GILCREST HEAD START SCHOOL
CONSTRUCTION PLANS

BID PACKAGE 03-09-2026

CONTACT LIST

DEVELOPER
CENTRO DE LA FAMILIA DE UTAH
525 S 300 W
SALT LAKE CITY, UT 84101
ATTN: FRED RENDON
(719) 580-0721

PROPERTY OWNER
CENTRO DE LA FAMILIA DE UTAH.
525 S 300 W
SALT LAKE CITY, UT 84101

TOWN UTILITIES
THE TOWN OF GILCREST PROVIDES WATER, SEWER, TRASH, STREET LIGHTING, AND STORM WATER.
CONTACT TOWN HALL.
304 8TH STREET
GILCREST, CO 80623
(970) 737-2426
PUBLICWORKS@TOWNOFGILCREST.ORG

CIVIL ENGINEER
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320 N LINCOLN AVE
LOVELAND, CO 80537
ATTN: MARK OBERSCHMIDT, PE
(970) 980-3557

SURVEYOR
TAIT & ASSOCIATES, INC.
320 N LINCOLN AVE
LOVELAND, CO 80537
ATTN: STEVEN VARRIANO, PLS
(970) 613-1447

ELECTRIC
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XCEL ENERGY
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ALYSE.DEVAN@XCELENERGY.COM
DIRECT SUPERVISOR: CORY.THELEN@XCELENERGY.COM

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GAS
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SR. ACCOUNT REPRESENTATIVE
ATMOS ENERGY CORPORATION
COLORADO-KANSAS DIVISION
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KRAAN DESIGN ARCHITECTURE
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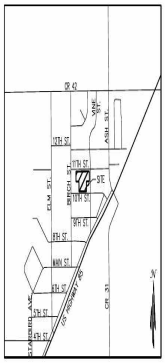
GEOTECHNICAL ENGINEER
CGS ENGINEERING CORPORATION
KEVIN F. BECKER, PE
165 2ND ST SW
LOVELAND, CO 80537
PHONE: (970)667-8024

STORMWATER PUMP DESIGN
PUMPS BY DESIGN, INC.
DAN TYMAN, GENERAL MANAGER/OPERATIONS
2045 SOUTH BAKER AVE.
ONTARIO, CA 91761
PHONE: (909)673-9945

ABBREVIATIONS

AB	AGGREGATE BASE
AC	ASPHALT CONCRETE
a	EXISTING BUILDING
BCR	BEGIN CURB RETURN
BFP	BACKFLOW PREVENTER
BW	BACK OF WALK
CAB	CABINET
CF	CURB FACE
C&G	CURB & GUTTER
℄	CENTER LINE
DI	DRAIN INLET
ECR	END CURB RETURN
EG	EXISTING GRADE/GROUND
ELEC.	ELECTRIC
ELEV.	ELEVATION
EPB	ELECTRICAL PULL BOX
EPB	ELECTRICAL PULL BOX
EP	EDGE OF PAVEMENT
EXIST.	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOWLINE
FS	FINISHED SURFACE
G	GAS
GB	GRADE BREAK
HDPE	HIGH DENSITY POLYETHYLENE
HP	HIGH POINT
IV	IRRIGATION CONTROL VALVE
INV.	INVERT
LP	LOW POINT
LTR.	LATERAL
LT.	LIGHT
MAX.	MAXIMUM
MH	MANHOLE
MIN.	MINIMUM
PE	PAD ELEVATION
⅊	PROPERTY LINE
PP	POWER POLE
PROP.	PROPOSED
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT OF WAY
SCE	SOUTHERN CALIFORNIA EDISON
SCO	SEWER CLEANOUT
SD	STORM DRAIN
SS	SANITARY SEWER
STA	STATION
SWR	SEWER
T	TELECOM
TC	TOP OF CURB
TG	TOP OF GRATE
TPB	TELEPHONE PULL BOX
TRANS.	TRANSFORMER
TRW	TOP OF RETAINING WALL
TS	TRAFFIC SIGNAL
TW	TOP OF WALL
TYP.	TYPICAL
W / WTR	WATER
WM	WATER METER
WV	WATER VALVE
O.H.	OVERHANG



VICINITY MAP
NOT TO SCALE

SHEET INDEX

CIVIL
C0 - COVER SHEET
C1 - EXISTING CONDITIONS - DEMO PLAN
C2 - SITE PLAN
C3 - HORIZONTAL CONTROL PLAN
C4 - GRADING PLAN
C5 - UTILITY PLAN
C6 - EROSION CONTROL PLAN
C7 - SITE DETAILS
C8 - SITE DETAILS
C9 - STORM DETAILS
C10 - WQ DETAILS
C11 - STORM PUMP DETAIL

GENERAL NOTES:

1. REFER TO PROJECT MANUAL FOR ADDITIONAL REQUIREMENTS.
2. SITE CONDITIONS BASED UPON SURVEY PROVIDED BY TAIT & ASSOCIATES FIELD VERIFY EXISTING CONDITIONS BY DETAILED INSPECTION PRIOR TO SUBMITTING BID AND BEGINNING CONSTRUCTION. NOTIFY ENGINEER IF EXISTING CONDITIONS DEVIATE SUBSTANTIALLY FROM THOSE INDICATED HEREIN.
3. FIELD VERIFY SANITARY SEWER SERVICE CONNECTION INVERT PRIOR TO CONFIRM FINISH FLOOR ELEVATION. NOTIFY ENGINEER IF EXISTING CONDITIONS REQUIRE REVISED FINISH FLOOR ELEVATION TO PROVIDE PROPER DRAINAGE.
4. ACCESSIBLE PARKING AREAS TO SLOPE 2% MAXIMUM IN ALL DIRECTIONS. DESIGNATED ACCESSIBLE ROUTE TO SLOPE 5% MAXIMUM IN DIRECTION OF TRAVEL WITH 2% MAXIMUM CROSS SLOPE.
5. THIS SITE IS IN ZONE X, AREAS DETERMINED TO BE OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOODPLAIN, ACCORDING TO FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 08123C0175E, EFFECTIVE DATE: JANUARY 20, 2016.

UNAUTHORIZED CHANGES & USES

THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES OF THESE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS PRIOR TO CONSTRUCTION. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

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

NOTE TO CONTRACTOR

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BEARINGS BASED ON THE NORTH LINE OF BLOCK 11, TOWN OF GILCREST AS NORTH 89°35'32" EAST.

0 IN THE SIDEWALK 50 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37121

TAIT & ASSOCIATES
INNOVATIVE SOLUTIONS
320 N. LINCOLN AVE.
LOVELAND, CO 80537
970.663.1160
www.tait.com

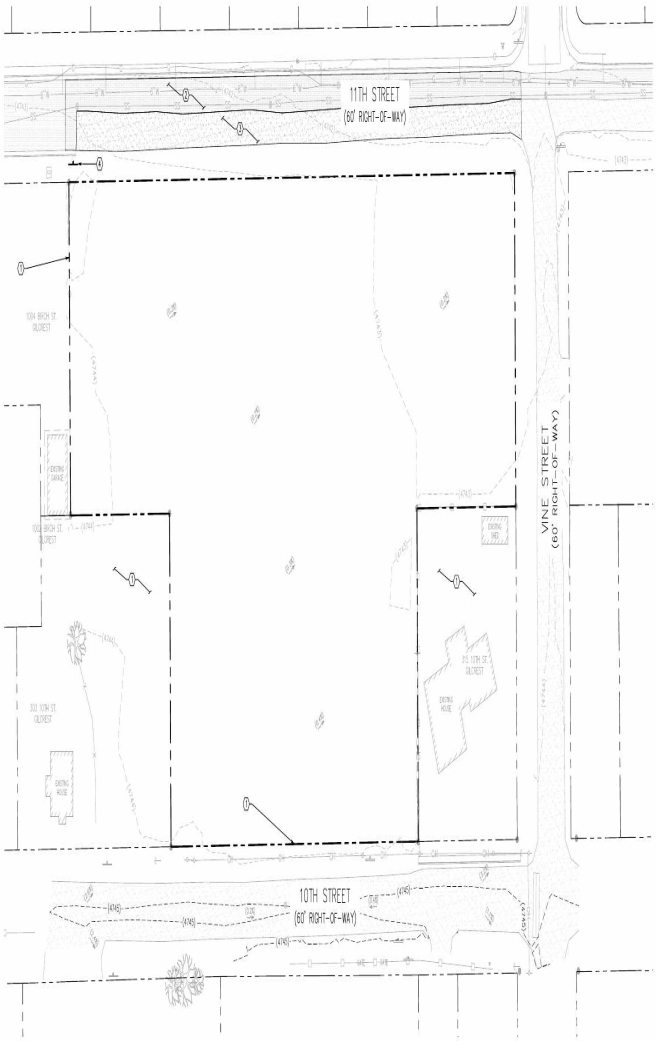
NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 12-21 AND LOTS 1-5 OF BLOCK 11,
ORIGINAL TOWN OF GILCREST
COVER SHEET

DRAWN BY: DJ
REVIEWED BY: MO
CHECKED BY: MO
DATE: 03/09/26
SCALE: 1"=20' H
PROJECT NO. 2024-1460

C0

03/09/2026 BID PACKAGE



EXISTING FEATURE KEYNOTES

- EXISTING ASPHALT TO BE REMOVED
- EXISTING SAND/GRAVEL TO BE REMOVED
- EXISTING SIGN TO BE REMOVED

KEYNOTES

1. PROTECT EXISTING IMPROVEMENTS IN PLACE.
2. TRIM/ SF EXISTING PAVEMENT TO BE REMOVED.
3. TRIM/ SF EXISTING SAND/GRAVEL TO BE REMOVED.
4. EXISTING SNOW SIGN TO BE REMOVED

SYMBOLS LEGEND

- EXISTING SLOPE
- EXISTING CONTOUR LINE
- EXISTING PROPERTY LINE
- EXISTING ROAD ROW LINE
- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING SIGN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING POWER POLE
- EXISTING ELECTRIC STRUCTURE
- EXISTING ASPHALT
- EXISTING GRAVEL ROAD
- EXISTING TREE

N

0 30' 60'
SCALE 1" = 30'

GENERAL NOTES

1. ALL WATER LINES SHALL BE AT A MINIMUM 4.5' BURY DEPTH
2. ALL UTILITY SERVICES SHALL BE UNDERGROUND.

Know what's below
Call before you dig.

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BEARINGS BASED ON THE NORTH LINE OF BLOCK 11, TOWN OF OILCREST AS NORTH 89°35'32" EAST.

X IN THE SIDEWALK 52 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF
TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37.0

TAIT & ASSOCIATES, INC.
CONSULTING ENGINEERS
4 W. POLAR LAKE
DENVER, COLORADO 80202
BUSINESS: 303-592-1156
FAX: 303-592-1160
WEBPAGE: www.tait-inc.com

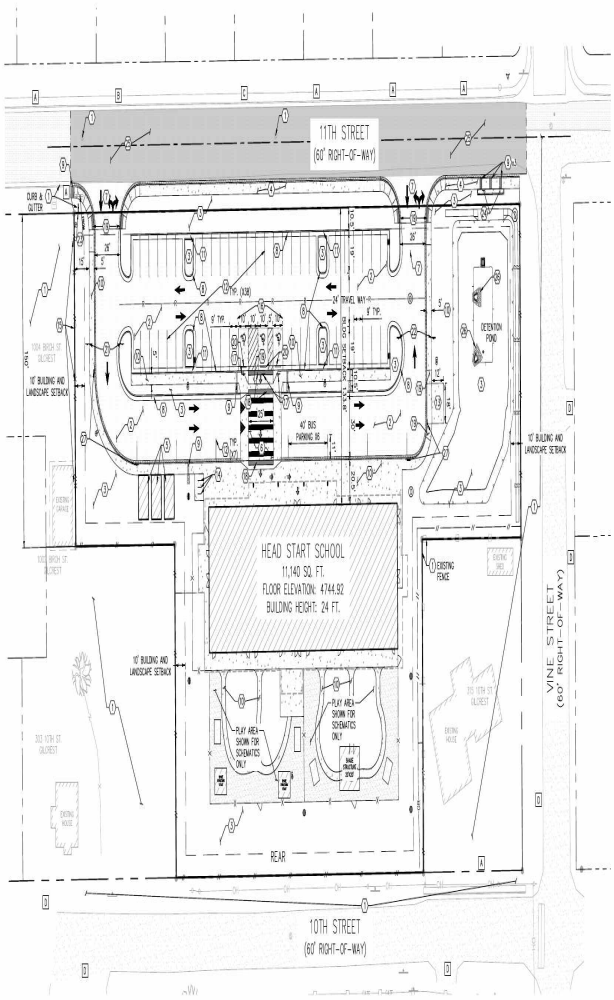
NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 13-21 ALL OF BLOCK 11,
ORIGINAL TOWN OF OILCREST
EXISTING CONDITIONS - DEMO PLAN

DRAWN BY: MCO
CHECKED BY: MO
DATE: 10-15-2020
SCALE: 1" = 30'
FILE NAME: 20-14.DWG

C1

07/08/2020 BID PACKAGE



KEYNOTES

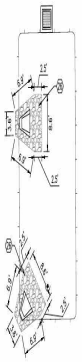
1. PROTECT EXISTING IMPROVEMENTS
2. PROPOSED ASPHALT PAVEMENT, REFER TO DETAIL 8/C5
3. PROPOSED LANDSCAPED AREA. REFER TO THE LANDSCAPE ARCHITECTURE PLANS
4. PROPOSED PUBLIC CURB, GUTTER & WALK TYPE II. REFER TO DETAIL 2/C5. PER TOWN OF GILCREST STANDARD DETAILS.
5. PROPOSED 10'X20' SHED, 3-TOTALING 600 SF PER ARCHITECTURE PLAN.
6. PROPOSED RAISED CROSSWALK. REFER TO SHEET C2 FOR GRADES.
7. PROPOSED DRIVEWAY. REFER TO SHEET C2 FOR GRADES.
8. PROPOSED 18" CATCH CURB AND GUTTER, REFER TO TOWN OF GILCREST STANDARD PER DETAIL 2/C7.
9. PROPOSED SIDEWALK CHASE PER TOWN OF GILCREST SIDEWALK CHASE DETAIL/C5
10. PROPOSED SIDEWALK, WIDTH AS SHOWN ON PLAN. SEE DETAIL 8/C8
11. PROPOSED CURB AND GUTTER AT LANDSCAPE ISLAND
12. PROPOSED 4" WIDE WHITE STRIPING AS SHOWN USING HIGHWAY MARKING PAINT - 2 COATS
13. PROPOSED TRASH ENCLOSURE. REFER TO ARCHITECTURE PLAN.
14. PROPOSED INVERTED U-RACK FOR BICYCLE PARKING PER BICYCLE RACK DETAIL/C7.
15. PROPOSED FENCE. REFER TO LANDSCAPE ARCHITECTURE PLAN.
16. PROPOSED ADA PARKING SPACE AND SYMBOL AND ACCESSIBLE AISLE. REFER TO SHEET C4 FOR ELEVATION C7 FOR DETAILS.
17. PROPOSED ADA PARKING SIGN. PER DETAIL C7.
18. PROPOSED DETECTABLE WARNING SURFACE, PER CITY OF GREELEY ADA DETECTABLE WARNING DETAIL/C8
19. PROPOSED TYPE 1 ADA CURB RAMP PER CDOT STANDARDS. SEE GRADING PLAN FOR ELEVATIONS. PER DETAIL NO 10/C8
20. PROPOSED WHEEL STOPS PER CUPELAND WHEEL STOP DETAIL/ C7.
21. REGN ONE WAY SIGN. MUTCD R6-6 OR EQUIVALENT.
22. DO NOT ENTER & WRONG WAY SIGN (NORTH) END ONE WAY (SOUTH) MUTCD R5-1, R5-1a & R6-1 OR EQUIVALENT.
23. EXISTING SIGN RELOCATION AS SHOWN HEREON.
24. PROPOSED 3' X 36' X 6" DEEP LEVEL SPREADER. REFER TO SHEET C4 FOR ELEVATIONS AND DETAIL
25. PROPOSED ASPHALT FOR PUBLIC ROAD DEVELOPMENT. SEE SHEET C8 FOR DETAIL
26. PROPOSED TYPE "L" RIPRAP 30lb-6" RIPRAP FOR DEPTH OF 18" AND DIMENSIONS SHOWN HEREON.
27. INSTALL "NO PARKING FIRE LANE" SIGN AND PAINT CURB RED BETWEEN SIGNS. REFER TO MUTCD SIGN R7-6-9

SYMBOLS LEGEND

- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FENCE
- EXISTING SIGN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GUY WIRE
- EXISTING POWER POLE
- EXISTING ASPHALT
- EXISTING GRAVEL ROAD
- PROPOSED WATER VALVE
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- SETBACK
- ROAD CENTERLINE
- PROPOSED IMPROVEMENTS
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED FIRE LINE
- PROPOSED WATERLINE
- PROPOSED UG ELECTRIC LINE
- PROPOSED RIDGE LINE
- PROPOSED GRADE BREAK
- PROPOSED GRADE IN LANDSCAPE
- PROPOSED BOTTOM OF POND
- PROPOSED TOP OF POND
- PROPOSED SPILL CURB
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED ASPHALT ON SITE
- PROPOSED ASPHALT IN ROW
- PROPOSED COBBLESTONE
- PROPOSED CURB W/ CATCH GUTTER
- PROPOSED CURB TRANSITION

PROPOSED LAND USE

TYPE OF ACTIVITY:	CHILD CARE CENTER	
PEOPLE BREAK DOWN:		
STAFF MEMBERS	18	
TEACHER	18	
CHILDREN	88	
CATEGORY:	SQUARE FOOTAGE:	PERCENT OF SITE:
BUILDING AREA	11,140	10.6
SHEDS	600	0.7
HARDSCAPE AREA	52,500	50
LANDSCAPE AND OPEN SPACE AREA	40,845	38.7
TOTAL AREA	105,087	100



RIPRAP DETAIL
SCALE: 1"=10'

EXISTING FEATURE KEYNOTES

A. EXISTING CURB CUT APPROXIMATELY 15'.
B. EXISTING CURB CUT APPROXIMATELY 20'.
C. EXISTING SHARED CURB CUT APPROXIMATELY 36'.
D. EXISTING DRIVEWAY OR PROPERTY ACCESS LOCATION.

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BEARINGS BASED ON THE NORTH LINE OF BLOCK 11, TOWN OF GILCREST AS NORTH 89°35'32" EAST.

⊕ IN THE SIDEWALK 50 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #28701

UNKNOWN TYPE
DRAWN BY: UNKNOWN
CHECKED BY: NC
DATE: 11-30-11
SCALE: 1"=30'-0"
PROJECT NO: CO-14-1460

C2

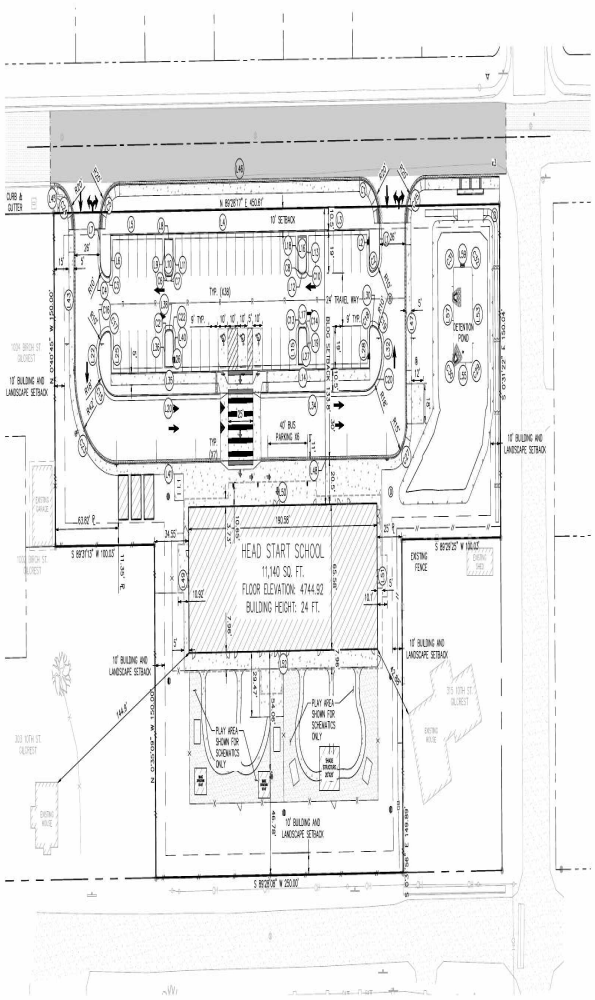
TAIT & ASSOCIATES, INC.
CIVIL ENGINEERS
SURVEYORS
PLANNERS
5500 ENTERPRISE DR.
FORT COLLINS, CO 80525
970.226.0557
FAX 970.226.1568
www.tait.com

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 13-21, ALL OF BLOCK 11, GILCREST, COLORADO
SITE PLAN

Mar 09, 2026 – 9:08am by bhagwan. K:\Greeley\CO\014460 - El Centro Headstart School - Gilcrest, CO\04-Construction Drawings\C014460_SDP.dwg

03/09/2026 BID PACKAGE



LINE TABLE		
NUMBER	BEARING	LENGTH
L1	N0° 31' 43"W	14.00
L2	S0° 31' 43"E	16.00
L3	N89° 28' 17"E	261.00
L4	N89° 28' 17"E	261.00
L5	N89° 28' 17"E	261.00
L6	N0° 31' 43"W	16.00
L7	S0° 31' 43"E	14.00
L8	S89° 28' 17"W	9.00
L9	S0° 31' 53"E	14.00
L10	N89° 28' 17"E	3.00
L11	N0° 31' 58"W	14.00
L12	N89° 28' 17"E	3.00
L13	N0° 31' 43"W	14.00
L14	S89° 28' 17"W	9.00
L15	N0° 31' 43"W	14.00
L16	S89° 28' 17"W	9.00
L17	N89° 28' 17"E	3.00
L18	S0° 31' 43"E	14.00
L19	S0° 31' 43"E	14.00
L20	S89° 28' 17"W	193.00

LINE TABLE		
NUMBER	BEARING	LENGTH
L21	N0° 31' 43"W	1.50
L25	S0° 31' 43"E	16.00
L26	N89° 28' 17"E	133.00
L27	N89° 28' 17"E	128.00
L28	N0° 31' 43"W	16.00
L30	????	0.00
L32	S0° 31' 43"E	1.50
L34	S89° 28' 17"W	105.00
L35	S89° 28' 17"W	9.00
L36	N0° 31' 43"W	14.00
L38	N89° 28' 17"E	3.00
L40	S0° 31' 43"E	14.00
L41	S89° 28' 17"W	105.00
L43	N0° 31' 43"W	63.47
L45	S89° 28' 16"W	4.00
L46	N89° 28' 37"E	243.00
L47	S0° 31' 43"E	90.50
L48	S89° 28' 17"W	133.00
L49	N0° 31' 43"W	65.58
L50	N89° 28' 17"E	190.58

LINE TABLE		
NUMBER	BEARING	LENGTH
L51	S0° 31' 43"E	65.58
L52	S89° 28' 17"W	190.58
L53	S0° 31' 43"E	41.00
L55	S89° 28' 15"W	17.00
L57	N0° 31' 45"W	41.00
L59	N89° 28' 15"E	17.00

SYMBOLS LEGEND

- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FENCE
- EXISTING SIGN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING SANITARY MANHOLE
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- PROPOSED BUILDING
- PROPOSED ASPHALT ON SITE
- PROPOSED ASPHALT IN ROW
- PROPOSED CORRUGATED
- PROPOSED CURB W/ CATCH GUTTER
- PROPOSED CURB TRANSITION
- LIMITS OF PROJECT

CURVE TABLE					
CURVE	DELTA	LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C1	90° 00' 00"	31.42	20.00	N45° 31' 43"W	28.28
C2	90° 00' 00"	12.57	8.00	N44° 28' 17"E	11.31
C3	90° 00' 00"	4.71	3.00	N44° 28' 17"E	4.24
C4	90° 00' 01"	12.57	8.00	S45° 31' 44"E	11.31
C5	90° 00' 00"	31.42	20.00	S44° 28' 17"W	28.28
C6	90° 00' 00"	4.71	3.00	S45° 31' 43"E	4.24
C7	90° 00' 00"	4.71	3.00	N44° 28' 17"E	4.24
C13	90° 00' 00"	4.71	3.00	N44° 28' 17"E	4.24
C14	90° 00' 00"	4.71	3.00	S45° 31' 43"E	4.24
C15	90° 00' 00"	28.27	18.00	N45° 31' 43"W	25.46
C16	90° 00' 00"	15.71	10.00	N44° 28' 17"E	14.14
C17	90° 00' 00"	4.71	3.00	S45° 31' 43"E	4.24
C18	90° 00' 00"	4.71	3.00	N44° 28' 17"E	4.24
C19	90° 00' 00"	15.71	10.00	S45° 31' 43"E	14.14
C20	90° 00' 00"	28.27	18.00	S44° 28' 17"W	25.46
C21	90° 00' 00"	4.71	3.00	N44° 28' 17"E	4.24
C22	90° 00' 00"	4.71	3.00	S45° 31' 43"E	4.24
C23	90° 00' 00"	65.67	42.00	N45° 31' 43"W	59.40
C24	89° 51' 58"	31.37	20.00	N45° 27' 40"W	28.25
C25	90° 00' 00"	31.42	20.00	S44° 28' 17"W	28.28

CURVE TABLE					
CURVE	DELTA	LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
C27	90° 00' 00"	23.56	15.00	S44° 28' 17"W	21.21
C29	90° 00' 00"	1.57	1.00	S44° 28' 15"W	1.41
C30	90° 00' 00"	1.57	1.00	N45° 31' 45"W	1.41
C31	90° 00' 00"	1.57	1.00	N44° 28' 15"E	1.41
C32	90° 00' 00"	1.57	1.00	S45° 31' 45"E	1.41

N

0 30' 60'

SCALE: 1" = 30'

EXISTING FEATURE KEYNOTES

EXISTING CURB CUT APPROXIMATELY 15'.

EXISTING CURB CUT APPROXIMATELY 20'.

EXISTING SHARED CURB CUT APPROXIMATELY 36'.

EXISTING DRIVEWAY OR PROPERTY ACCESS LOCATION.

GENERAL NOTES

1. RADIUS ON PLAN ARE SHOWN ALONG FLOW LINE & ARE 3' UNLESS OTHER WISE NOTED.
2. A PRE-CONSTRUCTION MEETING WITH TOWN OF GILCREST AND MATERIAL SUBMITTAL WILL BE REQUIRED PRIOR TO THE START OF ANY WORK ON THE SITE.

ABBREVIATION LIST

EXISTING BUILDING
OVERHANG
PROPERTY LINE

811 Know what's below Call before you dig.

UNAUTHORIZED CHANGES & USES

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NOTE TO CONTRACTOR

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BEARINGS BASED ON THE NORTH LINE OF BLOCK 11, TOWN OF GILCREST AS NORTH 89°28'32" EAST.

X IN THE SIDEWALK 50 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37.0

UNKNOWN
DRAWN BY: JOHNSON
CHECKED BY: MO
DATE: 11-14-06
SCALE: 1"=30'
PROJECT NO: 04-14-060

C3

TAIT & ASSOCIATES, INC.
CIVIL ENGINEERS
& SURVEYORS
1051 E. CACHE LA POUDRE
FORT COLLINS, COLORADO 80524
PHONE: (970) 221-4158
FAX: (970) 221-4159
WEB SITE: www.tait-inc.com

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

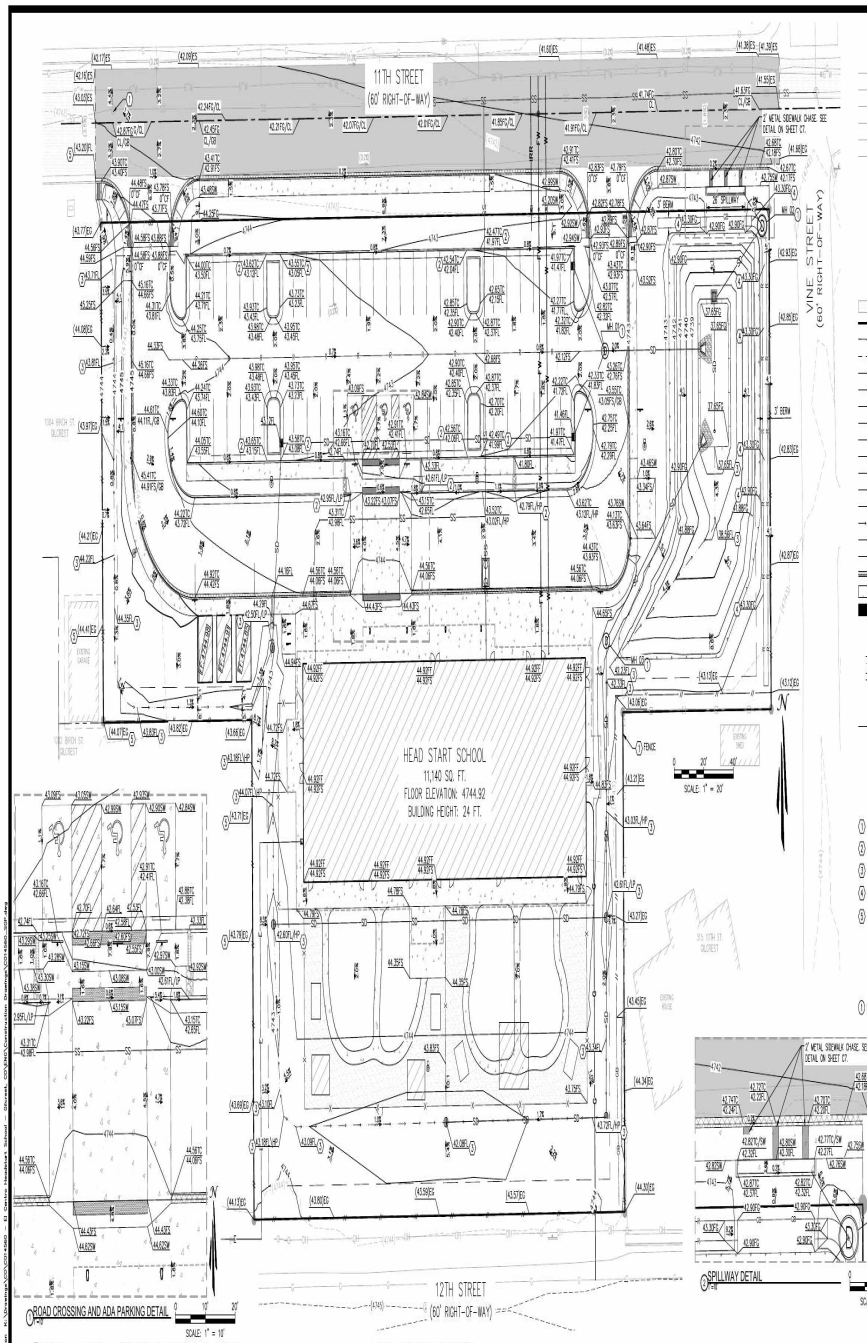
GILCREST HEAD START SCHOOL

LOTS 6-10, AND LOTS 12-21, BLOCK 11, TOWN OF GILCREST

HORIZONTAL CONTROL PLAN

Date: 03/08/2006
Drawn: Johnson
Checked: Mo

03/08/2006 BID PACKAGE



SYMBOLS LEGEND

- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FENCE
- EXISTING SIGN
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING WATER METER
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GUY WIRE
- EXISTING POWER POLE
- EXISTING ASPHALT
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- SETBACK
- ROAD CENTERLINE
- PROPOSED IMPROVEMENTS
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED FIRE LINE
- PROPOSED WATERLINE
- PROPOSED UG ELECTRIC LINE
- PROPOSED ROUGE LINE
- PROPOSED GRADE BREAK
- PROPOSED SWALE IN LANDSCAPE
- PROPOSED BOTTOM OF POND
- PROPOSED TOP OF POND
- PROPOSED SPILL CURB
- PROPOSED CONCRETE
- PROPOSED ASPHALT IN ROW
- 6530.00ES — EXISTING SURFACE LABEL
- 6530.00FS — PROPOSED SURFACE LABEL
- 6700 — EXISTING CONTOUR
- 6700 — PROPOSED CONTOUR
- 10% — EXISTING SLOPE LABEL
- 10% — PROPOSED SLOPE LABEL
- LIMITS OF PROJECT

KEYNOTES

1. PROTECT EXISTING IMPROVEMENTS.
2. PROPOSED CONCRETE CURB CUT.
3. PROPOSED SWALE IN LANDSCAPE.
4. PROPOSED BERM.
5. MATCH EXISTING CONTRACTOR TO FIELD VERIFY VERTICAL DATA PRIOR TO INSTALLATION AND ALERT THE ENGINEER OF ANY DISCREPANCIES.

UTILITY KEYNOTES

1. SEE UTILITY PLAN FOR MORE INFORMATION.

ABBREVIATION LIST

AC	ACRE
FH	FIRE HYDRANT
FF	FINISHED FLOOR
EX	EXISTING
HDPE	HIGH-DENSITY POLYETHYLENE
HP	HIGH POINT
LP	LOW POINT
MH	MANHOLE
PR	PROPOSED
REQ.	REQUIRED
ROW	RIGHT-OF-WAY

UNAUTHORIZED CHANGES & USES

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BEARINGS BASED ON THE NORTH LINE OF BLOCK 11, TOWN OF GILCREST AS NORTH 89°35'32" EAST.

0 IN THE SIDEWALK 50 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #28710

TAIT & ASSOCIATES, INC.
CONSULTING ENGINEERS
5500 ENTERPRISE DRIVE, SUITE 100
FORT COLLINS, CO 80525
970.226.0557
www.tait.com

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL

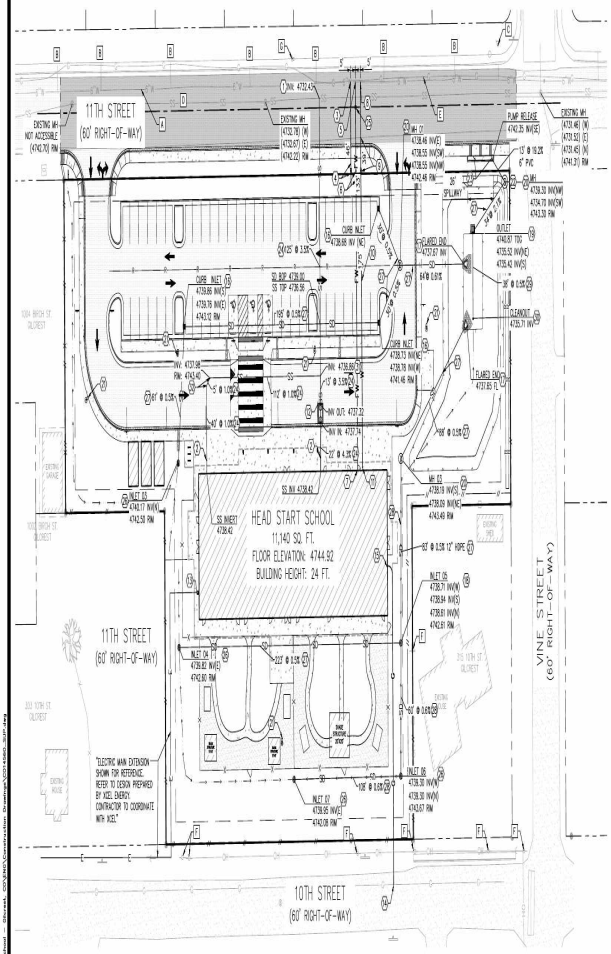
LOTS 6-10, AND LOTS 12-21, ALL OF BLOCK 11, TOWN OF GILCREST

GRADING PLAN

UNKNOWN CLIENT
PROJECT NUMBER
DRAFTED: MD
DATE
REVISION #
PLOT SCALE: 1:1
PLOT DATE: 10-14-2020

C4

03/09/2020 BID PACKAGE



EXISTING FEATURE KEYNOTES

1. EXISTING 6" DIP WATER LINE.
2. EXISTING WATER SERVICE AND METER.
3. EXISTING FIRE HYDRANT.
4. EXISTING 6" SANITARY SEWER LINE. SERVICE CONNECTIONS UNKNOWN.
5. EXISTING GAS LINE SIZE UNKNOWN.
6. EXISTING POWER POLE.
7. EXISTING STREET LIGHT.

KEYNOTES

1. PROPOSED 6" FERNCO W/E TAP SADDLE SEWER CONNECTION TO MAIN.
2. PROPOSED 6" CLEANOUT AT BUILDING. REFER TO DETAIL 6 ON SHEET C10.
3. PROPOSED 2" IRRIGATION TAP. REFER TO DETAIL W-6 ON SHEET C8 FOR DETAIL.
4. PROPOSED 2" TYPE K COPPER IRRIGATION SERVICE LINE AND METER. REFER TO DETAIL W-7 ON SHEET C8 FOR DETAIL.
5. PROPOSED 4" DIP FIRE SERVICE TEE TO MAIN WITH A SOLID SLEEVE CONNECTION.
6. PROPOSED MUELLER DOUBLE STRAP SADDLES, MUELLER COMPRESSION COPP STOP, CURB STOP, 4" BUFFALO STYLE BOX FOR CURB STOP BOX, AND MUELLER THERMAL COIL METER PITS.
7. PROPOSED FIRE DEPARTMENT CONNECTION WITH 2 2½" CONNECTORS. SEE MEP.
8. PROPOSED 1 ½" WATER SERVICE WET TAP. REFER TO DETAIL W-8 ON SHEET C8.
9. PROPOSED 1 ½" TYPE K COPPER WATER SERVICE LINE AND METER. REFER TO DETAIL W-9 ON SHEET C8.
10. PROPOSED 2" TYPE K COPPER WATER SERVICE LINE. REFER TO DETAIL W-8 ON SHEET C8.
11. PROPOSED WATER SERVICE CONNECTION. REFER TO MEP PLANS.
12. PROPOSED 1000 GALLON GREASE INTERCEPTOR. REFER TO OLD CASTLE DETAIL ON SHEET C10.
13. PROPOSED ELECTRICAL METER. SEE MEP.
14. PROPOSED GAS TAP. CONTRACTOR TO COORDINATE WITH ATMOS ENERGY.
15. PROPOSED GAS METER. SEE MEP.
16. PROPOSED 2'X2' NYLOPLAST CURB INLET. REFER TO SHEET C7 FOR DETAIL.
17. PROPOSED 4DIS 18" FLARED END SECTION. REFER TO SHEET C6.
18. PROPOSED 18" NYLOPLAST DRAIN BASIN WITH DOME GRATE. REFER TO SHEET C7 FOR DETAIL.
19. PROPOSED TYPE C INLET STRUCTURE. REFER TO SHEET C8 FOR DETAILS.
20. PROPOSED 48"ø MANHOLE. REFER TO SHEET C8 FOR DETAIL.
21. PROPOSED LAMP POLE.
22. PROPOSED STORMWATER PUMP. REFER TO SHEET LS0-1 FOR MORE DETAIL.
23. PROPOSED POND/PUMP RELEASE TO 2' X 35' X 6" DEEP LEVEL SPREADER WITH OUTLET TO STREET.
24. PROPOSED 8" SDR 35 PVC SANITARY LINE
25. PROPOSED 4" GATE VALVE
26. PROPOSED 12" NYLOPLAST DRAIN BASIN WITH DOME GRATE. REFER TO SHEET C7 FOR DETAIL.
27. PROPOSED 12" HDPE
28. PROPOSED 8" HDPE
29. PROPOSED 4" SLOTTED PVC STORM DRAIN PER TABLE SF-2 ON SHEET C6.
30. PROPOSED 4" STORM CLEANOUT
31. PROPOSED 6"x4" TEE SDR 35 PVC SANITARY LINE WITH TRAFFIC RATED CLEANOUT
32. TWO PROPOSED 6" SDR35 45° BENDS WITH A TRAFFIC RATED CLEANOUT

SYMBOLS LEGEND

- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
- EXISTING SANITARY SEWER LINE
- EXISTING FENCE
- EXISTING SIGN
- EXISTING WATER VALVE
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- EXISTING WATER METER
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- PROPERTY LINE
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- SETBACK
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- PROPOSED IMPROVEMENTS
- PROPOSED STORM DRAIN
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- PROPOSED FIRE LINE
- PROPOSED WATERLINE
- PROPOSED LG ELECTRIC LINE
- PROPOSED RIDGE LINE
- PROPOSED SWALE IN LANDSCAPE
- PROPOSED BOTTOM OF POND
- PROPOSED TOP OF POND
- PROPOSED SPILL CURB
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED ASPHALT IN ROW

GENERAL NOTES

1. ALL WATER LINES SHALL BE AT A MINIMUM 4.5' BURY DEPTH
2. ALL UTILITY SERVICES SHALL BE UNDERGROUND.

N

0 30' 60'

SCALE: 1" = 30'

UNAUTHORIZED CHANGES & USES

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X IN THE SIDEWALK 50 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37121

TAIT & ASSOCIATES, INC.
CIVIL ENGINEERS • LAND SURVEYORS
4 W. KIOWA, P.O. BOX 1487
ELIZABETH, COLORADO 80107
PHONE: (303) 688-4160 FAX: (303) 688-4170
WWW.TAITANDASSOCIATES.COM

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL

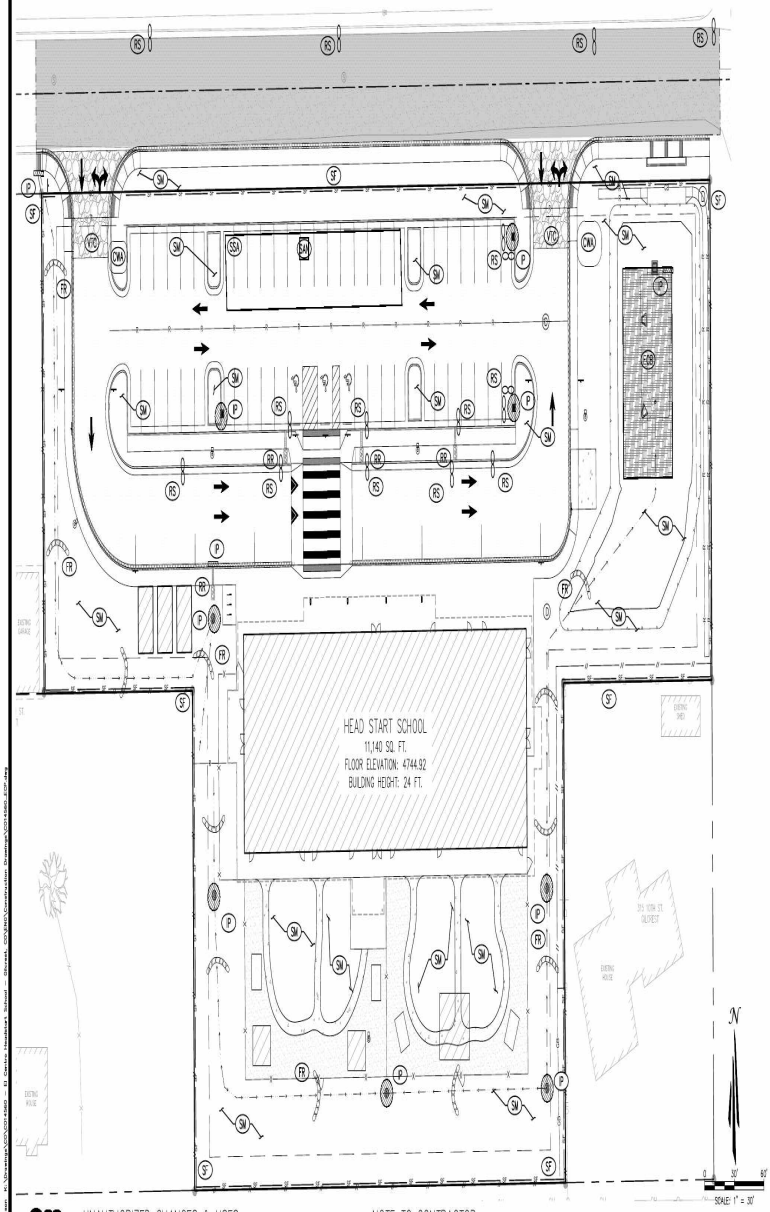
LOTS 6-10, AND LOTS 12-21, ALL OF BLOCK 11,
GILCREST, COLORADO

UTILITY PLAN

UNKNOWN
DRAWN BY: JCOOK
CHECKED BY: MO
DATE: 11-18-14
SCALE: 1"=30'
PROJECT NO. 014-1460

C5

03/09/2015 BID PACKAGE



SYMBOLS LEGEND

- EXISTING WATER LINE
- EXISTING OVERHEAD LINE
- EXISTING STORM DRAIN LINE
- EXISTING GAS LINE
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- EXISTING WATER METER
- EXISTING SANITARY MANHOLE
- EXISTING STORM MANHOLE
- EXISTING GUY WIRE
- EXISTING POWER POLE
- EXISTING ASPHALT
- EXISTING GRAVEL ROAD
- PROPERTY LINE
- ADJACENT PROPERTY LINE
- SETBACK
- ROAD CENTERLINE
- PROPOSED IMPROVEMENTS
- PROPOSED STORM DRAIN
- PROPOSED SANITARY SEWER
- PROPOSED FIRE LINE
- PROPOSED WATERLINE
- PROPOSED U/G ELECTRIC LINE
- PROPOSED RIDGE LINE
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- PROPOSED SWALE IN LANDSCAPE
- PROPOSED BOTTOM OF POND
- PROPOSED TOP OF POND
- PROPOSED FENCE
- PROPOSED SPILL CURB
- PROPOSED CONCRETE
- PROPOSED BUILDING
- PROPOSED ASPHALT ON SITE
- PROPOSED ASPHALT IN ROW
- PROPOSED COBBLESTONE

EROSION CONTROL SYMBOLS

TITLE	KEY	SYMBOL
SILT FENCE	SF	SF
VEHICLE TRACKING CONTROL	VTC	VTC
CONCRETE WASHOUT AREA	CWA	CWA
SANITARY FACILITIES	SAN	SAN
STABILIZED STAGING AREA MATERIALS/EQUIP. STORAGE	SSA	SSA
SEEDING AND MULCHING	SM	SM
FIBER ROLLS	FR	FR
INLET PROTECTION	P	P
RIP RAP; VELOCITY DISSIPATION DEVICES	RR	RR
EROSION CONTROL BLANKET; GEOTEXTILES & MATS	ECB	ECB
GRAVEL BAGS	RS	RS

ABBREVIATION LIST

EXISTING BUILDING	B
OVERHANG	O
PROPERTY LINE	P

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37121

TAIT & ASSOCIATES, INC.
CONSULTING ENGINEERS
5455 S. ZANTE STREET
LITTLETON, CO 80120
PHONE: 303-713-1313
FAX: 303-713-1314
WWW.TAIT-ASSOCIATES.COM

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL

LOTS 6-10, AND LOTS 12-21 ALL OF BLOCK 11,
GILCREST, COLORADO

EROSION CONTROL PLAN

UNAVAILABLE
PROJECT MANAGER
CHECKED BY
DATE
SCALE
DRAWING NO.

C6

Know what's below
Call before you dig.

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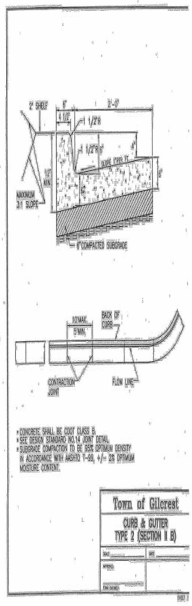
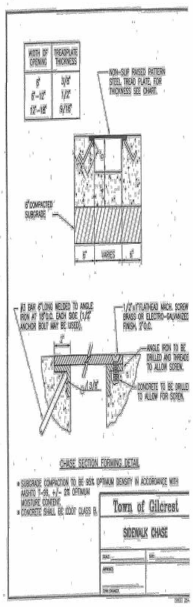
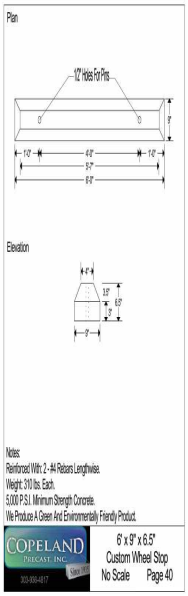
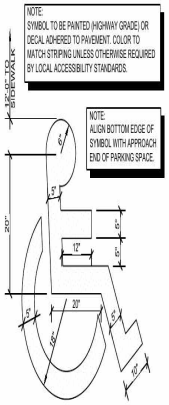
0 IN THE SIDEWALK 52 FEET NORTH OF THE NORTHEAST CORNER OF BLOCK 11 PROJECT ELEVATION 4744.11

Apr 09, 2025 - 9:07am by bhagwan, K:\Drawings\2012\2014560 - El Centro Headstart School - Gilcrest, CO\Civil\Construction Drawings\2014560_ECP.dwg

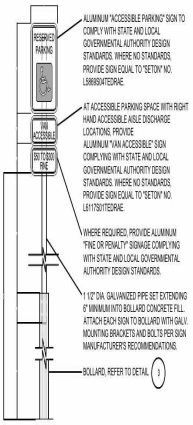




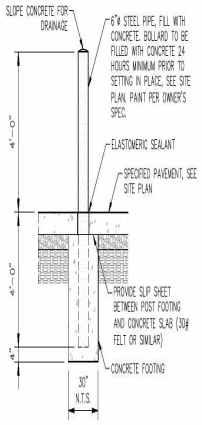




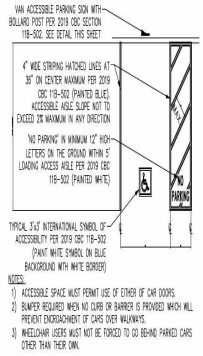
ACCESIBLE PARKING PAVEMENT STRIPING DETAIL



ACCESIBLE PARKING SIGN DETAIL



PIPE BOLLARD



NOTES:
1) ACCESSIBLE SPACE MUST PERMIT USE OF EITHER OF CAR DOORS.
2) BUMPER REQUIRED WHEN NO CURB OR BARRIER IS PROVIDED WHICH WILL PREVENT ENCROACHMENT OF CARS OVER WALKWAYS.
3) WHEELCHAIR USERS MUST NOT BE FORCED TO GO BEHIND PARKED CARS OTHER THAN THEIR OWN.

VAN ACCESIBLE STALL DETAIL

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37121

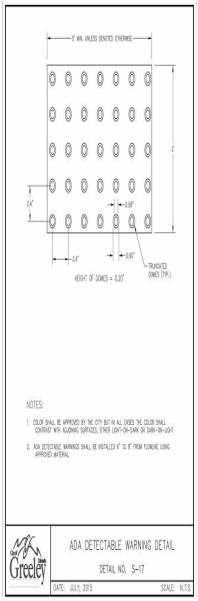
TAIT & ASSOCIATES, INC.
CONSULTING ENGINEERS
5 TAIT PLAZA
LONGMONT, COLORADO 80501
(970) 776-2100
FAX (970) 776-2110
DRAWN BY: JDS
DESIGNED BY: MJO
CHECKED BY: MJO
DATE: 12/21/20
SCALE: NONE
PROJECT NO. 2014-0400

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

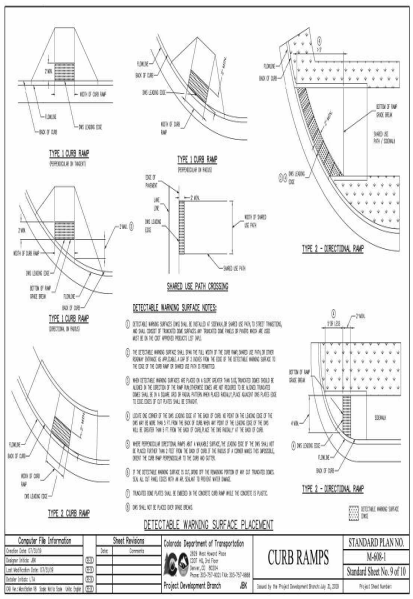
GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 13-21, ALL OF BLOCK 11,
GILCREST
SITE DETAILS

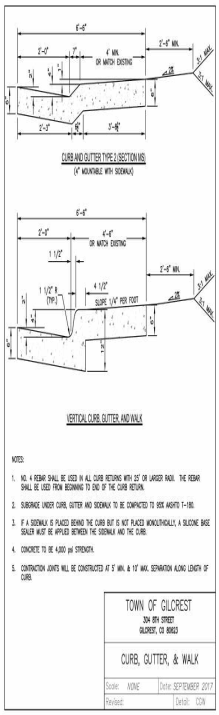
C7

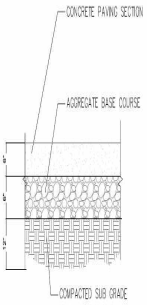
02/22/2021 BID PACKAGE



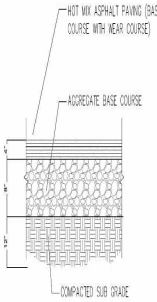
Page 98



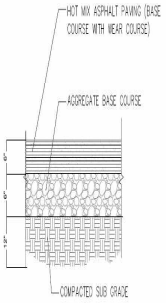




CONCRETE PAVING SECTION

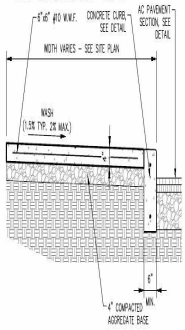


ASPHALT ON SITE PAVING SECTION



ASPHALT DETAIL FOR PUBLIC IMPROVEMENTS

NOTE:
- PROVIDE 3/8" EXPANSION JOINTS EVERY 20 LINEAL FEET
- MINIMUM COMPRESSIVE STRENGTH = 4,000 PSI



SIDEWALK SECTION DETAIL

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #37121

DRAWN BY: DRAWING NO.
CHECKED BY: C8
DATE:
SCALE:
PROJECT NO. 2014-1460

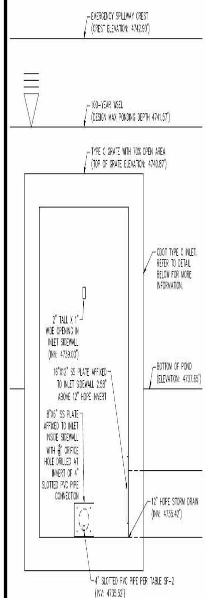
TAIT & ASSOCIATES
INCORPORATED
ENGINEERS

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

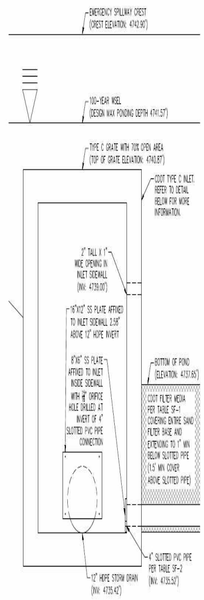
GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 13-21 AND OF BLOCK 11,
GILCREST, COLORADO
SITE DETAILS

Date: 09, 2016 — Plotted by kingston, K:\Drawings\2014\1460 - El Centro Headstart School - Gilcrest, CO\Site\Construction Drawings\C08-1460-07.dwg

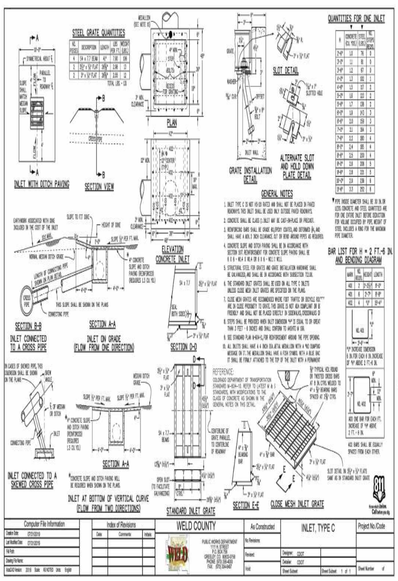
07/09/2020 BID PACKAGE



TYPE C INLET DETAIL (SOUTH INLET FACE)
SCALE: NTS



TYPE C INLET DETAIL (WEST INLET FACE)
SCALE: NTS



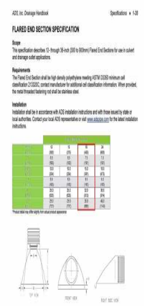


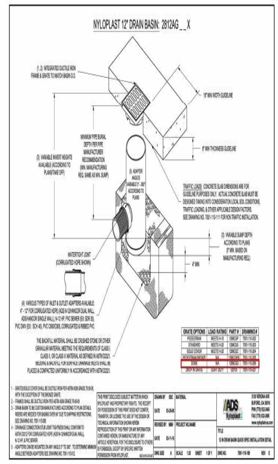
Table SF-1. Gradation specifications for CDOT Class B or C filter material
(Source: CDOT Table 703-7)

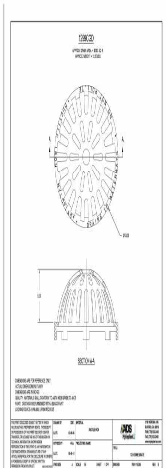
	CDOT Class B filter material	CDOT Class C filter material
Sieve Size	Mass Percent Passing Square Mesh Sieves	
37.5 mm (1.5")	100	
19.0 mm (0.75")		100
4.75 mm (No.4)	20-60	60-100
1.18 um (No. 16)	10-30	
300 um (No. 50)	0-10	10-30
150 um (No. 100)		0-10
75 um (No. 200)	0-3	0-3

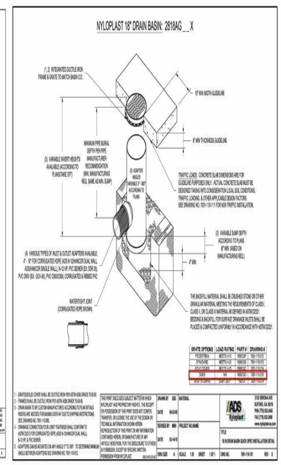
Table SF-2. Dimensions for Slotted Pipe[1]

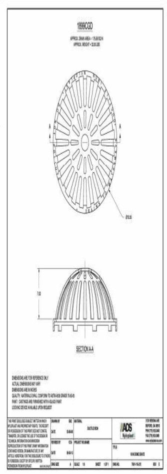
Pipe Size	Slot Length	Maximum Slot Width	Slot Centers	Open Area (per foot)
4"	1-1/16"	0.032"	0.413"	1.90 in^2
6"	1-3/8"	0.032"	0.516"	1.98 in^2

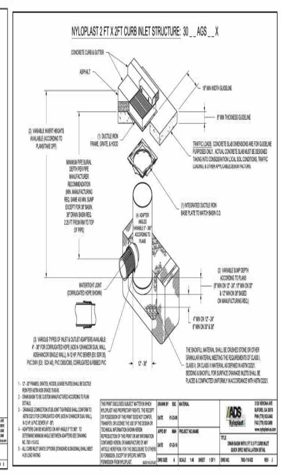
[1] Pipe must conform to requirements of ASTM designation F949. There shall be no evidence of splitting, cracking, or breaking when the pipe is tested per ASTM test method D2412 in accordance with F949 section 7.5 and ASTM F794 section 8.5. Contech A-2000 slotted pipe (or equal).











TAIT & ASSOCIATES
Since 1964
320 N LINCOLN AVE
LOVELAND, CO 80537
P: 970.613.1447
www.tait.com
ENGINEERING ENVIRONMENTAL BUILDING LAND
Santa Ana Sacramento Denver Dallas
San Diego Riverside Boise Atlanta

NO.	DESCRIPTION	REVISIONS	BY	DATE

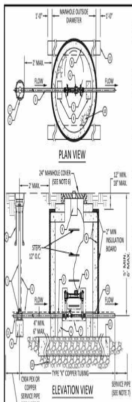
GILCREST HEAD START SCHOOL
LOTS 6-10; AND LOTS 13-21 ALL OF BLOCK 11,
GILCREST, COLORADO

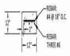
STORM DETAILS

DRAWN: JP
DATE: 03/09/2026
CHECKED: BC
DATE:
REVISION #:
DATE:
JOB NO: CO14560

C9

03/09/2026 BD PACKAGE





BASE BEAM DETAIL

NOTES:

1. METER MUST BE PURCHASED FROM THE WATER & SEWER (W&S) DEPARTMENT. NO EXCEPTIONS.
2. FOR PRODUCT AND MANUFACTURER SPECIFICATIONS, REFER TO CURRENT VERSION OF CITY OF GREELEY W&S CONSTRUCTION SPECIFICATIONS (SPECIFICATIONS).
3. REFER TO W&S DETAIL W-16, LATEST REVISION, FOR ADDITIONAL METER INSTALLATION AND VAULT REQUIREMENTS.
4. ALL VAULTS, BURIED PIPE, FITTINGS, VALVES, AND APPURTENANCES SHALL MEET CITY OF GREELEY W&S SPECIFICATIONS, LATEST REVISION.
5. NO CONCRETE FLOOR SHALL BE POURED IN METER VAULT.
6. 24" MANHOLE COVER SHALL BE A WORM LOCK LID MARKED "WATER", REFER TO CITY OF GREELEY W&S SPECIFICATIONS, LATEST REVISION, FOR SPECIFIC MANHOLE COVER MFR AND PRODUCT INFORMATION.
7. REFER TO CITY OF GREELEY W&S DETAIL W-9A/W-9B AND CONSTRUCTION SPECIFICATIONS, LATEST REVISION OF EACH, FOR CURB STOP, BOX, AND SERVICE PIPE REQUIREMENTS. IF CROSS-LINKED C904 PEX SERVICE LINE USED FROM CORP STOP TO CURB STOP THE PEX LINE MUST BE UPSIZED TO NEXT PIPE SIZE FROM METER SIZE TO REDUCE LOSS OF PRESSURE.
8. INSTALL TRACER WIRE ACCORDING TO CITY OF GREELEY W&S SPECIFICATIONS AND STANDARD DETAILS, LATEST REVISION.

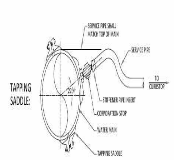
LEGEND	
1	CURB STOP VALVE AND SERVICE BOX
2	UPPER HALF OF STANDARD VALVE BOX (INSTALLED PER SPECIFICATIONS)
3	1-½" OR 2" SERVICE PIPE (MATCH SERVICE PIPE I.D.) (SEE NOTE 7)
4	BRICK SUPPORT (PLACED ON UNDISTURBED SOIL OR 1-½" STABILIZATION ROCK)
5	TRACER WIRE (SEE NOTE 8)
6	METER UNIT (ORDER FROM CITY OF GREELEY METER SHOP) (SEE NOTES 1 & 2)
7	COPPER METER SETTER (MFR PER SPECIFICATIONS)
8	48" DIAMETER OR SQUARE CONCRETE MANHOLE (SEE NOTE 4 FOR PRE-CAST)
9	METER ENDPOINT RADIO TRANSMITTER (RT UNIT)
10	6" MIN OF SUBGRADE MATERIAL UNDER GRADE BEAM AND INSIDE VAULT PER SPECIFICATION
11	CONCRETE MANHOLE BASE BEAM (SEE BASE BEAM DETAIL)
12	APPROVED RUBBER SEAL ON PIPE BARREL AT WALL PENETRATION PER SPECIFICATION

City of Greeley Colorado

OUTSIDE SETTING FOR 1-½" & 2" POTABLE WATER METER

DETAIL W-8

DATE: JANUARY 2023 SCALE: N.T.S.



ELEVATION VIEW

TYPE OF PIPE AND SIZE OF TAP												
PIPE SIZE	CAST IRON					DUCTILE IRON					PVC C-900	
	3/4"	1"	1 1/2"	2"	3"&4"	3/4"	1"	1 1/2"	2"	3"&4"	< 2"	> 2"
4"	S	S	NO	NO	TSV	S	S	NO	NO	TSV	S	TSV
6"	S	S	S	S	TSV	S	S	S	S	TSV	S	TSV
8"	S	S	S	S	TSV	S	S	S	S	TSV	S	TSV
12"	S	S	S	S	TSV	S	S	S	S	TSV	S	TSV
16"	S	S	S	S	TSV	S	S	S	S	TSV	N/A	N/A

"S" - TAPPING SADDLE REQUIRED, ALL SADDLES SHALL HAVE AWWA TAPER THREADS.
"NO" - NO TAP PERMITTED WITH OR WITHOUT A SADDLE, A TEE CONNECTION MAY BE PERMITTED IF SPECIFICALLY AUTHORIZED BY THE WATER DEPARTMENT.
"TSV" - TAPPING SLEEVE AND VALVE REQUIRED.
"N/A" - NOT APPLICABLE.

NOTES:

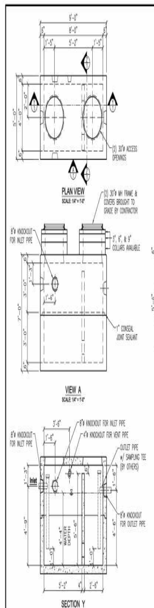
1. REFERENCE CITY OF GREELEY, WATER & SEWER CONSTRUCTION SPECIFICATIONS, LATEST REVISION, FOR TAPPING SADDLE SPECIFICATIONS.
2. EXISTING STEEL MAINS, TWELVE INCHES (12") IN DIAMETER OR LESS, SHALL BE TAPPED USING A CITY ACCEPTED TAPPING SADDLE.
3. ALL BURIED PIPE, FITTINGS, VALVES, AND APPURTENANCES SHALL BE RESTRAINED AND INSTALLED PER CITY OF GREELEY WATER & SEWER SPECIFICATIONS, LATEST REVISION.
4. INSTALL TRACER WIRE ACCORDING TO CITY OF GREELEY WATER & SEWER SPECIFICATIONS AND W&S UTILITY LOCATING ("UL") STANDARD DETAILS, LATEST REVISION OF EACH.
5. REFER TO CITY OF GREELEY WATER AND SEWER SPECIFICATIONS, LATEST REVISION, FOR PRODUCT AND MFR SPECIFICATIONS.
6. THIS DETAIL ALSO APPLIES TO NON-POTABLE IRRIGATION SERVICE CONNECTIONS TO NON-POTABLE IRRIGATION MAINS.
7. SERVICE TAPS ON WATER MAINS LARGER THAN 16" MAY BE CONSIDERED UNDER CERTAIN CIRCUMSTANCES WITH SPECIAL DESIGN ON A CASE-BY-CASE SCENARIO.
8. FOR ANY NEW WATER SERVICES TAPPING INTO EXISTING MAINS THE CONTRACTOR SHALL NOTIFY THE CITY 72 HOURS PRIOR AT 970-350-9320.

City of Greeley Colorado

WATER SERVICE CONNECTION

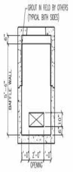
DETAIL W-6

DATE: JANUARY 2023 SCALE: N.T.S.



SHIP-LOOSE ITEMS		
QTY	DESCRIPTION	ITEM ID
2 ROLLS	JOINT SEALANT 1" x 14.5' CS-102	5409200

OLDCASTLE ID		
QTY	DESCRIPTION	ITEM ID
1 EA.	4x8x3 TOP SECTION	1902315
1 EA.	4x8x3 BASE SECTION	0069025
1 EA.	4x8 1000 GAL BAFFLE WALL	1902300
1 EA.	BAFFLE WALL INSTALLATION	1902311



GENERAL NOTES:

1. CONCRETE: F'c = 5,000 psi.
2. REINFORCING STEEL: ASTM A-615, Fy = 60 ksi
3. DESIGN LIVE LOAD = HS-20
4. EARTH COVER = 0'-0" MIN. TO 2'-0" MAX.
5. BUTYL RUBBER JOINT SEALANT
6. GRAY WATER ONLY
7. BLACK WATER SHALL BE CARRIED BY SEPARATE SIDE SEWER
8. CONTRACTOR TO:
   - SUPPLY & INSTALL ALL PIPING & SAMPLING TEES
   - KNOCKOUT OPENINGS AS NEEDED & GROUT IN ALL PIPES & WEIRS
   - FILL w/ CLEAN WATER PRIOR TO "START UP" OF SYSTEM
   - VERIFY SIZE & LOCATION OF ALL OPENINGS

WEIGHTS:

TOP SECTION: 4.25 TONS / 8491 LBS.
BASE SECTION: 4.51 TONS / 9029 LBS.
BASE SECTION w/ BAFFLE: 5.01 TONS / 10025 LBS.

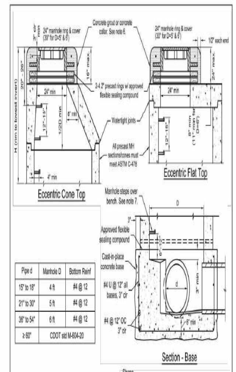
Oldcastle Precast® CHESAPEAKE
1401 TRIMBLE ROAD EDGEWOOD, MD 21040 410-612-1213
5115 MASSAPONAX CHURCH ROAD FREDERICKSBURG, VA 22407 540-898-8300
OPI-CHESAPEAKE-INFO@OLDCASTLE.COM

GI-486

FILE NAME: 365GT1000GA.DWG
ISSUE DATE: October, 2017
SCALE: 1/4" = 1'-0"

Grease Interceptor 4'-0" x 8'-0" x 6'-0" I.D. 1000 Gallon Capacity

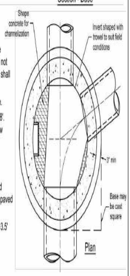
Copyright © 2017 Oldcastle Precast, Inc.



Pipe d	Manhole D	Bottom Reinf
15" to 18"	4 ft	#4 @ 12
21" to 30"	5 ft	#4 @ 12
36" to 54"	6 ft	#4 @ 12
≥ 60"	CDOT std M-604-20	

Notes

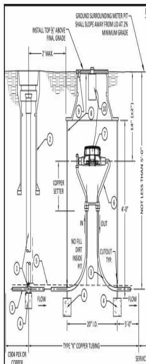
1. Risers, cones, reducers, & flat tops to be precast reinforced concrete. Reinforcing not shown for clarity. Cast in place concrete shall be CDOT Class B.
2. Horiz #4-rebar to have 12" min lap splice.
3. Eccentric cone top may be used for H ≥ 8'. Eccentric flat top may be used on shallow manholes.
4. Slope top of bench to drain to channel.
5. All rebar shall be epoxy coated.
6. Concrete collar shall be used in all paved areas; 4500 psi grout may be used in unpaved areas.
7. Steps are required for manhole depths >3.5' and shall conform to AASHTO M199



City of Greeley Colorado — 811 Know what's below. Call before you dig.

Issued: 9/3/2024
Revised: ---
Revised: ---

Typical Storm Manhole Detail 6-9



ELEVATION VIEW

NOTES:

1. METER MUST BE PURCHASED FROM THE WATER & SEWER (W&S) DEPARTMENT. NO EXCEPTIONS.
2. NOT FOR INSTALLATION IN ROADWAYS, DRIVEWAYS, OR PARKING AREAS.
3. IF SURFACE IS NOT TO FINAL GRADE AT TIME OF INSTALLATION OF METER, OR GRADE CHANGES AFTER INSTALLATION, PROPERTY OWNER MUST ADJUST PIT TO MEET DEPTH AND SPECIFICATIONS.
4. NO CONCRETE FLOOR SHALL BE POURED IN METER PIT.
5. IF PRESSURE REDUCING VALVE AND/OR BACKFLOW DEVICE IS REQUIRED BY PLUMBING CODE, IT SHALL BE INSTALLED DOWNSTREAM OF METER PER BUILDING AND PLUMBING CODE.
6. COPPER SHALL NOT SHOW ANY VISIBLE SIGNS OF CRIMPING AND SHALL BE INSTALLED FROM CURB STOP TO 5 FEET PAST METER PIT.
7. FOR ADDITIONAL METER INSTALLATION REQUIREMENTS, REFER TO METER INSTALLATION NOTES ON CITY OF GREELEY W&S DETAIL W-15, LATEST REVISION.
8. REFER TO CITY OF GREELEY W&S DETAIL W-9A/W-9B AND CONSTRUCTION SPECIFICATIONS, LATEST REVISION OF EACH, FOR CURB STOP, BOX, AND SERVICE PIPE REQUIREMENTS. IF CROSS-LINKED C904 PEX SERVICE LINE USED FROM CORP STOP TO CURB STOP THE PEX LINE MUST BE UPSIZED TO NEXT PIPE SIZE FROM METER SIZE TO REDUCE LOSS OF PRESSURE.
9. FOR PRODUCT AND MANUFACTURER SPECIFICATIONS, REFER TO CURRENT VERSION OF CITY OF GREELEY W&S CONSTRUCTION SPECIFICATIONS (SPECIFICATIONS), LATEST REVISION.
10. ALL BURIED PIPE, FITTINGS, VALVES, AND APPURTENANCES SHALL BE INSTALLED AND RESTRAINED IN ACCORDANCE WITH WATER & SEWER DEPARTMENT SPECIFICATIONS, LATEST REVISION.
11. INSTALL TRACER WIRE ACCORDING TO CITY OF GREELEY W&S SPECIFICATIONS AND STANDARD DETAILS, LATEST REVISION.

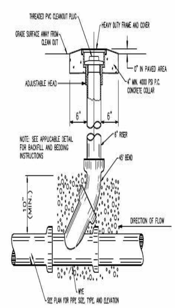
LEGEND	
1	CURB STOP VALVE & SERVICE BOX (SEE NOTE 8)
2	UPPER HALF OF STANDARD VALVE BOX (INSTALLED PER SPECIFICATIONS)
3	¾" OR 1" SERVICE PIPE (MATCH SERVICE PIPE I.D.) (SEE NOTE 8)
4	BRICK SUPPORT (PLACE ON UNDISTURBED SOIL)
5	TRACER WIRE (SEE NOTE 11)
6	COPPER METER SETTER (MFR PER SPECIFICATIONS)
7	METER UNIT (ORDER FROM CITY OF GREELEY METER SHOP)
8	COMPOSITE DOUBLE LID CONE OR APPROVED EQUAL (MFR PER SPECIFICATIONS)
9	STANDARD FORGED BRASS WATERWORKS PENTAGON HEAD WITH LOCKING SCREW
10	METER ENDPOINT RADIO TRANSMITTER (RT UNIT)
11	TYPE K COPPER MATCHING METER SIZE

City of Greeley Colorado

OUTSIDE SETTING FOR ¾" & 1" POTABLE WATER METER

DETAIL W-7

DATE: JANUARY 2023 SCALE: N.T.S.



SANITARY OR STORM SEWER CLEANOUT
NOT TO SCALE

6 CLEANOUT
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TAIT & ASSOCIATES Since 1964

320 N LINCOLN AVE
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p: 970.613.1447
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ENGINEERING ENVIRONMENTAL BUILDING LAND
Santa Ana San Diego Sacramento Riverside Denver Boise Dallas Atlanta

NO.	DESCRIPTION	REVISIONS	BY	DATE

GILCREST HEAD START SCHOOL

LOTS 6-10; AND LOTS 13-21, ALL OF BLOCK 11,
GILCREST, COLORADO

W&S DETAILS

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MARK OBERSCHMIDT, P.E.
COLORADO P.E. #35721

DRAWN: JP
DATE: 03/09/2026
CHECKED: BC
DATE:
REVISION #:
DATE:
JOB NO: CO14560

C10

03/09/2026 BID PACKAGE

Mar 09, 2026 – 9:08am by kferguson K:\Drawings\CO\CO14560 – El Centro Headstart School – Gilcrest, CO\ENG\Construction Drawings\CO14560_DT.dwg

Project:	El Centro Headstart School
Date:	4/4/2024
Calculation By:	D TYMAN

SYSTEM CALCULATION

LIFT STATION PIPE FLO CALCULATIONS

6" EX SD					INCH SD
6" PVC PIPE	(QTY)	35	x	1 FT	35 FT
6" PVC 90 ELBOW	(QTY)	3	x	21 FT	63 FT
6" PVC 45 BEND	(QTY)	0	x	16 FT	0 FT
6" PVC TEE	(QTY)	1	x	43 FT	43 FT
6" BALL VALVE	(QTY)	1	x	3.5 FT	3.5 FT
6" CHECK VALVE	(QTY)	1	x	52 FT	52 FT
TOTAL EQUIVALENT LENGTH					196.5 FT
FRICTION LOSS PER 100 FT 6" PVC		650 GPM		3.81 FT	PER 100 FT
FRICTION LOSS 6"	196.5	/	100	x 3.81	FT 7.48 FT
TOTAL DYNAMIC HEAD					
				6" FRICTION LOSS	7.48 FT
				STATIC HEAD	12.75 FT
PERFORMANCE	650 GPM	20.24 FT	TDH THROUGH 6-INCH PVC LINE		

HAZEN WILLIAMS'S EQUATION/HEAD LOSS IN WATER PIPE

$$H = 0.2083 \times 100 \times \left(\frac{Q}{C}\right)^{1.852} \times \frac{1}{d^{4.8655}}$$

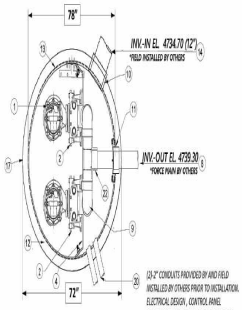
= length of pipe (ft)	100 ft
= Hazen-Williams roughness constant	140
q = volume flow (gal/min)	650
d = inside or hydraulic diameter (inches)	5.799
H = friction head loss in feet of water (ft H2O / 100 ft)	3.81
Velocity (ft/s) =	8.35

The calculation is for two pump operation for each pump to deliver 325 GPM thru a single 6" SCH 80 PVC line.

STATION CALCULATION

NOTE TO CONTRACTOR OR OTHERS:
CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ALL INLET/OUTLET SIZES AND ORIENTATIONS ACCORDING TO SITE CONDITIONS PRIOR TO APPROVAL OR FABRICATION OF PUMP LIFT STATION

NOTE: INLET PIPING CORED IN-FIELD & SEALED BY OTHERS



FIBERGLASS WET WELL

TOP VIEW- NTS

LIFT STATION SPECS

SCHEDULE OF MATERIALS

ID	DESCRIPTION	TYPE	QTY
1	SUBMERSIBLE PUMP	4XHWA4L2	2
2	DISCHARGE ELBOW	AUTO-4"X 6" ANSI	2
3	UPPER GUIDE BRACKET	304SST	2
4	PIPE BRACE/STRUT	304SST	2
5	SS GUIDE RAIL	2" SCH80T	4
6	LIFTING CHAIN	**316 FT LF	2
7	PUMP CABLE	50 FT	2
8	DISCHARGE PIPING	6" PVC SCH80	2
9	BEND 90° ELBOW FITTING SOC	6" PVC SCH80	2
10	ALUMINUM SLEEVE	SUV6080A-T2	1
11	ALUMINUM SLEEVE	SUV6080A-T2	1
12	FIBERGLASS WET WELL	FB72" X 360"	1
13	ACCESS COVER-NON-TRAFFIC	CFH96A	1
14	IN-FLUENT PIPE	12" FIBR PLANG	1
15	SWING CHECK VALVE	6" SWING FLGFDIS DI	2
16	CAST IRON BALL VALVE	6" BALL VALVE-FLGFLG	2
17	ANTI-FLOTATION COLLAR	FIBERGLASS	1
18	FLOAT SWITCHES	50 FT CORD	4
19	FLOAT BRACKET	4FBL	1
20	80" ELECTRICAL CONDUIT	BY OTHERS	2
21	DUPLEX CONTROL PANEL NOT	WDSP-4-3024-4-0/L24	1
22	TEE FITTING	6" PVC SCH80	1

*ALARM SYSTEM STANDARD WITH DUPLEX CONTROL PANEL PROVIDED

*NOTE: CONTRACTOR OR OTHERS TO PROVIDE BACKUP POWER SOURCE FOR PUMP SYSTEMS

SYSTEM CONFIGURATION

PUMP(S) MODEL:	4XHWA4L2
MOTOR OUTPUT:	3 HP
VOLTAGE:	460 V
PHASE:	3 PH
FLA:	4.8 AMPS

DESIGN PARAMETERS

REQUIRED FLOW / Q:	650 GPM
FLOW RATE (EACH PUMP):	325 GPM EA.
TOTAL DYNAMIC HEAD:	20.24FT TDH
STATIC HEAD:	12.75 FT
WET WELL DIAMETER:	72"
WET WELL DEPTH:	168"

GENERAL NOTES/DISCLAIMERS, BUT NOT LIMITED TO

:CONTRACTOR TO CONFIRM FINAL ALIGNMENT, PLACEMENT, AND FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO INSTALLING. ALL ELEVATIONS AND DIMENSIONS ARE NOMINAL AND HAVE BEEN PROVIDED BY OTHERS.

IT IS THE CONTRACTORS OR OTHERS RESPONSIBILITY TO PROVIDE COMPONENTS FOR COMPLETE AND OPERATING SYSTEM. THIS SHALL INCLUDE BUT NOT LIMITED TO:

PUMPS BY DESIGN INC. IS NOT RESPONSIBLE FOR ANY OF THE FOLLOWING:

(1.) ANY FASTENERS NOT ASSOCIATED WITH THE PRE-ASSEMBLED SYSTEMS
(2.) ANY GENERATOR FUEL OF ANY KIND
(3.) UNLOADING TRUCKS, TRAFFIC CONTROL, SITE SAFETY
(4.) SECURING MATERIALS STEAR-END TO PROJECT SITE: DUNNAGE, FENCING, STORAGE
(5.) EXCAVATION, SHORING, DEWATERING, SUB-BASE ROCK, BACKFILL MATERIAL
(6.) INSTALLATION OF SUPPLIED PUMP STATION SYSTEMS AND COMPONENTS
(7.) PIPING TO AND FROM PUMP STATION
(8.) ELECTRICAL CONDUIT AND WIRING (EXCEPT WIRES ATTACHED TO SUPPLIED COMPONENTS)
(9.) SITE ELECTRICAL SERVICE/WATER EQUIPMENT
(10.) CORING OF THE HOLES FOR THE ELECTRICAL CONDUITS IN ANY STRUCTURES
(11.) CONCRETE POURED IN PLACE, CRUSHED ROCK, ASPHALT PAVING
(12.) SITE LIGHTING, SIGNAGE, FENCING, BOLLARDS AND DRAINAGE CONTROL

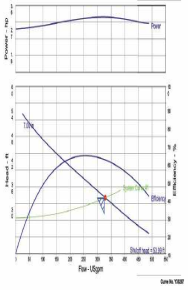
THESE LAYOUT DRAWINGS ARE INTENDED TO SHOW OVERALL REFERENCE OF THE SYSTEM. DO NOT SCALE DRAWING. PLACEMENT AND ORIENTATION OF INSTALLATIONS ARE AT THE DISCRETION OF THE INSTALLING CONTRACTOR. ALL ITEMS LISTED BY OTHERS WILL NOT BE SUPPLIED BY PUMPS BY DESIGN INC. AND MUST BE PROVIDED BY OTHERS

SYSTEM BY:
PUMPS BY DESIGN INC.
PUMP & PACKAGE SYSTEMS
PUMPS BY DESIGN INC.
2045 SOUTH BAKER AVE.
ONTARIO, CA 91761
PH: (909) 673-9945
Quote Request Email:
info@pumpsbydesign.com

Technical Specifications of 4XHWA4L2 Series Pump

Model: **4CHWA4L2 T3E_2J-4_460V**

Pump			
Discharge size	4.00 in	Weight	290.0 lb(excluding cable)
Impeller type	Non-clog semi Closed	Impeller material	304
Max. solid passing dia.	0.80 in	Free flow liquid temp.	32.00 °F to 104.0 °F
Motor			
Type	Oil-cooled Wet-type induction motor	Phase/cycle	3.00 / 60
Number of poles	4	Insulation class	F
Power voltage	460 V, 3.00phase	Starting method	Direct-on-line
Rated current	4.8 A	Starting current	28.0 A
Power wire	3*12 AWG 600V, 7 wires x 3 C, 0.07 m² x 10 meters length 33 ft		
Temp. protector	Thermal switches		
Leakage detector	Float type		
Standard Accessories			
Accessories			
Guide rail for Base: 2 stainless 2 Groove Cast 2 ft, 2 ft 12"			
STOP: 304 stainless, Temporarily installed pipe, 2 in-section Cast, Weather & water resistant cable			
Operation			
Type of fluid	Water	Liquid temp.	68.00 °F
Fluid specified	100.0 Kilogram	Fluid calculated	100.7 Kilogram
Fluid specified	10.00 m	Fluid calculated	10.00 m
Cable length	10.00 m		

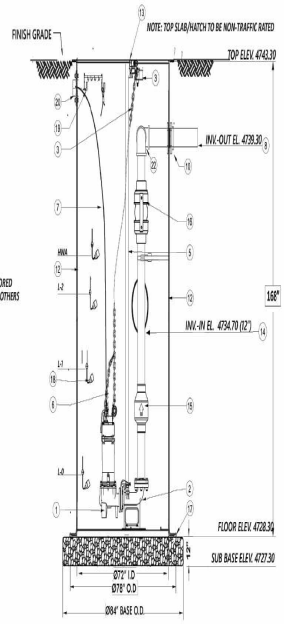


Shinfoyuan Industries Ltd. Japan

PERFORMANCE CURVE

HIGH WATER ALARM	4742.07
L-2 LAG PUMP ON	4726.60
L-1 LEAD PUMP ON	4734.10
L-0 PUMPS OFF EL.	4729.60

NOTE: INLET PIPING CORED IN-FIELD & SEALED BY OTHERS



FIBERGLASS WET WELL

SECTIONAL VIEW- NTS

LIFT STATION DETAILS

EL CENTRO HEADSTART SCHOOL
CITY OF GILCREST CO

DRAWN BY:	D. TYMAN
CHECKED BY:	D. TYMAN
DATE:	04/04/2024
PROJECT #:	PBD-TA14424

SHEET NUMBER
LSD-1

TAIT & ASSOCIATES
INDIANAPOLIS
DENVER

NO.	DESCRIPTION	BY	DATE
	REVISIONS		

GILCREST HEAD START SCHOOL
LOTS 6-10, AND LOTS 13-21, ALL OF BLOCK 11,
STORM PUMP DETAIL

DRAWN BY:
CHECKED BY:
DATE:
PROJECT #:
DRAWING NO.
C11

Date: 05-2026 — Jobno. by Integrum — K:\Drawings\CO\GCO-4560 — El Centro Headstart School — Gilcrest, CO\Civil\Construction Drawings\C011-LSD_01.dwg

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