LIGHT RAIL TRANSIT SYSTEM
DALLAS CBD SECOND LIGHT RAIL ALIGNMENT
D2 SUBWAY
VOLUME A

30% PRELIMINARY ENGINEERING

OCTOBER 30, 2020

DART®

PRELIMINARY
FOR INTERIM REVIEW ONLY

By A. STAHLNECKER P.E.# 124571

Date 30 OCTOBER 2020

HDR INC. ID # F-754

NOT FOR CONSTRUCTION OR PERMIT PURPOSES

CITY OF DALLAS APPROVAL

RECOMMENDED:

PROJECT MANAGER DATE

APPROVED:

DIRECTOR OF TRANSPORTATION DATE

GENERAL PLANNING CONSULTANT

RECOMMENDED:

PROJECT MANAGER DATE

APPROVED:

PROGRAM MANAGER DATE

DALLAS AREA RAPID TRANSIT

RECOMMENDED:

PROJECT MANAGER DATE

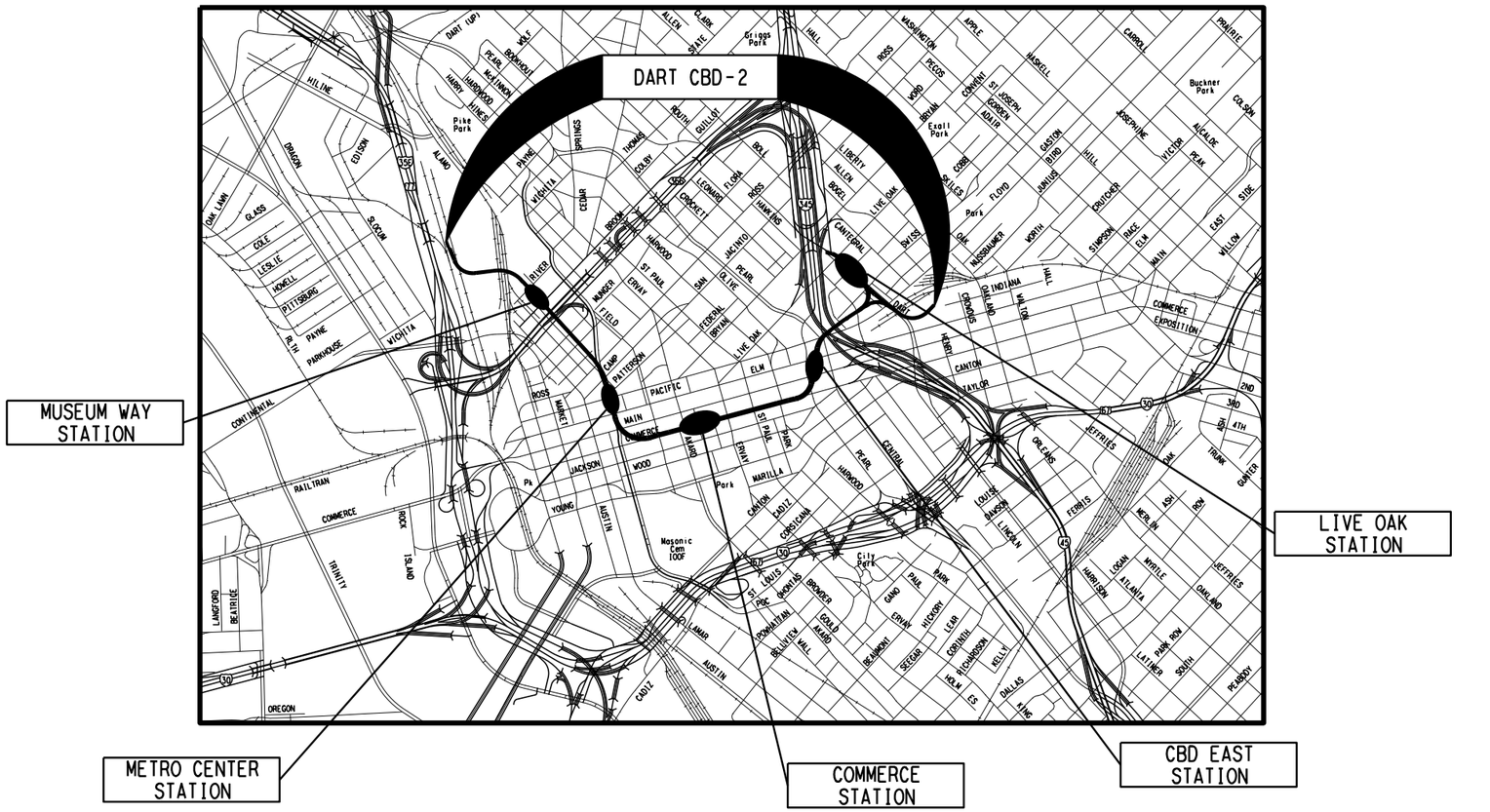
APPROVED:

VP RAIL PLANNING DATE

DWG No. GC1-0001

CBD2-GC1-0001.001

DWG No. GC1-0002



VOLUME A (TRACK)

SHEET NO.	SHEET TITLE
1	COVER
2	OVERALL PROJECT TITLE SHEET
3	GENERAL NOTES AND ABBREVIATIONS
4	SYMBOLS
5-7	PROJECT KEY PLAN
8	PERMANENT ALIGNMENT CONTROL MONUMENT DATA
9-27	RIGHT-OF-WAY
28-31	HORIZONTAL ALIGNMENT SCHEMATIC
32-41	HORIZONTAL ALIGNMENT DATA
42-43	GUIDEWAY TYPICAL SECTIONS
44-63	GUIDEWAY PLAN AND PROFILE
64-143	CROSS SECTIONS
144-168	STREET MODIFICATIONS
169-252	TUNNEL / STRUCTURAL AND MECHANICAL
253-269	DRAINAGE AREA MAPS AND CALCULATIONS
270-288	EXISTING UTILITY COMPOSITE PLANS

VOLUME B (STATIONS)

SHEET NO.	SHEET TITLE
1	COVER
2	TITLE SHEET
3	GENERAL NOTES AND ABBREVIATIONS
4	SYMBOLS
5	ARCHITECTURAL GENERAL NOTES AND KEYNOTES
6	ARCHITECTURAL ABBREV /SYMBOLS /DIAGRAMS
7-9	PROJECT KEY PLAN
10	PERMANENT ALIGNMENT CONTROL MONUMENT DATA
11-26	MUSEUM WAY STATION
27-87	METRO CENTER STATION
88-163	COMMERCE STATION
164-204	CBD EAST STATION
205-220	LIVE OAK STATION

VICINITY MAP
NO SCALE

D2 SUBWAY
VICTORY STATION TO DEEP ELLUM

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 2 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

OVERALL PROJECT TITLE SHEET

CONTRACT	DWG No.	REV
	GC1-0002	

Monday, October 26, 2020 05:07:09 PM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC1-0002.050

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC1-0002.050

DWG No. GC3-0001

ABBREVIATIONS

A	AREA
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABUT	ABUTMENT
AC	ACRE
ACP	ASBESTOS CEMENT PIPE
ADA	AMERICANS WITH DISABILITIES ACT
A/G	AT GRADE
AHD	AHEAD
ALT	ALTERNATE
ALUM	ALUMINUM
APPROX.	APPROXIMATE
APT	AREA PERSONAL TRANSIT
ASPH	ASPHALT
AVE	AVENUE
B/B	BACK TO BACK
B/C	BACK OF CURB
BCCP	BITUMINOUS COATED CORRUGATED PIPE
BD	BALLAST DRAIN
BH	BORED HOLE
BK	BACK
BLDG	BUILDING
BLVD	BOULEVARD
BNSF	BNSF RAILWAY
B.M.	BENCH MARK
BOT	BOTTOM
BRG	BEARING
CB	CATCH BASIN
C	RUNOFF COEFFICIENT
CC	CENTER OF CURVE
CF	CUBIC FEET
CFS	CUBIC FEET PER SECOND
CG	CONCRETE GUTTER
C&G	CURB AND GUTTER
CI	CAST IRON, CURB INLET
CIP	CAST IRON PIPE, CAST IN PLACE
CL	CLASS
C/L	CURB LINE
CMP	CORRUGATED METAL PIPE
CO	CLEAN OUT
COD	CITY OF DALLAS
COL	COLUMN
COMM	COMMUNICATIONS
CONC	CONCRETE
CONST	CONSTRUCT
CP	CONTROL POINT
CS	CURVE TO SPIRAL POINT
CTR	CENTER
CULV	CULVERT
CWR	CONTINUOUS WELDED RAIL
CY	CUBIC YARD
DART	DALLAS AREA RAPID TRANSIT
DBL	DOUBLE
D,DEG	DEGREE OF CURVE
DFW	DALLAS/FORT WORTH INTERNATIONAL AIRPORT
D/FW	DALLAS/FORT WORTH
DI	DUCTILE IRON
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DIST	DISTANCE
D.M.S.	DEGREE MINUTE SECOND
DR	DRIVE
DWG	DRAWING
DWU	DALLAS WATER UTILITY
E	EAST,ELECTRIC
Ea	ACTUAL SUPERELEVATION IN INCHES
EBFR	EASTBOUND FRONTAGE ROAD
EBML	EASTBOUND MAINLANE
EL OR ELEV.	ELEVATION
ENCSMT	ENCASEMENT
ESMT	EASEMENT
Es	EXTERNAL DISTANCE OF SPIRAL CURVE
Eu	SUPERELEVATION UNBALANCED IN INCHES
EX. OR EXIST.	EXISTING
FAA	FEDERAL AVIATION ADMINISTRATION
FF	FINISHED FLOOR
FH	FIRE HYDRANT
FIG.	FIGURE
FL	FLOW LINE
FLG	FLANGE
F TO F	FACE TO FACE
FOC	FIBER OPTIC CABLE
FRWY	FREEWAY
FT	FOOT OR FEET
FW	FORT WORTH
G	GAS
GA	GAUGE
GI	GRATE INLET
GM	GAS METER
GP	GRAND PRAIRIE
GV	GATE VALVE
H.C.	HANDICAP
HMAC	HOT MIX ASPHALTIC CONCRETE
HR	HOUR
HPG	HIGH PRESSURE GAS LINE
HORZ	HORIZONTAL
HWY	HIGHWAY
I	RAINFALL INTENSITY
ICLRT	INTERMEDIATE CAPACITY LIGHT RAIL TRANSIT
IN.	INCH
INV	INVERT
ISF	INSIDE FACE
K	RATE OF VERTICAL CURVATURE
KV	KILOVOLT
L	LEFT (DEFLECTION)
Lc	TOTAL LENGTH OF CIRCULAR CURVE
LF	LINEAR FEET
LH	LEFT HAND
LN	LANE
LNG	LIQUEFIED NATURAL GAS LINE
LRT	LIGHT RAIL TRANSIT
L_S	TOTAL LENGTH OF SPIRAL
LSG	LONE STAR GAS
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
MCB	MULTIPLE CONDUIT BANK
MH	MANHOLE
MIN	MINUTES OR MINIMUM
ML	MAINLANE
MPH	MILES PER HOUR
MSE	MECHANICALLY STABILIZED EARTH
N	NORTH
NB	NORTHBOUND
NBFR	NORTHBOUND FRONTAGE ROAD
NBML	NORTHBOUND MAINLANE
NG	NATURAL GROUND, NATURAL GAS
NCTCOG	NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS
NIC	NOT IN CONTRACT
No.	NUMBER
NTS	NOT TO SCALE
OC	ON CENTERS
OCEW	ON CENTER EACH WAY
OH	OVERHEAD
OHE	OVERHEAD ELECTRIC
ONCOR	ONCOR ELECTRIC DELIVERY
ORD	ORDINATE
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	POLYETHLENE
PEJ	PREFORMED EXPANSION JOINT
PERM	PERMANENT
PF	POINT OF FROG
PG	PROFILE GRADE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PITO	POINT OF INTERSECTION-TURNOUT
PKWY	PARKWAY
PL	PROPERTY LINE
POB	POINT OF BEGINNING
POC	POINT ON CURVE
POE	POINT OF ENDING
POLY	POLYETHYLENE
POS	POINT ON SPIRAL
POT	POINT ON TANGENT
POTO	POWER OPERATED TURNOUT
PS	POINT OF SWITCH
PREM	PREMOLDED
PRES	PRESIDENT
PROP	PROPOSED
PROT	PROTECTION
PT	POINT OF TANGENT
PVC	POINT OF VERTICAL CURVE, POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
PVMT	PAVEMENT
PVRC	POINT OF VERTICAL REVERSE CURVATURE
PVT	POINT OF VERTICAL TANGENT
Q	STORM WATER DISCHARGE
R	RADIUS
RCB	REINFORCED CONCRETE BOX CULVERT
RCCP	REINFORCED CONCRETE CYLINDER PIPE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
REFL	REFLECTIVE
RH	RIGHT HAND
ROW	RIGHT OF WAY
RR	RAILROAD
RI	RIGHT (DEFLECTION)
RSC	RAILROAD SIGNAL CABLE
RT	RIGHT
S	SOUTH , SLOPE
SB	SOUTHBOUND
SBFR	SOUTHBOUND FRONTAGE ROAD
SBML	SOUTHBOUND MAINLANE
SC	SPIRAL TO CURVE POINT
SD	STORM DRAIN
SEJ	SEALED EXPANSION JOINT
S & I	SERVICE & INSPECTION
SH	STATE HIGHWAY
SHT	SHEET
SIG	SIGNAL
SMH	SEWER MANHOLE
SS	SANITARY SEWER
ST	SPIRAL TO TANGENT POINT, STREET
STA	STATION
STD	STANDARD
STL	STEEL
STM	STORM
SUE	SUB-SURFACE UTILITY ENGINEERING
SURF	SURFACE
SWR	SEWER
T	LENGTH OF TANGENT, TELEPHONE
TI	TOTAL LENGTH OF TANGENT
T(UG)	UNDERGROUND TELEPHONE
TBM	TEMPORARY BENCH MARK
TBR	TO BE REMOVED
T_C	TIME OF CONCENTRATION
TEMP	TEMPORARY
TG	TELEGRAPH
TGMH	TELEGRAPH MANHOLE
TLWY	TOLLWAY
TMH	TELEPHONE MANHOLE
TO.	TURNOUT

GENERAL NOTES:

1. THE CONSTRUCTION OF THE D2 SUBWAY SHALL CONFORM WITH APPROVED CONTRACT DOCUMENTS, DART STANDARD DRAWINGS AND STANDARD SPECIFICATIONS.
2. THE RIGHT TRACK IS DETERMINED BY LOOKING IN THE DIRECTION OF INCREASING TRACK STATIONING. THIS TRACK IS REFERENCED AS THE (EB) EASTBOUND TRACK FOR THE CBD-2 ALIGNMENT AND SB FOR THE SE-1 ALIGNMENT AND IS ALSO THE STATIONING CONTROL TRACK. THE PROFILE GRADE LINE (PGL) IS THE LOW RAIL OF THE CBD-2 EB AND SE-1 SB TRACK CENTERLINES.
3. BASIS OF BEARINGS FOR THIS SURVEY ARE BASED ON LTRA CONTROL PROVIDED IN MAY 2018 WITH UPDATES FROM NDM IN SUMMER/FALL 2018 NEW TRAVERSE POINTS SET BY NDM IN 2019.
4. THE PROPOSED ROW SHOWS THE APPROXIMATE REQUIREMENTS NEEDED TO CONSTRUCT THE D2 RAIL SYSTEM. FINAL DESIGNER SHALL VERIFY ROW/EASEMENT/AGREEMENT NEEDS DURING FINAL DESIGN.
5. WORK INVOLVING DRAINAGE FACILITIES, STREET RECONSTRUCTION OR OTHER PUBLIC IMPROVEMENTS WITHIN PUBLIC RIGHTS-OF-WAY SHALL CONFORM WITH THE STANDARD SPECIFICATIONS AND STANDARD CONSTRUCTION DETAILS OF THE LOCAL JURISDICTIONS, THE NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS (NCTCOG) STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
6. COORDINATION WITH TXDOT REQUIRED IN THE AREA OF WOODALL ROGERS EXPRESSWAY AND IH-345.
7. COORDINATE ALL TEMPORARY AND PERMENANT CONSTRUCTION WORK WITH OTHER TRADES.
8. ALL UTILITY LOCATIONS ARE APPROXIMATE AND MUST BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.
9. WORK INVOLVING UTILITIES NOT OWNED BY DART (ELECTRIC POWER, GAS, TELEPHONE, CABLE TELEVISION & FIBER/COMMUNICATIONS), SHALL CONFORM WITH THE REQUIREMENTS OF THE OWNING/OPERATING UTILITY COMPANY.
10. THE BASIS OF DRAINAGE DESIGN FOR THE DART D2 SUBWAY USES A 100-YEAR FREQUENCY STORM RECURRENCE INTERVAL.
11. DRAINAGE DITCHES ARE SHOWN ON THE CROSS SECTIONS AS TYPICAL ONLY AND WILL NEED TO BE DESIGNED FOR HYDRAULIC CAPACITY.
12. FINAL DESIGNER SHALL DESIGN THE GUIDEWAY IN ACCORDANCE WITH NFPA-130 STANDARD FOR FIXED GUIDEWAY TRANSIT AND PASSENGER RAIL SYSTEMS AND ALL APPLICABLE FIRE, BUILDING, AND ENERGY CODES OF THE LOCAL JURISDICTION.
13. WHERE SPECIFIC MODEL AND/OR MANUFACTURER OF AN ITEM IS SPECIFIED, THIS INDICATES THE BASIS OF DESIGN. ITEMS OF EQUAL DESIGN MAY BE SUBMITTED FOR CONSIDERATIONS AS APPROVED EQUAL.
14. COORDINATE AND MAINTAIN TRAIN OPERATIONS AND PASSENGER SERVICES DURING THE REMOVAL OF EXISTING TRACK AND INSTALLATION OF PROPOSED TRACK AT TIE-IN LOCATIONS OR IN PROXIMITY TO EXISTING TRACK.
15. CONSTRUCTION WORK IN AREAS ADJACENT TO ACTIVE TRE COMMUTER RAIL SHALL MAINTAIN SAFE WORKING DISTANCES FROM ACTIVE TRE COMMUTER RAIL TRACK. IF SAFE DISTANCES ARE NOT POSSIBLE, WORK SHALL BE PERFORMED WITH THE FULL KNOWLEDGE AND APPROVAL OF TRE AND UTILIZE TRE RAILROAD WORKER PROTECTION AS REQUIRED.

ABBREVIATIONS (CONT'D)

TOD	TRANSIT ORIENTED DEVELOPMENT
TPSS	TRACTION POWER SUBSTATION
T/R	TOP OF RAIL
TRA	TRINITY RIVER AUTHORITY
TS	TANGENT TO SPIRAL POINT
TXDOT	TEXAS DEPARTMENT OF TRANSPORTATION
TY	TYPE
TYP	TYPICAL
UD	UNDERDRAIN
UD	UNDERDRAIN
UG	UNDERGROUND
UGT	UNDERGROUND TELEPHONE
UP	UNION PACIFIC RAILROAD
USC&GS	U.S. COAST & GEODETIC SURVEY
V	VELOCITY
WBFR	WESTBOUND FRONTAGE ROAD
WBML	WESTBOUND MAINLANE
WL	WATER LINE
WM	WATER METER
WSEL	WATER SURFACE ELEVATION
WV	WATER VALVE
WW	WASTEWATER
WWF	WELDED WIRE FABRIC
YR	YEAR

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 3 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT NO SCALE

SCALE	
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GENERAL NOTES
AND ABBREVIATIONS

CONTRACT | DWG No. GC3-0001 | REV

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC3-0001.001

Monday, October 26, 2020 09:56:48 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC3-0001.001

LGUBLO
Default

DWG No. GC3-0002

SYMBOLS

- PROFILE GRADE LINE / ELEVATION CONTROL POINT
- DIRECTION OF FLOW
- ℄ OR ℔ CENTERLINE OR BASELINE
- FUTURE OR NOT IN CONTRACT
- ℄ CENTERLINE
- ℔ BASELINE
- ℙ PROPERTY LINE
- DIMENSION LINE CONTINUES
- MATCH LINE
- 510 CONTOUR LINE
- TRACK (TRANSIT) CENTERLINE
- EXISTING FENCE LINE
- PROPOSED FENCE LINE
- STRUCTURE OUTLINE
- RAILROAD TRACKS
- CO CLEANOUT
- MH MANHOLE
- SIDEWALK AND MISC. LINES
- DROP INLET, CATCH BASIN OR DRAIN - TO SCALE
- CULVERT HEADWALLS - TO SCALE
- X 543.5 SPOT ELEVATION
- CURB LINE
- EXISTING BARRIER/RETAINING WALL
- PROPOSED RETAINING WALL
- PROPOSED BALLAST WALL
- NOISE IMPACT AREA
- GUARDRAIL
- HANDRAIL
- UNPAVED ROADS
- CONCRETE GUARD FENCE
- VEGETATION LINE
- (T) TREE
- (S) SHRUB
- POLE

- TL TRAFFIC POLE
- UTILITY POLE
- SS SANITARY (DIRECTION OF FLOW) , PLUG
- GRID OF THE STATE PLANE COORDINATE SYSTEM
- BILLBOARD
- TOTAL CENTRAL ANGLE OF SPIRAL AND CIRCULAR CURVES
- C1 SUFFIX (1) AT THE SYMBOL DENOTES DATA FOR THE FIRST CIRCULAR CURVE OF A COMPOUND CURVE
- C2 SUFFIX (2) AT THE SYMBOL DENOTES DATA FOR THE SECOND CIRCULAR CURVE OF A COMPOUND CURVE
- Θ_S CENTRAL ANGLE OF SPIRAL OR SPIRAL ANGLE
- Θ_{aAC} CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND ANGLE (CS1 TO CS2)
- Θ_{sAT} TOTAL CENTRAL ANGLE OF COMPOUND SPIRAL OR TOTAL COMPOUND SPIRAL ANGLE (FROM SPO TO SC2)
- SMH SANITARY OR STORM SEWER MANHOLE
- EMH, TMH, WUMH ELECTRICAL, TELEPHONE, OR WESTERN UNION MANHOLE
- REDUCER
- WM WATER METER
- WV WATER VALVE
- FH FIRE HYDRANT
- CAP OR PLUG
- GV GAS VALVE
- GM GAS METER
- PB PULL BOX OR SPLICING CHAMBER
- LIGHT POLE
- FS FIRE SERVICE STAND PIPE
- TRAFFIC SIGN
- POLE GUY AND ANCHOR
- TRANSMISSION LINE TOWER
- TRAFFIC CONTROL GATE
- TEST BORING LOCATION
- (O/H) OVERHEAD LINES
- (O/H) E OVERHEAD ELECTRIC LINES
- UG(T) UNDERGROUND TELEPHONE LINE
- UG(E) UNDERGROUND ELECTRIC LINE

- AERIAL UTILITY
- UTILITY FACILITY LESS THAN 24"
- MAJOR UTILITY FACILITY 24" OR LARGER IN PLAN VIEW
- FACILITY TO BE ABANDONED
- DOUBLE CROSSOVER
- POINT OF SWITCH
- EXISTING DITCH
- PROPOSED DITCH
- DITCH PROPOSED SPECIAL DITCH
- SD STORM DRAIN
- UD UNDERDRAIN
- SS SANITARY SEWER
- W WATER LINE
- G GAS LINE
- TS TRAFFIC SIGNALIZATION LINE
- E ELECTRIC POWER LINE
- ESL ELECTRIC LINE, STREET LIGHTING
- T TELEPHONE LINE
- TG TELEGRAPH LINE
- TV CABLEVISION LINE
- PROPOSED CASING
- PROPOSED STREET CLOSING
- PROPOSED STREET CONSTRUCTION
- EXISTING STREET/RAILROAD RIGHT-OF-WAY LINE
- EXISTING PROPERTY LINE
- DART PROPOSED RIGHT-OF-WAY LINE
- EXISTING EASEMENT LINE
- DART PROPOSED EASEMENT LINE
- EXIST / SET COPPER, IRON PIN, PIPE IRON ROD MARKERS OR ANY PROPERTY CORNER
- RIGHT-OF-WAY OR CONTROL MONUMENT OR MARKERS
- EXISTING INTERSECTION OF PROPERTY LINES
- INTERSECTION OF PROPOSED DART RIGHT-OF-WAY LINES
- PROPOSED DART RIGHT-OF-WAY MONUMENT

- LEFT HAND TURNOUT
- RIGHT HAND TURNOUT
- DERAIL SWITCH
- PI/PVI/PITO
- NON-INSULATED JOINT
- (F) SWITCH NUMBERING "F" INDICATES FUTURE
- I3-A CURVE NUMBER
- BLUE FLAG
- BUMPING POST
- EQUILATERAL TURNOUT
- GABION BLANKET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 4 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SYMBOLS

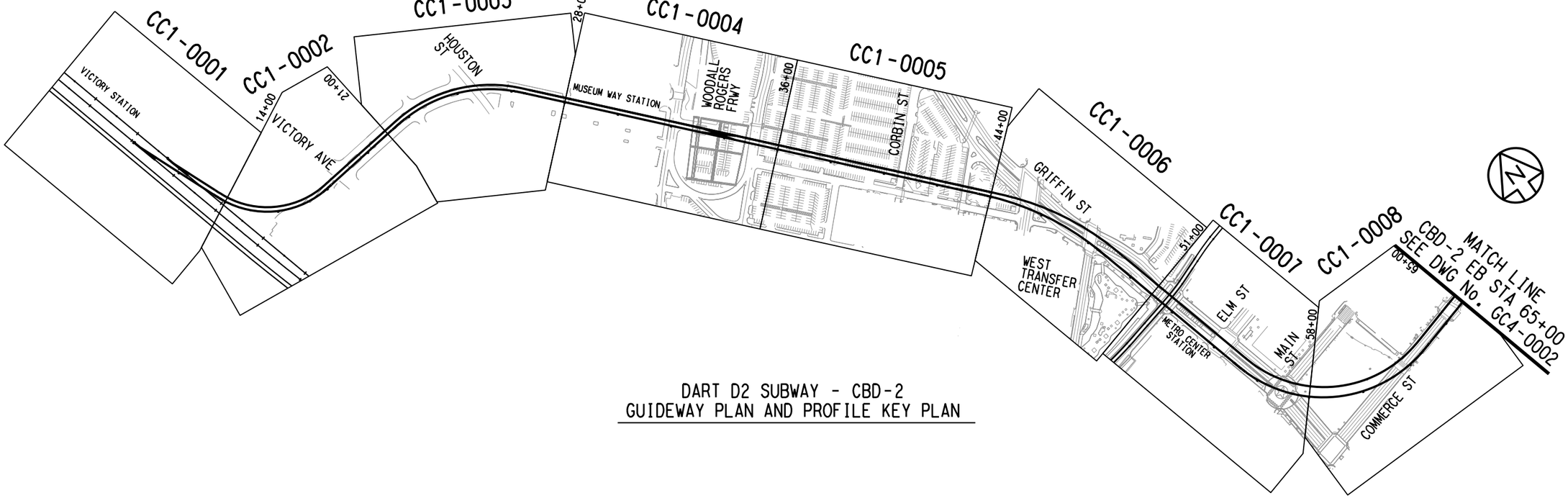
CONTRACT	DWG No.	REV
	GC3-0002	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC3-0002.001

Monday, October 26, 2020 09:56:52 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC3-0002.001

LGUBLO
Default

DWG No. GC4-0001



DART D2 SUBWAY - CBD-2
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 5 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PROJECT KEY PLAN
SHEET 1 OF 3

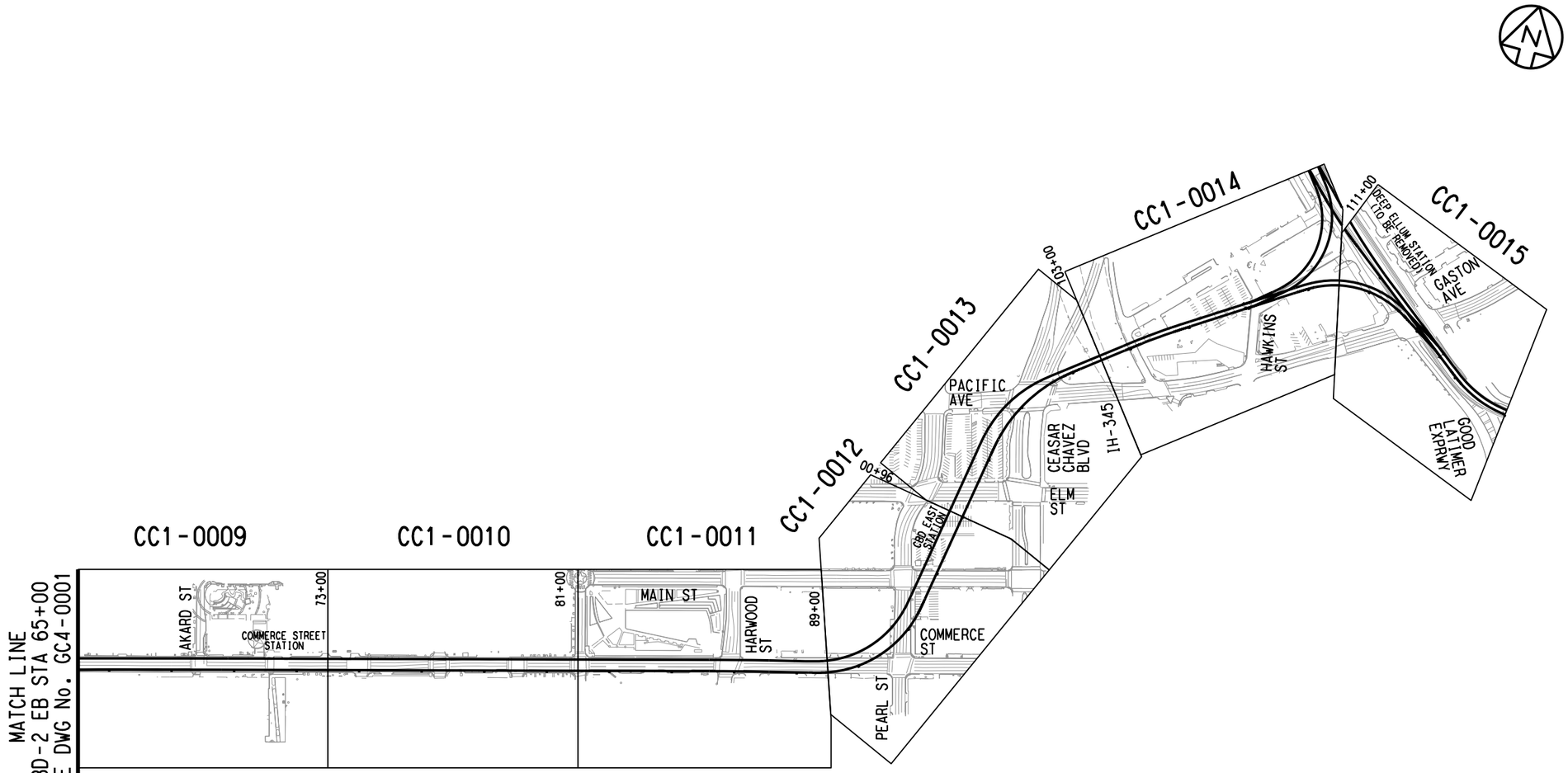
CONTRACT	DWG No.	REV
	GC4-0001	

Monday, October 26, 2020 09:56:56 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC4-0001.200

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC4-0001.200

DWG No. GC4-0002



DART D2 SUBWAY - CBD-2
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 6 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

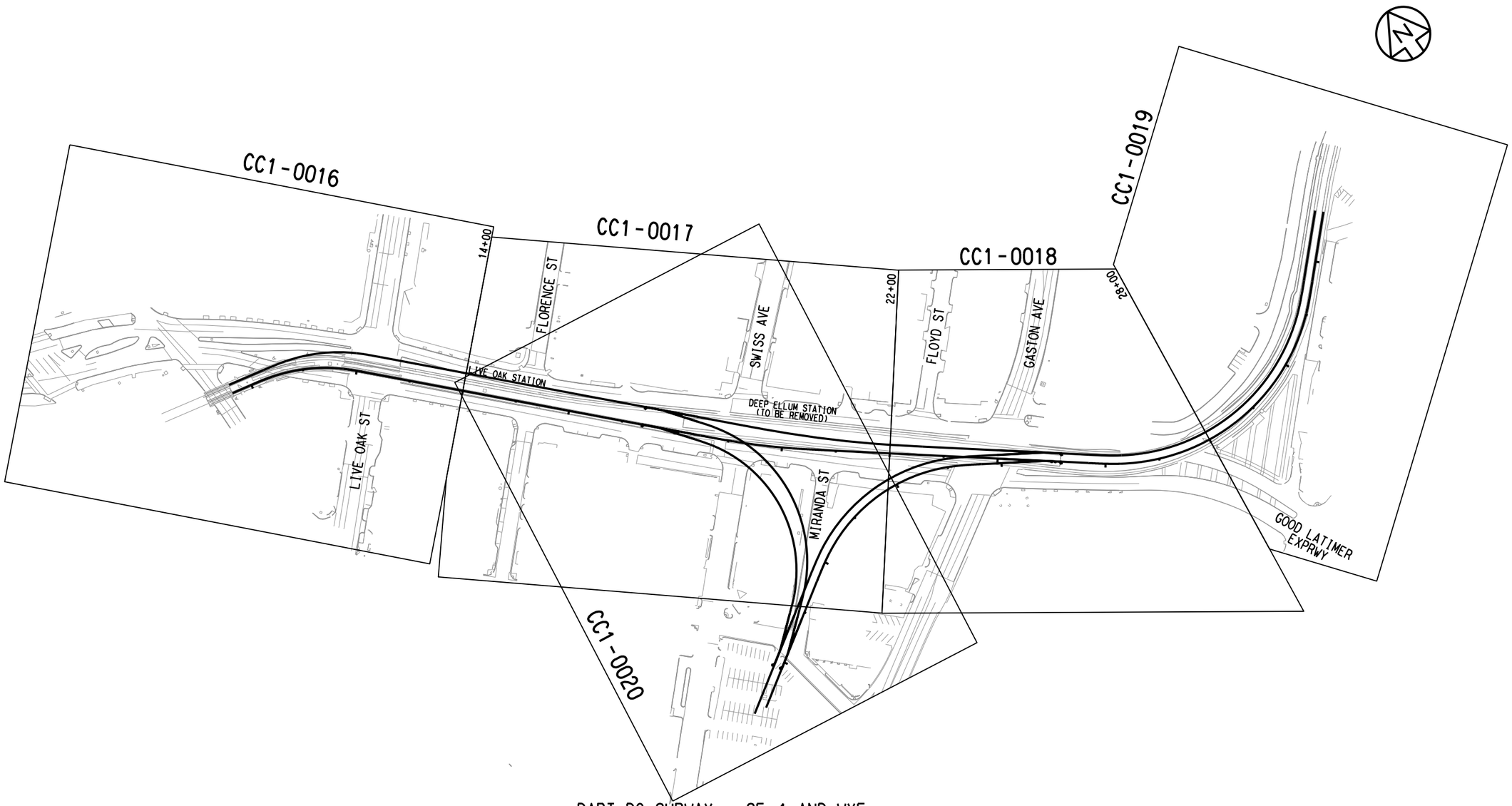
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PROJECT KEY PLAN
SHEET 2 OF 3

CONTRACT	DWG No.	REV
	GC4-0002	

Monday, October 26, 2020 09:57:00 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC4-0002.200
LGUBLO
Default

DWG No. GC4-0003



DART D2 SUBWAY - SE-1 AND WYE
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 7 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PROJECT KEY PLAN
SHEET 3 OF 3

CONTRACT	DWG No.	REV
	GC4-0003	

Monday, October 26, 2020 09:57:04 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC4-0003.100

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-GC4-0003.100

DWG No. CC4-0001

PERMANENT ALIGNMENT CONTROL MONUMENTS

POINT	NORTHING	EASTING	ELEVATION	REMARKS
2	6974412.95	2488616.80	418.95	TRAV LTRA SET-MAGNL
3	6974321.87	2488703.70	420.60	TRAV LTRA SET-MAGNL
7	6972547.11	2489689.60	429.62	TRAV LTRA SET-MAGNL
8	6972554.79	2489588.98	429.48	TRAV LTRA X-FND
9	6972285.84	2489784.26	429.16	TRAV LTRA SET-MAGNL
10	6972127.37	2489905.72	429.54	TRAV LTRA SET-MAGNL
12	6971335.00	2490091.25	427.63	TRAV LTRA SET-MAGNL
14	6971078.72	2490582.84	423.49	TRAV LTRA SET-MAGNL
15	6970853.59	2491241.20	430.99	TRAV LTRA SET-MAGNL
16	6970933.34	2491731.60	444.73	TRAV LTRA X-FND
17	6971050.98	2492311.45	448.00	TRAV LTRA SET-MAGNL
18	6971199.12	2492405.28	447.47	TRAV LTRA BRASS-DISK-FND
19	6971361.85	2492996.26	442.91	TRAV LTRA SET-MAGNL
20	6971269.77	2492901.36	442.49	TRAV LTRA SET-MAGNL
21	6971672.08	2493498.73	448.85	TRAV LTRA SET-MAGNL
22	6971836.95	2493949.78	452.74	TRAV LTRA SET-MAGNL
23	6971960.05	2494390.36	454.80	TRAV LTRA SET-MAGNL
24	6972509.48	2494141.84	460.91	TRAV LTRA SET-MAGNL
25	6972665.55	2494724.68	463.98	TRAV LTRA SET-MAGNL
26	6972795.99	2494942.78	465.46	TRAV LTRA SET-MAGNL
27	6972852.67	2495425.82	463.14	TRAV LTRA SET-MAGNL
28	6972946.00	2495530.83	463.12	TRAV LTRA SET-MAGNL
29	6973063.32	2495384.80	465.69	TRAV LTRA SET-MAGNL
30	6973413.36	2495418.46	468.32	TRAV LTRA SET-MAGNL
31	6973879.97	2495721.29	472.62	TRAV LTRA SET-MAGNL
32	6973624.62	2495226.19	475.09	TRAV LTRA SET-MAGNL
33	6973899.13	2495060.68	476.02	TRAV LTRA SET-MAGNL
34	6973894.68	2494861.68	475.38	TRAV 34 /MAG
35	6974264.01	2494630.16	473.98	TRAV LTRA SET-MAGNL
36	6974187.80	2494549.27	473.61	TRAV 36 /MAG
37	6974434.91	2494302.89	475.31	TRAV LTRA SET-MAGNL
38	6974515.35	2494357.84	475.52	TRAV LTRA SET-MAGNL
39	6971972.78	2493856.66	453.77	TRAV LTRA SET-MAGNL
41	6971534.81	2493510.40	447.24	TRAV LTRA SET-MAGNL
42	6972394.49	2494047.43	459.75	TRAV LTRA SET-MAGNL
44	6972033.62	2493199.91	455.17	TRAV LTRA X-FND
45	6971642.41	2492782.73	440.71	TRAV LTRA SET-MAGNL
46	6971781.33	2493369.25	450.69	TRAV LTRA SET-MAGNL
48	6970833.94	2490233.16	422.34	TRAV LTRA SET-MAGNL
49	6970075.14	2490430.38	416.03	TRAV LTRA SET-MAGNL
50	6970648.33	2490201.54	421.29	TRAV LTRA FND-MAGNL-AZB-CONTROL
51	6969985.12	2490387.54	415.18	TRAV LTRA SET-MAGNL
52	6971883.05	2492756.08	443.42	TRAV LTRA SET-MAGNL
65	6971785.45	2492258.04	438.39	TRAV 65 /MAG
66	6971987.85	2492213.96	437.17	TRAV 66
240	6973683.78	2494054.62	470.34	TRAV 240

POINT	NORTHING	EASTING	ELEVATION	REMARKS
241	6973610.96	2493923.75	468.82	TRAV 241
242	6973438.99	2493906.79	468.06	TRAV 242
348	6972307.58	2493397.96	457.25	TRAV 348
355	6971914.17	2491708.26	432.42	TRAV 355
400	6973938.98	2494395.85	472.38	TRAV 400
401	6973829.56	2494283.84	471.60	TRAV 401
405	6973237.94	2493586.93	466.04	TRAV 405
406	6972979.85	2493542.31	461.56	TRAV 406
407	6972851.17	2493270.92	465.29	TRAV 407
408	6972786.11	2493032.12	466.38	TRAV 408
409	6972289.42	2493081.90	457.81	TRAV 409
410	6972185.88	2492674.40	447.85	TRAV 410
419	6972076.94	2490372.67	428.07	TRAV 419
420	6972026.09	2489922.21	429.63	TRAV 420
423	6972772.65	2489820.99	429.10	TRAV 423
424	6972863.89	2490023.27	429.22	TRAV 424
425	6972554.79	2490138.57	429.16	TRAV 425
426	6973448.13	2489969.07	428.65	TRAV 426
427	6973805.88	2490001.43	425.32	TRAV 427
470	6972896.08	2489941.30	428.02	TRAV 470
471	6973261.11	2489658.65	429.05	TRAV 471
472	6973442.68	2489527.84	429.74	TRAV 472
473	6973613.69	2489724.17	427.33	TRAV 473
474	6973693.26	2489301.34	430.69	TRAV 474
477	6973080.80	2489775.02	427.87	TRAV 477
483	6974035.49	2489729.35	422.25	TRAV 483
484	6973875.09	2489553.86	425.18	TRAV 484
490	6973354.88	2489801.01	428.26	TRAV 490
492	6972648.79	2490144.56	429.42	TRAV 492
608	6973289.97	2493753.27	467.57	TRAV 608
615	6971980.65	2493150.06	454.66	TRAV 615
628	6971596.21	2490754.39	422.32	TRAV 628
629	6971490.68	2490369.32	424.63	TRAV 629
630	6971282.36	2490544.77	423.02	TRAV 630
640	6971928.30	2491971.68	433.40	TRAV 640
644	6973753.92	2494647.40	473.09	TRAV 644
653	6971462.63	2489981.20	427.92	TRAV 653
654	6971757.52	2489985.27	427.11	TRAV 654
661	6974194.71	2494737.98	474.52	TRAV 661
662	6974030.76	2494928.12	475.64	TRAV 662
667	6972667.57	2490076.33	429.28	TRAV 667
668	6973057.66	2489828.50	427.62	TRAV 668
674	6973530.20	2489865.58	429.38	TRAV 674
675	6973963.52	2489647.15	423.54	TRAV 675
703	6971876.30	2490417.58	424.10	TRAV 703
705	6973222.19	2493219.40	465.10	TRAV 705

POINT	NORTHING	EASTING	ELEVATION	REMARKS
706	6973039.99	2492942.81	463.95	TRAV 706
708	6972494.51	2493025.72	461.37	TRAV 708
709	6972530.10	2492891.86	459.86	TRAV 709
710	6972447.42	2492560.12	454.46	TRAV 710
715	6971734.27	2491013.69	425.38	TRAV 715
716	6971874.16	2491490.88	431.28	TRAV 716
717	6972057.71	2492452.04	442.49	TRAV 717
718	6973415.13	2494124.34	468.71	TRAV 718
719	6973555.29	2494454.31	471.47	TRAV 719
720	6973081.79	2493821.25	461.60	TRAV 720
742	6972463.54	2493678.43	456.16	TRAV 742
744	6972724.60	2493614.35	459.21	TRAV 744
746	6972566.54	2493315.24	460.61	TRAV 746
750	6971423.56	2490063.31	427.79	TRAV 750
751	6971478.22	2490266.94	425.43	TRAV 751
752	6972004.81	2491982.60	0.00	TRAV 752
803	6971864.45	2491459.70	431.04	TRAV 803
816	6974529.06	2494207.67	476.56	TRAV 816
818	6974951.43	2493723.53	471.97	TRAV 818
819	6974615.29	2493973.90	475.01	TRAV 819
820	6974722.07	2494192.04	476.04	TRAV 820
821	6975031.91	2493538.57	472.00	TRAV 821
836	6972546.91	2489969.36	729.57	TRAV 836
837	6972533.11	2490067.56	430.08	TRAV 837
838	6972501.79	2490269.17	428.53	TRAV 838
842	6972237.70	2490269.77	428.82	TRAV 842
843	6973389.97	2489521.34	429.72	TRAV 843
844	6973535.61	2489442.24	432.40	TRAV 844
872	6973863.56	2489034.13	428.98	TRAV 872
876	6973425.18	2489039.31	431.69	TRAV 876
878	6973617.32	2488974.39	430.08	TRAV 878
879	6974053.89	2489535.52	423.30	TRAV 879
881	6972248.85	2492903.25	453.44	TRAV 881
950	6973272.10	2493797.17	466.17	TBM 950
951	6972914.59	2493326.71	464.32	TBM 951
952	6972573.14	2493029.65	462.15	TBM 952
953	6972234.01	2492890.67	452.91	TBM 953
955	6971932.22	2491961.55	433.07	TBM 955
956	6971779.65	2491192.23	427.68	TBM 956
957	6971670.12	2490784.04	422.00	TBM 957
958	6971851.00	2490566.33	422.60	TBM 958
959	6972077.05	2490136.77	428.75	TBM 959
961	6973159.86	2490047.82	427.82	TBM 961
962	6973704.91	2489950.57	426.99	TBM 962
963	6974011.72	2489806.91	421.60	TBM 963
964	6974087.32	2488884.99	426.55	TBM 964
967	6971932.08	2491478.52	429.89	TBM 967

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. THE CONTROL POINTS SHOWN HERON PROVIDED BY LTRA IN MAY 2018 WITH UPDATES FROM NDM IN SUMMER/FALL 2018 - NEW TRAVERSE POINTS SETBY NDM IN 2019

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 8 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

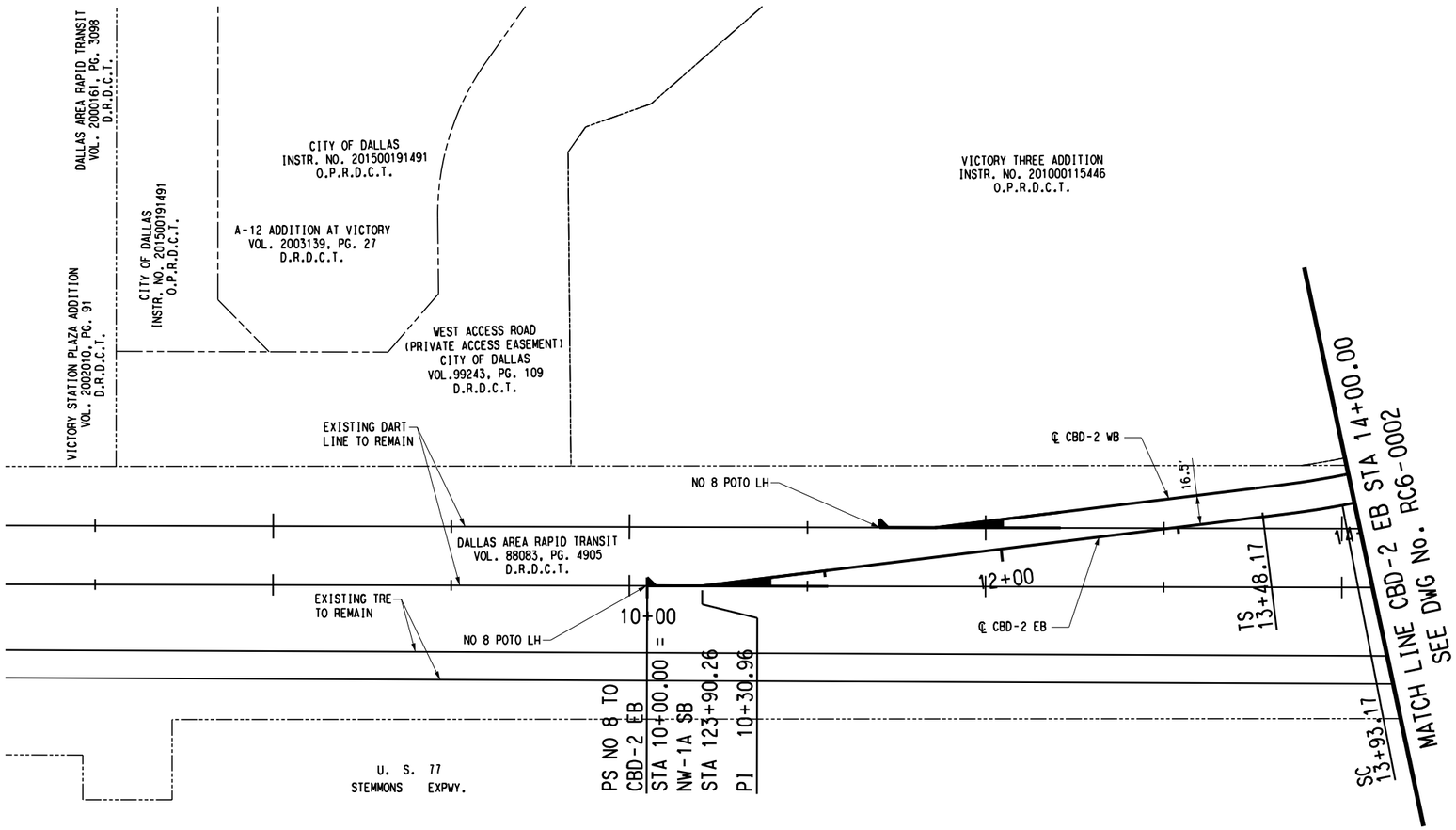
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PERMANENT ALIGNMENT CONTROL MONUMENT DATA

CONTRACT	DWG No.	REV
	CC4-0001	

Monday, October 26, 2020 09:57:07 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC4-0001.001
LGUBLO
Default

DWG No. RC6-0001



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 9 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

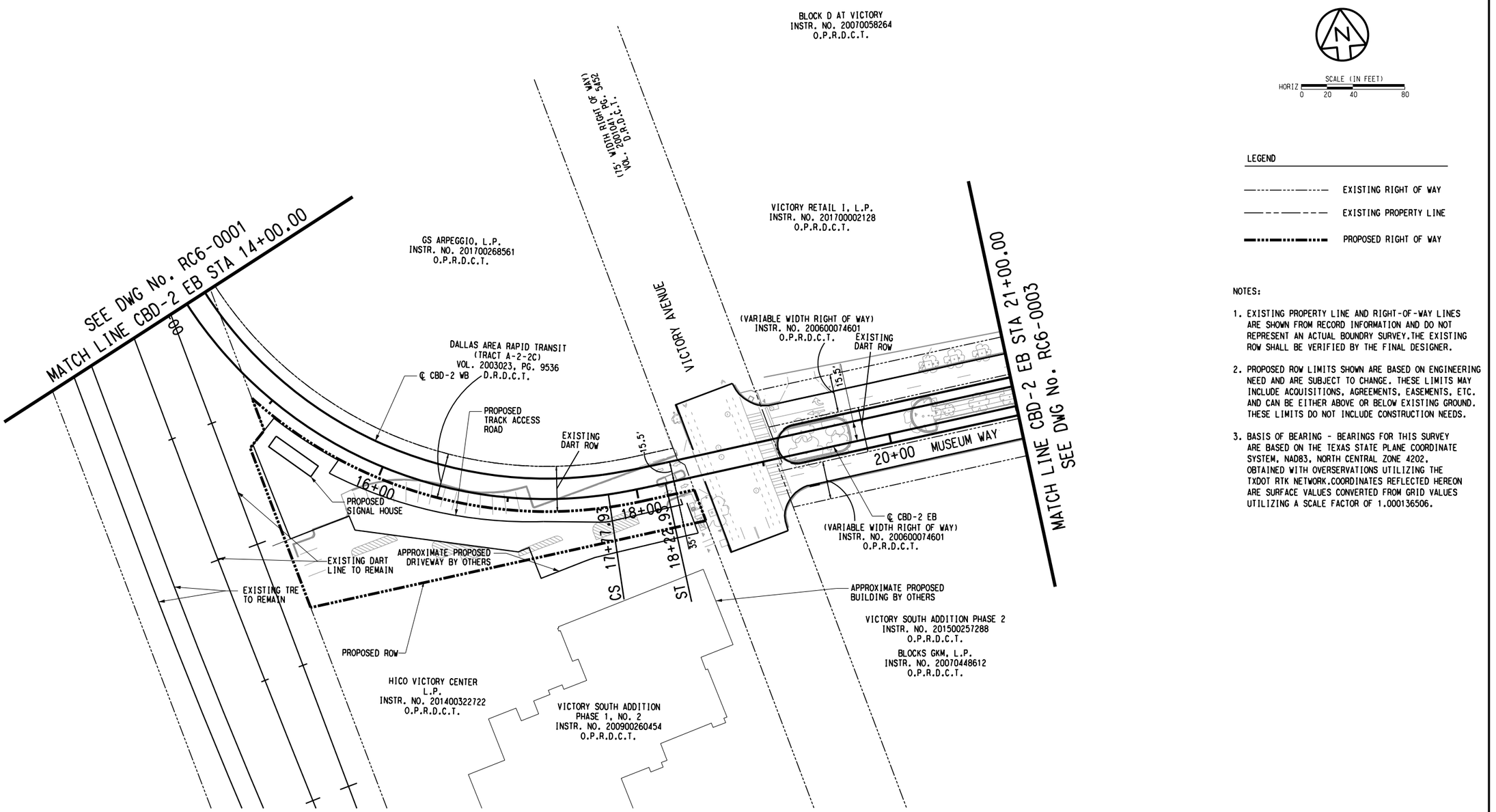
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 10+00.00 TO STA 14+00.00

CONTRACT | DWG No. RC6-0001 | REV

Tuesday, October 27, 2020 02:52:17 PM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0001.040
LGUBLO
Default

DWG No. RC6-0002



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 10 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 14+00.00 TO STA 21+00.00

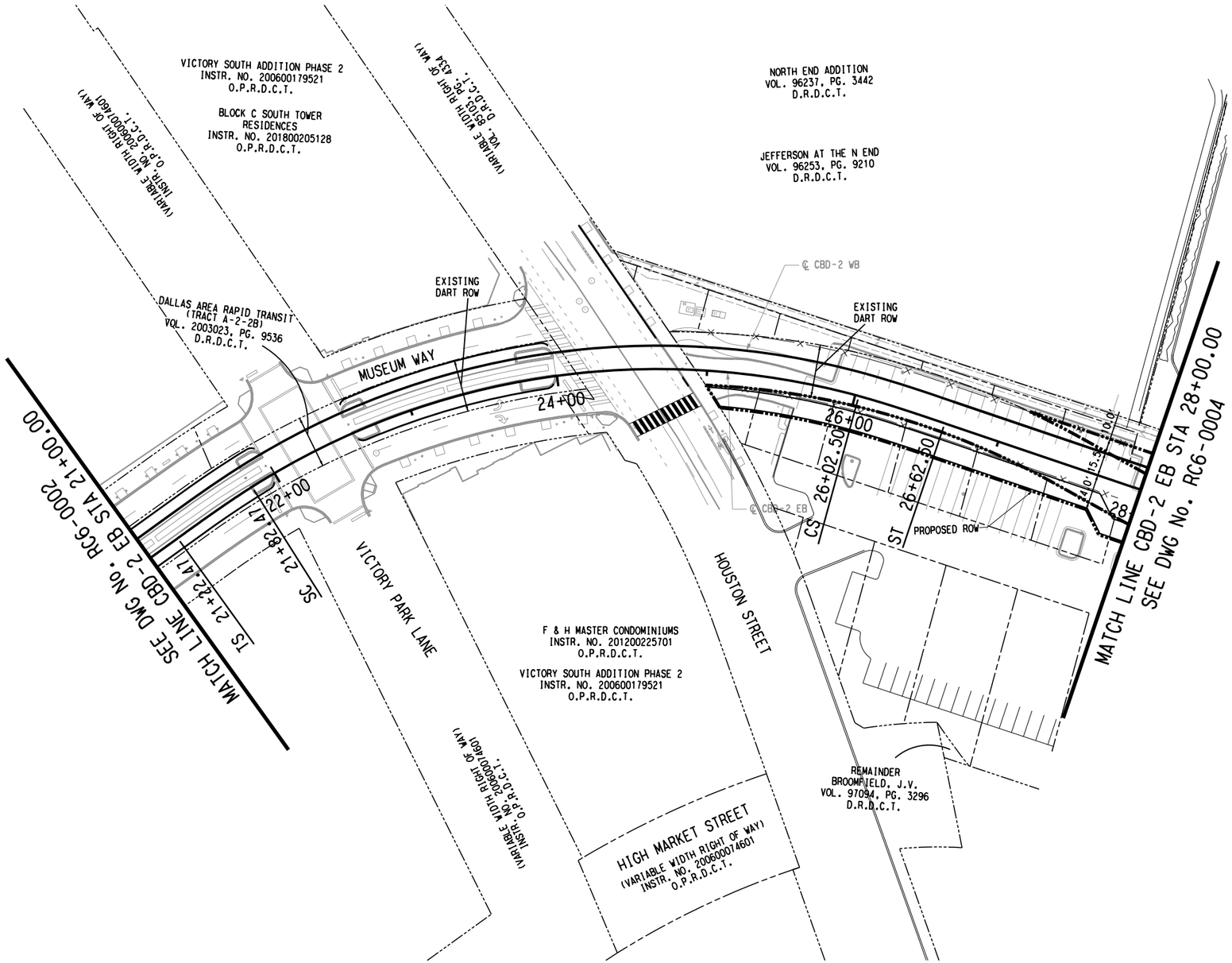
CONTRACT	DWG No.	REV
	RC6-0002	

Monday, October 26, 2020 11:31:23 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0002.040

LGUBLO
DeFaull

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0002.040

DWG No. RC6-0003



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 11 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC.
TBPE FIRM REG. NO. F-356
TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700
Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 21+00.00 TO STA 28+00.00

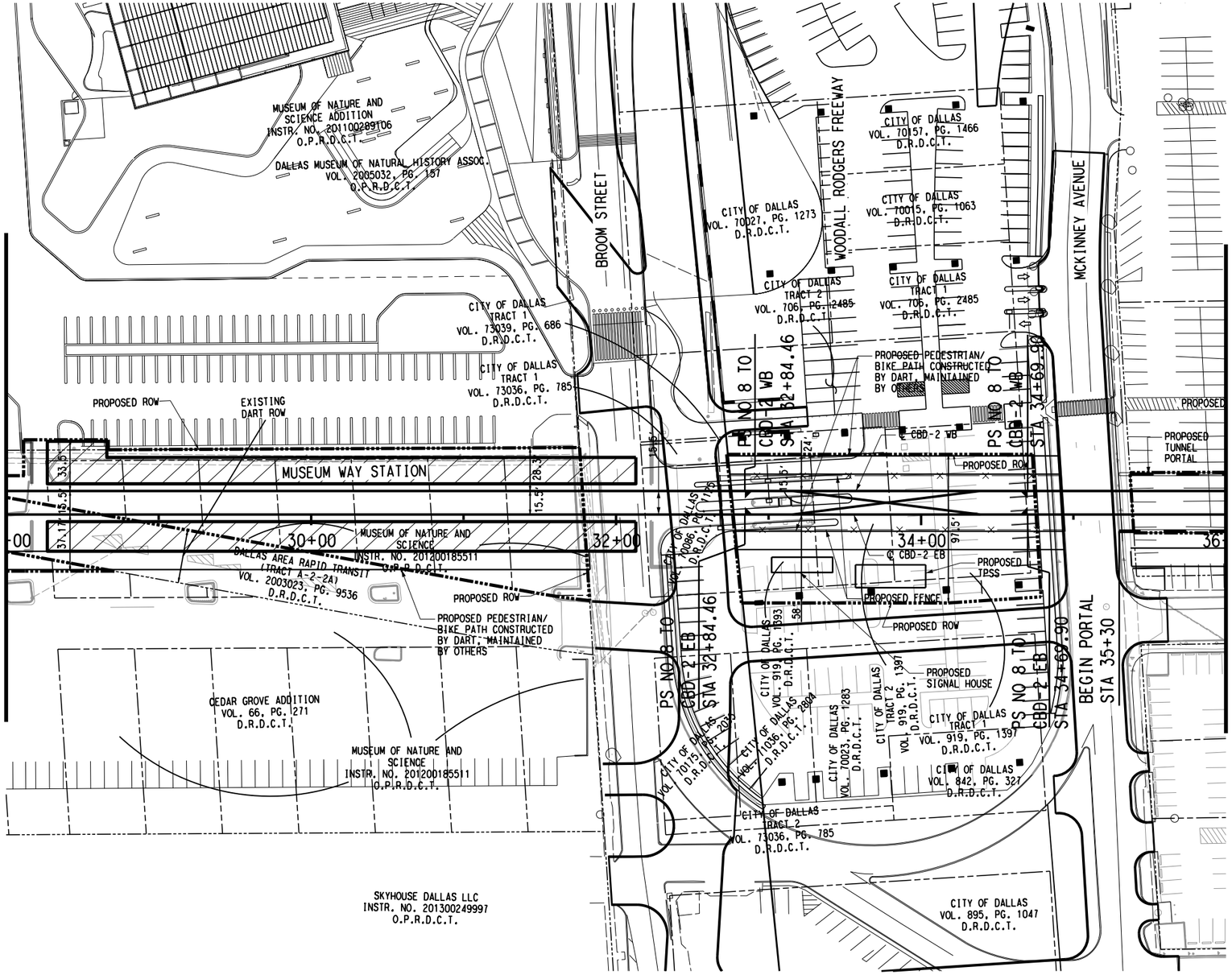
CONTRACT	DWG No.	REV
	RC6-0003	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0003.040

Monday, October 26, 2020 11:31:26 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0003.040

LGUBLO
Default

DWG No. RC6-0004



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 12 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

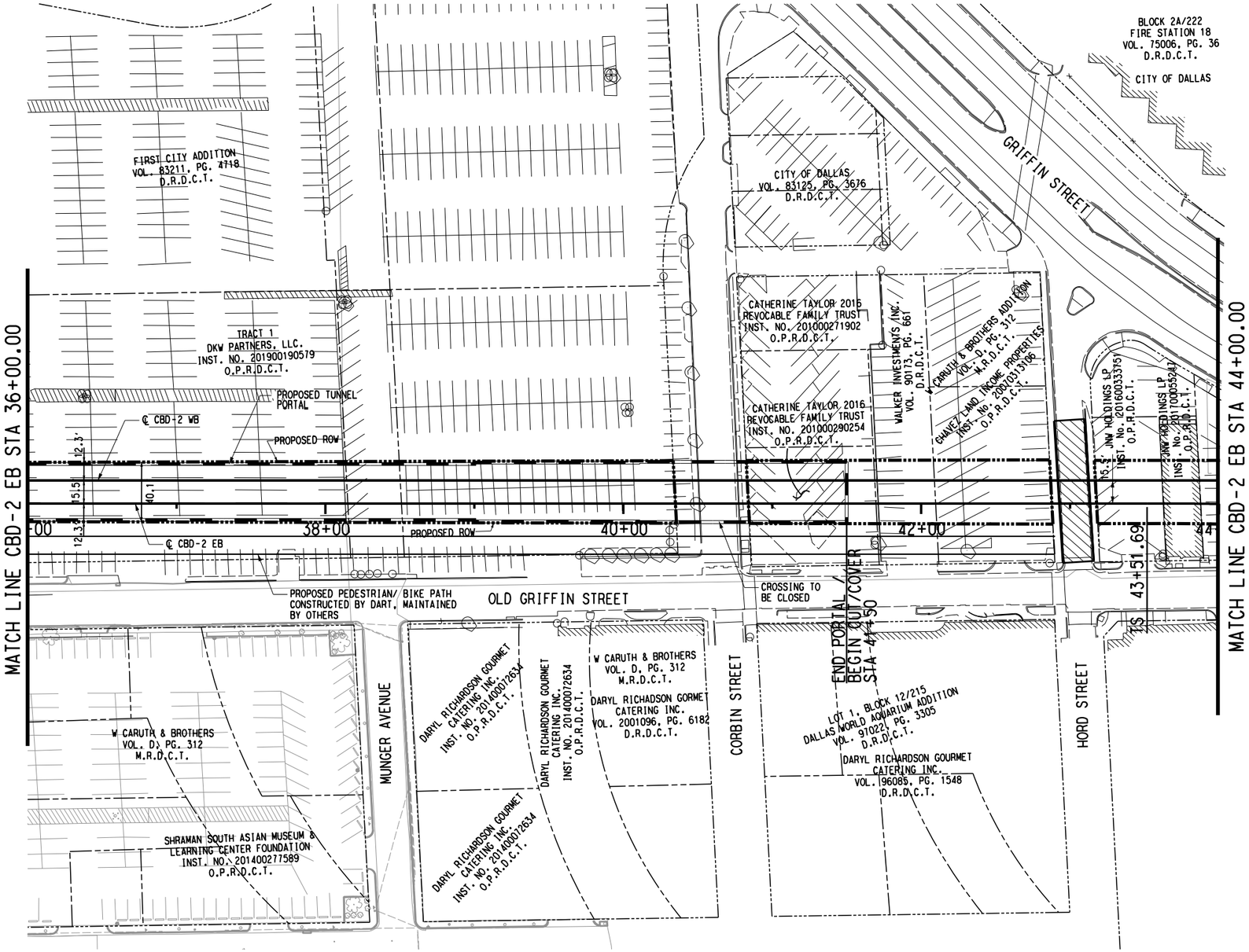
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 28+00.00 TO STA 36+00.00

CONTRACT	DWG No.	REV
	RC6-0004	

Monday, October 26, 2020 11:31:30 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0004.040
LGUBLO
Default

DWG No. RC6-0005



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK. COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 13 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lonestar Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 36+00.00 TO STA 44+00.00

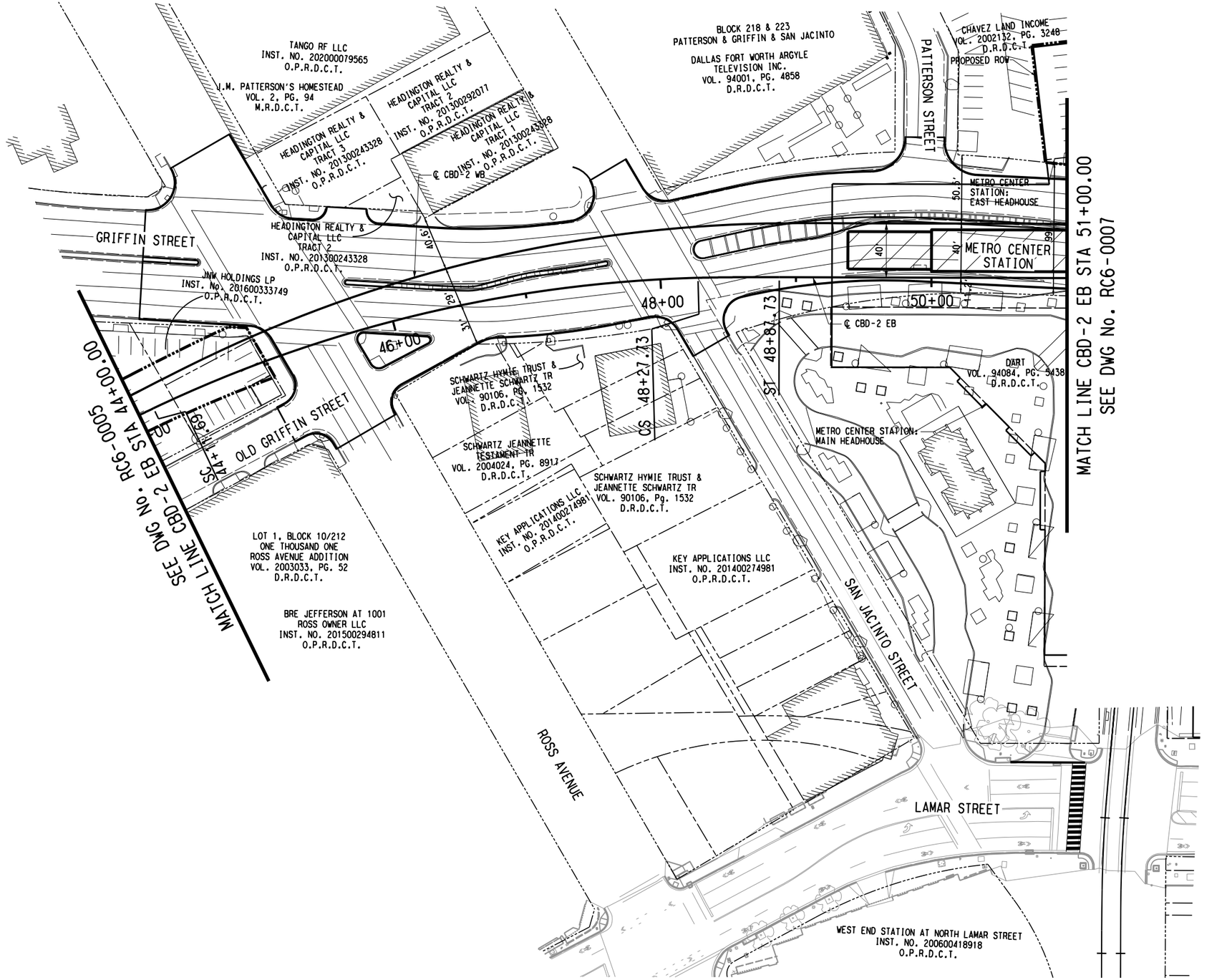
CONTRACT	DWG No.	REV
	RC6-0005	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0005.040

Monday, October 26, 2020 11:31:34 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0005.040

LGUBLO
Default

DWG No. RC6-0006



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK. COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 14 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 44+00.00 TO STA 51+00.00

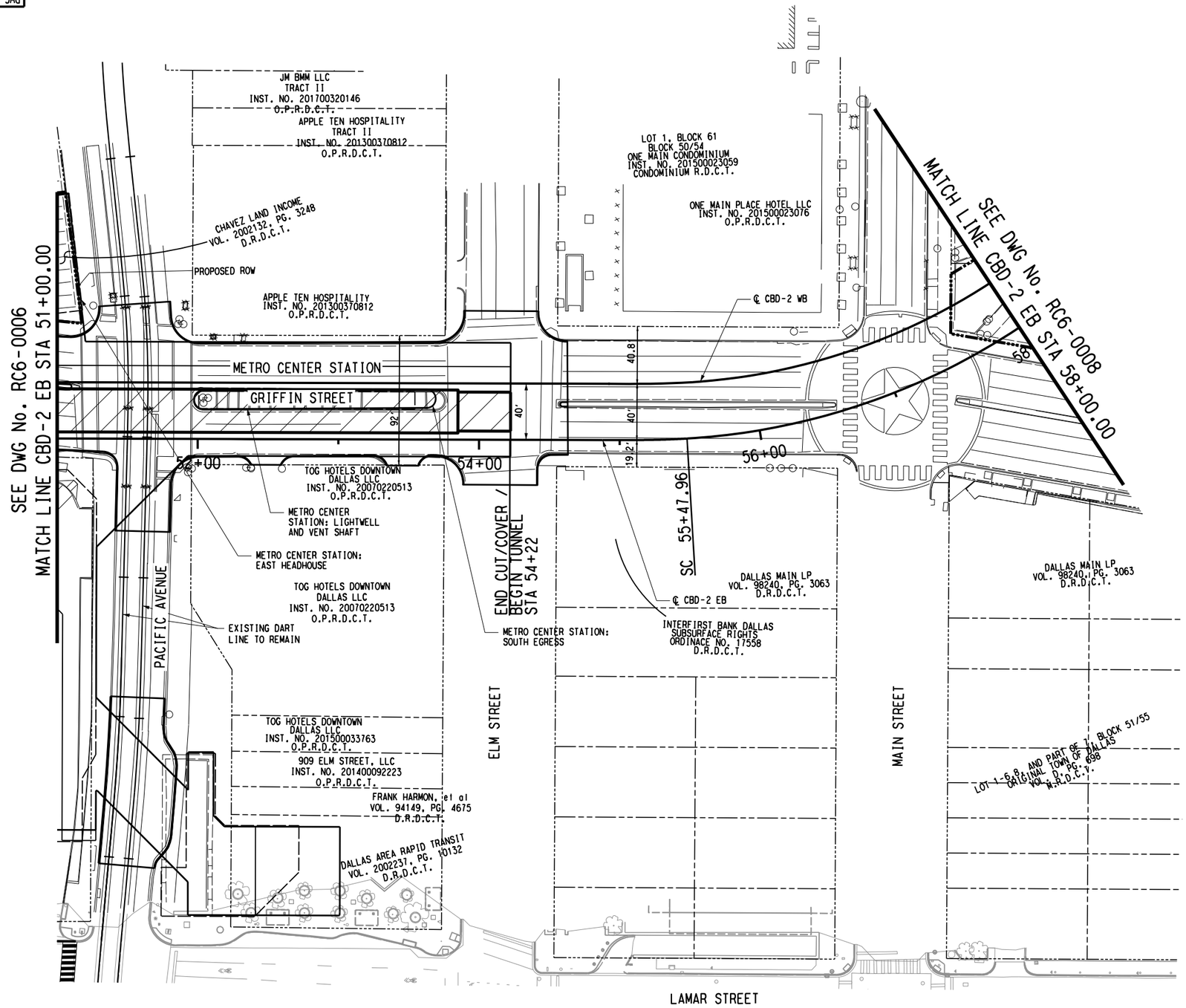
CONTRACT	DWG No.	REV
	RC6-0006	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0006.040

Monday, October 26, 2020 11:31:37 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0006.040

LGUBLO
Default

DWG No. RC6-0007



SCALE (IN FEET)
HORIZ
0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 15 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC.
TBPE FIRM REG. NO. F-356
TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700
Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

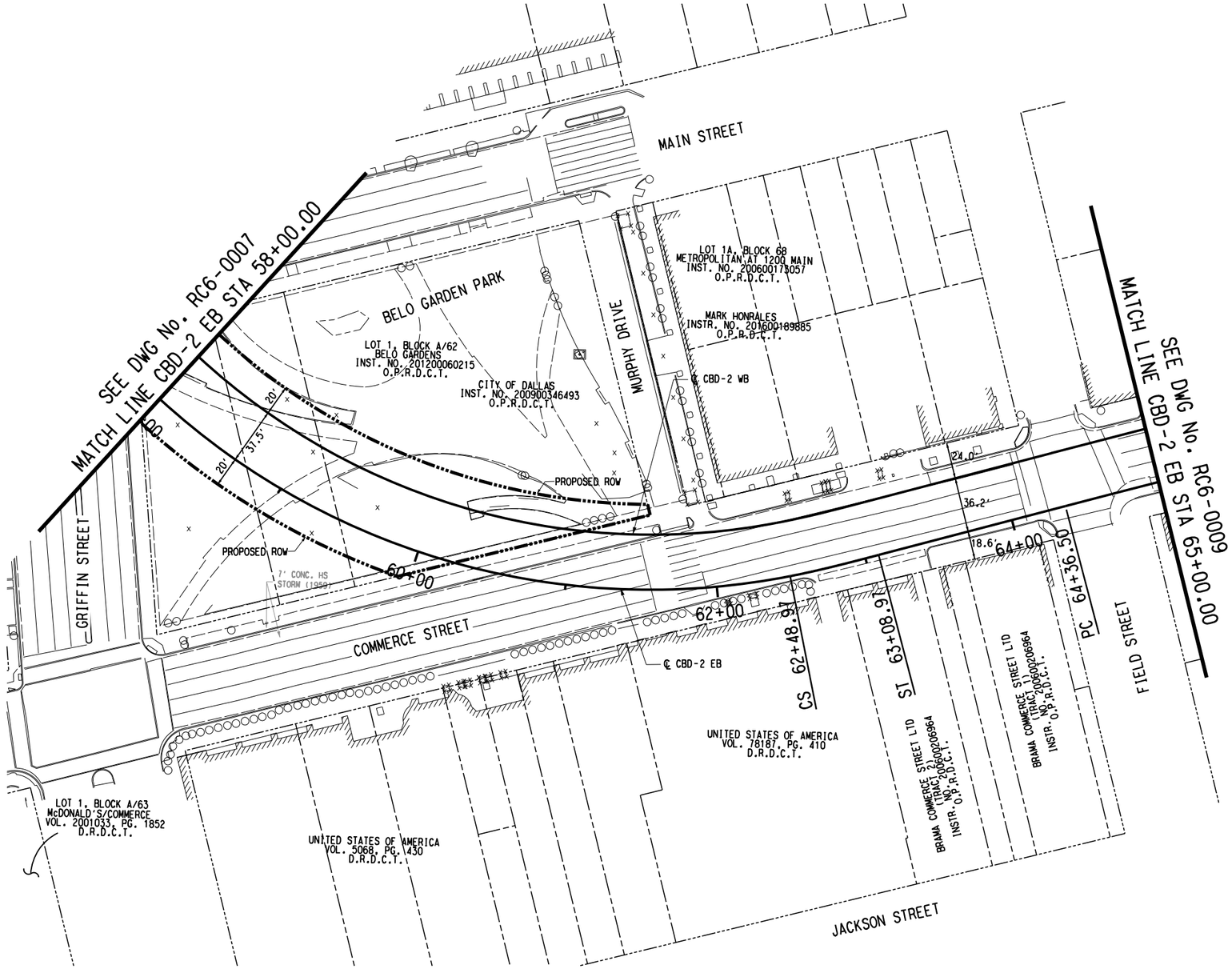
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

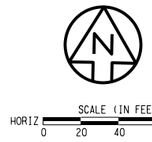
RIGHT-OF-WAY PLAN
STA 51+00.00 TO STA 58+00.00

CONTRACT	DWG No.	REV
	RC6-0007	

Monday, October 26, 2020 11:31:41 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0007.040
LGUBLO
Default

DWG No. RC6-0008





LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 16 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NDM NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

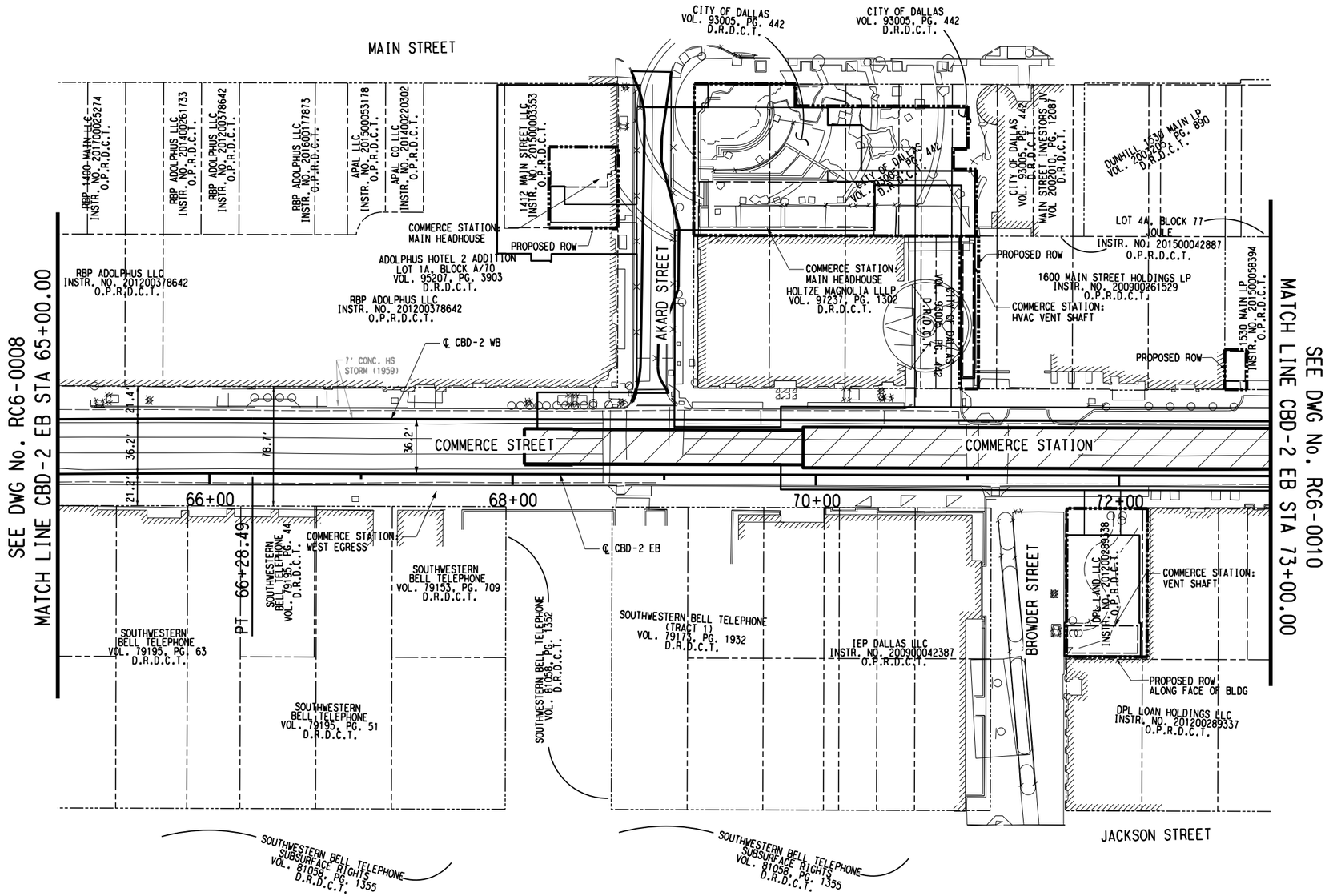
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 58+00.00 TO STA 65+00.00

CONTRACT	DWG No.	REV
	RC6-0008	

Monday, October 26, 2020 11:31:45 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0008.040
LGUBLO
Default

DWG No. RC6-0009



HORIZ SCALE (IN FEET) 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 17 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 65+00.00 TO STA 73+00.00

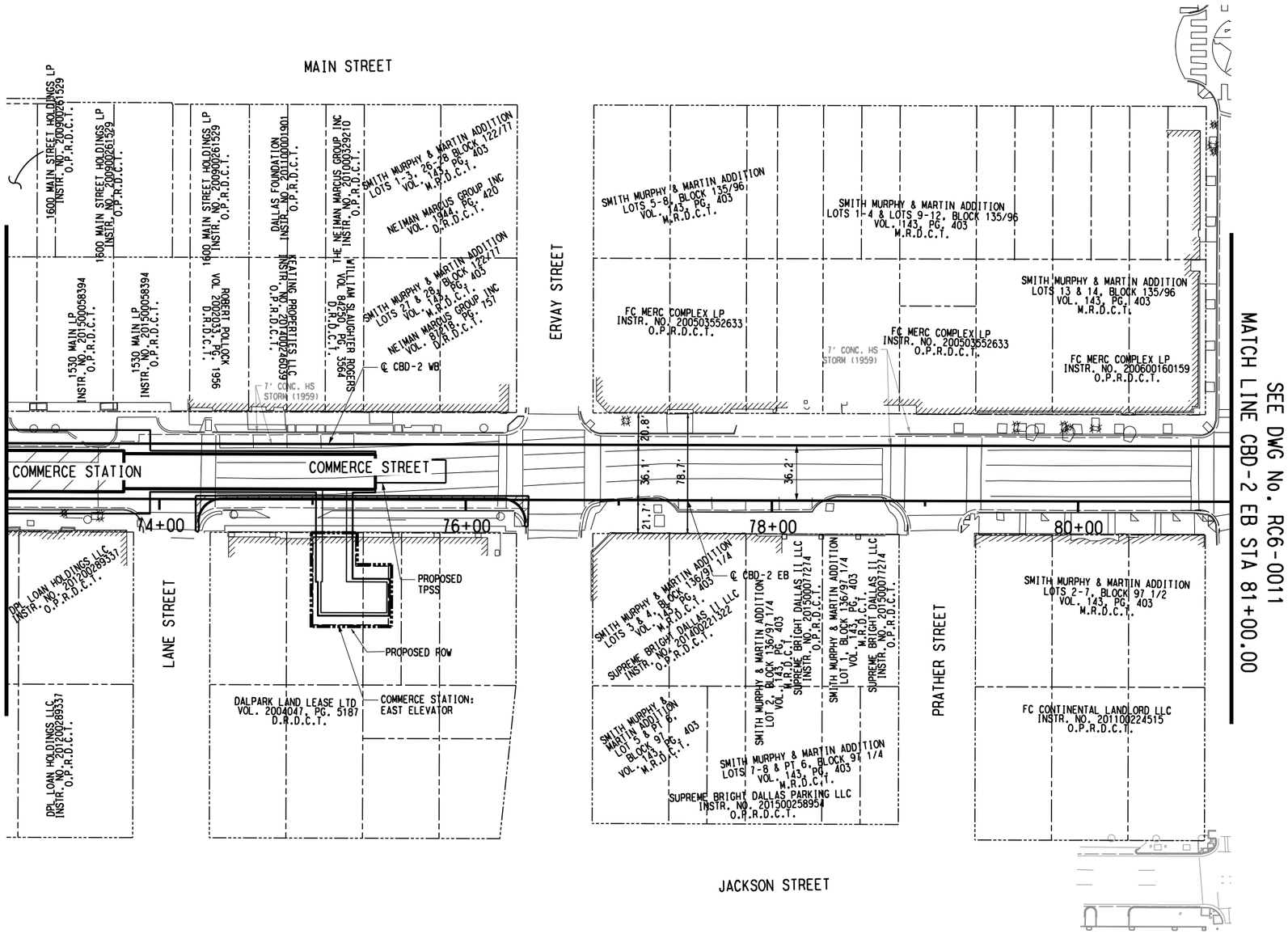
CONTRACT	DWG No.	REV
	RC6-0009	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0009.040

Monday, October 26, 2020 11:31:49 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0009.040

LGUBLO
Default

DWG No. RC6-0010



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 18 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 73+00.00 TO STA 81+00.00

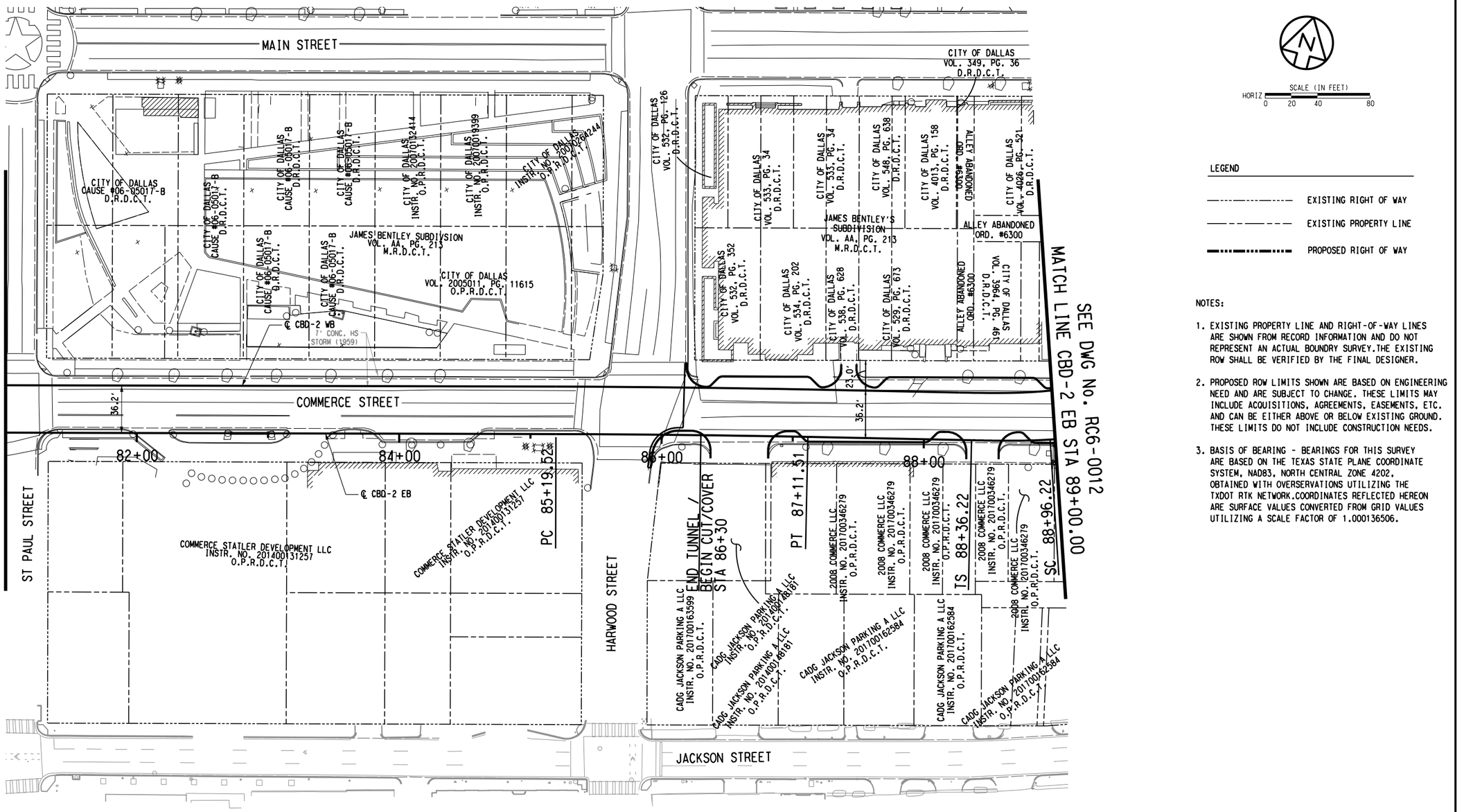
CONTRACT	DWG No.	REV
	RC6-0010	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0010.040

Monday, October 26, 2020 11:31:53 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0010.040

LGUBLO
Default

DWG No. RC6-0011



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK. COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 19 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS, INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

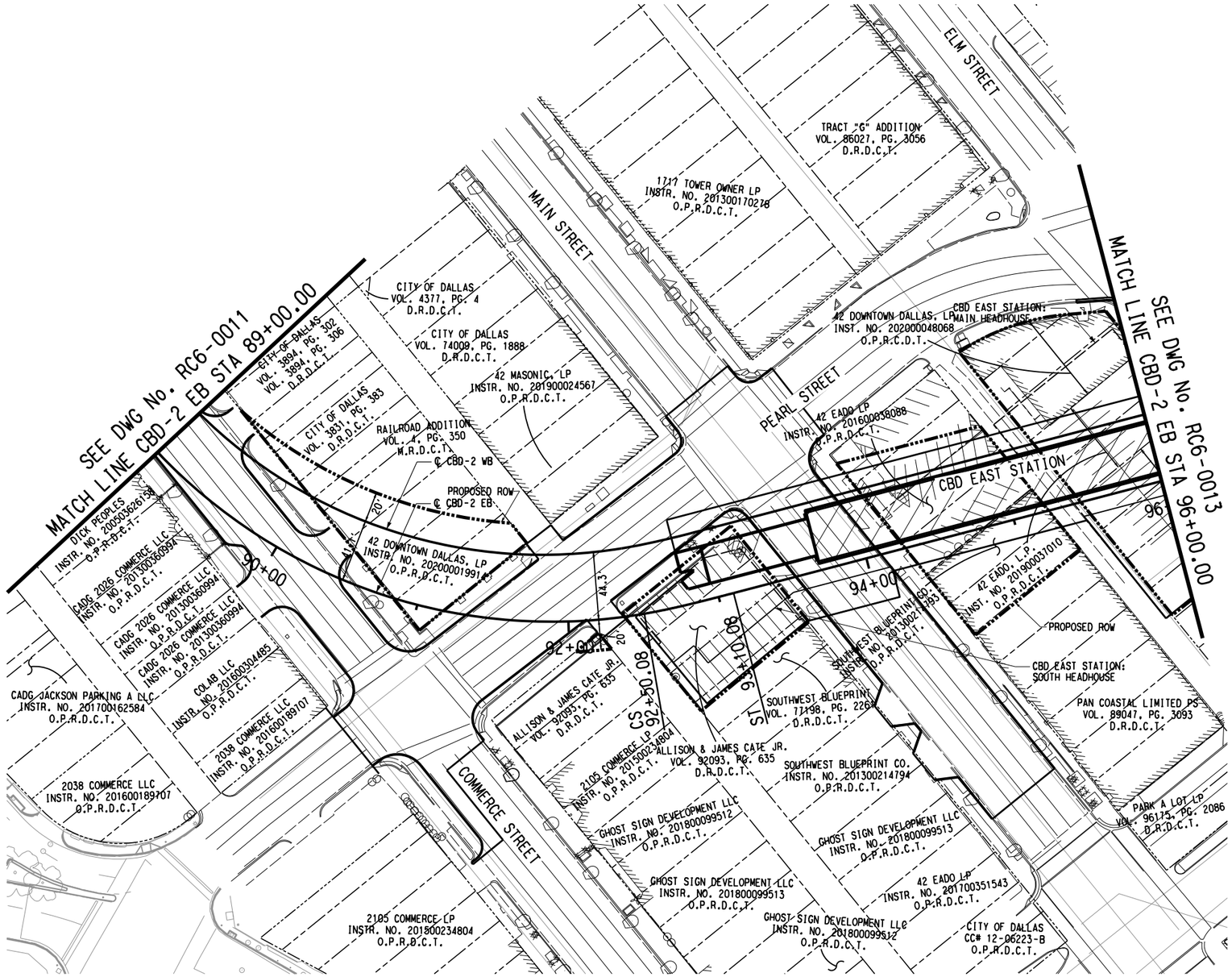
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 81+00.00 TO STA 89+00.00

CONTRACT	DWG No.	REV
	RC6-0011	

Monday, October 26, 2020 11:31:57 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0011.040
LGUBLO
Default

DWG No. RC6-0012



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

EXISTING RIGHT OF WAY

EXISTING PROPERTY LINE

PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 20 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS,INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

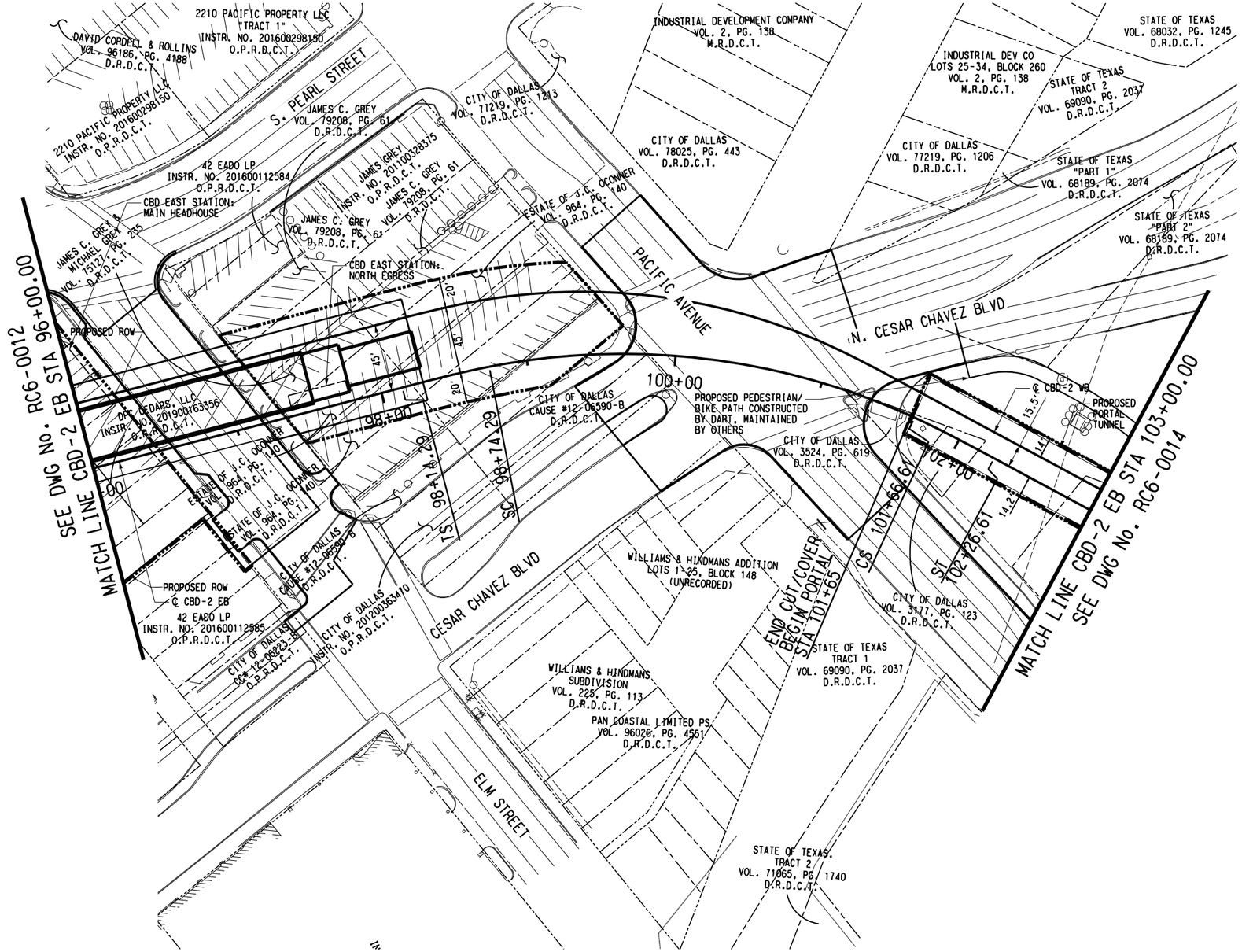
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

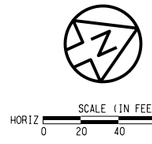
RIGHT-OF-WAY PLAN
STA 89+00.00 TO STA 96+00.00

CONTRACT	DWG No.	REV
	RC6-0012	

Monday, October 26, 2020 11:32:01 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0012.040
LGUBLO
Default
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0012.040

DWG No. RC6-0013





LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 21 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC.
TBPE FIRM REG. NO. F-356
TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700
Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 96+00.00 TO STA 103+00.00

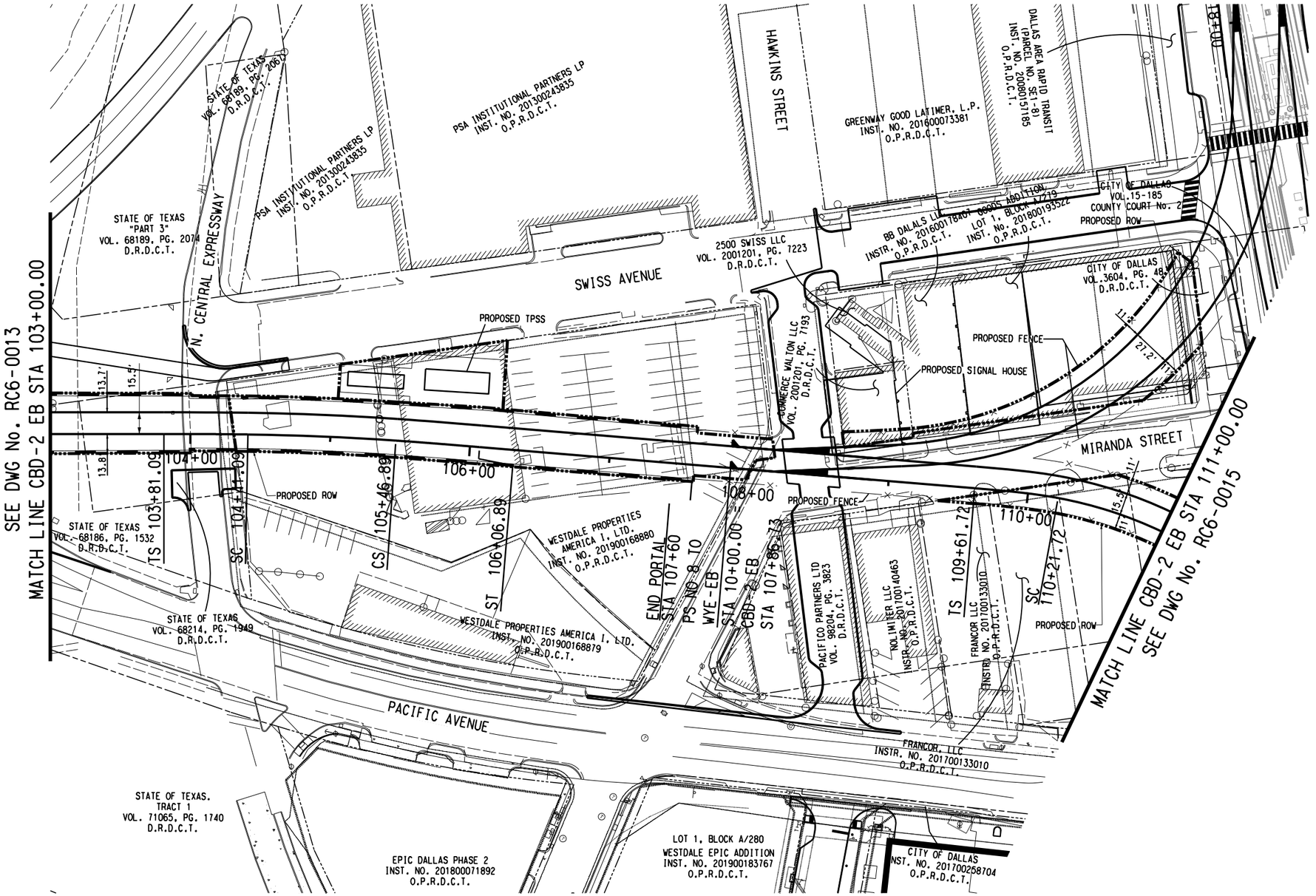
CONTRACT	DWG No.	REV
	RC6-0013	

Monday, October 26, 2020 11:32:04 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0013.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0013.040

DWG No. RC6-0014



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 22 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NDM NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lonestar Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 103+00.00 TO STA 111+00.00

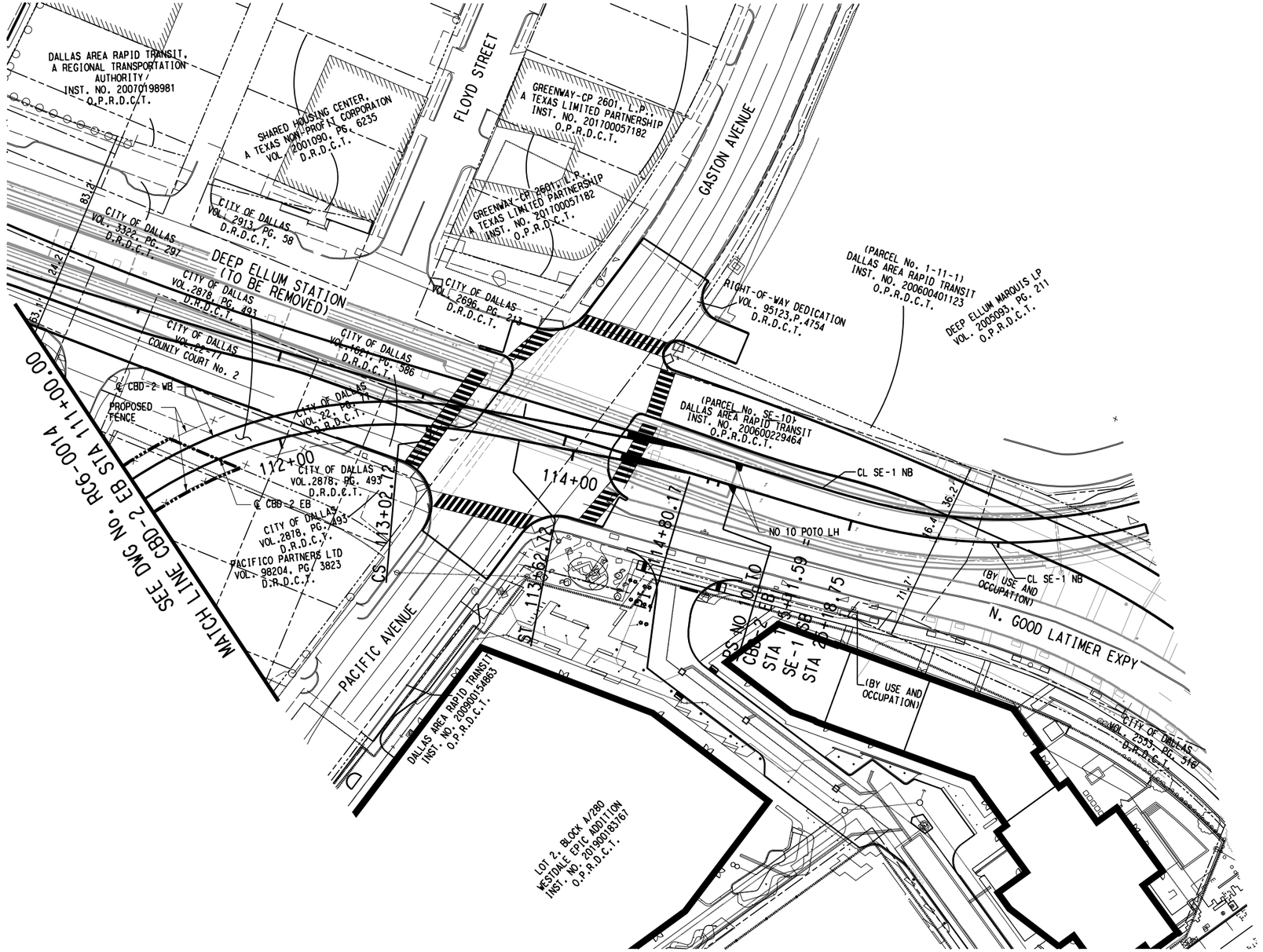
CONTRACT	DWG No.	REV
	RC6-0014	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0014.040

Monday, October 26, 2020 11:32:09 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0014.040

LGUBLO
Default

DWG No. RC6-0015



LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 23 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NDM NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700
Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

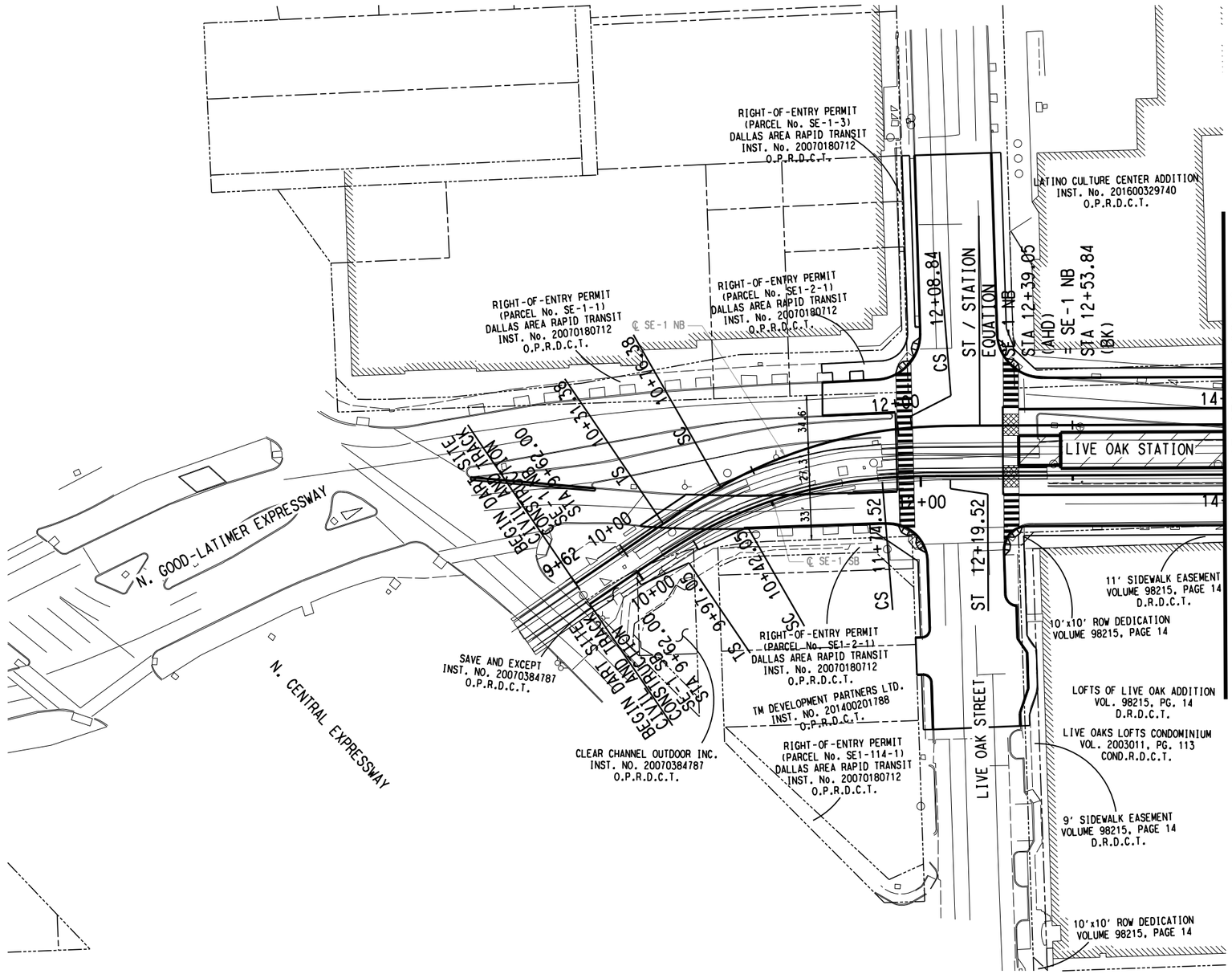
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 111+00.00 TO END OF CBD-2

CONTRACT	DWG No.	REV
	RC6-0015	

Monday, October 26, 2020 11:32:13 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0015.040
LOGBLO
Default

DWG No. RC6-0016



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 24 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. WELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.WELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
BEGIN OF SE-1 TO STA 14+00.00

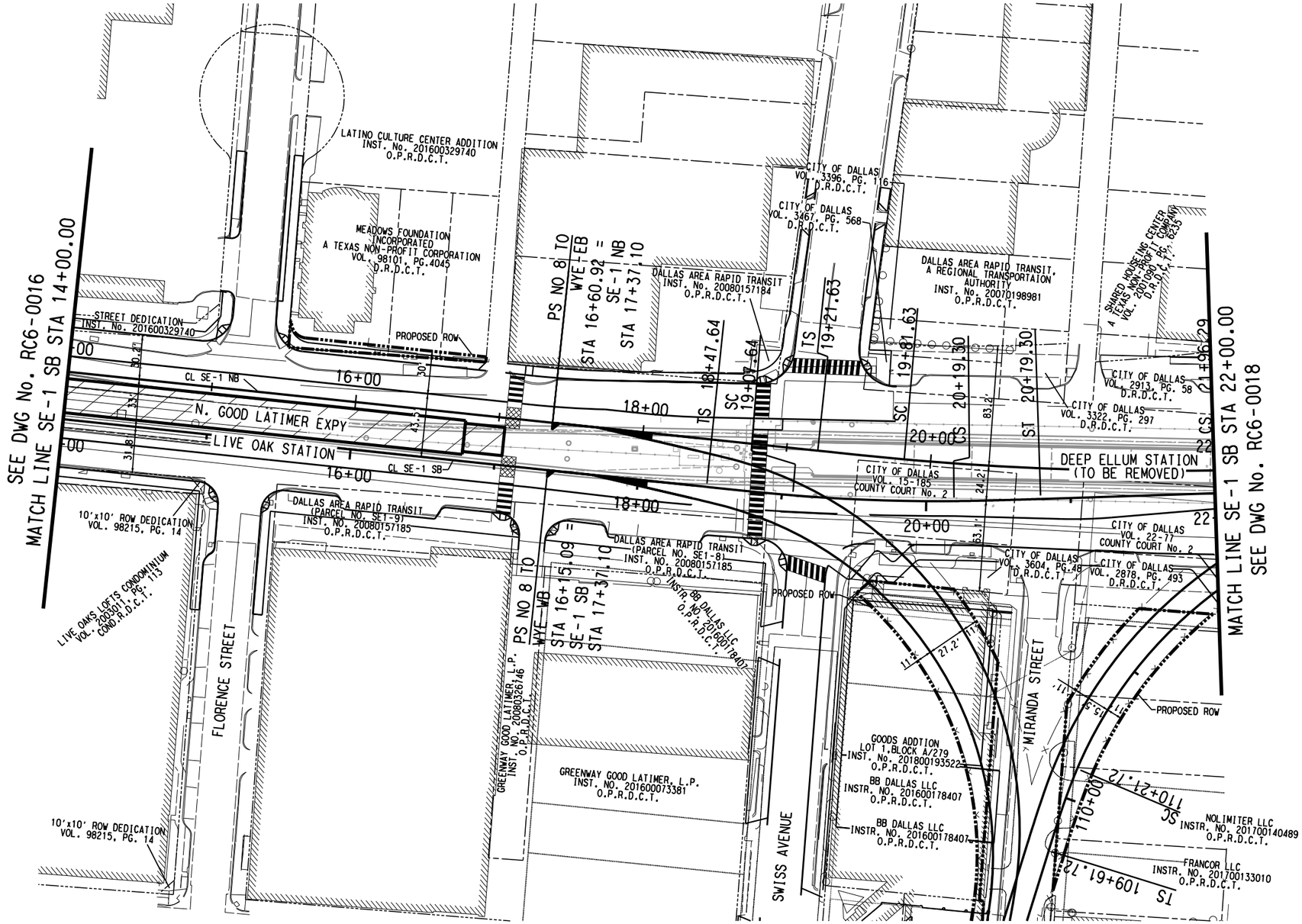
CONTRACT	DWG No.	REV
	RC6-0016	

Monday, October 26, 2020 11:32:18 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0016.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0016.040

DWG No. RC6-0017



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 25 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JOHN L. MELTON, RPLS ON 10/30/2020 NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM NO. F-356/TBPLS NO. 100189-00 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lonestar Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 736-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 14+00.00 TO STA 22+00.00

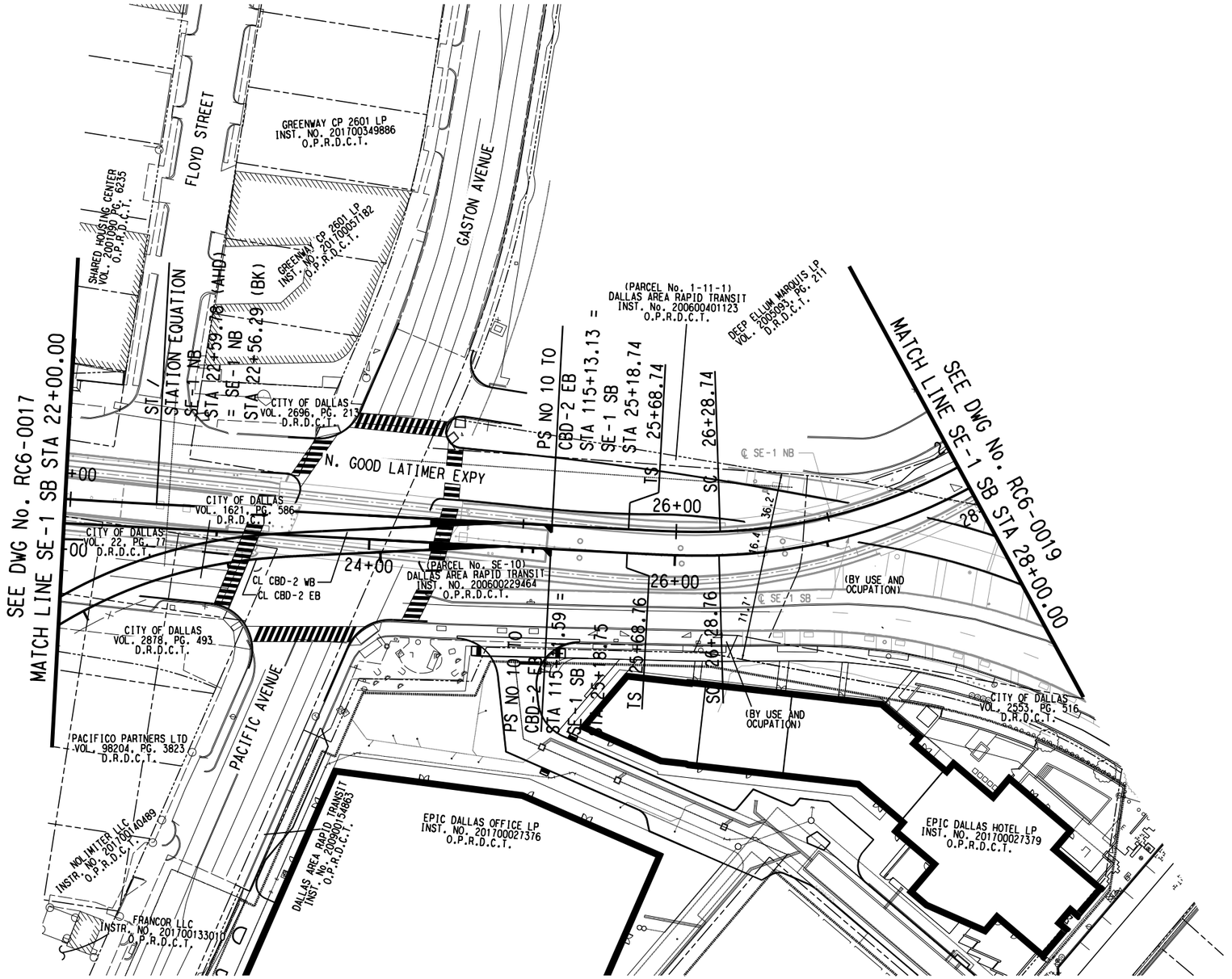
CONTRACT	DWG No.	REV
	RC6-0017	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0017.040

Monday, October 26, 2020 11:32:22 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0017.040

LGUBLO
Default

DWG No. RC6-0018



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 26 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS, INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NDM NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

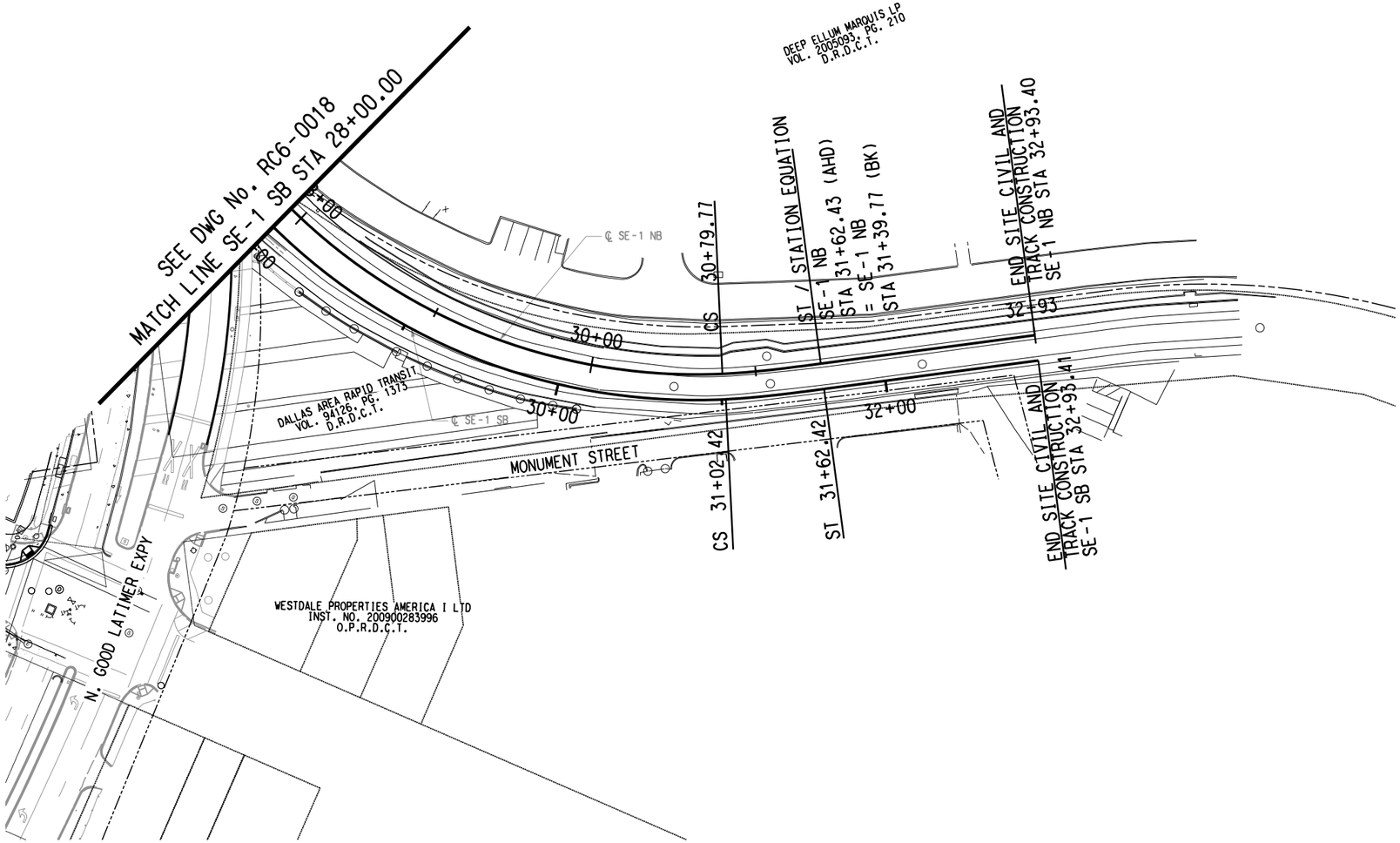
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 22+00.00 TO STA 28+00.00

CONTRACT	DWG No.	REV
	RC6-0018	

Monday, October 26, 2020 11:32:26 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0018.040
LGUBLO
Default

DWG No. RC6-0019



SCALE (IN FEET)
HORIZ 0 20 40 80

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING PROPERTY LINE
- PROPOSED RIGHT OF WAY

NOTES:

1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDRY SURVEY.THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEED AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.
3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, OBTAINED WITH OVERSERVATIONS UTILIZING THE TXDOT RTK NETWORK.COORDINATES REFLECTED HEREON ARE SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 27 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JOHN L. MELTON, RPLS
ON 10/30/2020
NATHAN D. MAIER CONSULTING ENGINEERS,INC.
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NATHAN D. MAIER CONSULTING ENGINEERS, INC. TBPE FIRM REG. NO. F-356 TBPLS FIRM REG. NO. 100189-00
Lakeside Square / 12377 Merit Drive / Suite 700 Dallas, Texas 75251 / (214) 739-4741

DART PROJECT

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	M.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	J.MELTON
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN
STA 28+00.00 TO END OF SE-1

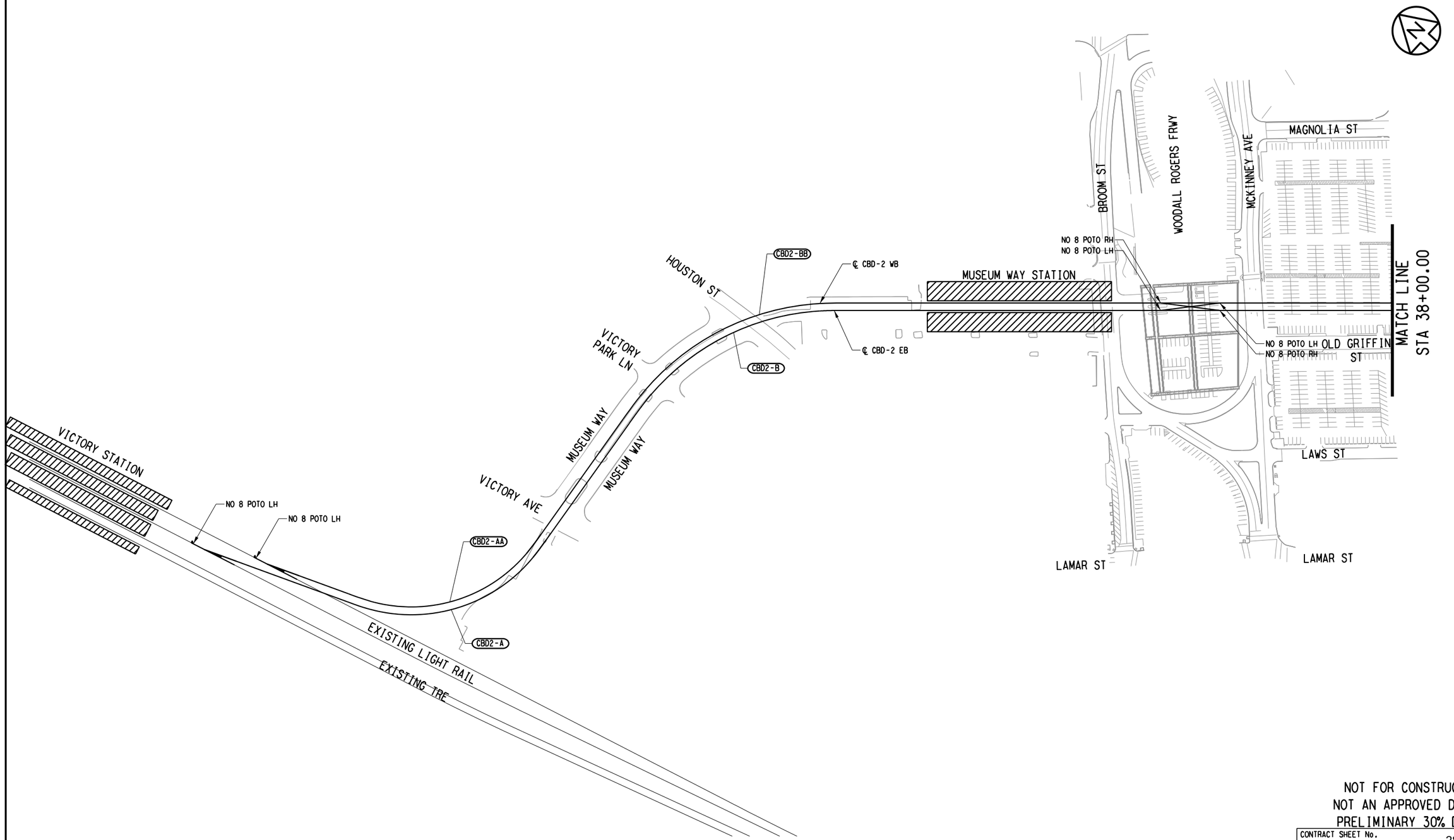
CONTRACT	DWG No.	REV
	RC6-0019	

Monday, October 26, 2020 11:32:31 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0019.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-RW\CBD2-RC6-0019.040

DWG No. CC1-1001



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 28 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

HORIZONTAL ALIGNMENT
SCHEMATIC
SHEET 1 OF 4

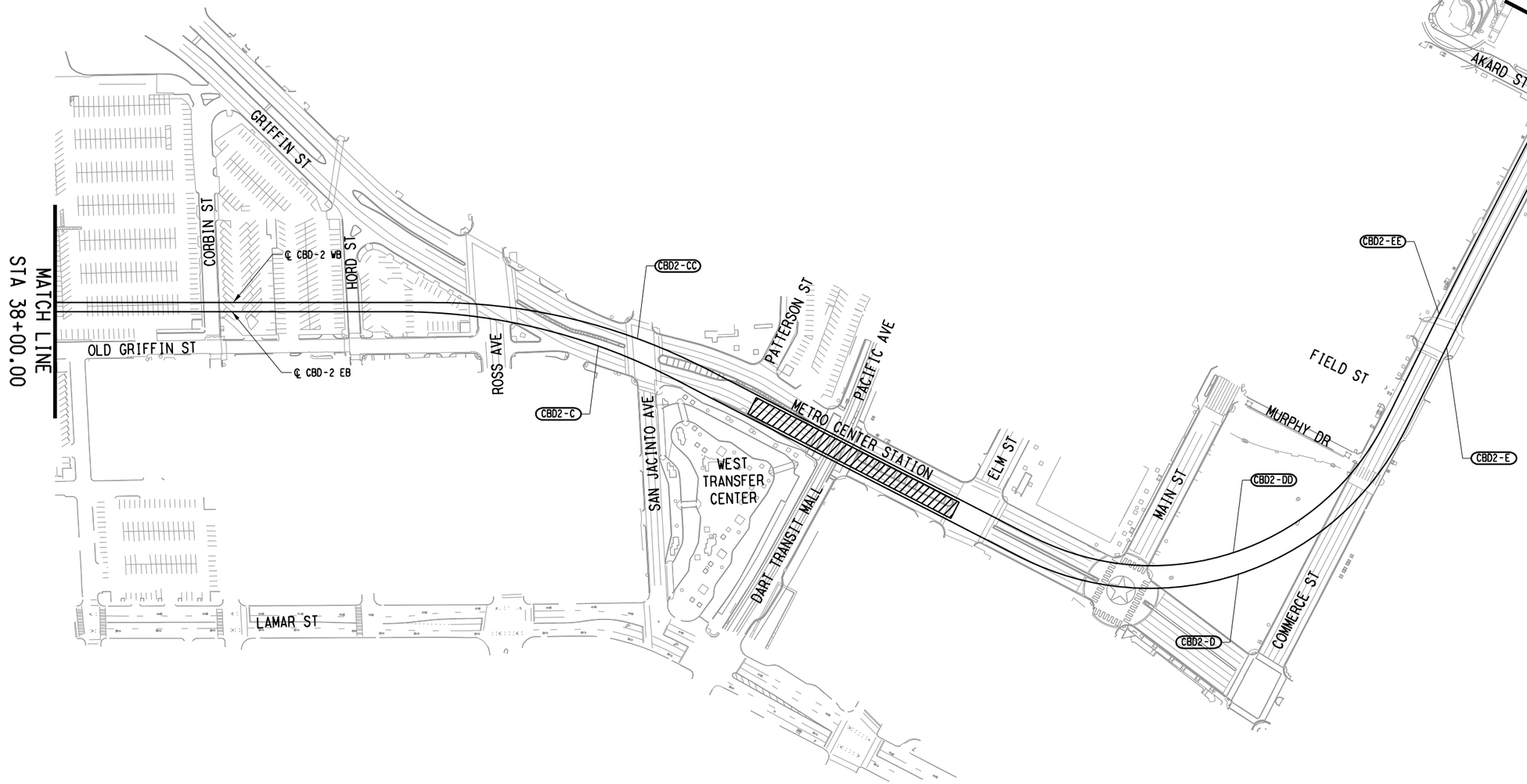
CONTRACT	DWG No.	REV
	CC1-1001	

Monday, October 26, 2020 09:57:11 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1001.100

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1001.100

DWG No. CC1-1002



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 29 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

HORIZONTAL ALIGNMENT
SCHEMATIC
SHEET 2 OF 4

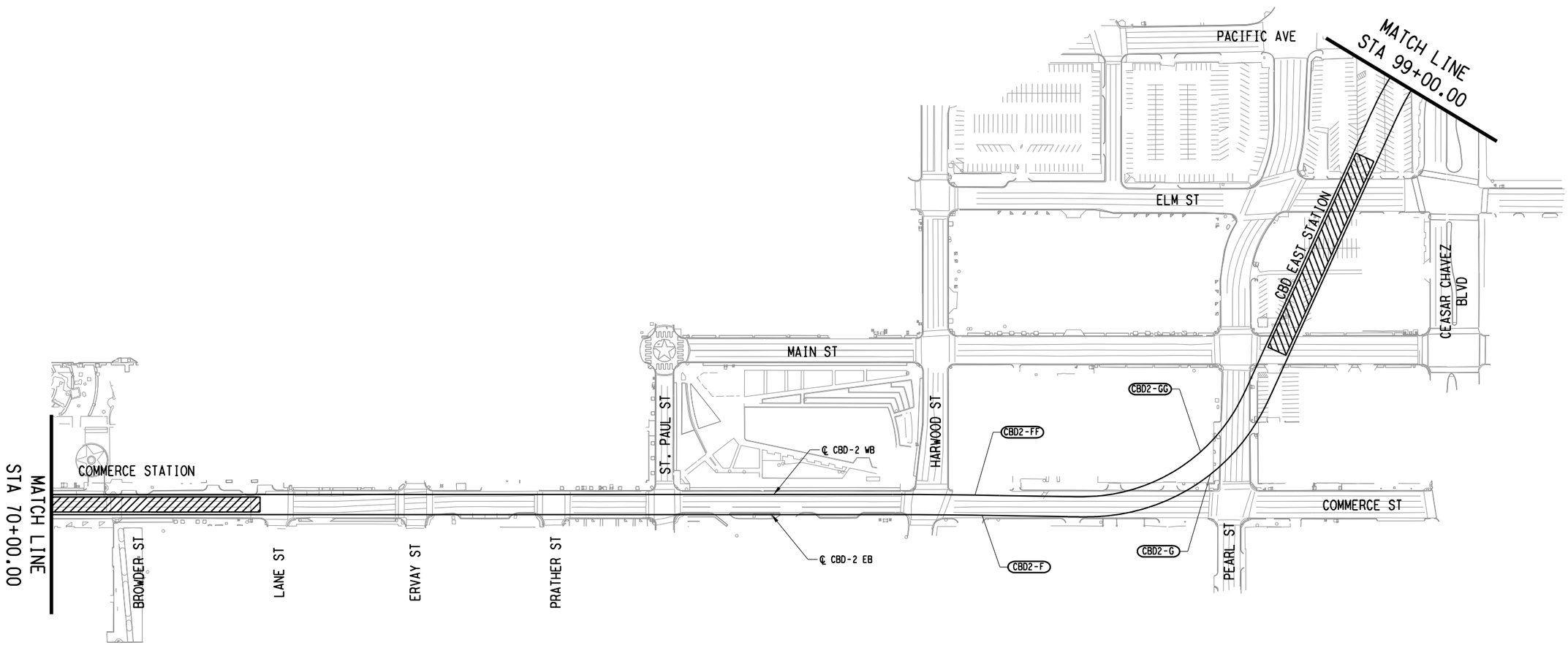
CONTRACT	DWG No.	REV
	CC1-1002	

Monday, October 26, 2020 09:57:14 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1002.100

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1002.100

DWG No. CC1-1003



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 30 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

HORIZONTAL ALIGNMENT
SCHEMATIC
SHEET 3 OF 4

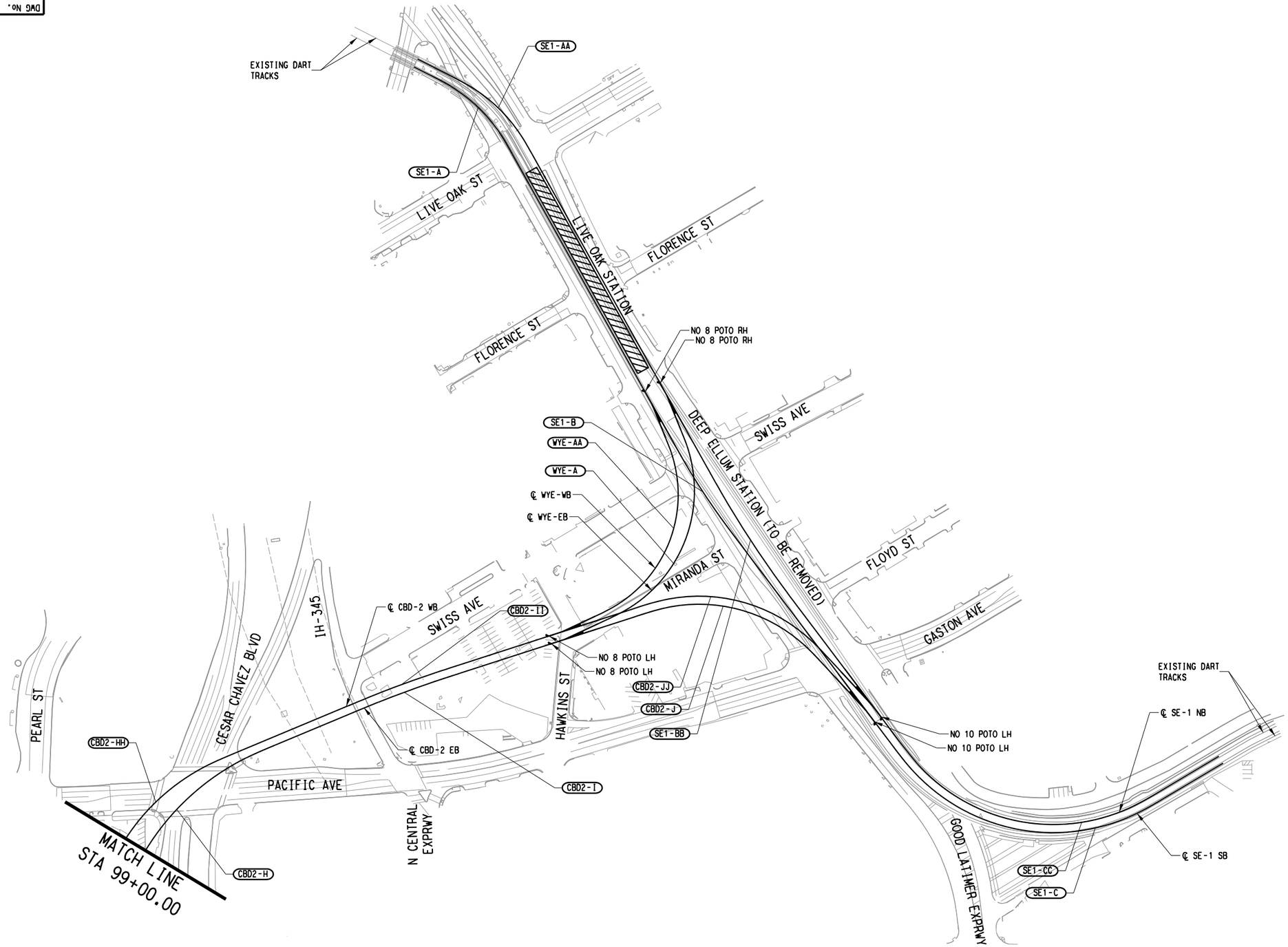
CONTRACT | DWG No. CC1-1003 | REV

Monday, October 26, 2020 09:57:18 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1003.100

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1003.100

DWG No. CC1-1004



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 31 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

HORIZONTAL ALIGNMENT
SCHEMATIC
SHEET 4 OF 4

CONTRACT	DWG No.	REV
	CC1-1004	

Monday, October 26, 2020 09:57:23 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1004.100
LGUBLO
Default

DWG No. CC1-1005

LINE SECTION CBD-2 EB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POB	10+00.00	6974996.78	2487462.37								
					STRAIGHT	30.96						S 15° 08' 16.40" E
	PI	10+30.96	6974966.89	2487470.45								
					STRAIGHT	317.21					7° 09' 10" Left	S 22° 17' 26.50" E
	TS	13+48.17	6974673.38	2487590.77								
					SPIRAL	45.00						
	SC	13+93.17	6974632.15	2487608.78								
CBD2-A	PI	16+10.78	6974436.90	2487704.84	R = 330.00	384.76	Dc = 17° 21' 45"	0.50	0.71	10	66° 48' 10" Left	
	CS	17+77.93	6974448.29	2487922.15								
					SPIRAL	45.00						
	ST	18+22.93	6974452.68	2487966.93								
					STRAIGHT	299.54						N 83° 05' 36.53" E
	TS	21+22.47	6974488.70	2488264.29								
					SPIRAL	60.00						
	SC	21+82.47	6974494.73	2488323.98								
CBD2-B	PI	24+05.52	6974508.35	2488546.62	R = 504.50	420.03	Dc = 11° 21' 25"	0.00	1.78	15	47 °42 '11" Right	
	CS	26+02.50	6974352.83	2488706.52								
					SPIRAL	60.00						
	ST	26+62.50	6974309.34	2488747.83								
					STRAIGHT	1689.19						S 42° 23' 21.74" E
	TS	43+51.69	6973061.73	2489886.62								
					SPIRAL	60.00						
	SC	44+11.69	6973017.02	2489926.63								
CBD2-C	PI	46+22.76	6972856.93	2490064.18	R = 1000.00	416.04	Dc = 5° 43' 46"	1.00	1.50	25	23° 50' 14" Right	
	CS	48+27.73	6972654.90	2490125.31								
					SPIRAL	60.00						
	ST	48+87.73	6972597.14	2490141.53								
					STRAIGHT	600.23						S 15° 06' 51.72" E
	TS	54+87.96	6972017.67	2490298.04								
					SPIRAL	60.00						
	SC	55+47.96	6971960.09	2490314.88								
CBD2-D	PI	59+77.71	6971553.02	2490452.63	R = 480.00	701.00	Dc = 11° 56' 12"	1.00	0.88	15	83° 40' 33" Left	
	CS	62+48.97	6971645.09	2490872.39								
					SPIRAL	60.00						
	ST	63+08.97	6971660.37	2490930.40								
					STRAIGHT	127.54						N 74° 02' 52.42" E

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 32 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 EB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CONTRACT | DWG No. CC1-1005 | REV

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1005.001

Monday, October 26, 2020 09:57:26 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1005.001

LGUBLO
Default

LINE SECTION CBD-2 EB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	PC	64+36.50	6971695.43	2491053.03								
CBD2-E	PI	65+32.50	6971721.81	2491145.33	R = 11000.00	191.99	Dc = 0 ° 31′ 15"	0.00	0.15	20	01° 00′ 00" Right	
	PT	66+28.49	6971746.58	2491238.08								
					STRAIGHT	1891.03						N 75° 02′ 52.42" E
	PC	85+19.52	6972234.49	2493065.08								
CBD2-F	PI	86+15.52	6972259.25	2493157.83	R = 11000.00	191.99	Dc = 0 ° 31′ 15"	0.00	0.15	20	01° 00′ 00" Right	
	PT	87+11.51	6972282.40	2493250.99								
					STRAIGHT	124.71						N 76° 02′ 52.42" E
	TS	88+36.22	6972312.47	2493372.02								
					SPIRAL	60.00						
	SC	88+96.22	6972328.56	2493429.80								
CBD2-G	PI	90+89.32	6972390.73	2493612.62	R = 356.00	353.86	Dc = 16° 05′ 40"	1.50	1.03	15	56° 57′ 07" Left	
	CS	92+50.08	6972577.87	2493660.21								
					SPIRAL	60.00						
	ST	93+10.08	6972636.74	2493671.71								
					STRAIGHT	504.21						N 09° 26′ 71.78" E
	TS	98+14.29	6973134.11	2493754.40								
					SPIRAL	60.00						
	SC	98+74.29	6973193.07	2493765.49								
CBD2-H	PI	100+25.35	6973340.20	2493799.72	R = 470.00	292.32	Dc = 12° 11′ 26"	1.75	1.65	20	35° 38′ 08" Right	
	CS	101+66.61	6973439.84	2493913.27								
					SPIRAL	60.00						
	ST	102.26.61	6973477.45	2493960.00								
					STRAIGHT	154.48						N 52° 23′ 21.13" E
	TS	103+81.09	6973571.73	2494082.37								
					SPIRAL	60.00						
	SC	104+41.09	6973608.11	2494130.09								
CBD2-I	PI	104+94.00	6973639.77	2494172.48	R = 2000.00	105.81	Dc = 02° 51′ 53"	0.50	0.75	25	03° 01′ 52" Right	
	CS	105+46.89	6973669.14	2494216.50								
					SPIRAL	60.00						
	ST	106+06.89	6973701.95	2494266.73								
					STRAIGHT	354.83						N 57° 08′ 21.13" E

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 33 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 EB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CONTRACT | DWG No. CC1-1006 | REV

Monday, October 26, 2020 09:57:29 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1006.001
LGUBLO
Default

DWG No. CC1-1007

LINE SECTION CBD-2 EB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	TS	109+61.72	6973894.48	2494564.78								
					SPIRAL	60.00						
	SC	110+21.72	6973925.33	2494616.22								
CBD2-J	PI	111+73.48	6973994.53	2494751.28	R = 300.00	281.00	Dc = 19° 05' 55"	1.50	1.50	15	53° 40' 03" Right	
	CS	113+02.72	6973926.73	2494887.06								
					SPIRAL	60.00						
	ST	113+62.72	6973896.42	2494938.81								
					STRAIGHT	117.44						S 57° 44' 03.01" E
	PI	114+80.17	6973833.73	2495038.11								
					STRAIGHT	31.42						S 52° 00' 34.09" E
	POE	115+11.59	6973814.39	2495062.88								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 34 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 EB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CONTRACT	DWG No.	REV
	CC1-1007	

Monday, October 26, 2020 09:57:33 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1007.001
LGUBLO
Default

DWG No. CC1-1008

LINE SECTION CBD-2 WB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POB	11+33.54	6974879.47	2487528.29								
					STRAIGHT	30.96						S 15° 08' 16.40" E
	PI	11+64.50	6974849.59	2487536.37								
					STRAIGHT	181.39					7° 09' 10" Left	S 22° 17' 26.48" E
	TS	13+45.89	6974681.75	2487605.17								
					SPIRAL	50.00						
	SC	13+95.89	6974636.02	2487625.35								
CBD2-AA	PI	15+98.21	6974455.51	2487716.72	R = 314.50	359.57	Dc = 18° 13' 05"	0.50	0.77	10	65° 30' 24" Left	
	CS	17+55.46	6974463.81	2487918.86								
					SPIRAL	50.00						
	ST	18+05.46 (BK) 18+26.52 (AHD)	6974468.50	2487968.63								
					STRAIGHT	295.95						N 83° 05' 37.04" E
	TS	21+22.47	6974504.09	2488262.43								
					SPIRAL	60.00						
	SC	21+82.47	6974510.16	2488322.12								
CBD2-BB	PI	24+13.48	6974524.67	2488552.67	R = 520.00	434.78	Dc = 11° 01' 06"	0.00	1.73	15	47° 54' 21" Right	
	CS	26+17.25	6974363.31	2488717.99								
					SPIRAL	60.00						
	ST	26+77.25 (BK) 26+62.50 (AHD)	6974319.79	2488759.27								
					STRAIGHT	1746.42						S 42° 23' 21.74" E
	TS	44+08.92	6973029.92	2489936.65								
					SPIRAL	60.00						
	SC	44+68.92	6972985.20	2489976.65								
CBD2-CC	PI	46+79.99	6972825.11	2490114.21	R = 1000.00	416.04	Dc = 5° 43' 46"	1.00	1.50	25	23° 50' 14" Right	
	CS	48+84.95	6972623.08	2490175.33								
					SPIRAL	60.00						
	ST	49+44.96 (BK) 49+31.49 (AHD)	6972565.32	2490191.56								
					STRAIGHT	560.28						S 15° 06' 51.72" E
	TS	54+91.77	6972024.42	2490337.65								
					SPIRAL	60.00						
	SC	55+51.77	6971966.88	2490354.60								
CBD2-DD	PI	59+41.22	6971598.69	2490481.53	R = 440.00	637.58	Dc = 13° 01' 18"	1.00	1.05	15	83° 01' 29" Left	
	CS	61+89.36	6971679.97	2490862.40								
					SPIRAL	60.00						
	ST	62+49.35 (BK) 63+08.94 (AHD)	6971695.14	2490920.44								
					STRAIGHT	127.57						N 74° 02' 52.42" E

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 35 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 WB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CONTRACT | DWG No. CC1-1008 | REV

Monday, October 26, 2020 09:57:36 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1008.001

LGUBLO
Default

DWG No. CC1-1009

LINE SECTION CBD-2 WB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	PC	64+36.51	6971730.20	2491043.09								
CBD2-EE	PI	65+32.82	6971756.67	2491135.69	R = 11036.17	192.62	Dc = 0 ° 31′ 15"	0.00	0.14	20	01° 00′ 00" Right	
	PT	66+29.13 (BK) 66+28.49 (AHD)	6971781.52	2491228.75								
					STRAIGHT	1891.04						N 75° 05′ 52.42" E
	PC	85+19.52	6972269.43	2493055.75								
CBD2-FF	PI	86+15.84	6972294.28	2493148.80	R = 11036.17	192.62	Dc = 0 ° 31′ 15"	0.00	0.14	20	01° 00′ 00" Right	
	PT	87+12.14 (BK) 87+11.51 (AHD)	6972317.50	2493242.27								
					STRAIGHT	114.95						N 76° 05′ 52.42" E
	TS	88+26.46	6972345.21	2493353.82								
					SPIRAL	60.00						
	SC	88+86.46	6972361.49	2493411.55								
CBD2-GG	PI	90+56.13	6972417.63	2493571.66	R = 320.00	312.01	Dc = 17° 54′ 18"	1.50	1.31	15	55° 51′ 56" Left	
	CS	91+98.48	6972581.66	2493615.03								
					SPIRAL	60.00						
	ST	92+58.48 (BK) 93+06.39 (AHD)	6972640.49	2493626.71								
					STRAIGHT	509.81						N 09° 26′ 21.78" E
	TS	98+16.20	6973143.39	2493710.32								
					SPIRAL	60.00						
	SC	98+76.20	6973202.30	2493721.64								
CBD2-HH	PI	99+99.85	6973322.41	2493751.00	R = 400.00	239.85	Dc = 14° 19′ 26"	1.00	1.25	15	34° 21′ 20" Right	
	CS	101+16.04	6973405.00	2493843.02								
					SPIRAL	60.00						
	ST	101+76.04 (BK) 101+51.36 (AHD)	6973442.79	2493889.61								
					STRAIGHT	231.39						N 52° 23′ 21.13" E
	TS	103+82.76	6973584.01	2494072.91								
					SPIRAL	60.00						
	SC	104+42.76	6973620.39	2494120.62								
CBD2-II	PI	104+96.31	6973652.44	2494163.53	R = 2015.50	107.09	Dc = 02° 50′ 34"	0.50	0.74	25	03° 02′ 40" Right	
	CS	105+49.85	6973682.17	2494208.09								
					SPIRAL	60.00						
	ST	106+09.85 (BK) 106+06.89 (AHD)	6973714.97	2494258.32								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 36 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 WB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CONTRACT | DWG No. CC1-1009 | REV

Monday, October 26, 2020 09:57:39 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1009.001
LGUBLO
Default

DWG No. CC1-1010

LINE SECTION CBD-2 WB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
					STRAIGHT	354.76						N 57° 08' 21.13" E
	TS	109+61.64	6973907.46	2494556.31								
					SPIRAL	60.00						
	SC	110+21.64	6973938.39	2494607.70								
CBD2-JJ	PI	111+83.20	6974012.77	2494751.11	R = 315.50	298.62	Dc = 18° 09' 37"	1.50	1.35	15	54° 13' 50" Right	
	CS	113+20.26	6973939.89	2494895.29								
					SPIRAL	60.00						
	ST	113+80.26 (BK) 113+62.67 (AHD)	6973909.49	2494947.00								
					STRAIGHT	119.04						S 57° 44' 03.01" E
	PI	114+81.71	6973845.94	2495047.66								
	POE	115+13.13	6973826.60	2495072.42								
					STRAIGHT	31.42						S 52° 00' 34.09" E

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 37 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2 WB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CONTRACT	DWG No.	REV
	CC1-1010	

Monday, October 26, 2020 09:57:42 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1010.001

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1010.001

DWG No. CC1-1011

LINE SECTION SE-1 SB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF SOUTHBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POT	9+62.00	6974802.95	2493881.74								
					STRAIGHT	35.05						S 78° 02' 04.41" E
	TS	9+97.05	6974795.69	2493916.03								
					SPIRAL	45.00						
	SC	10+42.05	6974785.26	2493959.79								
SE1-A	PI	11+09.38	6974766.41	2494024.43	R = 300.00	132.47	Dc = 19° 05' 55"	0.50	0.83	10	25° 17' 57" Right	
	CS	11+74.52	6974721.74	2494074.81								
					SPIRAL	45.00						
	ST	12+19.52	6974690.25	2494106.94								
					STRAIGHT	628.12						S 44° 08' 27.61" E
	TS	18+47.64	6974239.49	2494544.38								
					SPIRAL	60.00						
	SC	19+07.64	6974196.77	2494586.51								
SE1-B	PI	19+63.51	6974157.62	2494626.37	R = 1250.00	111.66	Dc = 04° 35' 01"	0.75	1.25	25	05° 07' 06" Left	
	CS	20+19.30	6974122.18	2494669.56								
					SPIRAL	60.00						
	ST	20+79.30	6974084.88	2494716.55								
					STRAIGHT	489.46						S 52° 00' 34.09" E
	TS	25+68.76	6973783.60	2495102.30								
					SPIRAL	60.00						
	SC	26+28.76	6973747.99	2495150.56								
SE1-C	PI	29+05.44	6973596.13	2495381.84	R = 365.50	473.66	Dc = 15° 40' 34"	1.75	2.63	20	74° 15' 02" Left	
	CS	31+02.42	6973777.51	2495590.77								
					SPIRAL	60.00						
	ST	31+62.42	6973819.25	2495633.85								
					STRAIGHT	130.99						N 44° 20' 04.06" E
	POE	32+93.41	6973912.95	2495725.39								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 38 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF SOUTHBOUND TRACK

CONTRACT	DWG No.	REV
	CC1-1011	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1011.001

Monday, October 26, 2020 09:57:46 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1011.001

LGUBLO
Default

LINE SECTION SE-1 NB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF NORTHBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POT	9+61.71	6974819.10	2493885.16								
					STRAIGHT	69.96						S 78° 02' 04.41" E
	TS	10+31.38	6974804.65	2493953.31								
					SPIRAL	45.00						
	SC	10+76.38	6974794.23	2493997.08								
SE1-AA	PI	11+43.71	6974775.37	2494061.71	R = 300.00	132.47	Dc = 19° 05' 55"	0.50	0.83	10	25° 17' 57" Right	
	CS	12+08.84	6974730.70	2494112.09								
					SPIRAL	45.00						
	ST	12+53.84 (BK) 12+39.05 (AHD)	6974699.21	2494144.22								
					STRAIGHT	682.58						S 44° 08' 27.61" E
	TS	19+21.63	6974209.38	2494619.59								
					SPIRAL	60.00						
	SC	19+81.63	6974166.53	2494661.59								
SE1-BB	PI	20+89.06	6974090.56	2494737.55	R = 2000.00	214.66	Dc = 02° 51' 53"	0.75	0.50	25	06° 08' 59" Left	
	CS	21+96.29	6974023.17	2494821.22								
					SPIRAL	60.00						
	ST	22+56.29 (BK) 22+59.78 (AHD)	6973986.00	2494868.33								
					STRAIGHT	308.97						S 52° 00' 34.09" E
	TS	25+68.74	6973795.82	2495111.82								
					SPIRAL	60.00						
	SC	26+28.74	6973760.27	2495160.13								
SE1-CC	PI	28+91.69	6973616.75	2495380.46	R = 350.00	451.03	Dc = 16° 22' 13"	1.75	2.82	20	73° 50' 02" Left	
	CS	30+79.77	6973788.41	2495579.65								
					SPIRAL	60.00						
	ST	31+39.77 (BK) 31+62.63 (AHD)	6973830.10	2495622.77								
					STRAIGHT	130.97						S 44° 20' 04.11" E
	POE	32+93.40	6973923.78	2495714.30								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 39 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 NB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF NORTHBOUND TRACK

CONTRACT	DWG No.	REV
	CC5-1012	

Monday, October 26, 2020 09:57:49 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1012.001
LGUBLO
Default

DWG No. CC1-1013

LINE SECTION WYE-EB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POB	10+00.00	6973799.53	2494417.79								
					STRAIGHT	30.96						N 57° 08' 21.13" E
	PI	10+30.96	6973816.33	2494443.80								
					STRAIGHT	91.30						N 49° 59' 11.05" E
	TS	11+22.26	6973875.03	2494513.72								
					SPIRAL	30.00						
	SC	11+52.26	6973894.75	2494536.33								
WYE-A	PI	13+77.02	6974048.75	2494700.04	R = 265.50	373.03	Dc = 21° 34' 49"	0.50	1.01	10	80° 30' 02" Left	
	CS	15+25.29	6974235.64	2494575.16								
					SPIRAL	30.00						
	ST	15+55.29	6974259.93	2494557.57								
					STRAIGHT	74.68						N 36° 59' 17.53" W
	PI	16+29.96	6974319.58	2494512.64								
					STRAIGHT	30.96						N 44° 08' 27.61" W
	POE	16+60.92	6974341.80	2494491.08								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 40 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

WYE-EB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF EASTBOUND TRACK

CONTRACT	DWG No.	REV
	CC1-1013	

Monday, October 26, 2020 09:57:52 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1013.001
LGUBLO
Default

DWG No. CC1-1014

LINE SECTION WYE-WB TRACK
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Ea	Eu	Passenger Speed	DEFLECTION ANGLE	BEARING
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)		
	POB	10+00.00	6973812.55	2494409.38								
					STRAIGHT	30.96						N 57° 08' 21.13" E
	PI	10+30.96	6973829.35	2494435.39								
					STRAIGHT	72.09						N 49° 59' 11.05" E
	TS	11+03.05	6973875.70	2494490.60								
					SPIRAL	30.00						
	SC	11+33.05	6973895.44	2494513.18								
WYE-AA	PI	13+43.19	6974039.96	2494665.74	R = 250.00	349.50	Dc = 22° 55' 06"	0.50	1.10	10	80° 05' 57" Left	
	CS	14+82.54	6974215.10	2494549.60								
					SPIRAL	30.00						
	ST	15+12.54	6974239.41	2494532.03								
					STRAIGHT	71.59						N 36° 59' 17.53" W
	PI	15+84.13	6974296.60	2494488.96								
					STRAIGHT	30.96						N 44° 08' 27.61" W
	POE	16+15.09	6974318.81	2494467.40								

NOTES:

1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. SURVEY FOOT.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 41 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

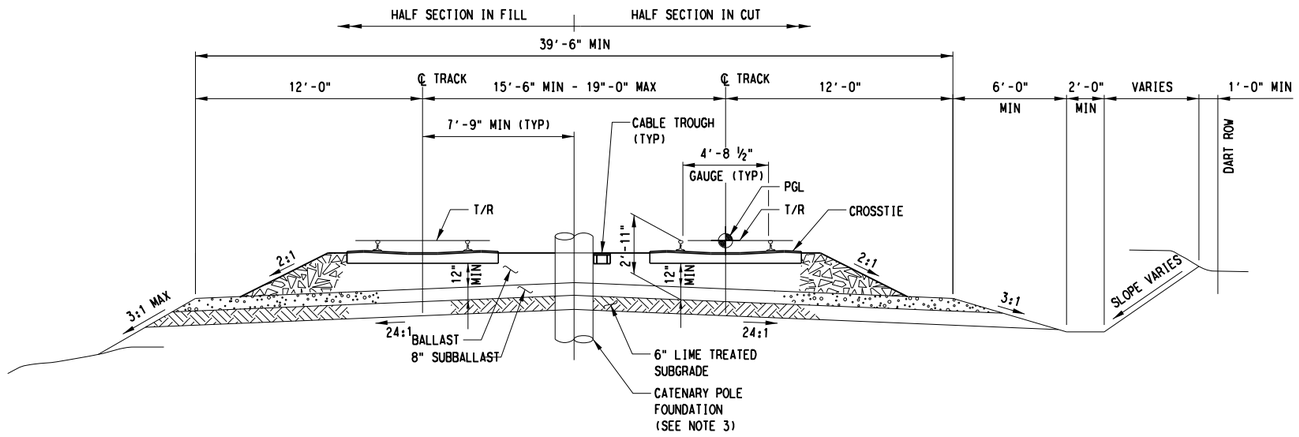
WYE-WB
HORIZONTAL ALIGNMENT DATA
CENTERLINE OF WESTBOUND TRACK

CONTRACT	DWG No.	REV
	CC1-1014	

Monday, October 26, 2020 09:57:55 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1014.001

LGUBLO
Default

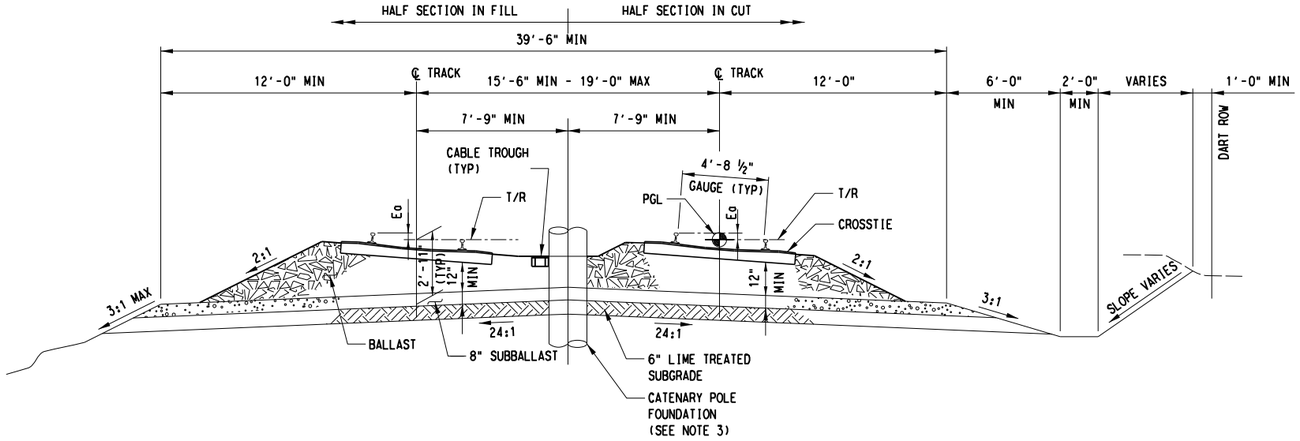
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-GEN\CBD2-CC1-1014.001



AT GRADE BALLASTED TANGENT TRACK

NOT TO SCALE

CBD-2 STA 10+00.00 TO CBD-2 STA 13+12.07
SE-1 STA 31+62.42 TO SE-1 STA 32+93.41



AT GRADE BALLASTED (CURVED) SUPERELEVATED TRACK

NOT TO SCALE

CBD-2 STA 13+12.07 TO CBD-2 STA 18+51.64
SE-1 STA 27+82.81 TO SE-1 STA 31+62.42

NOTES:

1. ALL SECTIONS ARE LOOKING UPSTATION. WITH ALL STATIONING BASED ON THE CENTERLINE OF THE EASTBOUND TRACK FOR CBD-2, EASTBOUND TRACK FOR WYE, AND SOUTHBOUND TRACK FOR SE-1, UNLESS OTHERWISE NOTED.
2. SEE TRACKWORK STANDARDS FOR DETAILS OF TRACK ELEMENTS. DETAILS ARE PROVIDED FOR FINAL DESIGNER'S/CONTRACTORS' INFORMATION ONLY.
3. CATENARY POLE LOCATION IS TYPICAL AND ONLY SHOWN AS AN ILLUSTRATION. ALL SYSTEM ELEMENTS SHOWN ARE FOR INFORMATION PURPOSES ONLY. SYSTEMS WILL BE DESIGNED AS PART OF THE FINAL DESIGN.
4. IN CURVES AND SPIRALS, THE PGL IS THE TOP OF THE LOW RAIL ON THE INSIDE OF THE CURVE OF THE EASTBOUND AND SOUTHBOUND TRACKS.
5. SEE GUIDEWAY PLAN AND PROFILE SHEETS FOR DETAILS AND LIMITS OF HORIZONTAL AND VERTICAL TRACK GEOMETRY AND WALL LOCATIONS.
6. TOP OF BALLAST SHALL BE EVEN WITH TOP OF TIE. MAINTAIN BALLAST IN CRIBS IN WITH TOP OF TIE SO THAT IT SHALL BE AT LEAST ONE INCH BELOW THE BASE OF THE RAIL. SHOULDER BALLAST SHALL EXTEND A MINIMUM OF 12 INCHES BEYOND END OF TIE. FOR RADIUS LESS THAN 1000 FEET, EXTEND BALLAST A MINIMUM OF 18 INCHES BEYOND END OF TIE ON THE OUTSIDE OF TRACK.
7. THE SUBBALLAST SHOULDER SHALL BE A MINIMUM OF 2 FEET.
8. SEE TUNNEL SHEETS FOR TUNNEL, CUT AND COVER AND PORTAL TYPICAL SECTIONS.
9. SEE ARCHITECTURAL SHEETS FOR SECTIONS THROUGH STATIONS.
10. PROPOSED FENCE AS SHOWN ON PLANS. MINIMUM DISTANCE FROM TRACK CENTERLINE IS 10'.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 42 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

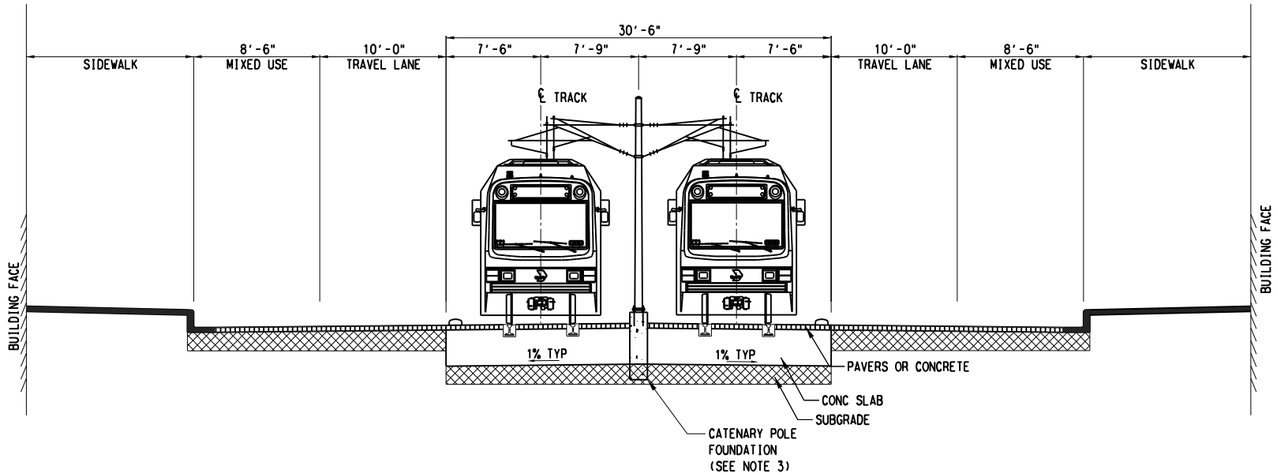
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY
TYPICAL SECTIONS
SHEET 1 OF 2

CONTRACT	DWG No.	REV
	CC7-0001	

Monday, October 26, 2020 10:09:35 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC7-0001.006
LGUBLO
Default

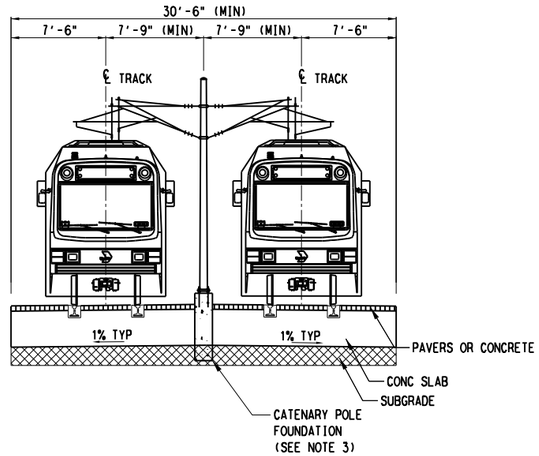
DWG No. CC7-0002



AT GRADE EMBEDDED TRACK - MUSEUM WAY

NOT TO SCALE

CBD-2 STA 18+51.65 TO CBD-2 STA 24+80.89



AT GRADE EMBEDDED TRACK

NOT TO SCALE

CBD-2 STA 24+80.89 TO CBD-2 STA 35+30.00
CBD-2 STA 107+66.73 TO CBD-2 STA 115+11.59
SE-1 STA 9+62.00 TO SE-1 STA 27+82.81
WYE STA 10+00.00 TO SE-1 STA 16+15.09

NOTES:

1. ALL SECTIONS ARE LOOKING UPSTATION. WITH ALL STATIONING BASED ON THE CENTERLINE OF THE EASTBOUND TRACK FOR CBD2 AND SOUTHBOUND TRACK FOR SE-1, UNLESS OTHERWISE NOTED.
2. SEE TRACKWORK STANDARDS FOR DETAILS OF TRACK ELEMENTS. DETAILS ARE PROVIDED FOR FINAL DESIGNER'S/CONTRACTORS' INFORMATION ONLY.
3. CATENARY POLE LOCATION IS TYPICAL AND ONLY SHOWN AS AN ILLUSTRATION. ALL SYSTEM ELEMENTS SHOWN ARE FOR INFORMATION PURPOSES ONLY. SYSTEMS WILL BE DESIGNED AS PART OF THE FINAL DESIGN.
4. IN CURVES AND SPIRALS, THE PGL IS THE TOP OF THE LOW RAIL ON THE INSIDE OF THE CURVE OF THE EASTBOUND AND SOUTHBOUND TRACKS.
5. SEE GUIDEWAY PLAN AND PROFILE SHEETS FOR DETAILS AND LIMITS OF HORIZONTAL AND VERTICAL TRACK GEOMETRY AND WALL LOCATIONS.
6. SEE TUNNEL SHEETS FOR TUNNEL, CUT AND COVER AND PORTAL TYPICAL SECTIONS.
7. SEE ARCHITECTURAL SHEETS FOR SECTIONS THROUGH STATIONS.
8. PROPOSED FENCE AS SHOWN ON PLANS. MINIMUM DISTANCE FROM TRACK CENTERLINE IS 10'.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 43 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

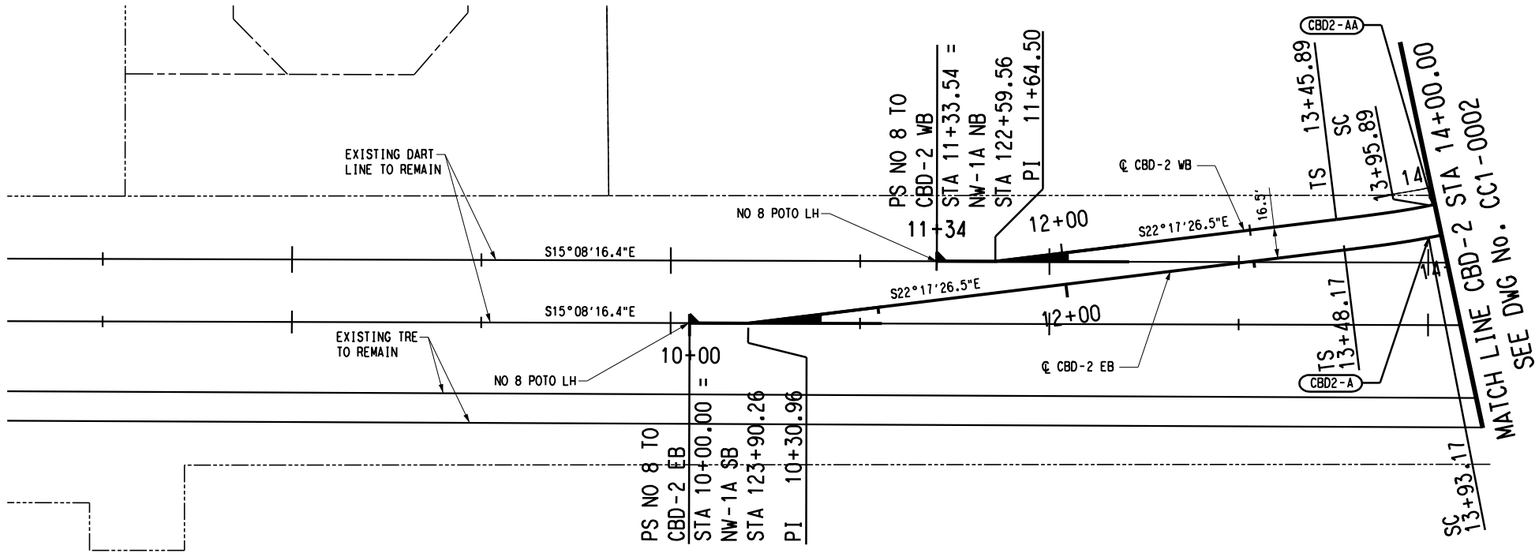
GUIDEWAY
TYPICAL SECTIONS
SHEET 2 OF 2

CONTRACT | DWG No. CC7-0002 | REV

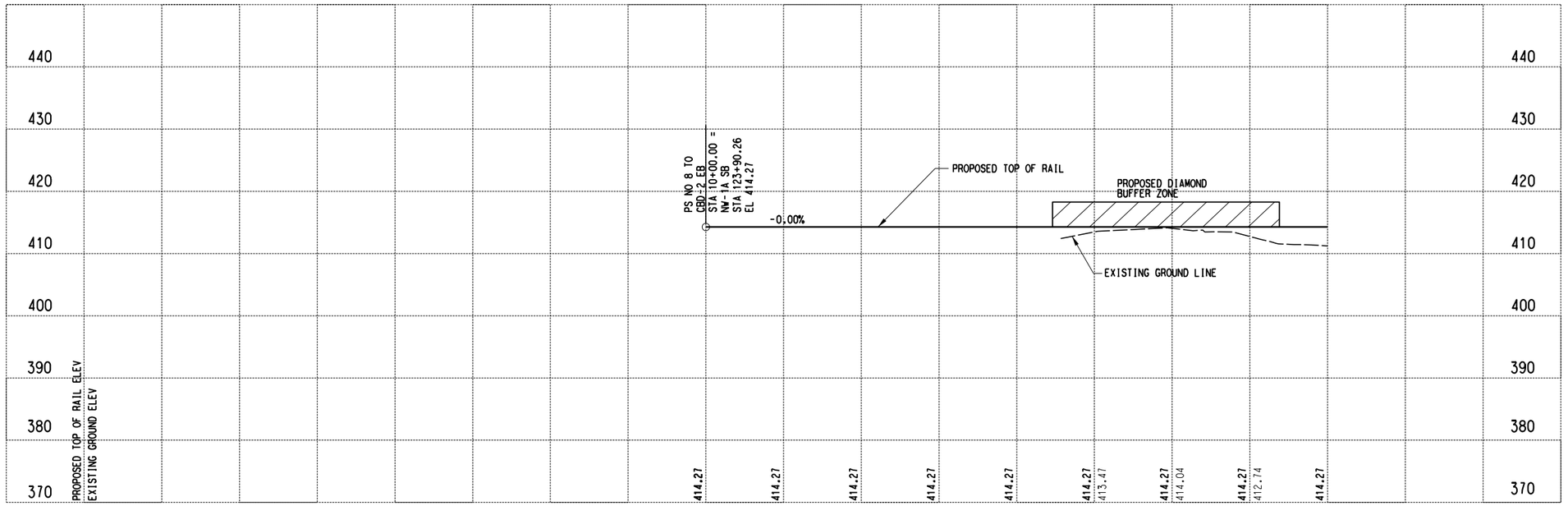
Monday, October 26, 2020 09:58:02 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC7-0002.006

LGUBLO
Default

DWG No. CC1-0001



CBD2-A (EB)		CBD2-AA (WB)	
Rc=	330.00'	Rc=	314.50'
Ls=	45.00'	Ls=	50.00'
Lc=	384.76'	Lc=	359.57'
Eo=	0.50"	Eo=	0.50"
Eu=	0.71"	Eu=	0.77"
V=	10 MPH	V=	10 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 44 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
BEGIN PROJECT TO STA 14+00.00

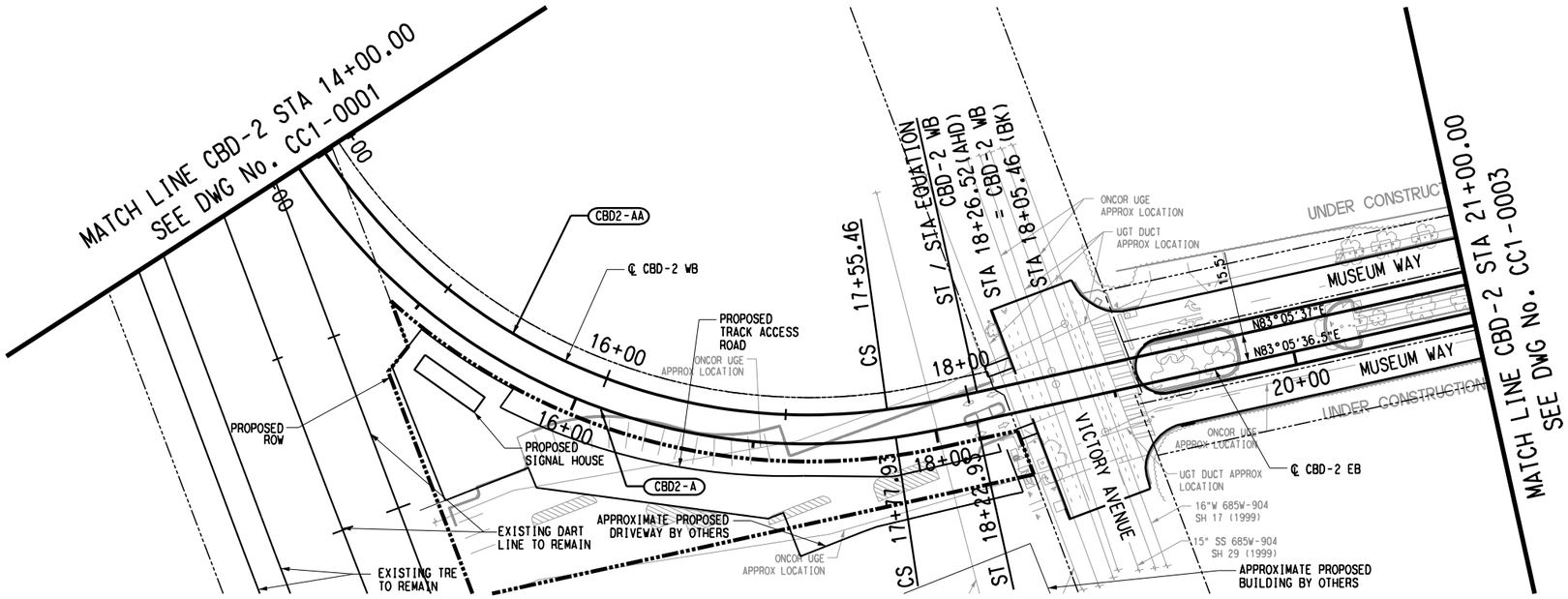
SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

CONTRACT | DWG No. CC1-0001 | REV

Monday, October 26, 2020 09:58:11 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0001.040

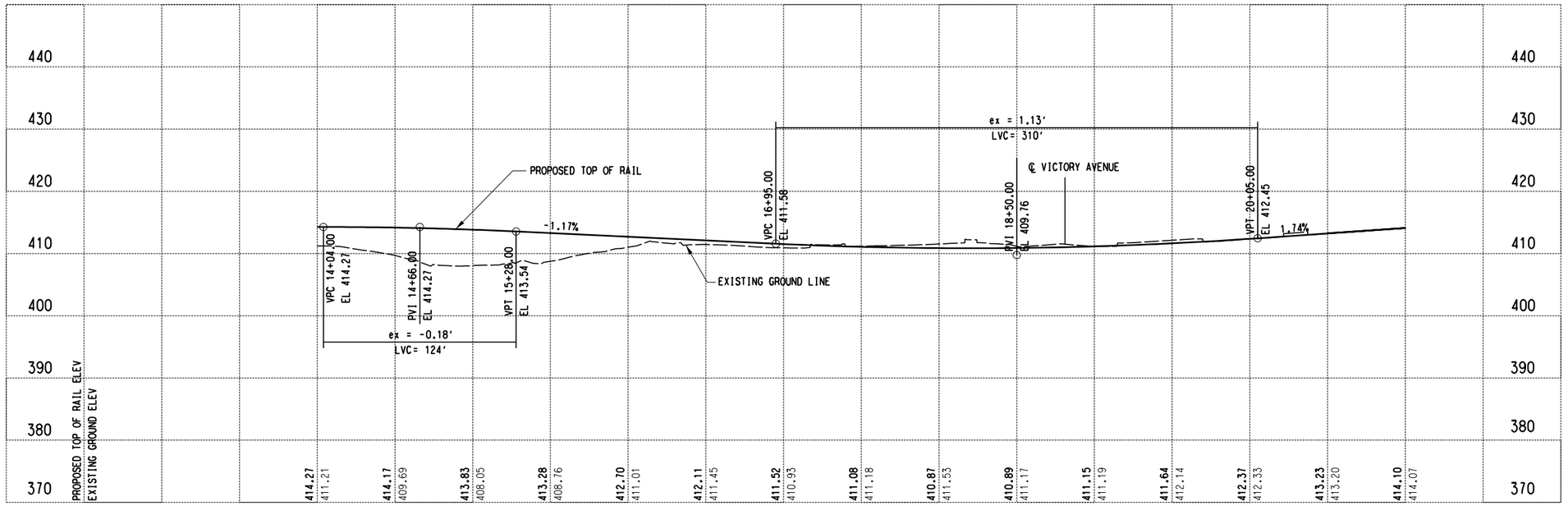
LGUBLO
Default

DWG No. CC1-0002



SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

CBD2-A (EB)		CBD2-AA (WB)	
Rc=	330.00'	Rc=	314.50'
Ls=	45.00'	Ls=	50.00'
Lc=	384.76'	Lc=	359.57'
Ea=	0.50"	Ea=	0.50"
Eu=	0.71"	Eu=	0.77"
V=	10 MPH	V=	10 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 45 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 14+00.00 TO STA 21+00.00

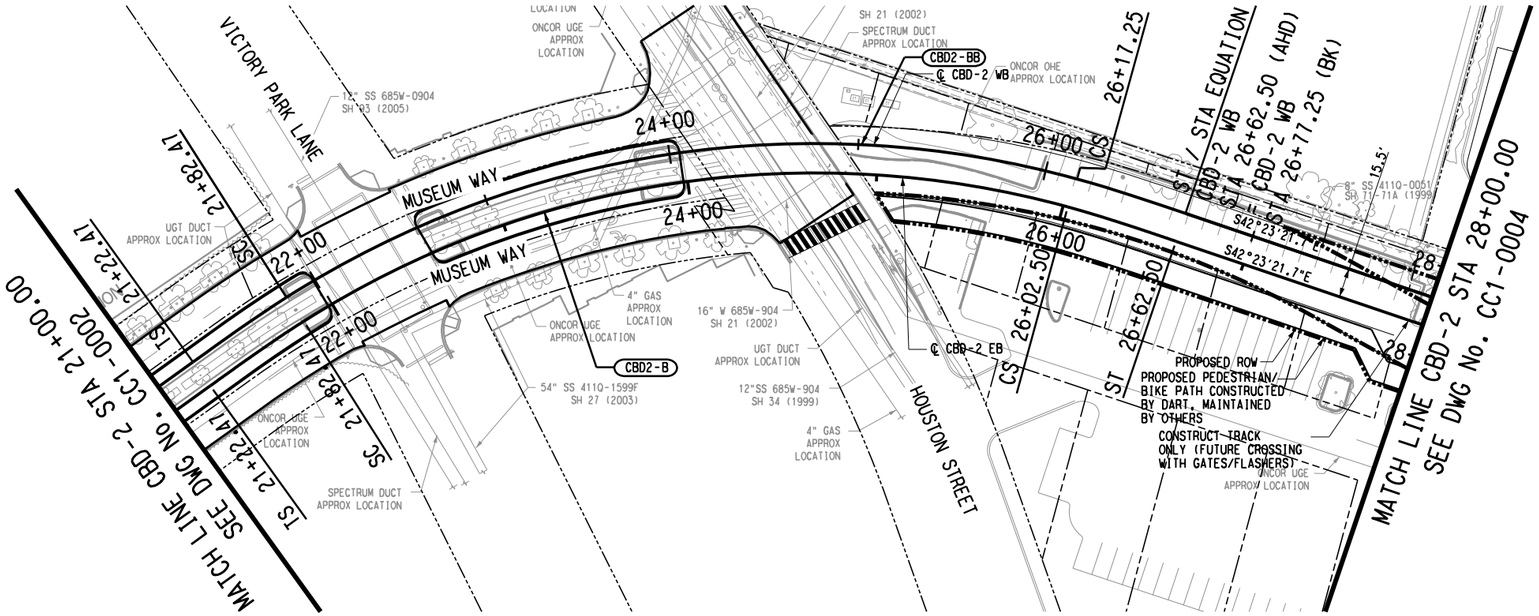
SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

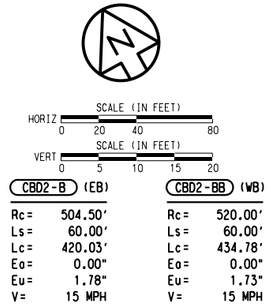
CONTRACT	DWG No.	REV
	CC1-0002	

LGUBLO
Default

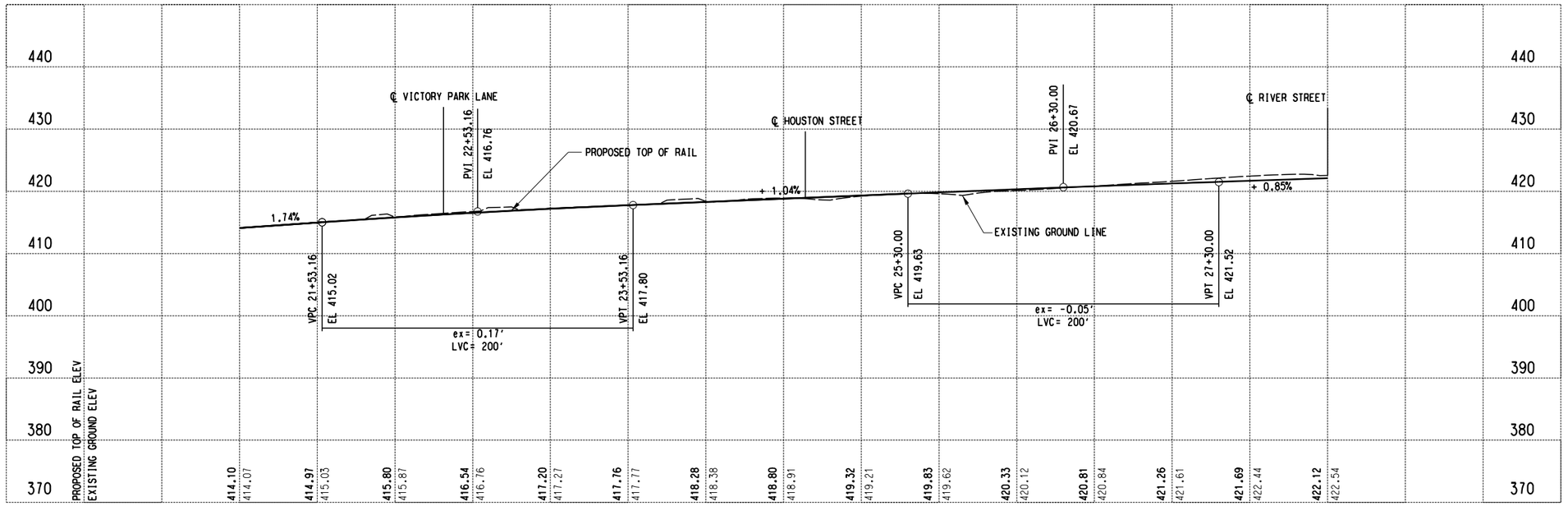
Monday, October 26, 2020 09:58:16 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0002.040

DWG No. CC1-0003





CBD2-B (EB)		CBD2-BB (WB)	
Rc=	504.50'	Rc=	520.00'
Ls=	60.00'	Ls=	60.00'
Lc=	420.03'	Lc=	434.78'
Eo=	0.00"	Eo=	0.00"
Eu=	1.78"	Eu=	1.73"
V=	15 MPH	V=	15 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 46 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

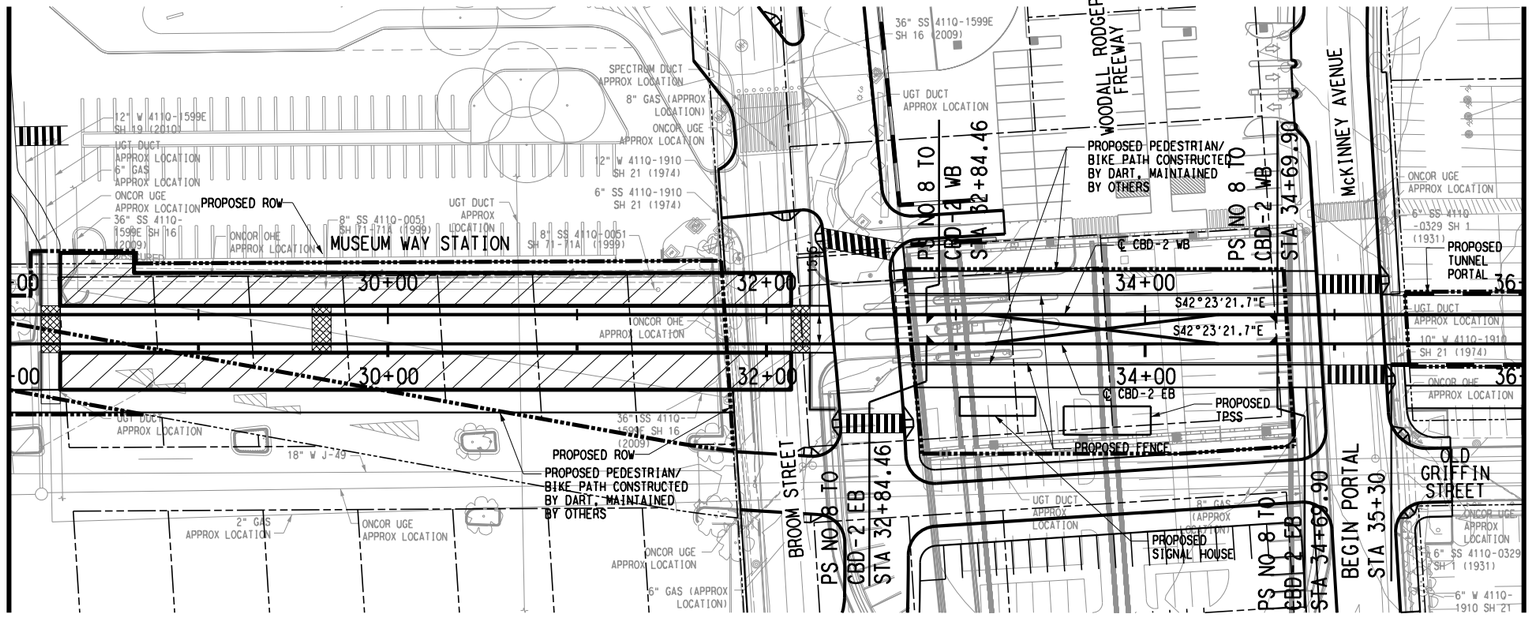
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

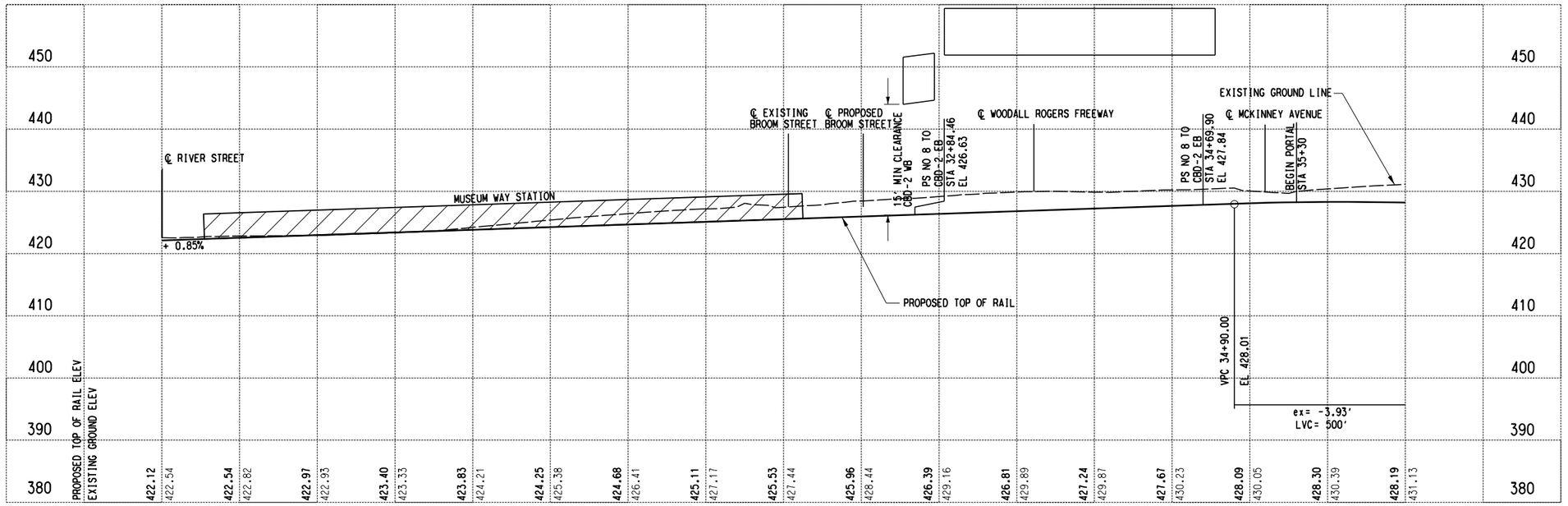
GUIDEWAY PLAN AND PROFILE
STA 21+00.00 TO STA 28+00.00

CONTRACT	DWG No.	REV
	CC1-0003	

Monday, October 26, 2020 09:58:20 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0003.040
LGUBLO
Default

DWG No. CC1-0004





SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

NOTES:

1. FOR PROPOSED ROW FENCE ALONG THE PEDESTRIAN WALKWAY UNDER WOODALL RODGERS FREEWAY, FINAL DESIGNER SHALL COORDINATE THE FENCE TREATMENT WITH THE CITY OF DALLAS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 47 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 28+00.00 TO STA 36+00.00

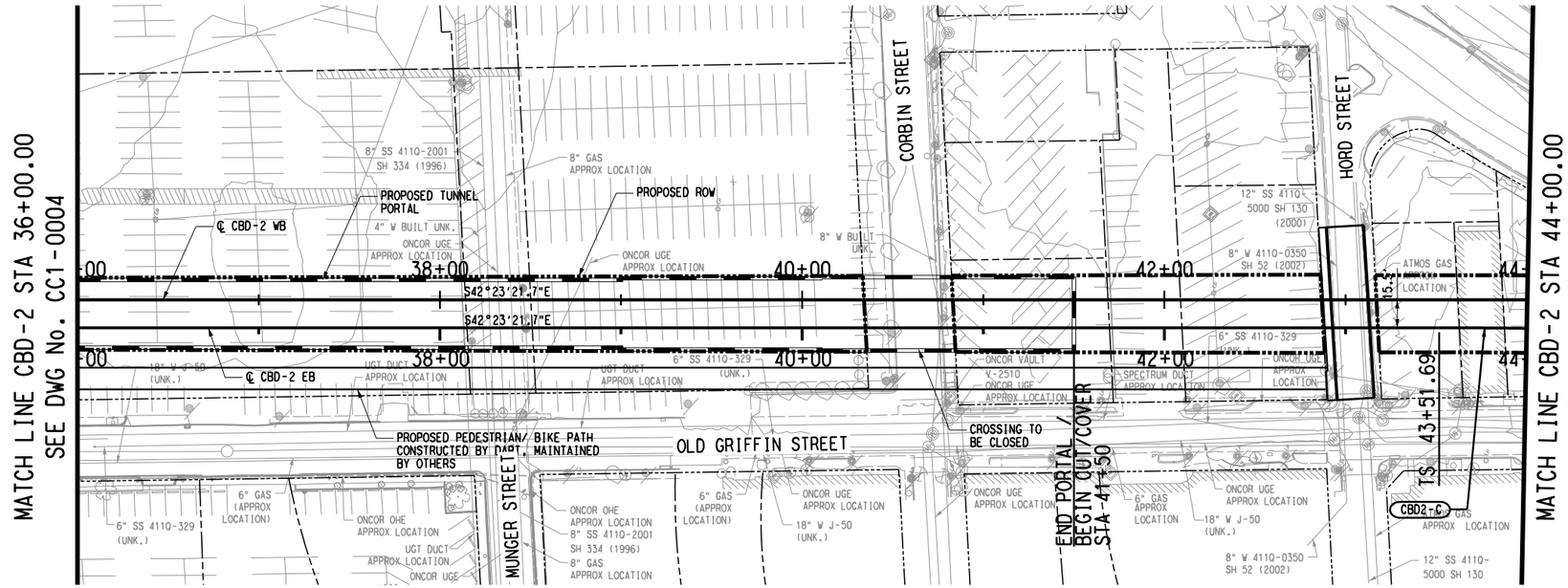
CONTRACT	DWG No.	REV
	CC1-0004	

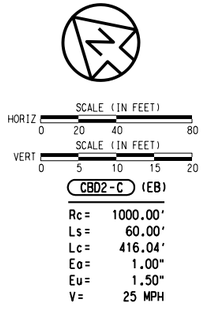
LGUBLO
Default

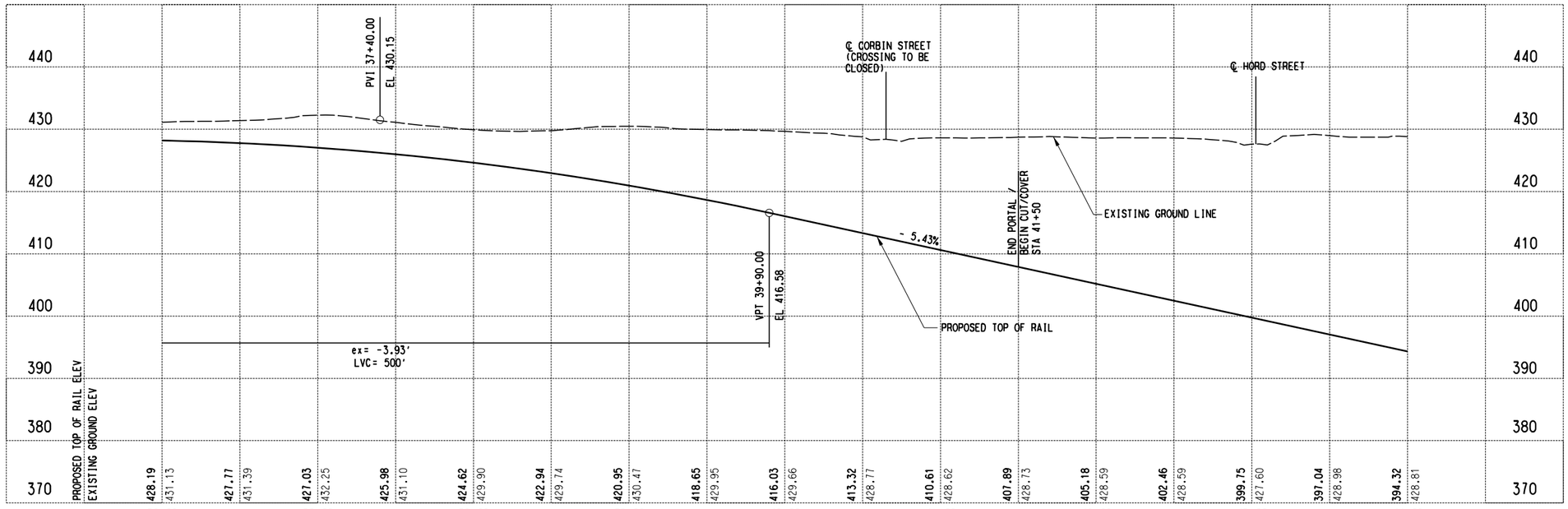
Monday, October 26, 2020 09:58:25 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0004.040

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0004.040

DWG No. CC1-0005







NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 48 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

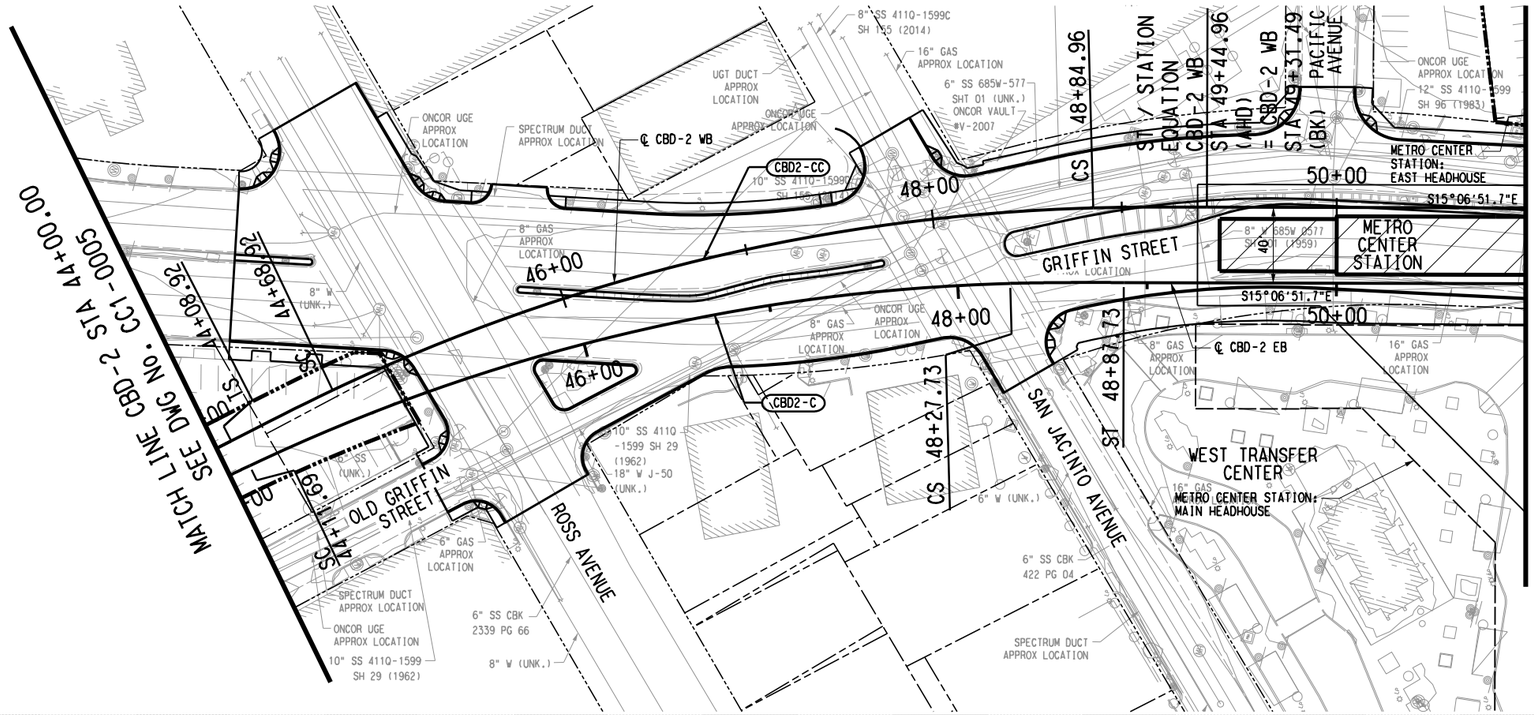
GUIDEWAY PLAN AND PROFILE
STA 36+00.00 TO STA 44+00.00

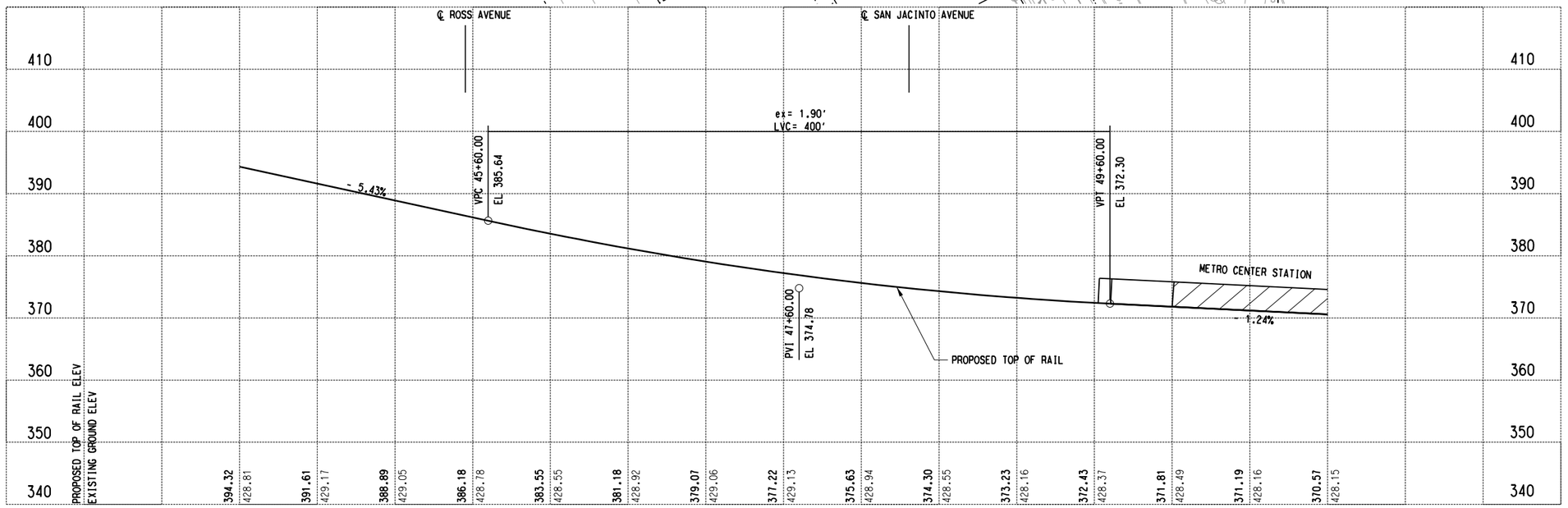
CONTRACT	DWG No.	REV
	CC1-0005	

LGUBLO
Default

Monday, October 26, 2020 09:58:31 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0005.040

DWG No. CC1-0006





SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

CBD2-C (EB)		CBD2-CC (WB)	
Rc=	1000.00'	Rc=	1000.00'
Ls=	60.00'	Ls=	60.00'
Lc=	416.04'	Lc=	416.04'
Eo=	1.00"	Eo=	1.00"
Eu=	1.50"	Eu=	1.50"
V=	25 MPH	V=	25 MPH

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 49 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 44+00.00 TO STA 51+00.00

CONTRACT | DWG No. CC1-0006 | REV

Monday, October 26, 2020 09:58:35 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0006.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0006.040

DWG No. CC1-0007

MATCH LINE CBD-2 STA 51+00.00
SEE DWG No. CC1-0006

MATCH LINE CBD-2 STA 58+00.00
SEE DWG No. CC1-0008

PACIFIC AVENUE

ELM STREET

MAIN STREET

METRO CENTER STATION

52+00

54+00

56+00

TS 54+91.77

SC 55+51.77

SC 55+47.96

S15°06'51.7"E

40'

GRIFFIN STREET

21" SS 685W, 577
SH 1 (UNK.)

SPECTRUM DUCT
APPROX LOCATION

12" W 411Q 5050
SH 7 (1996)

8" SS 411Q-5050
SH 53 (1992)

ONCOR UGE
APPROX LOCATION

ONCOR VAULT
#V-3933

12" W 411Q 1599C
SH 15 (1966)

UGT DUCT
APPROX LOCATION

8" SS 411Q-1599
SH 34 (UNK.)

ONCOR UGE
APPROX LOCATION

SPECTRUM DUCT
APPROX LOCATION

UGT DUCT
APPROX LOCATION

ONCOR UGE
APPROX LOCATION

ONCOR UGE
APPROX LOCATION

6" GAS
APPROX LOCATION

CBD2-DD
℄ CBD-2 WB

AT&T 8-4" PVC
MAP: (CON-018)

UGT DUCT
APPROX LOCATION

ONCOR UGE
(MULTI CONDUITS)
APPROX LOCATION

ONCOR UGE
APPROX LOCATION

8" GAS
APPROX LOCATION

20" W 411Q-1599
SH 99-100 (1966)

UGT DUCT
APPROX LOCATION

16" GAS
APPROX LOCATION

28" W 411Q 5050
SH 7 (1996)

METRO CENTER
STATION: LIGHTWELL
AND VENT SHAFT

16" GAS
APPROX LOCATION

METRO CENTER STATION:
EAST HEADHOUSE

12" W 411Q-1599C
SH 15 (1966)

UGT DUCT
APPROX LOCATION

EXISTING DART
LINE TO REMAIN

21" SS 685W, 577
SH 1 (UNK.)

20" W 411Q 5050
SH 7 (1996)

12" W 411Q-1599C

END CUT/COVER /
BEGIN TUNNEL
STA 54+22

METRO CENTER STATION:
SOUTH EGRESS

15" SS 411Q-1599C
SH 15 (UNK.)

℄ CBD-2 EB

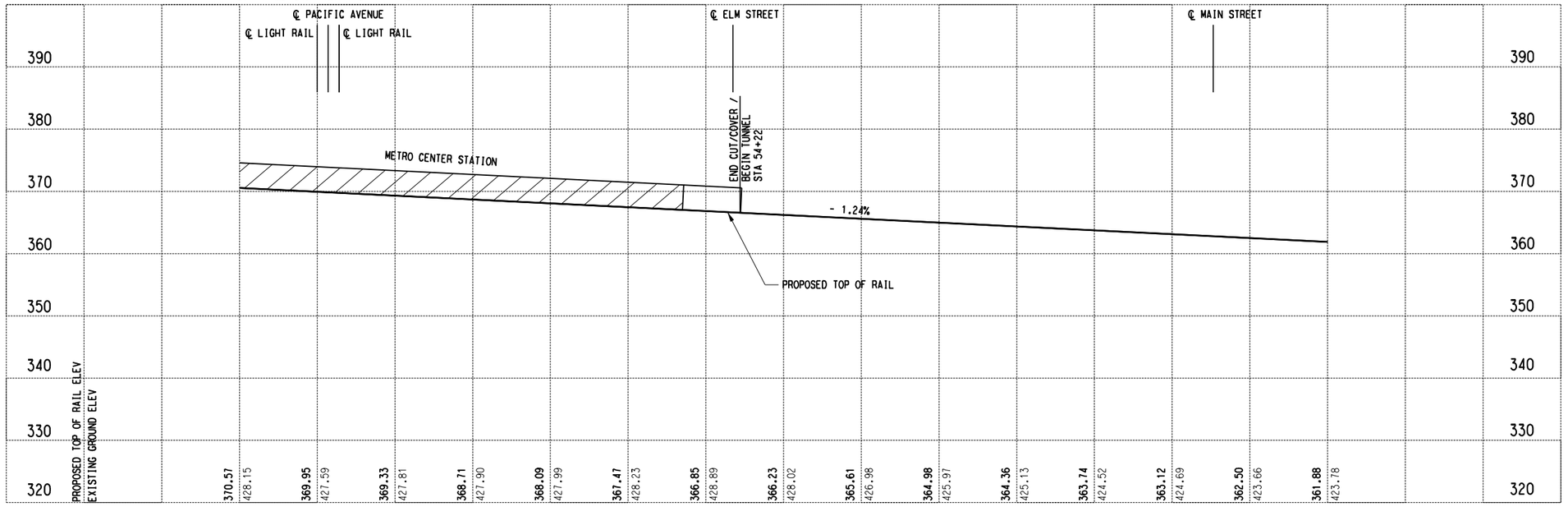
CBD2-D

6" GAS
APPROX LOCATION

PROPOSED ROW

SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

CBD2-D (EB)		CBD2-DD (WB)	
Rc=	480.00'	Rc=	440.00'
Ls=	60.00'	Ls=	60.00'
Lc=	701.00'	Lc=	637.58'
Eo=	1.00"	Eo=	1.00"
Eu=	0.88"	Eu=	1.05"
V=	15 MPH	V=	15 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 50 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 51+00.00 TO STA 58+00.00

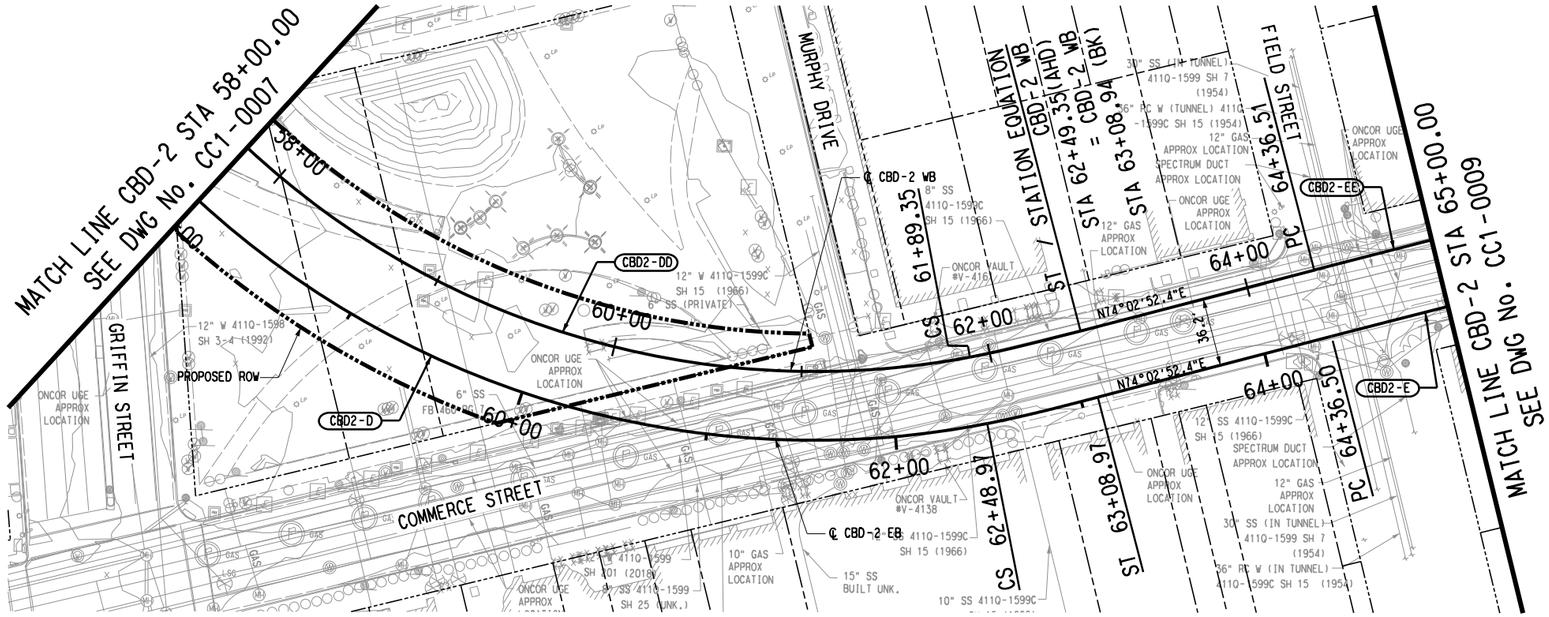
CONTRACT | DWG No. CC1-0007 | REV

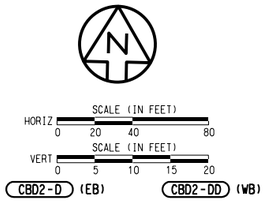
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0007.040

Monday, October 26, 2020 09:58:40 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0007.040

LGUBLO
Default

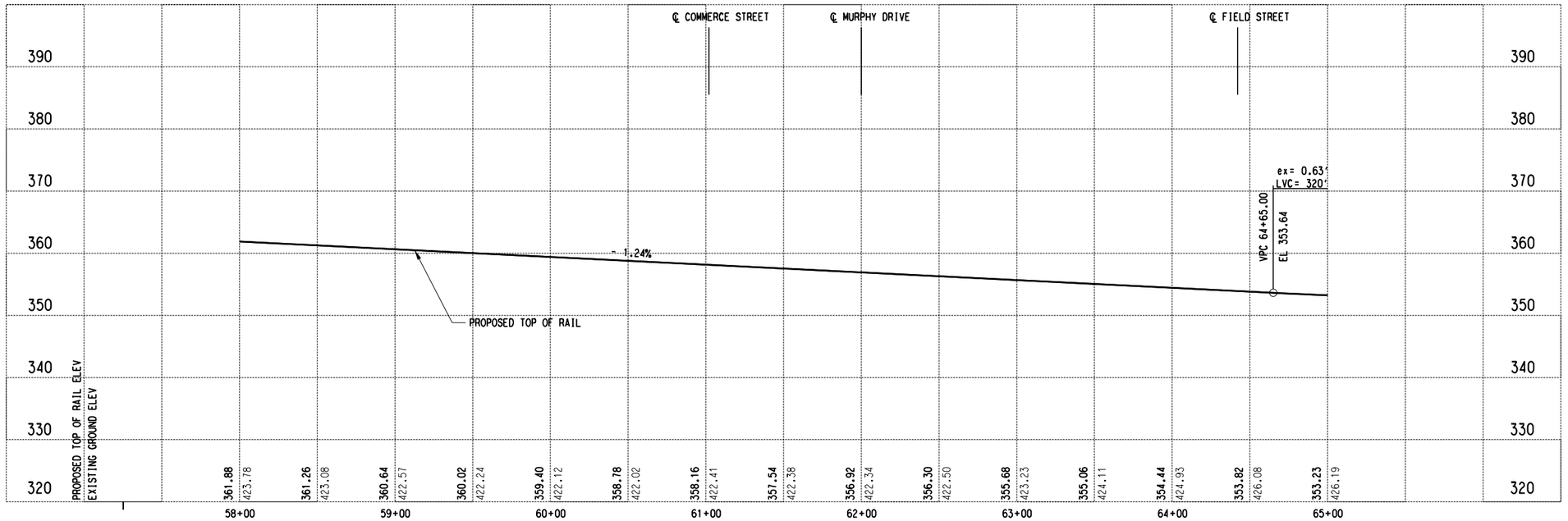
DWG No. CC1-0008





CBD2-D (EB)		CBD2-DD (WB)	
Rc=	480.00'	Rc=	440.00'
Ls=	60.00'	Ls=	60.00'
Lc=	701.00'	Lc=	637.58'
Eo=	1.00"	Eo=	1.00"
Eu=	0.88"	Eu=	1.05"
V=	15 MPH	V=	15 MPH

CBD2-E (EB)		CBD2-EE (WB)	
Rc=	11000.00'	Rc=	11036.17'
Ls=	0.00'	Ls=	0.00'
Lc=	191.99'	Lc=	192.62'
Eo=	0.00"	Eo=	0.00"
Eu=	0.15"	Eu=	0.14"
V=	20 MPH	V=	20 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

CONTRACT SHEET No. 51 OF 288

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 58+00.00 TO STA 65+00.00

CONTRACT | DWG No. CC1-0008 | REV

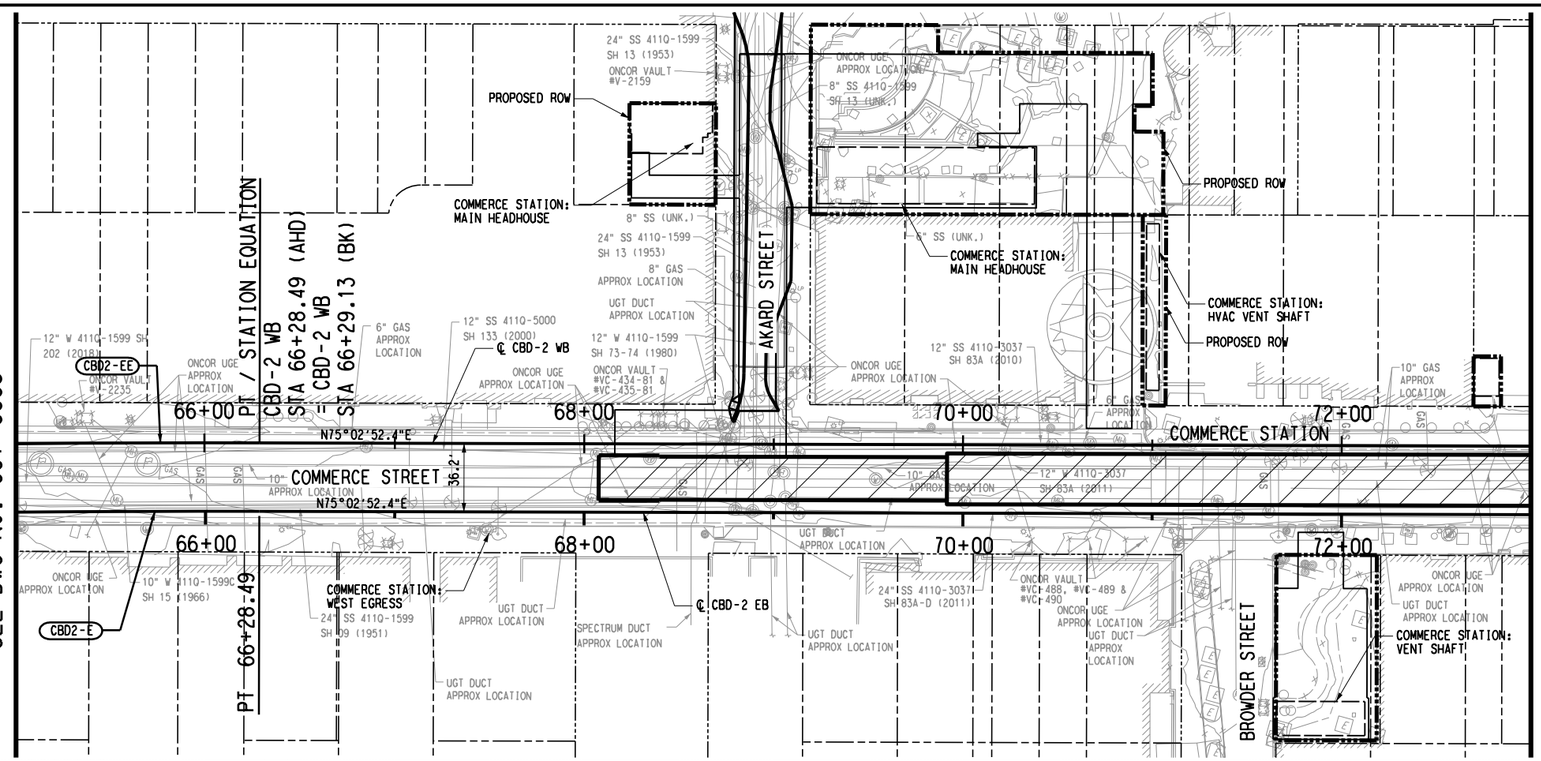
Monday, October 26, 2020 09:58:45 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0008.040

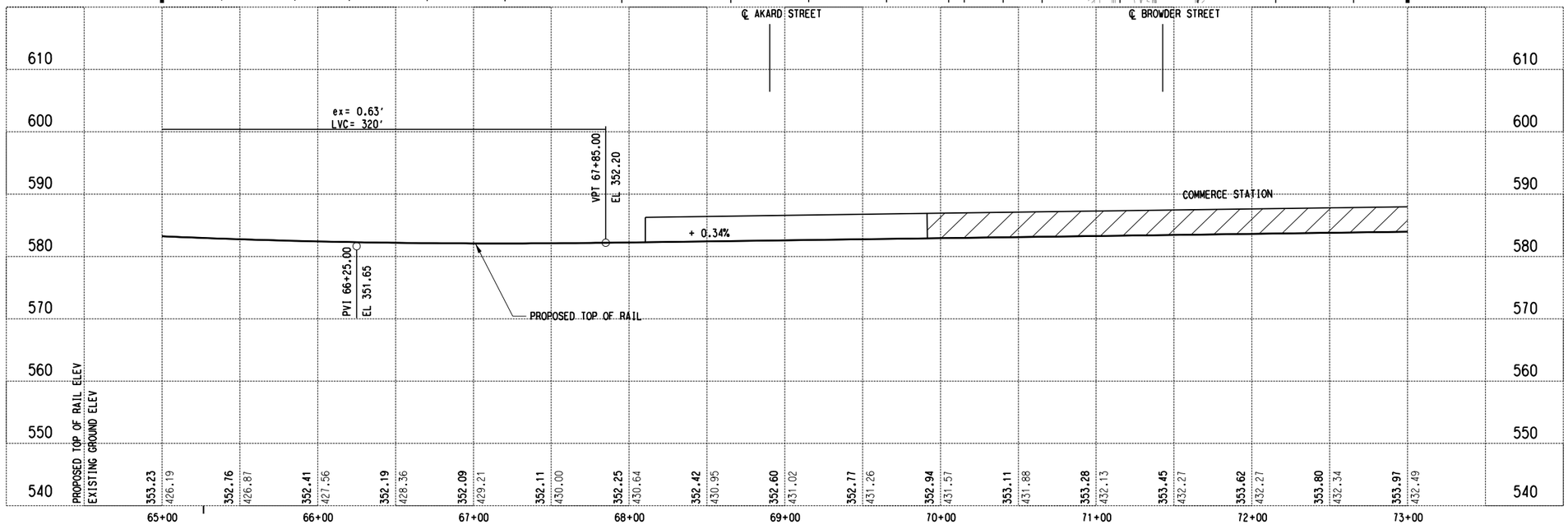
LGUBLO
Default

DWG No. CC1-0009

MATCH LINE CBD-2 STA 65+00.00
SEE DWG No. CC1-0008

MATCH LINE CBD-2 STA 73+00.00
SEE DWG No. CC1-0010





CBD2-E (EB)		CBD2-EE (WB)	
Rc=	11000.00'	Rc=	11036.17'
Ls=	0.00'	Ls=	0.00'
Lc=	191.99'	Lc=	192.62'
Eo=	0.00"	Eo=	0.00"
Eu=	0.15"	Eu=	0.14"
V=	20 MPH	V=	20 MPH

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 52 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 65+00.00 TO STA 73+00.00

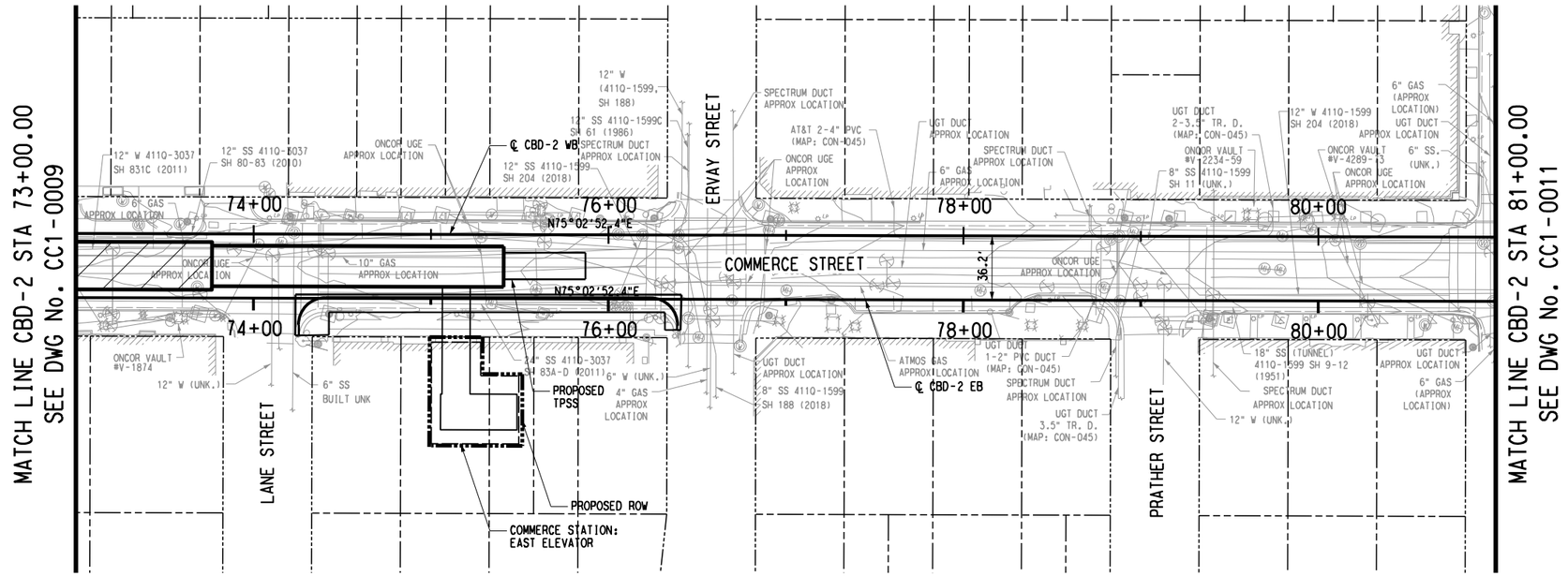
CONTRACT | DWG No. CC1-0009 | REV

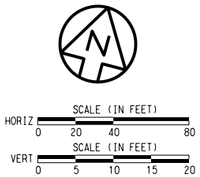
Monday, October 26, 2020 09:58:50 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0009.040

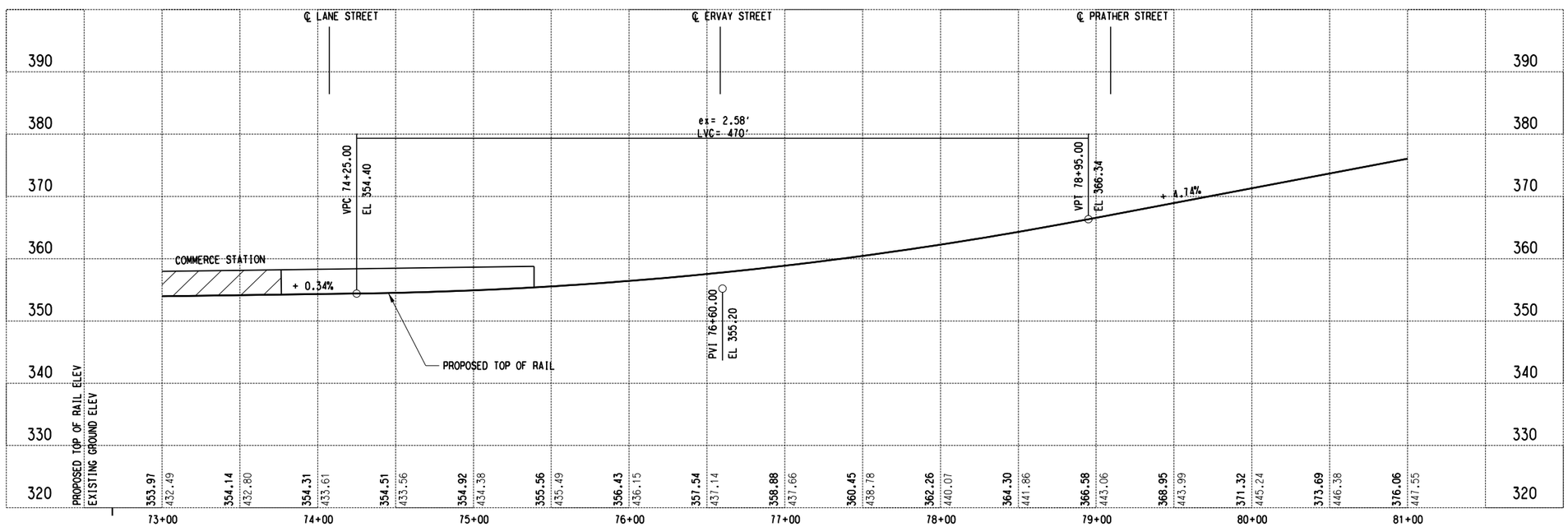
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0009.040

DWG No. CC1-0010







NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 53 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

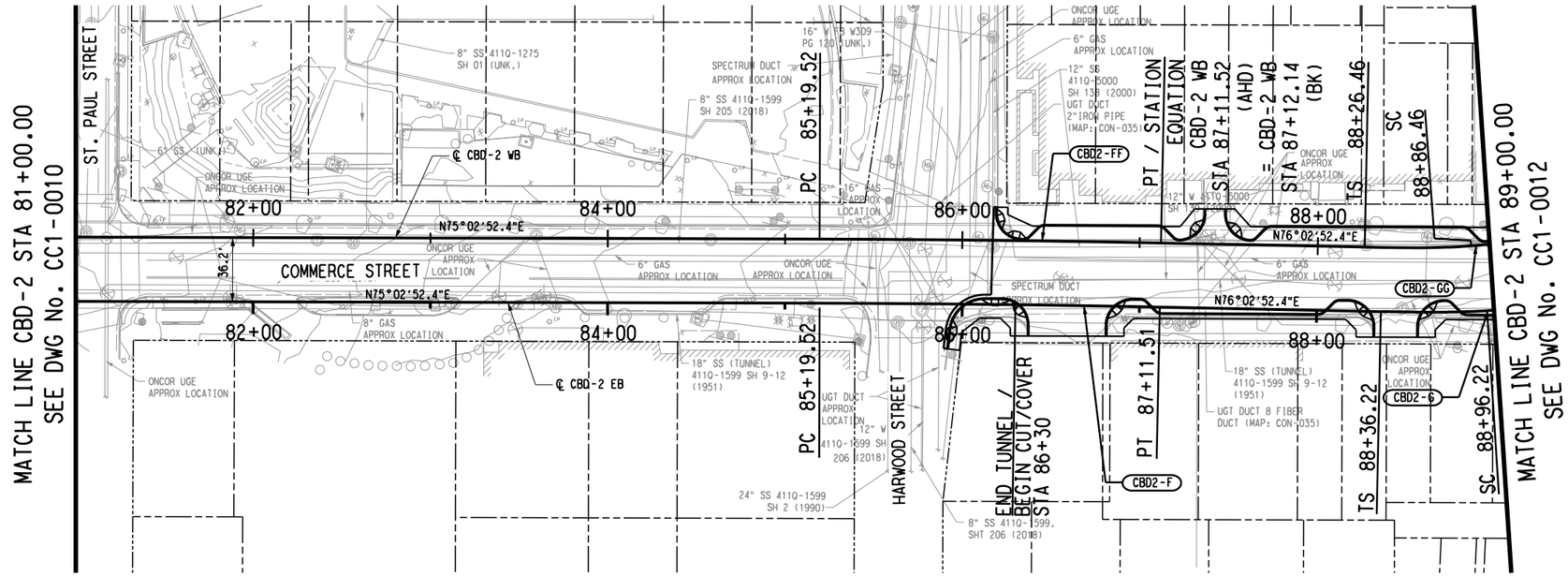
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 73+00.00 TO STA 81+00.00

CONTRACT	DWG No.	REV
	CC1-0010	

Monday, October 26, 2020 09:58:55 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0010.040
LGUBLO
Default

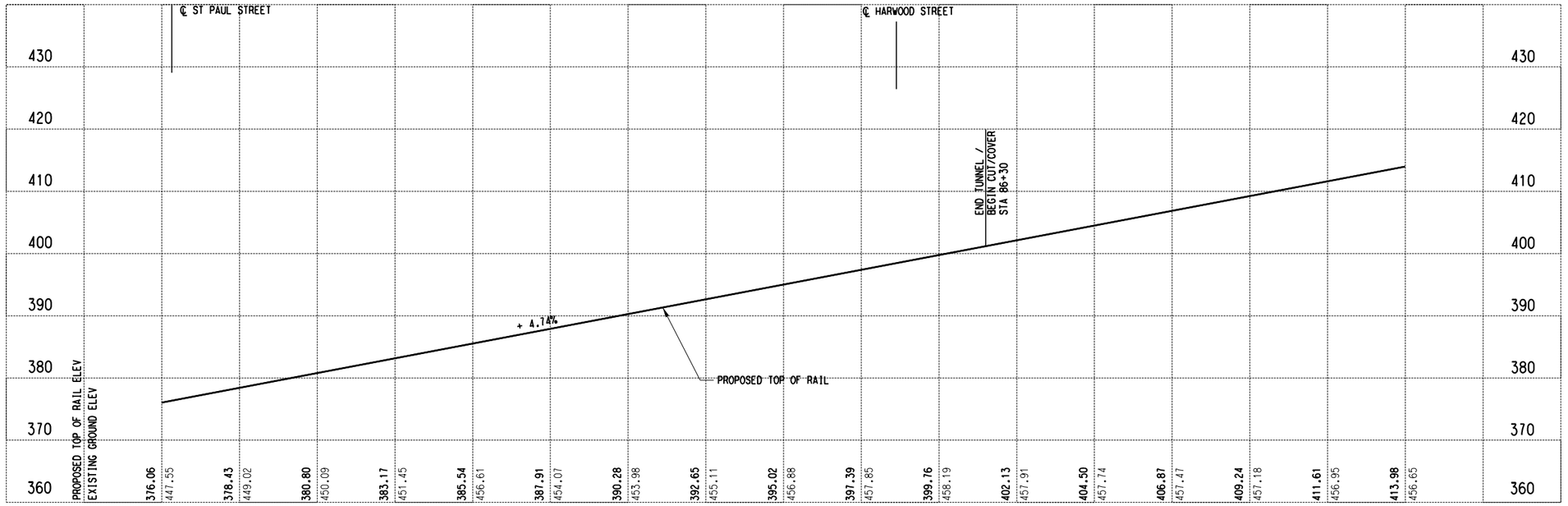
DWG No. CC1-0011



SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

CBD2-F (EB)		CBD2-FF (WB)	
Rc=	11000.00'	Rc=	11036.17'
Ls=	0.00'	Ls=	0.00'
Lc=	191.99'	Lc=	192.62'
Eo=	0.00"	Eo=	0.00"
Eu=	0.15"	Eu=	0.14"
V=	20 MPH	V=	20 MPH

CBD2-G (EB)		CBD2-GG (WB)	
Rc=	356.00'	Rc=	320.00'
Ls=	60.00'	Ls=	60.00'
Lc=	353.86'	Lc=	312.01'
Eo=	1.50"	Eo=	1.50"
Eu=	1.03"	Eu=	1.31"
V=	15 MPH	V=	15 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 54 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 81+00.00 TO STA 89+00.00

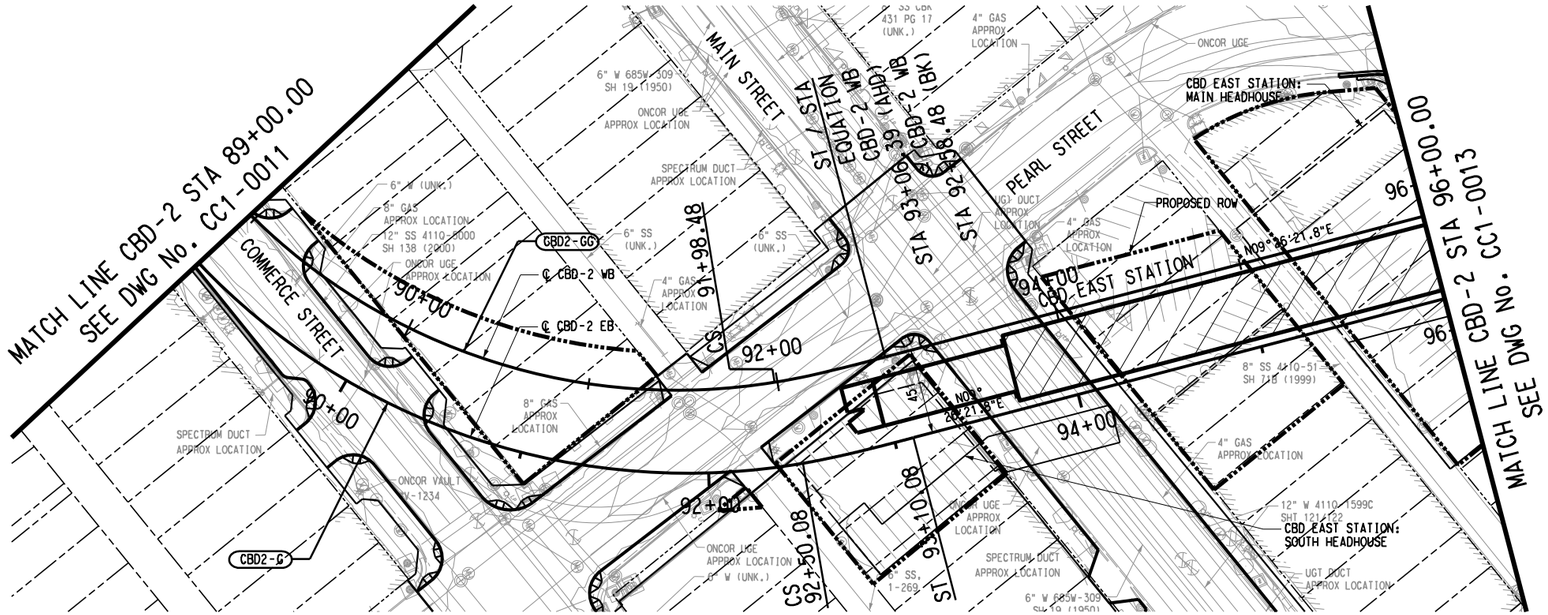
CONTRACT | DWG No. CC1-0011 | REV

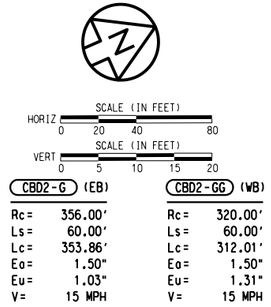
Monday, October 26, 2020 09:59:00 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0011.040

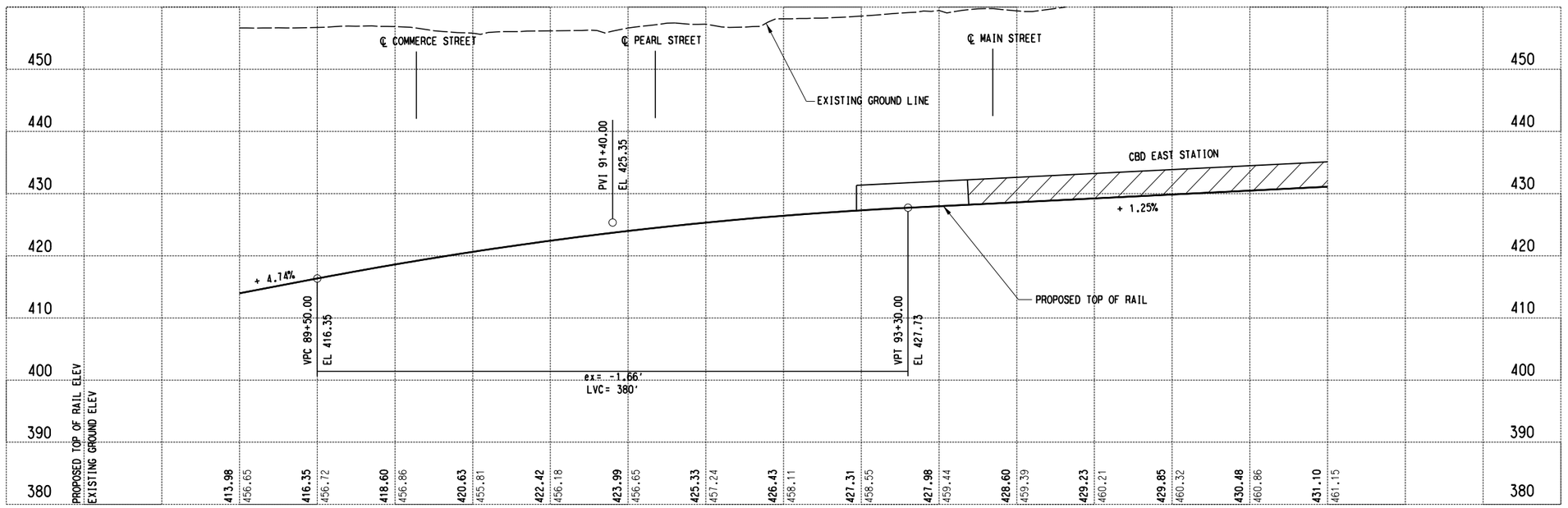
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0011.040

DWG No. CC1-0012







NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

CONTRACT SHEET No. 55 OF 288

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

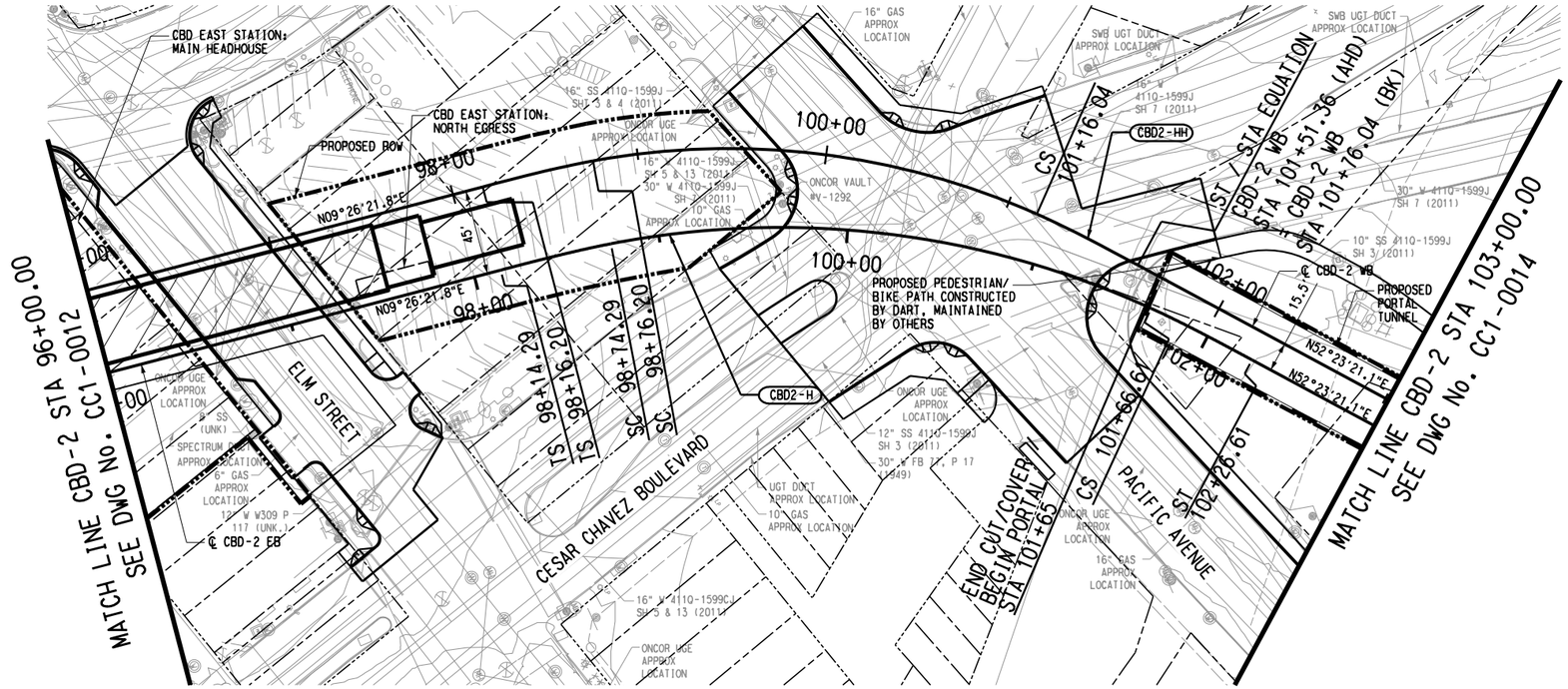
GUIDEWAY PLAN AND PROFILE
STA 89+00.00 TO STA 96+00.00

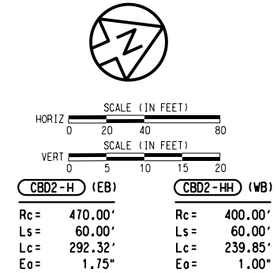
CONTRACT | DWG No. CC1-0012 | REV

LGUBLO
Default

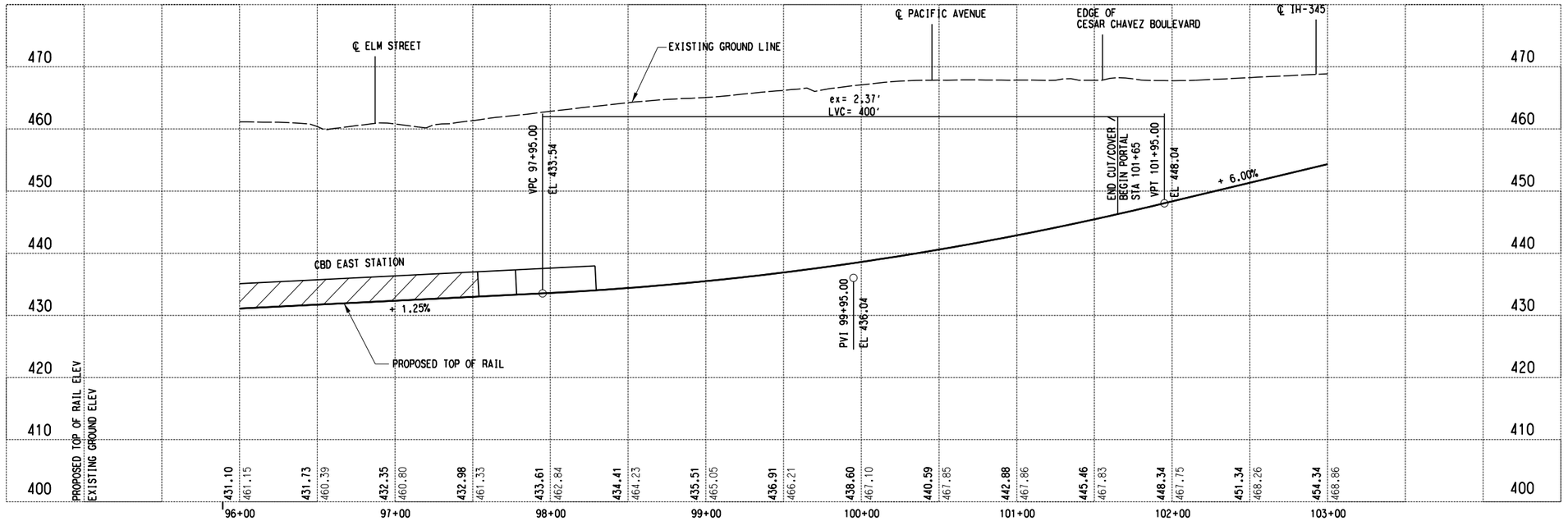
Monday, October 26, 2020 09:59:05 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0012.040

DWG No. CC1-0013





CBD2-H (EB)		CBD2-HH (WB)	
Rc=	470.00'	Rc=	400.00'
Ls=	60.00'	Ls=	60.00'
Lc=	292.32'	Lc=	239.85'
Eo=	1.75"	Eo=	1.00"
Eu=	1.65"	Eu=	1.25"
V=	20 MPH	V=	15 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 56 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE 1" = 40'
DRAWN L. GUBLO
DESIGNED L. GUBLO
CHECKED D. BROWN
IN CHARGE A. STAHLNECKER
DATE 10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 96+00.00 TO STA 103+00.00

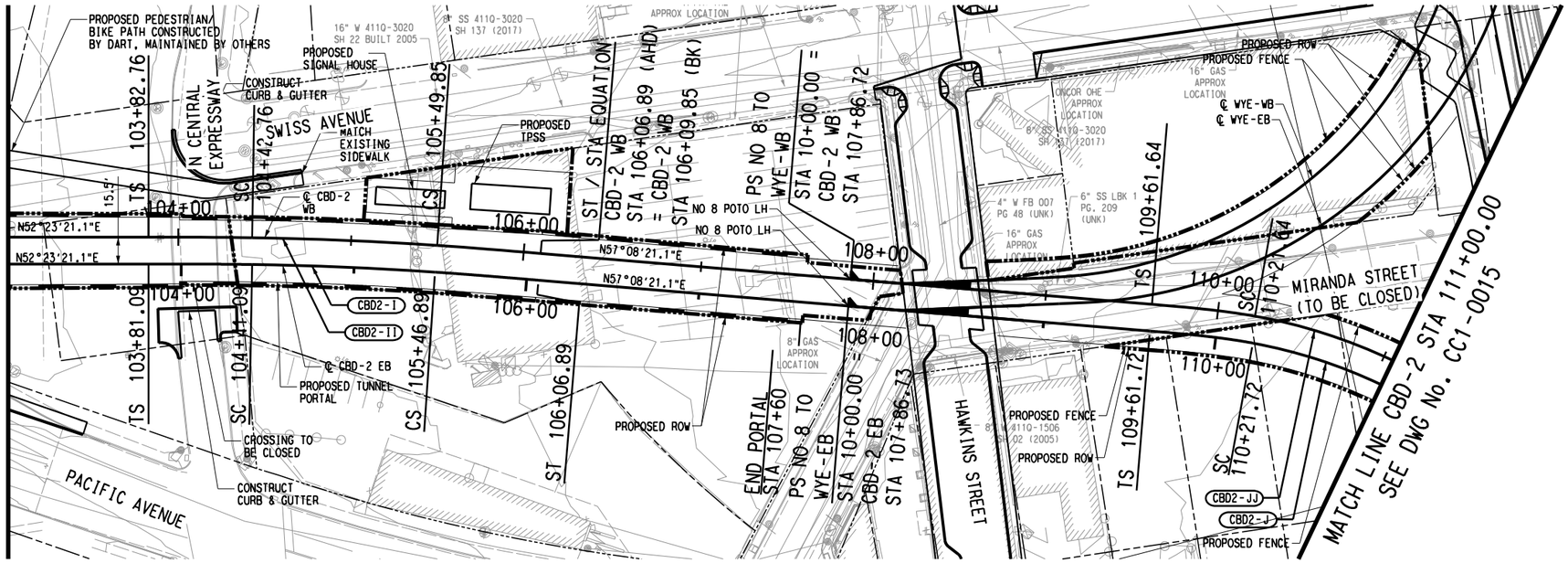
CONTRACT | DWG No. CC1-0013 | REV

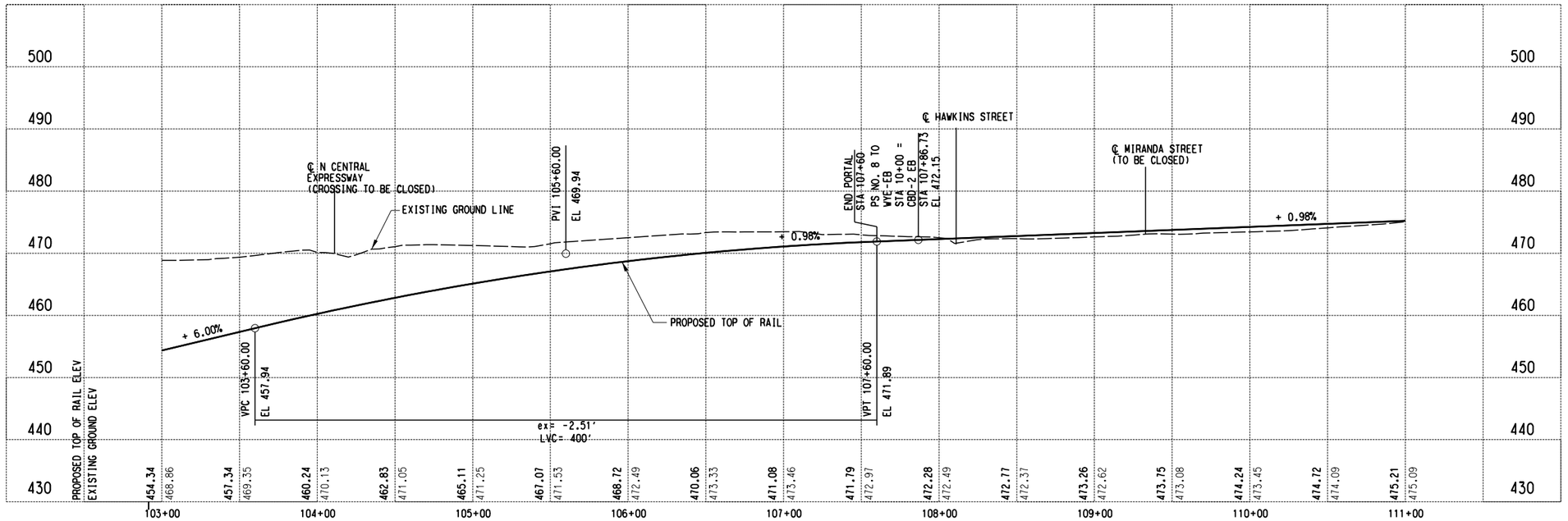
Monday, October 26, 2020 09:59:11 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0013.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0013.040

DWG No. CC1-0014





SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

CBD2-I (EB)		CBD2-II (WB)	
Rc=	2000.00'	Rc=	2015.50'
Ls=	60.00'	Ls=	60.00'
Lc=	105.81'	Lc=	107.09'
Eo=	0.50"	Eo=	0.50"
Eu=	0.75"	Eu=	0.74"
V=	25 MPH	V=	25 MPH

CBD2-J (EB)		CBD2-JJ (WB)	
Rc=	300.00'	Rc=	315.50'
Ls=	60.00'	Ls=	60.00'
Lc=	281.00'	Lc=	298.62'
Eo=	1.50"	Eo=	1.50"
Eu=	1.50"	Eu=	1.35"
V=	15 MPH	V=	15 MPH

NOTES:

1. FOR PROPOSED ROW FENCE ALONG THE LRT GUIDEWAY, FINAL DESIGNER SHALL COORDINATE THE FENCE TREATMENT WITH THE CITY OF DALLAS.

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 57 OF 288

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 103+00.00 TO STA 111+00.00

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

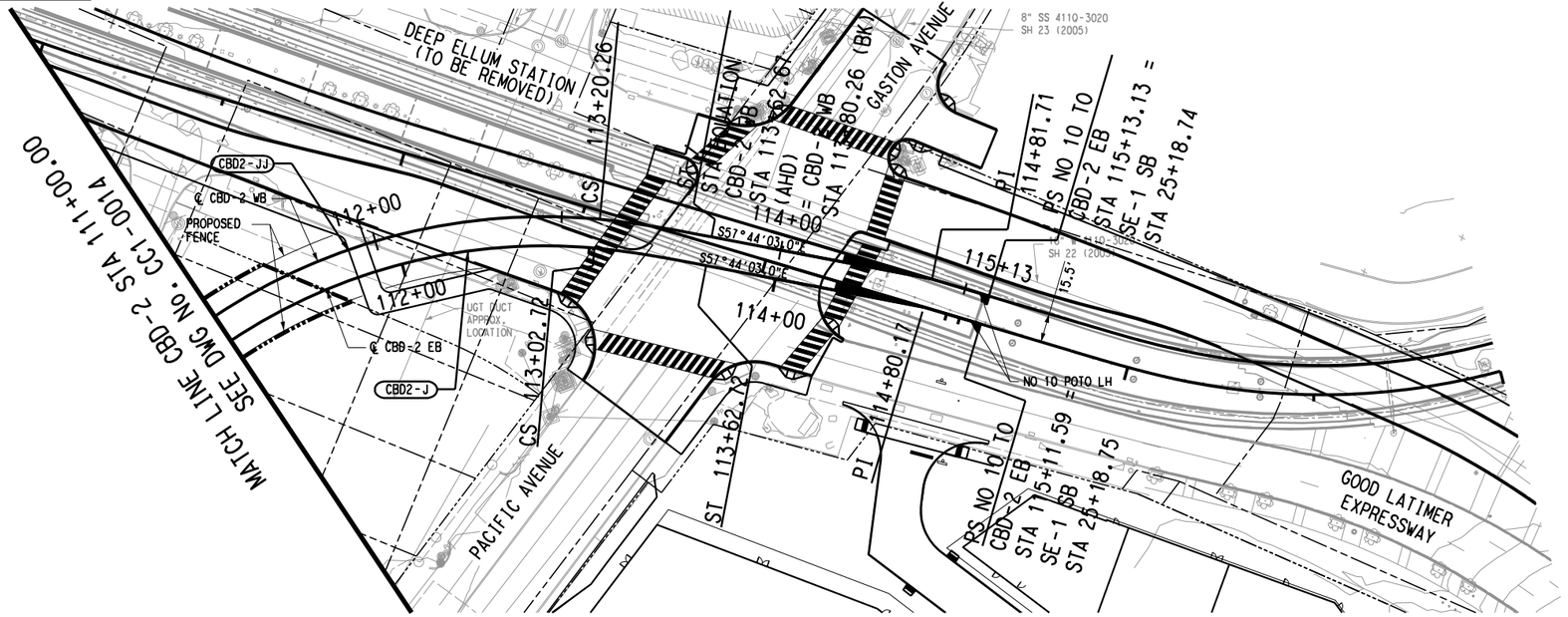
CONTRACT | DWG No. CC1-0014 | REV

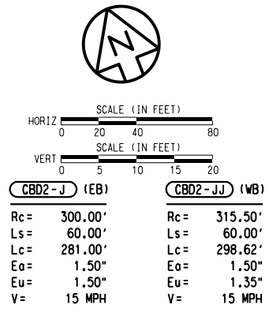
Monday, October 26, 2020 09:59:16 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0014.040

LGUBLO
Default

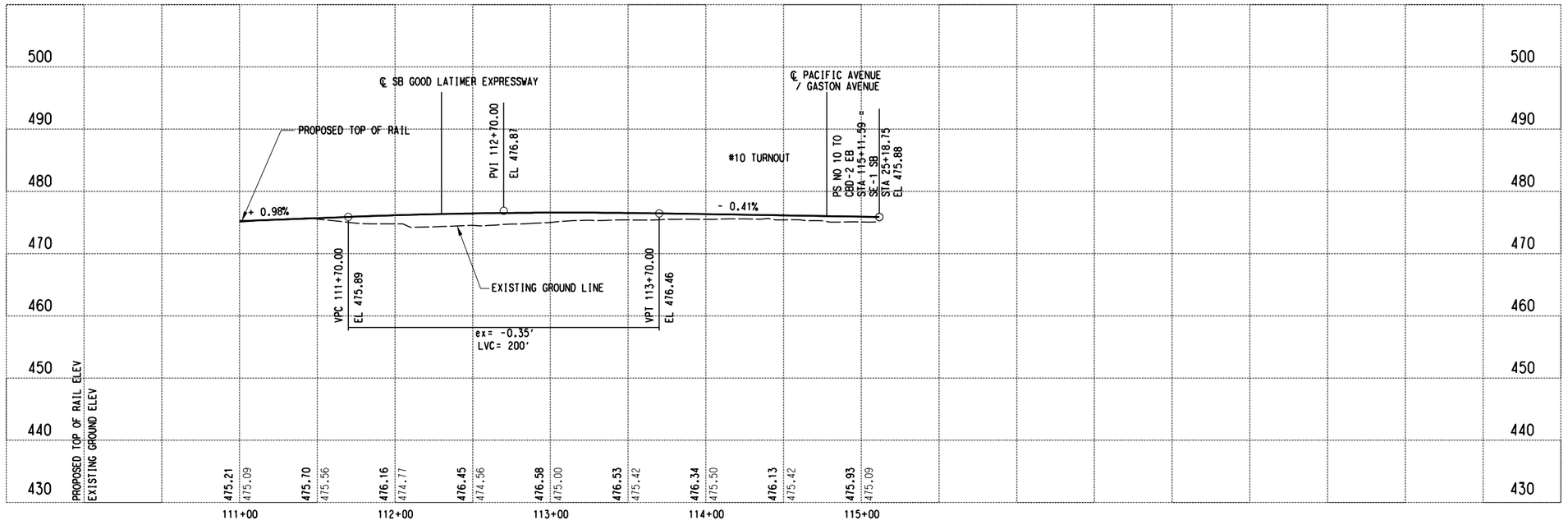
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0014.040

DWG No. CC1-0015





CBD2-J (EB)		CBD2-JJ (WB)	
Rc=	300.00'	Rc=	315.50'
Ls=	60.00'	Ls=	60.00'
Lc=	281.00'	Lc=	298.62'
Eo=	1.50"	Eo=	1.50"
Eu=	1.50"	Eu=	1.35"
V=	15 MPH	V=	15 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 58 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE
STA 111+00.00 TO END OF PROJECT

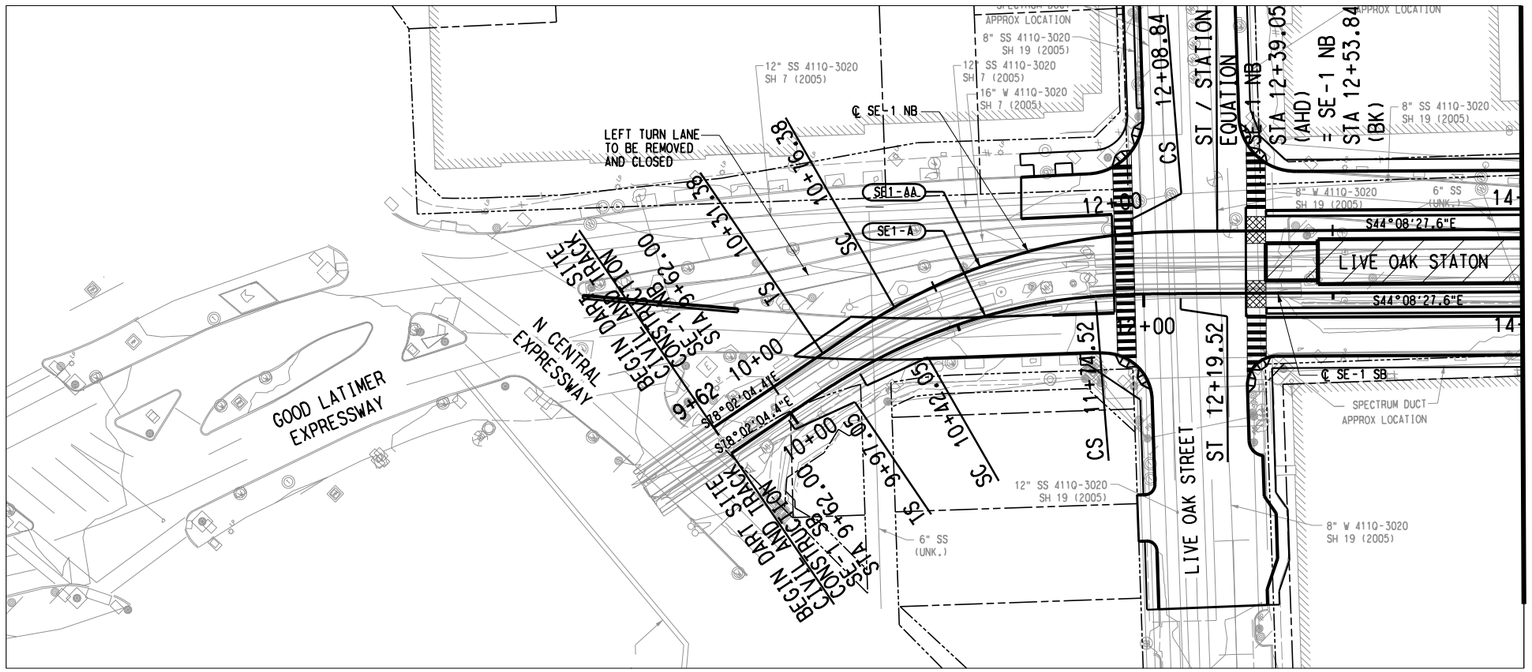
CONTRACT | DWG No. CC1-0015 | REV

Monday, October 26, 2020 09:59:21 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0015.040

LGUBLO
Default

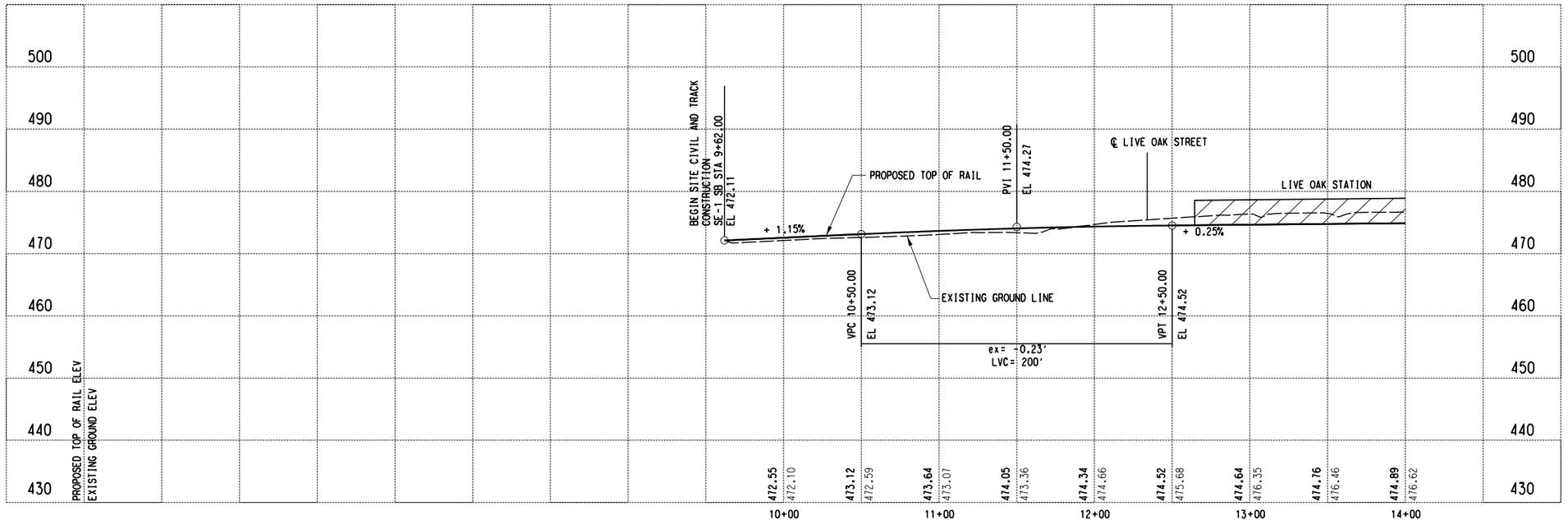
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0015.040

DWG No. CC1-0016



SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

SE1-A (SB)		SE1-AA (NB)	
Rc=	300.00'	Rc=	300.00'
Ls=	45.00'	Ls=	45.00'
Lc=	132.47'	Lc=	132.47'
Eo=	0.50"	Eo=	0.50"
Eu=	0.83"	Eu=	0.83"
V=	10 MPH	V=	10 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 59 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE 1" = 40'
DRAWN L. GUBLO
DESIGNED L. GUBLO
CHECKED D. BROWN
IN CHARGE A. STAHLNECKER
DATE 10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
GUIDEWAY PLAN AND PROFILE
BEGIN PROJECT TO STA 14+00.00

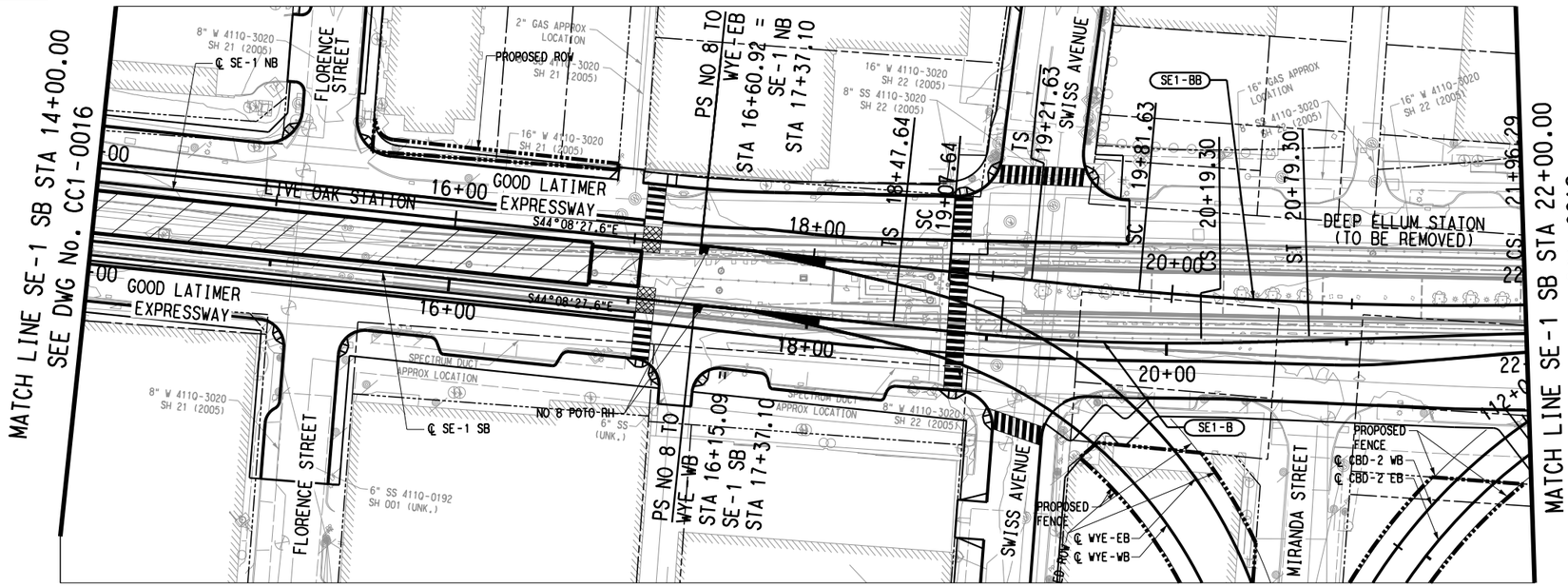
CONTRACT | DWG No. CC1-0016 | REV

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0016.040

Monday, October 26, 2020 09:59:29 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0016.040

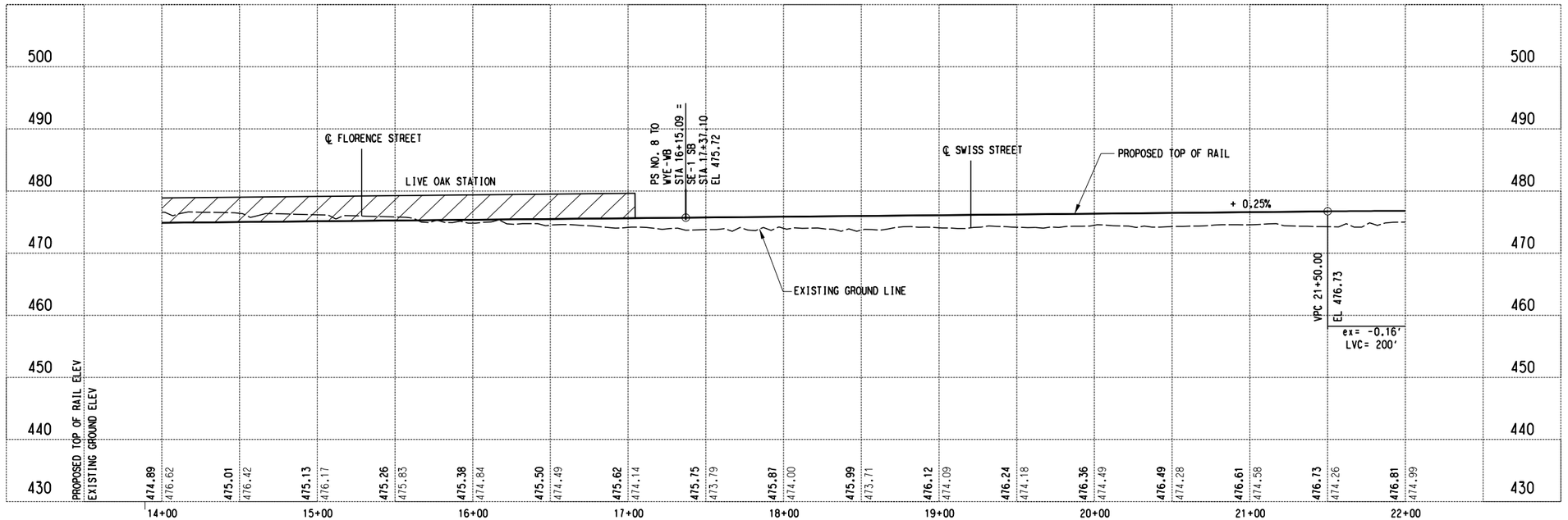
LGUBLO
Default

DWG No. CC1-0017



SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20

SE1-B (SB)		SE1-BB (NB)	
Rc=	1250.00'	Rc=	2000.00'
Ls=	60.00'	Ls=	60.00'
Lc=	111.66'	Lc=	214.56'
Eo=	0.75"	Eo=	0.75"
Eu=	1.25"	Eu=	0.50"
V=	25 MPH	V=	25 MPH



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 60 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

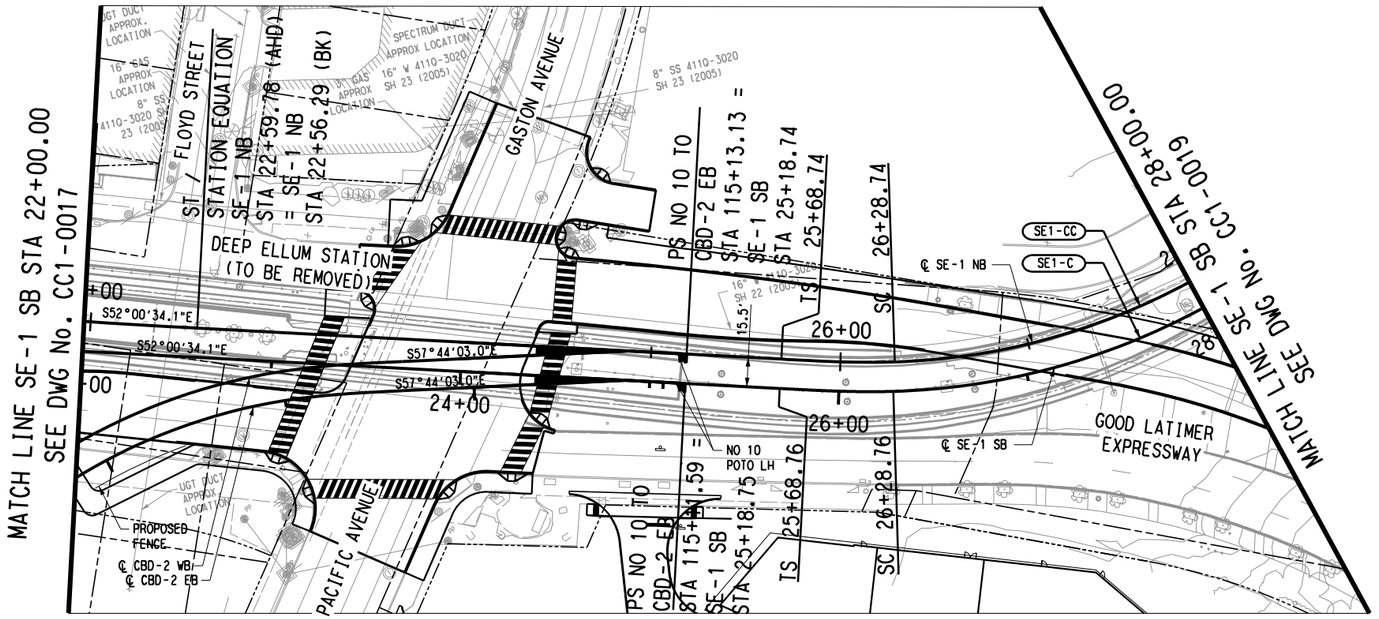
SE-1 SB
GUIDEWAY PLAN AND PROFILE
STA 14+00.00 TO STA 22+00.00

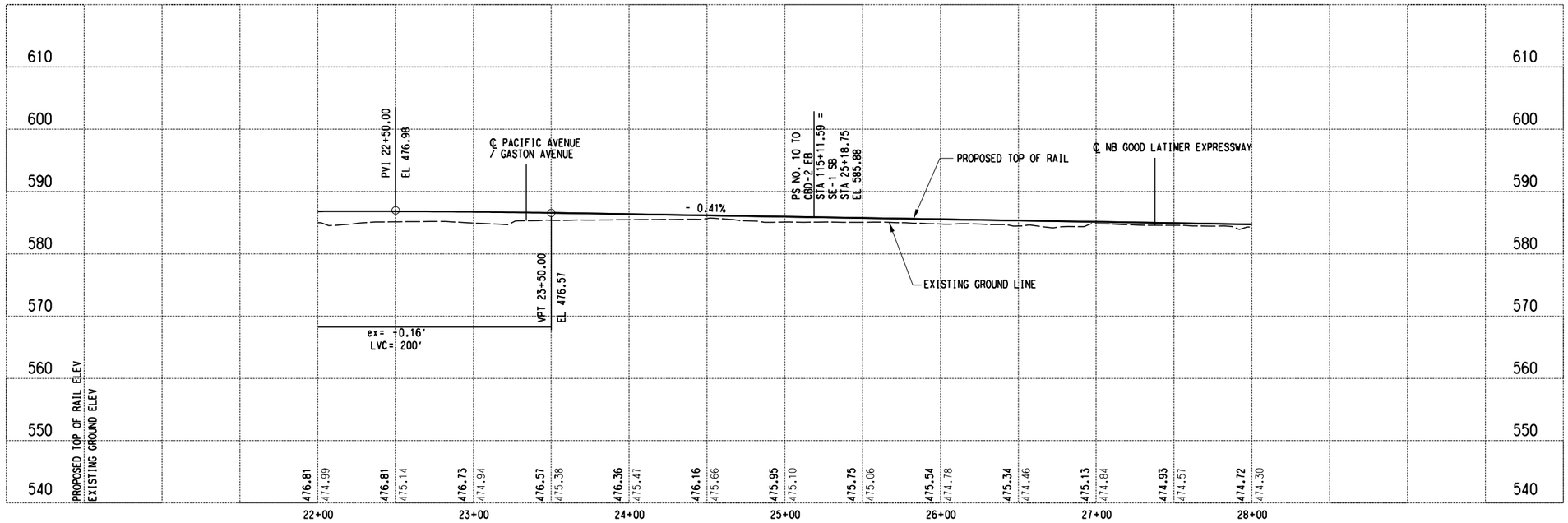
CONTRACT | DWG No. CC1-0017 | REV

LGUBLO
Default

Monday, October 26, 2020 09:59:37 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0017.040

DWG No. CC1-0018





SE1-C (SB)		SE1-CC (NB)	
Rc=	365.50'	Rc=	350.00'
Ls=	60.00'	Ls=	60.00'
Lc=	473.66'	Lc=	451.03'
Eo=	1.75"	Eo=	1.75"
Eu=	2.63"	Eu=	2.82"
V=	20 MPH	V=	20 MPH

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 61 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
GUIDEWAY PLAN AND PROFILE
STA 22+00.00 TO STA 28+00.00

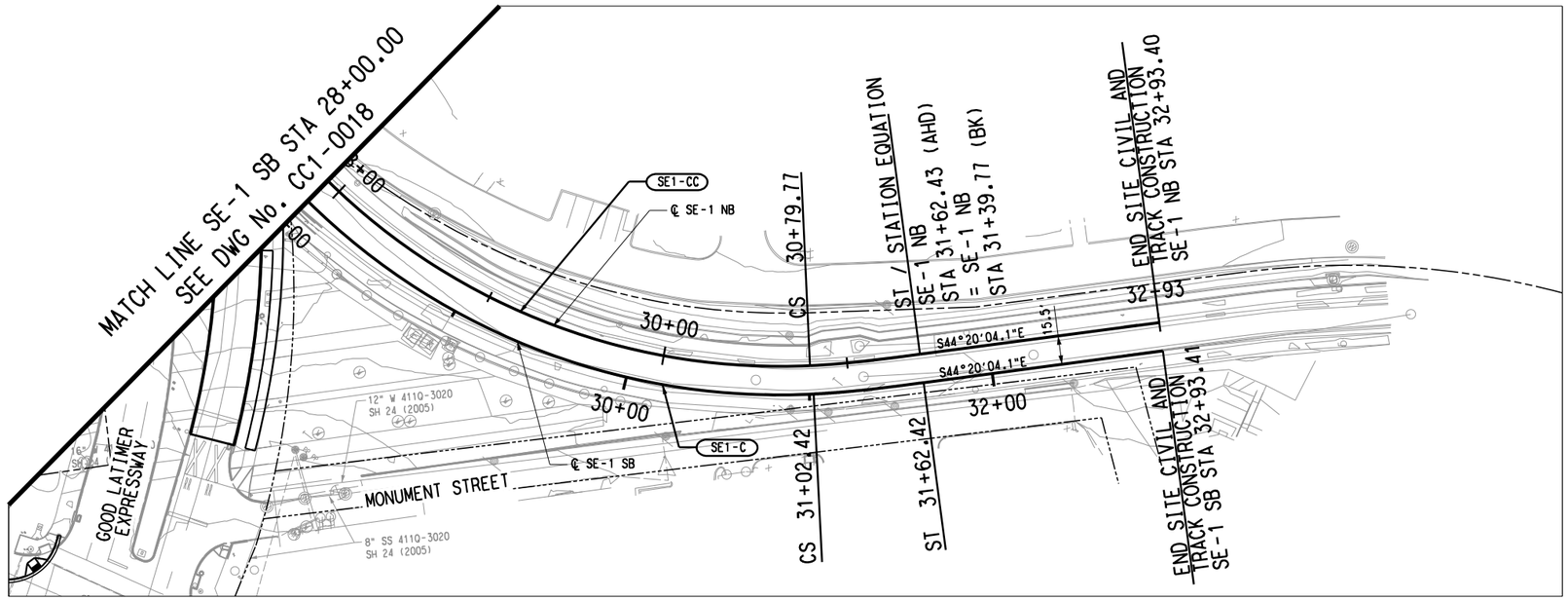
CONTRACT | DWG No. CC1-0018 | REV

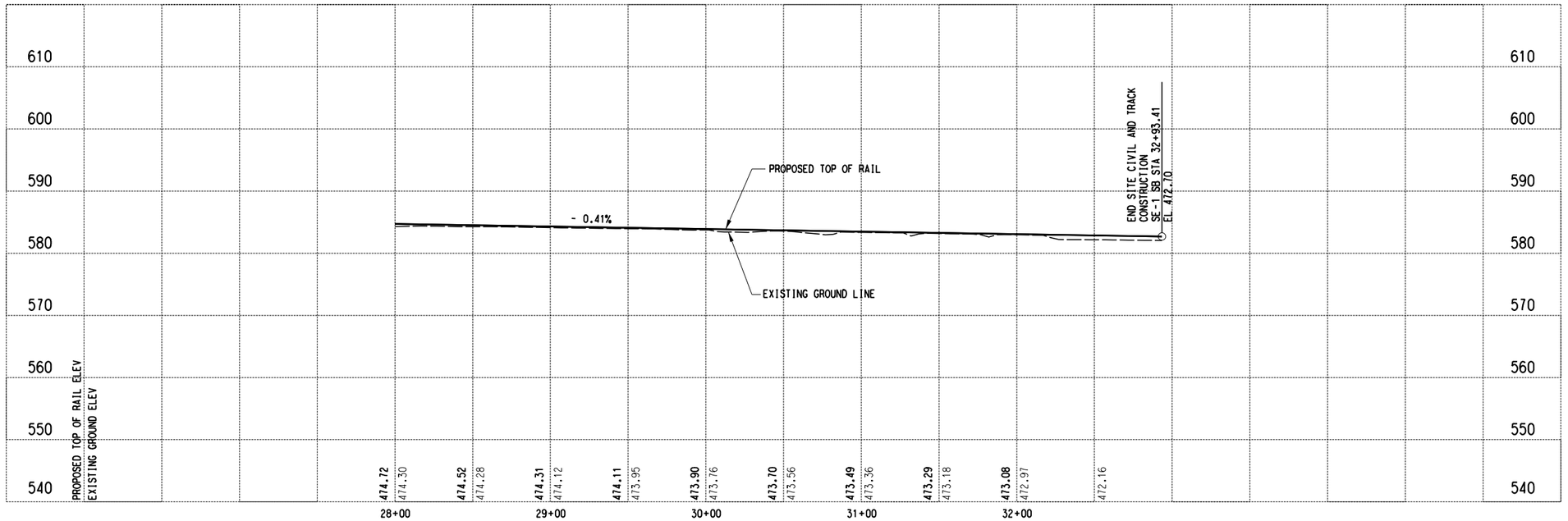
Monday, October 26, 2020 09:59:42 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0018.040

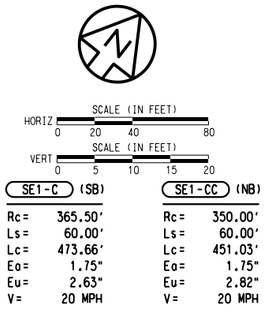
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0018.040

DWG No. CC1-0019







SE1-C (SB)		SE1-CC (NB)	
Rc=	365.50'	Rc=	350.00'
Ls=	60.00'	Ls=	60.00'
Lc=	473.66'	Lc=	451.03'
Eo=	1.75"	Eo=	1.75"
Eu=	2.63"	Eu=	2.82"
V=	20 MPH	V=	20 MPH

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 62 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

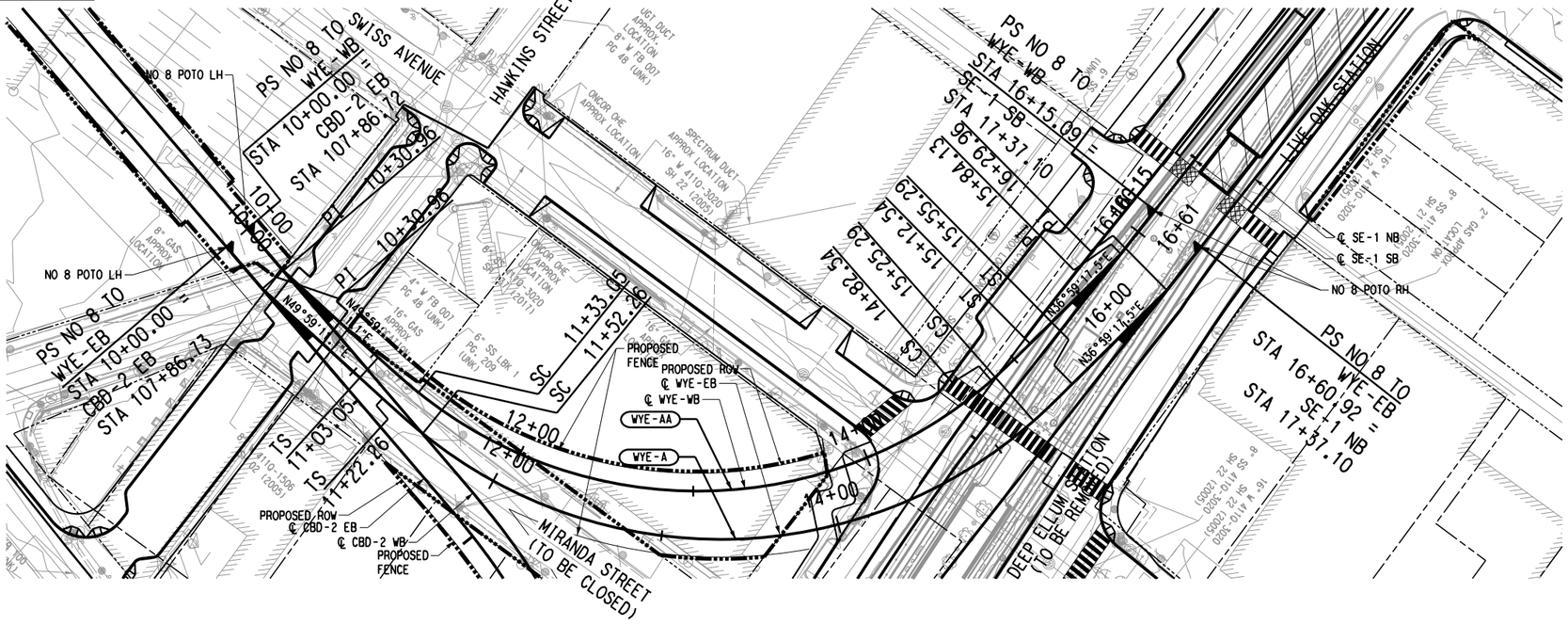
SE-1 SB
GUIDEWAY PLAN AND PROFILE
STA 28+00.00 TO END PROJECT

CONTRACT | DWG No. CC1-0019 | REV

LGUBLO
Default

Monday, October 26, 2020 09:59:48 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0019.040

DWG No. CC1-0020



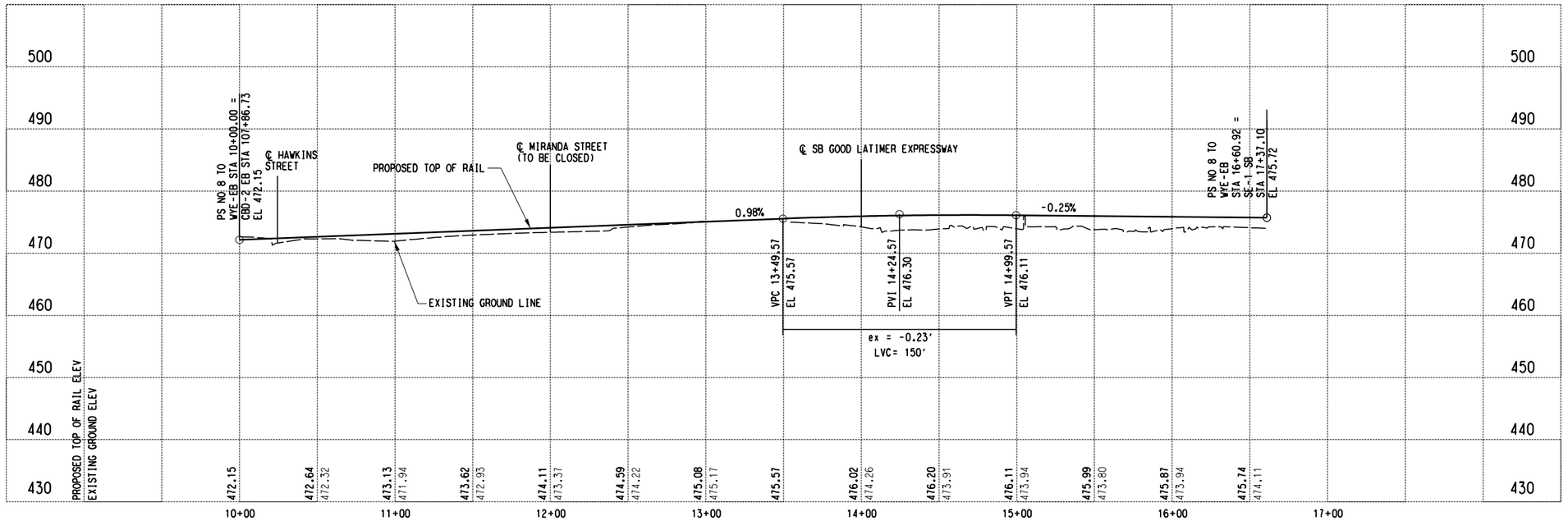
HORIZ SCALE (IN FEET) 0 20 40 80

VERT SCALE (IN FEET) 0 5 10 15 20

WYE-A		WYE-AA	
Rc=	265.50'	Rc=	250.00'
Ls=	30.00'	Ls=	30.00'
Lc=	373.03'	Lc=	349.50'
Eo=	0.50"	Eo=	0.50"
Eu=	1.01"	Eu=	1.10"
V=	10 MPH	V=	10 MPH

NOTES:

1. FOR PROPOSED ROW FENCE ALONG THE LRT GUIDEWAY, FINAL DESIGNER SHALL COORDINATE THE FENCE TREATMENT WITH THE CITY OF DALLAS.



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 63 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

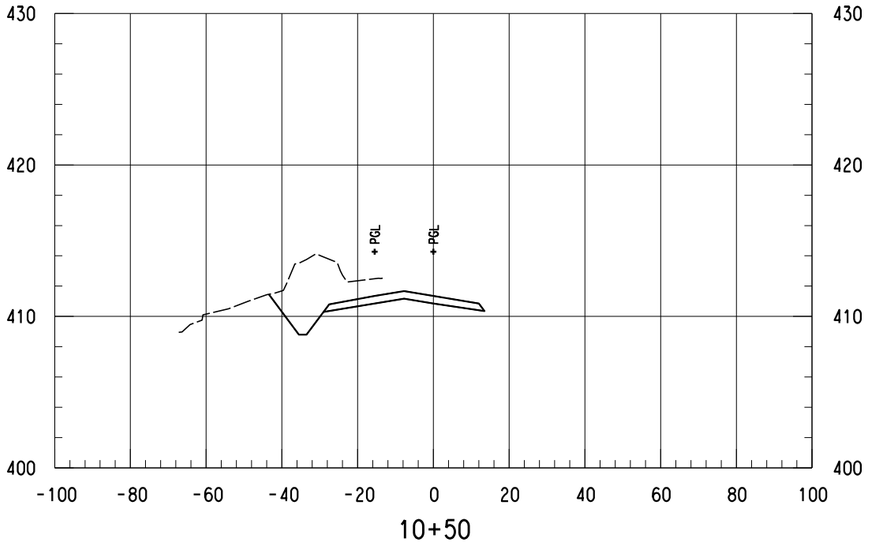
WYE - EB
GUIDEWAY PLAN AND PROFILE

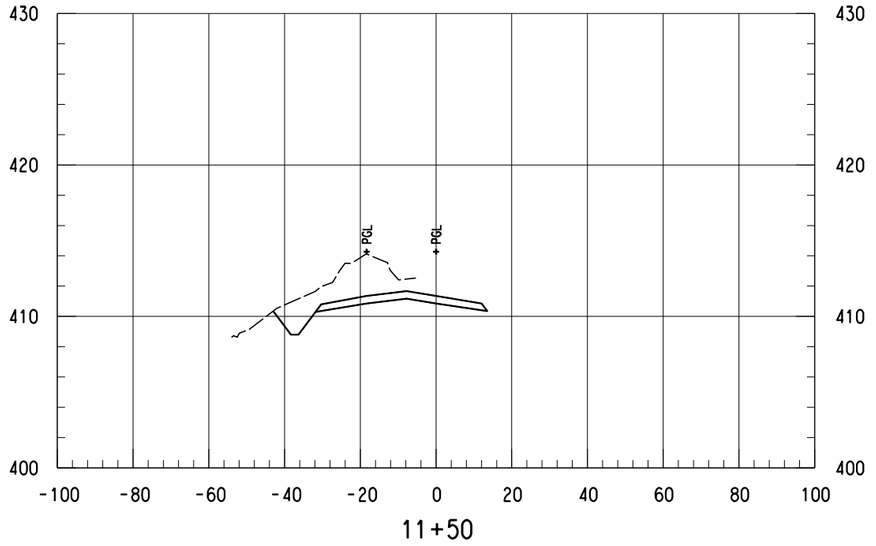
CONTRACT | DWG No. CC1-0020 | REV

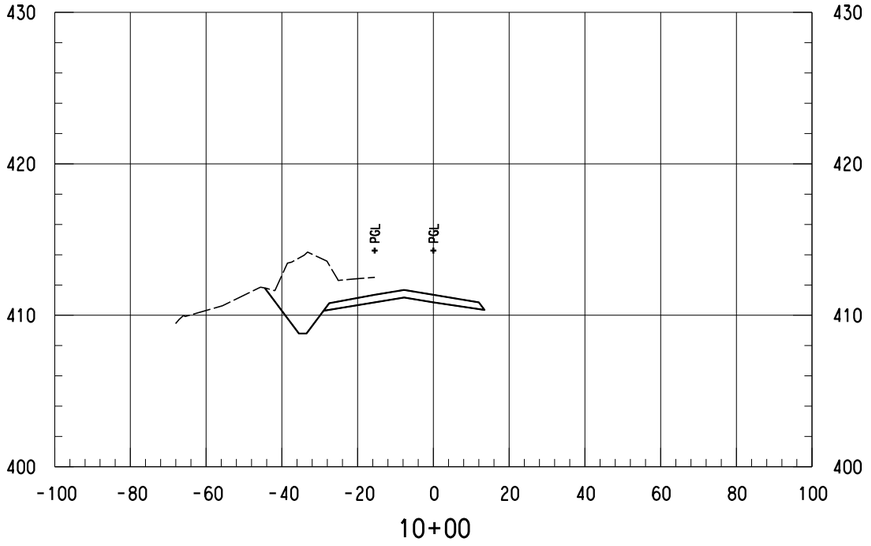
Monday, October 26, 2020 09:59:53 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0020.040

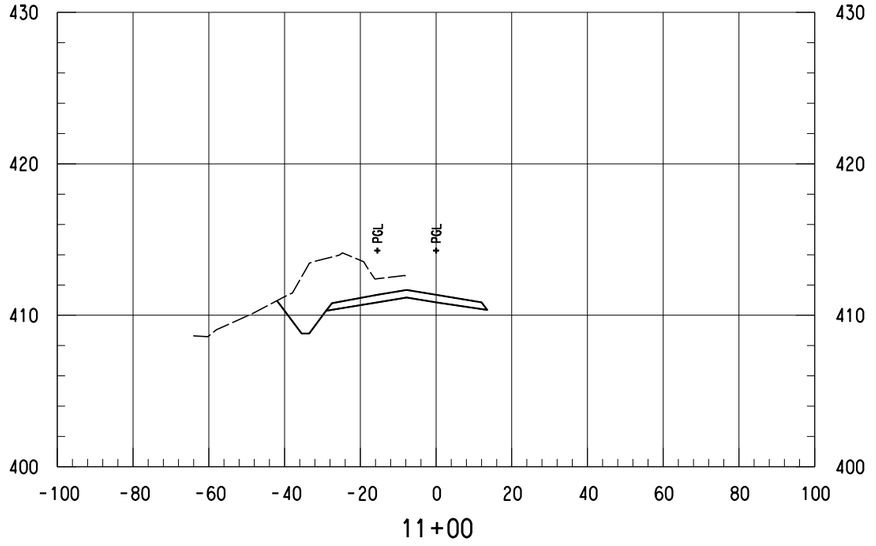
LGUBLO
Default

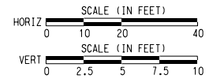
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-AL\CBD2-CC1-0020.040











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRADING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 64 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

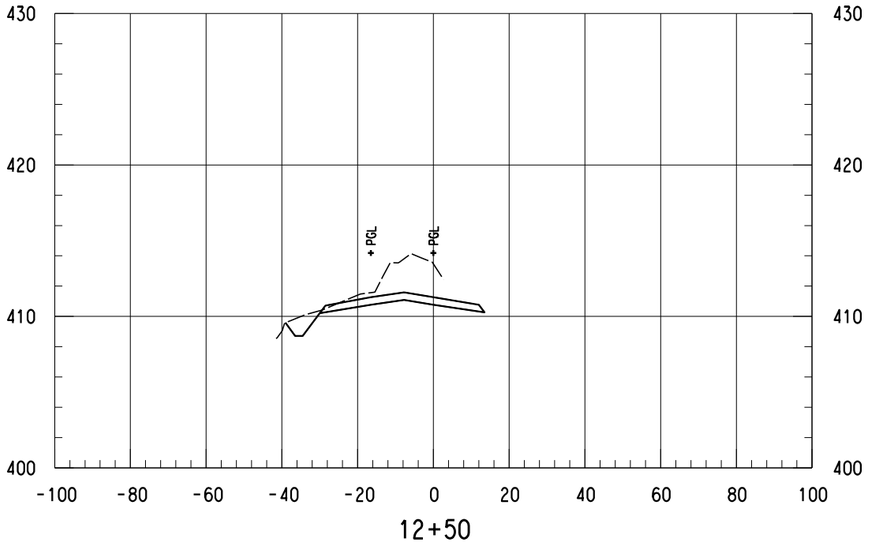
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

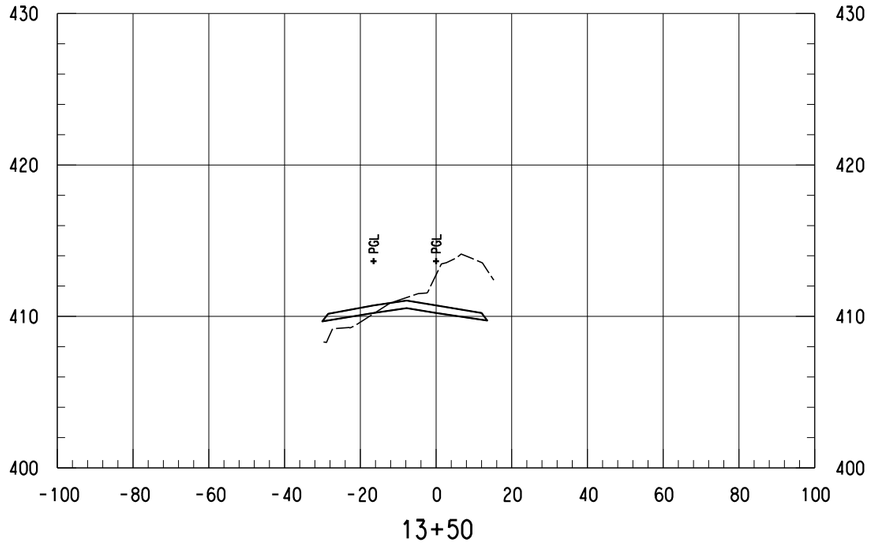
CBD-2
GUIDEWAY CROSS SECTIONS
STA 10+00.00 TO STA 11+50.00

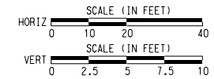
CONTRACT	DWG No.	REV
	CC8-0001	

Monday, October 26, 2020 10:19:01 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0002

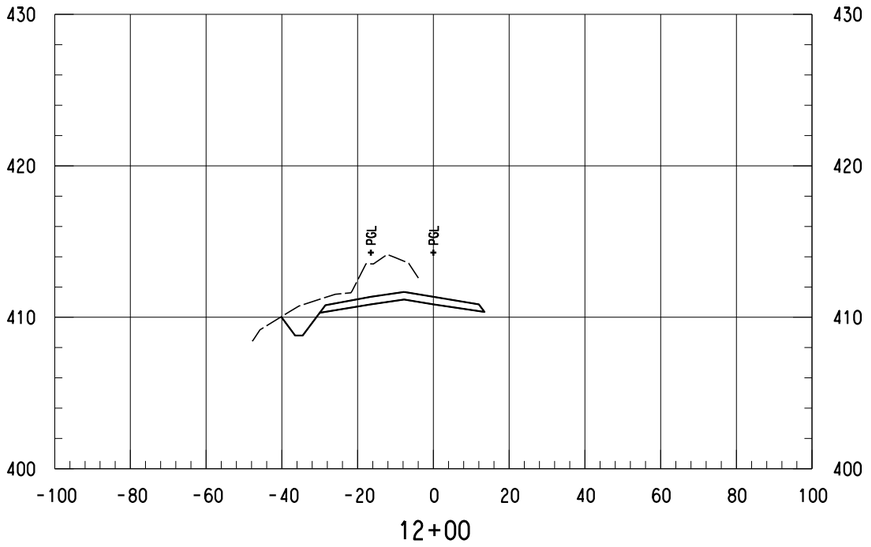


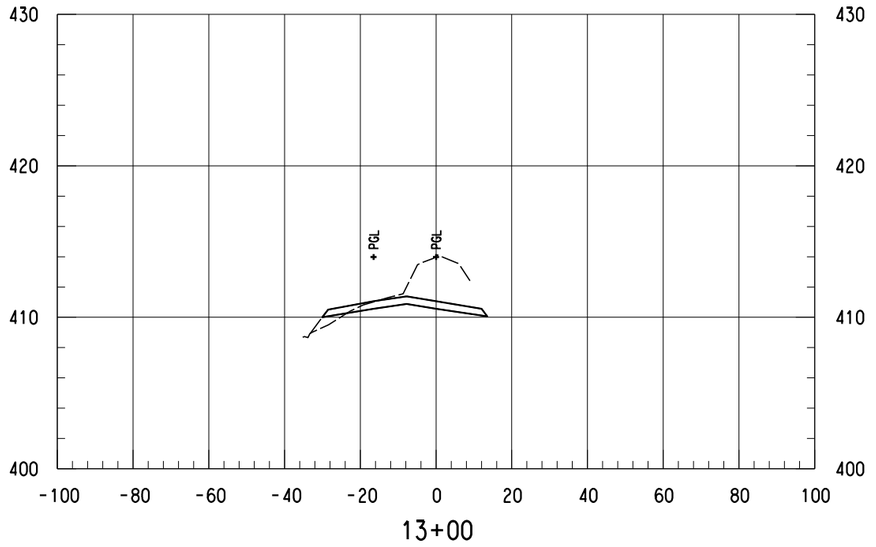




NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRADING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 65 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

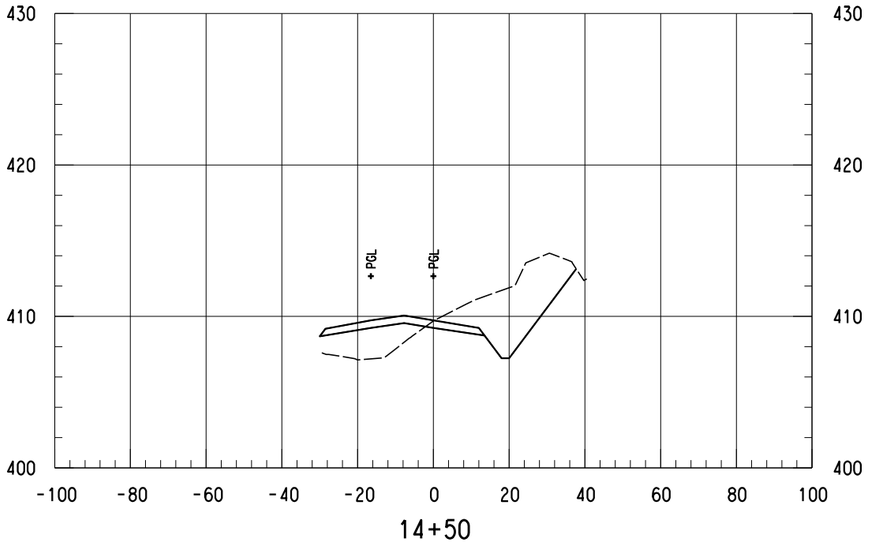
CBD-2
GUIDEWAY CROSS SECTIONS
STA 12+00.00 TO STA 13+50.00

CONTRACT	DWG No.	REV
	CC8-0002	

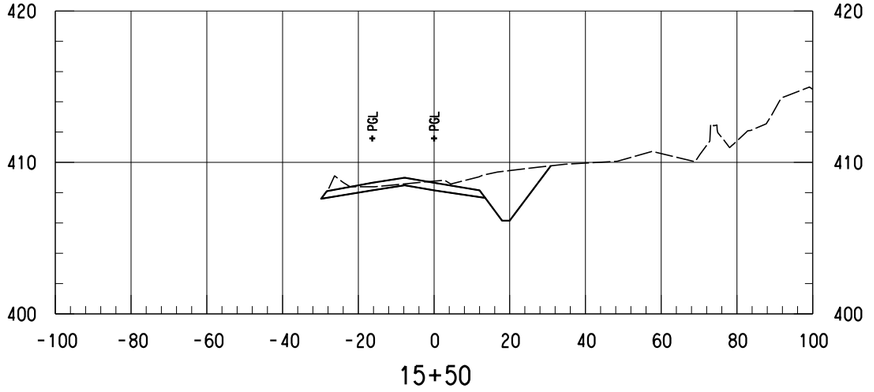
Monday, October 26, 2020 10:19:02 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

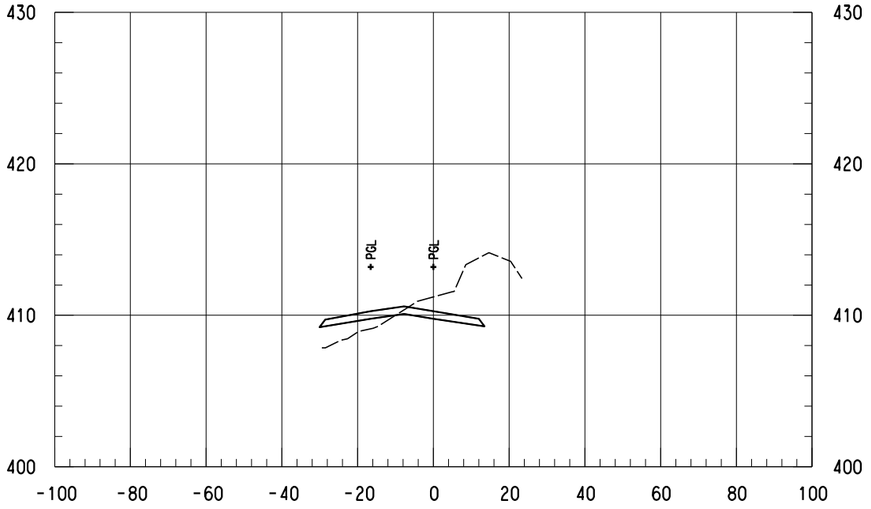
DWG No. CC8-0003



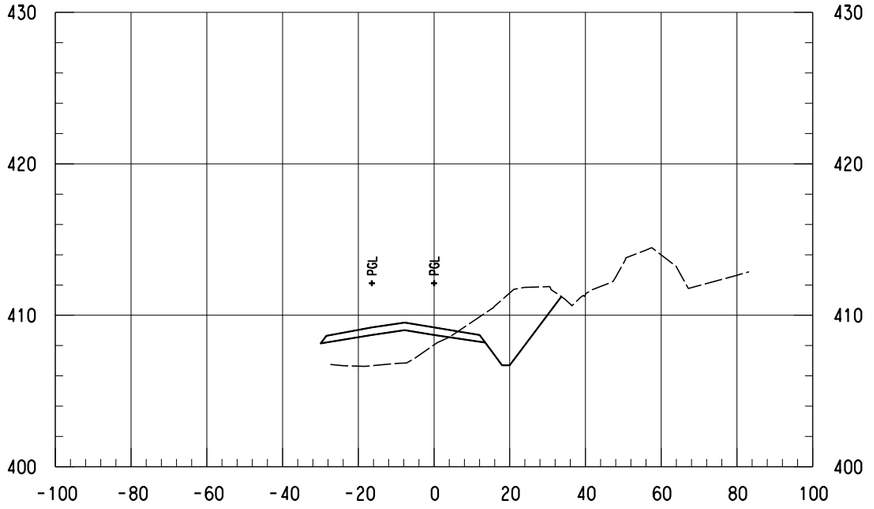
14+50



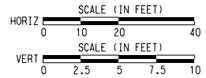
15+50



14+00



15+00



NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRADING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 66 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

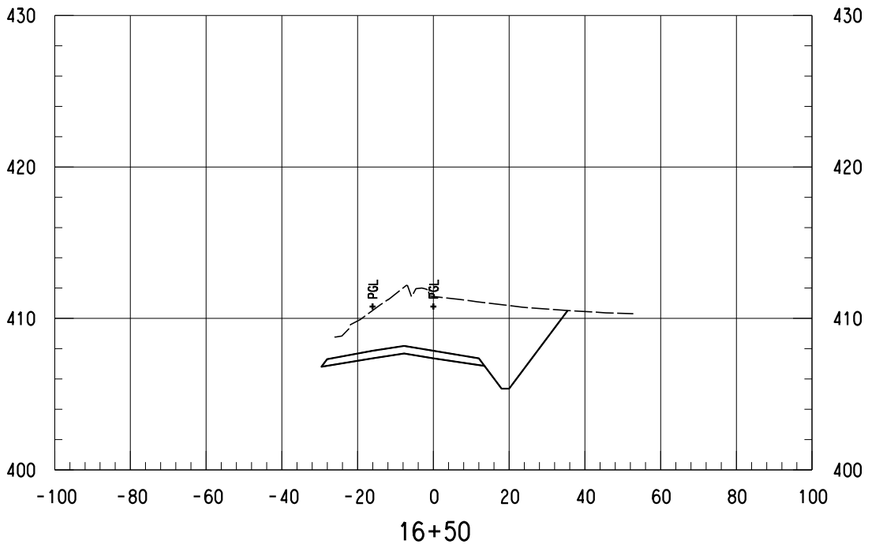
CBD-2
GUIDEWAY CROSS SECTIONS
STA 14+00.00 TO STA 15+50.00

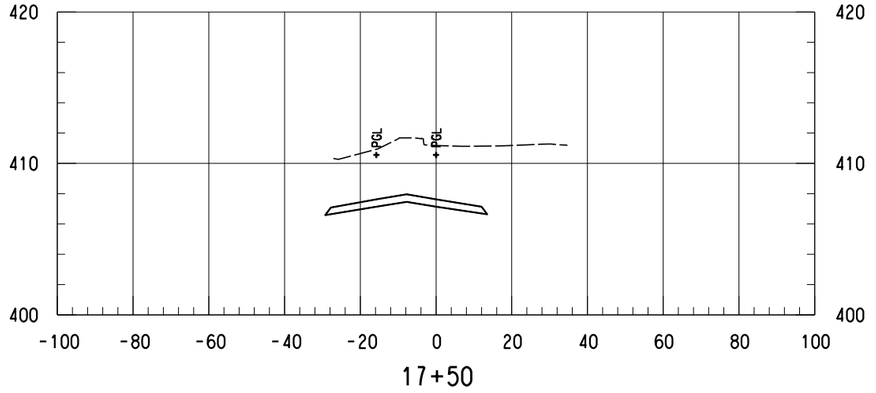
CONTRACT	DWG No.	REV
	CC8-0003	

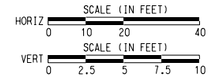
Monday, October 26, 2020 10:19:02 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

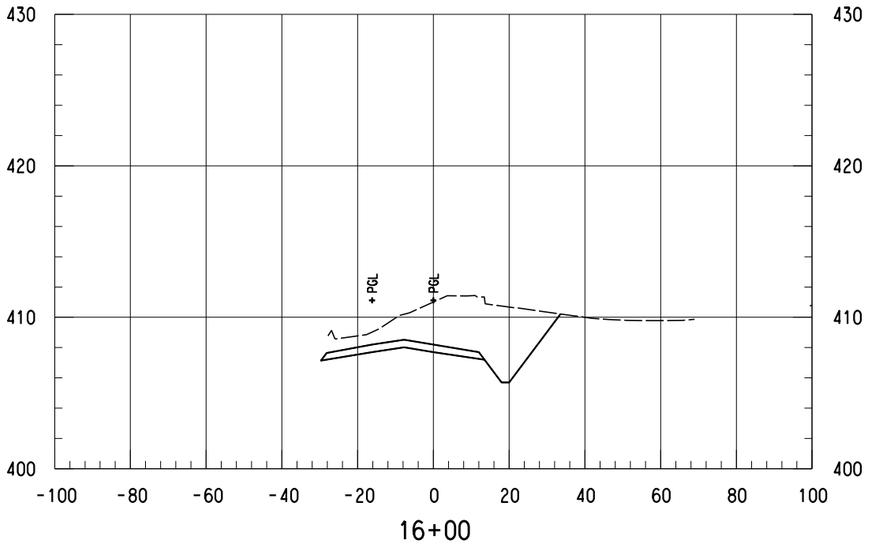


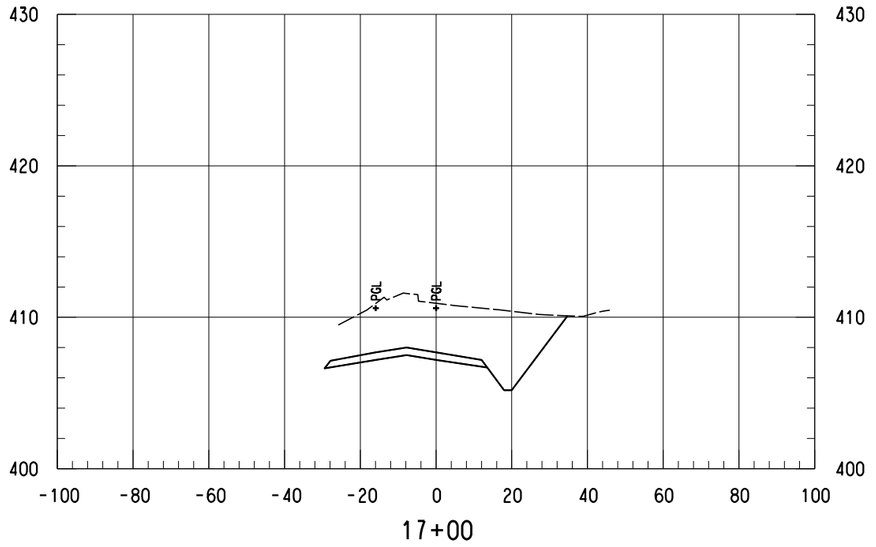




NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRADING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 67 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 16+00.00 TO STA 17+50.00

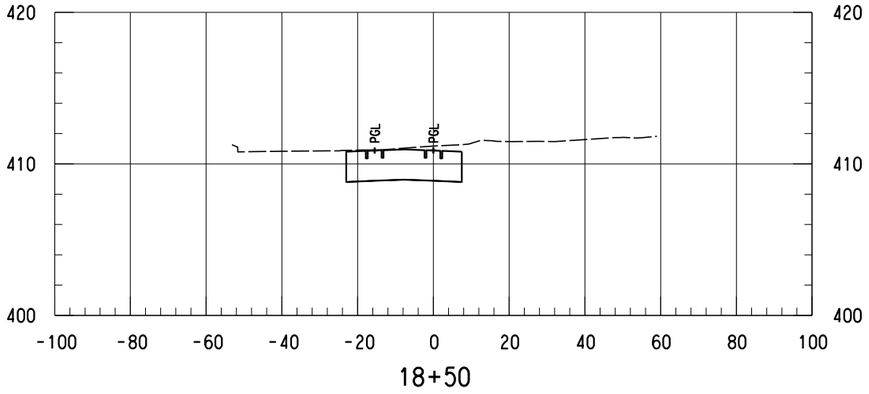
CONTRACT	DWG No.	REV
	CC8-0004	

Monday, October 26, 2020 10:19:03 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

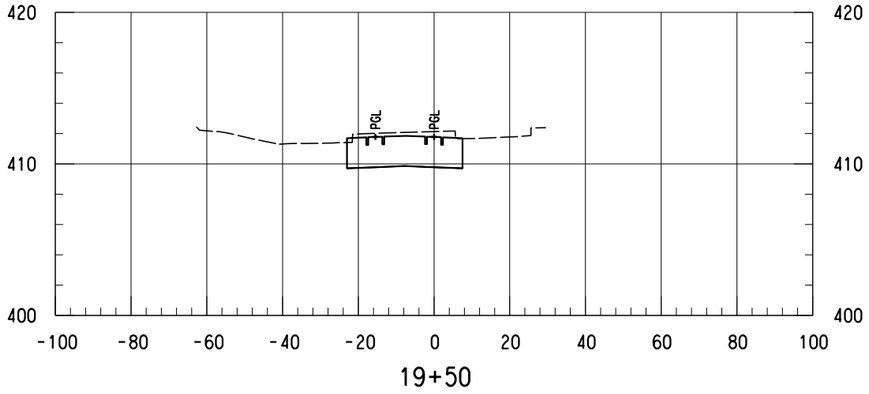
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

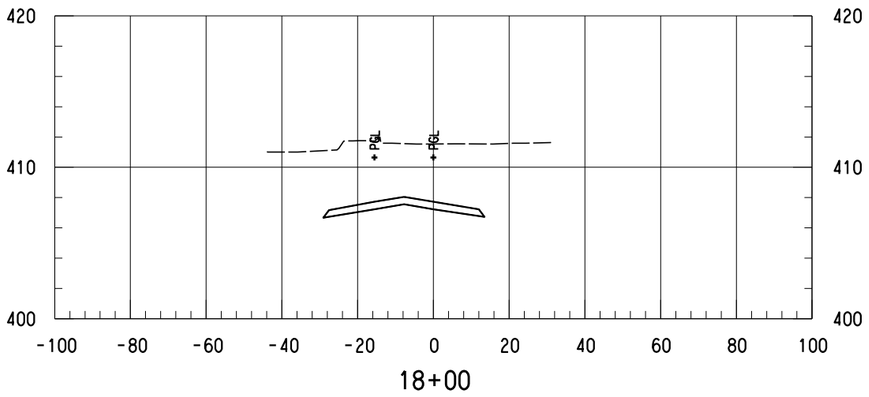
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



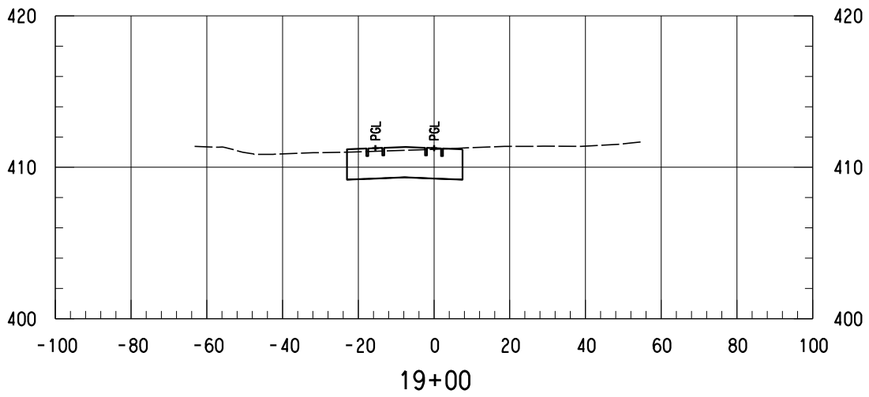
18+50



19+50



18+00



19+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 68 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

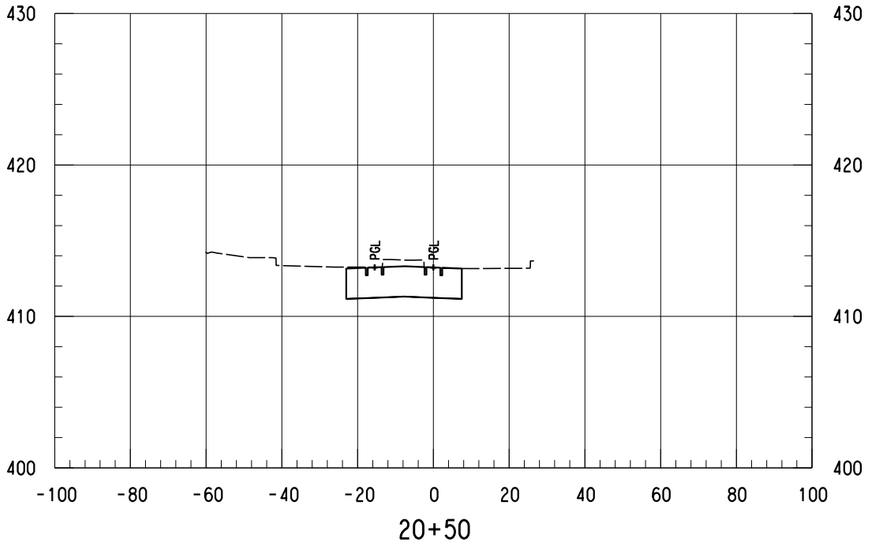
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

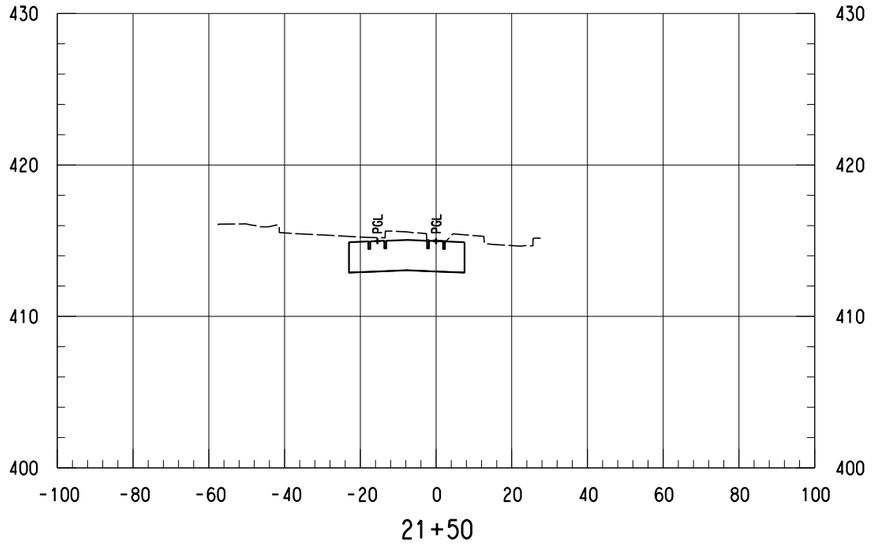
CBD-2
GUIDEWAY CROSS SECTIONS
STA 18+00.00 TO STA 19+50.00

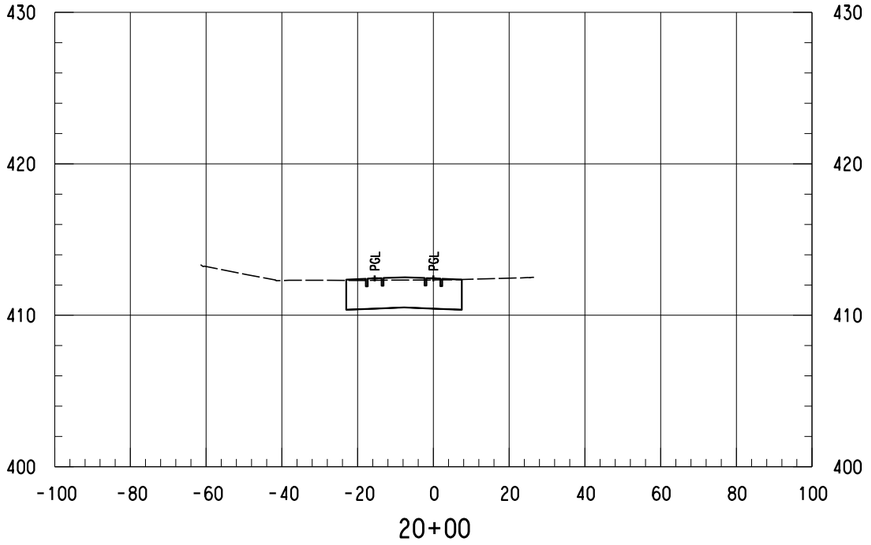
CONTRACT	DWG No.	REV
	CC8-0005	

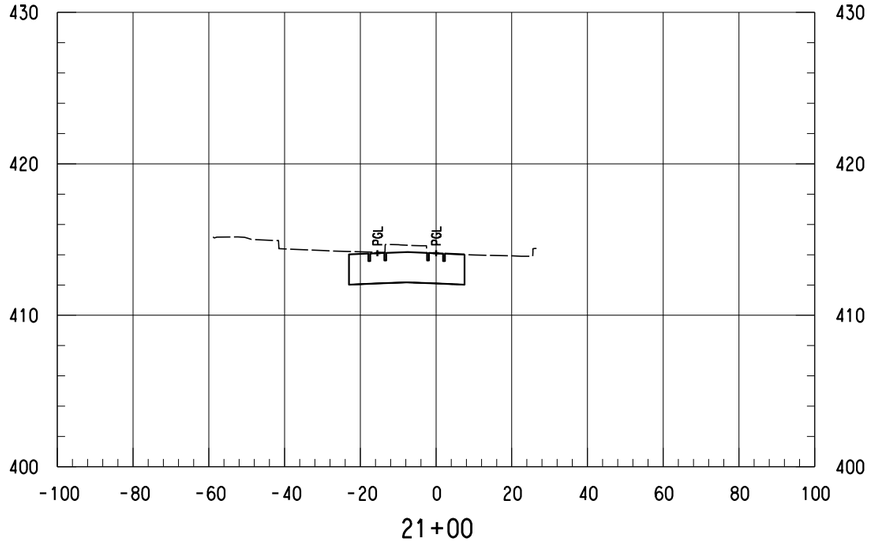
Monday, October 26, 2020 10:19:03 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

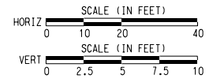
DWG No. CC8-0006











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 69 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 20+00.00 TO STA 21+50.00

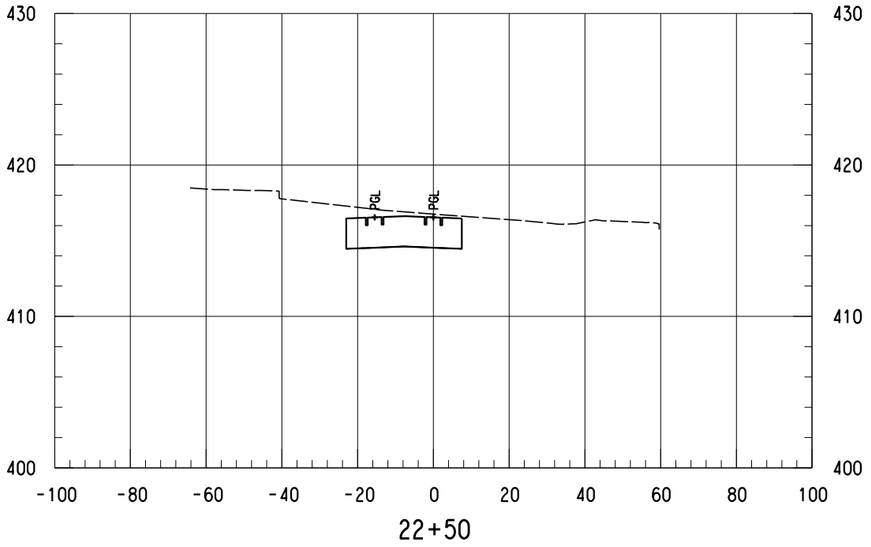
CONTRACT	DWG No.	REV
	CC8-0006	

Monday, October 26, 2020 10:19:04 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

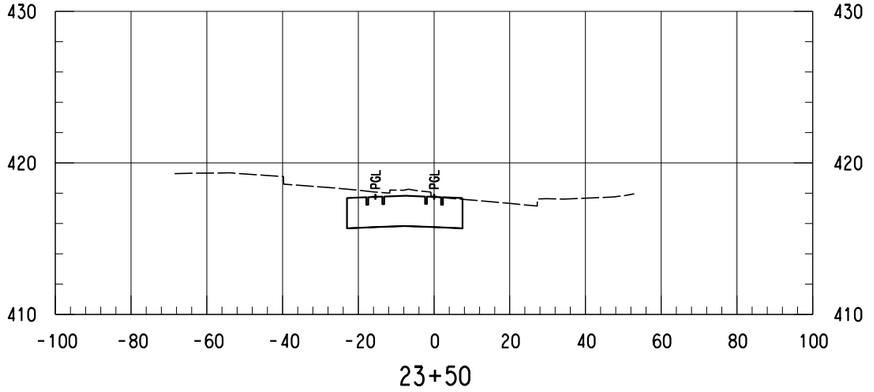
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

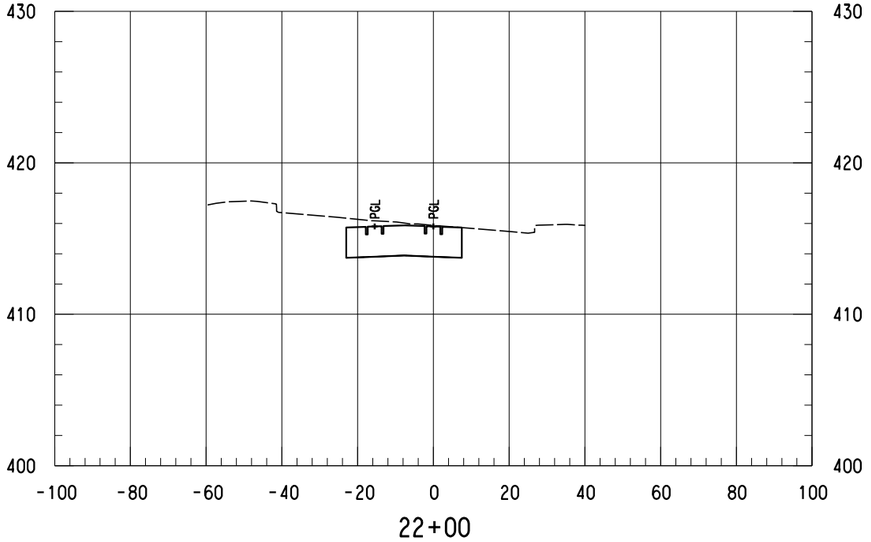
DWG No. CC8-0007



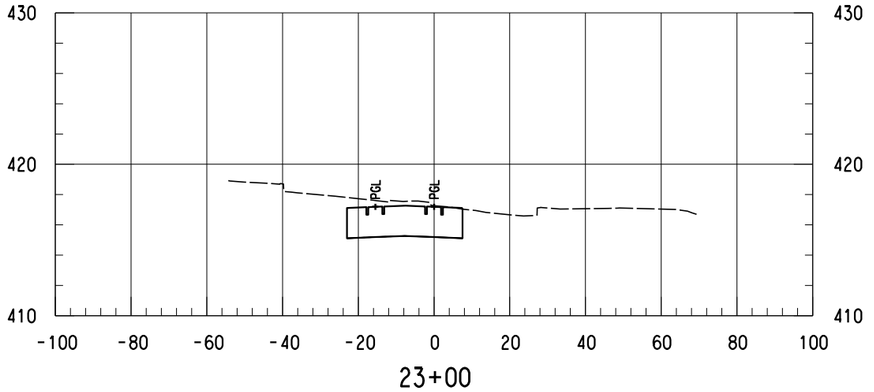
22+50



23+50



22+00



23+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 70 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 22+00.00 TO STA 23+50.00

CONTRACT	DWG No.	REV
	CC8-0007	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

Monday, October 26, 2020 10:19:04 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

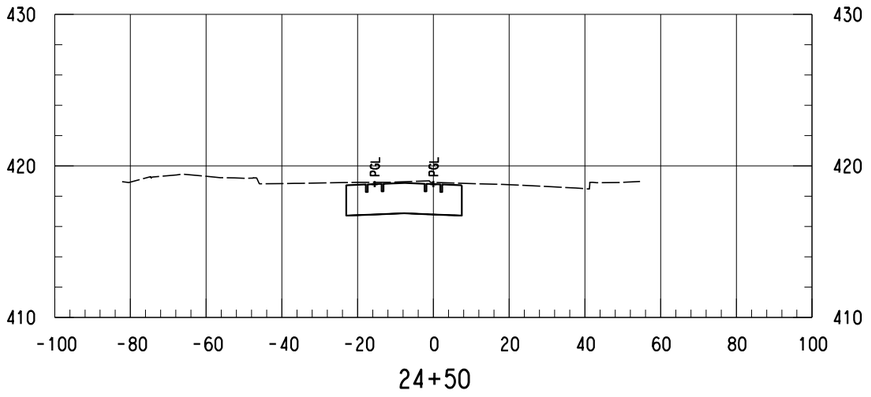
LGUBLO
Default

DWG No. CC8-0008

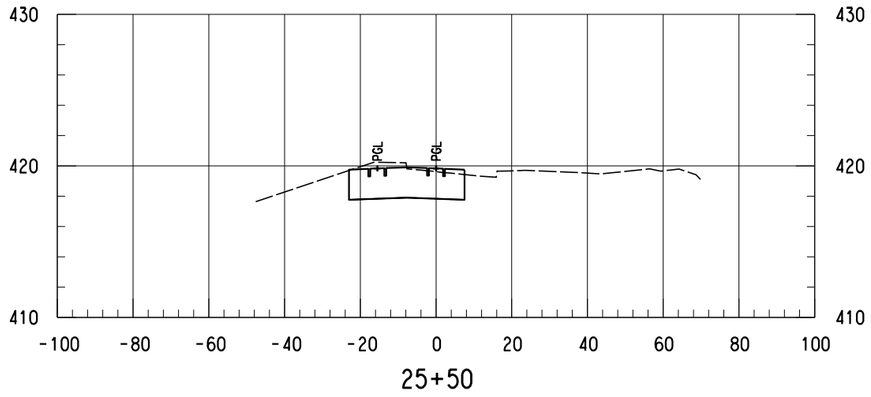
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

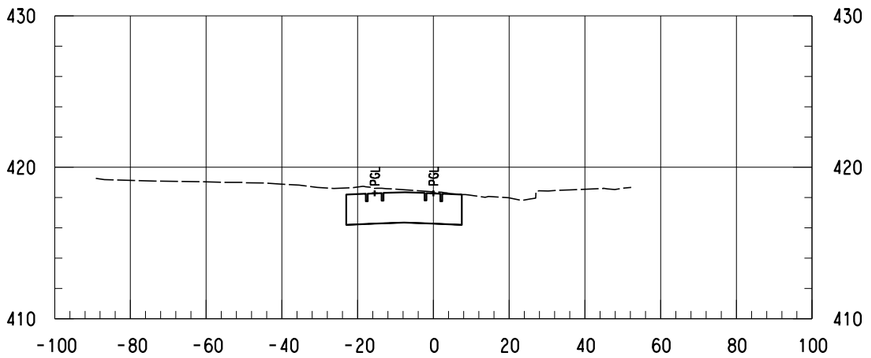
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



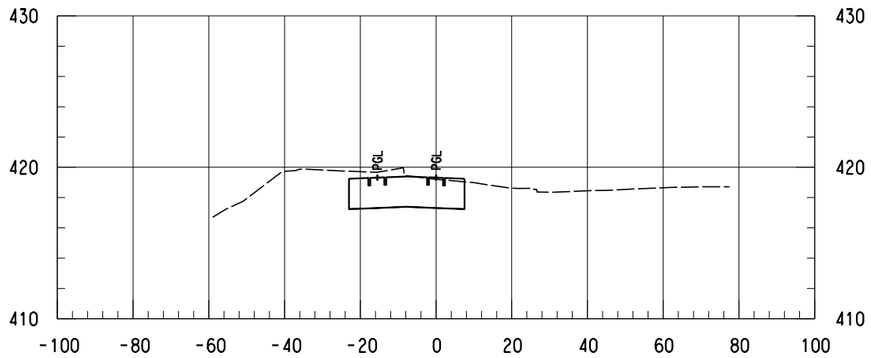
24+50



25+50



24+00



25+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 71 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 24+00.00 TO STA 25+50.00

CONTRACT	DWG No.	REV
	CC8-0008	

Monday, October 26, 2020 10:19:05 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

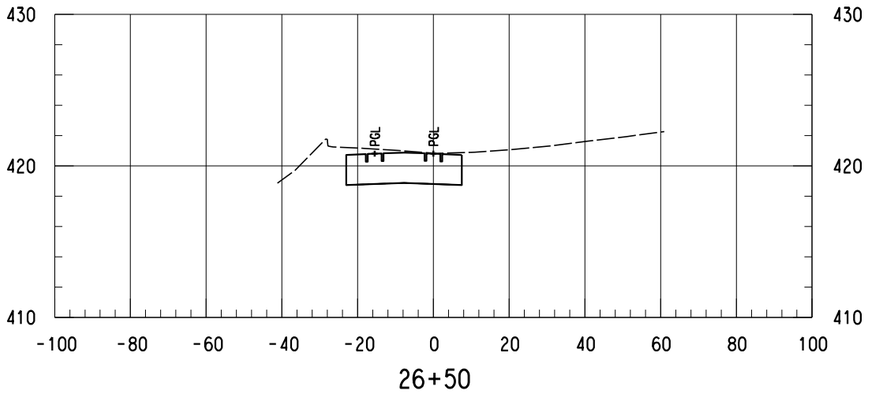
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

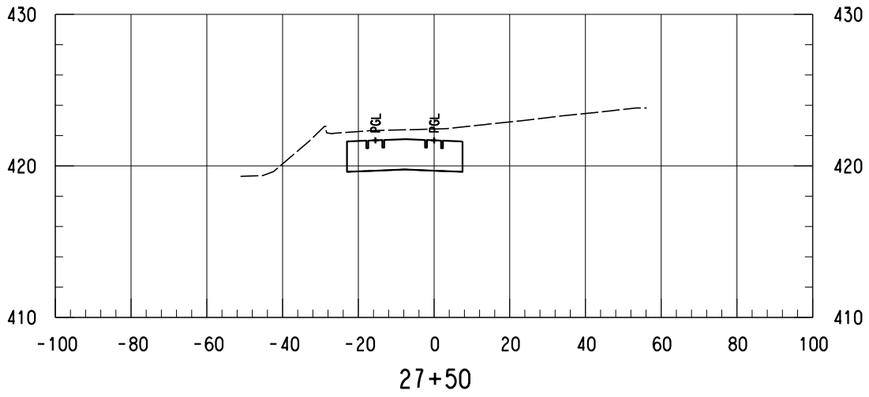
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

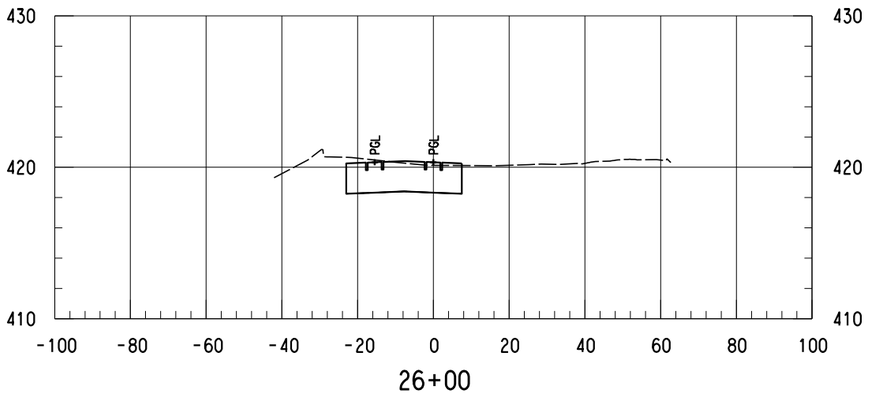
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



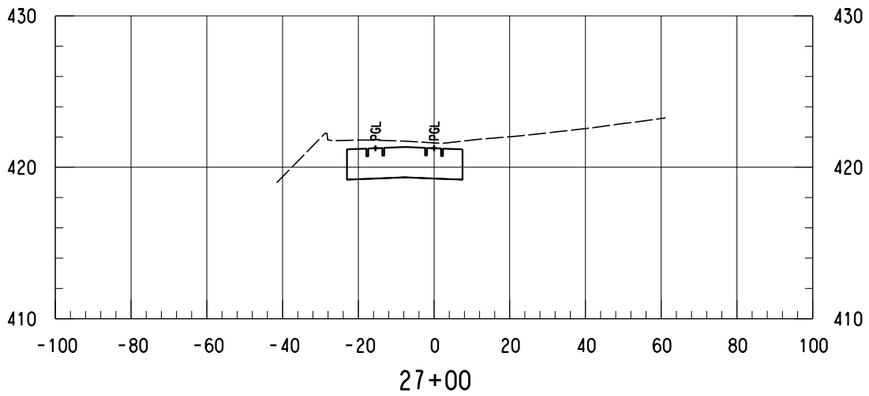
26+50



27+50



26+00



27+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 72 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

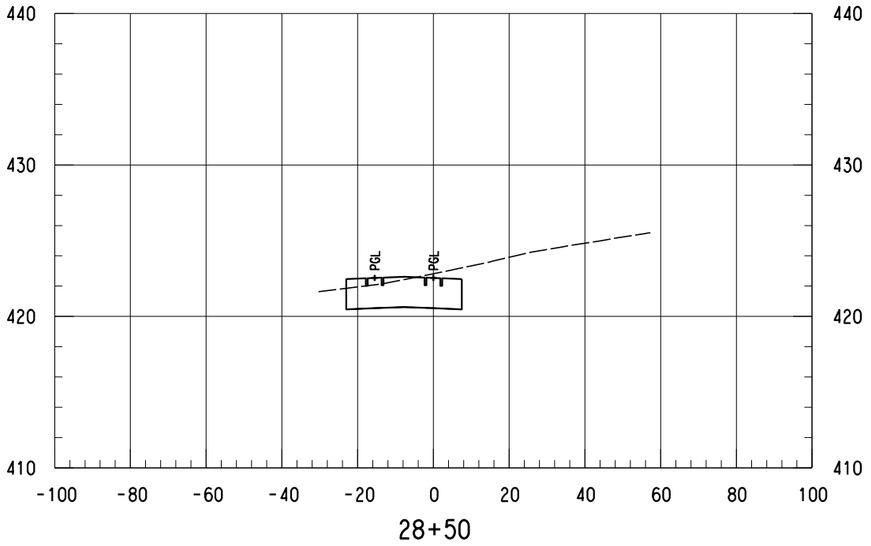
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

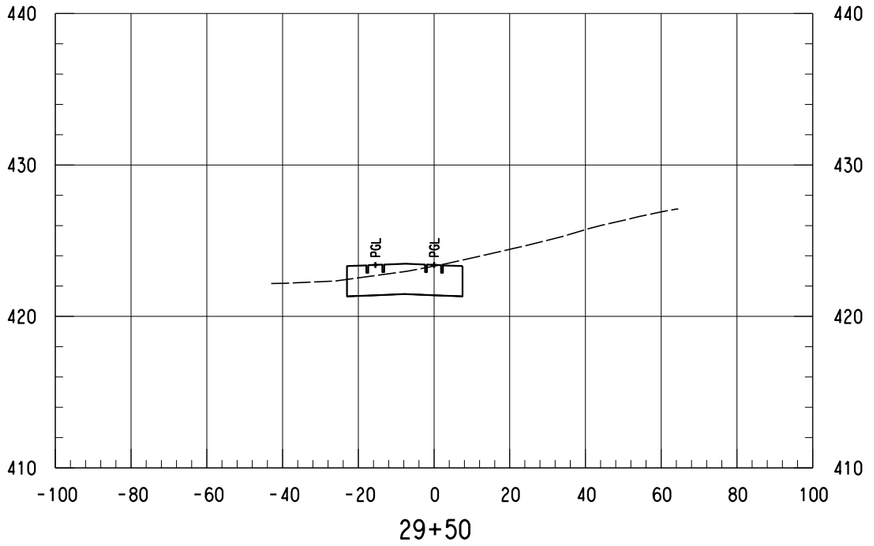
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

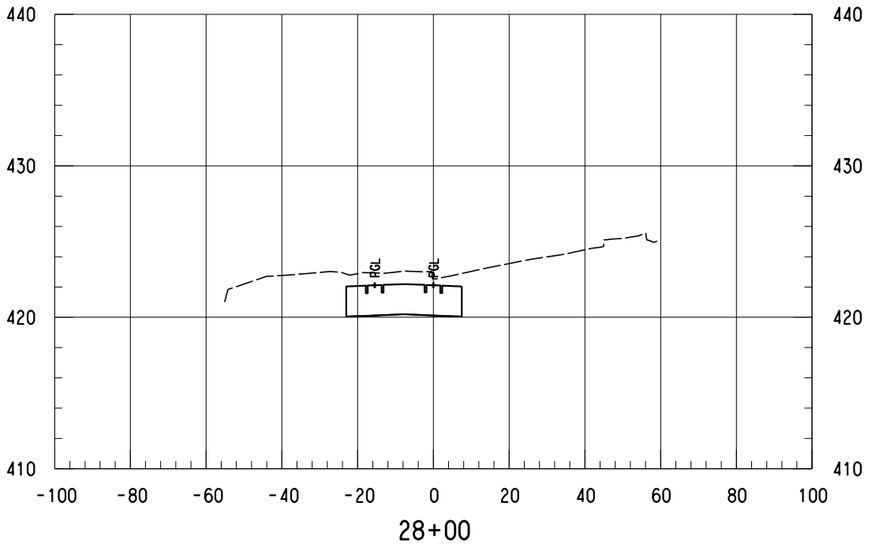
CBD-2
GUIDEWAY CROSS SECTIONS
STA 26+00.00 TO STA 27+50.00

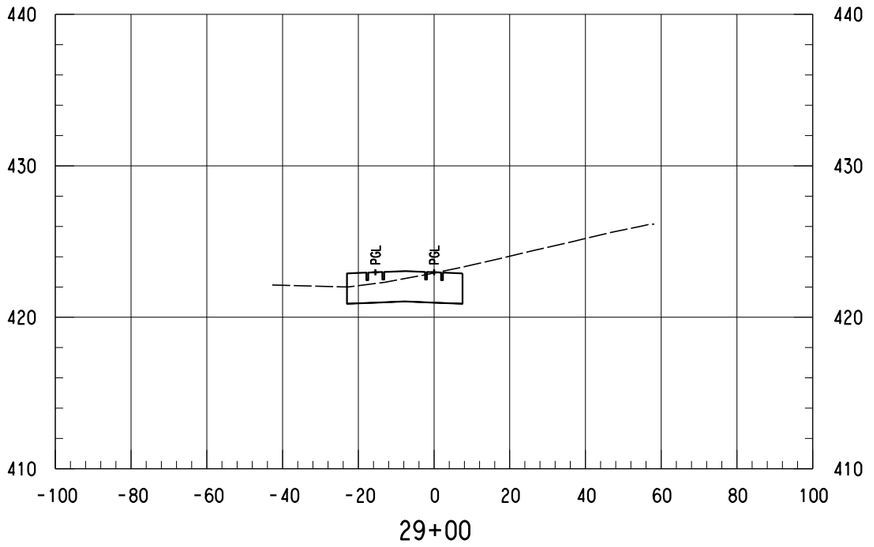
CONTRACT	DWG No.	REV
	CC8-0009	

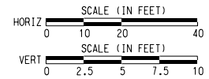
Monday, October 26, 2020 10:19:05 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 73 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

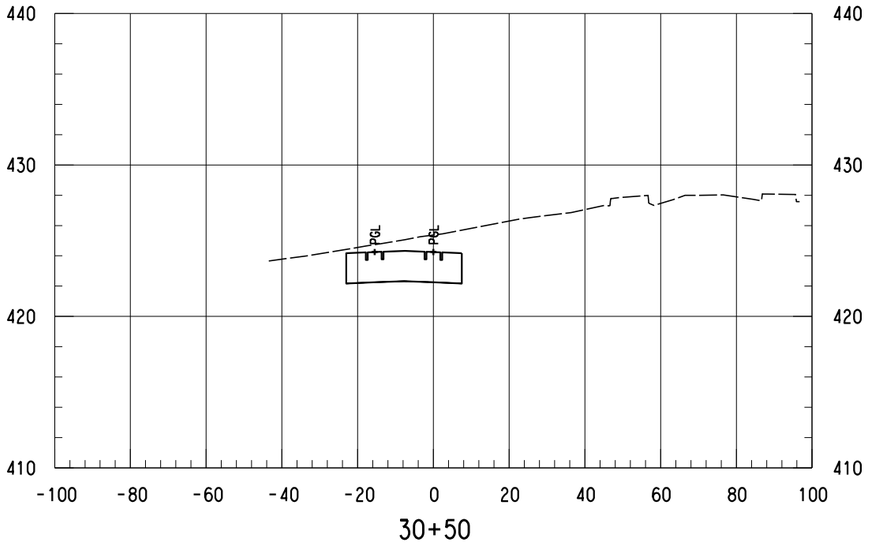
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

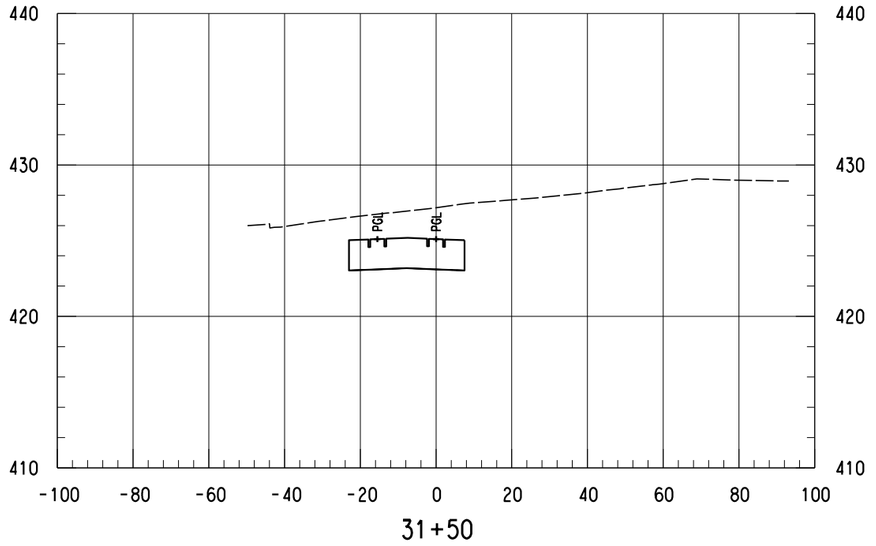
CBD-2
GUIDEWAY CROSS SECTIONS
STA 28+00.00 TO STA 29+50.00

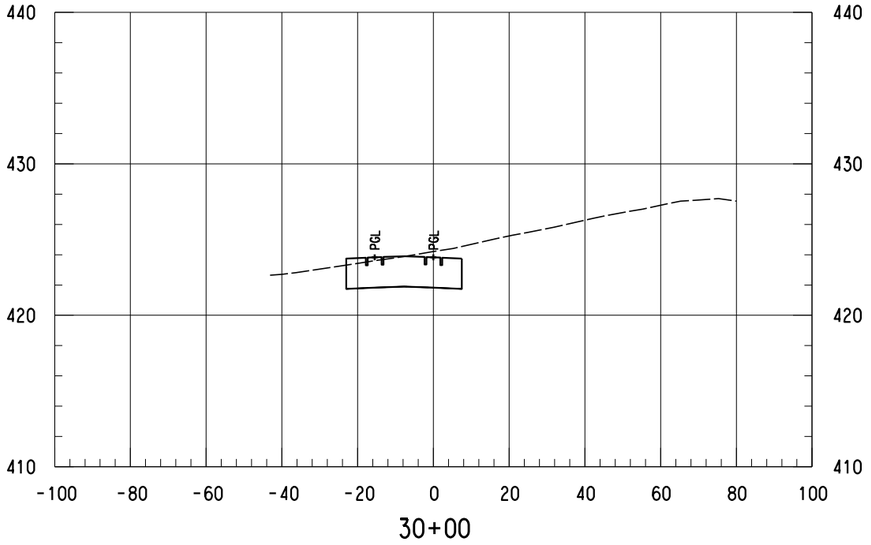
CONTRACT	DWG No.	REV
	CC8-0010	

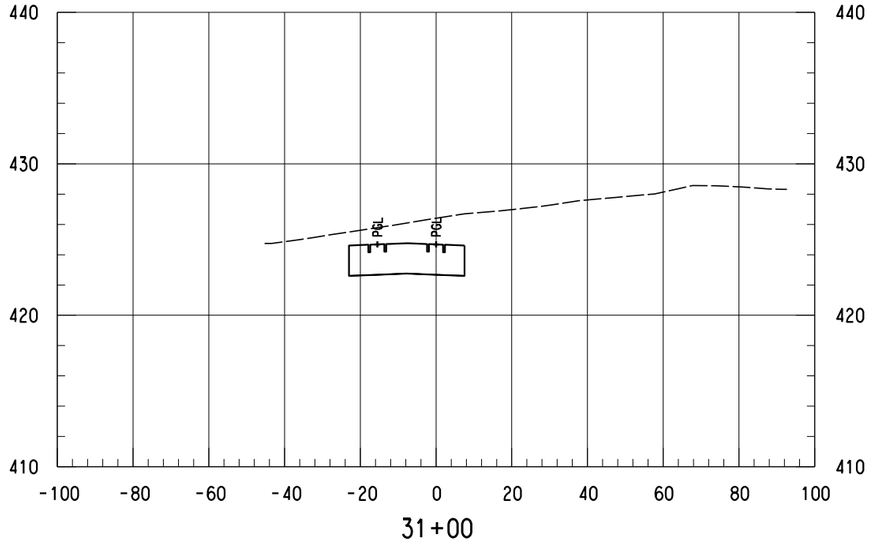
Monday, October 26, 2020 10:19:06 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

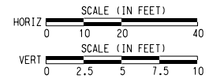
DWG No. CC8-0011











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 74 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

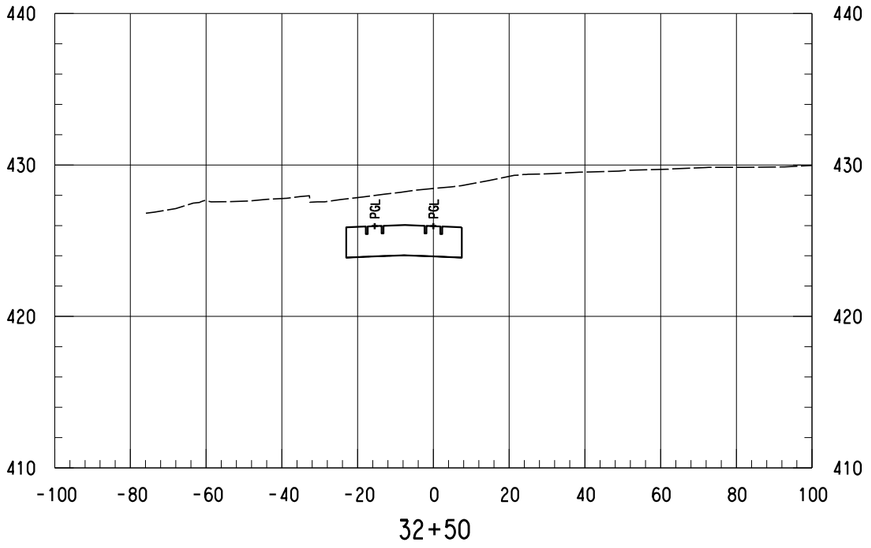
CBD-2
GUIDEWAY CROSS SECTIONS
STA 30+00.00 TO STA 31+50.00

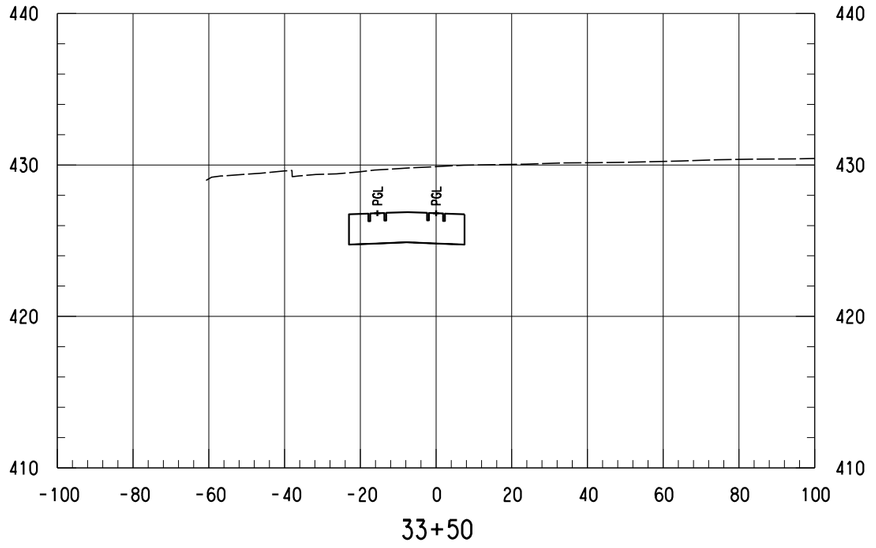
CONTRACT	DWG No.	REV
	CC8-0011	

Monday, October 26, 2020 10:19:06 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

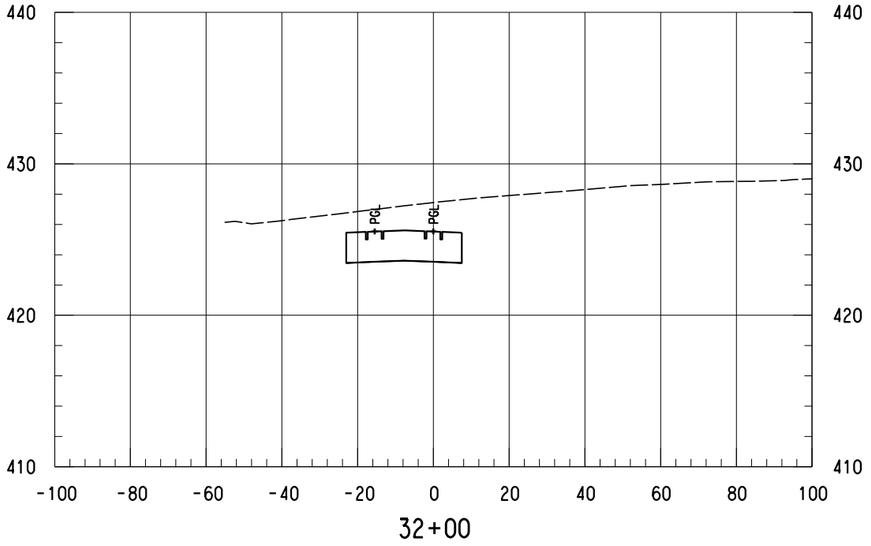


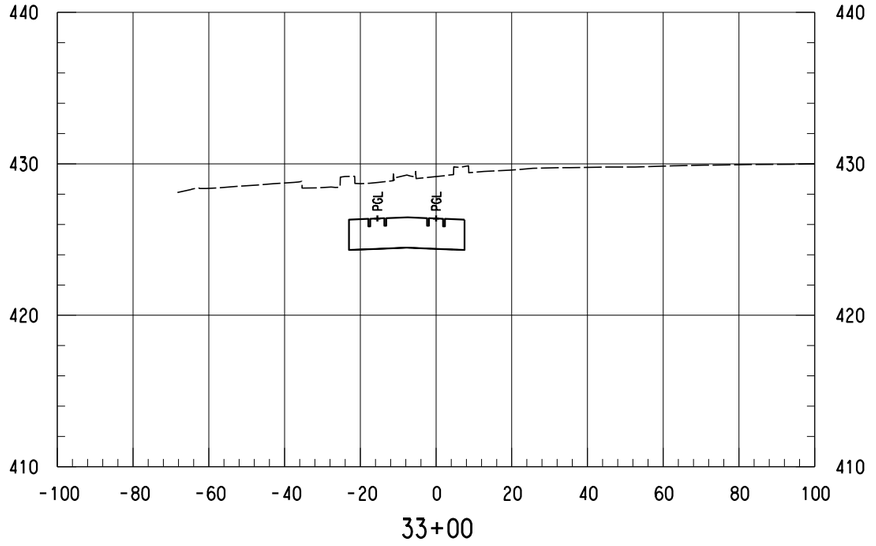


SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 75 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

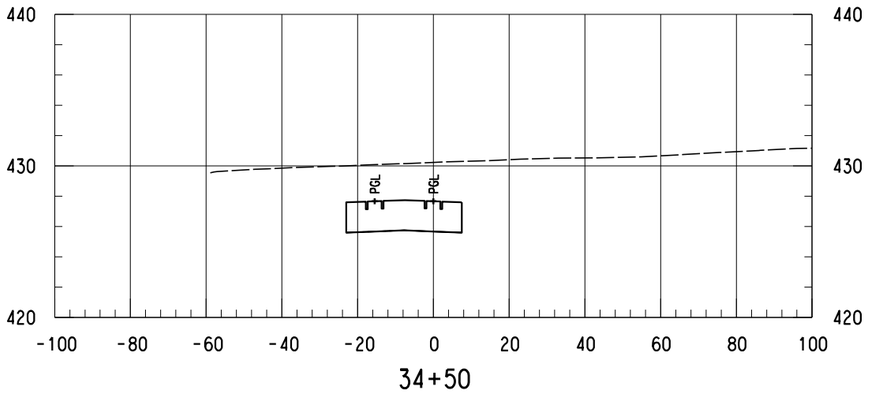
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

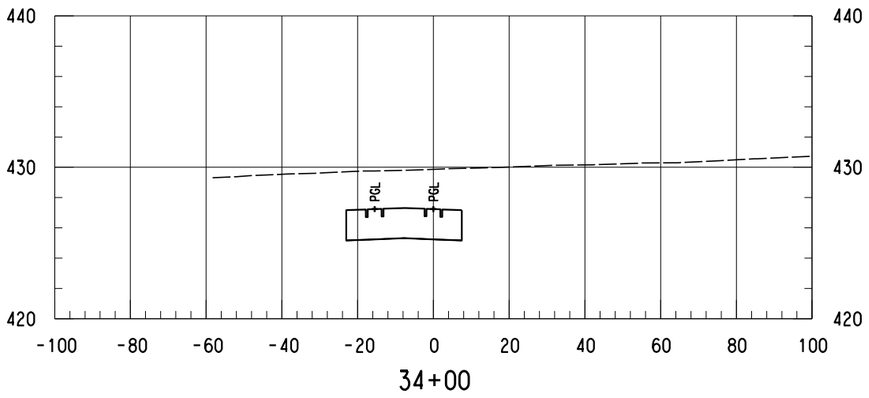
CBD-2
GUIDEWAY CROSS SECTIONS
STA 32+00.00 TO STA 33+50.00

CONTRACT	DWG No.	REV
	CC8-0012	

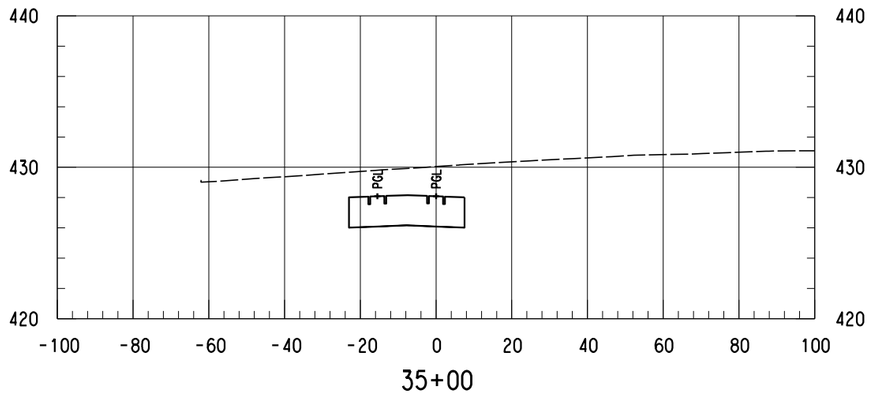
Monday, October 26, 2020 10:19:06 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default



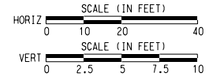
34+50



34+00



35+00



NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 76 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

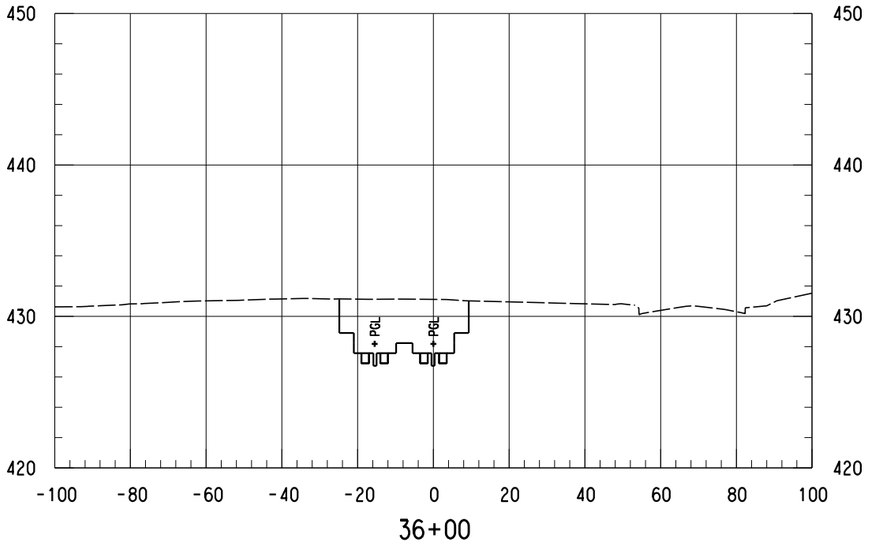
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

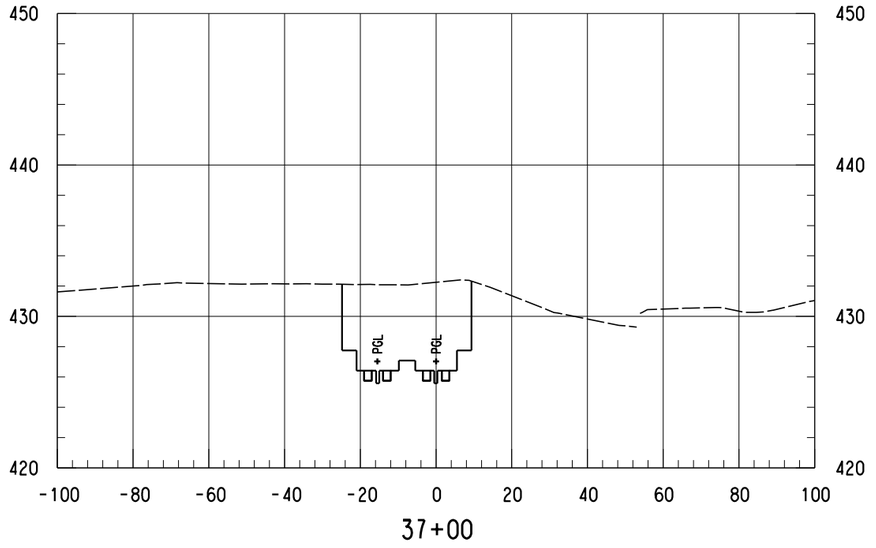
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

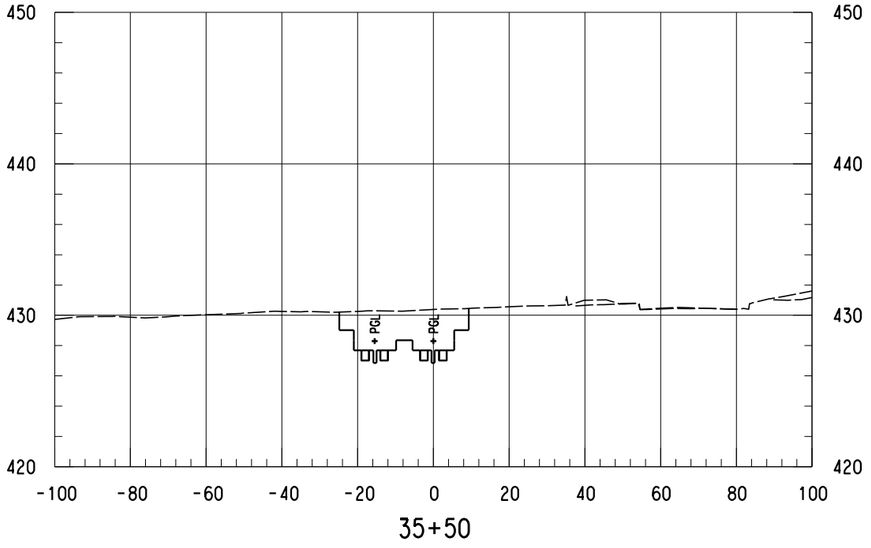
CBD-2
GUIDEWAY CROSS SECTIONS
STA 34+00.00 TO STA 35+00.00

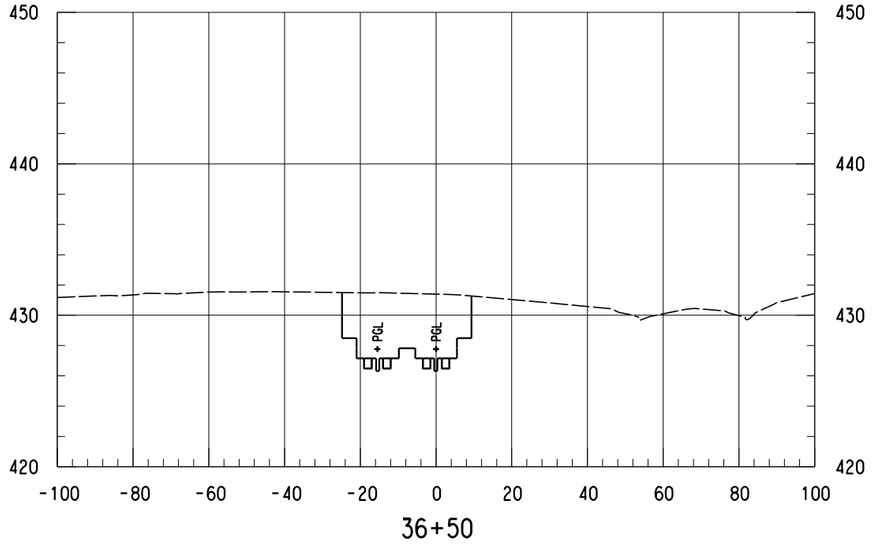
CONTRACT	DWG No.	REV
	CC8-0013	

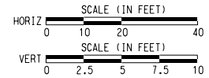
Monday, October 26, 2020 10:19:07 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 77 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

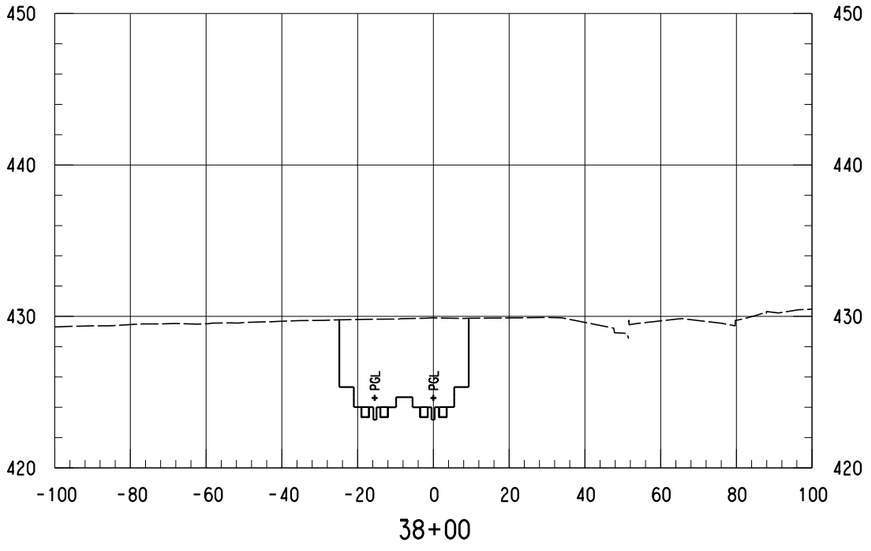
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

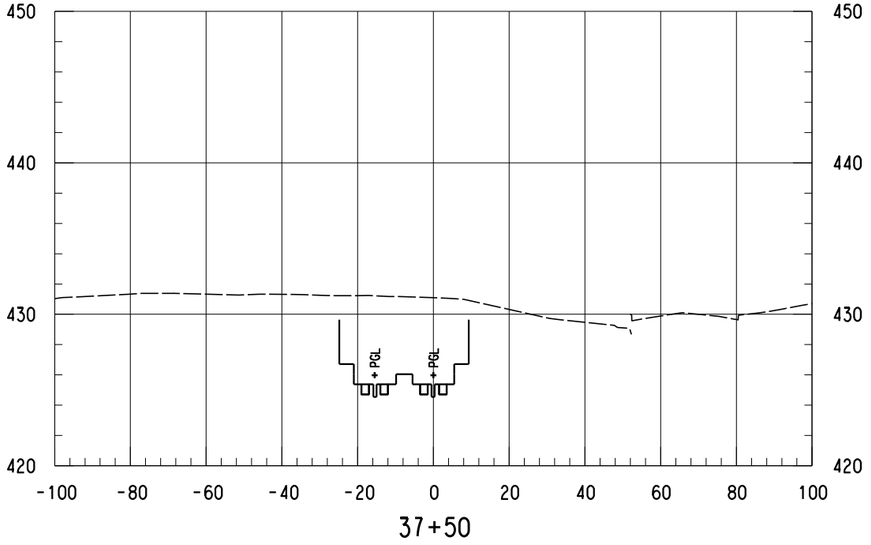
CBD-2
GUIDEWAY CROSS SECTIONS
STA 35+50.00 TO STA 37+00.00

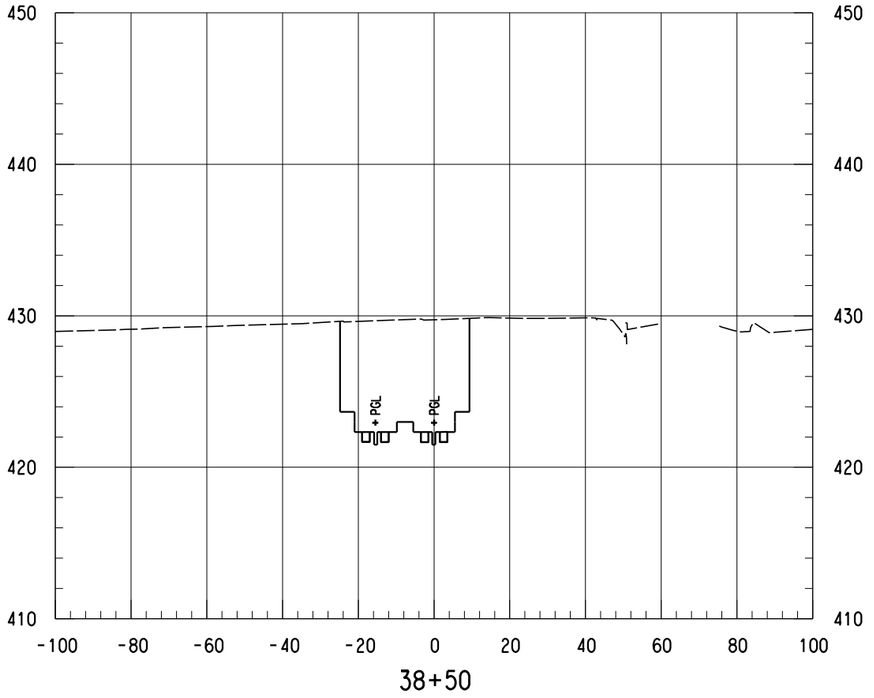
CONTRACT	DWG No.	REV
	CC8-0014	

Monday, October 26, 2020 10:19:07 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0015







SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 78 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

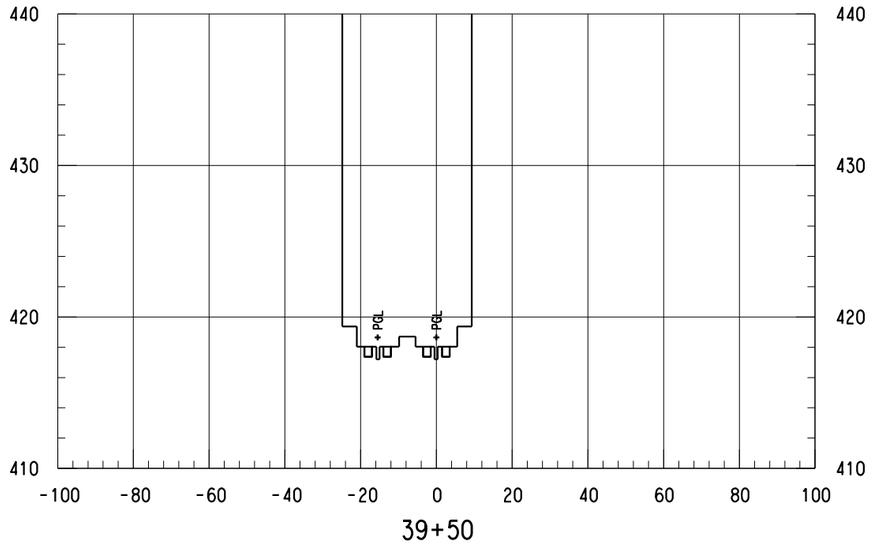
CBD-2
GUIDEWAY CROSS SECTIONS
STA 37+50.00 TO STA 38+50.00

CONTRACT	DWG No.	REV
	CC8-0015	

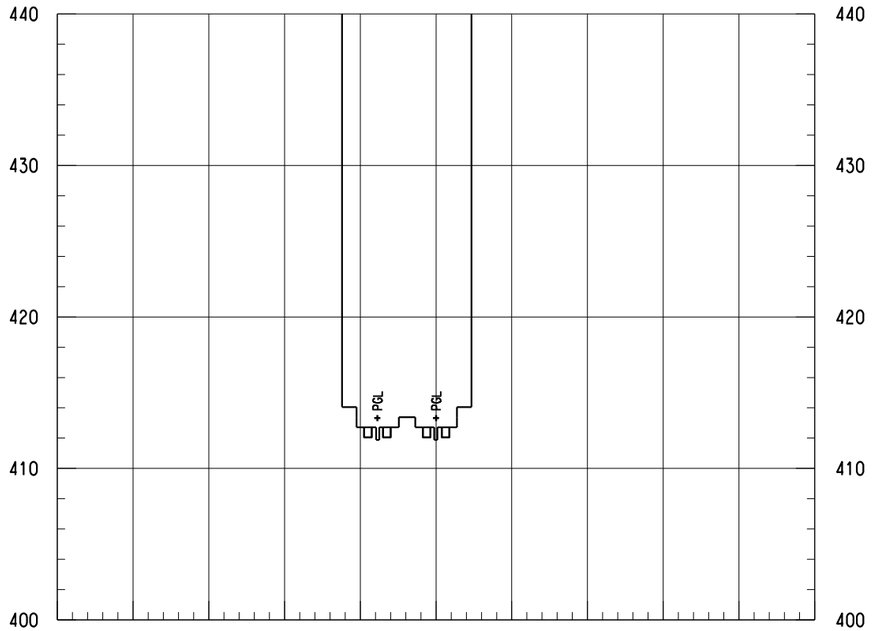
Monday, October 26, 2020 10:19:08 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

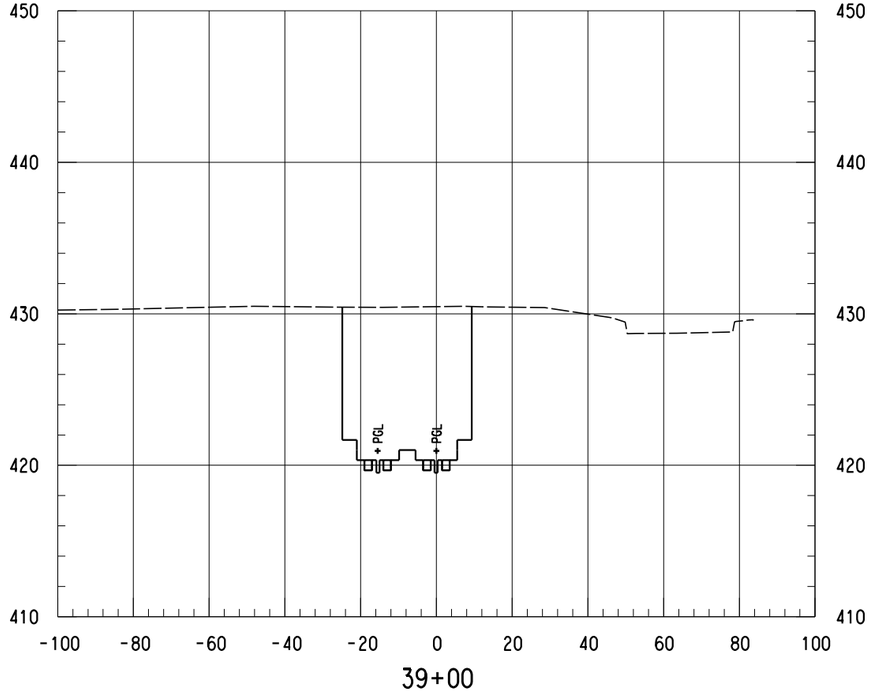
DWG No. CC8-0016



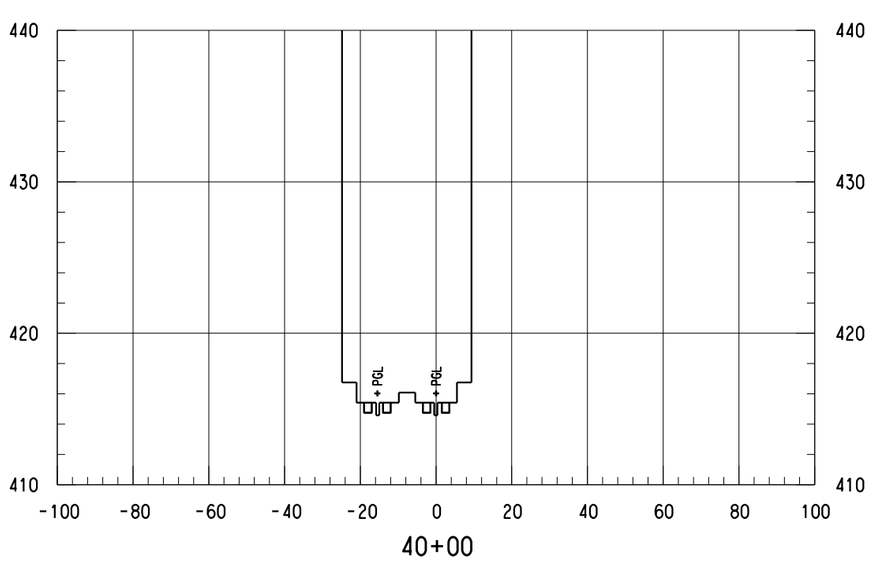
39+50



40+50



39+00



40+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 79 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 39+00.00 TO STA 40+50.00

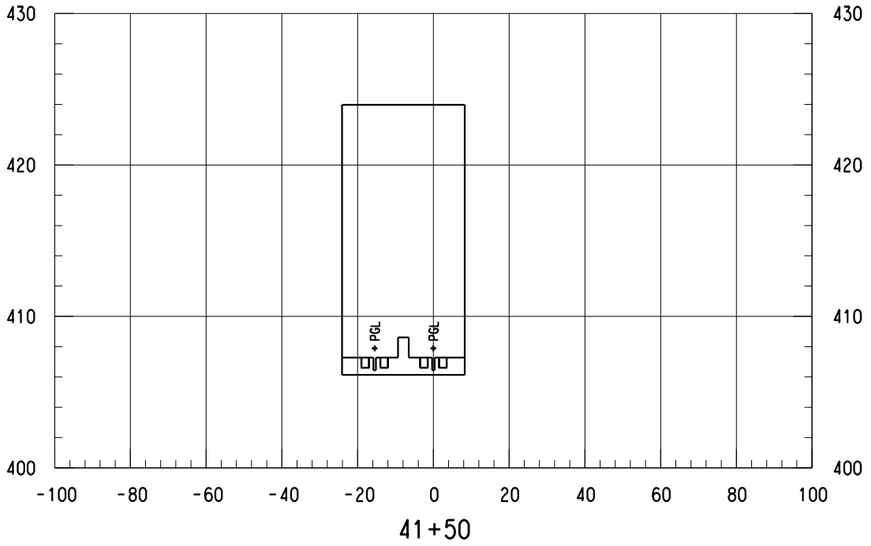
CONTRACT	DWG No.	REV
	CC8-0016	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

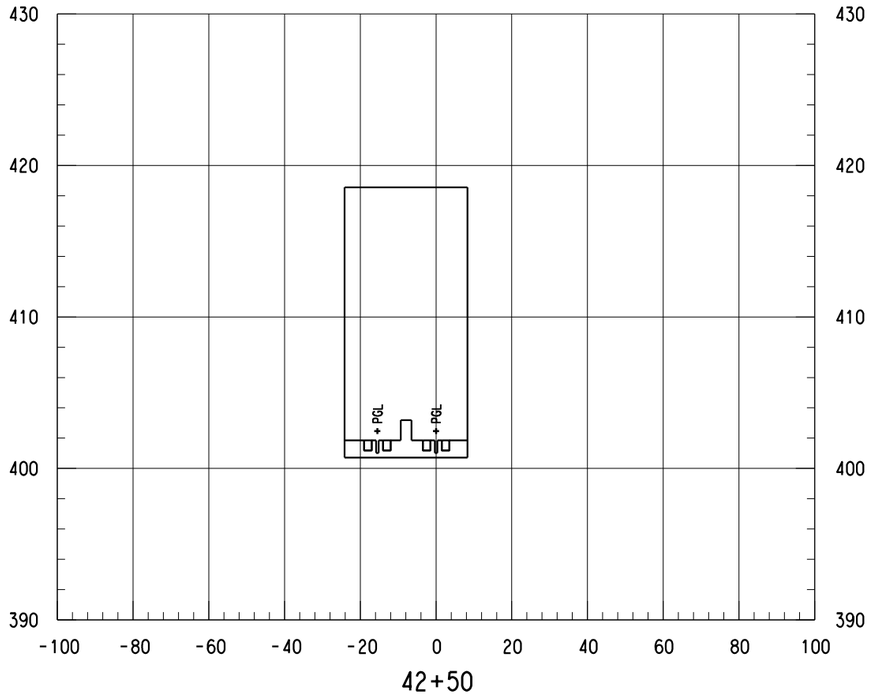
Monday, October 26, 2020 10:19:08 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

DWG No. CC8-0017



41+50

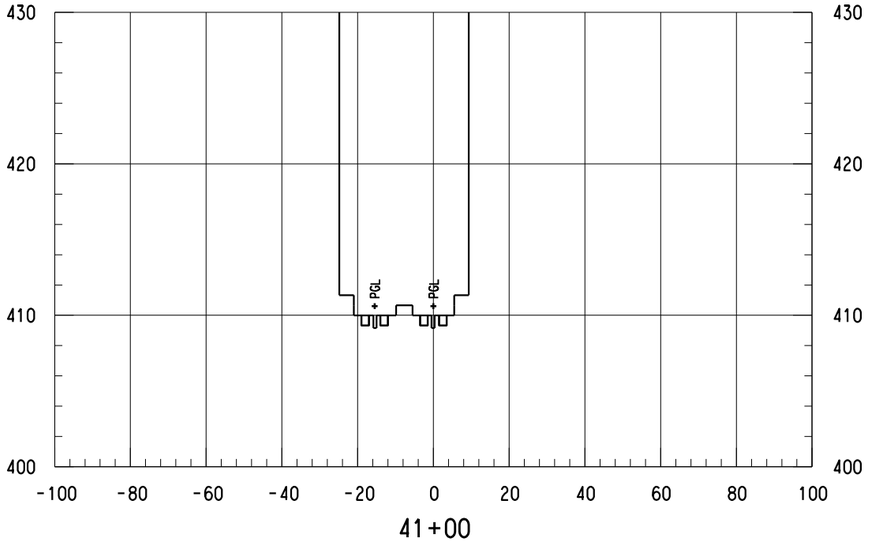


42+50

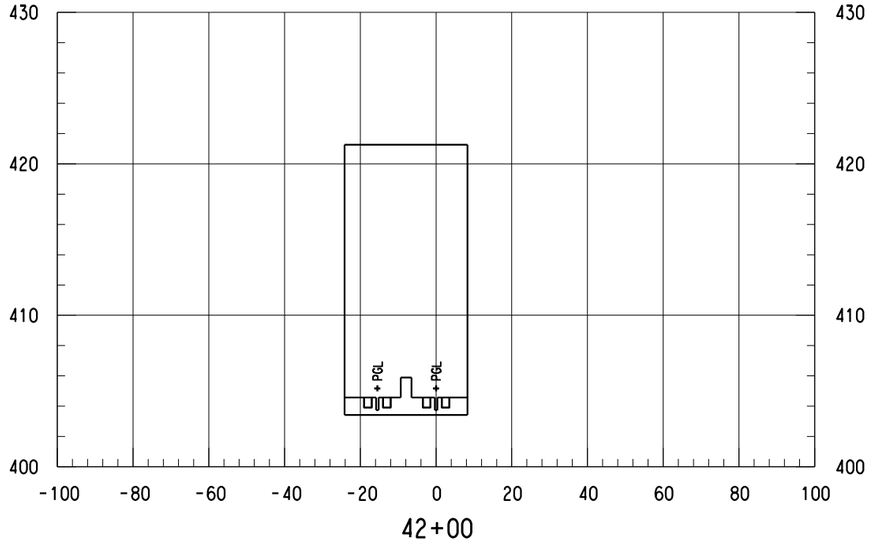
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



41+00



42+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 80 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 41+00.00 TO STA 42+50.00

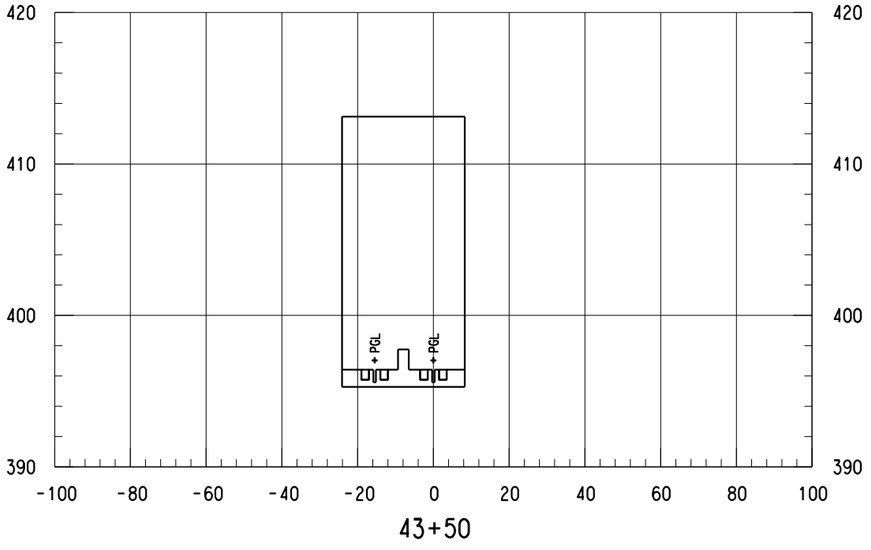
CONTRACT	DWG No.	REV
	CC8-0017	

LGUBLO
Default

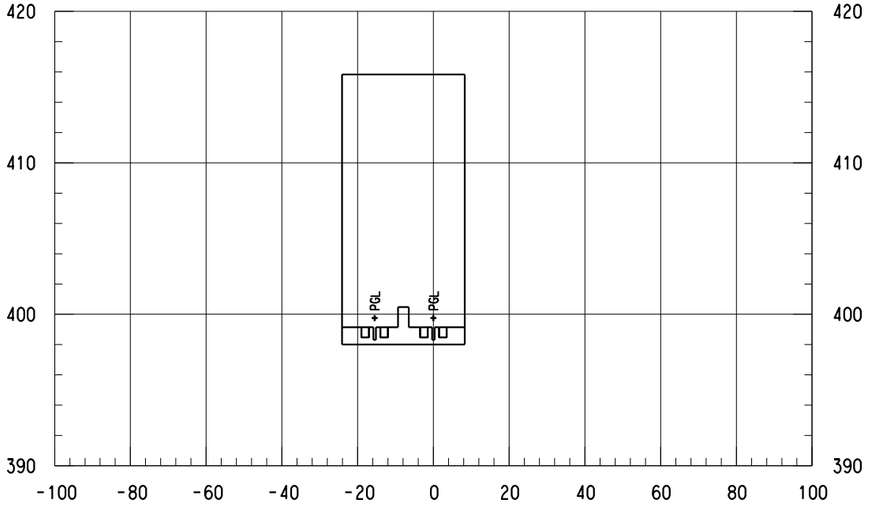
Monday, October 26, 2020 10:19:09 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

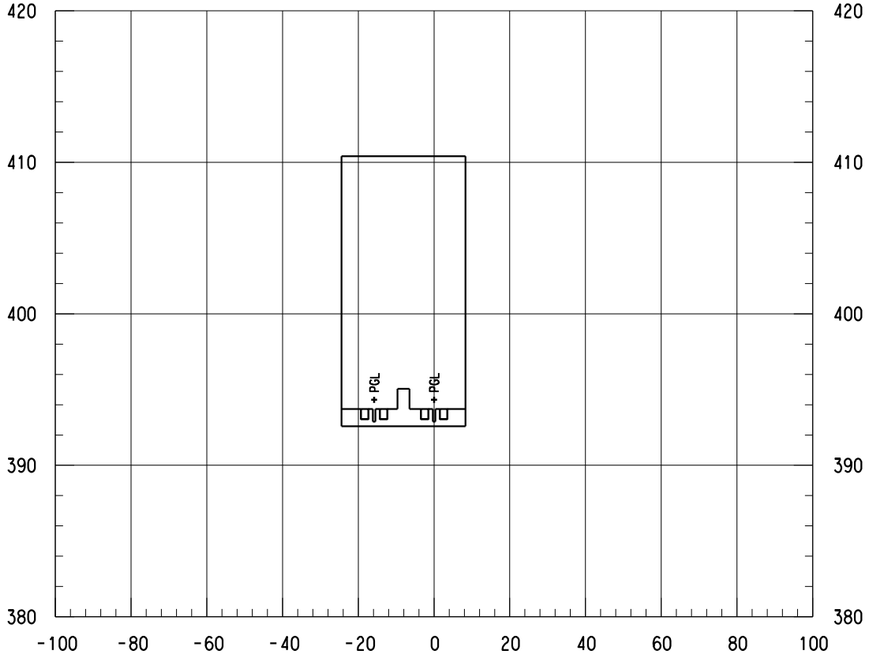
DWG No. CC8-0018



43+50



43+00



44+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 81 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 43+00.00 TO STA 44+00.00

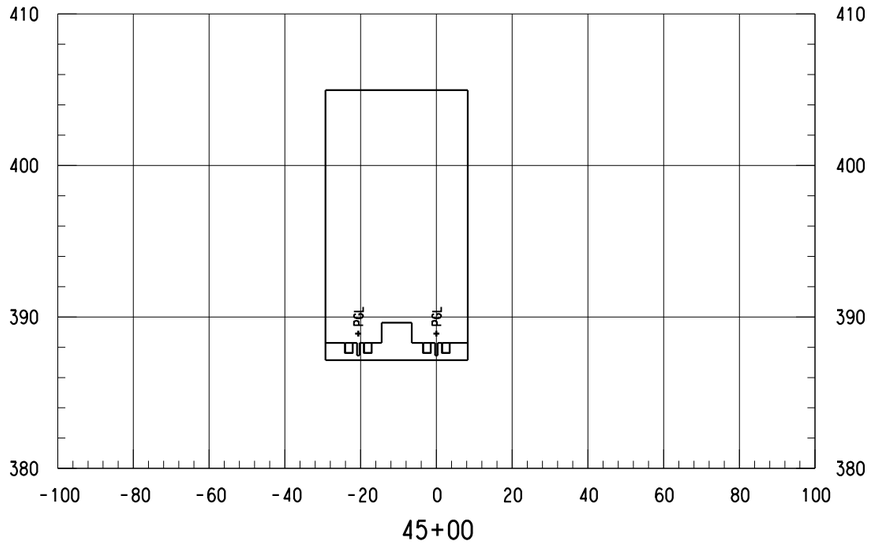
CONTRACT	DWG No.	REV
	CC8-0018	

Monday, October 26, 2020 10:19:09 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

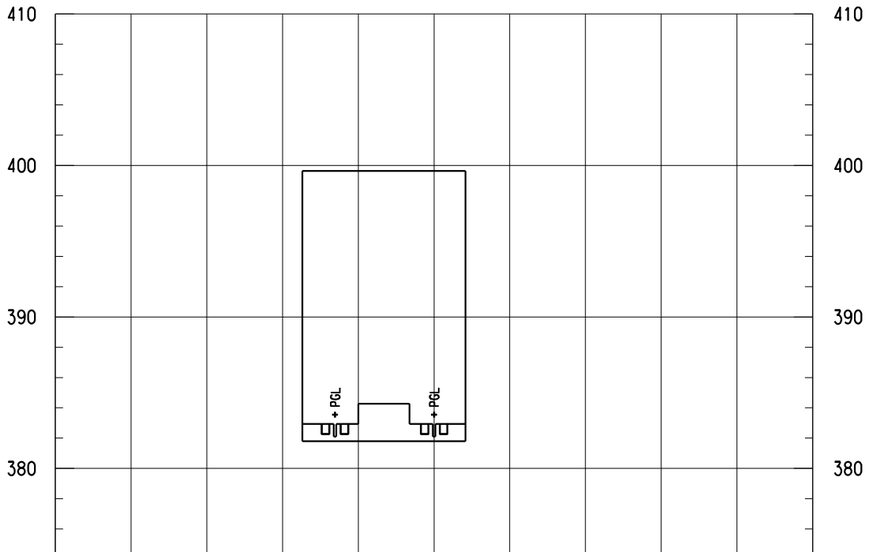
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

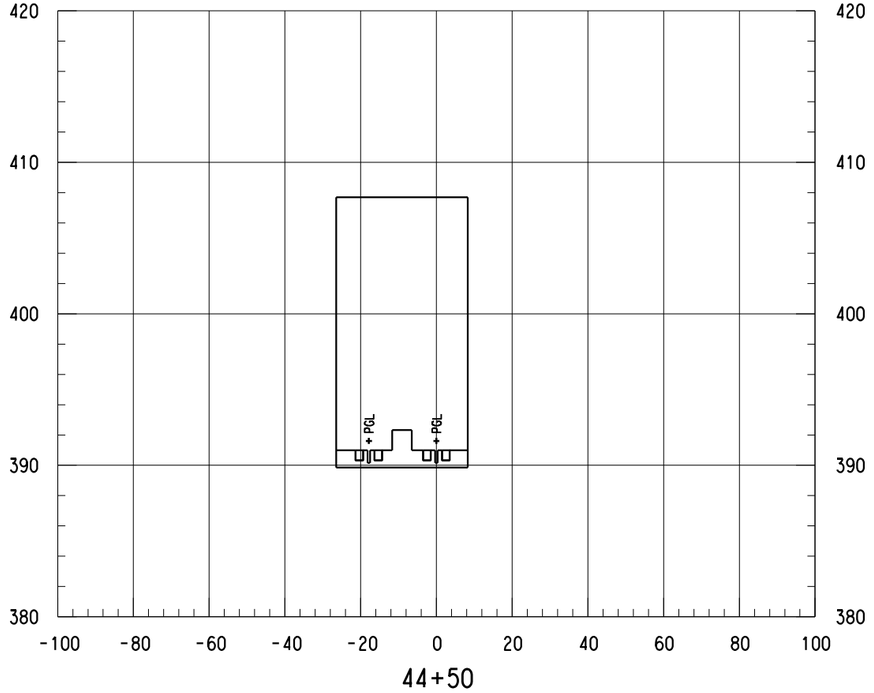
DWG No. CC8-0019



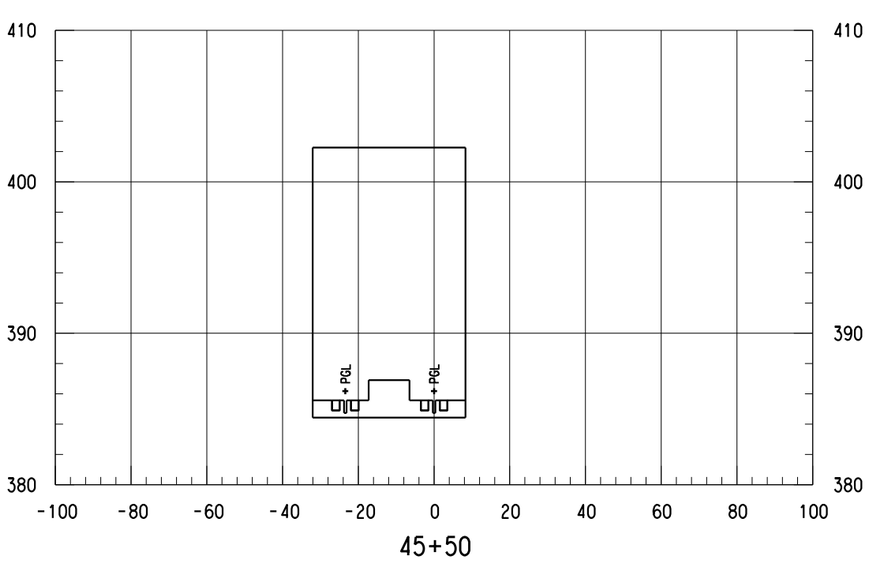
45+00



46+00



44+50



45+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 82 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 44+50.00 TO STA 46+00.00

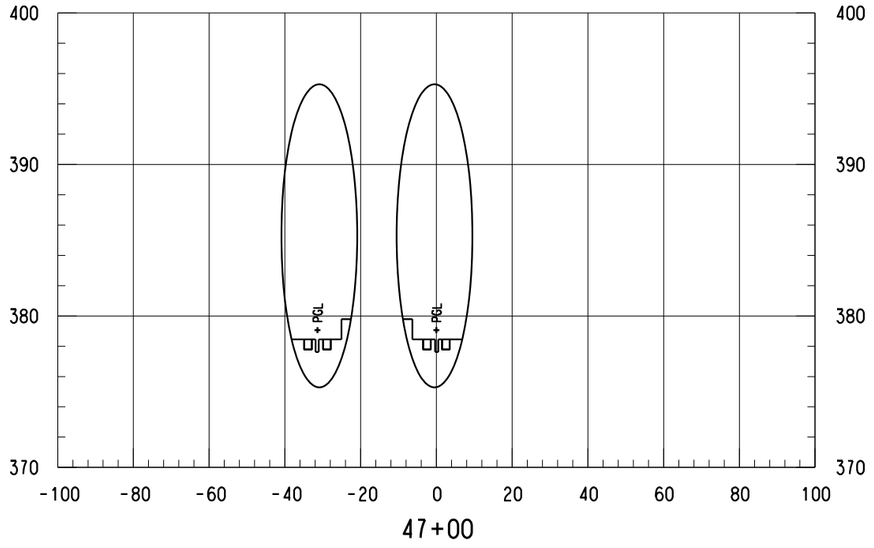
CONTRACT	DWG No.	REV
	CC8-0019	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

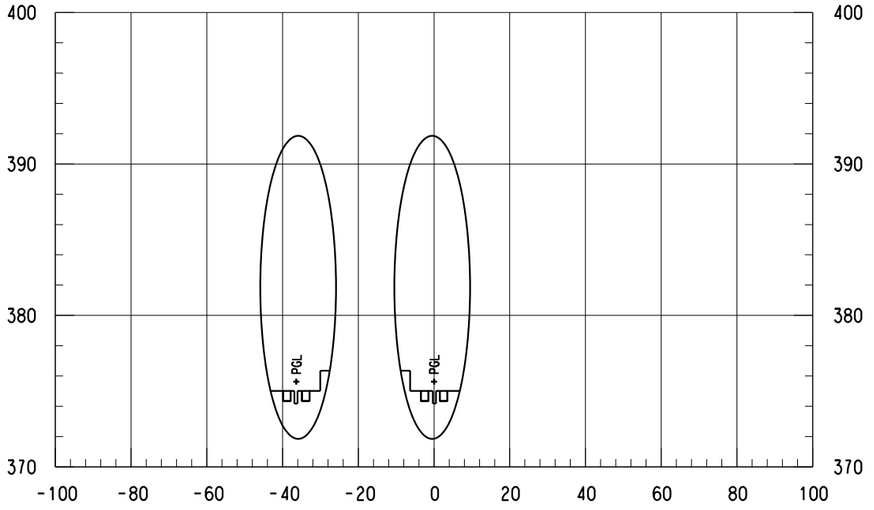
Monday, October 26, 2020 10:19:10 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

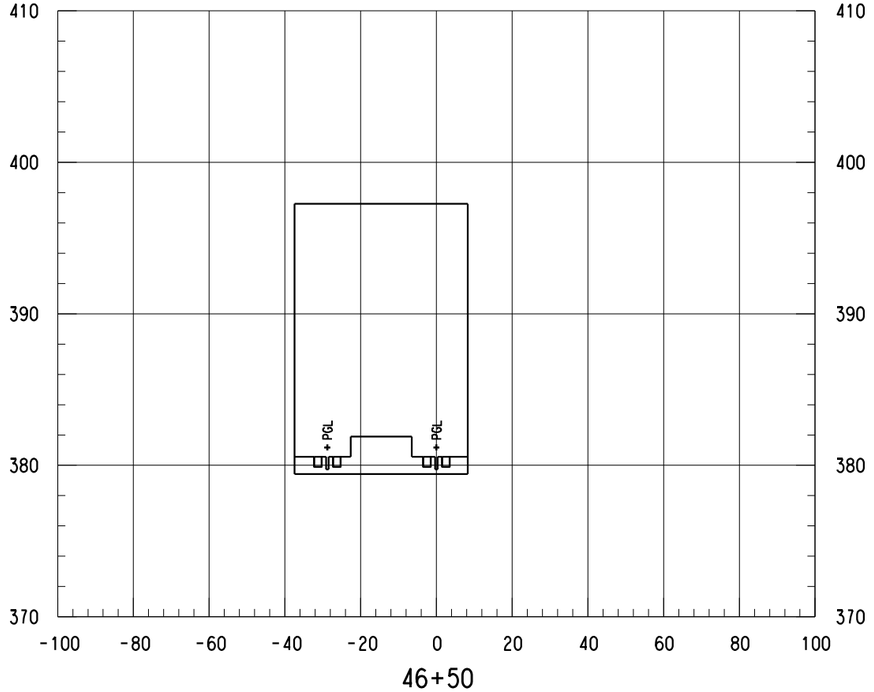
DWG No. CC8-0020



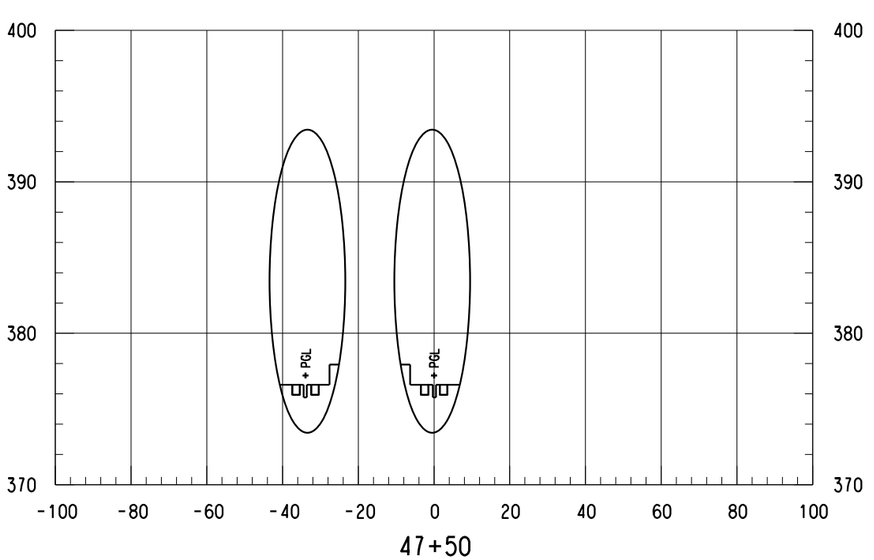
47+00



48+00



46+50



47+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 83 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 46+50.00 TO STA 48+00.00

CONTRACT	DWG No.	REV
	CC8-0020	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

Monday, October 26, 2020 10:19:10 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

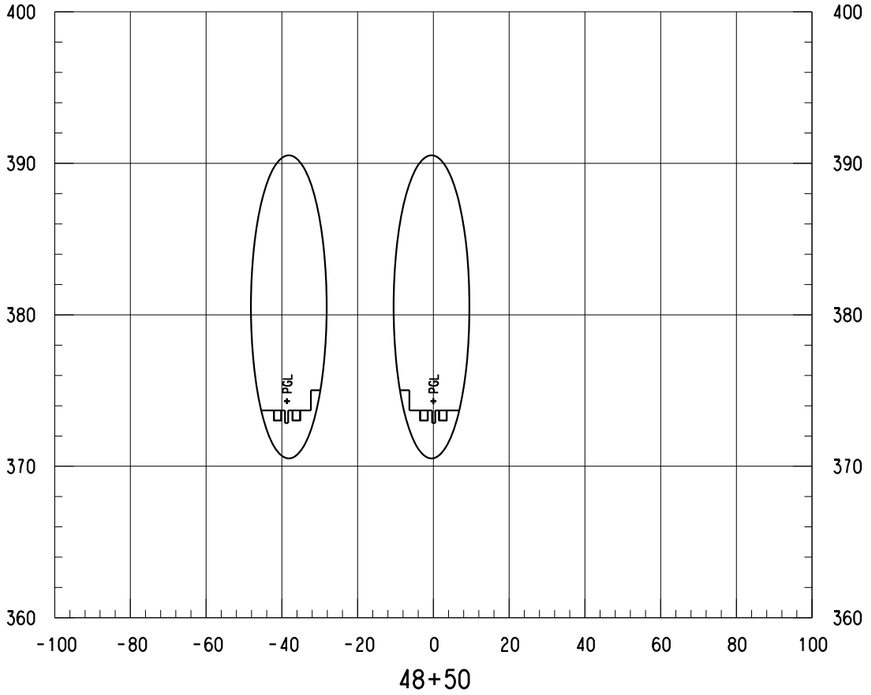
LGUBLO
Default

DWG No. CC8-0021

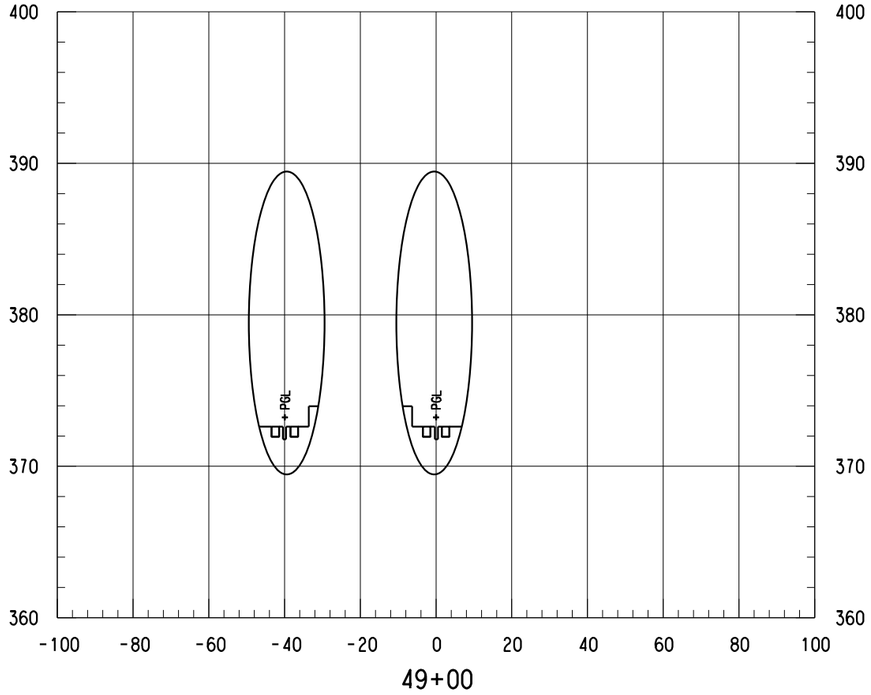
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



48+50



49+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 84 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 48+50.00 TO STA 49+00.00

CONTRACT	DWG No.	REV
	CC8-0021	

Monday, October 26, 2020 10:19:23 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

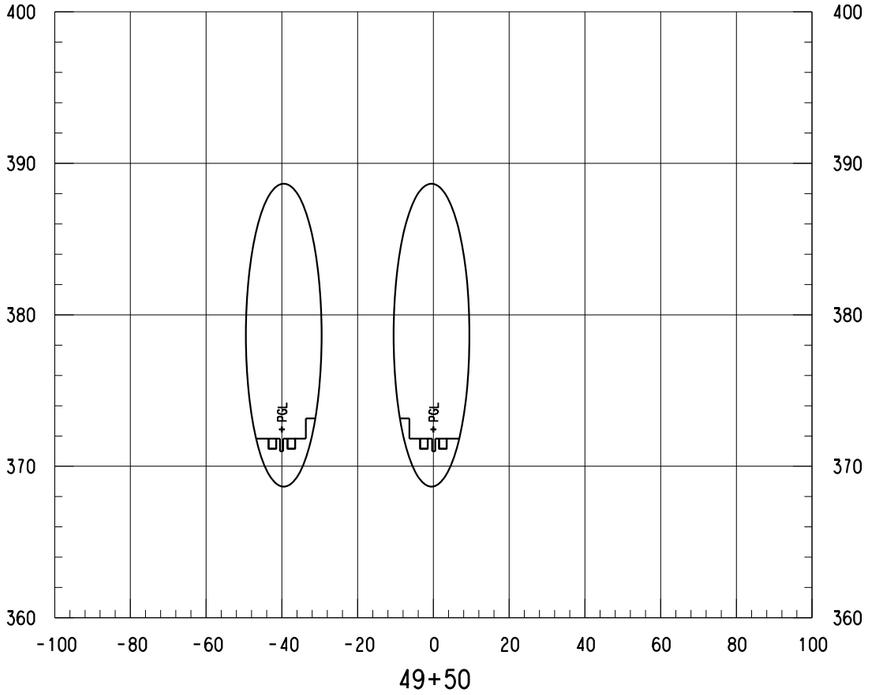
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

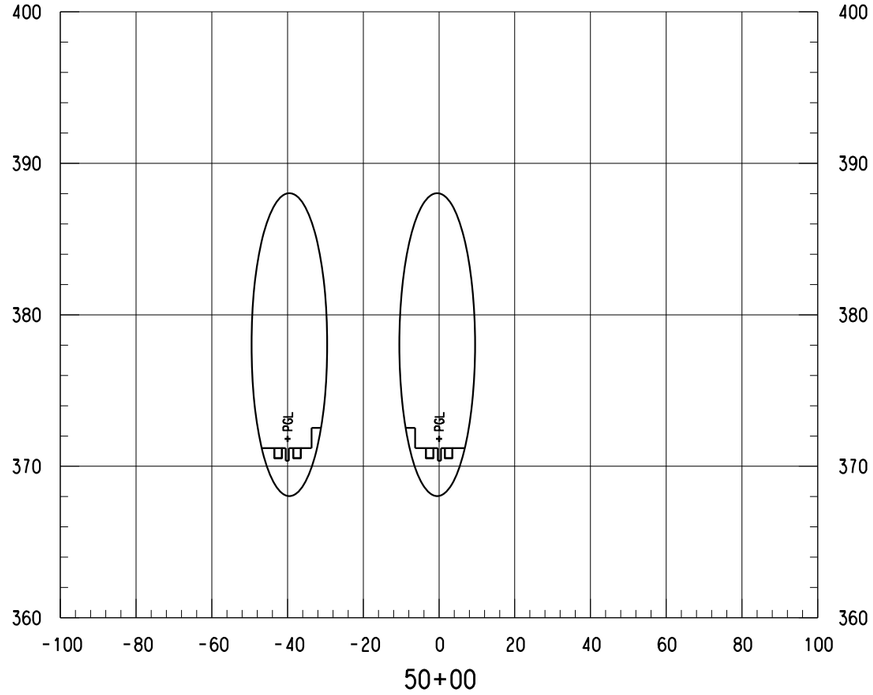
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



49+50



50+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 85 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

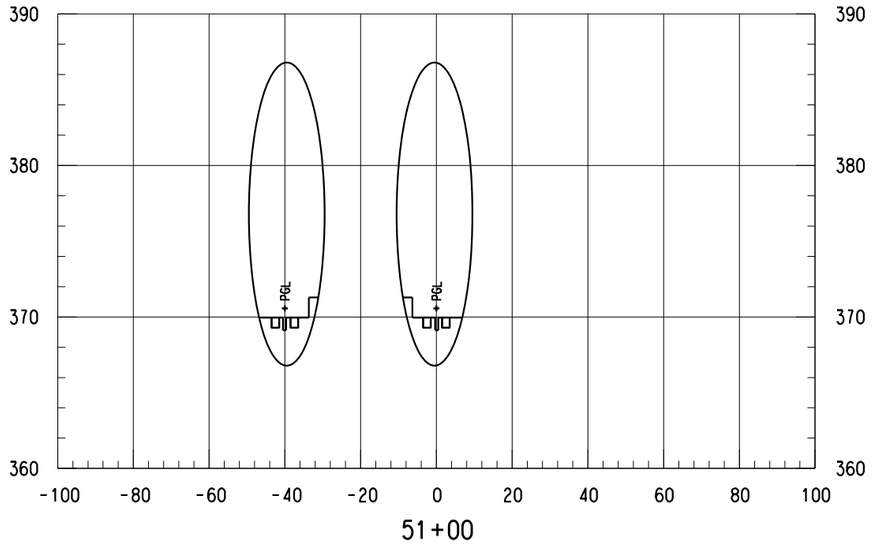
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 49+50.00 TO STA 50+00.00

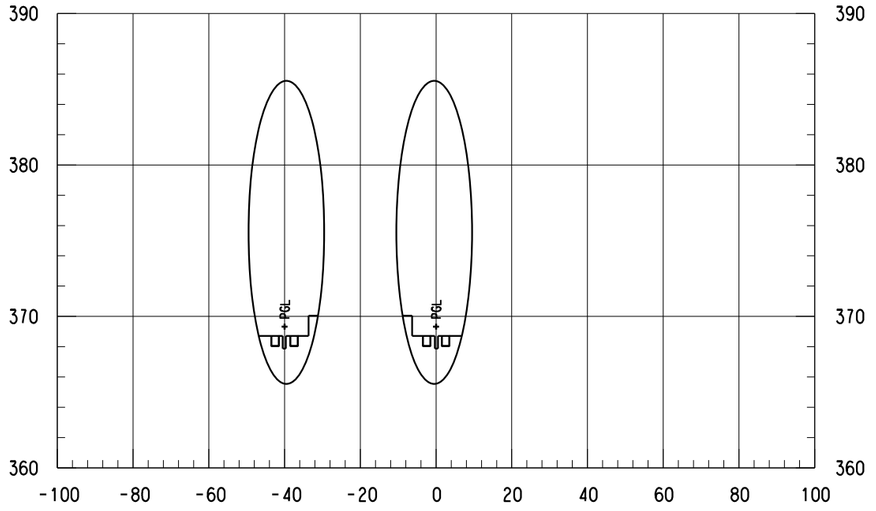
CONTRACT	DWG No.	REV
	CC8-0022	

Monday, October 26, 2020 10:19:24 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

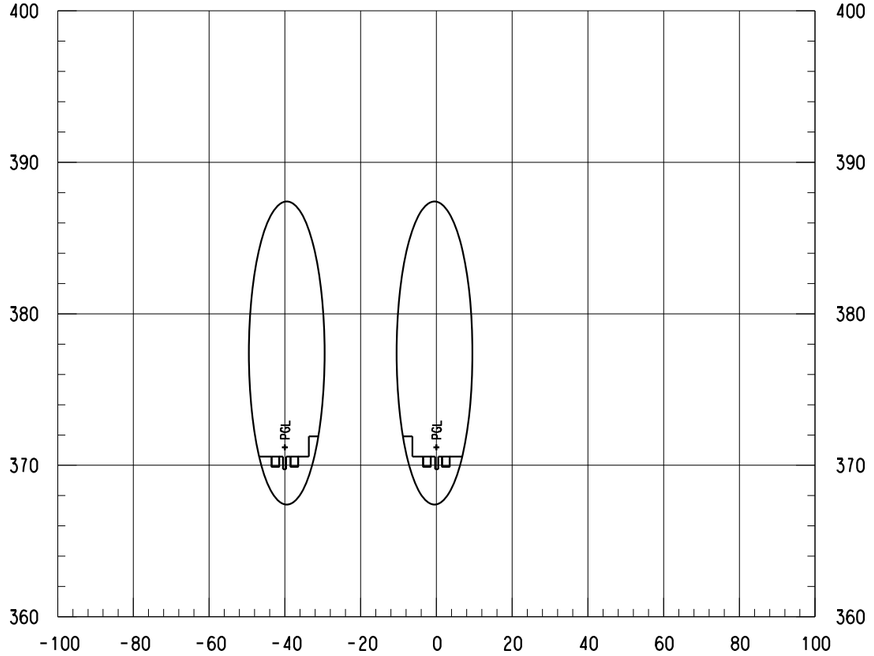
DWG No. CC8-0023



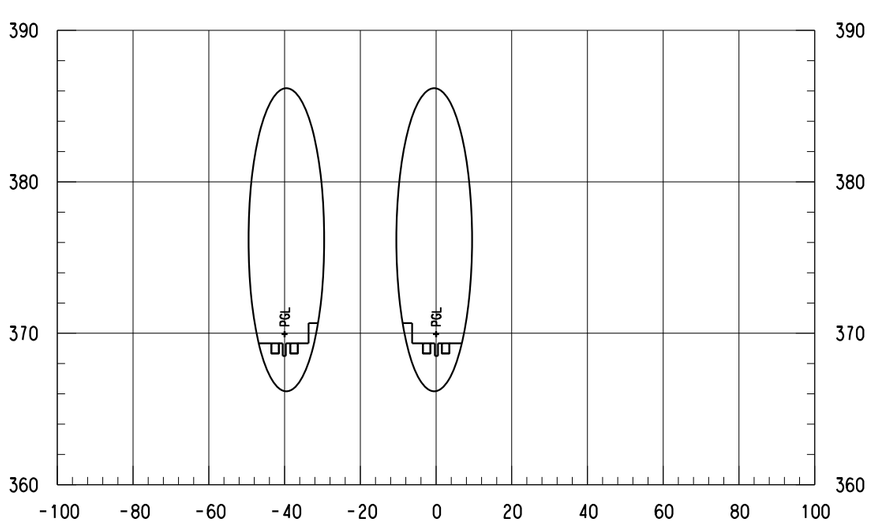
51+00



52+00



50+50



51+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 86 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

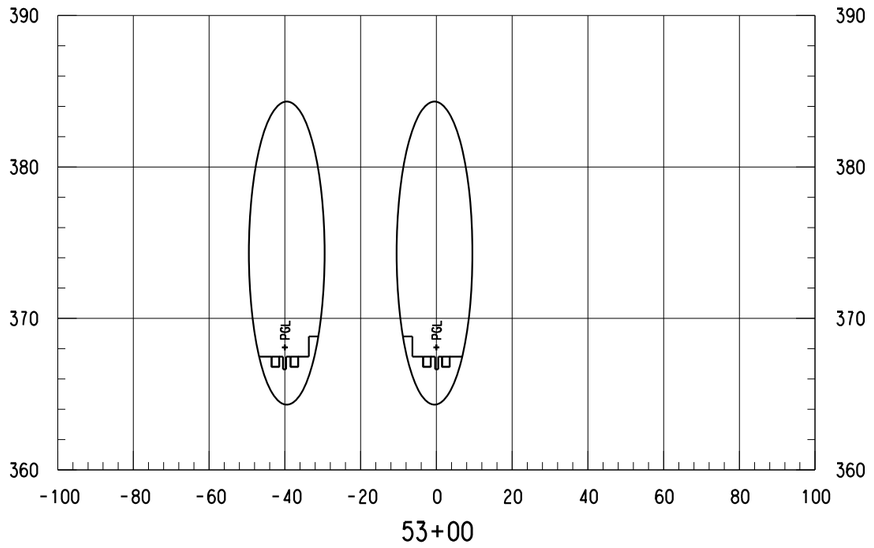
CBD-2
GUIDEWAY CROSS SECTIONS
STA 50+50.00 TO STA 52+00.00

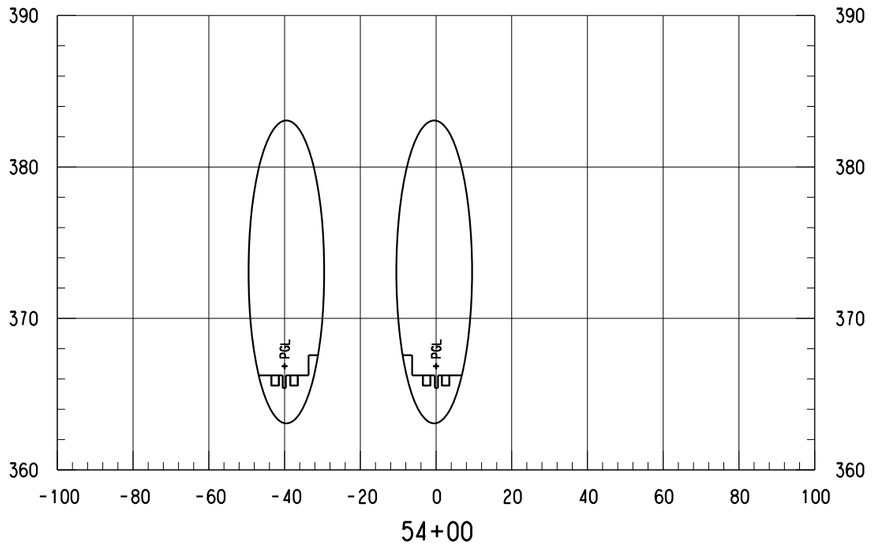
CONTRACT	DWG No.	REV
	CC8-0023	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

Monday, October 26, 2020 10:19:25 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

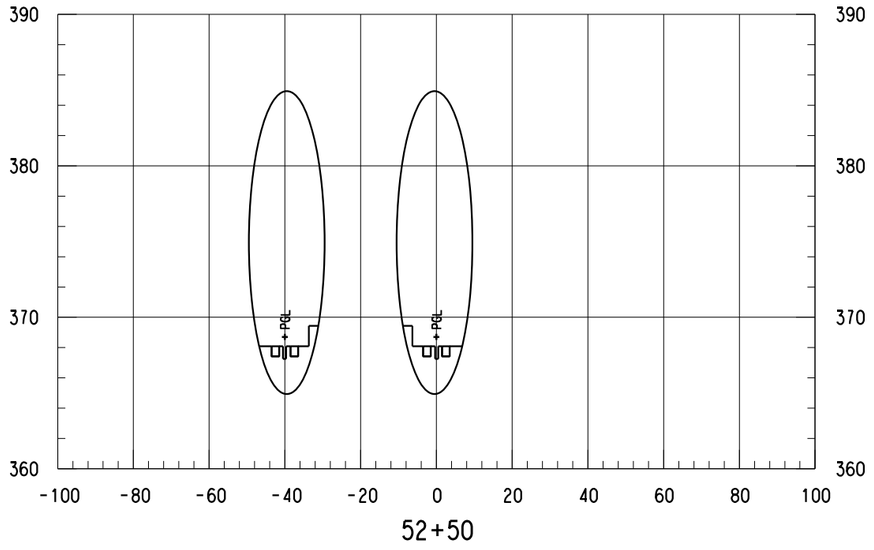


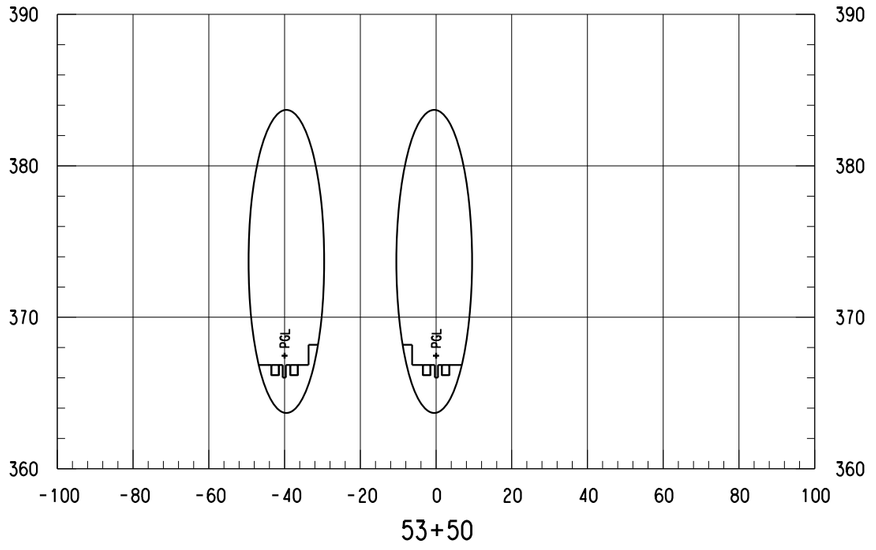


SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 87 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

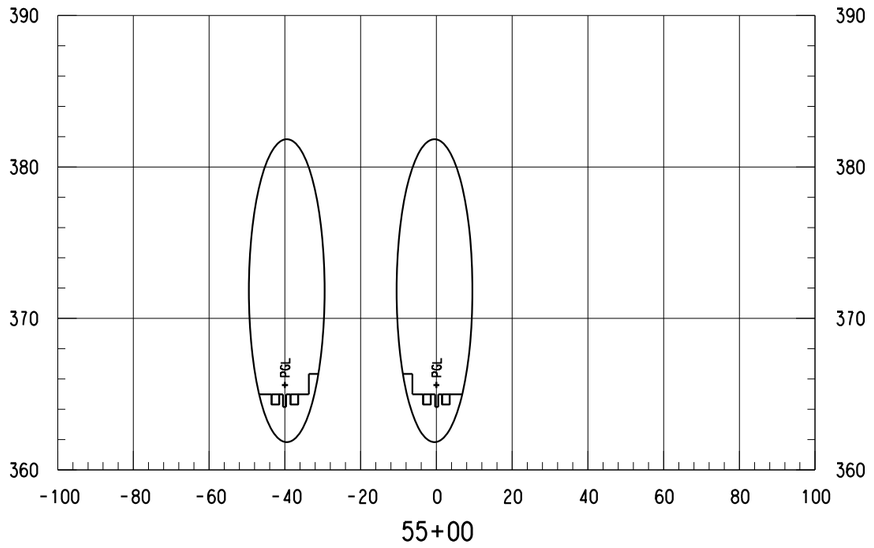
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

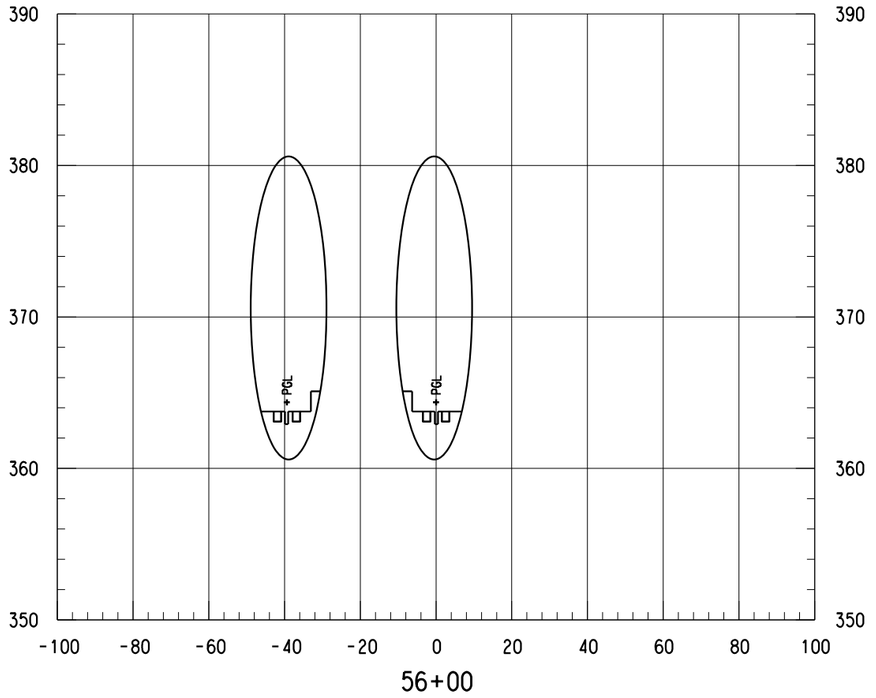
CBD-2
GUIDEWAY CROSS SECTIONS
STA 52+50.00 TO STA 54+00.00

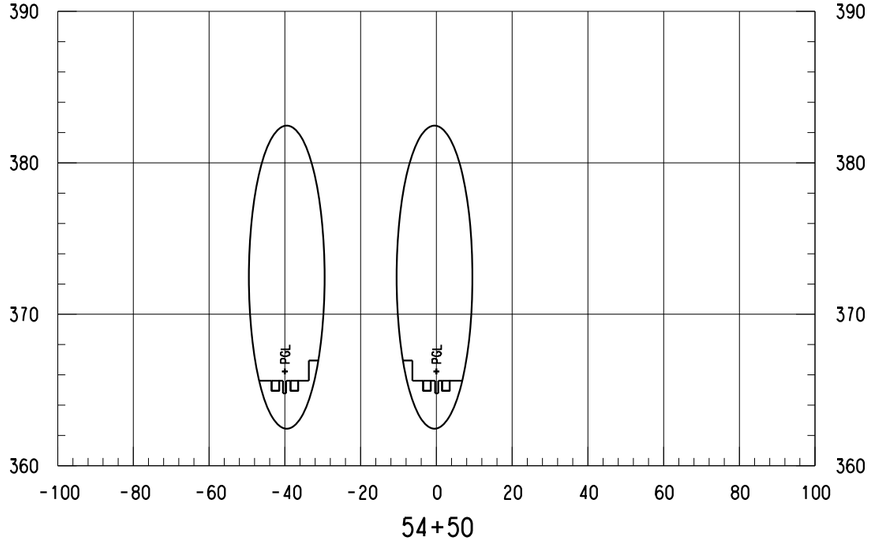
CONTRACT	DWG No.	REV
	CC8-0024	

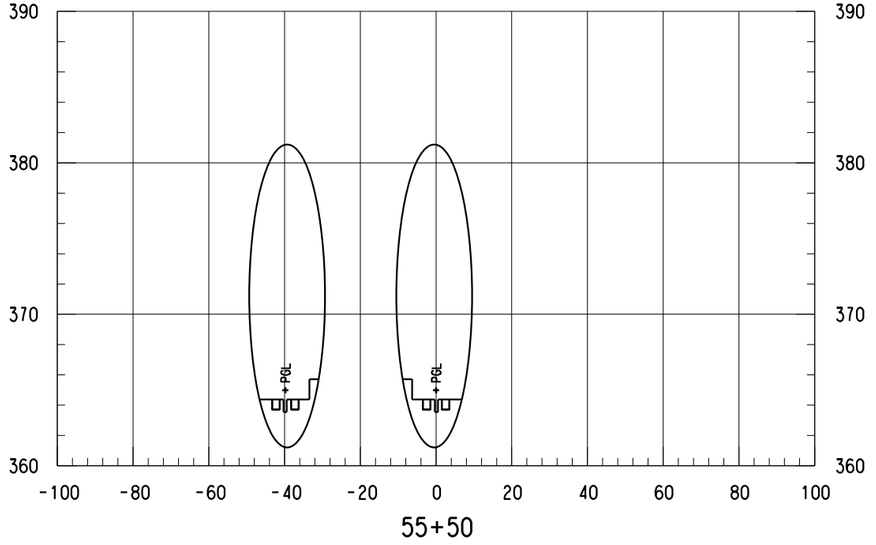
Monday, October 26, 2020 10:19:25 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0025









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 88 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 54+50.00 TO STA 56+00.00

CONTRACT	DWG No.	REV
	CC8-0025	

Monday, October 26, 2020 10:19:26 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

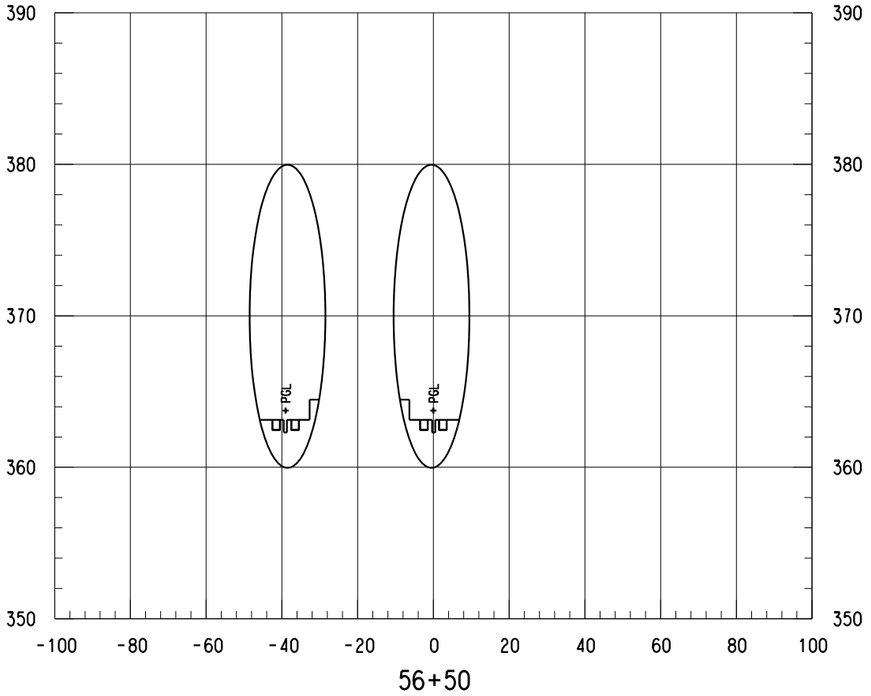
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

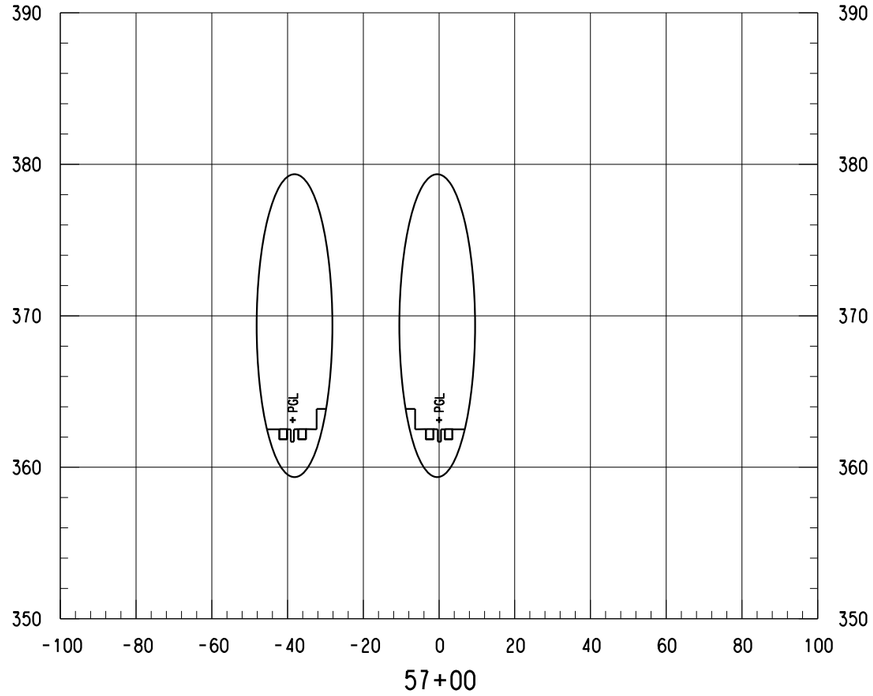
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



56+50



57+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 89 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 56+50.00 TO STA 57+00.00

CONTRACT	DWG No.	REV
	CC8-0026	

Monday, October 26, 2020 10:19:26 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

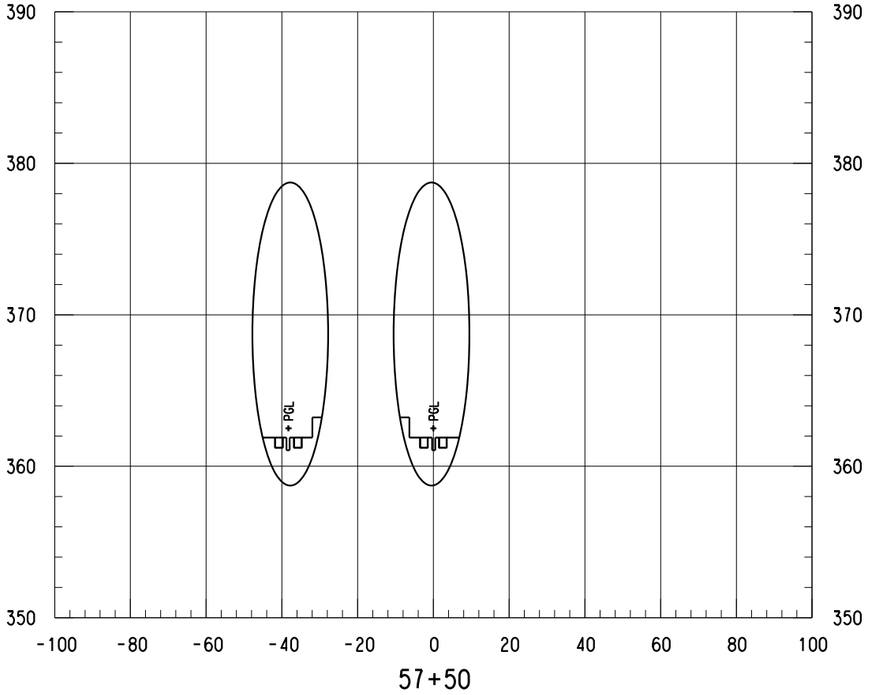
Monday, October 26, 2020 10:19:27 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0027

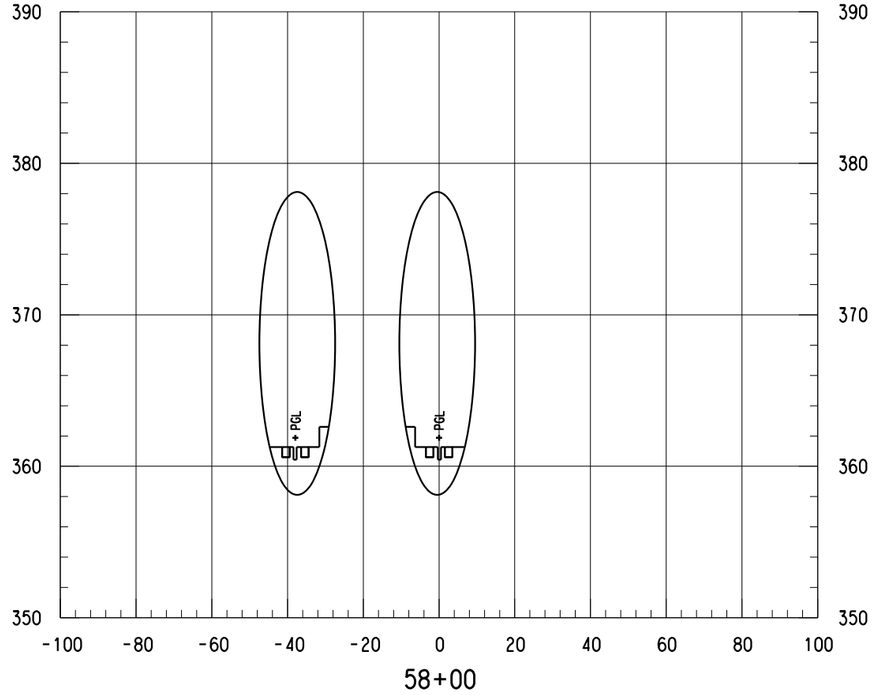
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



57+50



58+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 90 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

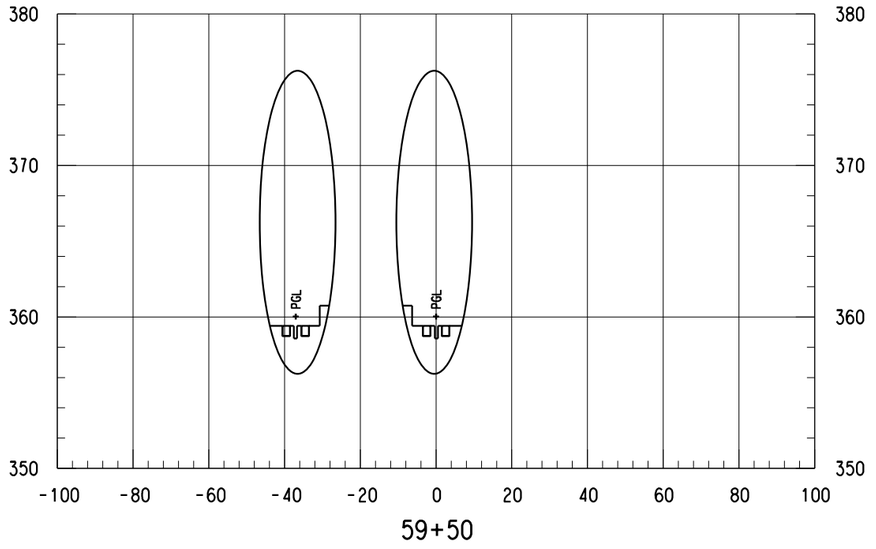
CBD-2
GUIDEWAY CROSS SECTIONS
STA 57+50.00 TO STA 58+00.00

CONTRACT	DWG No.	REV
	CC8-0027	

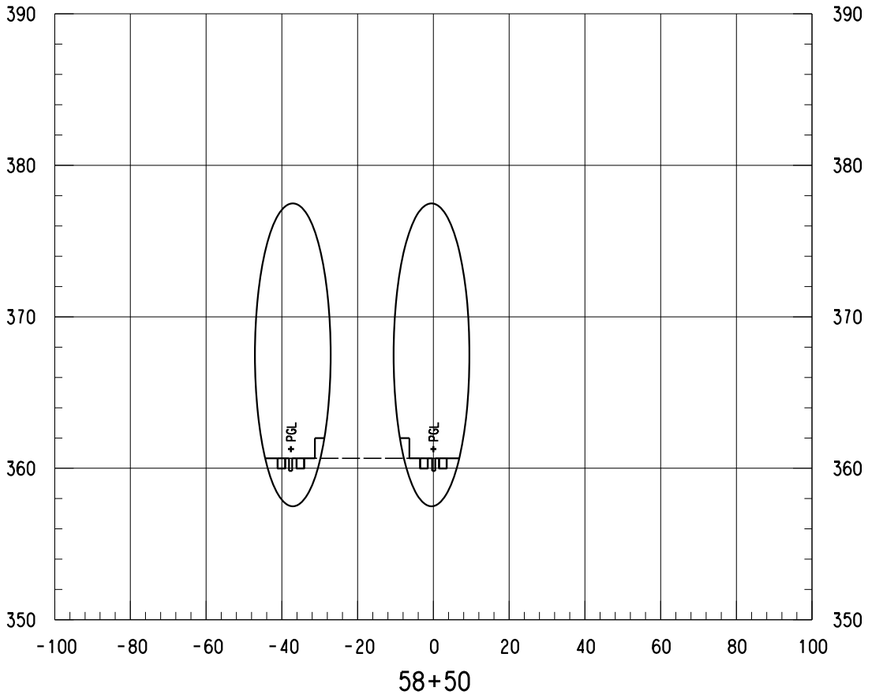
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

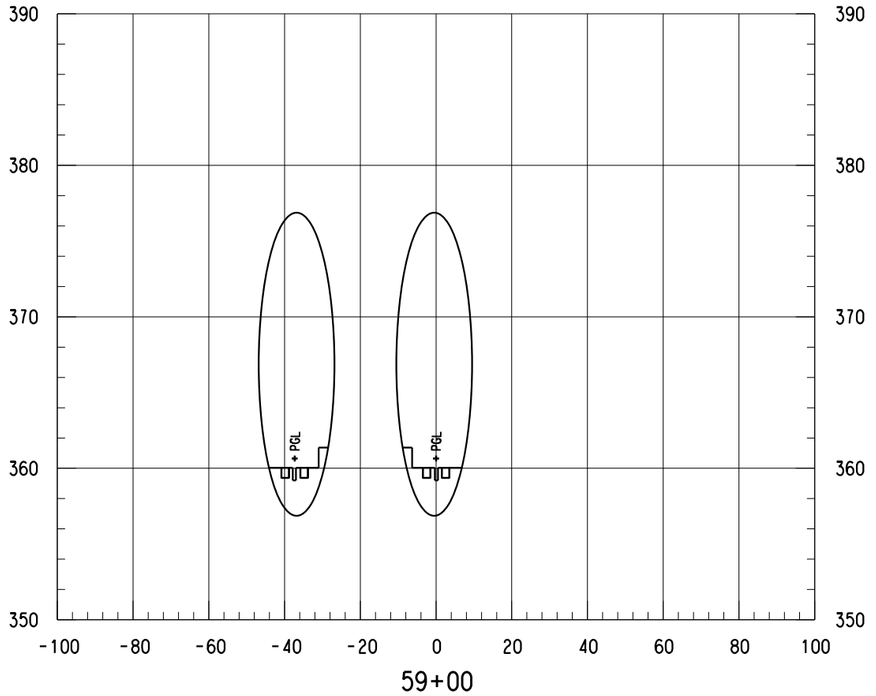
DWG No. CC8-0028



59+50



58+50



59+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 91 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

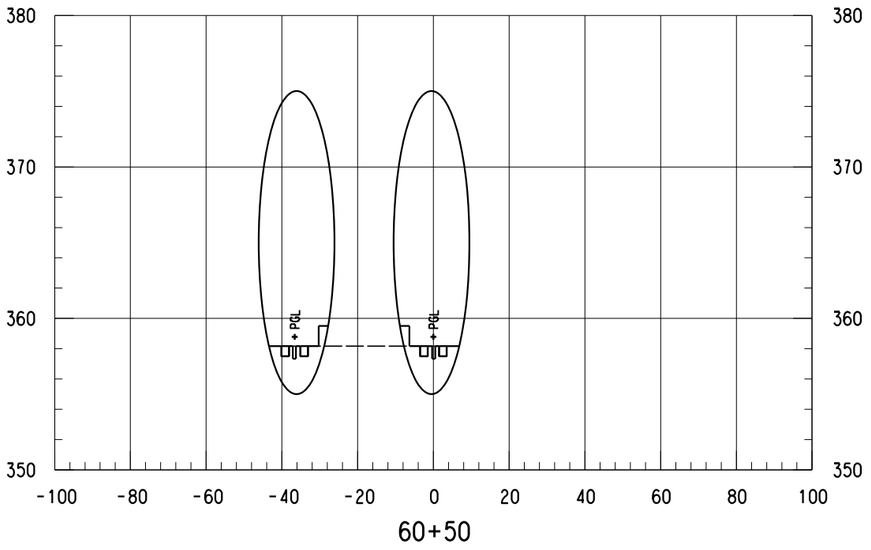
CBD-2
GUIDEWAY CROSS SECTIONS
STA 58+50.00 TO STA 59+50.00

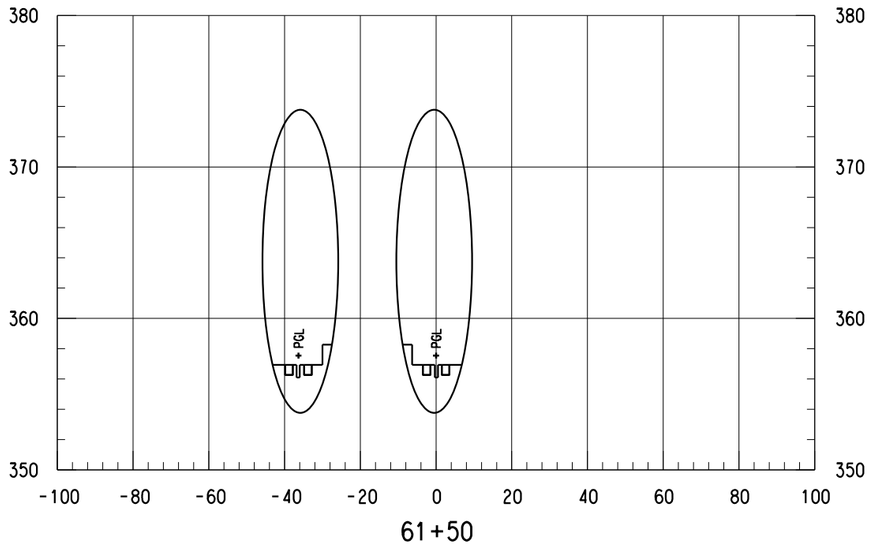
CONTRACT	DWG No.	REV
	CC8-0028	

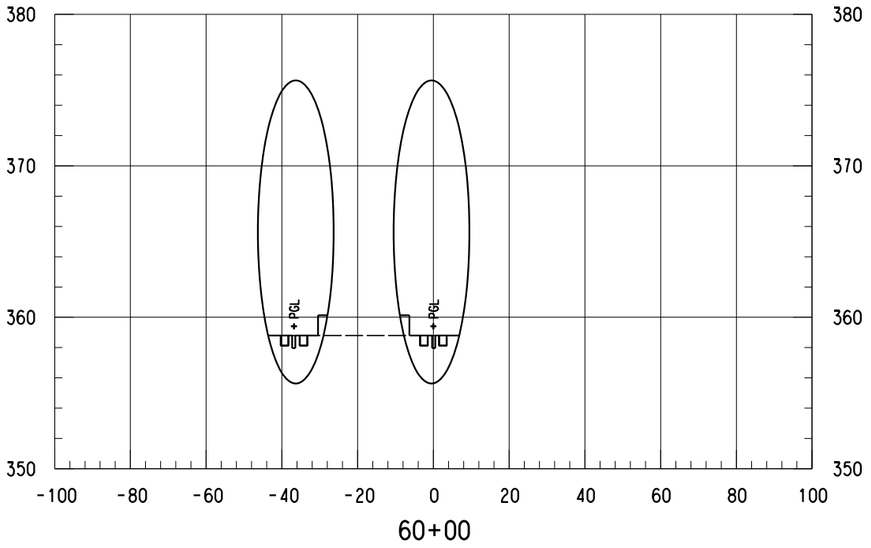
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

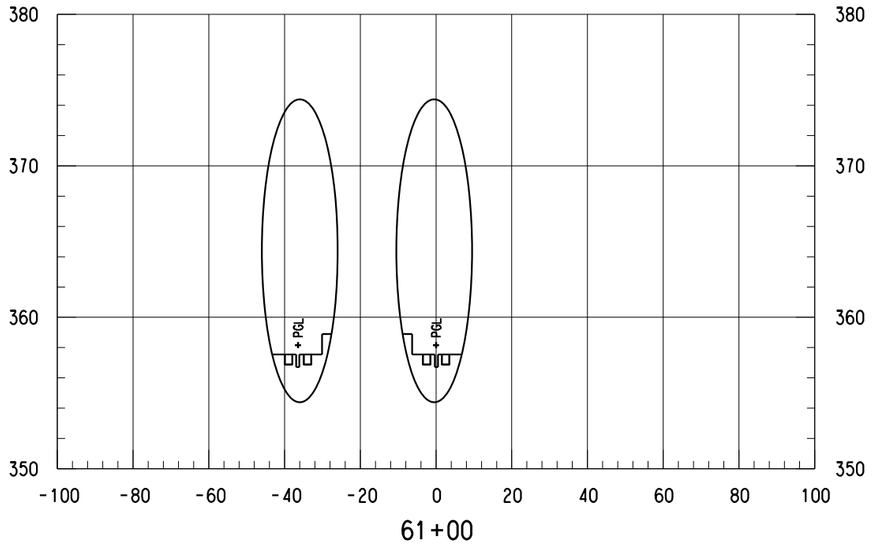
Monday, October 26, 2020 10:19:27 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

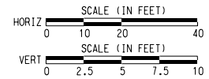
LGUBLO
Default











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 92 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

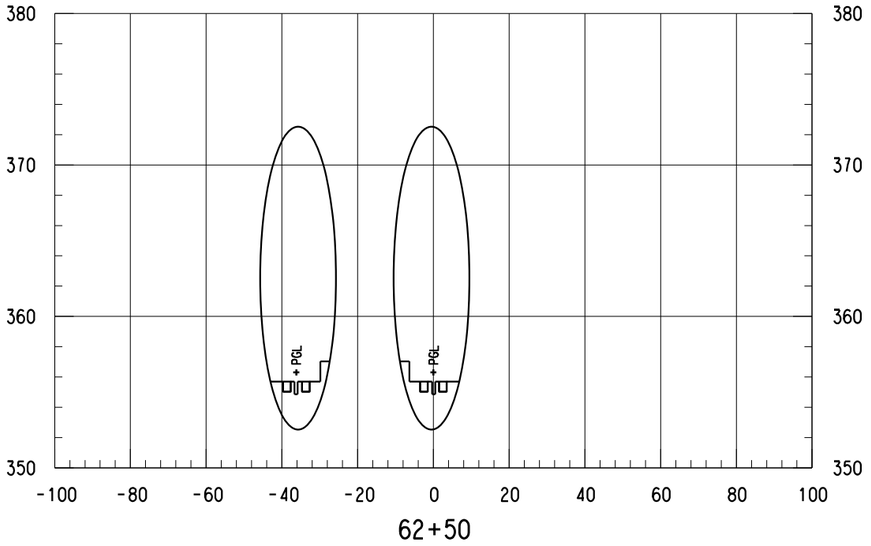
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

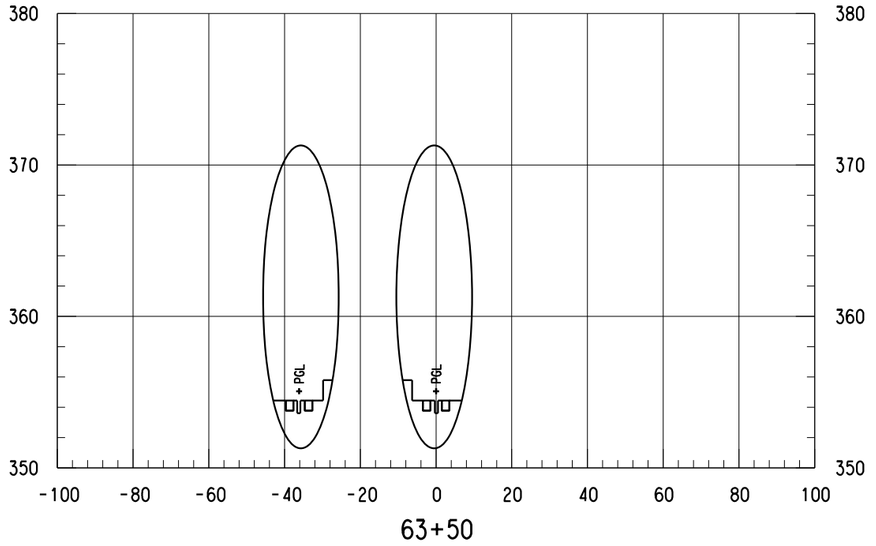
CBD-2
GUIDEWAY CROSS SECTIONS
STA 60+00.00 TO STA 61+50.00

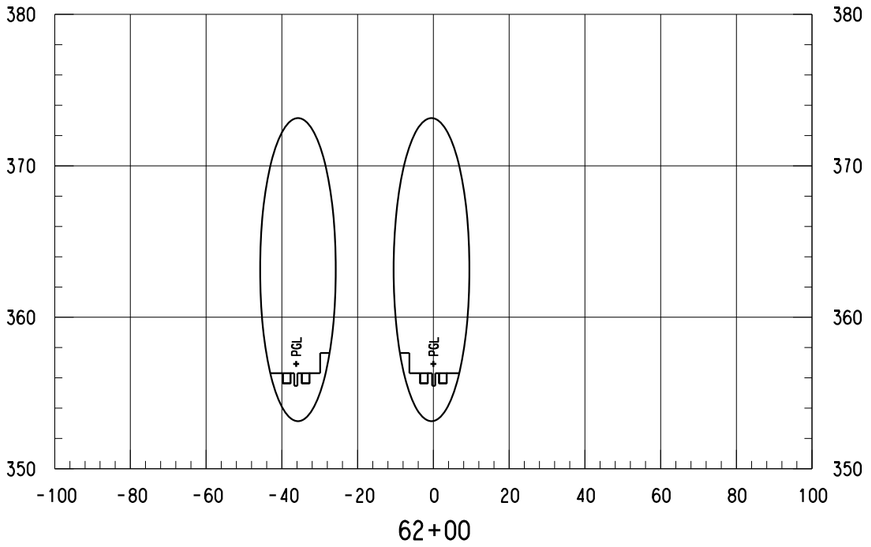
CONTRACT	DWG No.	REV
	CC8-0029	

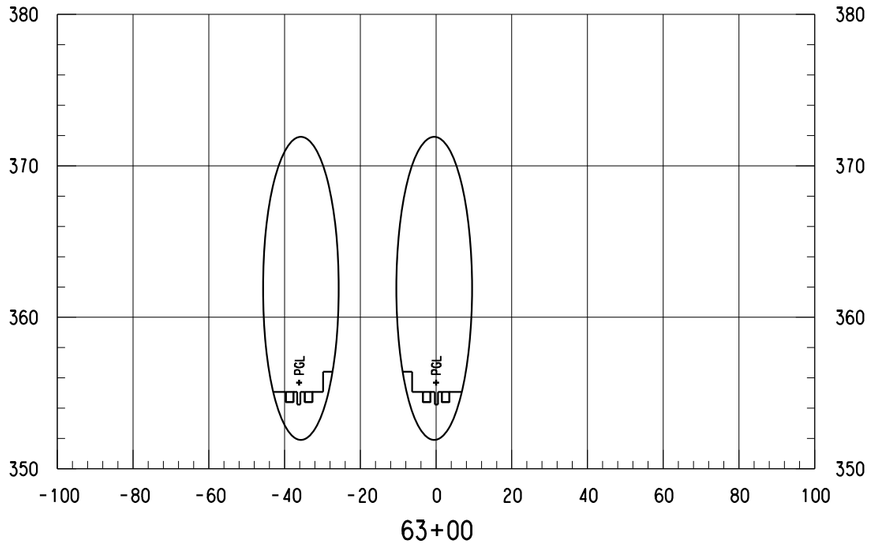
Monday, October 26, 2020 10:19:28 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

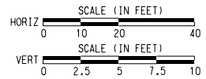
DWG No. CC8-0030











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 93 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 62+00.00 TO STA 63+50.00

CONTRACT	DWG No.	REV
	CC8-0030	

LGUBLO
Default

Monday, October 26, 2020 10:19:28 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

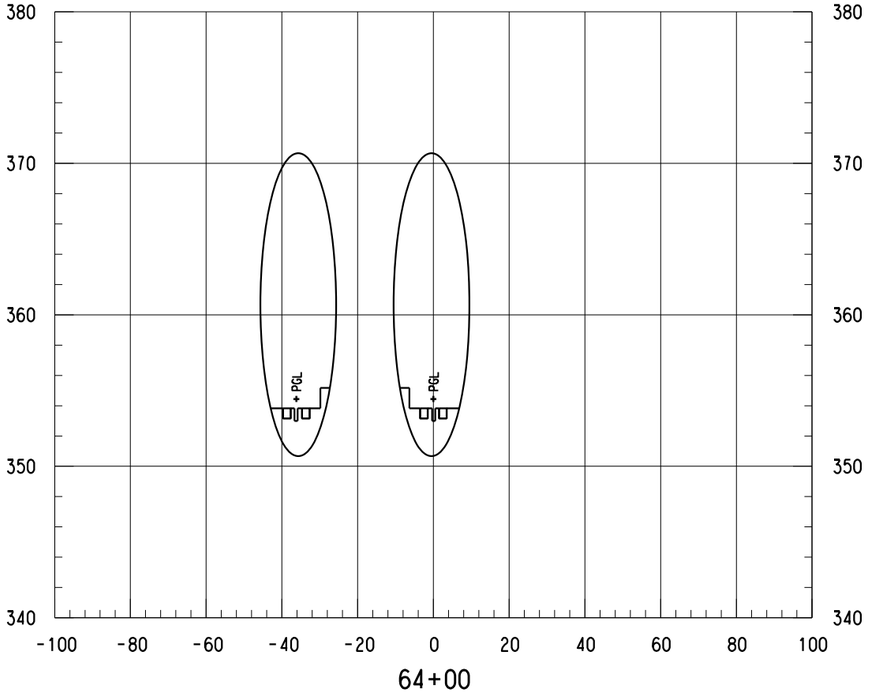
Monday, October 26, 2020 10:19:29 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0031

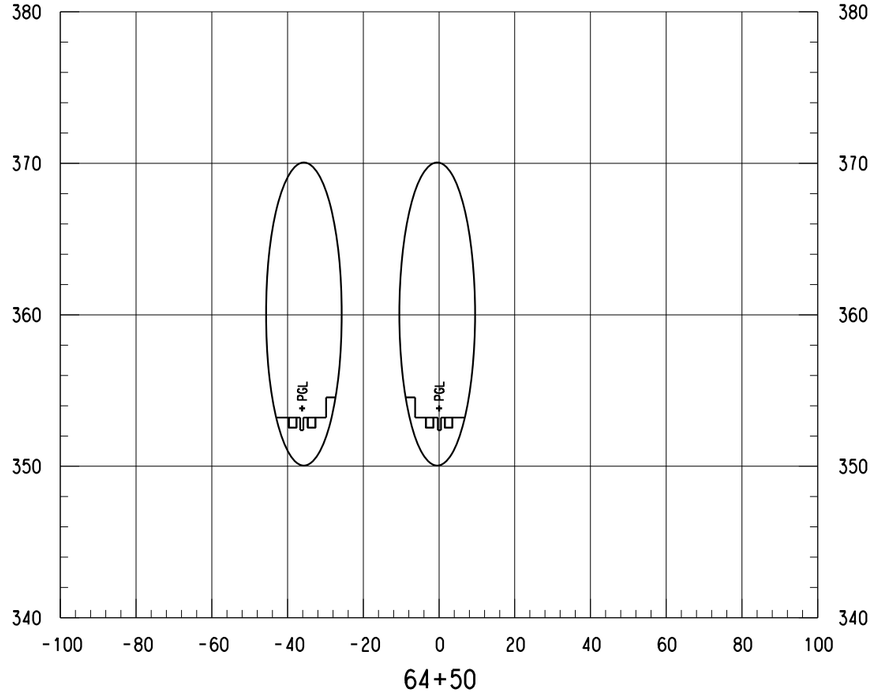
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



64+00



64+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 94 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 64+00.00 TO STA 64+50.00

CONTRACT	DWG No.	REV
	CC8-0031	

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

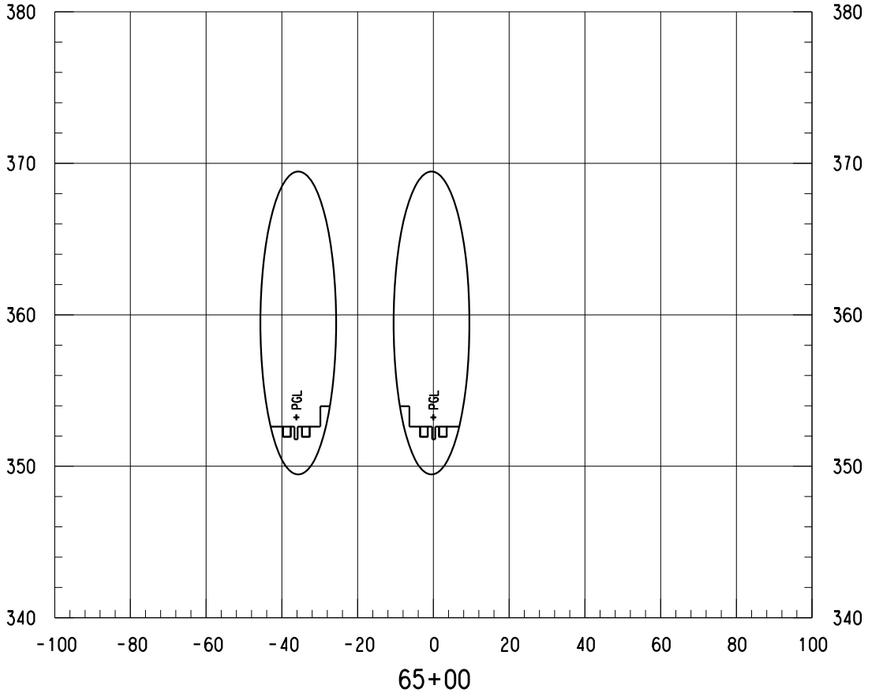
Monday, October 26, 2020 10:19:29 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0032

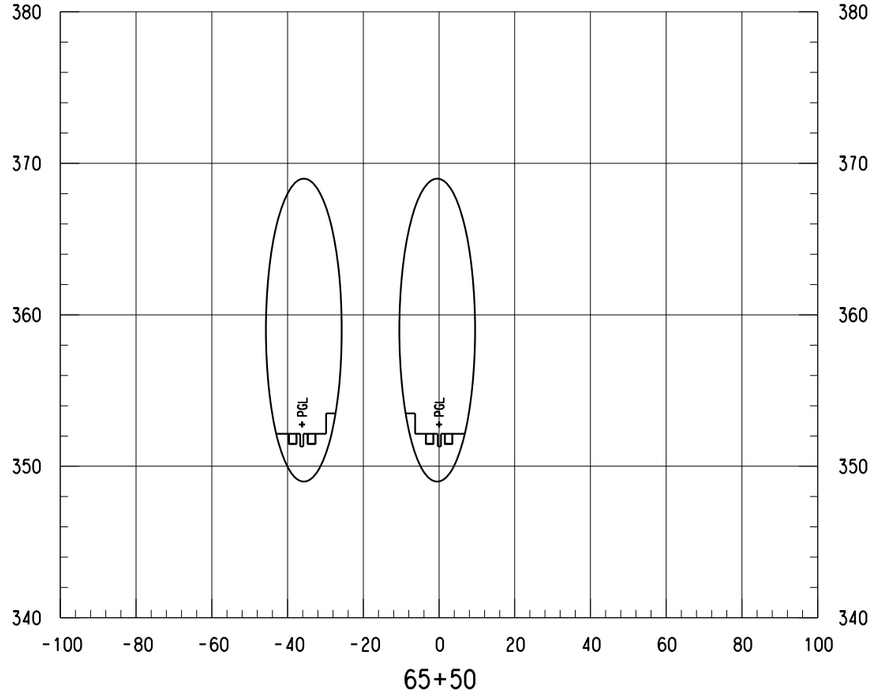
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



65+00



65+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 95 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 65+00.00 TO STA 65+50.00

CONTRACT	DWG No.	REV
	CC8-0032	

LGUBLO
Default

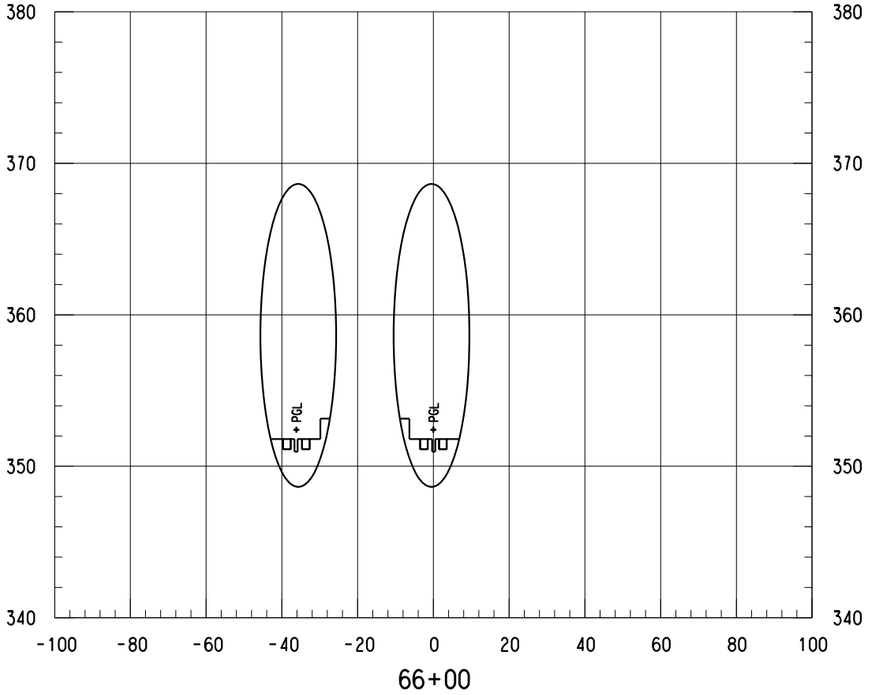
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0033

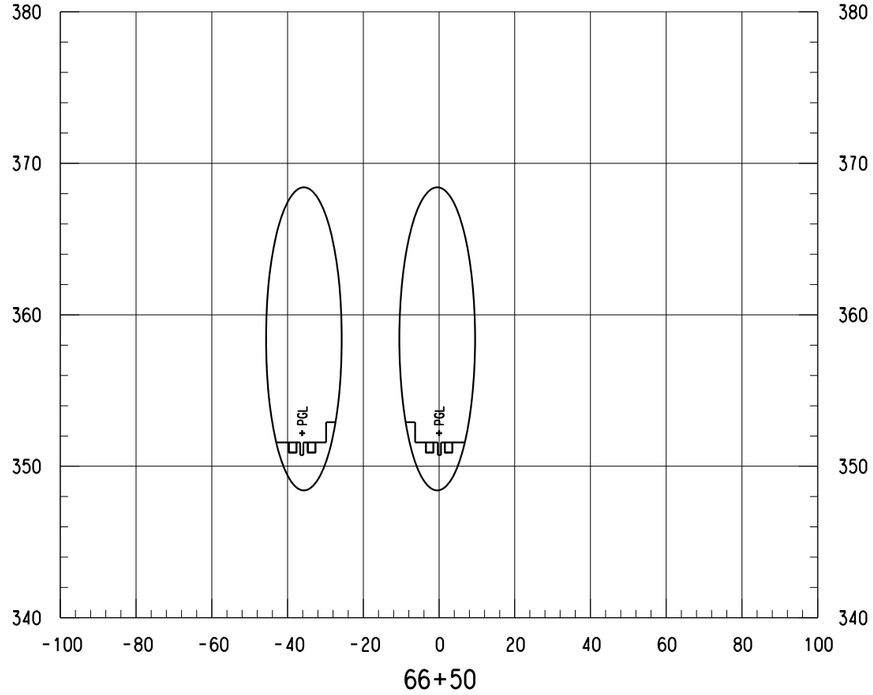
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



66+00



66+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 96 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 66+00.00 TO STA 66+50.00

CONTRACT	DWG No.	REV
	CC8-0033	

Monday, October 26, 2020 10:19:30 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

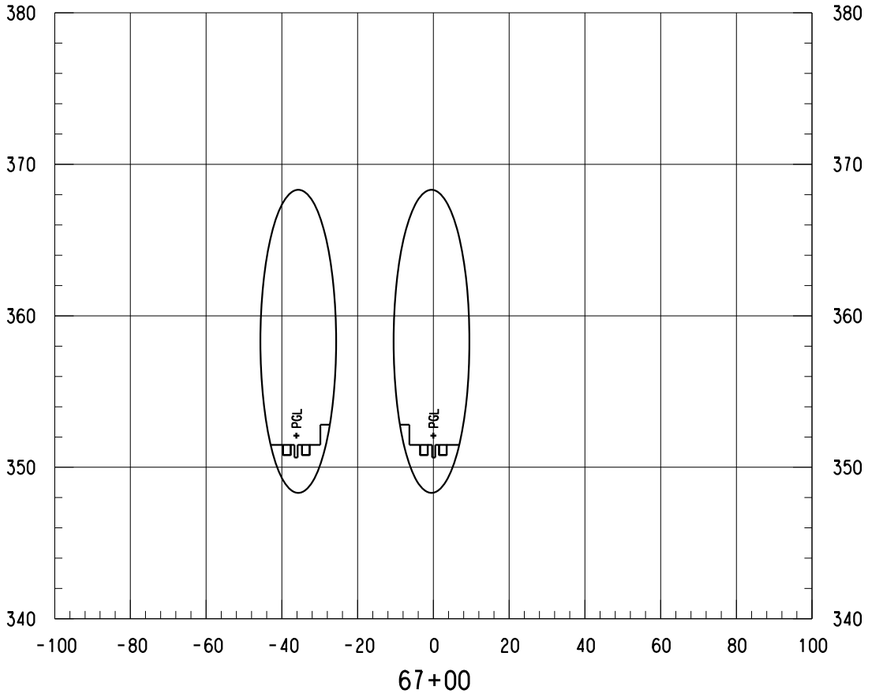
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

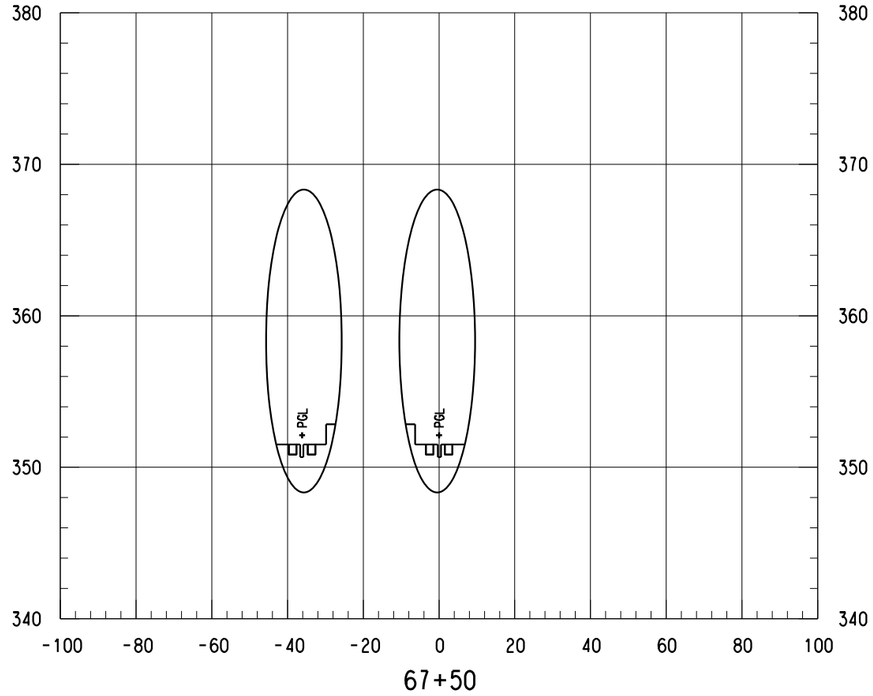
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



67+00



67+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 97 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 67+00.00 TO STA 67+50.00

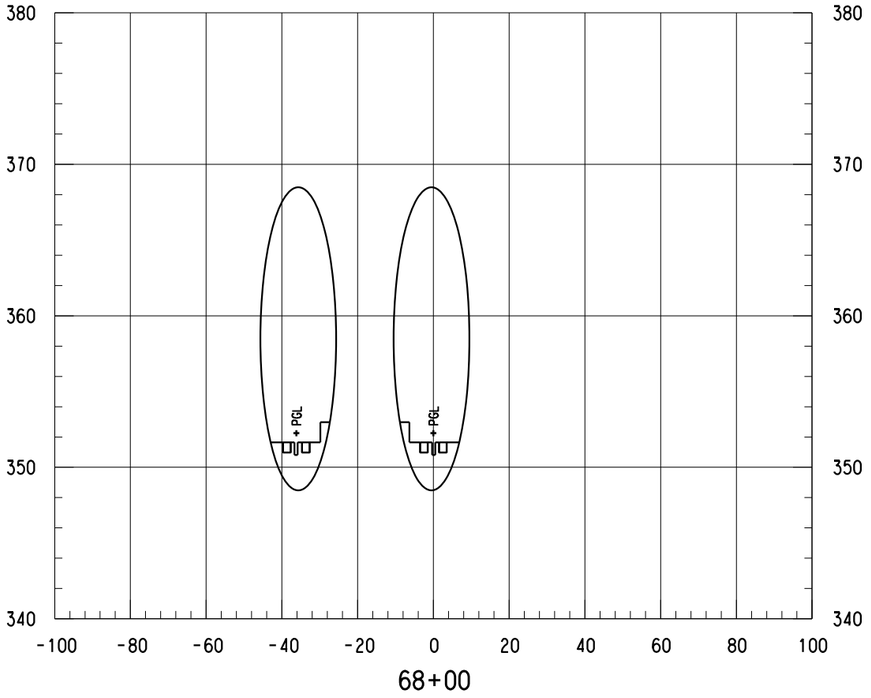
CONTRACT	DWG No.	REV
	CC8-0034	

Monday, October 26, 2020 10:19:30 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

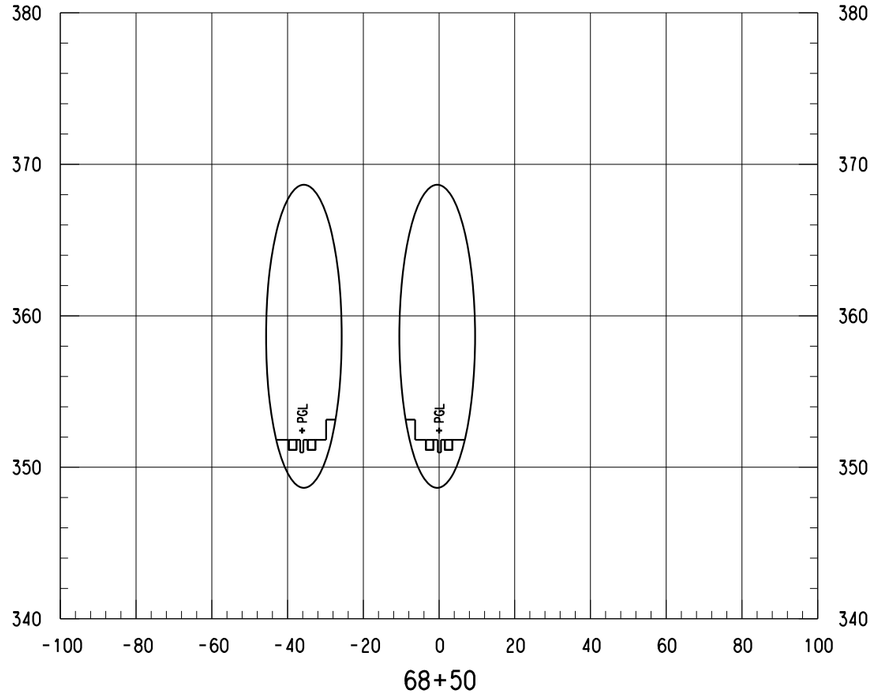
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



68+00



68+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 98 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 68+00.00 TO STA 68+50.00

CONTRACT	DWG No.	REV
	CC8-0035	

Monday, October 26, 2020 10:19:30 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

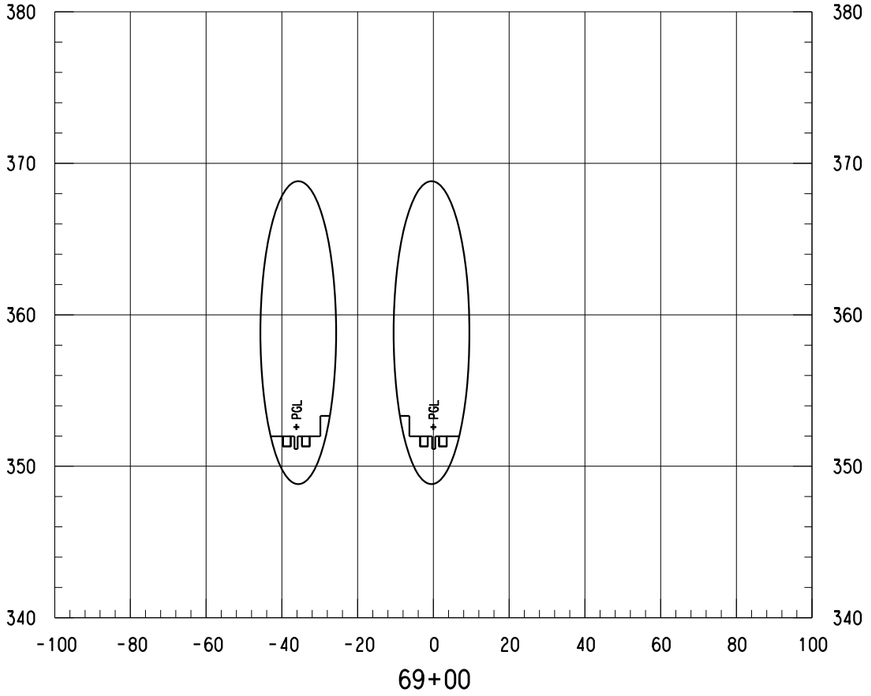
Monday, October 26, 2020 10:19:31 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0036

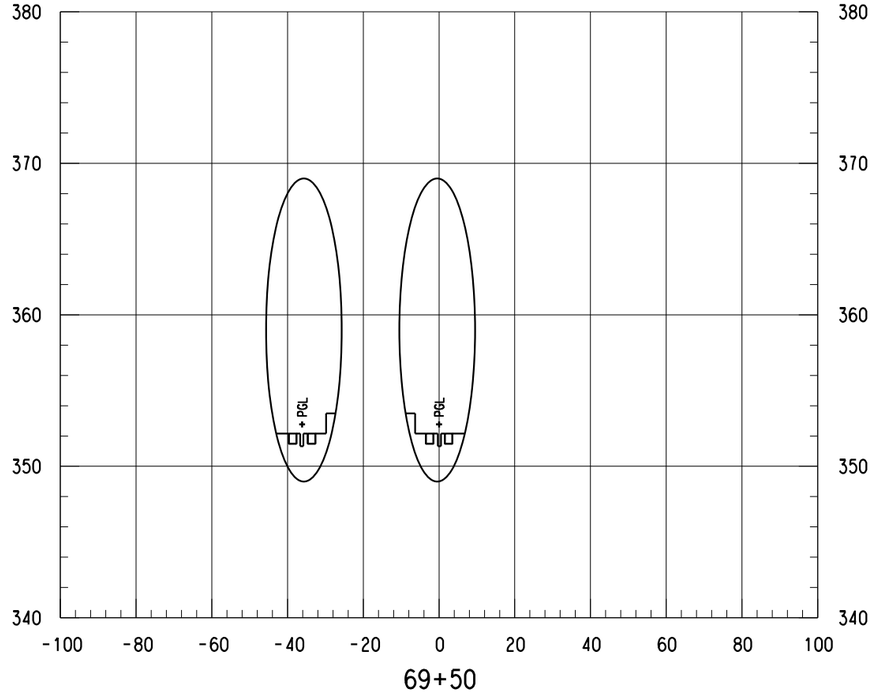
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



69+00



69+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 99 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 69+00.00 TO STA 69+50.00

CONTRACT	DWG No.	REV
	CC8-0036	

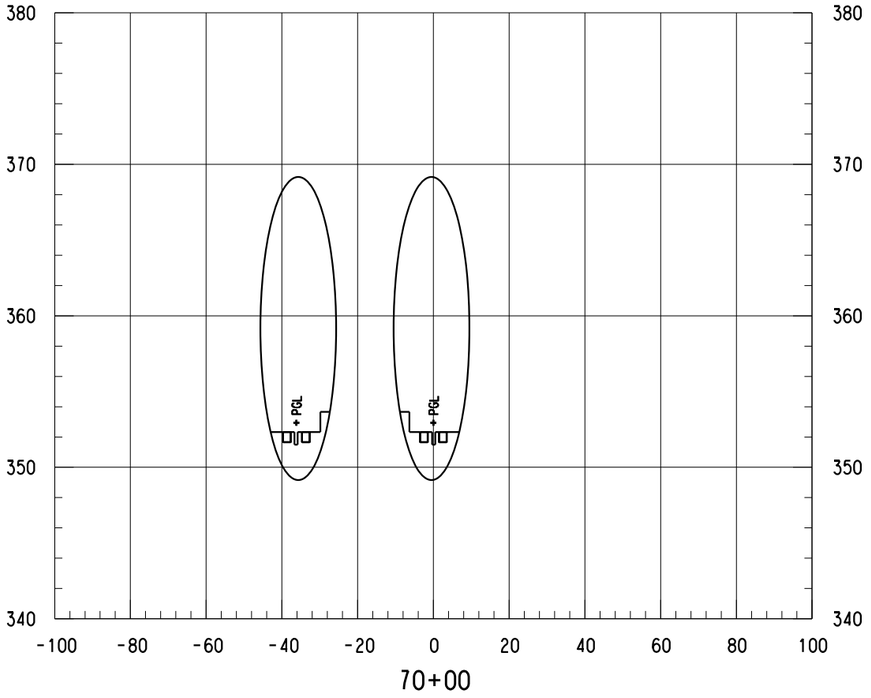
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

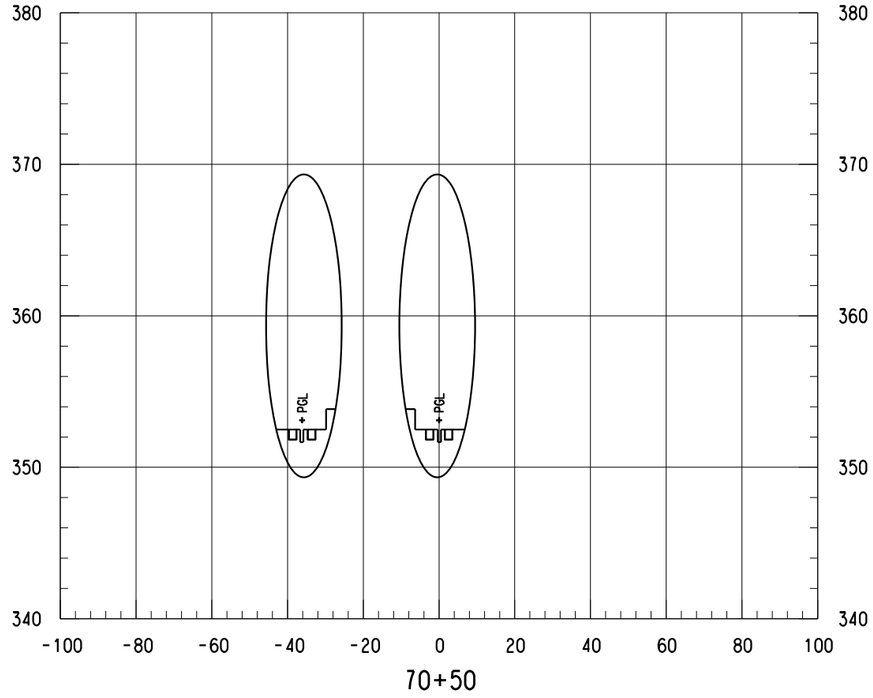
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



70+00



70+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 100 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 70+00.00 TO STA 70+50.00

CONTRACT	DWG No.	REV
	CC8-0037	

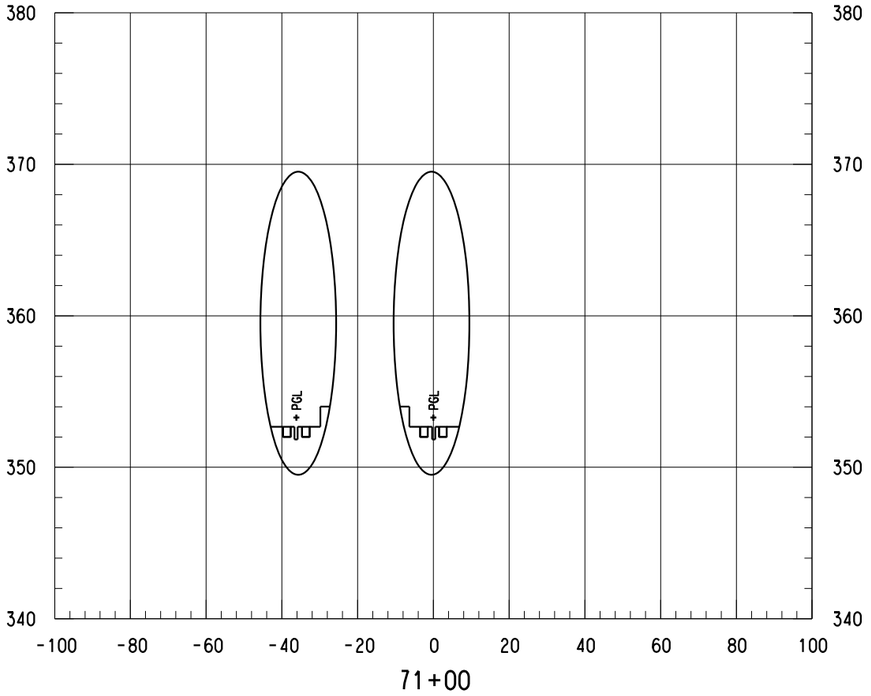
Monday, October 26, 2020 10:19:31 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0038

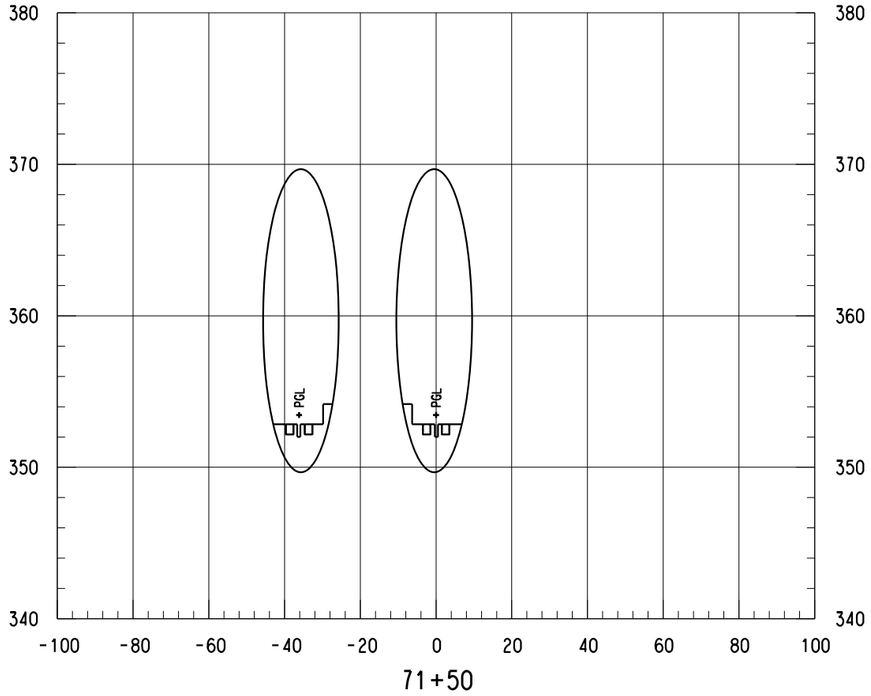
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



71+00



71+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 101 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 71+00.00 TO STA 71+50.00

CONTRACT	DWG No.	REV
	CC8-0038	

LGUBLO
Default

Monday, October 26, 2020 10:19:32 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

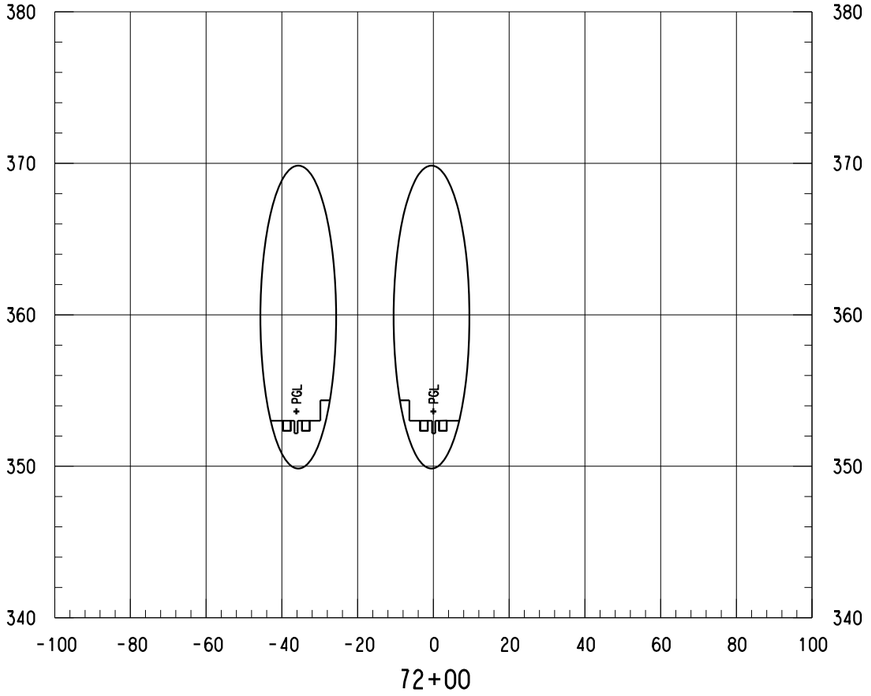
Monday, October 26, 2020 10:19:32 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0039

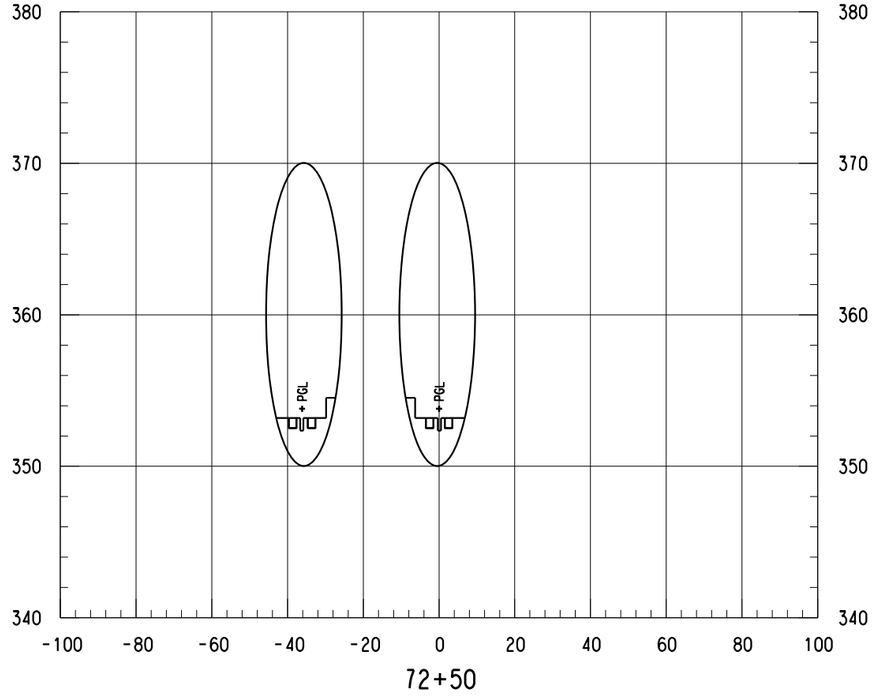
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



72+00



72+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 102 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 72+00.00 TO STA 72+50.00

CONTRACT	DWG No.	REV
	CC8-0039	

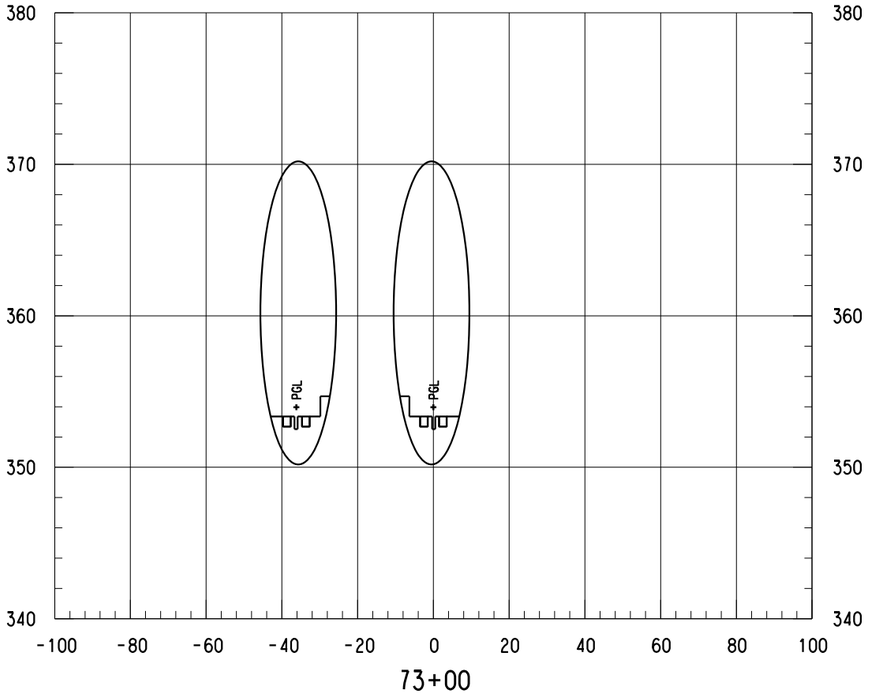
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

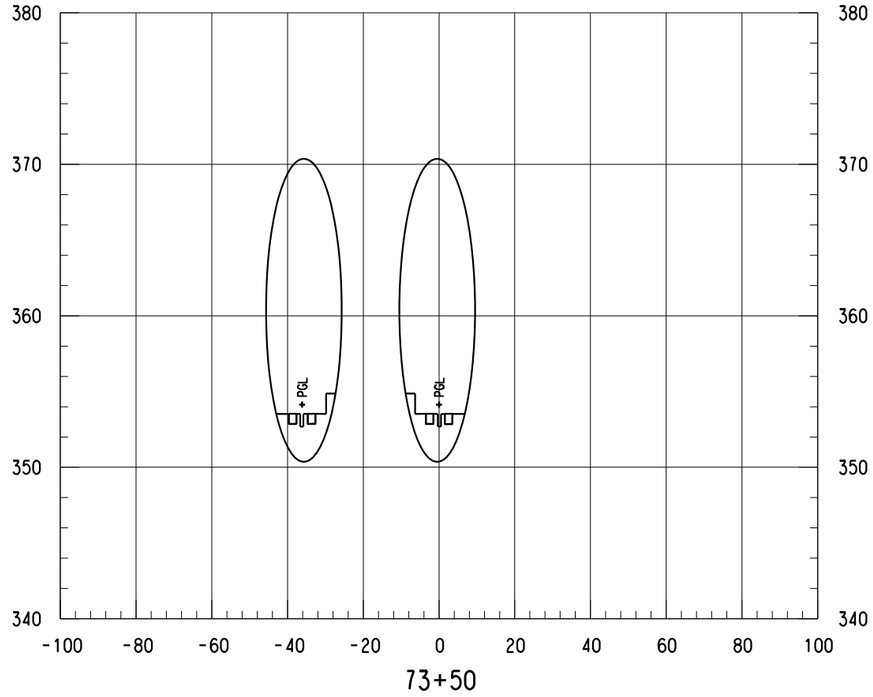
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



73+00



73+50

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 103 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

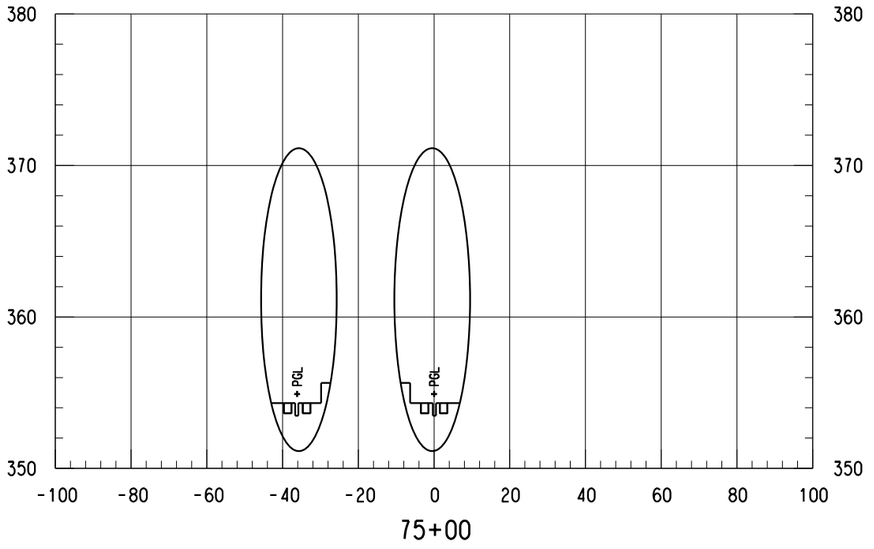
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

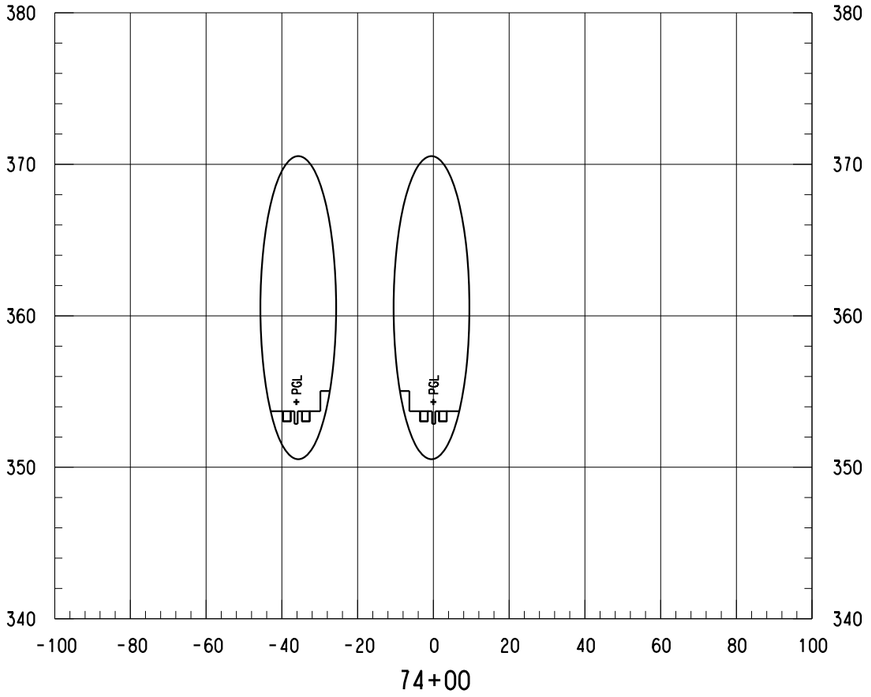
CBD-2
GUIDEWAY CROSS SECTIONS
STA 73+00.00 TO STA 73+50.00

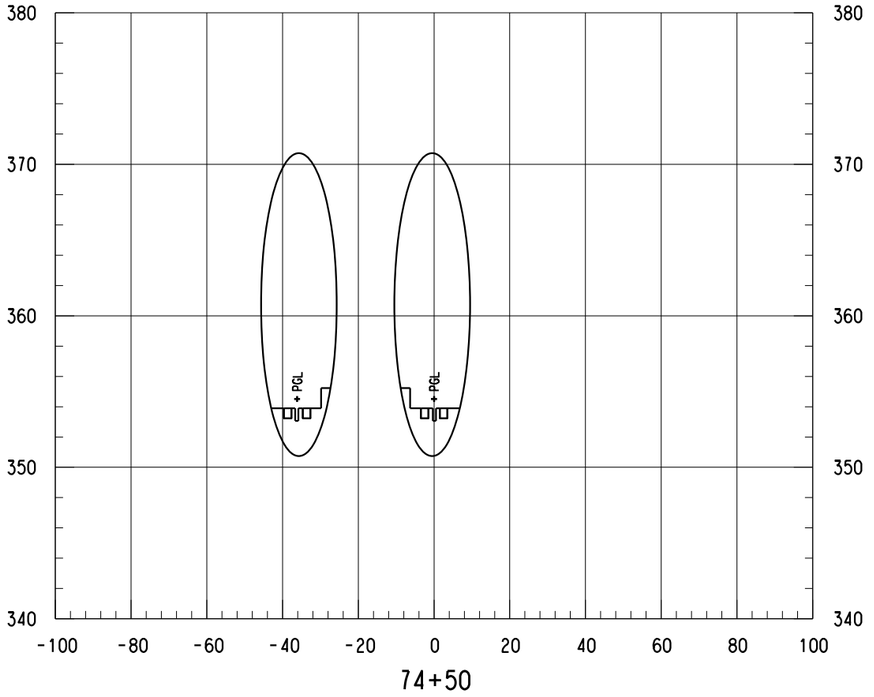
CONTRACT	DWG No.	REV
	CC8-0040	

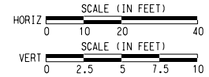
Monday, October 26, 2020 10:19:33 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0041









NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 104 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 74+00.00 TO STA 75+00.00

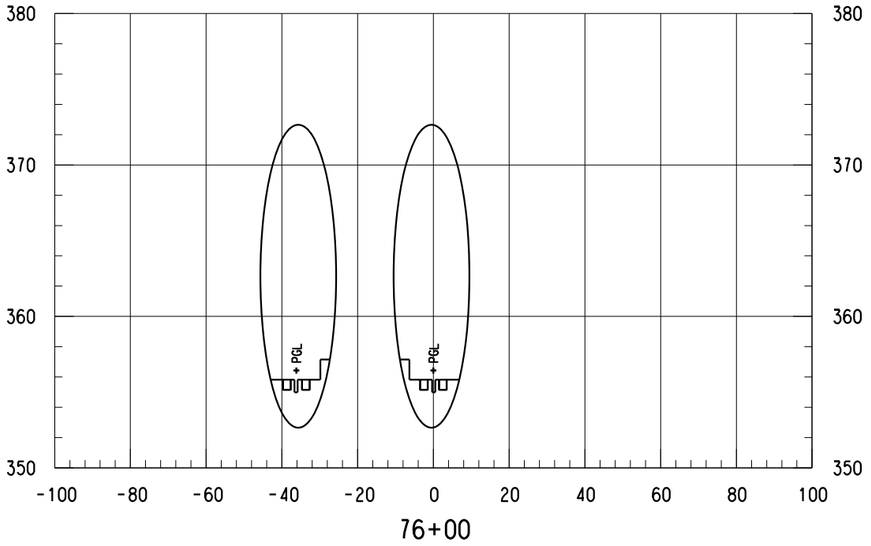
CONTRACT	DWG No.	REV
	CC8-0041	

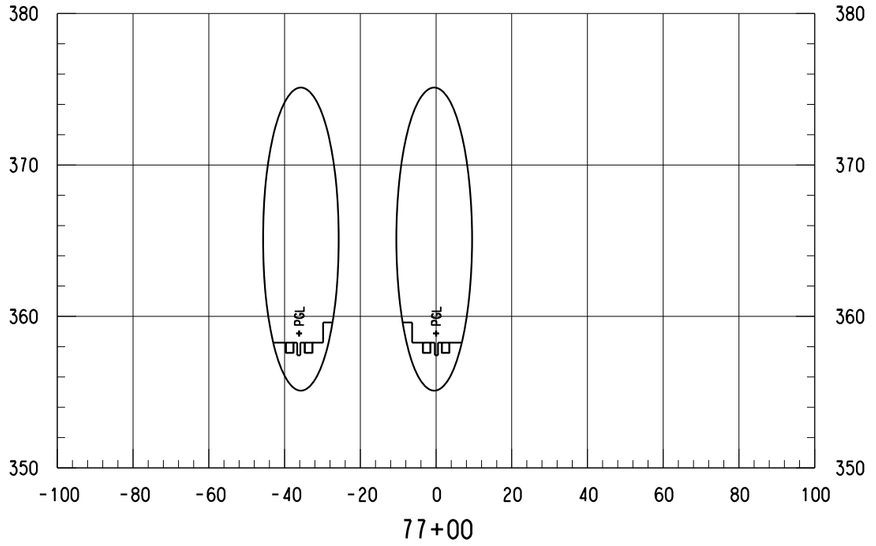
Monday, October 26, 2020 10:19:33 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

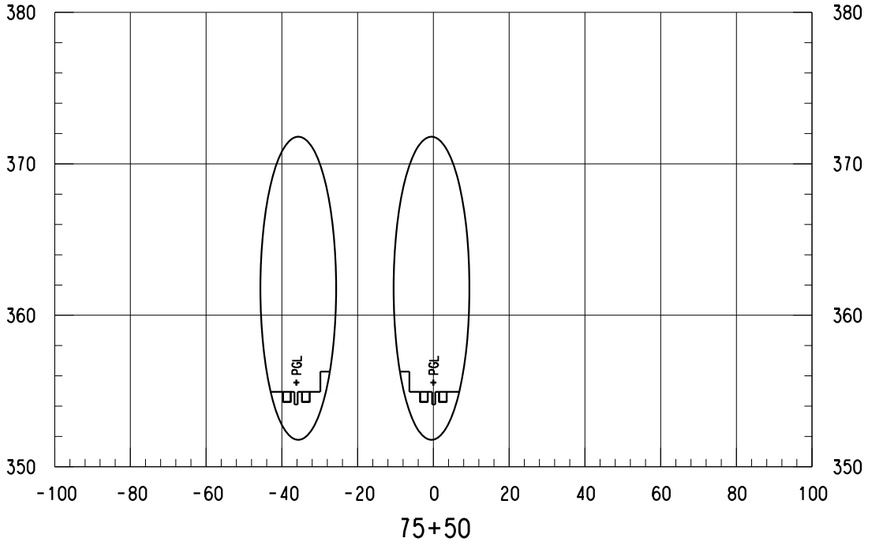
LGUBLO
Default

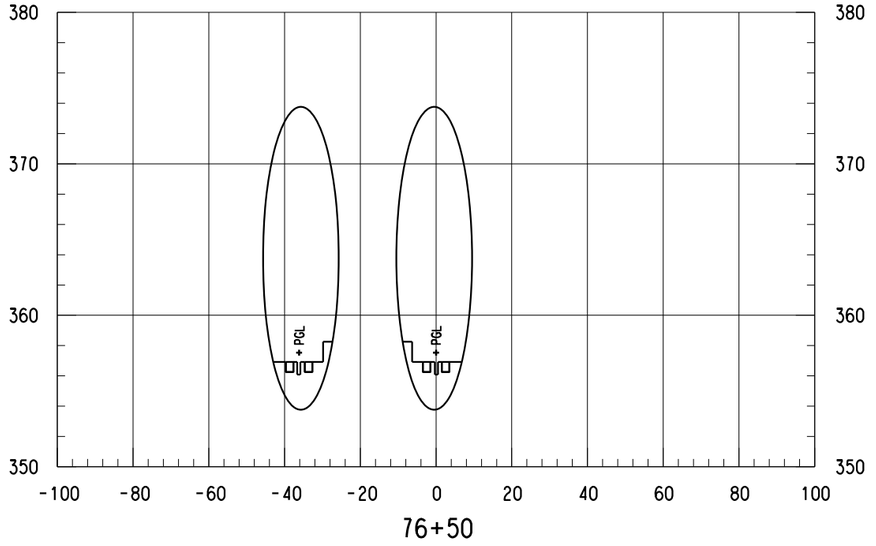
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0042









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 105 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 75+50.00 TO STA 77+00.00

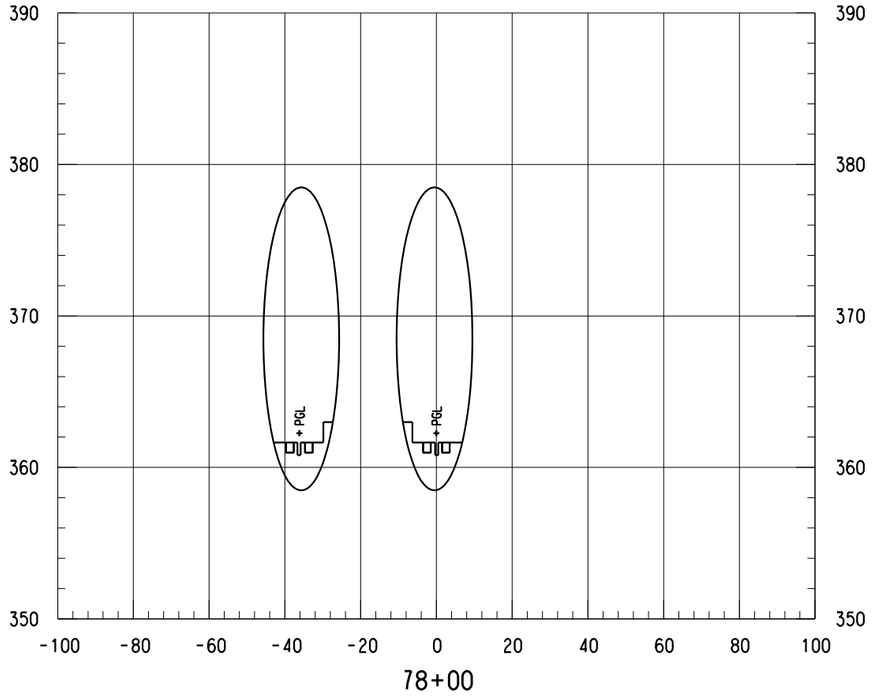
CONTRACT	DWG No.	REV
	CC8-0042	

Monday, October 26, 2020 10:19:34 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

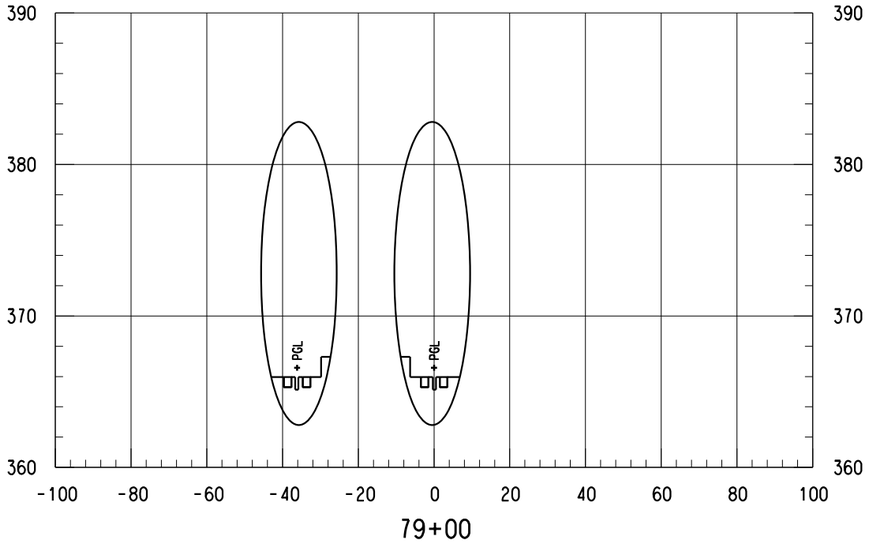
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

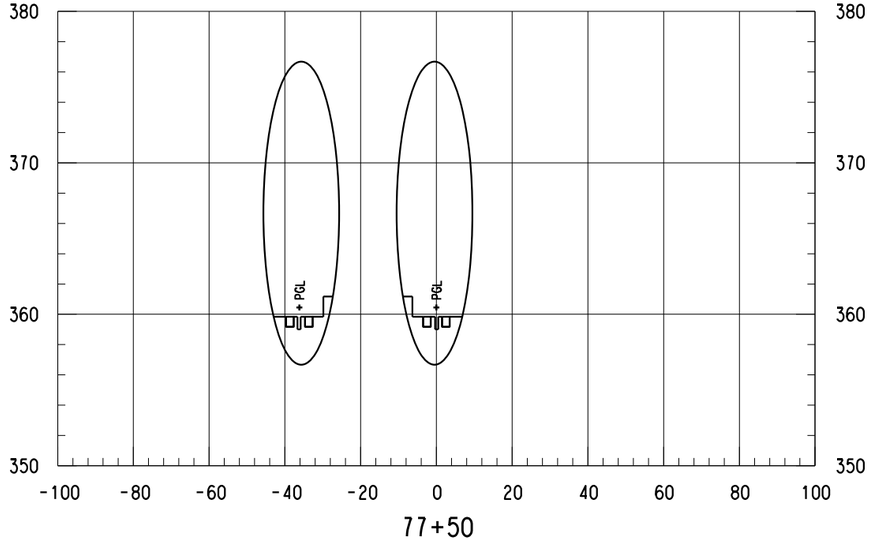
DWG No. CC8-0043



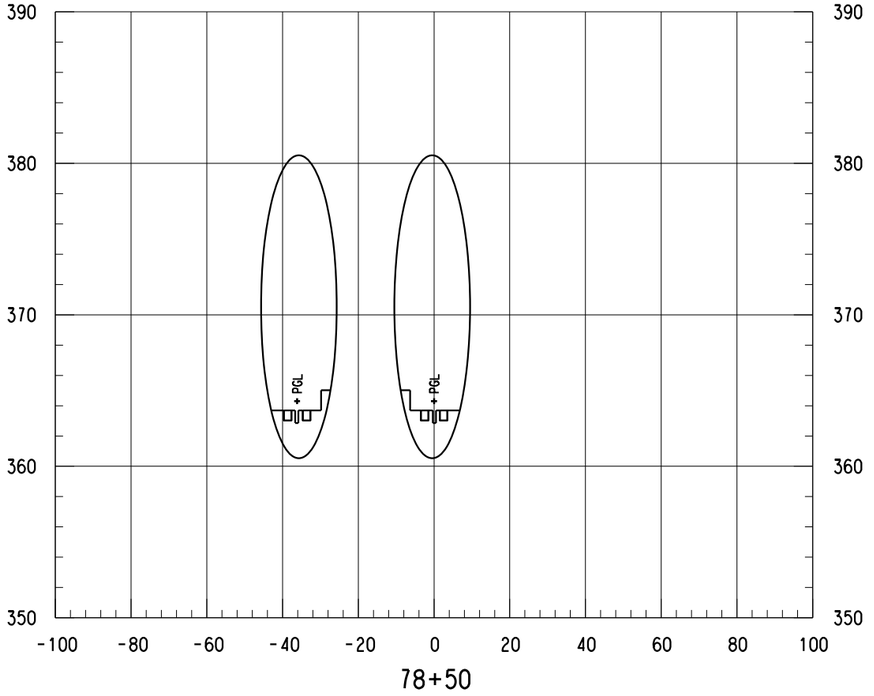
78+00



79+00



77+50



78+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 106 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 77+50.00 TO STA 79+00.00

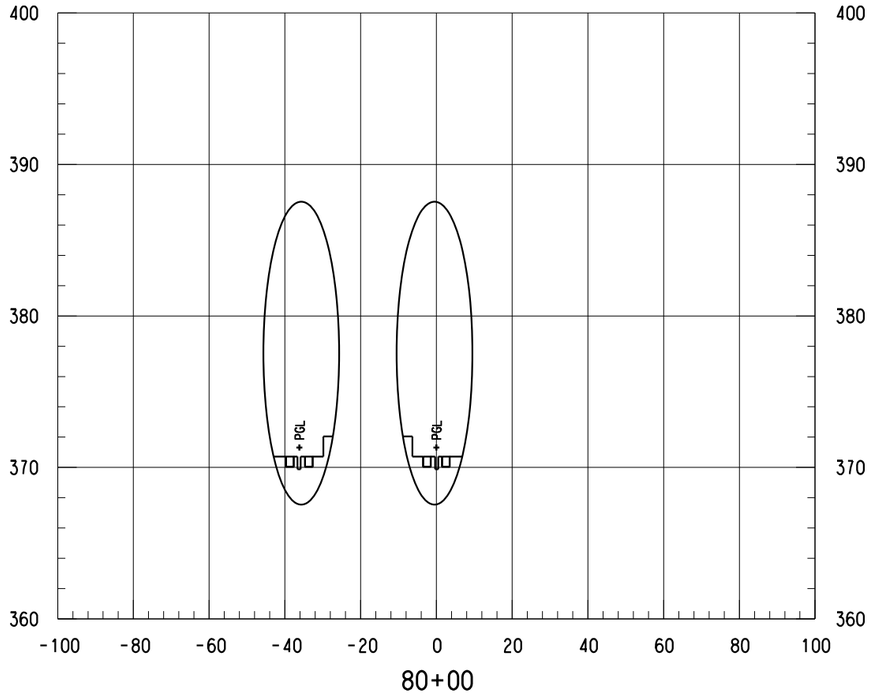
CONTRACT	DWG No.	REV
	CC8-0043	

Monday, October 26, 2020 10:19:34 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

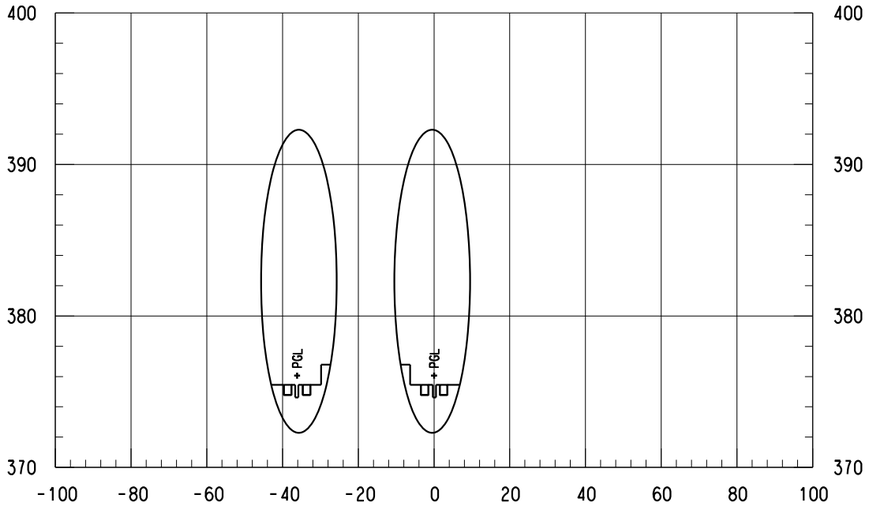
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

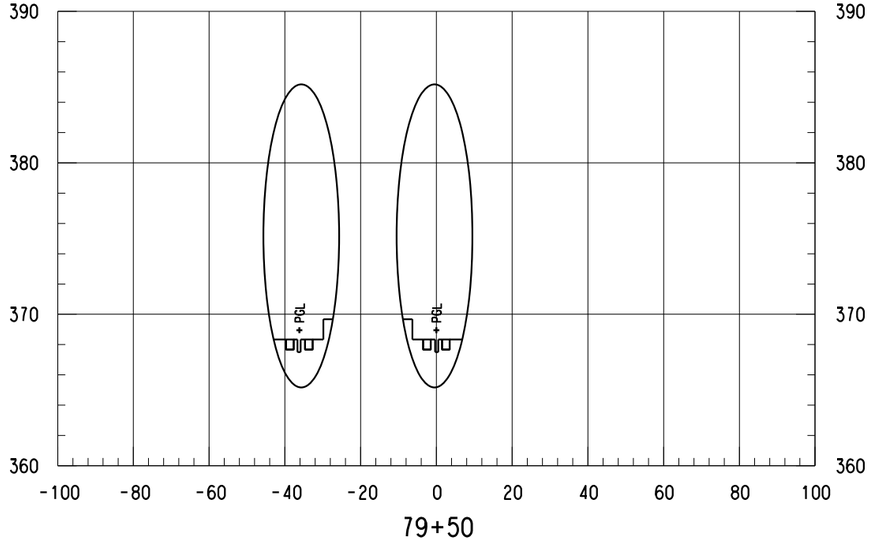
DWG No. CC8-0044



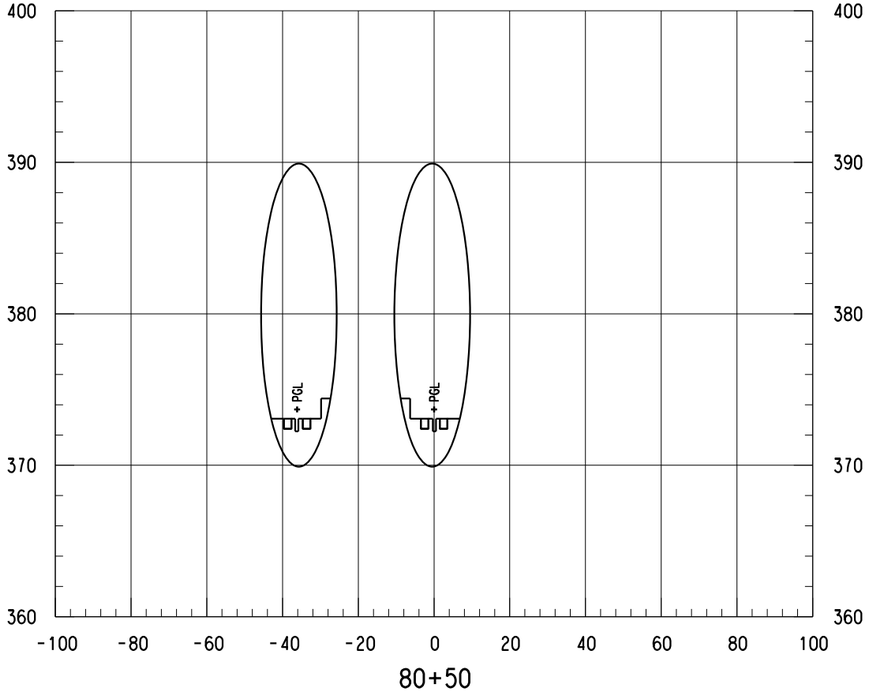
80+00



81+00



79+50



80+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 107 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 79+50.00 TO STA 81+00.00

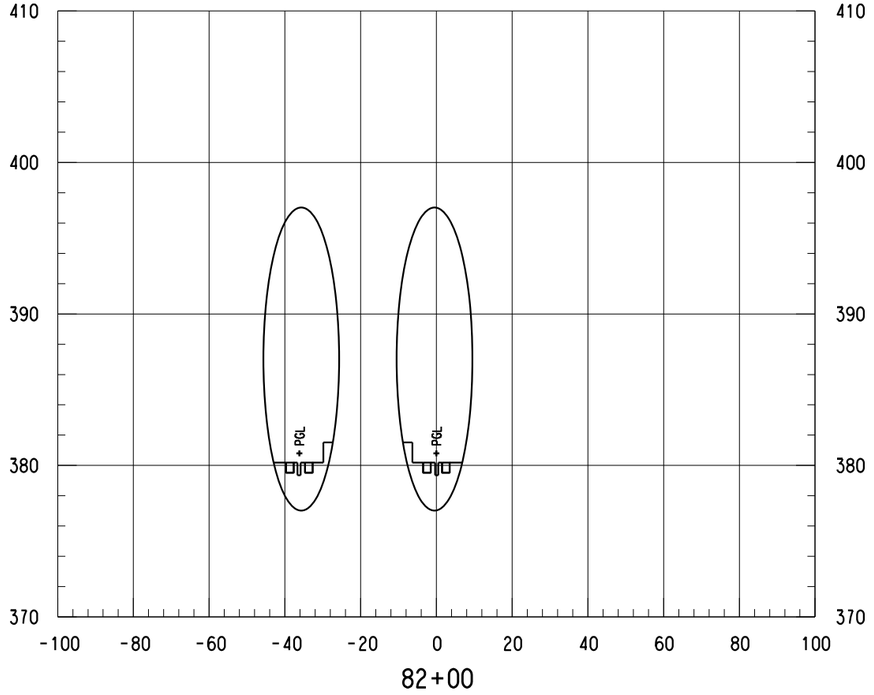
CONTRACT	DWG No.	REV
	CC8-0044	

Monday, October 26, 2020 10:19:35 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

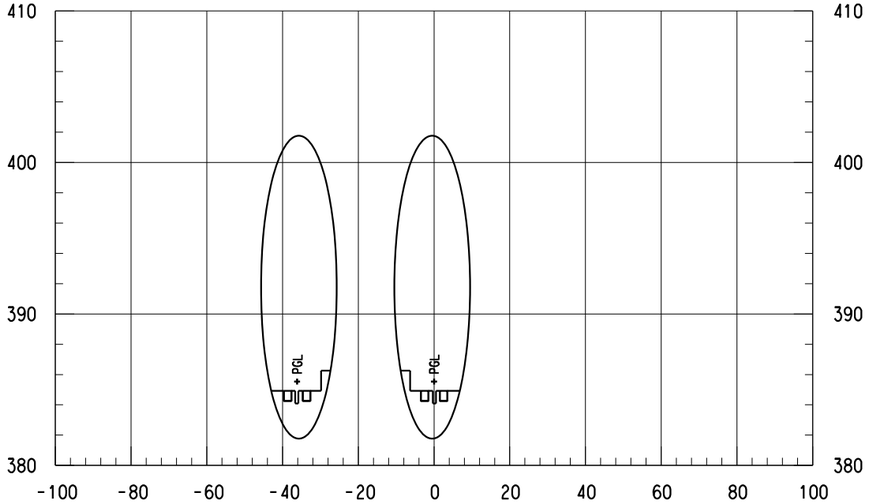
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

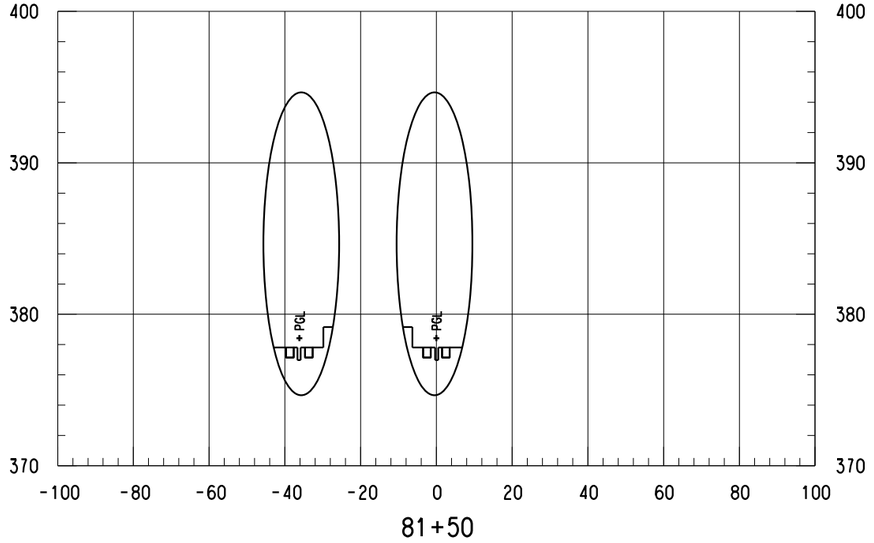
DWG No. CC8-0045



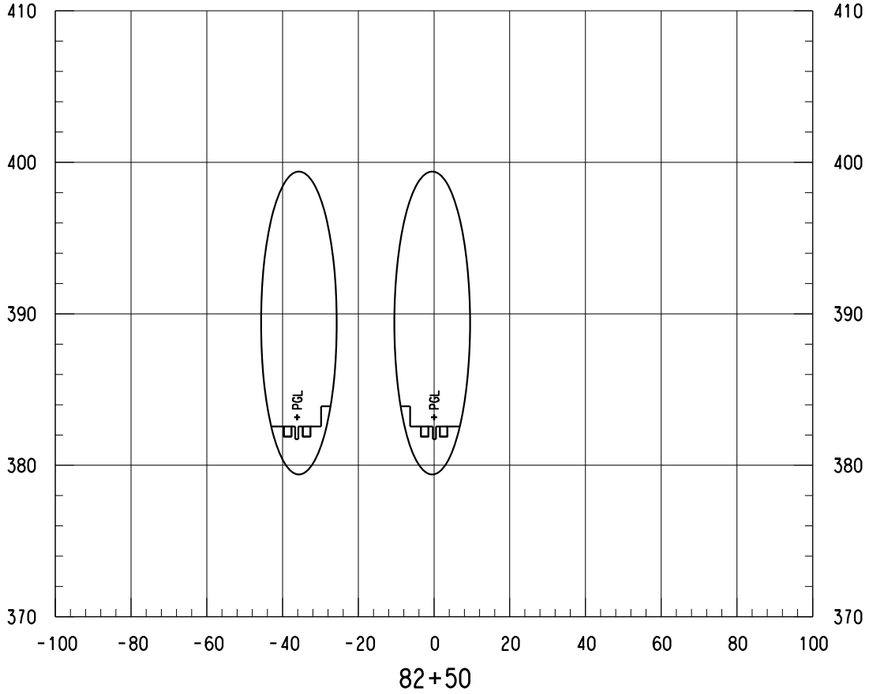
82+00



83+00



81+50



82+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 108 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 81+50.00 TO STA 83+00.00

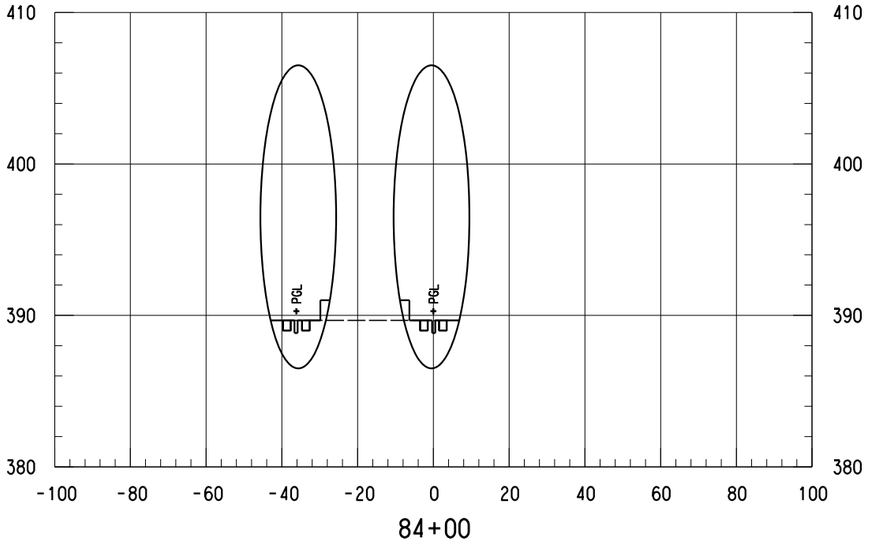
CONTRACT	DWG No.	REV
	CC8-0045	

Monday, October 26, 2020 10:19:35 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

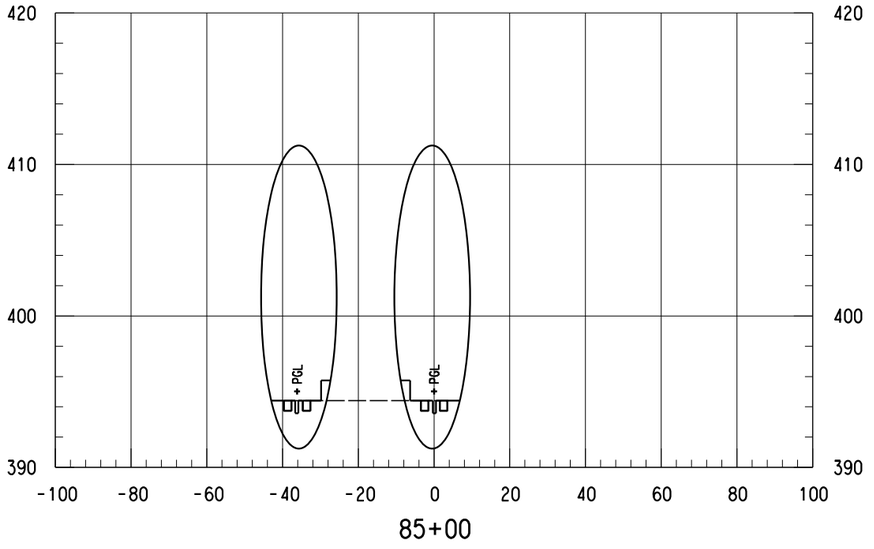
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

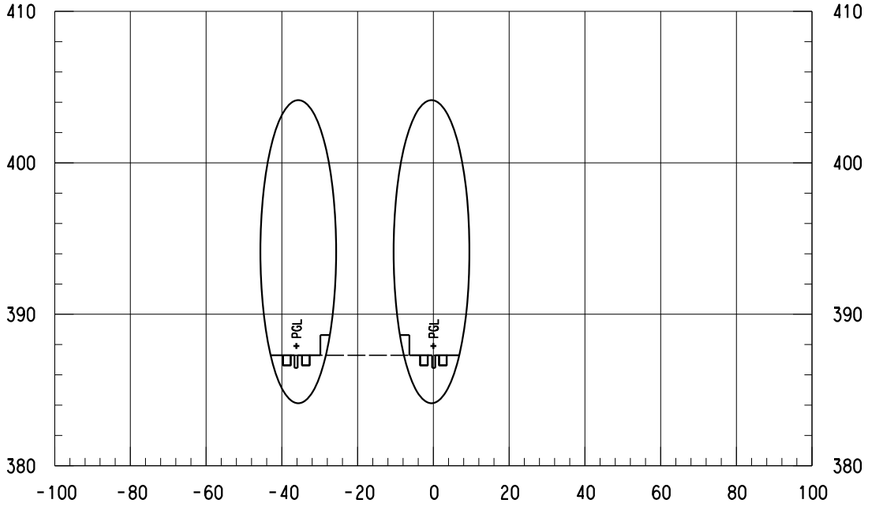
DWG No. CC8-0046



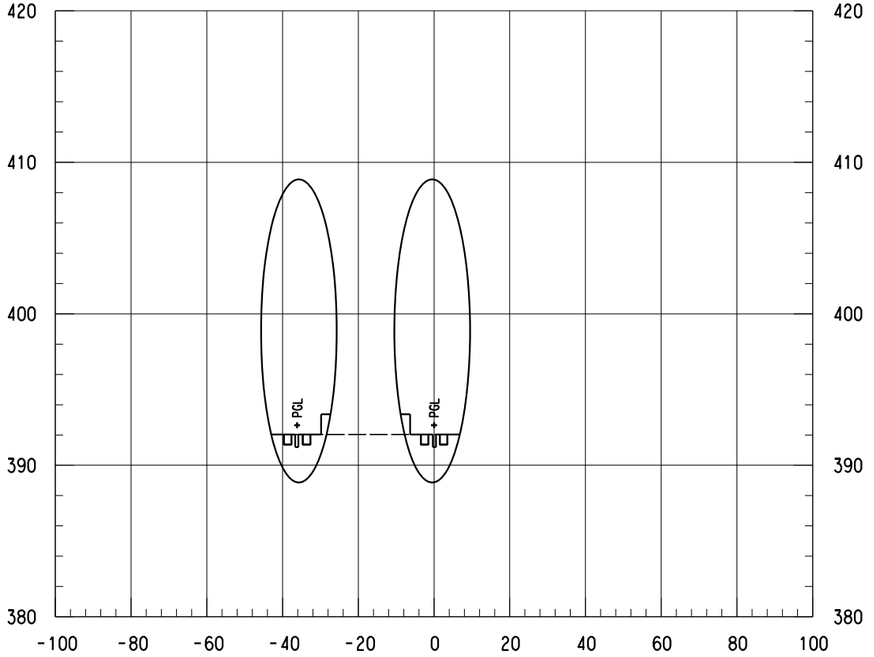
84+00



85+00



83+50



84+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 109 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

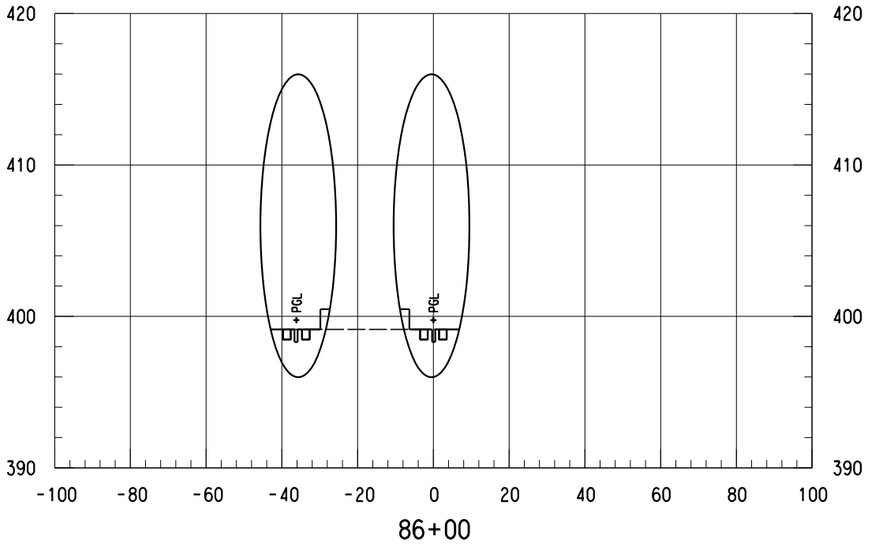
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 83+50.00 TO STA 85+00.00

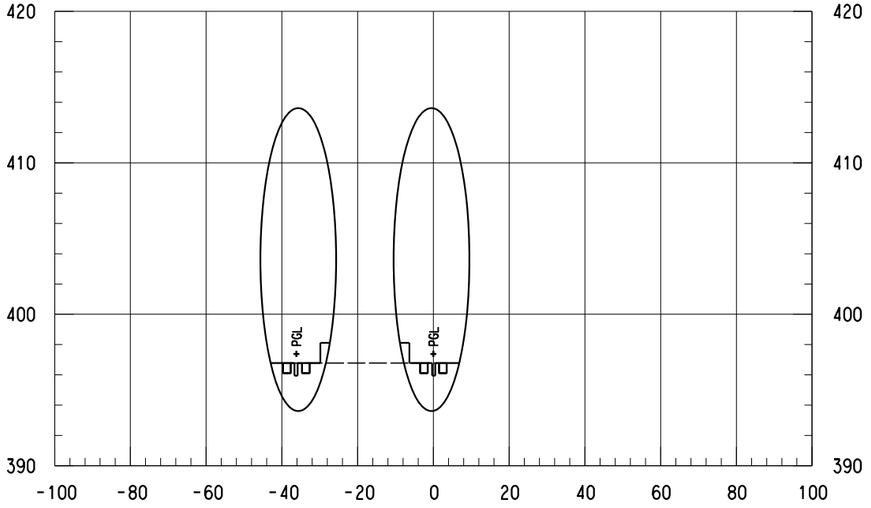
CONTRACT	DWG No.	REV
	CC8-0046	

Monday, October 26, 2020 10:19:36 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

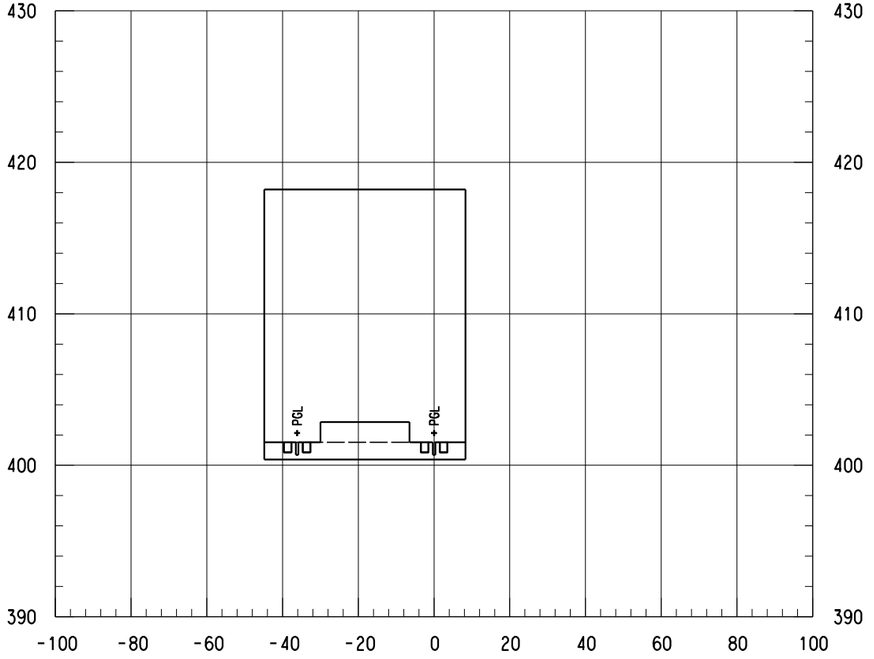
DWG No. CC8-0047



86+00



85+50



86+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 110 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 85+50.00 TO STA 86+50.00

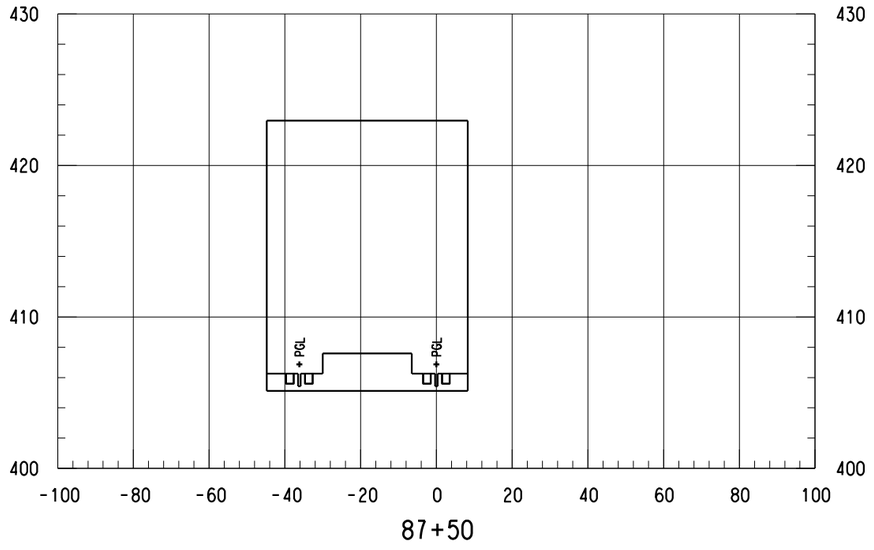
CONTRACT	DWG No.	REV
	CC8-0047	

Monday, October 26, 2020 10:19:36 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

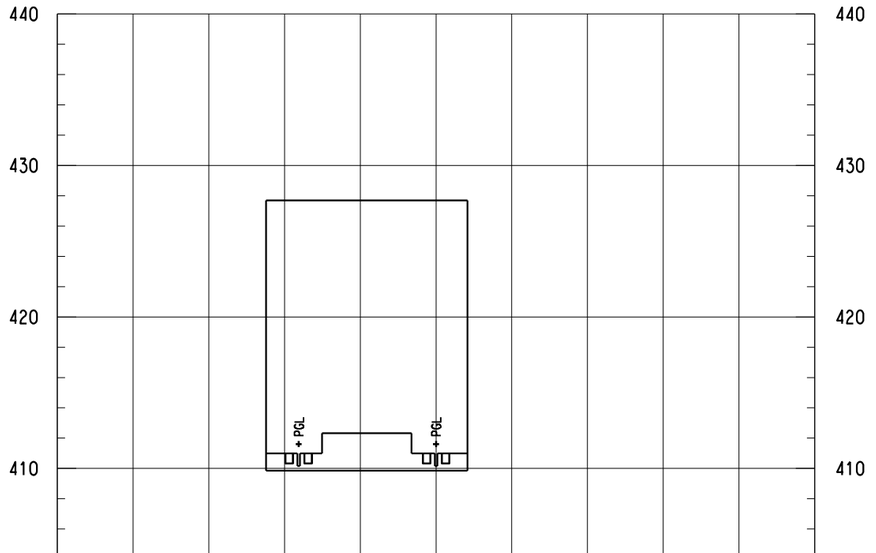
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

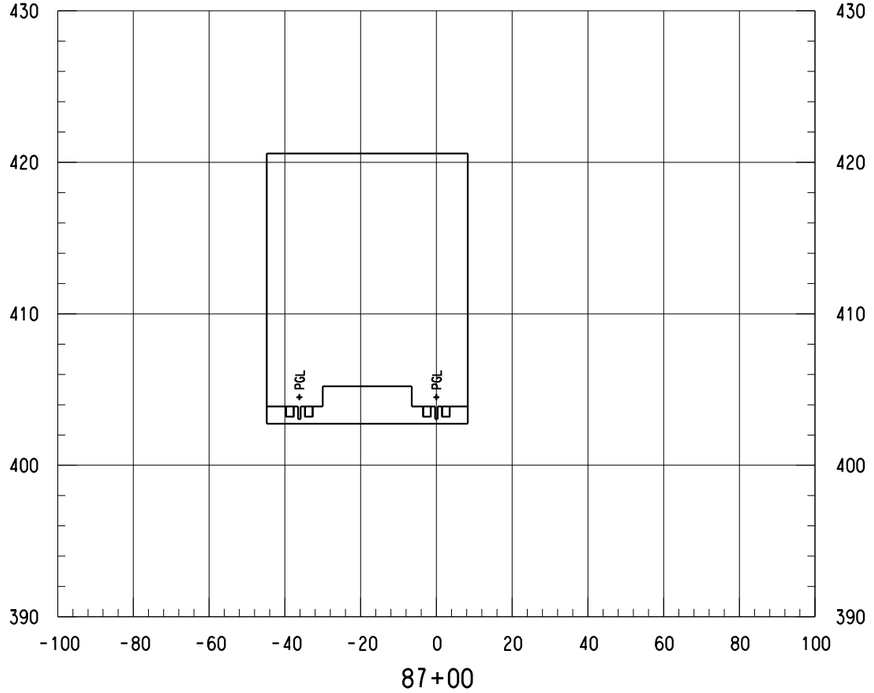
DWG No. CC8-0048



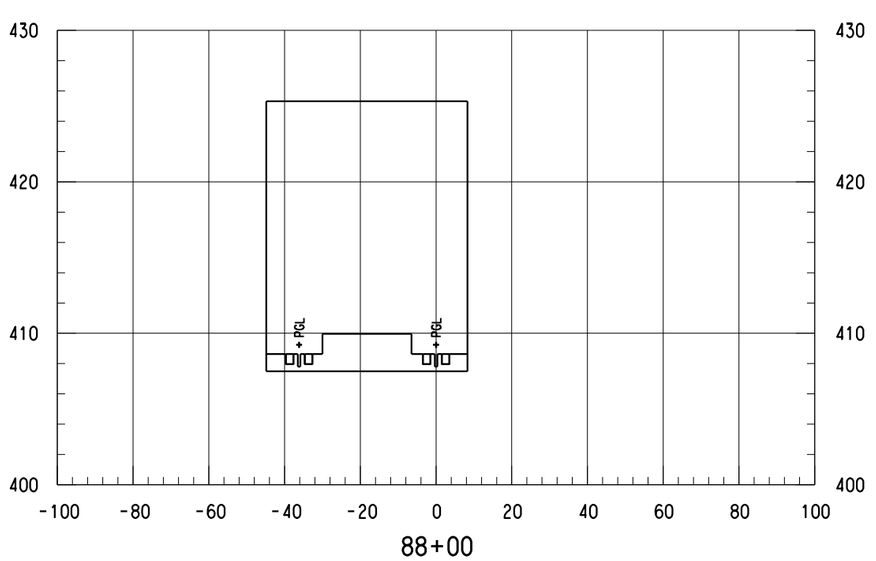
87+50



88+50



87+00



88+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 111 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 87+00.00 TO STA 88+50.00

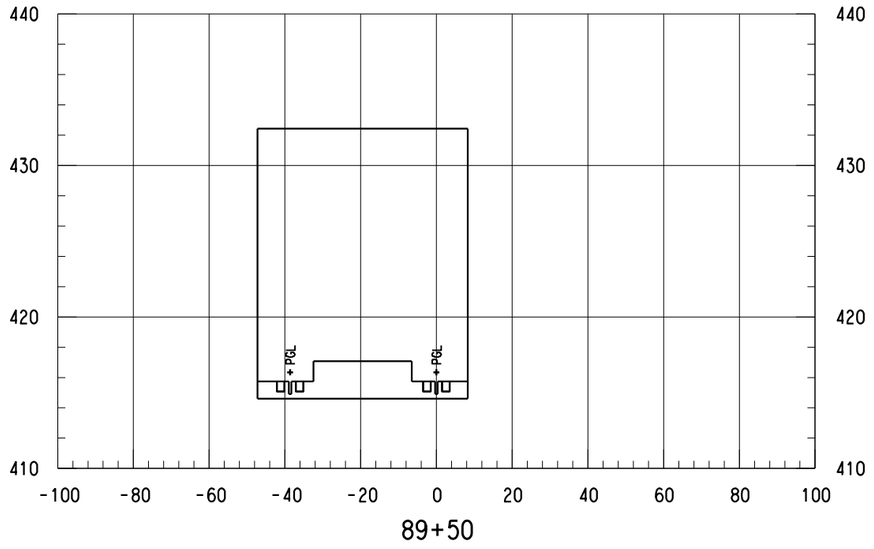
CONTRACT	DWG No.	REV
	CC8-0048	

Monday, October 26, 2020 10:19:37 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

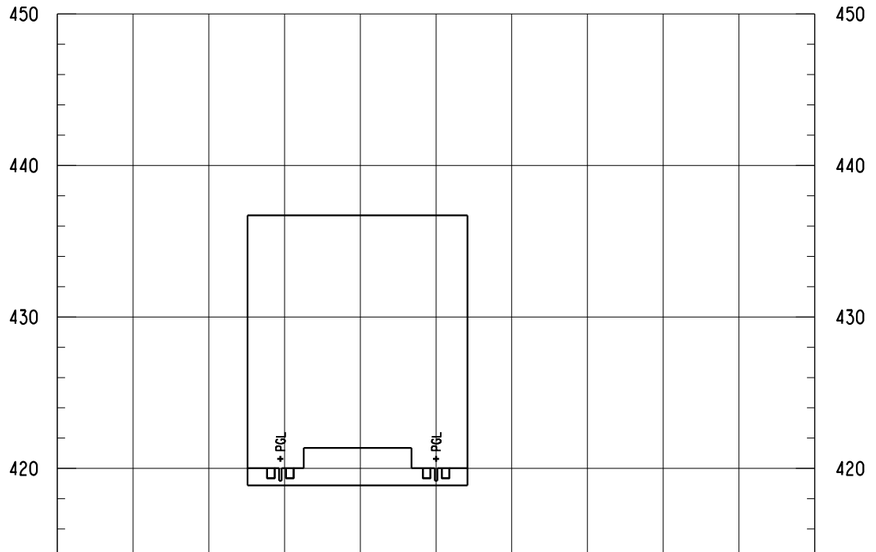
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

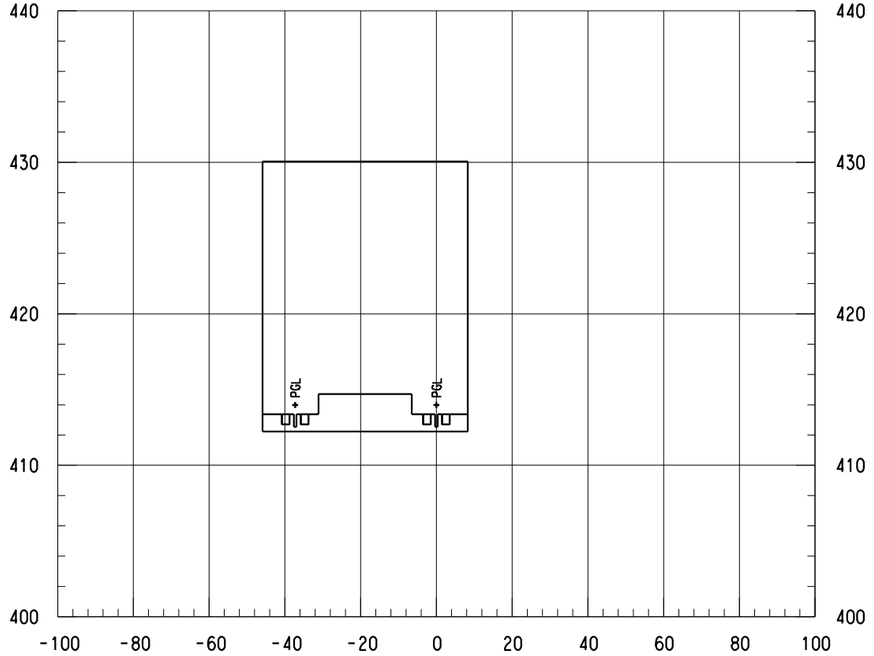
DWG No. CC8-0049



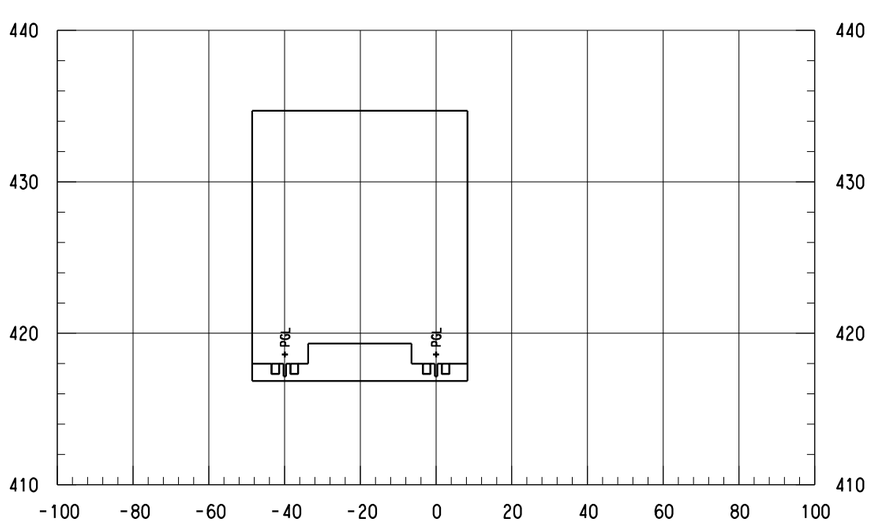
89+50



90+50



89+00



90+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 112 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

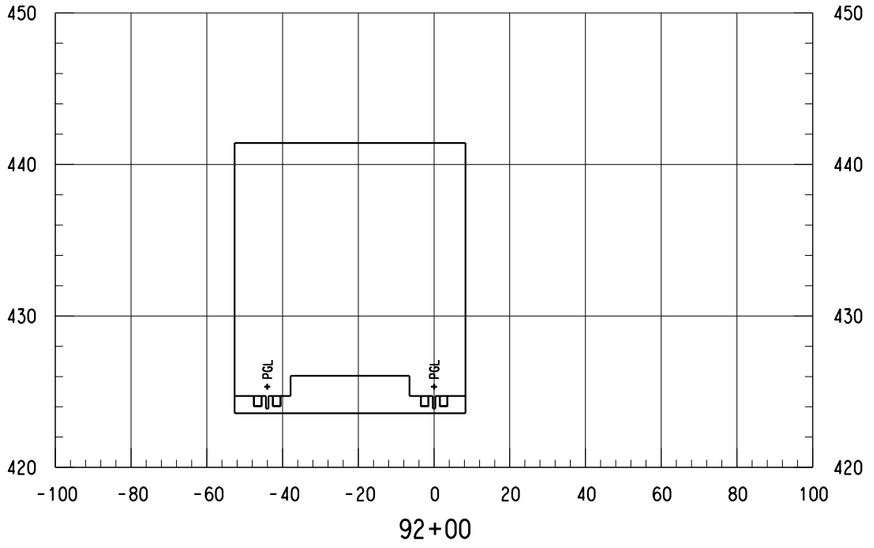
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 89+00.00 TO STA 90+50.00

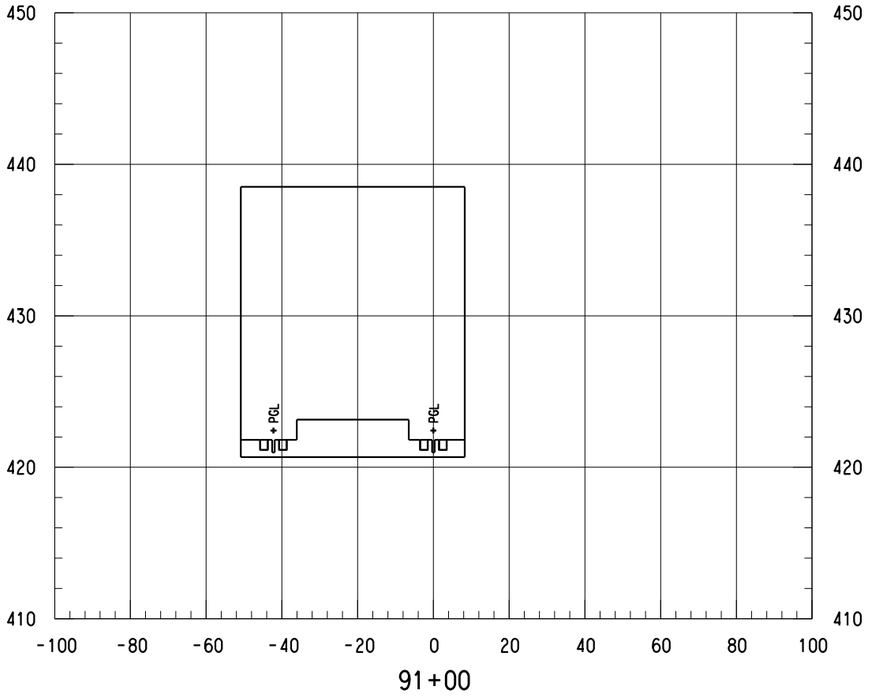
CONTRACT	DWG No.	REV
	CC8-0049	

Monday, October 26, 2020 10:19:37 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

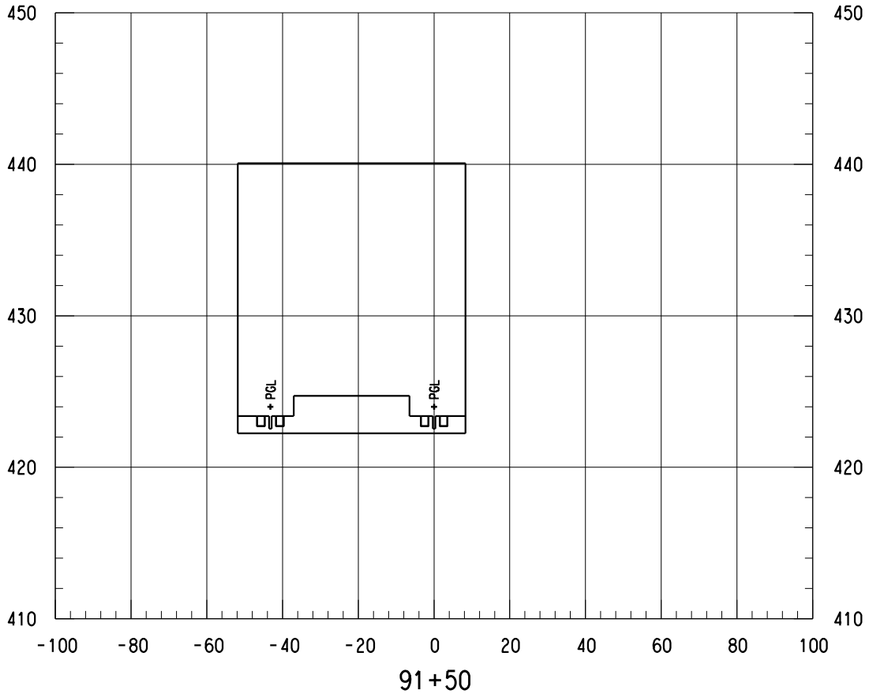
DWG No. CC8-0050



92+00



91+00



91+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 113 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

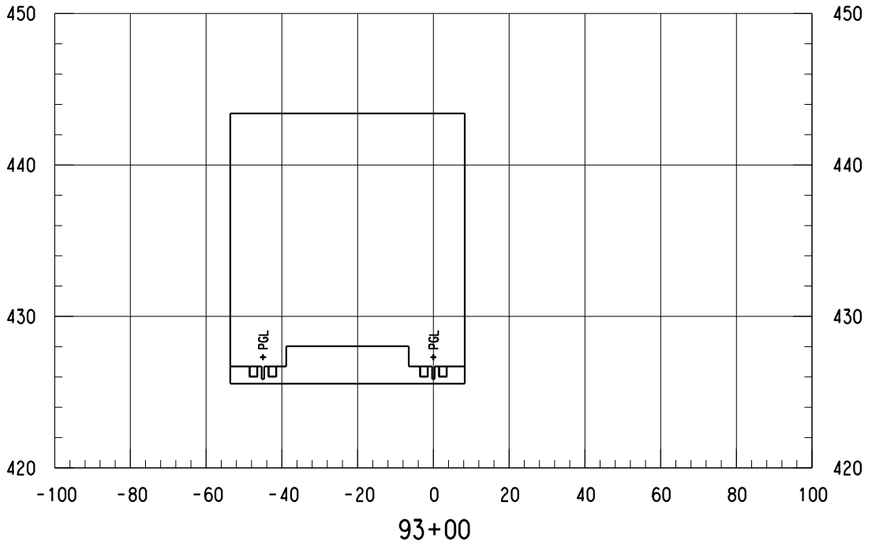
CBD-2
GUIDEWAY CROSS SECTIONS
STA 91+00.00 TO STA 92+00.00

CONTRACT	DWG No.	REV
	CC8-0050	

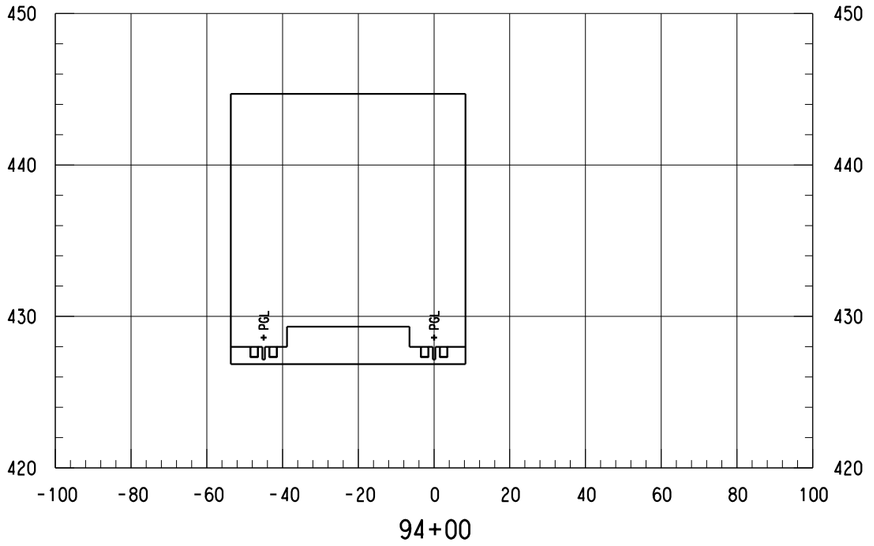
Monday, October 26, 2020 10:19:38 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

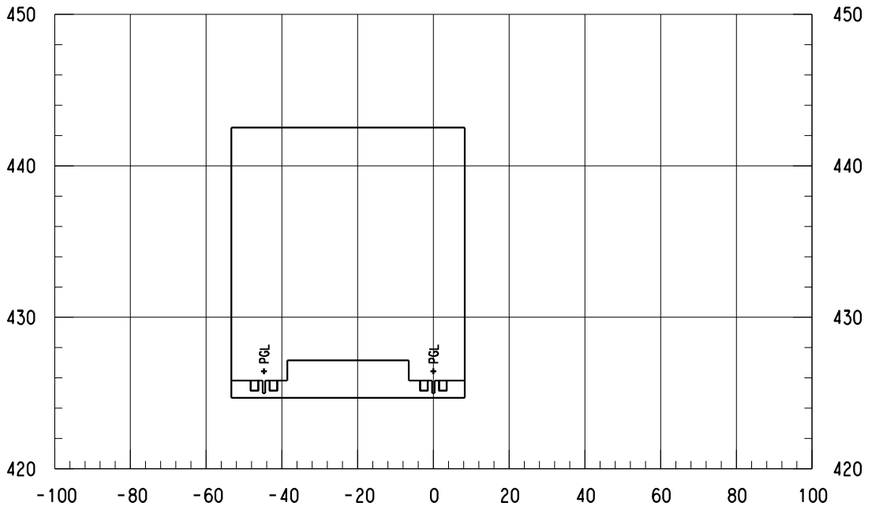
DWG No. CC8-0051



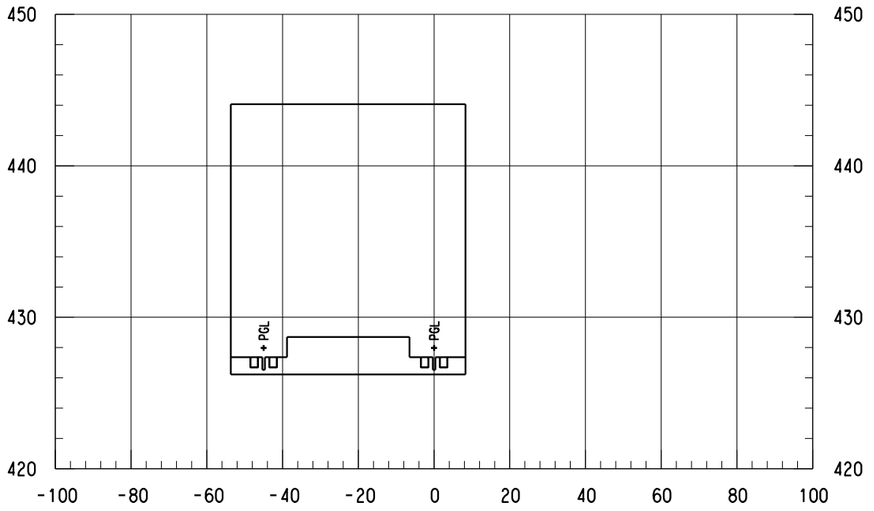
93+00



94+00



92+50



93+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 114 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

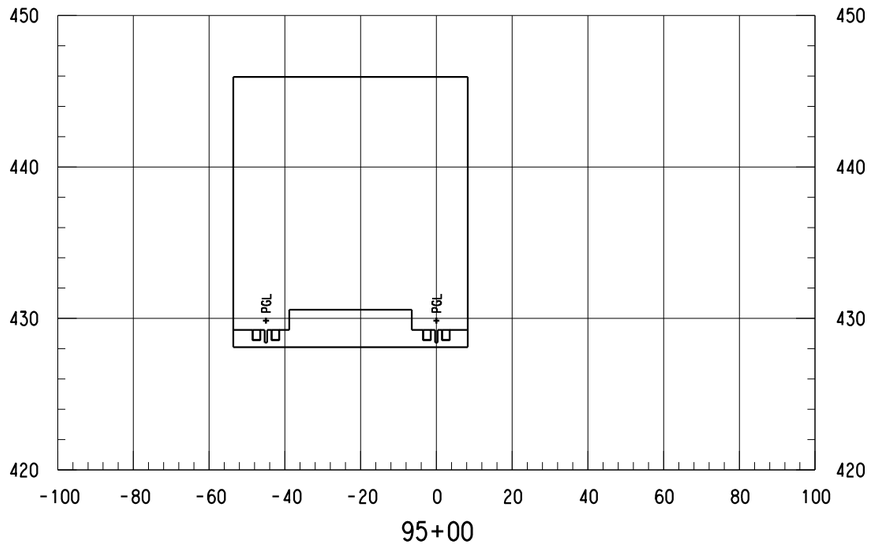
CONTRACT	DWG No.	REV
	CC8-0051	

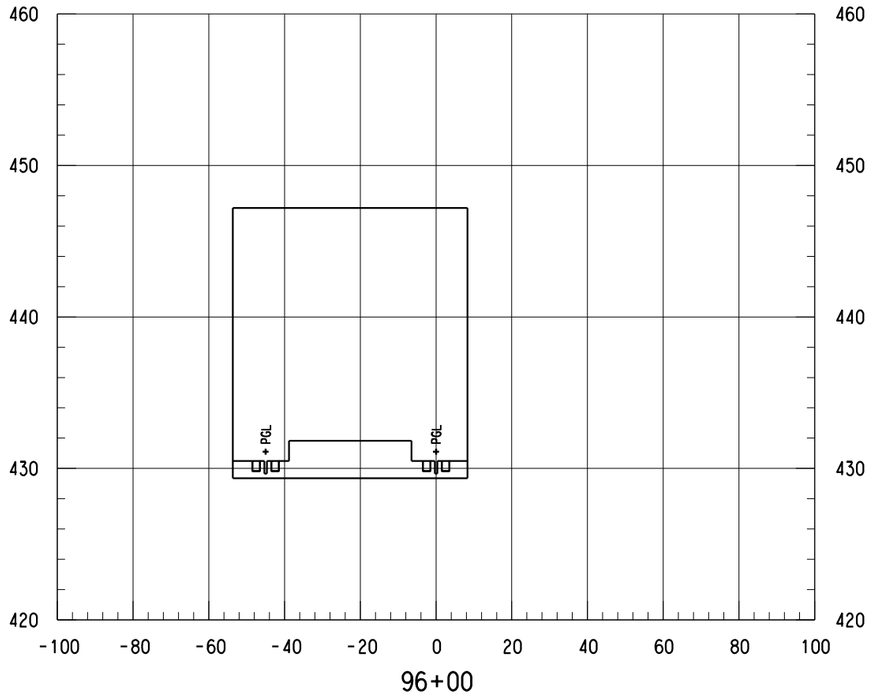
Monday, October 26, 2020 10:19:38 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

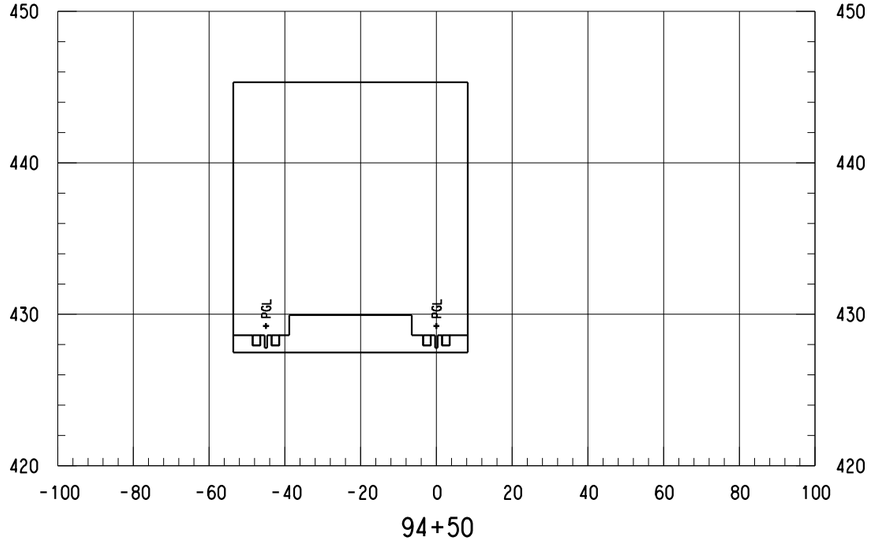
LGUBLO
Default

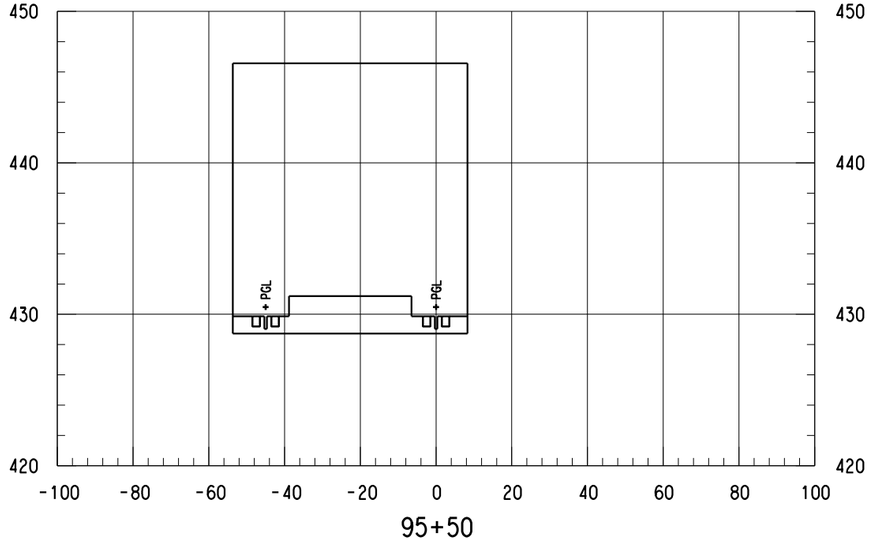
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0052









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 115 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 94+50.00 TO STA 96+00.00

CONTRACT	DWG No.	REV
	CC8-0052	

LGUBLO
Default

Monday, October 26, 2020 10:19:39 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

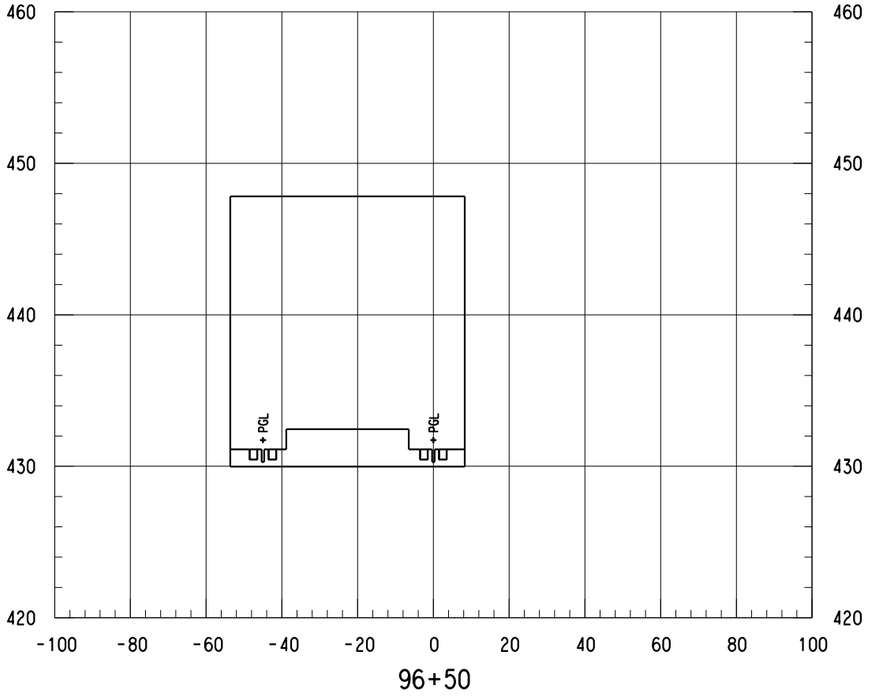
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0053

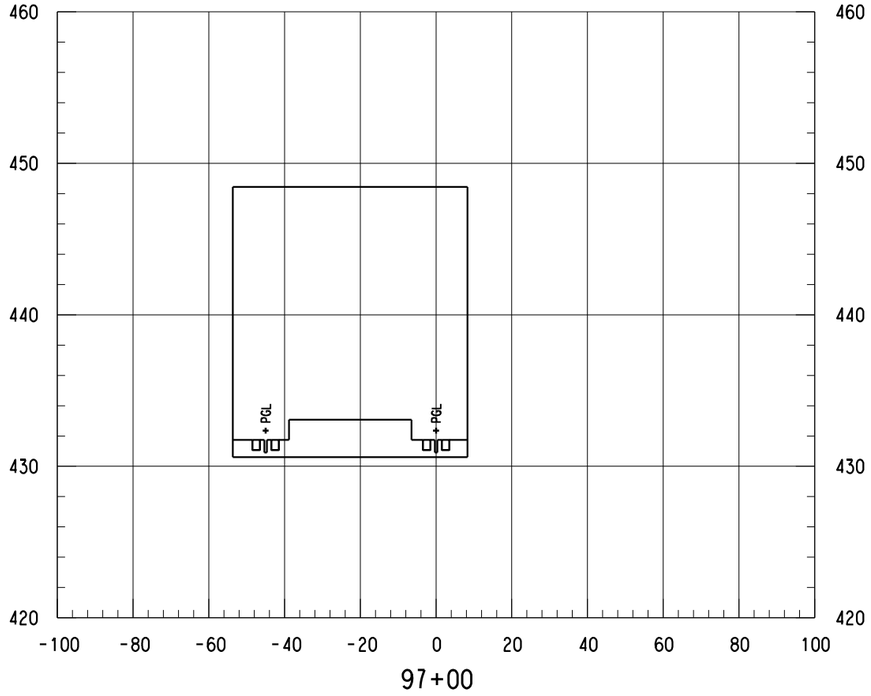
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



96+50



97+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 116 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 96+50.00 TO STA 97+00.00

CONTRACT	DWG No.	REV
	CC8-0053	

Monday, October 26, 2020 10:19:39 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

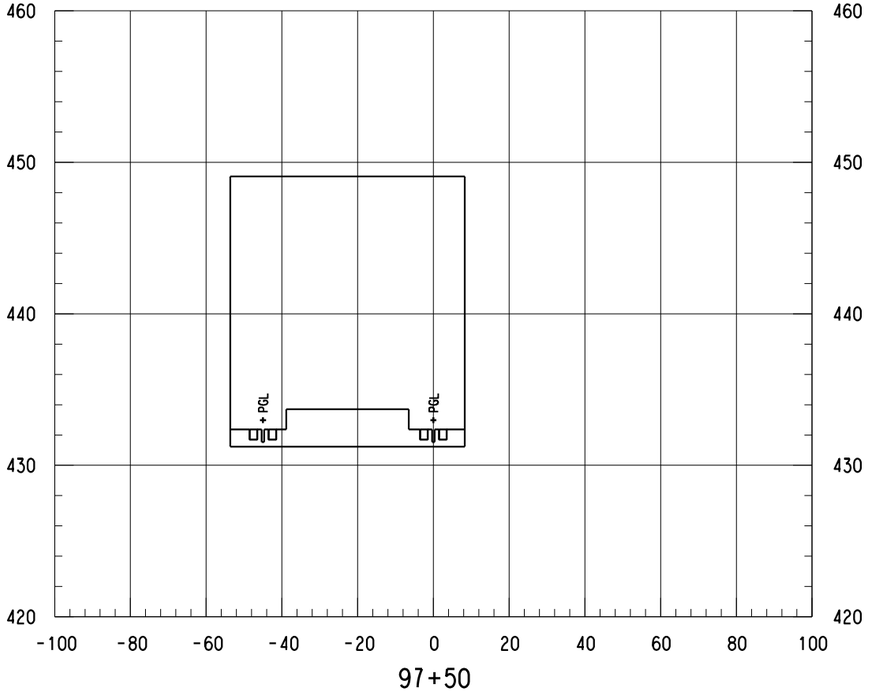
Monday, October 26, 2020 10:19:40 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0054

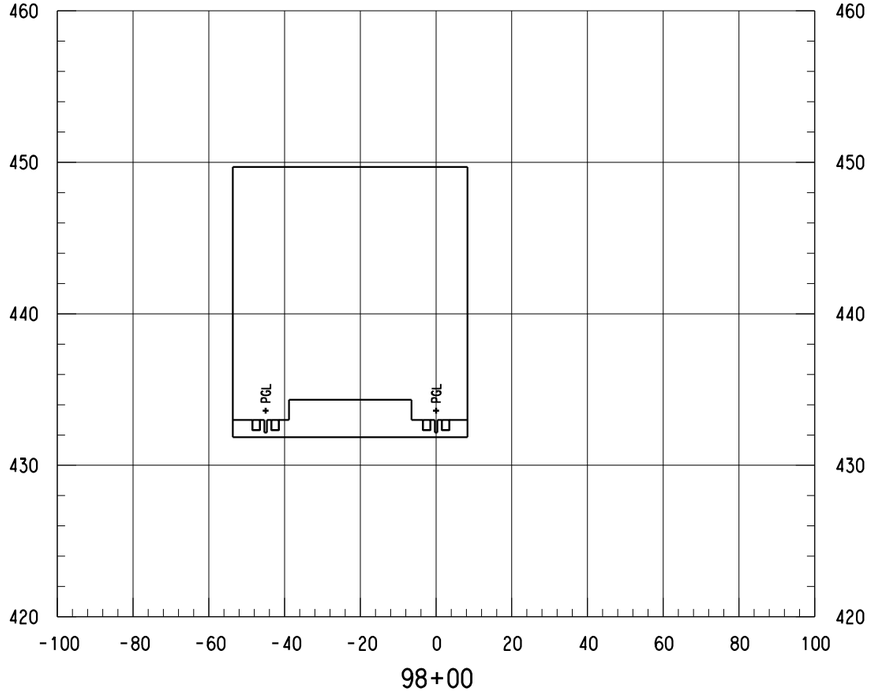
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



97+50



98+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 117 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

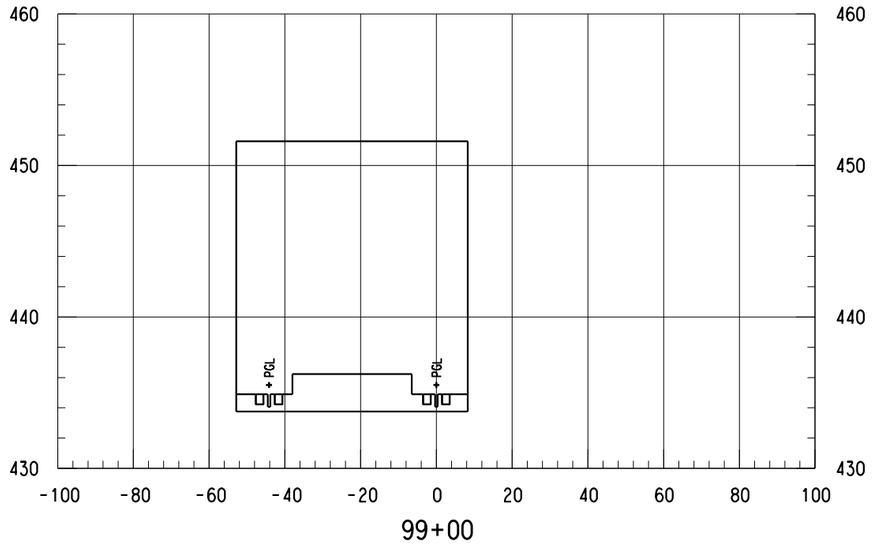
CBD-2
GUIDEWAY CROSS SECTIONS
STA 97+50.00 TO STA 98+00.00

CONTRACT	DWG No.	REV
	CC8-0054	

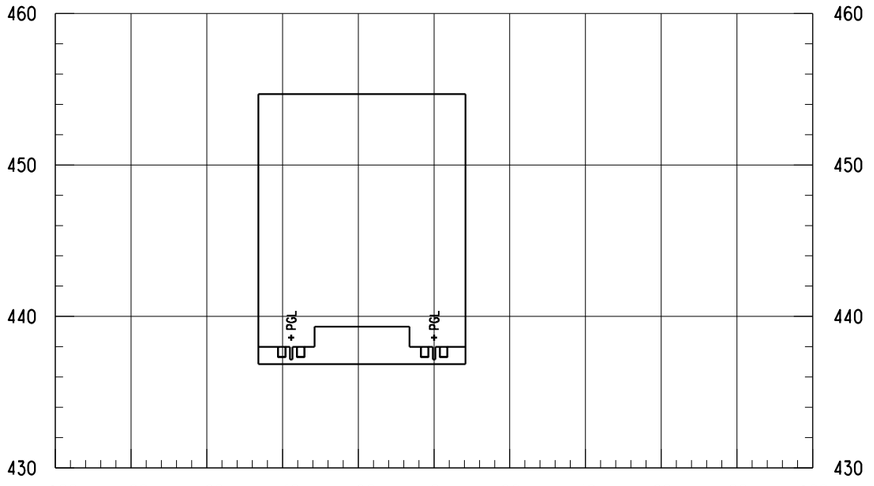
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

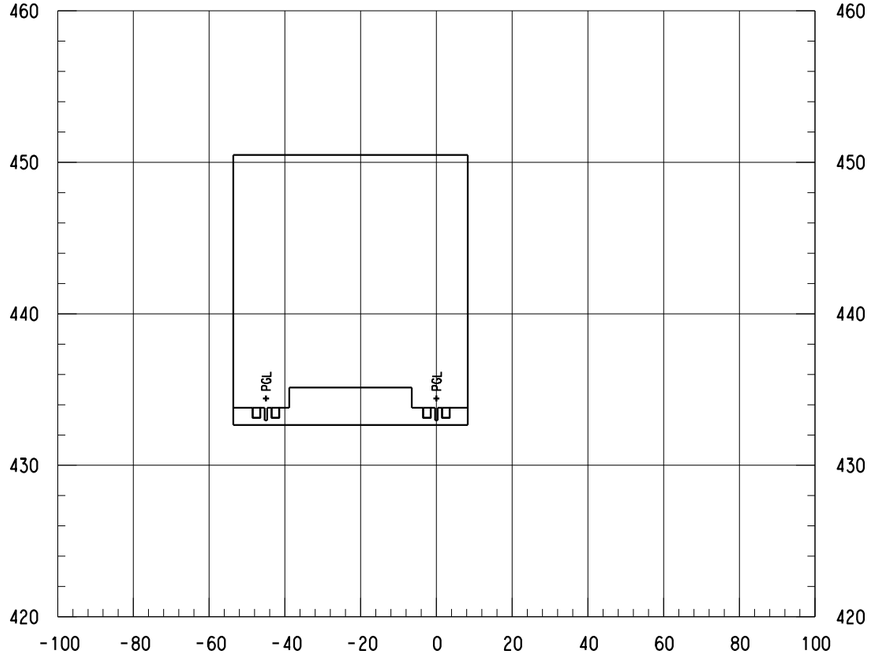
DWG No. CC8-0055



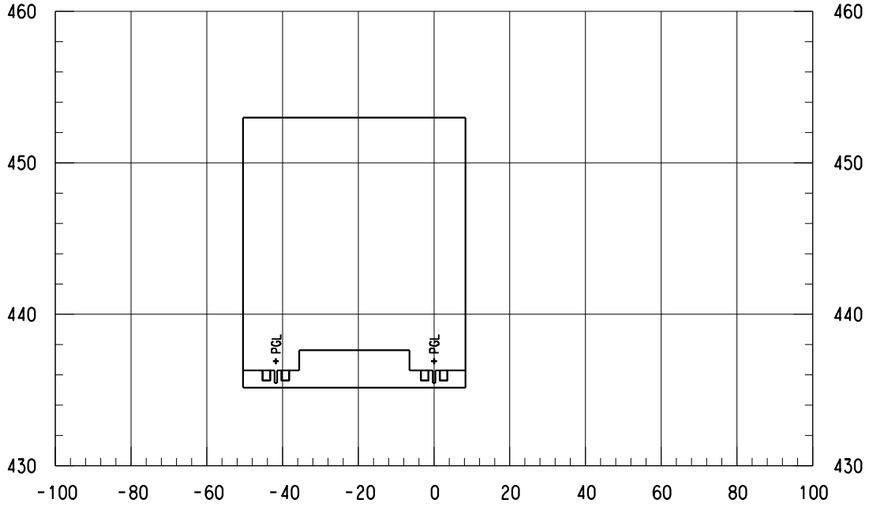
99+00



100+00



98+50



99+50

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 118 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 98+50.00 TO STA 100+00.00

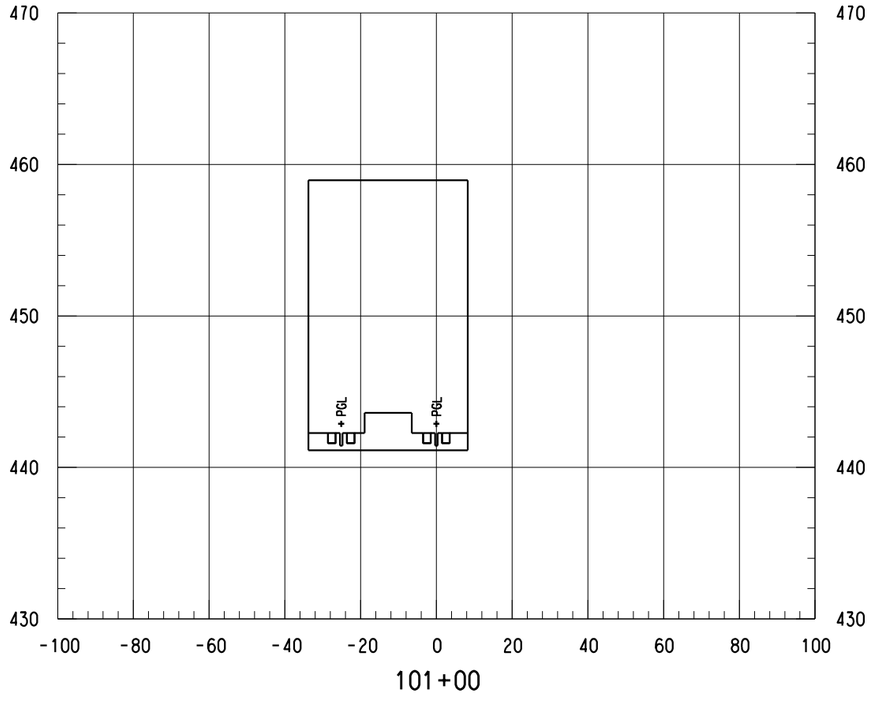
CONTRACT	DWG No.	REV
	CC8-0055	

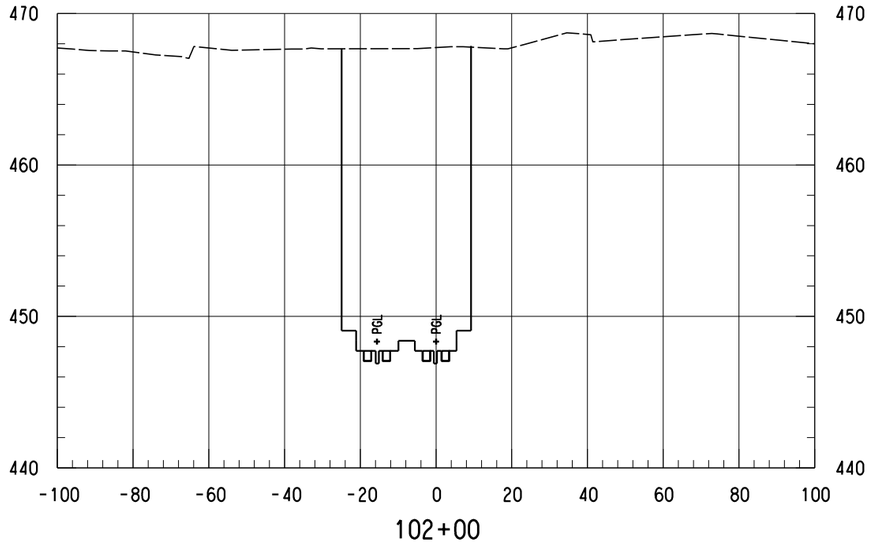
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

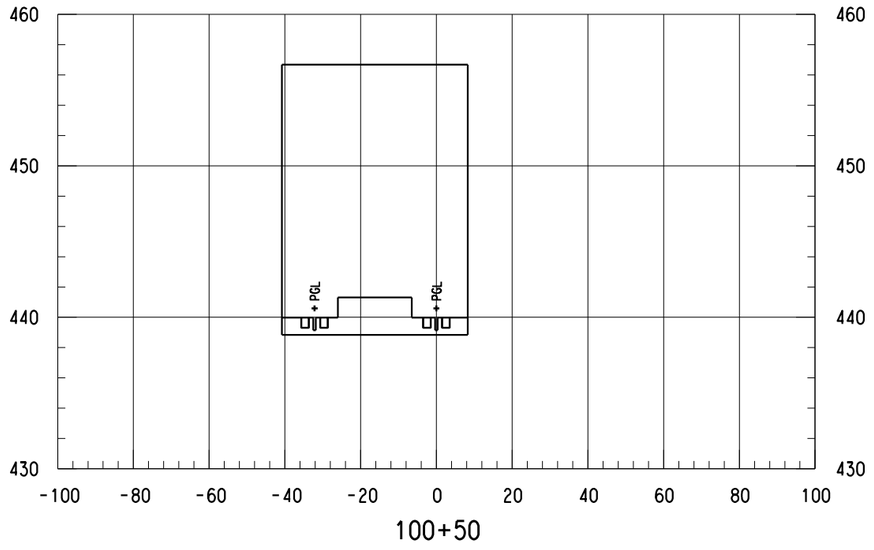
Monday, October 26, 2020 10:19:40 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

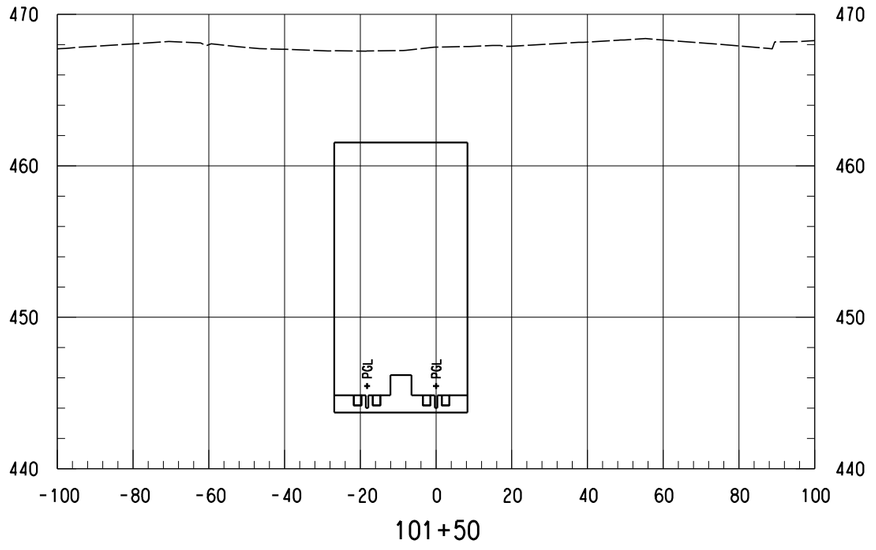
LGUBLO
Default

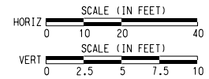
DWG No. CC8-0056











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 119 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

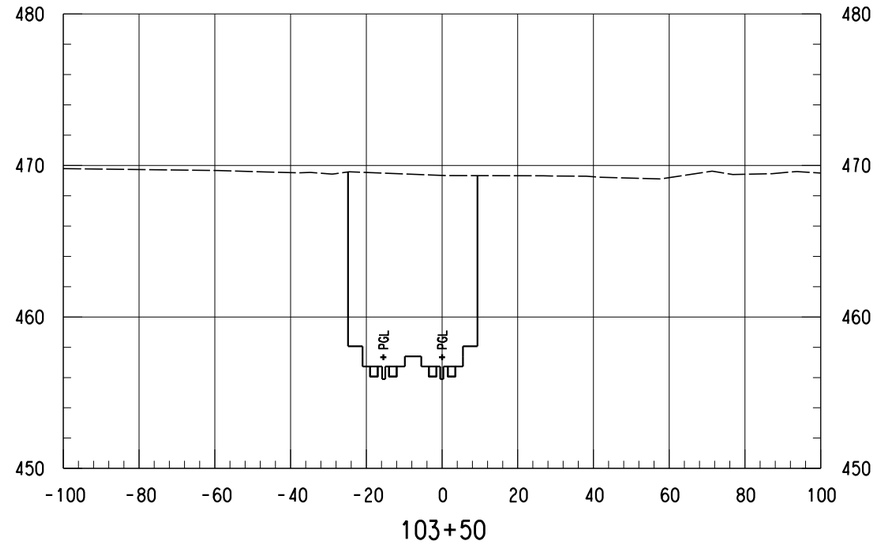
CONTRACT	DWG No.	REV
	CC8-0056	

Monday, October 26, 2020 10:19:41 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

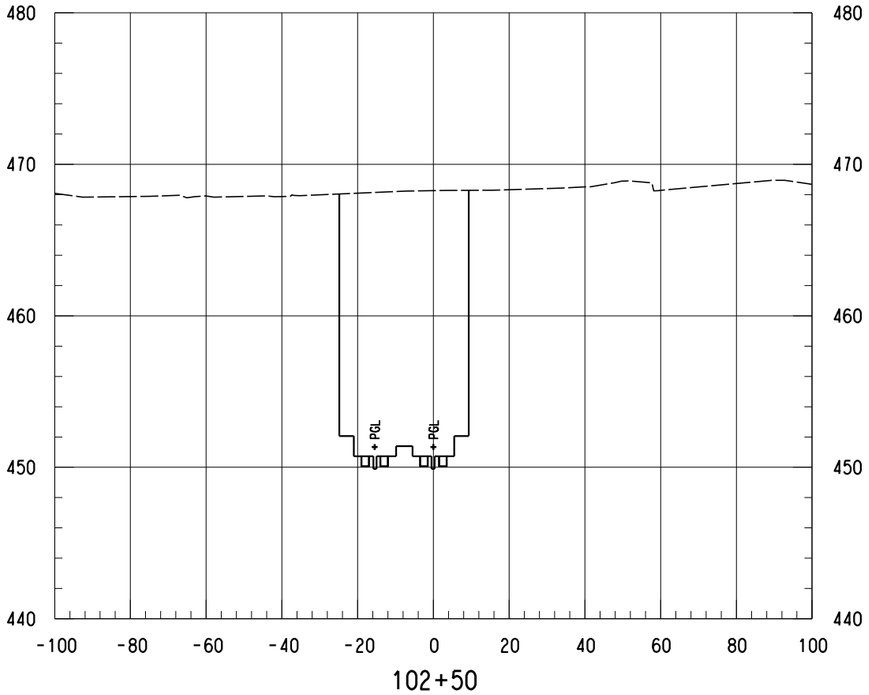
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

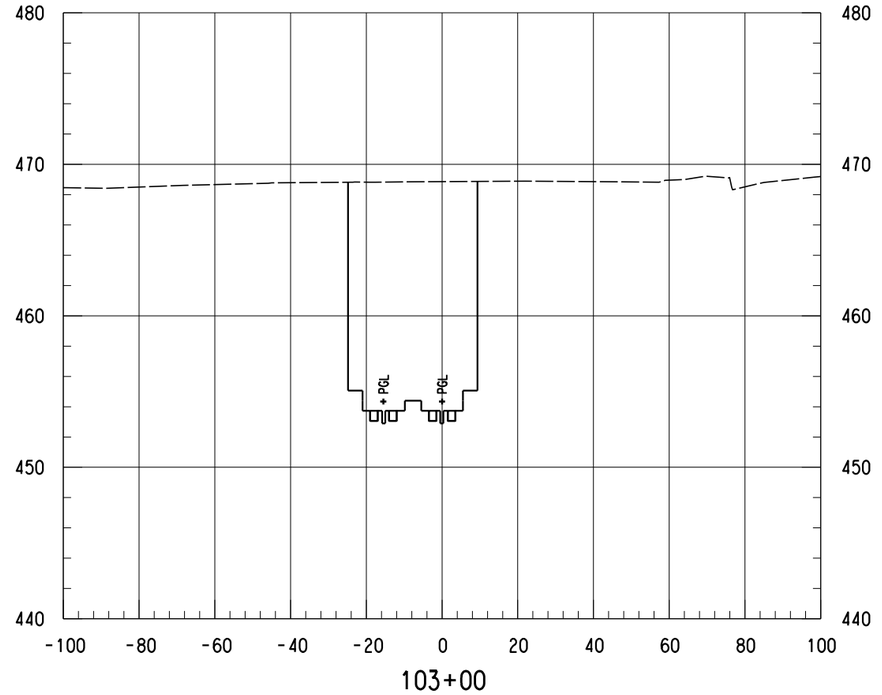
DWG No. CC8-0057



103+50



102+50



103+00

SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 120 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 102+50.00 TO STA 103+50.00

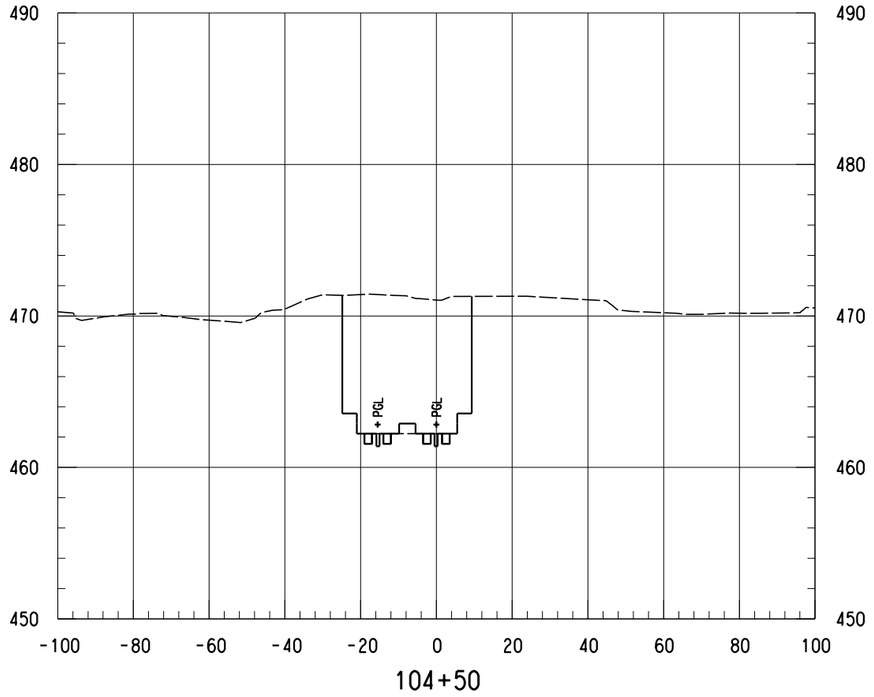
CONTRACT	DWG No.	REV
	CC8-0057	

Monday, October 26, 2020 10:19:41 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

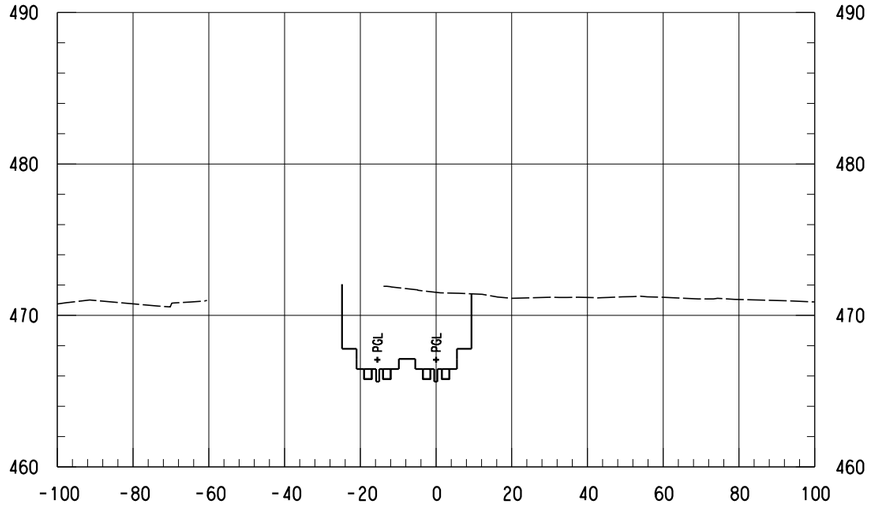
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0058



104+50

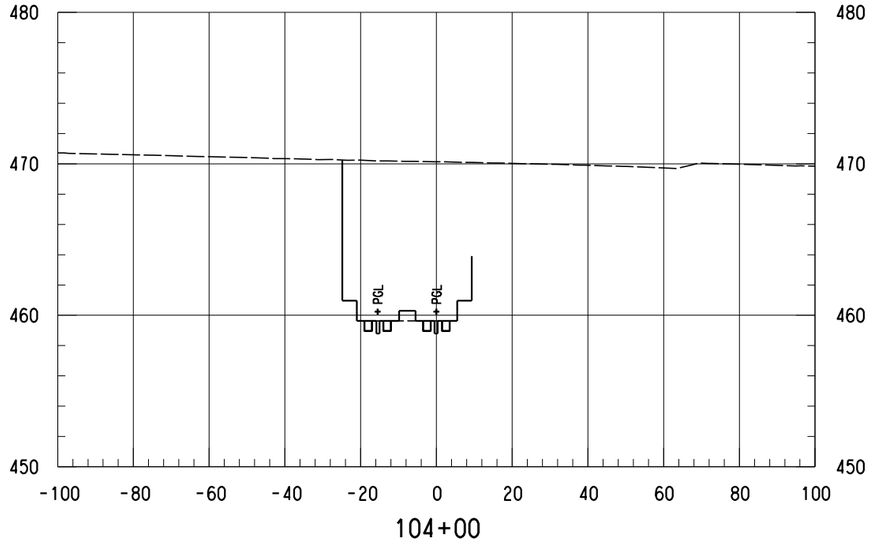


105+50

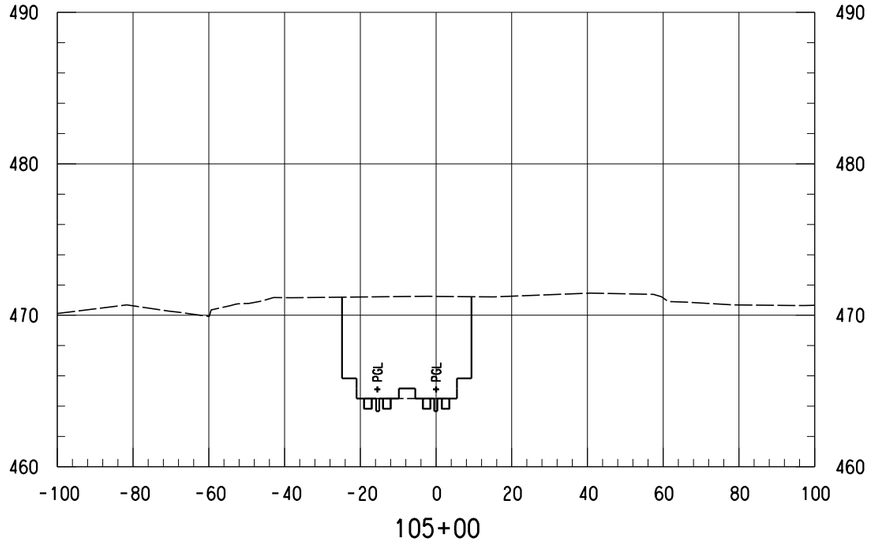
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



104+00



105+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 121 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 104+00.00 TO STA 105+50.00

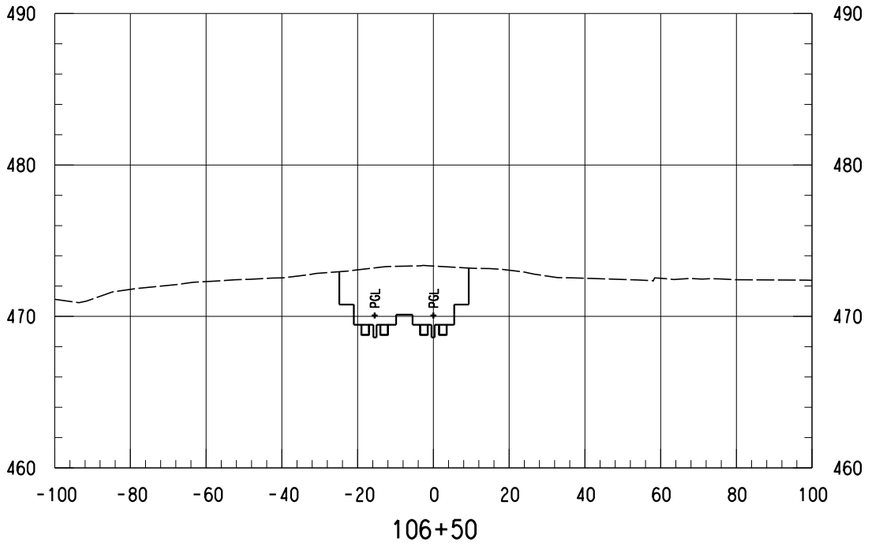
CONTRACT	DWG No.	REV
	CC8-0058	

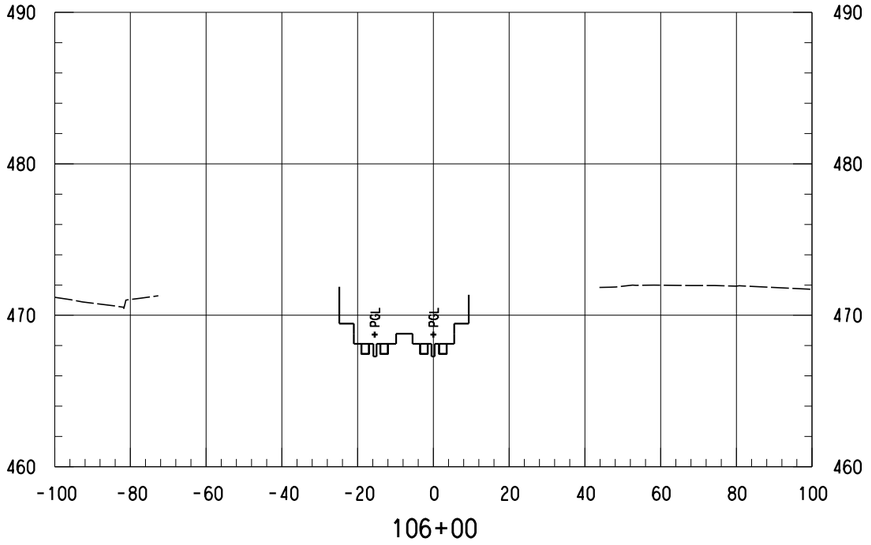
Monday, October 26, 2020 10:19:42 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

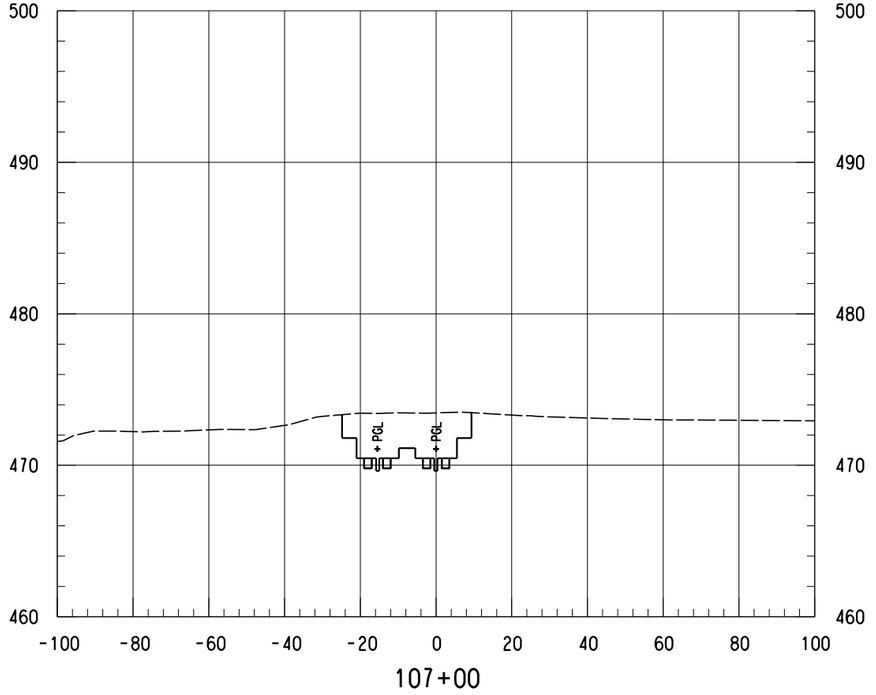
LGUBLO
Default

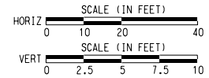
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0059









NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 122 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

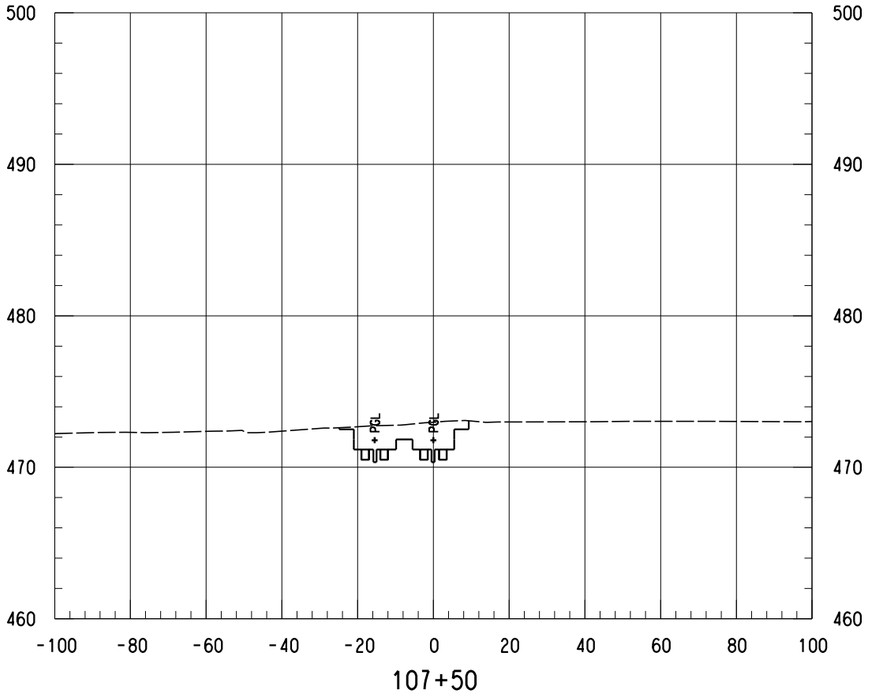
CBD-2
GUIDEWAY CROSS SECTIONS
STA 106+00.00 TO STA 107+00.00

CONTRACT	DWG No.	REV
	CC8-0059	

Monday, October 26, 2020 10:19:42 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

DWG No. CC8-0060



SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 123 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 107+50.00

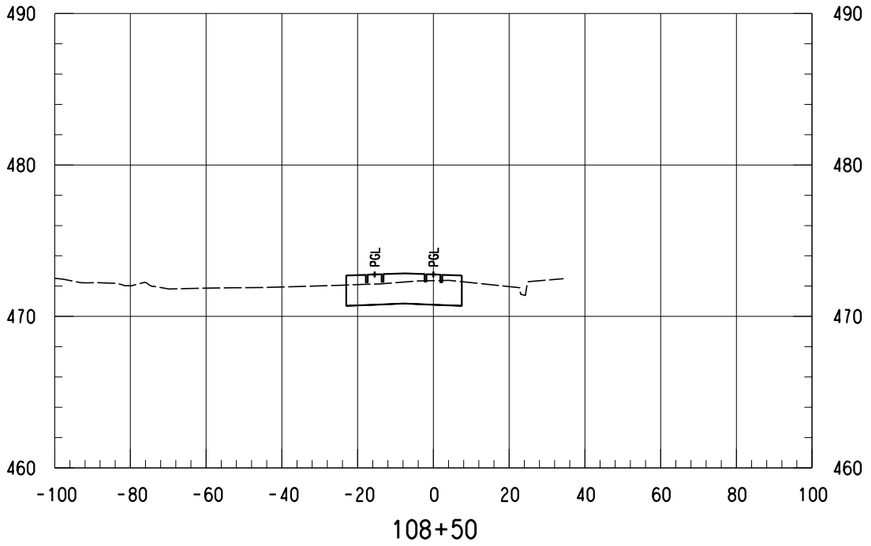
CONTRACT	DWG No.	REV
	CC8-0060	

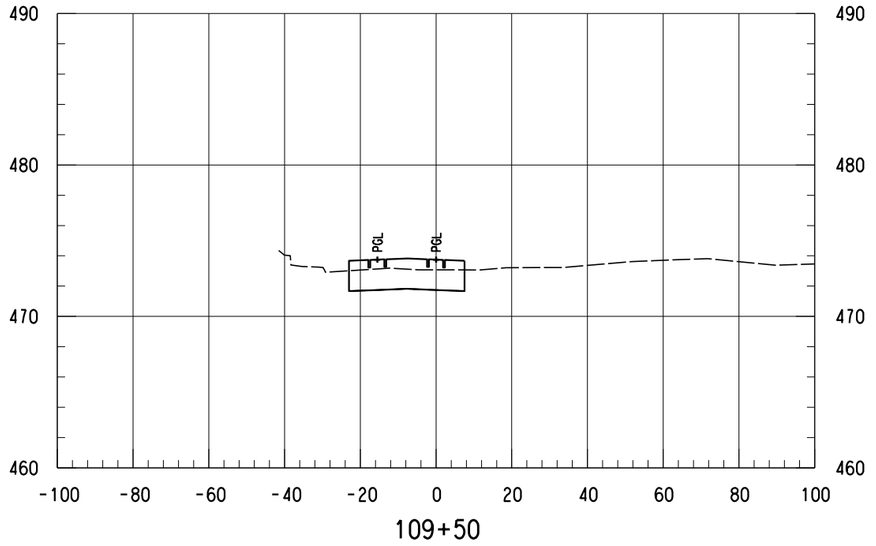
Monday, October 26, 2020 10:19:43 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

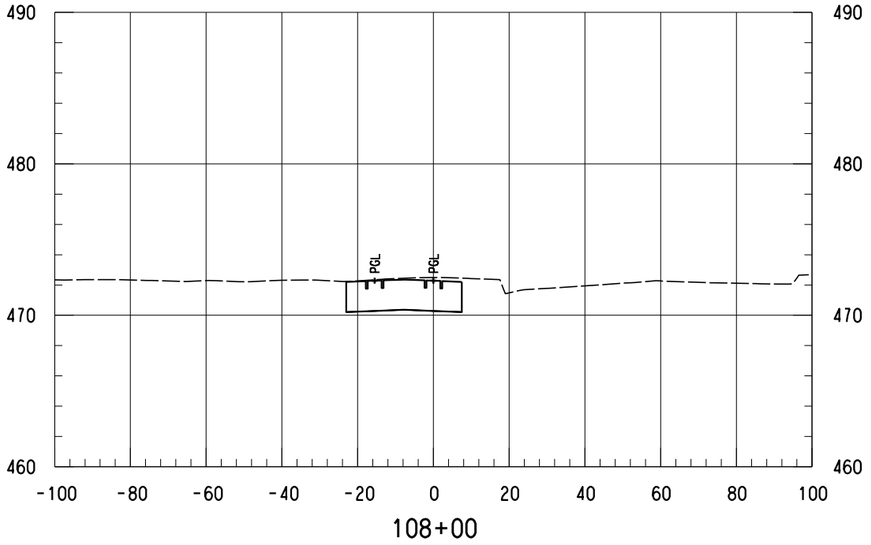
LGUBLO
Default

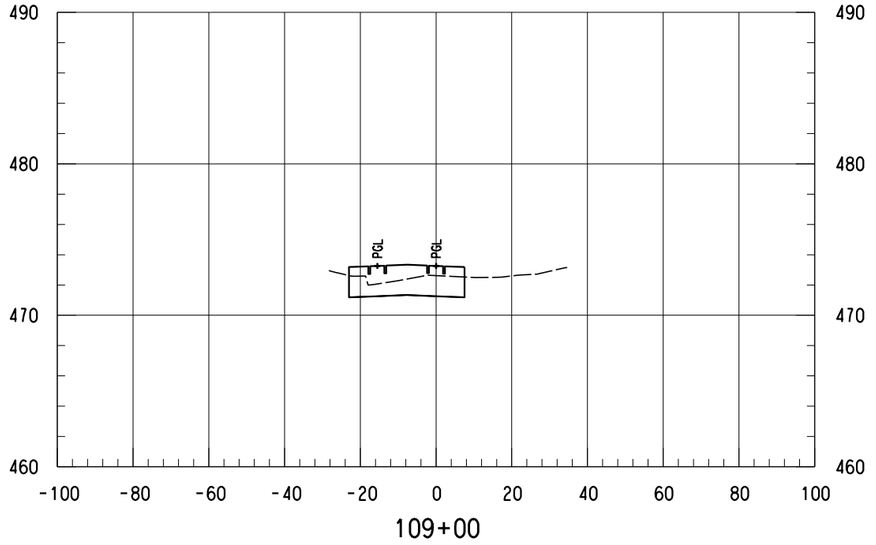
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

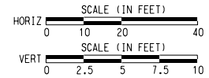
DWG No. CC8-0061











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 124 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 108+00.00 TO STA 109+50.00

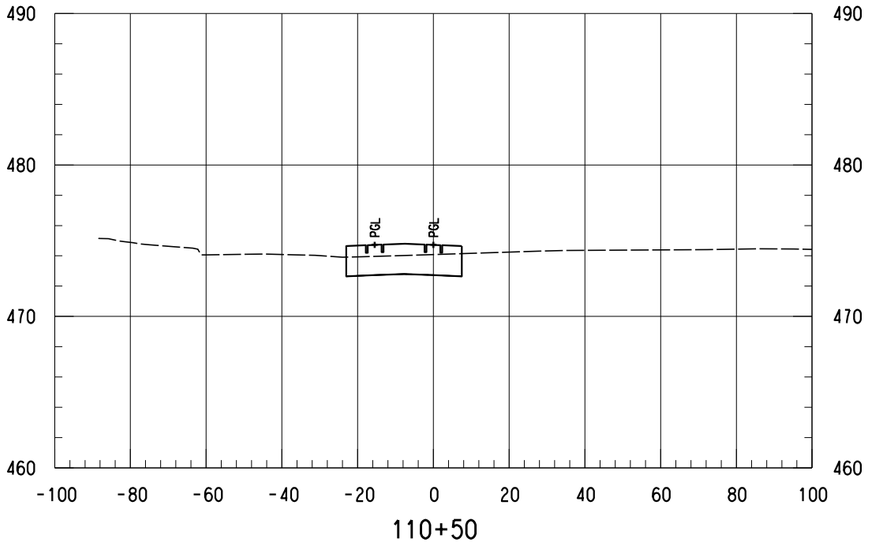
CONTRACT	DWG No.	REV
	CC8-0061	

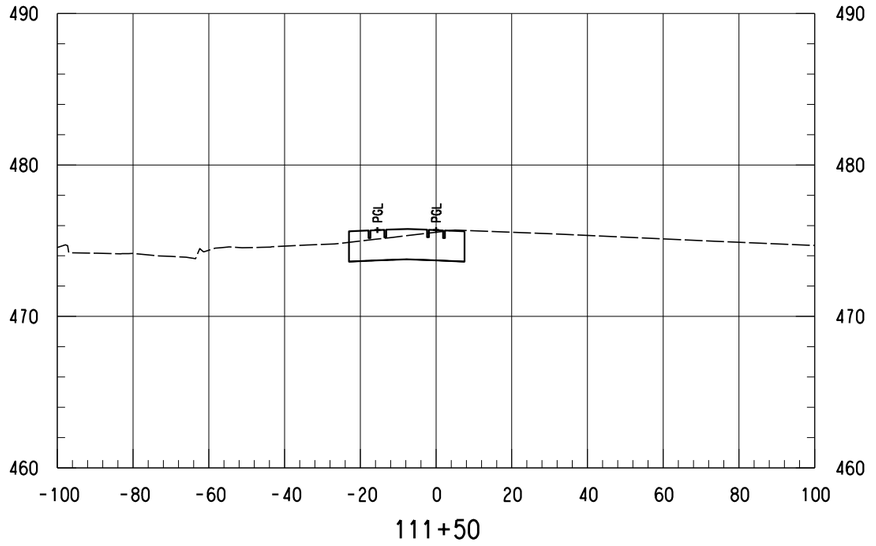
LGUBLO
Default

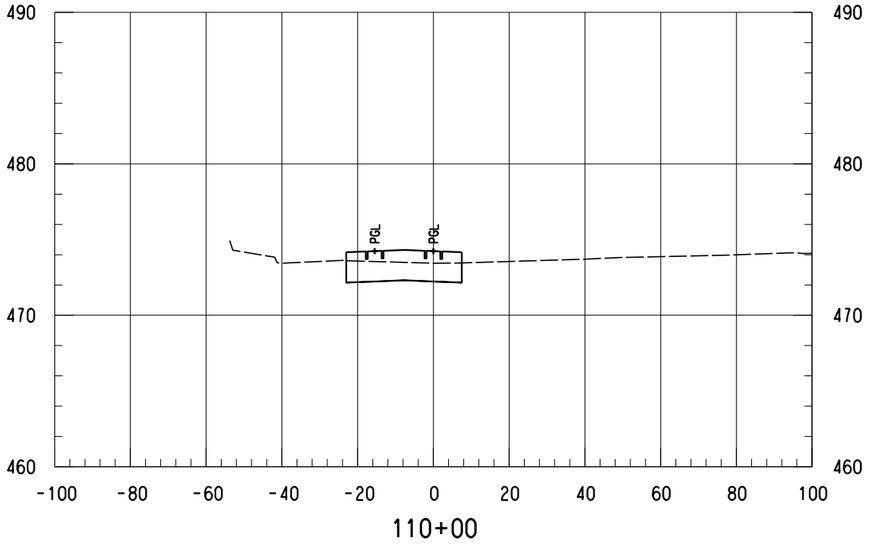
Monday, October 26, 2020 10:19:43 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

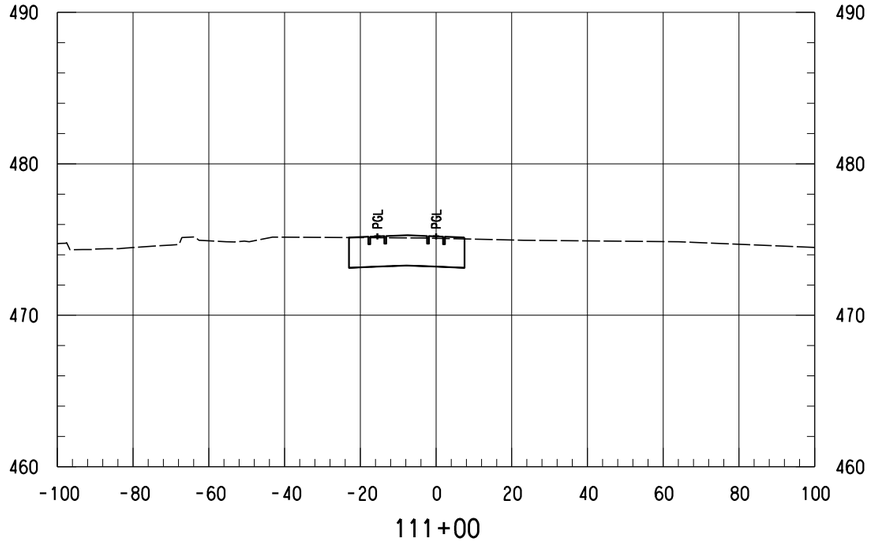
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

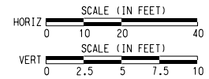
DWG No. CC8-0062











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 125 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 110+00.00 TO STA 111+50.00

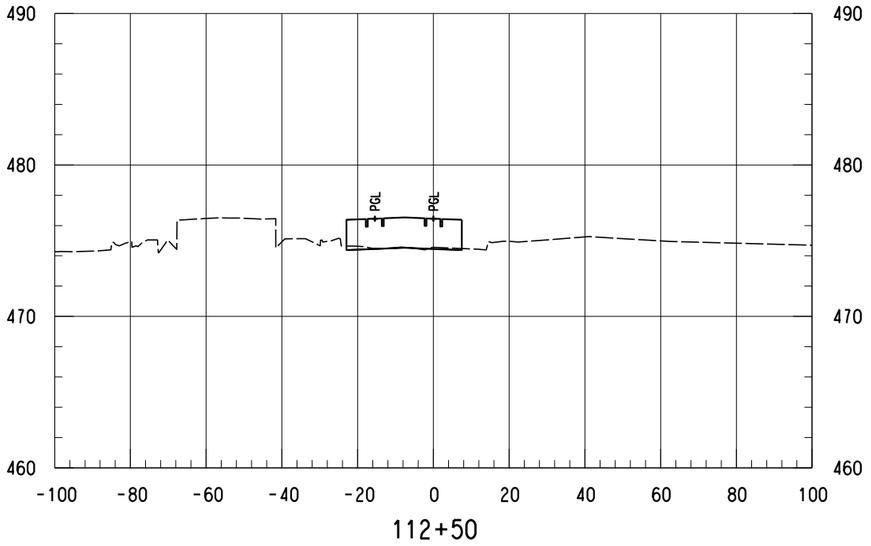
CONTRACT	DWG No.	REV
	CC8-0062	

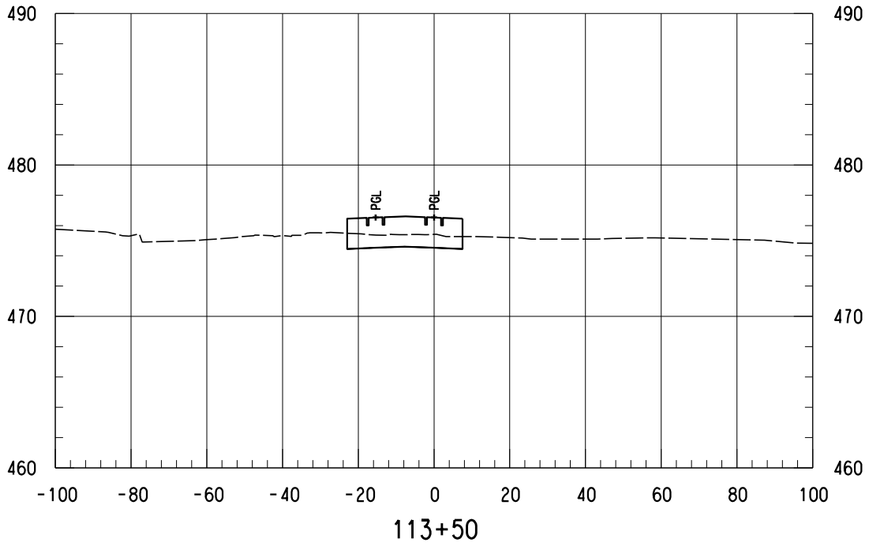
Monday, October 26, 2020 10:19:44 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

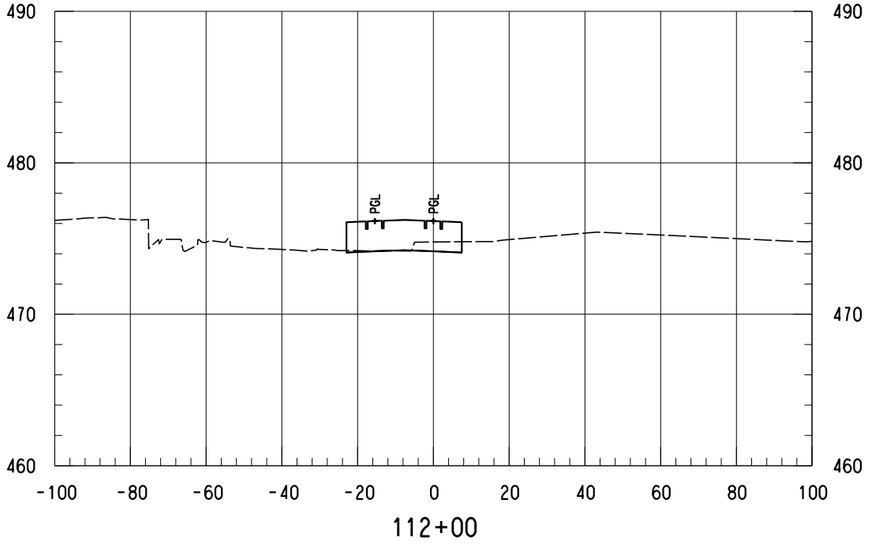
LGUBLO
Default

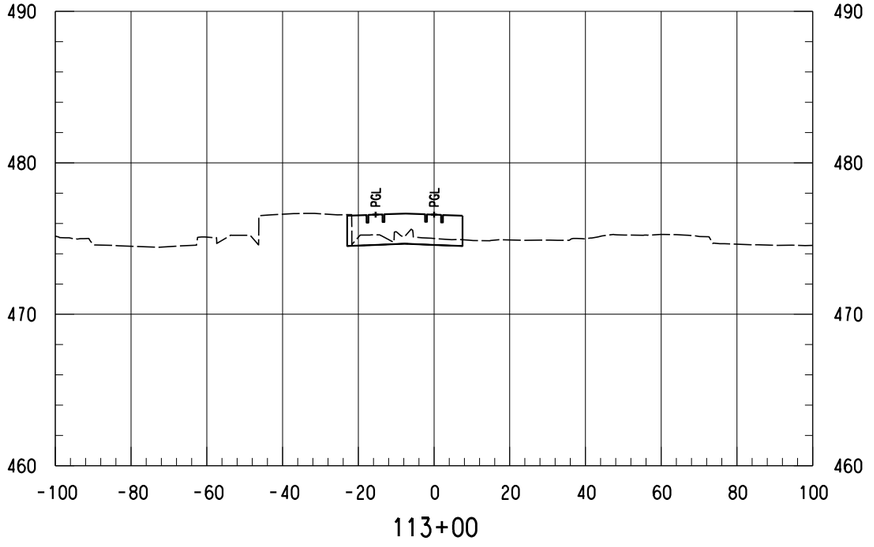
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0063









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 126 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

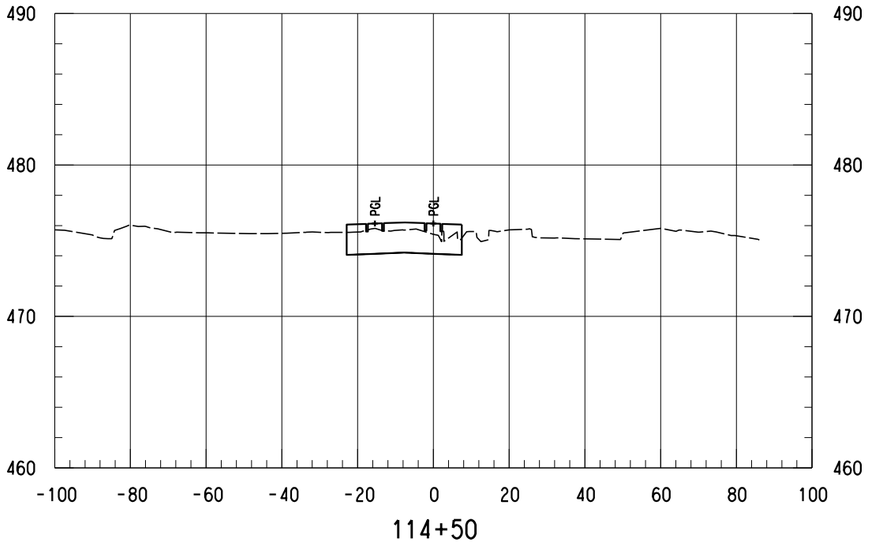
CBD-2
GUIDEWAY CROSS SECTIONS
STA 112+00.00 TO STA 113+50.00

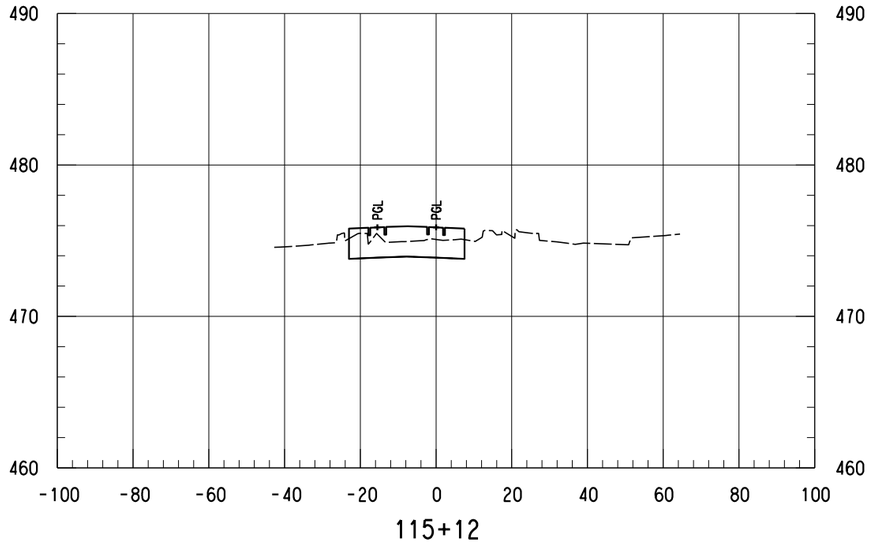
CONTRACT	DWG No.	REV
	CC8-0063	

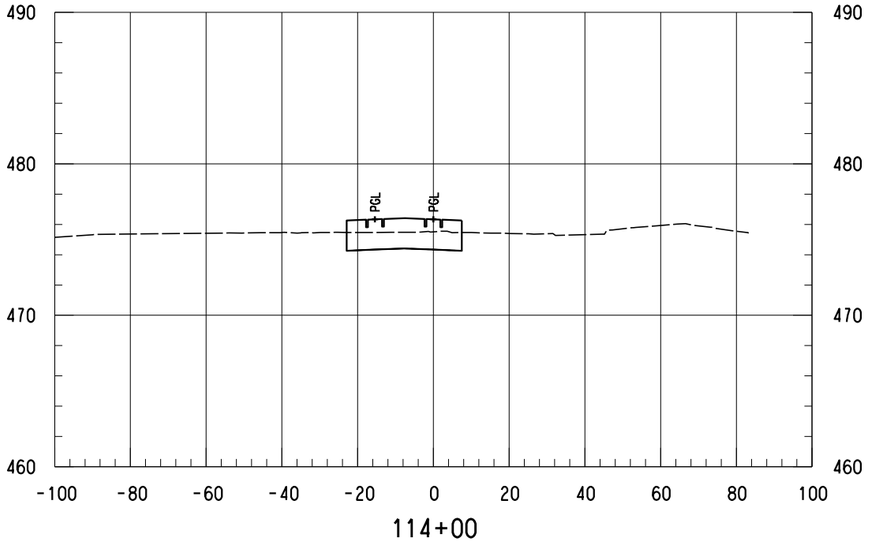
Monday, October 26, 2020 10:19:44 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

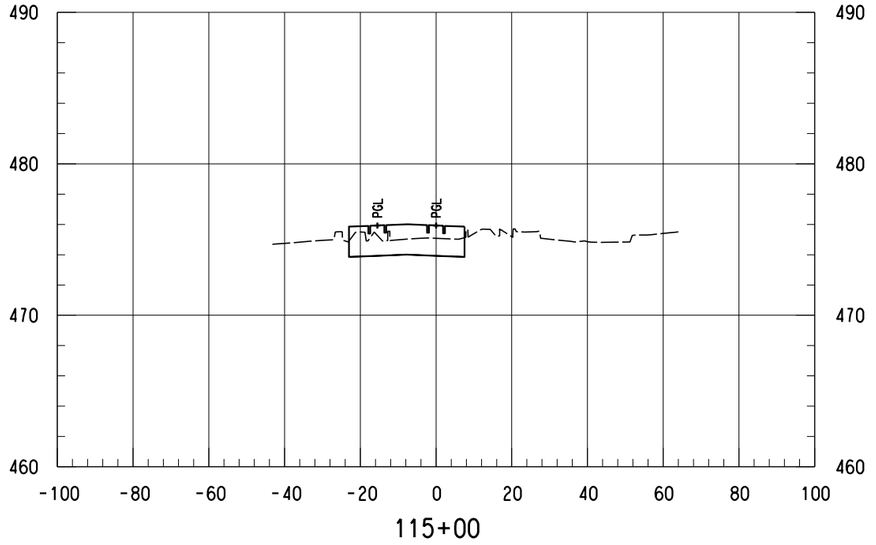
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 127 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

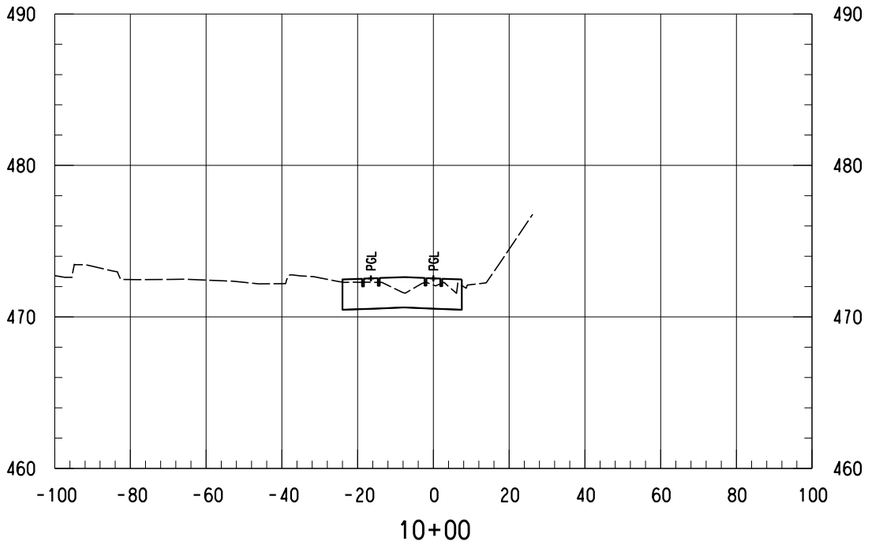
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 114+00.00 TO STA 115+12.00

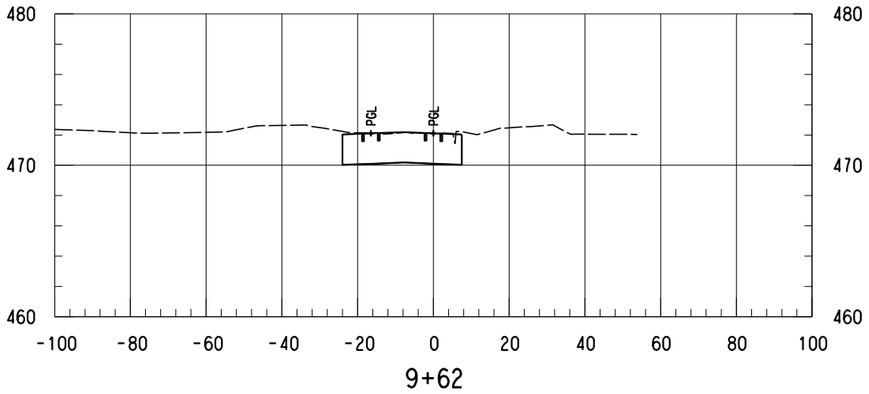
CONTRACT	DWG No.	REV
	CC8-0064	

Monday, October 26, 2020 10:19:45 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

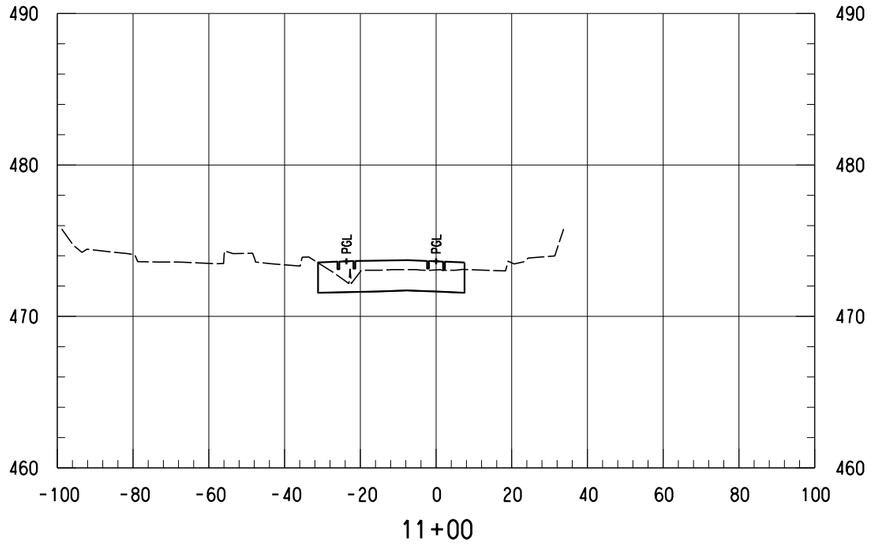
DWG No. CC8-0065



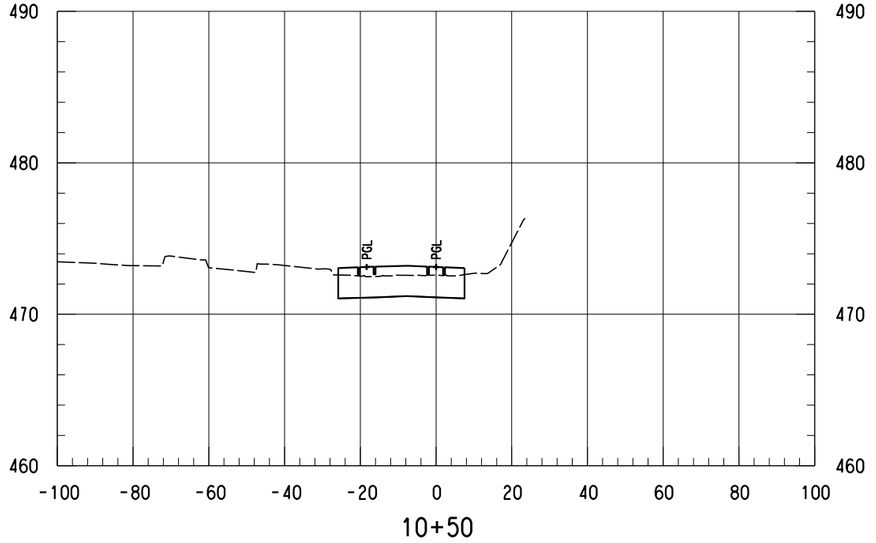
10+00



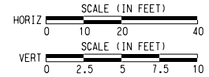
9+62



11+00



10+50



NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 128 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

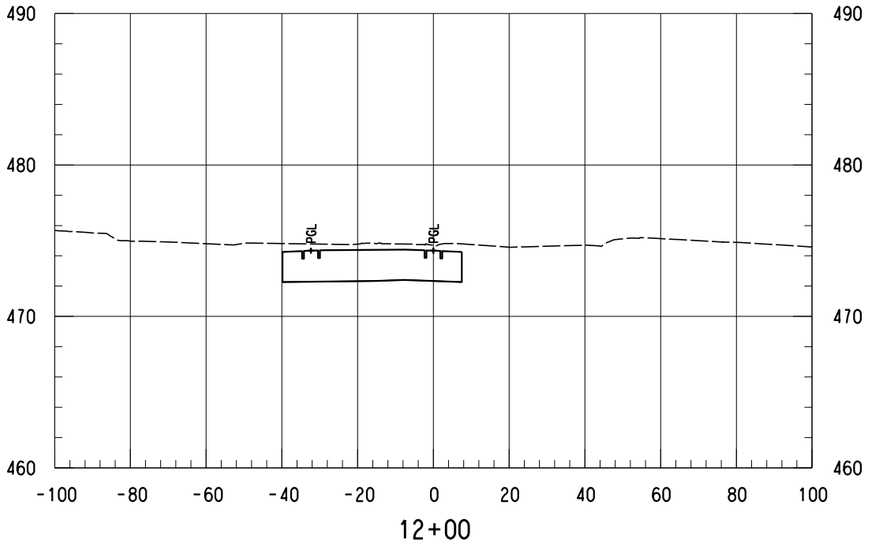
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1
GUIDEWAY CROSS SECTIONS
STA 9+62.00 TO STA 11+00.00

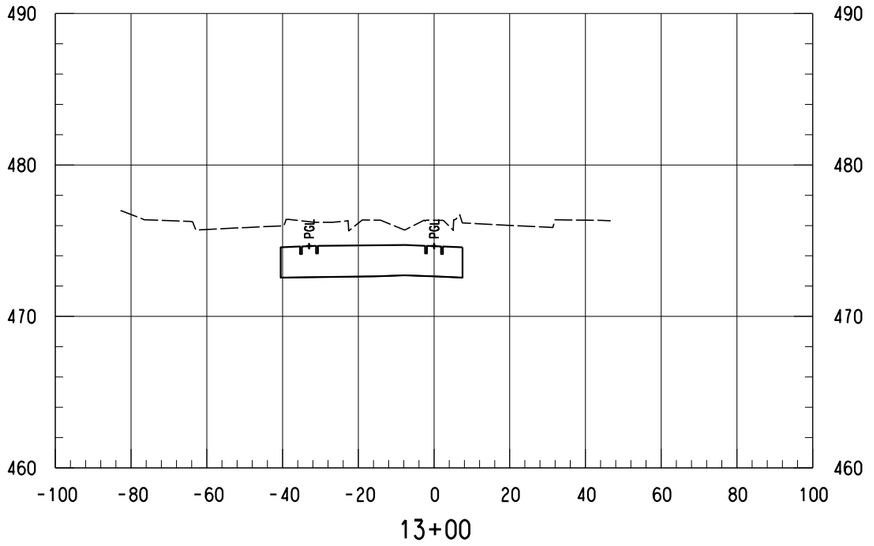
CONTRACT	DWG No.	REV
	CC8-0065	

Monday, October 26, 2020 10:19:45 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

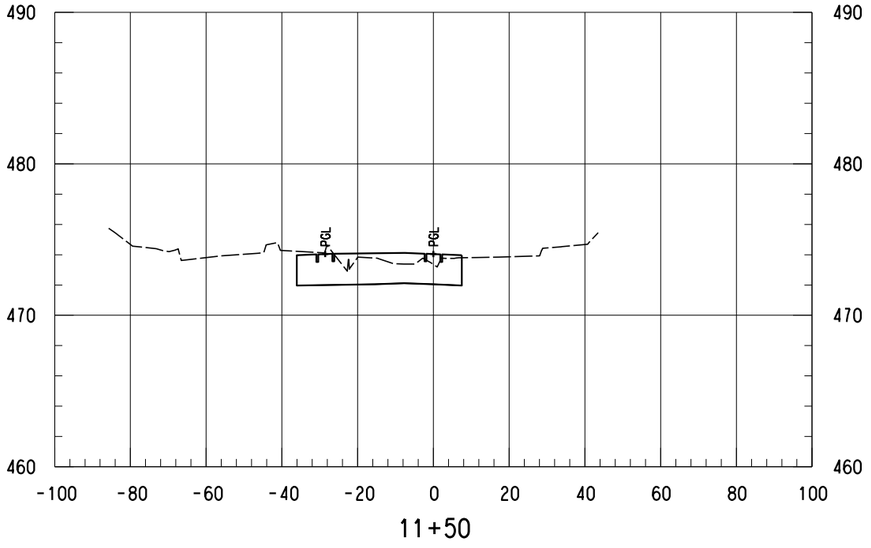
DWG No. CC8-0066



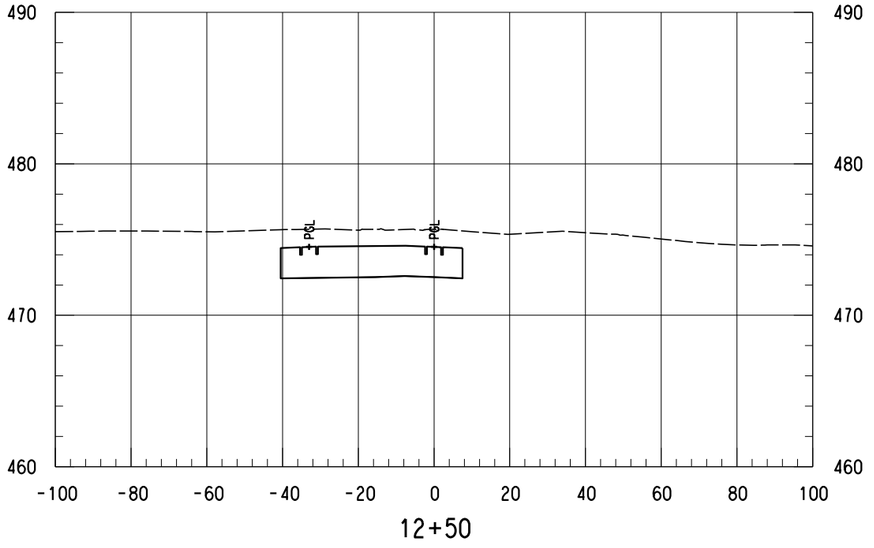
12+00



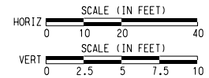
13+00



11+50



12+50



NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 129 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

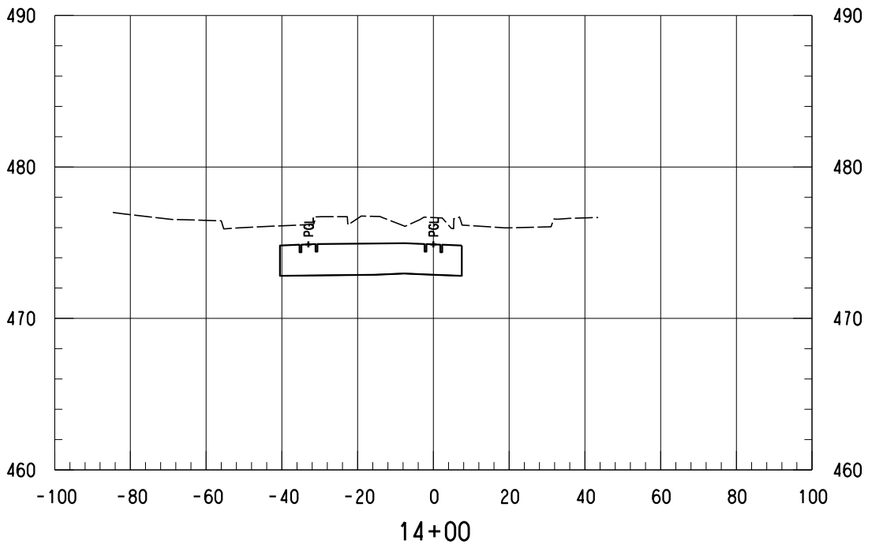
SE-1
GUIDEWAY CROSS SECTIONS
STA 11+50.00 TO STA 13+00.00

CONTRACT	DWG No.	REV
	CC8-0066	

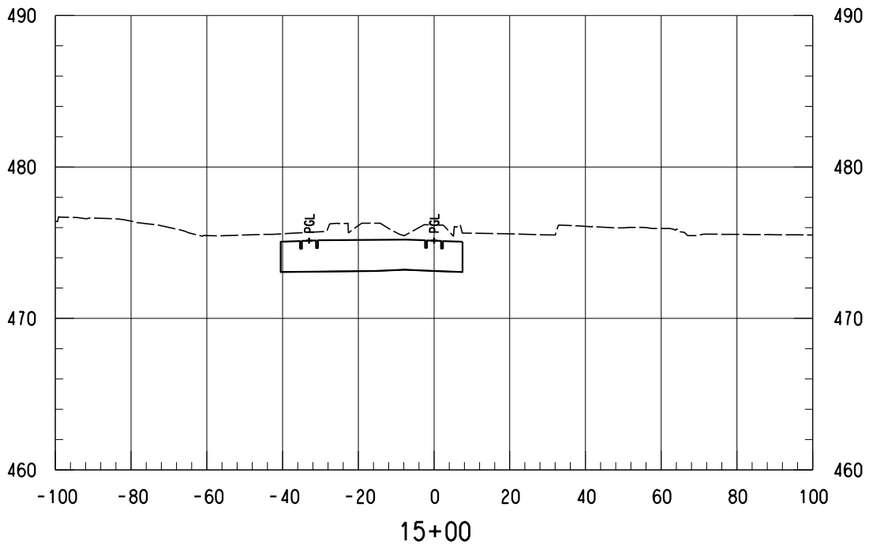
Monday, October 26, 2020 10:19:46 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

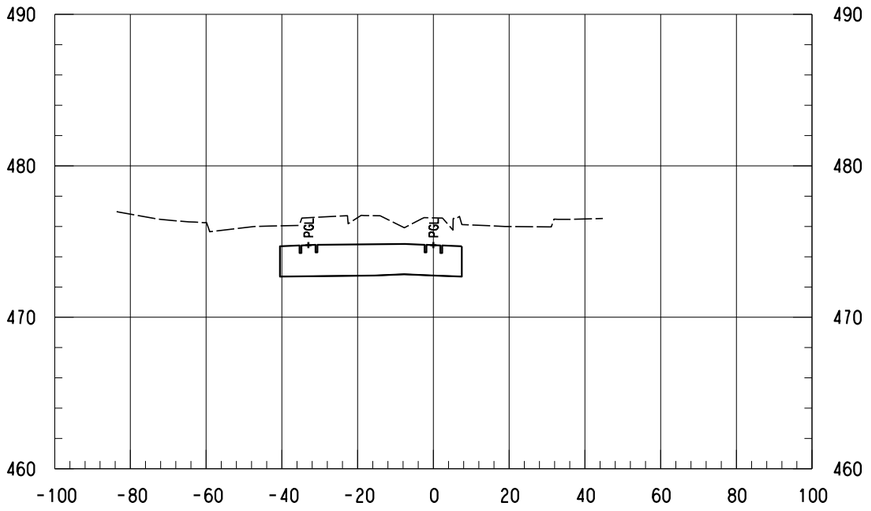
DWG No. CC8-0067



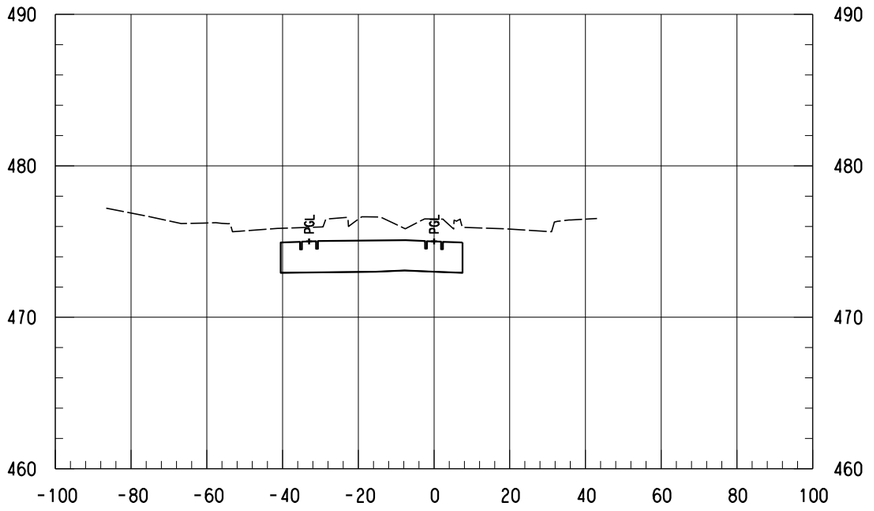
14+00



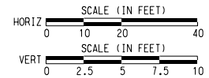
15+00



13+50



14+50



NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 130 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

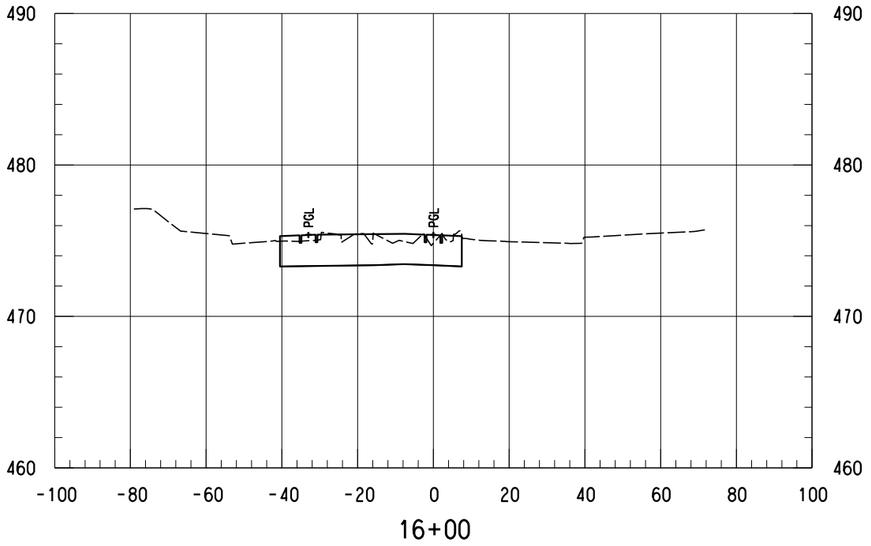
SE-1
GUIDEWAY CROSS SECTIONS
STA 13+50.00 TO STA 15+00.00

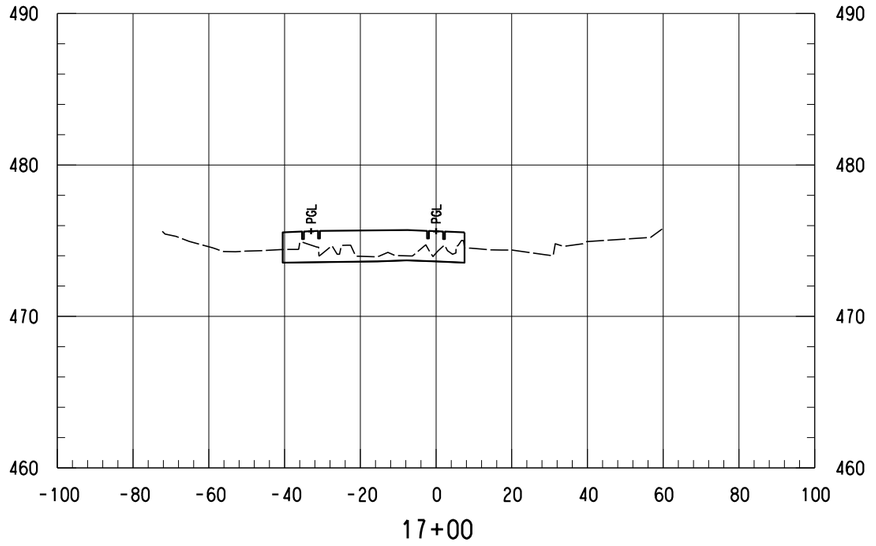
CONTRACT	DWG No.	REV
	CC8-0067	

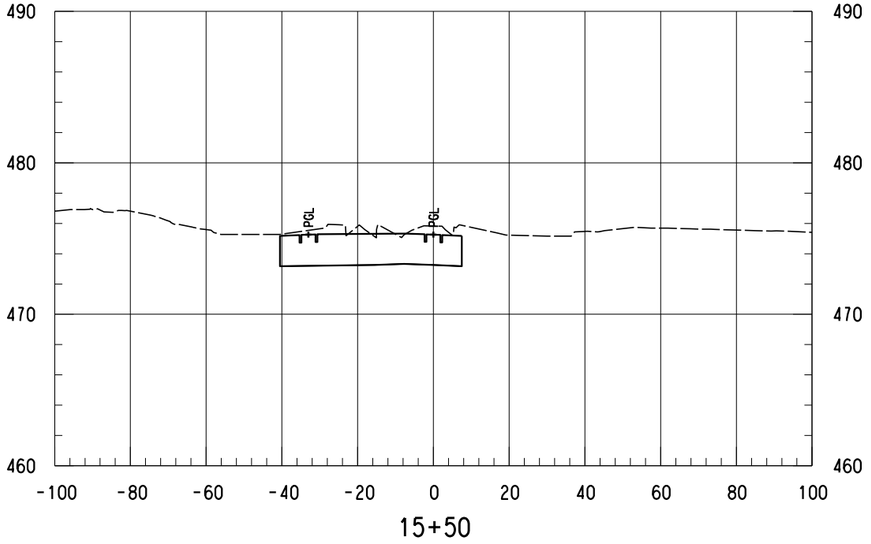
Monday, October 26, 2020 10:19:46 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

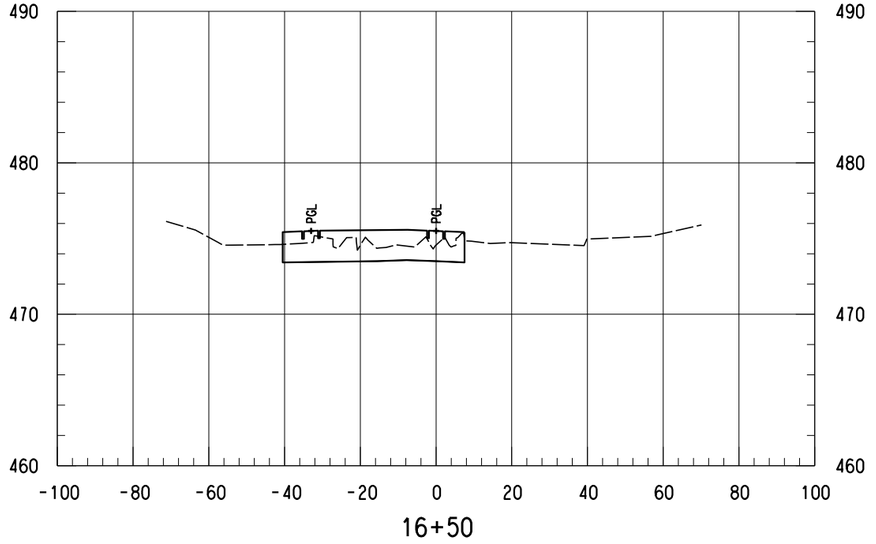
LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 131 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

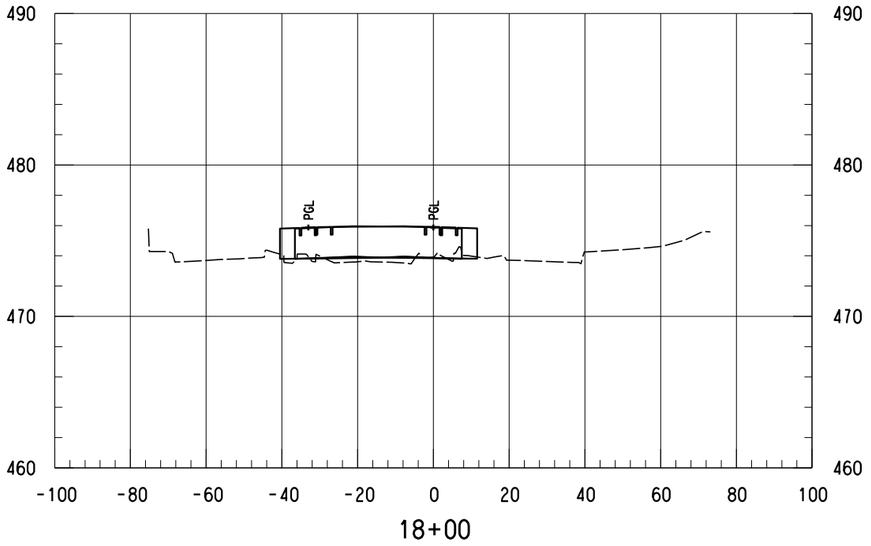
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

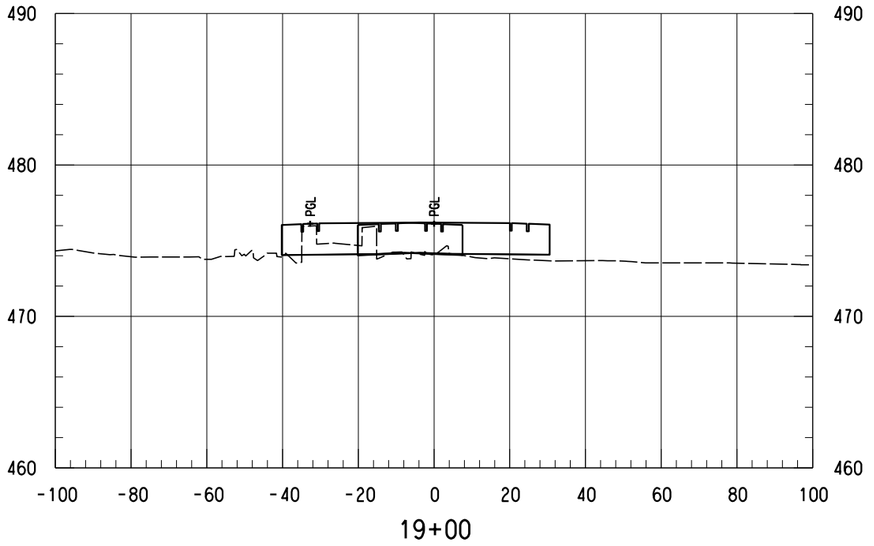
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1
GUIDEWAY CROSS SECTIONS
STA 15+50.00 TO STA 17+00.00

CONTRACT	DWG No.	REV
	CC8-0068	

Monday, October 26, 2020 10:19:47 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

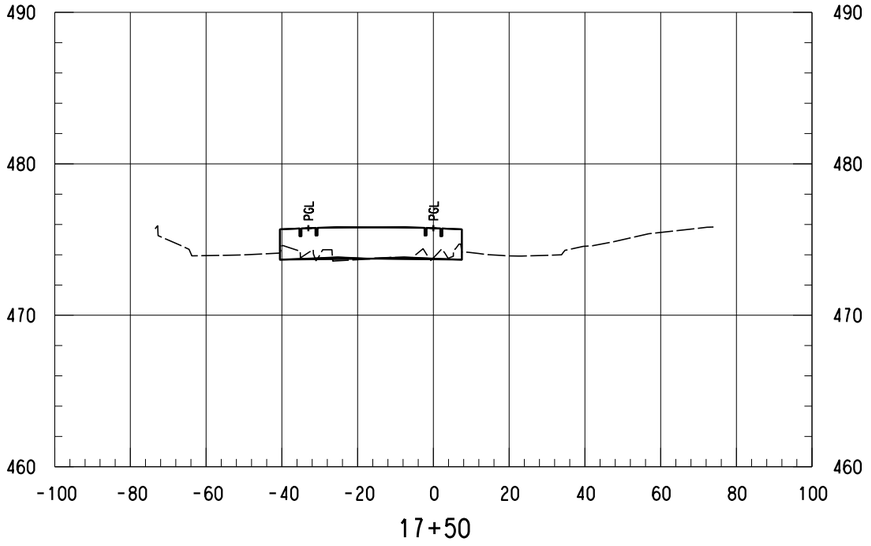


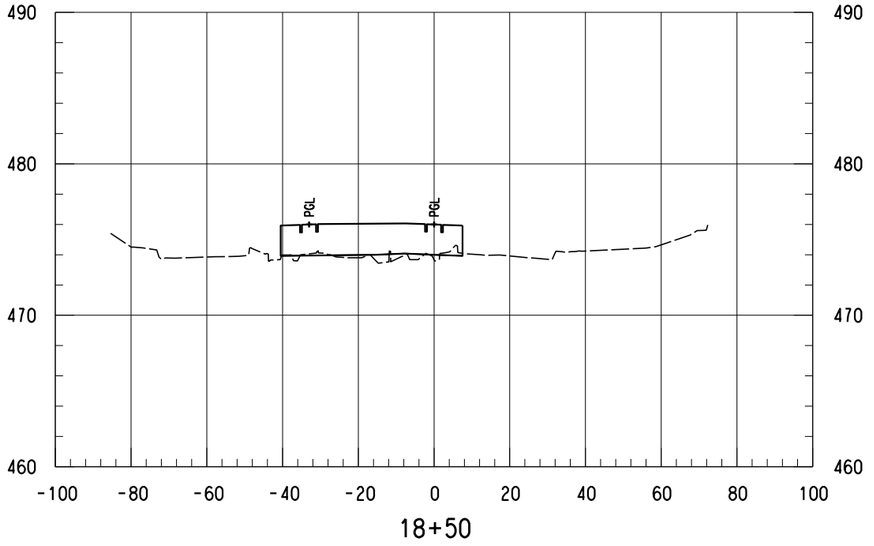


SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 132 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

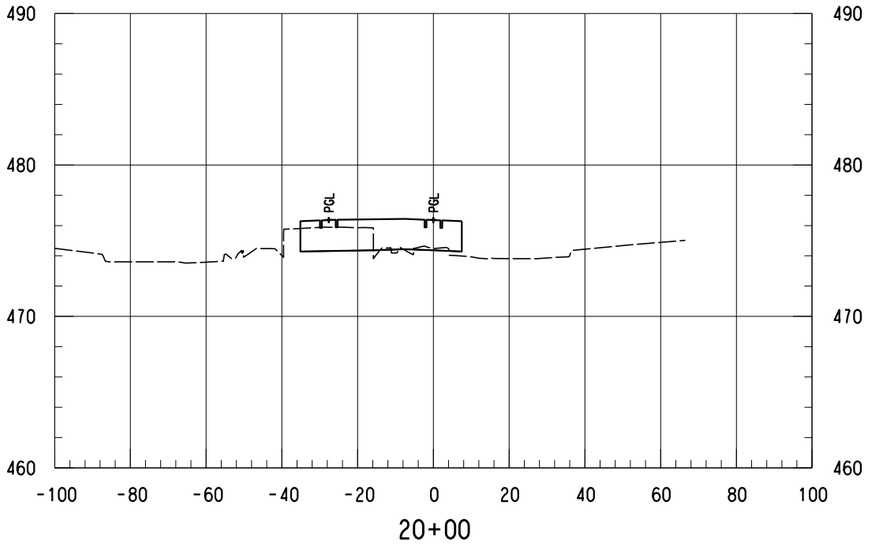
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

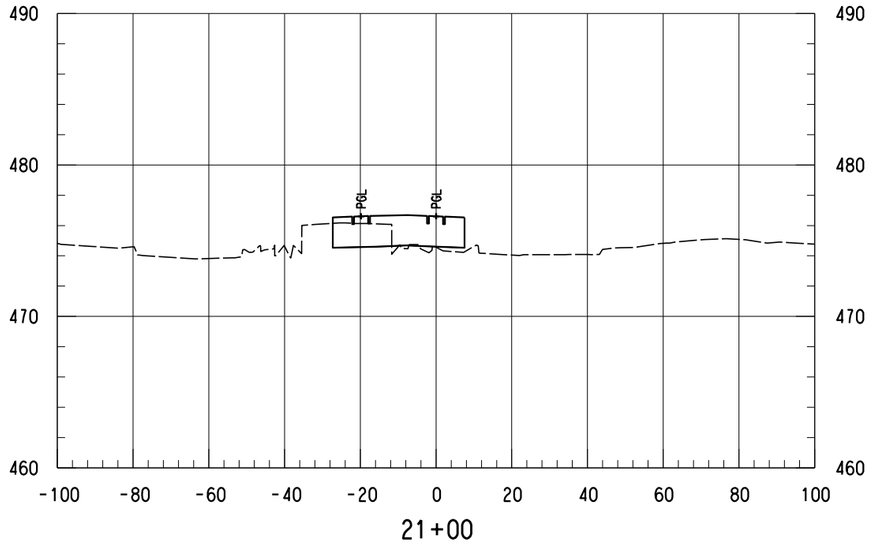
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

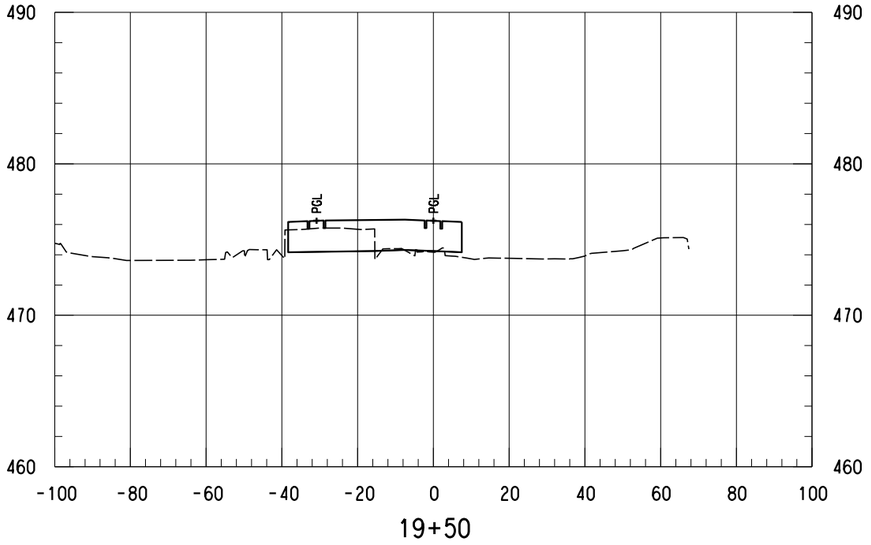
SE-1
GUIDEWAY CROSS SECTIONS
STA 17+50.00 TO STA 19+00.00

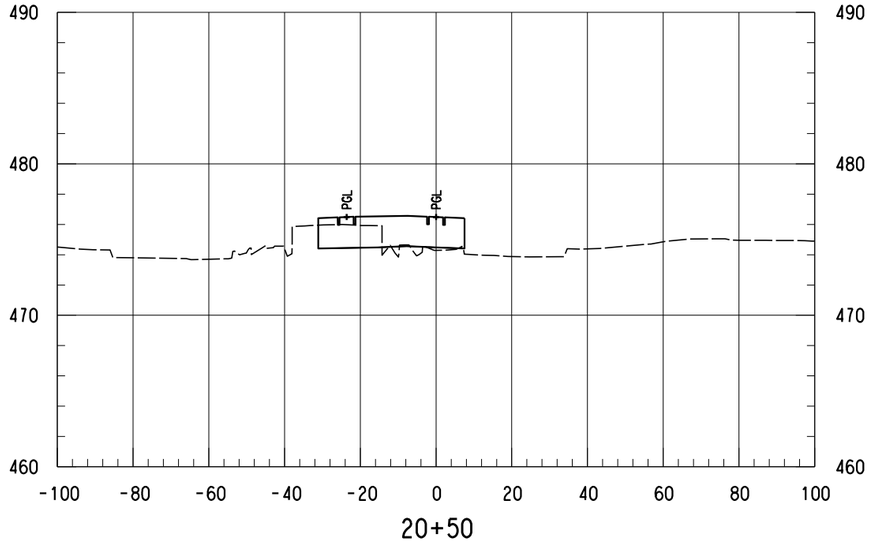
CONTRACT	DWG No.	REV
	CC8-0069	

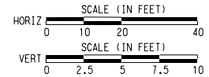
Monday, October 26, 2020 10:19:47 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 133 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

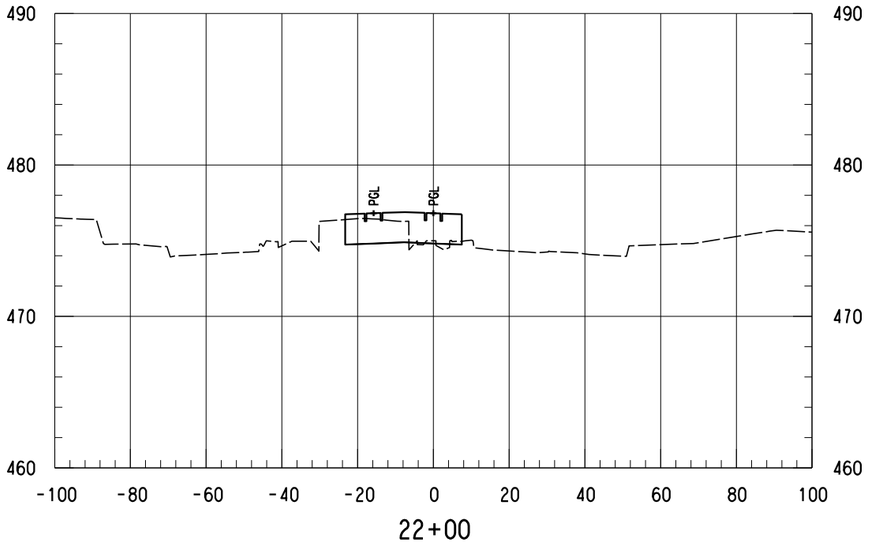
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

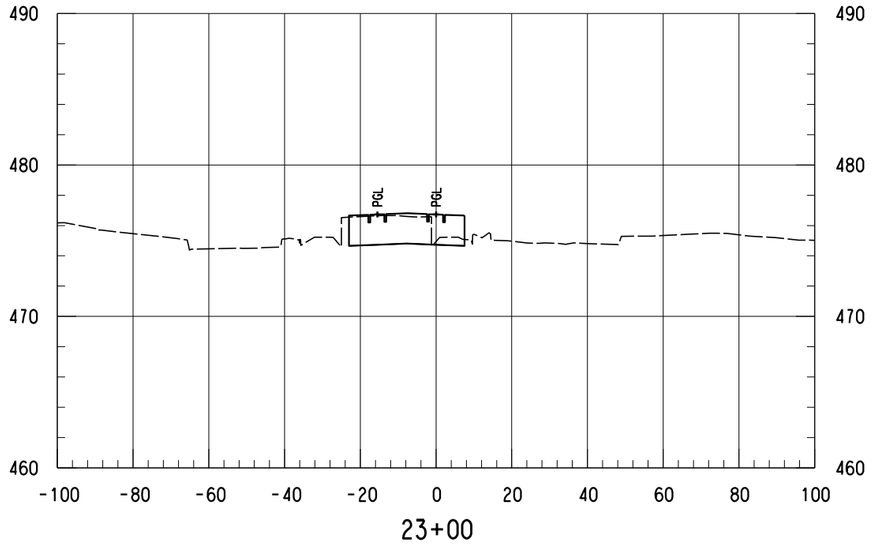
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

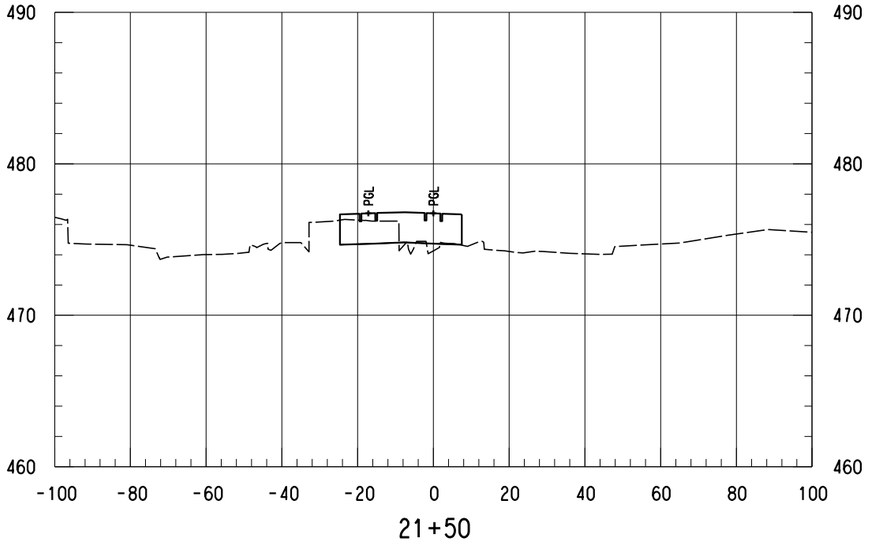
SE-1
GUIDEWAY CROSS SECTIONS
STA 19+50.00 TO STA 21+00.00

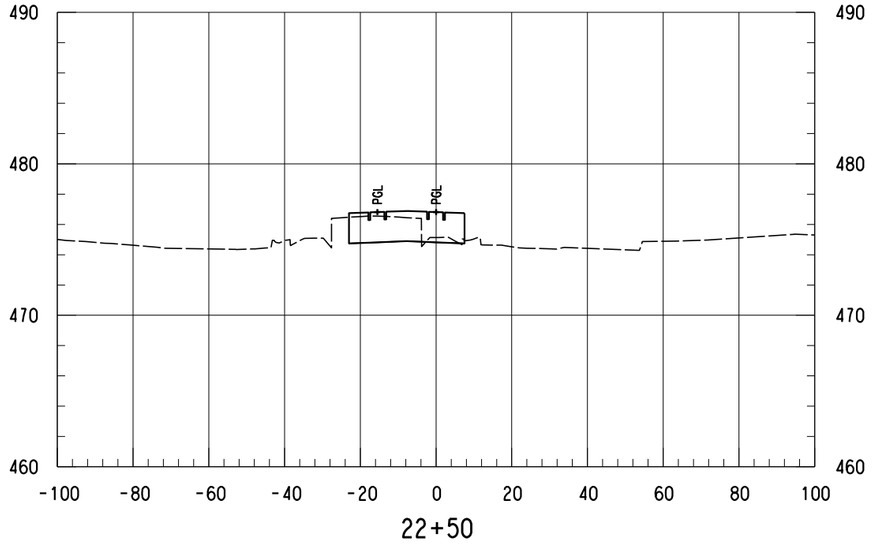
CONTRACT	DWG No.	REV
	CC8-0070	

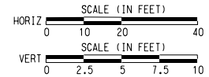
Monday, October 26, 2020 10:19:48 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 134 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

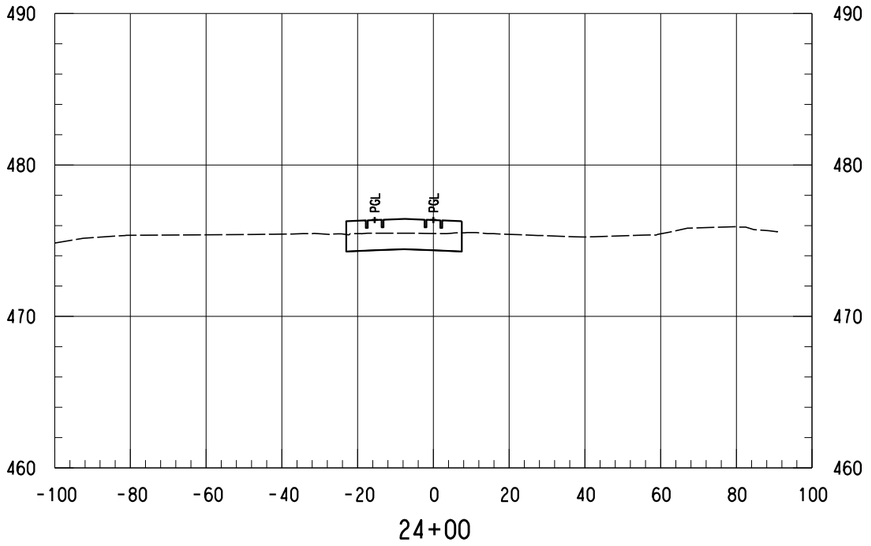
SE-1
GUIDEWAY CROSS SECTIONS
STA 21+50.00 TO STA 23+00.00

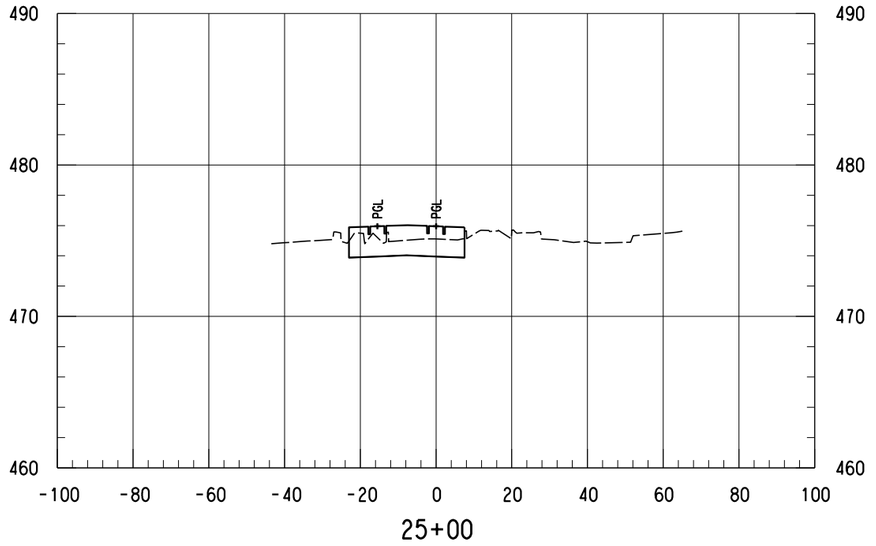
CONTRACT	DWG No.	REV
	CC8-0071	

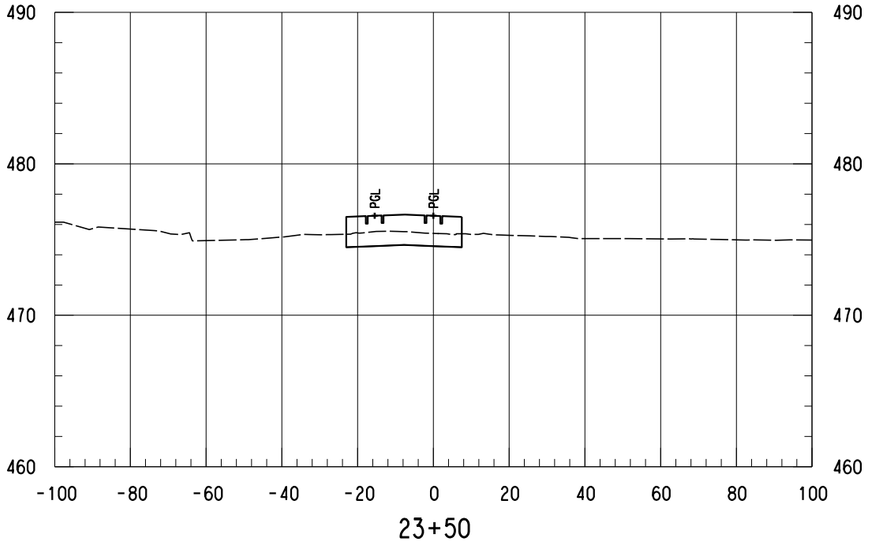
LGUBLO
Default

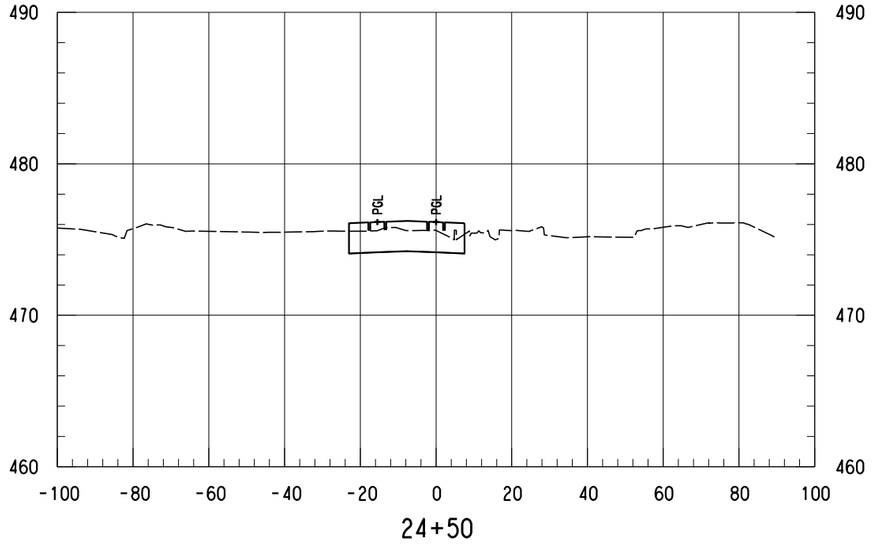
Monday, October 26, 2020 10:19:48 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

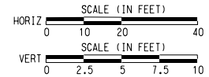
DWG No. CC8-0072











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 135 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

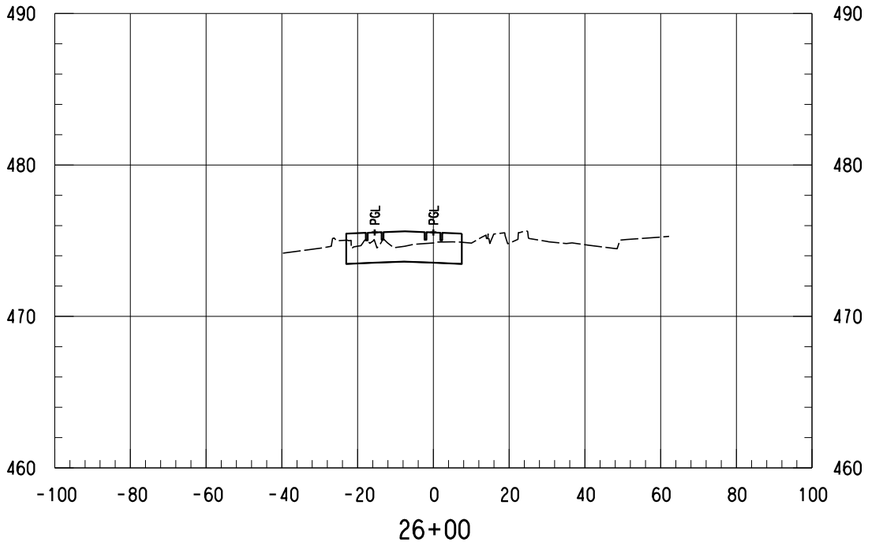
SE-1
GUIDEWAY CROSS SECTIONS
STA 23+50.00 TO STA 25+00.00

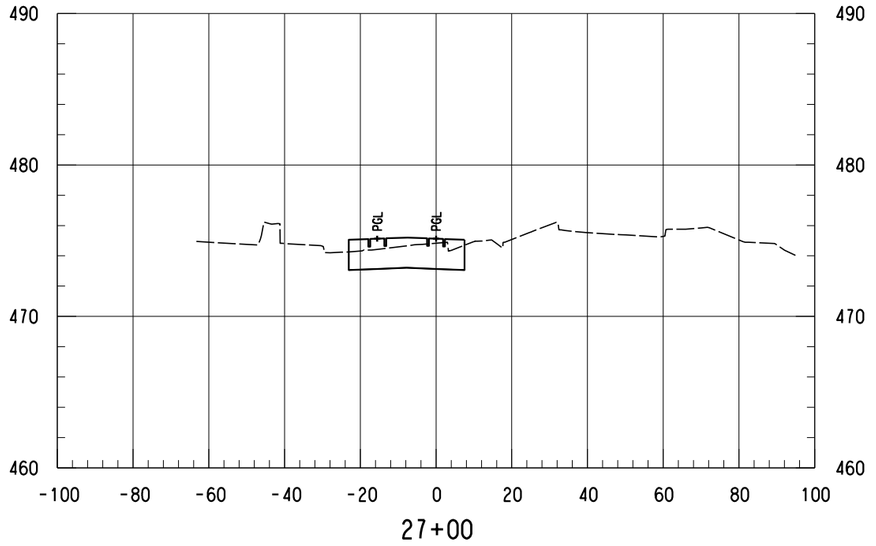
CONTRACT	DWG No.	REV
	CC8-0072	

LGUBLO
Default

Monday, October 26, 2020 10:19:49 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

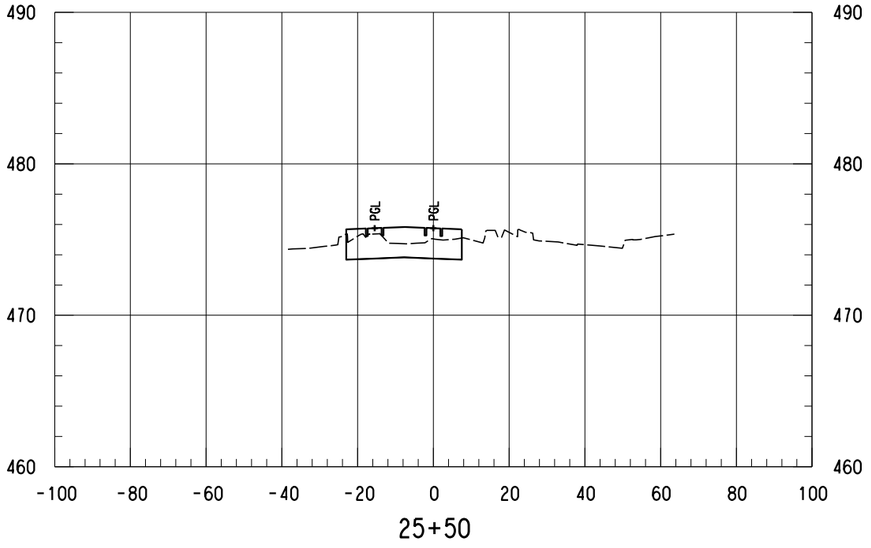


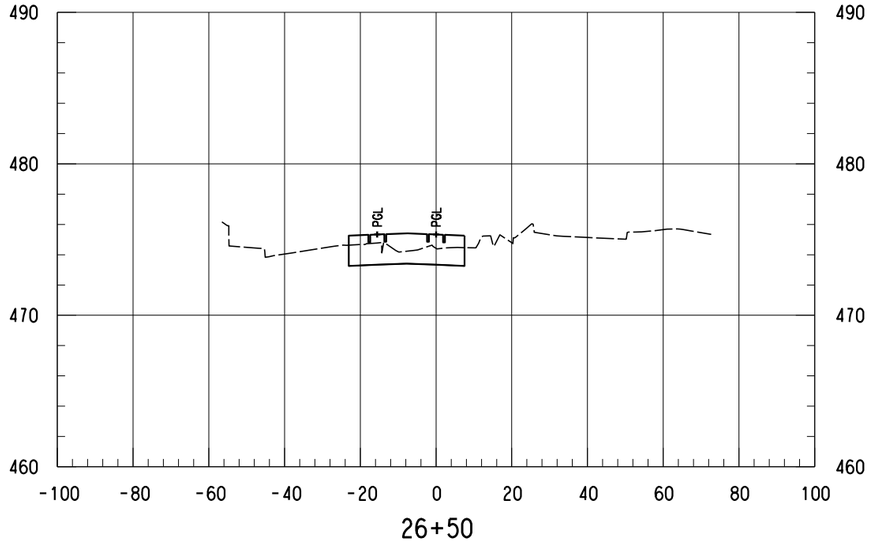


SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 136 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

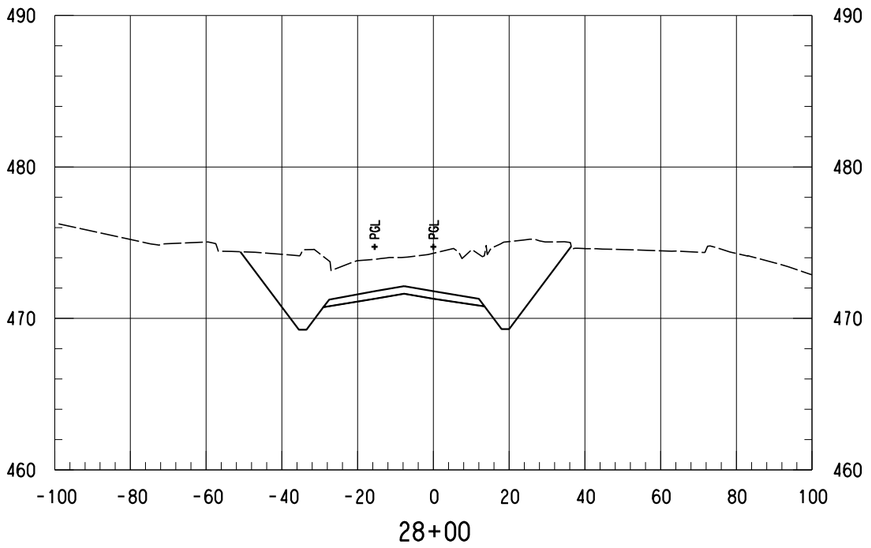
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

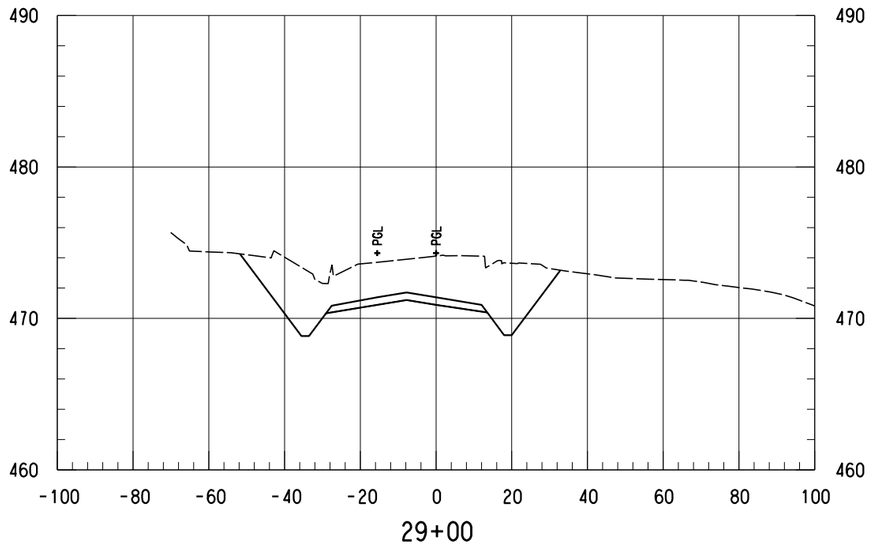
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

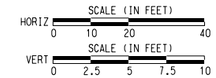
SE-1
GUIDEWAY CROSS SECTIONS
STA 25+50.00 TO STA 27+00.00

CONTRACT	DWG No.	REV
	CC8-0073	

Monday, October 26, 2020 10:19:49 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

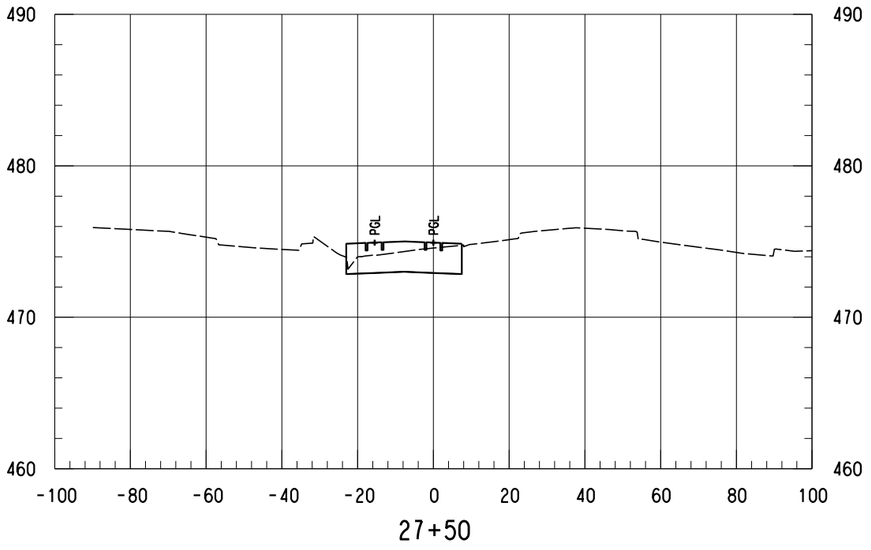


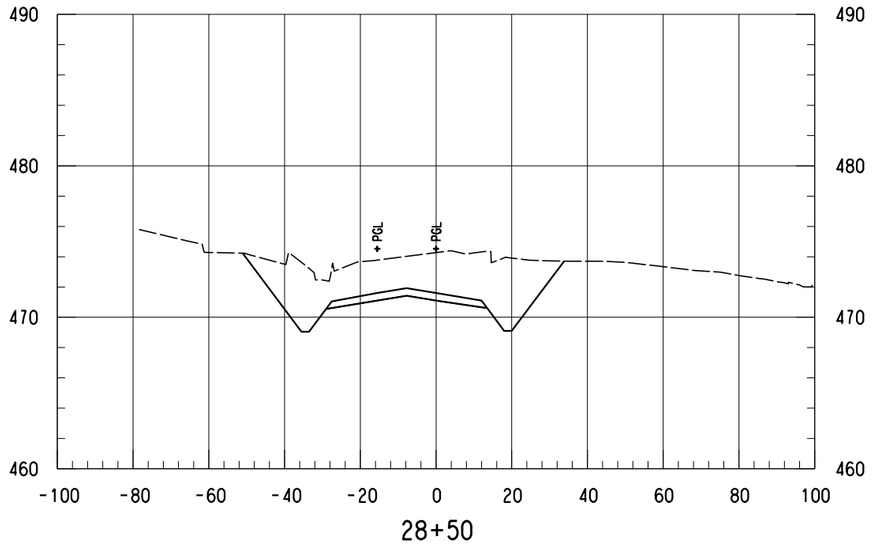




NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.





NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 137 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

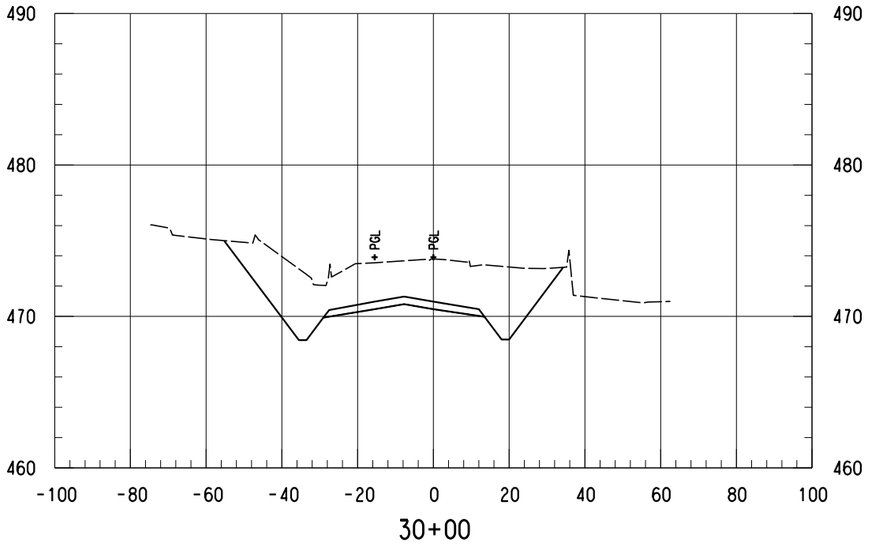
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

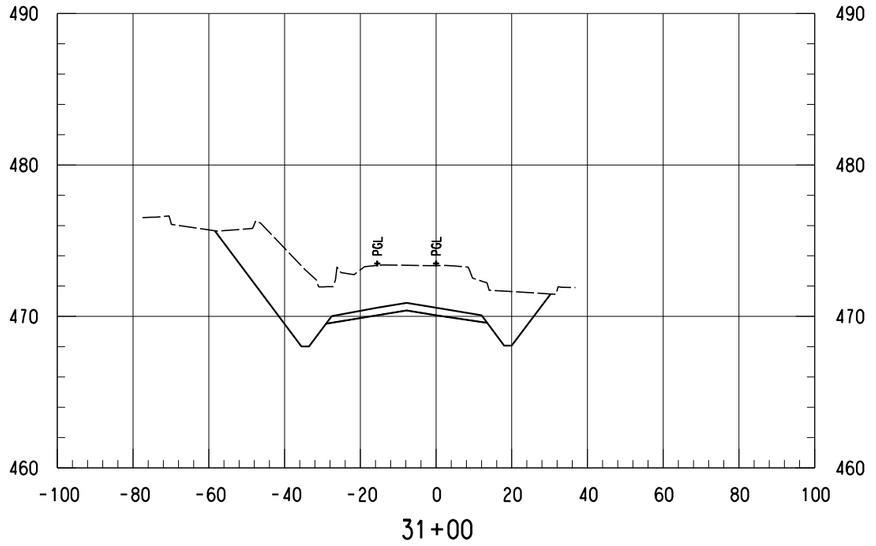
SE-1
GUIDEWAY CROSS SECTIONS
STA 27+50.00 TO STA 29+00.00

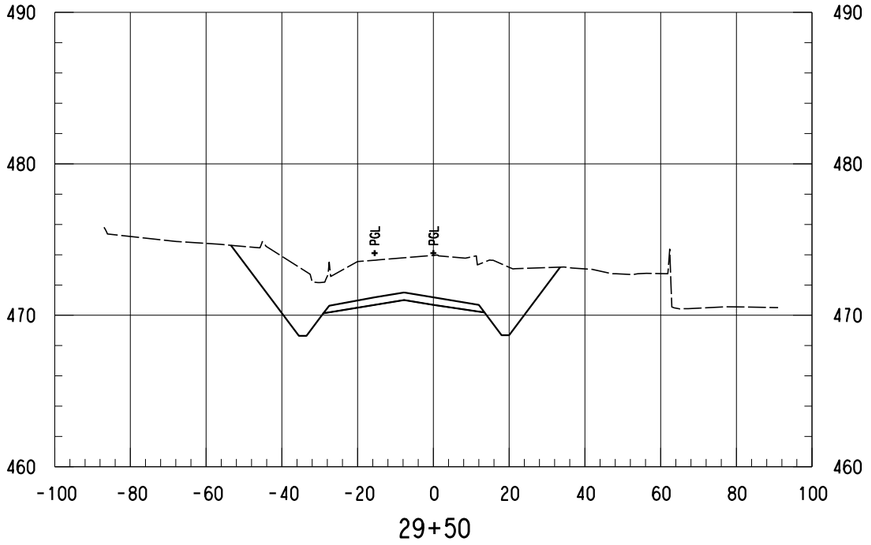
CONTRACT	DWG No.	REV
	CC8-0074	

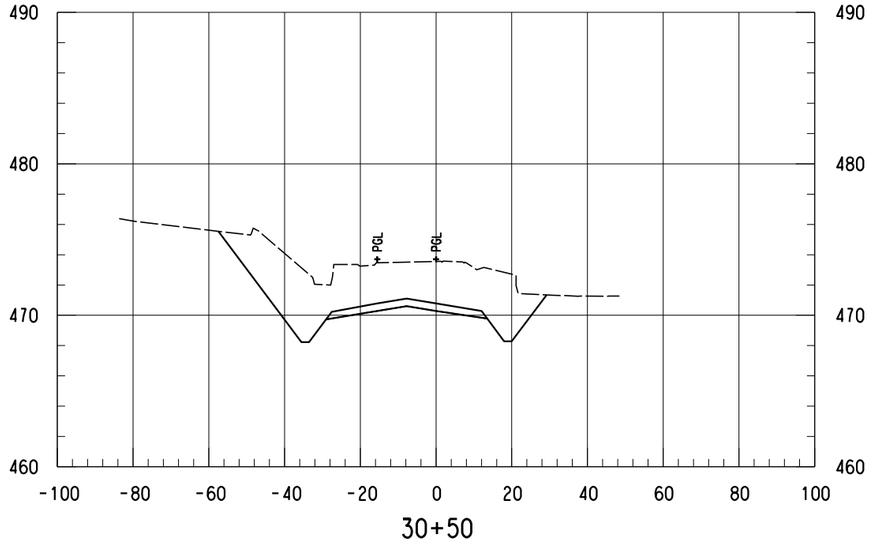
Monday, October 26, 2020 10:19:50 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

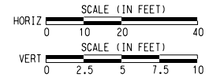
DWG No. CC8-0075











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 138 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1
GUIDEWAY CROSS SECTIONS
STA 29+50.00 TO STA 31+00.00

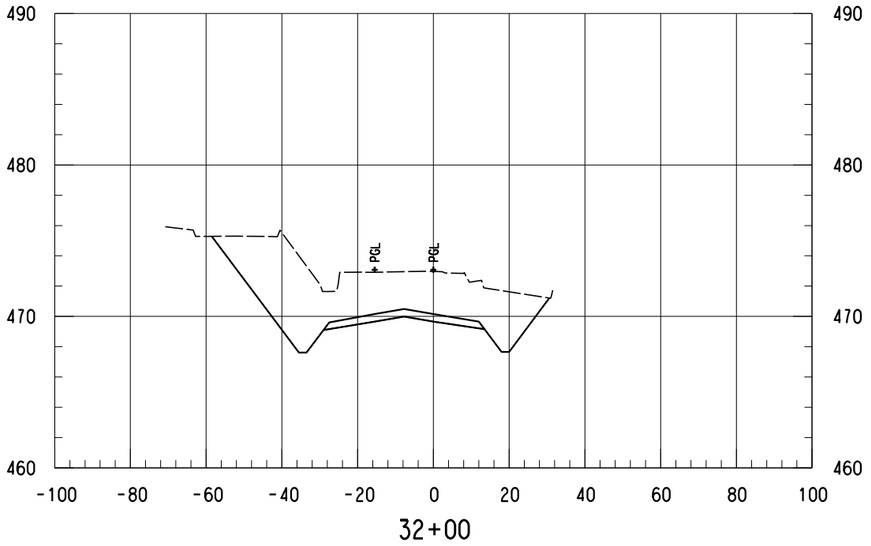
CONTRACT	DWG No.	REV
	CC8-0075	

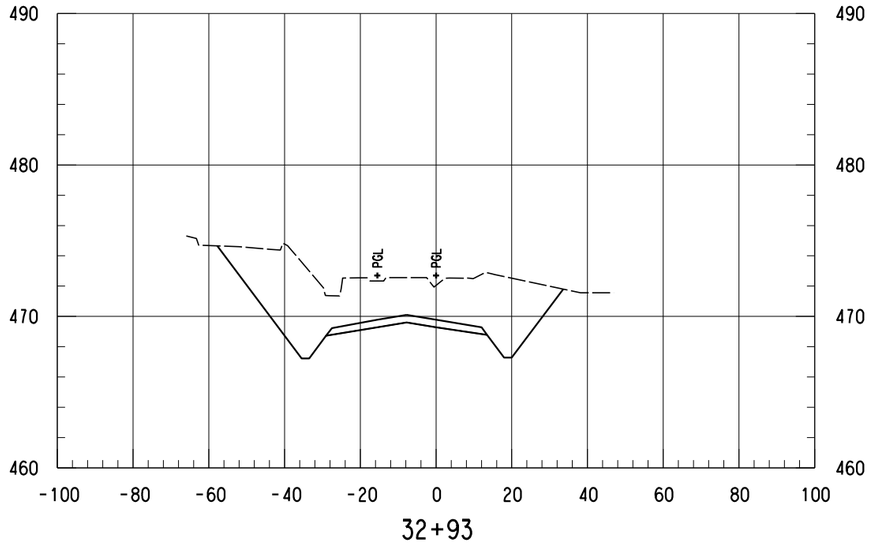
Monday, October 26, 2020 10:19:50 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

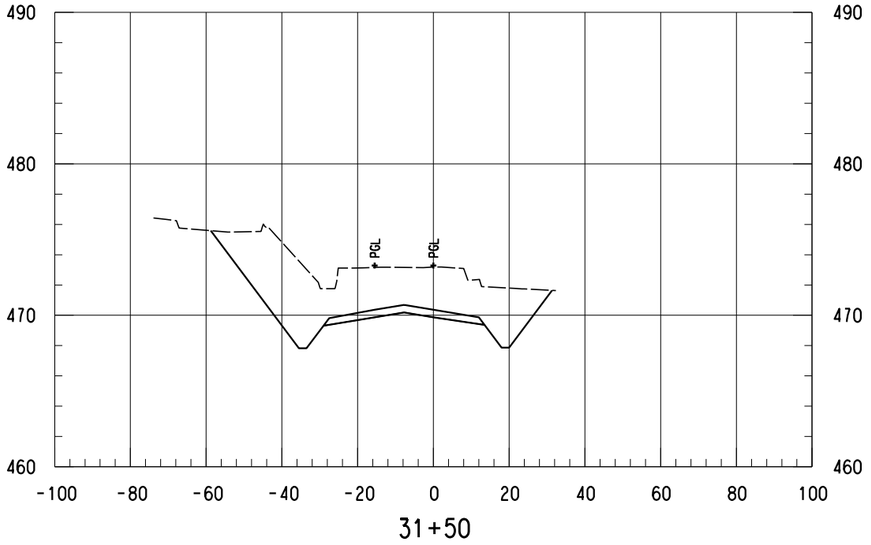
LGUBLO
Default

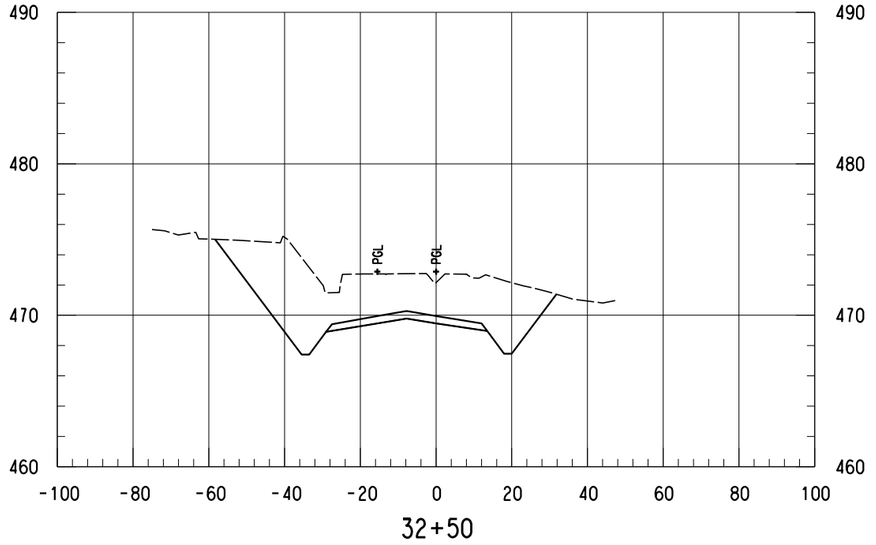
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

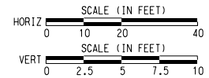
DWG No. CC8-0076











NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 139 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1
GUIDEWAY CROSS SECTIONS
STA 31+50.00 TO STA 32+93.00

CONTRACT	DWG No.	REV
	CC8-0076	

pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

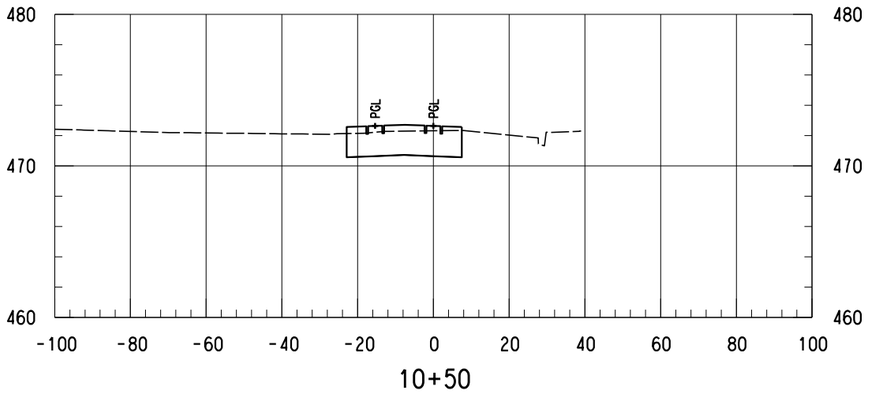
Monday, October 26, 2020 10:19:51 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default

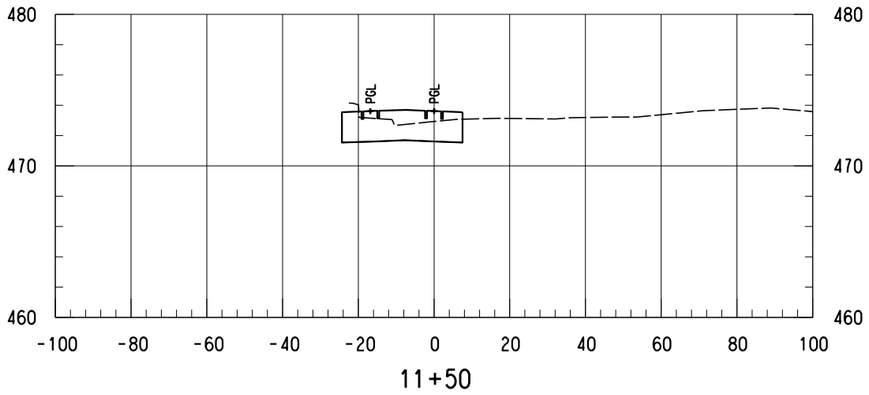
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

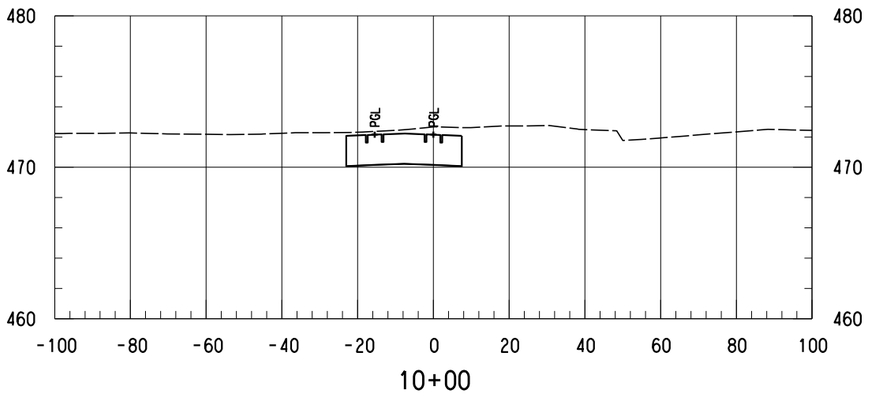
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.



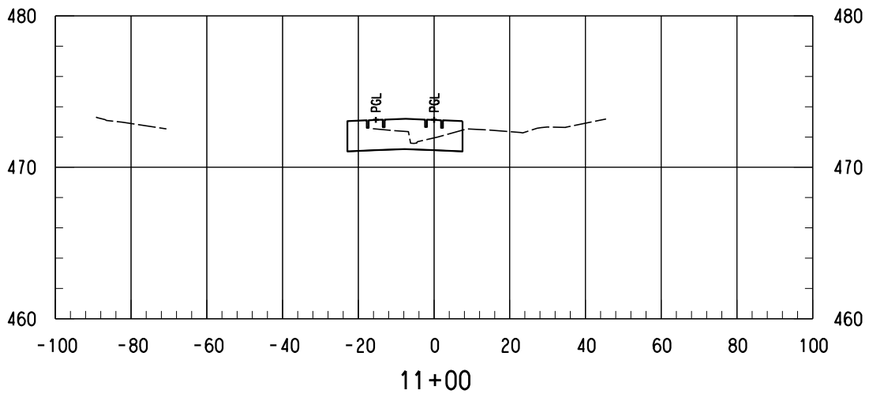
10+50



11+50



10+00



11+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 140 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

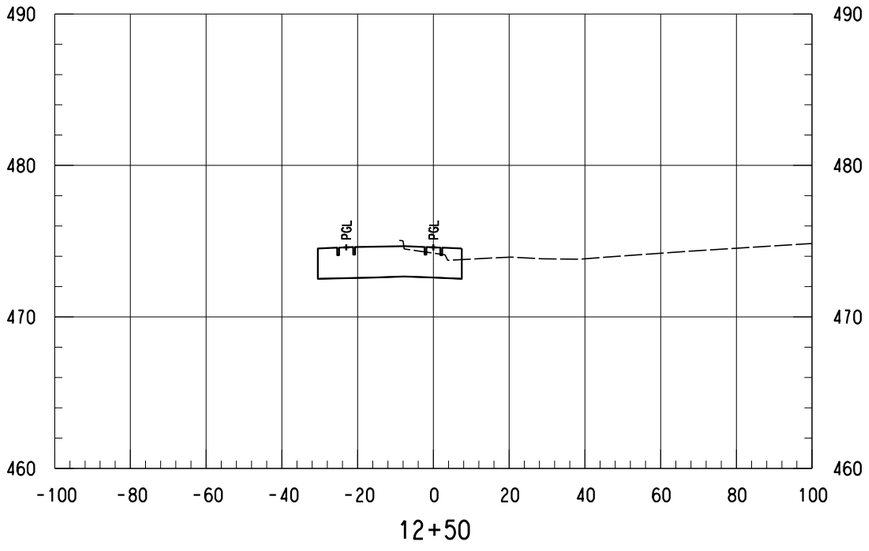
WYE
GUIDEWAY CROSS SECTIONS
STA 10+00.00 TO STA 11+50.00

CONTRACT	DWG No.	REV
	CC8-0077	

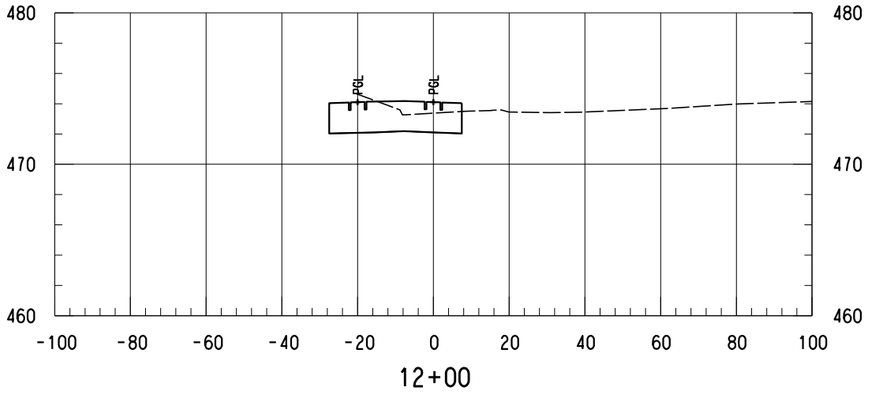
Monday, October 26, 2020 10:19:51 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC8-0078

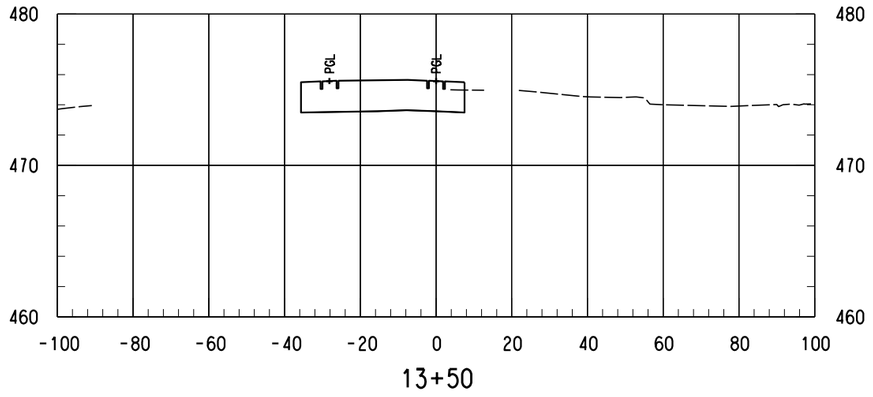
SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10



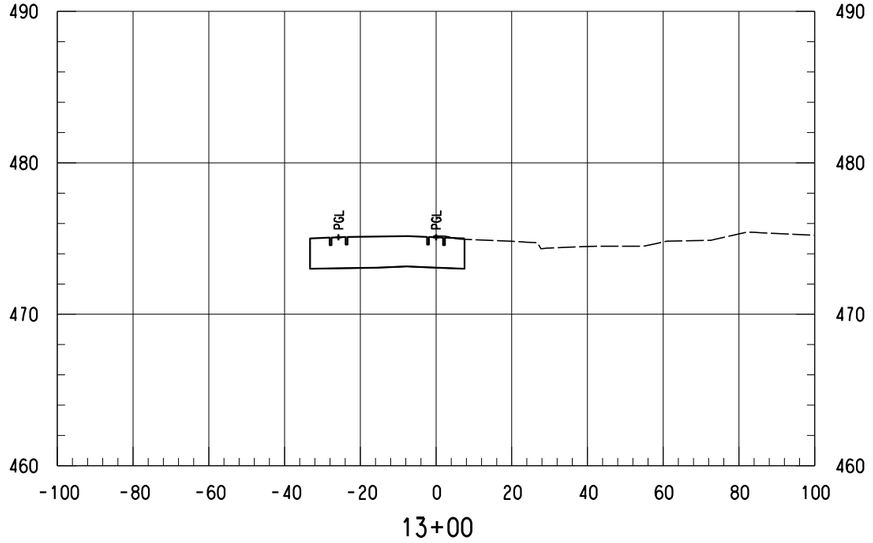
12+50



12+00



13+50



13+00

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 141 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

WYE
GUIDEWAY CROSS SECTIONS
STA 12+00.00 TO STA 13+50.00

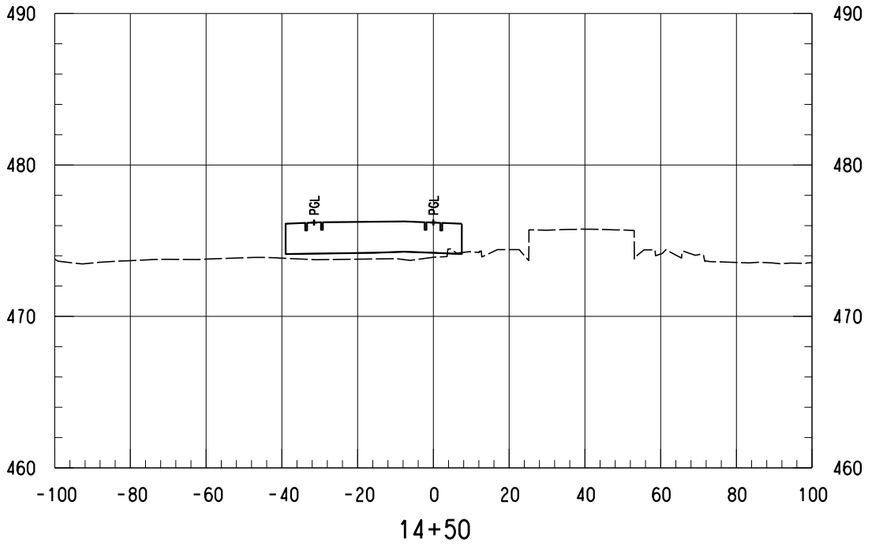
CONTRACT	DWG No.	REV
	CC8-0078	

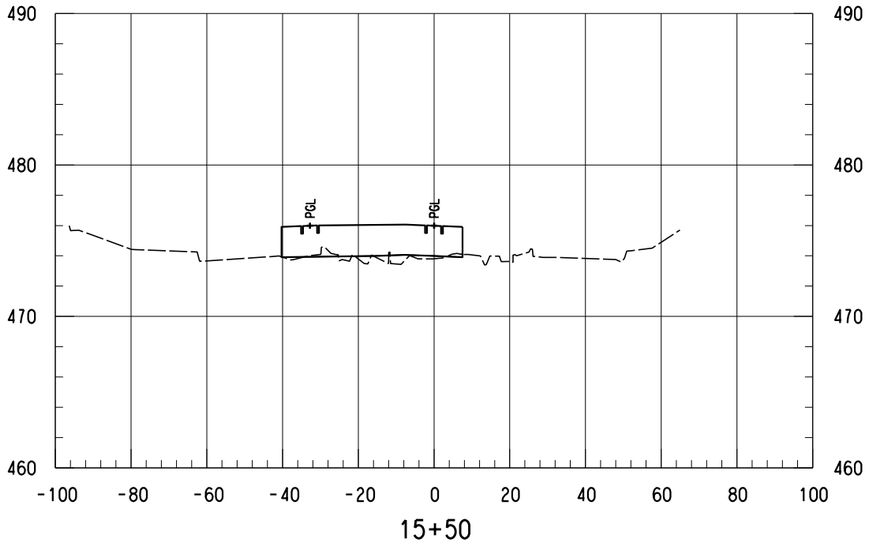
Monday, October 26, 2020 10:19:52 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

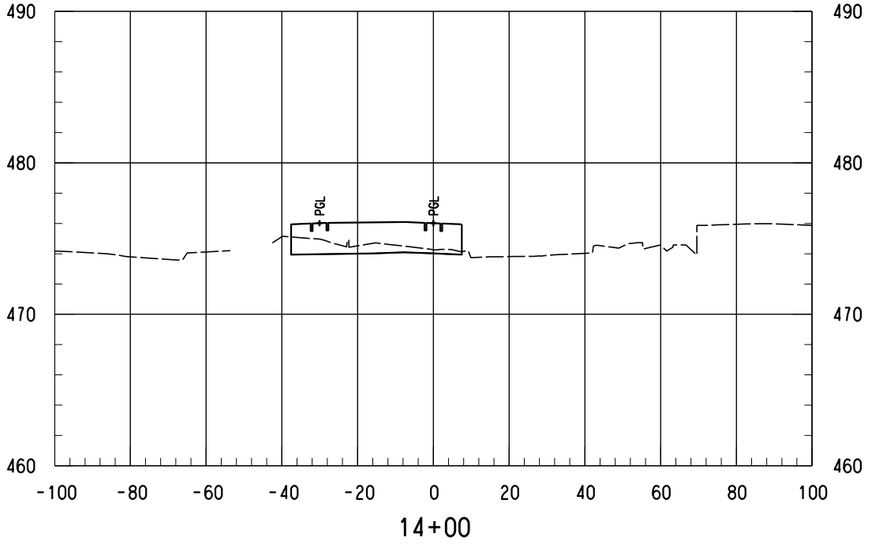
LGUBLO
Default

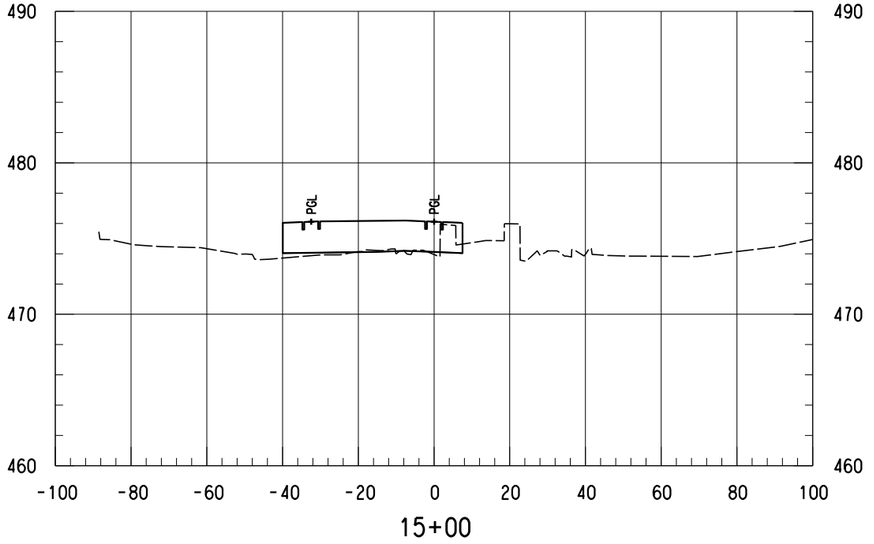
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

DWG No. CC8-0079









SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 142 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

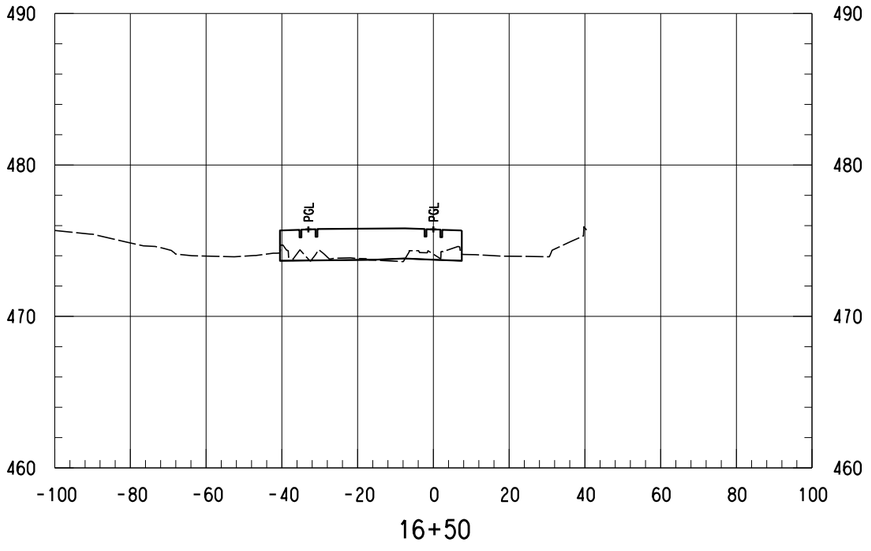
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

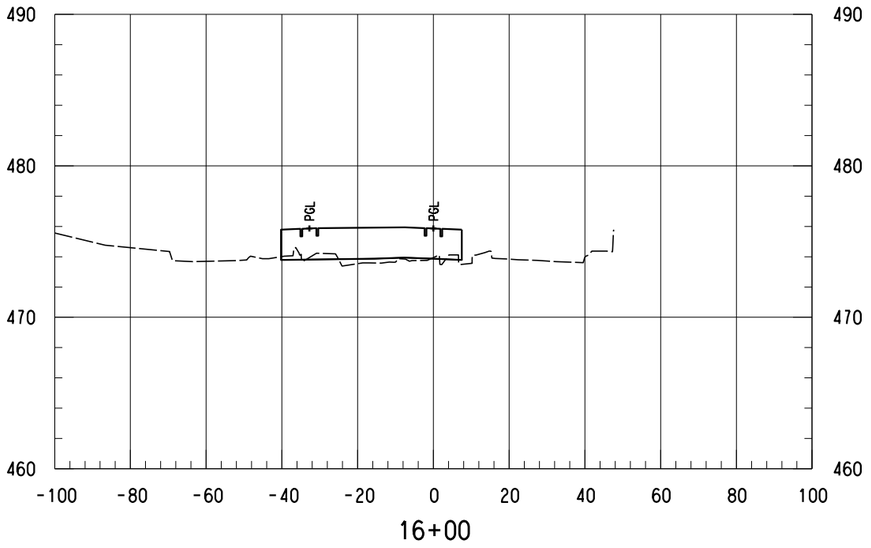
WYE
GUIDEWAY CROSS SECTIONS
STA 14+00.00 TO STA 15+50.00

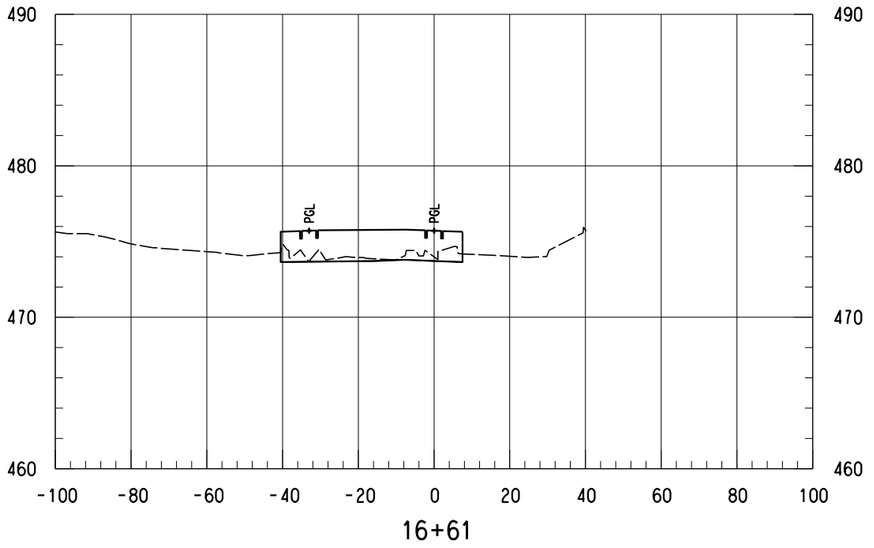
CONTRACT	DWG No.	REV
	CC8-0079	

Monday, October 26, 2020 10:19:52 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020

LGUBLO
Default







SCALE (IN FEET)
HORIZ 0 10 20 40
SCALE (IN FEET)
VERT 0 2.5 5 7.5 10

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 143 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020
HDR ENGINEERING, INC.
TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

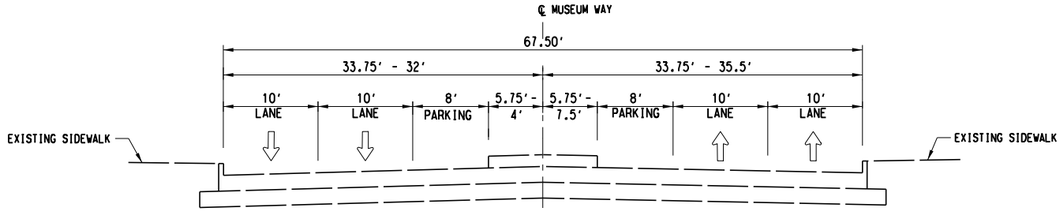
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

WYE
GUIDEWAY CROSS SECTIONS
STA 16+00.00 TO STA 16+61.00

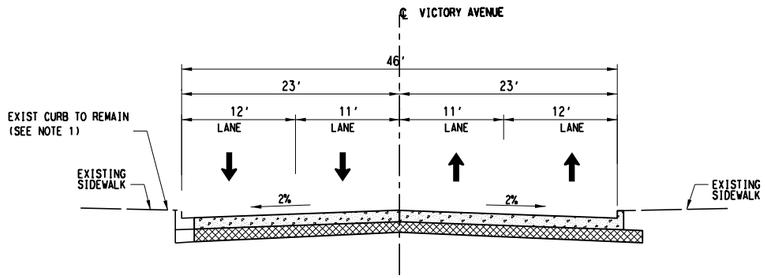
CONTRACT	DWG No.	REV
	CC8-0080	

Monday, October 26, 2020 10:19:53 AM
pw:\\pwhdruscen01:HDR_US_Centrol_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-CIV\CBD2-CC8-0001.020
LGUBLO
Default

DWG No. CC6-0015

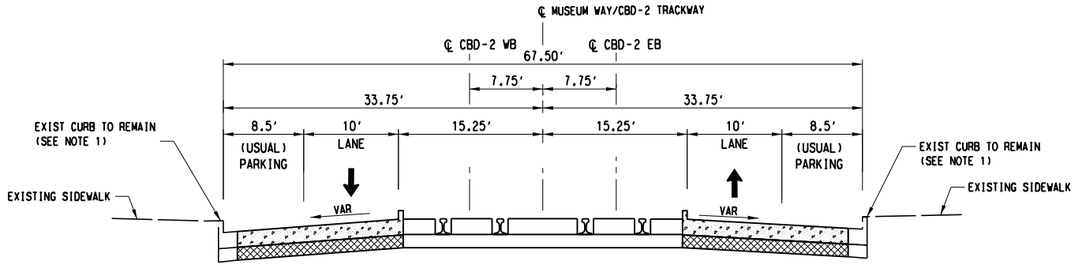


EXISTING MUSEUM WAY

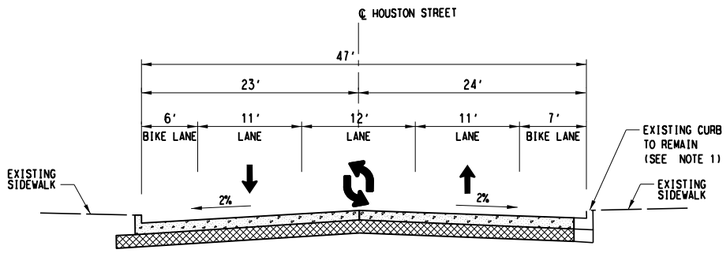


PROPOSED VICTORY AVENUE

NOTE 1:
DUE TO VARYING TRACK SPACING WITHIN CURVED DOUBLE TRACK ALIGNMENTS, THE EXISTING CURBS ALONG THE CURVED TRACK ALIGNMENT MAY NEED TO BE REPLACED. FINAL CIVIL DESIGNER WILL COORDINATE WITH FINAL TRACK DESIGNER TO ELIMINATE OR MINIMIZE THE LIMITS OF IMPACT BEYOND THE EXISTING BACK OF CURB.



PROPOSED MUSEUM WAY



PROPOSED HOUSTON STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 144 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

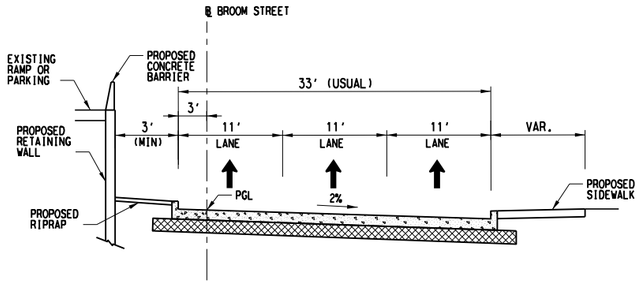
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 1 OF 11

CONTRACT	DWG No.	REV
	CC6-0015	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 1 OF 11

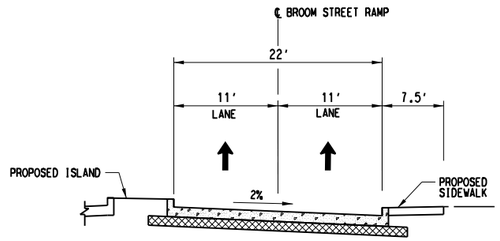
Monday, October 26, 2020 12:36:11 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 1 OF 11

tchau

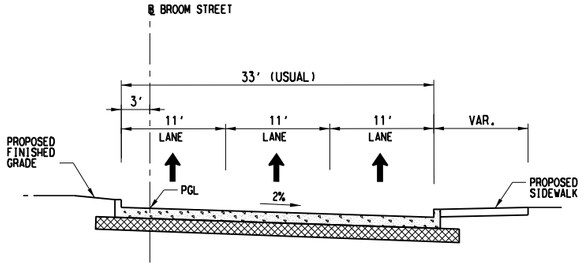


PROPOSED BROOM STREET

SHOWING SECTION W/ WALL



BROOM STREET RAMP



PROPOSED BROOM STREET

SHOWING SECTION W/O WALL

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 145 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

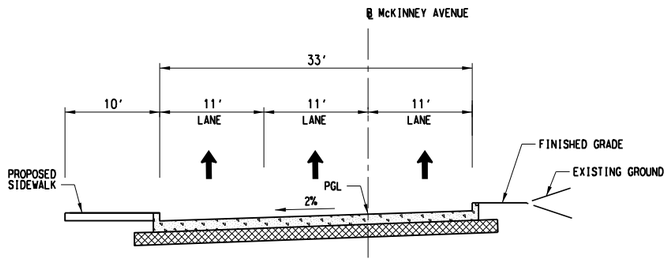
DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

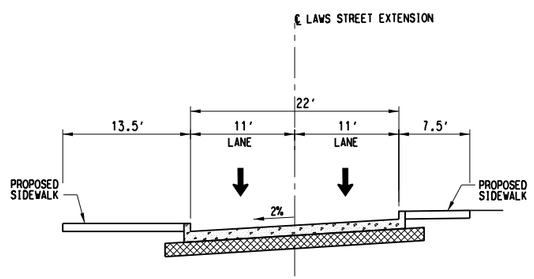
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 2 OF 11

CONTRACT | DWG No. CC6-0016 | REV

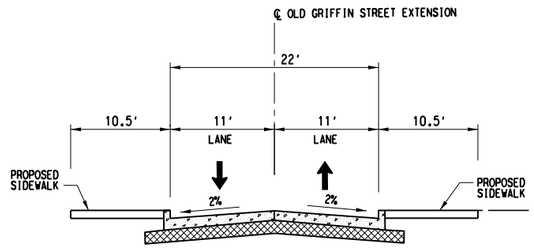
Monday, October 26, 2020 12:36:13 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 2 OF 11
tchau



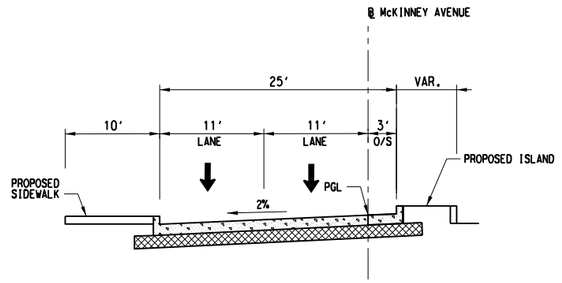
PROPOSED McKINNEY AVENUE



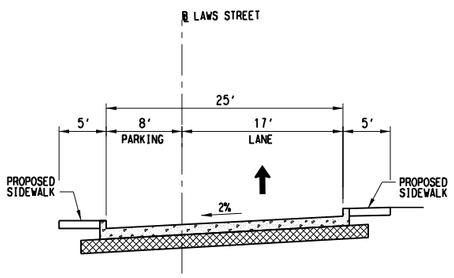
PROPOSED LAWS STREET EXTENSION



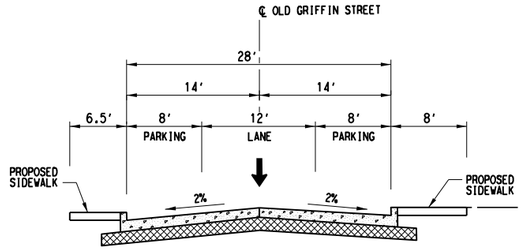
PROPOSED OLD GRIFFIN STREET EXTENSION



PROPOSED McKINNEY AVENUE



PROPOSED LAWS STREET



PROPOSED OLD GRIFFIN STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 146 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

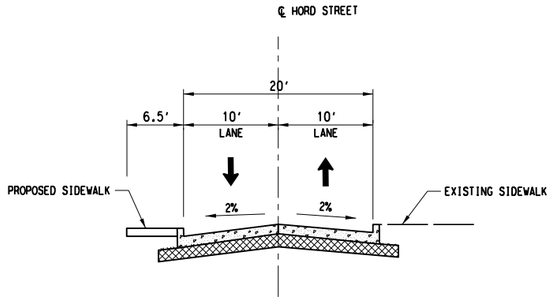
SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

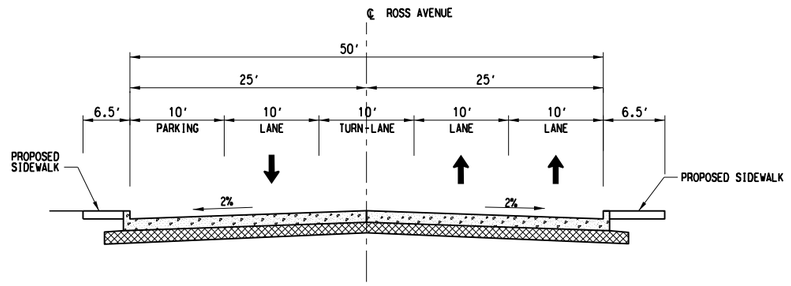
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 3 OF 11

CONTRACT	DWG No.	REV
	CC6-0017	

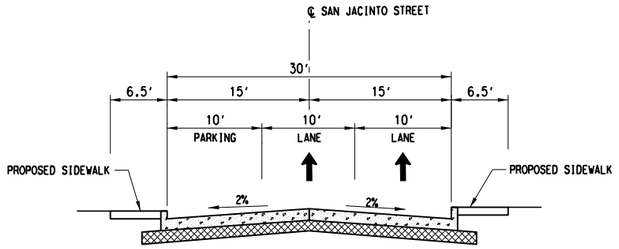
Monday, October 26, 2020 12:36:15 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEETS 3 OF 11
tchau



PROPOSED HORD STREET



PROPOSED ROSS AVENUE



PROPOSED SAN JACINTO STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 147 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

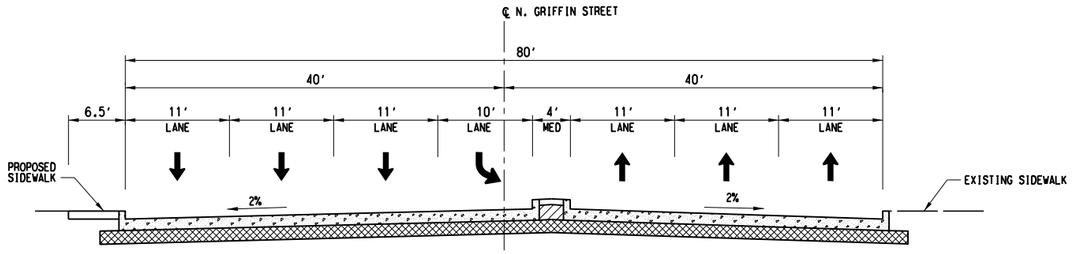
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 4 OF 11

CONTRACT | DWG No. CC6-0018 | REV

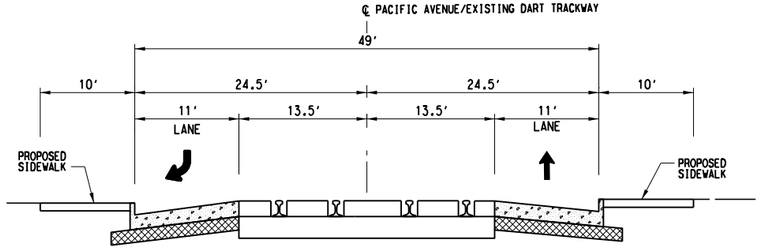
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 4 OF 11

Monday, October 26, 2020 12:36:17 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 4 OF 11
tchau

DWG No. CC6-0019

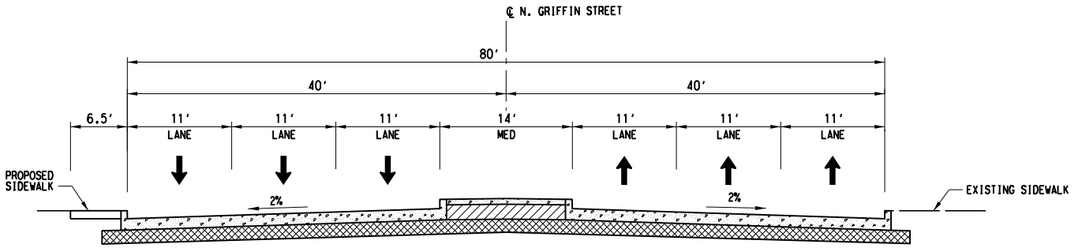


PROPOSED N. GRIFFIN STREET

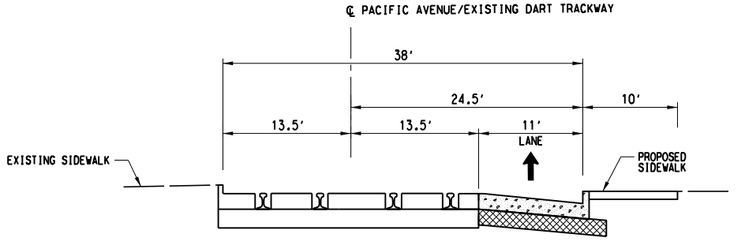


PROPOSED PACIFIC AVENUE/EXISTING DART TRACKWAY

EAST OF N. GRIFFIN STREET



PROPOSED N. GRIFFIN STREET



PROPOSED PACIFIC AVENUE/EXISTING DART TRACKWAY

WEST OF N. GRIFFIN STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 148 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

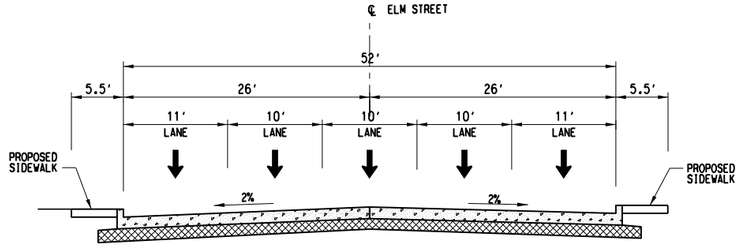
SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 5 OF 11

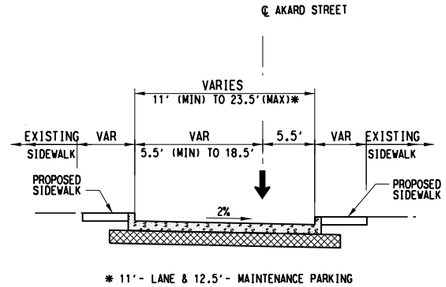
CONTRACT	DWG No.	REV
	CC6-0019	

Monday, October 26, 2020 12:36:20 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 5 OF 11
tchau

DWG No. CC6-0020

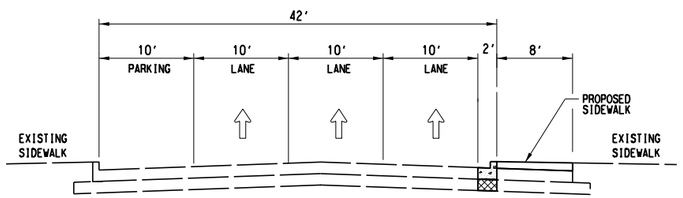


PROPOSED ELM STREET



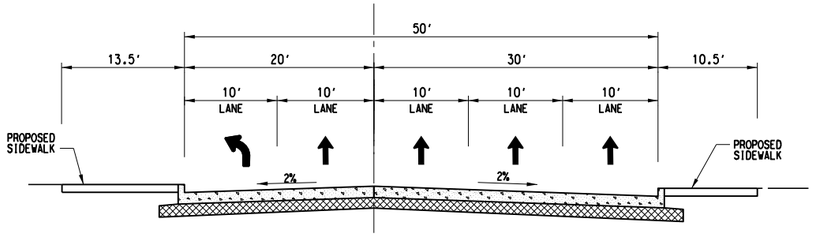
* 11'- LANE & 12.5'- MAINTENANCE PARKING

PROPOSED AKARD STREET



PROPOSED COMMERCE STREET

(LANE STREET TO ERVAY STREET)



PROPOSED PEARL STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 149 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

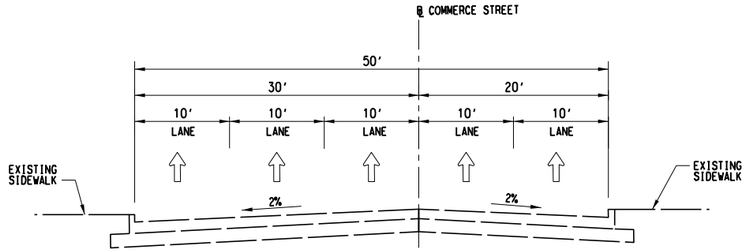
SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 6 OF 11

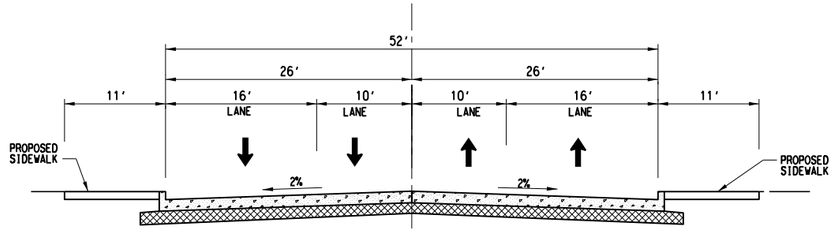
CONTRACT	DWG No.	REV
	CC6-0020	

Monday, October 26, 2020 12:36:22 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEETS 6 OF 11
tchau

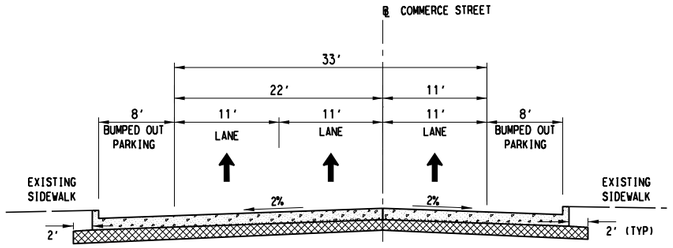
DWG No. CC6-0021



EXISTING COMMERCE STREET

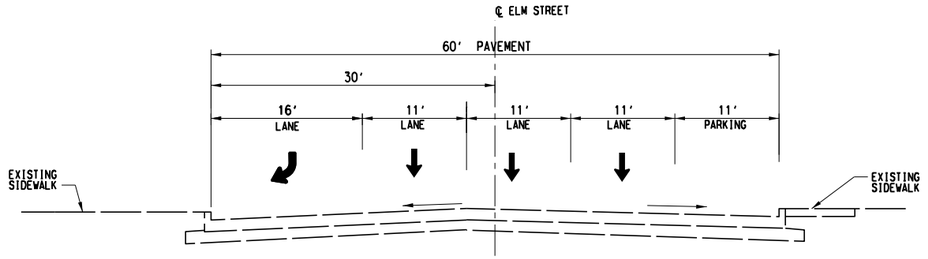


PROPOSED MAIN STREET



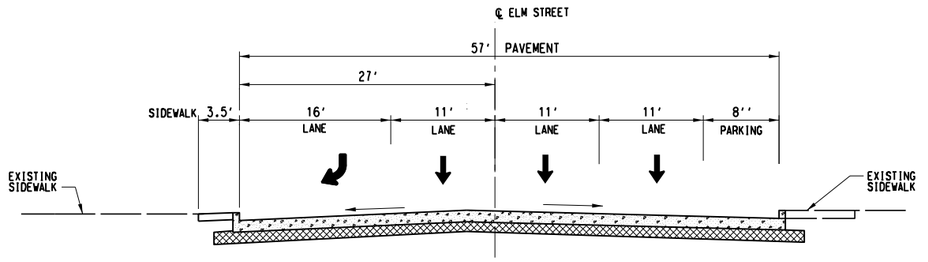
PROPOSED COMMERCE STREET

*STREET PARKING SHOWN
(HARWOOD STREET TO PEARL STREET)



EXISTING ELM STREET

PEARL STREET TO CESAR CHAVEZ BLVD.
(LOOKING EAST)



PROPOSED ELM STREET

PEARL STREET TO CESAR CHAVEZ BLVD.
(LOOKING EAST)

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 150 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

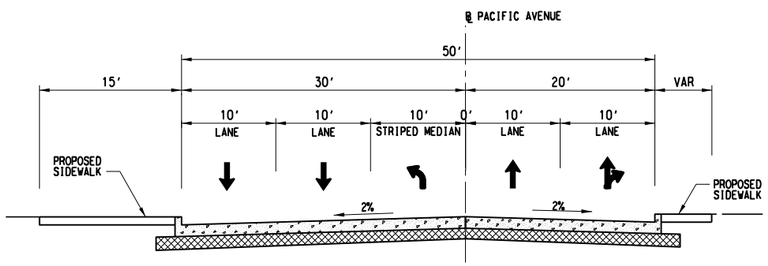
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 7 OF 11

CONTRACT | DWG No. CC6-0021 | REV

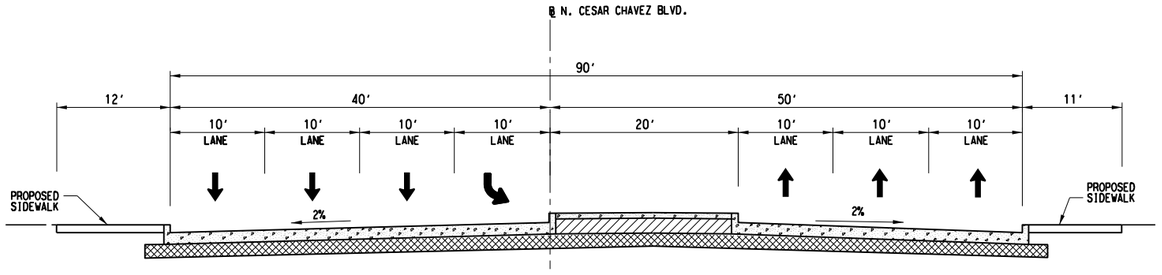
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 7 OF 11

Monday, October 26, 2020 12:36:24 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 7 OF 11
tchau

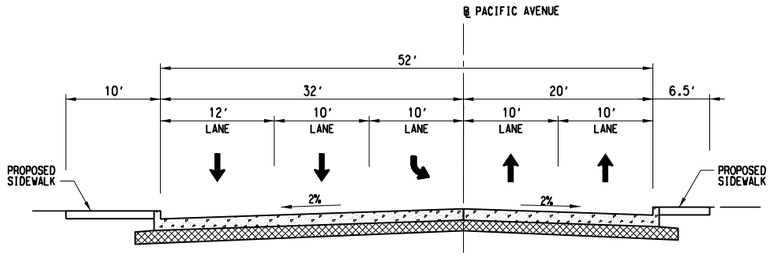
DWG No. CC6-0022



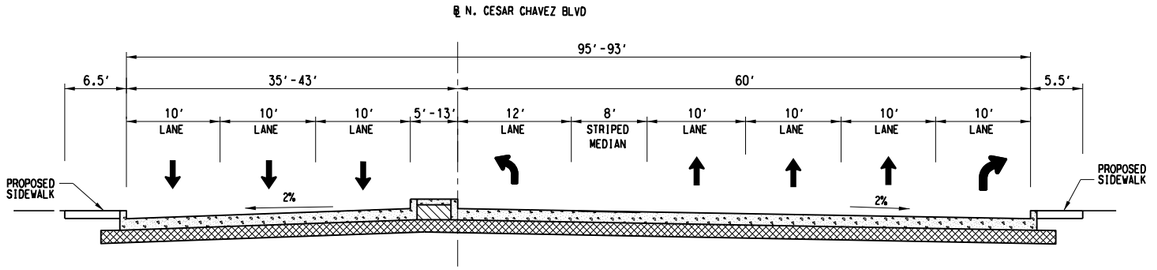
PROPOSED PACIFIC AVENUE
EAST OF N. CESAR CHAVEZ BLVD.



PROPOSED N. CESAR CHAVEZ BLVD.
SOUTH OF PACIFIC AVENUE



PROPOSED PACIFIC AVENUE
WEST OF N. CESAR CHAVEZ BLVD.



PROPOSED N. CESAR CHAVEZ BLVD.
NORTH OF PACIFIC AVENUE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 151 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

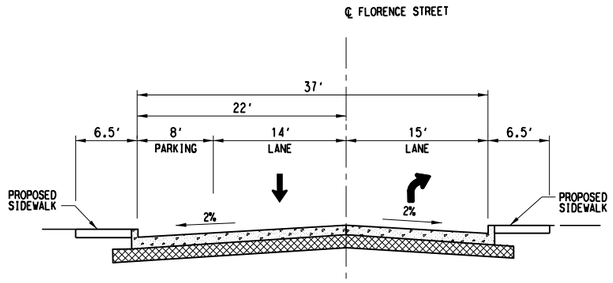
SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 8 OF 11

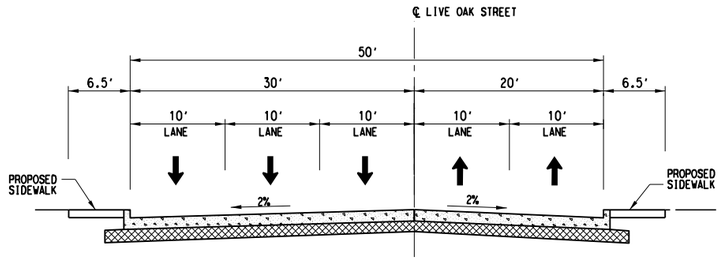
CONTRACT	DWG No.	REV
	CC6-0022	

Monday, October 26, 2020 12:36:26 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 8 OF 11
tchau

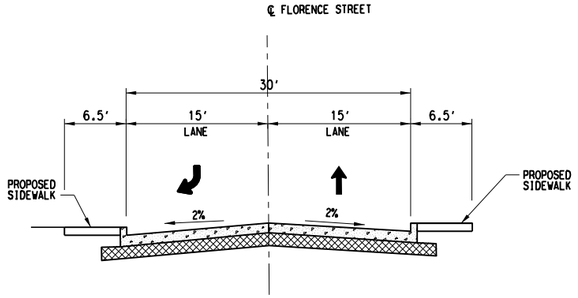
DWG No. CC6-0023



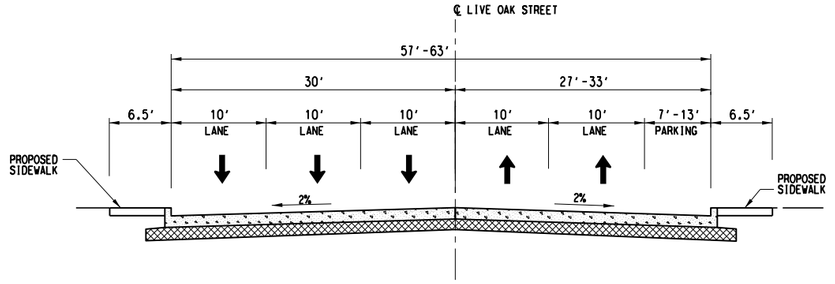
PROPOSED FLORENCE STREET
SHOWING SECTION W/ PARKING LANE



PROPOSED LIVE OAK STREET



PROPOSED FLORENCE STREET



PROPOSED LIVE OAK STREET
SHOWING SECTION W/ PARKING LANE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 152 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

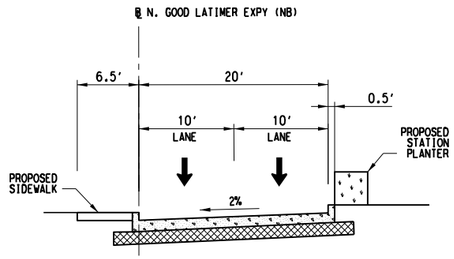
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 9 OF 11

CONTRACT	DWG No.	REV
	CC6-0023	

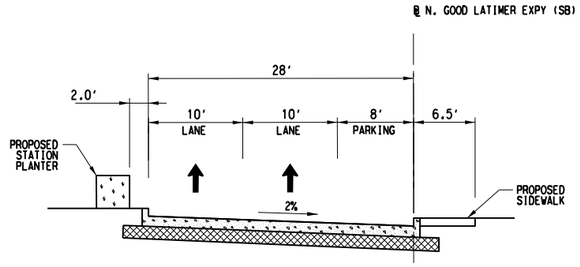
Monday, October 26, 2020 12:36:28 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 9 OF 11
tchau

Monday, October 26, 2020 12:36:31 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 10 OF 11
tchau

DWG No. CC6-0024

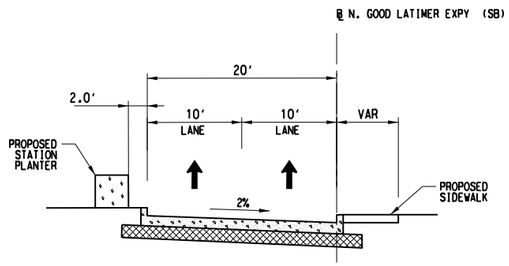


PROPOSED N. GOOD LATIMER EXPY (NB)



PROPOSED N. GOOD LATIMER EXPY (SB)

SHOWING SECTION W/ PARKING LANE



PROPOSED N. GOOD LATIMER EXPY (SB)

SHOWING SECTION W/O PARKING LANE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 153 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

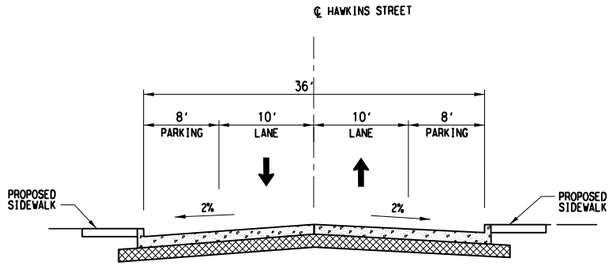
CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

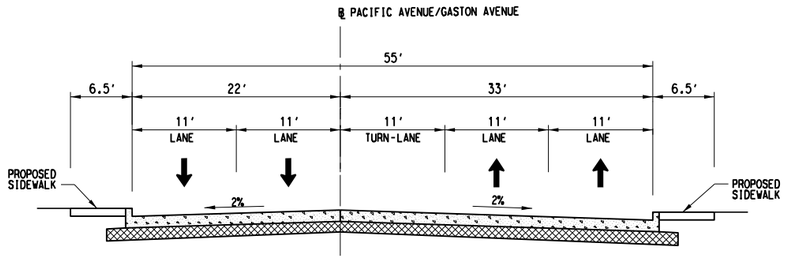
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 10 OF 11

CONTRACT	DWG No.	REV
	CC6-0024	

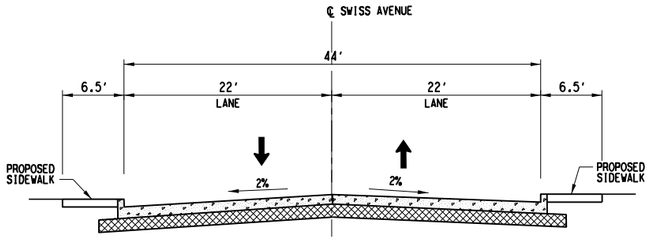
DWG No. CC6-0025



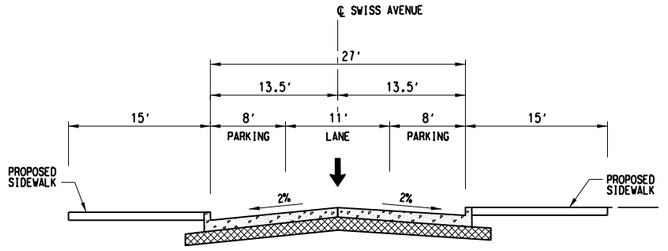
PROPOSED HAWKINS STREET



PROPOSED PACIFIC AVENUE/GASTON AVENUE



PROPOSED SWISS AVENUE
EAST OF N. GOOD LATIMER EXPY



PROPOSED SWISS AVENUE
WEST OF N. GOOD LATIMER EXPY

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 154 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	10/30/2020

CAES

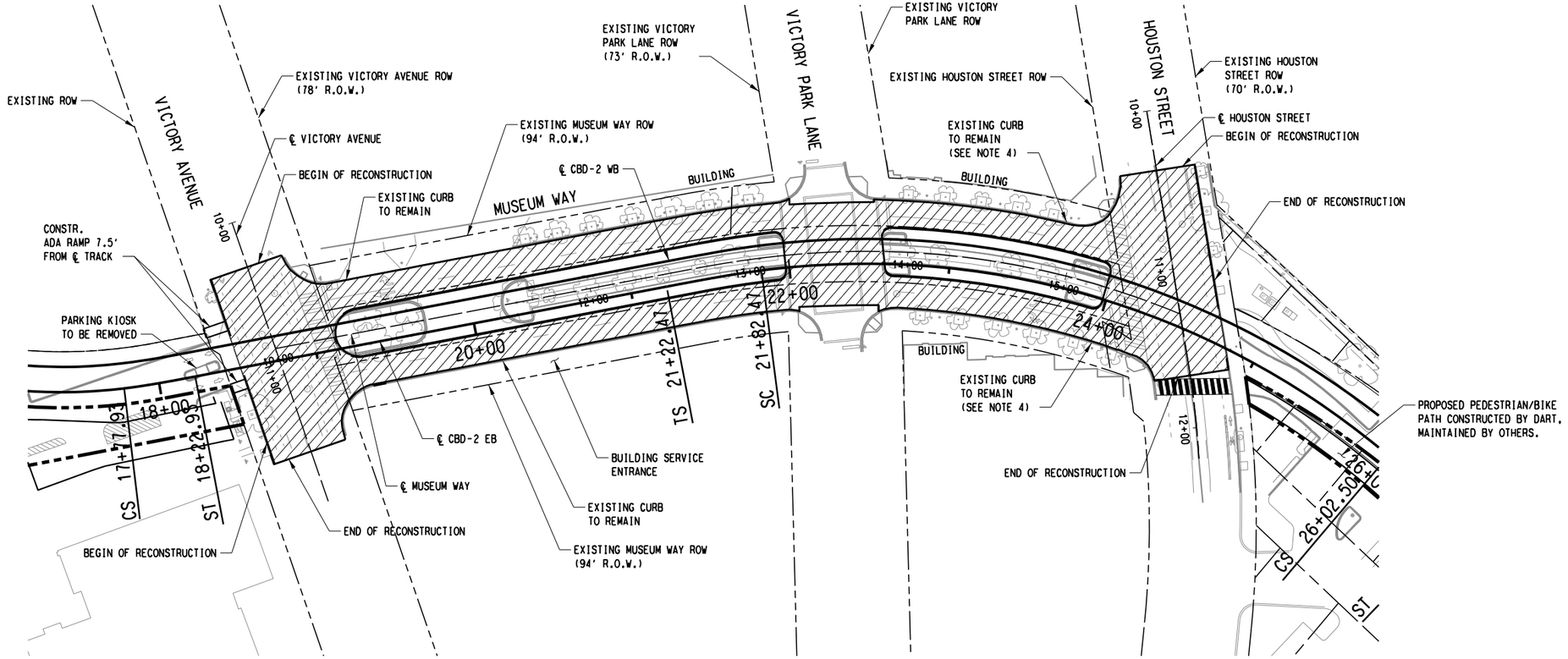
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATIONS
TYPICAL SECTIONS
SHEET 11 OF 11

CONTRACT	DWG No.	REV
	CC6-0025	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 11 OF 11

Monday, October 26, 2020 12:36:33 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 11 OF 11
tchau

DWG No. CC6-0026



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0015 FOR PROPOSED TYPICAL SECTIONS:
   MUSEUM WAY
   VICTORY AVENUE
   HOUSTON STREET
2. VICTORY AVENUE, VICTORY PARK LANE AND HOUSTON STREET INTERSECTIONS WITH MUSEUM WAY TO BE SIGNALIZED.
3. DUE TO VARYING TRACK SPACING WITHIN CURVED DOUBLE TRACK ALIGNMENTS, THE EXISTING CURBS ALONG THE CURVED TRACK ALIGNMENT MAY NEED TO BE REPLACED. FINAL CIVIL DESIGNER WILL COORDINATE WITH FINAL TRACK DESIGNER TO ELIMINATE OR MINIMIZE THE LIMITS OF IMPACT BEYOND THE EXISTING BACK OF CURB.

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 155 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

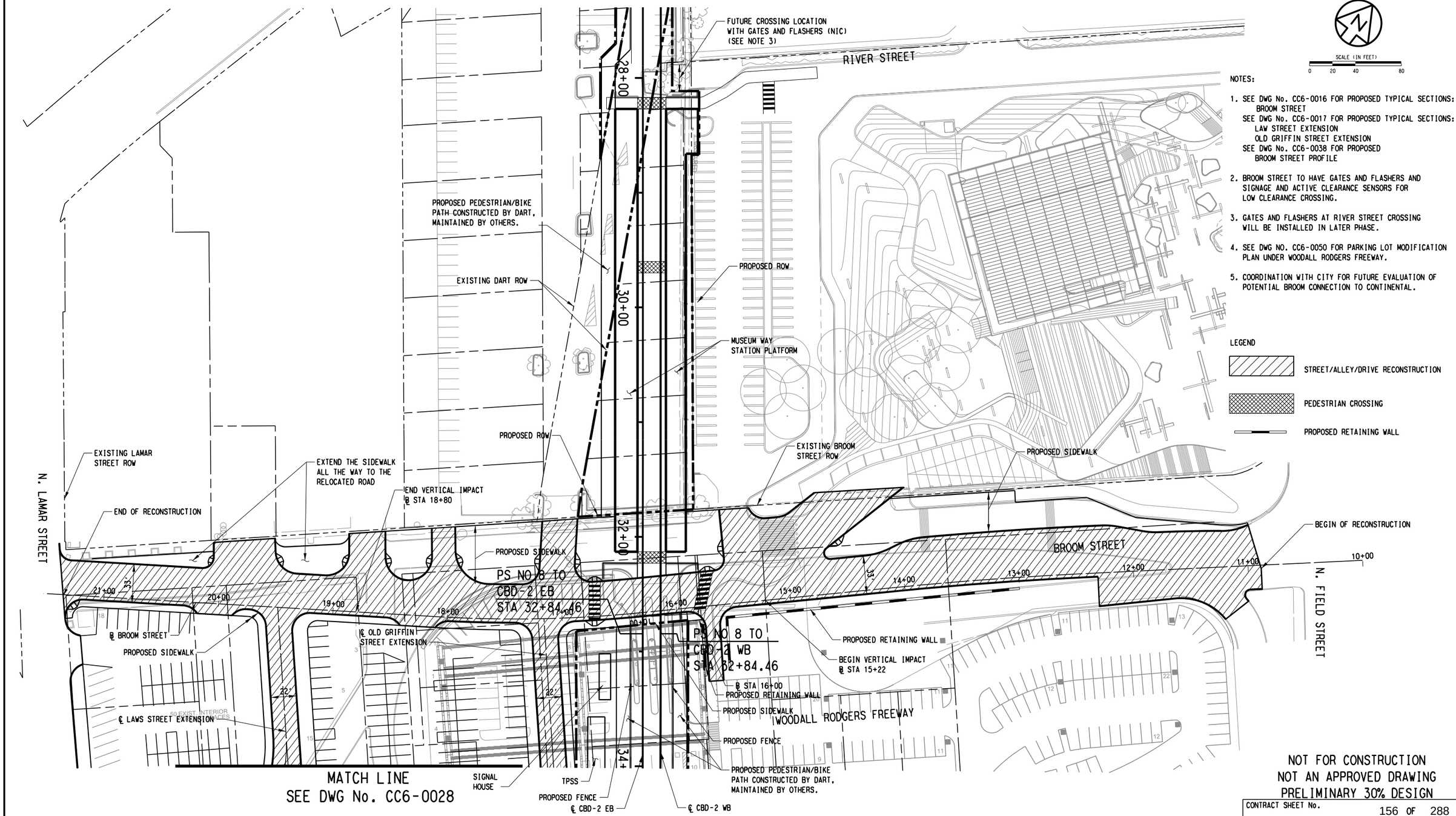
SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
MUSEUM WAY, VICTORY AVENUE
VICTORY PARK LANE, HOUSTON STREET

CONTRACT	DWG No.	REV
	CC6-0026	

26-OCT-2020 12:36
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-MUSEUM WAY
tchau
Default

DWG No. CC6-0027



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0016 FOR PROPOSED TYPICAL SECTIONS:
   BROOM STREET
   SEE DWG No. CC6-0017 FOR PROPOSED TYPICAL SECTIONS:
   LAW STREET EXTENSION
   OLD GRIFFIN STREET EXTENSION
   SEE DWG No. CC6-0038 FOR PROPOSED
   BROOM STREET PROFILE
2. BROOM STREET TO HAVE GATES AND FLASHERS AND SIGNAGE AND ACTIVE CLEARANCE SENSORS FOR LOW CLEARANCE CROSSING.
3. GATES AND FLASHERS AT RIVER STREET CROSSING WILL BE INSTALLED IN LATER PHASE.
4. SEE DWG NO. CC6-0050 FOR PARKING LOT MODIFICATION PLAN UNDER WOODALL RODGERS FREEWAY.
5. COORDINATION WITH CITY FOR FUTURE EVALUATION OF POTENTIAL BROOM CONNECTION TO CONTINENTAL.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION
- PEDESTRIAN CROSSING
- PROPOSED RETAINING WALL

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 156 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

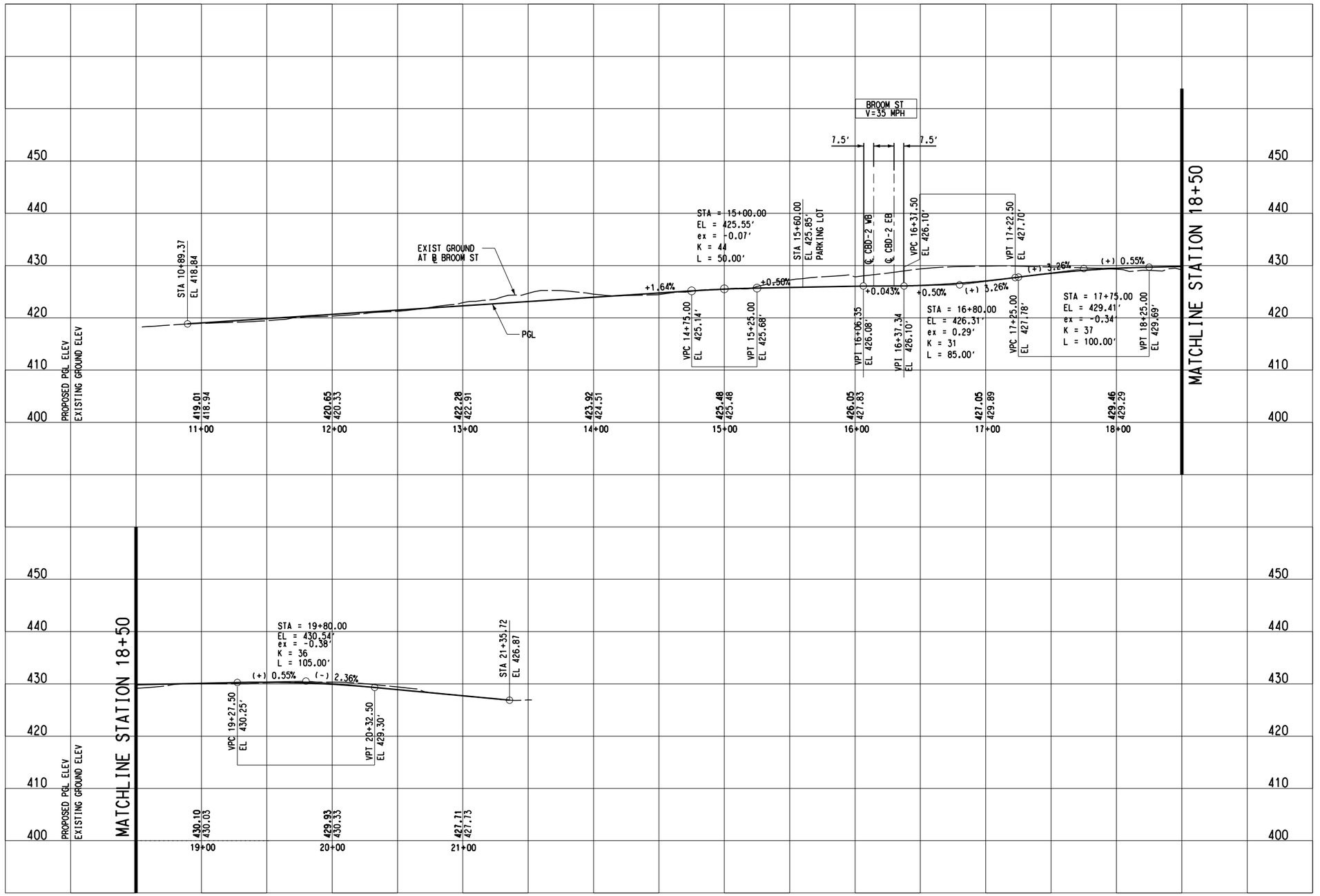
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
SB FRONTAGE ROAD (BROOM STREET)
OLD GRIFFIN STREET EXTENSION
LAWS STREET EXTENSION

CONTRACT	DWG No.	REV
	CC6-0027	

26-OCT-2020 12:36
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-SBFR (BROOM ST) SHT1 OF 2
tchau
Default

DWG No. CC6-0038

SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 157 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

BROOM STREET PROFILE

CONTRACT	DWG No.	REV
	CC6-0038	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/BROOM ST PROFILE

Monday, October 26, 2020 12:36:43 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/BROOM ST PROFILE.dgn
tchau

DWG No. CC6-0028

SCALE (IN FEET)
0 20 40 80

SEE DWG No. CC6-0027
MATCH LINE

PROPOSED SIDEWALK
℄ LAWS STREET EXTENSION
℄ BROOM STREET RAMP
℄ McKINNEY AVENUE
℄ OLD GRIFFIN STREET EXTENSION
PS NO 8 TO CBD-2 EB
STA 34+69.90
BEGIN PORTAL
STA 35+30
PS NO 8 TO CBD-2 WB
STA 34+69.90
℄ McKINNEY AVENUE
GATES MAY BE ADJUSTED OR RELOCATED
BEGIN OF RECONSTRUCTION
McKINNEY AVENUE
END OF RECONSTRUCTION
END OF VERTICAL IMPACT STA 19+77
PROPOSED SIDEWALK
END OF RECONSTRUCTION
℄ LAWS STREET
END OF VERTICAL IMPACT ℄ STA 16+84
℄ OLD GRIFFIN STREET
END OF RECONSTRUCTION
PROPOSED SIDEWALK
℄ CBD-2 EB
END OF RECONSTRUCTION
BEGIN VERTICAL IMPACT ℄ STA 13+63
EXIST. CROSSWALK TO BE REMOVED
N. LAMAR STREET
EXISTING LAW ST ROW (36' R.O.W.)
LAWS STREET
EXISTING OLD GRIFFIN ST ROW (45' R.O.W.)
OLD GRIFFIN STREET
MAGNOLIA STREET
℄ CBD-2 WB
PROPOSED ROW
PROPOSED PEDESTRIAN/BIKE PATH CONSTRUCTED BY DART, MAINTAINED BY OTHERS.
MUNGER STREET

NOTES:

1. SEE DWG No. CC6-0016 FOR PROPOSED TYPICAL SECTIONS:
   BROOM STREET RAMP
   SEE DWG No. CC6-0017 FOR PROPOSED TYPICAL SECTIONS:
   McKINNEY AVENUE
   OLD GRIFFIN STREET
   LAWS STREET
   SEE DWG No. CC6-0039 FOR McKINNEY AVENUE PROFILE
2. McKINNEY AVENUE TO HAVE GATES AND FLASHERS AND SIGNAGE AND ACTIVE CLEARANCE SENSORS FOR LOW CLEARANCE CROSSING
3. SEE DWG NO. CC6-0050 FOR PARKING LOT MODIFICATION PLAN UNDER WOODALL RODGERS FREEWAY.

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 158 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

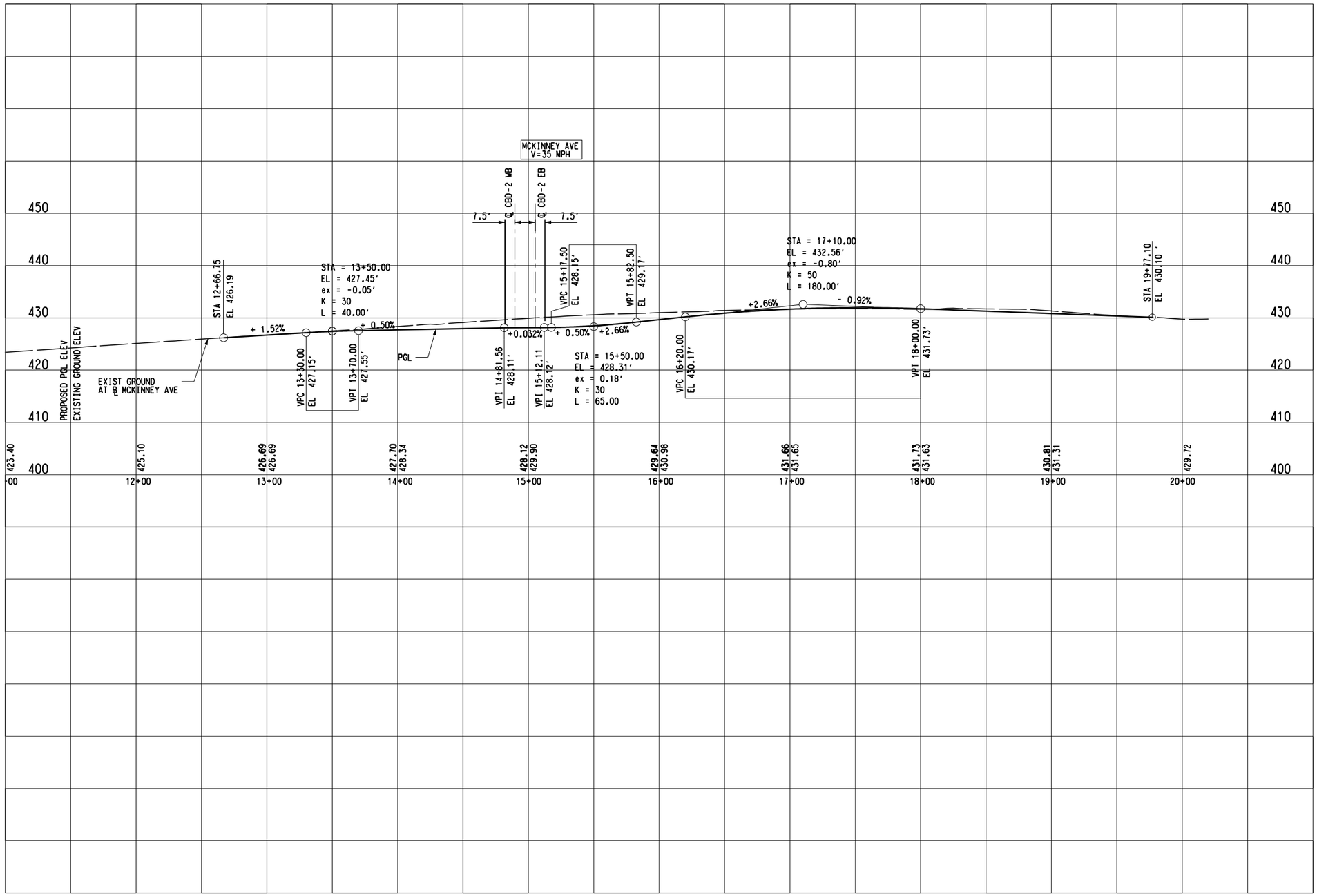
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
NORTHBOUND FRONTAGE ROAD
(McKINNEY AVENUE)
OLD GRIFFIN STREET, LAWS STREET

CONTRACT	DWG No.	REV
	CC6-0028	

26-OCT-2020 12:36
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-NBFR(McKINNEY AVE) SHT2 OF 2
tchau
Default

DWG No. CC6-0039

SCALE (IN FEET)
HORIZ 0 20 40 80
SCALE (IN FEET)
VERT 0 5 10 15 20



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 159 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

MCKINNEY AVENUE PROFILE

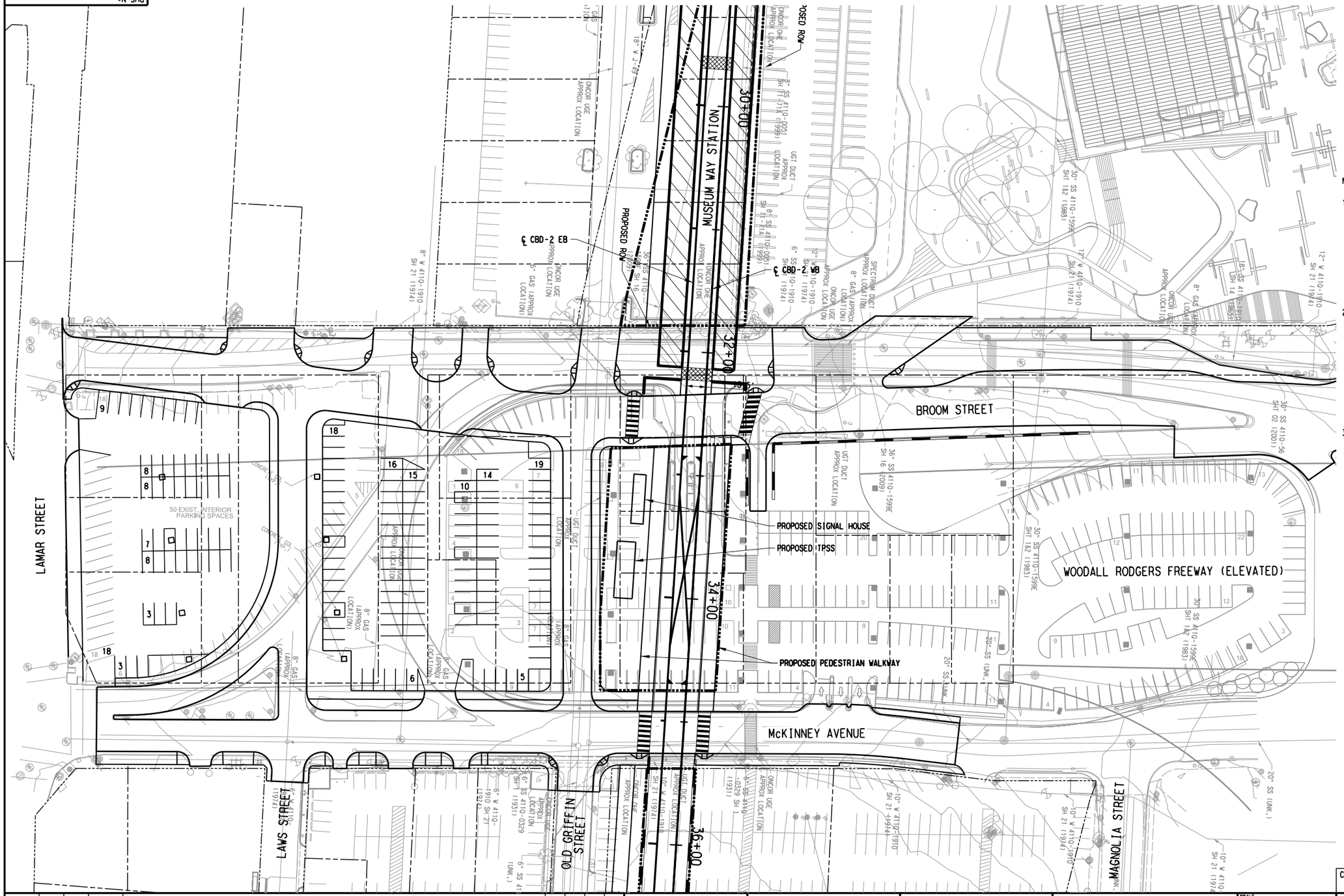
CONTRACT	DWG No.	REV
	CC6-0039	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/MCKINNEY STREET PROFILE

Monday, October 26, 2020 12:36:50 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2

tchau

DWG No. CC6-0050



SCALE (IN FEET)
HORIZ 0 20 40 80

NOTES:

1. EXISTING PARKING SPACES:
   BETWEEN EXIST. U-TURN AND FIELD ST.
   314 (PEROT MUSEUM PARKING LOT B)
   199 (EAST LOT) +
   115 (WEST LOT)

   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   115 (CITY PUBLIC PARKING LOT)
   429 TOTAL

2. RECONFIGURED PARKING SPACES:
   BETWEEN PROP. DART D2 AND FIELD ST.
   199 (PEROT MUSEUM PARKING LOT B TO REMAIN)

   BETWEEN PROP. LAWS ST. AND OLD GRIFFIN ST. EXT.
   103 (PEROT MUSEUM PARKING LOT B RECONFIG.)

   BETWEEN LAMAR ST. AND PROP. LAWS ST. EXTENSION
   64 (CITY PUBLIC PARKING LOT)
   366 TOTAL

3. NET PARKING SPACES:
   MINUS (-) 63

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 160 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124571 ON 10/30/2020 HDR ENGINEERING, INC. TBPE FIRM NO. F-754
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

DART PROJECT

SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PARKING LOT MODIFICATION PLAN
PEROT MUSEUM AND PUBLIC PARKING
UNDER WOODALL RODGERS FREEWAY

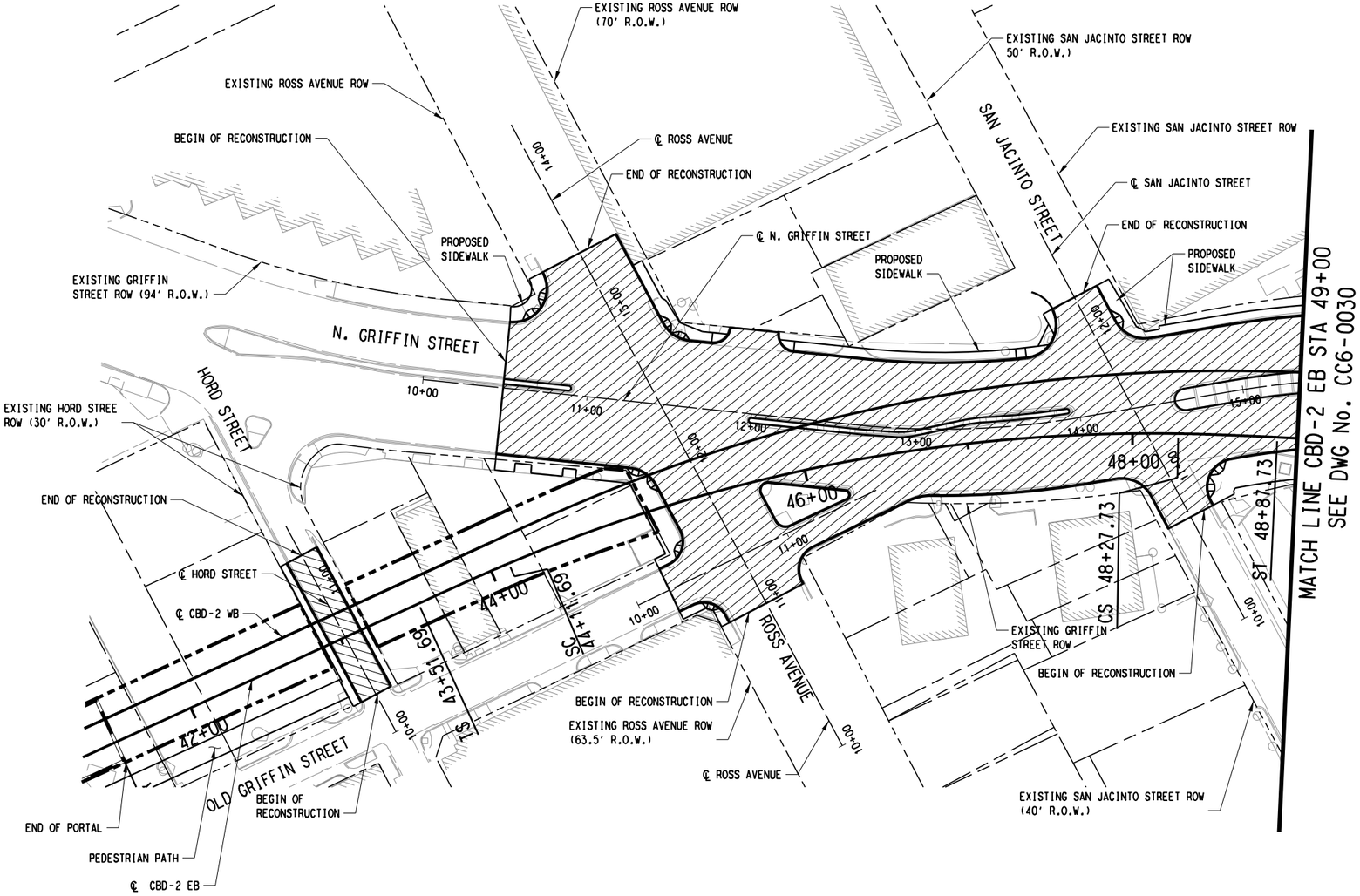
CONTRACT | DWG No. CC6-0050 | REV

Tuesday, October 21, 2020 08:20:55 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-ST\CBD2-CC6-0050.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-ST\CBD2-CC6-0050.040

DWG No. CC6-0029



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0018 FOR PROPOSED TYPICAL SECTIONS:
   HORD STREET
   ROSS AVENUE
   SAN JACINTO STREET

2. SEE DWG No. CC6-0019 FOR PROPOSED TYPICAL SECTIONS:
   N. GRIFFIN STREET

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 161 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

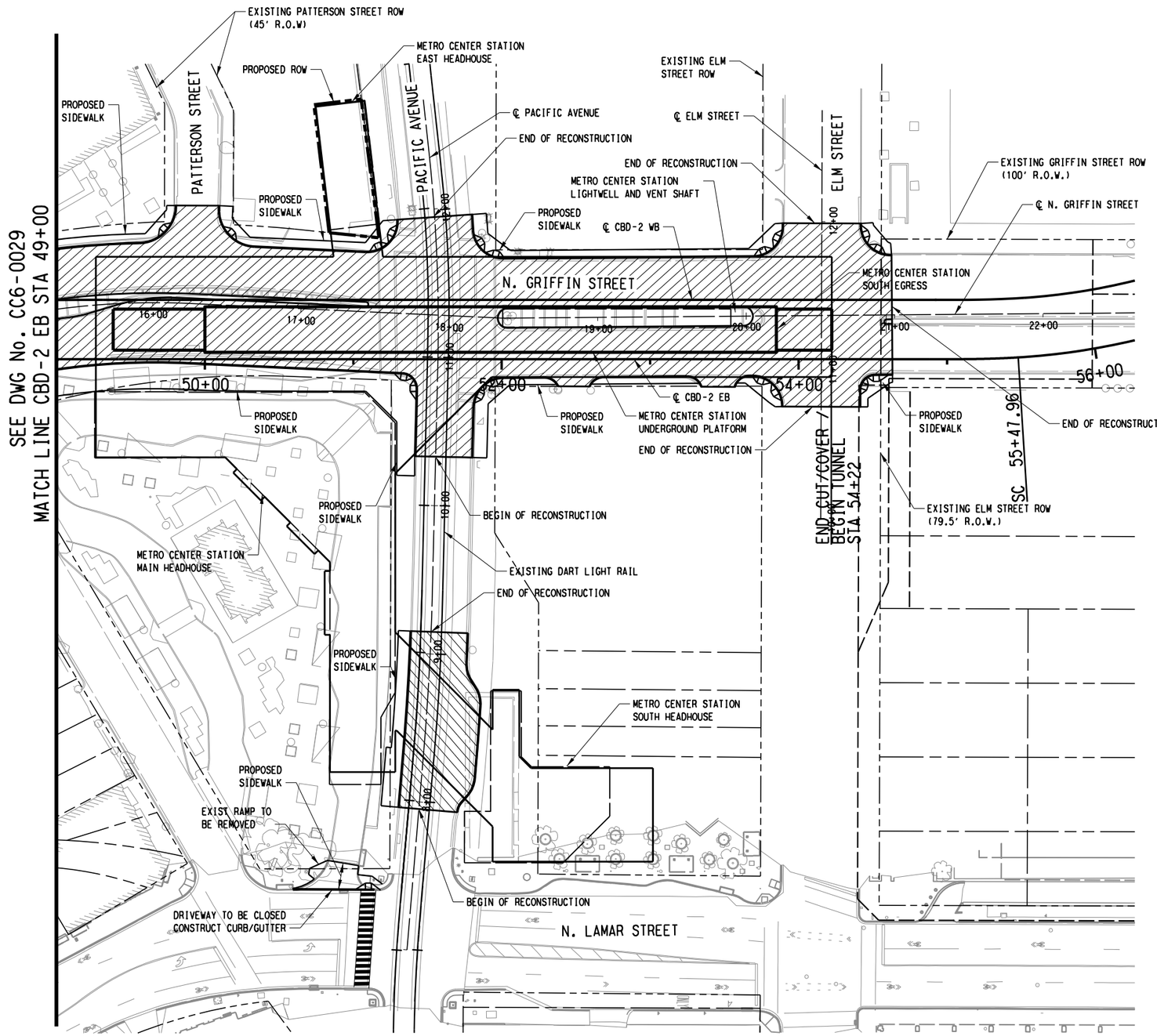
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
N. GRIFFIN STREET, HORD STREET,
ROSS AVENUE, SAN JACINTO STREET
SHEET 1 OF 2

CONTRACT	DWG No.	REV
	CC6-0029	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GRIFFIN ST SHT 1 OF 2

26-OCT-2020 12:36
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GRIFFIN ST SHT 1 OF 2
tchau
Default

DWG No. CC6-0030



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0019 FOR PROPOSED TYPICAL SECTIONS:
   GRIFFIN STREET
   PACIFIC AVENUE
2. SEE DWG No. CC6-0020 FOR PROPOSED TYPICAL SECTIONS:
   ELM STREET

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 162 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

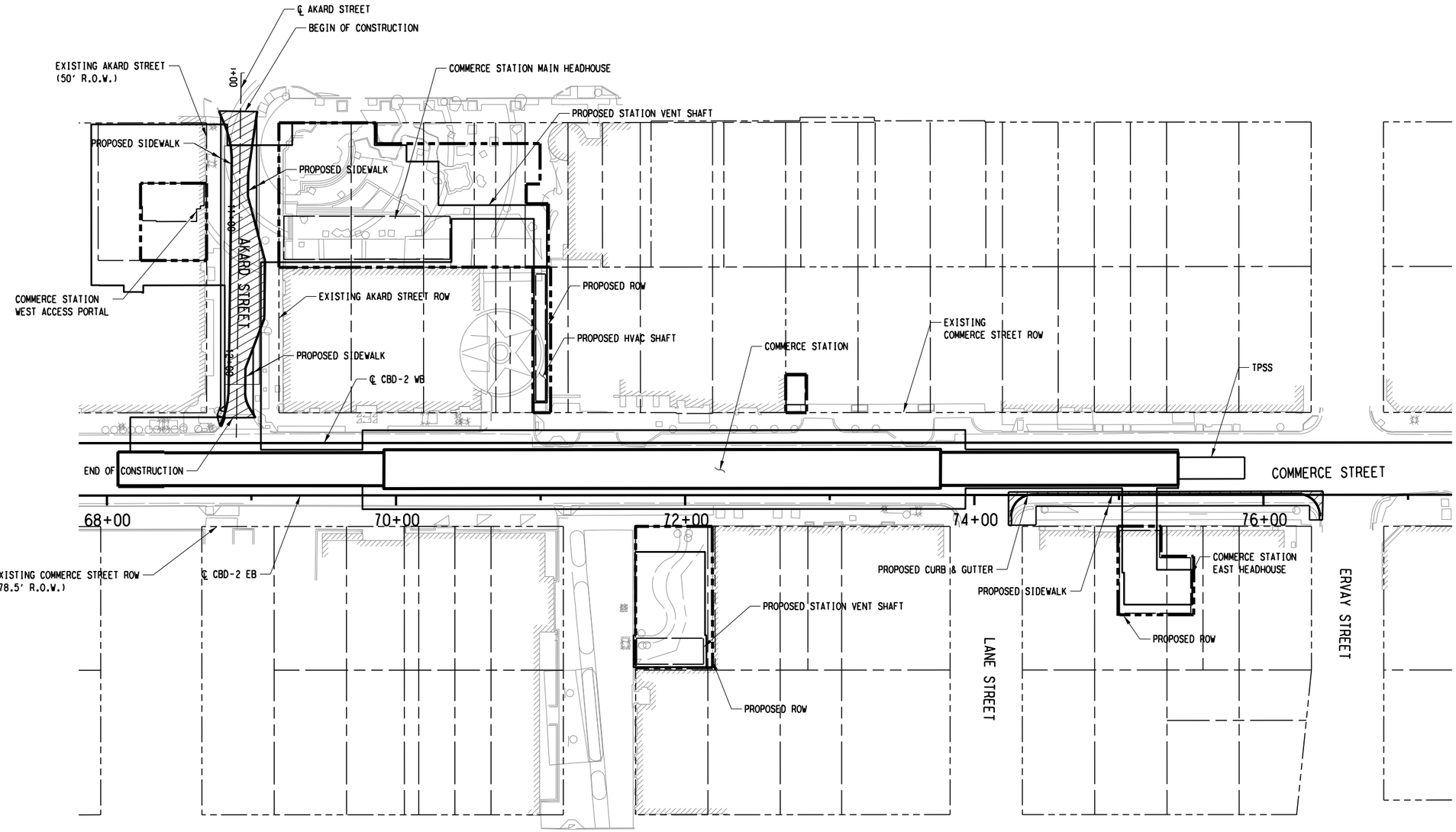
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
N. GRIFFIN STREET
PACIFIC AVENUE, ELM STREET
SHEET 2 OF 2

CONTRACT	DWG No.	REV
	CC6-0030	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GRIFFIN ST SHT 2 OF 2

Monday, October 26, 2020 12:36:58 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GRIFFIN ST SHT 2 OF 2
tchau

DWG No. CC6-0031



SCALE (IN FEET)
0 20 40 80

NOTE:

1. SEE DWG No. CC6-0020 FOR PROPOSED TYPICAL SECTIONS: AKARD STREET
2. SIGNS & PAVEMENT MARKING ARE REQUIRED AT COMMERCE STREET PRIOR TO APPROACH LANE STREET TO REDUCE TRAVEL LANES
3. COORDINATE WITH CITY OVERALL ALONG COMMERCE FOR OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 163 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

STREET MODIFICATION PLAN
AKARD STREET

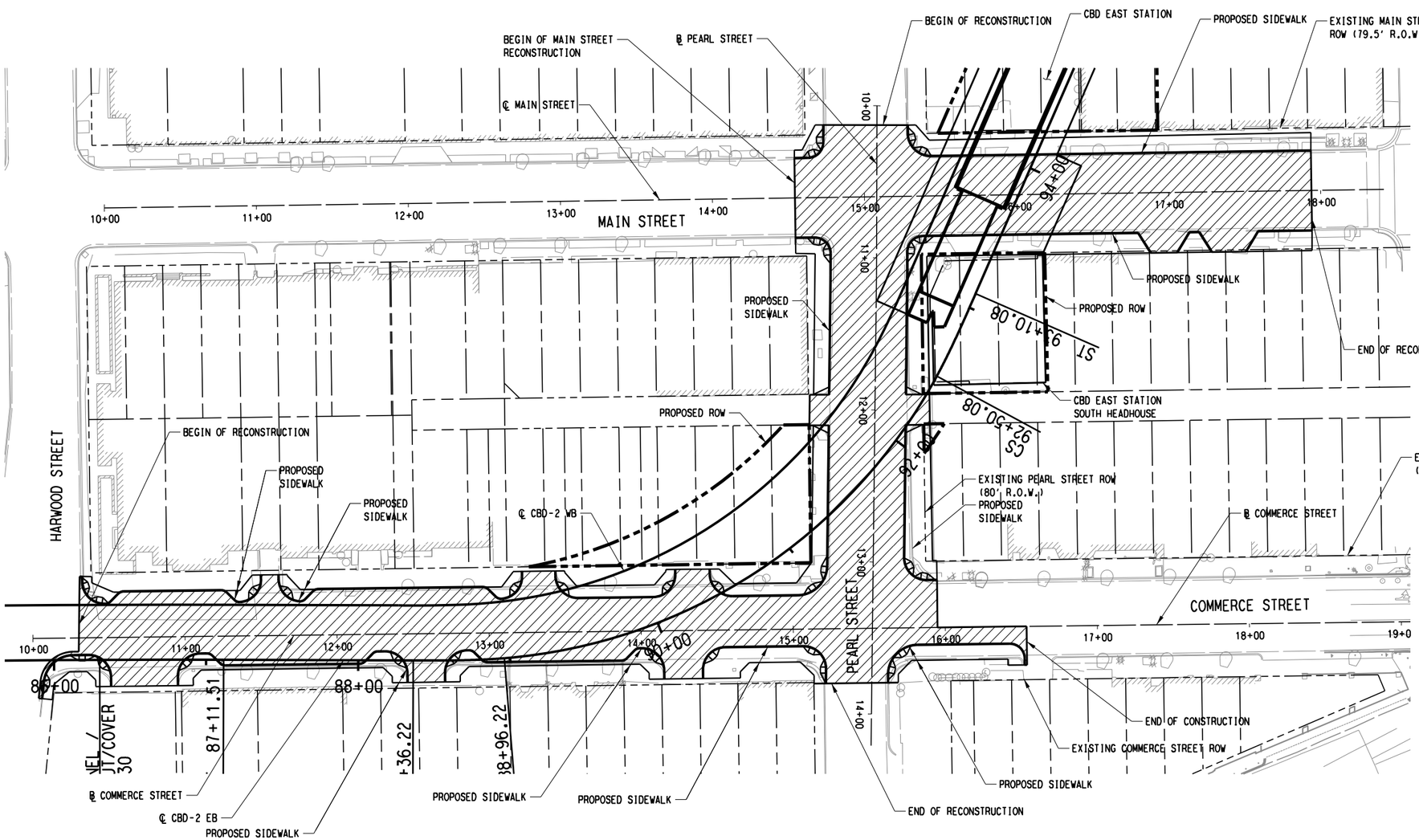
CONTRACT | DWG No. CC6-0031 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-AKARD STREET

Monday, October 26, 2020 12:37:02 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-AKARD STREET

tchau

DWG No. CC6-0032



NOTES:

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS: PEARL STREET
2. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS: COMMERCE STREET MAIN STREET
3. SIGNS & PAVEMENT MARKING ARE REQUIRED AT COMMERCE STREET PRIOR TO APPROACH HARDWOOD STREET TO REDUCE TRAVEL LANES
4. COORDINATE WITH CITY OVERALL ALONG COMMERCE FOR OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 164 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

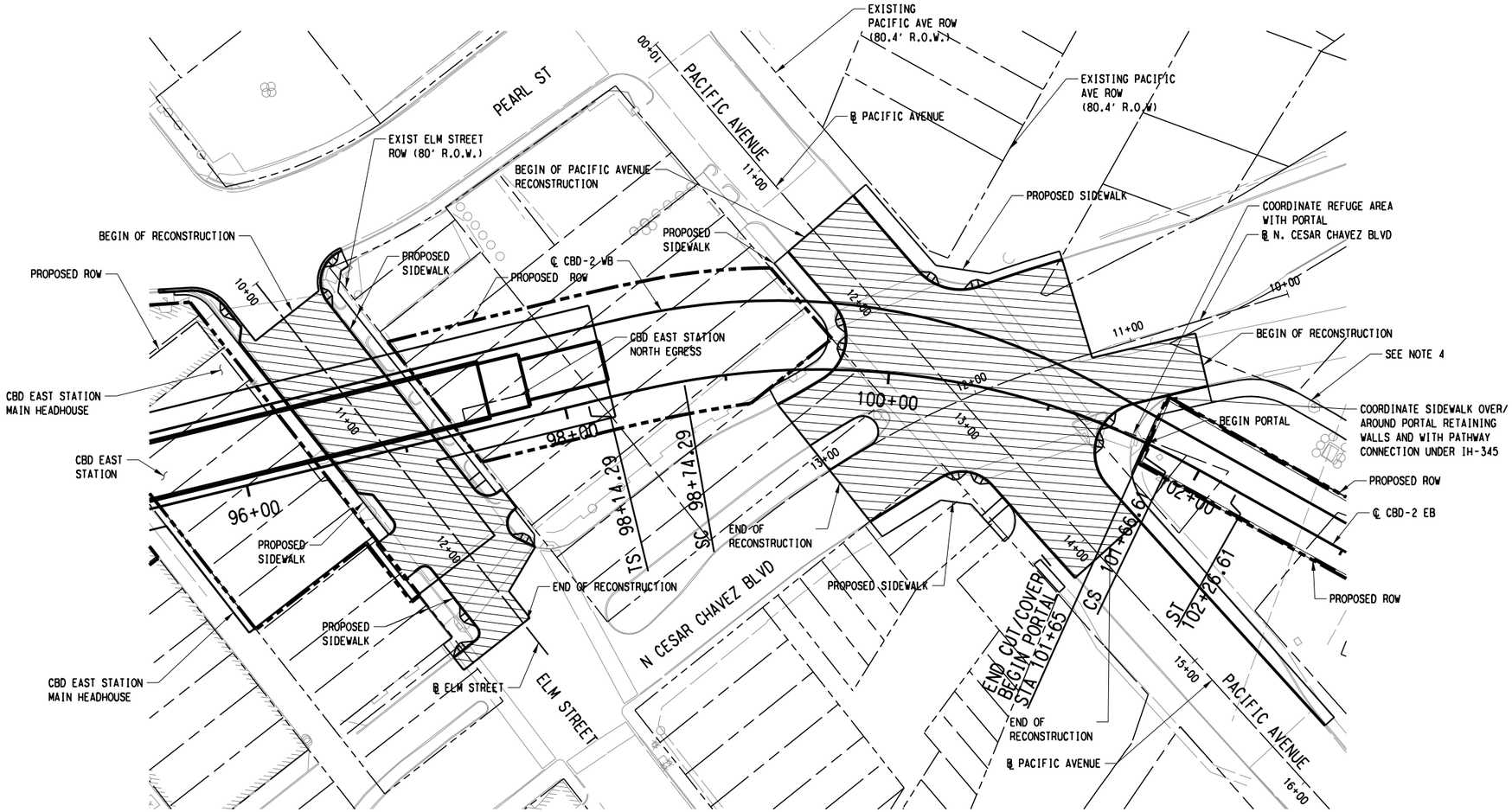
SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
COMMERCE STREET, PEARL STREET, MAIN STREET

CONTRACT	DWG No.	REV
	CC6-0032	

Monday, October 26, 2020 12:37:06 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREEET MOD- COMMERCE & PEARL ST
tchau

DWG No. CC6-0033



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS:
   ELM STREET
2. SEE DWG No. CC6-0022 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE
   N. CESAR CHAVEZ BLVD
3. REFER TO DESIGN REPORT FOR COORDINATION
4. SEE TRACK DWG Nos. CC1-0013 AND CC1-0014 FOR PEDESTRIAN/BIKE PATHWAY.
   PATHWAY TO BE CONSTRUCTED BY DART, MAINTAINED BY OTHERS.

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 165 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

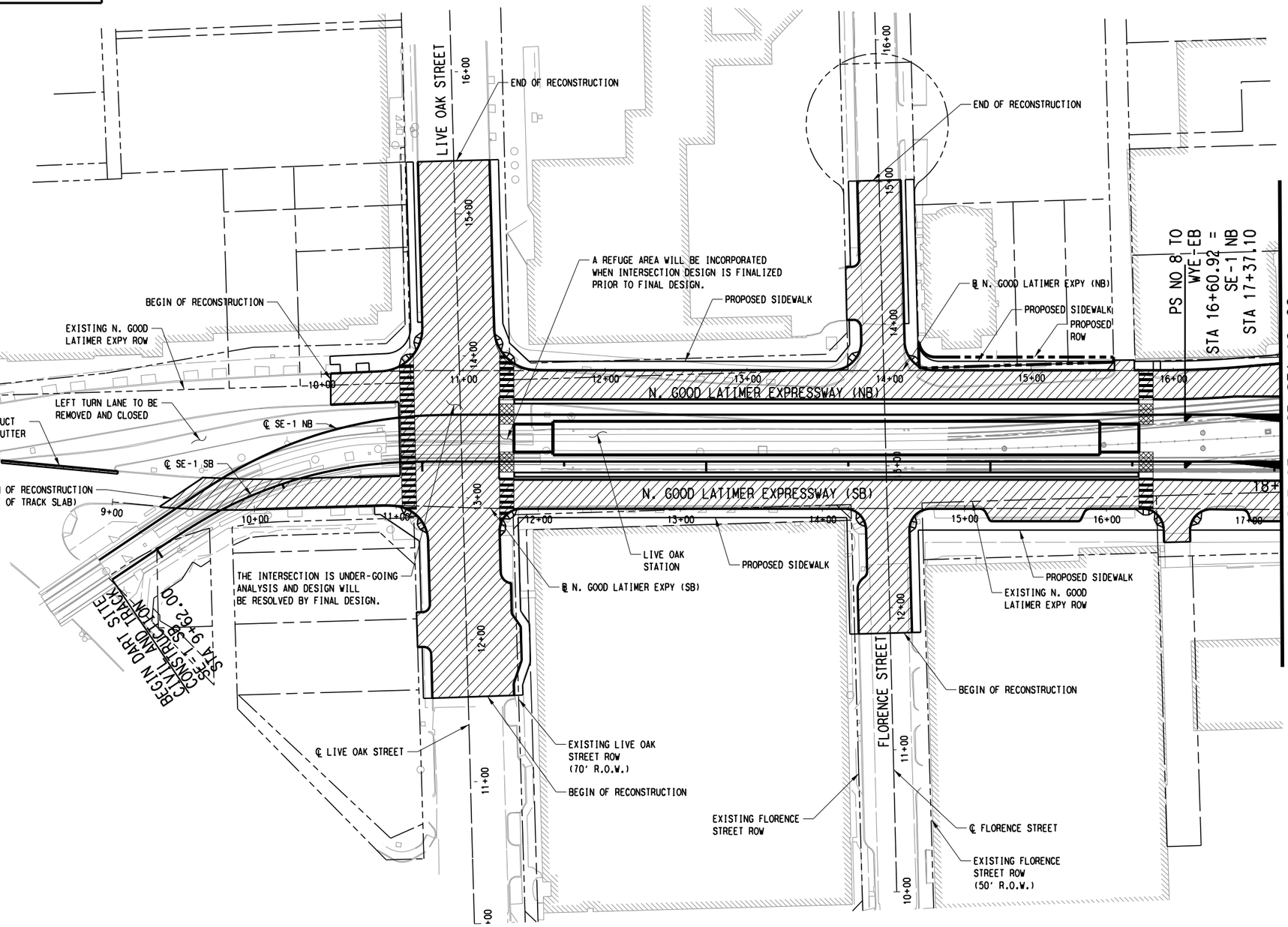
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
ELM STREET, PACIFIC AVENUE
N. CESAR CHAVEZ BLVD

CONTRACT	DWG No.	REV
	CC6-0033	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-ELM-PACIFIC AVE

Monday, October 26, 2020 12:37:09 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-ELM-PACIFIC AVE
tchau

DWG No. CC6-0034



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0023 FOR PROPOSED TYPICAL SECTIONS:
   LIVE OAK STREET
   FLORENCE STREET
2. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   GOOD LATIMER EXPRESSWAY

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

PEDESTRIAN CROSSING

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 166 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JENN-HWAN MA, P.E. NO. 83964 ON 10/30/2020 CIVIL ASSOCIATES, INC. TBPE FIRM NO. F-6981 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC. CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
N. GOOD LATIMER EXPRESSWAY,
LIVE OAK STREET, FLORENCE STREET
SHEET 1 OF 3

CONTRACT | DWG No. CC6-0034 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/10_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GOOD LATIMER EXPWY SHT1 OF 3

Monday, October 26, 2020 12:37:13 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/10_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GOOD LATIMER EXPWY SHT1 OF 3

tchou

DWG No. CC6-0035

SEE DWG No. CC6-0034
MATCH LINE SE-1 SB STA 18+00

SEE DWG No. CC6-0036
MATCH LINE SE-1 SB STA 26+00

A REFUGE AREAS WILL BE INCORPORATED INTO CROSS WALKS NORTH AND SOUTH OF GASTON DURING FINAL DESIGN.

EXISTING N. GOOD LATIMER EXPY ROW

END OF RECONSTRUCTION

℄ N. GOOD LATIMER EXPY

REFUGE AREA

PROPOSED SIDEWALK

SEE NOTE 5

℄ SE-1 NB

℄ SE-1 SB

N. GOOD LATIMER EXPRESSWAY

GASTON AVENUE

END OF RECONSTRUCTION

℄ WYE-EB

℄ CBD-2 WB

PROPOSED SIDEWALK

℄ N. GOOD LATIMER EXPY (SB)

PROPOSED FENCE

℄ WYE-WB

℄ CBD-2 EB

EXISTING MIRANDA STREET TO BE REMOVED

PACIFIC AVENUE

BEGIN OF RECONSTRUCTION

EXISTING SWISS AVE ROW (60' R.O.W.)

EXISTING SWISS AVENUE ROW

PROPOSED SIDEWALK

℄ SWISS AVENUE

℄ PACIFIC AVENUE/GASTON AVEMUE

EXISTING PACIFIC AVE ROW (80' R.O.W.)

BEGIN OF RECONSTRUCTION

HAWKINS STREET

JETWAY STREET (BY OTHERS)

SWISS AVENUE

END OF RECONSTRUCTION

℄ HAWKINS STREET

EXISTING STREET TO BE REMOVED AND RELOCATED

SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPY
2. SEE DWG No. CC6-0025 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE
   HAWKINS STREET
   PACIFIC AVENUE/GASTON AVENUE
3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT SWISS AVENUE, AND N. GOOD LATIMER EXPY (NB) AT GASTON AVENUE TO HAVE GATES AND FLASHERS
4. SWISS AVENUE BETWEEN HAWKINS STREET AND N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY WESTBOND
5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END FROG AND CENTER FROGS OF DIAMOND CROSSING

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 167 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

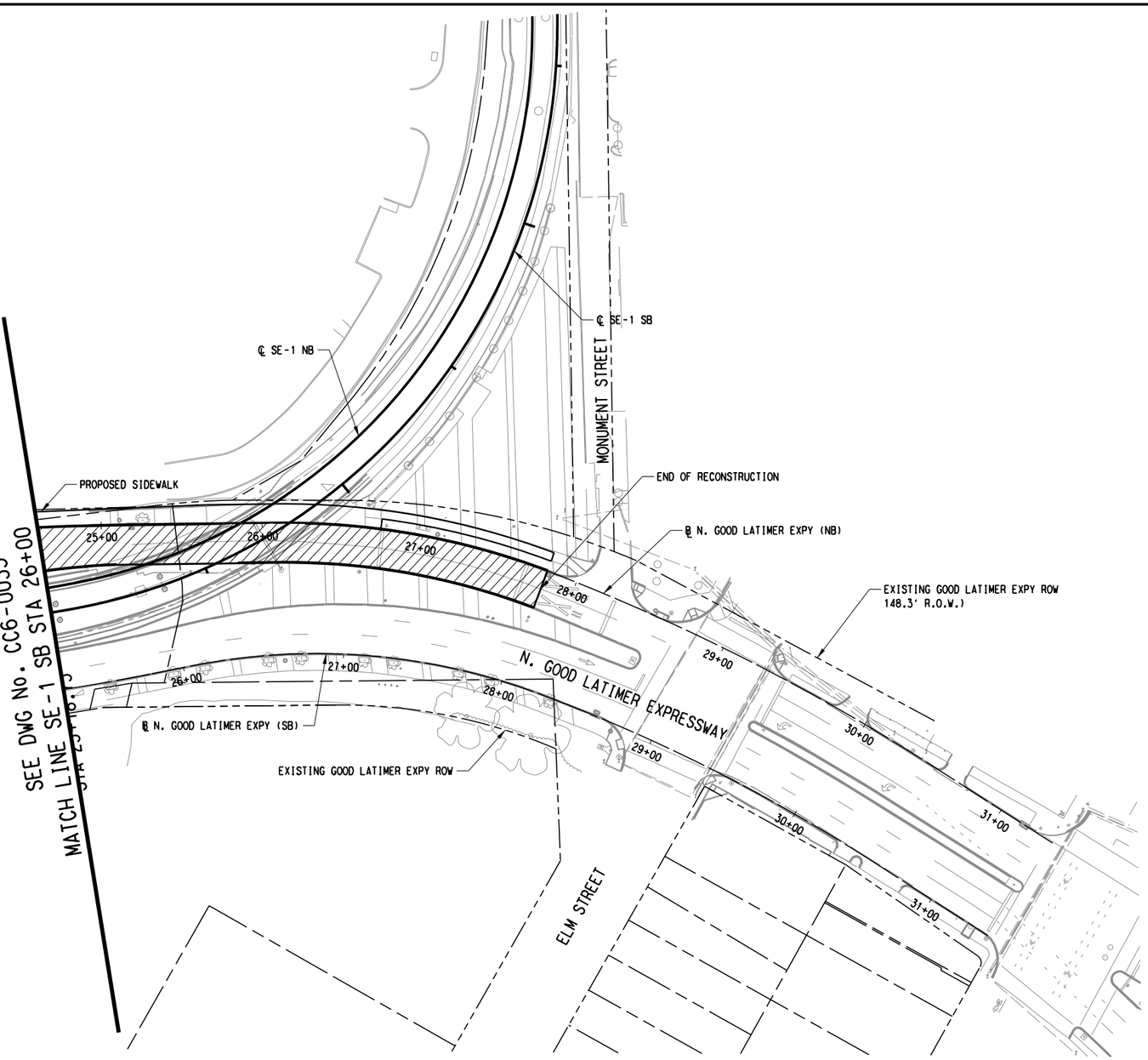
SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STREET MODIFICATION PLAN
N. GOOD LATIMER EXPY, SWISS AVENUE, GASTON AVENUE, HAWKINS STREET
SHEET 2 OF 3

CONTRACT	DWG No.	REV
	CC6-0035	

Monday, October 26, 2020 12:37:16 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GOOD LATIMER EXPWY SHT2 OF 3
tchau

DWG No. CC6-0036



SCALE (IN FEET)
0 20 40 80

NOTE:

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS: N. GOOD LATIMER EXPY

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 168 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JENN-HWAN MA, P.E. NO. 83964
ON 10/30/2020
CIVIL ASSOCIATES, INC.
TBPE FIRM NO. F-6981
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.
CAI
9330 LBJ Frwy, Ste. 1150
Dallas, Texas 75243
TBPE Firm Registration No. 6981

DART PROJECT

SCALE	1"=40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

STREET MODIFICATION PLAN
N. GOOD LATIMER EXPY
SHEET 3 OF 3

CONTRACT	DWG No.	REV
	CC6-0036	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GOOD LATIMER EXPWY SHT3 OF 3

Monday, October 26, 2020 12:37:20 PM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-ST/STREET MOD-GOOD LATIMER EXPWY SHT3 OF 3
tchau

STRUCTURAL GENERAL NOTES

1. GENERAL
   A. THESE NOTES COVER ALL TUNNEL WORKS FOR BORED, CUT-AND-COVER AND SEQUENTIAL EXCAVATION METHOD (SEM) TUNNELS, PORTAL STRUCTURES, UNDERGROUND STATIONS AND RELATED WORKS, INCLUDING TEMPORARY SUPPORTS AS SHOWN ON THESE DRAWINGS.
   B. ALL ELEVATIONS ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
   C. THE CONTROL LINE OF THE PROJECT ALIGNMENT IS THE EASTBOUND CBD-2 TRACK CORRESPONDING TO INCREASING STATIONING.
   D. THE PROFILE GRADE LINE (PGL) IS THE LOW RAIL OF THE EASTBOUND CBD-2 TRACK.
   E. STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH THE SPECIFICATIONS AND THE TUNNEL MONITORING, ARCHITECTURAL, ELECTRICAL, MECHANICAL, PLUMBING, AND CIVIL DRAWINGS.
   F. DIMENSIONS ARE NOT TO BE SCALED OFF DRAWINGS.
   G. SCALES NOTED ON THE DRAWINGS ARE NOT APPLICABLE TO REDUCED SIZE PRINTS.
   H. DIMENSIONS FOR ELEVATOR AND ESCALATOR PITS AND FLOOR OPENINGS SHOWN ON THESE DRAWINGS ARE SUBJECT TO CHANGE BASED ON MANUFACTURERS' SPECIFICATIONS.
   I. ALL REINFORCING STEEL DIMENSIONS SHOWN ON THE DRAWINGS ARE TO THE CENTERLINE OF BAR, UNLESS NOTED OTHERWISE.
   J. CONTRACTOR SHALL SUBMIT ALL REQUIRED SHOP DRAWINGS FOR APPROVAL PRIOR TO FABRICATION OR DELIVERY OF MATERIALS TO THE SITE.
   K. COORDINATION WITH TxDOT IS REQUIRED IN THE AREA OF WOODALL RODGERS EXPRESSWAY AND IH-345.
   L. COORDINATION WITH TxDOT IS REQUIRED FOR TEMPORARY SHORING AND OTHER STRUCTURAL CONSIDERATIONS DURING EAST PORTAL CONSTRUCTION UNDER IH-345.

2. CODES AND REFERENCES:
   A. "DALLAS AREA RAPID TRANSIT LIGHT RAIL PROJECT DESIGN CRITERIA MANUAL," JANUARY 31, 2003.
   B. AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, "AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS: 8TH EDITION, 2017"
   C. AMERICAN CONCRETE INSTITUTE, ACI 318-19 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE"
   D. "ACI MANUAL OF CONCRETE PRACTICE" OF THE AMERICAN CONCRETE INSTITUTE (2017).
   E. ACI 544.4R GUIDE TO DESIGN WITH FIBER REINFORCED CONCRETE.
   F. ACI COLLECTION OF CODES, SPECIFICATIONS AND PRACTICES (2017 OR LATEST RELEASE).
   G. "STRUCTURAL WELDING CODE - STEEL" OF THE AMERICAN WELDING SOCIETY (AWS D1.1/D1.1M:2018).
   H. "2017 ANNUAL BOOK OF ASTM STANDARDS" OF THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, (ASTM).
   I. GEOTECHNICAL DESIGN MEMORANDUM (GDM)
   J. GEOTECHNICAL BASELINE REPORT (GBR) (IF AVAILABLE)

3. DESIGN LOADS
   A. DEAD LOADS:
      a. MATERIALS: ACTUAL UNIT WEIGHT
      b. SOIL (BUOYANCY CHECK) = 110 PCF
      c. SOIL (OTHER) = 130 PCF MIN
      d. CONCRETE = 150 PCF
      e. HYDROSTATIC PRESSURE: GROUNDWATER TABLE SHOWN IN GEOTECHNICAL PROFILE.
      f. LATERAL EARTH PRESSURE: REFER TO GEOTECHNICAL DESIGN MEMORANDUM.
   B. LIVE LOADS:
      a. RAPID TRANSIT VEHICLE PER DART DESIGN CRITERIA MANUAL
      b. SAFETY WALK 85 PSF
      c. AIR PRESSURE ON UNDERGROUND FROM RUNNING TRAIN 70 PSF.
      d. SEISMIC LOADS: REFER TO DART DESIGN CRITERIA MANUAL, SECTION 10.3.

4. DESIGN STRENGTH:
   A. CAST-IN-PLACE CONCRETE.
      a. FOR UNDERGROUND STRUCTURES f'c=5000 PSI.
      b. FOR TUNNEL FINAL LINING f'c=5000 PSI.
   B. SHOTCRETE f'c=5000 PSI.
      a. SHOTCRETE - STEEL FIBER REINFORCED f'c=5000 PSI.
      b. SMOOTHING LAYER f'c=5000 PSI.
   C. SLURRY WALL f'c=4500 PSI.
   D. PRECAST CONCRETE - TUNNEL LINING
      a. TWO-PASS f'c=6000 PSI.
   E. REINFORCING STEEL:
      a. ASTM A615 GRADE 60 fs= 24,000 PSI.
      b. PRECAST TUNNEL LINING: ASTM A706 GRADE 60 fs=24,000 PSI.
   F. WELDED WIRE FABRIC: ASTM A1064.
   G. STRUCTURAL STEEL:
      a. PLATES AND BARS: ASTM A36 AND A501 Fy = 36,000 PSI.
      b. STRUCTURAL SHAPES: ASTM A572 GRADE 50 Fy= 50,000 PSI.
      c. SHIELD PRECAST SEGMENT LINER: ASTM A572 GRADE 60 Fy=60,000 PSI.
   H. STRUCTURAL STEEL TUBING: ASTM A1085 GRADE A Fy=46,000 PSI.
   WHERE:
   f'c IS 28-DAY COMPRESSIVE STRENGTH.
   Fy IS YIELD STRENGTH.
   fs IS ALLOWABLE TENSILE STRENGTH.

5. STRUCTURAL DESIGN BASIS:
   A. THE STRUCTURES ARE DESIGNED TO RESIST DESIGN LOADS ONLY AS COMPLETED STRUCTURES, UNLESS OTHERWISE INDICATED ON THE DRAWINGS. ANY PROPOSED APPLICATION OF CONSTRUCTION LOADS WHICH EXCEED THE DESIGN LOADS, OR ANY LOADS APPLIED TO THE PARTIALLY COMPLETED STRUCTURES WILL REQUIRE ANALYSIS.
   B. INSTALL BACKFILL AGAINST OPPOSITE SIDES OF THE UNDERGROUND STRUCTURES SIMULTANEOUSLY. DO NOT INSTALL BACKFILL THAT WILL CAUSE AN UNBALANCED LATERAL LOAD TO THESE STRUCTURES.
   C. WHERE A SPECIFIC MODEL AND MANUFACTURER OF AN ITEM ARE NAMED ON THE DRAWINGS AND IN THE SPECIFICATIONS, THE MODEL AND MANUFACTURER NAMED ARE THE BASIS OF DESIGN. ITEMS BY OTHER MANUFACTURERS OF EQUAL DESIGN MAY BE SUBMITTED FOR CONSIDERATION AS APPROVED EQUAL.
   D. ALL PERMANENT UNDERGROUND STRUCTURES ARE DESIGNED IN ACCORDANCE WITH ACI 318 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE".
   E. FURTHER DEVELOPMENT OF FACILITY AND RAIL SYSTEMS, MEP, FIRE-LIFE SAFETY AND VENTILATION DESIGN WILL RESULT IN CHANGES TO THE LAYOUTS AND DIMENSIONS SHOWN ON THE ARCHITECTURAL AND STRUCTURAL DRAWINGS IN FUTURE ADVANCED DESIGN STAGES.
   F. NOT ALL DATA ON EXISTING CONDITIONS IS CURRENTLY AVAILABLE. EXISTING BUILDING LOCATION, BASEMENT DEPTH AND FOUNDATION DETAILS MUST BE VERIFIED THROUGH INVESTIGATION AND SURVEY. NECESSARY MEASURES TO SUPPORT AND PROTECT SUCH STRUCTURES SHALL BE ESTABLISHED BASED ON IN-SITU CONDITIONS.

6. SHOTCRETE AND CAST-IN-PLACE CONCRETE:
   A. REINFORCEMENT SHALL BE DETAILED IN ACCORDANCE WITH ACI SP-66 "DETAILING MANUAL".
   B. MINIMUM CONCRETE COVER FOR ALL PERMANENT LINING REINFORCING STEEL SHALL BE 2 INCHES AND IN ACCORDANCE WITH ACI 318-19 "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE."
   C. THE MINIMUM LAP SPLICE AND EMBEDMENT LENGTHS SHALL BE ACCORDING TO ACI 318.
   D. REINFORCEMENT DETAILING, BAR SUPPORT, SPACERS, AND ACCESSORIES SHALL BE IN ACCORDANCE WITH ACI 315 "DETAILS AND DETAILING OF CONCRETE REINFORCEMENT".
   E. NON-STRUCTURAL REINFORCING STEEL REQUIREMENTS. BAR SUPPORT, SPACERS AND ACCESSORIES ARE THE RESPONSIBILITY OF THE CONTRACTOR AND ARE NOT SHOWN ON THE DRAWINGS. STRUCTURAL REINFORCING STEEL WILL BE SHOWN ON FINAL DESIGN DRAWINGS.
   F. REINFORCEMENT SPLICE BY MECHANICAL CONNECTORS, OTHER THAN CADWELD, SHALL NOT BE PERMITTED. NO INCREASE IN THE CONTRACT PRICE WILL BE ALLOWED FOR USE OF MECHANICAL CONNECTORS. MANUFACTURER'S DATA ON MECHANICAL CONNECTORS SHALL BE SUBMITTED FOR REVIEW.
   G. COORDINATE AND VERIFY ALL CONCRETE WORK WITH ALL OTHER TRADES TO ENSURE PROPER PROVISIONS FOR INSERTS, CONDUITS, PULL BOXES, SLEEVES, DRAINS, PIPING MANHOLES AND ARCHITECTURAL REQUIREMENTS BEFORE PLACEMENT OF CONCRETE.
   H. ALL MINED STRUCTURES SHALL BE CONSIDERED DRY STRUCTURAL CONDITION WITH CLOSED TYPE OF WATERPROOFING SYSTEM.
   I. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE INSTALLATION OF ALL OPENINGS AND ALL ITEMS PERTAINING TO THE DIFFERENT TRADES SHOWN ON THE RESPECTIVE DRAWINGS.
   J. CHAMFER ALL EXPOSED CONCRETE EDGES ¾", UNLESS OTHERWISE NOTED.

DEVELOPMENT AND LAP SPLICE LENGTHS FOR f'c = 5000 PSI & Fy=60,000 PSI

REINFORCEMENT			TENSION				COMPRESSION	
BAR SIZE	BAR AREA (SQ IN)	BAR DIA (IN)	DEVELOPMENT LENGTH (INCHES)		SPLICE LENGTH (INCHES)		DEVELOPMENT LENGTH (INCHES)	SPLICE LENGTH (INCHES)
			TOP BARS	OTHER BARS	TOP BARS	OTHER BARS		
4	0.20	0.500	23	17	29	23	9	15
5	0.31	0.625	28	22	36	28	11	19
6	0.44	0.750	34	26	44	34	14	23
7	0.60	0.875	49	38	63	49	16	26
8	0.79	1.000	56	43	72	56	18	30
9	1.00	1.128	63	48	81	63	19	34
10	1.27	1.270	71	54	92	71	22	38
11	1.56	1.41	78	60	102	78	24	42

7. CONSTRUCTION AND CONTRACTION JOINTS:
   A. ALL CONSTRUCTION AND CONTRACTION JOINTS SHALL BE IN A TRUE VERTICAL PLANE EXCEPT IN TUNNELS AND CUT-AND-COVER BOXES, WHERE THE JOINTS SHALL BE PERPENDICULAR TO THE RAIL GRADE.
   B. UNLESS NOTED OTHERWISE, ROUGHEN OR KEY ALL CONSTRUCTION AND CONTRACTION JOINTS AS SHOWN ON DRAWINGS. ORIENTATION OF THE CONSTRUCTION AND CONTRACTION JOINT KEYS IS TO BE DETERMINED IN ACCORDANCE WITH THE SEQUENCE OF CONSTRUCTION.
   C. ALL CONSTRUCTION JOINTS IN EXTERIOR WALLS AND SLABS SHALL BE BONDED JOINTS.
   D. ADDITIONAL CONSTRUCTION JOINTS NOT INDICATED ON THE DRAWINGS MAY BE ADDED ONLY WITH APPROVAL OF THE DESIGN BUILD ENGINEER. REINFORCEMENT MUST BE CONTINUOUS ACROSS THE JOINTS.
   E. ALL CONTRACTION JOINTS SHALL HAVE A BOND BREAKER APPLIED.
   F. IN OPEN-CUT AND CUT-AND-COVER STRUCTURES, PROVIDE PVC AND BENTONITE COMPOSITE WATERSTOPS IN ALL EXTERIOR WALLS AND SLABS AT ALL CONSTRUCTION AND CONTRACTION JOINTS.
   G. ALL CONDUITS IN THE EXTERIOR WALLS AND SLABS SHALL BE ROUTED ON THE DRY SIDE OF THE WATERSTOPS.
   H. THE SPACING BETWEEN TRANSVERSE CONSTRUCTION JOINTS IN THE CONCRETE ARCH LINING SHALL BE AT 30'-0" MAXIMUM MEASURED ALONG THE MINED TUNNEL CENTERLINE. UNLESS OTHERWISE SHOWN ON THE DRAWING. CHANGING THE CONSTRUCTION JOINT LOCATIONS AT ENDS WILL BE PERMITTED ONLY WITH THE WRITTEN ACCEPTANCE OF THE ENGINEER.
   I. TRANSVERSE CONSTRUCTION JOINTS AT DIFFERENT LOCATIONS OR IN ADDITION TO THOSE SHOWN ON THE DRAWINGS WILL BE PERMITTED ONLY WITH THE WRITTEN ACCEPTANCE OF THE ENGINEER.
   J. CONSTRUCTION JOINTS IN CAST-IN-PLACE CONCRETE LININGS TO BE LOCATED AT LOCATIONS OF RADIAL WATER BARRIERS (AS SHOWN ON THE WATERPROOFING DRAWINGS).
   K. CONSTRUCTION JOINTS IN THE CAST-IN-PLACE CONCRETE INVERT IN THE MINED TUNNELS SHALL BE 50'-0" MAXIMUM MEASURED ALONG TUNNEL CENTER LINE.

8. MINED TUNNEL AND CAVERN
   A. FOR TUNNELS, CAVERNS, CROSS PASSAGES AND ADITS MINED BY THE SEQUENTIAL EXCAVATION METHOD (SEM), SEE SPECIFICATION SECTION 02362 "EXCAVATION BY SEQUENTIAL EXCAVATION METHOD (SEM)."
   B. ALL SUPPORT (SHOTCRETE AND REINFORCEMENT) FOR EACH EXCAVATION ROUND SHALL BE COMPLETED AS SHOWN, PRIOR TO COMMENCING NEXT EXCAVATION ROUND.
   C. DIMENSIONS DO NOT INCLUDE ALLOWANCES FOR DEFORMATION OF GROUND AND INITIAL LINING, MINING TOLERANCES AND THICKNESS OF WATERPROOFING SYSTEM.

9. WATERPROOFING DESIGN
   A. FOR WATERPROOFING OF CUT-AND-COVER TUNNELS, STATIONS, ENTRANCE AND VENTILATION STRUCTURES, AND MINED TUNNELS, STATION CAVERNS, ADITS, CROSS PASSAGES, PUMP AND SUMP STRUCTURE, SEE SPECIFICATION SECTION 07748 "WATERPROOFING - RUNNING TUNNELS AND STATIONS."
   B. FOR WATERPROOFING OF U-WALL STRUCTURES AT WEST AND EAST PORTALS, SEE SPECIFICATION SECTION 07747 "WATERPROOFING - PORTAL STRUCTURES."

10. UNDERPINNING
   A. THE DESIGN OF UNDERPINNING SYSTEMS, WHERE REQUIRED TO SUPPORT AND PROTECT THE EXISITNG STRUCTURES AND UTILITIES, SHALL CONFORM TO DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION."
   B. EXISTING FOUNDATIONS SHALL BE INSPECTED PRIOR TO COMMENCING ANY EXCAVATION BELOW THE BOTTOM OF EXISTING FOUNDATIONS. DEFICIENT FOUNDATIONS SHALL BE REPARIED AND/OR REINFORCED AS REQUIRED TO CONSTRUCT THE UNDERPINNING.
   C. EXCAVATION FOR UNDERPINNING SHALL BE STAGED AS NECESSARY TO LIMIT THE IMPACT ON EXISTING BUILDING FOUNDATIONS.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 169 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TUNNEL
STRUCTURAL GENERAL NOTES

CONTRACT | DWG No. GC3-0001 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-STR/GENERAL NOTES

26-OCT-2020 11:53
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3
bwhiteside
Default

26-OCT-2020 11:53
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3

ABBREVIATIONS

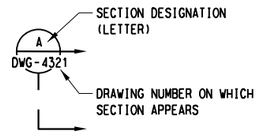
ABT	ABOUT
ADDL	ADDITIONAL
ALT	ALTERNATE
APPROX	APPROXIMATE
ARCH	ARCHITECTURE
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUX	AUXILIARY
AVE	AVENUE
AVG	AVERAGE
BAL	BALANCE
BF	BOTH FACES
BH	BORE HOLE
BKF	BACKFILL
BL	BUILDING LINE
BLDG	BUILDING
BLS	BLUE LIGHT STATION
BLVD	BOULEVARD
BM	BENCH MARK
BM	BEAM
B/O	BOTTOM OF
BOC	BOTTOM OF CONCRETE
BOT	BOTTOM
BRG	BEARING
BRS BTW	BLAST RELIEF SHAFT BETWEEN
C/C	CUT & COVER
C TO C	CENTER TO CENTER
CBD	CENTRAL BUSINESS DISTRICT
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT
CLR	CLEARANCE, CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS
CS	CURVE-TO-SPIRAL
D	DEEP
DEG OR °	DEGREE
DET	DETAIL
DI	DRAIN INLET
DIA	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM DL	DIMENSION DEAD LOAD
DN	DOWN
DW	DEAD WEIGHT
DWG	DRAWING
E	EAST
EA	EACH, ELEVATION ACTUAL
EB	EAST BOUND
EEN2	EMERGENCY EXIT NORTH 2
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRICAL
ELEV	ELEVATOR
EMER	EMERGENCY
EMP EQ, =	EMERGENCY MANAGEMENT PANEL EQUAL
EOR	ENGINEER OF RECORD
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EACH SIDE
ESC	ESCALATOR
ETEL	EMERGENCY TELEPHONE
EVF	EMERGENCY VENTILATION FAN
EW	EACH WAY
EXC	EXCAVATE, EXCAVATION
EXIST	EXISTING
EXP	EXPANSION
EXPY	EXPRESSWAY
FIN GR	FINISHED GRADE
FT	FOOT/FEET
GA	GAGE OR GAUGE
GALV	GALVANIZED
GDM	GEOTECHNICAL DESIGN MEMORANDUM
GEN	GENERAL
GL	GRID LINE
GRD	GROUND
HCR	HYDROCARBON RESISTANT (MEMBRANE)
HDPE	HIGH DENSITY POLYETHYLENE (MEMBRANE)
HH	HANDHOLE
HORIZ	HORIZONTAL
HP	HIGH POINT
HS BOLT	HIGH STRENGTH BOLT
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
IN	INCH, INCHES
INCL	INCLUSIVE, INCLUDING
INV	INVERT
IR	INSIDE RADIUS
JT	JOINT
K	KIP OR KIPS
KF	KIP FOOT
KLF	KIPS PER LINEAR FOOT
KOP	KNOCK-OUT PANEL
KSF	KIPS PER SQARE FOOT
KSI	KIPS PER SQARE INCH
L	LENGTH OR ANGLE
LB OR LBS	POUND, POUNDS
LH	LEFTHAND
LIN	LINEAR, LINEAL
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONGIT	LONGITUDINAL
LP	LOW POINT
LT	LEFT
LVC	LENGTH OF VERTICAL CURVE
LWP	LOWER WORKING POINT
MAINT	MAINTENANCE
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MEP	MECHANICAL/ELECTRICAL/PLUMBING
MEZZ	MEZZANINE
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
N	NORTH
NAVD88	NORTH AMERICAN VERTICAL DATUM OF 1988
NF	NEAR FACE
NIC	NOT IN CONTRACT
No., NO.	NUMBER
NOM	NOMINAL
NS	NEARSIDE
NTS	NOT TO SCALE
OPP	OPPOSITE
OPNG	OPENING
PC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PE	PRELIMINARY ENGINEERING
PED	PEDESTRIAN
PERIM	PERIMETER
PGL	PROFILE GRADE LINE
PH	PLASTIC HINGE
PL OR P/L	PROPERTY LINE
PLATF	PLATFORM
PROJ	PROJECTION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE
R OR RAD	RADIUS
R/W OR ROW	RIGHT-OF-WAY
RC	REINFORCED CONCRETE
RD	ROAD
REF	REFERENCE
REINF	REINFORCING OR REINFORCEMENT
REQ'D	REQUIRED
REV	REVISION, REVISED
RH	RIGHT HAND
RI	RISER, RISERS
RT	RIGHT
S	SOUTH
SAD	SEE ARCHITECTURAL DRAWINGS
SC	SPIRAL-TO-CURVE
SCH OR SCHED	SCHEDULE
SEC	SECOND
SECT	SECTION
SEM	SEQUENTIAL EXCAVATION METHOD
SFR	STEEL FIBER REINFORCED
SHT	SHEET
SIM	SIMILAR
SLV	SHORT LEG VERTICAL
SOE	SUPPORT OF EXCAVATION
SPA	SPACE/SPACES
SPEC	SPECIFICATION
SQ	SQUARE
SQ FT OR SF	SQUARE FOOT
SQ IN OR SI	SQUARE INCH
SS	STAINLESS STEEL
ST	SPIRAL-TO-TANGENT, STREET
STA	STATION (ALIGNMENT)
STD	STANDARD
STIFF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURAL, STRUCTURE
SUP	SUPPORT
SYM	SYMMETRICAL
T/, T/O	TOP OF
T&B	TOP & BOTTOM
T/R	TOP OF RAIL
TAN	TANGENT
TBD	TO BE DETERMINED
TBM	TUNNEL BORING MACHINE
TEMP	TEMPORARY
THK	THICK
TOC	TOP OF CONCRETE
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPSS	TRACTION POWER SUB-STATION
TR	TREAD/TREADS
TRK	TRACK
TS	TANGENT-TO-SPIRAL
TW	TREAD WIDTH
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UP	UNDER PLATFORM
UWP	UPPER WORKING POINT
VENT	VENTILATION
VERT	VERTICAL
VPC	VERTICAL POINT OF CURVE
VPI	VERTICAL POINT OF INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
W	WEST, WIDE
WB	WEST BOUND
WI	WITH
W/O	WITHOUT
WD	WIDTH
WL	WIND LOAD
WP	WORK POINT
WT	WATER TABLE

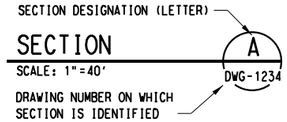
LEGEND

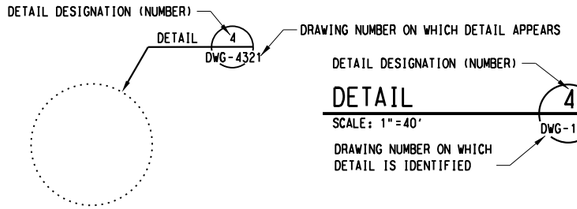
- CONCRETE
- GROUND LINE
- BEDROCK
- OPENING IN SLAB OR WALL
- SHOTCRETE
- STEEL GRATING

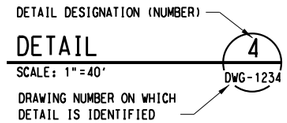
SYMBOLS

&	AND
@	AT
℄	CENTERLINE
⌖	CONTROL POINT
°	DEGREE
Ld	DEVELOPMENT LENGTH
Ø	DIAMETER
=	EQUAL TO
'	FOOT OR FEET
"	INCH OR INCHES
()'	MINUTE
%	PERCENTAGE
ℙ	PLATE
#	REBAR SIZE
()"	SECOND
⌖	WORK POINT
— - —	CENTERLINE
	GROUNDWATER TABLE
	MATCHLINE
	HEADED REINFORCEMENT
	HOOKED REINFORCEMENT (STD HOOK OR OTHERWISE)
— — —	OUTLINE OF UNDER-SLAB BEAM, WALL OR COLUMN
. . . . .	OUTLINE OF UNDER-SLAB FOOTING
	THEORETICAL TUNNEL EXCAVATION LINE
	WATERPROOFING









D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 170 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

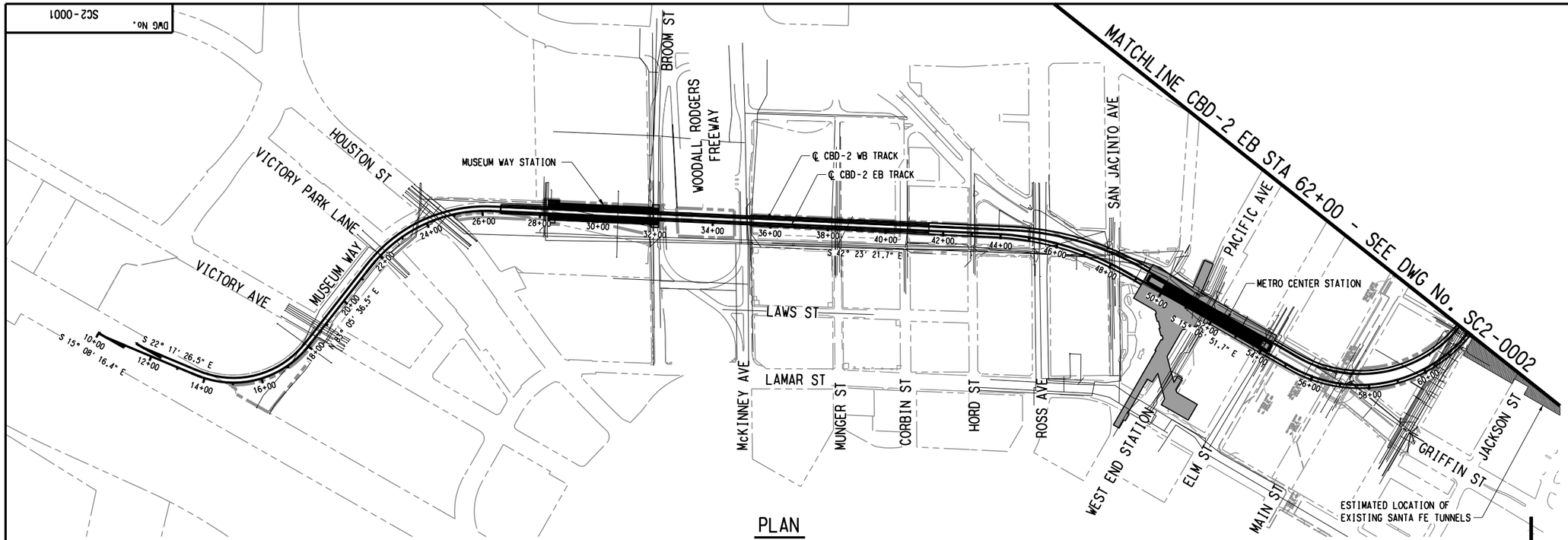
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TUNNEL
STRUCTURAL SYMBOLS AND ABBREVIATIONS

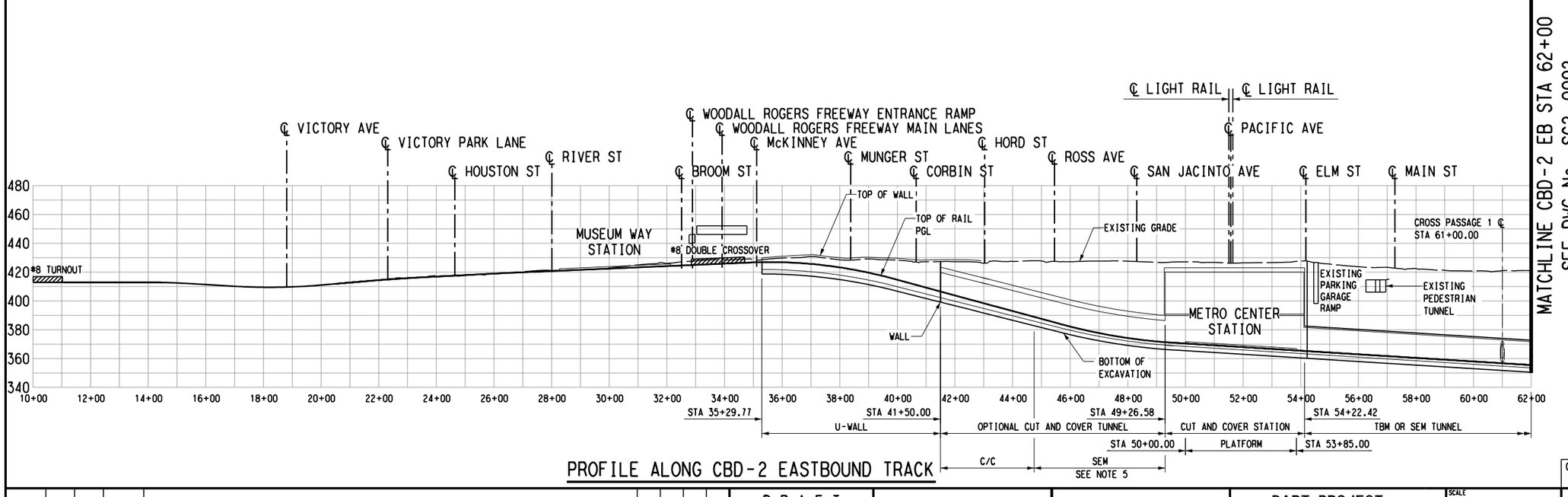
CONTRACT | DWG No. GC3-0002 | REV

bwhiteside
Default

DWG No. SC2-0001



PLAN



PROFILE ALONG CBD-2 EASTBOUND TRACK

SCALE (IN FEET)
HORIZ 0 100' 200' 400'
SCALE (IN FEET)
VERT 0 20' 40' 80'

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
3. FOR TRACK ALIGNMENT DATA, SEE GUIDEWAY PLAN AND PROFILE DRAWINGS.
4. FOR EXISITING UNDERGROUND UTILITIES, SEE EXISTING UTILITY COMPOSITE DRAWINGS.
5. OPTIONAL SEM TUNNEL CONSTRUCTION TO BE INVESTIGATED.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 171 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	AS SHOWN
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TUNNEL
PLAN AND PROFILE
STA 10+00 TO STA 62+00

CONTRACT	DWG No.	REV
	SC2-0001	

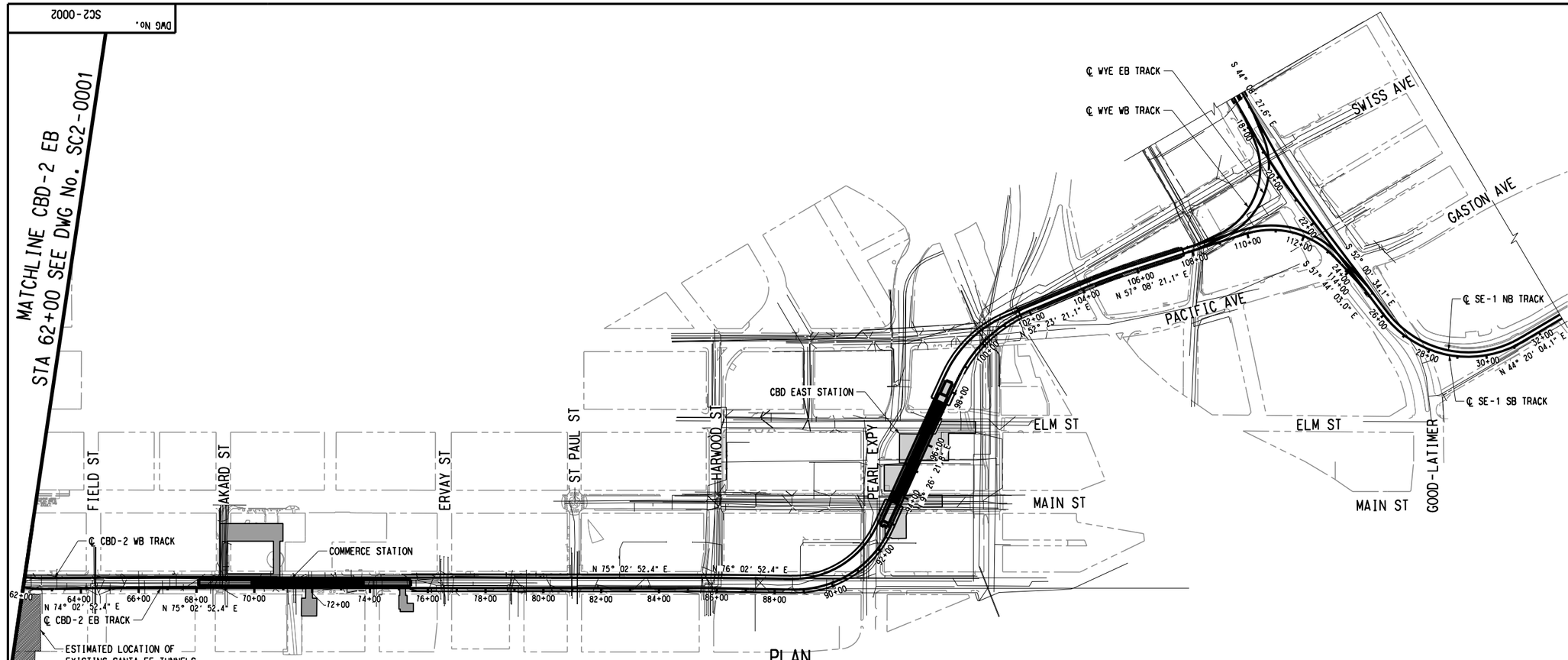
26-OCT-2020 11:53
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3

bwhiteside
Default

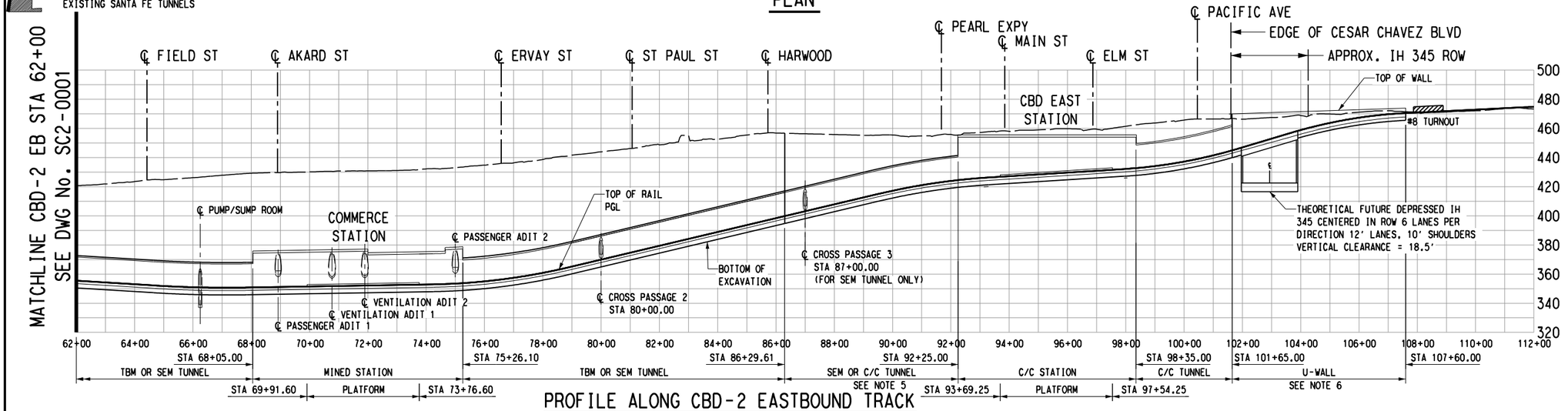
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-STR/Plan and Profile - BEGINNING TO 62+00

DWG No. SC2-0002

MATCHLINE CBD-2 EB STA 62+00 SEE DWG No. SC2-0001



PLAN



PROFILE ALONG CBD-2 EASTBOUND TRACK

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
3. FOR TRACK ALIGNMENT DATA, SEE GUIDEWAY PLAN AND PROFILE DRAWINGS.
4. FOR EXISITING UNDERGROUND UTILITIES, SEE EXISTING UTILITY COMPOSITE DRAWINGS.
5. OPTIONAL SEM TUNNEL CONSTRUCTION TO BE INVESTIGATED.
6. U-WALL AT EAST PORTAL TO BE COORDINATED WITH OVERHEAD HIGHWAY BENTS FOUNDATION DURING PE DESIGN.
7. FINAL DESIGNER TO DETERMINE FINAL LOCATION AND SIZE OF PUMP/SUMP ROOMS.

SCALE (IN FEET) HORIZ 0 100' 200' 400'

SCALE (IN FEET) VERT 0 20' 40' 80'

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 172 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	AS SHOWN
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

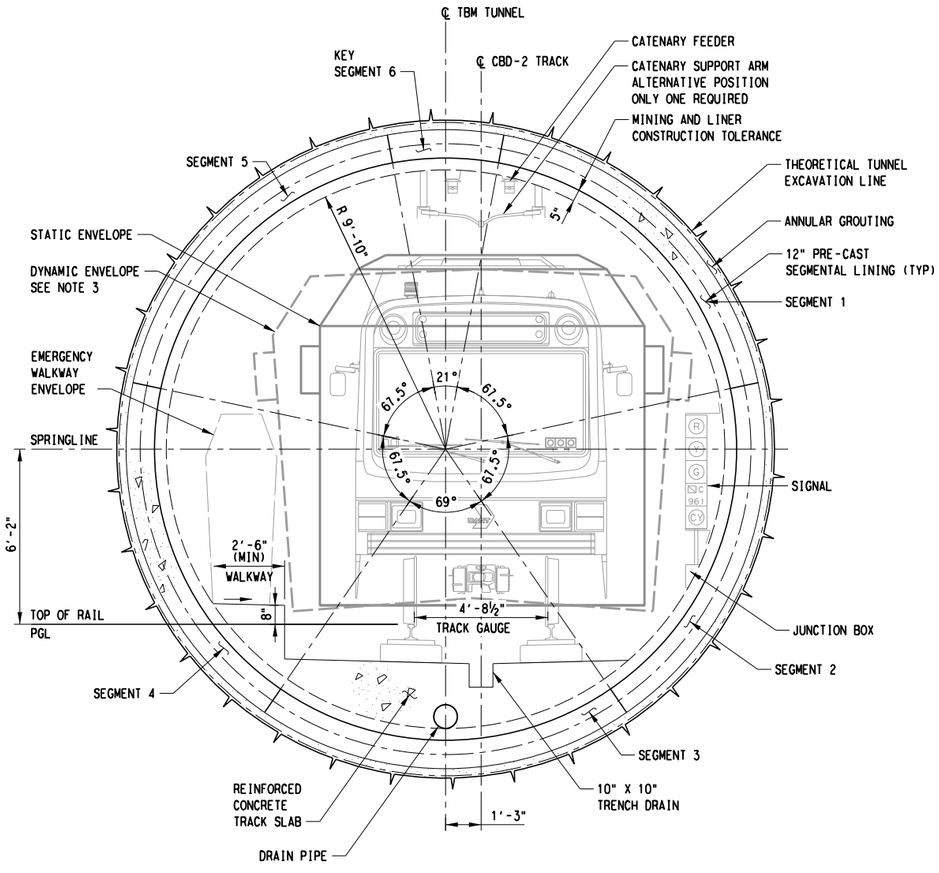
TUNNEL
PLAN AND PROFILE
STA 62+00 TO STA 112+00

CONTRACT	DWG No.	REV
	SC2-0002	

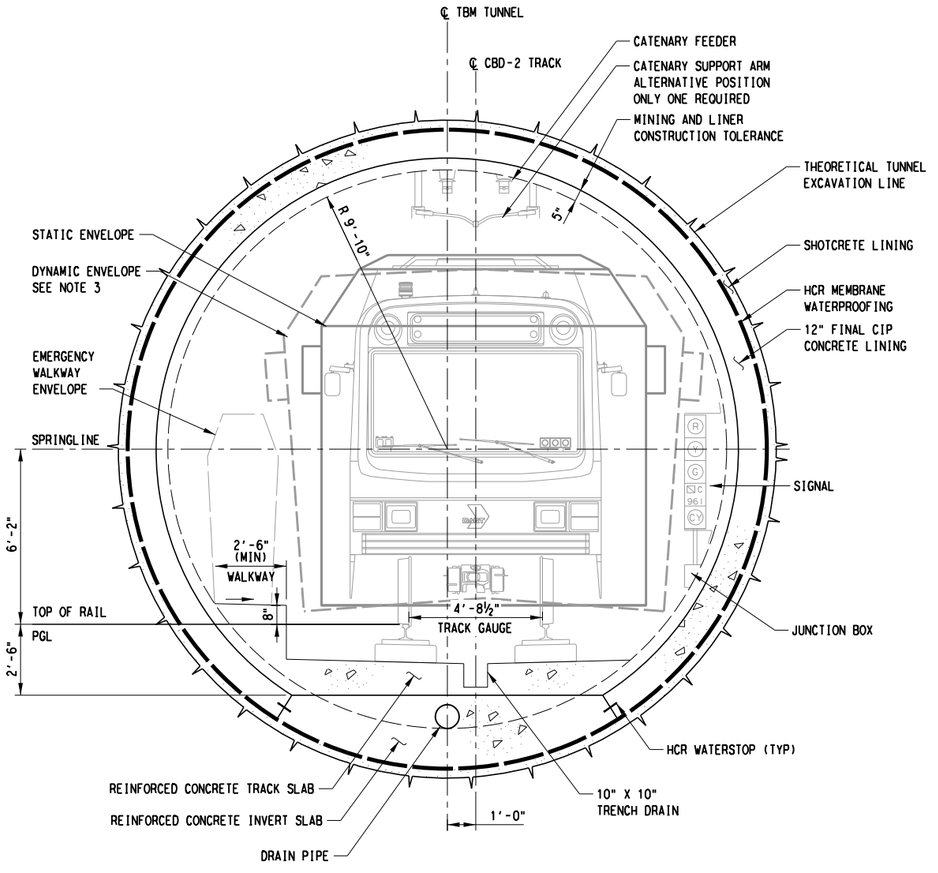
26-OCT-2020 11:53
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-STR/Plan and Profile - 62+00 TO END

26-OCT-2020 11:53
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0001



WESTBOUND
(SECTION LOOKING WEST)



EASTBOUND
(SECTION LOOKING EAST)

SCALE (IN FEET)
0 1 2 4

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. DYNAMIC ENVELOPES SHOWN ARE FOR CURVED TRACK, R=300', WITH SUPERELEVATION: 1.5".
4. MINIMUM CLEARANCE BETWEEN TOP OF RAIL AND BOTTOM OF CATENARY CABLE SHALL BE 14-FEET.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

TBM RUNNING TUNNEL WITH PRECAST SEGMENTAL LINER
TYPICAL SECTION - OPTION 1 WESTBOUND TUNNEL AS SHOWN
SCALE: ⅜" - 1'-0" EASTBOUND TUNNEL OPP HAND

TBM RUNNING TUNNEL WITH CAST-IN-PLACE CONCRETE LINER
TYPICAL SECTION - OPTION 2 EASTBOUND TUNNEL AS SHOWN
SCALE: ⅜" - 1'-0" WESTBOUND TUNNEL OPP HAND

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 173 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅜"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TBM RUNNING TUNNEL - SINGLE BORE
TYPICAL SECTION
OPTIONS 1 & 2

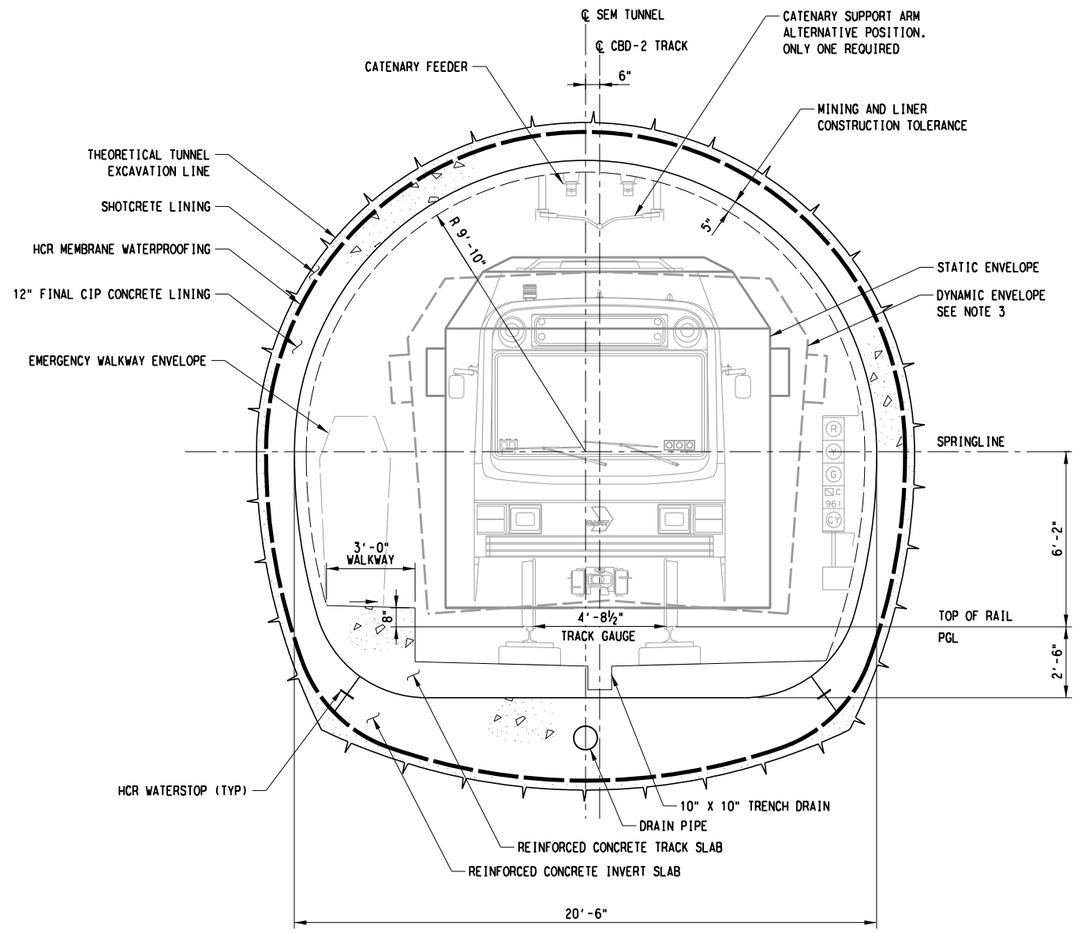
CONTRACT	DWG No.	REV
	SC8-0001	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1

DWG No. SC8-0002



EASTBOUND
(SECTION LOOKING EAST)

SCALE (IN FEET)
0 1 2 4

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. DYNAMIC ENVELOPE SHOWN IS FOR CURVED TRACK, R=300', WITH SUPERELEVATION: 1.5".
4. MINIMUM CLEARANCE BETWEEN TOP OF RAIL AND BOTTOM OF CATENARY CABLE SHALL BE 14-FEET.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

SEM RUNNING TUNNEL TYPICAL SECTION - OPTION 3

SCALE: ⅜" - 1'-0"

EASTBOUND TUNNEL AS SHOWN
WESTBOUND TUNNEL OPP HAND

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 174 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅜"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

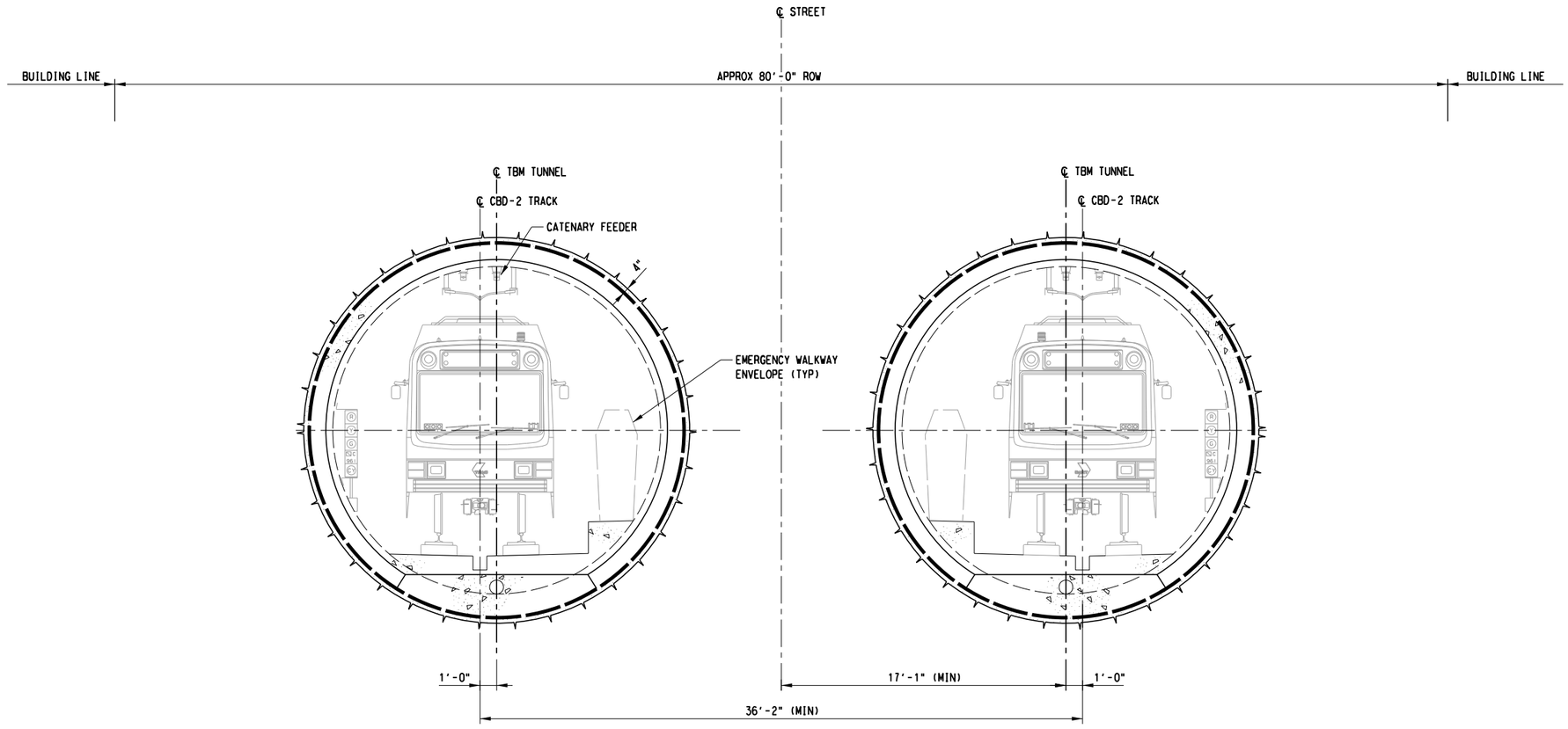
SEM RUNNING TUNNEL - DETAILS
TYPICAL SECTION
OPTION 3

CONTRACT | DWG No. SC8-0002 | REV

bwhitesi de
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0003



SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THIS CROSS-SECTION ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.
4. TUNNEL ROW AND ADEQUACY OF PILLAR BETWEEN THE TUNNEL BORES TO BE FURTHER INVESTIGATED.
5. TYPICAL SECTION SHOWN FOR TBM TUNNEL WITH CIP CONCRETE LINER. TBM TUNNEL WITH PRECAST SEGMENTAL LINER, SIMILAR.

TWIN BORE RUNNING TUNNEL TYPICAL SECTION

SCALE: ¼" - 1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 175 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	¼"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TBM RUNNING TUNNEL - TWIN BORE
TYPICAL SECTION

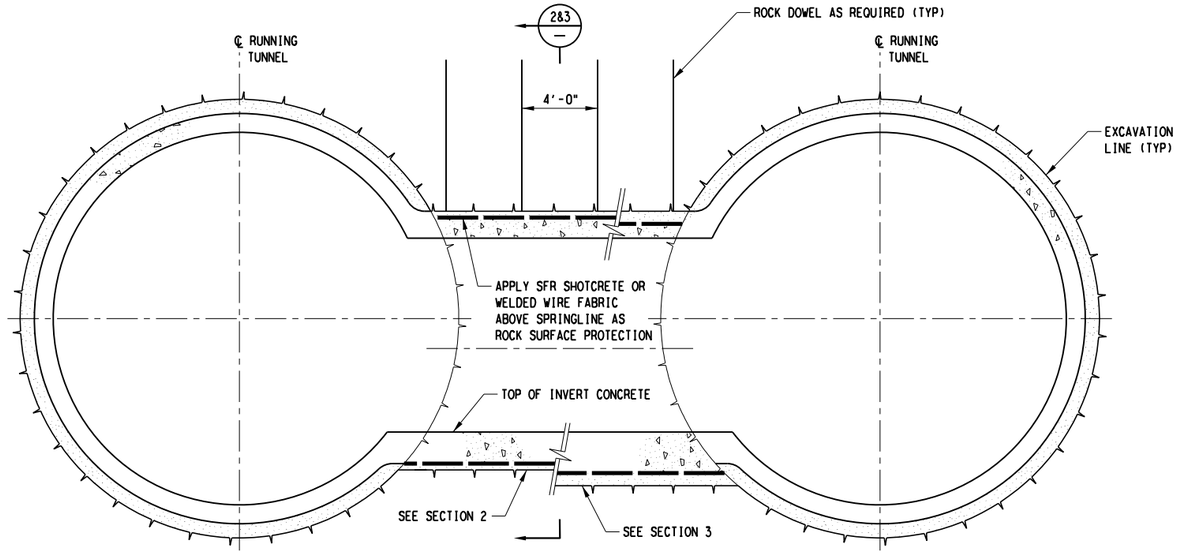
CONTRACT	DWG No.	REV
	SC8-0003	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

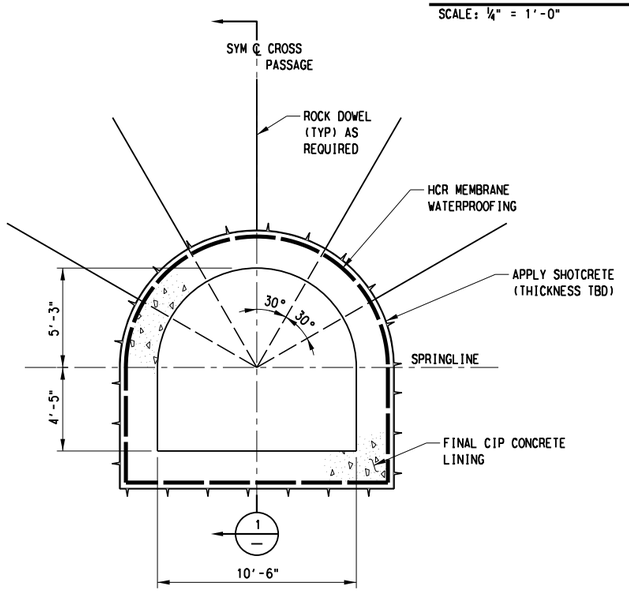
26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0004



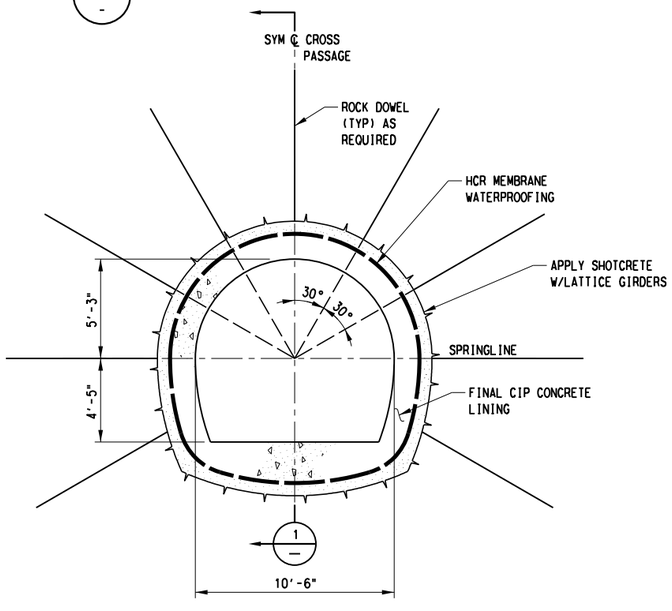
CROSS PASSAGE WITH GROUND SUPPORT - SECTION 1/-

SCALE: ¼" = 1'-0"



CROSS PASSAGE IN ROCK CLASS I - SECTION 2/-

SCALE: ¼" = 1'-0"



CROSS PASSAGE IN ROCK CLASS II - SECTION 3/-

SCALE: ¼" = 1'-0"

SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR ROCK CLASS DEFINITIONS, SEE GEOTECHNICAL DESIGN MEMORANDUM 3 (GDM 3).

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 176 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	¼"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

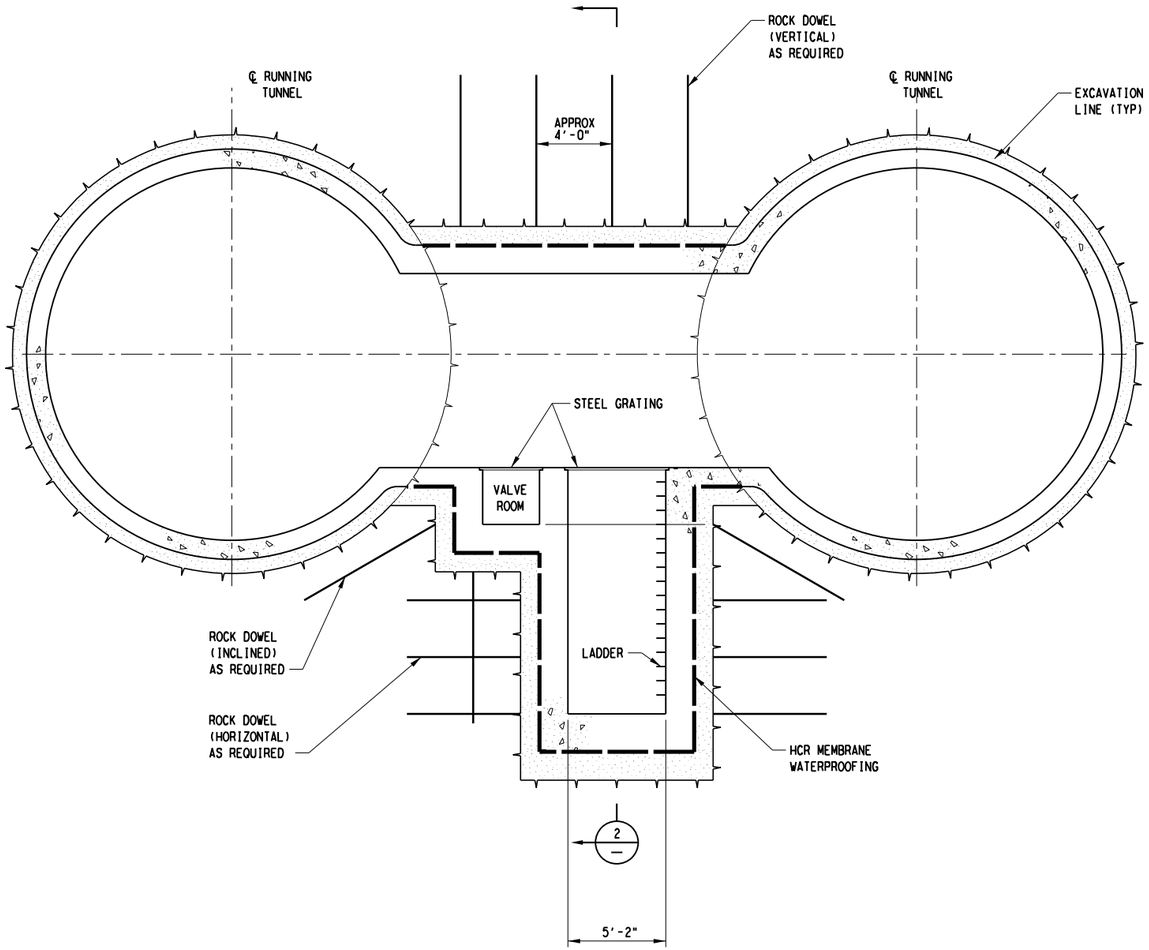
CROSS PASSAGE
FOR TBM RUNNING TUNNELS
INITIAL AND FINAL SUPPORTS

CONTRACT	DWG No.	REV
	SC8-0004	

bwhiteside
Default

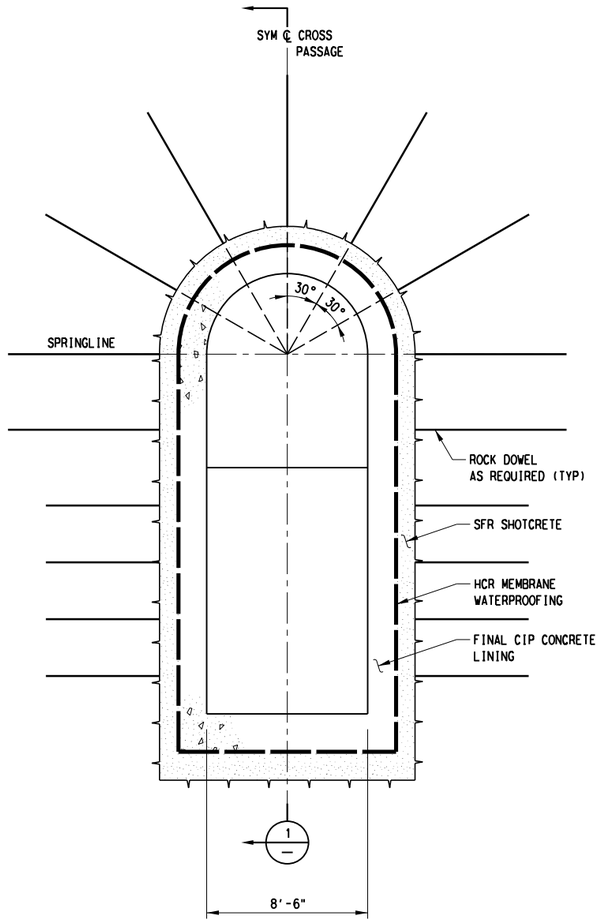
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



PUMP/SUMP ROOM WITH GROUND SUPPORT - SECTION 1

SCALE: ¼" = 1'-0"



PUMP/SUMP ROOM WITH GROUND SUPPORT - SECTION 2

SCALE: ¼" = 1'-0"

SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUMP DIMENSION TO BE DETERMINED BASED ON TUNNEL DRAINAGE ANALYSIS.
4. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 177 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	¼"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

PUMP/SUMP ROOM
INITIAL AND FINAL SUPPORTS

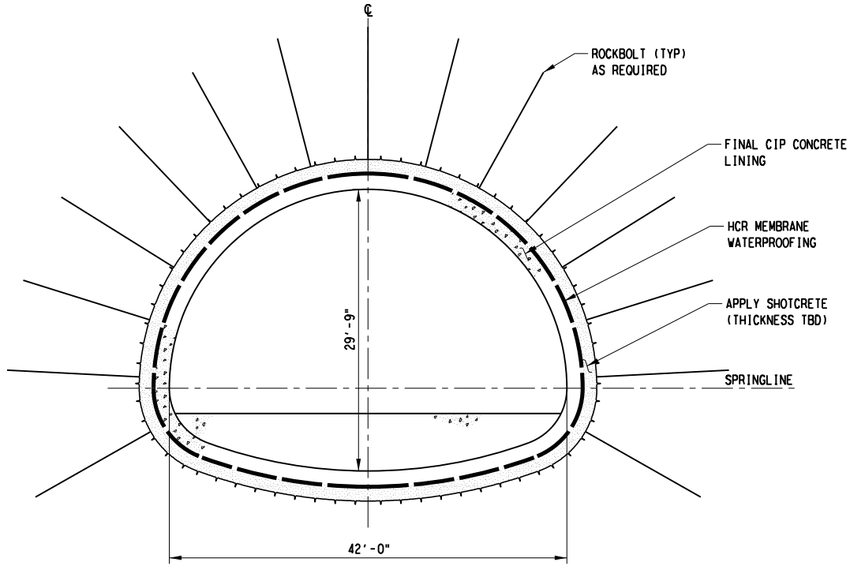
CONTRACT | DWG No. SC8-0005 | REV

bwhiteside
Default

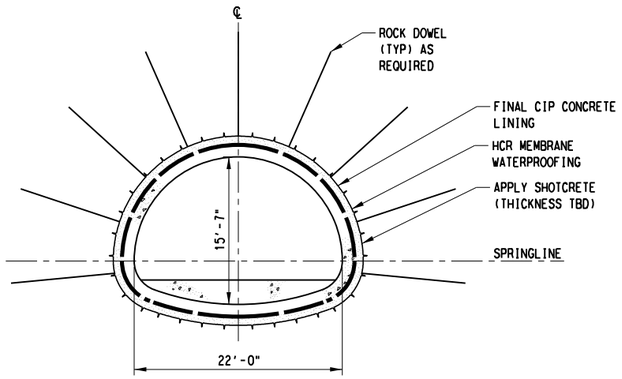
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

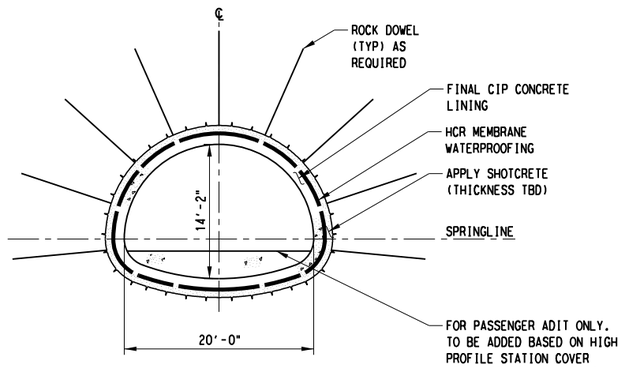
DWG No. SC8-0006



VENTILATION CHAMBER SECTION 1
SCALE: 1/8" = 1'-0"



VENTILATION ADIT SECTION 2
SCALE: 1/8" = 1'-0"



PASSENGER ADIT SECTION 3
SCALE: 1/8" = 1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 178 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

MECHANICAL CHAMBER AND
MECHANICAL/PASSENGER ADIT
INITIAL AND FINAL SUPPORTS

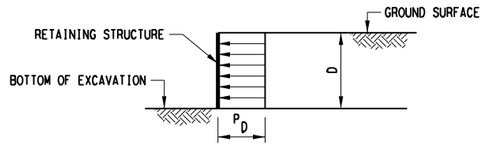
CONTRACT	DWG No.	REV
	SC8-0006	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

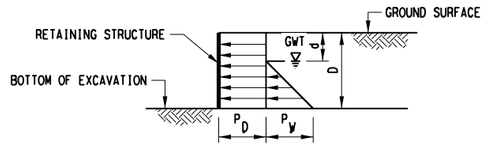
LATERAL PRESSURES DUE TO WEIGHT OF SOIL AND WATER

FLEXIBLE WALL WITH MULTIPLE LEVEL BRACED SUPPORT AND DEWATERING



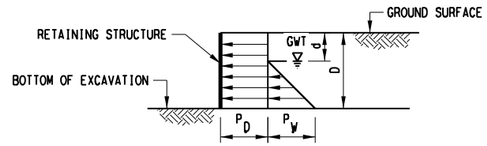
No.	LOCATION	P_D
1	TBD	TBD
2	TBD	TBD
3	TBD	TBD

FLEXIBLE WALL WITH MULTIPLE LEVEL BRACED SUPPORT AND NO DEWATERING



No.	LOCATION	P_D	P_W	d
1	TBD	TBD	62.4 (D-d)	TBD
2	TBD	TBD	62.4 (D-d)	TBD
3	TBD	TBD	62.4 (D-d)	TBD

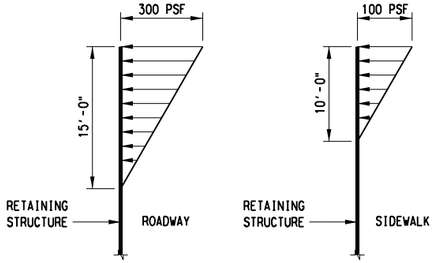
RIGID WALL WITH MULTIPLE LEVEL SUPPORT AND NO DEWATERING



No.	LOCATION	P_D	P_W	d
1	TBD	TBD	62.4 (D-d)	TBD
2	TBD	TBD	62.4 (D-d)	TBD
3	TBD	TBD	62.4 (D-d)	TBD

ADDITIONAL LATERAL PRESSURE DUE TO SURCHARGE LOADS

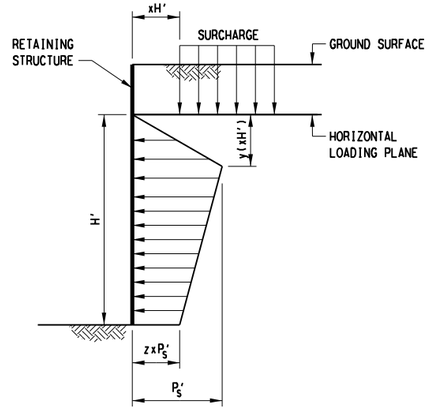
ADDITIONAL TRAFFIC AND CONSTRUCTION EQUIPMENT LOADS (WHERE APPLICABLE)



1. ROADWAY LATERAL PRESSURE IS BASED ON AN ASSUMED CONSTRUCTION EQUIPMENT ROADWAY LOADING 600 PSF. THIS SURCHARGE SHOULD BE APPLIED UNLESS IT CAN BE SHOWN THAT FIELD CONDITIONS DO NOT ALLOW MAJOR CONSTRUCTION EQUIPMENT TO BE POSITIONED AND SUPPORTED ON THE SIDEWALK OR ROADWAY ADJACENT TO THE RETAINING STRUCTURE. IN ALL OTHER CONDITIONS A SIDEWALK SURCHARGE LOADING OF 200 PSF SHOULD BE APPLIED.
2. THE LATERAL PRESSURE DUE TO SURCHARGE SHOWN APPLIES TO FLEXIBLE RETAINING STRUCTURES. FOR RIGID RETAINING STRUCTURES, THE LATERAL PRESSURES INDICATED ABOVE SHALL BE INCREASED BY A FACTOR OF 2.
3. THE CONTRACTOR SHALL EVALUATE LATERAL LOAD EFFECTS OF HIS CONSTRUCTION PLAN TO DETERMINE IF GREATER SURCHARGE LOADS WILL RESULT. FOR MORE SEVERE CONSTRUCTION LOADING, SPECIAL ANALYSIS SHALL BE UNDERTAKEN BY CONTRACTOR.

BUILDING OR CONSTRUCTION LOADS

DISTRIBUTION OF HORIZONTAL PRESSURE ON VERTICAL PLANE

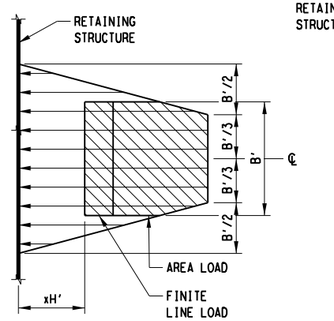


No.	LOAD CASES	y	z	P_S'
1	ISOLATED (INDIVIDUAL) FOOTING CONSIDERED AS POINT LOAD	0.6	0.4	$(2.1-1.8x)Q/[2(H')^2]$
2	CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PARALLEL TO RETAINING STRUCTURE	0.4	0.25	$(1.1-0.5x)q/(2H')$
3	AREA LOAD	0.4	0.25	$(0.8-0.5x)q/(2H')$
4	CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PERPENDICULAR TO RETAINING STRUCTURE	0.6	0.4	$(1.4-1.2x)Q/[2(H')^2]$

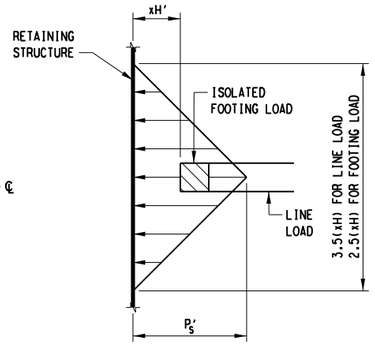
HORIZONTAL PRESSURE ON RETAINING STRUCTURES NEED NOT BE CONSIDERED FOR SURCHARGE LOADING LOCATED AT A DISTANCE xH' > H' FROM THE RETAINING STRUCTURE.

DISTRIBUTION OF HORIZONTAL PRESSURE IN PLAN

AREA LOAD OR FINITE LINE LOAD PARALLEL TO EXCAVATION



FOOTING LOAD OR LINE LOAD PERPENDICULAR TO EXCAVATION



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. FOR NOTES CONCERNING LOADING DIAGRAMS ON THIS DRAWING, SEE DISCIPLINE DRAWINGS.
4. ADDITIONAL LATERAL PRESSURE DUE TO SURCHARGE LOADS ARE BASED ON DART DESIGN CRITERIA MANUAL.
5. APPLY LATERAL PRESSURE DUE TO SURCHARGE TO BOTH DEWATERED AND NON-DEWATERED SECTIONS.

DEFINITION OF SYMBOLS:

GWT	GROUND WATER TABLE
D	DEPTH FROM GROUND SURFACE TO FINAL BOTTOM OF EXCAVATION INCLUDING 2' OVER EXCAVATION (FT)
d	DEPTH FROM GROUND SURFACE TO GWT (FT)
P_W	HYDROSTATIC PRESSURE (PSF)
P_D	CALCULATED APPARENT LATERAL EARTH PRESSURE TO BE USED IN DESIGN OF RETAINING STRUCTURE (PSF)
B'	LENGTH OF AREA LOAD IN DIRECTION PARALLEL TO EDGE OF EXCAVATION (FT)
H'	DISTANCE BETWEEN HORIZONTAL LOADING PLANE AND BOTTOM OF EXCAVATION (FT)
P_S'	CALCULATED LATERAL PRESSURE DUE TO SURCHARGE (PSF)
q	TOTAL LOAD PER FT OF LENGTH PARALLEL TO RETAINING STRUCTURE (LBS/FT)
Q	TOTAL FOOTING LOAD ISOLATED OR PERPENDICULAR TO RETAINING STRUCTURE (LBS)
xH'	DISTANCE FROM RETAINING STRUCTURE TO FOOTING LOAD OR PARALLEL LINE LOAD OR TO LEADING EDGE OF AREA LOAD OR PERPENDICULAR LINE LOAD
x	COEFFICIENT OF H' FOR HORIZONTAL DISTANCE xH'

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 179 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	E. WANG
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

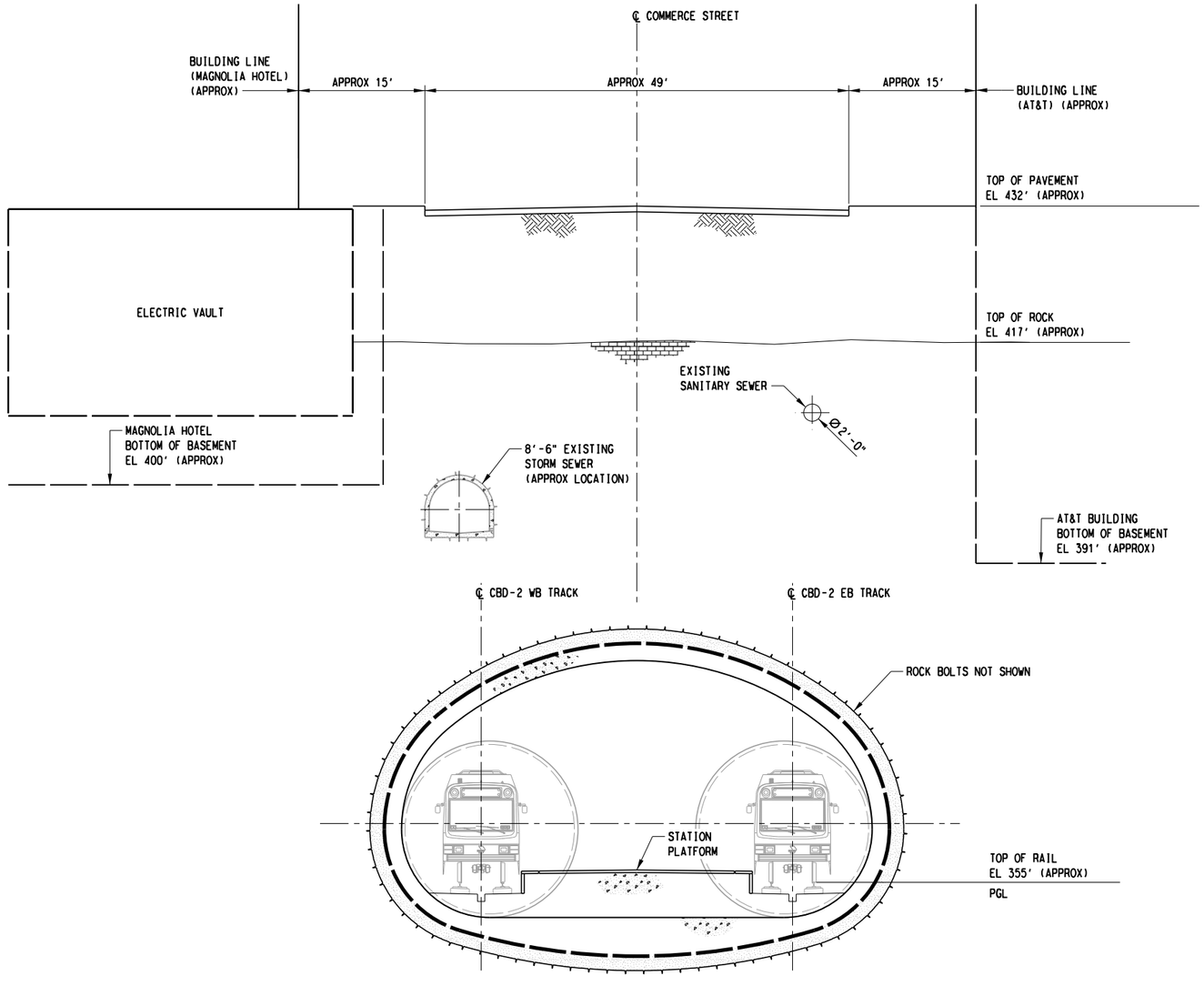
LATERAL PRESSURE DIAGRAMS

CONTRACT | DWG No. SC8-0007 | REV

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0008



CROSS-SECTION AT COMMERCE STREET LOOKING EAST

SCALE: 1/8" - 1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS POTENTIALLY IMPACTING STATION CONSTRUCTION ARE SHOWN ONLY.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 180 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STREET STATION
SECTION
EAST OF STA 72+00

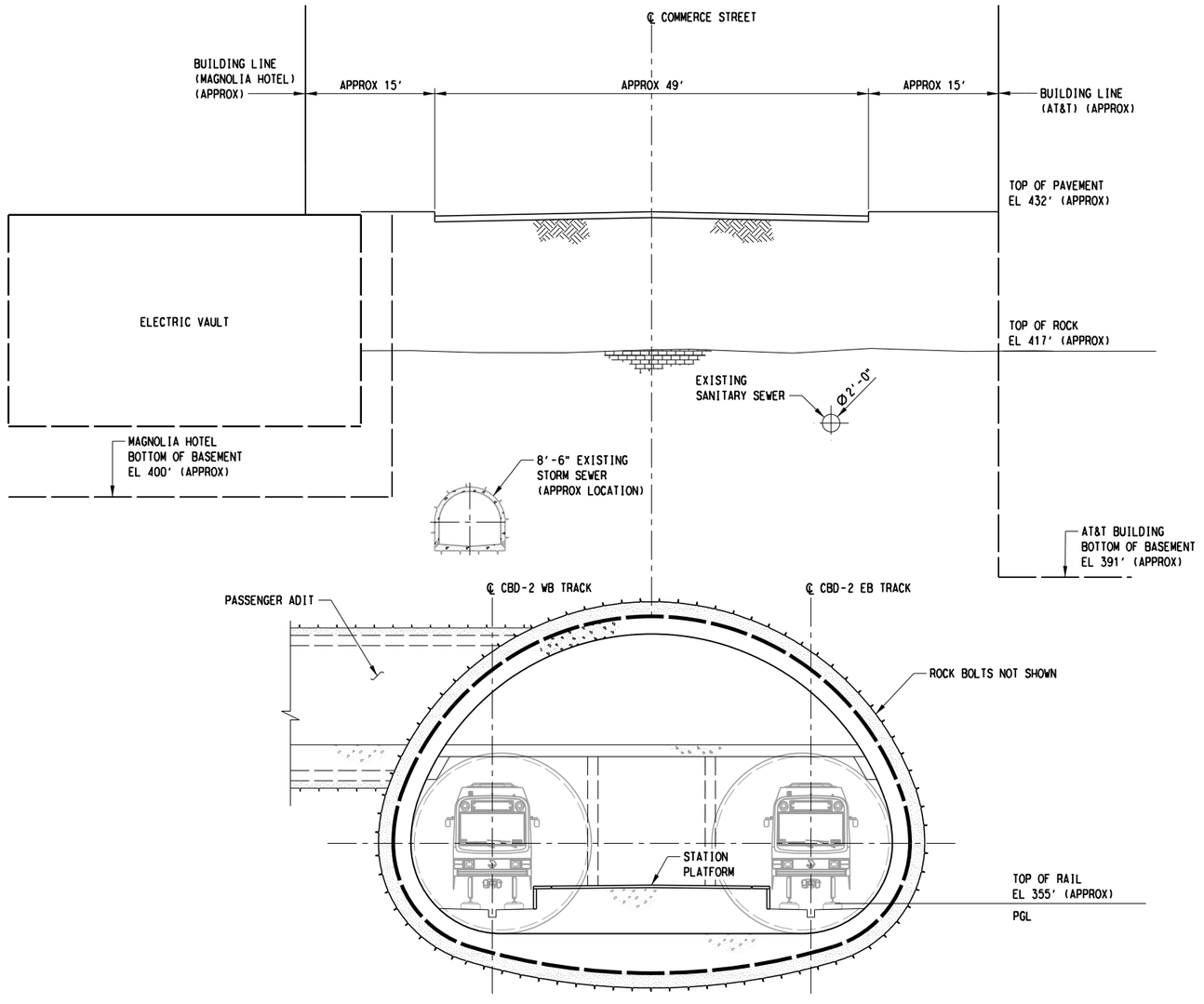
CONTRACT	DWG No.	REV
	SC8-0008	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0009



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS POTENTIALLY IMPACTING STATION CONSTRUCTION ARE SHOWN ONLY.

CROSS-SECTION AT COMMERCE STREET LOOKING EAST

SCALE: ⅛" - 1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 181 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STREET STATION
SECTION
WEST OF STA 72+00

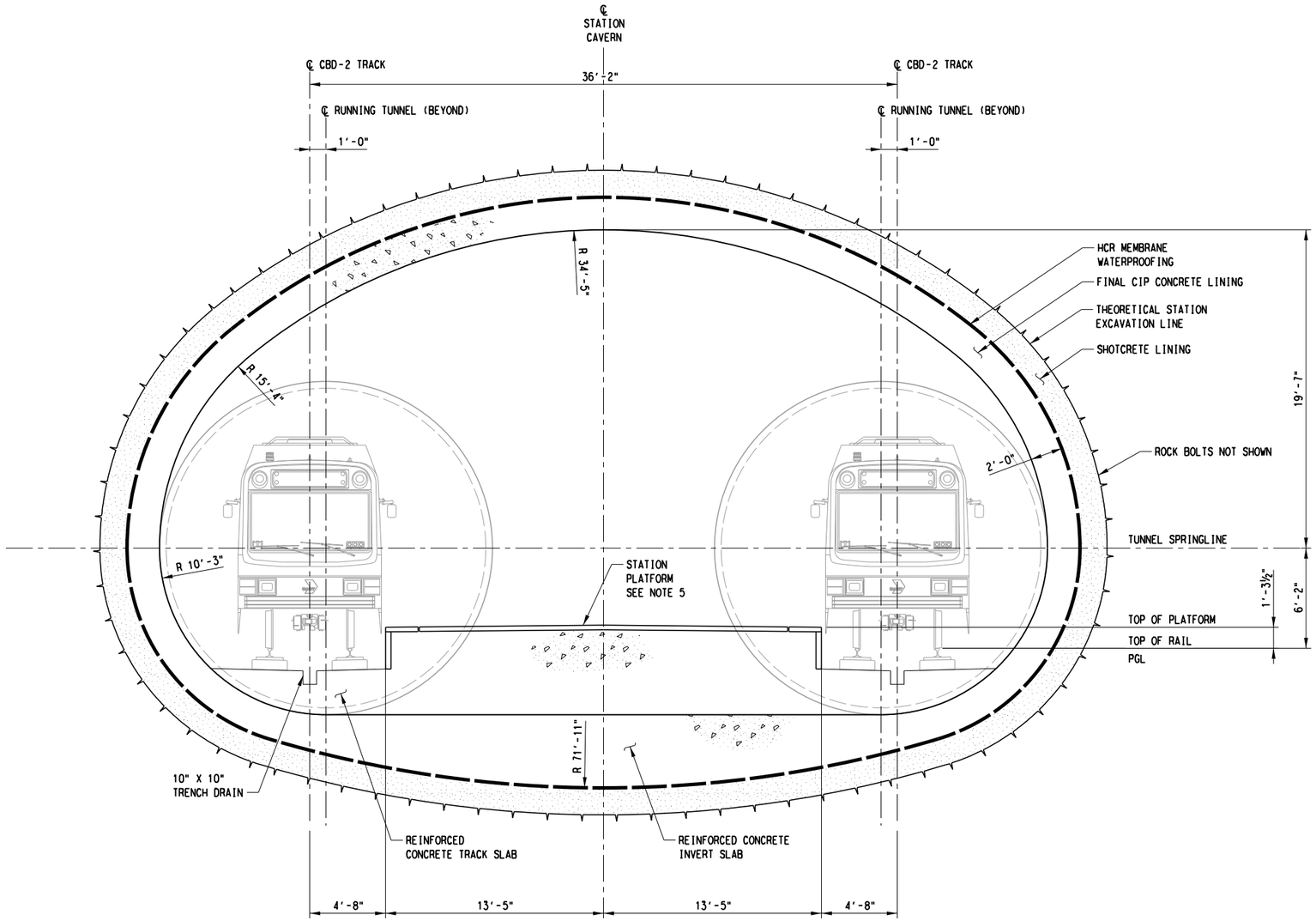
CONTRACT	DWG No.	REV
	SC8-0009	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0010



SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCE, SEE DRAWING No. SC8-4022.
5. STATION PLATFORM LIMITS ARE FROM CBD-2 EB STA 69+91.60 TO CBD-2 EB STA 73+76.60.

COMMERCE STATION - SEM SECTION FROM CBD-2 EB STA 72+00.0 TO CBD-2 EB STA 74+66.1

SCALE: ¼"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 182 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	¼"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STREET STATION
SECTION
STA 72+00.0 TO STA 74+66.1

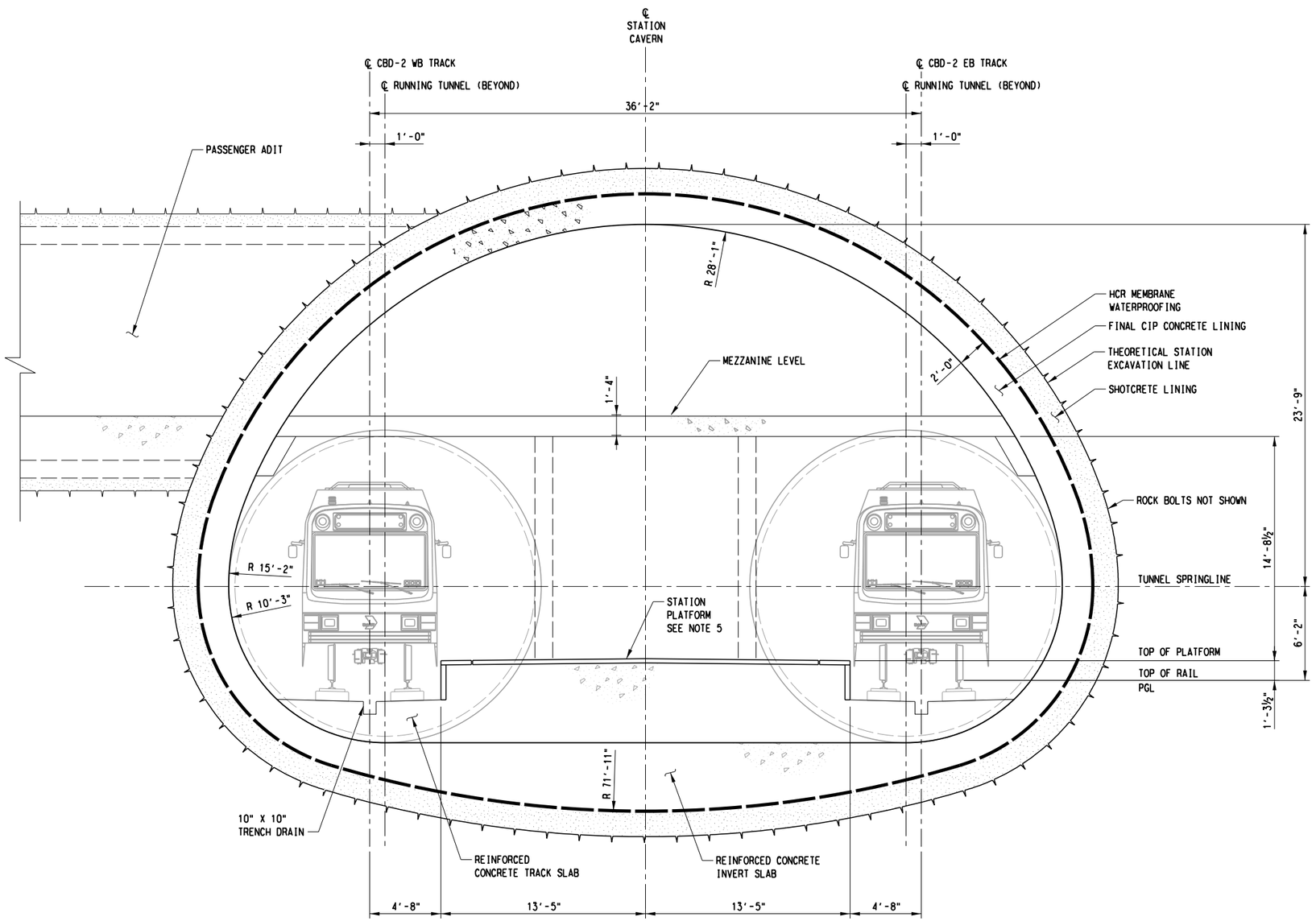
CONTRACT | DWG No. SC8-0010 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-0011



SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCE, SEE DRAWING No. SC8-4022.
5. STATION PLATFORM LIMITS ARE FROM CBD-2 EB STA 69+91.60 TO CBD-2 EB STA 73+76.60.

COMMERCE STATION - SEM SECTION
FROM CBD-2 EB STA 68+05.0 TO CBD-2 EB STA 72+00.0 AND FROM CBD-2 EB STA 74+66.1 TO CBD-2 EB STA 75+26.1

SCALE: ¼"=1'-0"

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 183 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	¼"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STREET STATION SECTION
STA 68+05.0 TO STA 72+00.0 AND
STA 74+66.1 TO STA 75+26.1

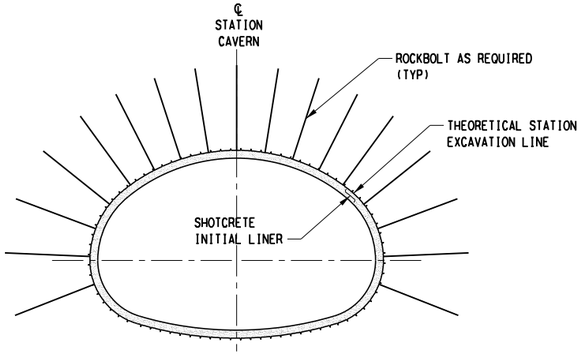
CONTRACT	DWG No.	REV
	SC8-0011	

bwhiteside
Default

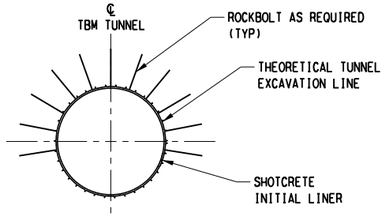
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/SC8-0012_RUNNING TUNNEL AND COMMERCE STATION CAVERN INITIAL SUPPORT - TYPICAL SECTIONS.dgn
bwhiteside
Default

DWG No. SC8-0012



SECTION FROM STA 72+00.0 TO STA 74+66.1

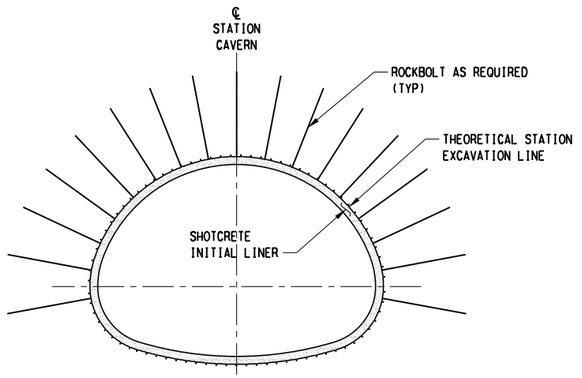


TBM RUNNING TUNNEL
(CAST-IN-PLACE LINING)

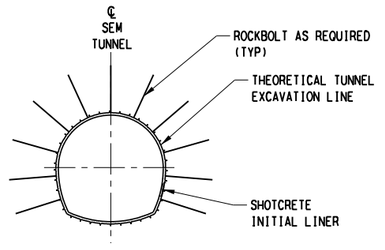
SCALE (IN FEET)
0 8 16 32

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL INITIAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR STATION EXCAVATION SEQUENCE, SEE DRAWING No. SC8-0013.



SECTION FROM STA 68+05.0 TO STA 72+00.0
AND FROM STA 74+66.1 TO STA 75+26.1



SEM RUNNING TUNNEL

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

RUNNING TUNNEL AND COMMERCE STATION CAVERN INITIAL SUPPORT - TYPICAL SECTIONS

SCALE: 1/16" = 1'-0"

CONTRACT SHEET No. 184 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

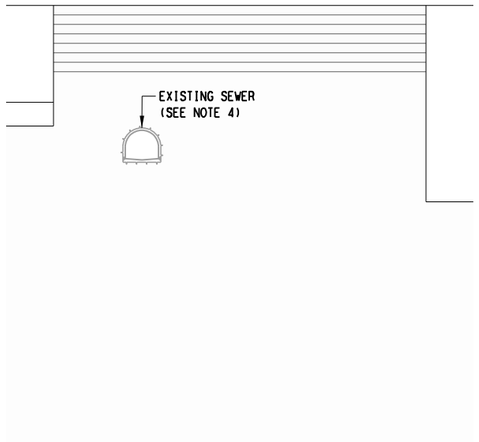
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
RUNNING TUNNEL AND
COMMERCE STREET STATION CAVERN
INITIAL SUPPORT
TYPICAL SECTIONS

CONTRACT	DWG No.	REV
	SC8-0012	

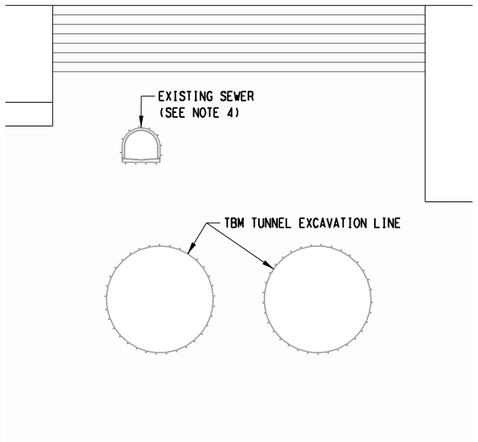
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/SC8-0012_RUNNING TUNNEL AND COMMERCE STATION CAVERN INITIAL SUPPORT - TYPICAL SECTIONS.dgn

26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

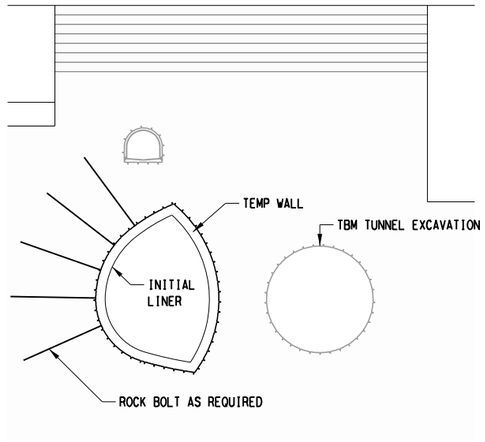
DWG No. SC8-0013



PRE-CONSTRUCTION CONDITION



STAGE 1
TBM MINING

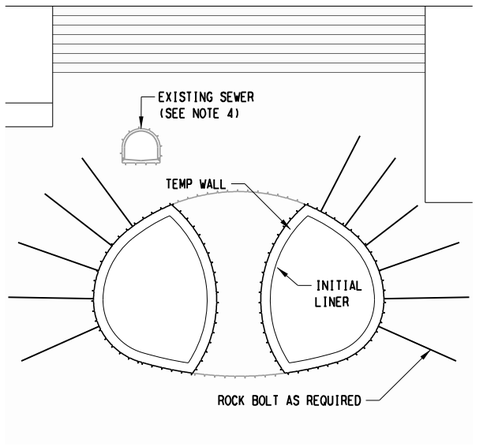


1. EXCAVATE LEFT SIDE DRIFT.
2. INSTALL ROCK BOLTS
3. INSTALL INITIAL LINER.
4. INSTALL TEMPORARY WALL (IF NECESSARY).

STAGE 2
FIRST SIDE DRIFT EXCAVATION AND SUPPORT

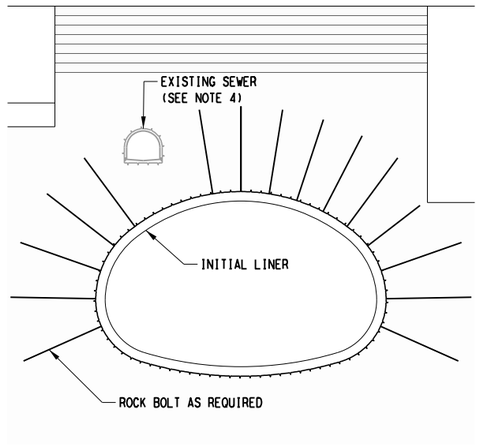
NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. ALL STAGES SHOWN ON THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY AND ARE BASED ON THE SIDE DRIFTING SEM EXCAVATION METHOD, WHICH IS TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. ESTABLISH INSTRUMENTATION, MONITORING, PRE-CONSTRUCTION AND POST-CONSTRUCTION INSPECTION PROGRAMS TO ENSURE THAT STRUCTURAL AND FUNCTIONAL INTEGRITY OF THE EXISTING SEWER IS MAINTAINED DURING AND AFTER TUNNEL MINING AND STATION CONSTRUCTION.



1. EXCAVATE RIGHT SIDE DRIFT.
2. INSTALL ROCK BOLTS
3. INSTALL INITIAL LINER.
4. INSTALL TEMPORARY WALL (IF NECESSARY).

STAGE 3
SECOND SIDE DRIFT EXCAVATION AND SUPPORT



1. EXCAVATE CENTER SIDE DRIFT.
2. INSTALL ROCK BOLTS
3. COMPLETE INSTALLATION OF INITIAL LINER.
4. INSTALL TEMPORARY WALL (IF NECESSARY).

STAGE 4
CENTER DRIFT EXCAVATION AND SUPPORT

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 185 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CONSTRUCTION STAGES

CONTRACT	DWG No.	REV
	SC8-0013	

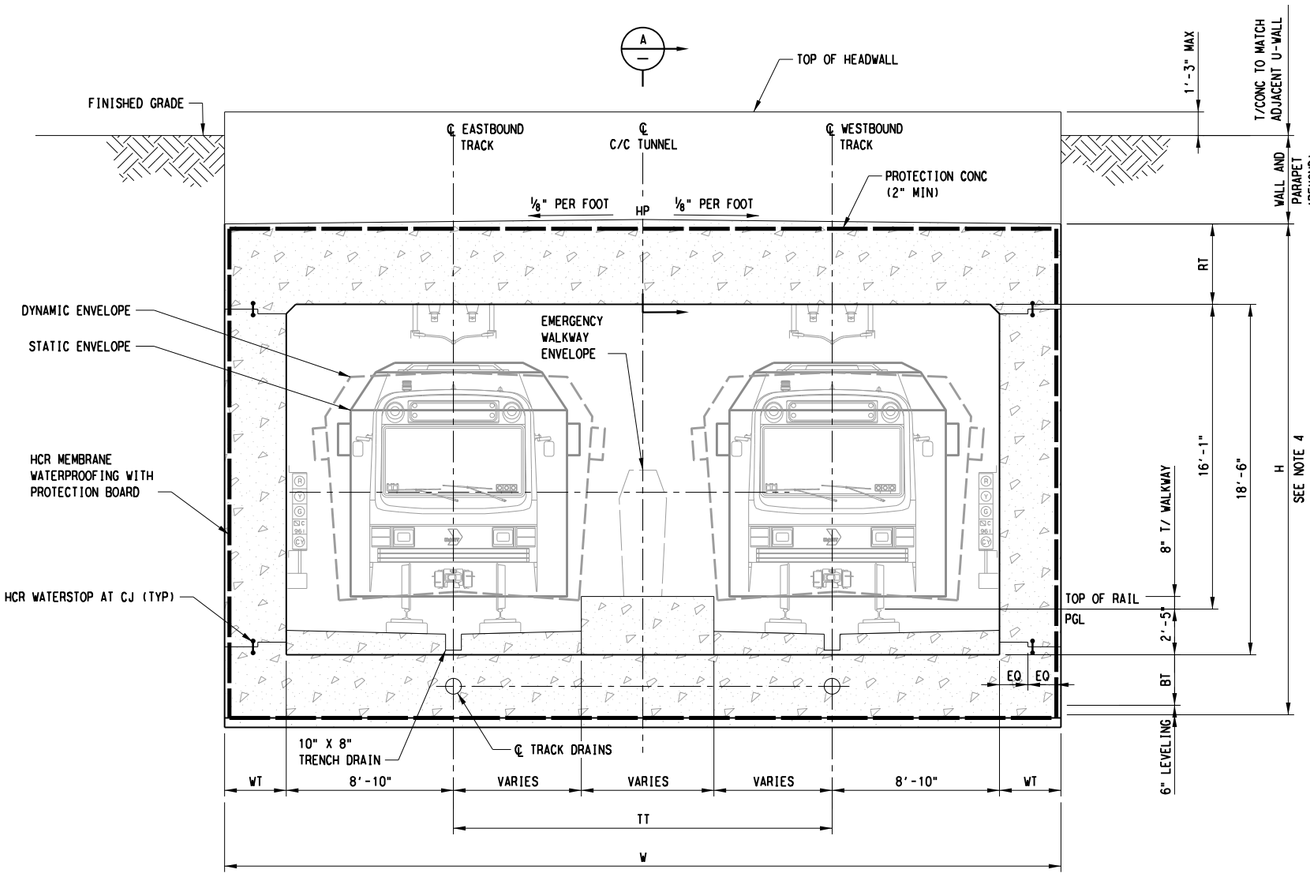
bwhiteside
Default

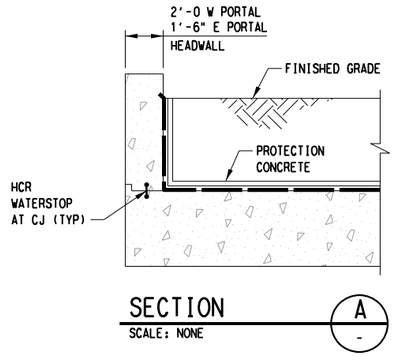
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC8-1001

CUT-AND-COVER TUNNEL DIMENSIONS

PORTAL LOCATION	TYPE	STATION LIMITS		TRACK SPACING (TT)	MINIMUM OVERALL HEIGHT (H)	INVERT THICKNESS (BT)	ROOF THICKNESS (RT)	WALL THICKNESSES		OVERALL WIDTH (W)
		BEGIN STA	END STA					EXTERIOR (WT)	INTERIOR (PT)	
WEST	A	41+50.00	45+07.00	15'-6" TO 21'-0"	25'-0"	3'-0"	3'-6"	2'-6"	N/A	38'-2" TO 43'-8"
WEST	B	45+07.00	46+50.00	21'-0" TO 28'-11"	25'-6"	3'-6"	3'-6"	3'-0"	1'-6"	44'-8" TO 52'-7"
WEST	C	46+50.00	49+26.58	28'-11" TO 40'-0"	25'-9"	3'-6"	3'-9"	3'-0"	2'-0"	52'-7" TO 63'-8"
EAST	B	86+29.61	92+25.00	36'-2" TO 45'-0"	25'-6"	3'-6"	3'-6"	3'-0"	2'-0"	59'-10" TO 68'-8"
EAST	B	98+35.00	101+27.00	45'-0" TO 21'-0"	24'-6"	3'-0'	3'-0'	3'-0"	1'-6"	68'-8" TO 44'-8"
EAST	A	101+27.00	101+55.23	21'-0" TO 17'-8"	24'-6"	3'-0"	3'-0"	2'-6"	N/A	43'-8" TO 40'-4"





SECTION A
SCALE: NONE

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
4. OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

WEST PORTAL: STA 41+50.00 TO STA 45+07.00
EAST PORTAL: STA 101+27.00 TO STA 101+55.23

CUT-AND-COVER TUNNEL TYPE A (SECTION LOOKING WEST)
SCALE: NTS

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 186 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CUT-AND-COVER TUNNEL
SECTION TYPE A

CONTRACT | DWG No. SC8-1001 | REV

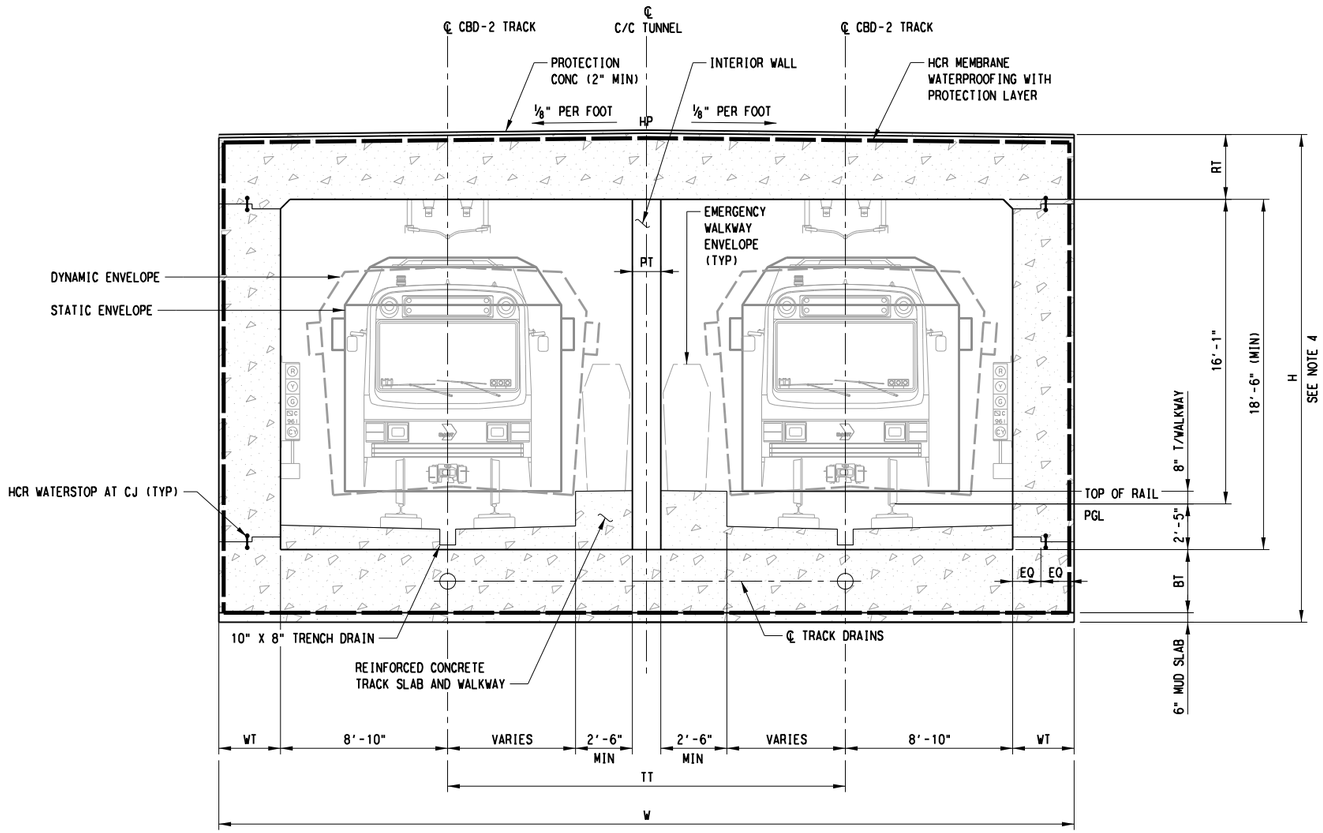
26-OCT-2020 11:54
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-1002

CUT-AND-COVER TUNNEL DIMENSIONS

PORTAL LOCATION	TYPE	STATION LIMITS		TRACK SPACING (TT)	MINIMUM OVERALL HEIGHT (H)	INVERT THICKNESS (BT)	ROOF THICKNESS (RT)	WALL THICKNESSES		OVERALL WIDTH (W)
		BEGIN STA	END STA					EXTERIOR (WT)	INTERIOR (PT)	
WEST	A	41+50.00	45+07.00	15'-6" TO 21'-0"	25'-0"	3'-0"	3'-6"	2'-6"	N/A	38'-2" TO 43'-8"
WEST	B	45+07.00	46+50.00	21'-0" TO 28'-11"	25'-6"	3'-6"	3'-6"	3'-0"	1'-6"	44'-8" TO 52'-7"
WEST	C	46+50.00	49+26.58	28'-11" TO 40'-0"	25'-9"	3'-6"	3'-9"	3'-0"	2'-0"	52'-7" TO 63'-8"
EAST	B	86+29.61	92+25.00	36'-2" TO 45'-0"	25'-6"	3'-6"	3'-6"	3'-0"	2'-0"	59'-10" TO 68'-8"
EAST	B	98+35.00	101+27.00	45'-0" TO 21'-0"	24'-6"	3'-0'	3'-0'	3'-0"	1'-6"	68'-8" TO 44'-8"
EAST	A	101+27.00	101+55.23	21'-0" TO 17'-8"	24'-6"	3'-0"	3'-0"	2'-6"	N/A	43'-8" TO 40'-4"



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
4. OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

WEST PORTAL: STA 45+07.00 TO STA 46+50.00 (SECTION LOOKING WEST)
EAST PORTAL: STA 86+29.61 TO STA 93+13.09 (SECTION LOOKING EAST)
EAST PORTAL: STA 98+05.17 TO STA 101+65.00 (SECTION LOOKING WEST)

CUT-AND-COVER TUNNEL SECTION TYPE B
SCALE: NTS

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 187 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CUT-AND-COVER TUNNEL SECTION TYPE B

CONTRACT | DWG No. SC8-1002 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

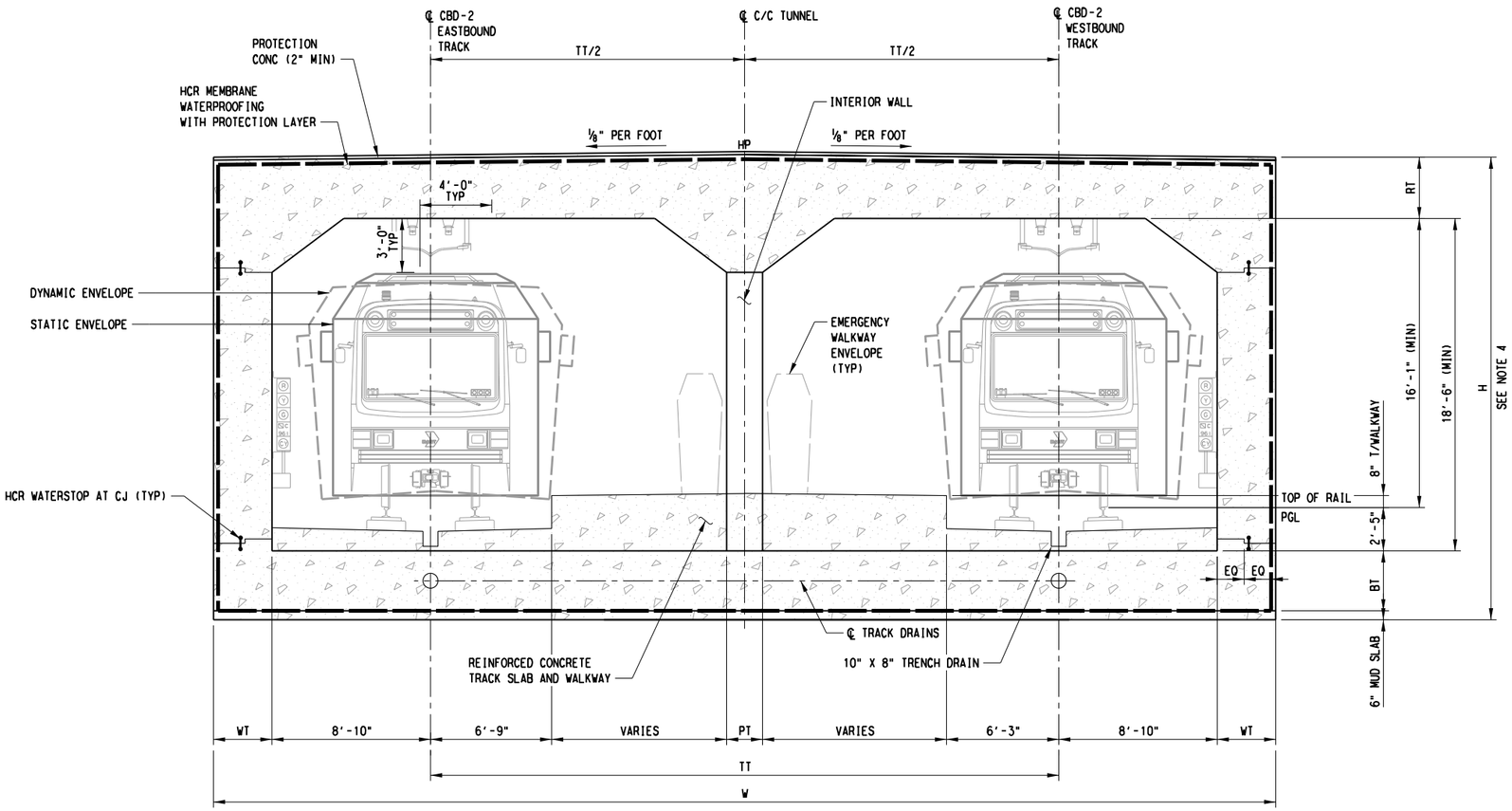
DWG No. SC8-1003

CUT-AND-COVER TUNNEL DIMENSIONS

PORTAL LOCATION	TYPE	STATION LIMITS		TRACK SPACING (TT)	MINIMUM OVERALL HEIGHT (H)	INVERT THICKNESS (BT)	ROOF THICKNESS (RT)	WALL THICKNESSES		OVERALL WIDTH (W)
		BEGIN STA	END STA					EXTERIOR (WT)	INTERIOR (PT)	
WEST	A	41+50.00	45+07.00	15'-6" TO 21'-0"	25'-0"	3'-0"	3'-6"	2'-6"	N/A	38'-2" TO 43'-8"
WEST	B	45+07.00	46+50.00	21'-0" TO 28'-11"	25'-6"	3'-6"	3'-6"	3'-0"	1'-6"	44'-8" TO 52'-7"
WEST	C	46+50.00	49+26.58	28'-11" TO 40'-0"	25'-9"	3'-6"	3'-9"	3'-0"	2'-0"	52'-7" TO 63'-8"
EAST	B	86+29.61	92+25.00	36'-2" TO 45'-0"	25'-6"	3'-6"	3'-6"	3'-0"	2'-0"	59'-10" TO 68'-8"
EAST	B	98+35.00	101+27.00	45'-0" TO 21'-0"	24'-6"	3'-0'	3'-0'	3'-0"	1'-6"	68'-8" TO 44'-8"
EAST	A	101+27.00	101+55.23	21'-0" TO 17'-8"	24'-6"	3'-0"	3'-0"	2'-6"	N/A	43'-8" TO 40'-4"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
4. OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.



WEST PORTAL: STA 46+50.00 TO STA 49+26.58

CUT-AND-COVER TUNNEL TYPE C (SECTION LOOKING WEST)

SCALE: NTS

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 188 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CUT-AND-COVER TUNNEL
SECTION TYPE C

CONTRACT | DWG No. SC8-1003 | REV

bwhitesi de
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V16.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

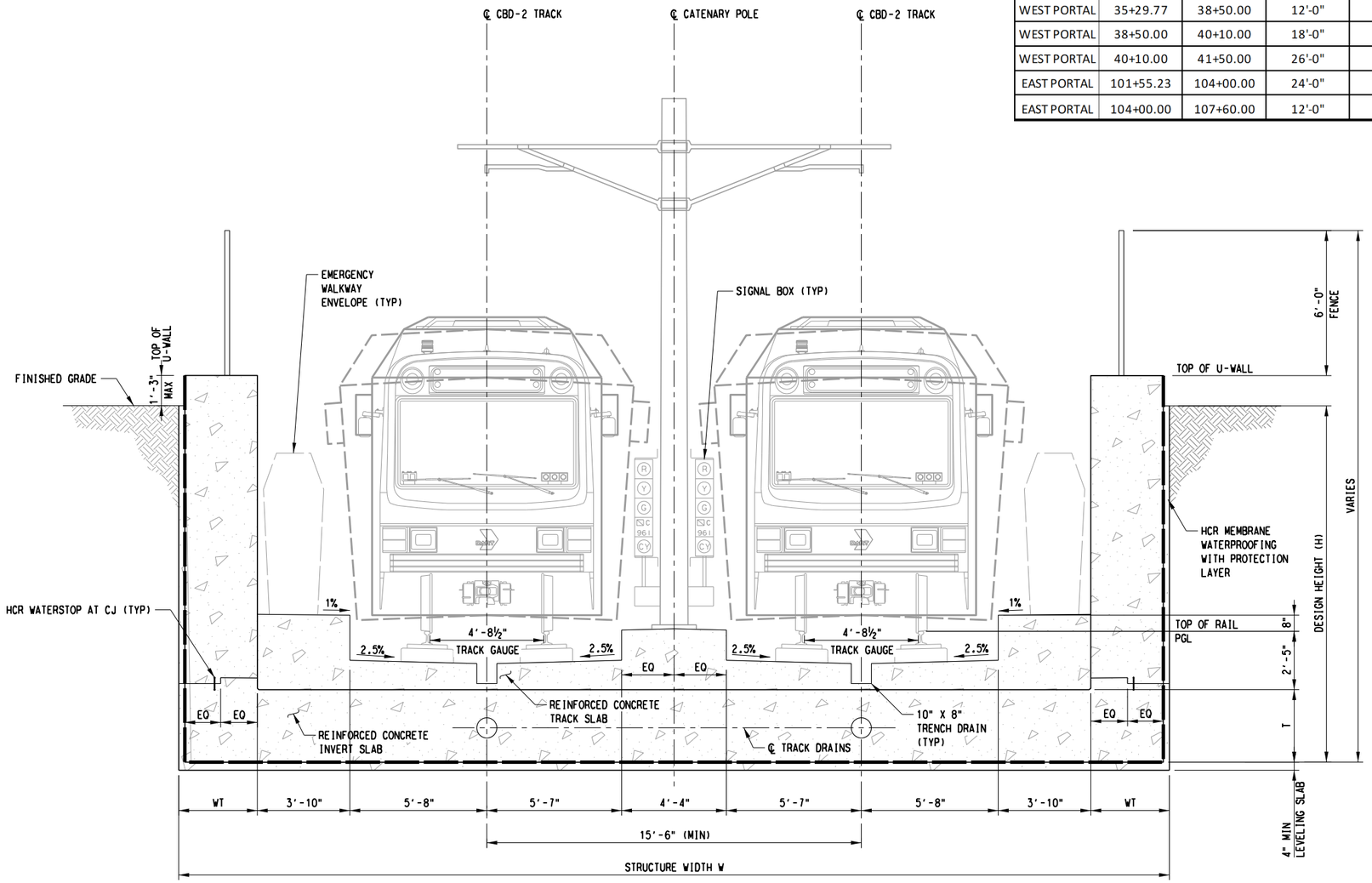
DWG No. SC8-1010

U-WALL DIMENSIONS

STRUCTURE LOCATION	STATION LIMITS		MAXIMUM DESIGN HEIGHT (H)	INVERT SLAB THICKNESS (T)	WALL THICKNESS (WT)	STRUCTURE WIDTH (W)
	BEGIN STA	END STA				
WEST PORTAL	35+29.77	38+50.00	12'-0"	2'-6"	1'-6"	37'-6"
WEST PORTAL	38+50.00	40+10.00	18'-0"	3'-0"	2'-6"	39'-6"
WEST PORTAL	40+10.00	41+50.00	26'-0"	3'-0"	3'-3"	41'-0"
EAST PORTAL	101+55.23	104+00.00	24'-0"	3'-0"	3'-0"	42'-8" TO 40'-6"
EAST PORTAL	104+00.00	107+60.00	12'-0"	2'-6"	1'-6"	37'-6"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
4. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.



U-WALL CROSS-SECTION
EGRESS WALKWAYS AT OUTSIDE OF TRACKWAY

SCALE: ⅜" = 1'-0"

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 189 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

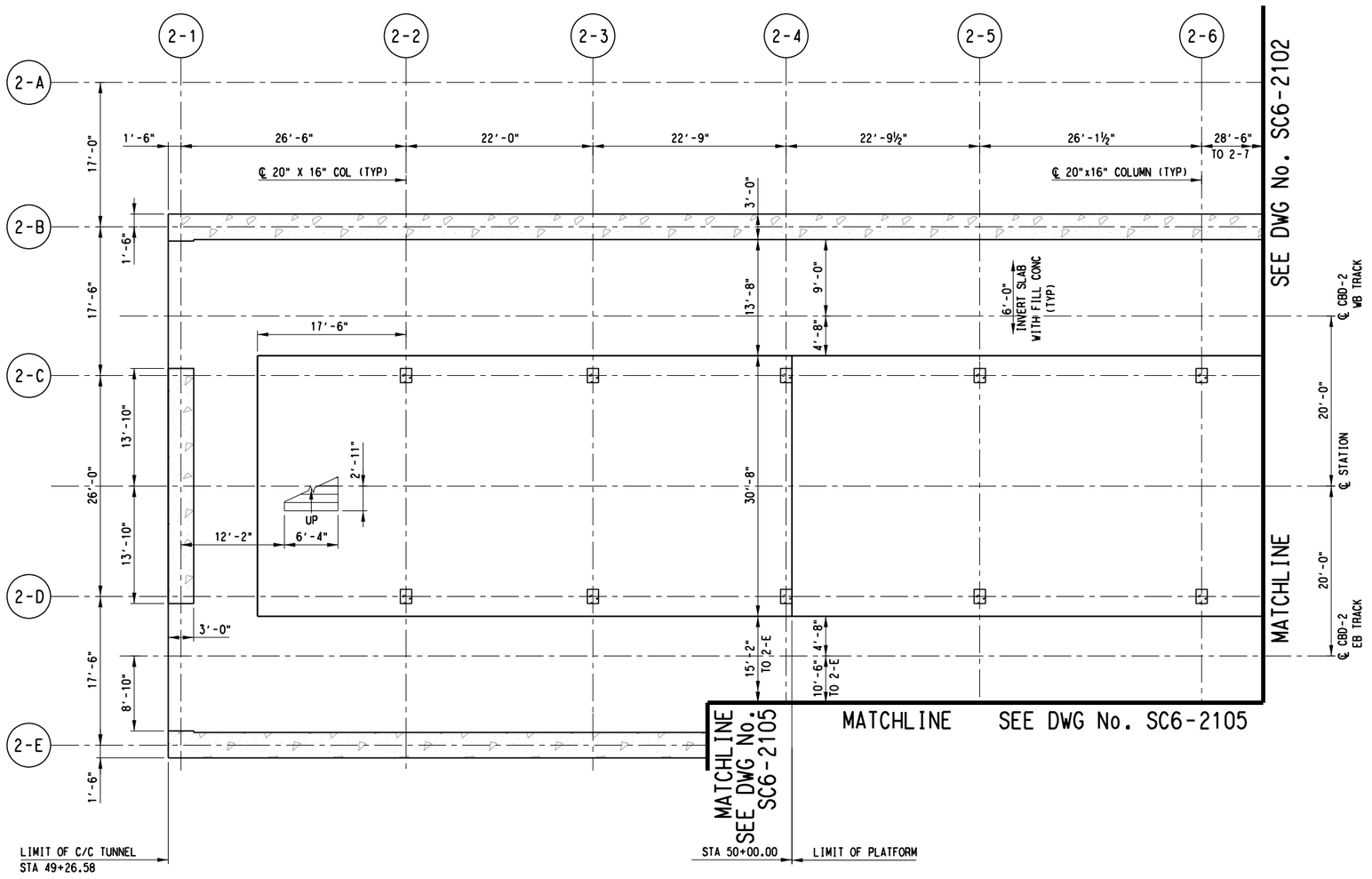
EAST/WEST PORTAL SECTION
U-WALL

CONTRACT	DWG No.	REV
	SC8-1010	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



PLATFORM LEVEL PLAN A

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 190 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

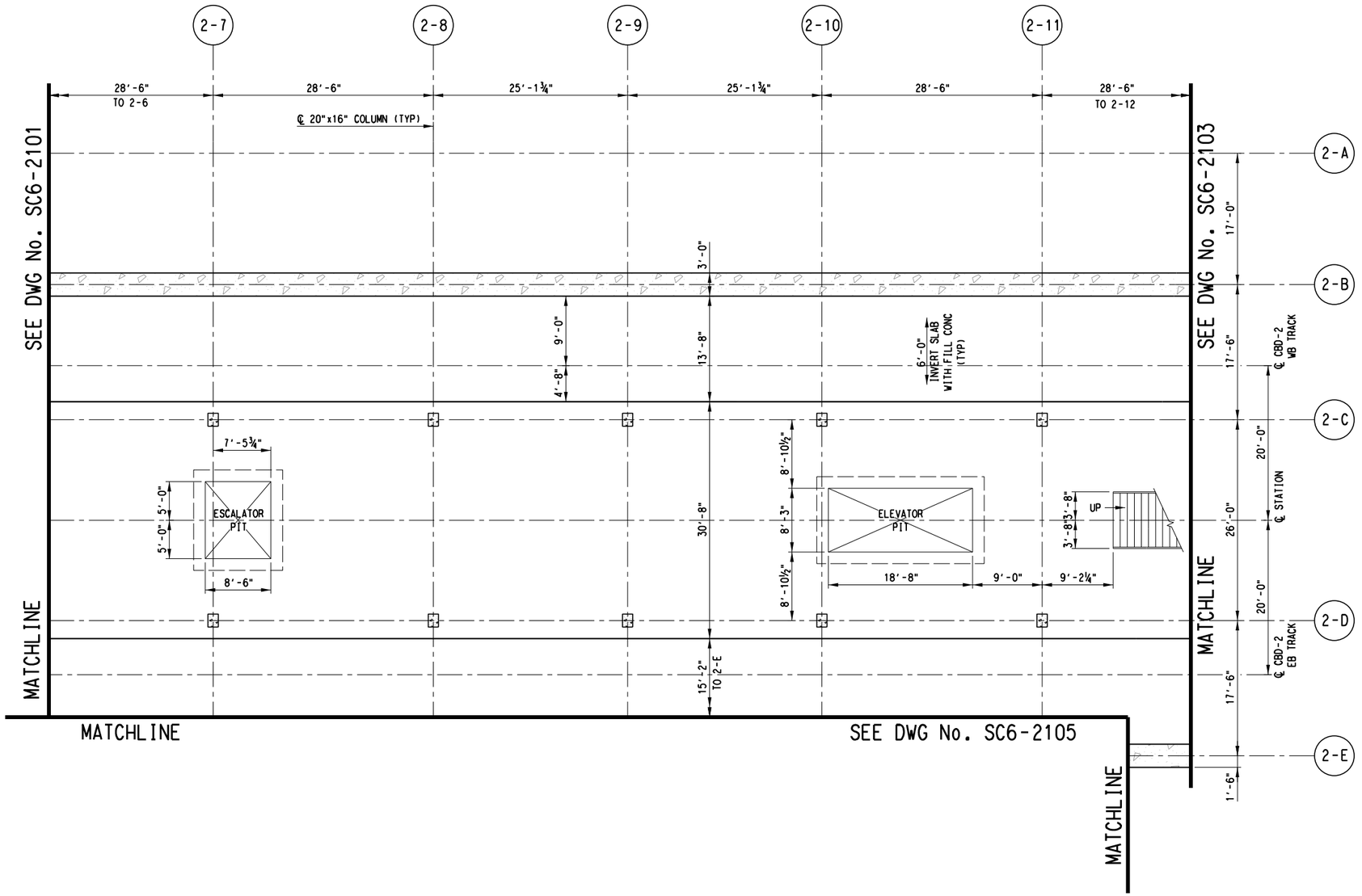
CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 1 OF 8

CONTRACT	DWG No.	REV
	SC6-2101	

bwhiteside
Default



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ELEVATOR AND ESCALATOR PITS TO BE 5'-0" DEEP.

PLATFORM LEVEL PLAN B
SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 191 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

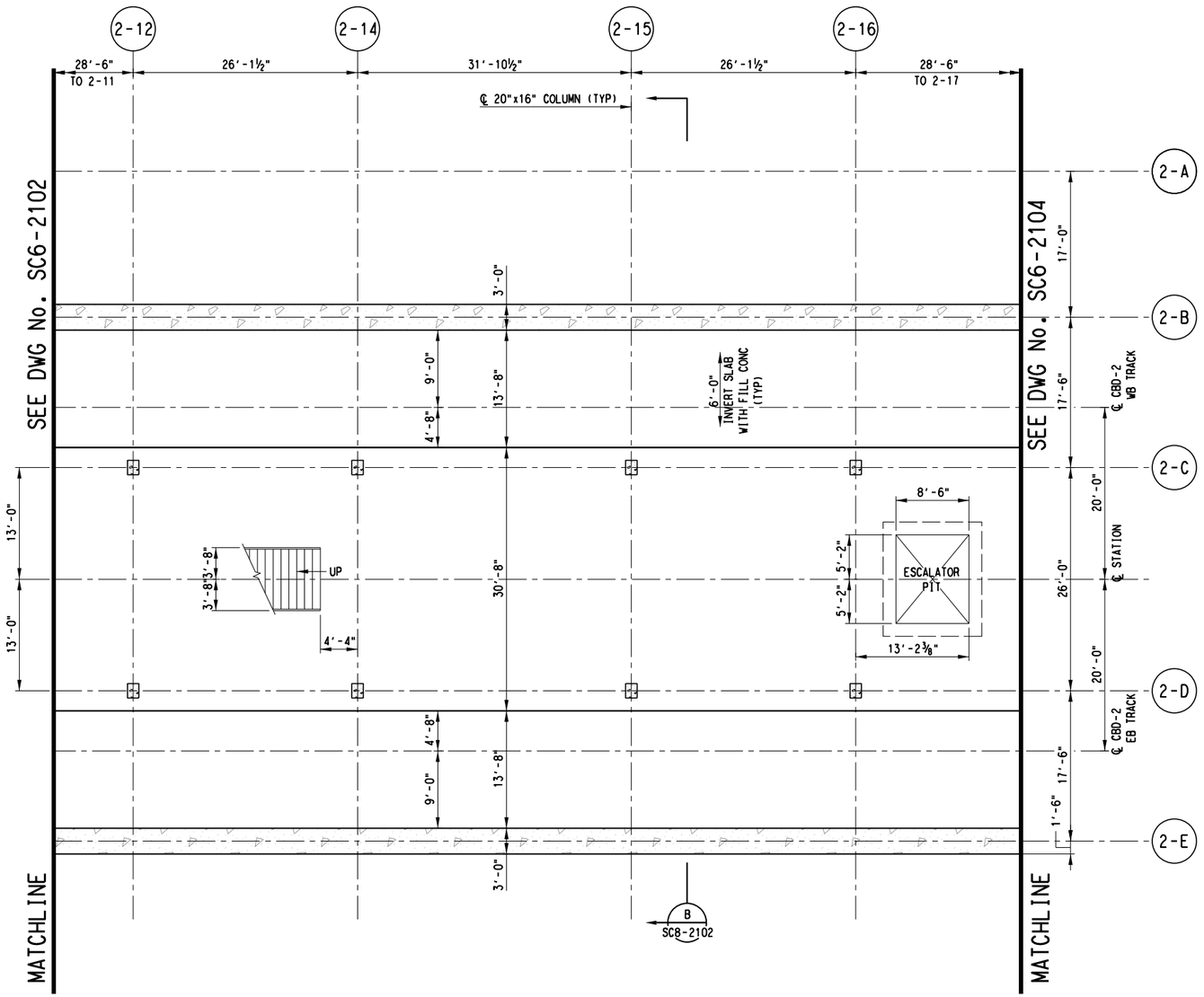
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 2 OF 8

CONTRACT | DWG No. SC6-2102 | REV

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



PLATFORM LEVEL PLAN C

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PIT TO BE 5'-0" DEEP.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 192 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

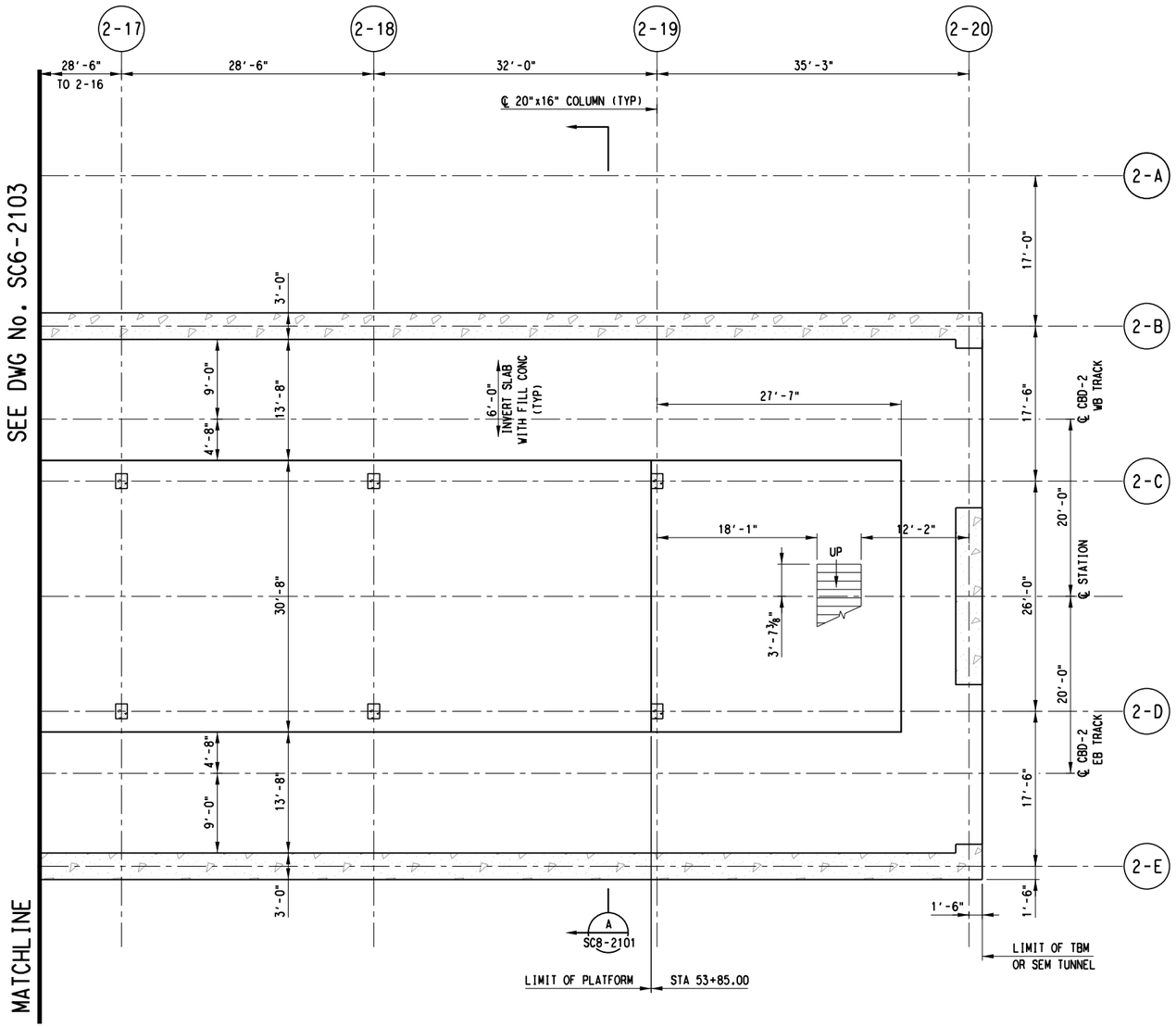
METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 3 OF 8

CONTRACT	DWG No.	REV
	SC6-2103	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



PLATFORM LEVEL PLAN D

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 193 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 4 OF 8

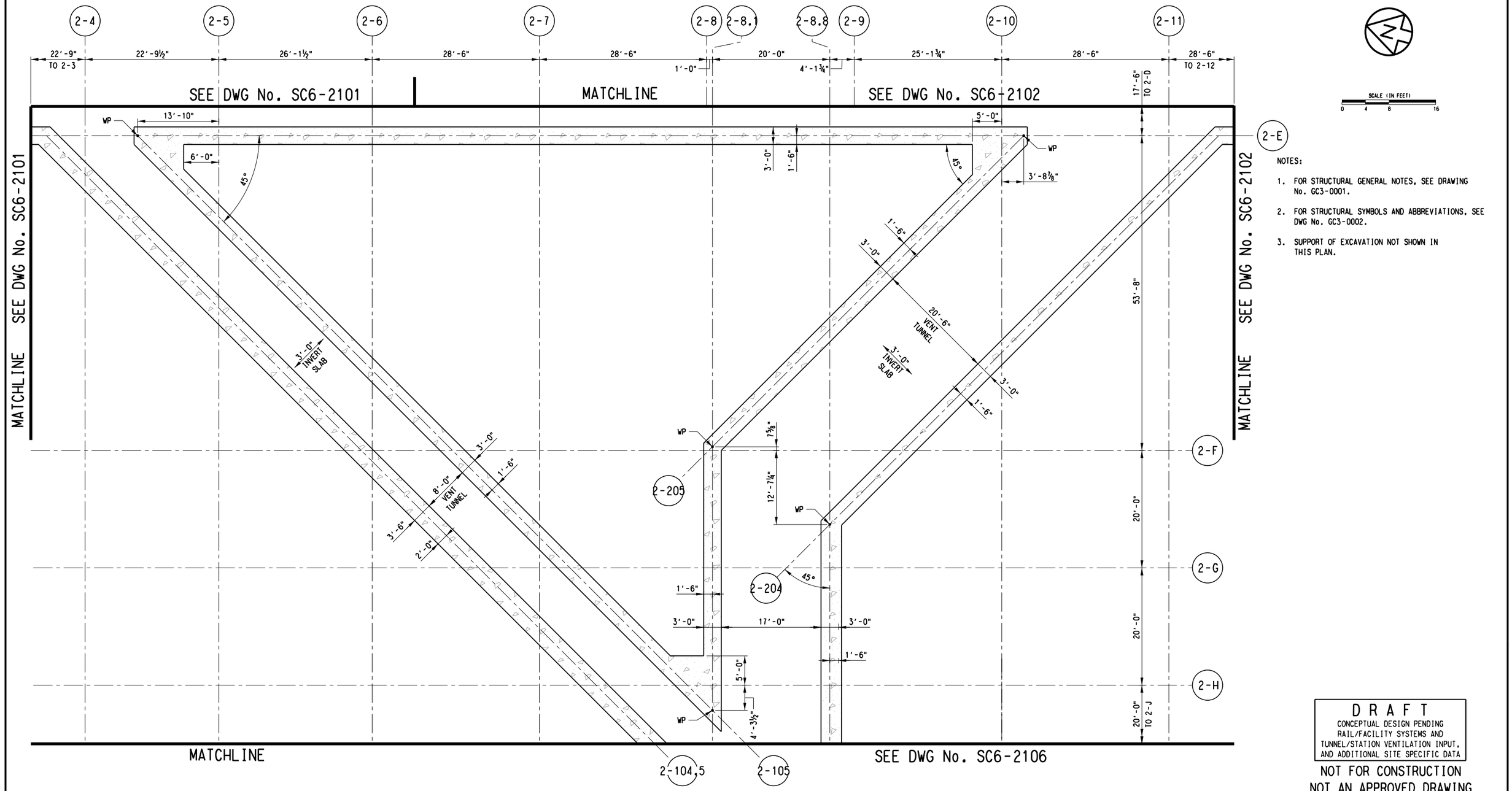
CONTRACT	DWG No.	REV
	SC6-2104	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-2105



PLATFORM LEVEL PLAN E

SCALE: ⅛"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 194 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

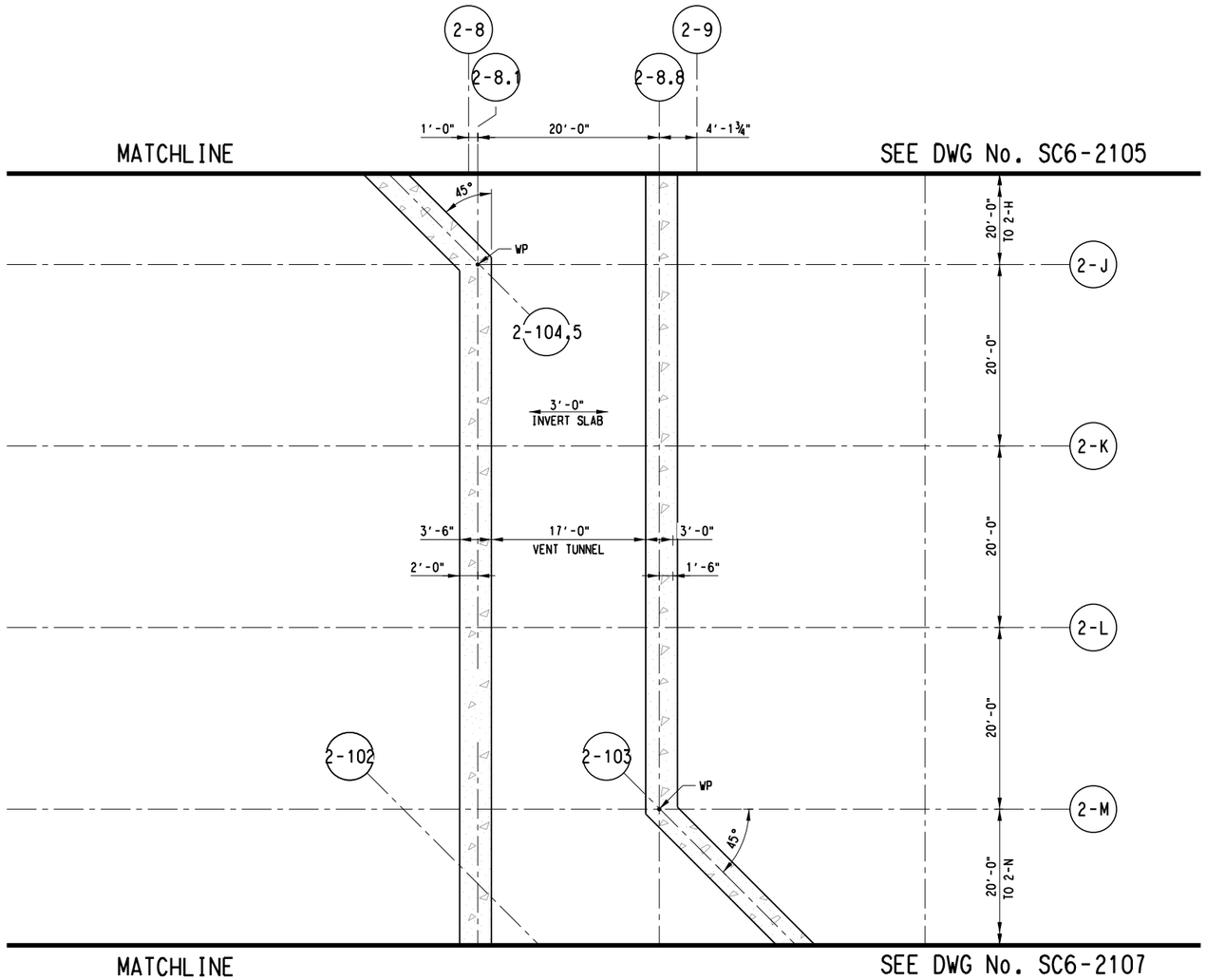
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 5 OF 8

CONTRACT	DWG No.	REV
	SC6-2105	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN F

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 195 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

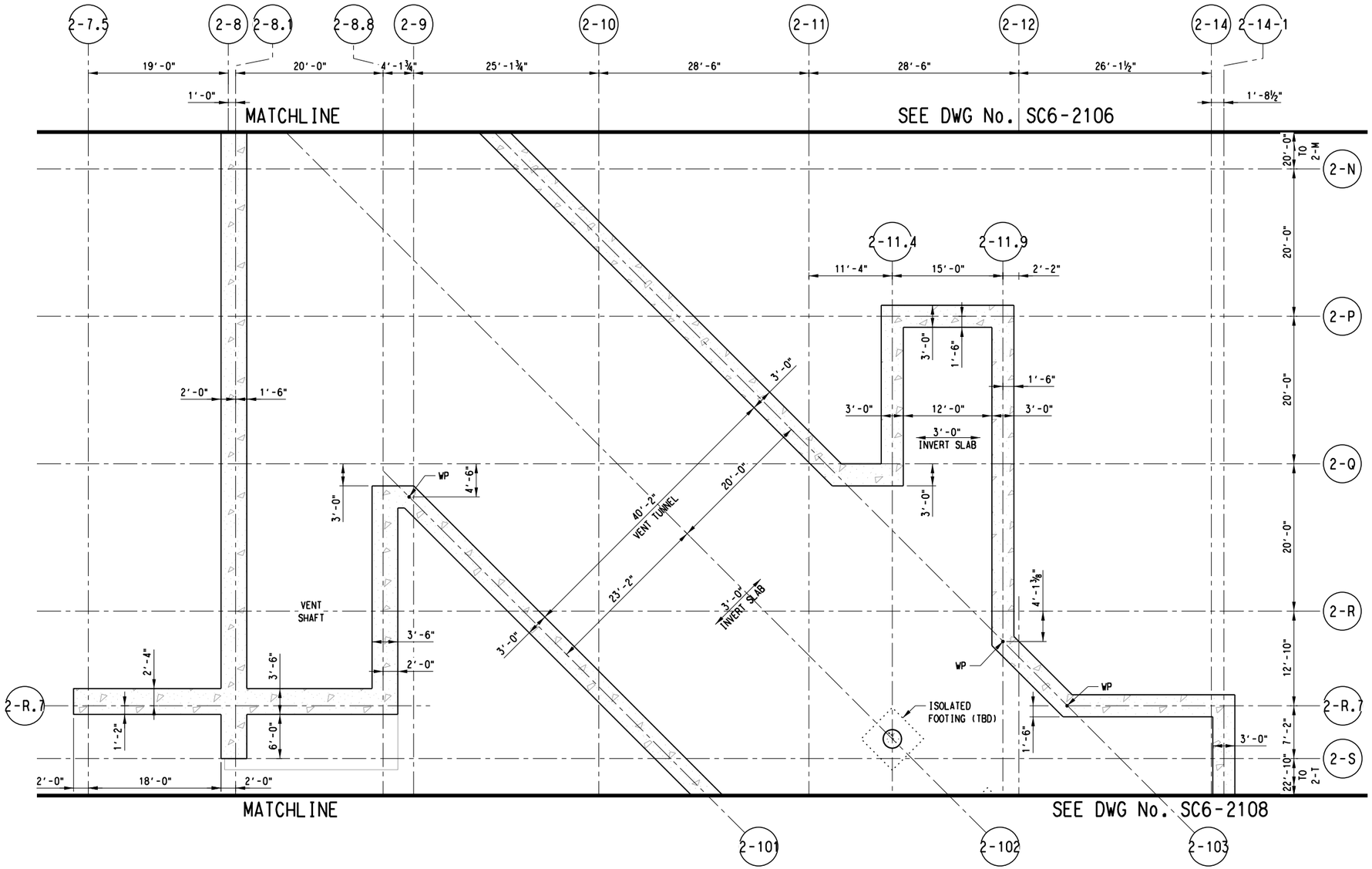
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 6 OF 8

CONTRACT | DWG No. SC6-2106 | REV

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN G

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 196 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

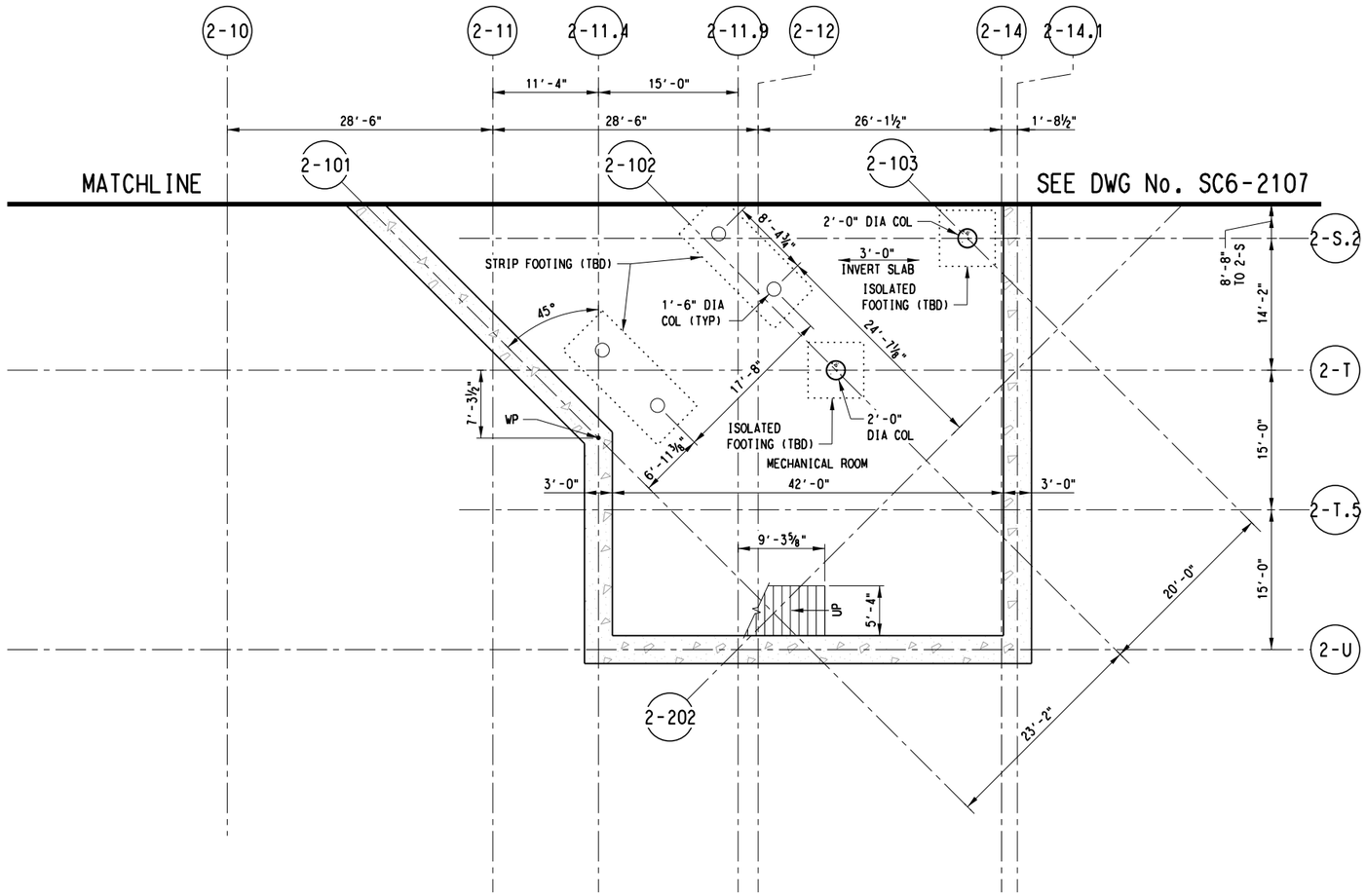
METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 7 OF 8

CONTRACT	DWG No.	REV
	SC6-2107	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:55
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SCALE (IN FEET)
0 4 8 16

PLATFORM LEVEL PLAN H

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 197 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

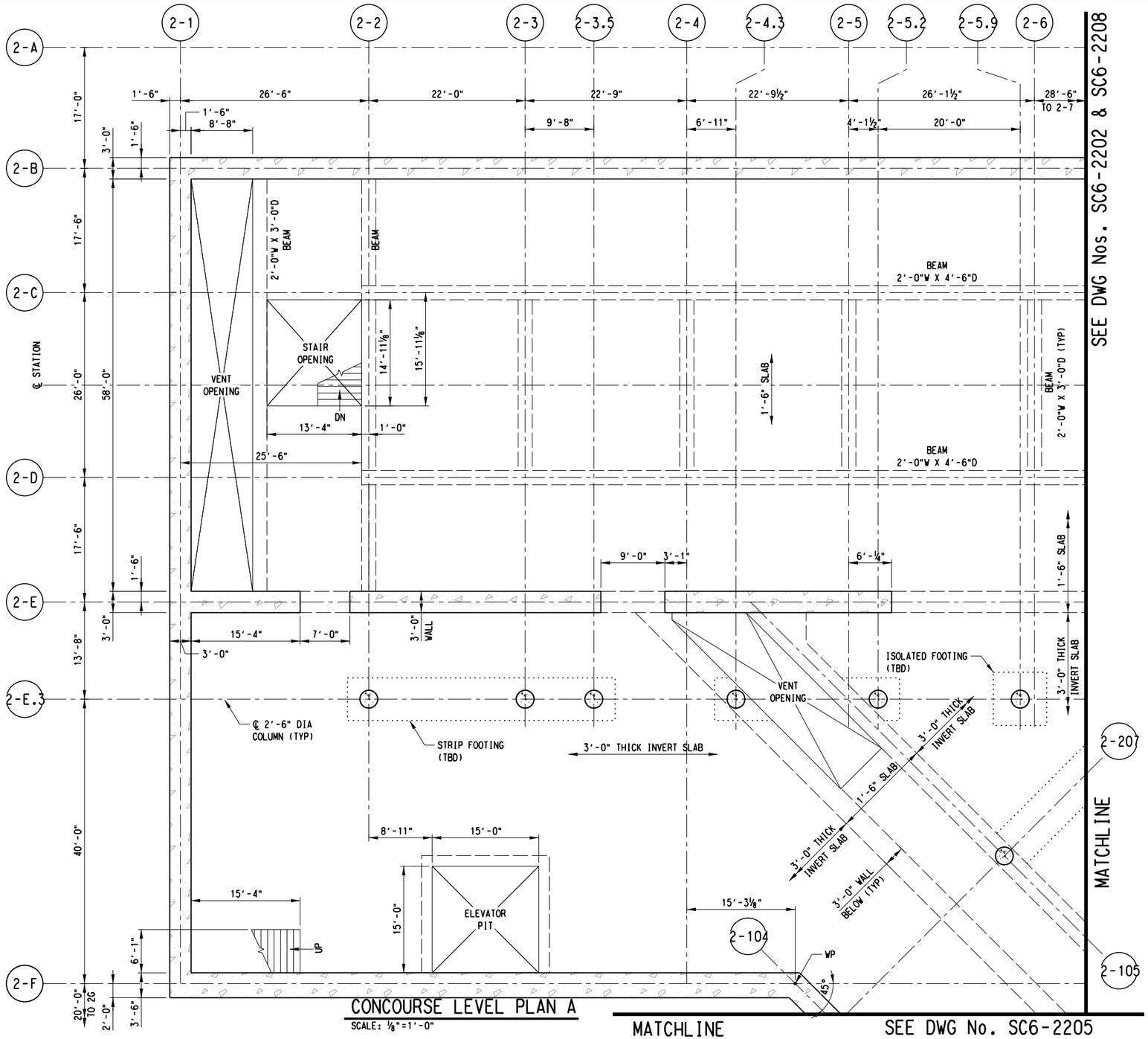
METRO CENTER STATION
PLATFORM LEVEL PLAN
SHEET 8 OF 8

CONTRACT	DWG No.	REV
	SC6-2108	

bwhiteside
Default

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-2201



CONCOURSE LEVEL PLAN A
SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ELEVATOR PIT TO BE 5'-0" DEEP.

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 198 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

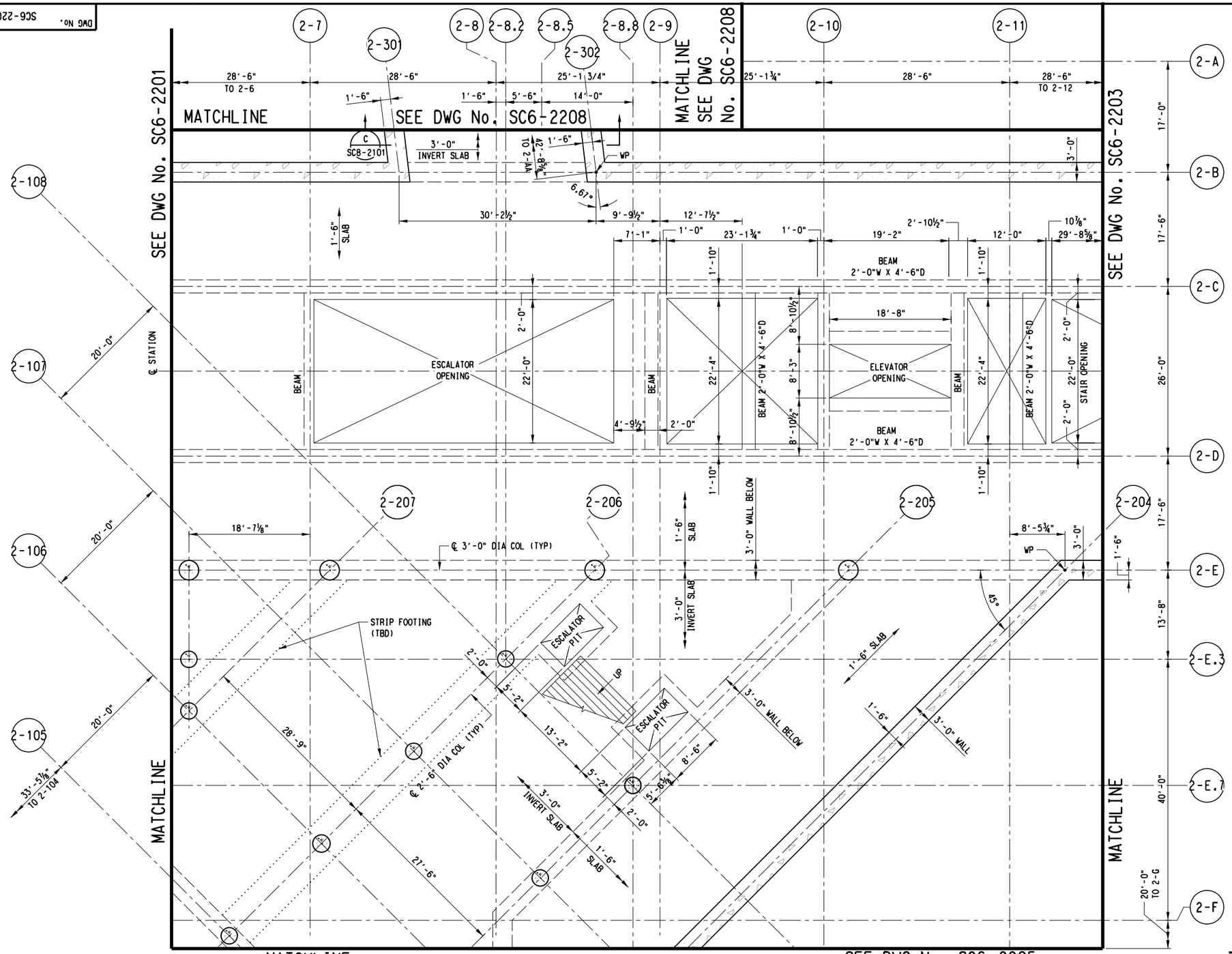
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 1 OF 8

CONTRACT | DWG No. SC6-2201 | REV

bwhiteside
Default

DWG No. SC6-2202



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.

CONCOURSE LEVEL PLAN B

SCALE: ⅛"=1'-0"

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 199 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 2 OF 8

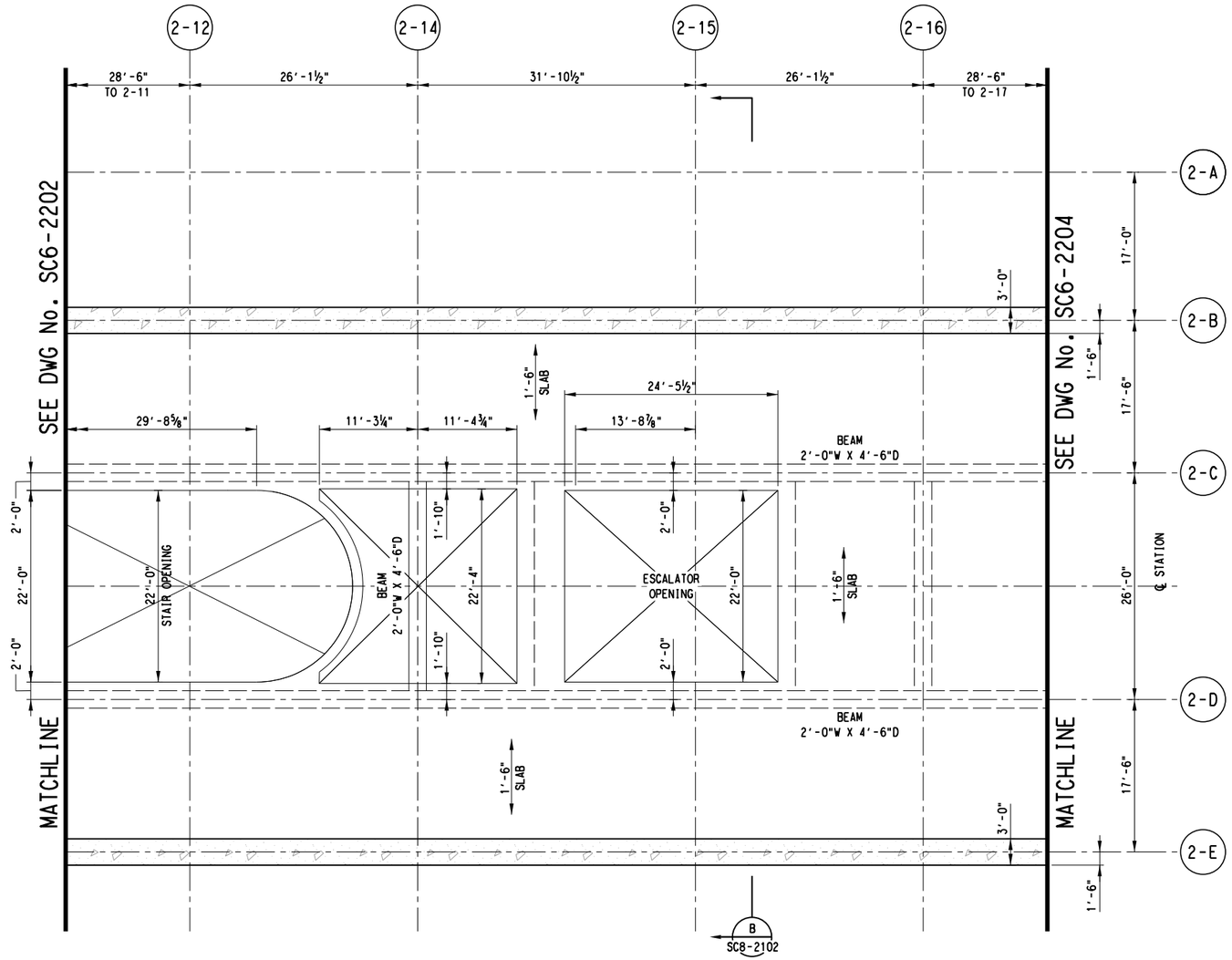
CONTRACT	DWG No.	REV
	SC6-2202	

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SCALE (IN FEET)
0 4 8 16

CONCOURSE LEVEL PLAN C

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 200 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

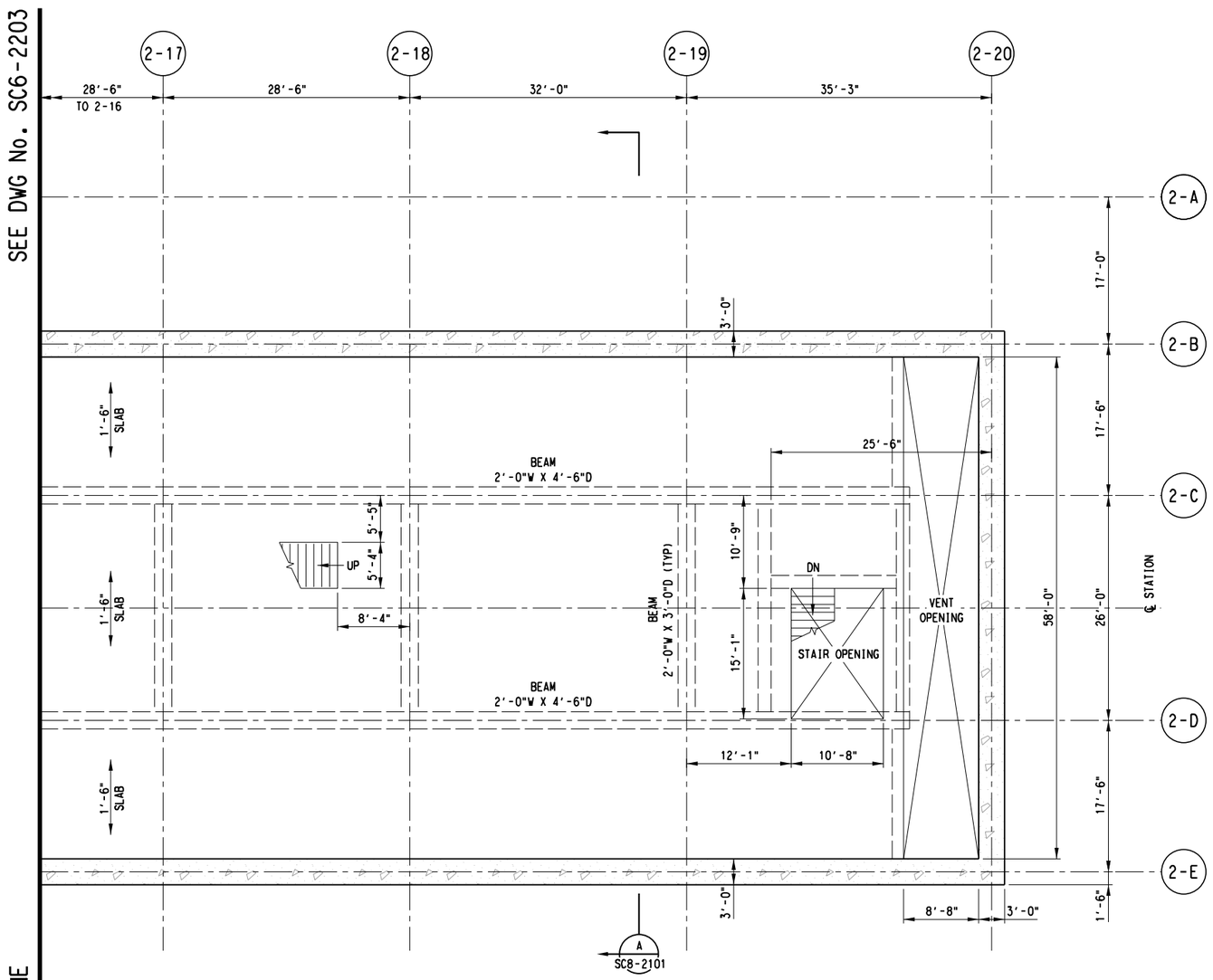
METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 3 OF 8

CONTRACT	DWG No.	REV
	SC6-2203	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

bwhiteside
Default

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



CONCOURSE LEVEL PLAN D
SCALE: 1/8"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 201 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 4 OF 8

CONTRACT	DWG No.	REV
	SC6-2204	

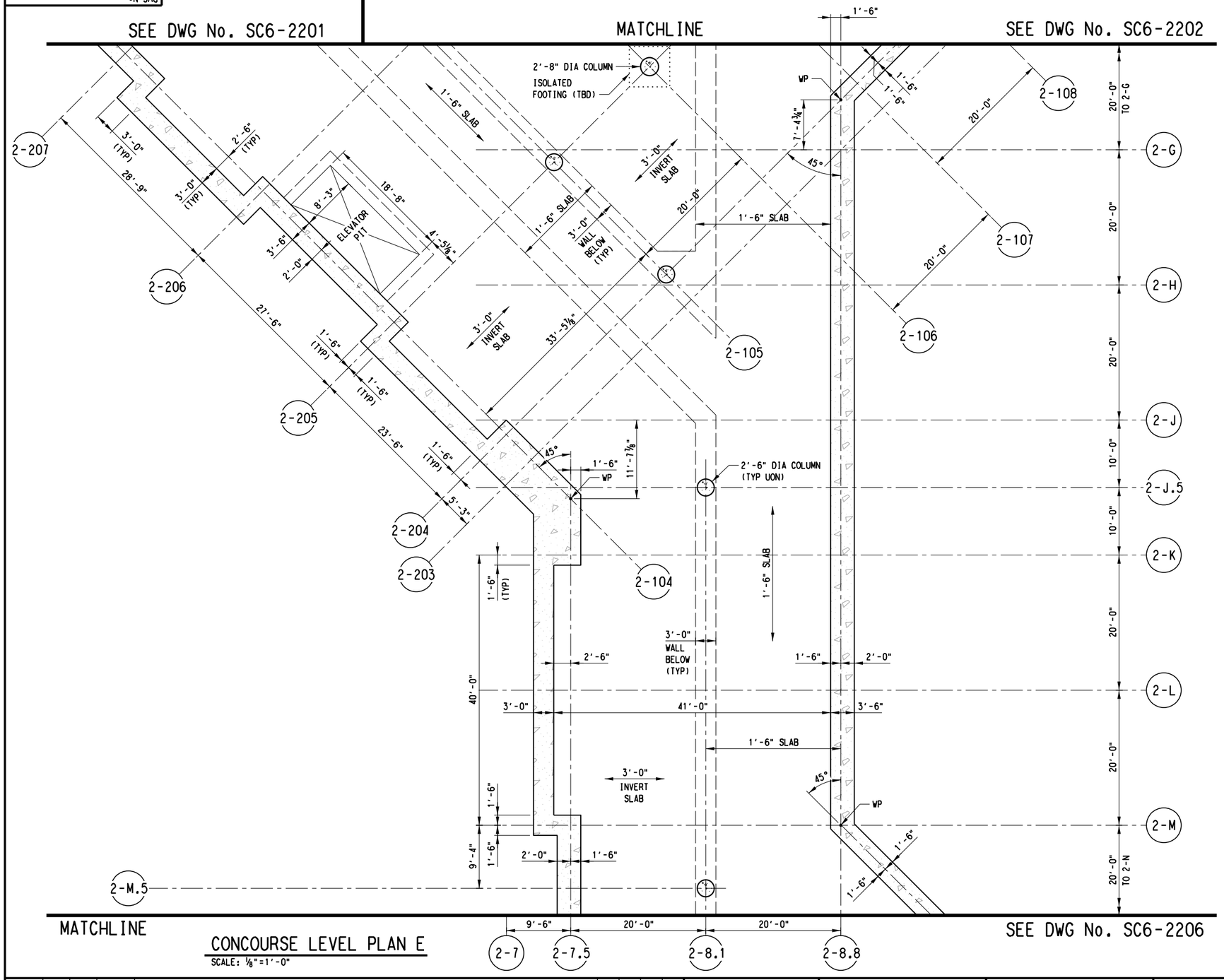
bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-2205

SEE DWG No. SC6-2201 | MATCHLINE | SEE DWG No. SC6-2202



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ELEVATOR PIT TO BE 5'-0" DEEP.

MATCHLINE

CONCOURSE LEVEL PLAN E

SCALE: 1/8"=1'-0"

SEE DWG No. SC6-2206

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 202 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 5 OF 8

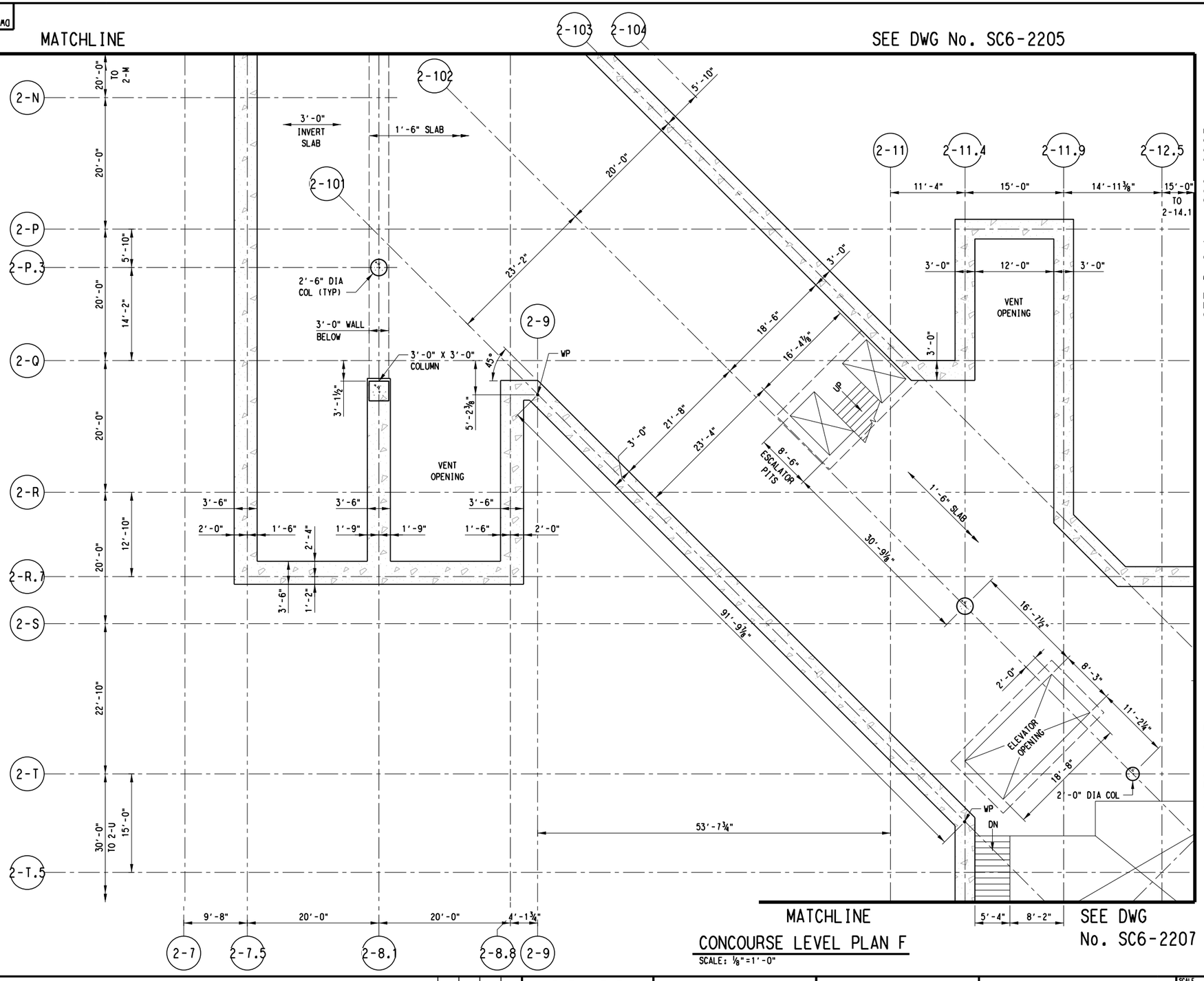
CONTRACT | DWG No. SC6-2205 | REV

bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

MATCHLINE

SEE DWG No. SC6-2205



MATCHLINE

SEE DWG No. SC6-2207

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.

MATCHLINE

SEE DWG No. SC6-2207

CONCOURSE LEVEL PLAN F

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 203 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 6 OF 8

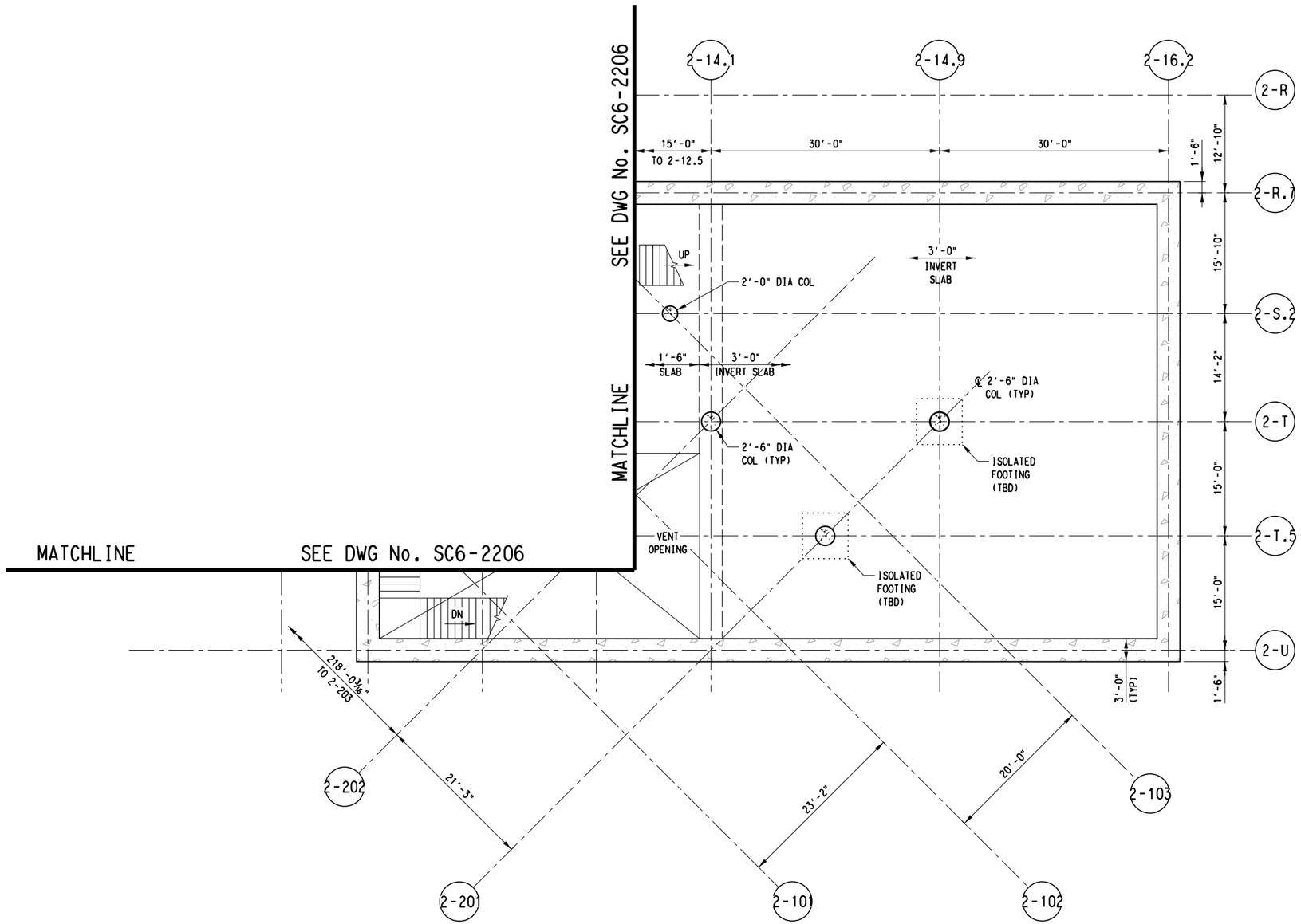
CONTRACT	DWG No.	REV
	SC6-2206	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2207

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



MATCHLINE SEE DWG No. SC6-2206

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

CONCOURSE LEVEL PLAN G

SCALE: 1/8"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 204 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

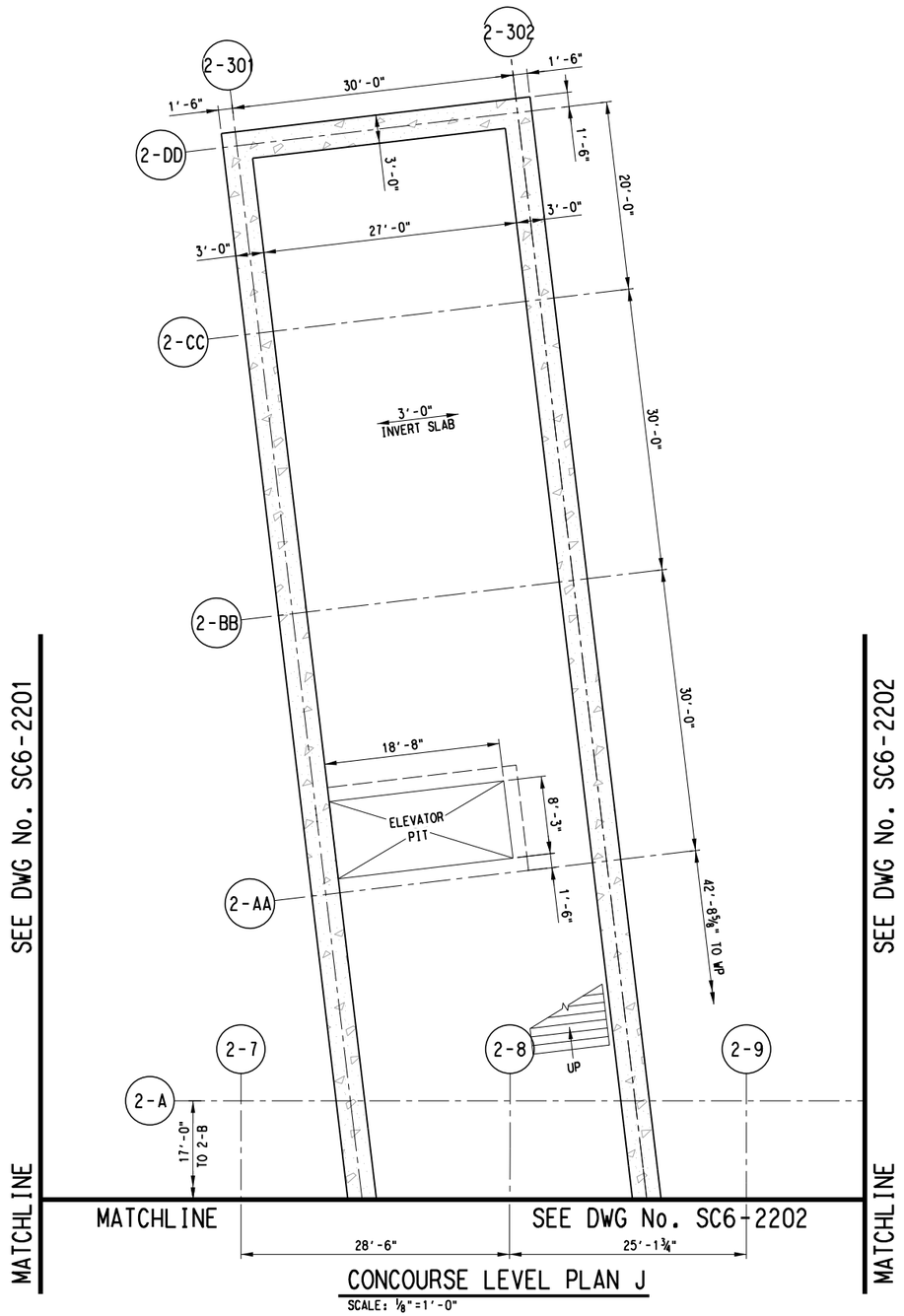
METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 7 OF 8

CONTRACT	DWG No.	REV
	SC6-2207	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2208



CONCOURSE LEVEL PLAN J

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ELEVATOR PIT TO BE 5'-0" DEEP.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 205 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
CONCOURSE LEVEL PLAN
SHEET 8 OF 8

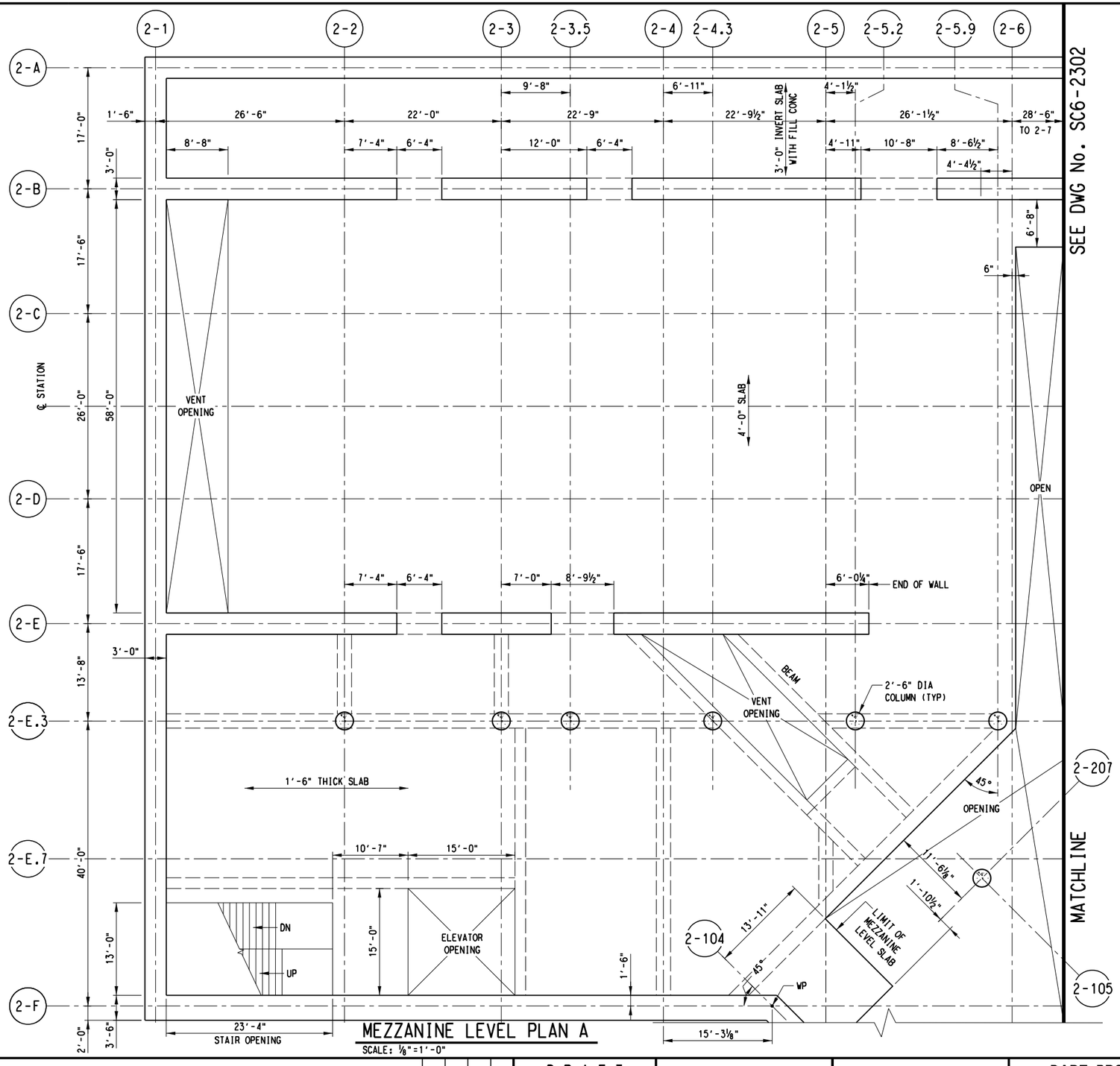
CONTRACT	DWG No.	REV
	SC6-2208	

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2301



MEZZANINE LEVEL PLAN A

SCALE: ⅛"=1'-0"

SEE DWG No. SC6-2302

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 206 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

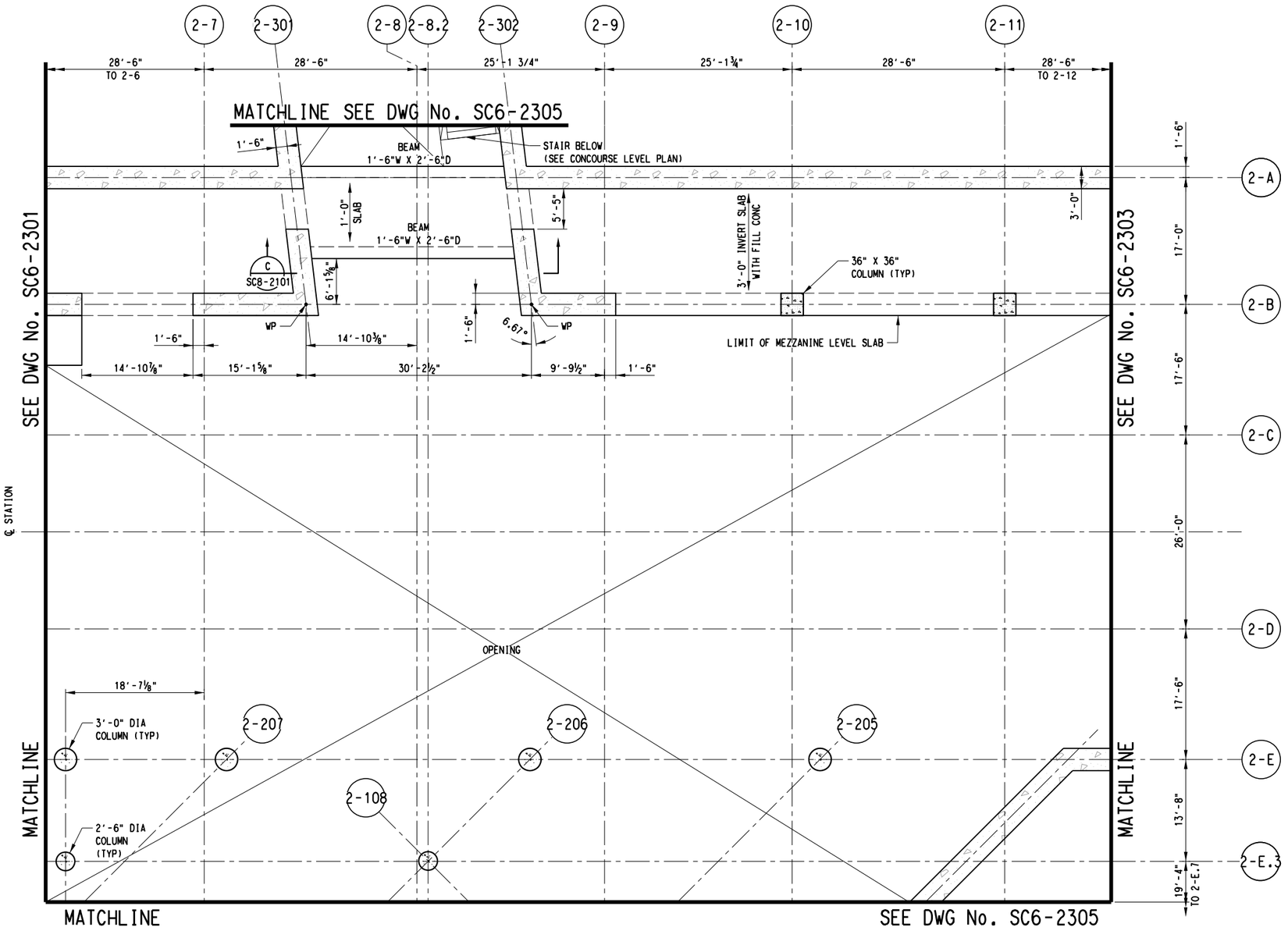
METRO CENTER STATION
MEZZANINE LEVEL PLAN
SHEET 1 OF 5

CONTRACT	DWG No.	REV
	SC6-2301	

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2302



MEZZANINE LEVEL PLAN B

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 207 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
MEZZANINE LEVEL PLAN
SHEET 2 OF 5

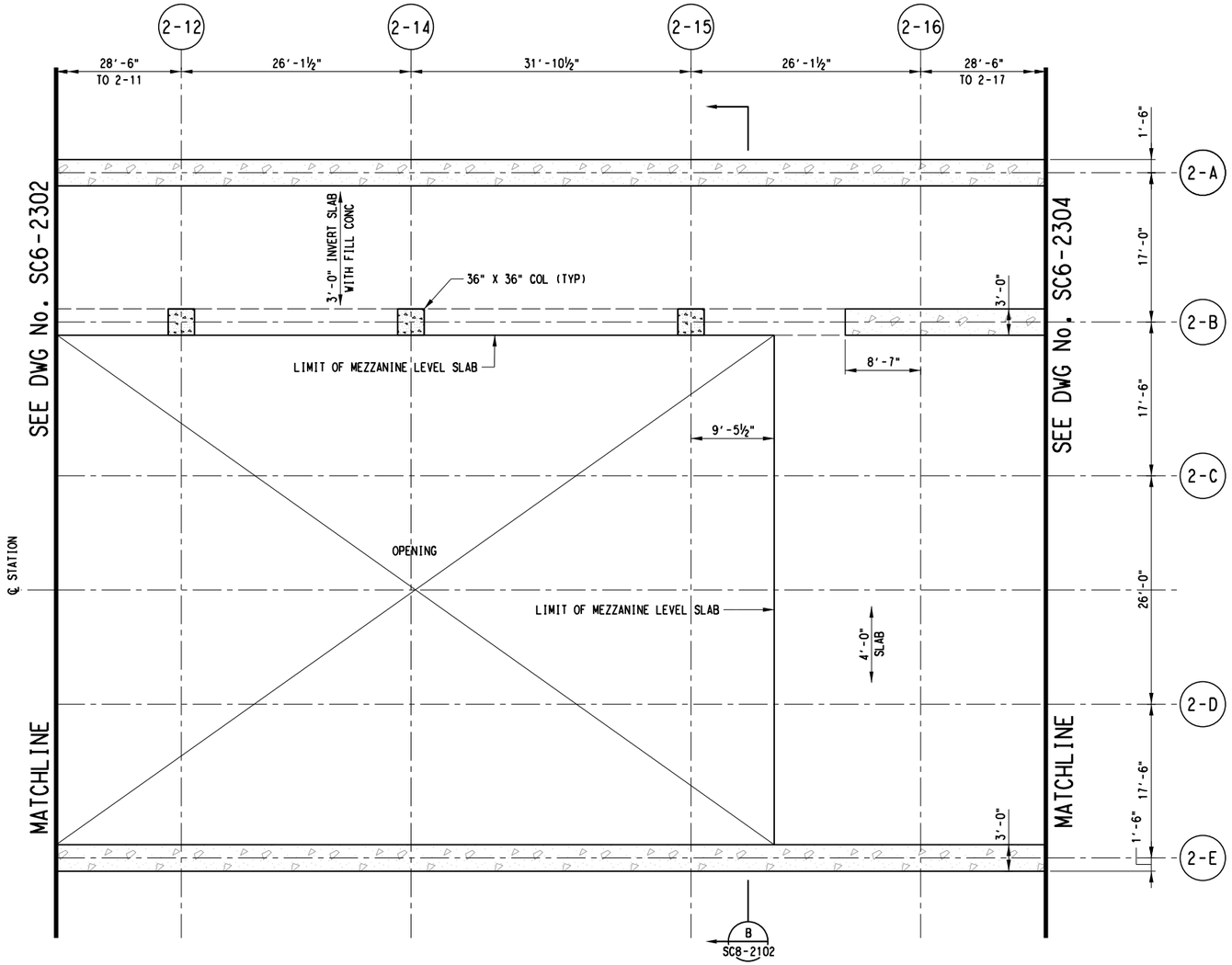
CONTRACT	DWG No.	REV
	SC6-2302	

26-OCT-2020 11:56
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



MEZZANINE LEVEL PLAN C

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 208 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

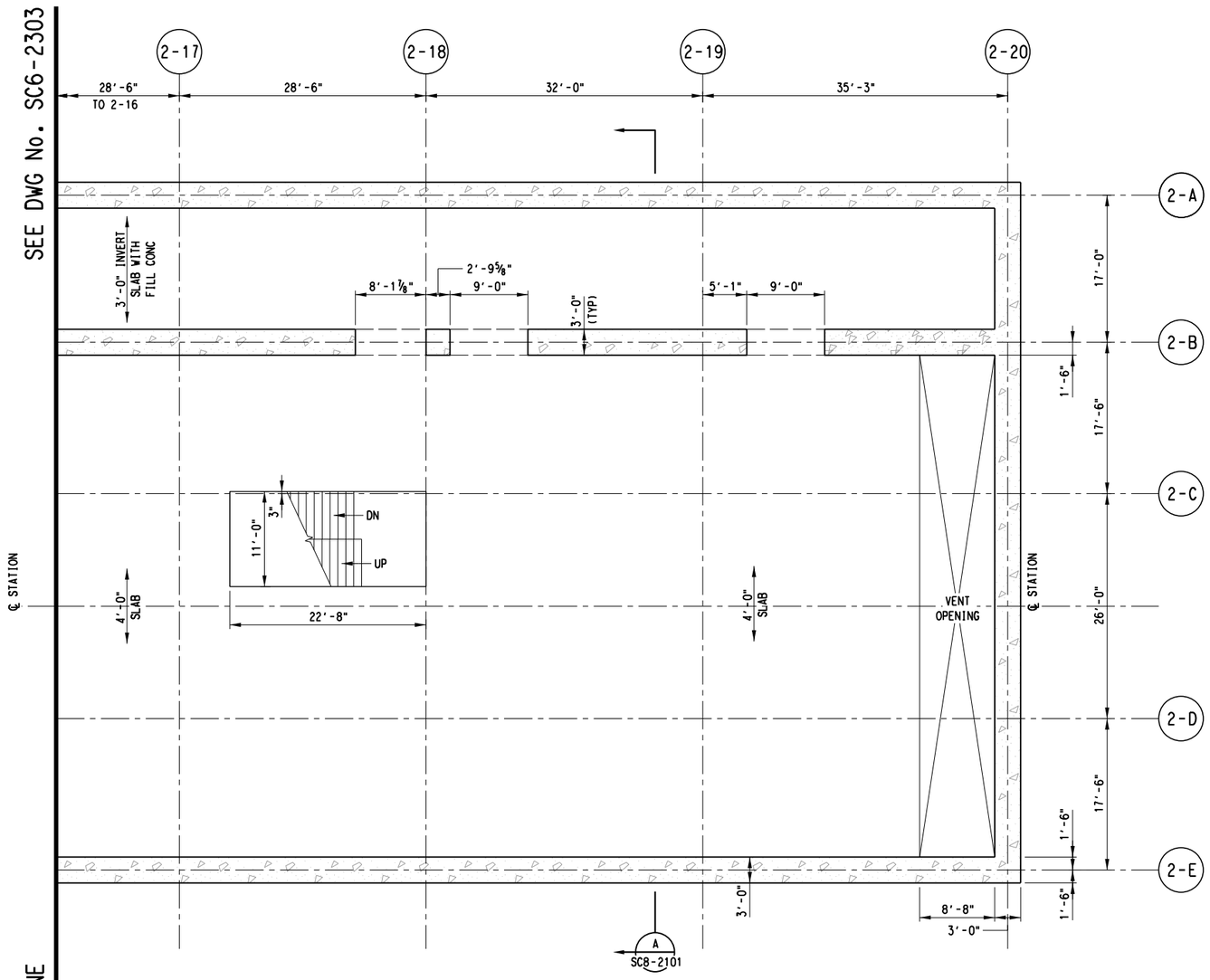
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
MEZZANINE LEVEL PLAN
SHEET 3 OF 5

CONTRACT	DWG No.	REV
	SC6-2303	

bwhiteside
Default

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



MEZZANINE LEVEL PLAN D

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 209 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

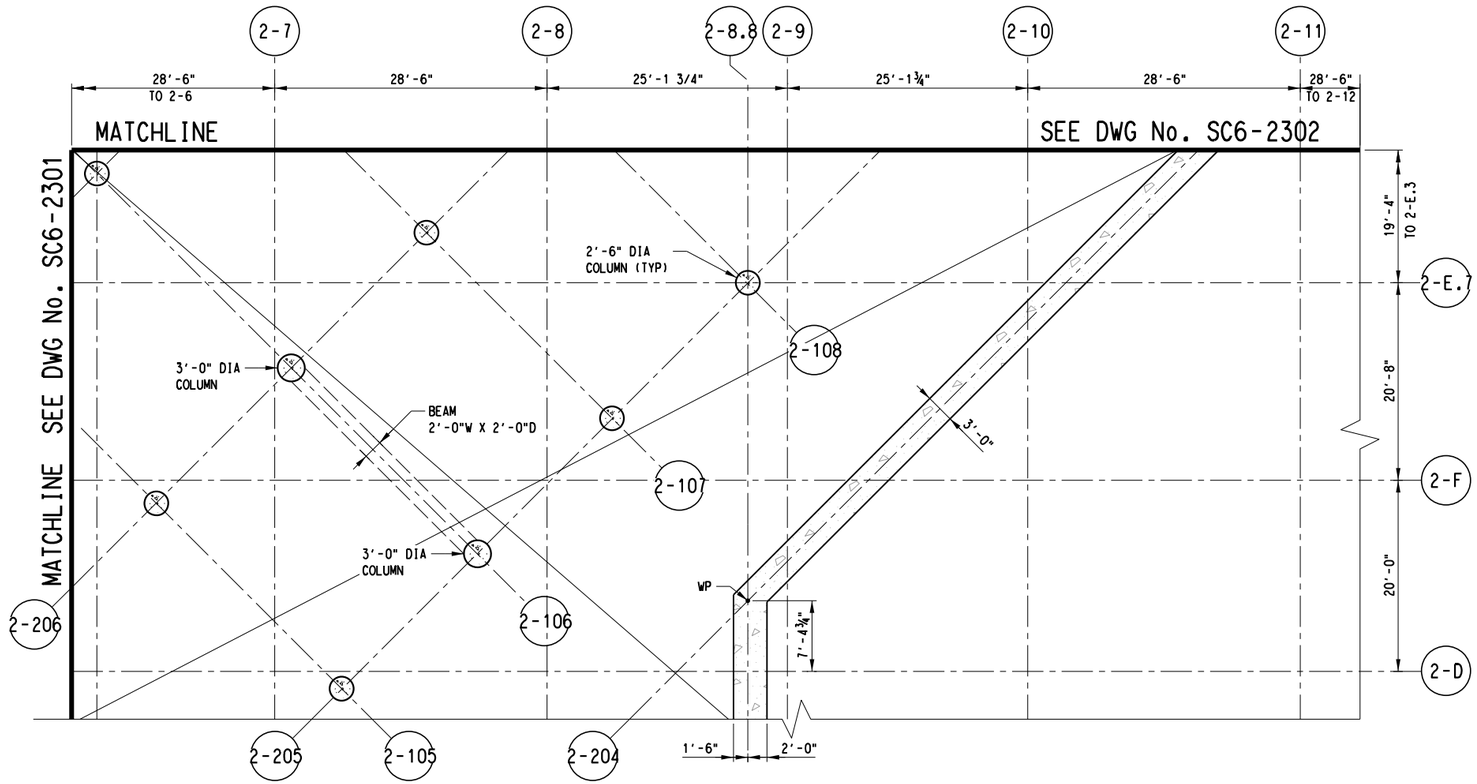
METRO CENTER STATION
MEZZANINE LEVEL PLAN
SHEET 4 OF 5

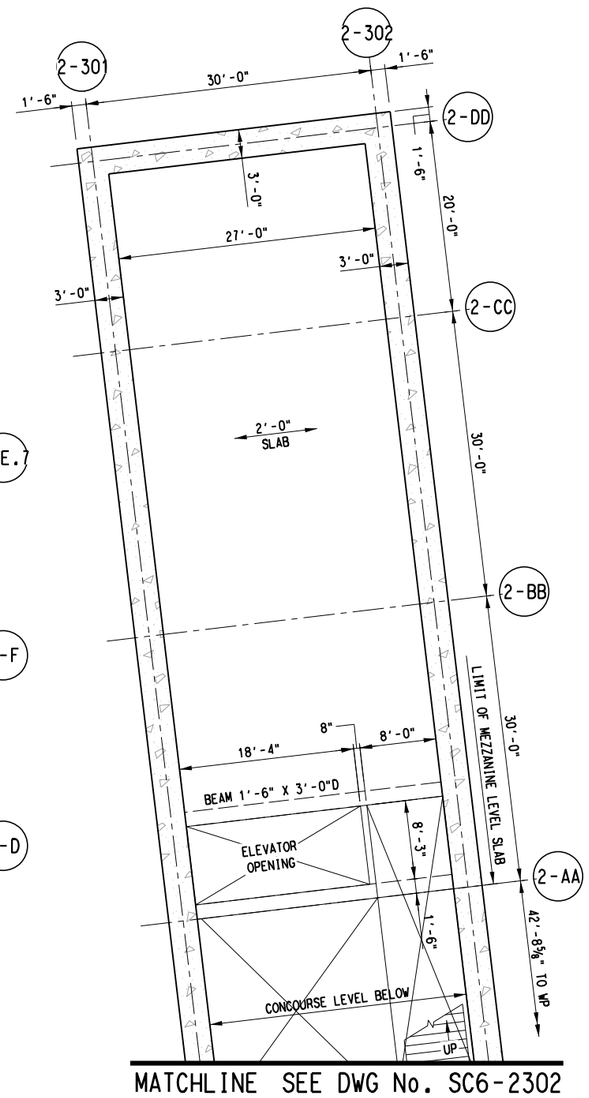
CONTRACT	DWG No.	REV
	SC6-2304	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2305





NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SCALE (IN FEET)
0 4 8 16

MEZZANINE LEVEL PLAN E
SCALE: ⅛"=1'-0"

MEZZANINE LEVEL PLAN F
SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 210 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

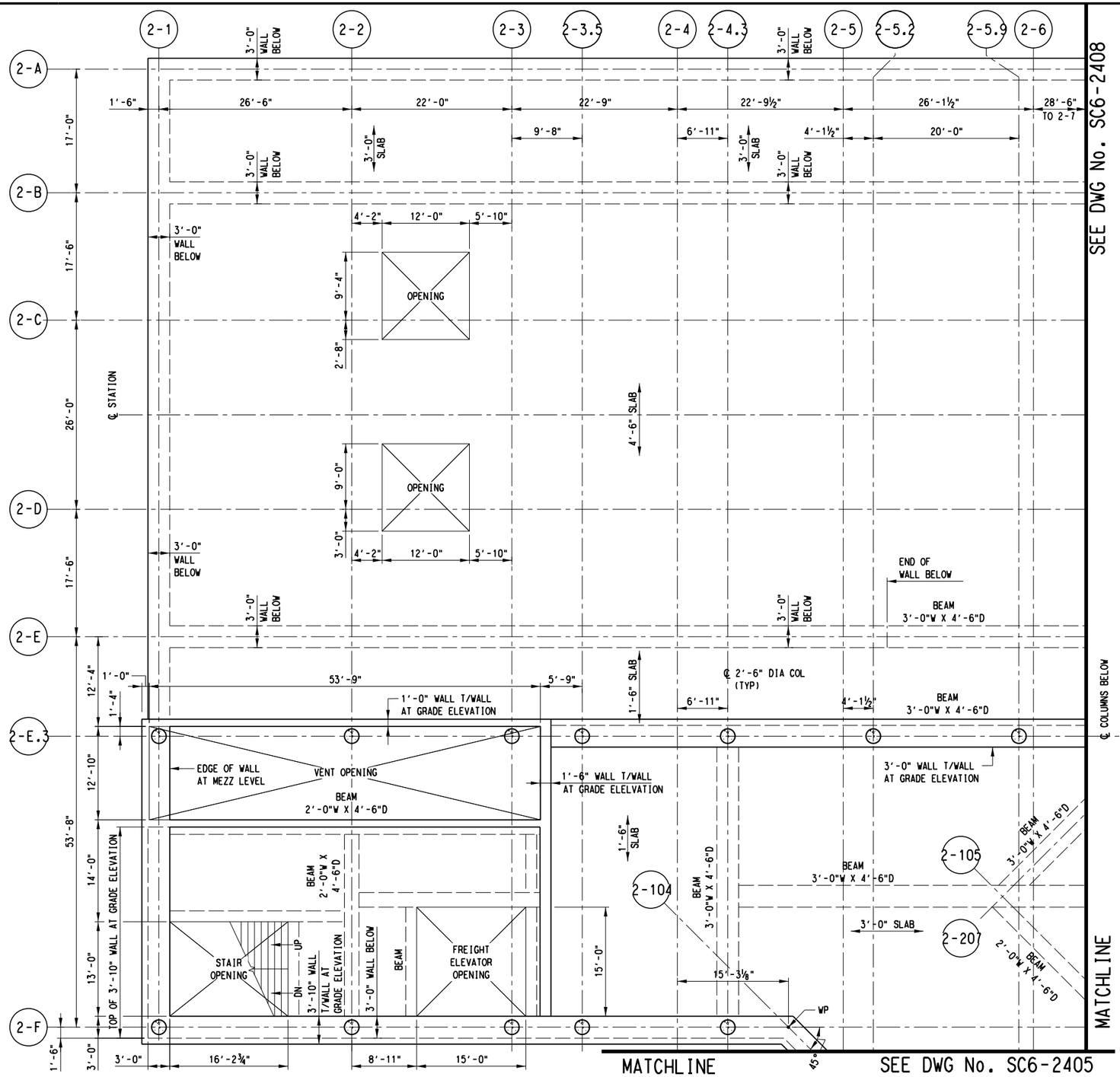
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
MEZZANINE LEVEL PLAN
SHEET 5 OF 5

CONTRACT | DWG No. SC6-2305 | REV

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

ROOF LEVEL PLAN A

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 211 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

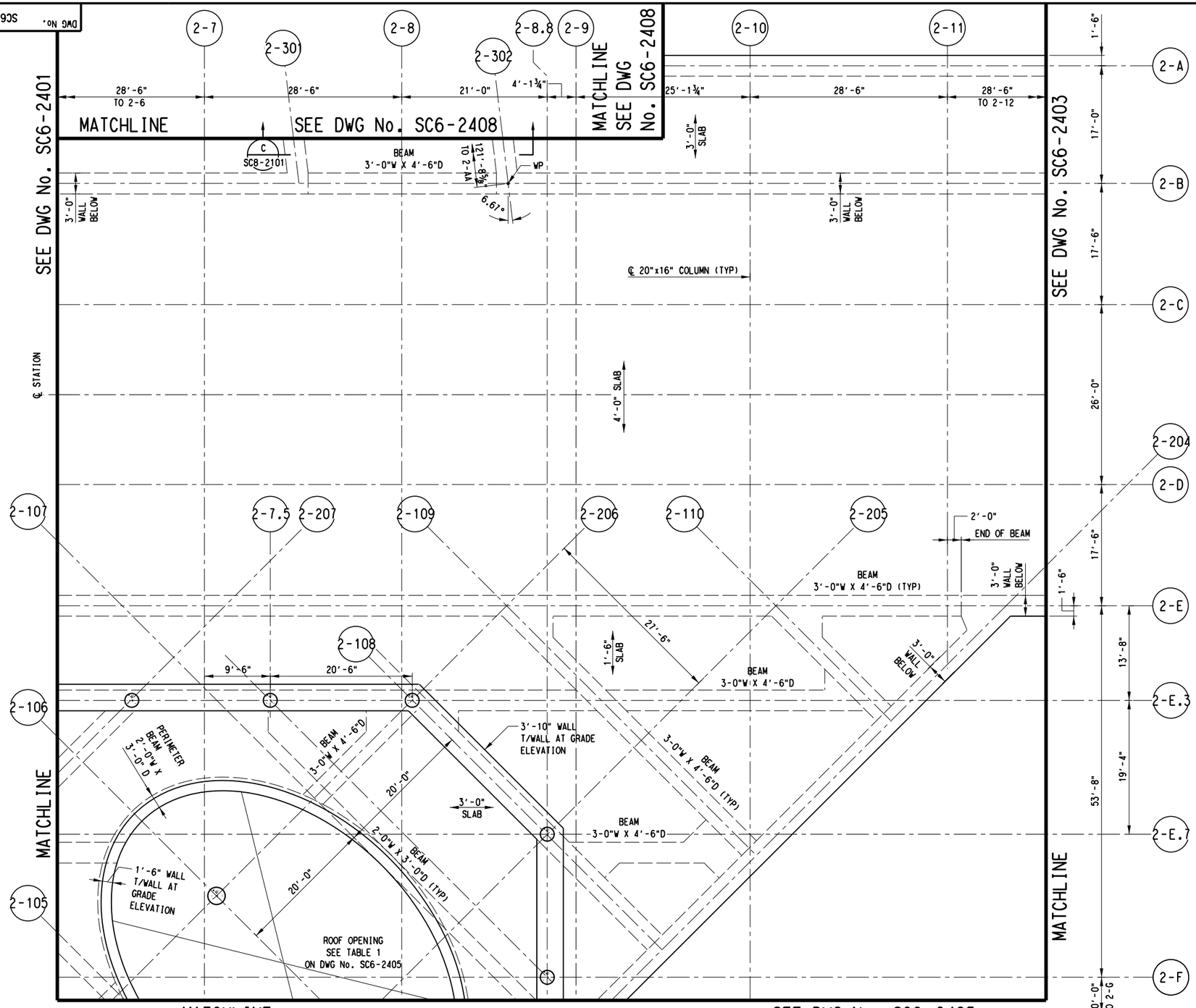
METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 1 OF 8

CONTRACT | DWG No. SC6-2401 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2402



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

ROOF LEVEL PLAN B

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 212 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

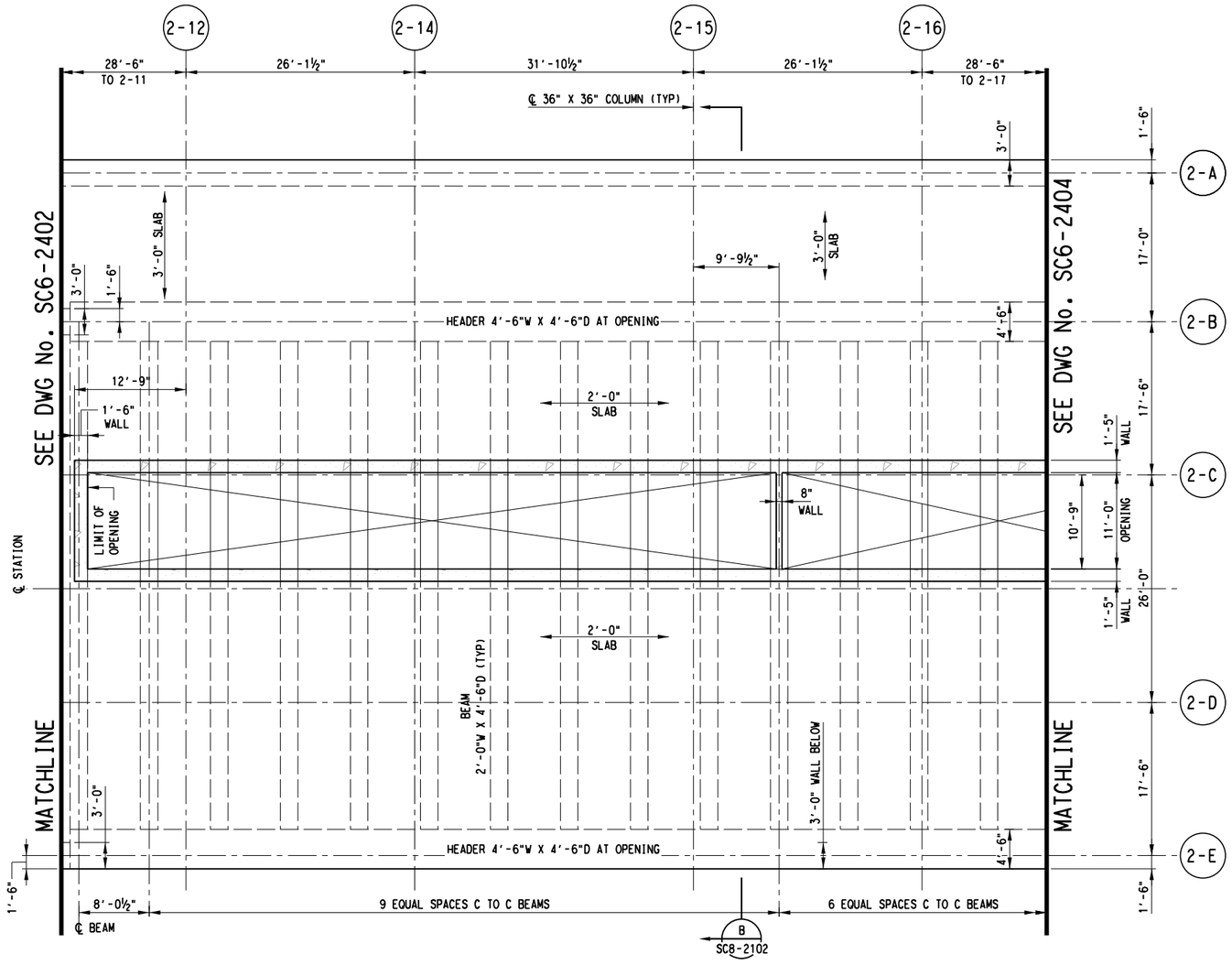
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 2 OF 8

CONTRACT | DWG No. SC6-2402 | REV

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



ROOF LEVEL PLAN C

SCALE: ⅛"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 213 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

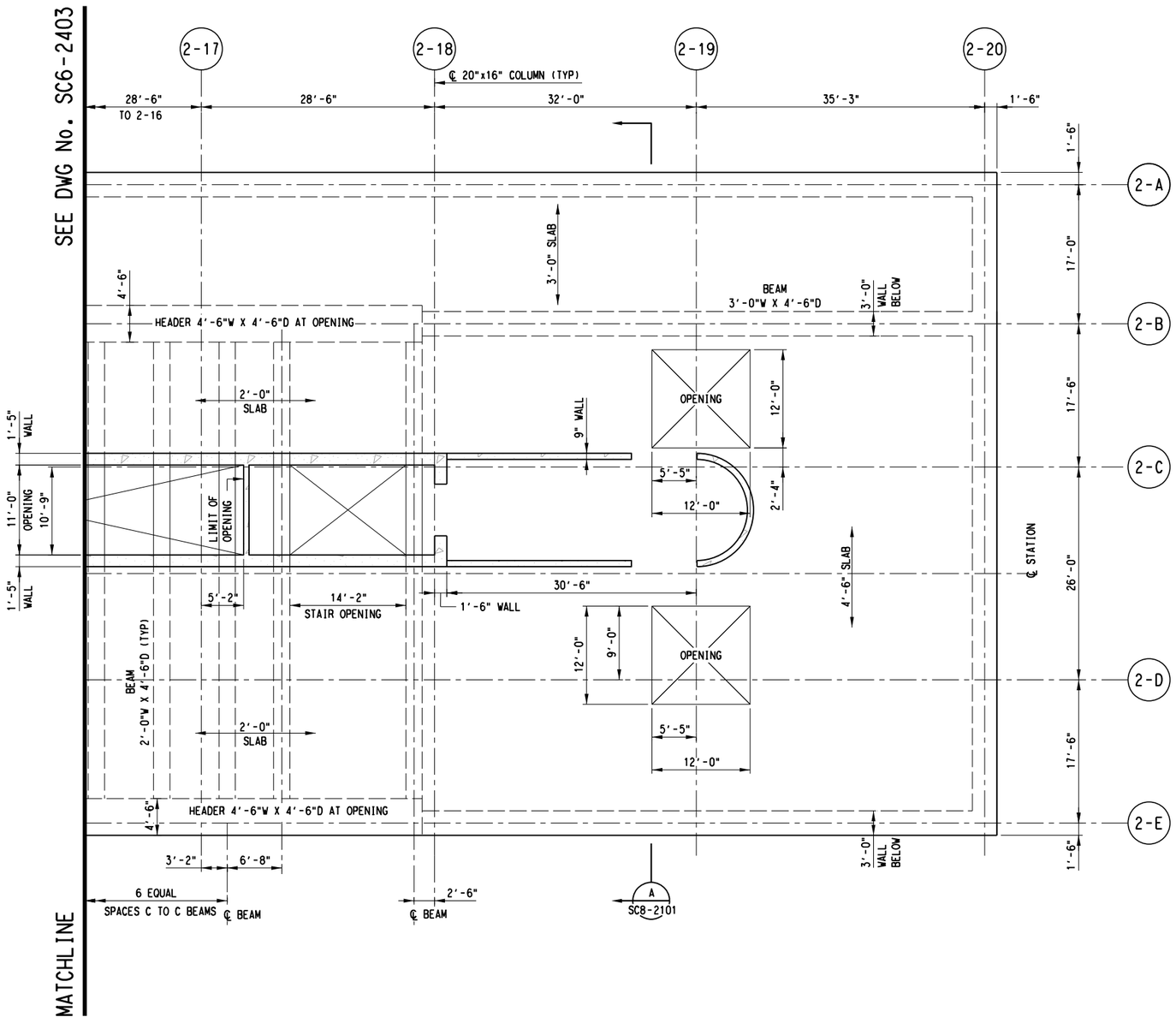
METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 3 OF 8

CONTRACT | DWG No. SC6-2403 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



ROOF LEVEL PLAN D

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 214 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 4 OF 8

CONTRACT	DWG No.	REV
	SC6-2404	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2405

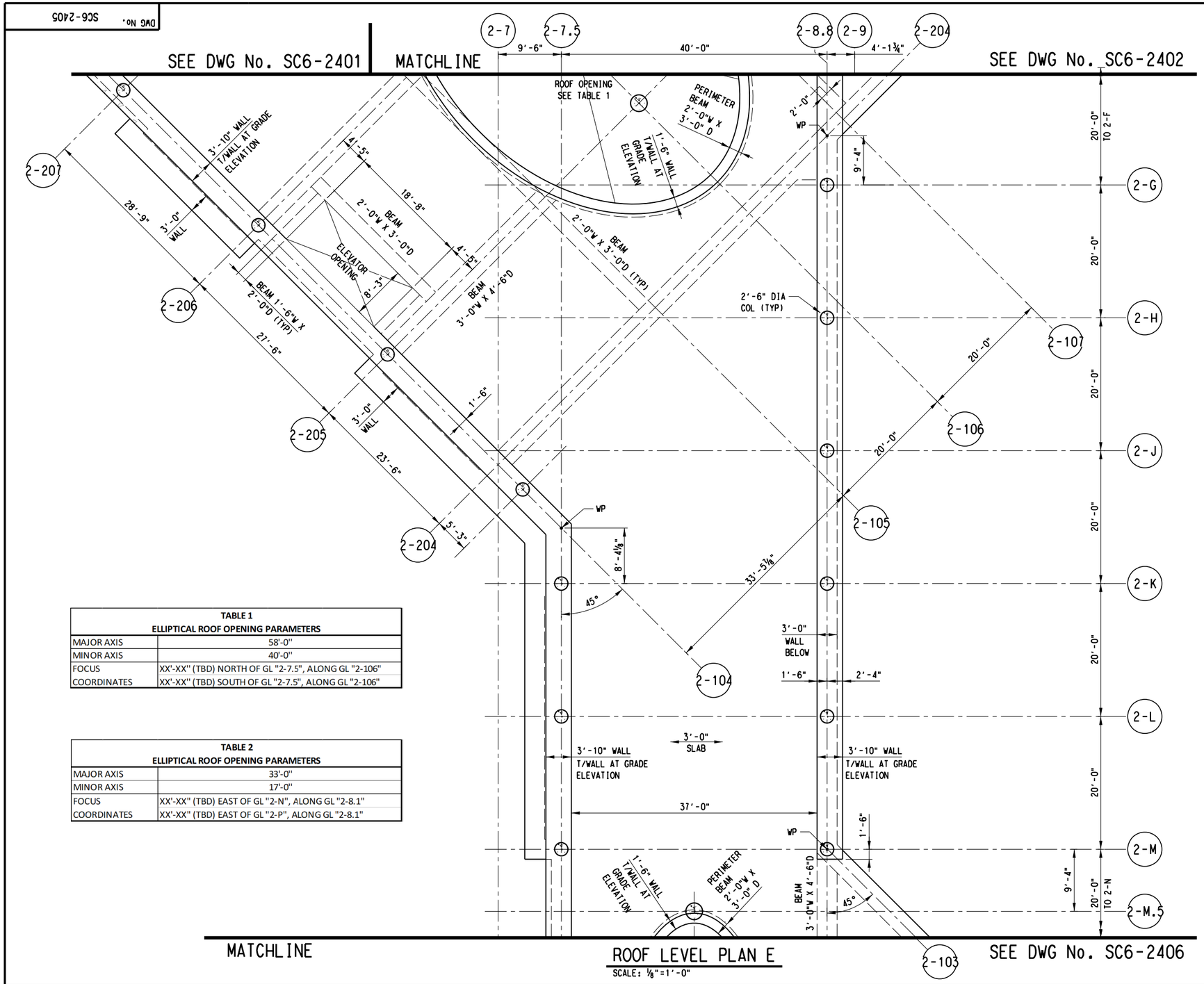


TABLE 1
ELLIPTICAL ROOF OPENING PARAMETERS

MAJOR AXIS	58'-0"
MINOR AXIS	40'-0"
FOCUS	XX'-XX" (TBD) NORTH OF GL "2-7.5", ALONG GL "2-106"
COORDINATES	XX'-XX" (TBD) SOUTH OF GL "2-7.5", ALONG GL "2-106"

TABLE 2
ELLIPTICAL ROOF OPENING PARAMETERS

MAJOR AXIS	33'-0"
MINOR AXIS	17'-0"
FOCUS	XX'-XX" (TBD) EAST OF GL "2-N", ALONG GL "2-8.1"
COORDINATES	XX'-XX" (TBD) EAST OF GL "2-P", ALONG GL "2-8.1"

MATCHLINE

ROOF LEVEL PLAN E

SCALE: ⅛"=1'-0"

SEE DWG No. SC6-2406

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 215 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 5 OF 8

CONTRACT	DWG No.	REV
	SC6-2405	

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

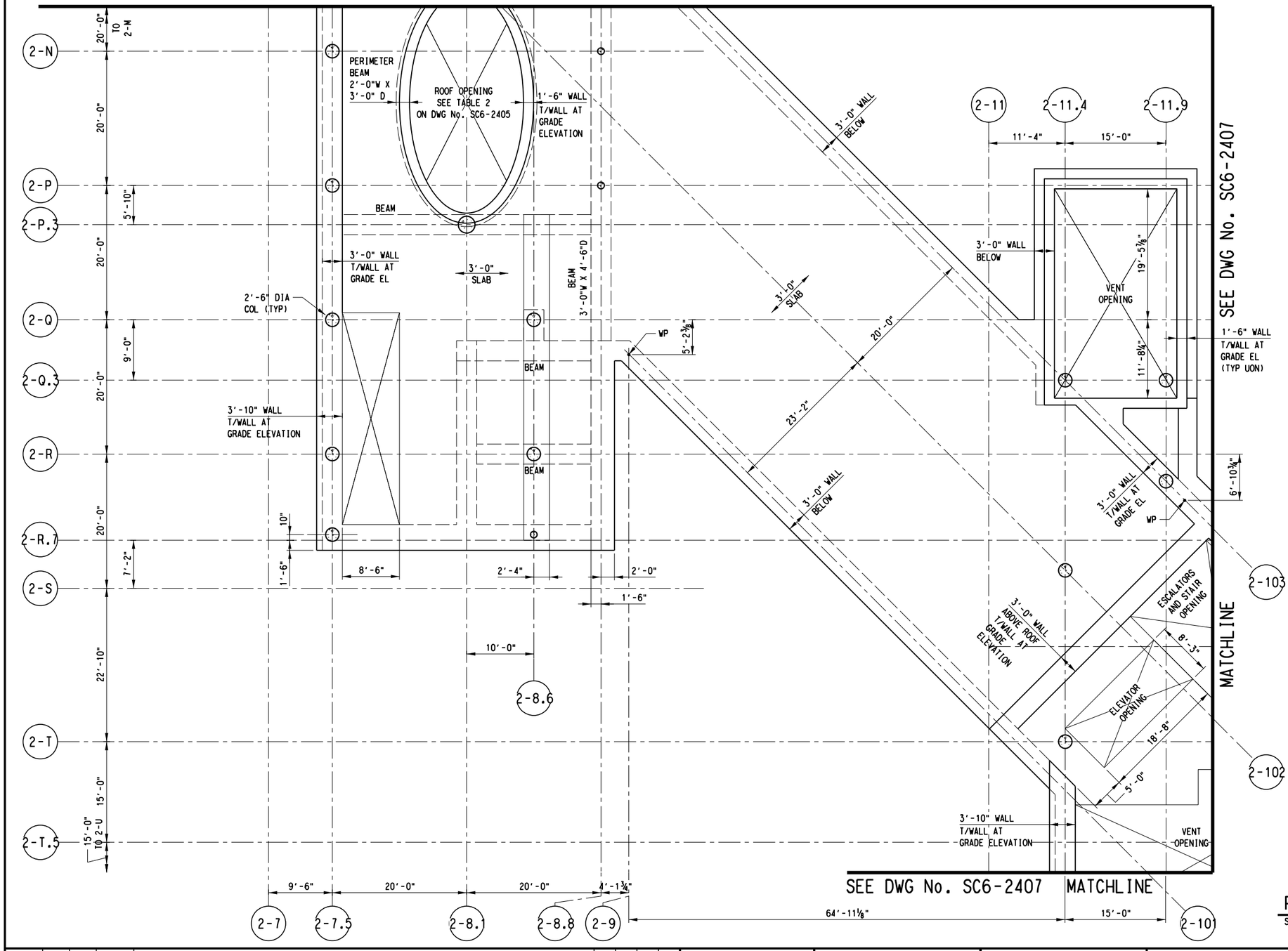
bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2406

MATCHLINE

SEE DWG No. SC6-2405



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

ROOF LEVEL PLAN F

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 216 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

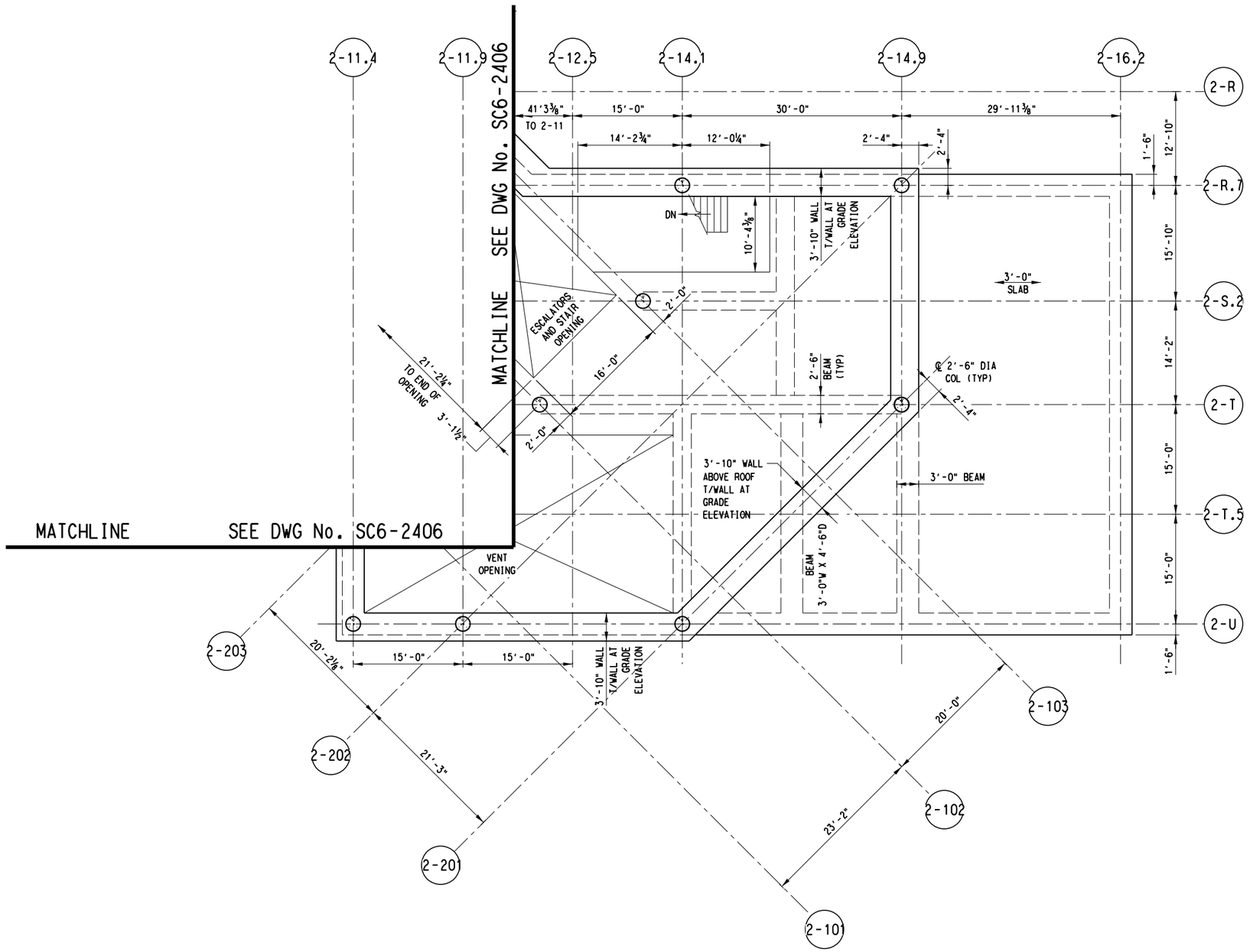
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 6 OF 8

CONTRACT	DWG No.	REV
	SC6-2406	

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-2407



ROOF LEVEL PLAN G

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 217 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 7 OF 8

CONTRACT	DWG No.	REV
	SC6-2407	

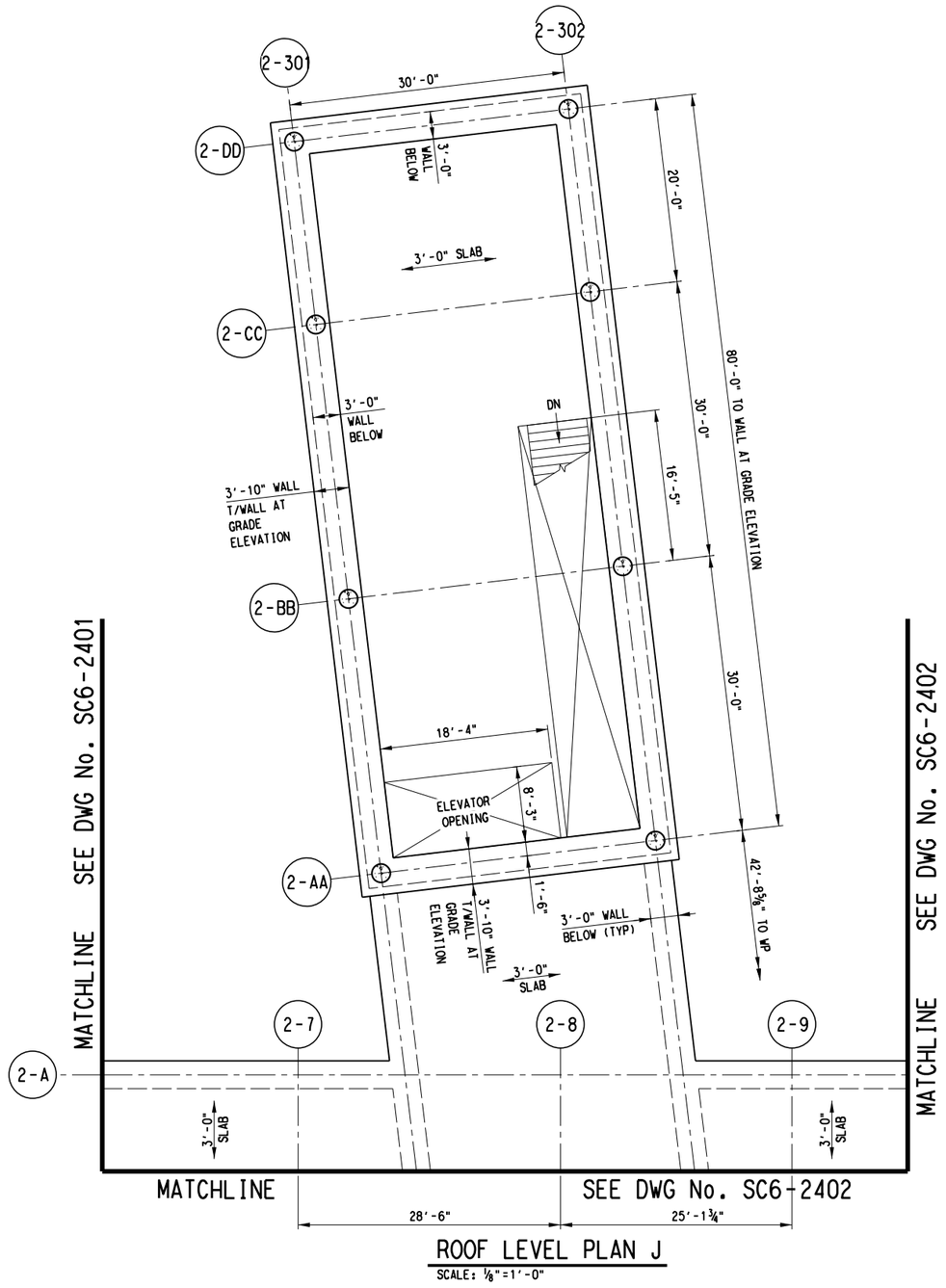
26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:57
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-2408



ROOF LEVEL PLAN J
SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 218 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

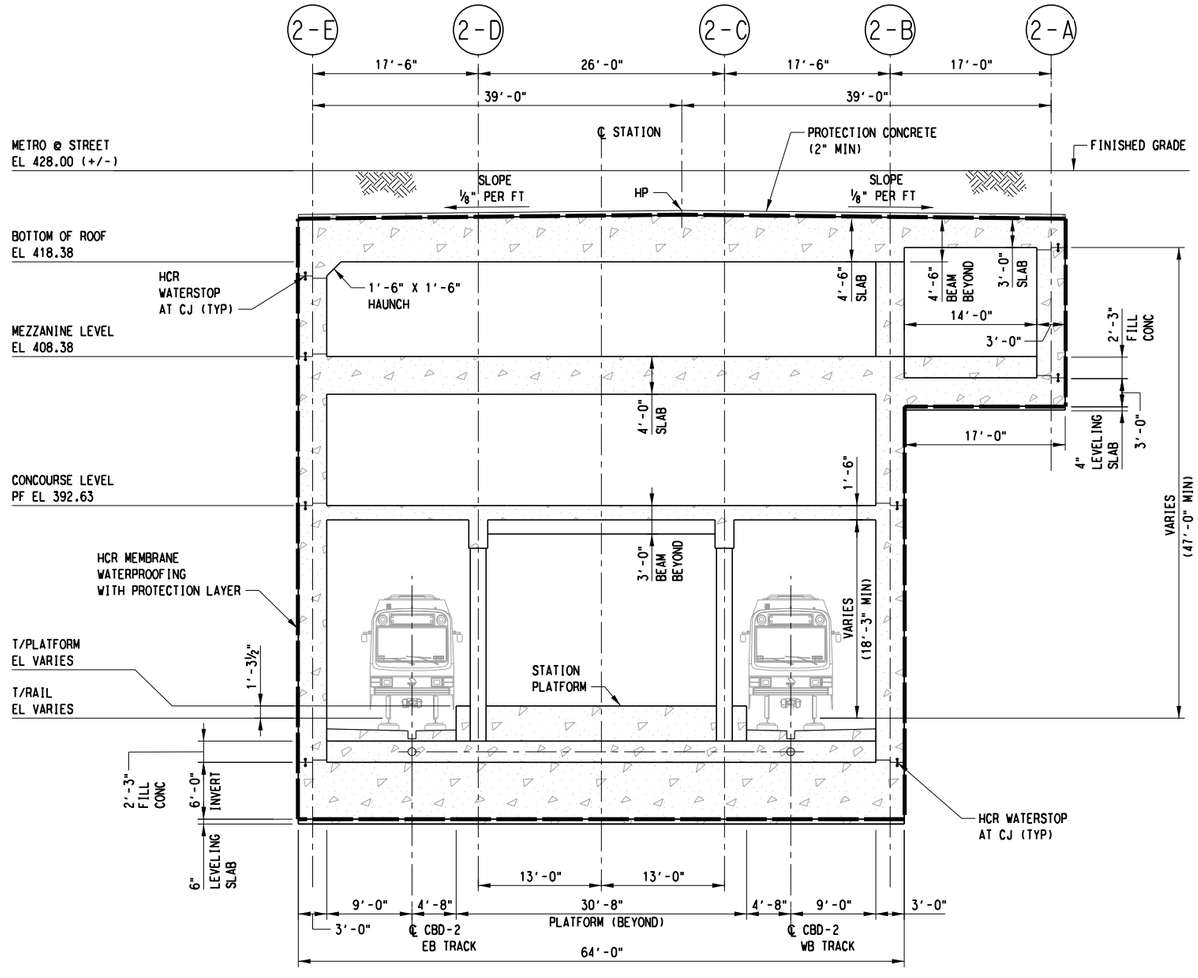
METRO CENTER STATION
ROOF LEVEL PLAN
SHEET 8 OF 8

CONTRACT	DWG No.	REV
	SC6-2408	

bwhiteside
Default

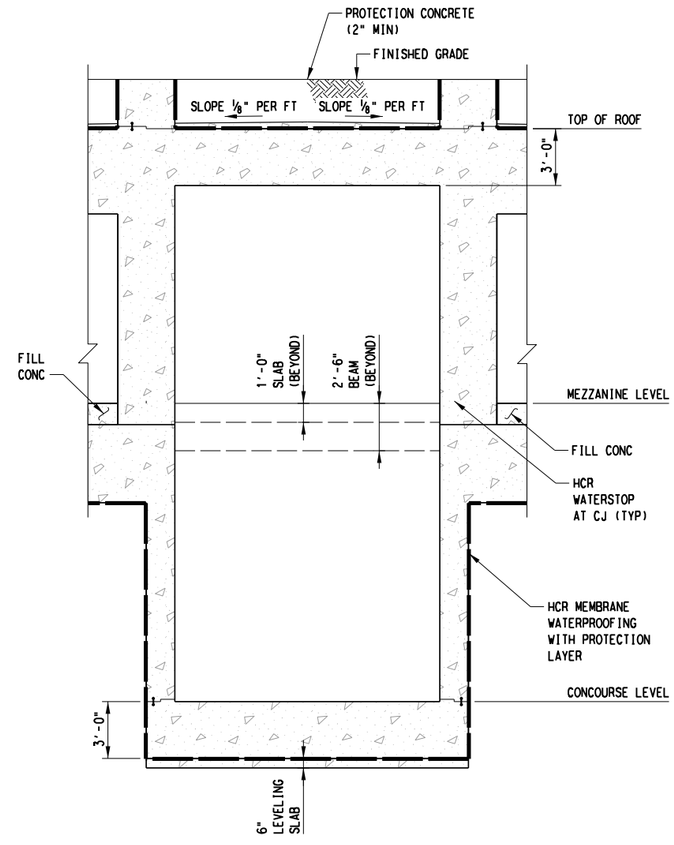
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SECTION
SCALE: ⅛"=1'-0"

A
SC6-2104
SC6-2204
SC6-2304
SC6-2404



SECTION
SCALE: ¼"=1'-0"

C
SC6-2202
SC6-2302
SC6-2402

SCALE (IN FEET)
0 4 8 16

SCALE (IN FEET)
0 2 4 8

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 219 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	AS NOTED
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

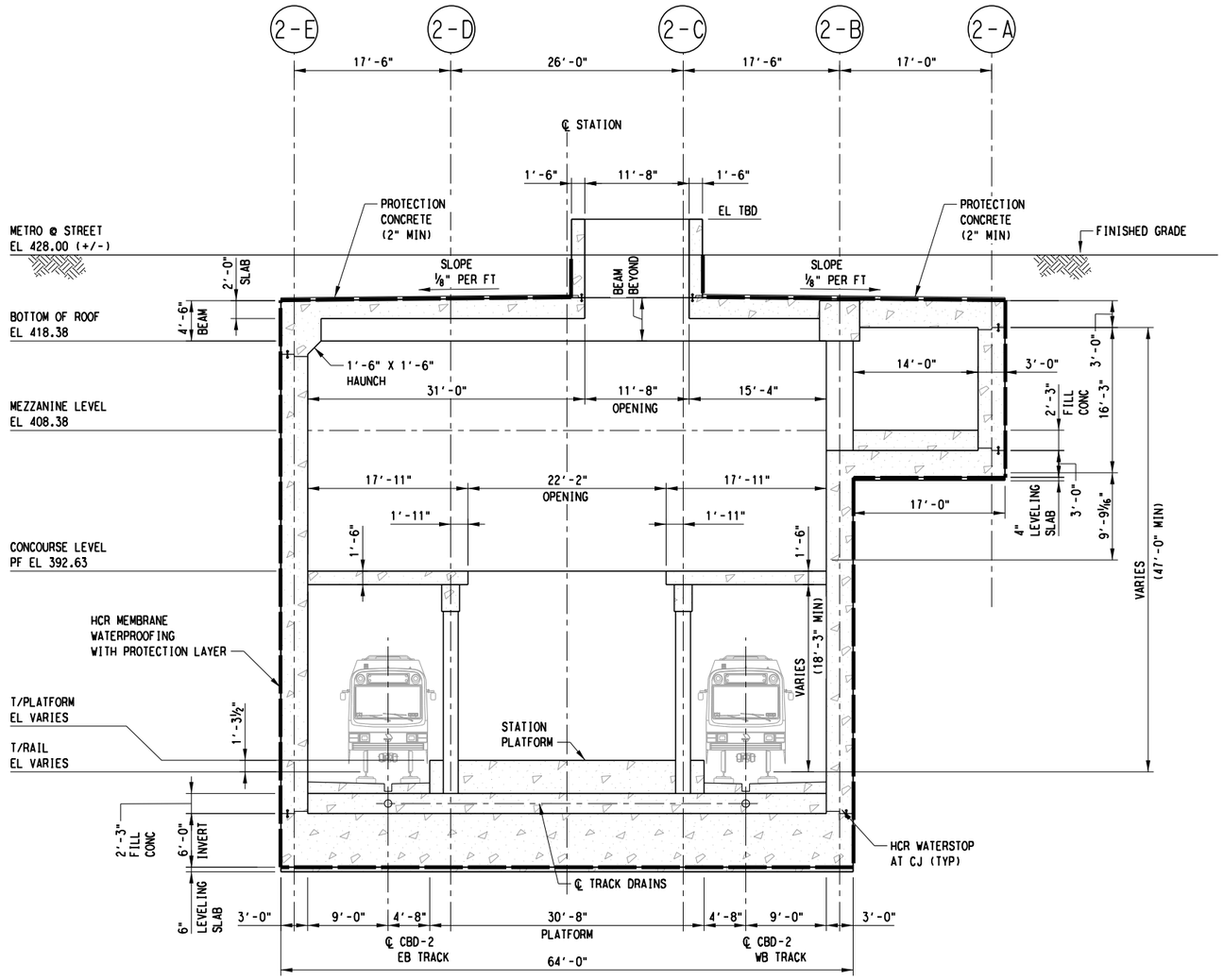
METRO CENTER STATION
SECTION A

CONTRACT | DWG No. SC8-2101 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V17.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SECTION B
SCALE: ⅛"=1'-0"

SC6-2103
SC6-2203
SC6-2303
SC6-2403

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 220 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

METRO CENTER STATION
SECTION B

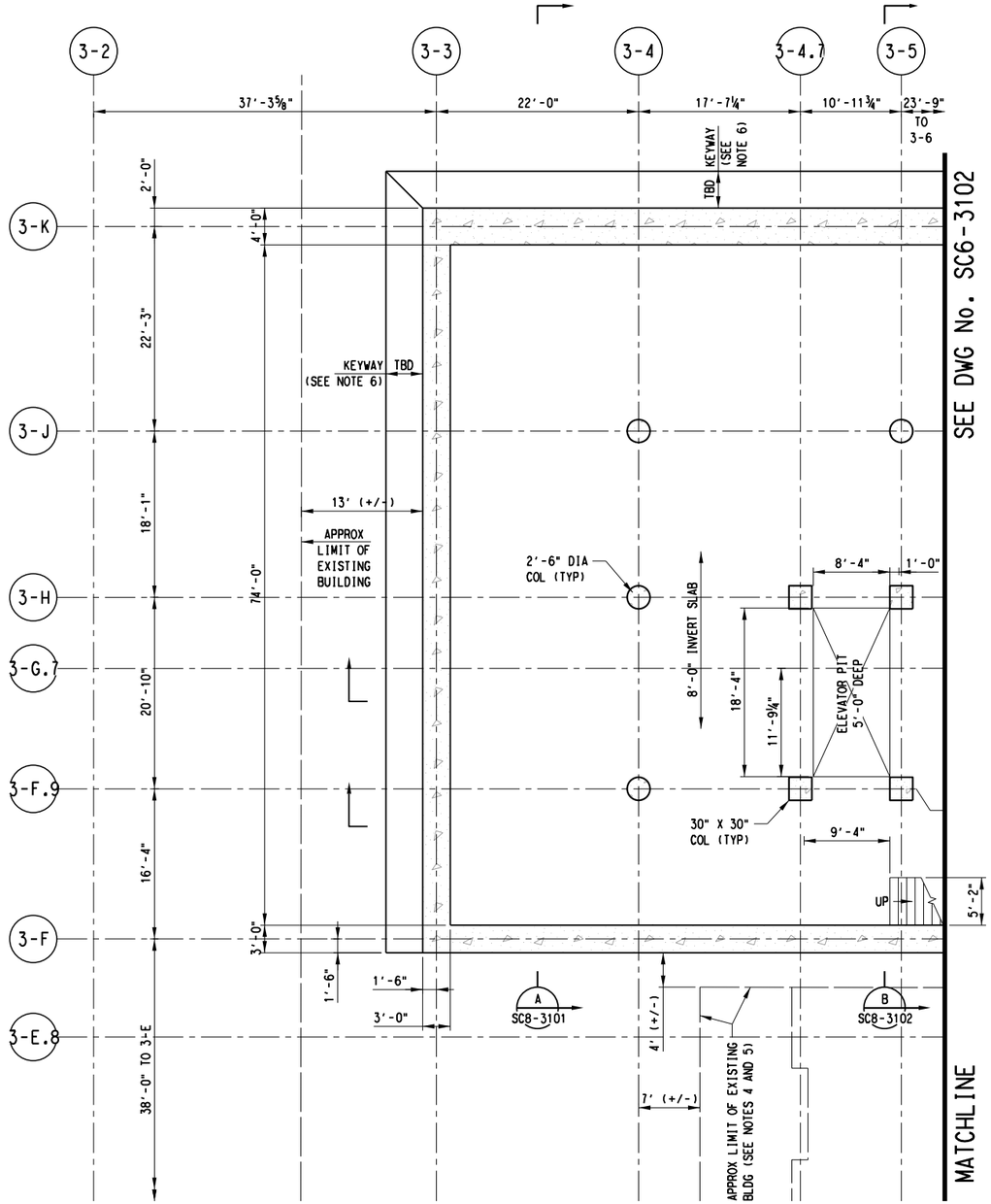
CONTRACT	DWG No.	REV
	SC8-2102	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V17.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3101



PLATFORM LEVEL PLAN A

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDING FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERANTIVE MEASURES TO RESIST UPLIFT ARE TAKEN.

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 221 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

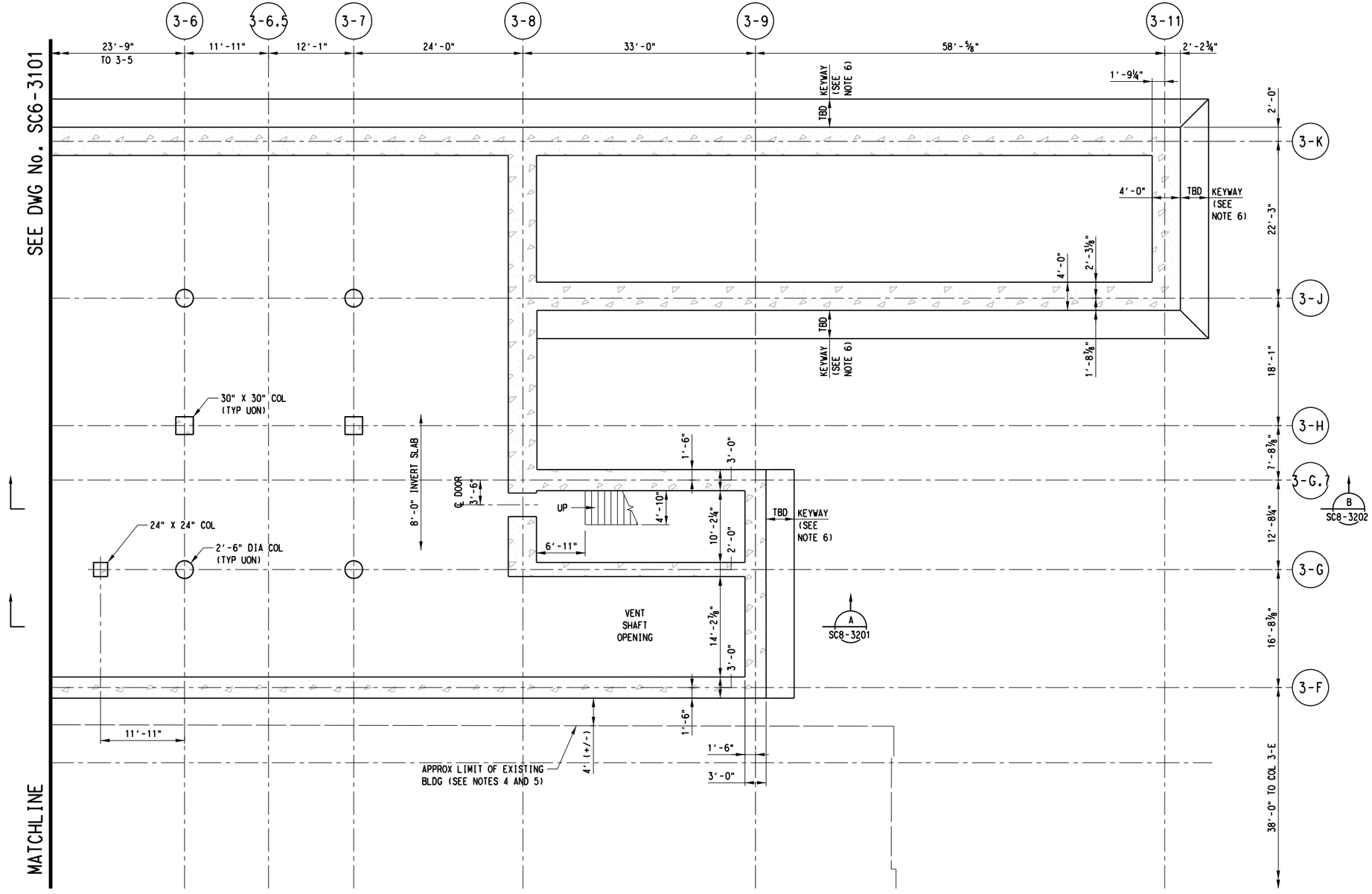
COMMERCE STATION HEADHOUSE
PLATFORM PLAN
SHEET 1 OF 2

CONTRACT | DWG No. SC6-3101 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERANTIVE MEASURES TO RESIST UPLIFT ARE TAKEN.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

PLATFORM LEVEL PLAN B
SCALE: ⅛"=1'-0"

CONTRACT SHEET No. 222 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

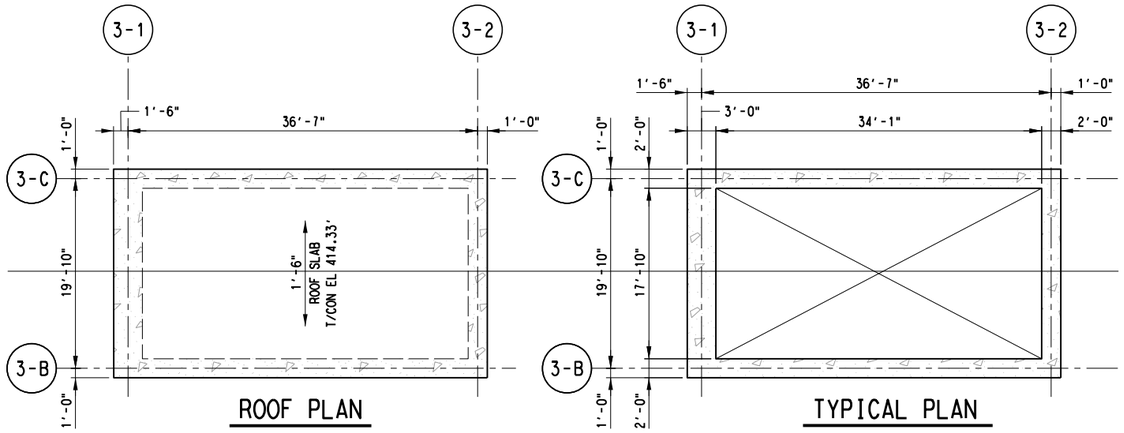
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
PLATFORM PLAN
SHEET 2 OF 2

CONTRACT	DWG No.	REV
	SC6-3102	

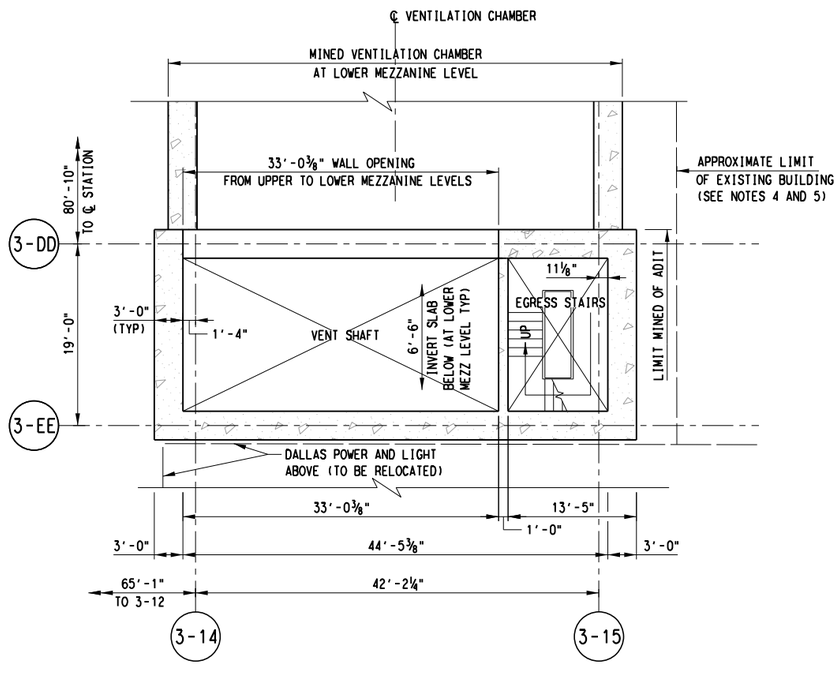
bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog



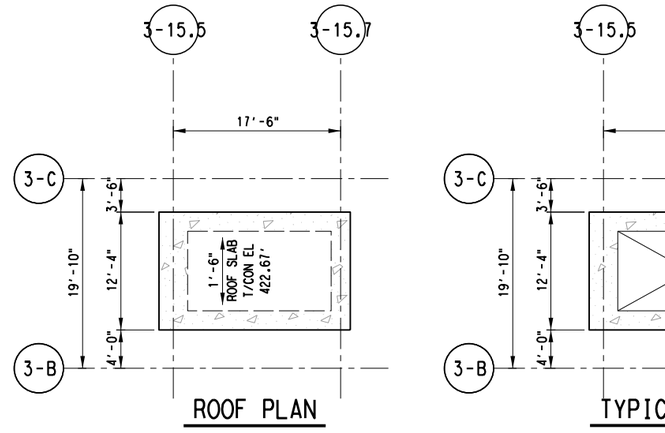
SHAFT 1 PLAN ABOVE PLATFORM OF STATION CAVERN

SCALE: ⅛"=1'-0"



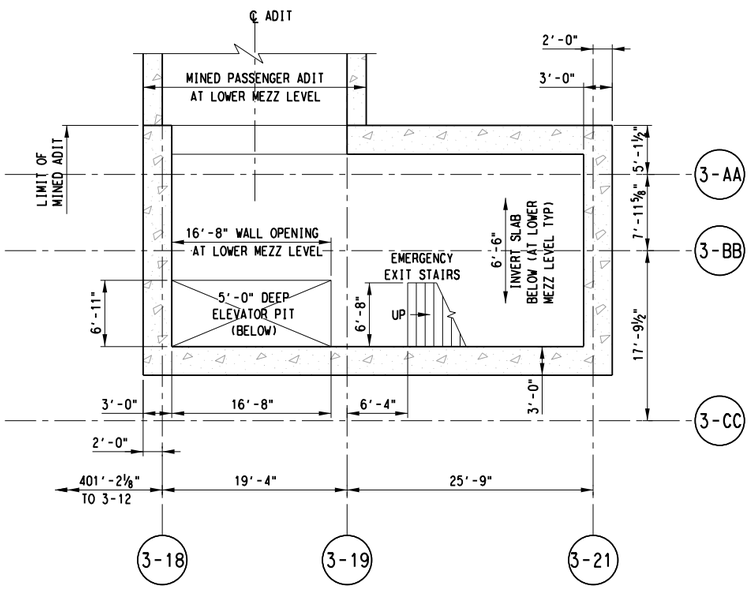
SHAFT 2 PLAN AT/ABOVE LOWER MEZZANINE LEVEL

SCALE: ⅛"=1'-0"



SHAFT 3 PLAN ABOVE LOWER MEZZANINE LEVEL OF STATION CAVERN

SCALE: ⅛"=1'-0"



SHAFT 4 PLAN AT/ABOVE LOWER MEZZANINE LEVEL

SCALE: ⅛"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. FOR STAIR DETAILS, SHAFT ELEVATIONS, DOOR AND OTHER WALL OPENINGS, SEE ARCHITECHTURAL DRAWINGS.
6. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 223 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

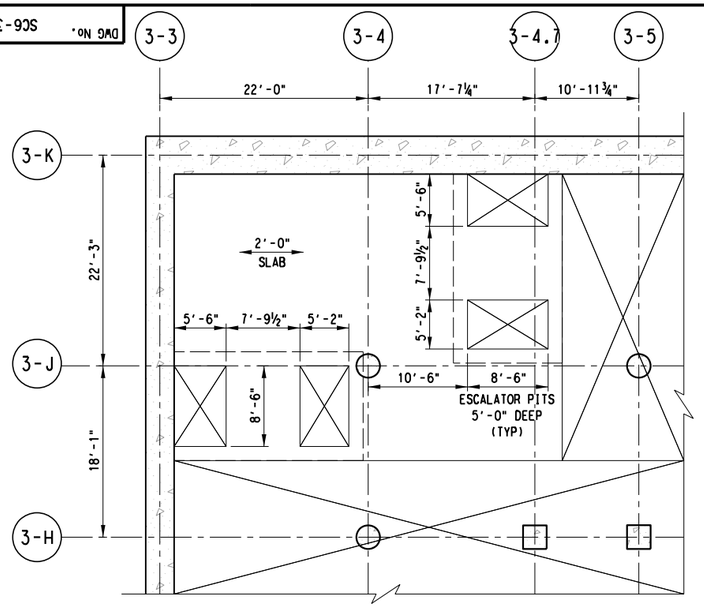
COMMERCE STATION
MISCELLANEOUS SHAFT PLAN

CONTRACT	DWG No.	REV
	SC6-3110	

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

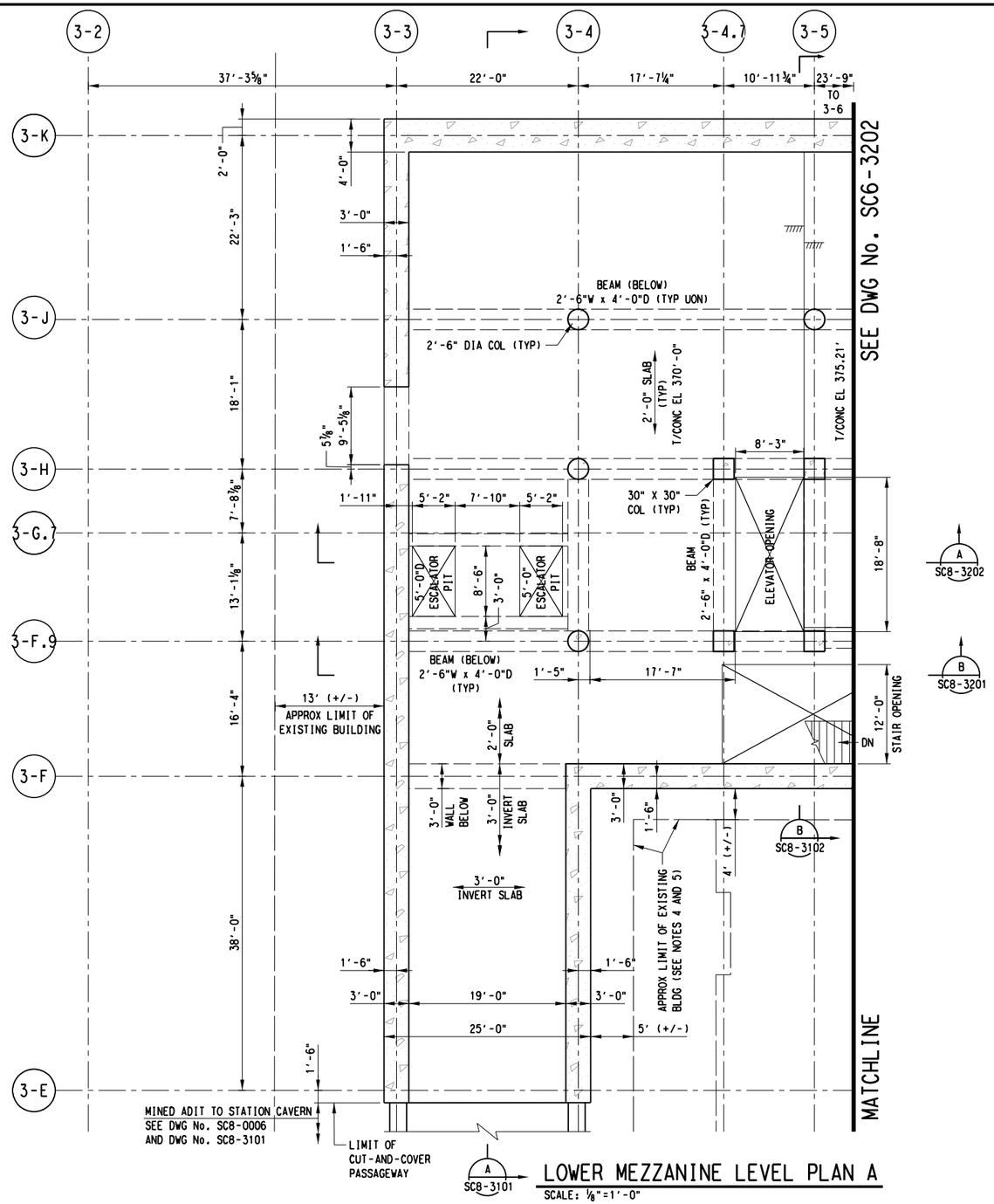
26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3201



PARTIAL PLAN AT ESCALATOR LANDING EL 381.83'

SCALE: ⅛"=1'-0"



LOWER MEZZANINE LEVEL PLAN A

SCALE: ⅛"=1'-0"

A SC8-3202

B SC8-3201

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY occur DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 224 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MAMUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

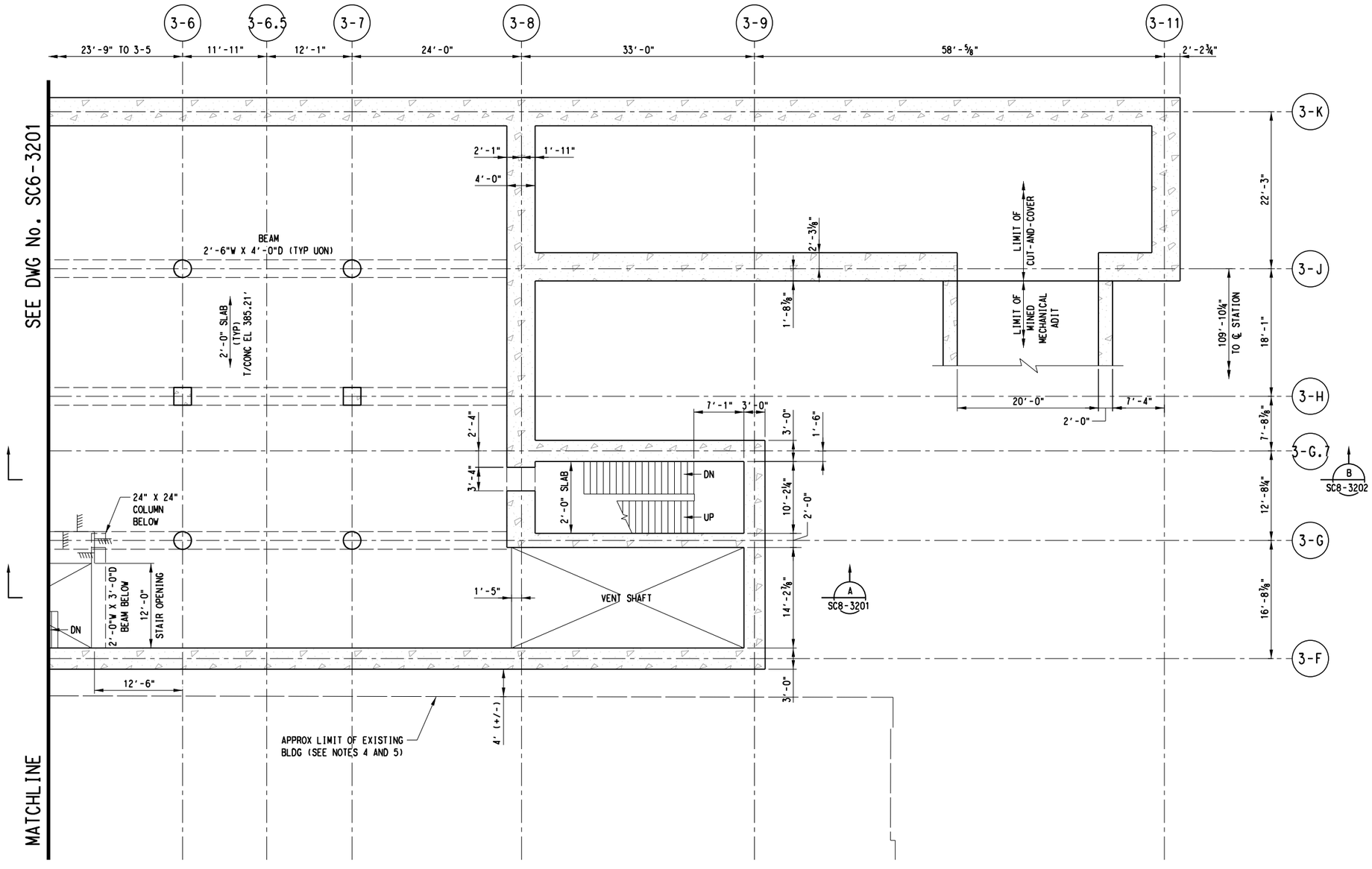
COMMERCE STATION HEADHOUSE
LOWER MEZZANINE PLAN
SHEET 1 OF 2

CONTRACT	DWG No.	REV
	SC6-3201	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

LOWER MEZZANINE LEVEL PLAN B

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 225 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

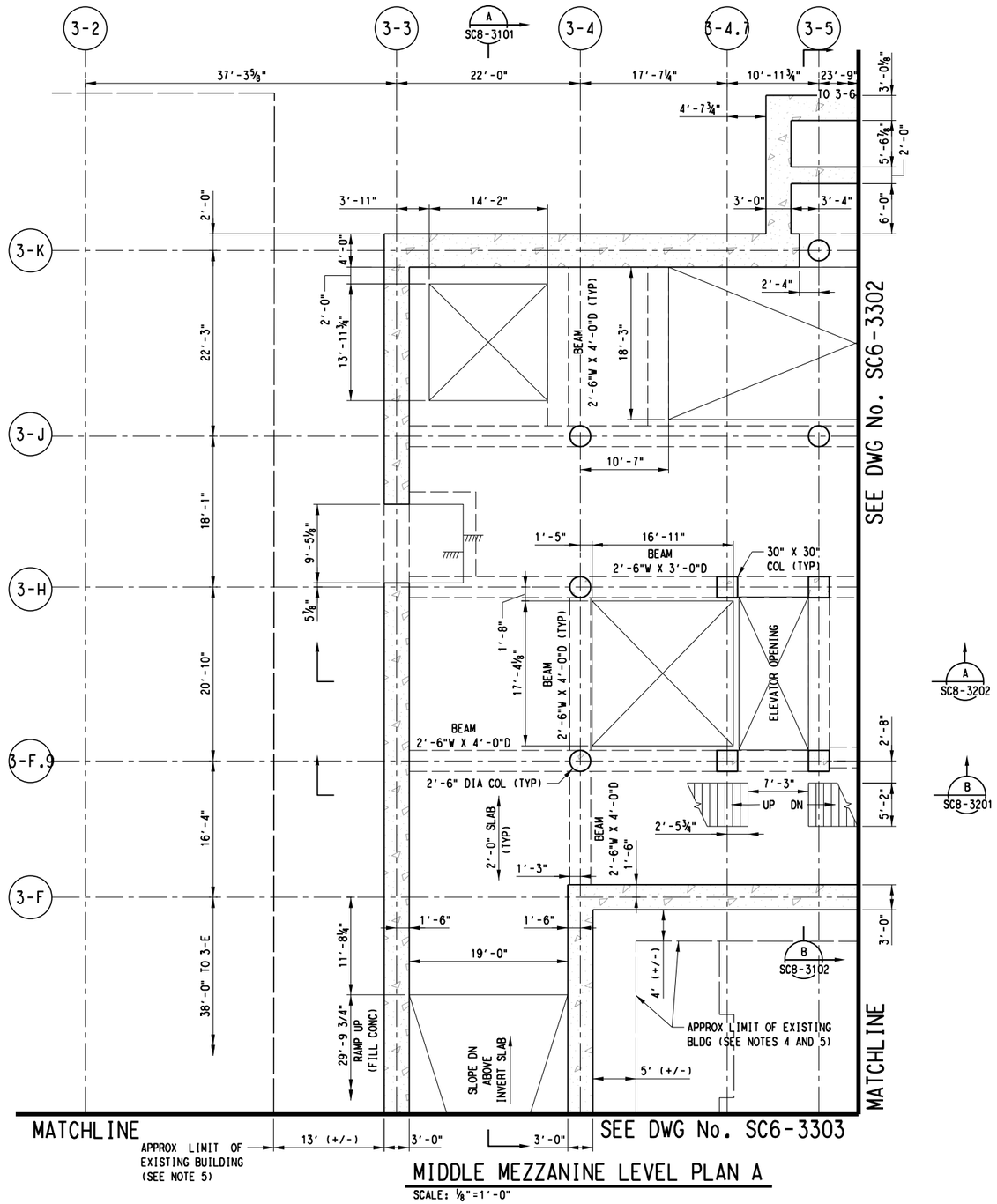
COMMERCE STATION HEADHOUSE
LOWER MEZZANINE PLAN
SHEET 2 OF 2

CONTRACT	DWG No.	REV
	SC6-3202	

bwhiteside
Default

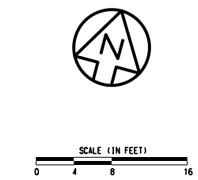
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-3301



MIDDLE MEZZANINE LEVEL PLAN A

SCALE: ⅛"=1'-0"



NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 226 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8 "=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

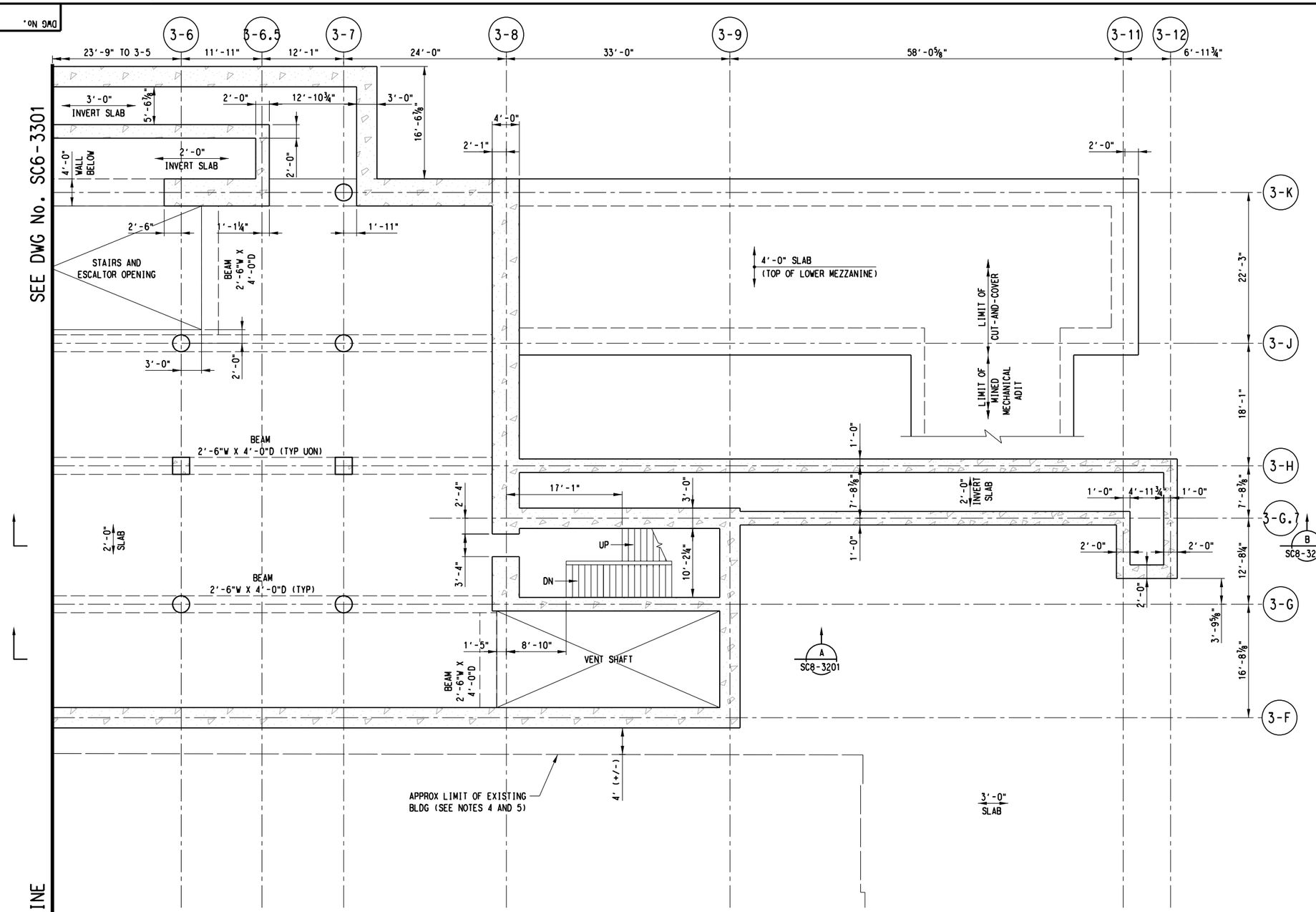
COMMERCE STATION HEADHOUSE
MIDDLE MEZZANINE PLAN
SHEET 1 OF 3

CONTRACT	DWG No.	REV
	SC6-3301	

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3302



MIDDLE MEZZANINE LEVEL PLAN B

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 227 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

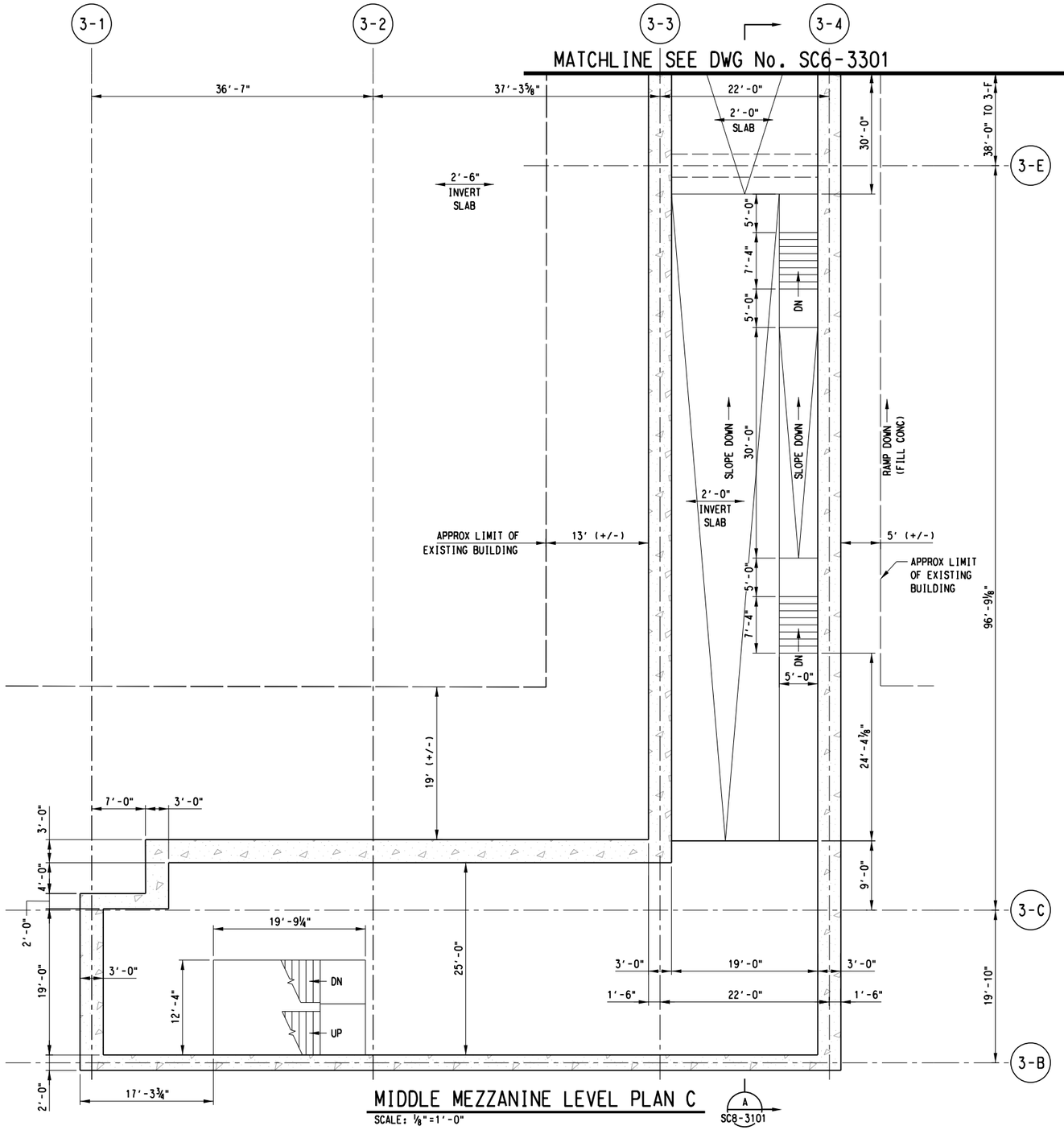
COMMERCE STATION HEADHOUSE
MIDDLE MEZZANINE PLAN
SHEET 2 OF 3

CONTRACT	DWG No.	REV
	SC6-3302	

bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3303



MIDDLE MEZZANINE LEVEL PLAN C

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 228 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
MIDDLE MEZZANINE PLAN
SHEET 3 OF 3

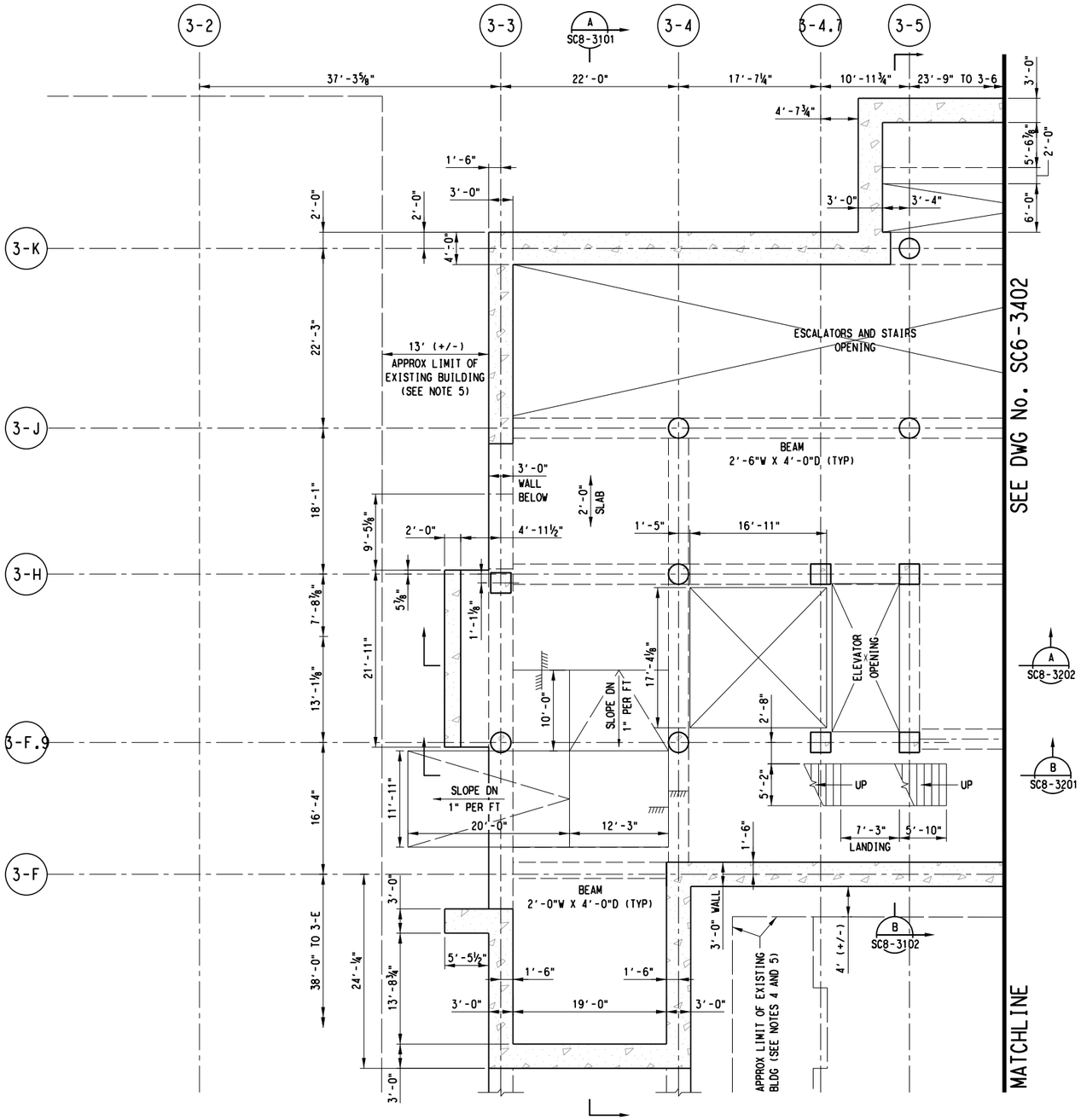
CONTRACT	DWG No.	REV
	SC6-3303	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:58
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3401



UPPER MEZZANINE LEVEL PLAN A

SCALE: ⅛"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY occur DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 229 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
UPPER MEZZANINE PLAN
SHEET 1 OF 2

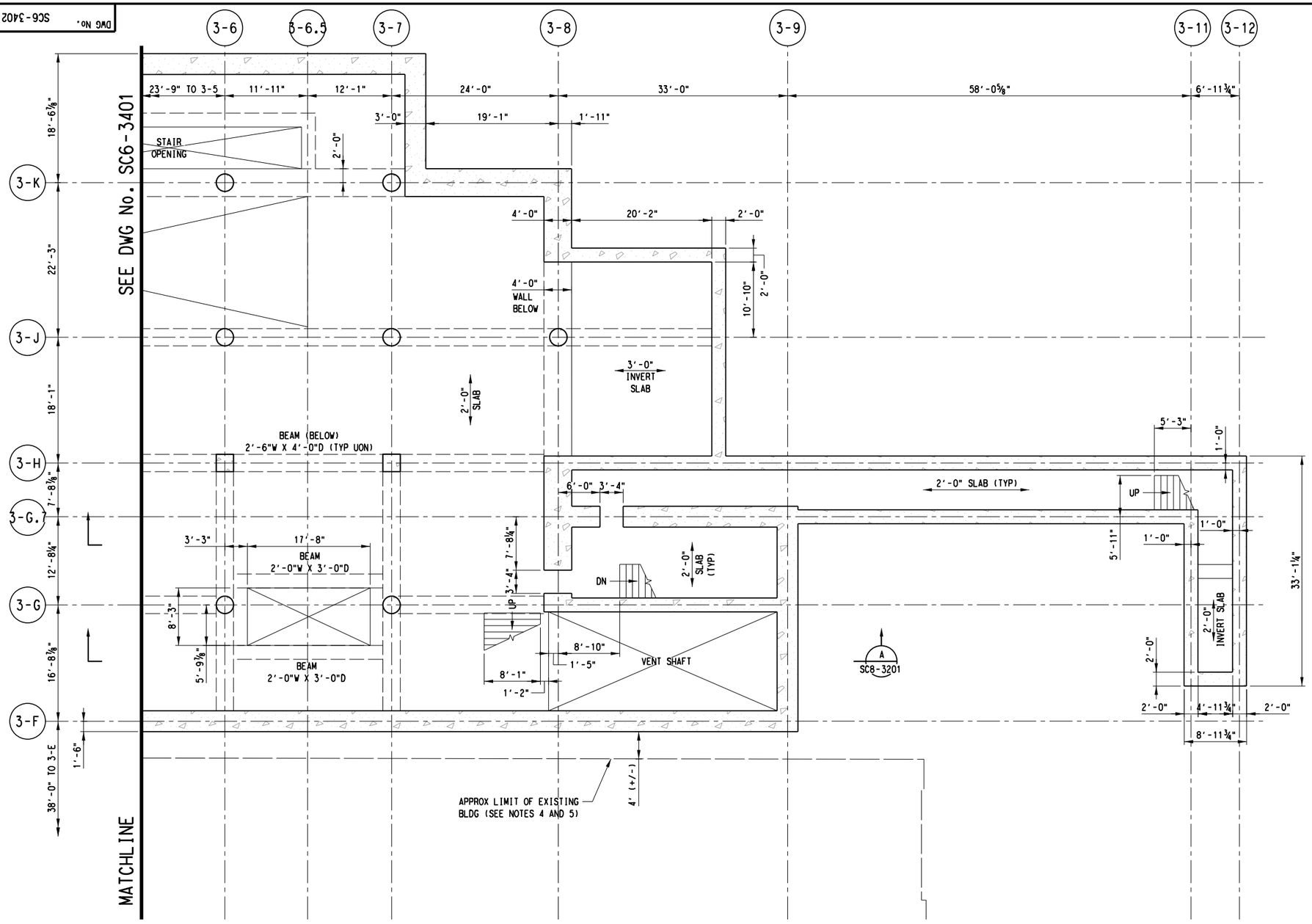
CONTRACT | DWG No. SC6-3401 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3402



UPPER MEZZANINE LEVEL PLAN B

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

DRAFT
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 230 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

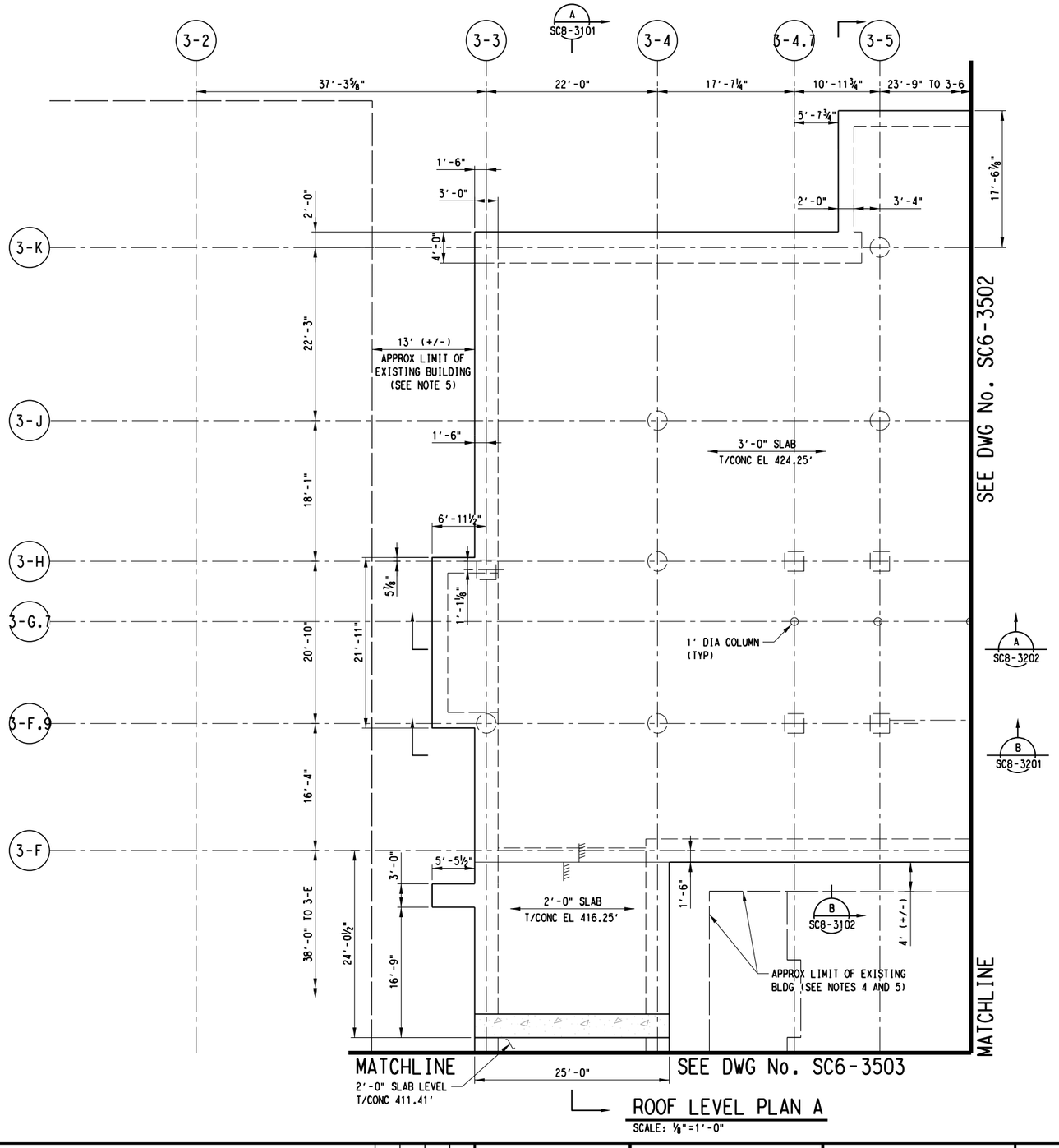
COMMERCE STATION HEADHOUSE
UPPER MEZZANINE PLAN
SHEET 2 OF 2

CONTRACT	DWG No.	REV
	SC6-3402	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



ROOF LEVEL PLAN A

SCALE: ⅛"=1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 231 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
ROOF PLAN
SHEET 1 OF 3

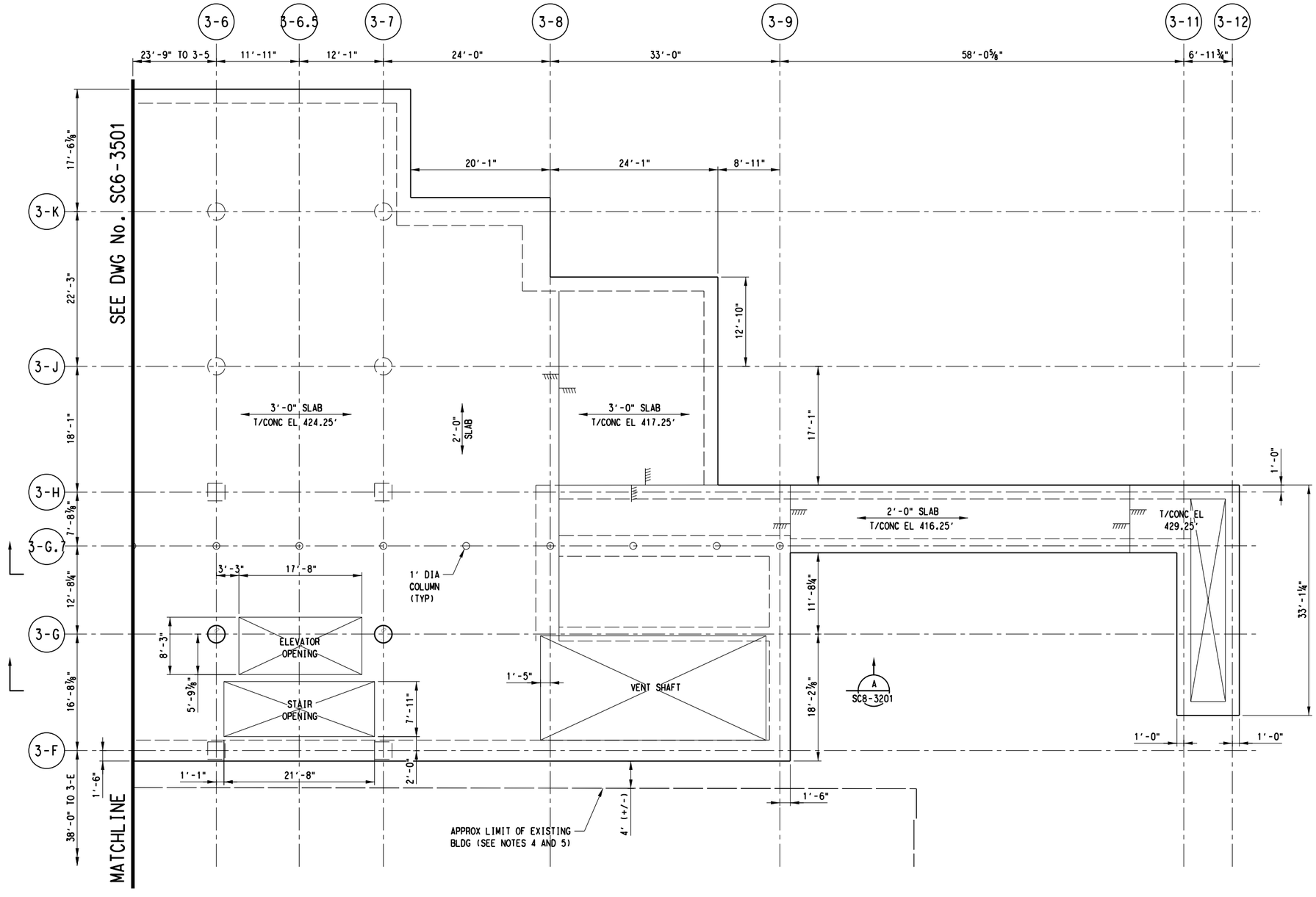
CONTRACT | DWG No. SC6-3501 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3502



ROOF LEVEL PLAN B

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 232 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
ROOF PLAN
SHEET 2 OF 3

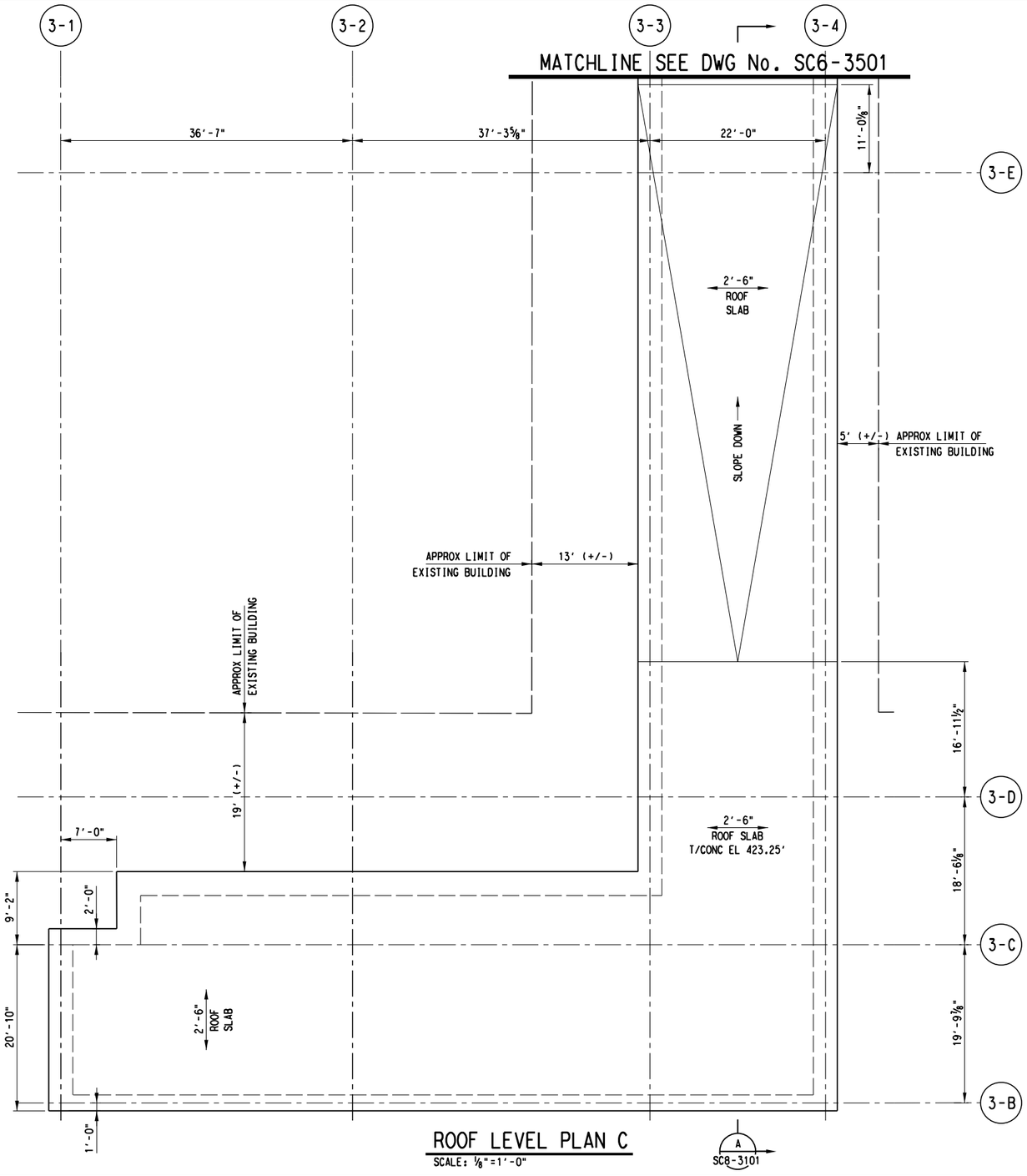
CONTRACT | DWG No. SC6-3502 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-3503



ROOF LEVEL PLAN C
SCALE: ⅛"=1'-0"

A SC8-3101

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 233 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

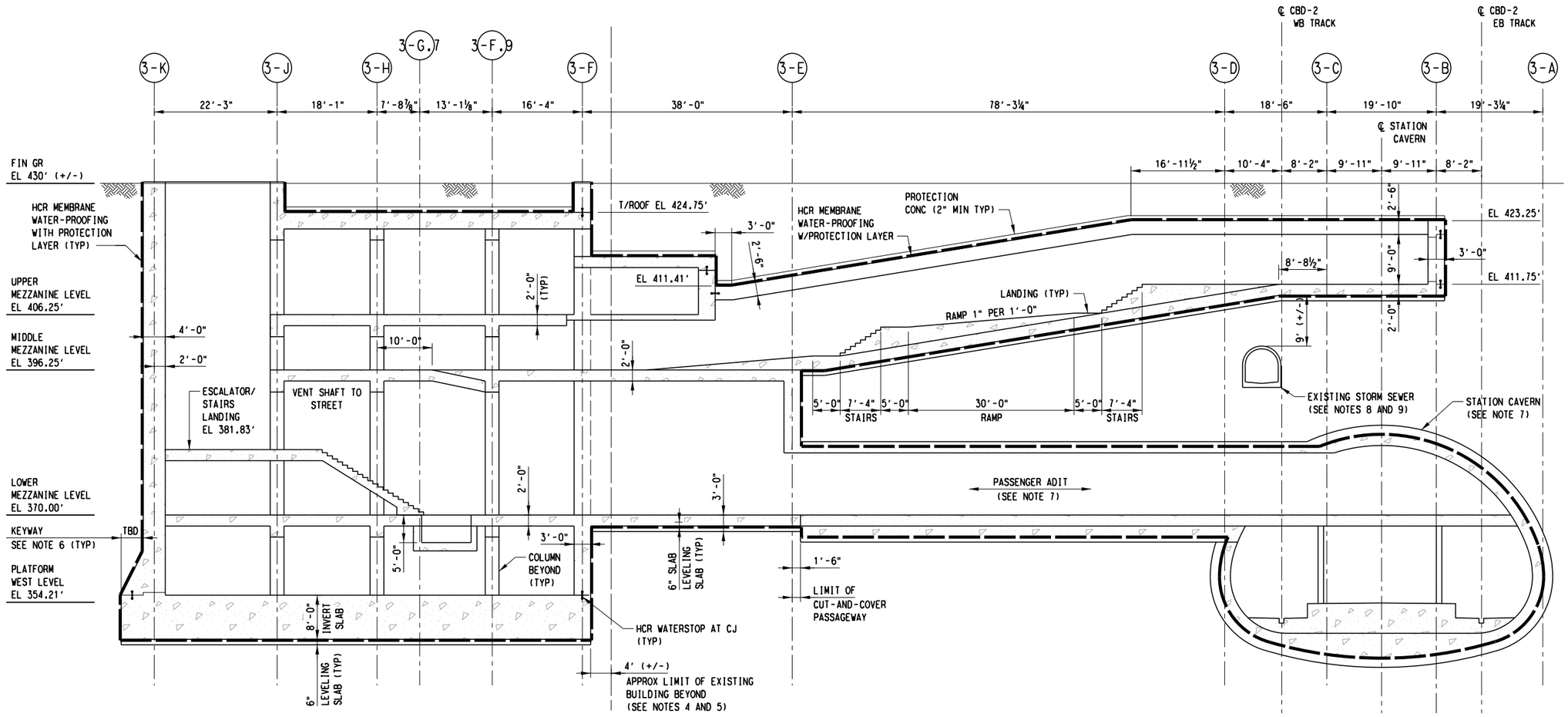
COMMERCE STATION HEADHOUSE
ROOF PLAN
SHEET 3 OF 3

CONTRACT	DWG No.	REV
	SC6-3503	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC8-3101



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDING FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERANTIVE MEASURES TO RESIST UPLIFT ARE TAKEN.
7. FOR STATION CAVERN AND PASSENGER ADIT SEE DRAWING Nos SC8-006 TO SC8-0012.
8. PRECISE LOCATION, DEPTH AND SIZE OF THE EXISTING STORM SEWER SHALL BE ESTABLISHED PRIOR TO FINAL DESIGN.
9. EXTREME CARE SHALL BE EXERCISED DURING EXCAVATION AND CONTRUCTION OF THE VENT TUNNEL/EGRESS CORRIDOR, TO PREVENT DAMAGE TO THE EXISITING STORM SEWER.

SECTION A
SCALE: 3/32"=1'-0"

SC6-3101
SC6-3201
SC6-3301
SC6-3401
SC6-3501
SC6-3503

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 234 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	3/32"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION
SECTIONS
SHEET 1 OF 4

CONTRACT | DWG No. SC8-3101 | REV

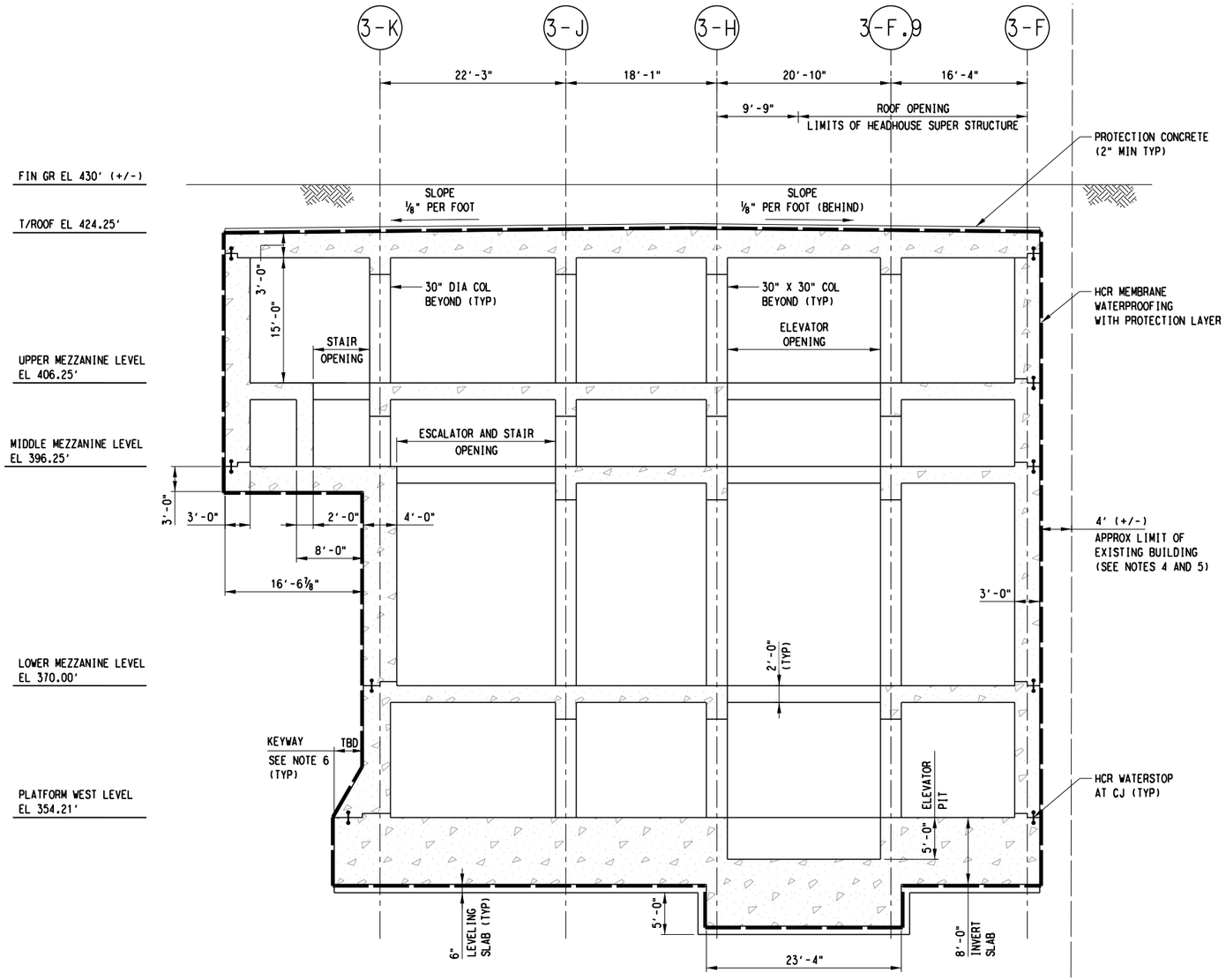
26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-3102



SECTION B
SCALE: 1/8"=1'-0"

SC6-3101
SC6-3201
SC6-3301
SC6-3401
SC6-3501

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDING FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERANTIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 235 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

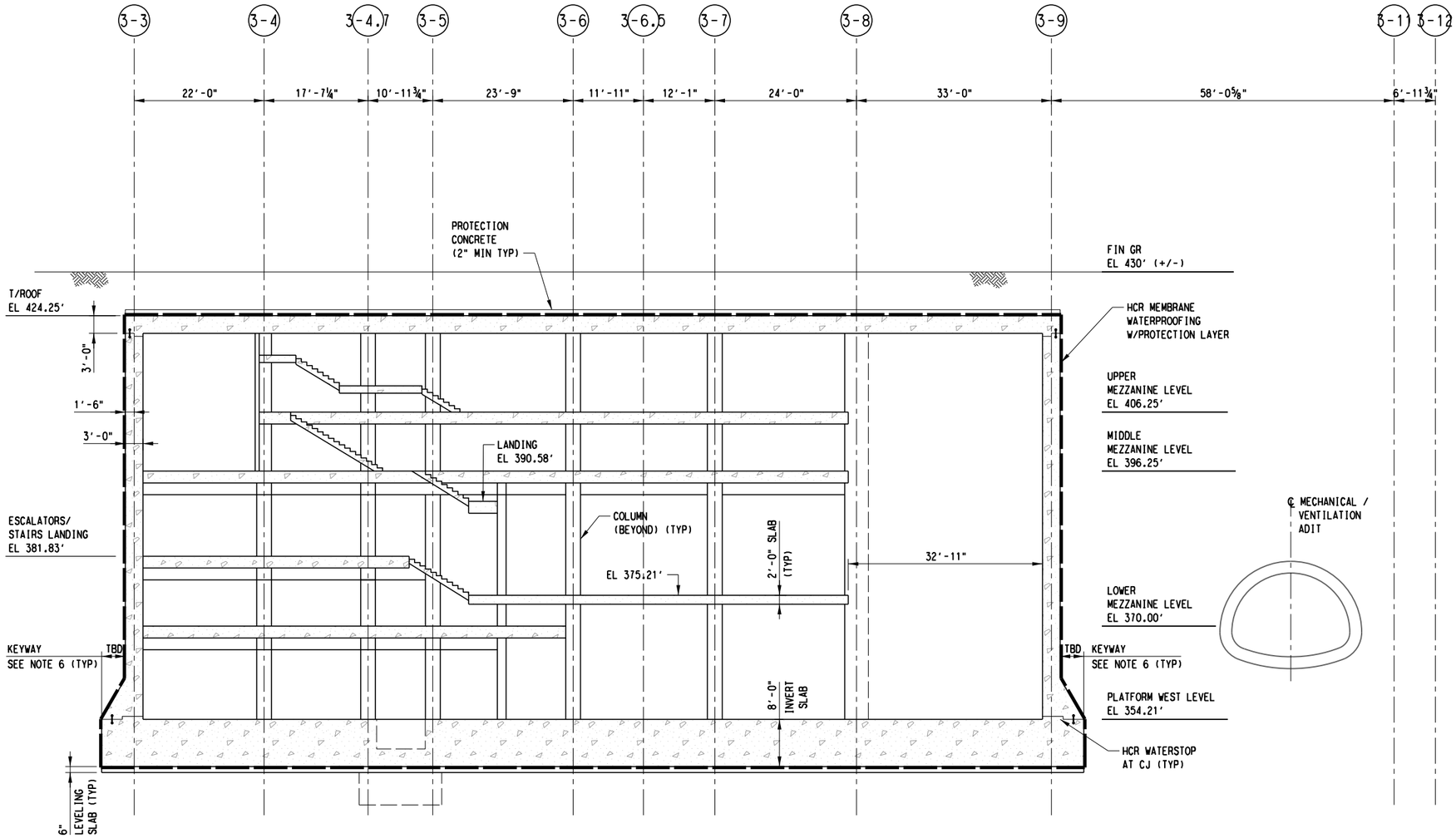
COMMERCE STATION
SECTION B
SHEET 2 OF 4

CONTRACT	DWG No.	REV
	SC8-3102	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SECTION A

SCALE: 3/32"=1'-0"

SC6-3101, SC6-3102
SC6-3201, SC6-3202
SC6-3301, SC6-3302
SC6-3401, SC6-3402
SC6-3501, SC6-3502

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDING FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERANTIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.

D R A F T
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 236 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	3/32"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

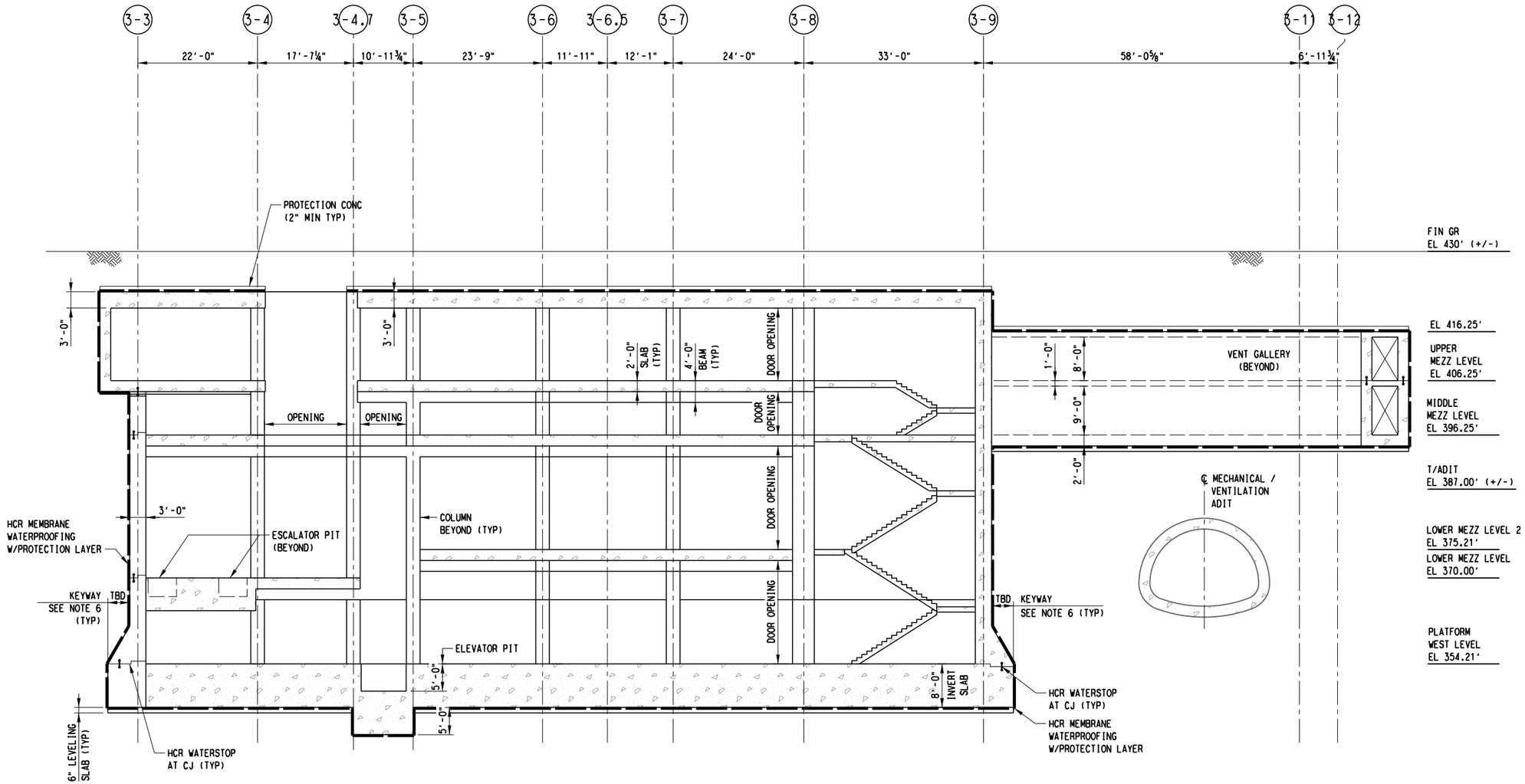
COMMERCE STATION
SECTION A
SHEET 3 OF 4

CONTRACT | DWG No. SC8-3201 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SECTION B
SCALE: 3/32"=1'-0"

SC6-3101, SC6-3102
SC6-3201, SC6-3202
SC6-3301, SC6-3302
SC6-3401, SC6-3402
SC6-3501, SC6-3502

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXPOSED SIDE OF EXISTING BUILDING FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

DRAFT
CONCEPTUAL DESIGN PENDING RAIL/FACILITY SYSTEMS AND TUNNEL/STATION VENTILATION INPUT, AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 237 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	3/32"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

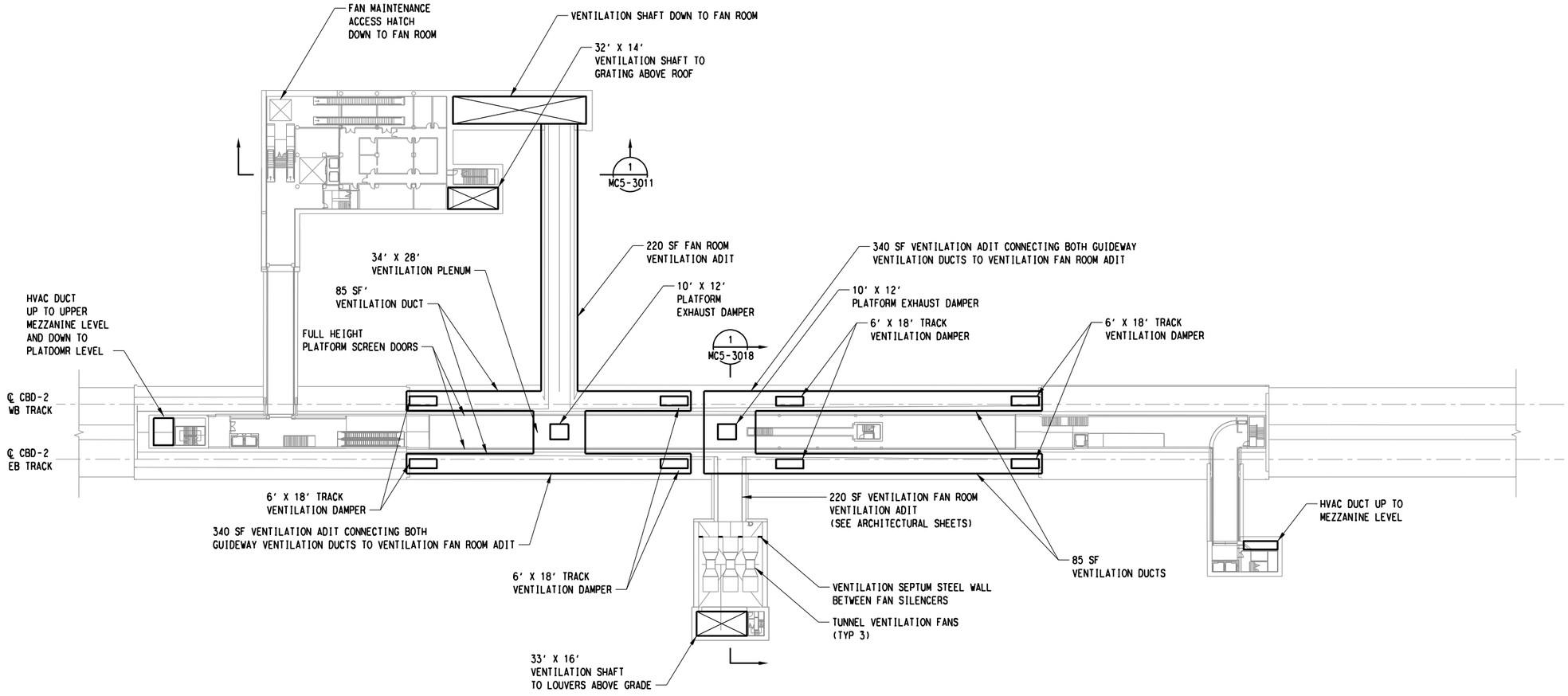
COMMERCE STATION
SECTION B
SHEET 4 OF 4

CONTRACT | DWG No. SC8-3202 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. MC2-3410



SCALE (IN FEET)
0 20 40 80

GENERAL NOTES:

1. TVS DUCT SIZING AND AND SUBGRADE STRUCTURE VOLUMES ARE ESTABLISHED ON THE BASIS OF TRANSIT SYSTEM INSTALLATION WITH FULL HEIGHT PLATFORM SCREEN DOORS.

THIS CONCEPTUAL DESIGN PRELIMINARY FIRE LIFE SAFETY VENTILATION AND MECHANICAL DRAWINGS ARE PRELIMINARY AND CONCEPTUAL IN NATURE AND HAVE NOT BEEN SIGNED OR SEALED. IT IS THE DESIGN-BUILDERS RESPONSIBILITY TO COMPLETE THE DESIGN AND PREPARE A SET OF FINAL CONSTRUCTION DRAWINGS AND SPECIFICATIONS BASED ON THEIR DESIGN. TUNNEL VENTILATION SYSTEM SPACE PROOFING IS DEPENDENT ON GEOMETRIC CONFIGURATION OF STATION AND HEADHOUSE ELEMENTS INCLUDING SMOKE RATED ENCLOSURES AT CONCOURSE AND SMOKE CONTROL BAFFLE DOWNSTANDS AT PLATFORM AND CONCOURSE LOCATIONS. THE DESIGN-BUILDER SHALL CONDUCT ALL WORK NECESSARY TO DESIGN, FURNISH, AND INSTALL AN INTEGRATED AND FULLY FUNCTIONAL FIRE LIFE SAFETY SYSTEM. THE DESIGN-BUILDER SHALL PROVIDE AND SUBMIT FOR REVIEW AND COMMENT A FINAL CONSTRUCTION DRAWINGS AND SPECIFICATIONS SET OF ALL LIFE SAFETY AND VENTILATION SYSTEMS, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: FIRE LIFE SAFETY SYSTEMS, VENTILATION SYSTEMS, EGRESS SYSTEMS, FIRE PROTECTION SYSTEMS AND FIRE DURABILITY SYSTEMS. THESE SYSTEM DESIGNS SHALL BE BASED ON THE DESIGN-BUILDER S PROPOSED DESIGN AND INSTALLATION TO DETAILS TO COMPLY LOCAL AND NATIONAL CODES AND STANDARDS, INCLUDING BUT NOT LIMITED TO THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 130 STANDARDS FOR FIXED GUIDEWAY TRANSIT AND PASSENGER RAIL SYSTEM AS WELL AS OTHER APPLICABLE STANDARDS. THESE DRAWINGS AND SPECIFICATIONS SHALL BE PREPARED BY THE DESIGN BUILDERS ENGINEER OF RECORD WHO MUST BE QUALIFIED IN THIS AREA OF PRACTICE AS AN ACTIVE LICENSED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS.

D R A F T

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

CM - LOWER LEVEL OVERALL MECHANICAL SPACE PROOFING PLAN

SCALE: 1"=40'

1
-

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 238 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF: JERRY STEVEN CASEY, P.E. NO. 65588 ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1"=40'-0"
DRAWN	B. WHITESIDE
DESIGNED	T.TRAN
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STATION
OVERALL LOWER LEVEL
MECHANICAL SPACE PROOFING
FLOOR PLAN

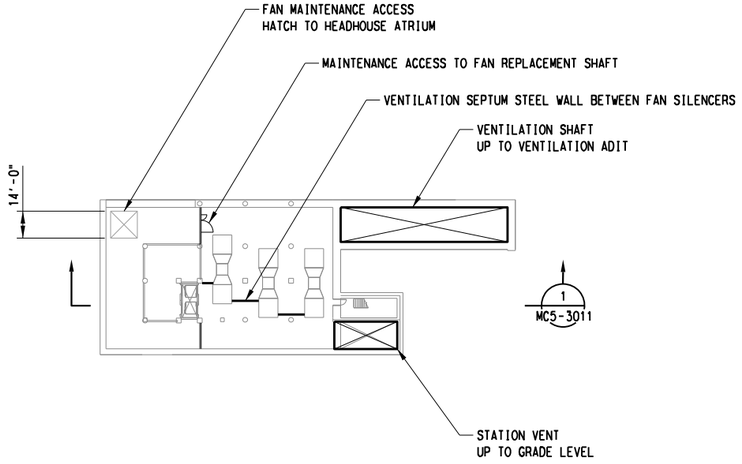
CONTRACT	DWG No.	REV
	MC2-3410	

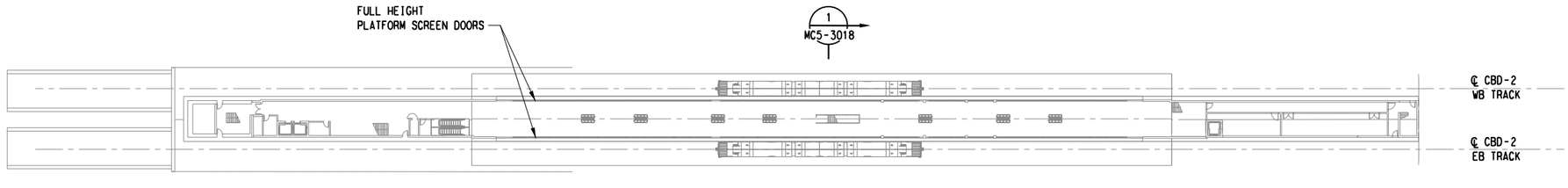
26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3

bwhiteside
Default

/pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/MECH/OVERALL LOWER LEVEL MECHANICAL SPACE PROOFING FLOOR

DWG No. MC2-3510





SCALE (IN FEET)
0 20 40 80

GENERAL NOTES:

1. TVS DUCT SIZING AND AND SUBGRADE STRUCTURE VOLUMES ARE ESTABLISHED ON THE BASIS OF TRANSIT SYSTEM INSTALLATION WITH FULL HEIGHT PLATFORM SCREEN DOORS.

DRAFT

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

CM - PLATFORM LEVEL OVERALL MECHANICAL SPACE PROOFING PLAN

SCALE: 1"=40'

1
-

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 239 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1"=40'-0"
DRAWN	B. WHITESIDE
DESIGNED	T. TRAN
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STATION
OVERALL PLATFORM LEVEL
MECHANICAL SPACE PROOFING
FLOOR PLAN

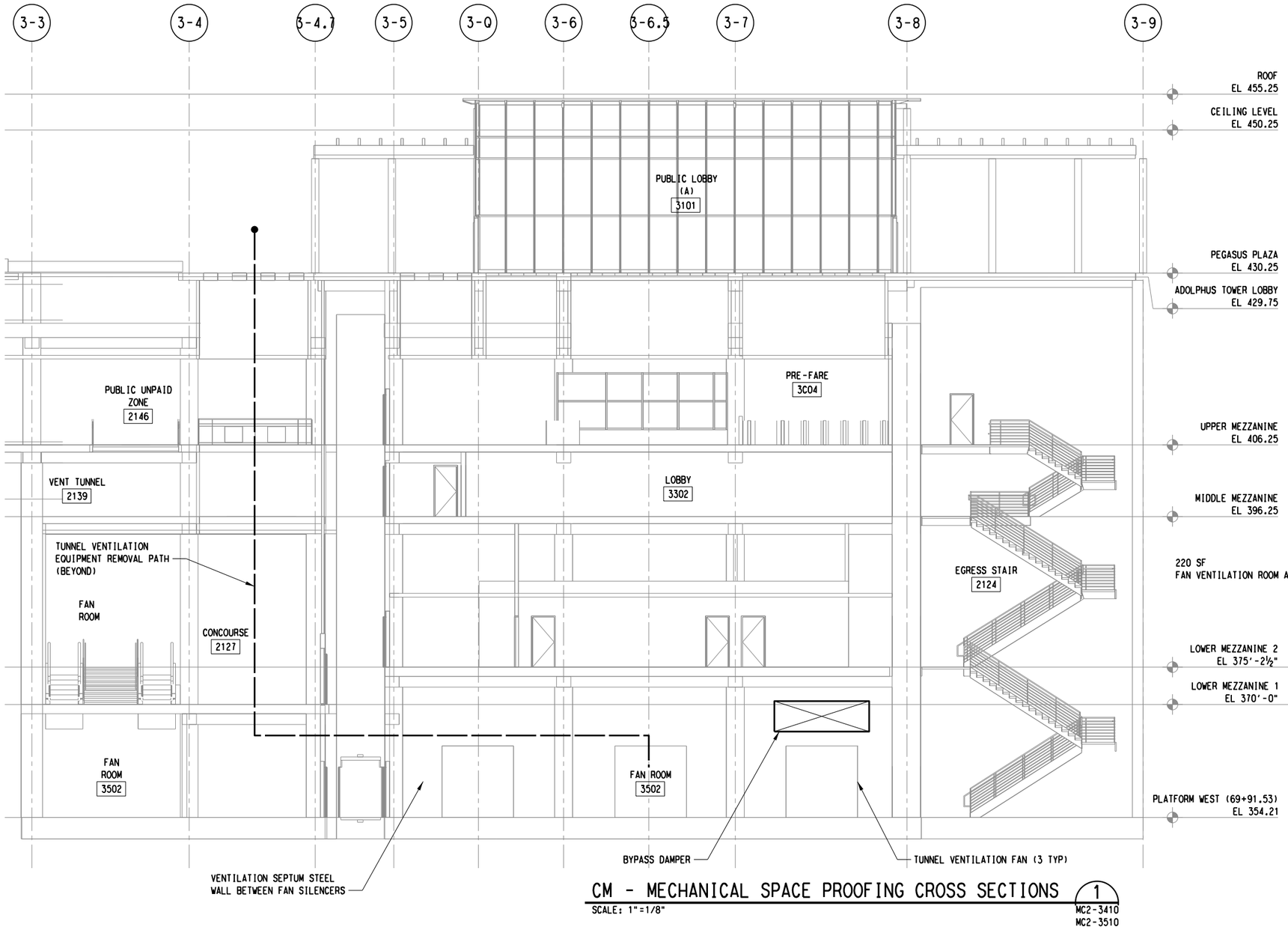
CONTRACT	DWG No.	REV
	MC2-3510	

26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_3

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/MECH/OVERALL PLATFORM LEVEL MECHANICAL SPACE PROOFING FLO

26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



CM - MECHANICAL SPACE PROOFING CROSS SECTIONS

SCALE: 1"=1/8"

1
MC2-3410
MC2-3510

SCALE (IN FEET)
0 4 8 16

GENERAL NOTES:

1. TVS DUCT SIZING AND AND SUBGRADE STRUCTURE VOLUMES ARE ESTABLISHED ON THE BASIS OF TRANSIT SYSTEM INSTALLATION WITH FULL HEIGHT PLATFORM SCREEN DOORS.

DRAFT

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 240 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	T. TRAN
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

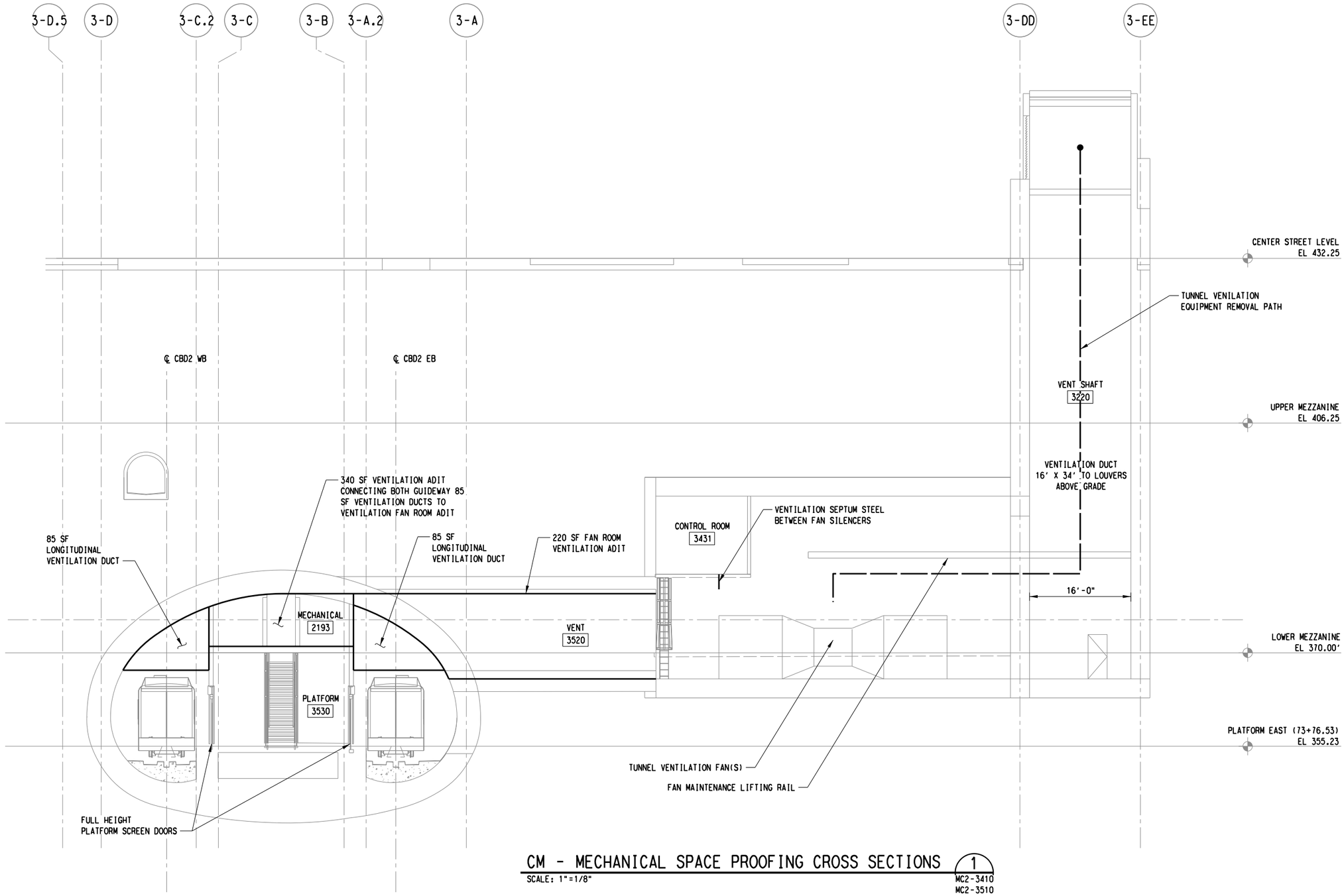
COMMERCE STATION
MECHANICAL SPACE PROOFING
CROSS SECTIONS

CONTRACT	DWG No.	REV
	MC5-3011	

bwhiteside
Default

26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. MC5-3018



CM - MECHANICAL SPACE PROOFING CROSS SECTIONS

SCALE: 1"=1/8"

1
MC2-3410
MC2-3510

GENERAL NOTES:

1. TVS DUCT SIZING AND AND SUBGRADE STRUCTURE VOLUMES ARE ESTABLISHED ON THE BASIS OF TRANSIT SYSTEM INSTALLATION WITH FULL HEIGHT PLATFORM SCREEN DOORS.

D R A F T

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 241 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T

THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:

JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420

IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB

HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	T. TRAN
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

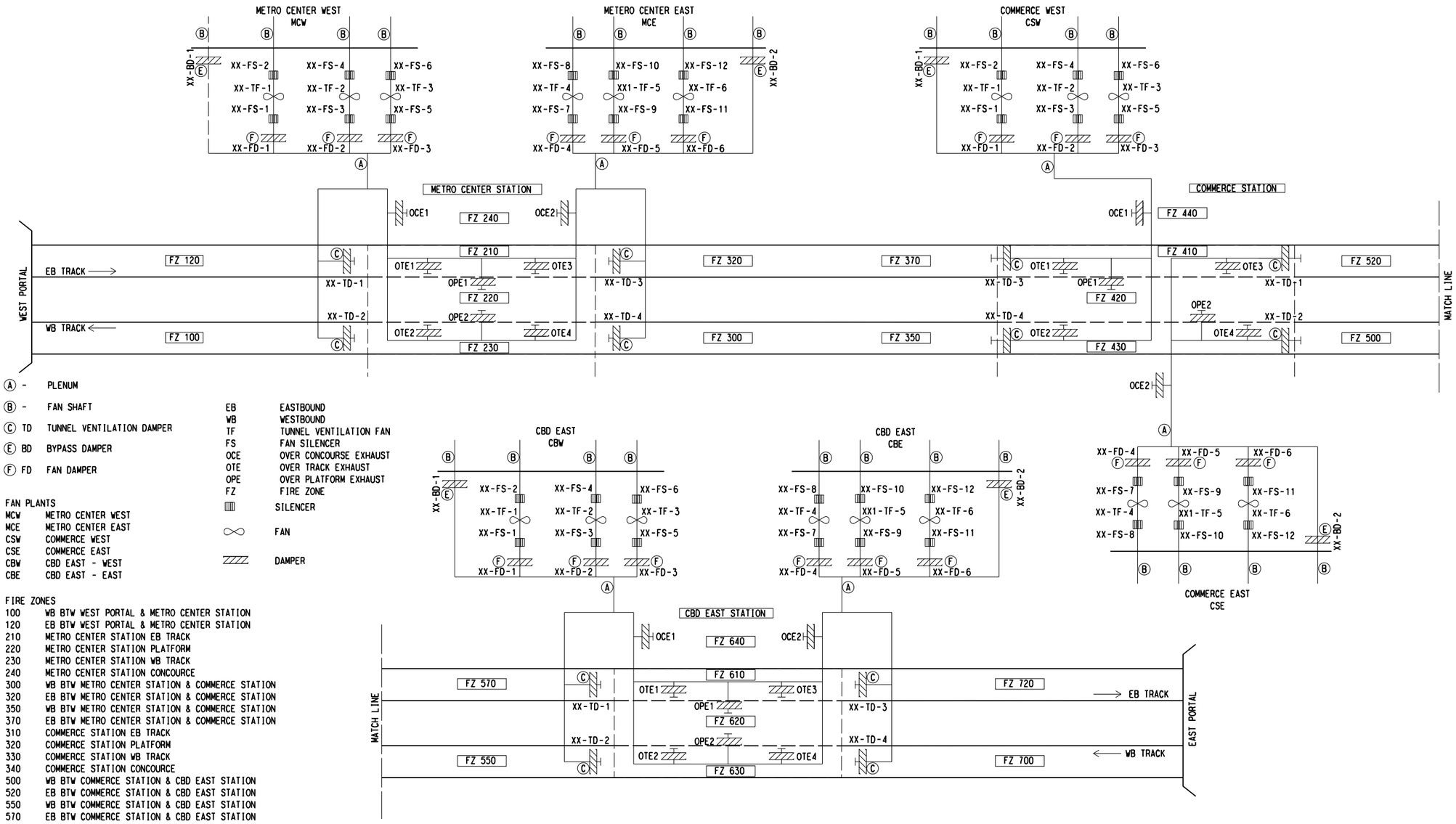
COMMERCE STATION
MECHANICAL SPACE PROOFING
CROSS SECTIONS

CONTRACT | DWG No. MC5-3018 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. MC7-0001



Ⓐ - PLENUM

Ⓑ - FAN SHAFT

Ⓒ TD TUNNEL VENTILATION DAMPER

Ⓔ BD BYPASS DAMPER

Ⓕ FD FAN DAMPER

EB	EASTBOUND
WB	WESTBOUND
TF	TUNNEL VENTILATION FAN
FS	FAN SILENCER
OCE	OVER CONCOURSE EXHAUST
OTE	OVER TRACK EXHAUST
OPE	OVER PLATFORM EXHAUST
FZ	FIRE ZONE
	SILENCER
	FAN
	DAMPER

FAN PLANTS

MCW	METRO CENTER WEST
MCE	METRO CENTER EAST
CSW	COMMERCE WEST
CSE	COMMERCE EAST
CBW	CBD EAST - WEST
CBE	CBD EAST - EAST

FIRE ZONES

100	WB BTW WEST PORTAL & METRO CENTER STATION
120	EB BTW WEST PORTAL & METRO CENTER STATION
210	METRO CENTER STATION EB TRACK
220	METRO CENTER STATION PLATFORM
230	METRO CENTER STATION WB TRACK
240	METRO CENTER STATION CONCOURCE
300	WB BTW METRO CENTER STATION & COMMERCE STATION
320	EB BTW METRO CENTER STATION & COMMERCE STATION
350	WB BTW METRO CENTER STATION & COMMERCE STATION
370	EB BTW METRO CENTER STATION & COMMERCE STATION
310	COMMERCE STATION EB TRACK
320	COMMERCE STATION PLATFORM
330	COMMERCE STATION WB TRACK
340	COMMERCE STATION CONCOURCE
500	WB BTW COMMERCE STATION & CBD EAST STATION
520	EB BTW COMMERCE STATION & CBD EAST STATION
550	WB BTW COMMERCE STATION & CBD EAST STATION
570	EB BTW COMMERCE STATION & CBD EAST STATION
610	CBD EAST STATION EB TRACK
620	CBD EAST STATION PLATFORM
630	CBD EAST STATION WB TRACK
640	CBD EAST STATION CONCOURCE
700	BTW CBD EAST STATION & EAST PORTAL

MASTER VENTILATION SCHEMATIC DIAGRAM

SCALE: NONE

1 / -

DRAFT

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 242 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT

THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB

HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	NO SCALE
DRAWN	S. PARAYIL
DESIGNED	S. PARAYIL
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SUBWAY SYSTEM
MASTER VENTILATION SCHEMATIC

CONTRACT | DWG No. MC7-0001 | REV

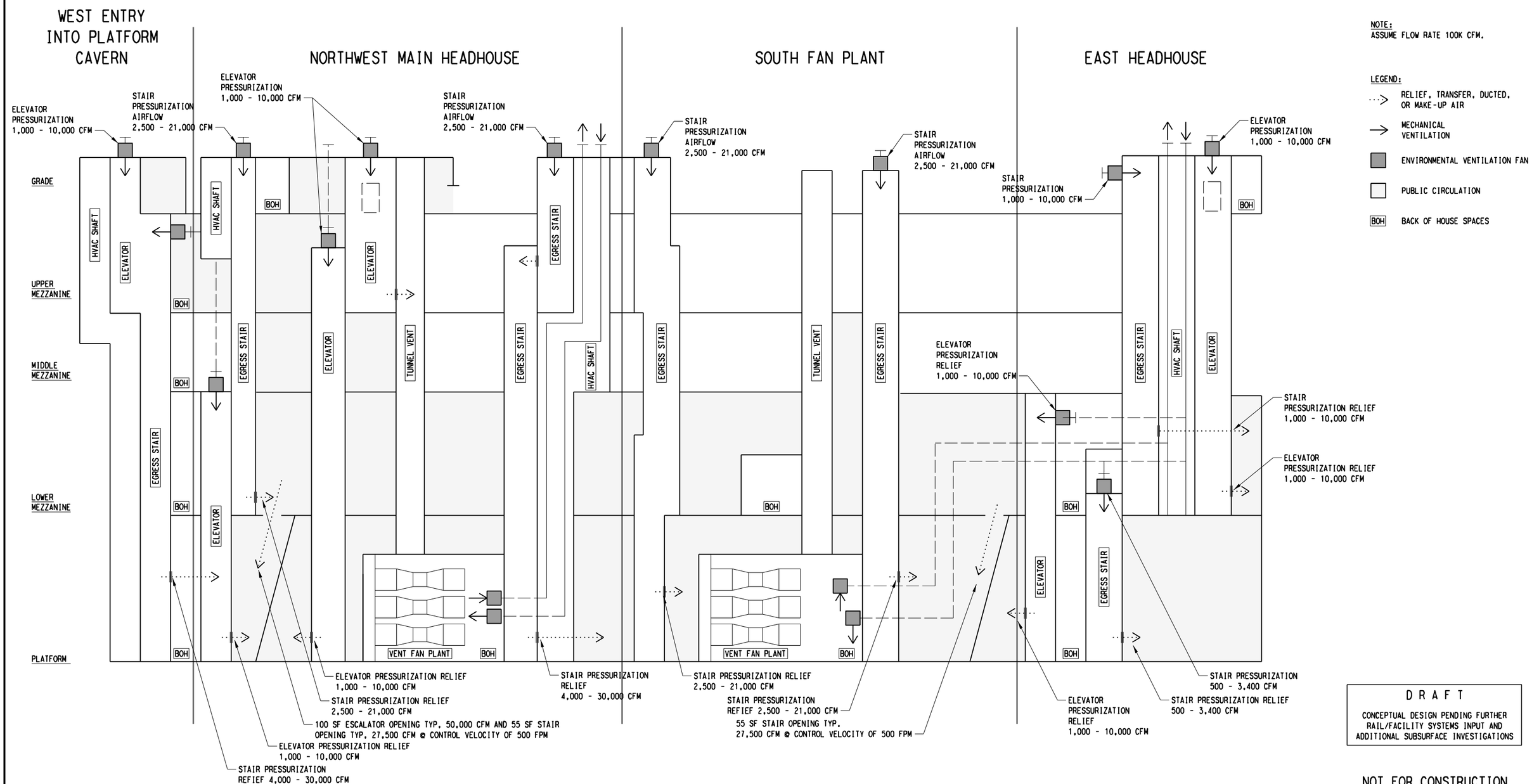
26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. MC7-0002



COMMERCE STATION AIRFLOW PRESSURIZATION DIAGRAM 1

SCALE: NTS

D R A F T

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 243 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T

THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB

HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	NO SCALE
DRAWN	S. PARAYIL
DESIGNED	S. PARAYIL
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION AIRFLOW PRESSURIZATION DIAGRAM

CONTRACT | DWG No. MC7-0002 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

WEST ENTRY INTO PLATFORM CAVERN

NORTHWEST MAIN HEADHOUSE

SOUTH FAN PLANT

EAST HEADHOUSE

GRADE

UPPER MEZZANINE

MIDDLE MEZZANINE

LOWER MEZZANINE

PLATFORM

ELEVATOR PRESSURIZATION 1,000 - 10,000 CFM

STAIR PRESSURIZATION AIRFLOW 2,500 - 21,000 CFM

HVAC SHAFT

ELEVATOR

EGRESS STAIR

TUNNEL VENT

BOH

VENT FAN PLANT

STAIR PRESSURIZATION 1,000 - 10,000 CFM

ELEVATOR PRESSURIZATION RELIEF 1,000 - 10,000 CFM

STAIR PRESSURIZATION RELIEF 1,000 - 10,000 CFM

OVERHEAD TRACK EXHAUST, AS WELL AS ABOVE ENCLOSED PLATFORM TYP

STAIR PRESSURIZATION RELIEF 4,000 - 30,000 CFM

STAIR PRESSURIZATION RELIEF 2,500 - 21,000 CFM

100 SF ESCALATOR OPENING TYP, 50,000 CFM AND 55 SF STAIR OPENING TYP, 27,500 CFM @ CONTROL VELOCITY OF 500 FPM

STAIR PRESSURIZATION REFIEF 2,500 - 21,000 CFM

55 SF STAIR OPENING TYP. 27,500 CFM @ CONTROL VELOCITY OF 500 FPM

STAIR PRESSURIZATION 500 - 3,400 CFM

NOTE:
ASSUME FLOW RATE 100K CFM.

LEGEND:

- RELIEF, TRANSFER, DUCTED, OR MAKE-UP AIR
- MECHANICAL VENTILATION
- ENVIRONMENTAL VENTILATION FAN
- PUBLIC CIRCULATION
- BOH — BACK OF HOUSE SPACES

DRAFT

CONCEPTUAL DESIGN PENDING FURTHER RAIL/FACILITY SYSTEMS INPUT AND ADDITIONAL SUBSURFACE INVESTIGATIONS

COMMERCE STATION AIRFLOW EMERGENCY VENTILATION DIAGRAM

SCALE: NTS

1 / -

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 244 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

DRAFT
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
JERRY STEVEN CASEY, P.E. NO. 65588
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No. 420

DART PROJECT

SCALE	NTS
DRAWN	S. PARAYIL
DESIGNED	S. PARAYIL
CHECKED	S. CASSADY
IN CHARGE	J. CASEY
DATE	30 OCT 2020

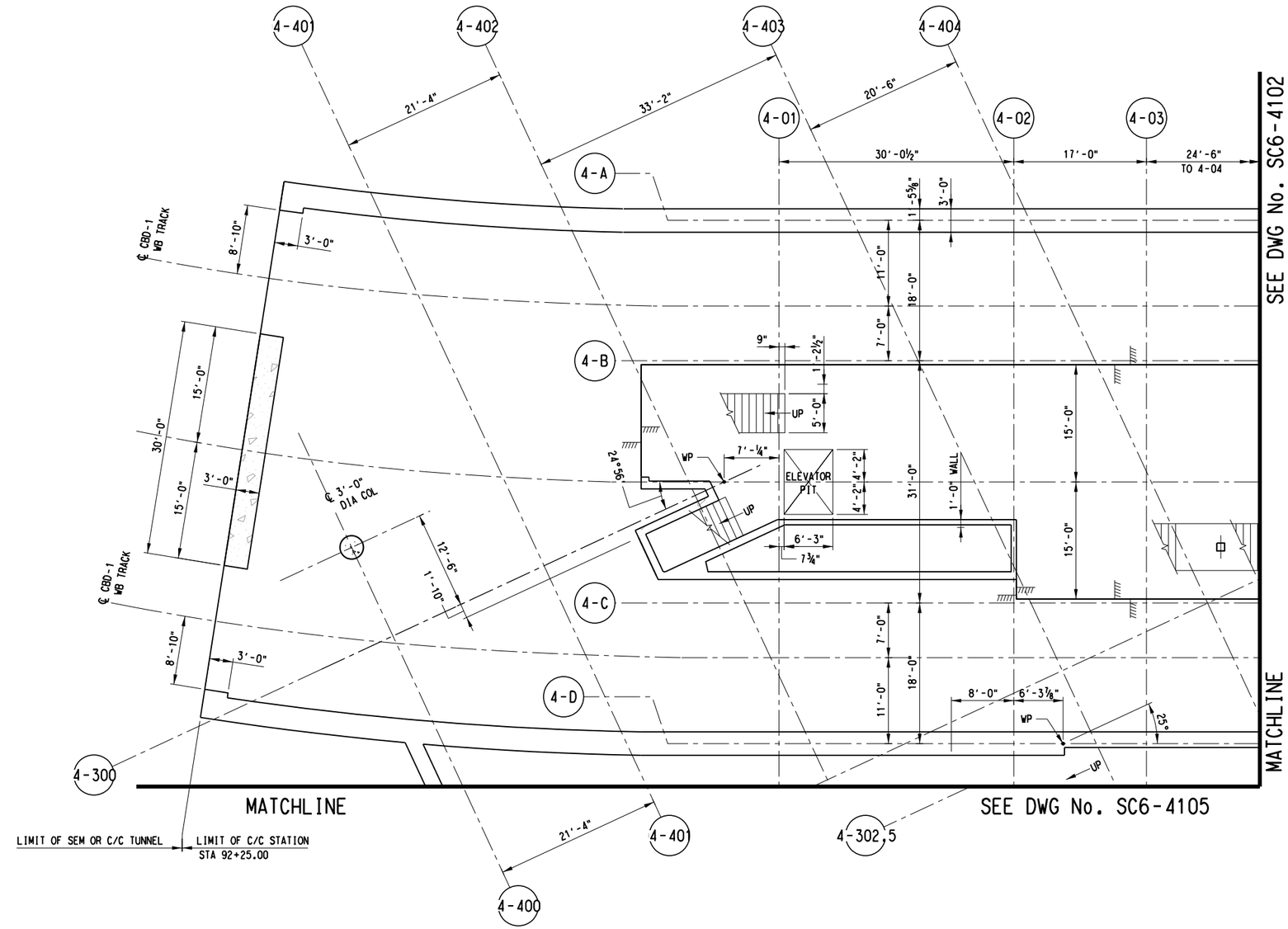
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION AIRFLOW EMERGENCY VENTILATION DIAGRAM

CONTRACT | DWG No. MC7-0003 | REV

26-OCT-2020 11:45
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni
bwhiteside
Default
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN A

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 245 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

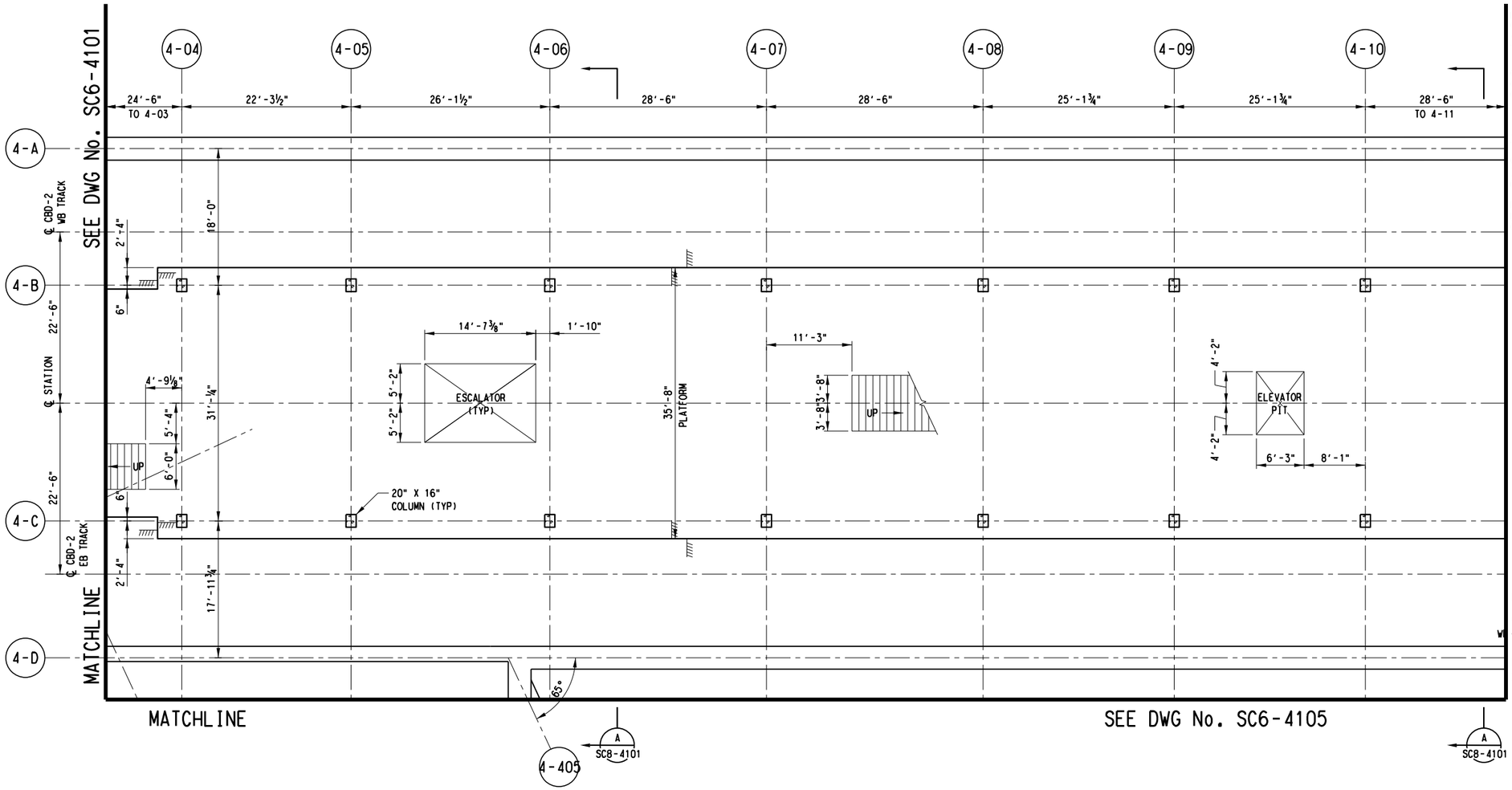
CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 1 OF 6

CONTRACT	DWG No.	REV
	SC6-4101	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-4102



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN B

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 246 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 2 OF 6

CONTRACT | DWG No. SC6-4102 | REV

CAES

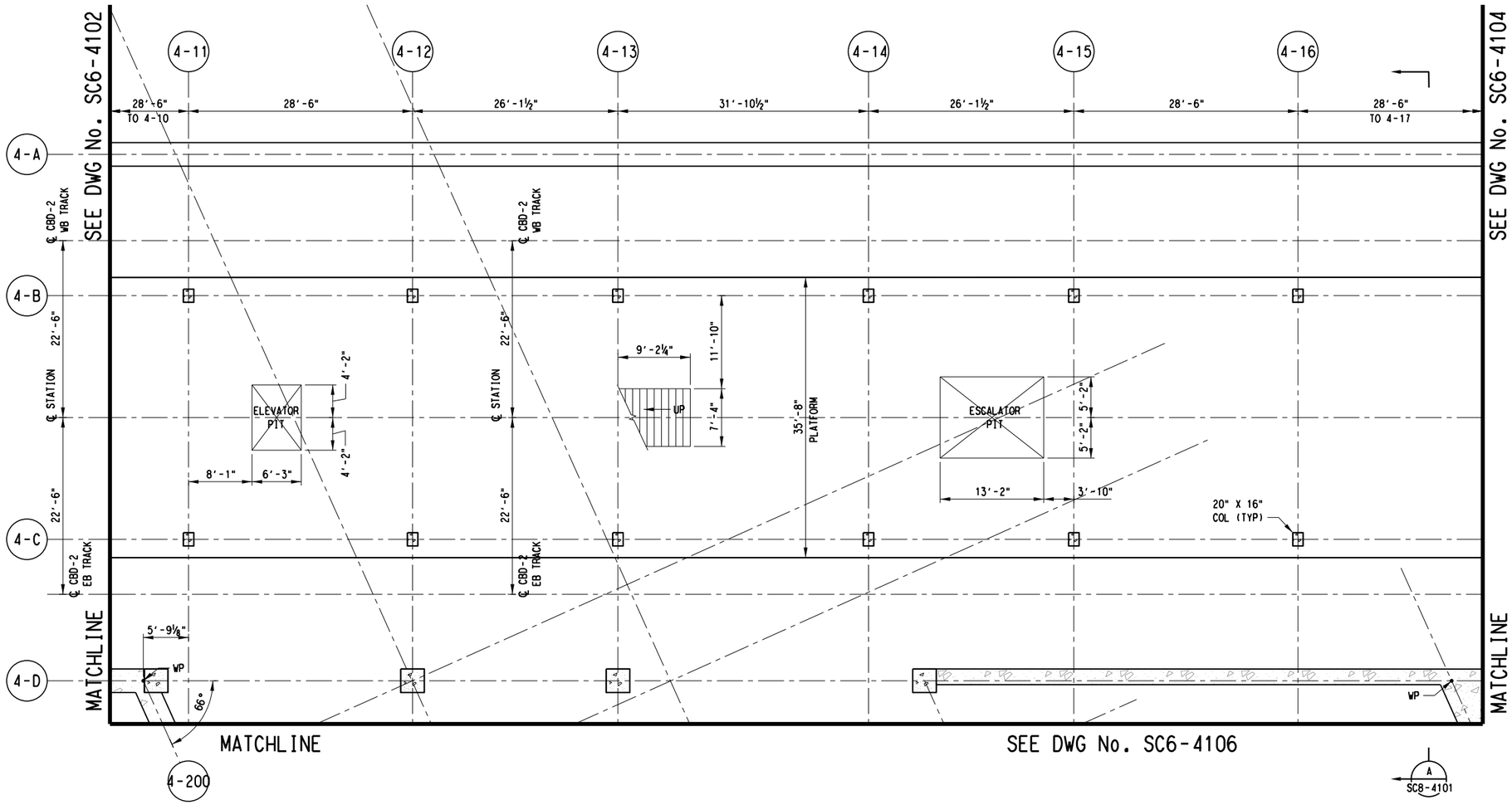
bwhiteside
Default

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-4103



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN C

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 247 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 3 OF 6

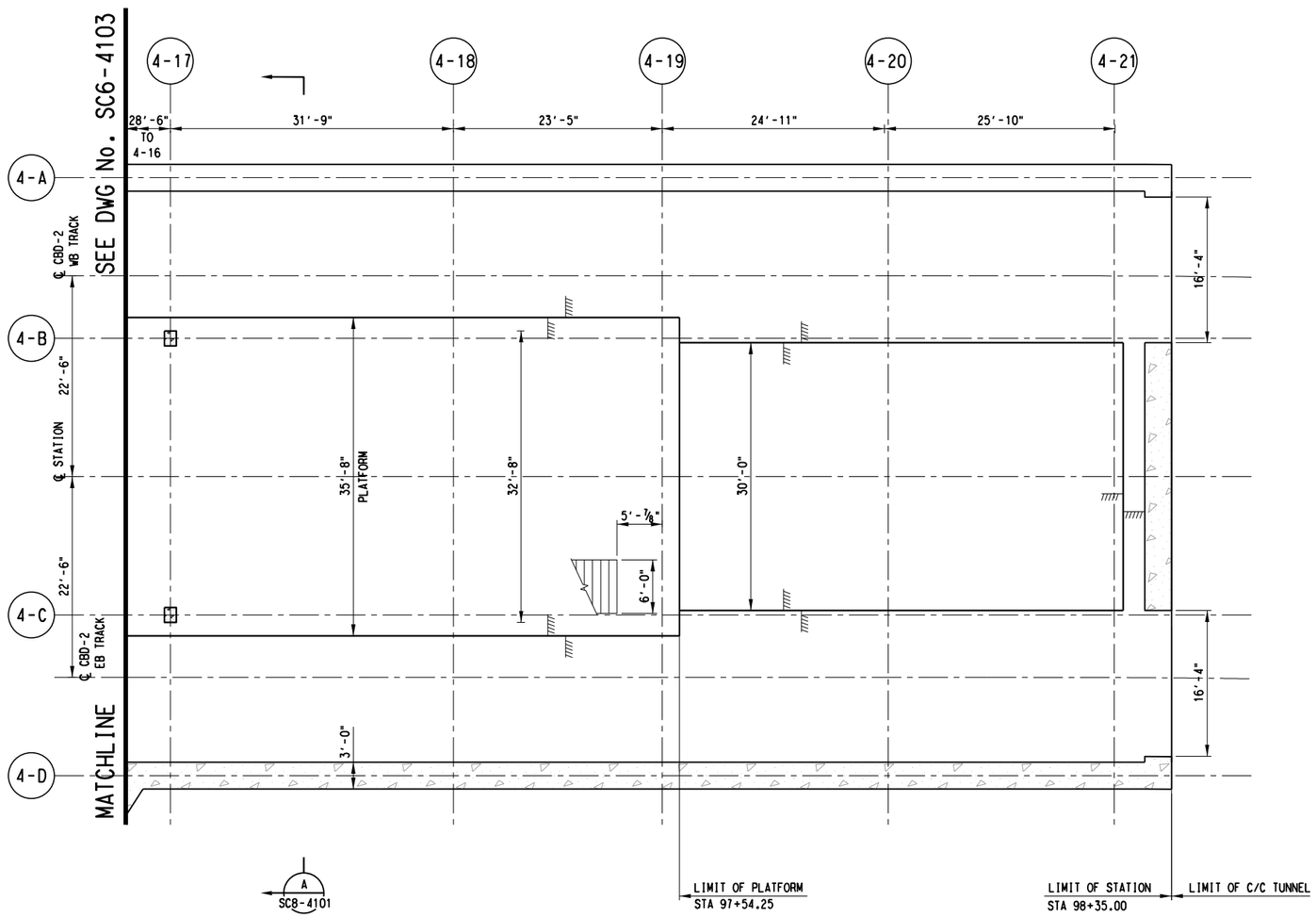
CONTRACT | DWG No. SC6-4103 | REV

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 11:59
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-4104



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN D

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 248 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 4 OF 6

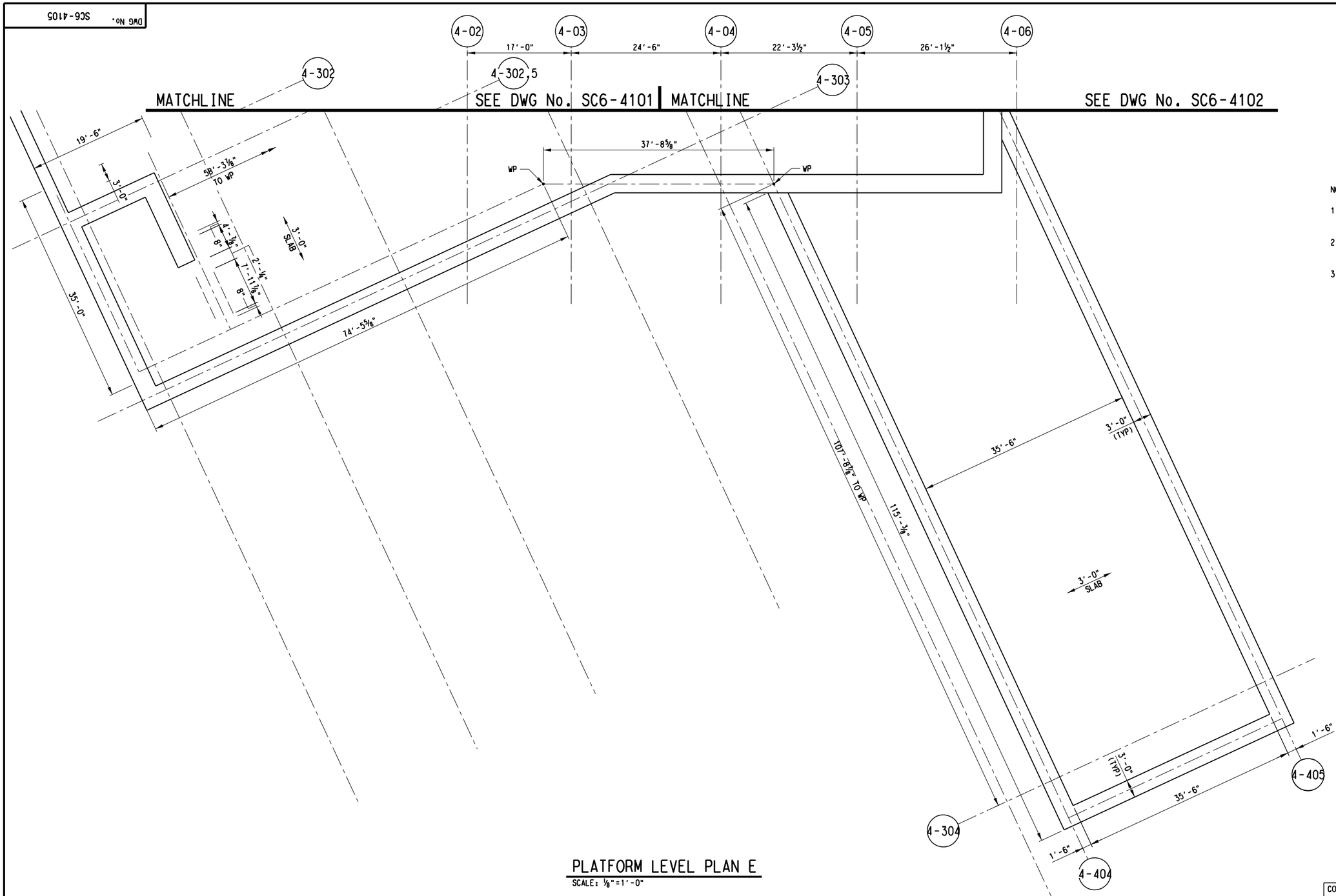
CONTRACT	DWG No.	REV
	SC6-4104	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 12:00
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. SC6-4105



PLATFORM LEVEL PLAN E
SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 249 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 5 OF 6

CONTRACT	DWG No.	REV
	SC6-4105	

bwhiteside
Default

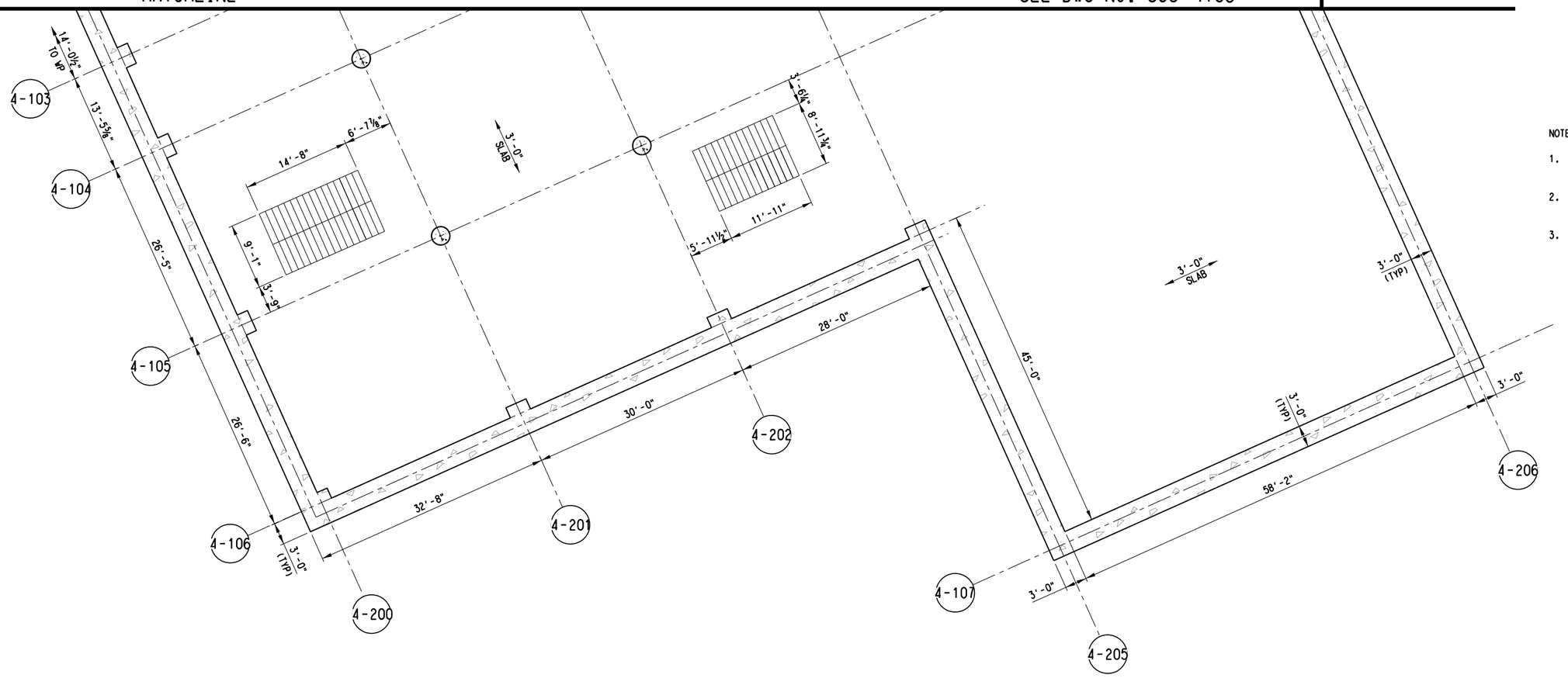
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 12:00
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC6-4106

MATCHLINE

SEE DWG No. SC6-4103



SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLATFORM LEVEL PLAN F

SCALE: ⅛"=1'-0"

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 250 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

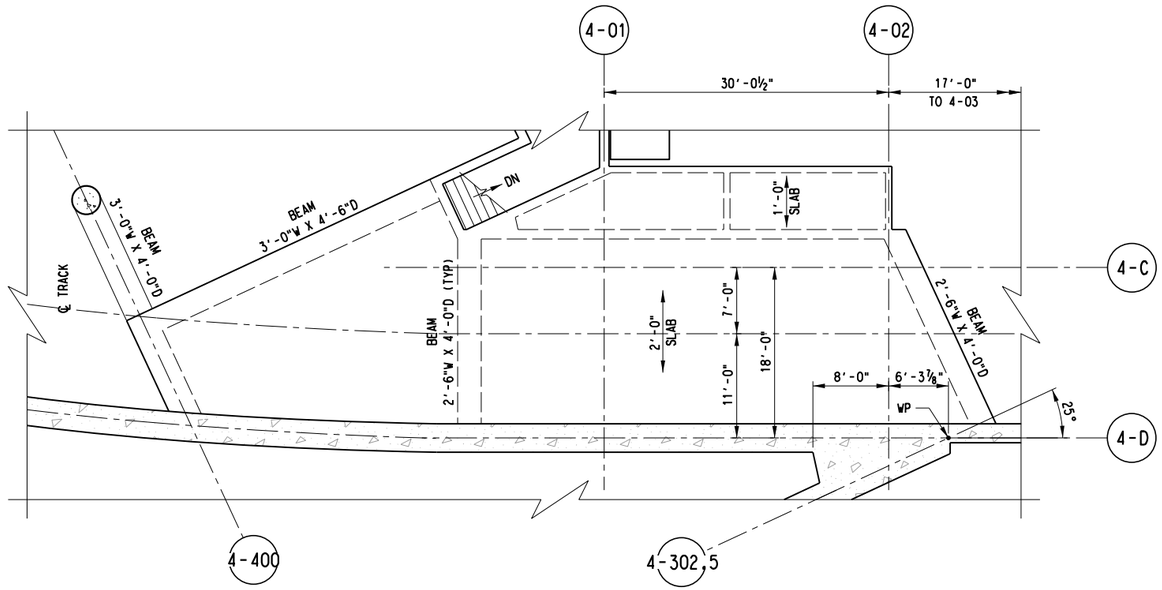
CBD EAST STATION
PLATFORM LEVEL PLAN
SHEET 6 OF 6

CONTRACT	DWG No.	REV
	SC6-4106	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 12:00
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni



(MEZZANINE LEVEL EL 449.4')

MEZZANINE LEVEL PLAN

SCALE: ⅛"=1'-0"

SCALE (IN FEET)
0 4 8 16

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 251 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	⅛"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD EAST STATION
MEZZANINE LEVEL PLAN

CONTRACT	DWG No.	REV
	SC6-4201	

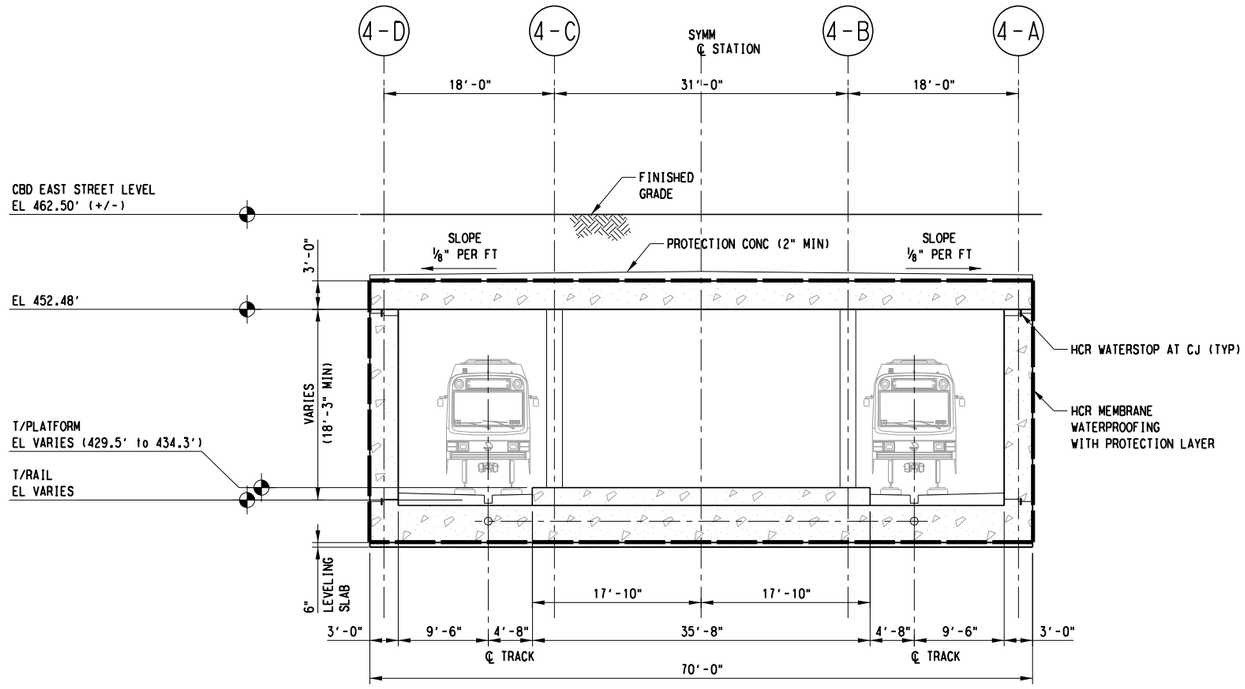
bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

26-OCT-2020 12:00
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planni

DWG No. SC8-4101

SCALE (IN FEET)
0 4 8 16



SECTION A
SCALE: 1/8"=1'-0"

SC6-4102
SC6-4103
SC6-4104

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

D R A F T
CONCEPTUAL DESIGN PENDING
RAIL/FACILITY SYSTEMS AND
TUNNEL/STATION VENTILATION INPUT,
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTRACT SHEET No. 252 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

D R A F T
THIS IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:
CHARLES A. STONE, P.E. NO. 133866
ON 10/30/2020
HNTB CORPORATION
TBPE FIRM NO. F-420
IT SHALL BE UPDATED AND CONFIRMED UPON COMPLETION OF SUBSURFACE INVESTIGATIONS

HNTB
HNTB Corporation
The HNTB Companies
Engineers Architects Planners
TBPE Firm Registration No.420

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	K. XU
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	30 OCT 2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

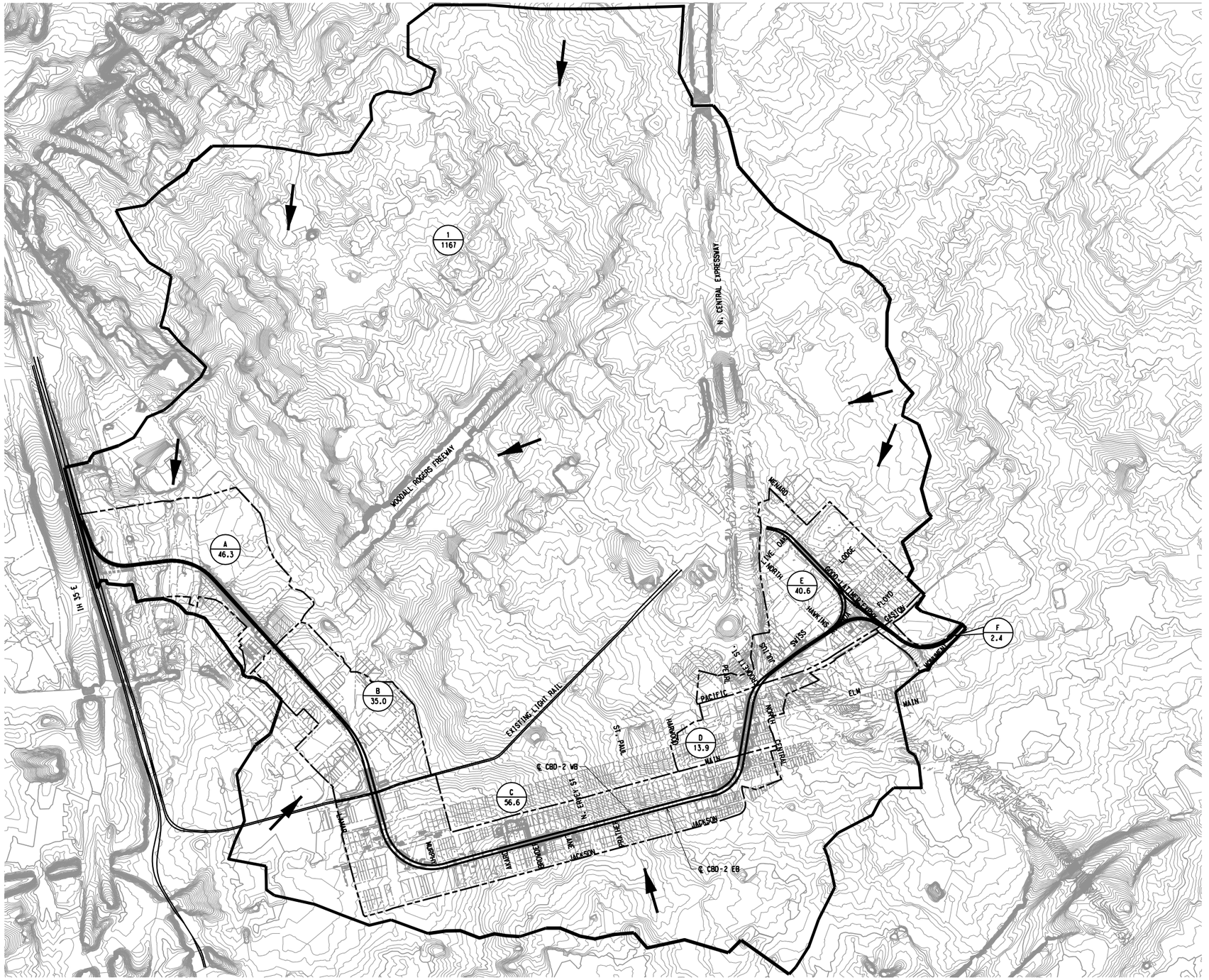
CBD EAST STATION
SECTION A

CONTRACT	DWG No.	REV
	SC8-4101	

bwhiteside
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Prog

DWG No. CC6-0100



SCALE (IN FEET)
0 250 500 1000

LEGEND
- DRAINAGE AREA BOUNDARY
- SUBBASIN AREA
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 253 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=500'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

OVERALL DRAINAGE AREA MAP

CONTRACT | DWG No. CC6-0100 | REV

Monday, October 26, 2020 11:29:48 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Overall Drainage Area Map
olanyadji
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Overall Drainage Area Map

DWG No. CC6-0101

MATCH LINE CBD-2 STA 18+00.00
SEE DWG No. CC6-0102

CS 17+55.46

CS 17+77.93

18

SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

A01 4.39

A23 1.05

℄ CBD-2 EB

℄ CBD-2 WB

16+00

16+00

14+00

12+00

11+00

12+00

10+00

PS NO 8 TO
CBD-2 WB
STA 11+33.54 =
NW-1A NB
STA 122+59.56
PI 11+64.50

11+34

TS 13+45.89

SC 13+95.89

TS 13+48.17

SC 13+93.17

PS NO 8 TO
CBD-2 EB
STA 10+00.00 =
NW-1A SB
STA 123+90.26
PI 10+30.96

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

CONTRACT SHEET No. 254 OF 288

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 1 OF 13

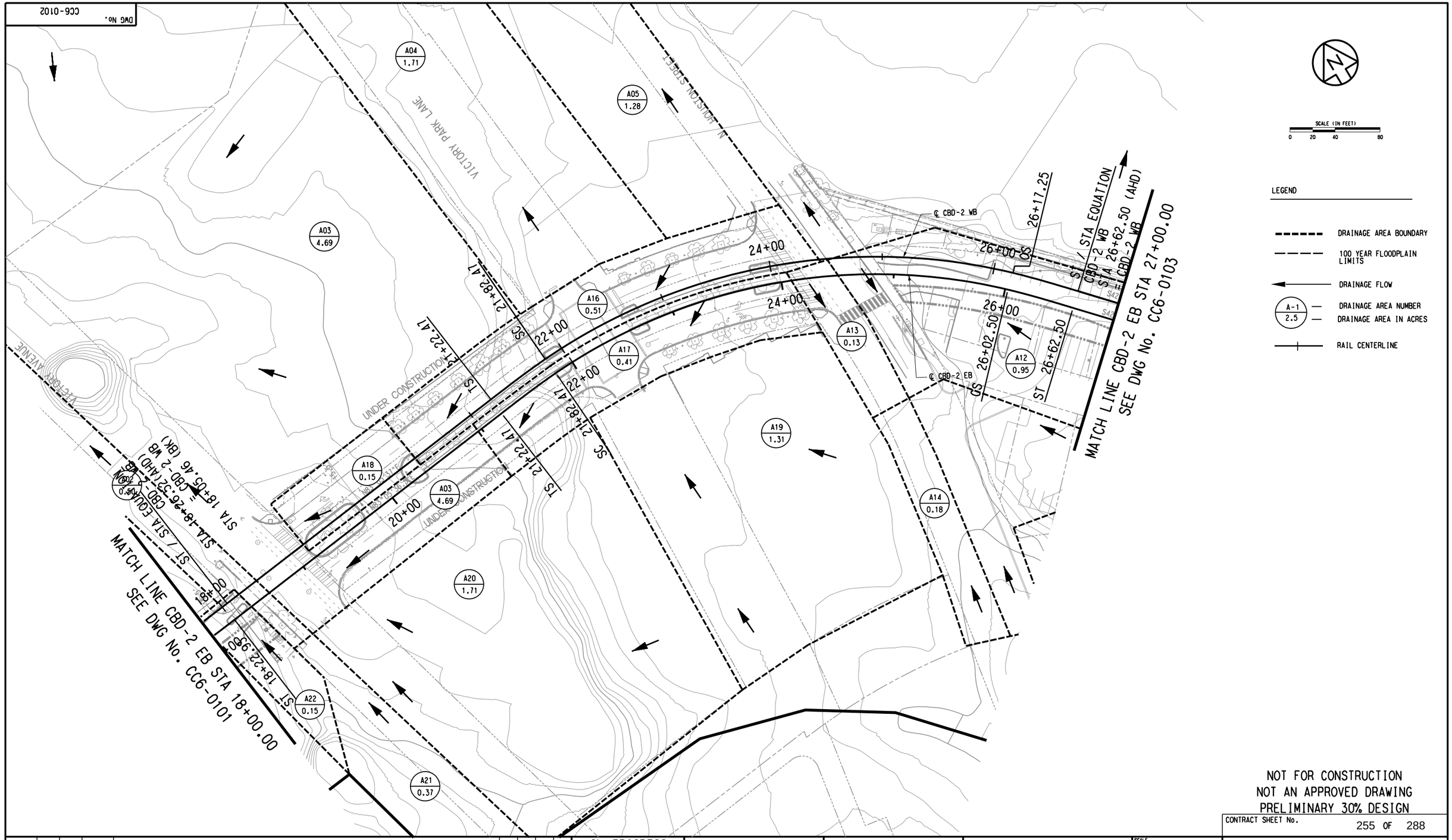
CONTRACT	DWG No.	REV
	CC6-0101	

Monday, October 26, 2020 11:29:52 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 1 of 12

olanyadj
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 1 of 12

DWG No. CC6-0102



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 255 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP
△								

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 2 OF 13

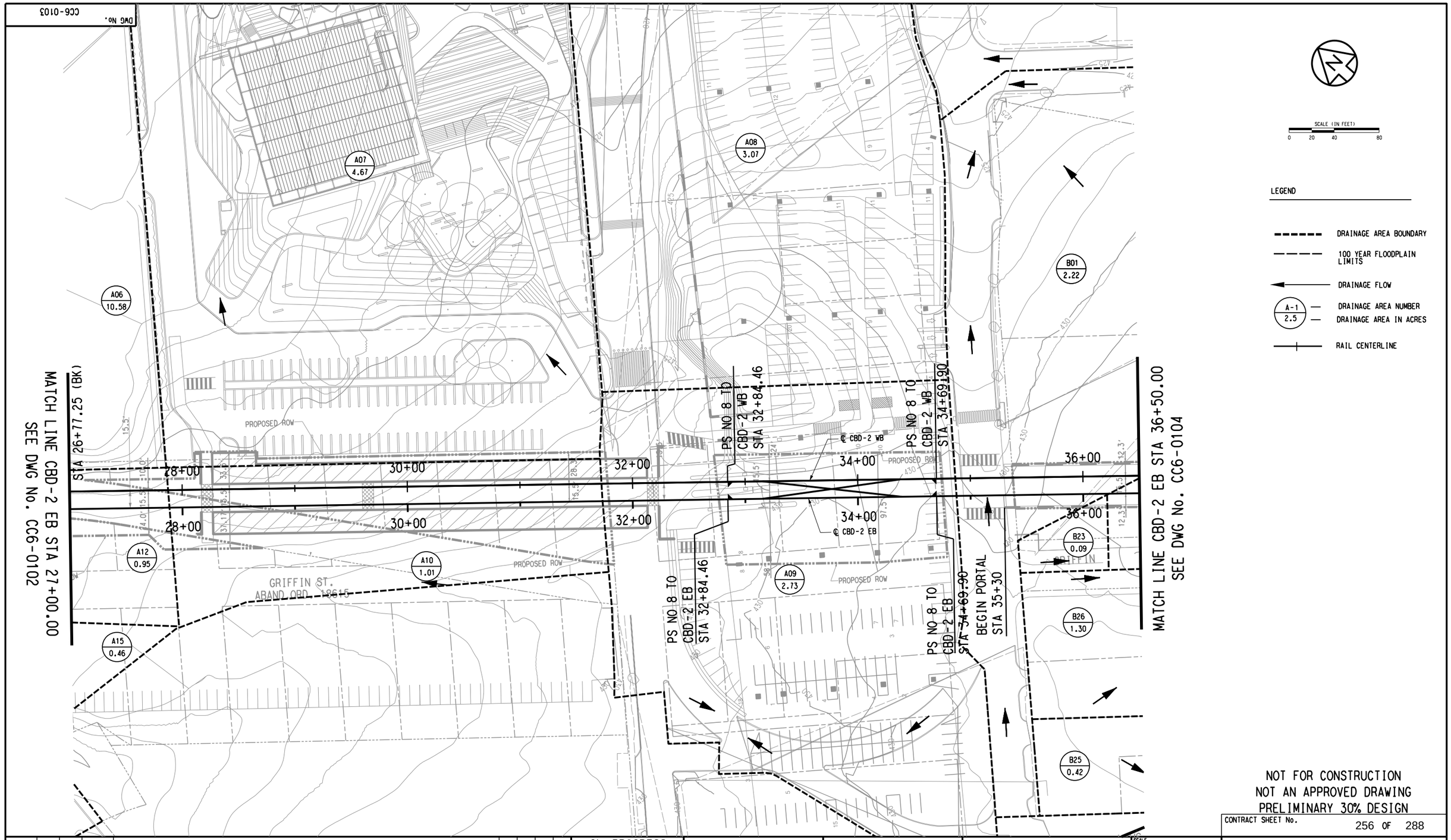
CONTRACT	DWG No.	REV
	CC6-0102	

Monday, October 26, 2020 11:29:54 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 2 of 12

olanyadj
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 2 of 12

DWG No. CC6-0103



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 256 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 3 OF 13

CONTRACT	DWG No.	REV
	CC6-0103	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 3 of 13

Monday, October 26, 2020 11:29:57 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 3 of 13
olonyadji
Default

DWG No. CC6-0104

B01 2.22
B02 1.01
B03 0.90
B04 1.26
B05 0.87
B06 1.33
B07 1.48
B08 1.08
B09 2.60
B18 0.62
B20 0.45
B21 0.31
B22 0.14
B24 0.40
B25 0.42
B26 1.30
B28 0.99
B29 0.29
B30 0.27
B34 0.15
B35 0.12
B36 0.98
B38 1.07
B39 0.44
B41 1.07

ST.
AVE.
GRUFF LN
CORBIN
MUNGER

PROPOSED TUNNEL PORTAL
℄ CBD-2 WB
℄ CBD-2 EB
PROPOSED PEDESTRIAN/ BIKE PATH CONSTRUCTED BY DART, MAINTAINED BY OTHERS
CROSSING TO BE CLOSED
CBD2-C

38+00
40+00
42+00
44+00
46+00

44+08.92 TS
44+68.92 SC
45+51.69 TS
44+11.69 SC

END PORTAL / BEGIN CUT/COVER STA 41+50

MATCH LINE CBD-2 EB STA 36+50.00 SEE DWG No. CC6-0103

MATCH LINE CBD-2 EB STA 46+25.00 SEE DWG No. CC6-0105

SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 257 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020 ICONIC CONSULTING GROUP, INC. TBPE FIRM NO. F-10715 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

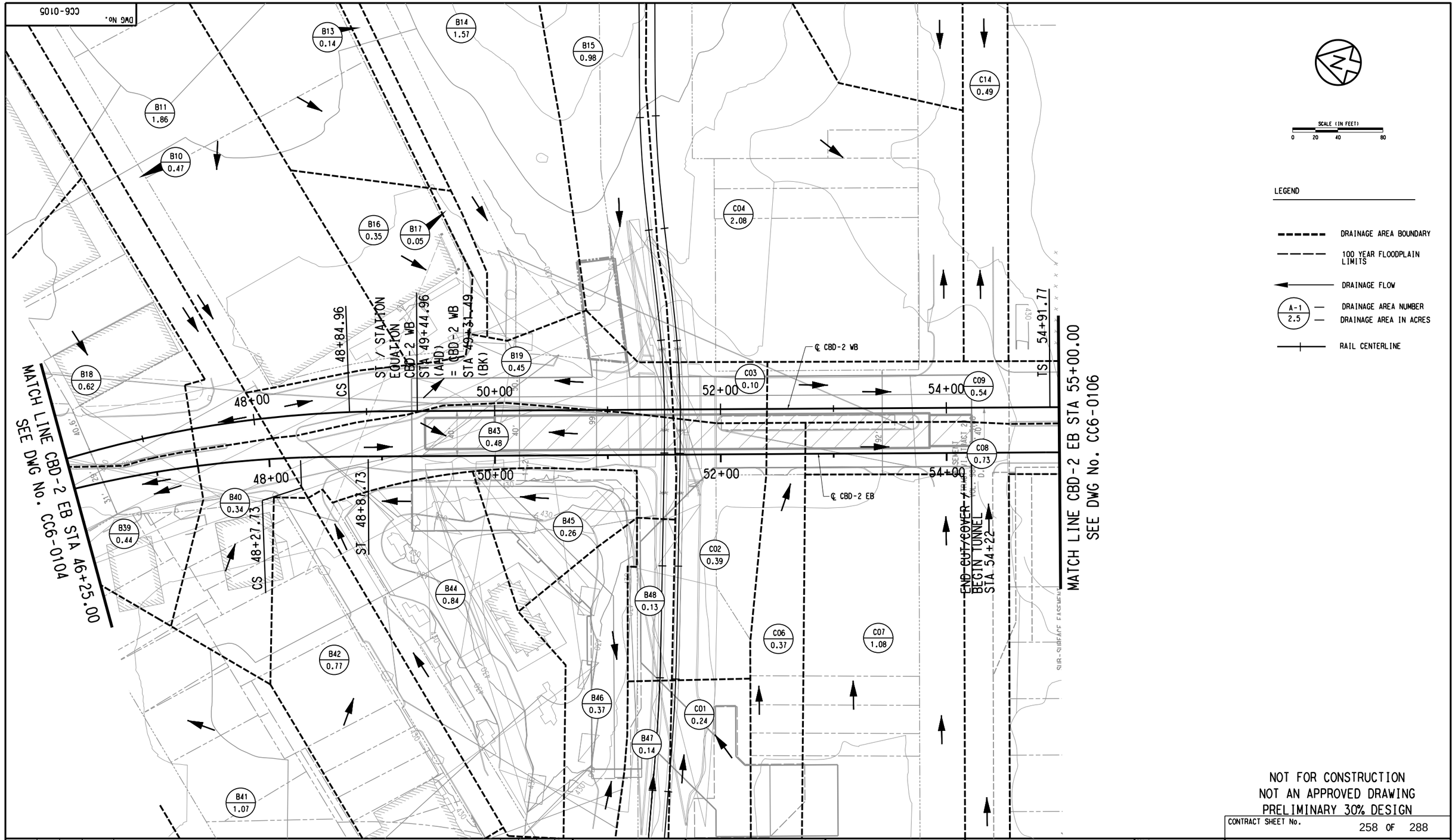
DRAINAGE AREA MAP
SHEET 4 OF 13

CONTRACT	DWG No.	REV
	CC6-0104	

Monday, October 26, 2020 11:29:59 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 4 of 13.dgn
olanyadji
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 4 of 13

DWG No. CC6-0105



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 258 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

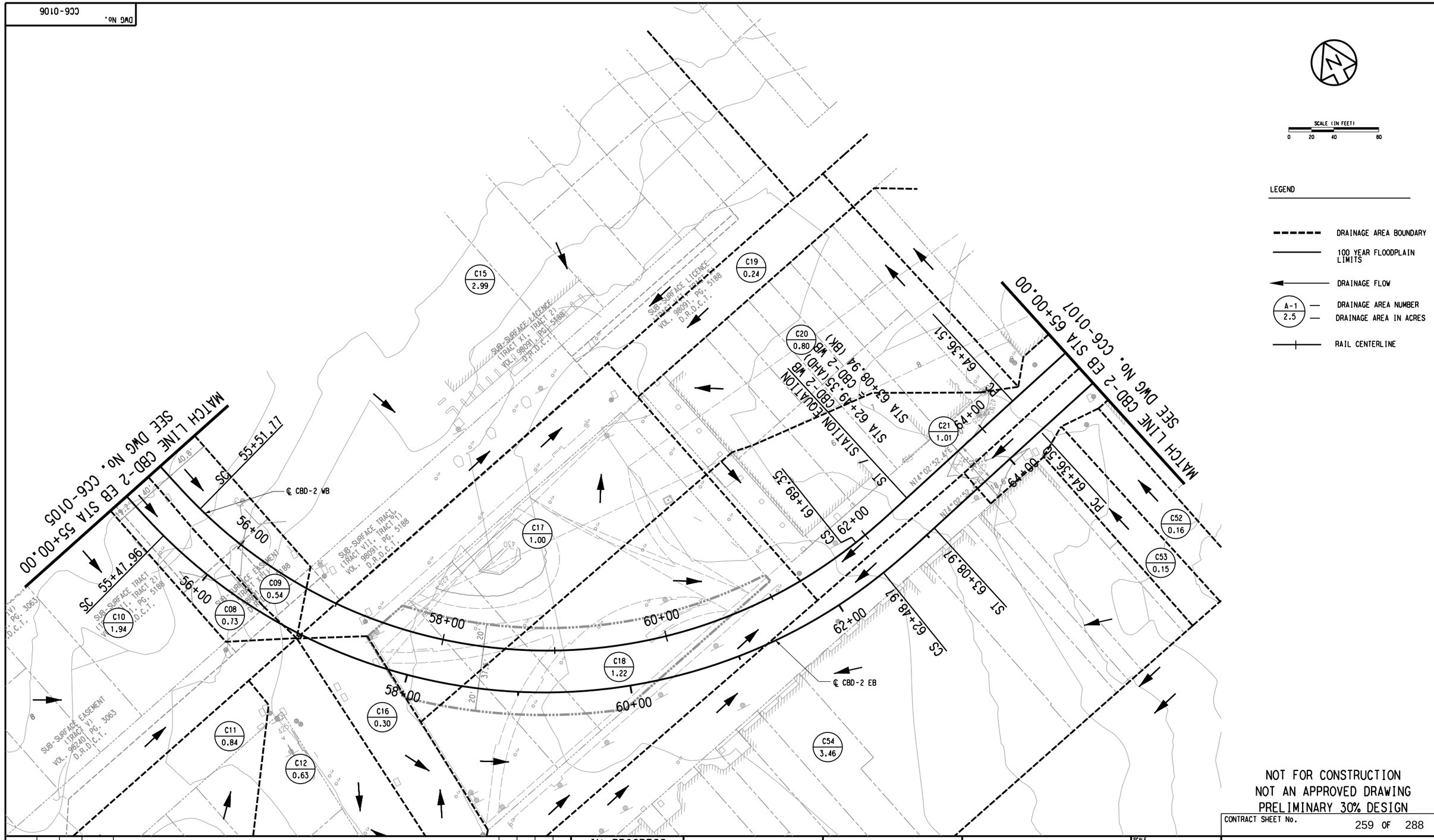
DRAINAGE AREA MAP
SHEET 5 OF 13

CONTRACT	DWG No.	REV
	CC6-0105	

Monday, October 26, 2020 11:30:00 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 5 of 13.dgn
olanyadji
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 5 of 13

DWG No. CC6-0106



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 259 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020 ICONIC CONSULTING GROUP, INC. TBPE FIRM NO. F-10715 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

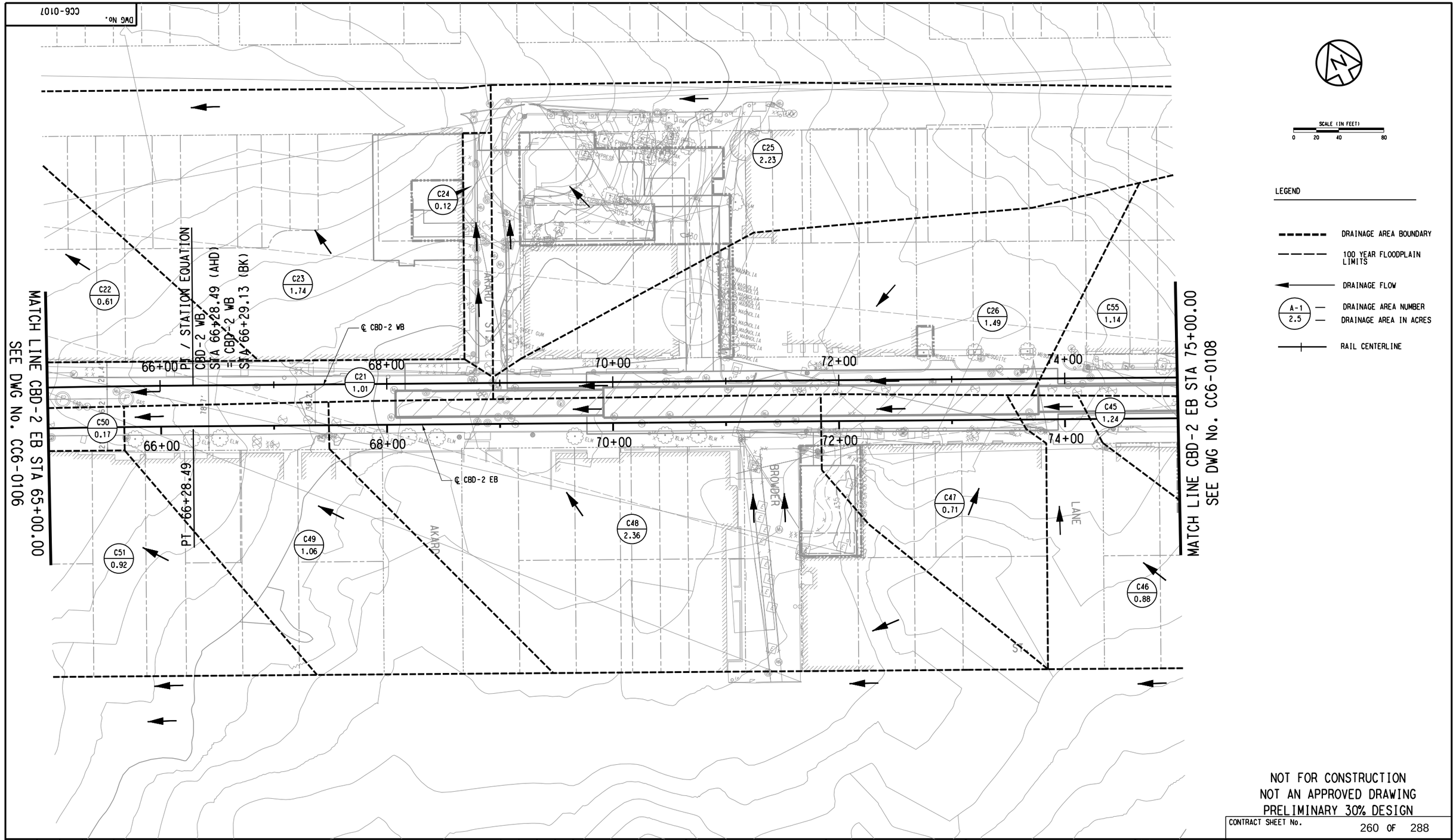
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 6 OF 13

CONTRACT	DWG No.	REV
	CC6-0106	

Monday, October 26, 2020 11:30:02 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 6 of 13.dgn
olanyadji
Default

DWG No. CC6-0107



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 260 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

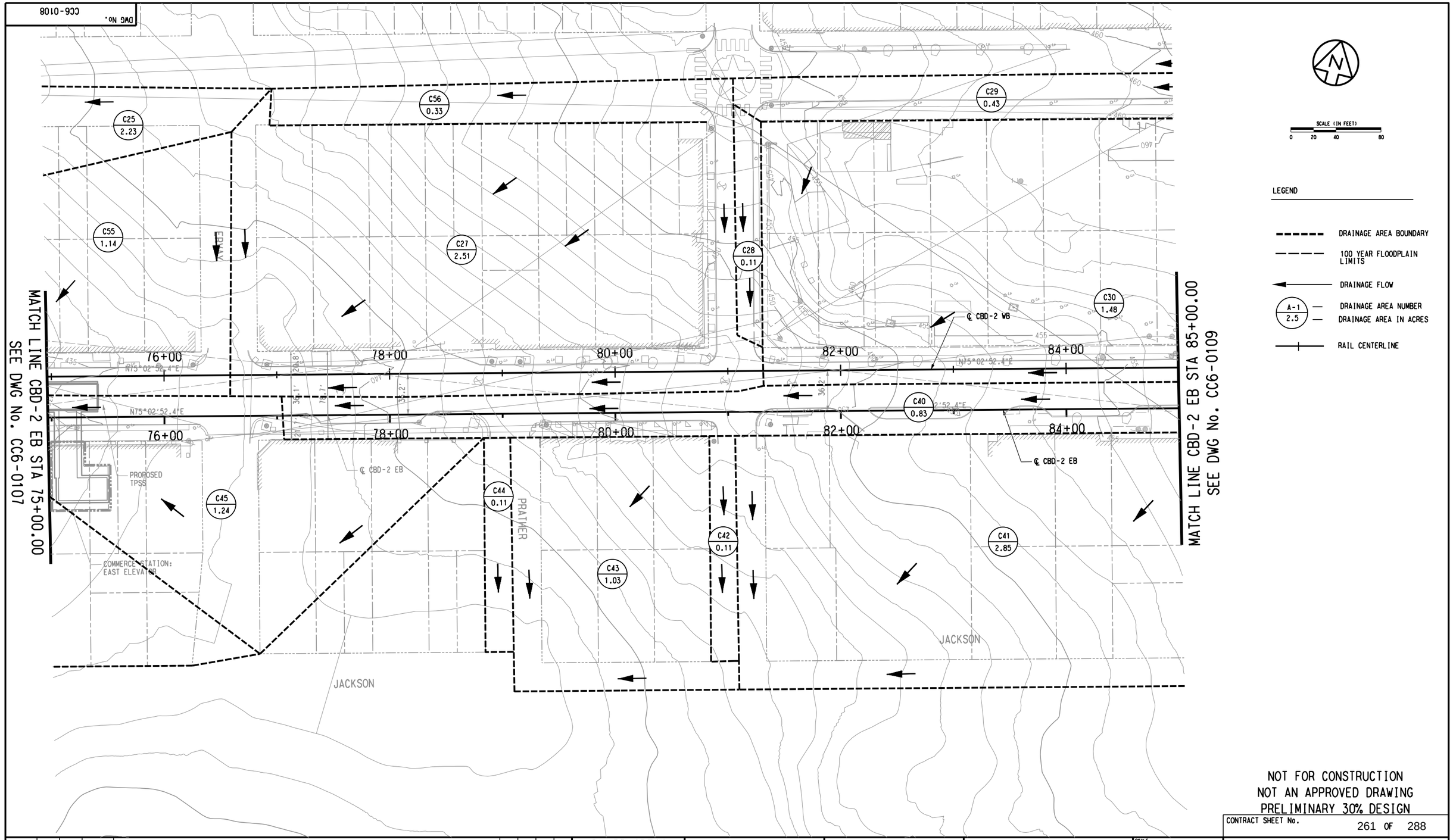
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 7 OF 13

CONTRACT	DWG No.	REV
	CC6-0107	

Monday, October 26, 2020 11:30:04 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 7 of 13.dgn
olonyadji
Default

DWG No. CC6-0108



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 261 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

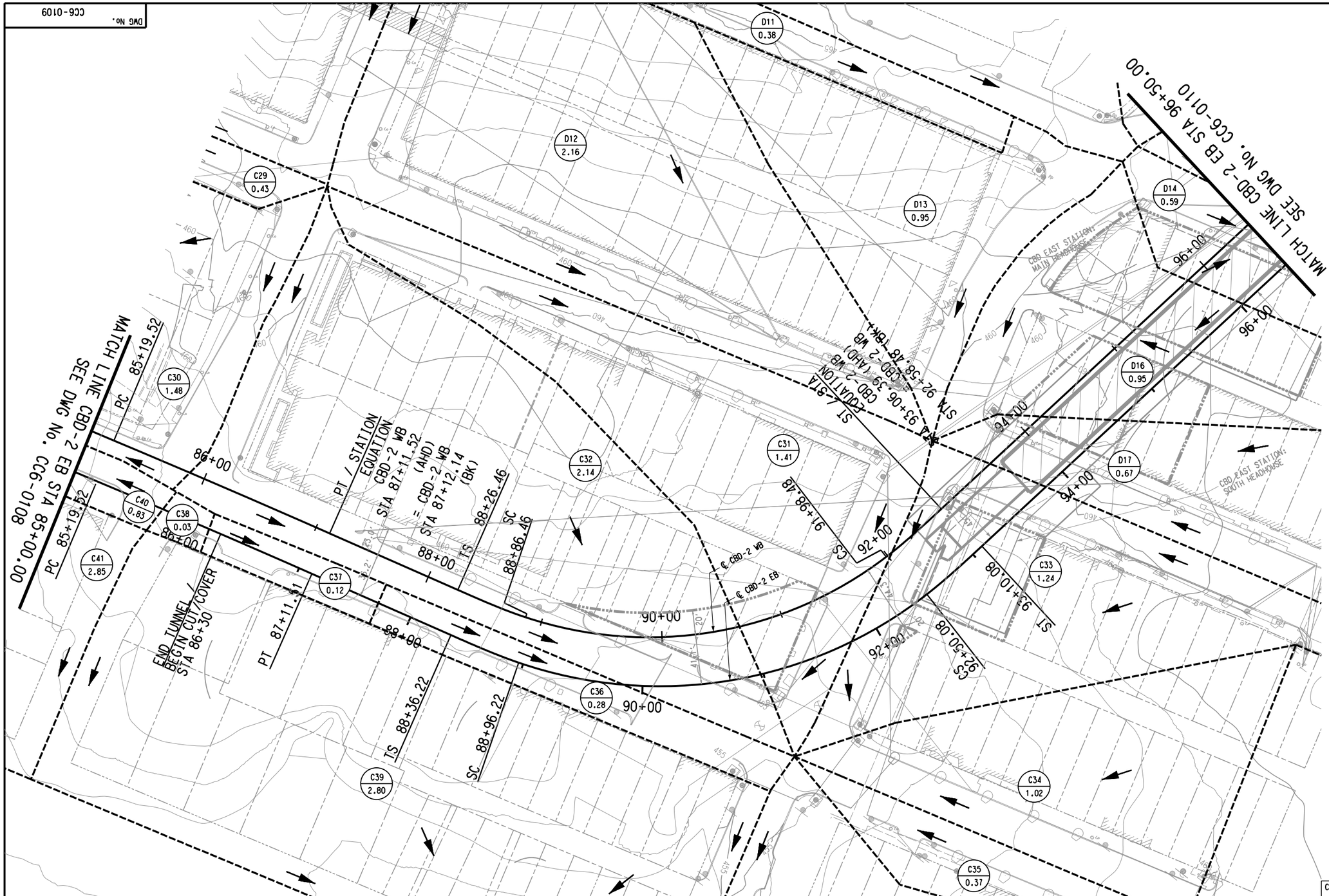
DRAINAGE AREA MAP
SHEET 8 OF 13

CONTRACT	DWG No.	REV
	CC6-0108	

Monday, October 26, 2020 11:30:07 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 8 of 13
otanyadji
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 8 of 13

DWG No. CC6-0109



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 262 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10115
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 9 OF 13

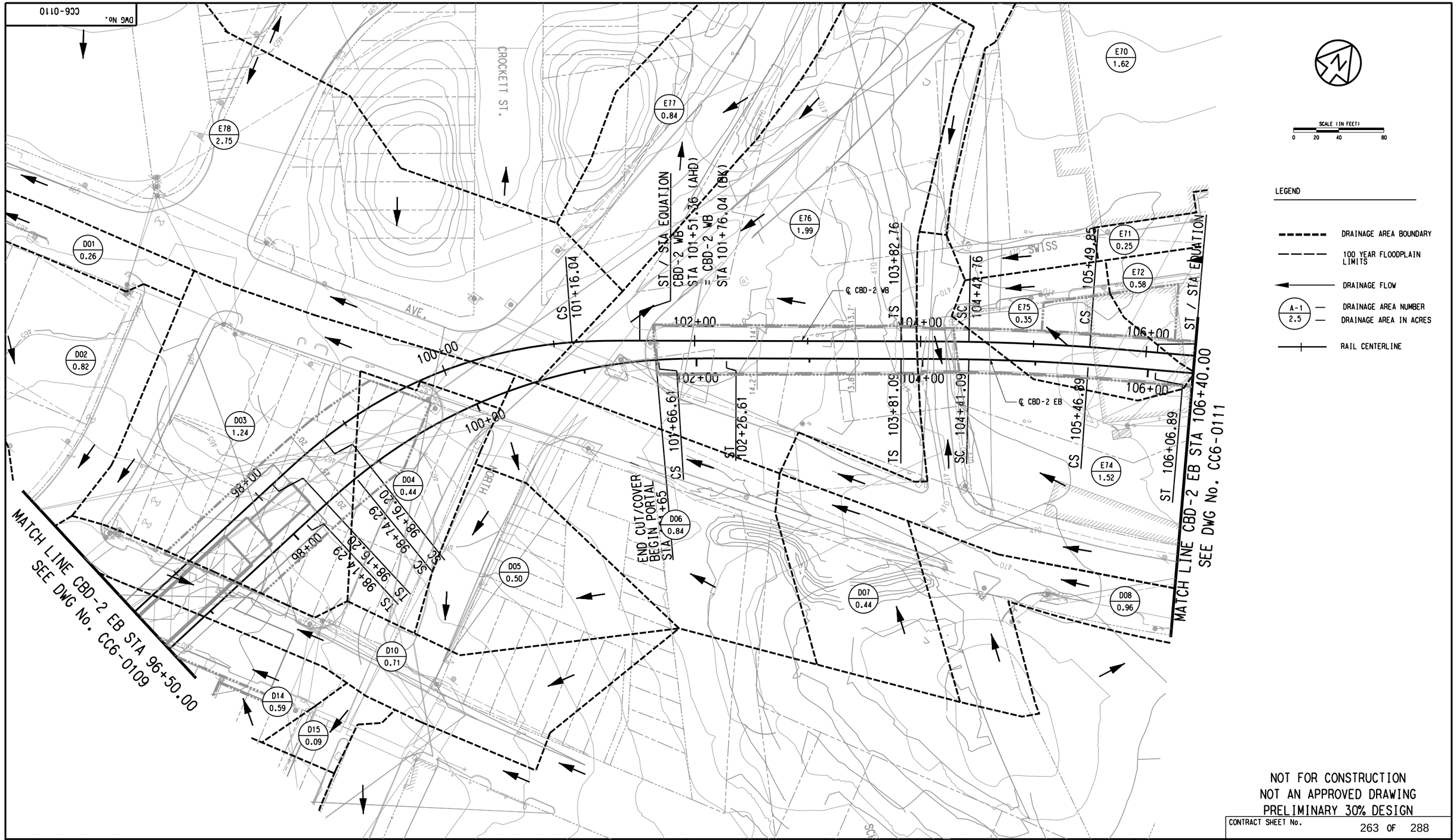
CONTRACT	DWG No.	REV
	CC6-0109	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 9 of 13

Monday, October 26, 2020 11:30:09 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 9 of 13

olanyadji
Default

DWG No. CC6-0110



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 263 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

gpc SIX

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 10 OF 13

CONTRACT	DWG No.	REV
	CC6-0110	

Monday, October 26, 2020 11:30:11 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 10 of 13
olanyadji
Default

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 10 of 13

DWG No. CC6-0111

MATCH LINE SE-1 SB STA 18+50.00
SEE DWG No. CC6-0113

MATCH LINE CBD-2 EB STA 106+40.00
SEE DWG No. CC6-0110

MATCH LINE CBD-2 EB STA 114+50.00
SEE DWG No. CC6-0112

SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

E71 0.25 | E72 0.58 | E73 0.39 | E74 1.52 | E45 0.20 | E54 0.47 | E46 0.15 | E53 0.53 | E47 0.22 | E48 0.17 | E52 0.99 | E51 0.35 | E50 0.63 | E49 0.24 | D08 0.96 | E25 0.19 | E14 1.31 | E24 0.10 | E23 0.13 | E22 0.20 | E15 0.46 | E16 0.94 | E21 0.20 | E18 0.34 | E20 0.46 | E19 0.23 | F01 0.68 | F04 0.32

WYE WB | WYE EB | SE-1 SB | SE-1 NB | MIRANDA ST | FLOYD | FLOYD STREET ABANDONMENT No. 2696 & 2846 | HAWKINS | JETT WAY

END PORTAL STA 107+60 TO PS NO.8 | WYE-EB STA 107+00.00 | CBD-2 EB STA 107+86.73 | TS 109+61.72 | SC 110+21.72 | CS 113+02.72 | ST 113+62.72 | 108+00 | 110+00 | 112+00 | 114+00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 264 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

gpc SIX

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 11 OF 13

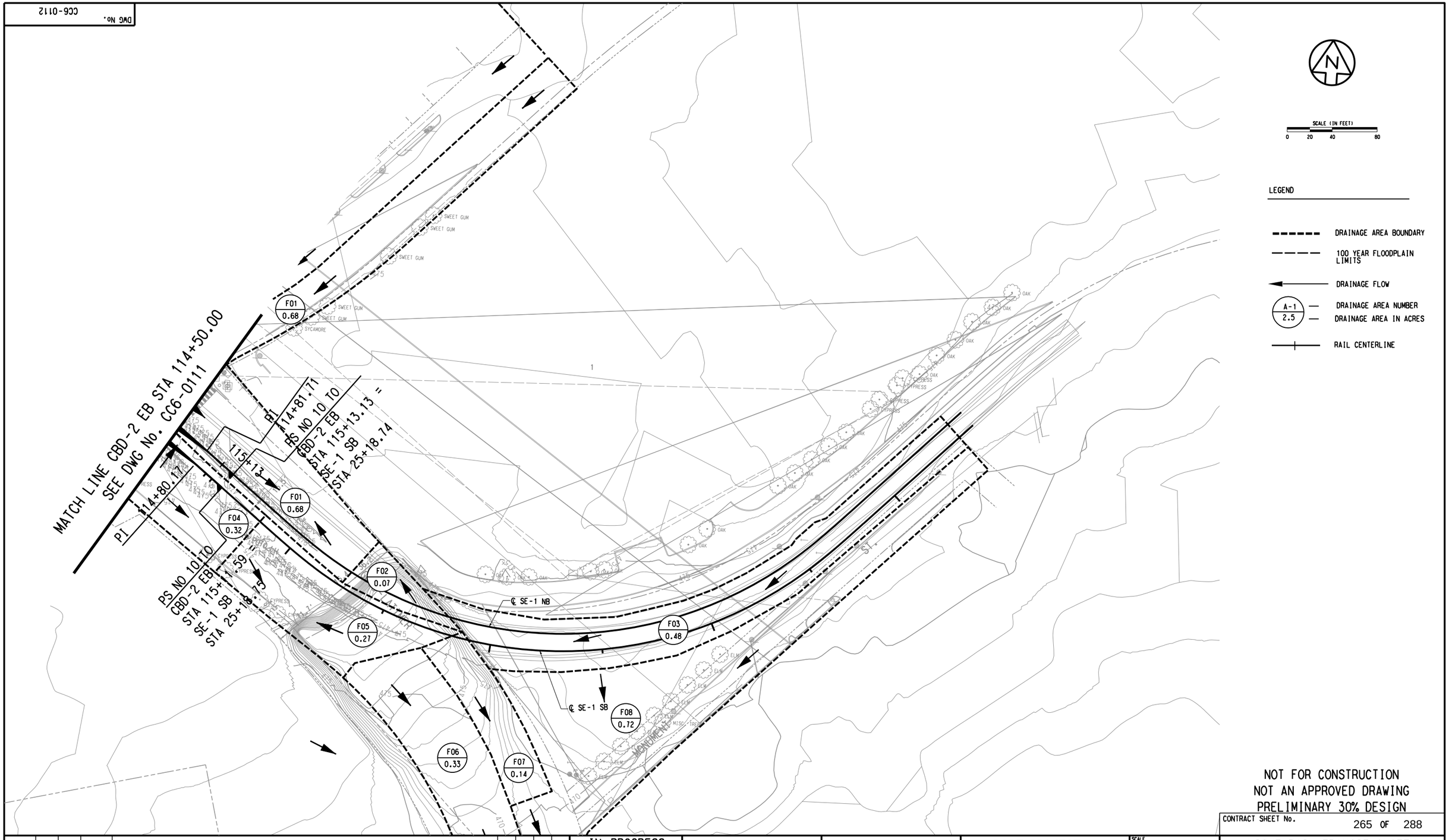
CONTRACT | DWG No. CC6-0111 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 11 of 13

Monday, October 26, 2020 11:30:13 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 11 of 13

olanyadji
Default

DWG No. CC6-0112



SCALE (IN FEET)
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- A-1 / 2.5 — DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 265 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 12 OF 13

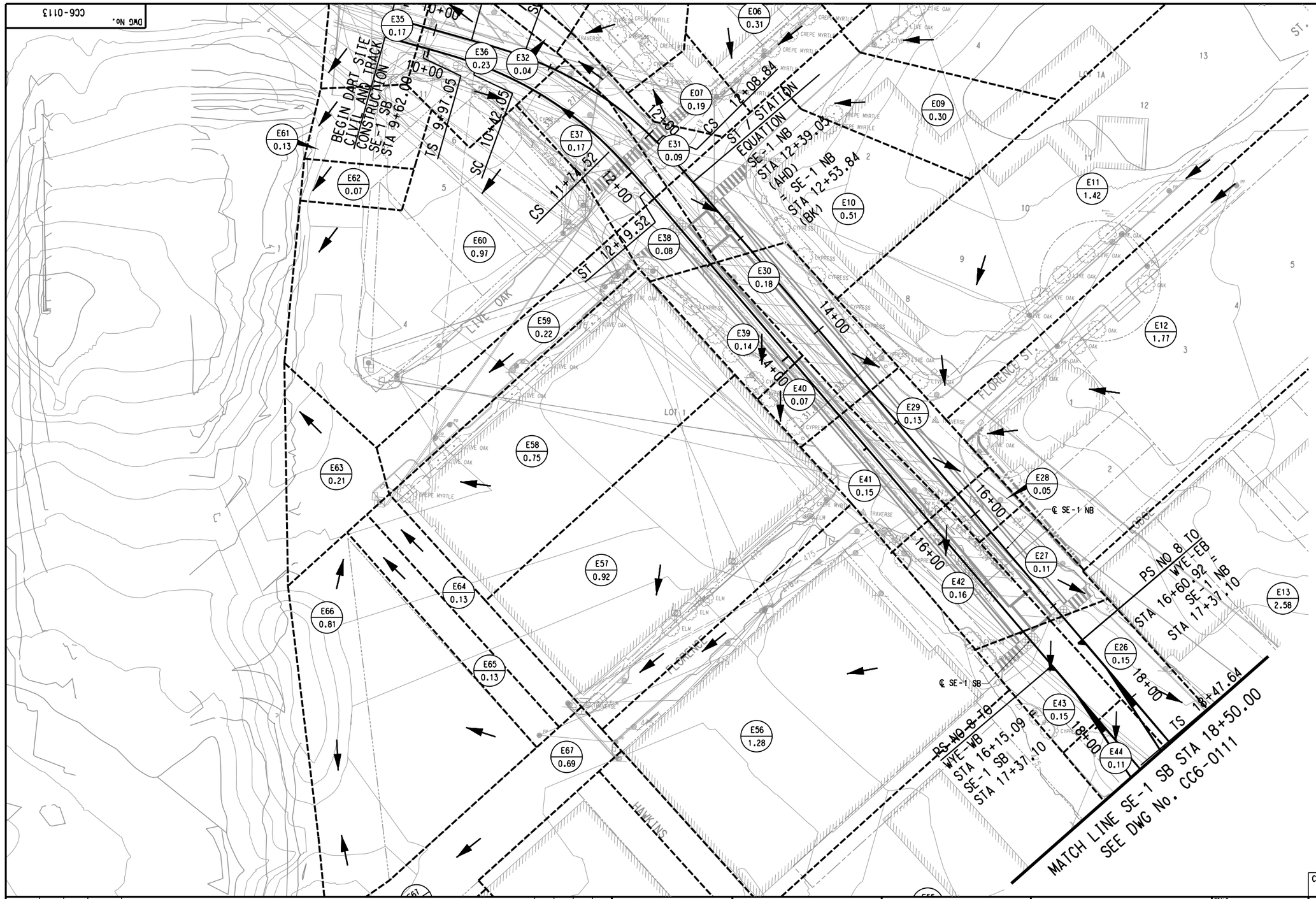
CONTRACT	DWG No.	REV
	CC6-0112	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 12 of 13

Monday, October 26, 2020 11:30:15 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 12 of 13

olanyadji
Default

DWG No. CC6-0113



NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 266 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA MAP
SHEET 13 OF 13

CONTRACT	DWG No.	REV
	CC6-0113	

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 13 of 13

Monday, October 26, 2020 11:30:17 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/Drainage Area Map Sheet 13 of 13

olanyadji
Default

Monday, October 26, 2020 11:30:18 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/DRAINAGE AREA CALCULATIONS Sheet 1
olanyadji
Default

DWG No. CC6-0114

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
A01	4.39	0.95	10	8.88	37.03	
A02	0.50	0.95	10	8.88	4.22	
A03	4.69	0.95	10	8.88	39.56	
A04	1.71	0.95	10	8.88	14.43	
A05	1.28	0.95	10	8.88	10.80	
A06	10.58	0.95	10	8.88	89.25	
A07	4.67	0.95	10	8.88	39.40	
A08	3.07	0.95	10	8.88	25.90	
A09	2.73	0.95	10	8.88	23.03	
A10	1.01	0.95	10	8.88	8.52	
A11	0.95	0.95	10	8.88	8.01	
A12	0.95	0.95	10	8.88	8.01	
A13	0.13	0.95	10	8.88	1.10	
A14	0.18	0.95	10	8.88	1.52	
A15	0.46	0.95	10	8.88	3.88	
A16	0.51	0.95	10	8.88	4.30	
A17	0.41	0.95	10	8.88	3.46	
A18	0.15	0.95	10	8.88	1.27	
A19	1.31	0.95	10	8.88	11.05	
A20	1.71	0.95	10	8.88	14.43	
A21	0.37	0.95	10	8.88	3.12	
A22	0.15	0.95	10	8.88	1.27	
A23	4.39	0.95	10	8.88	37.03	

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA (ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
B01	2.22	0.95	10	8.88	18.73	
B02	1.01	0.95	10	8.88	8.52	
B03	0.90	0.95	10	8.88	7.59	
B04	1.26	0.95	10	8.88	10.63	
B05	0.87	0.95	10	8.88	7.34	
B06	1.33	0.95	10	8.88	11.22	
B07	1.48	0.95	10	8.88	12.49	
B08	1.08	0.95	10	8.88	9.11	
B09	2.60	0.95	10	8.88	21.93	
B10	0.47	0.95	10	8.88	3.96	
B11	1.86	0.95	10	8.88	15.69	
B12	1.06	0.95	10	8.88	8.94	
B13	0.14	0.95	10	8.88	1.18	
B14	1.57	0.95	10	8.88	13.24	
B15	0.98	0.95	10	8.88	8.27	
B16	0.35	0.95	10	8.88	2.95	
B17	0.05	0.95	10	8.88	0.42	
B18	0.62	0.95	10	8.88	5.23	
B19	0.45	0.95	10	8.88	3.80	
B20	0.45	0.95	10	8.88	3.80	
B21	0.31	0.95	10	8.88	2.62	
B22	0.14	0.95	10	8.88	1.18	
B23	0.09	0.95	10	8.88	0.76	
B24	0.40	0.95	10	8.88	3.37	
B25	0.42	0.95	10	8.88	3.54	
B26	1.04	0.95	10	8.88	8.77	
B28	0.99	0.95	10	8.88	8.35	
B29	0.29	0.95	10	8.88	2.45	
B30	0.27	0.95	10	8.88	2.28	
B31	0.64	0.95	10	8.88	5.40	
B32	1.04	0.95	10	8.88	8.77	
B33	1.13	0.95	10	8.88	9.53	
B34	0.15	0.95	10	8.88	1.27	
B35	0.12	0.95	10	8.88	1.01	
B36	0.98	0.95	10	8.88	8.27	
B37	0.23	0.95	10	8.88	1.94	
B38	1.07	0.95	10	8.88	9.03	
B39	0.44	0.95	10	8.88	3.71	
B40	0.34	0.95	10	8.88	2.87	
B41	1.07	0.95	10	8.88	9.03	
B42	0.77	0.95	10	8.88	6.50	
B43	0.48	0.95	10	8.88	4.05	
B44	0.84	0.95	10	8.88	7.09	
B45	0.26	0.95	10	8.88	2.19	
B46	0.37	0.95	10	8.88	3.12	
B47	0.14	0.95	10	8.88	1.18	
B48	0.13	0.95	10	8.88	1.10	
B49	0.11	0.95	10	8.88	0.93	

NOTES:

1. DRAINAGE DESIGN CRITERIA (FREQUENCY, INTENSITY, AND RUNOFF COEFFICIENTS) ARE BASED ON THE CITY OF DALLAS DRAINAGE DESIGN MANUAL, DATED MAY 1993.
2. ALL DRAINAGE AREAS ARE CALCULATED FOR THE 100-YEAR FREQUENCY STORM.
3. ALIGNMENT IS WITHIN THE ZONING DISTRICT: CA-1(A), CENTRAL AREA - 1.
4. INTENSITY WERE DETERMINED USING THE RAINFALL INTENSITY DURATION TABLE LOCATED ON PAGE 2 OF THE APPENDIX.
5. RUNOFF COEFFICIENTS ARE TAKEN FROM THE TABLE: RUNOFF COEFFICIENTS AND MAXIMUM INLET TIMES LOCATED ON PAGE 1 OF THE APPENDIX.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 267 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
JEFFREY E. BRISCOE, P.E. NO. 99558
ON 10/30/2020
ICONIC CONSULTING GROUP, INC.
TBPE FIRM NO. F-10715
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

SCALE	NO SCALE
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA CALCULATIONS
SHEET 1 OF 3

CONTRACT	DWG No.	REV
	CC6-0114	

DWG No. CC6-0115

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
C01	0.24	0.95	10	8.88	2.02	
C02	0.39	0.95	10	8.88	3.29	
C03	0.10	0.95	10	8.88	0.84	
C04	2.08	0.95	10	8.88	17.55	
C05	1.33	0.95	10	8.88	11.22	
C06	0.37	0.95	10	8.88	3.12	
C07	1.08	0.95	10	8.88	9.11	
C08	0.73	0.95	10	8.88	6.16	
C09	0.54	0.95	10	8.88	4.56	
C10	1.94	0.95	10	8.88	16.37	
C11	0.84	0.95	10	8.88	7.09	
C12	0.63	0.95	10	8.88	5.31	
C13	0.95	0.95	10	8.88	8.01	
C14	0.16	0.95	10	8.88	1.35	
C15	2.99	0.95	10	8.88	25.22	
C16	0.30	0.95	10	8.88	2.53	
C17	1.00	0.95	10	8.88	8.44	
C18	1.22	0.95	10	8.88	10.29	
C19	0.24	0.95	10	8.88	2.02	
C20	0.80	0.95	10	8.88	6.75	
C21	1.01	0.95	10	8.88	8.52	
C22	0.61	0.95	10	8.88	5.15	
C23	1.74	0.95	10	8.88	14.70	
C24	0.12	0.95	10	8.88	1.01	
C25	2.23	0.95	10	8.88	18.81	
C26	1.49	0.95	10	8.88	12.57	
C27	2.51	0.95	10	8.88	21.17	
C28	0.11	0.95	10	8.88	0.93	
C29	0.43	0.95	10	8.88	3.63	
C30	1.48	0.95	10	8.88	12.49	
C31	1.41	0.95	10	8.88	11.89	
C32	2.14	0.95	10	8.88	18.05	
C33	1.24	0.95	10	8.88	10.46	
C34	1.02	0.95	10	8.88	8.60	
C35	0.37	0.95	10	8.88	3.12	
C36	0.28	0.95	10	8.88	2.36	
C37	0.12	0.95	10	8.88	1.01	
C38	0.03	0.95	10	8.88	0.25	
C39	2.80	0.95	10	8.88	23.62	
C40	0.83	0.95	10	8.88	7.00	
C41	2.85	0.95	10	8.88	24.04	
C42	0.11	0.95	10	8.88	0.93	
C43	1.03	0.95	10	8.88	8.69	
C44	0.11	0.95	10	8.88	0.93	
C45	1.24	0.95	10	8.88	10.46	
C46	0.88	0.95	10	8.88	7.42	
C47	0.71	0.95	10	8.88	5.99	
C48	2.36	0.95	10	8.88	19.91	
C49	1.06	0.95	10	8.88	8.94	
C50	0.17	0.95	10	8.88	1.43	
C51	0.92	0.95	10	8.88	7.76	
C52	0.16	0.95	10	8.88	1.35	
C53	0.15	0.95	10	8.88	1.27	
C54	3.46	0.95	10	8.88	29.19	
C55	1.14	0.95	10	8.88	9.62	
C56	0.33	0.95	10	8.88	2.78	

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
D01	0.26	0.95	10	8.88	2.19	
D02	0.82	0.95	10	8.88	6.92	
D03	1.24	0.95	10	8.88	10.46	
D04	0.44	0.95	10	8.88	3.71	
D05	0.50	0.95	10	8.88	4.22	
D06	0.84	0.95	10	8.88	7.09	
D07	0.44	0.95	10	8.88	3.71	
D08	0.96	0.95	10	8.88	8.10	
D09	1.54	0.95	10	8.88	12.99	
D10	0.71	0.95	10	8.88	5.99	
D11	0.38	0.95	10	8.88	3.21	
D12	2.16	0.95	10	8.88	18.22	
D13	0.95	0.95	10	8.88	8.01	
D14	0.95	0.95	10	8.88	8.01	
D15	0.09	0.95	10	8.88	0.76	
D16	0.95	0.95	10	8.88	8.01	
D17	0.67	0.95	10	8.88	5.65	

NOTES:

1. DRAINAGE DESIGN CRITERIA (FREQUENCY, INTENSITY, AND RUNOFF COEFFICIENTS) ARE BASED ON THE CITY OF DALLAS DRAINAGE DESIGN MANUAL, DATED MAY 1993.
2. ALL DRAINAGE AREAS ARE CALCULATED FOR THE 100-YEAR FREQUENCY STORM.
3. ALIGNMENT IS WITHIN THE ZONING DISTRICT: CA-1(A), CENTRAL AREA - 1.
4. INTENSITY WERE DETERMINED USING THE RAINFALL INTENSITY DURATION TABLE LOCATED ON PAGE 2 OF THE APPENDIX.
5. RUNOFF COEFFICIENTS ARE TAKEN FROM THE TABLE: RUNOFF COEFFICIENTS AND MAXIMUM INLET TIMES LOCATED ON PAGE 1 OF THE APPENDIX.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 268 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020 ICONIC CONSULTING GROUP, INC. TBPE FIRM NO. F-10715 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

DART PROJECT

DART

CAES

SCALE	NO SCALE
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA CALCULATIONS
SHEET 2 OF 3

CONTRACT | DWG No. CC6-0115 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/DRAINAGE AREA CALCULATIONS Sheet 2

Monday, October 26, 2020 11:30:20 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_D2_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/DRAINAGE AREA CALCULATIONS Sheet 2

olanyadji
Default

olanyadji
Default
Monday, October 26, 2020 11:30:21 AM
pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/DRAINAGE AREA CALCULATIONS Sheet 3

DWG No. CC6-0116

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
E01	0.18	0.95	10	8.88	1.52	
E02	0.42	0.95	10	8.88	3.54	
E03	0.35	0.95	10	8.88	2.95	
E04	0.24	0.95	10	8.88	2.02	
E05	0.25	0.95	10	8.88	2.11	
E06	0.31	0.95	10	8.88	2.62	
E07	0.19	0.95	10	8.88	1.60	
E08	1.00	0.95	10	8.88	8.44	
E09	0.30	0.95	10	8.88	2.53	
E10	0.51	0.95	10	8.88	4.30	
E11	1.42	0.95	10	8.88	11.98	
E12	1.77	0.95	10	8.88	14.93	
E13	2.58	0.95	10	8.88	21.76	
E14	1.31	0.95	10	8.88	11.05	
E15	0.46	0.95	10	8.88	3.88	
E16	0.94	0.95	10	8.88	7.93	
E17	1.03	0.95	10	8.88	8.69	
E18	0.34	0.95	10	8.88	2.87	
E19	0.23	0.95	10	8.88	1.94	
E20	0.46	0.95	10	8.88	3.88	
E21	0.20	0.95	10	8.88	1.69	
E22	0.20	0.95	10	8.88	1.69	
E23	0.13	0.95	10	8.88	1.10	
E24	0.10	0.95	10	8.88	0.84	
E25	0.19	0.95	10	8.88	1.60	
E26	0.15	0.95	10	8.88	1.27	
E27	0.11	0.95	10	8.88	0.93	
E28	0.05	0.95	10	8.88	0.42	
E29	0.13	0.95	10	8.88	1.10	
E30	0.18	0.95	10	8.88	1.52	
E31	0.09	0.95	10	8.88	0.76	
E32	0.04	0.95	10	8.88	0.34	
E33	0.14	0.95	10	8.88	1.18	
E34	0.16	0.95	10	8.88	1.35	
E35	0.17	0.95	10	8.88	1.43	
E36	0.23	0.95	10	8.88	1.94	
E37	0.17	0.95	10	8.88	1.43	
E38	0.08	0.95	10	8.88	0.67	
E39	0.14	0.95	10	8.88	1.18	
E40	0.07	0.95	10	8.88	0.59	
E41	0.15	0.95	10	8.88	1.27	
E42	0.16	0.95	10	8.88	1.35	
E43	0.15	0.95	10	8.88	1.27	
E44	0.11	0.95	10	8.88	0.93	
E45	0.20	0.95	10	8.88	1.69	
E46	0.15	0.95	10	8.88	1.27	
E47	0.22	0.95	10	8.88	1.86	
E48	0.17	0.95	10	8.88	1.43	
E49	0.24	0.95	10	8.88	2.02	
E50	0.63	0.95	10	8.88	5.31	
E51	0.35	0.95	10	8.88	2.95	
E52	0.99	0.95	10	8.88	8.35	
E53	0.53	0.95	10	8.88	4.47	
E54	0.47	0.95	10	8.88	3.96	
E55	1.19	0.95	10	8.88	10.04	
E56	1.28	0.95	10	8.88	10.80	
E57	0.92	0.95	10	8.88	7.76	
E58	0.75	0.95	10	8.88	6.33	
E59	0.22	0.95	10	8.88	1.86	
E60	0.97	0.95	10	8.88	8.18	
E61	0.13	0.95	10	8.88	1.10	
E62	0.07	0.95	10	8.88	0.59	
E63	0.21	0.95	10	8.88	1.77	

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
E64	0.13	0.95	10	8.88	1.10	
E65	0.13	0.95	10	8.88	1.10	
E66	0.81	0.95	10	8.88	6.83	
E67	0.69	0.95	10	8.88	5.82	
E68	0.25	0.95	10	8.88	2.11	
E69	1.03	0.95	10	8.88	8.69	
E70	1.62	0.95	10	8.88	13.67	
E71	0.25	0.95	10	8.88	2.11	
E72	0.58	0.95	10	8.88	4.89	
E73	0.39	0.95	10	8.88	3.29	
E74	1.52	0.95	10	8.88	12.82	
E75	0.35	0.95	10	8.88	2.95	
E76	1.99	0.95	10	8.88	16.79	
E77	0.84	0.95	10	8.88	7.09	
E78	2.75	0.95	10	8.88	23.20	

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA(ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	1 (100-YR) (IN/HR)	Q (100 YR) (CFS)	COMMENTS
F01	0.68	0.95	10	8.88	5.74	
F02	0.07	0.95	10	8.88	0.59	
F03	0.48	0.95	10	8.88	4.05	
F04	0.32	0.95	10	8.88	2.70	
F05	0.21	0.95	10	8.88	1.77	
F06	0.33	0.95	10	8.88	2.78	
F07	0.14	0.95	10	8.88	1.18	
F08	0.12	0.95	10	8.88	1.01	

NOTES:

1. DRAINAGE DESIGN CRITERIA (FREQUENCY, INTENSITY, AND RUNOFF COEFFICIENTS) ARE BASED ON THE CITY OF DALLAS DRAINAGE DESIGN MANUAL, DATED MAY 1993.
2. ALL DRAINAGE AREAS ARE CALCULATED FOR THE 100-YEAR FREQUENCY STORM.
3. ALIGNMENT IS WITHIN THE ZONING DISTRICT: CA-1(A), CENTRAL AREA - 1.
4. INTENSITY WERE DETERMINED USING THE RAINFALL INTENSITY DURATION TABLE LOCATED ON PAGE 2 OF THE APPENDIX.
5. RUNOFF COEFFICIENTS ARE TAKEN FROM THE TABLE: RUNOFF COEFFICIENTS AND MAXIMUM INLET TIMES LOCATED ON PAGE 1 OF THE APPENDIX.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 269 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: JEFFREY E. BRISCOE, P.E. NO. 99558 ON 10/30/2020 ICONIC CONSULTING GROUP, INC. TBPE FIRM NO. F-10715 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

ICONIC CONSULTING GROUP, INC.

gpc SIX

DART PROJECT

DART

CAES

SCALE	NO SCALE
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	10/30/2020

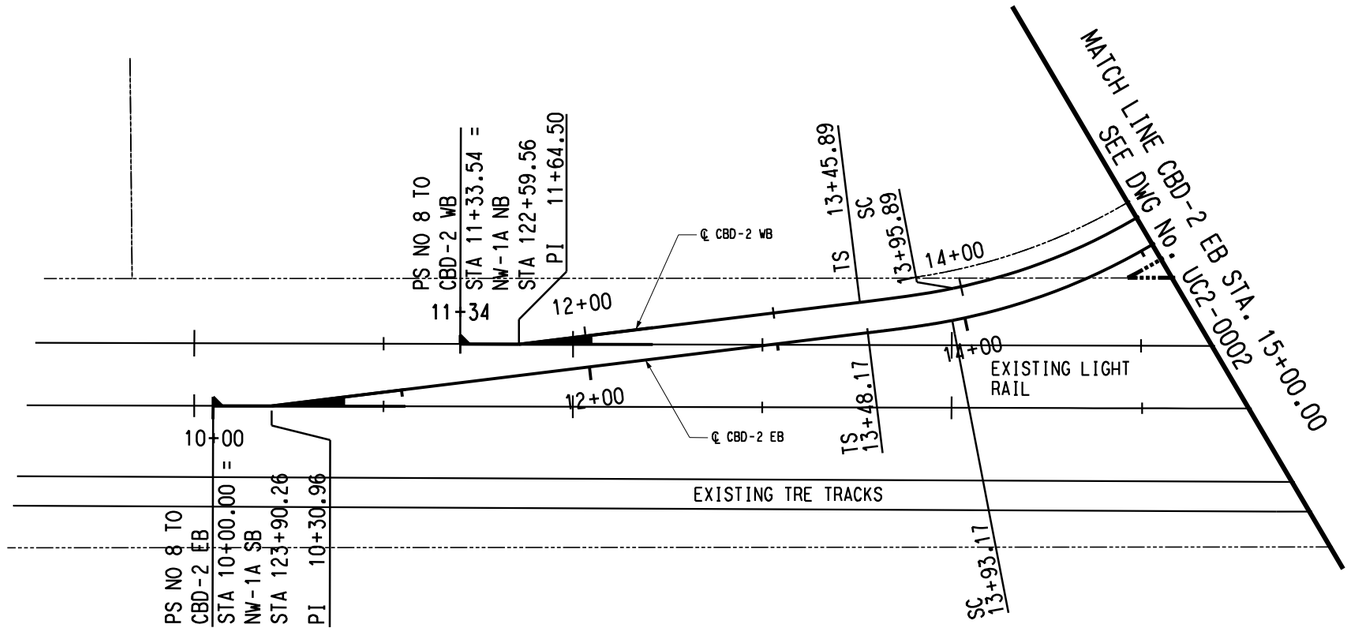
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

DRAINAGE AREA CALCULATIONS
SHEET 3 OF 3

CONTRACT | DWG No. CC6-0116 | REV

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_V1/6.0_CAD_BIM/6.2_Work_In_Progress/TO_39_02_Subway_Proj_Dev/6.2.2_Contract_Files/DGN/CVL-DR/DRAINAGE AREA CALCULATIONS Sheet 3

DWG No. UC2-0001



SCALE (IN FEET)
0 20 40 80

NOTES:

1. FOR HORIZONTAL AND VERTICAL GEOMETRY, SEE HORIZONTAL ALIGNMENT DATA TABLE SHEETS AND GUIDEWAY PLAN AND PROFILE SHEETS.

2. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS RELATED TO UTILITY CONSTRUCTION, SEE DWG No. GC1-0003 AND GC1-0004.

3. UTILITY INFORMATION IS BASED UPON EXISTING UTILITY PLANS PROVIDED BY CITY OF DALLAS AND DALLAS WATER UTILITIES. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND FACILITIES. RECORD INFORMATION IS BASED UPON DATA COLLECTED FROM BOTH PUBLIC AND PRIVATE SOURCES. THE COMPLETENESS AND/OR ACCURACY OF THESE RECORDS CANNOT BE GUARANTEED EXCEPT BY FIELD MEASUREMENT. UTILITIES SHALL BE VERIFIED BY FINAL DESIGNER.

4. INDIVIDUAL GAS SERVICES ARE UNKNOWN AND NOT SHOWN ON THESE DRAWINGS.

5. FINAL DESIGNERS SHALL VERIFY THE HEIGHT OF ALL AERIAL CABLE CROSSINGS AND PERFORM SUE FOR ALL HIGH PRESSURE GAS.

6. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY IN ANY AREA OF THE PROJECT, THE CONTRACTOR SHALL CONTACT ALL COMPANIES KNOWN TO OPERATE UTILITY SYSTEMS IN THE AREA AND SHALL HAVE THEIR FACILITIES PHYSICALLY LOCATED.

7. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING THE EXACT SIZE OF EXISTING WATER AND WASTEWATER SERVICES.

8. STORM SEWER PLANS ARE NOT SHOWN ON THESE DRAWINGS.

9. FOR PROPOSED STATIONS, SEE ARCHITECTURAL SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 270 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
BEGIN PROJECT TO STA 15+00.00

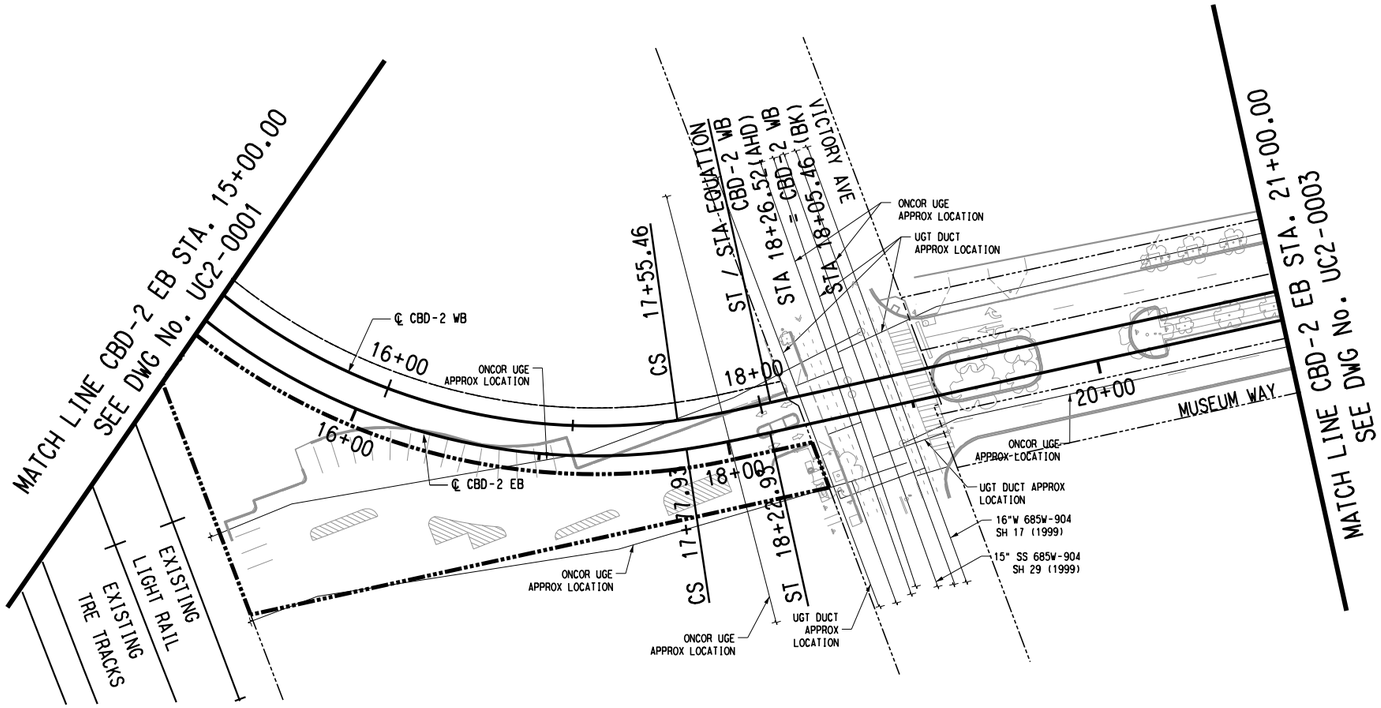
CONTRACT	DWG No.	REV
	UC2-0001	

Monday, October 26, 2020 11:40:02 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0001.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0001.040

DWG No. UC2-0002



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 271 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban | engineers | group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILTY COMPOSITE
STA 15+00.00 TO STA 21+00.00

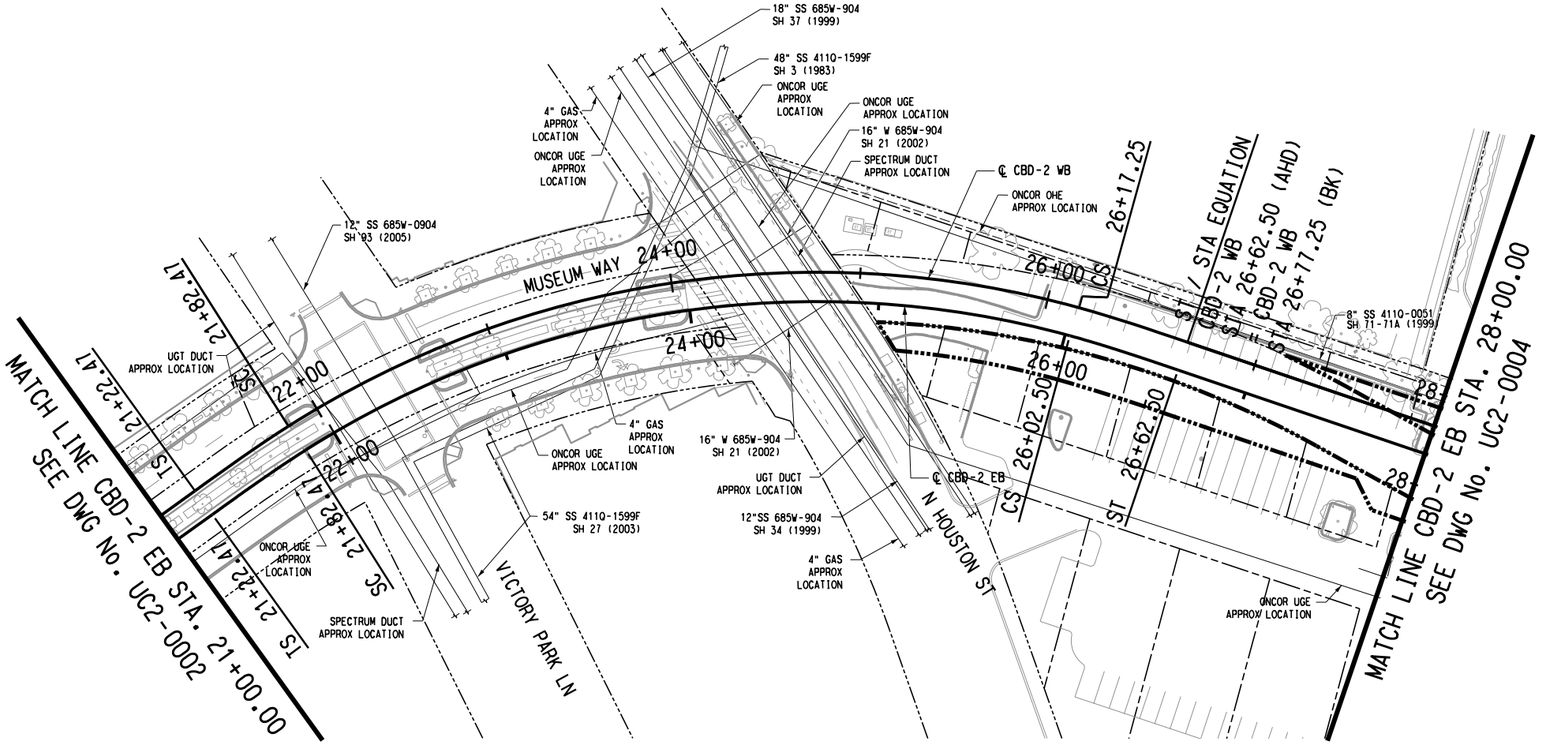
CONTRACT	DWG No.	REV
	UC2-0002	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0002.040

Monday, October 26, 2020 11:40:08 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0002.040

LGUBLO
Default

DWG No. UC2-0003



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 272 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART®

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 21+00.00 TO STA 28+00.00

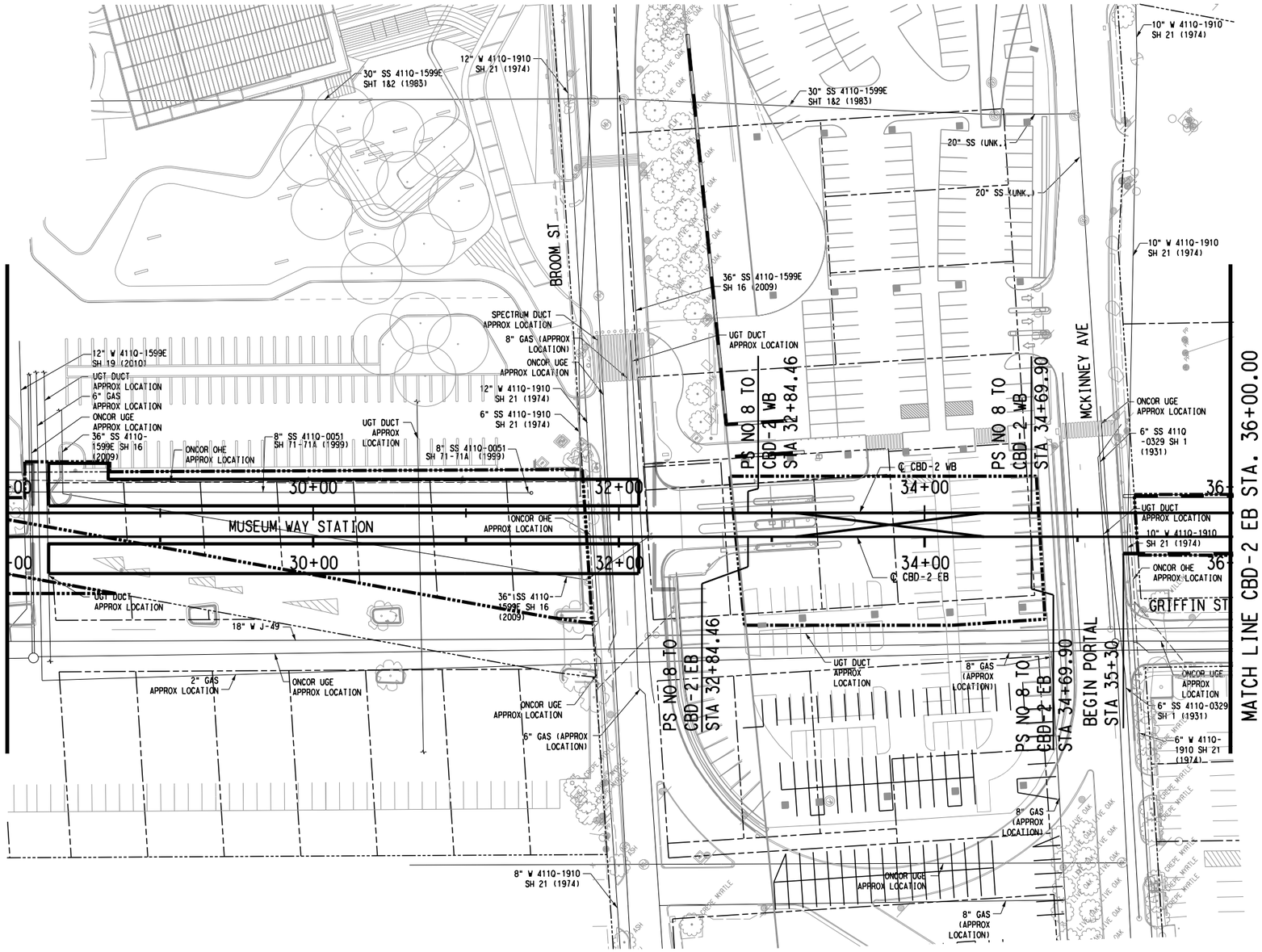
CONTRACT	DWG No.	REV
	UC2-0003	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0003.040

Monday, October 26, 2020 11:40:11 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0003.040

LGUBLO
Default

DWG No. UC2-0004



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 273 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban engineers group

DART PROJECT

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 28+00.00 TO STA 36+00.00

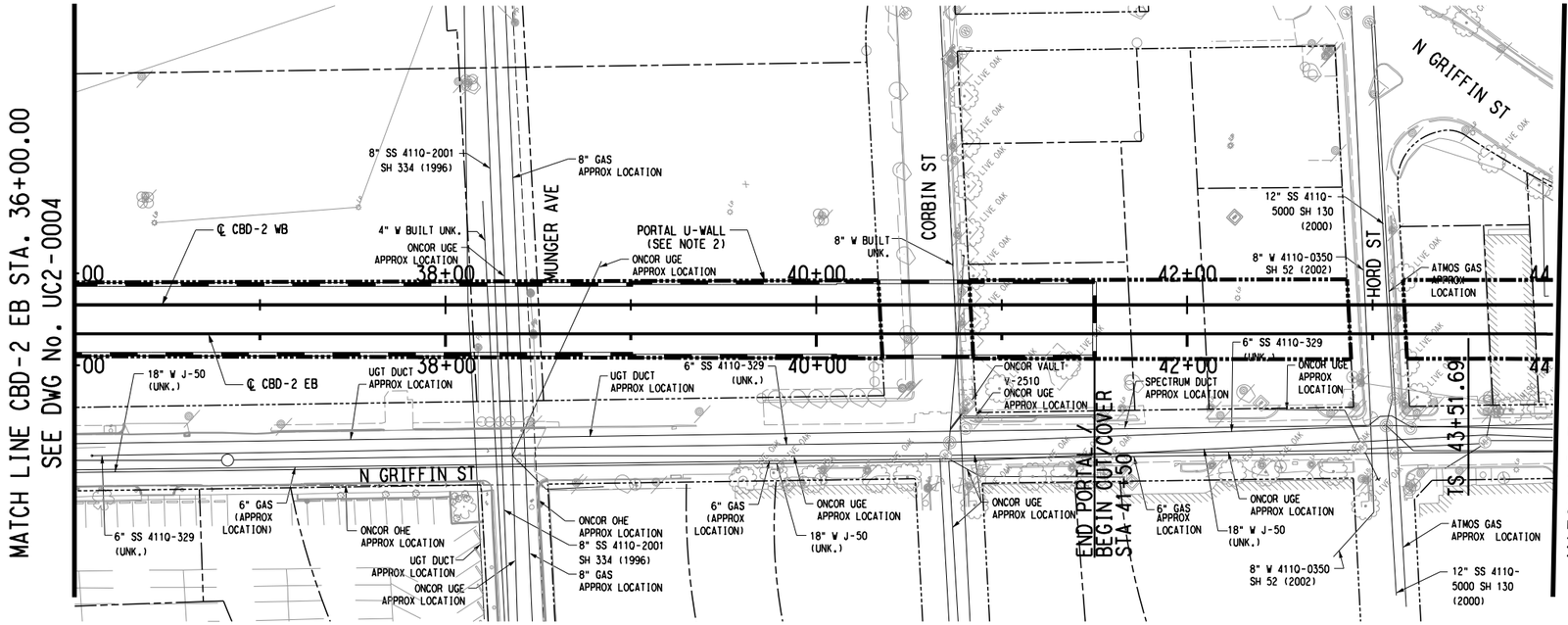
CONTRACT	DWG No.	REV
	UC2-0004	

Monday, October 26, 2020 11:40:14 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0004.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0004.040

DWG No. UC2-0005



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
2. FOR PORTAL U-WALLS, SEE STRUCTURAL SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 274 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	HDR
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 36+00.00 TO STA 44+00.00

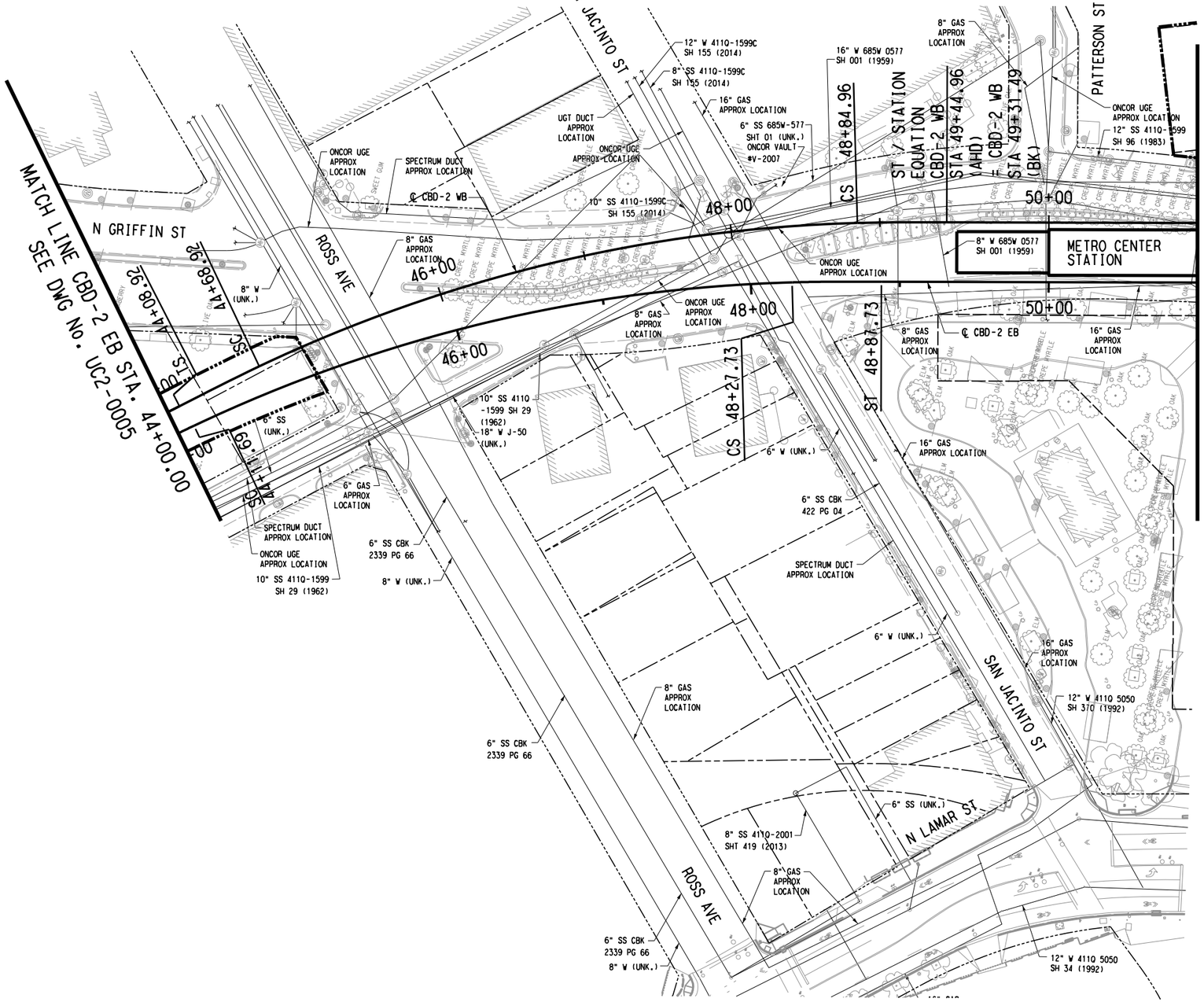
CONTRACT	DWG No.	REV
	UC2-0005	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0005.040

Monday, October 26, 2020 11:40:18 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0005.040

LGUBLO
Default

DWG No. UC2-0006



NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 275 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 44+00.00 TO STA 51+00.00

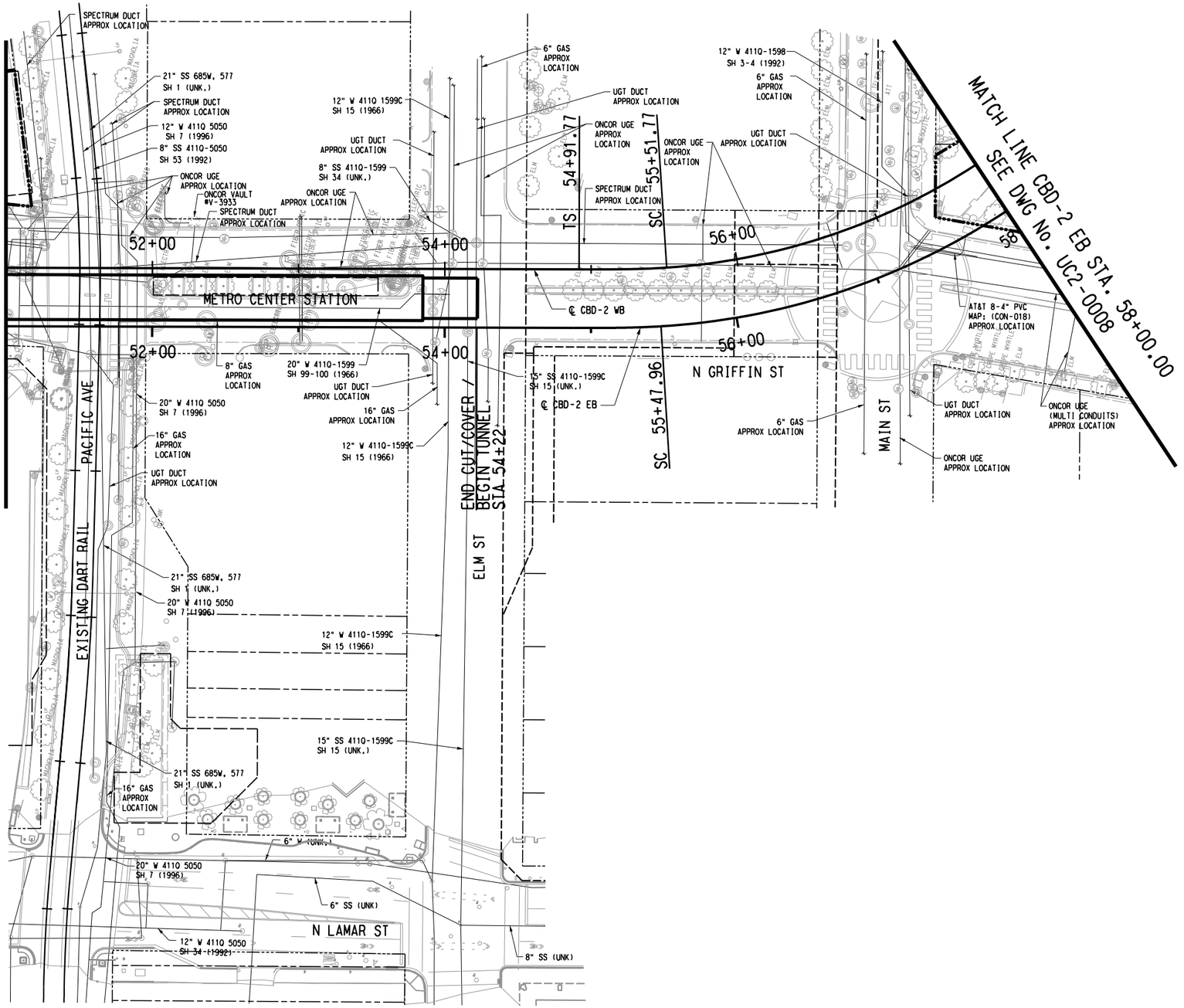
CONTRACT	DWG No.	REV
	UC2-0006	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0006.040

Monday, October 26, 2020 11:40:22 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0006.040

LGUBLO
Default

DWG No. UC2-0007



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 276 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban engineers group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 51+00.00 TO STA 58+00.00

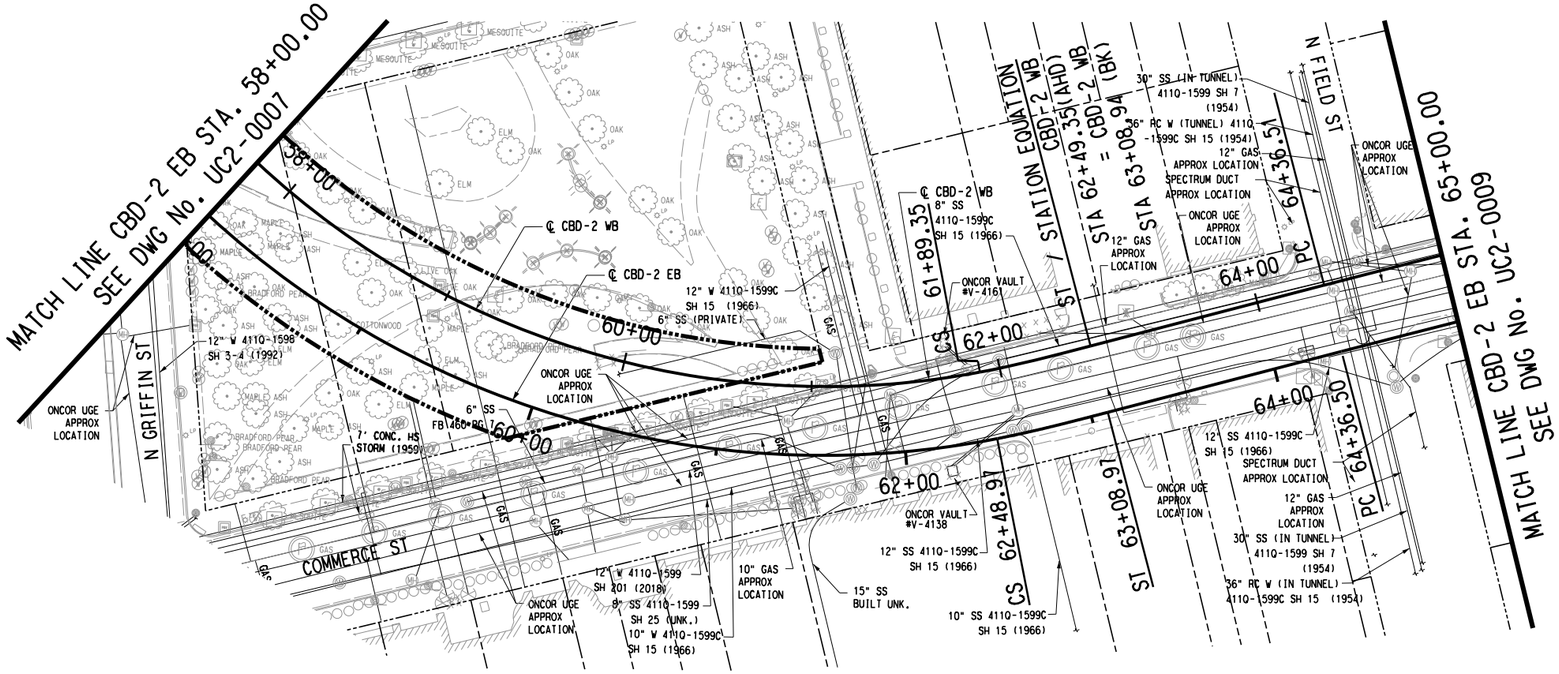
CONTRACT	DWG No.	REV
	UC2-0007	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0007.040

Monday, October 26, 2020 11:40:25 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0007.040

LGUBLO
Default

DWG No. UC2-0008



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 7-FT CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMMERCE STREET.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 277 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 58+00.00 TO STA 65+00.00

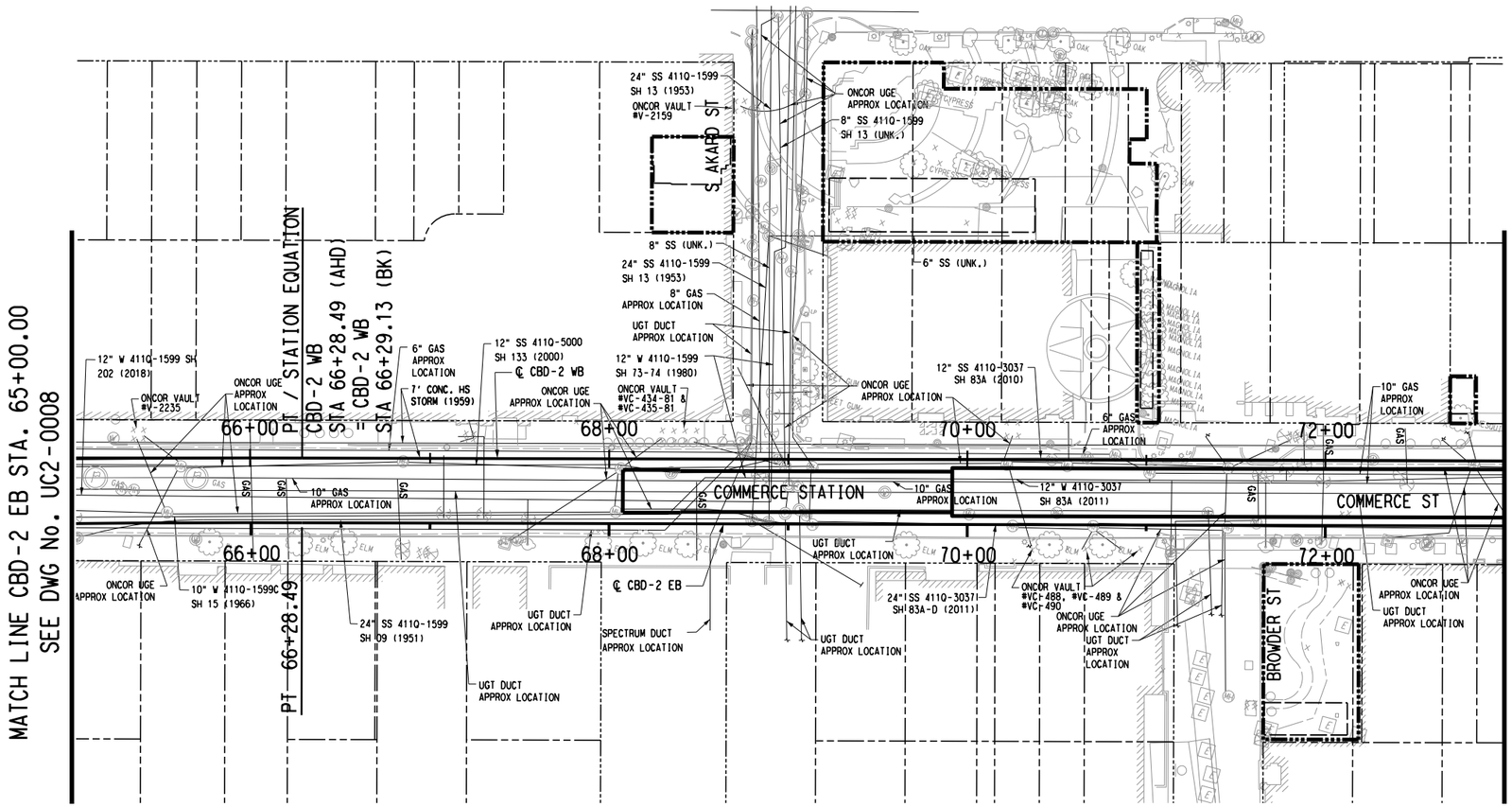
CONTRACT	DWG No.	REV
	UC2-0008	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0008.040

Monday, October 26, 2020 11:40:29 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0008.040

LGUBLO
Default

DWG No. UC2-0009



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 7-FT CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMMERCE STREET.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 278 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 65+00.00 TO STA 73+00.00

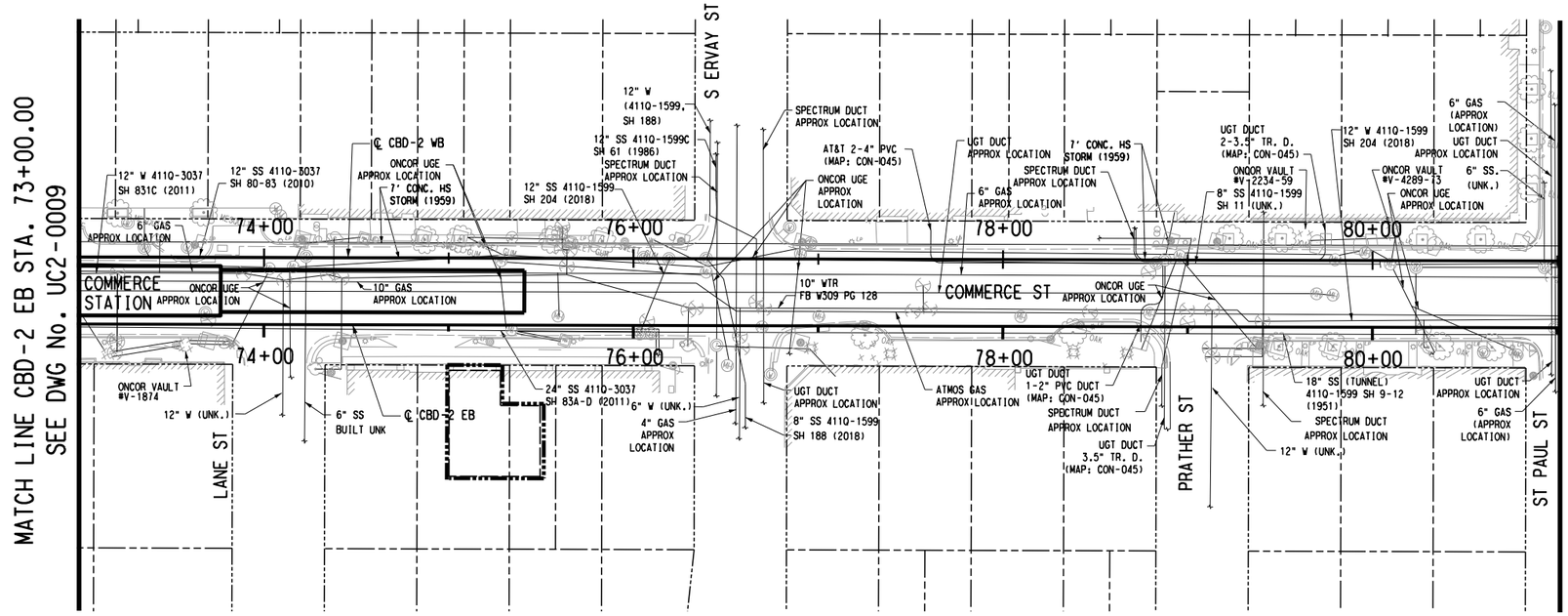
CONTRACT	DWG No.	REV
	UC2-0009	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0009.040

Monday, October 26, 2020 11:40:33 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0009.040

LGUBLO
Default

DWG No. UC2-0010



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 7-FT CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMMERCE STREET.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 279 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84033 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

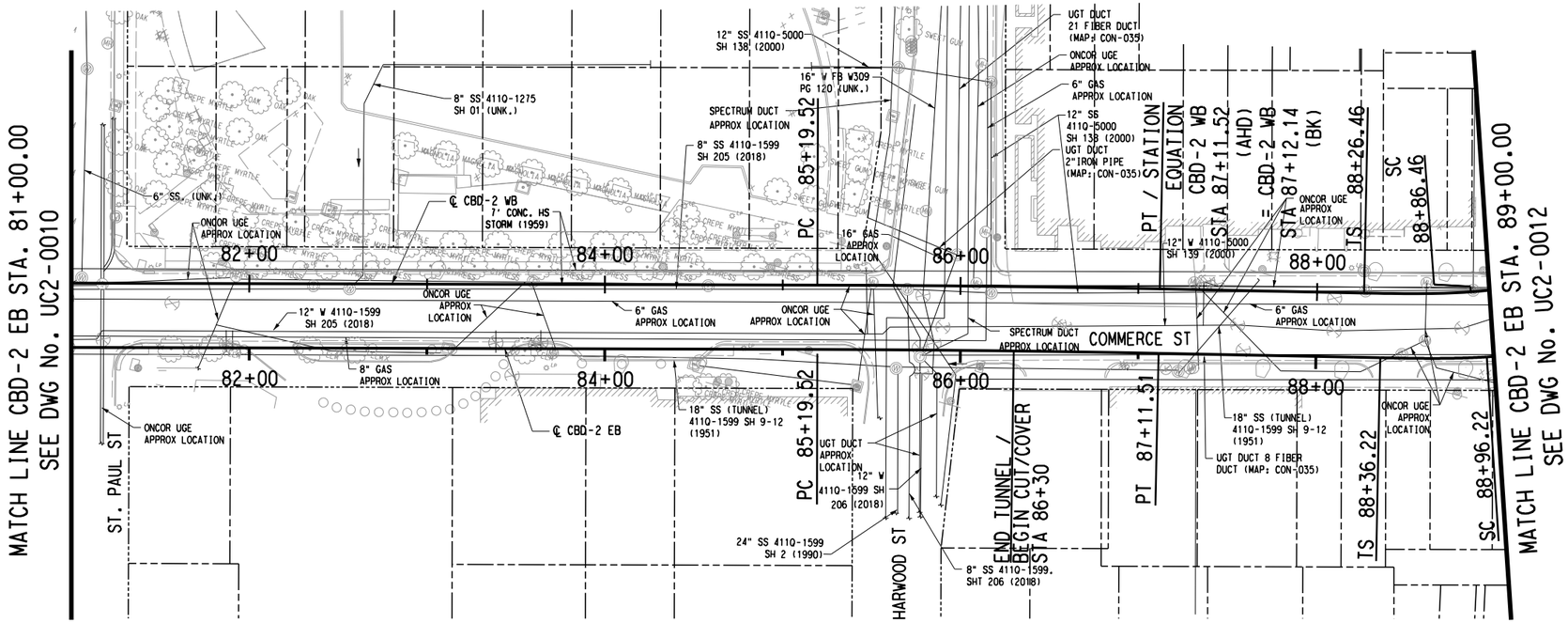
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 73+00.00 TO STA 81+00.00

CONTRACT	DWG No.	REV
	UC2-0010	

Monday, October 26, 2020 11:40:36 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0010.040
LGUBLO
Default

DWG No. UC2-0011



NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 7-FT CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMMERCE STREET.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 280 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 81+00.00 TO STA 89+00.00

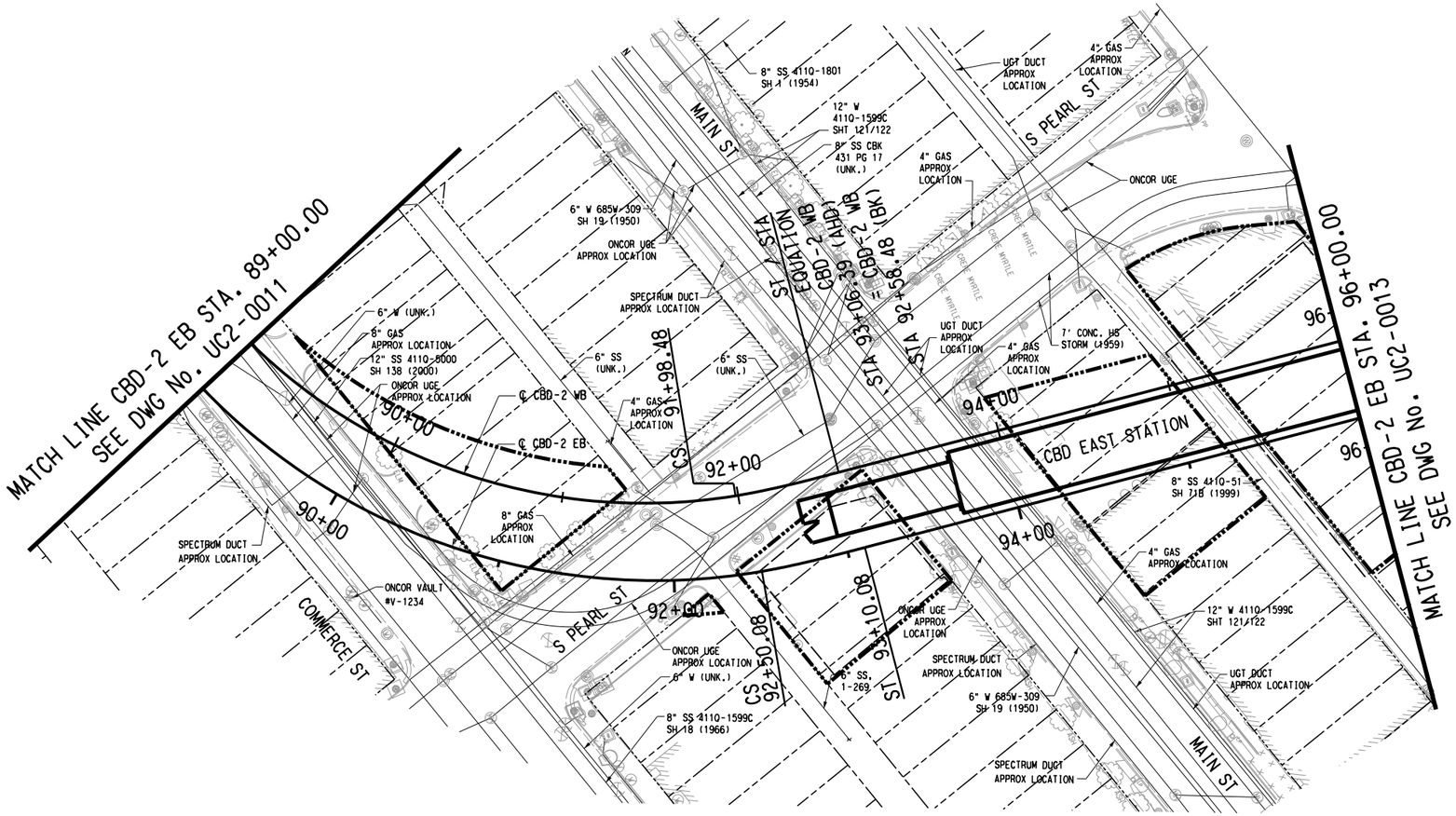
CONTRACT	DWG No.	REV
	UC2-0011	

Monday, October 26, 2020 11:40:39 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0011.040

LGUBLO
Default

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0011.040

DWG No. UC2-0012



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 7-FT CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 281 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

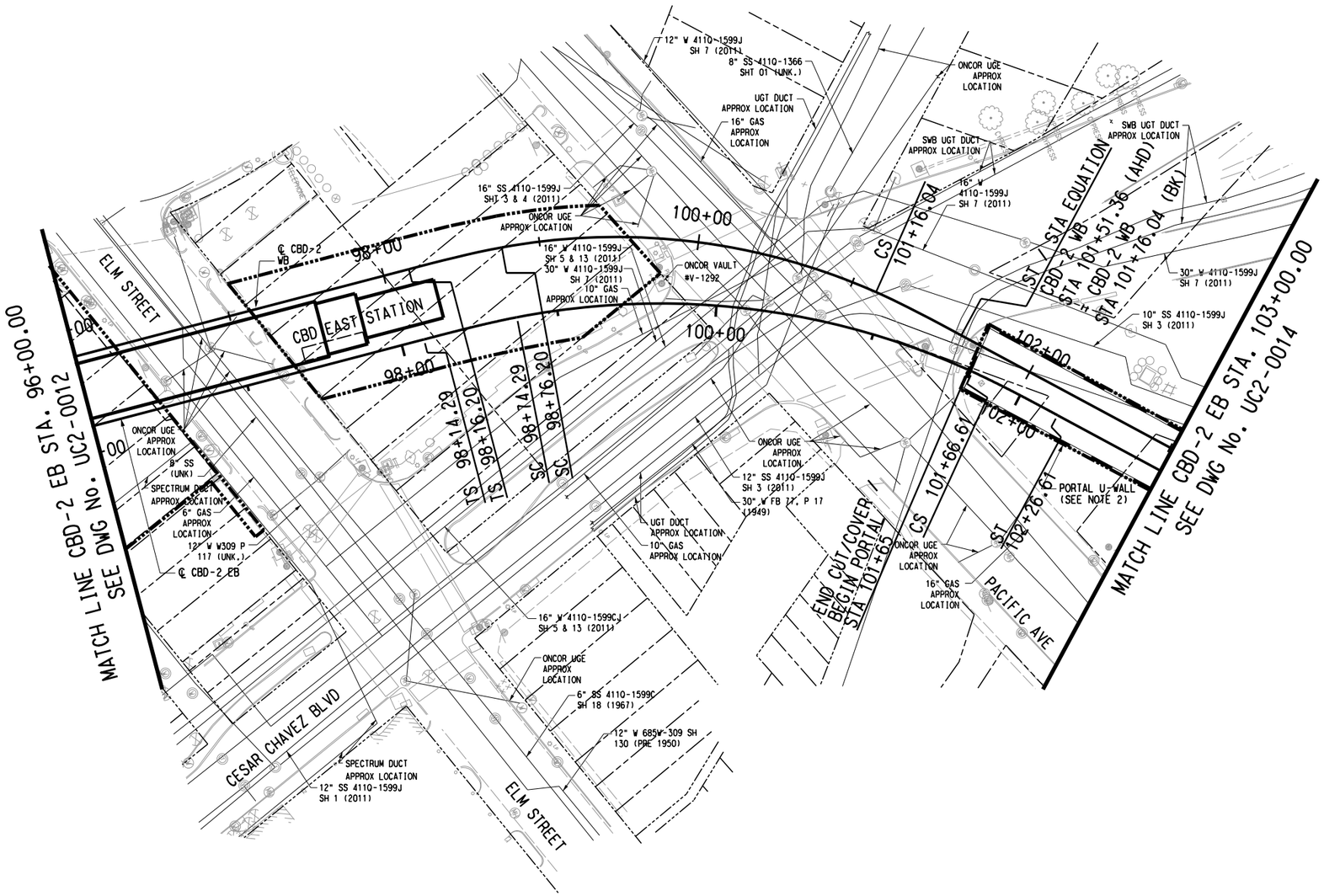
EXISTING UTILITY COMPOSITE
STA 89+00.00 TO STA 96+00.00

CONTRACT	DWG No.	REV
	UC2-0012	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0012.040

Monday, October 26, 2020 11:40:43 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0012.040
LGUBLO
Default

DWG No. UC2-0013



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 282 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban engineers group

DART PROJECT

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 96+00.00 TO STA 103+00.00

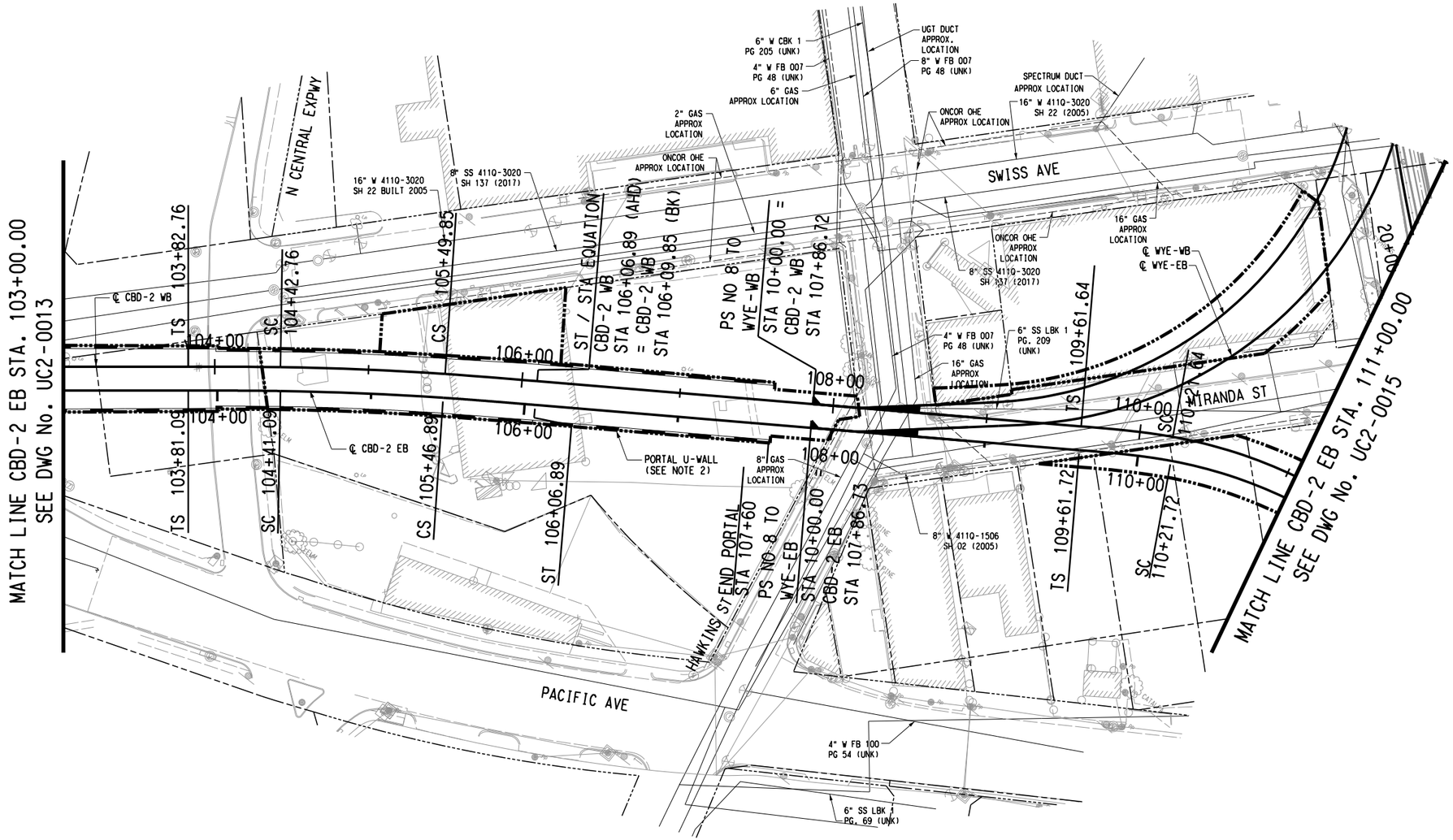
CONTRACT	DWG No.	REV
	UC2-0013	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0013.040

Monday, October 26, 2020 11:40:46 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0013.040

LGUBLO
Default

DWG No. UC2-0014



NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 283 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

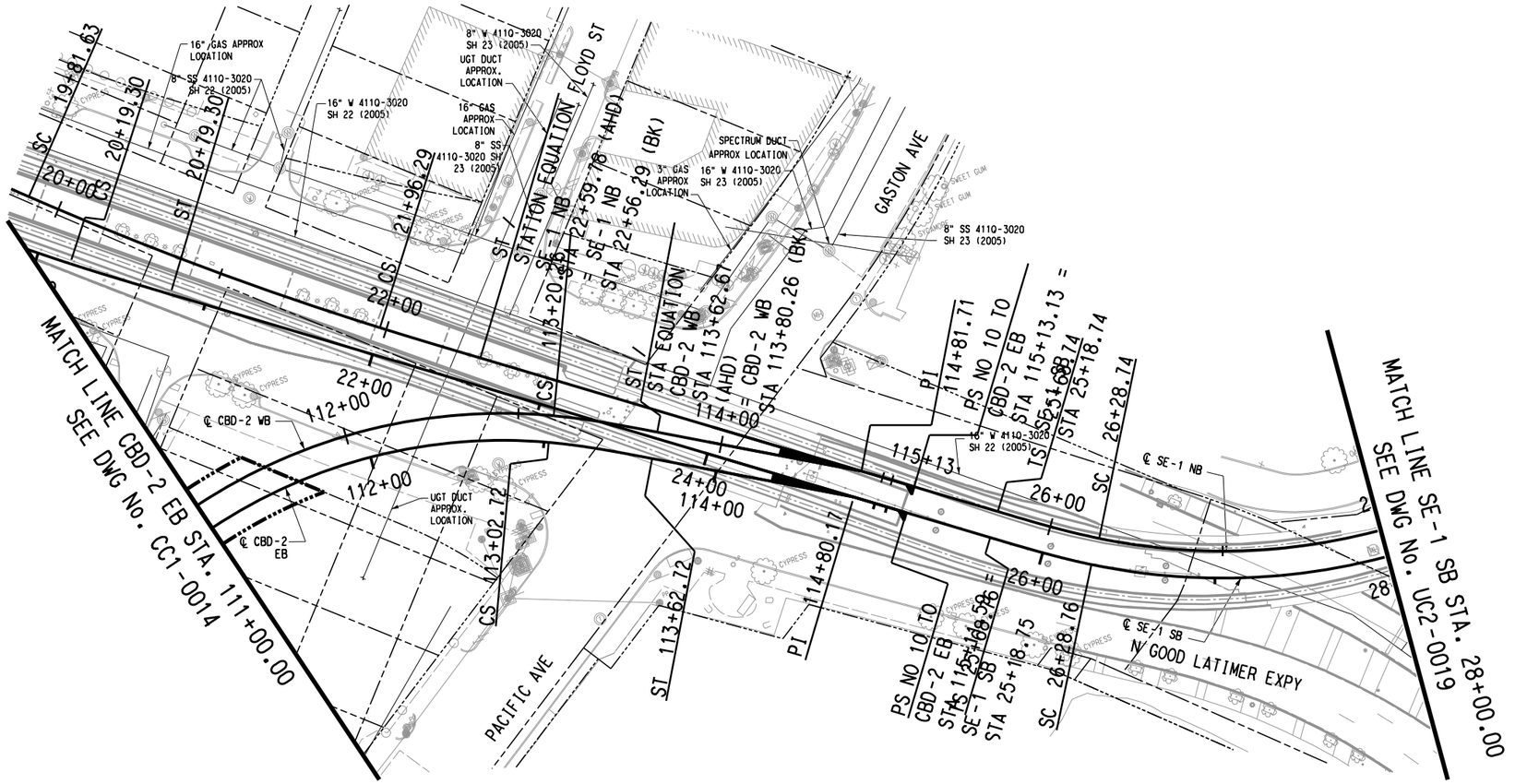
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 103+00.00 TO STA 111+00.00

CONTRACT	DWG No.	REV
	UC2-0014	

Monday, October 26, 2020 11:40:50 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0014.040
LGUBLO
Default

DWG No. UC2-0015



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 284 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban engineers group

DART PROJECT

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 111+00.00 TO SE-1 STA. 28+00.00

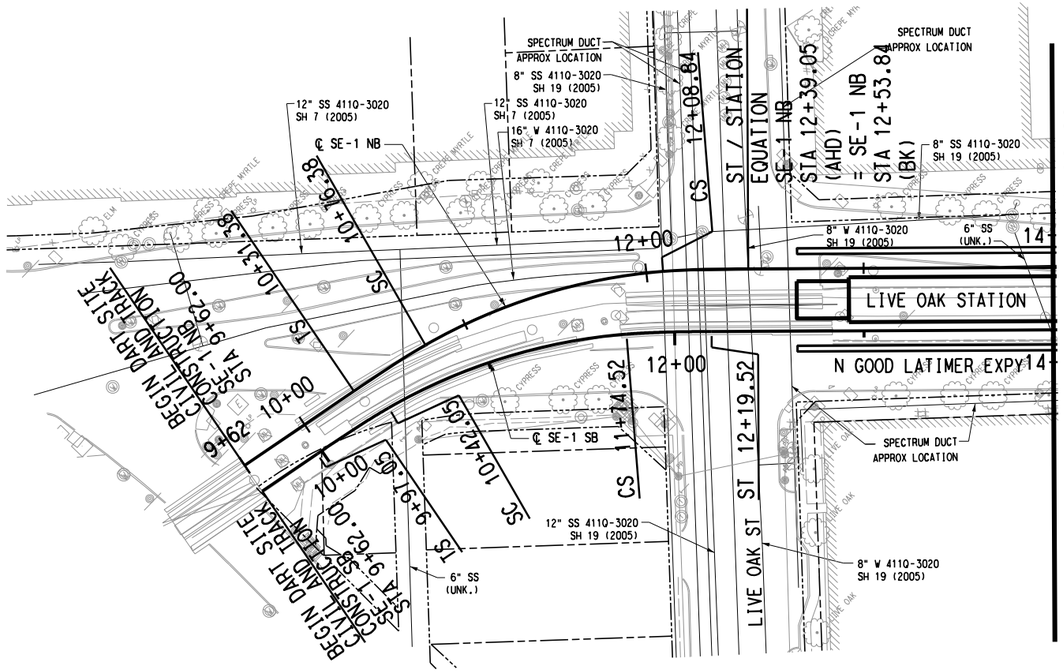
CONTRACT	DWG No.	REV
	UC2-0015	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0015.040

Monday, October 26, 2020 11:40:54 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0015.040

LGUBLO
Default

DWG No. UC2-0016



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 285 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED. P.E. NO. 84033
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
EXISTING UTILITY COMPOSITE
BEGIN PROJECT TO STA 14+00.00

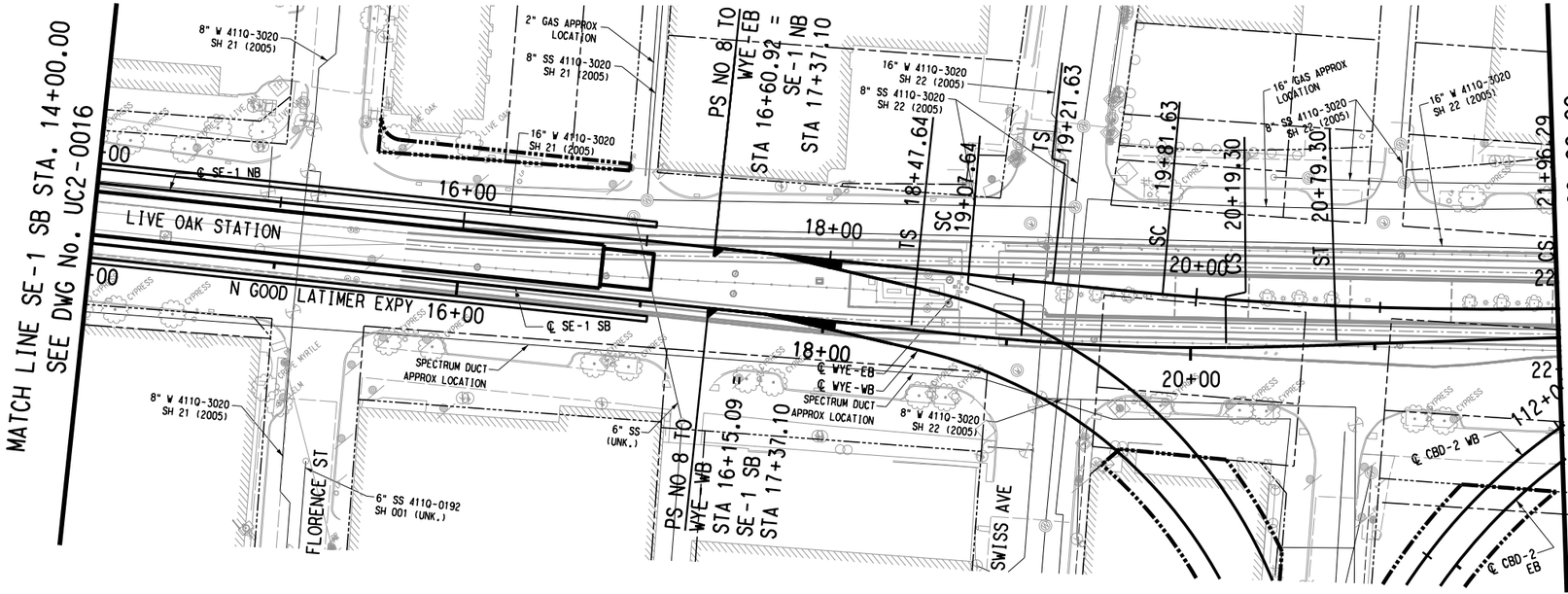
CONTRACT	DWG No.	REV
	UC2-0016	

LGUBLO
Default

Monday, October 26, 2020 11:40:58 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0016.040

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0016.040

DWG No. UC2-0017



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 286 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban engineers group

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

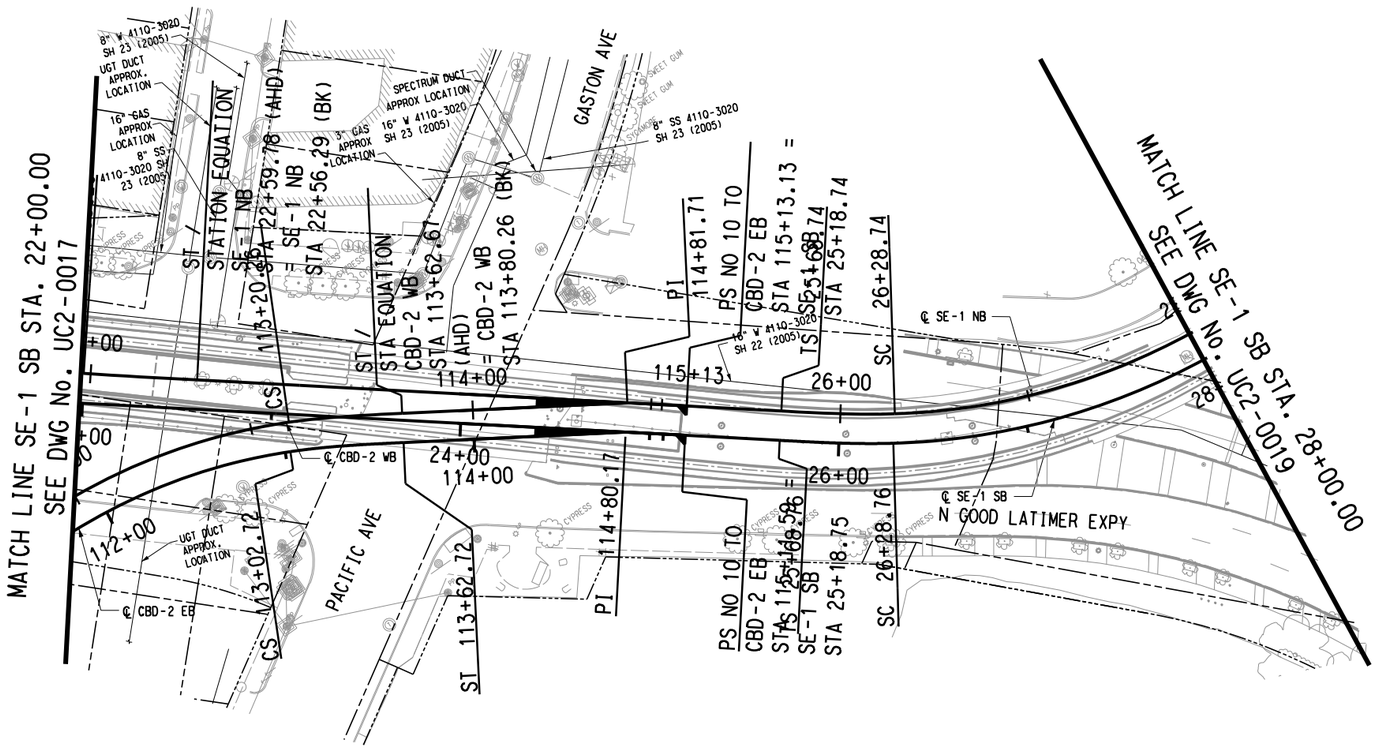
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
EXISTING UTILITY COMPOSITE
STA 14+00.00 TO STA 22+00.00

CONTRACT	DWG No.	REV
	UC2-0017	

Monday, October 26, 2020 11:41:01 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0017.040
LGUBLO
Default

DWG No. UC2-0018



NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

SCALE (IN FEET)
0 20 40 80

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 287 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:
FAISAL S. SYED, P.E. NO. 84833
ON 10/30/2020
URBAN ENGINEERS GROUP, INC.
TBPE FIRM NO. F-5332
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

urban|engineers|group

DART PROJECT

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
EXISTING UTILITY COMPOSITE
STA 22+00.00 TO STA 28+00.00

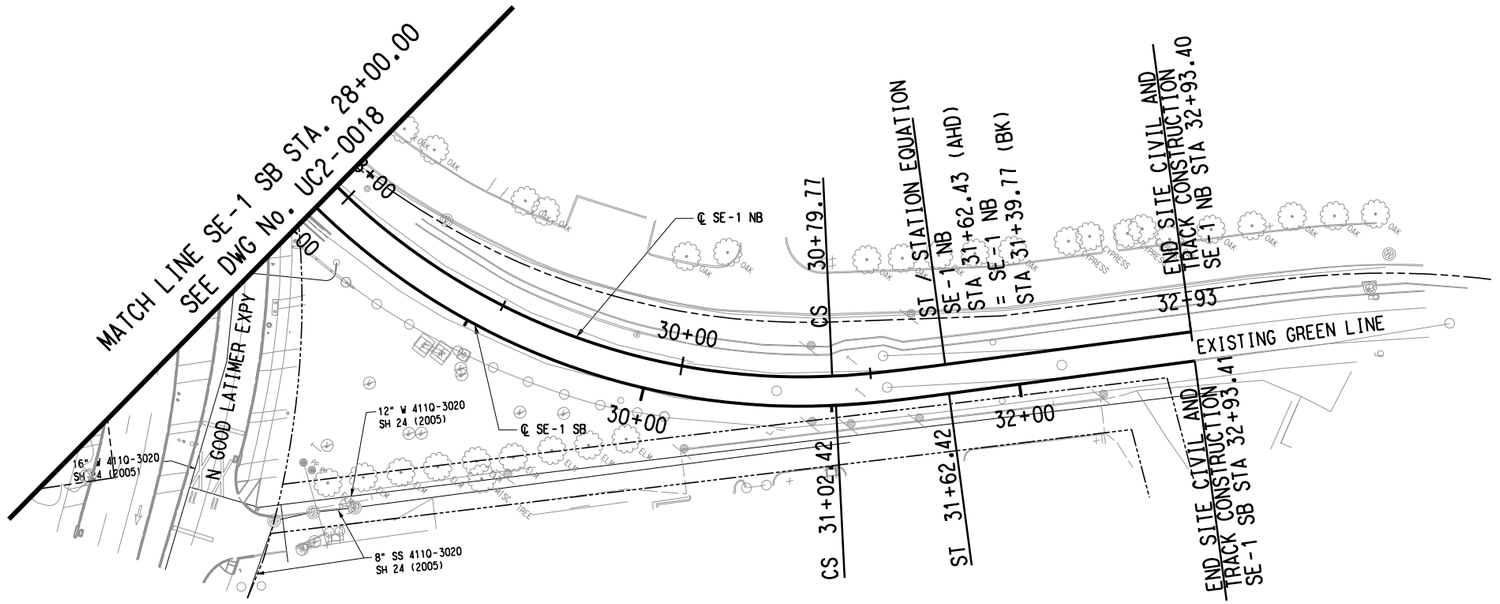
CONTRACT	DWG No.	REV
	UC2-0018	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0018.040

Monday, October 26, 2020 11:41:05 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0018.040

LGUBLO
Default

DWG No. UC2-0019



SCALE (IN FEET)
0 20 40 80

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 288 OF 288

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: FAISAL S. SYED, P.E. NO. 84833 ON 10/30/2020 URBAN ENGINEERS GROUP, INC. TBPE FIRM NO. F-5332 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

UEG urban|engineers|group

DART gpc SIX

DART PROJECT

DART

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	10/30/2020

CAES

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

SE-1 SB
EXISTING UTILITY COMPOSITE
STA 28+00.00 TO END PROJECT

CONTRACT	DWG No.	REV
	UC2-0019	

pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0019.040

Monday, October 26, 2020 11:41:09 AM
pw:\\pwhdruscen01:HDR_US_Central_01\Documents\5050\10024656\6.0_CAD_BIM\6.2_Work_In_Progress\TO_39_D2_Subway_Proj_Dev\6.2.2_Contract_Files\DGN\CVL-UT\CBD2-UC2-0019.040

LGUBLO
Default