City of Richmond
Department of Planning
and Development Review

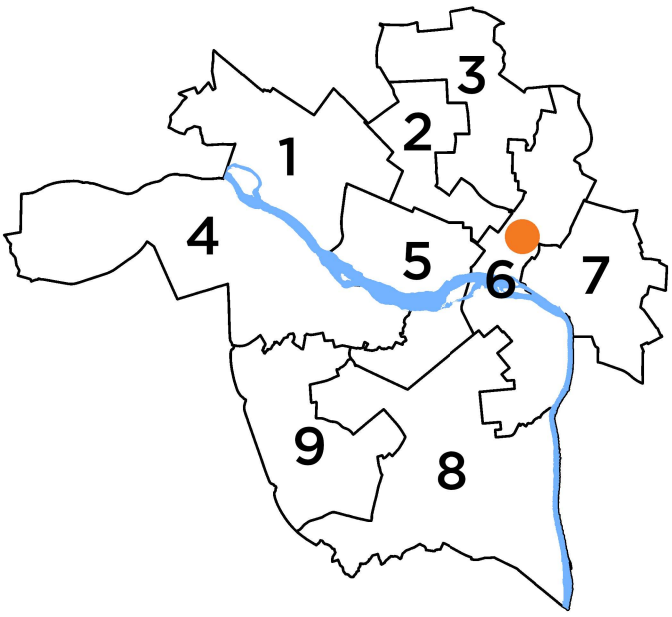
Urban Design Committee
Location, Character, and Extent

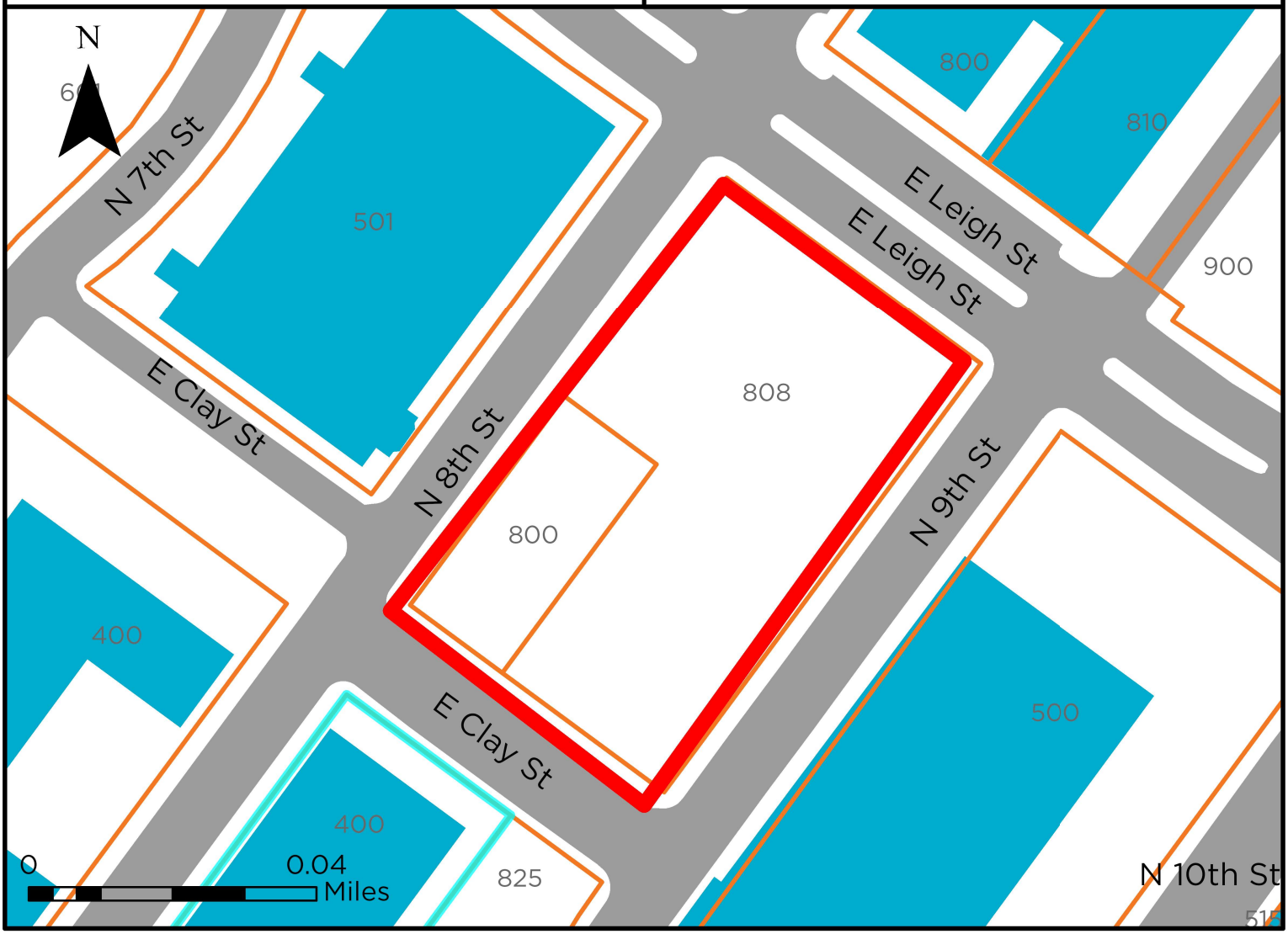
Address: 808 E. Clay Street

Council District: 6

Description: Final review of the temporary GRTC Transfer Station

For questions, please contact Alex Dandridge at (804)-646-6569 or alex.dandridge@rva.gov





Application for Urban Design Committee Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219 | (804) 646-6335
https://www.rva.gov/planning-development-review/urban-design-committee

RICHMOND PLANNING & DEVELOPMENT REVIEW
PDR

Application Type (select one)

- [x] Location, Character, & Extent
- [ ] Encroachment
- [ ] Section 17.05
- [ ] Design Overlay District
- [ ] Other:

Review Type (select one)

- [ ] Conceptual
- [x] Final

Project Information

Submission Date: 09/16/2021

Project Name: GRTC Temporary Transfer Center

Project Address: 808 E Clay Street

Brief Project Description (this is not a replacement for the required detailed narrative):

GRTC is constructing a new temporary transfer center in the current City-owned 8th and Clay parking lot, as the current transfer center on 9th Street between Clay Street and Leigh Street has to be vacated to make room for proposed redevelopment of the Public Safety Building.

Applicant Information (a City representative must be the applicant, with an exception for encroachments)

Name: Dironna Moore Clarke Email: Dironna.Clarke@richmondgov.com

City Agency: Department of Public Works, Office of Equitable Transit and Mobility Phone: 804-646-3074

Main Contact (if different from Applicant): Jon Oliver

Company: Kimley-Horn, on behalf of GRTC Phone: 804-672-4723

Email: jonathan.oliver@kimley-horn.com

Submittal Deadlines

All applications and support materials must be filed no later than 21 days prior to the scheduled meeting of the Urban Design Committee (UDC). Please see the schedule on page 3 as actual deadlines are adjusted due to City holidays. **Late or incomplete submissions will be deferred to the next meeting.**

Filing

Applications can be mailed or delivered to the attention of "Urban Design Committee" at the address listed at the top of this page. **It is important that the applicant discuss the proposal with appropriate City agencies, Zoning Administration staff, and area civic associations and residents prior to filing the application with the UDC.**

Submittal Deadlines

The UDC is an 11 member committee created by City Council in 1968 whose purpose is to advise the City Planning Commission (CPC) on the design of projects on City property or right-of-way. The UDC provides advice of an aesthetic nature in connection with the performance of the duties of the Commission under Sections 17.05, 17.06, and 17.07 of the City Charter. The UDC also advises the Department of Public Works in regards to private encroachments in the public right-of-way.

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Submssion Requirements

•An electronic copy (PDF preferred) of all application materials, which can be emailed, or delivered by FTP or USB.
•Three (3) copies of the application cover sheet and all support materials (see below).
•Plan sheets should be 11" x 17", folded to 8 1/2" x 11". If it is not possible to scale plans to these dimensions, please provide one set of larger, scaled plans.
•All applications must include the attached cover sheet and the following support materials, as applicable to the project, based on Review Type:

Conceptual Review:

•A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program and estimated construction start date (description should also provide information on the surrounding area to provide context).
•A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas, and areas of future expansion.
•A set of floor plans and elevations, as detailed as possible.
•A landscaping plan which shows the general location and character of plant materials and notes any existing tree to be removed.

Final Review:

•A detailed project narrative which includes the following: purpose of the project, project background, project budget and funding sources, description of construction program, and estimated construction start date (description should also provide information on the surrounding area to provide context).
•A site plan for the project indicating site characteristics which include: building footprints, parking areas, pedestrian routes, recreation areas, open areas, and areas of future expansion.
•A set of floor plans and elevations, as detailed as possible.
•A landscaping plan that includes a complete plant schedule, the precise location of all plant materials, and a landscape maintenance analysis. The plant schedule must show number, size and type of each planting proposed. If existing trees are to be removed, their size, type, and location must be noted on the landscape plan.
•The location of all lighting units should be noted on a site plan, including wall-mounted, site, and parking lot lighting. Other site details such as benches, trash containers, and special paving materials should also be located. Include specification sheets for each item.
•Samples of all proposed exterior building materials, including but not limited to brick, mortar, shingles, siding, glass, paint, and stain colors. When an actual sample cannot be provided, a product information sheet that shows the item or a photo of an existing item may be substituted.

Review and Processing

•Once an application is received, it is reviewed by Staff, who compiles a report that is sent to the UDC.
•A copy of the report and the meeting agenda will be sent to the applicant prior to the meeting.
•At the UDC meeting, the applicant or a representative should be present or the application may be deferred to the next regularly scheduled meeting. It is also strongly suggested that a representative of the City Agency which will have final responsibility for the item be present at the meeting (if the applicant and the representative are not the same).
•Once the UDC recommends action on the application, it is automatically placed on the agenda for the next City Planning Commission (CPC) meeting. Exceptions to this are encroachment applications, recommendations for which are forwarded to the Department of Public Works.
•At the CPC meeting, the applicant or a representative should be present, or the application may be deferred to the next regularly scheduled meeting.

last revised 12/21/2020

Application for Urban Design Committee Review

Department of Planning and Development Review
Planning & Preservation Division
900 E. Broad Street, Room 510
Richmond, Virginia 23219 | (804) 646-6335
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Regular meetings are scheduled on the Thursday after the first Monday of each month at **10:00 a.m. in the 5th floor conference room of City Hall, 900 E. Broad Street**. Special meetings are scheduled as needed.

Meeting Schedule 2021

UDC Meetings	UDC Submission Deadlines	Anticipated Date of Planning Commission Following the UDC Meeting
December 10, 2020	November 12, 2020	December 21, 2020
January 7, 2021	December 17, 2020	January 19, 2021 [1]
February 4, 2021	January 14, 2021	February 16, 2021 [2]
March 4, 2021	February 11, 2021	March 15, 2021
April 8, 2021	March 11, 2021	April 19, 2021
May 6, 2021	April 15, 2021	May 17, 2021
June 10, 2021	May 13, 2021	June 21, 2021
July 8, 2021	June 17, 2021	July 19, 2021
August 5, 2021	July 15, 2021	August 16, 2021[3]
September 9, 2021	August 12, 2021	September 20, 2021
October 7, 2021	September 16, 2021	October 18, 2021
November 4, 2021	October 14, 2021	November 15, 2021
December 9, 2021	November 10, 2021[4]	December 20, 2021 [5]

[1] Monday January 18, 2021 is a City of Richmond Holiday
[2] Monday February 15, 2021 is a City of Richmond Holiday
[3] This meeting is subject to cancellation. If so, Planning Commission hearing would be Tuesday September 7, 2021.
[4] Thursday November 11, 2021 is a City of Richmond Holiday.
[5] This meeting of the Planning Commission is subject to cancellation.

The Richmond Urban Design Committee is an 11 member advisory committee created by City Council in 1968. Its purpose is to advise the City Planning Commission on the design of City projects. The Urban Design Committee reviews projects for appropriateness in "location, character, and extent" and for consistency with the City's Master Plan and forwards recommendations to the City Planning Commission. The Urban Design Committee also advises the Department of Public Works in regards to private encroachments in the public right-of-way.

For more information, please contact the Planning and Preservation Division staff at (804) 646-6335 or Alex Dandridge at (804) 646-6569 or at alex.dandridge@richmondgov.com.

last revised 12/21/2020

GRTC Temporary Transfer Center

September 16, 2021

Site Address: 808 E Clay Street

PROJECT NARRATIVE:

GRTC currently occupies the right of way adjacent to the City of Richmond Public Safety Building on 9th Street between Marshall Street and Leigh Street as their Temporary Transfer Plaza. The Public Safety Building property was recently sold by the City and is anticipated to be demolished and redeveloped, with demolition beginning as soon as December 2021. In coordination with the City of Richmond, GRTC plans to relocate the Temporary Transfer Plaza to the surface parking lot at 8th Street and Clay Street to make room for the construction along 9th Street.

The proposed improvements are planned to be temporary, as GRTC and the City will continue to work together to identify and construct a permanent transfer facility in the vicinity of Downtown Richmond. Currently, the City's draft City Center small area plan includes considerations for a permanent transit facility. The current expected life of the new temporary center in the 8th and Clay parking lot is 4-6 years. Therefore, proposed improvements are intended to be only what is necessary to meet GRTC's needs for safe and efficient transfers without added cost for temporary enhancements.

Should construction of the former Public Safety Building commence prior to these improvements being completed, GRTC will operate the transfer center in an "interim" location which will consist of a combination of bus stops on 9th Street south of Clay Street, Clay Street between 8th Street and 9th Street, and 8th Street between Leigh Street and Clay Street. The scattered nature of these "interim" bus stop locations is undesirable for bus patrons who will be required to walk longer distances to make transfers between routes and have to learn new route patterns and stop locations. Additionally, communicating the relocation of transfer locations by GRTC to patrons also adds additional complexity in the "interim" condition. Therefore, timely approval of the plans and construction of the improvements is vital to limit (if not eliminate) the time that GRTC will operate in this interim condition

The existing site provides approximately 64 public parking spaces, including 3 ADA spaces, and approximately 199 spaces for use by government employees. Because the proposed configuration provides 31 parking spaces, 2 ADA spaces (including 1 van space) will be provided on site, consistent with the 2010 ADA Standards for Accessible Design. Kimley-Horn has confirmed that the proposed site grading at the proposed ADA spaces meet the required slopes. It is likely the existing driveway ramp into the site is not ADA accessible, therefore consideration for ADA access to the site entrance on 8th Street may be required to provide an accessible route from the parking lot to the public right-of-way.

On-street parking spaces are typically considered to be 18-22' long, per the American Association of State Highway and Transportation Officials (AASHTO). Additionally, the following clearances were assumed to keep a clear sight triangle; 30' from crosswalks upstream of intersections, 20' from crosswalks downstream of intersections, and 10' from driveways. The project focuses on 3 areas of on-street parking: north side of Clay Street between 8th Street and 9th Street, the east side of 8th street between Leigh St and Clay St and the west sides of 8th street between Leigh St and Clay St. In these three locations there are 22 existing spaces. During the interim condition the 12 spots along north side E Clay and west side of 8th street will be temporarily removed to provide space for interim bus stops. In the

final condition, the spaces temporarily removed will be restored to parking spaces and 6 spaces on the east side of 8th street between the existing driveway and Clay Street intersection will be permanently removed to accommodate bus turning movements out the transfer center.

Due to the existing site being lower than the surrounding street grade, entrance to the transfer center is limited to the western boundary along 8th Street where the lot is at grade with the Street. The transfer center will provide 12 bus bays in a sawtooth design that allows arrival and departure at each bay independent of whether the adjacent bays are occupied by buses. The 12 bus bay layout can accommodate 10 standard buses and 2 articulated buses that GRTC has secured funding to add to their fleet in the near future. Additionally, 2 parking spots are proposed within the transfer center for GRTC maintenance vehicles.

Due to the existing site walls and slopes, pedestrian access to the transfer center is limited to in three areas: multiple points mid-block along 8th Street where there are no walls, the existing staircase on the south east corner of the site, and a proposed pedestrian ramp in the northwest corner of the site near the intersection of Leigh Street and 9th Street. This ramp will be constructed to be consistent with ADA Standards.

Amenities for bus patrons on site include several bus shelters, benches, and trash cans. All will utilize the specific models previously approved by UDC. Additionally, a restroom facility is proposed for use by GRTC bus operators. Options for the restroom are still be explored but include a temporary "trailer style" restroom with self-contained utilities or a permanent prefabricated facility with underground utility connections for water, sanitary, and power. The exhibit included in this application demonstrated a few options for operator restrooms that are currently being explored.

Existing site lighting will be improved for the transfer center portion of the site to provide visibility for patrons and buses alike during night hours. The two existing lights in the parking portion on the southern end of the lot are proposed to remain.

Fencing is proposed along the curb between the parking portion of the lot and the transfer center at the request of DPW Parking Services to limit bus patron access to the parking lot to the opening in the fence in the southeast corner closest to the existing staircase.

RESPONSES TO UDC REQUESTS FROM CONCEPTUAL REVIEW:

Condition 1: Applicant consider alternate fencing material; if chain-link fencing is utilized it be coated in a black vinyl finish.
Response: Plan has been updated to call out black vinyl finish on fence.

Condition 2: Applicant consider additional pedestrian access points from all sides of the lot.
Response: The fence has been reduced on the east side to allow access from the south east corner of the site.

Condition 3: Applicant consider additional bus shelters and shade structures with in the space.
Response: Plan has been updated with additional bus shelters.

Condition 4: Applicant include specifications on site features such as bus shelters, benches, and bike racks with the final submission
Response: Design specifications for amenities have been added to the plans.

Condition 5: Applicant investigate connectivity from the transfer center portion of the lot to the parking area of the lot
Response: Fence limits have been reduced to add additional connectivity between the transfer center and the parking lot.

Condition 6: Applicant consider a more permanent restroom facility design that is accessible, and open to bus drivers and bus patrons
Response: Direction from the Planning Commission is to make site improvements as temporary as possible and minimalistic in nature to prioritize development of a permanent location. Additionally, GRTC is not supportive of a restroom that is open to the public for the safety, security, and comfort of their operators.

Condition 7: Applicant consider the inclusion of a drinking fountains on site
Response: The temporary bathroom proposed is temporary in nature and will not have permanent utility connections; therefore, the site will not be able to support water drinking fountains due to the lack of a water service connection.

Condition 8: Applicant consider the inclusion of large-scale planters for the site, partnering with an entity that can actively maintain them.
Response: The design team is coordination with Venture Richmond to provide planters to the site

OWNER:
GRTC TRANSIT SYSTEM
301 EAST BELT BOULEVARD
RICHMOND, VA 23224
PROJECT MANAGER - ADRIENNE TORRES
CONTACT # 804-474-9798

ENGINEER:

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC.
1700 WILLOW LAWN DRIVE, SUITE 200, RICHMOND, VA 23230
PHONE: (804) 673-3882

INDEX OF SHEETS

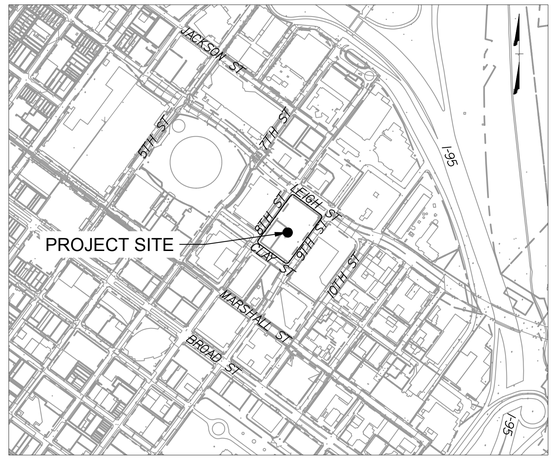
✳ *INDICATES SHEET IS NOT INCLUDED IN THIS SUBMITTAL*

GRTC TRANSIT SYSTEM

GRTC TRANSIT SYSTEM
TEMPORARY TRANSFER CENTER IMPROVEMENTS

RICHMOND, VIRGINIA

VICINITY MAP



90% PLANS
SEPTEMBER, 16 2021

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804 673-3882
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

TITLE SHEET, LOCATION MAP, AND INDEX OF SHEETS

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
1

A

CITY OF RICHMOND DEPT
OF PUBLIC WORKS
PARCEL ID: N0000009002
800 E CLAY ST, RICHMOND VA
DRAWING #0-22259

B

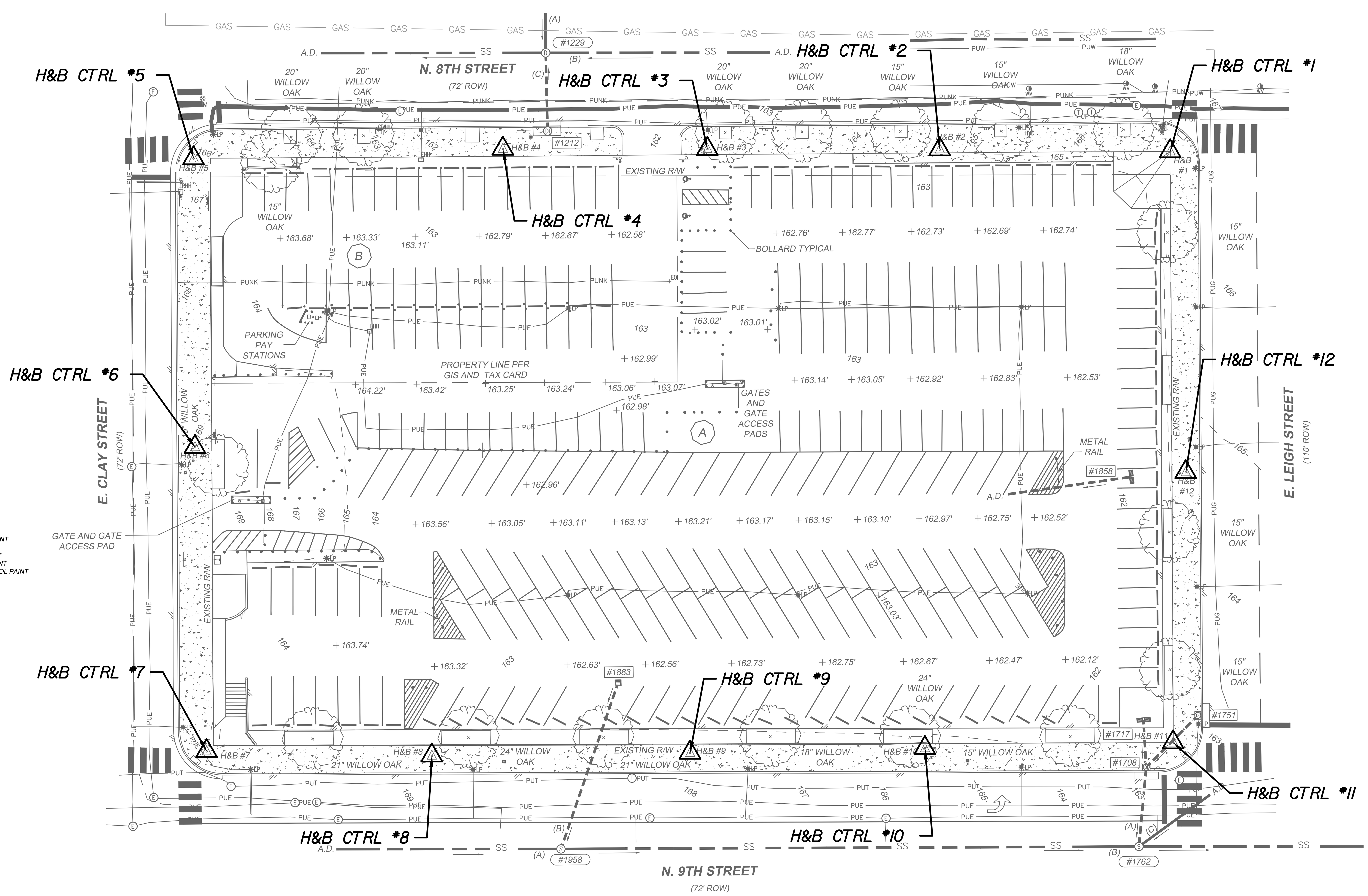
CITY OF RICHMOND DEPT
OF PUBLIC WORKS
PARCEL ID: N0000009001
808 E CLAY ST, RICHMOND VA
PER GIS AND TAX CARD

LEGEND

These standard symbols will be found in the drawing.

Symbol	Description
	DASHED WHITE LINE
	SOLID WHITE LINE
	EDGE OF PAVEMENT
	HANDRAIL
	STORM PIPE
	SANITARY PIPE
GAS — GAS	GAS LINE (APPROXIMATE)*
	SIDEWALK
	FLOW LINE
	BACK OF CURB
	PROPERTY
	MAJOR CONTOUR
	MINOR CONTOUR
PUE	UNDERGROUND ELECTRIC PAINT
PUF	UNDERGROUND FIBER OPTIC PAINT
PUG	UNDERGROUND GAS PAINT
PUNK	UNDERGROUND UNKNOWN PAINT
PUT	UNDERGROUND TELEPHONE PAINT
PUTR	UNDERGROUND TRAFFIC CONRTOL PAINT
PUW	UNDERGROUND WATER PAINT
EHH	ELECRIC HAND HOLE
DI	DRAIN INLET MANHOLE
TRHH	TRAFFIC HANDHOLE
	GRATE INLET
D	STORM MANHOLE
	SIGN
SB	SIGNAL BOX
S	SEWER MANHOLE
T	TELEPHONE PEDISTAL
CTVHH	CABLE HANDHOLE
LP	LIGHT POLE
	TRAFFIC SIGNAL ARM
WV	WATER VALVE
WM	WATER METER
HYD	HYDRANT
	PARKING METER
E	ELECTRIC MANHOLE
T	TELEPHONE MANHOLE
E	ELECTRICAL BOX
●	BOLLARD
△	SURVEY CONTROL POINT
	CONCRETE

✳ GAS LINE LOCATION IS SKETCHED IN RELATIVE TO OTHER UTILITIES AND NOT FROM SURVEY OR CITY GIS DATA



STORM SEWER TABLE

GRATE INLET #1858
RIM = 161.53
INV=156.04' (12" CONC TO A.D.)

DROP INLET MANHOLE #1751
RIM = 163.59'
INV. OUT = 160.07' (12" CONC TO #1708)

GRATE INLET #1717
RIM = 161.37'
INV. OUT = 158.85' (12" CONC TO #1708)

DROP INLET MANHOLE #1708
RIM = 163.21'
INV. IN = 157.57' (12" CONC FROM #1717)
INV. IN = 158.52' (12" CONC FROM #1751)
INV. OUT = 154.83' (12" CONC TO SANITARY MH #1762)
BOTTOM OF STRUCTURE = 151.46'
THIS STRUCTURE IS A TRAP INLET, INVERT OUT IS BASED ON PLUG ELEVATION

GRATE INLET #1883
RIM = 161.89'
INV. OUT = 156.39' (12" CONC TO SANITARY MH #1958)
BOTTOM OF STRUCTURE = 154.13'
THIS STRUCTURE IS A TRAP INLET, INVERT OUT IS BASED ON PLUG ELEVATION

DROP INLET MANHOLE #1212
RIM = 161.51'
INV. OUT = 158.33' (12" CONC TO SANITARY MH #1229)
BOTTOM OF STRUCTURE = 155.05'
THIS STRUCTURE IS A TRAP INLET, INVERT OUT IS BASED ON PLUG ELEVATION

SANITARY SEWER TABLE

SANITARY MANHOLE #1229
RIM = 161.29'
INV. (A) IN = 155.55' (12" PCV FROM A.D.)
INV. (B) IN = 154.54' (12" IRON FROM A.D.)
INV. (C) IN = 158.01' (12" PVC FROM STORM MH #1212)
INV. OUT = 154.32' (12" PVC TO A.D)

SANITARY MANHOLE #1762
RIM = 163.06'
INV. (A) IN = 152.80' (12" CONC FROM STORM MH #1708)
INV. (B) IN = 139.21' (30" CONC FROM #1958)
INV. (C) IN = 153.08' (12" CONC FROM A.D.)
INV. OUT = 139.20' (30" CONC TO A.D.)

SANITARY MANHOLE #1958
RIM = 168.87
INV. (A) IN = 140.64' (30" CONC FROM A.D.)
INV. (B) IN = 154.09' (12" CONC FROM STORM MH #1883)
INV. OUT = 140.03' (30" CONC TO #1762)

SURVEY CONTROL TABLE

Point	Northing	Easting	Elevation	Description
1	3,723,365.15	11,792,512.88	167.19	CP- EX NAIL COR
2	3,723,290.26	11,792,456.27	164.79	CP- MAG
3	3,723,214.39	11,792,399.69	162.86	CP- MAG
4	3,723,147.58	11,792,349.93	161.72	CP- MAG
5	3,723,044.13	11,792,277.94	166.20	CP- MAG
6	3,722,974.44	11,792,372.68	169.02	CP- MAG
7	3,722,904.40	11,792,474.93	169.89	CP- MAG
8	3,722,976.97	11,792,531.07	169.38	CP- MAG
9	3,723,062.06	11,792,592.87	168.31	CP- MAG
10	3,723,140.01	11,792,648.41	166.32	CP- MAG
11	3,723,222.57	11,792,706.84	163.41	CP- MON
12	3,723,292.32	11,792,621.53	165.25	CP- MAG

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

SCALE 0 25' 50'

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

SURVEY CONTROL DATA

GRTC TEMPORARY TRANSFER CENTER
PREPARED FOR GRTC TRANSIT SYSTEM
RICHMOND, VA

SHEET NUMBER
1A

STAGING NARRATIVE

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE CITY OF RICHMOND AND GRTC DURING ALL STAGES OF CONSTRUCTION.

WHEN CLOSING SIDEWALKS AND PARKING USE TTC-35J (SEE SHEET IB(2). CONTRACTOR SHALL LIMIT CLOSURE TIME OF ALL PUBLIC SIDEWALKS AS MUCH AS POSSIBLE. SIDEWALKS SHOULD NOT BE CLOSED UNTIL THE CONTRACTOR IS READY TO CONTINUALLY EXECUTE THE WORK IN THAT AREA.

GENERAL

THE EXISTING POSTED SPEED LIMIT ON ADJACENT ROADS IS 25 MPH.

THE WORK DURATION IS ASSUMED TO BE LONG TERM STATIONARY. PARKING LANE CLOSURES AND SIDEWALK CLOSURES ON 8TH STREET AND 9TH STREET WILL BE SHORT TERM ONLY.

AT THE BEGINNING OF CONSTRUCTION ALL TEMPORARY SIGNS SHALL BE INSTALLED AS SHOWN IN THE PLANS AND IN ACCORDANCE WITH THE LATEST REVISION OF THE VIRGINIA WORK AREA PROTECTION MANUAL.

SEQUENCE OF CONSTRUCTION

1. INSTALL TEMPORARY SIGNS AND TTC DEVICES AS SHOWN IN MOT SIGNING PLAN ON SHEET IB(2).
2. SET UP FENCING ON SITE TO PREVENT VEHICLES FROM ACCESSING CONSTRUCTION AREA OR IMPROVEMENTS AS WORK IS COMPLETED.
3. INSTALL EROSION AND SEDIMENT CONTROL MEASURES.
4. CLOSE SITE AND ALL ENTRANCES TO THE SITE USING TYPE III BARRICADES.
5. CONSTRUCT IMPROVEMENTS.
6. REMOVE EROSION AND SEDIMENT CONTROL MEASURES.
7. REMOVE ALL TEMPORARY TRAFFIC CONTROL DEVICES AND SITE FENCING.

TRAFFIC MANAGEMENT PLAN

PROPOSED TEMPORARY TRANSFER CENTER

INTRODUCTION

THIS PROJECT CONSISTS OF RECONSTRUCTING THE SURFACE PARKING LOT LOCATED AT 8TH STREET AND CLAY STREET TO BECOME THE NEW TEMPORARY TRANSFER CENTER FOR GRTC WHILE MAINTAINING SOME OF THE LOT FOR PARKING USE.

TEMPORARY TRAFFIC CONTROL PLAN

GENERAL NOTES

1. THE PROPOSED IMPROVEMENTS FOLLOW UNDER THE TMP TYPE A PROJECT.
2. THE PROJECT IS LOCATED ON THE CITY BLOCK BOUNDED BY 9TH STREET, E CLAY STREET, 8TH STREET, AND E LEIGH STREET
3. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TRAFFIC CONTROL DEVICES, SIGNAGE, EQUIPMENT, PERSONNEL, INCLUDING CERTIFIED TRAFFIC CONTROL PERSONNEL, ETC. TO CONTROL TRAFFIC DURING CONSTRUCTION. ALL TRAFFIC CONTROL SHALL BE IN STRICT ACCORDANCE WITH THE STANDARDS, GUIDELINES, POLICIES AND OBJECTIVES OF THE 2011 VIRGINIA WORK AREA PROTECTION MANUAL AND ALL REVISIONS, AND THE 2009 MANUAL FOR UNIFORM TRAFFIC CONTROL DEVICES.
4. THE CONTRACTOR IS RESPONSIBLE FOR ACQUIRING AREAS FOR EQUIPMENT STORAGE AND STAGING OF MATERIALS SHOULD THIS OCCUR OFFSITE.
5. THE FOLLOWING TRAFFIC CONTROL SPECIFICATIONS FROM THE VIRGINIA WORK AREA PROTECTION MANUAL SHALL BE USED: TTC 35J
6. ALL ENTRANCES TO THIS SITE MAY REMAIN CLOSED DURING CONSTRUCTION
7. TYPES OF TRAFFIC CONSIST OF COMMUTERS, BUSES, RESIDENTS, AND TRUCKS.

PUBLIC COMMUNICATIONS PLAN

THE CONTRACTOR IS TO COORDINATE WITH GRTC AND THE CITY OF RICHMOND TO PUBLISH ANNOUNCEMENTS REGARDING ANY WORK ACTIVITIES FOR THIS PROJECT REQUIRING LANE CLOSURES. EACH ACTIVITY WILL BE GOVERNED BY THE TIMES ESTABLISHED BY THE CITY TRAFFIC ENGINEER. THE CONTRACTOR SHALL PROVIDE LANE CLOSURE INFORMATION A MINIMUM OF TWO WEEKS IN ADVANCE OF WORK SO IT CAN BE PUBLISHED. ANY CHANGES TO THIS PUBLIC COMMUNICATION MUST BE APPROVED BY THE PROJECT ENGINEER.

TRANSPORTATION OPERATIONS PLAN

1. THE FOLLOWING IS A LIST OF LOCAL EMERGENCY CONTACT AGENCIES:CITY OF RICHMOND POLICE DEPARTMENT: 804-646-5100 OR 911 (IN AN EMERGENCY)
2. PROCEDURES TO RESPOND TO TRAFFIC INCIDENTS THAT MAY OCCUR IN THE WORK ZONE:
   A. CONTRACTOR TO NOTIFY INSPECTOR IN CHARGE. DEPENDING ON THE SEVERITY OF INCIDENT, THE CONTRACTOR MAY HAVE TO SHUT DOWN WORK.
   B. UPON ARRIVAL ON SCENE, CITY OF RICHMOND POLICE DEPARTMENT STAFF TO DETERMINE RESPONSE NECESSARY TO ALLOW TRAVELING PUBLIC AROUND THE INCIDENT.
3. PROCESS OF NOTIFICATION OF INCIDENT TO BE FOLLOWED IS:
   CONTRACTOR TO CALL:
   A. PROJECT MAINTENANCE OF TRAFFIC COORDINATOR (INSPECTOR) : TO BE DETERMINED
   B. PROJECT MANAGER (CONSTRUCTION ENGINEER): TO BE DETERMINED
   C. THE CITY OF RICHMOND POLICE DEPARTMENT WILL TAKE CONTROL OF THE INCIDENT AND DIRECT ITS CLEARING AND RESTORATION TO NORMAL TRAFFIC OPERATIONS.
   D. THE CITY OF RICHMOND POLICE DEPARTMENT REPORT OF THE INCIDENT WILL BE REVIEWED TO DETERMINE IF ANY MODIFICATION OF THE TEMPORARY TRAFFIC CONTROL PLAN IS NECESSARY. IF IT IS DETERMINED THAT IT IS NECESSARY TO ALTER THE PLAN, THEN A MEETING WILL BE CALLED WITH THE CONTRACTOR, GRTC, CITY OF RICHMOND POLICE DEPARTMENT, AND CITY OF RICHMOND TO DISCUSS MODIFICATION AND IMPLEMENTATION OF AN IMPROVED TRAFFIC CONTROL PLAN.

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

TRAFFIC MANAGEMENT PLAN

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
1B(1)

Typical Traffic Control
Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)
NOTES

Standard:

1. **When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features present in the existing pedestrian facility.**

Guidance:

2. *Where high speeds are anticipated, a temporary traffic barrier and, if necessary, a crash cushion should be used to separate the temporary sidewalks from vehicular traffic.*
3. *Audible information devices should be considered where midblock closings and changed crosswalk areas cause inadequate communication to be provided to pedestrians who have visual disabilities.*
4. *Temporary markings should be considered for operations exceeding three days in duration.*

Option:

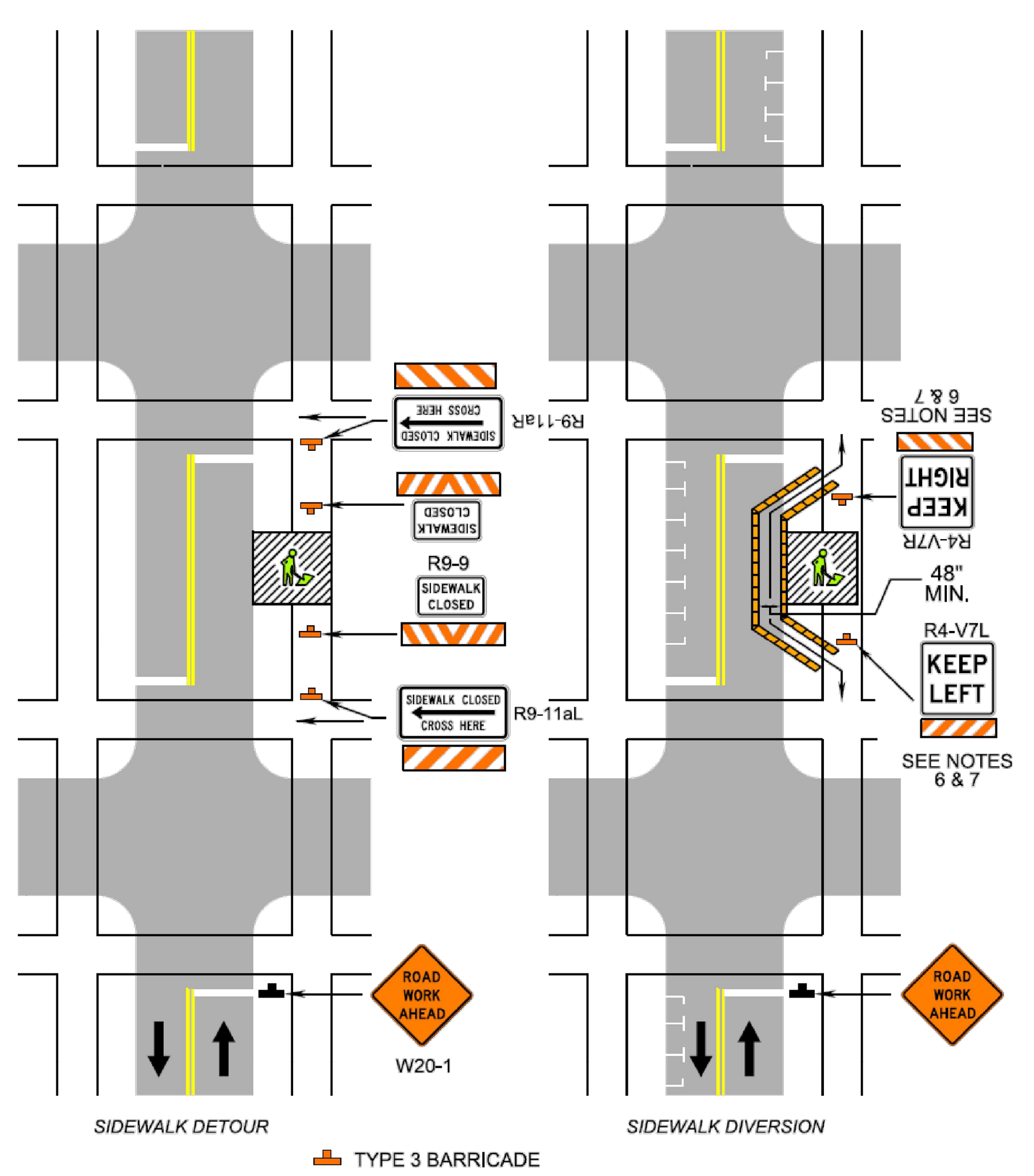
5. Only the TTC devices related to pedestrians are shown. Other devices, such as lane closure signing or ROAD NARROWS (W5-1) signs, may be used to control vehicular traffic.
6. For nighttime closures, Type A Flashing warning lights may be used on barricades that support signs and close sidewalks.
7. Signs, such as KEEP RIGHT (R4-V7R) and KEEP LEFT (R4-V7L), may be placed along a temporary sidewalk to guide or direct pedestrians.

Standard:

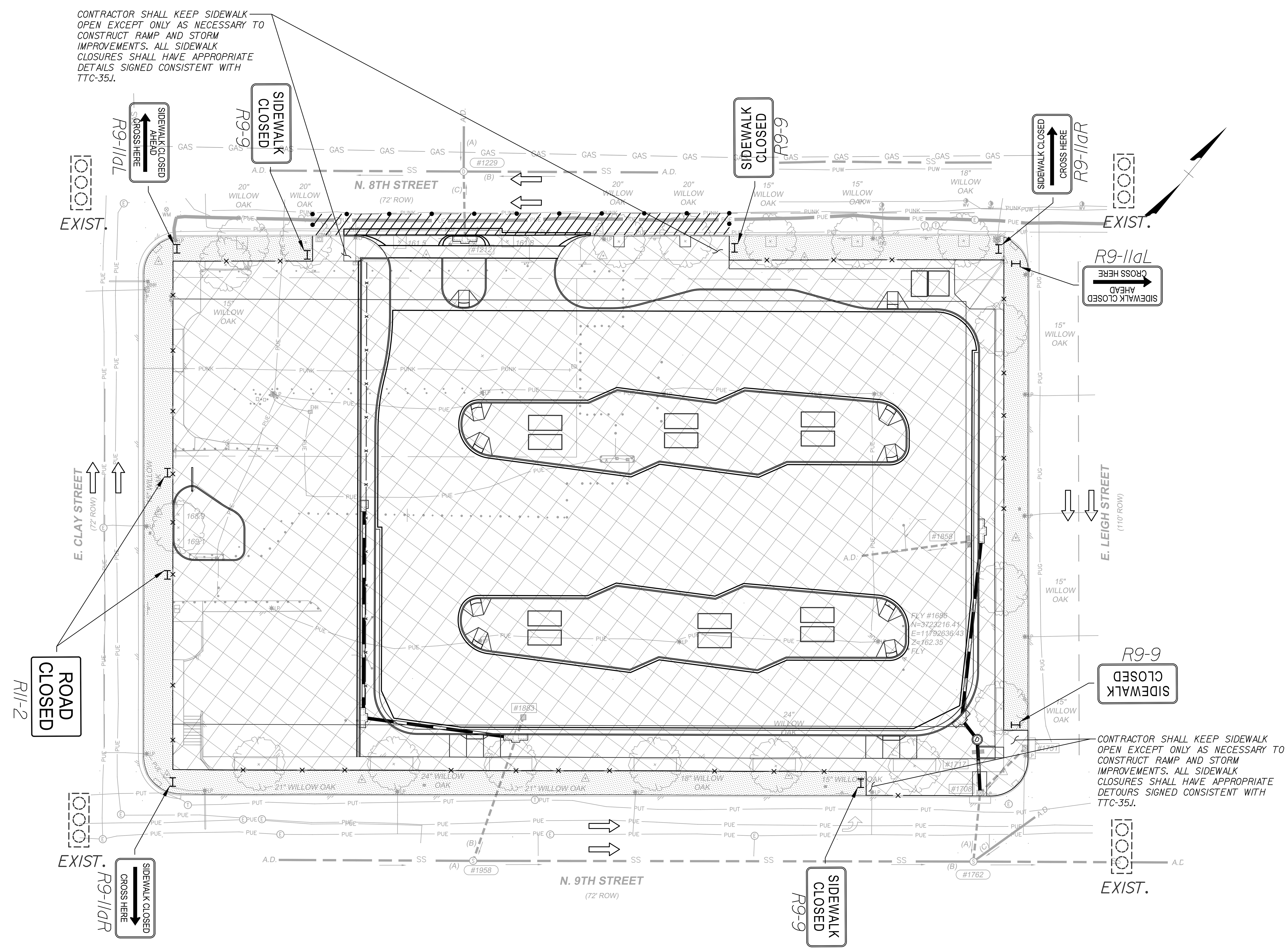
8. **All sidewalk closures shall be closed with Type 3 Barricades. The SIDEWALK CLOSED (R9-9) sign and the SIDEWALK CROSS HERE (R9-11) sign shall be installed above the Type 3 barricade. The KEEP RIGHT sign can cover the top rail of the Type 3 Barricade.**[2]

2: Revision 2 – 9/1/2019

Sidewalk Closure and Bypass Sidewalk Operation
(Figure TTC-35.1)



2: Revision 2 – 9/1/2019



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

SURVEY CONTROL DATA	1A
PLAN SHEET	3
PAVEMENT PATCHING PLAN	3A
EROSION & SEDIMENT CONTROL PLAN	3B
ENTRANCE PROFILES	3C(1),3C(2)
GRADING PLAN	4
GRADING DETAILS	4A
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
ELECTRICAL PLAN	6(5)
SIGNING AND MARKING PLAN	7(3)

LEGEND

- PROPOSED WORK AREA
- PEDESTRIAN TRAVEL AREA
- ROAD CLOSURE AREA
- TYPE III BARRICADE 8'
- TEMP. STD. CHAIN LINK FENCE
- TRAVEL LANE
- GROUP II CHANNELIZING DEVICES

90% PLANS

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SCALE 0 25' 50'

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

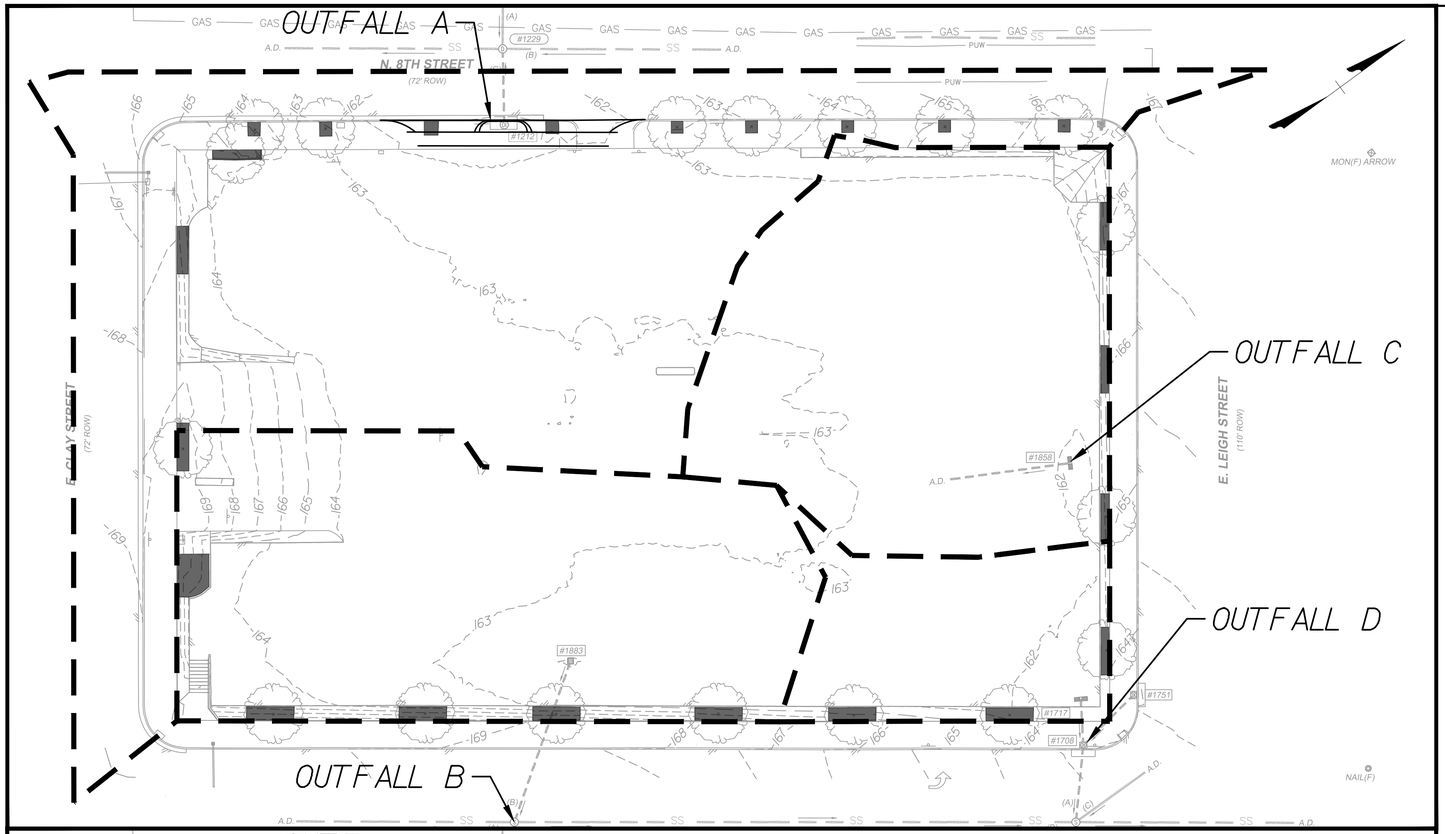
MAINTENANCE OF TRAFFIC PLAN & DETAILS

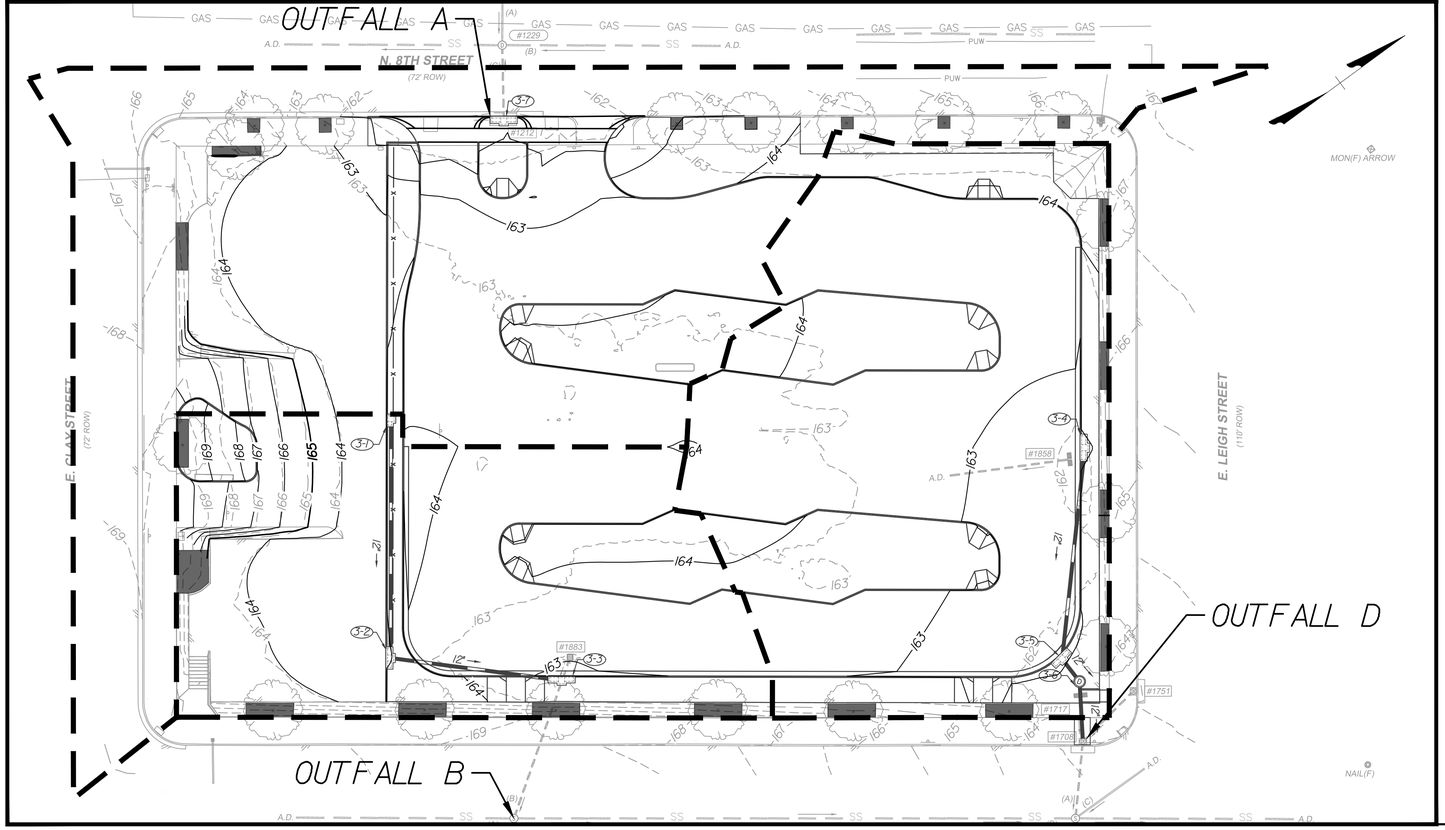
GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 1B(2)





DRAINAGE AREA TABLE - PRE-DEVELOPMENT

DRAINAGE AREA LABEL	INLET (S)	TOTAL AREA (AC.)	IMPERVIOUS AREA (AC.)	PERVIOUS AREA (AC.)	CN	TIME OF CONC. Tc (min)
A	EX. #1212	1.28	1.27	0.01	97.8	5.0
B	EX. #1883	0.67	0.66	0.02	97.4	5.0
C	EX. #1858	0.59	0.59	0.00	97.8	5.0
D	EX. #1717	0.21	0.21	0.01	97.3	5.0
TOTAL	NA	2.76	2.72	0.04	97.6	5.0

LEGEND

OVERALL DRAINAGE AREA

PRE-DEVELOPMENT PERVIOUS LAND COVER

DRAINAGE AREA TABLE - POST-DEVELOPMENT

DRAINAGE AREA LABEL	INLET (S)	TOTAL AREA (AC.)	IMPERVIOUS AREA (AC.)	PERVIOUS AREA (AC.)	CN	TIME OF CONC. Tc (min)
A	3-7	1.28	1.27	0.01	97.8	5.0
B	3-1, 3-2, 3-3	0.63	0.62	0.02	97.3	5.0
C	-	0.00	0.00	0.00	0.0	5.0
D	3-4, 3-5	0.85	0.84	0.01	97.7	5.0
TOTAL	NA	2.76	2.72	0.04	97.6	5.0

LEGEND

OVERALL DRAINAGE AREA

POST-DEVELOPMENT PERVIOUS LAND COVER

90% PLANS

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SCALE 0 30' 60'

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-200-6500
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

DRAINAGE AREA MAP

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 1C

CONSTRUCTION NOTES

1. ALL CONSTRUCTION SHALL CONFORM WITH APPLICABLE STATE (INCLUDING VDOT) AND LOCAL CONSTRUCTION STANDARDS AS IDENTIFIED IN THESE PLANS. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE PERMITS AND LICENSES AND MAINTAIN COPIES OF THEM ON-SITE AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN A SET OF CONSTRUCTION DOCUMENTS AND SPECIFICATIONS ON-SITE AT ALL TIMES DURING CONSTRUCTION.

2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE PROJECT ENGINEER OF RECORD IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.

3. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION AND PROTECTION OF ALL EXISTING UTILITIES ASSOCIATED WITH THE PROJECT WORK SCOPE DURING CONSTRUCTION. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" OF VIRGINIA @ 811 FOR PROPER IDENTIFICATION OF EXISTING UTILITIES WITHIN THE PROJECT SITE.

4. ANY DAMAGE OCCURRING TO THE EXISTING SITE INFRASTRUCTURE ON THIS SITE OR TO THE PUBLIC RIGHT-OF-WAY DURING THE CONSTRUCTION OPERATIONS AND/OR MOBILIZATION, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DAMAGED ITEMS INCLUDING CONCRETE AND/OR PAVEMENT SECTIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITIONS PRIOR TO PROJECT COMPLETION AT THE EXPENSE OF THE CONTRACTOR.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WITH MATCHING MATERIALS ANY PAVEMENT, DRIVEWAYS, WALKS, CURBS, ETC. THAT MUST BE CUT OR THAT ARE DAMAGED DURING CONSTRUCTION INSIDE AND OUTSIDE OF THE LIMITS OF CONSTRUCTION.

6. THE CONTRACTOR IS RESPONSIBLE TO REMOVE ALL THE REMOVED/DEMOLISHED MATERIAL FROM THE PROJECT SITE AND DISPOSE OF SAME IN A LEGAL MANNER.

7. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO KIMLEY-HORN & ASSOCIATES, INC. AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER. IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.

8. ANY DISCREPANCIES ON THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE COMMENCING WORK. NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF GRTC AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.

GENERAL

1. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM WITH THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF RICHMOND, EXCEPT AS NOTED ON THE PLANS.

2. THE CONTRACTOR SHALL NOTIFY GRTC AND THE CITY TRANSPORTATION ENGINEER 24 HOURS PRIOR TO THE BEGINNING OF CONSTRUCTION.

3. THE CONTRACTOR SHALL NOTIFY THE APPLICABLE DEPARTMENT PRIOR TO MAKING ANY ADJUSTMENTS TO THE UTILITIES OR WORK WITHIN THE CITY RIGHT-OF-WAY.

4. THE CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO EXISTING RESIDENCES AND BUSINESSES DURING CONSTRUCTION. WHEN SERVICES ARE TO BE INTERRUPTED FOR CUT-INS, PLUGGING OR ABANDONMENT, ETC., THE CONTRACTOR SHALL PROVIDE THE CITY WITH 72 HOURS NOTICE. THE AFFECTED PROPERTY OWNER, RESIDENCE, OR BUSINESS SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF SERVICE INTERRUPTIONS. ALL UTILITY SERVICE INTERRUPTIONS SHALL BE KEPT TO AN ABSOLUTE MINIMUM. THE CONTRACTOR SHALL PROVIDE THE PROJECT MANAGER WITH A DETAILED PLAN AND SCHEDULE FOR SERVICE INTERRUPTIONS A MINIMUM OF FIVE (5) WORKING DAYS IN ADVANCE OF SUCH WORK.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES AND SHALL REPLACE AT NO ADDITIONAL COST, IF DAMAGED, AS DIRECTED BY THE CITY. EXISTING UTILITIES THAT ARE IN CONFLICT MAY NEED TO BE REMOVED OR RELOCATED, WILL BE COORDINATED BY THE CITY. RELOCATIONS OF CITY FACILITIES WILL BE ADMINISTERED BY THE CITY DEPARTMENT OF PUBLIC UTILITIES.

   IN CASE OF EMERGENCIES OF UTILITY BREAKAGE/CONFLICT CONTACT

UTILITY	TELEPHONE NUMBERS
GAS	646-8300, 646-8309, 646-8310
WATER	646-8300, 646-8309, 646-8310
SEWER	646-8600, 646-8426
POWER	888-667-3000
VERIZON	800-275-2355

6. IF THE CONTRACTOR WISHES TO WORK DURING EVENING HOURS AND/OR WEEKENDS, HE MUST FIRST RECEIVE APPROVAL FROM GRTC AND THE CITY TRANSPORTATION ENGINEER.

7. THE CONTRACTOR SHALL NOTIFY THE SURVEYS DIVISION OF THE CITY OF RICHMOND'S DEPARTMENT OF PUBLIC WORKS 804-646-0436 OR 804-646-5404 AT LEAST 48 HOURS PRIOR TO ANY ACTIVITIES WHICH MAY DISTURB THE LOCATION OR THE STABILITY OF ANY RIGHT-OF-WAY CORNERSTONE OR MARKER. THE CONTRACTOR WILL COORDINATE HIS WORK WITH THE SURVEYS DIVISION REPRESENTATIVE REGARDING THE PLACEMENT OR REPLACEMENT OF RIGHT-OF-WAY CORNERSTONES OR MARKERS IN ANY AREAS BEING AFFECTED BY CONSTRUCTION. ALL PLACEMENT OR REPLACEMENT OF RIGHT-OF-WAY CORNERSTONES OR MARKERS WILL BE PERFORMED BY THE SURVEYS DIVISION. THE CONTRACTOR WILL BE RESPONSIBLE FOR REIMBURSING THE CITY FOR ANY COSTS ASSOCIATED WITH REPLACING ANY RIGHT-OF-WAY CORNERSTONES OR MARKERS THAT ARE DISTURBED WITHOUT GIVING PROPER NOTIFICATION.

INCIDENTALS

1. THE COMPLETE PAPER COPY OF THE PLAN ASSEMBLY AS AWARDED INCLUDING ALL SUBSEQUENT REVISIONS WILL BE THE SOLE OFFICIAL CONSTRUCTION PLANS.

2. CURBS SHALL MATCH THE WIDTH AND MATERIAL OF EXISTING CURBS TO BE TIED INTO.

3. ALL DRAINAGE STRUCTURES TO BE REMOVED SHALL BE BACKFILLED WITH SELECT MATERIAL, MINIMUM CBR 4. ALL REMAINING DISCONNECTED PIPES SHALL BE CAPPED WITH BRICK AND MORTAR. THE PRICE OF BACKFILL AND CAP SHALL BE INCIDENTAL TO THE COST OF REMOVAL OF EACH STRUCTURE.

EROSION AND SEDIMENT CONTROL

1. ROCK FOR CHECK DAMS, INLET PROTECTION, EROSION CONTROL STONE AND RIPRAP SHALL BE IN ACCORDANCE WITH SECTION 203 AND SECTION 414 OF THE APPLICABLE VDOT ROAD AND BRIDGE SPECIFICATIONS.

2. MODIFICATION TO EROSION AND SEDIMENT CONTROL ITEMS IN THE FIELD REQUIRES REVIEW AND APPROVAL BY THE CITY OF RICHMOND EROSION AND SEDIMENT CONTROL COORDINATOR.

TRAFFIC

1. THE CONTRACTOR SHALL PROTECT PEDESTRIAN TRAFFIC AT ALL TIMES FROM CONSTRUCTION AREAS BY MEANS OF A TEMPORARY PEDESTRIAN SAFETY FENCE. THE COST OF TEMPORARY PEDESTRIAN SAFETY FENCE SHALL BE INCLUDED IN THE COST OF OTHER PAYMENT ITEMS, AND THIS SAFETY FENCE SHALL NOT BE MEASURED FOR SEPARATE PAYMENT.

2. ANY TEMPORARY REMOVAL AND RESETTING OF EXISTING TRAFFIC SIGNS ALONG THE PROJECT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND AS DIRECTED BY THE ENGINEER, AND SUCH WORK SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

3. ALL ITEMS REQUIRED FOR MAINTENANCE OF TRAFFIC WILL BE PAID FOR BY A LUMP SUM BID UNIT.

4. RELOCATED SIGNS SHALL BE MOUNTED ON THE SAME TYPE SIGN POST, FOUNDATION, AND HARDWARE AS EXISTING SIGN.

90% PLANS

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No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

GENERAL NOTES

GRTC TEMPORARY TRANSFER CENTER

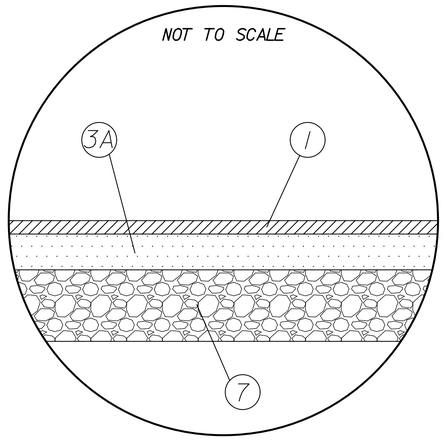
PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 2

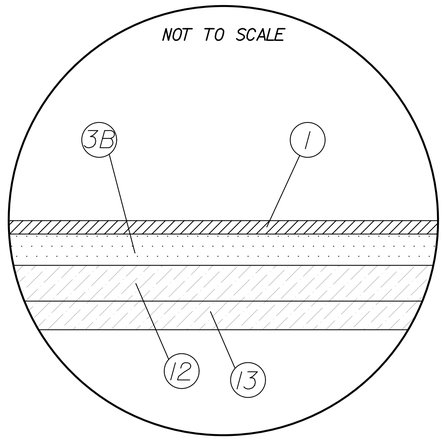
TEMPORARY TRANSFER CENTER FULL DEPTH

NOT TO SCALE



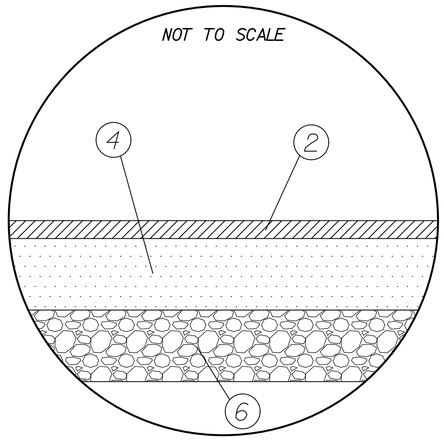
TEMPORARY TRANSFER CENTER BUILD UP

NOT TO SCALE



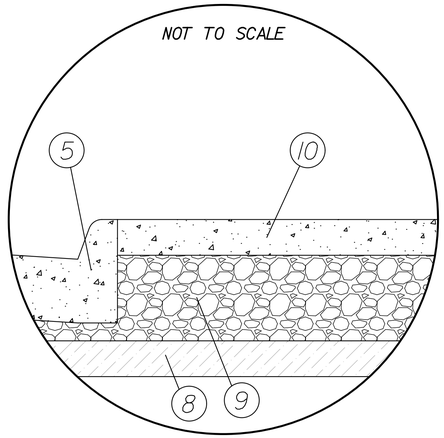
8TH STREET FULL DEPTH PAVEMENT*

NOT TO SCALE



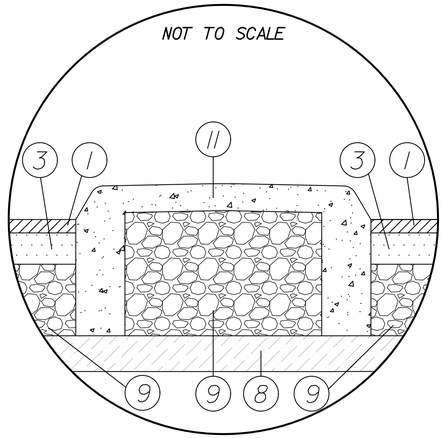
TEMPORARY TRANSFER CENTER SIDEWALK

NOT TO SCALE



TEMPORARY TRANSFER CENTER BUS ISLANDS

NOT TO SCALE



*PAVEMENT SECTION ON 8TH STREET SHALL MATCH THE EXISTING SECTION OR USE THE PROPOSED SECTION, WHICHEVER IS GREATER

(1) 1.5" ASPHALT CONCRETE SURFACE TYPE SM-9.5A @165 LB/SY

(2) 2" ASPHALT CONCRETE SURFACE TYPE SM-9.5D @165 LB/SY

(3A) 3.5" ASPHALT CONCRETE BASE COURSE, TYPE BM-25.0A

(3B) 3.5" OR GREATER VARIABLE DEPTH ASPHALT CONCRETE BASE COURSE, TYPE BM-25.0A

(4) 8" ASPHALT CONCRETE BASE COURSE, TYPE BM-25.0A

(5) STD., CG-6 REQD.

(6) 8" AGGREGATE BASE MAT'L. TYJ VDOT NO. 21A

(7) 8" AGGREGATE BASE MAT'L. TYJ VDOT NO. 21B

(8) EXISTING ASPHALT SURFACE

(9) VARIABLE DEPTH AGGREGATE BASE MAT'L. TYJ VDOT NO. 21B

(10) 4" HYDRAULIC CEMENT CONCRETE SIDEWALK

(11) STD. MS-1A REQ'D., CLASS A3 CONC.

(12) 3" APPROXIMATE EXISTING ASPHALT BASE

(13) 2.5" APPROXIMATE EXISTING AGGREGATE BASE

90% PLANS

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SCHNABEL ENGINEERING Richmond, Virginia GEOTECHNICAL ENGINEER	Kimley-Horn and Associates, Inc. Richmond, Virginia CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

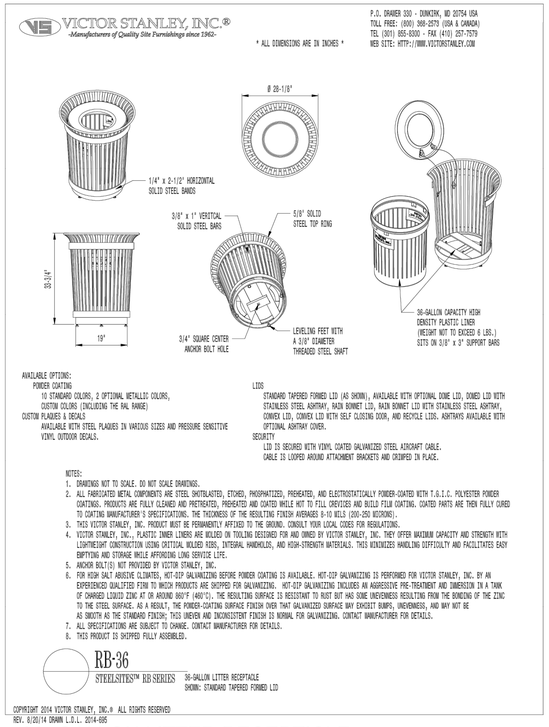
PAVEMENT & SIDEWALK DETAILS

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER

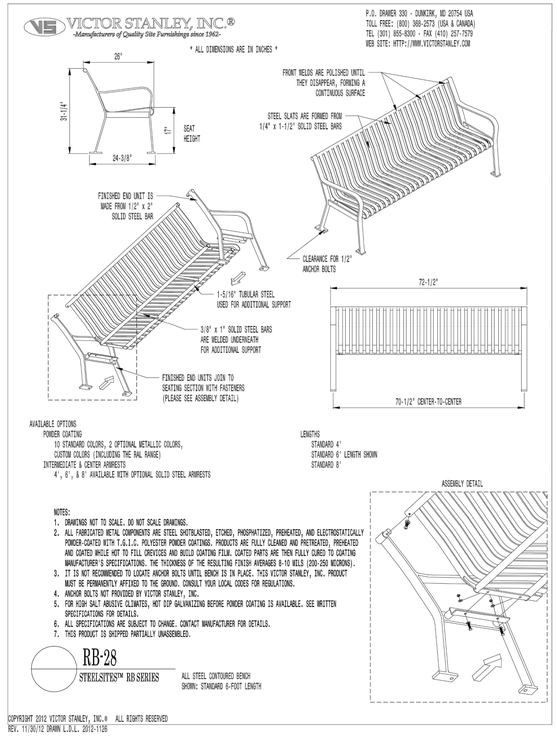
RICHMOND, VA

SHEET NUMBER 2A



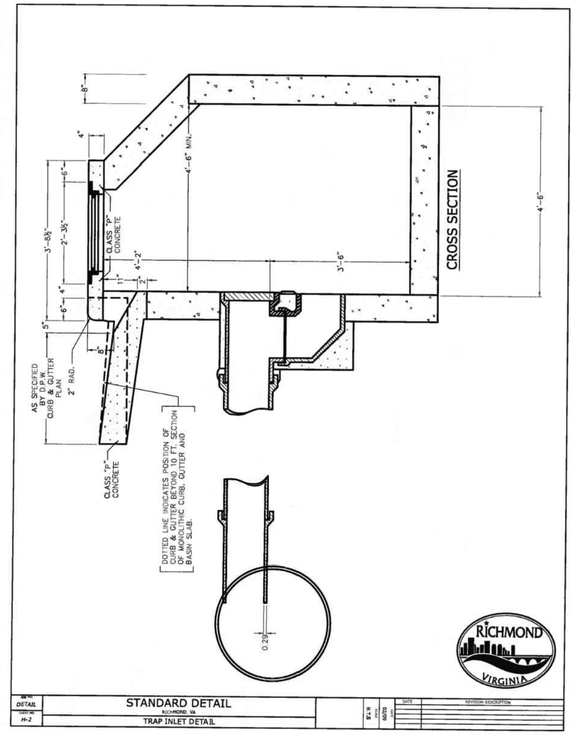
1 36- GALLON LITTER RECEPTICLE

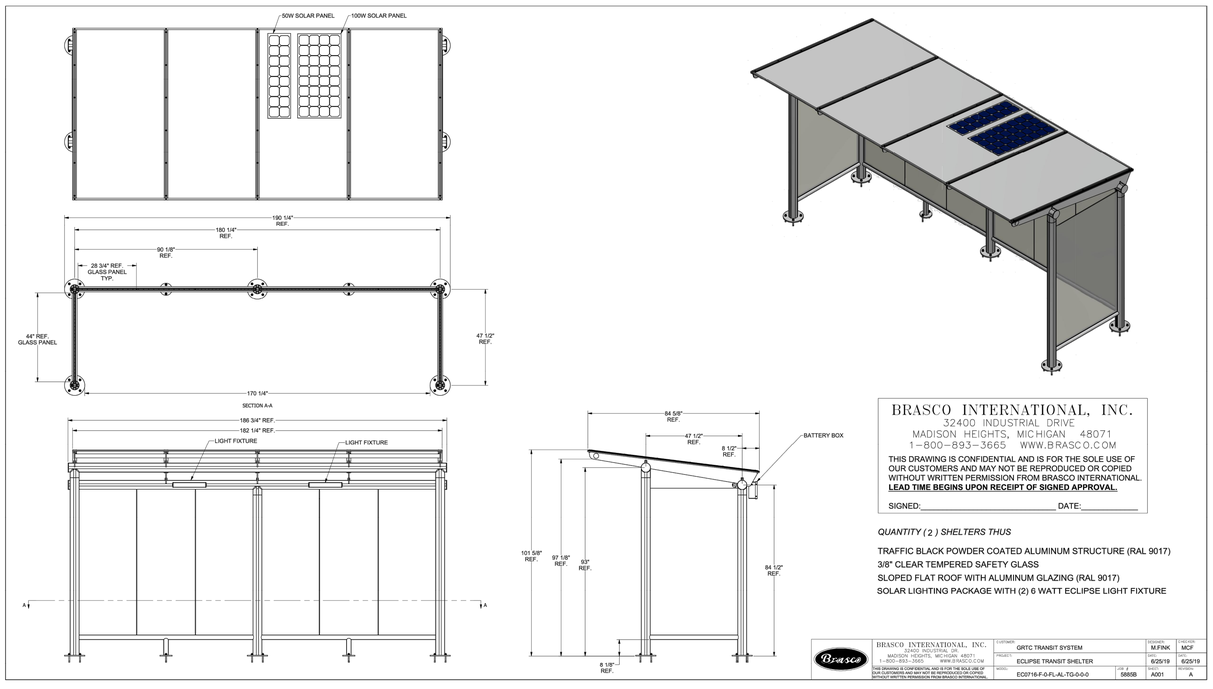
N/A



2 ALL STEEL CONTOURED BENCH

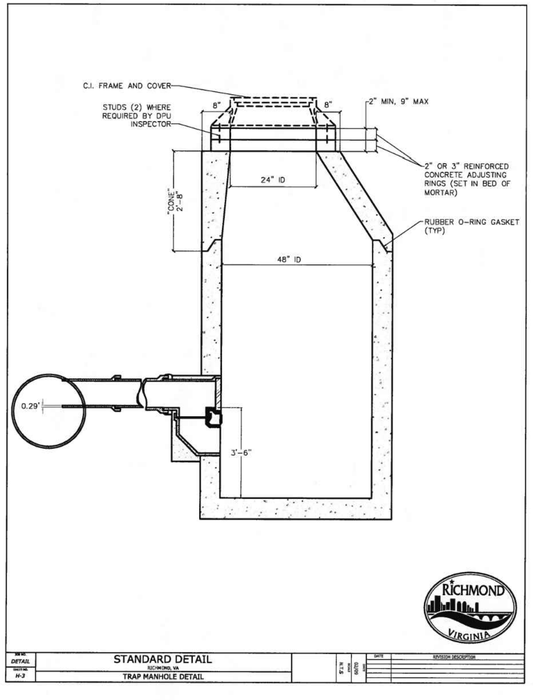
N/A





3 ECLIPSE TRANSIT SHELTER

N/A



NOTE: ITEMS SHOWN ARE EXAMPLE SITE FURNISHINGS. THE CONTRACTOR MAY, AT HIS/HER OPTION, SUBMIT FOR APPROVAL SIMILAR FURNISHINGS THAT MATCH THE DIMENSIONS, FINISHES, AND FUNCTIONAL CHARACTER FROM OTHER SUPPLIERS OR MANUFACTURERS.

90% PLANS

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Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DETAILED BY: RCB
DRAWN BY: RCB
CHECKED BY: JHO

SITE DETAILS

GRTC TEMPORARY TRANSFER CENTER

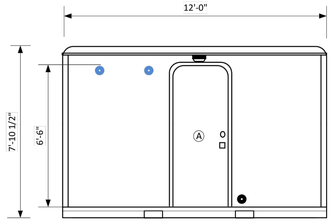
PREPARED FOR GRTC TRANSIT SYSTEM

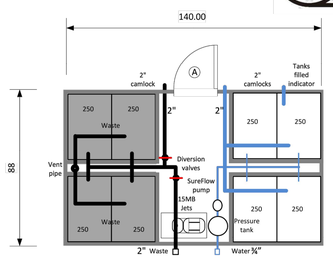
RICHMOND, VA

SHEET NUMBER
2B(1)

7,83821,750

CI 2000GJ
Service Station



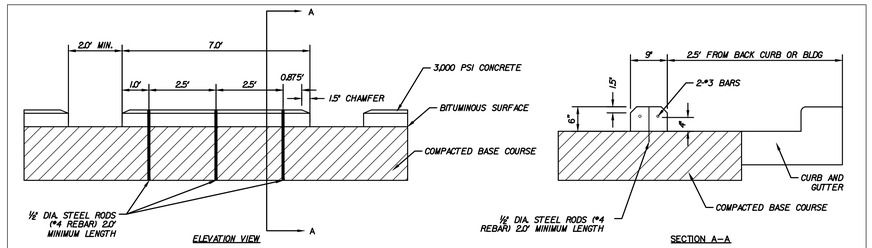


Jets 2" sewer to station
2 turbo vent fans
All metal and composite construction
LED 100,000 hour burn lighting
240 VAC power requirement
ShurFlow freshwater pump
Jets 15MB pump
1000 waste 1000 freshwater
Approximately 3500 flushes

Approved by

_____

These restrooms are designed to be compliant with all current guidelines as we are aware of . Many guidelines have gray areas and points open to interpretation. Different entities may have differed interpretations or local differences. We suggest getting approvals of final plans from the authorities in the local the unit will be placed



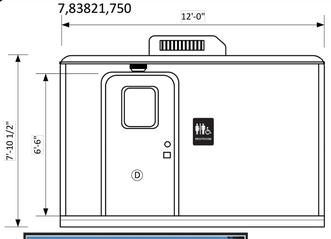
NOTE:
1. ANCHOR RODS TO BE SLEEVED OR GREASED THRU CONCRETE CURBS TO PERMIT RELOCATION OF CURBS.

2. SEE SITE PLAN FOR CURB STOP LOCATIONS. TYPICALLY PLACED 2.5' OFF OF BACK OF CURB

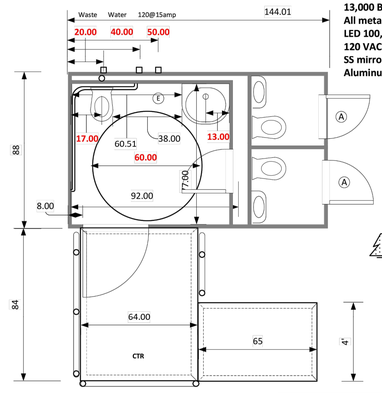
CONCRETE WHEEL STOP

7,83821,750

CI ADA 12 3ST D



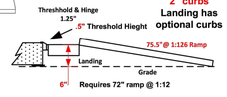
Ⓐ 78"x24" radius LH
Ⓓ 78"x36" radius LH
Ⓔ 48"x24" radius LH



Direct Connect 3" sewer
Container Shippable
1 ADA compliant restroom 2 Standard
Commercial toilet & Large ADA wall hung sink
Obscure skylight window in radius door
Door closer & occupancy indicators
13,000 BTU A/C 5500 Heat
All metal and composite construction
LED 100,000 hour burn lighting
120 VAC power requirement
SS mirror, soap, towel & tissue dispensers
Aluminum ADA ramps w/Stainless steel railings

For 1:24 slope specify 2 ramps

Ramps have 2" curbs
Landing has optional curbs



Handrails
Top Height 36" above Platform

Top of Cross Bars 14"below bottom of Top Rail. Railing 1.5" OD Diameter and slides into 4" piece of 1.5" ID pipe welded to landing.

These restrooms are designed to be compliant with all current guidelines as we are aware of . Many guidelines have gray areas and points open to interpretation. Different entities may have differed interpretations or local differences. We suggest getting approvals of final plans from the authorities in the local the unit will be placed

Approved by

_____

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-672-1820
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

SITE DETAILS

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

SHEET NUMBER
2B(2)

EROSION AND SEDIMENT CONTROL NARRATIVE

SITE LOCATION: This project is located in the downtown area of the City of Richmond, adjacent to the John Marshall Court House building. The site boundaries are the interior limits from the back of existing sidewalk along 8th Street, 9th Street, E. Clay Street, and E. Leigh Street.

PROJECT DESCRIPTION:
Project construction will consist of the repurposing of the existing parking lot to serve as a transfer hub for GRTC's transit fleet operating in the downtown area. Project improvements generally consist of pavement resurfacing, ADA curb ramps, saw-tooth median islands, sidewalk, storm sewer, and signing and marking.

EXISTING SITE CONDITIONS: The site contains an asphalt-paved Urban parking lot with adjacent on-street parking and sidewalk facilities. Site topography ranges from flat to moderate slopes.

ADJACENT AREAS: This site is adjacent to City and Federal government buildings, In addition to a parking garage servicing the aforementioned buildings' employee parking as well as public parking. The site has two existing connections to public roadways at the 8th Street and E. Clay Street entrance connections.

OFF-SITE AREAS: No off-site area will be disturbed for the proposed improvements entailed within the construction plans.

SOILS: The project corridor consists of silts, sandy silt and silt sand soils (Hydrologic Soil Group C)

EROSION AND SEDIMENT CONTROL MEASURES: Erosion and Sediment Control plans have been included and depict erosion control construction sequencing for the pre-development and post-development condition with the necessary inlet protection as seen on sheet 3B.

STORMWATER RUNOFF CONSIDERATIONS: This project complies with part IIB of the VSMP regulations. It meets Channel Protection and Flood Protection criteria at all four outfalls via A-Site Energy Balance.

DISCUSS WITH JON - WHAT IS OUR PLAN HERE; WHAT SHOULD BE SAID?

SEQUENCE/MAINTENANCE:

a.) Contractor shall provide 48 hours notice to the project manager prior to the start of construction.

b.) The Certified Responsible Land Disturber must be at the pre-construction meeting.

c.) The City of Richmond Erosion and Sediment Control Inspector must be notified of the offsite borrow or spoil location at the on-site pre-construction meeting.

d.) All erosion control measures shall be installed as the first step in the clearing process.

e.) No erosion control measure shall be removed without approval from the City of Richmond Erosion and Sediment Control Inspector.

f.) All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities until stabilization is achieved.

g.) The Contractor shall inspect all erosion control measures periodically and after each runoff producing rainfall event. Any necessary repairs or cleanup to maintain the effectiveness of the erosion control device shall be made immediately.

h.) The Contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the City of Richmond Erosion and Sediment Control Inspector.

1992

TABLE 6-1

GENERAL EROSION AND SEDIMENT CONTROL NOTES

ES-1: Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook and Virginia Regulations 4VAC50-30 Erosion and Sediment Control Regulations.

ES-2: The plan approving authority must be notified one week prior to the pre-construction conference, one week prior to the commencement of land disturbing activity, and one week prior to the final inspection.

ES-3: All erosion and sediment control measures are to be placed prior to or as the first step in clearing.

ES-4: A copy of the approved erosion and sediment control plan shall be maintained on the site at all times.

ES-5: Prior to commencing land disturbing activities in areas other than indicated on these plans (including, but not limited to, off-site borrow or waste areas), the contractor shall submit a supplementary erosion control plan to the owner for review and approval by the plan approving authority.

ES-6: The contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the plan approving authority.

ES-7: All disturbed areas are to drain to approved sediment control measures at all times during land disturbing activities and during site development until final stabilization is achieved.

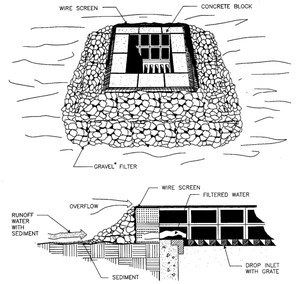
ES-8: During dewatering operations, water will be pumped into an approved filtering device.

ES-9: The contractor shall inspect all erosion control measures periodically and after each runoff-producing rainfall event. Any necessary repairs or cleanup to maintain the effectiveness of the erosion control devices shall be made immediately.

VI - 15

1992 3.07

BLOCK AND GRAVEL DROP INLET SEDIMENT FILTER



SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY FLOWS ARE EXPECTED AND WHERE AN OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE.

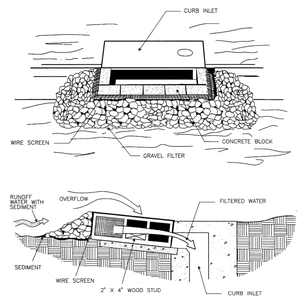
* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

Source: Va. DSWC Plate 3.07-3

III - 38

1992 3.07

BLOCK & GRAVEL CURB INLET SEDIMENT FILTER



SPECIAL APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE AT CURB INLETS WHERE AN OVERFLOW CAPABILITY IS NECESSARY TO PREVENT EXCESSIVE PONDING IN FRONT OF THE STRUCTURE.

* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE

Source: Va. DSWC Plate 3.07-8

III - 45

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

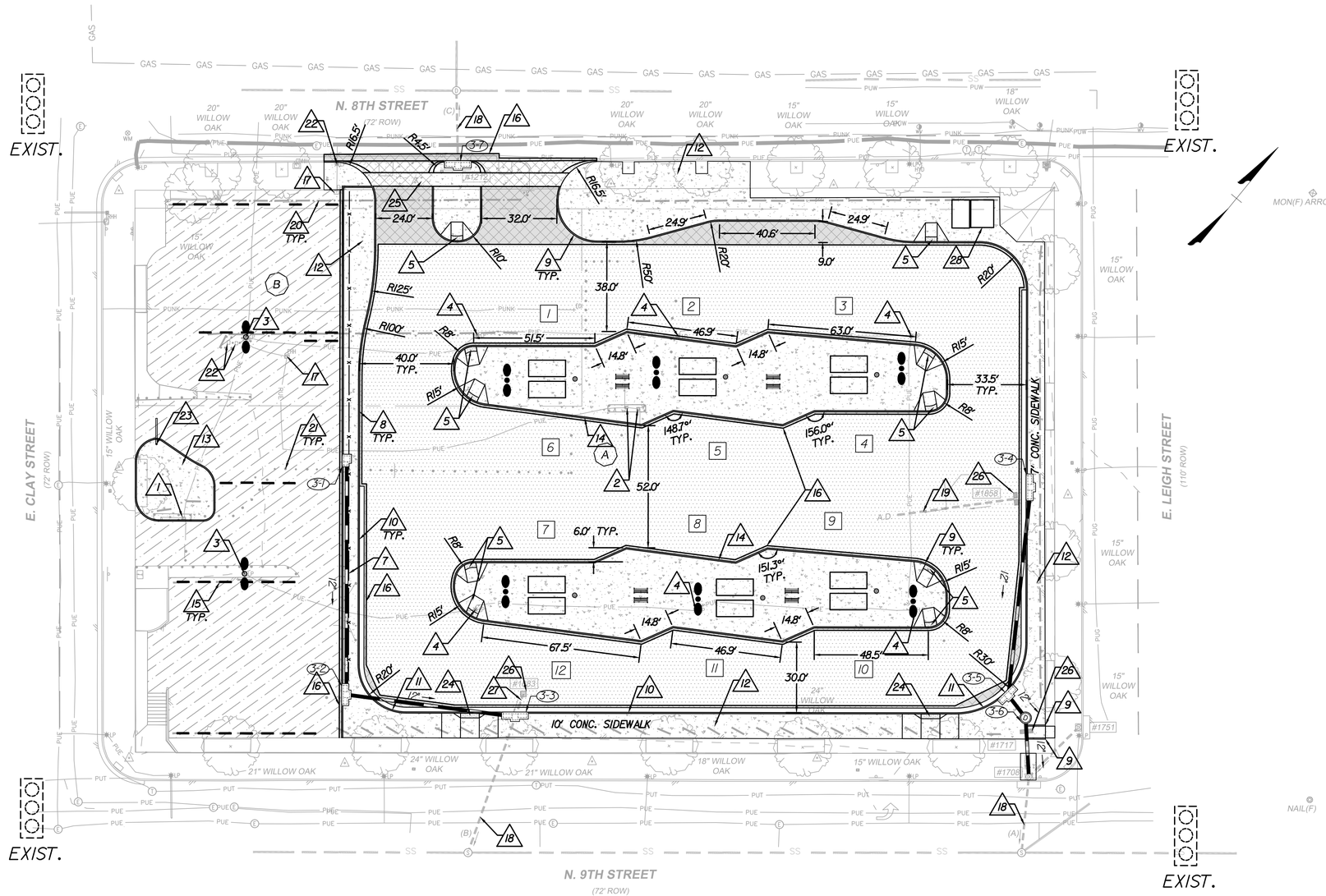
EROSION & SEDIMENT CONTROL NARRATIVE & DETAILS

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER

RICHMOND, VA

SHEET NUMBER
2C



A

CITY OF RICHMOND DEPT OF PUBLIC WORKS
PARCEL ID: N0000009002
800 E CLAY ST, RICHMOND VA
DRAWING #0-22259

B

CITY OF RICHMOND DEPT OF PUBLIC WORKS
PARCEL ID: N0000009001
808 E CLAY ST, RICHMOND VA
PER GIS AND TAX CARD

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

SURVEY CONTROL DATA	1A
EROSION & SEDIMENT CONTROL PLAN	3B
PAVEMENT PATCHING PLAN	3A
ENTRANCE PROFILES	3C(1),3C(2)
GRADING PLAN	4
GRADING DETAILS	4A
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
ELECTRICAL PLAN	6(5)
SIGNING AND MARKING PLAN	7(3)

LEGEND

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED PAVEMENT BUILD UP
- PROPOSED CONCRETE
- MILL AND OVERLAY/BUILD UP
- DEMOLITION OF PAVEMENT
- # BUS BAY NUMBER
- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINES
- PROPOSED BUS SHELTER
- PROPOSED BENCH
- PROPOSED TRASH CAN
- PROPOSED LIGHT POLE
- EXISTING LIGHT POLE

1. EXIST. GATE ENTRY TO REMAIN
2. EXIST. GATE ENTRY TO BE RELOCATED
3. EXIST. LIGHT POLE TO REMAIN
4. EXIST. LIGHT POLE TO BE REMOVED
5. STD. CG-12, TYPE A REQ'D.
6. STD. CG-12, TYPE B REQ'D.
7. BLACK VINYL-COATED CHAIN LINK FENCE 6' HT.
8. STD. CG-2 REQ'D.
9. STD. RADIAL CG-2 REQ'D.
10. STD. CG-6 REQ'D.
11. STD. RADIAL CG-6 REQ'D.
12. 4' HYD. CEMENT SDWK. REQ'D.
13. STD. MS-1
14. STD. MS-1A
15. NS WHEEL STOP (SEE SHEET 2B(2) FOR DETAIL)
16. FULL DEPTH SAWCUT
17. ADJUST EXIST. UTILITY TO GRADE
18. EXIST. PIPE TO BE CLEANED OUT
19. EXIST. PIPE TO BE ABANDONED
20. EXIST. WHEEL STOP TO BE REMOVED
21. REMOVE EXIST BOLLARD
22. DO NOT DISTURB
23. PROP. LOCATION OF RELOCATED GATE ARM
24. STD. CG-12, TYPE C REQ'D.
25. MOD. CG-13 REQ'D. (SEE SHEET 3C(1) FOR PROFILE)
26. EXIST. DRAINAGE STRUCTURE TO BE REMOVED
27. EXIST. DRAINAGE PIPE TO BE REMOVED
28. OPERATOR RESTROOMS AND UTILITY SHED (SEE SHEET 2B(2) FOR DETAIL)

UTILITY OWNERS

WATER
CITY OF RICHMOND
JONATHAN COSBY
PHONE: 804-646-7849

SEWER
CITY OF RICHMOND
SUSAN HAMILTON
PHONE: 804-646-1392

ELECTRIC
Dominion Virginia Power
RICK MCDONALD
PHONE (WORK): 804-755-5623
PHONE (MOBILE): 804-921-2646

GAS
CITY OF RICHMOND
AMANDA BICKEL
PHONE: 804-646-8974

VERIZON
MICHAEL ZIEGLER
PHONE (WORK): 804-923-1645
PHONE (MOBILE): 804-513-0687

NOTES:
1. CONTRACTOR SHALL REMOVE ALL EXISTING BOLLARDS WITHIN EXISTING PARKING LOT BY CUTTING AT EXISTING GROUND ELEVATION.

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

SCALE
0 25' 50'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

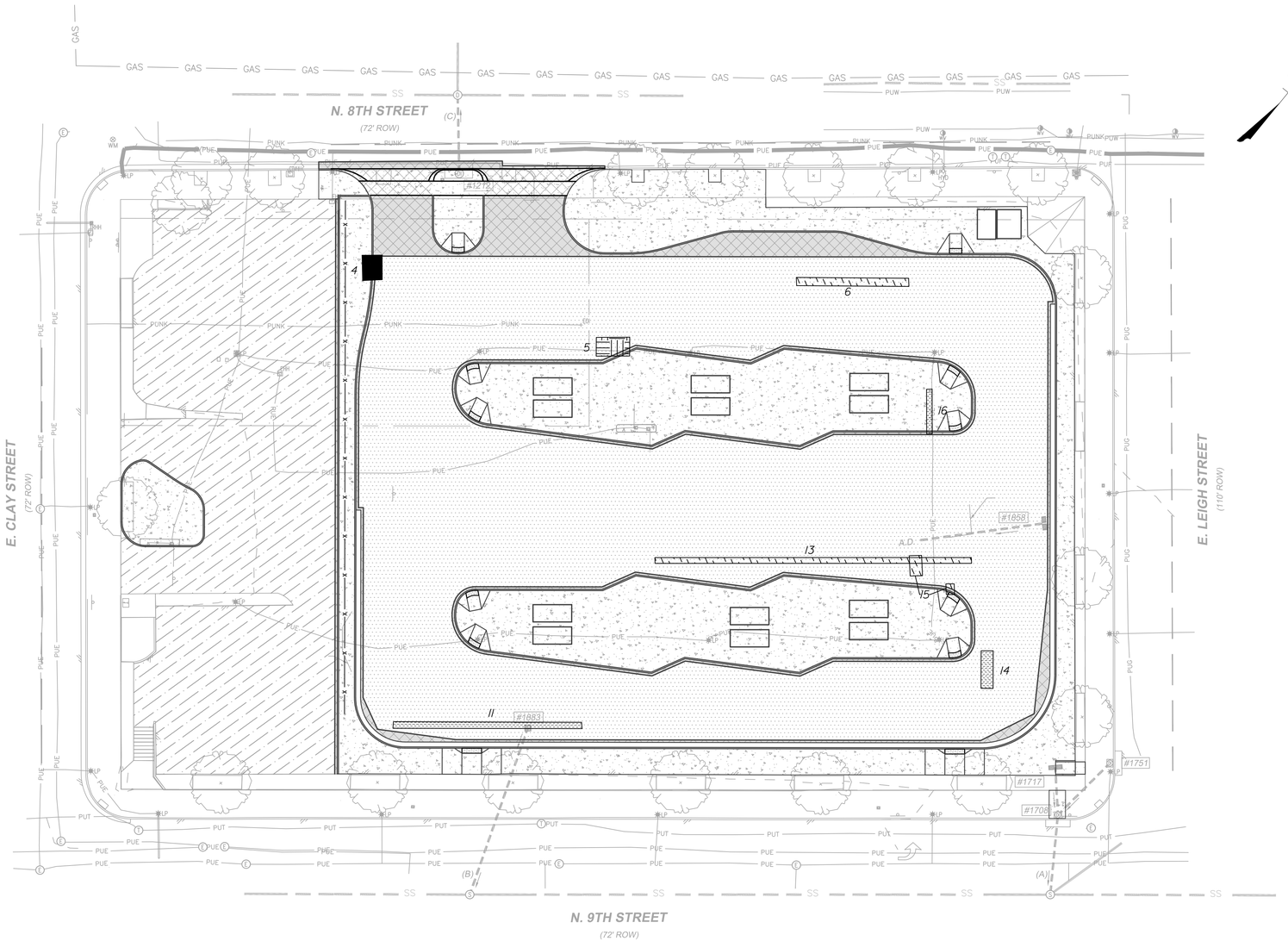
KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

PLAN SHEET

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

PREPARED FOR GRTC TRANSIT SYSTEM

SHEET NUMBER
3



SEE SHEET 2A FOR FULL DEPTH PAVEMENT SECTION

SCHNABEL ENGINEERING Richmond, Virginia GEOTECHNICAL ENGINEER	Kimley-Horn and Associates, Inc. Richmond, Virginia CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-267-2600
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

PAVEMENT PATCHING PLAN

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

SURVEY CONTROL DATA	1A
EROSION & SEDIMENT CONTROL PLAN	3B
ENTRANCE PROFILES	3C(1),3C(2)
GRADING PLAN	4
GRADING DETAILS	4A
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
ELECTRICAL PLAN	6(5)
SIGNING AND MARKING PLAN	7(3)

- PROPOSED FULL DEPTH PAVEMENT
- PROPOSED PAVEMENT BUILD UP
- PROPOSED CONCRETE
- MILL AND OVERLAY/BUILD UP
- DEMOLITION OF PAVEMENT
- SEVERITY LEVEL: 1 - FAIR
- SEVERITY LEVEL: 2
- SEVERITY LEVEL: 3
- SEVERITY LEVEL: 4 - SEVERE

SUMMARY OF DISTRESS LOCATIONS REQUIRING PATCHING

DISTRESS NUMBER	TYPE OF DISTRESS	SEVERITY LEVEL	APPROXIMATE AREA REQUIRING REPLACEMENT (SF)
4	PATCHING/POTHOLE	4 - SEVERE	80
5	PATCHING	1 - FAIR	100
6	LINEAR/POTHOLE	2	150
11	LINEAR/ALLIGATOR/POTHOLE	3	2003
13	LINEAR/POTHOLE	2	0
14	BLOCK/ALLIGATOR	3	75
15	POTHOLE/ALLIGATOR	2	50
16	LINEAR/DEPRESSION	3	40

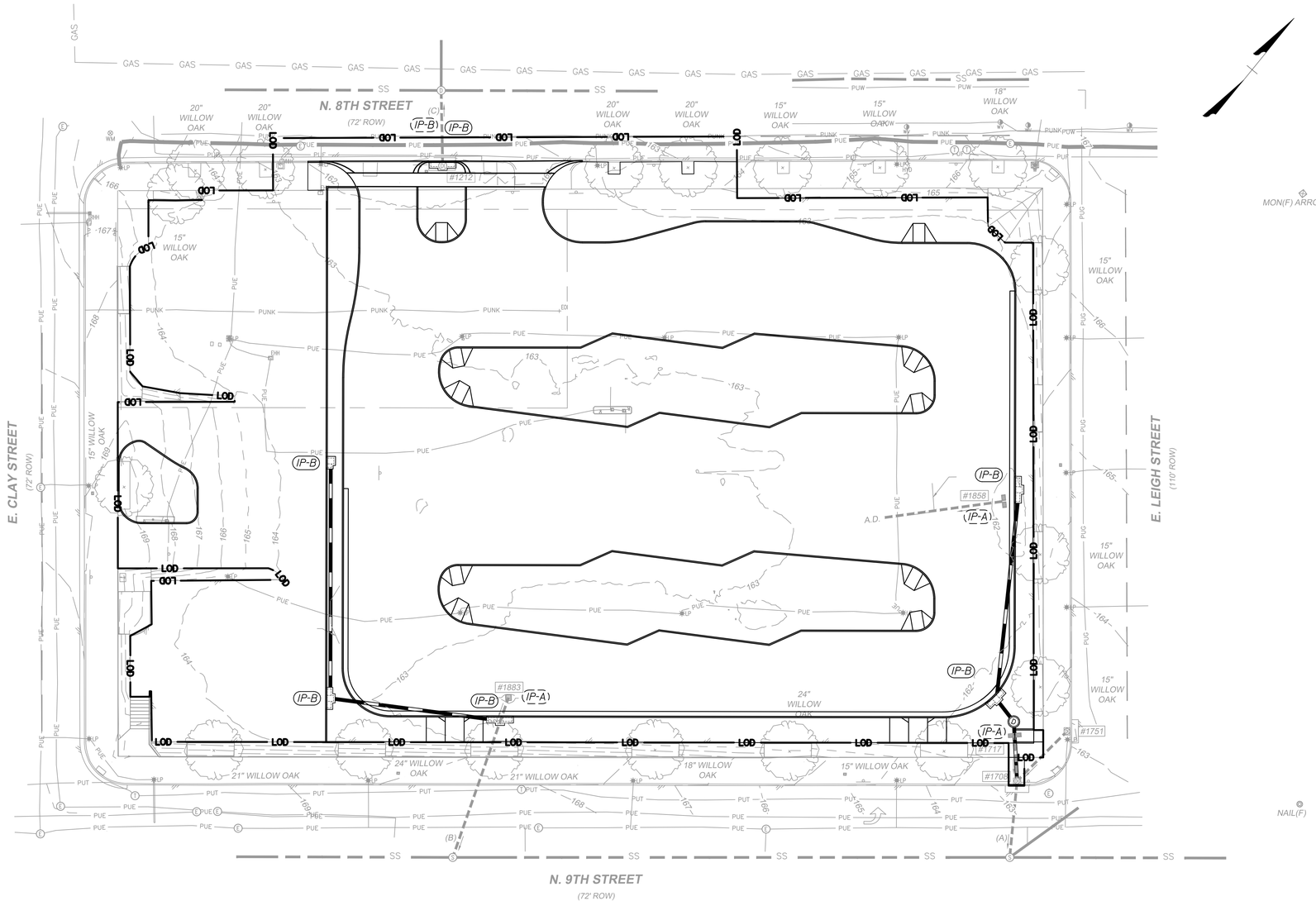
NOTES:
1. AREAS ARE APPROXIMATE AND THE CONTRACTOR SHALL INVESTIGATE EACH AND GET THE CONCURRENCE OF THE ENGINEER AND INSPECTOR PRIOR TO PAVEMENT REPAIRS.

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

SCALE
0 25' 50'

SHEET NUMBER
3A



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)

SURVEY CONTROL DATA	1A
PLAN SHEET	3
PAVEMENT PATCHING PLAN	3A
ENTRANCE PROFILES	3C(1),3C(2)
GRADING PLAN	4
GRADING DETAILS	4A
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
ELECTRICAL PLAN	6(5)
SIGNING AND MARKING PLAN	7(3)

EROSION AND SEDIMENT CONTROL LEGEND:

- (IP-A) Denotes Inlet Protection, Type A; St'd EC-6
- (IP-B) Denotes Inlet Protection, Type B; St'd EC-6
- LOD Denotes Limits of Disturbance

NOTES:

1. TOTAL DISTURBED AREA: 0.14 ACRES (EXCLUDES EXISTING PAVEMENT TO REMAIN, BEING BUILT UP, AND/OR BUILT UPON.
2. DASHED INLET PROTECTION CALLOUTS ARE TO INDICATE E&S MEASURES TO BE INSTALLED AT EXISTING DRAINAGE STRUCTURE LOCATIONS.
3. SOLID INLET PROTECTION CALLOUTS ARE TO INDICATE E&S MEASURES TO BE INSTALLED AT THE PROPOSED DRAINAGE STRUCTURE LOCATIONS.

90% PLANS

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SCALE 0 25' 50'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000 FAX: 804-672-6020
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

EROSION & SEDIMENT CONTROL PLAN

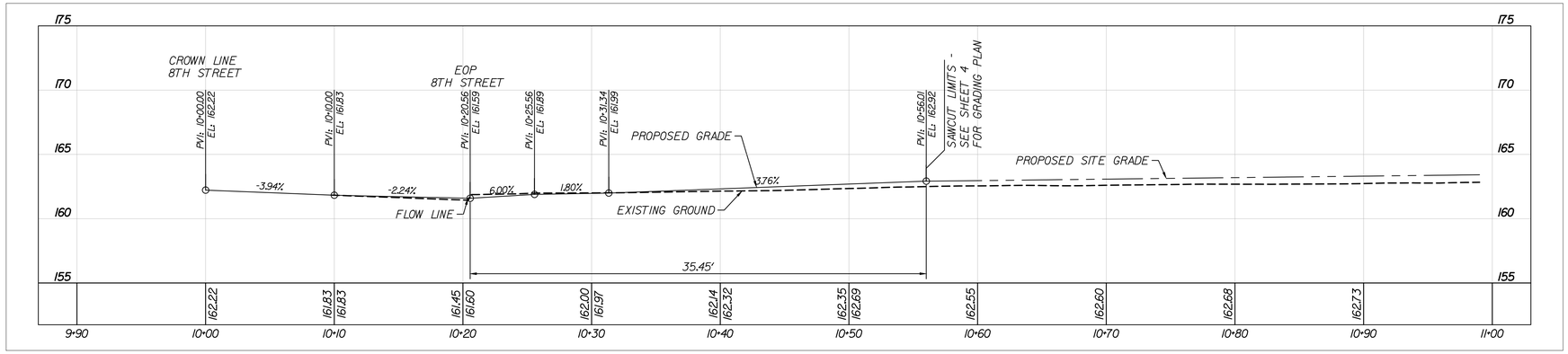
PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER

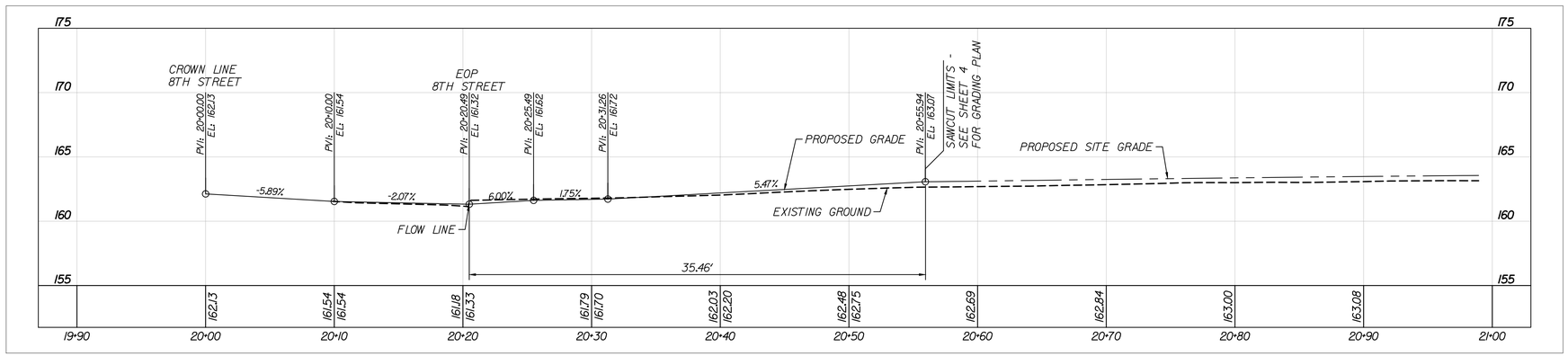
RICHMOND, VA

SHEET NUMBER 3B

TRANSFER CENTER ENTRANCE AISLE



TRANSFER CENTER EXIT AISLE



90% PLANS

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SCALE
0 5' 10'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
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CHECKED BY: JHO

ENTRANCE PROFILES

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
3C(1)

TRANSFER CENTER ENTRANCE ALIGNMENTS

Alignment: TRANSFER CENTER ENTRANCE
Description:

Tangent Data

Description	Station	Northing	Easting
PC:	10+00.00	37231200.854	11792352.349
PT:	10+99.01	37231142.015	11792431.982

Tangent Data

Parameter	Value	Parameter	Value
Length:	99.01'	Course:	S 53° 32' 23" E

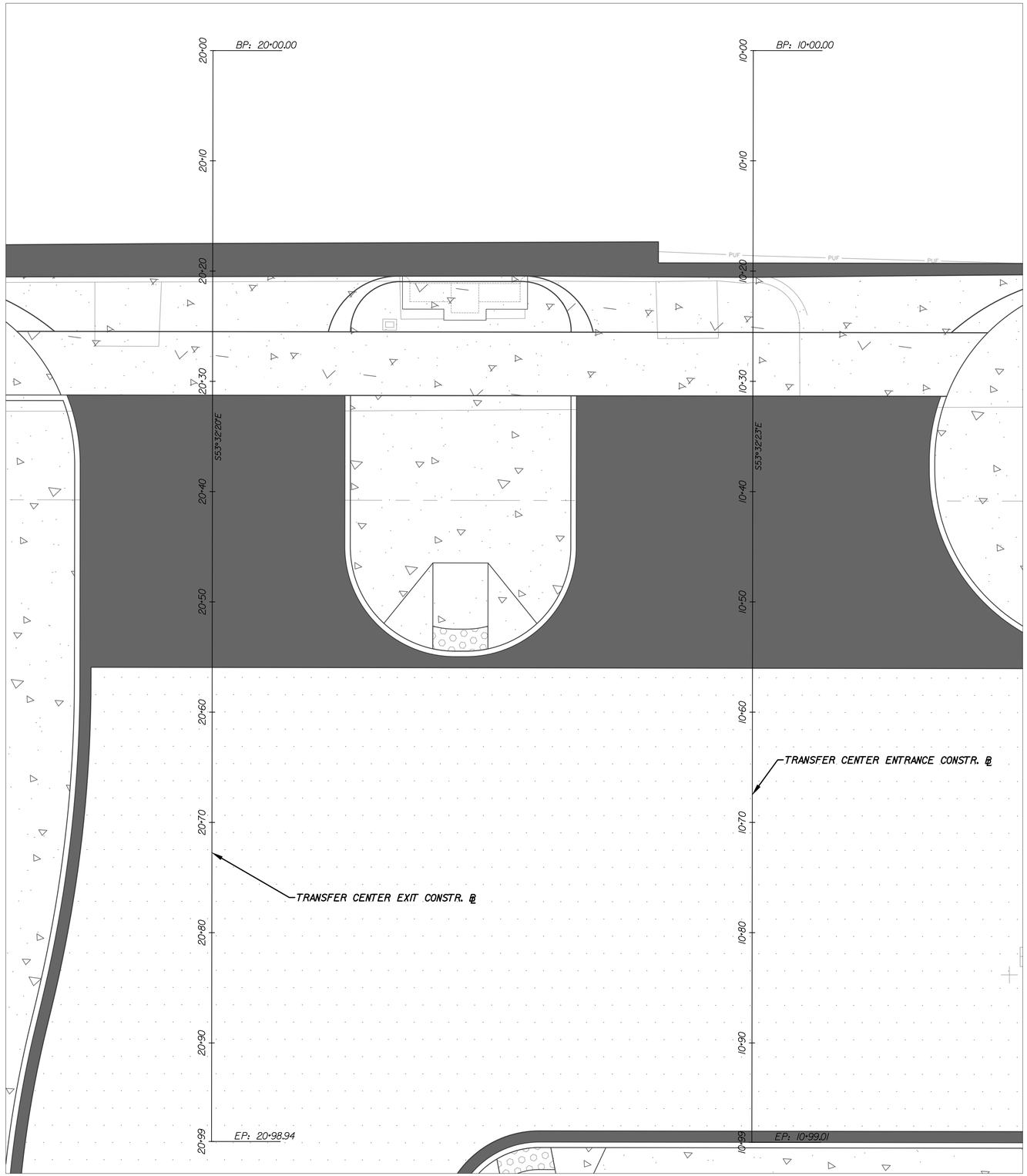
Alignment: TRANSFER CENTER EXIT
Description:

Tangent Data

Description	Station	Northing	Easting
PC:	20+00.00	37231161.407	11792323.283
PT:	20+98.94	37231102.610	11792402.854

Tangent Data

Parameter	Value	Parameter	Value
Length:	98.94'	Course:	S 53° 32' 20" E



90% PLANS

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SCALE 0 5' 10'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804 200 7300
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

ENTRANCE PROFILES

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 3C(2)

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No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-5660
WWW.KIMLEY-HORN.COM

KHA PROJECT
113206010
DATE
08/13/2021

DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

GRADING PLAN

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
4

THIS SHEET INTENTIONALLY LEFT BLANK

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

GRADING DETAILS

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
4A

THIS SHEET INTENTIONALLY LEFT BLANK

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

GRADING DETAILS

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

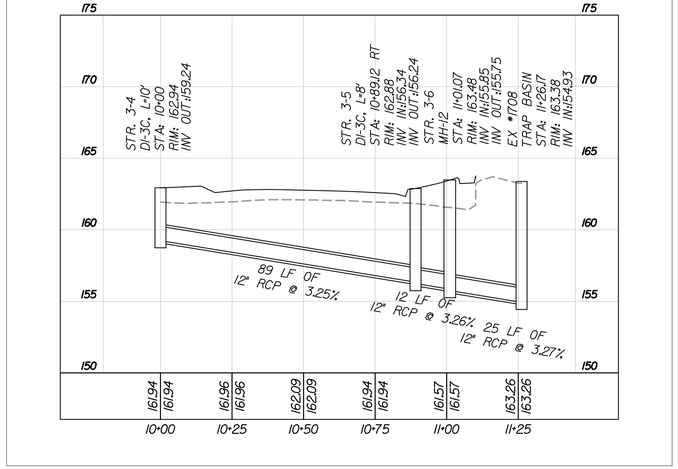
SHEET NUMBER
4B

SHEET 3

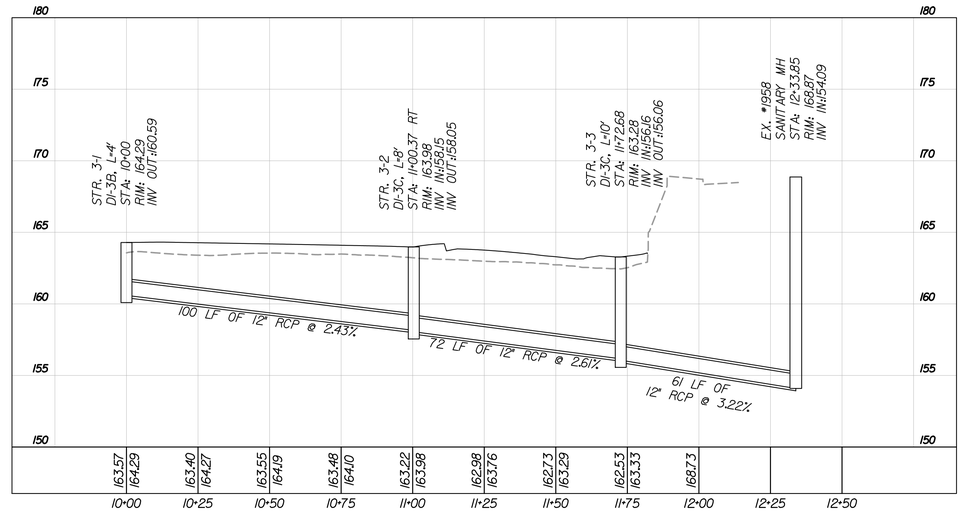
3-1	1 STD. DI-3B REQ. L=4' H=3.7', INV.= 160.59'
3-1 TO 3-2	100' - 12" CONC. PIPE CLASS III REQ. (COVER 4.8') SILT TIGHT JOINT TYPE INV(IN).= 160.59', INV(OUT).= 158.15'
3-2	1 STD. DI-3C REQ. L=8' H=5.9', INV.= 158.05' STD. IS-1 REQ.
3-2 TO 3-3	72' - 12" CONC. PIPE CLASS III REQ. (COVER 6.6') SILT TIGHT JOINT TYPE INV(IN).= 158.05', INV(OUT).= 156.16'
3-3	1 STD. T-DI-3C REQ. L=10' H=7.3', INV.= 156.06' TRAP INLET - BOTTOM ELEV.= 152.56' SEE DETAIL ON SHEET 2B(1) CONNECT TO EXIST. 12" CONC. PIPE STD. IS-1 REQ.
3-4	1 STD. DI-3C REQ. L=10' H=3.7', INV.= 159.24' STD. IS-1 REQ.
3-4 TO 3-5	89' - 12" CONC. PIPE CLASS III REQ. (COVER 5.2') SILT TIGHT JOINT TYPE INV(IN).= 159.24', INV(OUT).= 156.34'
3-5	1 STD. DI-3C REQ. L=8' H=6.6', INV.= 156.24' STD. IS-1 REQ.
3-5 TO 3-6	12' - 12" CONC. PIPE CLASS III REQ. (COVER 7.2') SILT TIGHT JOINT TYPE INV(IN).= 156.24', INV(OUT).= 155.85'
3-6	10.6 LF TRAP MANHOLE SEE DETAIL ON SHEET 2B(1) 1 STD. MH-1 FRAME & COVER REQ. INV.= 155.75', RIM= 163.48' BOTTOM OF STR. ELEV.= 152.25' STD. IS-1 REQ.
3-6 TO EX. 1707	25' = 12" CONC. PIPE CLASS III REQ. (COVER 8.5') SILT TIGHT JOINT TYPE INV(IN).= 155.75', INV(OUT).=154.93'
EX. 1707	MODIFY TO ACCEPT PIPE RUN 3-6 TO EX. 1707
3-7	1 STD. T-DI-3C L=10'

NOTES:
1. ALL STRUCTURES GREATER THAN 4 FEET IN HEIGHT SHALL HAVE STD. ST-1.
2. PIPES SHOWN ON THE PROFILE ARE REPRESENTED BY THEIR INNER DIAMETER DIMENSIONS, AND INCLUDE WALL THICKNESS.

STR. 3-4 TO STR. EX. #1708



STR. 3-1 TO STR. EX. #1958



VERT: 1" = 5'
HORIZ: 1" = 25'

PROPOSED GRADE
EXISTING GROUND

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn & Associates, Inc.
Richmond, Virginia
HYDRAULIC ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

DRAINAGE DESCRIPTIONS & PROFILES

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

SHEET NUMBER
5

GENERAL NOTES - TRANSFER CENTER LIGHTING

1. PHOTOMETRIC PLANS ARE FOR INFORMATIONAL PURPOSES ONLY.
2. PROPOSED MOUNTING HEIGHTS ARE BASED ON NEAREST PEDESTRIAN FACILITY. CONTRACTOR TO SELECT APPROPRIATE POLE BASED ON LOCATION.
3. CONTRACTOR TO COORDINATE WITH DOMINION ENERGY FOR INSTALLATION OF ALL PROPOSED ELECTRICAL SERVICES.
4. CERTAIN UTILITIES WITHIN THE VICINITY OF THIS CONTRACT ARE SHOWN ON THE PLANS. THE UTILITIES SHOWN ARE NOT GUARANTEED TO BE COMPLETE OR ACCURATELY LOCATED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES BEFORE PROCEEDING WITH THE INSTALLATION OF THE LIGHTING SYSTEM.
5. THE CONTRACTOR SHALL BE RESPONSIBLE TO RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL STATE AT COMPLETION OF ALL WORK. AND ALL COSTS FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR OTHER BID ITEMS. NO SEPARATE PAYMENT WILL BE MADE.
6. THE CONTRACTOR SHALL FIELD VERIFY EXISTING POWER SERVICE LOCATIONS AND CIRCUITS PRIOR TO DEMOLITION. IF THERE WILL BE ANY IMPACT TO OTHER POWERED COMPONENTS, THE CONTRACTOR MUST NOTIFY THE PROJECT ENGINEER IMMEDIATELY.
7. JUNCTION BOXES AND LIGHTING HANDHOLES SHALL BE INSTALLED FACING PEDESTRIAN FACILITIES FOR EASE OF MAINTENANCE.
8. KIM OURO FIXTURES SHALL BE INSTALLED AND ORIENTED SUCH THAT THE YOLK BARS ARE INSTALLED PERPENDICULAR TO PEDESTRIAN FACILITIES.
9. ALL TRENCHED CONDUITS SHALL BE INSTALLED WITH 24-36" OF COVER. SEE SHEET 6(3) FOR TRENCH DETAIL.

CALCULATIONS SUMMARY

Location	Target foot-candles*			Illuminance (fc)				
	Min Average	Min Avg/Min	Max Avg/Min	Average	Maximum	Minimum	Avg/Min	Max/Min
Transfer Center	0.50	N/A	15:1	2.62	4.6	0.7	3.74	6.57

* TARGET ILLUMINATION VALUES ARE BASED ON THE IESNA RP-20-14 STANDARD AND THE CHARACTERISTICS OF THE FACILITY. THE TRANSFER CENTER IS DEFINED AS A PARKING LOT PER RP-20-14.

LUMINAIRE SCHEDULE

Symbol	Luminaire Type***	Qty	Arrangement Luminaire Lumens	Arrangement Watts	Arrangement	Arm Length (Feet)	LLF
	147W*, TYPE III, LED AREA LIGHT FIXTURE MOUNTED AT 35 FT. ON A VDOT STD. LP-2 AND LF-1, TYPE A FOUNDATION	6	22,317	147	BACK TO BACK	2	0.90
	147W*, TYPE III, LED AREA LIGHT FIXTURE MOUNTED AT 35 FT. ON EXISTING POLE	2	22,317	147	BACK TO BACK	2	0.90

NOTE: SYMBOL CAPTIONS PROVIDED APPLY ONLY TO PHOTOMETRIC PLANS. REFER TO LIGHTING LABELS IN LIGHTING PLANS FOR FIXTURE DISTRIBUTION TYPE IF APPLICABLE.

*** OR APPROVED EQUAL

**** INSTALL STEP LIGHTING ORIENTED SUCH THAT LIGHT IS DIRECTED DOWN TOWARD THE WALKING SURFACE AND AWAY FROM PEDESTRIAN EYES.

90% PLANS

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No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3455
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

LIGHTING & ELECTRICAL PLANS - GENERAL NOTES

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 6(1)

ITEM #	ITEM DESCRIPTION	VDOT DESCRIPTION	UNIT	6(5) Total
1	LUMINAIRE 147 WATT LED	NS LIGHTING	EA	16	**16**
2	LIGHTING POLE LP-1 , 30 MNTG HT	NS LIGHTING	EA	6	**6**
3	Light Pole Foundation	CONCRETE FOUNDATION LF-1 TYPE A	EA	6	**6**
4	Electrical Service	ELECT. SERVICE SE-6	EA	1	**1**
5	Communications Cabinet	CONTROL CENTER CCW-1 TYPE D	EA	1	**1**
6	Communications Cabinet Foundation	CONCRETE FOUND. CF-2	EA	1	**1**
7	Trench Excavation ECI-1	TRENCH EXCAVATION ECI-1	LF	900	**900**
8	Junction Box JB-S1	JUNCTION BOX JB-S1	EA	4	**4**
9	2" PVC Conduit	2" PVC CONDUIT	LF	240	**240**
10	1" PVC Conduit	1" PVC CONDUIT	LF	2250	**2250**
11	CONDUCTOR CABLE (4 AWG/1C)	4 CONDUCTOR CABLE	LF	400	**400**
12	CONDUCTOR CABLE (10 AWG/1C)	10 CONDUCTOR CABLE	LF	1008	**1008**
13	CONDUCTOR CABLE (8 AWG/1C)	8 CONDUCTOR CABLE	LF	540	**540**

90% PLANS

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SHEET NUMBER 6(2)

GRTC TEMPORARY TRANSFER CENTER

RICHMOND, VA

PREPARED FOR GRTC TRANSIT SYSTEM

LIGHTING & ELETRICAL PLAN - SUMMARY OF QUANTITIES

KHA PROJECT 113206010

DATE 08/13/2021

DESIGNED BY: JDL

DRAWN BY: RCB

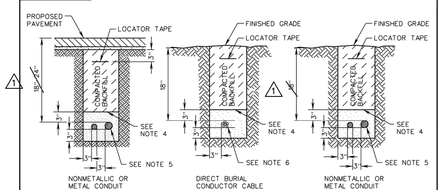
CHECKED BY: JHO

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3882
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

2016 ROAD & BRIDGE STANDARDS

ECI-1

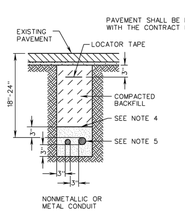


NON - PAVEMENT AND PROPOSED PAVEMENT AREA INSTALLATION

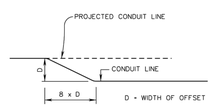
NOTES:

1. CONTRACTOR SHALL INSTALL A 4" MINIMUM TO 6" MAXIMUM WIDE RED PLASTIC LOCATOR TAPE 6" TO 8" BELOW FINISHED GRADE AND DIRECTLY ABOVE BURIED CONDUIT OR CONDUCTOR CABLES.
2. CONDUIT INSTALLED UNDER EXISTING OR PROPOSED ROADWAYS OR SIDEWALK FOR DIRECT BURIED CABLES SHALL EXTEND 24" BEYOND THE PAVED SURFACE AND/OR SIDEWALK.
3. WHERE CONDUIT FOR POWER AND CONDUIT FOR COMMUNICATION ARE TO BE INSTALLED IN CLOSE PROXIMITY TO EACH OTHER, CONDUITS SHALL BE PLACED PARALLEL IN A COMMON TRENCH WITH NO LESS THAN 6" OF SEPARATION BETWEEN CONDUIT SYSTEMS.
4. BACKFILL MATERIAL BELOW THIS LEVEL SHALL BE SANDY FILL (FREE OF ANY STONES, CINDERS, WOOD, ROOTS, DEBRIS, ETC.).
5. ONE OR MORE CONDUITS AS REQUIRED.
6. ONE OR MORE CONDUCTOR CABLES AS REQUIRED.
7. OFFSETTING OF CONDUIT MAY BE USED FOR TYING INTO EXISTING CONDUIT SYSTEMS OR BYPASSING OBSTRUCTIONS AS DIRECTED BY THE ENGINEER.
8. WHEN OFFSETTING CONDUIT TO BYPASS AN OBSTRUCTION, THE CONDUIT SHALL MAINTAIN A MINIMUM CLEARANCE OF 12" FROM THE CLOSEST POINT OF THE OBSTRUCTION.

ECI-2



EXISTING PAVEMENT AREA INSTALLATION



METHOD OF OFFSETTING CONDUIT

VDOT ROAD AND BRIDGE STANDARDS		A COPY OF THE ORIGINAL SEALED AND SIGNED DRAWING IS ON FILE IN THE CENTRAL OFFICE. ELECTRICAL CONDUIT AND CONDUCTOR CABLE UNDERGROUND INSTALLATION VIRGINIA DEPARTMENT OF TRANSPORTATION	SPECIFICATION REFERENCE
SHEET 1 OF 1	REVISION DATE 02/16		700 302
1318.10			

2016 ROAD & BRIDGE STANDARDS

EXCEPTIONS TO VDOT STANDARDS ECI-1:

⚠1 TRENCH DEPTH SHALL BE 24"-36" FOR ALL TRENCHED LIGHTING CONDUIT.

90% PLANS

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1
6(3)

MODIFIED UNDERGROUND INSTALLATION DETAIL FOR LIGHTING CONDUIT

SCALE: NTS

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3660
WWW.KIMLEY-HORN.COM

No.	REVISIONS	DATE	BY

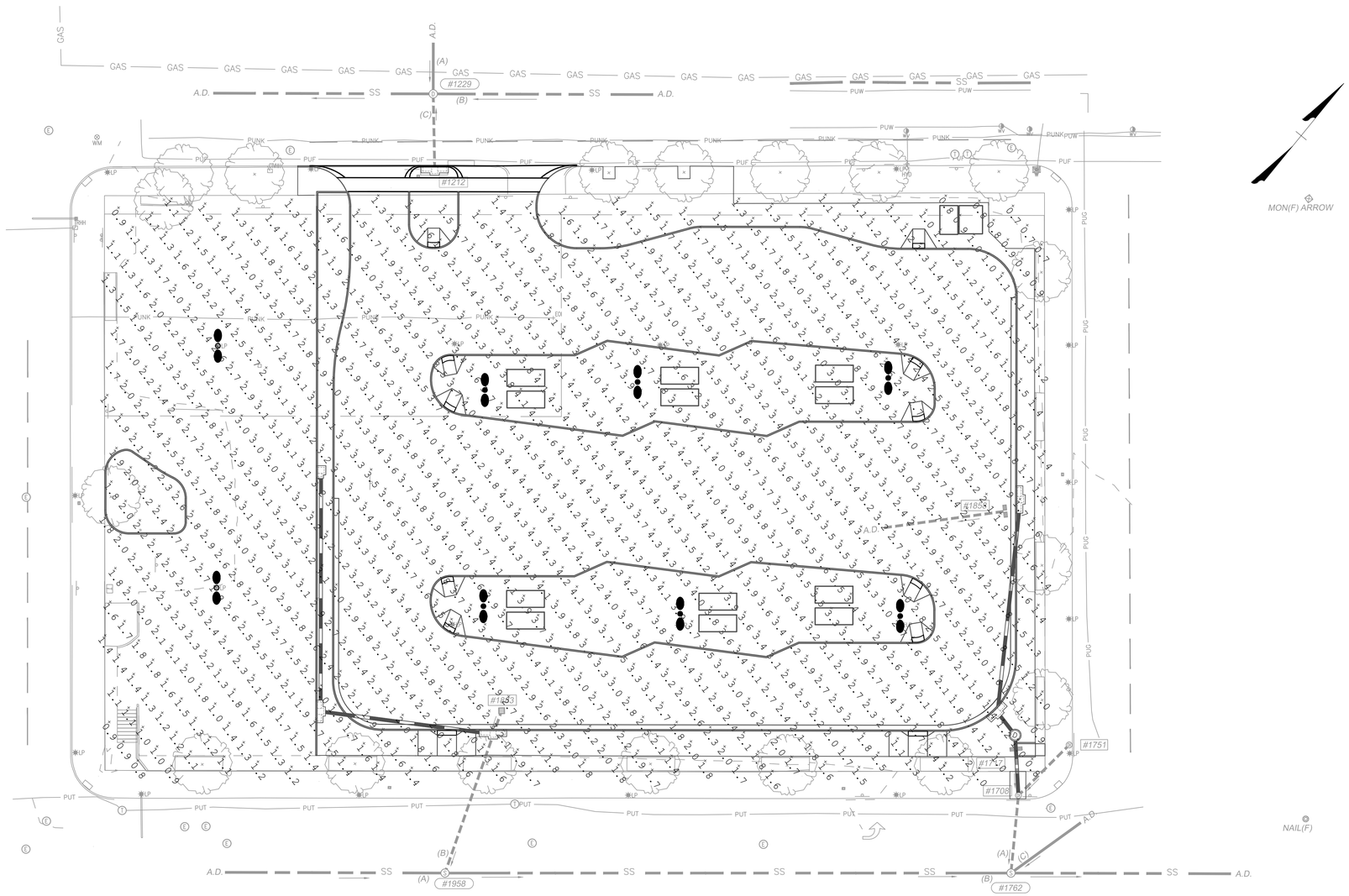
LIGHTING & ELETRICAL PLAN - DETAILS

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
6(3)



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC)	
SURVEY CONTROL DATA	1A
PLAN SHEET	3
EROSION & SEDIMENT CONTROL PLAN	3B
GRADING PLAN	4
DRAINAGE DESCRIPTIONS & PROFILES	5
ELECTRICAL PLAN	6(5)
SIGNING AND MARKING PLAN	7(3)

90% PLANS

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SCALE
0 25' 50'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
ELECTRICAL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-200-2400
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

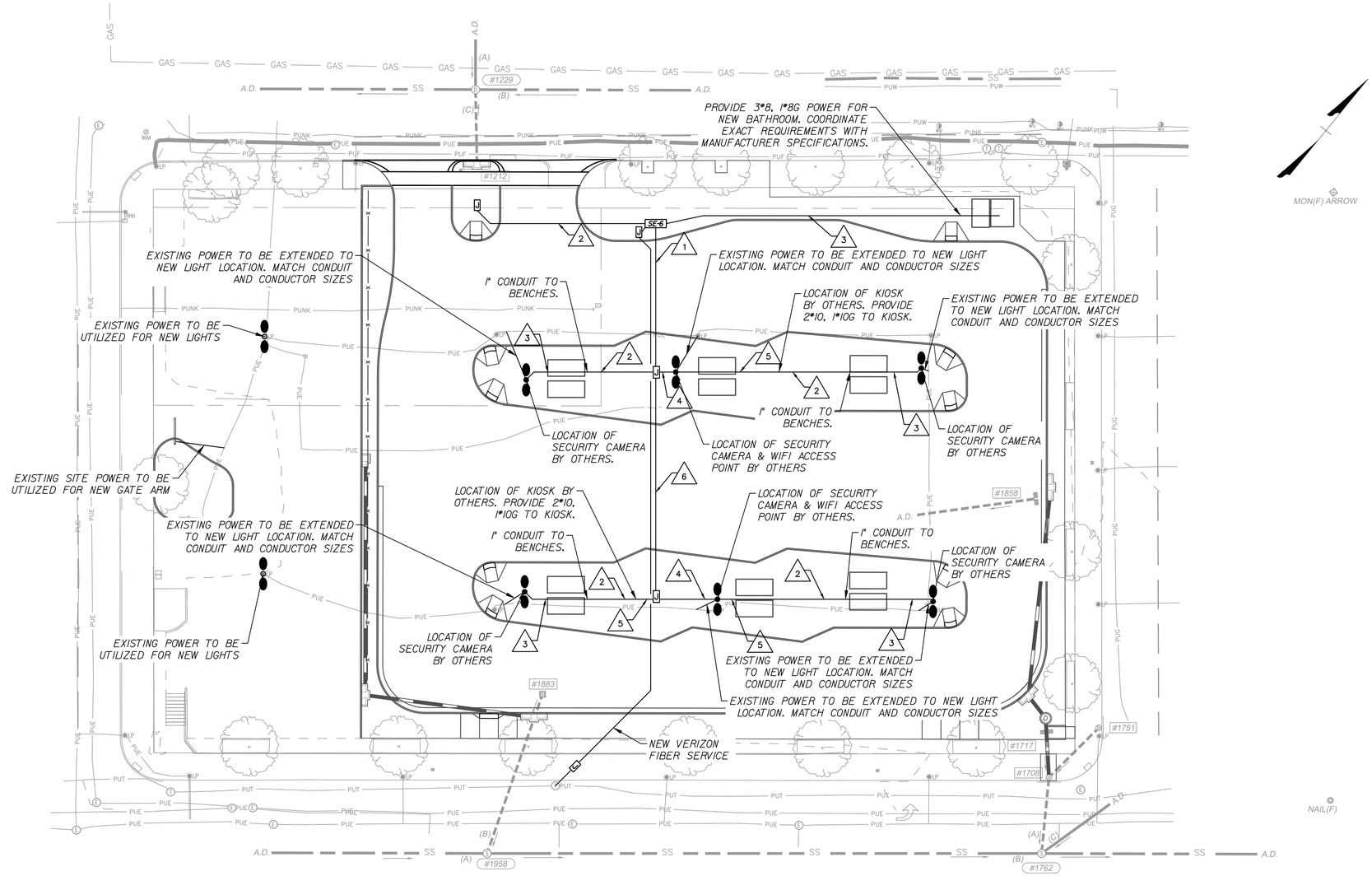
LIGHTING & PHOTOMETRIC PLAN

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER

RICHMOND, VA

SHEET NUMBER
6(4)



REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC)	
SURVEY CONTROL DATA	1A
PLAN SHEET	3
EROSION & SEDIMENT CONTROL PLAN	3B
GRADING PLAN	4
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
SIGNING AND MARKING PLAN	7(3)

CONDUIT AND CONDUCTOR SCHEDULE

CALLOUT NO.	CONDUIT SIZE & AMOUNT	TYPE *
1	(2)2", (8)1"	P
2	(2)1"	P
3	(1)1"	P
4	(4)1"	P
5	(3)1"	P
6	(1)2", (4)1"	P

* CONDUIT TYPE "P" INDICATES PVC SCHEDULE 40 CONDUIT INSTALLED BY TRENCHING

JUNCTION BOX LEGEND

ALL JUNCTION BOXES SHALL CONFORM TO ST'D. JB-S1 UNLESS OTHERWISE NOTED ON THE PLANS.

90% PLANS

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SCALE 0 25' 50'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
ELECTRICAL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-673-3480
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

ELECTRICAL PLAN

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

SHEET NUMBER 6(5)

INDEX OF SHEETS

GENERAL NOTES - SIGNING

1. ALL SIGNS SHALL BE ORIENTATED AS SHOWN ON THE PLANS.
2. SIGN COLOR COMBINATIONS SHALL BE IN ACCORDANCE WITH THE FHWA SHS BOOK AND THE 2011 VIRGINIA SHS BOOK OR AS NOTED IN THE PLANS.
3. ALL POSITIVE CONTRAST GUIDE AND SPECIFIC SERVICE SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-3 OR L-4 UNLESS OTHERWISE NOTED IN THE REMARKS OF THE SIGN SCHEDULE SHEET 8(2). ALL OTHER SIGNS SHALL UTILIZE FABRICATION LETTER TYPE L-1 OR L-2 UNLESS OTHERWISE NOTED IN THE REMARKS.
4. ALL BLACK SHEETING SHALL BE NON-REFLECTIVE.
5. ALL SIGN BACKS SHALL BE FINISHED BY THE FABRICATOR BLACK ON THE REVERSE SIDE VERSUS STANDARD GALVANIZED FINISH.
6. EACH INDIVIDUAL SIGN PANEL SHALL HAVE A FACTORY APPLIED STICKER DEPICTING THE FABRICATION DATE IN MONTH DAY, YEAR FORMAT ON THE BACK OF THE SIGN. STICKER SHALL BE WEATHER RESISTANT. ALL COSTS OF THIS STICKER SHALL BE CONSIDERED INCIDENTAL TO SIGN PANEL WITH NO SEPARATE PAYMENT THERETO.
7. ALL SIGN BACKS SHALL BE LABELED WITH THE SHEETING MANUFACTURER'S NAME OR LOGO, PRODUCT DESIGNATION OR NUMBER, LOT NUMBER, SIGN FABRICATOR'S NAME OR LOGO, MONTH AND YEAR OF FABRICATION, INSTALLATION DATE, AND VDOT ACRONYM OR LOGO.
8. SIGN STRUCTURES SHALL BE INSTALLED PER THE NOTED SIGN ST'D.
9. ALL ST'D. STP-1 STRUCTURES TO BE SINGLE POST UNLESS OTHERWISE NOTED.

GENERAL NOTES - PAVEMENT MARKING

1. ALL STD. PAVEMENT MARKING DETAILS CAN BE FOUND IN THE VDOT ROAD AND BRIDGE STANDARDS.
2. THE PAVEMENT MARKING PLAN SHALL BE INSTALLED BY THE CONTRACTOR AFTER THE FINAL PAVEMENT OVERLAY.
3. ANY CONFLICTING EXISTING MARKINGS SHALL BE REMOVED BY THE CONTRACTOR ACCORDING TO THE VDOT ROAD AND BRIDGE SPECIFICATIONS.

PAVEMENT MARKING LEGEND

- (A) TYPE A, WHITE 4" WIDTH
- (B) TYPE A, WHITE 24" WIDTH
- (C) TYPE B, CLASS I, WHITE 4" WIDTH
- (D) TYPE B, CLASS I, WHITE 8" WIDTH
- (E) TYPE B, CLASS I, WHITE 24" WIDTH
- (F) PVMT SYMB MRKG SGL THRU ARROW TY A, CL I, WHITE
- (G) PVMT SYMB MRKG SGL THRU ARROW TY B, CL I, WHITE
- (H) PVMT MSG MRKG TY B, CL I, WHITE

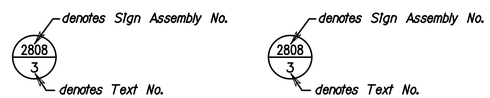
STANDARD SIGN LEGEND

PLAN ITEM	PLAN SYMBOL	
	PROPOSED	EXISTING
Single Post Sign Support	⊸	⊸
SIGN CALL-OUTS		
Existing Sign to Remain or to be Relocated	95	
Existing Sign to be Removed	95	
Proposed Sign Panel	95	

SIGN LABELS

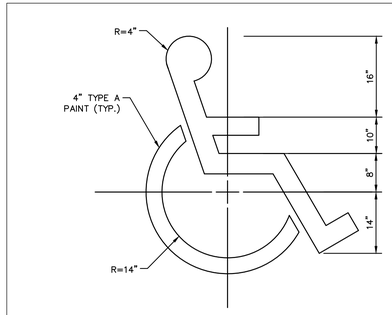
Proposed Sign Assemblies

Relocated Sign Assemblies

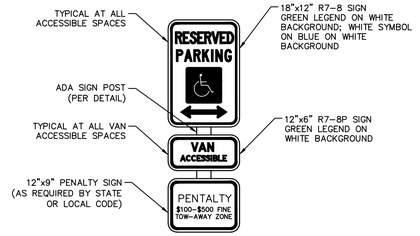


Sign Relocation or Payable Sign Disposal/Salvage

Signs noted on plans to be removed that do not have an accompanying sign label shall not be measured separately for payment. Removal and disposal for such signs shall be incidental to other contract items.



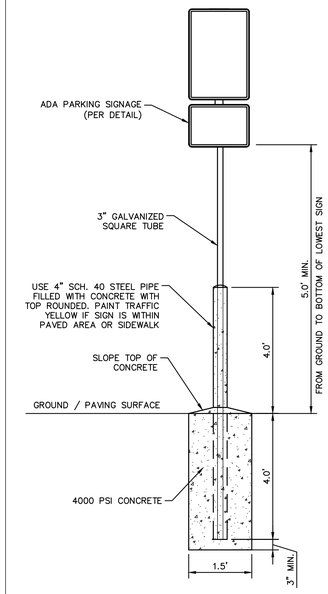
ADA PARKING SYMBOL



NOTE: SIGNS DENOTED HERE ARE TO BE PER MUTCD SPECIFICATIONS.

ADA PARKING SIGNAGE

CORNER CLEARANCE MARKING DETAIL



ADA PARKING SIGN POST

90% PLANS

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No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

SIGNING AND MARKING - INDEX NOTES & LEGEND

PREPARED FOR GRTC TRANSIT SYSTEM

GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

SHEET NUMBER 7(1)

TEXT NO.	SIGN ASSEMBLY NO(s).	TEXT	SIGN ASSEMBLY COMPONENTS: MUTCD ST'D.	PANEL SIZE: W	PANEL SIZE: H	QTY.	SIGN PANEL AREA (s.f.): PER ASSEMBLY	SIGN PANEL AREA (s.f.): ALL ASSEMBLIES	PROP. SIGN STRUCTURE ST'D.	REMARKS
1	101		R5-1	30"	30"	1	6.25	6.25	STP-1 2"I4 GA.	STP-1 TYPE A FOUNDATION
2	103		R7-8 R7-VP1	12" 12"	18" 9"	1	2.25	2.25	BOLLLARD	SEE SHEET 7(1) FOR DETAILS
3	104		R7-1	12"	18"	1	1.5	1.5	STP-1 2"I4 GA.	STP-1 TYPE A FOUNDATION
4	105		R5-1 R1-1	30" 30"	30" 30"	1 1	6.25 6.25	12.5	STP-1 2"I4 GA.	STP-1 TYPE A FOUNDATION*
5	106		R7-8 R7-8p R7-VP1	12" 18" 12"	18" 9" 9"	1	3.38	3.38	BOLLARD	SEE SHEET 7(1) FOR DETAILS

* STOP SIGN ASSEMBLY SHALL BE MOUNTED SUCH THAT ENTIRE STOP SIGN SHAPE IS VISIBLE FROM BACK.

90% PLANS

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No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-200-2300
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DRAWN BY: RCB
CHECKED BY: JHO

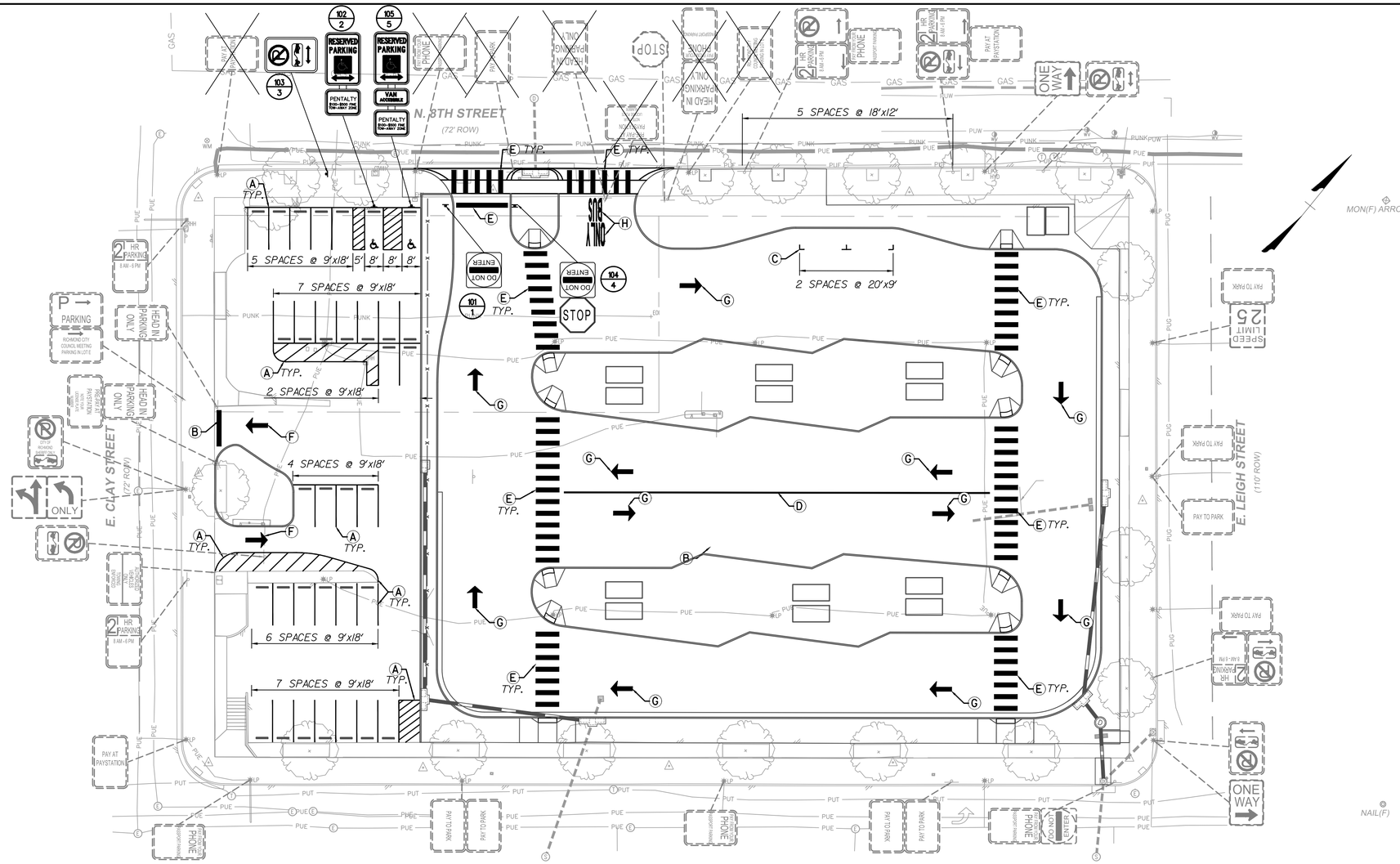
SIGNING SCHEDULE

GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER 7(2)



PARKING SPACE SUMMARY	
PARKING LOT	
31	NORMAL
1	HANDICAP
1	HANDICAP - VAN ACCESSIBLE
33	TOTAL
8TH STREET	
5	TOTAL
TRANSFER CENTER	
2	TOTAL (PRIVATE)

REFERENCES (PROFILES, DETAIL & DRAINAGE DESCRIPTION SHEETS, ETC.)	
SURVEY CONTROL DATA	1A
PLAN SHEET	3
PAVEMENT PATCHING PLAN	3A
EROSION & SEDIMENT CONTROL PLAN	3B
ENTRANCE PROFILES	3C(1),3C(2)
GRADING PLAN	4
GRADING DETAILS	4A
DRAINAGE DESCRIPTIONS & PROFILES	5
LIGHTING & PHOTOMETRIC PLAN	6(4)
ELECTRICAL PLAN	6(5)

90% PLANS

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SCALE
0 25' 50'

Kimley-Horn and Associates, Inc.
Richmond, Virginia
TRAFFIC ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR, SUITE 200, RICHMOND, VA 23230
PHONE: 804-267-2600
WWW.KIMLEY-HORN.COM

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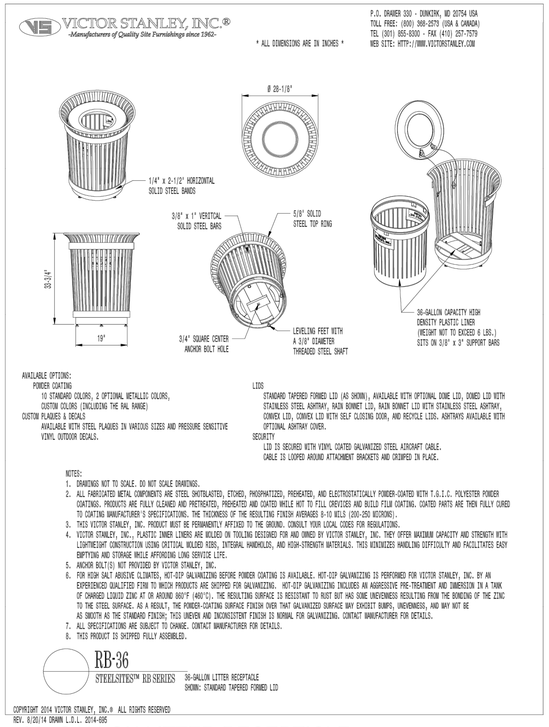
CHECKED BY: JHO

SIGNING AND MARKING PLAN

PREPARED FOR GRTC TRANSIT SYSTEM

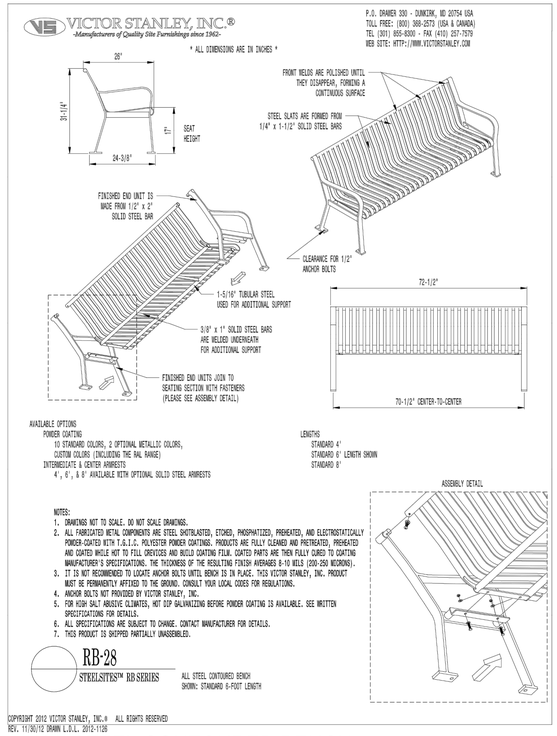
GRTC TEMPORARY TRANSFER CENTER
RICHMOND, VA

SHEET NUMBER
7(3)



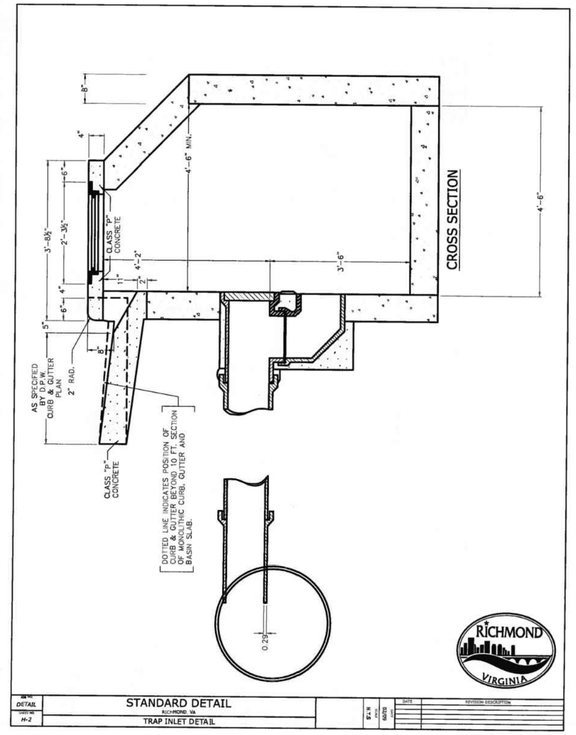
1 36- GALLON LITTER RECEPTICLE

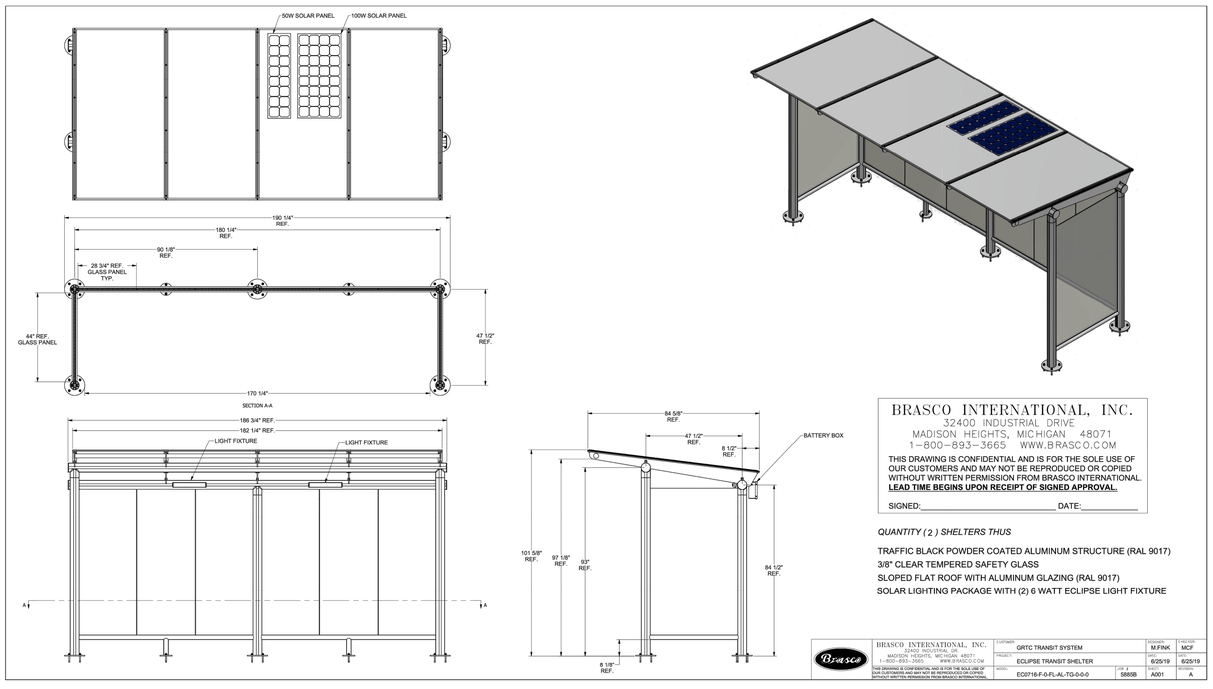
N/A



2 ALL STEEL CONTOURED BENCH

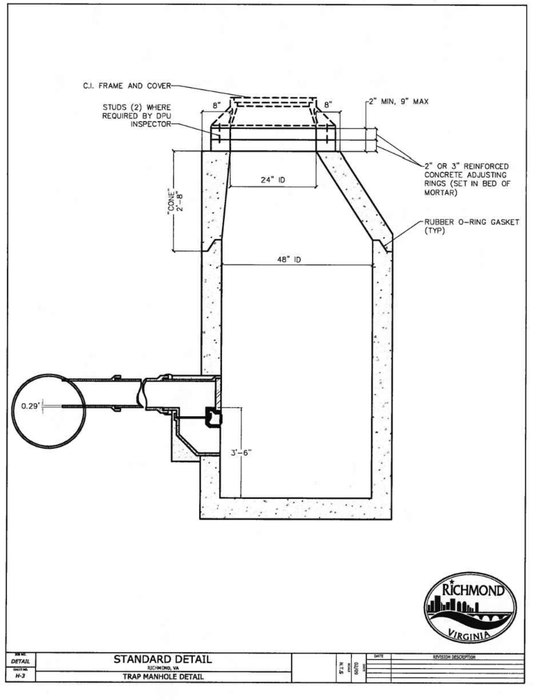
N/A





3 ECLIPSE TRANSIT SHELTER

N/A



NOTE: ITEMS SHOWN ARE EXAMPLE SITE FURNISHINGS. THE CONTRACTOR MAY, AT HIS/HER OPTION, SUBMIT FOR APPROVAL SIMILAR FURNISHINGS THAT MATCH THE DIMENSIONS, FINISHES, AND FUNCTIONAL CHARACTER FROM OTHER SUPPLIERS OR MANUFACTURERS.

90% PLANS

THESE PLANS ARE UNFINISHED AND UNAPPROVED AND ARE NOT TO BE USED FOR ANY TYPE OF CONSTRUCTION.

Kimley-Horn and Associates, Inc.
Richmond, Virginia
CIVIL ENGINEER

No.	REVISIONS	DATE	BY

Kimley»Horn
1700 WILLOW LAWN DR., SUITE 200, RICHMOND, VA 23230
PHONE: 804-677-2000
WWW.KIMLEY-HORN.COM

KHA PROJECT 113206010
DATE 08/13/2021
DESIGNED BY: JDL
DETAILED BY: RCB
DRAWN BY: RCB
CHECKED BY: JHO

SITE DETAILS

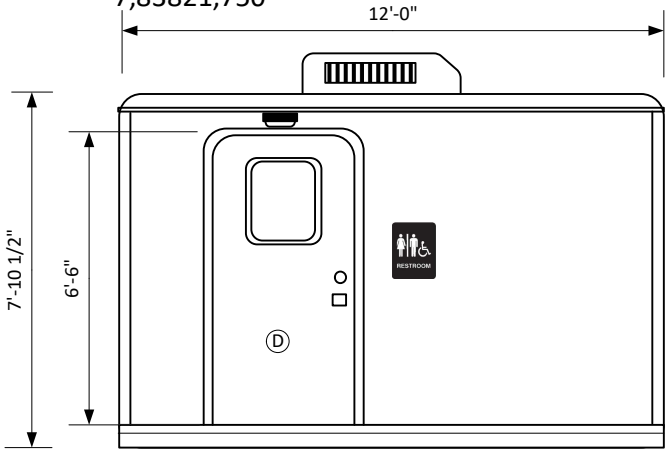
GRTC TEMPORARY TRANSFER CENTER

PREPARED FOR GRTC TRANSIT SYSTEM

RICHMOND, VA

SHEET NUMBER
2B(1)

7,83821,750



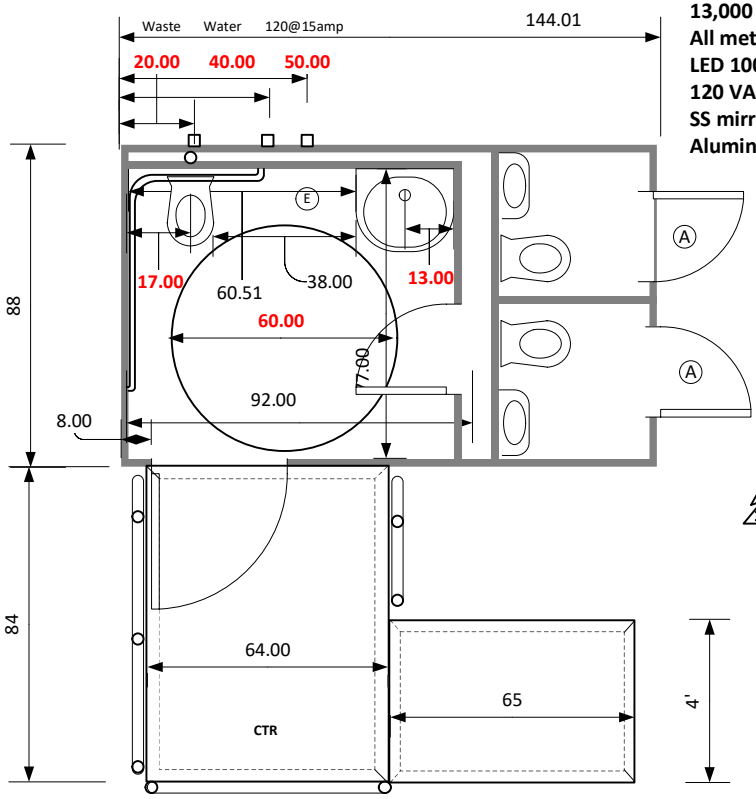
CI ADA 12 3ST D

Ⓐ 78"x24" radius LH

Ⓓ 78"x36" radius LH

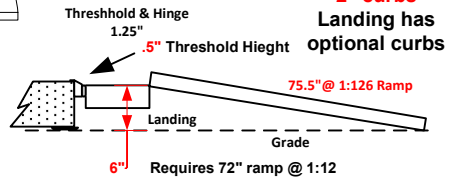
Ⓔ 48"x24" radius LH

Direct Connect 3" sewer
Container Shippable
1 ADA compliant restroom 2 Standard
Commercial toilet & Large ADA wall hung sink
Obscure skylight window in radius door
Door closer & occupancy indicators
13,000 BTU A/C 5500 Heat
All metal and composite construction
LED 100,000 hour burn lighting
120 VAC power requirement
SS mirror, soap, towel & tissue dispensers
Aluminum ADA ramps w/Stainless steel railings



For 1:24 slope specify 2 ramps

Ramps have 2" curbs
Landing has optional curbs



Handrails

Top Height 36" above Platform

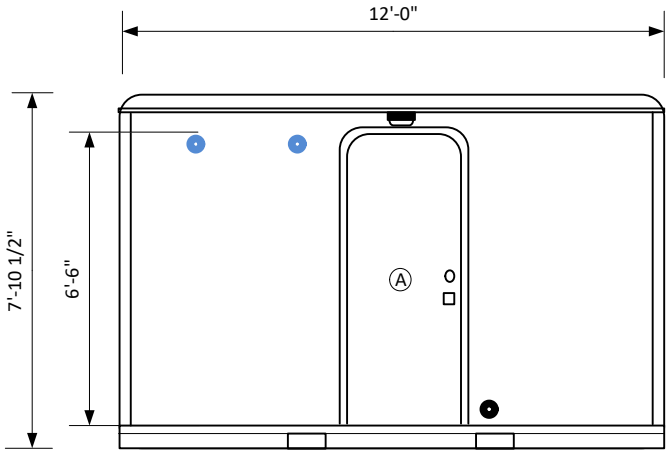
Top of Cross Bars 14"below bottom of Top Rail. Railing 1.5" OD Diameter and slides into 4" piece of 1.5" ID pipe welded to landing.

These restrooms are designed to be compliant with all current guidelines as we are aware of . Many guidelines have gray areas and points open to interpretation. Different entities may have differed interpretations or local differences. We suggest getting approvals of final plans from the authorities in the local the unit will be placed

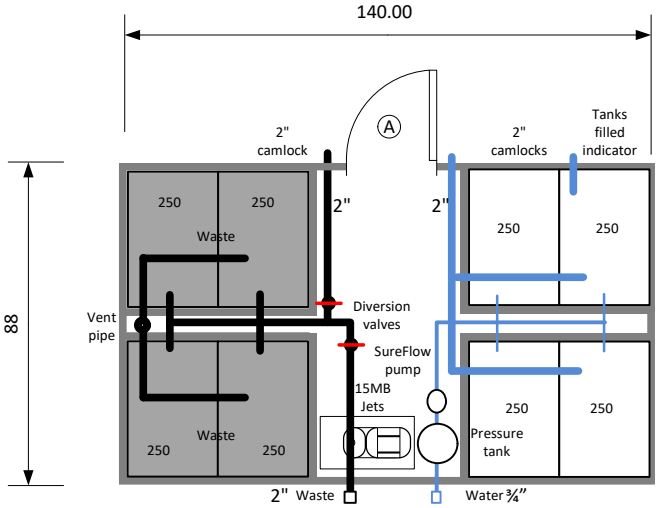
Approved by _____

7,83821,750

CI 2000GJ
Service Station



Ⓐ 78"x 28" radius LH



Jets 2" sewer to station
2 turbo vent fans
All metal and composite construction
LED 100,000 hour burn lighting
240 VAC power requirement
ShurFlow freshwater pump
Jets 15MB pump
1000 waste 1000 freshwater
Approximately 3500 flushes

Approved by

_____

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