

# BARBARICK RECYCLING AND REFUSE TRANSFER STATION

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.  
CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

CONSTRUCTION DOCUMENTS  
MARCH 2024

### OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

OWNER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

BRIAN BELAND  
BR 8812 CLIFF ALLEN POINT LLC  
PO BOX 88120  
COLORADO SPRINGS CO 80908-8120

### ENGINEER'S STATEMENT

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

ERIC GUNDERSON, PE (CO #49487) - KIMLEY-HORN AND ASSOCIATES, INC. DATE \_\_\_\_\_

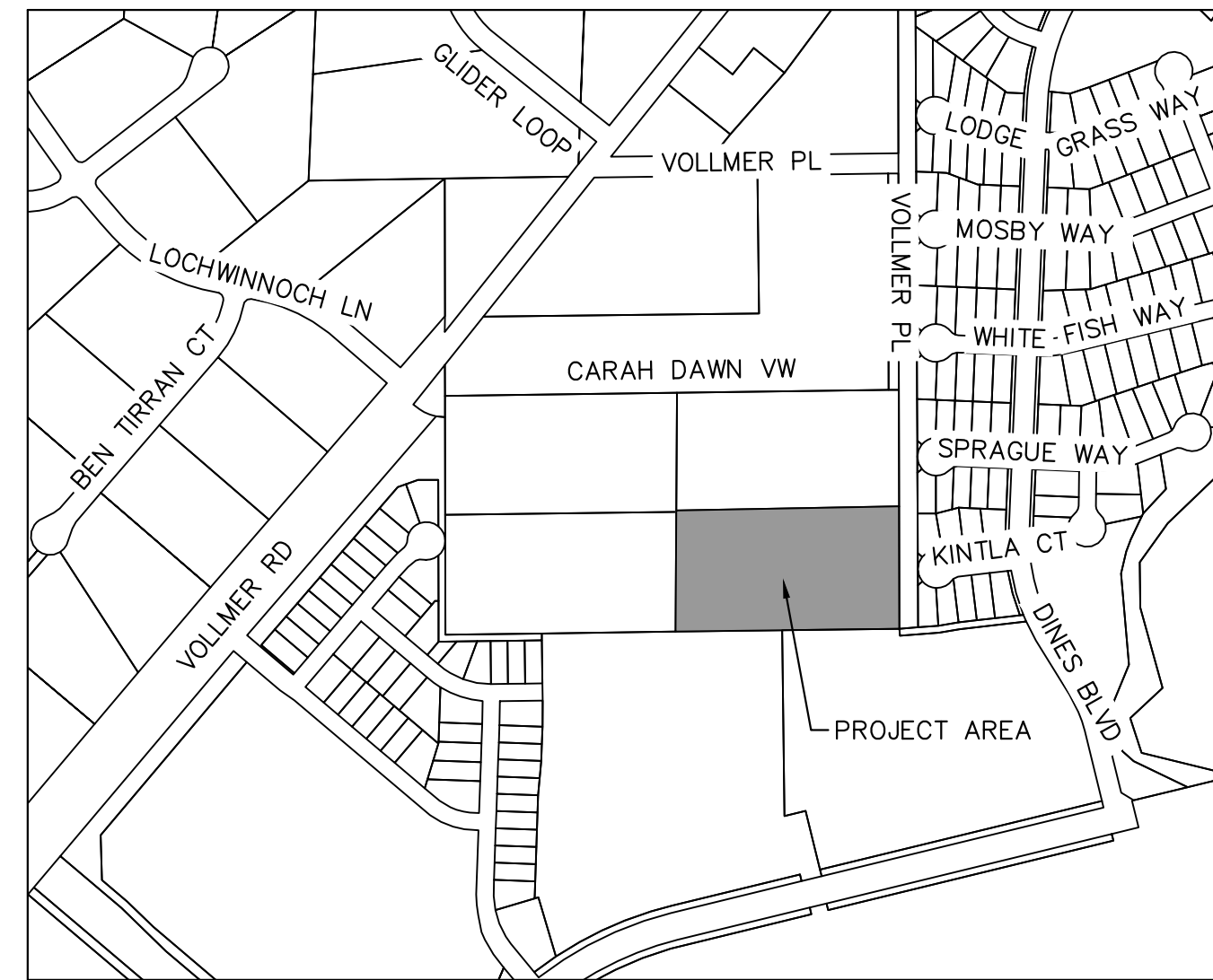
### EL PASO COUNTY REVIEW STATEMENT

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

JOSHUA PALMER, PE COUNTY ENGINEER/ECM ADMINISTRATOR \_\_\_\_\_ DATE \_\_\_\_\_



VICINITY MAP  
SCALE: 1"=500'

### SHEET INDEX

SHEET NO.	SHEET TITLE
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C2.0	OVERALL GRADING PLAN
C2.1	DETAILED GRADING PLAN
C2.2	DETAILED GRADING PLAN
C3.0	OVERALL STORM PLAN
C3.1	STORM PLAN & PROFILE
C3.2	STORM PLAN & PROFILE
C3.3	STORM PLAN & PROFILE
C3.4	DRAIN PLAN
C4.0	UTILITY PLAN
C5.0	SIGNAGE & STRIPING PLAN
C5.1	SIGNAGE & STRIPING DETAILS
C6.0	CONSTRUCTION DETAILS
C6.1	CONSTRUCTION DETAILS
C6.2	POND DETAILS
C6.3	SCALE DETAIL
L7.0	LANDSCAPE PLAN
L7.1	LANDSCAPE NOTES
L7.2	LANDSCAPE DETAILS

### LEGAL DESCRIPTION

PARCEL A:  
LOT 4, AMENDED PLAT OF BARBARICK SUBDIVISION, COUNTY OF EL PASO, STATE OF COLORADO.

CONTAINING 5.290 ACRES (230,442 S.F.), MORE OR LESS.

PARCEL B:  
A NON-EXCLUSIVE INGRESS AND EGRESS EASEMENT AS SET FORTH AND DESCRIBED IN DECLARATION AND BYLAWS OF BARBARICK SUBDIVISION PROPERTY OWNERS ASSOCIATES, INC., RECORDED FEBRUARY 12, 2008 UNDER RECEPTION NO. 208016289 AS AMENDED BY INSTRUMENT RECORDED MARCH 10, 2008 UNDER RECEPTION NO. 208028000.

LEASED PARCEL: 3.297 ACRES

### BENCHMARK

4" DIAMETER PRECAST CONCRETE STORM SEWER MANHOLE RIM LOCATED IN THE SOUTHEASTERLY PORTION OF THE PROPERTY; ELEVATION = 7027.34 "NGVD 1929 AND THE 1960 SUPPLEMENTARY ADJUSTMENT" DATUM.

### FEMA CLASSIFICATION

THIS PROPERTY IS LOCATED WITHIN THE ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP NO. 08041C0533G, EFFECTIVE DATE DECEMBER 7, 2018.

### CONTACTS

**OWNER:**  
BRIAN BELAND, BR 8812 CLIFF ALLEN POINT LLC  
PO BOX 88120  
COLORADO SPRINGS CO 80908-8120  
TEL: (719) 499-0208  
CONTACT: BRIAN BELAND

**APPLICANT:**  
RICHARD GRAHAM JR, GR INVESTMENTS LLC  
4615 NORTH PARK DRIVE  
COLORADO SPRINGS CO 80918  
TEL: (719) 499-0208  
CONTACT: RICHARD GRAHAM JR

**EL PASO COUNTY:**  
EL PASO COUNTY  
POD DEPARTMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
PHONE: (719) 520-6300

**ENGINEER:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
2 NEVADA NORTH AVE., SUITE 900  
COLORADO SPRINGS, CO 80903  
TEL: (719) 453-0182  
CONTACT: ERIC GUNDERSON, P.E.

**ARCHITECT:**  
BUCHER DESIGN STUDIO, INC.  
12325 ORACLE BLVD, SUITE 101  
COLORADO SPRINGS, CO 80921  
(719) 484-0480  
CONTACT: JASON SHOUDIS

**LANDSCAPE ARCHITECT:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
2 NEVADA NORTH AVE., SUITE 900  
COLORADO SPRINGS, CO 80903  
(719) 284-7280  
CONTACT: JIM HOUK

**SURVEYOR:**  
LAND DEVELOPMENT CONSULTANTS, INC.  
3898 MAIZELAND ROAD  
COLORADO SPRINGS, CO 80909  
TEL: (719) 528-6133  
CONTACT: DAVID V. HOSTETLER

**Kimley-Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJG  
DRAWN BY: RES  
CHECKED BY: EJG  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
COVER SHEET

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
**Kimley-Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

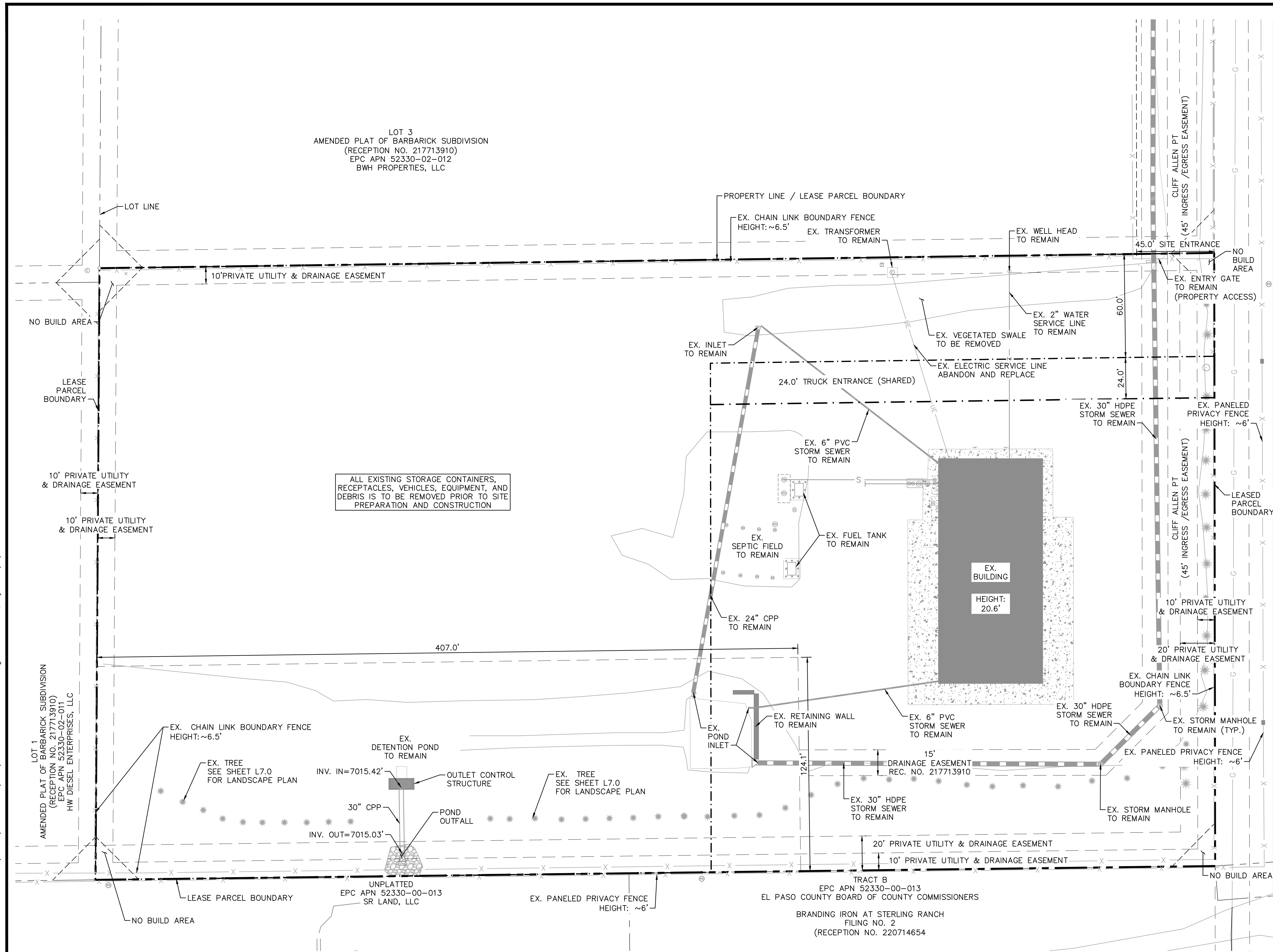
SHEET

C0.0



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ALL EXISTING STORAGE CONTAINERS, RECEPTACLES, VEHICLES, EQUIPMENT, AND DEBRIS IS TO BE REMOVED PRIOR TO SITE PREPARATION AND CONSTRUCTION

**LEGEND**

- PROPERTY LINE
- - - LEASED PARCEL BOUNDARY
- - - EX. UTILITY & DRAINAGE EASEMENT
- X EX. FENCE
- EX. STORM SEWER
- G EX. GAS MAIN
- EX. VEGETATION
- ⊗ EX. TRANSFORMER

**NOTES**

1. SITE PREPARATION SHALL TAKE PLACE PER THE GEOTECHNICAL SUBSURFACE SOIL INVESTIGATION, BY RMG - ROCKY MOUNTAIN GROUP, DATED OCTOBER 23, 2023.

**Kimley»Horn**  
 2024 KIMLEY-HORN AND ASSOCIATES, INC.  
 2 North Nevada Avenue Suite 900  
 Colorado Springs, Colorado 80903 (719) 453-0180

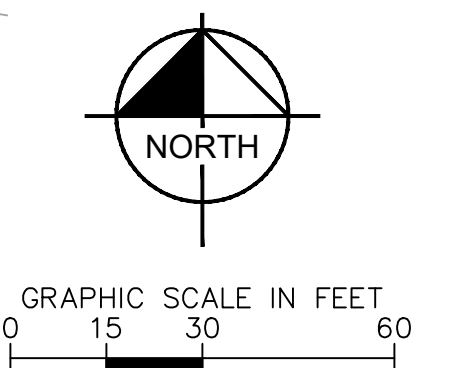
DESIGNED BY: E.J.G.  
 DRAWN BY: RES  
 CHECKED BY: E.J.G.  
 DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
 DEMOLITION PLAN

**PRELIMINARY**  
 FOR REVIEW ONLY  
 NOT FOR  
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**Kimley»Horn**  
 Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
 SHEET

**C1.0**

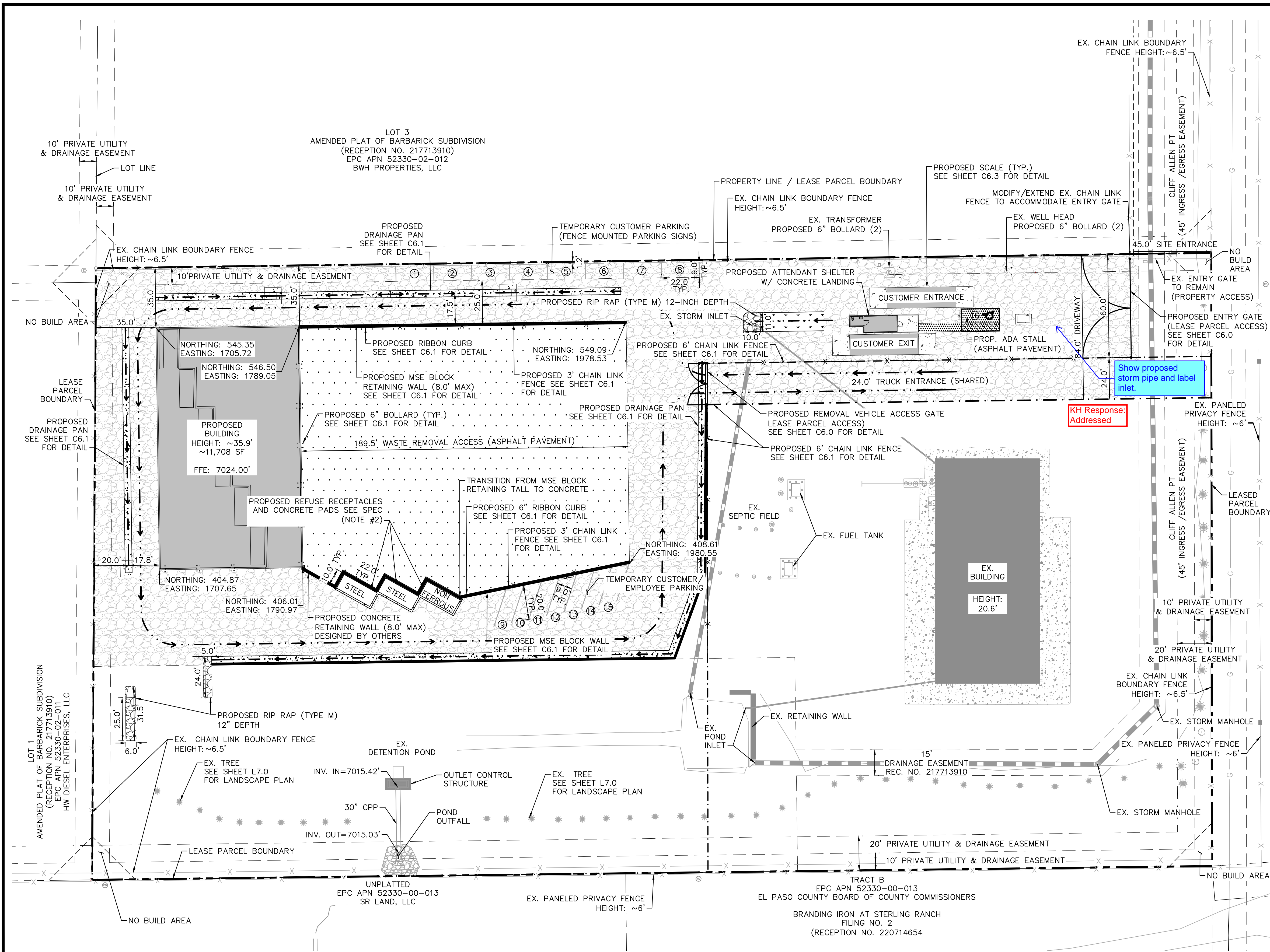


CALL UTILITY NOTIFICATION  
 CENTER OF COLORADO  
 1-800-922-1987  
 CALL 2-BUSINESS DAYS IN ADVANCE  
 BEFORE YOU DIG, GRADE, OR EXCAVATE  
 FOR THE MARKING OF UNDERGROUND  
 MEMBER UTILITIES

PCD FILE NO. COM2346



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**LEGEND**

- PROPERTY LINE
- - - LEASED PARCEL BOUNDARY
- - - EX. UTILITY & DRAINAGE EASEMENT
- PROPOSED TRUCK TRAFFIC FLOW
- X EX. FENCE
- EX. STORM SEWER
- G EX. GAS MAIN
- EX. VEGETATION
- ⊕ EX. TRANSFORMER
- X PROPOSED CHAIN LINK FENCE
- ▨ PROPOSED ASPHALT
- ▩ PROPOSED CONCRETE
- ▧ PROPOSED 10" COMPACTED ROAD BASE
- ⊙ PROPOSED PARKING

**SPECIFICATIONS**

1. ALL CONCRETE FLATWORK AND SCALE FOUNDATIONS SHOULD BE IN ACCORDANCE WITH CDOT CLASS D CONCRETE PER TABLE 601-1 OF SECTION 601 OF THE 2022 CDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
2. CONCRETE RECEPTACLE PADS TO BE 8" REINFORCED CDOT CLASS D CONCRETE W/ #4 BARS @ 18" O.C.E.W.
3. PAVEMENT DESIGN PENDING GEOTECHNICAL RECOMMENDATION
4. ALL DRIVABLE SURFACES NOT SPECIFIED AS CONCRETE OR ASPHALT PAVEMENT ARE TO BE 10" COMPACTED ROAD BASE (CDOT CLASS 5 OR APPROVED EQUIVALENT)

**NOTES**

- \* SEE SHEET C1.2 FOR DETAILED SITE PLAN INSETS.

KH Response: Addressed

Show proposed storm pipe and label inlet.

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

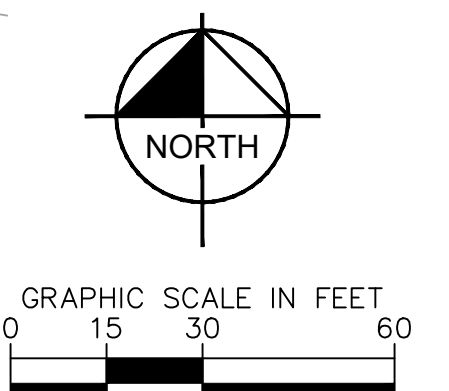
DESIGNED BY: E/JG  
DRAWN BY: RES  
CHECKED BY: E/JG  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
OVERALL SITE PLAN

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

SHEET  
**C1.1**



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

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CENTER OF COLORADO  
1-800-922-1987  
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BEFORE YOU DIG, GRADE, OR EXCAVATE  
FOR THE MARKING OF UNDERGROUND  
MEMBER UTILITIES.

PCD FILE NO. COM2346



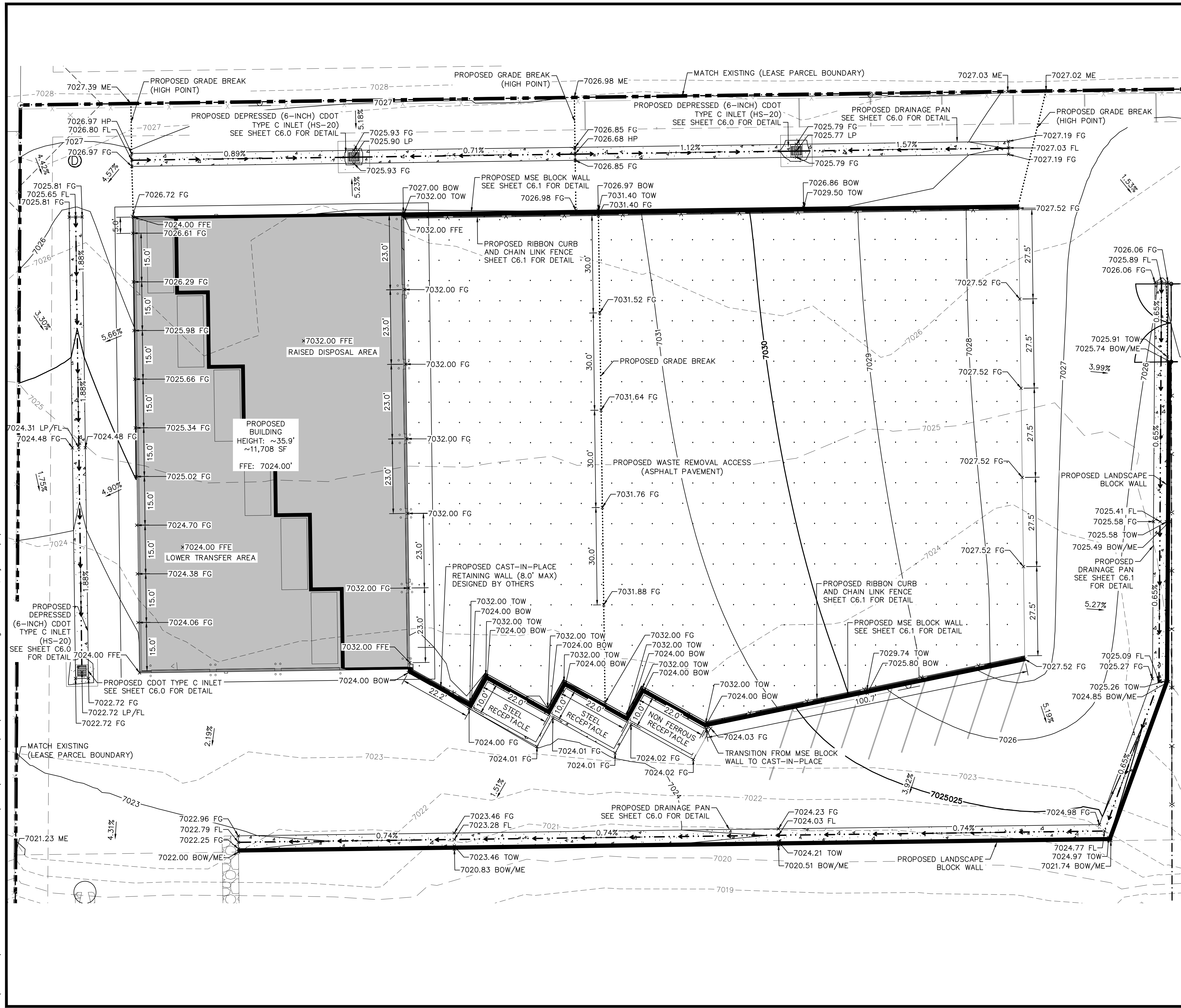








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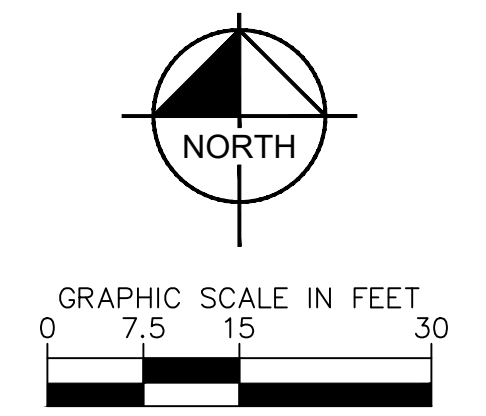
**LEGEND**

- PROPERTY LINE
- - - - - LEASED PARCEL BOUNDARY
- - - - - EXISTING UTILITY & DRAINAGE EASEMENT
- - - - - EXISTING FENCE
- - - - - EXISTING STORM SEWER
- - - - - EXISTING GAS MAIN
- \* EXISTING VEGETATION
- ⊙ EXISTING TRANSFORMER
- PROPOSED STORM INLET
- ▭ PROPOSED ASPHALT
- ▭ PROPOSED CONCRETE
- - - - - 70XX EXISTING MAJOR CONTOUR
- - - - - 70XX EXISTING MINOR CONTOUR
- 70XX PROPOSED MAJOR CONTOUR
- - - - - 70XX PROPOSED MINOR CONTOUR
- PROPOSED FLOW LINE
- - - - - GRADE BREAK LINE
- FG FINISHED GRADE
- ME MATCH EXISTING
- FFE FINISHED FLOOR ELEVATION
- LP LOW POINT
- HP HIGH POINT
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- SLAB TOP OF SLAB

**NOTES**

1. PRIVATE CURB RAMPS ON THE SITE SHALL CONFORM TO ADA STANDARDS
2. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION
3. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA) EXISTING TO AND FROM THE PROPOSED ATTENDANT SHELTER TO THE ACCESSIBLE PARKING SPACE.
4. ACCESSIBLE RAMP SLOPES SHALL NOT EXCEED 1 VERTICAL TO 12 HORIZONTAL
5. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0% SLOW IN ANY DIRECTION
6. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER OF RECORD PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.

MATCHLINE - SEE SHEET C2.2



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

CALL UTILITY NOTIFICATION CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G.  
DRAWN BY: RES  
CHECKED BY: E.J.G.  
DATE: 3/7/2024

**BARBARICK WASTE TRANSFER STATION**  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
**DETAILED GRADING PLAN**

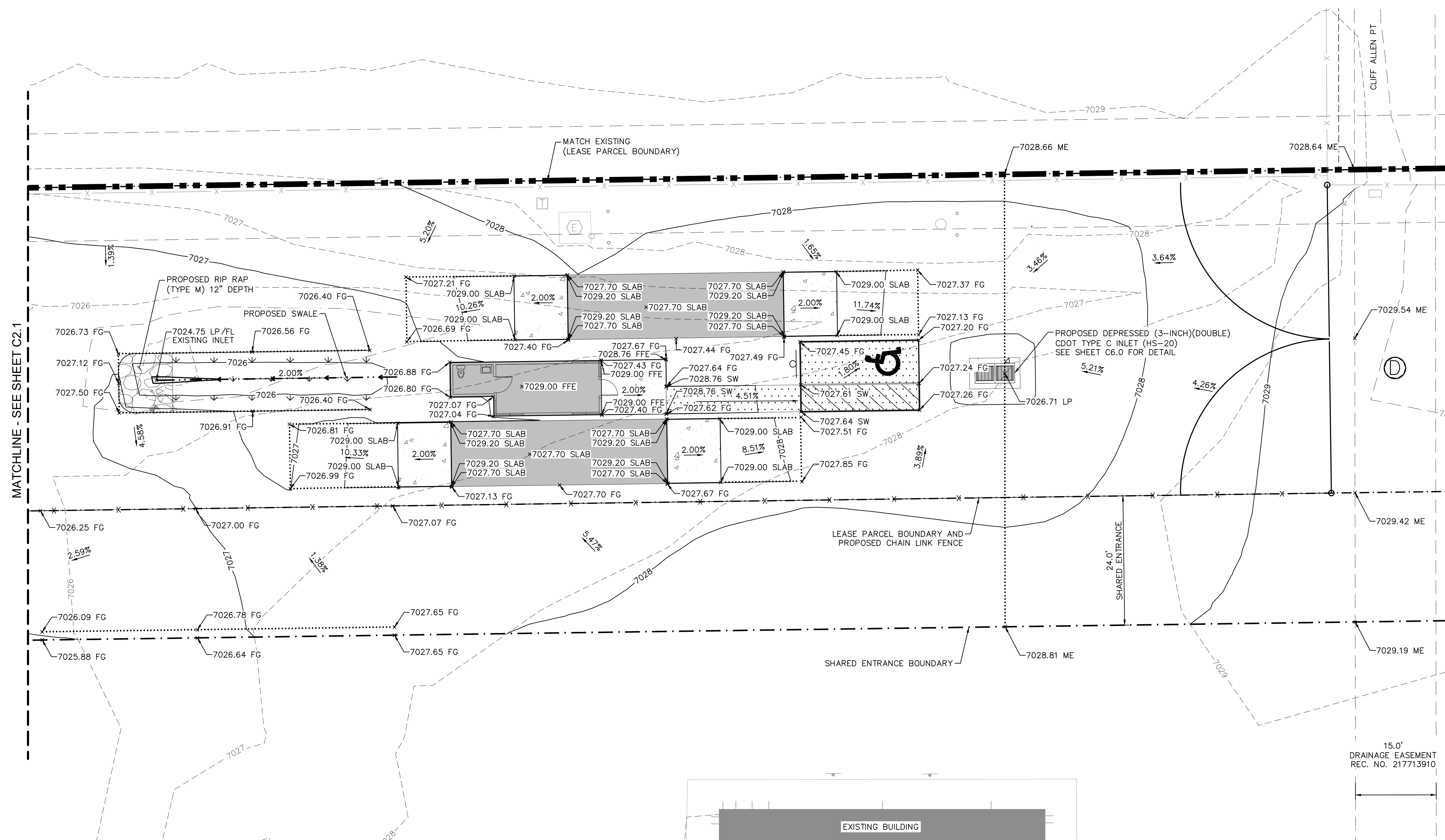
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**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
SHEET  
**C2.1**

PCD FILE NO. COM2346



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**LEGEND**

- — — — — PROPERTY LINE
- . - . - . LEASED PARCEL BOUNDARY
- - - - - EXISTING UTILITY & DRAINAGE EASEMENT
- X — — — — EXISTING FENCE
- — — — EXISTING STORM SEWER
- — — — EXISTING GAS MAIN
- \* EXISTING VEGETATION
- ⊕ EXISTING TRANSFORMER
- PROPOSED STORM INLET

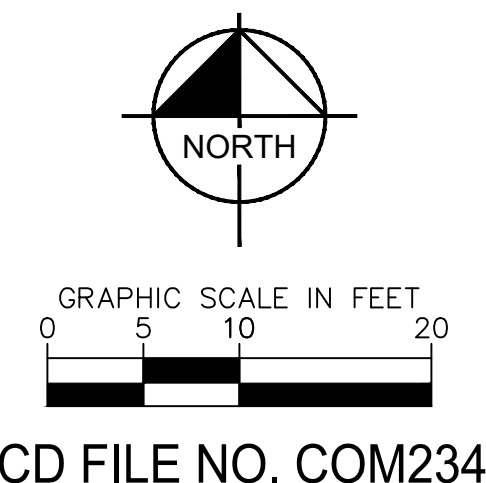
- ▨ PROPOSED ASPHALT
- ▨ PROPOSED CONCRETE
- - - - - 70XX EXISTING MAJOR CONTOUR
- - - - - 70XX EXISTING MINOR CONTOUR
- — — — 70XX PROPOSED MAJOR CONTOUR
- — — — 70XX PROPOSED MINOR CONTOUR
- — — — PROPOSED FLOW LINE
- ⋯⋯⋯ GRADE BREAK LINE

**ABBREVIATIONS**

- FG FINISHED GRADE
- ME MATCH EXISTING
- FFE FINISHED FLOOR ELEVATION
- LP LOW POINT
- HP HIGH POINT
- TOW TOP OF WALL
- BOW BOTTOM OF WALL
- SLAB TOP OF SLAB

**NOTES**

1. PRIVATE CURB RAMPS ON THE SITE SHALL CONFORM TO ADA STANDARDS
2. ALL ACCESSIBLE ROUTES, GENERAL SITE AND BUILDING ELEMENTS, RAMPS, STRIPING AND PAVEMENT MARKINGS SHALL CONFORM TO ADA STANDARDS FOR ACCESSIBLE DESIGN, LATEST EDITION
3. BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE ACCESSIBLE PEDESTRIAN ROUTES (PER ADA) EXISTING TO AND FROM THE PROPOSED ATTENDANT SHELTER TO THE ACCESSIBLE PARKING SPACE.
4. ACCESSIBLE RAMP SLOPES SHALL NOT EXCEED 1 VERTICAL TO 12 HORIZONTAL
5. ACCESSIBLE PARKING SPACES AND ACCESS AISLES SHALL NOT EXCEED 2.0% SLOW IN ANY DIRECTION
6. CONTRACTOR SHALL TAKE FIELD SLOPE MEASUREMENTS ON FINISHED SUBGRADE AND FORM BOARDS PRIOR TO PLACING PAVEMENT TO VERIFY THAT ADA SLOPE REQUIREMENTS ARE PROVIDED. CONTRACTOR SHALL CONTACT ENGINEER OF RECORD PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR ADA SLOPE COMPLIANCE ISSUES.



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2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

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DATE: 3/7/2024

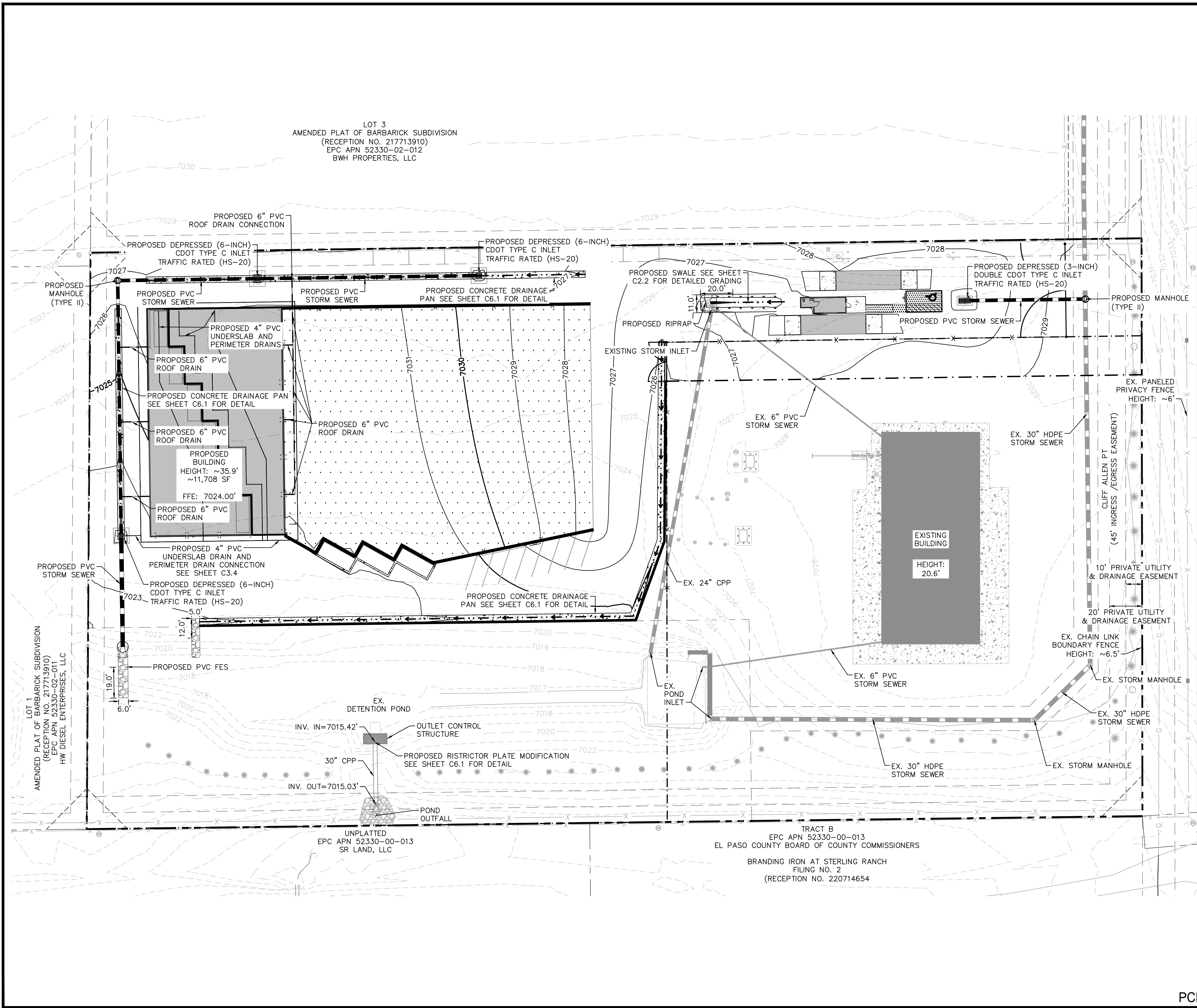
BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
DETAILED GRADING PLAN

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PROJECT NO. 196489000  
SHEET  
**C2.2**



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LOT 3  
AMENDED PLAT OF BARBARICK SUBDIVISION  
(RECEPTION NO. 217713910)  
EPC APN 52330-02-012  
BWH PROPERTIES, LLC

LOT 1  
AMENDED PLAT OF BARBARICK SUBDIVISION  
(RECEPTION NO. 217713910)  
EPC APN 52330-02-011  
HW DIESEL ENTERPRISES, LLC

UNPLATTED  
EPC APN 52330-00-013  
SR LAND, LLC

TRACT B  
EPC APN 52330-00-013  
EL PASO COUNTY BOARD OF COUNTY COMMISSIONERS  
BRANDING IRON AT STERLING RANCH  
FILING NO. 2  
(RECEPTION NO. 220714654)

**LEGEND**

- PROPERTY LINE
- - - LEASED PARCEL BOUNDARY
- - - EXISTING UTILITY & DRAINAGE EASEMENT
- X EXISTING FENCE
- EXISTING STORM SEWER
- EXISTING GAS MAIN
- EXISTING VEGETATION
- ⊗ EXISTING TRANSFORMER
- - - PROPOSED FLOW LINE
- PROPOSED STORM SEWER
- PROPOSED PERIMETER/UNDERSLAB DRAIN
- PROPOSED STORM INLET
- ▨ PROPOSED ASPHALT
- ▩ PROPOSED CONCRETE

**NOTES**

1. SEE SHEETS C3.1 - C3.3 FOR DETAILED STORM PLAN AND PROFILES
2. SEE SHEET C3.4 FOR DETAILED DRAIN PLAN
3. SEE SHEET C6.0 FOR INLET AND MANHOLE DETAILS
4. SEE SHEET C6.1 FOR CONCRETE DRAINAGE PAN DETAIL
5. ALL PROPOSED STORMWATER INFRASTRUCTURE DEPICTED ON THESE PLANS IS TO BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED

**CAUTION NOTE** ⚠

1. CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
2. CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

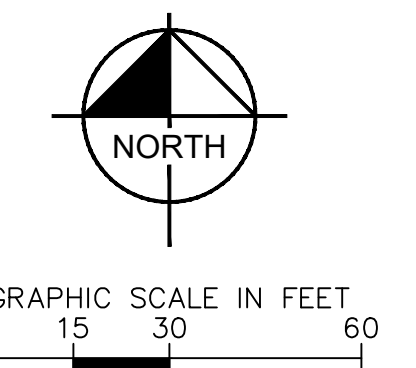
DESIGNED BY: EJK  
DRAWN BY: RES  
CHECKED BY: EJK  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
OVERALL STORM PLAN

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR  
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**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
SHEET

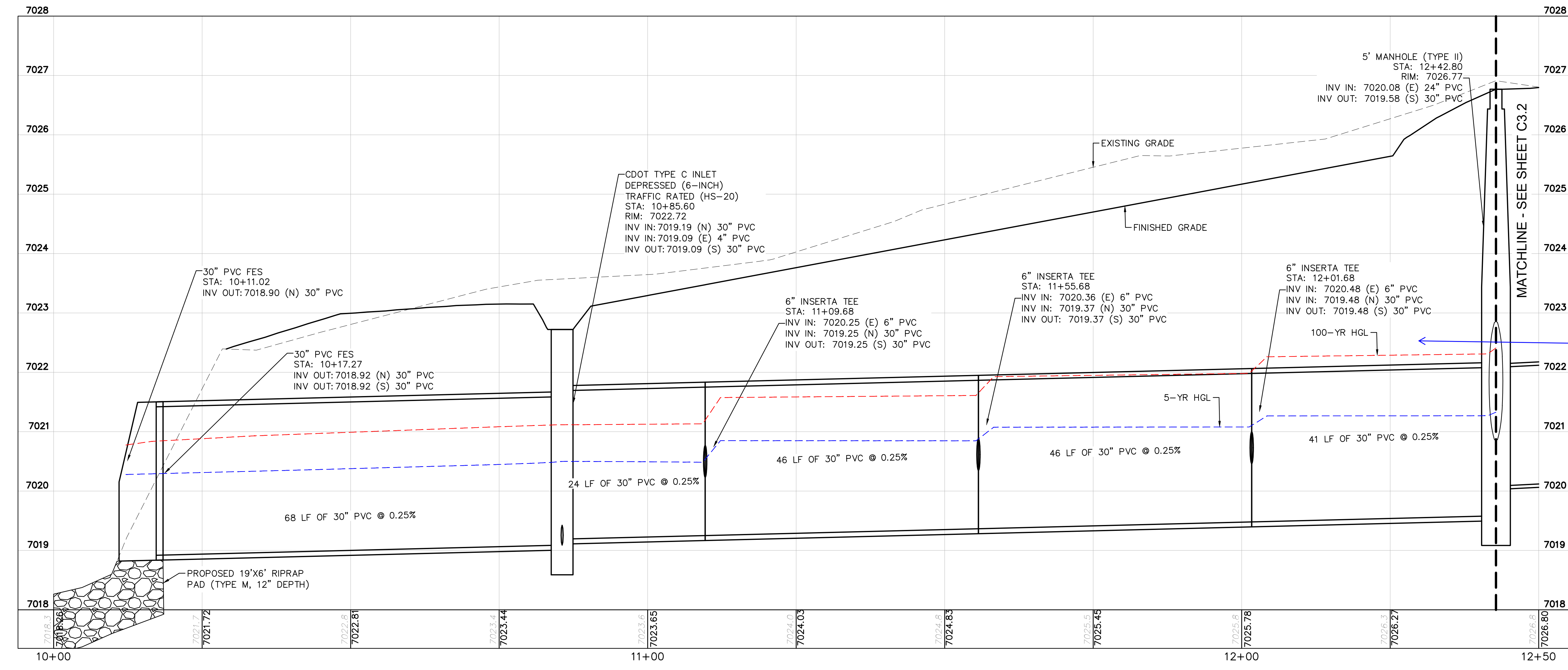
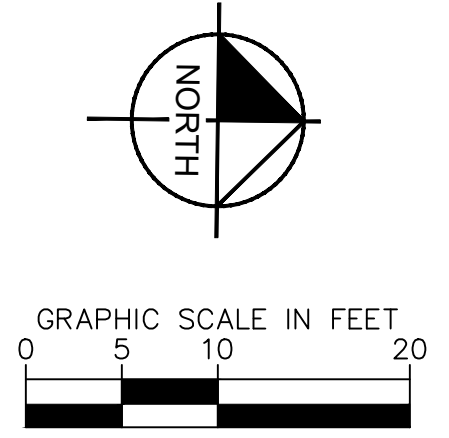
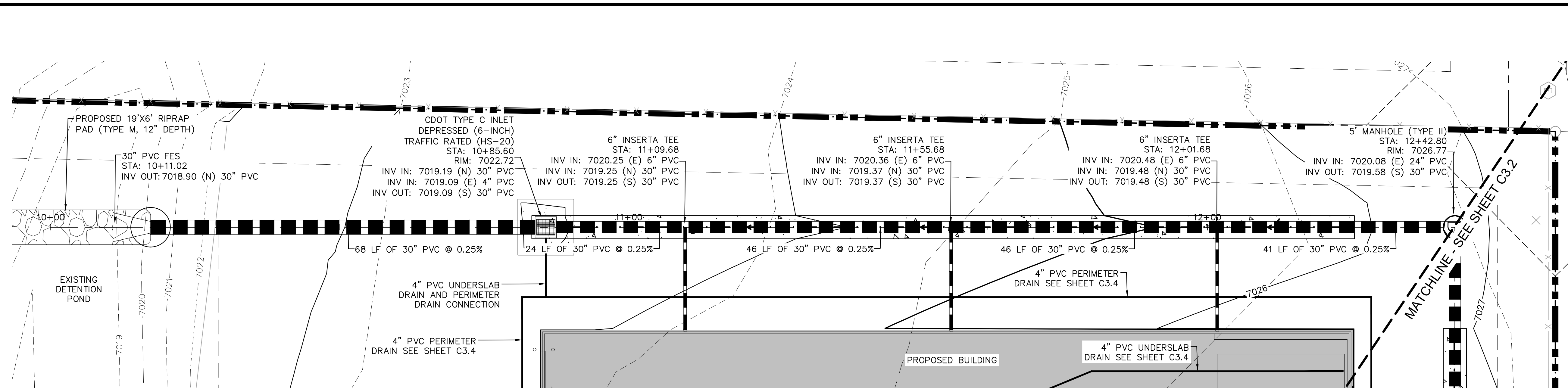
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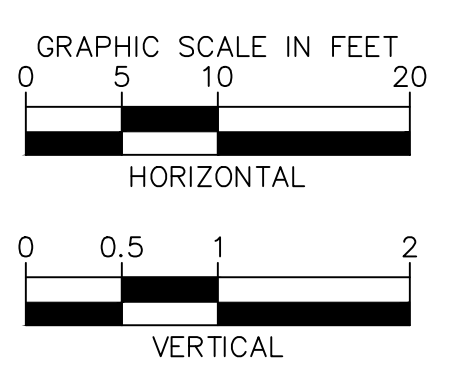


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Please add the following note to the CD where applicable  
"Add water tight joint when 100 YR HGL shows pipe fully inundated"

KH Response: Addressed



- NOTES**
- SEE SHEET C3.4 FOR DETAILED DRAIN PLAN
  - ALL PROPOSED STORM INFRASTRUCTURE DEPICTED ON THESE PLANS IS TO BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED

- CAUTION NOTE** ⚠️
- CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
  - CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G.  
DRAWN BY: RES  
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BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
STORM PLAN & PROFILE

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

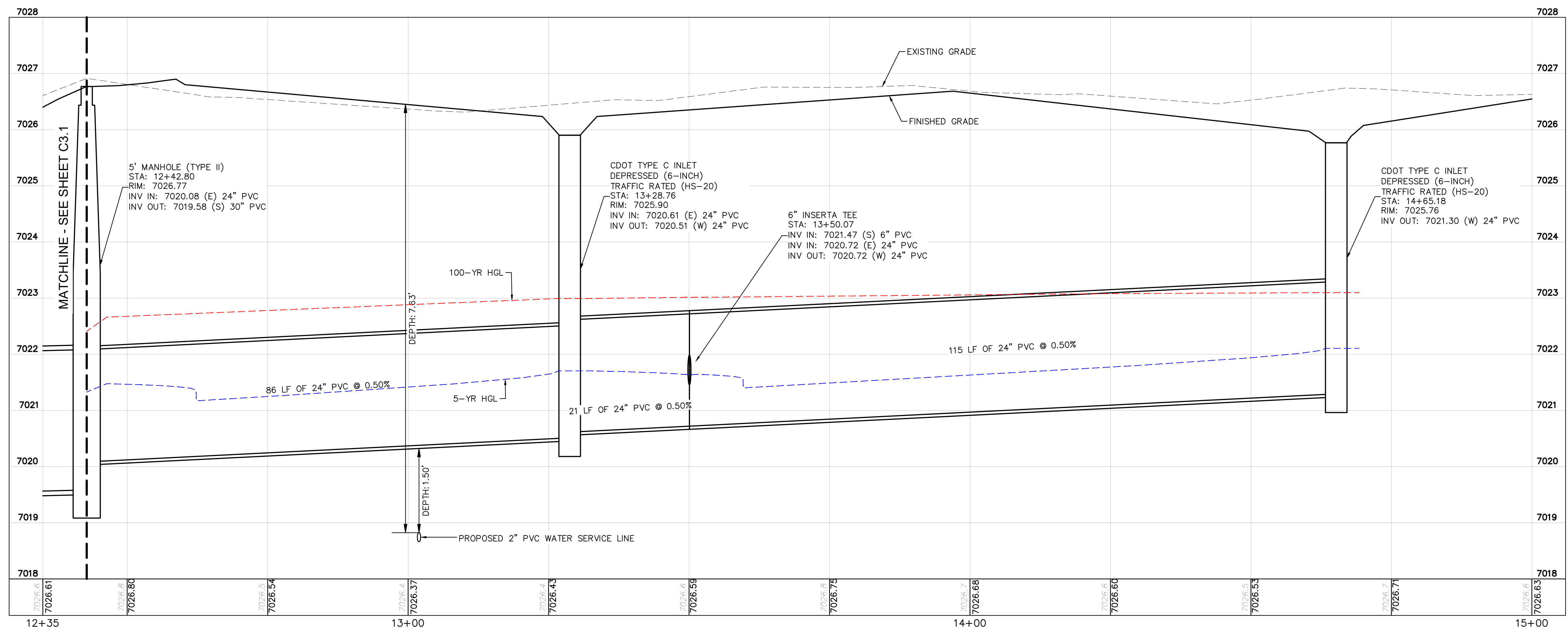
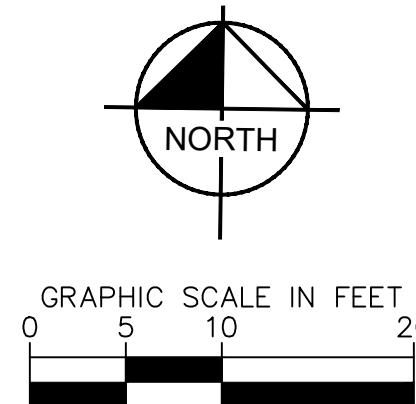
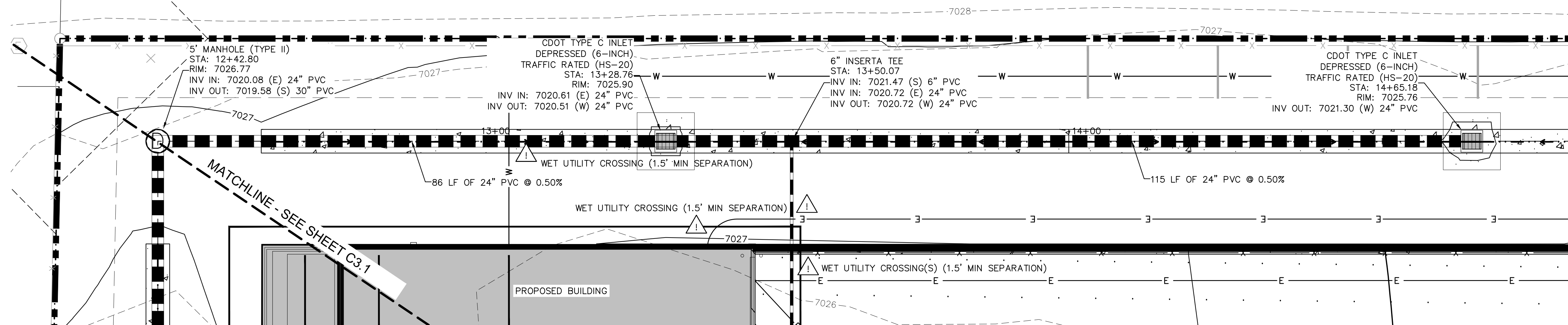
SHEET  
**C3.1**



PCD FILE NO. COM2346



K:\COS\_Civil\196489000\_Barbarick Waste Transfer\CADD\PlanSheets\CDs\CD\_STRM P&P-196489000.dwg Schmelbach, Ryan 3/8/2024 9:32 AM



**NOTES**

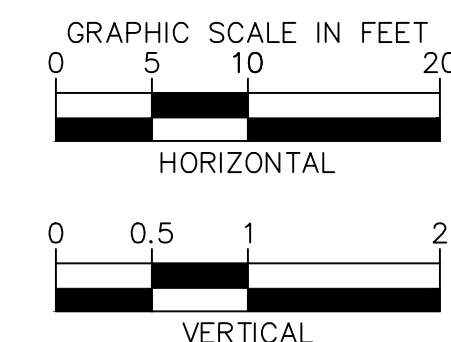
- SEE SHEET C3.4 FOR DETAILED DRAIN PLAN
- ALL PROPOSED STORM INFRASTRUCTURE DEPICTED ON THESE PLANS IS TO BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED

**CAUTION NOTE** ⚠️

- CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
- CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.

Please add the following note to the CD where applicable  
"Add water tight joint when 100 YR HGL shows pipe fully inundated"

KH Response:  
Addressed



PCD FILE NO. COM2346

**Kimley»Horn**

2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G.  
DRAWN BY: RES  
CHECKED BY: E.J.G.  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
STORM PLAN & PROFILE

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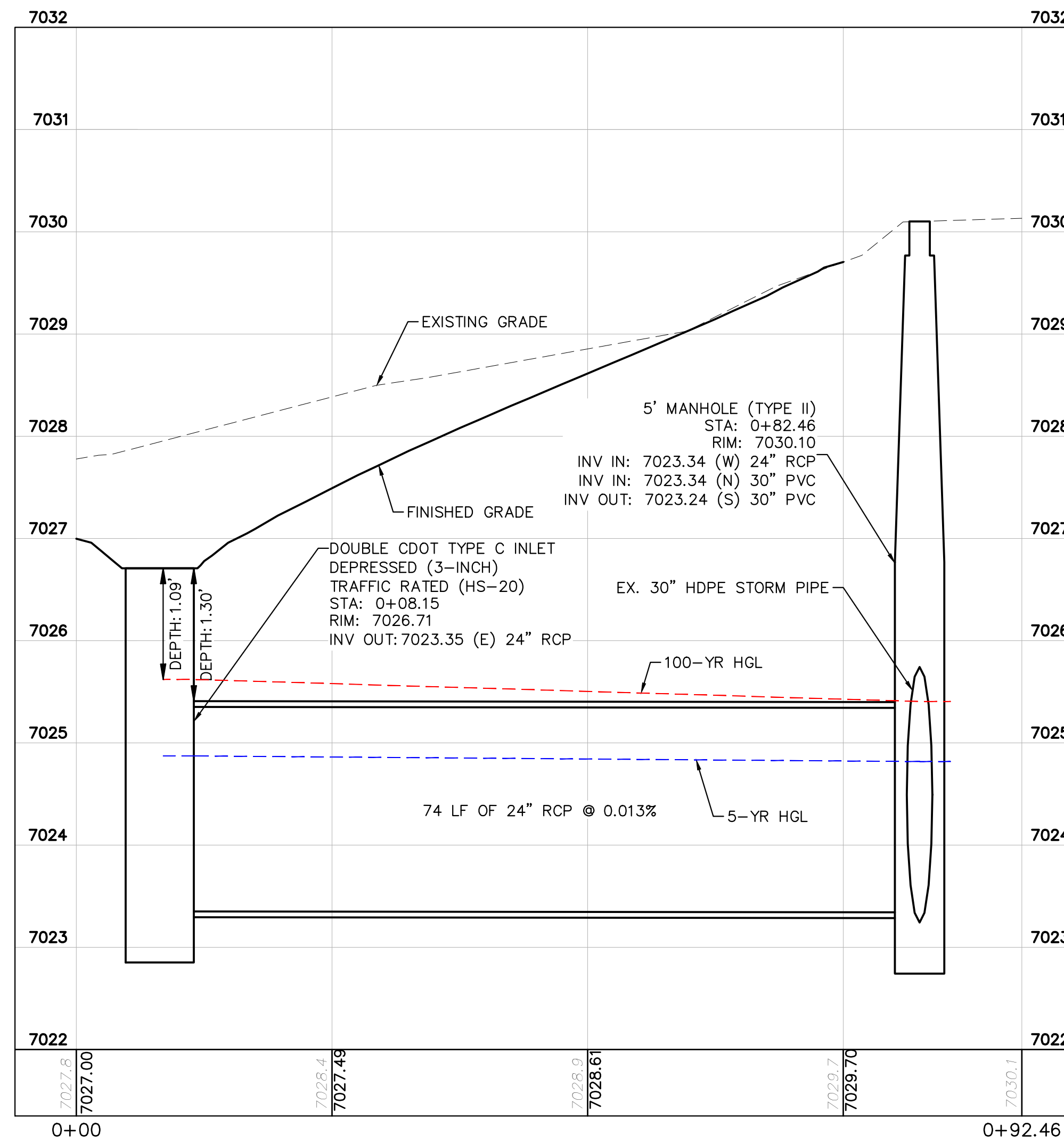
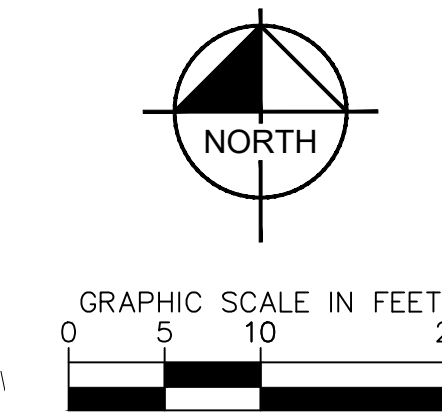
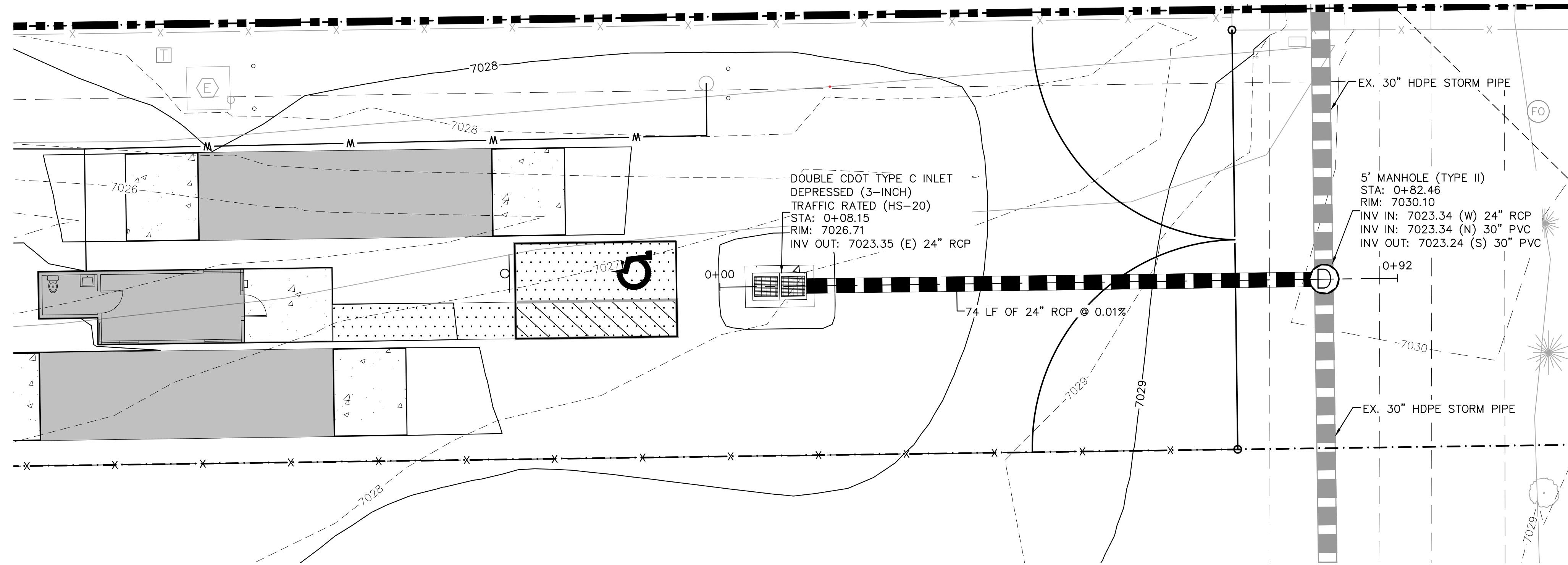
PROJECT NO.  
196489000

SHEET

C3.2



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**NOTES**

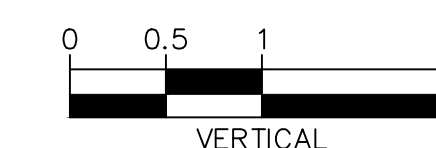
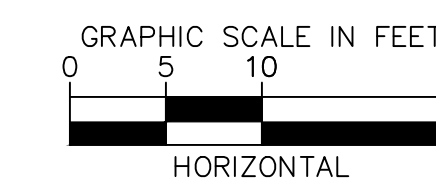
- SEE SHEET C3.4 FOR DETAILED DRAIN PLAN
- ALL PROPOSED STORM INFRASTRUCTURE DEPICTED ON THESE PLANS IS TO BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED

**CAUTION NOTE** ⚠

- CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
- CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.

Please add the following note to the CD where applicable "Add water tight joint when 100 YR HGL shows pipe fully inundated"

KH Response: Addressed



PCD FILE NO. COM2346



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2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G  
DRAWN BY: RES  
CHECKED BY: E.J.G  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
STORM PLAN & PROFILE

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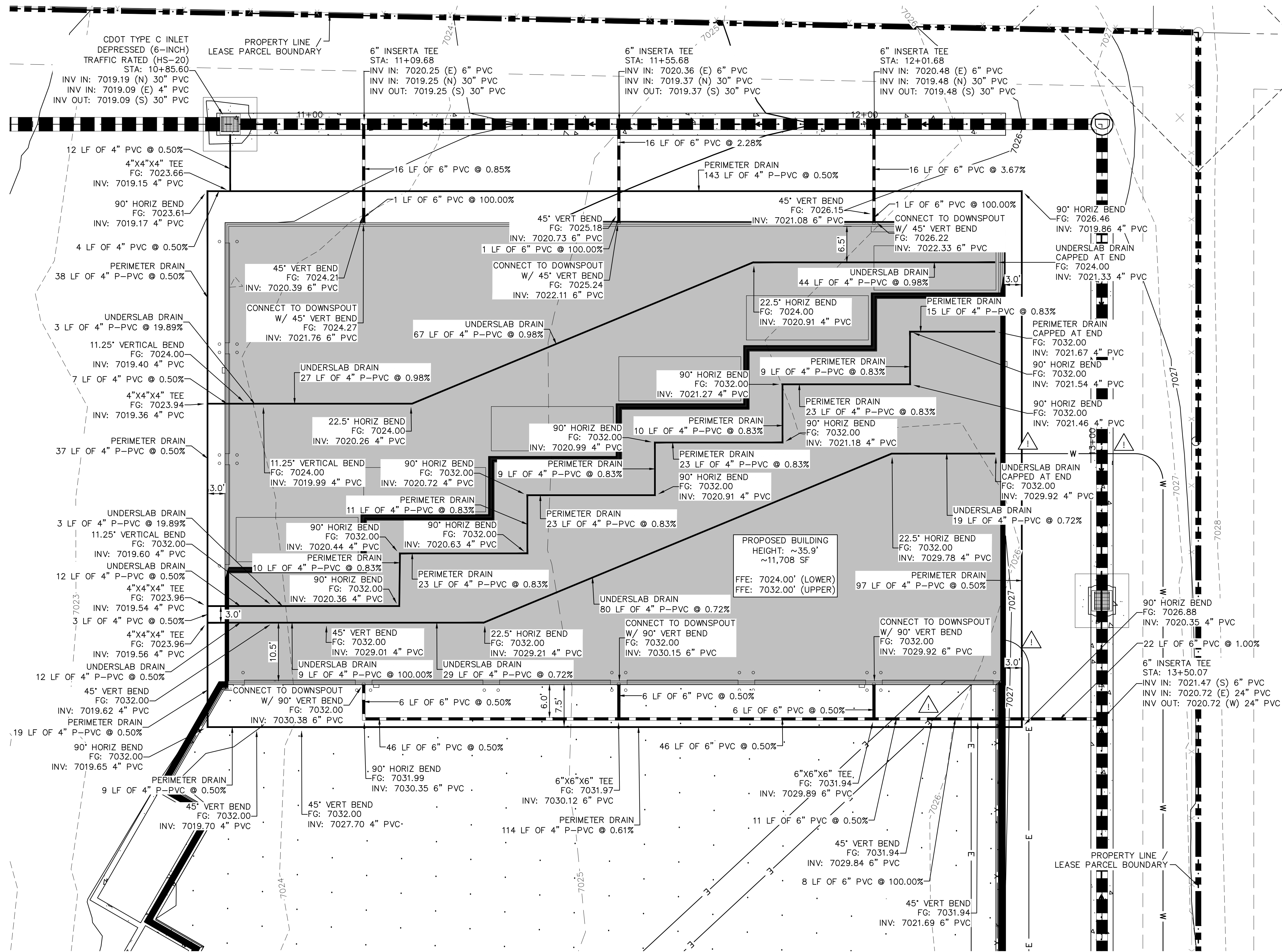
PROJECT NO.  
196489000

SHEET

C3.3



K:\COS\_Civil\196489000\_Barbarick Waste Transfer\Transfer\CADD\PlanSheets\CDS\_CD\_STRM\_RD-196489000.dwg Schnellbach, Ryan 3/8/2024 10:08 AM



**LEGEND**

- PROPERTY LINE
- - - LEASED PARCEL BOUNDARY
- - - EXISTING UTILITY & DRAINAGE EASEMENT
- - - EXISTING FENCE
- - - EXISTING STORM SEWER
- - - EXISTING GAS MAIN
- EXISTING VEGETATION
- ⊗ EXISTING TRANSFORMER
- - - PROPOSED FLOW LINE
- - - PROPOSED STORM SEWER
- - - PROPOSED PERIMETER / UNDERSLAB DRAIN
- PROPOSED STORM INLET
- ▨ PROPOSED ASPHALT
- ▩ PROPOSED CONCRETE

**NOTES**

1. SEE SHEETS C3.1 - C3.3 FOR DETAILED STORM PLAN AND PROFILES
2. ALL PROPOSED STORM INFRASTRUCTURE DEPICTED ON THESE PLANS IS TO BE PRIVATELY OWNED AND MAINTAINED UNLESS OTHERWISE NOTED
3. SEE SHEET C6.0 FOR ROOF DRAIN CONNECTION DETAIL
4. PERIMETER AND UNDERSLAB DRAINS ARE TO BE PERFORATED PVC (P-PVC) AND SHALL BE INSTALLED WITHIN A FREE-DRAINING LAYER (3/4" CLEAN GRAVEL).

**CAUTION NOTE**

1. CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
2. CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.

**Kimley»Horn**  
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 2 North Nevada Avenue Suite 900  
 Colorado Springs, Colorado 80903 (719) 453-0180

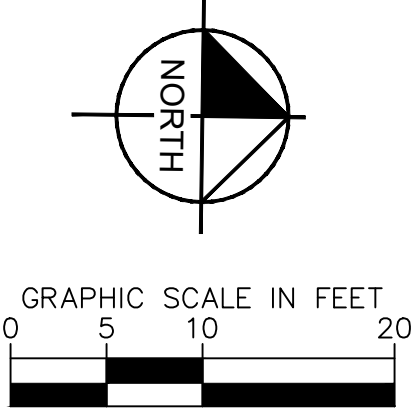
DESIGNED BY: E.J.G.  
 DRAWN BY: RES  
 CHECKED BY: E.J.G.  
 DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
**DRAIN PLAN**

**PRELIMINARY**  
 FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION  
**Kimley»Horn**  
 Kimley-Horn and Associates, Inc.

PROJECT NO.  
 196489000

SHEET  
**C3.4**



PCD FILE NO. COM2346



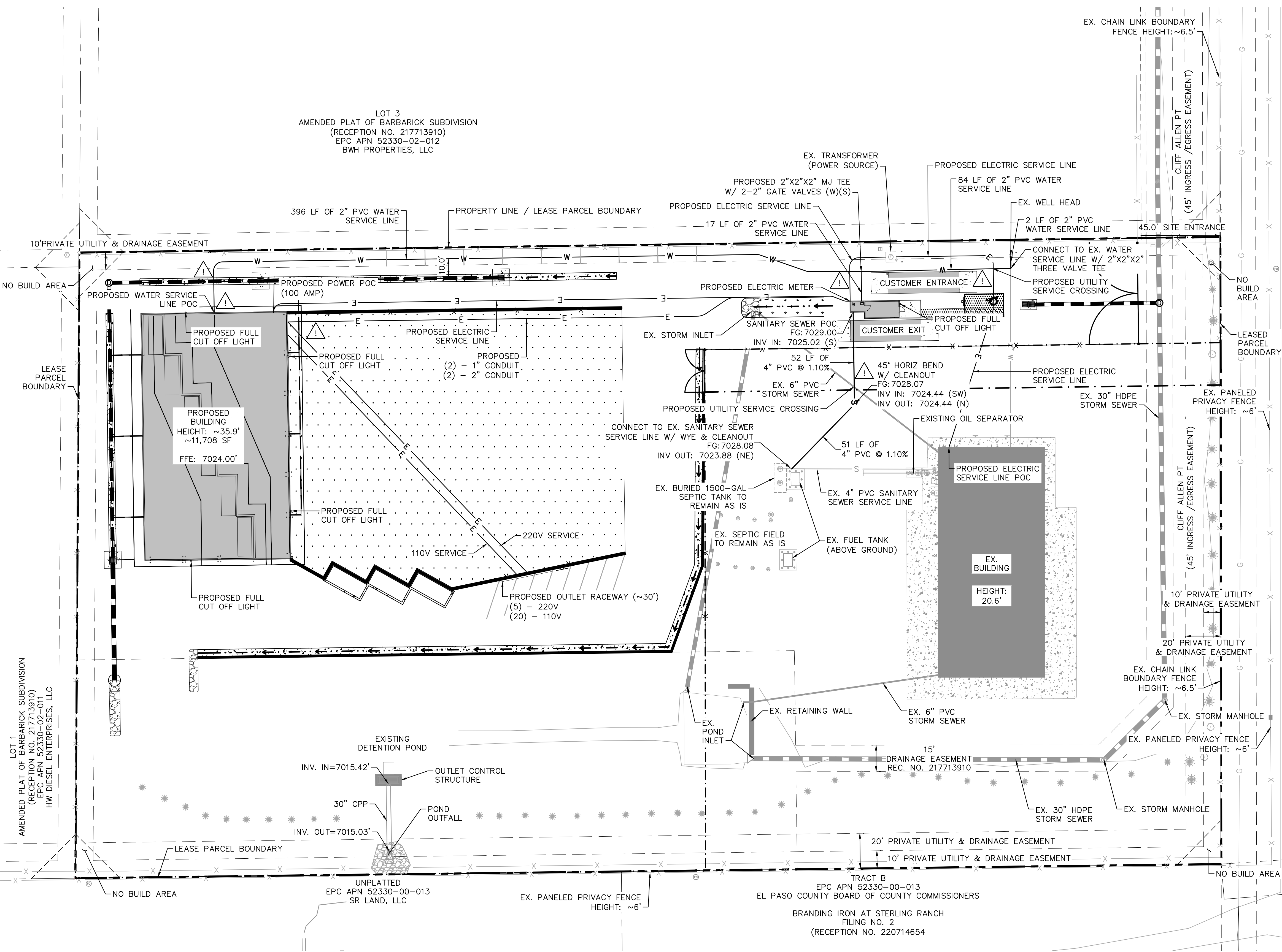
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LOT 1  
AMENDED PLAT OF BARBARICK SUBDIVISION  
(RECEPTION NO. 217713910)  
EPC APN 52330-02-011  
HW DIESEL ENTERPRISES, LLC

LOT 3  
AMENDED PLAT OF BARBARICK SUBDIVISION  
(RECEPTION NO. 217713910)  
EPC APN 52330-02-012  
BWH PROPERTIES, LLC

TRACT B  
EPC APN 52330-00-013  
EL PASO COUNTY BOARD OF COUNTY COMMISSIONERS  
BRANDING IRON AT STERLING RANCH  
FILING NO. 2  
(RECEPTION NO. 220714654)

UNPLATTED  
EPC APN 52330-00-013  
SR LAND, LLC



**LEGEND**

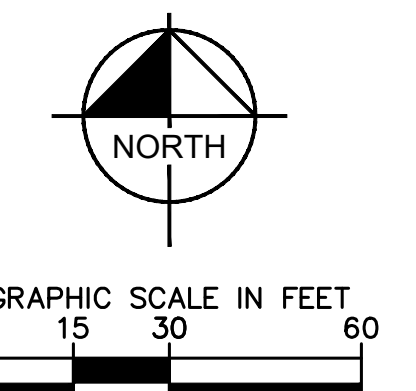
- PROPERTY LINE
- - - LEASED PARCEL BOUNDARY
- - - EX. UTILITY & DRAINAGE EASEMENT
- X EX. FENCE
- EX. STORM SEWER
- G EX. GAS MAIN
- EX. VEGETATION
- ⊙ EX. TRANSFORMER
- W PROPOSED WATER SERVICE LINE
- S PROPOSED SEPTIC SERVICE LINE
- E PROPOSED ELECTRIC SERVICE LINE
- PROPOSED STORM SEWER
- ▨ PROPOSED ASPHALT
- ▩ PROPOSED CONCRETE

**NOTES**

1. ALL CONDITIONS SHOWN TO BE "EX." SHALL BE VERIFIED IN THE FIELD BY THE GENERAL CONTRACTOR PRIOR TO START OF CONSTRUCTION. ANY DISCREPANCIES SHALL BE SUBMITTED TO THE OWNER AND THE ENGINEER FOR REVIEW. CHANGES TO THE ORIGINAL DESIGN MUST BE APPROVED BY BOTH THE OWNER AND THE ENGINEER PRIOR TO MAKING ANY CHANGES.
2. ALL WATER SERVICE LINES SHALL MAINTAIN A BURY DEPTH OF 6'-7'.
3. EXISTING INFLUENT SEPTIC SEWER LINE IS TO BE POTHOLED PRIOR TO SERVICE LINE CONNECTION AT THE EXISTING SEPTIC TANK.
4. PROPOSED SANITARY SEWER LINE IS TO BE 4" SCH 40 PVC

**CAUTION NOTE** ⚠

1. CONTRACTOR SHALL MAINTAIN 1.5' OF VERTICAL SEPARATION AT ALL WET UTILITY CROSSINGS.
2. CONTRACTOR SHALL MAINTAIN 1.0' OF VERTICAL SEPARATION AT ALL DRY UTILITY CROSSINGS.



PCD FILE NO. COM2346



DESIGNED BY: E.J.G.  
DRAWN BY: RES  
CHECKED BY: E.J.G.  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
UTILITY PLAN

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
**Kimley-Horn**  
Kimley-Horn and Associates, Inc.

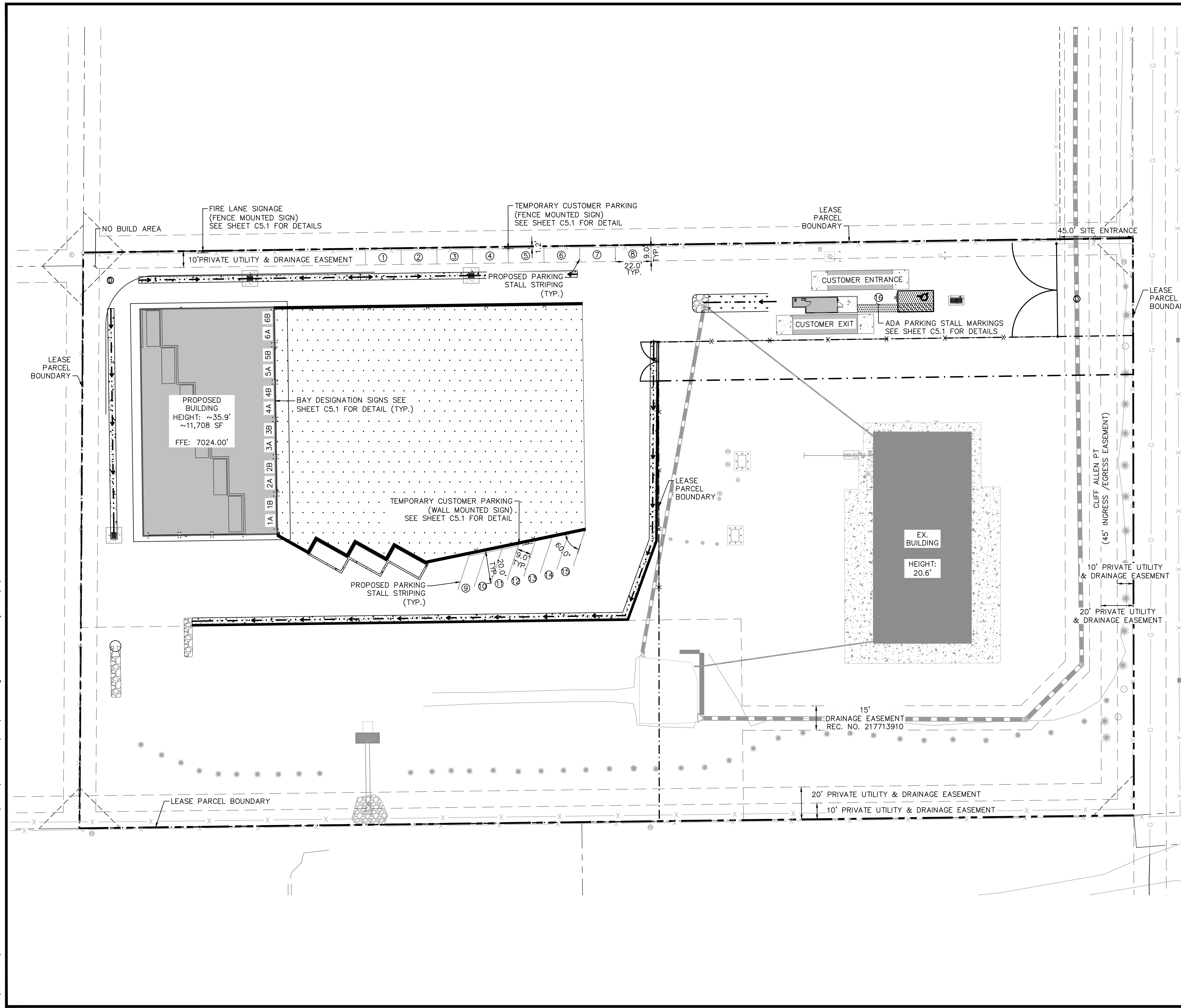
PROJECT NO.  
196489000

SHEET

C4.0



K:\COS\_Civil\196489000\_Barbarick Waste Transfer\CADD\PlanSheets\CDS\CD\_SS.dwg Schnelboch, Ryan 3/8/2024 10:10 AM



- LEGEND**
- PROPERTY LINE
  - - - LEASED PARCEL BOUNDARY
  - - - EX. UTILITY & DRAINAGE EASEMENT
  - - - PROPOSED TRUCK TURN MOVEMENT
  - X EX. FENCE
  - - - EX. STORM SEWER
  - G EX. GAS MAIN
  - EX. VEGETATION
  - ⊕ EX. TRANSFORMER
  - ▨ PROPOSED ASPHALT
  - ▩ PROPOSED CONCRETE
  - ⊙ PROPOSED PARKING STALL

**Kimley»Horn**  
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 2 North Nevada Avenue Suite 900  
 Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E:JG  
 DRAWN BY: RES  
 CHECKED BY: E:JG  
 DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
 SIGNAGE & STRIPING PLAN

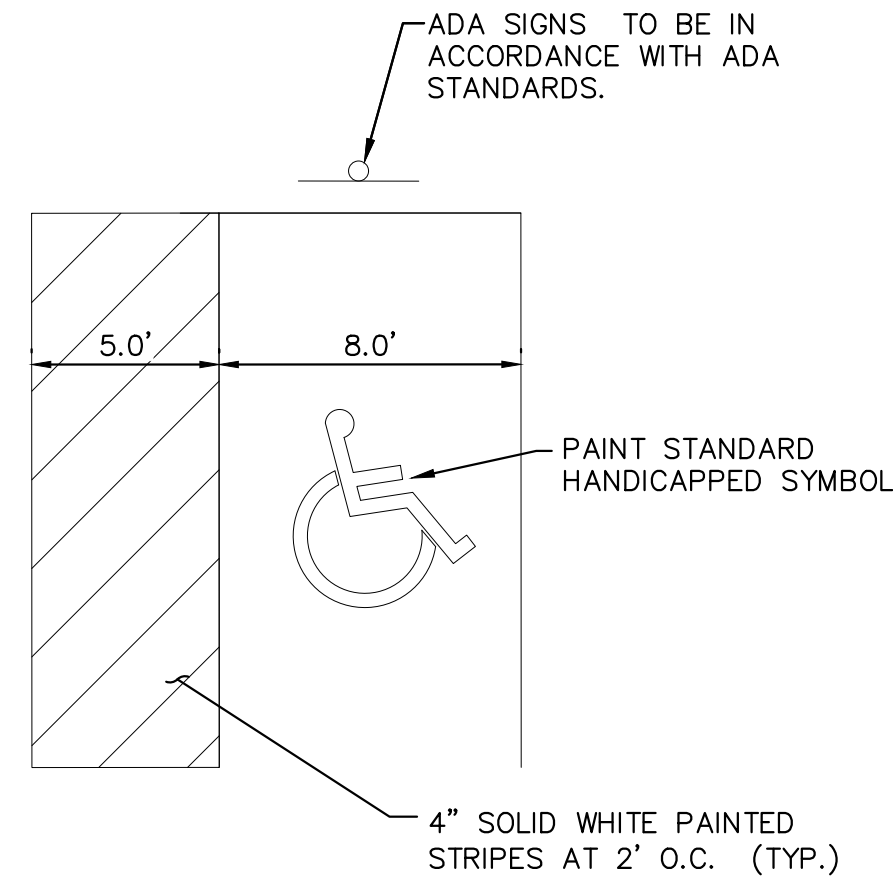
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 CONSTRUCTION  
**Kimley»Horn**  
 Kimley-Horn and Associates, Inc.

PROJECT NO.  
 196489000  
 SHEET  
**C5.0**

811 Know what's below. Call before you dig.  
 CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987  
 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

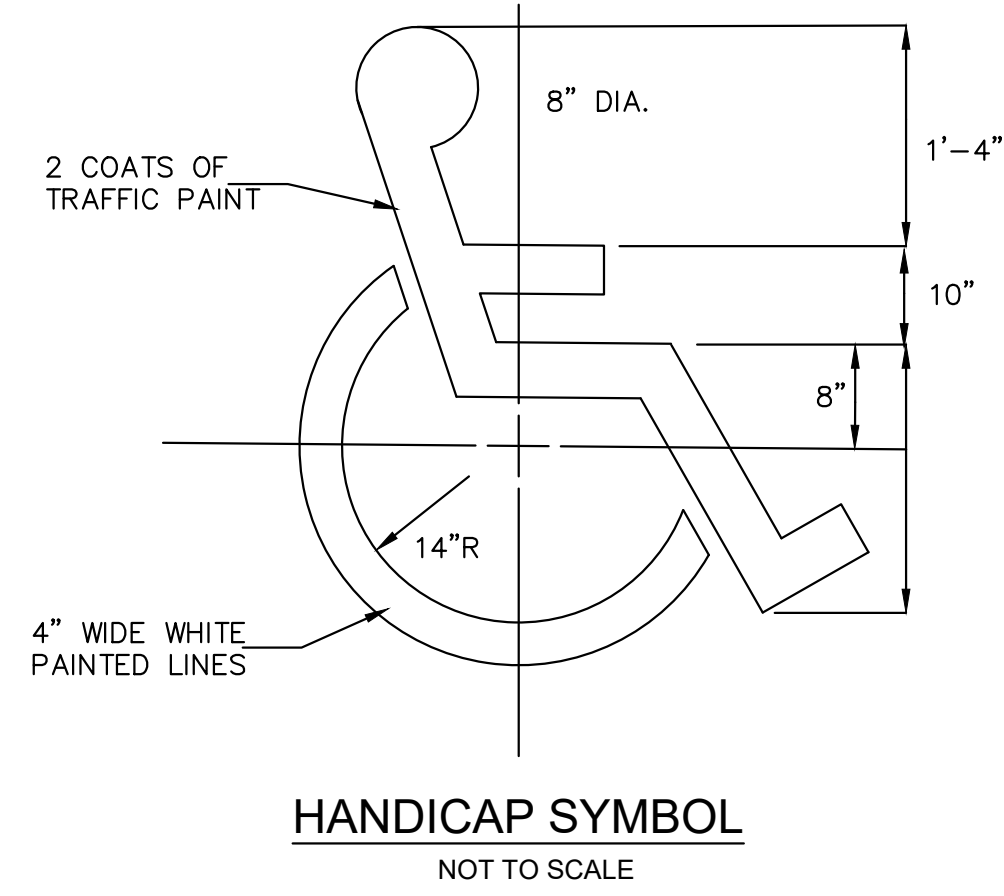
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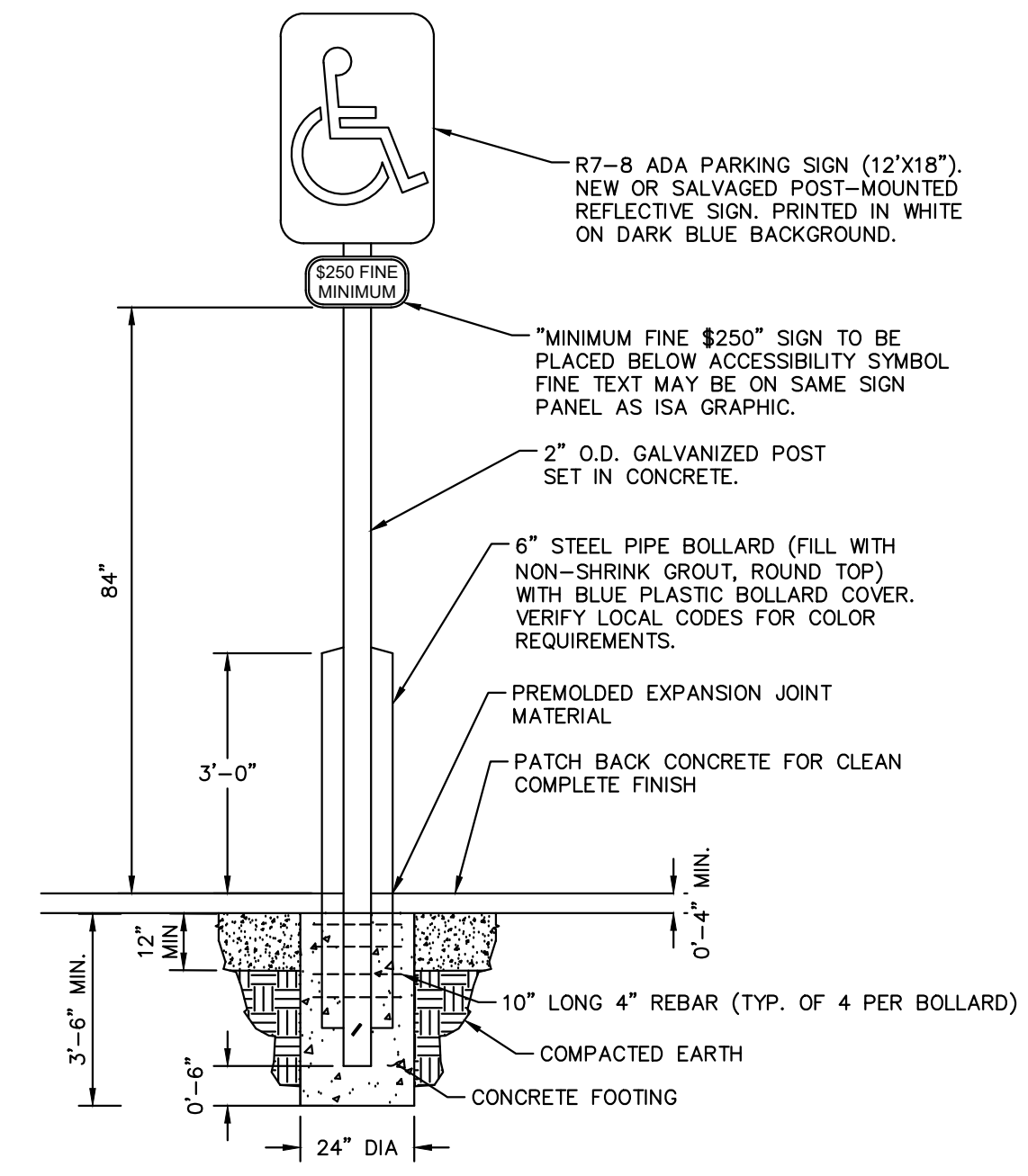


- NOTES:
- DIMENSIONS MAY VARY REFER TO SITE PLAN (SHEET C5.0).
  - SIGNAGE AND MARKINGS TO BE IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.

**ACCESSIBLE PARKING DETAIL**  
NOT TO SCALE



**HANDICAP SYMBOL**  
NOT TO SCALE

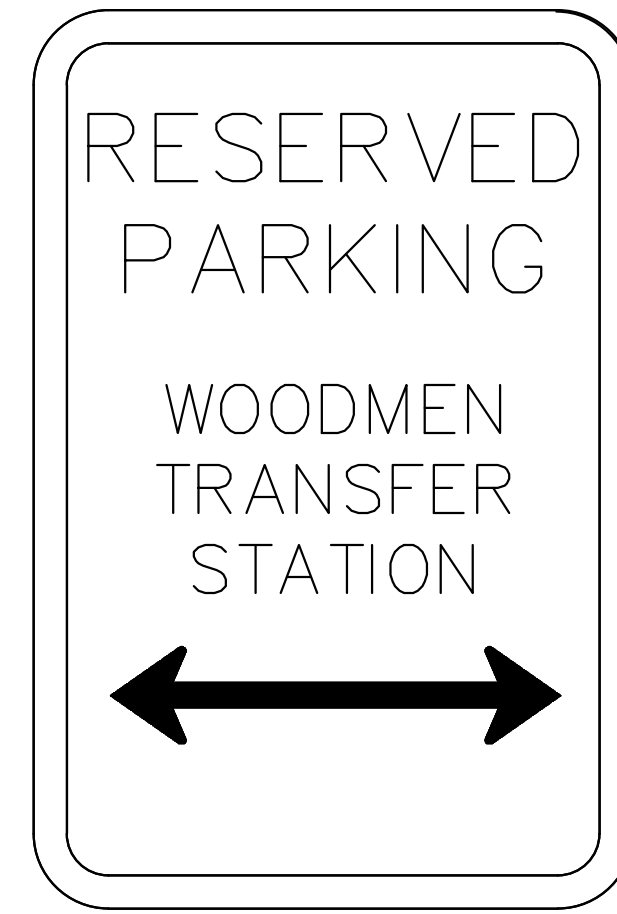


**ADA PARKING SIGN DETAILS**  
NOT TO SCALE

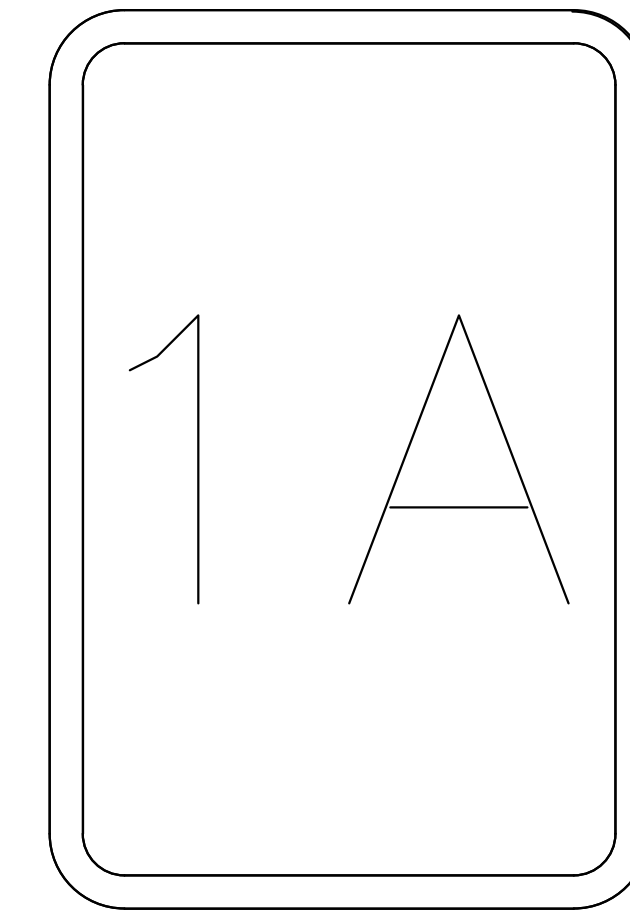


**FIRE LANE SIGNAGE DETAIL**  
NOT TO SCALE

- NOTE:
- SIGN MUST HAVE A WHITE REFLECTIVE BACKGROUND WITH LETTERS AND BORDERS IN RED, USING NOT LESS THAN TWO INCH (2") LETTERING AND HAVE A MINIMUM DIMENSION OF TWELVE INCHES (12") WIDE BY EIGHTEEN INCHES (18") HIGH.
  - REFER TO THE COLORADO SPRINGS FIRE DEPARTMENT FIRE LANE STRIPING AND SIGNING HANDBOOK FOR ACCEPTABLE ALTERNATIVES AND REQUIREMENTS.
  - SIGN IS TO BE FENCE MOUNTED (CHAIN LINK FENCE).



**CUSTOMER PARKING DETAIL**  
NOT TO SCALE



**BAY DESIGNATION SIGN DETAIL**  
NOT TO SCALE



**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJG  
DRAWN BY: RES  
CHECKED BY: EJG  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
SIGNAGE & STRIPING DETAILS

PRELIMINARY  
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**Kimley»Horn**  
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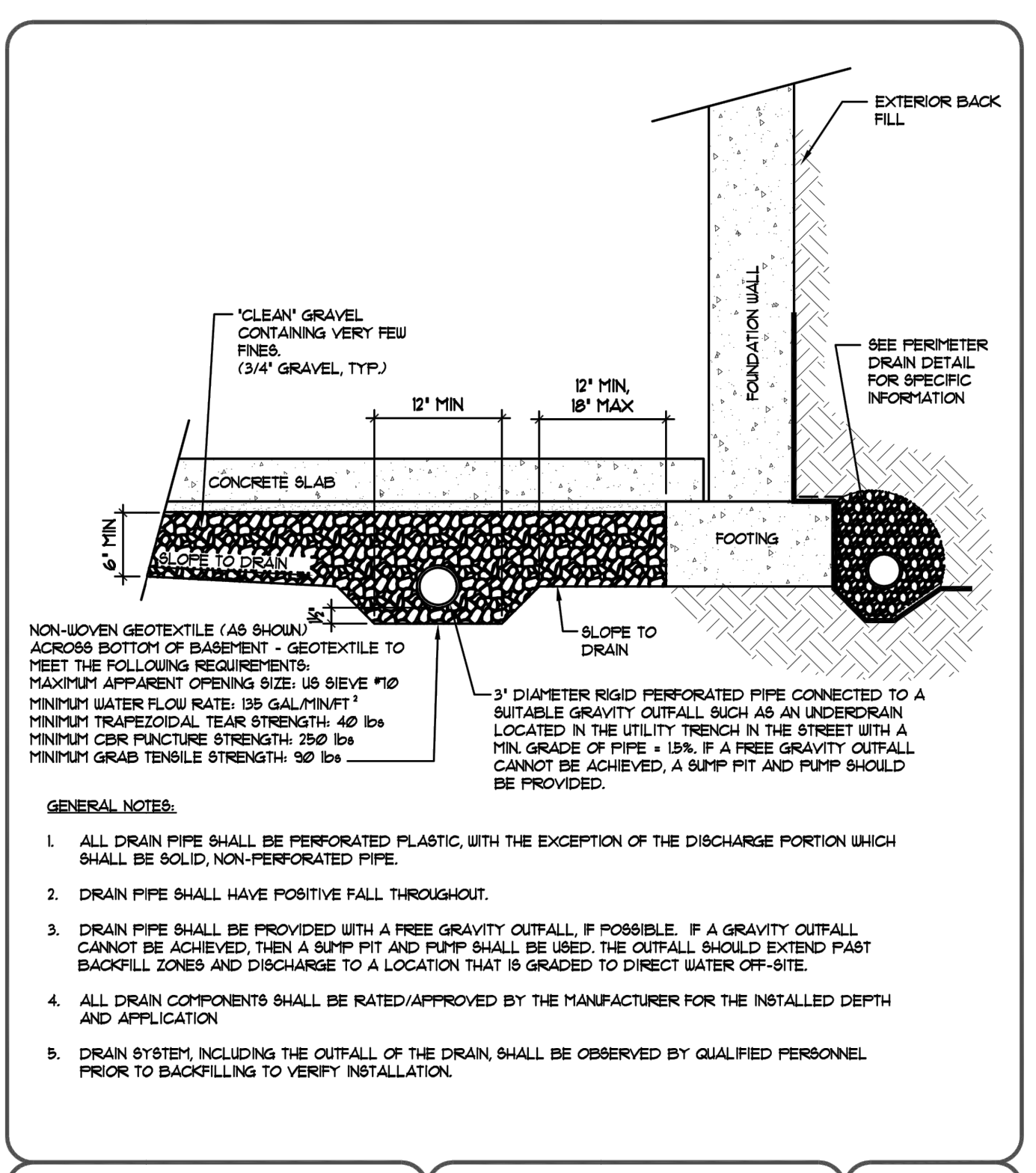
PROJECT NO.  
196489000

SHEET

C5.1

PCD FILE NO. COM2346

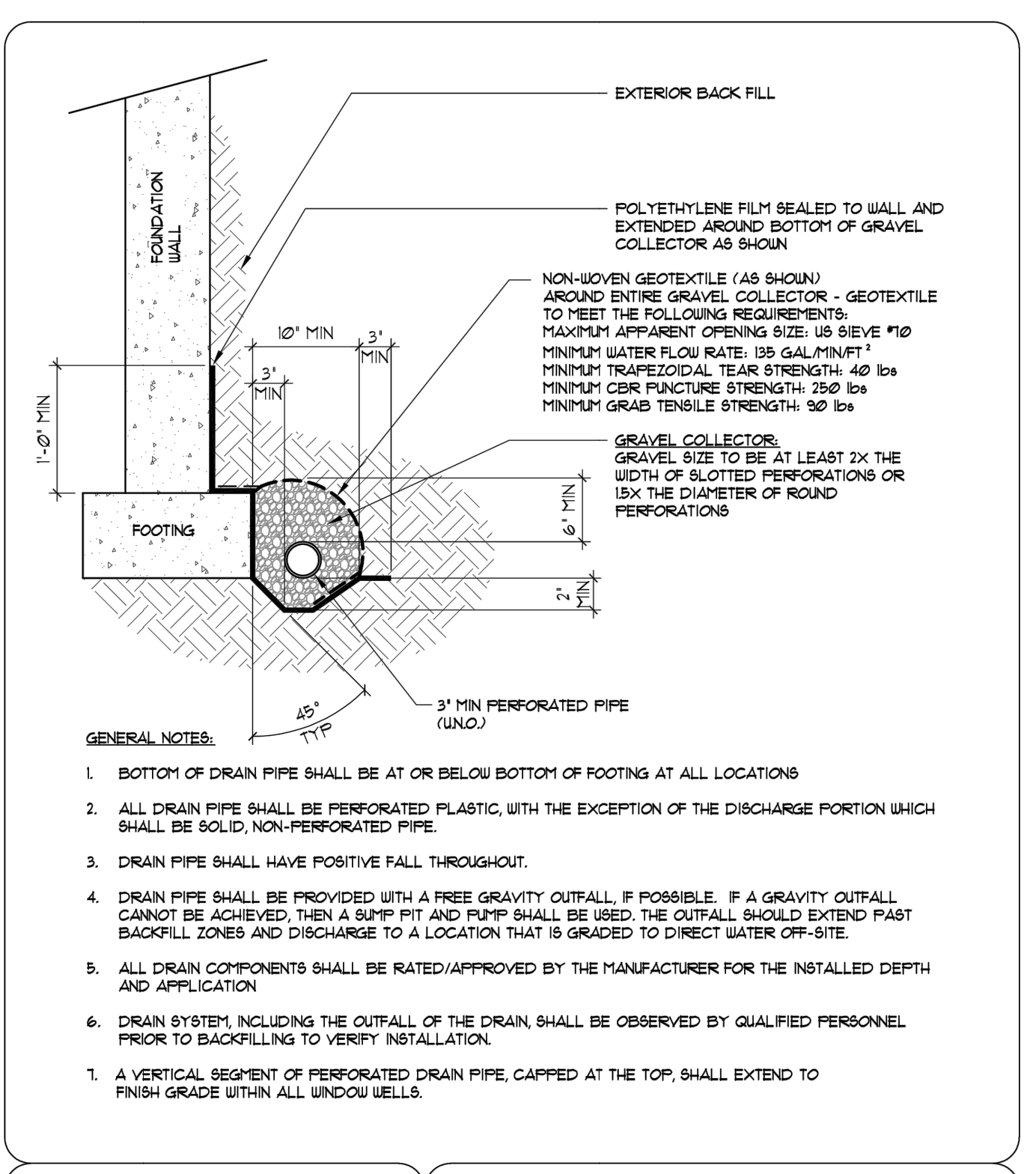




**UNDERSLAB DRAIN** FIG No. 8

**GENERAL NOTES:**

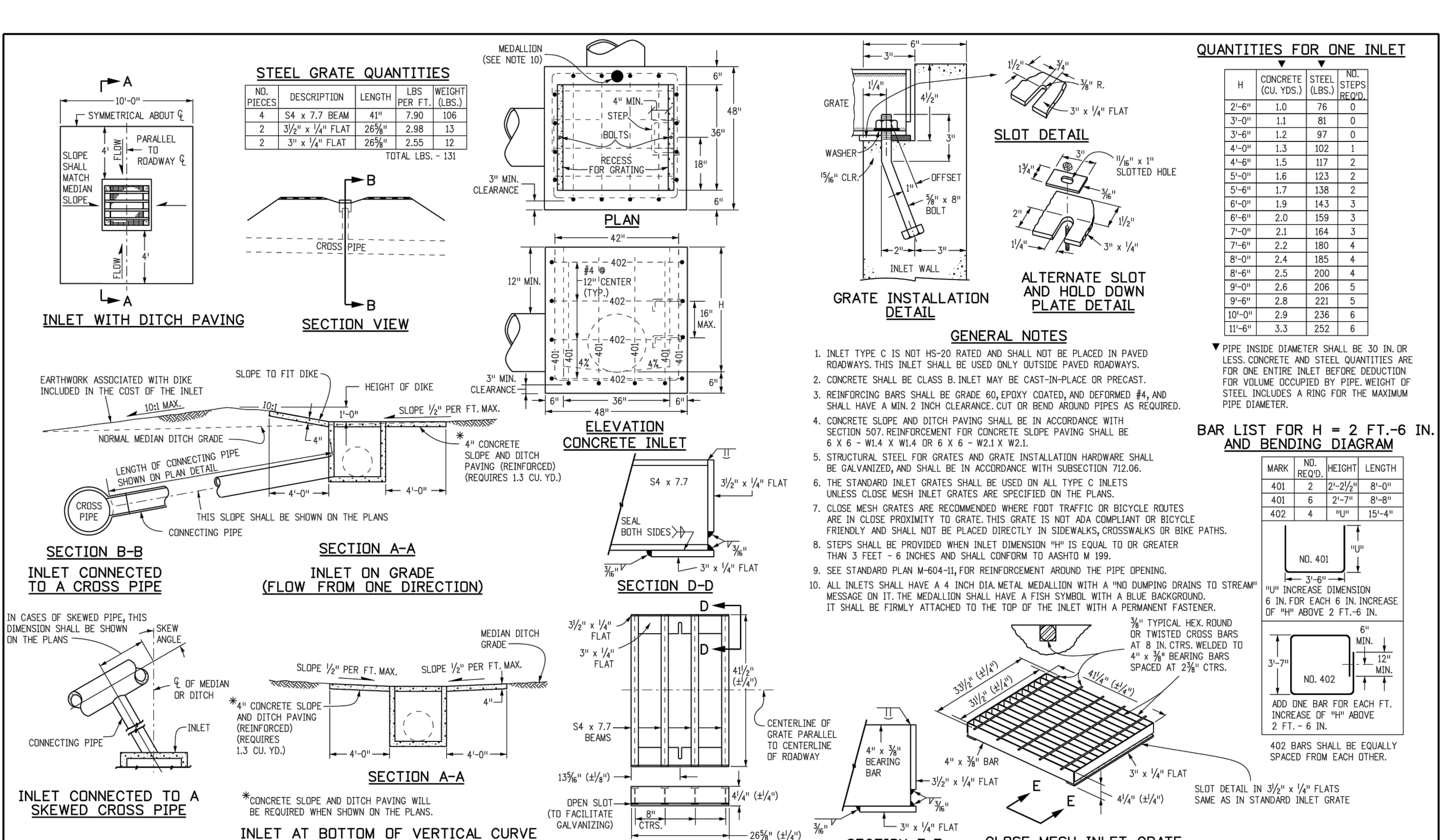
- ALL DRAIN PIPE SHALL BE PERFORATED PLASTIC, WITH THE EXCEPTION OF THE DISCHARGE PORTION WHICH SHALL BE SOLID, NON-PERFORATED PIPE.
- DRAIN PIPE SHALL HAVE POSITIVE FALL THROUGHOUT.
- DRAIN PIPE SHALL BE PROVIDED WITH A FREE GRAVITY OUTFALL. IF POSSIBLE, IF A GRAVITY OUTFALL CANNOT BE ACHIEVED, THEN A SUMP PIT AND PUMP SHALL BE USED. THE OUTFALL SHOULD EXTEND PAST BACKFILL ZONES AND DISCHARGE TO A LOCATION THAT IS GRADED TO DIRECT WATER OFF-SITE.
- ALL DRAIN COMPONENTS SHALL BE RATED/APPROVED BY THE MANUFACTURER FOR THE INSTALLED DEPTH AND APPLICATION.
- DRAIN SYSTEM, INCLUDING THE OUTFALL OF THE DRAIN, SHALL BE OBSERVED BY QUALIFIED PERSONNEL PRIOR TO BACKFILLING TO VERIFY INSTALLATION.



**PERIMETER DRAIN**

**GENERAL NOTES:**

- BOTTOM OF DRAIN PIPE SHALL BE AT OR BELOW BOTTOM OF FOOTING AT ALL LOCATIONS.
- ALL DRAIN PIPE SHALL BE PERFORATED PLASTIC, WITH THE EXCEPTION OF THE DISCHARGE PORTION WHICH SHALL BE SOLID, NON-PERFORATED PIPE.
- DRAIN PIPE SHALL HAVE POSITIVE FALL THROUGHOUT.
- DRAIN PIPE SHALL BE PROVIDED WITH A FREE GRAVITY OUTFALL. IF POSSIBLE, IF A GRAVITY OUTFALL CANNOT BE ACHIEVED, THEN A SUMP PIT AND PUMP SHALL BE USED. THE OUTFALL SHOULD EXTEND PAST BACKFILL ZONES AND DISCHARGE TO A LOCATION THAT IS GRADED TO DIRECT WATER OFF-SITE.
- ALL DRAIN COMPONENTS SHALL BE RATED/APPROVED BY THE MANUFACTURER FOR THE INSTALLED DEPTH AND APPLICATION.
- DRAIN SYSTEM, INCLUDING THE OUTFALL OF THE DRAIN, SHALL BE OBSERVED BY QUALIFIED PERSONNEL PRIOR TO BACKFILLING TO VERIFY INSTALLATION.



**INLET, TYPE C**

**Computer File Information**

**Sheet Revisions**

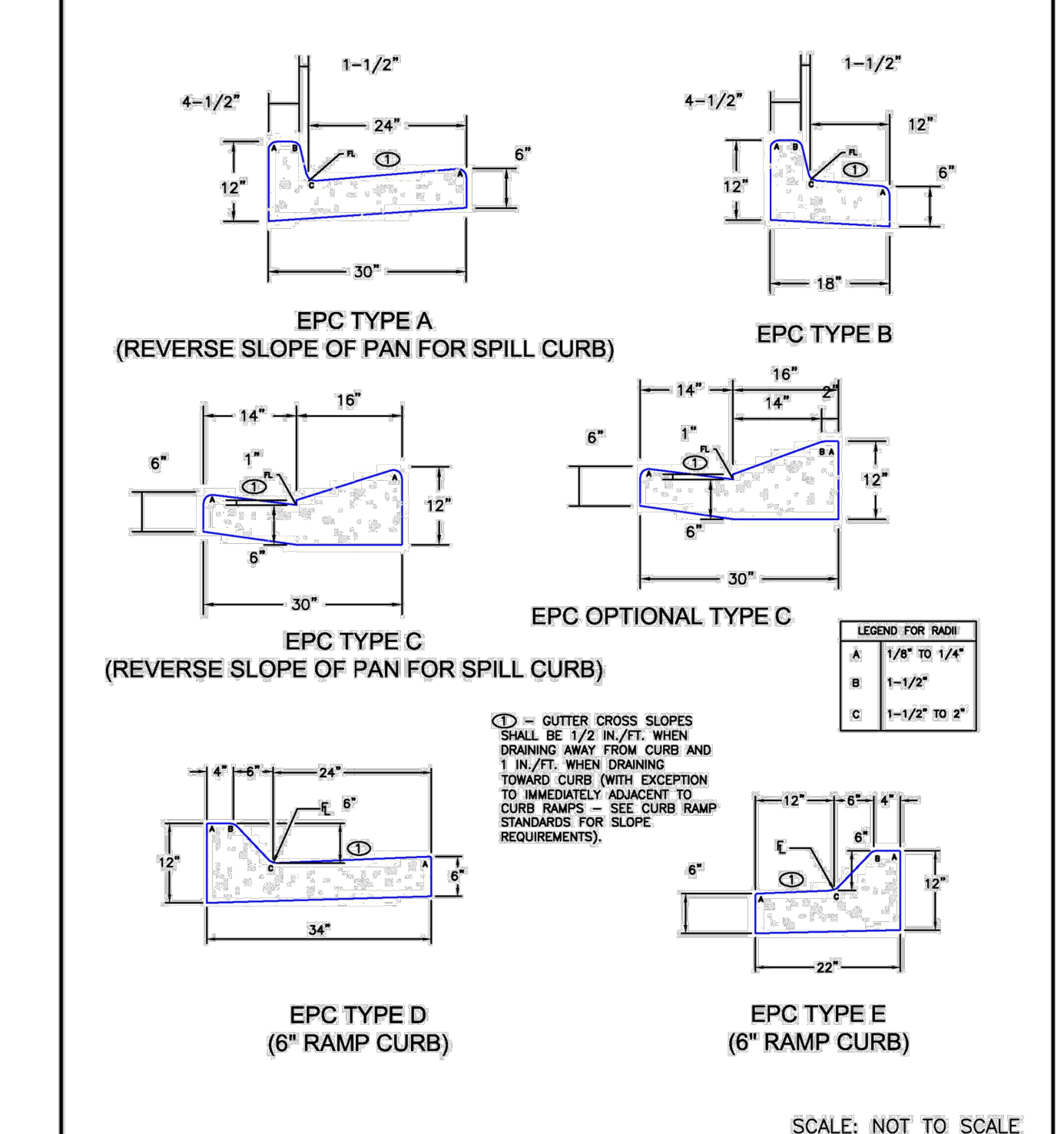
**Colorado Department of Transportation**

**STANDARD PLAN NO. M-604-10**

**Standard Sheet No. 1 of 1**

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11/1/23, 12:24 PM AppF-40.png (984\*1302)



**Typical Curb and Gutter Details**

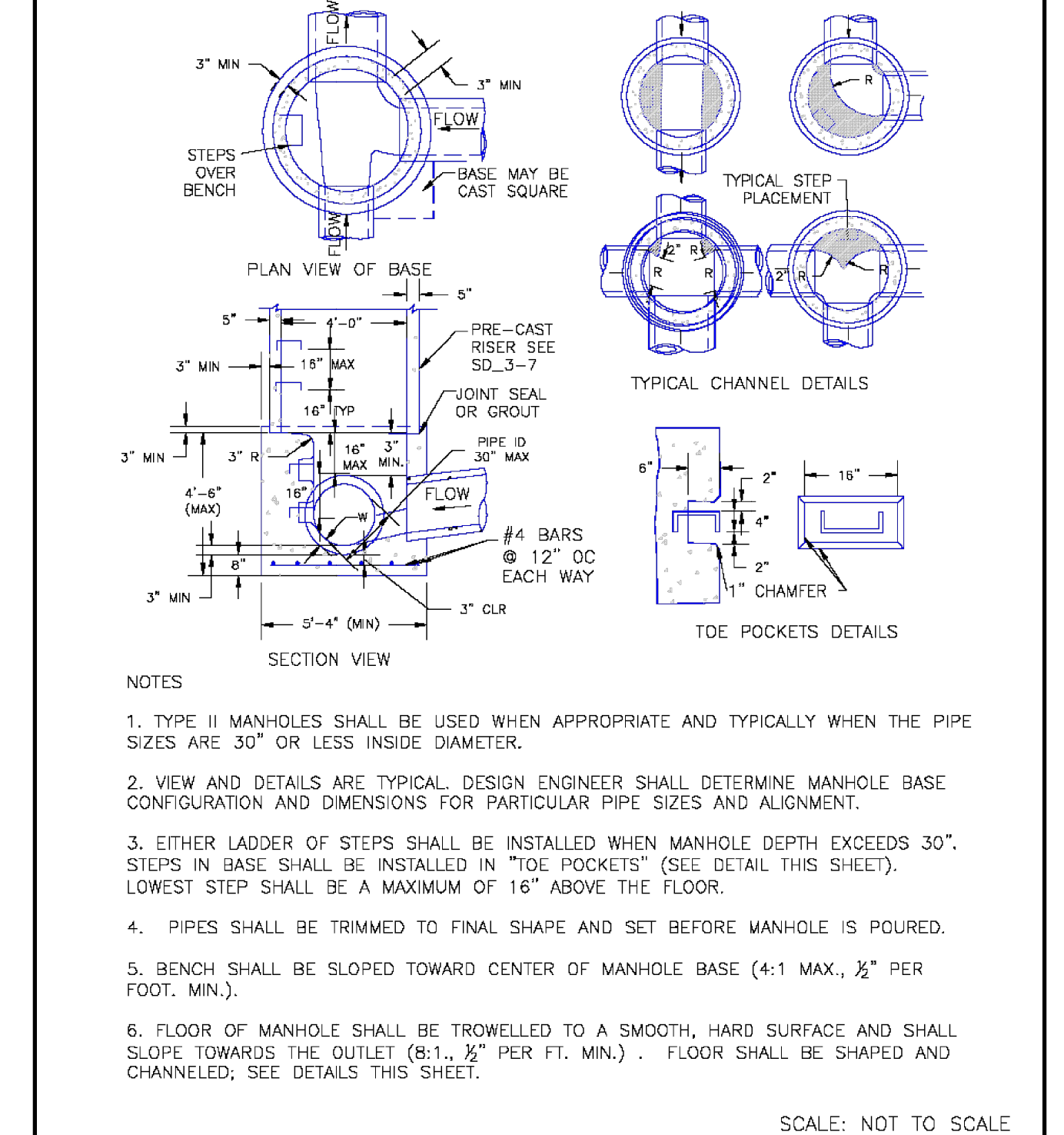
**Standard Drawing**

**DATE APPROVED:** 6/23/20

**DESIGNED BY:** Jennifer E. Irvine

**REVISION DATE:** 6/23/20

**FILE NAME:** SD\_2-20



**Storm Sewer Manhole Detail**

**Type II**

**Standard Drawing**

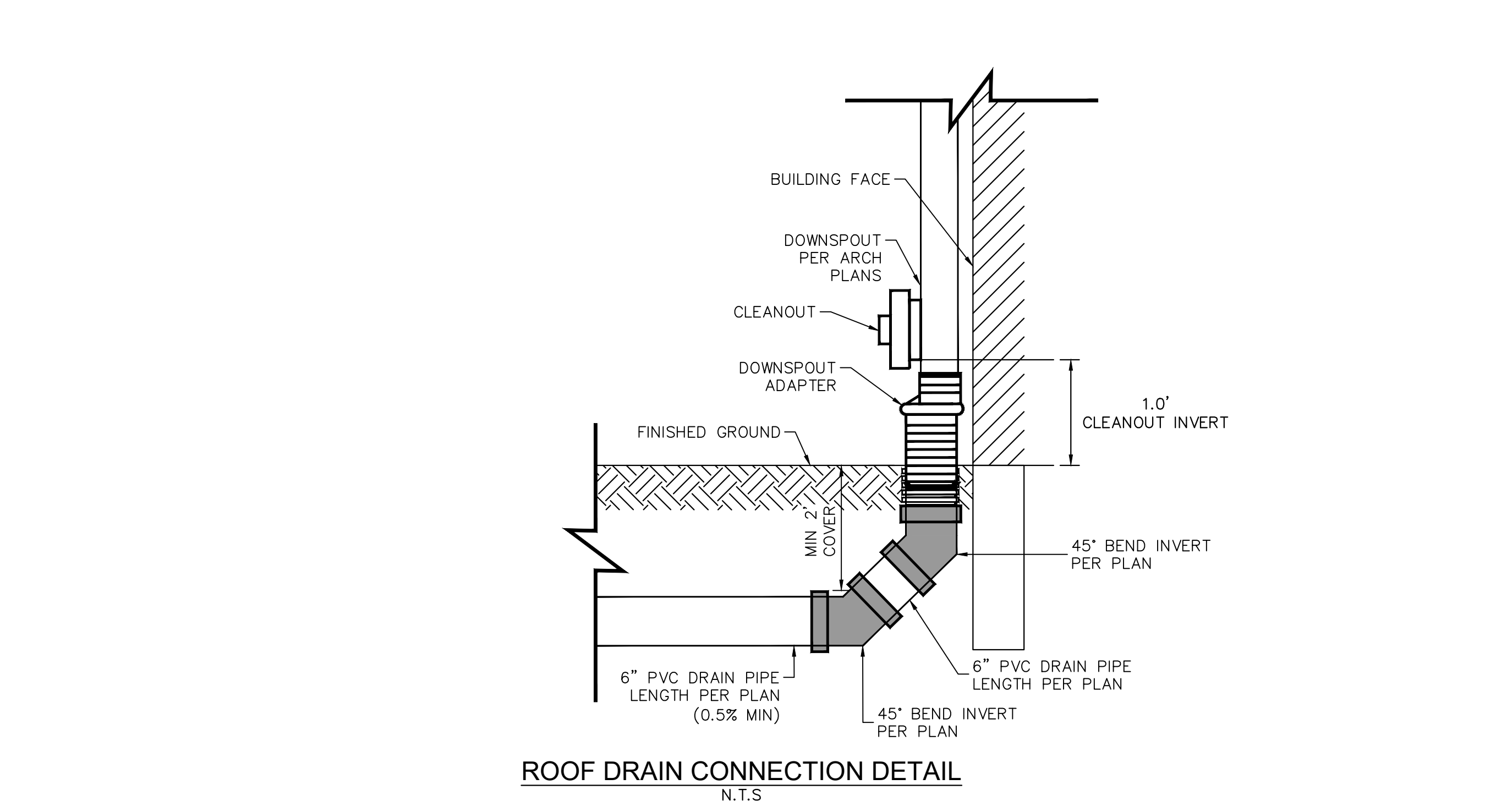
**DATE APPROVED:** 11/10/04

**DESIGNED BY:** André P. Brackin

**REVISION DATE:** 11/10/04

**FILE NAME:** SD\_3-2

11/17/23, 10:22 AM AppF-19.png (2286\*3044)



**Roof Drain Connection Detail**

**N.T.S.**

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https://mcdlibrary.blob.core.usgovcloudapi.net/codecontent/15646/367064/AppF-40.png

1/1

**Kimley»Horn**

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2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G.  
DRAWN BY: RES  
CHECKED BY: E.J.G.  
DATE: 3/7/2024

**BARBARICK WASTE TRANSFER STATION**  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
**CONSTRUCTION DETAILS**

**PRELIMINARY**  
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Kimley-Horn and Associates, Inc.

PROJECT NO. 196489000

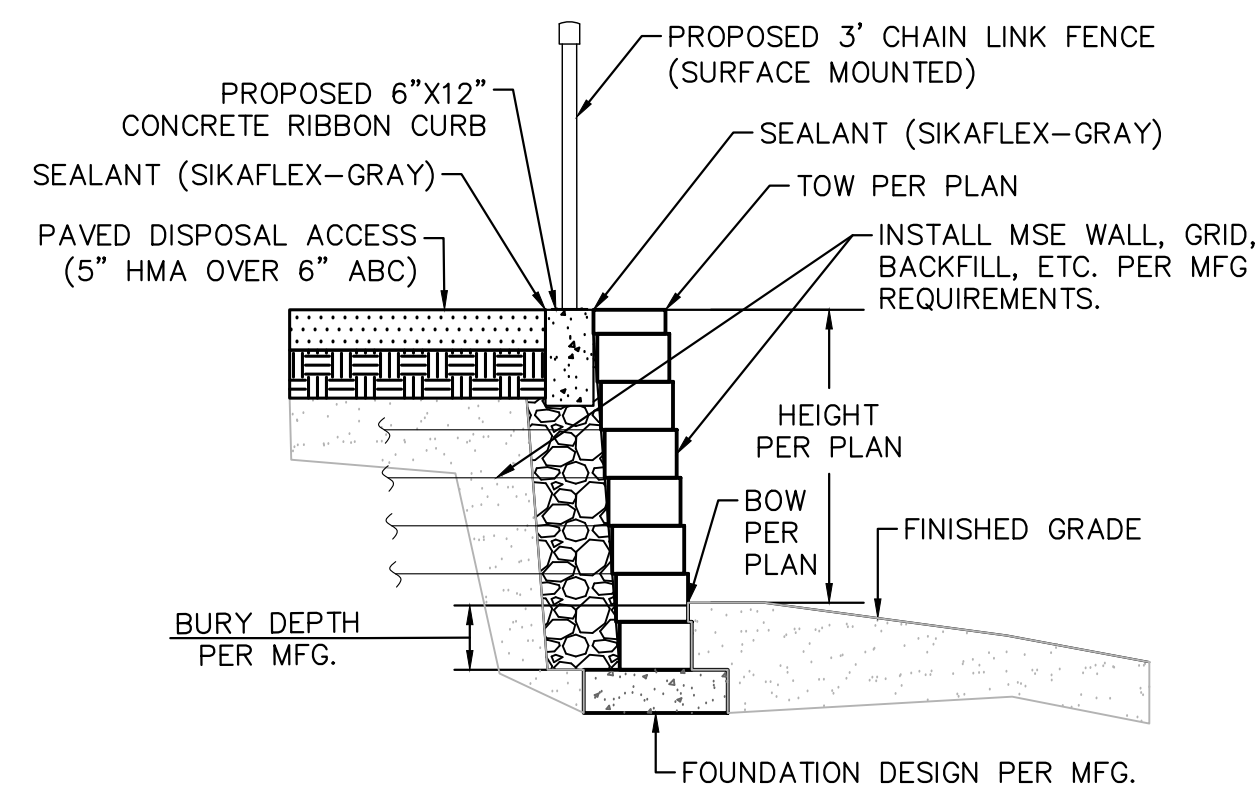
SHEET

**C6.0**

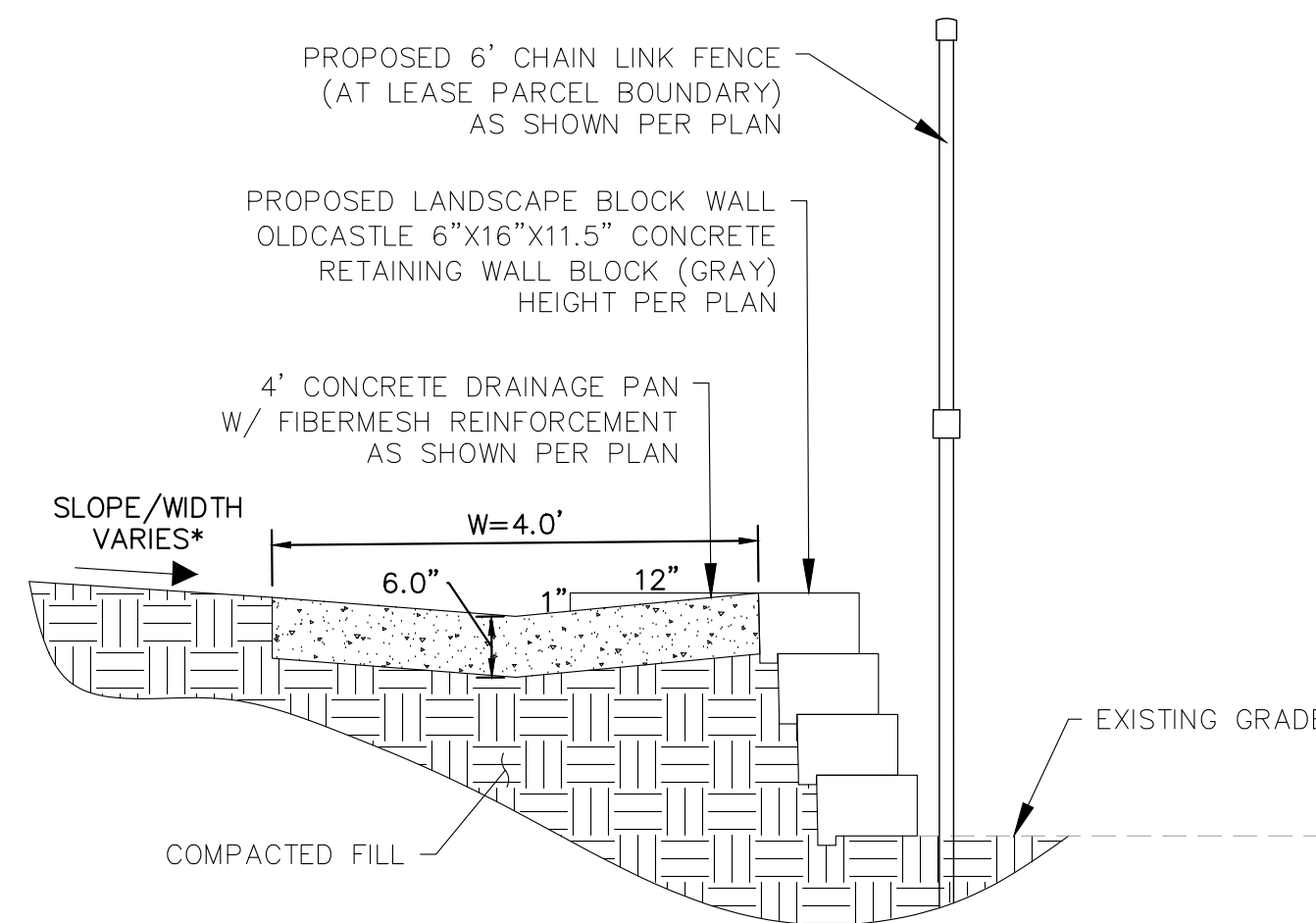
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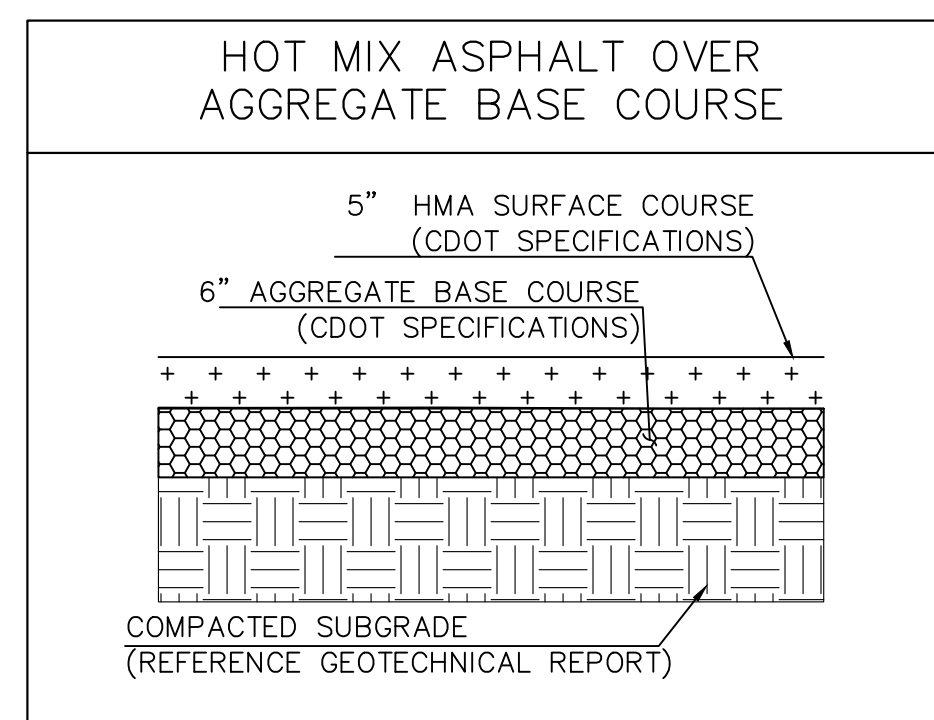
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**MSE BLOCK WALL DETAIL**  
N.T.S.



**LANDSCAPE BLOCK WALL DETAIL**  
N.T.S.

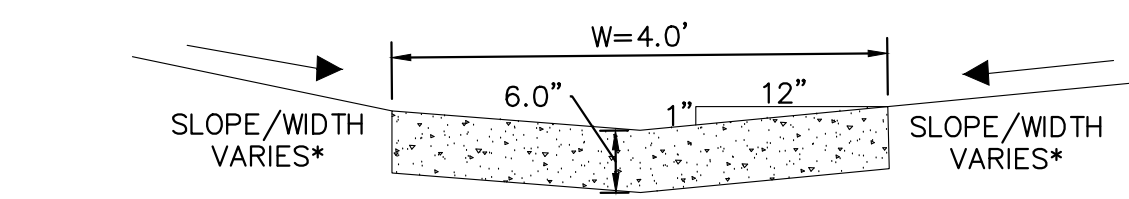


PAVEMENT DETAILS BASED ON GEOTECHNICAL REPORT (JOB NO. 194534) PREPARED BY RMG ENGINEERS / ARCHITECTS DATED OCTOBER 23, 2023

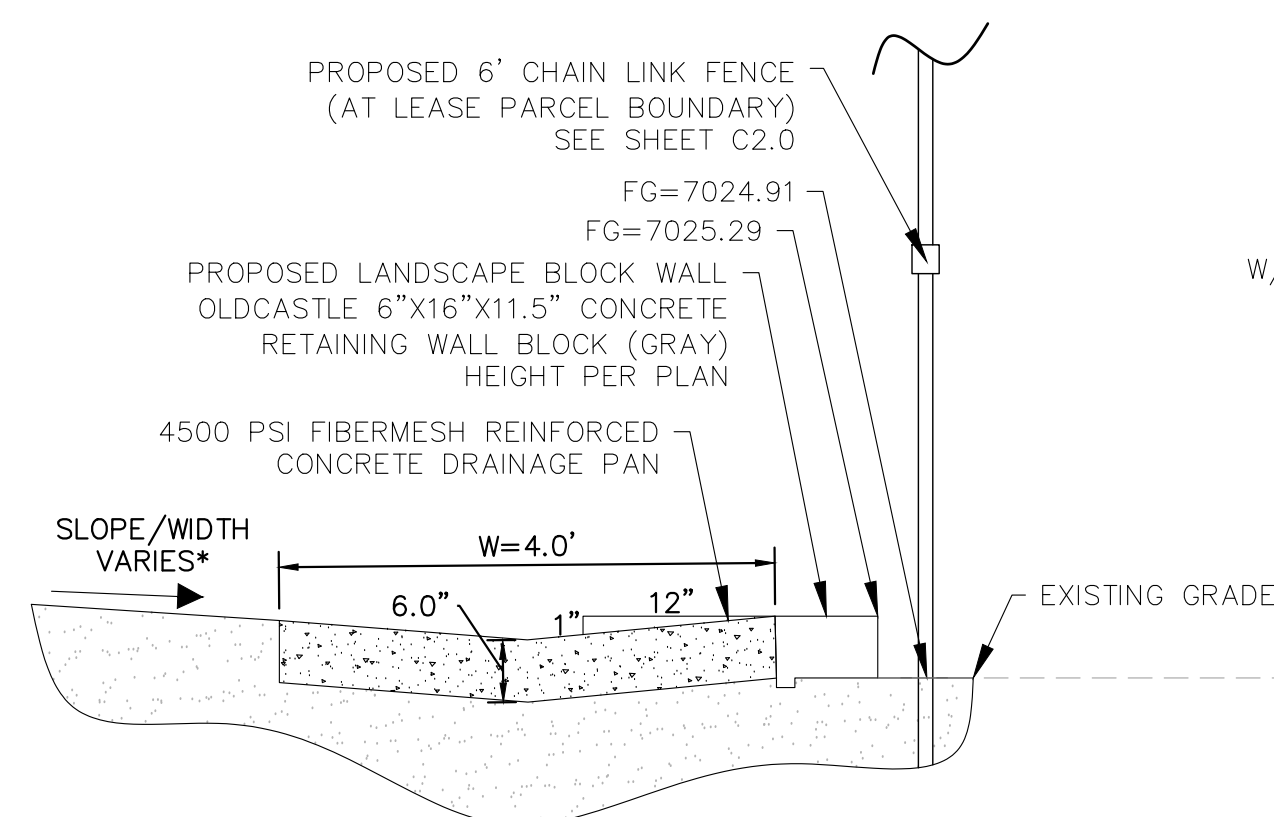
**PAVEMENT SECTION**  
N.T.S.

**MSE BLOCK RETAINING WALL NOTES:**

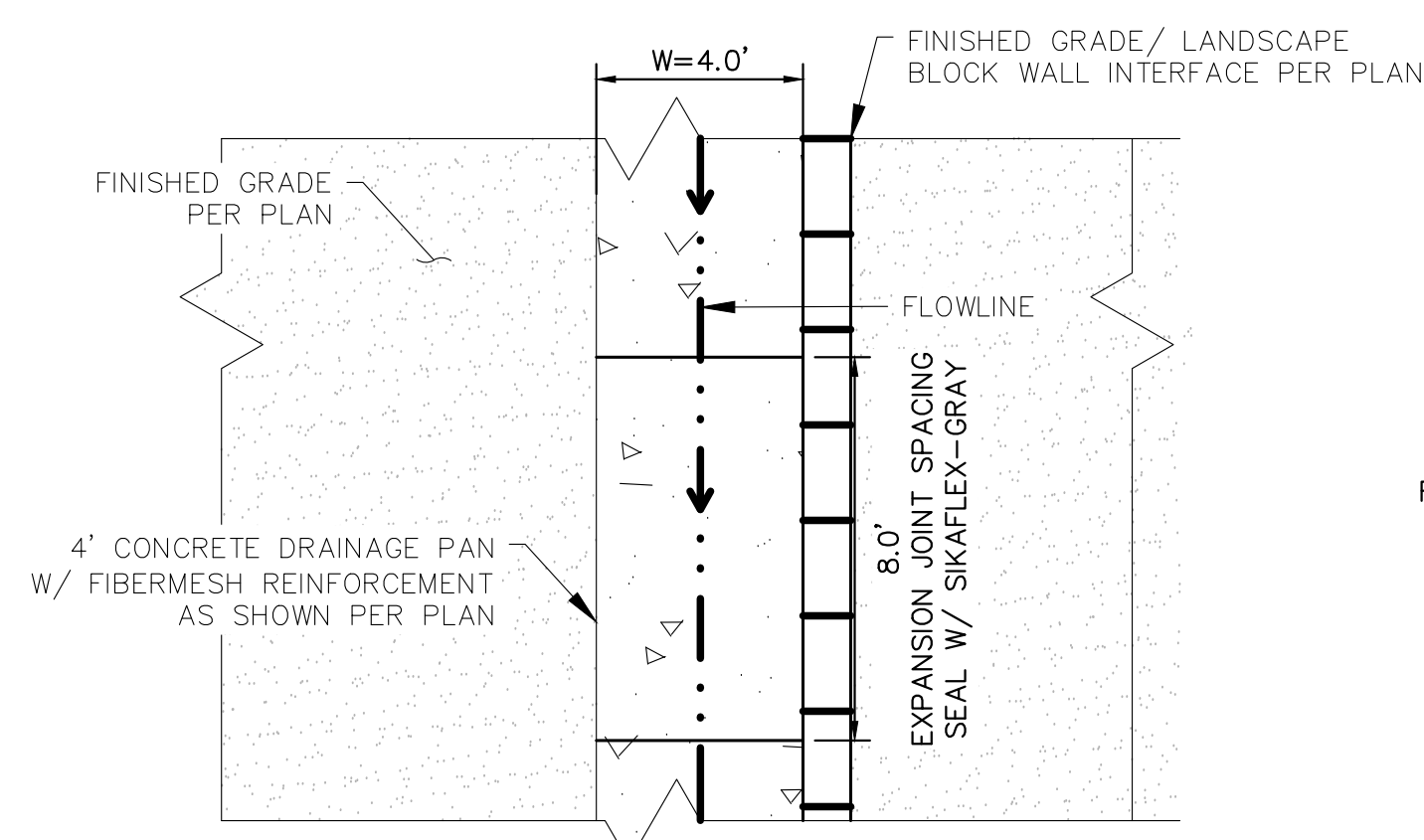
- 1.1 FOR GEOTECHNICAL RECOMMENDATIONS, SEE GEOTECHNICAL REPORT (JOB NO. 194534) PREPARED BY RMG ENGINEERS / ARCHITECTS DATED OCTOBER 23, 2023
- 1.2 WALL BACKFILL MATERIAL, PLACEMENT AND COMPACTION SHOULD COMPLY IN FULL WITH THE PROJECT SPECIFICATIONS. COMPACTION OF EACH LIFT ADJACENT TO WALLS SHALL BE ACCOMPLISHED WITH HAND OPERATED TAMPERS OR OTHER LIGHTWEIGHT COMPACTORS. FLOODING OR JETTING IS PROHIBITED. USE LOW EXPANSION POTENTIAL MATERIALS.
- 1.3 WALLS ARE TO BE SUITABLY BRACED DURING BACKFILLING TO PREVENT DAMAGE AND EXCESSIVE DEFLECTION. CONTRACTOR SHALL TAKE ADEQUATE PRECAUTIONS AGAINST HEAVY CONSTRUCTION EQUIPMENT IN THE VICINITY OF RETAINING WALLS.
- 1.4 SEE PROJECT PLANS FOR WALL LAYOUT AND FINISHED GRADE ELEVATIONS.
- 1.5 WALL FOOTINGS TO BE PLACED ON MATERIAL PREPARED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND GEOTECHNICAL REPORT.
- 1.6 ALL WORK (MASONRY, CONCRETE, STEEL) AND MATERIALS TO CONFORM IN FULL WITH PROJECT SPECIFICATIONS.
- 1.7 SITE MSE BLOCK WALLS SHALL BE DESIGN/BUILD BY CONTRACTOR, INCLUDING A DESIGN SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF COLORADO. WALLS SHALL BE COLORED TO MATCH THE BUILDING ARCHITECTURE. WALL DESIGN SHALL BE SUBMITTED TO THE ENGINEER OF RECORD AND ARCHITECT OF RECORD BY CONTRACTOR FOR REVIEW.
- 1.8 RAILING/FENCING SHALL BE REQUIRED AT ALL LOCATIONS WHERE THE WALL IS 30" TALL OR TALLER AND RESIDES WITHIN 36" OF A WALKING SURFACE
- 1.9 PPRBD WALL PERMIT REQUIRED FOR ALL RETAINING WALLS GREATER THAN OR EQUAL TO 4FT IN HEIGHT.



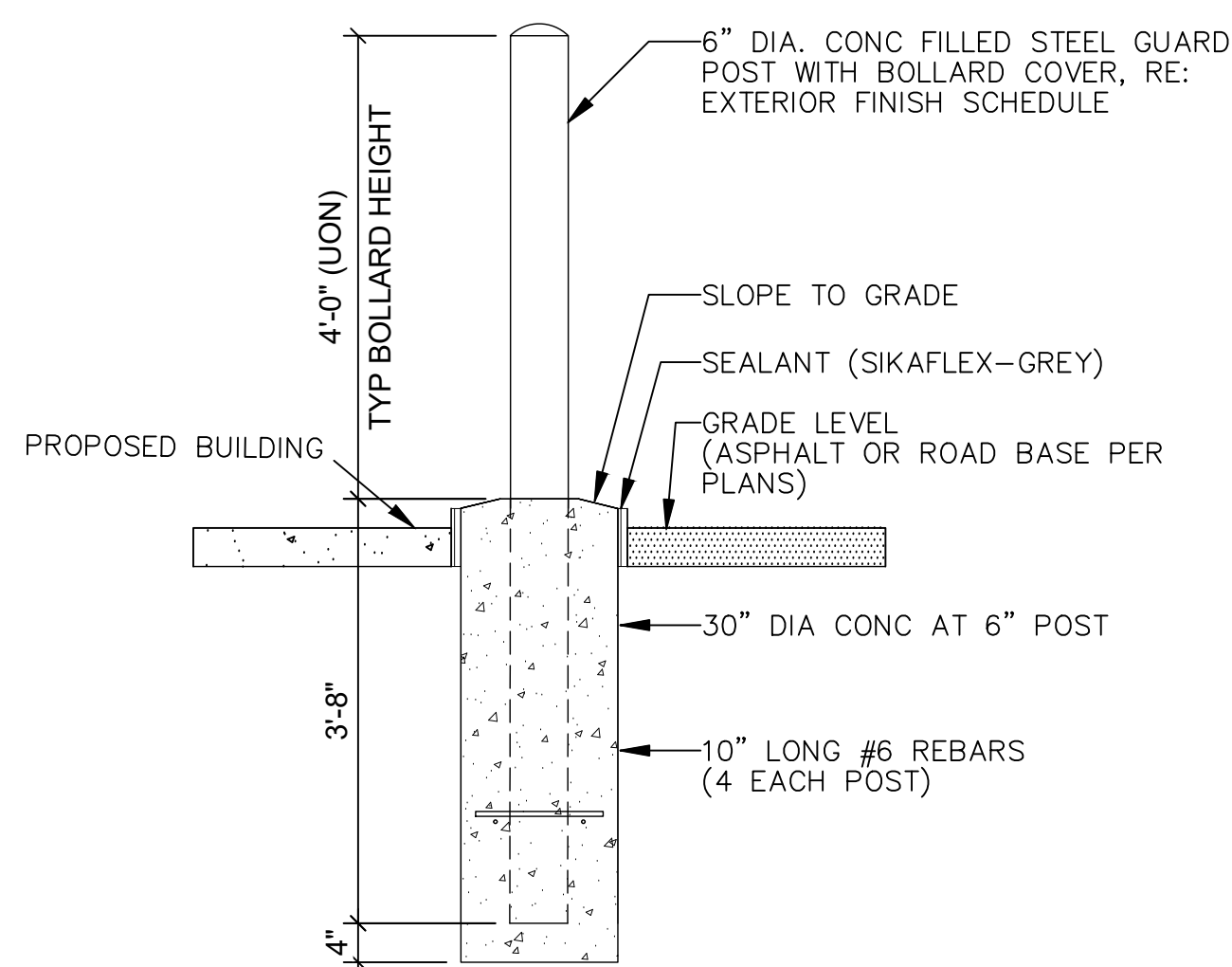
- \* ROADWAY SLOPES, CROSS SLOPES, AND WIDTH VARY PER PLAN, SEE GRADING SHEETS AND SITE PLAN FOR ADDITIONAL DETAILS
  - \*\* CONCRETE DRAINAGE PAN TO BE 4500 PSI FIBERMESH REINFORCED CONCRETE
- CONCRETE DRAINAGE PAN SECTION VIEW**  
N.T.S.



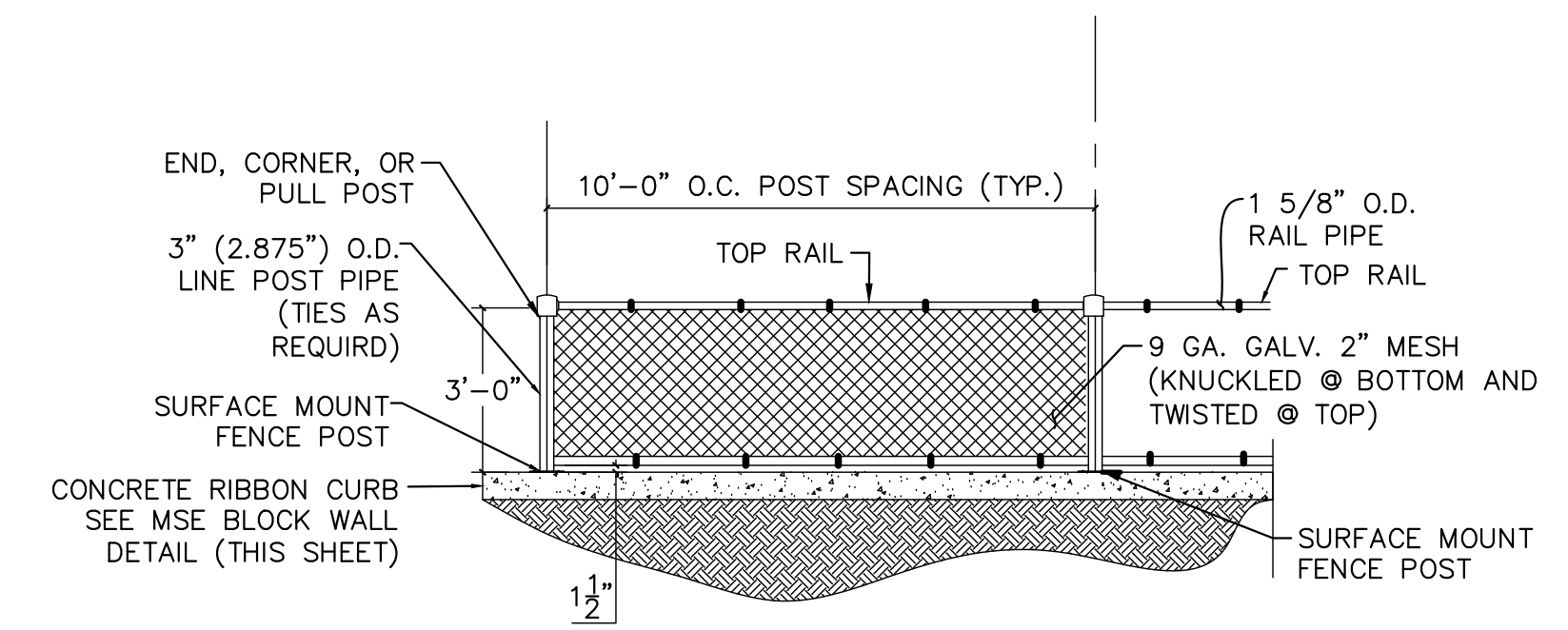
**INSET: SECTION A**  
(SHEET C2.0)  
N.T.S.



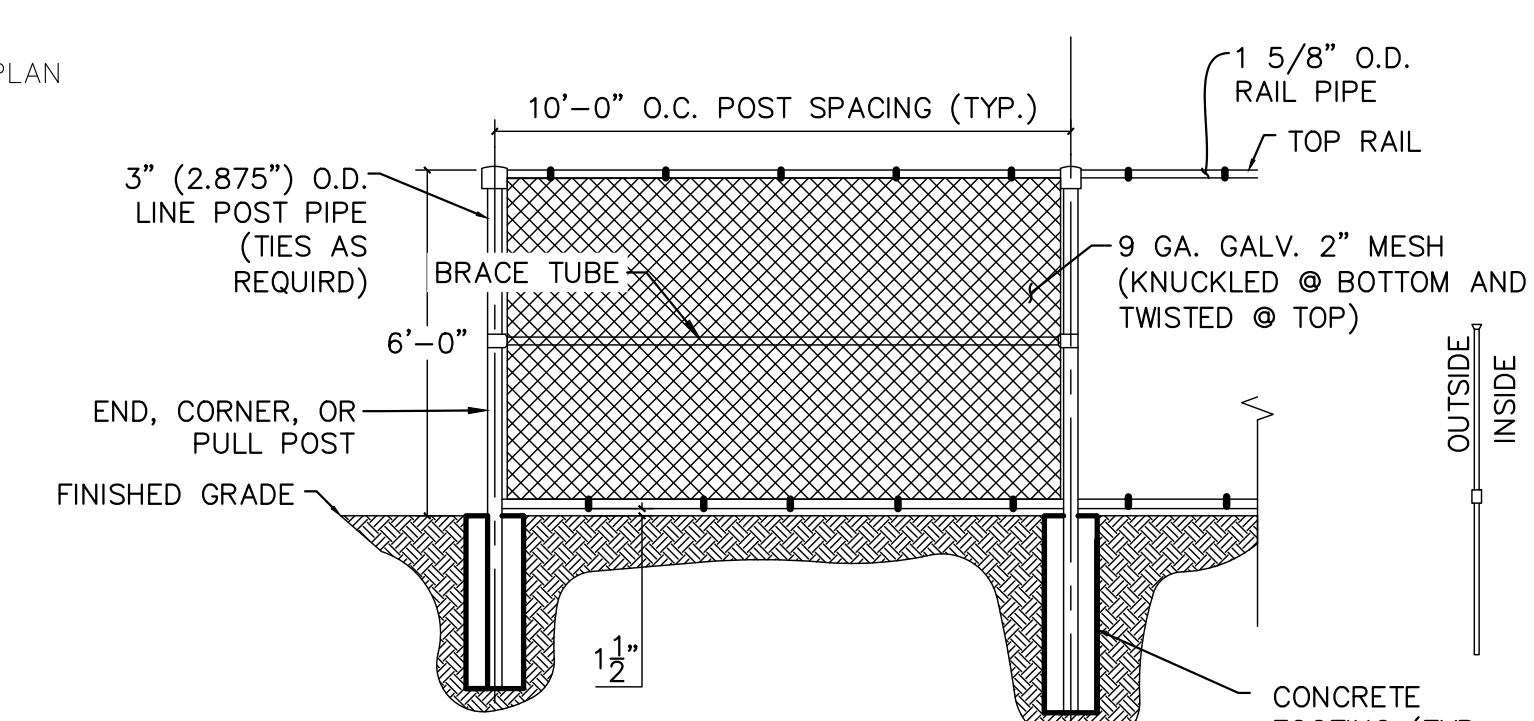
- \*\*\* TRANSVERSE JOINTS TO BE SAWCUT TO 1/3 DEPTH OF CONCRETE (2IN)
- DRAINAGE PAN PLAN VIEW**  
N.T.S.



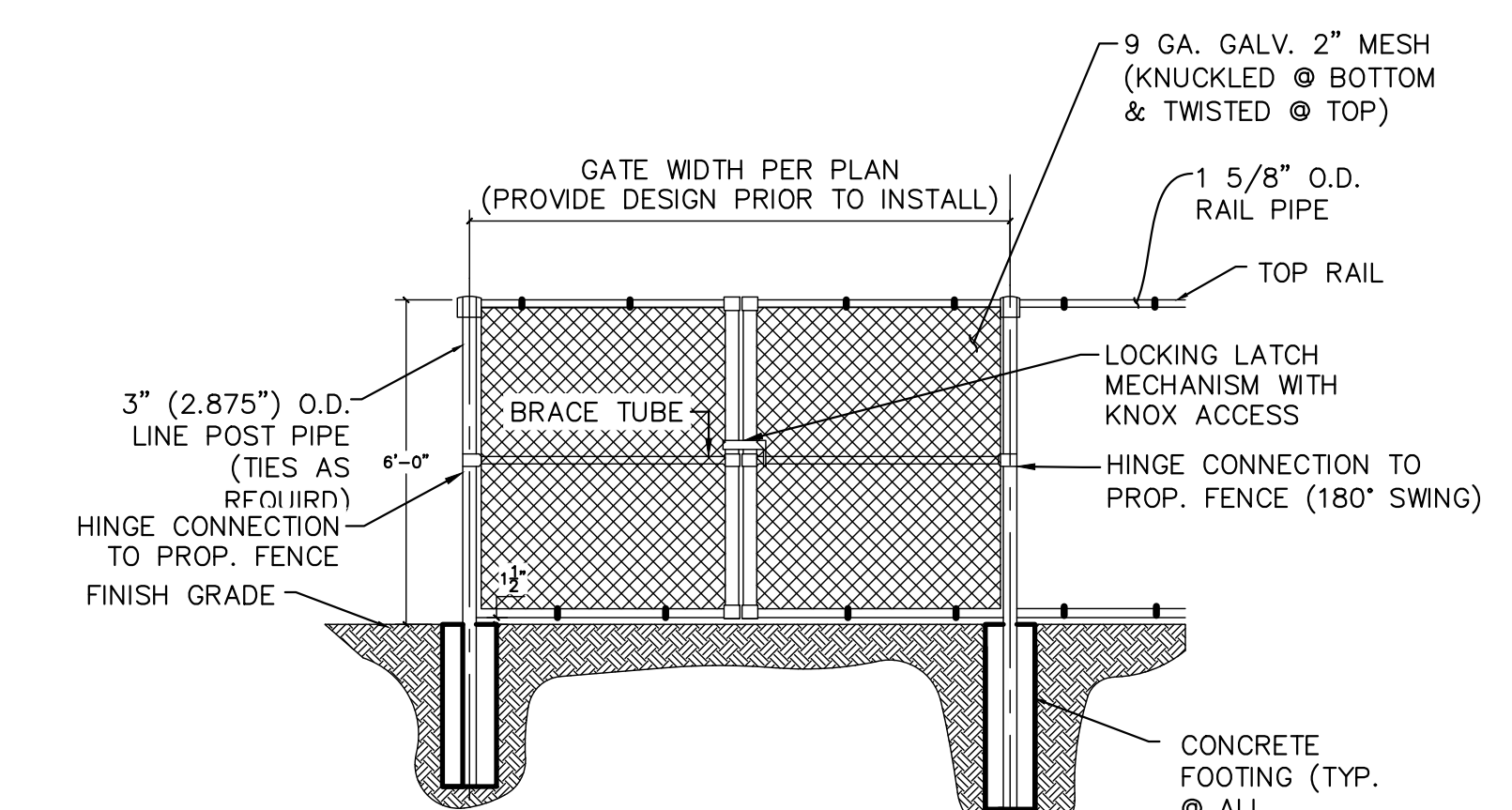
**BOLLARD DETAIL**  
N.T.S.



\* FENCE MFG. TO PROVIDE DESIGN FOR APPROVAL BEFORE INSTALLATION  
**CHAIN LINK FENCE DETAIL**  
(WALL APPLICATION)  
N.T.S.



\* FENCE MFG. TO PROVIDE DESIGN FOR APPROVAL BEFORE INSTALLATION  
**CHAIN LINK FENCE DETAIL**  
N.T.S.



\* FENCE MFG. TO PROVIDE DESIGN FOR APPROVAL BEFORE INSTALLATION  
**CHAIN LINK FENCE GATE DETAIL**  
N.T.S.

PCD FILE NO. COM2346

**Kimley»Horn**

2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E.J.G.  
DRAWN BY: RES  
CHECKED BY: E.J.G.  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
CONSTRUCTION DETAILS

PRELIMINARY  
FOR REVIEW ONLY  
NOT FOR CONSTRUCTION  
**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

SHEET

C6.1







K:\COS\_Civil\196489000\_Barbarick Waste Transfer\CADD\PlanSheets\CDS\CD\_DT-196489000.dwg Schmelbach, Ryan 3/8/2024 9:33 AM

RLWS PART NO.	DIMENSION	
	A-A	B-B
99101 (40' X 10')	11'-0"	8'-2 1/4"
86587 (40' X 11')	12'-0"	9'-2 1/4"
99102 (40' X 12')	13'-0"	10'-2 1/4"

MATERIAL REQUIREMENTS - P/N 99101 (40' X 10')			
REBAR SCHEDULE			
BAR NO.	QUANTITY	BAR SIZE	LENGTH & DESCRIPTION
A	34	#5	2'-0" @ 8" O.C.
B	48	#5	9'-6" @ 12" O.C.
C	144	#5	10'-6"
D	34	#5	41'-6"
TOTAL WEIGHT OF REBAR			3585
CONCRETE SCHEDULE			
APPROACHES (2)		12.5 YDS.	
FOUNDATION		17.5 YDS.	
TOTAL YARDS OF CONCRETE		30	

MATERIAL REQUIREMENTS - P/N 86587 (40' X 11')			
REBAR SCHEDULE			
BAR NO.	QUANTITY	BAR SIZE	LENGTH & DESCRIPTION
A	36	#5	2'-0" @ 8" O.C.
B	52	#5	9'-6" @ 12" O.C.
C	144	#5	11'-6"
D	36	#5	41'-6"
TOTAL WEIGHT OF REBAR			3865
CONCRETE SCHEDULE			
APPROACHES (2)		13.5 YDS.	
FOUNDATION		19 YDS.	
TOTAL YARDS OF CONCRETE		32.5	

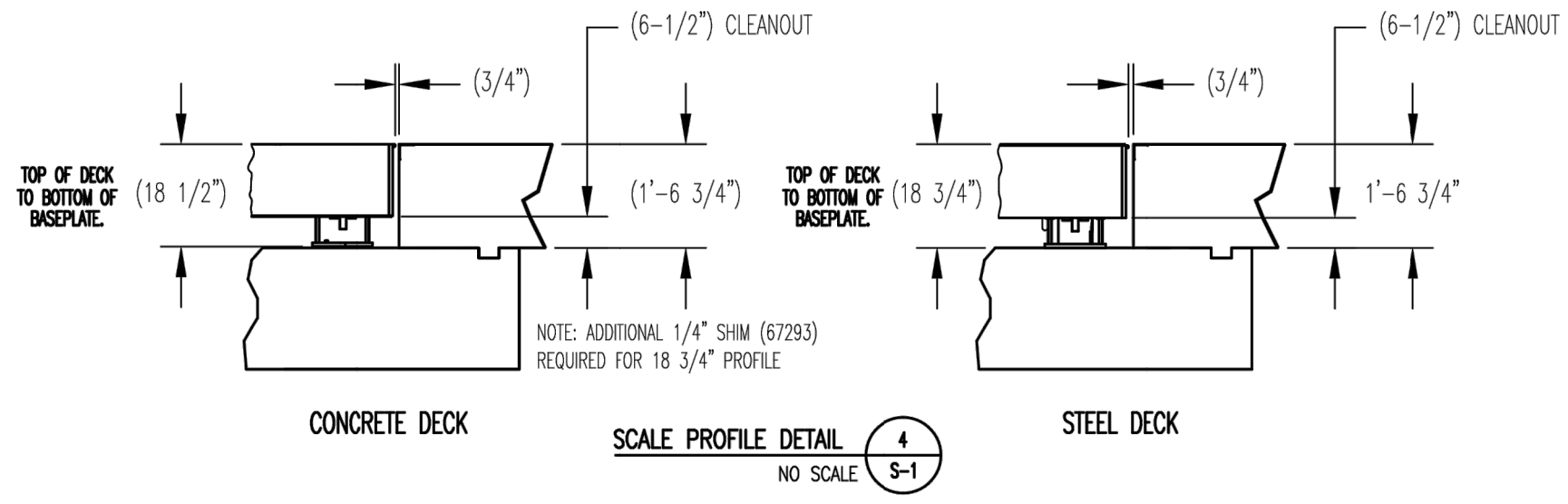
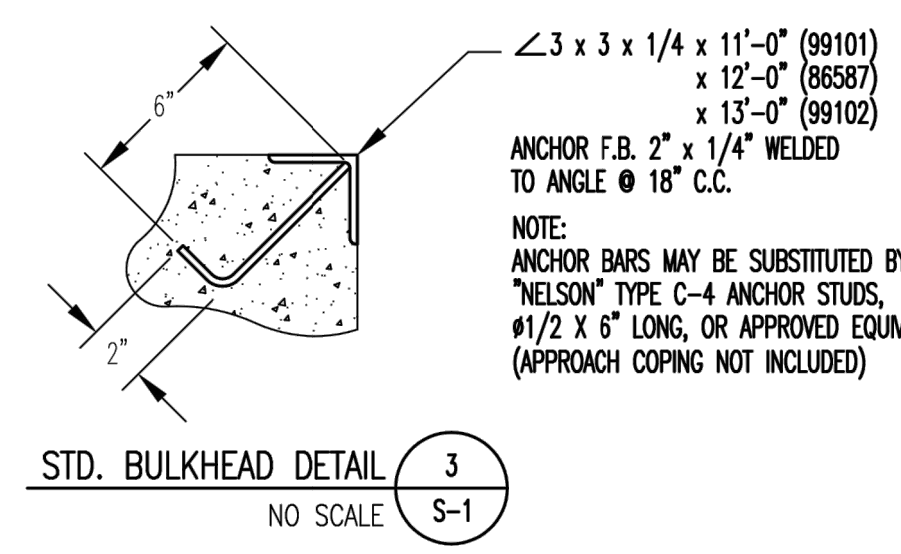
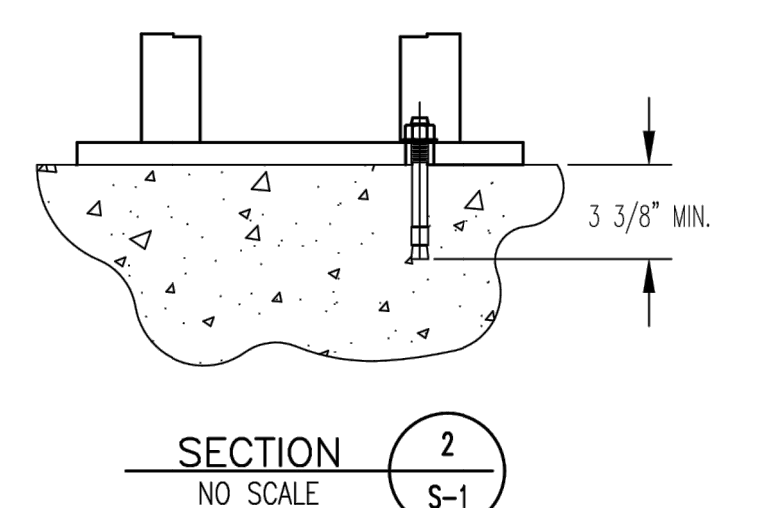
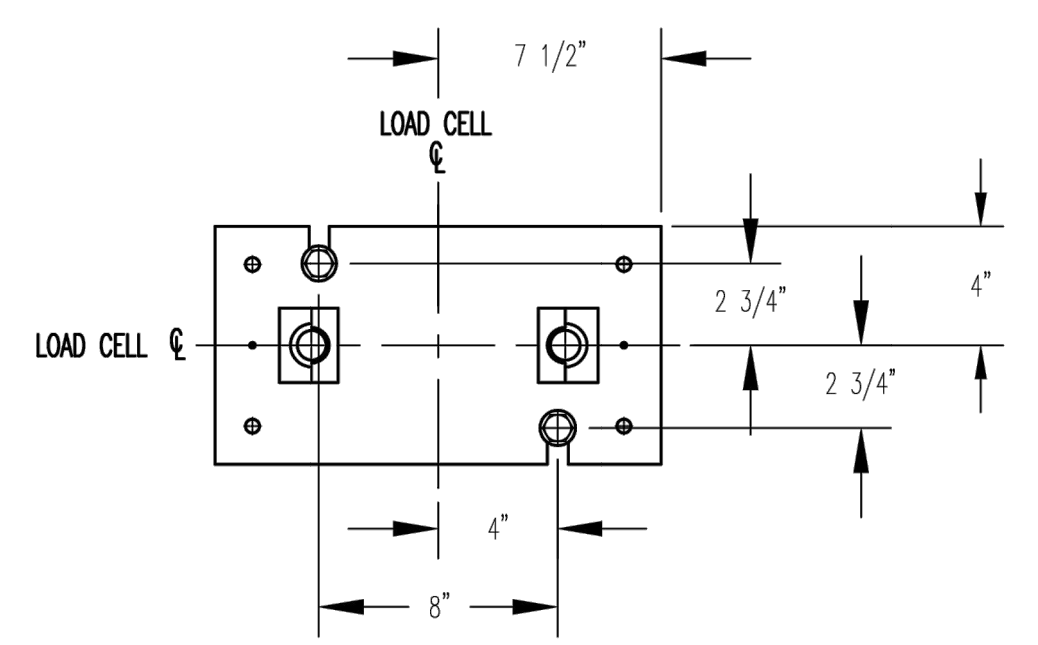
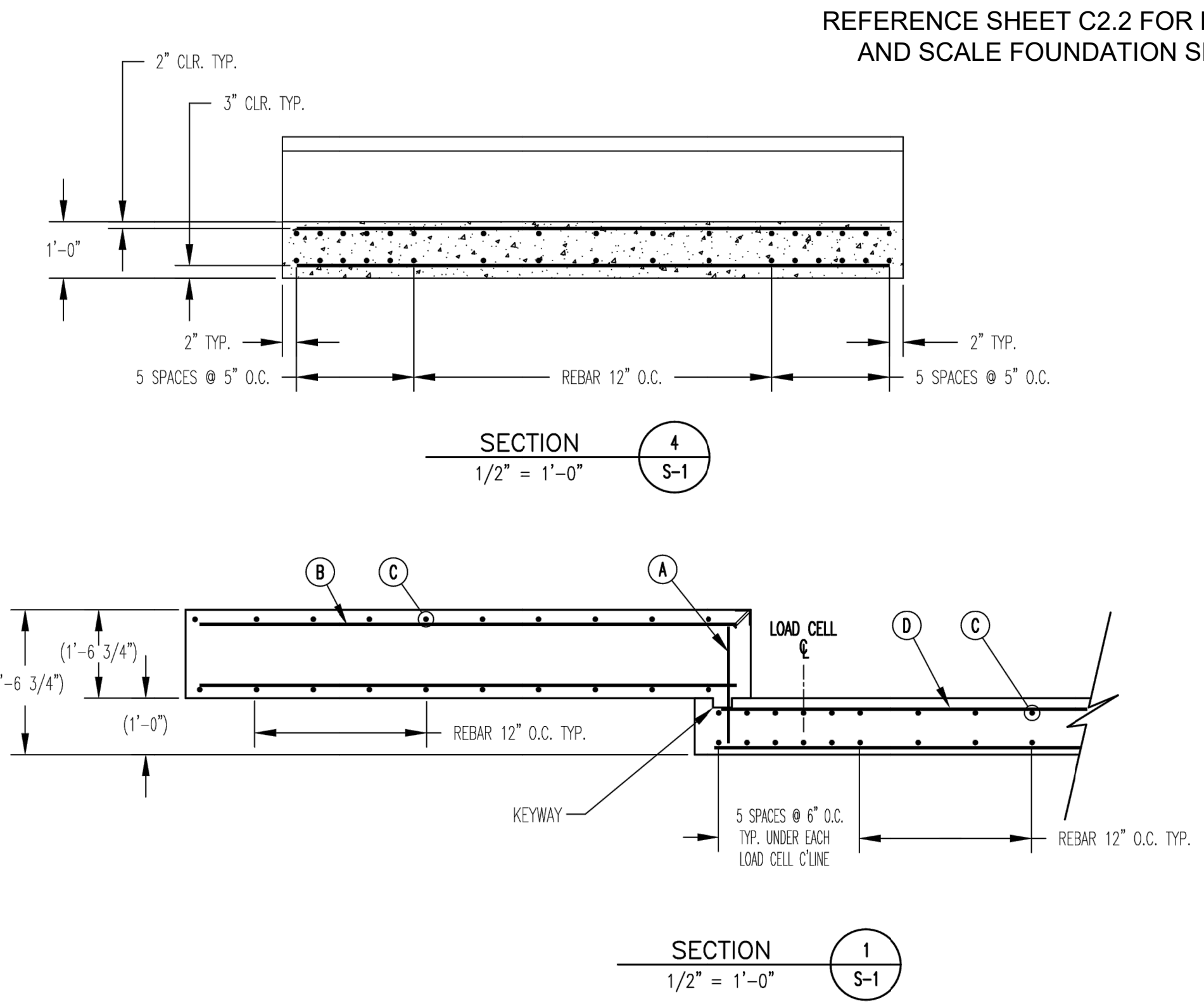
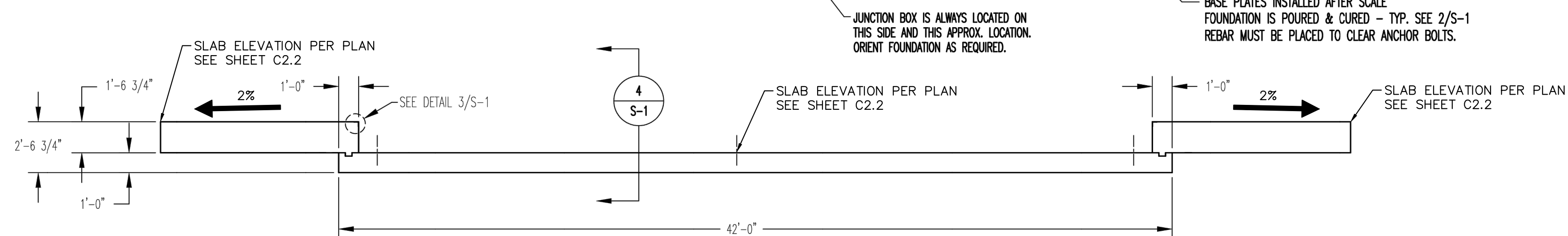
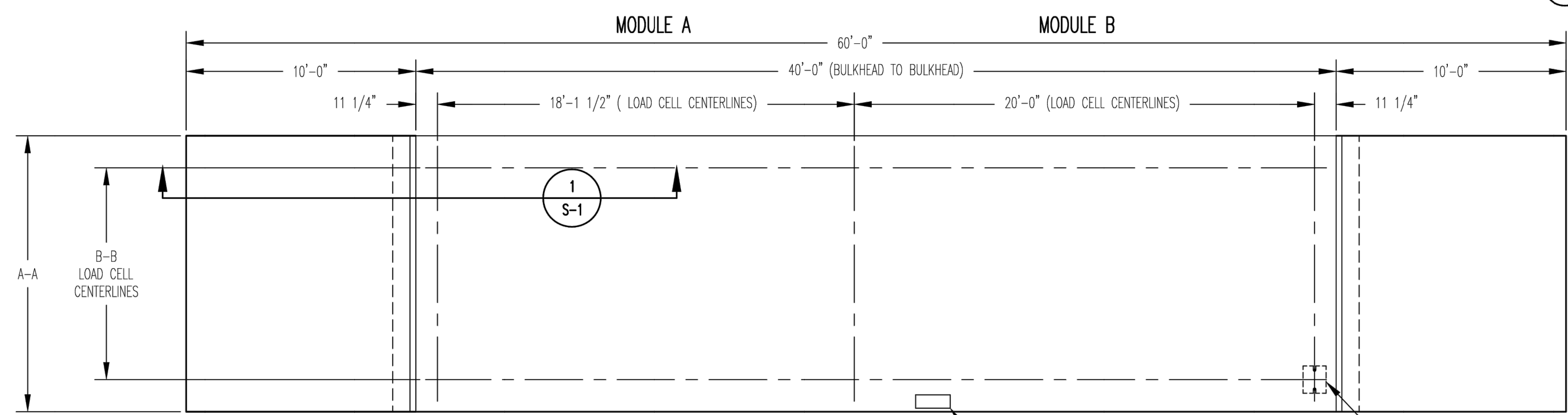
MATERIAL REQUIREMENTS - P/N 99102 (40' X 12')			
REBAR SCHEDULE			
BAR NO.	QUANTITY	BAR SIZE	LENGTH & DESCRIPTION
A	38	#5	2'-0" @ 8" O.C.
B	56	#5	9'-6" @ 12" O.C.
C	144	#5	12'-6"
D	38	#5	41'-6"
TOTAL WEIGHT OF REBAR			4144
CONCRETE SCHEDULE			
APPROACHES (2)		14.5 YDS.	
FOUNDATION		20.5 YDS.	
TOTAL YARDS OF CONCRETE		35	

REVISIONS			
REV	REFERENCE	INIT	DATE
A	ADDED TABULATION	DS	2/7/07

- NOTE:**
- DESIGN STRESSES:**
    - 1.1) CONCRETE:  $f'_c = 4500$  PSI @ 28 DAYS, MAXIMUM SLUMP 2".
    - 1.2) REINFORCING STEEL: DEFORMED BARS ASTM A615 GRADE 60, UNLESS OTHERWISE NOTED.
    - 1.3) STEEL: STRUCTURAL ASTM A36
  - CONTRACTOR NOTE:**
    - 2.1) STRUCTURAL CONCRETE MEMBERS ARE DESIGNED FOR "IN PLACE" LOADS. CONTRACTOR IS RESPONSIBLE FOR BRACING ALL STRUCTURAL ELEMENTS (AS REQUIRED AT ANY STAGE OF CONSTRUCTION) UNTIL COMPLETION OF THIS PROJECT. SHOP DRAWINGS ARE SUBMITTED TO ARCHITECT/ENGINEER FOR APPROVAL (3 SETS REQUIRED).
    - 2.2) SOME STATES REQUIRE CONCRETE CLEANOUTS. CHECK WITH STATE AND LOCAL CODES BEFORE PROCEEDING WITH CONSTRUCTION.
    - 2.3) MONOLITHIC POUR OF SLAB AND PIERS IS ALLOWED, AT CONTRACTOR'S DISCRETION.
    - 2.4) STATE AND LOCAL AGENCIES MAY HAVE VARIOUS REQUIREMENTS FOR APPROACH RAMP LENGTH, PITCH, AND FOR CLEAN OUT HEIGHT. PLEASE CHECK WITH ALL AGENCIES PRIOR TO CONSTRUCTION.

- DIVISION 2**
- SITE PREPARATION:**
    - 3.1) FOOTINGS SHALL BEAR ON NATURAL UNDISTURBED SOIL OR ENGINEERED FILL.
    - 3.2) DEVELOP AND MAINTAIN SITE GRADES WHICH WILL RAPIDLY DRAIN SURFACE AND ROOF RUN-OFF AWAY FROM FOUNDATION.
    - 3.3) ALL FILL SHALL BE COMPACTED TO 95 - 98 PERCENT OF STANDARD PROCTOR DENSITY (ASTM 698).
    - 3.4) FOOTINGS HAVE BEEN DESIGNED FOR A MINIMUM SOIL PRESSURE OF 3000 PSF IN LIEU OF SOIL BORINGS. IT WILL BE THE RESPONSIBILITY OF OTHERS TO VERIFY THIS VALUE.

- DIVISION 3**
- CONCRETE:**
    - 4.1) CODE FOR REINFORCED CONCRETE ACI 318 LATEST EDITION.
    - 4.2) WHERE REINFORCING BARS ARE SHOWN CONTINUOUS, LAP SPlice BARS 40 DIAMETERS.
    - 4.3) UNLESS SHOWN OTHERWISE, PROVIDE 2" CONCRETE COVER ON ALL REINFORCING STEEL (3" AT FOOTING REINF.).
    - 4.4) PROVIDE SUITABLE SUPPORT OF ALL REINFORCING TO PREVENT DISPLACEMENT DURING CURING.
    - 4.5) ALL EXPANSION BOLTS SHALL BE "KwikBolt", "Wejit", OR EQUAL.
    - 4.6) ALL CONCRETE TO HAVE 5-8% ENTRAINED AIR BY VOLUME.
    - 4.7) CONCRETE SHOULD NOT CONTAIN FLY ASH.
    - 4.8) PORTLAND CEMENT: ASTM C150, TYPE 1; AGGREGATE - 3/4".
    - 4.9) WATER: CLEAN, POTABLE AND FREE OF DELETERIOUS AMOUNTS OF ACIDS, ALKALINES AND ORGANIC MATERIALS.
    - 4.10) CONCRETE: SHALL BE MAINTAINED ABOVE 50° F.; AND IN A MOIST CONDITION FOR AT LEAST 7 DAYS FOR NORMAL CONCRETE AND 3 DAYS FOR HIGH-EARLY STRENGTH CONCRETE. HOT AND COLD WEATHER PROTECTION ASTM C-94.
    - 4.11) THE CONCRETE SUPPLIER OR HIS REPRESENTATIVE SHALL TAKE A SET OF 3 CYLINDERS FOR EVERY TRUCK LOAD OF CONCRETE POURED, OR A MINIMUM OF ONE SET PER ANY ONE POUR. THE CYLINDERS WILL BE MARKED WITH THE LOCATION OF WHERE THEY WERE TAKEN, THE NUMBER OF THE TRUCK THAT HAULED THE CONCRETE AND THE DATE AND TIME THE CYLINDERS WERE TAKEN. THE CYLINDERS ARE TO BE TAKEN ACCORDING TO ACCEPTED PRACTICES BY ASTM C31, C39 AND C172 USING APPROVED CYLINDER FORMS.
    - 4.12) THE OWNER SHALL BE RESPONSIBLE FOR STORING THE CYLINDERS AND MAINTAINING THEM IN GOOD CONDITION.
    - 4.13) THE OWNER SHALL HAVE ONE CYLINDER FOR EACH SET BROKE AT 7 DAYS AND A SECOND CYLINDER OF EACH SET BROKE AT 28 DAYS BY AN APPROVED TESTING COMPANY. THE THIRD CYLINDER OF EACH SET SHALL BE RETAINED AT THE SITE.
    - 4.14) THE OWNER OR OWNER'S REP SHALL RECEIVE WRITTEN COPIES OF THE TESTING COMPANY'S REPORT IN A TIMELY MANNER, AND PROVIDE THEM TO THE MANUFACTURER AT THEIR REQUEST.
    - 4.15) CONTRACTOR MUST SUPPLY CONCRETE DESIGN MIX TO OWNER OR OWNER'S REP AND A/E PRIOR TO STARTING CONSTRUCTION.
  5. SLAB TO BE LEVEL WITHIN 1/4".
  6. APPROACHES TO BE A COMMON PLANE WITHIN 1/4".
  7. TOP OF REBAR MUST BE PLACED TO CLEAR THE ANCHOR BOLTS. ANCHOR BOLTS ARE TO BE INSTALLED AFTER FOUNDATION HAS CURED.



OWNER: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 SCALE DEALER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 REF: \_\_\_\_\_ DATE: \_\_\_\_\_

THIS DRAWING AND ALL INFORMATION CONTAINED HEREIN IS AND REMAINS THE PROPERTY OF RICE LAKE WEIGHING SYSTEMS INC. AND IS CONFIDENTIAL. IT IS SUBMITTED AND MAY BE USED ONLY IN CONNECTION WITH RICE LAKE WEIGHING SYSTEMS' PROPOSAL AND/OR ITS CUSTOMERS' ORDERS. IT SHALL NOT BE DISCLOSED TO OTHERS OR COPIED WITHOUT RICE LAKE WEIGHING SYSTEMS' SPECIFIC WRITTEN CONSENT AND SHALL BE IMMEDIATELY RETURNED UPON REQUEST.

TITLE: FOUNDATION, CONCRETE SLAB 40' OTR SERIES TRUCK SCALES

DR. BY: SLJ CRD  
 DATE: 10/4/04 APP  
 RICE LAKE WEIGHING SYSTEMS  
 RICE LAKE WISCONSIN  
 SCALE: 1/4"=1'-0" SHEET 1 OF 1 REVISION A DWG NO 86587

PCD FILE NO. COM2346

**Kimley»Horn**  
 2024 KIMLEY-HORN AND ASSOCIATES, INC.  
 2 North Nevada Avenue Suite 900  
 Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: E/JG  
 DRAWN BY: RES  
 CHECKED BY: E/JG  
 DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 CONSTRUCTION DOCUMENTS  
**SCALE DETAIL**

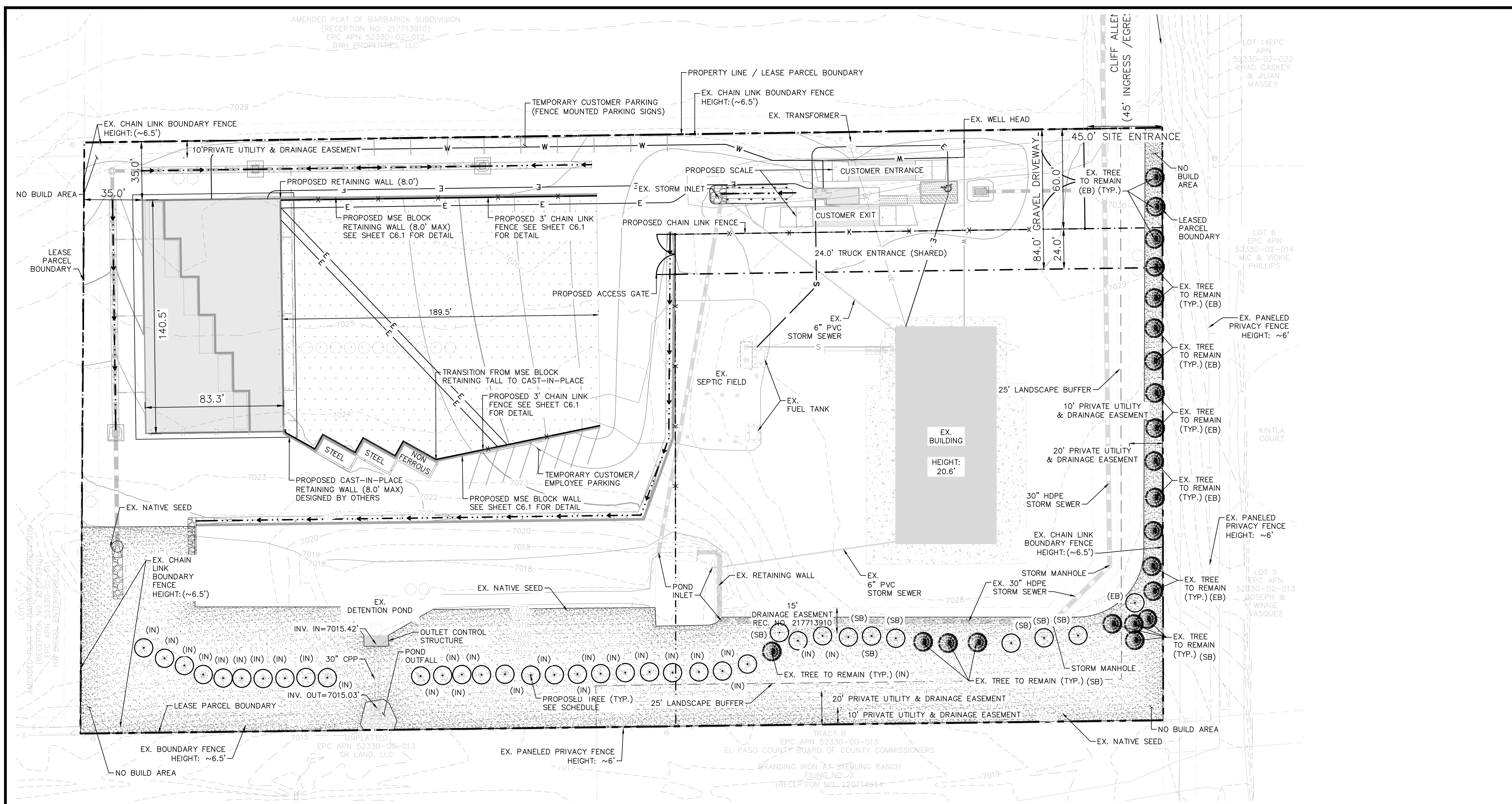
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 Kimley-Horn and Associates, Inc.

PROJECT NO.  
 196489000  
 SHEET

**C6.3**



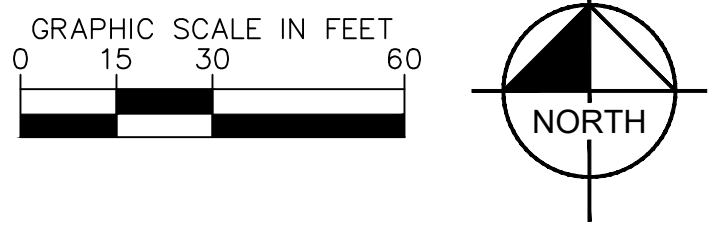
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**PLANT SCHEDULE**

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT. SIZE	SIZE/CAL.	WIDTH	HEIGHT
<b>EVERGREEN TREES</b>							
PP	35		PINUS PONDEROSA / PONDEROSA PINE	B & B	6' HGT.	30-40'	60"
<b>EXISTING TREES TO REMAIN</b>							
EX	22		EXISTING TREE TO REMAIN				
<b>GROUND COVERS</b>							
SEED	50,413	SF	EXISTING NATIVE SEED TO REMAIN / EPC LOW GROW MIX INSTALL PER TABLE 5.2. SUBMIT SUPPLIER CUT SHEET FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.	SEED	PER CHART		PANNEE BUTTES SEED

NOTE: THIRTY-FOUR (34) OF THE ORIGINALLY PLANTED TREES HAVE DIED AND SHALL BE REPLACED WITH PONDEROSA PINES PER THE LANDSCAPE PLAN ABOVE.  
NOTE: SEE DETAILS SHEET (L7.2) FOR CODE CHARTS



**LEGEND**

- — — — — PROPERTY LINE
- - - - - LEASED PARCEL BOUNDARY
- - - - - EXISTING UTILITY & DRAINAGE EASEMENT
- — — — — PROPOSED TRUCK TURN MOVEMENT
- x - x - EXISTING FENCE
- — — — — EXISTING STORM SEWER
- G - EXISTING GAS MAIN
- \* ○ EXISTING VEGETATION
- ⊕ EXISTING TRANSFORMER
- ▭ ▭ ▭ ▭ ▭ PROPOSED ASPHALT
- ▭ ▭ ▭ ▭ ▭ PROPOSED CONCRETE

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
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Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJJ  
DRAWN BY: RES  
CHECKED BY: EJJ  
DATE: 3/7/2024

**BARBARICK WASTE TRANSFER STATION**  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
**LANDSCAPE PLAN**

**PRELIMINARY**  
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**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
SHEET  
**L7.0**

**811** Know what's below.  
Call before you dig.  
CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE, OR EXCAVATE  
FOR THE MARKING OF UNDERGROUND  
NEEDED UTILITIES

PCD FILE NO. COM2346



# GENERAL LANDSCAPE SPECIFICATIONS

- A. SCOPE OF WORK**
- THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS AND AS SPECIFIED HEREIN.
  - WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER.
- B. PROTECTION OF EXISTING STRUCTURES**
- ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED AND DESIGNATED TO REMAIN SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL NECESSARY BEST MANAGEMENT PRACTICES (BMP) DEVICES ACCORDING TO ALL REGULATORY AGENCY'S STANDARDS THROUGH THE DURATION OF ALL CONSTRUCTION ACTIVITIES.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY MAINTENANCE OF TRAFFIC (MOT) THAT MAY BE REQUIRED FOR THE PROJECT.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UTILITIES, WHETHER PUBLIC OR PRIVATE, PRIOR TO EXCAVATION. THE OWNER AND DESIGN PROFESSIONAL SHALL NOT BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF ANY SUCH INFORMATION OR DATA. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR: REVIEWING AND CHECKING ALL SUCH INFORMATION AND DATA; LOCATING ALL UNDERGROUND FACILITIES DURING CONSTRUCTION; THE SAFETY AND PROTECTION THEREOF; REPAIRING ANY DAMAGE RESULTING FROM THE WORK. THE COST OF ALL WILL BE CONSIDERED AS HAVING BEEN INCLUDED IN THE CONTRACT PRICE. THE CONTRACTOR SHALL NOTIFY ANY AFFECTED UTILITY COMPANIES OR AGENCIES IN WRITING AT LEAST 48 HOURS PRIOR TO BEGINNING CONSTRUCTION.
- C. PROTECTION OF EXISTING PLANT MATERIALS**
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED ON SITE. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF FOUR HUNDRED DOLLARS (\$400) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.
  - SEE TREE MITIGATION PLAN AND NOTES, IF APPLICABLE.
  - ALL TREES PROPOSED TO BE REMOVED WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE COORDINATED WITH THE FORESTRY DEPARTMENT FOR PERMIT PRIOR TO TREE REMOVAL.
- D. MATERIALS**
- GENERAL  
MATERIAL SAMPLES LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL, ON SITE OR AS DETERMINED BY THE OWNER. UPON APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SAMPLE SIZE
MULCH	ONE (1) CUBIC FOOT
TOPSOIL MIX	ONE (1) CUBIC FOOT
PLANTS	ONE (1) OF EACH VARIETY (OR TAGGED IN NURSERY)

  - PLANT MATERIALS
    - FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE SHOWN ON DRAWINGS AND COMPLYING WITH ANSI Z60.1 AND THE COLORADO NURSERY ACT, AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
    - TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE.
    - NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE PROJECT LANDSCAPE ARCHITECT. ANY ROW TREES MUST BE APPROVED BY OFFICE OF THE CITY FORESTER.
    - PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 AND COLORADO NURSERY ACT FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO PROJECT LANDSCAPE ARCHITECT WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
    - PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER. FOR QUALITY, SIZE, AND VARIETY. SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION. FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES, REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.
    - TREES WITH DAMAGED, CROOKED, OR MULTIPLE LEADERS; TIGHT VERTICAL BRANCHES WHERE BARK IS SQUEEZED BETWEEN TWO BRANCHES OR BETWEEN BRANCH AND TRUNK ("INCLUDED BARK"); CROSSING TRUNKS; CUT-OFF LIMBS MORE THAN 1/4 INCH (19 MM) IN DIAMETER; OR WITH STEM GIRDLING ROOTS WILL BE REJECTED.
    - FURNISH TREES AND SHRUBS WITH ROOTS BALLS MEASURED FROM TOP OF ROOT BALL, WHICH SHALL BEGIN AT ROOT FLARE ACCORDING TO ANSI Z60.1 AND COLORADO NURSERY ACT. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.
    - LABEL AT LEAST ONE PLANT OF EACH VARIETY, SIZE, AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF COMMON NAME AND FULL SCIENTIFIC NAME, INCLUDING GENUS AND SPECIES. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR CULTIVAR, IF APPLICABLE FOR THE PLANT AS SHOWN ON DRAWINGS.
    - IF FORMAL ARRANGEMENTS OR CONSECUTIVE ORDER OF PLANTS IS SHOWN ON DRAWINGS, SELECT STOCK FOR UNIFORM HEIGHT AND SPREAD, AND NUMBER THE LABELS TO ASSURE SYMMETRY IN PLANTING.
- E. SOIL MIXTURE**
- CONTRACTOR SHALL TEST EXISTING SOIL AND AMEND AS NECESSARY IN ACCORDANCE WITH THE GUIDELINES BELOW:
  - SOIL MIXTURE SHALL CONSIST OF TWO PARTS OF TOPSOIL AND ONE PART SAND, AS DESCRIBED BELOW. CONTRACTOR TO SUBMIT SAMPLES AND PH TESTING RESULTS OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.
    - TOPSOIL FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT OPENINGS SHALL BE FERTILE, FRIABLE, AND OF A LOAMY CHARACTER; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS OR OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEIOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER. HAVE A PH BETWEEN 5.5 AND 6.0, AND SOLUBLE SALTS LESS THAN 3.0 MMHOS/CM. SUBMIT SOIL SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
    - SAND SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND.  - TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT THE PROJECT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
- F. WATER**
- WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETERIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC. IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.
- \* WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- G. FERTILIZER**
- CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE

- NATURALLY-DERIVED.
- \* FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.
- H. MULCH**
- MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A DEPTH OF THREE (3) INCHES CLEAR MULCH FROM EACH PLANT'S CROWN (BASE) OR AS SHOWN IN PLANTING DETAILS. MULCH SHALL BE DOUBLE SHREDDED HARDWOOD MULCH. DYED MULCH IS NOT ACCEPTABLE. SUBMIT SAMPLES TO PROJECT LANDSCAPE ARCHITECT FOR APPROVAL. MULCH SHALL BE PROVIDED OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE RING (6" MINIMUM) PLANTED UNDER THIS CONTRACT, AS WELL AS FOR ANY EXISTING LANDSCAPE AREAS AS SHOWN ON PLANS.
- I. DIGGING AND HANDLING**
- ALL TREES SPECIFIED SHALL BE BALLED AND BURLAPPED (B&B) UNLESS OTHERWISE APPROVED BY PROJECT LANDSCAPE ARCHITECT.
  - PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO THE SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILT-PRUF" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.
  - B&B AND FIELD GROWN (FG) PLANTS SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS SHALL NOT BE HANDLED BY STEMS.
- J. CONTAINER GROWN STOCK**
- ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION.
  - AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG ENOUGH FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.
  - ROOT BOUND PLANTS ARE NOT ACCEPTABLE AND WILL BE REJECTED.
- K. MATERIALS LIST**
- QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE PLANS SHALL GOVERN. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE.
- L. FINE GRADING**
- FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN DISTURBED DURING CONSTRUCTION.
  - CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH.
  - ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES, IF APPLICABLE.
- M. PLANTING PROCEDURES**
- THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER DAILY. ALL MORTAR, CEMENT, BUILDING MATERIALS, AND TOXIC MATERIAL SHALL BE COMPLETELY REMOVED FROM PLANTING AREAS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS IN PLANTING AREAS WHICH WILL ADVERSELY AFFECT THE PLANT GROWTH, THE CONTRACTOR SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.
  - VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL COLORADO (811) TO LOCATE UTILITIES AT LEAST 48 HOURS PRIOR TO CONSTRUCTION.
  - CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMESTONE AND LIMESTONE SUB-BASE FROM ALL PLANTING AREAS TO A MINIMUM DEPTH OF 36" OR TO NATIVE SOIL. CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMESTONE OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND POSITIVE DRAINAGE CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE POOR DRAINAGE CONDITION PLANTING DETAIL.
  - FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS SPECIFIED HEREIN. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.
  - COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED OR APPROPRIATELY HEATED IN FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES WORKMANLIKE METHODS CUSTOMARY IN ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE SHALL BE EXERCISED.
  - WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.
  - ALL PLANTING OPENINGS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH ANSI Z60.1-2014 AMERICAN STANDARD FOR NURSERY STOCK.
  - TEST ALL TREE OPENINGS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER DRAINAGE. IF POOR DRAINAGE EXISTS, UTILIZE "POOR DRAINAGE CONDITION" PLANTING DETAIL.
  - TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN.
  - PRIOR TO EXCAVATION OF TREE OPENINGS, AN AREA EQUAL TO TWO TIMES THE DIAMETER OF THE ROOT BALL SHALL BE ROTO-TILLED TO A DEPTH EQUAL TO THE DEPTH OF THE ROOT BALL.
  - EXCAVATION OF TREE OPENINGS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB-BASES.
  - IN CONTINUOUS SHRUB AND GROUND COVER BEDS, THE ROTO-TILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF ONE FOOT BEYOND THE DIAMETER OF A SINGLE ROOT BALL. THE BED SHALL BE TILLED TO A DEPTH EQUAL TO THE ROOT BALL DEPTH PLUS 6".
  - TREE OPENINGS FOR WELL DRAINED SOILS SHALL BE DUG SO THAT THE BOTTOM OF THE ROOT BALL WILL REST ON UNDISTURBED SOIL AND THE TOP OF THE ROOT BALL WILL BE FLUSH WITH FINISH GRADE. IN POORLY DRAINED SOILS THE TREE OPENING SHALL BE DUG SO THAT THE ROOT BALL RESTS ON UNDISTURBED SOIL AND THE TOP OF THE ROOT BALL IS 1" ABOVE FINISH GRADE. PLANT PIT WALLS SHALL BE SCARIFIED PRIOR TO PLANT INSTALLATION.
  - TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.
  - SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION 'E'.
  - TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. SOIL MIXTURE SHALL BE BACK FILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).
  - AMEND PINE AND OAK PLANT OPENINGS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURERS

- RECOMMENDATION. ALL OTHER PLANT OPENINGS SHALL BE AMENDED WITH ENDOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.
- FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET, ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE.
  - ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.
  - TREES SHALL BE PRUNED, IN ACCORDANCE WITH ANSI A-300, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY CERTIFIED ARBORIST.
  - SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. MATERIALS INSTALLED SHALL MEET MINIMUM SPECIMEN REQUIREMENTS OR QUANTITIES SHOWN ON PLANS, WHICHEVER IS GREATER. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6". REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" THE PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.
  - TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE PROJECT LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.
  - ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S RECOMMENDATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)
- N. LAWN SODDING**
- THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.
  - ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS BY MEANS OF A SOD CUTTER TO A DEPTH OF THREE (3) INCHES, AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.
  - PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.
  - SODDING
    - THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.
    - SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS ADJACENT TO BUILDINGS. A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED IMMEDIATELY FOLLOWING SOD LAYING. THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.
    - DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.
  - LAWN MAINTENANCE
    - WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS LARGER THAN 12"x12" UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDINGS SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK, INCLUDING REGRADING IF NECESSARY.
    - CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.
- O. EDGING**
- CONTRACTOR SHALL INSTALL 4"x3" ROLLED TOP STEEL EDGING BETWEEN ALL SOD/SEED AREAS AND PLANTING BEDS.
- P. CLEANUP**
- UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM CONTRACTORS WORK. ALL PAVED AREAS SHALL BE CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S REPRESENTATIVE.
- Q. PLANT MATERIAL MAINTENANCE**
- ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, PRUNING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
- R. FINAL INSPECTION AND ACCEPTANCE OF WORK**
- FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.
- S. WARRANTY**
- THE LIFE AND SATISFACTORY CONDITION OF ALL PLANT MATERIAL INSTALLED (INCLUDING SOD) BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE.
  - ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED AT NO ADDITIONAL COST TO THE OWNER.
  - IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE AND IRRIGATION MAINTENANCE, THE CONTRACTOR SHOULD VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE (1) YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER. CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH.
- T. PARKING LOT ISLAND NOTE**
- THE SOIL OF ANY PLANTER WITHIN THE PARKING LOT SHALL BE STRUCTURALLY RENOVATED (TILLED) OR REMOVED TO A DEPTH OF THIRTY INCHES (30") AND REPLACED WITH AN ACCEPTABLE GROWING MEDIUM FOR THE SPECIES INDICATED FOR INSTALLATION.
- U. MAINTENANCE**
- LANDSCAPE IMPROVEMENTS AND MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER, AND/OR THEIR ASSIGNS.
  - ALL STREET TREES AND STREETScape IMPROVEMENTS LOCATED IN THE R.O.W. WILL BE MAINTAINED BY THE ABUTTING PROPERTY OWNER.

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**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Meade Avenue, Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJC  
DRAWN BY: RES  
CHECKED BY: EJC  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
LANDSCAPE NOTES

PRELIMINARY

FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION

**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

SHEET

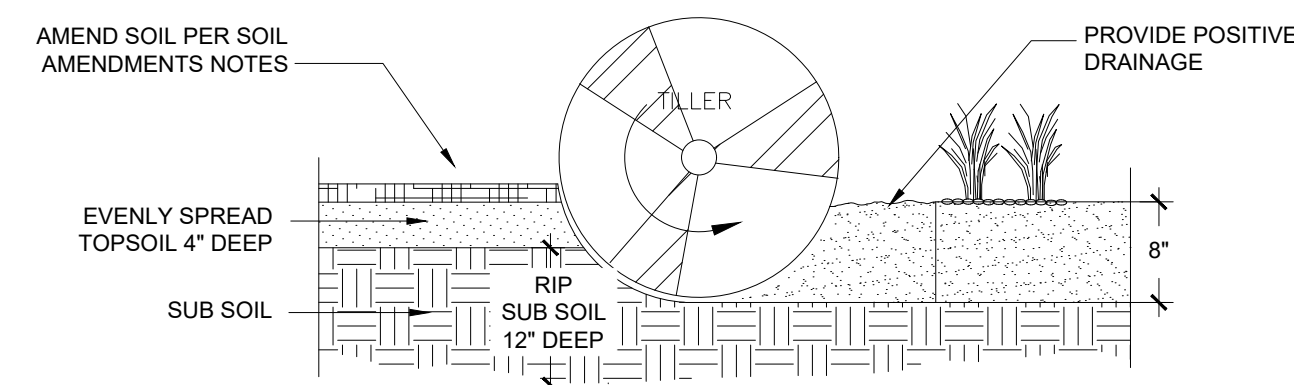
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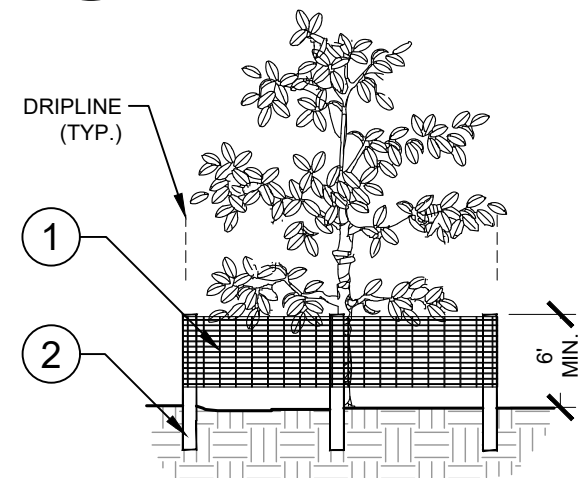
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- NOTES:
1. TOPSOIL TO CONSIST OF DARK, LIGHT LOAM SOIL FREE OF ROCKS, ROOTS, AND FOREIGN MATERIALS.
  2. THE FERTILIZER APPLICATION SHOULD BE DELAYED IF PLANTING DOES NOT OCCUR WITHIN 2-3 DAYS OF FERTILIZING.
  3. COMPOST TO CONSIST OF 1 YEAR OLD ORGANIC MATERIAL AND SHOULD NOT INCLUDE CHICKEN MANURE.
  4. FROZEN MATERIALS OR MATERIALS GREATER THAN 1" DIA. SHOULD BE REMOVED.
  5. REFER TO SPECS FOR COMPLETE SOIL PREPARATION REQUIREMENTS.
  6. THE ROTO-TILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF 1 FOOT BEYOND THE DIAMETER OF A SINGLE ROOT BALL.

**1 SOIL PREP**  
NTS

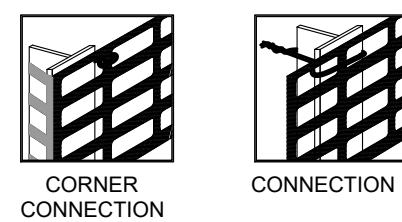
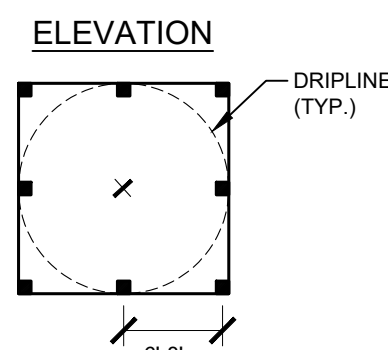
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- 1 6" PERIMETER PLUS CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
- 2 8" TALL METAL "T" POSTS OR 2" x 2" x 8" PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.

**INSTALLATION NOTES:**

- A. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
- B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 6" POST SHOULD BE SET AT LEAST 2" INTO THE GROUND.
- C. SPACE POSTS EVERY 6' (MIN.) TO 8' (MAX.).
- D. SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONWED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

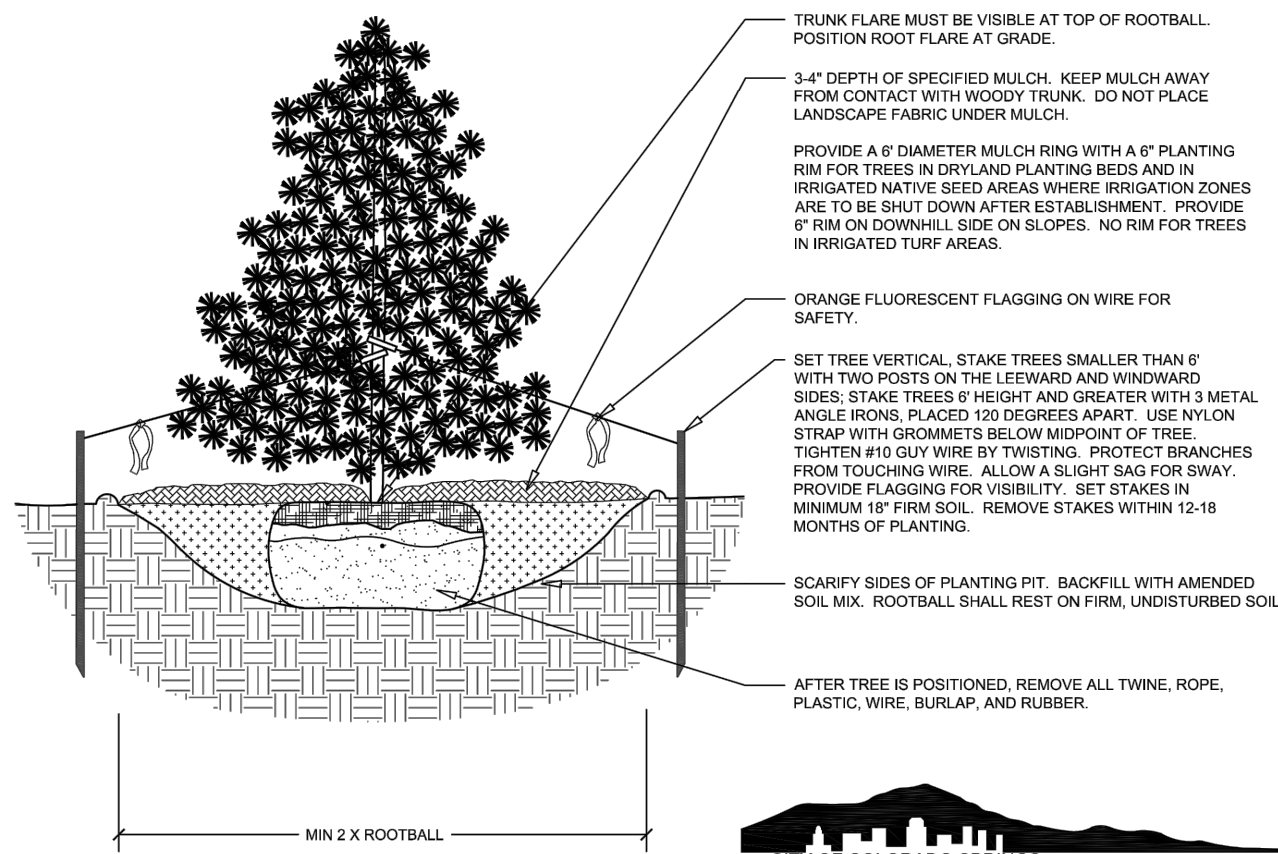


NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.

**3 TREE PROTECTION FENCING**  
ELEVATION / PLAN  
NTS

11

- NOTES:
1. DO NOT REMOVE OR CUT LEADER.
  2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
  3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
  4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
  6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE, WHENEVER POSSIBLE.
  7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.
  9. ALL TREES LOCATED IN ROCK/COBBLE BEDS SHALL HAVE A 36 INCH DIAMETER WOOD MULCH RING.



Disclaimer: These planting details are for City review and approval process and shall not be used for construction or bidding purposes.

Rev: 6-6-2023

**2 EVERGREEN TREE PLANTING**  
NTS

196-489-000-12

Table B. El Paso County All-Purpose Low Grow Mix for Upland and Transition Areas

Common Name	Scientific Name	Growth Season/Form	% of Mix	Pounds PLS		
				Irrigated broadcast Irrigated hydroseeded (80 seeds/sq ft)	non-irrigated broadcast non-irrigated hydroseeded irrigated drilled (40 seeds/sq ft)	non-irrigated drilled (20 seeds/sq ft)
Buffalograss	<i>Buchloe dactyloides</i>	Warm, sod	25	9.6	4.8	2.4
Blue Grama	<i>Bouteloua gracilis</i>	Warm, bunch	20	10.8	5.4	2.7
Sideoats Grama	<i>Bouteloua curtipendula</i>	Warm, bunch	29	5.6	2.8	1.4
Green Needlegrass	<i>Nassella viridula</i>	Cool, bunch	5	3.2	1.6	0.8
Western Wheatgrass	<i>Pascopyrum smithii</i>	Cool, sod	20	12.0	6.0	3.0
Sand Dropseed	<i>Sporobolus cryptandrus</i>	Warm, bunch	1	0.8	0.4	0.2
Seed rate (lbs PLS/acre)				42.0	21.0	10.3

**LANDSCAPE SETBACKS AND BUFFERS**

STREET NAME OR BOUNDARY:	NORTH BNDY	SOUTH BNDY	SOUTH BUFFER	EAST BUFFER	WEST BNDY
ZONE DISTRICT BOUNDARY:	NO	NO	YES	YES	NO
STREET CLASSIFICATION:	N/A	N/A	N/A	N/A	N/A
SETBACK DEPTH REQUIRED / PROVIDED:	0 / 0	0 / 0	25' / 25'	15' / 15'	0 / 0
LINEAR FOOTAGE:	647'	310'	340'	356'	355'
TREE PER FEET REQ.:	N/A	N/A	1 TREE PER 25 LF	1 TREE PER 25 LF	N/A
NUMBER OF TREES REQ. / PROV.:	N/A	N/A	14 / 14	15 / 15	N/A
EVERGREEN TREES REQ. / PROV.:	N/A	N/A	5 / 14	5 / 15	N/A
SHRUB SUBSTITUTES REQ. / PROV.:	N/A	N/A	N/A	N/A	N/A
ORN. GRASS SUBSTITUTES REQ. / PROV.:	N/A	N/A	N/A	N/A	N/A
OPAQUE SCREEN REQ. / PROV.:	N/A	N/A	340' / 340'	N/A	N/A
PLANT ABBREVIATION DENOTED ON PLAN:	N/A	N/A	SB	EB	N/A
% GROUND PLANE VEG. REQ. / PROV.:	N/A	N/A	75% / 100%	75% / 75%	N/A

**INTERNAL LANDSCAPING**

GROSS SITE AREA:	230,422 SF (5.29 AC)
PERCENT MINIMUM INTERNAL AREA:	5%
INTERNAL LANDSCAPE AREA REQ. / PROV.:	11,521 SF / 50,413 SF
TREE PER FEET REQ.:	1 TREE PER 500 SF
INTERNAL TREES REQ. / PROV.:	23 / 28
SHRUB SUBSTITUTES REQ. / PROV.:	N/A
ORN. GRASS SUBSTITUTES REQ. / PROV.:	N/A
PLANT ABBREVIATION DENOTED ON PLAN:	IN
% GROUND PLANE VEG. REQ. / PROV.:	75% / 100%

**Kimley»Horn**  
2024, KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Inland Avenue, Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJC  
DRAWN BY: RES  
CHECKED BY: EJC  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
LANDSCAPE DETAILS

PRELIMINARY

FOR REVIEW ONLY  
NOT FOR  
CONSTRUCTION  
**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000

SHEET

L7.2

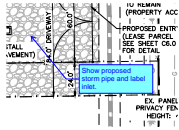


PCD FILE NO. COM2346



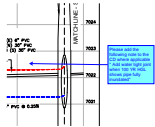
# v2\_Construction Drawings comments.pdf Markup Summary

Carlos (4)



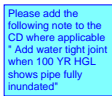
**Subject:** Callout  
**Page Label:** [1] 2 SITE PLAN  
**Author:** Carlos  
**Date:** 3/25/2024 4:04:52 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Show proposed storm pipe and label inlet.



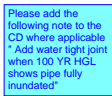
**Subject:** Callout  
**Page Label:** [9] C3.1 STORM PLAN & PROFILE  
**Author:** Carlos  
**Date:** 3/25/2024 5:05:10 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Please add the following note to the CD where applicable  
" Add water tight joint when 100 YR HGL shows pipe fully inundated"



**Subject:** Callout  
**Page Label:** [10] C3.2 STORM PLAN & PROFILE  
**Author:** Carlos  
**Date:** 3/25/2024 5:05:18 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

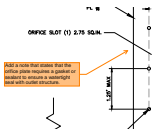
Please add the following note to the CD where applicable  
" Add water tight joint when 100 YR HGL shows pipe fully inundated"



**Subject:** Callout  
**Page Label:** [11] C3.3 STORM PLAN & PROFILE  
**Author:** Carlos  
**Date:** 3/25/2024 5:05:43 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

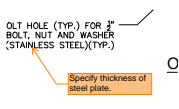
Please add the following note to the CD where applicable  
" Add water tight joint when 100 YR HGL shows pipe fully inundated"

Glenn Reese - EPC Stormwater (2)



**Subject:** SW - Textbox with Arrow  
**Page Label:** [18] C6.2 POND DETAILS  
**Author:** Glenn Reese - EPC Stormwater  
**Date:** 3/25/2024 10:49:59 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Add a note that states that the orifice plate requires a gasket or sealant to ensure a watertight seal with outlet structure.



**Subject:** SW - Textbox with Arrow  
**Page Label:** [18] C6.2 POND DETAILS  
**Author:** Glenn Reese - EPC Stormwater  
**Date:** 3/25/2024 10:49:59 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Specify thickness of steel plate.









Final Drainage Report

## Lot 4, Barbarick Subdivision El Paso County, Colorado

Prepared for:

**Vollmer Road Partners, LLLP.**  
**6035 Erin Parkway Drive, Suite 101**  
**Colorado Springs, CO 80918**  
**Contact: Richard Graham**

Prepared by:

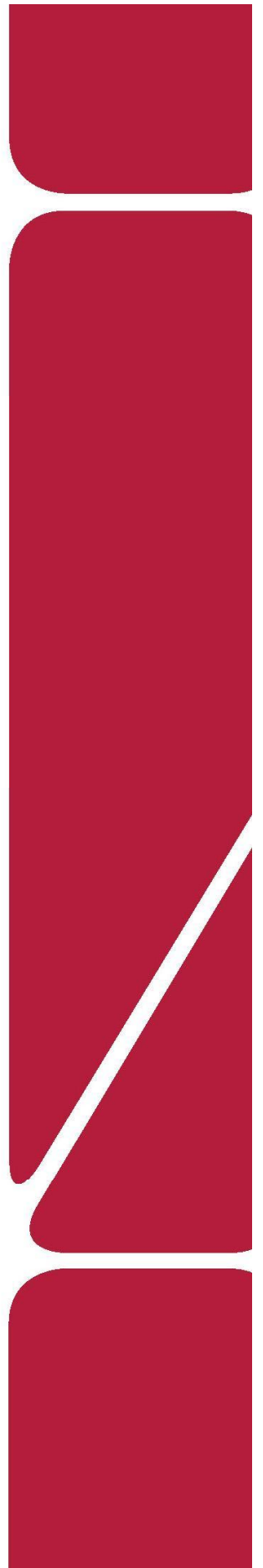
**Kimley-Horn and Associates, Inc.**  
**2 North Nevada Avenue, Suite 900**  
**Colorado Springs, Colorado 80903**  
**(719) 453-0180**  
**Contact: Eric Gunderson, P.E.**

Project #: 196489000

Prepared: March 6, 2024

PCD File Number: COM2346

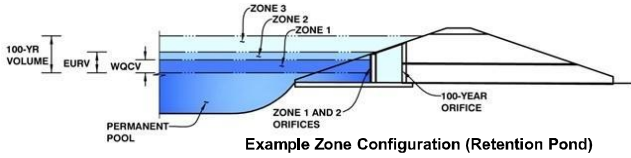
**Kimley»Horn**



# DETENTION BASIN OUTLET STRUCTURE DESIGN

MHFD-Detention, Version 4.06 (July 2022)

**Project:** Barbarick Transfer Station  
**Basin ID:** EDB Modification - Proposed Condition



	Estimated Stage (ft)	Estimated Volume (ac-ft)	Outlet Type
Zone 1 (WQCV)	2.07	0.344	Orifice Plate
Zone 2 (EURV)	4.08	0.903	Orifice Plate
Zone 3 (100-year)	4.94	0.511	Weir&Pipe (Restrict)
<b>Total (all zones)</b>		<b>1.758</b>	

**User Input:** Orifice at Underdrain Outlet (typically used to drain WQCV in a Filtration BMP)

Underdrain Orifice Invert Depth =	N/A	ft (distance below the filtration media surface)
Underdrain Orifice Diameter =	N/A	inches

Calculated Parameters for Underdrain	
Underdrain Orifice Area =	N/A ft <sup>2</sup>
Underdrain Orifice Centroid =	N/A feet

**User Input:** Orifice Plate with one or more orifices or Elliptical Slot Weir (typically used to drain WQCV and/or EURV in a sedimentation BMP)

Centroid of Lowest Orifice =	0.00	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Orifice Plate =	4.10	ft (relative to basin bottom at Stage = 0 ft)
Orifice Plate: Orifice Vertical Spacing =	N/A	inches
Orifice Plate: Orifice Area per Row =	N/A	sq. inches

Calculated Parameters for Plate	
WQ Orifice Area per Row =	N/A ft <sup>2</sup>
Elliptical Half-Width =	N/A feet
Elliptical Slot Centroid =	N/A feet
Elliptical Slot Area =	N/A ft <sup>2</sup>

**User Input:** Stage and Total Area of Each Orifice Row (numbered from lowest to highest)

	Row 1 (required)	Row 2 (optional)	Row 3 (optional)	Row 4 (optional)	Row 5 (optional)	Row 6 (optional)	Row 7 (optional)	Row 8 (optional)
Stage of Orifice Centroid (ft)	0.00	2.00	2.75					
Orifice Area (sq. inches)	2.75	3.00	1.00					
Stage of Orifice Centroid (ft)								
Orifice Area (sq. inches)								

**User Input:** Vertical Orifice (Circular or Rectangular)

	Not Selected	Not Selected	
Invert of Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Depth at top of Zone using Vertical Orifice =	N/A	N/A	ft (relative to basin bottom at Stage = 0 ft)
Vertical Orifice Diameter =	N/A	N/A	inches

Calculated Parameters for Vertical Orifice	
Vertical Orifice Area =	N/A
Vertical Orifice Centroid =	N/A

**User Input:** Overflow Weir (Dropbox with Flat or Sloped Gate and Outlet Pipe OR Rectangular/Trapezoidal Weir and No Outlet Pipe)

	Zone 3 Weir	Not Selected	
Overflow Weir Front Edge Height, H <sub>o</sub> =	4.10	N/A	ft (relative to basin bottom at Stage = 0 ft)
Overflow Weir Front Edge Length =	12.00	N/A	feet
Overflow Weir Gate Slope =	0.00	N/A	H:V
Horiz. Length of Weir Sides =	4.00	N/A	feet
Overflow Gate Type =	Type C Gate	N/A	
Debris Clogging % =	50%	N/A	%

Calculated Parameters for Overflow Weir	
Height of Gate Upper Edge, H <sub>t</sub> =	4.10
Overflow Weir Slope Length =	4.00
Grate Open Area / 100-yr Orifice Area =	47.80
Overflow Grate Open Area w/o Debris =	33.41
Overflow Grate Open Area w/ Debris =	16.70

**User Input:** Outlet Pipe w/ Flow Restriction Plate (Circular Orifice, Restrictor Plate, or Rectangular Orifice)

	Zone 3 Restrictor	Not Selected	
Depth to Invert of Outlet Pipe =	1.02	N/A	ft (distance below basin bottom at Stage = 0 ft)
Outlet Pipe Diameter =	30.00	N/A	inches
Restrictor Plate Height Above Pipe Invert =	6.00	N/A	inches

Calculated Parameters for Outlet Pipe w/ Flow Restriction Plate	
Outlet Orifice Area =	0.70
Outlet Orifice Centroid =	0.30
Half-Central Angle of Restrictor Plate on Pipe =	0.93

**User Input:** Emergency Spillway (Rectangular or Trapezoidal)

Spillway Invert Stage =	4.53	ft (relative to basin bottom at Stage = 0 ft)
Spillway Crest Length =	33.00	feet
Spillway End Slopes =	4.00	H:V
Freeboard above Max Water Surface =	1.00	feet

KH Response:  
Outlet pipe inv is labeled on the CDs. See overall storm plan

Calculated Parameters for Spillway	
Spillway Design Flow Depth =	0.53
Freeboard at Top of Freeboard =	6.06
Area at Top of Freeboard =	0.76
Volume at Top of Freeboard =	2.52

## Routed Hydrograph Results

The user can override the default CUHP hydrographs and runoff volumes by entering new values in the Inflow Hydrographs table (Columns W through AF).

	WQCV	EURV	2 Year	5 Year	10 Year	25 Year	50 Year	100 Year
Design Storm Return Period =								
One-Hour Rainfall Depth (in) =	N/A	N/A	1.19	1.50	1.75	2.00	2.25	2.52
CUHP Runoff Volume (acre-ft) =	0.344	1.247	0.865	1.116	1.320	1.551	1.770	2.018
Inflow Hydrograph Volume (acre-ft) =	N/A	N/A	0.865	1.116	1.320	1.551	1.770	2.018
CUHP Predevelopment Peak Q (cfs) =	N/A	N/A	0.1	0.2	0.3	4.0	6.4	9.5
OPTIONAL Override Predevelopment Peak Q (cfs) =	N/A	N/A						
Predevelopment Unit Peak Flow, q (cfs/acre) =	N/A	N/A	0.01	0.02	0.03	0.38	0.60	0.89
Peak Inflow Q (cfs) =	N/A	N/A	17.8	23.0	27.1	32.6	37.2	41.3
Peak Outflow Q (cfs) =	0.2	0.4	0.3	0.3	0.4	3.0	5.7	7.7
Ratio Peak Outflow to Predevelopment Q =	N/A	N/A	N/A	1.5	1.4	0.7	0.9	0.8
Structure Controlling Flow =	Plate							
Max Velocity through Gate 1 (fps) =	N/A							
Max Velocity through Gate 2 (fps) =	N/A							
Time to Drain 97% of Inflow Volume (hours) =	39							
Time to Drain 99% of Inflow Volume (hours) =	41							
Maximum Ponding Depth (ft) =	2.07							
Area at Maximum Ponding Depth (acres) =	0.33							
Maximum Volume Stored (acre-ft) =	0.347							

KH Response:  
The UD-Detention spreadsheet uses the empirical equation for calculating WQCV based off impervious percentages and areas, not rational calculations.

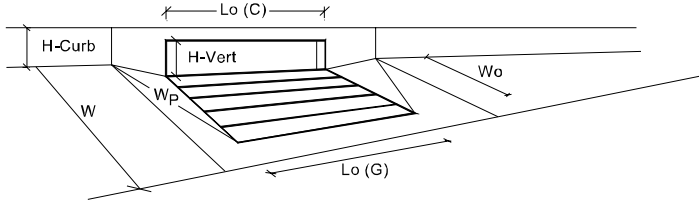
Per pages 7 and 60 above, these inflow should be 41.26 and 76.63cfs, right?



# Inlet P1

## INLET IN A SUMP OR SAG LOCATION

MHFD-Inlet, Version 5.03 (August 2023)



**Warning 1**

Design Information (Input)		MINOR		MAJOR	
Type of Inlet	CDOT Type C Grate	Type = CDOT Type C Grate			
Local Depression (additional to continuous gutter depression 'a' from above)		$a_{local}$ =	3.00	3.00	inches
Number of Unit Inlets (Grate or Curb Opening)		No =	2	2	
Water Depth at Flowline (outside of local depression)		Ponding Depth =	9.5	9.5	inches
<b>Grate Information</b>		<input checked="" type="checkbox"/> Override Depths			
Length of a Unit Grate		$L_o$ (G) =	2.92	2.92	feet
Width of a Unit Grate		$W_o$ =	2.92	2.92	feet
Open Area Ratio for a Grate (typical values 0.15-0.90)		$A_{ratio}$ =	0.70	0.70	
Clogging Factor for a Single Grate (typical value 0.50 - 0.70)		$C_f$ (G) =	0.50	0.50	
Grate Weir Coefficient (typical value 2.15 - 3.60)		$C_w$ (G) =	3.00	3.00	
Grate Orifice Coefficient (typical value 0.60 - 0.80)		$C_o$ (G) =	0.70	0.70	
<b>Curb Opening Information</b>					
Length of a Unit Curb Opening		$L_o$ (C) =	N/A	N/A	feet
Height of Vertical Curb Opening in Inches		$H_{vert}$ =	N/A	N/A	inches
Height of Curb Orifice Throat in Inches		$H_{throat}$ =	N/A	N/A	inches
Angle of Throat		Theta =	N/A	N/A	degrees
Side Width for Depression Pan (typically the gutter width of 2 feet)		$W_p$ =	N/A	N/A	feet
Clogging Factor for a Single Curb Opening (typical value 0.10)		$C_f$ (C) =	N/A	N/A	
Curb Opening Weir Coefficient (typical value 2.3-3.7)		$C_w$ (C) =	N/A	N/A	
Curb Opening Orifice Coefficient (typical value 0.60 - 0.70)		$C_o$ (C) =	N/A	N/A	
<b>Low Head Performance Reduction (Calculated)</b>					
Depth for Grate Midwidth		$d_{Grate}$ =	0.80	0.80	ft
Depth for Curb Opening Weir Equation		$d_{Curb}$ =	N/A	N/A	ft
Grated Inlet Performance Reduction Factor for Long Inlets		$RF_{Grate}$ =	N/A	N/A	
Curb Opening Performance Reduction Factor for Long Inlets		$RF_{Curb}$ =	N/A	N/A	
Combination Inlet Performance Reduction Factor for Long Inlets		$RF_{Combination}$ =	N/A	N/A	
Total Inlet Interception Capacity (assumes clogged condition)					
<b>Inlet Capacity IS GOOD for Minor and Major Storms (&gt;Q Peak)</b>					
		MINOR		MAJOR	
		$Q_s$ =	13.1	13.1	cfs
		$Q_{PEAK REQUIRED}$ =	5.3	12.0	cfs

**Warning 1: Dimension entered is not a typical dimension for inlet type specified.**

Recommend using the MHFD Inlet a swale spreadsheet to avoid the warning error.

**KH Response:**  
We feel that although this spreadsheet gives an error for the proposed dimension, warning that this is non standard, that this spreadsheet better models the inlet. I've left these inlet calcs, is this acceptable with EPC?

**LEGEND**

- PROPERTY LINE
- LEASED PARCEL BOUNDARY
- EXISTING UTILITY & DRAINAGE EASEMENT
- EXISTING FENCE
- EXISTING STORM SEWER
- EXISTING GAS MAIN
- EXISTING VEGETATION
- EXISTING TRANSFORMER
- PROPOSED UNDERGROUND ELECTRIC
- PROPOSED STORM SEWER
- PROPOSED STORM INLET
- PROPOSED ASPHALT
- PROPOSED CONCRETE
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED BASIN BOUNDARY

A = SUB-BASIN NAME  
 B = BASIN AREA (ACRES)  
 C = BASIN RUNOFF (CFS)  
 D = 100-YEAR RUNOFF

DESIGN POINT

EXISTING FLOW ARROW

PROPOSED FLOW ARROW

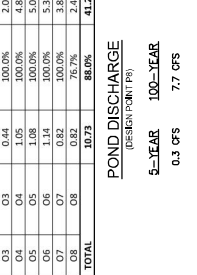
**SUMMARY - PROPOSED RUNOFF TABLE**

DESIGN POINT	BASIN DESIGNATION	BASIN AREA (ACRES)	IMPERVIOUSNESS (%)	DIRECT RUNOFF (CFS)	BASIN RUNOFF (CFS)	TOTAL RUNOFF (CFS)
P1	P1	0.31	81.7%	0.98	1.92	2.90
P2	P2	0.15	76.4%	0.44	0.88	1.32
P3	P3	0.11	82.2%	0.36	0.70	1.06
P4	P4	0.11	82.2%	0.36	0.70	1.06
P5	P5	0.11	82.2%	0.36	0.70	1.06
P6	P6	2.04	58.9%	4.14	8.56	12.70
R1	R1	0.14	90.0%	0.43	0.86	1.29
R2	R2	0.14	90.0%	0.43	0.86	1.29
O1	O1	1.51	95.1%	6.73	12.23	18.96
O2	O2	0.74	100.0%	3.46	5.20	8.66
O3	O3	1.04	100.0%	4.96	7.37	12.33
O4	O4	1.04	100.0%	4.96	7.37	12.33
O5	O5	1.08	100.0%	5.00	8.66	13.66
O6	O6	1.14	100.0%	5.32	9.54	14.86
O7	O7	0.82	100.0%	3.80	6.81	10.61
O8	O8	0.82	76.7%	2.48	4.59	7.07
TOTAL		10.73	88.0%	41.26	76.63	117.89

**POND DISCHARGE**

DESIGN POINT (PI)

5-YEAR 100-CFS  
 7.7 CFS



FOR REVIEW ONLY  
 NOT FOR CONSTRUCTION

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

CALL UTILITY NOTIFICATION CENTER OF COLORADO  
 1-800-952-1987  
 1535 W. 10TH AVENUE, SUITE 200  
 DENVER, CO 80202

GRAPHIC SCALE IN FEET  
 0 20 40 80

PCD FILE NO. COM2346

**KH Response:**  
 updated dimensions to only slightly encroach on uphill side of EDB. Provided riprap area is still 150s.f. as previously shown

**Kimley-Horn**

DESIGNED BY: L.E.S.  
 DRAWN BY: R.E.S.  
 CHECKED BY: L.E.S.  
 DATE: 3/6/2024

2024 KIMLEY-HORN AND ASSOCIATES, INC.  
 1000 S. WASHINGTON AVENUE, SUITE 100  
 COLORADO SPRINGS, COLORADO 80903 (719) 453-0180

BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 DRAINAGE MAP  
 PROPOSED CONDITIONS

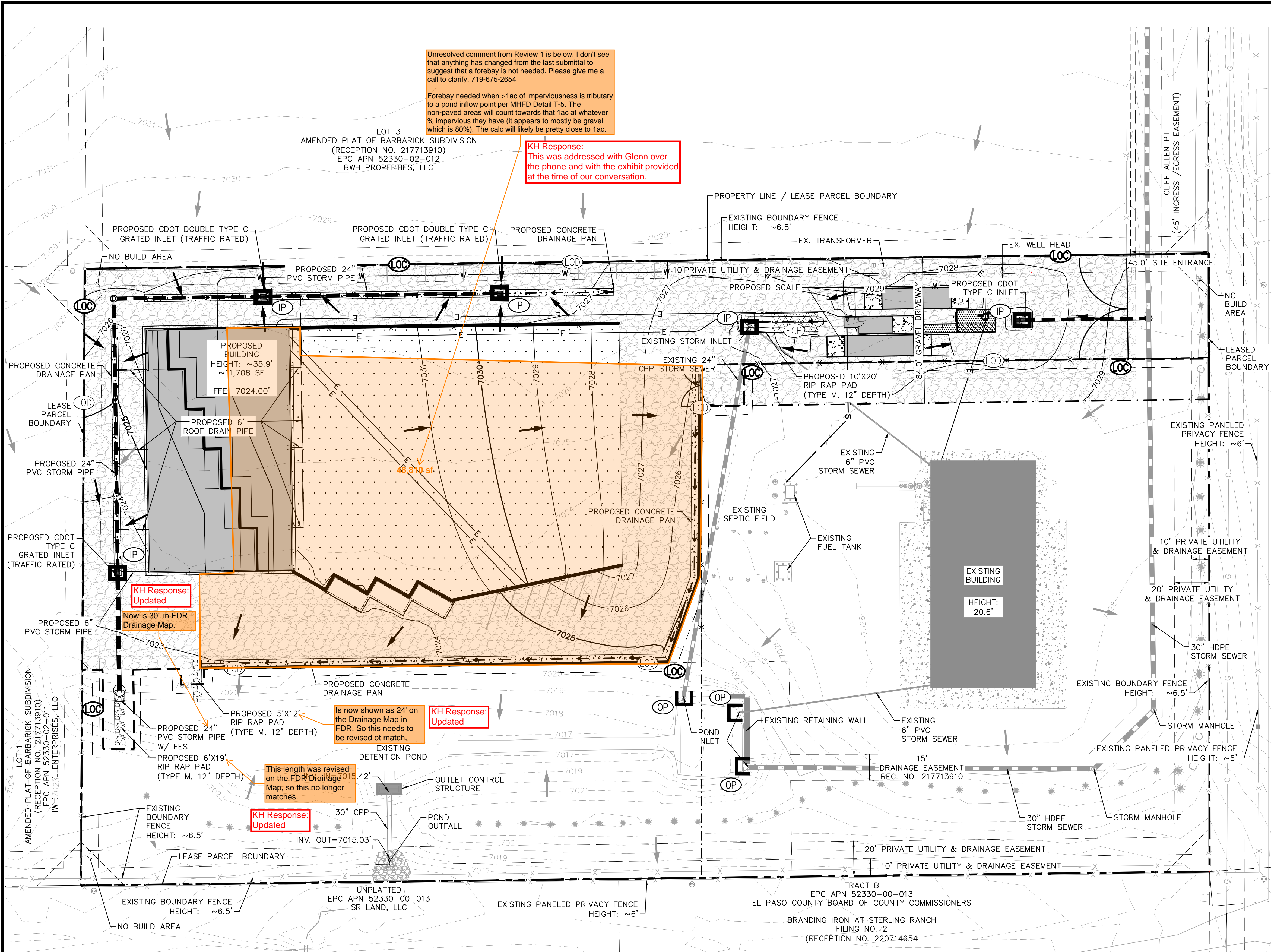
PROJECT NO. 198489000  
 SHEET DR-2







K:\COS\_Civil\196489000\_Barbarick Waste Transfer\CADD\PlanSheets\GEC\_FINAL\_196489000.dwg Schmelbach, Ryan 3/6/2024 4:18 PM



Unresolved comment from Review 1 is below. I don't see that anything has changed from the last submittal to suggest that a forebay is not needed. Please give me a call to clarify. 719-675-2654

Forebay needed when >1ac of imperviousness is tributary to a pond inflow point per MHFD Detail T-5. The non-paved areas will count towards that 1ac at whatever % impervious they have (it appears to mostly be gravel which is 80%). The calc will likely be pretty close to 1ac.

**KH Response:**  
This was addressed with Glenn over the phone and with the exhibit provided at the time of our conversation.

**KH Response:**  
Updated

Now is 30" in FDR Drainage Map.

Is now shown as 24" on the Drainage Map in FDR. So this needs to be revised to match.

**KH Response:**  
Updated

This length was revised on the FDR Drainage Map, so this no longer matches.

**KH Response:**  
Updated

- ### LEGEND
- — — — — PROPERTY LINE
  - - - - - LEASED PARCEL BOUNDARY
  - - - - - EXISTING UTILITY & DRAINAGE EASEMENT
  - — — — — PROPOSED TRUCK TURN MOVEMENT
  - x - x - EXISTING FENCE
  - — — — — EXISTING STORM SEWER
  - G - EXISTING GAS MAIN
  - \* ○ EXISTING VEGETATION
  - ⊕ EXISTING TRANSFORMER

- ### GEC LEGEND
- (LOD) — LIMITS OF DISTURBANCE
  - (LOC) — LIMITS OF CONSTRUCTION
  - — — — — CONSTRUCTION FENCE
  - - - - - EXISTING MAJOR CONTOUR
  - - - - - EXISTING MINOR CONTOUR
  - - - - - PROPOSED MAJOR CONTOUR
  - - - - - PROPOSED MINOR CONTOUR
  - ⊕ IP ⊕ OP INLET/OUTLET PROTECTION
  - ▨ EROSION CONTROL BLANKET
  - EXISTING SLOPE ARROW
  - PROPOSED SLOPE ARROW
  - ▨ PROPOSED COMPACTED ROAD BASE SURFACE

- ### NOTES
1. THE INTENT OF THIS PLAN IS TO IDENTIFY THE EROSION CONTROL PRACTICES RECOMMENDED. THE CONTRACTOR SHALL REFERENCE ADDITIONAL CONSTRUCTION PLANS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF PROPOSED IMPROVEMENTS. ADJACENT STREETS SHALL BE KEPT CLEAN AND FREE OF SEDIMENT AND/OR DEBRIS AT ALL TIMES.
  2. TEMPORARY STABILIZATION (TS) SHALL BE IMPLEMENTED WITHIN THE DISTURBED PORTIONS OF THE PROJECT SITE NO LATER THAN 14 DAYS FOLLOWING THE CEASE OF CONSTRUCTION ACTIVITIES WITHIN THE DISTURBED AREAS.
  3. PERMANENT STABILIZATION (PS) MAY BE USED WITHIN AREAS OF TEMPORARY STABILIZATION (TS) AT THE CONTRACTOR'S DISCRETION. STABILIZATION SHALL BE APPLIED IN ACCORDANCE WITH APPLICABLE TEMPORARY STABILIZATION SEQUENCING REQUIREMENTS.
  4. CONTRACTOR SHALL UTILIZE ROLLED EROSION CONTROL PRODUCTS (STRAW-SINGLE NET EROSION CONTROL BLANKETS AND OPEN WEAVE TEXTILES) ON ALL SLOPES 3H:1V OR GREATER TO ACHIEVE REQUIRED STABILIZATION.
  5. CONTRACTOR SHALL MAINTAIN ACCEPTABLE EROSION CONTROL PRACTICES WITHIN THE ANTICIPATED LIMITS OF CONSTRUCTION IDENTIFIED HEREIN. BEST MANAGEMENT PRACTICES AND STABILIZATION SHALL BE COMPLETED AS IDENTIFIED HEREIN IN ACCORDANCE WITH OWNER REQUIREMENTS.
  6. SILT FENCE TO BE INSTALLED PRIOR TO COMMENCEMENT OF ON-SITE GRADING AND CONSTRUCTION ACTIVITIES.
  7. DEMOLITION, REMOVAL, OVEREXCAVATION AND SOIL TREATMENT SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER RECOMMENDATIONS AS NOTED IN THE APPROVED PROJECT GEOTECHNICAL REPORT.
  8. NO ASPHALT OR CONCRETE BATCH PLANTS SHALL BE USED FOR THIS PROJECT.

### LIMITS OF CONSTRUCTION

ONSITE DISTURBANCE	= ±2.31 ACRES
OFFSITE DISTURBANCE	= ±0.00 ACRES
TOTAL	= ±2.31 ACRES

NORTH

0 15 30 60

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

CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE, OR EXCAVATE  
FOR THE MARKING OF UNDERGROUND  
MEMBER UTILITIES

PCD FILE NO. COM2346

**Kimley»Horn**

2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EUG  
DRAWN BY: RES  
CHECKED BY: EUG  
DATE: 3/6/2024

**BARBARICK WASTE TRANSFER STATION**  
EL PASO COUNTY, COLORADO  
GRADING AND EROSION CONTROL  
FINAL GEC PLAN

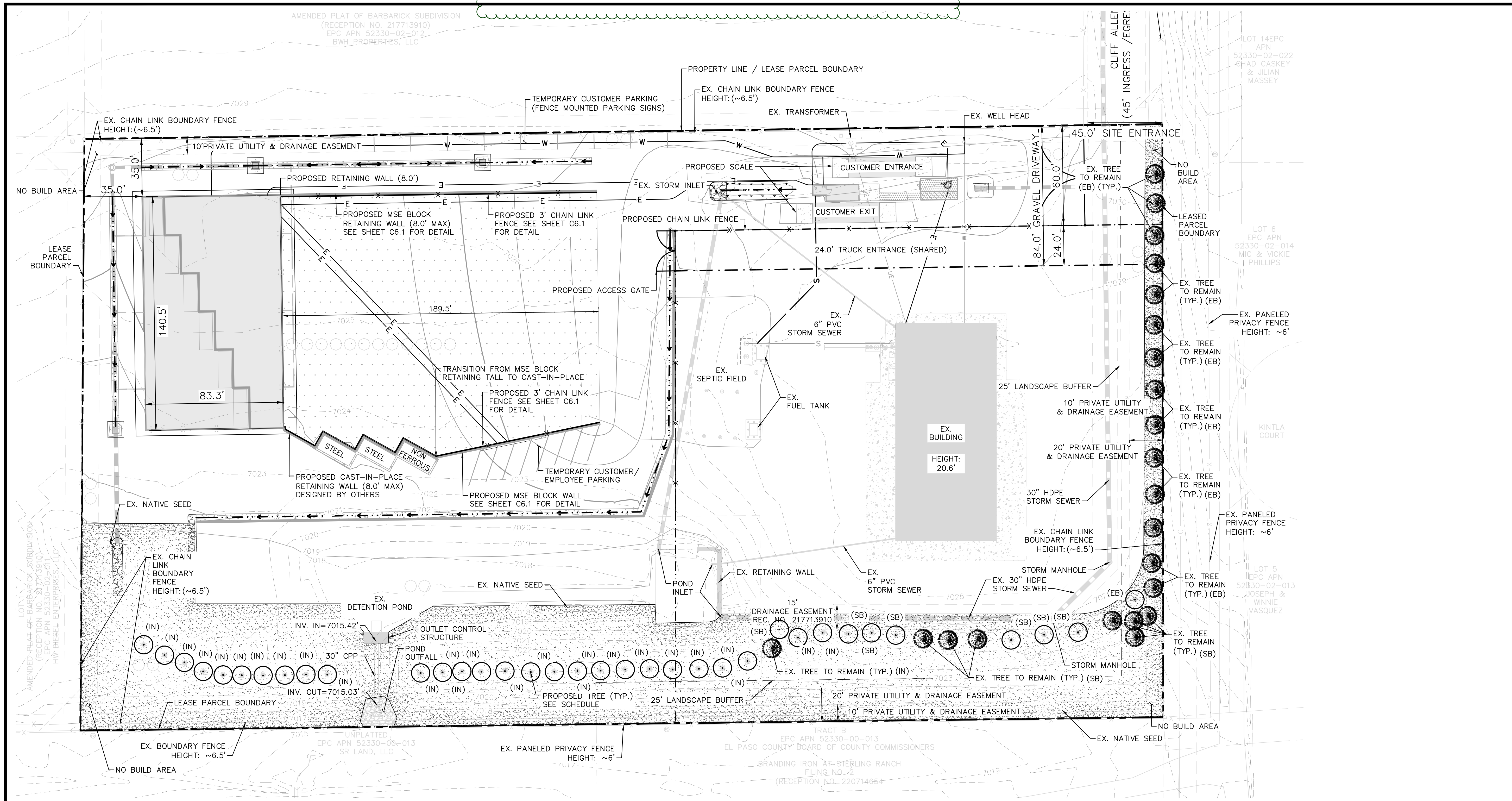
**PRELIMINARY**  
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CONSTRUCTION  
**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
SHEET  
6





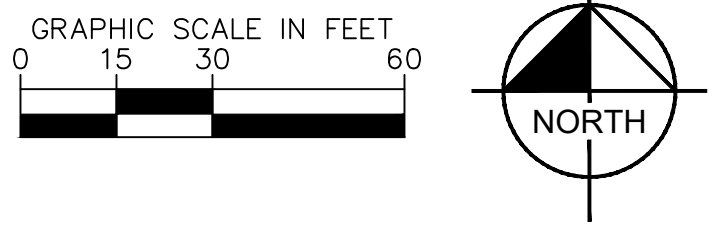




PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT. SIZE	SIZE/CAL.	WIDTH	HEIGHT
<b>EVERGREEN TREES</b>							
PP	35		PINUS PONDEROSA / PONDEROSA PINE	B & B	6' HGT.	30-40'	60"
<b>EXISTING TREES TO REMAIN</b>							
EX	22		..... EXISTING TREE TO REMAIN				
<b>GROUND COVERS</b>							
SEED	50,413	SF	EXISTING NATIVE SEED TO REMAIN / EPC LOW GROW MIX INSTALL PER TABLE 5.2. SUBMIT SUPPLIER CUT SHEET FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.	SEED	PER CHART		PANNEE BUTTES SEED

NOTE: THIRTY-FOUR (34) OF THE ORIGINALLY PLANTED TREES HAVE DIED AND SHALL BE REPLACED WITH PONDEROSA PINES PER THE LANDSCAPE PLAN ABOVE.  
NOTE: SEE DETAILS SHEET (L7.2) FOR CODE CHARTS



LEGEND

- — — — — PROPERTY LINE
- - - - - LEASED PARCEL BOUNDARY
- - - - - EXISTING UTILITY & DRAINAGE EASEMENT
- - - - - PROPOSED TRUCK TURN MOVEMENT
- - - - - EXISTING FENCE
- - - - - EXISTING STORM SEWER
- - - - - EXISTING GAS MAIN
- \* ○ \* ○ \* EXISTING VEGETATION
- ⊕ EXISTING TRANSFORMER
- □ □ □ □ PROPOSED ASPHALT
- ▒ ▒ ▒ ▒ ▒ PROPOSED CONCRETE

**Kimley»Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Nevada Avenue, Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJJ  
DRAWN BY: RES  
CHECKED BY: EJJ  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
LANDSCAPE PLAN

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PROJECT NO.  
196489000  
SHEET  
L7.0

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

CALL UTILITY NOTIFICATION  
CENTER OF COLORADO  
1-800-922-1987  
CALL 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE, OR EXCAVATE  
FOR THE MARKING OF UNDERGROUND  
NEEDED UTILITIES

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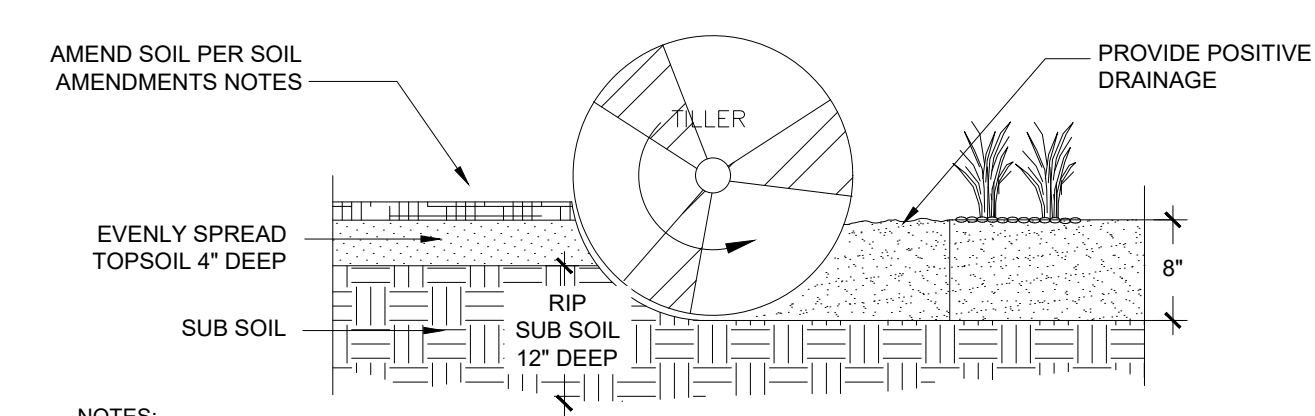


LANDSCAPE SETBACKS AND BUFFERS					
STREET NAME OR BOUNDARY:	NORTH BNDY	SOUTH BNDY	SOUTH BUFFER	EAST BUFFER	WEST BNDY
ZONE DISTRICT BOUNDARY:	NO	NO	YES	YES	NO
STREET CLASSIFICATION:	N/A	N/A	N/A	N/A	N/A
SETBACK DEPTH REQUIRED / PROVIDED:	0 / 0	0 / 0	25' / 25'	15' / 15'	0 / 0
LINEAR FOOTAGE:	647'	310'	340'	356'	355'
TREE PER FEET REQ.:	N/A	N/A	1 TREE PER 25 LF	1 TREE PER 25 LF	N/A
NUMBER OF TREES REQ. / PROV.:	N/A	N/A	14 / 14	15 / 15	N/A
EVERGREEN TREES REQ. / PROV.:	N/A	N/A	5 / 14	5 / 15	N/A
SHRUB SUBSTITUTES REQ. / PROV.:	N/A	N/A	N/A	N/A	N/A
ORN. GRASS SUBSTITUTES REQ. / PROV.:	N/A	N/A	N/A	N/A	N/A
OPAQUE SCREEN REQ. / PROV.:	N/A	N/A	340' / 340'	N/A	N/A
PLANT ABBREVIATION DENOTED ON PLAN:	N/A	N/A	SB	EB	N/A
% GROUND PLANE VEG. REQ. / PROV.:	N/A	N/A	75% / 100%	75% / 75%	N/A

INTERNAL LANDSCAPING	
GROSS SITE AREA:	230,422 SF (5.29 AC)
PERCENT MINIMUM INTERNAL AREA:	5%
INTERNAL LANDSCAPE AREA REQ. / PROV.:	11,521 SF / 50,413 SF
TREE PER FEET REQ.:	1 TREE PER 500 SF
INTERNAL TREES REQ. / PROV.:	23 / 28
SHRUB SUBSTITUTES REQ. / PROV.:	N/A
ORN. GRASS SUBSTITUTES REQ. / PROV.:	N/A
PLANT ABBREVIATION DENOTED ON PLAN:	N/A
% GROUND PLANE VEG. REQ. / PROV.:	75% / 100%

Please title as alternative landscape plan and explain in the LOI the justification for why you cant meet landscape code

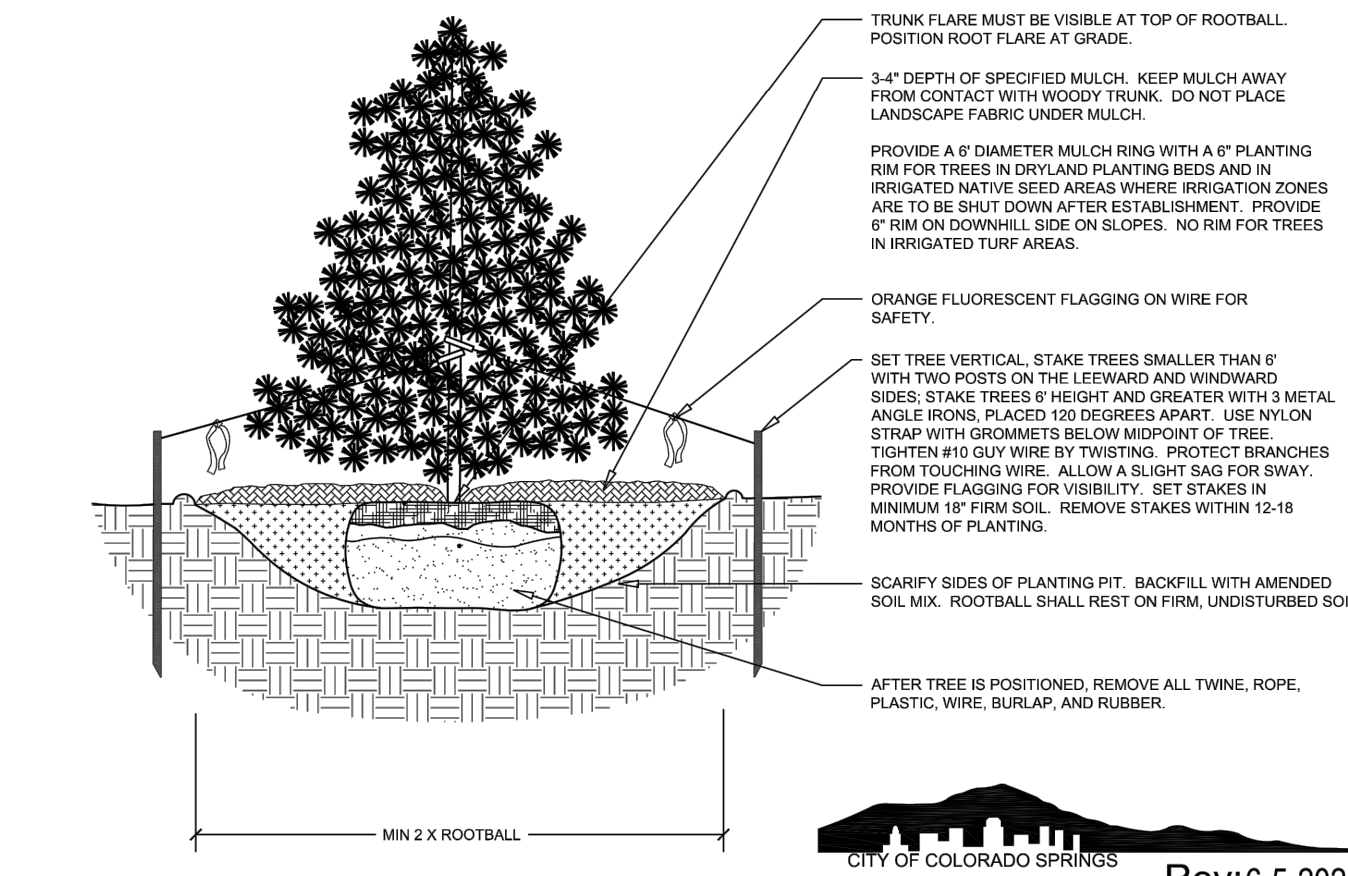
KH Response:  
Addressed, left as is per conversation with Ashlyn and Aaron.



- NOTES:
1. TOPSOIL TO CONSIST OF DARK, LIGHT LOAM SOIL FREE OF ROCKS, ROOTS, AND FOREIGN MATERIALS.
  2. THE FERTILIZER APPLICATION SHOULD BE DELAYED IF PLANTING DOES NOT OCCUR WITHIN 2-3 DAYS OF FERTILIZING
  3. COMPOST TO CONSIST OF 1 YEAR OLD ORGANIC MATERIAL AND SHOULD NOT INCLUDE CHICKEN MANURE.
  4. FROZEN MATERIALS OR MATERIALS GREATER THAN 1" DIA. SHOULD BE REMOVED.
  5. REFER TO SPECS FOR COMPLETE SOIL PREPARATION REQUIREMENTS.
  6. THE ROTO-TILLED PERIMETER SHOULD EXTEND TO A DISTANCE OF 1 FOOT BEYOND THE DIAMETER OF A SINGLE ROOT BALL.

**1 SOIL PREP**  
NTS 196-489-000-01

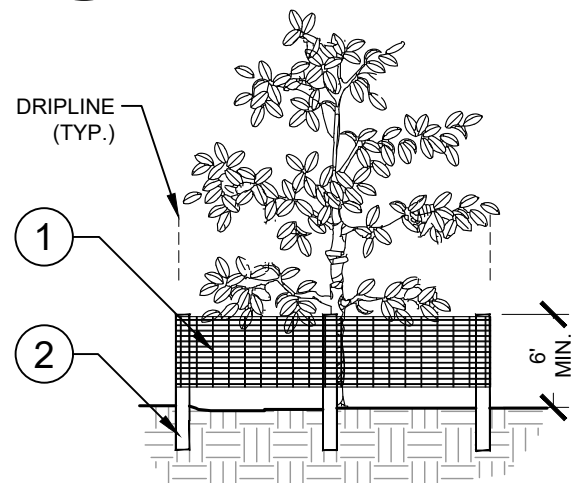
- NOTES:
1. DO NOT REMOVE OR CUT LEADER.
  2. PRUNE ONLY DEAD OR BROKEN BRANCHES IMMEDIATELY PRIOR TO PLANTING.
  3. DO NOT REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
  4. KEEP PLANTS MOIST AND SHADED UNTIL PLANTING.
  5. AMENDED BACKFILL SHALL BE 1/3 COMPOST (PREFERABLY CLASSIFIED) AND 2/3 NATIVE AND/OR IMPORTED TOPSOIL.
  6. MARK THE NORTH SIDE OF TREE IN THE NURSERY, AND ROTATE TREE TO FACE NORTH AT THE SITE, WHENEVER POSSIBLE.
  7. PINE AND SPRUCE TREES TO BE SPRAYED FOR IPS BARK BEETLE PRIOR TO PLANTING. COORDINATE WITH CITY FORESTRY FOR CURRENT INSECT AND DISEASE RECOMMENDATIONS PRIOR TO PLANTING.
  8. ALL TREES TO BE DEEP WATERED AT TIME OF PLANTING.
  9. ALL TREES LOCATED IN ROCK/COBBLE BEDS SHALL HAVE A 36 INCH DIAMETER WOOD MULCH RING.



**2 EVERGREEN TREE PLANTING**  
NTS 196-489-000-12

Table B. El Paso County All-Purpose Low Grow Mix for Upland and Transition Areas

Common Name	Scientific Name	Growth Season/Form	% of Mix	Pounds PLS	Pounds PLS	Pounds PLS
				• Irrigated broadcast • Irrigated hydroseeded (80 seeds/sq ft)	• non-irrigated broadcast • non-irrigated hydroseeded • irrigated drilled (40 seeds/sq ft)	• non-irrigated drilled (20 seeds/sq ft)
Buffalograss	<i>Buchloe dactyloides</i>	Warm, sod	25	9.6	4.8	2.4
Blue Grama	<i>Bouteloua gracilis</i>	Warm, bunch	20	10.8	5.4	2.7
Sideoats Grama	<i>Bouteloua curtipendula</i>	Warm, bunch	29	5.6	2.8	1.4
Green Needlegrass	<i>Nassella viridula</i>	Cool, bunch	5	3.2	1.6	0.8
Western Wheatgrass	<i>Pascopyrum smithii</i>	Cool, sod	20	12.0	6.0	3.0
Sand Dropseed	<i>Sporobolus cryptandrus</i>	Warm, bunch	1	0.8	0.4	0.2
Seed rate (lbs PLS/acre)				42.0	21.0	10.3

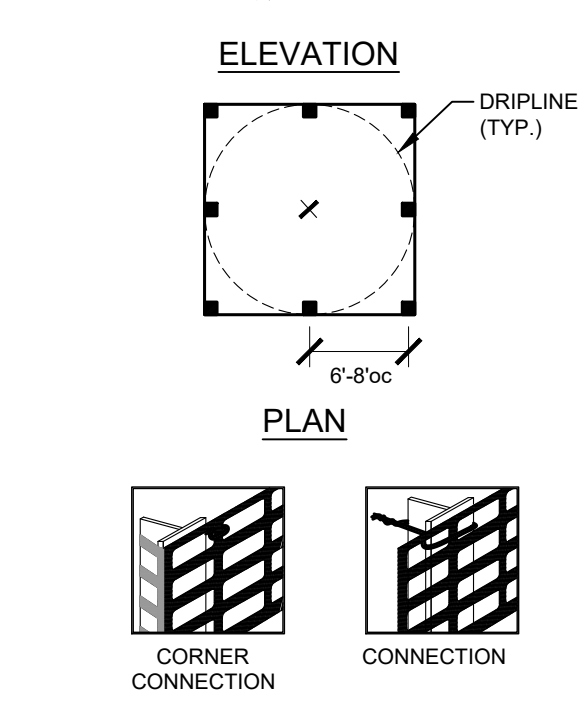


1. 6" PERIMETER PLUS" CONSTRUCTION FENCE BY CONWED PLASTICS OR OWNER'S REPRESENTATIVE APPROVED EQUAL. SUBMIT PRODUCT INFORMATION FOR APPROVAL PRIOR TO INSTALLATION.
2. 8" TALL METAL "T" POSTS OR 2" X 2" X 8" PRESSURE TREATED WOOD POSTS WITH 24" BURIAL BELOW GRADE.

INSTALLATION NOTES:

- A. POST SELECTION SHOULD BE BASED ON EXPECTED STRENGTH NEEDS AND THE LENGTH OF TIME FENCE WILL BE IN PLACE. FLEXIBLE FIBERGLASS ROD POSTS ARE RECOMMENDED FOR PARKS, ATHLETIC EVENTS AND CROWD CONTROL INSTALLATIONS. METAL "T" POSTS OR TREATED WOOD POSTS ARE TYPICALLY USED FOR CONSTRUCTION AND OTHER APPLICATIONS.
- B. POSTS SHOULD BE DRIVEN INTO THE GROUND TO A DEPTH OF 1/3 OF THE HEIGHT OF THE POST. FOR EXAMPLE, A 6" POST SHOULD BE SET AT LEAST 2" INTO THE GROUND.
- C. SPACE POSTS EVERY 6" (MIN.) TO 8" (MAX.).
- D. SECURE FENCING TO POST WITH NYLON CABLE TIES (AVAILABLE FROM CONWED PLASTICS). WOOD STRIPS MAY BE ALSO BE USED TO PROVIDE ADDITIONAL SUPPORT AND PROTECTION BETWEEN TIES AND POSTS.

NOTE: IF WIRE TIES ARE USED, AVOID DIRECT CONTACT WITH FENCE. WIRE MAY DAMAGE FENCE OVER TIME.



**3 TREE PROTECTION FENCING**  
ELEVATION / PLAN NTS

**Kimley»Horn**  
2024, KIMLEY-HORN AND ASSOCIATES, INC.  
2 North Inverness Avenue, Suite 900  
Colorado Springs, Colorado 80903 (719) 453-0180

DESIGNED BY: EJJ  
DRAWN BY: RES  
CHECKED BY: EJJ  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
CONSTRUCTION DOCUMENTS  
LANDSCAPE DETAILS

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**Kimley»Horn**  
Kimley-Horn and Associates, Inc.

PROJECT NO.  
196489000  
SHEET  
**L7.2**



PCD FILE NO. COM2346





# BARBARICK RECYCLING AND REFUSE TRANSFER STATION

A PORTION OF THE SOUTHWEST QUARTER OF SECTION 33, TOWNSHIP 12 SOUTH, RANGE 65 WEST OF THE 6TH P.M.  
CITY OF COLORADO SPRINGS, COUNTY OF EL PASO, STATE OF COLORADO

SITE DEVELOPMENT PLAN  
MARCH 2024

### OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

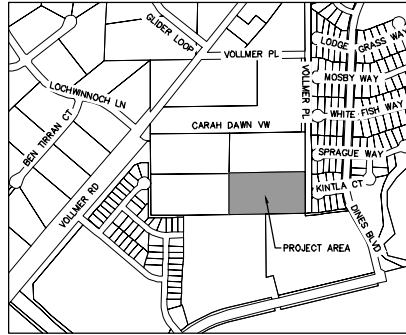
OWNER SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

BRIAN BELAND  
BR 8812 CLIFF ALLEN POINT LLC  
PO BOX 88120  
COLORADO SPRINGS CO 80908-8120

### ENGINEER'S STATEMENT

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

ERIC GUNDERSON, PE (CD #49487) - KIMLEY-HORN AND ASSOCIATES, INC. DATE \_\_\_\_\_



VICINITY MAP  
SCALE: 1"=500'

SHEET INDEX	
SHEET TITLE	SHEET NO.
COVER SHEET	SDP-1
SITE PLAN	SDP-2

### GENERAL NOTE

THE PARTIES RESPONSIBLE FOR THIS PLAN HAVE FAMILIARIZED THEMSELVES WITH ALL CURRENT ACCESSIBILITY CRITERIA AND SPECIFICATIONS AND THE PROPOSED PLAN REFLECTS ALL THE SITE ELEMENTS REQUIRED BY THE APPLICABLE ADA DESIGN STANDARDS AND GUIDELINES AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUST. APPROVAL OF THIS PLAN BY EL PASO COUNTY DOES NOT ASSURE COMPLIANCE WITH THE ADA OR ANY REGULATIONS OR GUIDELINES ENACTED OR PROMULGATED UNDER OR WITH RESPECT TO SUCH LAWS.

### CONTACTS

**OWNER:**  
BRIAN BELAND, BR 8812 CLIFF ALLEN POINT LLC  
PO BOX 88120  
COLORADO SPRINGS CO 80908-8120  
TEL: (719) 498-0208  
CONTACT: BRIAN BELAND

**APPLICANT:**  
RICHARD GRAHAM JR.  
6035 ERIN PARKWAY DRIVE, SUITE 101  
COLORADO SPRINGS CO 80918  
TEL: (719) 440-8414  
CONTACT: RICHARD GRAHAM JR

**EL PASO COUNTY:**  
EL PASO COUNTY  
PCD DEPARTMENT  
2880 INTERNATIONAL CIRCLE, SUITE 110  
COLORADO SPRINGS, CO 80910  
PHONE: (719) 520-6300

**ENGINEER:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
2 NEVADA NORTH AVE., SUITE 300  
COLORADO SPRINGS, CO 80903  
TEL: (719) 463-0182  
CONTACT: ERIC GUNDERSON, P.E.

**ARCHITECT:**  
BUCHER DESIGN STUDIO, INC.  
13235 ORACLE BLVD, SUITE 101  
COLORADO SPRINGS, CO 80921  
(719) 484-0480  
CONTACT: JASON SHOUDIS

**LANDSCAPE ARCHITECT:**  
KIMLEY-HORN AND ASSOCIATES, INC.  
2 NEVADA NORTH AVE., SUITE 300  
COLORADO SPRINGS, CO 80903  
(719) 284-7280  
CONTACT: JM HOUK

**SURVEYOR:**  
LAND DEVELOPMENT CONSULTANTS, INC.  
3888 MAIZELAND ROAD  
COLORADO SPRINGS, CO 80909  
TEL: (719) 528-6133  
CONTACT: DAVID V. HOSTETLER

### LEGAL DESCRIPTION

PARCEL A:  
LOT 4, AMENDED PLAT OF BARBARICK SUBDIVISION, COUNTY OF EL PASO, STATE OF COLORADO.

CONTAINING 5.290 ACRES (230,442 S.F.), MORE OR LESS.

PARCEL B:  
A NON-EXCLUSIVE INGRESS AND EGRESS EASEMENT AS SET FORTH AND DESCRIBED IN DECLARATION AND BYLAWS OF BARBARICK SUBDIVISION PROPERTY OWNERS ASSOCIATES, INC., RECORDED FEBRUARY 12, 2008 UNDER RECEPTION NO. 208016289 AS AMENDED BY INSTRUMENT RECORDED MARCH 10, 2008 UNDER RECEPTION NO. 208022800.

LEASED PARCEL 3.927 ACRES

### BENCHMARK

4" DIAMETER PRECAST CONCRETE STORM SEWER MANHOLE RIM LOCATED IN THE SOUTHEASTERLY PORTION OF THE PROPERTY; ELEVATION = 7027.34 "NGVD 1929 AND THE 1960 SUPPLEMENTARY ADJUSTMENT" DATUM.

### FEMA CLASSIFICATION

THIS PROPERTY IS LOCATED WITHIN THE ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD INSURANCE RATE MAP NO. 0804100533G, EFFECTIVE DATE DECEMBER 7, 2018.

### SITE DATA

ZONING CLASSIFICATION: I-3 CAD-O (HEAVY INDUSTRIAL)

EXISTING LAND USE: VEHICLE/EQUIPMENT REPAIR AND STORAGE

PROPOSED LAND USE: WASTE TRANSFER STATION FACILITY

JURISDICTION: EL PASO COUNTY

SITE ADDRESS: 8812 CLIFF ALLEN PT

TAX SCHEDULE NO.: 5233002013

LEASED PARCEL SIZE: 3.927 ACRES (143,638 S.F.)

PARCEL SIZE: 5.290 ACRES (230,442 S.F.)

BUILDING SETBACKS:  
35' NORTH SETBACK  
35' WEST SETBACK  
175' EAST SETBACK  
175' SOUTH SETBACK

EXISTING LOT COVERAGE: GRAVEL AND NATURAL PASTURE/MEADOW VEGETATIVE COVER

MAXIMUM LOT COVERAGE: 25.0%

PROPOSED LOT COVERAGE: 23.7% (54,731/230,442)X100 = 23.7%

SITE COVERAGE:  
BUILDING - 19,974 S.F.  
PAVEMENT/HARDSCAPE - 35,747 S.F.  
GRAVEL - 117,801 S.F.  
LANDSCAPING (PERVIOUS AREA) - 57,120 S.F.

### PARKING SUMMARY

	PARKING REQUIRED	PARKING PROVIDED
OFF-STREET	1/750 S.F.	15 (REGULAR)
ADA	1/25 SPACES	1 (ADA)
TOTAL	16 SPACES	16 SPACES

### BUILDING DATA

BUILDING HEIGHT:  
PROPOSED: 34.9'  
MAXIMUM BY CODE: 40.0'  
BUILDING GROSS S.F.: 11,708 S.F.



**Kimley-Horn**  
2024 KIMLEY-HORN AND ASSOCIATES, INC.  
12 North Nevada Avenue Suite 600  
Colorado Springs, Colorado 80903 (719) 463-0180

DESIGNED BY: E.G.  
DRAWN BY: RES  
CHECKED BY: E.G.  
DATE: 3/7/2024

BARBARICK WASTE TRANSFER STATION  
EL PASO COUNTY, COLORADO  
SITE DEVELOPMENT PLAN  
COVER SHEET

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Kimley-Horn and Associates, Inc.

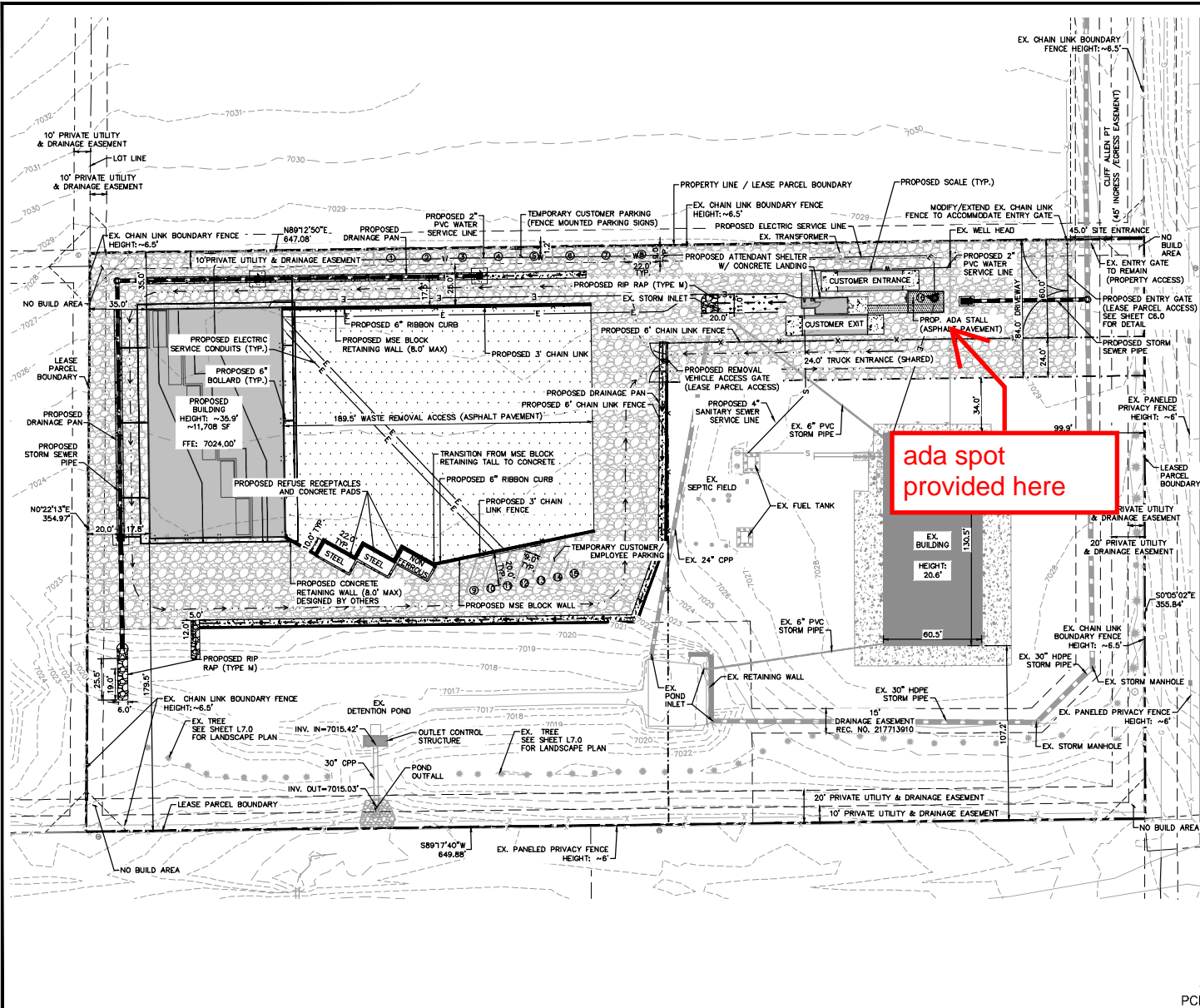
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196489000

SHEET  
SDP-1

PCD FILE NO. COM2346

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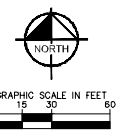
**LEGEND**

	PROPERTY LINE
	LEASED PARCEL BOUNDARY
	EX. UTILITY & DRAINAGE EASEMENT
	PROPOSED TRUCK TRAFFIC FLOW
	EX. FENCE
	EX. STORM SEWER
	EX. GAS MAIN
	EX. VEGETATION
	EX. TRANSFORMER
	PROPOSED WATER SERVICE LINE
	PROPOSED SEPRIC SERVICE LINE
	PROPOSED ELECTRIC SERVICE LINE
	PROPOSED STORM SEWER
	PROPOSED ASPHALT
	PROPOSED CONCRETE
	PROPOSED 10" COMPACTED ROAD BASE
	PROPOSED PARKING
	PROPOSED ADA PARKING STALL (#16)

Are there any ADA parking spots? There should be at least one

ada spot provided here

**KH Response:**  
 Parking table included as well, as coordinated with Ashlyn



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

**CALL UTILITY NOTIFICATION CENTER OF COLORADO**  
 1-800-322-1967  
IT IS YOUR RESPONSIBILITY TO VERIFY THE LOCATION OF UTILITIES BEFORE YOU DIG. CALL OR EXCAVATE AT YOUR OWN RISK. WE ARE NOT RESPONSIBLE FOR THE RESULTS OF MISDIAGNOSIS.

PCD FILE NO. COM2346

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BARBARICK WASTE TRANSFER STATION  
 EL PASO COUNTY, COLORADO  
 SITE DEVELOPMENT PLAN  
 SITE PLAN

PROJECT NO. 196488000  
 SHEET  
**SDP-2**


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### WDGE4 LED Architectural Wall Sconce



**Specifications**  
 Depth (D): 1.5"  
 Depth (D2): 2"  
 Height: 2.5"  
 Width: 2.5"  
 Weight: 0.5 lbs.

**Introduction**  
 The WDGE4 LED family is designed to meet specific heavy wall mounted lighting needs in a widely accessed space that limits (with any architecture) the cleanest design options. In four sizes with luminaire packages ranging from 1,000 to 2,500 lumens, producing a clean, wide solution. Embodied with rugged, AER wireless controls, the WDGE4 family provides additional energy savings and code compliance.

**Statistics**

Description	Symbol	Avg	Min	Max/Min	Avg/Min	Max
Attendant Shelter	+	0,1 fc	0,0 fc	N/A	N/A	5,0 fc
Property Line +20 Feet	+	0,0 fc	0,0 fc	N/A	N/A	0,1 fc

**Ordering Information**

Order	Package	Height	Width	Depth	Weight	Quantity	Notes
WDGE4	P1	1.5"	2.5"	2.5"	0.5 lbs	1000	1000 lumens
	P2	1.5"	2.5"	2.5"	0.5 lbs	1500	1500 lumens
	P3	1.5"	2.5"	2.5"	0.5 lbs	2000	2000 lumens
	P4	1.5"	2.5"	2.5"	0.5 lbs	2500	2500 lumens

**Accessories**

- WDGE4-1000: 1000 lumens
- WDGE4-1500: 1500 lumens
- WDGE4-2000: 2000 lumens
- WDGE4-2500: 2500 lumens

Symbol	Description	Value	Unit
+	Attendant Shelter	0,1 fc	
+	Property Line +20 Feet	0,0 fc	

**Statistics**

Description	Symbol	Avg	Min	Max/Min	Avg/Min	Max
Attendant Shelter	+	0,1 fc	0,0 fc	N/A	N/A	5,0 fc
Property Line +20 Feet	+	0,0 fc	0,0 fc	N/A	N/A	0,1 fc

- GENERAL NOTES**
- DRAWINGS ARE BASED ON RECORD DRAWINGS NOT SHOWN. SEE FIELD INVESTIGATION, EXAMINE PLANS AND SURVEY TO FIELD FOR ACTUAL CONDITIONS AND COORDINATE SAME WITH OTHER TRADES PRIOR TO STARTING WORK.
  - A LICENSED AND BONDED CONTRACTOR SHALL BE USED FOR INSTALLATION. ALL LOCAL CODES SHALL BE FOLLOWED DURING INSTALLATION.
  - ALL LIGHTING FIXTURES SHALL BE FULL CUT-OFF OR HAVE SHIELDING TO REDUCE OFF-COLOUR LIGHTING IMPACTS ONTO ADJACENT PROPERTIES AND ROADWAYS. ALL EXTERIOR LIGHTING SHALL BE ARRANGED TO MINIMIZE LIGHT DIRECTED AWAY FROM ADJACENT PROPERTIES AND ADJACENT ROADWAYS. AN AMENDMENT TO THIS PLAN MAY BE REQUIRED IF THE LIGHTING TYPE IS CHANGED.

- KEYNOTES**
- LIGHTING FOR THE WALKWAYS WILL BE PROVIDED BY WALL-MOUNTED DOWN-CASTING FIXTURES LOCATED ON PROPOSED BUILDING. FINAL LOCATION TO BE DETERMINED DURING BUILDING DESIGN.
  - EXTERIOR LIGHTING, EXCEPT SECURITY LIGHTING, WILL BE CONTROLLED BY A TIME CLOCK TO BE TURNED OFF DURING NON-OPERATING HOURS.

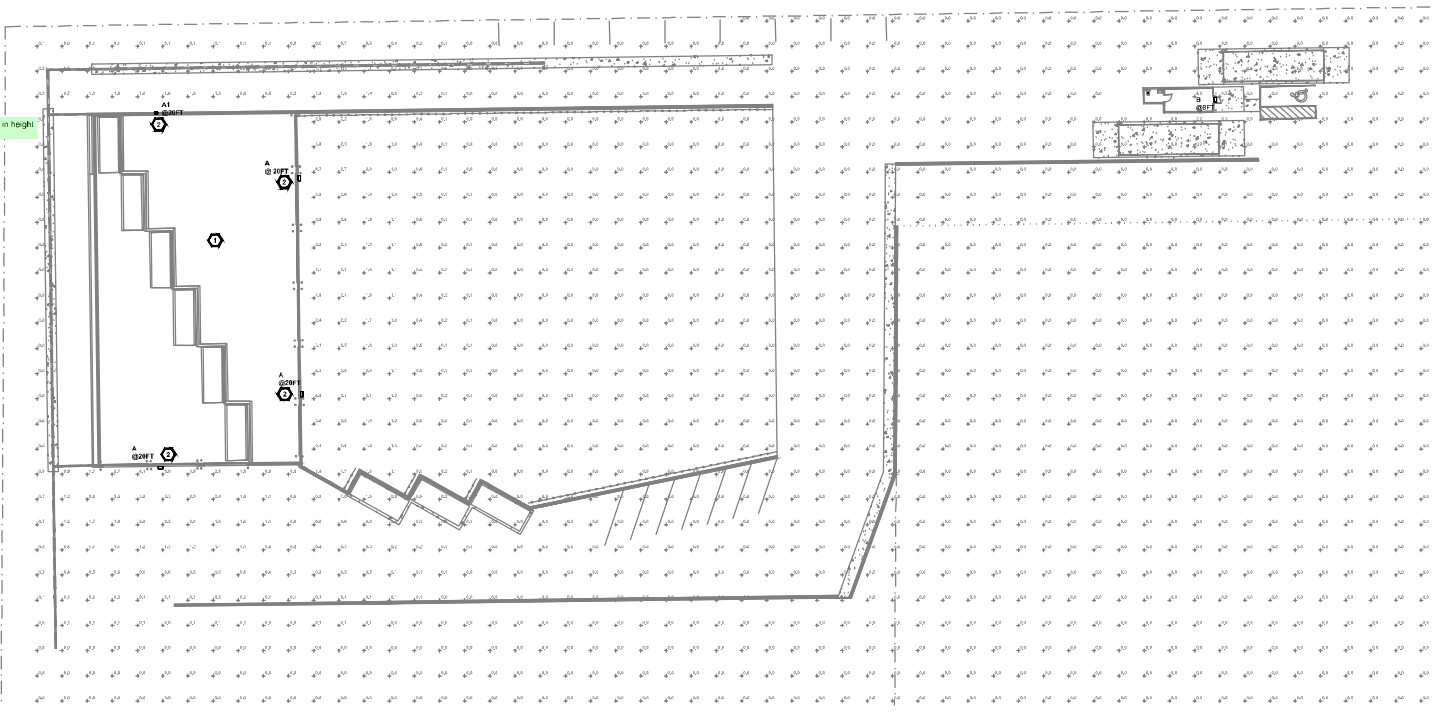
ENGINEER SEAL:



10198 MT. LINCOLN DR., PLYMOUTH, CO 80453  
 INFO@CHATTAAHOOCHIE.COM  
 719.257.2061

**BARBARICK WASTE TRANSFER STATION**  
**8812 CLIFF ALLEN PT.**  
**COLORADO SPRINGS, CO**

**KH Addressed:**  
 This was coordinated with Ashlyn. Because the lights are full cut off per epc standards, and for the purpose of lighting parking / drivable areas, this should be alright



**SITE PHOTOMETRIC PLAN**  
 SCALE: 1"=10'

**FILE #: COM2346**

**E100**

NO.	REVISION	DATE
1	ISSUED FOR DP PLAN	10/22/2022

PROJECT NO: 23-0469  
 DRAWN BY: MFC  
 CHECKED BY: MFC  
 DATE: 10/22/2022

SHEET CONTENTS:

SITE PHOTOMETRIC PLAN

SHEET NUMBER:





Include discussion related to construction waste. The text you added between Submittal 1 and 2 is only related to post-construction because you added text about storing waste within the proposed facility. My previous comment is provided at the bottom of the page for reference.

- **Management of Contaminated Soils** – Contaminated soils are not anticipated on this Site. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures.
- **Loading and Unloading Operations** – Loading and unloading operations will be taking place at the Site; therefore, the potential exists for these operations to introduce sediment and non-sediment pollutants to stormwater discharges.
- **Outdoor Storage of Materials** – Limited outdoor storage of materials is anticipated with construction of this site; however, outdoor storage of chemicals, fertilizers, etc. is not anticipated.
- **Vehicle and Equipment Maintenance and Fueling** – Routine maintenance and fueling of vehicles and equipment is anticipated with this Site; therefore, the potential exists for pollutants associated with these activities to contribute pollutants to stormwater discharges.
- **Significant Dust or Particulate Generating Processes** – Earth disturbing activities (grading, excavation, etc.) will be necessary for this project; therefore, the potential exists for windblown site soils to contribute sediment to stormwater discharges. Qualified Stormwater Manager shall use Dust Control and other specified BMPs from the ESCP to control sediment.
- **Routine Maintenance** – Routine maintenance involving fertilizers, pesticides, detergents, fuels, solvents, oils, etc., other than those identified within Vehicle and Equipment Maintenance and Fueling are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures.
- **Onsite Waste Management** – Waste management consisting of dumpsters are anticipated onsite; therefore, the potential exists for these operations to introduce sediment and non-sediment pollutants to stormwater discharges. These dumpsters are to be kept indoors within the proposed facility, will only accept dry-waste, and will be removed to the regional waste facility (Waste Management), daily. Liquid wastes and organic wastes are not accepted at the site.
- **Concrete Truck / Equipment Washing** – Concrete truck and equipment washing are anticipated with this project. The Qualified Stormwater Manager shall take appropriate containment and treatment measures. A concrete washout structure is proposed for the containment of concrete runoff.
- **Dedicated Asphalt and Concrete Batch Plants** – Dedicated asphalt and/or concrete batch plants are not anticipated with this project. If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary.
- **Non-Industrial Waste Sources** – Non-Industrial waste sources limited to portable sanitary facilities are anticipated with this project. Worker trash receptacles and toilets will be provided in the locations shown on the GEC Plans.
- **Form Oil** – If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary.
- **Pesticides and/or Herbicides** – If encountered, the Qualified Stormwater Manager shall take appropriate containment and treatment measures and document as necessary.
- **Saw Cutting Operations** – Saw cutting operations are not anticipated with this project. If water is used during saw cutting, Qualified Stormwater Manager shall take appropriate containment and treatment measures to prevent illicit material from leaving the site.
- **Additional Pollutant Sources** – Additional areas or procedures where potential spills could occur are not anticipated with this project. Should additional pollutant sources be present, contractor shall implement appropriate treatment methods; add source to this plan and report to the inspector.

KH Comment  
Response:  
Addressed

Logs for the identification of pollutant sources are included in the Appendices for reference and use.

Unresolved comment from Review 1:  
SWMP Checklist Item 13. Discuss inspection procedure for checking waste disposal bins for leaks and overflowing capacity. And discuss frequency that they will be emptied (or at what level of capacity would trigger the need to be emptied).

KH Comment  
Response:  
Addressed



lot grading will require temporary seeding within 14 days of establishment. This does not preclude the 7-day requirement for areas fully completed in the future. At a minimum in ensuring that this requirement is followed, adequate phasing/scheduling will be required.

## FINAL STABILIZATION AND LONG TERM STORMWATER MANAGEMENT

**Final Stabilization has been completed if the following criteria have been met:**

1. All ground surface disturbing activities at the construction site have been completed.
2. Must provide non-vegetative erosion control measures designed and installed for either permanent or temporary (which would completely degrade and decompose without leaving litter) placement to provide cover. BMP controls may be used in lieu of erosion control measures provided that they are selected and designed to protect the seed and surface from erosion as much as possible without active maintenance until the natural stabilizing effect of vegetation is established.
3. All disturbed areas must be permanently stabilized, either by means of pavement, concrete, or stabilized road-base. The soil must be compacted per the Geotechnical Report found in **Appendix D**, to ensure final stabilization.
4. Must attempt to reestablish a perennial vegetative cover using topsoil preserved from the site and/or with additional (preferably local) topsoil from off-site, mulch, fertilizer, and/or other methods with seeding and planting. The vegetative cover, preferably of an indigenous seed mix, should be equivalent to the background cover. The permanent stabilization must include a uniform vegetative cover with an individual plant density of at least 70 percent of pre-disturbance levels, and is expected to occur within 3 to 3.5 years after project completion with average precipitation.
5. The onsite road base will be finalized once the soil has been stabilized and the base course has been installed immediately after soil compaction and subgrade has been established.
6. Concrete Trickle Channel installed with the on-site Extended Detention Basin will require temporary erosion control measures (i.e. Sediment Control Log or approved equivalent) to ensure excessive sediment or debris is not circulated within the system.
7. **KH Comment Response: Addressed** be installed to direct flows towards the storm sewer infrastructure. Storm sewer infrastructure to be protected until upstream drainage areas are fully

Update this section to be specific to this project.

### Long-Term Stormwater Management:

The proposed stormwater system includes a storm sewer system throughout the site, discharging into either an on-site bioretention rain garden, water quality structures, or extended detention basin located in the east, southwest, southeast, and north portions of the Site, respectively. All long-term stormwater management systems will be maintained by the Owner and/or Operator of the building. In the event of failure of the system, the City of Brighton has been granted access to the drainage facilities for purposes of repair or maintenance. From these water quality BMPs, the water will discharge off-site into South Beebe Draw Metro District. Seeding shall be installed within 48 hours of final grading and meet the final stabilization requirements stated above.

## INSPECTION AND MAINTENANCE

Inspections shall be the responsibility of the Qualified Stormwater Manager throughout the construction process.





# 2024 Financial Assurance Estimate Form (with pre-plat construction)

Updated: 10/2023

PROJECT INFORMATION		
Project Name <b>8812 Cliff Allen Pt - Barbarick Transfer Station</b>	Date: <b>March 2024</b>	PCD File No.: <b>COM2346</b>

Description	Quantity	Units	Unit Cost	Total	(with Pre-Plat Construction)	
					% Complete	Remaining
<b>SECTION 1 - GRADING AND EROSION CONTROL (Construction and Permanent BMPs)</b>						
Earthwork						
less than 1,000; \$5,300 min		CY	\$ 8.00	= \$ -		\$ -
1,000-5,000; \$8,000 min		CY	\$ 6.00	= \$ -		\$ -
5,001-20,000; \$30,000 min	8606.	CY	\$ 5.00	= \$ 43,030.00		\$ 43,030.00
20,001-50,000; \$100,000 min		CY	\$ 3.50	= \$ -		\$ -
50,001-200,000; \$175,000 min		CY	\$ 2.50	= \$ -		\$ -
greater than 200,000; \$500,000 min		CY	\$ 2.00	= \$ -		\$ -
Permanent Erosion Control Blanket		SY	\$ 9.00	= \$ -		\$ -
Permanent Seeding (inc. noxious weed mgmnt.) & Mulching	1.2	AC	\$ 2,018.00	= \$ 2,421.60		\$ 2,421.60
Permanent Pond/BMP (provide engineer's estimate)		EA		= \$ -		\$ -
Concrete Washout Basin	1.	EA	\$ 1,172.00	= \$ 1,172.00		\$ 1,172.00
Inlet Protection	8.	EA	\$ 217.00	= \$ 1,736.00		\$ 1,736.00
Rock Check Dam		EA	\$ 651.00	= \$ -		\$ -
Safety Fence (CONSTRUCTION FENCE)	960.	LF	\$ 3.00	= \$ 2,880.00		\$ 2,880.00
Sediment Basin (EXISTING DETENTION POND)	.5	EA	\$ 2,294.00	= \$ 1,147.00		\$ 1,147.00
Sediment Trap		EA	\$ 538.00	= \$ -		\$ -
Silt Fence	841.	LF	\$ 3.00	= \$ 2,523.00		\$ 2,523.00
Slope Drain		LF	\$ 43.00	= \$ -		\$ -
Straw Bale		EA	\$ 33.00	= \$ -		\$ -
Straw Wattle/Rock Sock	601.	LF	\$ 8.00	= \$ 4,808.00		\$ 4,808.00
Surface Roughening		AC	\$ 269.00	= \$ -		\$ -
Temporary Erosion Control Blanket	32.	SY	\$ 3.00	= \$ 96.00		\$ 96.00
Temporary Seeding and Mulching	.01	AC	\$ 1,793.00	= \$ 17.93		\$ 17.93
Vehicle Tracking Control	1.	EA	\$ 3,085.00	= \$ 3,085.00		\$ 3,085.00
<i>[insert items not listed but part of construction plans]</i>				= \$ -		\$ -
<b>MAINTENANCE (35% of Construction BMPs)</b>				=	\$ 5,702.53	\$ 5,702.53
<b>Section 1 Subtotal</b>				=	<b>\$ 68,619.06</b>	<b>\$ 68,619.06</b>

<b>SECTION 2 - PUBLIC IMPROVEMENTS *</b>						
--	--	--	--	--	--	--

ROADWAY IMPROVEMENTS						
Construction Traffic Control		LS		= \$ -		\$ -
Aggregate Base Course (135 lbs/cf)		Tons	\$ 37.00	= \$ -		\$ -
Aggregate Base Course (135 lbs/cf)		CY	\$ 66.00	= \$ -		\$ -
Asphalt Pavement (3" thick)		SY	\$ 18.00	= \$ -		\$ -
Asphalt Pavement (4" thick)		SY	\$ 25.00	= \$ -		\$ -
Asphalt Pavement (6" thick)		SY	\$ 38.00	= \$ -		\$ -
Asphalt Pavement (147 lbs/cf) <u>    </u> " thick		Tons	\$ 114.00	= \$ -		\$ -
Raised Median, Paved		SF	\$ 11.00	= \$ -		\$ -
Regulatory Sign/Advisory Sign		EA	\$ 392.00	= \$ -		\$ -
Guide/Street Name Sign		EA		= \$ -		\$ -
Epoxy Pavement Marking		SF	\$ 17.00	= \$ -		\$ -
Thermoplastic Pavement Marking		SF	\$ 30.00	= \$ -		\$ -
Barricade - Type 3		EA	\$ 259.00	= \$ -		\$ -
Delineator - Type I		EA	\$ 31.00	= \$ -		\$ -
Curb and Gutter, Type A (6" Vertical)		LF	\$ 38.00	= \$ -		\$ -
Curb and Gutter, Type B (Median)		LF	\$ 38.00	= \$ -		\$ -
Curb and Gutter, Type C (Ramp)		LF	\$ 38.00	= \$ -		\$ -
4" Sidewalk (common areas only)		SY	\$ 62.00	= \$ -		\$ -
5" Sidewalk		SY	\$ 77.00	= \$ -		\$ -
6" Sidewalk		SY	\$ 94.00	= \$ -		\$ -
8" Sidewalk		SY	\$ 125.00	= \$ -		\$ -
Pedestrian Ramp		EA	\$ 1,496.00	= \$ -		\$ -
Cross Pan, local (8" thick, 6' wide to include return)		LF	\$ 79.00	= \$ -		\$ -
Cross Pan, collector (9" thick, 8' wide to include return)		LF	\$ 119.00	= \$ -		\$ -
Curb Opening with Drainage Chase		EA	\$ 1,926.00	= \$ -		\$ -
Guardrail Type 3 (W-Beam)		LF	\$ 65.00	= \$ -		\$ -
Guardrail Type 7 (Concrete)		LF	\$ 94.00	= \$ -		\$ -
Guardrail End Anchorage		EA	\$ 2,731.00	= \$ -		\$ -
Guardrail Impact Attenuator		EA	\$ 4,902.00	= \$ -		\$ -
Sound Barrier Fence (CMU block, 6' high)		LF	\$ 102.00	= \$ -		\$ -
Sound Barrier Fence (panels, 6' high)		LF	\$ 104.00	= \$ -		\$ -
Electrical Conduit, Size = <u>    </u>		LF	\$ 22.00	= \$ -		\$ -
Traffic Signal, (provide engineer's estimate)		EA		= \$ -		\$ -

**PROJECT INFORMATION**

Project Name 8812 Cliff Allen Pt - Barbarick Transfer Station

Date: March 2024

PCD File No.: COM2346

Description	Quantity	Units	Unit Cost		Total	(with Pre-Plat Construction)	
						% Complete	Remaining
<b>SECTION 3 - COMMON DEVELOPMENT IMPROVEMENTS (Private or District and NOT Maintained by EPC)**</b>							
<b>ROADWAY IMPROVEMENTS</b>							
	Quantity	Units	Unit Cost		Total	% Complete	Remaining
Aggregate Base Course (135 lbs/cf)	962.	Tons	\$ 34.00	=	\$ 32,708.00		\$ 32,708.00
Asphalt Pavement (147 lbs/cf)	872.	Tons	\$ 106.00	=	\$ 92,432.00		\$ 92,432.00
Epoxy Pavement Marking	233.	SF	\$ 16.00	=	\$ 3,728.00		\$ 3,728.00
Thermoplastic Pavement Marking	12.	SF	\$ 28.00	=	\$ 336.00		\$ 336.00
Electrical Conduit (1")	1030.	LF	\$ 20.00	=	\$ 20,600.00		\$ 20,600.00
Electrical Conduit (2")	910	LF	\$ 20.00	=	\$ 18,200.00		\$ 18,200.00
MSE Block Retaining Wall (8' Max)	1,400	SF	\$ 50.00	=	\$ 70,000.00		\$ 70,000.00
Concrete Retaining Wall (8' Max)	985.	SF	\$ 80.00	=	\$ 78,800.00		\$ 78,800.00
<b>STORM DRAIN IMPROVEMENTS</b> (Exception: Permanent Pond/BMP shall be itemized under Section 1)							
Grated Inlet (CDOT Type C) (Depth <5')	5.	EA	\$ 5,611.00	=	\$ 28,055.00		\$ 28,055.00
Storm Sewer Manhole (Box Base)	2.	EA	\$ 14,061.00	=	\$ 28,122.00		\$ 28,122.00
4" Perforated PVC Pipe	941.	LF	\$ 70.00	=	\$ 65,870.00		\$ 65,870.00
6" PVC Pipe	205	LF	\$ 75.00	=	\$ 15,375.00		\$ 15,375.00
24" PVC Pipe	371	LF	\$ 80.00	=	\$ 29,680.00		\$ 29,680.00
24" RCP Pipe	71	LF	\$ 98.00	=	\$ 6,958.00		\$ 6,958.00
30" PVC Pipe	70	LF	\$ 90.00	=	\$ 6,300.00		\$ 6,300.00
4' Concrete Drainage Pan (6", Fibermesh Reinforced)	848	LF	\$ 100.00	=	\$ 84,800.00		\$ 84,800.00
30" PVC FES	1.	EA	\$ 800.00	=	\$ 800.00		\$ 800.00
Riprap, Type M (12" Depth)	21.	Tons	\$ 97.00	=	\$ 2,037.00		\$ 2,037.00
<b>WATER SYSTEM IMPROVEMENTS</b>							
Water Main Pipe (PVC), Size 8"		LF	\$ 84.00	=	\$ -		\$ -
Water Main Pipe (Ductile Iron), Size 8"		LF	\$ 98.00	=	\$ -		\$ -
Gate Valves, 8"		EA	\$ 2,418.00	=	\$ -		\$ -
Fire Hydrant Assembly, w/ all valves			\$ 8,584.00	=	\$ -		\$ -
Water Service Line Installation, inc. tap and valves			\$ 1,723.00	=	\$ 3,446.00		\$ 3,446.00
Fire Cistern Installation, complete				=	\$ -		\$ -
				=	\$ -		\$ -
				=	\$ -		\$ -
<i>[insert items not listed but part of construction plans]</i>							
<b>SANITARY SEWER IMPROVEMENTS</b>							
Sewer Main Pipe (PVC), Size 8"		LF	\$ 84.00	=	\$ -		\$ -
Sanitary Sewer Manhole, Depth < 15 feet		EA	\$ 5,708.00	=	\$ -		\$ -
Sanitary Service Line Installation, complete	1.	EA	\$ 1,825.00	=	\$ 1,825.00		\$ 1,825.00
Sanitary Sewer Lift Station, complete		EA		=	\$ -		\$ -
				=	\$ -		\$ -
				=	\$ -		\$ -
<i>[insert items not listed but part of construction plans]</i>							
<b>LANDSCAPING IMPROVEMENTS</b> (For subdivision specific condition of approval, or PUD)							
Trees (Ponderosa Pine)	35.	EA	\$ 600.00	=	\$ 21,000.00		\$ 21,000.00
Seeding (EPC Low Grow Mix)	50413.	EA	\$ 0.50	=	\$ 25,206.50		\$ 25,206.50
				=	\$ -		\$ -
				=	\$ -		\$ -
				=	\$ -		\$ -
				=	\$ -		\$ -
<b>Section 3 Subtotal</b>					<b>\$ 636,278.50</b>		<b>\$ 636,278.50</b>

Please remove items from Section 3 since they are improvements for a single lot.

**KH Response: Addressed**

Landscaping is not required to be included in the FAE. Please remove.

**KH Response: Addressed**

\*\* - Section 3 is not subject to defect warranty requirements



# v2\_Financial Assurance Forms comments.pdf Markup Summary

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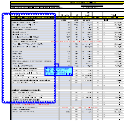
Carlos (2)

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**Author:** Carlos  
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Landscaping is not required to be included in the FAE. Please remove.



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Please remove items from Section 3 since they are improvements for a single lot.