 40 PVC RACEWAY WITH MINIMUM 24" COVER. MINIMUM CONDUIT SIZE SHALL BE 1". PROVIDE HANDHOLES AS REQUIRED.

E. MINIMUM CONDUCTOR SIZE FOR SITE BRANCH CIRCUITS SHALL BE #10 AWG. REFER TO SPECIFICATIONS FOR VOLTAGE DROP REQUIREMENTS.

F. COORDINATE ALL UTILITY WORK WITH XCEL ENERGY PRIOR TO COMMENCEMENT OF WORK.

G. FIELD COORDINATE ALL LUMINAIRE LOCATIONS WITH SIDEWALKS, ROADWAYS, TREES, AND LANDSCAPING.

H. UNLESS OTHERWISE NOTED, MOUNT EDGE OF LIGHT POLE BASE 18" AWAY FROM EDGE OF SIDEWALK AND/OR 24" AWAY FROM FACE OF PARKING LOT/RAODWAY CURB (TYPICAL FOR ALL POLE-MOUNTED LUMINAIRES). SHOULD CONFLICTS ARISE BETWEEN SITE UTILITIES/FEATURES AND PROPOSED LIGHTING LOCATIONS, CONTACT ARCHITECT IMMEDIATELY FOR RESOLUTION PRIOR TO BEGINNING ROUGH-IN.

I. ALL SITE LIGHT FIXTURES SHALL BE FULL CUTOFF.

J. CONTRACTOR SHALL PROVIDE ALL REQUIRED CUTTING, TRENCHING, BACKFILLING, RESTORATION.

K. ARBORETUM LIGHTING SEQUENCE OF OPERATION IS AS FOLLOWS: (CONFIRM TIMES AND OUTPUT WITH OWNER)
1. DUSK: 100%
2. 9:45 PM: 70%
3. 9:55 PM: 50 %
4. 10:00 PM: OFF
   - 4.1 INDICATED SECURITY LIGHTS SHALL REMAIN ON AT REDUCED OUTPUT FROM DUSK TILL DAWN. CONFIRM OUTPUT SETTING WITH OWNER.
   - 4.2 OVERRIDE TIMER WILL KEEP LIGHTS ON (70%) FOR AN ADDITIONAL 15 MINUTES OR UNTIL 10:30 PM, WHICHEVER OCCURS FIRST.

L. EXISTING LIGHTS SHOWN TO REMAIN ARE CONNECTED TO THE EXISTING RECREATION CENTER, EXCEPT FOR THE LIGHTS AT THE PICKLEBALL COURTS WHICH ARE CONECTED TO PANEL 'LP3' AND THE PICKELBALL ELECTRICAL SERVICE.

KEY NOTES (#)

1. RELOCATE EXISTING LIGHT FIXTURE, TO NEW LOCATION INDICATED. REMOVE OLD POLE BASE LOCATION AND PROVIDE HAND HOLE IN SOFTSCAPE AREA AS NEEDED TO MAINTAIN CIRCUITRY. PROVIDE NEW POLE BASE.
2. PROVIDE 120V CONNECTION FOR INTERNALLY ILLUMINATED SIGNAGE. COORDINATE EXACT LOCATION WITH SIGNAGE PROVIDER PRIOR TO ROUGH-IN.
3. EXISTING XCEL ENERGY UTILITY TRANSFORMER FOR PICKLEBALL COURTS SHALL REMAIN.
4. CONNECT NEW LIGHTING FIXTURE TO ADJACENT SKATE PARK CIRCUIT 'HP2-12'. NEW TOTAL LOAD ON CIRCUIT 'HP2-12' IS 2614VA.
5. EXISTING 120/240V SINGLE PHASE, 100A PANEL 'LP3' TO REMAIN. PANEL IS LOCATED IN STORAGE BUILDING ADJACENT TO PICKLEBALL COURTS AND SHALL BE UTILIZED TO FEED NEW LIGHTS AND RECEPTACLES AT BANDSHELL, AND NEW MONUMEN TSIGN, AS SHOWN ON THIS DRAWING.
6. CONTINUATION OF CONDUIT ROUTING FOR BP-1 CONNECTION BACK TO PANEL 'HP1' IN RECREATION CENTER. REFER TO E1.4 FOR ADDITIONAL INFORMATION.
7. PROPOSED LOCATION OF XCEL TRANSFORMER. CONTRACTOR SHALL PROVIDE ALL SECONDARY CONDUCTORS, CONDUITS, TRENCHING, BACKFILL AND COMPACITON. COORDINATE EXTENT OF PRIMARY WORK REQUIRED WITH XCEL.
8. PROVIDE CONNECTION TO F1 LIGHT FIXTURES AT BANDSHELL STRUCTURE VIA DEDICATED 20A/1P CIRCUIT. ALL CONDUIT AND WIRING SHALL BE CONCEALED WITHIN BANDSHELL STRUCTURE, INCLUDING HOLLOW TUBE-STEEL COLUMN. PAINT ALL EXPOSED CONDUIT TO MATCH ADJACENT SURFACE.
9. PROVIDE DISCONNECT AND METER BASE PER XCEL REQUIREMENETS.
10. PRE-FAB ROMTEC BUILDING PROVIDED WITH 100A, 240/120V SINGLE PHASE PANEL. LABEL PANEL AS 'LP4'. REFER TO ONE-LINE DIAGRAM ON E7.1 FOR ADDITIONAL INFORMATION.
11. RECEPTACLE MOUNTED TO BANDSHELL STRUCTURE COLUMN. ROUTE WIRING WITHIN HALLOW TUBE-STEEL. COORDINATE DETAILS WITH BANDSHELL MANUFACTURER.
12. LOCATION OF LOCAL OVERRIDE SWITCH FOR LIGHTING AT BANDSHELL. CONFIRM LOCATION WITH OWNER PRIOR TO ROUGH-IN.
13. EXISTING SKATE PARK LIGHTING ON CIRCUIT 'HP2-12'.
14. FIELD LOCATE ALL UNDERGROUND UTILITIES ALONG NEW CIRCUIT PATHWAY TO AVOID CONFLICTS. DIRECT-BORE UNDER SIDEWALKS, DRIVE-LANES AND OTHER HARD SURFACES. REFER TO E1.4 FOR ADDITIONAL INFORMATION.
15. CONFIRM LOCATION OF IRRIGATION BOOSTER PUMP WITH IRRIGATION DRAWINGS. PROVIDE CONNECTION TO BOOSTER PUMP (BP-1) VIA DEDICATED CIRCUIT IN EXISTING PANEL 'HP1' AS NOTED. REFER TO IRRIGATION DRAWINGS FOR ADDITIONAL INFORMATION. SUMMARY OF LOAD BEING ADDED AS FOLLOWS:
    - A. EXISTING PANELBOARD LOAD: 329,777 VA
    - B. BOOSTER PUMP LOAD ADDED: 37,368 VA

    TOTAL REVISED LOAD IS 367,145 VA = 441 AMPS AT 480V, 3-PHASE. PANELBOARD IS RATED FOR 500A DESIGN LOAD WITH 600A BUSSING.

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BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

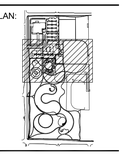
REVIEW SET

NOT FOR CONSTRUCTION

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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: RH REVIEWED: RH

PROJECT NUMBER: 24050.00

DATE: DEC 12, 2025

100% CONSTRUCTION DOCUMENTS

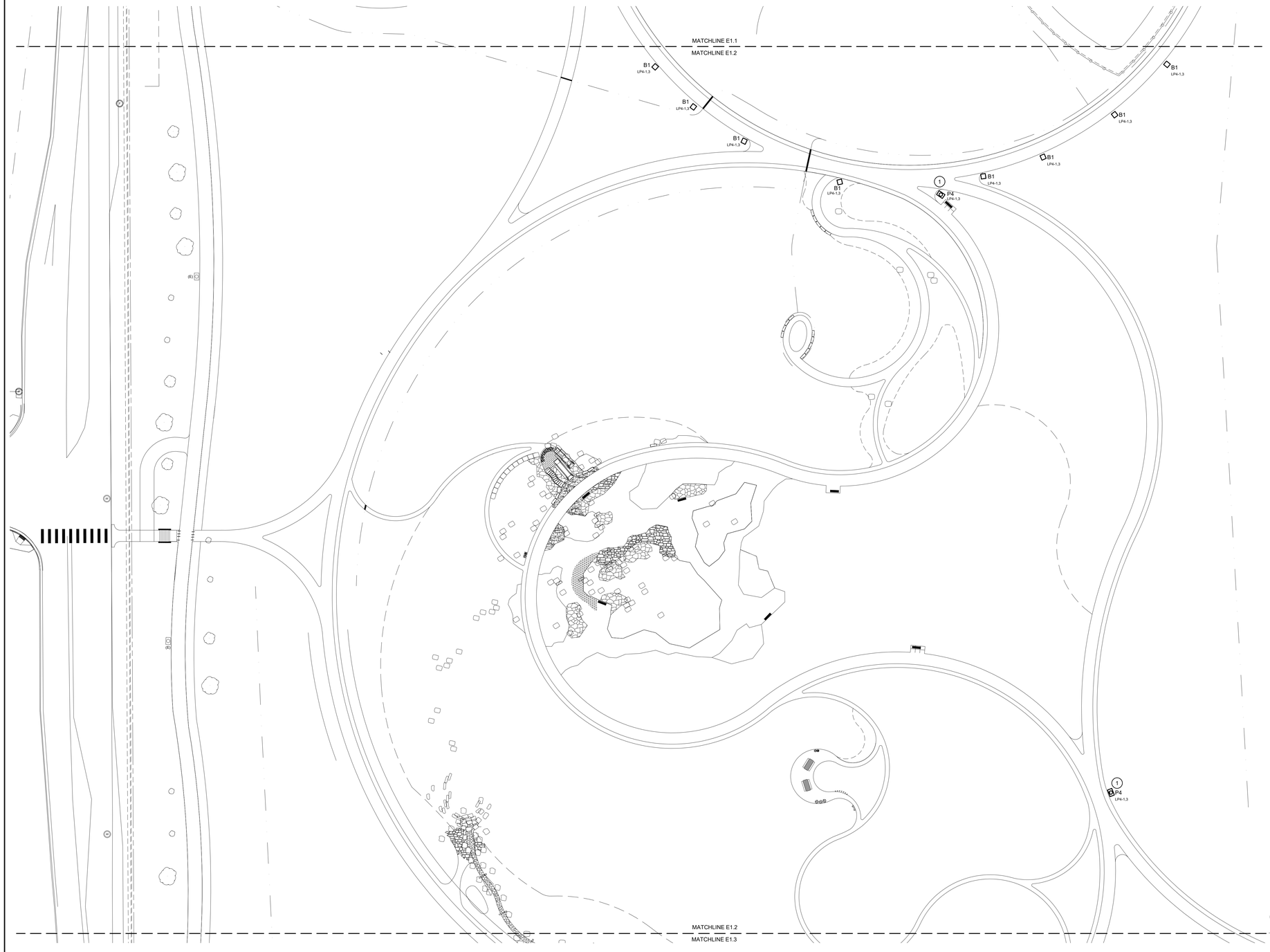
ELECTRICAL SITE PLAN - COMMUNITY AREA

SHEET:

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1 E1.2 **ELECTRICAL SITE PLAN - CENTRAL ARBORETUM**

SCALE: 1"=30'-0"

GENERAL NOTES

(THIS SHEET ONLY)

A. REFER TO E0.0 FOR GENERAL NOTES THAT APPLY TO ALL ELECTRICAL DRAWINGS.

B. REFER TO CIVIL DRAWINGS FOR ALL UNDERGROUND UTILITY LINES. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITY LINES OF ALL TRADES PRIOR TO ANY SITE WORK.

C. PRIOR TO BEGINNING WORK, COORDINATE ALL WORK ON THE SITE WITH THE SITE/CIVIL DRAWINGS. BRING ANY CONFLICTS AND/OR CONCERNS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

D. ALL SITE BRANCH CIRCUITS SHALL BE INSTALLED IN SCHEDULE 40 PVC RACEWAY WITH MINIMUM 24" COVER. MINIMUM CONDUIT SIZE SHALL BE 1". PROVIDE HANDHOLES AS REQUIRED FOR CODE COMPLIANCE AND TO ASSIST WITH EASE OF PULLING CONDUCTORS.

E. MINIMUM CONDUCTOR SIZE FOR SITE BRANCH CIRCUITS SHALL BE #10 AWG. REFER TO SPECIFICATIONS FOR VOLTAGE DROP REQUIREMENTS.

F. FIELD COORDINATE ALL LUMINAIRE LOCATIONS WITH SIDEWALKS, ROADWAYS, TREES, AND LANDSCAPING.

G. UNLESS OTHERWISE NOTED, MOUNT EDGE OF LIGHT POLE BASE 18" AWAY FROM EDGE OF SIDEWALK AND/OR 24" AWAY FROM FACE OF PARKING LOT/RAODWAY CURB (TYPICAL FOR ALL POLE-MOUNTED LUMINAIRES). SHOULD CONFLICTS ARISE BETWEEN SITE UTILITIES/FEATURES AND PROPOSED LIGHTING LOCATIONS, CONTACT ARCHITECT IMMEDIATELY FOR RESOLUTION PRIOR TO BEGINNING ROUGH-IN.

H. ALL SITE LIGHT FIXTURES SHALL BE FULL CUTOFF.

I. CONTRACTOR SHALL PROVIDE ALL REQUIRED CUTTING, TRENCHING, BACKFILLING, RESTORATION.

J. ARBORETUM LIGHTING SEQUENCE OF OPERATION IS AS FOLLOWS: (CONFIRM TIMES AND OUTPUT WITH OWNER)
   1. DUSK: 100%
   2. 9:45 PM: 70%
   3. 9:55 PM: 50 %
   4. 10:00 PM: OFF
      - 4.1 INDICATED SECURITY LIGHTS SHALL REMAIN ON AT REDUCED OUTPUT FROM DUSK TILL DAWN. CONFIRM OUTPUT SETTING WITH OWNER.
      - 4.2 OVERRIDE TIMER WILL KEEP LIGHTS ON (70%) FOR AN ADDITIONAL 15 MINUTES OR UNTIL 10:30 PM, WHICHEVER OCCURS FIRST.

L. EXISTING LIGHTS SHOWN TO REMAIN ARE CONNECTED TO THE EXISTING RECREATION CENTER.

KEY NOTES (#)

1. SECURITY LIGHT. CONFIRM WITH OWNER THAT LIGHT FIXTURE SHALL OPERATE AS A SECURITY LIGHT.

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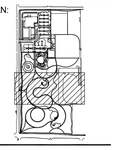
RH
ENGINEERING/TECHNOLOGY/LIGHTING
reesehackman.com

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: RH REVIEWED: RH

PROJECT NUMBER: 24050.00
DATE: DEC 12, 2025

100% CONSTRUCTION DOCUMENTS

ELECTRICAL SITE PLAN - CENTRAL ARBORETUM

SHEET:

E1.2

12/12/2025 11:43 AM

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GENERAL NOTES

(THIS SHEET ONLY)

A. REFER TO E0.0 FOR GENERAL NOTES THAT APPLY TO ALL ELECTRICAL DRAWINGS.

B. REFER TO CIVIL DRAWINGS FOR ALL UNDERGROUND UTILITY LINES. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITY LINES OF ALL TRADES PRIOR TO ANY SITE WORK.

C. PRIOR TO BEGINNING WORK, COORDINATE ALL WORK ON THE SITE WITH THE SITE/CIVIL DRAWINGS. BRING ANY CONFLICTS AND/OR CONCERNS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

D. ALL SITE BRANCH CIRCUITS SHALL BE INSTALLED IN SCHEDULE 40 PVC RACEWAY WITH MINIMUM 24" COVER. MINIMUM CONDUIT SIZE SHALL BE 1". PROVIDE HANDHOLES AS REQUIRED FOR CODE COMPLIANCE AND TO ASSIST WITH EASE OF PULLING CONDUCTORS.

E. MINIMUM CONDUCTOR SIZE FOR SITE BRANCH CIRCUITS SHALL BE #10 AWG. REFER TO SPECIFICATIONS FOR VOLTAGE DROP REQUIREMENTS.

F. FIELD COORDINATE ALL LUMINAIRE LOCATIONS WITH SIDEWALKS, ROADWAYS, TREES, AND LANDSCAPING.

G. UNLESS OTHERWISE NOTED, MOUNT EDGE OF LIGHT POLE BASE 18" AWAY FROM EDGE OF SIDEWALK AND/OR 24" AWAY FROM FACE OF PARKING LOT/RAODWAY CURB (TYPICAL FOR ALL POLE-MOUNTED LUMINAIRES). SHOULD CONFLICTS ARISE BETWEEN SITE UTILITIES/FEATURES AND PROPOSED LIGHTING LOCATIONS, CONTACT ARCHITECT IMMEDIATELY FOR RESOLUTION PRIOR TO BEGINNING ROUGH-IN.

H. ALL SITE LIGHT FIXTURES SHALL BE FULL CUTOFF.

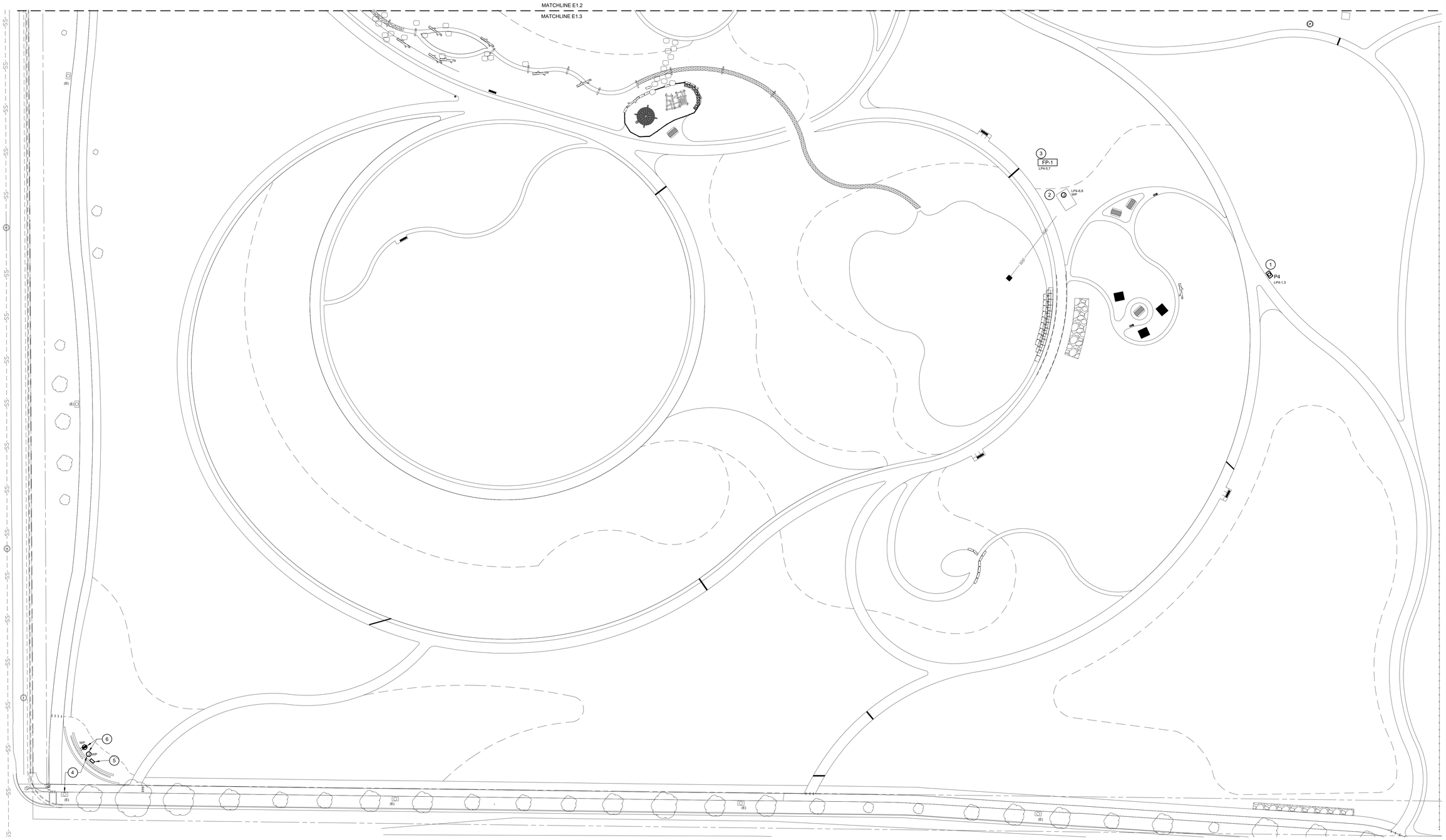
I. CONTRACTOR SHALL PROVIDE ALL REQUIRED CUTTING, TRENCHING, BACKFILLING, RESTORATION.

J. ARBORETUM LIGHTING SEQUENCE OF OPERATION IS AS FOLLOWS: (CONFIRM TIMES AND OUTPUT WITH OWNER)
1. DUSK: 100%
2. 9:45 PM: 70%
3. 9:55 PM: 50 %
4. 10:00 PM: OFF
   - 4.1 INDICATED SECURITY LIGHTS SHALL REMAIN ON AT REDUCED OUTPUT FROM DUSK TILL DAWN. CONFIRM OUTPUT SETTING WITH OWNER.
   - 4.2 OVERRIDE TIMER WILL KEEP LIGHTS ON (70%) FOR AN ADDITIONAL 15 MINUTES OR UNTIL 10:30 PM, WHICHEVER OCCURS FIRST.

K. EXISTING LIGHTS SHOWN TO REMAIN ARE CONNECTED TO THE EXISTING RECREATION CENTER.

KEY NOTES (#)

1. SECURITY LIGHT. CONFIRM WITH OWNER THAT LIGHT FIXTURE SHALL OPERATE AS A SECURITY LIGHT.
2. PROVIDE 240V, 1-PHASE, CONNECTION FOR 1/4 HP AERATION PUMP AND CANAL PUMP HOUSE. COORDINATE EXACT LOCATION WITH SYSTEM PROVIDER PRIOR TO ROUGH-IN.
3. PROVIDE 240V, 1-PHASE, CONNECTION FOR 5 HP FEATURE PUMP. COORDINATE EXACT LOCATION WITH SYSTEM PROVIDER PRIOR TO ROUGH-IN.
4. EXISTING FIXTURE IS CONNECTED TO 277V, 20A CIRCUIT IN PANEL 'HL1'-8. LOAD ON EXISTING CIRCUIT IS 1,716VA. PROVIDE NEW HAND HOLE AND EXTEND CIRCUIT TO MONUMENT SIGN DESCRIBED ABOVE.
5. PROVIDE WAVELINX #RSWPD-4-WE-BK WITH EXTERNAL DIMMING LEADS FOR LIGHTING CONTROL OF MONUMENT SIGN AND COORDINATE SEQUENCE OF OPERATIONS WITH OWNER. LOCATE ADJACENT TO CONNECTION TO MONUMENT SIGN.
6. PROVIDE 277V SINGLE PHASE PRIMARY TO 120V SINGLE PHASE SECONDARY 1.5KVA STEP DOWN TRANSFORMER AND 20A/1P CIRCUIT BREAKER IN NEMA 3R ENCLOSURE FOR SECONDARY OVERCURRENT PROTECTION, AND GROUNDING PER NEC REQUIREMENTS. EXTEND TO JUNCTION BOX INDICATED TO INTERNALLY ILLUMINATED SIGNAGE, AND GFCI, WP RECEPTACLE. COORDINATE CONNECTION WITH SIGNAGE PROVIDER. NEW TOTAL LOAD ON EXISTING 20A, 277V CIRCUIT 'HL1'-8 IS 2,396 VA.



1 E1.3 **ELECTRICAL SITE PLAN - SOUTHERN ARBORETUM**

SCALE: 1"=30'-0"

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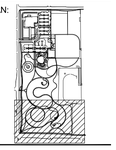
RH ENGINEERING/TECHNOLOGY/LIGHTING reesehackman.com

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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100% CONSTRUCTION DOCUMENTS

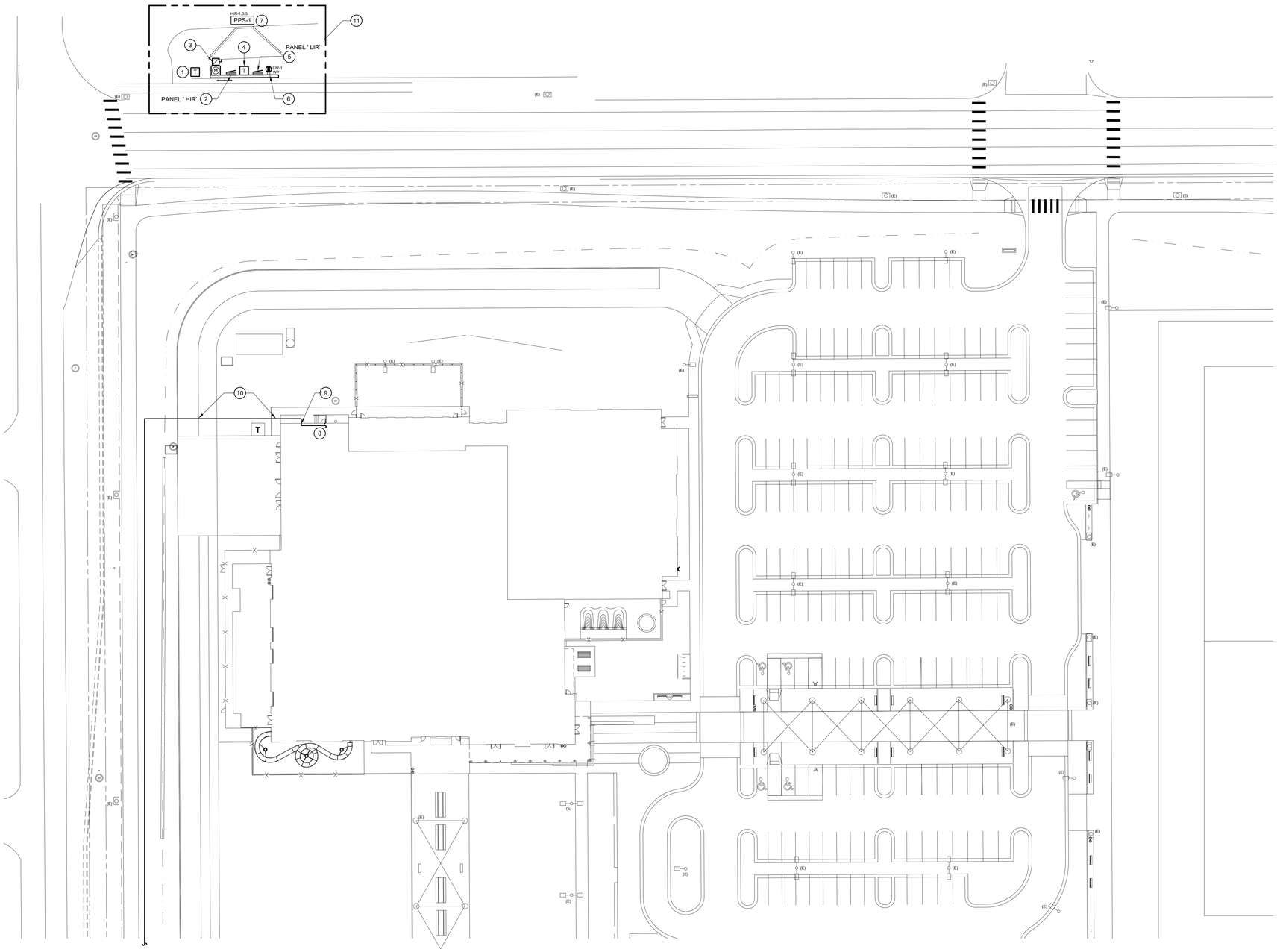
ELECTRICAL SITE PLAN - SOUTHERN ARBORETUM

SHEET:

E1.3

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GENERAL NOTES

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A. REFER TO E0.0 FOR GENERAL NOTES THAT APPLY TO ALL ELECTRICAL DRAWINGS.

B. REFER TO CIVIL DRAWINGS FOR ALL UNDERGROUND UTILITY LINES. CONTRACTOR TO FIELD VERIFY EXACT LOCATIONS OF ALL UNDERGROUND UTILITY LINES OF ALL TRADES PRIOR TO ANY SITE WORK.

C. PRIOR TO BEGINNING WORK, COORDINATE ALL WORK ON THE SITE WITH THE SITE/CIVIL DRAWINGS. BRING ANY CONFLICTS AND/OR CONCERNS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.

D. ALL SITE BRANCH CIRCUITS SHALL BE INSTALLED IN SCHEDULE 40 PVC RACEWAY WITH MINIMUM 24" COVER. MINIMUM CONDUIT SIZE SHALL BE 1". PROVIDE HANDHOLES AS REQUIRED FOR CODE COMPLIANCE AND TO ASSIST WITH EASE OF PULLING CONDUCTORS.

E. MINIMUM CONDUCTOR SIZE FOR SITE BRANCH CIRCUITS SHALL BE #10 AWG. REFER TO SPECIFICATIONS FOR VOLTAGE DROP REQUIREMENTS.

F. COORDINATE ALL UTILITY WORK WITH XCEL ENERGY PRIOR TO COMMENCEMENT OF WORK.

G. CONTRACTOR SHALL PROVIDE ALL REQUIRED CUTTING, TRENCHING, BACKFILLING, RESTORATION.

H. COORDINATE ALL WORK REQUIRED WITHIN THE RECREATION CENTER WITH THE OWNER AND THE RECREATION CENTER DIRECTOR.

I. EXISTING LIGHTS SHOWN TO REMAIN ARE CONNECTED TO THE EXISTING RECREATION CENTER, EXCEPT FOR THOSE LIGHTS ON THE NORTH SIDE OF BUNYAN AVE, WHICH ARE PART OF THE EXISTING STREET LIGHTING CIRCUIT.

KEY NOTES (#)

1. PROPOSED LOCATION OF XCEL TRANSFORMER. CONTRACTOR SHALL PROVIDE ALL SECONDARY CONDUCTORS, CONDUITS, TRENCHING, BACKFILL AND COMPACTION. COORDINATE EXTENT OF PRIMARY WORK REQUIRED WITH XCEL.
2. PROVIDE NEMA 3R 250A, 3-PHASE, 480/277V PANEL MOUNTED ON UNISTRUT.
3. PROVIDE DISCONNECT AND METER BASE PER XCEL REQUIREMENTS MOUNTED ON UNISTRUT.
4. PROVIDE 9 KVA 480Y/277V TO 208/120V STEP-DOWN TRANSFORMER, MOUNTED ON UNISTRUT.
5. PROVIDE NEMA 3R 30A, 3-PHASE, 208/120V PANEL MOUNTED ON UNISTRUT.
6. PROVIDE 120V, CONVENIENCE RECEPTACLE, GFCI RATED AND WP. COORDINATE MOUNTING REQUIREMENTS ON UNISTRUT WITH IRRIGATION CONTROLS TO AVOID CONFLICT.
7. PROVIDE 480V, 3 PHASE CONNECTION FOR PRECISION PUMP SYSTEM. COORDINATE EXACT LOCATION WITH IRRIGATION DRAWINGS PRIOR TO ROUGH-IN.
8. LOCATION OF EXISTING PANEL 'HP1' IN RECREATION CENTER'S MAIN ELECTRICAL ROOM. NEW CIRCUIT FOR NEW BOOSTER PUMP (BP-1) SHALL BE ROUTED FROM ELECTRICAL ROOM OVERHEAD TO MECHANICAL ROOM TO THE WEST.
9. CIRCUIT FOR BP-1 BOOSTER PUMP SHALL DROP VERTICALLY IN BUILDING ALONG EXTERIOR WALL AND EXIT 18" ABOVE GRADE VIA WP. LB FITTING. REMAINDER OF CIRCUIT SHALL BE ROUTED BELOW GRADE BEYOND THIS POINT.
10. FIELD LOCATE ALL UNDERGROUND UTILITIES ALONG NEW CIRCUIT PATHWAY TO AVOID CONFLICTS. DIRECT-BORE UNDER SIDEWALKS, DRIVE-LANES AND OTHER HARD SURFACES. REFER TO E1.1 FOR ADDITIONAL INFORMATION.
11. ITEMS WITHIN THIS SCOPE SHALL BE PRICED AS PART OF ADD ALTERNATE #1 PACKAGE.

1 / E1.1 **ELECTRICAL SITE PLAN - COMMUNITY AREA**

SCALE: 1"=30'-0"

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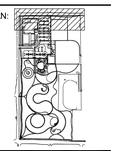
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ENGINEERING/TECHNOLOGY/LIGHTING
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ELECTRICAL SITE PLAN - NORTH SITE

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E1.4

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LIGHT FIXTURE SCHEDULE

GENERAL NOTES:

A. FURNISH ALL NECESSARY LUMINAIRE COMPONENTS TO FACILITATE A COMPLETE AND FULLY FUNCTIONAL LIGHTING SYSTEM.

B. CONNECTIONS MADE TO ANY EXTERIOR LIGHT FIXTURE SHALL USE WATERPROOF CONNECTORS.

C. REFER TO THE SPECIFICATIONS FOR FURTHER LIGHTING REQUIREMENTS.

D. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LIGHTING PLANS, LIGHT FIXTURE SCHEDULE, LIGHTING CONTROL DIAGRAMS, AND LIGHTING CONTROLS SCHEDULES, LIGHTING SPECIFICATIONS, AND RELEVANT LIGHTING DETAILS TO ALL DISTRIBUTORS PROVIDING PRICING.

E. LAMPS SHALL HAVE CCT OF 3000K, UNLESS OTHERWISE NOTED AND SHALL HAVE A MINIMUM CRI OF 90.

KEY NOTES:

1. PROVIDE 4" ROUND, STRAIGHT STEEL POLE AND DECORATIVE ARM WITH FIXTURE. OVERALL HEIGHT OF FIXTURE FROM TOP OF POLE BASE TO TOP OF LIGHT IS LISTED UNDER THE MOUNTING COLUMN. PROVIDE SHAFT WALL THICKNESS CAPABLE OF SUPPORTING MAXIMUM ALLOWABLE EPA RATING FOR FIXTURE. POLE DRILLING PATTERN AND FINISH SHALL MATCH FIXTURE. REFER TO POLE BASE DETAIL FOR ADDITIONAL INFORAMATION. PROVIDE NEMA 5-20R RECEPTACLE WITH WEATHERPROOF WHILE-IN USE COVER INTEGRAL TO POLE WHERE SHOWN ON ELECTRICAL SITE PLAN.
2. PROVIDE 5" SQUARE, STRAIGHT STEEL POLE WITH FIXTURE. OVERALL HEIGHT OF FIXTURE FROM TOPE OF POLE BASE TO TOP OF LIGHT IS LISTED UNDER THE MOUNTING COLUMN. PROVIDE SHAFT WALL THICKNESS CAPABLE OF SUPPORTING MAXIMUM ALLOWABLE EPA RATING FOR FIXTURE. POLE DRILLING PATTERN AND FINISH SHALL MATCH FIXTURE. REFER TO POLE BASE DETAIL FOR ADDITIONAL INFORMATION.

KEY	DESCRIPTION	LAMPS	(VA)	MANUFACTURER	MODEL	ALTERNATE MANUFACTURER	VOLTAGE	KEY NOTES	MOUNTING	RECESS DEPTH/OAH
F1	11" ROUND LED SURFACE MOUNTED FOR BANDSHELL CANOPY WITH INTEGRAL PHOTOCELL	LED, 3000K, 1695	25	COOPER	TRR-11-LD4-25W-EO-CL-BK-UNV-ED-D1-PB120V/CSTG	NONE	120		SURFACE	5-5/8"
B1	EXTERIOR FULL CUTOFF BOLLARD	LED, 3000K, 983 LM	21	INTRIGUE LIGHTING	EL-8-B-21LED-3K-F-CA-RSL-UNV-42-(FINISH)	NONE	240		BOLLARD - 42"	N/A
P1	EXTERIOR FULL CUTOFF TWIN-HEAD AREA POLE LIGHT WITH TYPE 4 DISTRIBUTION	LED, 3000K, 14371 LM/HEAD	226	COOPER	(2) GLEON-SA2-C-830-U-T4W-BK-DIM-PR7-WLS4XX	NONE	277	2	POLE - 18'	N/A
P2	EXTERIOR FULL CUTOFF AREA POLE LIGHT WITH TYPE 4 DISTRIBUTION AND HOUSE SIDE SHIELD	LED, 3000K, 14371 LM	113	COOPER	GLEON-SA2-C-830-U-T4W-BK-DIM--HSS-PR7-WLS4XX	NONE	277	2	POLE - 18'	N/A
P4	EXTERIOR FULL CUTOFF DECORATIVE PEDESTRIAN POLE LIGHT WITH TYPE 3 DISTRIBUTION & BACKLIGHT SHIELD	LED, 3000K, 8682 LM	78	COOPER	ECM-FO3-LED-E1-SL3-SR-BL-BK-8030-HSS-DIM-VA6154	NONE	240	1	POLE - 14'	N/A

EQUIPMENT CONNECTIONS SCHEDULE

GENERAL NOTES:

A. REFER TO CONDUCTOR SCHEDULE FOR CONDUCTOR AND CONDUIT SIZES.
B. COORDINATE OVERCURRENT PROTECTION DEVICE AND FEEDER SIZES WITH APPROVED SHOP DRAWINGS PRIOR TO BEGINNING ANY ELECTRICAL ROUGH-IN.
C. FEEDER SIZES DO NOT ACCOMMODATE FOR VOLTAGE DROP. REFER TO SPECIFICATIONS FOR INFORMATION ON ALLOWABLE VOLTAGE DROP PERMITTED AND UP-SIZE CONDUCTORS AND CONDUITS AS NECESSARY TO COMPLY WITH REQUIREMENTS.
D. REFER TO "EQUIPMENT CONNECTIONS AND COORDINATION" SPECIFICATION FOR FURTHER REQUIREMENTS.

KEY	ITEM	HP	MCA	KW	LOAD (VA)	VOLTS	PH	BRANCH CIRCUIT	DISC SW	FUSE	CIRCUIT	NOTES
FP-1	FEATURE PUMP	5			6,319	240	1	60.2G	60A2P		LP4,6,7	
PPS-1	PRECISION PUMP SYSTEM		158		131,203	480	3	200.3G	200A3P		HR-1,3,5	
BP-1	BOOSTER PUMP		45		37,368	480	3	60.3G	60A3P		HP1-37,39,41	

CONDUCTOR SCHEDULE

(COPPER CONDUCTORS)

NOTES:

1. THIS SCHEDULE IS BASED ON THHN/THWN CONDUCTORS IN EMT. WHERE ALTERNATE CONDUCTORS OR RACEWAYS ARE USED, THE PROPER SIZING MUST BE CONFIRMED.
2. THE SIZES INDICATED ON THIS SCHEDULE REPRESENT MINIMUM REQUIREMENTS. INCREASES IN CONDUIT SIZES ARE PERMITTED AT THE CONTRACTOR'S DISCRETION, PROVIDED THAT THEY DO NOT RESULT IN INCREASED COSTS TO THE OWNER.
3. REFER TO DRAWINGS AND SPECIFICATIONS FOR INFORMATION ON CONDUCTORS THAT MAY REQUIRE UP-SIZING TO ACCOMMODATE VOLTAGE DROP.

KEY	*NO. SETS*	*CONDUCTORS (AWG - KCMIL)*	*°C*	*KEY*	*NO. SETS*	*CONDUCTORS (AWG - KCMIL)*	*°C*	*KEY*	*NO. SETS*	*CONDUCTORS (AWG - KCMIL)*	*°C*
20.2G	1	2#12, 1#12G	3/4	20.3G	1	3#12, 1#12G	3/4	20.4G	1	4#12, 1#12G	3/4
30.2G	1	2#10, 1#10G	3/4	30.3G	1	3#10, 1#10G	3/4	30.4G	1	4#10, 1#10G	3/4
40.2G	1	2#8, 1#10G	3/4	40.3G	1	3#8, 1#10G	3/4	40.4G	1	4#8, 1#10G	3/4
50.2G	1	2#6, 1#10G	3/4	50.3G	1	3#6, 1#10G	3/4	50.4G	1	4#6, 1#10G	1
60.2G	1	2#4, 1#10G	1	60.3G	1	3#4, 1#10G	1	60.4G	1	4#4, 1#10G	1-1/4
70.2G	1	2#4, 1#8G	1	70.3G	1	3#4, 1#8G	1	70.4G	1	4#4, 1#8G	1-1/4
80.2G	1	2#3, 1#8G	1	80.3G	1	3#3, 1#8G	1-1/4	80.4G	1	4#3, 1#8G	1-1/4
90.2G	1	2#2, 1#8G	1	90.3G	1	3#2, 1#8G	1-1/4	90.4G	1	4#2, 1#8G	1-1/4
100.2G	1	2#1, 1#8G	1-1/4	100.3G	1	3#1, 1#8G	1-1/4	100.4G	1	4#1, 1#8G	1-1/2
110.2G	1	2#1, 1#6G	1-1/4	110.3G	1	3#1, 1#6G	1-1/4	110.4G	1	4#1, 1#6G	1-1/2
125.2G	1	2#1, 1#6G	1-1/4	125.3G	1	3#1, 1#6G	1-1/4	125.4G	1	4#1, 1#6G	1-1/2
150.2G	1	2#1/0, 1#6G	1-1/4	150.3G	1	3#1/0, 1#6G	1-1/2	150.4G	1	4#1/0, 1#6G	2
175.2G	1	2#2/0, 1#6G	1-1/2	175.3G	1	3#2/0, 1#6G	2	175.4G	1	4#2/0, 1#6G	2
200.2G	1	2#3/0, 1#6G	1-1/2	200.3G	1	3#3/0, 1#6G	2	200.4G	1	4#3/0, 1#6G	2
225.2G	1	2#4/0, 1#4G	2	225.3G	1	3#4/0, 1#4G	2	225.4G	1	4#4/0, 1#4G	2-1/2
250.2G	1	2-250, 1#4G	2	250.3G	1	3-250, 1#4G	2-1/2	250.4G	1	4-250, 1#4G	2-1/2
300.2G	1	2-350, 1#4G	2-1/2	300.3G	1	3-350, 1#4G	2-1/2	300.4G	1	4-350, 1#4G	3
350.2G	1	2-500, 1#3G	2-1/2	350.3G	1	3-500, 1#3G	3	350.4G	1	4-500, 1#3G	3
400.2G	2	2#3/0, 1#3G	1-1/2	400.3G	2	3#3/0, 1#3G	2	400.4G	2	4#3/0, 1#3G	2
450.2G	2	2#4/0, 1#2G	2	450.3G	2	3#4/0, 1#2G	2	450.4G	2	4#4/0, 1#2G	2-1/2
500.2G	2	2-250, 1#2G	2	500.3G	2	3-250, 1#2G	2-1/2	500.4G	2	4-250, 1#2G	2-1/2
600.2G	2	2-350, 1#1G	2-1/2	600.3G	2	3-350, 1#1G	2-1/2	600.4G	2	4-350, 1#1G	3
700.2G	2	2-500, 1#1/0G	2-1/2	700.3G	2	3-500, 1#1/0G	3	700.4G	2	4-500, 1#1/0G	3
800.2G	3	2-300, 1#1/0G	2	800.3G	3	3-300, 1#1/0G	2-1/2	800.4G	3	4-300, 1#1/0G	2-1/2
1000.2G	3	2-400, 1#2/0G	2-1/2	1000.3G	3	3-400, 1#2/0G	2-1/2	1000.4G	3	4-400, 1#2/0G	3
1200.2G	4	2-350, 1#3/0G	2-1/2	1200.3G	4	3-350, 1#3/0G	2-1/2	1200.4G	4	4-350, 1#3/0G	3
1600.2G	5	2-400, 1#4/0G	2-1/2	1600.3G	5	3-400, 1#4/0G	2-1/2	1600.4G	5	4-400, 1#4/0G	3
2000.2G	6	2-400, 1-250G	2-1/2	2000.3G	6	3-400, 1-250G	2-1/2	2000.4G	6	4-400, 1-250G	3
2500.2G	7	2-500, 1-350G	2-1/2	2500.3G	7	3-500, 1-350G	3	2500.4G	7	4-500, 1-350G	3
3000.2G	8	2-500, 1-400G	2-1/2	3000.3G	8	3-500, 1-400G	3	3000.4G	8	4-500, 1-400G	3
3500.2G	10	3-500, 1-500G	3	3500.3G	10	3-500, 1-500G	3	3500.4G	10	4-500, 1-500G	3
4000.2G	11	3-500, 1-500G	3	4000.3G	11	3-500, 1-500G	3	4000.4G	11	4-500, 1-500G	3
GROUND SCHEDULE								***ABBREVIATIONS***			
1G	1	1#8G	3/4	5G	1	1#1/0G	3/4	MECH	SEE MECHANICAL EQUIPMENT SCHEDULE		
2G	1	1#6G	3/4	6G	1	1#2/0G	3/4	XFMR	SEE TRANSFORMER SCHEDULE		
3G	1	1#4G	3/4	7G	1	1#3/0G	3/4				
4G	1	1#2G	3/4								

GENERAL NOTES

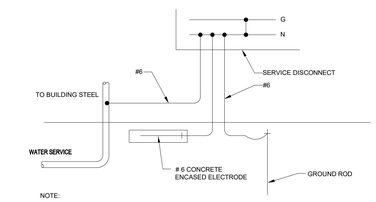
(THIS SHEET ONLY)

A. REFER TO E0.0 FOR GENERAL NOTES THAT APPLY TO ALL DRAWINGS.

B. THE CONTRACTOR SHALL PROVIDE ALL CONDUIT, WIRING, TRENCHING, AND BACKFILLING, AS REQUIRED BY XCEL ENERGY.

KEY NOTES

1. UTILITY XFMR PROVIDED BY XCEL ENERGY.
2. PROVIDE UNISTRUT FRAME WITH AT LEAST (2) VERTICAL MEMBERS AND AT LEAST (3) HORIZONTAL MEMBERS FOR SUPPORT OF ELECTRICAL EQUIPMENT. ANCHOR INTO 18" DIAMETER CONCRETE FOUNDATIONS THAT ARE 48" DEEP. TOPS OF CONCRETE FOUNDATIONS SHALL BE 2" ABOVE FINISHED GRADE. PAINT FRAME AND ALL ASSOCIATED HARDWARE AS WELL AS MANUAL TRANSFER SWITCH AND RECEPTALCE BOX AS DIRECTED BY OWNER.
3. PROVIDE COLD-SEQUENCE DISCONNECT SWITCH AND METER BASE PER XCEL ENERGY COMPANY STANDARDS.
4. PROVIDE GROUNDING AS SHOWN AND REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

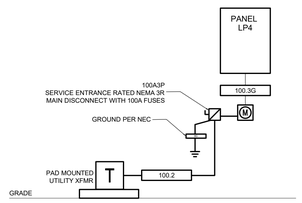


NOTE:

1. REFER TO SPECIFICATIONS AND THE NATIONAL ELECTRICAL CODE FOR ADDITIONAL GROUNDING REQUIREMENTS.

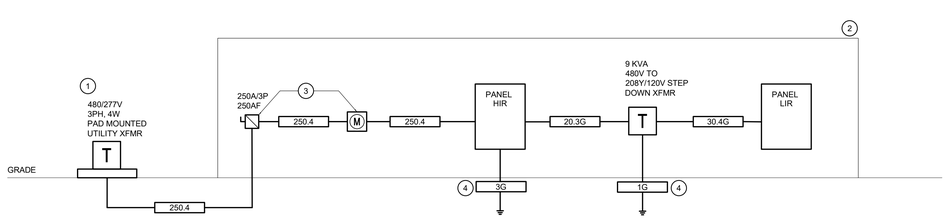
6 E7.1 **GROUNDING DETAIL**

SCALE: NONE



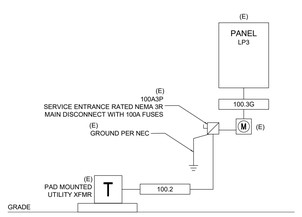
5 E7.1 **ELECTRICAL ONE-LINE DIAGRAM - PREFAB BUILDING**

SCALE: NONE



3 E7.1 **ELECTRICAL ONE-LINE DIAGRAM - IRRIGATION SYSTEM**

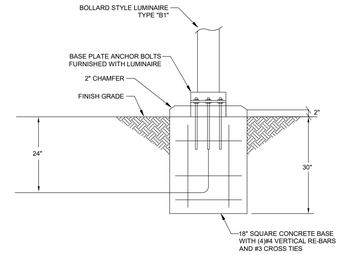
SCALE: NONE



2 E7.1 **ELECTRICAL ONE-LINE DIAGRAM - PICKLEBALL COURTS**

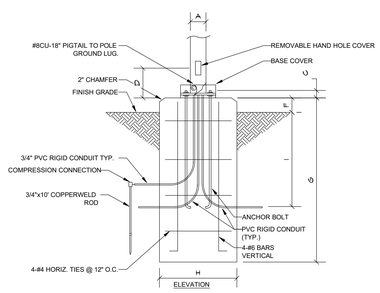
SCALE: NONE

NOTE: ALL EQUIPMENT IS EXISTING TO REMAIN AND IS SHOWN FOR REFERENCE ONLY.



4 E7.1 **BOLLARD BASE DETAIL**

SCALE: SCALE



POLE KEY	HEIGHT	A	ANCHOR BOLT DATA B	SIZE	C	D	E	F	G	H	I
P1,P2	18'	ROUND	BY MANUFACTURER			12"	NA	3"	60"	24"	24"
P4	14'	ROUND	BY MANUFACTURER			22-1/2"	NA	0"	96"	24"	24"

1 E7.1 **POLE BASE DETAIL**

SCALE: SCALE

ASSOCIATES
PLANNERS & LANDSCAPE ARCHITECTS

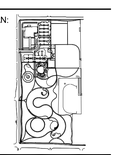
ENGINEERING/TECHNOLOGY/LIGHTING
reesehackman.com

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

REVIEW SET
NOT FOR CONSTRUCTION
These documents are incomplete, are released for interim review only, and are not intended for bidding or construction purposes.
December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: RH REVIEWED: RH

PROJECT NUMBER: 24050.00
DATE: DEC 12, 2025

100% CONSTRUCTION DOCUMENTS

ELECTRICAL SCHEDULES & DETAILS

SHEET:

E7.1

12/12/2025 11:44 AM

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PANEL SCHEDULE
HIR

PROJECT:	BERTHOUD ARBORETUM	VOLTAGE L-L (V):	480
JOB NO.:	2024014	VOLTAGE L-N (V):	277
LOCATION:	NORTH SITE - ON UNISTRUT	TYPE:	3 PHASE, 4-WIRE
MINIMUM BUS CAPACITY (A):	250	SHORT CIRCUIT RATING (A):	REFER TO ONE-LINE DIAGRAM
MAIN O.C. DEVICE (A):	250	MOUNTING:	SURFACE
DESIGN CAPACITY (A):	250	COMMENTS:	NEMA 3R, SER RATED

DEVICE AMPS	POLE	LIGHTING (VA)	RCPT (VA)	M/LM/E/A/S (VA)	DESCRIPTION	CKT NO.	PHASE	CKT NO.	DESCRIPTION	M/LM/E/A/S (VA)	RCPT (VA)	LIGHTING (VA)	POLE	DEVICE AMPS
200	3			LM 43786	PRECISION PUMP SYSTEM	1	A	2	BUSSED SPACE					
--	--			LM 43786	--	3	B	4	BUSSED SPACE					
--	--			LM 43786	--	5	C	6	BUSSED SPACE					
					BUSSED SPACE	7	A	8	BUSSED SPACE					
					BUSSED SPACE	9	B	10	BUSSED SPACE					
					BUSSED SPACE	11	C	12	BUSSED SPACE					
20	3			S 180	PANEL 'LIR	13	A	14	BUSSED SPACE					
--	--			S 0	--	15	B	16	BUSSED SPACE					
--	--			S 0	--	17	C	18	BUSSED SPACE					

CONNECTED VA PHASE A:	43966	DEMANDED VA PHASE A:	54913
CONNECTED VA PHASE B:	43786	DEMANDED VA PHASE B:	54733
CONNECTED VA PHASE C:	43786	DEMANDED VA PHASE C:	54733

	CONNECTED	D.F.	DEMAND	
LIGHTING LOAD:	0	1.25	0	DEMAND LOAD (A) = 198
RECEPTACLE (FIRST 10 KVA)	0	1.00	0	SPARE CAPACITY (A) = 52
RECEPTACLE (REMAINDER)	0	0.50	0	
LARGEST MOTOR:	131358	1.25	164198	
REMAINING MOTORS:	0	1.00	0	
APPLIANCES:	0	0.65	0	
EQUIPMENT:	0	1.00	0	
SUB FED PANEL:	180	1.00	180	
TOTAL:	131538		164378	
LOAD (AMPS):	158.2		197.7	

M = MOTOR E = EQUIPMENT S = SUB FEED PANEL
LM = LARGEST MOTOR A = APPLIANCE

NOTES:

PANEL SCHEDULE
LIR

PROJECT:	BERTHOUD ARBORETUM	VOLTAGE L-L (V):	208
JOB NO.:	2024014	VOLTAGE L-N (V):	120
LOCATION:	NORTH SITE - ON UNISTRUT	TYPE:	3 PHASE, 4-WIRE
MINIMUM BUS CAPACITY (A):	60	SHORT CIRCUIT RATING (A):	REFER TO ONE-LINE DIAGRAM
MAIN O.C. DEVICE (A):	30	MOUNTING:	SURFACE
DESIGN CAPACITY (A):	30	COMMENTS:	NEMA 3R

DEVICE AMPS	POLE	LIGHTING (VA)	RCPT (VA)	M/LM/E/A/S (VA)	DESCRIPTION	CKT NO.	PHASE	CKT NO.	DESCRIPTION	M/LM/E/A/S (VA)	RCPT (VA)	LIGHTING (VA)	POLE	DEVICE AMPS
20	1		180		CONVENIENCE RCPT	1	A	2	SPARE				1	20
20	1				SPARE	3	B	4	SPARE				1	20
20	1				SPARE	5	C	6	SPARE				1	20
					BUSSED SPACE	7	A	8	BUSSED SPACE					
					BUSSED SPACE	9	B	10	BUSSED SPACE					
					BUSSED SPACE	11	C	12	BUSSED SPACE					

CONNECTED VA PHASE A:	180	DEMANDED VA PHASE A:	180
CONNECTED VA PHASE B:	0	DEMANDED VA PHASE B:	0
CONNECTED VA PHASE C:	0	DEMANDED VA PHASE C:	0

	CONNECTED	D.F.	DEMAND	
LIGHTING LOAD:	0	1.25	0	DEMAND LOAD (A) = 0
RECEPTACLE (FIRST 10 KVA)	180	1.00	180	SPARE CAPACITY (A) = 30
RECEPTACLE (REMAINDER)	0	0.50	0	
LARGEST MOTOR:	0	1.25	0	
REMAINING MOTORS:	0	1.00	0	
APPLIANCES:	0	0.65	0	
EQUIPMENT:	0	1.00	0	
SUB FED PANEL:	0	1.00	0	
TOTAL:	180		180	
LOAD (AMPS):	0.5		0.5	

M = MOTOR E = EQUIPMENT S = SUB FEED PANEL
LM = LARGEST MOTOR A = APPLIANCE

NOTES:

EXISTING PANEL SCHEDULE
LP3

PROJECT:	BERTHOUD ARBORETUM	VOLTAGE L-L (V):	240
JOB NO.:	2024014	VOLTAGE L-N (V):	120
LOCATION:	MAINTENANCE SHED	TYPE:	1 PHASE, 3 WIRE
MINIMUM BUS CAPACITY (A):	100	SHORT CIRCUIT RATING (A):	REFER TO ONE-LINE
MAIN O.C. DEVICE (A):	100	MOUNTING:	SURFACE
DESIGN CAPACITY (A):	100	COMMENTS:	EXISTING PANEL

DEVICE AMPS	POLE	LIGHTING (VA)	RCPT (VA)	M/LM/E/A/S (VA)	DESCRIPTION	CKT NO.	PHASE	CKT NO.	DESCRIPTION	M/LM/E/A/S (VA)	RCPT (VA)	LIGHTING (VA)	POLE	DEVICE AMPS
20	1	1464			PICKLEBALL LTG	1	A	2	PICKLEBALL LTG			1464	1	20
20	1	1464			PICKLEBALL LTG	3	B	4	PICKLEBALL LTG			1464	1	20
20	1	110			MAINTENANCE SHED LTG	5	A	6	PICKLEBALL LTG			1464	1	20
20	1		360		MAINTENANCE SHED RCPT	7	B	8	PICKLEBALL LTG			976	1	20
20	1		540		MAINTENANCE SHED RCPT	9	A	10	LIGHTING CONTROLS		180		1	20
20	1		**180**		**BANDSHELL RCPT [1]**	11	B	12	**BANDSHELL LTG [1]**			**100**	1	20
20	1		**180**		**BANDSHELL RCPT [1]**	13	A	14	**MONUMENT SIGN PARKING [1]**	E 500			1	20
					BUSSED SPACE	15	B	16	BUSSED SPACE					
					BUSSED SPACE	17	A	18	BUSSED SPACE					

CONNECTED VA PHASE A:	5902	DEMAND VA PHASE A:	7028
CONNECTED VA PHASE B:	4544	DEMAND VA PHASE B:	5725

	CONNECTED	D.F.	DEMAND	
LIGHTING LOAD:	8506	1.25	10633	DEMAND LOAD (A) = 52
RECEPTACLE (FIRST 10 KVA)	1440	1.00	1440	SPARE CAPACITY (A) = 48
RECEPTACLE (REMAINDER)	0	0.50	0	
LARGEST MOTOR:	0	1.25	0	
MOTORS:	0	1.00	0	
APPLIANCES:	0	0.65	0	
EQUIPMENT:	500	1.00	500	
SUB-FEED:	0	1.00	0	
TOTAL:	10446		12573	
LOAD (AMPS):	43.5		52.4	

M = MOTOR E = EQUIPMENT S = SUB FEED PANEL
LM = LARGEST MOTOR A = APPLIANCE

NOTES:

[1] BOLD TEXT INDICATES NEW LOAD ON EXISTING SPARE CIRCUIT BREAKER OR EXISTING CIRCUIT BREAKER MADE SPARE BY DEMOLITION WORK.

PANEL SCHEDULE
LP4

PROJECT:	BERTHOUD ARBORETUM	VOLTAGE L-L (V):	240
JOB NO.:	2022026	VOLTAGE L-N (V):	120
LOCATION:	PRE-FAB RESTROOM BUILDING	TYPE:	1 PHASE, 3 WIRE
MINIMUM BUS CAPACITY (A):	100	SHORT CIRCUIT RATING (A):	REFER TO ONE-LINE
MAIN O.C. DEVICE (A):	100	MOUNTING:	SURFACE
DESIGN CAPACITY (A):	100	COMMENTS:	PRE-FAB BUILDING

DEVICE AMPS	POLE	LIGHTING (VA)	RCPT (VA)	M/LM/E/A/S (VA)	DESCRIPTION	CKT NO.	PHASE	CKT NO.	DESCRIPTION	M/LM/E/A/S (VA)	RCPT (VA)	LIGHTING (VA)	POLE	DEVICE AMPS
20	2	677			LTG - ARBORETUM	1	A	2	ARBORETUM RCPT		720		1	20
--	--	677			--	3	B	4	ARBORETUM RCPT		900		1	20
60	2			M 3360	FEATURE PUMP - SOUTH SITE	5	A	6	AERATION SYSTEM	M 150			2	20
--	--			M 3360	--	7	B	8	--	M 150			--	--
20	1				SPARE	9	A	10	SPARE				1	20
20	1				SPARE	11	B	12	SPARE				1	20
20	1				SPARE	13	A	14	SPARE				1	20
					BUSSED SPACE	15	B	16	BUSSED SPACE					
					BUSSED SPACE	17	A	18	BUSSED SPACE					
					BUSSED SPACE	19	B	20	BUSSED SPACE					
					BUSSED SPACE	21	A	22	BUSSED SPACE					
					BUSSED SPACE	23	B	24	BUSSED SPACE					

CONNECTED VA PHASE A:	4907	DEMAND VA PHASE A:	5076
CONNECTED VA PHASE B:	5087	DEMAND VA PHASE B:	5256

	CONNECTED	D.F.	DEMAND	
LIGHTING LOAD:	1354	1.25	1693	DEMAND LOAD (A) = 43
RECEPTACLE (FIRST 10 KVA)	1620	1.00	1620	SPARE CAPACITY (A) = 57
RECEPTACLE (REMAINDER)	0	0.50	0	
LARGEST MOTOR:	0	1.25	0	
MOTORS:	7020	1.00	7020	
APPLIANCES:	0	0.65	0	
EQUIPMENT:	0	1.00	0	
TOTAL:	9994		10333	
LOAD (AMPS):	41.6		43.1	

M = MOTOR E = EQUIPMENT S = SUB FEED PANEL
LM = LARGEST MOTOR A = APPLIANCE

NOTES:

A. PANEL IS PROVIDED BY BUILDING MANUFACTURER. SCHEDULE SHOWN HERE IS FOR FIELD ADDED PARK LOADS. ROMTEC PRE-FAB BUILDING LOADS, WHICH INCLUDE BUT NOT LIMITED TO; BUILDING LIGHTING, RECEPTALCE LODAS, DRINKING FOUNTAIN, ARE NOT SHOWN AND THEREFORE, ACTUAL CIRCUIT ARRANGEMENT MAY VARY.

B. CONTRACTOR SHALL PROVIDE ALL CIRCUIT BREAKERS, SIZE AS SHOWN, TO MATCH ROMTEC PRE-FAB BUILDING MANUFACTURER, TYPE AND AIC RATING.

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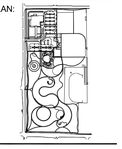
RH
ENGINEERING/TECHNOLOGY/LIGHTING
reesehackman.com

BERTHOUD ARBORETUM AT WAGGENER FARM PARK

800 Berthoud Pkwy, Berthoud, CO 80513

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December 12, 2025

KEY PLAN:



REVISIONS:

#	DATE	DESCRIPTION

DRAWN: RH REVIEWED: RH

PROJECT NUMBER: 24050.00
DATE: DEC 12, 2025

100% CONSTRUCTION DOCUMENTS

ELECTRICAL SCHEDULES

SHEET:

E7.2

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