



# Appendix A

## 20% Preliminary Engineering Plans and Design Reports



# A-1

## **Volume A, Design Plans (Guideway Plan and Profile, Alignment Data, Right-of-Way, Cross Sections, Street Modifications, Structural, Drainage, Utilities)**

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

MARCH 06, 2020

20% PRELIMINARY ENGINEERING



PRELIMINARY  
FOR INTERIM REVIEW ONLY  
By A. STAHLNECKER P.E.# 124571  
Date 06 MARCH 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:

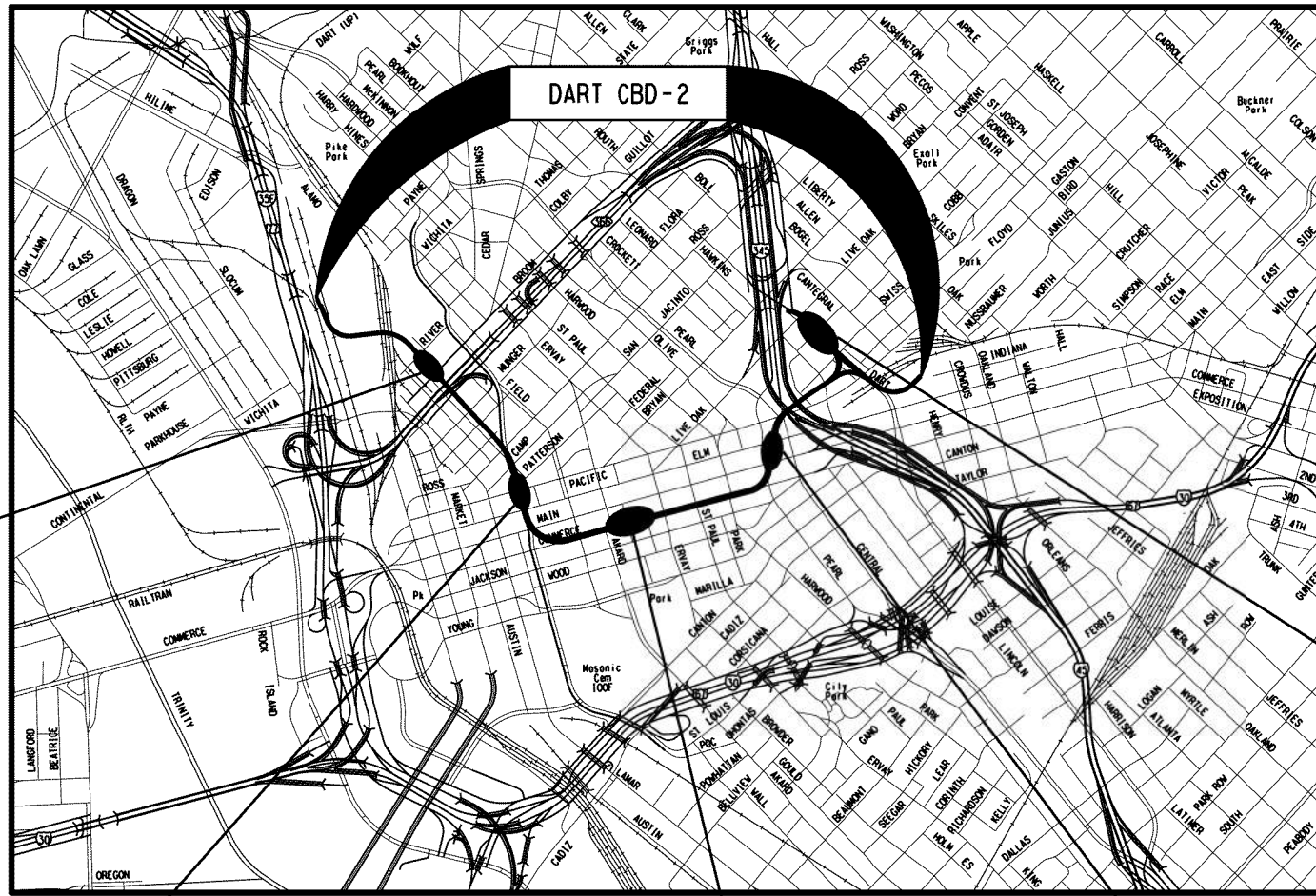
PROGRAM MANAGER \_\_\_\_\_ DATE \_\_\_\_\_

DALLAS AREA RAPID TRANSIT  
RECOMMENDED:

PROJECT MANAGER \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED:

VP RAIL PLANNING \_\_\_\_\_ DATE \_\_\_\_\_



MUSEUM WAY STATION

LIVE OAK STATION

METRO CENTER STATION

COMMERCE STATION

CBD EAST STATION

# VICINITY MAP NO SCALE D2 SUBWAY VICTORY STATION TO DEEP ELLUM

**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
144-165	STREET MODIFICATIONS
166-240	TUNNEL / STRUCTURAL
241-257	DRAINAGE AREA MAPS AND CALCULATIONS
258-276	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
27-92	METRO CENTER STATION
93-158	COMMERCE STATION
159-201	CBD EAST STATION
202-211	LIVE OAK STATION

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 2 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
OVERALL PROJECT TITLE SHEET

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. STAHLMECKER, P.E., NO. 124571  
ON 03/06/2020

HOR ENGINEERING, INC.  
TYPE FIRM NO. F-754

IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLMECKER
DATE	03/06/2020



CONTRACT	DWG No. GC1-0002	REV
----------	------------------	-----

D:\Area\_Reprod\_Trans\it\_DART\_Dellos\_TX\DART\_General\_Planning\_CS\_V1\6.0\_CAD\_B... Tuesday, March 03, 2020 02:45:23 PM

ABBREVIATIONS

GENERAL NOTES:

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
Eo ACTUAL SUPERELEVATION IN INCHES
EBFR EASTBOUND FRONTAGE ROAD
EBML EASTBOUND MAINLANE
EL OR ELEVATION
ELEV. ELEVATION
ENCSMT ENCASMENT
ESMT EASEMENT

Es EXTERNAL DISTANCE OF SPIRAL CURVE
Eu SUPERELEVATION UNBALANCED IN INCHES
EX. OR EXISTING
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
HMHC 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
Ls 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 POLYETHYLENE
PEJ PERFORMED 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
PVMC POINT OF VERTICAL REVERSE CURVATURE
PVT POINT OF VERTICAL TANGENT
O 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
R1 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
T1 TOTAL LENGTH OF TANGENT
T(UG) UNDERGROUND TELEPHONE
TBM TEMPORARY BENCH MARK
TBR TO BE REMOVED
Tc TIME OF CONCENTRATION
TEMP TEMPORARY
TG TELEGRAPH
TGMH TELEGRAPH MANHOLE
TLWY TOLLWAY
TMH TELEPHONE MANHOLE
TO. TURNOUT

- 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 PERMANENT 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 TRC COMMUTER RAIL SHALL MAINTAIN SAFE WORKING DISTANCES FROM ACTIVE TRC COMMUTER RAIL TRACK. IF SAFE DISTANCES ARE NOT POSSIBLE, WORK SHALL BE PERFORMED WITH THE FULL KNOWLEDGE AND APPROVAL OF TRC AND UTILIZE TRC 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
UG UNDERGROUND
UGT UNDERGROUND TELEPHONE
UP UNION PACIFIC RAILROAD
US&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 20% DESIGN

CONTRACT SHEET No. 3 OF 276

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GENERAL NOTES
AND ABBREVIATIONS

CONTRACT DWG No. GC1-0003 REV

Friday, February 28, 2020 01:06:03 PM

DANGLE

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020 HDR ENGINEERING, INC. TYPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



Table with columns: SCALE, NO SCALE, DRAWN, L. GUBLIO, DESIGNER, L. GUBLIO, CHECKED, D. BROWN, IN CHARGE, A. STAHLNECKER, DATE, 03/06/2020

Table with columns: REV, AMEND, CR, DATE, DESCRIPTION, BY, ENG, CHK, APP

### SYMBOLS

- PROFILE GRADE LINE / ELEVATION CONTROL POINT
- DIRECTION OF FLOW
- C OR B CENTERLINE OR BASELINE
- FUTURE OR NOT IN CONTRACT
- CENTERLINE
- BASELINE
- PROPERTY LINE
- DIMENSION LINE CONTINUES
- MATCH LINE
- 510 CONTOUR LINE
- TRACK (TRANSIT) CENTERLINE
- EXISTING FENCE LINE
- PROPOSED FENCE LINE
- STRUCTURE OUTLINE
- RAILROAD TRACKS
- CLEANOUT
- 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
- TREE
- 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
- S CENTRAL ANGLE OF SPIRAL OR SPIRAL ANGLE
- oAC CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND ANGLE (CS1 TO CS2)
- oSAT 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
- SWITCH NUMBERING "F" INDICATES FUTURE
- 13-A CURVE NUMBER
- BLUE FLAG
- BUMPING POST
- EQUILATERAL TURNOUT
- GABION BLANKET

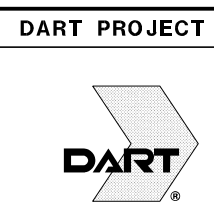
Friday, February 28, 2020 01:06:12 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE

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. 124511  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN**

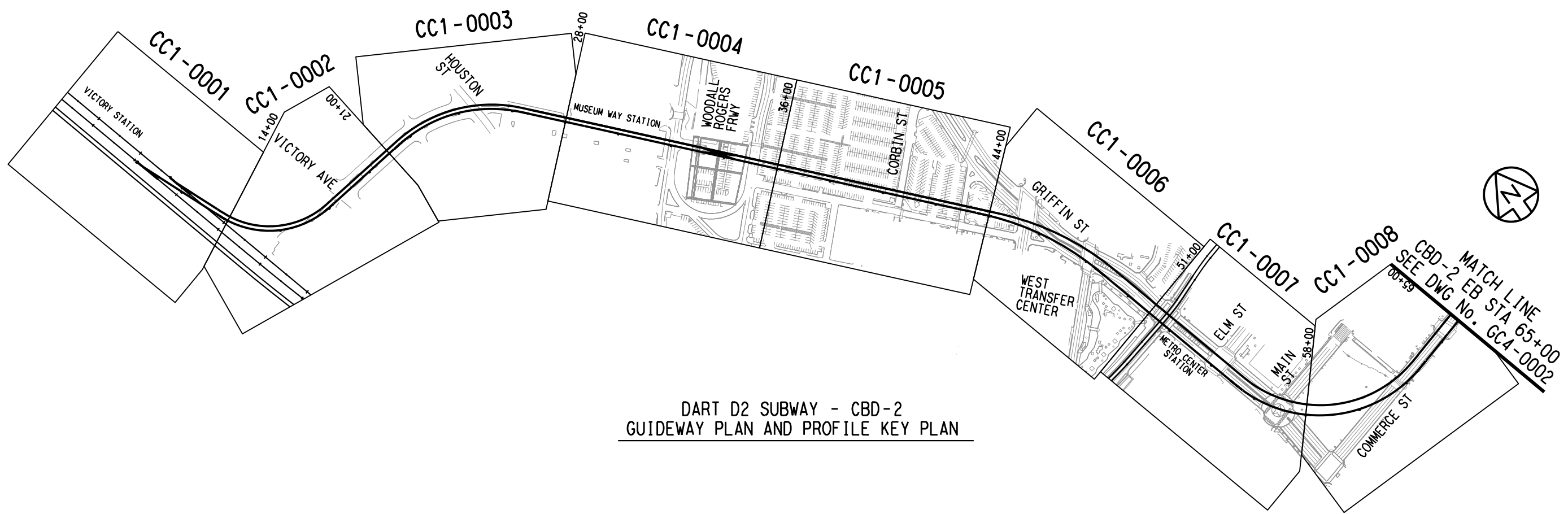
CONTRACT SHEET No. 4 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

**SYMBOLS**

CONTRACT	DWG No. GC1-0004	REV
----------	------------------	-----

Friday, February 28, 2020 01:06:18 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$



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



NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 5 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

PROJECT KEY PLAN  
 SHEET 1 OF 3

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

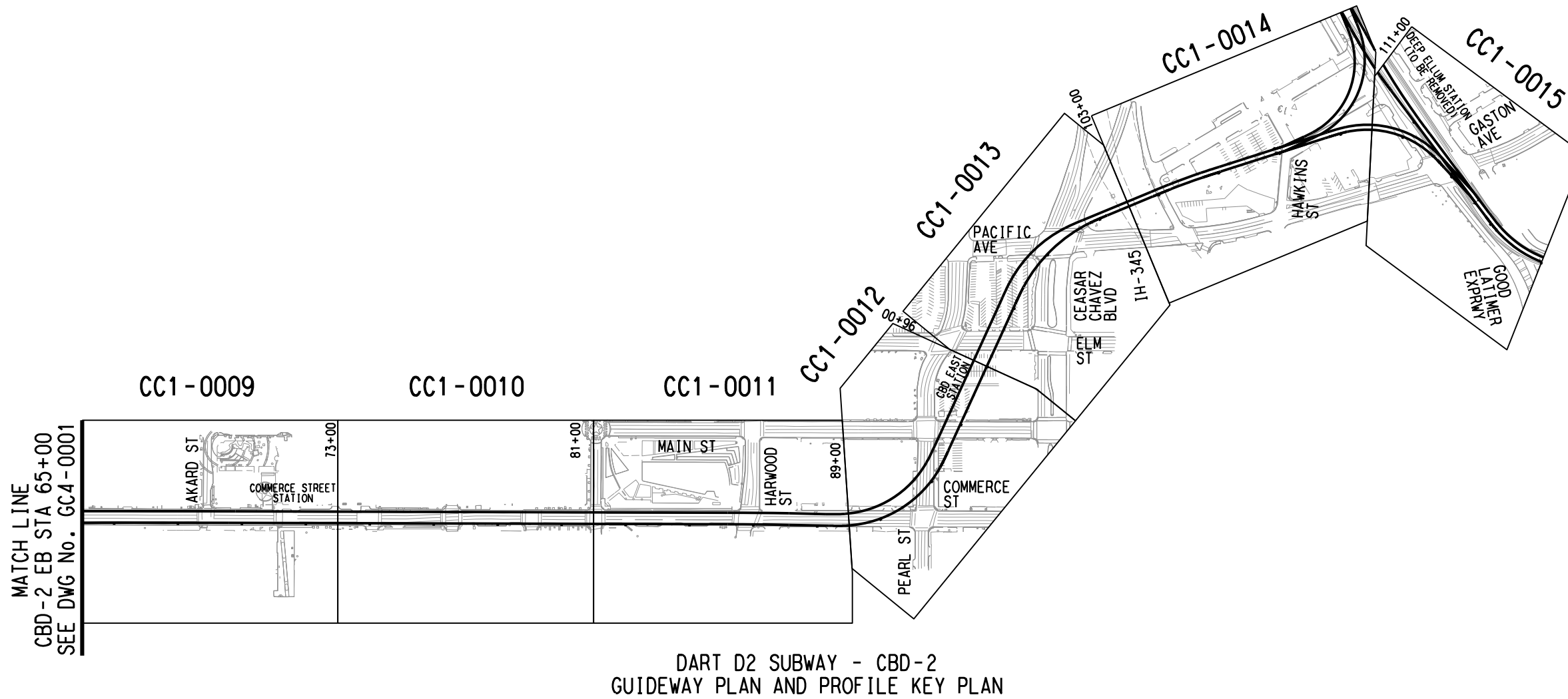


SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. GC4-0001	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 6 OF 276


LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

PROJECT KEY PLAN  
SHEET 2 OF 3

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 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.





DART PROJECT



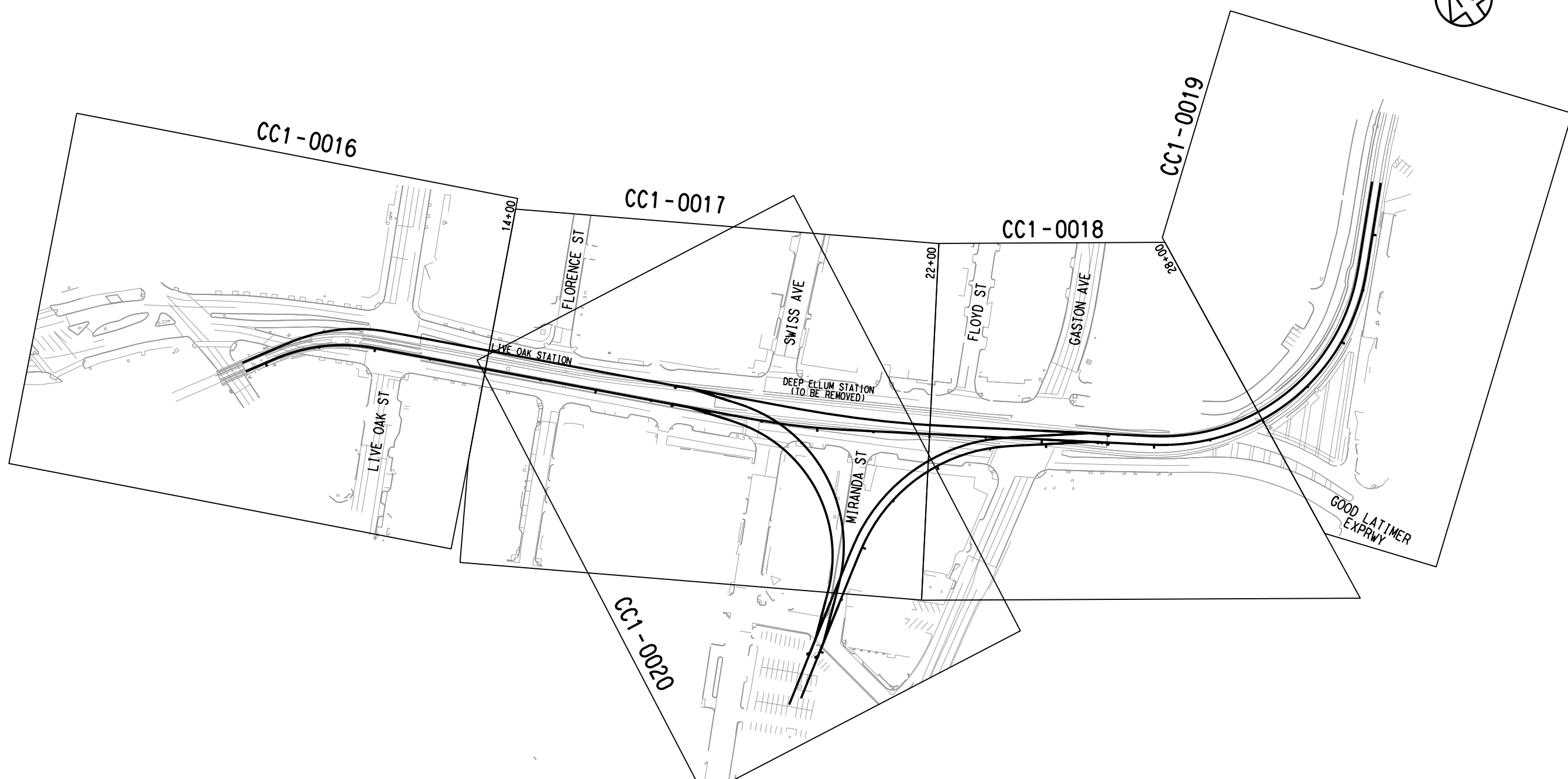
SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020
	

CONTRACT	DWG No. GC4-0002	REV
----------	------------------	-----

Friday, February 28, 2020 01:06:31 PM

DANGLE





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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 7 OF 276

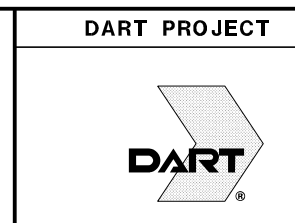
**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

PROJECT KEY PLAN  
SHEET 3 OF 3

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TBP# FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. GC4-0003	REV
----------	------------------	-----

Friday, February 28, 2020 01:06:35 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

PERMANENT ALIGNMENT CONTROL MONUMENTS

Table with columns: POINT, NORTHING, EASTING, ELEVATION, REMARKS. Rows 1-240 containing monument data.

Table with columns: POINT, NORTHING, EASTING, ELEVATION, REMARKS. Rows 241-400 containing monument data.

Table with columns: POINT, NORTHING, EASTING, ELEVATION, REMARKS. Rows 401-600 containing monument data.

- 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 HEREON PROVIDED BY LTRA IN MAY 2018 WITH UPDATES FROM NDM IN SUMMER/FALL 2018 - NEW TRAVERSE POINTS SET BY NDM IN 2019

Friday, February 28, 2020 01:06:39 PM

DANGLE

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E. NO. 124511 ON 03/06/2020 HDR ENGINEERING, INC. TYPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



Table with columns: SCALE, NO SCALE, DRAWN, L. GURLO, DESTIGNED, L. GURLO, CHECKED, D. BROWN, IN CHARGE, A. STAHLNECKER, DATE, 03/06/2020

NOT FOR CONSTRUCTION NOT AN APPROVED DRAWING PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 8 OF 276

LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2

PERMANENT ALIGNMENT CONTROL MONUMENT DATA

Table with columns: REV, AMEND, CR, DATE, DESCRIPTION

Table with columns: BY, ENG, CHK, APP

Table with columns: CONTRACT, DWG No. CC4-0001, REV



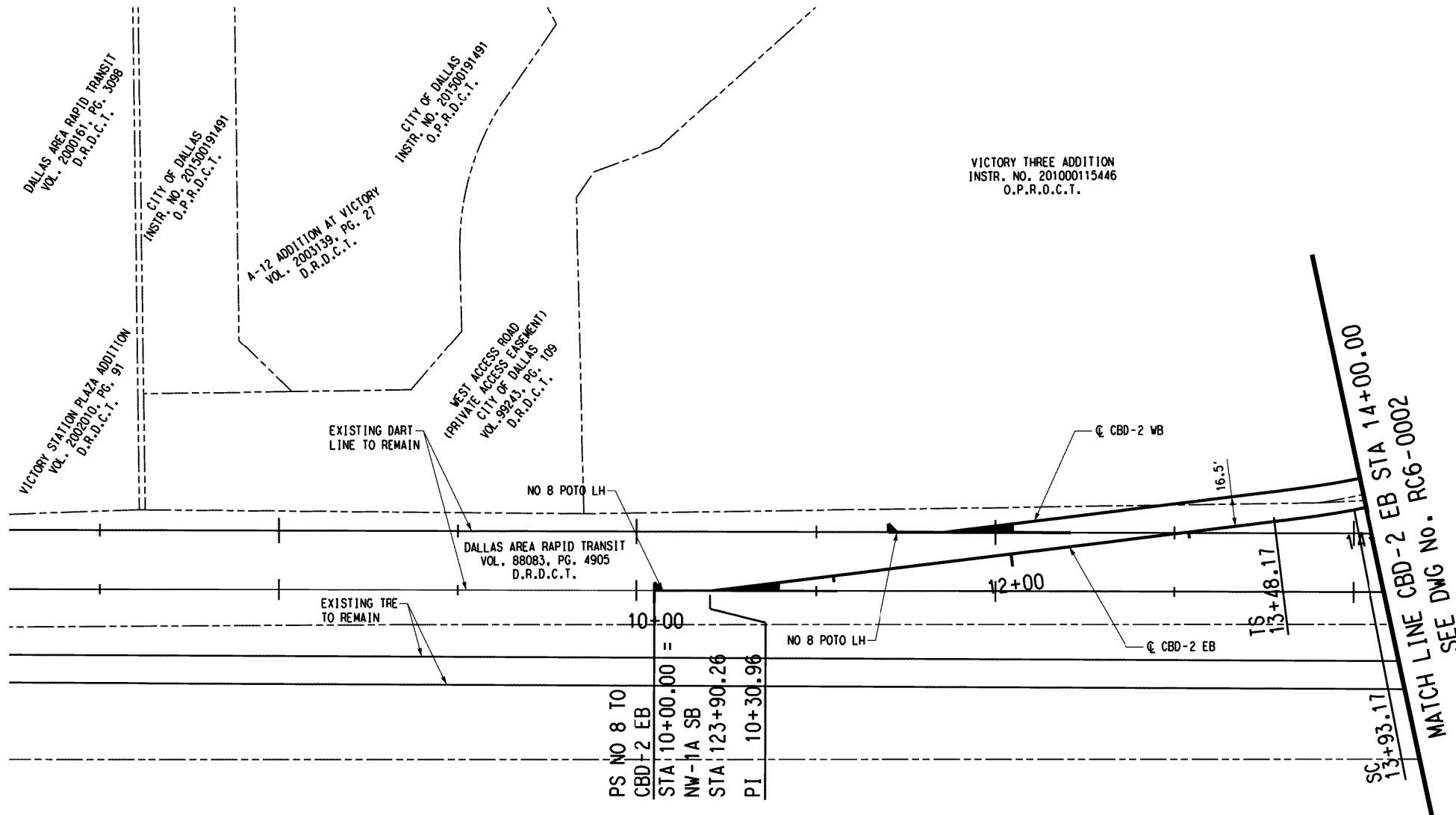
SCALE (IN FEET)  
0 20 40 80

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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
3. 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.
4. BASIS OF BEARING - 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.



I.H. 35  
STEMMONS FREEWAY

\$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$\$REV\$\$\$\$\$\$  
 \$\$\$\$\$\$MODEL\$\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 9 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

RIGHT-OF-WAY PLAN  
BEGIN OF PROJECT TO STA 14+00.00

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
**C. MICHAEL DANIEL, RPLS**  
ON 03/06/2020  
NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
NATHAN D. MATER  
CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356  
TBPLS FIRM REG. NO. 100189-00  
Lubbock Square / 12317 West Drive / Suite 300  
Dallas, Texas 75241 / (972) 738-4141

**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

CONTRACT	DWG No. RC6-0001	REV
<b>CAES</b>		

BLOCK D AT VICTORY  
 INSTR. NO. 20070058264  
 O.P.R.D.C.T.



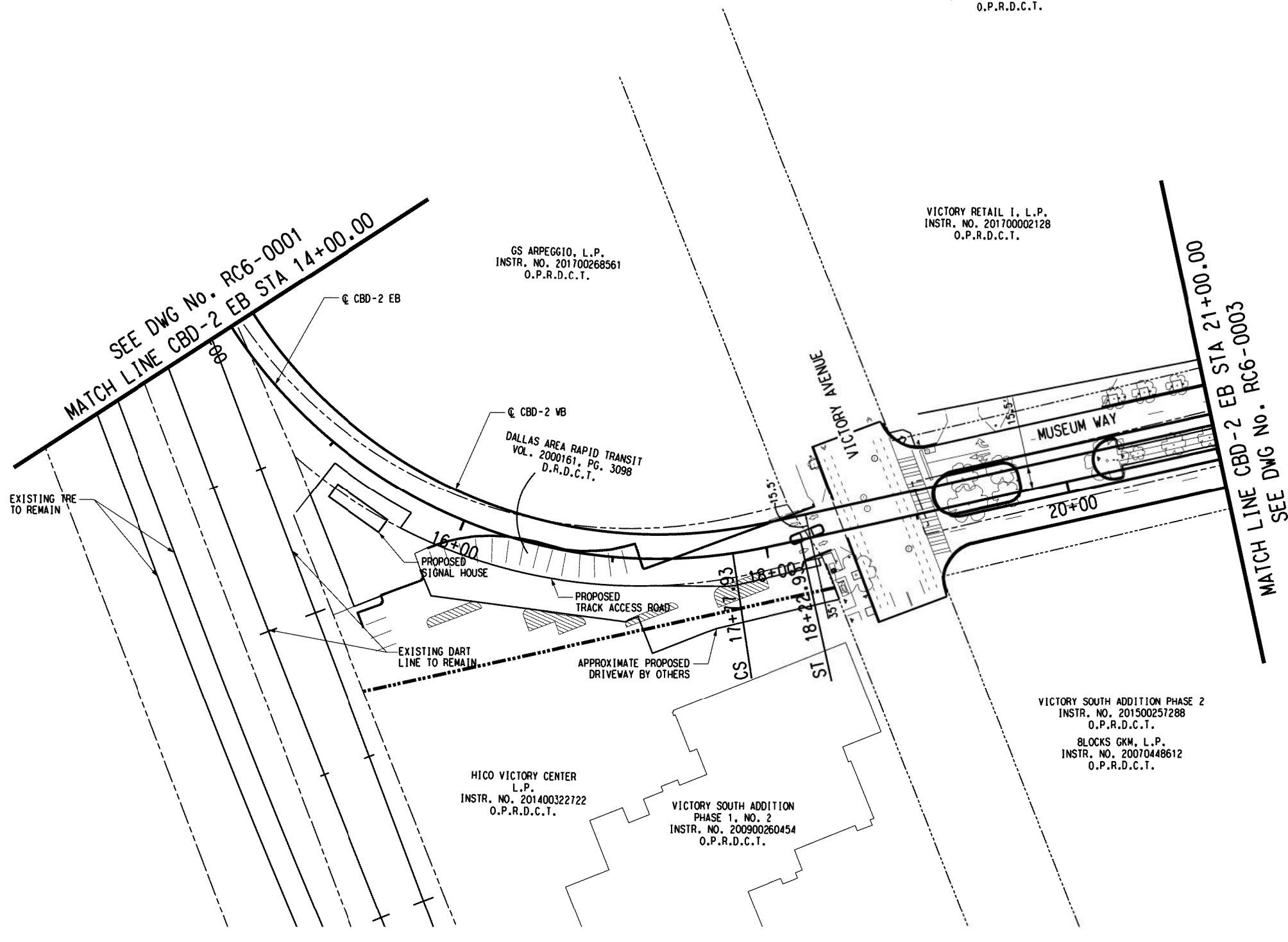
SCALE (IN FEET)  
 0 20 40 80

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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
3. 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.
4. BASIS OF BEARING - 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.



#####  
 SPECIFICATIONS  
 #####

#####  
 MODEL  
 #####

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 10 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

CONTRACT DWG No. RC6-0002 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 C. MICHAEL DANIEL, RPLS  
 ON 03/06/2020

NATHAN D. WATER CONSULTING ENGINEERS, INC.  
 TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

NDM  
 NATHAN D. MAHER  
 CONSULTING ENGINEER, INC.  
 12347 West Drive / Suite 300  
 Dallas, Texas 75251 / (972) 736-4341



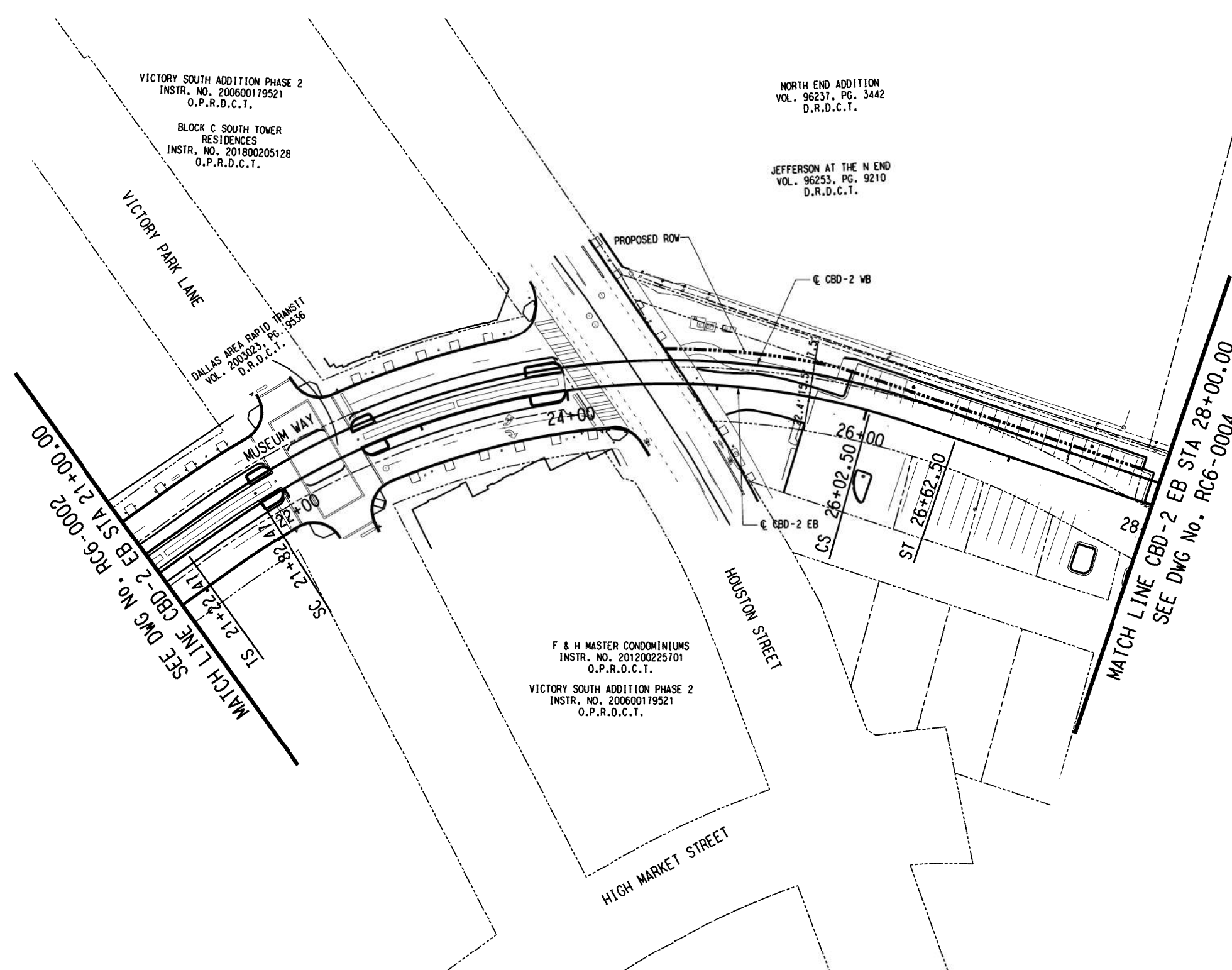
DART PROJECT

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

#####  
 SPECIFICATIONS  
 #####



SCALE (IN FEET)  
0 20 40 80



LEGEND

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

- NOTES:
- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  - PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  - 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.
  - BASIS OF BEARING - 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.

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

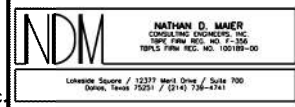
CONTRACT SHEET No. 11 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020  
NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



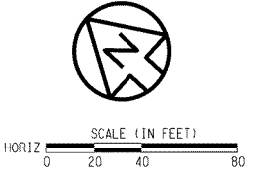
SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

CONTRACT	DWG No. RC6-0003	REV
----------	------------------	-----

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

MUSEUM OF NATURE AND SCIENCE ADDITION  
INSTR. NO. 201100289106  
O.P.R.D.C.T.

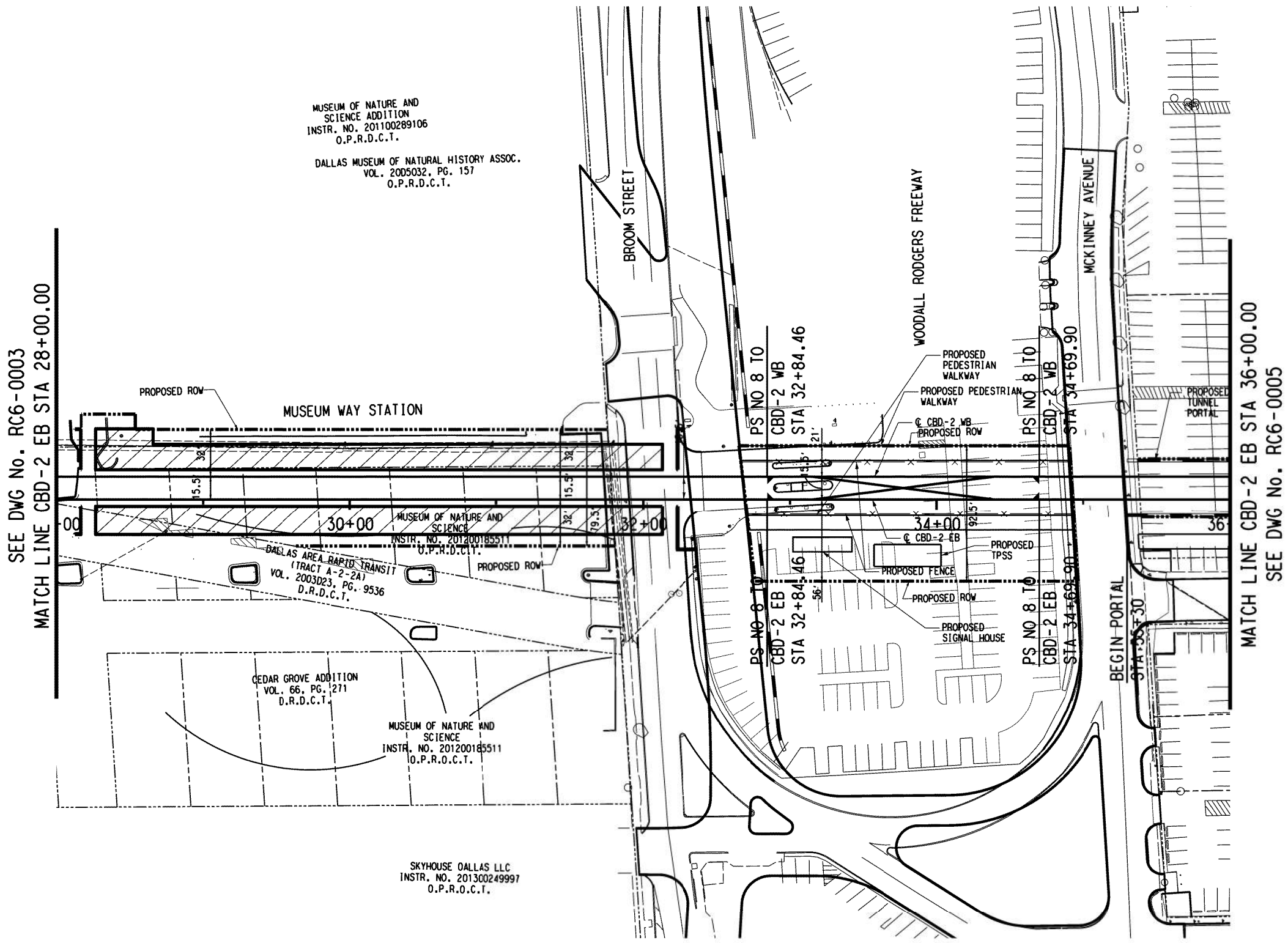
DALLAS MUSEUM OF NATURAL HISTORY ASSOC.  
VOL. 2005032, PG. 157  
O.P.R.D.C.T.



LEGEND

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

- NOTES:
- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  - PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  - 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.
  - BASIS OF BEARING - 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.



SEE DWG No. RC6-0003  
MATCH LINE CBD-2 EB STA 28+00.00

MATCH LINE CBD-2 EB STA 36+00.00  
SEE DWG No. RC6-0005

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 12 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

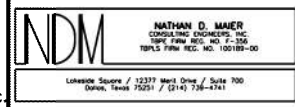
RIGHT-OF-WAY PLAN  
STA 28+00.00 TO STA 36+00.00

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TBEF FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



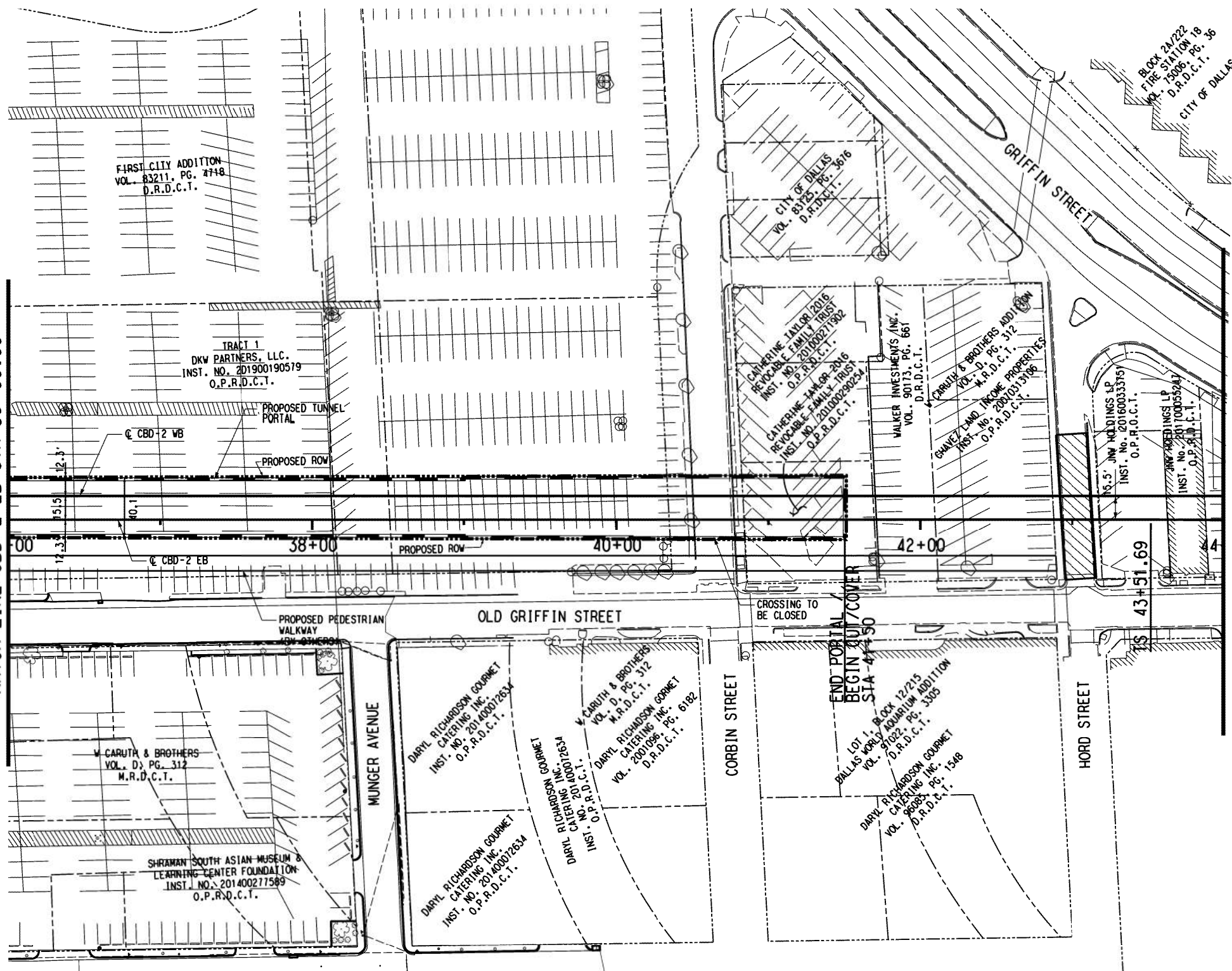
DART PROJECT



SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

CONTRACT	DWG No.	RC6-0004	REV
----------	---------	----------	-----

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



SEE DWG No. RC6-0004  
MATCH LINE CBD-2 EB STA 36+00.00

MATCH LINE CBD-2 EB STA 44+00.00  
SEE DWG No. RC6-0006



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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 13 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MAIER CONSULTING ENGINEERS, INC.  
TYPE 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.  
1237 West Olive / Suite 300  
Dallas, Texas 75201 / (214) 736-1161



**DART PROJECT**

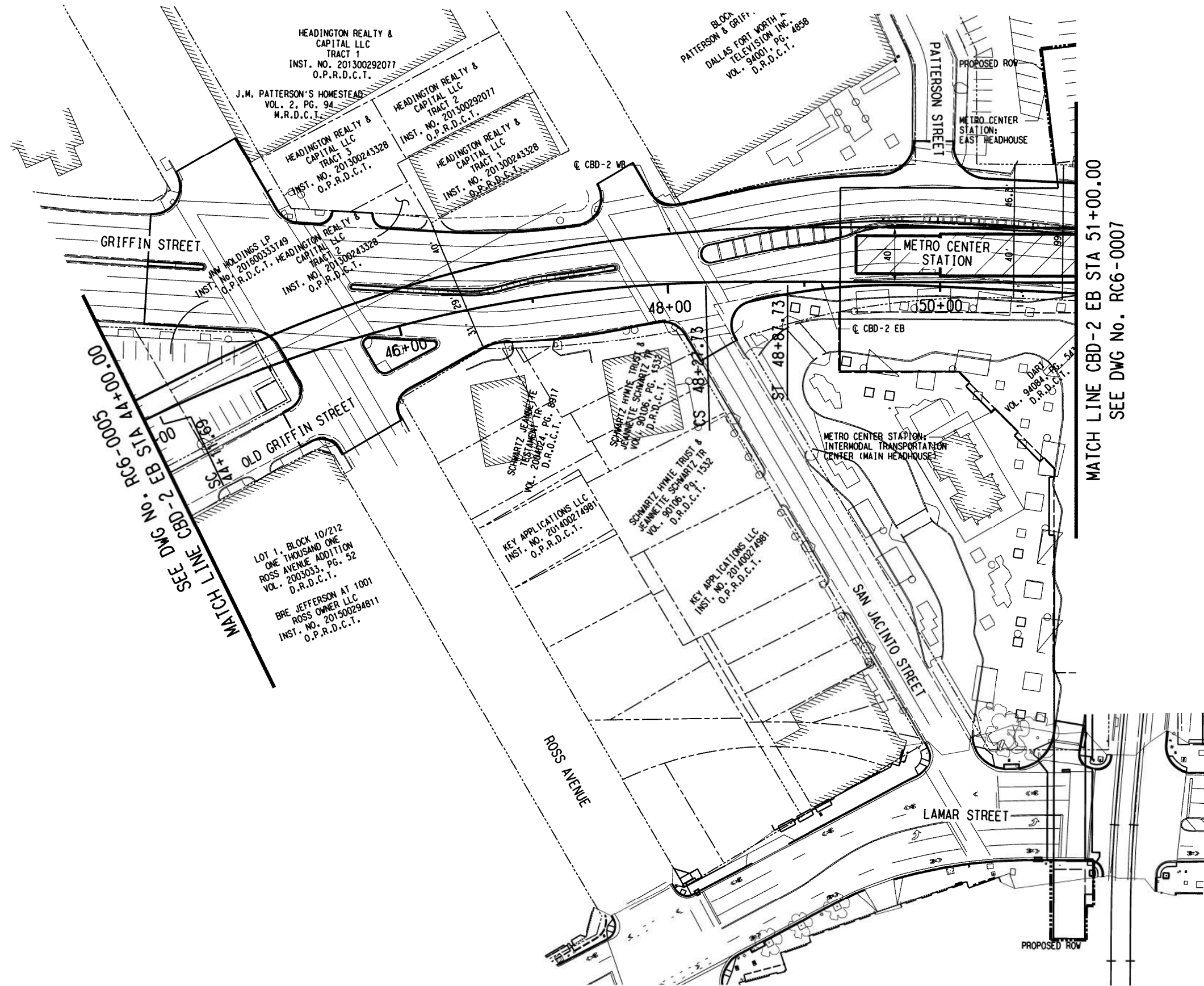
SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020



CONTRACT	DWG No.	RC6-0005	REV
----------	---------	----------	-----

\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$SYTIME\$\$\$\$\$\$



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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE 01/10/2020)
3. 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.
4. BASIS OF BEARING - 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.

MATCH LINE CBD-2 EB STA 51+00.00  
SEE DWG No. RC6-0007

MATCH LINE CBD-2 EB STA 44+00.00  
SEE DWG No. RC6-0005

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 14 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

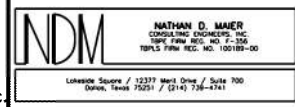
CONTRACT DWG No. RC6-0006 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

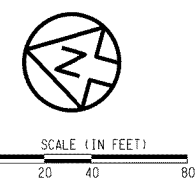


SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

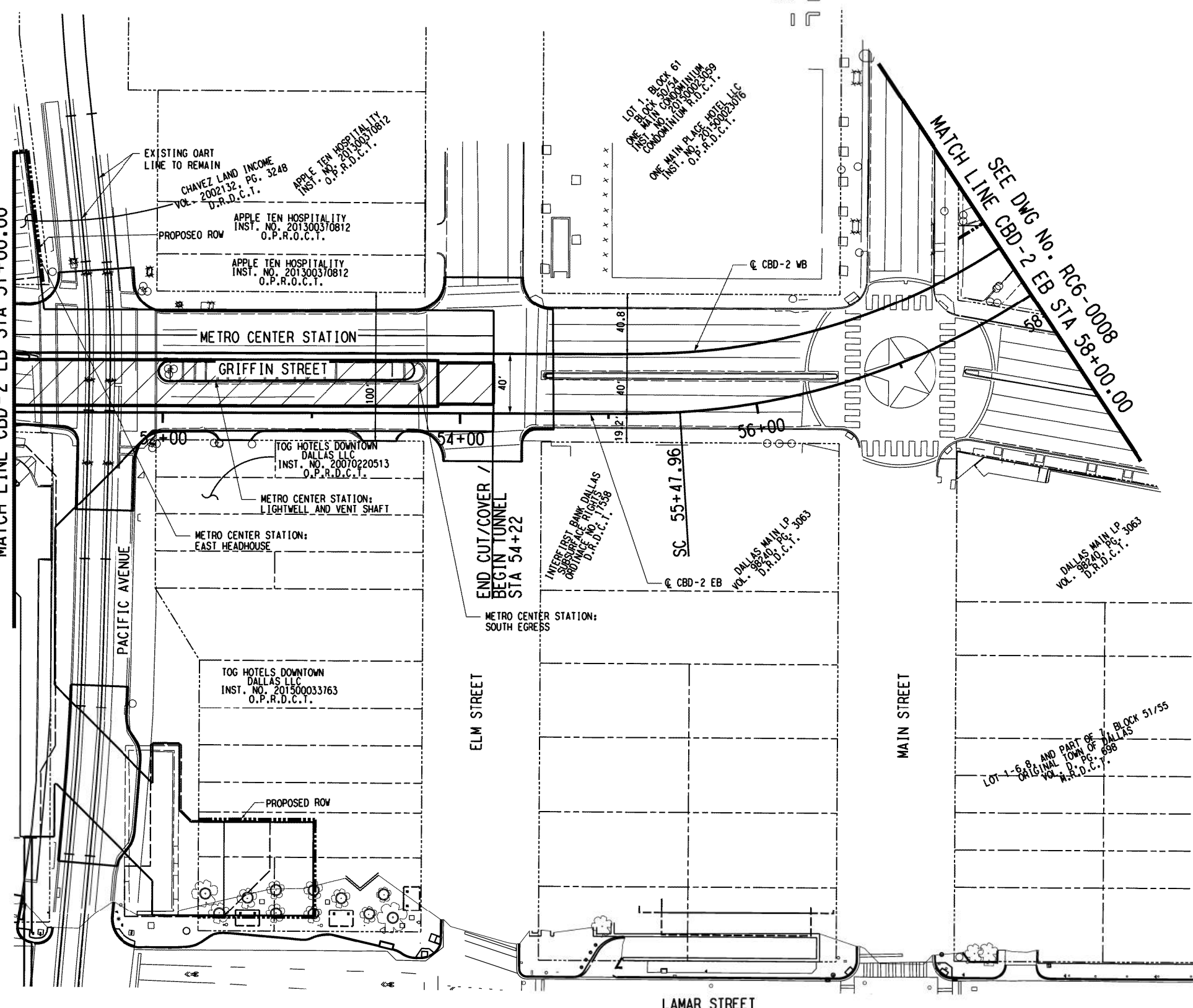
\$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$\$SYTIME\$\$\$\$\$\$





SEE DWG No. RC6-0006  
MATCH LINE CBD-2 EB STA 51+00.00



- 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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 15 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

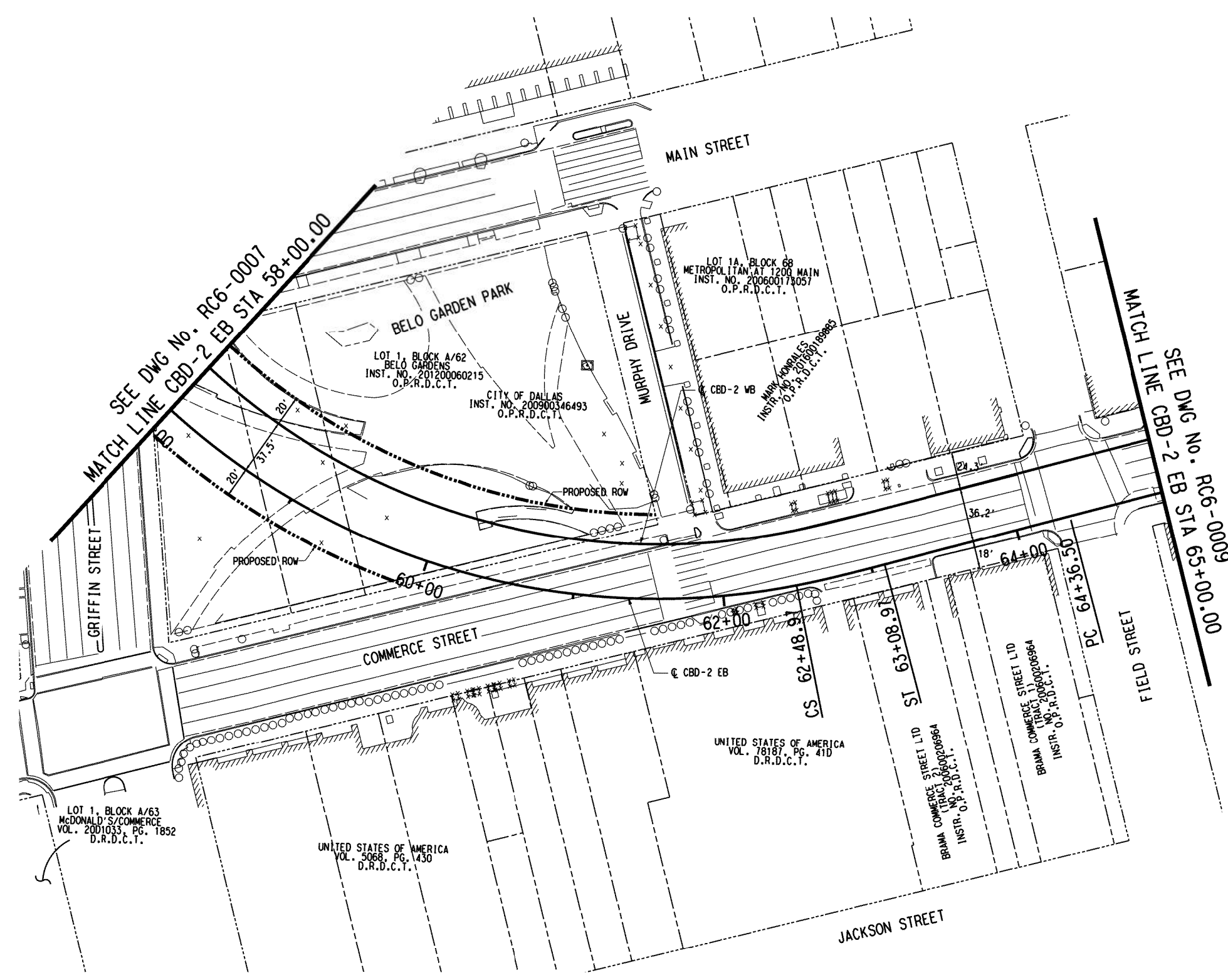
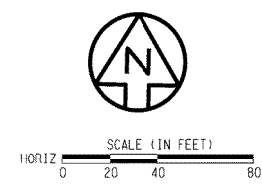
**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

CONTRACT	DWG No.	RC6-0007	REV
----------	---------	----------	-----

\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$



**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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 16 OF 276

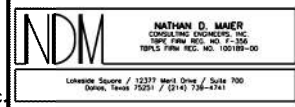
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020  
NATHAN D. MAIER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



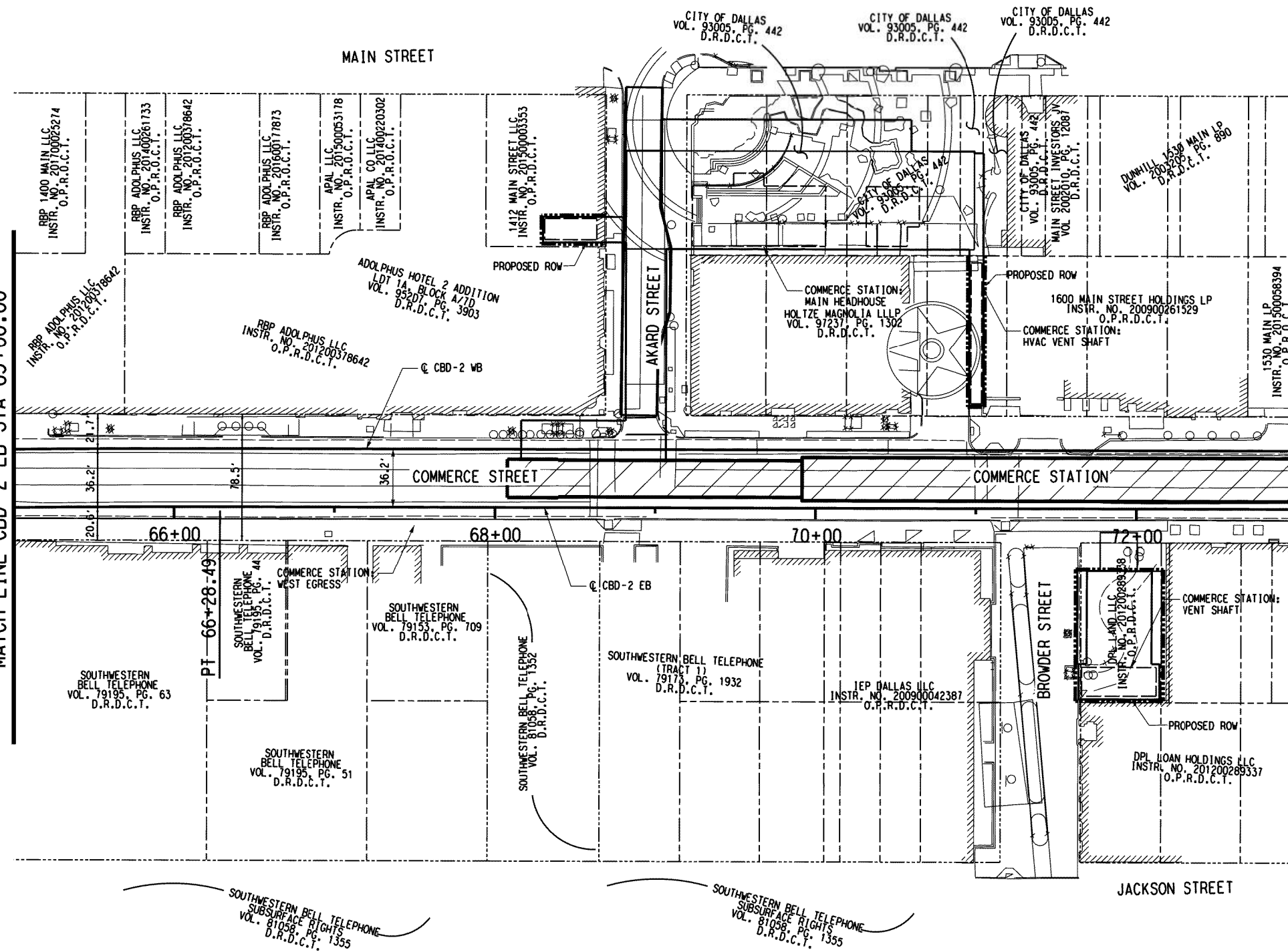
SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

CONTRACT	DWG No.	RC6-0008	REV
----------	---------	----------	-----

\$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$  
 \$\$\$\$MODEL\$\$\$

\$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



SEE DWG No. RC6-0008  
MATCH LINE CBD-2 EB STA 65+00.00

MATCH LINE CBD-2 EB STA 73+00.00  
SEE DWG No. RC6-0010



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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/10/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 17 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

CONTRACT **CAES** DWG No. RC6-0009 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
**C. MICHAEL DANIEL, RPLS**  
ON 03/06/2020  
**NATHAN D. WATER CONSULTING ENGINEERS, INC.**  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
NATHAN D. MAKER  
CONSULTING ENGINEERS, INC.  
TYPE FIRM REG. NO. T-106  
TBPLS FIRM REG. NO. 100189-00  
Lubbock Source / 1237 West Dixie / Suite 300  
Duncan, Texas 79201 / (817) 736-4343



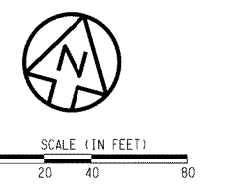
**DART PROJECT**

SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	N.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	N.DANIEL
DATE	03/06/2020

\$\$\$SYTIME\$\$\$\$\$  
\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

SEE DWG No. RC6-0009  
MATCH LINE CBD-2 EB STA 73+00.00

MATCH LINE CBD-2 EB STA 81+00.00  
SEE DWG No. RC6-0011



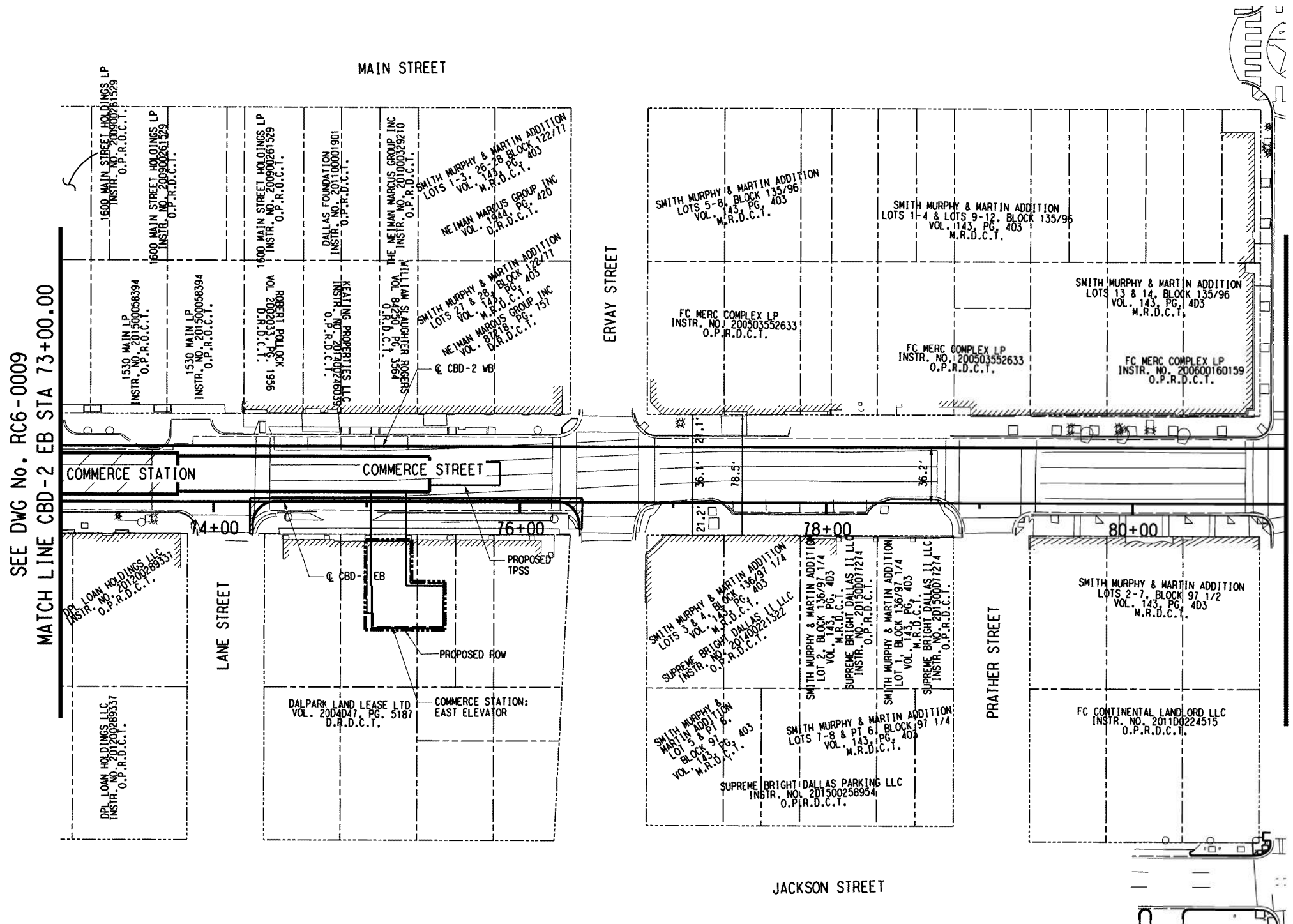
**LEGEND**

— — — — — EXISTING RIGHT OF WAY

- - - - - EXISTING PROPERTY LINE

— — — — — PROPOSED RIGHT OF WAY

- NOTES:**
- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  - PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE 01/10/2020)
  - 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.
  - BASIS OF BEARING - 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.



\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 18 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

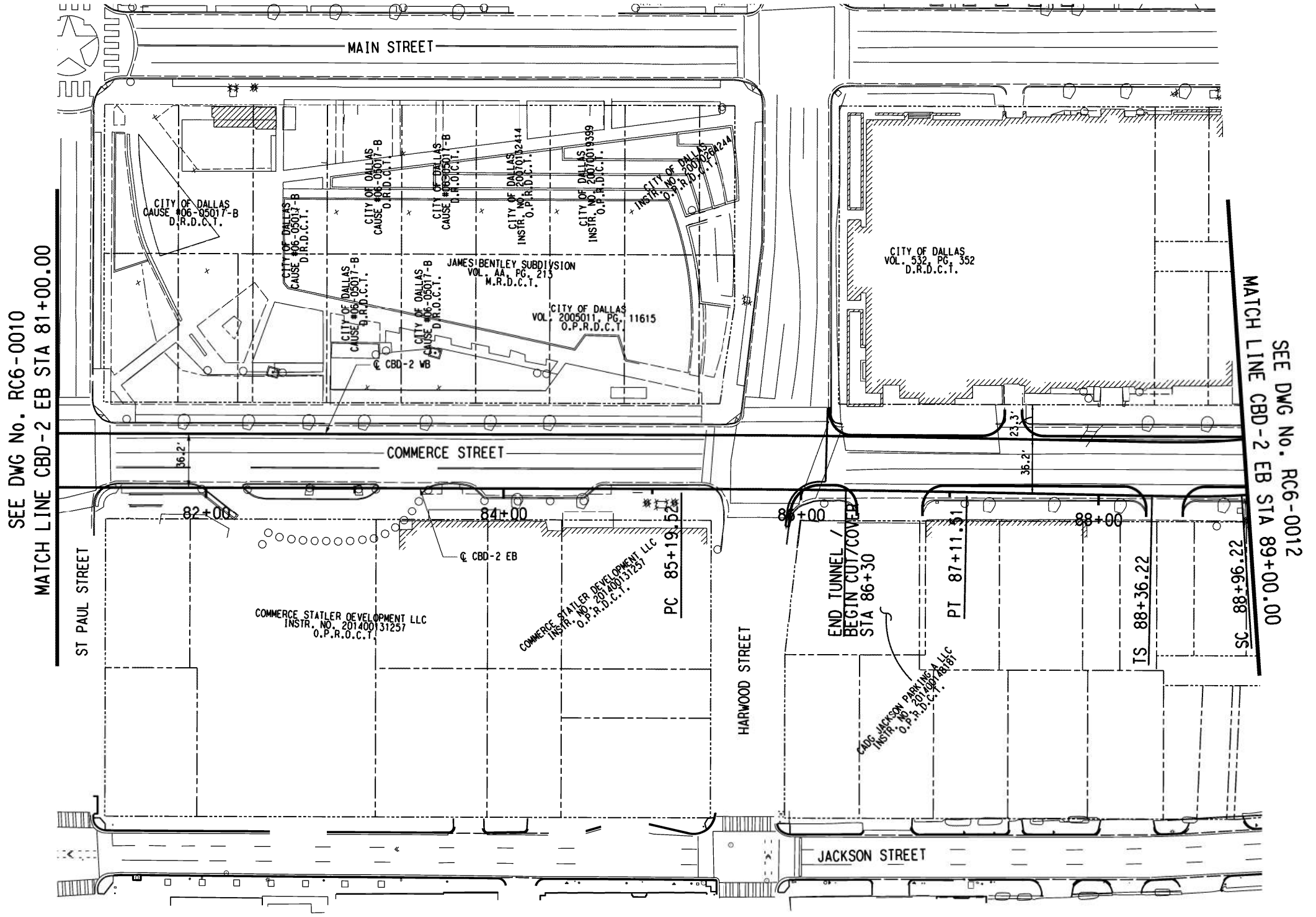
NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	D.VALDEZ
DESIGNED	N.SALCEDO
CHECKED	D.GRIFFIN
IN CHARGE	M.DANIEL
DATE	03/06/2020

CONTRACT	DWG No.	RC6-0010	REV
----------	---------	----------	-----

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



SEE DWG No. RC6-0010  
MATCH LINE CBD-2 EB STA 81+00.00

SEE DWG No. RC6-0012  
MATCH LINE CBD-2 EB STA 89+00.00



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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

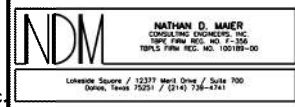
\$\$\$\$  
 \$\$\$\$MODEL\$\$\$

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 C. MICHAEL DANIEL, RPLS  
 ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
 TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 19 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

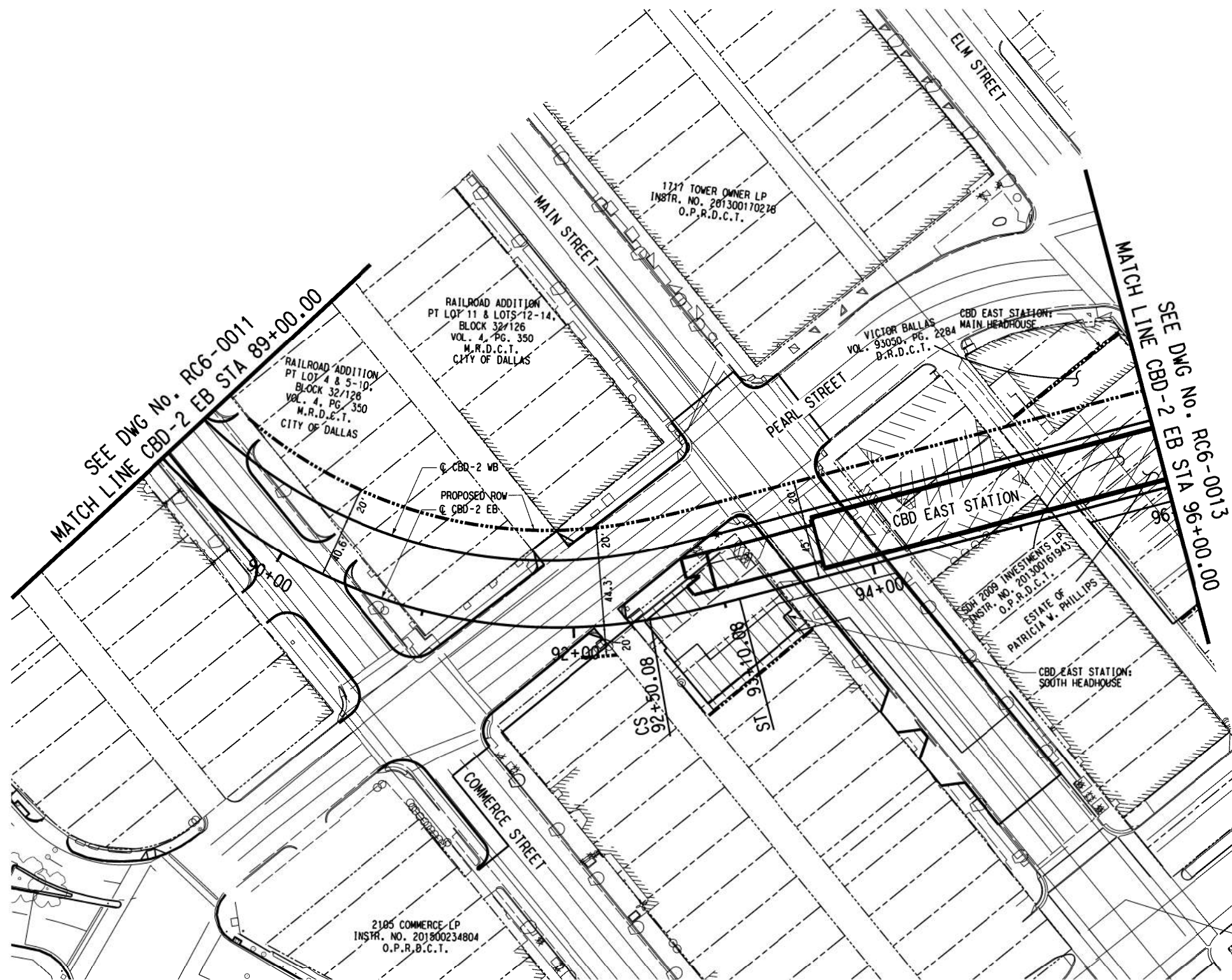
RIGHT-OF-WAY PLAN  
STA 81+00.00 TO STA 89+00.00

CONTRACT	DWG No. RC6-0011	REV
----------	------------------	-----

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  3. 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.
  4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 20 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MAIER CONSULTING ENGINEERS, INC.  
TYPE 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.  
1237 West Olive / Suite 300  
Dallas, Texas 75201 / (214) 736-4341



**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

CONTRACT	DWG No. RC6-0012	REV
----------	------------------	-----

\$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$SYTIME\$\$\$\$\$\$



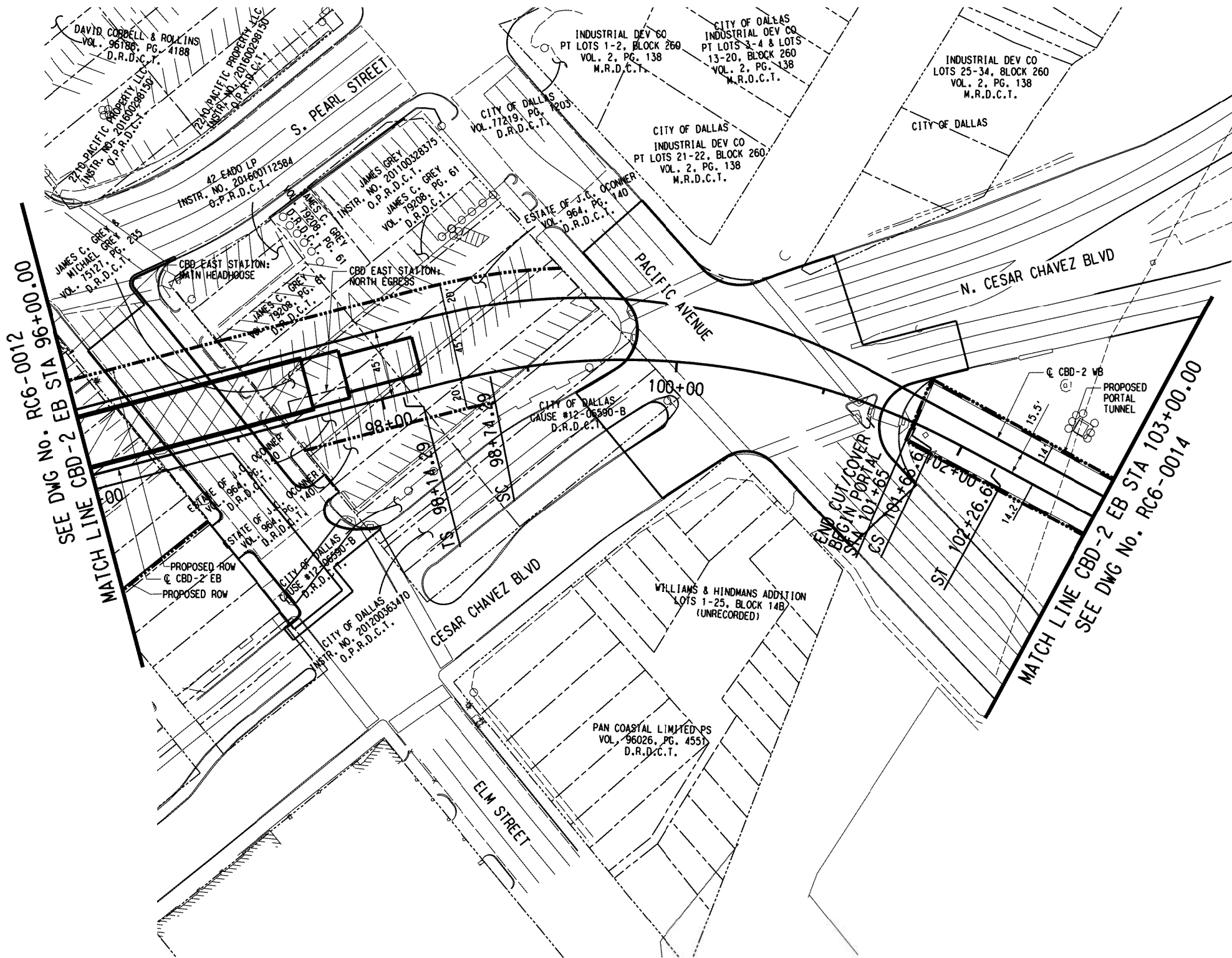
SCALE (IN FEET)  
0 20 40 80

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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
3. 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.
4. BASIS OF BEARING - 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.



\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$GNSPECIFICATION\$\$\$\$\$\$

\$\$\$\$  
 \$\$\$\$

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 C. MICHAEL DANIEL, RPLS  
 ON 03/06/2020  
 NATHAN D. MATER CONSULTING ENGINEERS, INC.  
 TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
 NATHAN D. MATER  
 CONSULTING ENGINEERS, INC.  
 LICENSE STATE REG. NO. E-138  
 TBPLS FIRM REG. NO. 100189-00  
 LICENSE SOURCE / 1237 West Olive / Suite 300  
 Dallas, Texas 75201 / (214) 736-4141



**DART PROJECT**

SCALE 1" = 40'

DRAWN: D. VALDEZ  
 DESIGNED: N. SALCEDO  
 CHECKED: D. GRIFFIN  
 IN CHARGE: M. DANIEL  
 DATE: 03/06/2020

**CAES**

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 21 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

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

CONTRACT DWG No. RC6-0013 REV



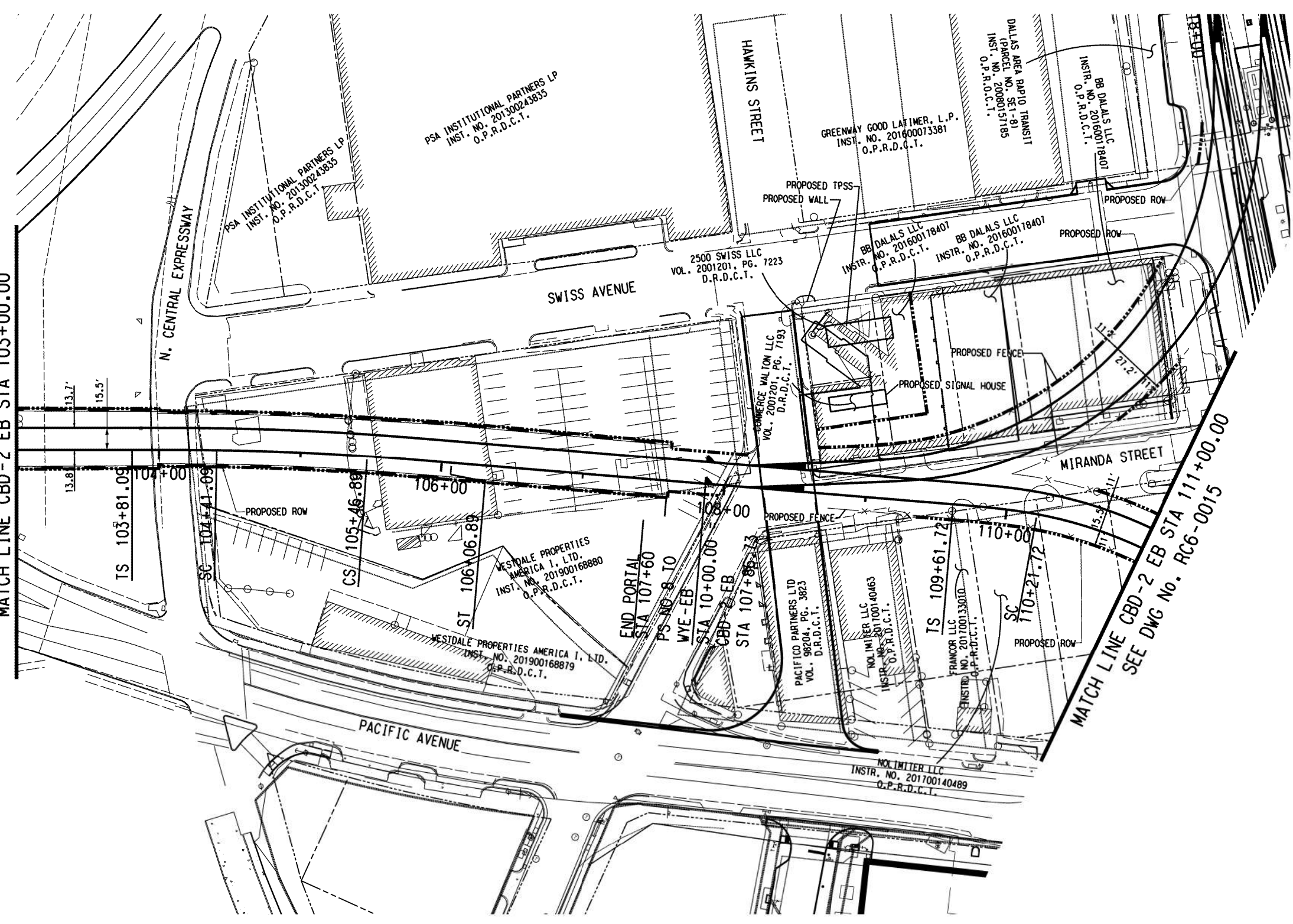
SCALE (IN FEET)  
0 20 40 80

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

- NOTES:**
- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  - PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  - 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.
  - BASIS OF BEARING - 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.

SEE DWG No. RC6-0013  
MATCH LINE CBD-2 EB STA 103+00.00

MATCH LINE CBD-2 EB STA 111+00.00  
SEE DWG No. RC6-0015



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 22 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MAIER CONSULTING ENGINEERS, INC.  
TYPE 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.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
Lubbock, Texas / 1237 West Drive / Suite 300  
Lubbock, Texas 79424 / (817) 796-4341



**DART PROJECT**

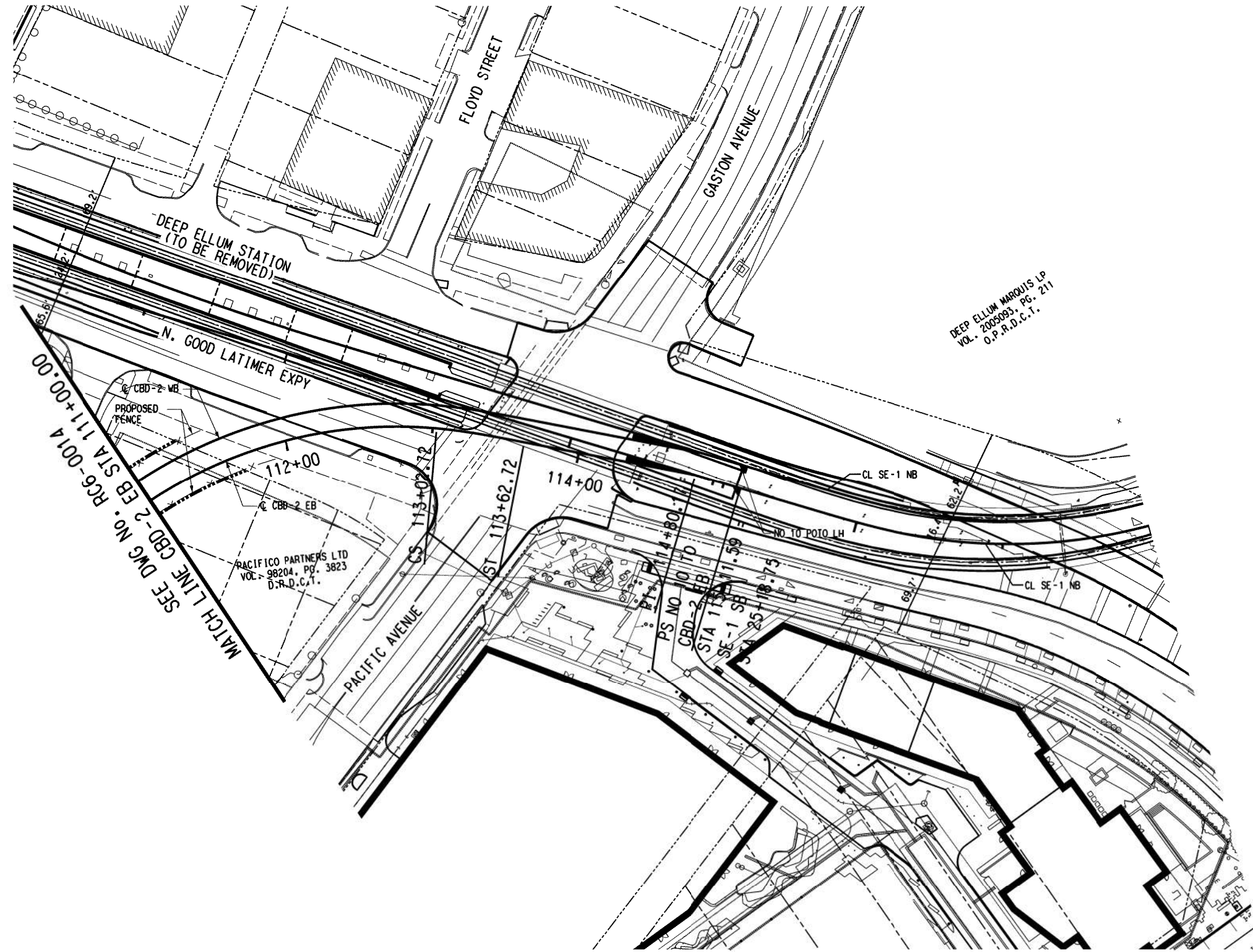
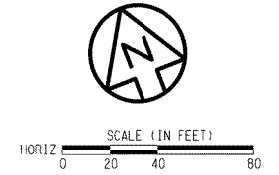
SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

CONTRACT	DWG No. RC6-0014	REV
----------	------------------	-----

\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$QNSPECIFICATION\$\$\$\$\$\$\$\$\$\$  
 \$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$QNSPECIFICATION\$\$\$\$\$\$\$\$\$\$

\$\$\$\$\$QNSPECIFICATION\$\$\$\$\$\$\$\$\$\$





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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
3. 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.
4. BASIS OF BEARING - 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.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 23 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
NATHAN D. MATER  
CONSULTING ENGINEERS, INC.  
1237 West 21st Street / Suite 300  
Dallas, Texas 75201 / (214) 736-4341



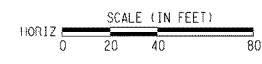
**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

CONTRACT	DWG No.	RC6-0015	REV
----------	---------	----------	-----

\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$MODEL\$\$\$  
 \$\$\$USER\$\$\$

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$

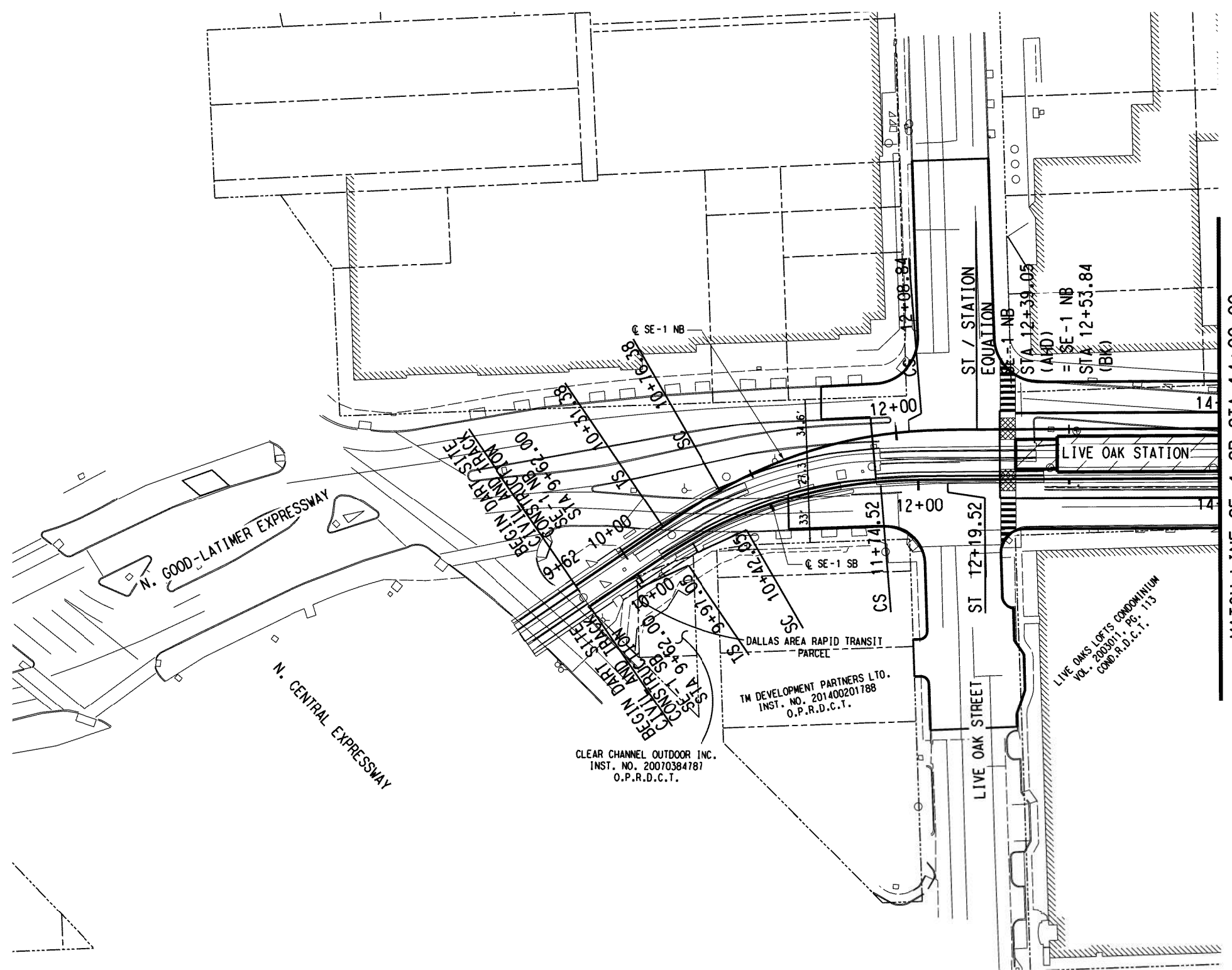


LEGEND

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

NOTES:

- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
- PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
- 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.
- BASIS OF BEARING - 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.



MATCH LINE SE-1 SB STA 14+00.00  
SEE DWG No. RC6-0017

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 24 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
NATHAN D. MATER  
CONSULTING ENGINEERS, INC.  
Type Firm Reg. No. F-356  
TBPLS Firm Reg. No. 100189-00  
License Source / 12317 West Drive / Suite 300  
Denton, Texas 76201 / (940) 738-4341



**DART PROJECT**

SCALE 1" = 40'

DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020

**CAES**

CONTRACT	DWG No.	RC6-0016	REV
----------	---------	----------	-----

SSSSSYTIMESSSSSS  
SSSSDGNSSPECIFICATIONSSSSSSSSSS  
SSSSSYTIMESSSSSS  
SSSSDGNSSPECIFICATIONSSSSSSSSSS



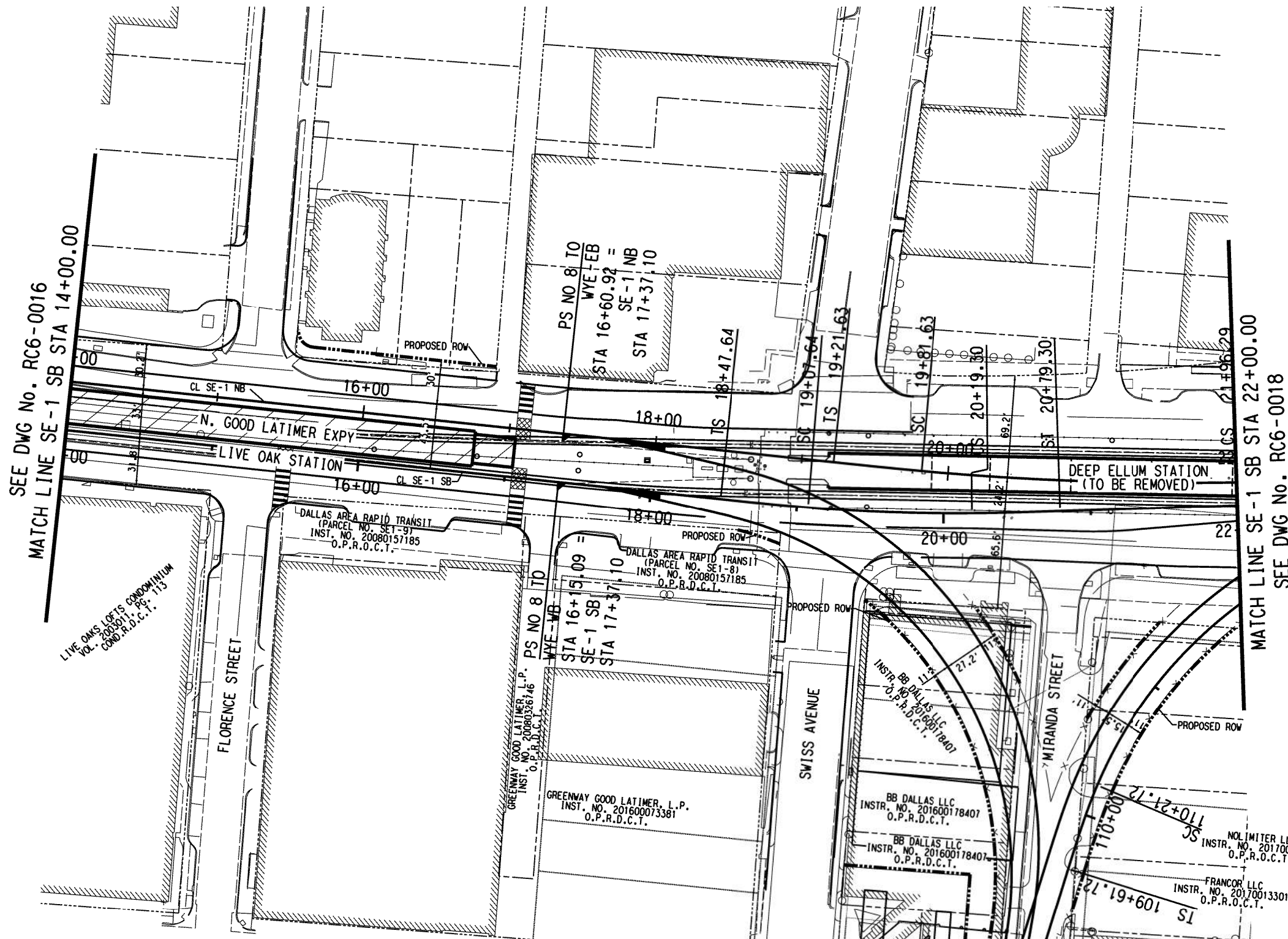
SCALE (IN FEET)  
0 20 40 80

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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
3. 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.
4. BASIS OF BEARING - 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.



SEE DWG No. RC6-0016  
MATCH LINE SE-1 SB STA 14+00.00

MATCH LINE SE-1 SB STA 22+00.00  
SEE DWG No. RC6-0018

LIVE OAKS LOTS CONDOMINIUM  
VOL. 2003011 PG. 113  
COND. R.D.C.T.

DALLAS AREA RAPID TRANSIT  
(PARCEL NO. SE1-9)  
INST. NO. 20080157185  
O.P.R.D.C.T.

DALLAS AREA RAPID TRANSIT  
(PARCEL NO. SE1-8)  
INST. NO. 20080157185  
O.P.R.D.C.T.

GREENWAY GOOD LATIMER, L.P.  
INST. NO. 20160073381  
O.P.R.D.C.T.

BB DALLAS LLC  
INST. NO. 201600178407  
O.P.R.D.C.T.

BB DALLAS LLC  
INST. NO. 201600178407  
O.P.R.D.C.T.

NOLIMITER LLC  
INST. NO. 201700140489  
O.P.R.D.C.T.

FRANCOR LLC  
INST. NO. 201700133010  
O.P.R.D.C.T.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

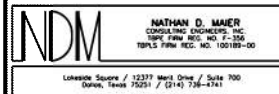
CONTRACT SHEET No. 25 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020  
NATHAN D. WATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	N. DANIEL
DATE	03/06/2020



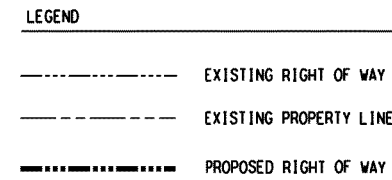
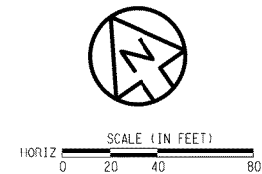
CONTRACT DWG No. RC6-0017 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

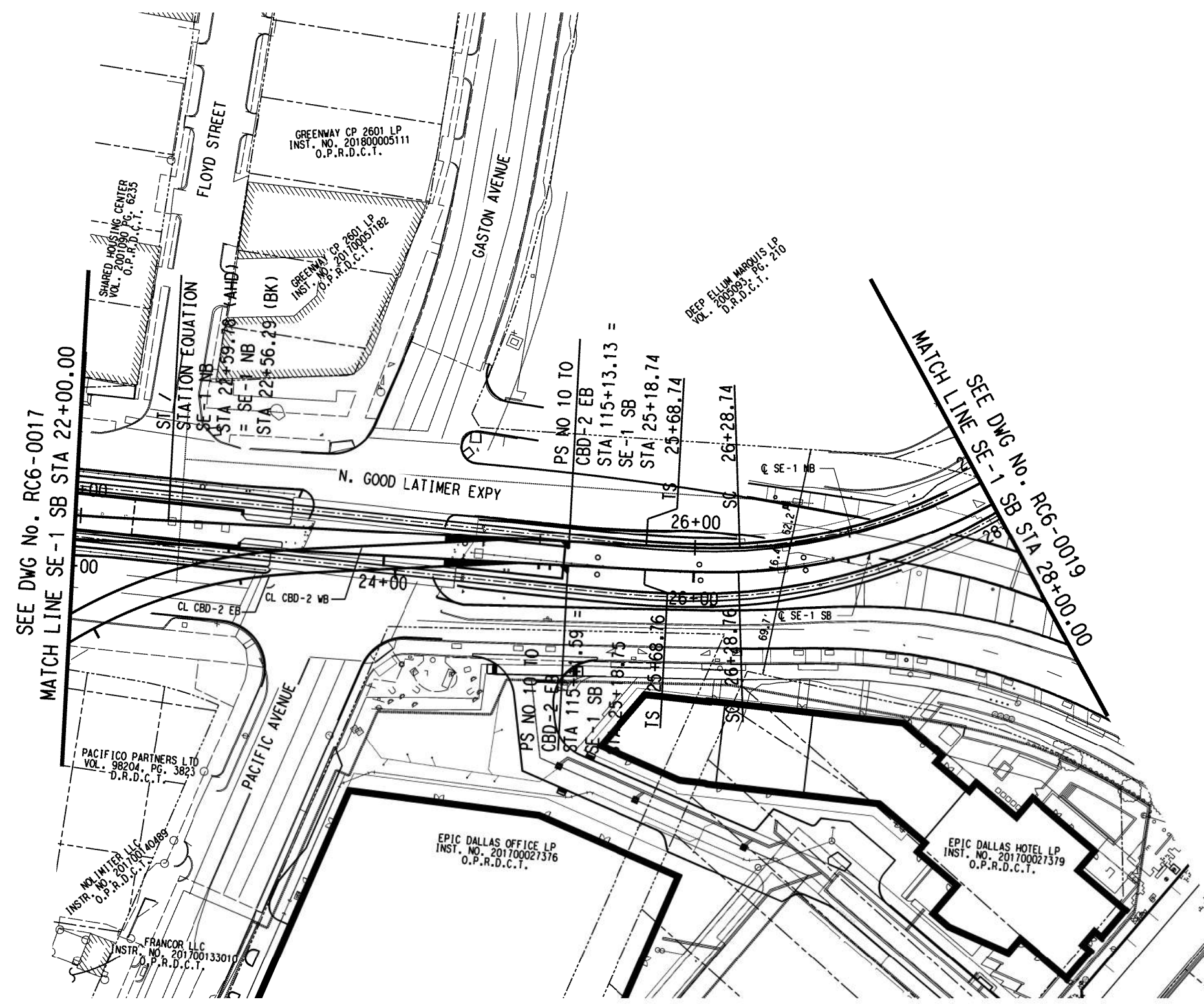
SEUSERS\$S  
SSMODEL\$S  
SSSPECIFICATION\$S

SEUSERS\$S  
SSMODEL\$S

SSSPECIFICATION\$S



- NOTES:**
- EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  - PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2020)
  - 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.
  - BASIS OF BEARING - 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.



SEE DWG No. RC6-0017  
MATCH LINE SE-1 SB STA 22+00.00

MATCH LINE SEE DWG No. RC6-0019  
SE-1 SB STA 28+00.00

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 26 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

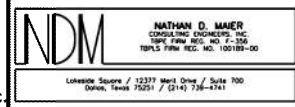
CONTRACT DWG No. RC6-0018 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. WATERS CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

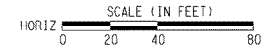


SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020



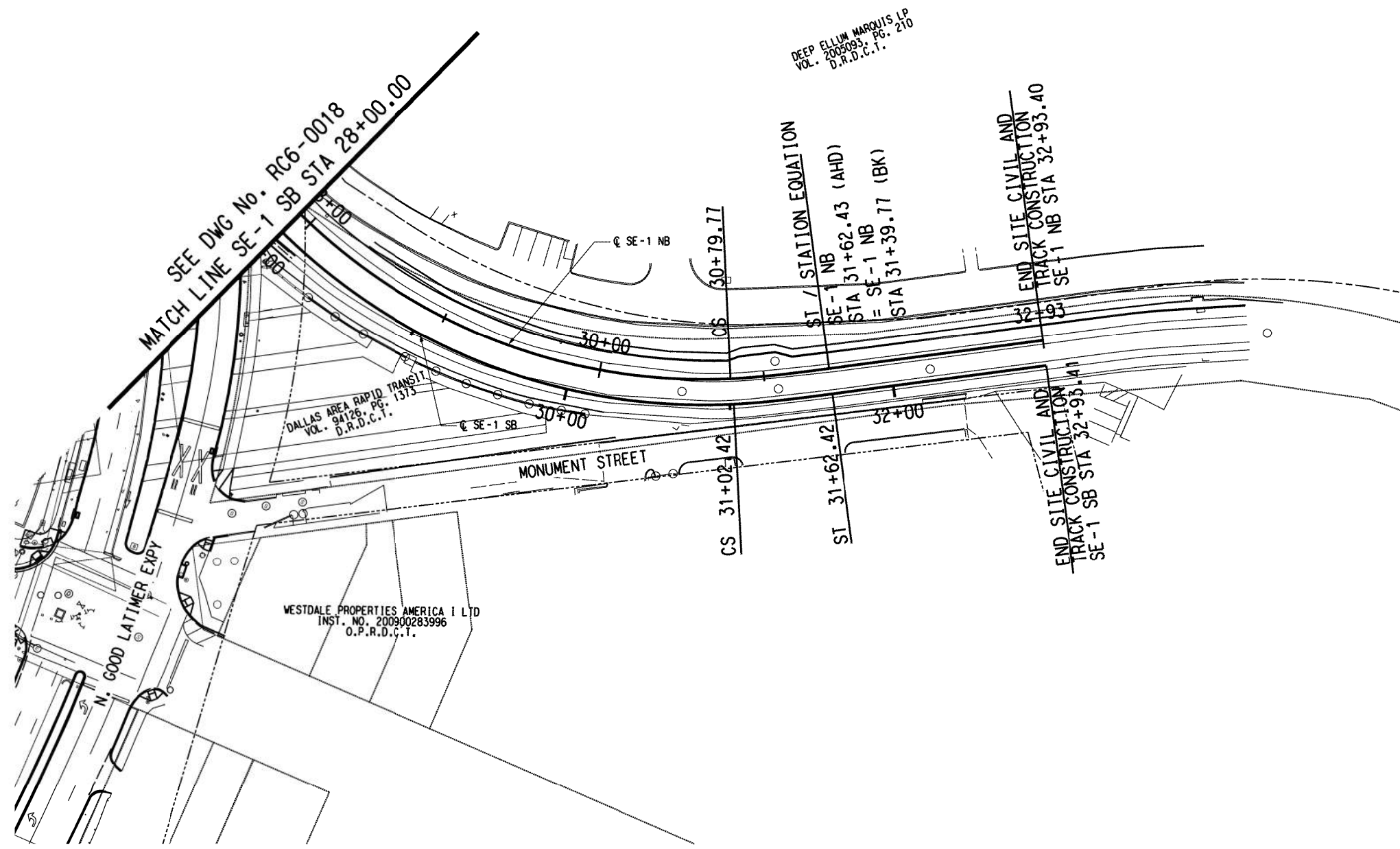
\$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$  
 \$\$\$\$\$SYTIME\$\$\$\$\$\$  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$SYTIME\$\$\$\$\$\$



- 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 BOUNDARY SURVEY. THE EXISTING ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
  2. PRELIMINARY. THIS DOCUMENT SHALL NOT BE RECORDED FOR ANY PURPOSE AND SHALL NOT BE USED OR VIEWED OR RELIED UPON AS A FINAL SURVEY DOCUMENT. (RELEASE DATE D1/1D/2D2D)
  3. 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.
  4. BASIS OF BEARING - 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.



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 27 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
C. MICHAEL DANIEL, RPLS  
ON 03/06/2020

NATHAN D. MATER CONSULTING ENGINEERS, INC.  
TYPE FIRM NO. F-356/TBPLS NO. 100189-00  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**NDM**  
NATHAN D. MATER  
CONSULTING ENGINEERS, INC.  
1237 West 21st / Suite 300  
Dallas, Texas 75221 / 972-414-1141



**DART PROJECT**

SCALE	1" = 40'
DRAWN	D. VALDEZ
DESIGNED	N. SALCEDO
CHECKED	D. GRIFFIN
IN CHARGE	M. DANIEL
DATE	03/06/2020

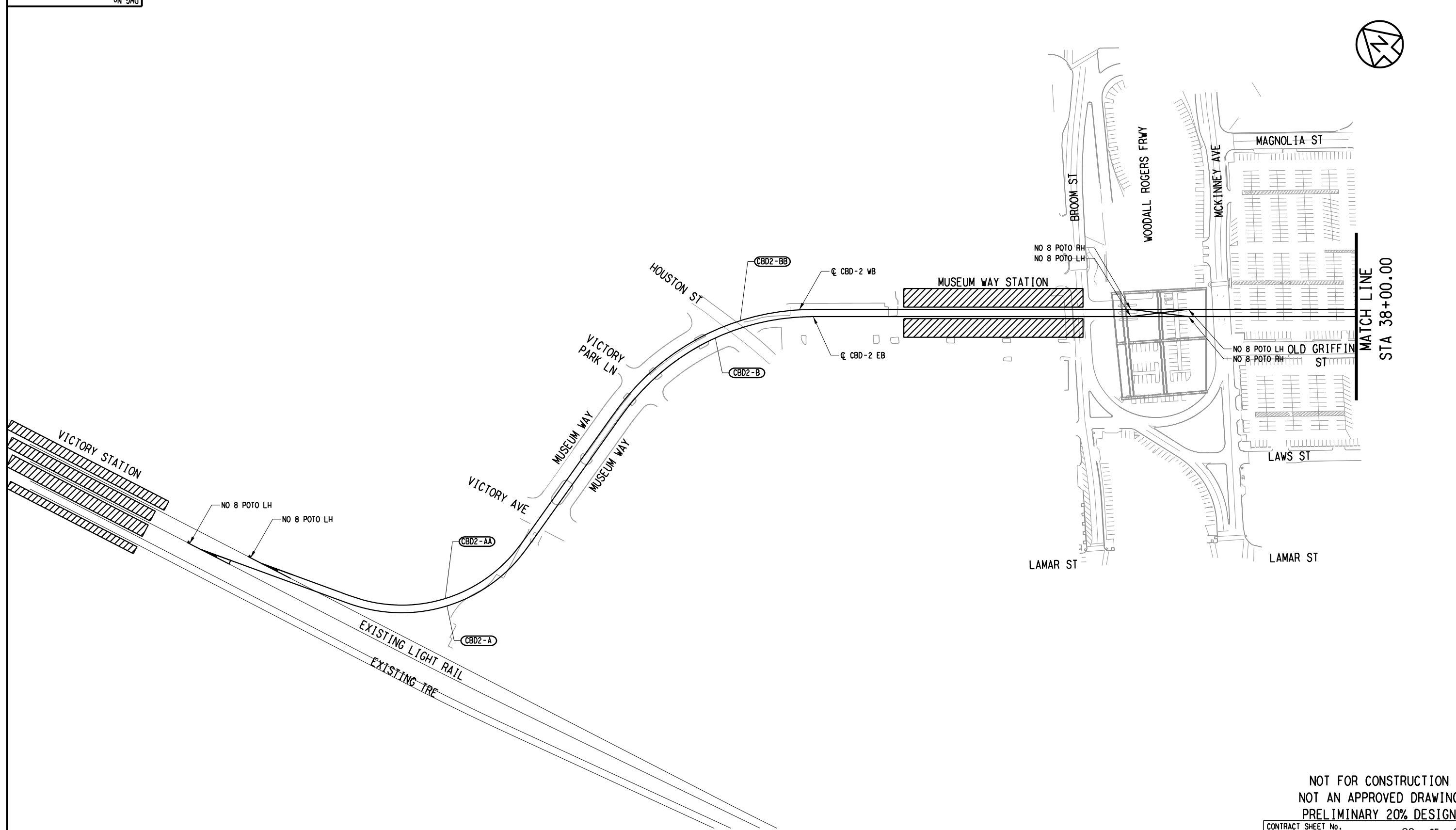
**CAES**

CONTRACT	DWG No. RC6-0019	REV
----------	------------------	-----

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

\$\$\$\$SYTIME\$\$\$\$  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



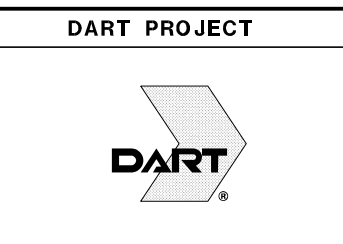
Friday, February 28, 2020 01:08:44 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 28 OF 276

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

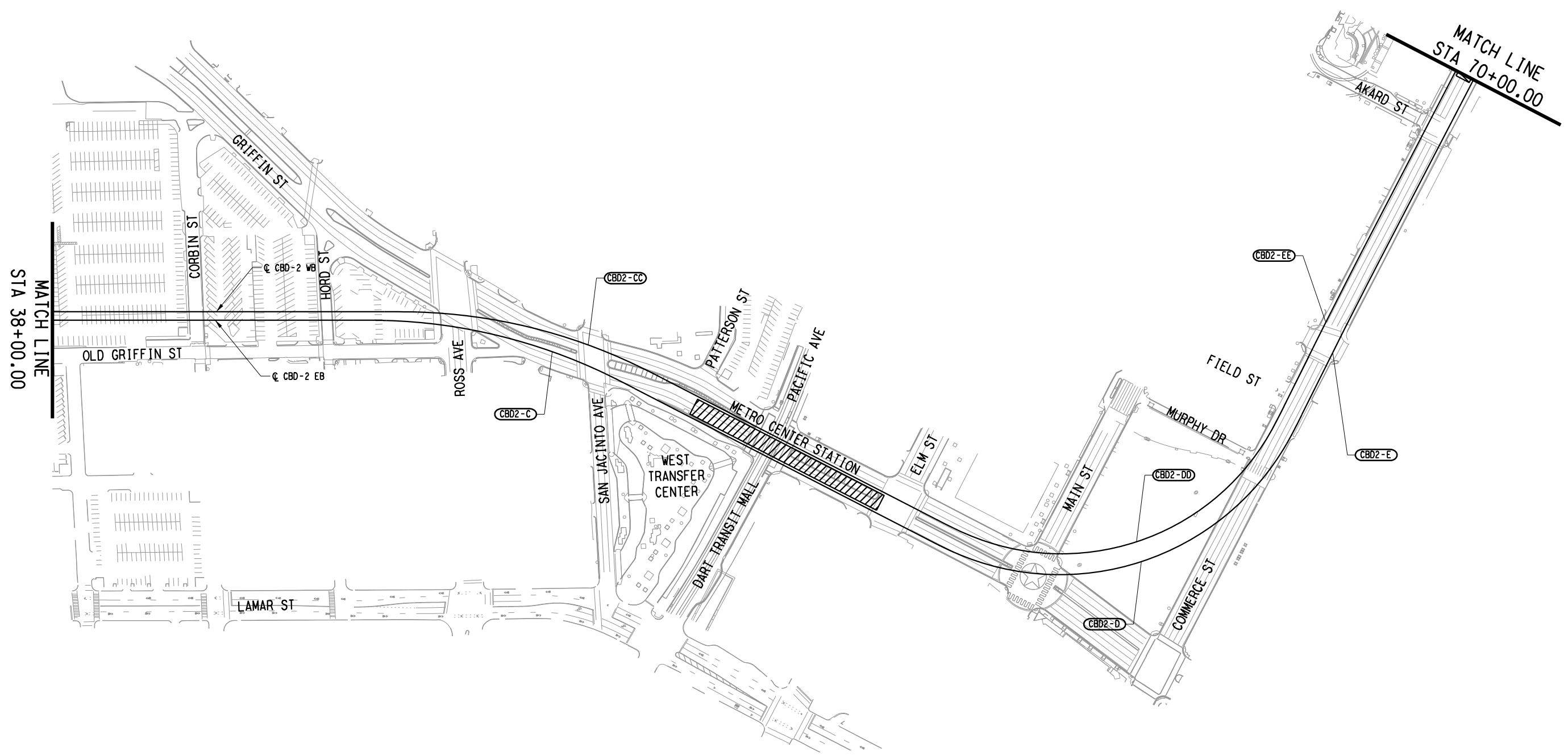


SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
**HORIZONTAL ALIGNMENT**  
**SCHEMATIC**  
**SHEET 1 OF 4**

DANGLE

\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 29 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
HORIZONTAL ALIGNMENT  
SCHEMATIC  
SHEET 2 OF 4

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

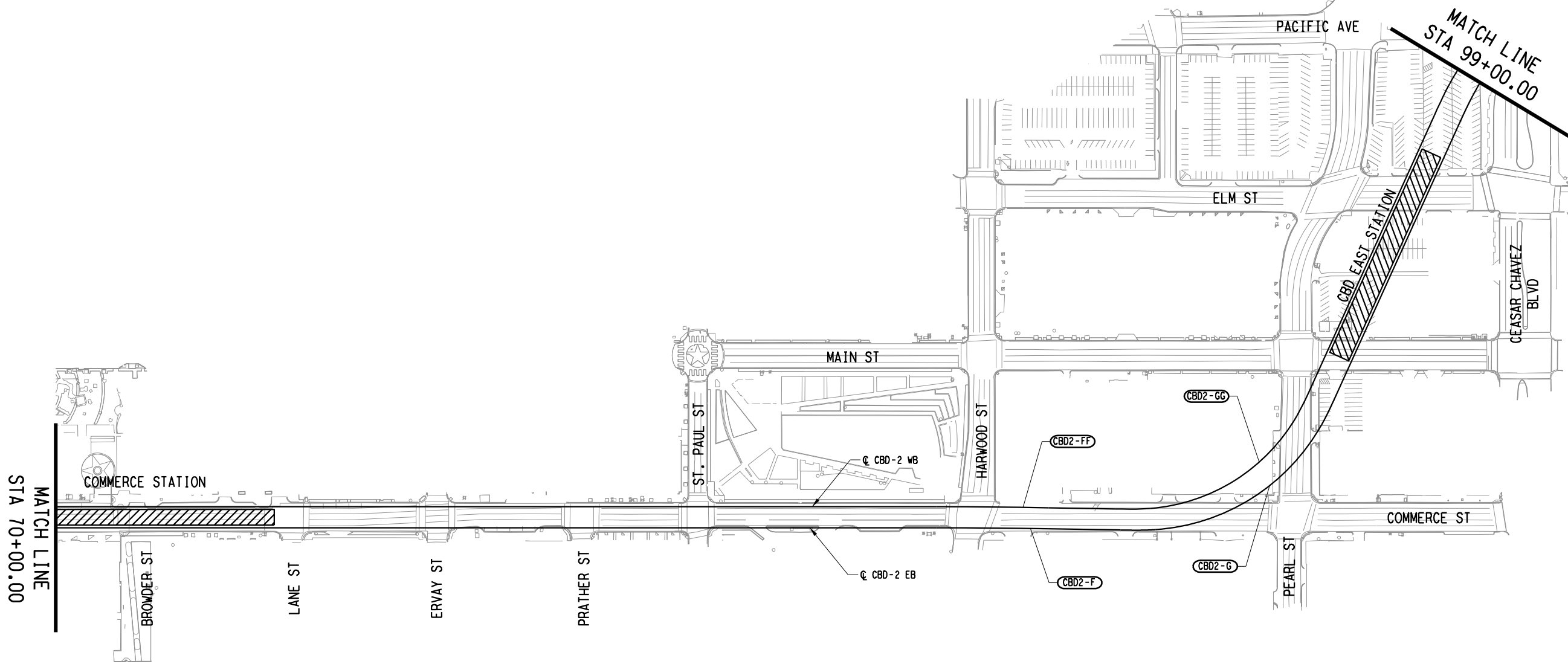


CONTRACT	DWG No. CC5-0002	REV
----------	------------------	-----

Friday, February 28, 2020 01:08:47 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 30 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 HORIZONTAL ALIGNMENT  
 SCHEMATIC  
 SHEET 3 OF 4

CONTRACT DWG No. CC5-0003 REV

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124511  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754

IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



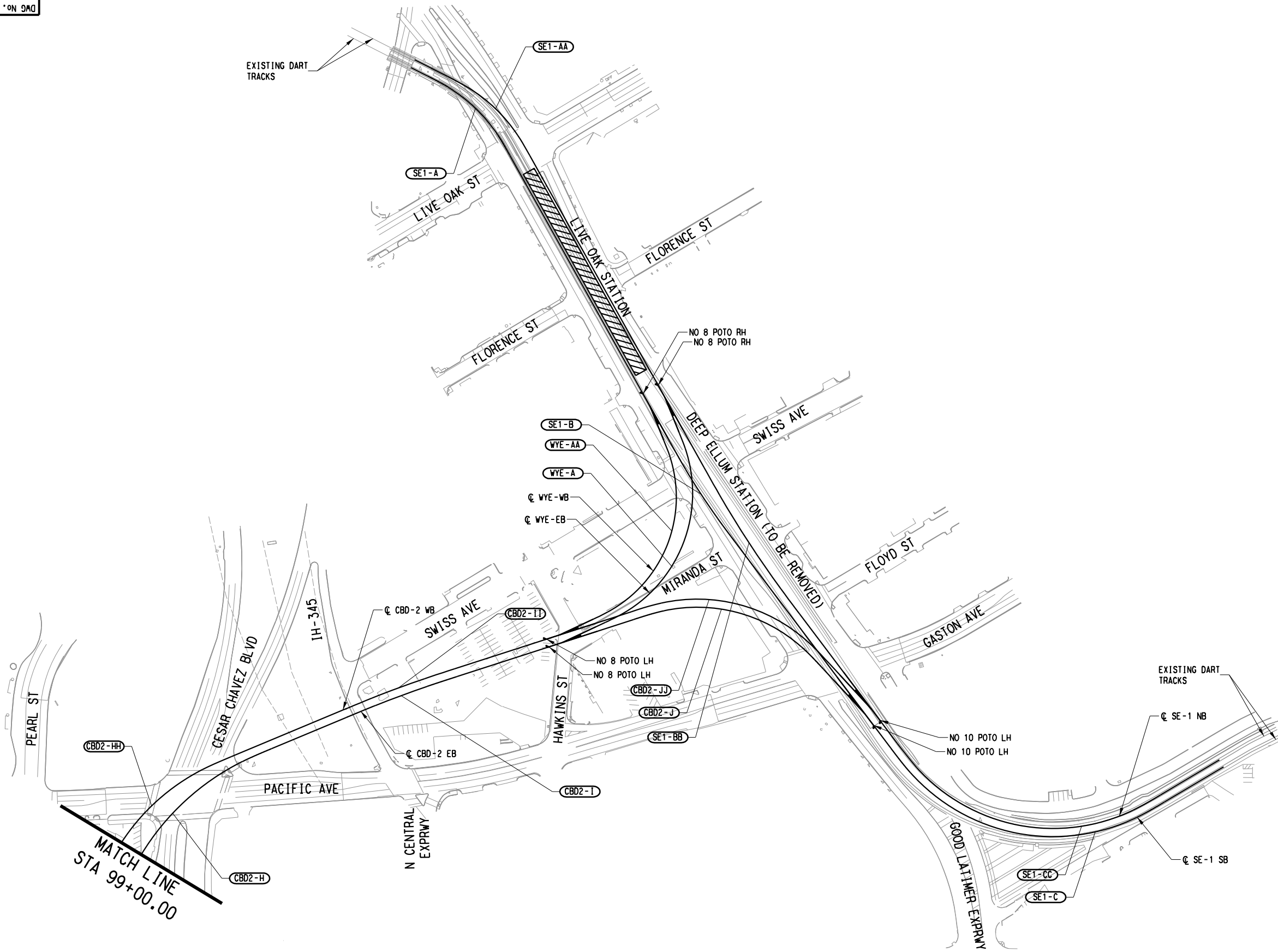
SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020
CAES	

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 01:08:51 PM  
 \$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE





NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 31 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 HORIZONTAL ALIGNMENT  
 SCHEMATIC  
 SHEET 4 OF 4

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. 124511  
 ON 03/06/2020  
 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	03/06/2020

CONTRACT	DWG No. CC5-0004	REV
----------	------------------	-----

Friday, February 28, 2020 01:08:54 PM

DANGLE

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POB	10+00.00	6974996.78	2487462.37							
					STRAIGHT	30.96					
	PI	10+30.96	6974966.89	2487470.45							
					STRAIGHT	317.21					7° 09' 10" Left
	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' 36"	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					
	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' 36"	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					
	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' 48"	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					
	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' 24"	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					

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.

Friday, February 28, 2020 01:08:57 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 32 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

**CBD-2 EB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF EASTBOUND TRACK**

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

CONTRACT	DWG No. CC5-0005	REV
----------	------------------	-----

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	Eo	Eu	Passenger Speed	DEFLECTION ANGLE
		(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					
	PC	85+19.52	6972234.49	2493065.08							
CBD2-F	PI	86+15.52	6972259.25	2493157.83	R = 11000	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					
	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' 24"	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					
	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' 24"	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					
	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	61° 25' 03" Right
	CS	105+46.89	6973669.14	2494216.50							
					SPIRAL	60.00					
	ST	106+06.89	6973701.95	2494266.73							
					STRAIGHT	354.83					

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

Friday, February 28, 2020 01:09:03 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 33 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

CBD-2 EB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF EASTBOUND TRACK


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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# 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: 03/06/2020

CONTRACT	DWG No. CC5-0006	REV
----------	------------------	-----

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(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	6973916.20	2494598.40							
CBD2-J	PI	111+73.48	6973585.17	2495369.37	R = 300.00	281.00	D <sub>c</sub> = 19° 05' 55"	1.50	1.50	15	53° 40' 03" Right
	CS	113+02.72	6973776.62	2494887.06							
					SPIRAL	60.00					
	ST	113+62.72	6973896.42	2494938.81							
					STRAIGHT	117.44					
	PI	114+80.17	6973833.73	2495038.11							
					STRAIGHT	31.42					
	POE	115+11.59	6973814.39	2495062.88							

NOTES:

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

Friday, February 28, 2020 01:09:14 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

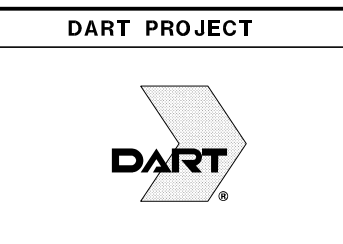
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 34 OF 276

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

CBD-2 EB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF EASTBOUND TRACK

CONTRACT DWG No. CC5-0007 REV

DANGLE

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POB	11+33.54	6974879.47	2487528.29							
					STRAIGHT	30.96					
	PI	11+64.50	6974849.59	2487536.37							
					STRAIGHT	181.39					4° 33' 16" Left
	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' 12"	0.50	0.77	10	65° 30' 24" Left
	CS	17+55.46	6974463.81	2487918.86							
					SPIRAL	50.00					
	ST	18+05.46	6974468.50	2487968.63							
					STRAIGHT	295.95					
	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' 12"	0.00	1.73	15	47° 54' 21" Right
	CS	26+17.25	6974363.31	2488717.99							
					SPIRAL	60.00					
	ST	26+77.25	6974319.79	2488759.27							
					STRAIGHT	1746.42					
	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+44.95	6972565.32	2490191.56							
					STRAIGHT	560.28					
	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' 12"	1.00	1.05	15	83° 01' 29" Left
	CS	61+89.36	6971679.97	2490862.40							
					SPIRAL	60.00					
	ST	62+49.36	6971695.14	2490920.44							
					STRAIGHT	127.88					

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

Friday, February 28, 2020 01:09:26 PM  
 \*\*\*\*\*SPECIFICATIONS\*\*\*\*\*

DANGLE

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 35 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

CBD-2 WB  
 HORIZONTAL ALIGNMENT DATA  
 CENTERLINE OF WESTBOUND TRACK

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TBP# 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	03/06/2020

CONTRACT DWG No. CC5-0008 REV

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	PC	64+36.82	6971730.29	2491043.39							
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" Left
	PT	66+28.49	6971781.52	2491228.74							
					STRAIGHT	1891.04					
	PC	85+19.85	6972269.51	2493056.06							
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+11.83	6972317.42	2493241.97							
					STRAIGHT	115.26					
	TS	88+26.46	6972345.21	2493353.83							
					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+98.47	6972581.66	2493615.03							
					SPIRAL	60.00					
	ST	92+58.47	6972640.49	2493626.71							
					STRAIGHT	509.81					
	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+16.05	6973405.00	2493843.02							
					SPIRAL	60.00					
	ST	101+76.05	6973442.79	2493889.61							
					STRAIGHT	231.39					
	TS	103+82.75	6973584.01	2494072.91							
					SPIRAL	60.00					
	SC	104+42.75	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+49.84	6973682.17	2494208.09							
					SPIRAL	60.00					
	ST	106+09.84	6972005.63	2495326.77							

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

Friday, February 28, 2020 01:09:38 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 36 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2


CBD-2 WB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF WESTBOUND TRACK

CONTRACT	DWG No. CC5-0009	REV
----------	------------------	-----

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# 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	03/06/2020



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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
					STRAIGHT	354.76					
	TS	109+61.65	6973907.46	2494556.31							
					SPIRAL	60.00					
	SC	110+21.65	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" Left
	CS	113+20.27	6973939.89	2494895.29							
					SPIRAL	60.00					
	ST	113+80.27	6973909.49	2494947.00							
					STRAIGHT	119.04					
	PI	114+81.71	6973845.94	2495047.65							
	POE	115+13.13	6973826.60	2495072.42							
					STRAIGHT	31.42					

NOTES:

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

Friday, February 28, 2020 01:09:49 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE


NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN


CONTRACT SHEET No. 37 OF 276

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. 124511  
 ON 03/06/2020  
 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	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

CBD-2 WB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF WESTBOUND TRACK

CONTRACT

DWG No. CC5-0010

REV

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POT	9+62.00	6974802.95	2493881.74							
					STRAIGHT	35.05					
	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					
	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	2494626.67	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					
	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' 31"	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					
	POE	32+93.41	6973912.95	2495725.39							

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

Friday, February 28, 2020 01:10:01 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 38 OF 276

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# 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 03/06/2020

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1 SB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF SOUTHBOUND TRACK

CONTRACT DWG No. CC5-0011 REV



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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POT	9+62.00	6974819.10	2493885.16							
					STRAIGHT	69.96					
	TS	10+31.67	6974804.65	2493953.31							
					SPIRAL	45.00					
	SC	10+76.67	6974794.23	2493997.08							
SE1-AA	PI	11+44.00	6974775.37	2494061.71	R = 300.00	132.47	Dc = 19° 05' 55"	0.50	0.83	10	25° 17' 57" Right
	CS	12+09.13	6974730.70	2494112.09							
					SPIRAL	45.00					
	ST	12+54.13	6974699.21	2494144.22							
					STRAIGHT	682.58					
	TS	19+21.63	6974209.38	2494619.59							
					SPIRAL	60.00					
	SC	19+81.63	6974166.53	2494661.57							
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	6974122.18	2494821.22							
					SPIRAL	60.00					
	ST	22+56.29	6973986.00	2494868.32							
					STRAIGHT	308.97					
	TS	25+68.75	6973795.82	2495111.82							
					SPIRAL	60.00					
	SC	26+28.75	6973760.27	2495160.13							
SE1-CC	PI	28+91.70	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	2495479.65							
					SPIRAL	60.00					
	ST	31+39.77	6973830.10	2495622.77							
					STRAIGHT	130.97					
	POE	32+93.40	6973912.95	2495725.39							

NOTES:

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

Friday, February 28, 2020 01:10:05 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 39 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1 NB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF NORTHBOUND TRACK

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# 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	03/06/2020



CONTRACT	DWG No. CC5-0012	REV
----------	------------------	-----

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POB	10+00.00	6973799.53	2494417.79							
					STRAIGHT	30.96					
	PI	10+30.96	6973816.33	2494443.80							
					STRAIGHT	91.30					
	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	2494700.03	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					
	PI	16+29.96	6974319.58	2494512.64							
					STRAIGHT	30.96					
	POE	16+60.92	6974341.80	2494491.08							

NOTES:

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

Friday, February 28, 2020 01:10:09 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 40 OF 276

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 03/06/2020  
HDR ENGINEERING, INC.  
TBP# 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	03/06/2020



**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

WYE-EB  
HORIZONTAL ALIGNMENT DATA  
CENTERLINE OF EASTBOUND TRACK

CONTRACT	DWG No. CC5-0013	REV
----------	------------------	-----

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

CURVE NAME	POINT	CHAINAGE	NORTHING	EASTING	ELEMENT	LENGTH	DEGREE OF CURVATURE	E <sub>o</sub>	E <sub>u</sub>	Passenger Speed	DEFLECTION ANGLE
		(FT)	(FT)	(FT)		(FT)	(D.M.S.)	(IN)	(IN)	(MPH)	
	POB	10+00.00	6973812.55	2494409.38							
					STRAIGHT	30.96					
	PI	10+30.96	6973829.35	2494435.39							
					STRAIGHT	91.30					
	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° 30' 02" Left
	CS	14+82.54	6974215.10	2494549.60							
					SPIRAL	30.00					
	ST	15+12.54	6974239.41	2494532.03							
					STRAIGHT	71.59					
	PI	15+84.13	6974296.60	2494488.96							
					STRAIGHT	30.96					
	POE	16+60.92	6974318.81	2494467.40							

NOTES:

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

Friday, February 28, 2020 01:10:22 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 41 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

WYE-WB  
 HORIZONTAL ALIGNMENT DATA  
 CENTERLINE OF WESTBOUND TRACK

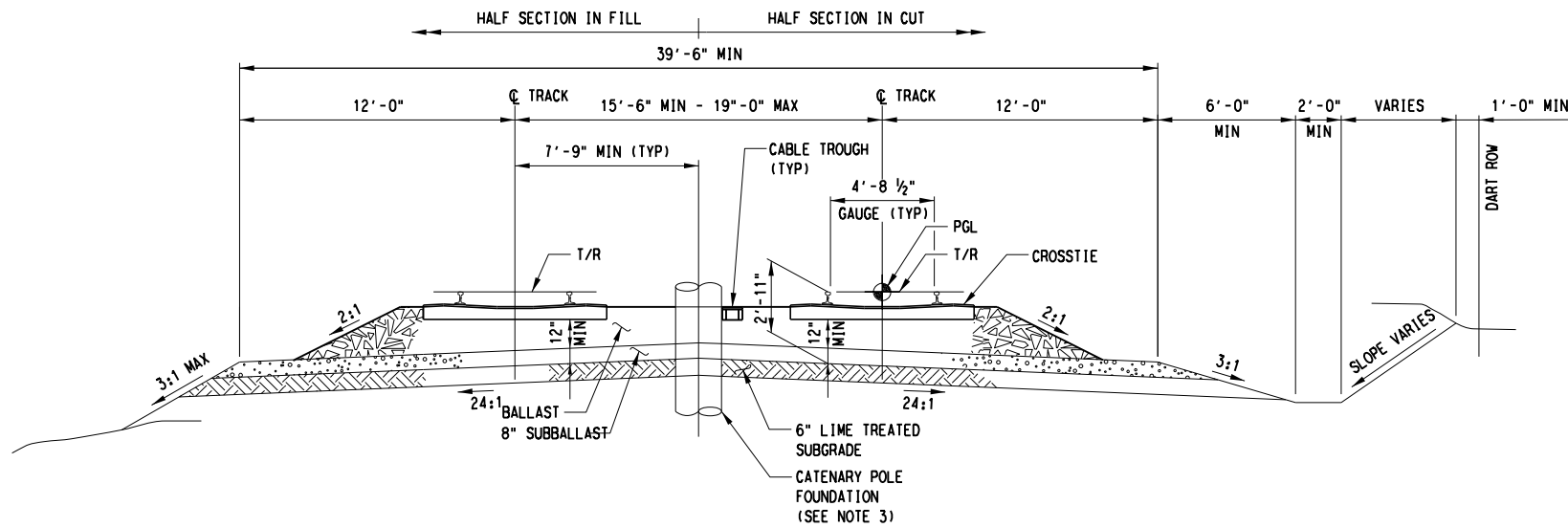
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 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 03/06/2020

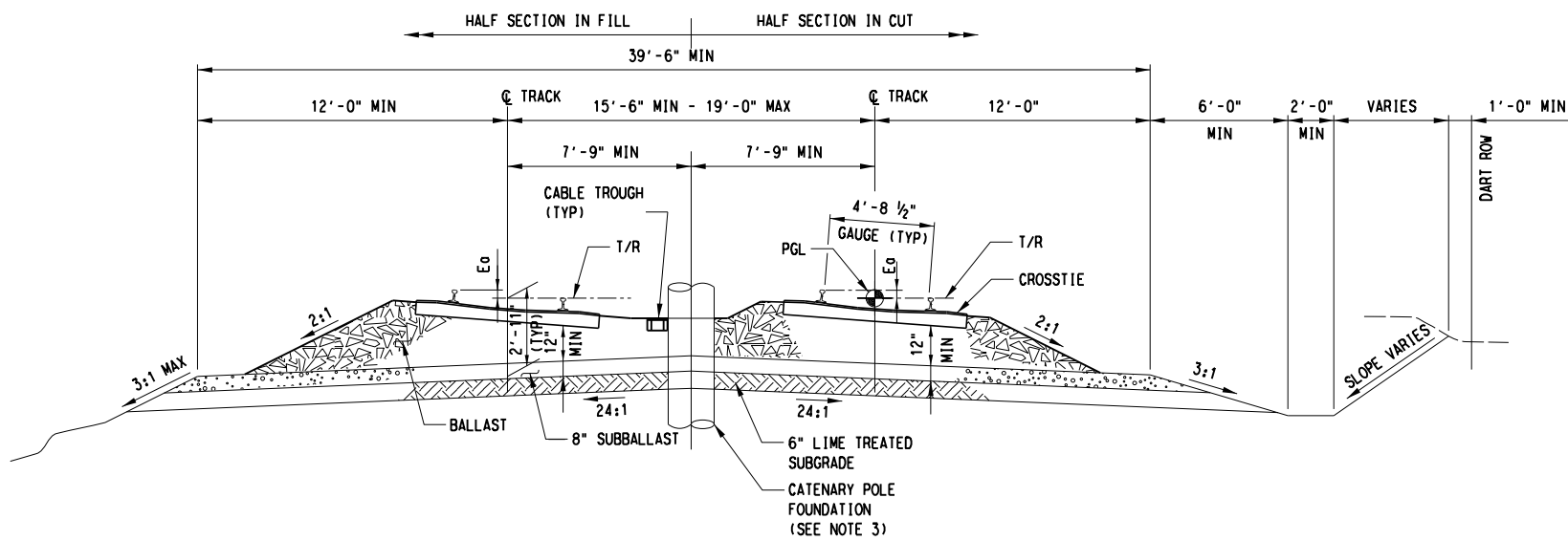
CONTRACT	DWG No.	CC5-0014	REV
----------	---------	----------	-----



**AT GRADE BALLASTED TANGENT TRACK**

NOT TO SCALE

CBD-2 STA 10+00.00 TO CBD-2 STA 13+48.17  
SE-1 STA 31+62.42 TO SE-1 STA 32+93.41



**AT GRADE BALLASTED SUPERELEVATED TRACK**

NOT TO SCALE

CBD-2 STA 13+48.17 TO CBD-2 STA 18+43.38  
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 20% DESIGN

CONTRACT SHEET No. 42 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

GUIDEWAY  
TYPICAL SECTIONS  
SHEET 1 OF 2

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

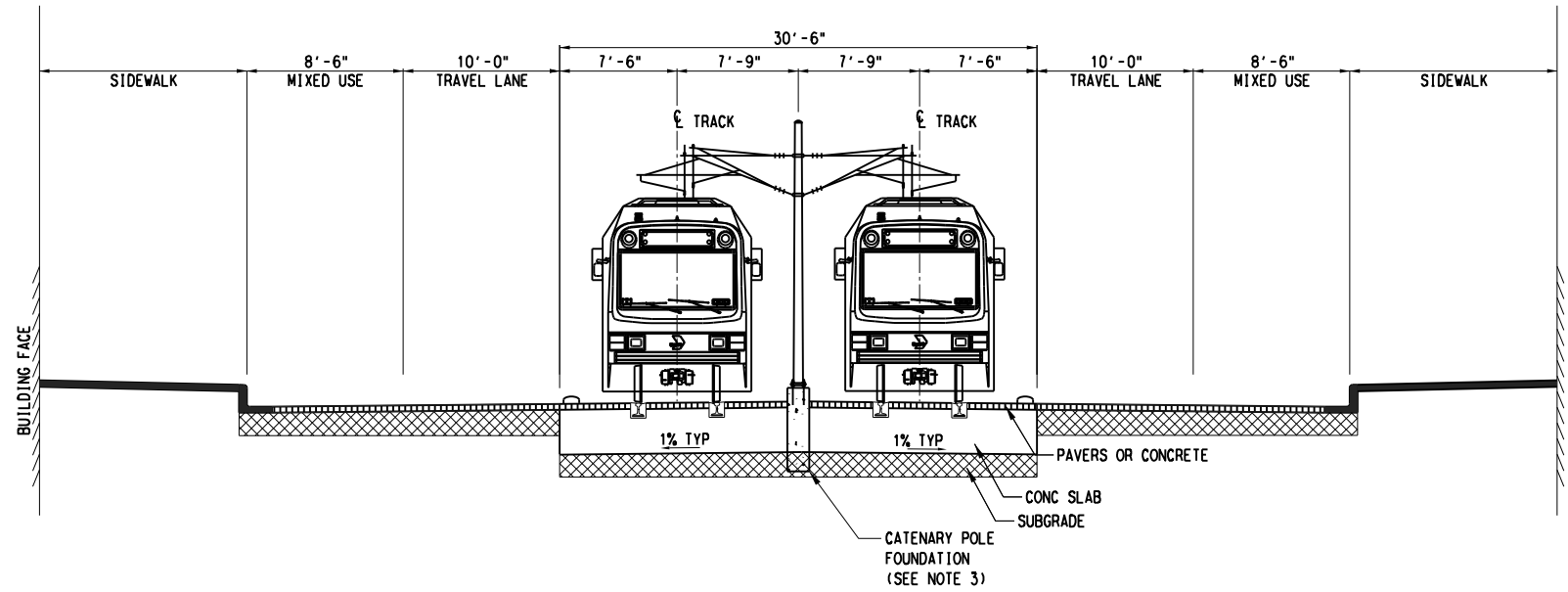


SCALE	NO SCALE
DRAWN	L. GURLO
DESIGNED	L. GURLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0001	

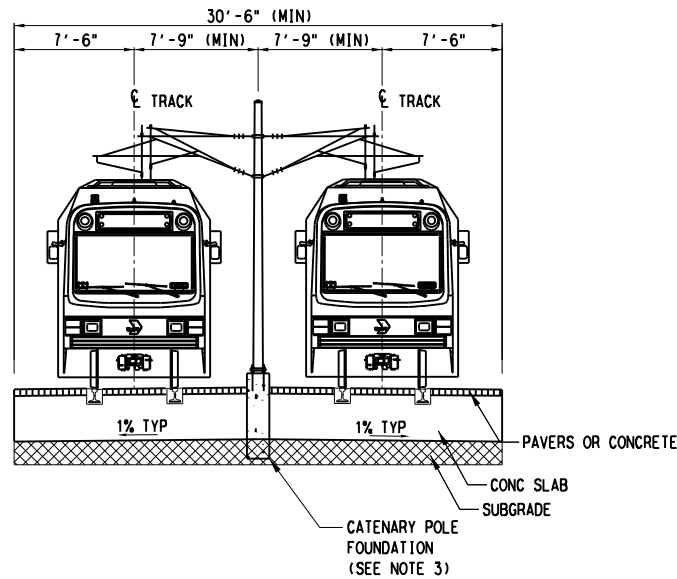
Friday, February 28, 2020 01:10:41 PM

DANGLE



**AT GRADE EMBEDDED TRACK - MUSEUM WAY**

NOT TO SCALE  
 CBD-2 STA 18+43.38 TO CBD-2 STA 24+79.66



**AT GRADE EMBEDDED TRACK**

NOT TO SCALE  
 CBD-2 STA 24+79.66 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 PCL 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 20% DESIGN

CONTRACT SHEET No. 43 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

GUIDEWAY  
 TYPICAL SECTIONS  
 SHEET 2 OF 2

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



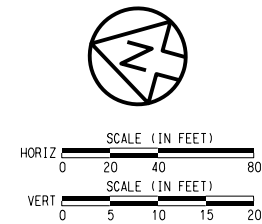
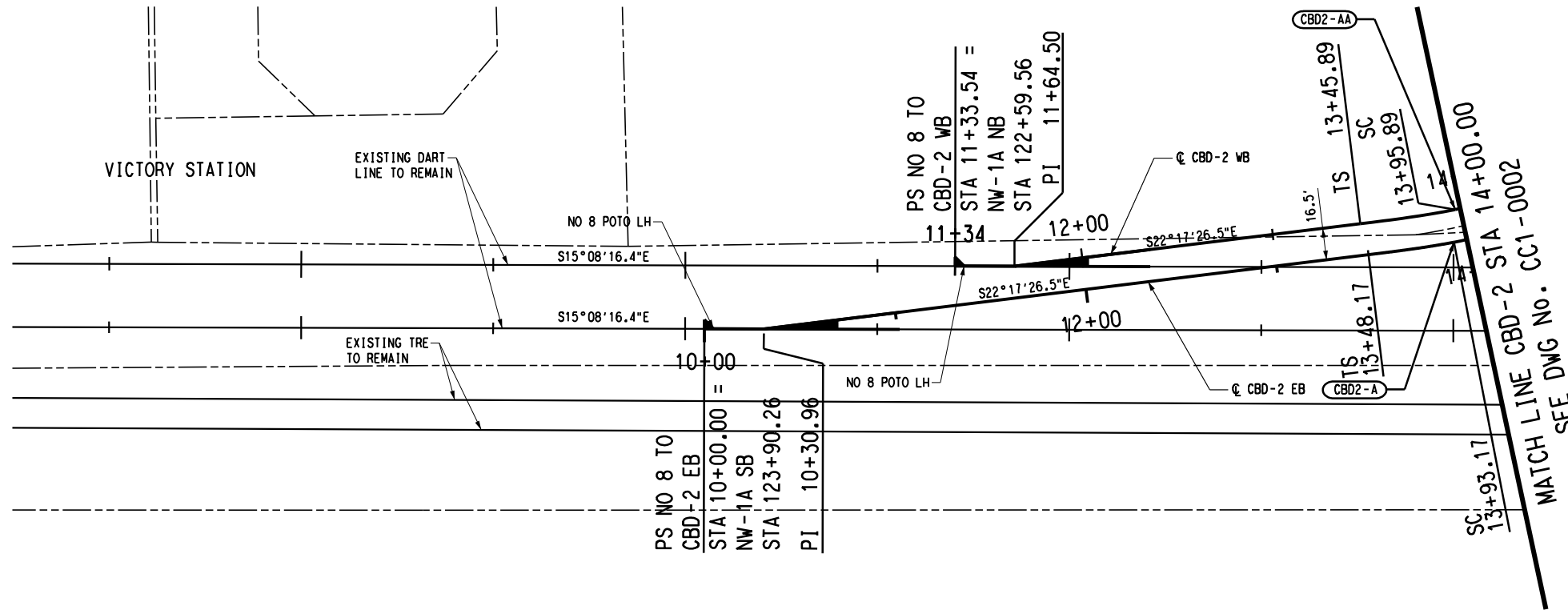
**DART PROJECT**



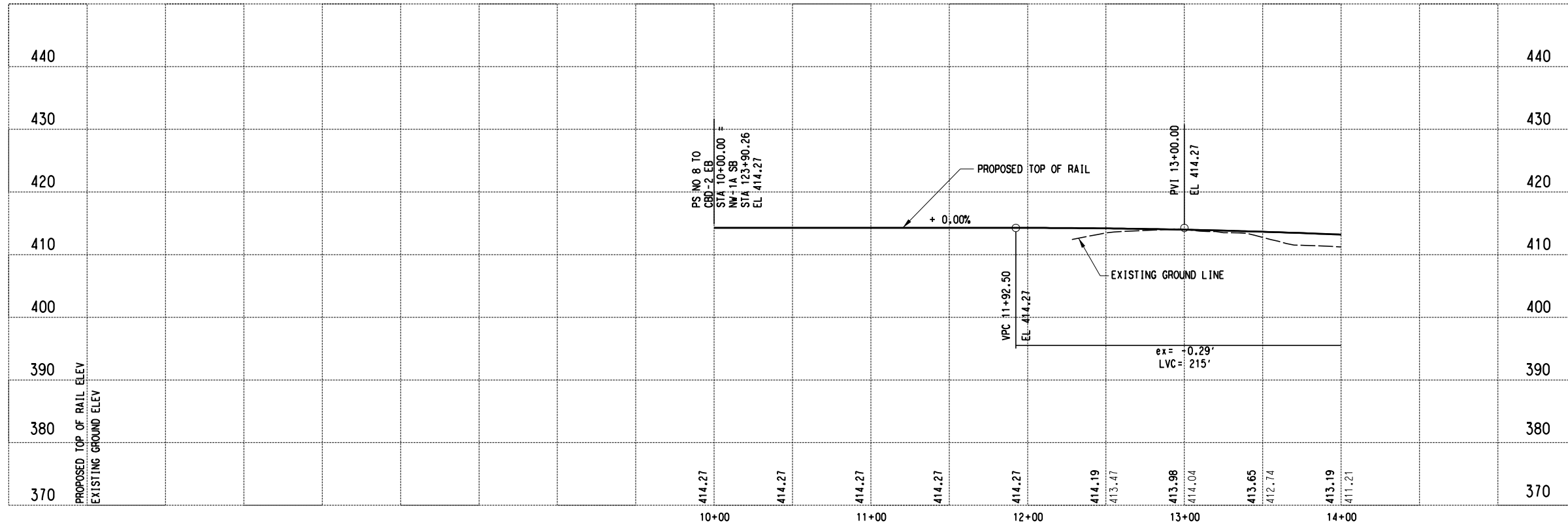
SCALE	NO SCALE
DRAWN	L. GUBL0
DESIGNED	L. GUBL0
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CC6-0002	REV
----------	------------------	-----



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 20% DESIGN

CONTRACT SHEET No. 44 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

GUIDEWAY PLAN AND PROFILE  
BEGIN PROJECT TO STA 14+00.00

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

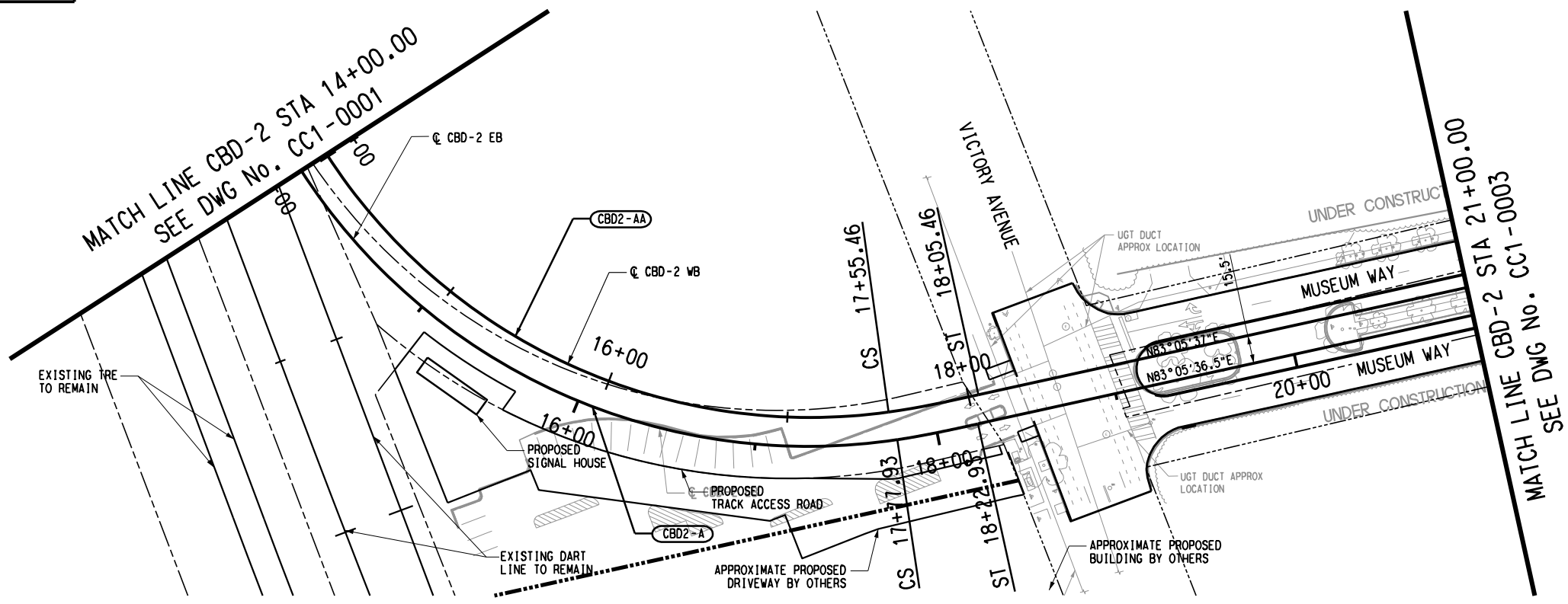


CONTRACT	DWG No. CC1-0001	REV
----------	------------------	-----

Friday, February 28, 2020 01:11:01 PM

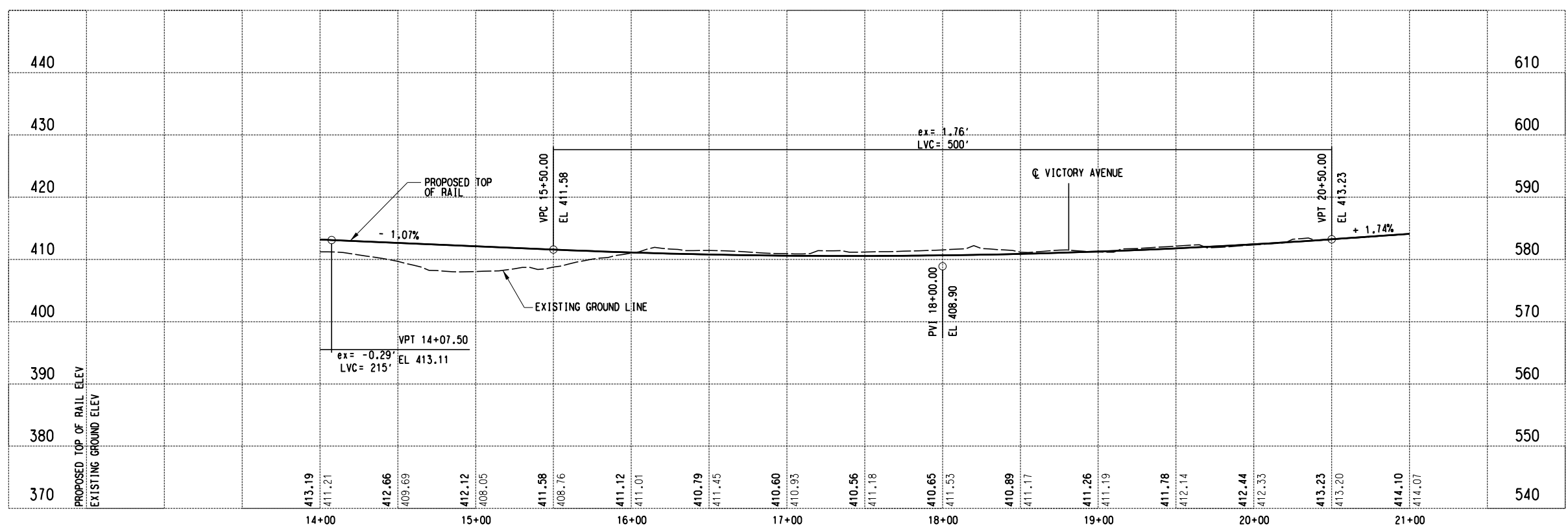
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



SCALE (IN FEET)  
 HORIZ 0 20 40 80  
 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'
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 20% DESIGN

CONTRACT SHEET No. 45 OF 276	
LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2	
GUIDEWAY PLAN AND PROFILE STA 14+00.00 TO STA 21+00.00	
CONTRACT	DWG No. CC1-0002
REV	

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

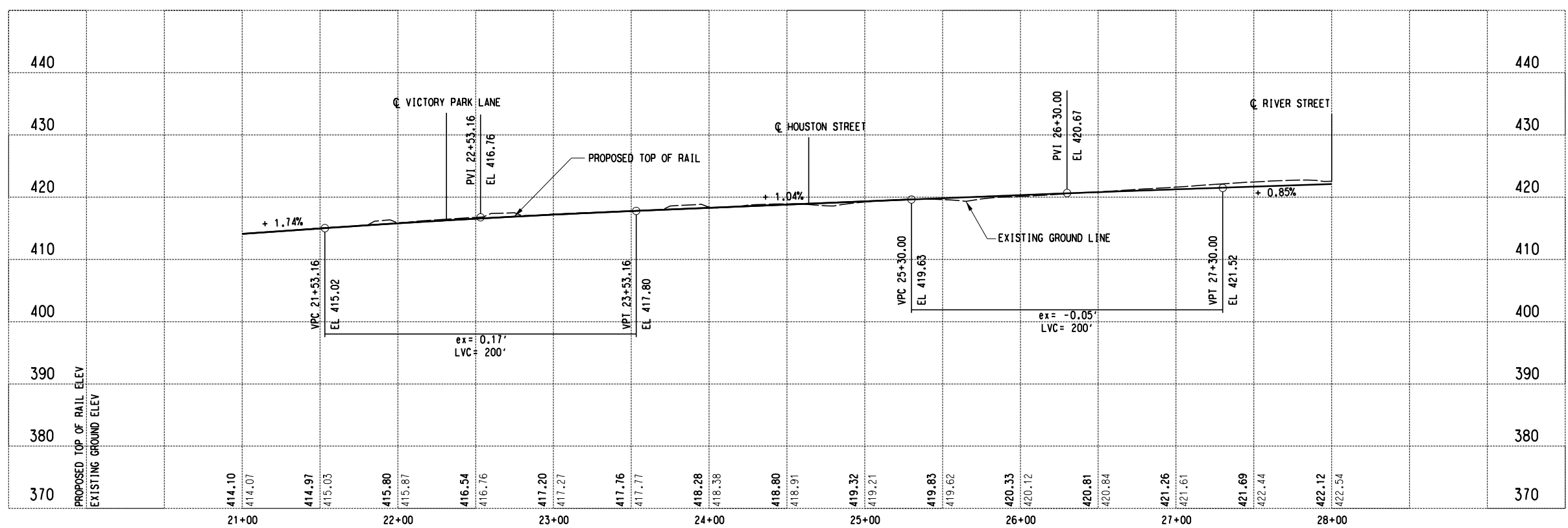
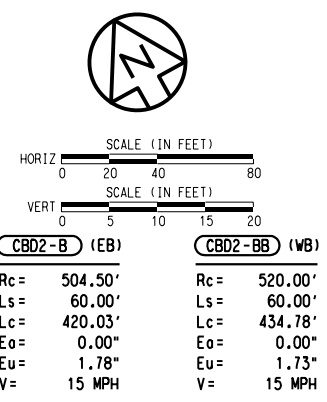
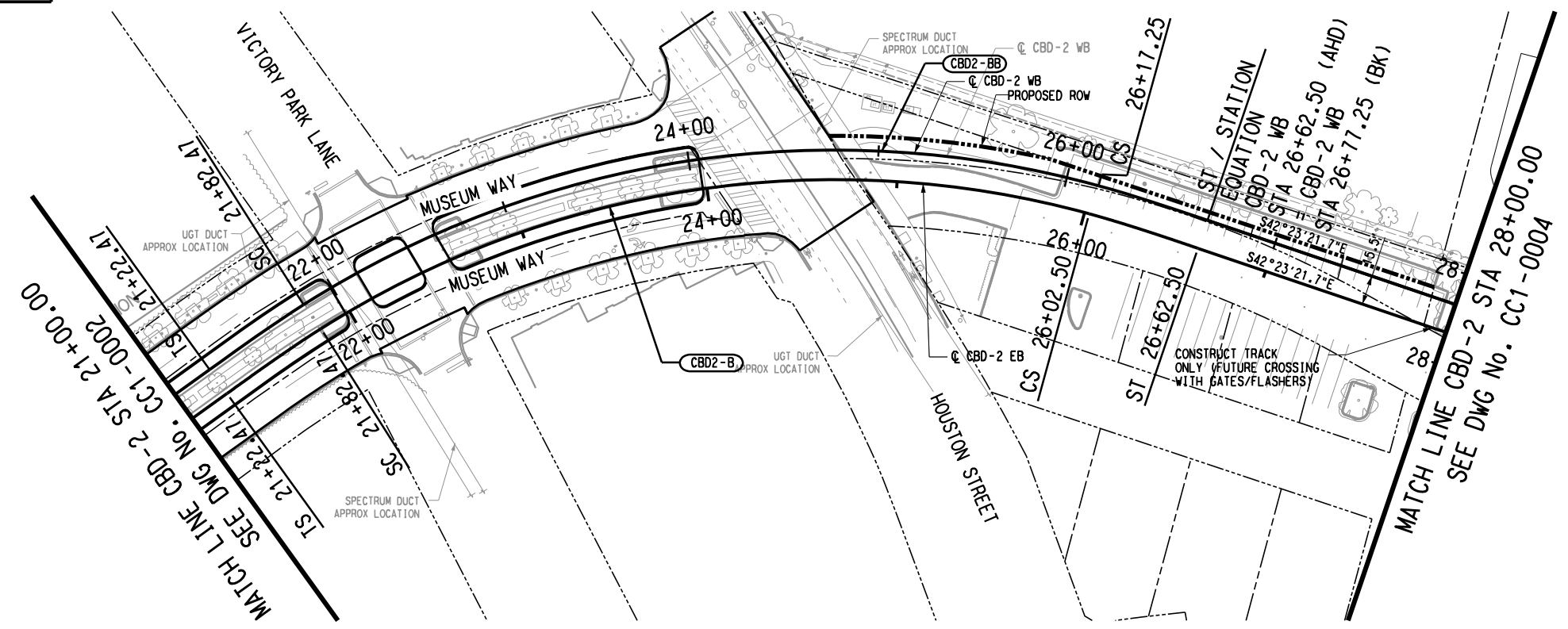


SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

Friday, February 28, 2020 01:11:08 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 46 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

CONTRACT	DWG No. CC1-0003	REV
----------	------------------	-----

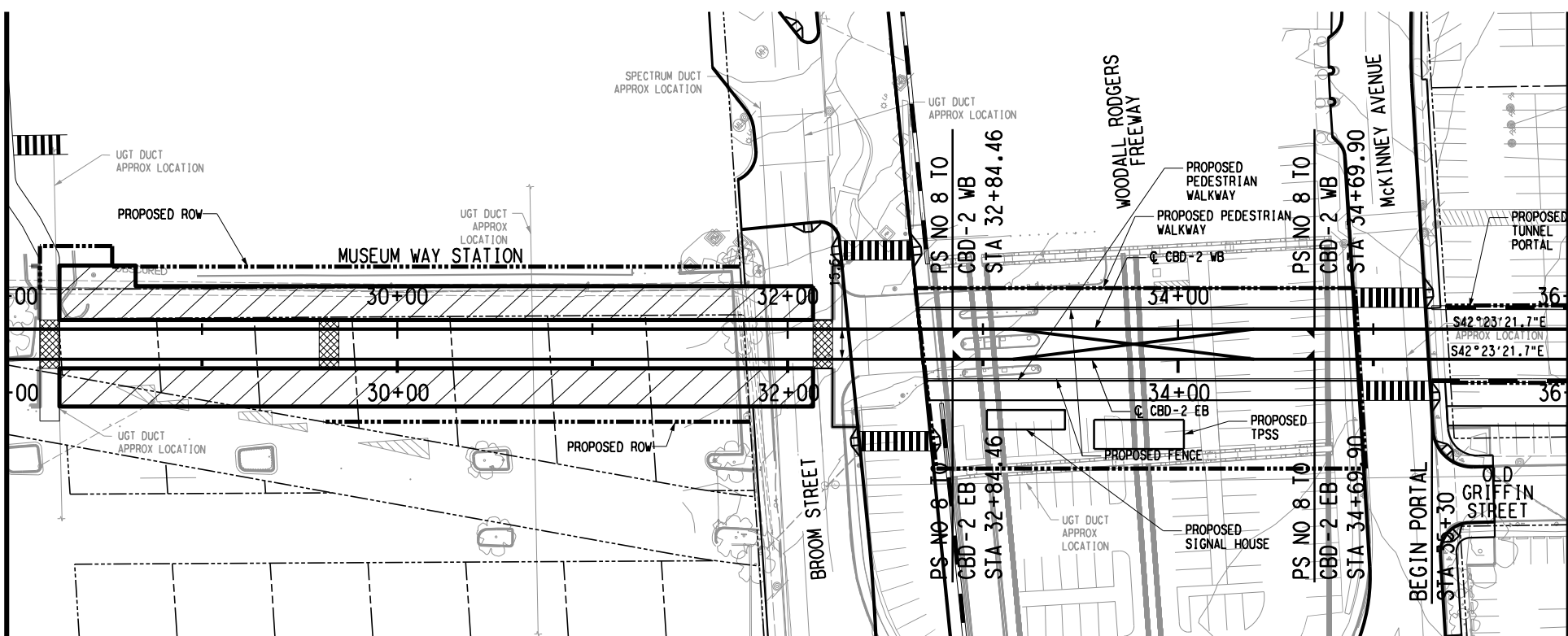
Friday, February 28, 2020 01:11:15 PM  
\$\$\$\$\$GNSPECIFICATION\$\$\$\$\$

DANGLE

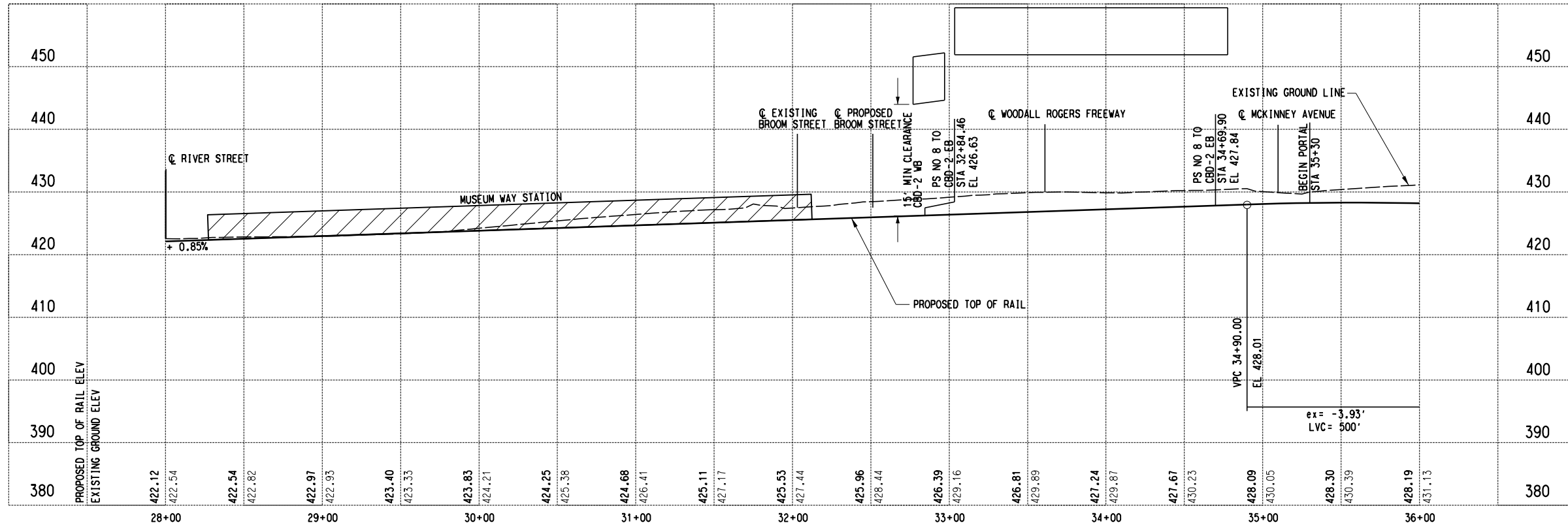
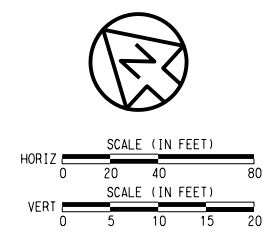
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



MATCH LINE CBD-2 STA 28+00.00  
SEE DWG No. CC1-0003



MATCH LINE CBD-2 STA 36+00.00  
SEE DWG No. CC1-0005



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 47 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

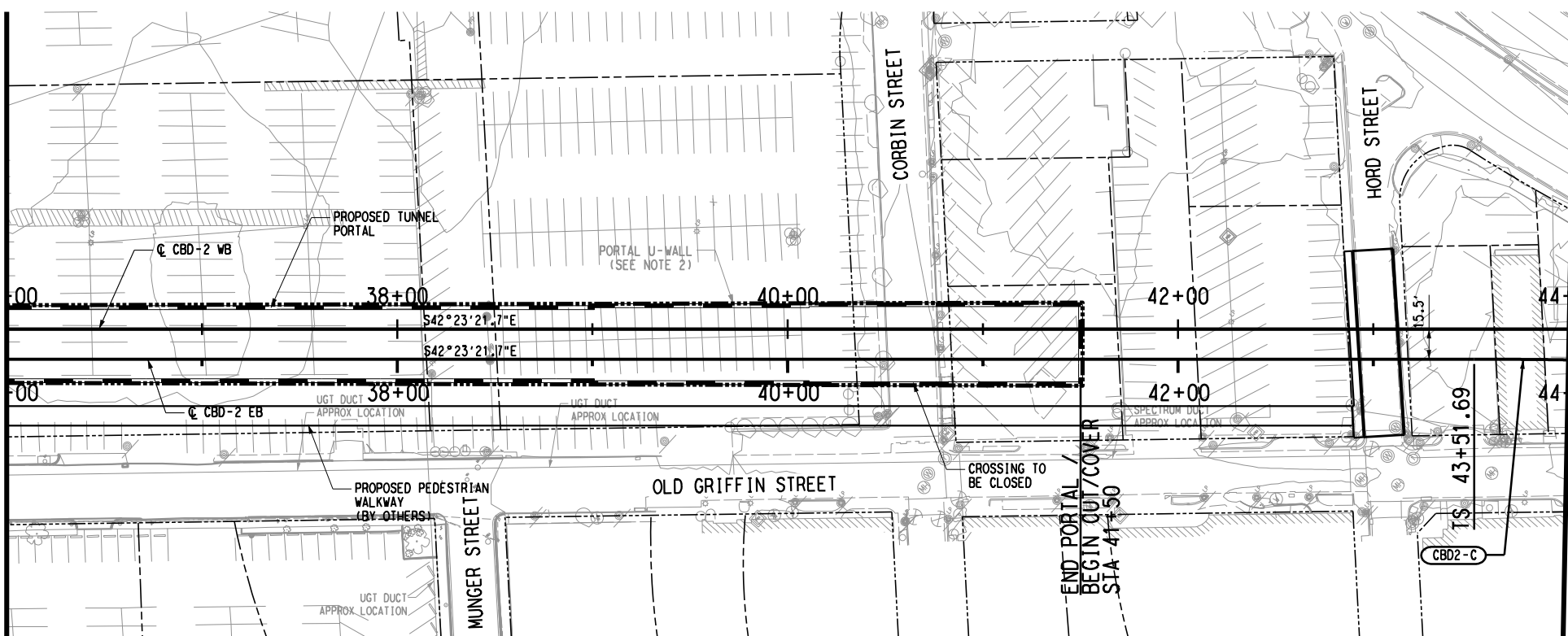
CONTRACT	DWG No. CC1-0004	REV
----------	------------------	-----

Friday, February 28, 2020 01:11:22 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

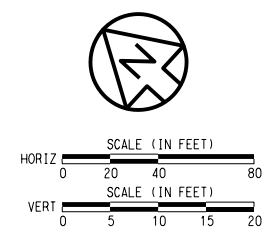
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

MATCH LINE CBD-2 STA 36+00.00  
SEE DWG No. CC1-0004

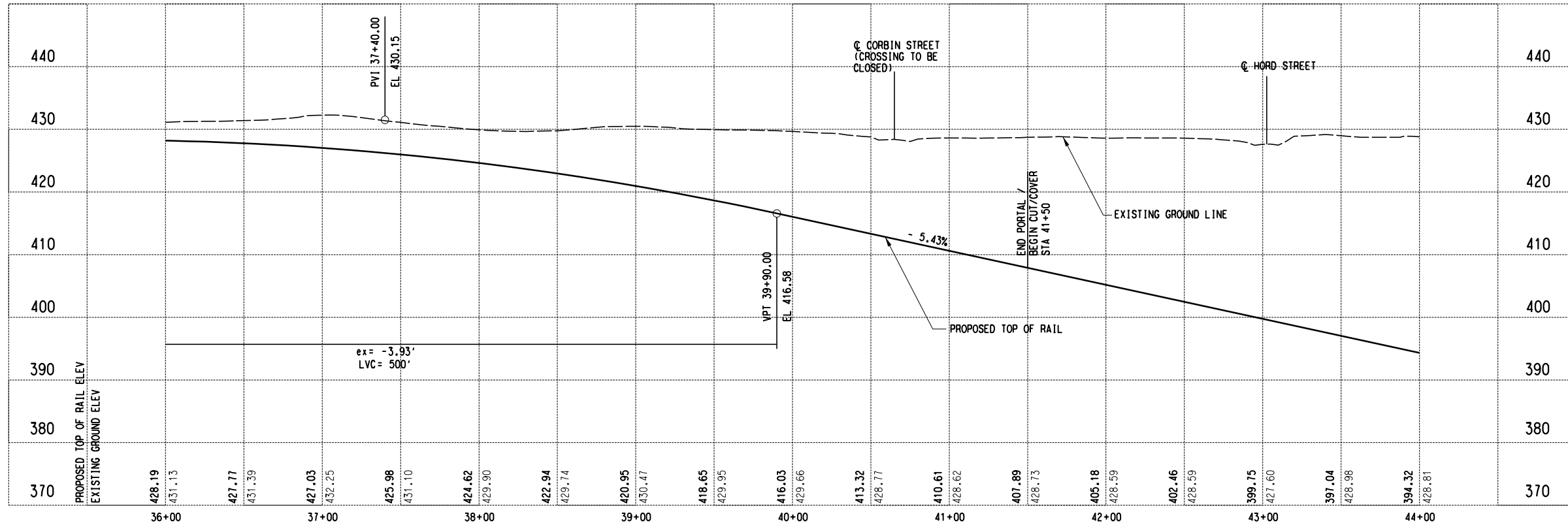


MATCH LINE CBD-2 STA 44+00.00  
SEE DWG No. CC1-0006



**CBD2-C (EB)**

Rc=	1000.00'
Ls=	60.00'
Lc=	416.04'
Ea=	1.00"
Eu=	1.50"
V=	25 MPH



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 48 OF 276

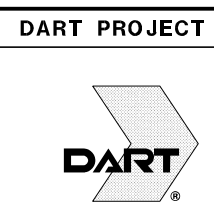
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

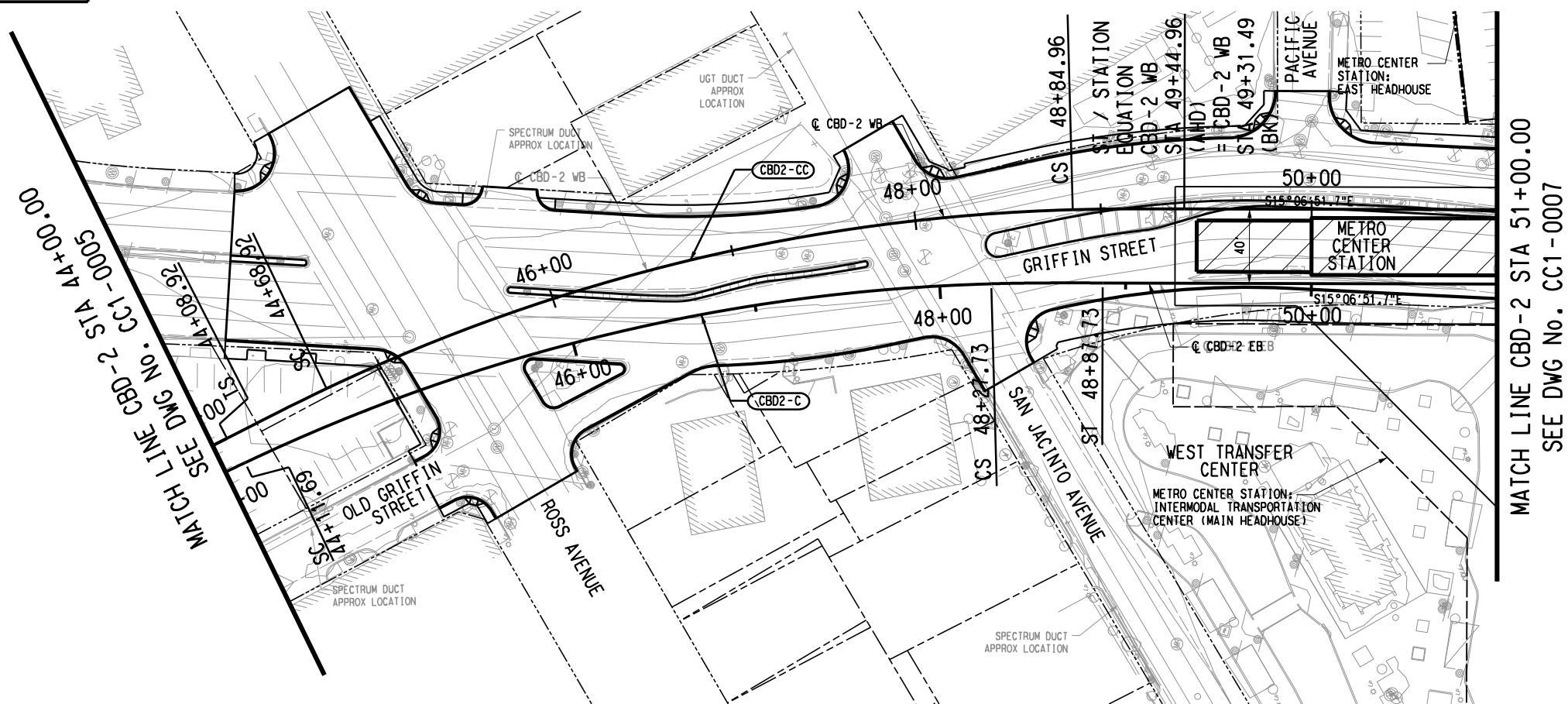


SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CC1-0005	REV
----------	------------------	-----

Friday, February 28, 2020 01:11:33 PM

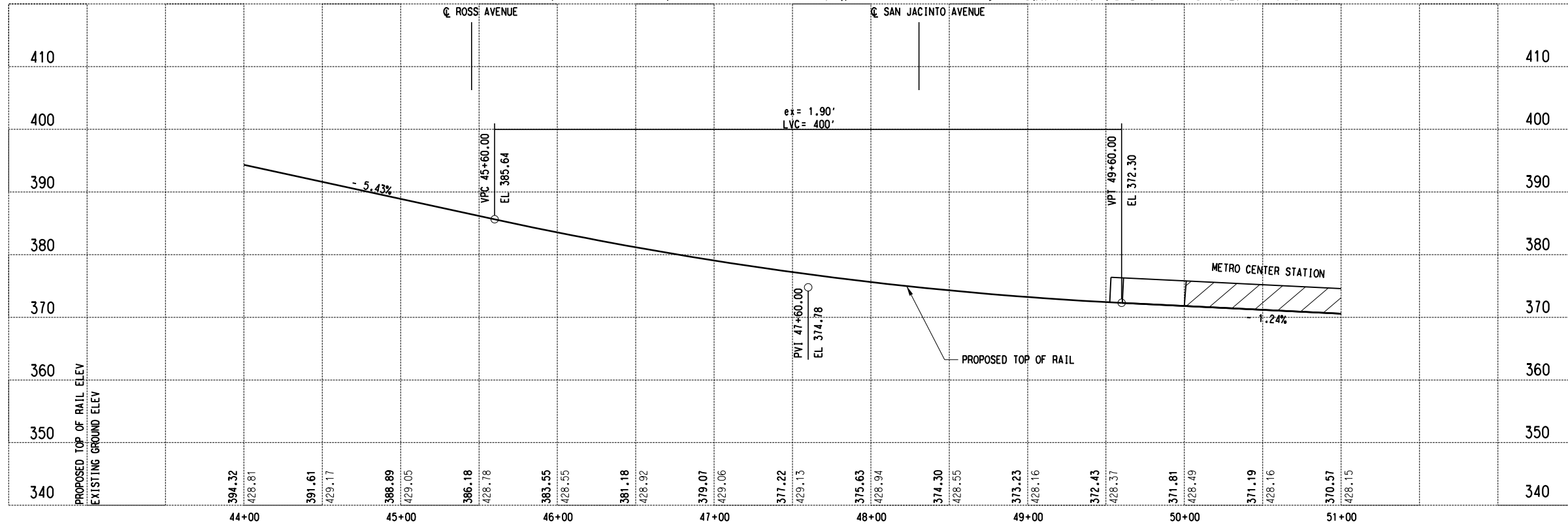
DANGLE



SCALE (IN FEET)  
 HORIZ 0 20 40 80  
 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

MATCH LINE CBD-2 STA 51+00.00  
 SEE DWG No. CC1-0007



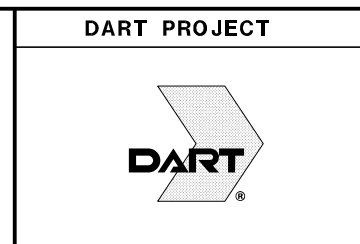
NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 49 OF 276

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. 124511  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. GURLO
DESIGNED	L. GURLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

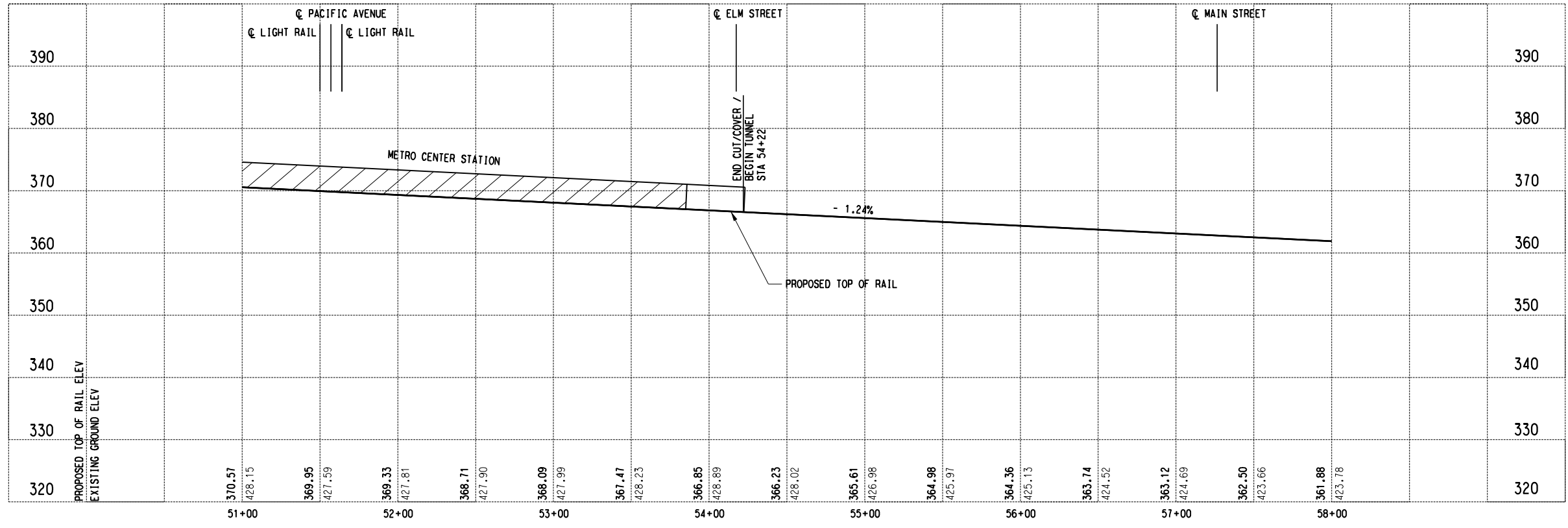
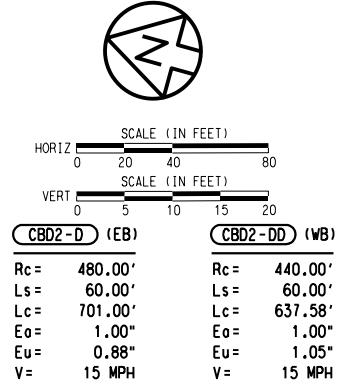
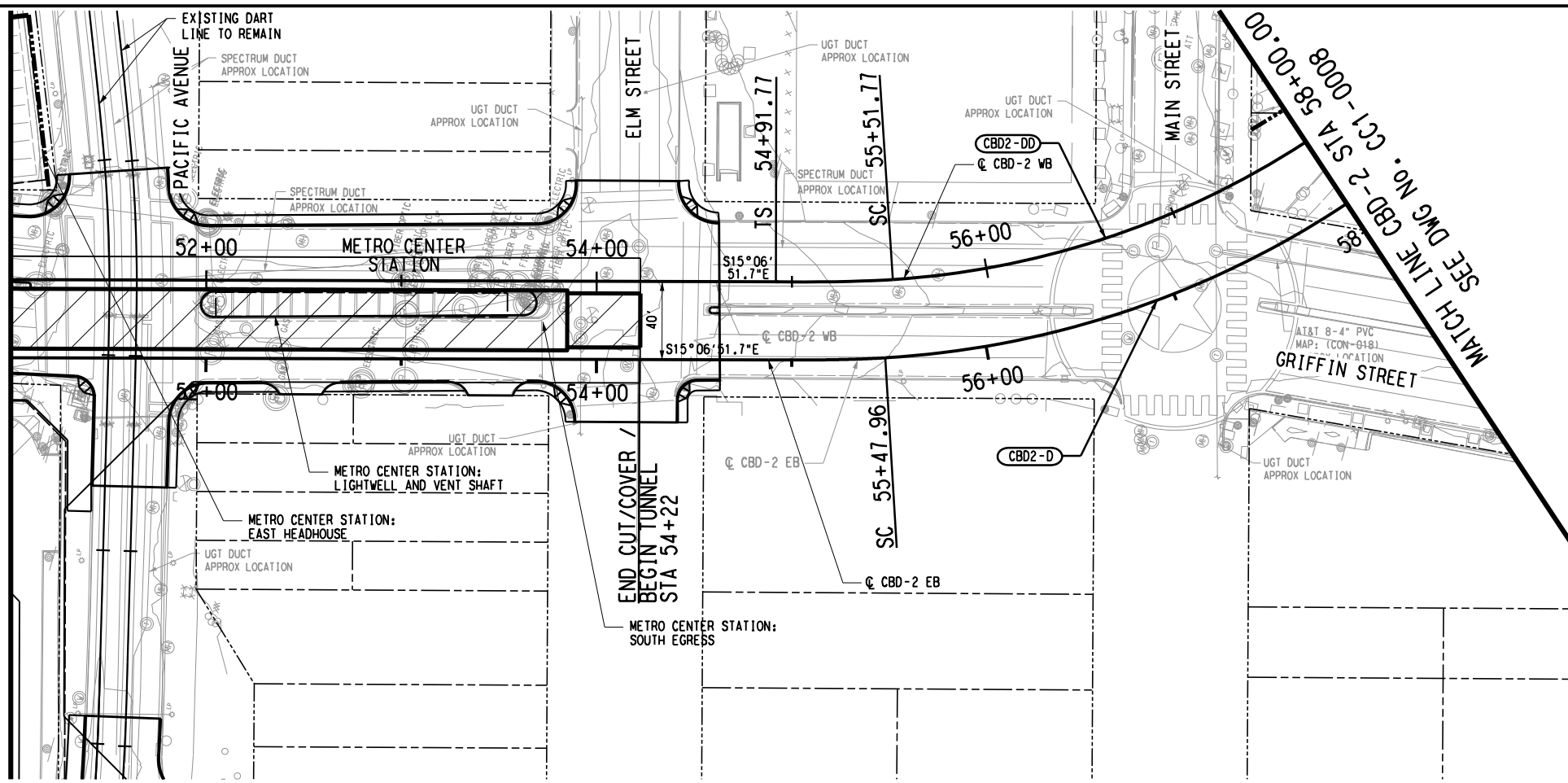
**CAES**  
 CONTRACT SHEET No. 49 OF 276  
**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
**GUIDEWAY PLAN AND PROFILE**  
**STA 44+00.00 TO STA 51+00.00**

CONTRACT	DWG No. CC1-0006	REV	
----------	------------------	-----	--

Friday, February 28, 2020 01:11:45 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$

DANGLE

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 50 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

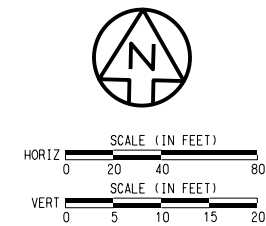
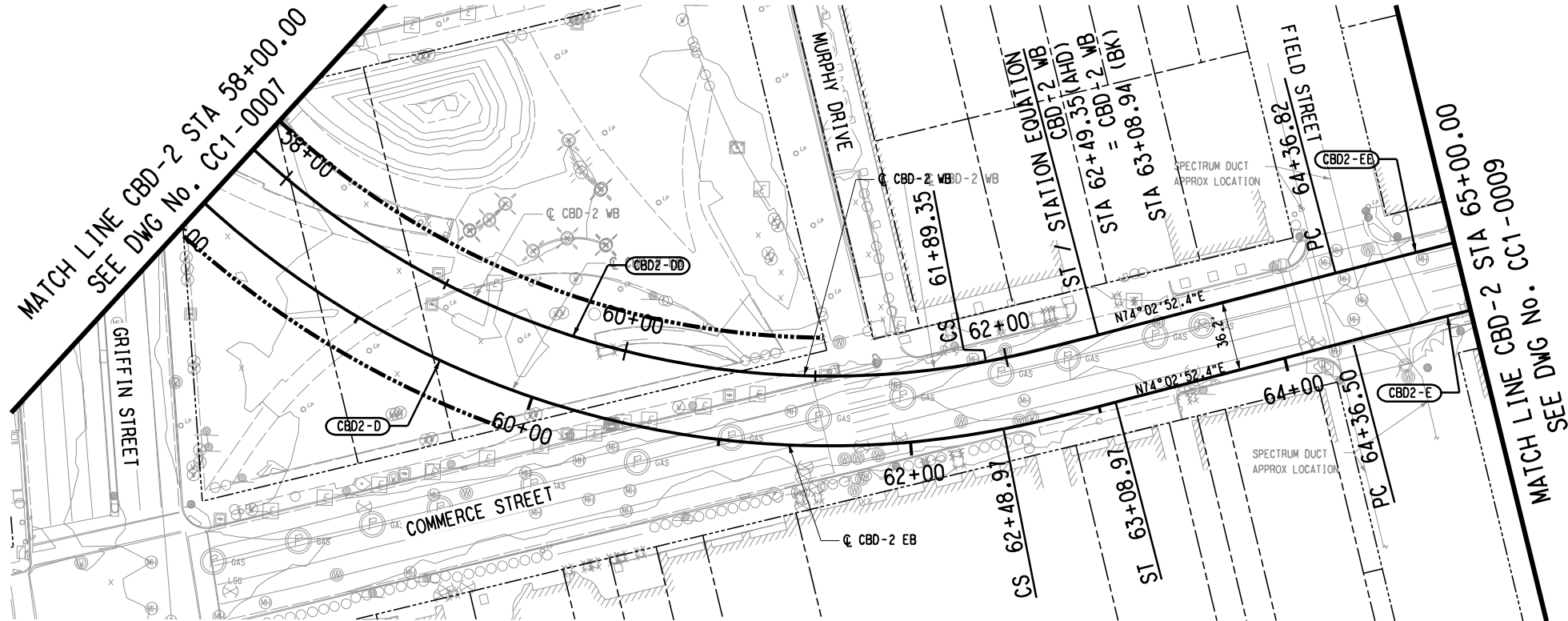
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC., TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**DART PROJECT**

SCALE: 1" = 40'

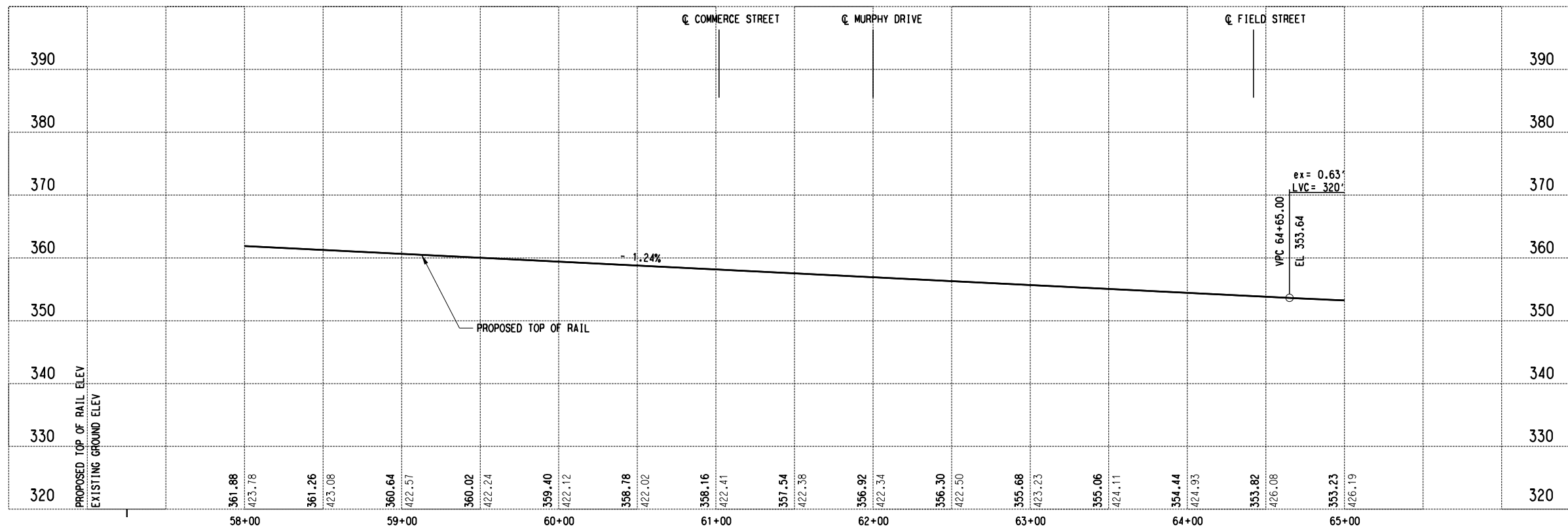
DRAWN	L. GURLO
DESIGNED	L. GURLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CC1-0007	REV
----------	------------------	-----



CBD2-D (EB)		CBD2-DD (WB)	
Rc =	480.00'	Rc =	440.00'
Ls =	60.00'	Ls =	60.00'
Lc =	701.00'	Lc =	637.58'
Ea =	1.00"	Ea =	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'
Ea =	0.00"	Ea =	0.00"
Eu =	0.15"	Eu =	0.14"
V =	20 MPH	V =	20 MPH



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 51 OF 276

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



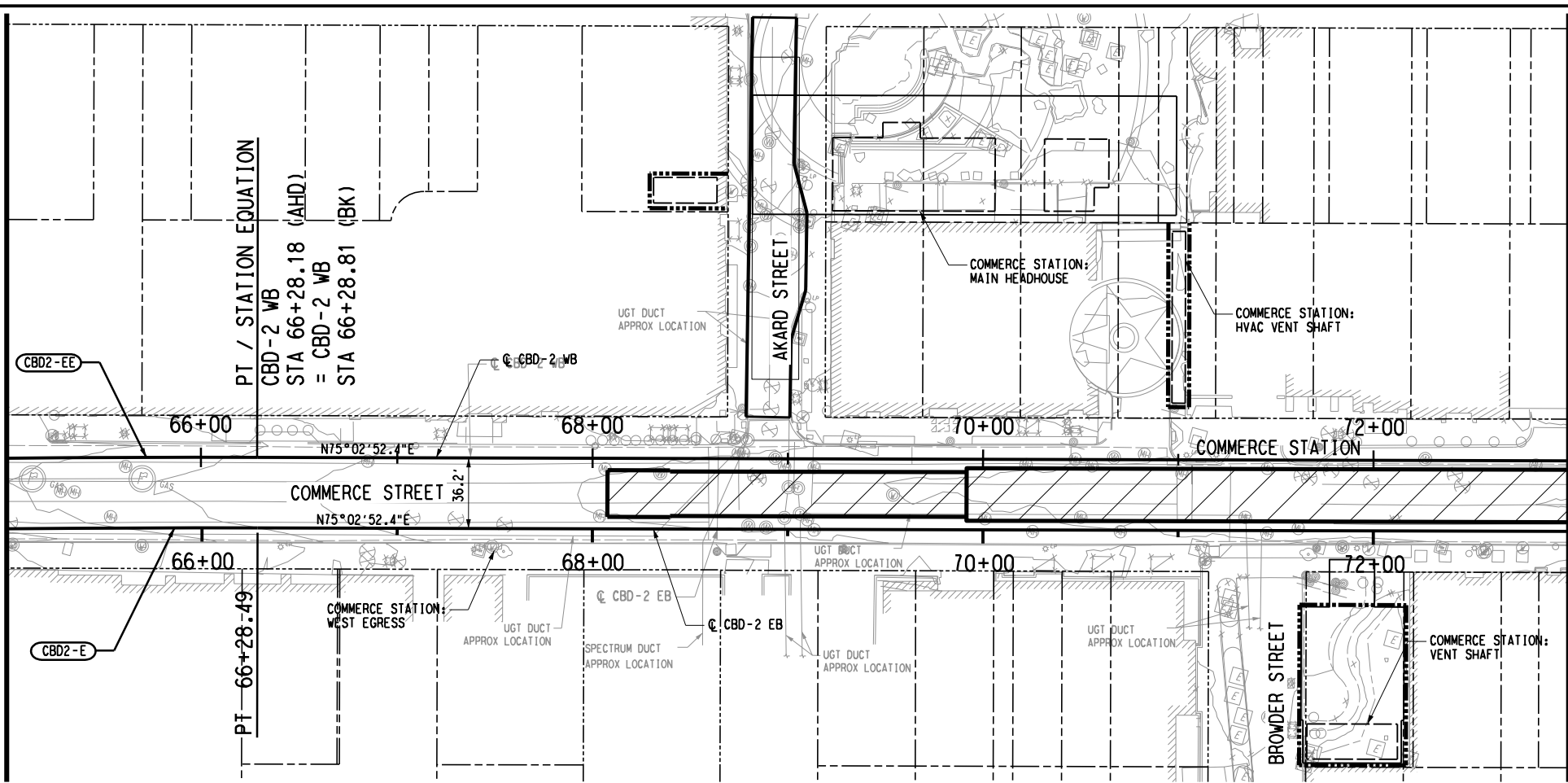
SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

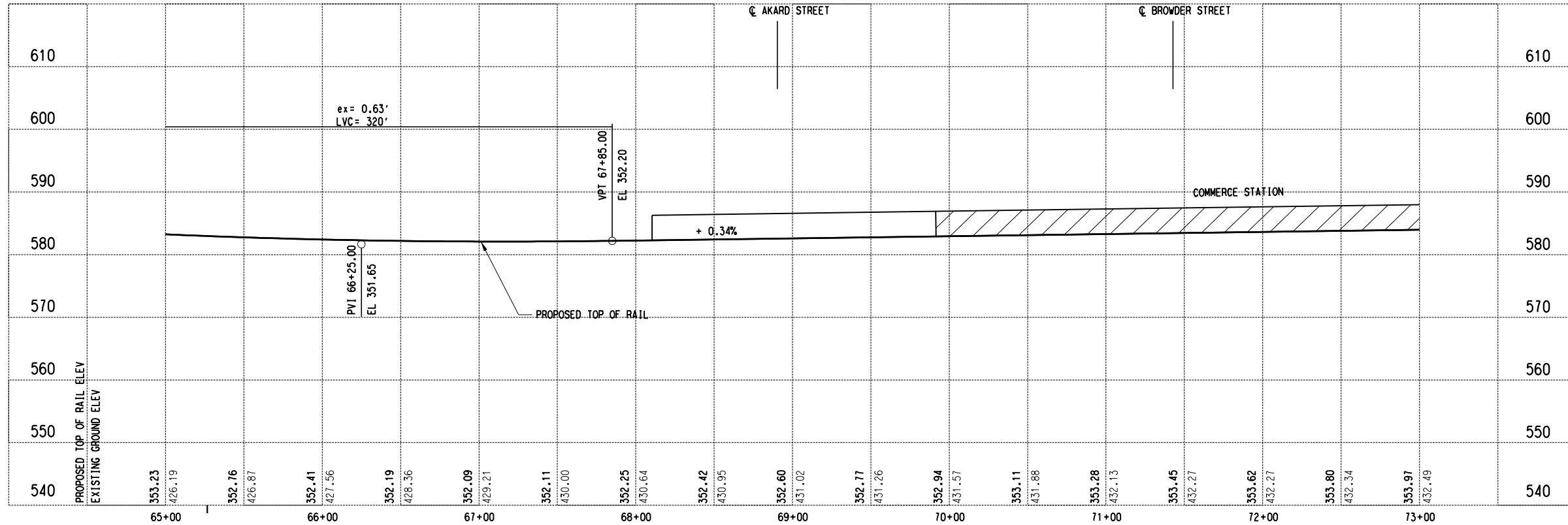
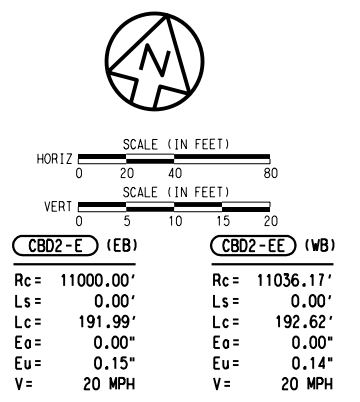
Friday, February 28, 2020 01:12:07 PM

DANGLE

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 52 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

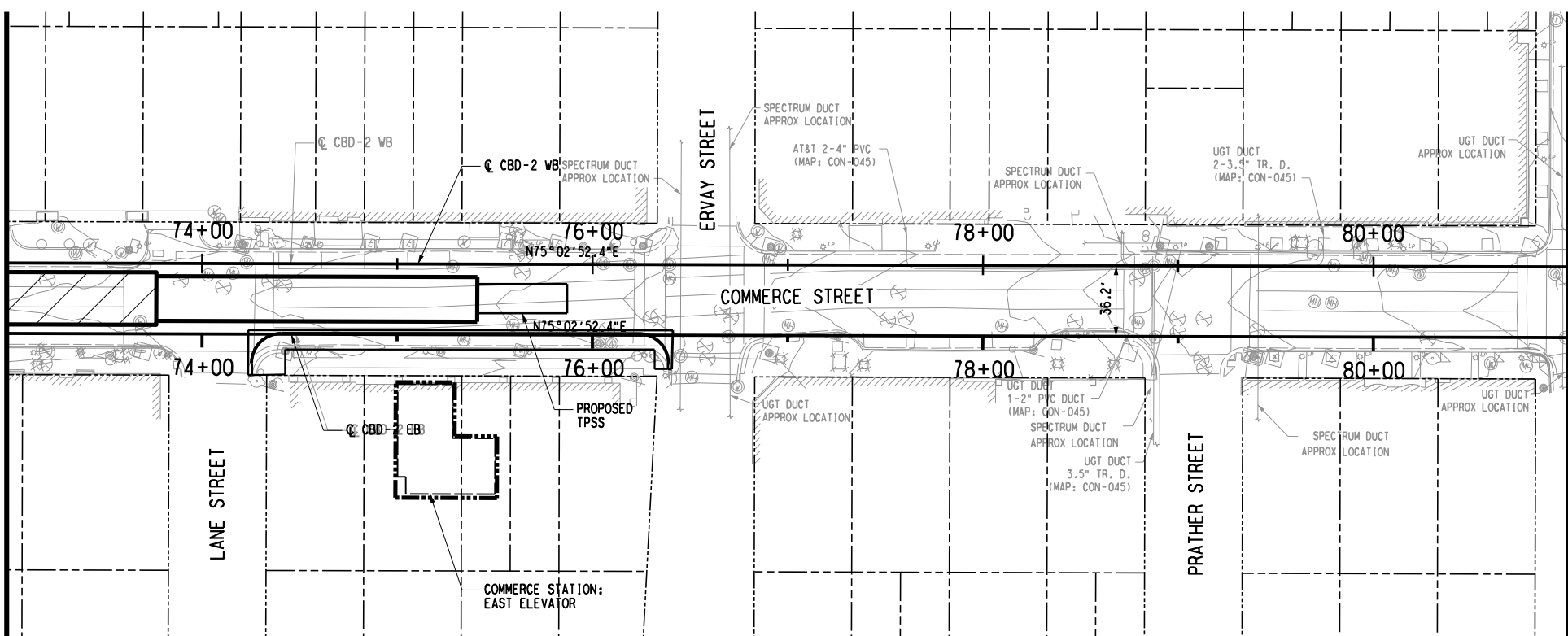
CONTRACT	DWG No. CC1-0009	REV
----------	------------------	-----

Friday, February 28, 2020 01:12:16 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

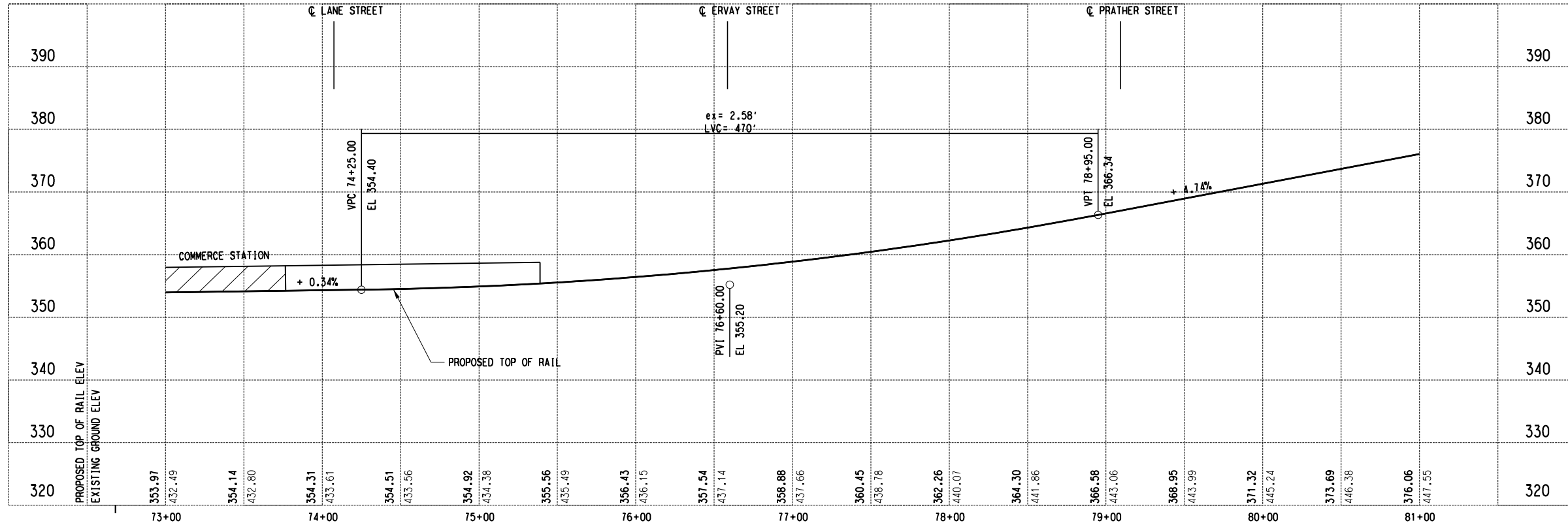
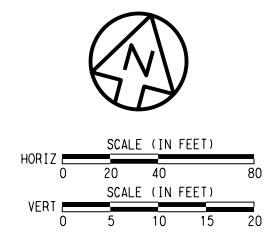
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

MATCH LINE CBD-2 STA 73+00.00  
SEE DWG No. CC1-0009



MATCH LINE CBD-2 STA 81+00.00  
SEE DWG No. CC1-0011

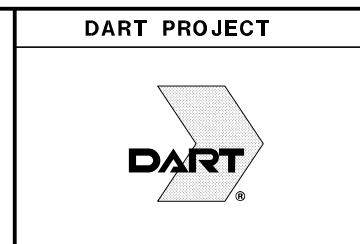


NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 53 OF 276

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

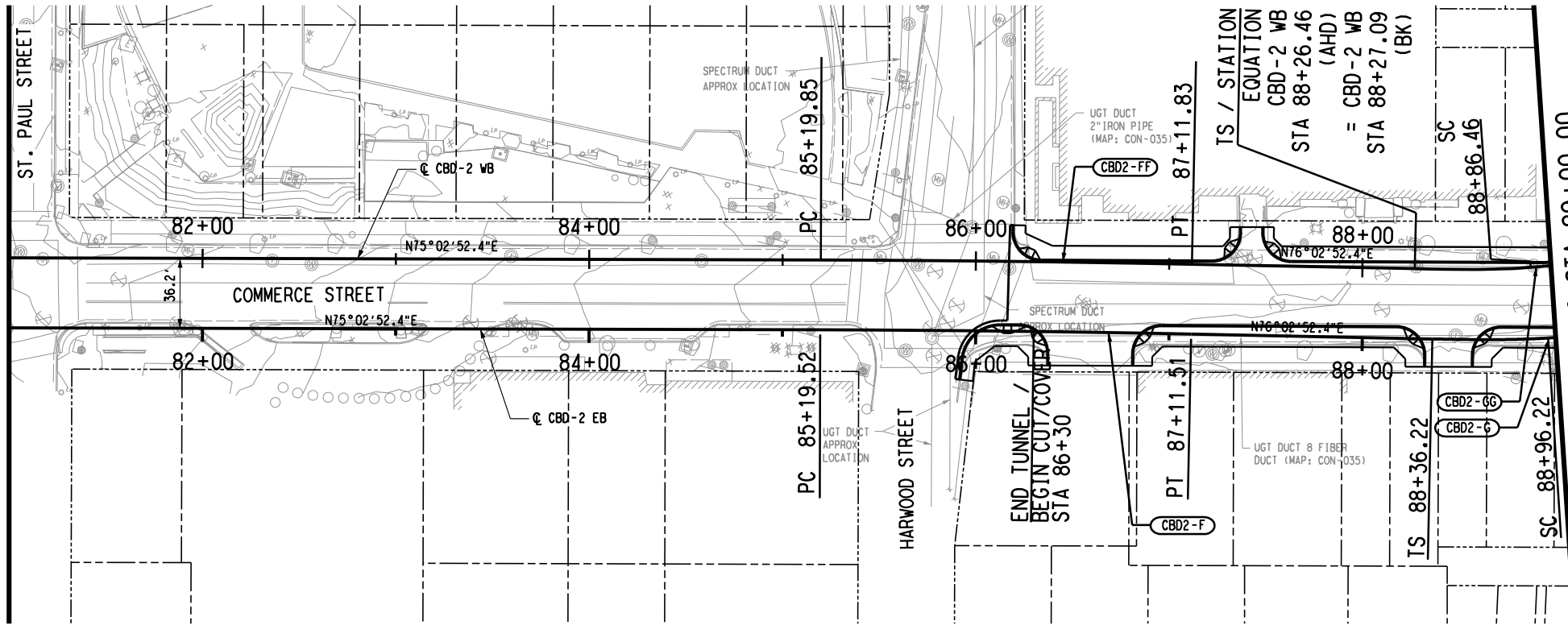
**GUIDEWAY PLAN AND PROFILE  
STA 73+00.00 TO STA 81+00.00**

CONTRACT	DWG No. CC1-0010	REV
----------	------------------	-----

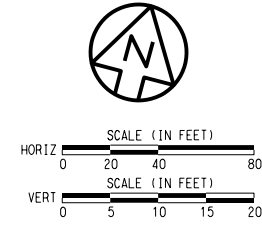
Friday, February 28, 2020 01:12:24 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

MATCH LINE CBD-2 STA 81+00.00  
SEE DWG No. CC1-0010

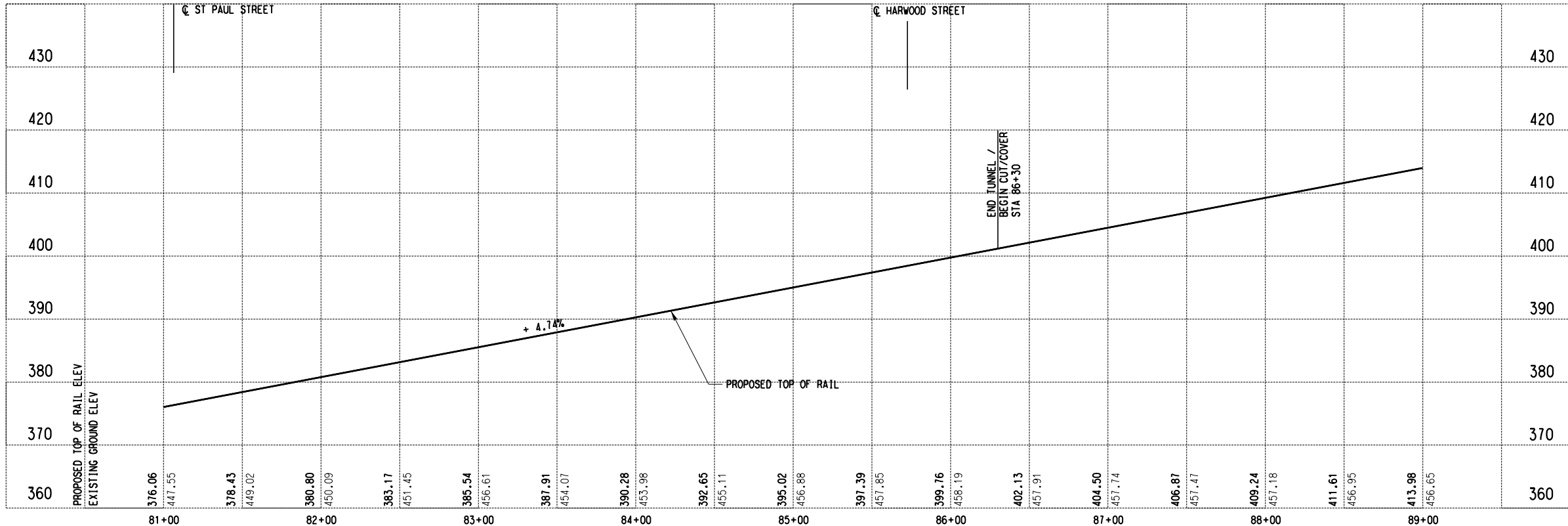


MATCH LINE CBD-2 STA 89+00.00  
SEE DWG No. CC1-0012



CBD2-F (EB)		CBD2-FF (WB)	
Rc=	11000.00'	Rc=	11036.17'
Ls=	0.00'	Ls=	0.00'
Lc=	191.99'	Lc=	192.62'
Ea=	0.00'	Ea=	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'
Ea=	1.50"	Ea=	1.50"
Eu=	1.03"	Eu=	1.31"
V=	15 MPH	V=	15 MPH



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 54 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

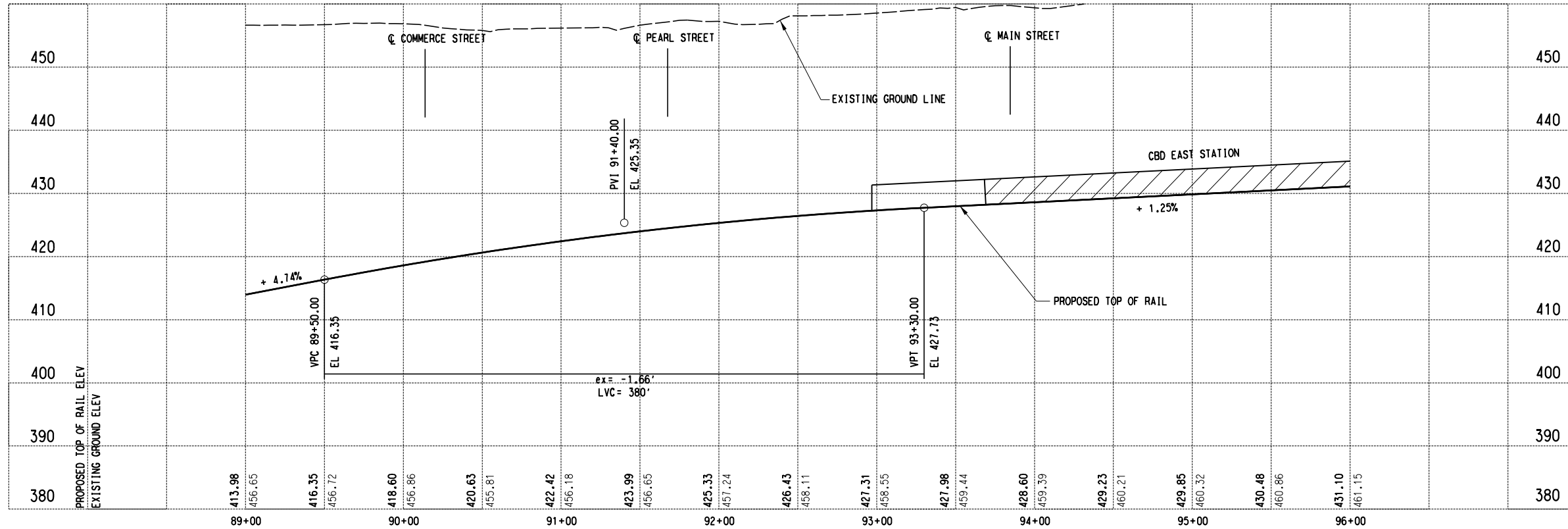
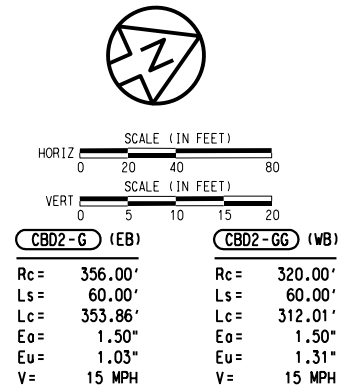
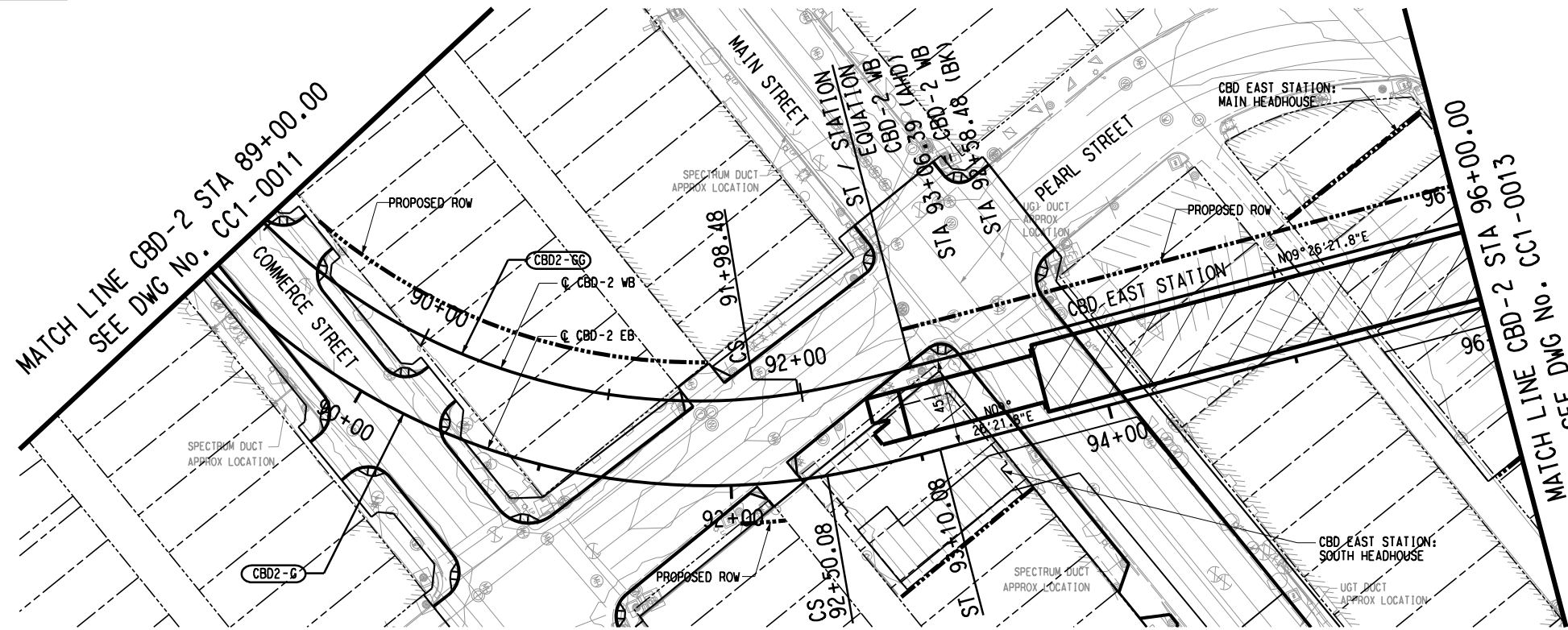
SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No.	CC1-0011	REV
----------	---------	----------	-----

Friday, February 28, 2020 01:12:32 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE





NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 55 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

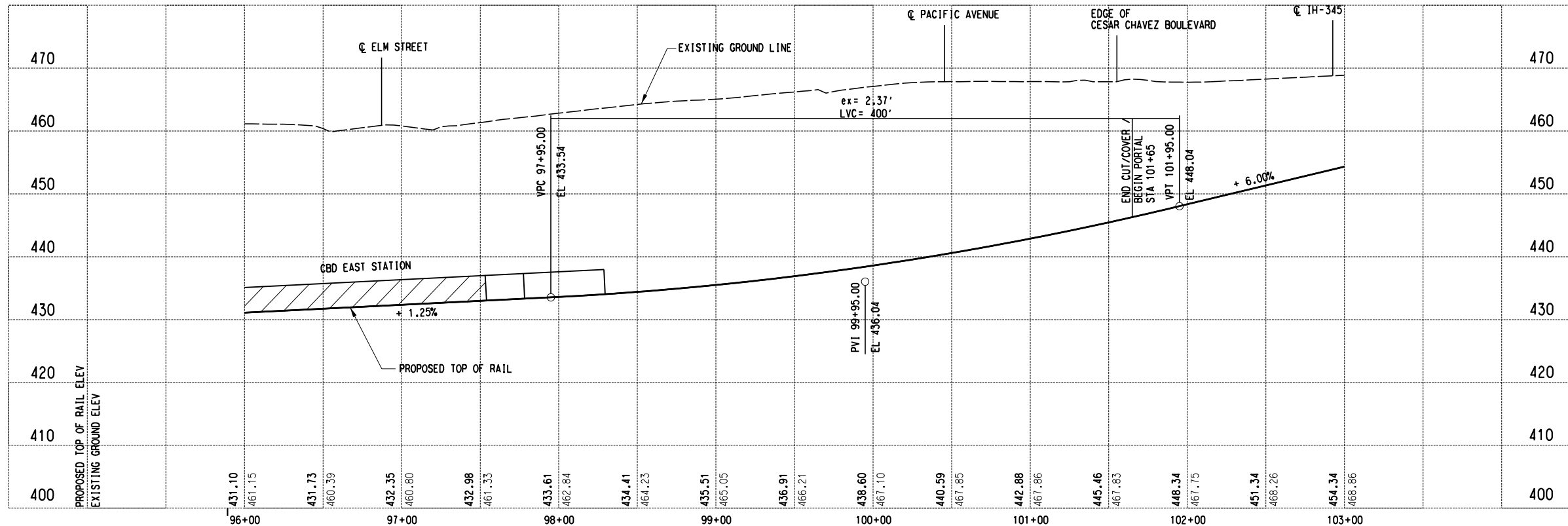
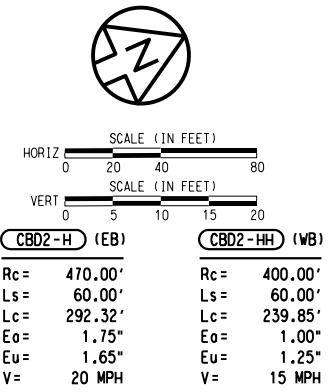
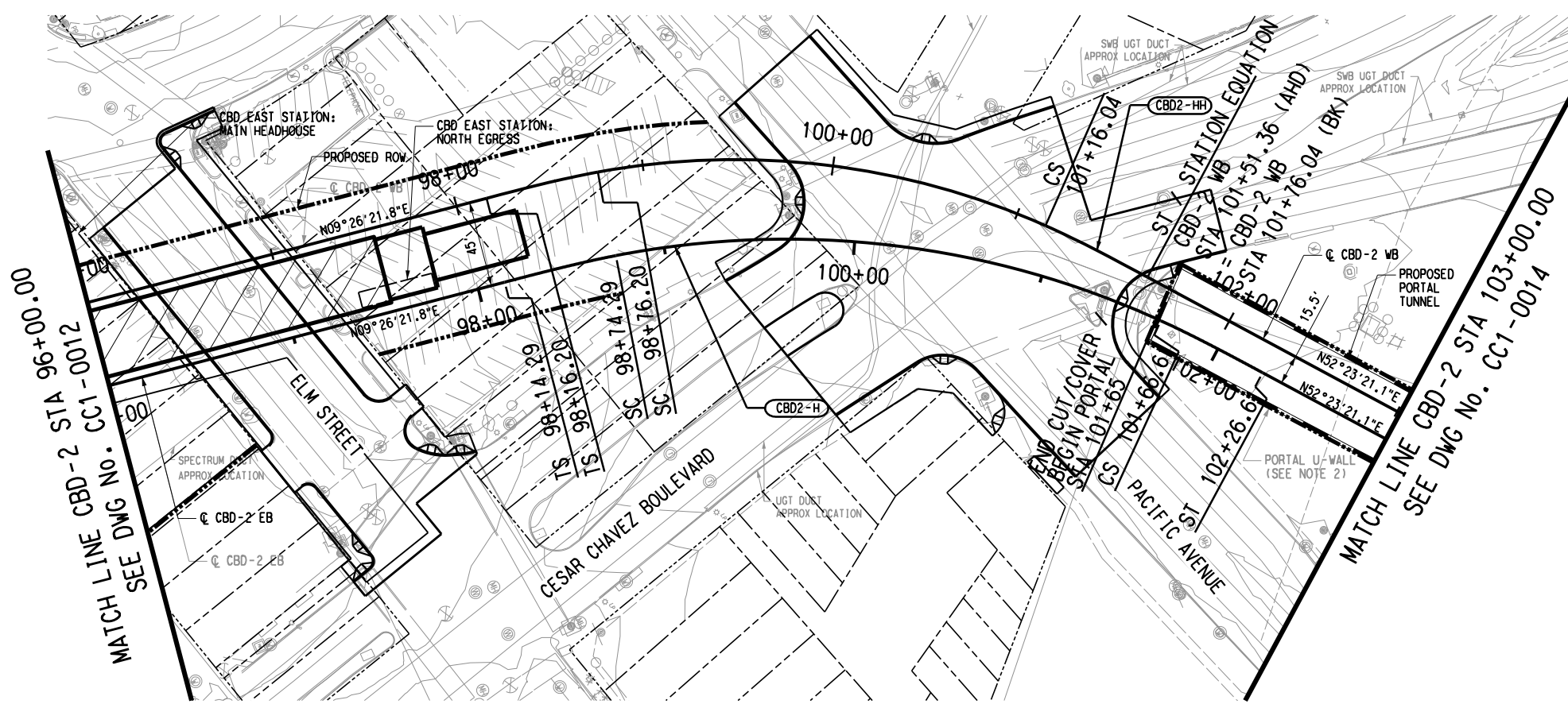
**DART PROJECT**

SCALE	1" = 40'
DRAWN	L. GURLO
DESIGNED	L. GURLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCI-0012	REV
----------	------------------	-----

Friday, February 28, 2020 01:12:41 PM

DANGLE



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 56 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



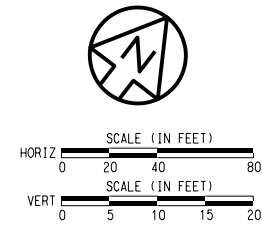
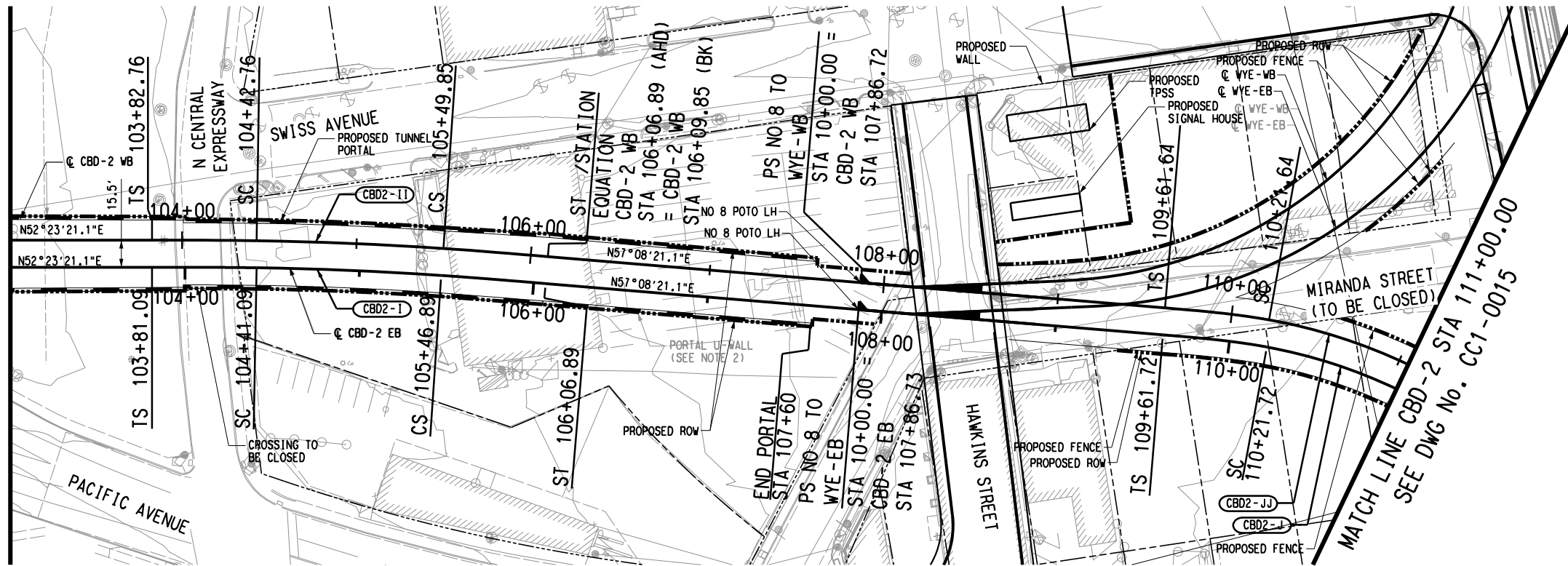
DART PROJECT



SCALE	1" = 40'
DRAWN	L. GUBL0
DESIGNED	L. GUBL0
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

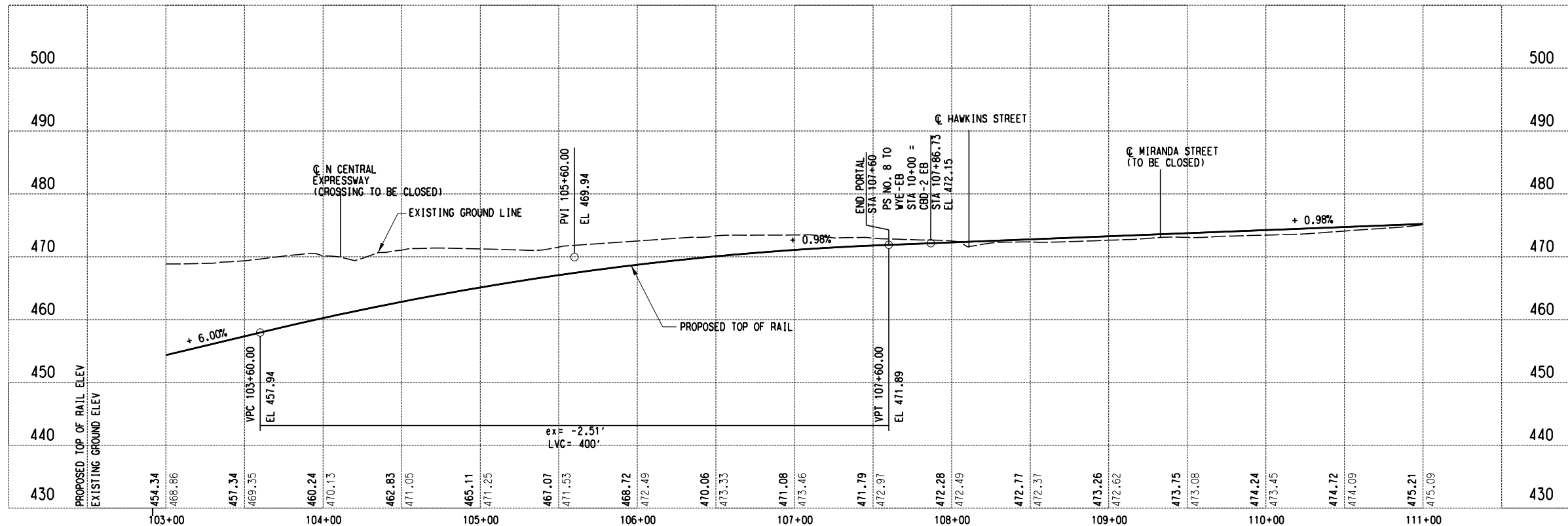
CONTRACT	DWG No. CC1-0013	REV
----------	------------------	-----

MATCH LINE CBD-2 STA 103+00.00  
SEE DWG No. CCI-0013



CBD2-I (EB)	CBD2-II (WB)
Rc= 2000.00'	Rc= 2015.50'
Ls= 60.00'	Ls= 60.00'
Lc= 105.81'	Lc= 107.09'
Ea= 0.50"	Ea= 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'
Ea= 1.50"	Ea= 1.50"
Eu= 1.50"	Eu= 1.35"
V= 15 MPH	V= 15 MPH



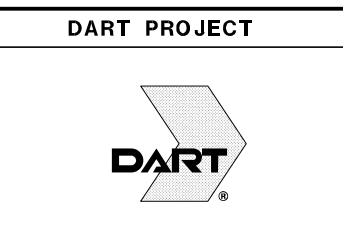
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 57 OF 276

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

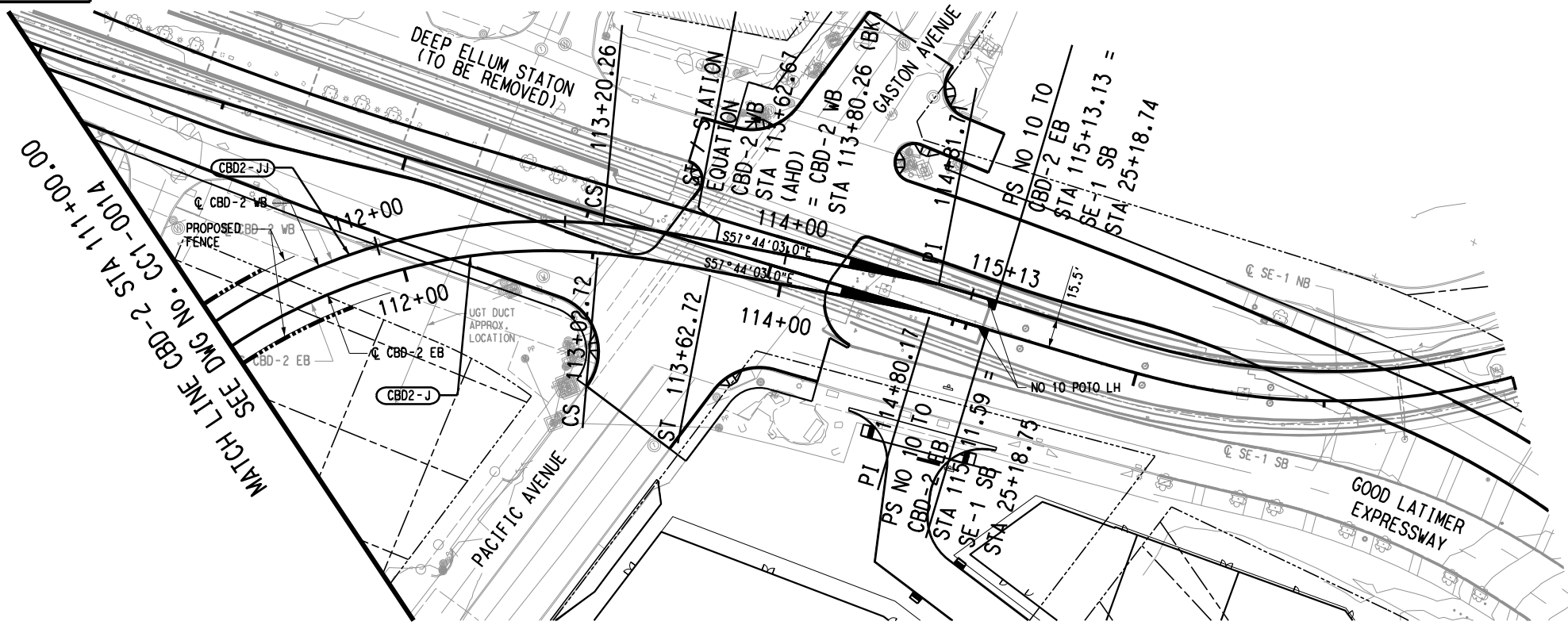
**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

CONTRACT	DWG No. CCI-0014	REV
----------	------------------	-----

Friday, February 28, 2020 01:13:34 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

DANGLE

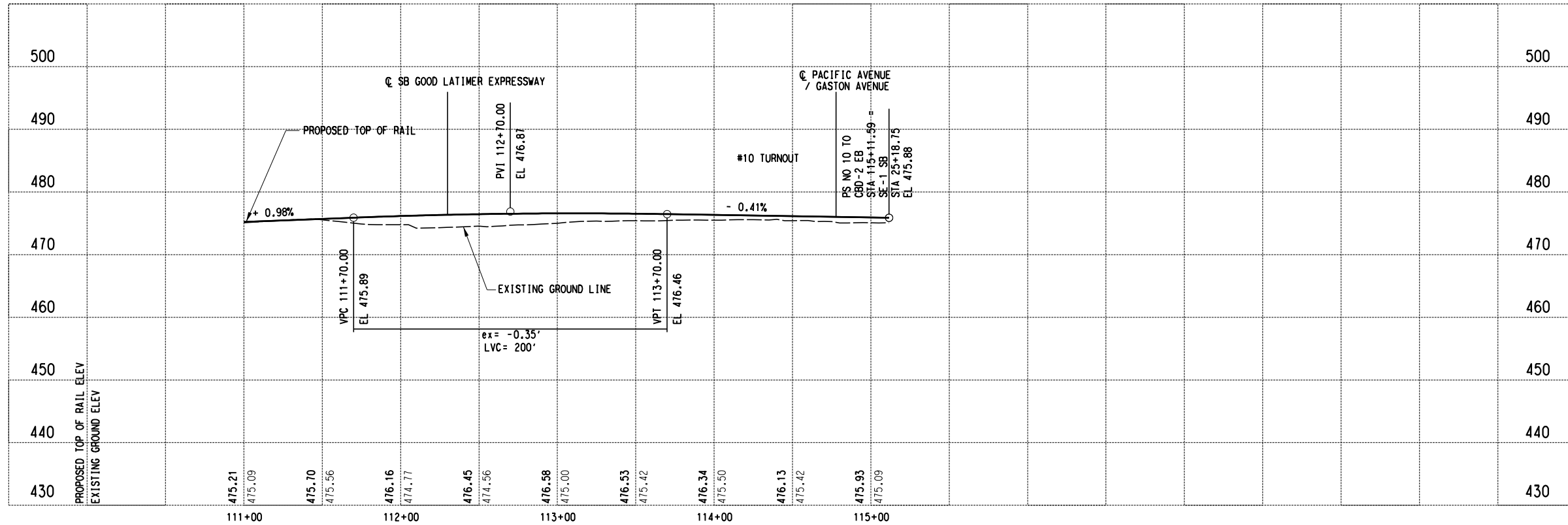


SCALE (IN FEET)

HORIZ  0 20 40 80

VERT  0 5 10 15 20

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 58 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

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

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E. NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE 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	03/06/2020

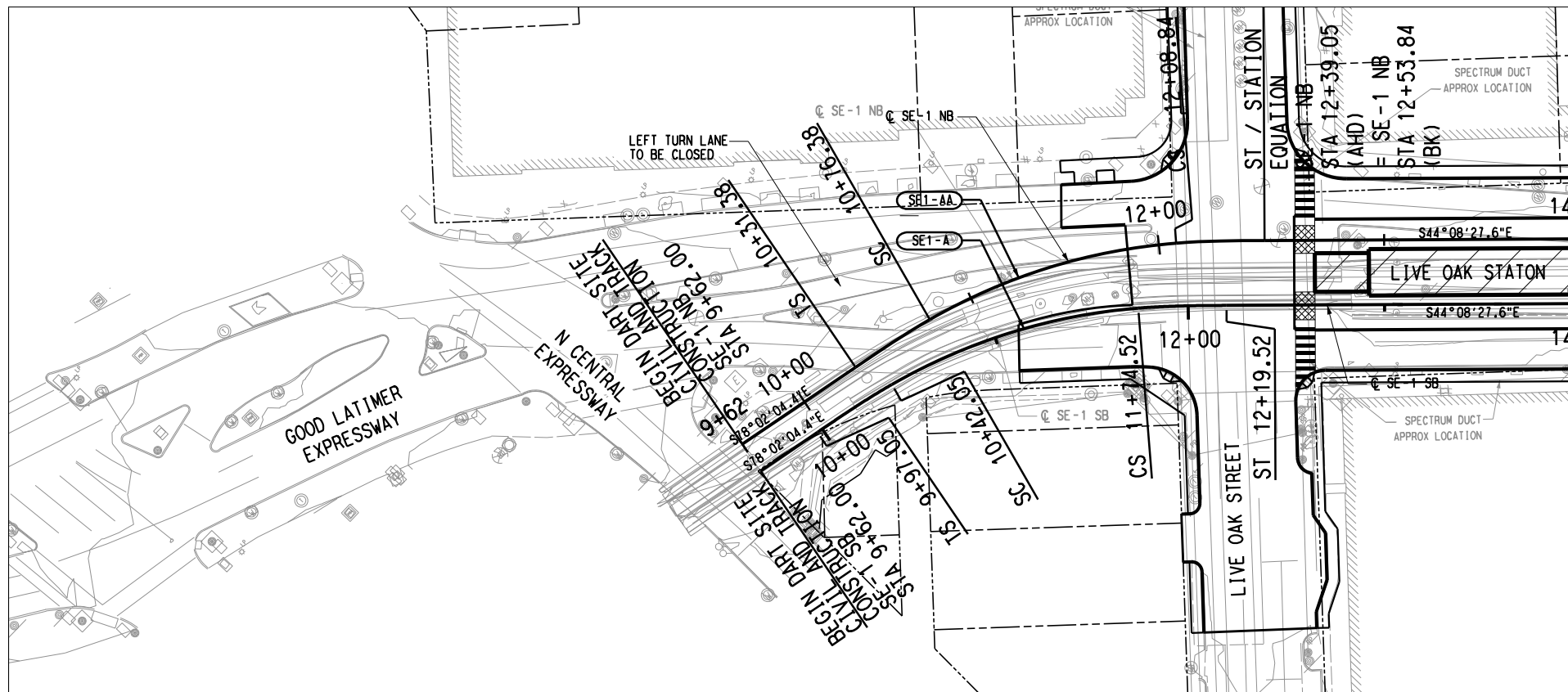


CONTRACT	DWG No. CC1-0015	REV
----------	------------------	-----

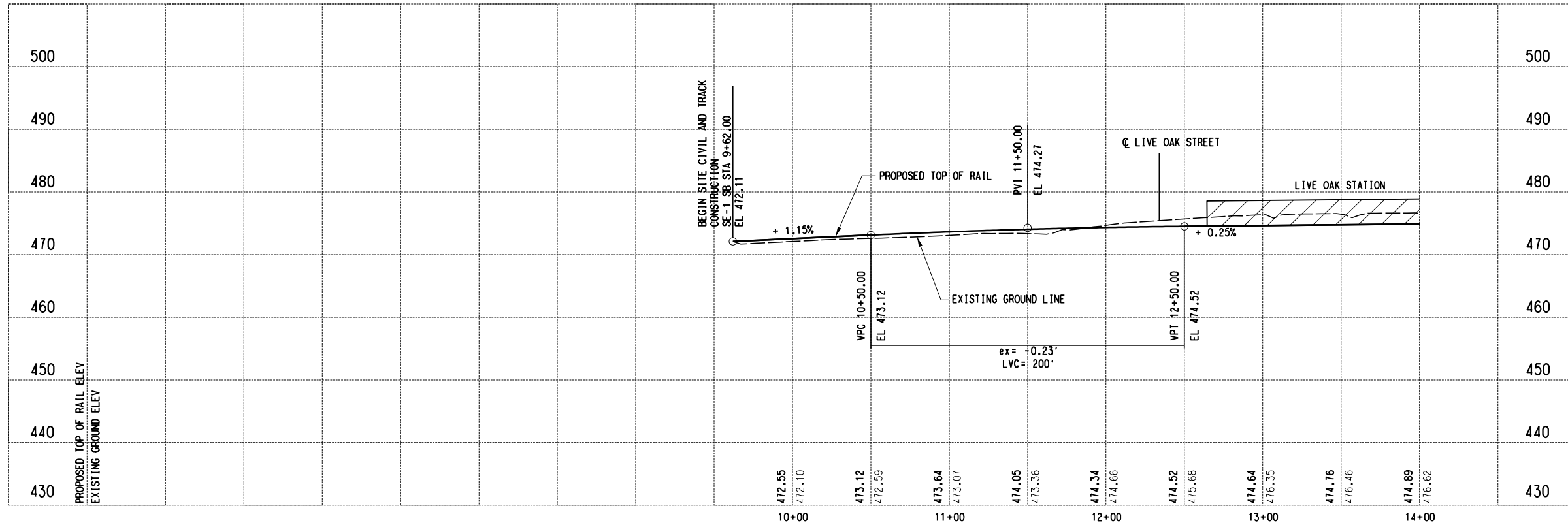
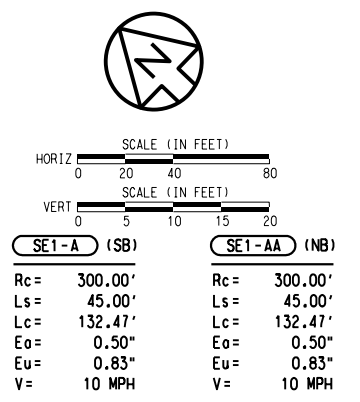
Friday, February 28, 2020 01:13:50 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



MATCH LINE SE-1 SB STA 14+00.00  
SEE DWG No. CC1-0017



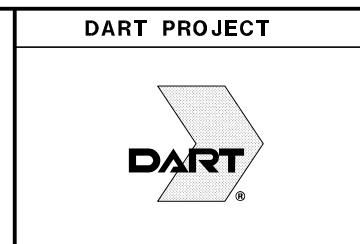
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 59 OF 276

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

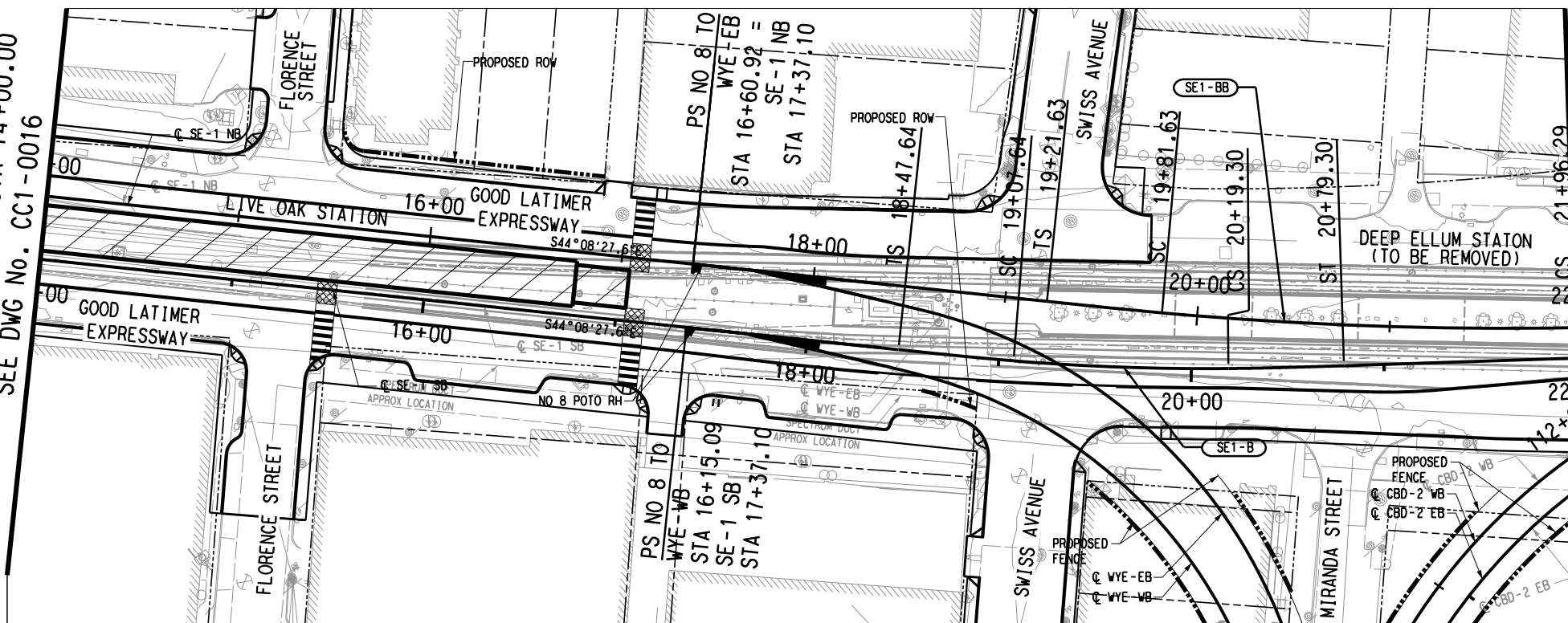
SE-1 SB  
GUIDEWAY PLAN AND PROFILE  
BEGIN PROJECT TO STA 14+00.00

CONTRACT	DWG No. CC1-0016	REV
----------	------------------	-----

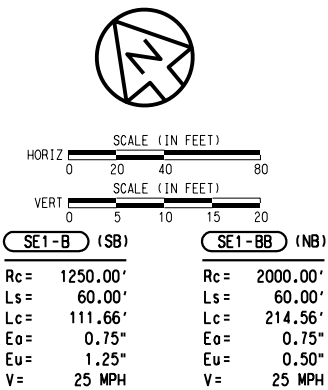
Friday, February 28, 2020 01:14:05 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

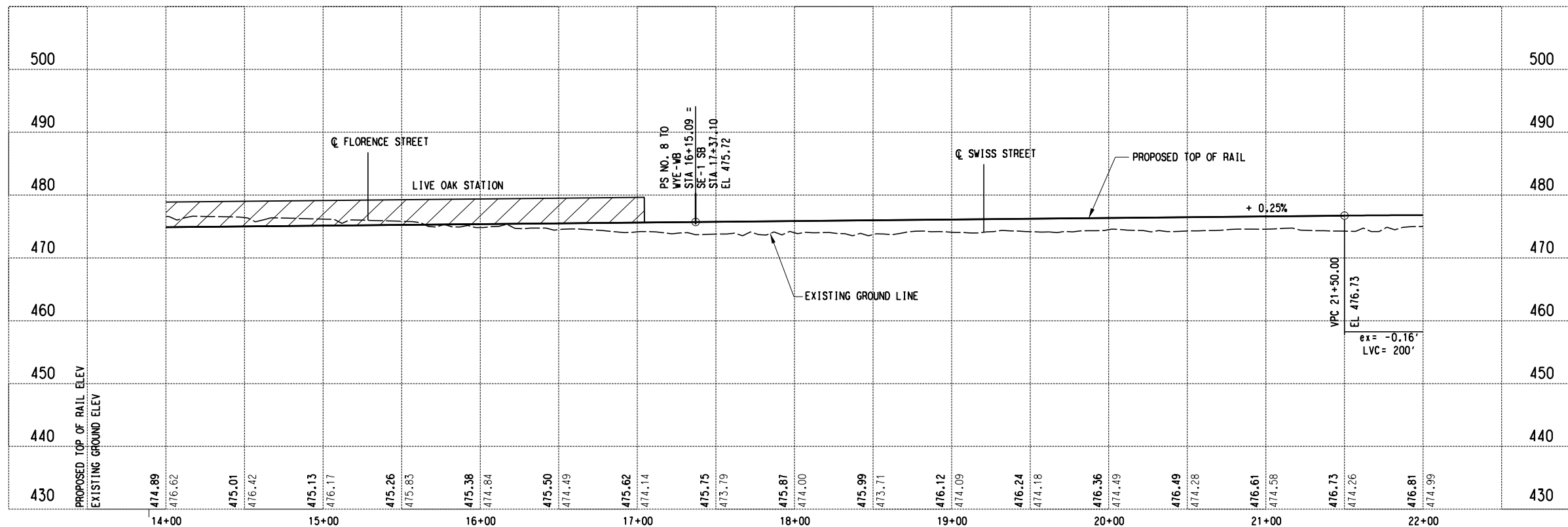
MATCH LINE SE-1 SB STA 14+00.00  
SEE DWG No. CC1-0016



MATCH LINE SE-1 SB STA 22+00.00  
SEE DWG No. CC1-0018



Friday, February 28, 2020 01:14:20 PM  
\$\$\$\$\$GNSPECIFICATION\$\$\$\$\$



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 60 OF 276

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



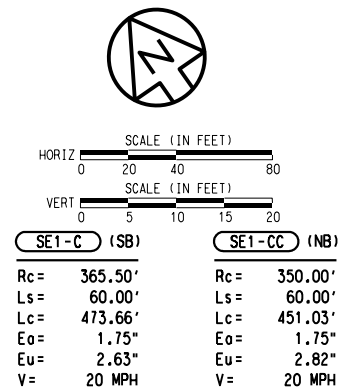
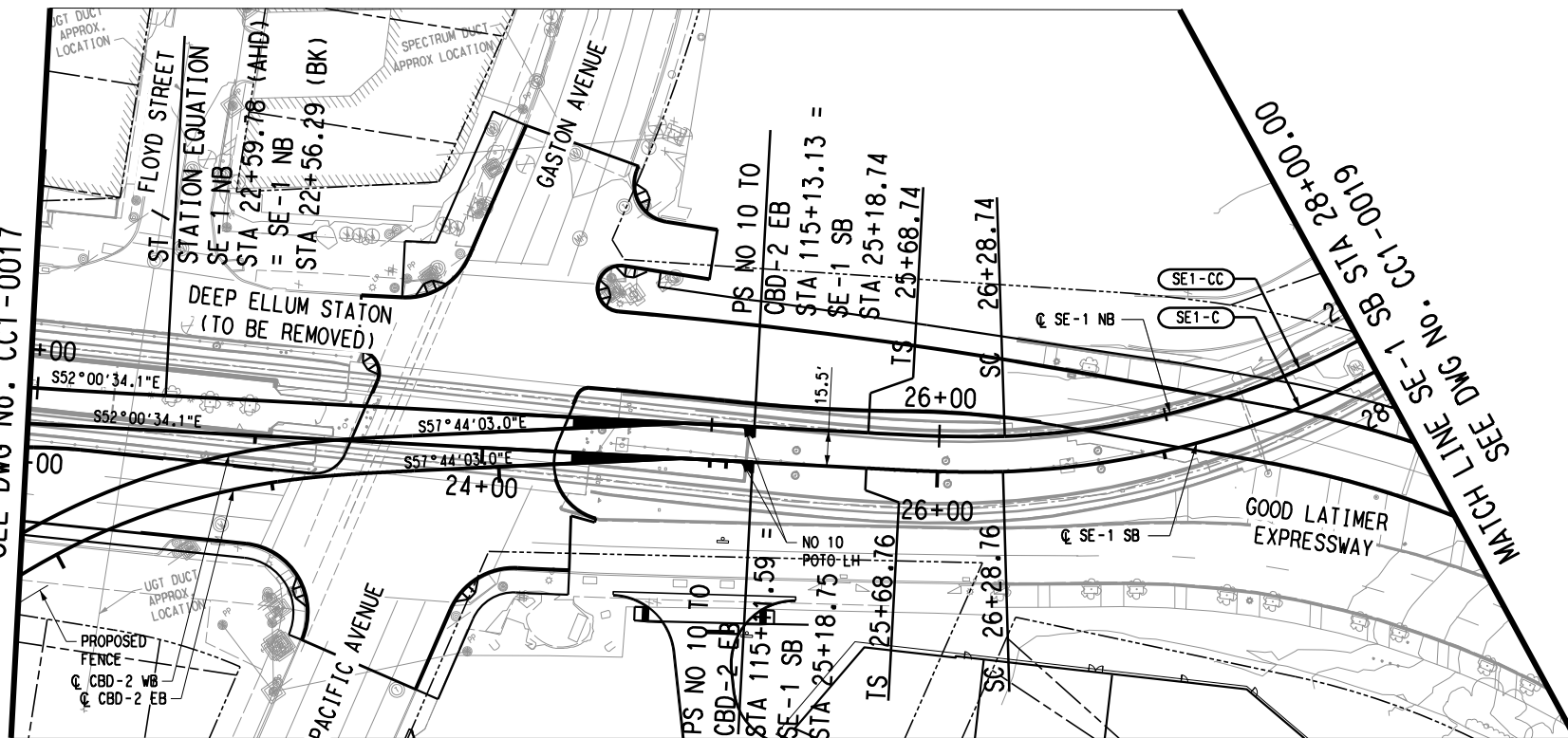
SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

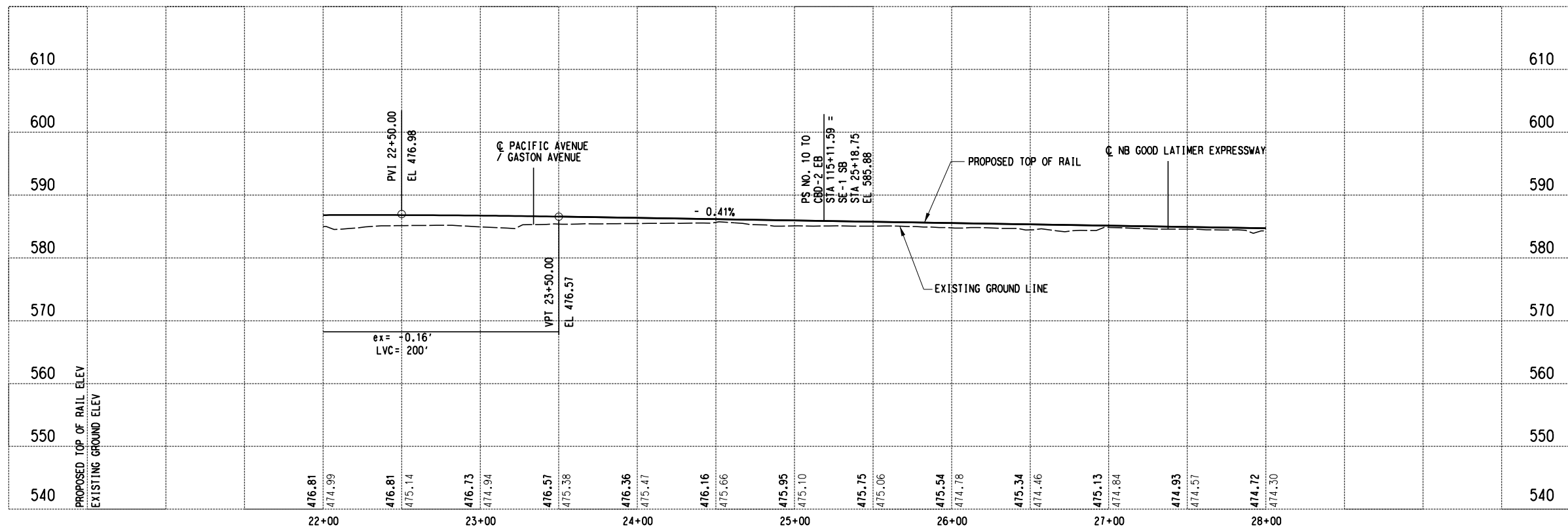
SE-1 SB  
GUIDEWAY PLAN AND PROFILE  
STA 14+00.00 TO STA 22+00.00

CONTRACT	DWG No. CC1-0017	REV
----------	------------------	-----

MATCH LINE SE-1 SB STA 22+00.00  
SEE DWG No. CC1-0017



Friday, February 28, 2020 01:14:32 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 61 OF 276

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

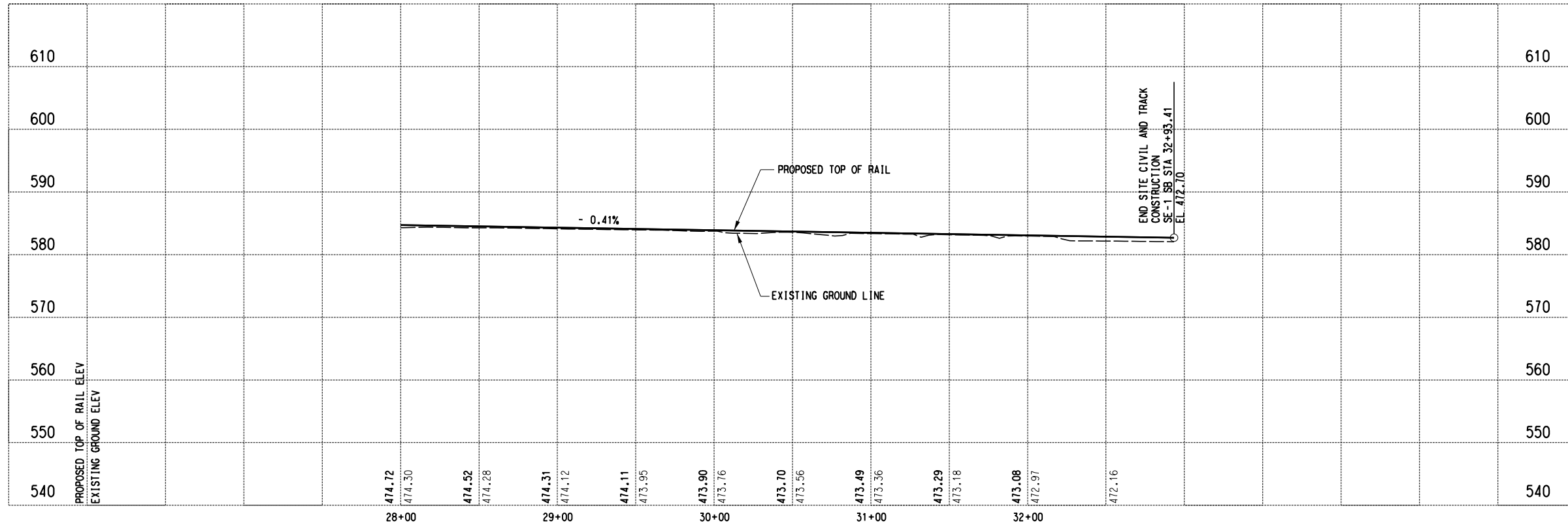
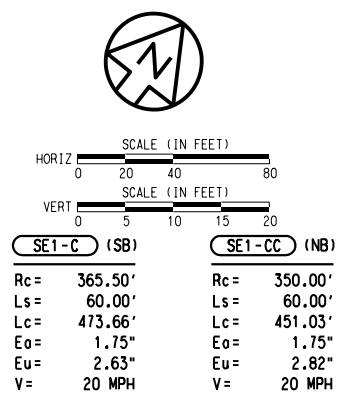
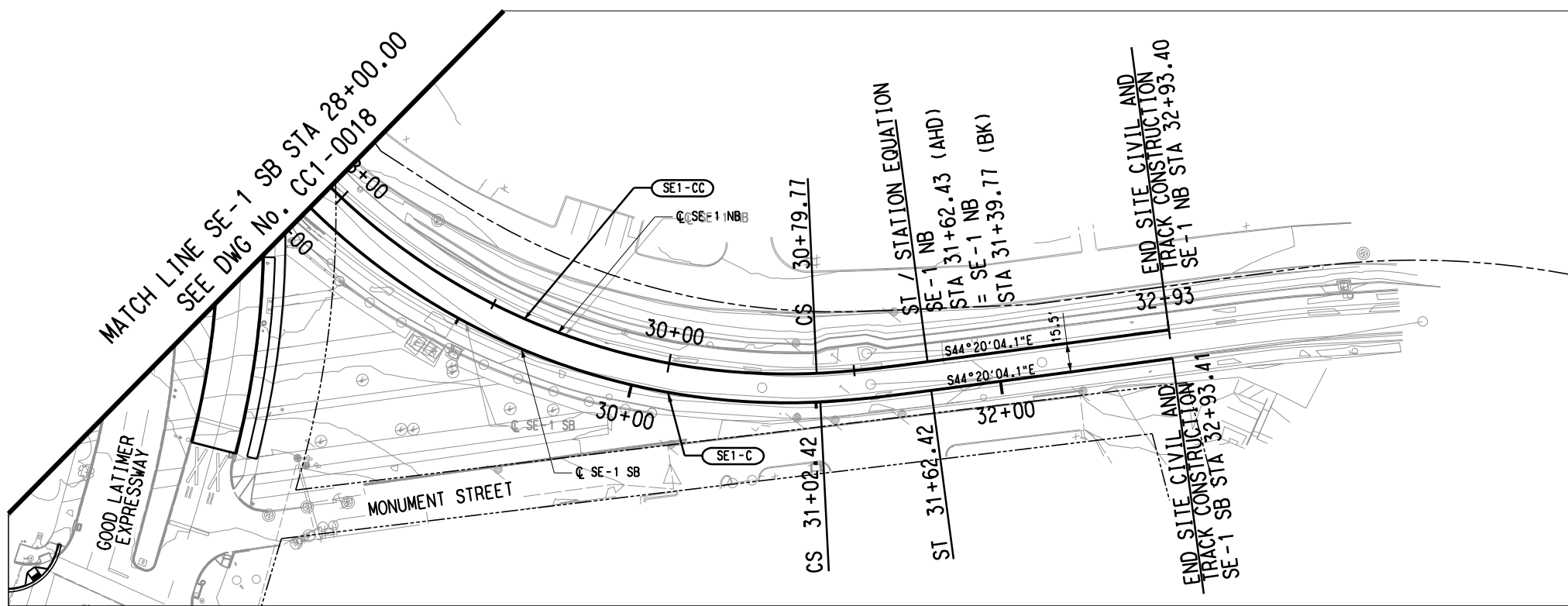


SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

**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
----------	------------------	-----



NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 62 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 SE-1 SB  
 GUIDEWAY PLAN AND PROFILE  
 STA 28+00.00 TO END PROJECT

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124511  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE 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	03/06/2020

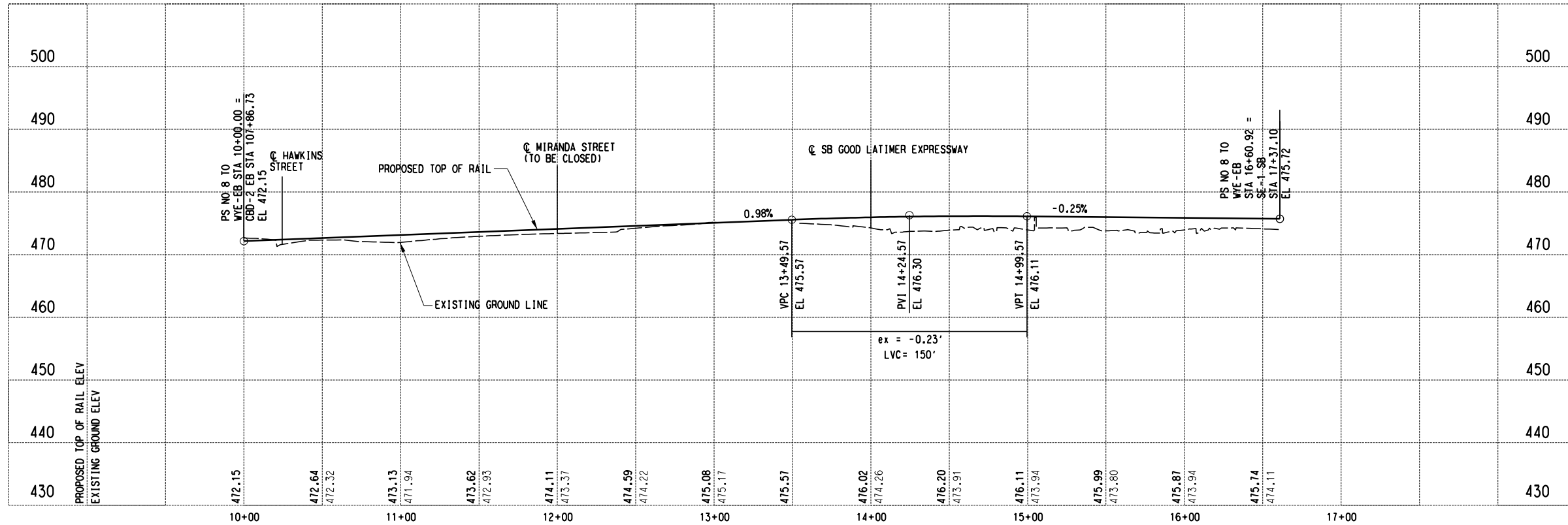
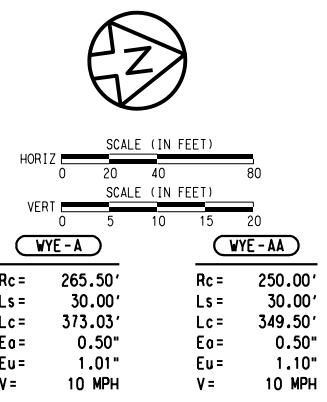
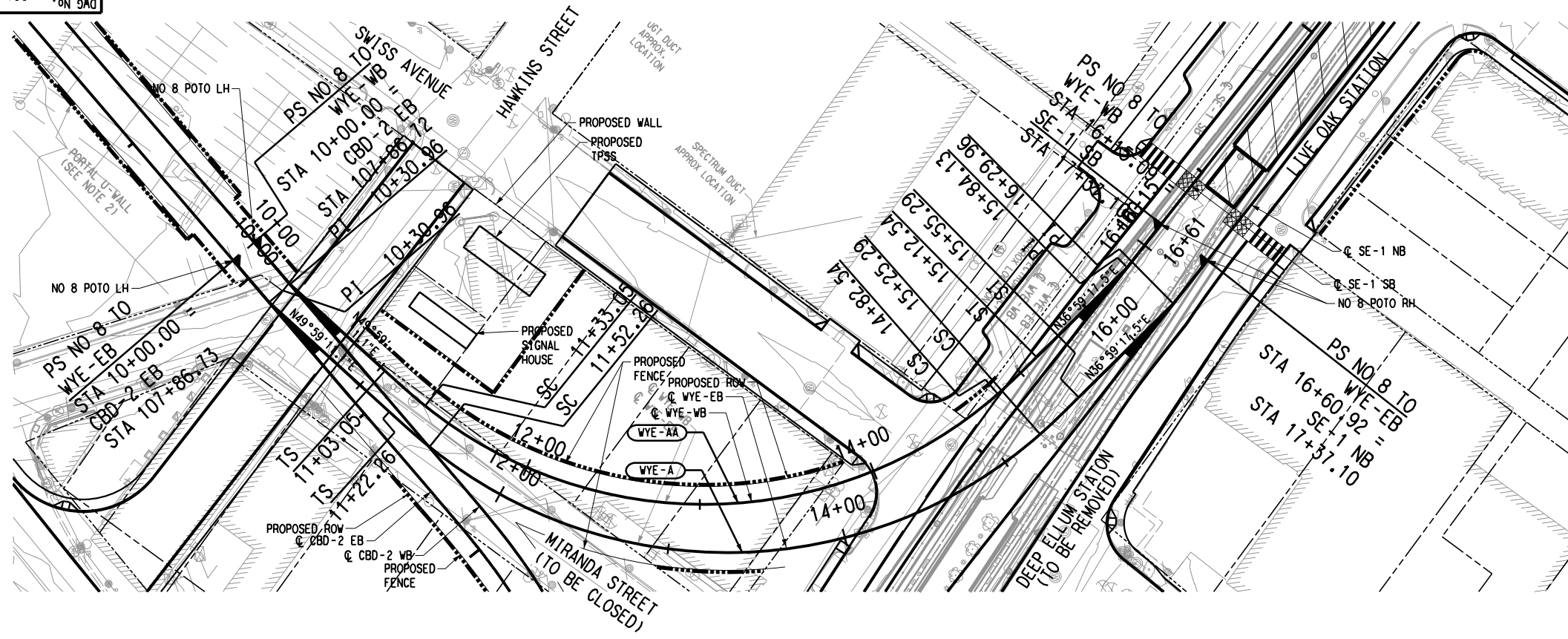
CONTRACT	DWG No. CC1-0019	REV
----------	------------------	-----

Friday, February 28, 2020 01:14:43 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP





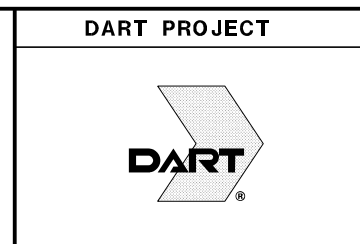
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 63 OF 276

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

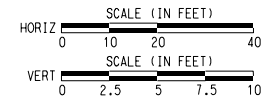
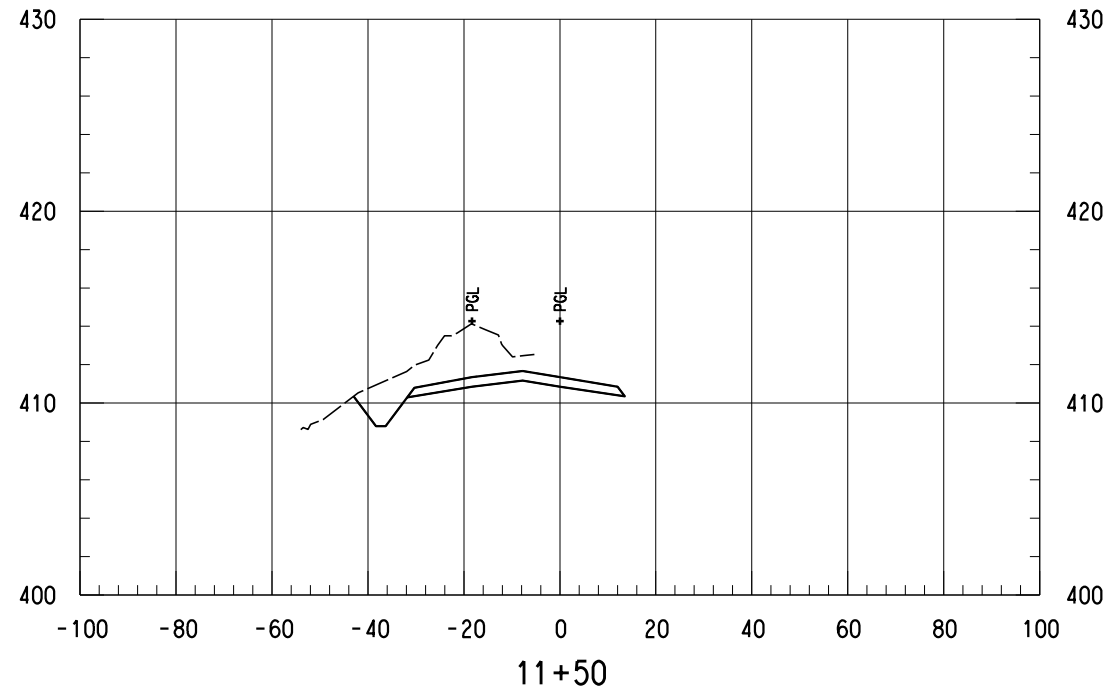
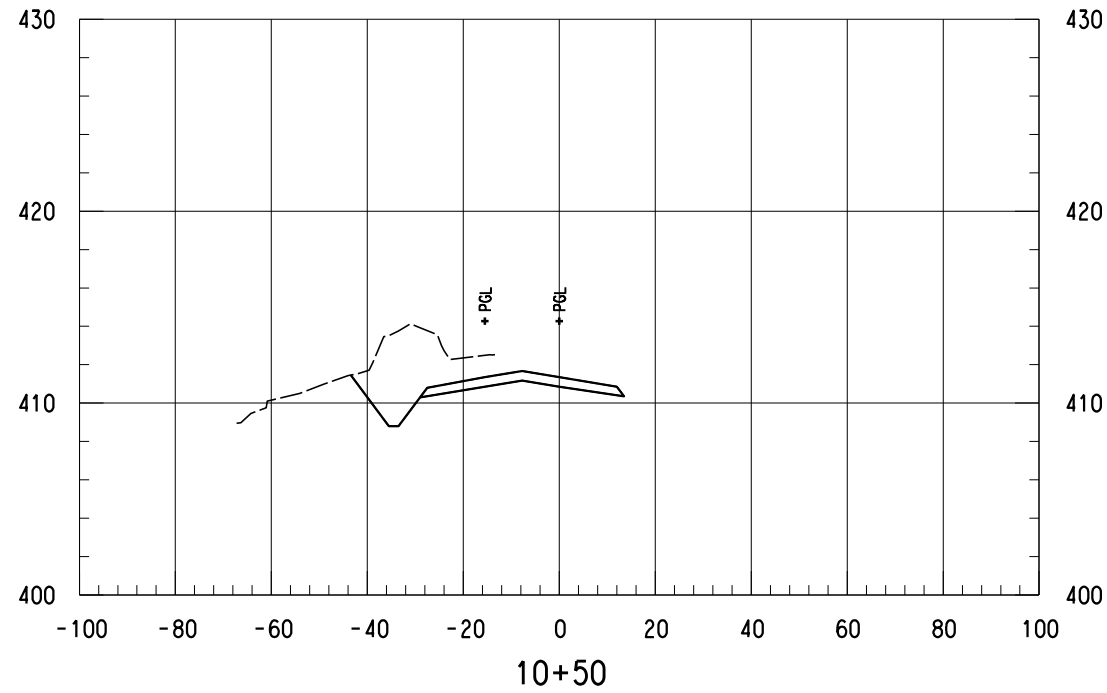


SCALE	1" = 40'
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

<p>CONTRACT SHEET No. 63 OF 276</p> <p><b>LIGHT RAIL TRANSIT SYSTEM</b></p> <p><b>LINE SECTION CBD-2</b></p> <p><b>WYE - EB</b></p> <p><b>GUIDEWAY PLAN AND PROFILE</b></p>		CONTRACT	DWG No.	CC1-0020	REV

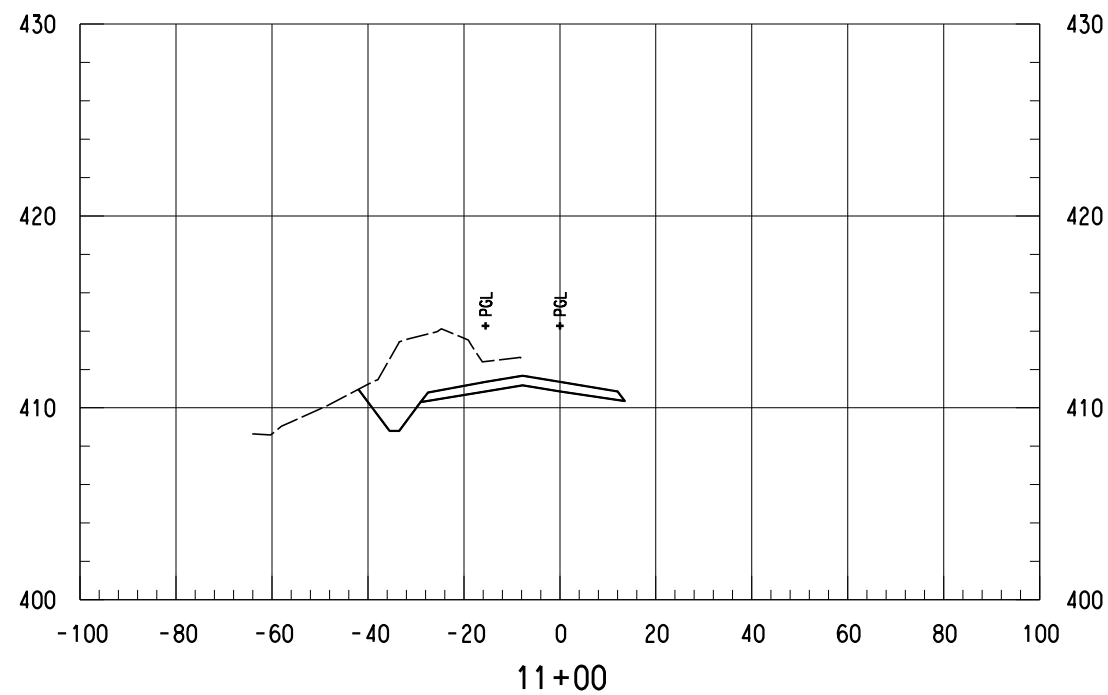
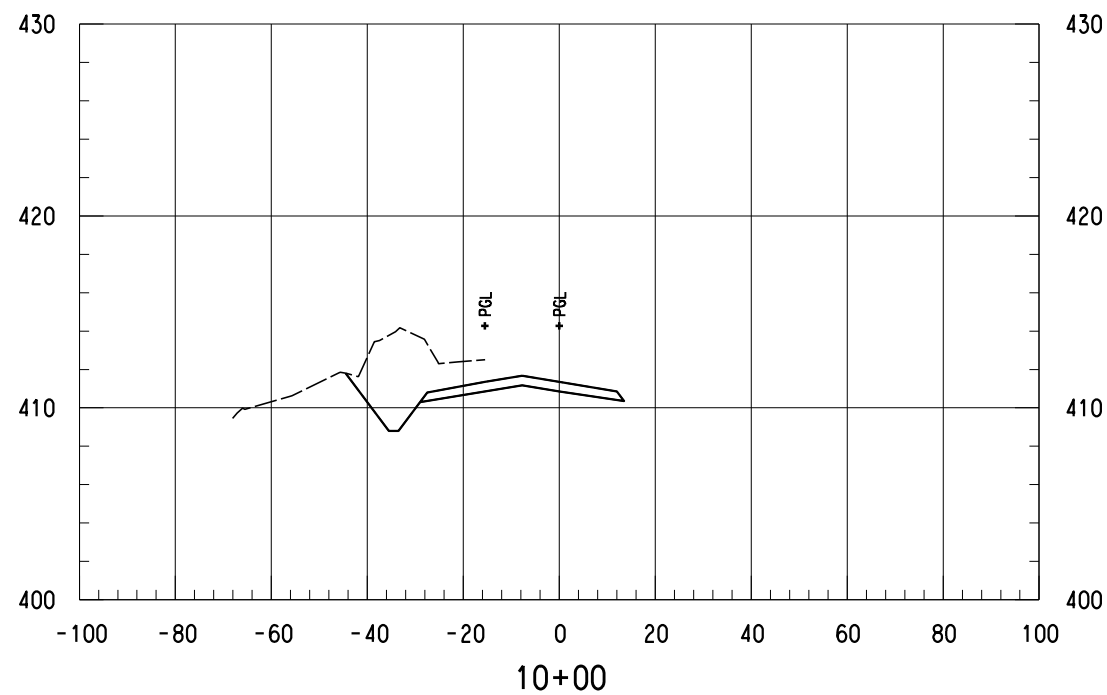
Friday, February 28, 2020 01:14:54 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 64 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



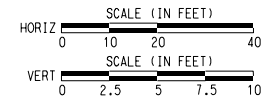
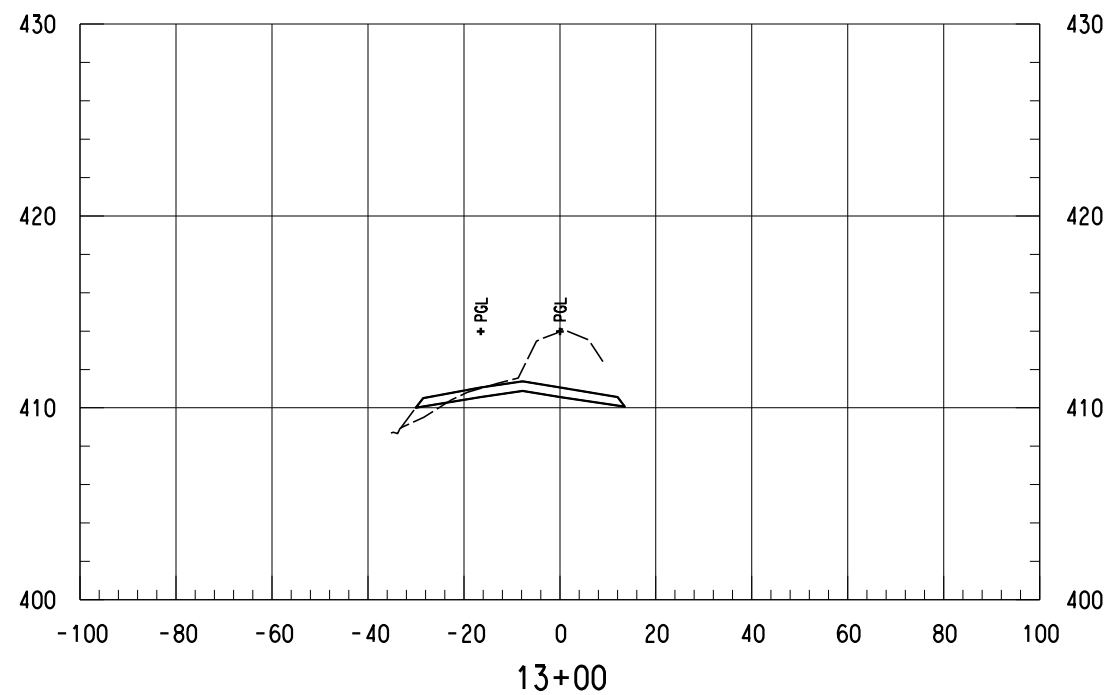
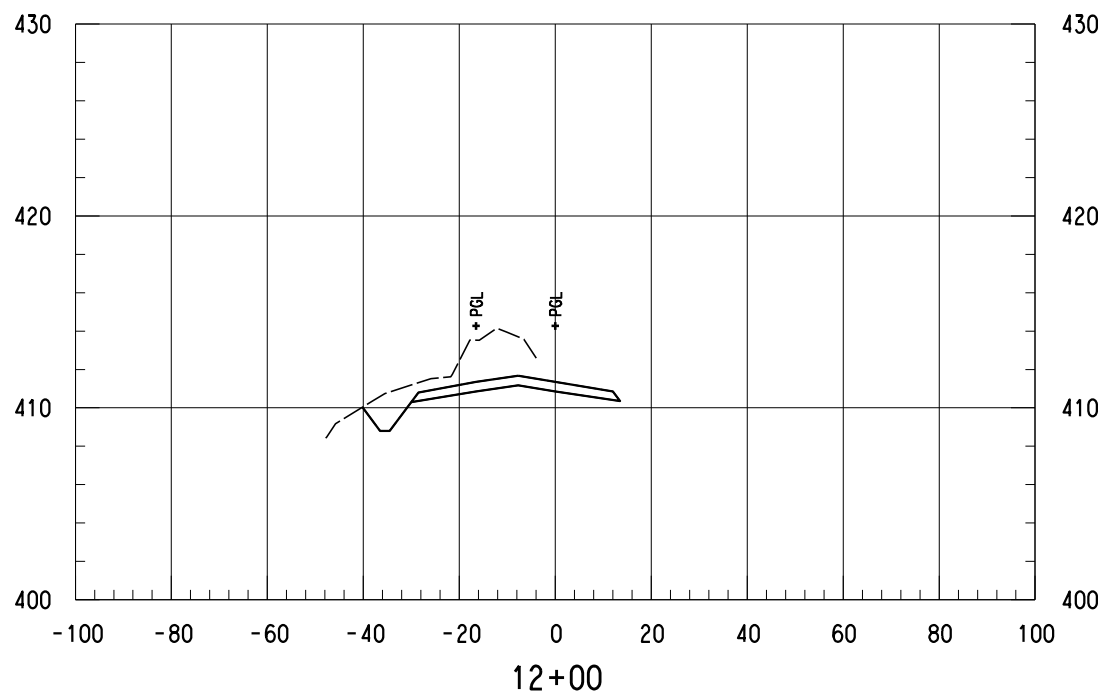
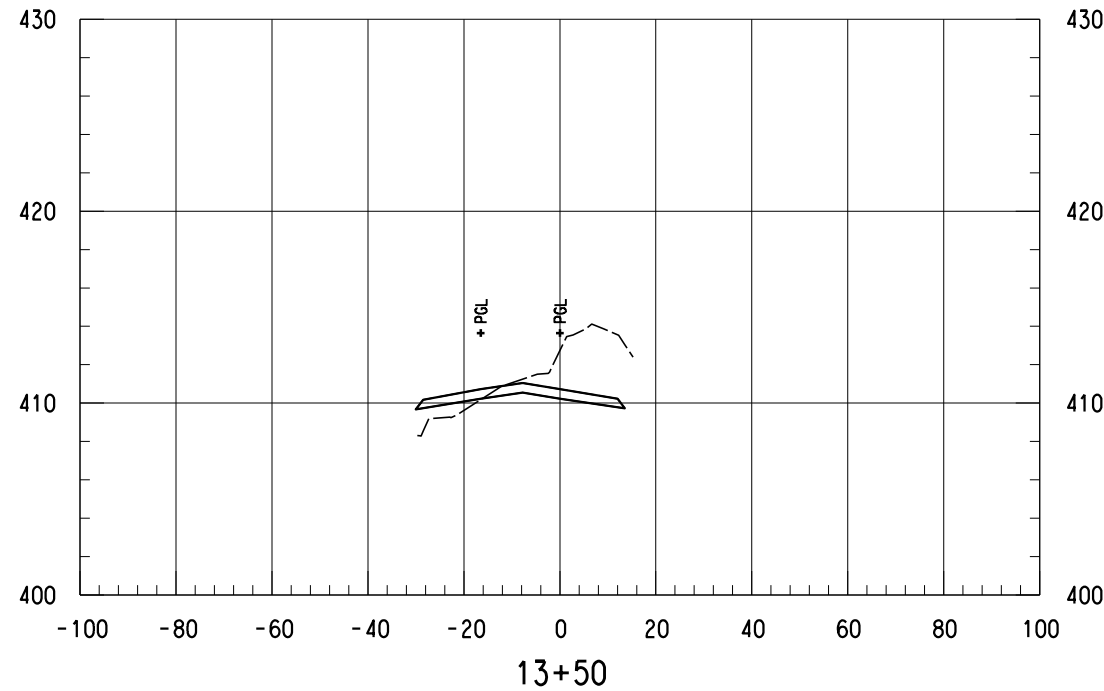
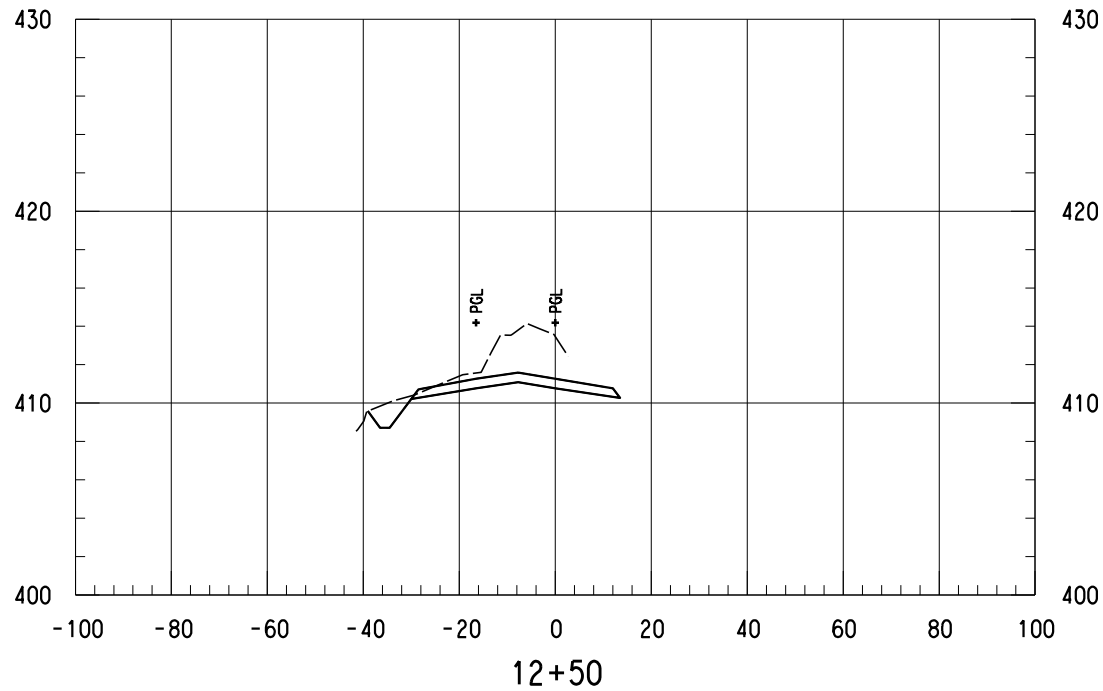
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0001	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:33 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



NOTES:

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

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 65 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

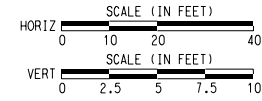
**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



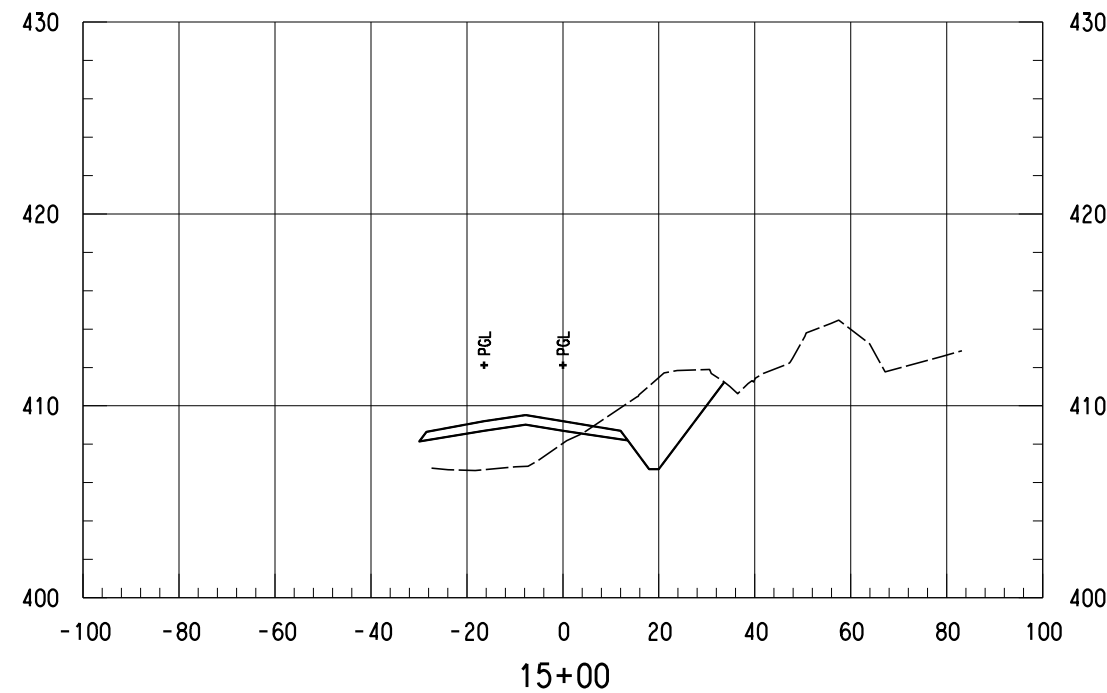
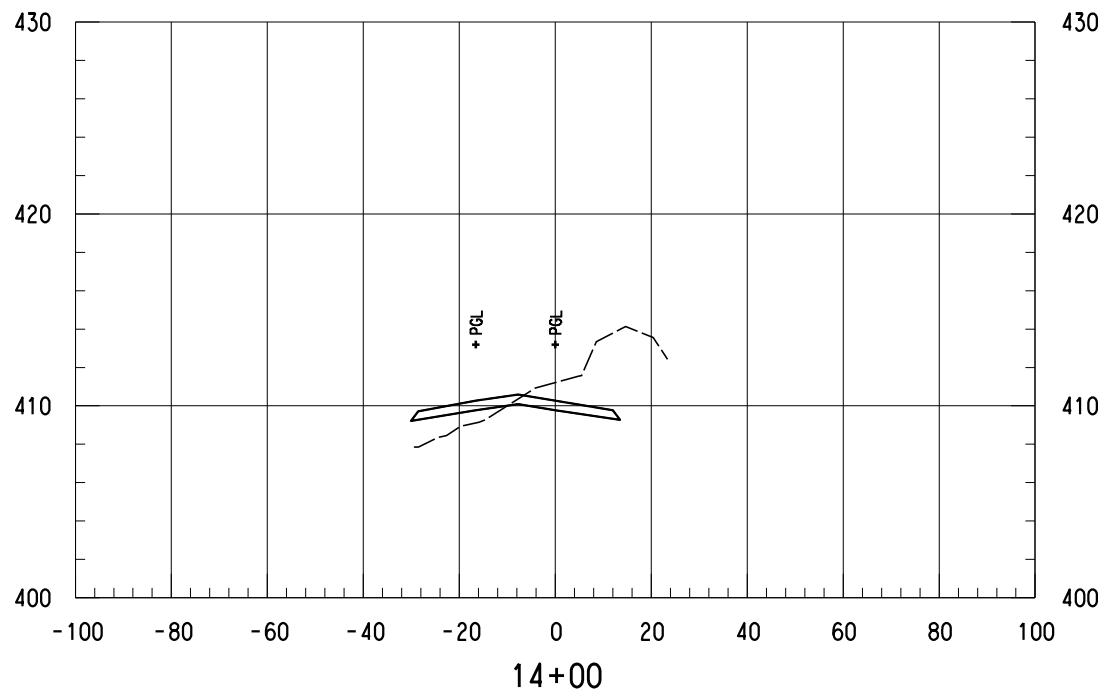
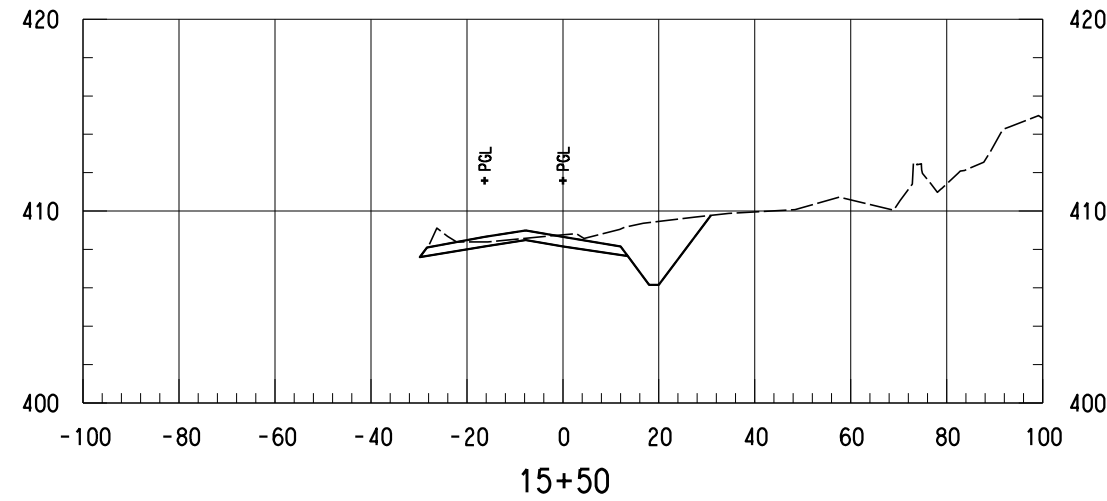
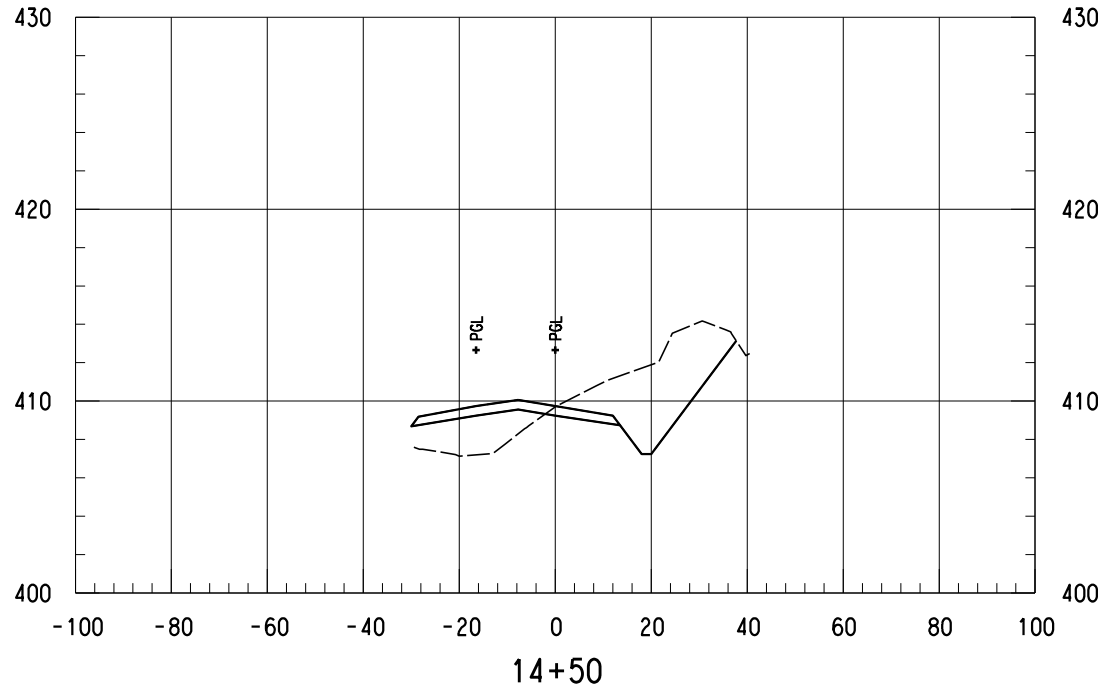


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0002	REV
----------	------------------	-----



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 20% DESIGN

CONTRACT SHEET No. 66 OF 276

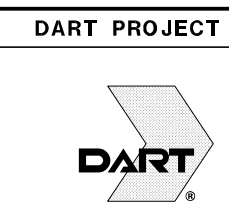
LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



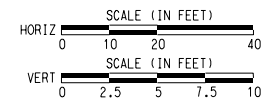
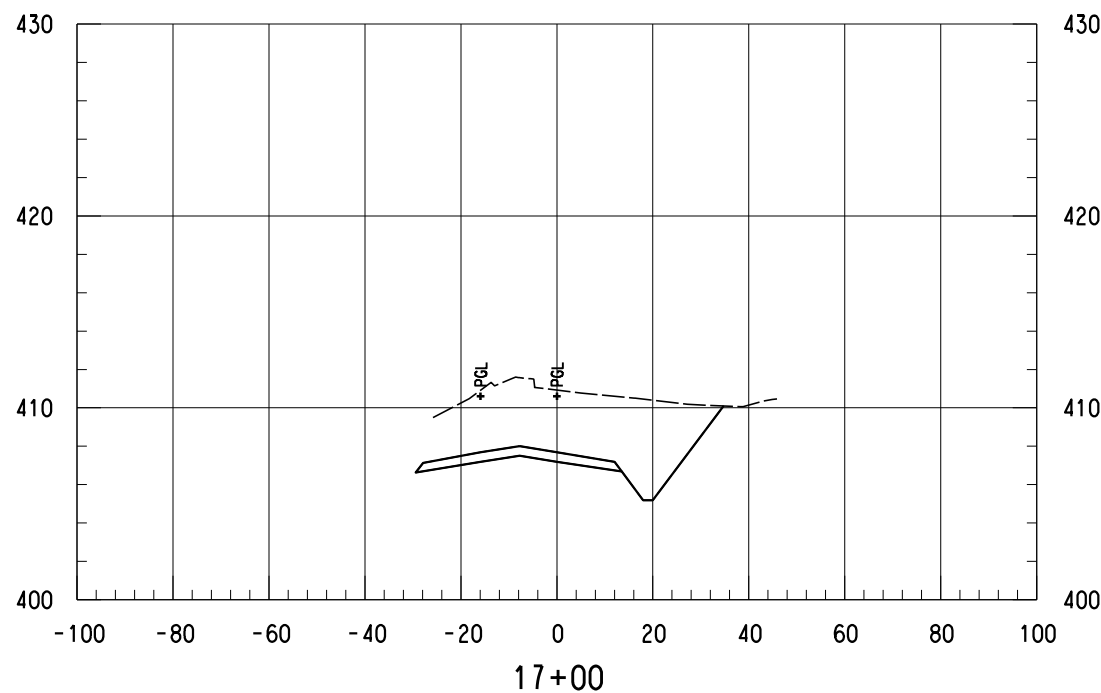
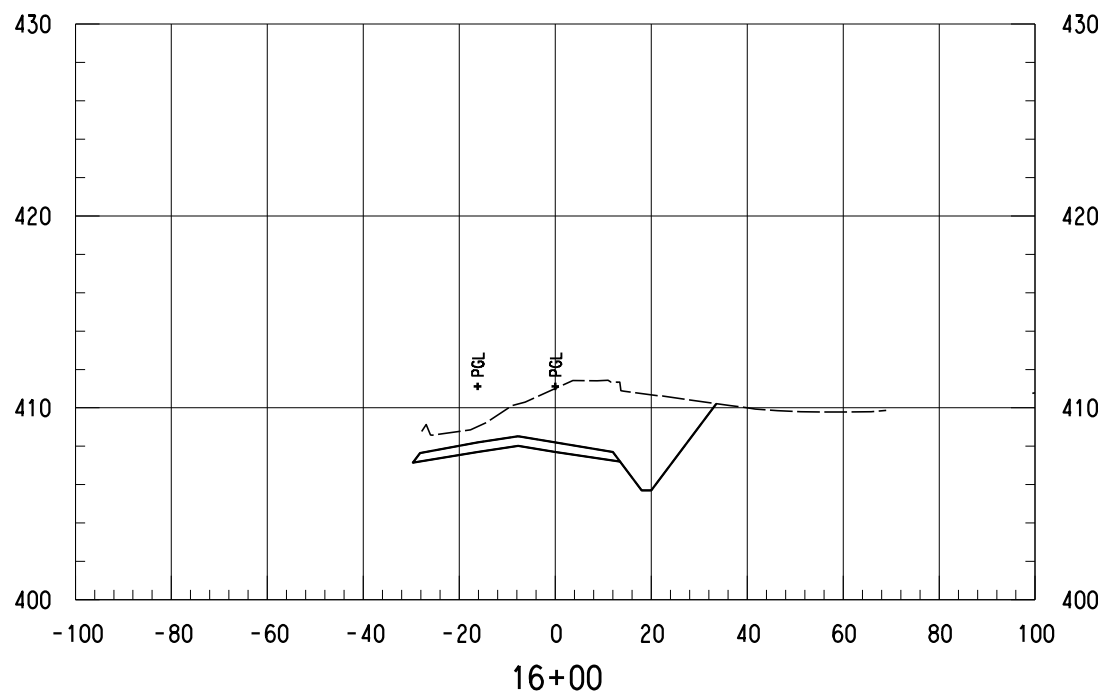
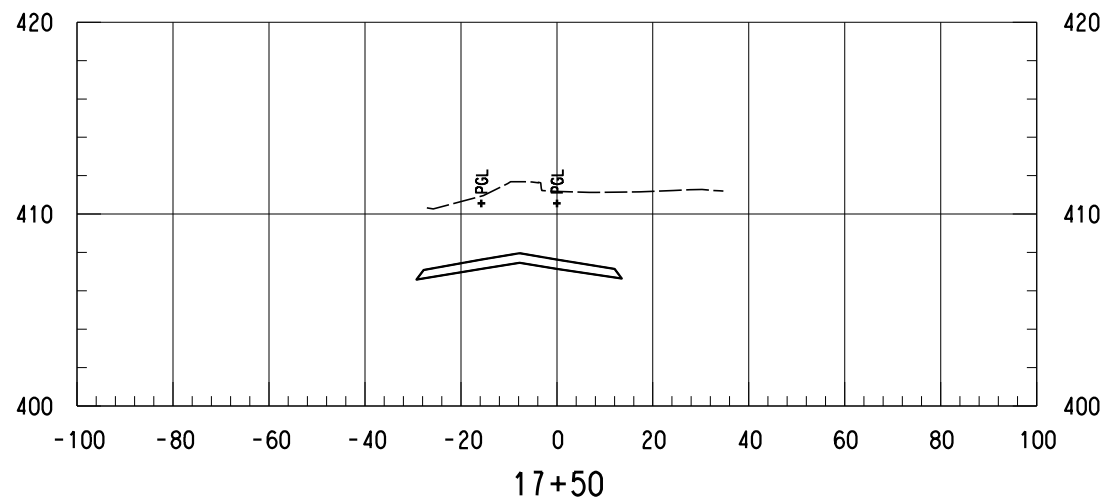
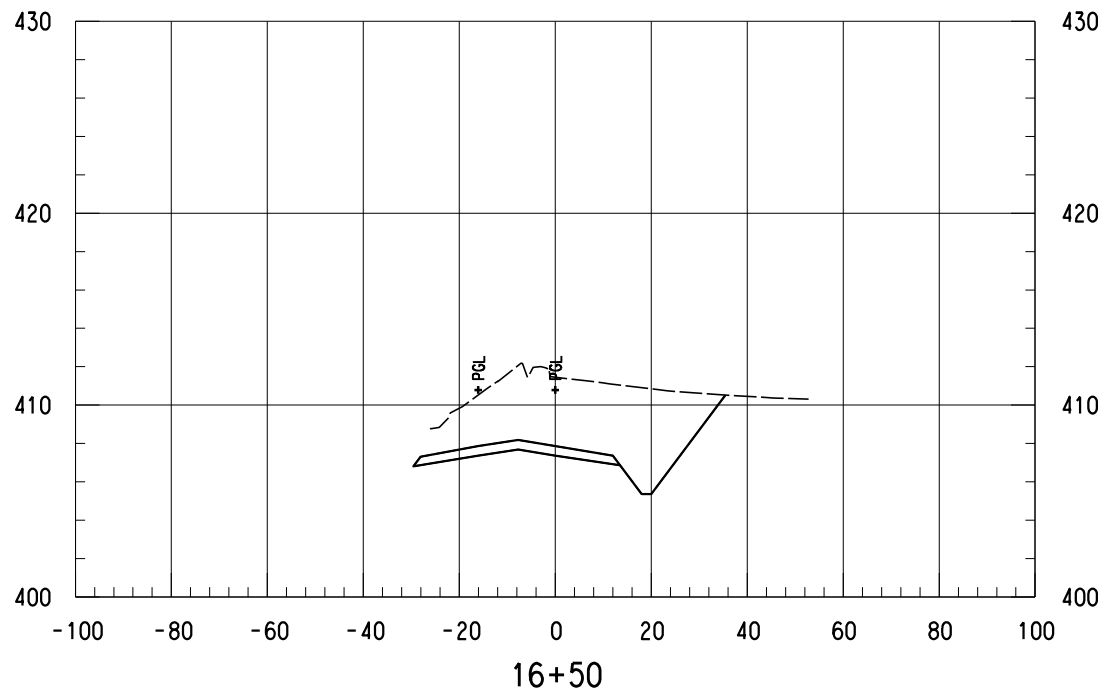
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0003	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:34 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

DANGLE

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 67 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE 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	03/06/2020

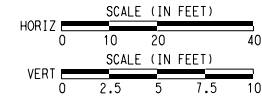


CONTRACT	DWG No.	CCB-0004	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:35 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

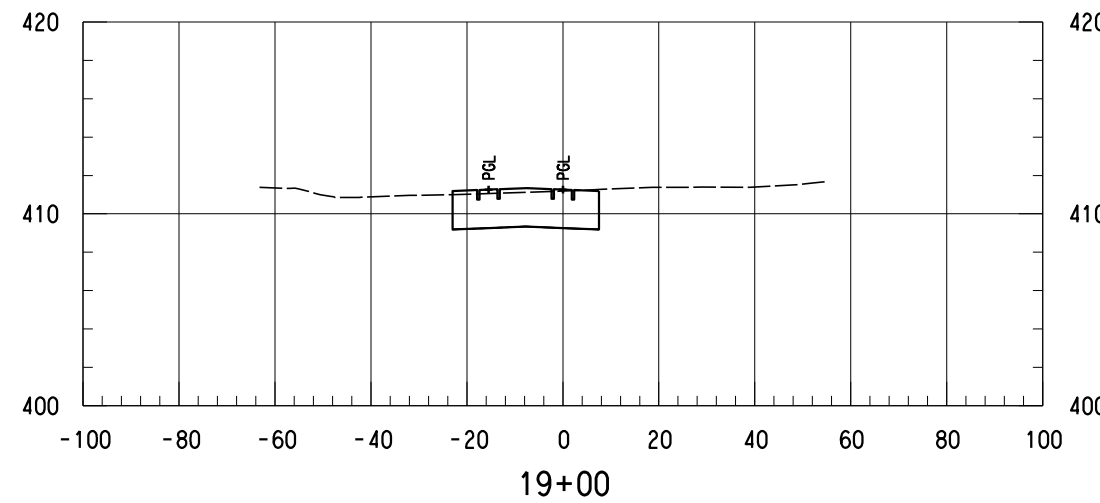
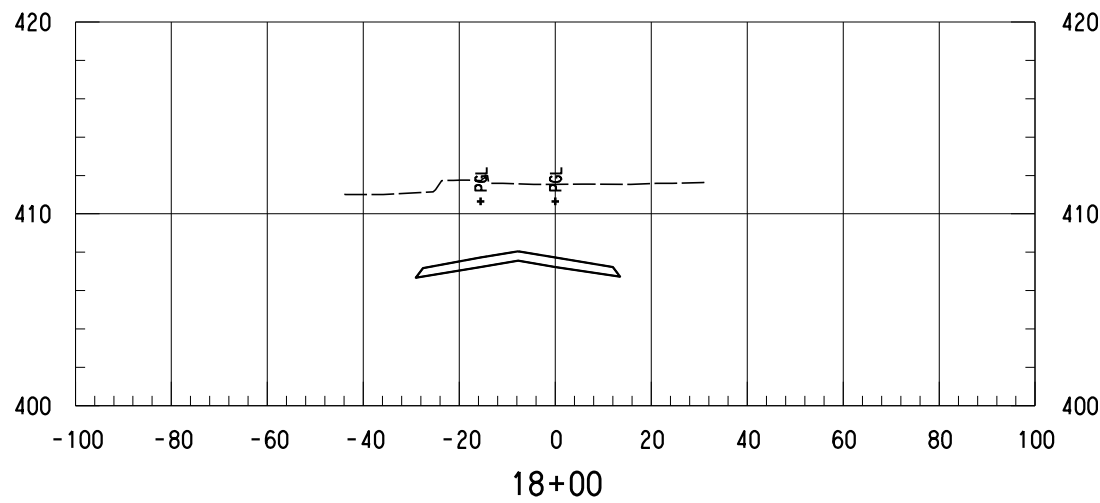
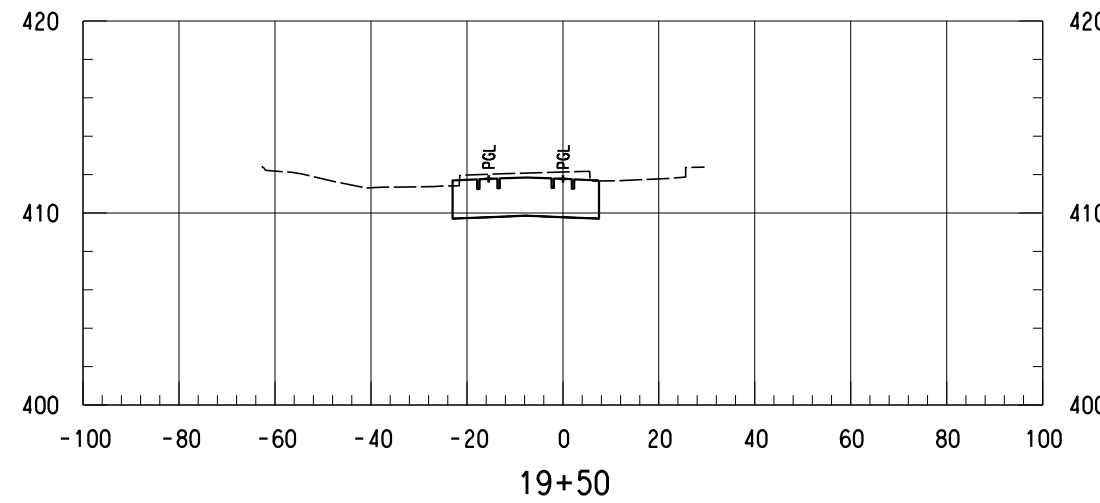
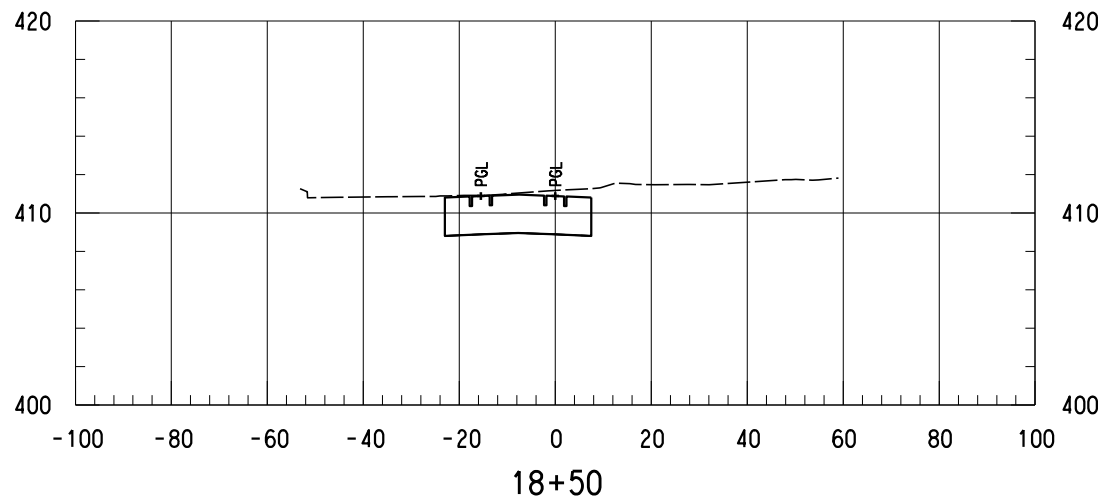
DANGLE

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 68 OF 276

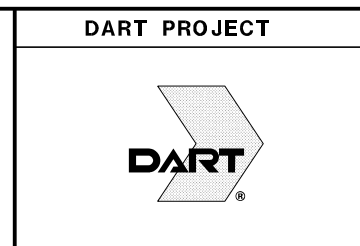
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

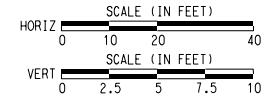
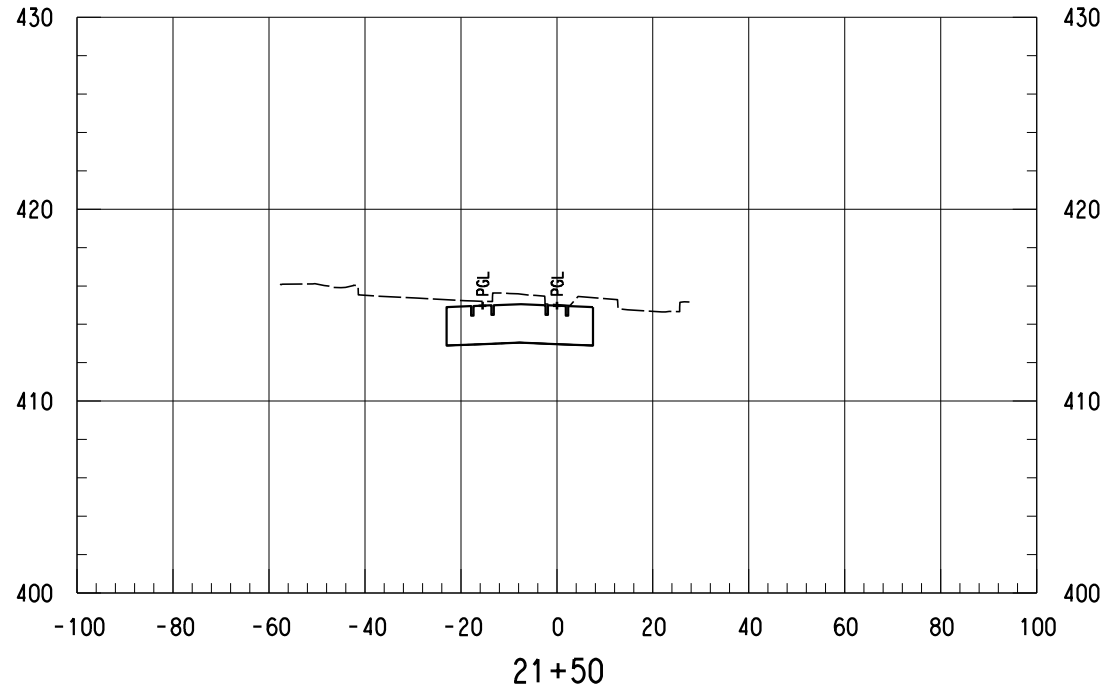
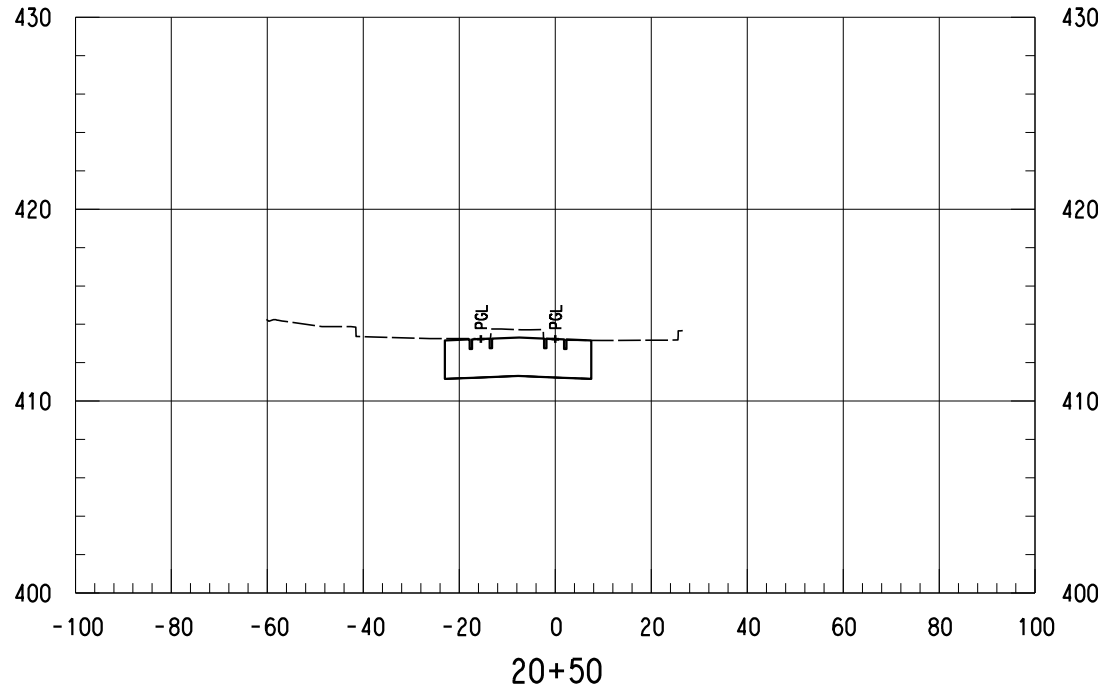


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



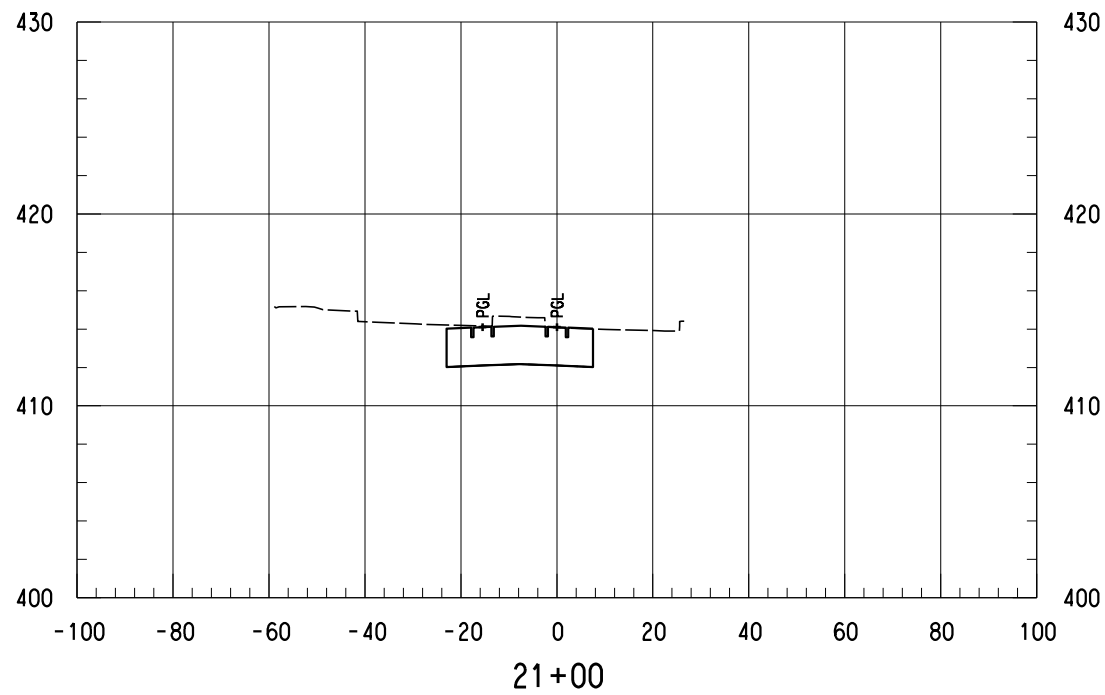
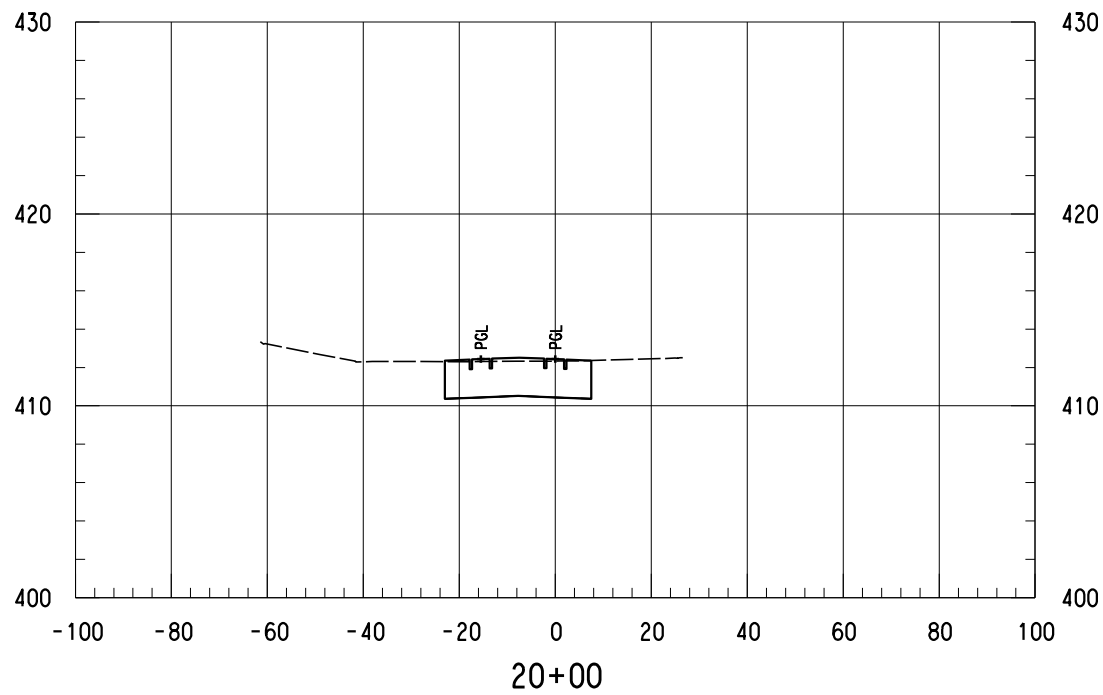
CONTRACT	DWG No. CCB-0005	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:35 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 69 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

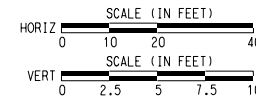


CONTRACT	DWG No. CCB-0006	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:36 PM

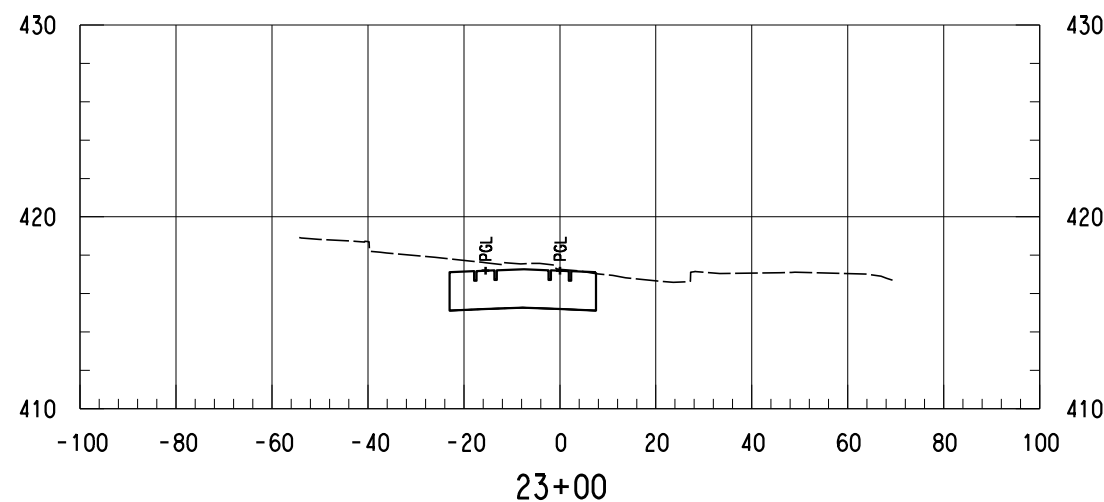
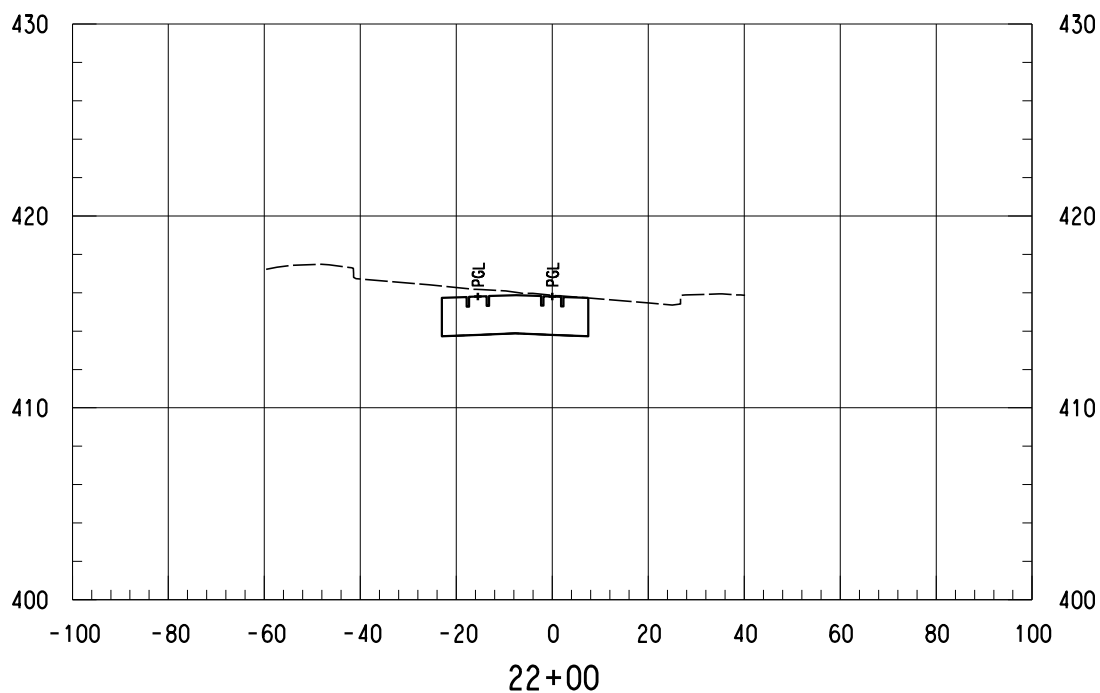
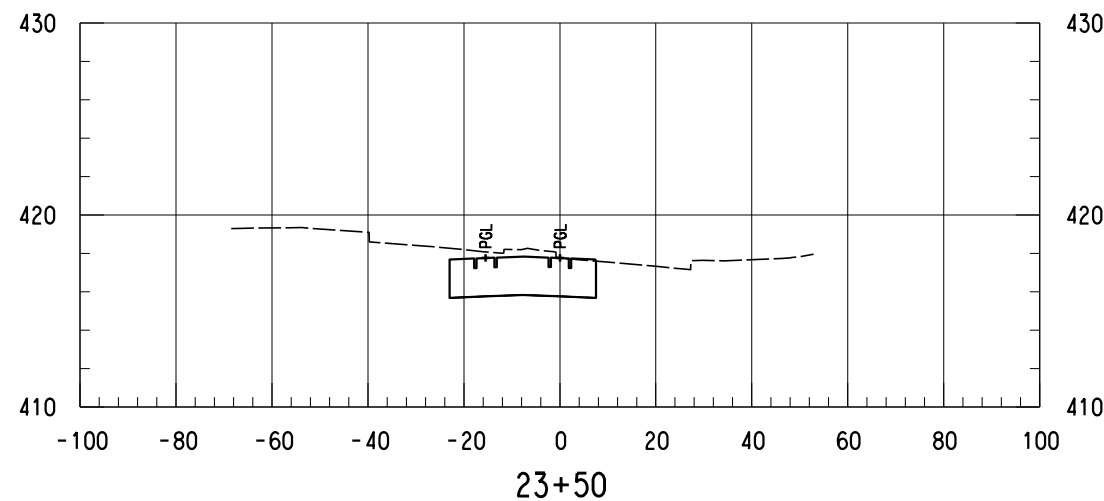
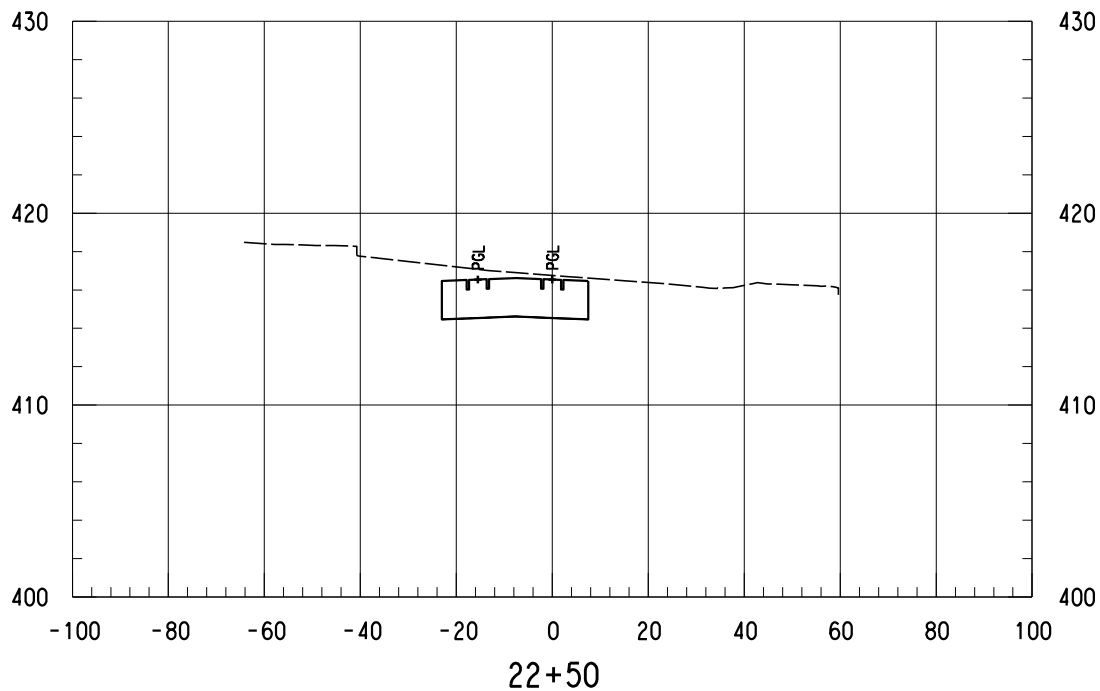
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 70 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUELO
DESIGNED	L. GUELO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0007	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:36 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE

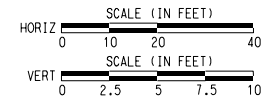
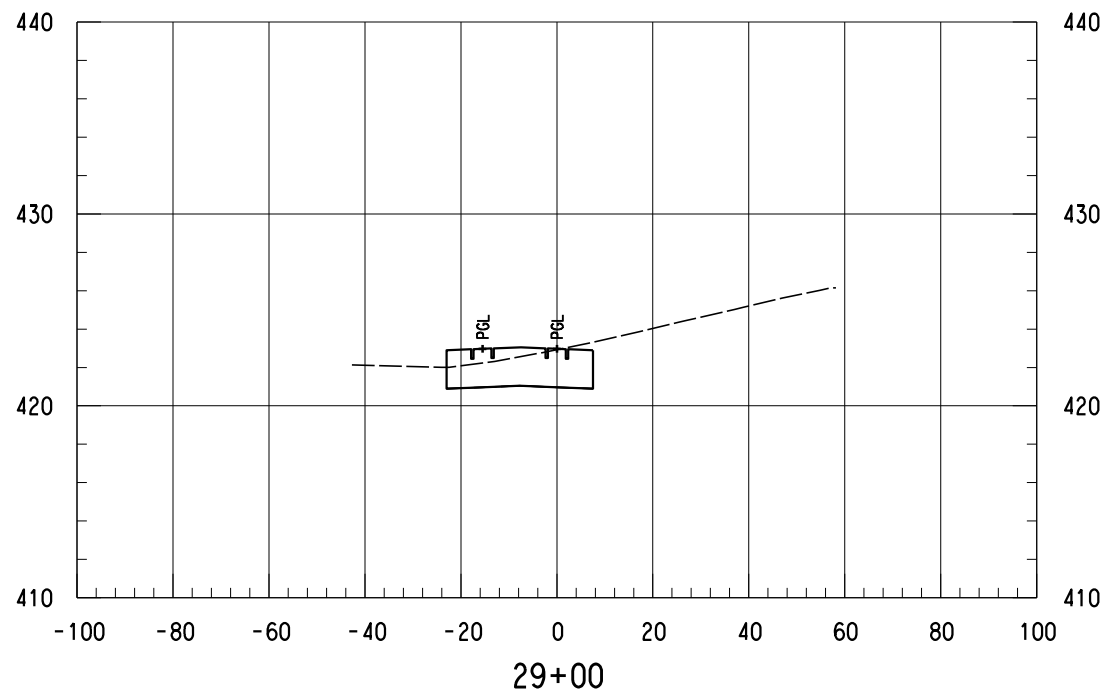
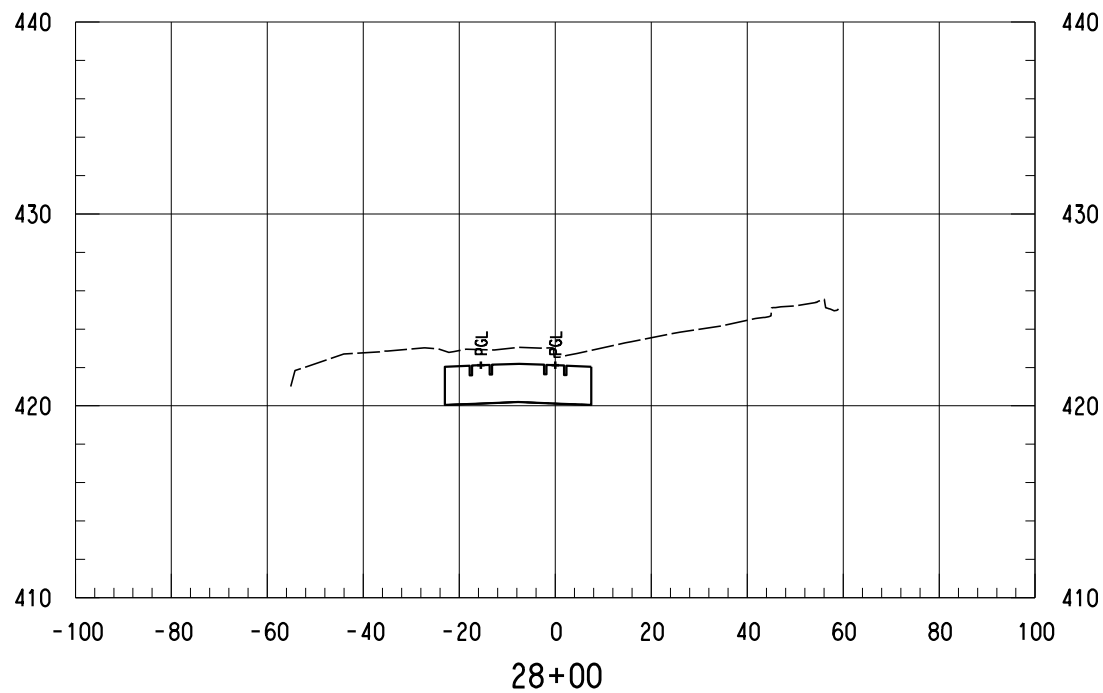
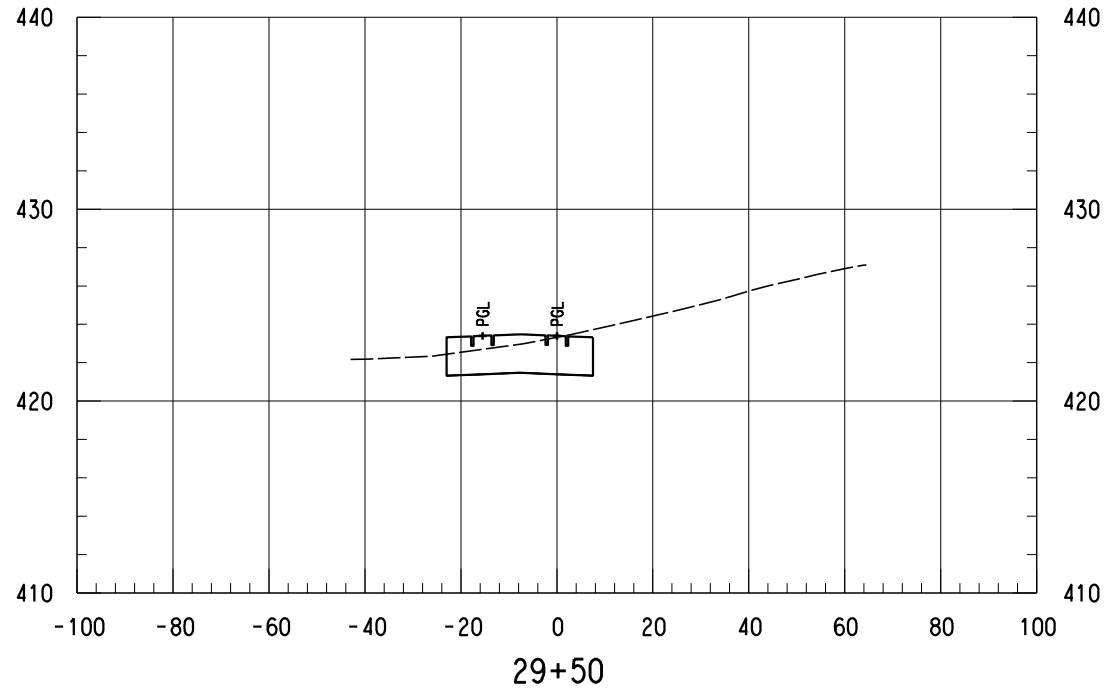
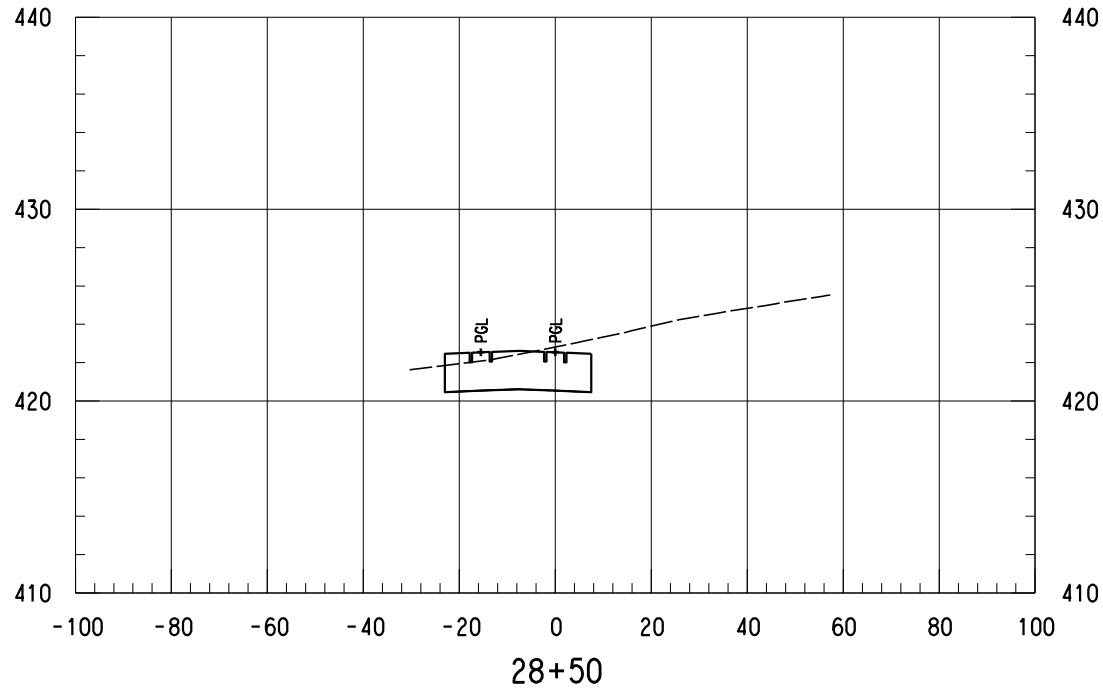
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$









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 20% DESIGN

CONTRACT SHEET No. 73 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

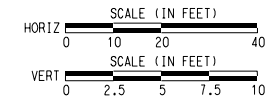
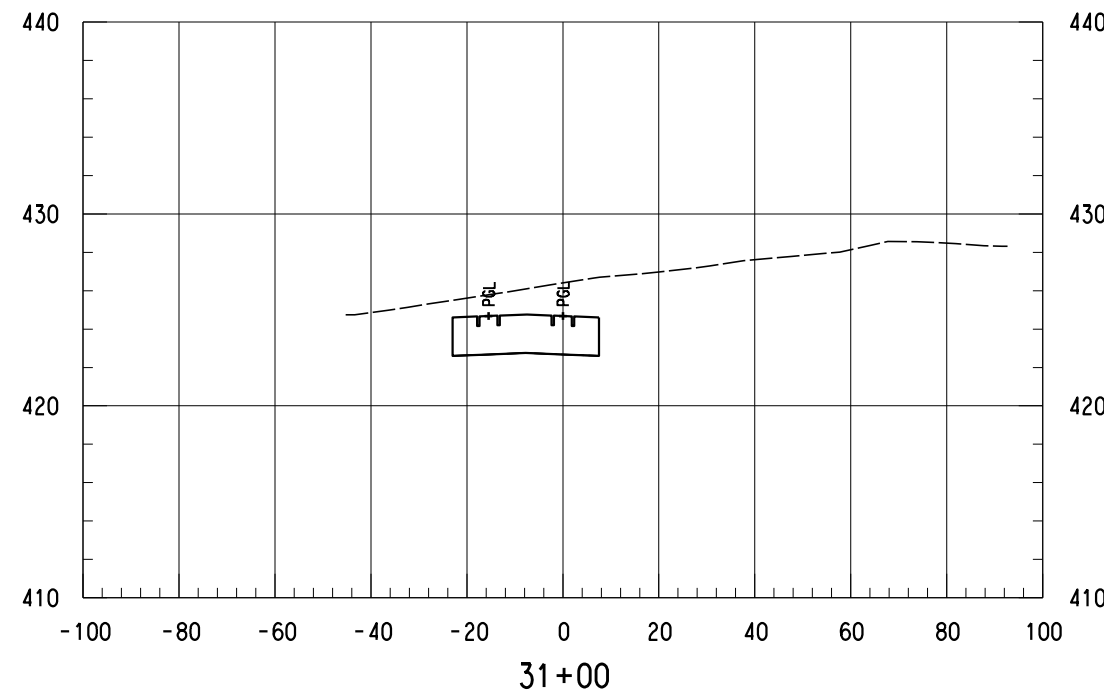
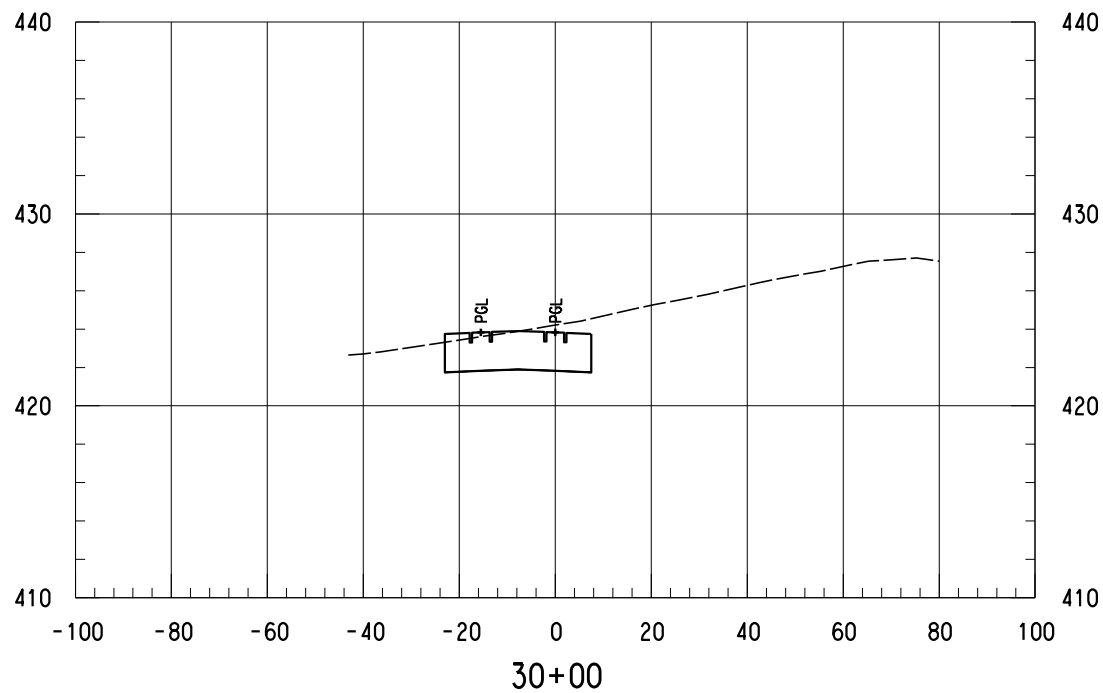
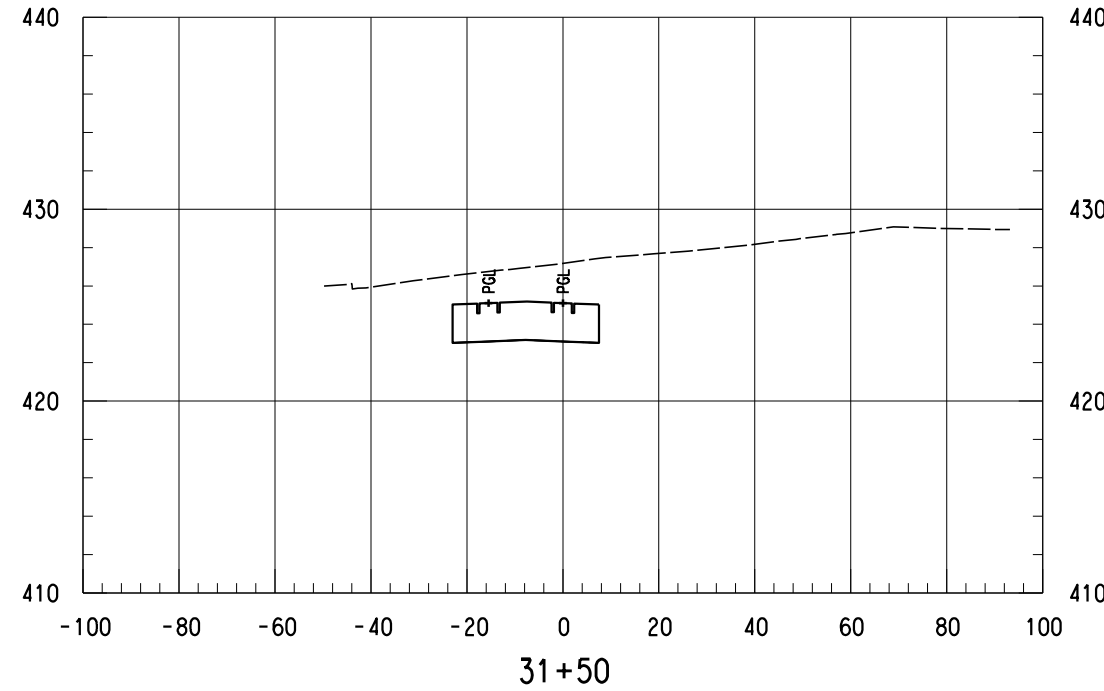
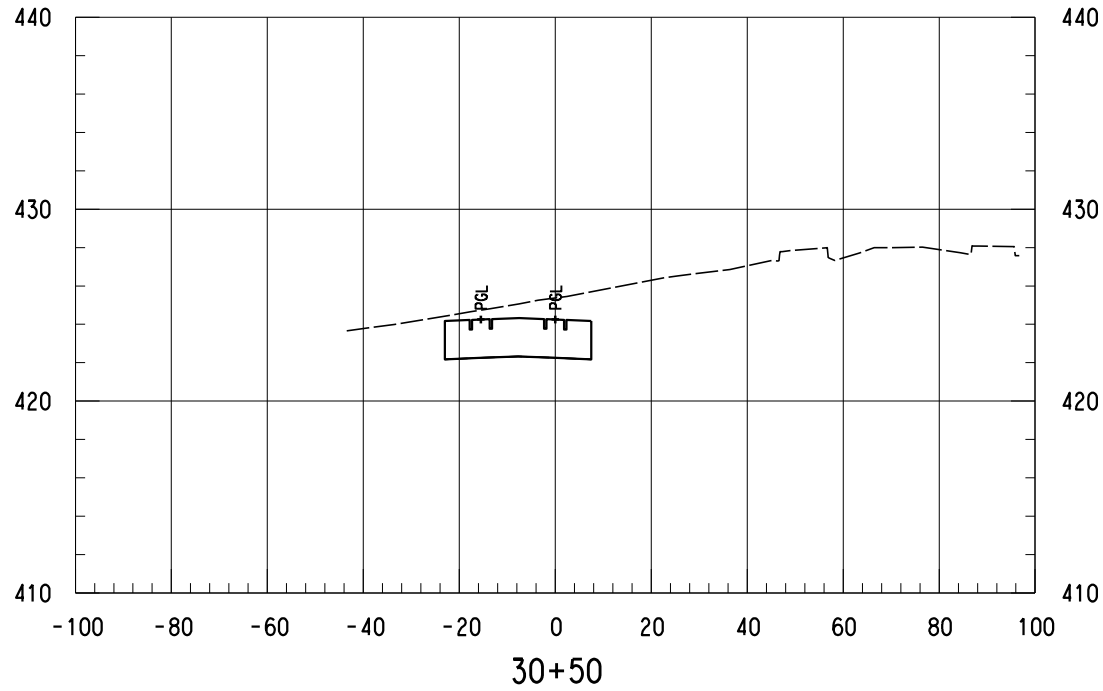


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0010	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:37 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 74 OF 276

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. CCB-0011 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

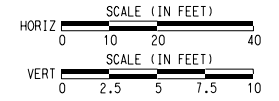
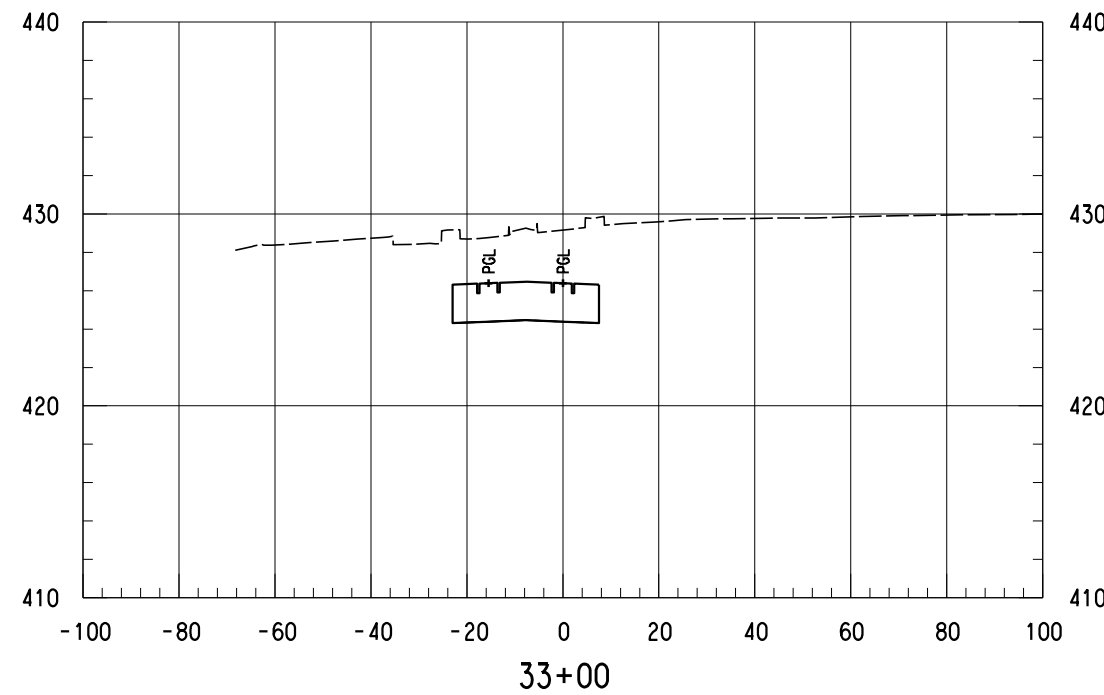
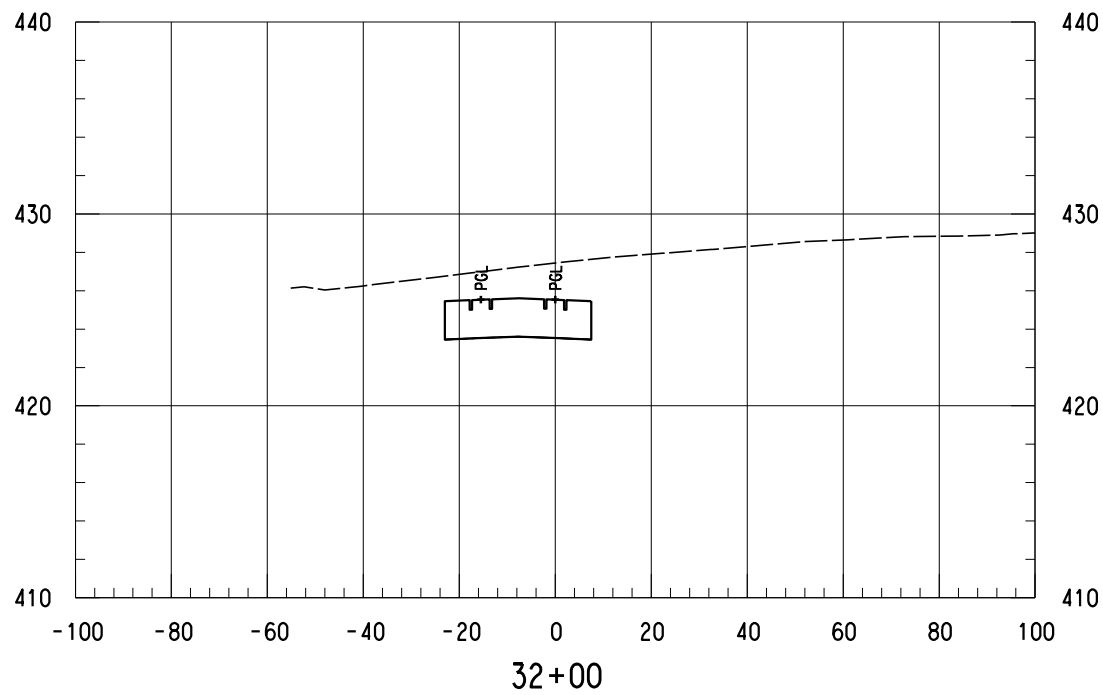
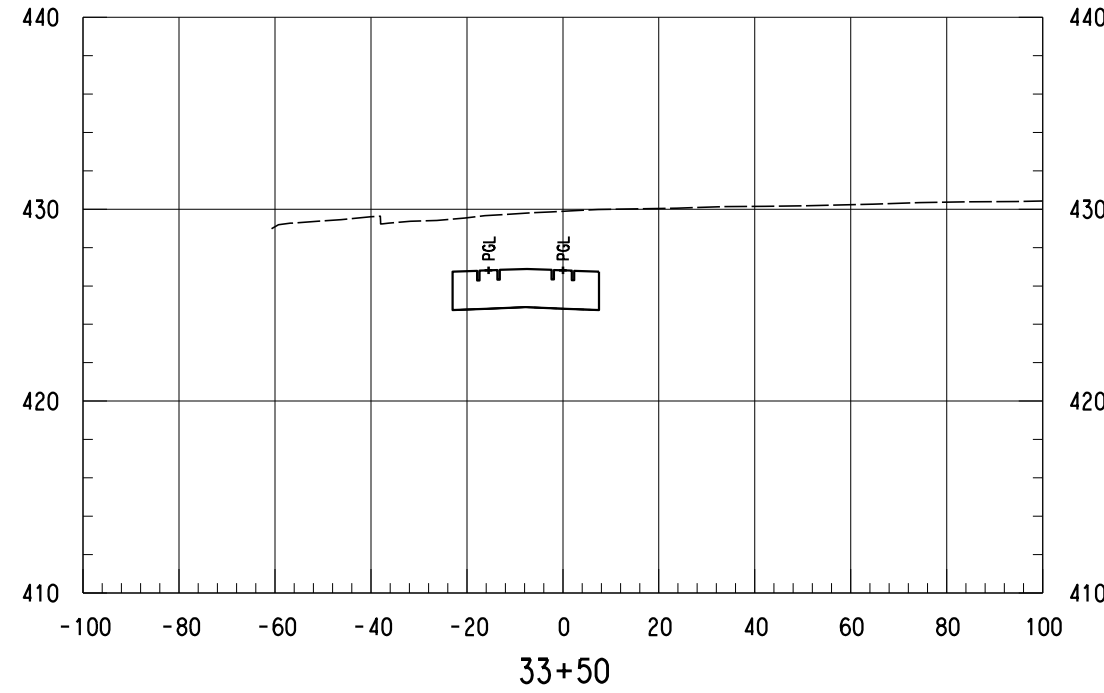
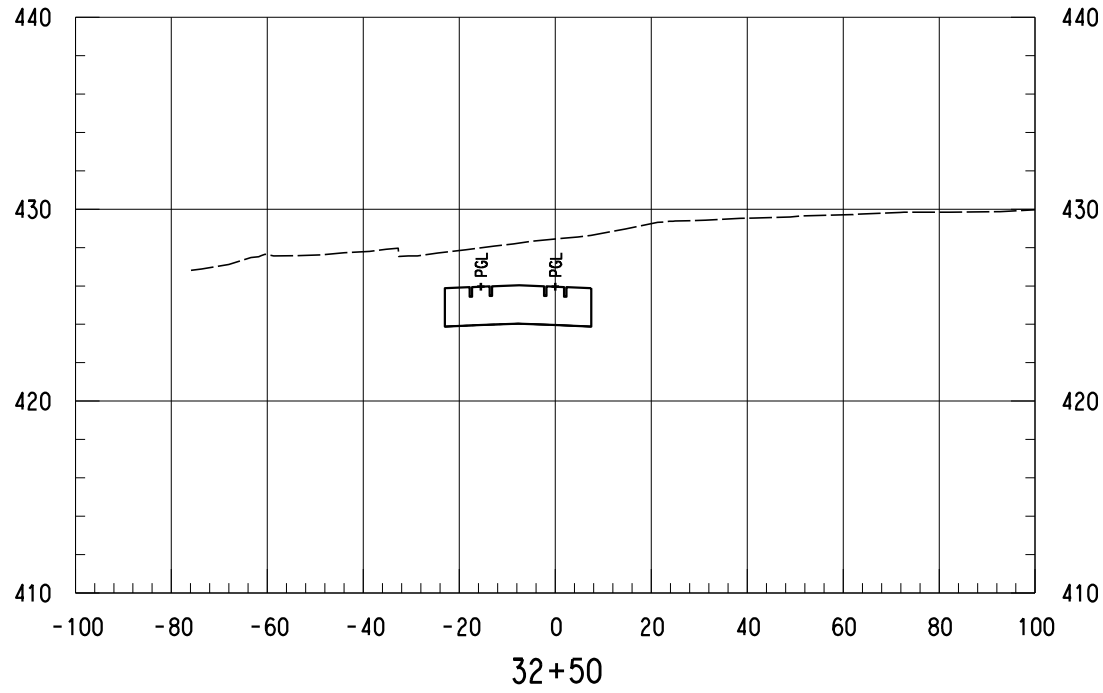
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

Friday, February 28, 2020 12:57:38 PM

DANGLE



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 20% DESIGN

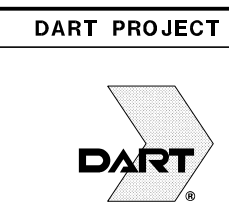
CONTRACT SHEET No. 75 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



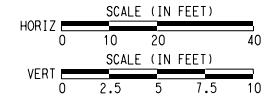
SCALE		AS NOTED	
DRAWN	L. GUELLO	DESIGNED	L. GUELLO
CHECKED	D. BROWN	IN CHARGE	A. STAHLNECKER
DATE	03/06/2020		



CONTRACT	DWG No.	CCB-0012	REV
----------	---------	----------	-----

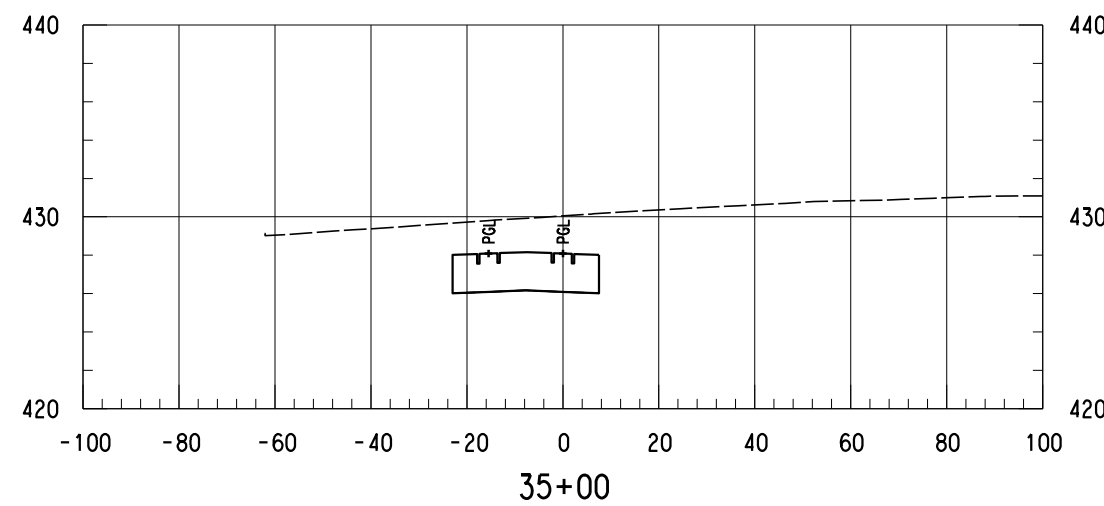
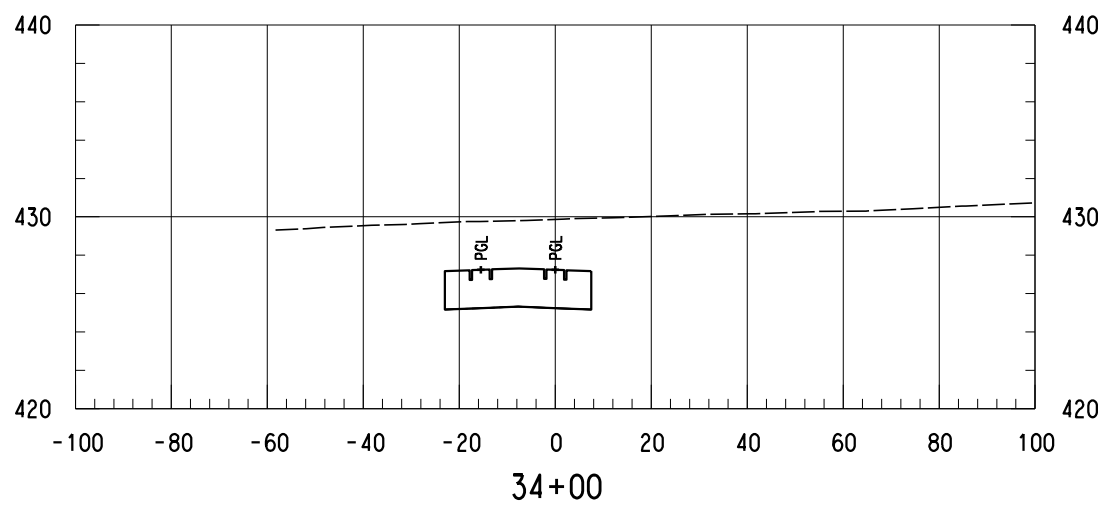
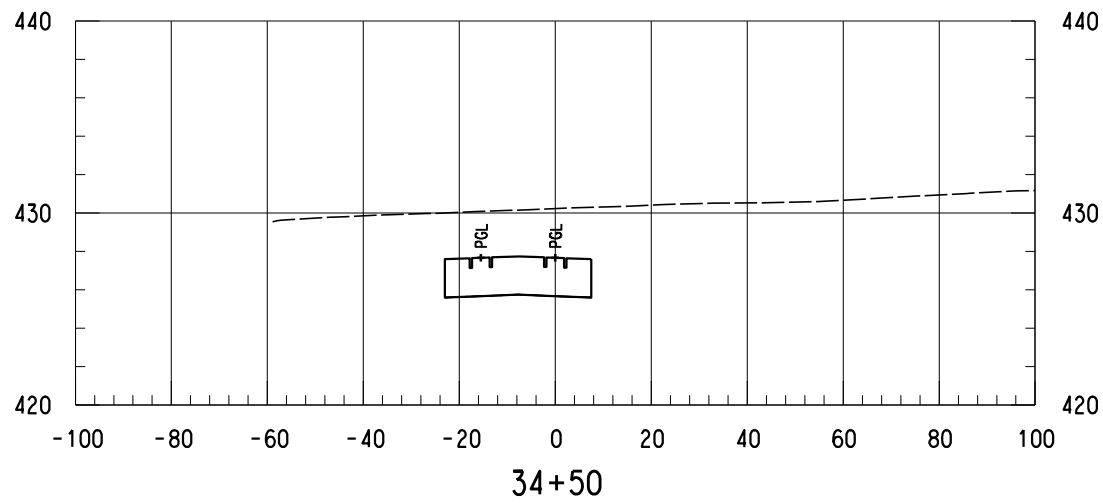
Friday, February 28, 2020 12:57:38 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



NOTES:

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 76 OF 276

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. CCB-0013 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



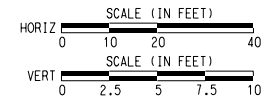
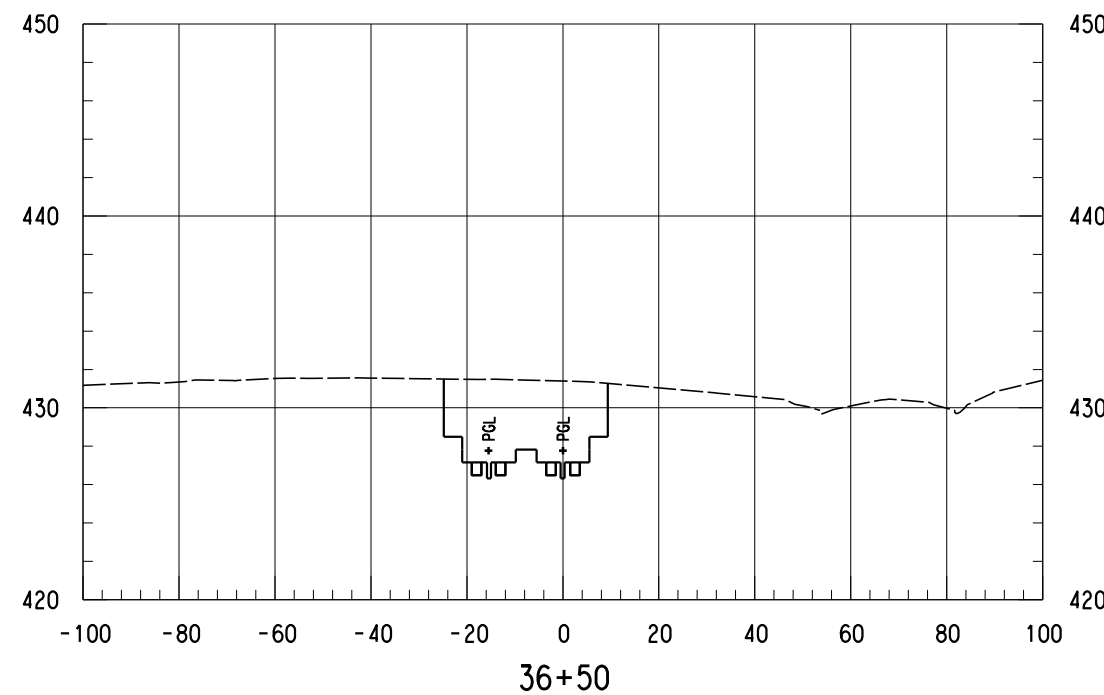
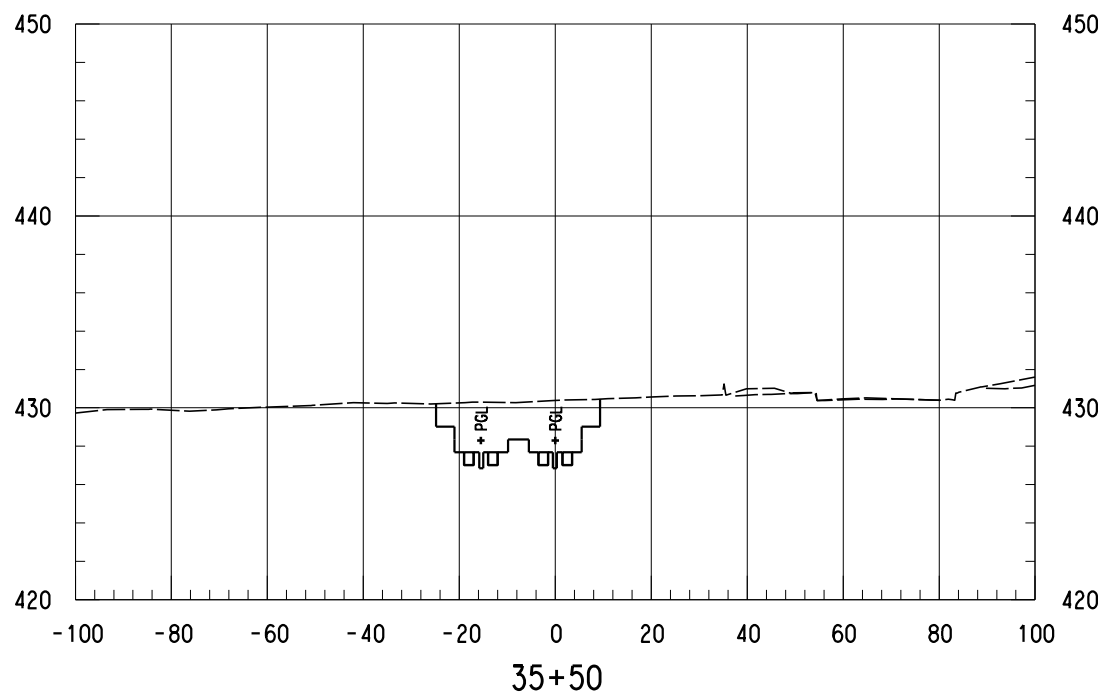
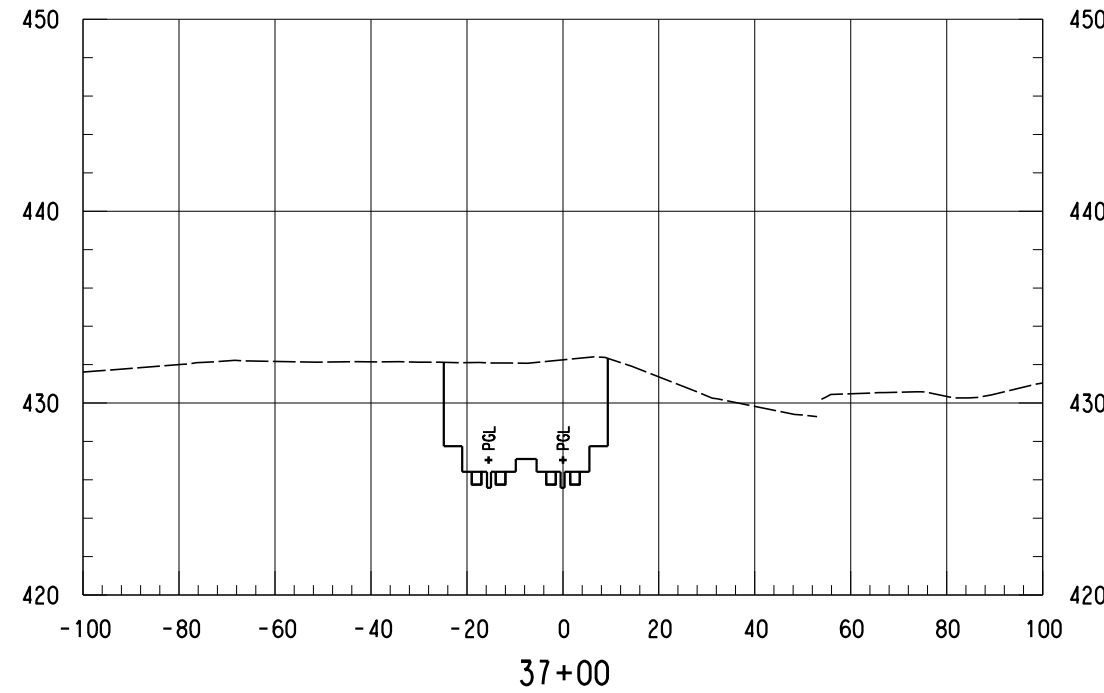
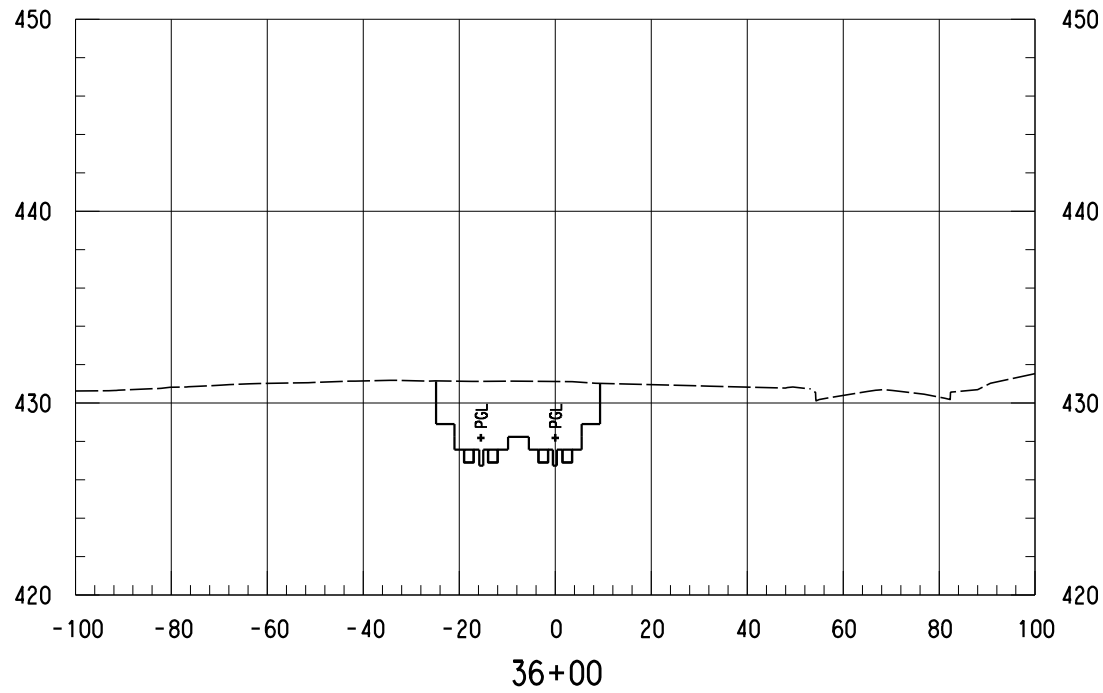
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:39 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 77 OF 276

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. CCB-0014 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



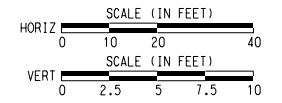
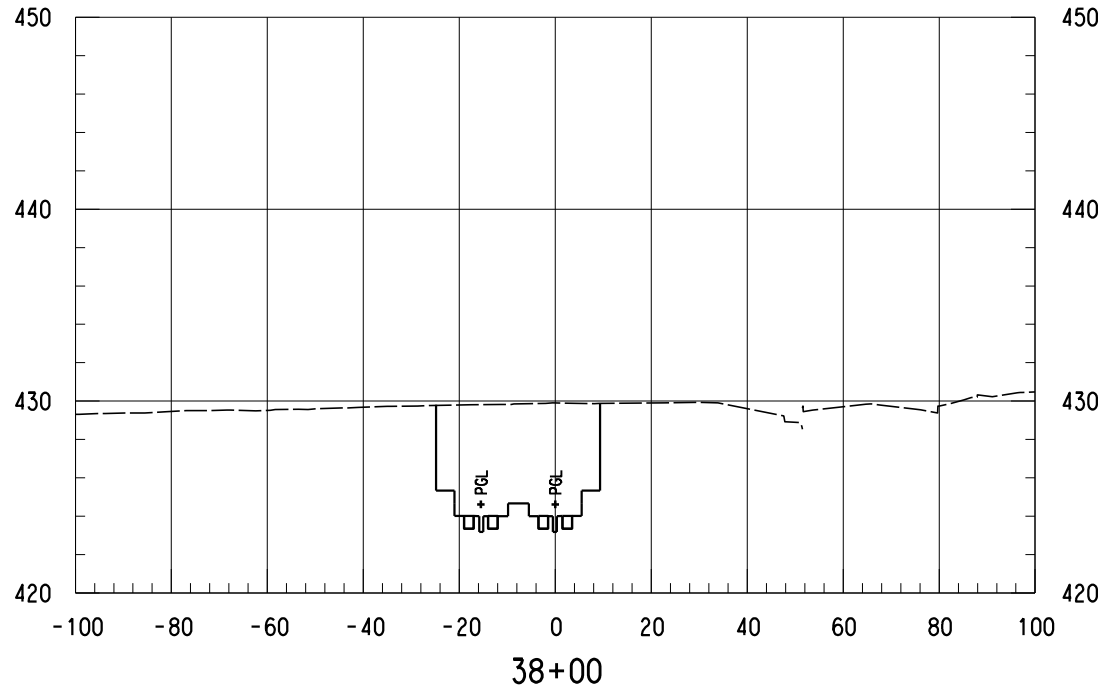
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

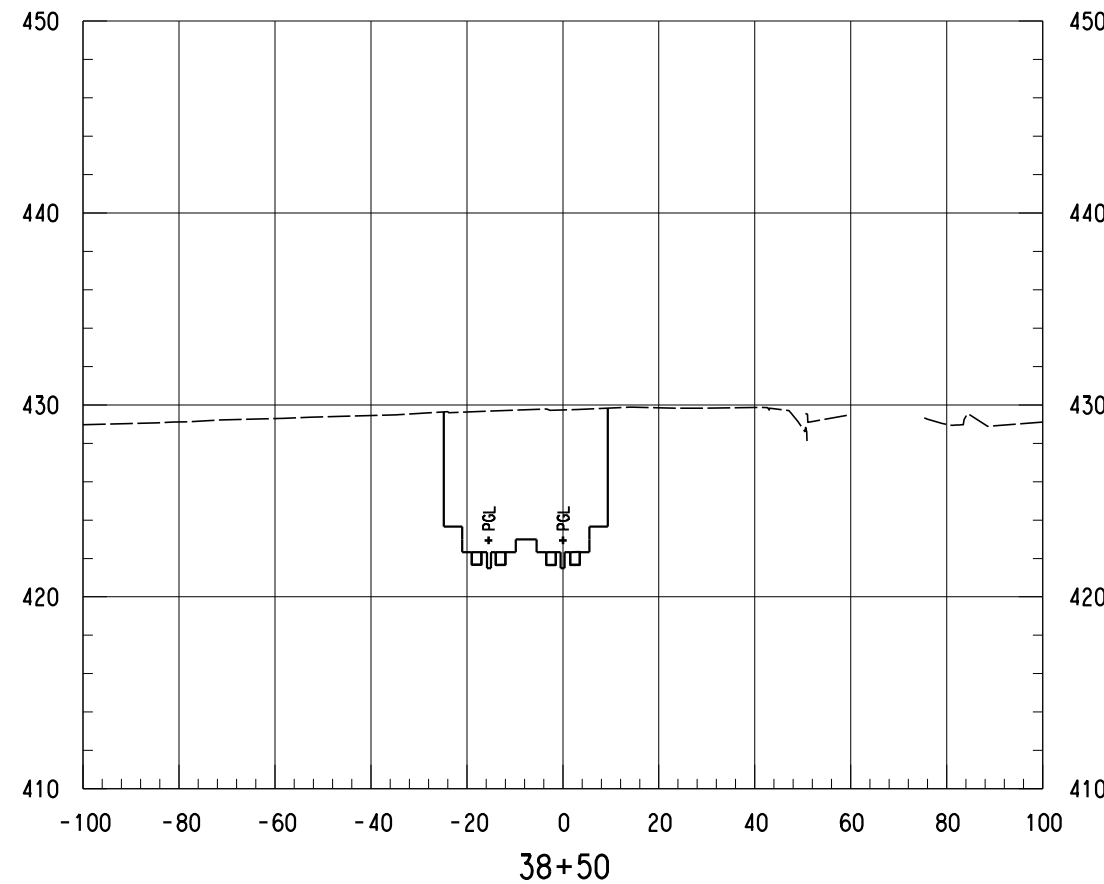
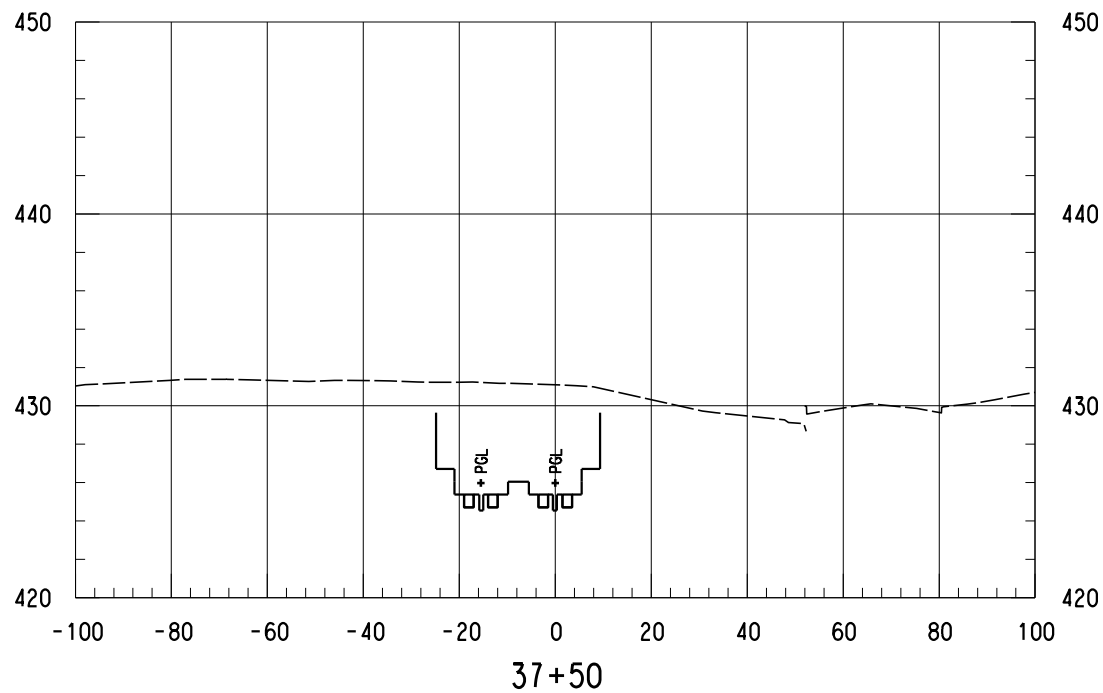
Friday, February 28, 2020 12:57:39 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 78 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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. 124511 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

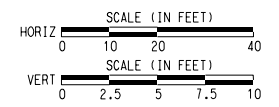
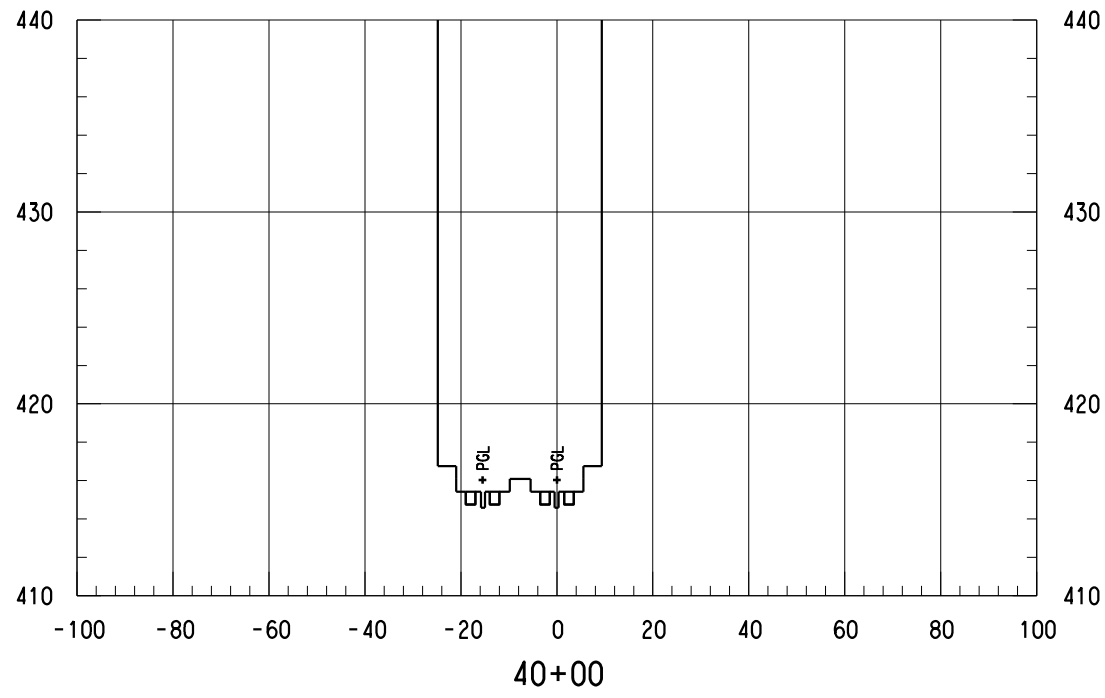
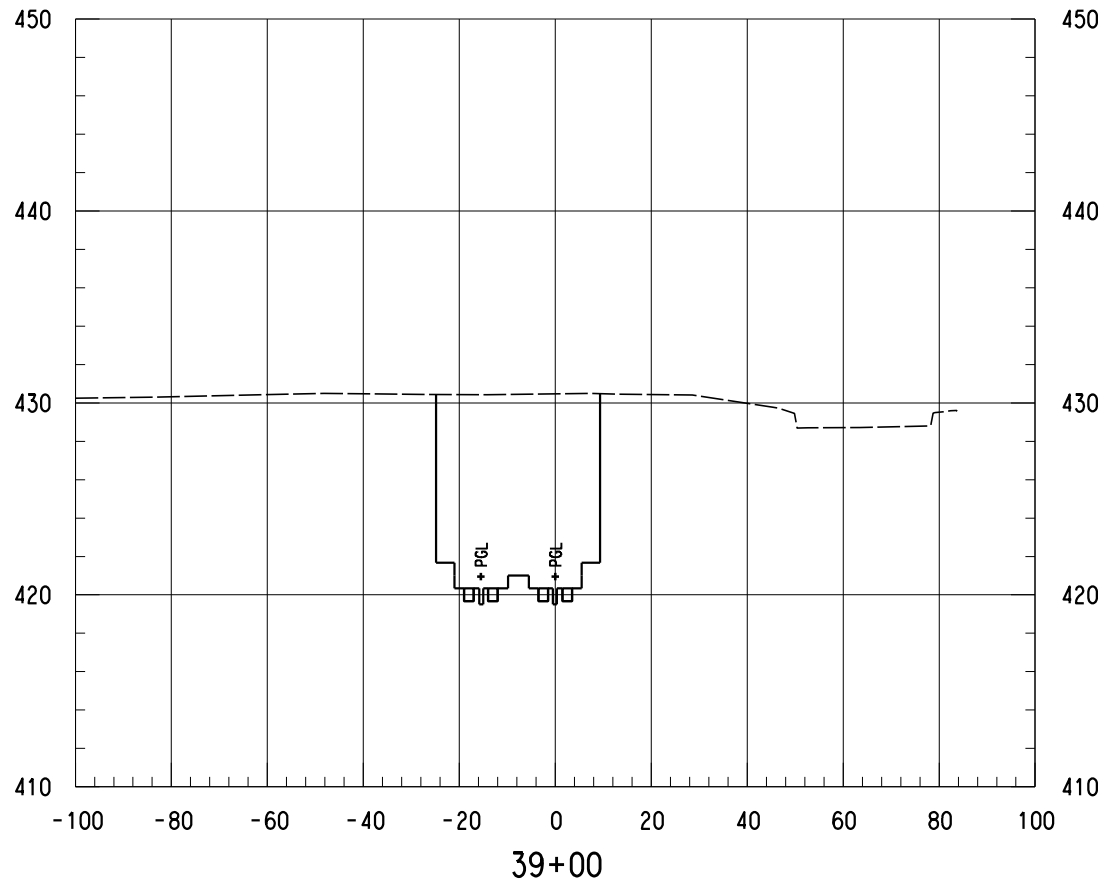
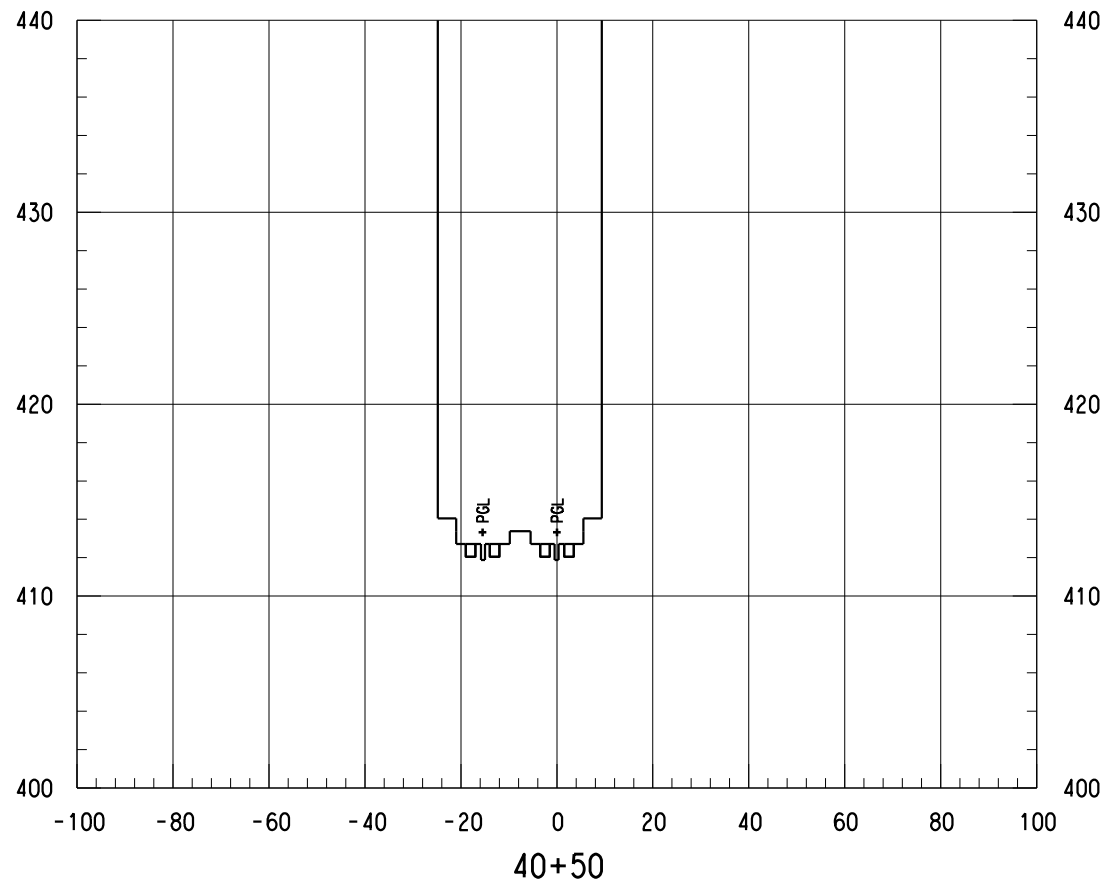
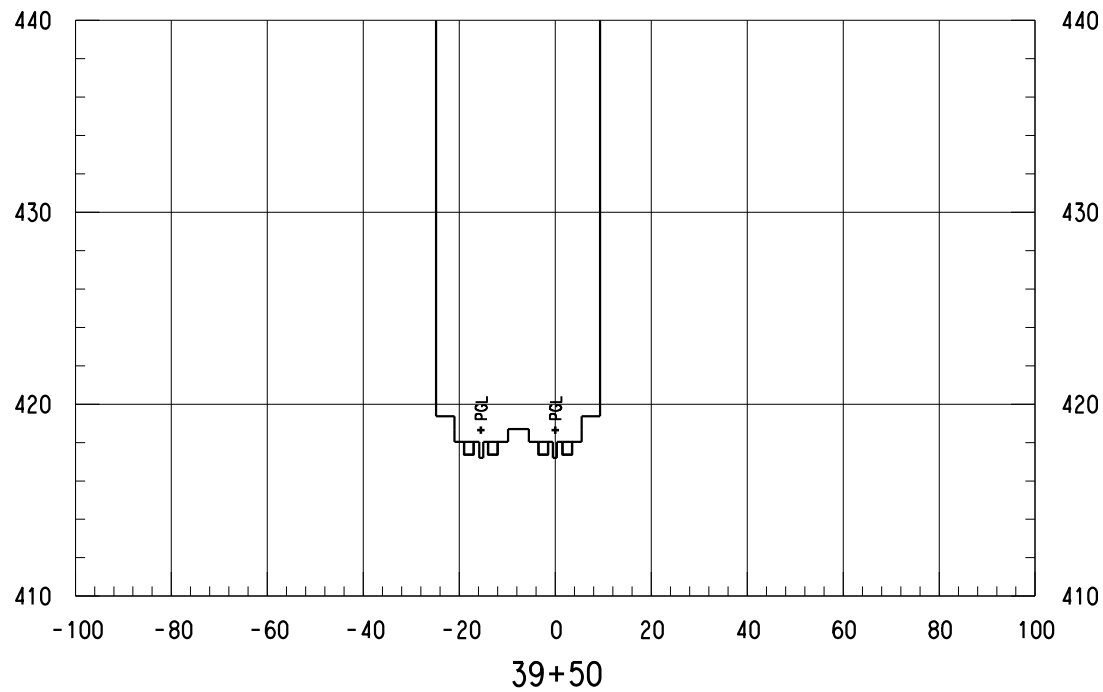


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0015	REV
----------	------------------	-----





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 20% DESIGN

CONTRACT SHEET No. 79 OF 276

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. CCB-0016 REV

Friday, February 28, 2020 12:57:40 PM

DANGLE

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

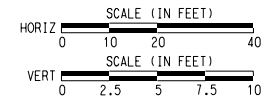
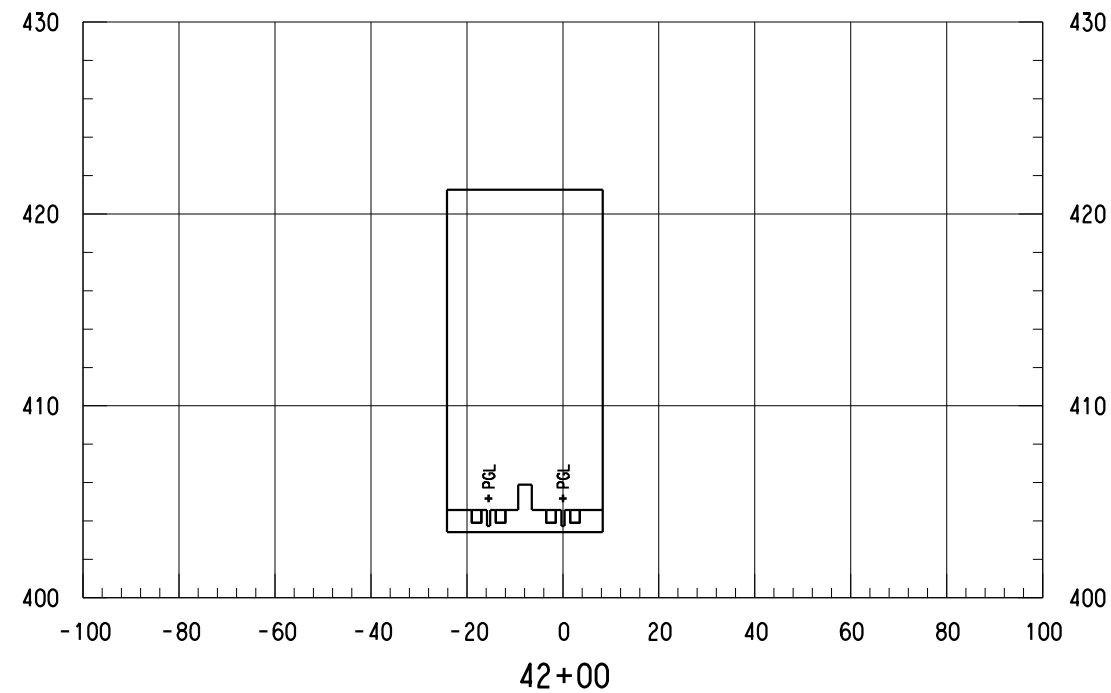
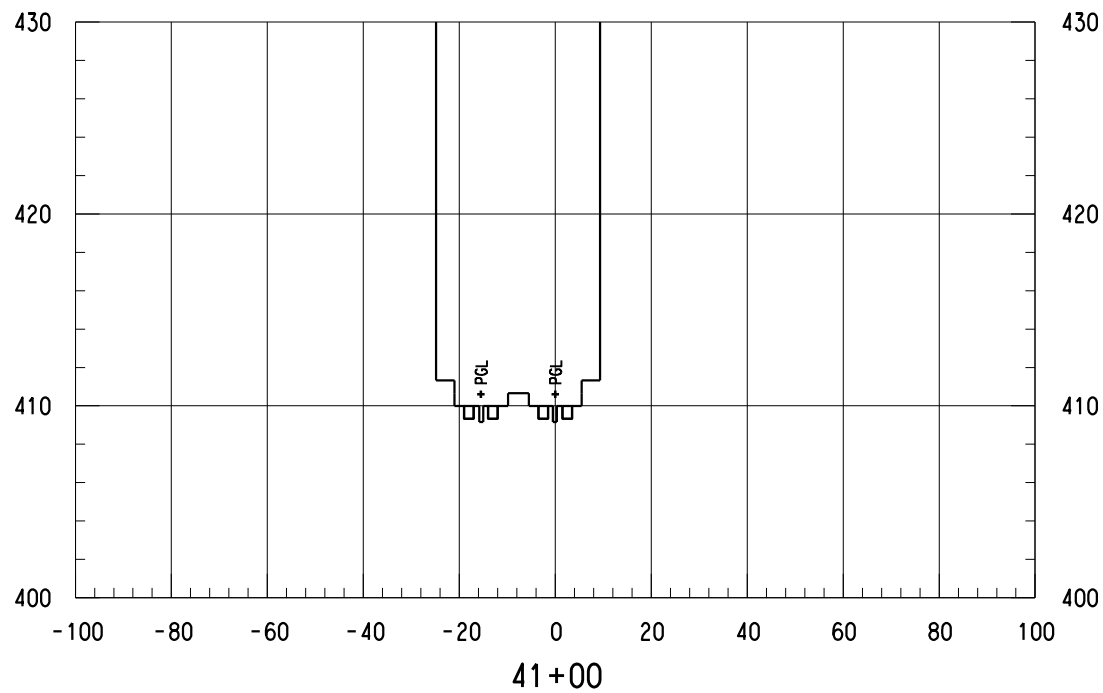
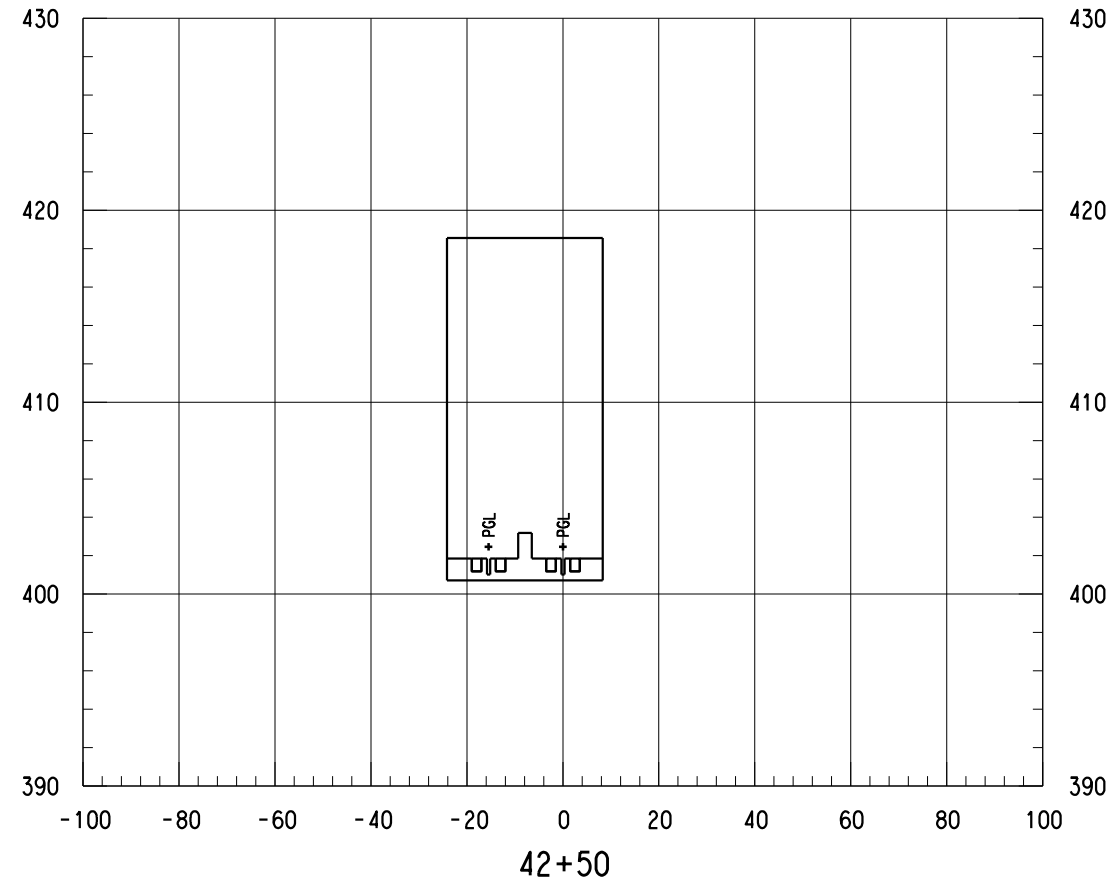
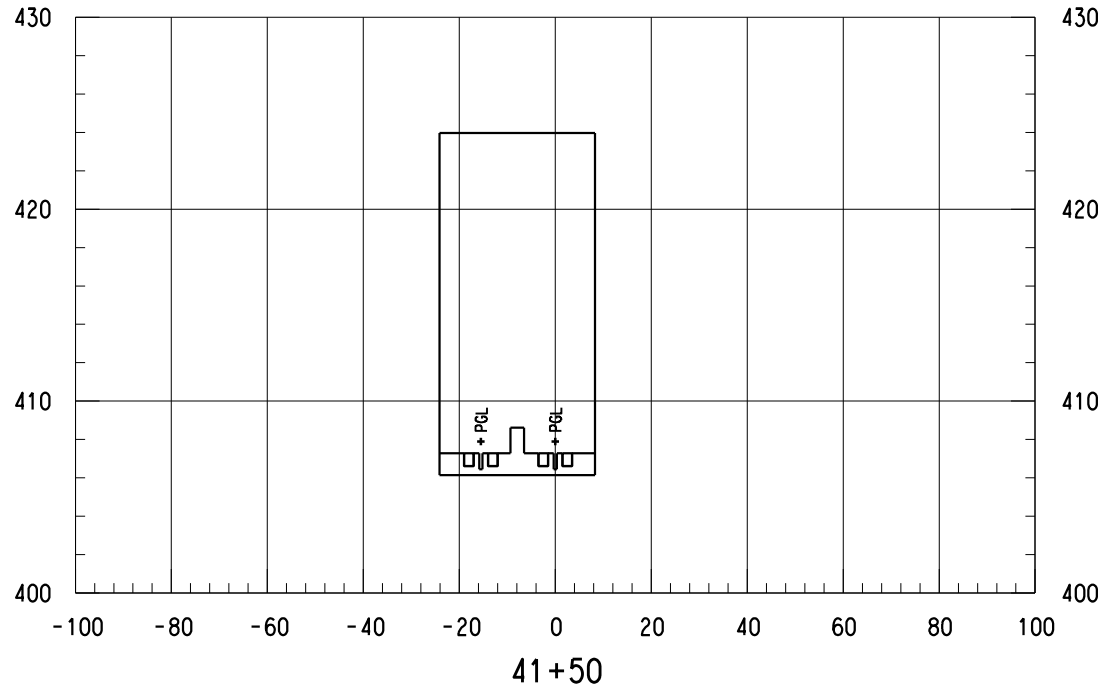


**DART PROJECT**



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 80 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



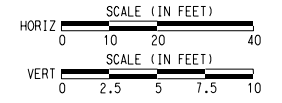
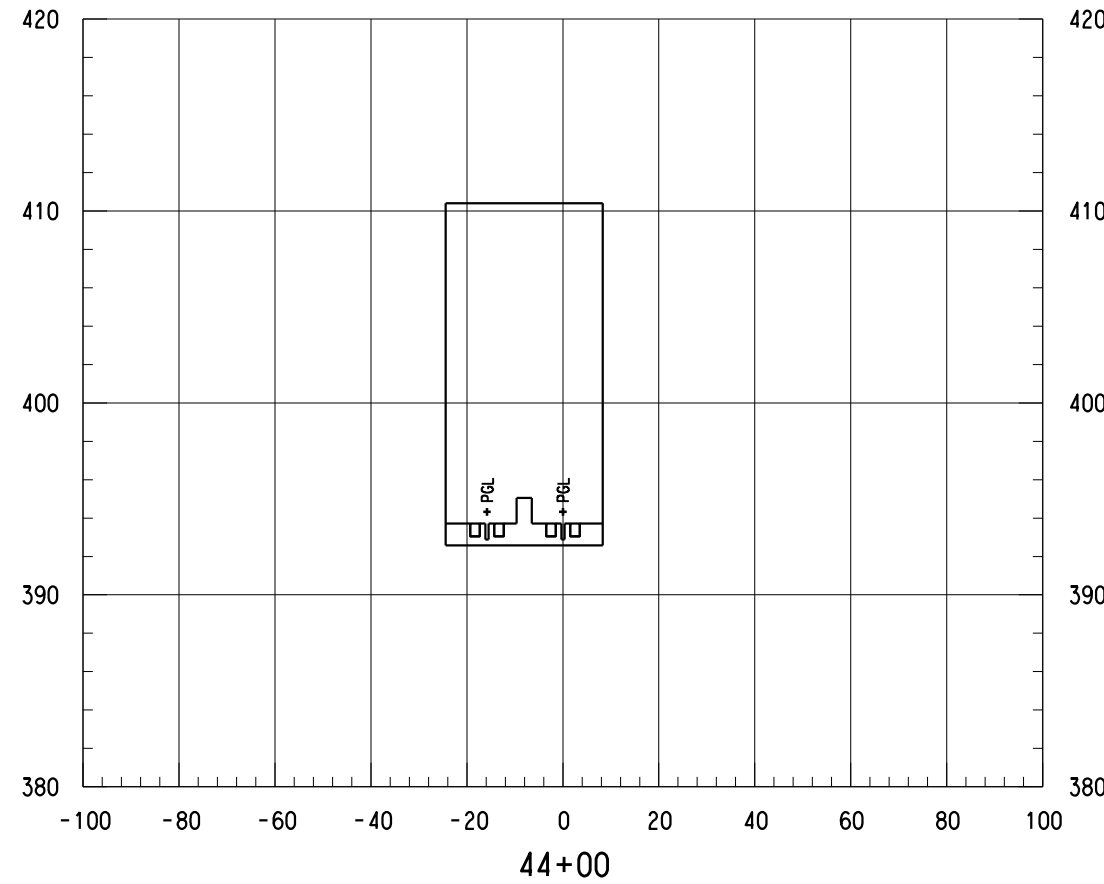
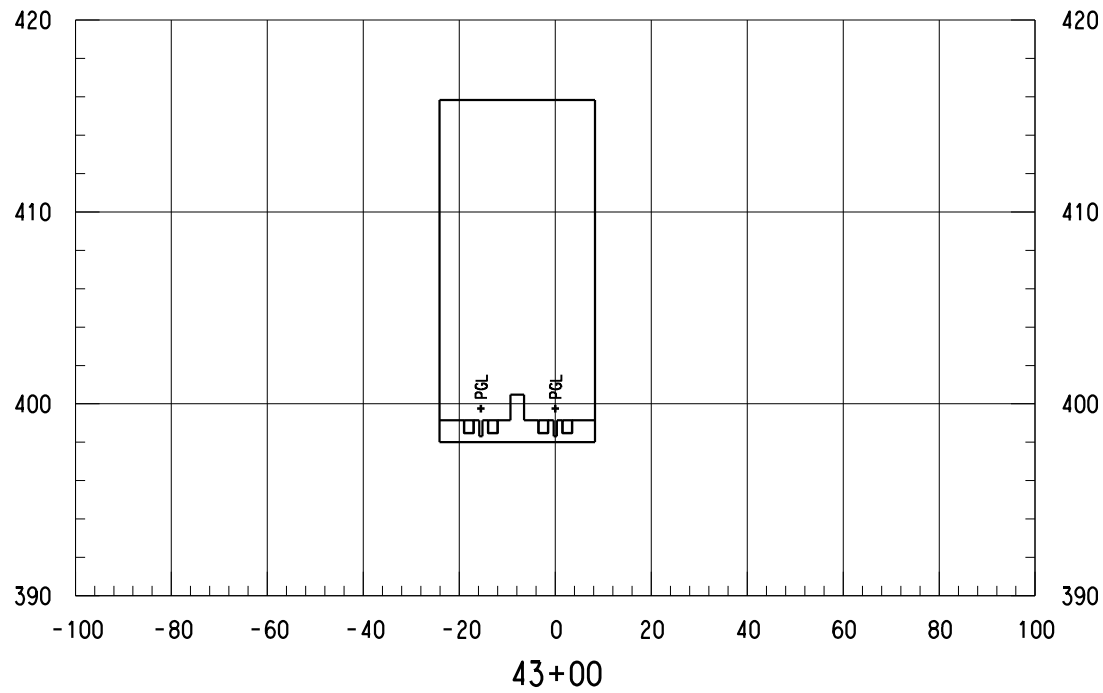
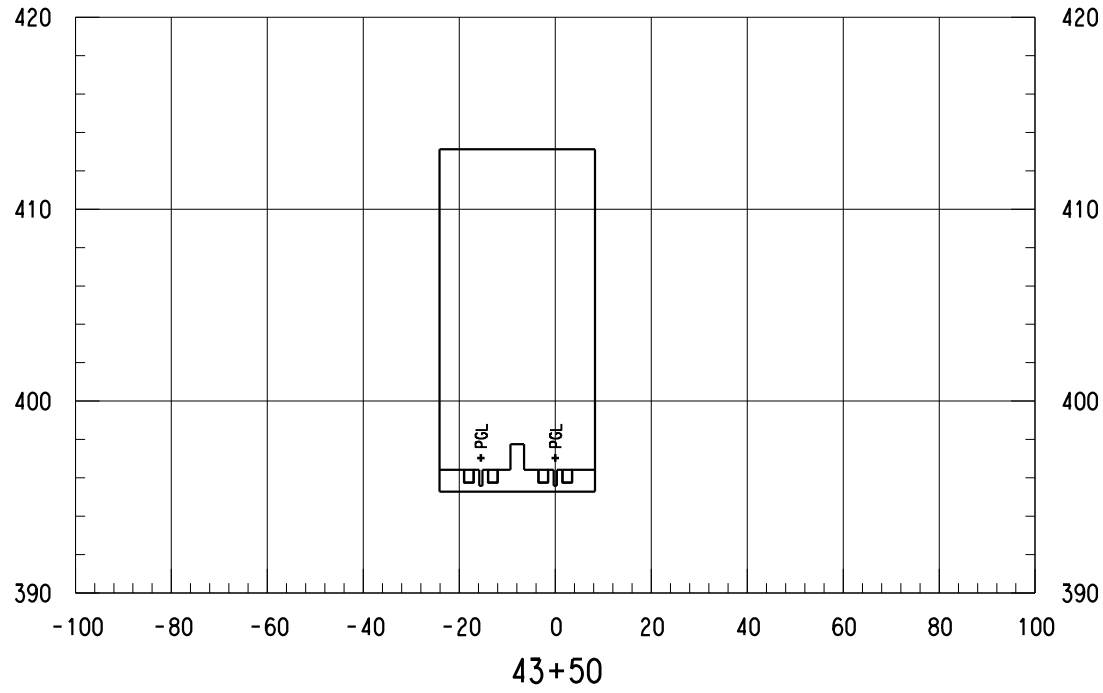
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0017	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:41 PM

DANGLE



- 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 20% DESIGN

CONTRACT SHEET No. 81 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



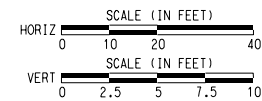
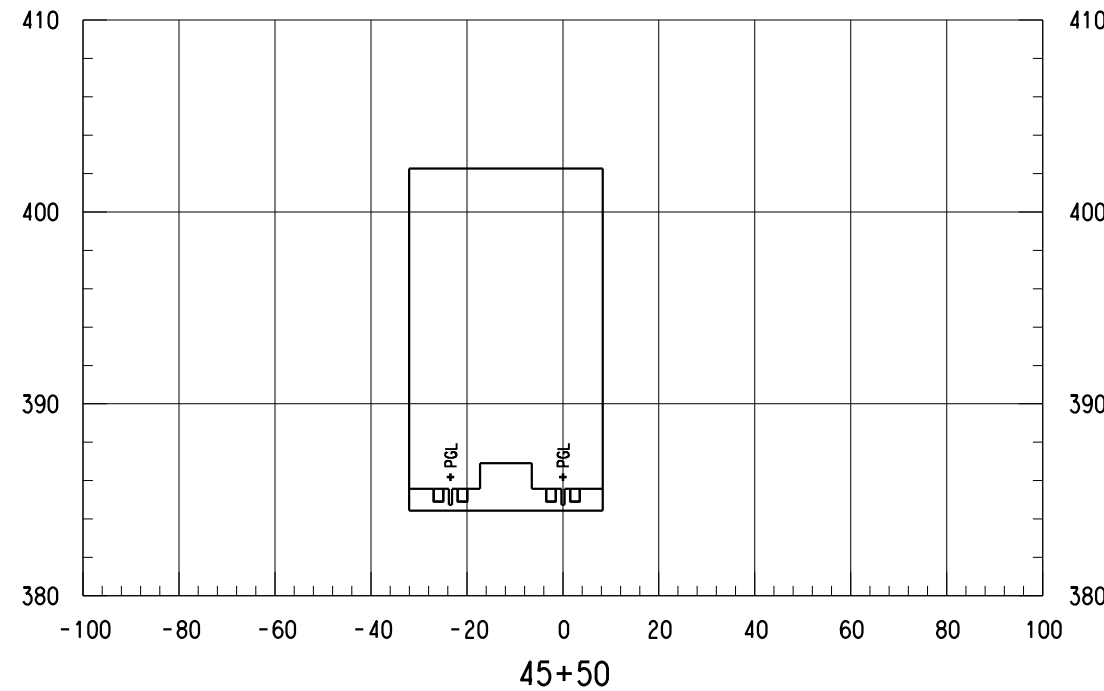
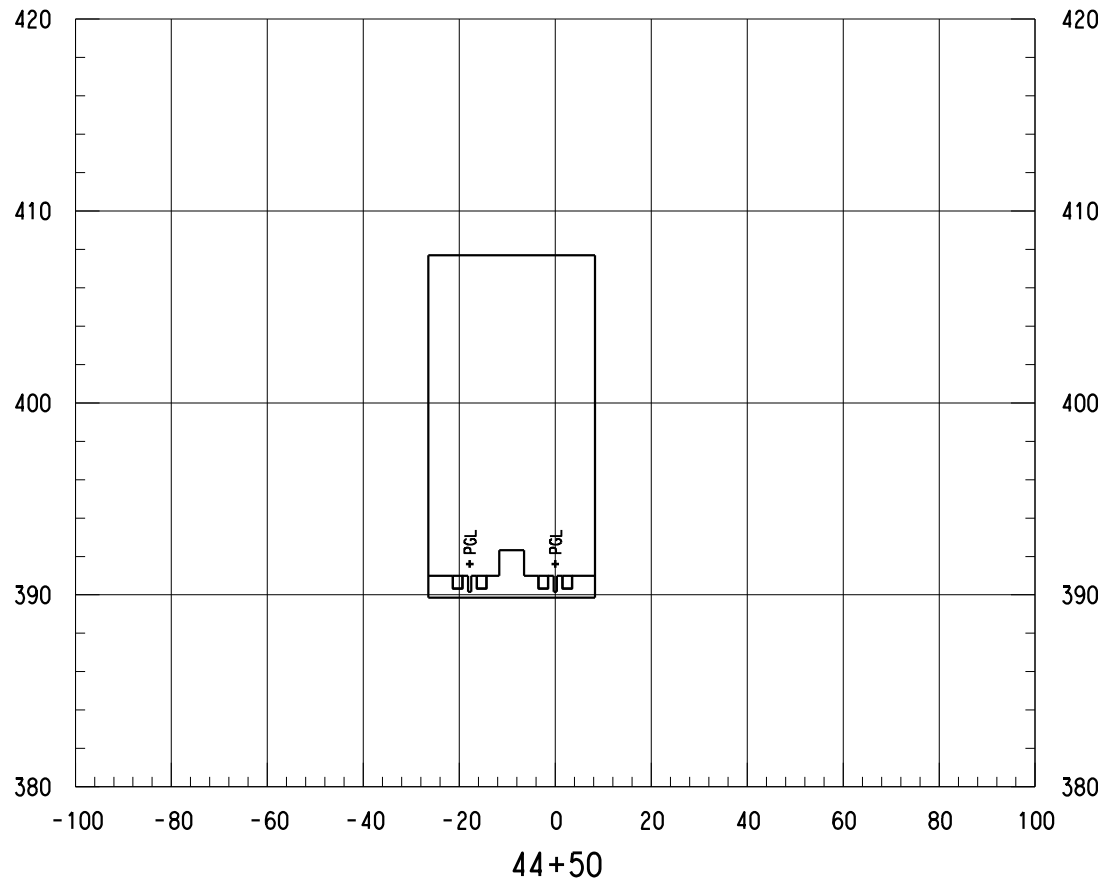
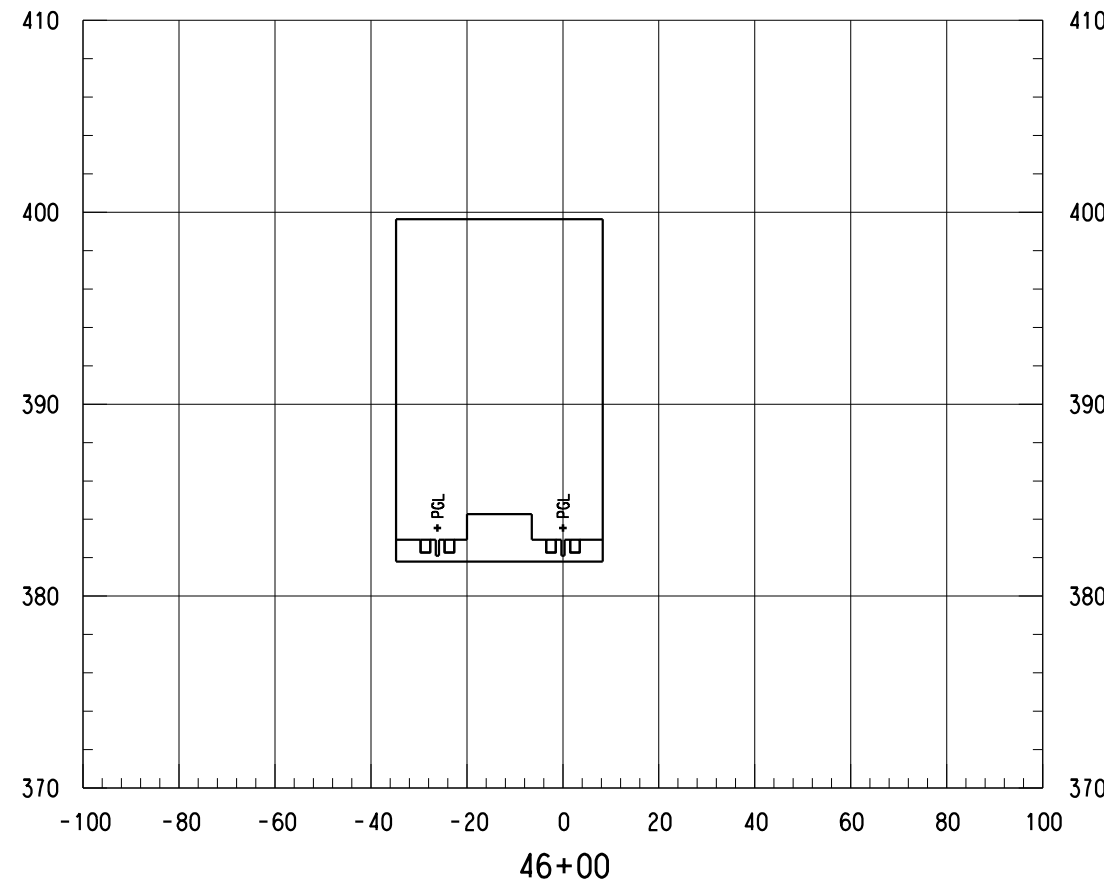
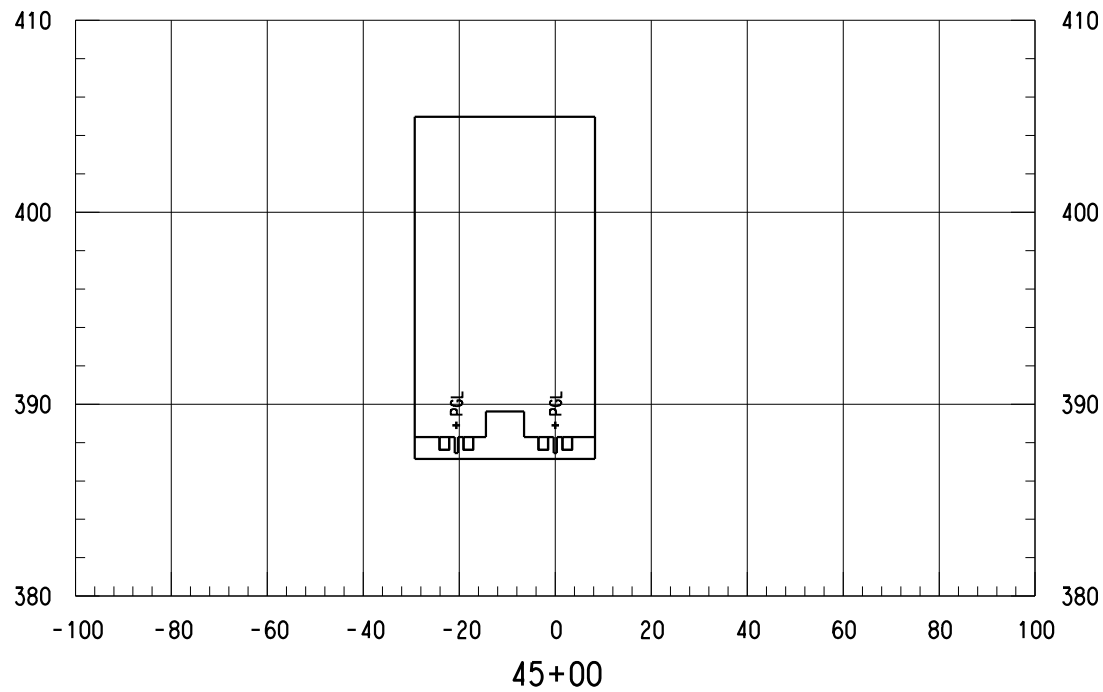
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No.	REV
	CCB-0018	

Friday, February 28, 2020 12:57:41 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 82 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

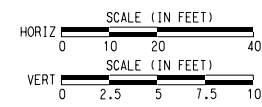
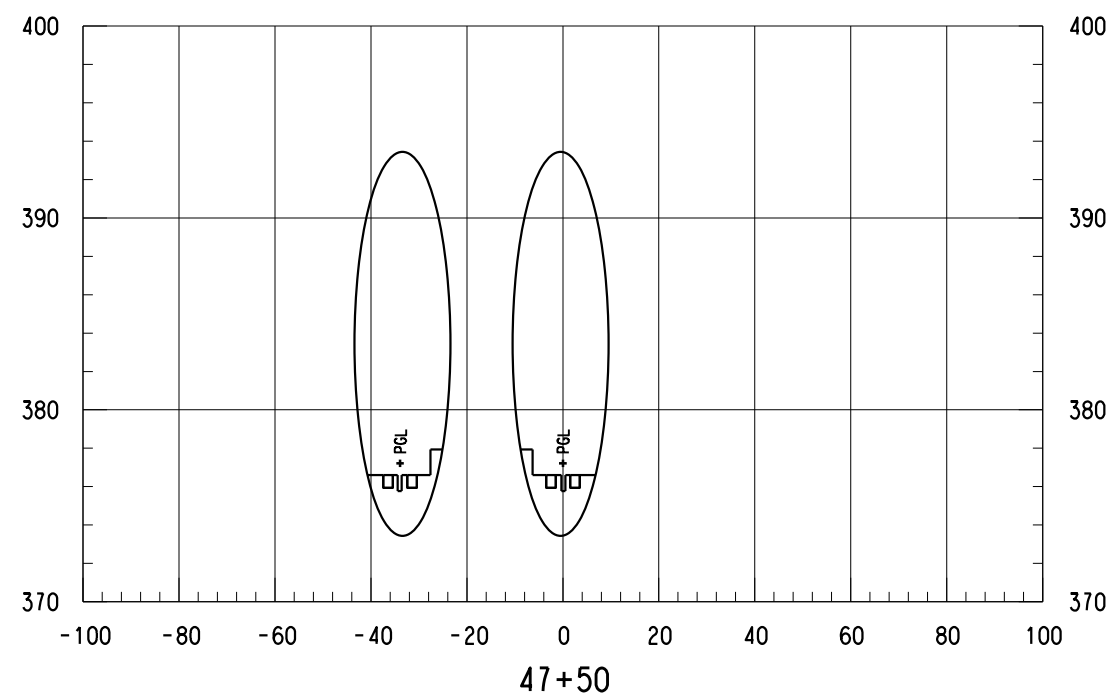
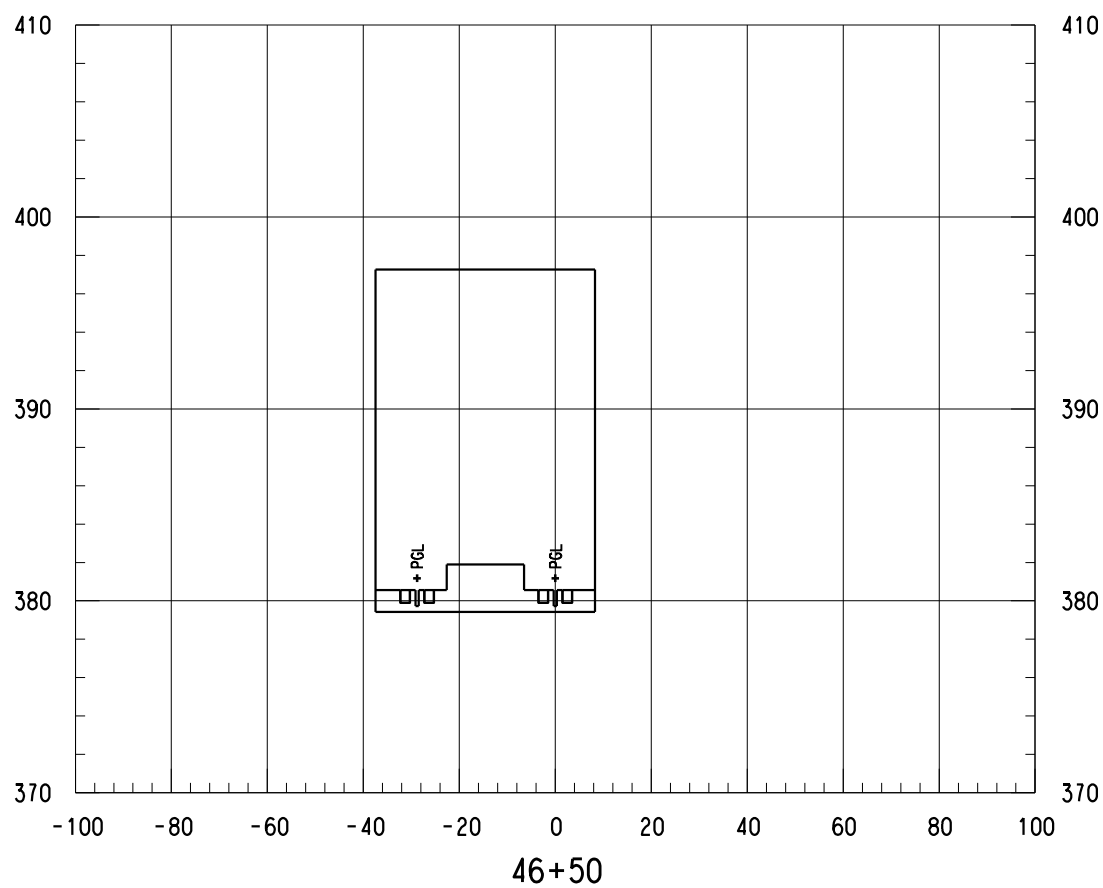
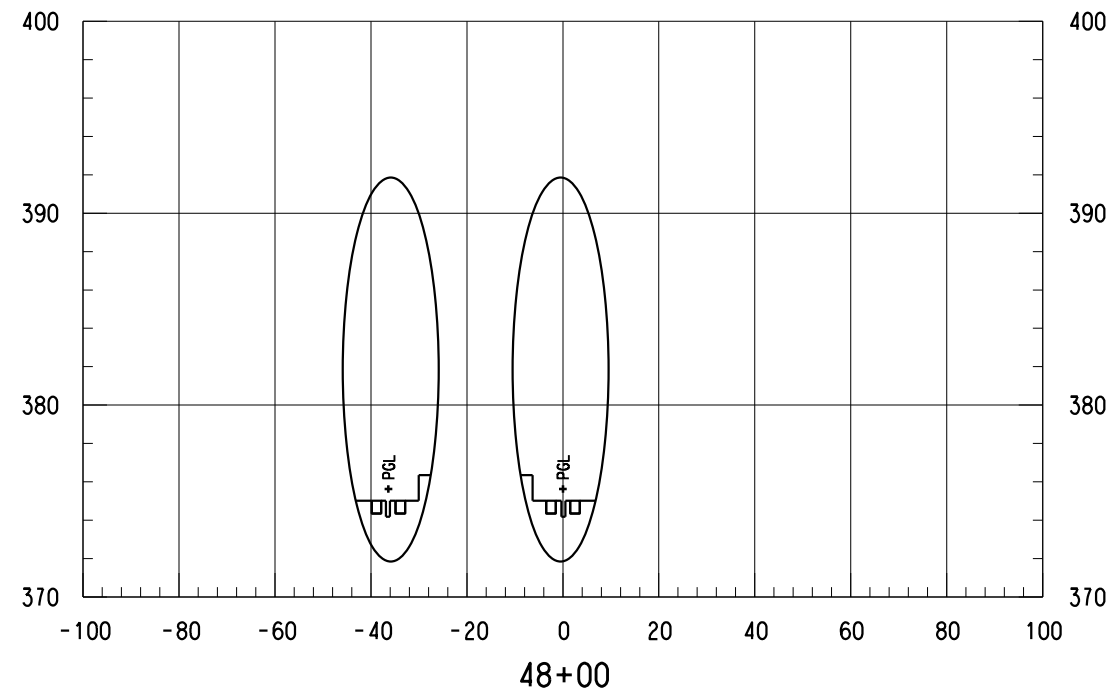
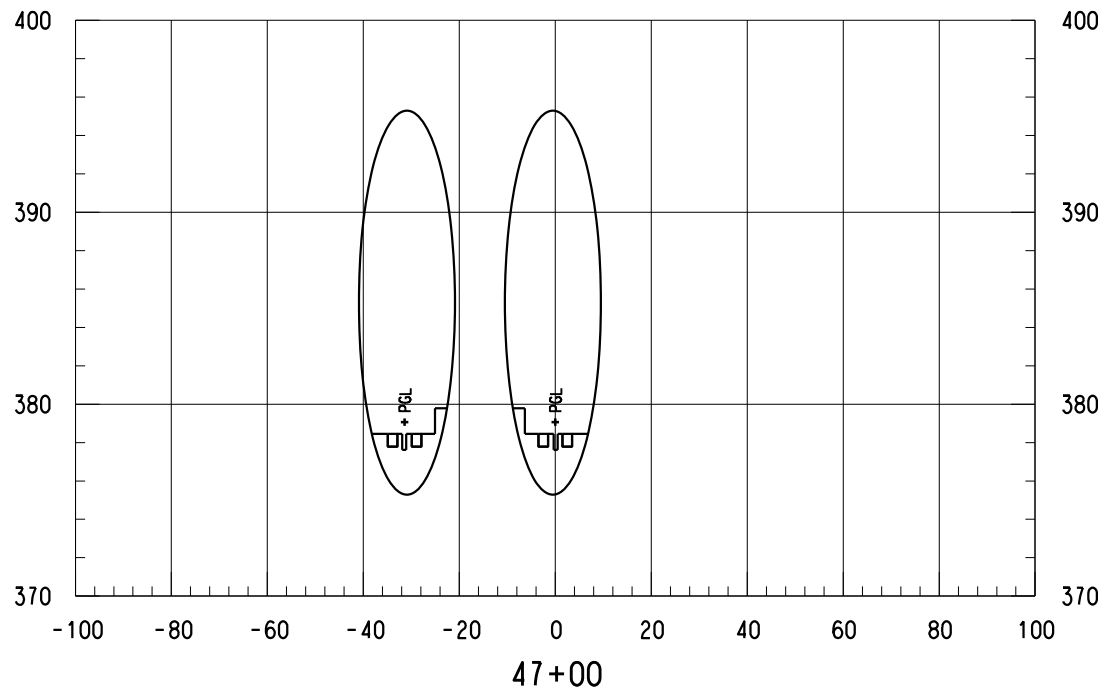


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0019	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:41 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 83 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 CBD-2  
 GUIDEWAY CROSS SECTIONS  
 STA 46+50.00 TO STA 48+00.00

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE 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	03/06/2020

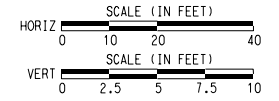


CONTRACT	DWG No. CCB-0020	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:42 PM

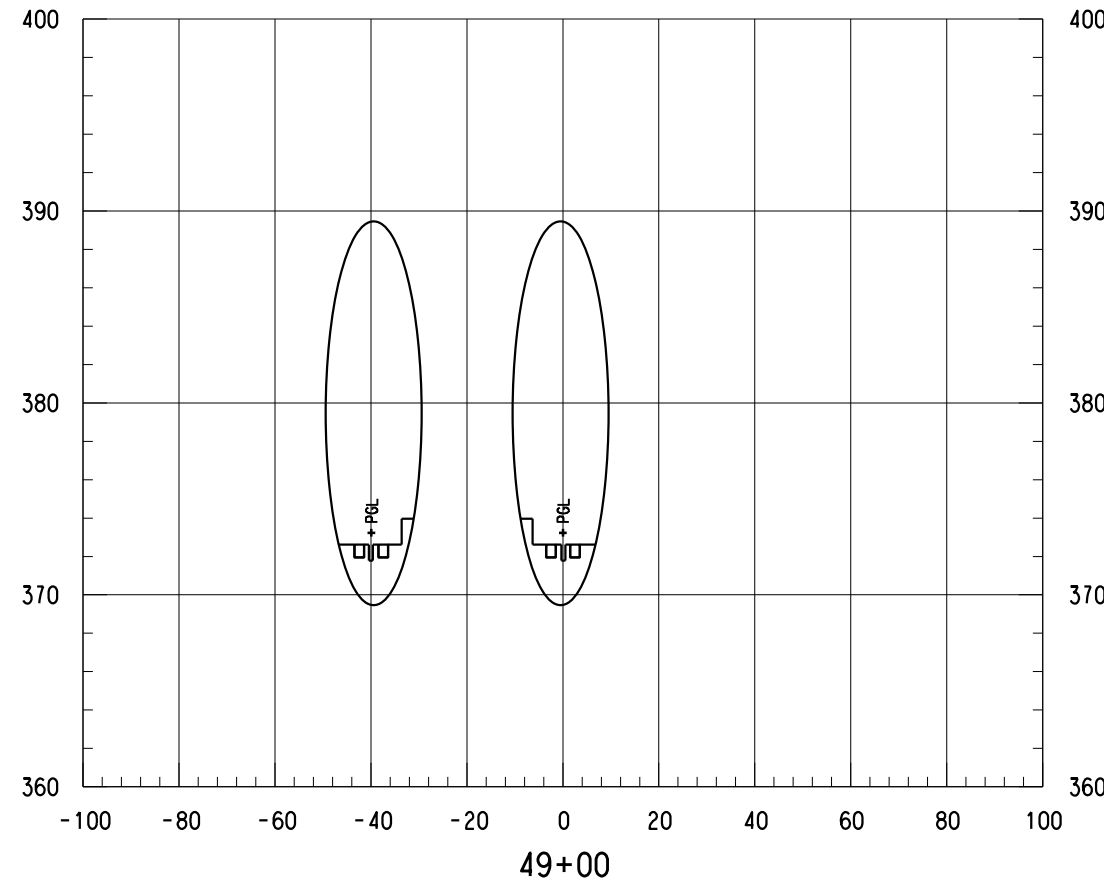
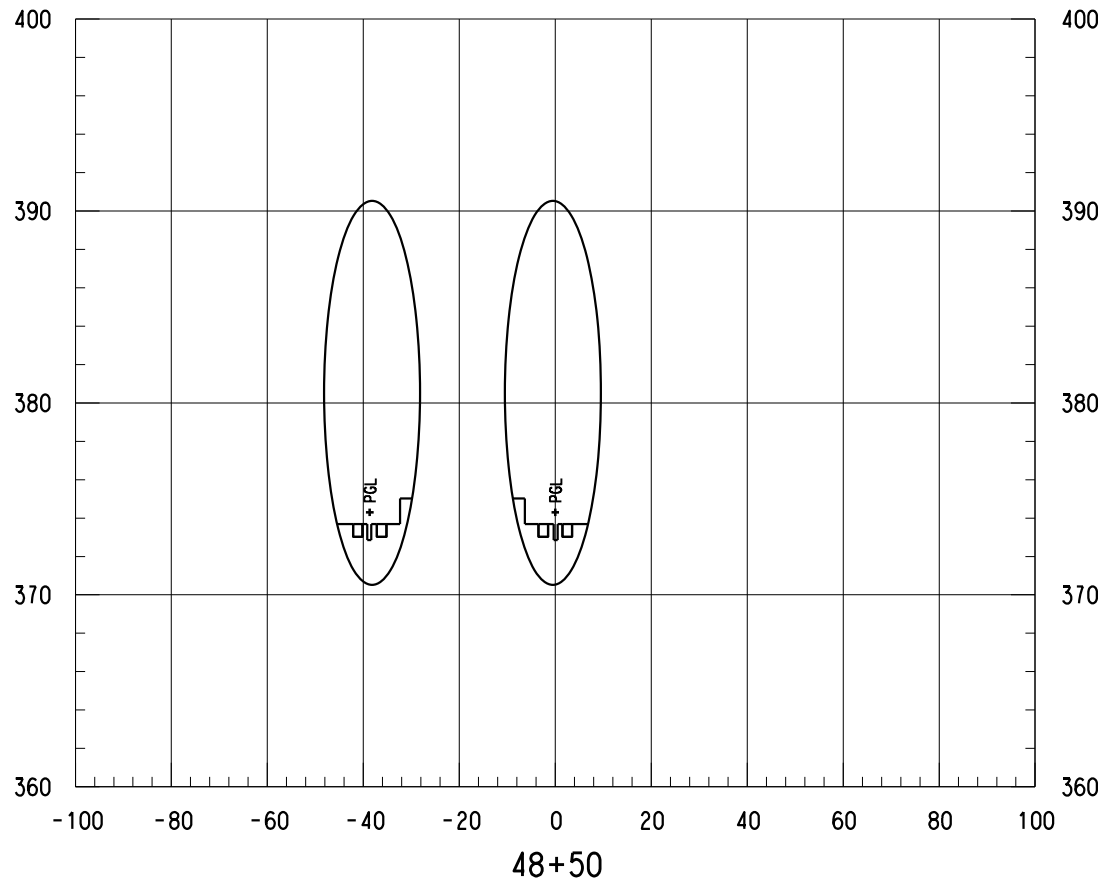
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



NOTES:

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 84 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE 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	03/06/2020

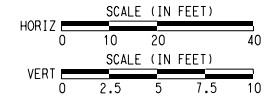


CONTRACT DWG No. CCB-0021 REV

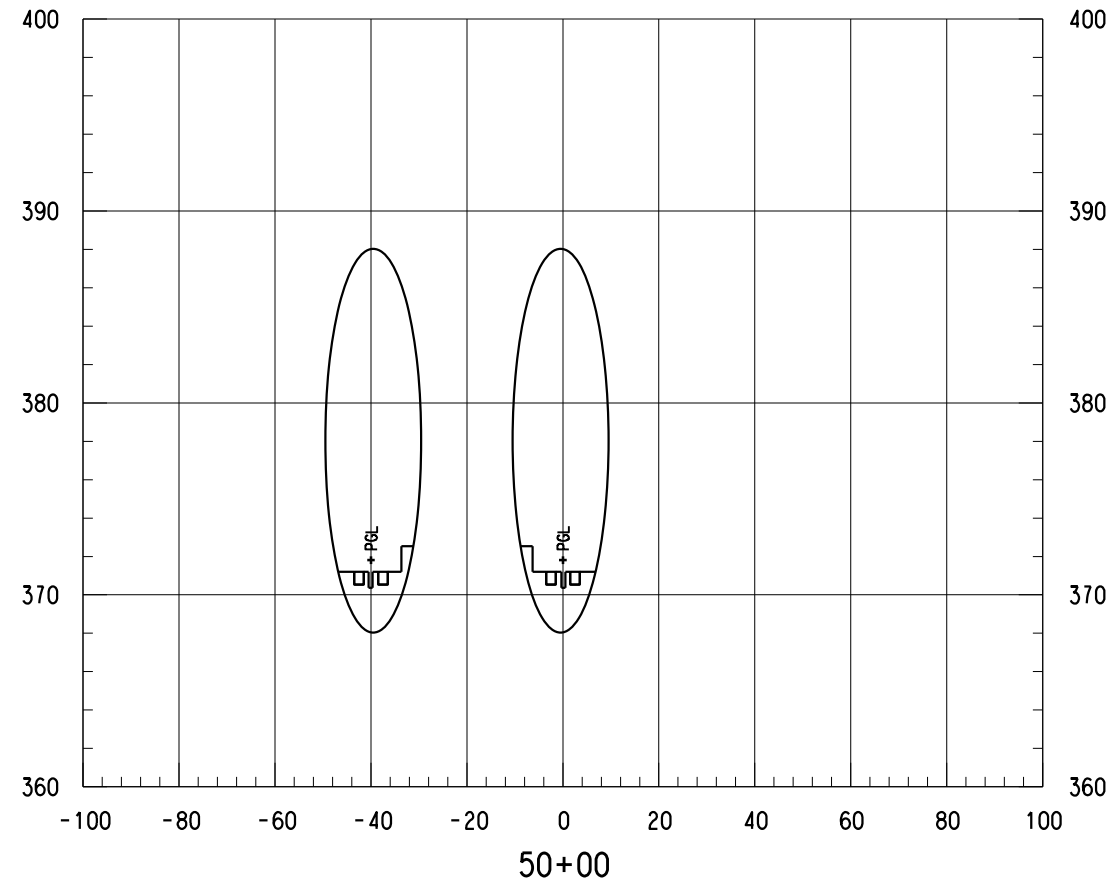
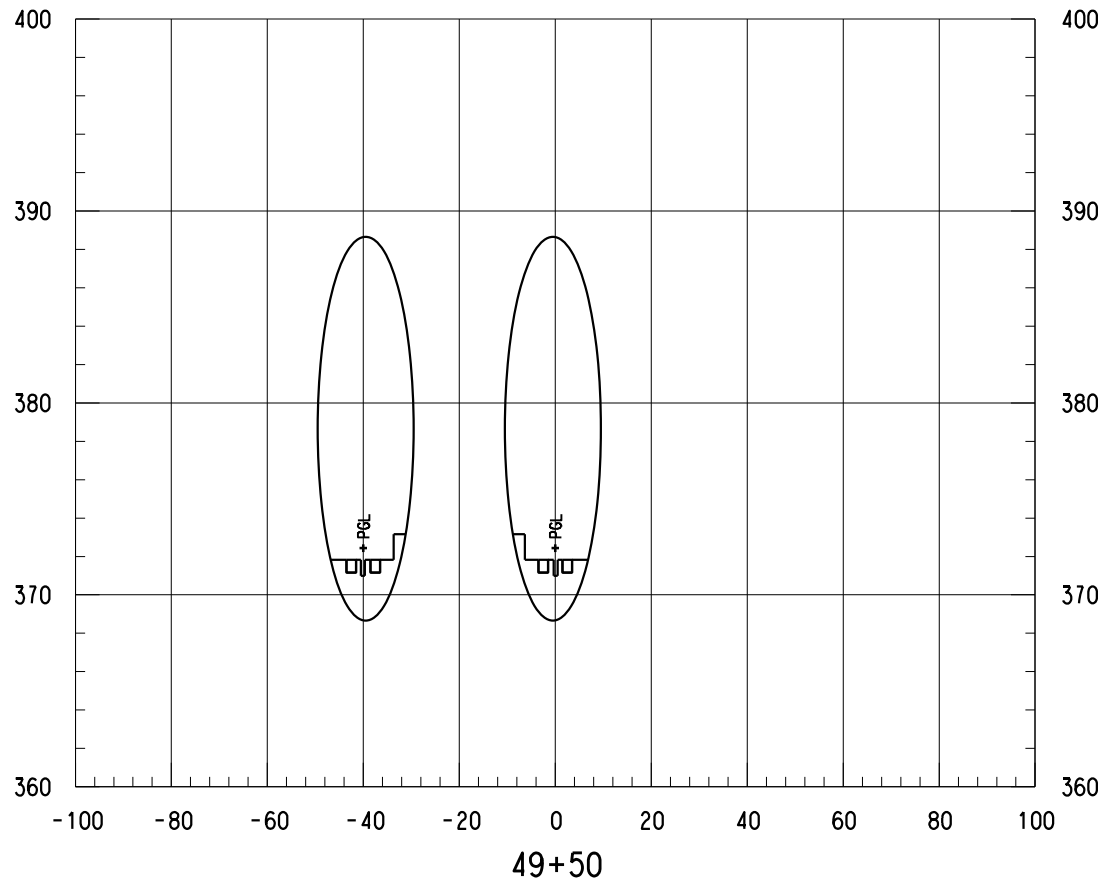
Friday, February 28, 2020 12:57:42 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 85 OF 276

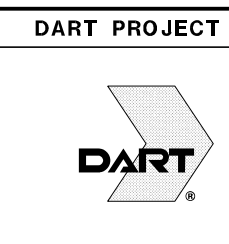
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



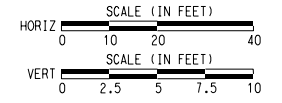
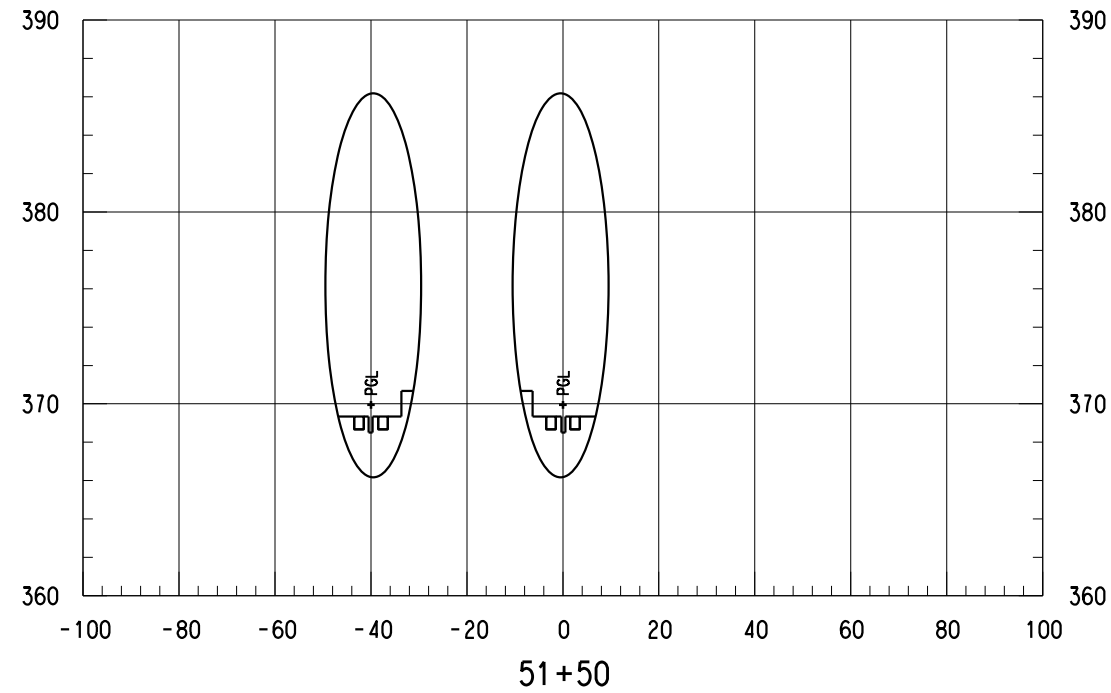
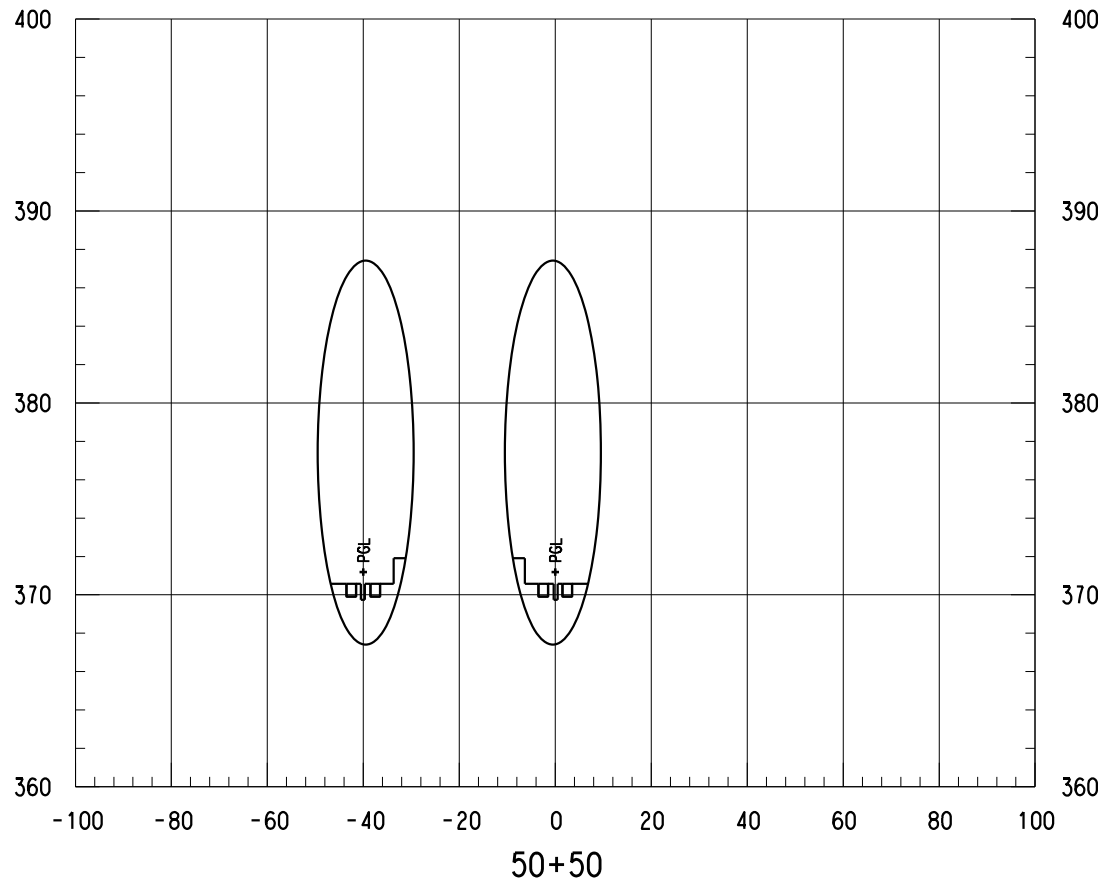
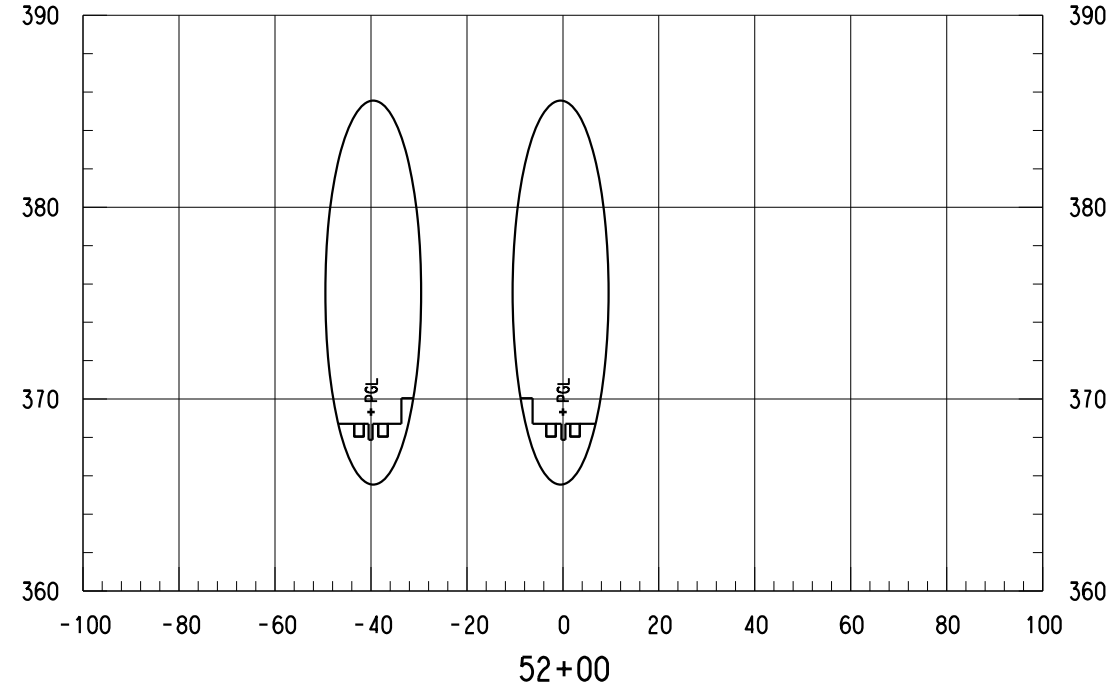
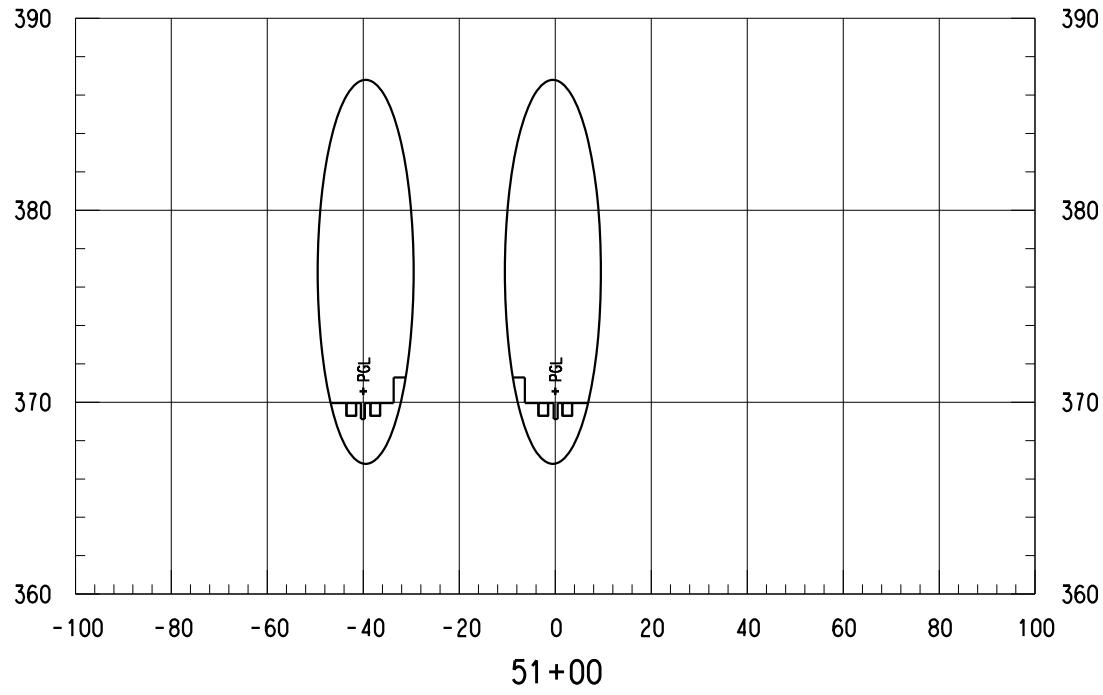
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No.	CCB-0022	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:43 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 86 OF 276

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. CCB-0023 REV

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



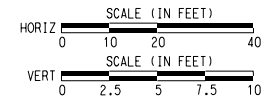
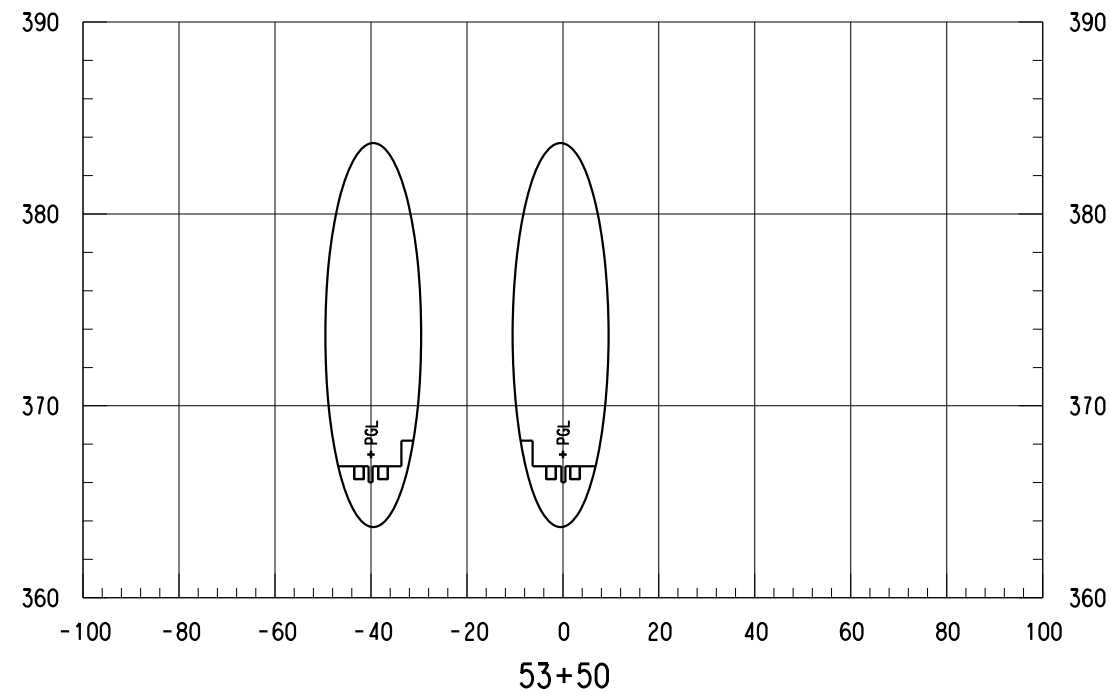
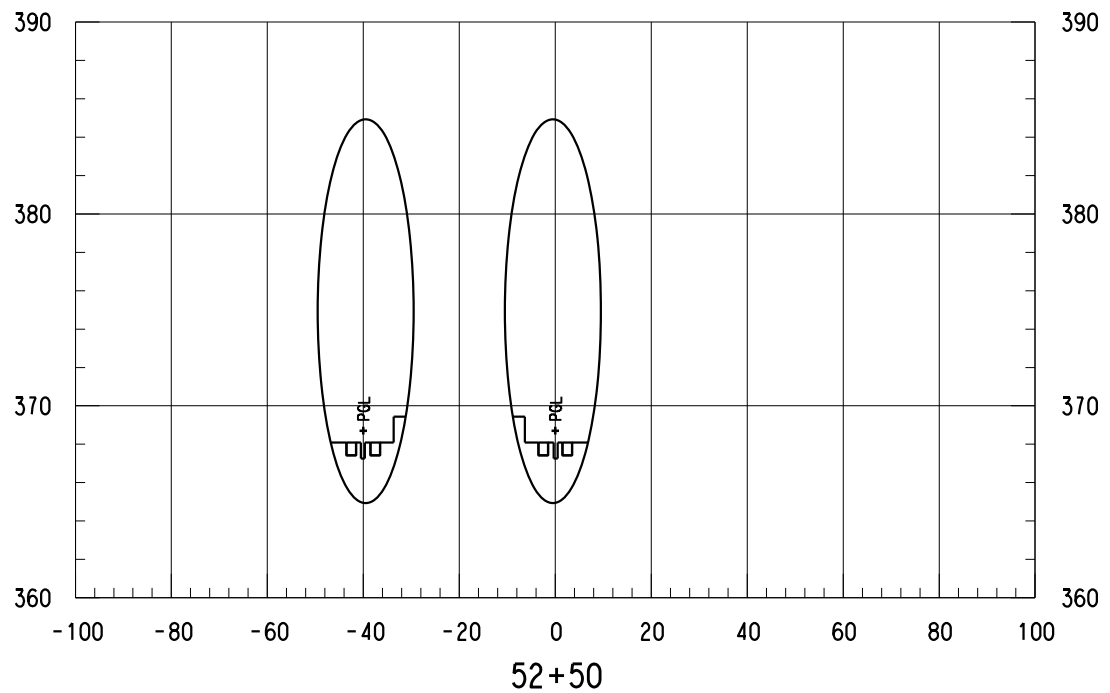
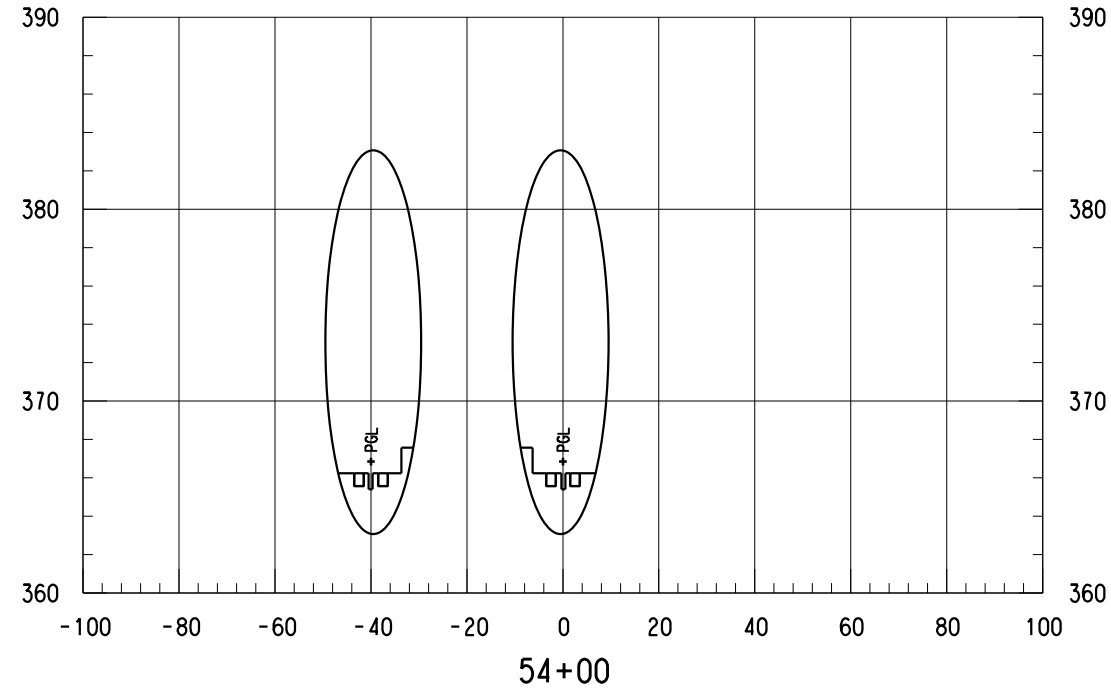
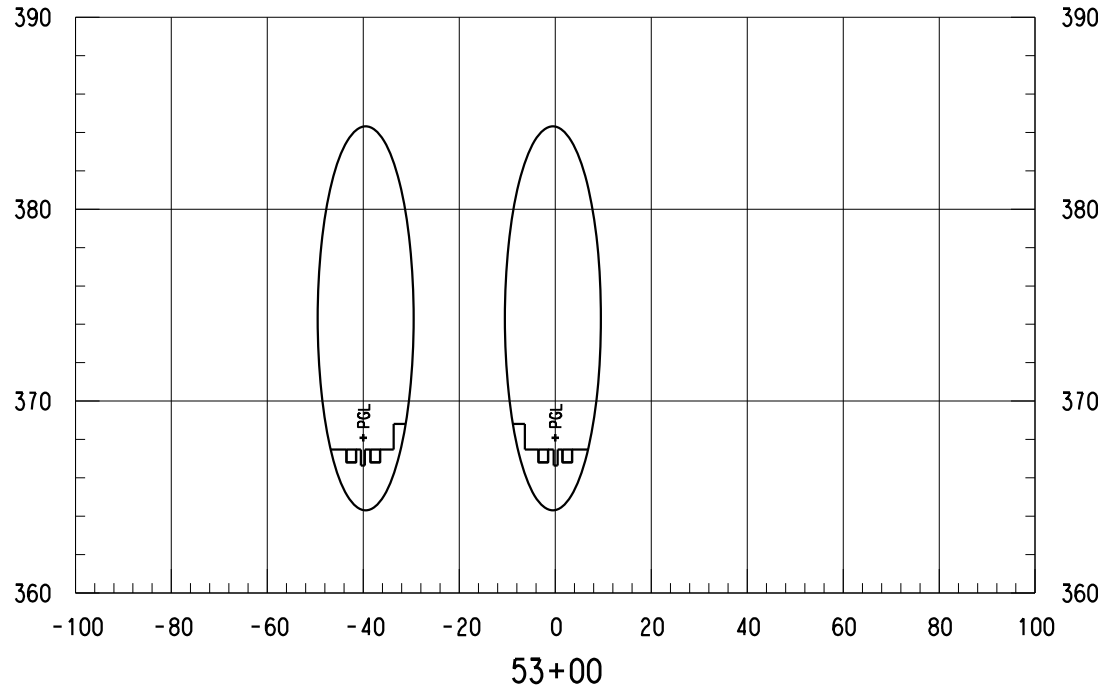
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:43 PM

DANGLE





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

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 87 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



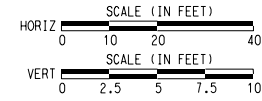
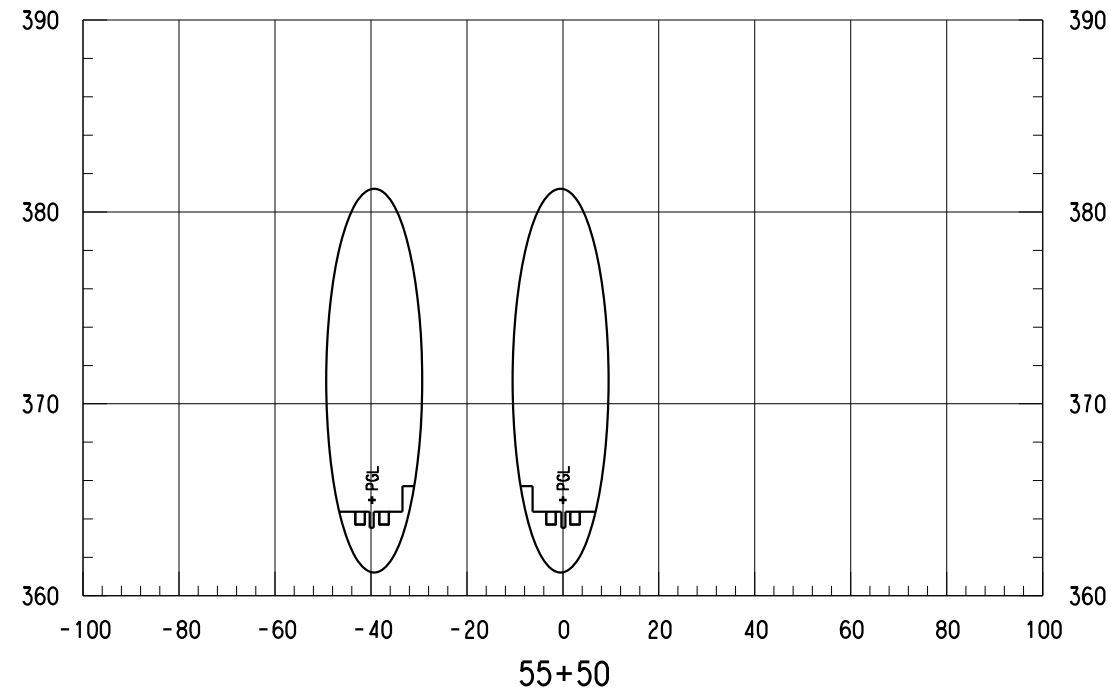
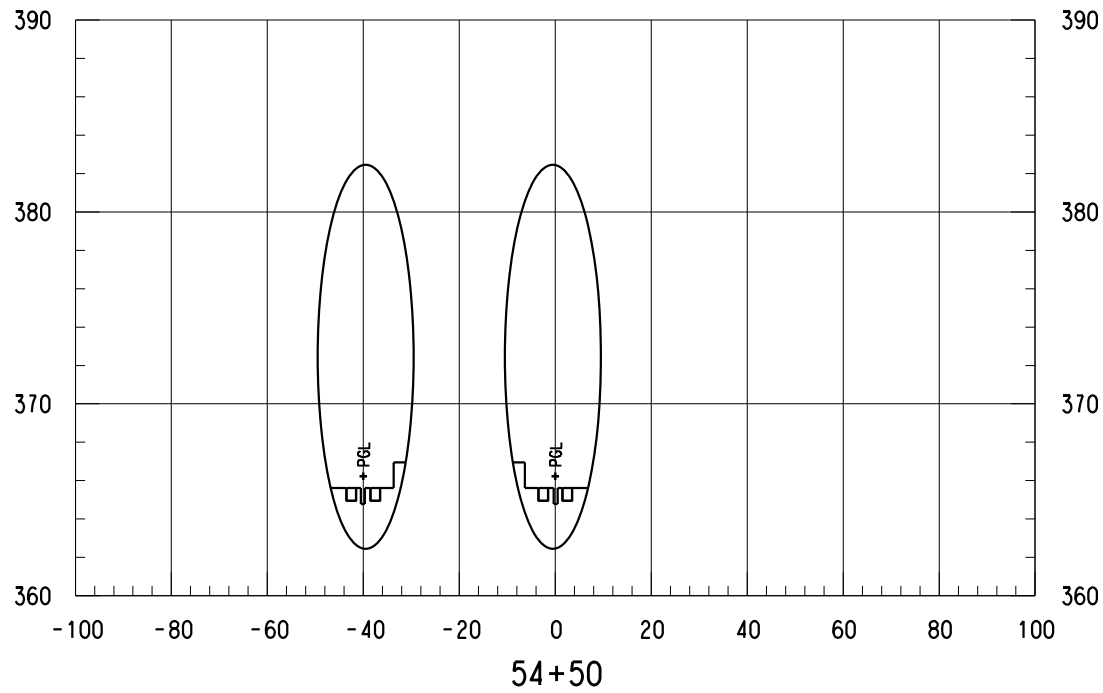
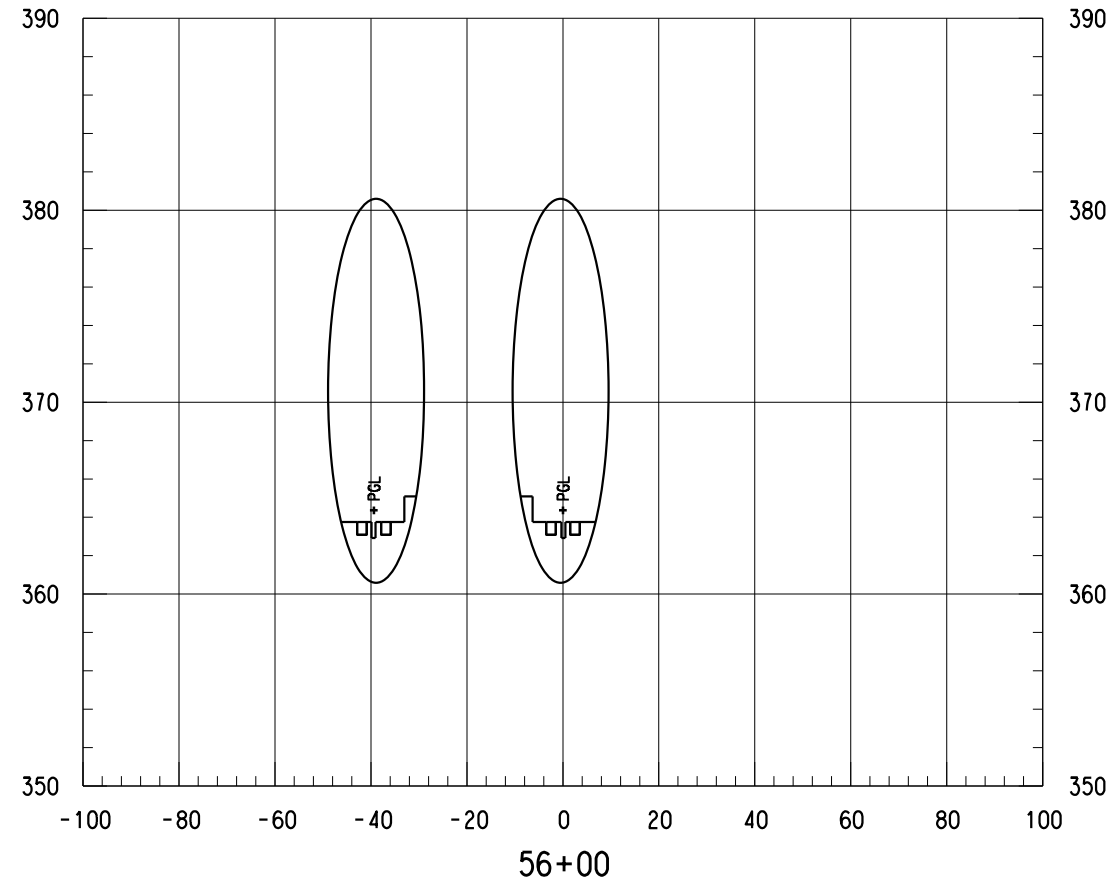
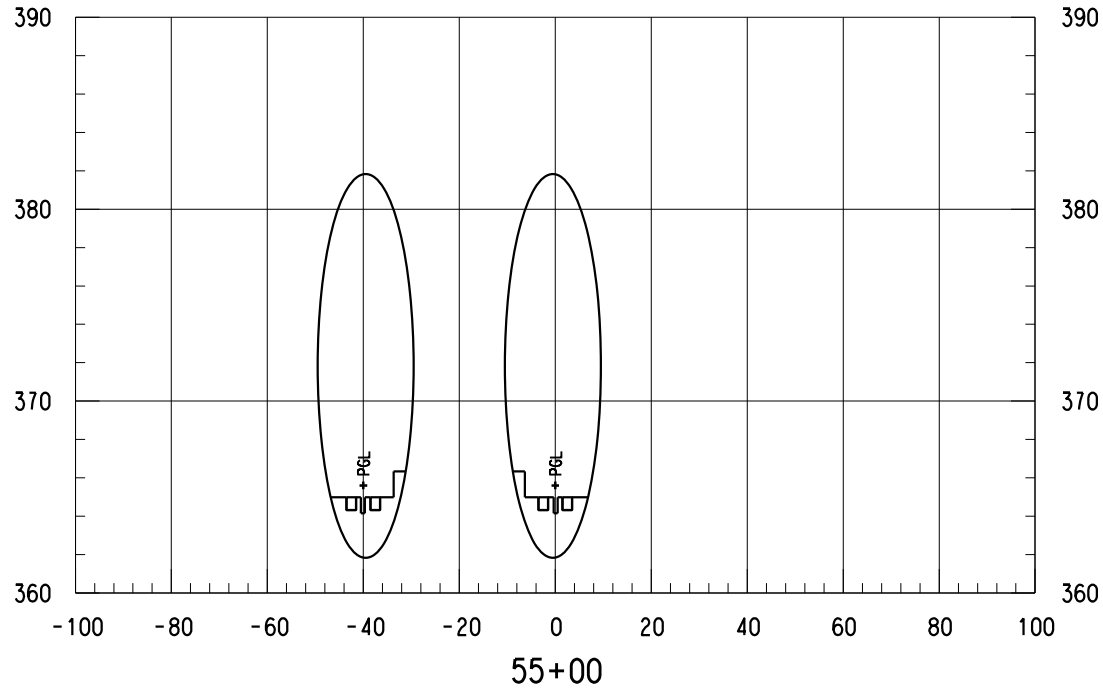
DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0024	REV
----------	------------------	-----



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 88 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



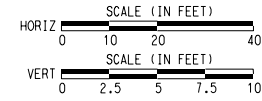
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0025	REV
----------	------------------	-----

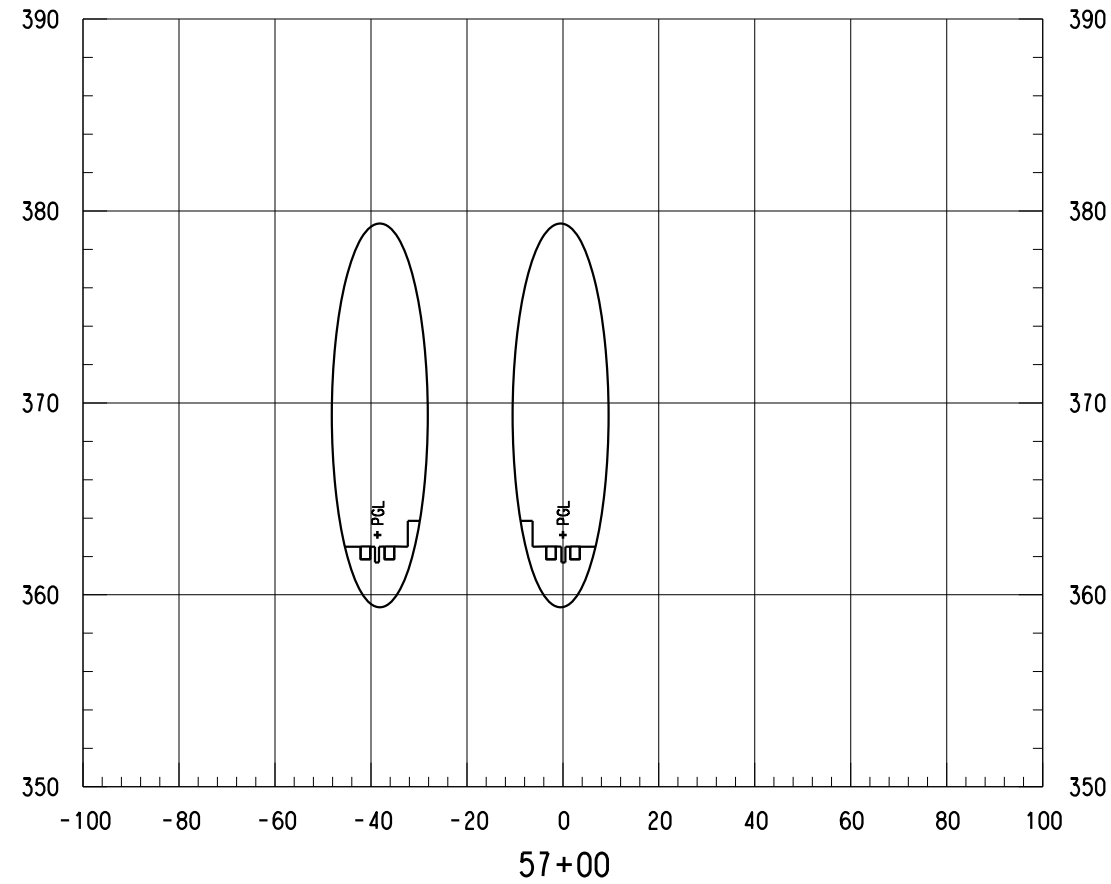
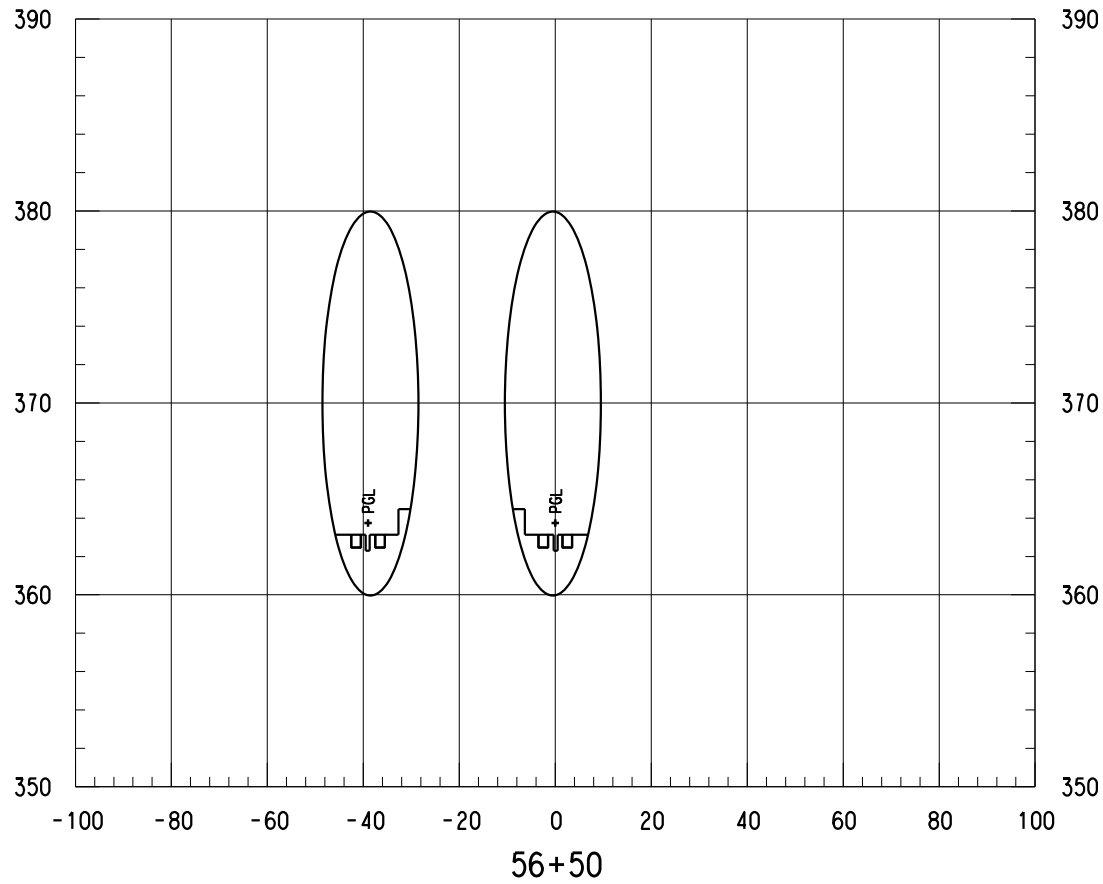
Friday, February 28, 2020 12:57:44 PM

DANGLE



NOTES:

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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 89 OF 276

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. CCB-0026 REV

Friday, February 28, 2020 12:57:45 PM

DANGLE

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



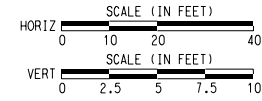
DART PROJECT



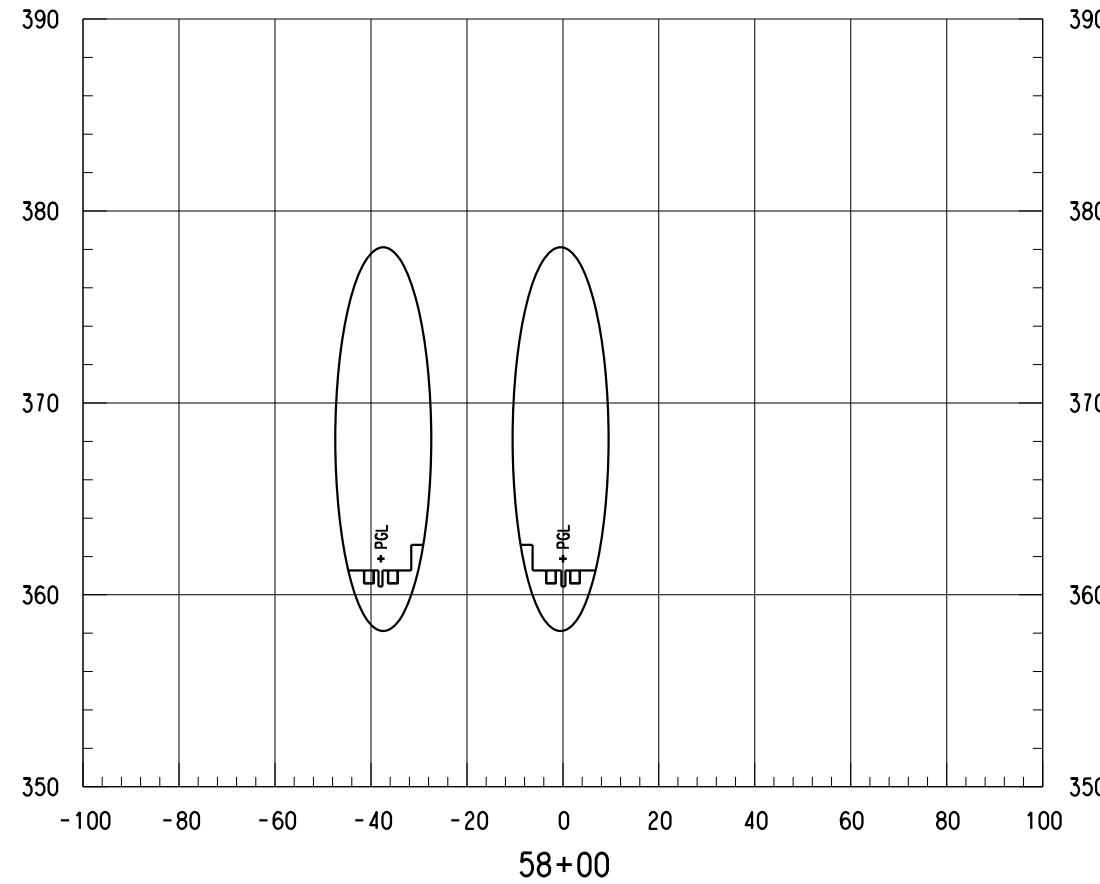
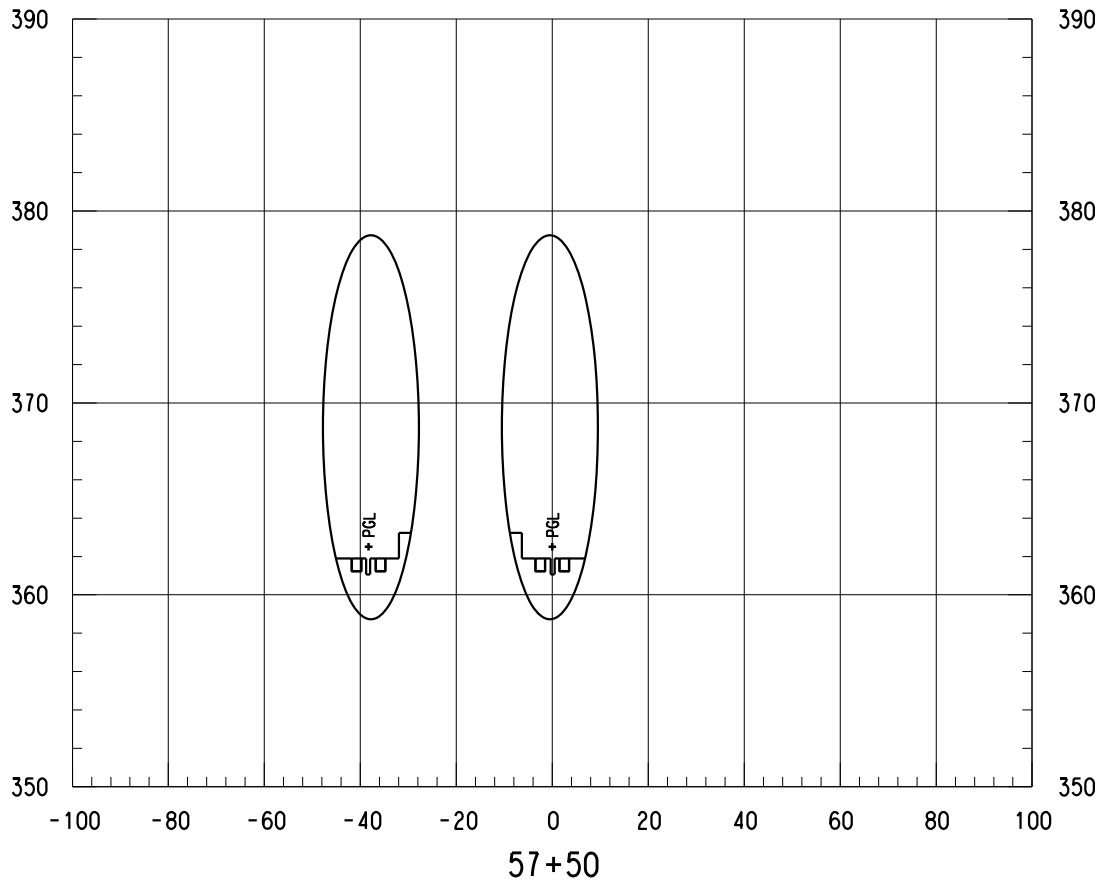
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 90 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



DART PROJECT



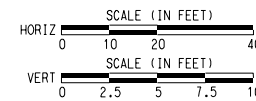
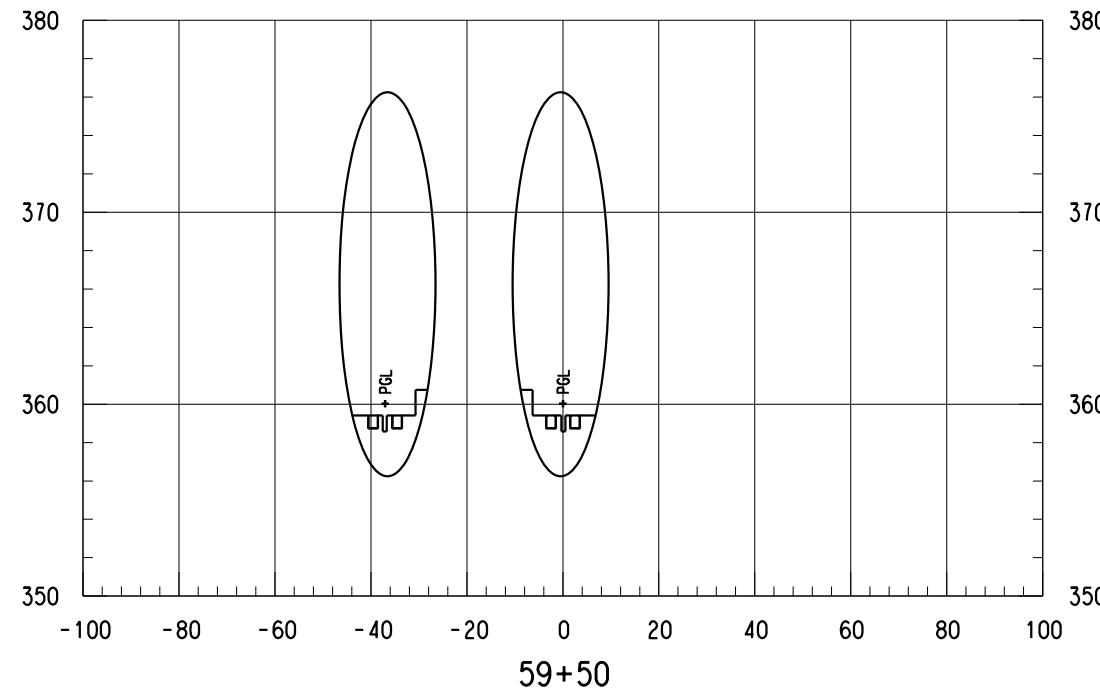
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0027	REV
----------	------------------	-----

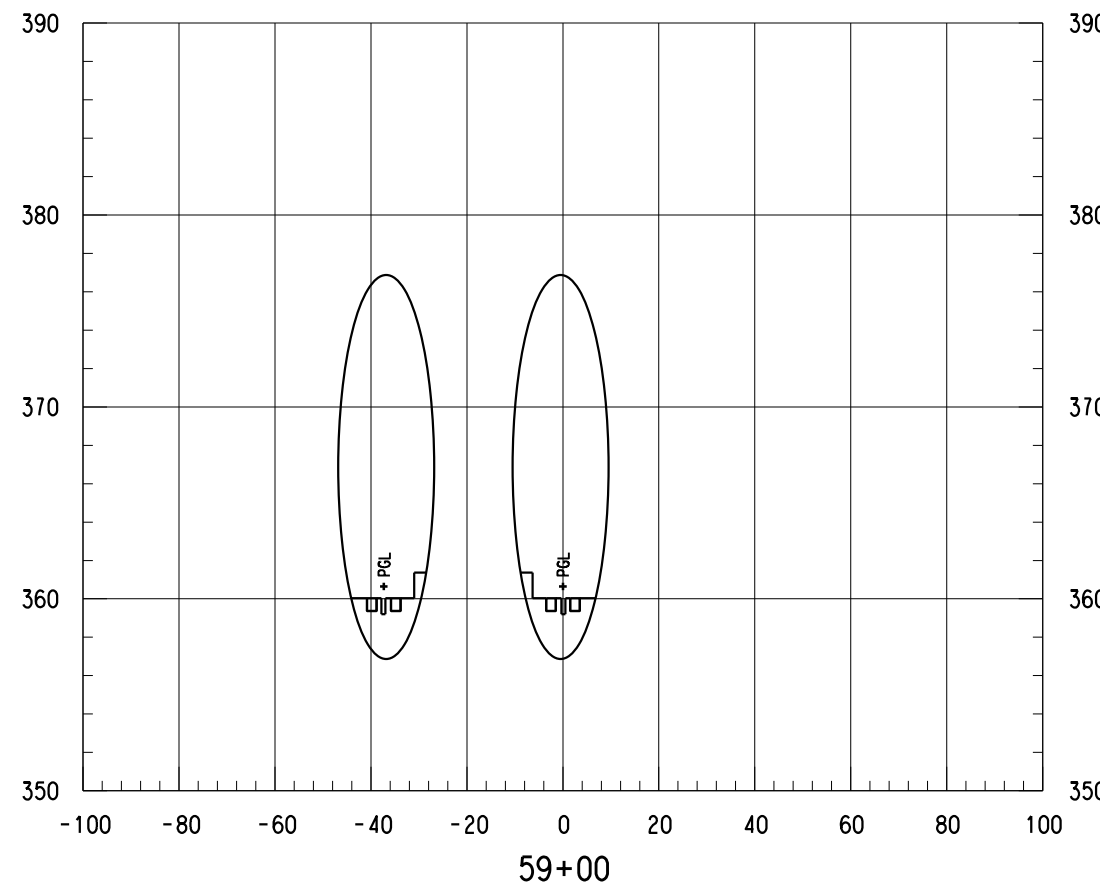
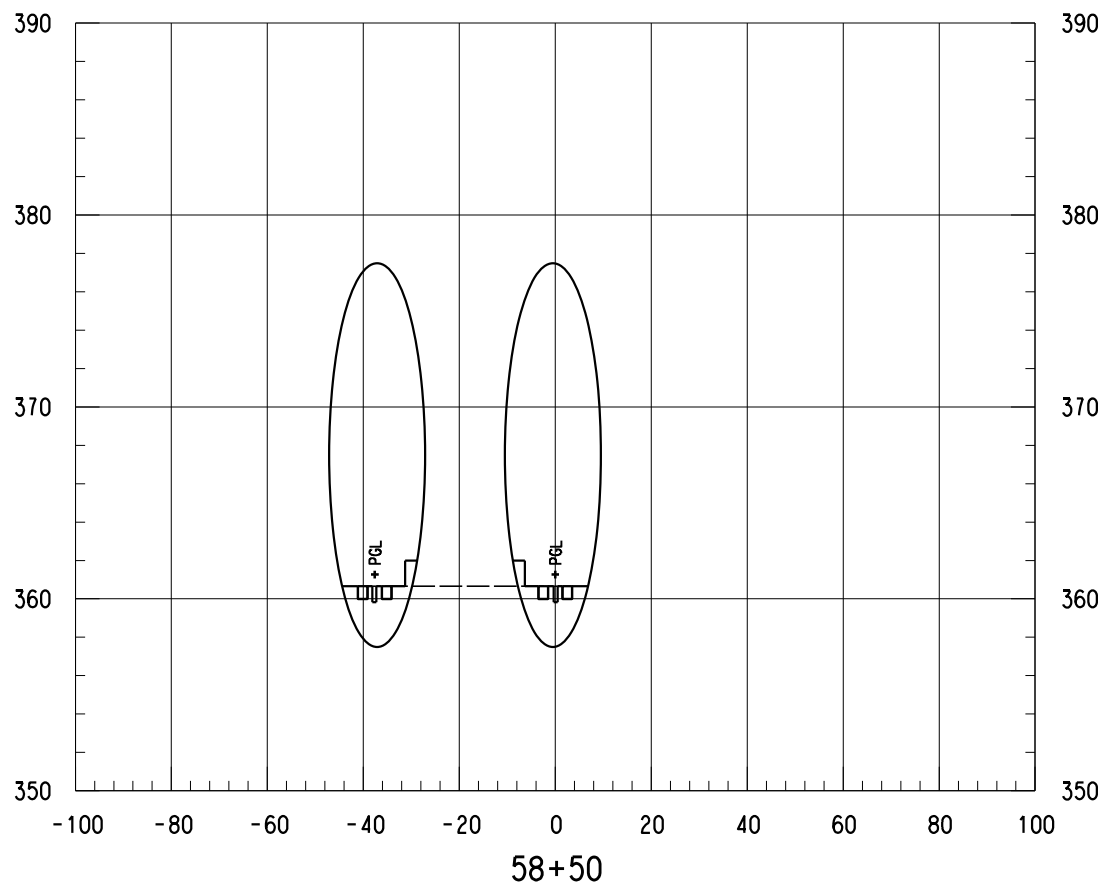
Friday, February 28, 2020 12:57:45 PM

DANGLE



**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 20% DESIGN

CONTRACT SHEET No. 91 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

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

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



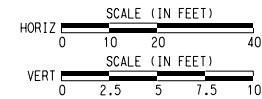
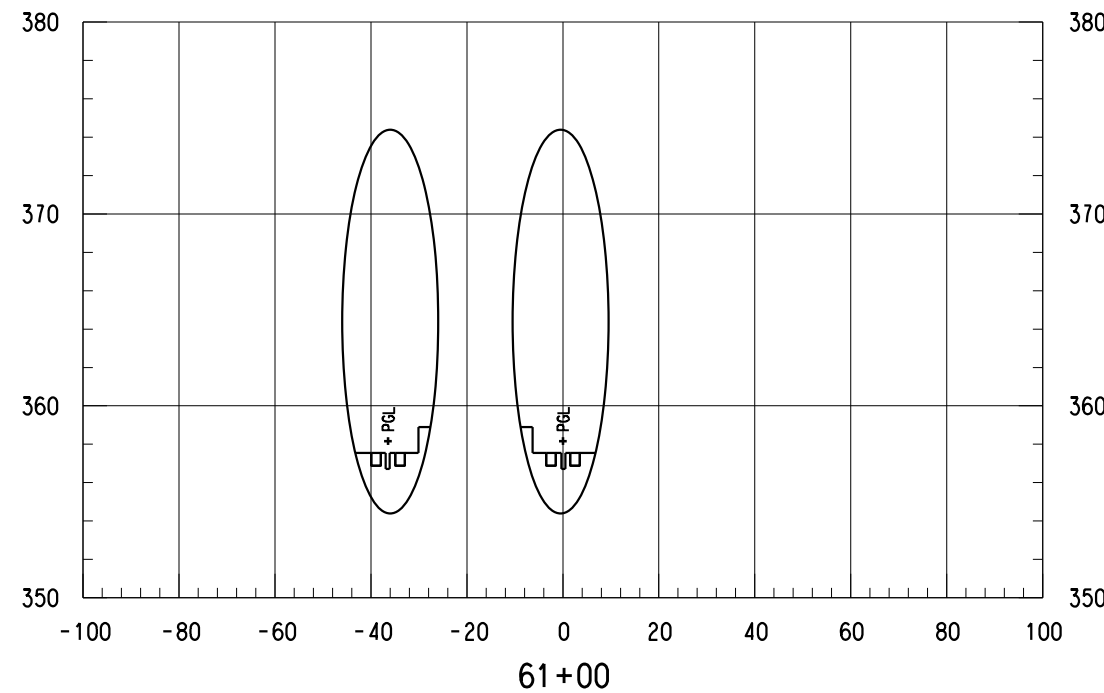
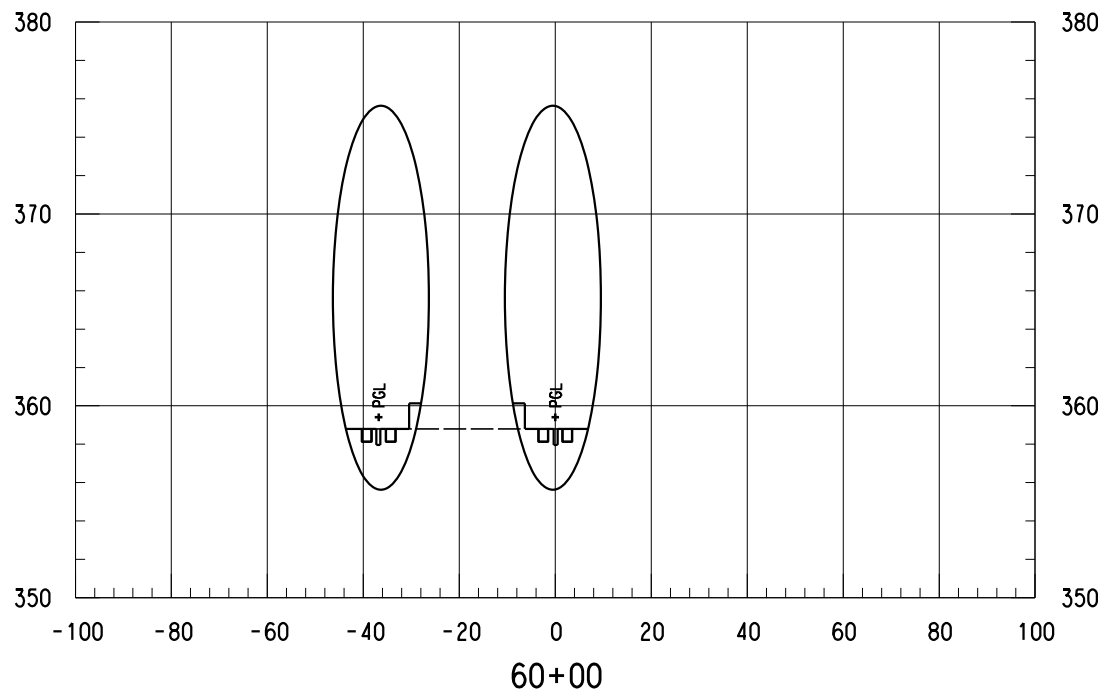
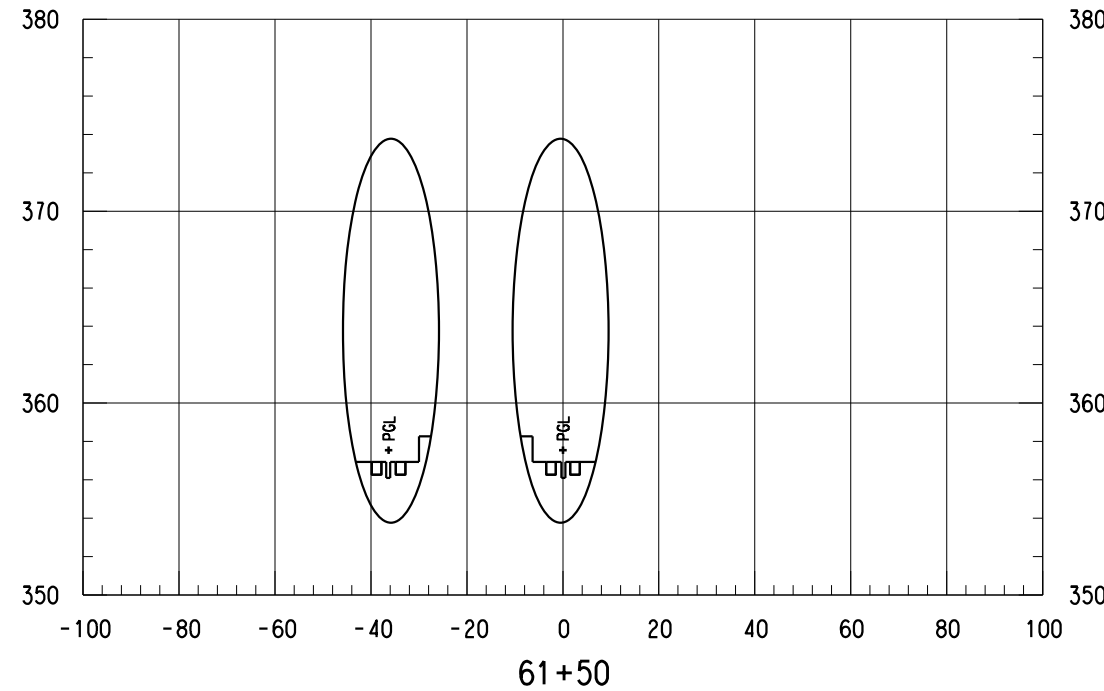
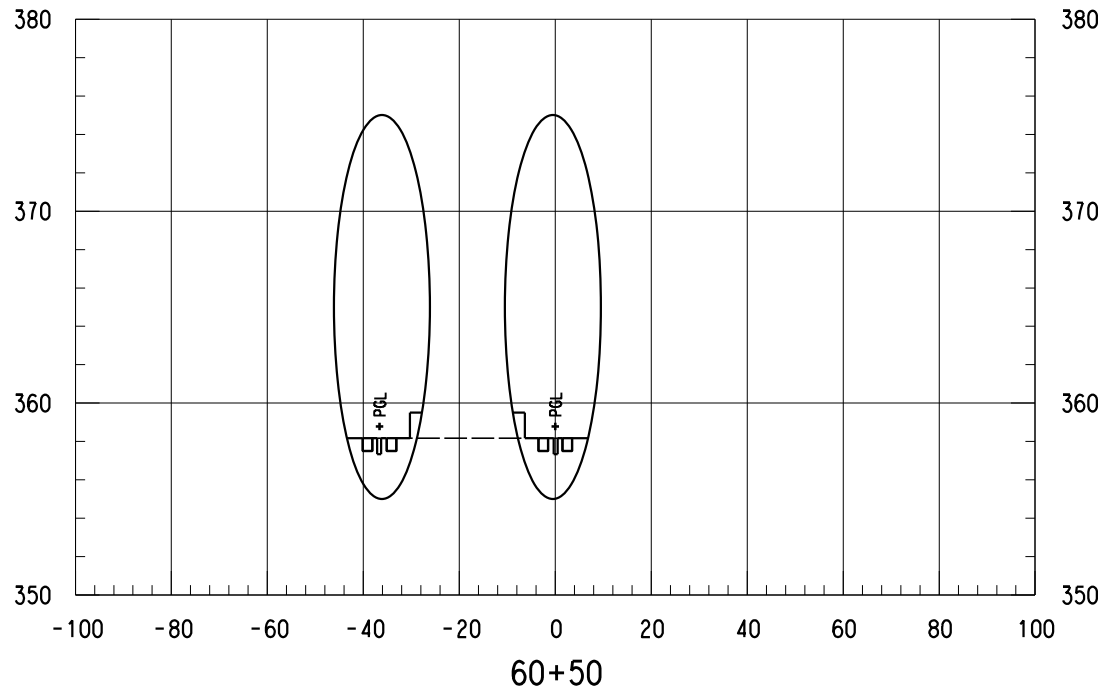
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0028	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:46 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

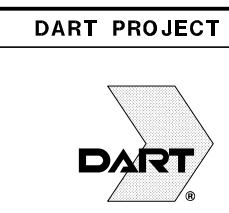
CONTRACT SHEET No. 92 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

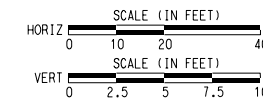
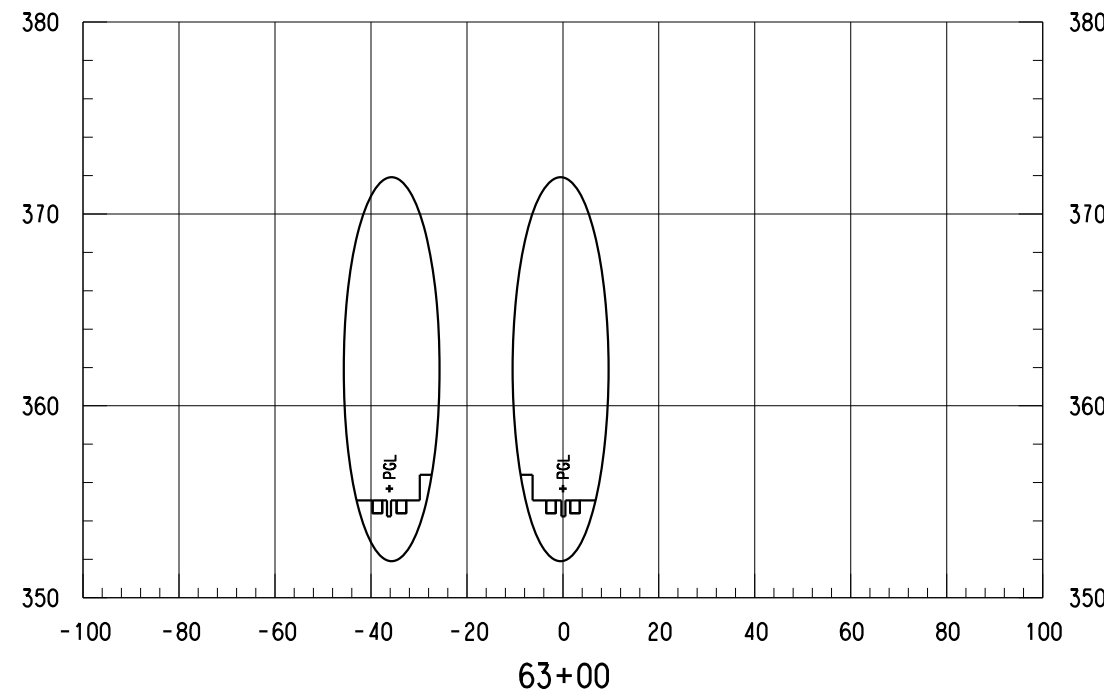
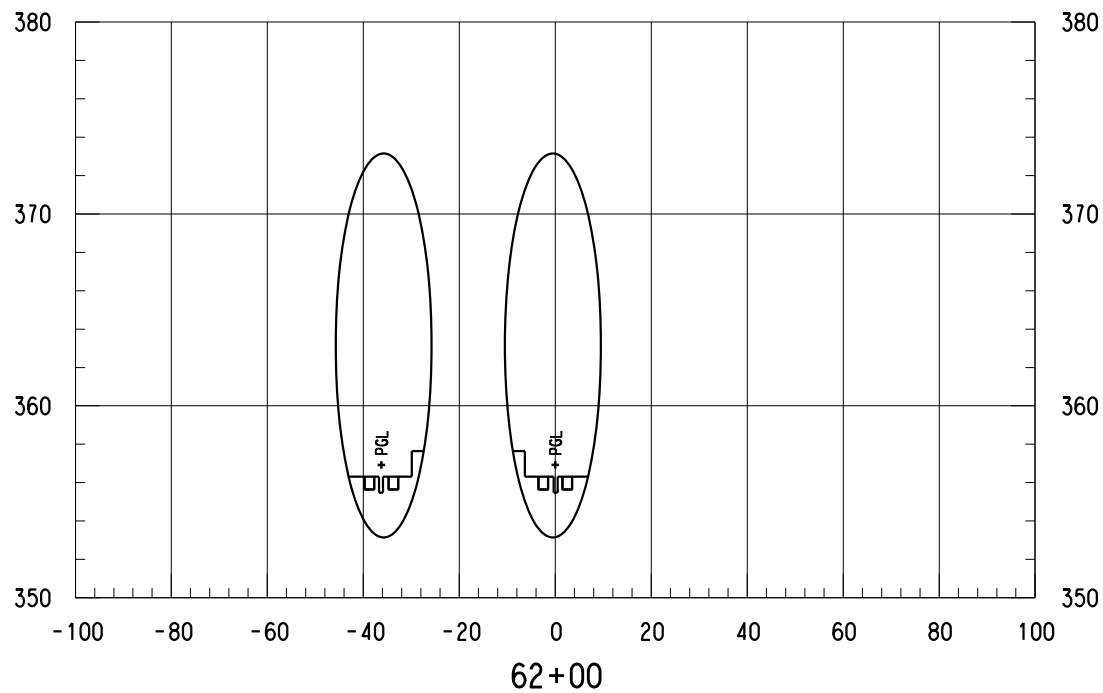
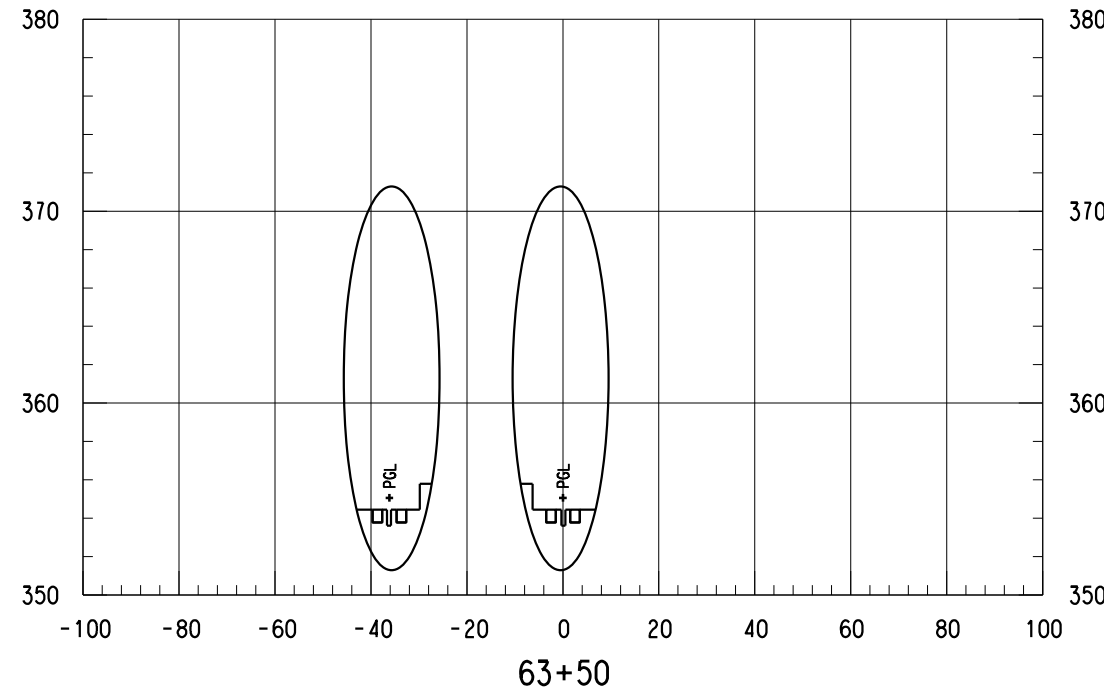
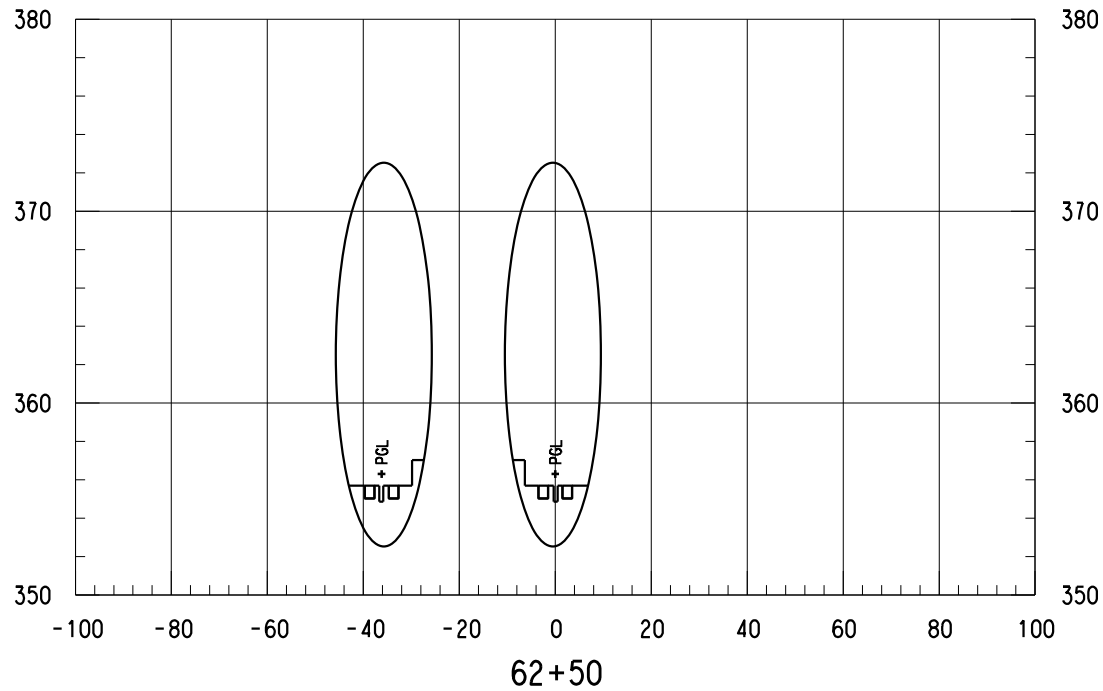


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0029	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:46 PM

DANGLE



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 20% DESIGN

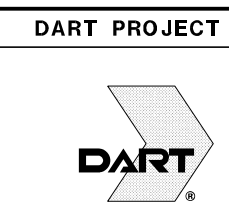
CONTRACT SHEET No. 93 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

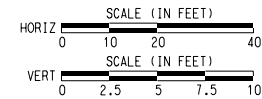
**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

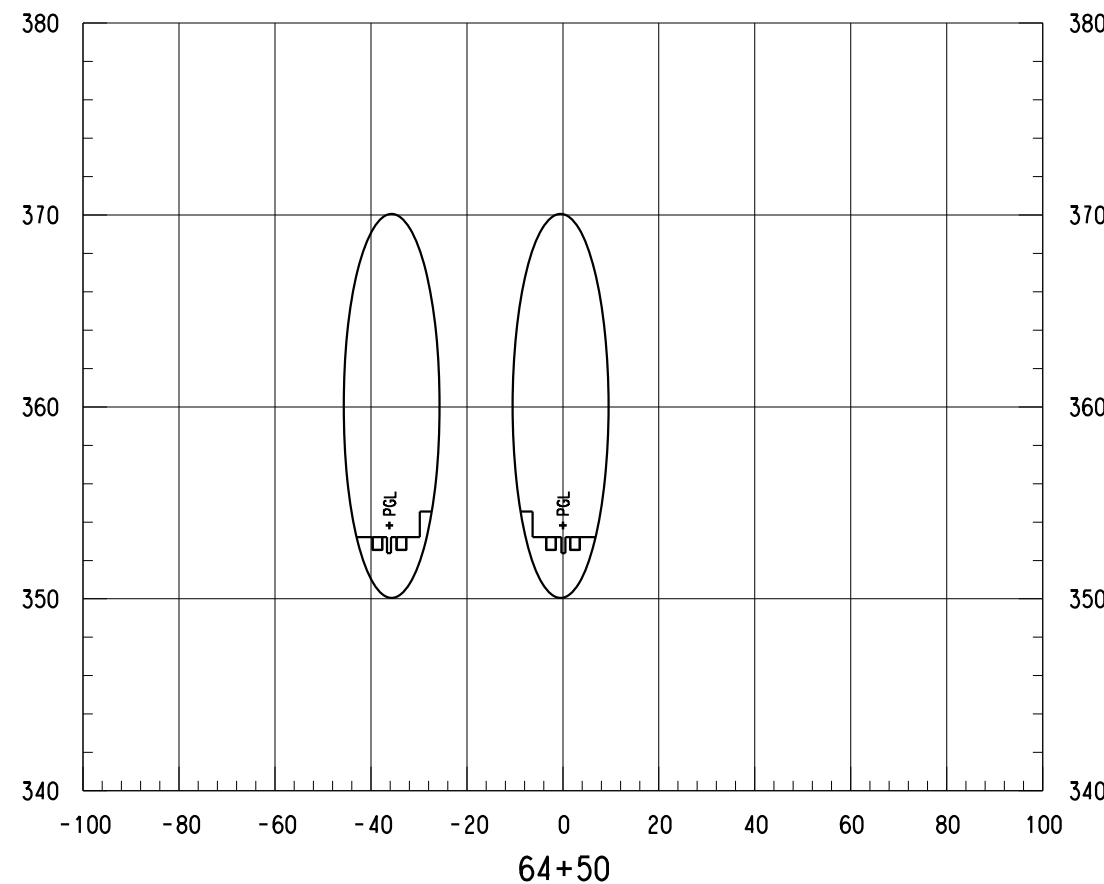
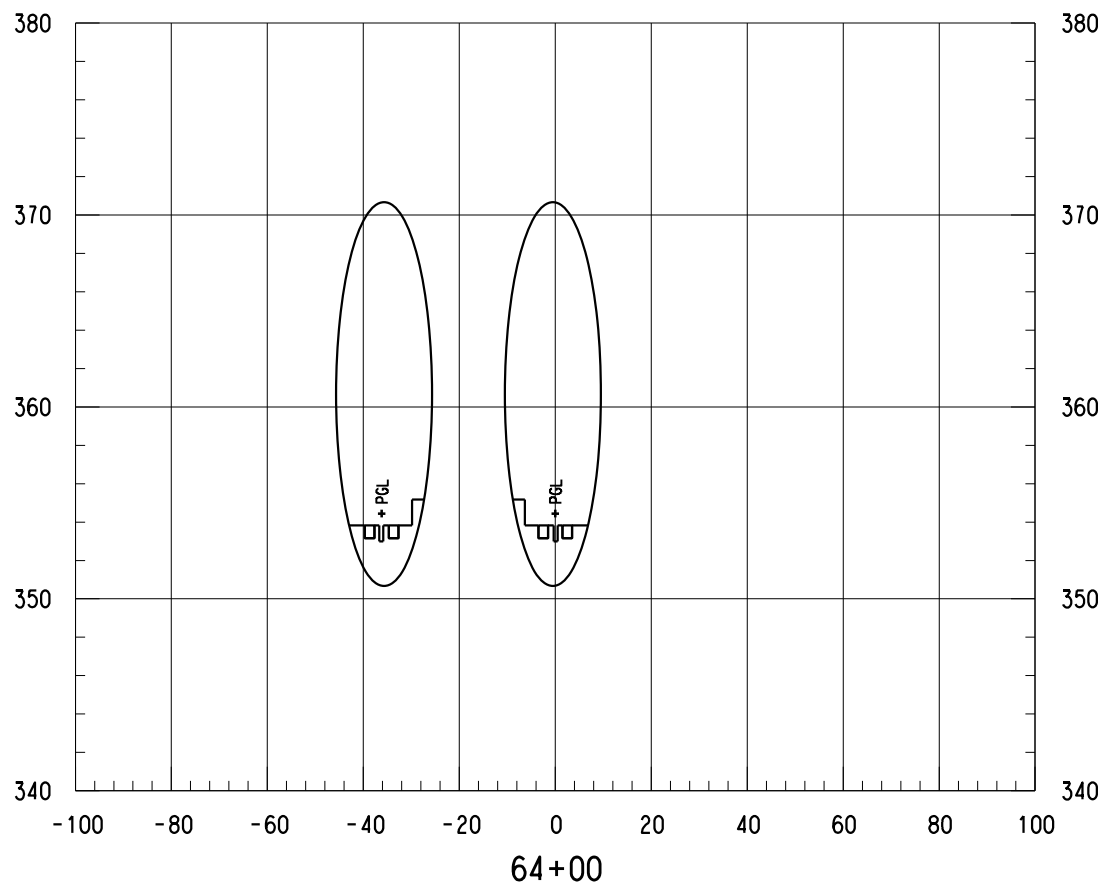
CONTRACT	DWG No.	CC8-0030	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:46 PM  
 \$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 94 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

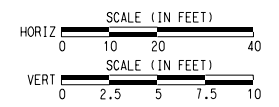
CONTRACT DWG No. CCB-0031 REV

Friday, February 28, 2020 12:57:47 PM

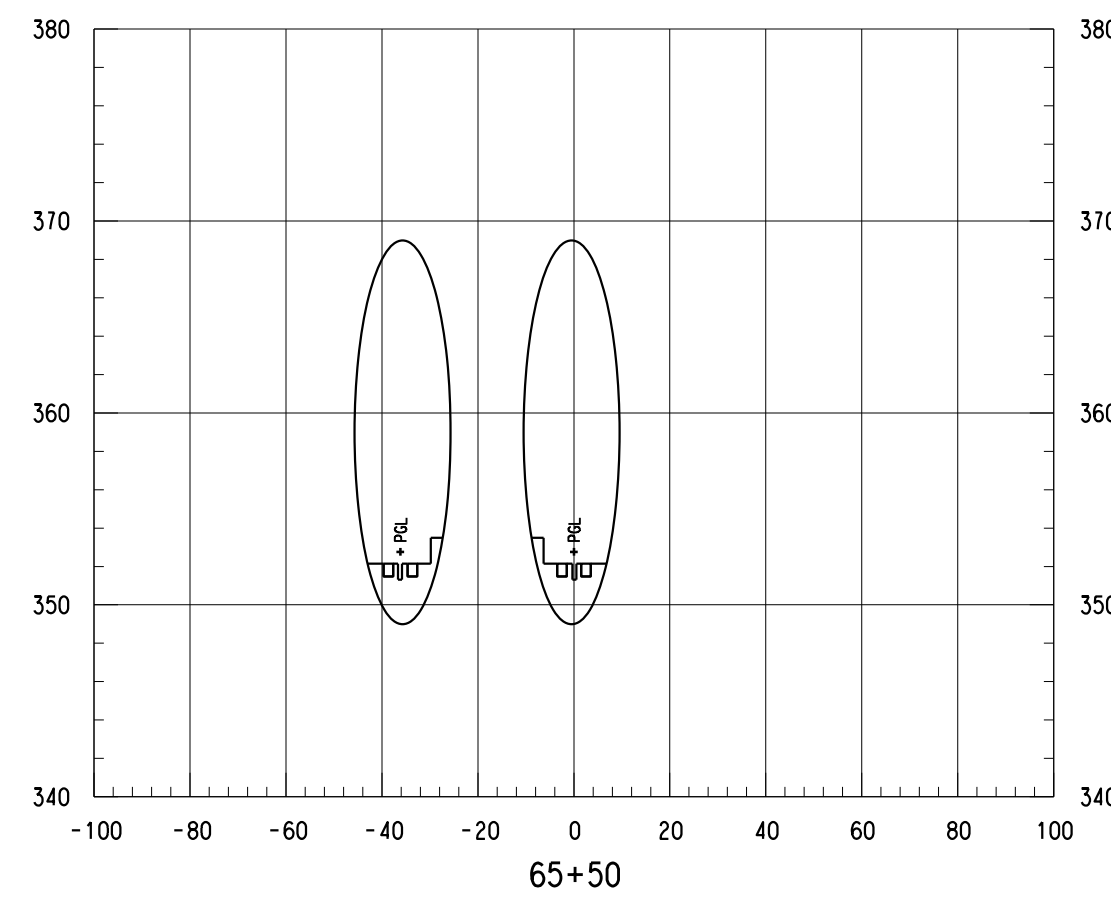
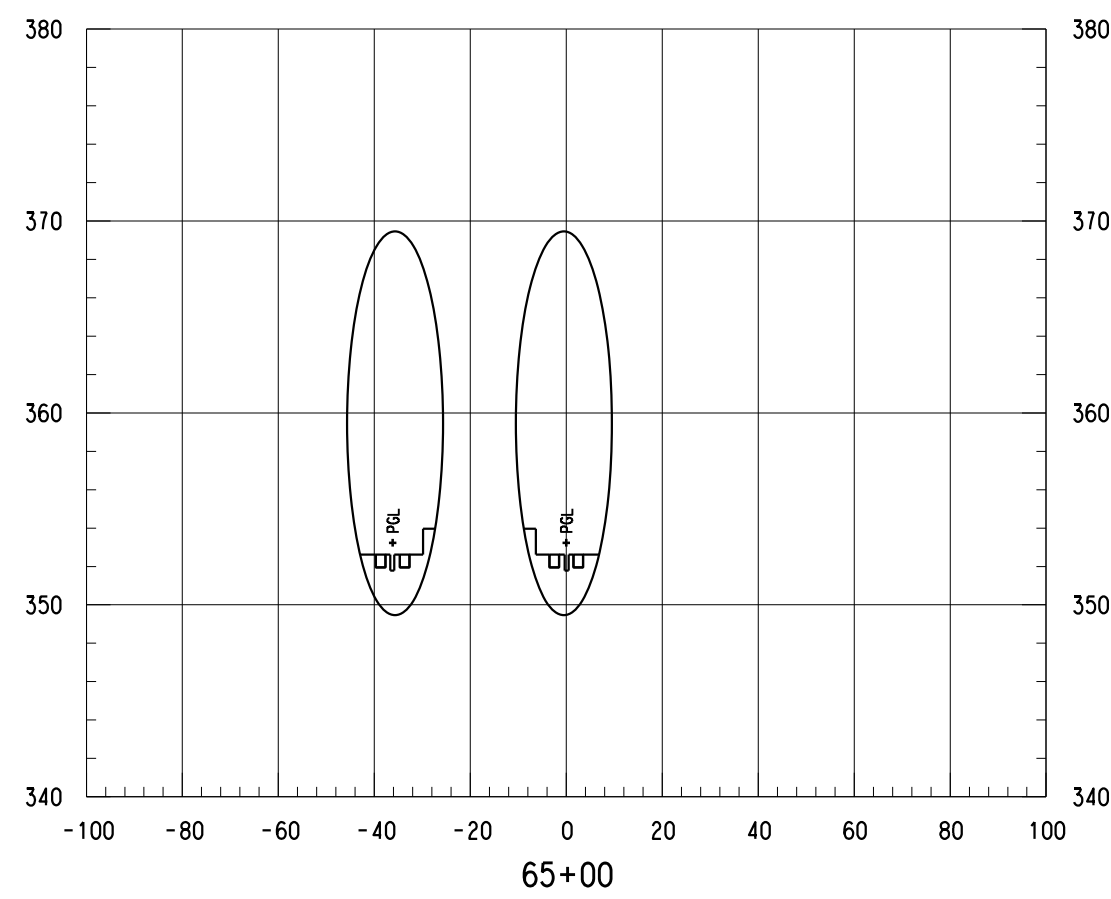
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP





- 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 20% DESIGN

CONTRACT SHEET No. 95 OF 276

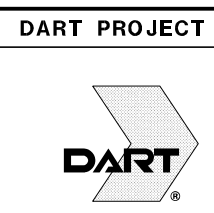
LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

CONTRACT DWG No. CCB-0032 REV

**IN-PROGRESS**

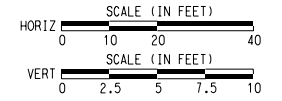
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



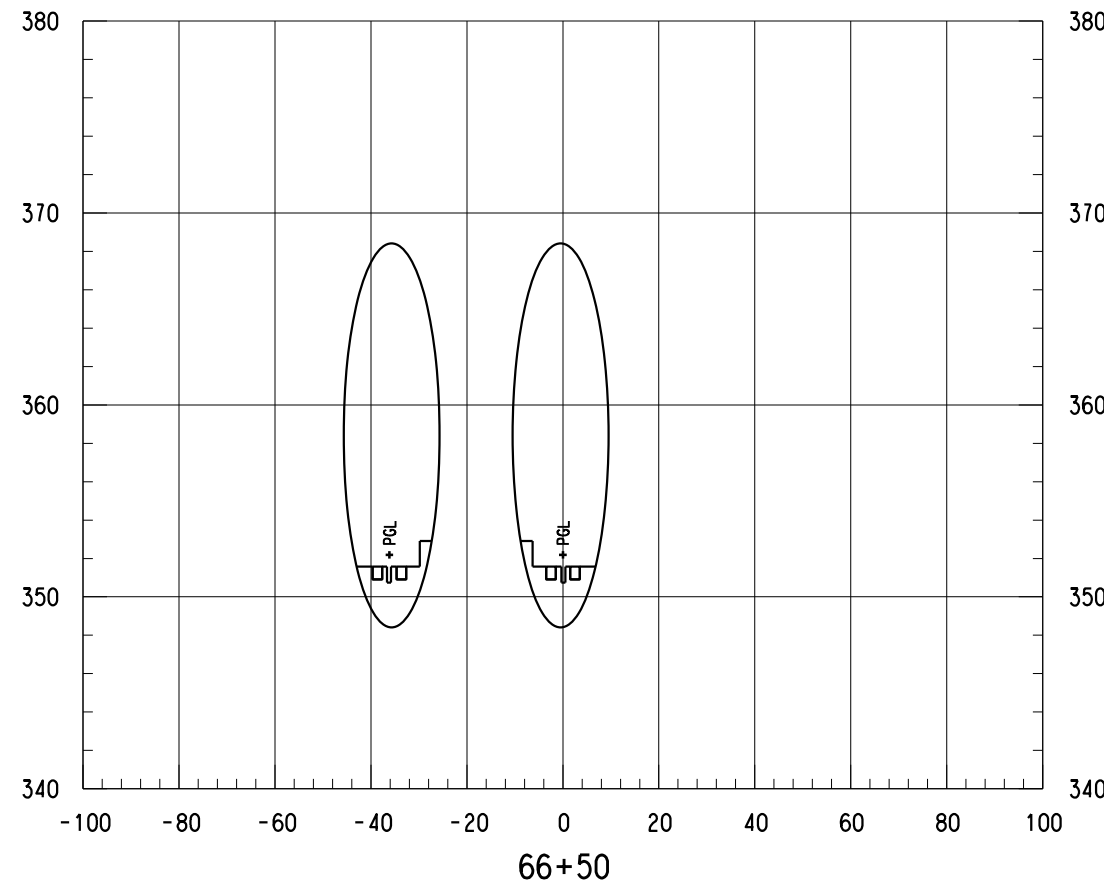
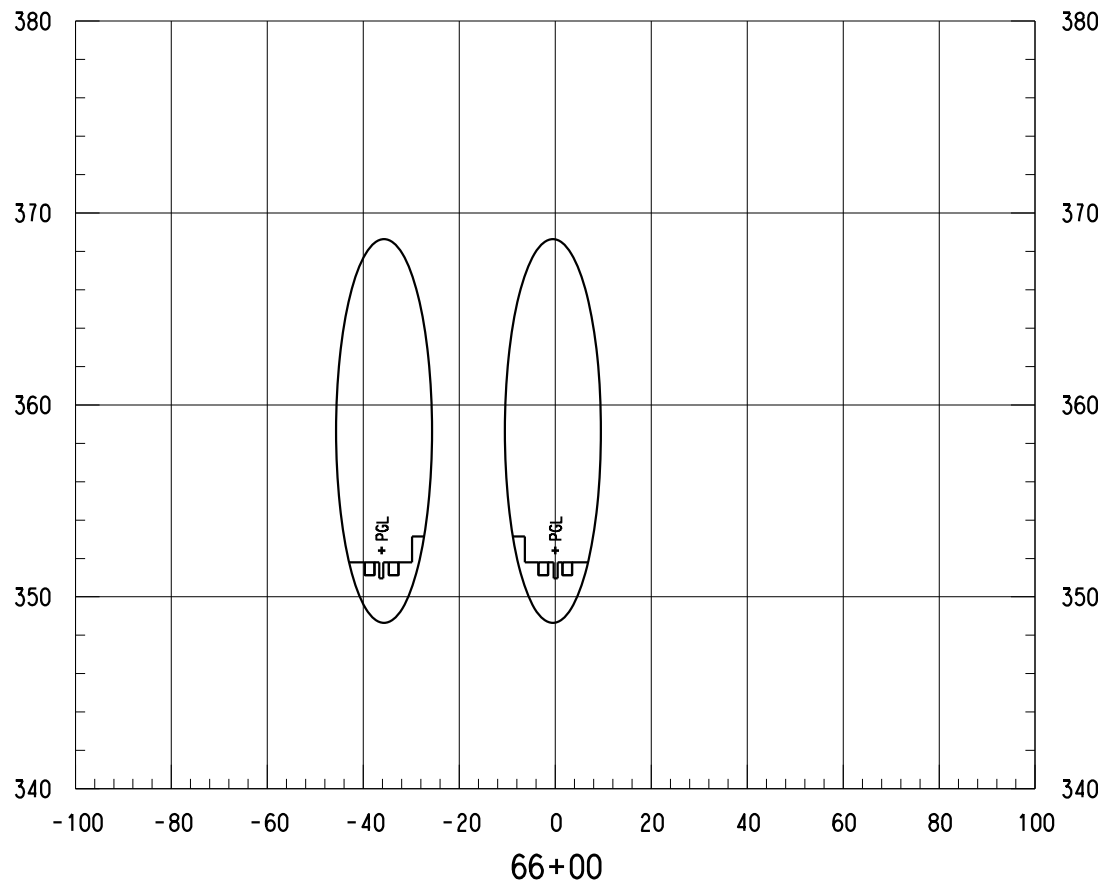
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:47 PM



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



NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 96 OF 276

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. CCB-0033 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124511  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

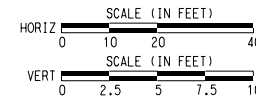


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

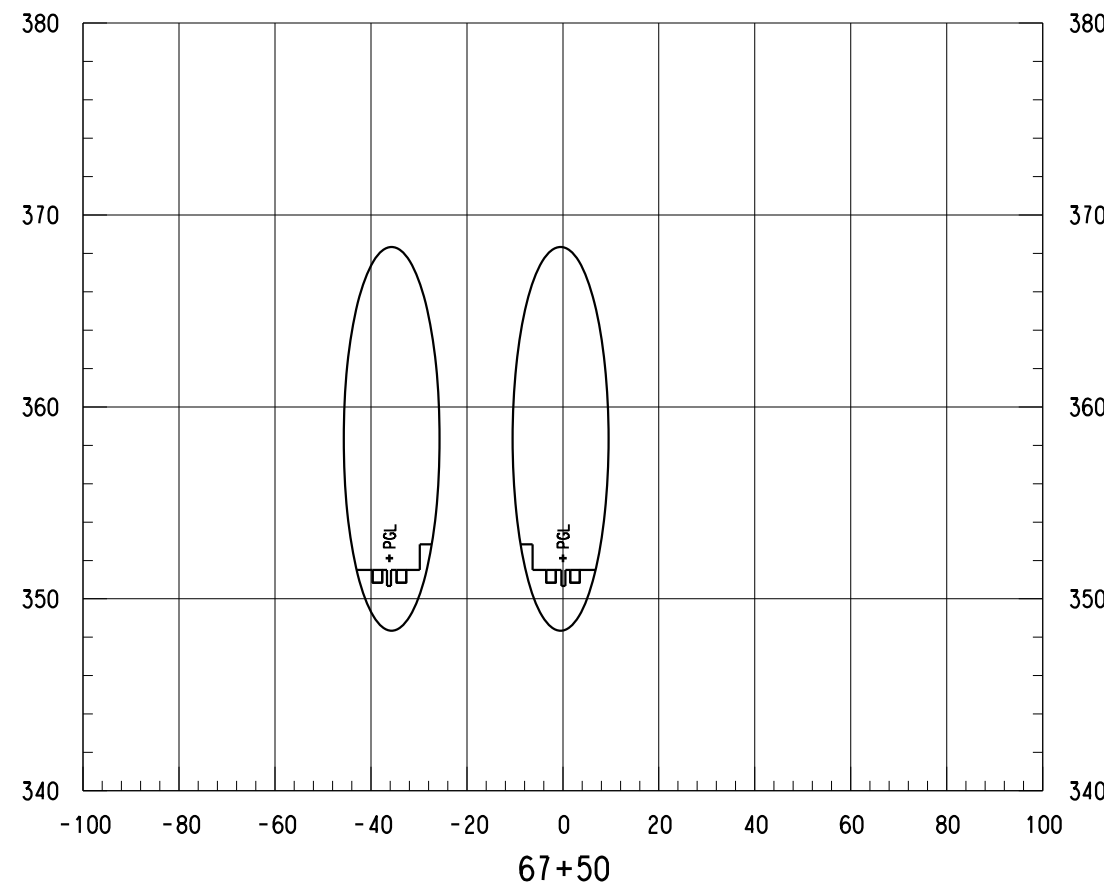
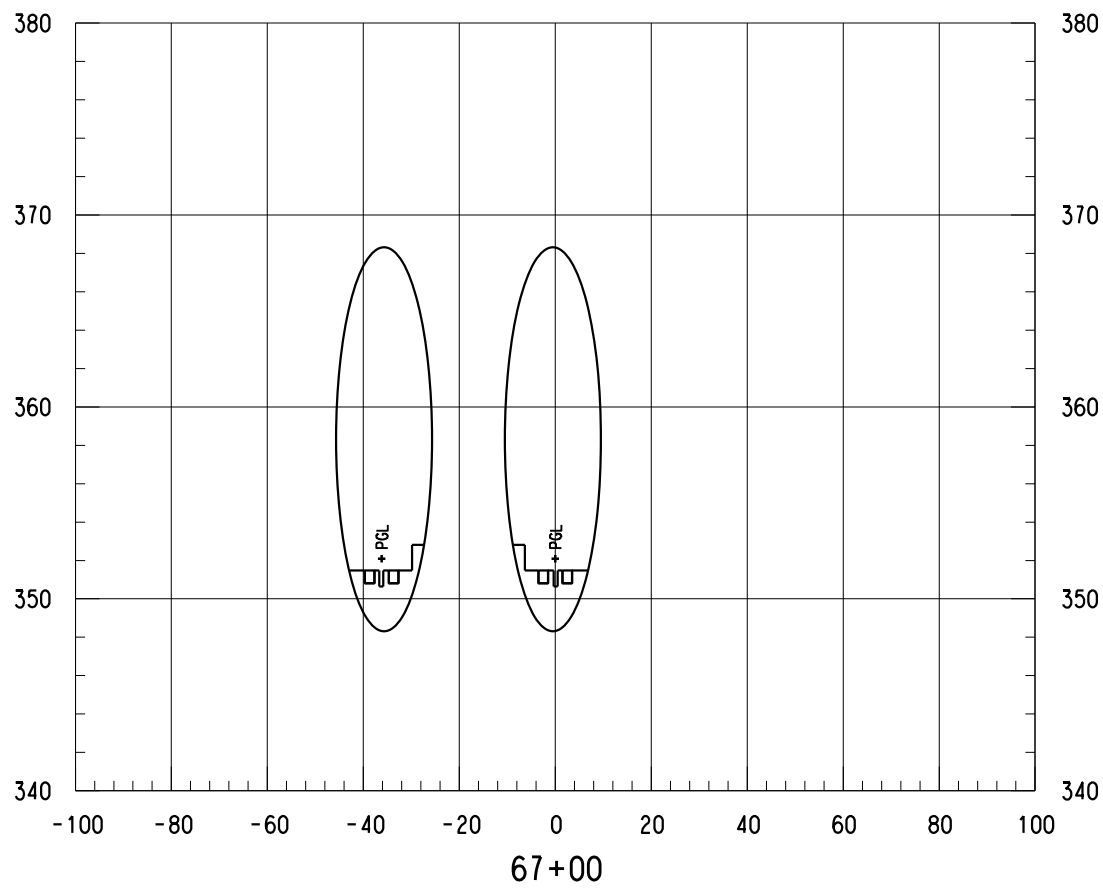
Friday, February 28, 2020 12:57:48 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



- 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 20% DESIGN

CONTRACT SHEET No. 97 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

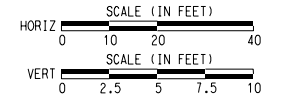


CONTRACT	DWG No.	CCB-0034	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:48 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

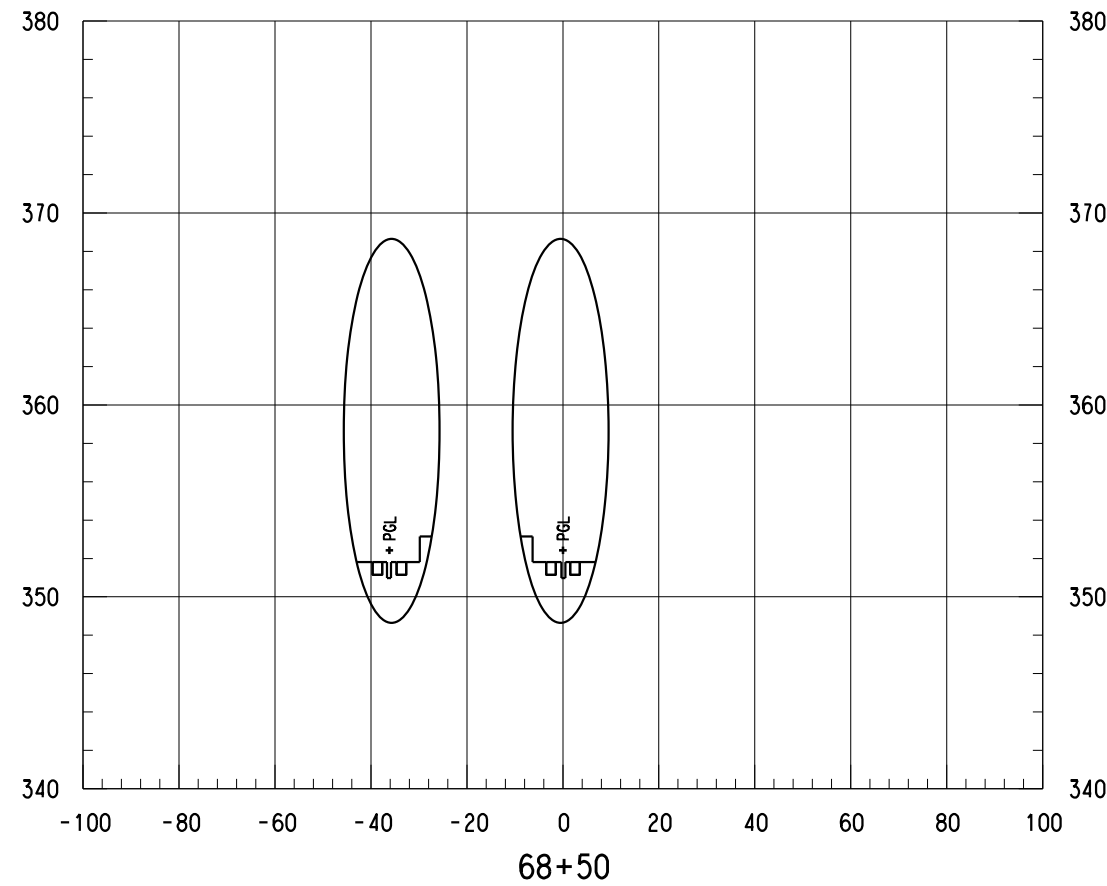
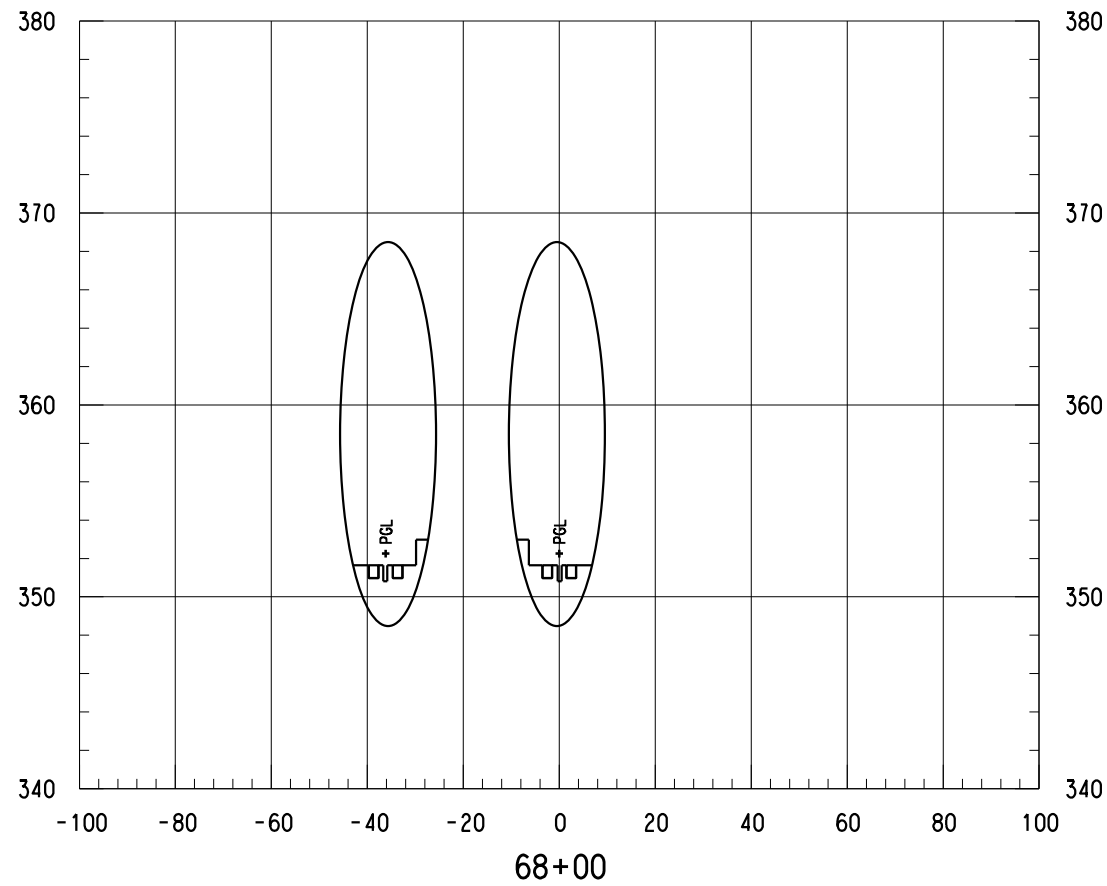
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 98 OF 276

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. CC8-0035	REV
----------	------------------	-----

IN-PROGRESS

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



DART PROJECT



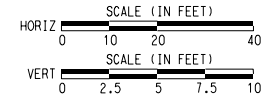
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



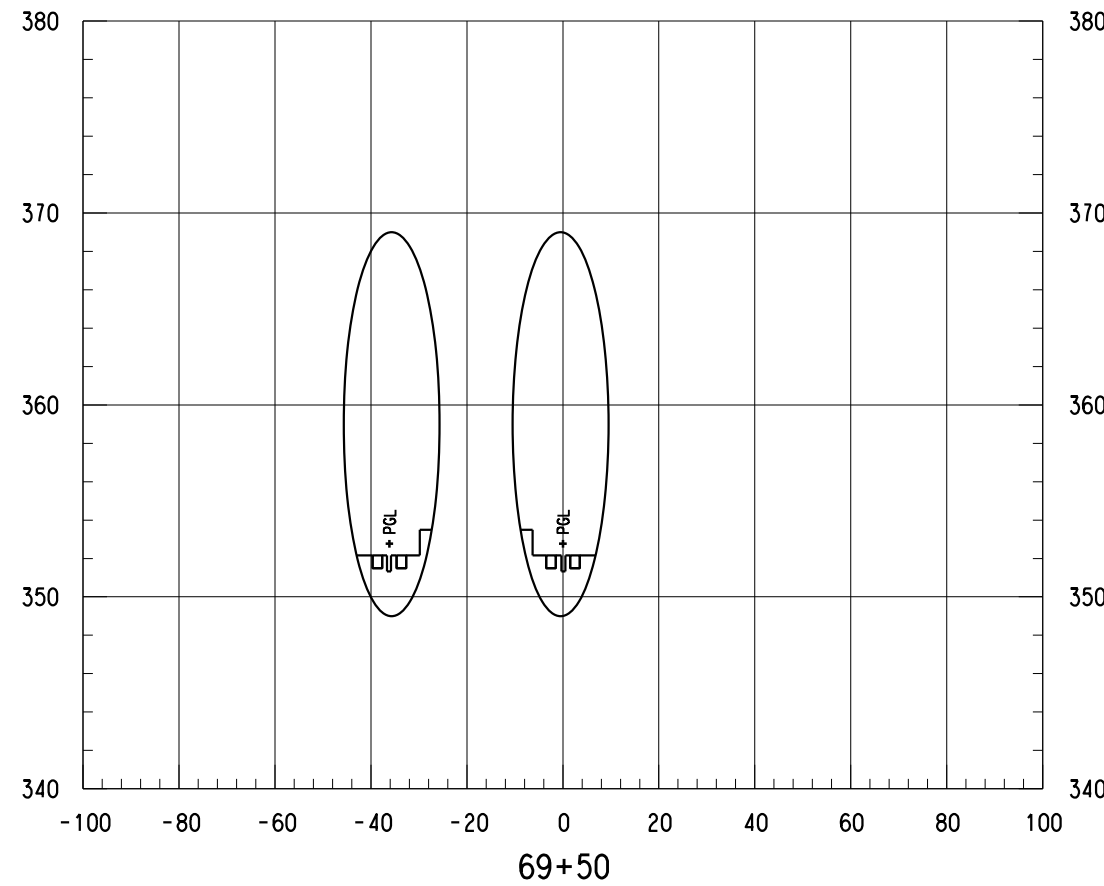
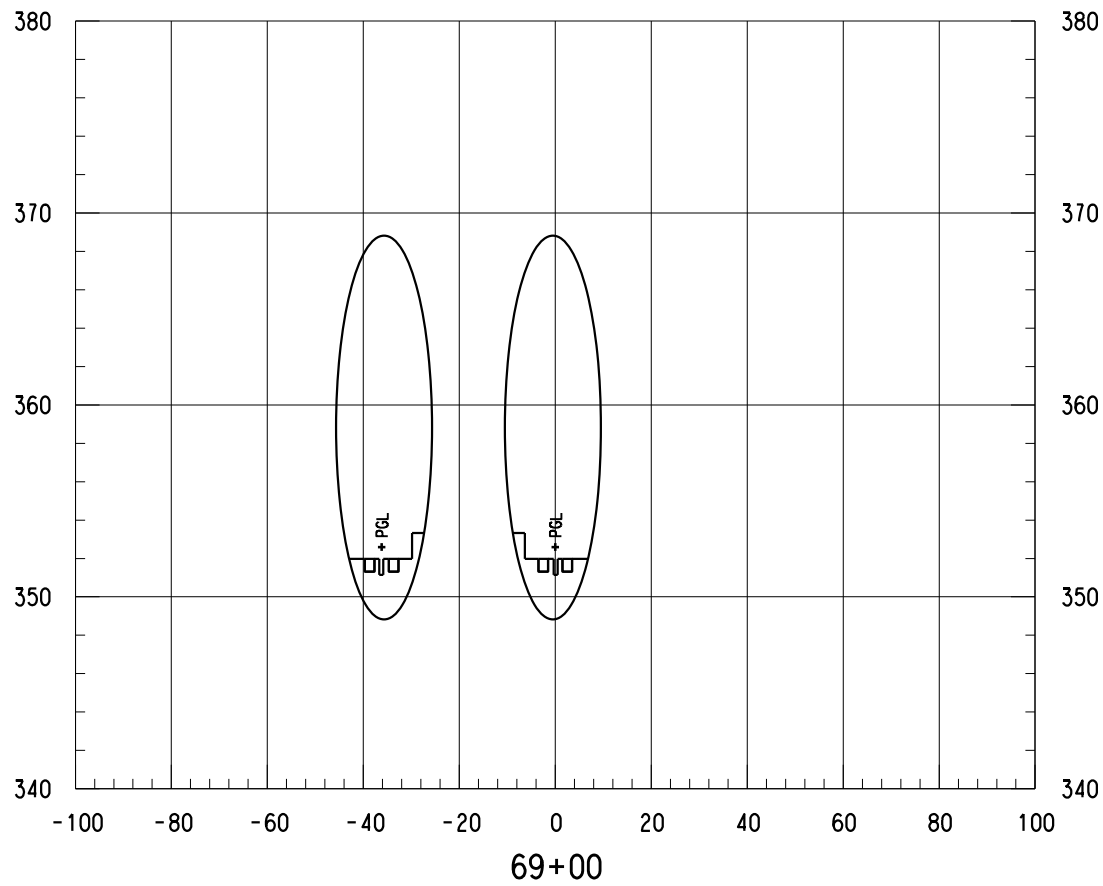
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:49 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE



- 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 20% DESIGN

CONTRACT SHEET No. 99 OF 276


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. CCB-0036 REV

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. 124511  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.





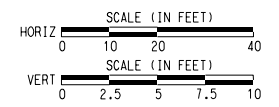
**DART PROJECT**



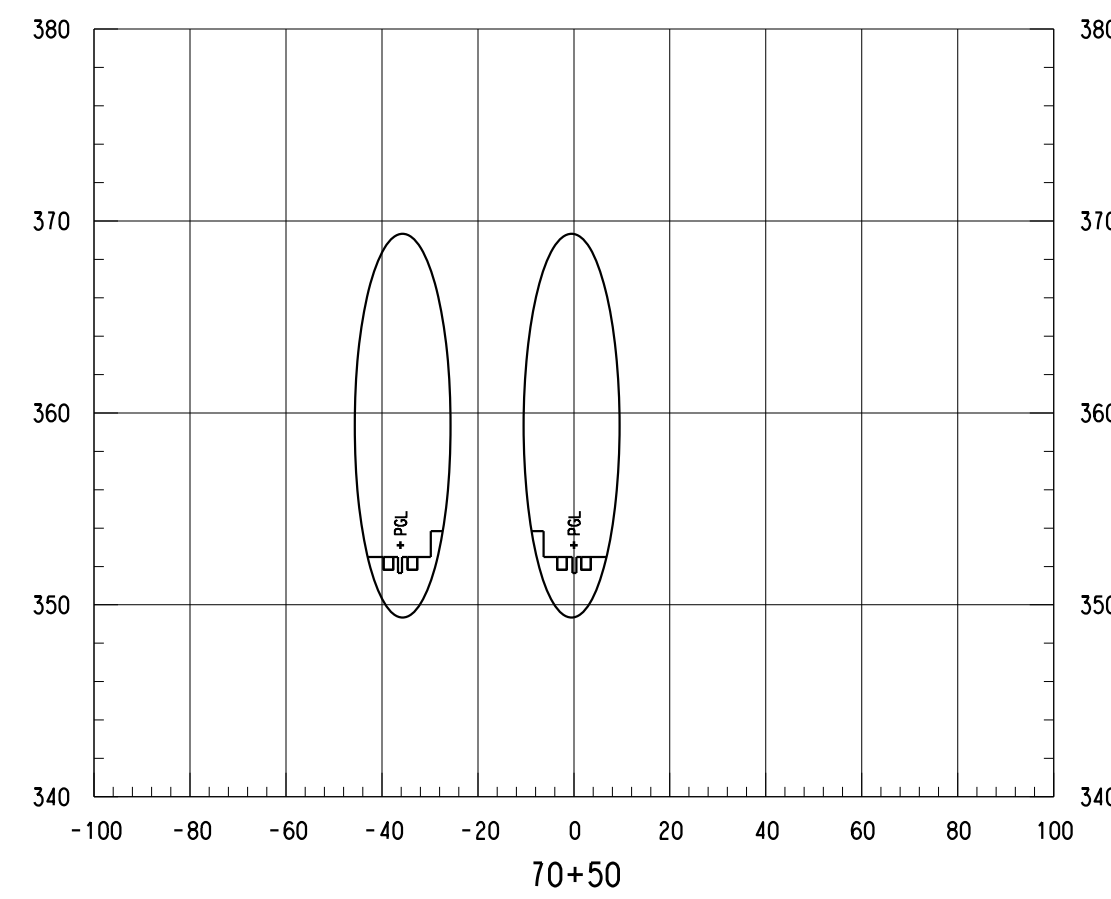
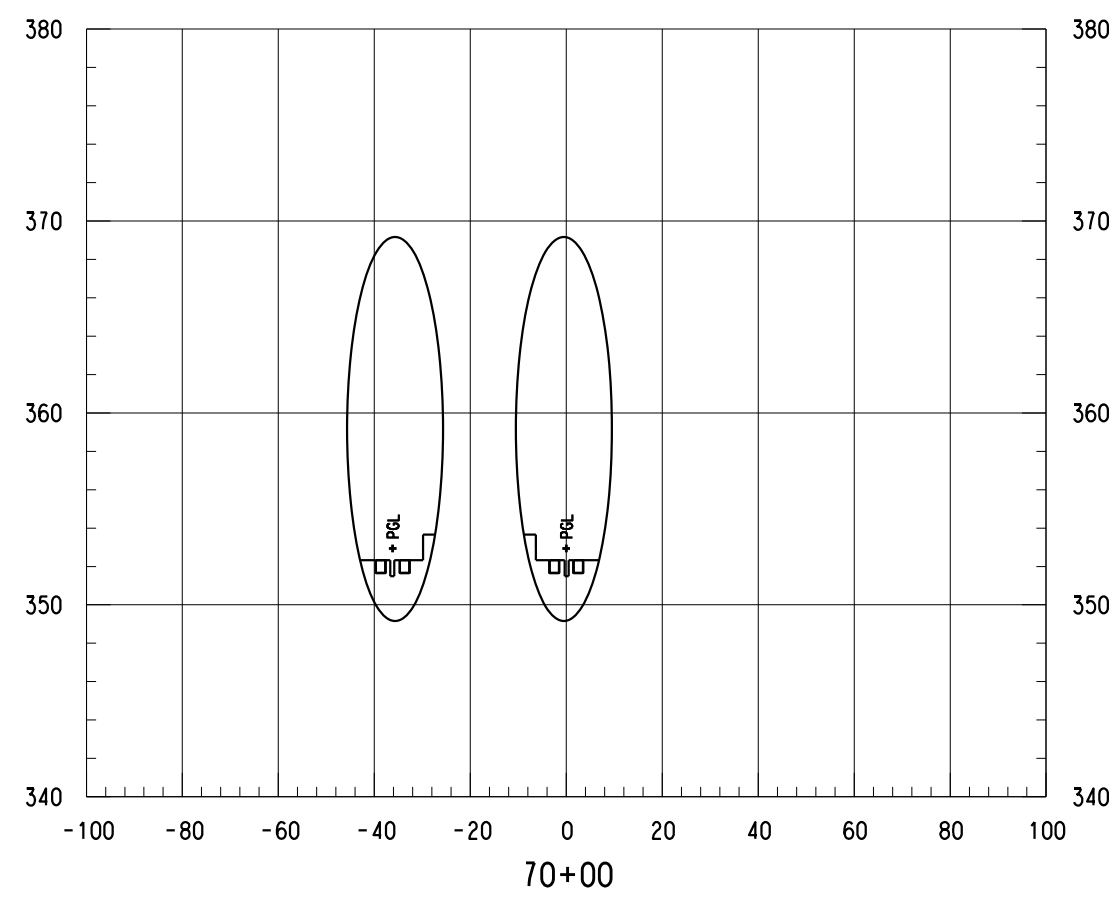
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

Friday, February 28, 2020 12:57:49 PM

DANGLE



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 100 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
CBD-2  
GUIDEWAY CROSS SECTIONS  
STA 70+00.00 TO STA 70+50.00

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

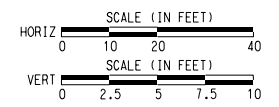


CONTRACT	DWG No.	CCB-0037	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:50 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

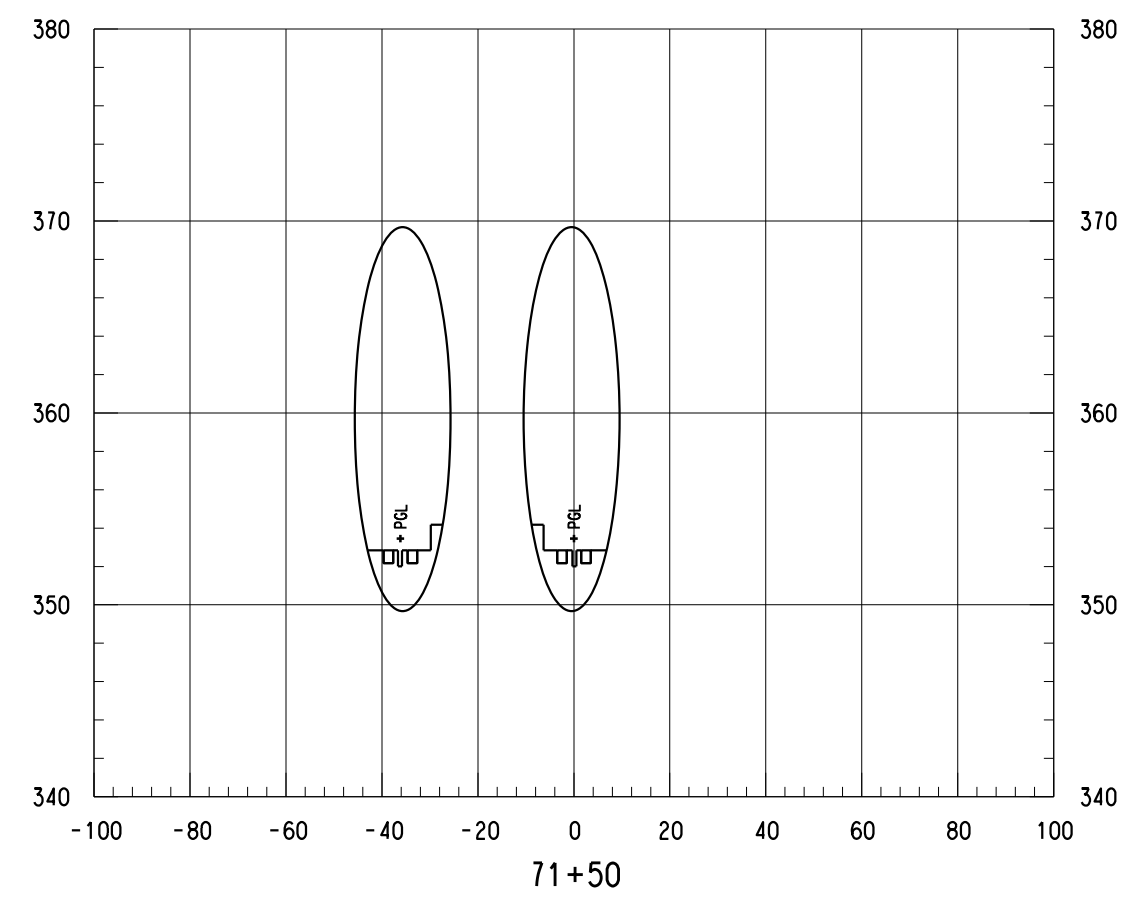
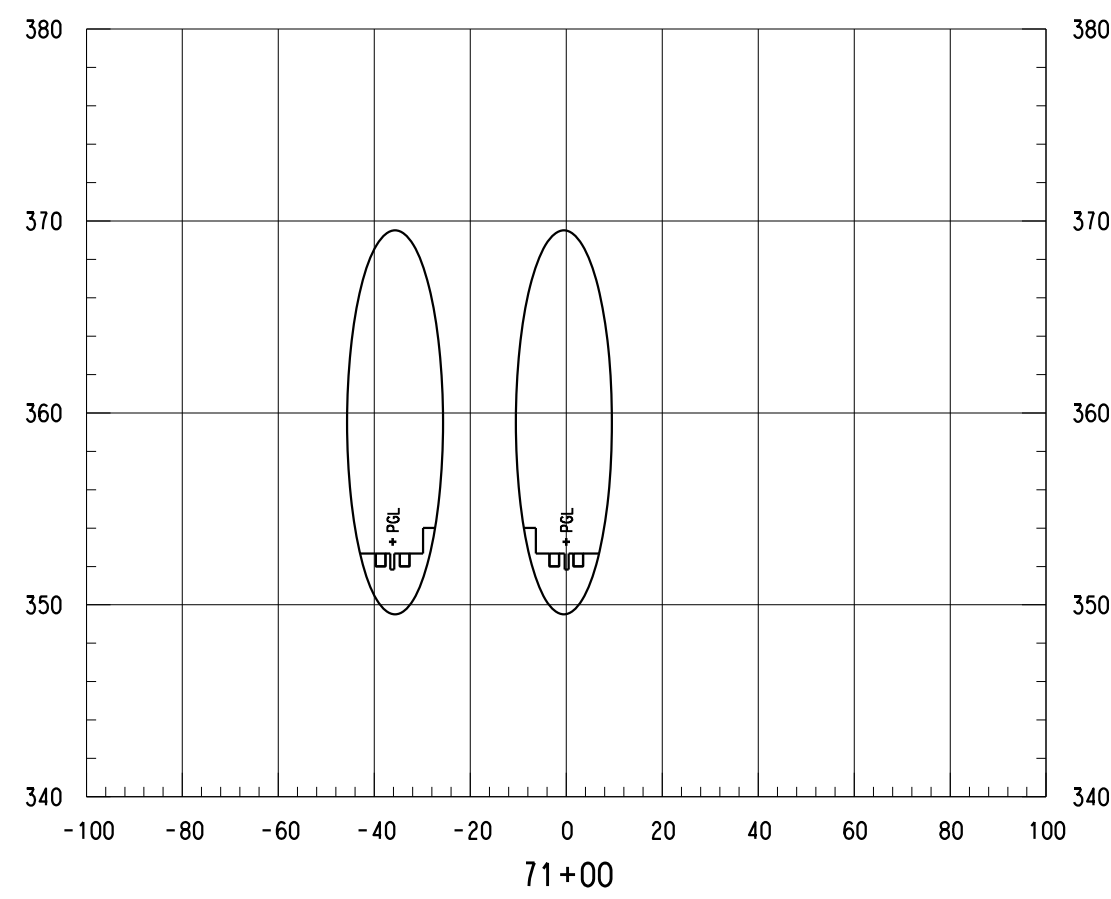
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 101 OF 276

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. CCB-0038 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020 HDR ENGINEERING, INC. TYPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



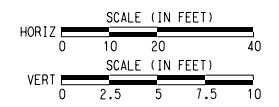
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



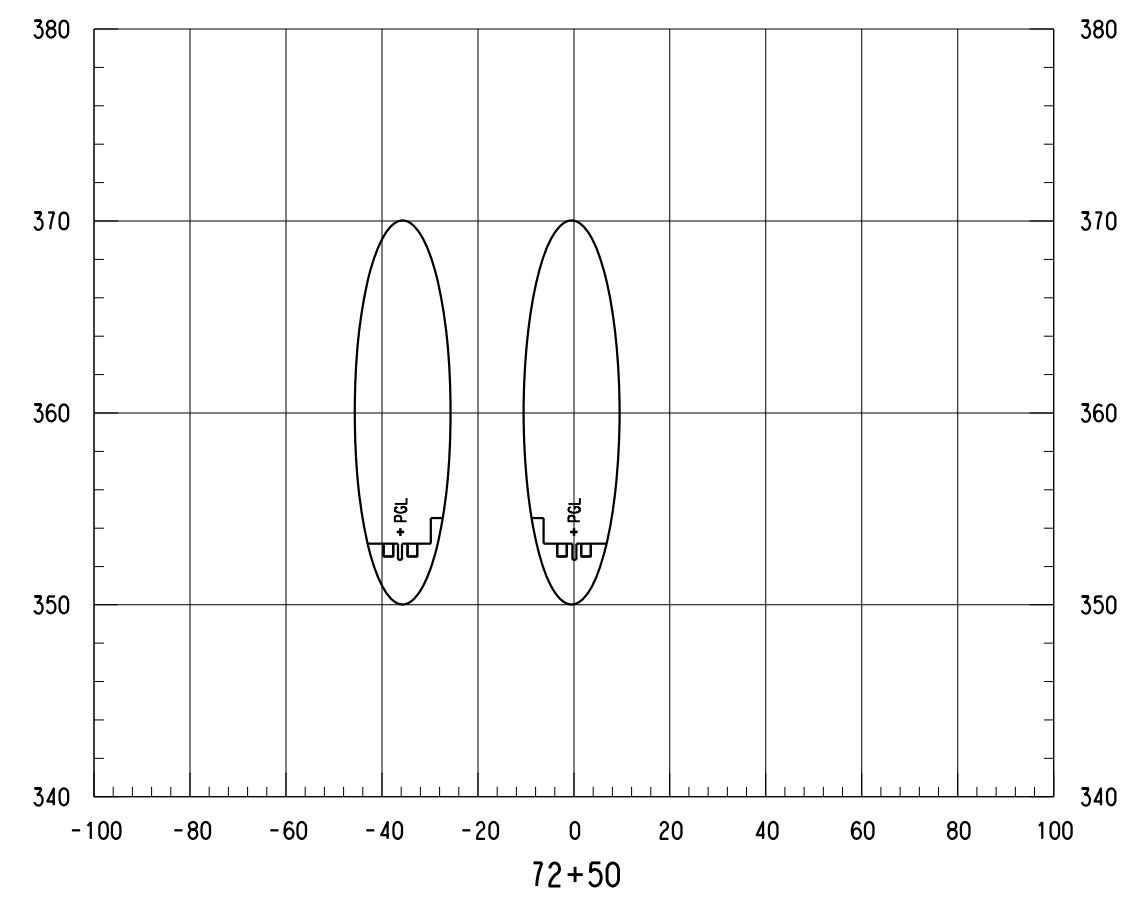
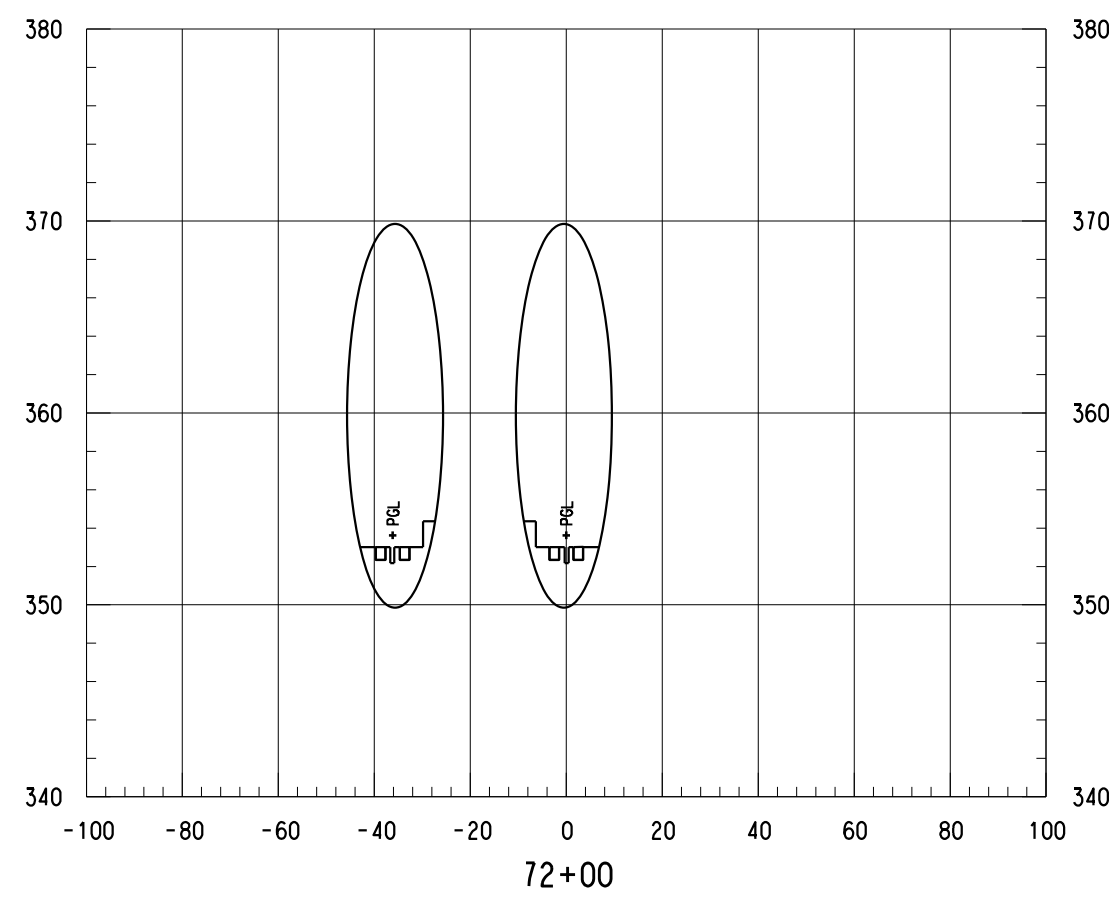
Friday, February 28, 2020 12:57:50 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 102 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
  
CBD-2  
GUIDEWAY CROSS SECTIONS  
STA 72+00.00 TO STA 72+50.00

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020



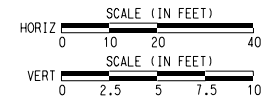
CONTRACT	DWG No. CCB-0039	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:51 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

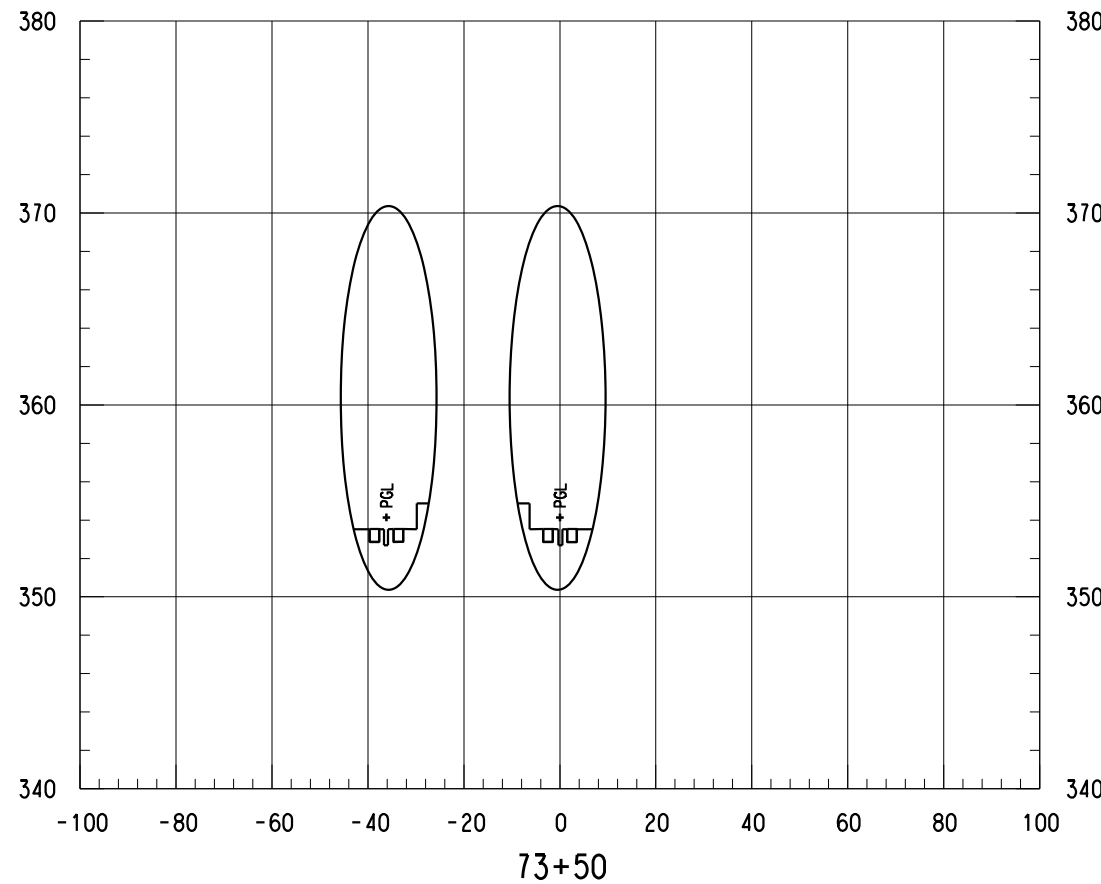
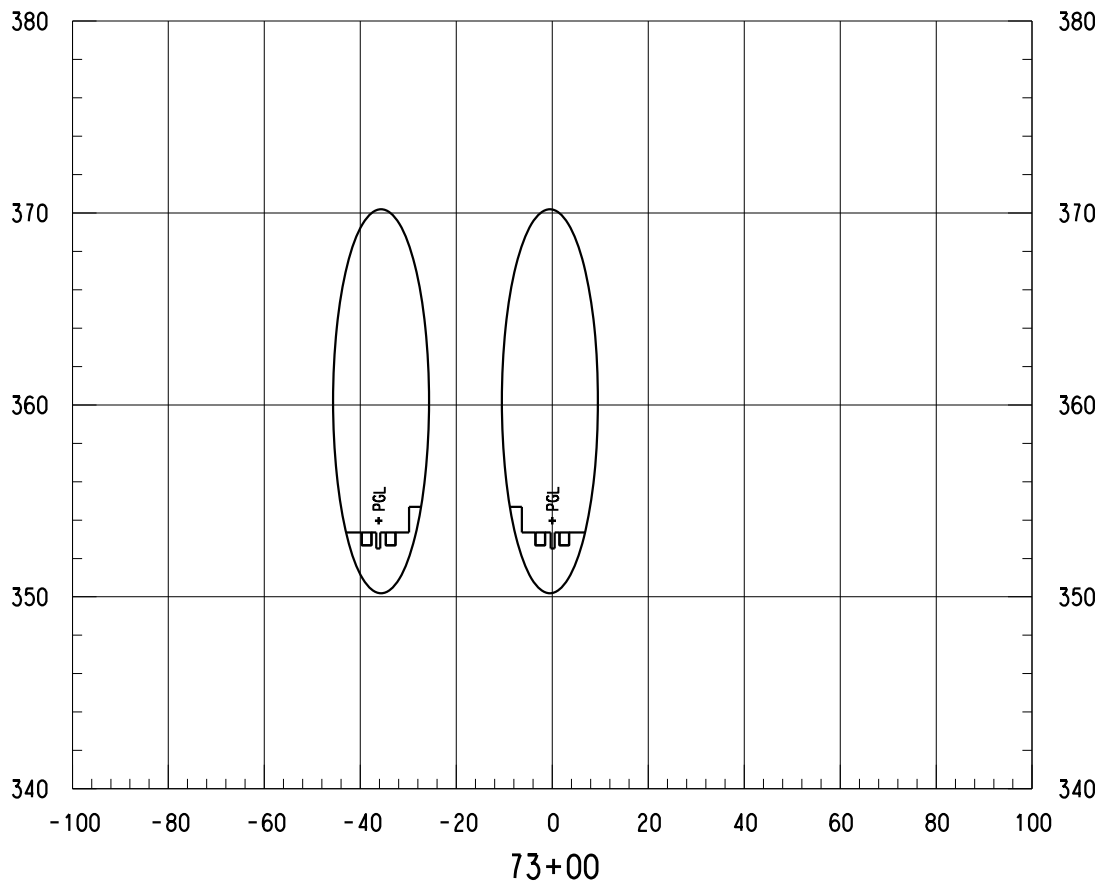
DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP





- 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 20% DESIGN

CONTRACT SHEET No. 103 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0040	REV
----------	------------------	-----

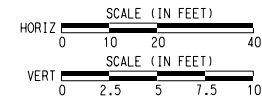
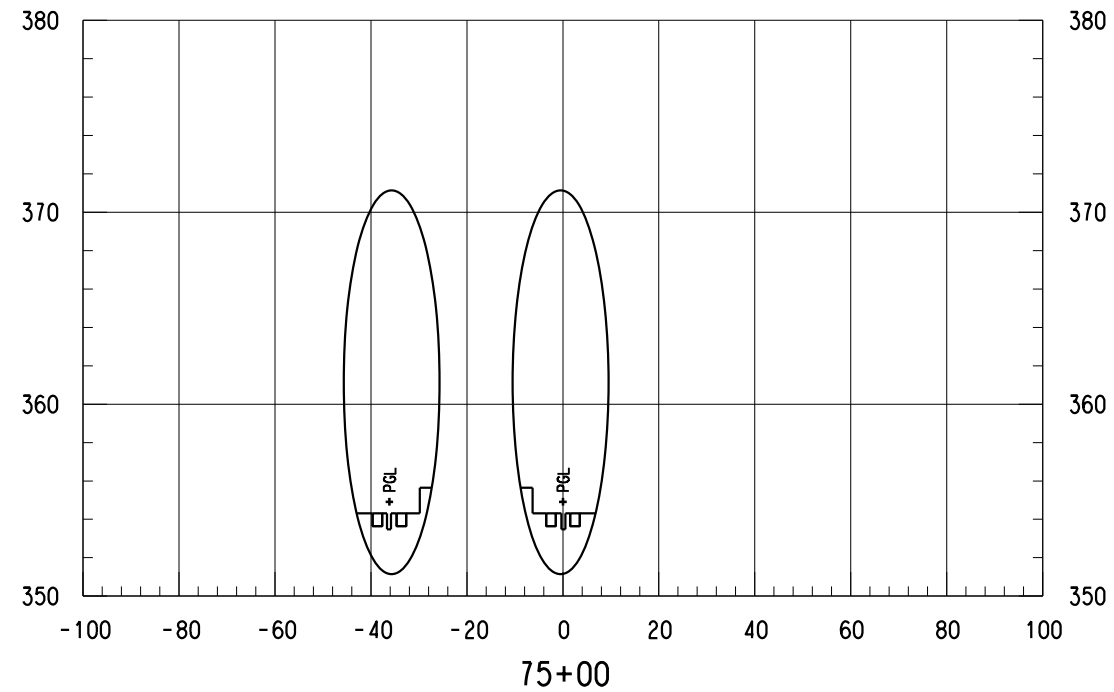
**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC. TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



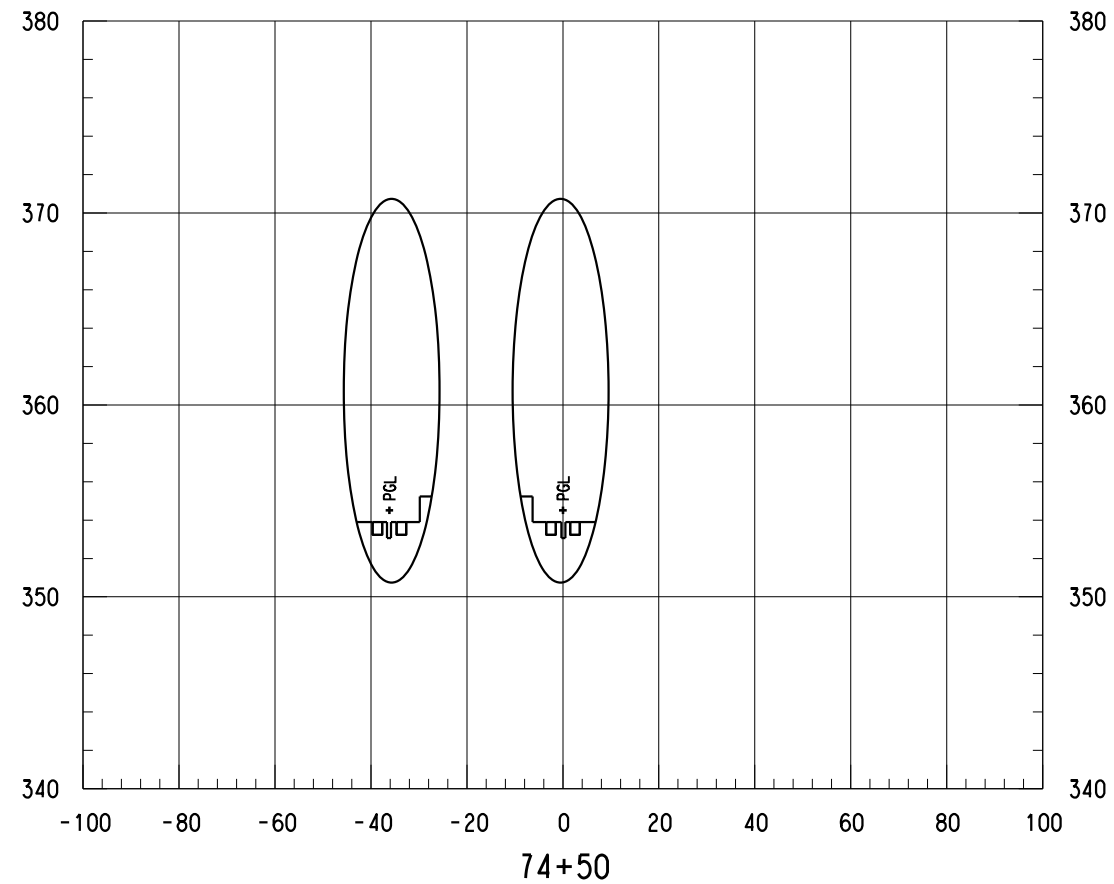
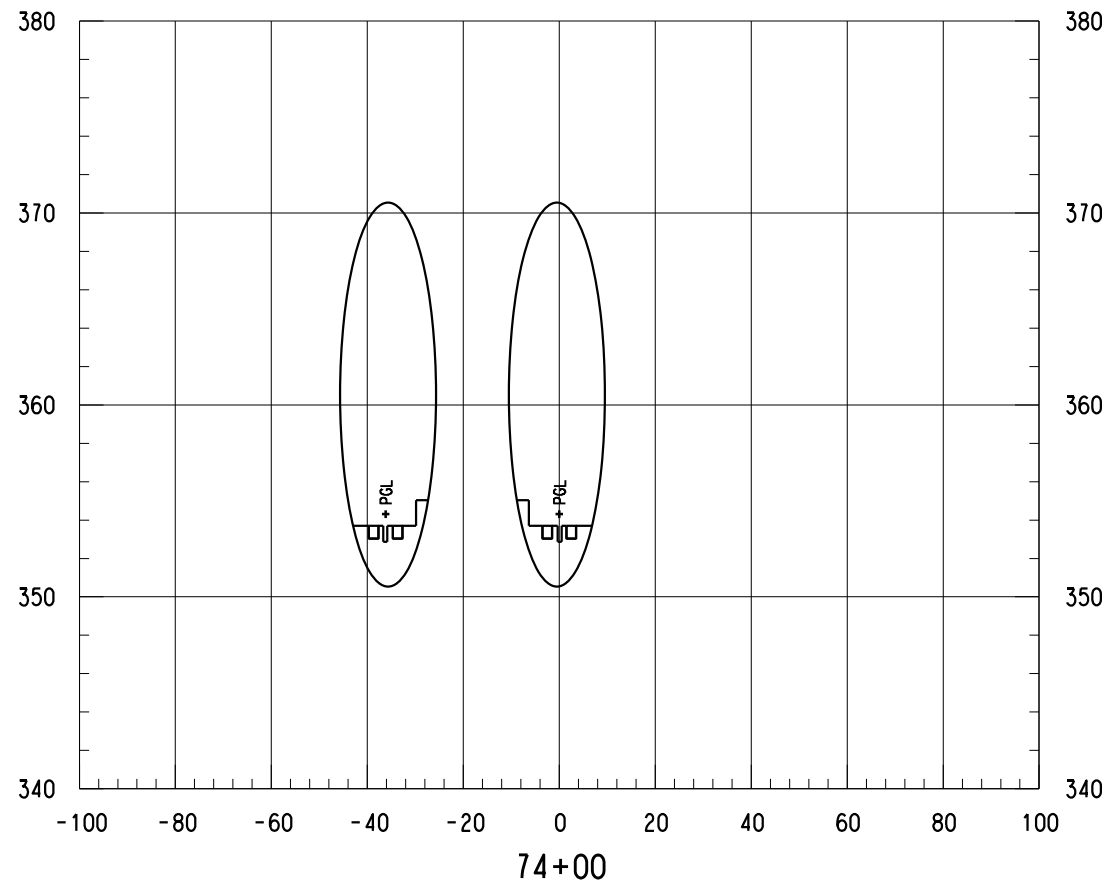
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:51 PM  
 DANGLE  
 \$\$\$SDGNSPECIFICATION\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 104 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020 HDR ENGINEERING, INC. TYPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

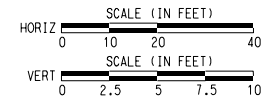
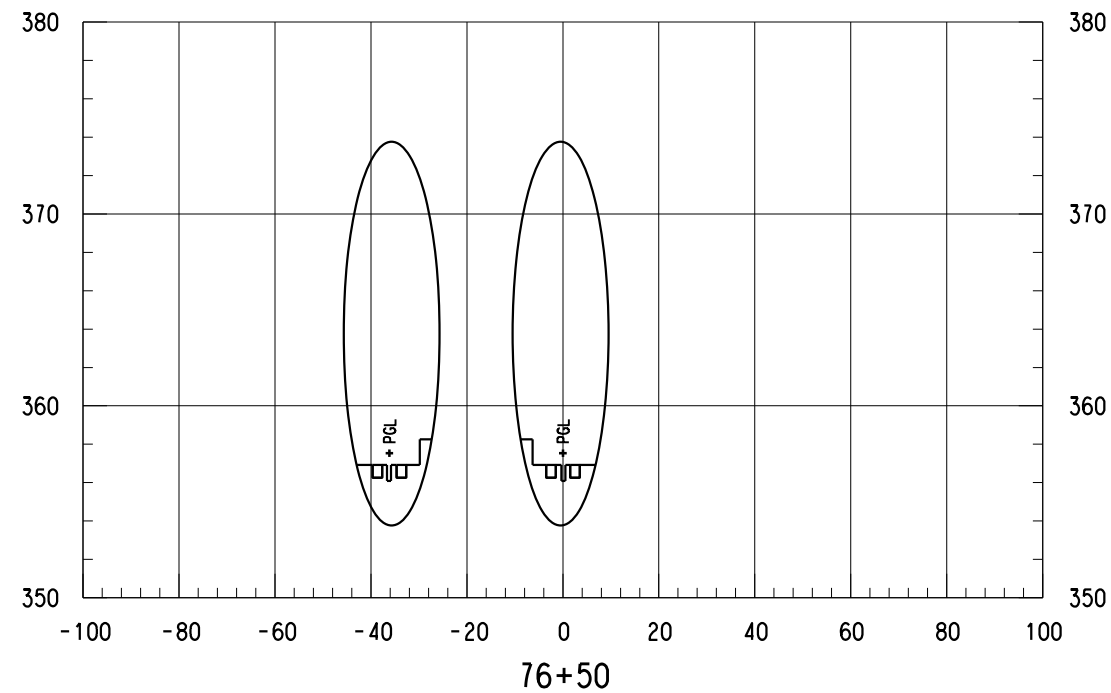
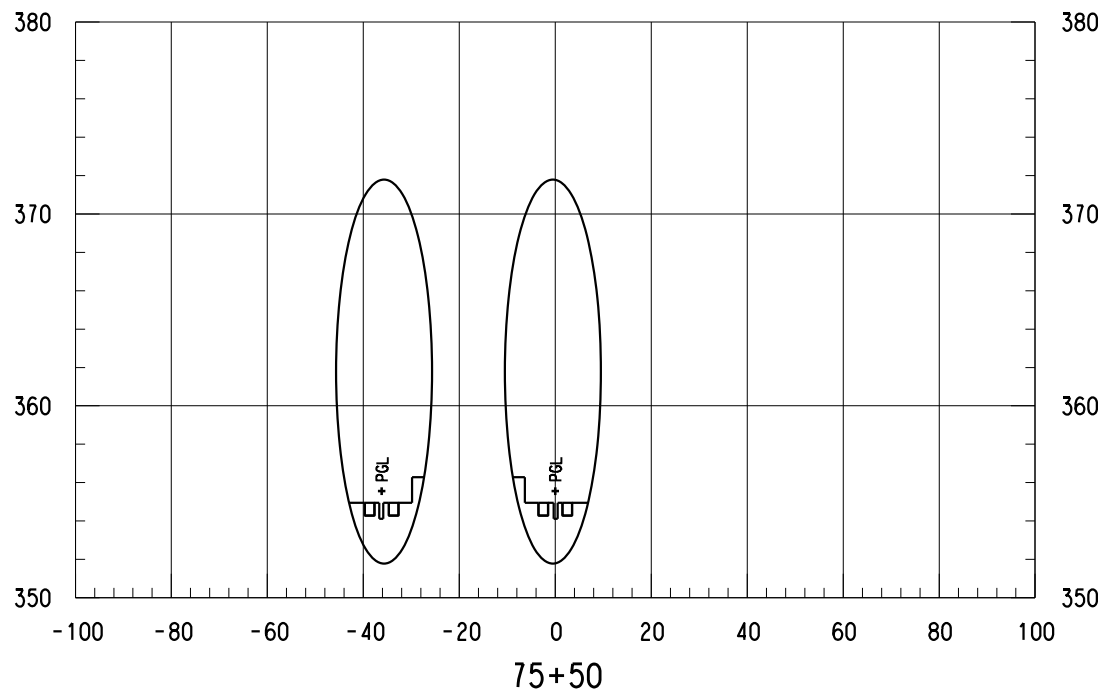
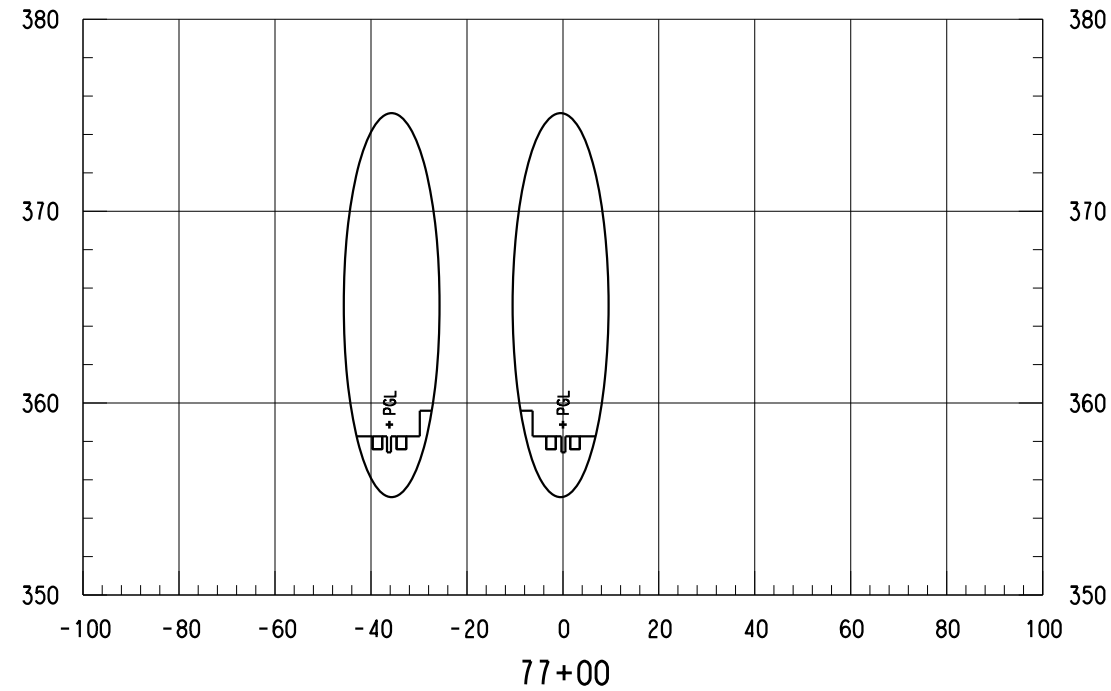
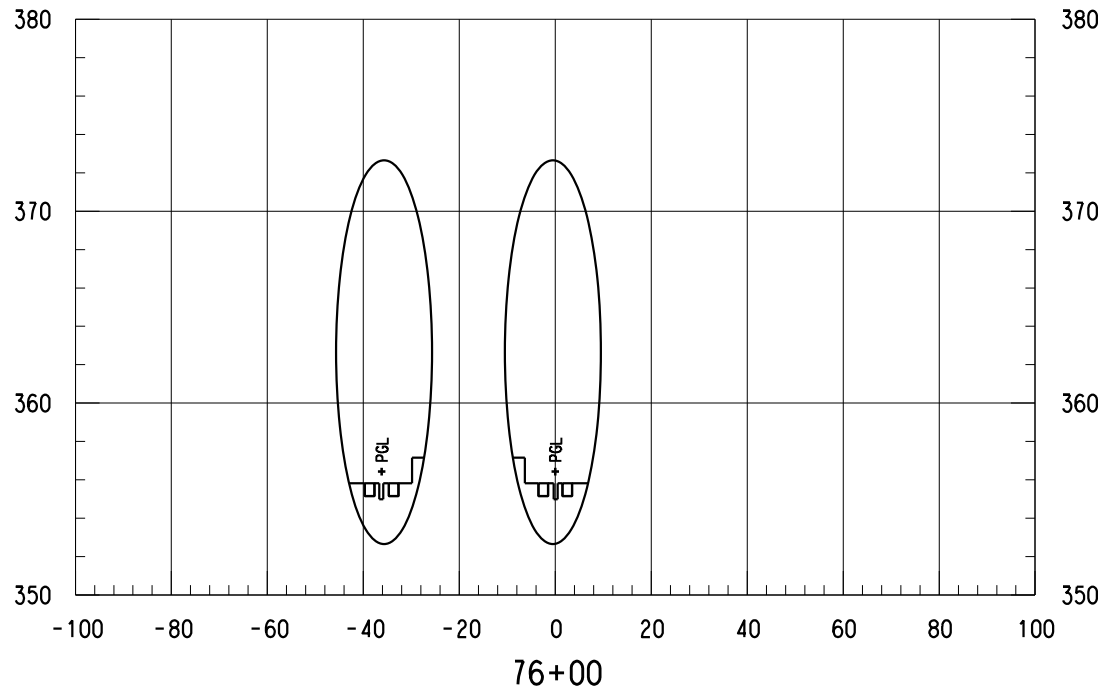


DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0041	REV
----------	------------------	-----



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 20% DESIGN

CONTRACT SHEET No. 105 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



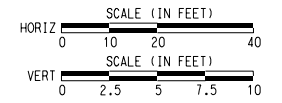
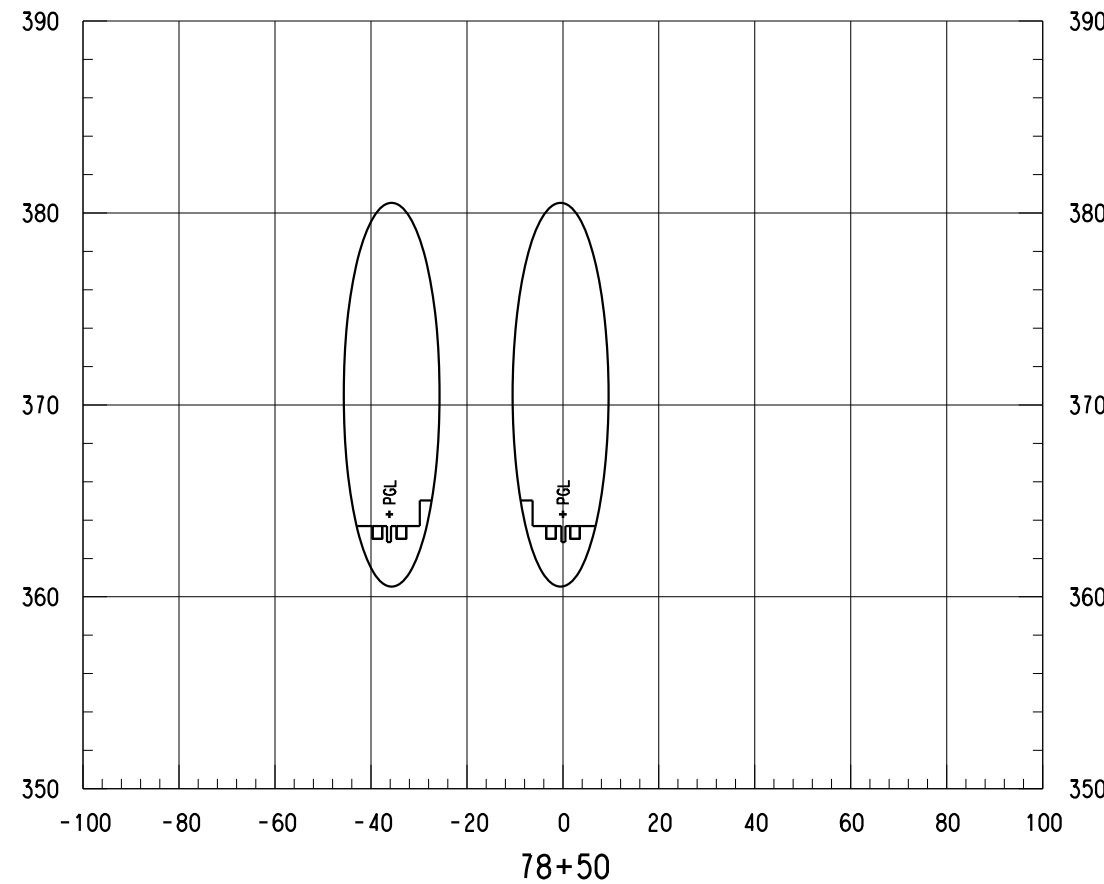
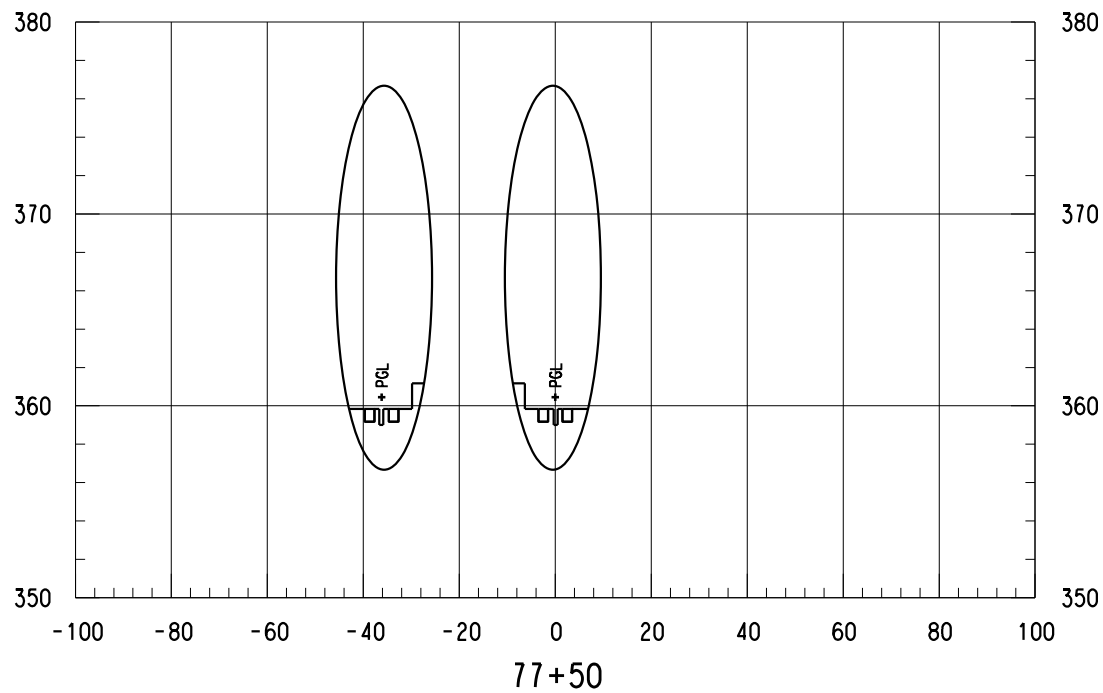
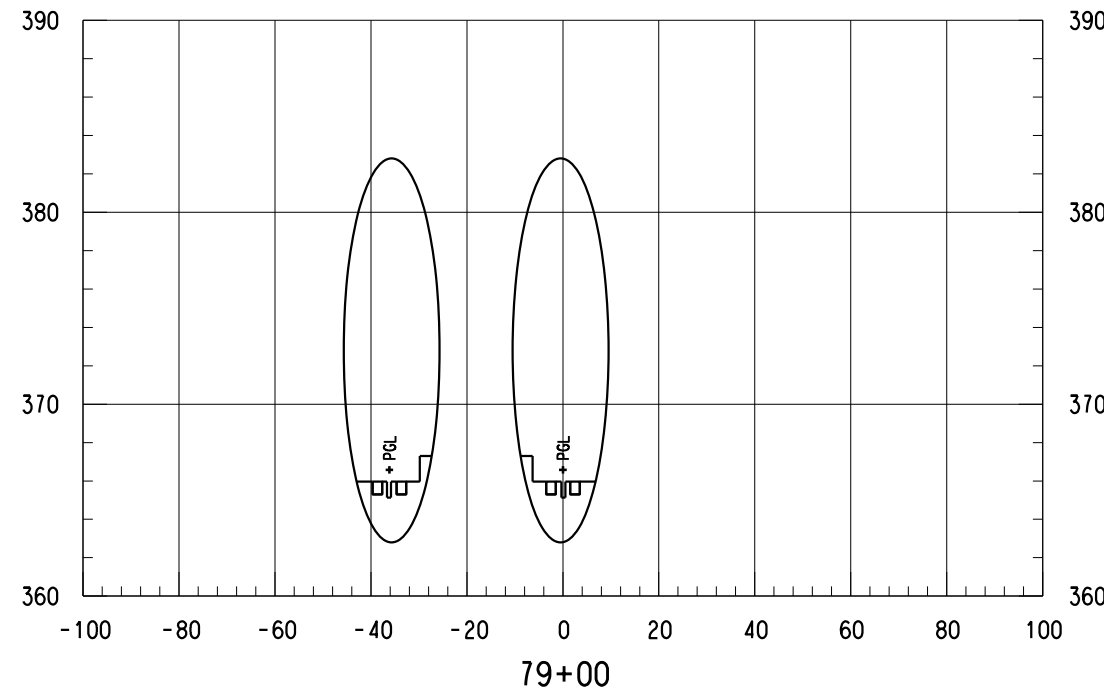
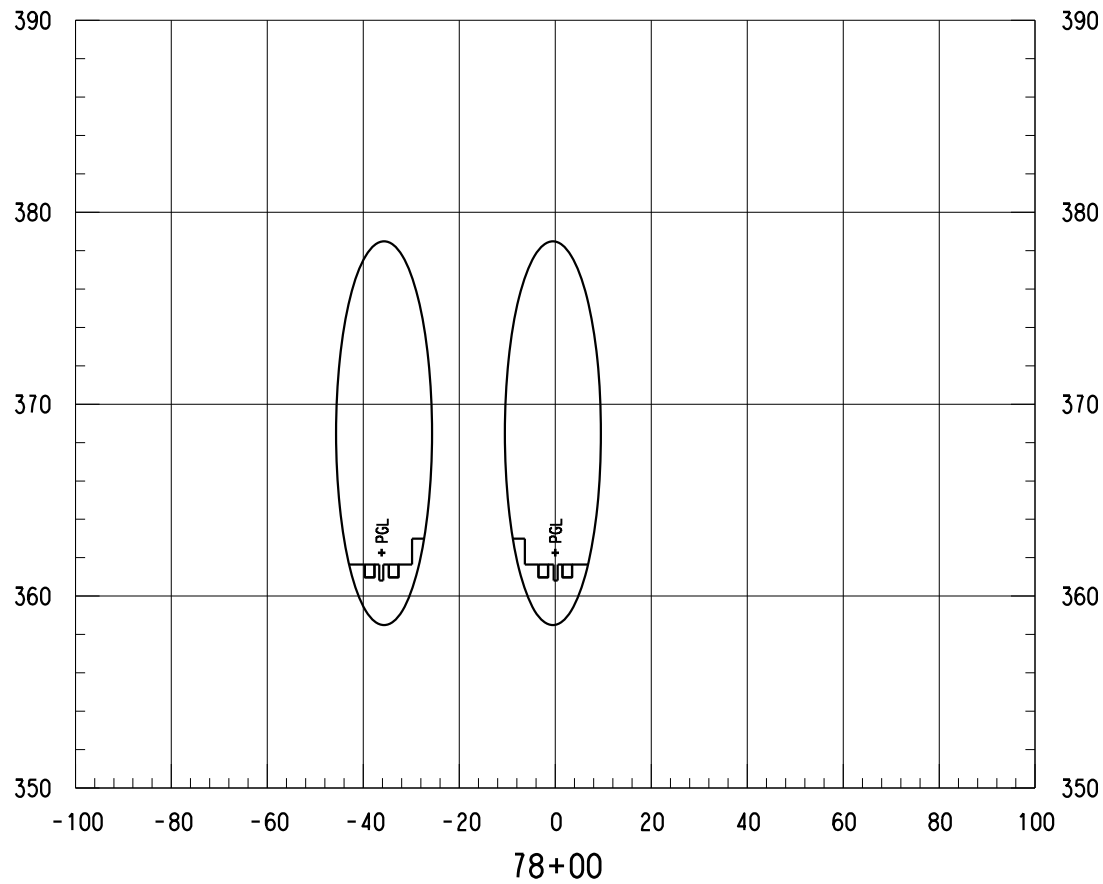
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0042	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:52 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE



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 20% DESIGN

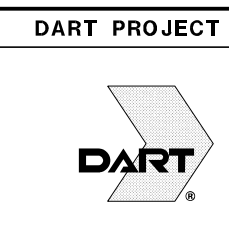
CONTRACT SHEET No. 106 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



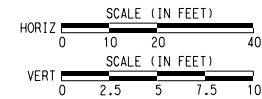
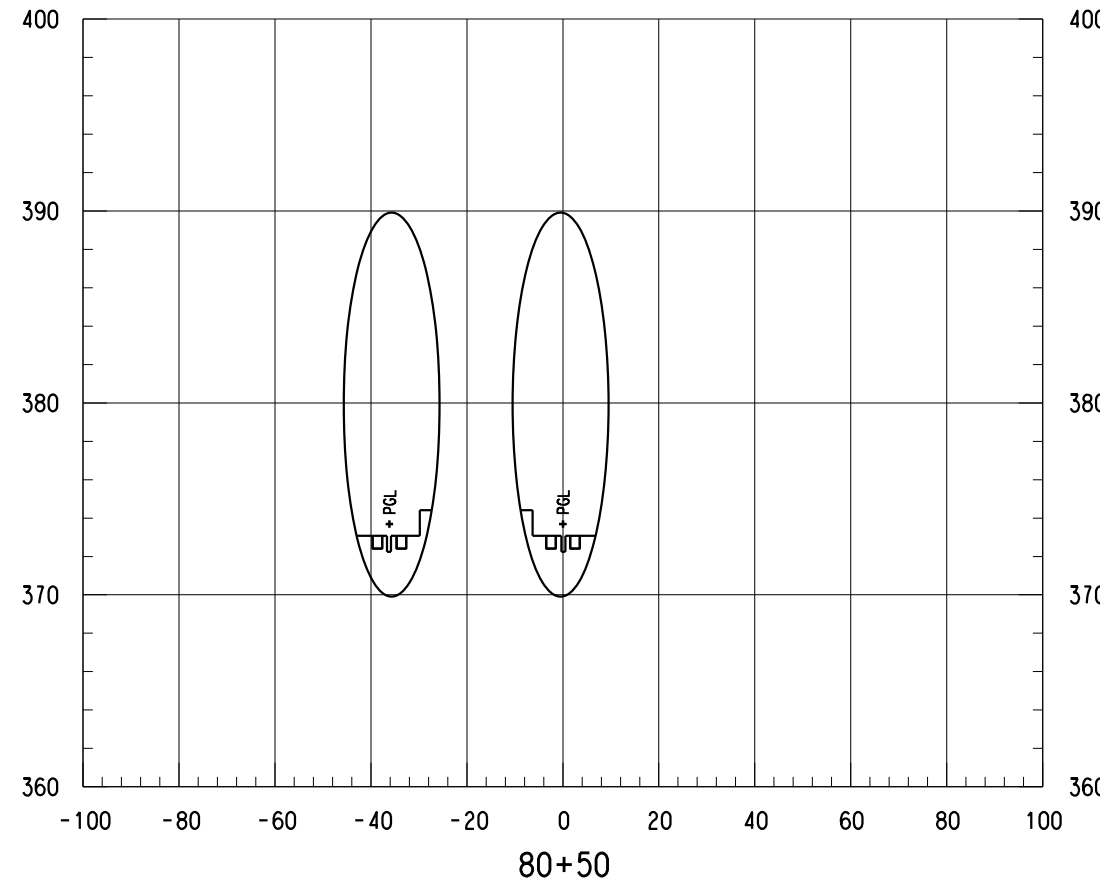
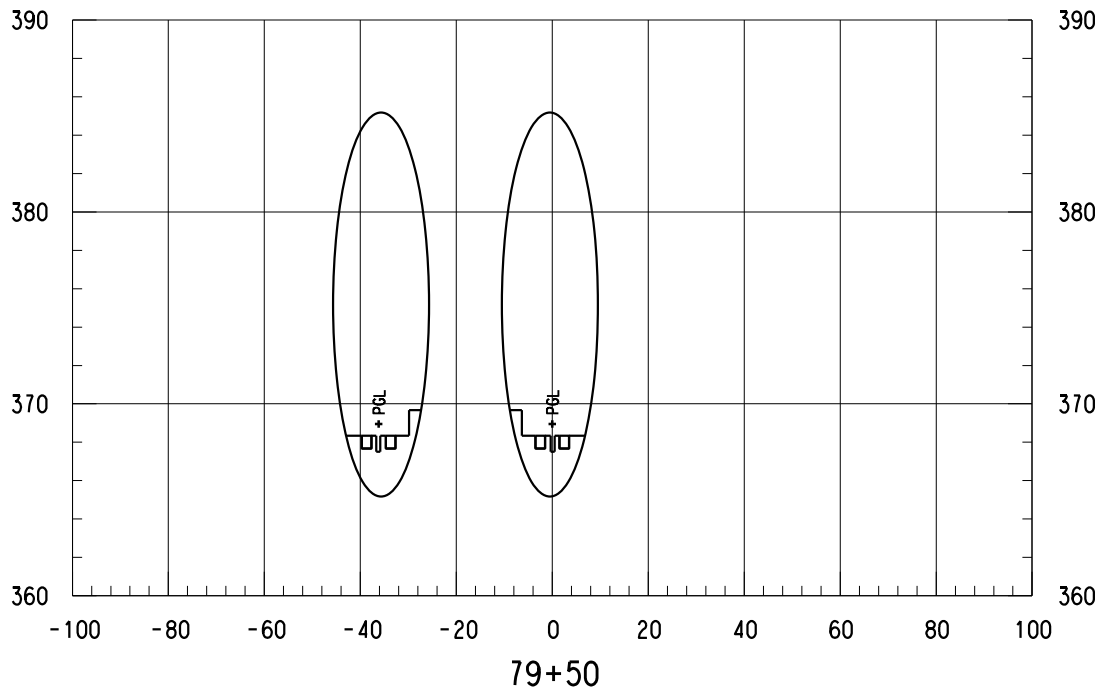
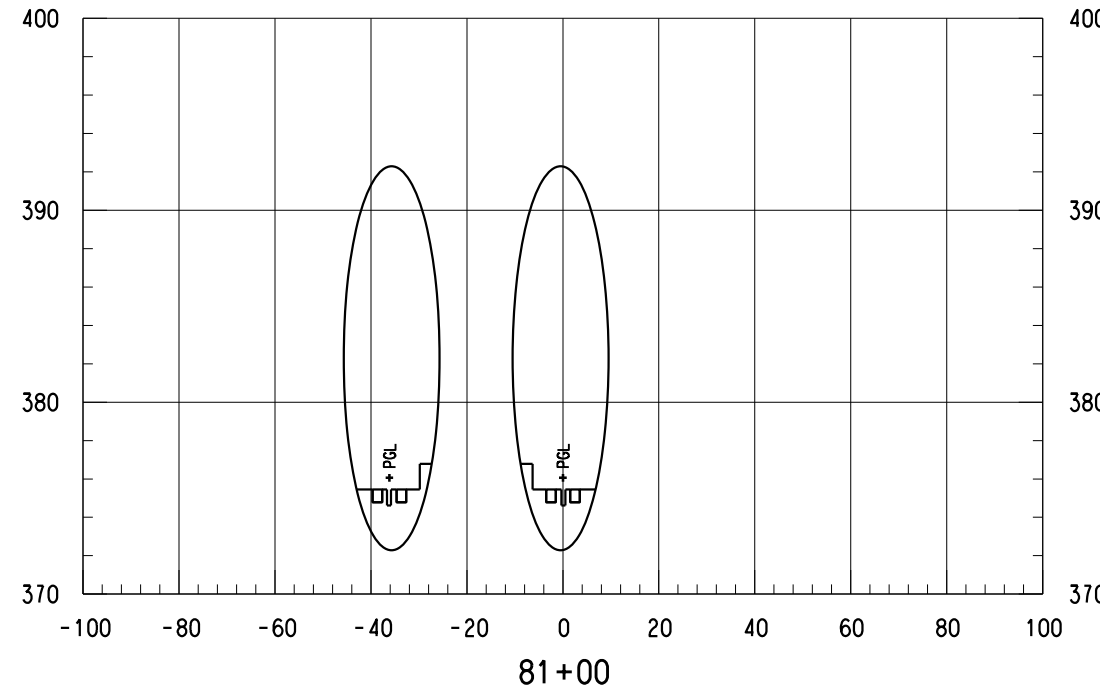
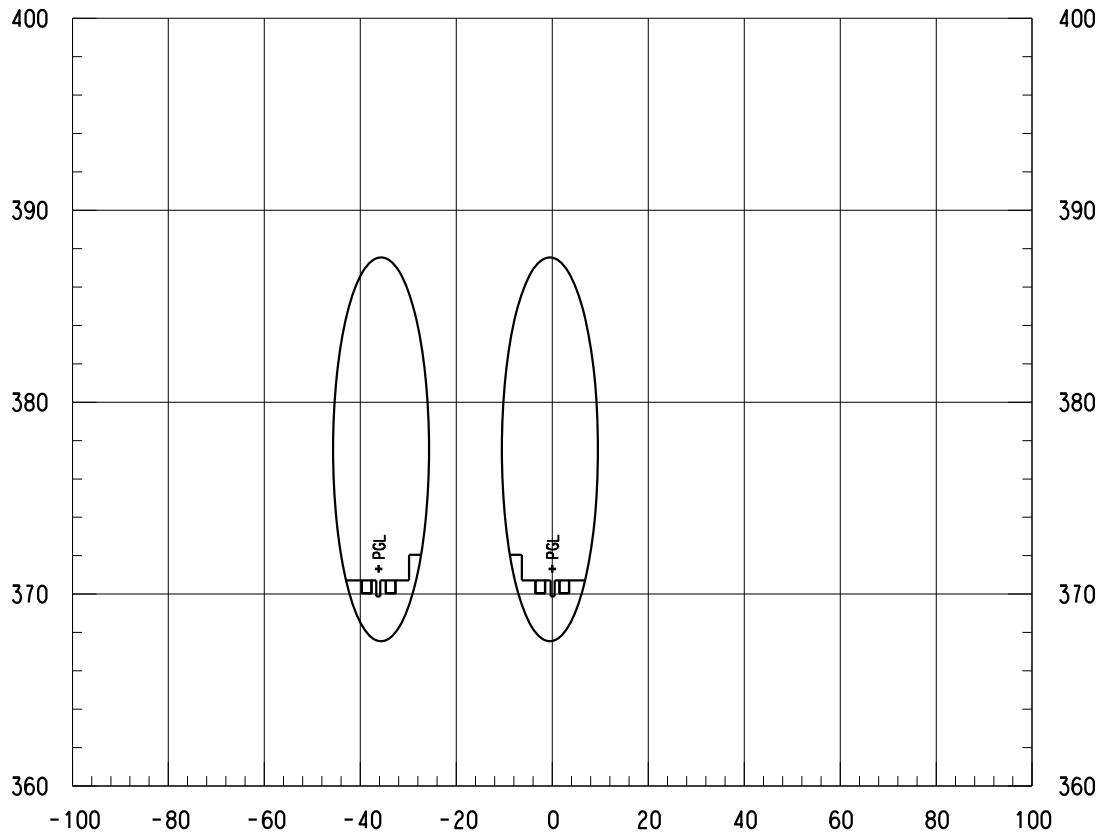
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0043	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:52 PM

DANGLE



- 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 20% DESIGN

CONTRACT SHEET No. 107 OF 276

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. CCB-0044 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

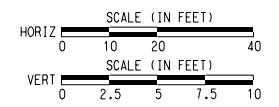
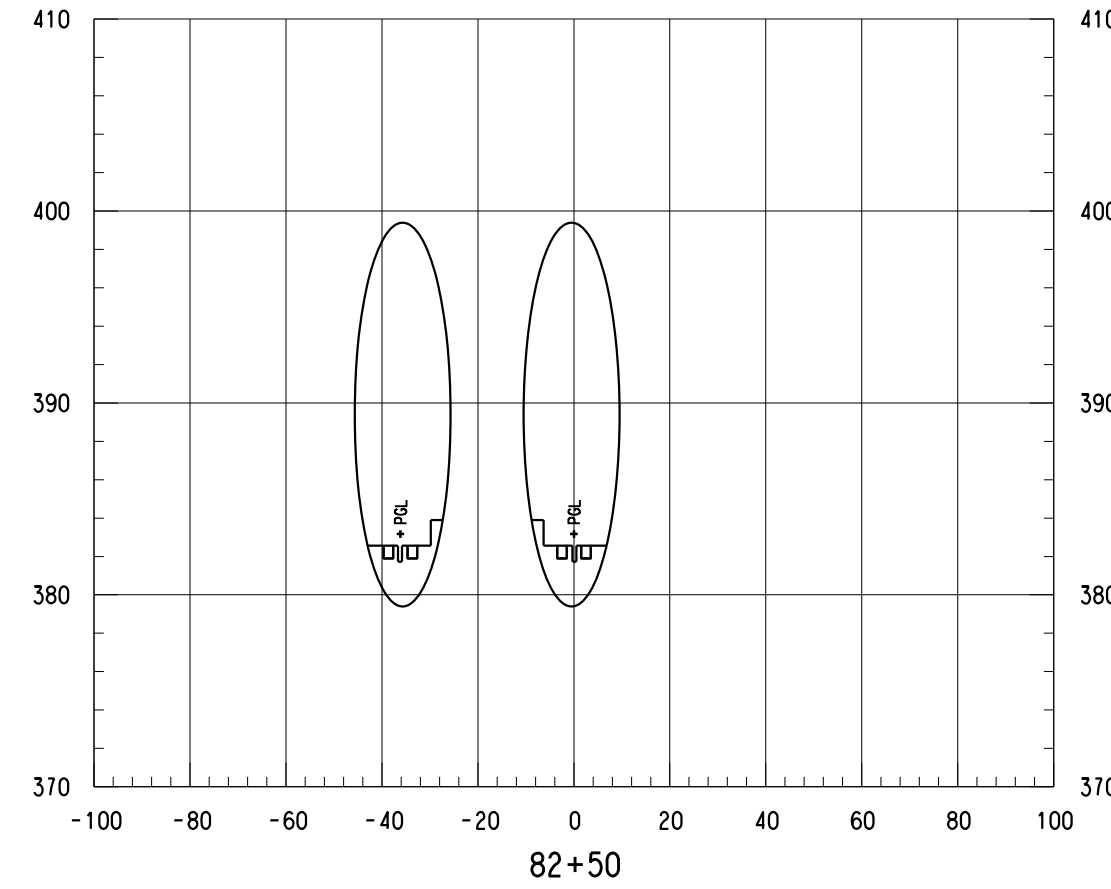
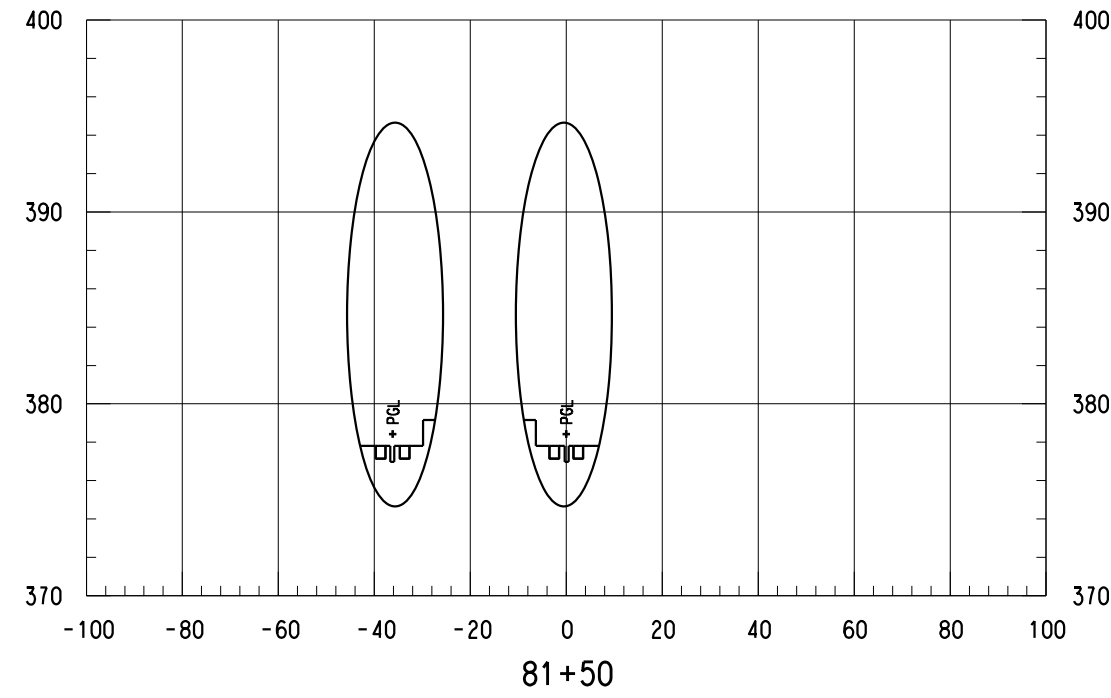
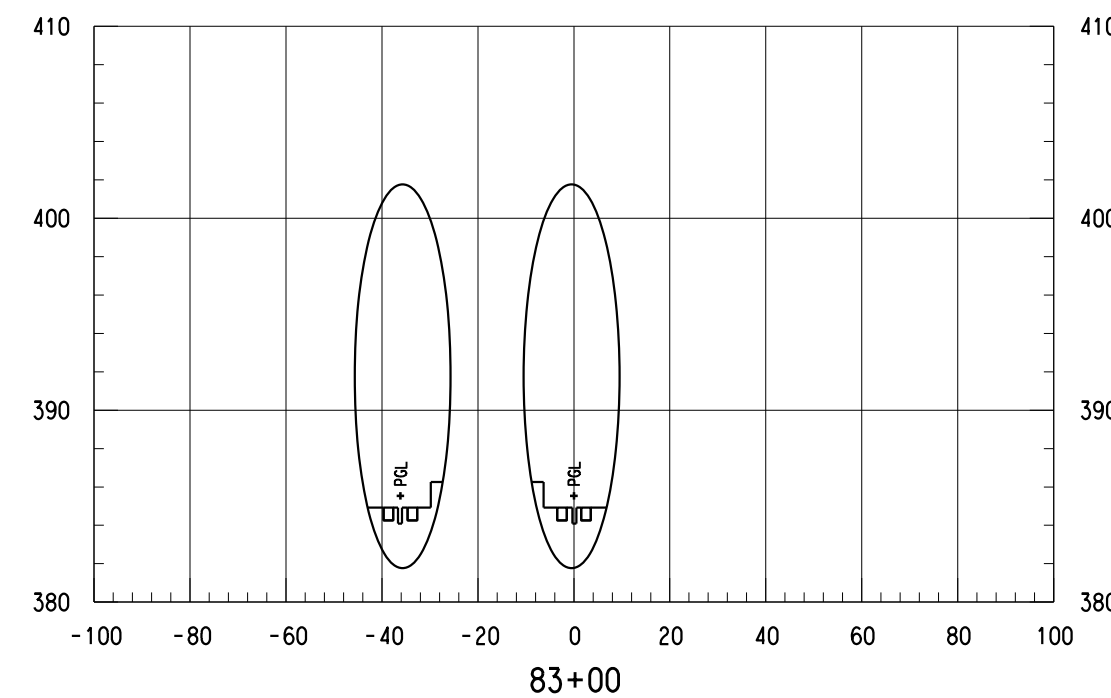
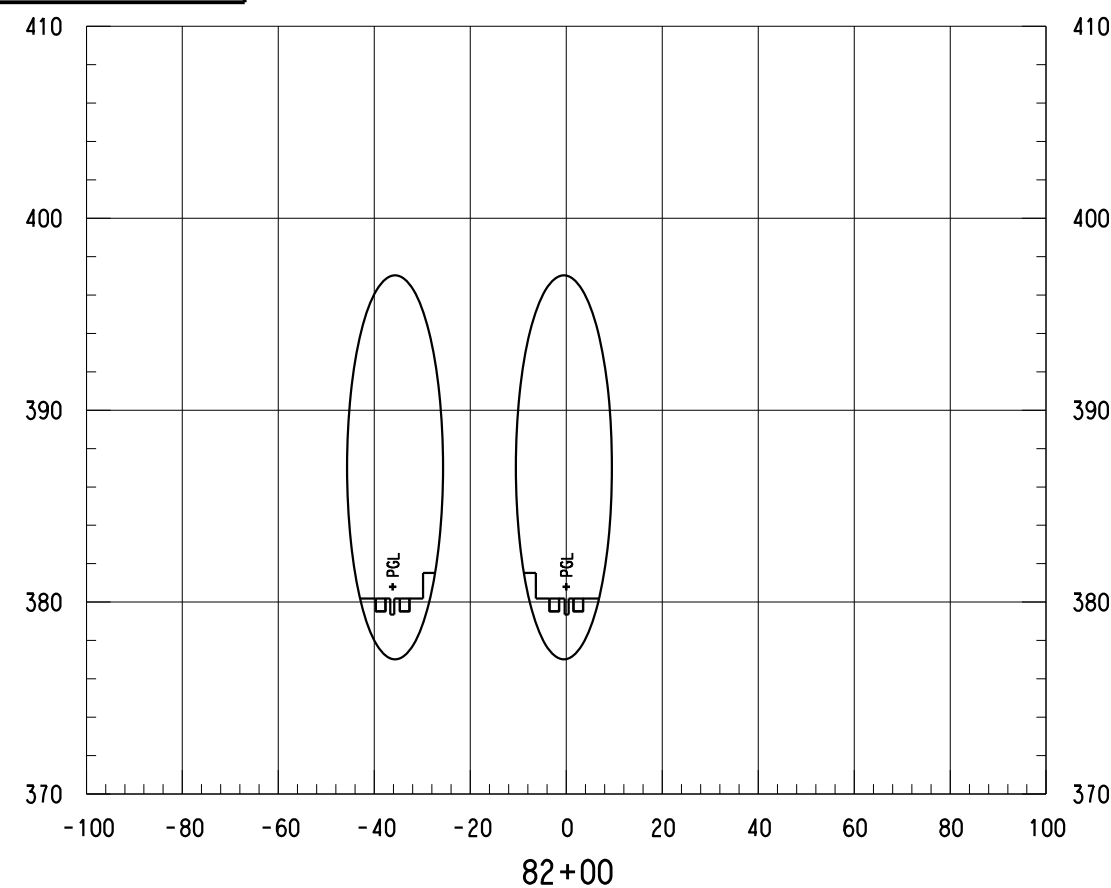


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:57:53 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$\$\$\$

DANGLE



**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 20% DESIGN

CONTRACT SHEET No. 108 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

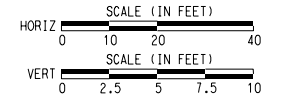
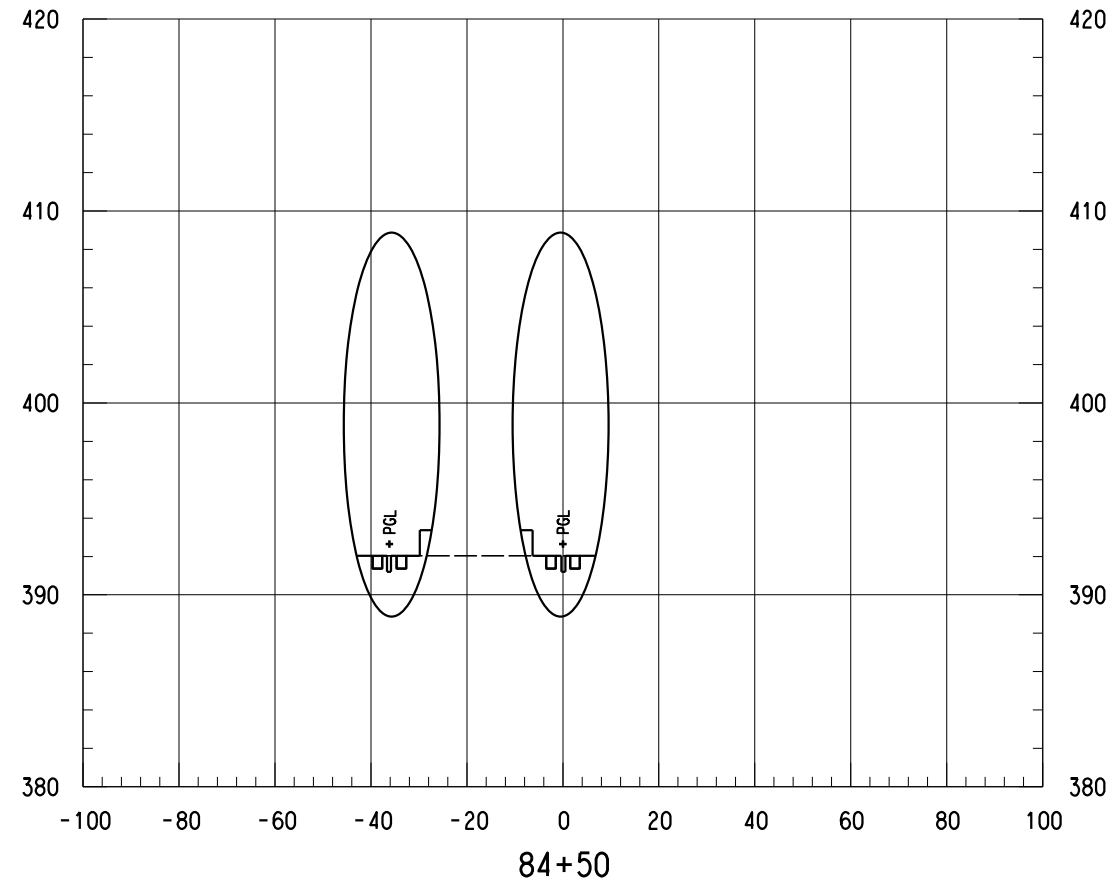
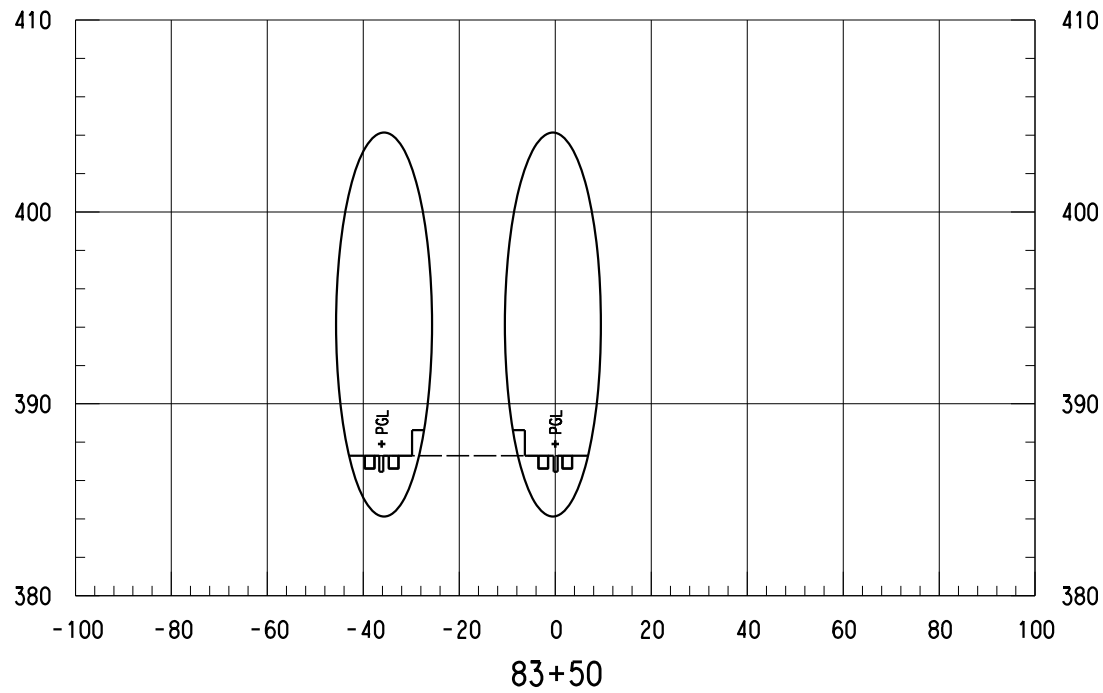
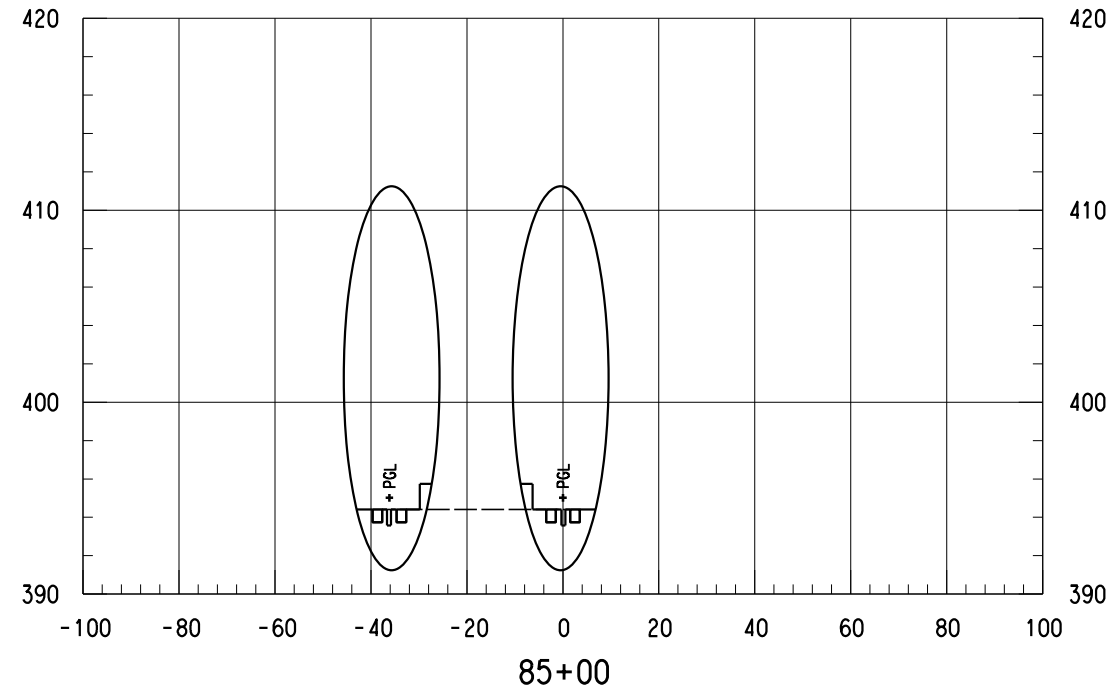
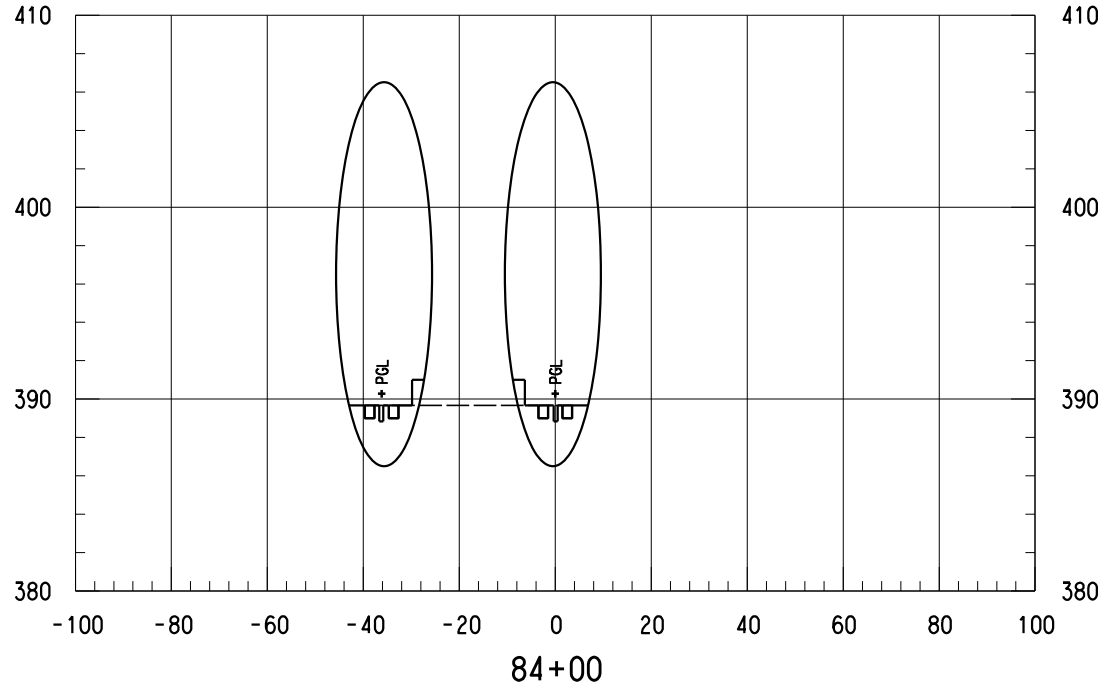


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT DWG No. CCB-0045 REV

Friday, February 28, 2020 12:57:53 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 109 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



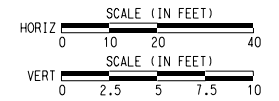
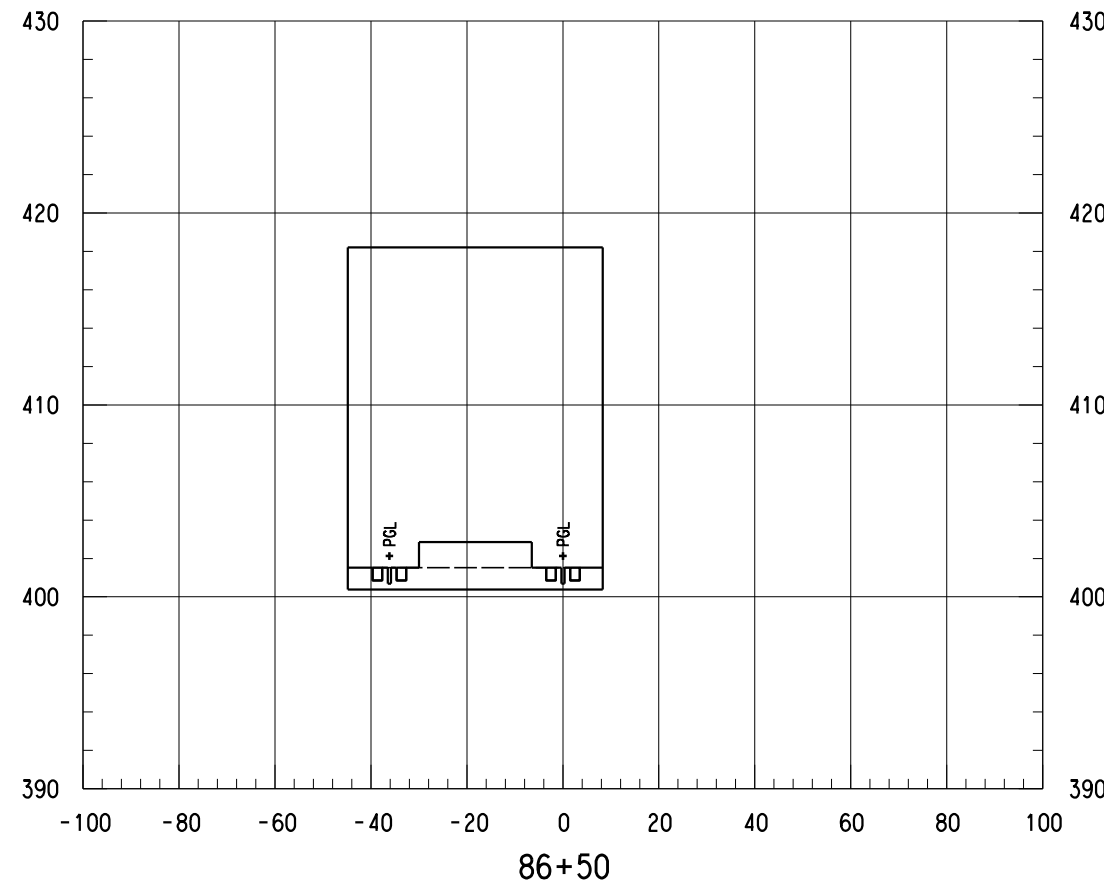
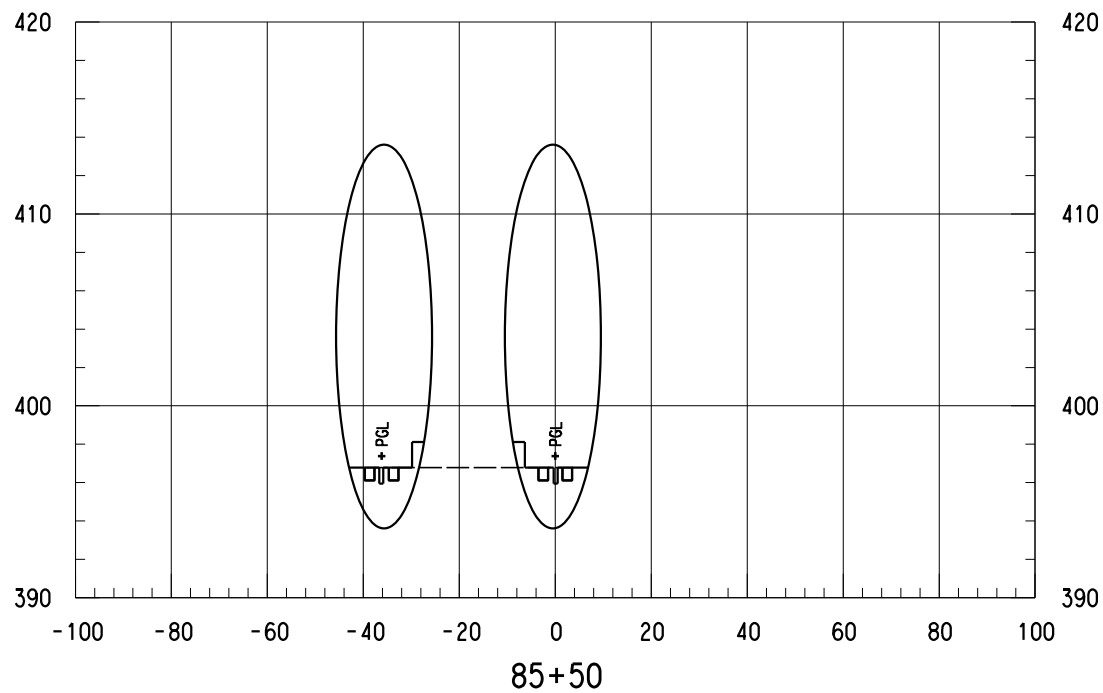
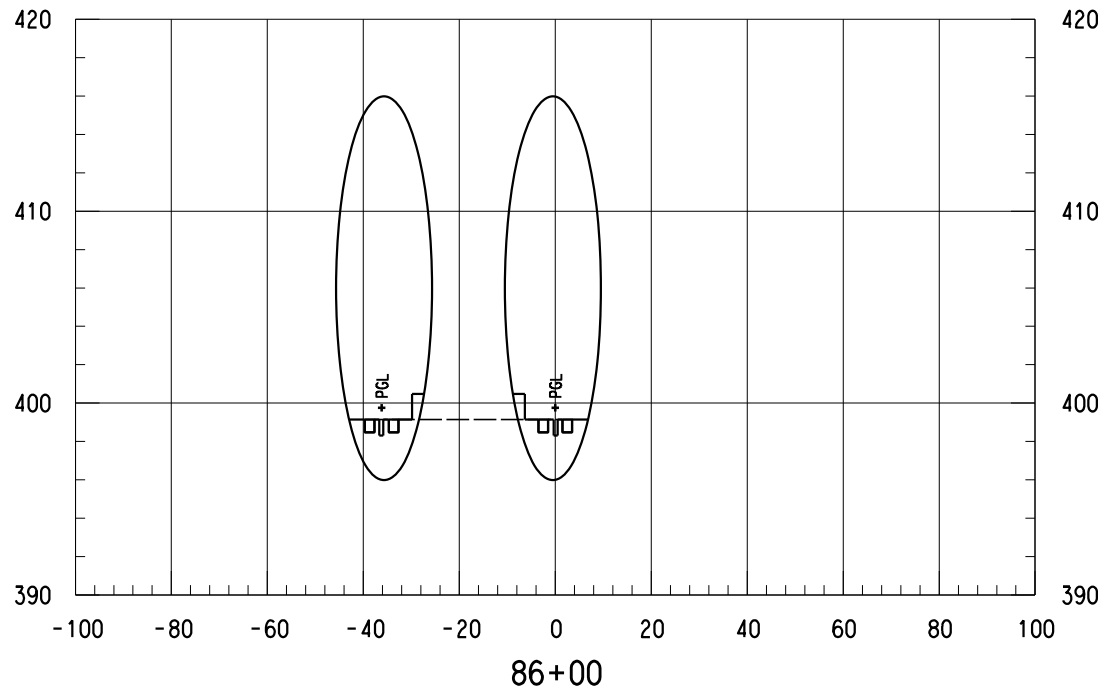
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No.	CC8-0046	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:54 PM

DANGLE



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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

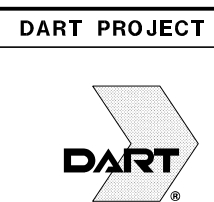
CONTRACT SHEET No. 110 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



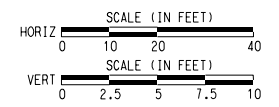
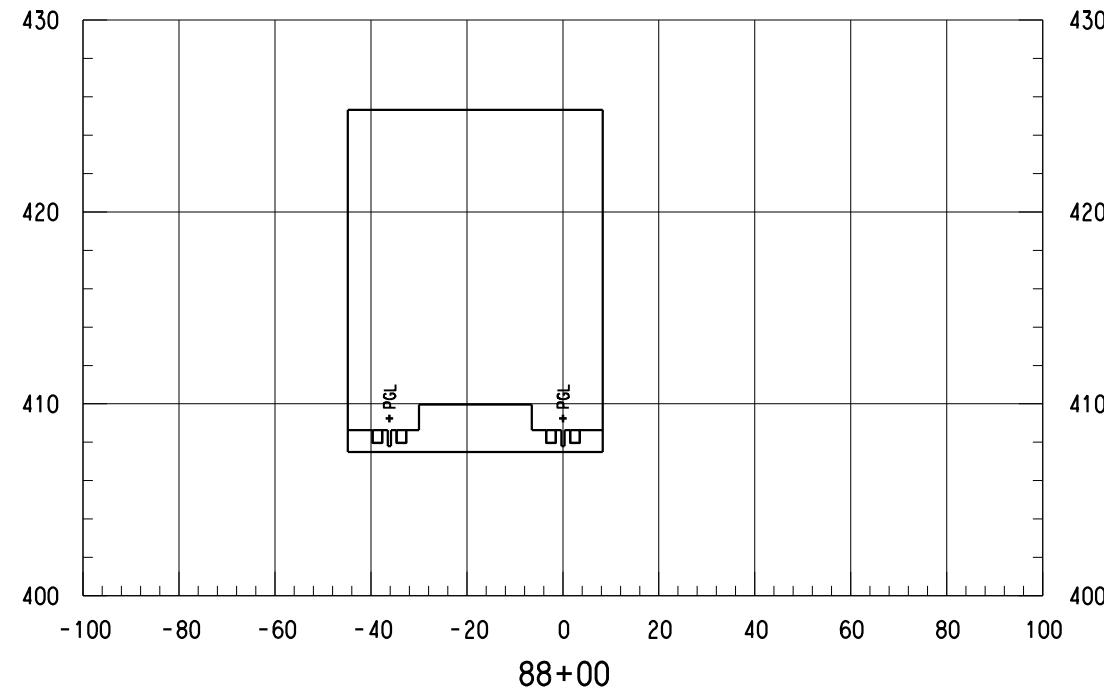
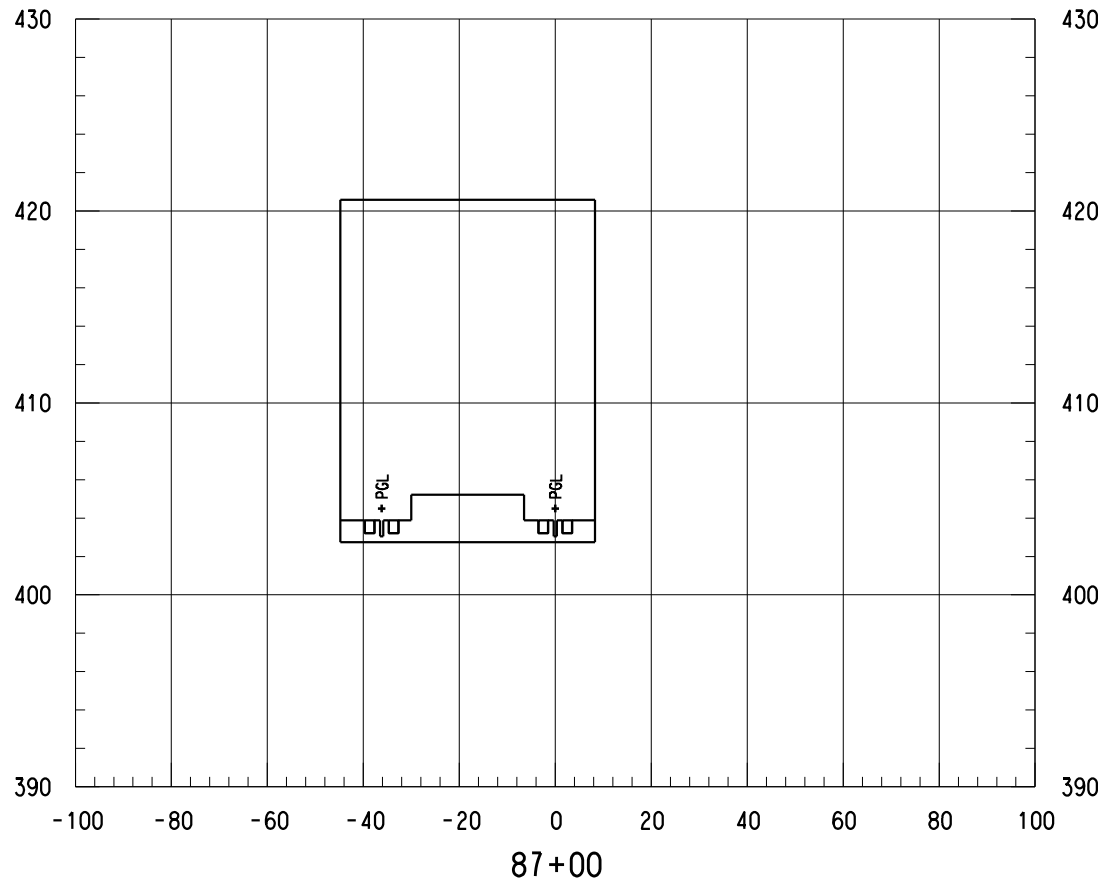
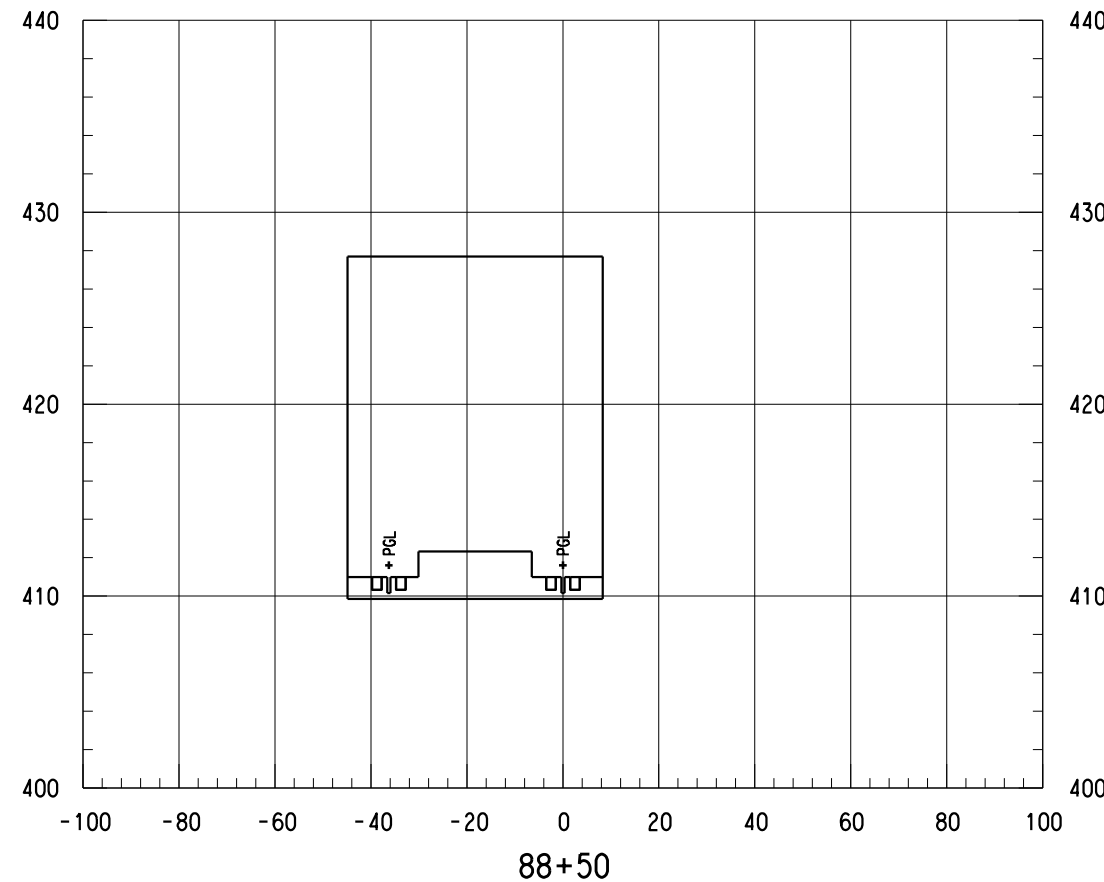
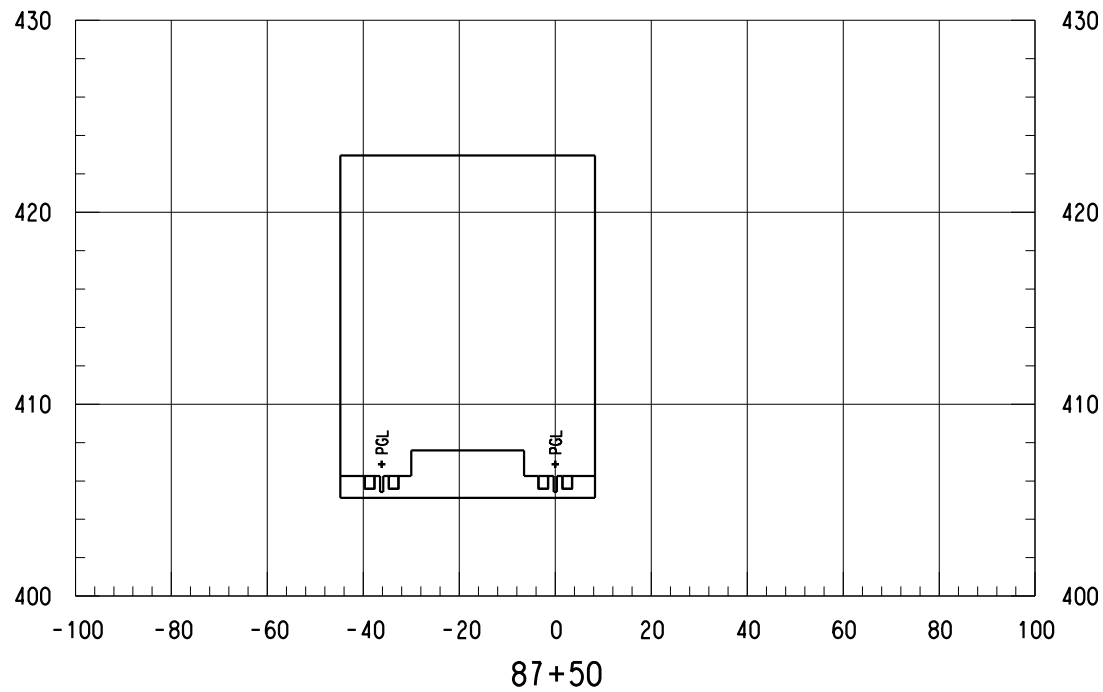
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No.	CCB-0047	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:57:54 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE





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 20% DESIGN

CONTRACT SHEET No. 111 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 CBD-2  
 GUIDEWAY CROSS SECTIONS  
 STA 87+00.00 TO STA 88+50.00

IN-PROGRESS  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE 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	03/06/2020

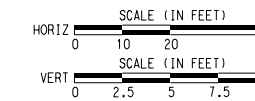
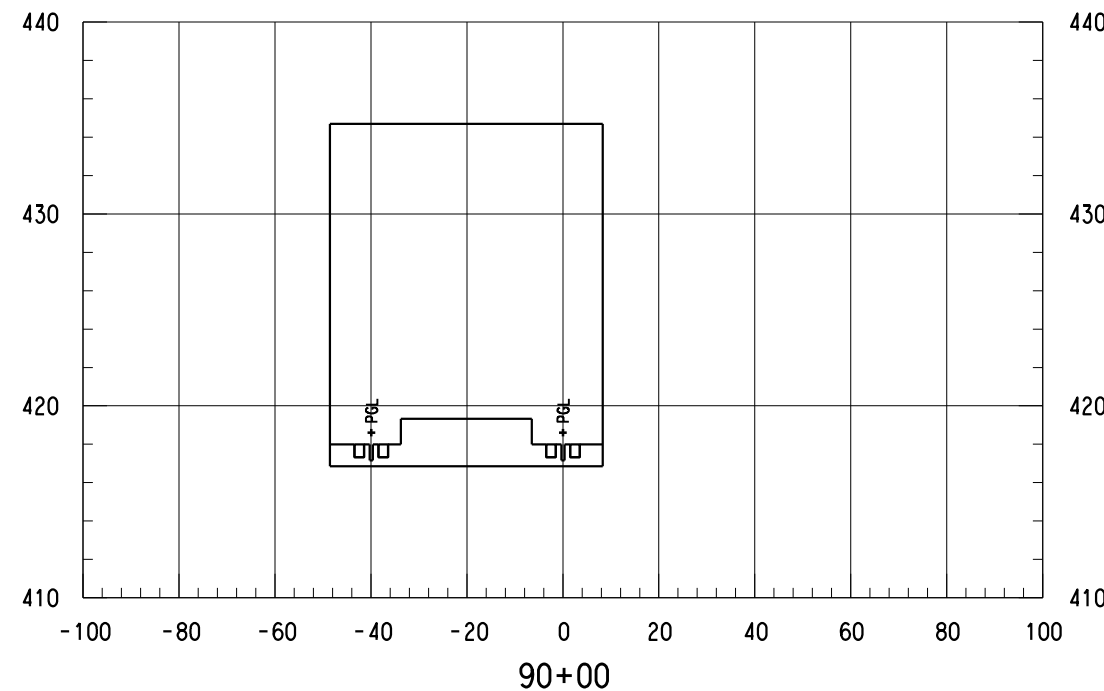
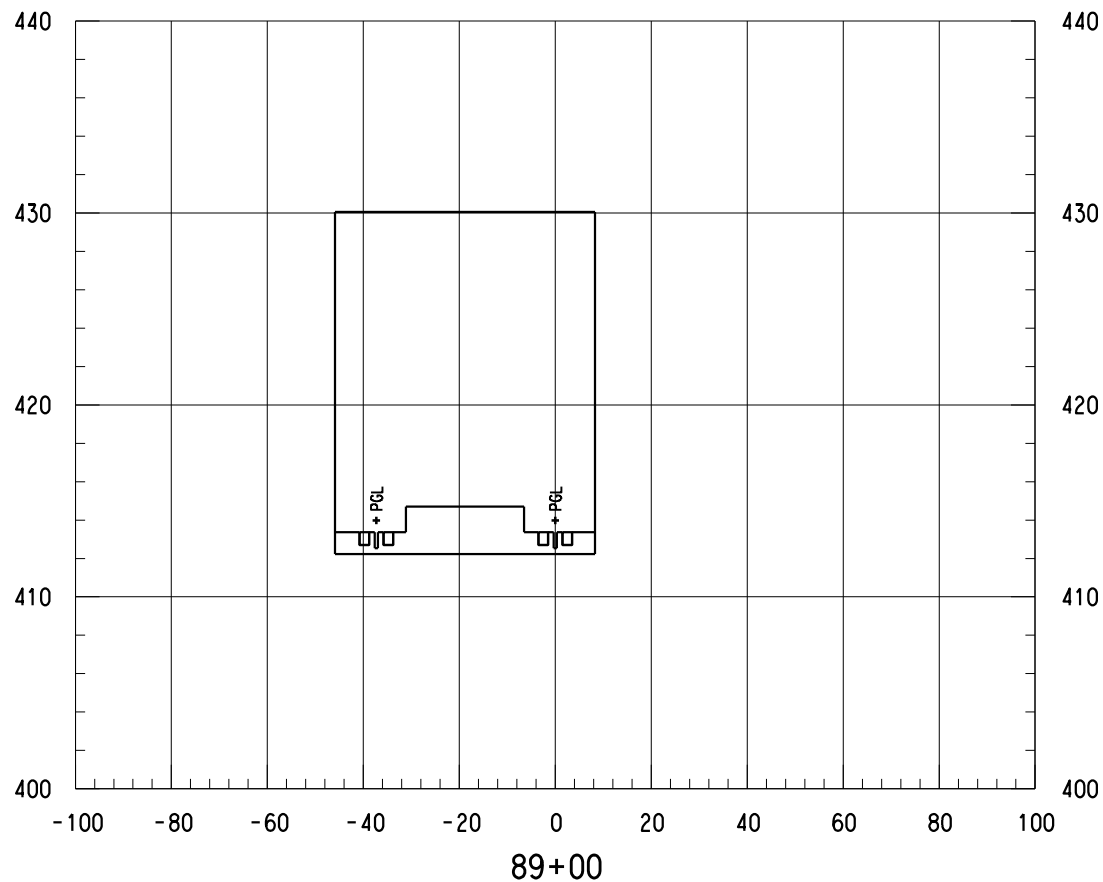
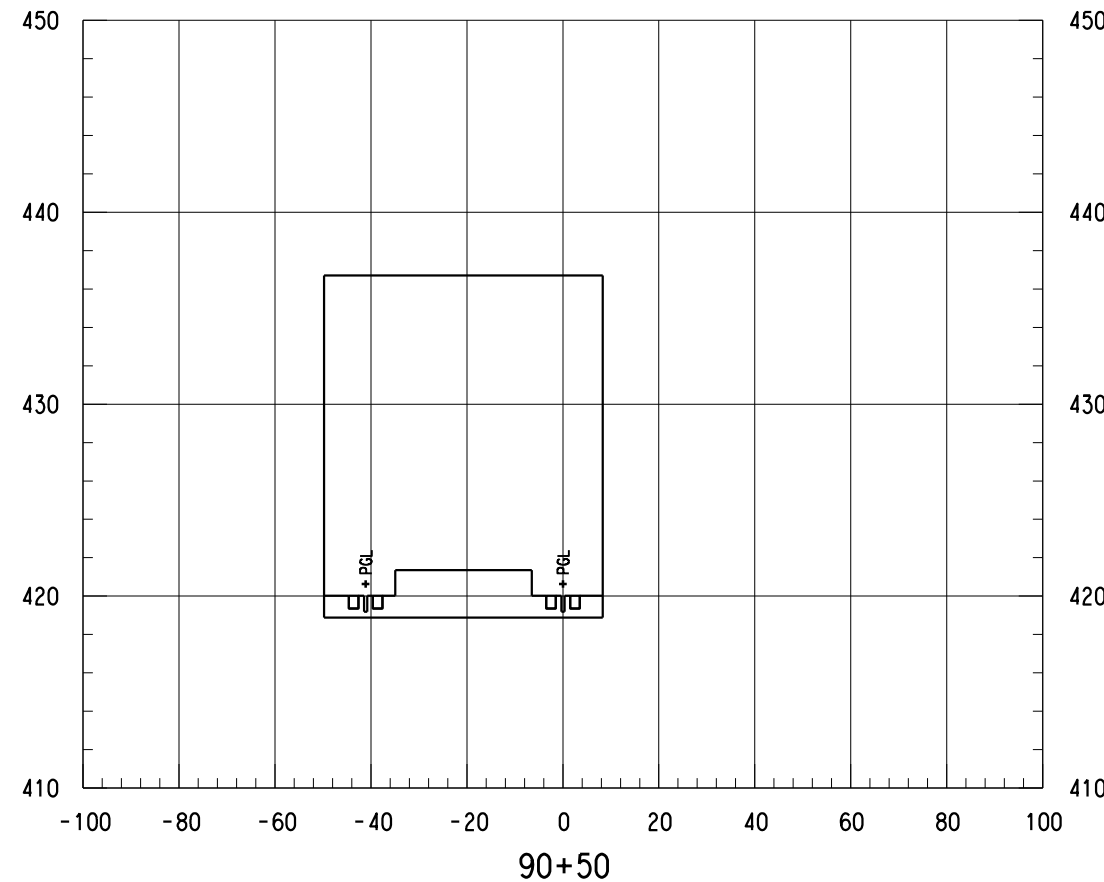
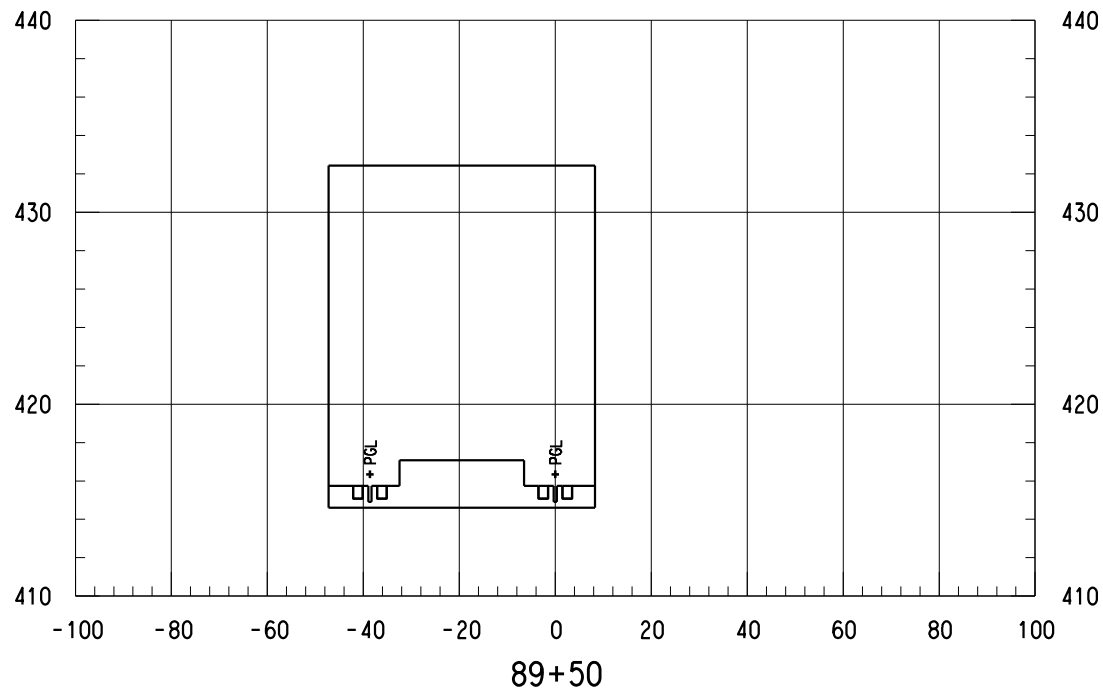


CONTRACT	DWG No. CCB-0048	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:55 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 112 OF 276

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. CCB-0049 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



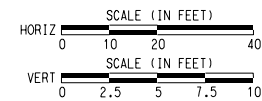
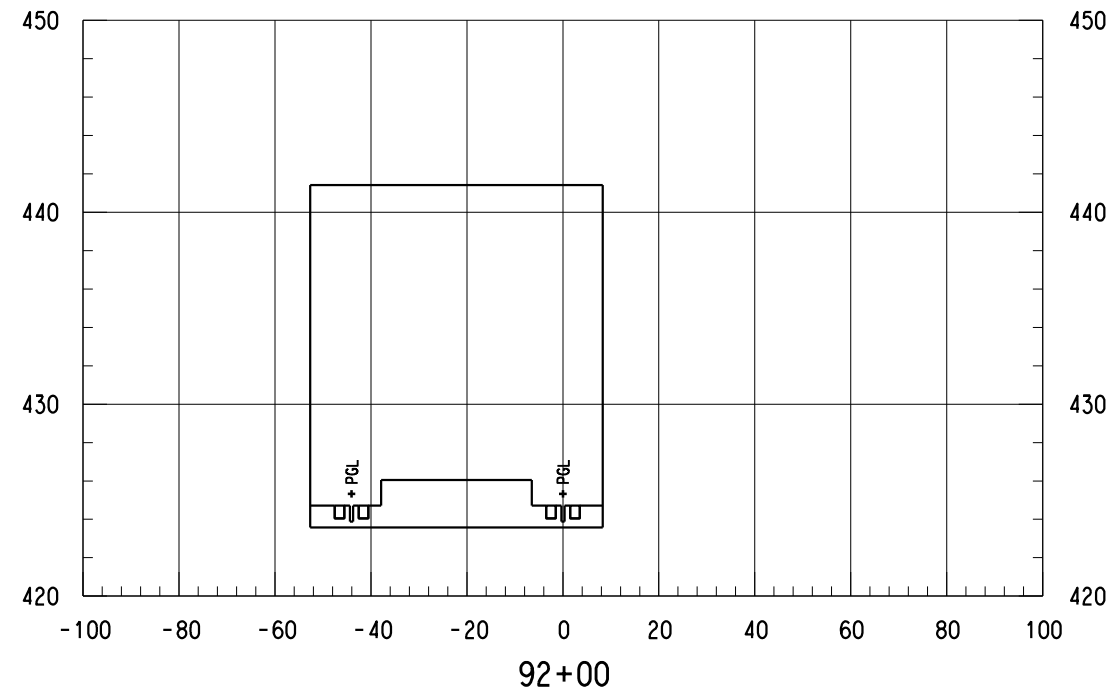
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



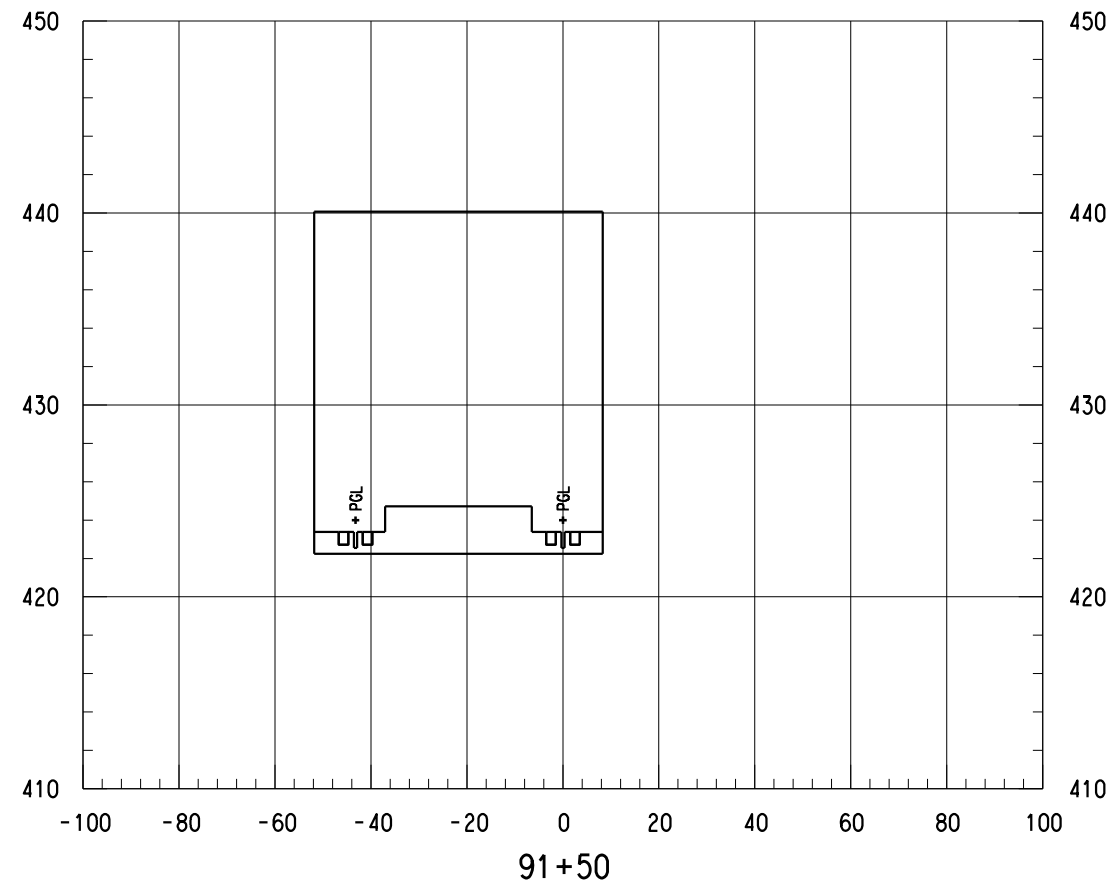
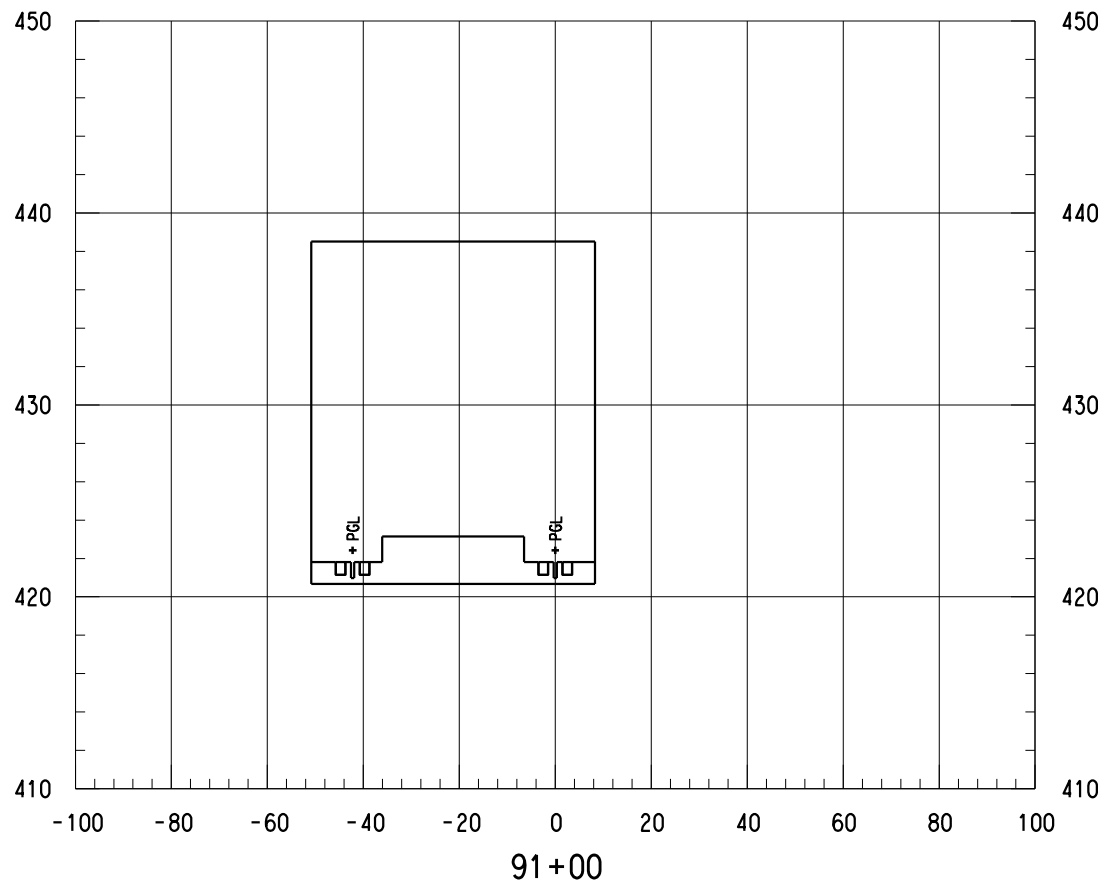
Friday, February 28, 2020 12:57:55 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 113 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

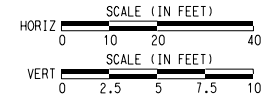
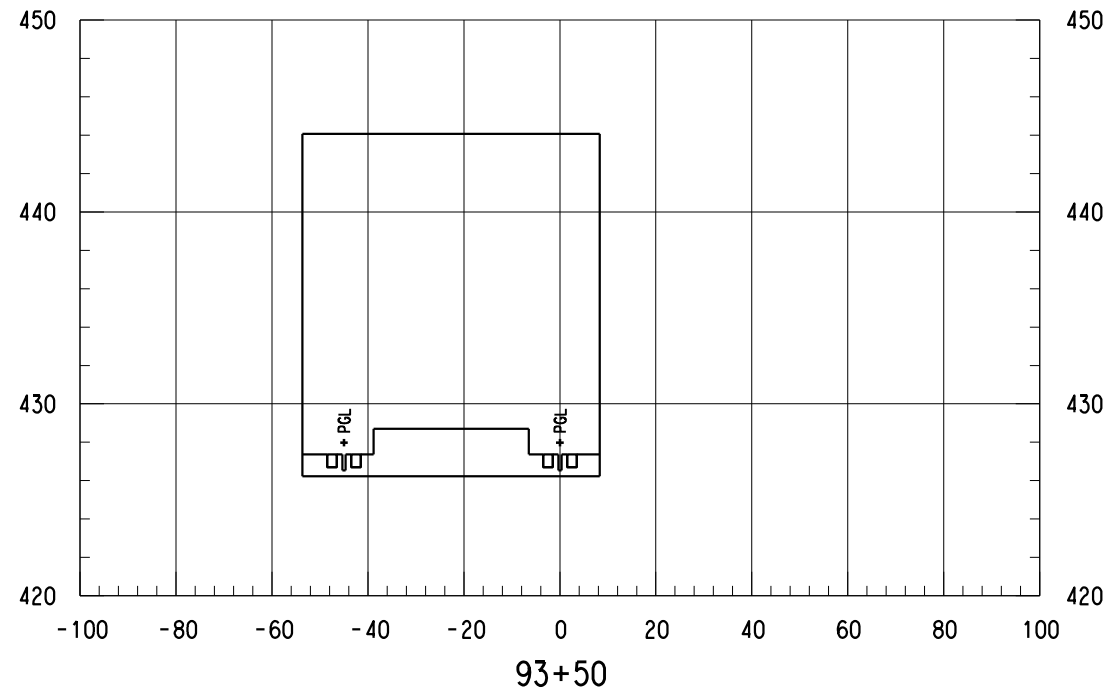
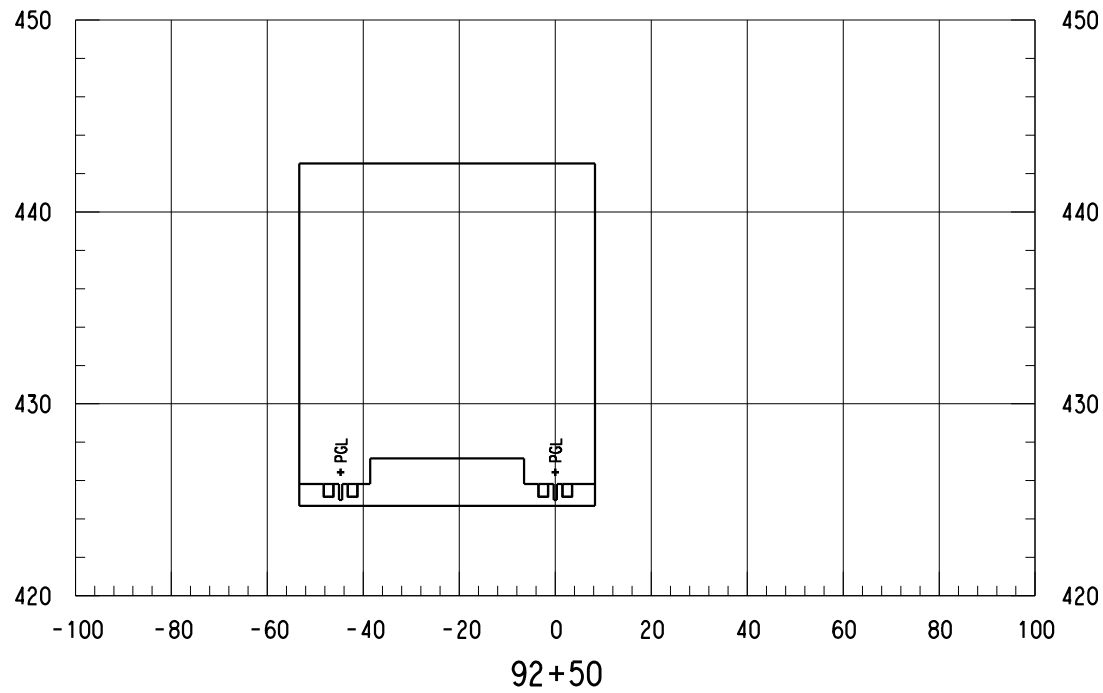
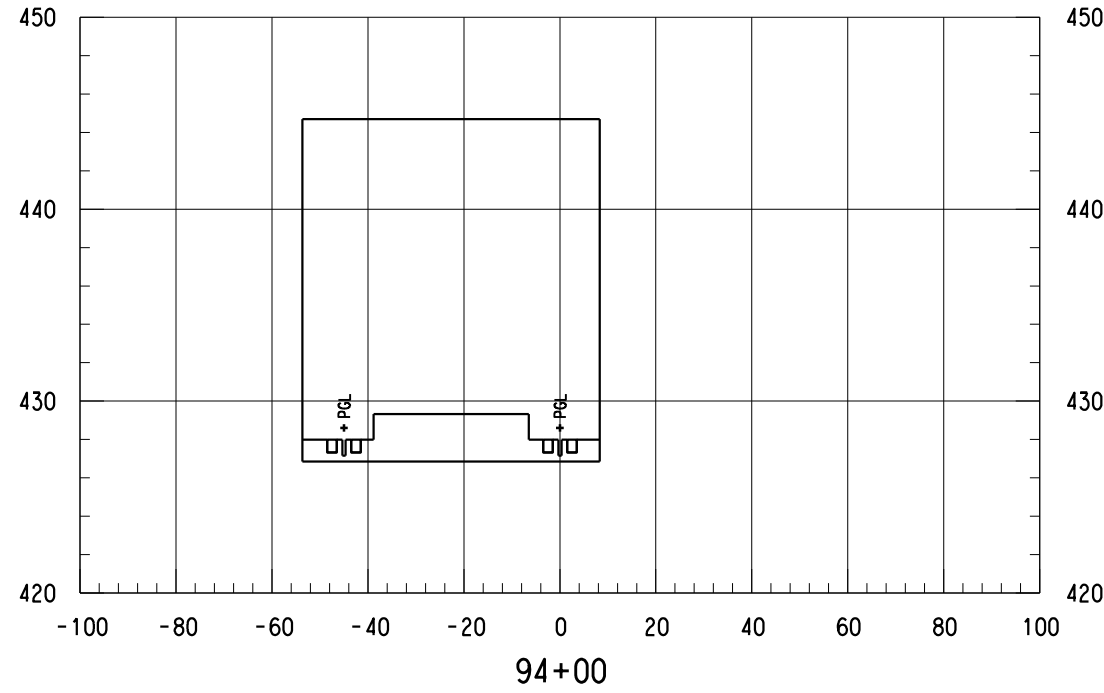
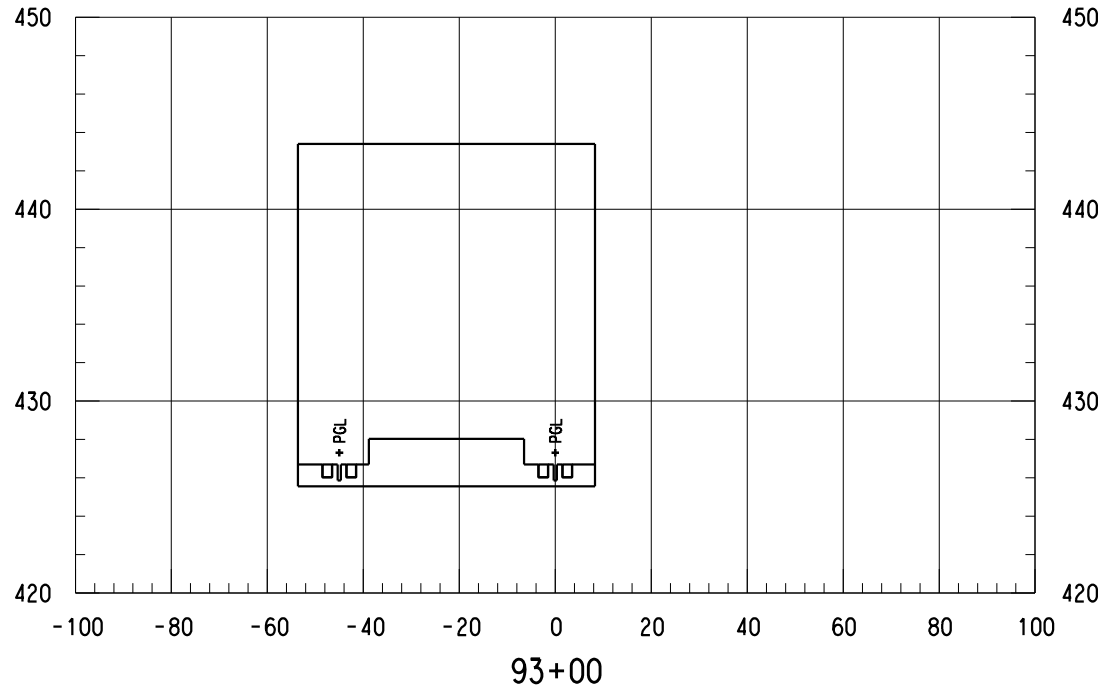


DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0050	REV
----------	------------------	-----



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

Friday, February 28, 2020 12:57:56 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

DANGLE

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 114 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

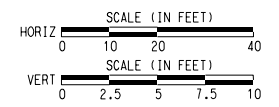
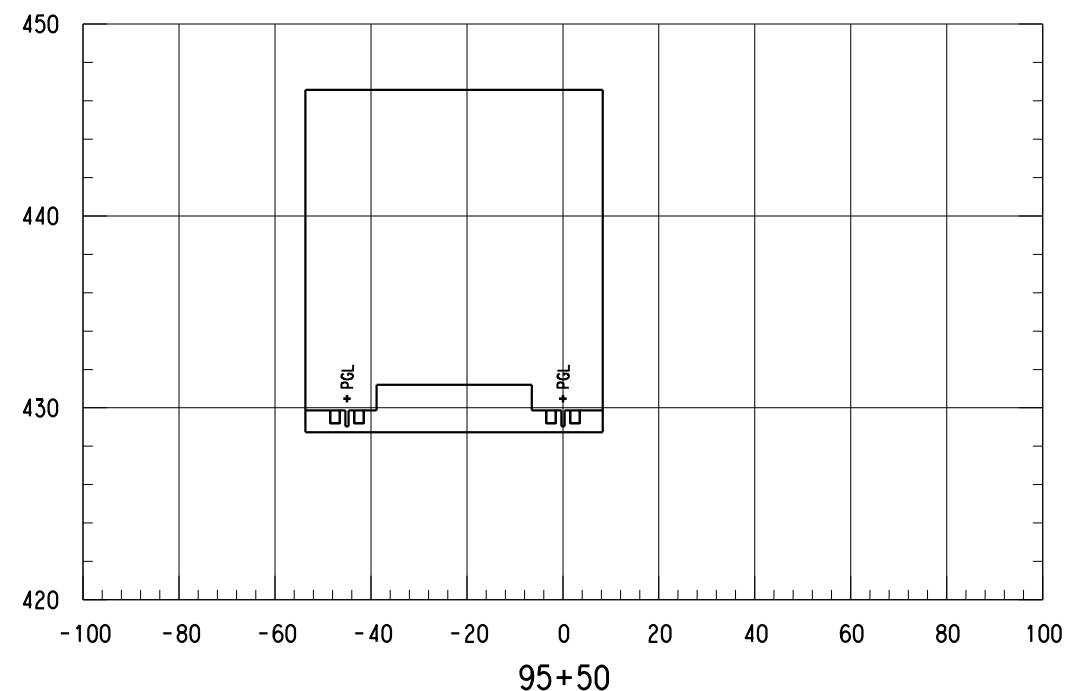
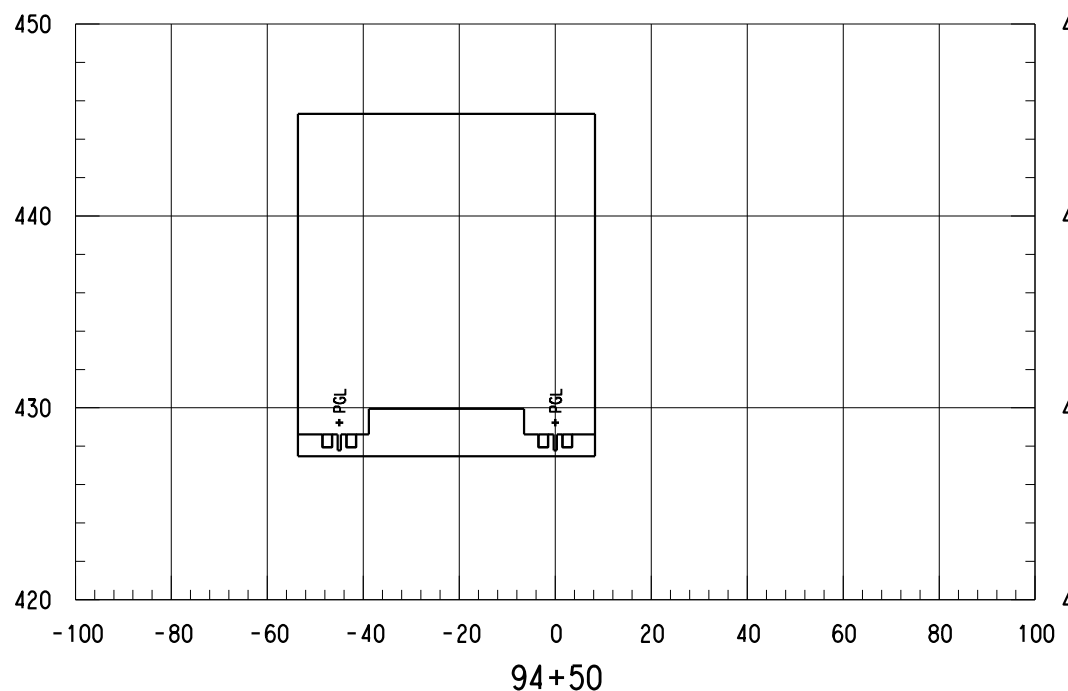
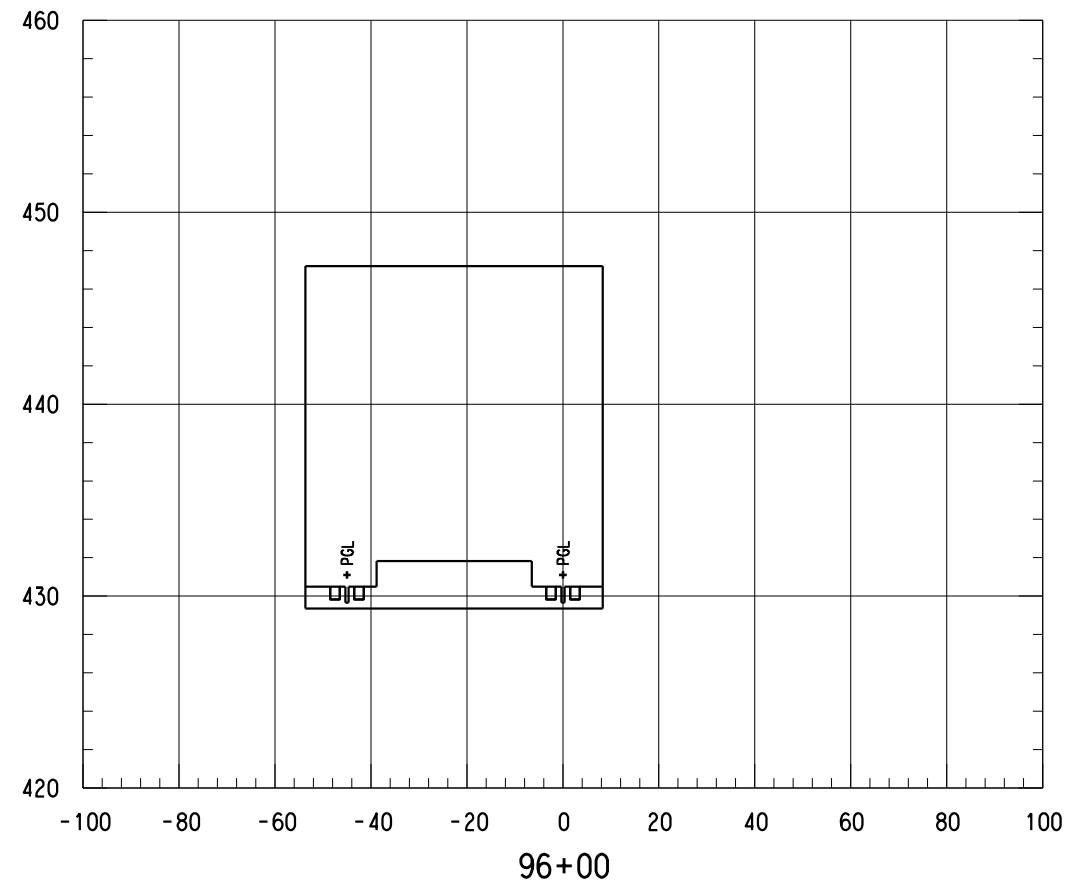
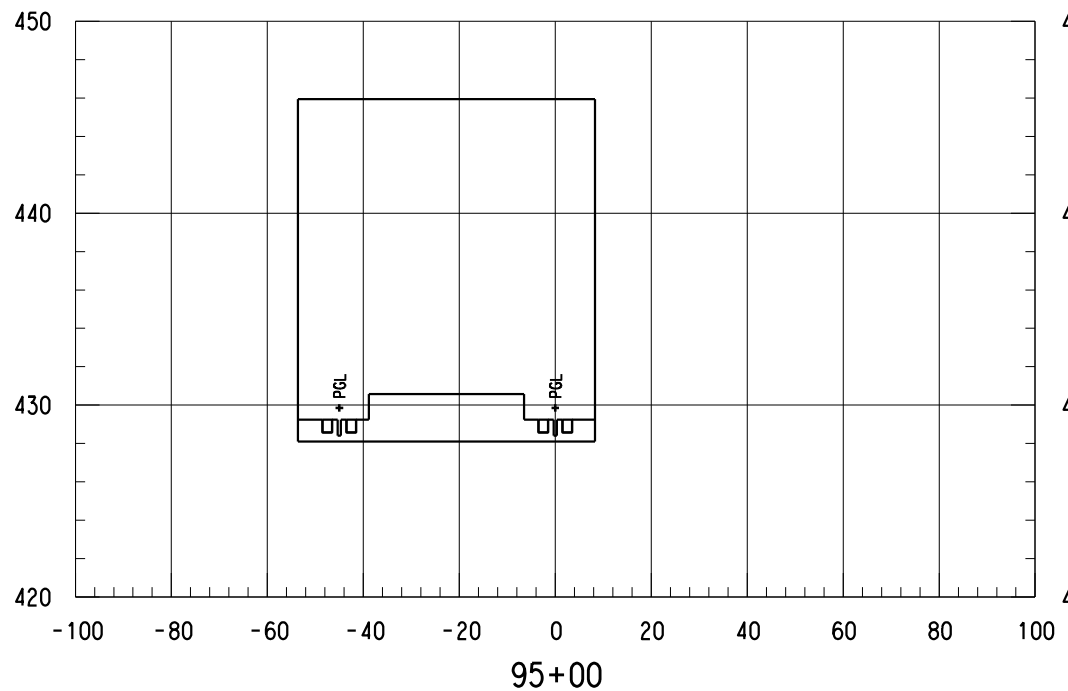
**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 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	03/06/2020

CONTRACT	DWG No. CCB-0051	REV
----------	------------------	-----



**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 20% DESIGN

CONTRACT SHEET No. 115 OF 276

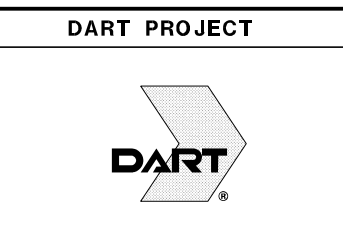
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

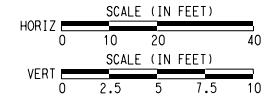


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

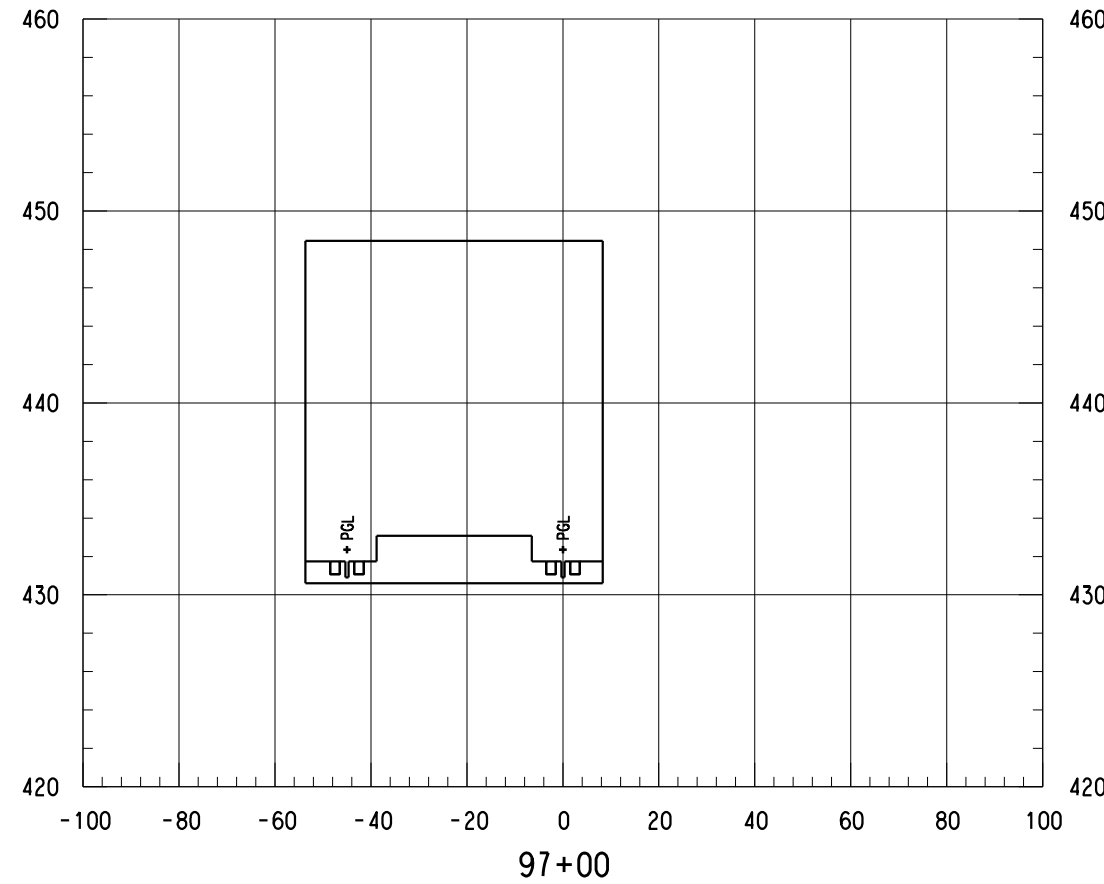
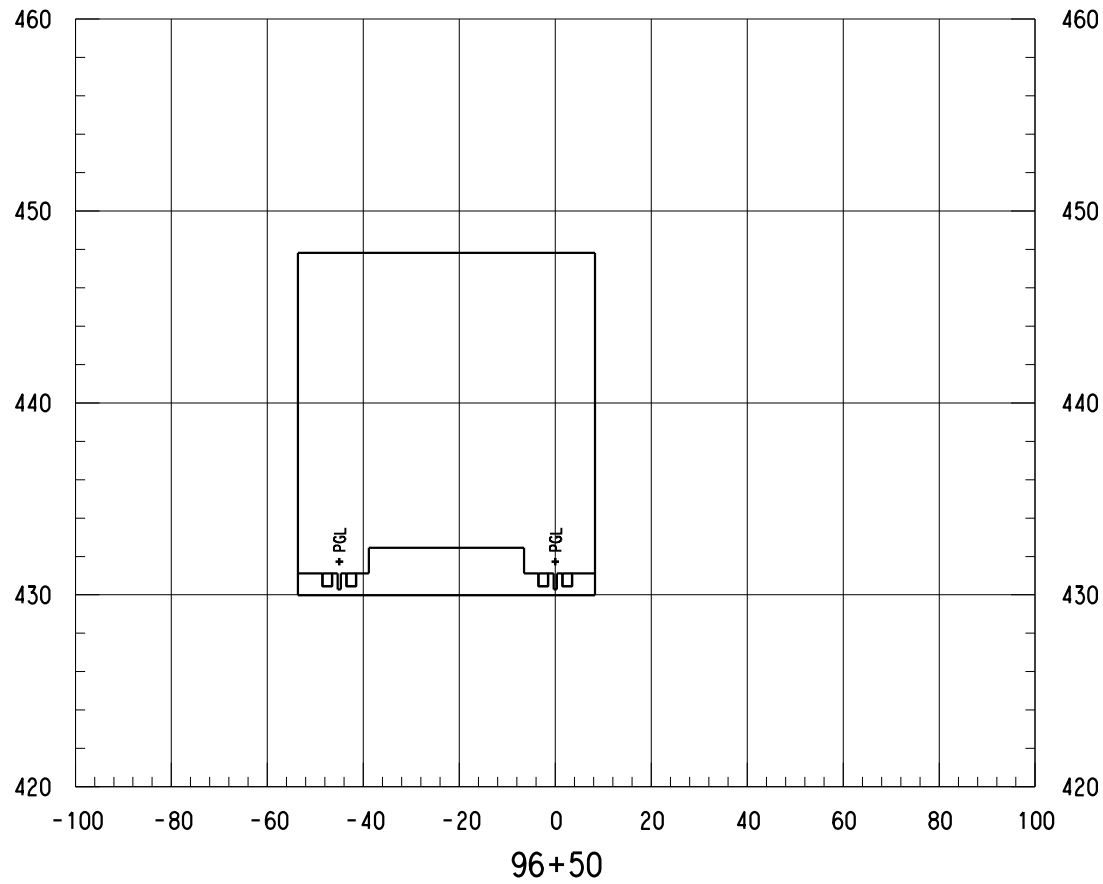
CONTRACT	DWG No. CCB-0052	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:57 PM

DANGLE



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 116 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

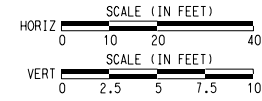


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0053	REV
----------	------------------	-----

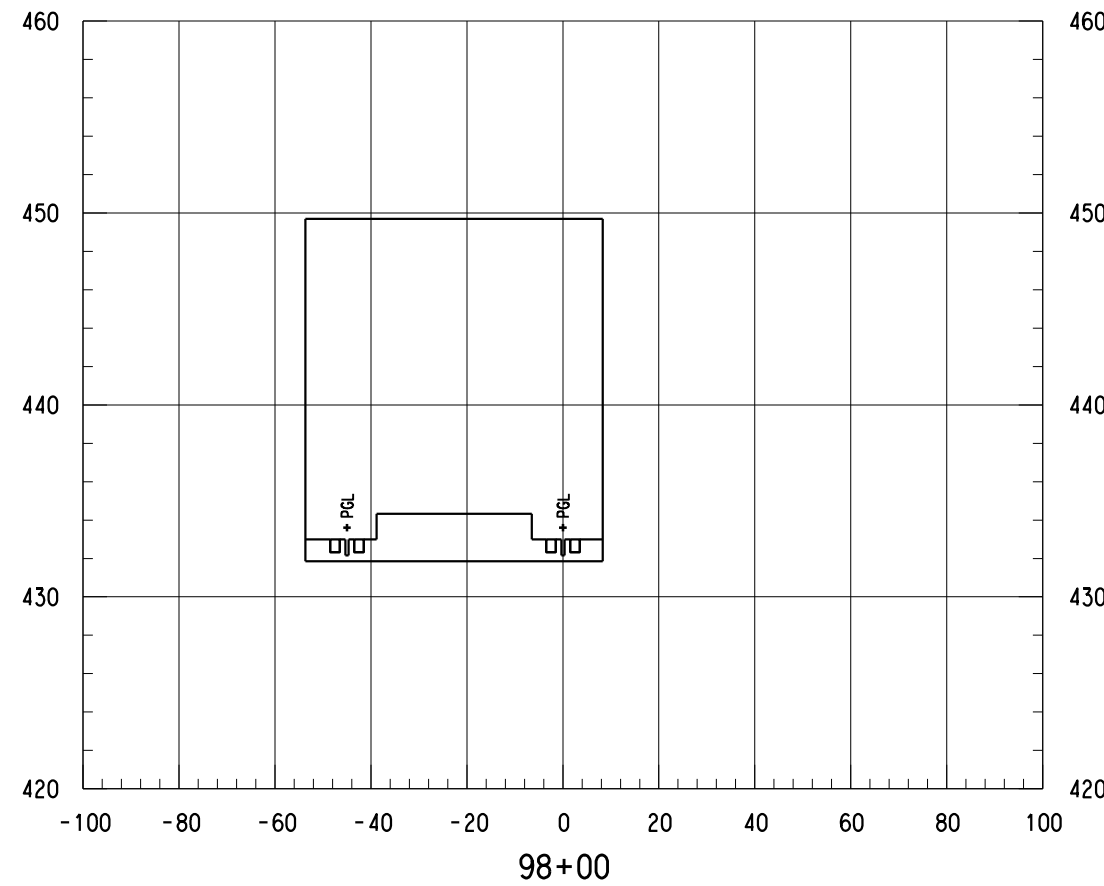
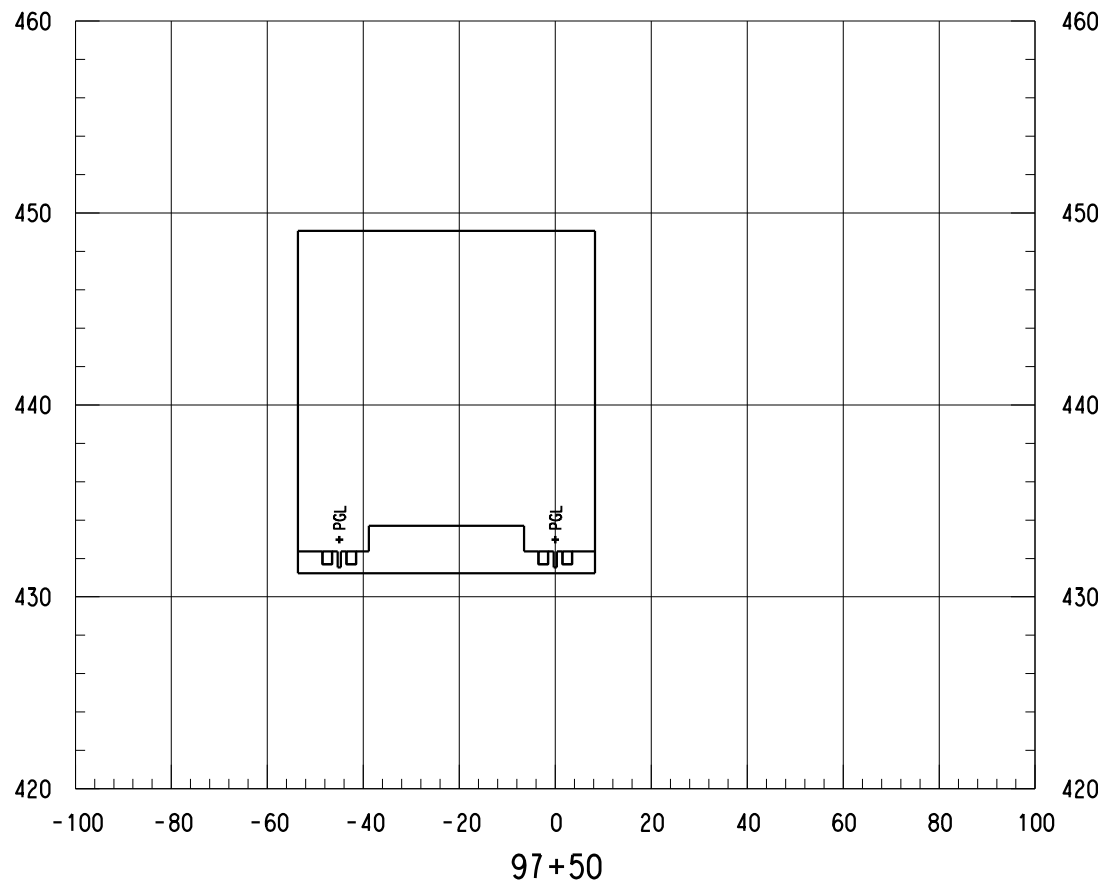
Friday, February 28, 2020 12:57:57 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 117 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

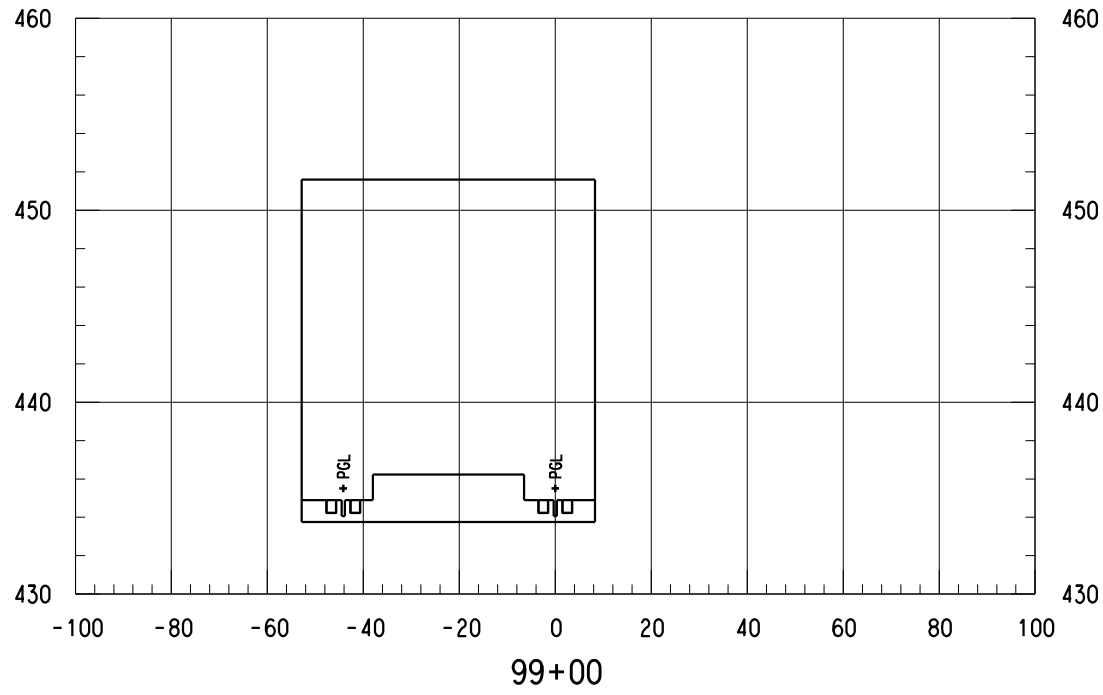


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

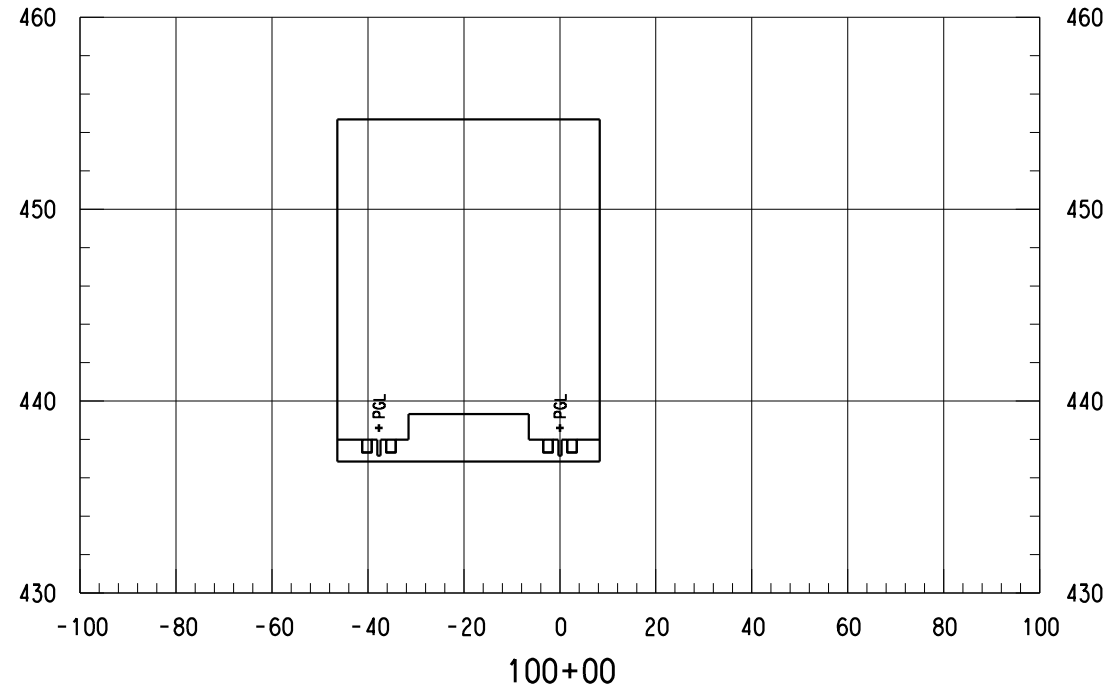
CONTRACT	DWG No. CCB-0054	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:58 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

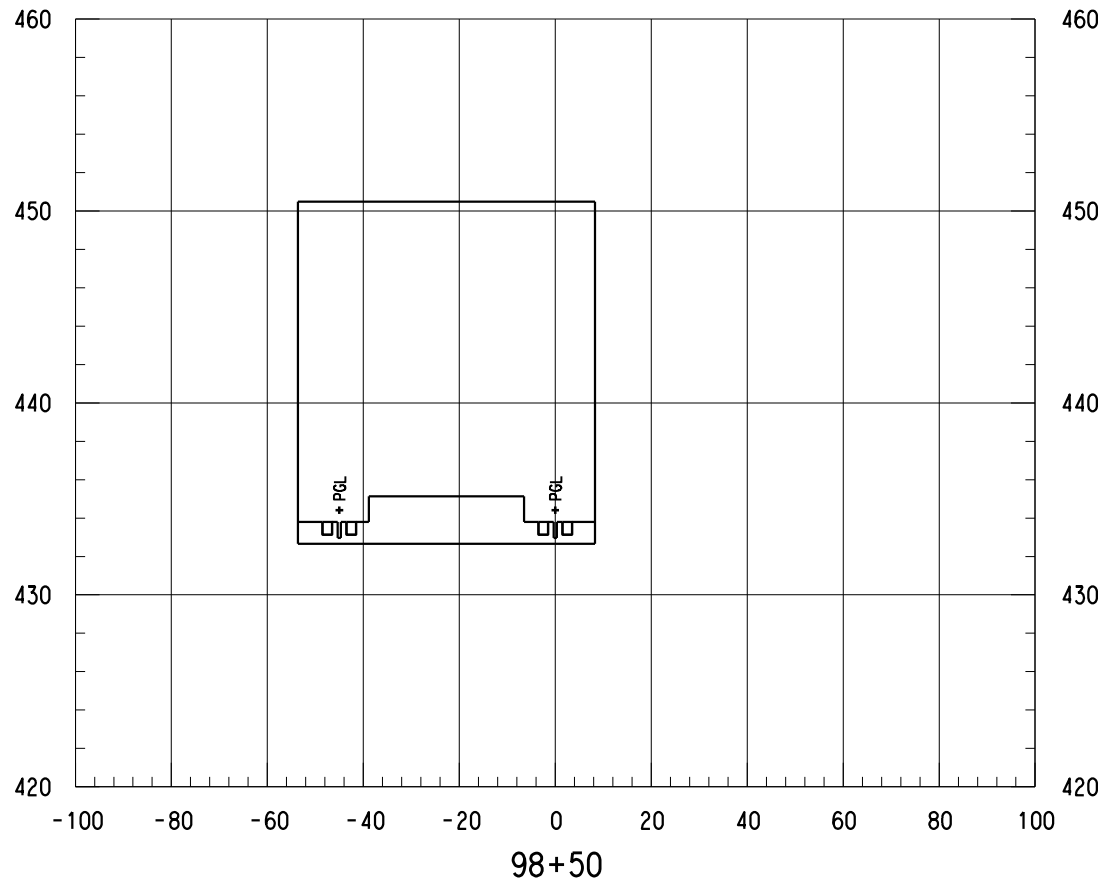
DANGLE



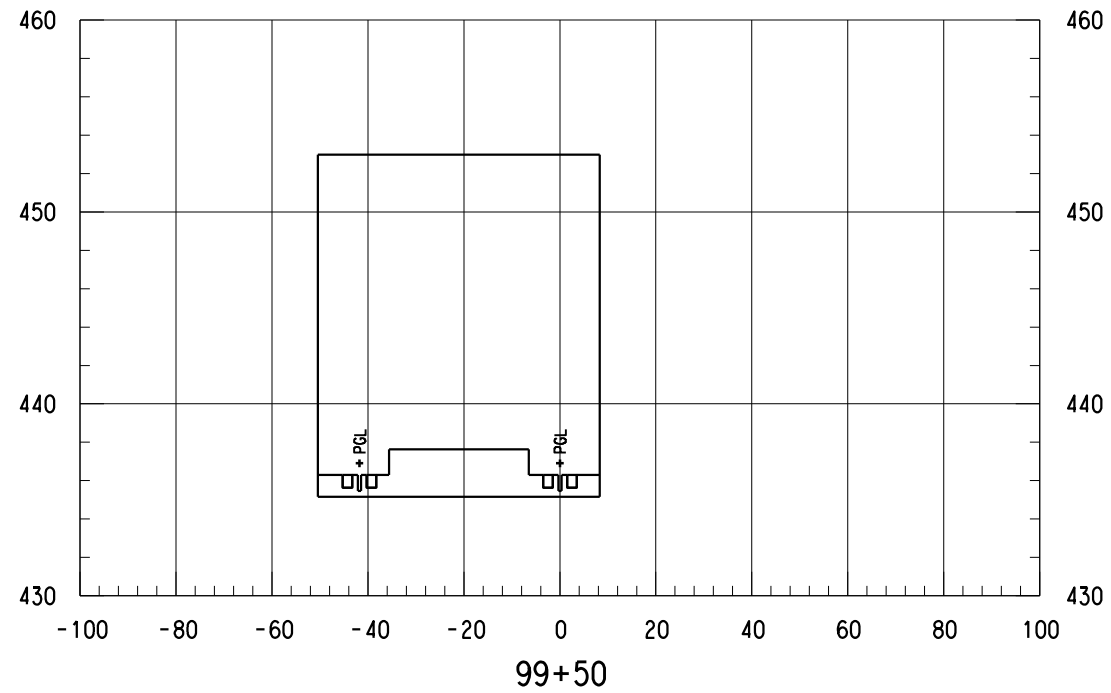
99+00



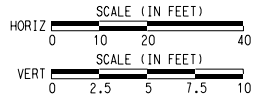
100+00



98+50



99+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 20% DESIGN

CONTRACT SHEET No. 118 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 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	03/06/2020

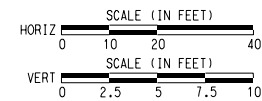
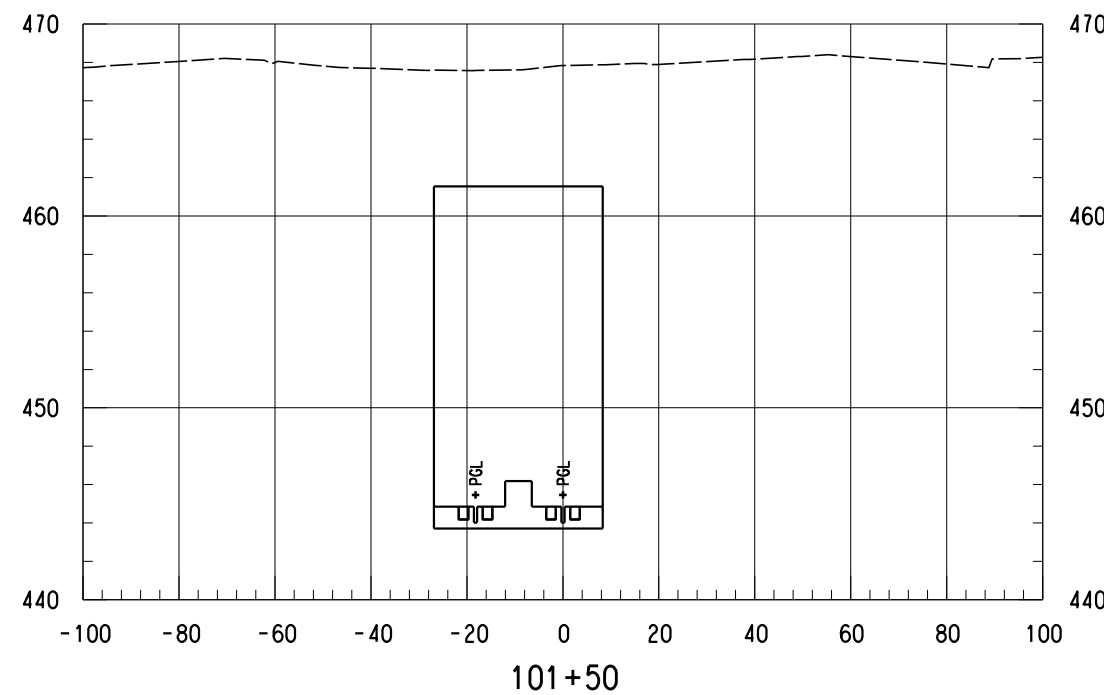
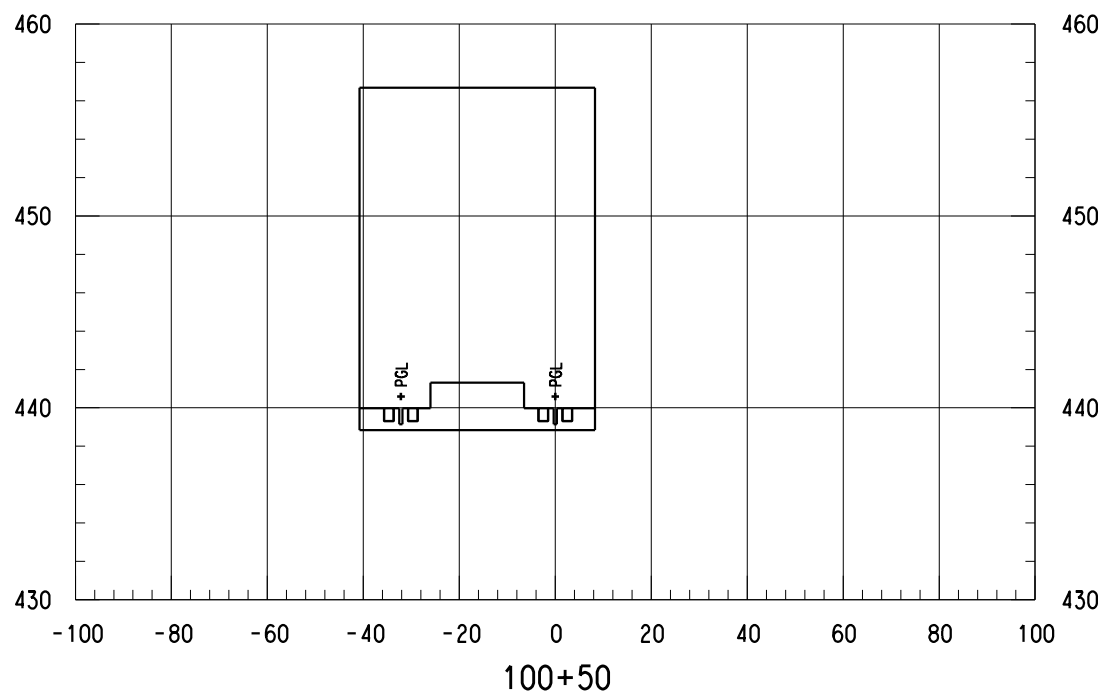
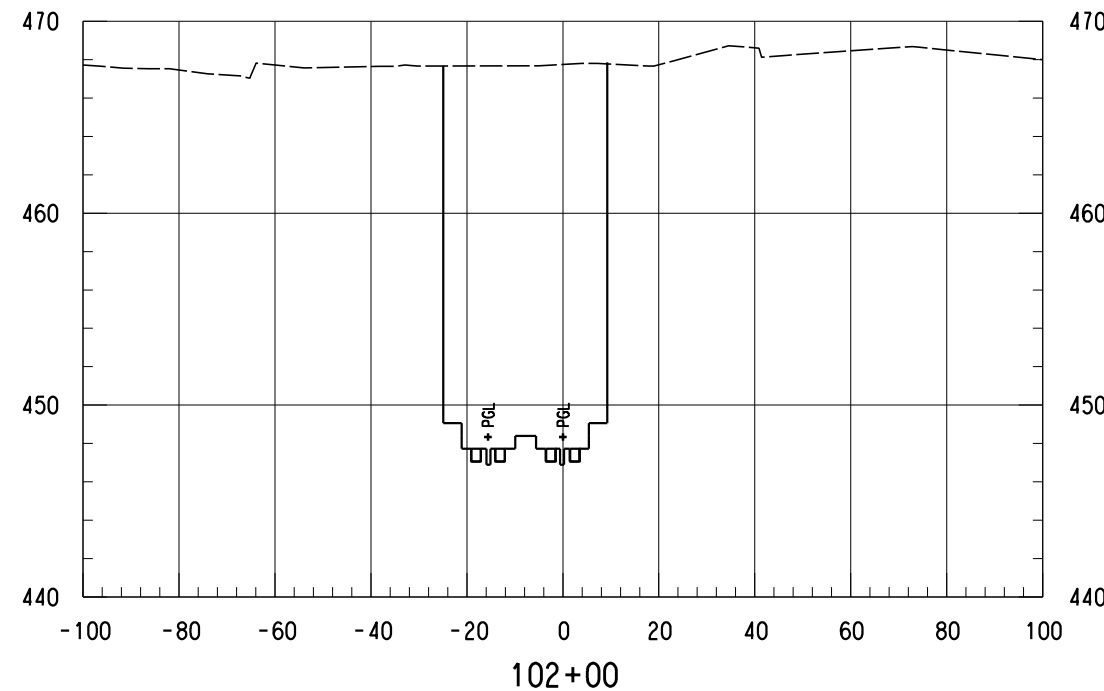
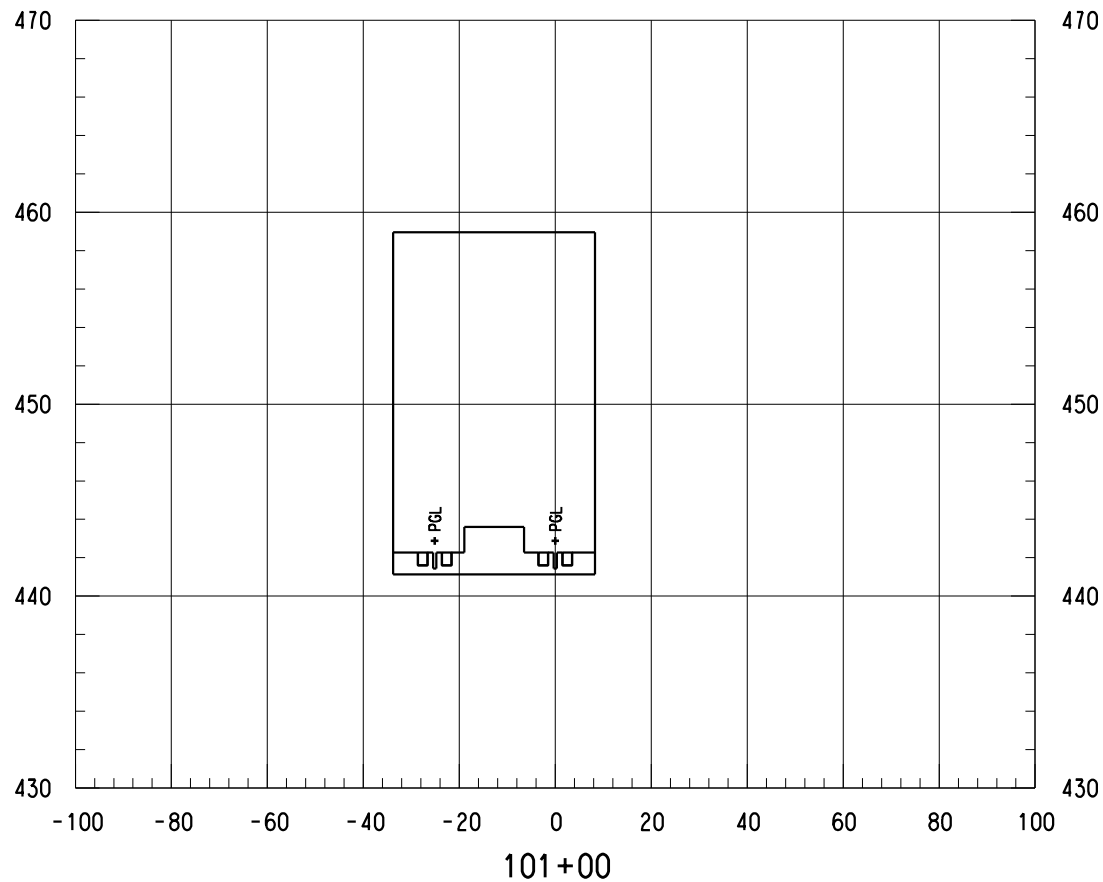


CONTRACT	DWG No. CCB-0055	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:59 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

DANGLE





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 20% DESIGN

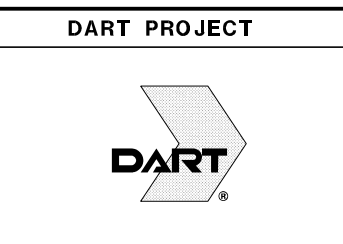
CONTRACT SHEET No. 119 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

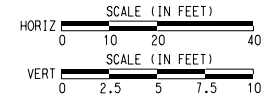
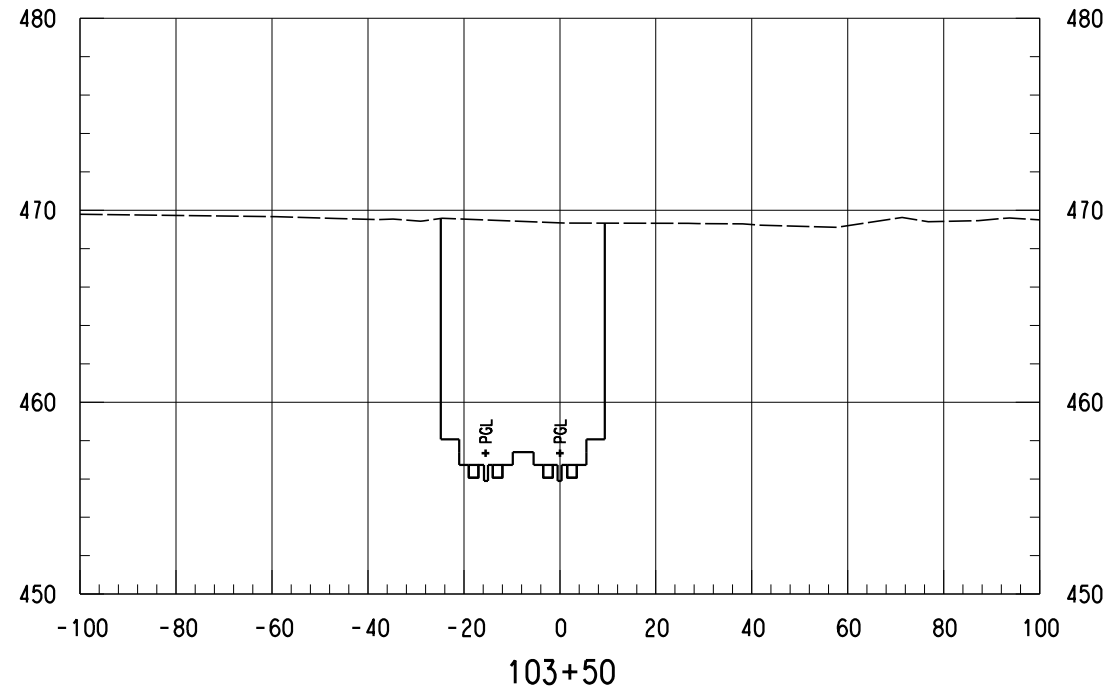


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

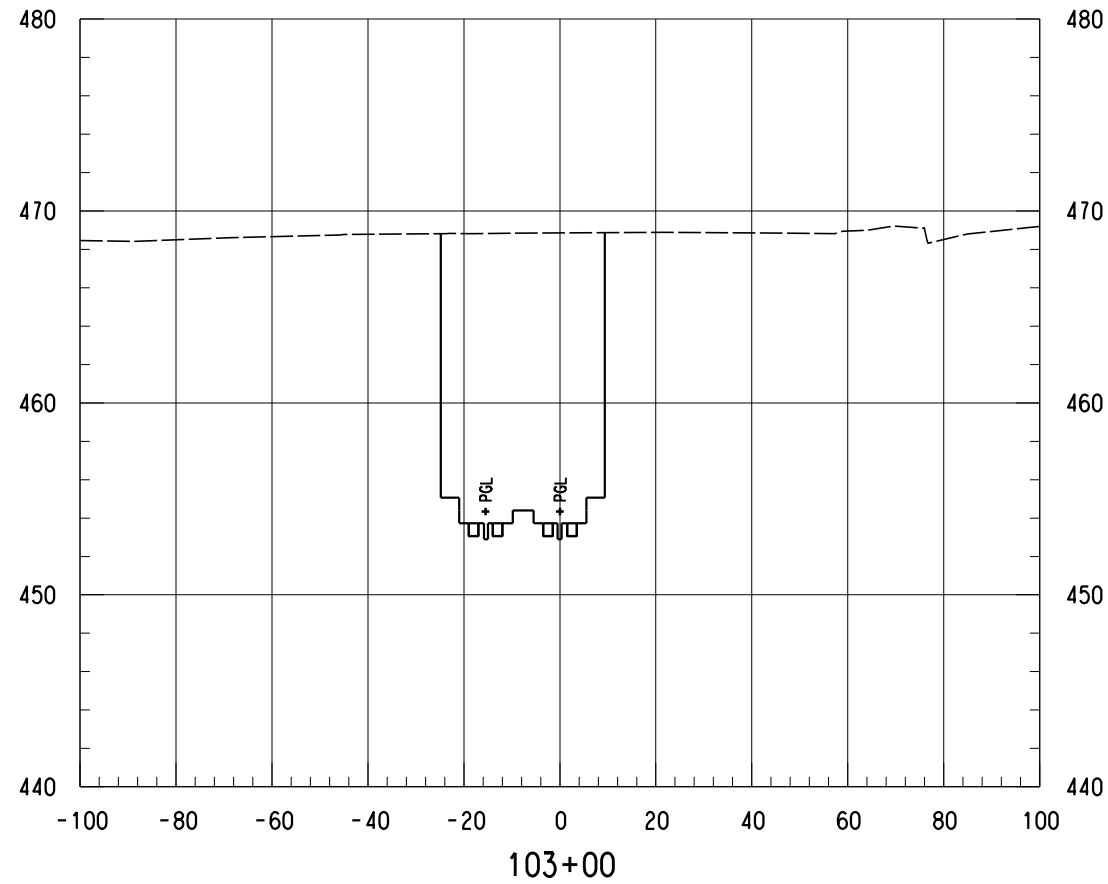
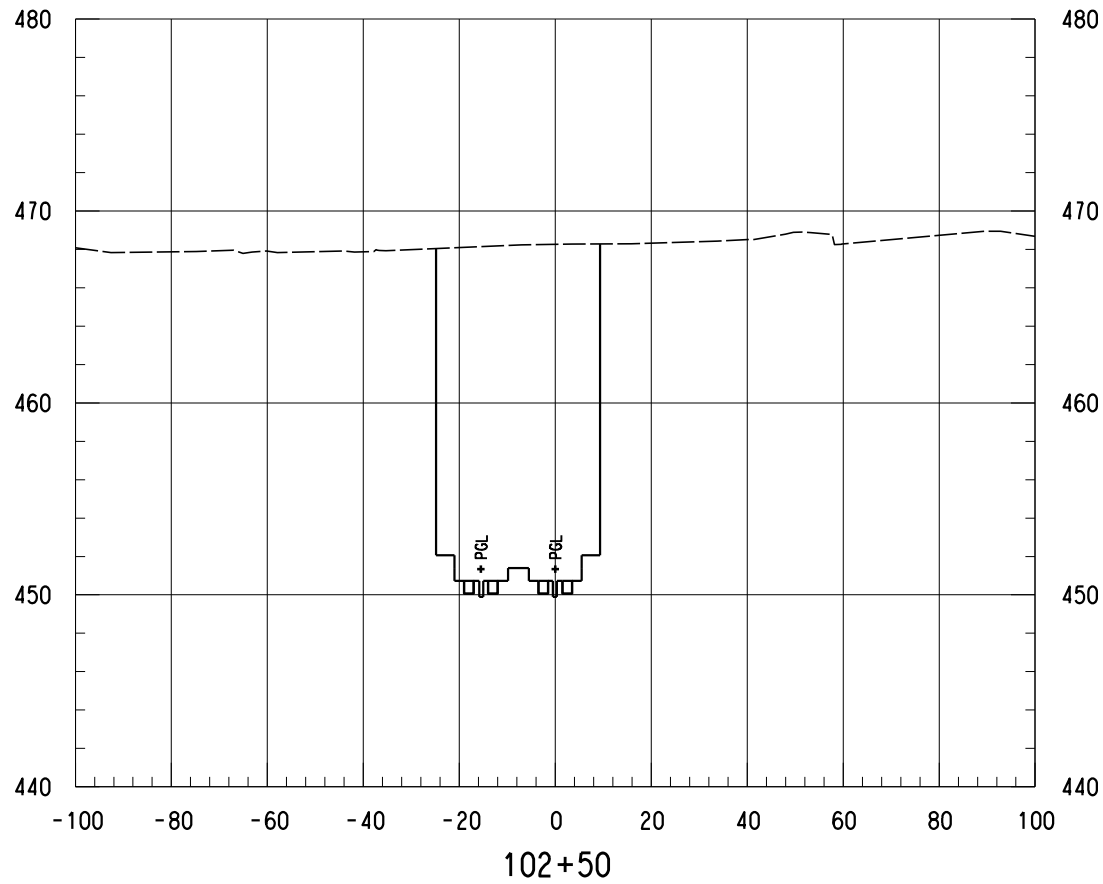
CONTRACT	DWG No. CCB-0056	REV
----------	------------------	-----

Friday, February 28, 2020 12:57:59 PM

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 120 OF 276

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. CCB-0057 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBP# FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

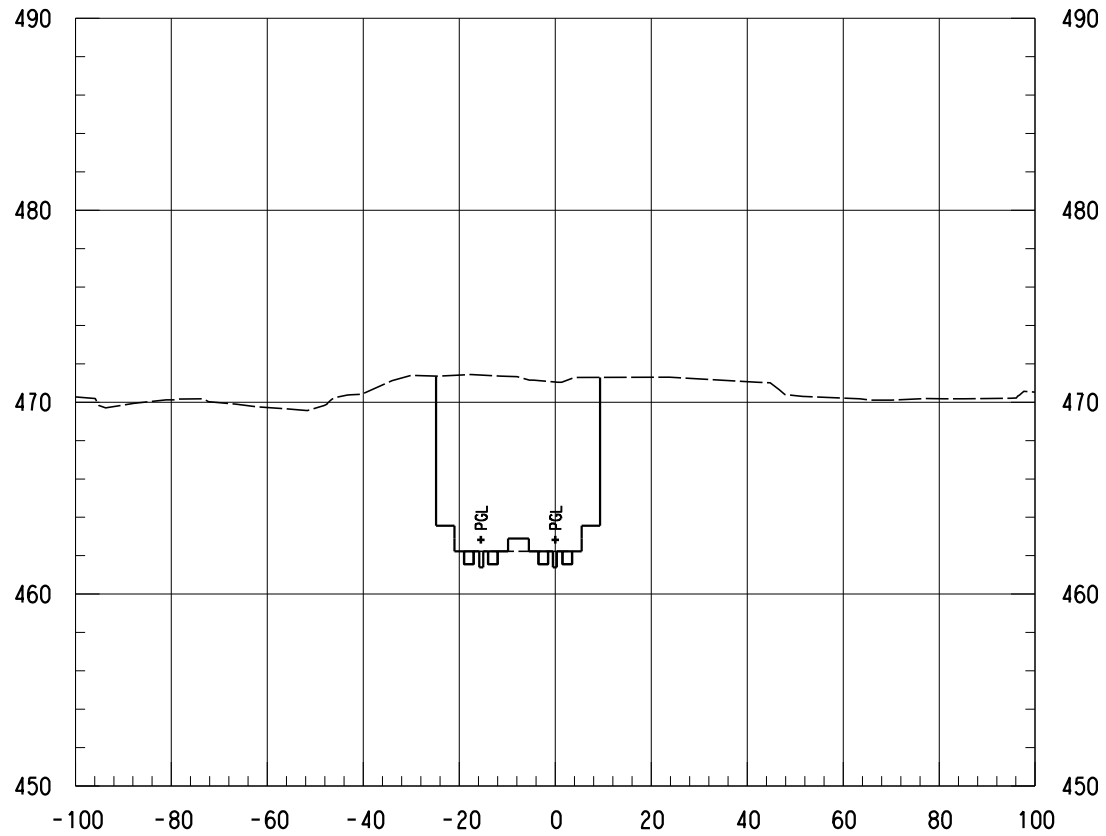


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

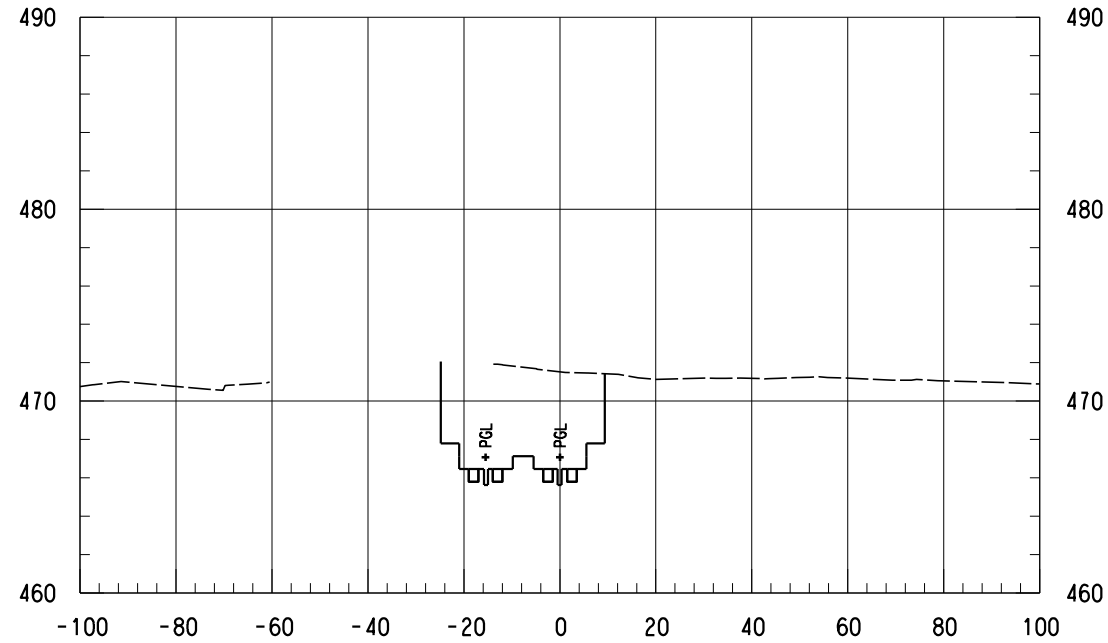
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:00 PM

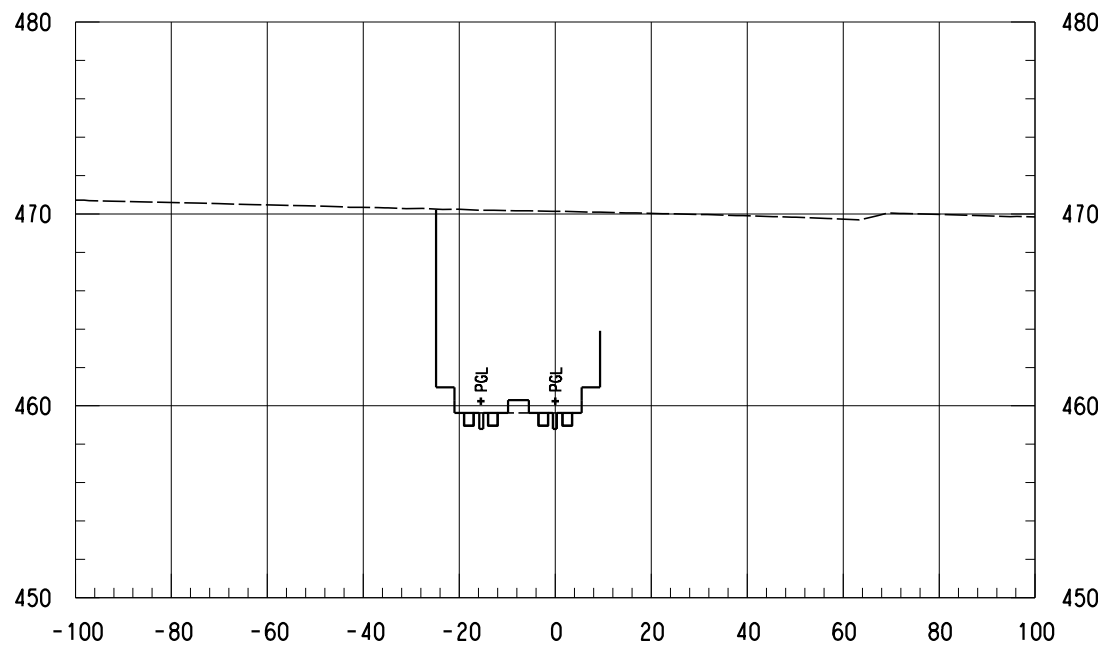
DANGLE



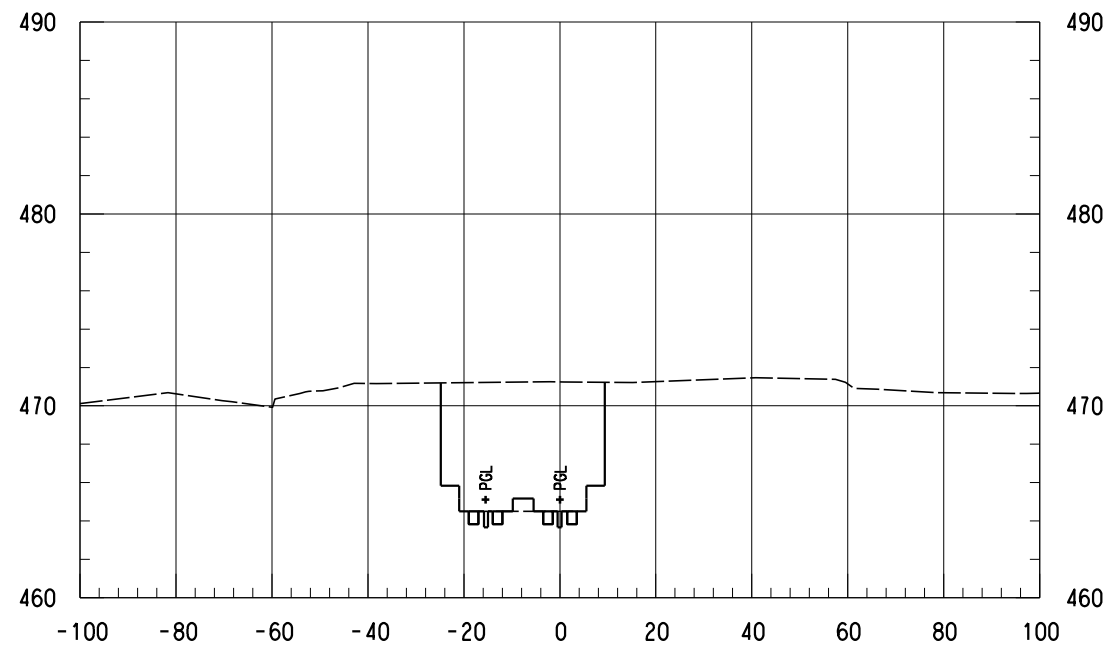
104+50



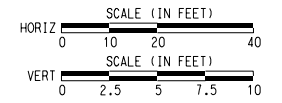
105+50



104+00



105+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 20% DESIGN

CONTRACT SHEET No. 121 OF 276

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. CCB-0058 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020 HDR ENGINEERING, INC. TYPE FIRM NO. F-754 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

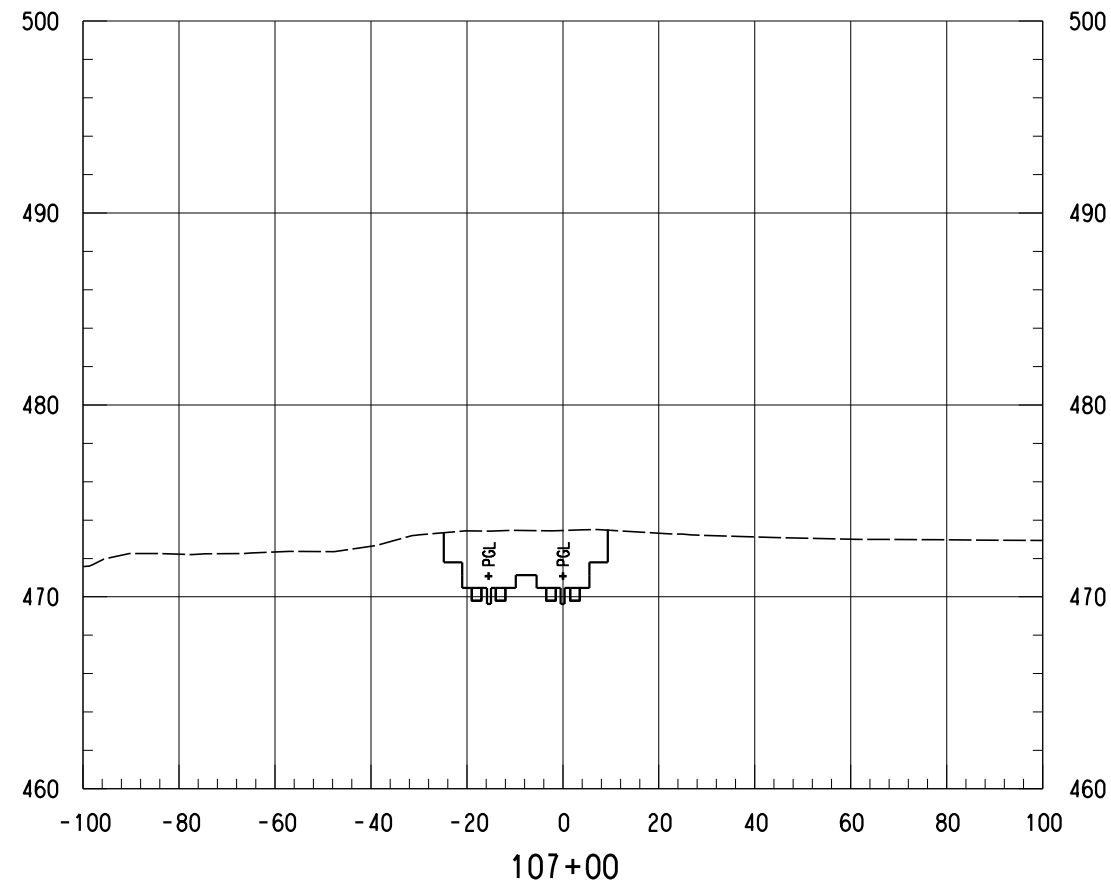
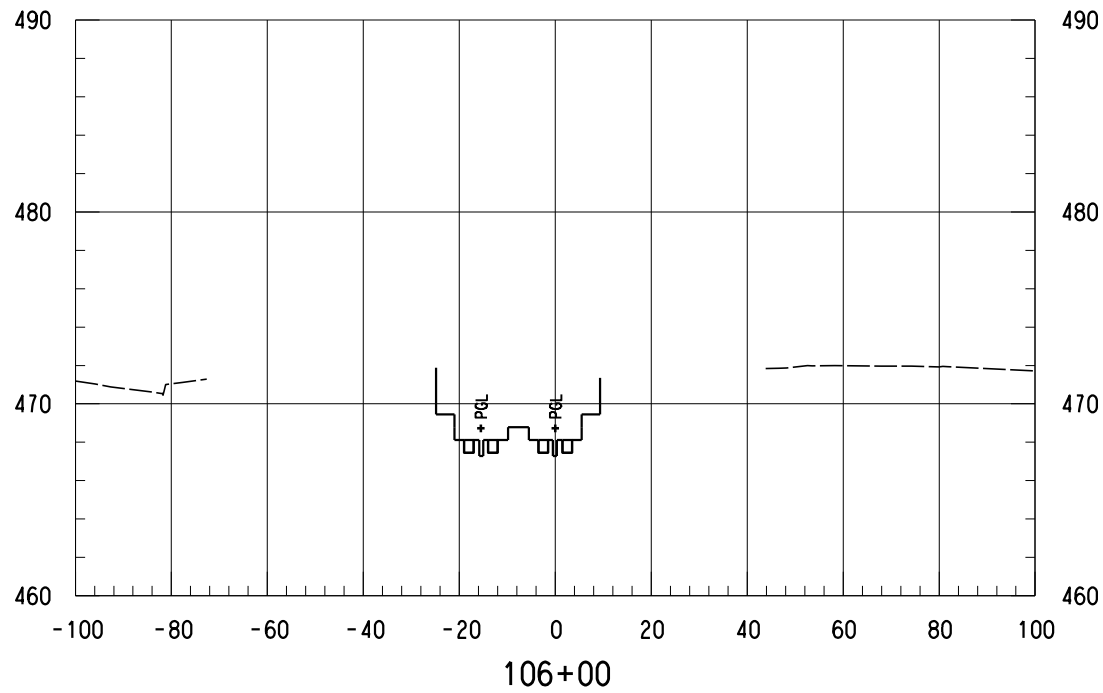
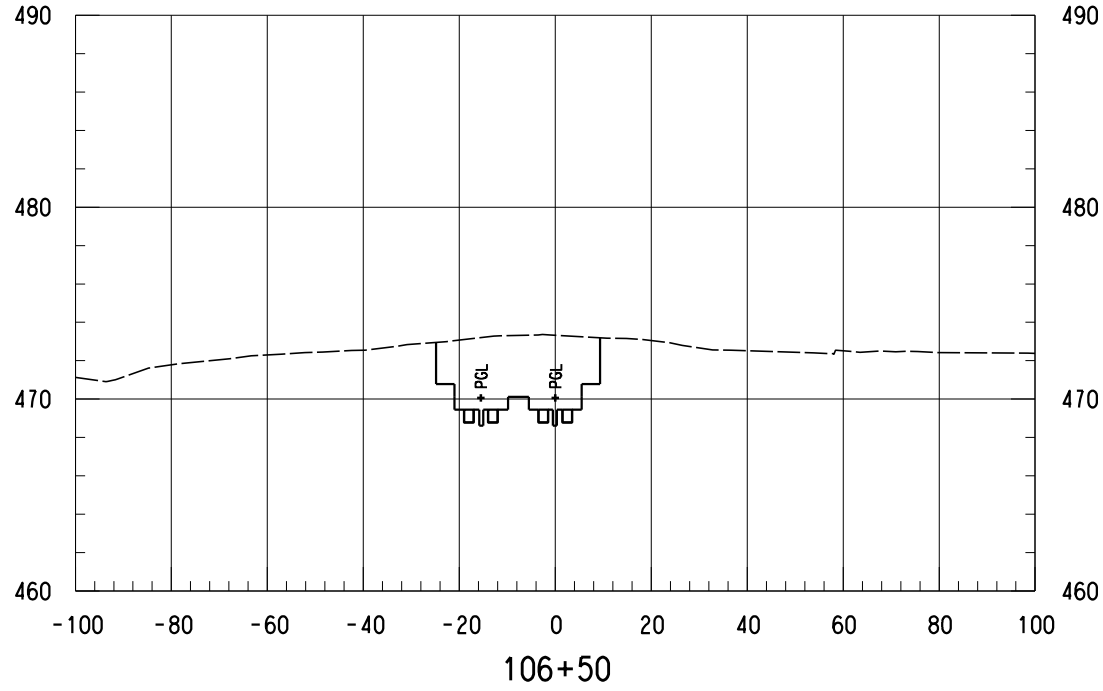
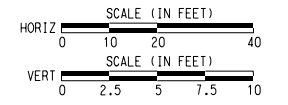


Table with columns for SCALE, DRAWN, DESIGNED, CHECKED, IN CHARGE, DATE, and logos for CAES and GPC SIX.

Revision table with columns: REV, AMEND, CR, DATE, DESCRIPTION, BY, ENG, CHK, APP.

Friday, February 28, 2020 12:58:01 PM

DANGLE



**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 20% DESIGN

CONTRACT SHEET No. 122 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

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

CONTRACT No. CC8-0059

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

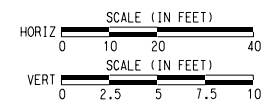
THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



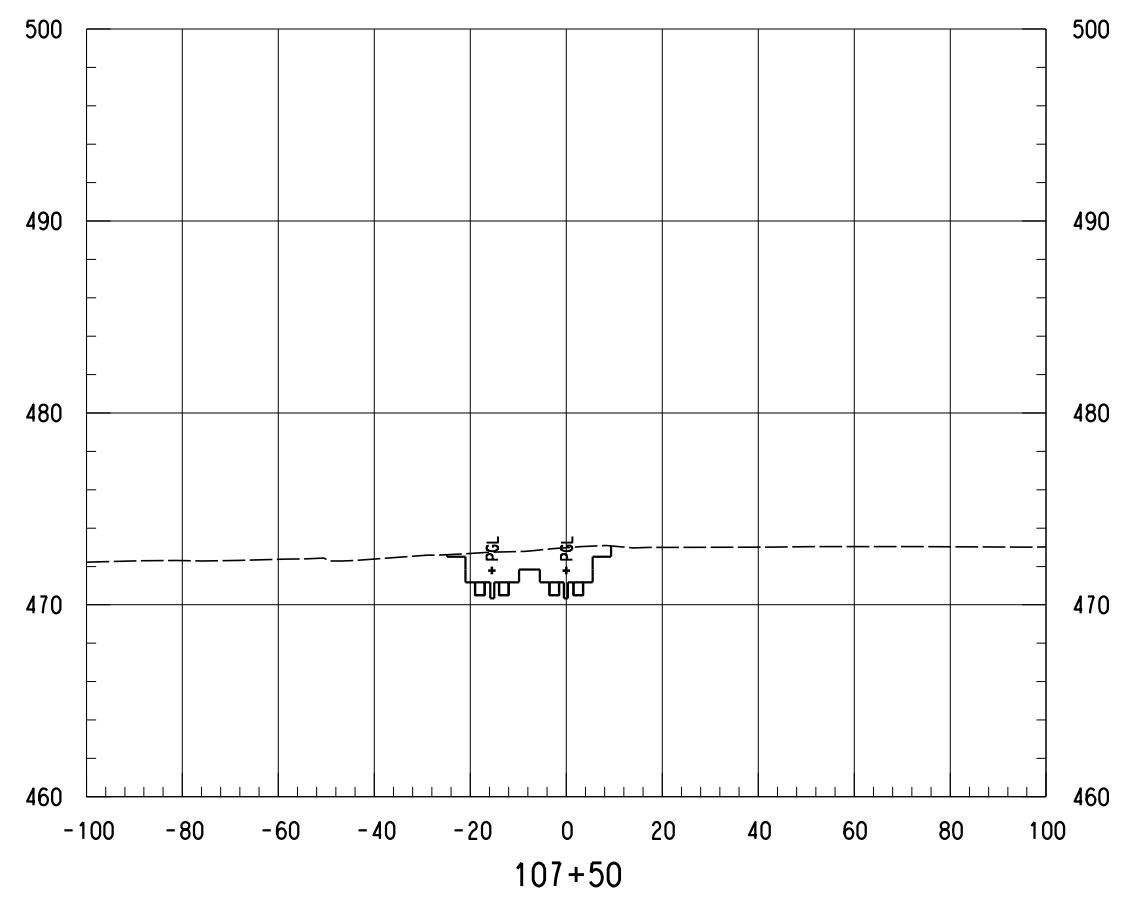
**DART PROJECT**



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



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 20% DESIGN

CONTRACT SHEET No. 123 OF 276

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 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUBLIO
DESIGNED	L. GUBLIO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

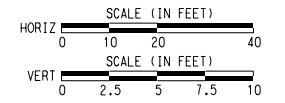
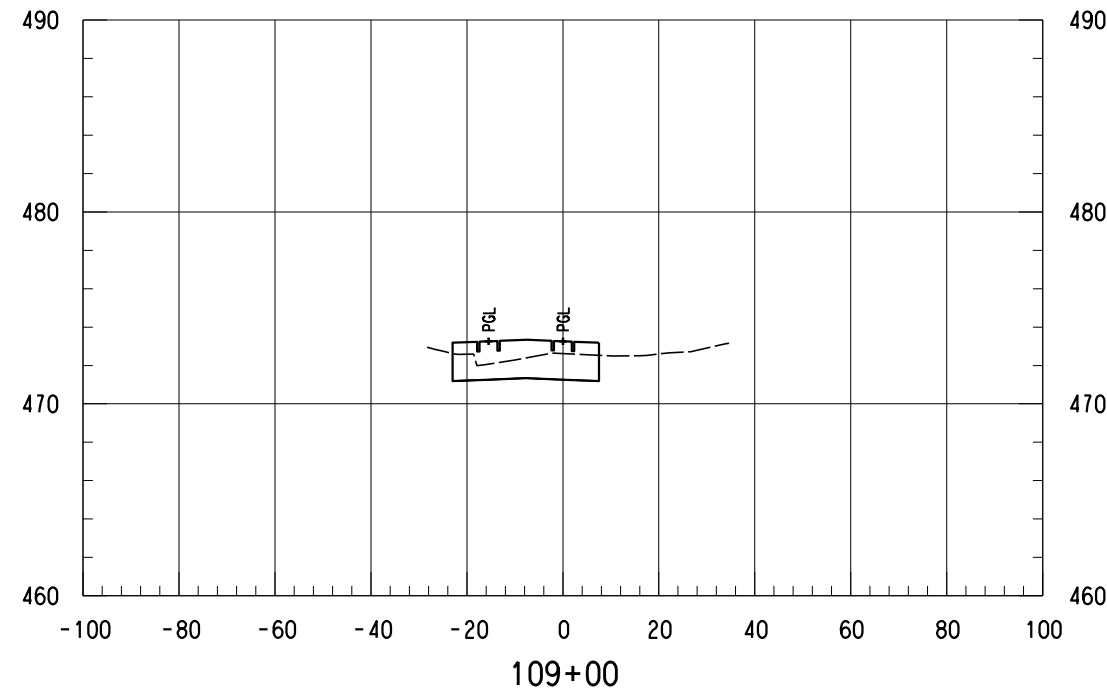
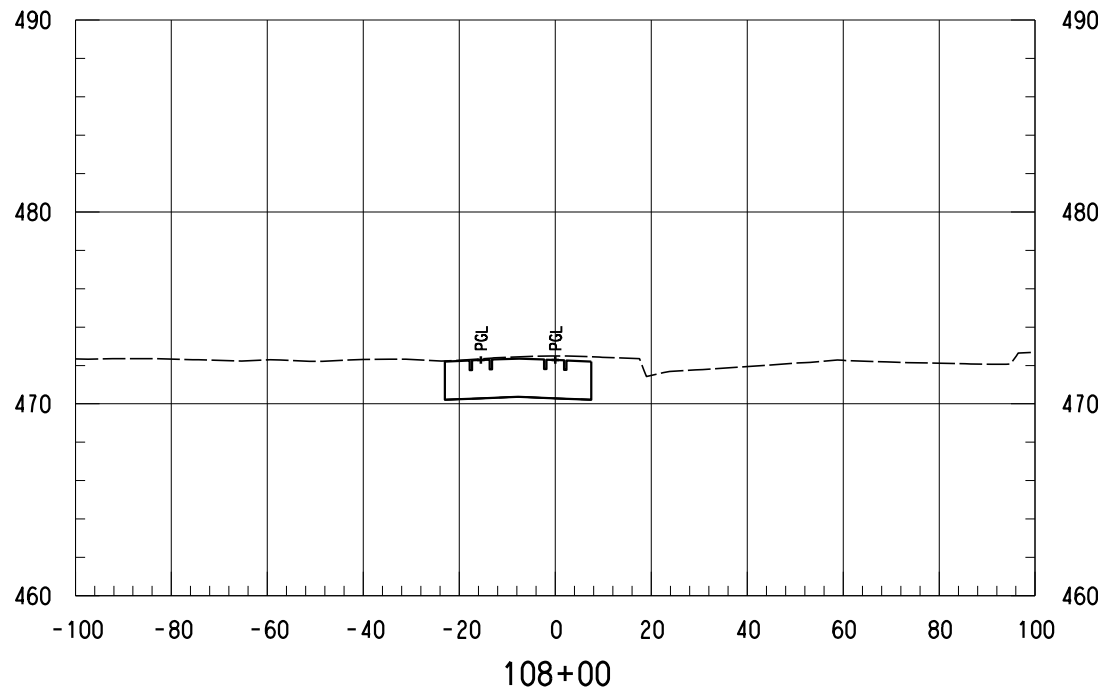
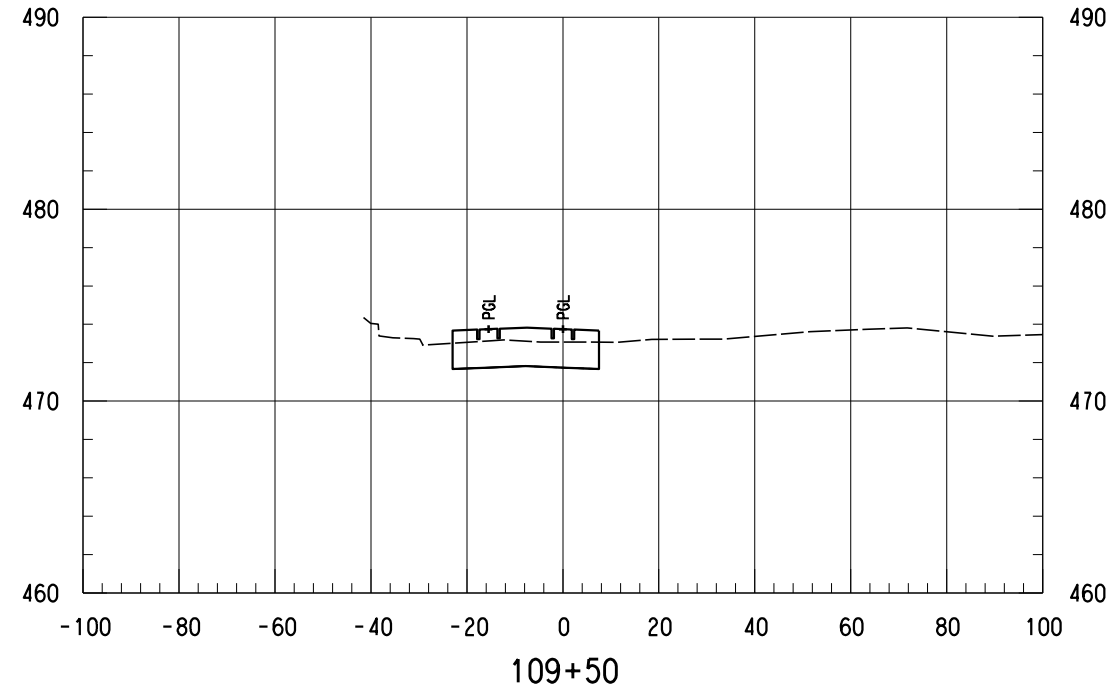
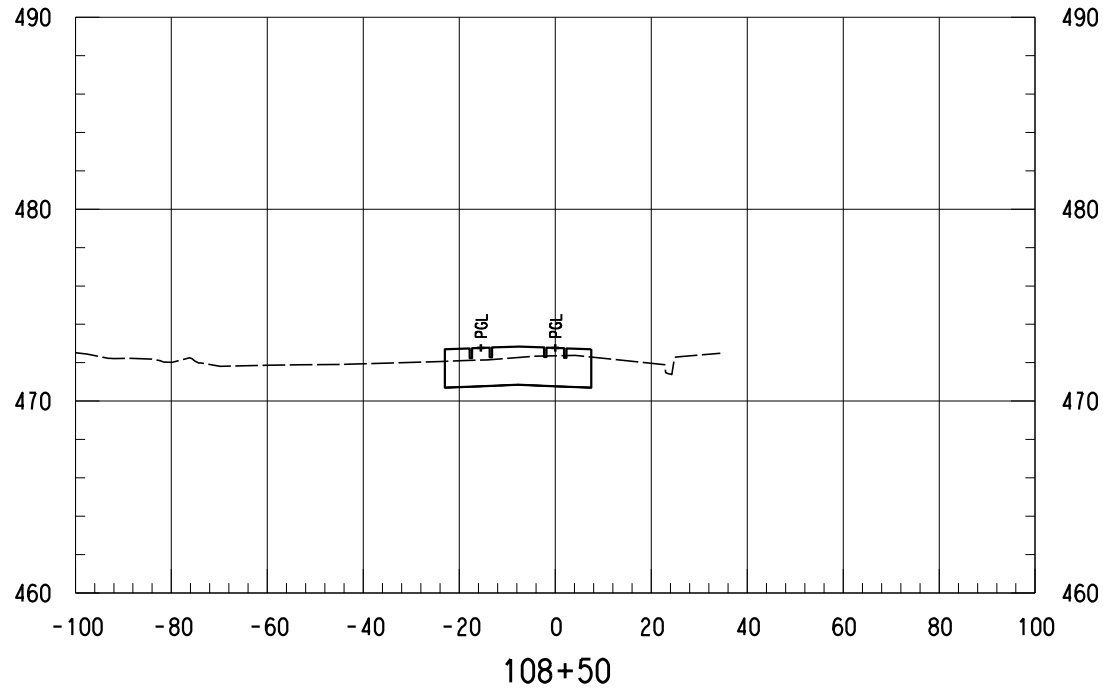
**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**

**CBD-2**  
**GUIDEWAY CROSS SECTIONS**  
**STA 107+50.00**

CONTRACT	DWG No.	CCB-0060	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:58:02 PM

DANGLE



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 20% DESIGN

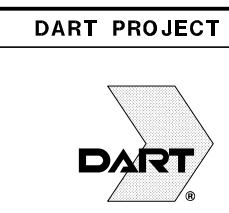
CONTRACT SHEET No. 124 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

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

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

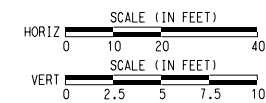
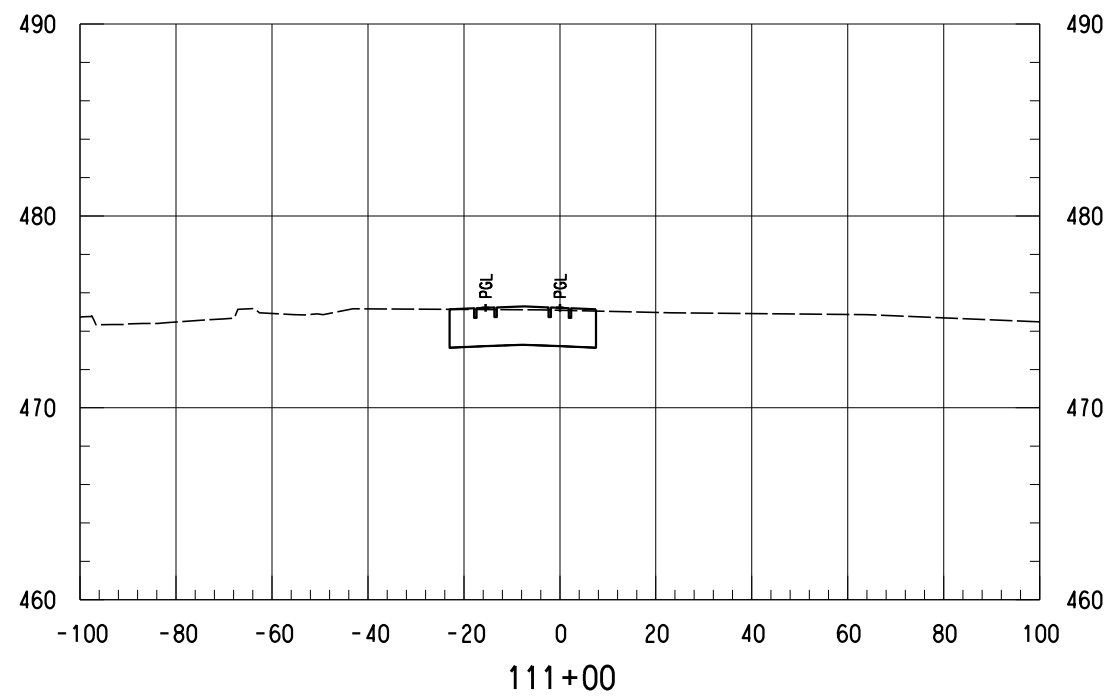
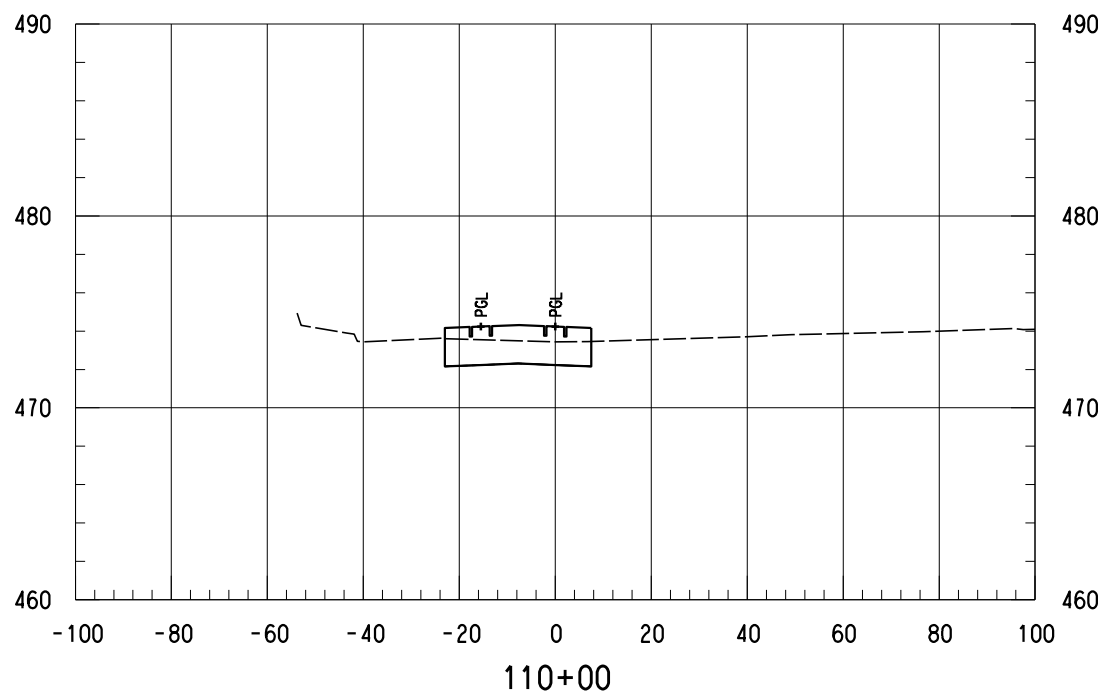
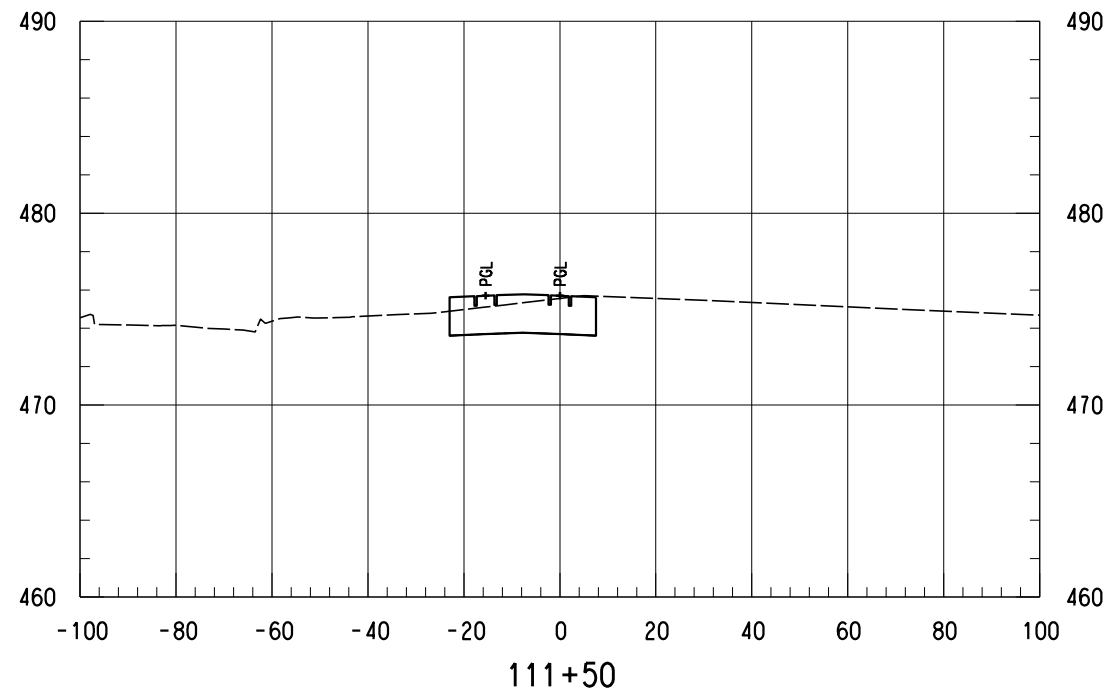
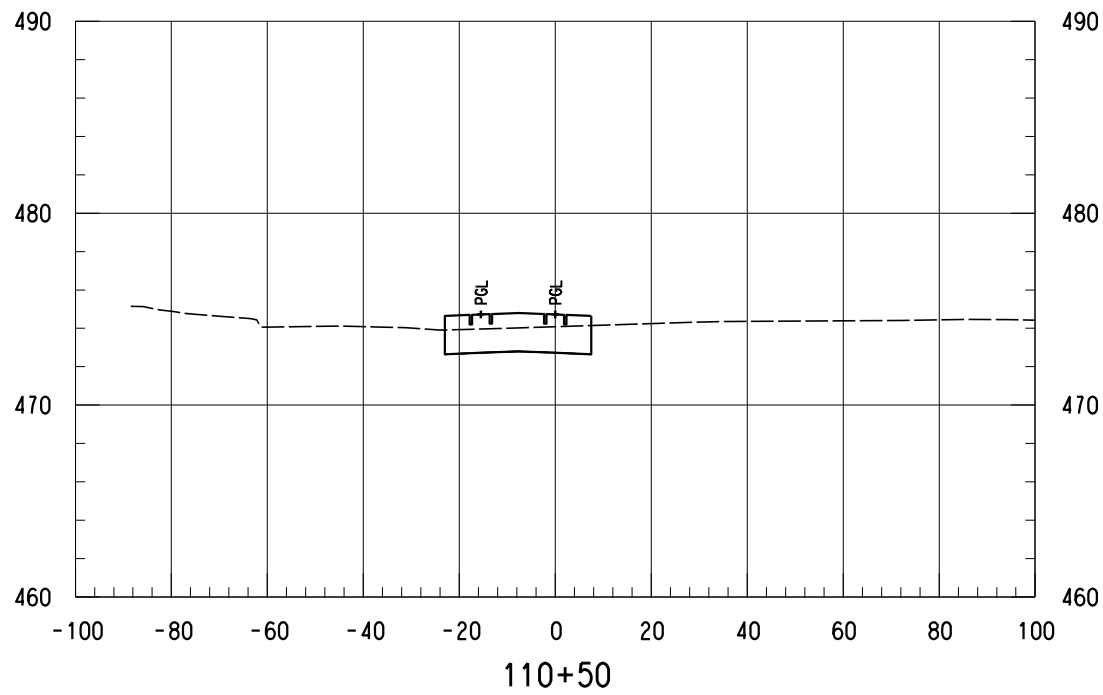


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0061	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:03 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

DANGLE



- 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 20% DESIGN

CONTRACT SHEET No. 125 OF 276

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. CCB-0062 REV

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

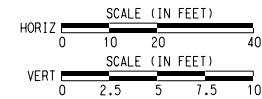
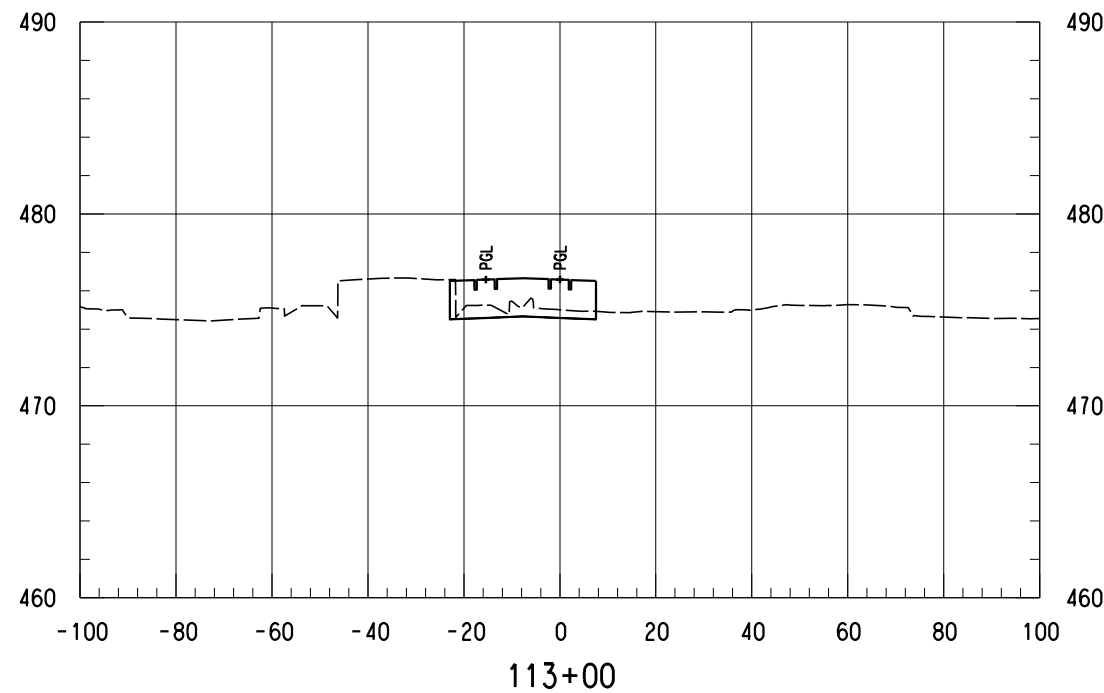
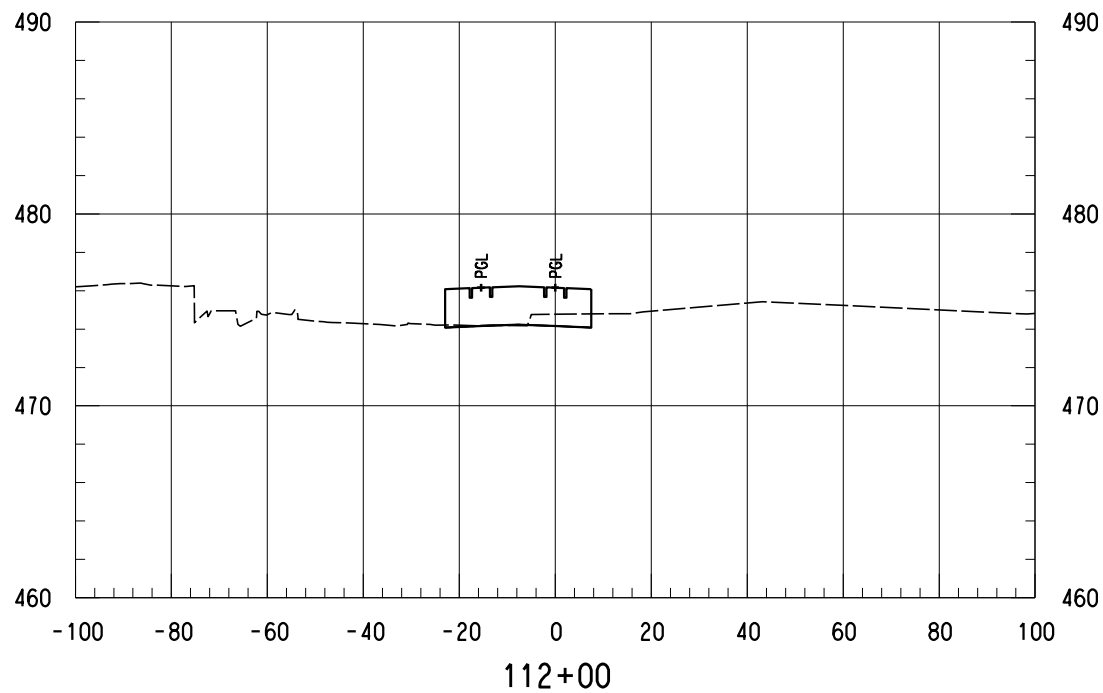
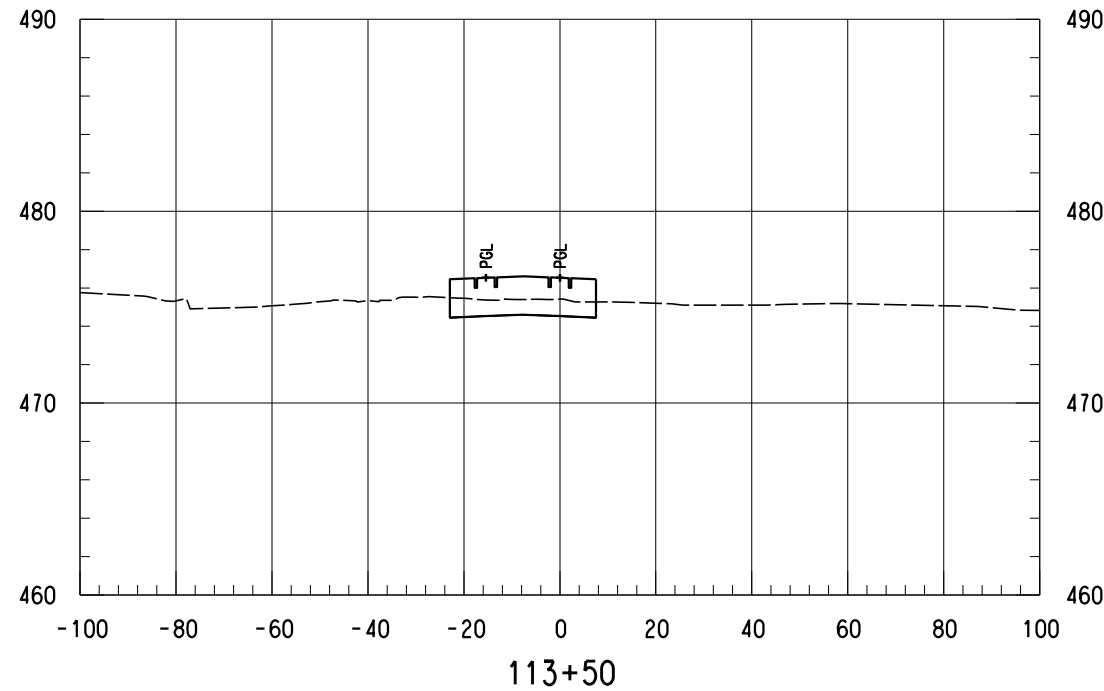
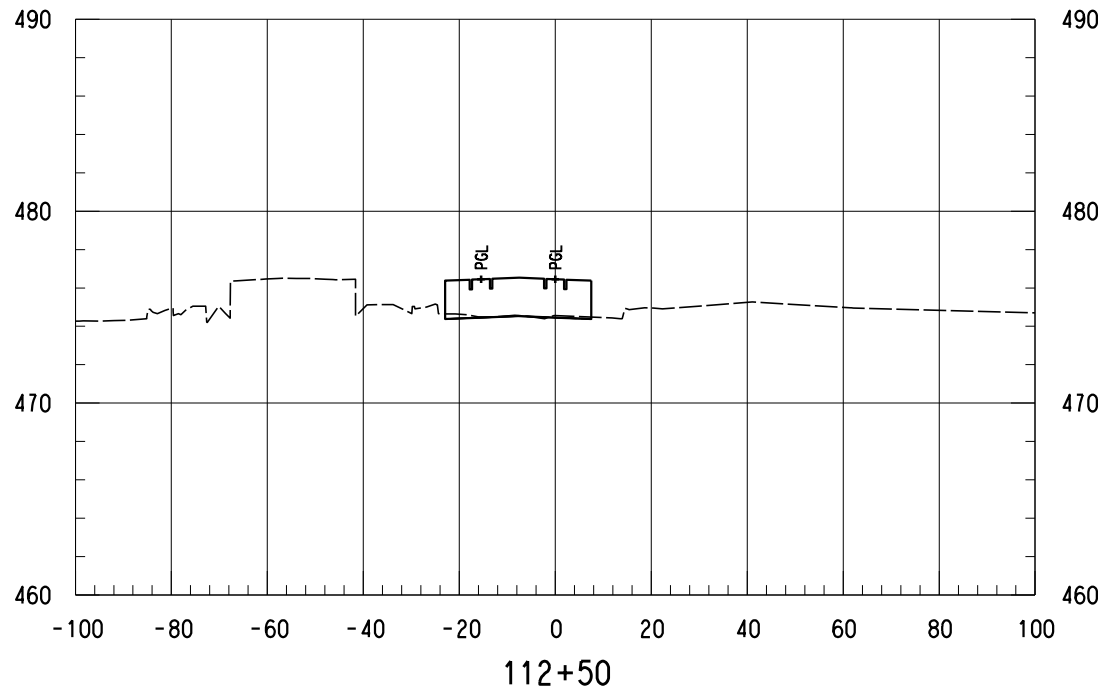


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:04 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 126 OF 276

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. CCB-0063 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE 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	03/06/2020

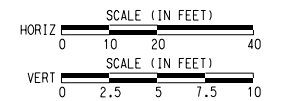
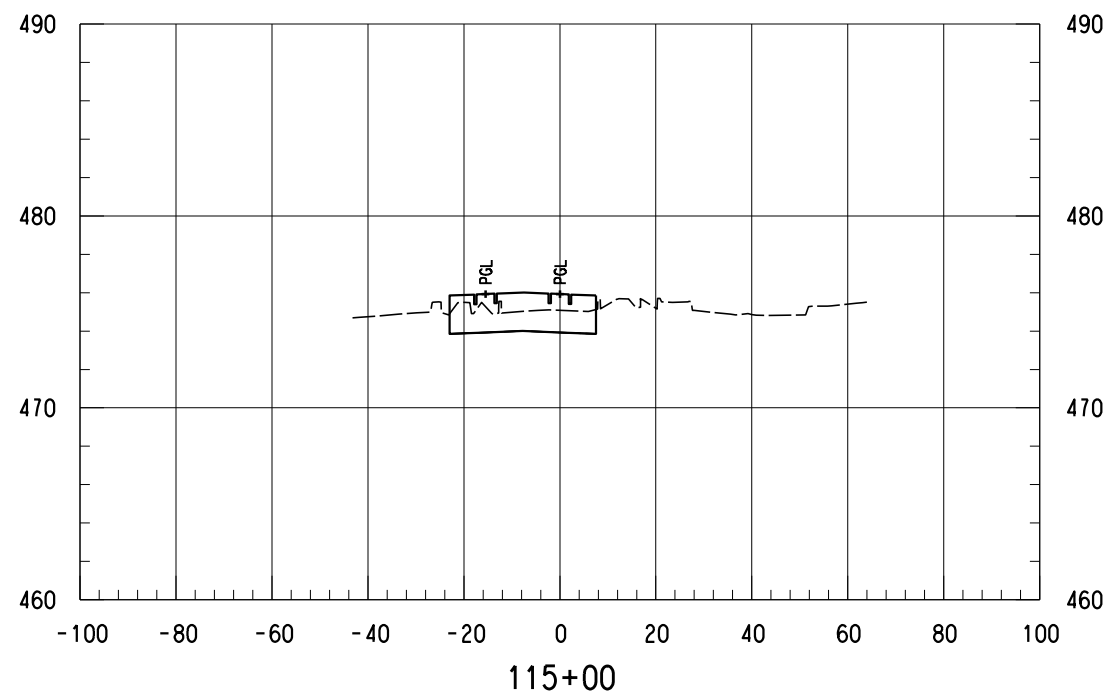
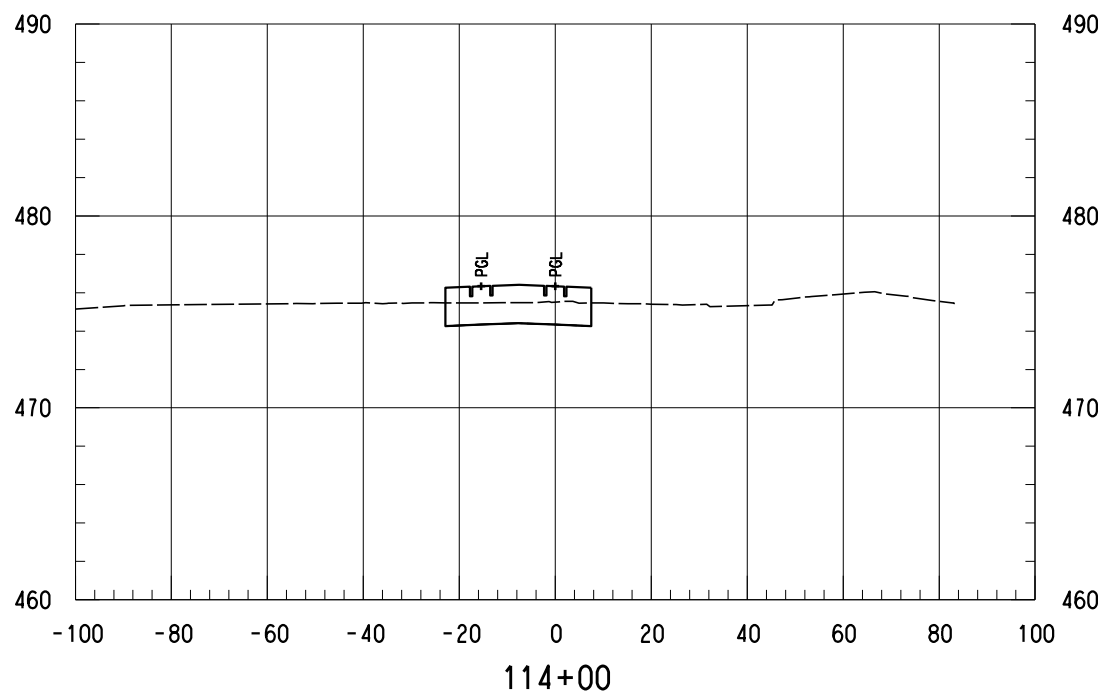
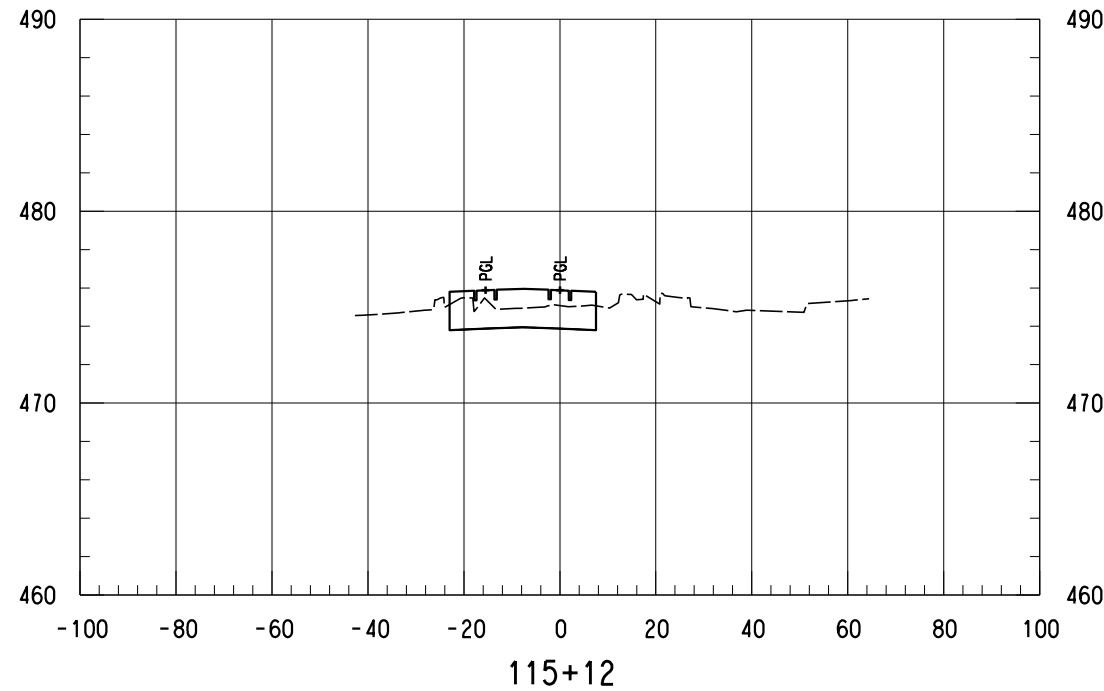
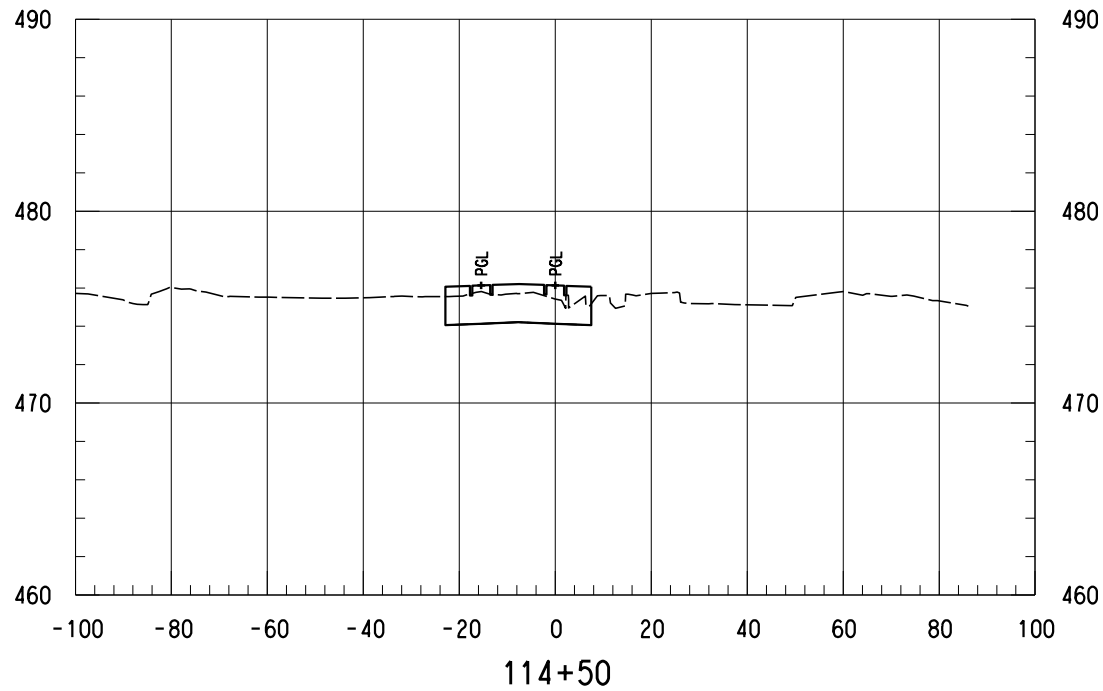


REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:04 PM

DANGLE





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

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 127 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

CBD-2  
GUIDEWAY CROSS SECTIONS  
STA 114+00.00 TO STA 115+12.00

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

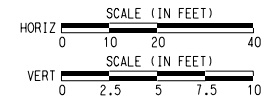
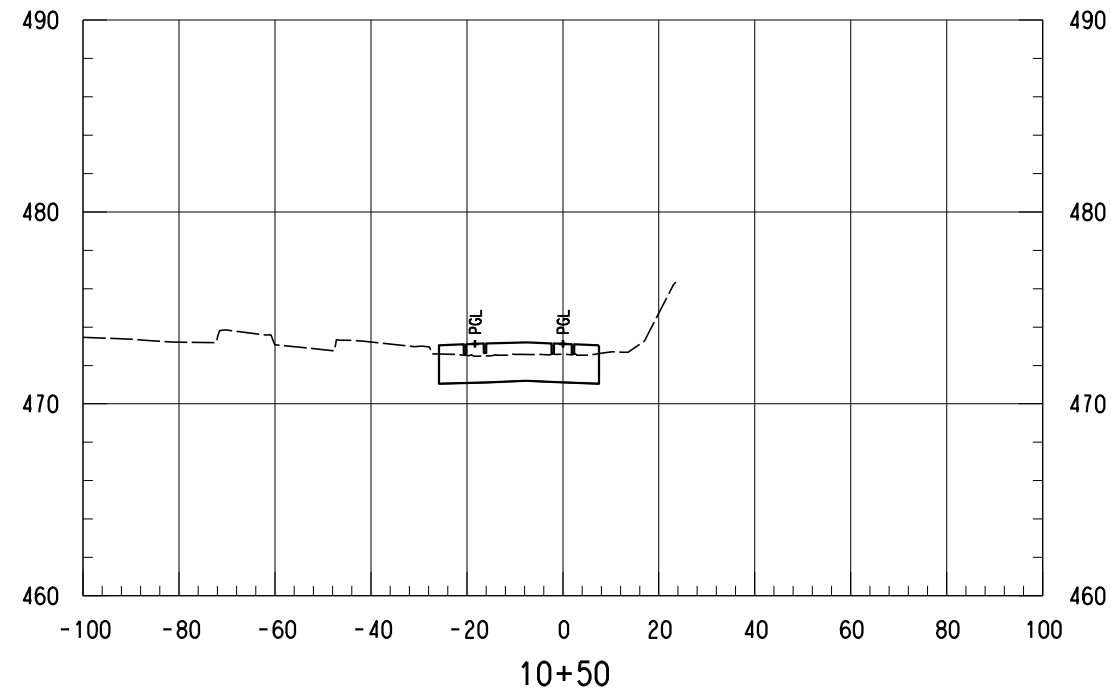
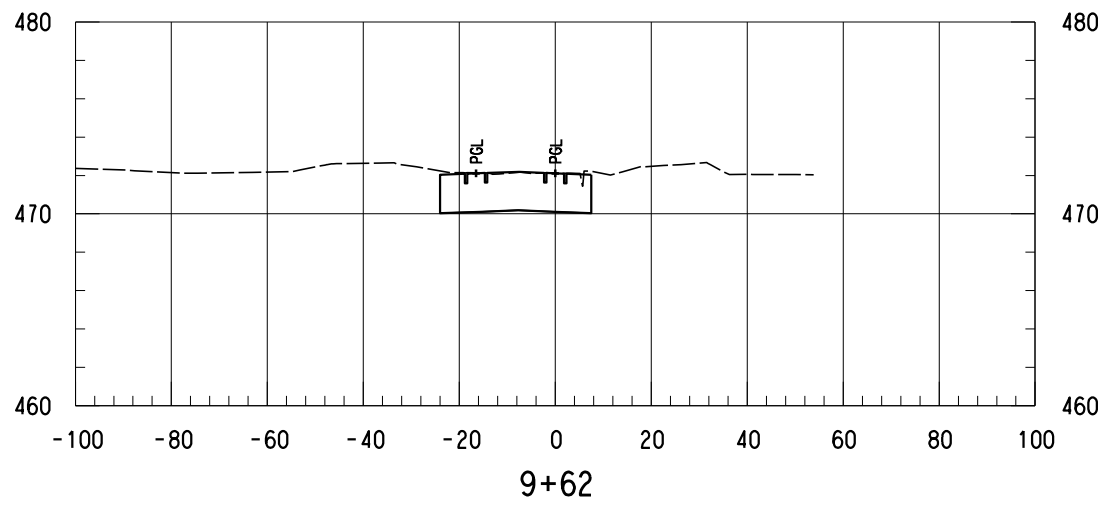
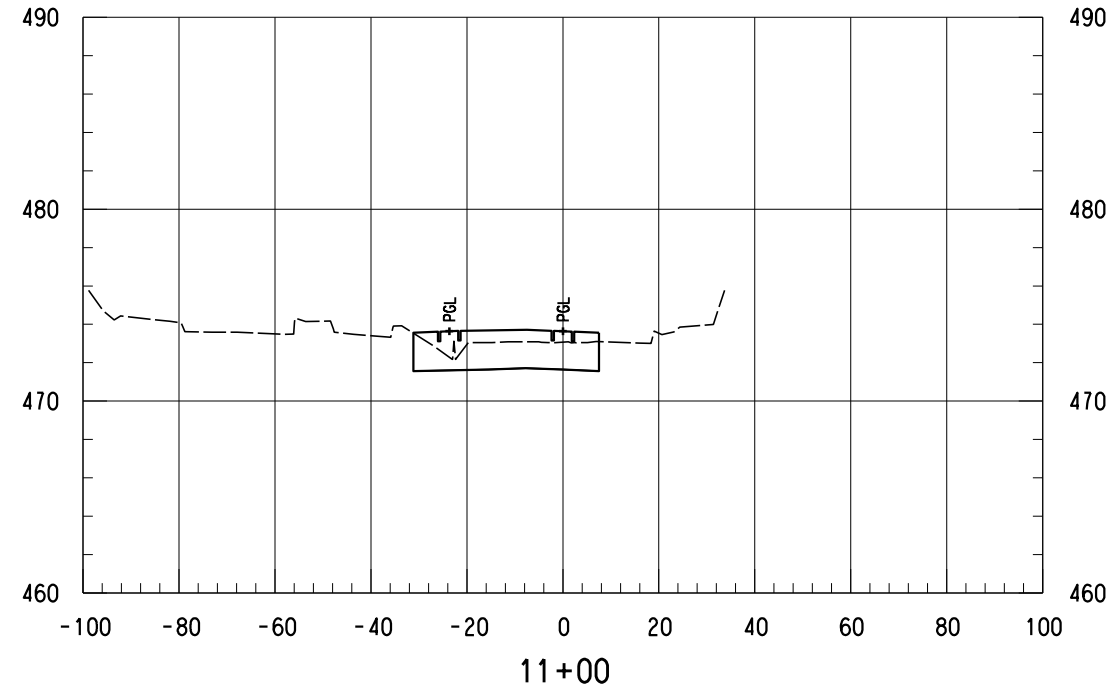
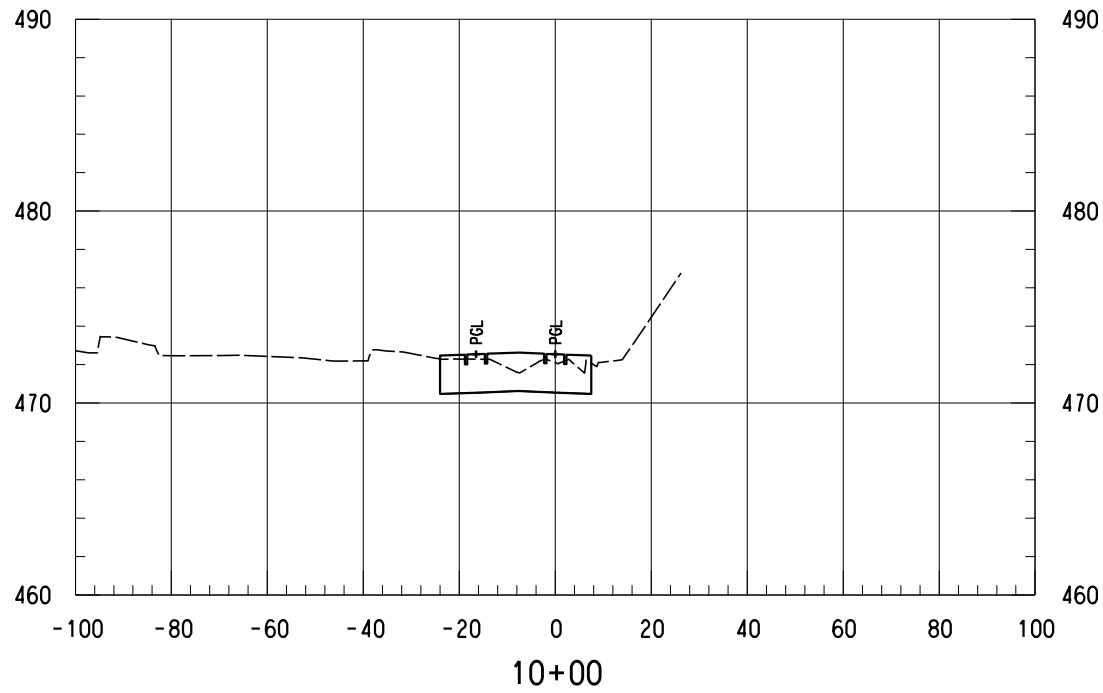


CONTRACT	DWG No. CCB-0064	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:05 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE

Friday, February 28, 2020 12:58:06 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 128 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
SE-1  
GUIDEWAY CROSS SECTIONS  
STA 9+62.00 TO STA 11+00.00

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



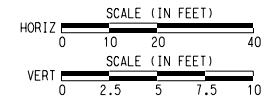
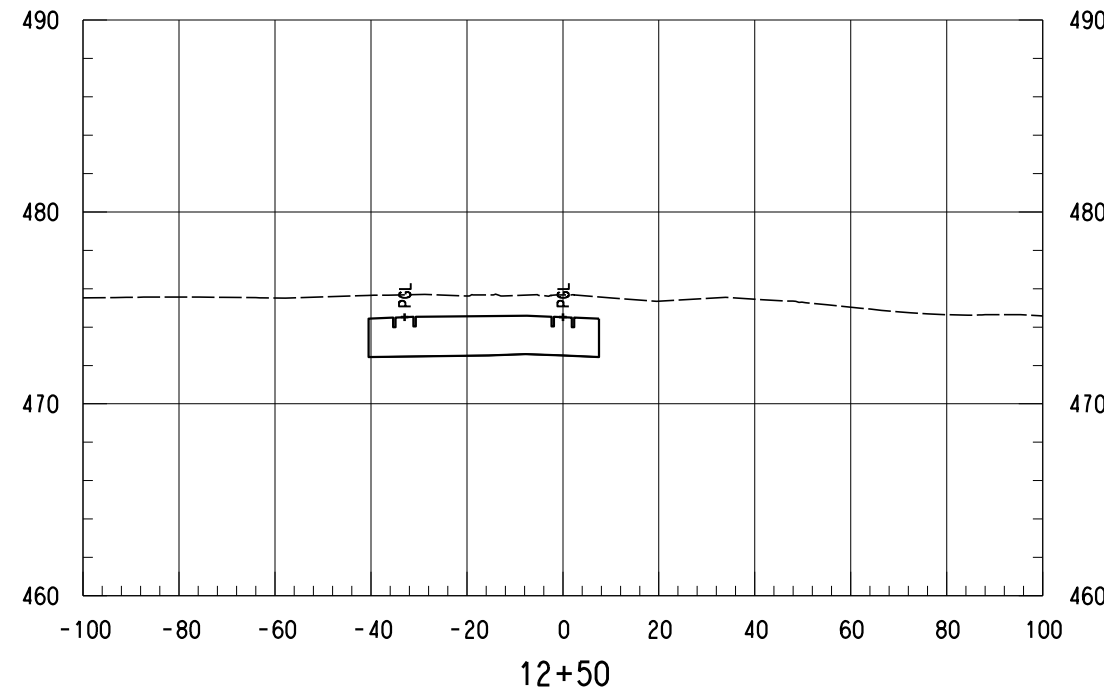
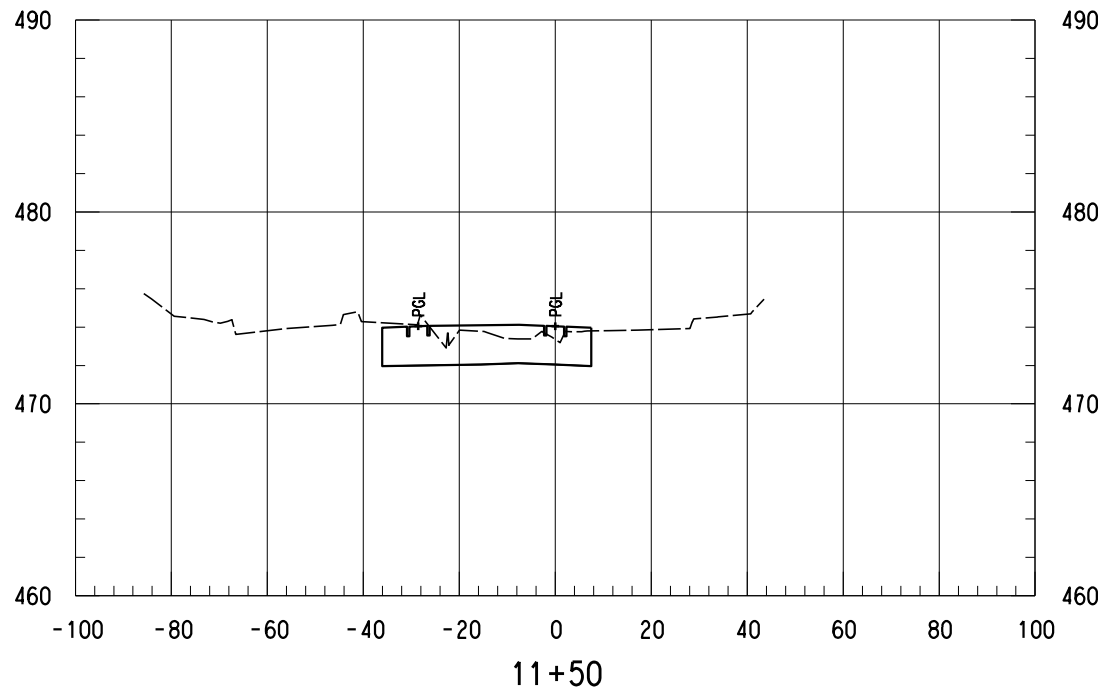
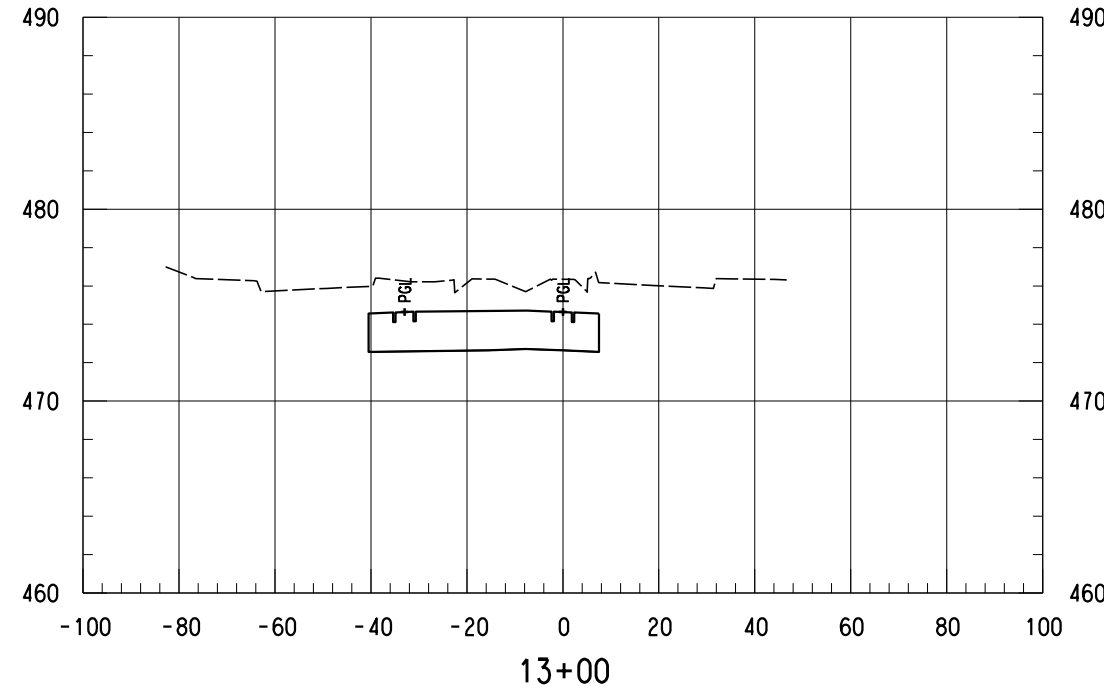
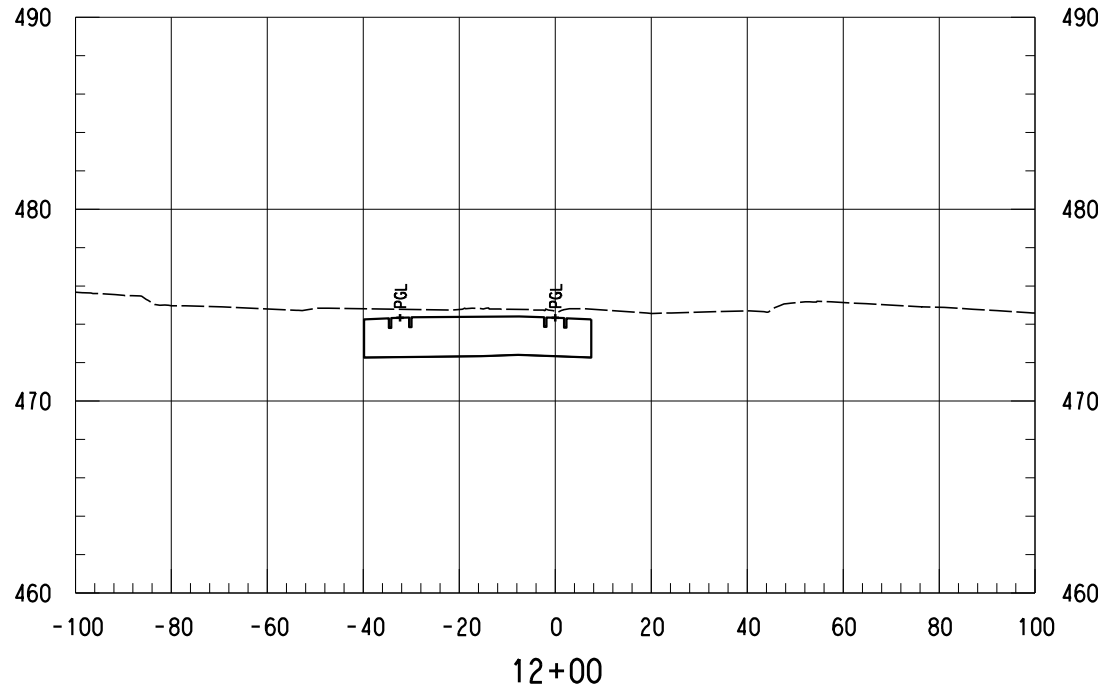
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0065	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



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

Friday, February 28, 2020 12:58:06 PM

DANGLE

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

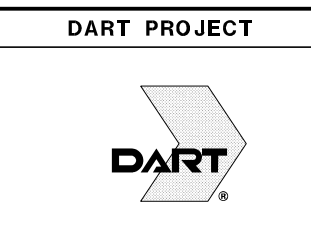
CONTRACT SHEET No. 129 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

SE-1  
 GUIDEWAY CROSS SECTIONS  
 STA 11+50.00 TO STA 13+00.00

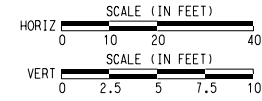
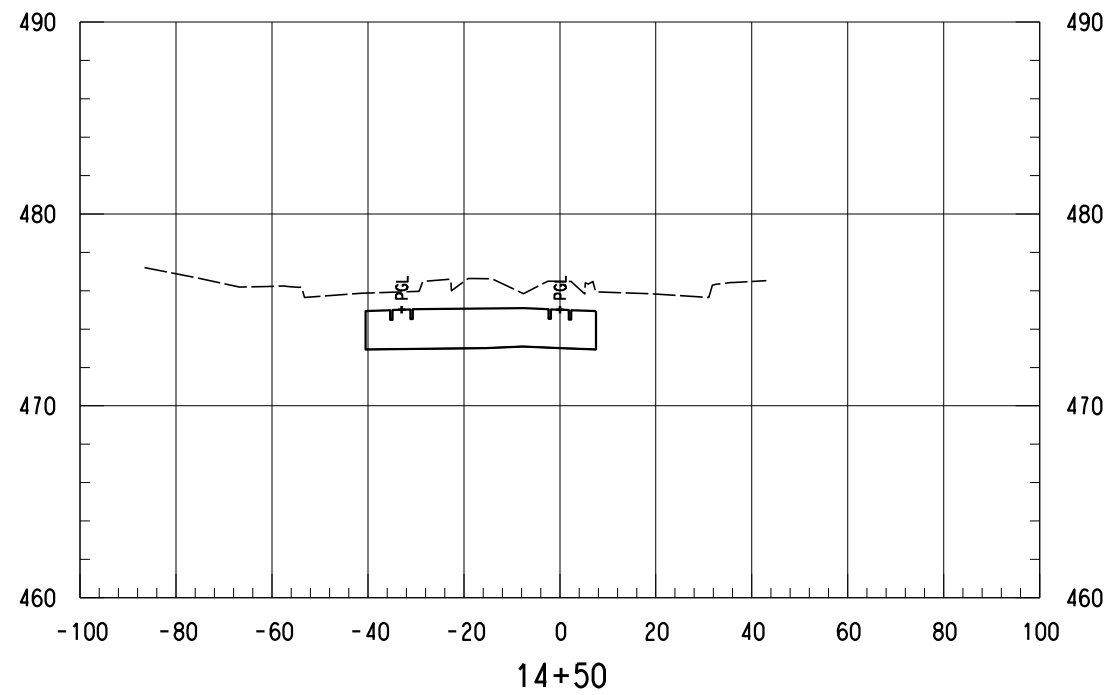
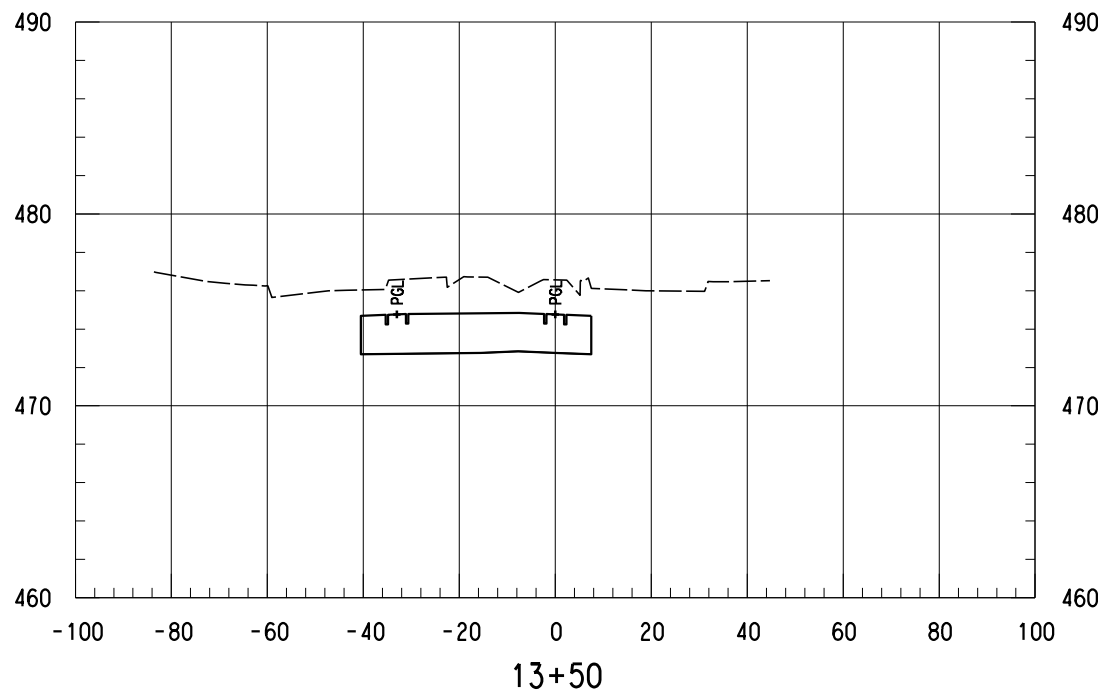
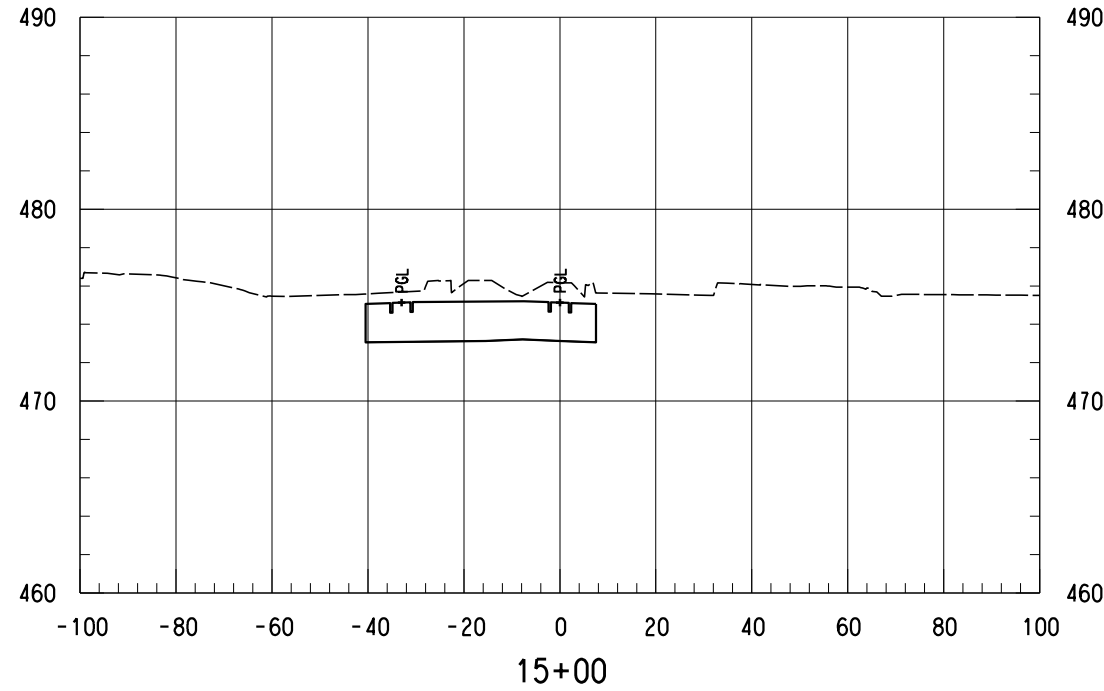
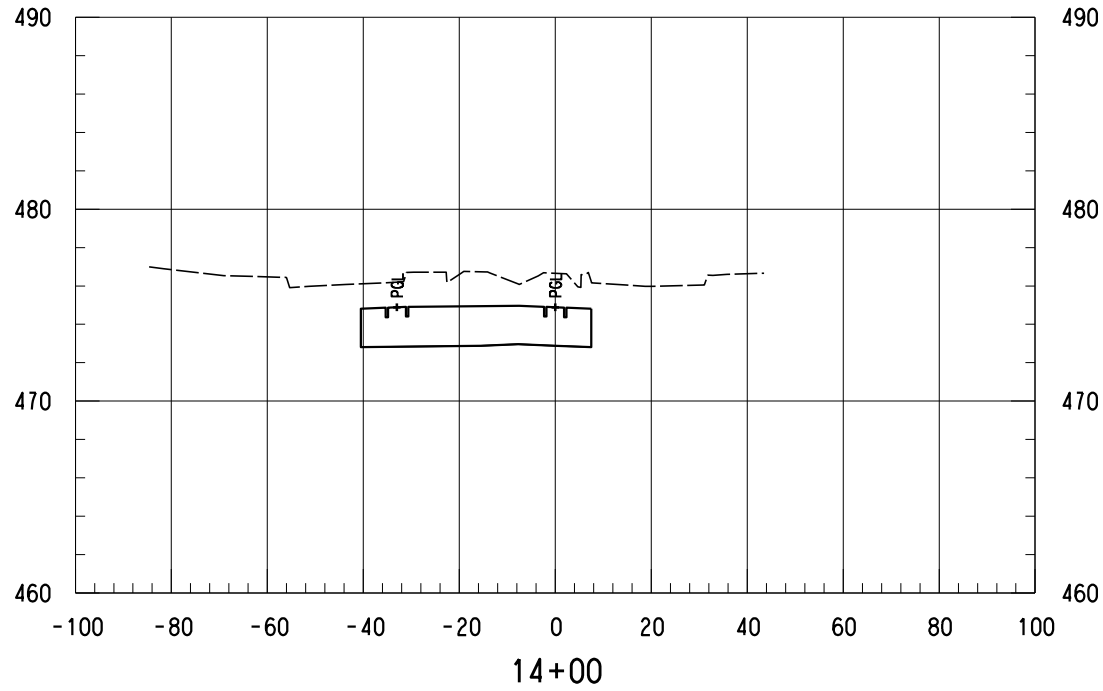
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0066	REV
----------	------------------	-----



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 20% DESIGN

CONTRACT SHEET No. 130 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 13+50.00 TO STA 15+00.00

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

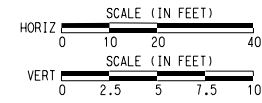
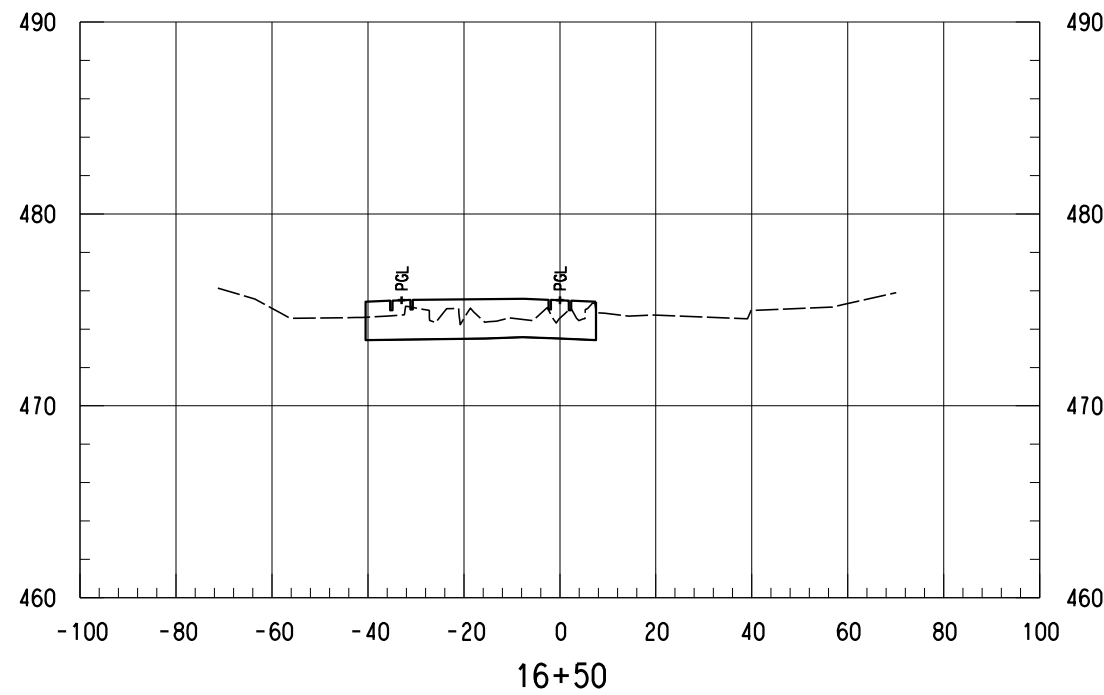
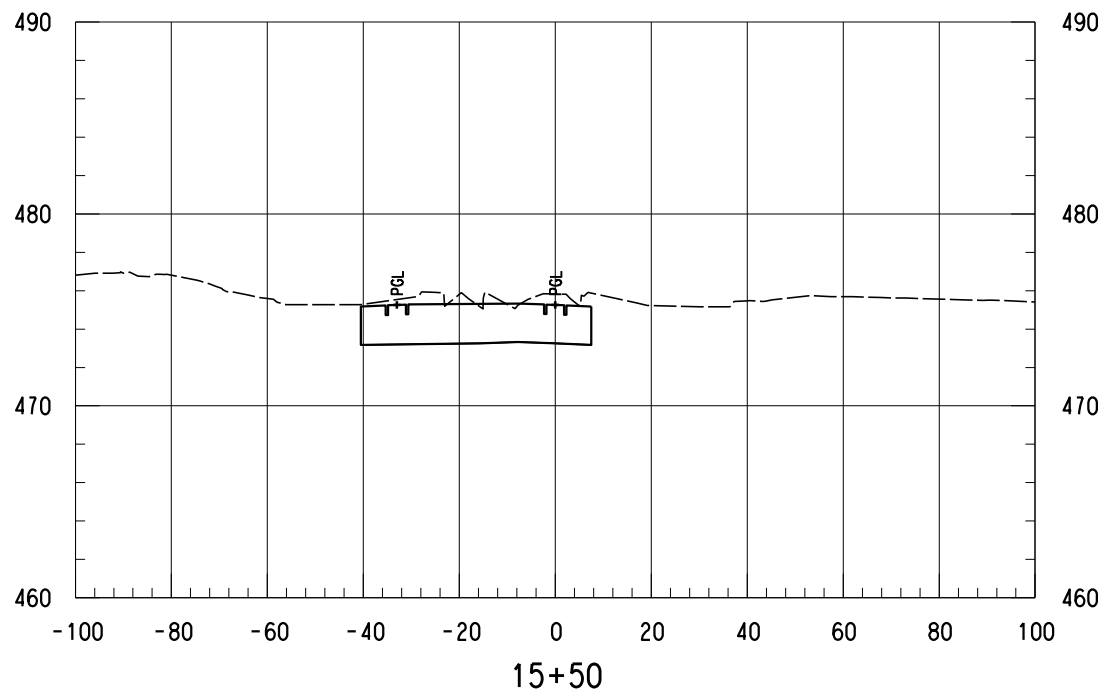
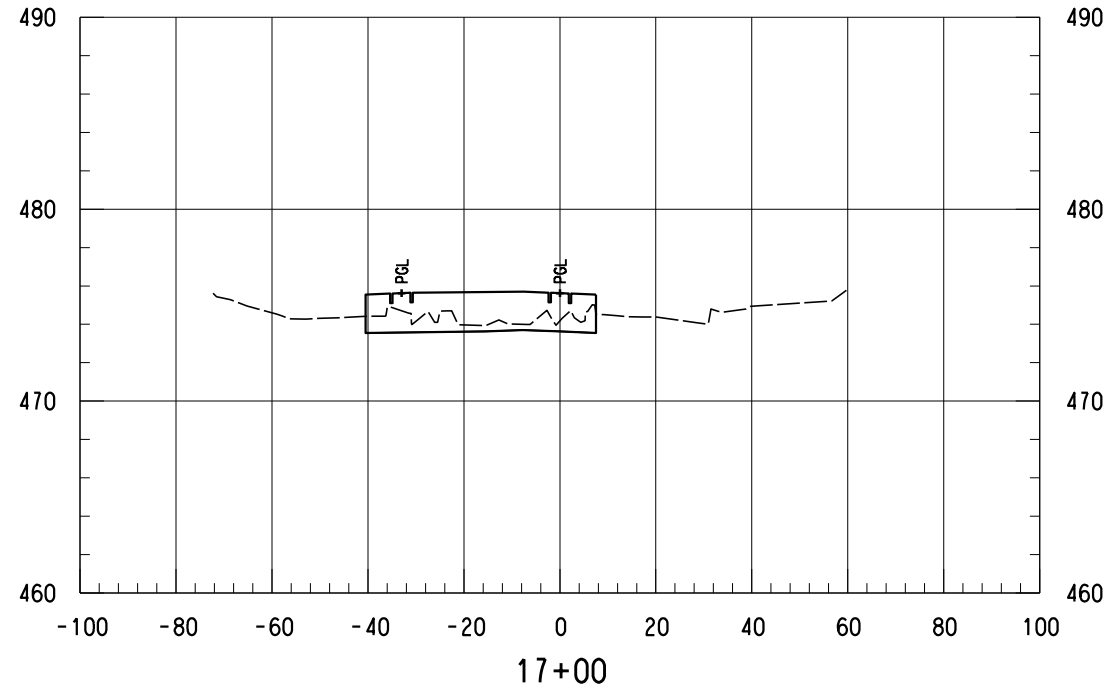
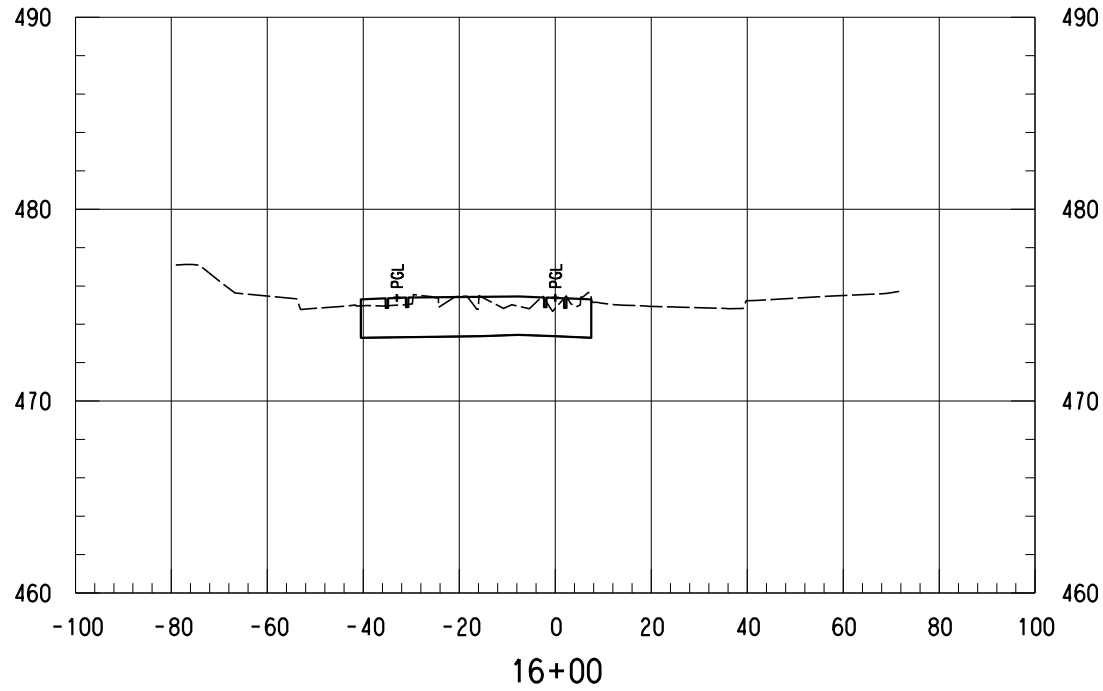


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0067	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:07 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 131 OF 276

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. CCB-0068 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TBPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



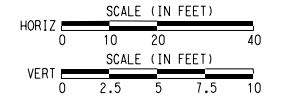
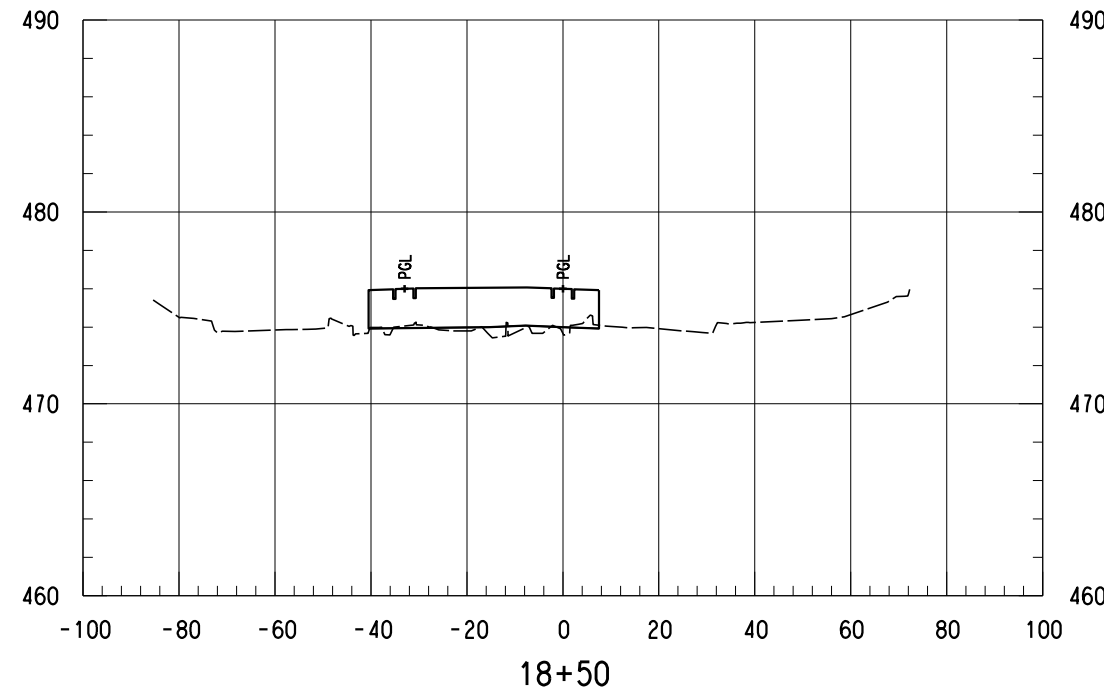
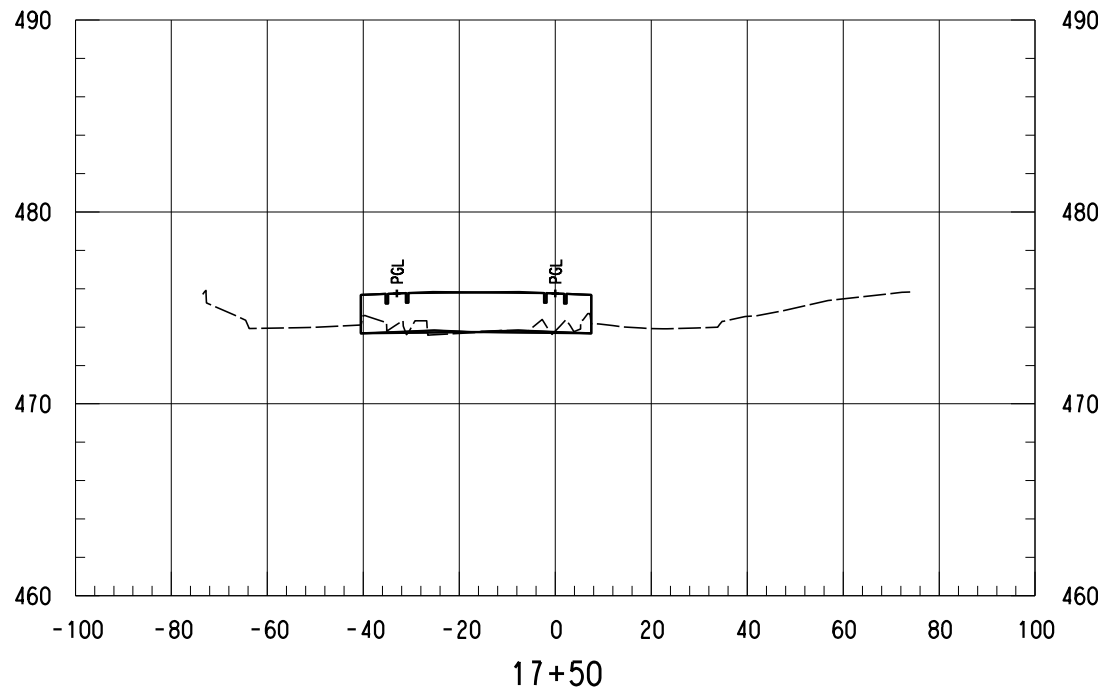
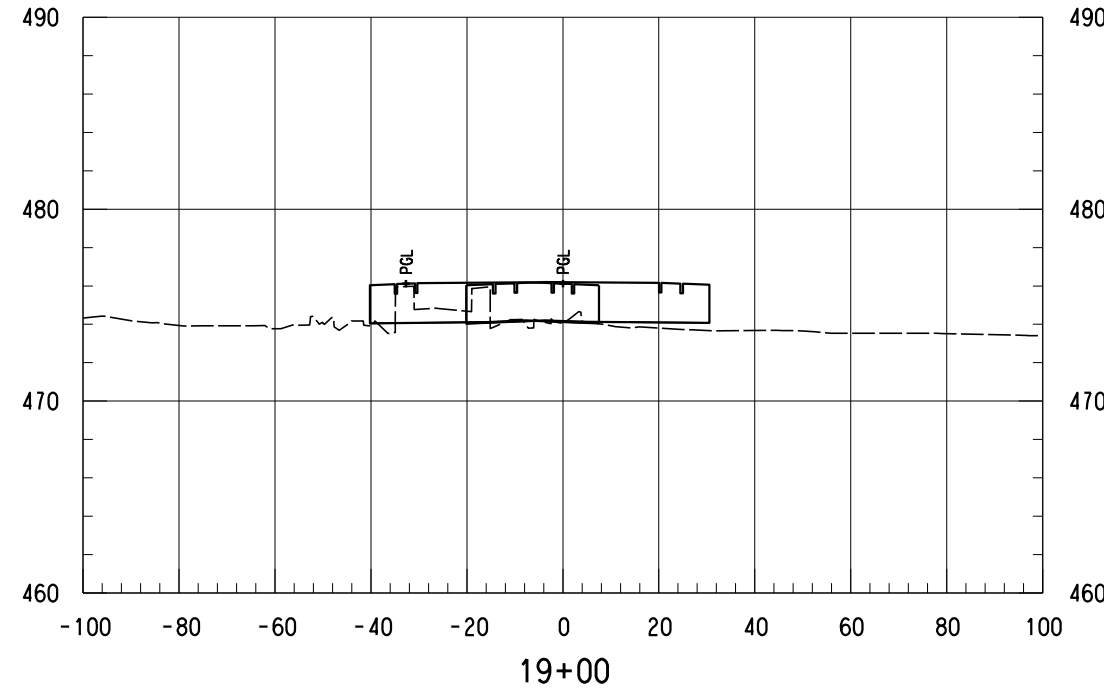
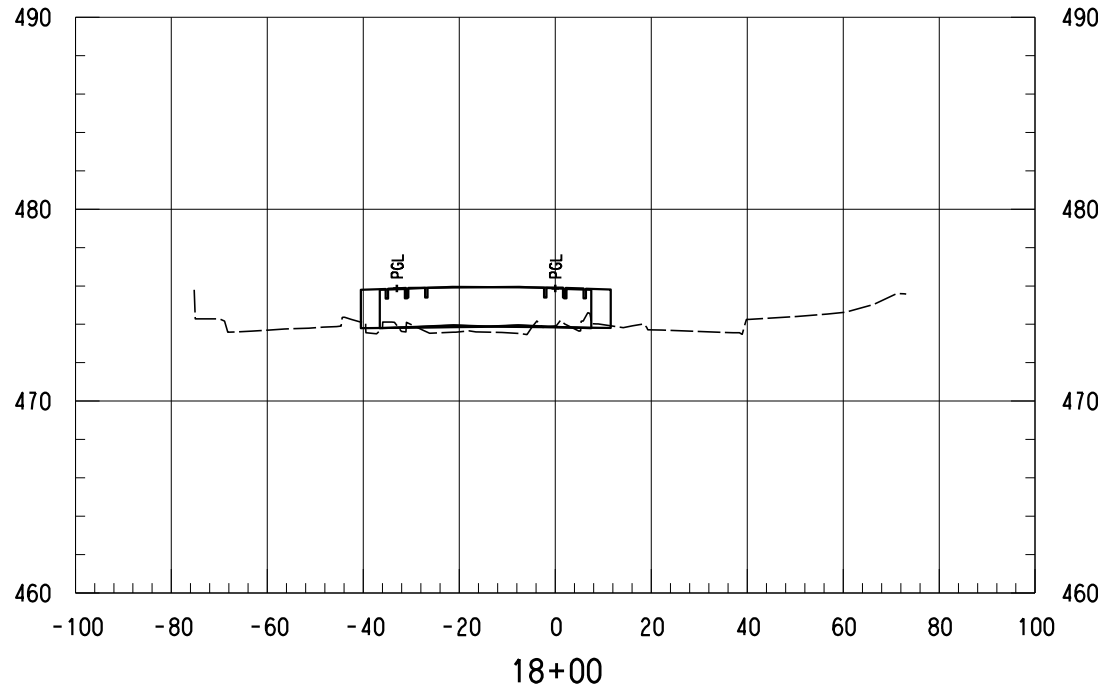
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:08 PM

DANGLE



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 20% DESIGN

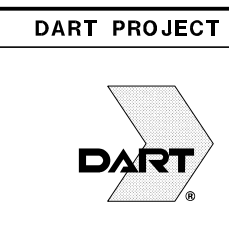
CONTRACT SHEET No. 132 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 17+50.00 TO STA 19+00.00

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

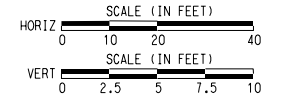
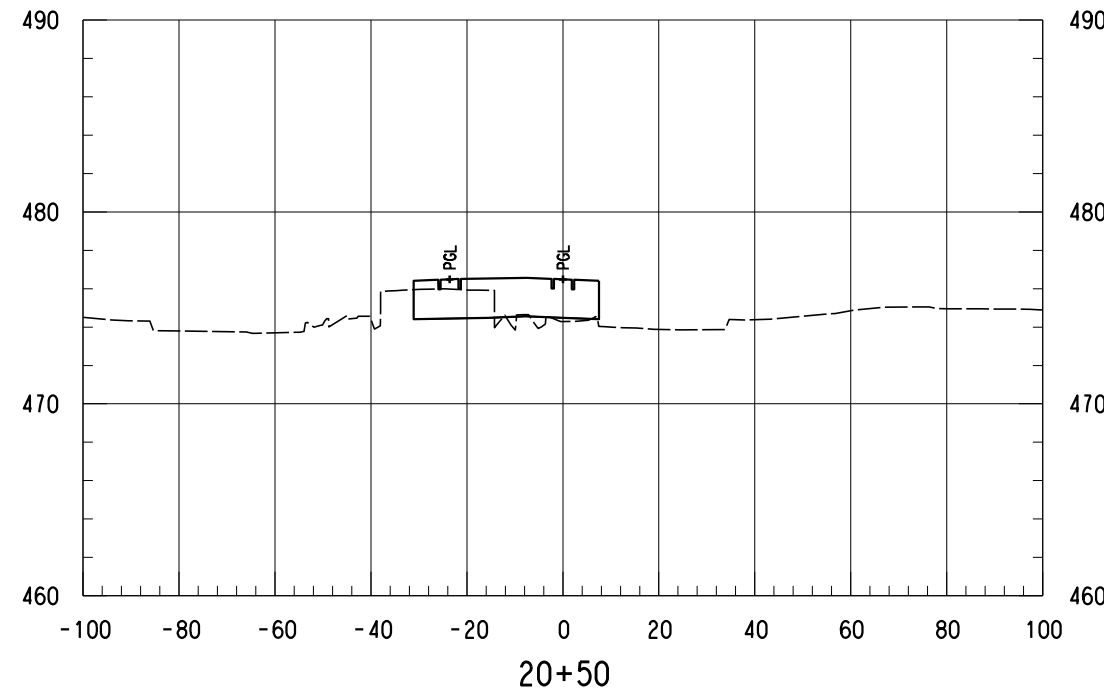
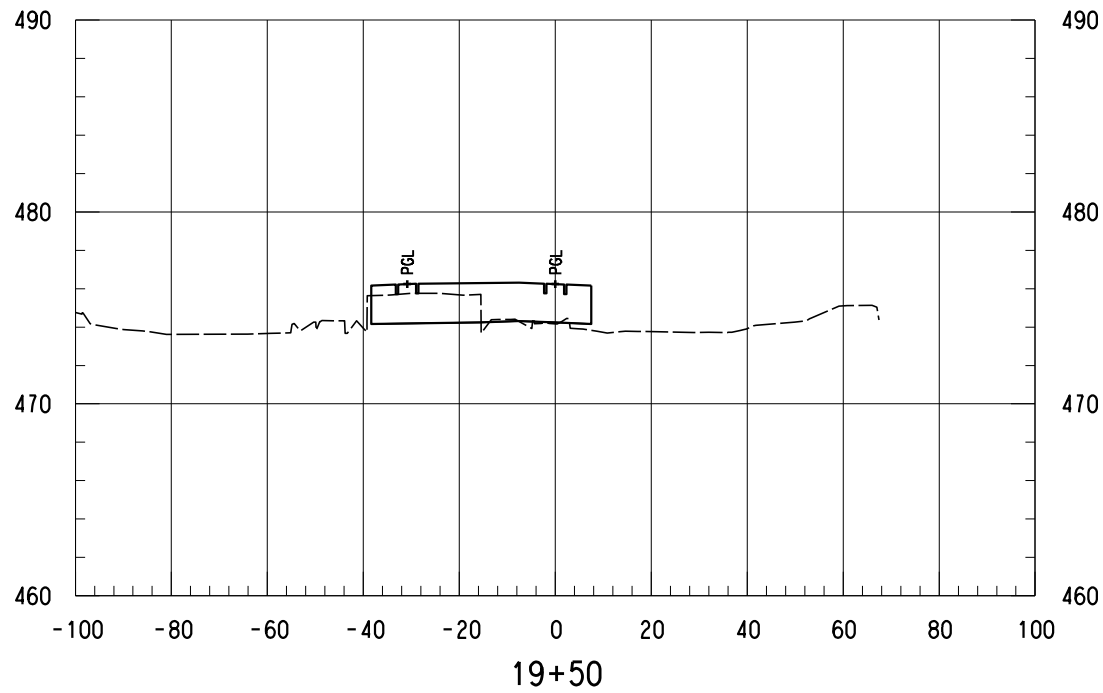
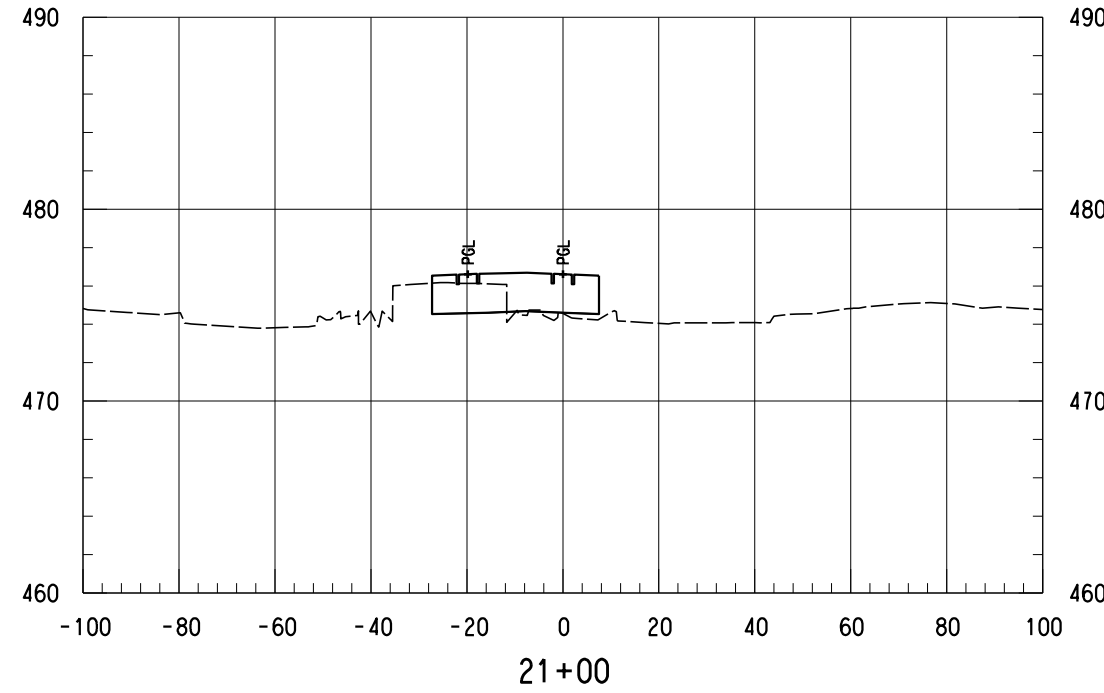
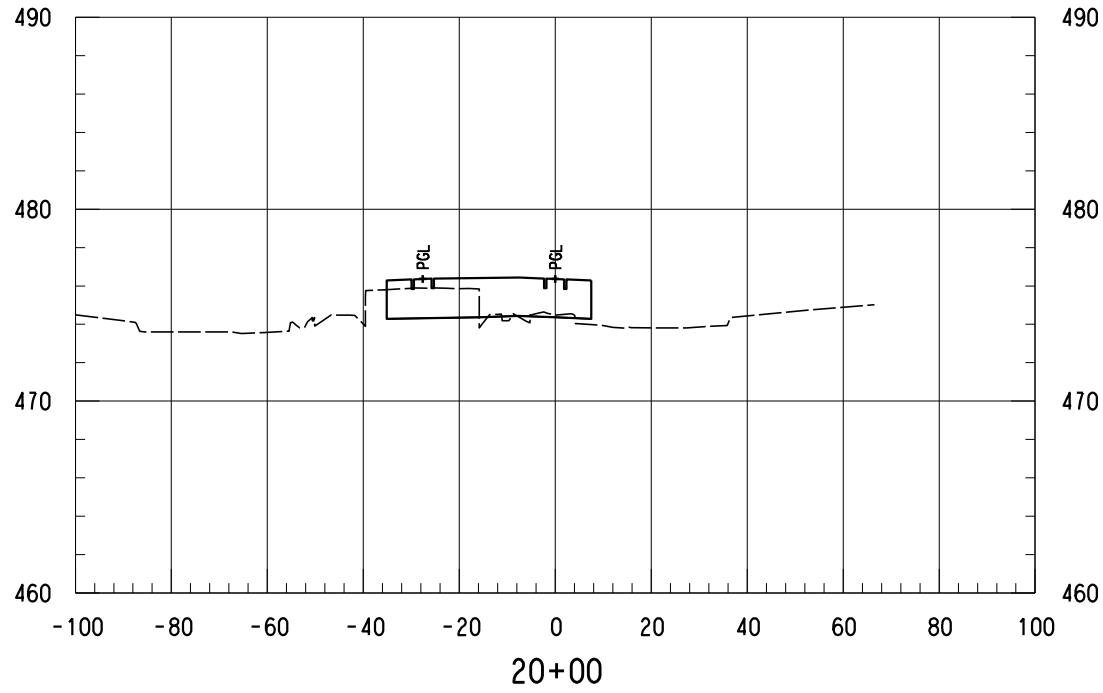


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0069	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:09 PM

DANGLE



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 20% DESIGN

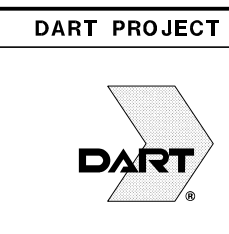
CONTRACT SHEET No. 133 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 19+50.00 TO STA 21+00.00

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



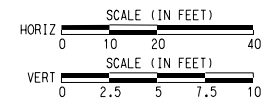
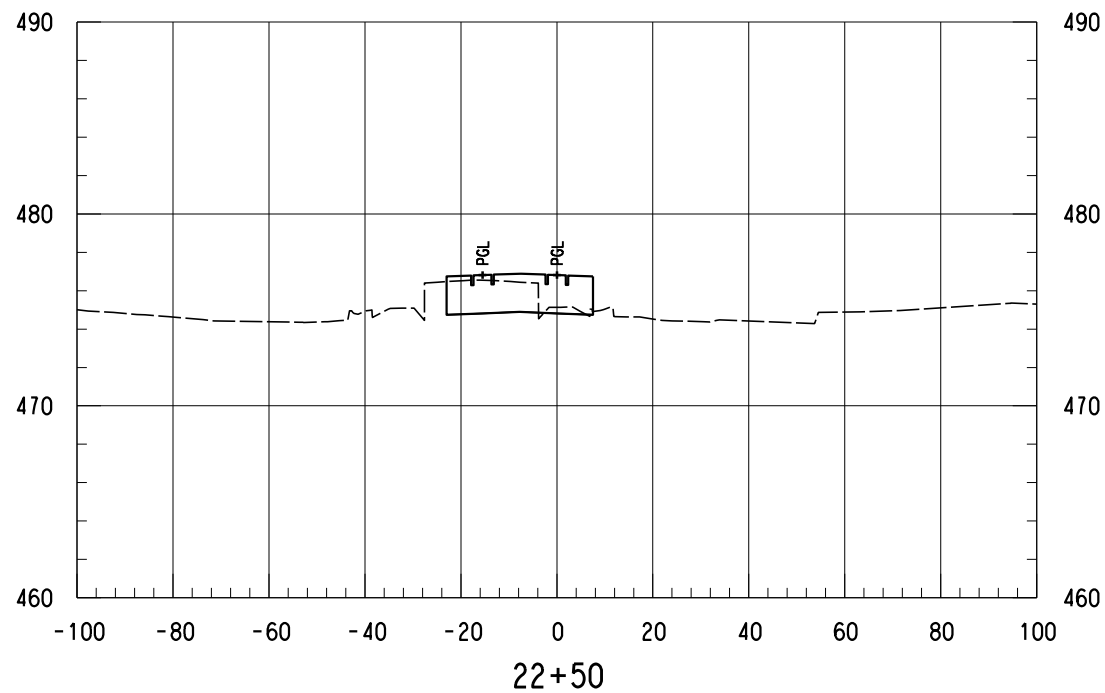
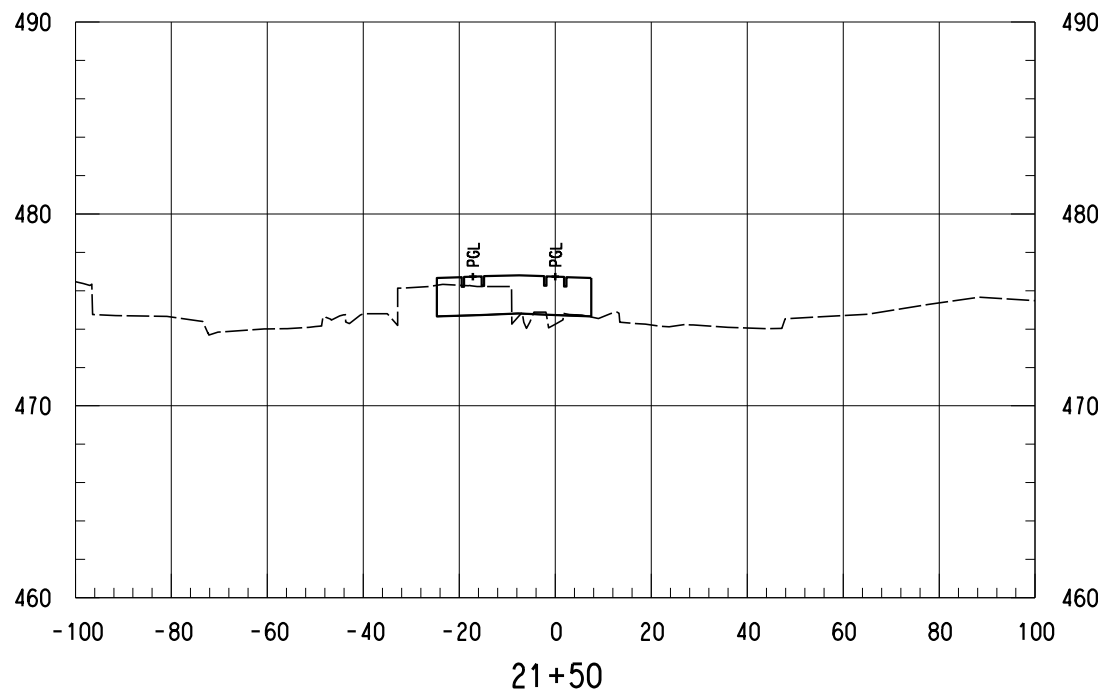
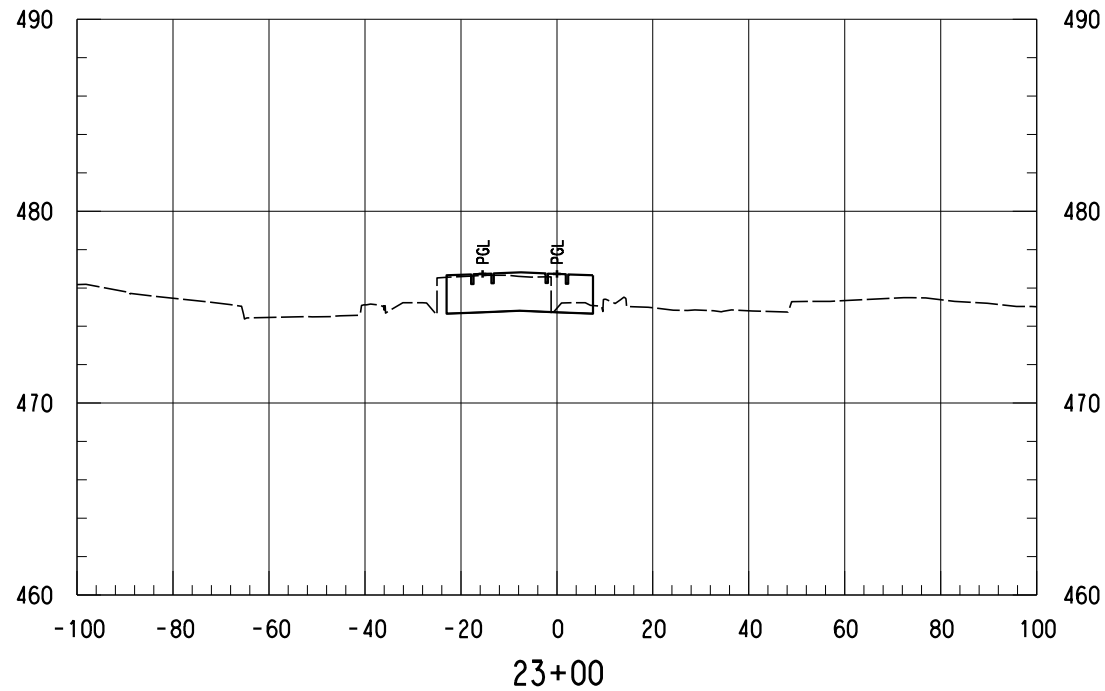
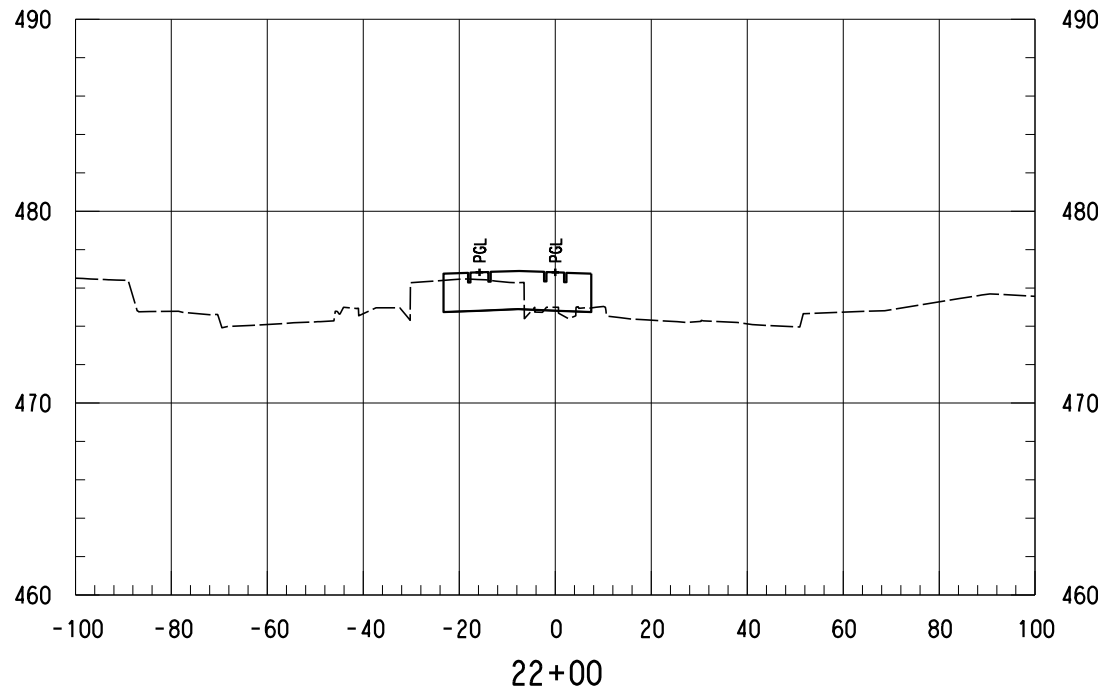
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

CONTRACT	DWG No. CCB-0070	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:12 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 134 OF 276

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.	CC8-0071	REV
----------	---------	----------	-----

Friday, February 28, 2020 12:58:12 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

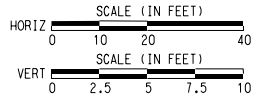
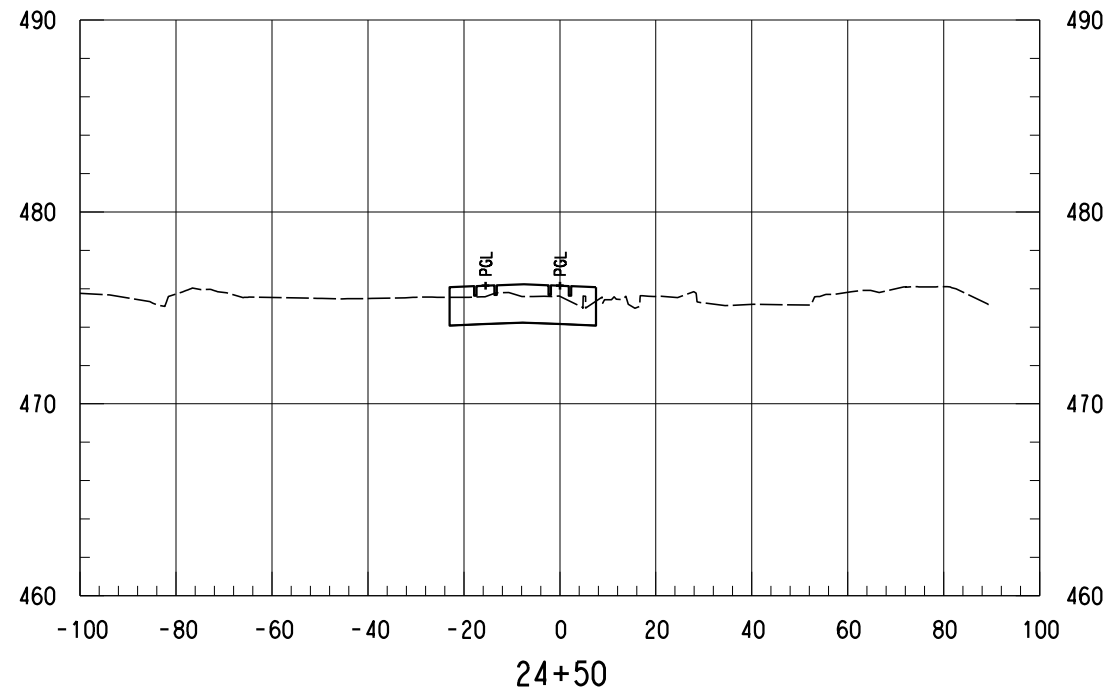
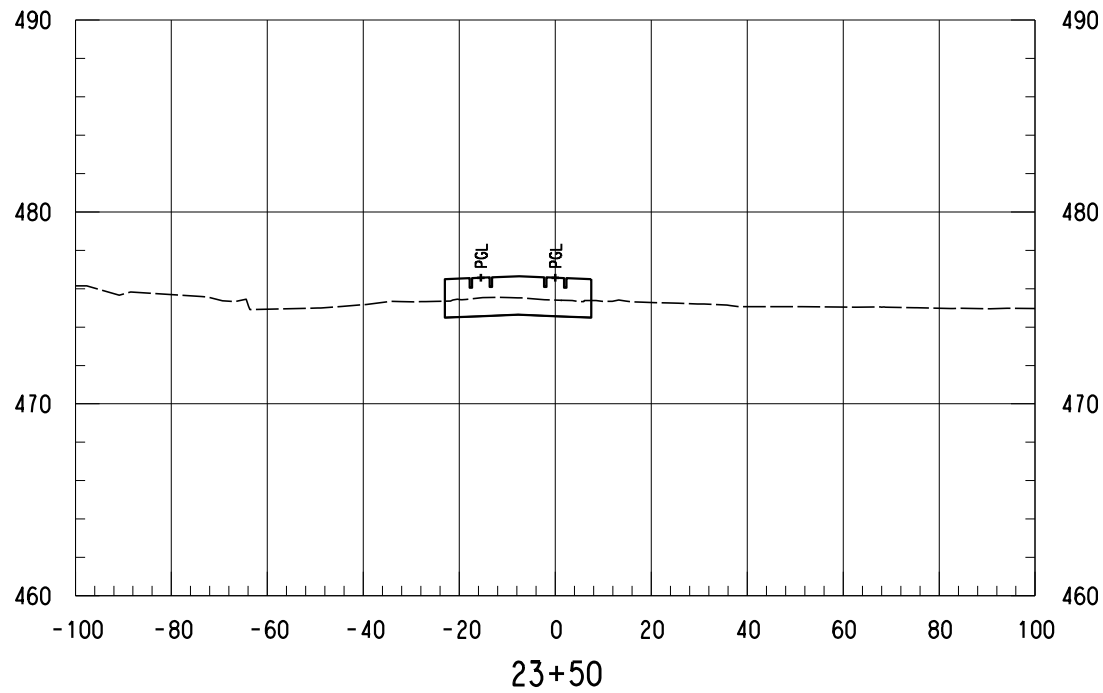
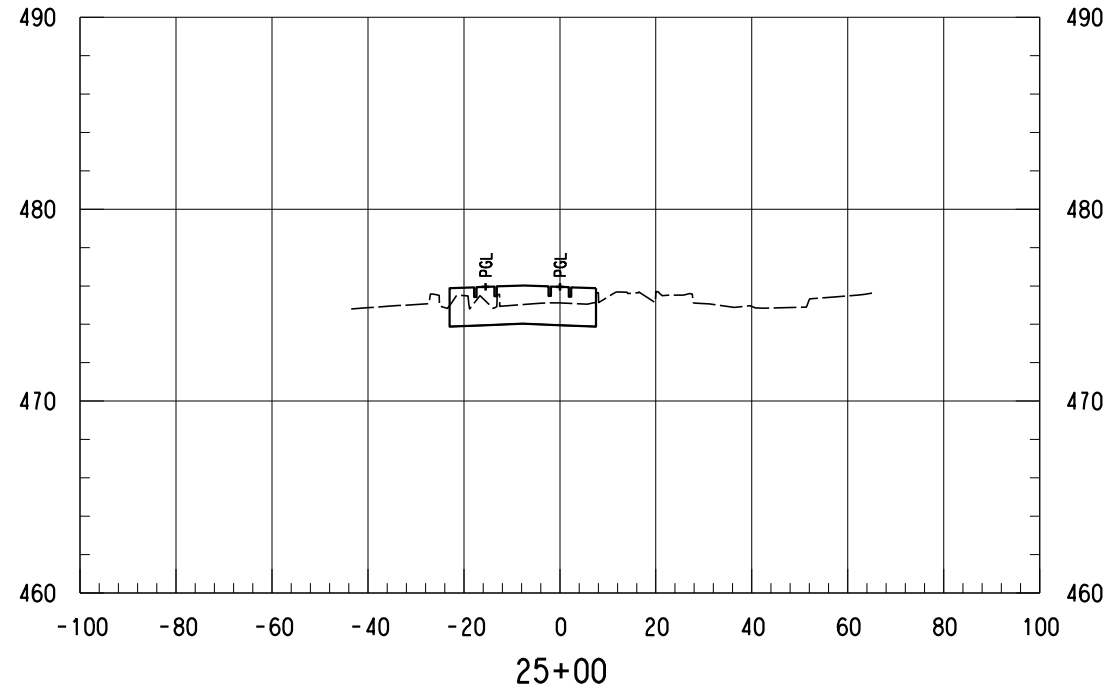
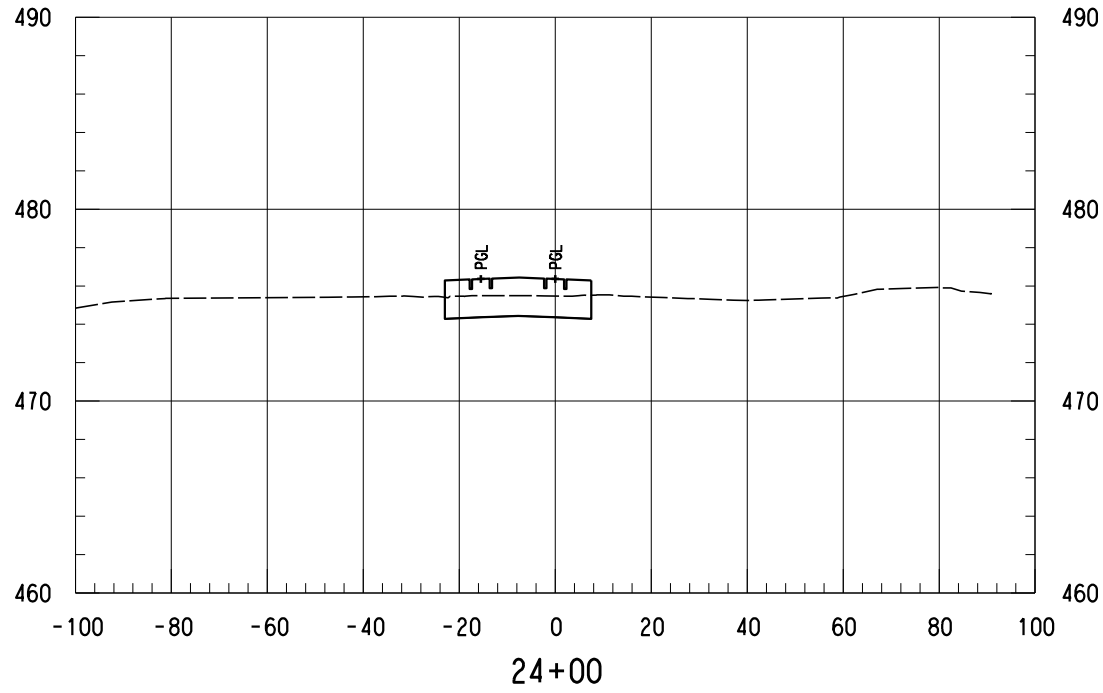
**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020





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 20% DESIGN

CONTRACT SHEET No. 135 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 23+50.00 TO STA 25+00.00

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. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



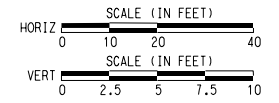
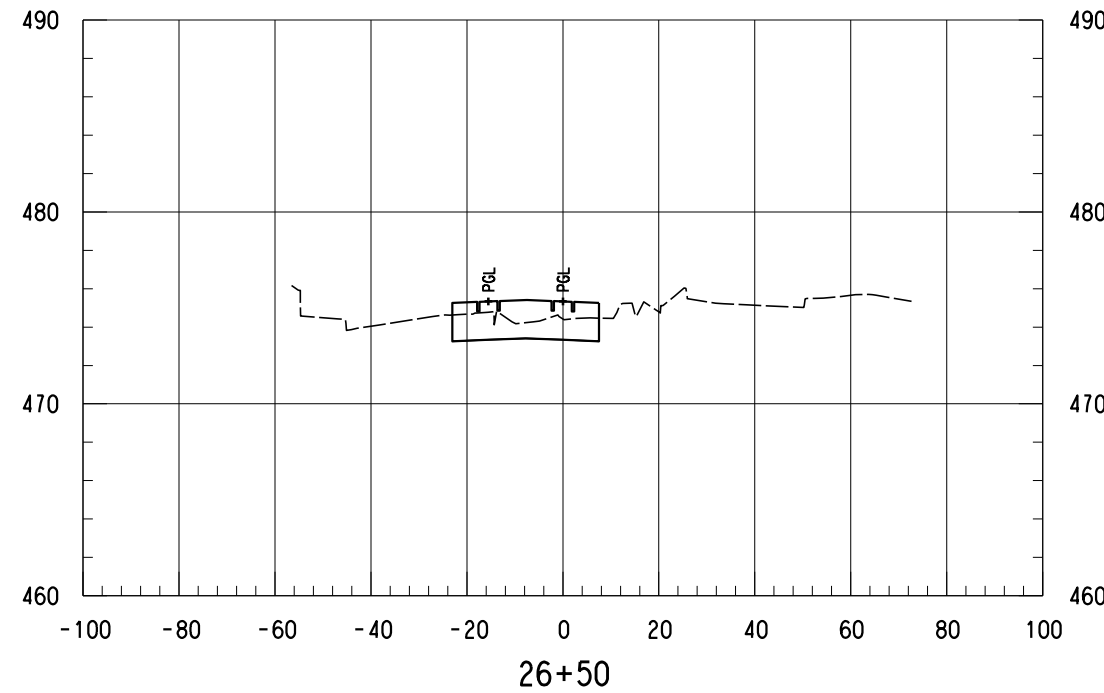
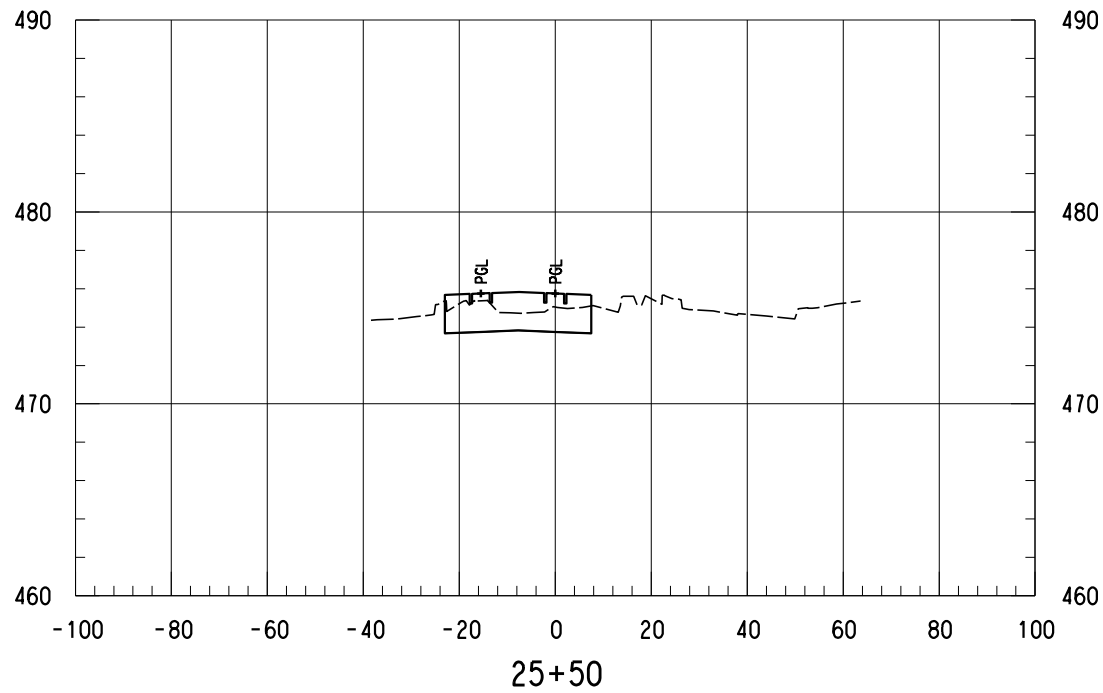
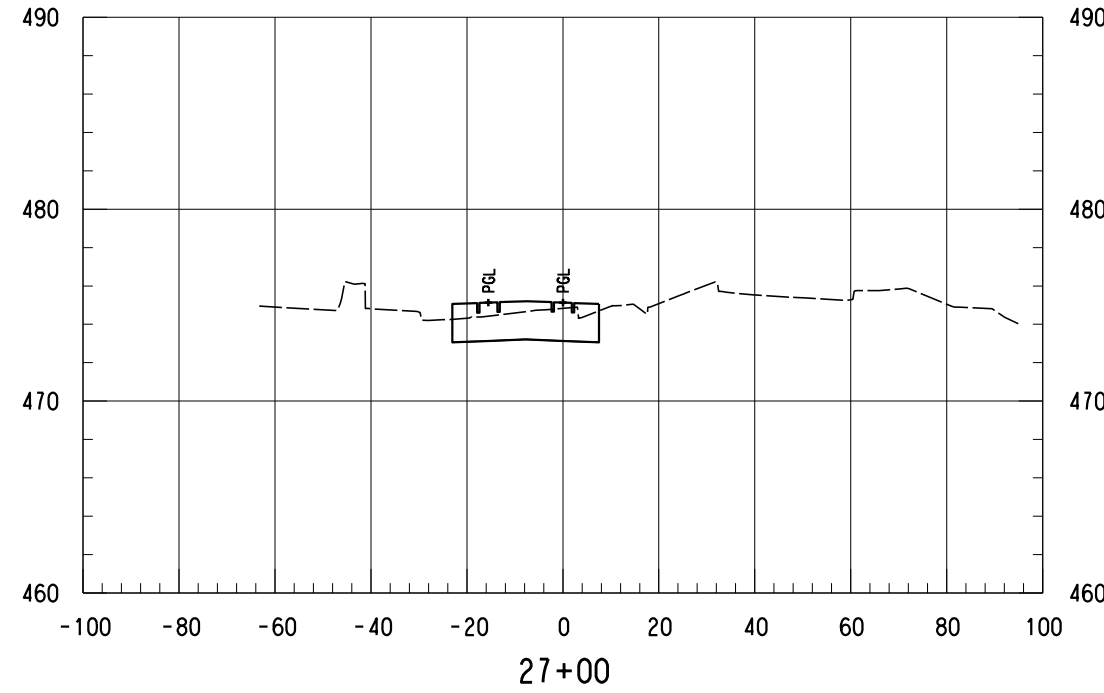
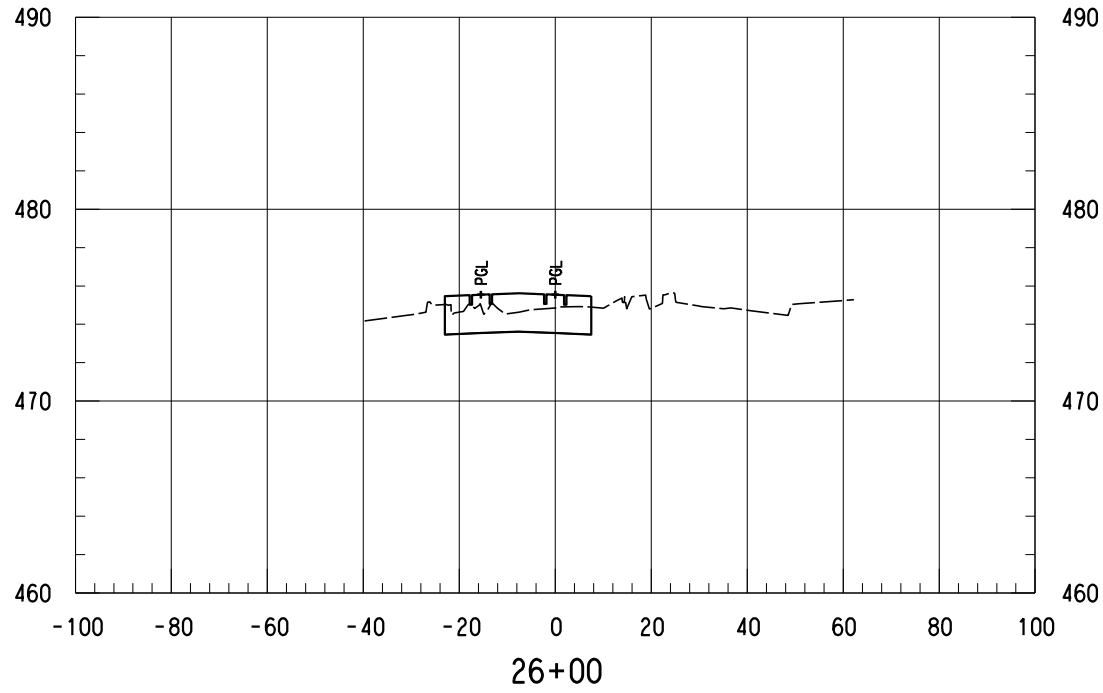
DART PROJECT



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



CONTRACT	DWG No. CCB-0072	REV
----------	------------------	-----



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 20% DESIGN

CONTRACT SHEET No. 136 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 SE-1  
 GUIDEWAY CROSS SECTIONS  
 STA 25+50.00 TO STA 27+00.00

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 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	03/06/2020



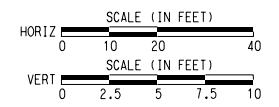
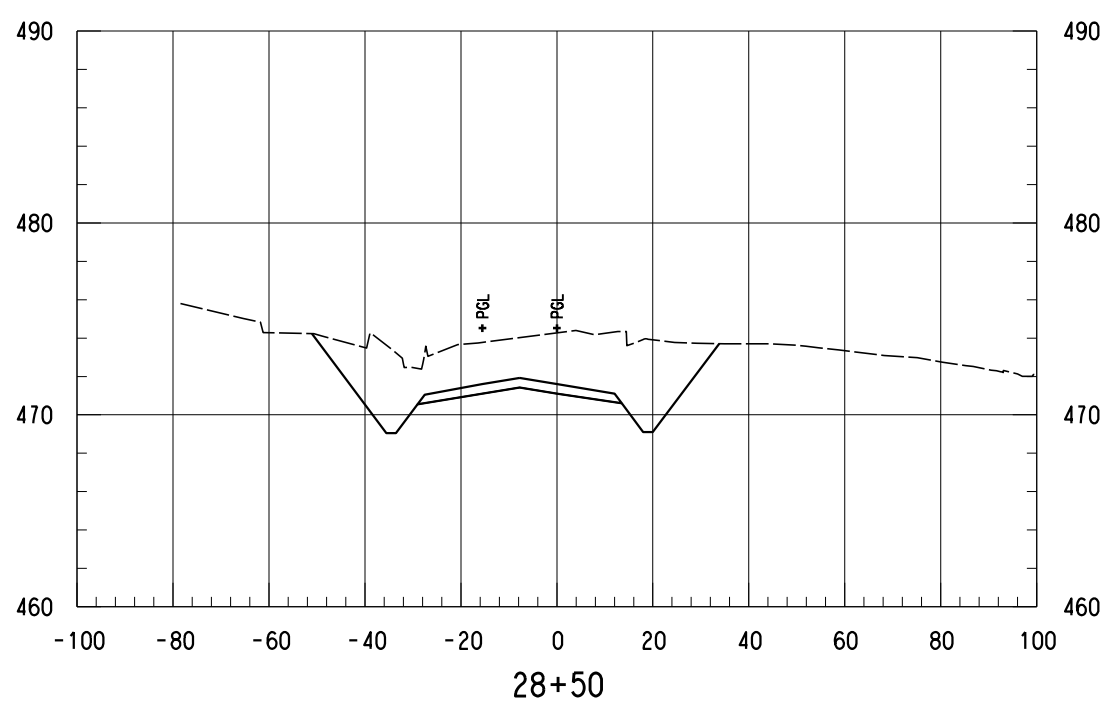
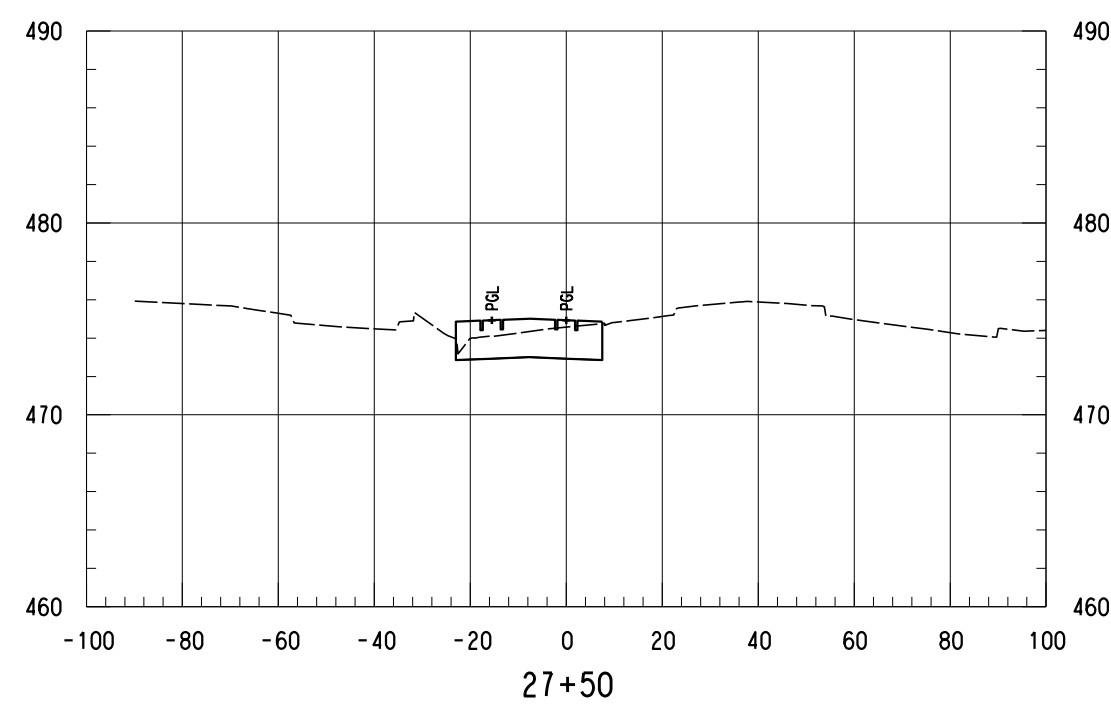
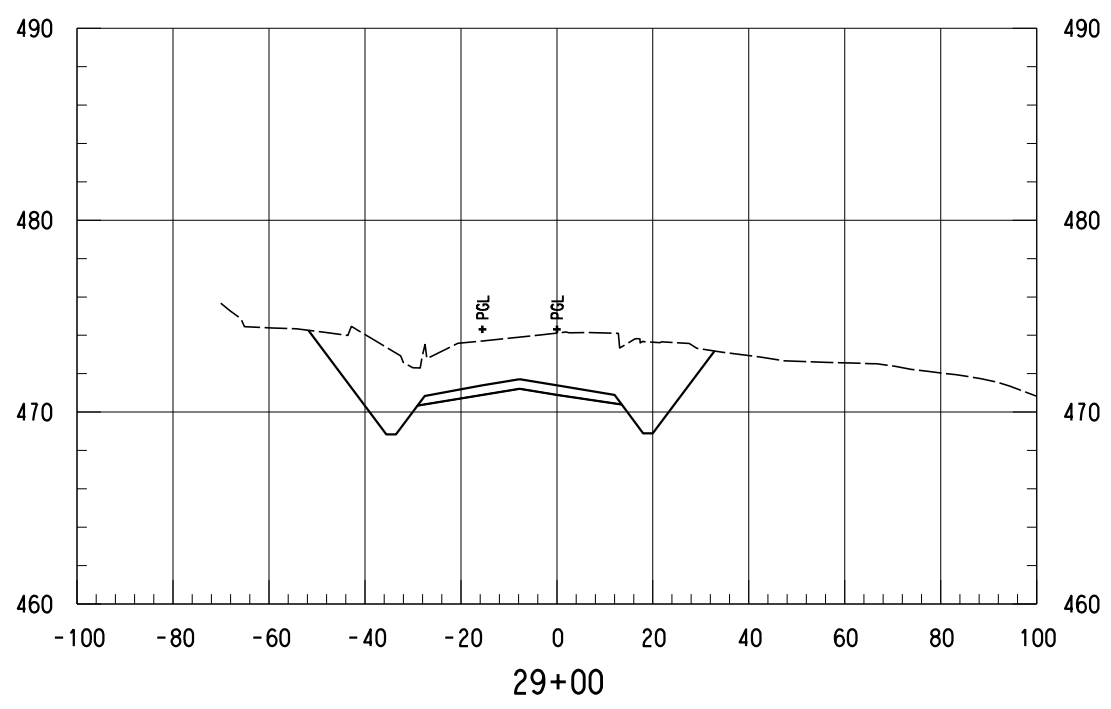
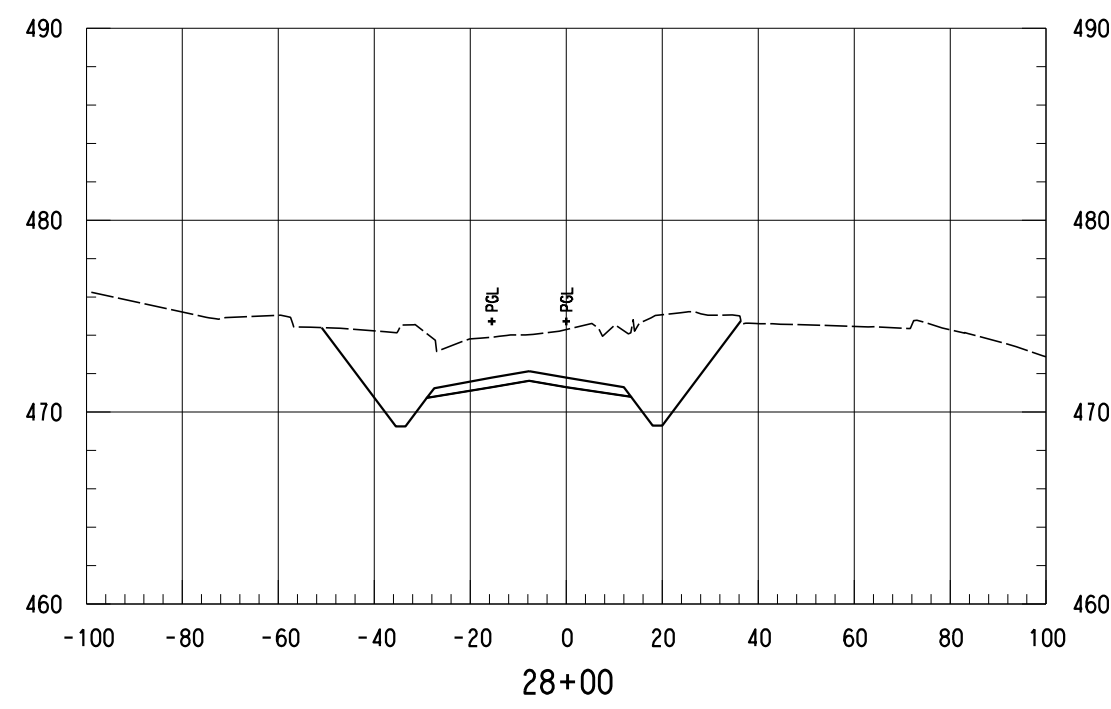
CONTRACT	DWG No. CCB-0073	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:14 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$



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 20% DESIGN

CONTRACT SHEET No. 137 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 27+50.00 TO STA 29+00.00

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020

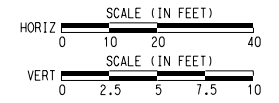
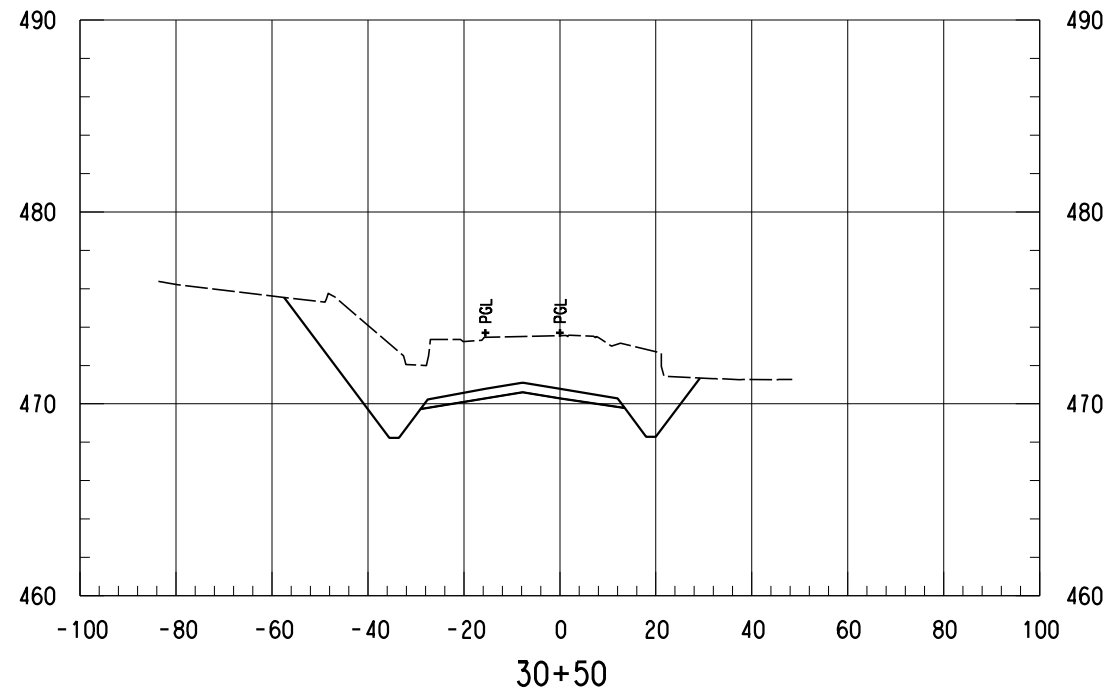
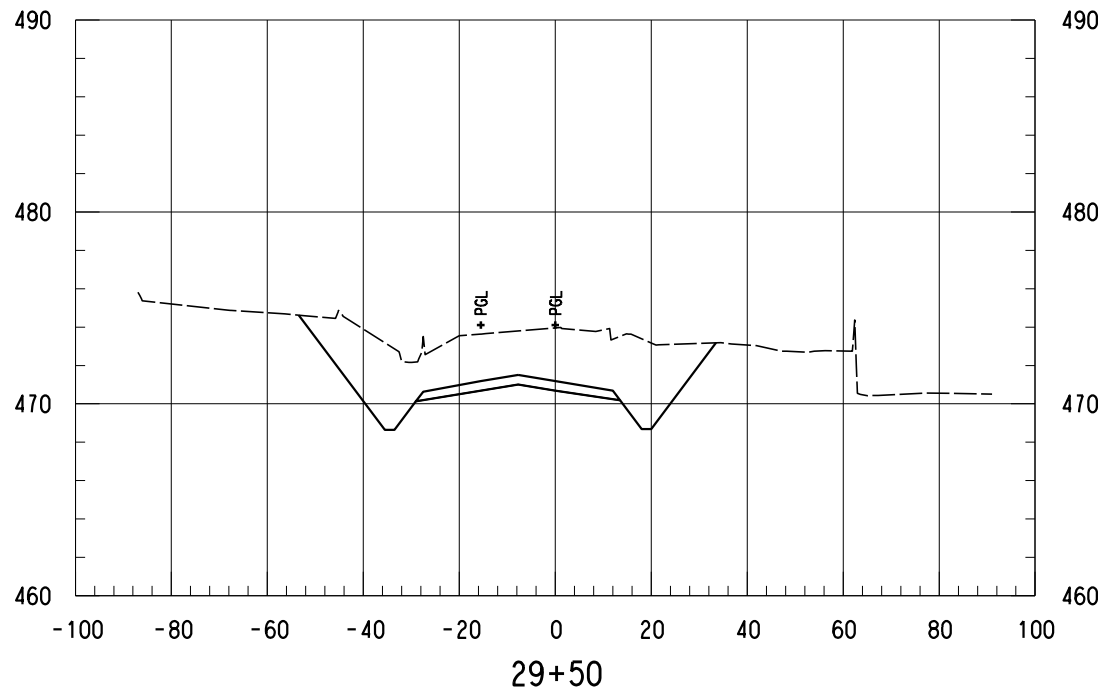
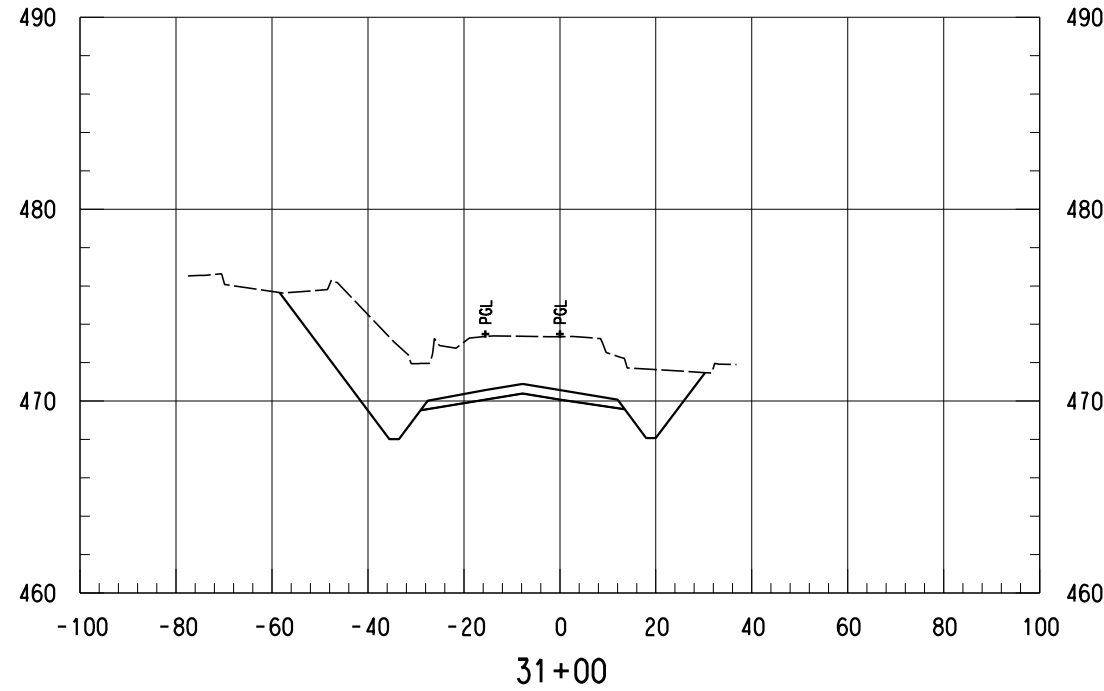
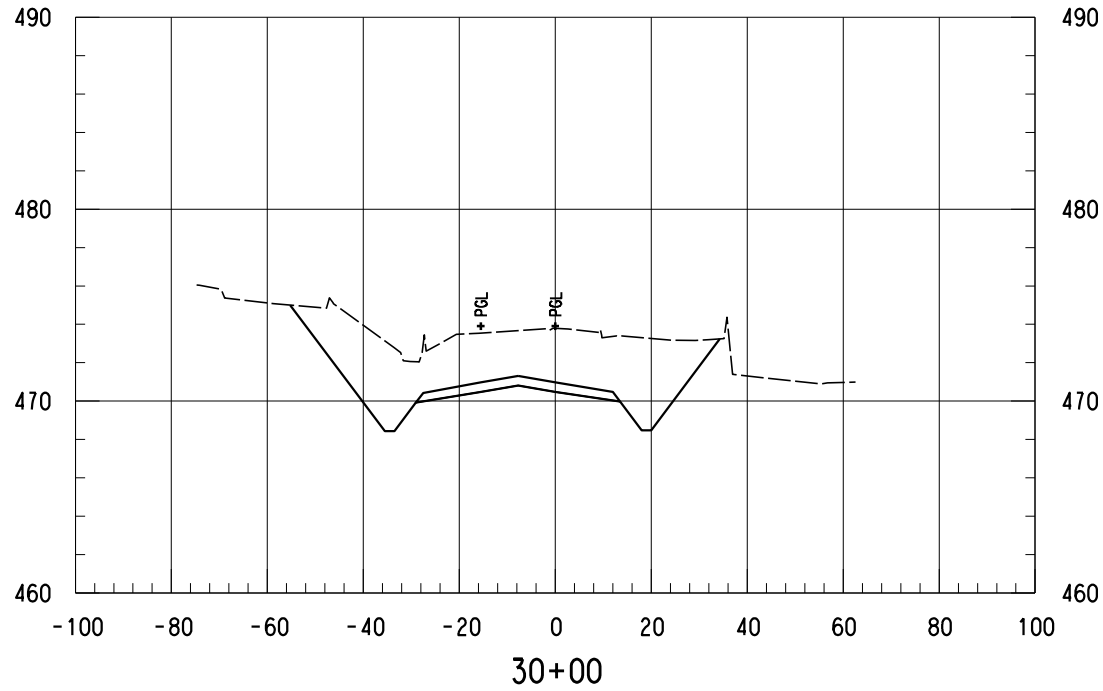


CONTRACT	DWG No. CCB-0074	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:14 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



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 20% DESIGN

CONTRACT SHEET No. 138 OF 276

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. CCB-0075 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

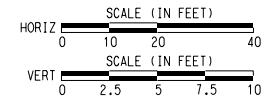
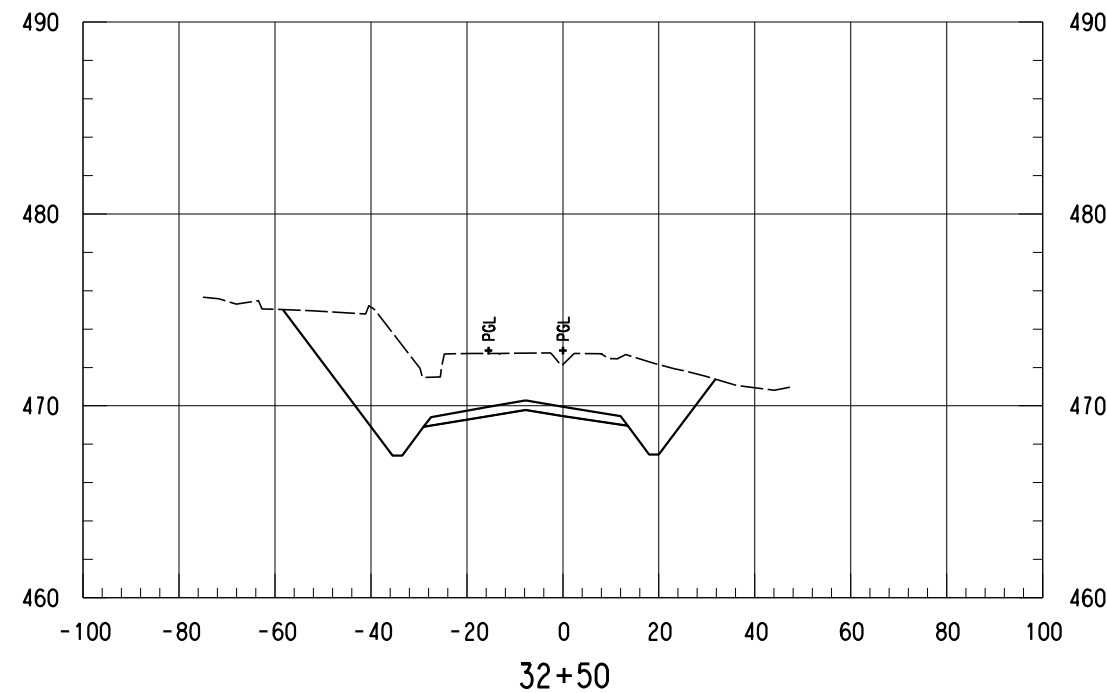
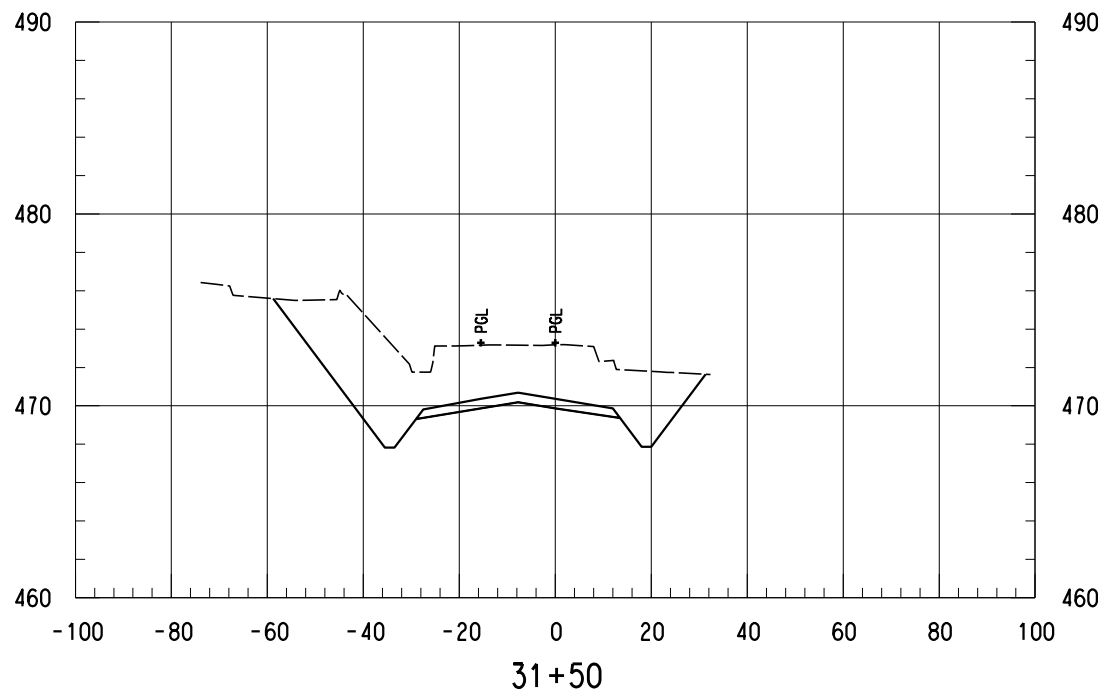
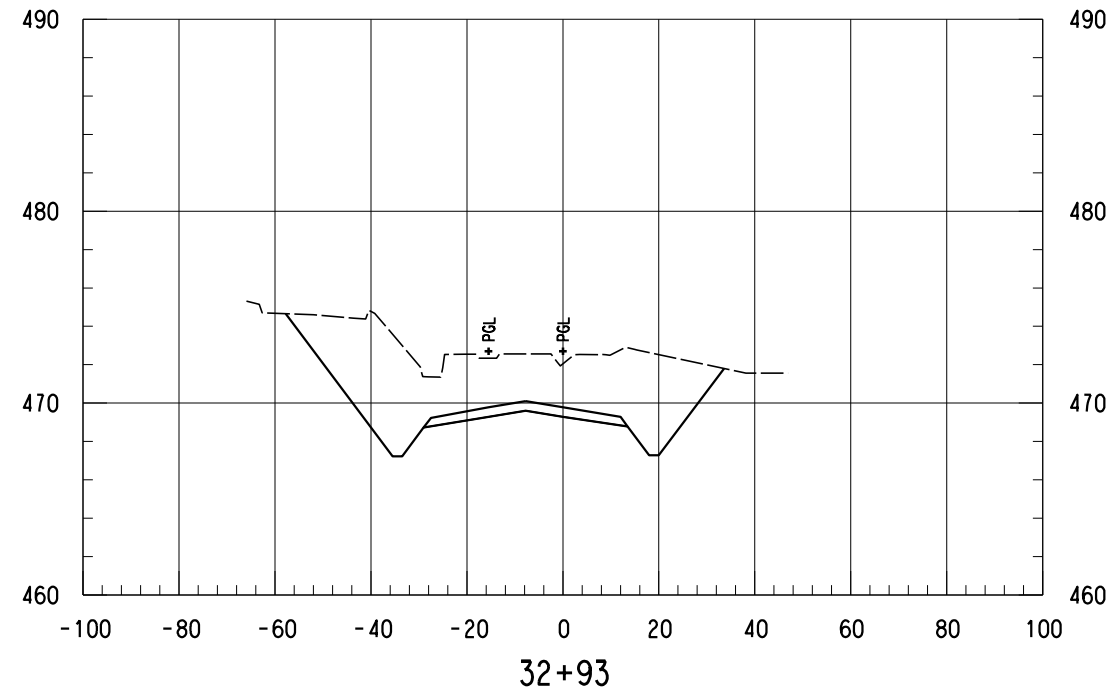
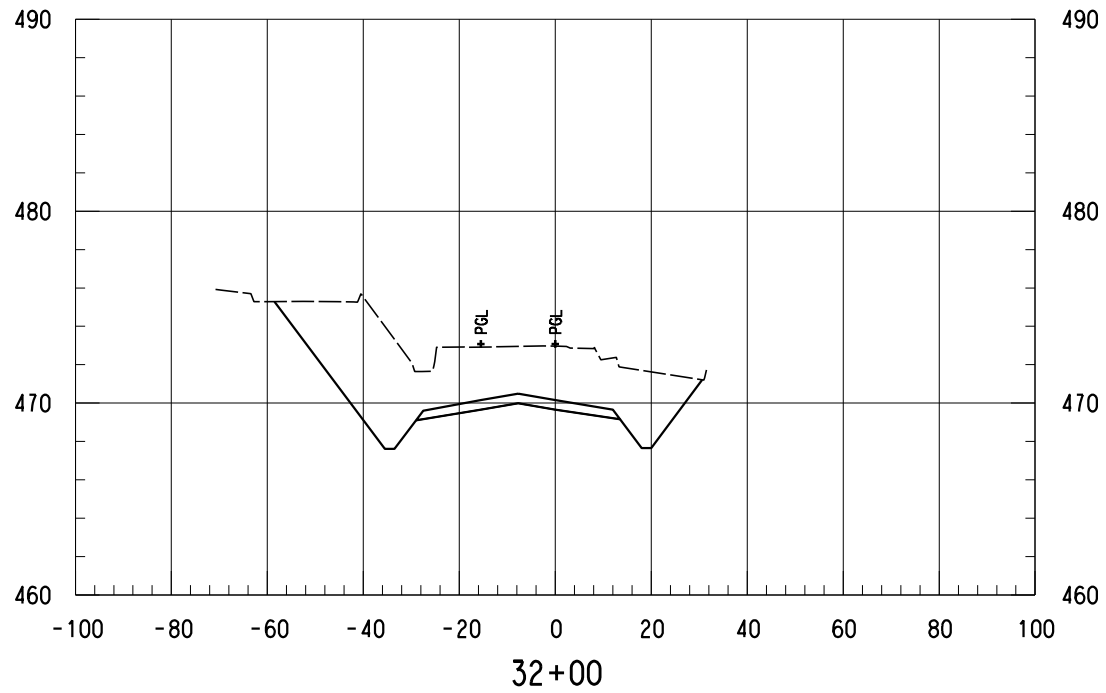


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:15 PM

DANGLE



- 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 20% DESIGN

CONTRACT SHEET No. 139 OF 276

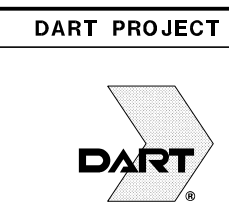
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1  
GUIDEWAY CROSS SECTIONS  
STA 31+50.00 TO STA 32+93.00

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

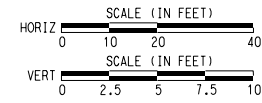


CONTRACT	DWG No. CCB-0076	REV
----------	------------------	-----

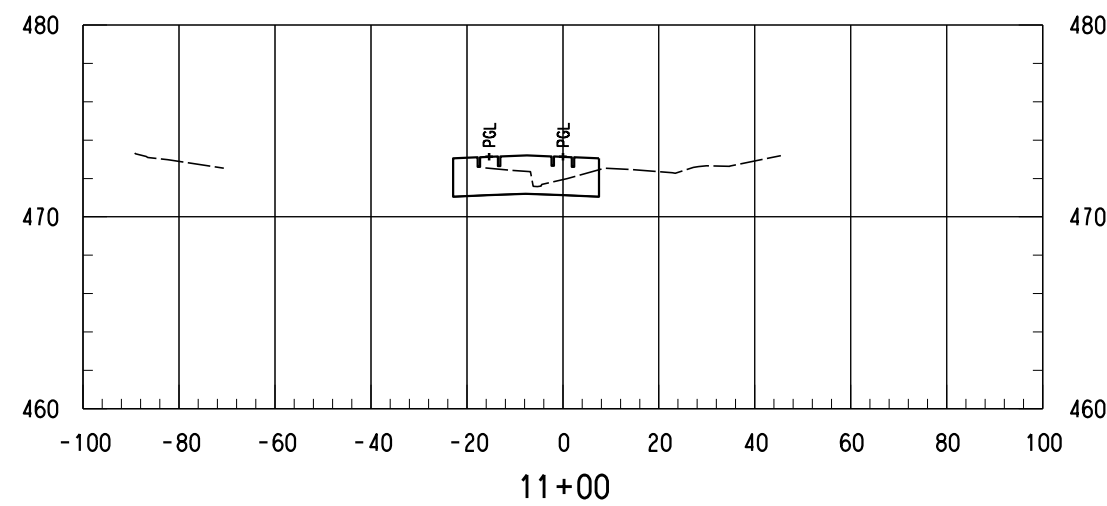
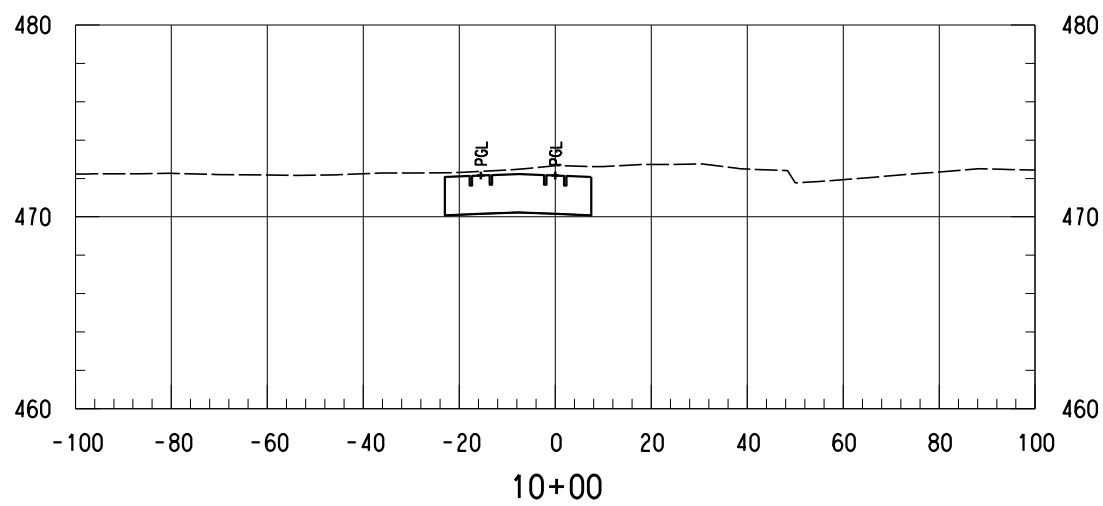
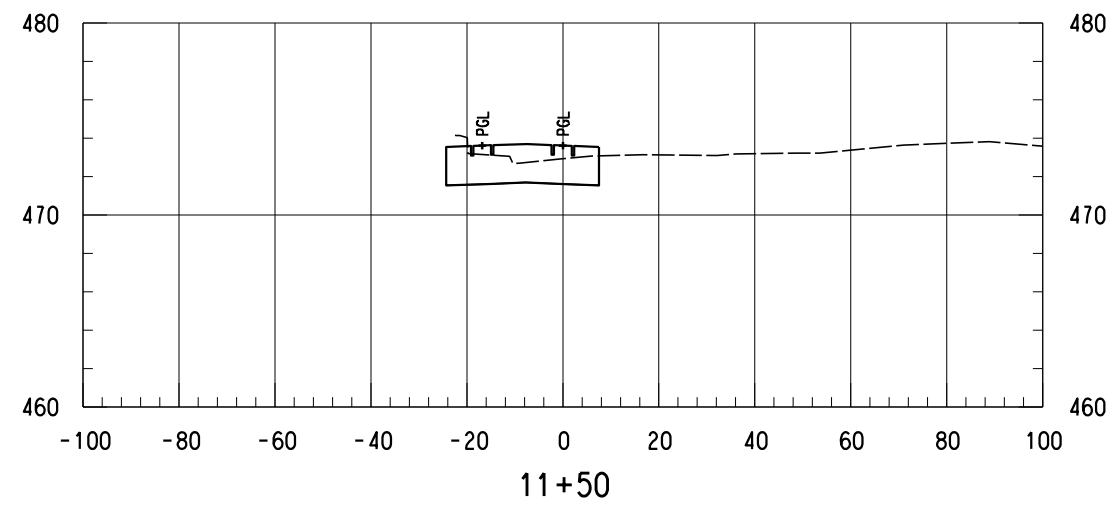
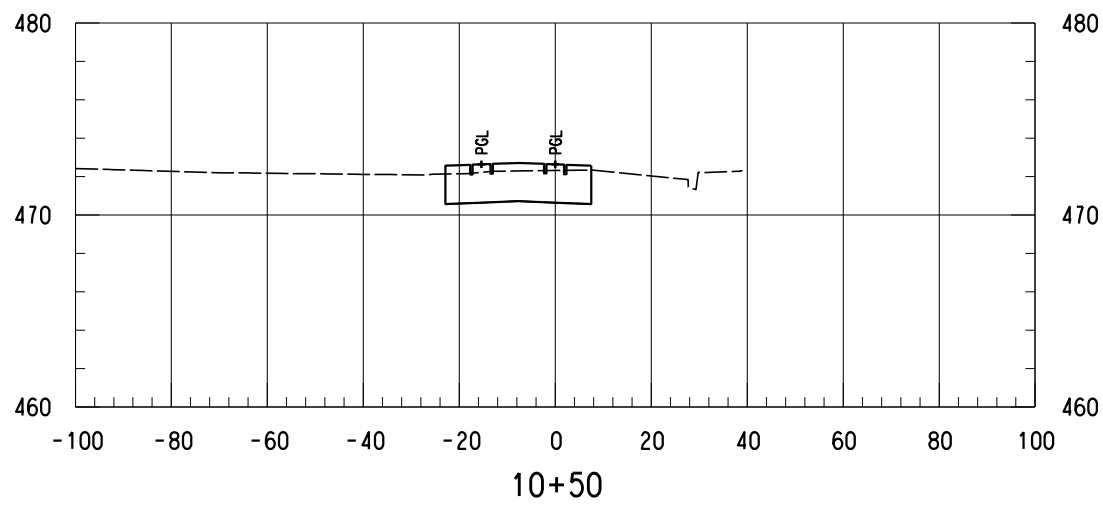
Friday, February 28, 2020 12:58:16 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

DANGLE

\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$



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



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 140 OF 276

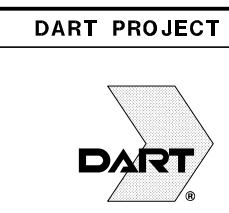
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

WYE  
GUIDEWAY CROSS SECTIONS  
STA 10+00.00 TO STA 11+50.00

CONTRACT DWG No. CCB-0077 REV

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124571  
ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



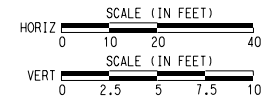
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



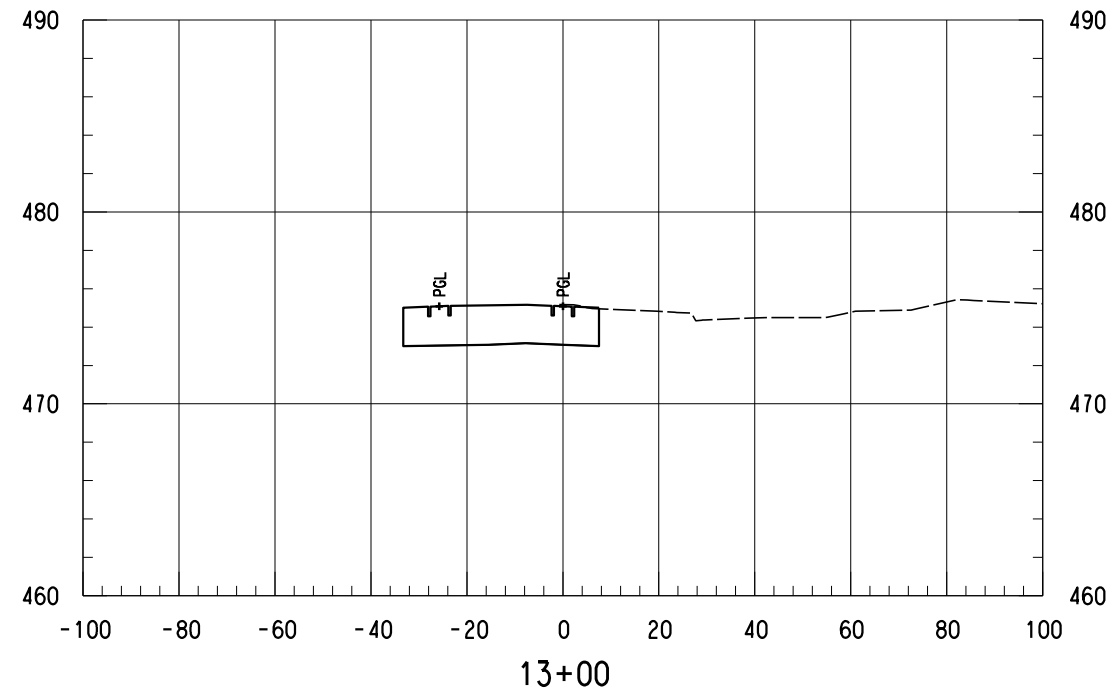
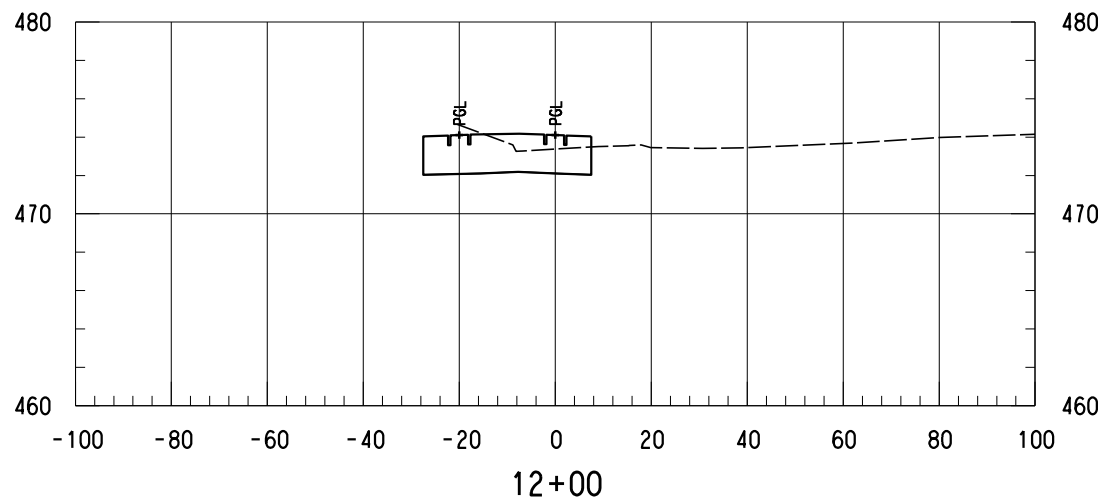
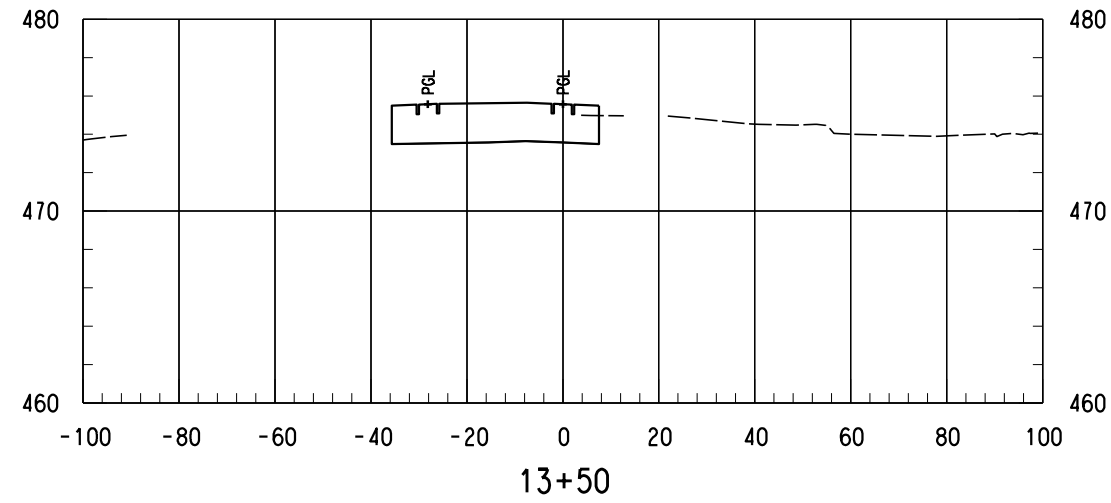
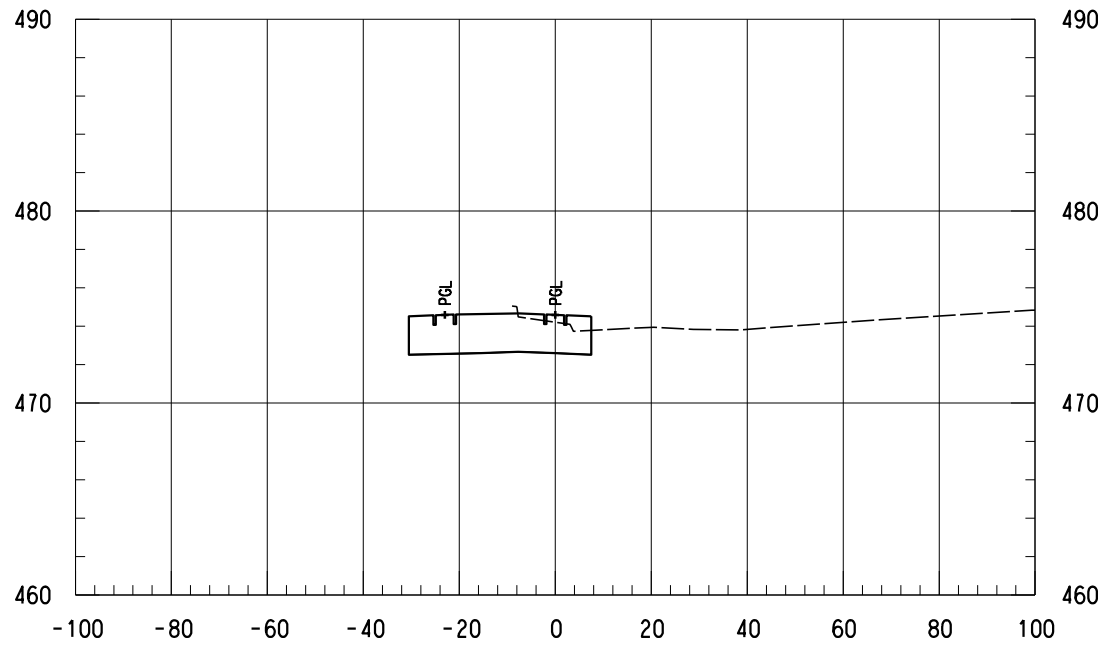
Friday, February 28, 2020 12:58:16 PM

DANGLE

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



- 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 20% DESIGN

CONTRACT SHEET No. 141 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

WYE  
 GUIDEWAY CROSS SECTIONS  
 STA 12+00.00 TO STA 13+50.00

CONTRACT DWG No. CCB-0078 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 AMANDA C. STAHLNECKER, P.E., NO. 124571  
 ON 03/06/2020  
 HDR ENGINEERING, INC.  
 TYPE FIRM NO. F-754  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



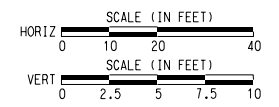
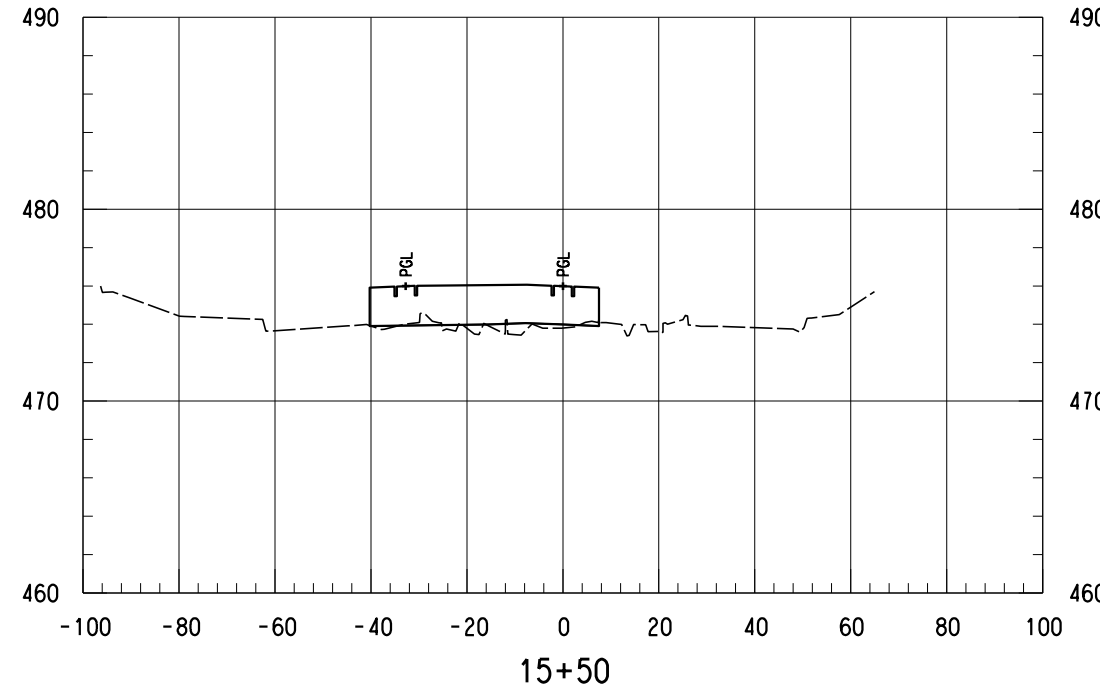
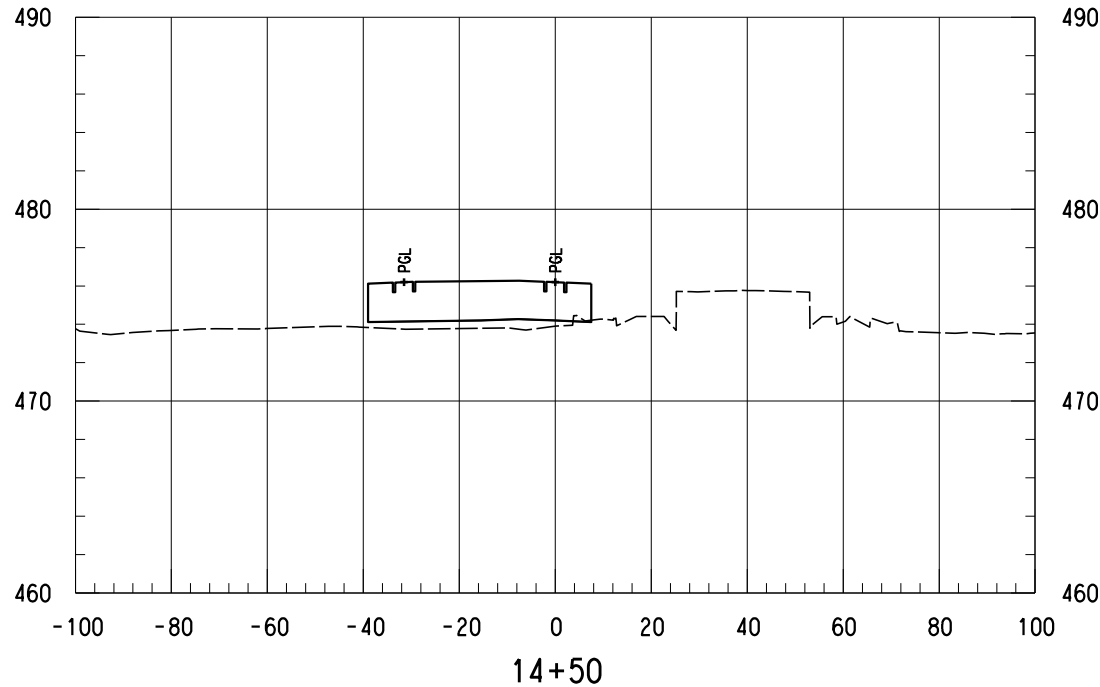
SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020



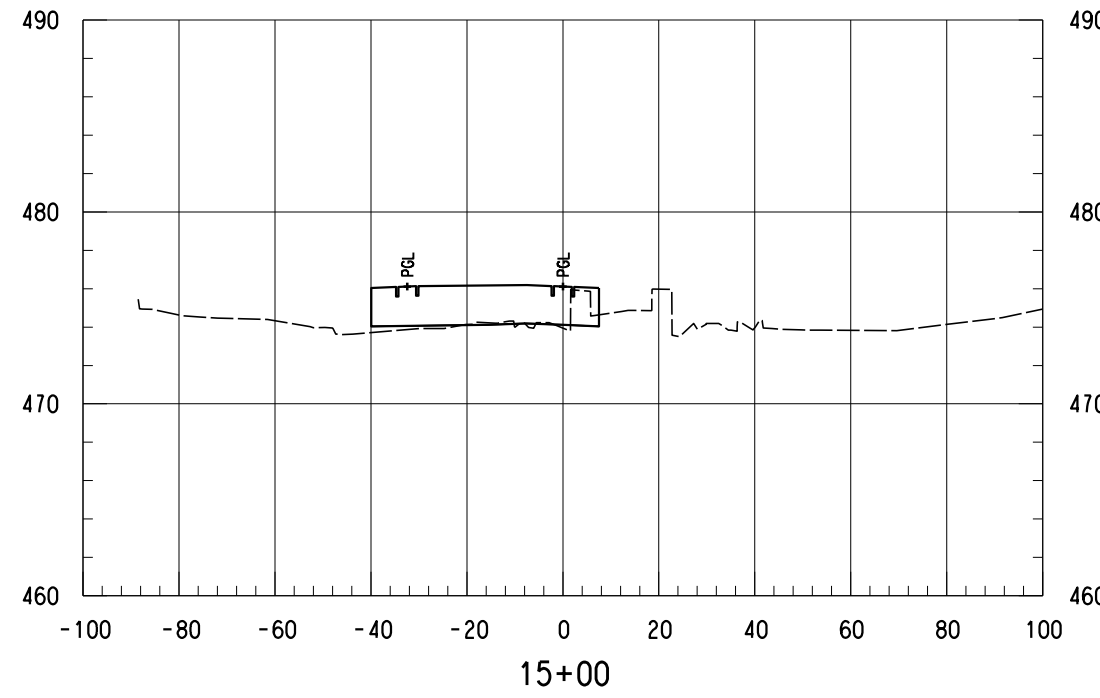
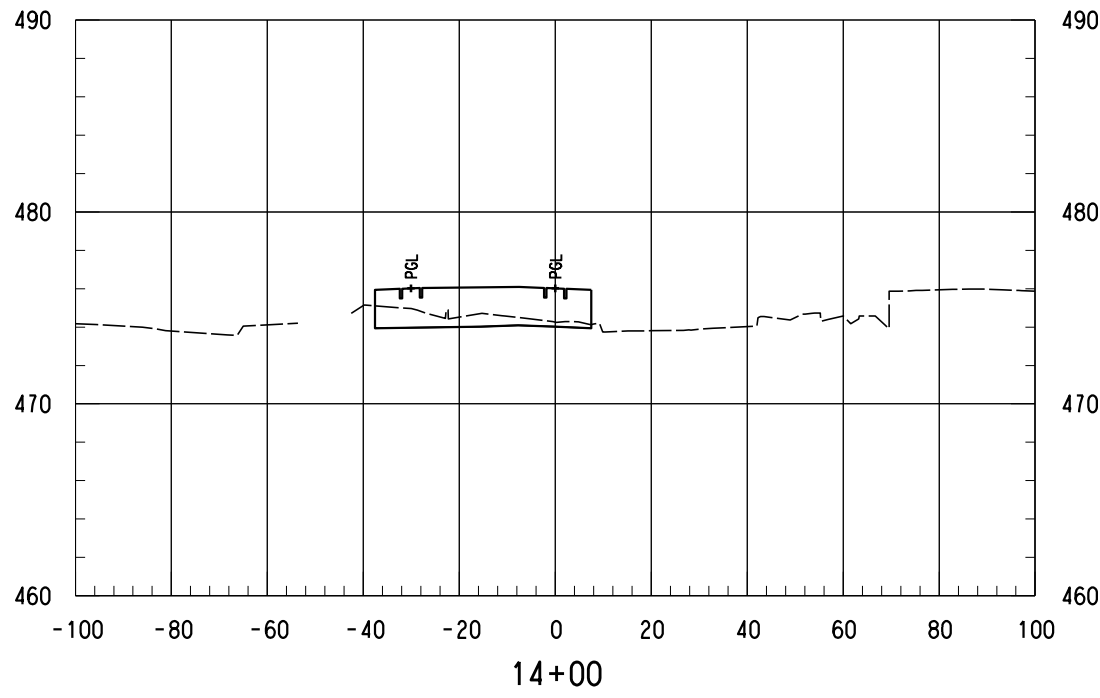
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:17 PM  
 #####DGN#SPECIFICATION#####

DANGLE



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 20% DESIGN

CONTRACT SHEET No. 142 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

WYE  
GUIDEWAY CROSS SECTIONS  
STA 14+00.00 TO STA 15+50.00

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
AMANDA C. STAHLNECKER, P.E., NO. 124511 ON 03/06/2020  
HDR ENGINEERING, INC.  
TYPE 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	03/06/2020



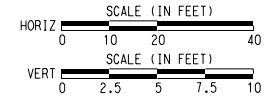
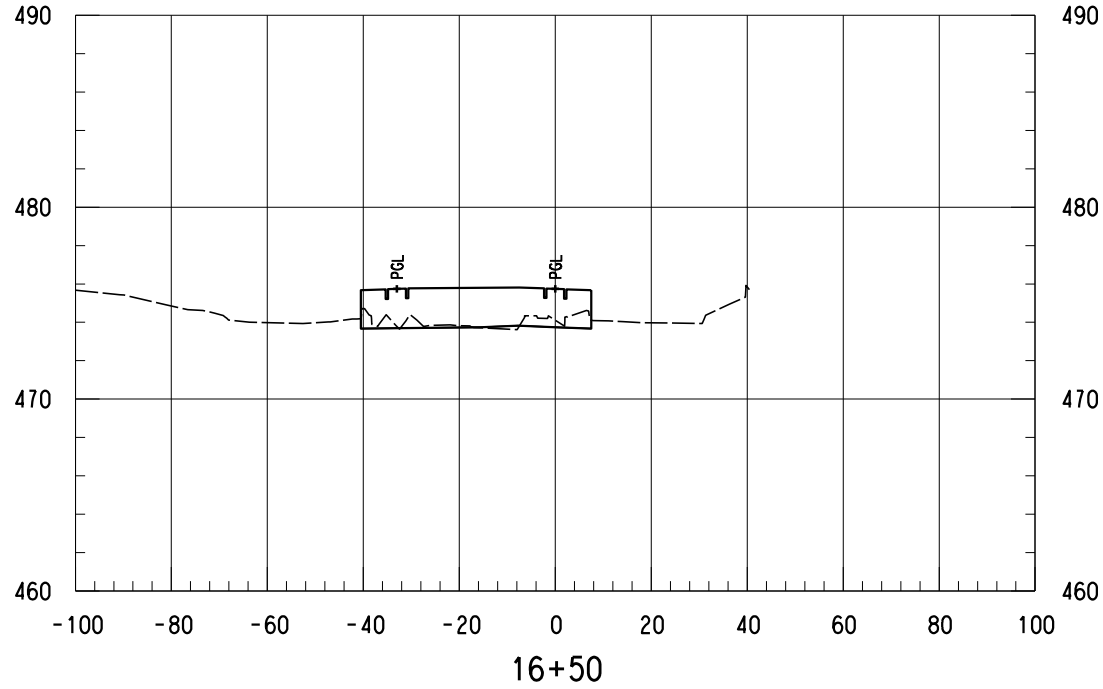
CONTRACT	DWG No. CCB-0079	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 12:58:18 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

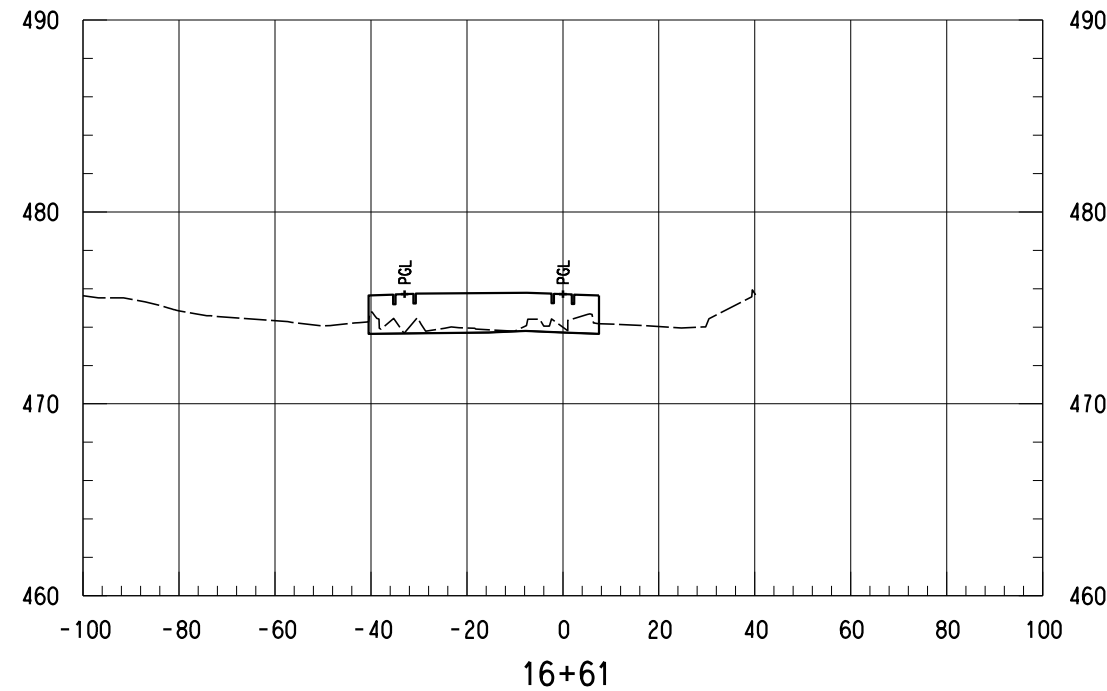
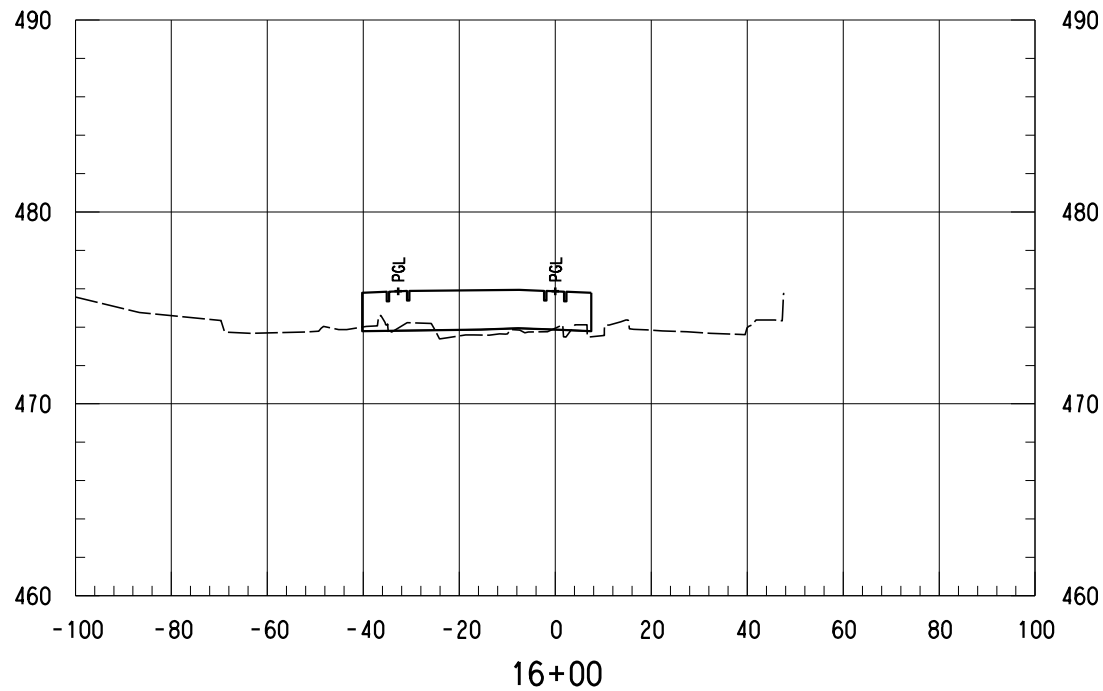
DANGLE





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 20% DESIGN

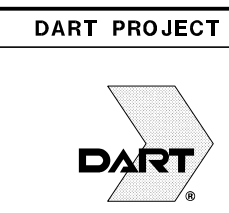
CONTRACT SHEET No. 143 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

WYE  
GUIDEWAY CROSS SECTIONS  
STA 16+00.00 TO STA 16+61.00

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 03/06/2020  
HDR ENGINEERING, INC.  
TYPE FIRM NO. F-754  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

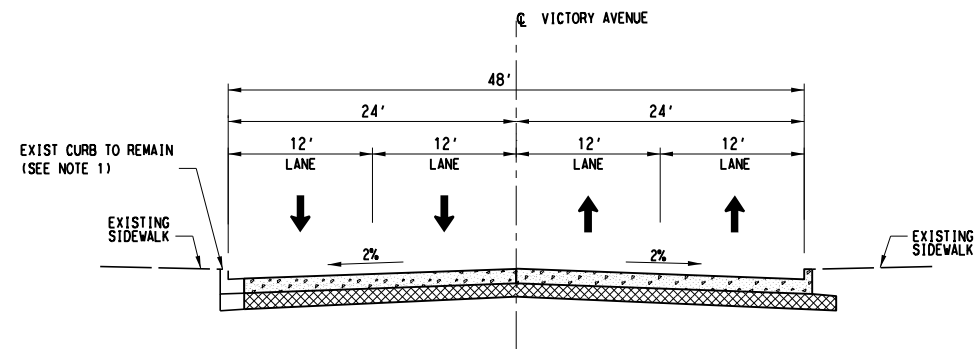
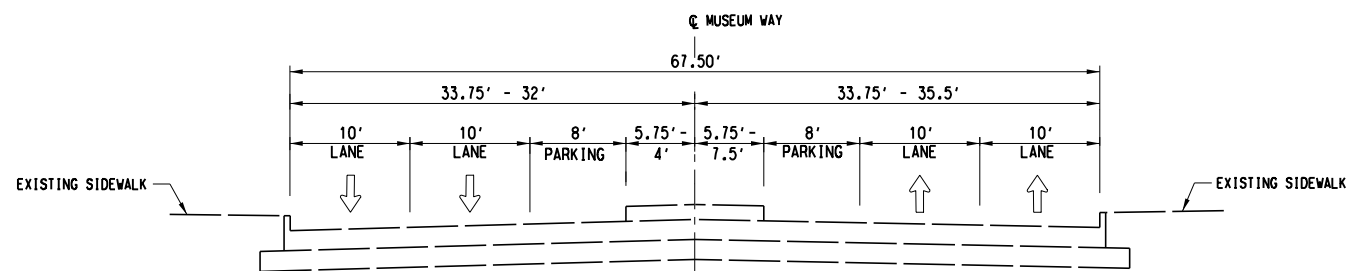


SCALE	AS NOTED
DRAWN	L. GUBLO
DESIGNED	L. GUBLO
CHECKED	D. BROWN
IN CHARGE	A. STAHLNECKER
DATE	03/06/2020

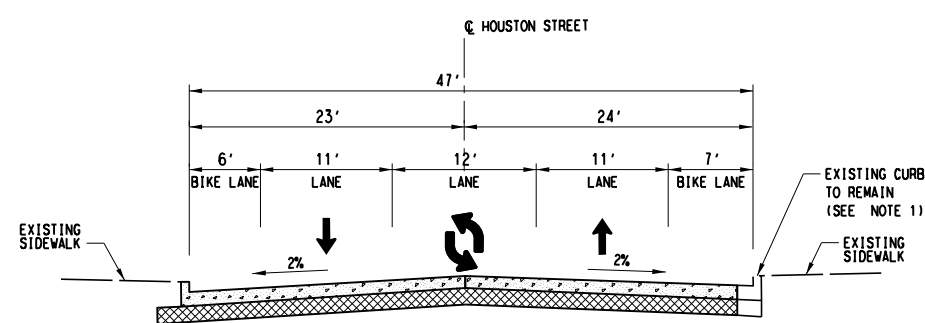
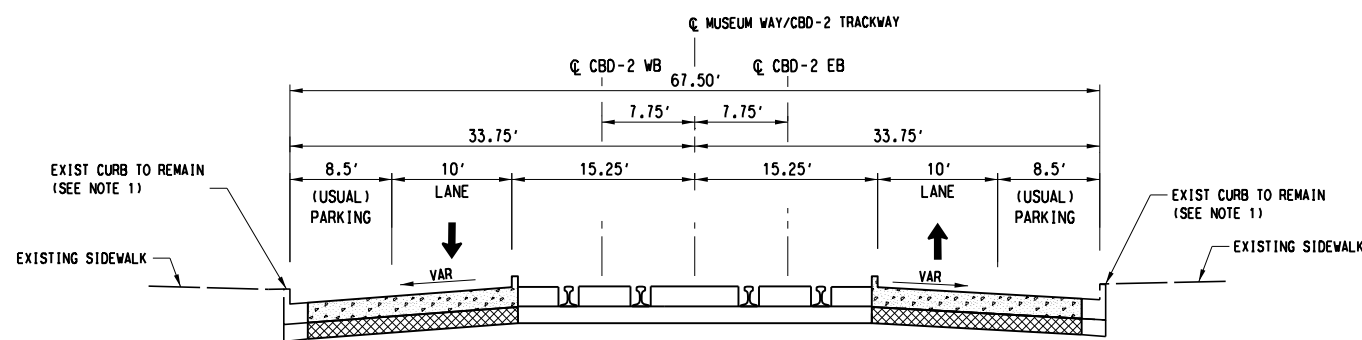
CONTRACT	DWG No. CCB-0080	REV
----------	------------------	-----

Friday, February 28, 2020 12:58:19 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

DANGLE



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.



Friday, February 28, 2020 03:23:30 PM  
pwr://pwhduscen01: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

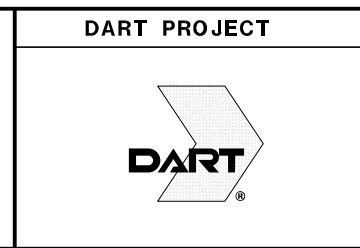
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 144 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

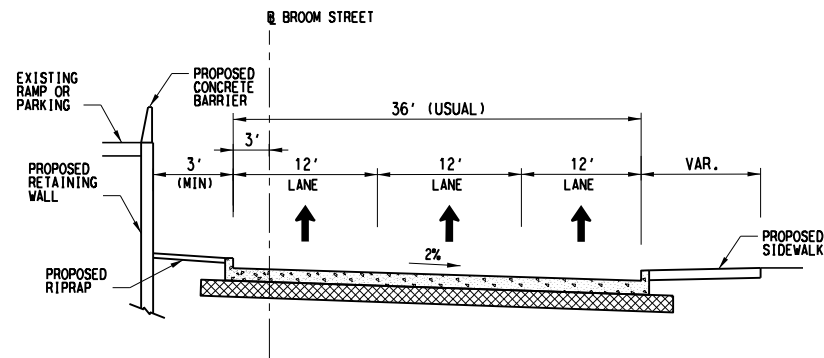
**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENNIFER MA, P.E. NO. 83964  
ON 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBPE FIRM NO. F-6981  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

CIVIL ASSOCIATES, INC.  
9330 LBJ Frwy, Ste. 1150  
Dallas, Texas 75243  
TBPE Firm Registration No. 6981

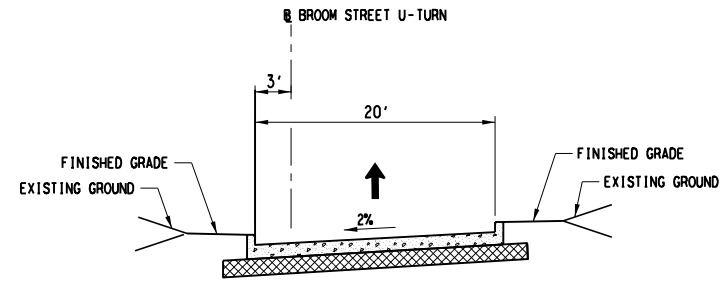


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMI CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

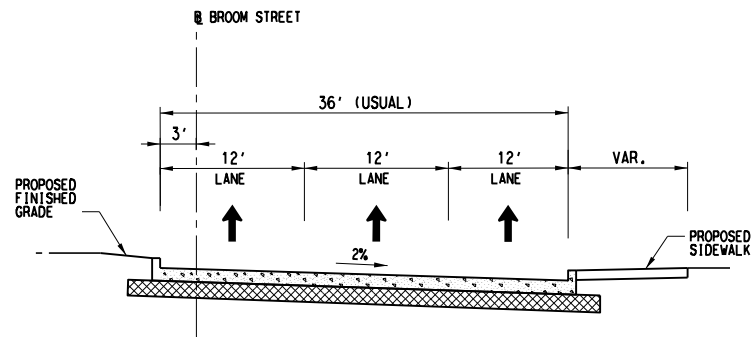
LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2 STREET MODIFICATIONS TYPICAL SECTIONS SHEET 1 OF 11		
CONTRACT	DWG No. CC6-0015	REV



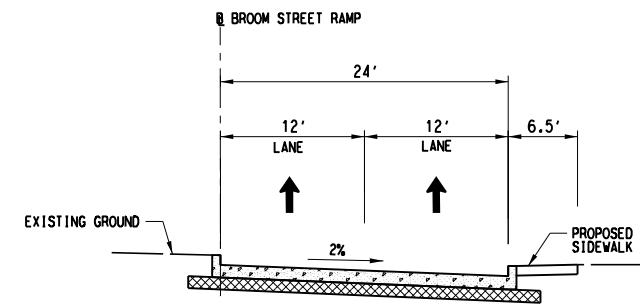
PROPOSED BROOM STREET  
SHOWING SECTION W/ WALL



PROPOSED BROOM STREET U-TURN



PROPOSED BROOM STREET  
SHOWING SECTION W/O WALL



BROOM STREET RAMP

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 145 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 2 OF 11

CONTRACT DWG No. CC6-0016 REV

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-HUAN MA, P.E. NO. 83964  
 ON 03/06/2020  
 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

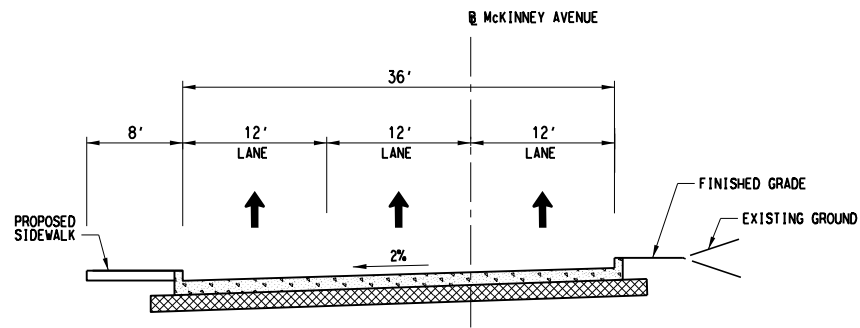


**DART PROJECT**

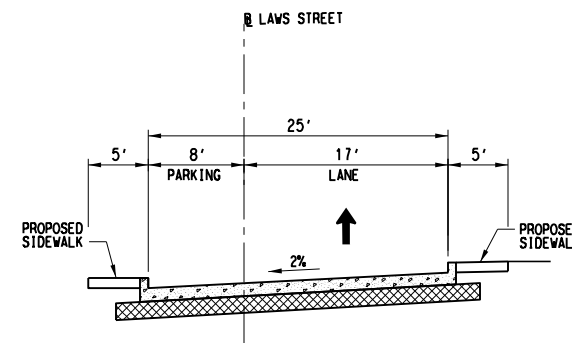


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

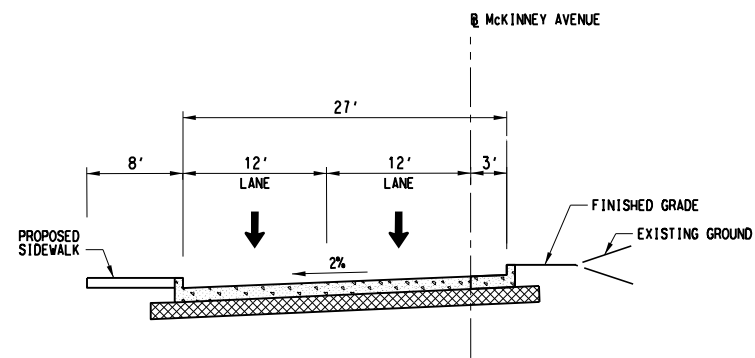




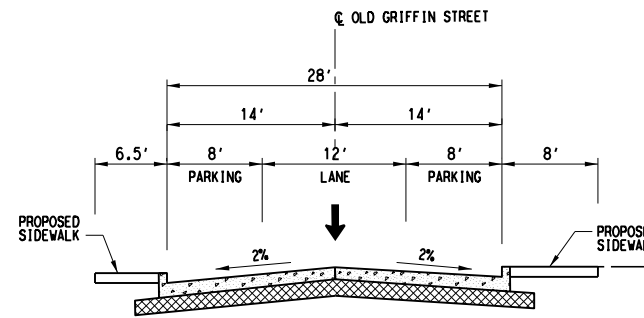
PROPOSED McKINNEY AVENUE



PROPOSED LAWS STREET



PROPOSED McKINNEY AVENUE



PROPOSED OLD GRIFFIN STREET

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 146 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 3 OF 11

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 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBP 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  
TBP Firm Registration No. 6981

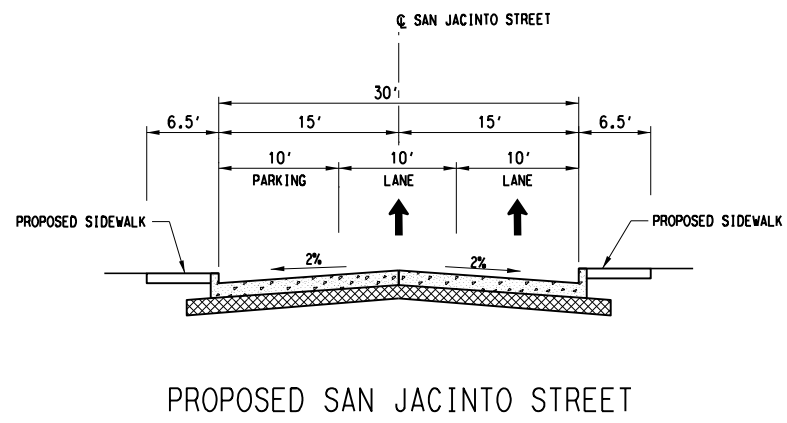
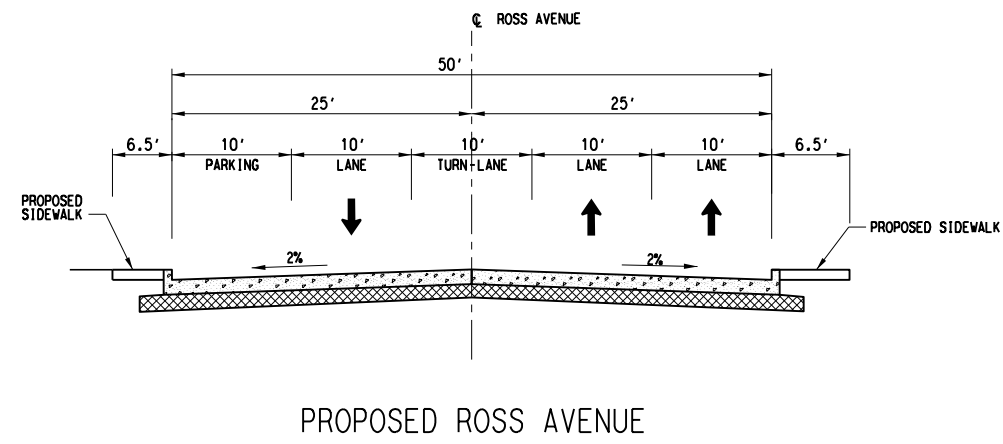
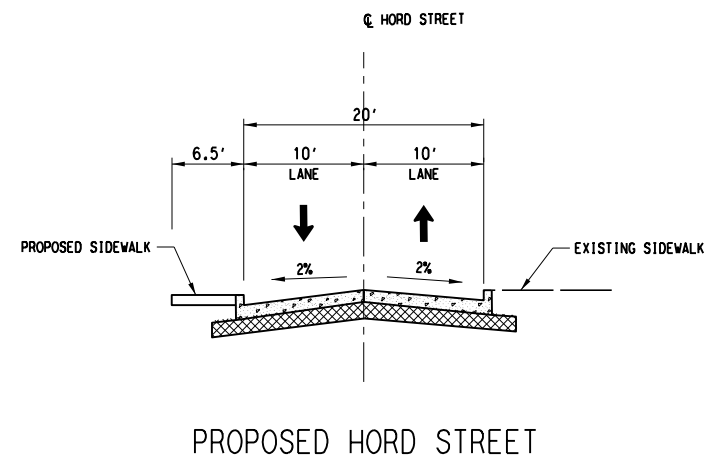


DART PROJECT

SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0017	

Friday, February 28, 2020 03:23:37 PM  
pwr://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



Friday, February 28, 2020 03:23:41 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

dfarran

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 147 OF 276

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 03/06/2020  
CIVIL ASSOCIATES, INC.  
TPE 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**

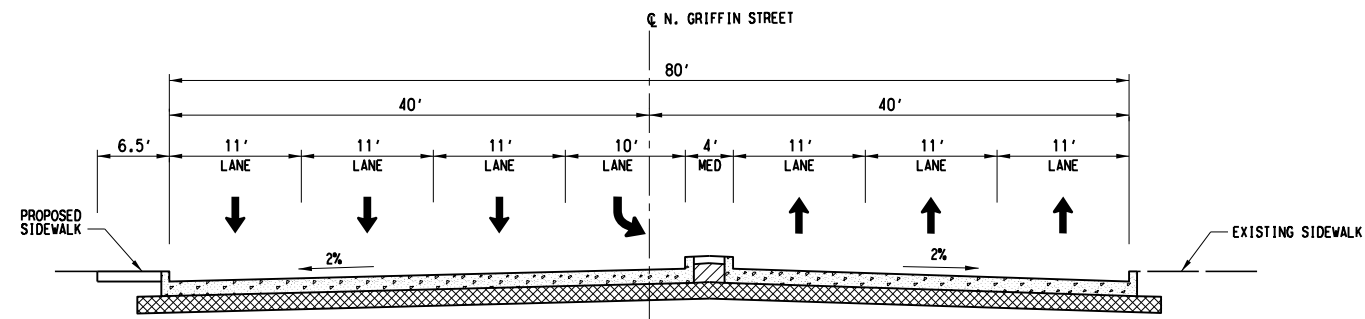


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

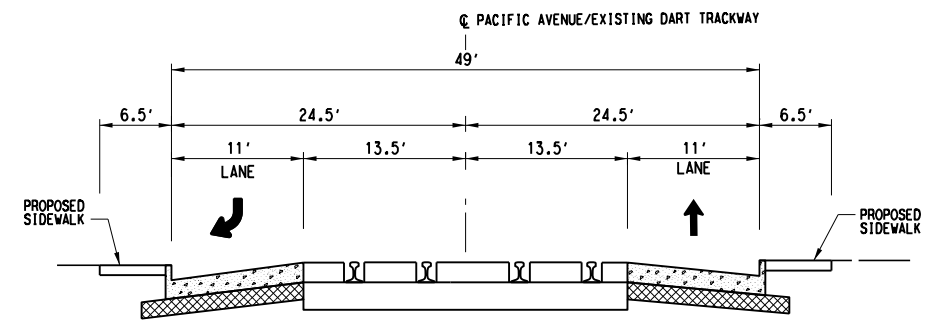


LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 4 OF 11

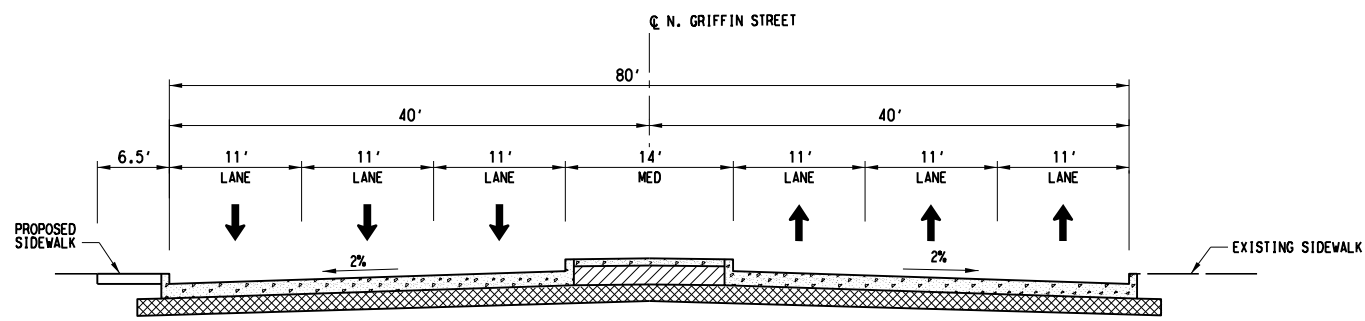
CONTRACT	DWG No.	CC6-0018	REV
----------	---------	----------	-----



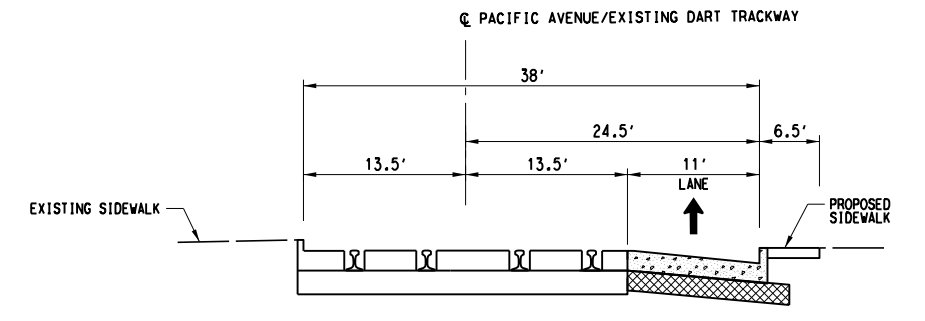
PROPOSED N. GRIFFIN STREET



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 20% DESIGN

CONTRACT SHEET No. 148 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 5 OF 11

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

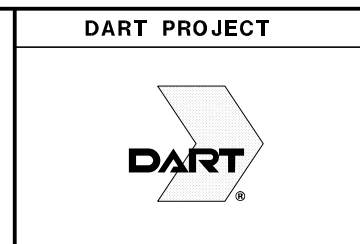
**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENNIFER MA, P.E. NO. 83964  
ON 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBPE FIRM NO. F-6981  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**CIVIL ASSOCIATES, INC.**

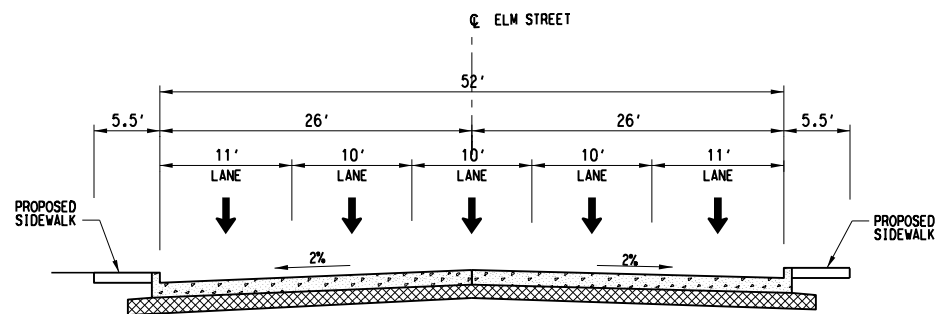
9330 LBJ Frwy, Ste. 1150  
Dallas, Texas 75243

TBPE Firm Registration No. 6981

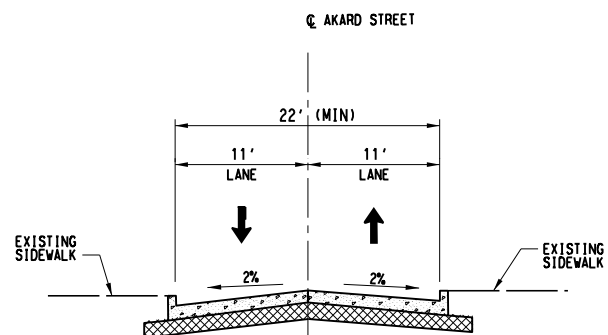


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

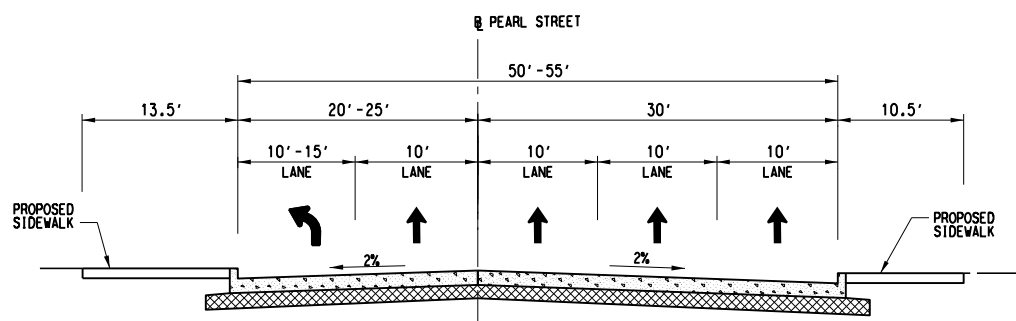
CONTRACT	DWG No. CC6-0019	REV
----------	------------------	-----



PROPOSED ELM STREET



PROPOSED AKARD STREET



PROPOSED PEARL STREET

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 149 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 6 OF 11

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 03/06/2020  
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

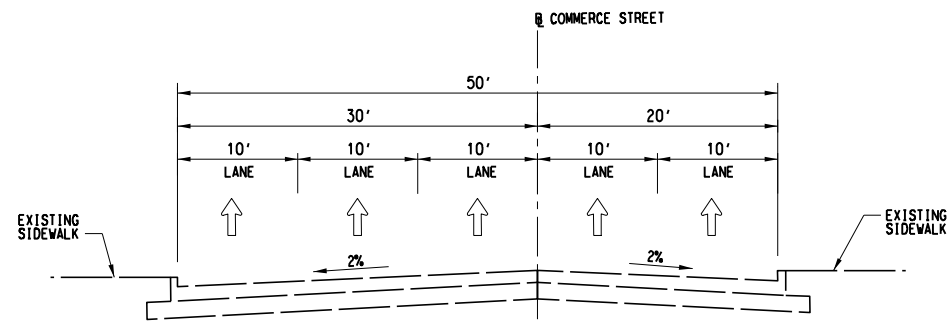


**DART PROJECT**

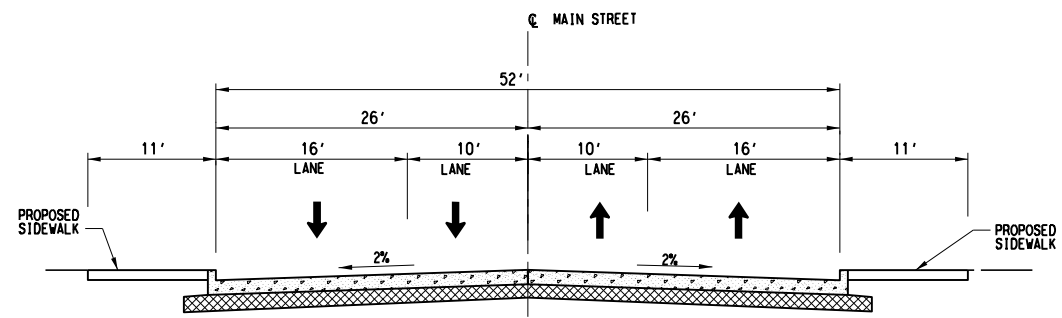


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

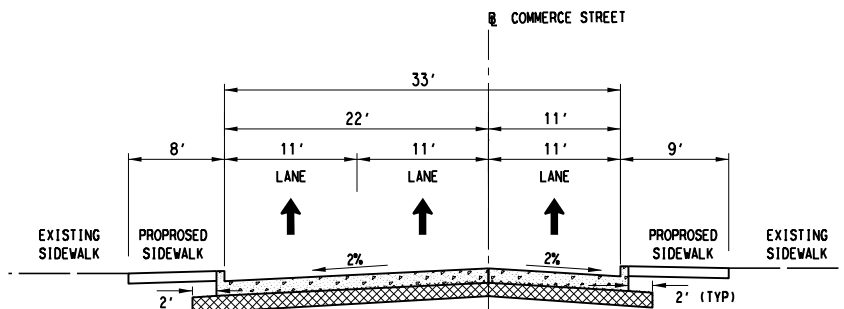
CONTRACT	DWG No. CC6-0020	REV
----------	------------------	-----



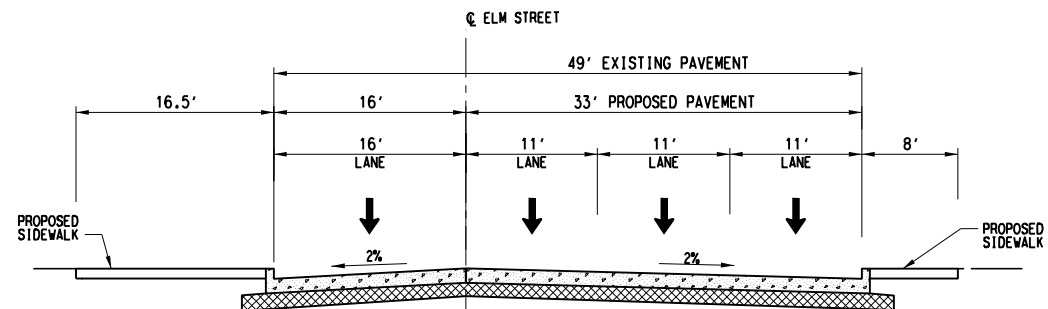
EXISTING COMMERCE STREET



PROPOSED MAIN STREET



PROPOSED COMMERCE STREET



PROPOSED ELM STREET  
AT CESAR CHAVEZ BLVD.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 150 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 7 OF 11

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENNIFER MA, P.E. NO. 83964  
ON 03/06/2020  
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

**CAI**

**DART PROJECT**

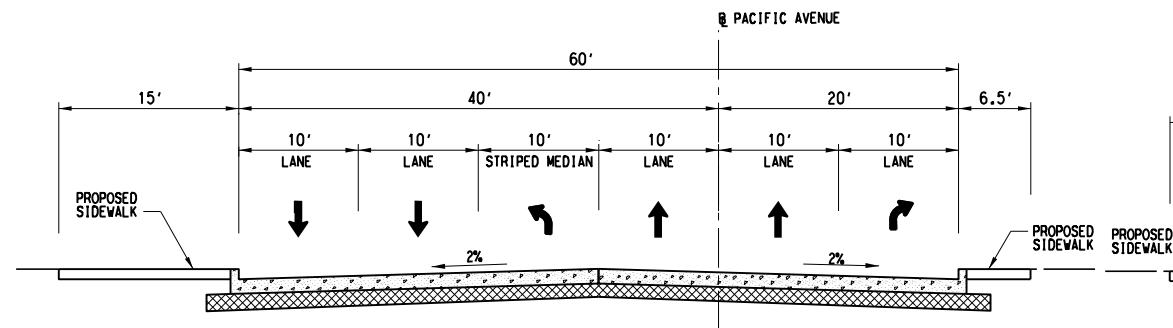



SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

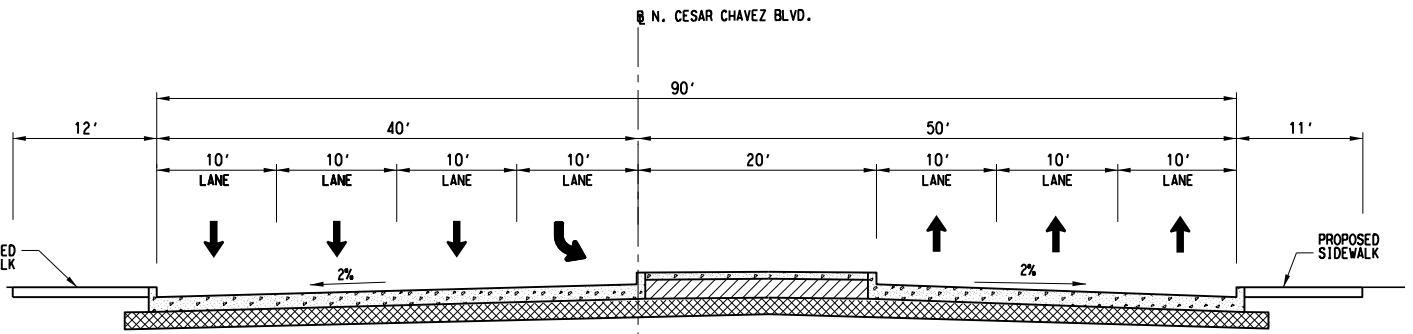


CONTRACT	DWG No.	CC6-0021	REV
----------	---------	----------	-----

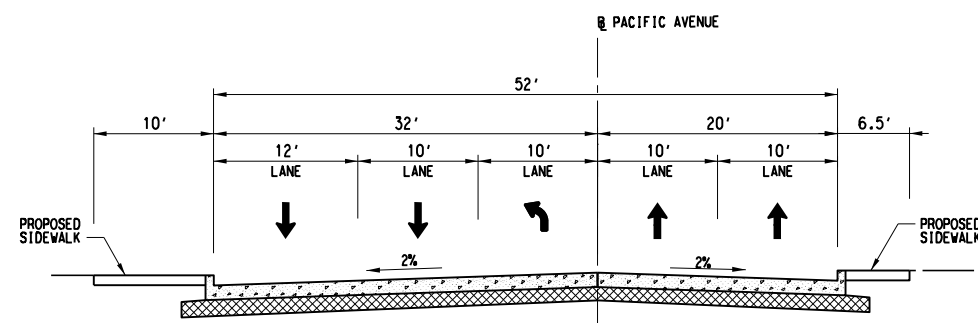




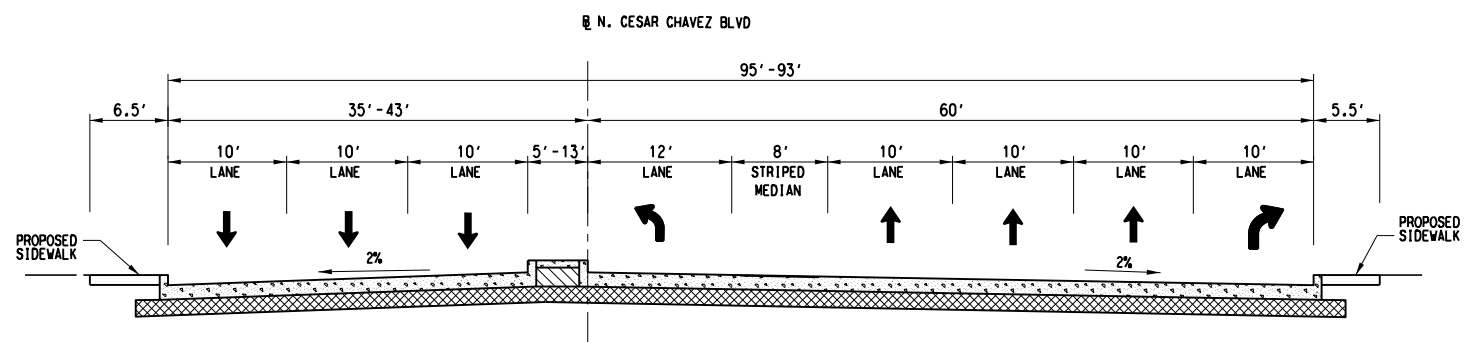
PROPOSED PACIFIC AVENUE  
EAST OF N. CESAR CHAVEZ BLVD.



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 20% DESIGN

CONTRACT SHEET No. 151 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:

JENNIFER MA, P.E. NO. 83964  
ON 03/06/2020

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	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

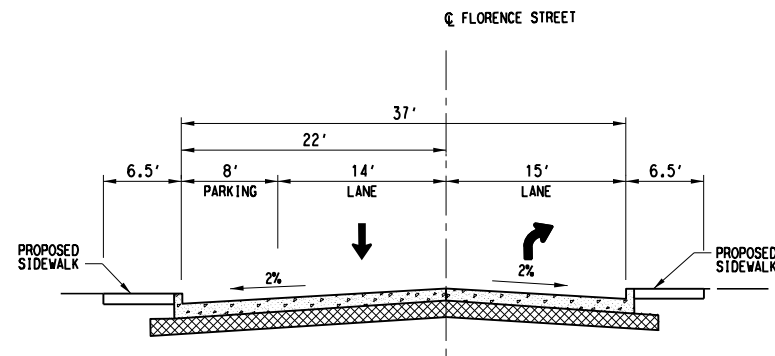
**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
**STREET MODIFICATIONS**  
**TYPICAL SECTIONS**  
**SHEET 8 OF 11**

CONTRACT

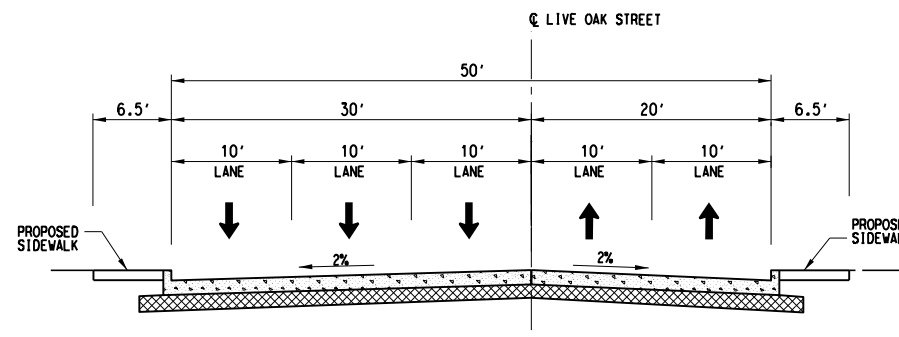
DWG No. **CC6-0022**

REV

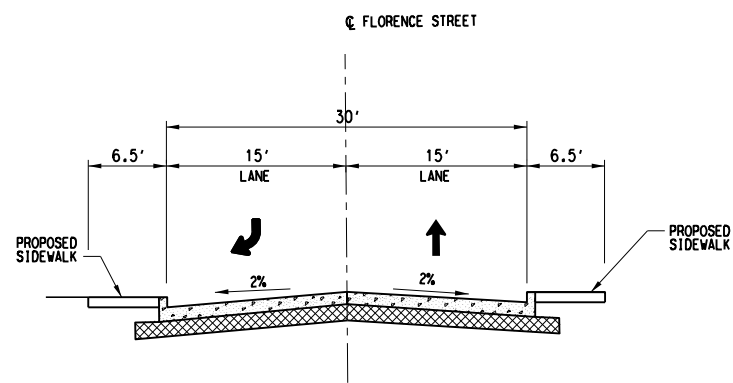
Friday, February 28, 2020 03:23:54 PM  
pw://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning\_CS\_V1/6.0\_CAD\_BIM/6.2\_Work\_In\_Progress/TO\_39\_D2\_Subway\_Proj\_Dev/6.2.2\_Contract\_Files/DGN/CVL-ST/TYPICAL SECTIONS SHEET 8 OF 11



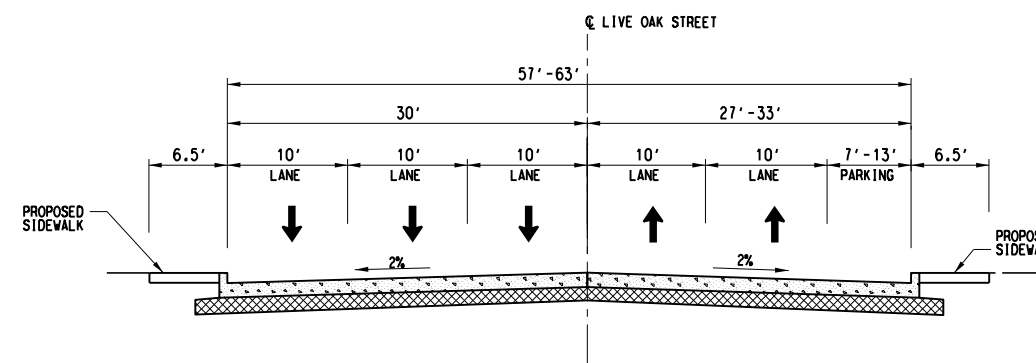
PROPOSED FLORENCE STREET  
SHOWING SECTION W/ PARKING LANE



PROPOSED LIVE OAK STREET



PROPOSED FLORENCE STREET



PROPOSED LIVE OAK STREET  
SHOWING SECTION W/ PARKING LANE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 152 OF 276

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 03/06/2020  
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**

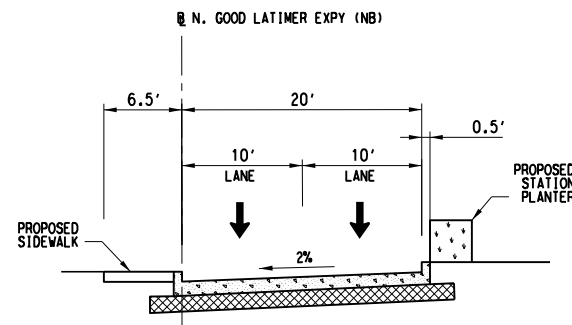


SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
IN CHARGE	JENN MA
DATE	03/06/2020

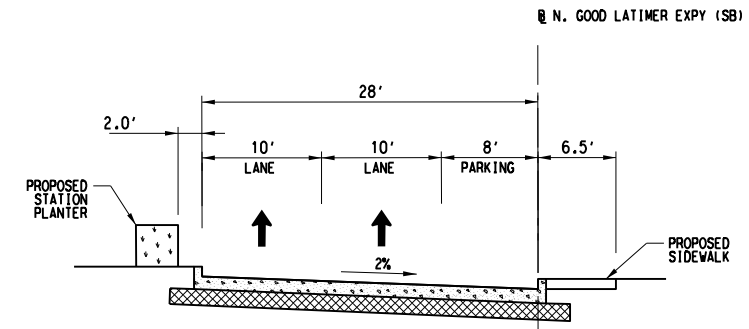


LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 9 OF 11

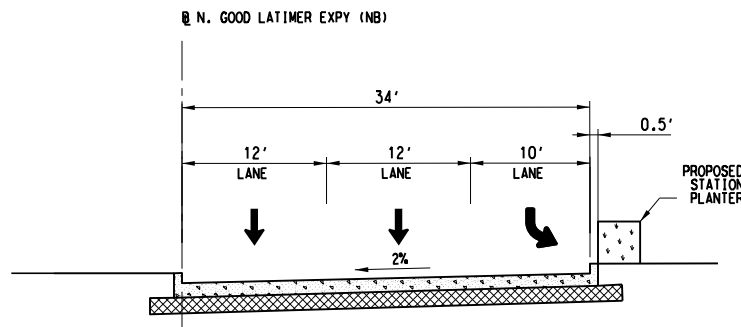
CONTRACT	DWG No.	REV
	CC6-0023	



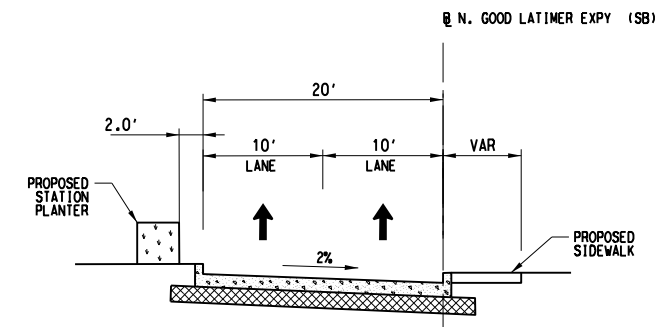
PROPOSED N. GOOD LATIMER EXPY (NB)  
SHOWING SECTION W/O LEFT TURN LANE



PROPOSED N. GOOD LATIMER EXPY (SB)  
SHOWING SECTION W/ PARKING LANE



PROPOSED N. GOOD LATIMER EXPY (NB)  
SHOWING SECTION W/ LEFT TURN LANE



PROPOSED N. GOOD LATIMER EXPY (SB)  
SHOWING SECTION W/O PARKING LANE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 153 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 10 OF 11

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 03/06/2020  
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



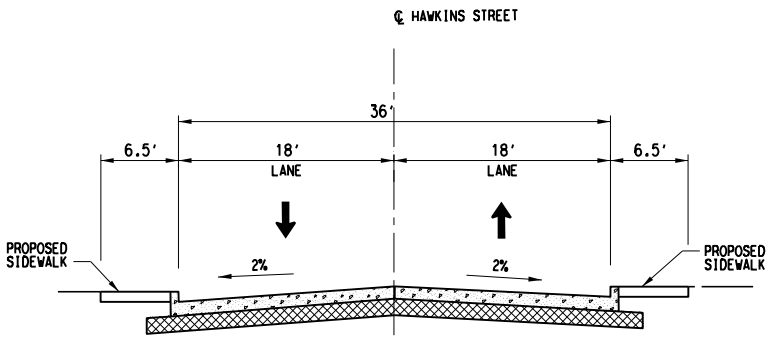
**DART PROJECT**



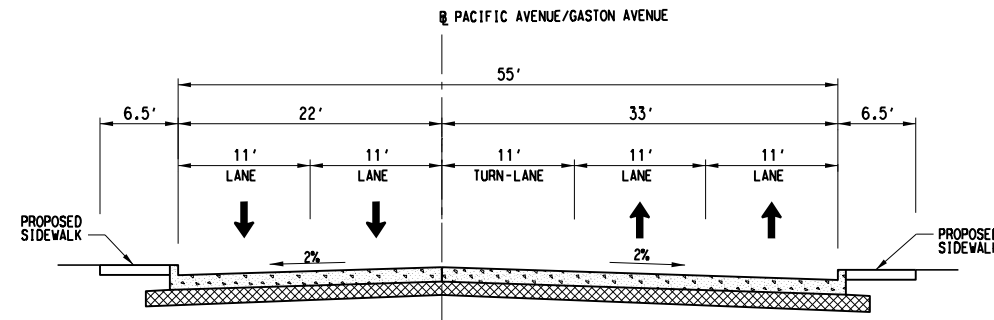
SCALE	NONE
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN MA
TN CHARGE	JENN MA
DATE	03/06/2020

CONTRACT	DWG No. CC6-0024	REV
----------	------------------	-----

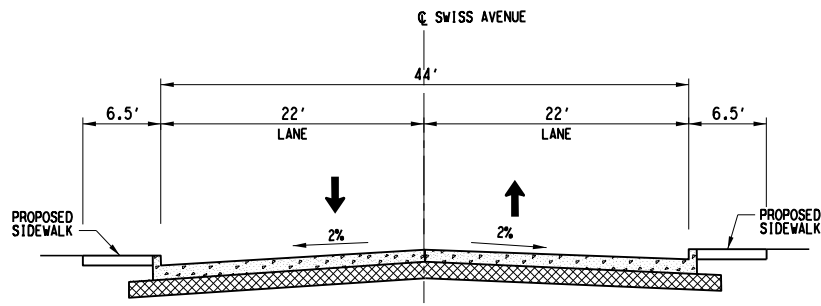
Friday, February 28, 2020 03:24:03 PM  
pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_Tx/DART\_General\_Planning\_CS\_V1/6.0\_CAD\_BIM/6.2\_Work\_In\_Progress/TO\_39\_D2\_Subway\_Proj\_Dev/6.2



PROPOSED HAWKINS STREET



PROPOSED PACIFIC AVENUE/GASTON AVENUE



PROPOSED SWISS AVENUE

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 154 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
LINE SECTION CBD-2  
STREET MODIFICATIONS  
TYPICAL SECTIONS  
SHEET 11 OF 11

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 03/06/2020  
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	03/06/2020

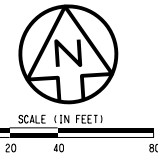


CONTRACT

DWG No.

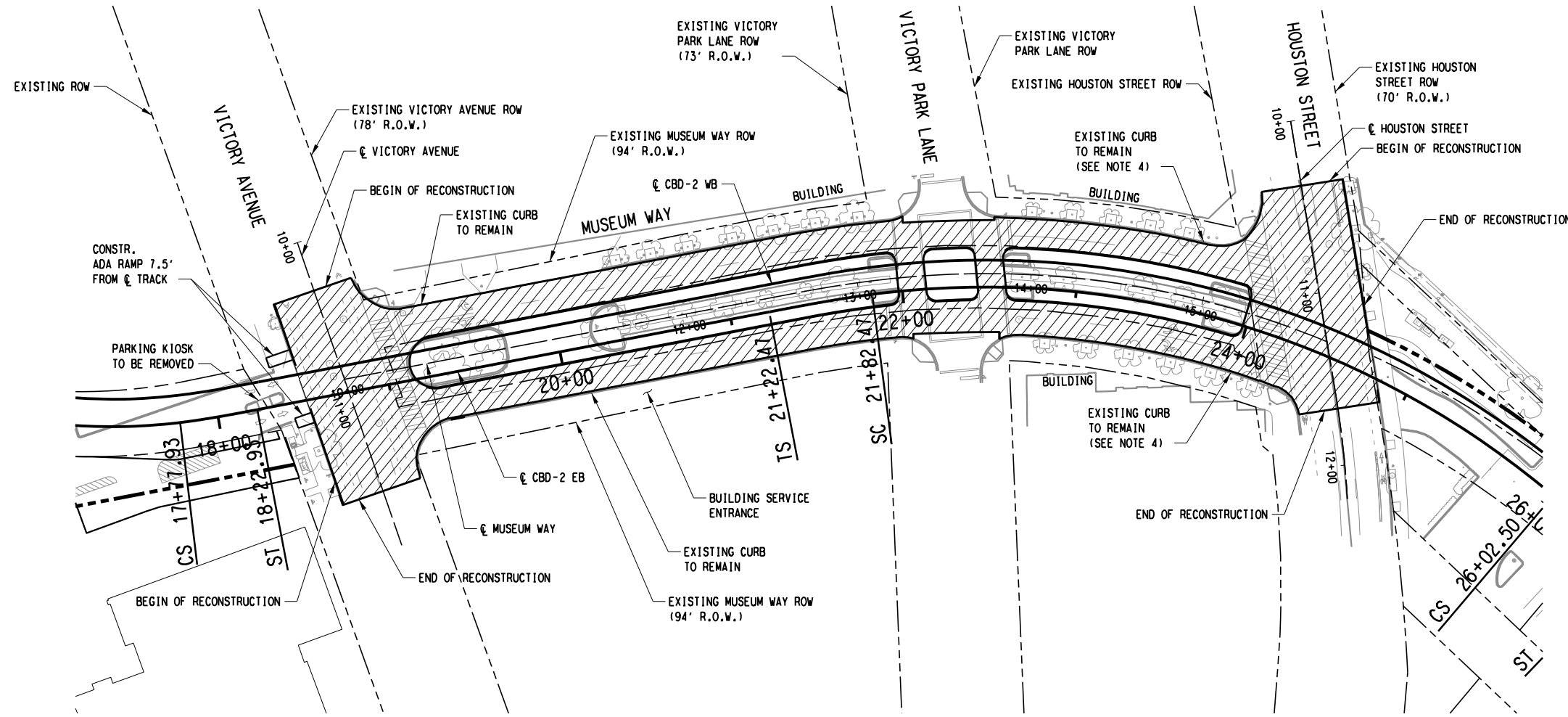
CC6-0025

REV



- NOTES:**
- SEE DWG No. CC6-0015 FOR PROPOSED TYPICAL SECTIONS:  
MUSEUM WAY  
VICTORY AVENUE  
HOUSTON STREET
  - VICTORY AVENUE AND HOUSTON STREET INTERSECTIONS WITH MUSEUM WAY TO BE SIGNALIZED.
  - SIGNAGE TO BE ADDED AT VICTORY PARK LANE TO ADDRESS REVISION IN TRAFFIC MOVEMENTS.
  - 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 20% DESIGN

CONTRACT SHEET No. 155 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATION PLAN  
MUSEUM WAY, VICTORY AVENUE  
VICTORY PARK LANE, HOUSTON STREET**

CONTRACT DWG No. CC6-0026 REV

**IN-PROGRESS**

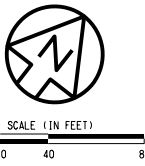
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 JENN-HWAN MA, P.E. NO. 83964  
 ON 03/06/2020  
 CIVIL ASSOCIATES, INC.  
 TBPE FIRM NO. F-6981  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**CIVIL ASSOCIATES, INC.**  
 9330 LBJ Frwy, Ste. 1150  
 Dallas, Texas 75243  
 TBPE Firm Registration No. 6981

**DART PROJECT**

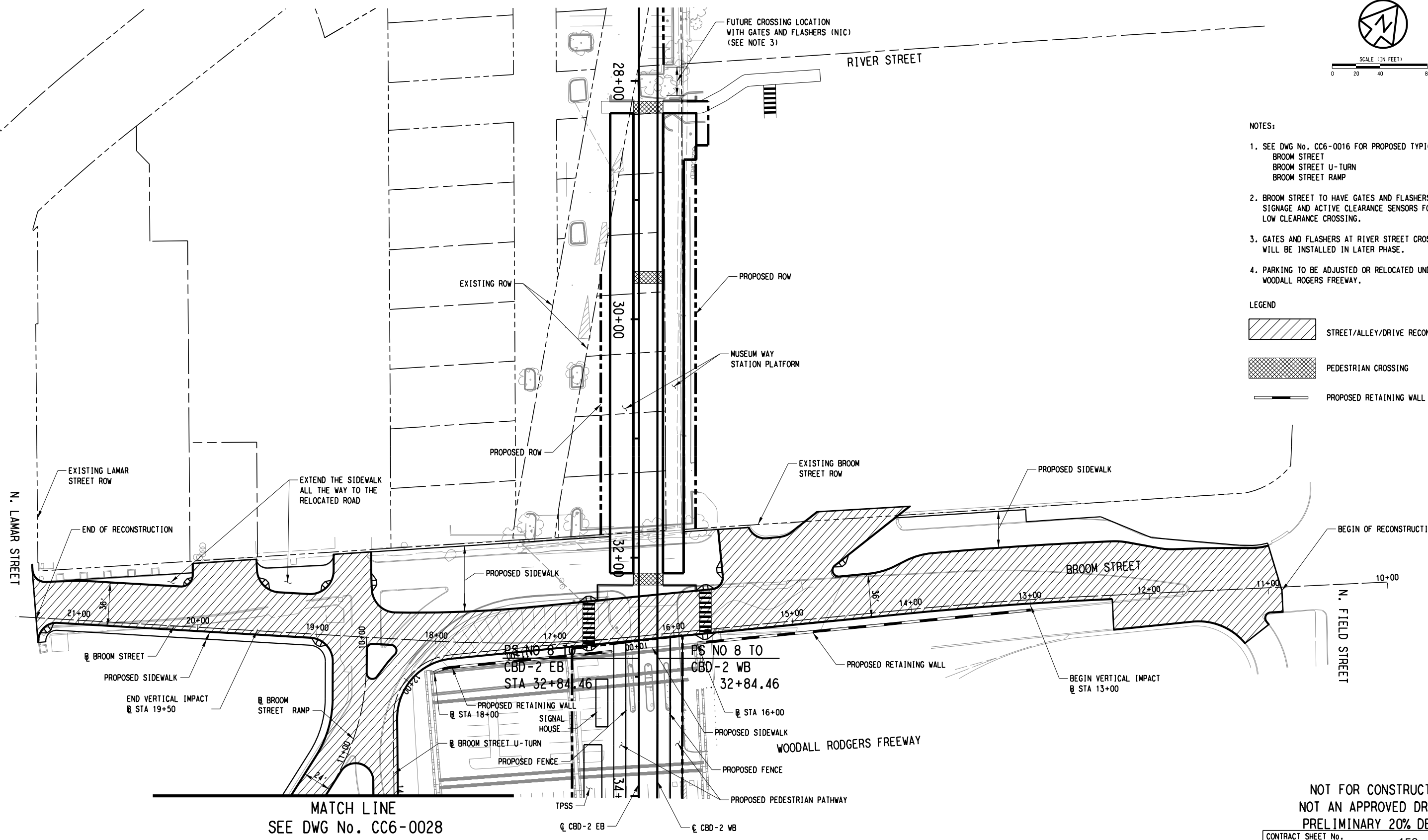
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 15:24 pwr/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-ST/STREET MOD-MUSEUM WAY



- NOTES:**
- SEE DWG No. CC6-0016 FOR PROPOSED TYPICAL SECTIONS:  
BROOM STREET  
BROOM STREET U-TURN  
BROOM STREET RAMP
  - BROOM STREET TO HAVE GATES AND FLASHERS AND SIGNAGE AND ACTIVE CLEARANCE SENSORS FOR LOW CLEARANCE CROSSING.
  - GATES AND FLASHERS AT RIVER STREET CROSSING WILL BE INSTALLED IN LATER PHASE.
  - PARKING TO BE ADJUSTED OR RELOCATED UNDER WOODALL ROGERS FREEWAY.

- LEGEND**
- STREET/ALLEY/DRIVE RECONSTRUCTION
  - PEDESTRIAN CROSSING
  - PROPOSED RETAINING WALL



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 156 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
**STREET MODIFICATION PLAN  
SOUTHBOUND FRONTAGE ROAD  
(BROOM STREET)**

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 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBP# 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  
TBP# Firm Registration No. 6981

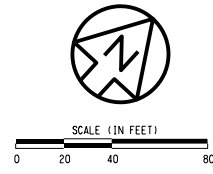


**DART PROJECT**

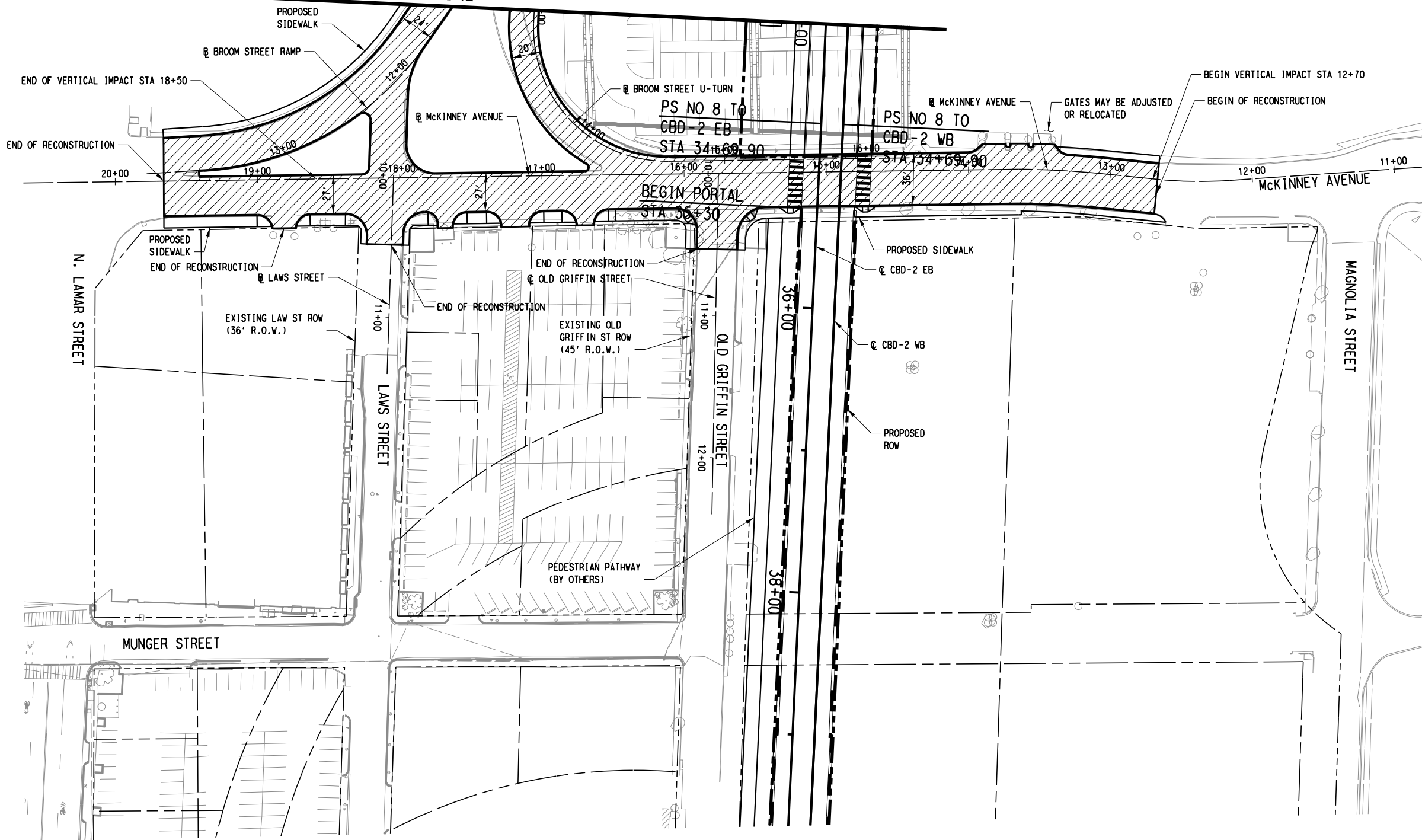
SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

CONTRACT	DWG No. CC6-0027	REV
----------	------------------	-----

28-FEB-2020 15:24  
 pwr/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-SBFR (BROOM ST) SH1 OF 2



SEE DWG No. CC6-0027  
MATCH LINE



- NOTES:
- SEE DWG No. CC6-0017 FOR PROPOSED TYPICAL SECTIONS: MCKINNEY AVENUE, OLD GRIFFIN STREET, LAWS STREET
  - MCKINNEY AVENUE TO HAVE GATES AND FLASHERS AND SIGNAGE AND ACTIVE CLEARANCE SENSORS FOR LOW CLEARANCE CROSSING
  - PARKING UNDER WOODALL ROGERS FREEWAY TO BE ADJUSTED OR RELOCATED

LEGEND

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 157 OF 276

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 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBP 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  
TBP Firm Registration No. 6981

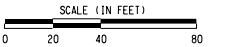
**DART PROJECT**

SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATION PLAN  
NORTHBOUND FRONTAGE ROAD  
(MCKINNEY AVENUE)  
OLD GRIFFIN STREET, LAWS STREET**

CONTRACT DWG No. CC6-0028 REV

28-FEB-2020 15:24 pwr://pwhruscen01: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-NBFR(MCKINNEY AVE) SHT2 OF 2

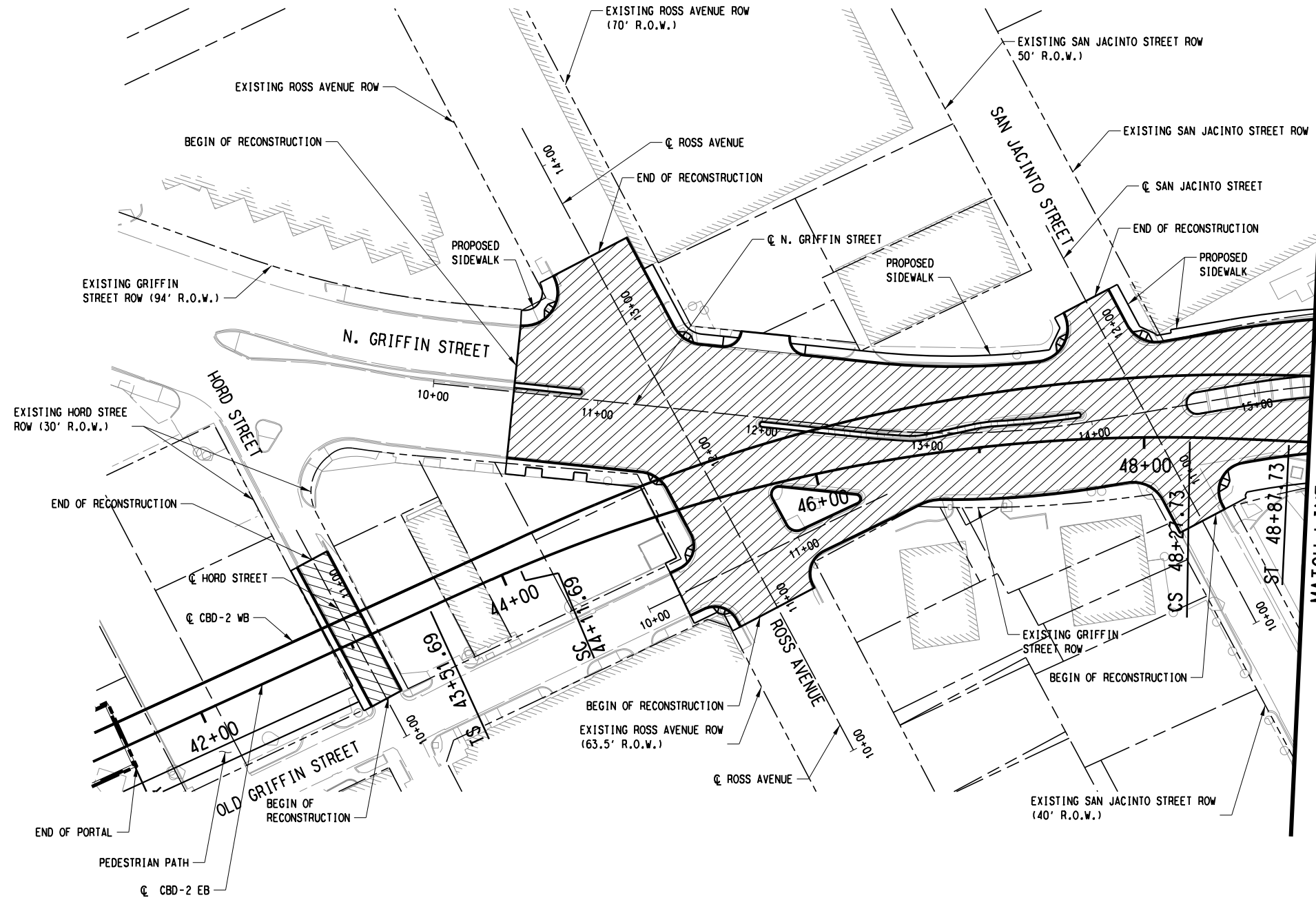


NOTES:

- 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



MATCH LINE CBD-2 EB STA 49+00  
SEE DWG No. CC6-0030

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 158 OF 276

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

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 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBP# 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  
TBP# Firm Registration No. 6981

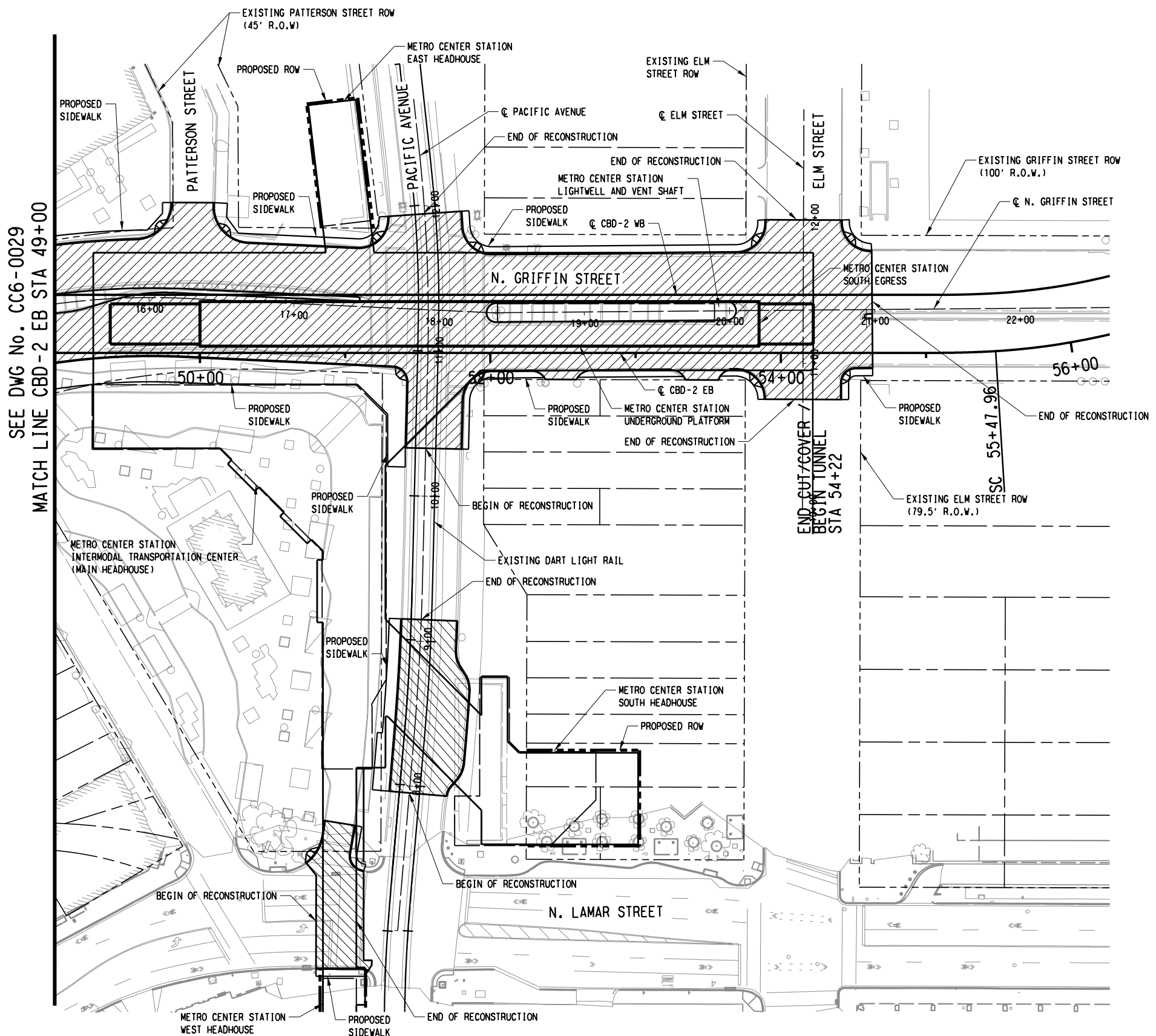
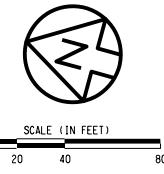


SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TANH CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0029	

28-FEB-2020 15:24 pwr/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





SEE DWG No. CC6-0029  
MATCH LINE CBD-2 EB STA 49+00

- NOTES:
- SEE DWG No. CC6-0019 FOR PROPOSED TYPICAL SECTIONS: GRIFFIN STREET, PACIFIC AVENUE
  - SEE DWG No. CC6-0020 FOR PROPOSED TYPICAL SECTIONS: ELM STREET

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 159 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATION PLAN  
N. GRIFFIN STREET  
PACIFIC AVENUE, ELM STREET  
SHEET 2 OF 2

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENN-HWAN MA, P.E. NO. 83964 ON 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBP 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  
TBP Firm Registration No. 6981



**DART PROJECT**



SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

CONTRACT	DWG No. CC6-0030	REV
----------	------------------	-----

Friday, February 28, 2020 03:24:26 PM  
pw:/pwhruscen01:HDR\_US\_Centrol\_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

dfarran

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



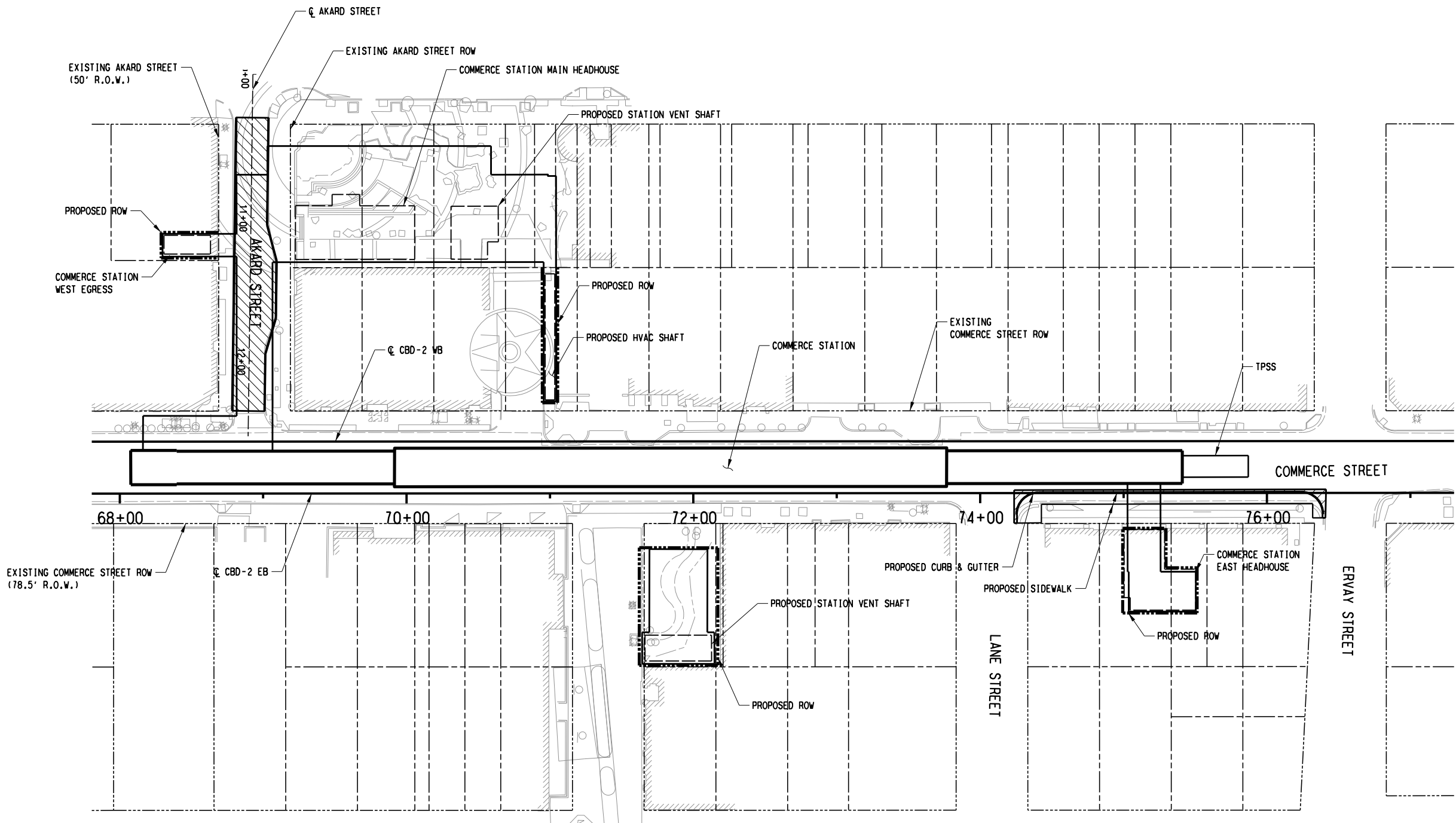
SCALE (IN FEET)  
0 20 40 80

NOTE:

- SEE DWG No. CC6-0020 FOR PROPOSED TYPICAL SECTIONS: AKARD STREET
- SIGNS & PAVEMENT MARKING ARE REQUIRED AT COMMERCE STREET PRIOR TO APPROACH LANE STREET TO REDUCE TRAVEL LANES

LEGEND

 STREET/ALLEY/DRIVE RECONSTRUCTION



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 160 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

STREET MODIFICATION PLAN  
AKARD STREET

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENNY-HWAN MA, P.E. NO. 83964 ON 03/06/2020  
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



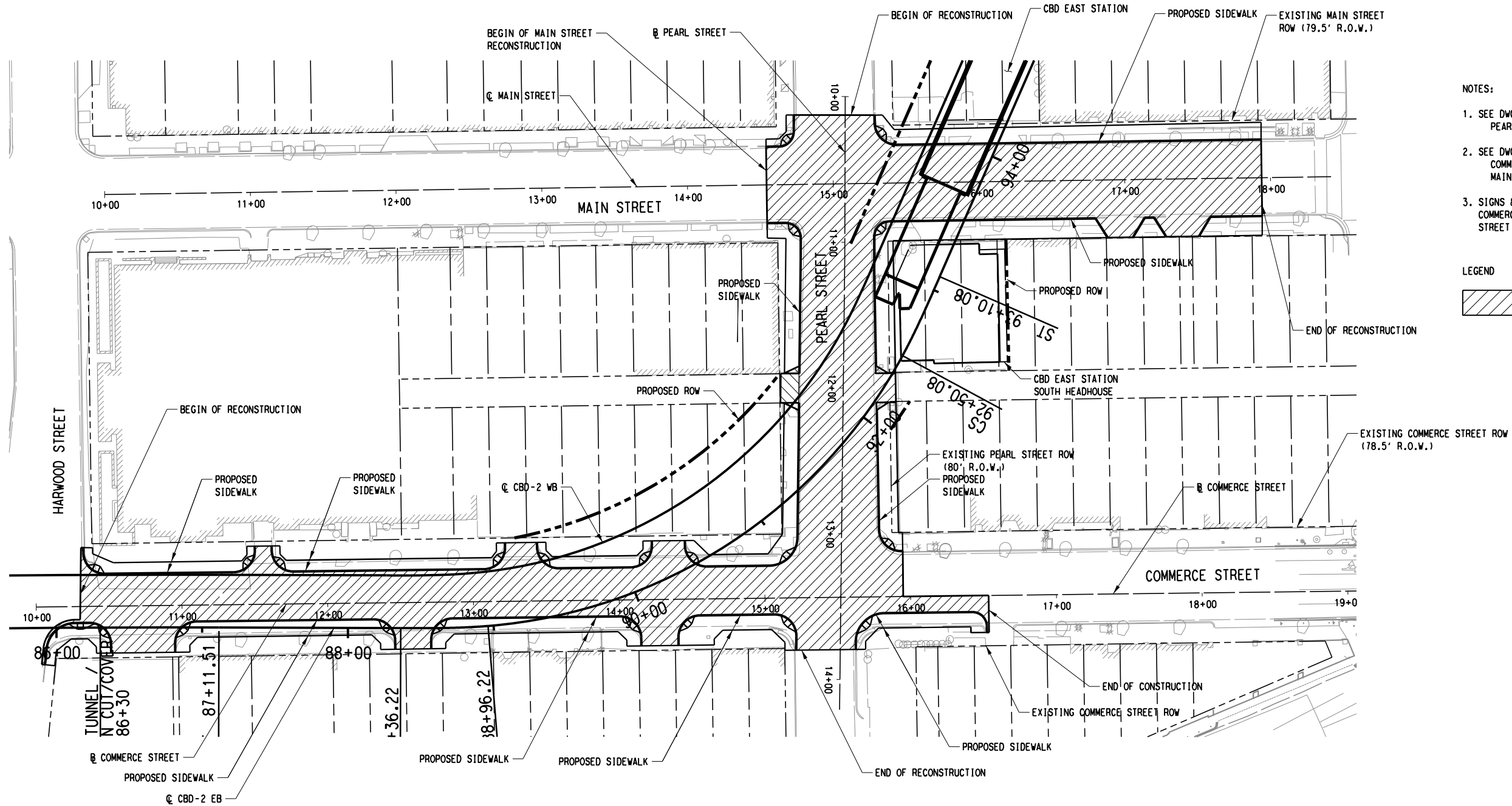
SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENNY-HWAN MA
IN CHARGE	JENNY-HWAN MA
DATE	03/06/2020



CONTRACT	DWG No.	REV
	CC6-0031	

Friday, February 28, 2020 03:24:40 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

dfarran



NOTES:

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS: PEARL STREET
2. SEE DWG No. CC6-00021 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

LEGEND

STREET/ALLEY/DRIVE RECONSTRUCTION

Friday, February 28, 2020 03:24:30 PM  
pwz://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

dfarron

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 161 OF 276

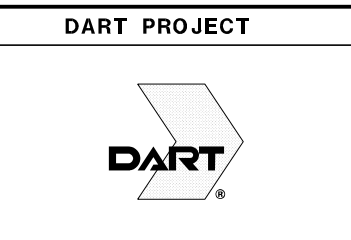
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATION PLAN  
COMMERCE STREET, PEARL STREET,  
MAIN STREET

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

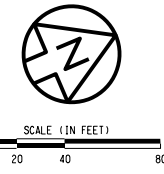
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JENN-HWAN MA, P.E. NO. 83964  
ON 03/06/2020  
CIVIL ASSOCIATES, INC.  
TBPE FIRM NO. F-6981  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**CIVIL ASSOCIATES, INC.**  
9330 LBJ Frwy, Ste. 1150  
Dallas, Texas 75243  
TBPE Firm Registration No. 6981

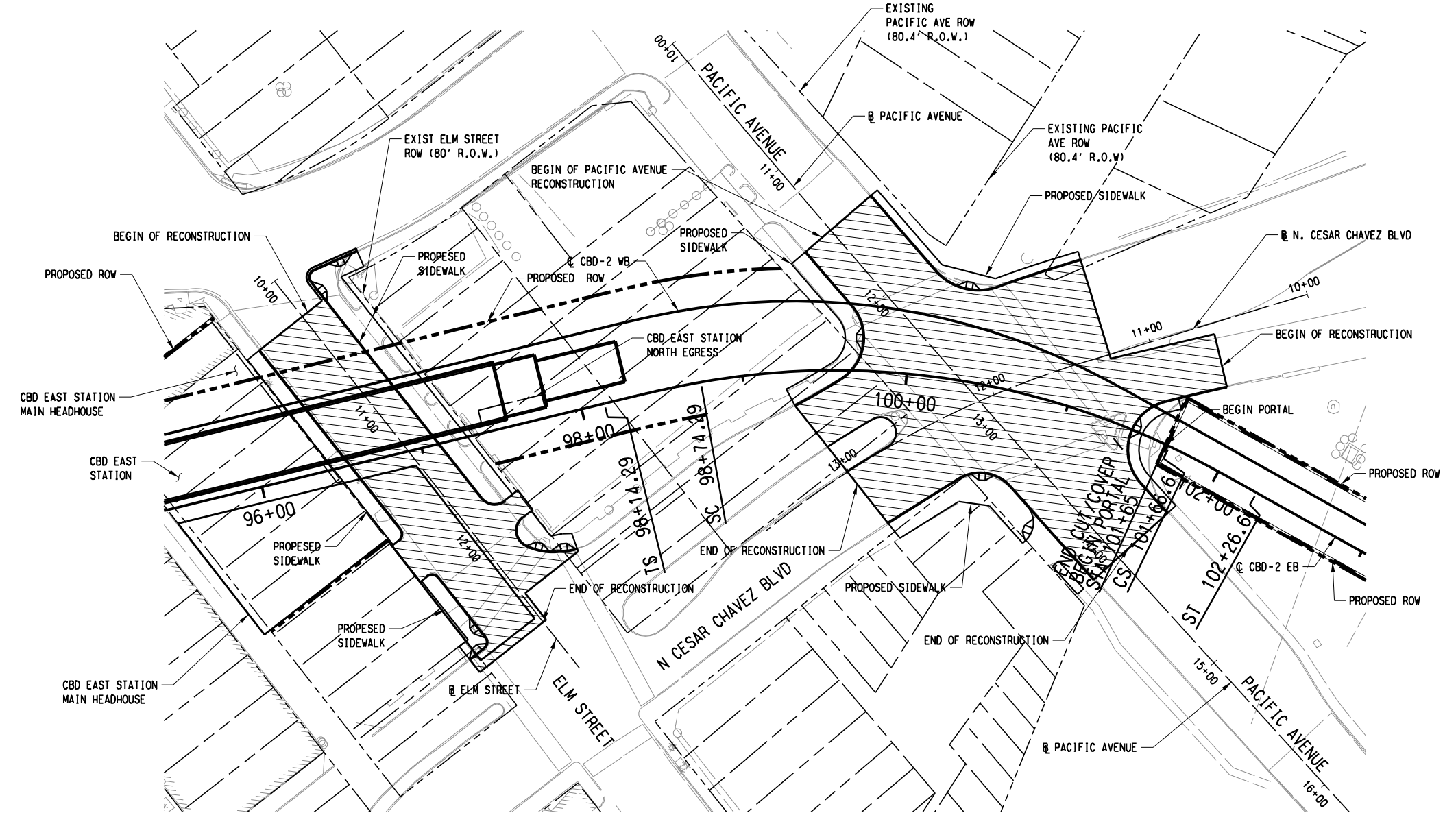


SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0032	



- NOTES:
- SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS: ELM STREET
  - SEE DWG No. CC6-0022 FOR PROPOSED TYPICAL SECTIONS: PACIFIC AVENUE, N. CESAR CHAVEZ BLVD



Friday, February 28, 2020 03:24:44 PM  
 pwr://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

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 162 OF 276

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 03/06/2020  
 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	03/06/2020

**LIGHT RAIL TRANSIT SYSTEM**  
 LINE SECTION CBD-2  
 STREET MODIFICATION PLAN  
 ELM STREET, PACIFIC AVENUE  
 N. CESAR CHAVEZ BLVD

CONTRACT DWG No. CC6-0033 REV

Friday, February 28, 2020 03:24:50 PM pwr://pwhdruscen01:HDR\_US\_Centrol\_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

DWG No. CC6-0034



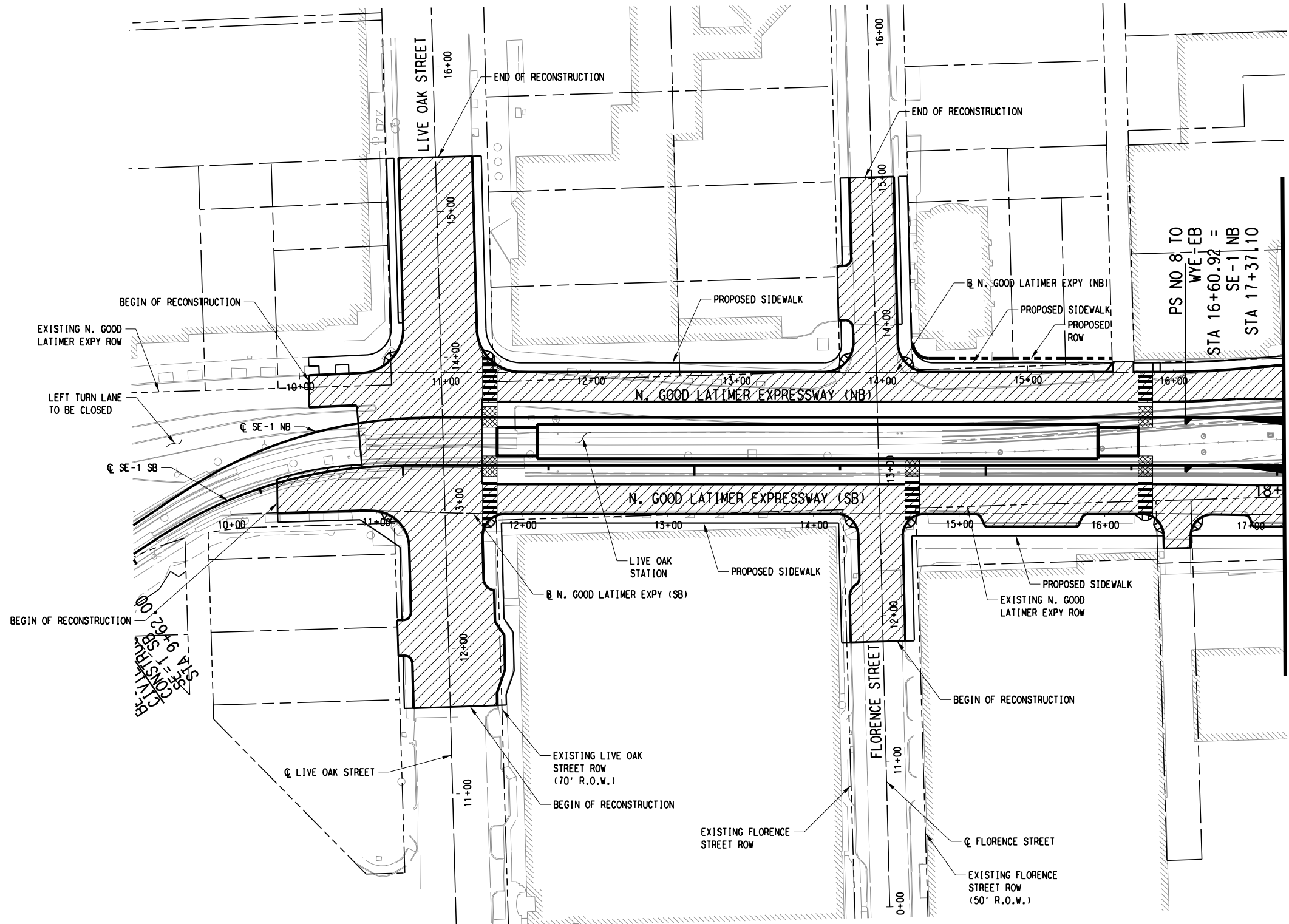
SCALE (IN FEET)  
0 20 40 80

**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 20% DESIGN

CONTRACT SHEET No. 163 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
STREET MODIFICATION PLAN  
N. GOOD LATIMER EXPRESSWAY,  
LIVE OAK STREET, FLORENCE STREET  
SHEET 1 OF 3**

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 03/06/2020  
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	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

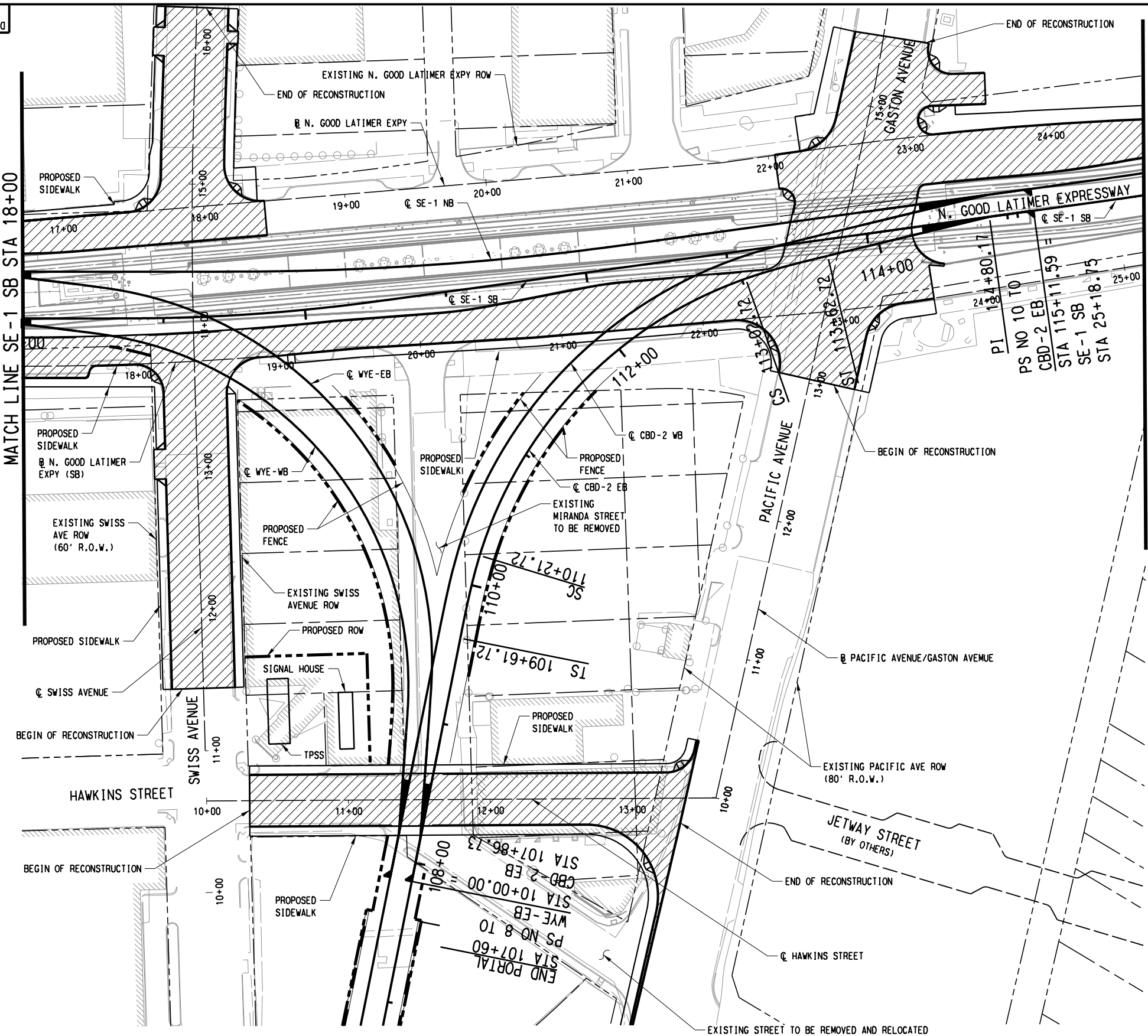
CONTRACT	DWG No. CC6-0034	REV
----------	------------------	-----

Friday, February 28, 2020 03:24:54 PM  
 pwr://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 EXPY\_SHT2 OF 3

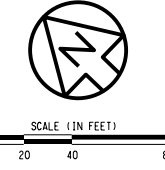
CC6-0035

DWG No.

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



- NOTES:
- SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS: N. GOOD LATIMER EXPY
  - SEE DWG No. CC6-0025 FOR PROPOSED TYPICAL SECTIONS: SWISS AVENUE, HAWKINS STREET, PACIFIC AVENUE/GASTON AVENUE
  - HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT SWISS AVENUE, AND N. GOOD LATIMER EXPY (NB) AT GASTON AVENUE TO HAVE GATES AND FLASHERS
  - SWISS AVENUE BETWEEN HAWKINS STREET AND N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY WESTBOND



NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

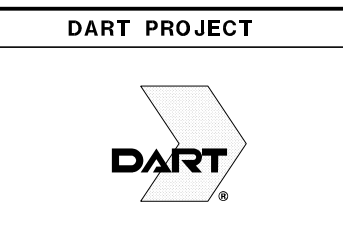
CONTRACT SHEET No. 164 OF 276

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 03/06/2020  
 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



SCALE	1" = 40'
DRAWN	DIANA FARRAN
DESIGNED	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

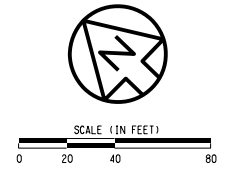
**CAES**

CONTRACT DWG No. CC6-0035 REV

**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**

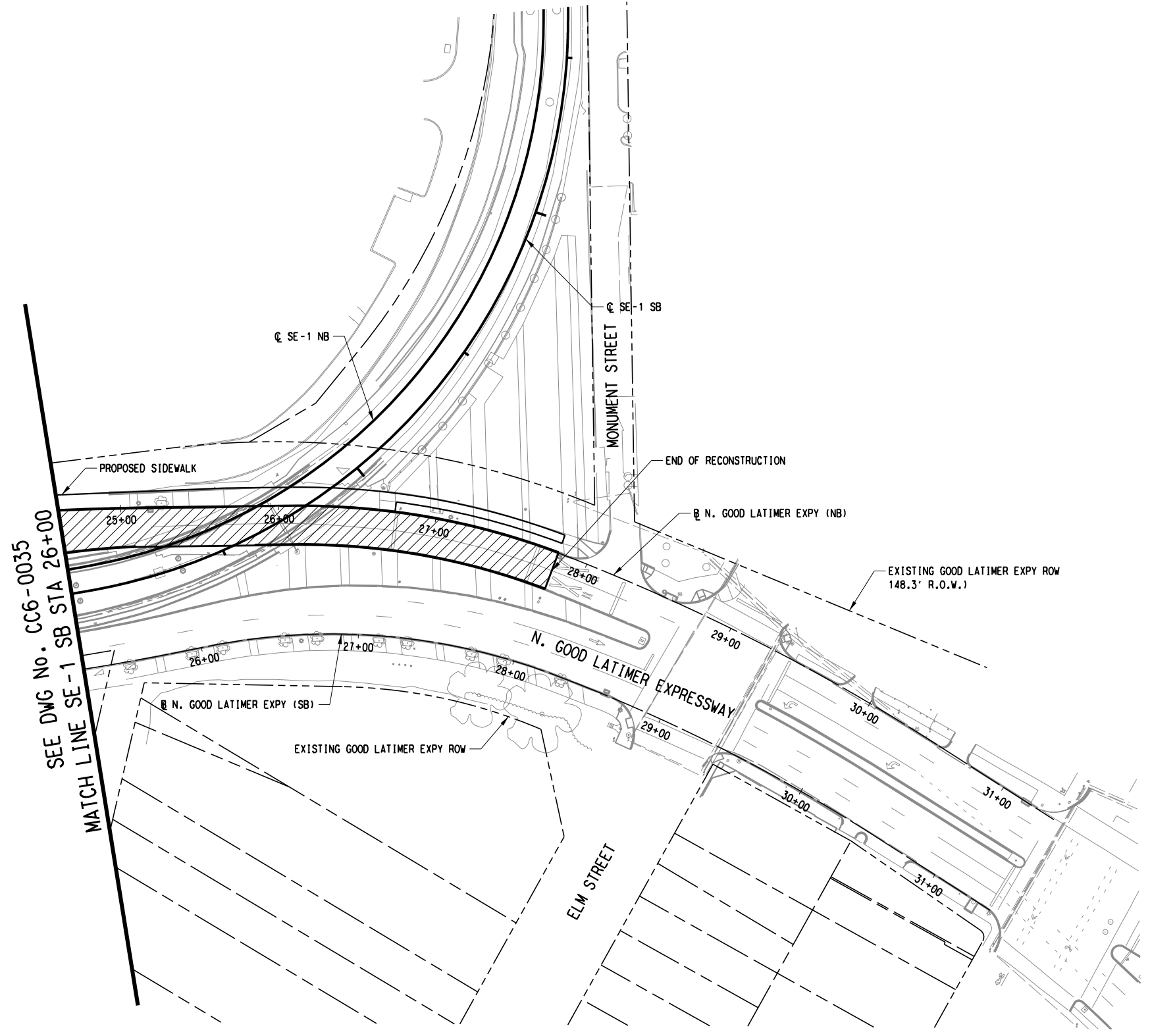
Friday, February 28, 2020 03:24:57 PM  
pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning\_CS\_V1/6.0\_CAD\_BIM/6.2\_Work\_In\_Progress/TO\_39\_D2\_Subway\_Proj\_Dev/6.2

9E00-933  
ON DAD



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 20% DESIGN

CONTRACT SHEET No. 165 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

STREET MODIFICATION PLAN  
N. GOOD LATIMER EXPY  
SHEET 3 OF 3

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 03/06/2020  
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	TAMM CHAU
CHECKED	JENN-HWAN MA
IN CHARGE	JENN-HWAN MA
DATE	03/06/2020

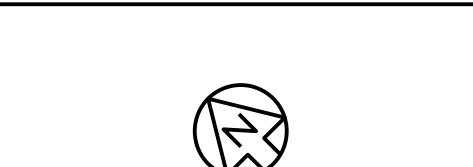
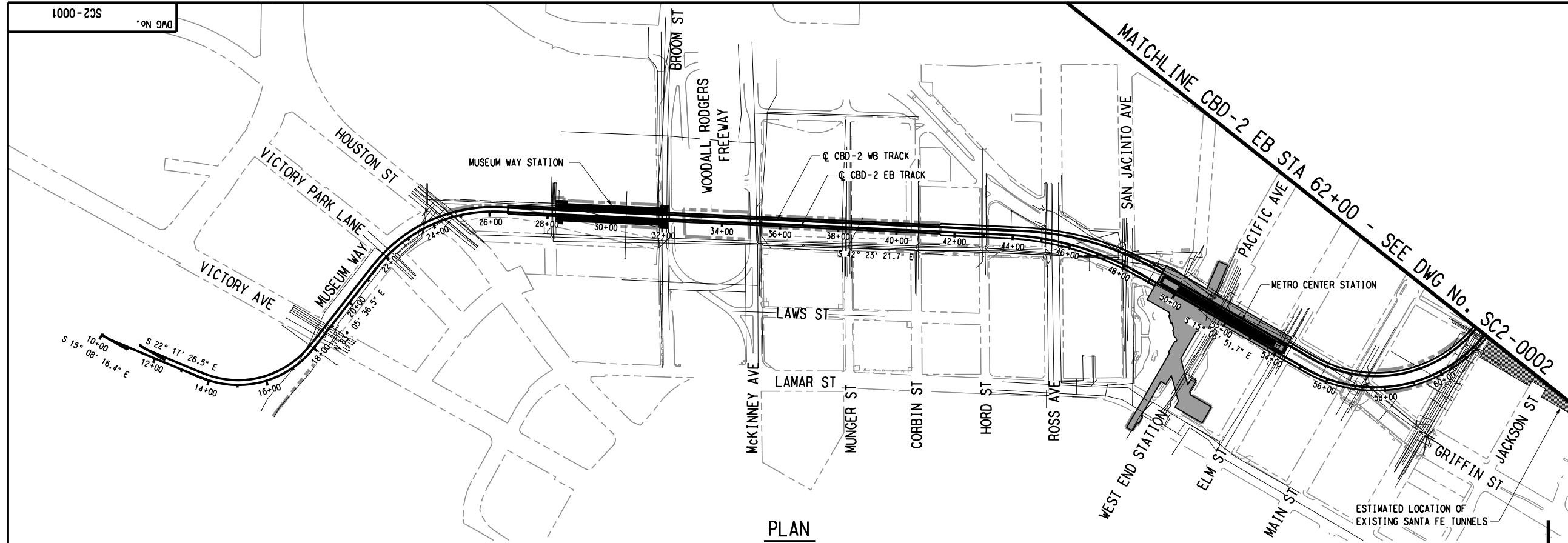
CONTRACT	DWG No.	REV
	CC6-0036	



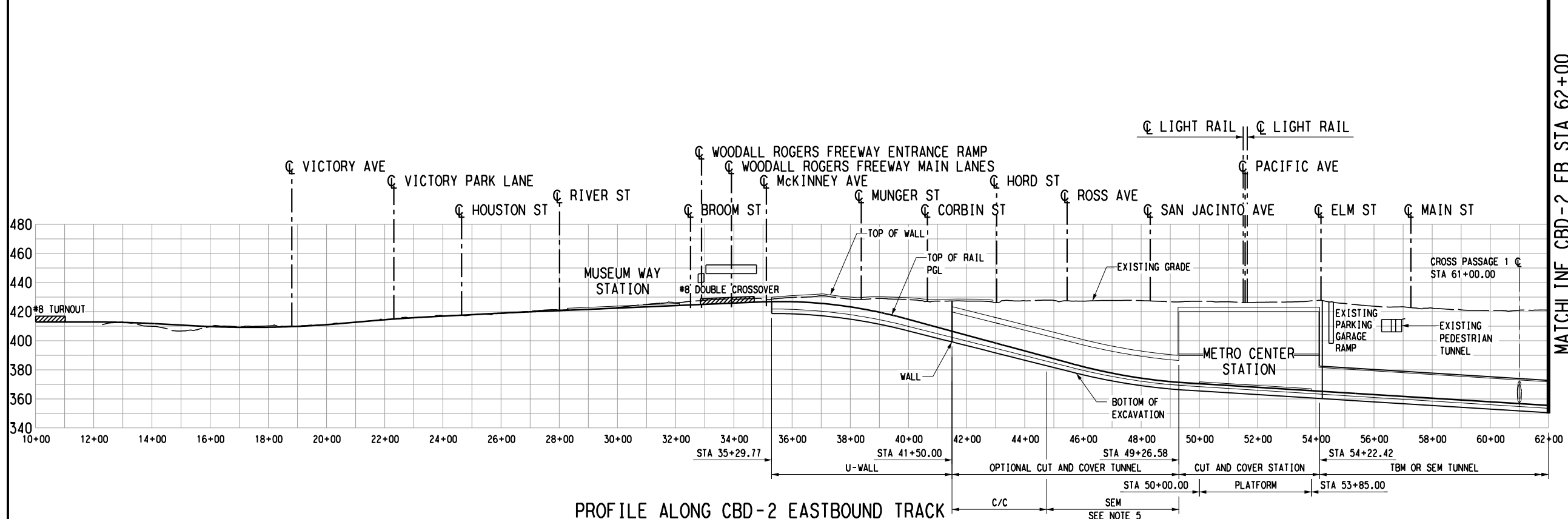




28-FEB-2020 18:19 p:\p\hntb\scen01\HDR\_US\_Central\_01\Documents\Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX\General\_Planning\_CS\_VI\6.0\_CAD\_BIM\6.2\_Work\_In\_Progress\70.3



- 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 EXISTING UNDERGROUND UTILITIES, SEE EXISTING UTILITY COMPOSITE DRAWINGS.
  5. OPTIONAL SEM TUNNEL CONSTRUCTION TO BE INVESTIGATED.



MATCHLINE CBD-2 EB STA 62+00  
SEE DWG No. SC2-0002

**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 20% DESIGN

CONTRACT SHEET No. 168 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**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	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

TUNNEL  
PLAN AND PROFILE  
STA 10+00 TO STA 62+00

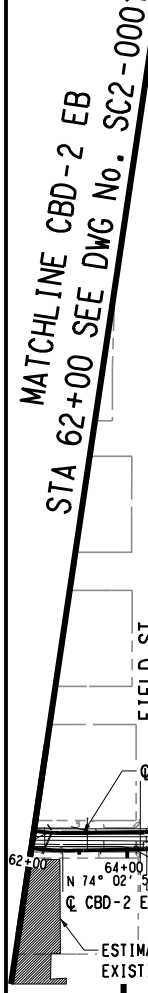
CONTRACT DWG No. SC2-0001 REV

28-FEB-2020 18:19 pwr://pwhdrscen01: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/70.3

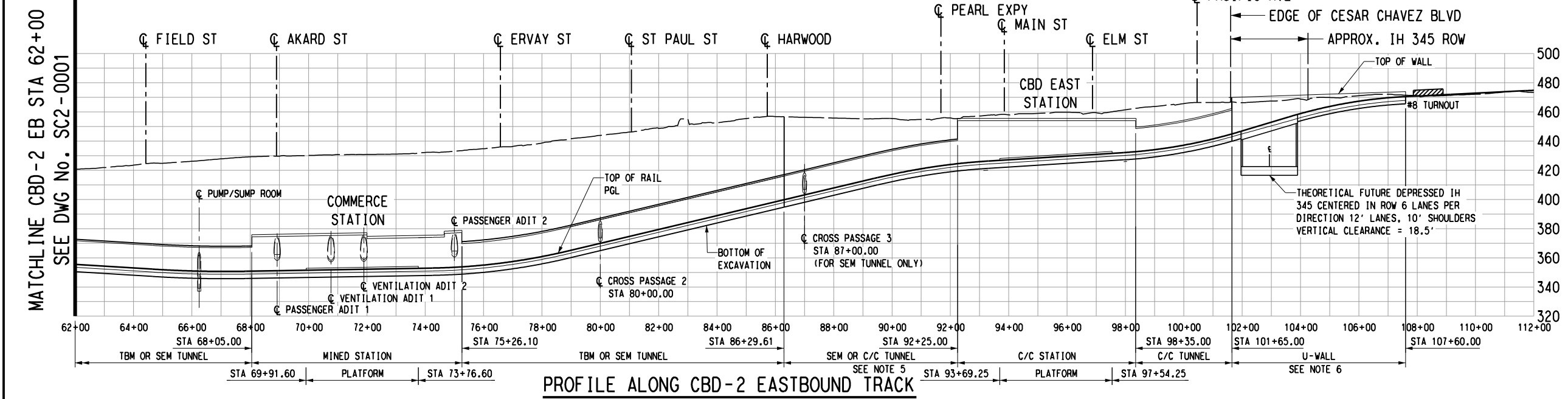
2000-202 SC2-0002 ON 9AD

MATCHLINE CBD-2 EB  
STA 62+00 SEE DWG No. SC2-0001

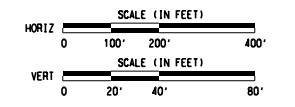
MATCHLINE CBD-2 EB STA 62+00  
SEE DWG No. SC2-0001



PLAN



PROFILE ALONG CBD-2 EASTBOUND TRACK



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
  - FOR TRACK ALIGNMENT DATA, SEE GUIDEWAY PLAN AND PROFILE DRAWINGS.
  - FOR EXISTING UNDERGROUND UTILITIES, SEE EXISTING UTILITY COMPOSITE DRAWINGS.
  - OPTIONAL SEM TUNNEL CONSTRUCTION TO BE INVESTIGATED.
  - U-WALL AT EAST PORTAL TO BE COORDINATED WITH OVERHEAD HIGHWAY BENTS FOUNDATION DURING PE DESIGN.
  - FINAL DESIGNER TO DETERMINE FINAL LOCATION AND SIZE OF PUMP/SUMP ROOMS.

**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 20% DESIGN

CONTRACT SHEET No. 169 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
TUNNEL  
PLAN AND PROFILE  
STA 62+00 TO STA 112+00

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**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	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

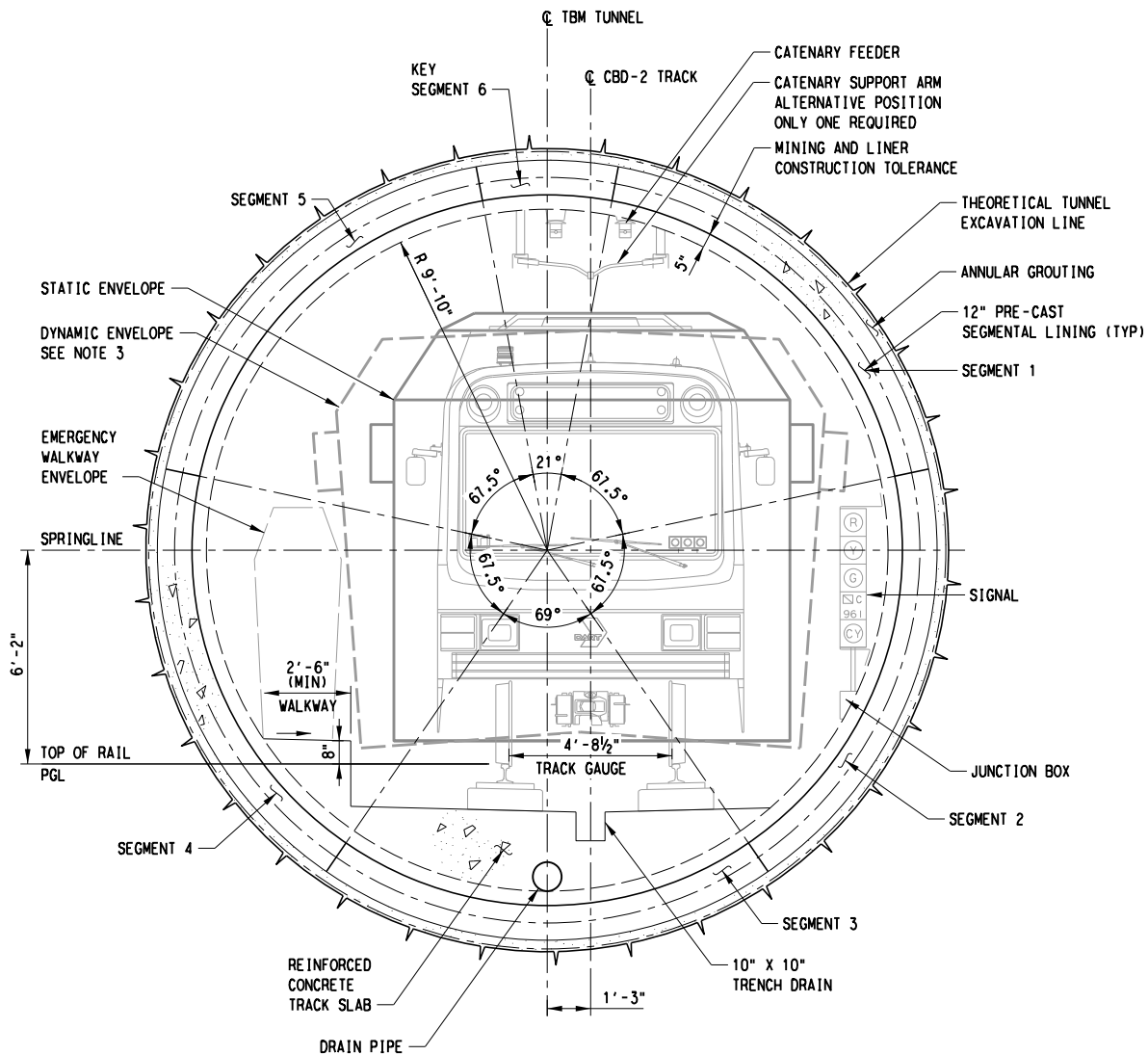
CONTRACT	DWG No. SC2-0002	REV
----------	------------------	-----

bwh1teside Default



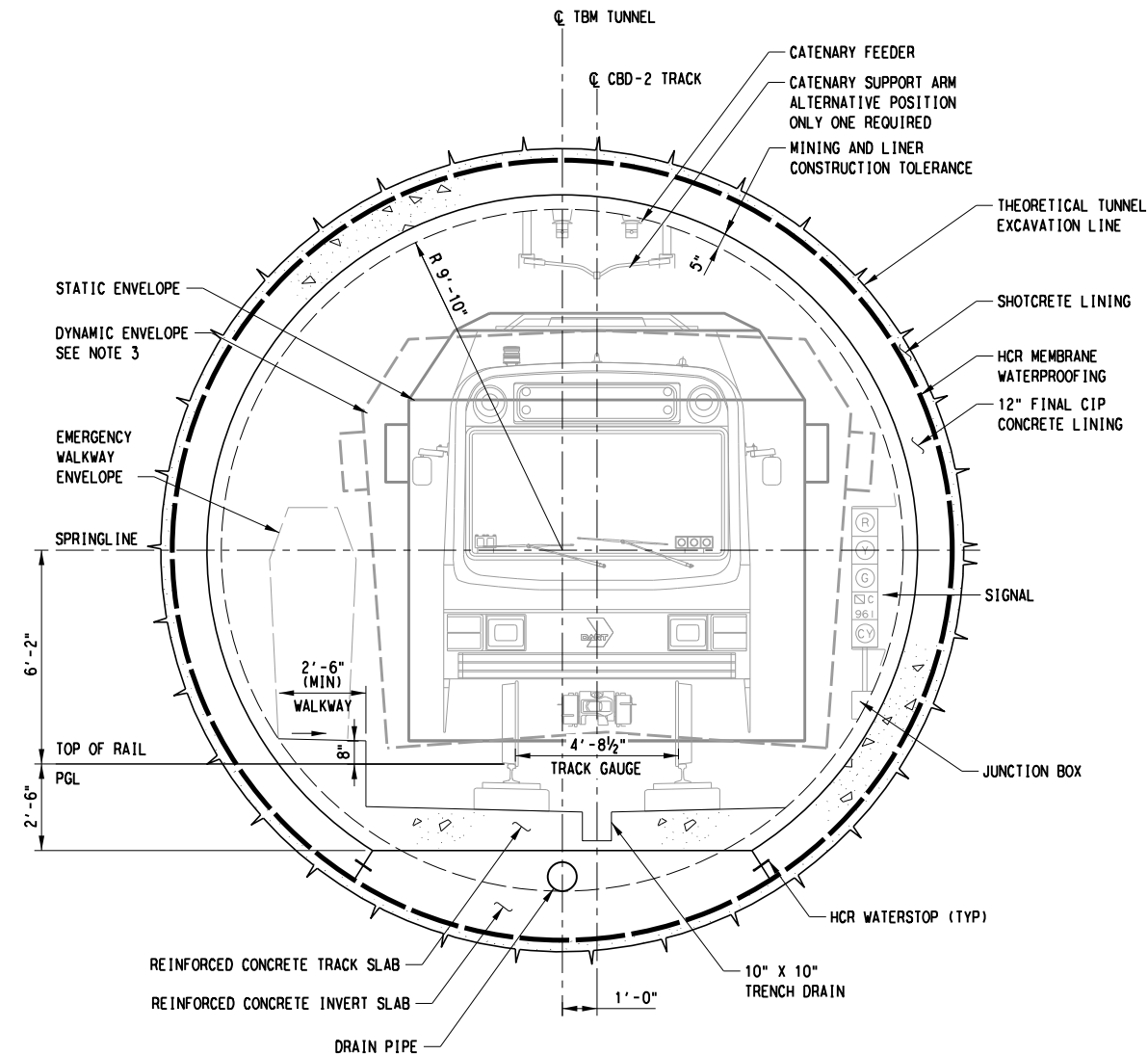
NOTES:

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.



WESTBOUND  
(SECTION LOOKING WEST)

TBM RUNNING TUNNEL WITH PRECAST SEGMENTAL LINER  
 TYPICAL SECTION - OPTION 1 WESTBOUND TUNNEL AS SHOWN  
 SCALE:  $\frac{3}{8}$ " = 1'-0"



EASTBOUND  
(SECTION LOOKING EAST)

TBM RUNNING TUNNEL WITH CAST-IN-PLACE CONCRETE LINER  
 TYPICAL SECTION - OPTION 2 EASTBOUND TUNNEL AS SHOWN  
 SCALE:  $\frac{3}{8}$ " = 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 20% DESIGN

CONTRACT SHEET No. 170 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 TBM RUNNING TUNNEL - SINGLE BORE  
 TYPICAL SECTION  
 OPTIONS 1 & 2

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

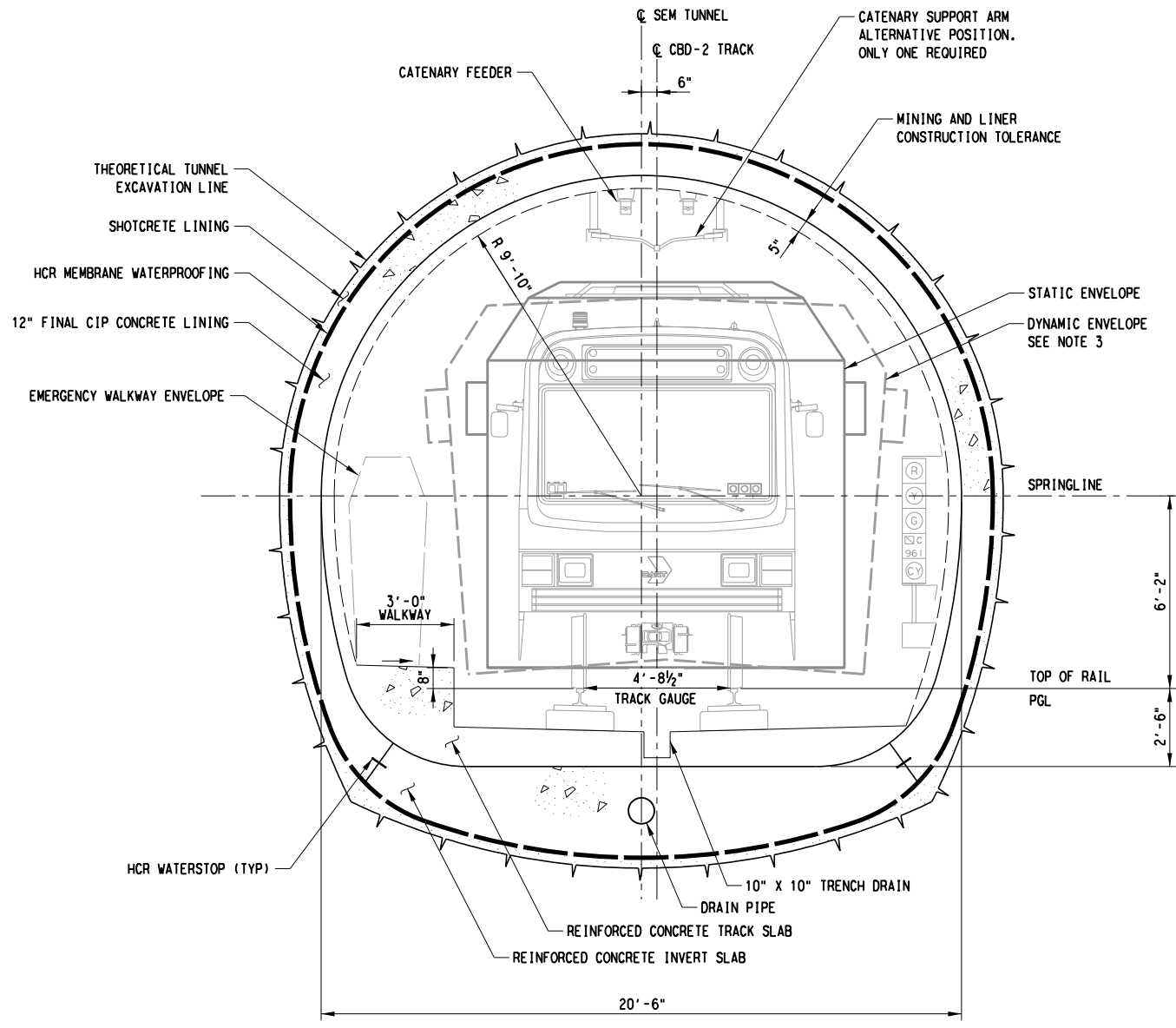
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020 HNTB CORPORATION TBPE FIRM NO. F-420 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

**DART PROJECT**

SCALE	$\frac{3}{8}$ " = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-0001	REV
----------	------------------	-----



- 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.

EASTBOUND  
(SECTION LOOKING EAST)

SEM RUNNING TUNNEL TYPICAL SECTION - OPTION 3 EASTBOUND TUNNEL AS SHOWN  
SCALE: 3/8" = 1'-0" WESTBOUND TUNNEL OPP HAND

**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 20% DESIGN

CONTRACT SHEET No. 171 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



**DART PROJECT**

SCALE	3/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

**CAES**

CONTRACT No. SC8-0002

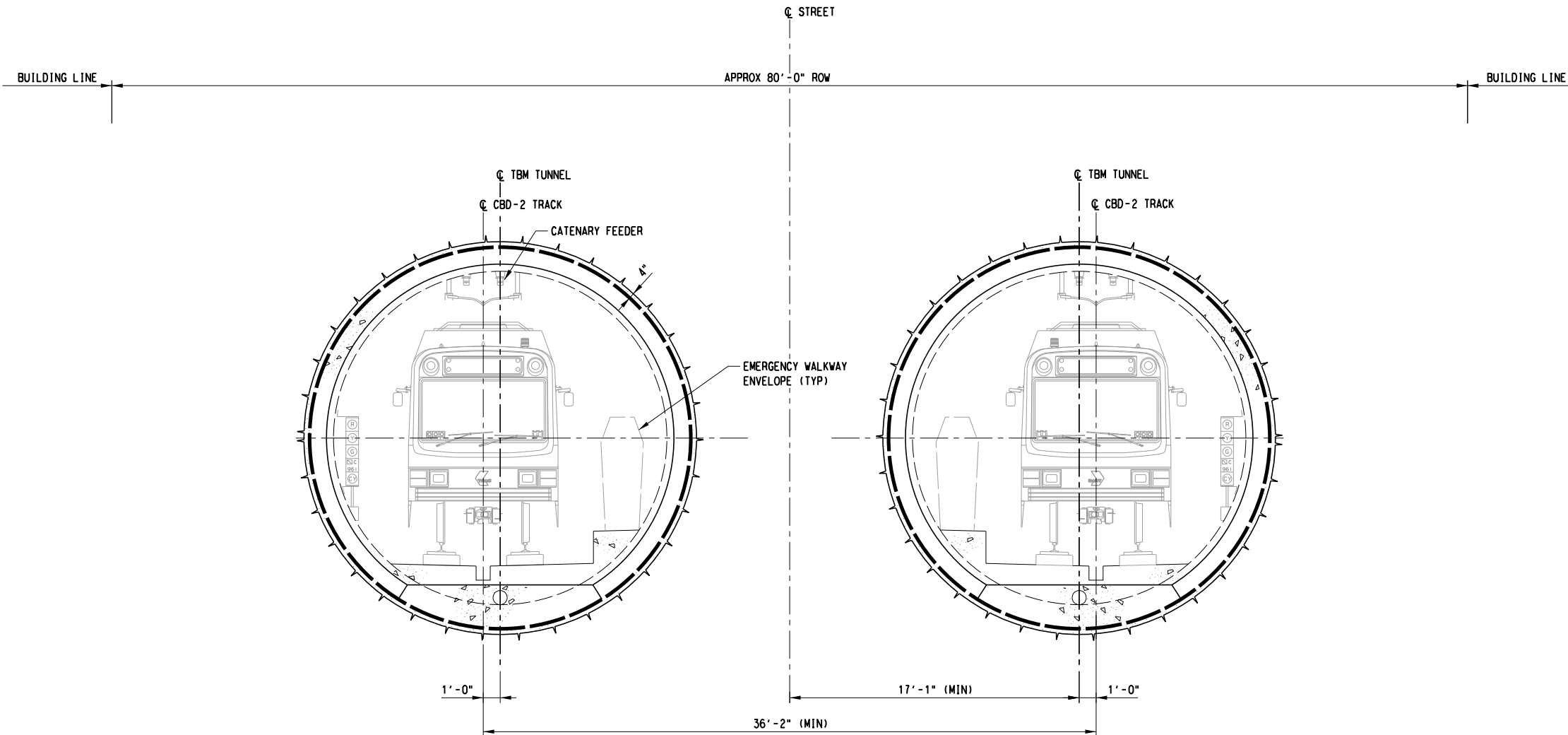
DWG No. SC8-0002

REV

CONTRACT SHEET No. 171 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

**SEM RUNNING TUNNEL - DETAILS  
TYPICAL SECTION  
OPTION 3**



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: 1/4" = 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 20% DESIGN**

CONTRACT SHEET No. 172 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
**TBM RUNNING TUNNEL - TWIN BORE**  
**TYPICAL SECTION**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.

**HNTB**  
 HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

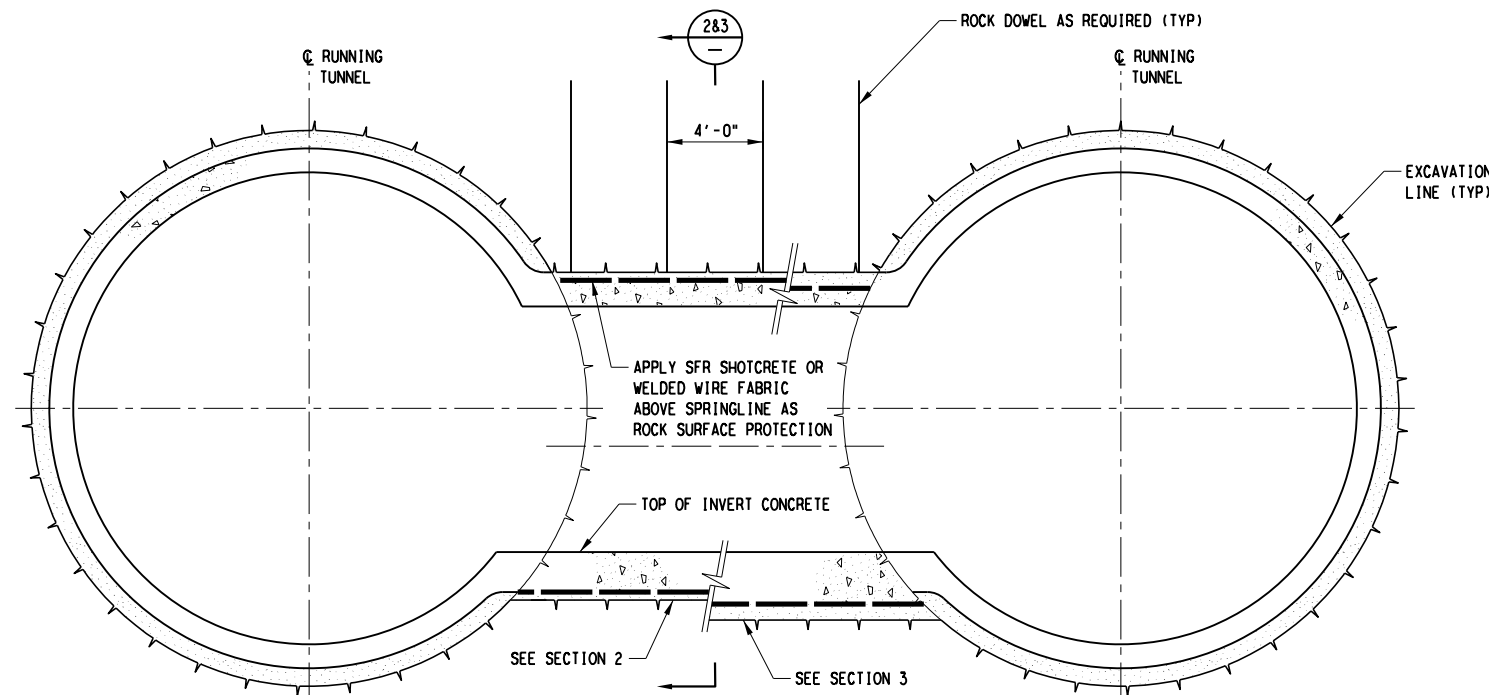
**DART**  
**gpc SIX**

**DART PROJECT**

SCALE	1/4" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANKELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

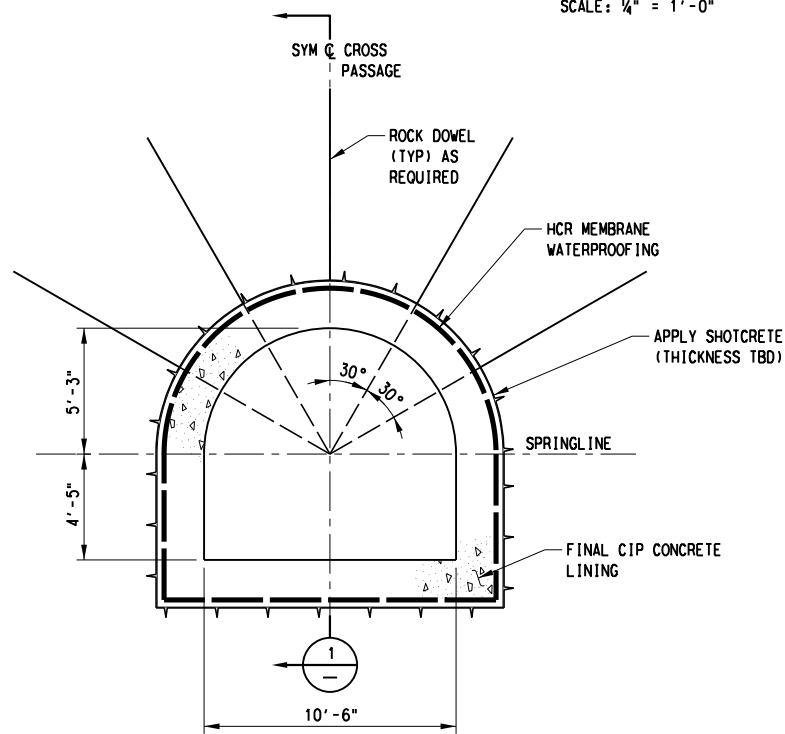
CONTRACT	DWG No. SC8-0003	REV
----------	------------------	-----

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

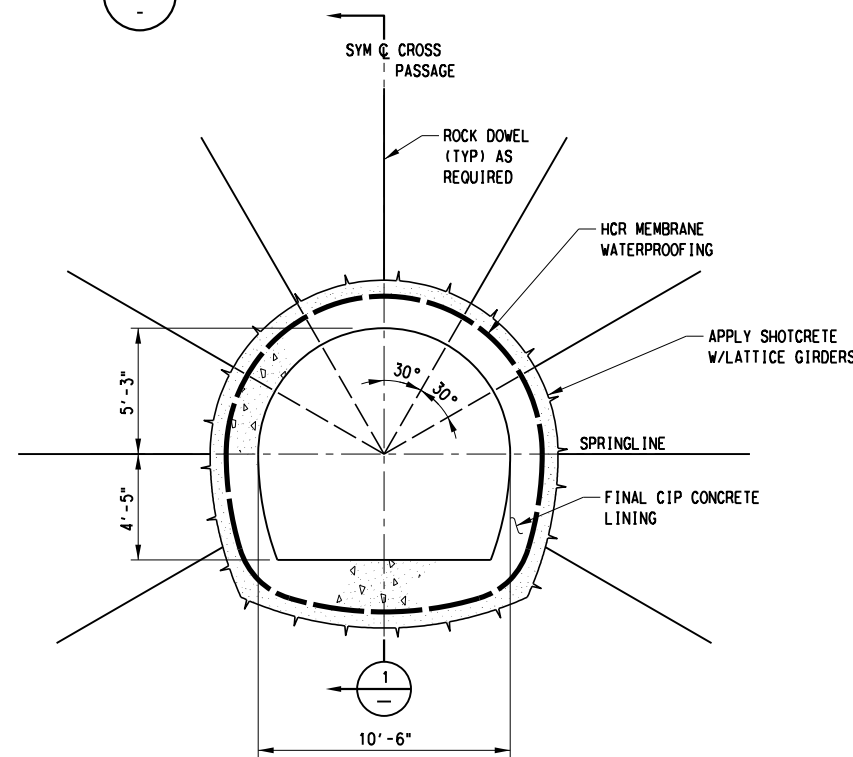


- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
  - FOR ROCK CLASS DEFINITIONS, SEE GEOTECHNICAL DESIGN MEMORANDUM 3 (GDM 3).

**CROSS PASSAGE WITH GROUND SUPPORT - SECTION 1**  
SCALE: 1/4" = 1'-0"



**CROSS PASSAGE IN ROCK CLASS I - SECTION 2**  
SCALE: 1/4" = 1'-0"



**CROSS PASSAGE IN ROCK CLASS II - SECTION 3**  
SCALE: 1/4" = 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 20% DESIGN

CONTRACT SHEET No. 173 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

CROSS PASSAGE  
FOR TBM RUNNING TUNNELS  
INITIAL AND FINAL SUPPORTS

CONTRACT DWG No. SC8-0004 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

**DART PROJECT**

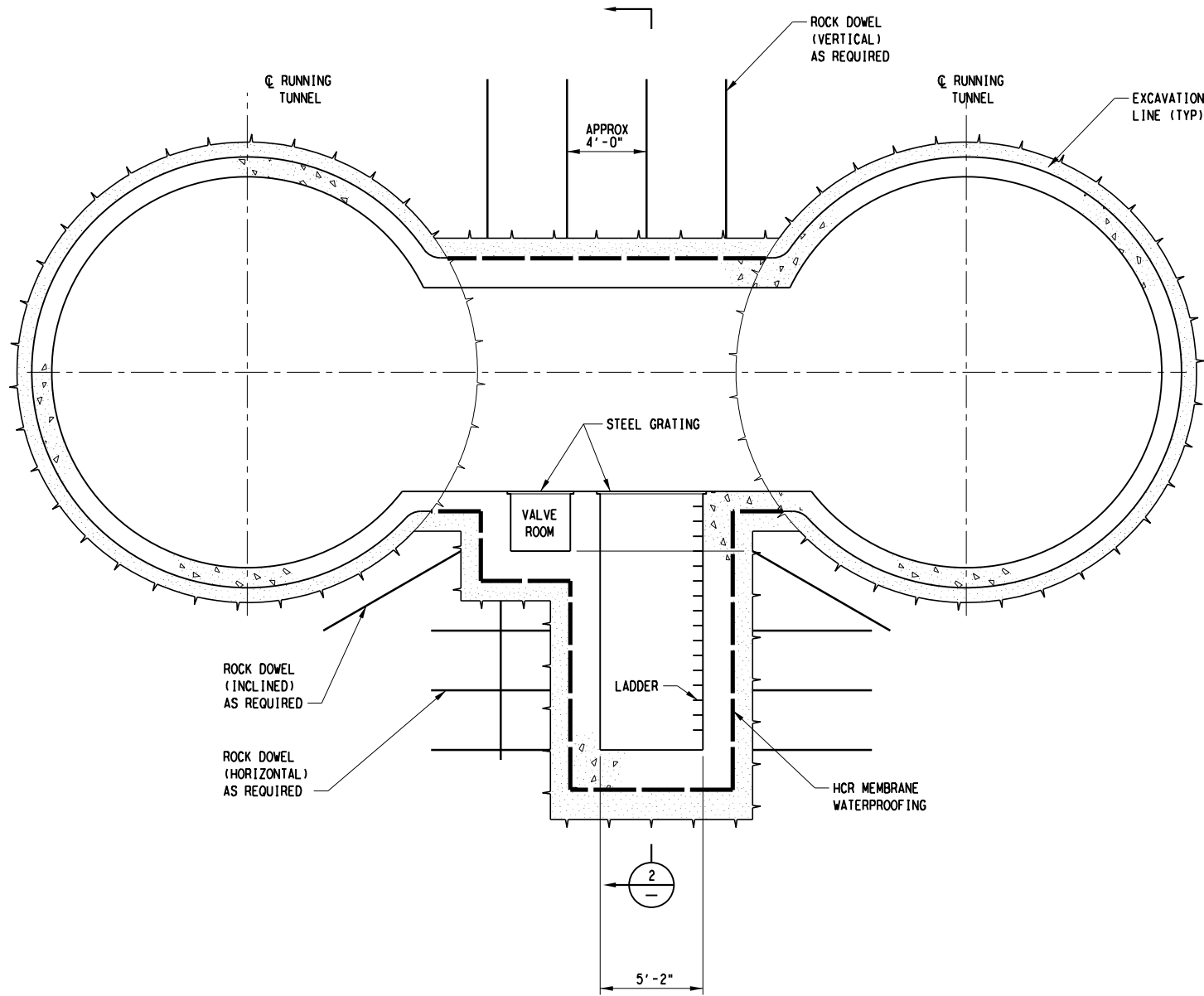
SCALE	1/4" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MAMELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020



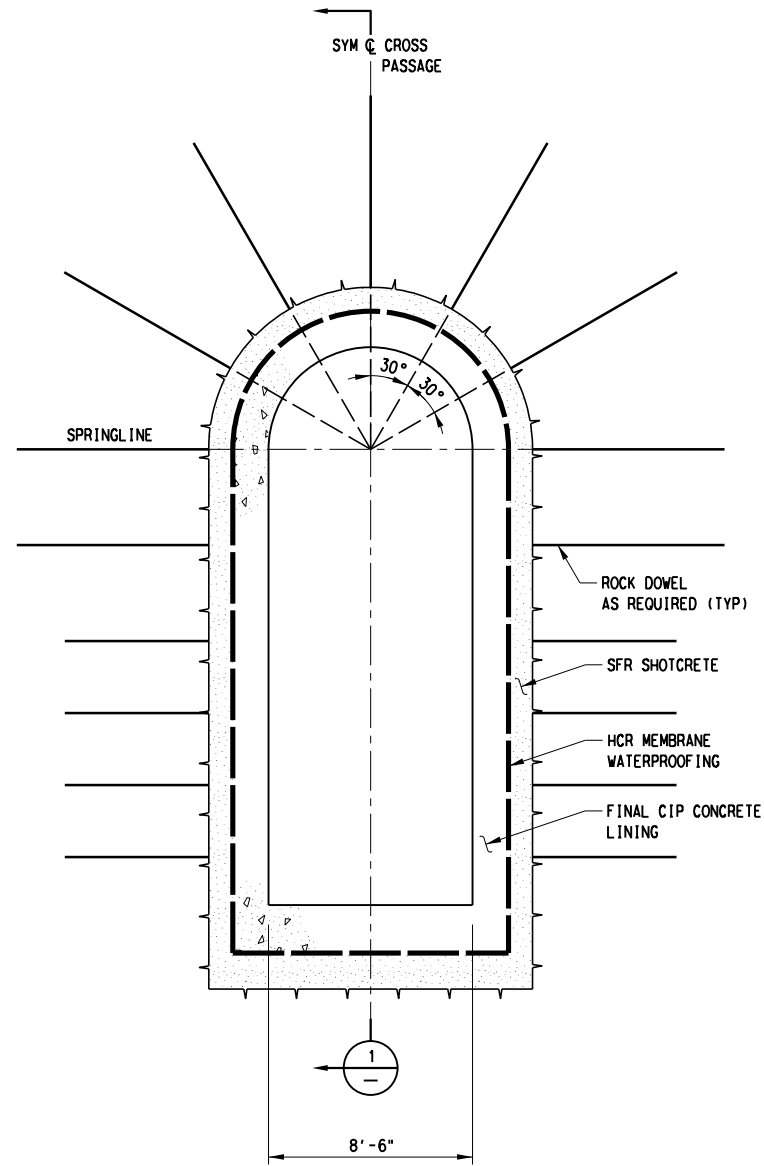
bwhiteside Default

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

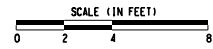
9000-83S ON 9AQ



PUMP/SUMP ROOM WITH  
GROUND SUPPORT - SECTION 1  
SCALE: 1/4" = 1'-0"



PUMP/SUMP ROOM WITH  
GROUND SUPPORT - SECTION 2  
SCALE: 1/4" = 1'-0"



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUMP DIMENSION TO BE DETERMINED BASED ON TUNNEL DRAINAGE ANALYSIS.
  - 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 20% DESIGN

CONTRACT SHEET No. 174 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

PUMP/SUMP ROOM  
INITIAL AND FINAL SUPPORTS

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

**DART PROJECT**

SCALE	1/4" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANNELMAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

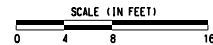
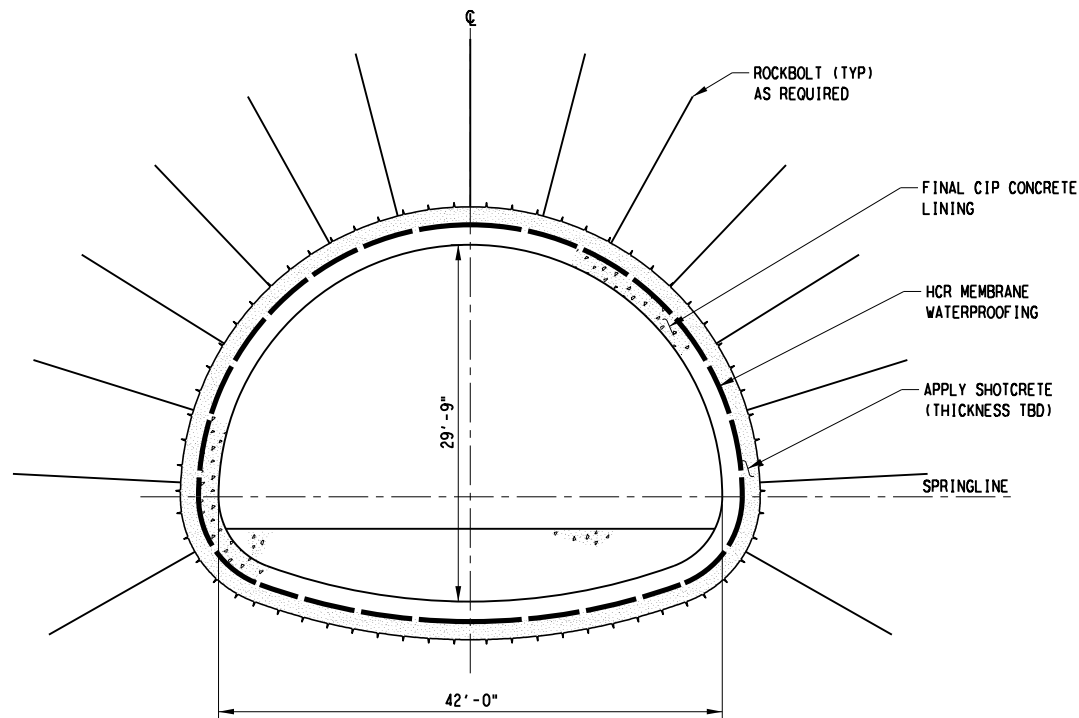
CONTRACT	DWG No. SC8-0005	REV
----------	------------------	-----

bwhiteside Default



28-FEB-2020 18:20  
pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

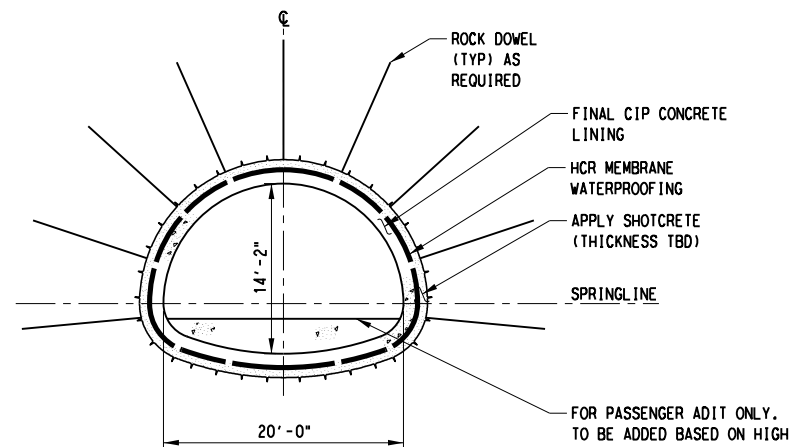
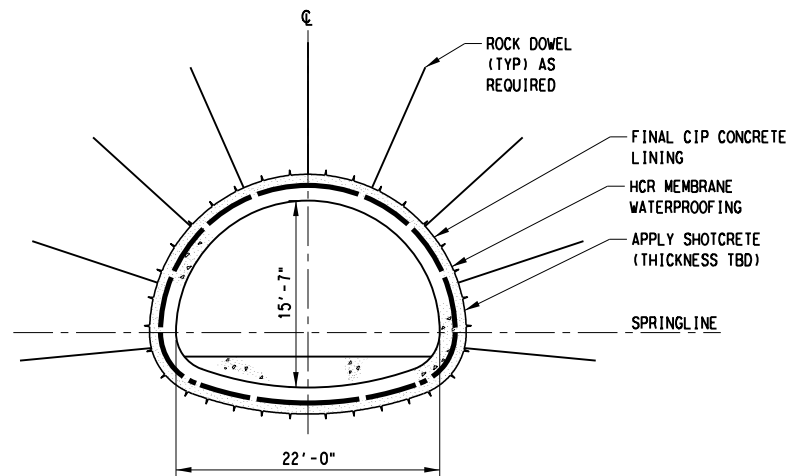
9000-83S ON 9AD



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.

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"

**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 20% DESIGN

CONTRACT SHEET No. 175 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

MECHANICAL CHAMBER AND  
MECHANICAL/PASSENGER ADIT  
INITIAL AND FINAL SUPPORTS

CONTRACT DWG No. SC8-0006 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.


**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

**DART PROJECT**




**DART PROJECT**



SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

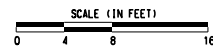
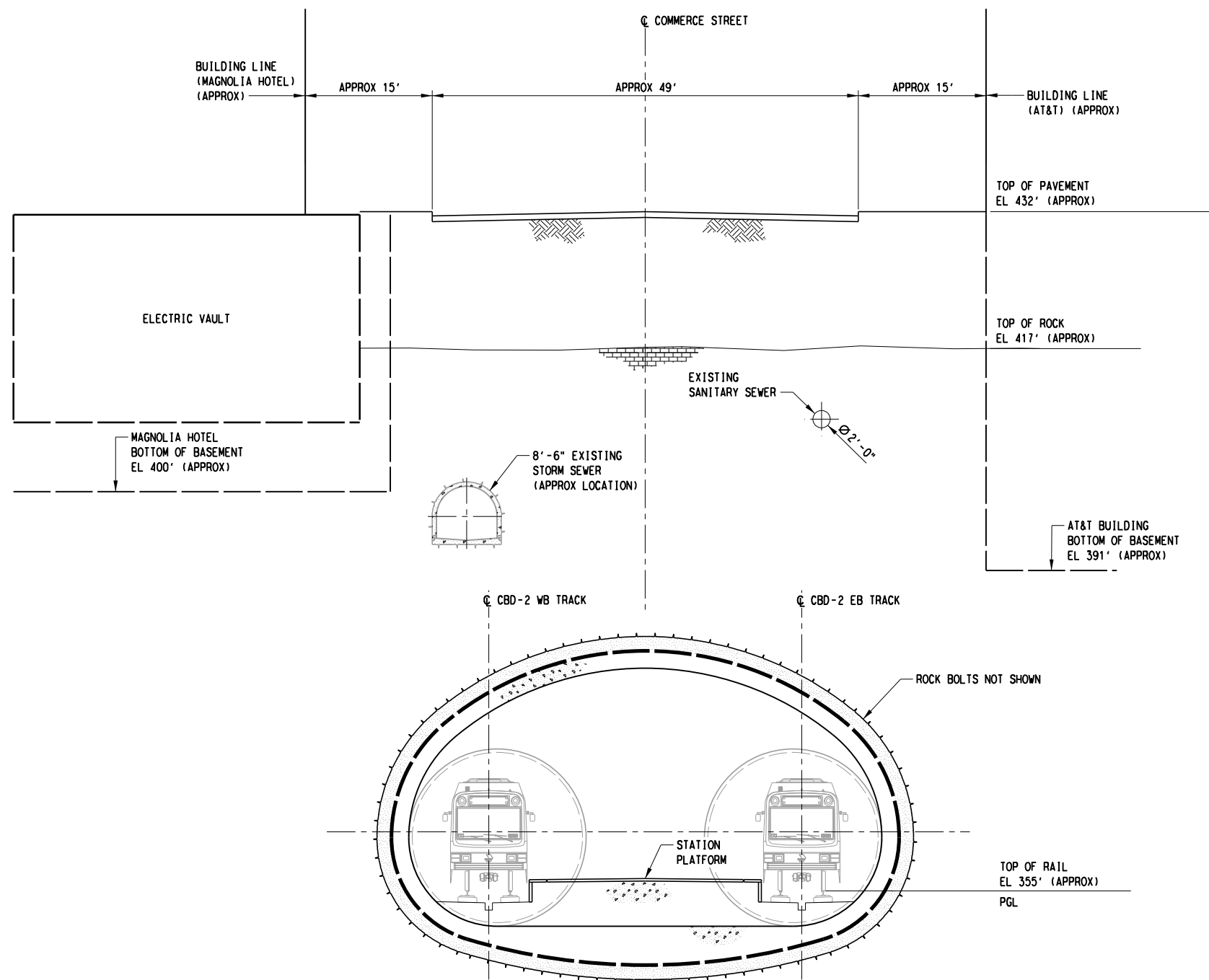


bwhiteside  
Default



28-FEB-2020 18:20 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

8000-83S ON 9AQ



NOTES:

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
- EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS POTENTIALLY IMPACTING STATION CONSTRUCTION ARE SHOWN ONLY.

CROSS-SECTION AT COMMERCE STREET  
LOOKING EAST

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 177 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
COMMERCE STREET STATION  
SECTION  
AT AKARD STREET  
EAST OF STA 72+00

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020 HNTB CORPORATION TBPE FIRM NO. F-420 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



**DART PROJECT**

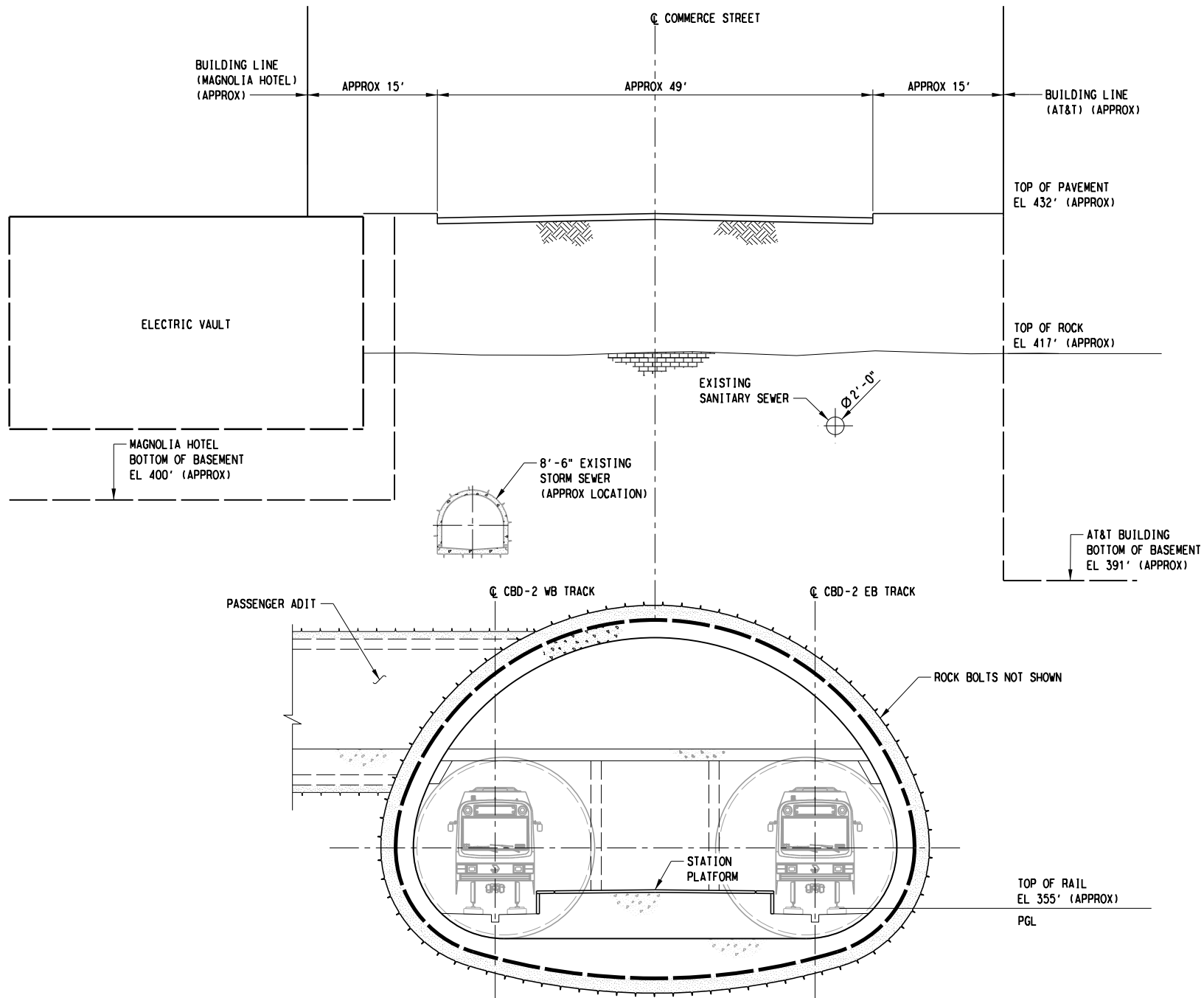
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUEL YAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-0008	REV
----------	------------------	-----

bwhiteside Default

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

6000-83S ON 9AQ



- 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: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 178 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
COMMERCE STREET STATION  
SECTION  
AT AKARD STREET  
EAST OF STA 72+00**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420

**DART**  
gpc SIX

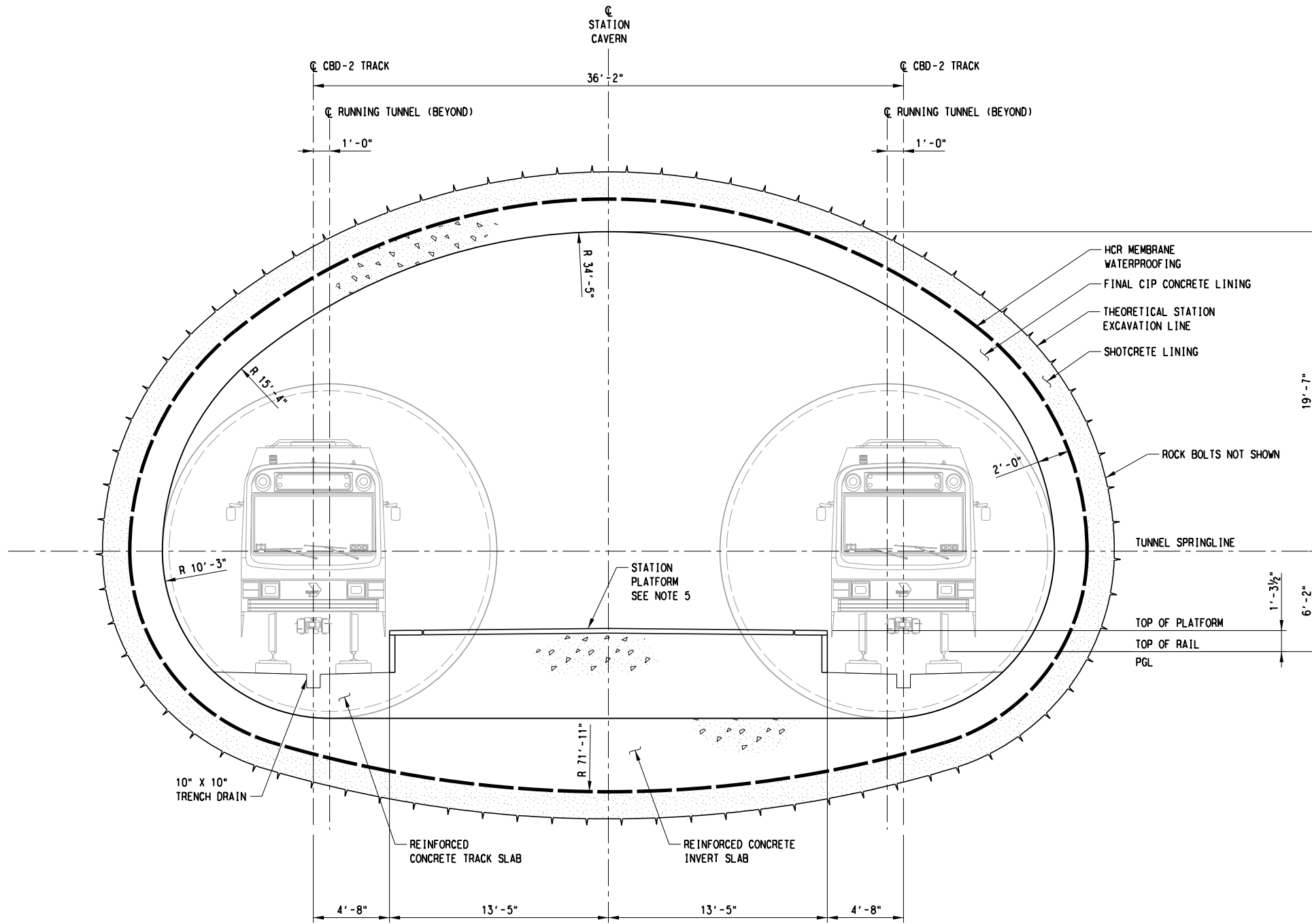
**DART PROJECT**

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-0009	REV
----------	------------------	-----

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

0100-835 ON 9AD



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: 1/4" = 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 20% DESIGN

CONTRACT SHEET No. 179 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
  
 COMMERCE STREET STATION  
 SECTION  
 STA 72+00.0 TO STA 74+66.1

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

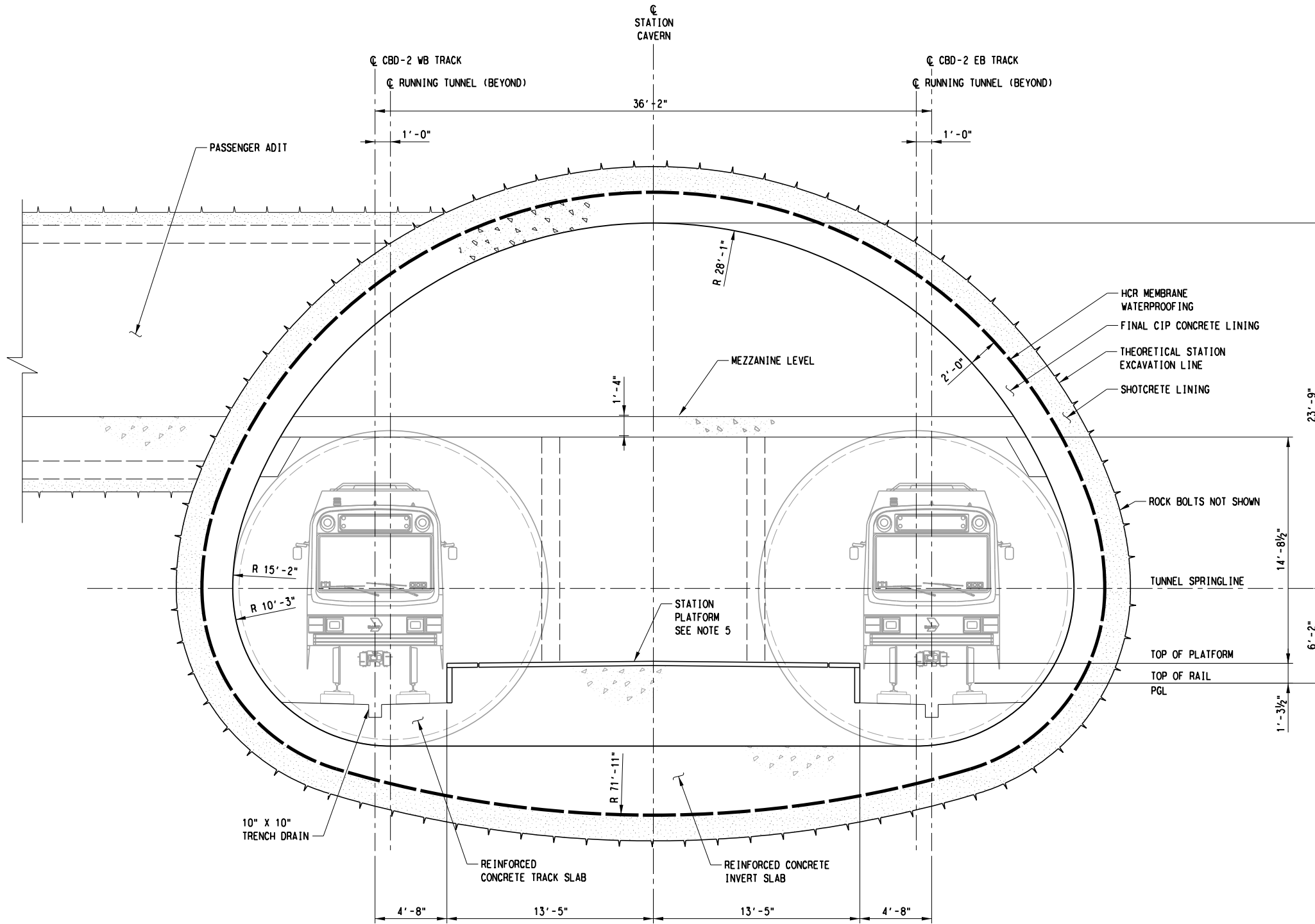
**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1/4" = 1' - 0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-0010	REV
----------	------------------	-----

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



- 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: 1/4" = 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 20% DESIGN

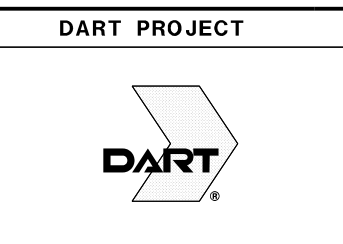
CONTRACT SHEET No. 180 OF 276

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

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

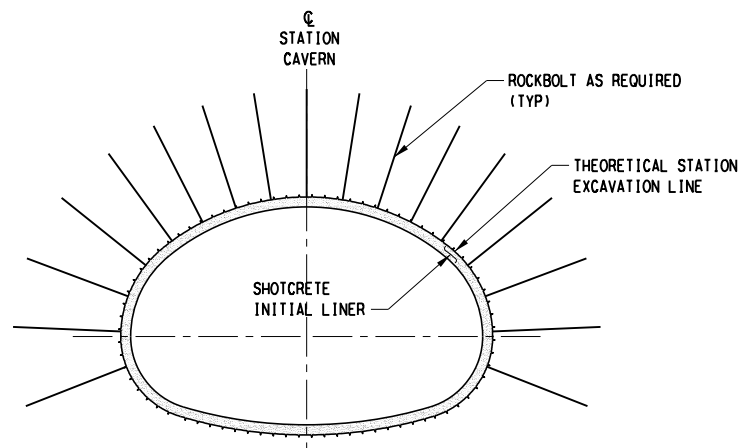
**HNTB**  
 HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



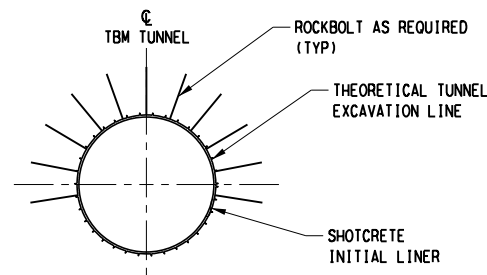
SCALE	1/4" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No.	REV
CAES	SC8-0011	

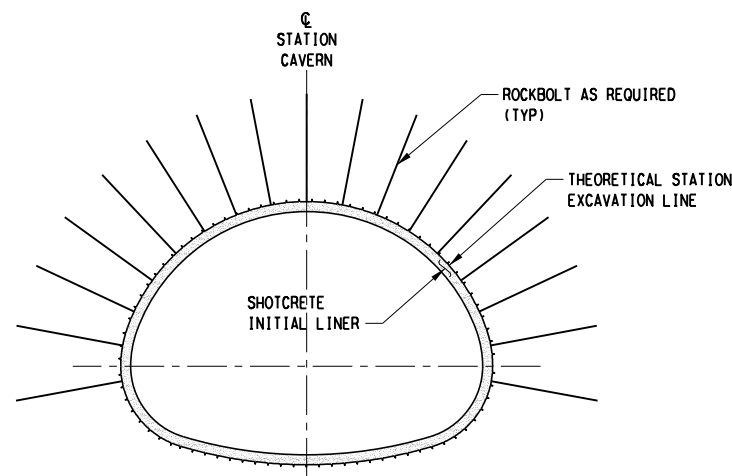
28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



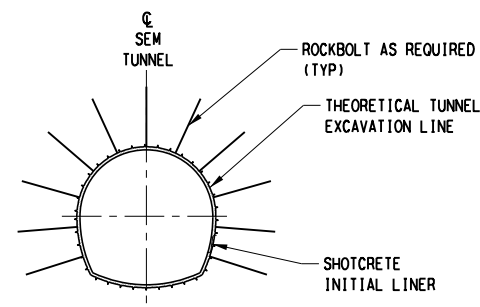
SECTION FROM STA 72+00.0 TO STA 74+66.1



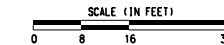
TBM RUNNING TUNNEL (CAST-IN-PLACE LINING)



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



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.

RUNNING TUNNEL AND COMMERCE STATION CAVERN INITIAL SUPPORT - TYPICAL SECTIONS

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 181 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
RUNNING TUNNEL AND  
COMMERCE STREET STATION CAVERN  
INITIAL SUPPORT  
TYPICAL SECTIONS

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

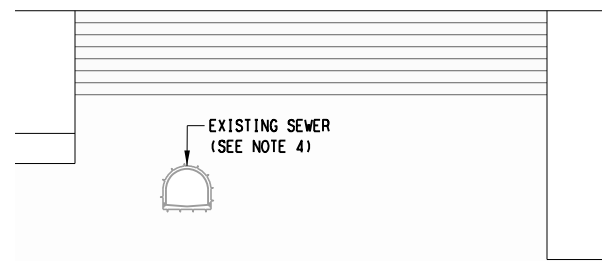
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

DART PROJECT

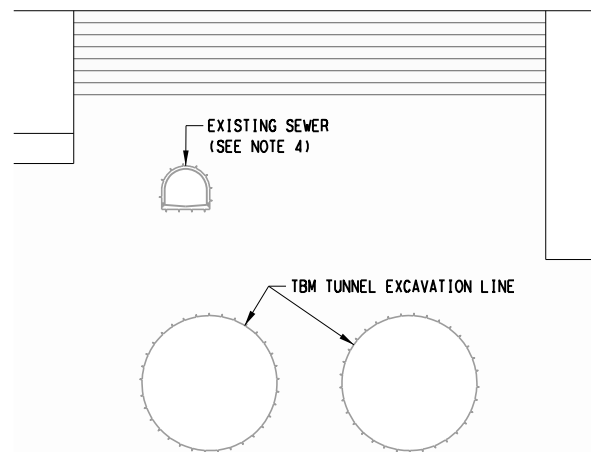
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-0012	REV
----------	------------------	-----

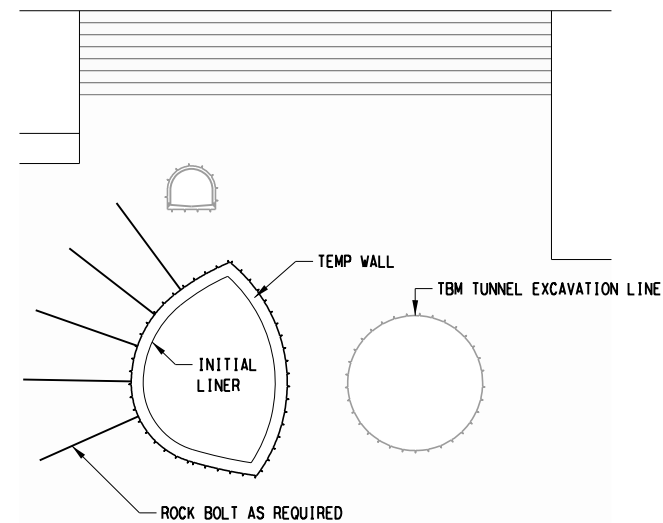
bwhiteside Default



PRE-CONSTRUCTION CONDITION

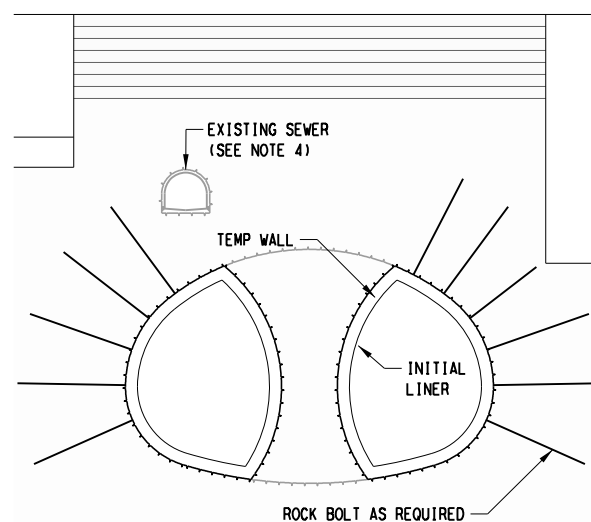


STAGE 1  
TBM MINING

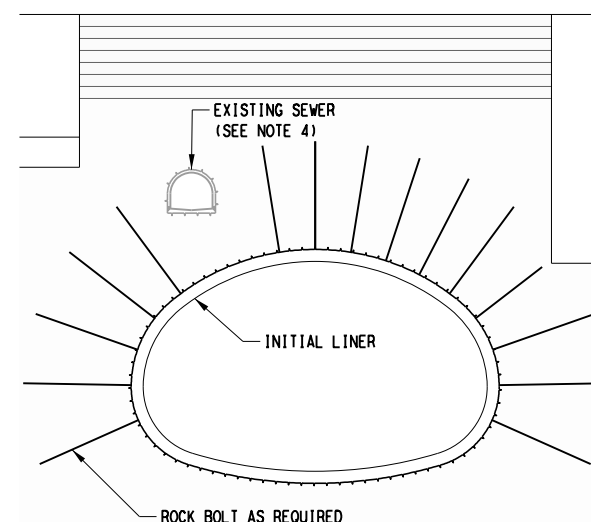


STAGE 2  
FIRST SIDE DRIFT EXCAVATION AND SUPPORT

- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - 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.
  - 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.



STAGE 3  
SECOND SIDE DRIFT EXCAVATION AND SUPPORT



STAGE 4  
CENTER DRIFT EXCAVATION AND SUPPORT

**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 20% DESIGN

CONTRACT SHEET No. 182 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
CONSTRUCTION STAGES

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:

CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020

HNTB CORPORATION  
TBPE FIRM NO. F-420

IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**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	06 MAR 2020

CONTRACT	DWG No. SC8-0013	REV
----------	------------------	-----



1002-83S

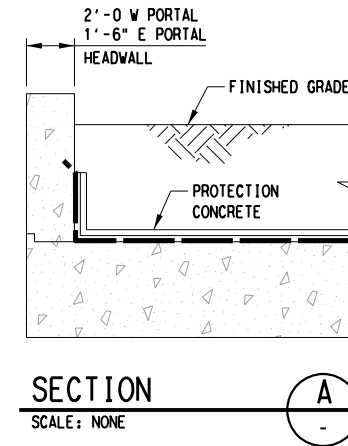
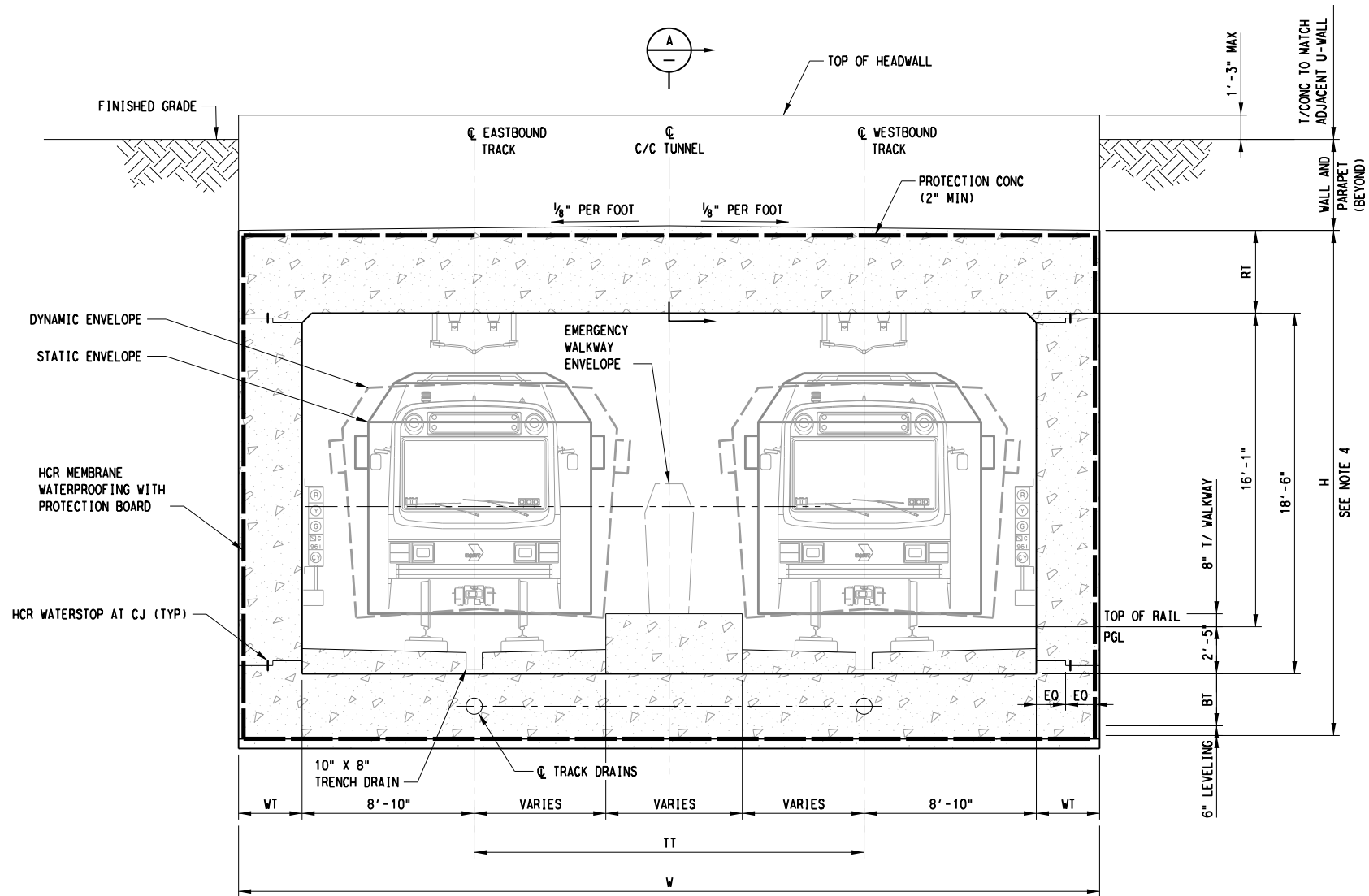
ON GRADE

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'-5"	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'-5"	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'-5"	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:

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
- OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
- SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE INCOMPLETE AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.



SECTION

SCALE: NONE

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

**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 20% DESIGN

CONTRACT SHEET No. 183 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 CUT-AND-COVER TUNNEL  
 SECTION TYPE A

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



CONTRACT	DWG No.	REV
	SC8-2001	

28-FEB-2020 18:20 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

2002-83S

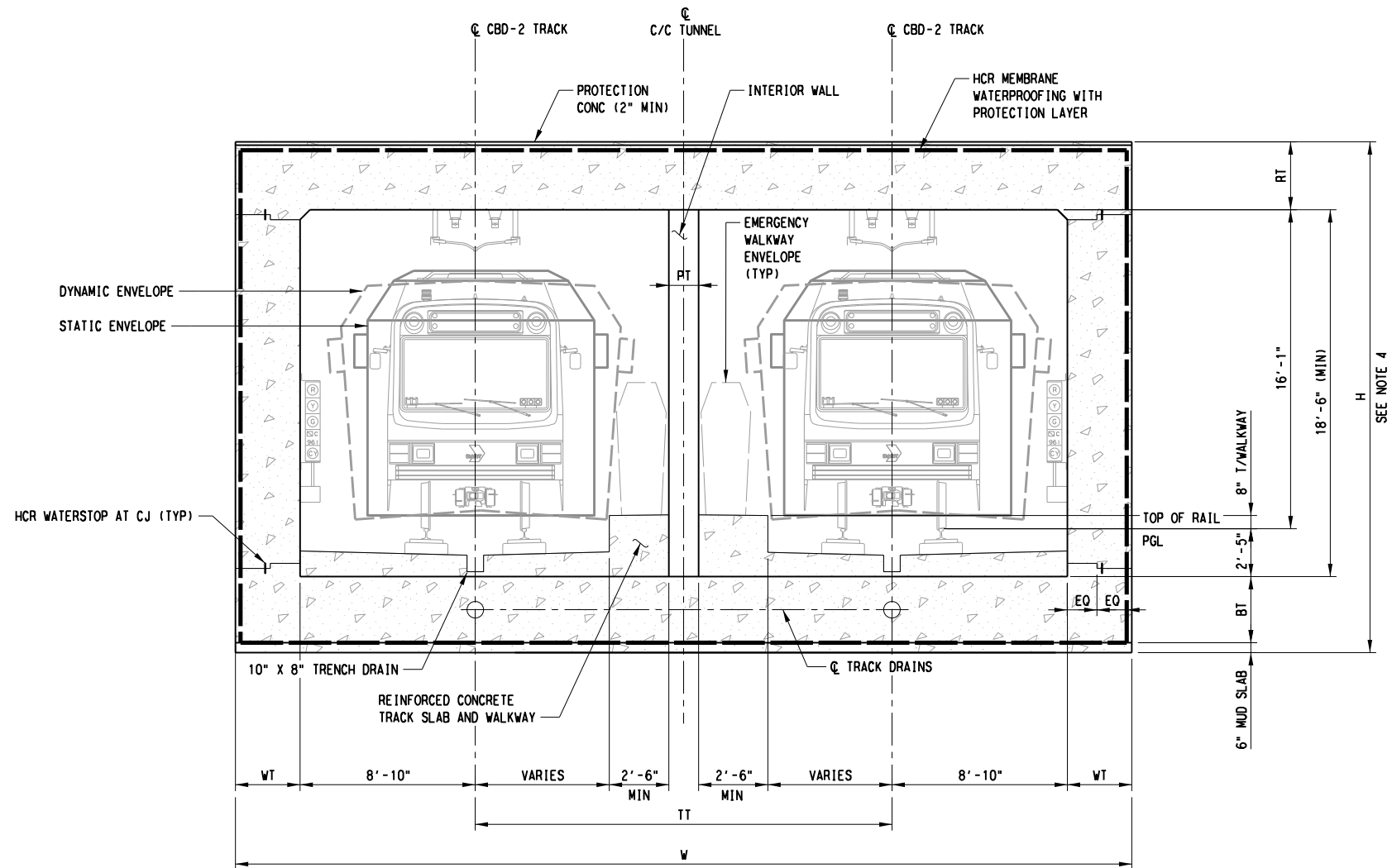
ON 9AQ

**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:**

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
- OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
- 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 20% DESIGN

CONTRACT SHEET No. 184 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 CUT-AND-COVER TUNNEL  
 SECTION TYPE B

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No. 420



**DART PROJECT**

**DART**

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-2002	REV
----------	------------------	-----

28-FEB-2020 18:20 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

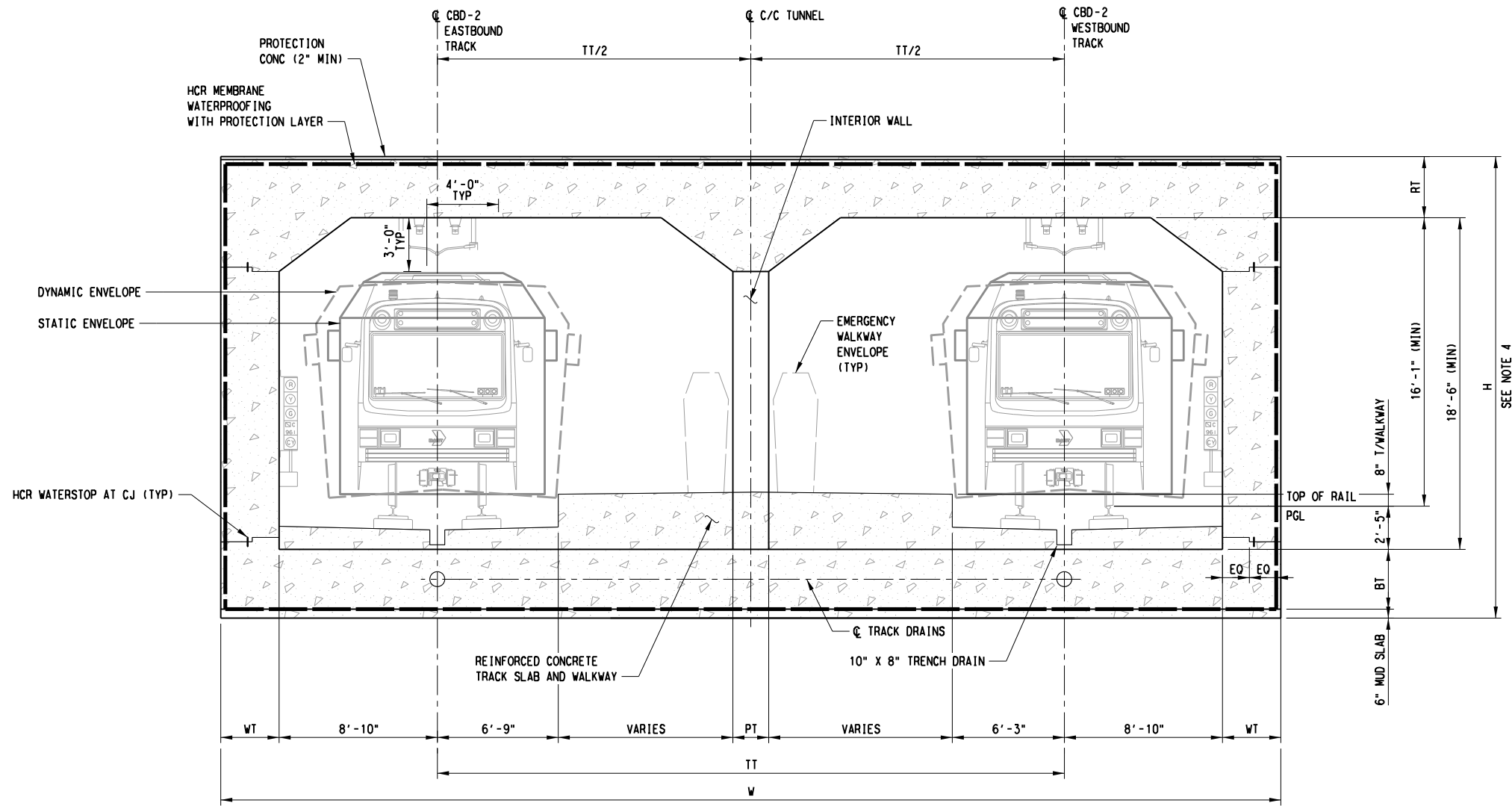
002-83S

ON GAO

**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'-5"	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'-5"	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'-5"	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:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
  - OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
  - 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 20% DESIGN

CONTRACT SHEET No. 185 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
CUT-AND-COVER TUNNEL  
SECTION TYPE C**

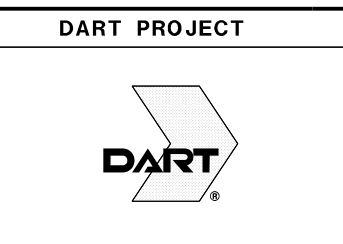
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420



SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

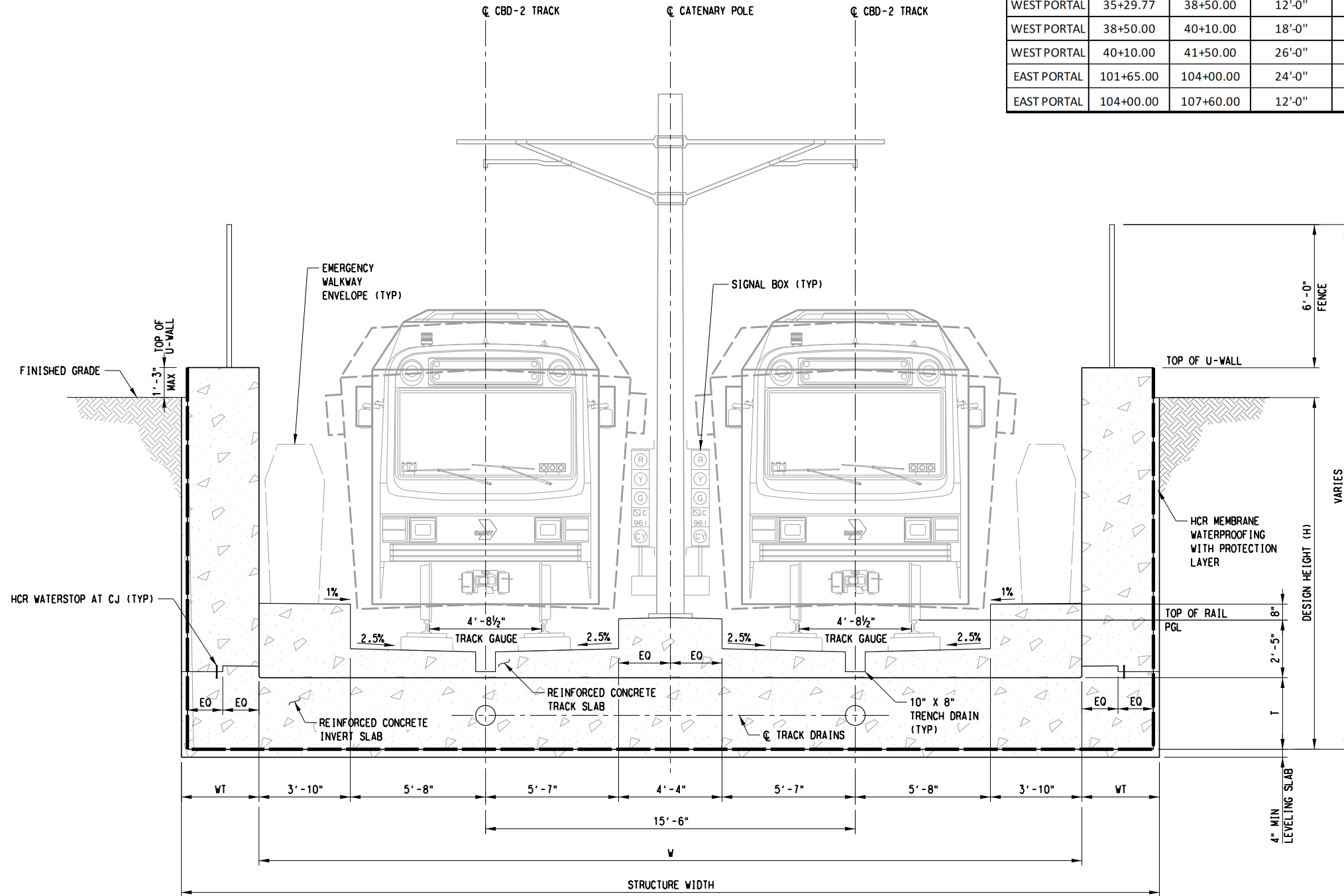
CONTRACT	DWG No.	REV
	SC8-2003	

bwhiteside Default

**U-WALL DIMENSIONS**

STRUCTURE LOCATION	STATION LIMITS		MAXIMUM DESIGN HEIGHT (H)	INVERT SLAB THICKNESS (T)	WALL THICKNESS (WT)	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"	40'-6"
EAST PORTAL	101+65.00	104+00.00	24'-0"	3'-0"	3'-0"	35'-10" TO 40'-6"
EAST PORTAL	104+00.00	107+60.00	12'-0"	2'-6"	1'-6"	37'-6"

- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
  - 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: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 186 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
**EAST/WEST PORTAL SECTION**  
**U-WALL**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

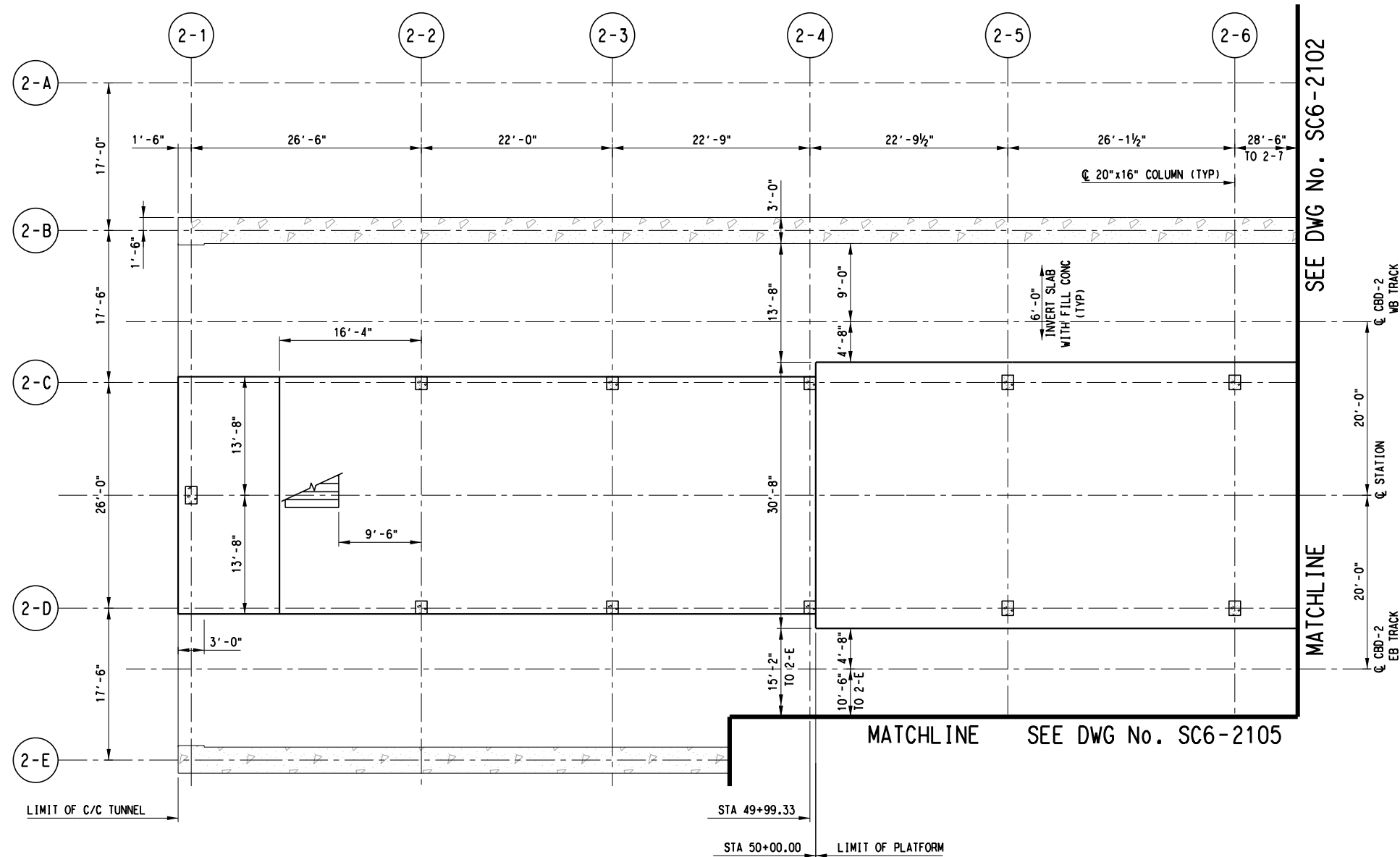


**DART PROJECT**

SCALE	NTS
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-1010	REV
----------	------------------	-----

28-FEB-2020 18:21 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



NOTES:

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

**PLATFORM LEVEL PLAN A**

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 187 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

**METRO CENTER STATION  
 PLATFORM LEVEL PLAN  
 SHEET 1 OF 8**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

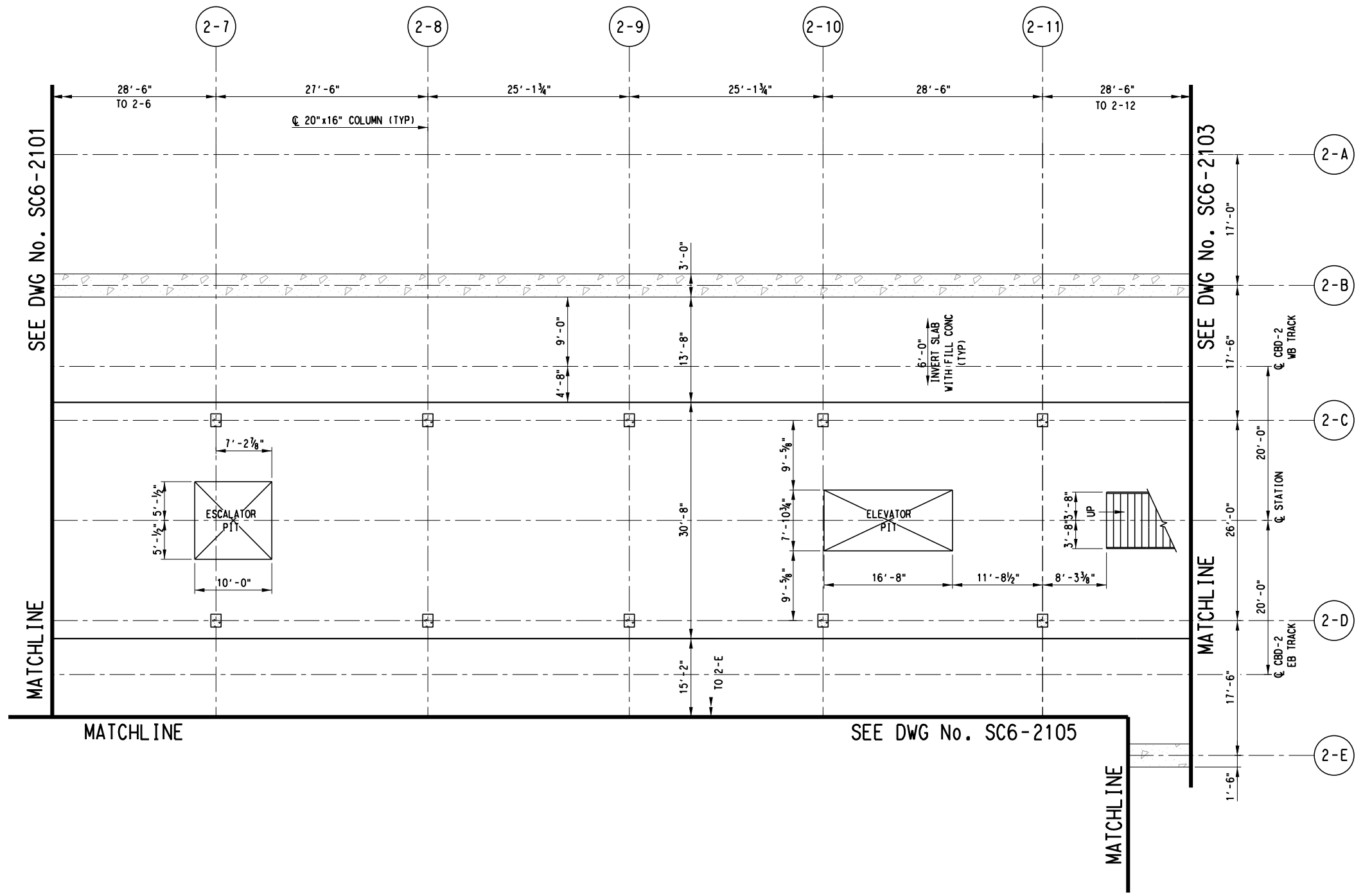


**DART PROJECT**

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-2101	REV
----------	------------------	-----



- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

MATCHLINE

SEE DWG No. SC6-2105

**PLATFORM LEVEL PLAN B**  
SCALE: 1/8" = 1'-0"

**DRAFT**  
CONCEPTUAL DESIGN PENDING  
RAIL/FACILITY SYSTEMS AND  
TUNNEL/STATION VENTILATION INPUT,  
AND ADDITIONAL SITE SPECIFIC DATA

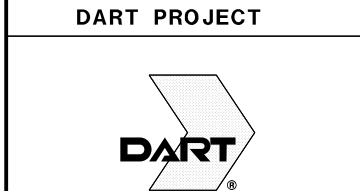
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 188 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
  
**METRO CENTER STATION**  
**PLATFORM LEVEL PLAN**  
**SHEET 2 OF 8**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

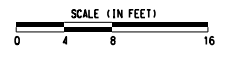
**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



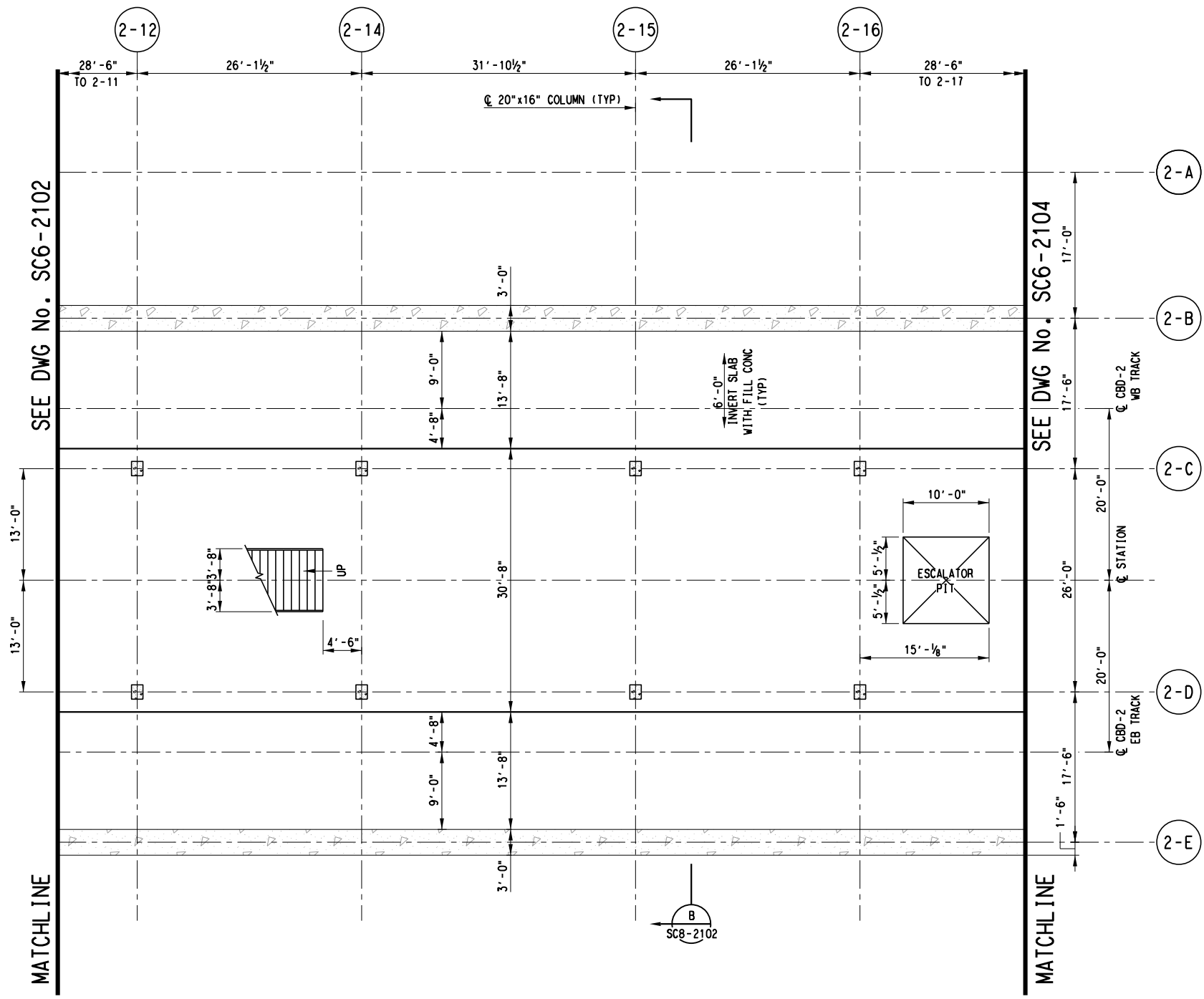
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-2102	REV
----------	------------------	-----



- 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: 1/8" = 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 20% DESIGN**

CONTRACT SHEET No. 189 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
METRO CENTER STATION  
PLATFORM LEVEL PLAN  
SHEET 3 OF 8

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
**CHARLES A. STONE, P.E. NO. 133866**  
 ON 03/06/2020  
**HNTB CORPORATION**  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

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	06 MAR 2020

	CONTRACT	DWG No. SC6-2103	REV
--	----------	------------------	-----

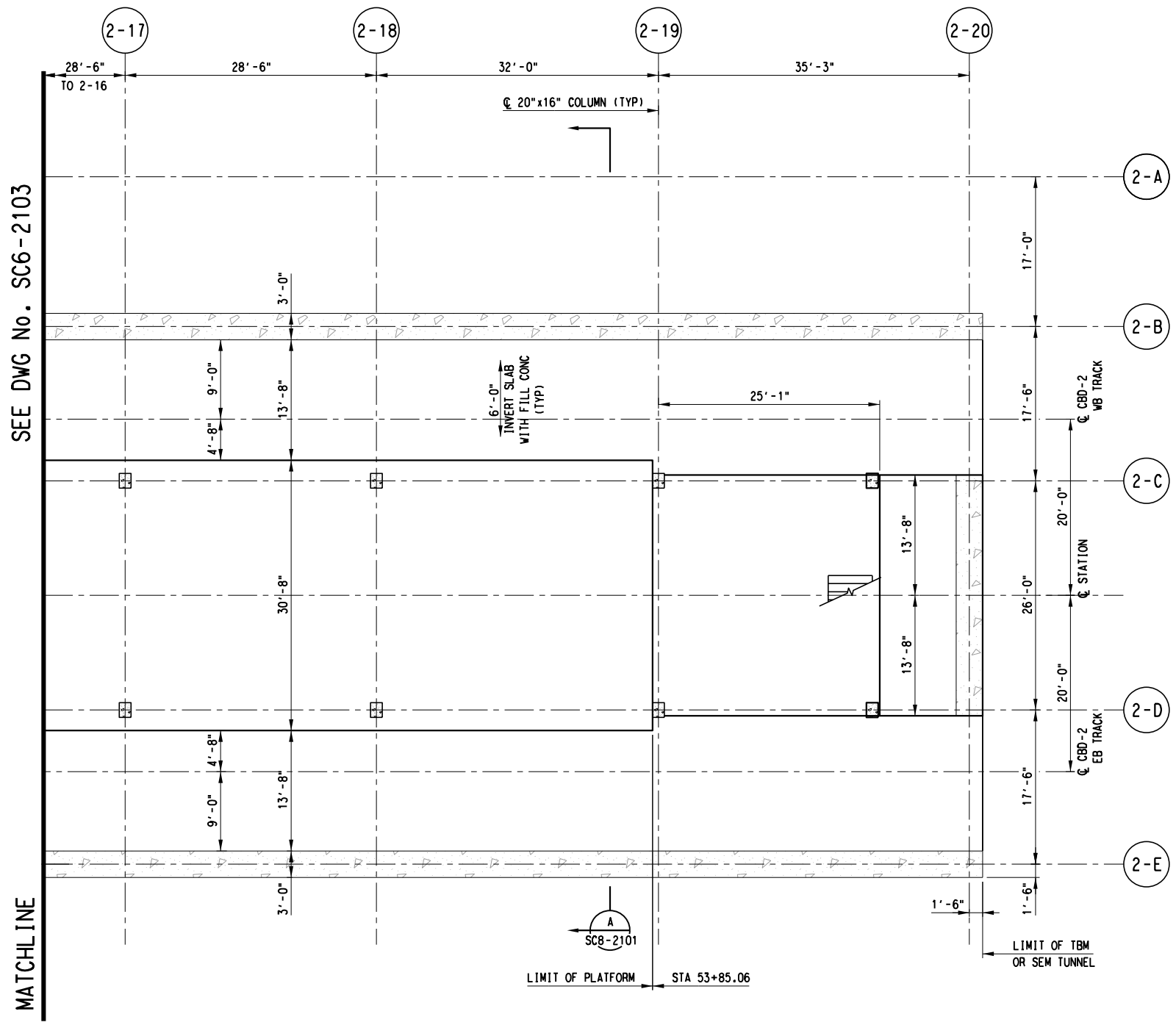
28-FEB-2020 18:21  
pw://pwhduscn01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

DWG No. SC6-2104



SCALE (IN FEET)  
0 4 8 16

- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.



SEE DWG No. SC6-2103

MATCHLINE

**PLATFORM LEVEL PLAN D**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 190 OF 276

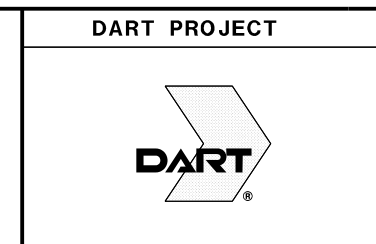
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
  
METRO CENTER STATION  
PLATFORM LEVEL PLAN  
SHEET 4 OF 8

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



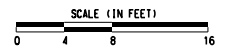
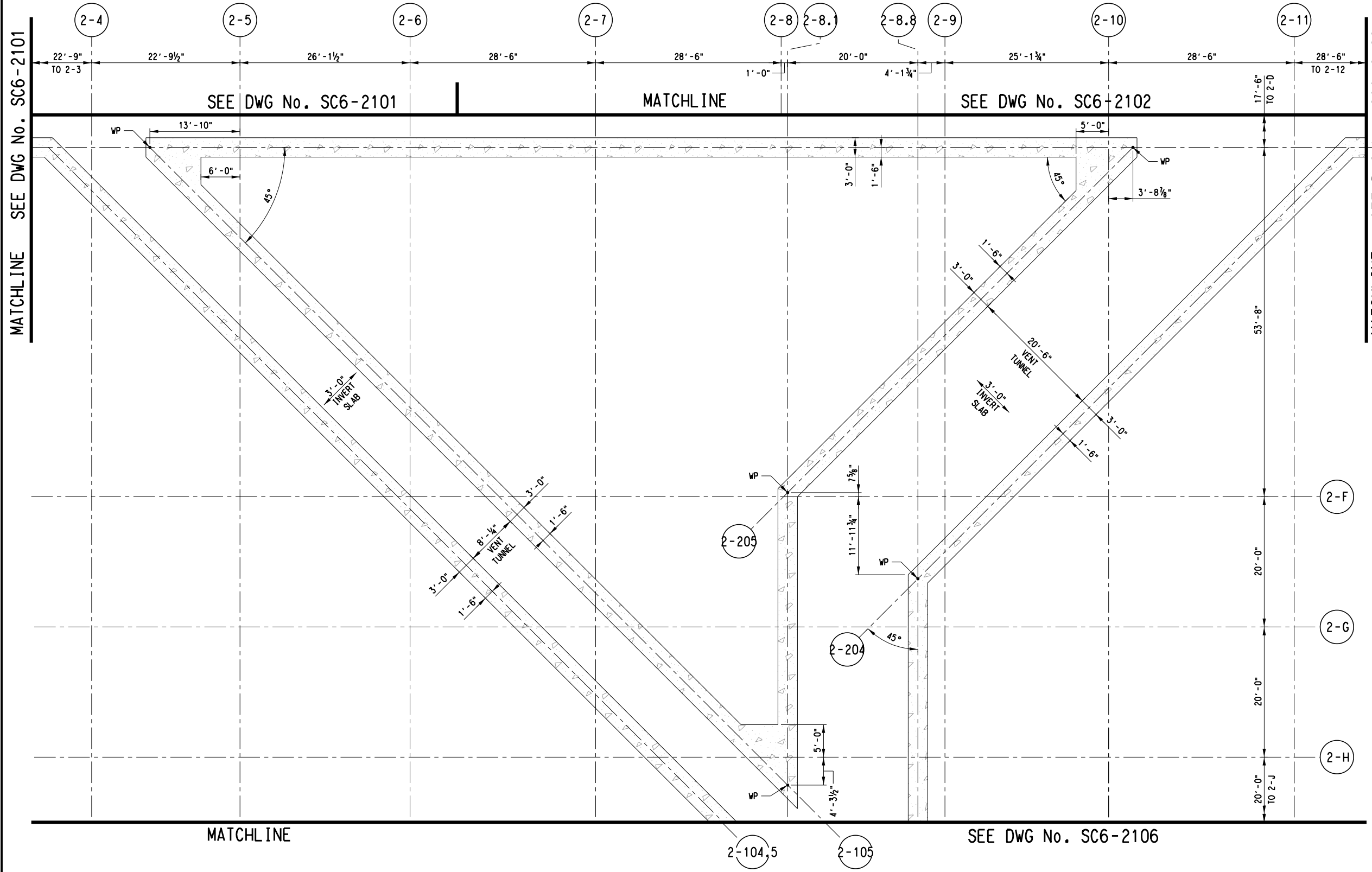
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-2104	REV
----------	------------------	-----



28-FEB-2020 18:21 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

SC6-2105 ON DAD



NOTES:

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- 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 20% DESIGN

CONTRACT SHEET No. 191 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
  
**METRO CENTER STATION**  
**PLATFORM LEVEL PLAN**  
**SHEET 5 OF 8**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

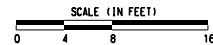
**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



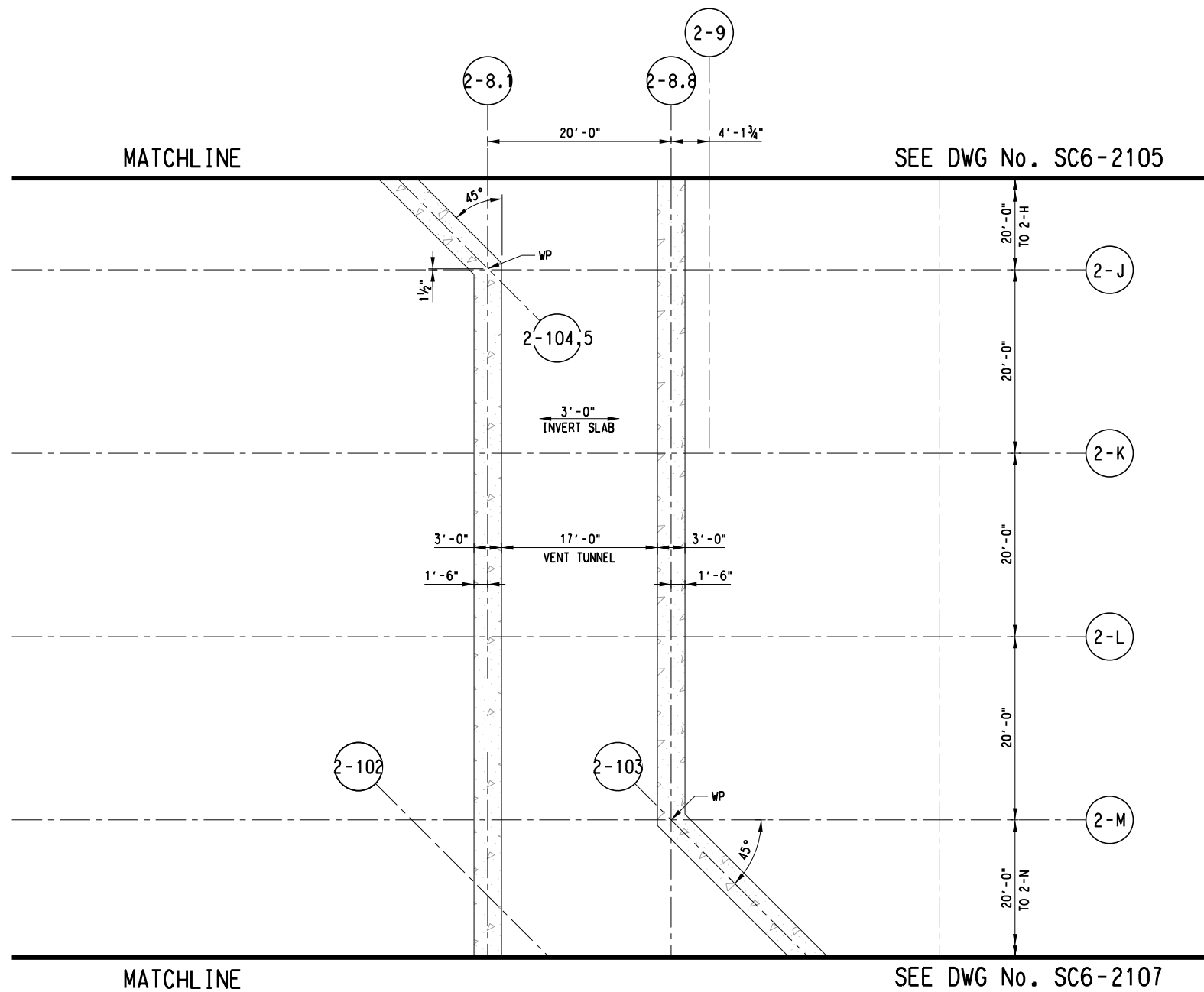
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-2105	



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.



**PLATFORM LEVEL PLAN F**  
 SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 192 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 METRO CENTER STATION  
 PLATFORM LEVEL PLAN  
 SHEET 6 OF 8

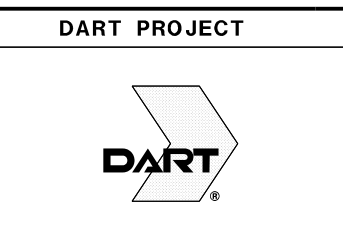
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



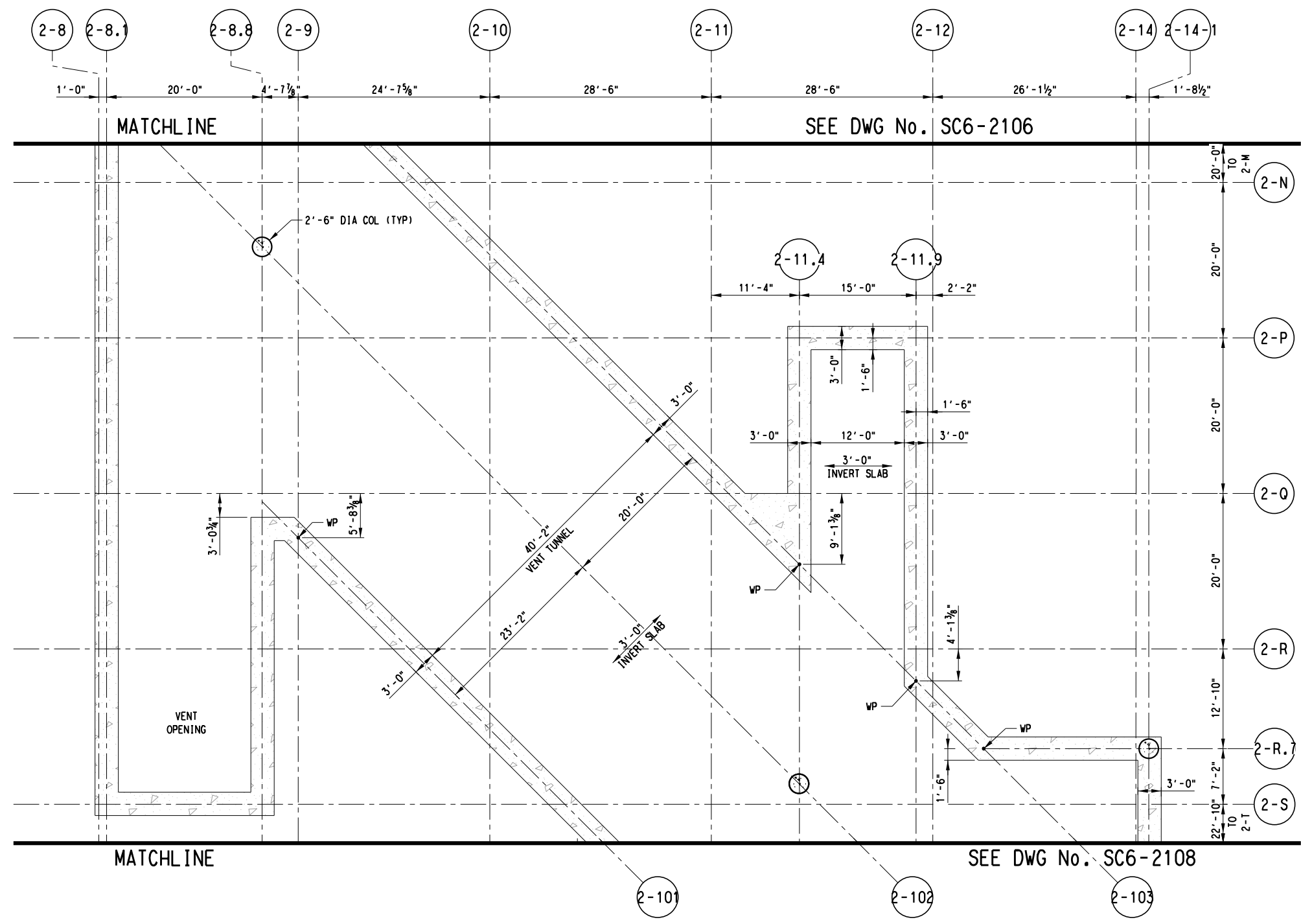
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-2106	REV
----------	------------------	-----

28-FEB-2020 18:21  
pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



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 20% DESIGN

CONTRACT SHEET No. 193 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
PLATFORM LEVEL PLAN  
SHEET 7 OF 8

**PLATFORM LEVEL PLAN G**  
SCALE: 1/8" = 1'-0"

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



CONTRACT	DWG No. SC6-2107	REV
----------	------------------	-----

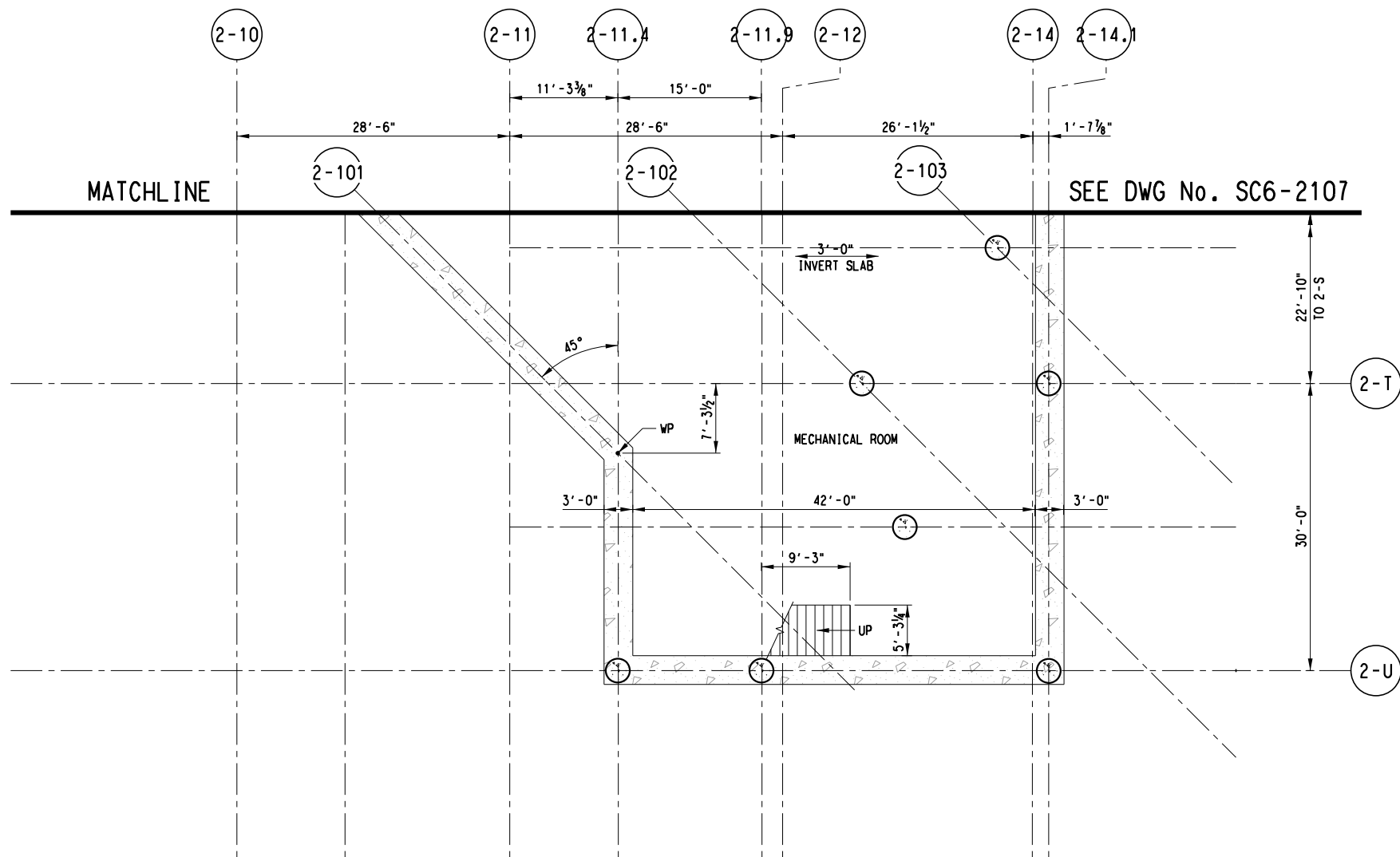
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:21 pwr://pwhduscon01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

8012-93S ON 9AD



SCALE (IN FEET)  
0 4 8 16



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SEE DWG No. SC6-2107

**PLATFORM LEVEL PLAN H**  
SCALE: 1/8" = 1'-0"

**DRAFT**  
CONCEPTUAL DESIGN PENDING  
RAIL/FACILITY SYSTEMS AND  
TUNNEL/STATION VENTILATION INPUT,  
AND ADDITIONAL SITE SPECIFIC DATA

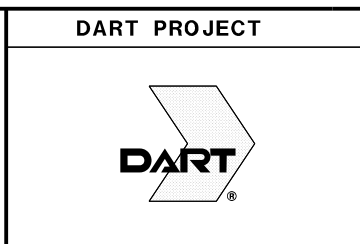
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 194 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**METRO CENTER STATION  
PLATFORM LEVEL PLAN  
SHEET 8 OF 8**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

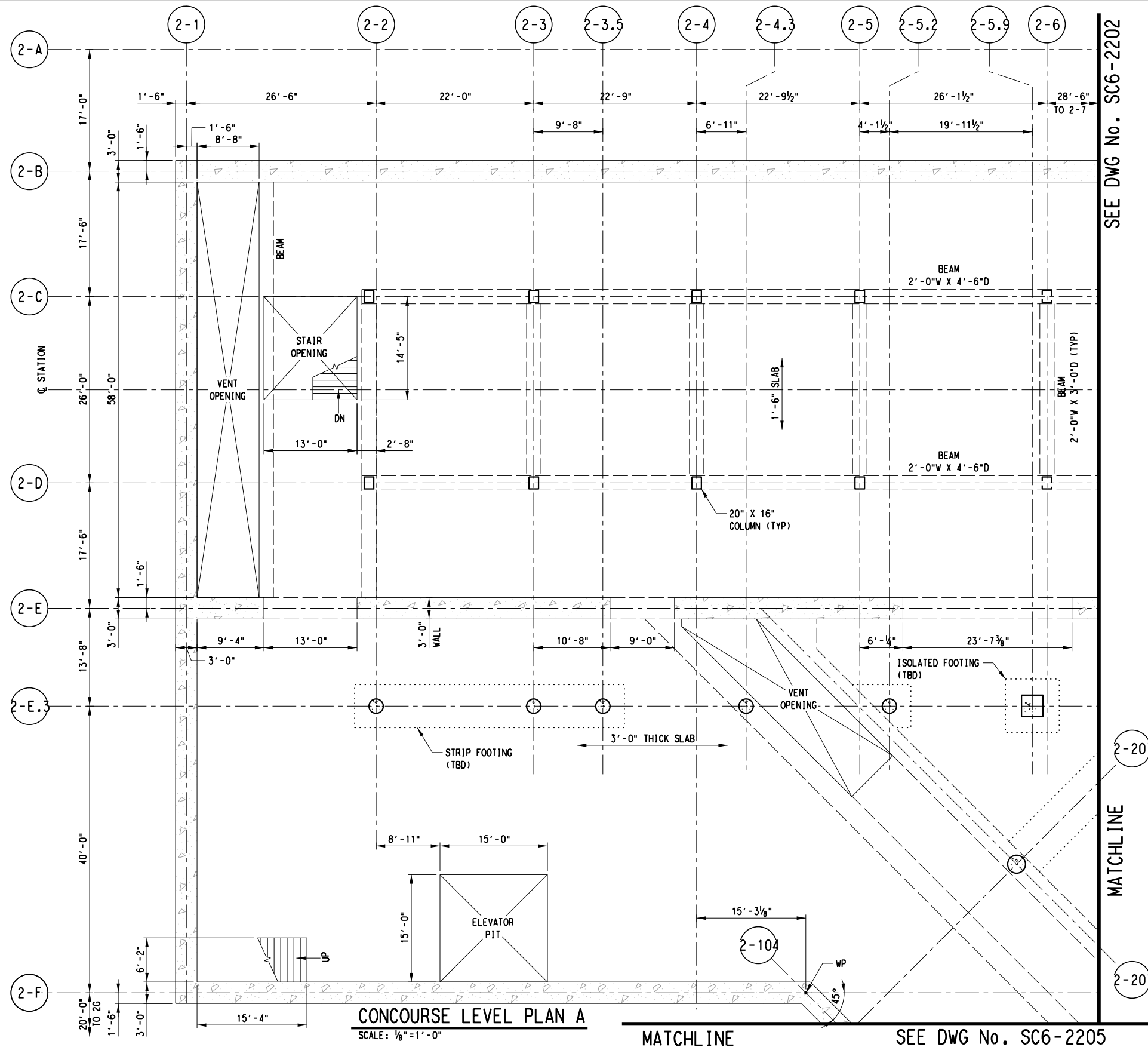


SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT DWG No. SC6-2108 REV

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.

SEE DWG No. SC6-2202

MATCHLINE

SEE DWG No. SC6-2205

**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 20% DESIGN

CONTRACT SHEET No. 195 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 1 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



**DART PROJECT**



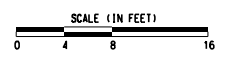
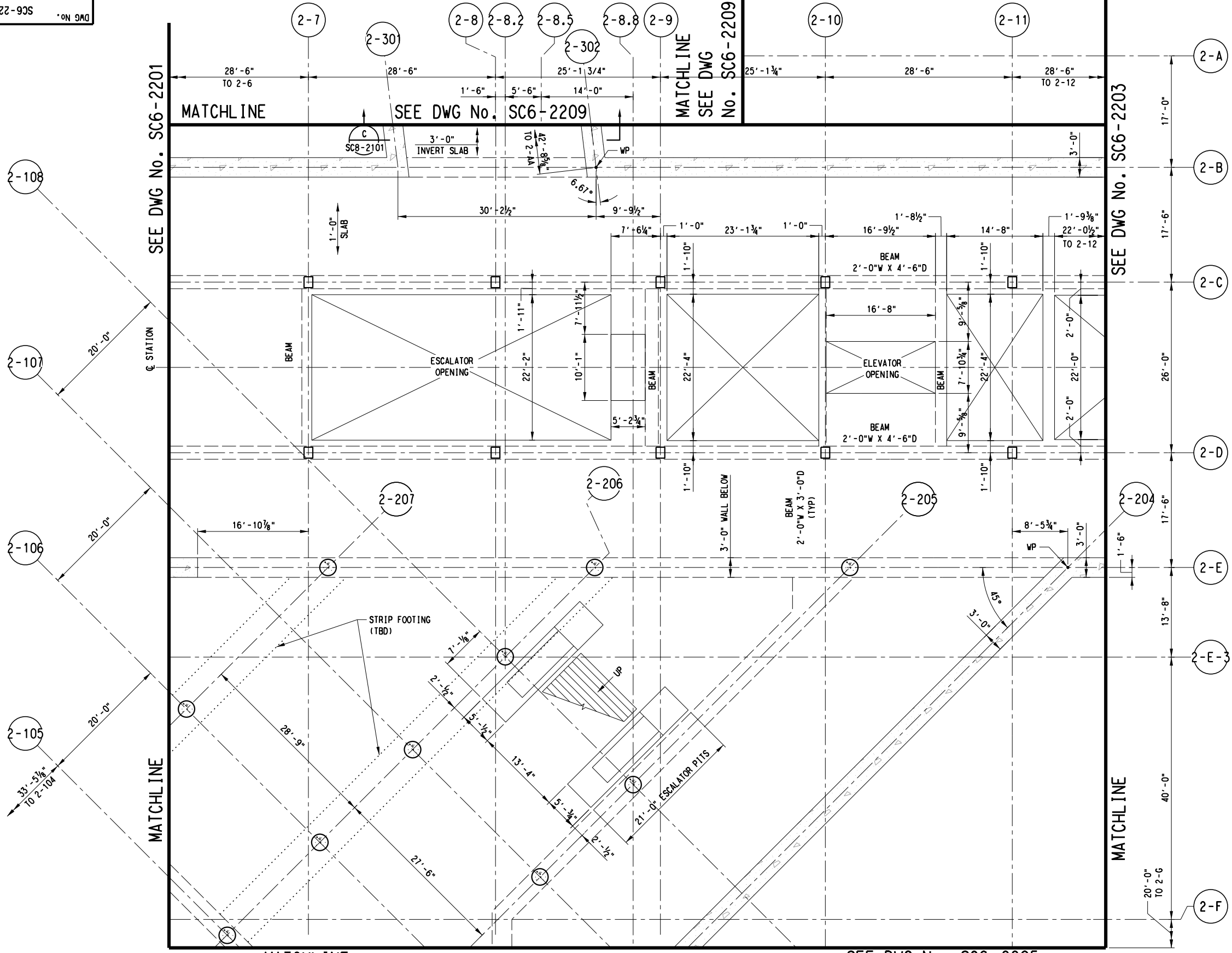
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-2201	

28-FEB-2020 18:21  
 pwr://pwhduscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

2022-SC6  
 ON DAG



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

CONCOURSE  
 LEVEL  
 PLAN B  
 SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 196 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 METRO CENTER STATION  
 CONCOURSE LEVEL PLAN  
 SHEET 2 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020

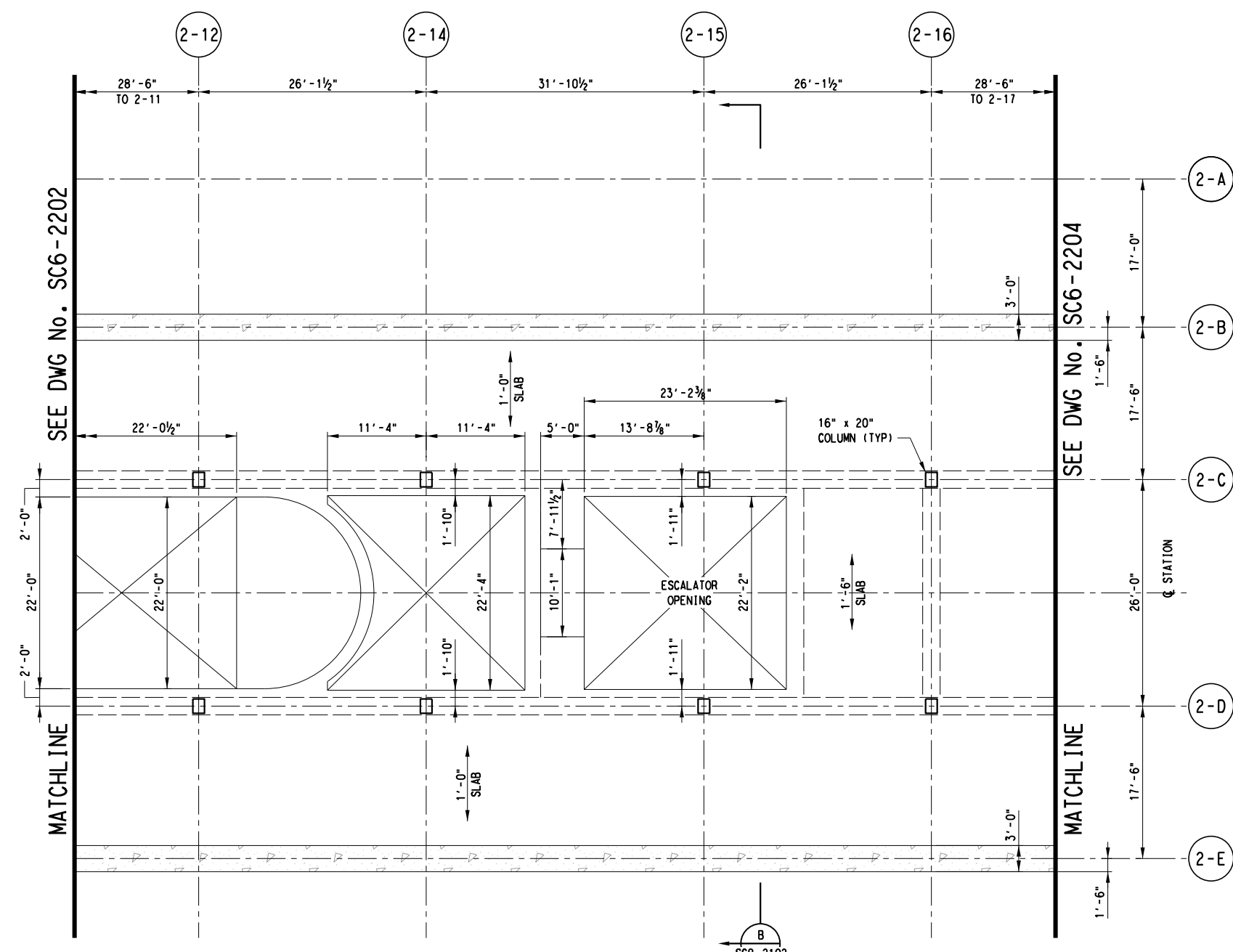


CONTRACT	DWG No. SC6-2202	REV
----------	------------------	-----

28-FEB-2020 18:22  
pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



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 C**  
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 20% DESIGN


CONTRACT SHEET No. 197 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 3 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**


THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420




**DART PROJECT**



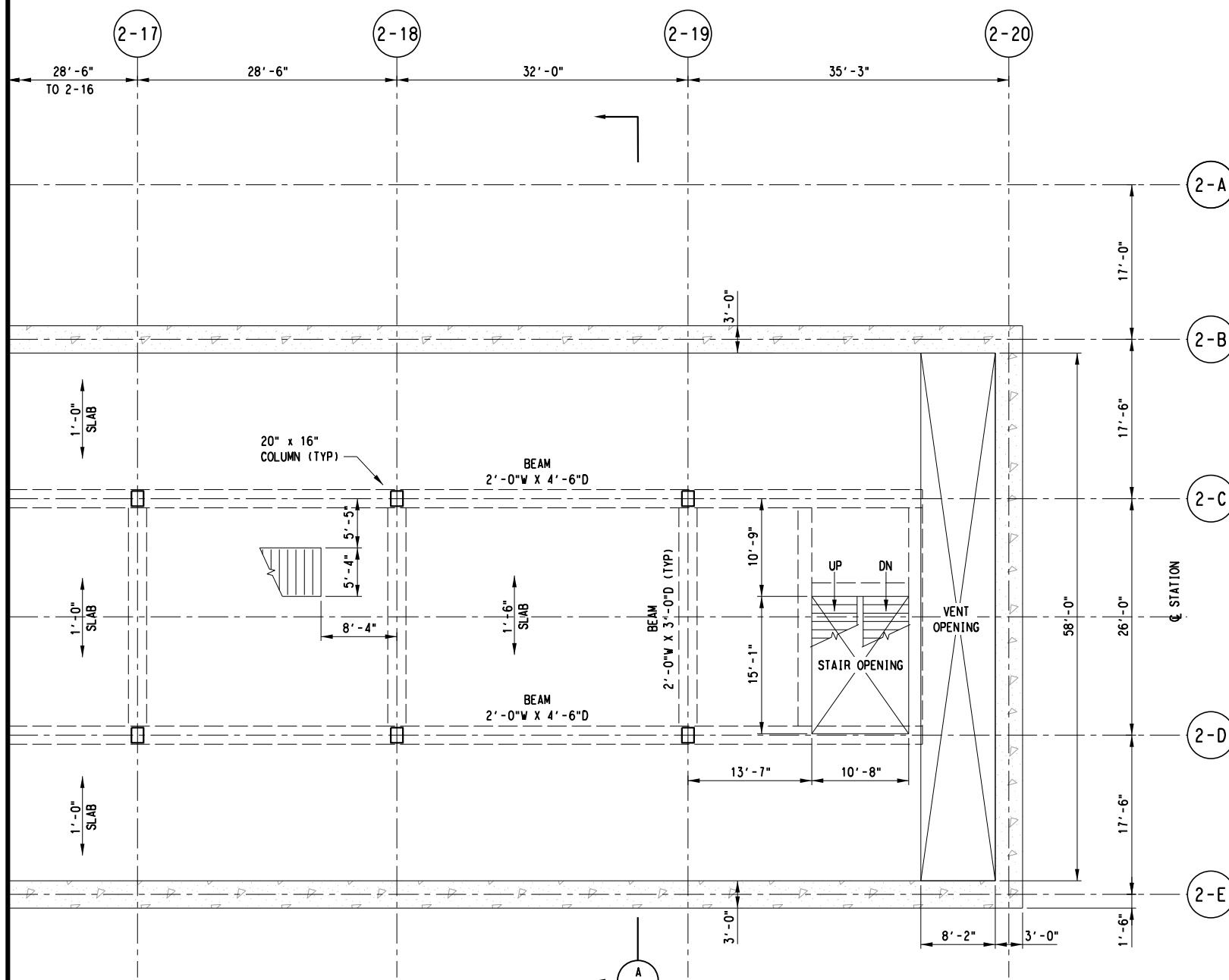
SCALE	1/8" = 1' - 0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-2203	

SEE DWG No. SC6-2203

MATCHLINE



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 D

SCALE: 1/8"=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 20% DESIGN

CONTRACT SHEET No. 198 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 4 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



CONTRACT	DWG No. SC6-2204	REV
----------	------------------	-----



28-FEB-2020 18:22 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

0022-903 ON DAG

SEE DWG No. SC6-2201

MATCHLINE

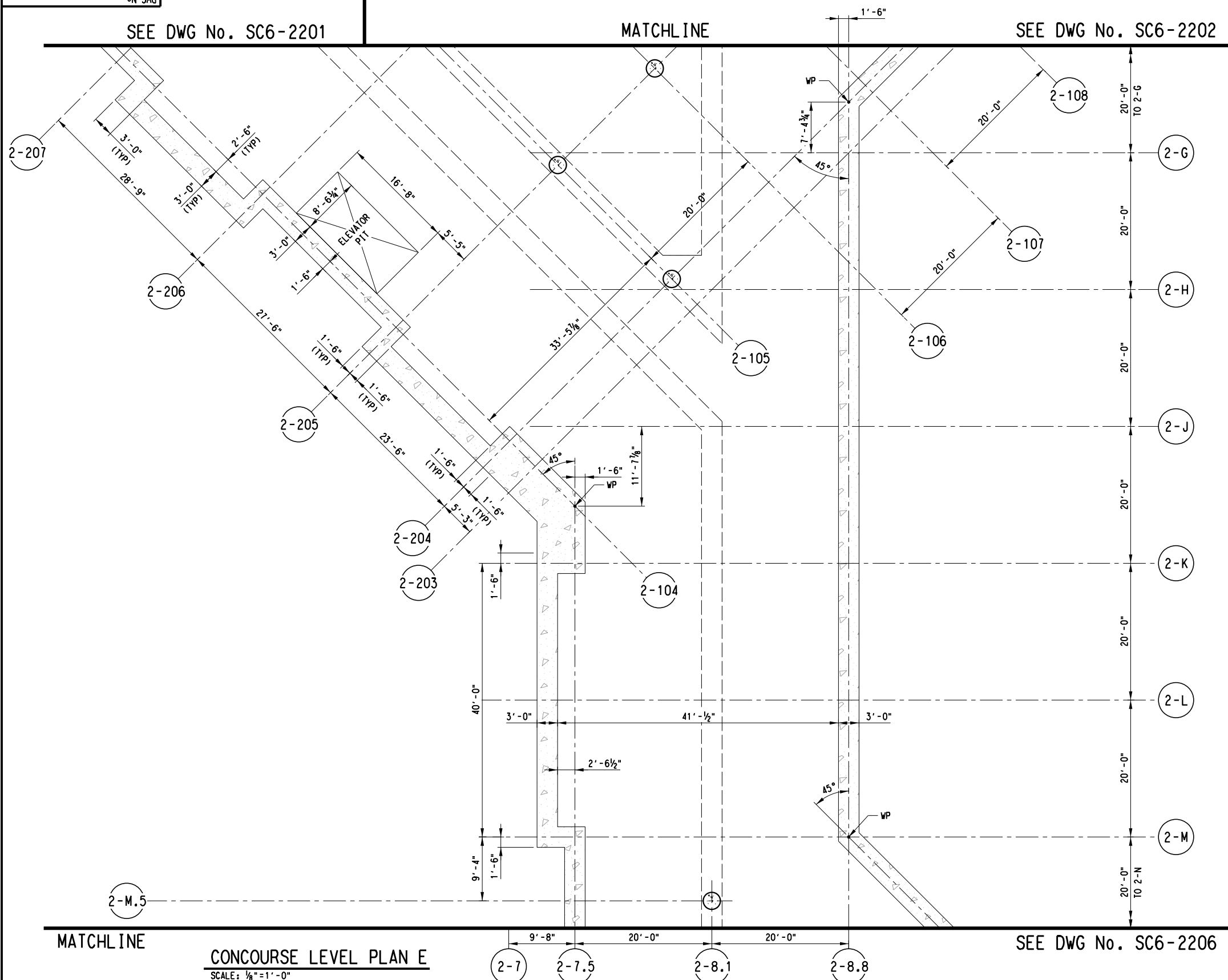
SEE DWG No. SC6-2202



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.



**CONCOURSE LEVEL PLAN E**

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 199 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 5 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

**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	06 MAR 2020

CONTRACT	DWG No. SC6-2205	REV
----------	------------------	-----

bwhiteside Default

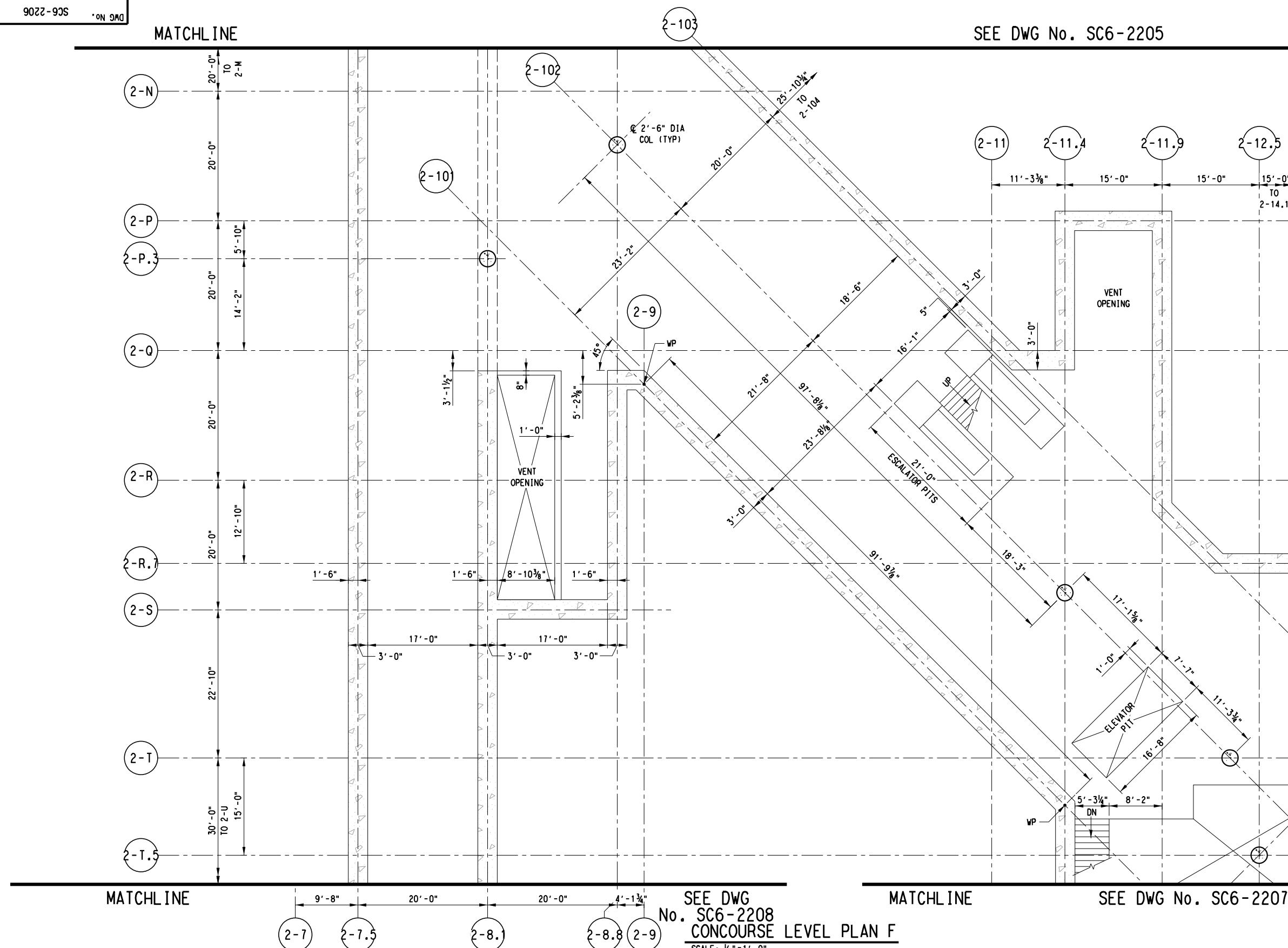
MATCHLINE

SEE DWG No. SC6-2205



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.



SEE DWG No. SC6-2207

MATCHLINE

MATCHLINE

SEE DWG No. SC6-2208  
**CONCOURSE LEVEL PLAN F**  
 SCALE: 1/8" = 1'-0"

SEE DWG No. SC6-2207

**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 20% DESIGN

CONTRACT SHEET No. 200 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

METRO CENTER STATION  
 CONCOURSE LEVEL PLAN  
 SHEET 6 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**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	06 MAR 2020

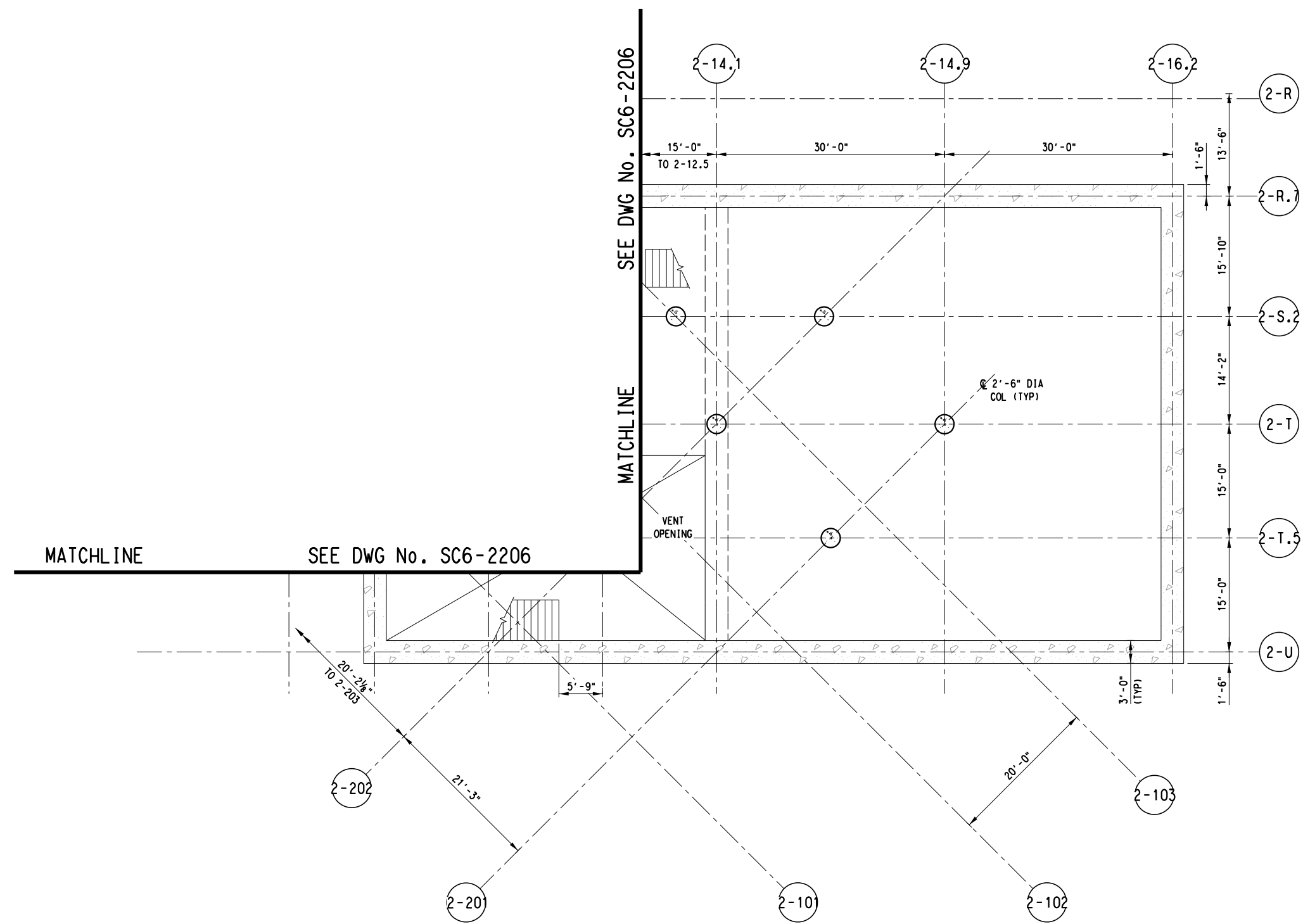
CONTRACT	DWG No. SC6-2206	REV
----------	------------------	-----

28-FEB-2020 18:22 pwr://pwhruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



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 20% DESIGN

CONTRACT SHEET No. 201 OF 276

**CONCOURSE LEVEL PLAN G**  
SCALE: 1/8" = 1'-0"

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



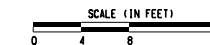
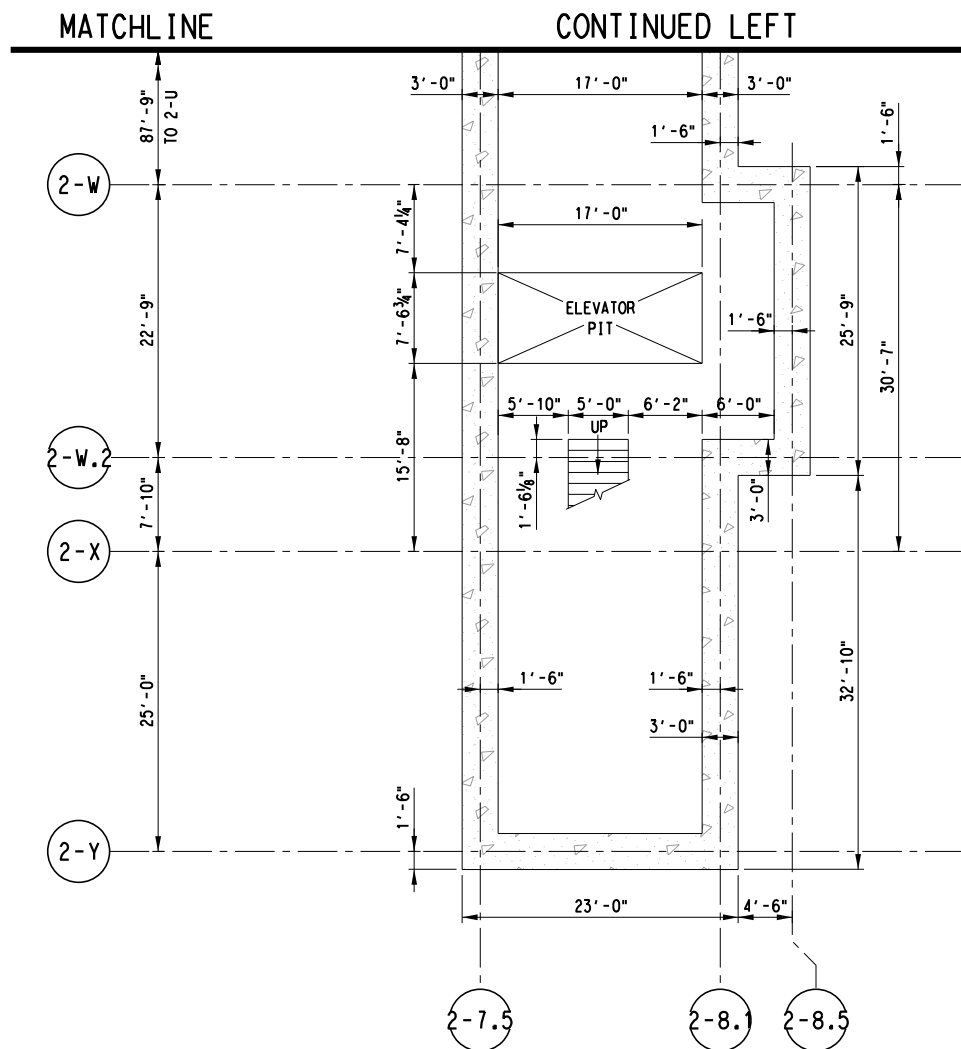
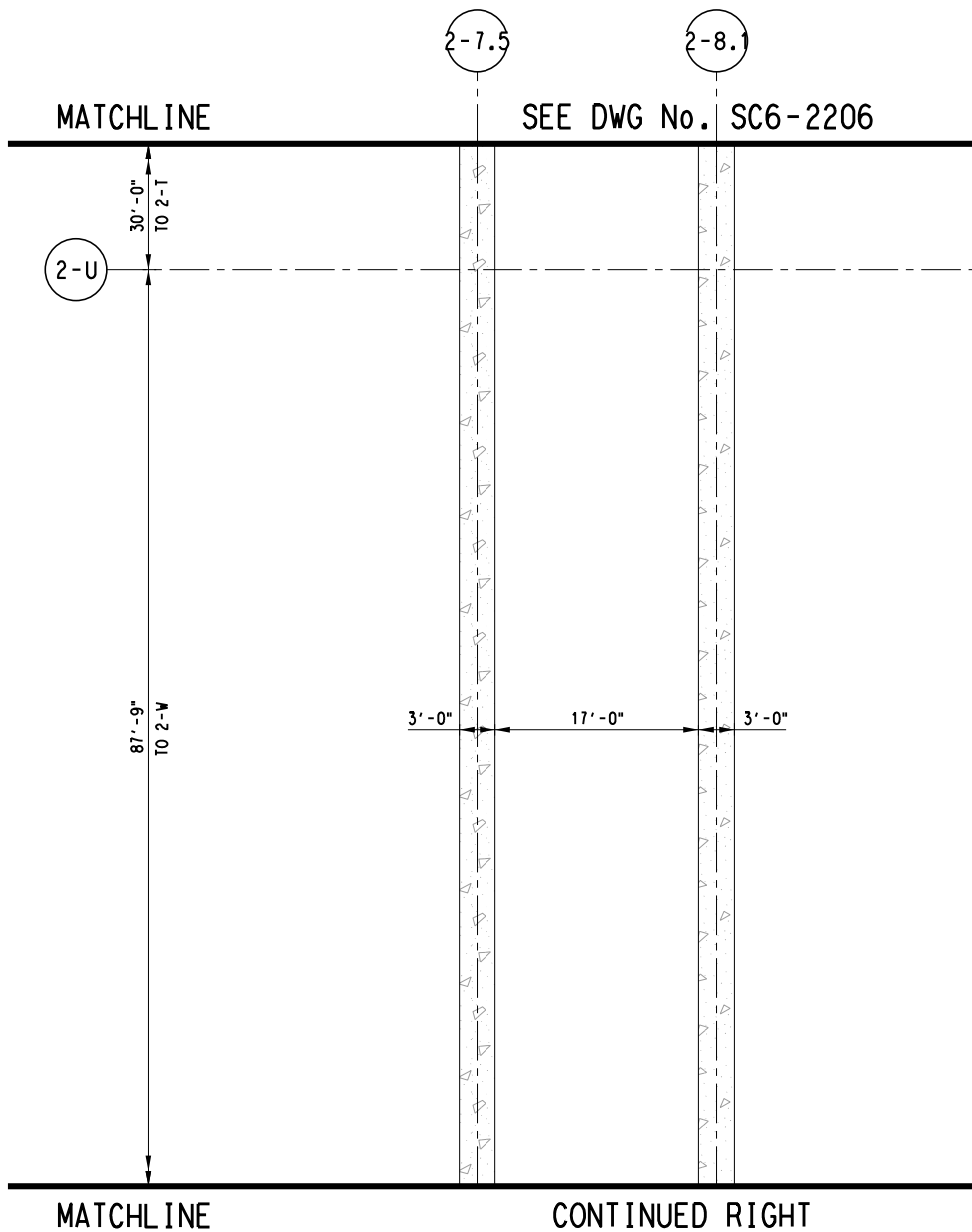
**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 7 OF 9**

CONTRACT	DWG No. SC6-2207	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:22 pwr://pwhdru01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

DWG No. 8022-935



- 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 H**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 202 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

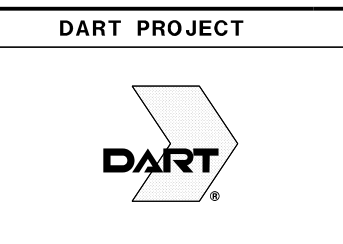
METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 8 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

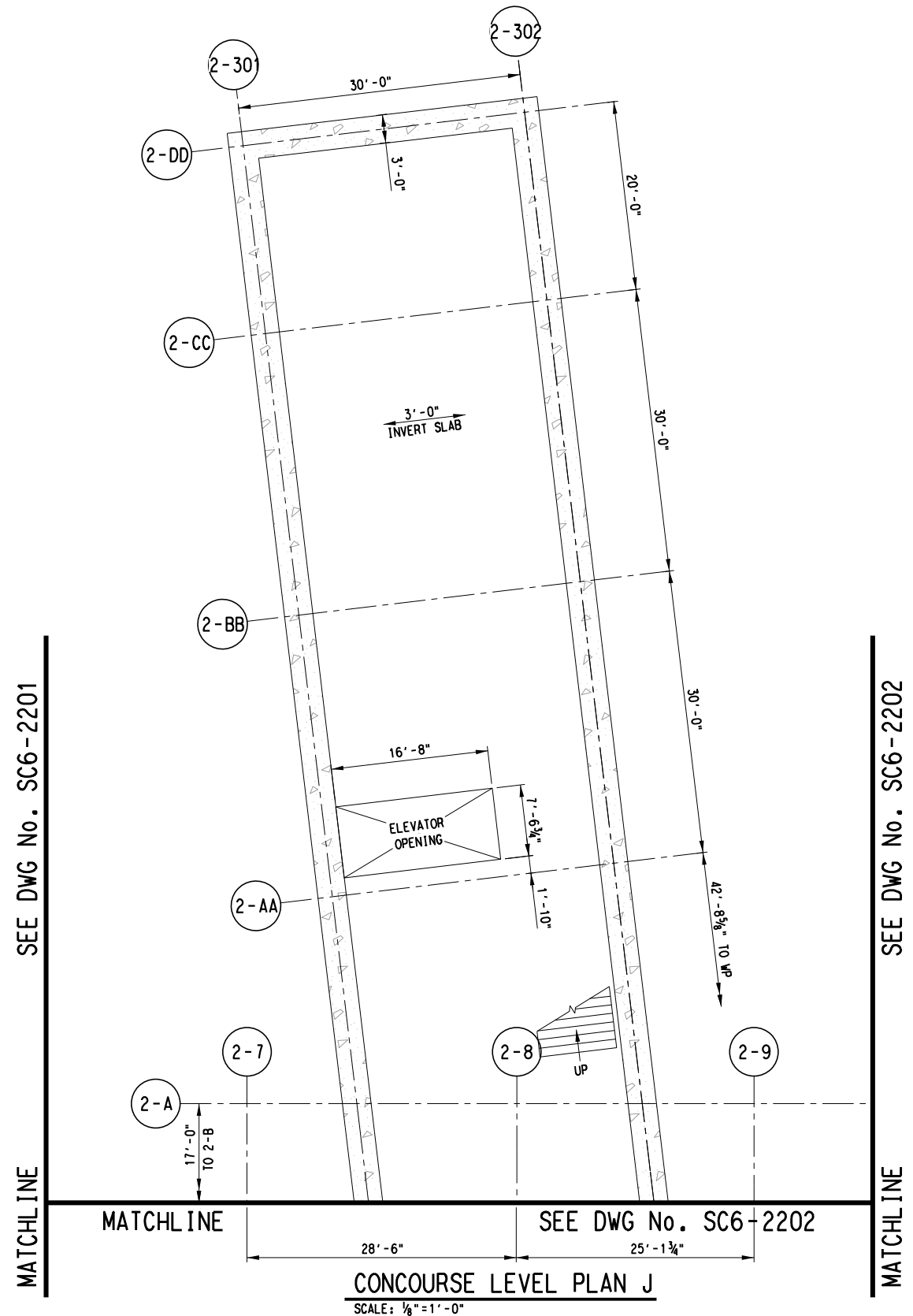


SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

	CONTRACT	DWG No. SC6-2208	REV
--	----------	------------------	-----



- 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 J**  
SCALE: 1/8" = 1'-0"  
MATCHLINE SEE DWG No. SC6-2201      SEE DWG No. SC6-2202 MATCHLINE

**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 20% DESIGN

CONTRACT SHEET No. 203 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
METRO CENTER STATION  
CONCOURSE LEVEL PLAN  
SHEET 9 OF 9

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420



**DART PROJECT**

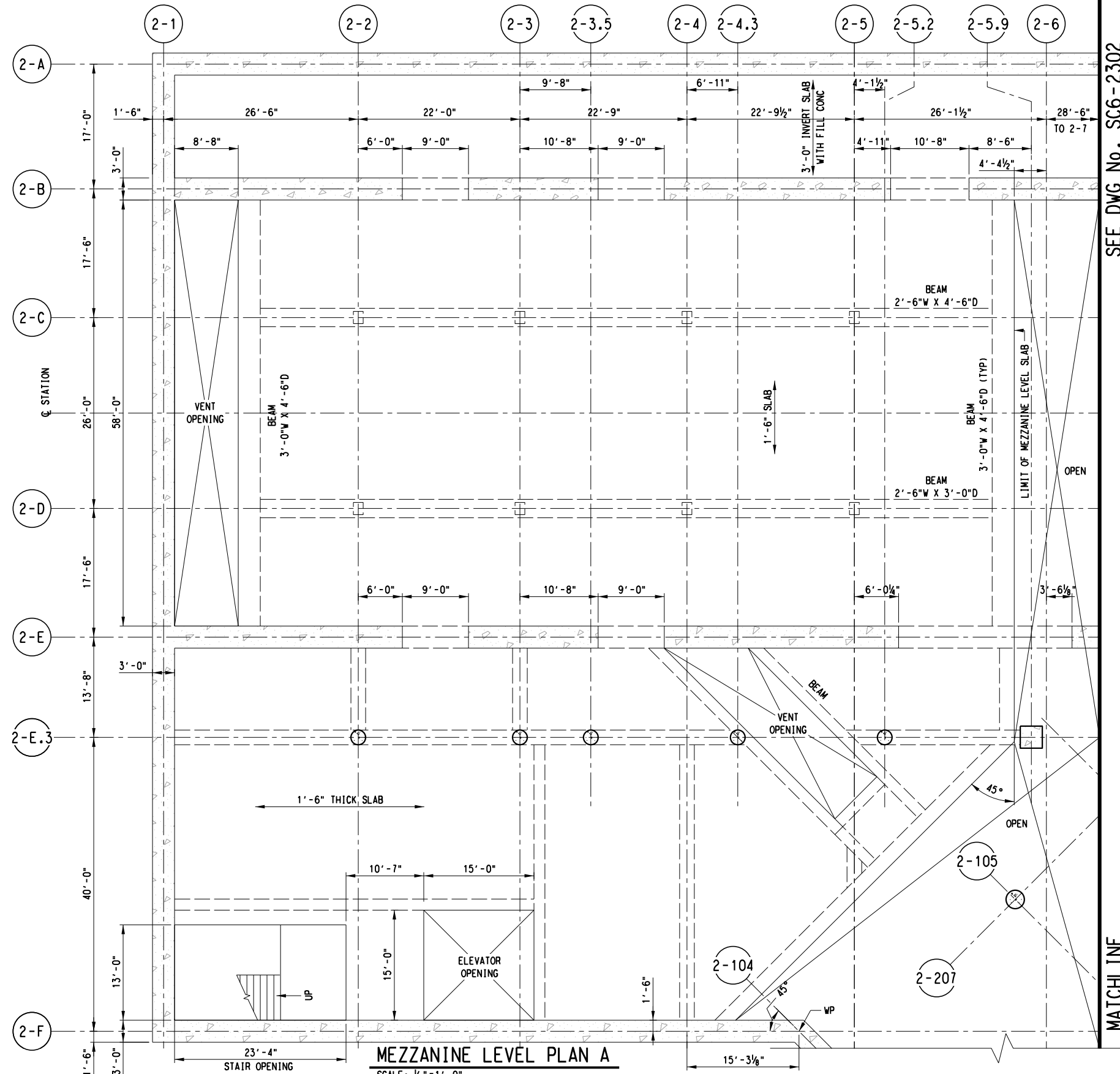


SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

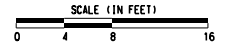


CONTRACT	DWG No. SC6-2209	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



SEE DWG No. SC6-2302



- 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 20% DESIGN**

CONTRACT SHEET No. 204 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**

METRO CENTER STATION  
 MEZZANINE LEVEL PLAN  
 SHEET 1 OF 4

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

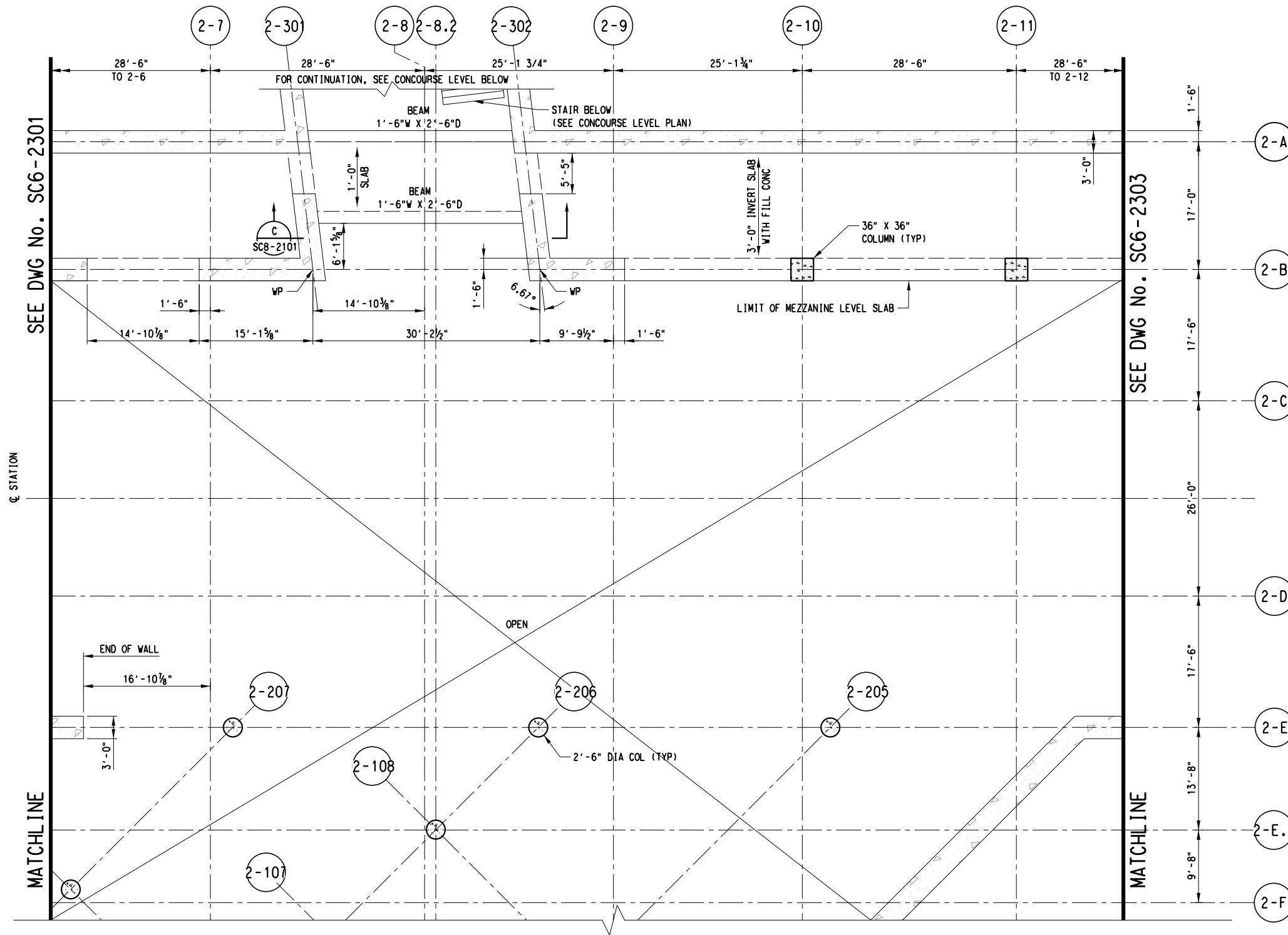


SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-2301	REV
----------	------------------	-----



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.

Q STATION

MATCHLINE

MATCHLINE

MEZZANINE LEVEL PLAN B

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 205 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
MEZZANINE LEVEL PLAN  
SHEET 2 OF 4

CONTRACT DWG No. SC6-2302 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420

**DART PROJECT**

SCALE: 1/8" = 1'-0"

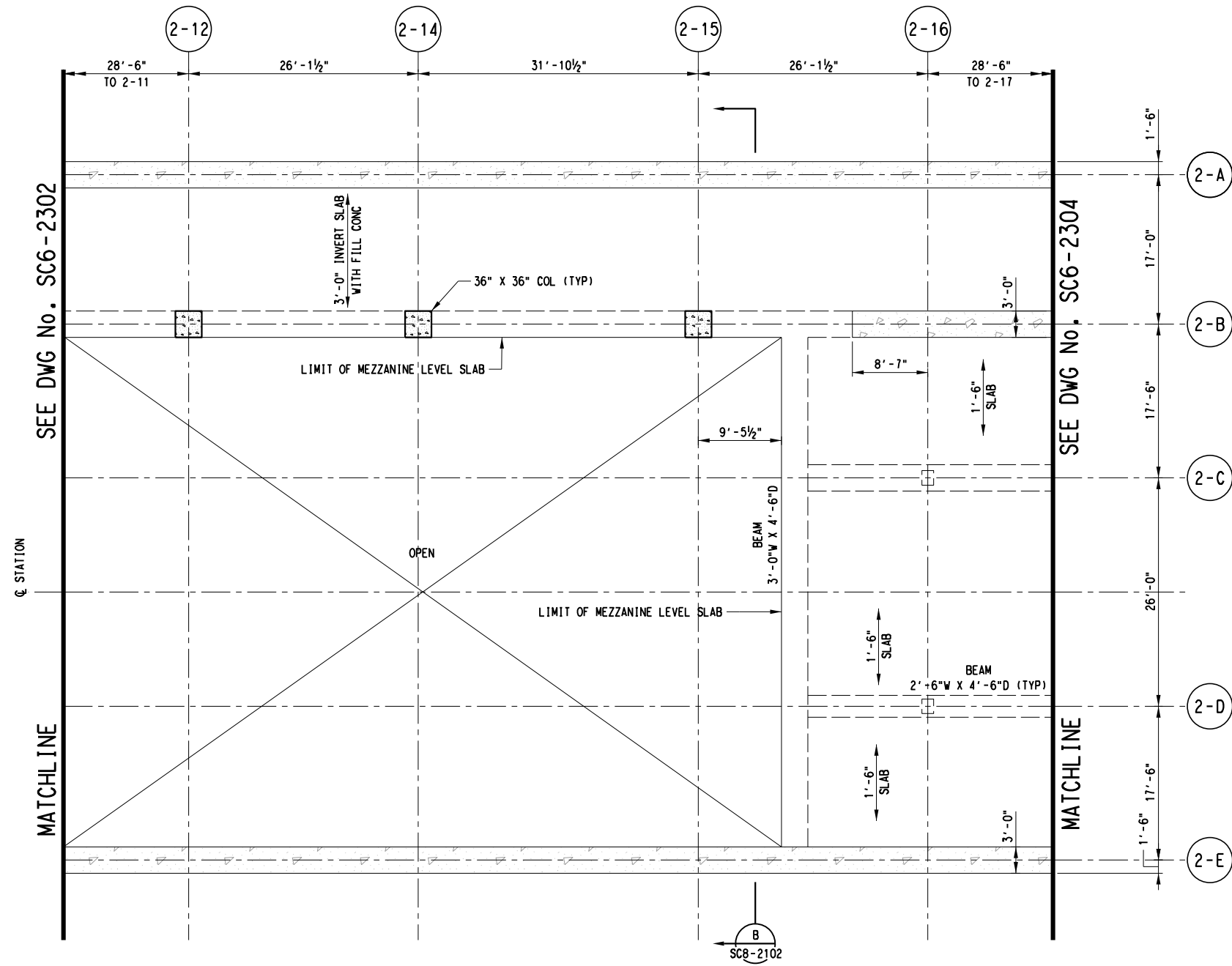
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

28-FEB-2020 18:22 pwr://pwhduscn01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planni

SC6-2303 ON Dwg



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.

SEE DWG No. SC6-2302

SEE DWG No. SC6-2304

MATCHLINE

MATCHLINE

**MEZZANINE LEVEL PLAN C**  
SCALE: 1/8"=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 20% DESIGN**

CONTRACT SHEET No. 206 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**METRO CENTER STATION  
MEZZANINE LEVEL PLAN  
SHEET 3 OF 4**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
**CHARLES A. STONE, P.E. NO. 133866**  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



**DART PROJECT**

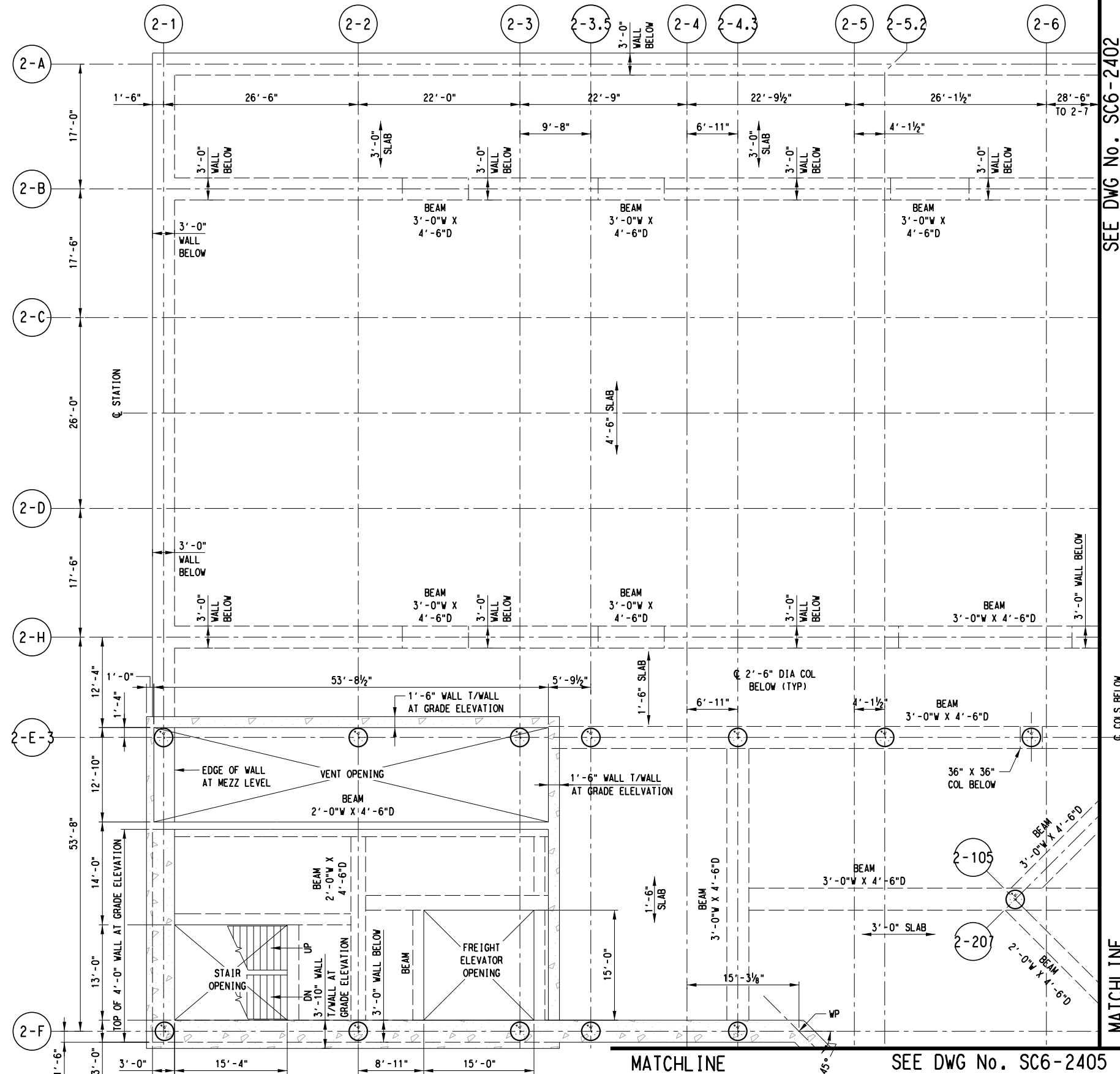
SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-2303	REV
----------	------------------	-----

bwhiteside Default







SEE DWG No. SC6-2402

MATCHLINE

MATCHLINE

SEE DWG No. SC6-2405

ROOF LEVEL PLAN A  
SCALE: 1/8" = 1'-0"



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

**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 20% DESIGN

CONTRACT SHEET No. 208 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
METRO CENTER STATION  
ROOF LEVEL PLAN  
SHEET 1 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

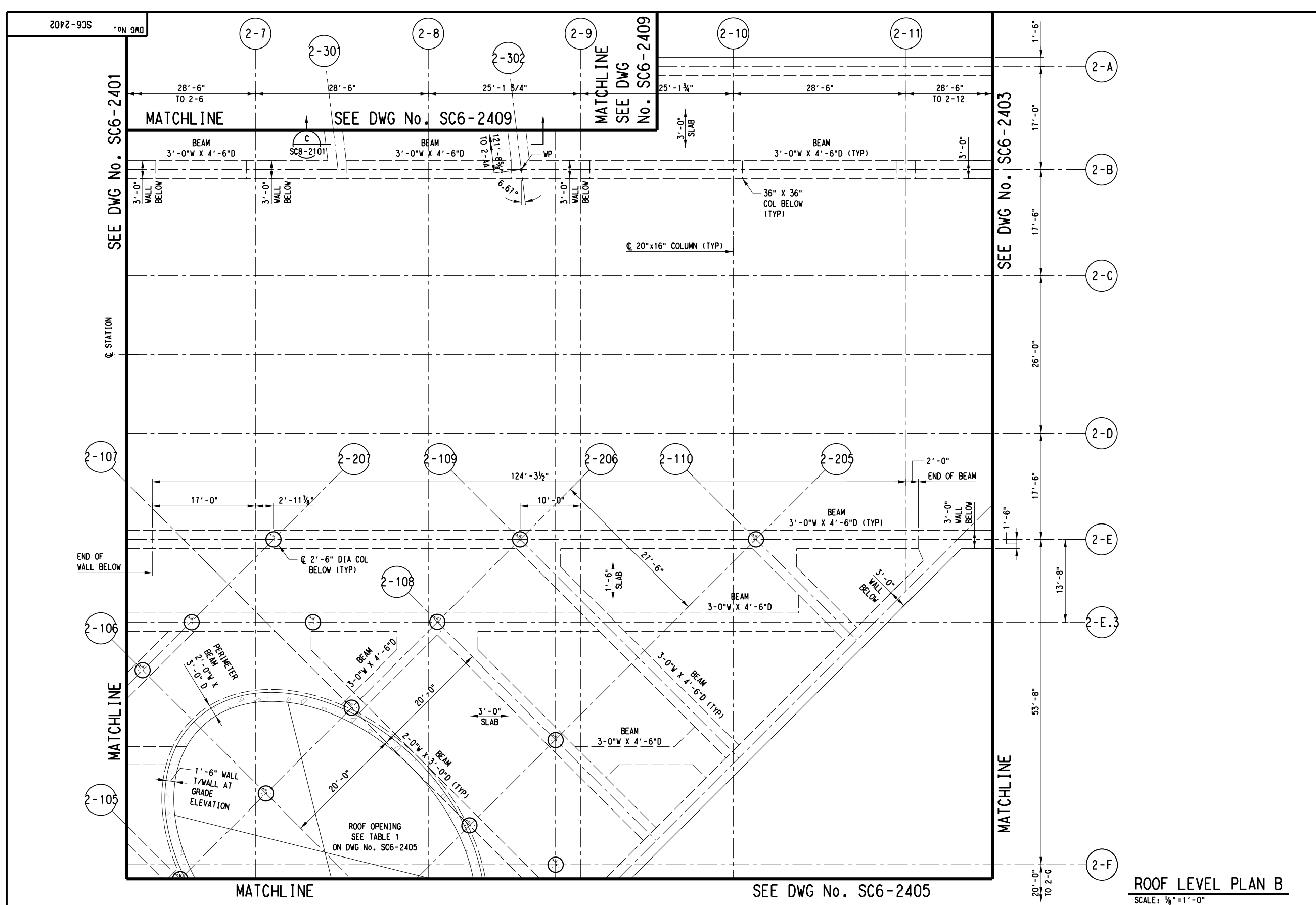


DART PROJECT

**DART**

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-2401	REV
----------	------------------	-----



- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

**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 20% DESIGN**

CONTRACT SHEET No. 209 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**

**METRO CENTER STATION**  
**ROOF LEVEL PLAN**  
**SHEET 2 OF 9**

CONTRACT DWG No. SC6-2402 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

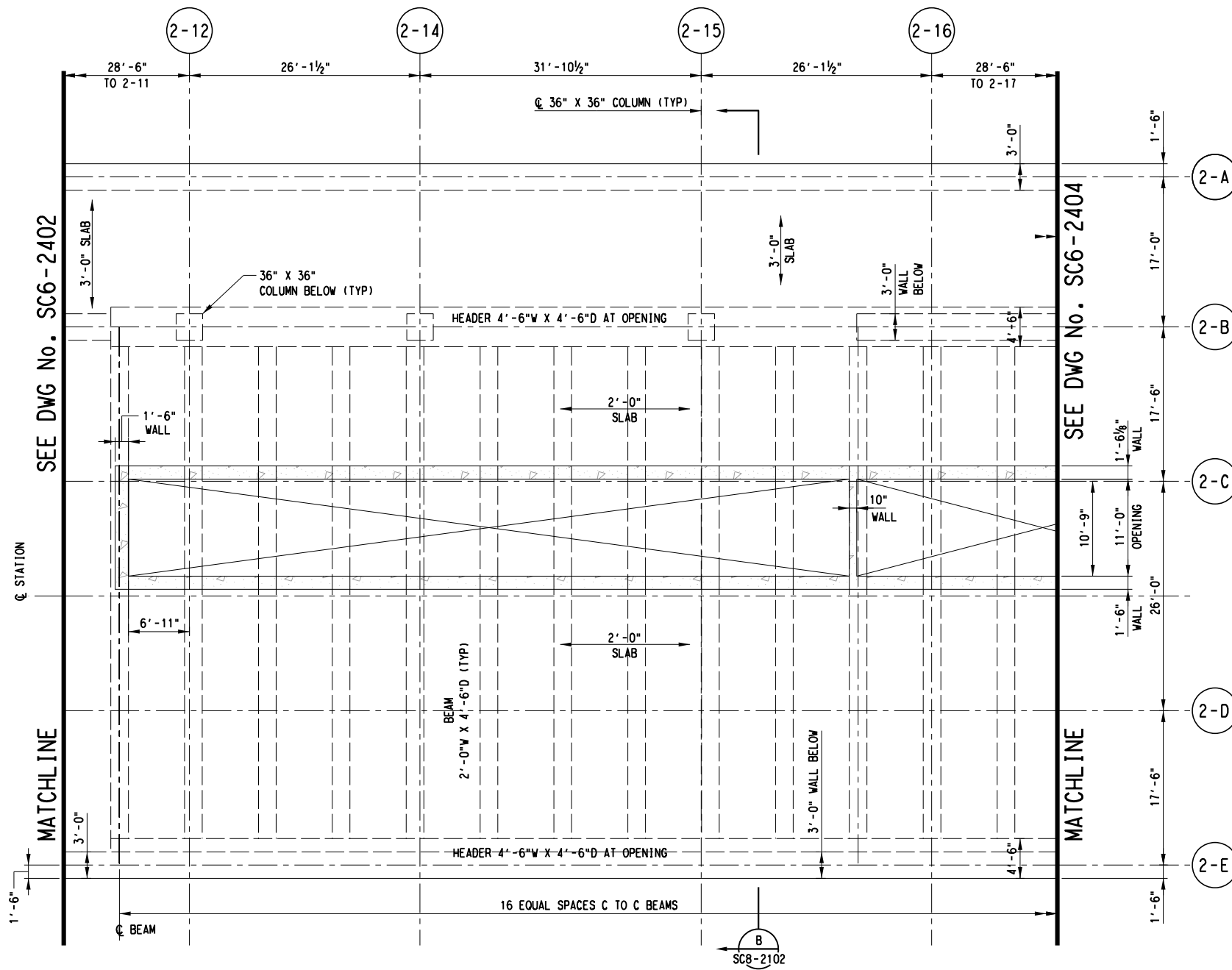
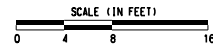
**HNTB**

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	06 MAR 2020





**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 C**  
 SCALE: 1/8"=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 20% DESIGN

CONTRACT SHEET No. 210 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

METRO CENTER STATION  
 ROOF LEVEL PLAN  
 SHEET 3 OF 9

DART PROJECT

SCALE	1/8"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT

DWG No.

SC6-2403

REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



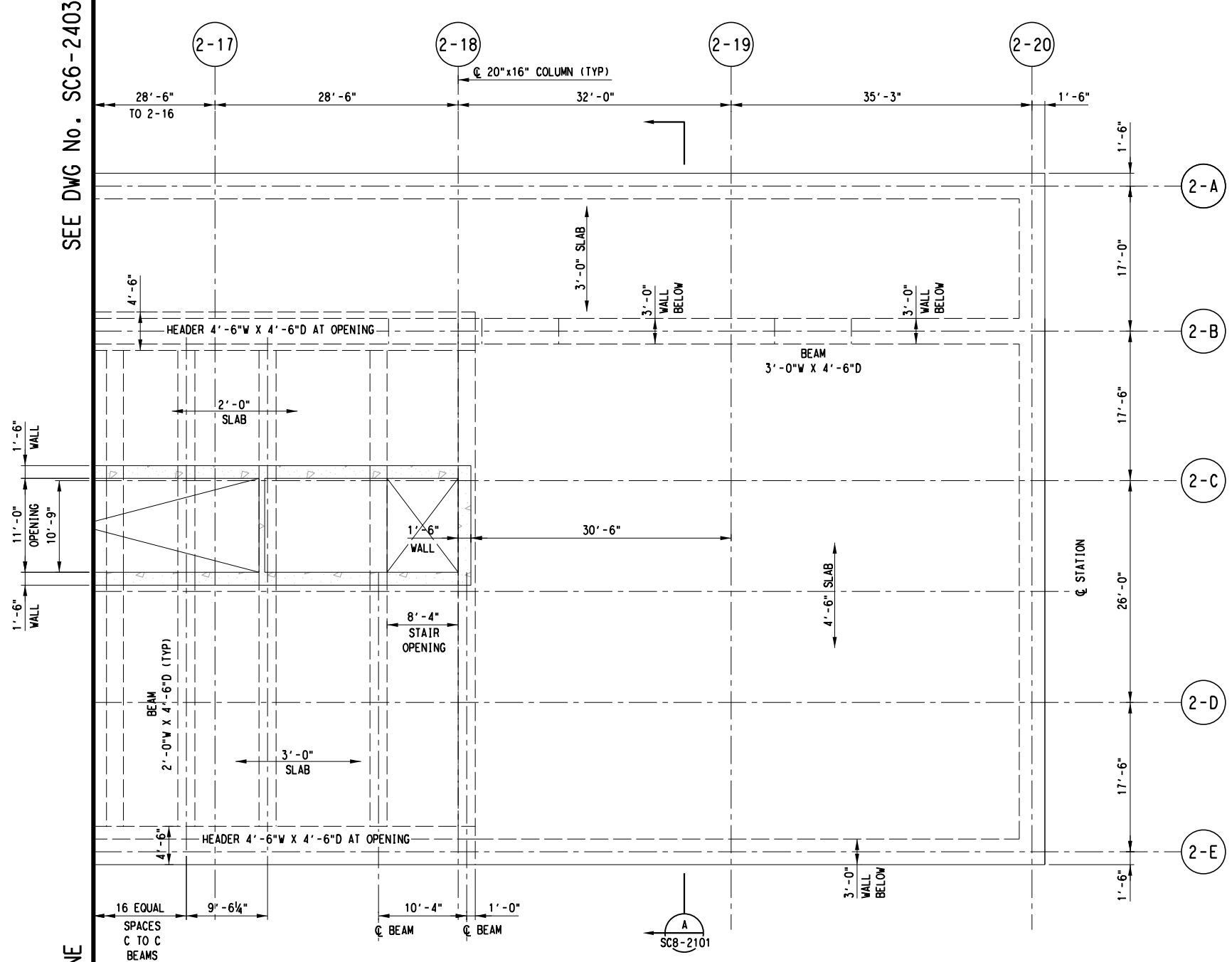
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:23  
pw:/pwhdru01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



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.



SEE DWG No. SC6-2403  
MATCHLINE

**ROOF LEVEL PLAN D**  
SCALE: 1/8" = 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 20% DESIGN**

CONTRACT SHEET No. 211 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**METRO CENTER STATION  
ROOF LEVEL PLAN  
SHEET 4 OF 9**

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-2404	

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

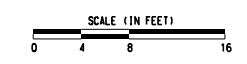
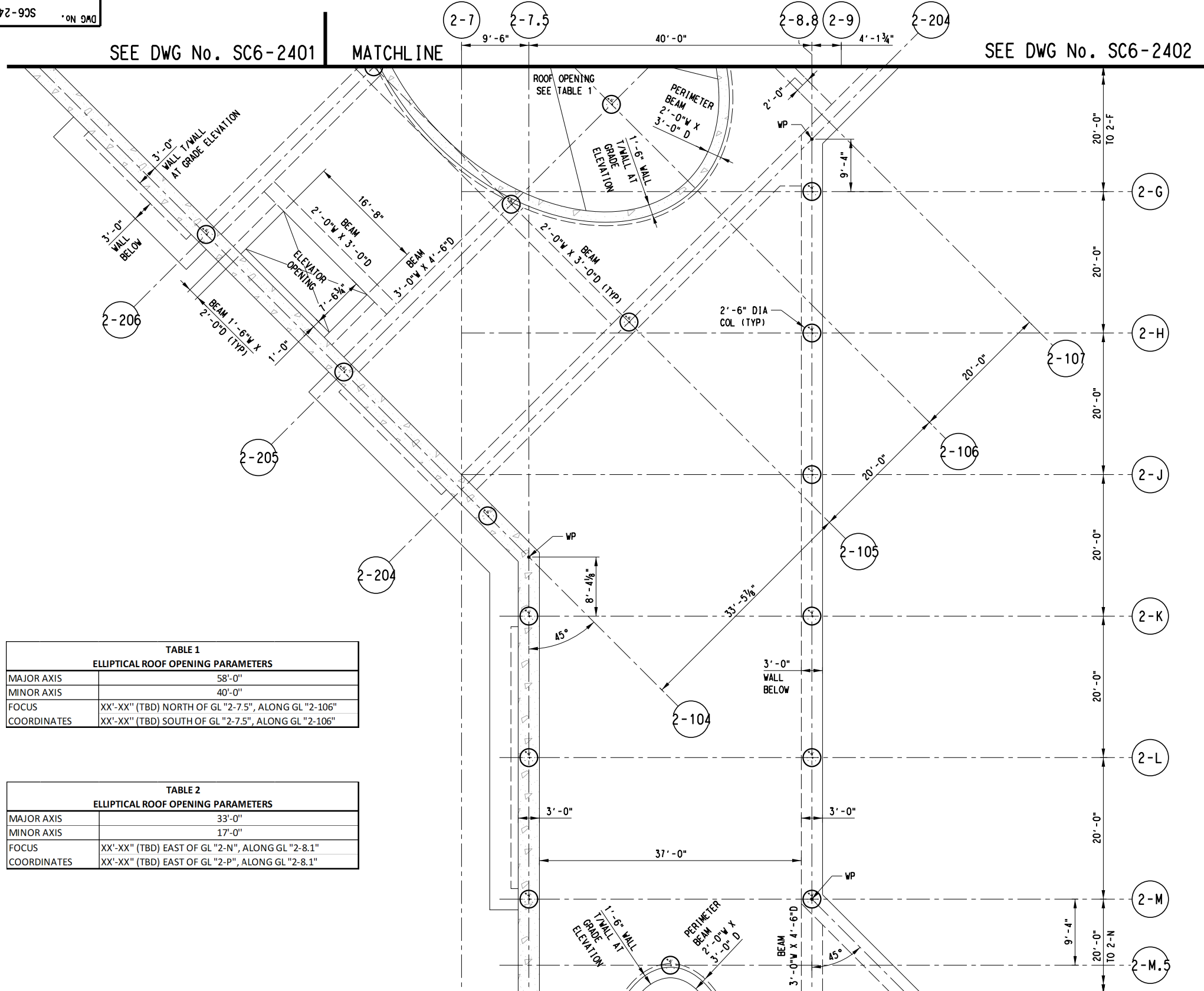
28-FEB-2020 18:23  
pwr://pwhduscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

SC6-2405 ON DAG

SEE DWG No. SC6-2401

MATCHLINE

SEE DWG No. SC6-2402



- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - SLAB-TO-WALL AND BEAM-TO-WALL HAUNCHES 1'-6" X 1'-6" NO SHOWN.

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"

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: 1/8" = 1'-0"

SEE DWG No. SC6-2406

**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 20% DESIGN

CONTRACT SHEET No. 212 OF 276

<b>LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2</b>	
<b>METRO CENTER STATION ROOF LEVEL PLAN SHEET 5 OF 9</b>	
CONTRACT	DWG No. SC6-2405
REV	

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



<b>DART PROJECT</b>	

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



bwhiteside  
Default

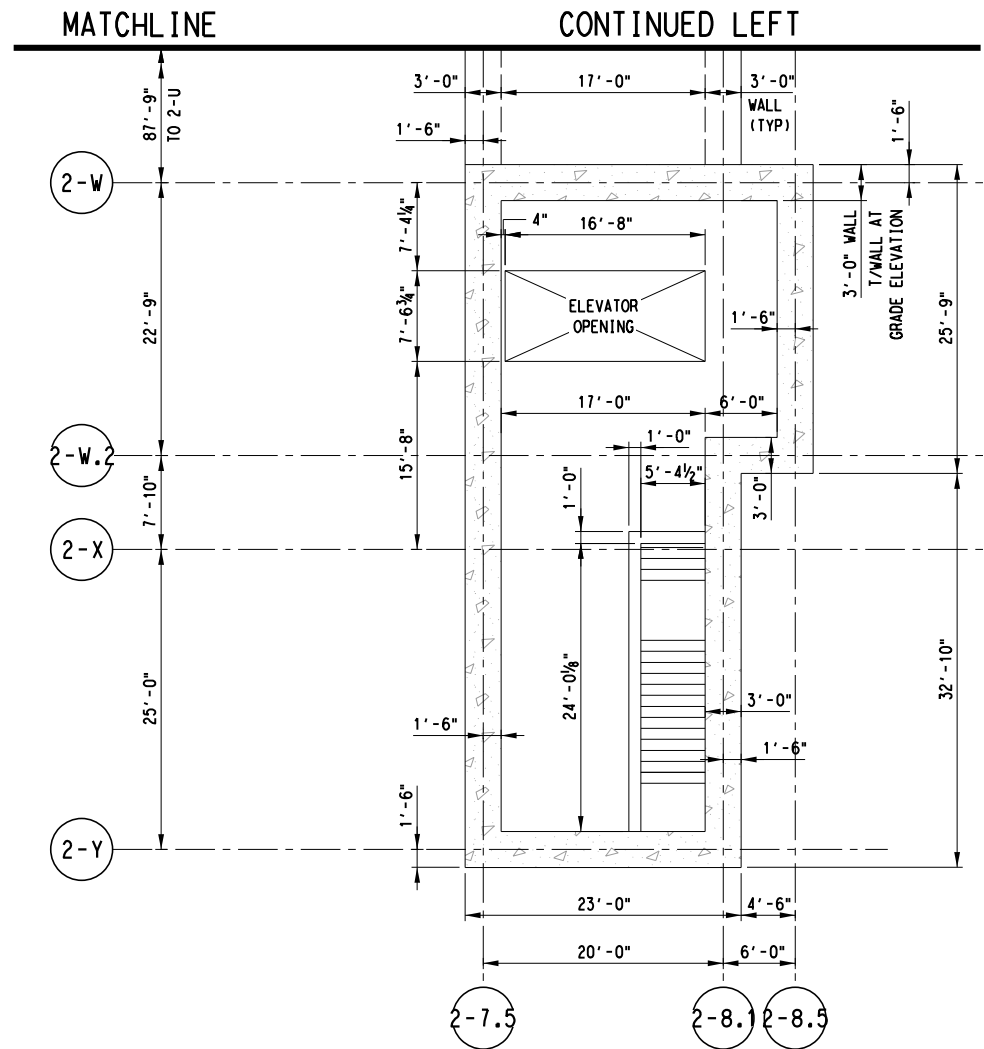
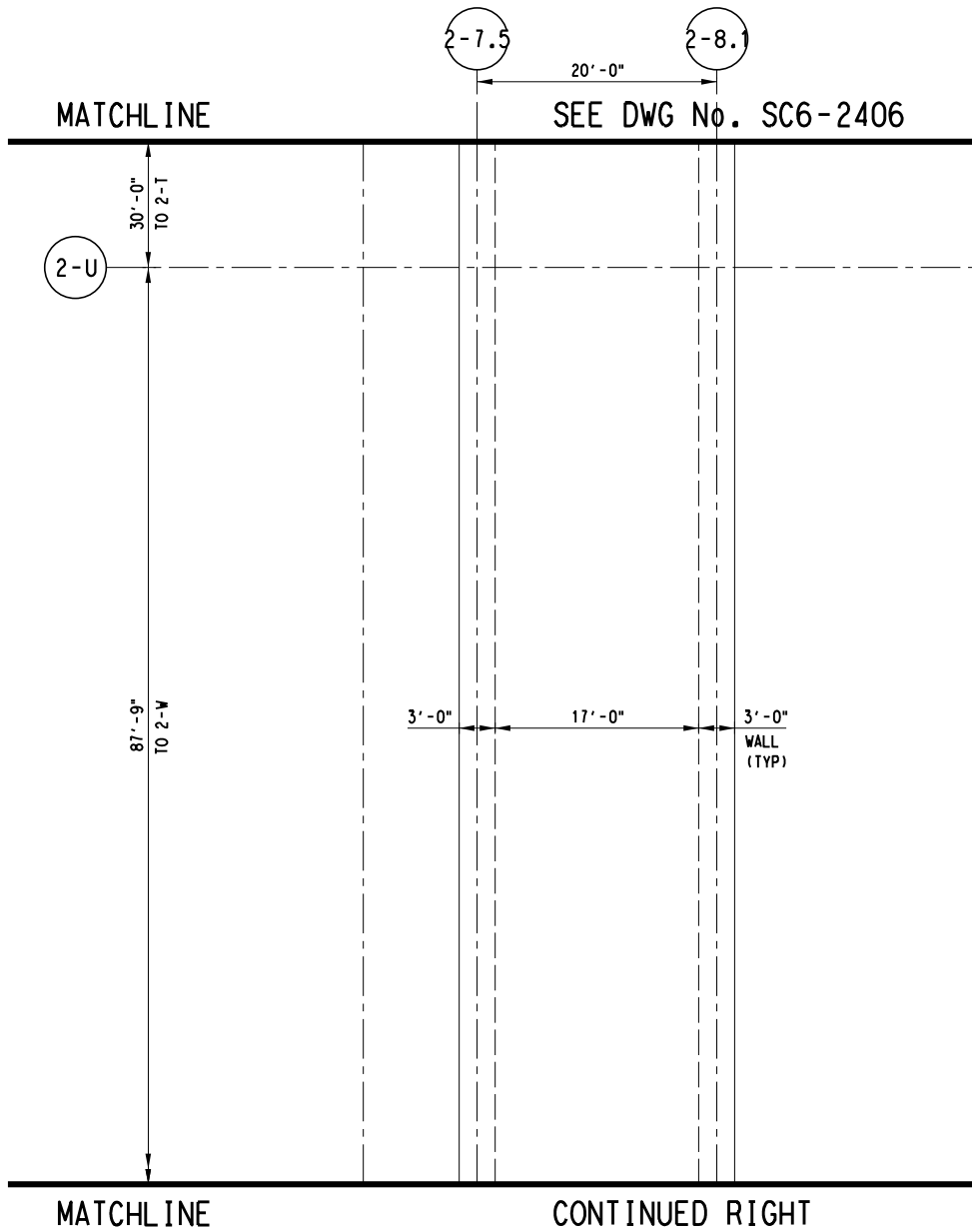






28-FEB-2020 18:23 pwr://pwhdrcen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

DWG No. SC6-2408



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 H**

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 215 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
ROOF LEVEL PLAN  
SHEET 8 OF 9

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



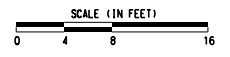
**DART PROJECT**



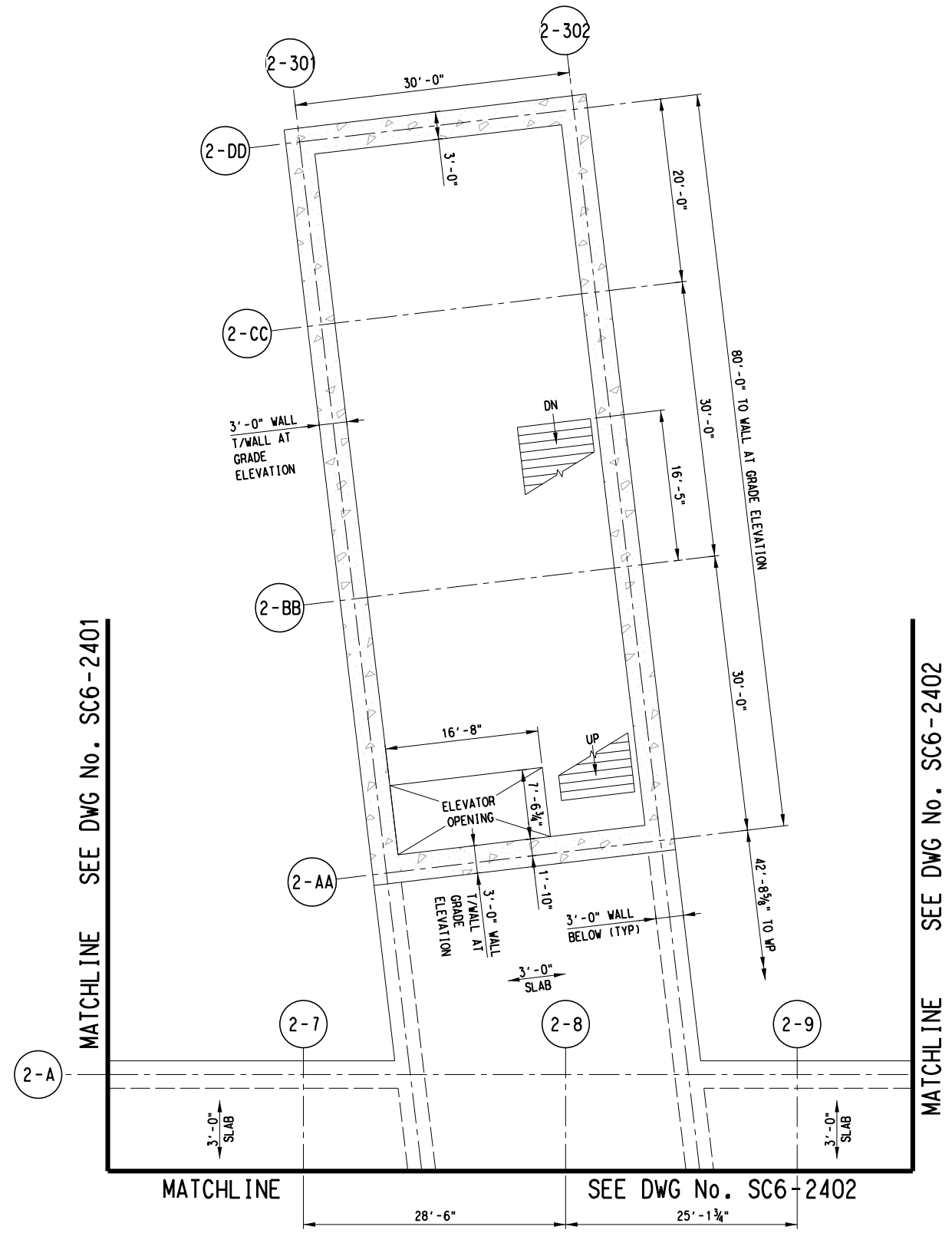
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-2408
	REV



- 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 J**  
 SCALE: 1/8" = 1'-0"

MATCHLINE SEE DWG No. SC6-2401

MATCHLINE SEE DWG No. SC6-2402

**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 20% DESIGN

CONTRACT SHEET No. 216 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

**METRO CENTER STATION  
 ROOF LEVEL PLAN  
 SHEET 9 OF 9**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

**DART PROJECT**

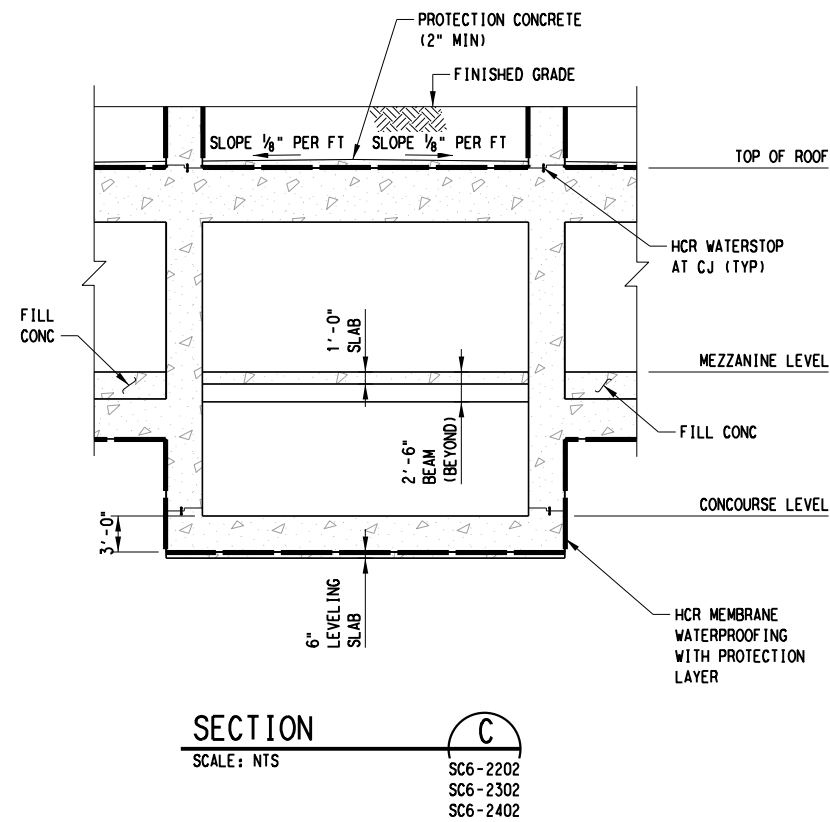
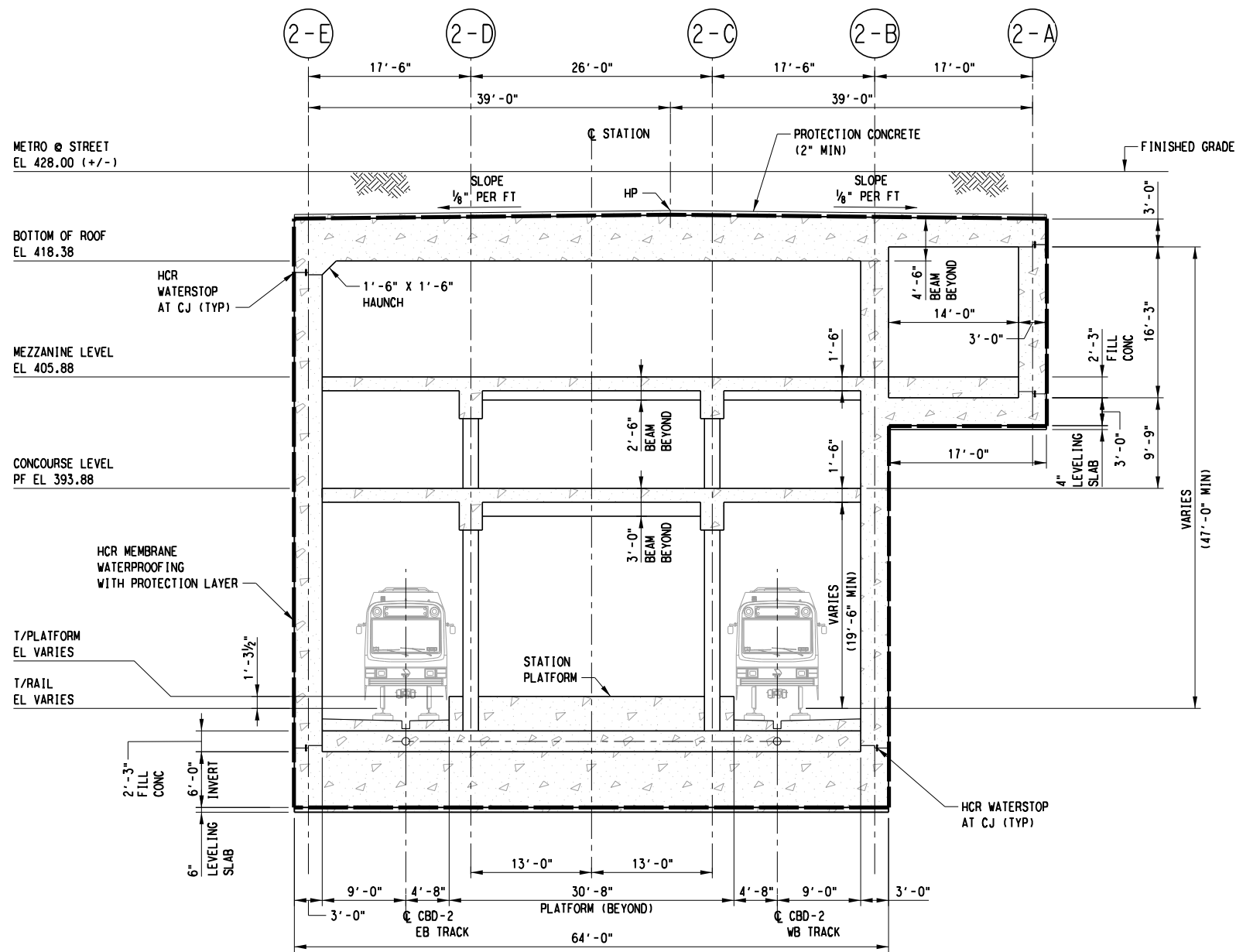
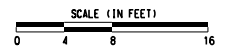
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-2409	

28-FEB-2020 18:23 pwr://pwhdrusen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

1012-83S ON GAD



- 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.

**SECTION A**  
SCALE: 1/8" = 1'-0"

SC6-2104  
SC6-2204  
SC6-2304  
SC6-2404

**SECTION C**  
SCALE: NTS

SC6-2202  
SC6-2302  
SC6-2402

**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 20% DESIGN

CONTRACT SHEET No. 217 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

METRO CENTER STATION  
SECTION A

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

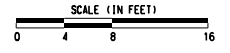
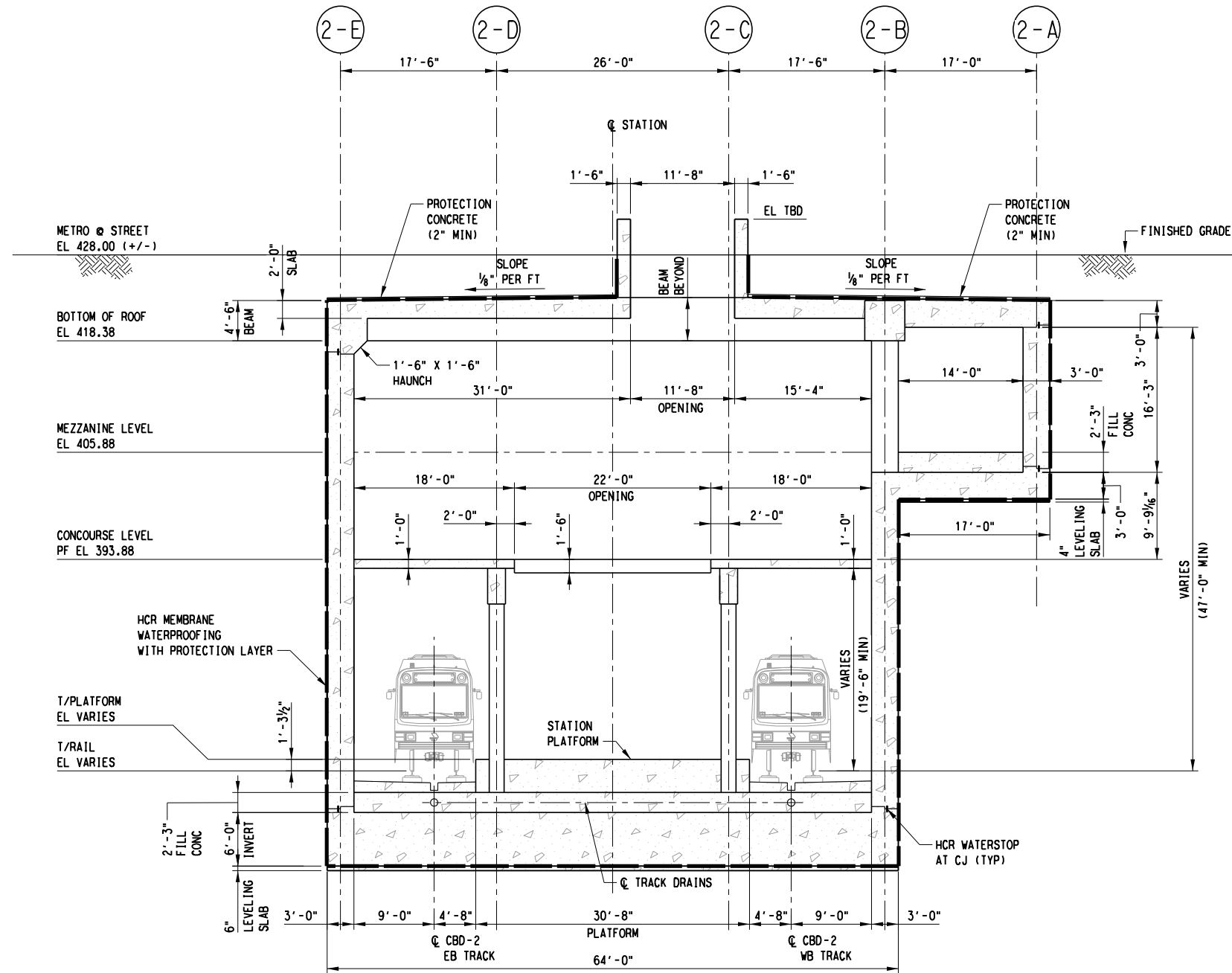
**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

**DART PROJECT**

SCALE	AS NOTED
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No.	REV
	SC8-2101	



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - 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 20% DESIGN

CONTRACT SHEET No. 218 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

METRO CENTER STATION  
 SECTION B

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

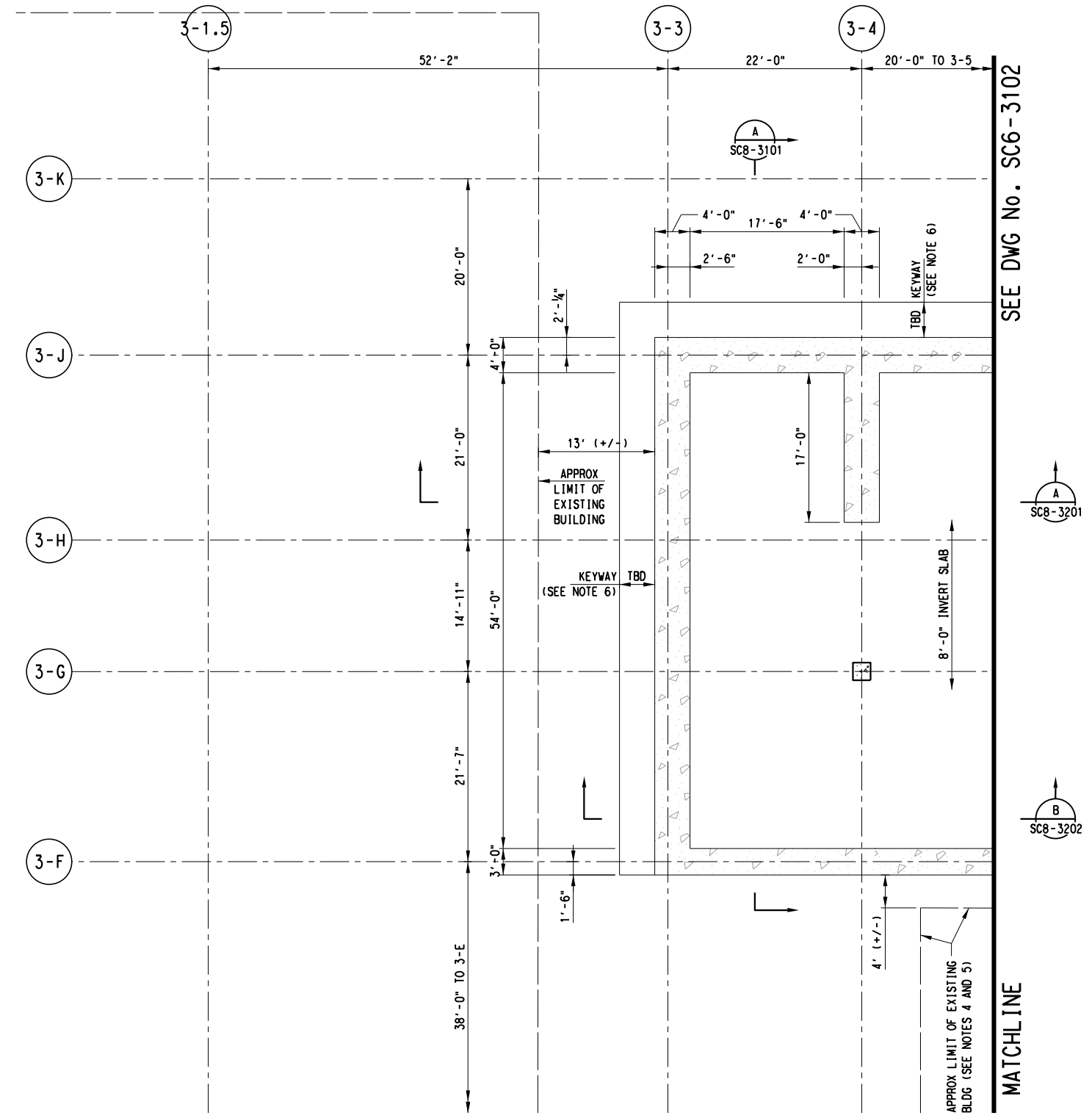
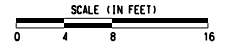
HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



**DART PROJECT**

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-2102	REV
----------	------------------	-----



SEE DWG No. SC6-3102

MATCHLINE

- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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.
  - KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERNATIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.

**PLATFORM LEVEL PLAN A**  
SCALE: 1/8" = 1'-0"

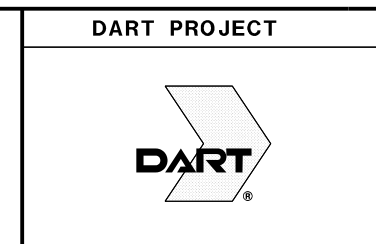
**DRAFT**  
CONCEPTUAL DESIGN PENDING  
RAIL/FACILITY SYSTEMS AND  
TUNNEL/STATION VENTILATION INPUT,  
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 219 OF 276

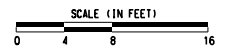
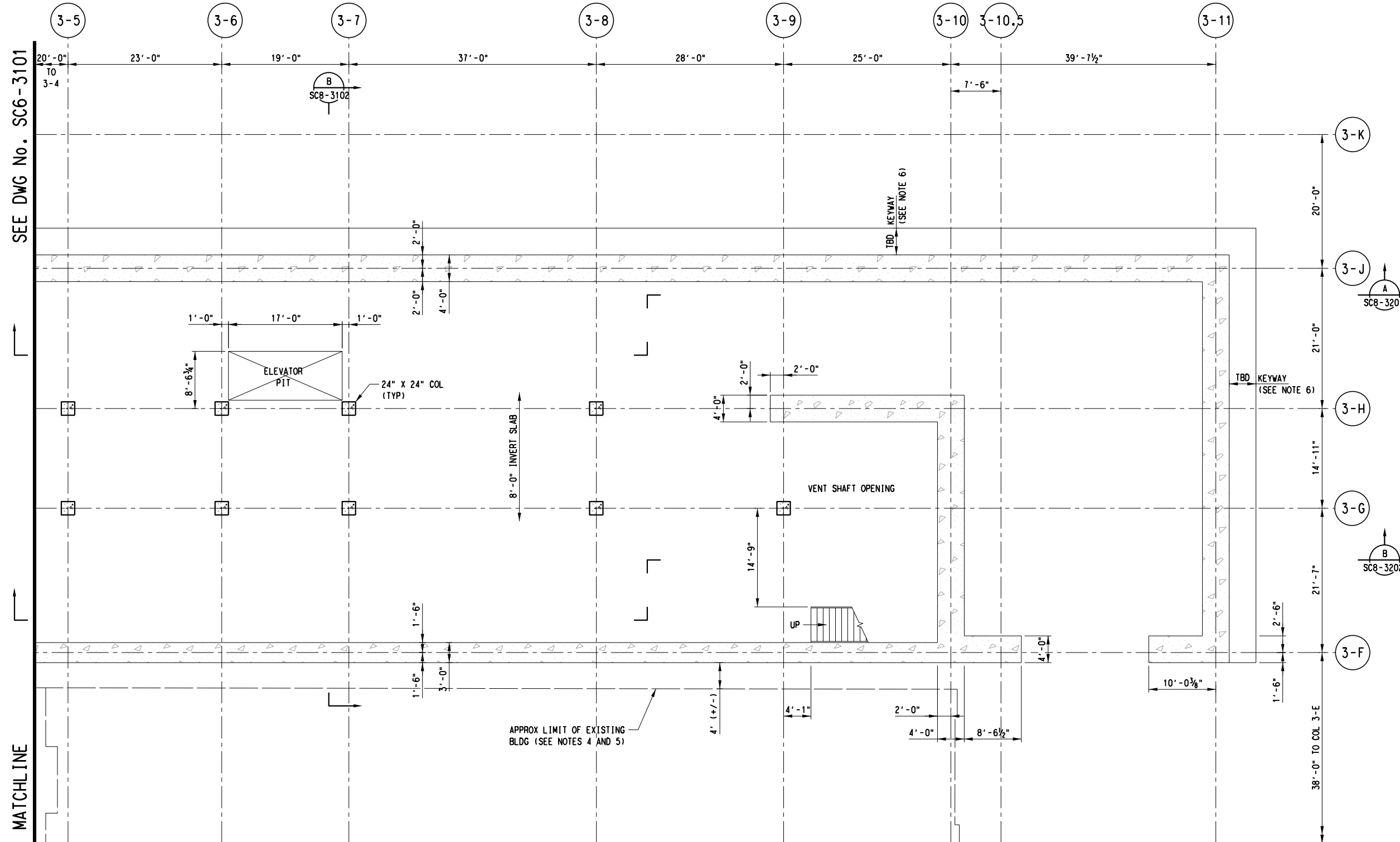
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2		
COMMERCE STATION HEADHOUSE PLATFORM PLAN SHEET 1 OF 2		
CONTRACT	DWG No. SC6-3101	REV



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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.
  - KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERNATIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.

SEE DWG No. SC6-3101

MATCHLINE

**PLATFORM LEVEL PLAN B**  
SCALE: 1/8" = 1'-0"

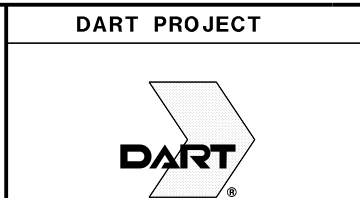
**DRAFT**  
CONCEPTUAL DESIGN PENDING  
RAIL/FACILITY SYSTEMS AND  
TUNNEL/STATION VENTILATION INPUT,  
AND ADDITIONAL SITE SPECIFIC DATA

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 220 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**COMMERCE STATION HEADHOUSE  
PLATFORM PLAN  
SHEET 2 OF 2**

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



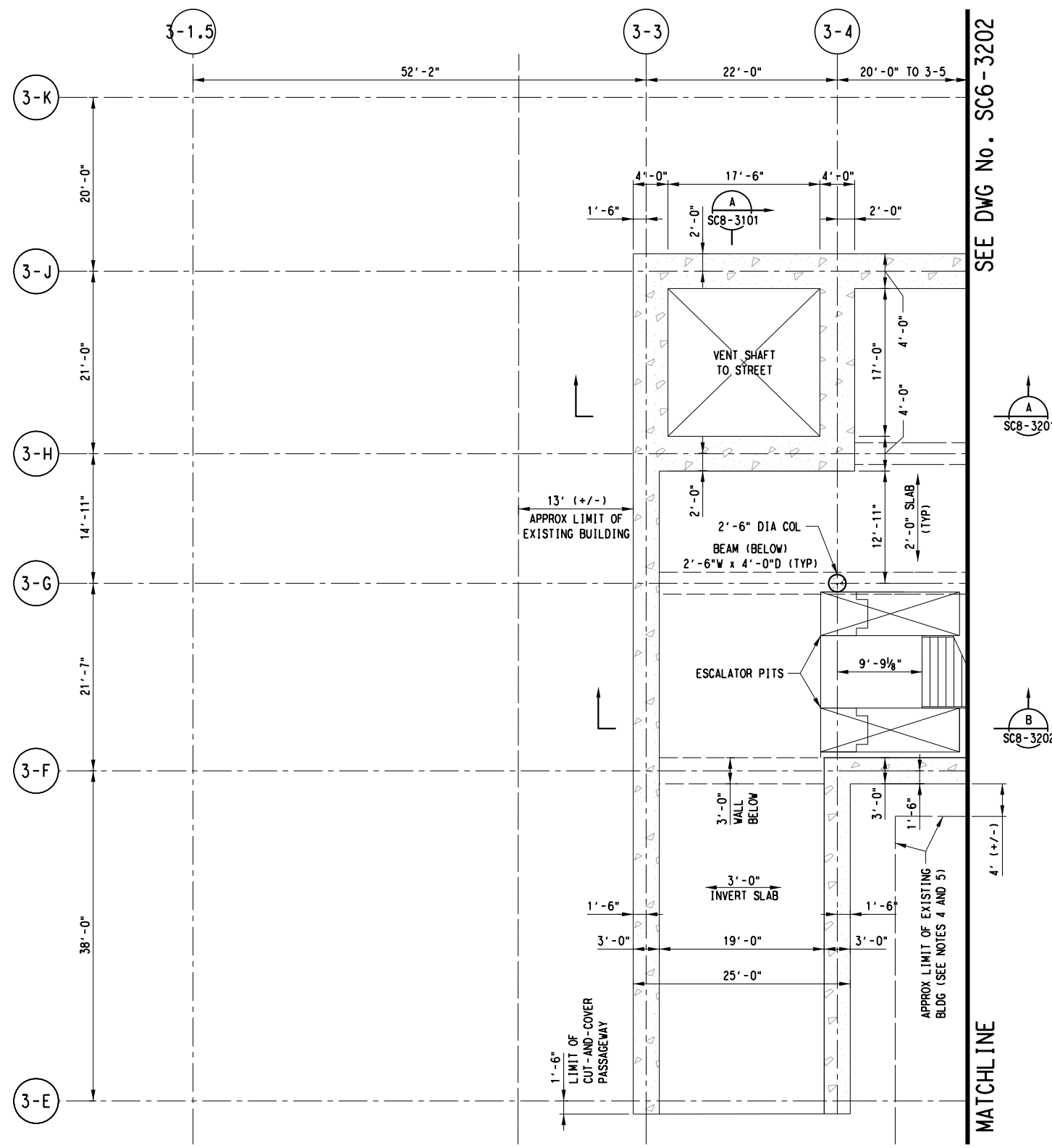
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-3102	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:24 pwr://pwhduscn01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_Dallas\_TX/DART\_General\_Planning



SEE DWG No. SC6-3202



- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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.

**LOWER MEZZANINE LEVEL PLAN A**  
SCALE: 1/8" = 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 20% DESIGN**

CONTRACT SHEET No. 221 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**COMMERCE STATION HEADHOUSE  
LOWER MEZZANINE PLAN  
SHEET 1 OF 2**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

DART PROJECT

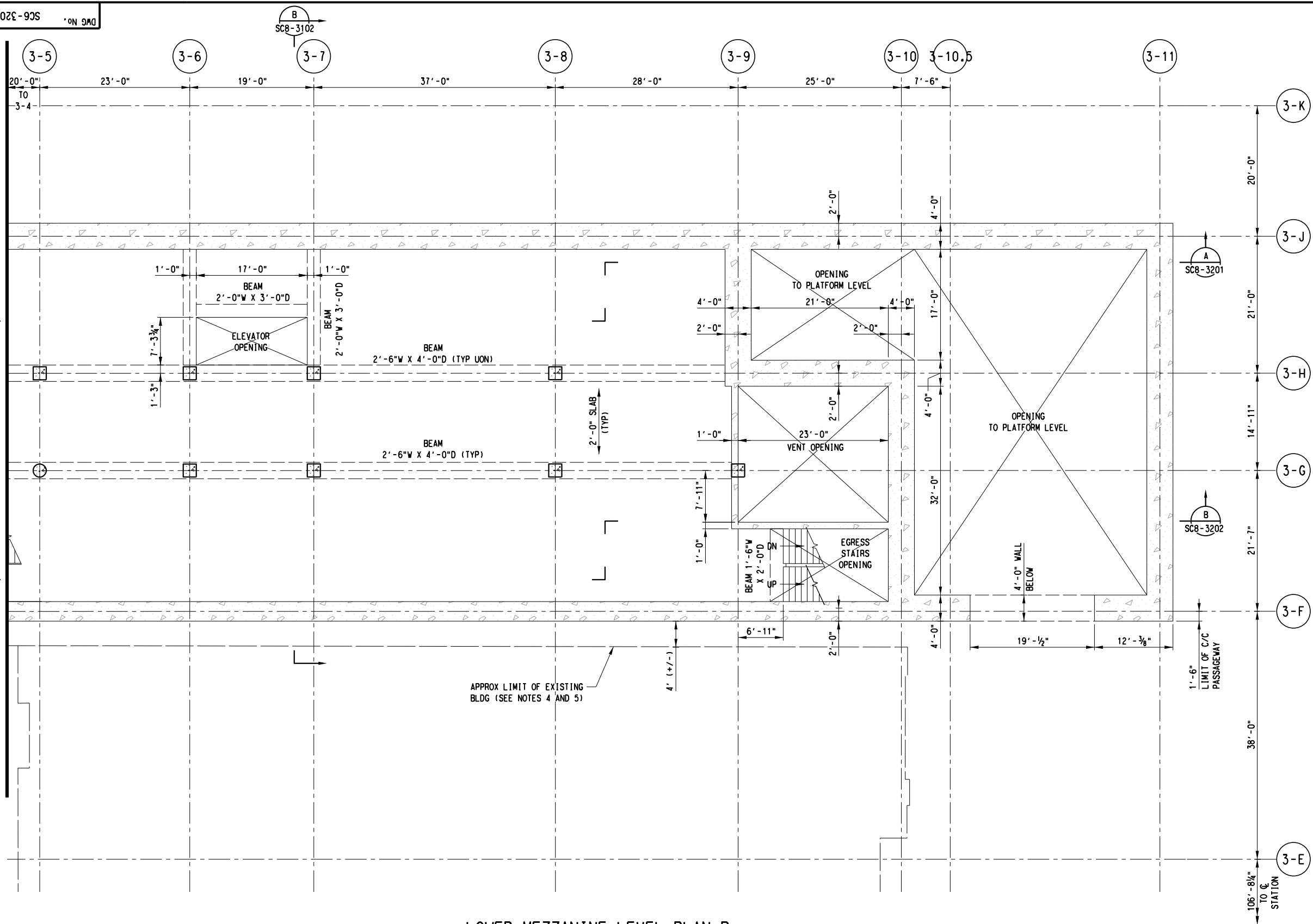
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-3201	REV
----------	------------------	-----

SEE DWG No. SC6-3201

MATCHLINE



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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.

**LOWER MEZZANINE LEVEL PLAN B**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 222 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**COMMERCE STATION HEADHOUSE  
LOWER MEZZANINE PLAN  
SHEET 2 OF 2**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



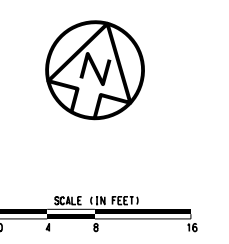
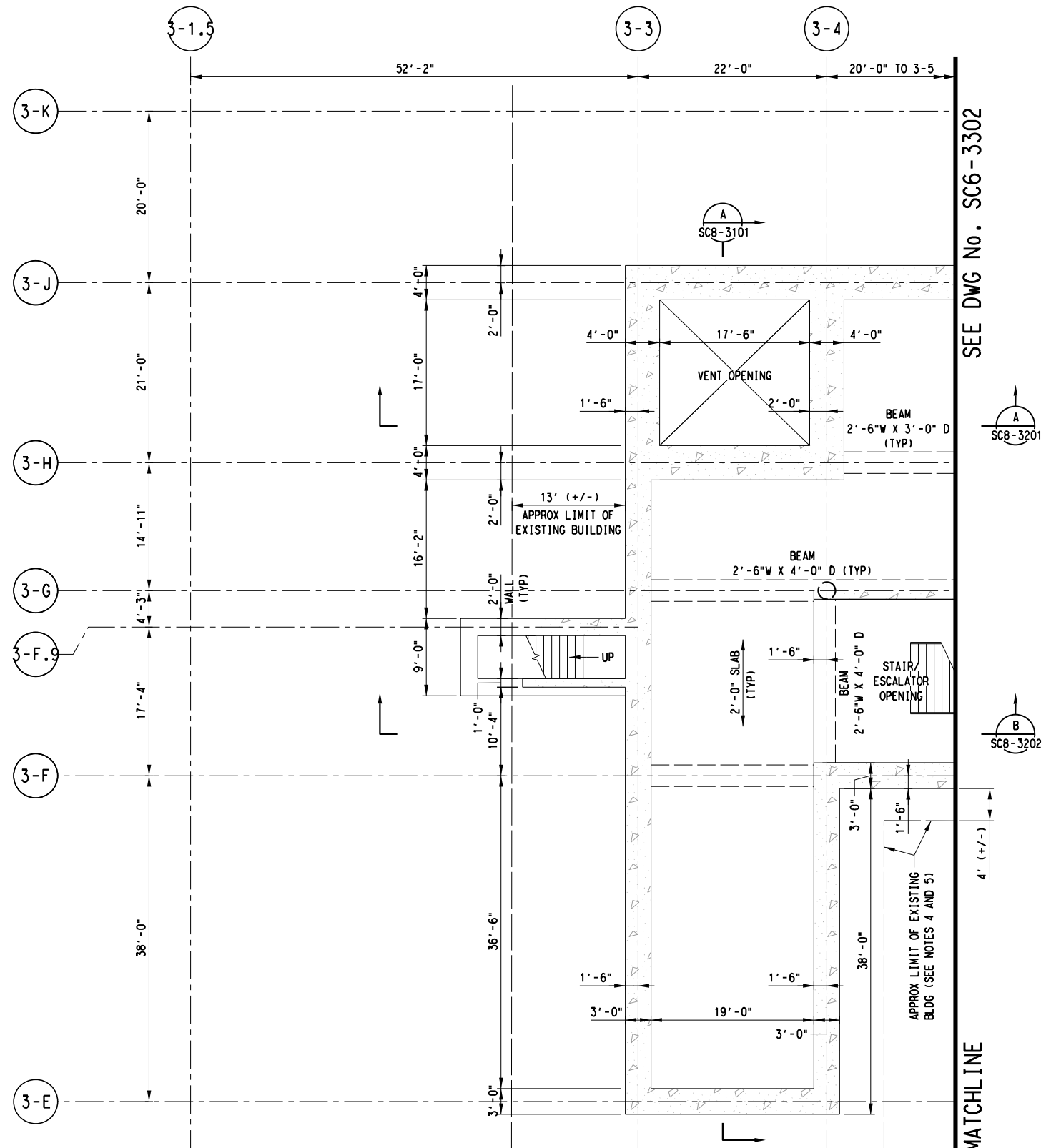
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-3202	REV
----------	------------------	-----



28-FEB-2020 18:24 pwr://pwhduscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

1000-900 ON 9AD



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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.

MIDDLE MEZZANINE LEVEL PLAN A  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 223 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
  
COMMERCE STATION HEADHOUSE  
MIDDLE MEZZANINE PLAN  
SHEET 1 OF 2

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



**DART PROJECT**

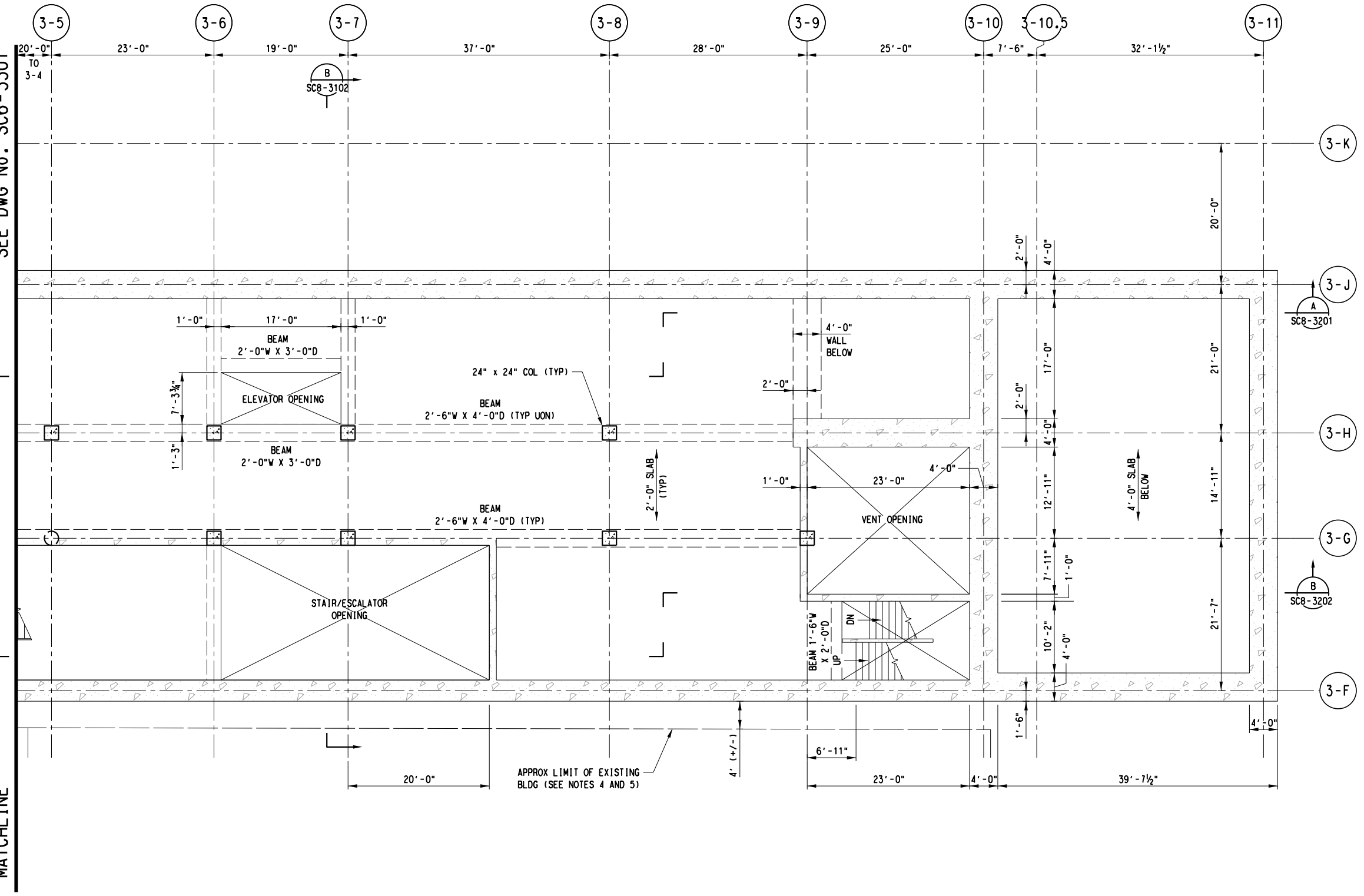
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-3301	REV
----------	------------------	-----

bwhiteside Default

SEE DWG No. SC6-3301

MATCHLINE



- 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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 20% DESIGN

CONTRACT SHEET No. 224 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 COMMERCE STATION HEADHOUSE  
 MIDDLE MEZZANINE PLAN  
 SHEET 2 OF 2

**MIDDLE MEZZANINE LEVEL PLAN B**  
 SCALE: 1/8" = 1'-0"

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.

**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	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No.	REV
	SC6-3302	

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:24 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

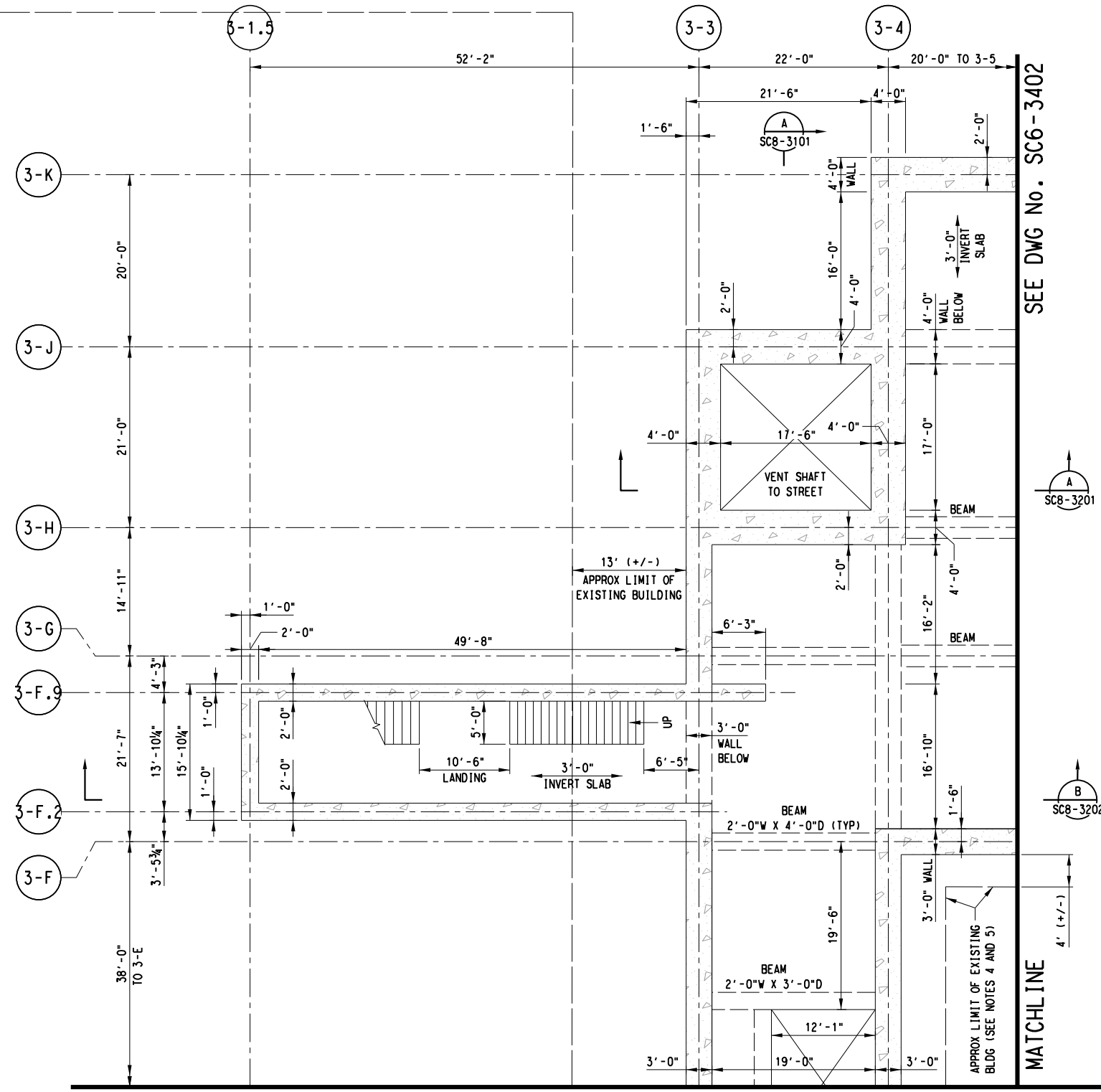
1043-6CS .ON DWG SC6-3401



SCALE (IN FEET)  
0 4 8 16

NOTES:

- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
- FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
- SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
- 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
- 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.



UPPER MEZZANINE LEVEL PLAN A

SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 225 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE  
UPPER MEZZANINE PLAN  
SHEET 1 OF 3

IN-PROGRESS

THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No. 420



DART PROJECT



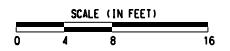
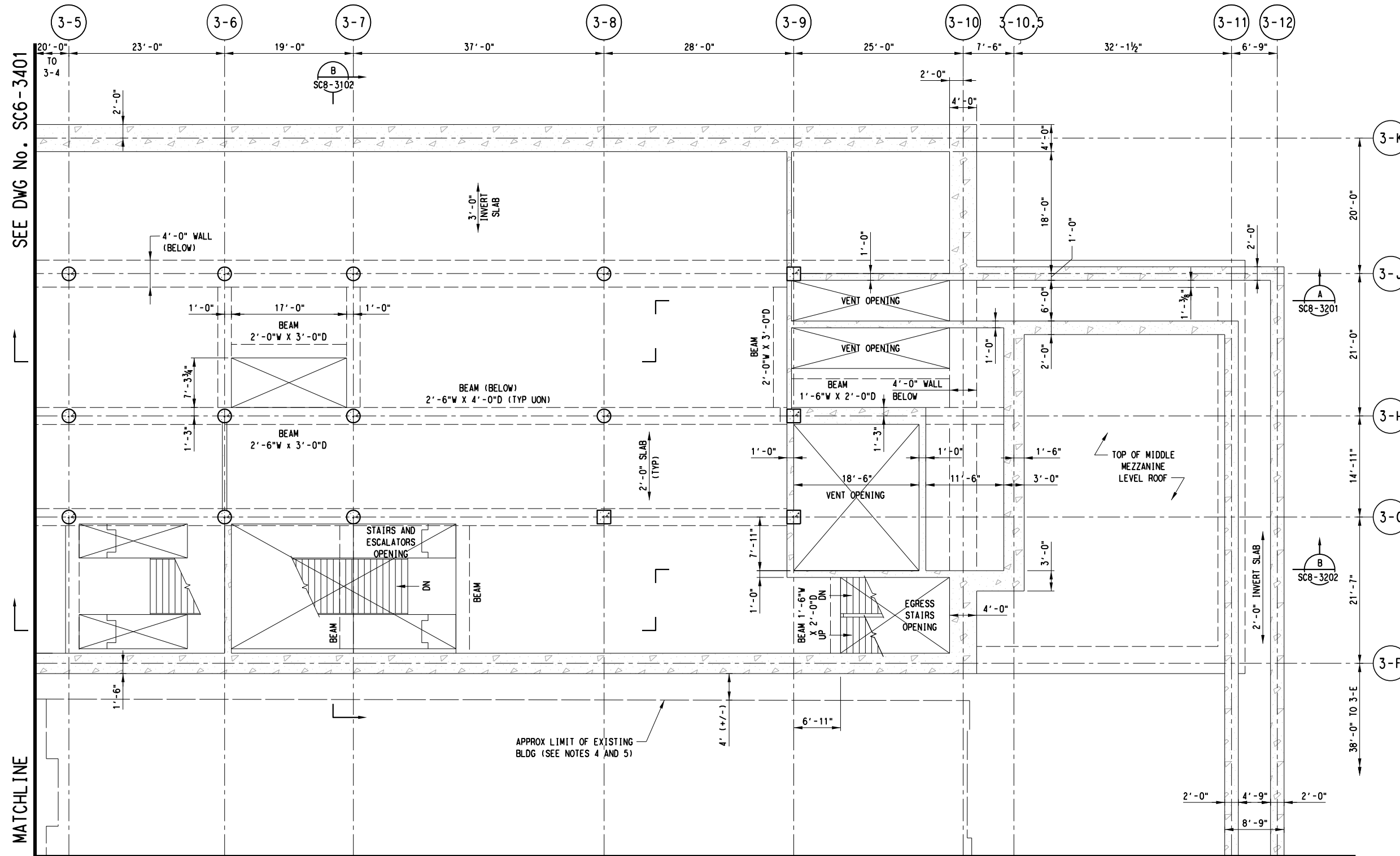
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-3401	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

bwhiteside Default



- NOTES:**
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.
  - 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 20% DESIGN

CONTRACT SHEET No. 226 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**  
  
 COMMERCE STATION HEADHOUSE  
 UPPER MEZZANINE PLAN  
 SHEET 2 OF 3

CONTRACT DWG No. SC6-3402 REV

SEE DWG No. SC6-3401

SEE DWG No. SC6-3403

**UPPER MEZZANINE LEVEL PLAN B**  
 SCALE: 1/8" = 1'-0"

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020

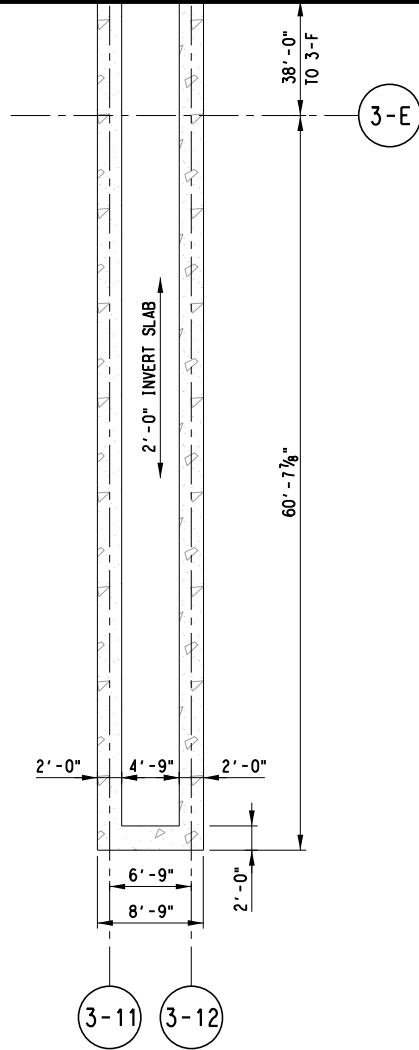


REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

28-FEB-2020 18:24  
pw://pwhdrcen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

DWG No. SC6-3403

MATCHLINE SEE DWG No. SC6-3402

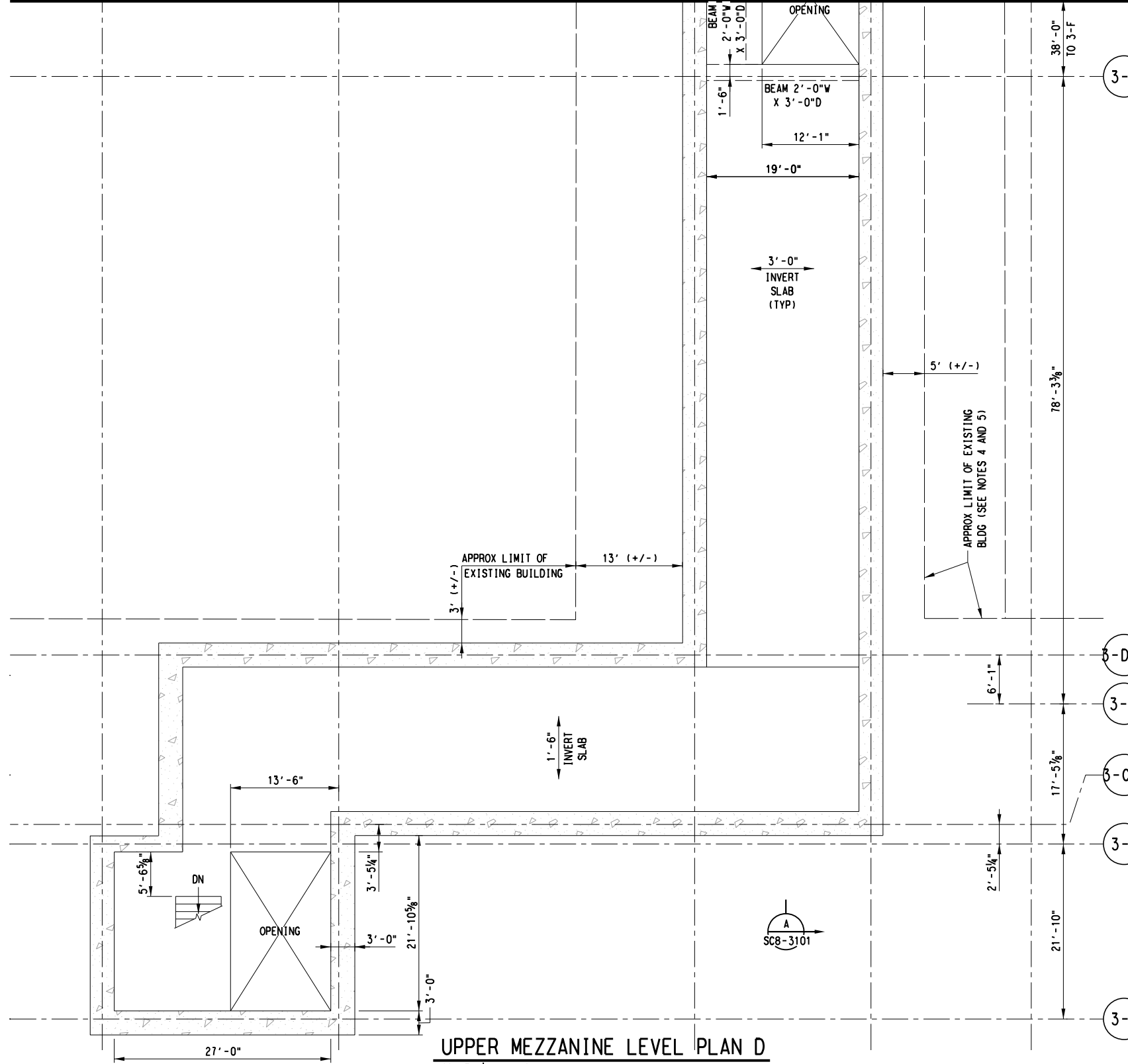


UPPER MEZZANINE LEVEL PLAN C

SCALE: 1/8" = 1'-0"

3-1 29'-6" 3-2 44'-4 1/2" 3-3 22'-0" 3-4 20'-0" 3-5

MATCHLINE SEE DWG No. SC6-3401



UPPER MEZZANINE LEVEL PLAN D

SCALE: 1/8" = 1'-0"



SCALE (IN FEET)  
0 4 8 16

- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
    - DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF FOUNDATION OF EXISTING BUILDING.
    - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMIT.
    - 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.
  - 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 20% DESIGN

CONTRACT SHEET No. 227 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE  
UPPER MEZZANINE PLAN  
SHEET 3 OF 3

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

**DART**

**gpc SIX**

**DART PROJECT**

**DART**

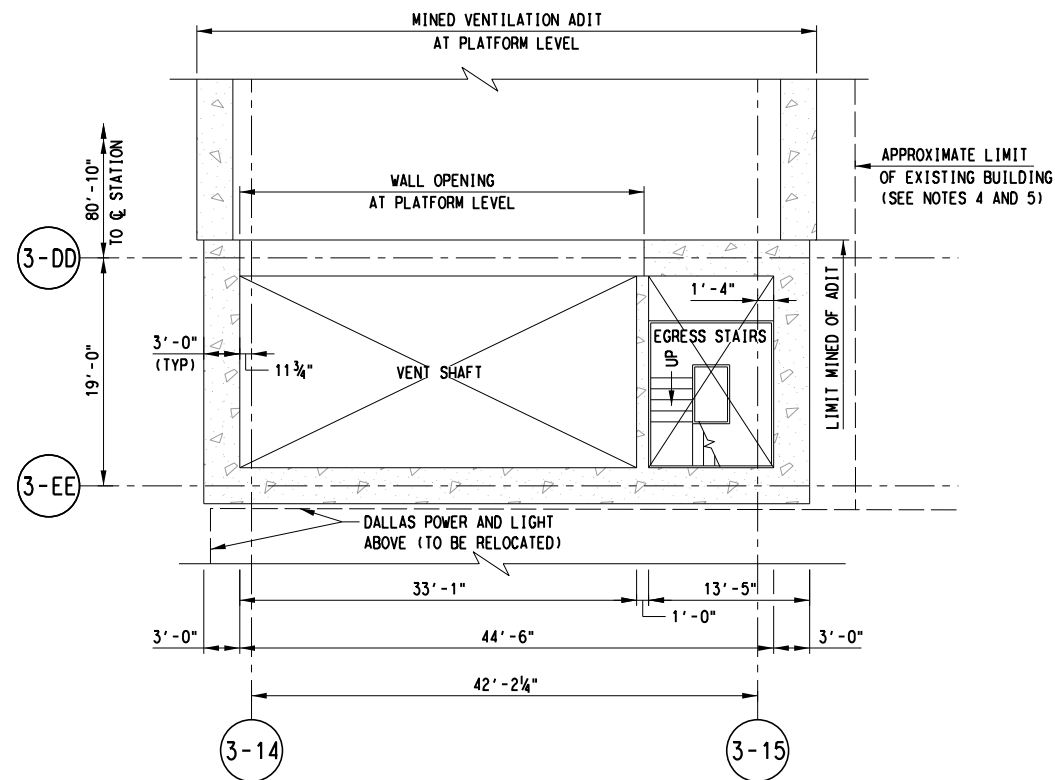
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-3403	REV
----------	------------------	-----

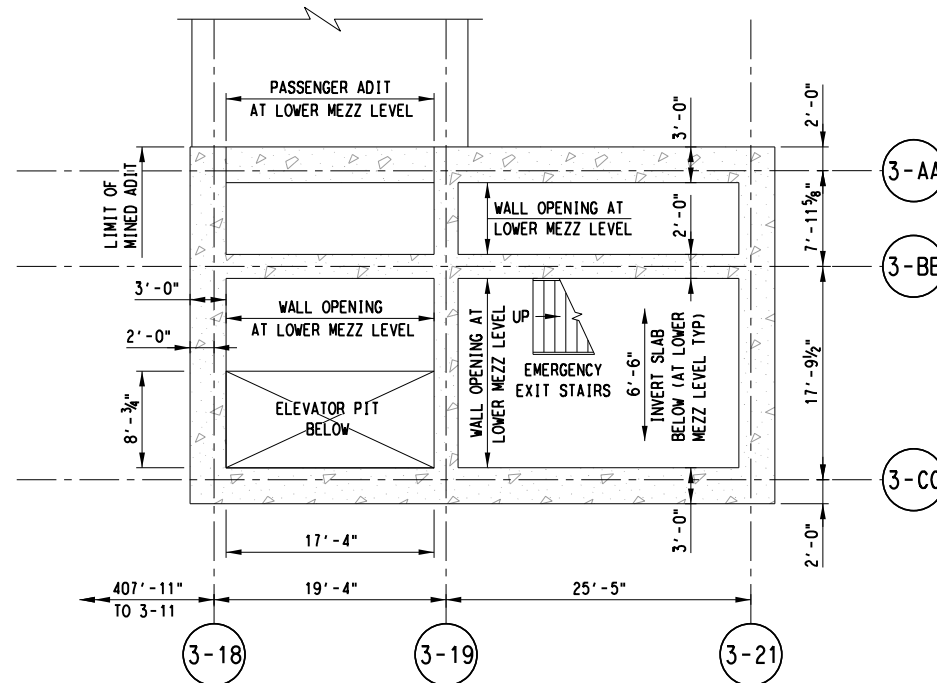


**NOTES:**

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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" 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.



**SHAFT XXX PLAN ABOVE PLATFORM LEVEL**  
SCALE: 1/8" = 1'-0"



**SHAFT XXX PLAN ABOVE LOWER MEZZANINE LEVEL**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 228 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

COMMERCE STATION  
MISCELLANEOUS SHAFT PLAN

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

**HNTB**

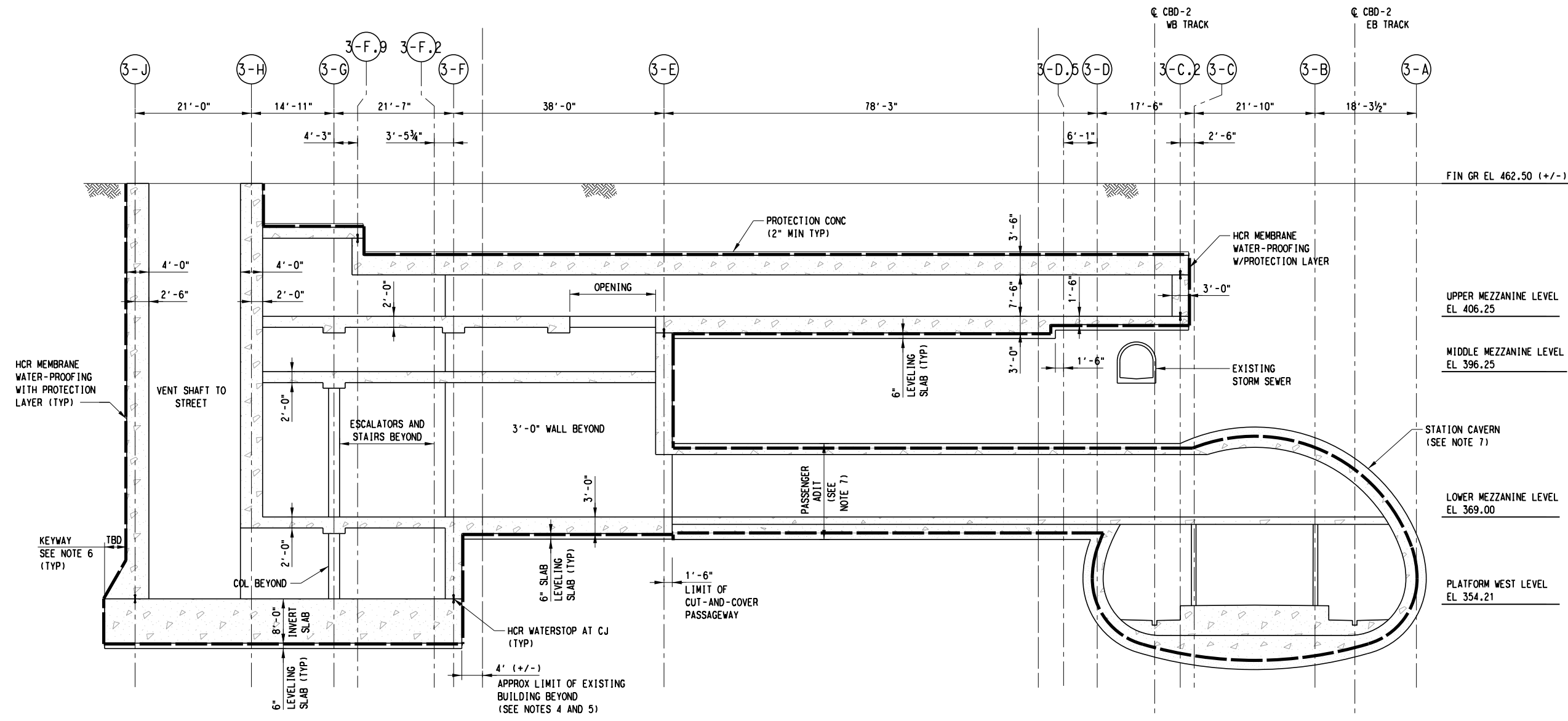
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420

DART PROJECT

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-3110
	REV

28-FEB-2020 18:24 pwr://pwhdru01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMITS.
    - (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.
  - 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.
  - KEYWAY FOR RESISTANCE TO FLOATATION MAY BE OMITTED IF ALTERNATIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.
  - FOR STATION CAVERN AND PASSENGER ADIT SEE DRAWING Nos SC8-006 TO SC8-0012.

**SECTION A**  
 SCALE: 3/32" = 1'-0"  
 SC6-3101, SC6-3102  
 SC6-3201, SC6-3202  
 SC6-3301, SC6-3302  
 SC6-3401, SC6-3403

**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 20% DESIGN**

CONTRACT SHEET No. 229 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 COMMERCE STATION  
 SECTION A**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420



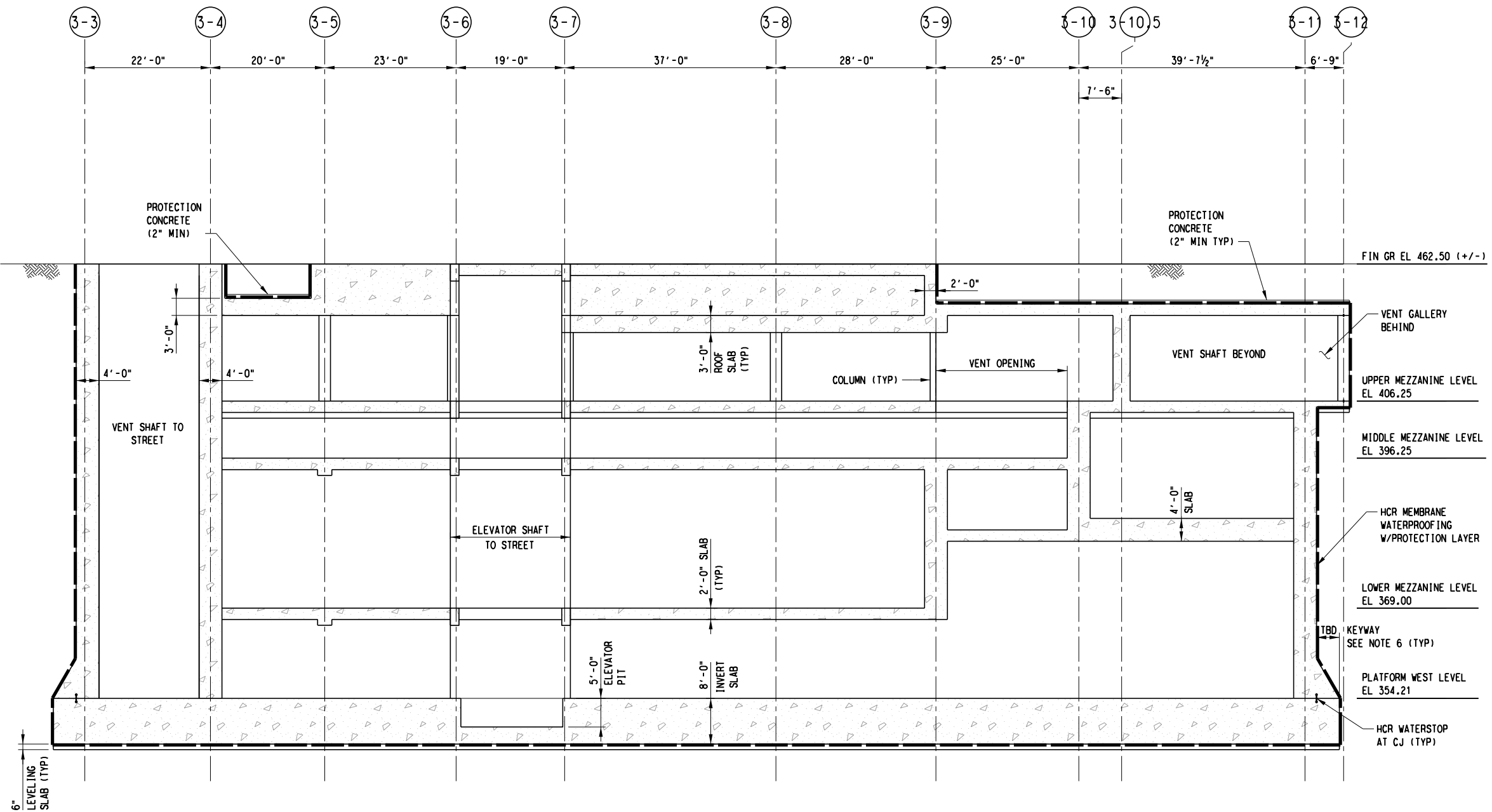
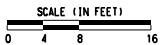
**DART PROJECT**

SCALE	3/32" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-3101	REV
----------	------------------	-----







- 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 31.48.00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMITS.
    - (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 ALTERNATIVE MEASURES, SUCH AS TIE-DOWN ANCHORS, ARE PROVIDED.

**SECTION A**  
 SCALE: 3/32" = 1'-0"  
 SC6-3101, SC6-3102  
 SC6-3201, SC6-3202  
 SC6-3301, SC6-3302  
 SC6-3401, SC6-3402

**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 20% DESIGN**

CONTRACT SHEET No. 231 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**  
  
**COMMERCE STATION  
 SECTION A**

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



SCALE	3/32"=1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

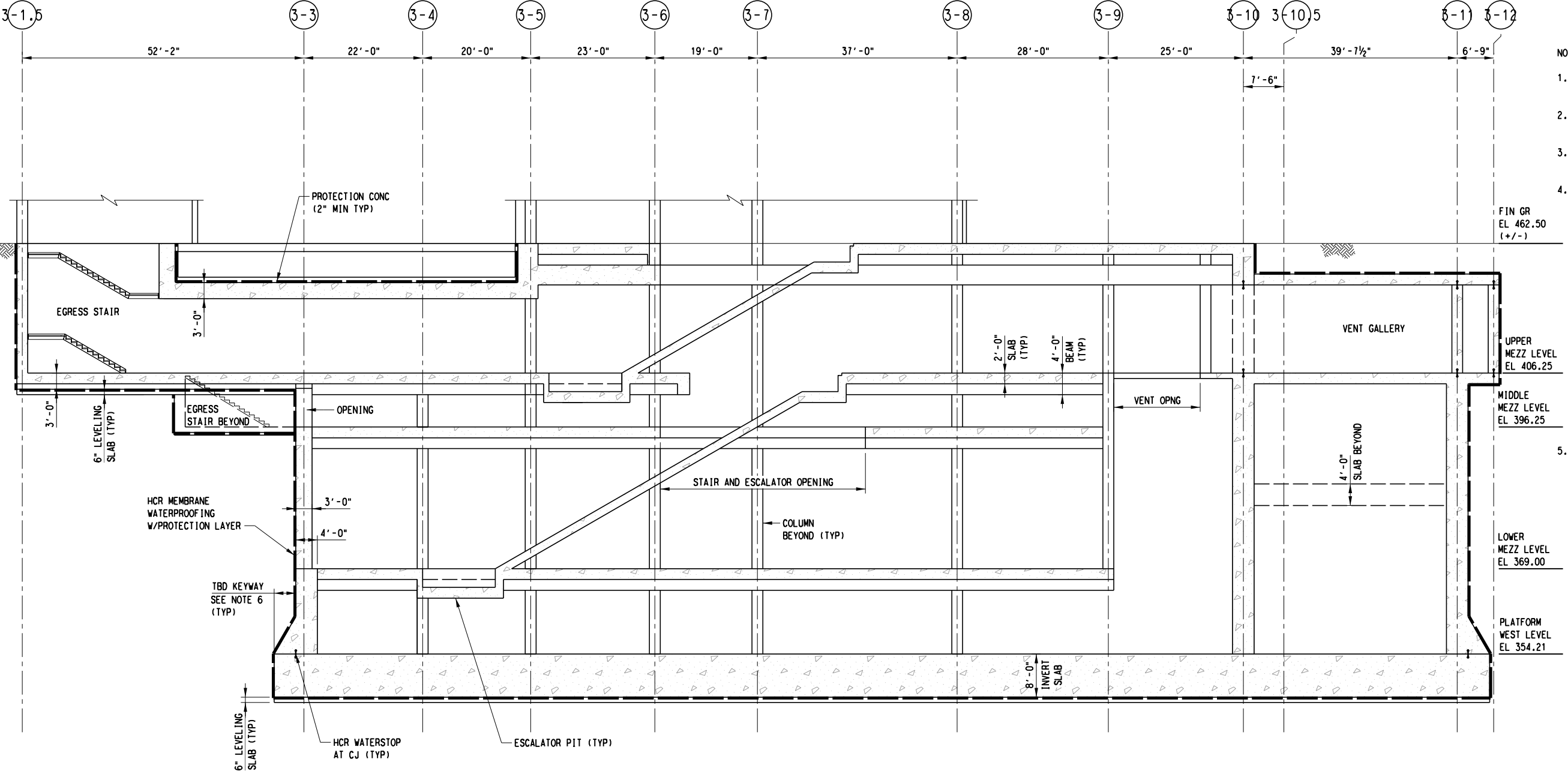


CONTRACT	DWG No. SC8-3201	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
  - 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 31 48 00 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALLOWABLE LIMITS.
    - (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.
  - 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.



**SECTION B**

SCALE: 3/32" = 1'-0"

SC6-3101, SC6-3102  
SC6-3201, SC6-3202  
SC6-3301, SC6-3302  
SC6-3401, SC6-3402

**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 20% DESIGN

CONTRACT SHEET No. 232 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

COMMERCE STATION  
SECTION B

CONTRACT DWG No. SC6-3202 REV

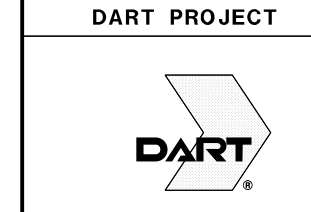
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

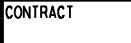
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020 HNTB CORPORATION TBPE FIRM NO. F-420 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

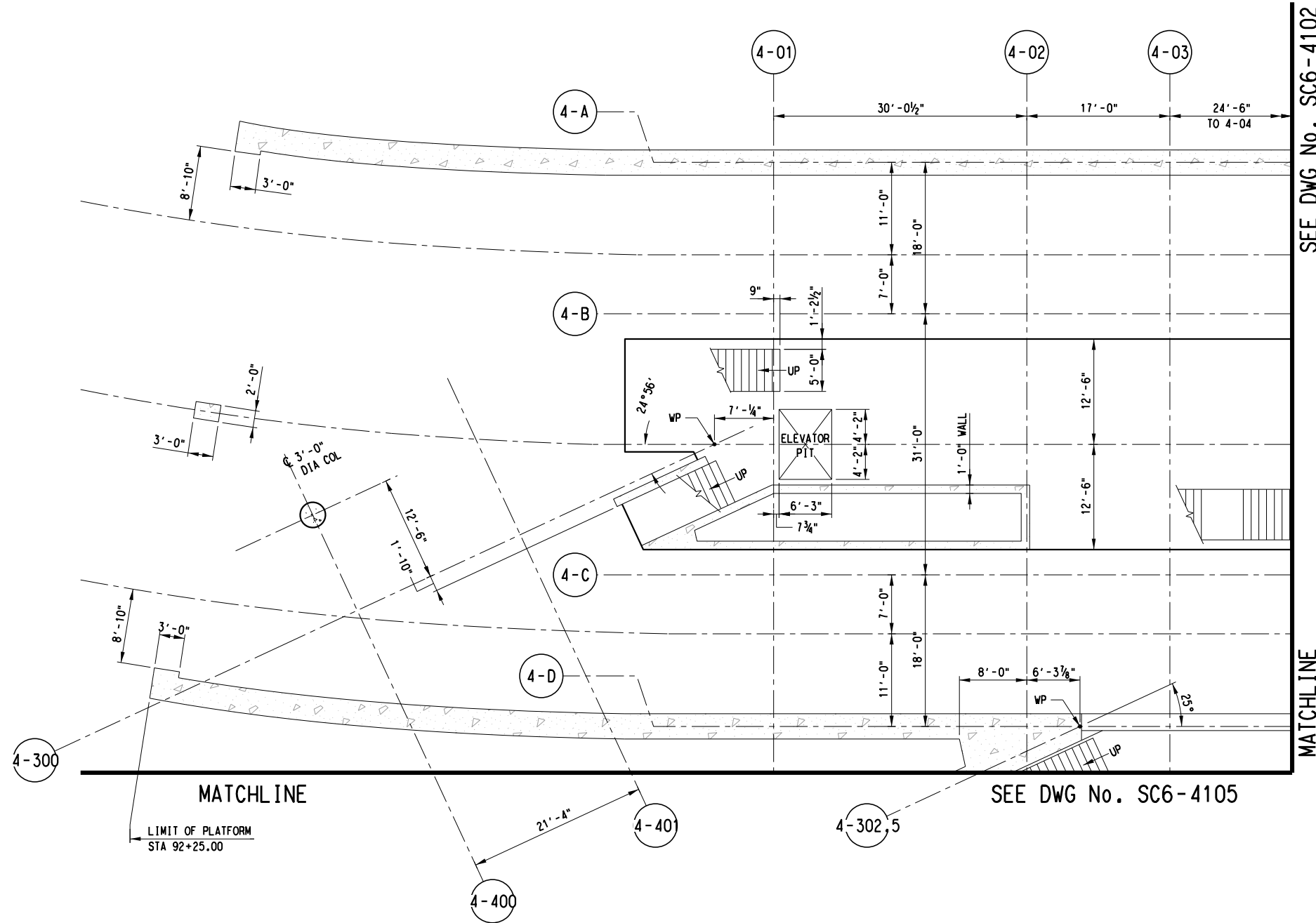


SCALE	3/32" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020





- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.



SEE DWG No. SC6-4102

MATCHLINE

SEE DWG No. SC6-4105

**PLATFORM LEVEL PLAN A**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 233 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

CBD EAST STATION  
PLATFORM LEVEL PLAN  
SHEET 1 OF 6

CONTRACT DWG No. SC6-4101 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020

HNTB CORPORATION  
TBPE FIRM NO. F-420

IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.


**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No. 420

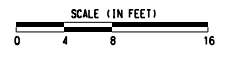
**DART PROJECT**



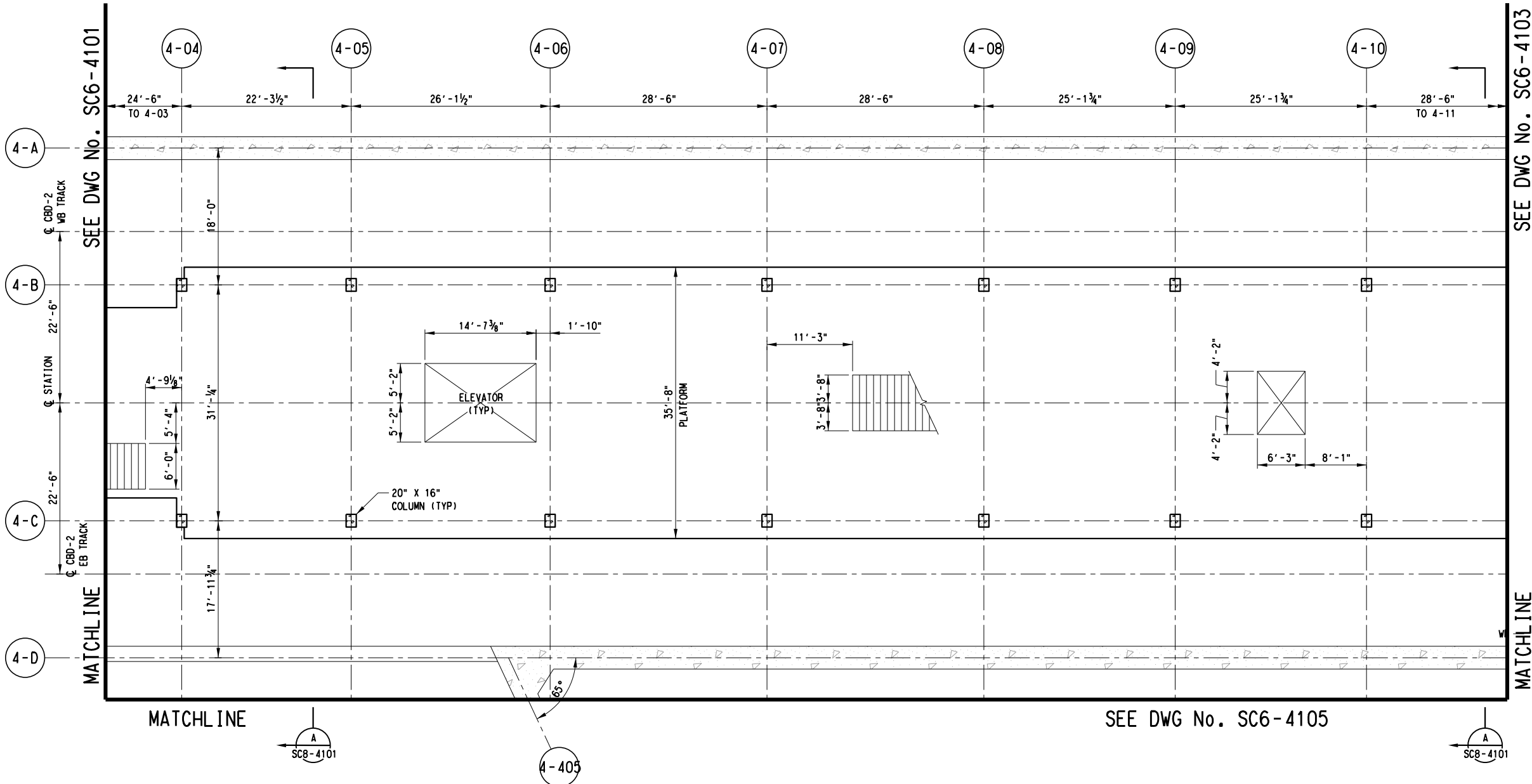

**DART PROJECT**



SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.



SEE DWG No. SC6-4101

SEE DWG No. SC6-4103

SEE DWG No. SC6-4105

**PLATFORM LEVEL PLAN B**  
SCALE: 1/8" = 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 20% DESIGN


CONTRACT SHEET No. 234 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
LINE SECTION CBD-2  
  
CBD EAST STATION  
PLATFORM LEVEL PLAN  
SHEET 2 OF 6

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866 ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



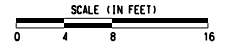
CONTRACT	DWG No.	SC6-4102	REV
----------	---------	----------	-----

28-FEB-2020 18:25 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

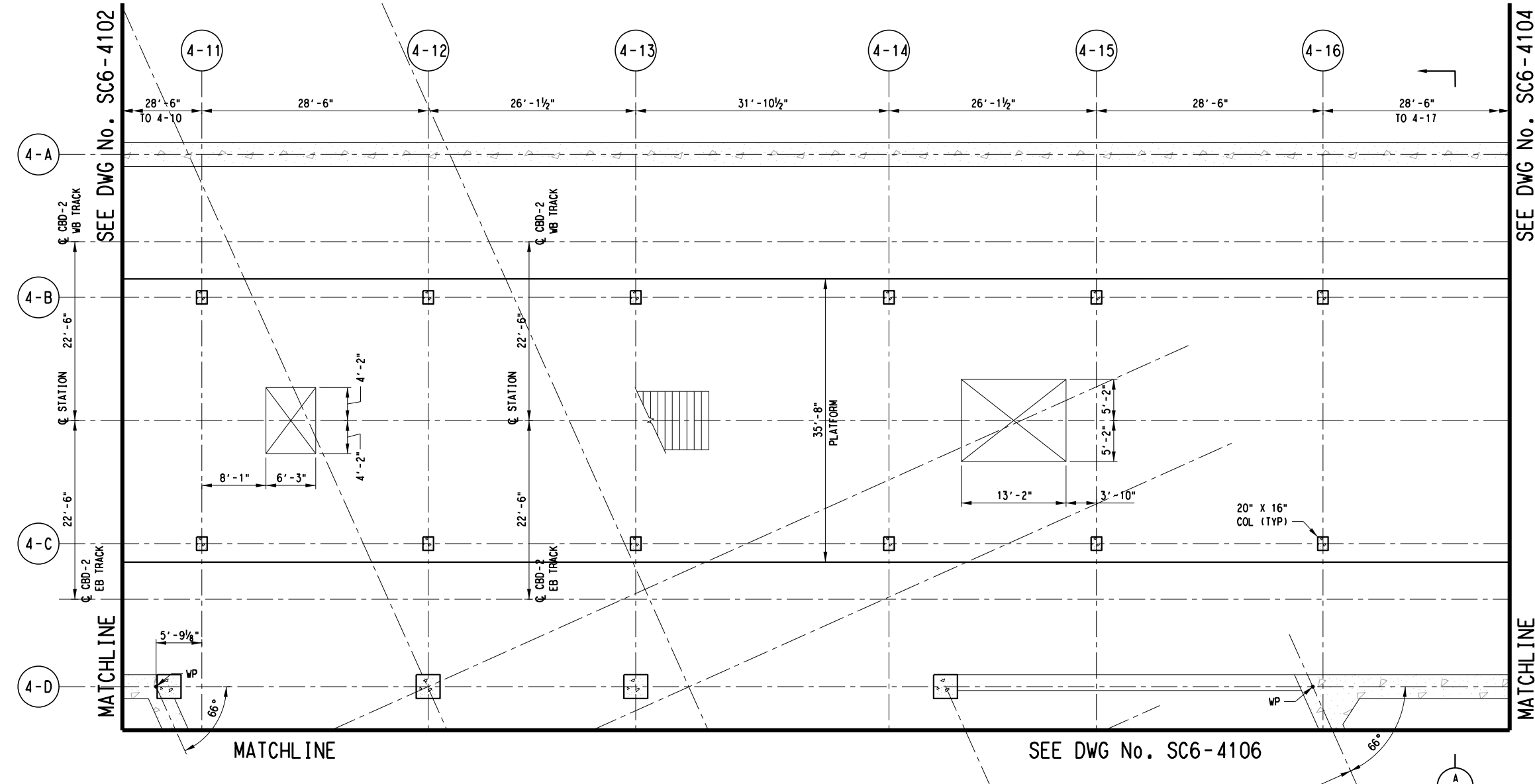
bwhiteside Default

28-FEB-2020 18:25  
 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

DWG No. SC6-4103



- 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.



SEE DWG No. SC6-4102

SEE DWG No. SC6-4104

MATCHLINE

MATCHLINE

SEE DWG No. SC6-4106

**PLATFORM LEVEL PLAN C**  
 SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 235 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 CBD EAST STATION  
 PLATFORM LEVEL PLAN  
 SHEET 3 OF 6

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

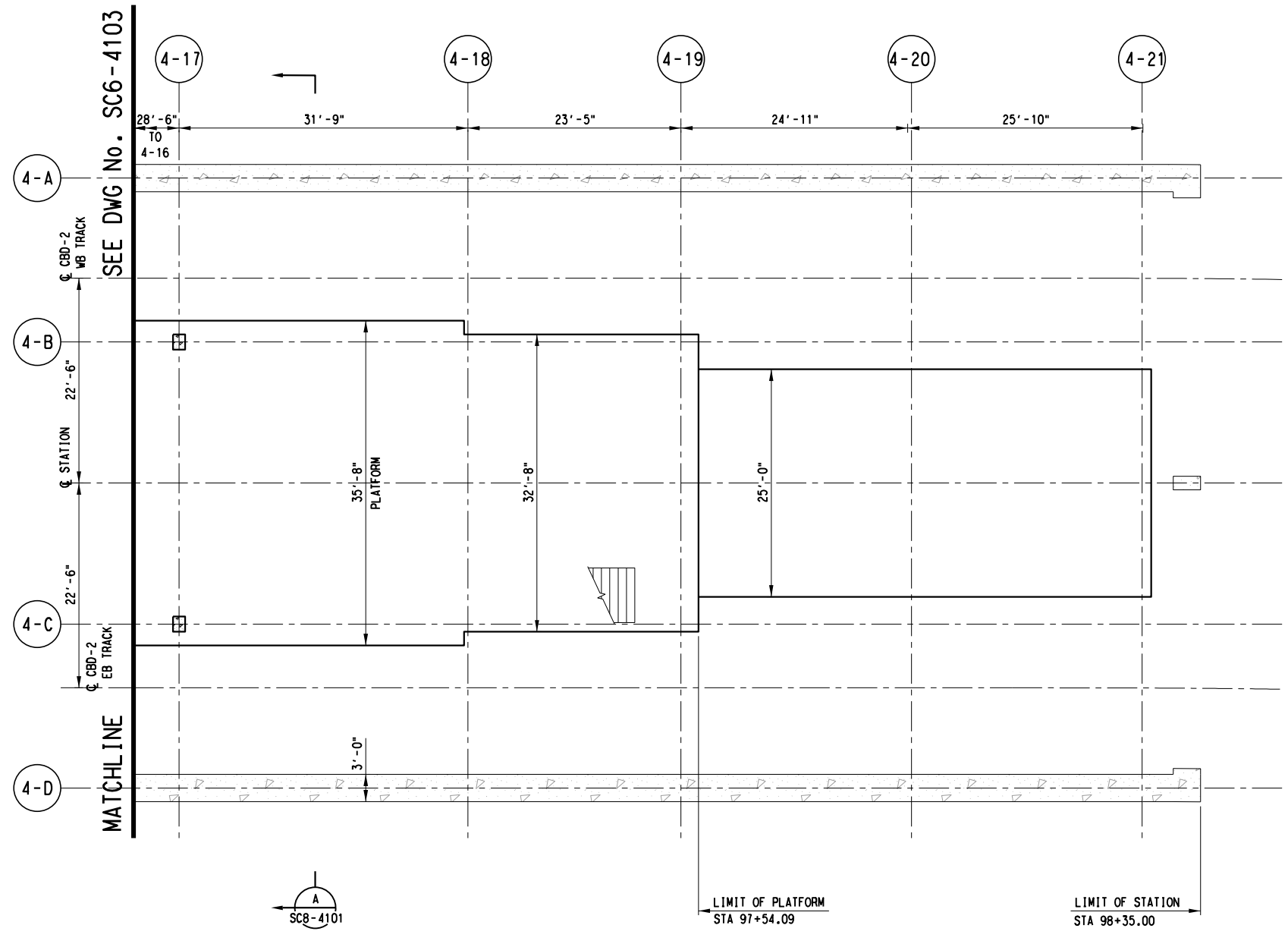
HNTB Corporation  
 The HNTB Companies  
 Engineers Architects Planners  
 TBPE Firm Registration No.420

**DART PROJECT**

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-4103	REV
----------	------------------	-----



- 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: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 236 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
  
**CBD EAST STATION**  
**PLATFORM LEVEL PLAN**  
**SHEET 4 OF 6**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
 THIS DOCUMENT IS RELEASED  
 FOR THE PURPOSE OF REVIEW UNDER THE  
 AUTHORITY OF:  
 CHARLES A. STONE, P.E. NO. 133866  
 ON 03/06/2020  
 HNTB CORPORATION  
 TBPE FIRM NO. F-420  
 IT IS NOT TO BE USED FOR CONSTRUCTION,  
 BIDDING OR PERMIT PURPOSES.



SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020



CONTRACT	DWG No. SC6-4104	REV
----------	------------------	-----

28-FEB-2020 18:25 pwr://pwhdru001:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

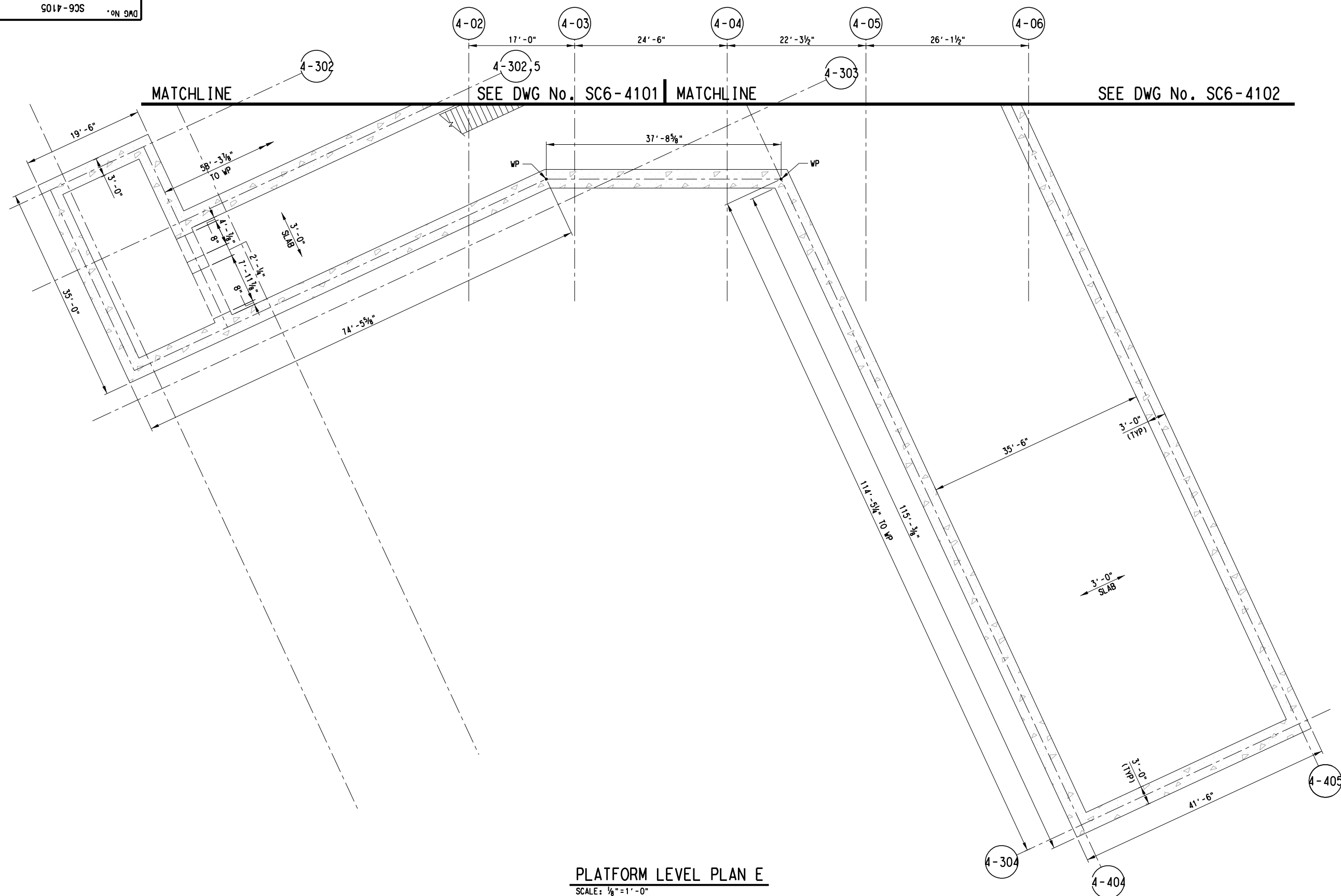
SC6-4105 ON DAD



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 E**

SCALE: 1/8" = 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 20% DESIGN**

CONTRACT SHEET No. 237 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

**CBD EAST STATION  
PLATFORM LEVEL PLAN  
SHEET 5 OF 6**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.



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	06 MAR 2020



CONTRACT	DWG No. SC6-4105	REV
----------	------------------	-----

bwhiteside Default

28-FEB-2020 18:25 pwr://pwhdruscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning

9017-9CS ON 9AD

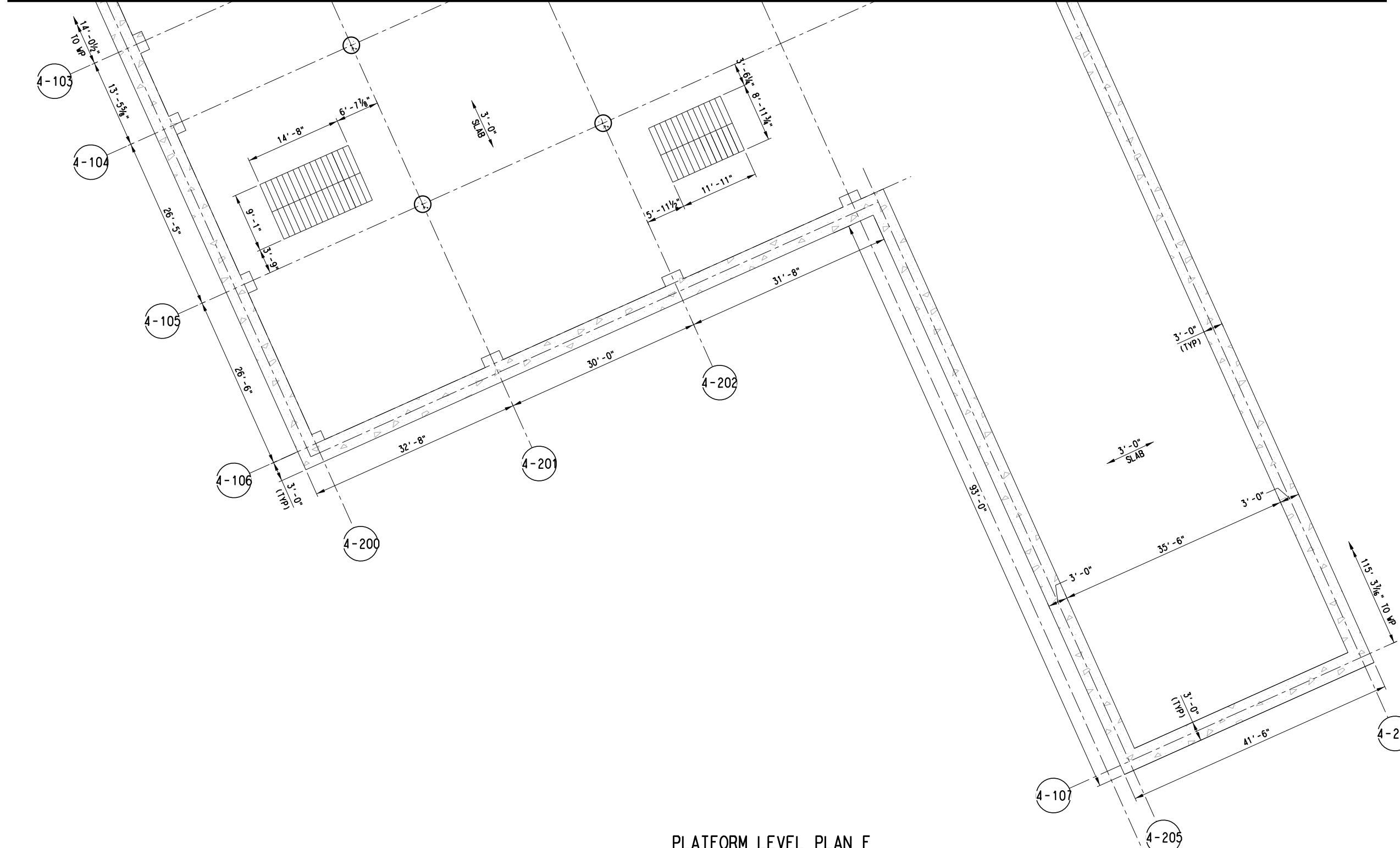


SCALE (IN FEET)  
0 4 8 16

- 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.

SEE DWG No. SC6-4103

MATCHLINE



**PLATFORM LEVEL PLAN F**  
SCALE: 1/8" = 1'-0"

**DRAFT**  
CONCEPTUAL DESIGN PENDING  
RAIL/FACILITY SYSTEMS AND  
TUNNEL/STATION VENTILATION INPUT,  
AND ADDITIONAL SITE SPECIFIC DATA

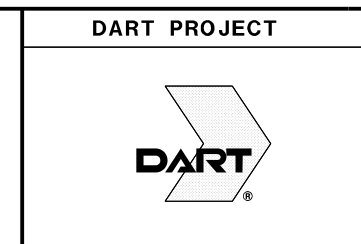
NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 238 OF 276

**LIGHT RAIL TRANSIT SYSTEM**  
**LINE SECTION CBD-2**  
  
**CBD EAST STATION**  
**PLATFORM LEVEL PLAN**  
**SHEET 6 OF 6**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



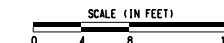
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC6-4106	REV
----------	------------------	-----

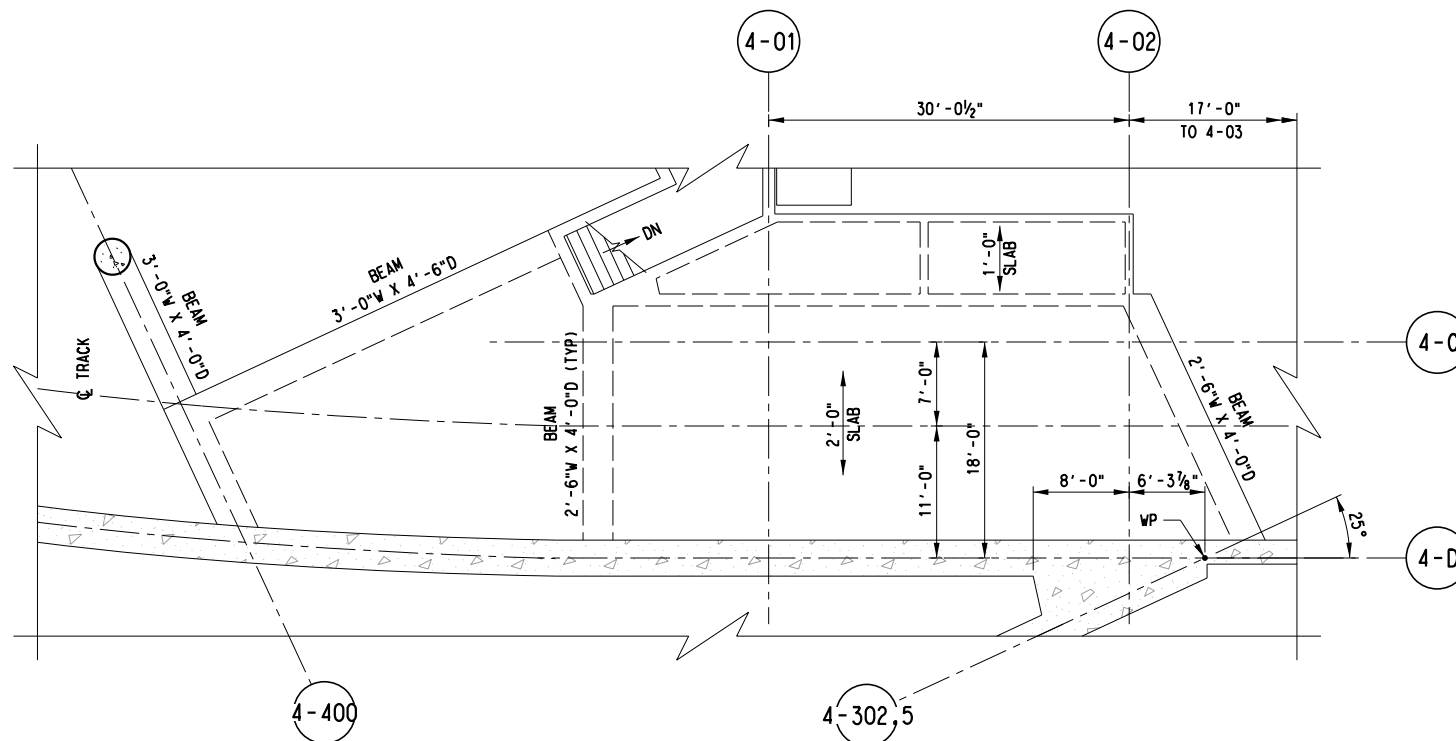
bwhiteside Default



28-FEB-2020 18:25 pwr://pwhduscen01:HDR\_US\_Central\_01/Documents/Dallas\_Area\_Rapid\_Transit\_DART\_Dallas\_TX/DART\_General\_Planning



- NOTES:
- FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
  - FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
  - SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.



**MEZZANINE LEVEL PLAN**  
SCALE: 1/8" = 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 20% DESIGN

CONTRACT SHEET No. 239 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

**CBD EAST STATION  
MEZZANINE LEVEL PLAN**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED  
FOR THE PURPOSE OF REVIEW UNDER THE  
AUTHORITY OF:  
CHARLES A. STONE, P.E. NO. 133866  
ON 03/06/2020  
HNTB CORPORATION  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION,  
BIDDING OR PERMIT PURPOSES.

**HNTB**  
HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420

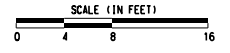
**DART**  
gpc six

**DART PROJECT**  
DART

SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	R. MANUELYAN
CHECKED	K. XU
IN CHARGE	C. STONE
DATE	06 MAR 2020

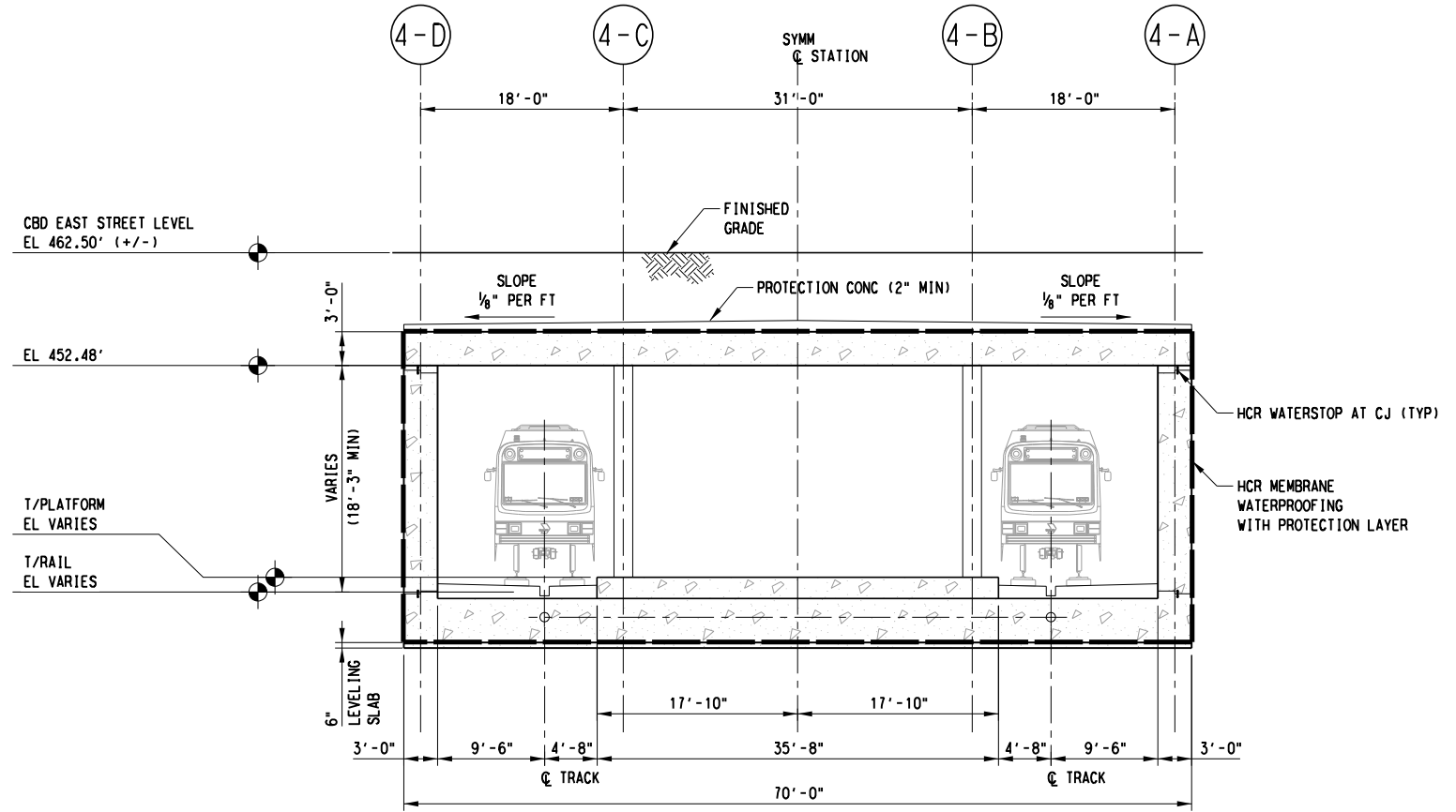
CONTRACT	DWG No.	SC6-4201	REV
----------	---------	----------	-----

bwhiteside Default



**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.



**SECTION**  
SCALE: 1/8" = 1'-0"  
A  
SC6-4102  
SC6-4103  
SC6-4104

**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 20% DESIGN

CONTRACT SHEET No. 240 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
  
**CBD EAST STATION  
SECTION A**

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
**CHARLES A. STONE, P.E. NO. 133866**  
ON 03/06/2020  
**HNTB CORPORATION**  
TBPE FIRM NO. F-420  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**HNTB**

HNTB Corporation  
The HNTB Companies  
Engineers Architects Planners  
TBPE Firm Registration No.420



**DART PROJECT**

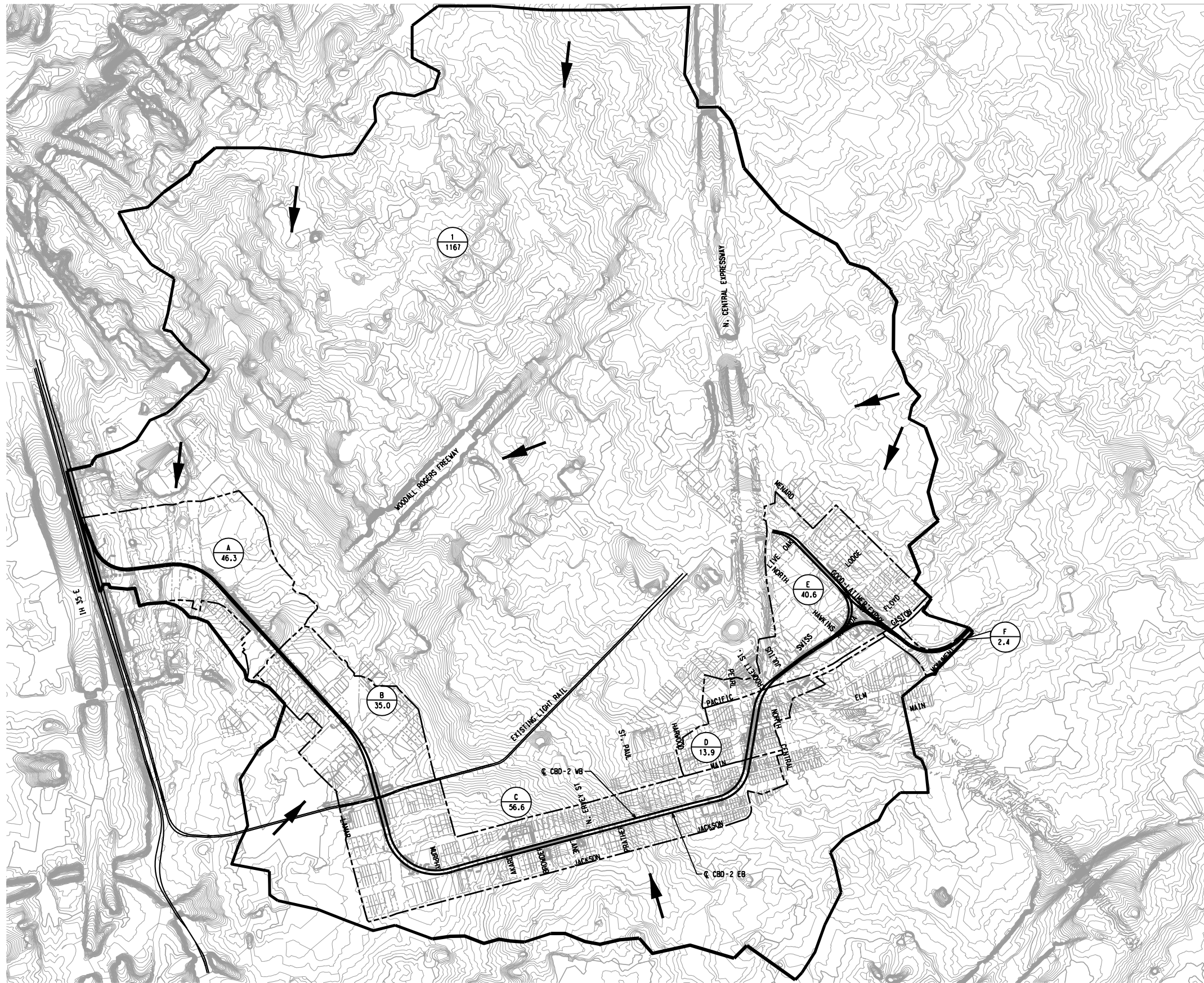
SCALE	1/8" = 1'-0"
DRAWN	B. WHITESIDE
DESIGNED	C. MOON
CHECKED	R. MANUELYAN
IN CHARGE	C. STONE
DATE	06 MAR 2020

CONTRACT	DWG No. SC8-4101	REV
----------	------------------	-----



SCALE (IN FEET)  
0 250 500 1000

- LEGEND
- DRAINAGE AREA BOUNDARY
  - SUBBASIN AREA
  - DRAINAGE FLOW
  - DRAINAGE AREA NUMBER
  - DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 241 OF 276

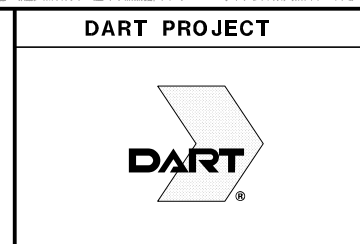
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

OVERALL DRAINAGE AREA MAP

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. 99958  
ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TQPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1"=500'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No. CC6-0100	REV
----------	------------------	-----

Thursday, February 20, 2020 03:47:36 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

Personal  
Default

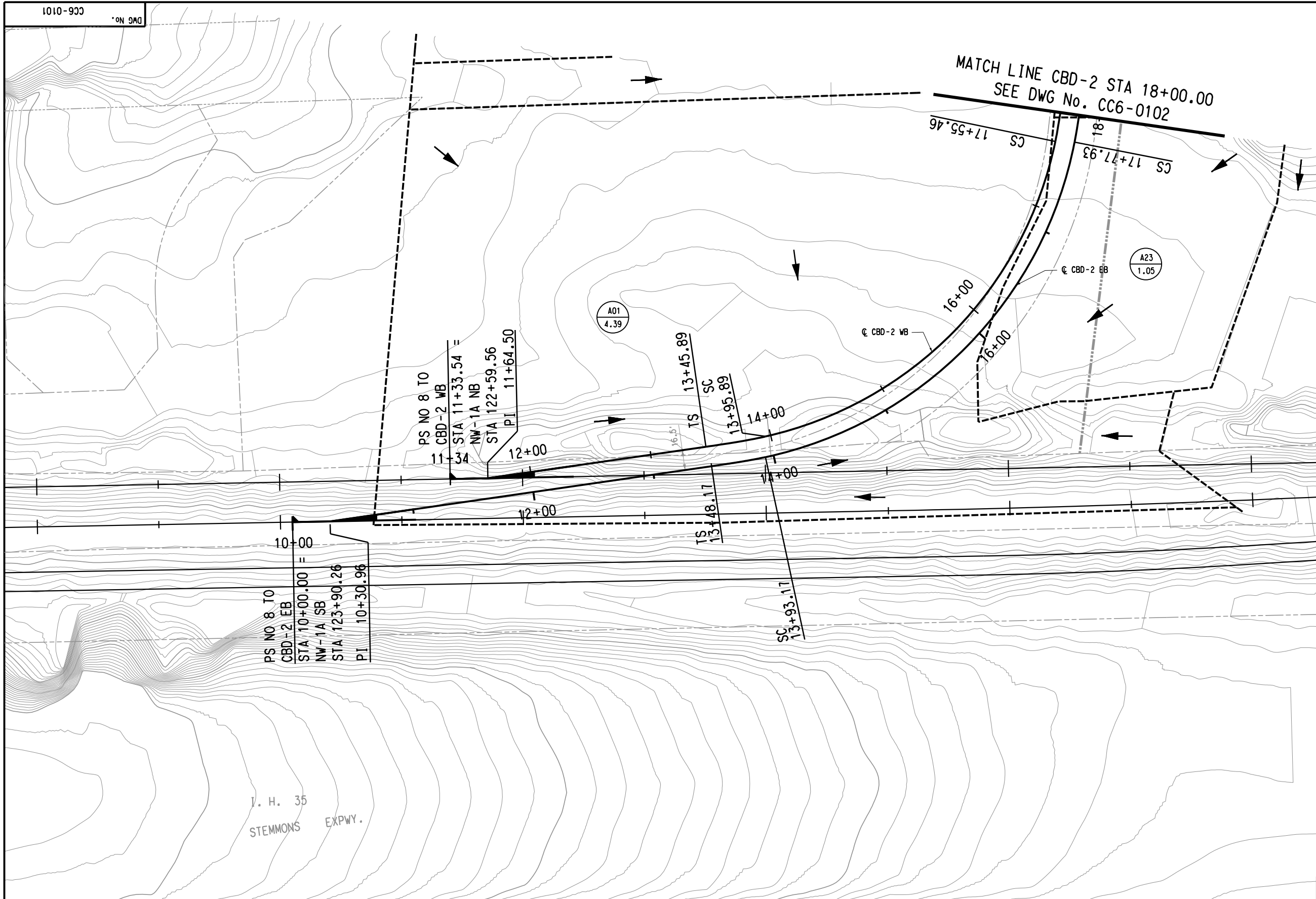


SCALE (IN FEET)  
0 20 40 80

LEGEND

- DRAINAGE AREA BOUNDARY
- - - 100 YEAR FLOODPLAIN LIMITS
- ← DRAINAGE FLOW
- ⊙ A-1 --- DRAINAGE AREA NUMBER
- ⊙ 2.5 --- DRAINAGE AREA IN ACRES
- + RAIL CENTERLINE

Thursday, February 27, 2020 09:01:30 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$



I. H. 35  
STEMMONS  
EXPWY.

PS NO 8 TO  
CBD-2 EB  
STA 10+00.00 =  
NW-1A SB  
STA 123+90.26  
PI 10+30.96

PS NO 8 TO  
CBD-2 WB  
STA 11+33.54 =  
NW-1A NB  
STA 122+59.56  
PI 11+64.50

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JEFFREY E. BRISCOE, P.E. NO. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TQPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

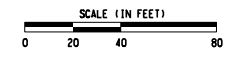
CONTRACT SHEET No. 242 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

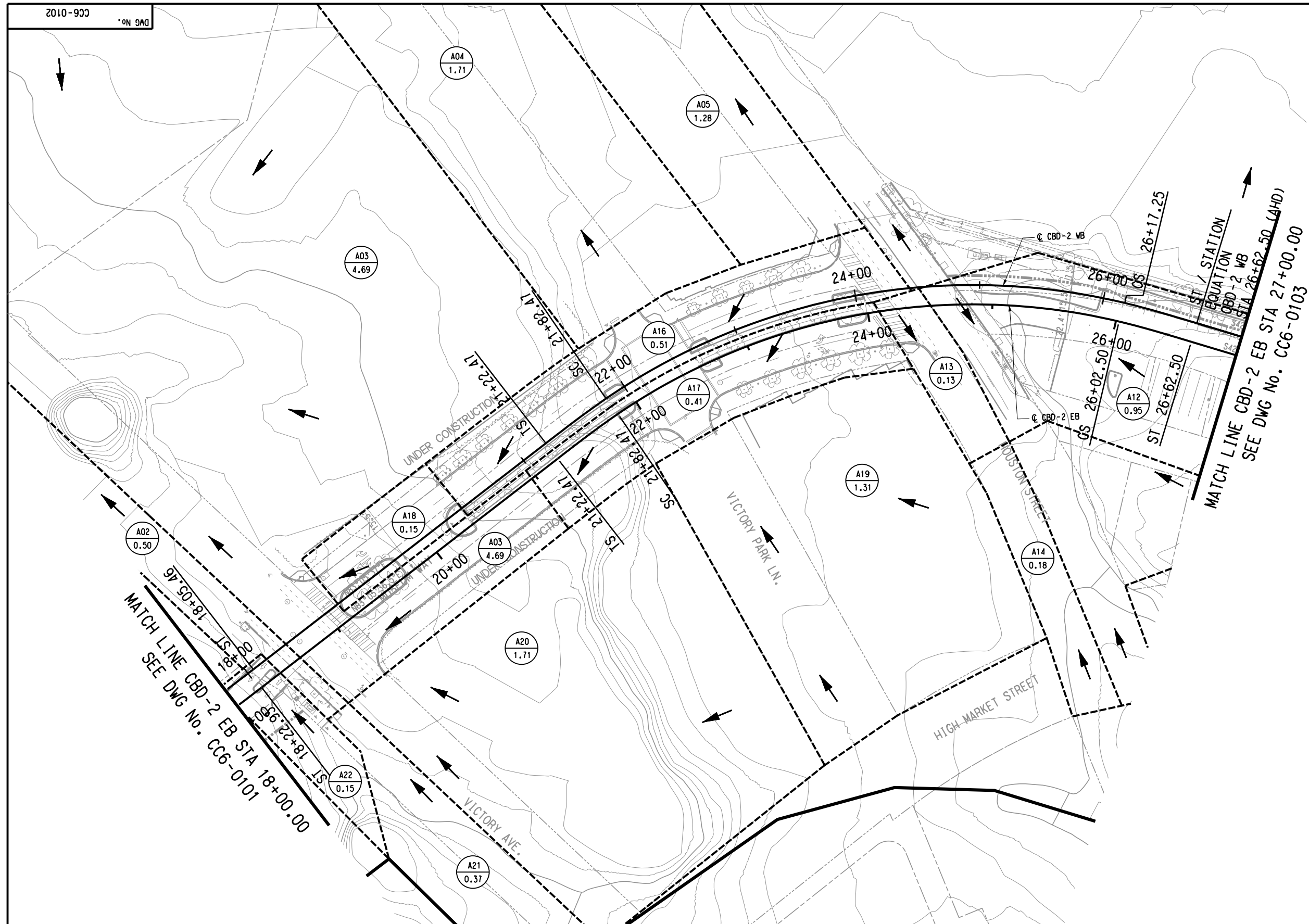
DRAINAGE AREA MAP  
SHEET 1 OF 13

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

CONTRACT	DWG No.	CC6-0101	REV
----------	---------	----------	-----



- 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 20% DESIGN

CONTRACT SHEET No. 243 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

DRAINAGE AREA MAP  
 SHEET 2 OF 13

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. 99598 ON 03/06/2020  
 ICONIC CONSULTING GROUP, INC.  
 TBPE FIRM NO. F-10715  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



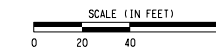
SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020



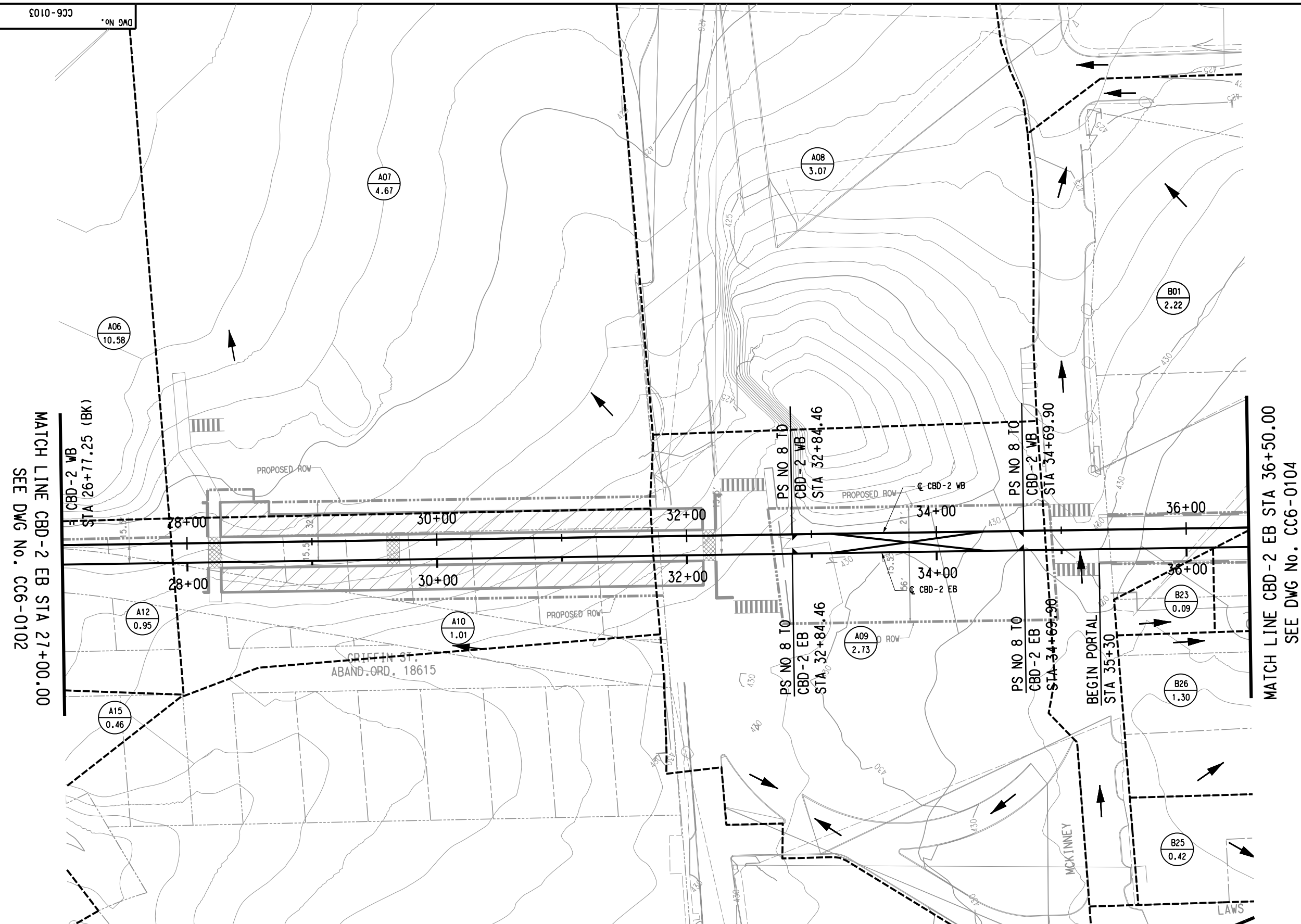
CONTRACT	DWG No. CC6-0102	REV	
----------	------------------	-----	--

Thursday, February 27, 2020 09:05:33 PM

ks/mc



- LEGEND**
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - DRAINAGE AREA NUMBER  
DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE



MATCH LINE CBD-2 EB STA 27+00.00  
SEE DWG No. CC6-0102

MATCH LINE CBD-2 EB STA 36+50.00  
SEE DWG No. CC6-0104

Thursday, February 27, 2020 09:08:10 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 244 OF 276

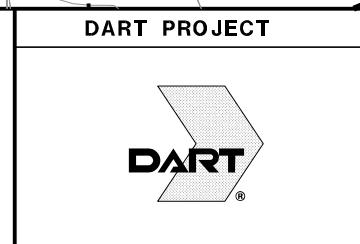
**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

DRAINAGE AREA MAP  
SHEET 3 OF 13

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC. TYPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



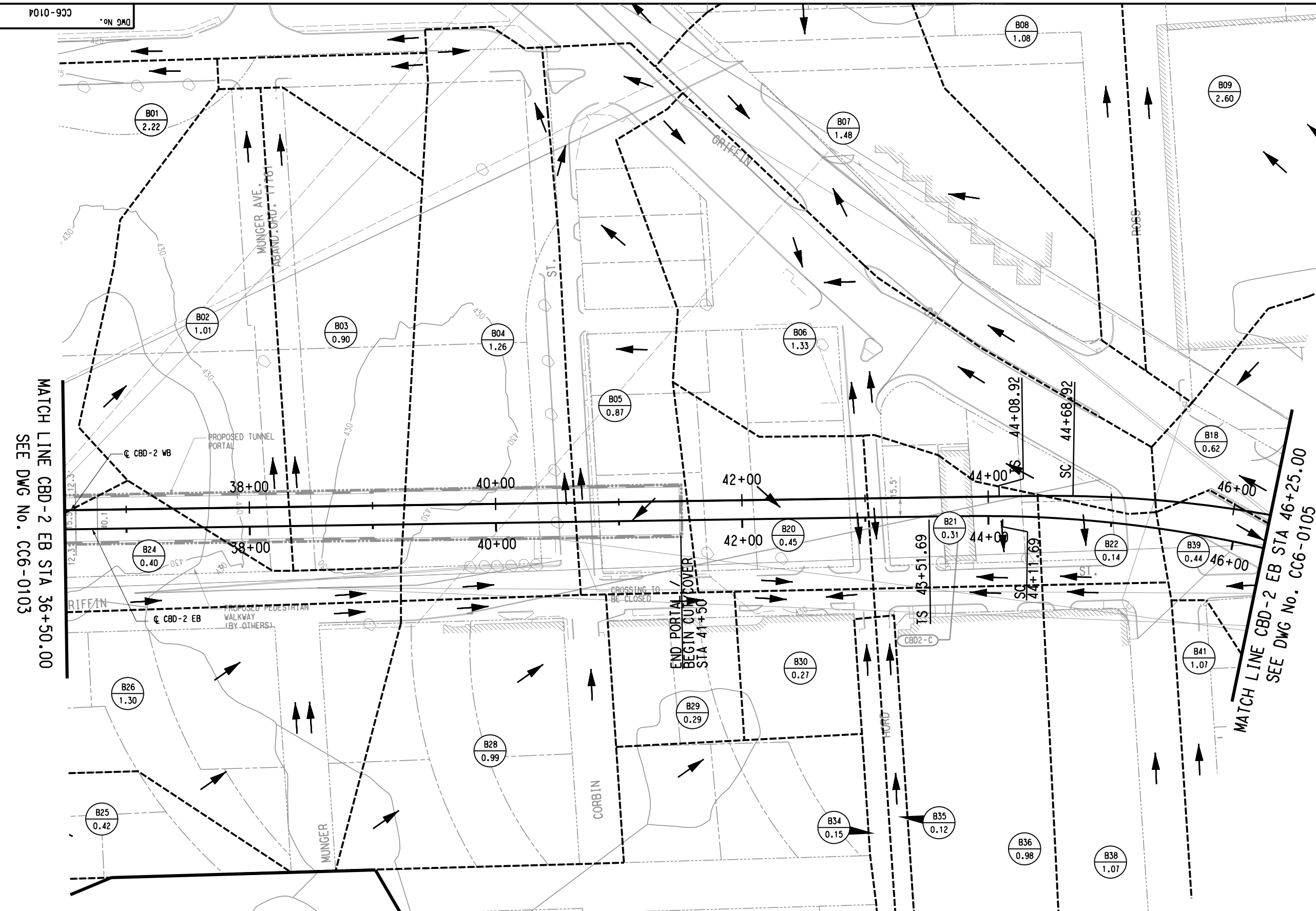
SCALE	1" = 40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No. CC6-0103	REV
----------	------------------	-----



SCALE (IN FEET)  
 0 20 40 80

- LEGEND
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - DRAINAGE AREA NUMBER
  - DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE



Friday, February 28, 2020 10:57:32 AM  
 \$\$\$\$\$GN\$SPECIFICATION\$\$\$\$\$\$\$\$

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 245 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**

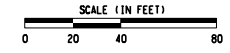
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 JEFFREY E. BRISCOE, P.E. NO. 99958 ON 03/06/2020  
 ICONIC CONSULTING GROUP, INC.  
 TBP# FIRM NO. F-10715  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



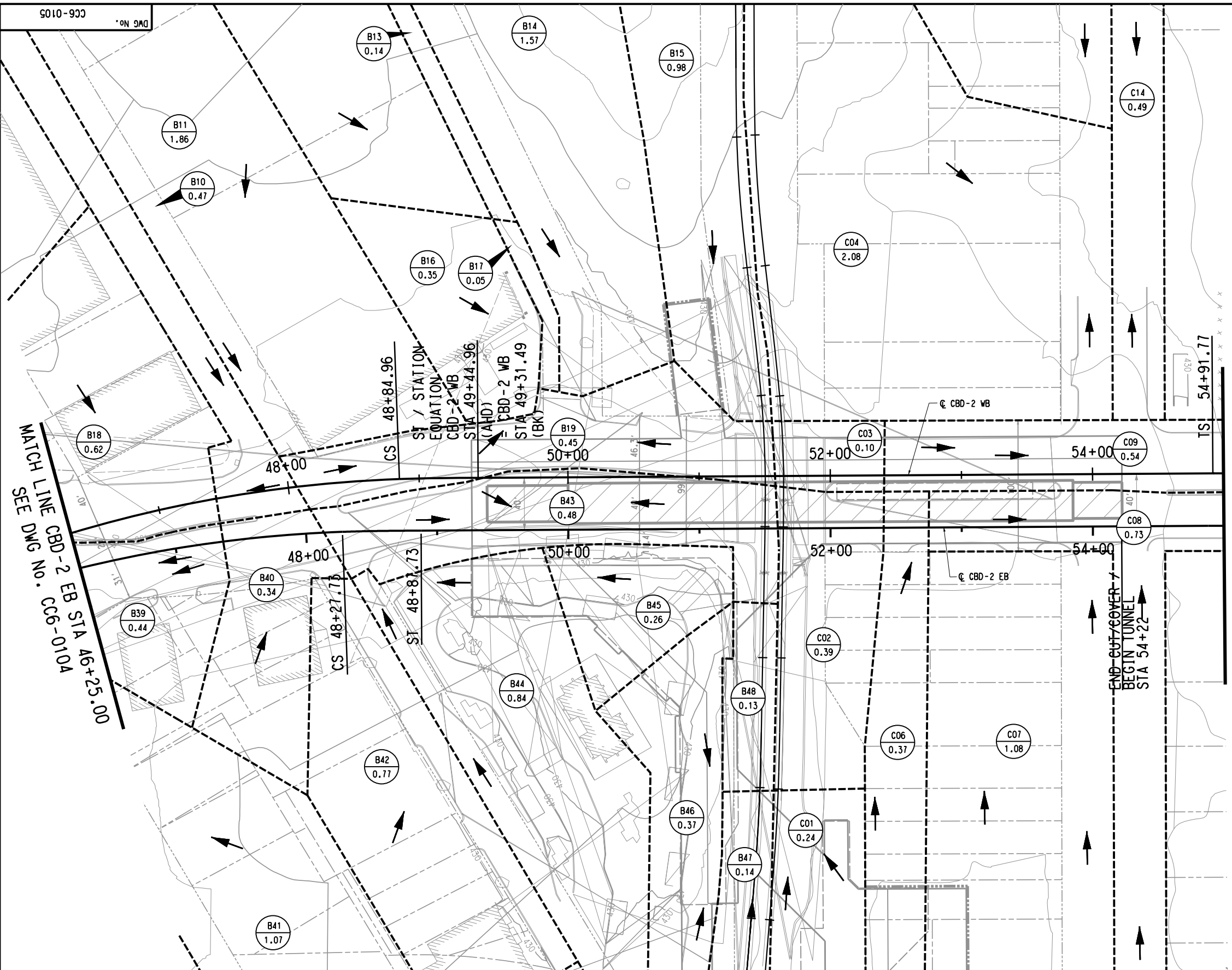
**DART PROJECT**

SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

<b>LIGHT RAIL TRANSIT SYSTEM LINE SECTION CBD-2</b>	
DRAINAGE AREA MAP SHEET 4 OF 13	
CONTRACT	DWG No. CC6-0104
REV	



- LEGEND
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - DRAINAGE AREA NUMBER  
DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE



MATCH LINE CBD-2 EB STA 46+25.00  
SEE DWG No. CC6-0104

MATCH LINE CBD-2 EB STA 55+00.00  
SEE DWG No. CC6-0106

Thursday, February 27, 2020 09:34:33 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 246 OF 276

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

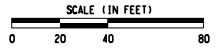
IN-PROGRESS  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JEFFREY E. BRISCOE, P.E. NO. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TYPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



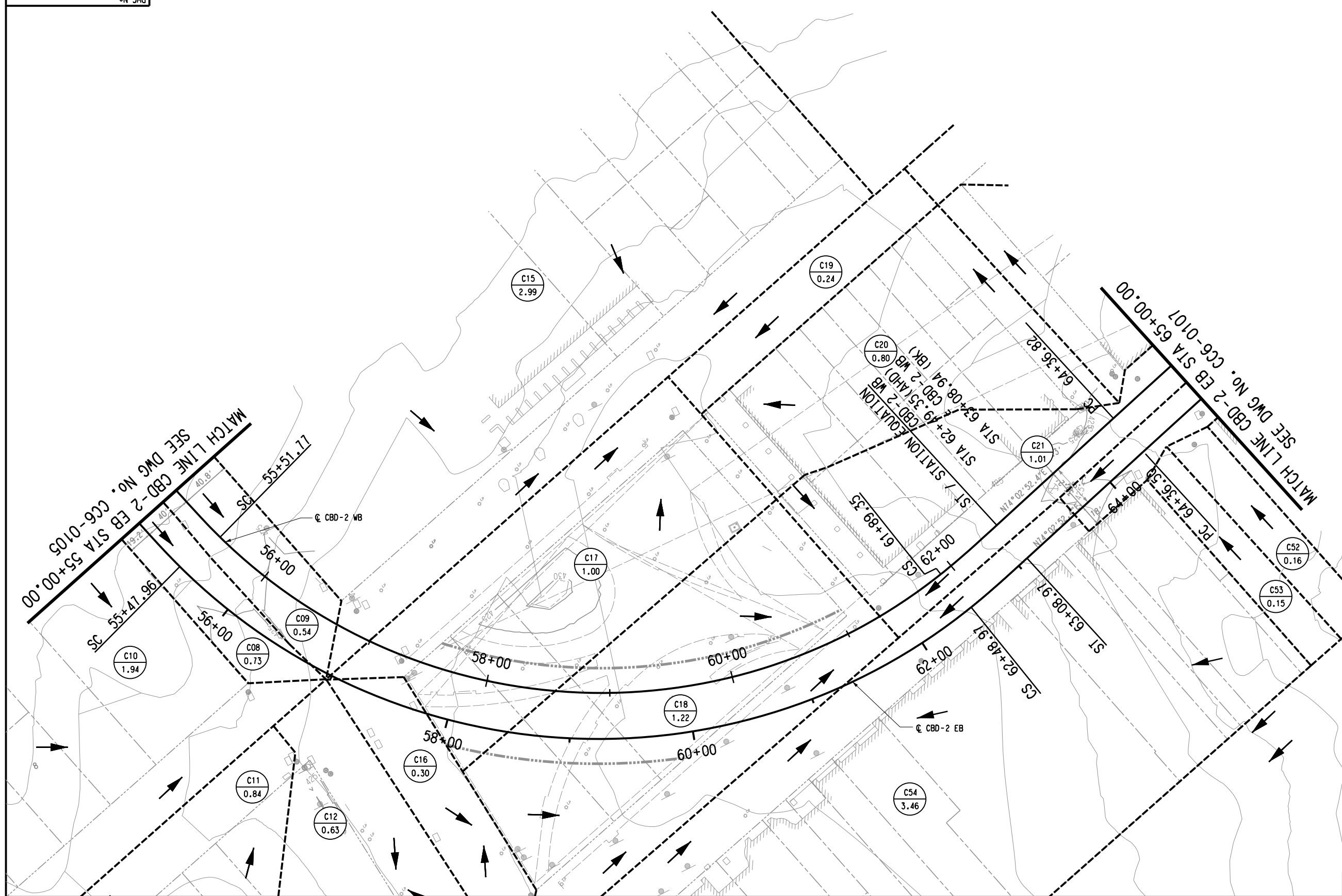
SCALE	1" = 40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
  
DRAINAGE AREA MAP  
SHEET 5 OF 13





- LEGEND**
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - (A-1) DRAINAGE AREA NUMBER  
2.5 DRAINAGE AREA IN ACRES
  - + RAIL CENTERLINE



NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 247 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

DRAINAGE AREA MAP  
SHEET 6 OF 13

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TYPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

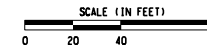
**DART PROJECT**

SCALE	1" = 40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No.	CC6-0106	REV
----------	---------	----------	-----

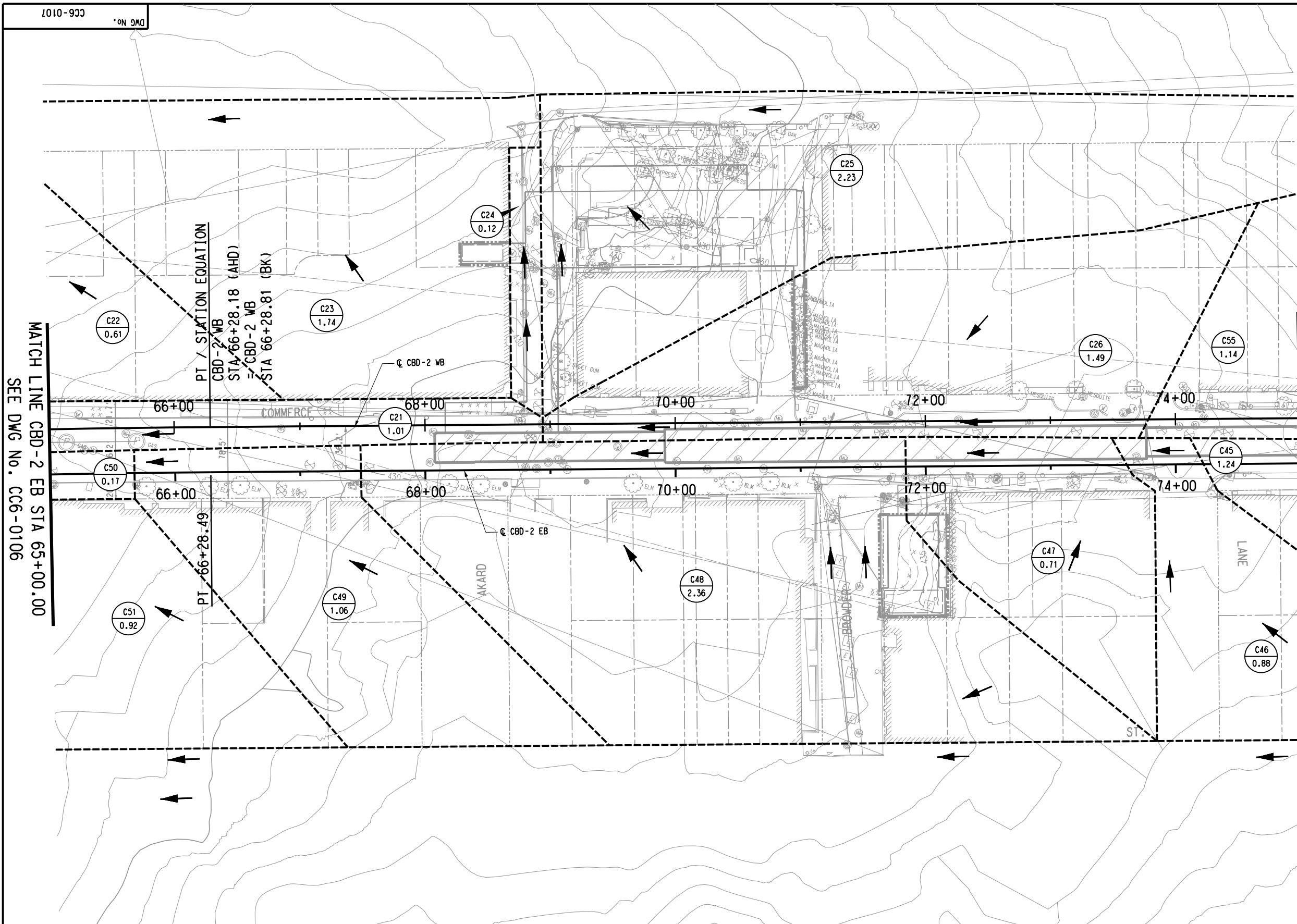
Thursday, February 27, 2020 09:39:37 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

Ks/ms



LEGEND

- DRAINAGE AREA BOUNDARY
- 100 YEAR FLOODPLAIN LIMITS
- DRAINAGE FLOW
- DRAINAGE AREA NUMBER
- DRAINAGE AREA IN ACRES
- RAIL CENTERLINE



MATCH LINE CBD-2 EB STA 65+00.00  
SEE DWG No. CC6-0106

MATCH LINE CBD-2 EB STA 75+00.00  
SEE DWG No. CC6-0108

Thursday, February 27, 2020 09:44:42 PM  
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

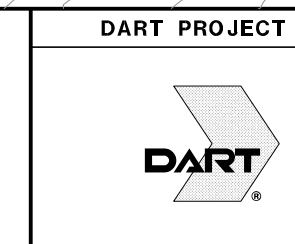
CONTRACT SHEET No. 248 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

DRAINAGE AREA MAP  
SHEET 7 OF 13

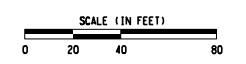
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

IN-PROGRESS  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JEFFREY E. BRISCOE, P.E. NO. 99558 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TQPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

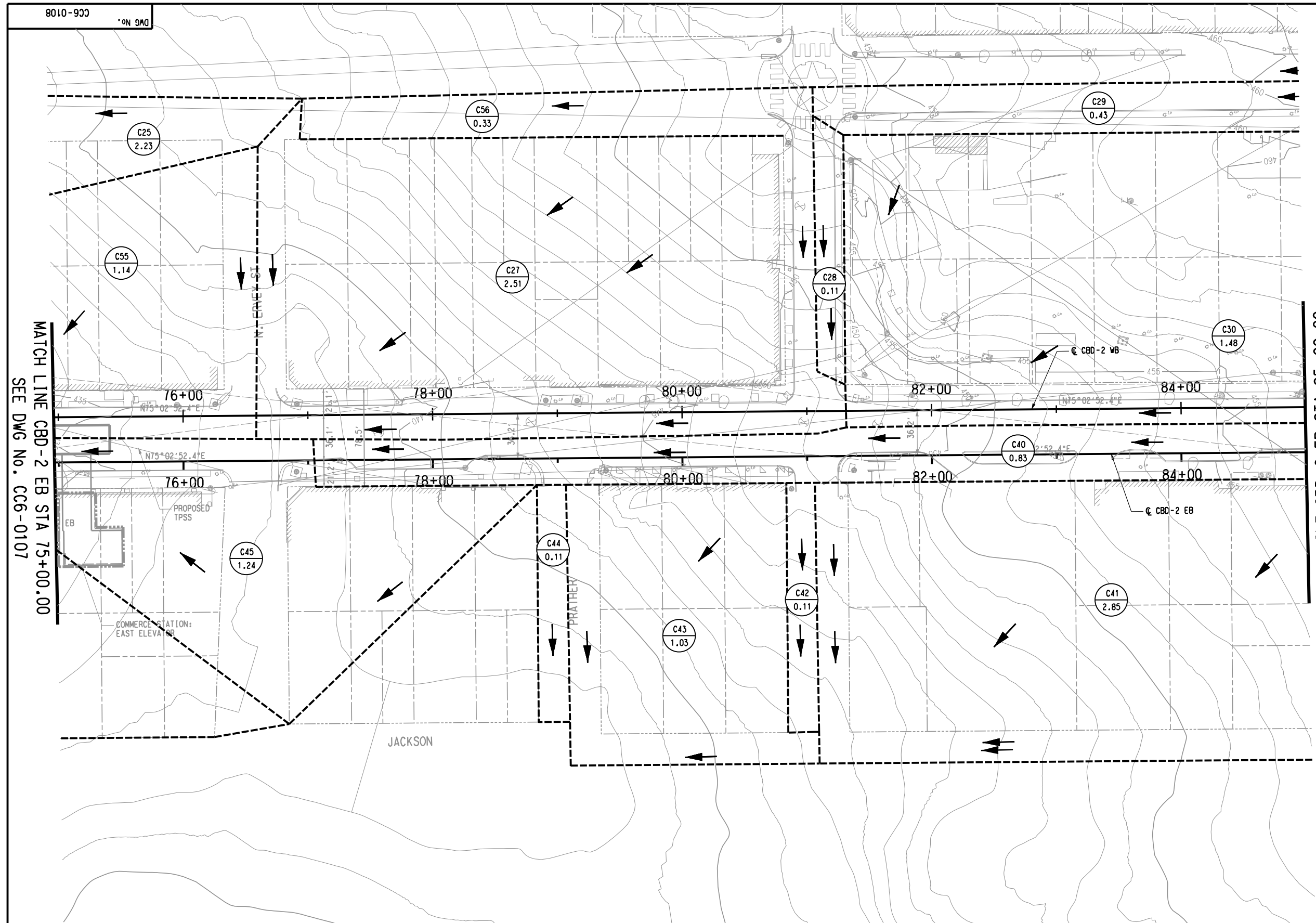


SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0107	



- LEGEND
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - ← DRAINAGE FLOW
  - (A-1) / (2.5) DRAINAGE AREA NUMBER / DRAINAGE AREA IN ACRES
  - + RAIL CENTERLINE



MATCH LINE CBD-2 EB STA 75+00.00  
SEE DWG No. CC6-0107

MATCH LINE CBD-2 EB STA 85+00.00  
SEE DWG No. CC6-0109

Thursday, February 27, 2020 09:50:09 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 249 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

DRAINAGE AREA MAP  
SHEET 8 OF 13

CONTRACT	DWG No.	REV
	CC6-0108	

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TQPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**DART PROJECT**

SCALE	1" = 40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

K5/MS



SCALE (IN FEET)  
0 20 40 80

- LEGEND
- DRAINAGE AREA BOUNDARY
  - - - 100 YEAR FLOODPLAIN LIMITS
  - ← DRAINAGE FLOW
  - (A-1) DRAINAGE AREA NUMBER
  - (2.5) DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE



Thursday, February 27, 2020 09:54:58 PM

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 250 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
DRAINAGE AREA MAP  
SHEET 9 OF 13

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



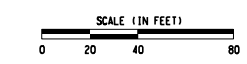
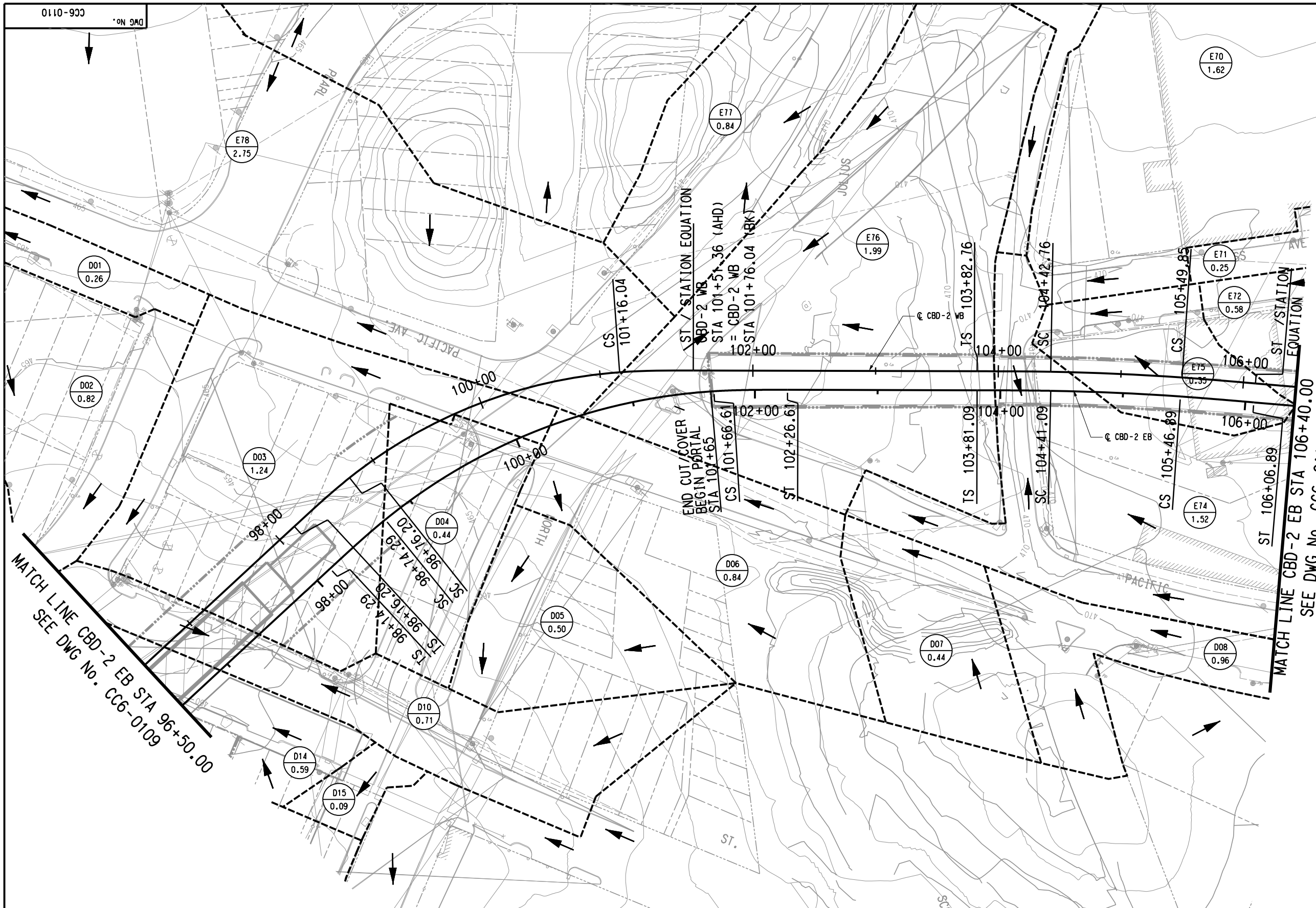


**DART PROJECT**



SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No.	REV
	CC6-0109	



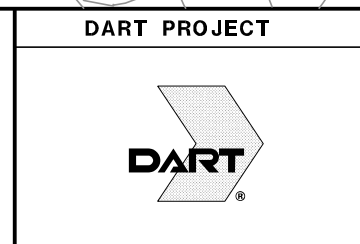
- LEGEND
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - A-1 --- DRAINAGE AREA NUMBER
  - 2.5 --- DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE

MATCH LINE CBD-2 EB STA 96+50.00  
SEE DWG No. CC6-0109

MATCH LINE CBD-2 EB STA 106+40.00  
SEE DWG No. CC6-0111

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TYPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



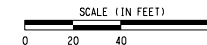
SCALE	1" = 40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 251 OF 276  
LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
DRAINAGE AREA MAP  
SHEET 10 OF 13

CONTRACT	DWG No.	REV
	CC6-0110	

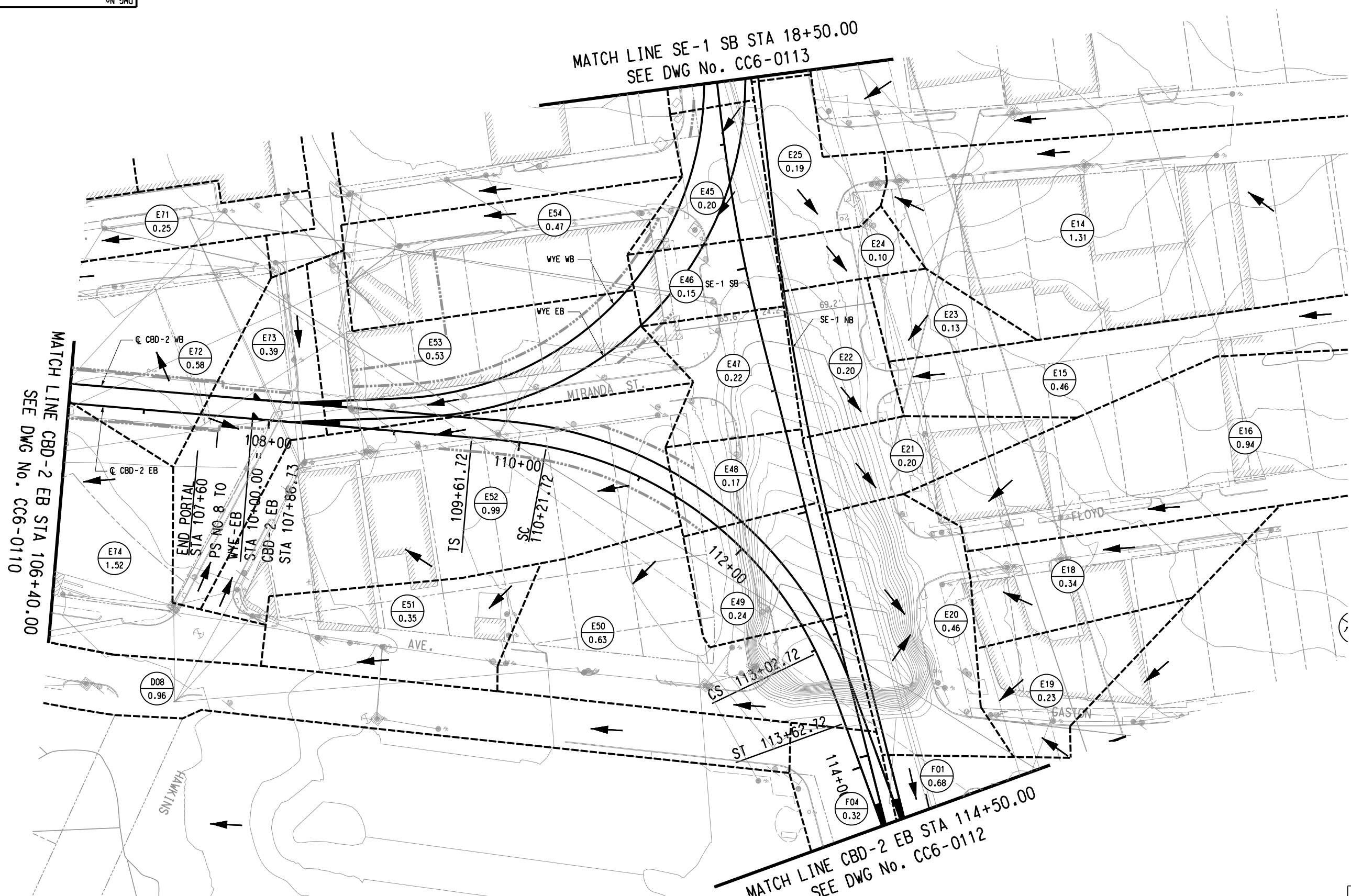
MATCH LINE SE-1 SB STA 18+50.00  
SEE DWG No. CC6-0113



- LEGEND
- DRAINAGE AREA BOUNDARY
  - 100 YEAR FLOODPLAIN LIMITS
  - DRAINAGE FLOW
  - DRAINAGE AREA NUMBER  
DRAINAGE AREA IN ACRES
  - RAIL CENTERLINE

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



Thursday, February 27, 2020 10:13:22 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 252 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

DRAINAGE AREA MAP  
SHEET 11 OF 13

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

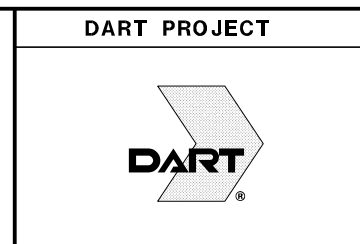
IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:

JEFFREY E. BRISCOE, P.E. NO. 99958 ON 03/06/2020

ICONIC CONSULTING GROUP, INC. TPE FIRM NO. F-10715

IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

SCALE 1"=40'

DRAWN K. SIMS

DESIGNED J. TAYLOR

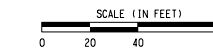
CHECKED J. HUDSON

IN CHARGE J. BRISCOE

DATE 03/06/2020

CONTRACT DWG No. CC6-0111 REV

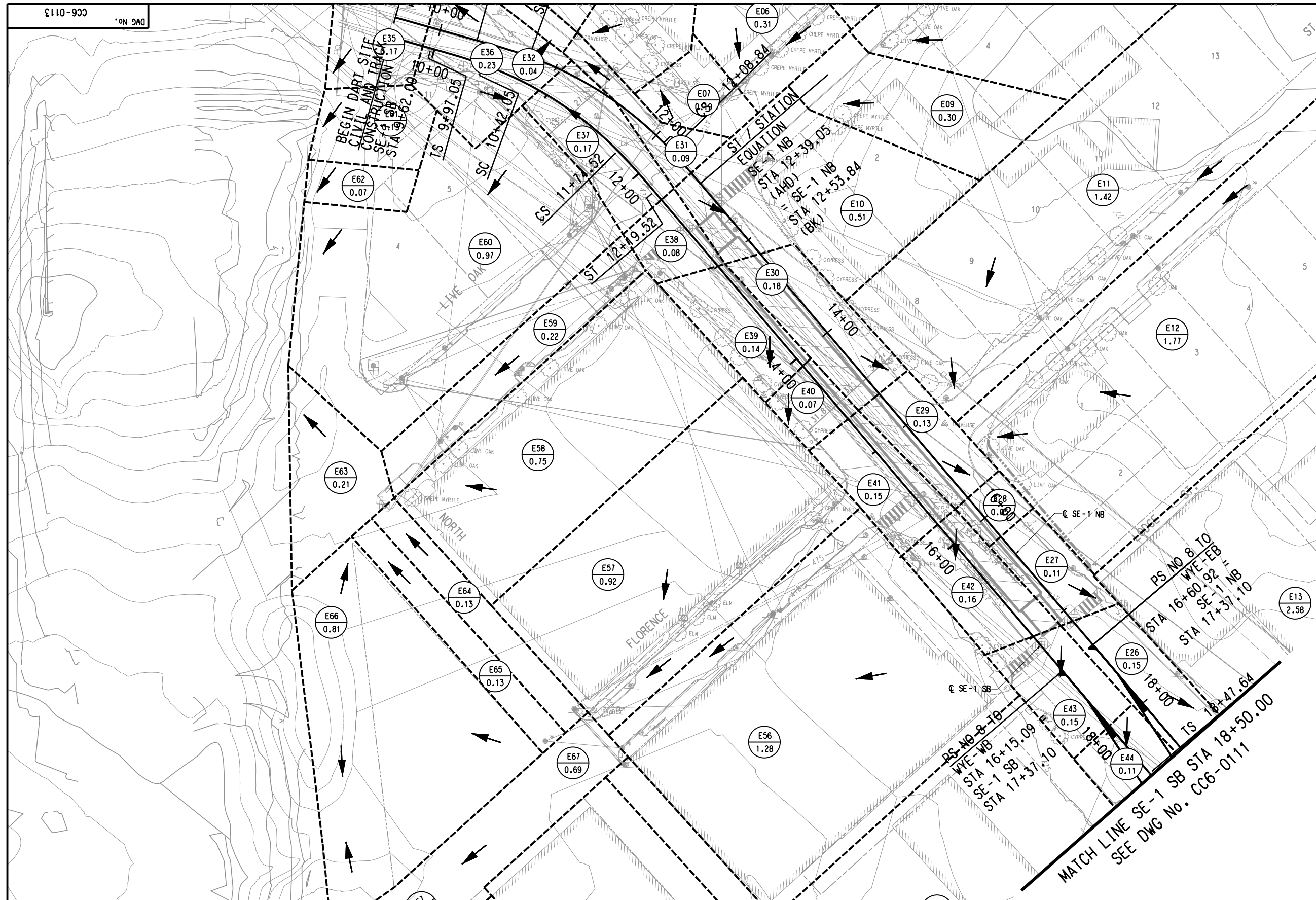




LEGEND

- DRAINAGE AREA BOUNDARY
- - - 100 YEAR FLOODPLAIN LIMITS
- ← DRAINAGE FLOW
- ⊖ A-1 DRAINAGE AREA NUMBER
- ⊖ 2.5 DRAINAGE AREA IN ACRES
- RAIL CENTERLINE

Thursday, February 20, 2020 04:38:08 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

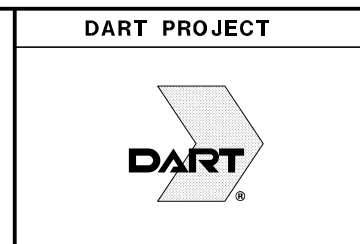


NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 254 OF 276

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC.  
TQPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1"=40'
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CAES CONTRACT DWG No. CC6-0113 REV

**LIGHT RAIL TRANSIT SYSTEM**  
LINE SECTION CBD-2

**DRAINAGE AREA MAP**  
SHEET 13 OF 13



DRAINAGE AREA SUMMARY TABLE						COMMENTS
DRAINAGE AREA NO.	AREA (ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	I (100-YR) (IN/HR)	Q (100 YR) (CFS)	
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						COMMENTS
DRAINAGE AREA NO.	AREA (ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	I (100-YR) (IN/HR)	Q (100 YR) (CFS)	
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 20% DESIGN

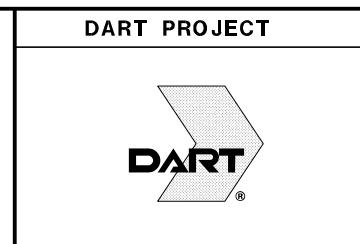
CONTRACT SHEET No. 255 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

DRAINAGE AREA CALCULATIONS  
SHEET 1 OF 3

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. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC. TBPE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

CONTRACT	DWG No.	CC6-0114	REV
----------	---------	----------	-----

DRAINAGE AREA SUMMARY TABLE						
DRAINAGE AREA NO.	AREA (ACRES)	RUNOFF COEFF. "C"	Tc (MIN.)	I (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.)	I (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.

Friday, February 28, 2020 12:04:30 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

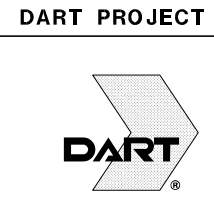
CONTRACT SHEET No. 256 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2  
DRAINAGE AREA CALCULATIONS  
SHEET 2 OF 3

CONTRACT DWG No. CC6-0115 REV

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

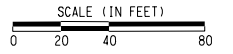
IN-PROGRESS  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
JEFFREY E. BRISCOE, P.E. NO. 99958 ON 03/06/2020  
ICONIC CONSULTING GROUP, INC. TPCE FIRM NO. F-10715  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	NO SCALE
DRAWN	K. SIMS
DESIGNED	J. TAYLOR
CHECKED	J. HUDSON
IN CHARGE	J. BRISCOE
DATE	03/06/2020

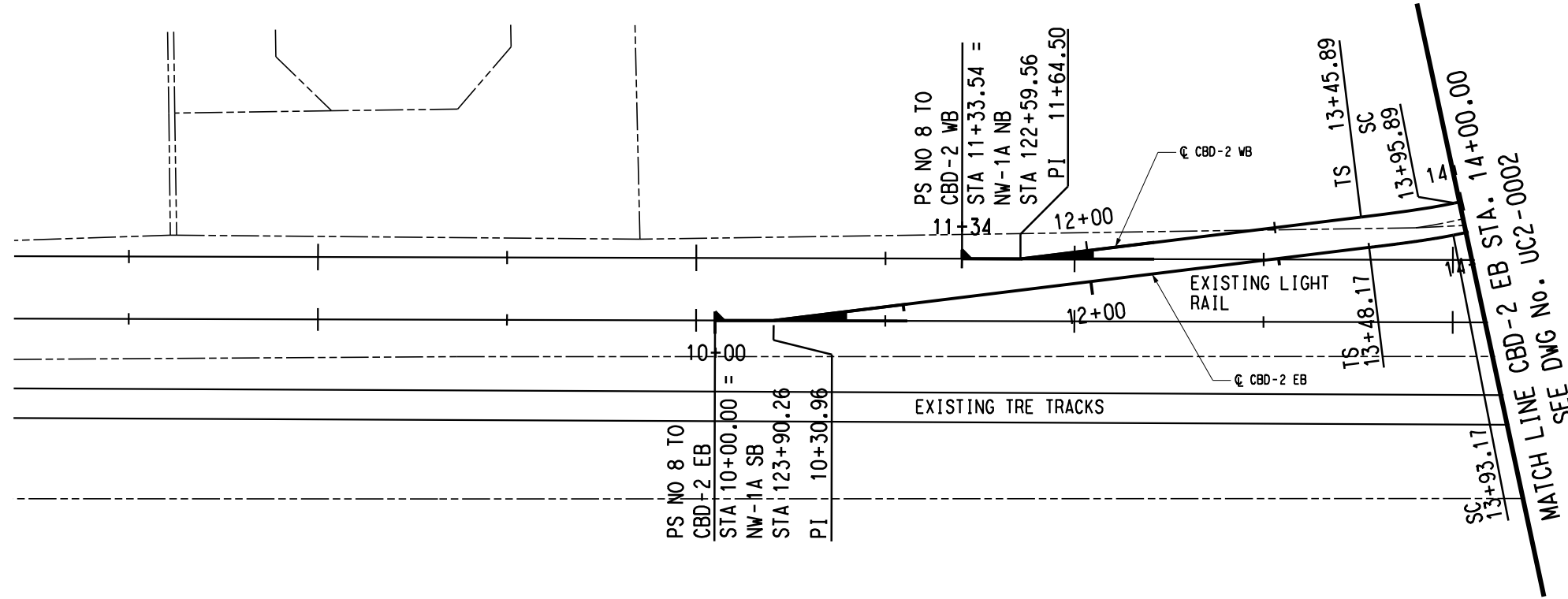
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$





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 20% DESIGN

CONTRACT SHEET No. 258 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
BEGIN PROJECT TO STA 14+00.00

CONTRACT DWG No. UC2-0001 REV

Friday, February 28, 2020 01:46:04 PM

Hasan Raza

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 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TPEE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT



SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

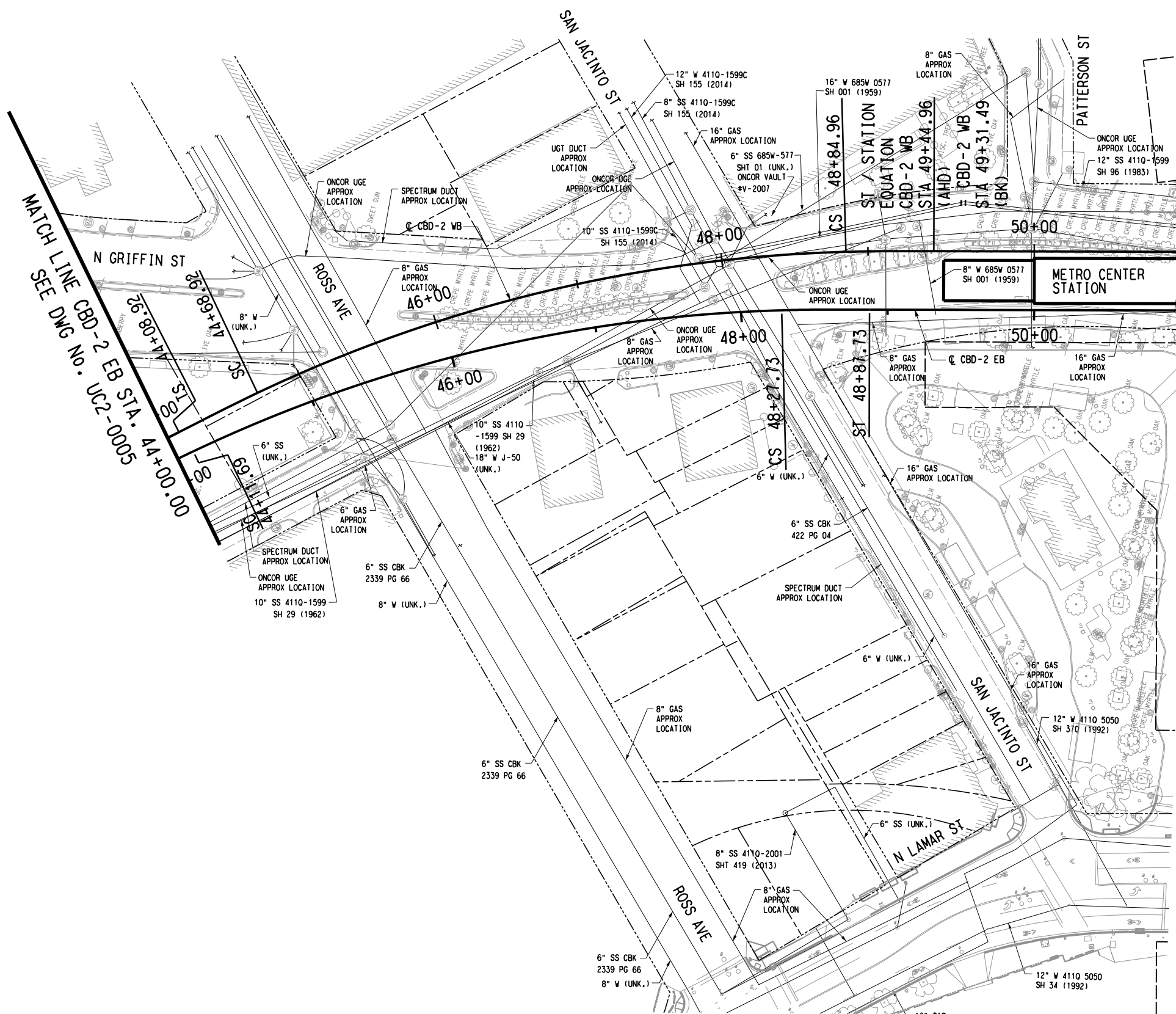
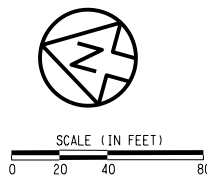












MATCH LINE CBD-2 EB STA. 44+00.00  
SEE DWG No. UC2-0005

MATCH LINE CBD-2 EB STA. 51+00.00  
SEE DWG No. UC2-0007

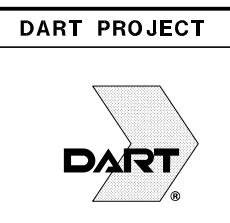
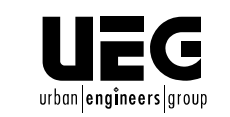
NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:47:17 PM

Hasan Raza

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 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TYPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

**NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN**

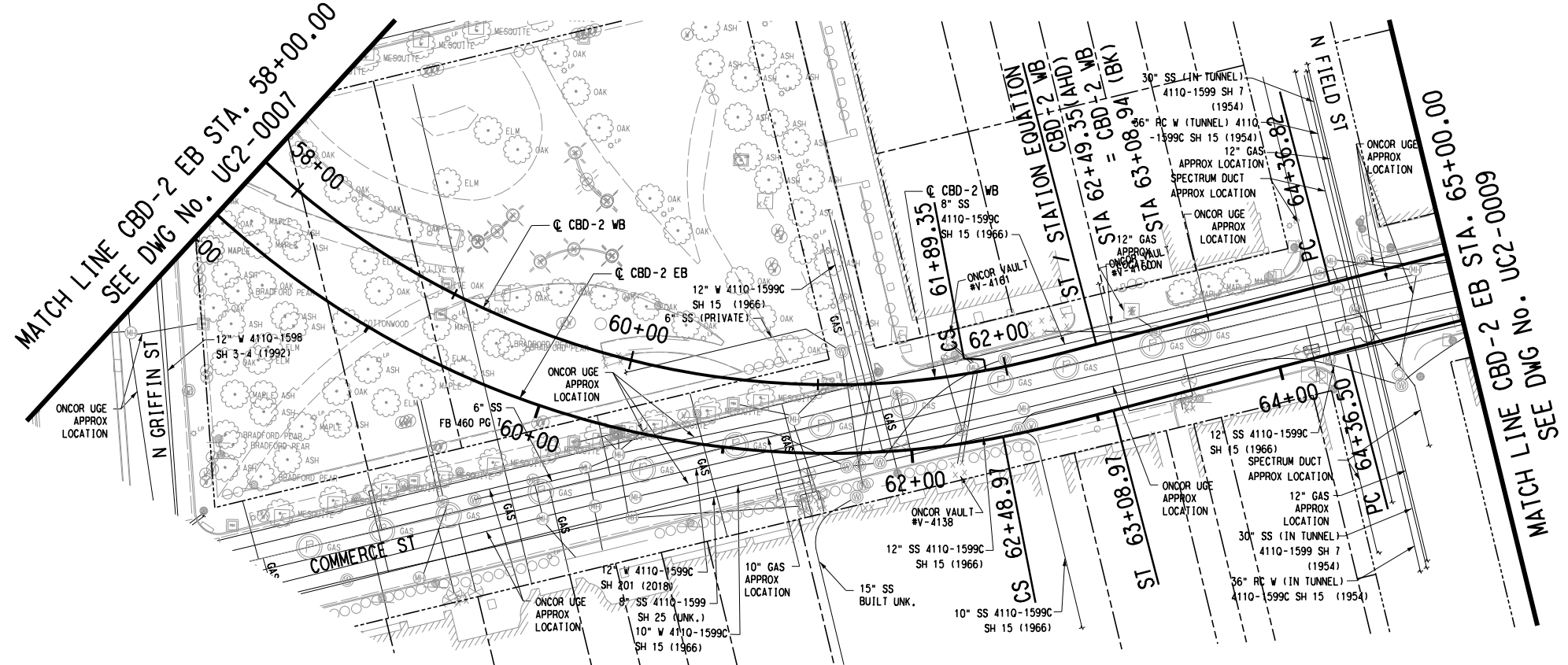
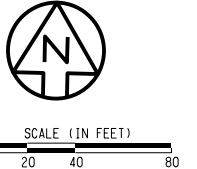
CONTRACT SHEET No. 263 OF 276

**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**

EXISTING UTILITY COMPOSITE  
STA 44+00.00 TO STA 51+00.00

CONTRACT	DWG No. UC2-0006	REV
----------	------------------	-----





NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 265 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
STA 58+00.00 TO STA 65+00.00

CONTRACT DWG No. UC2-0008 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
FAISAL S. SYED, P.E., NO. 84833 ON 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

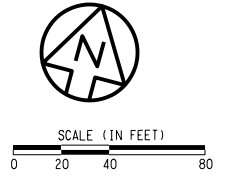


SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

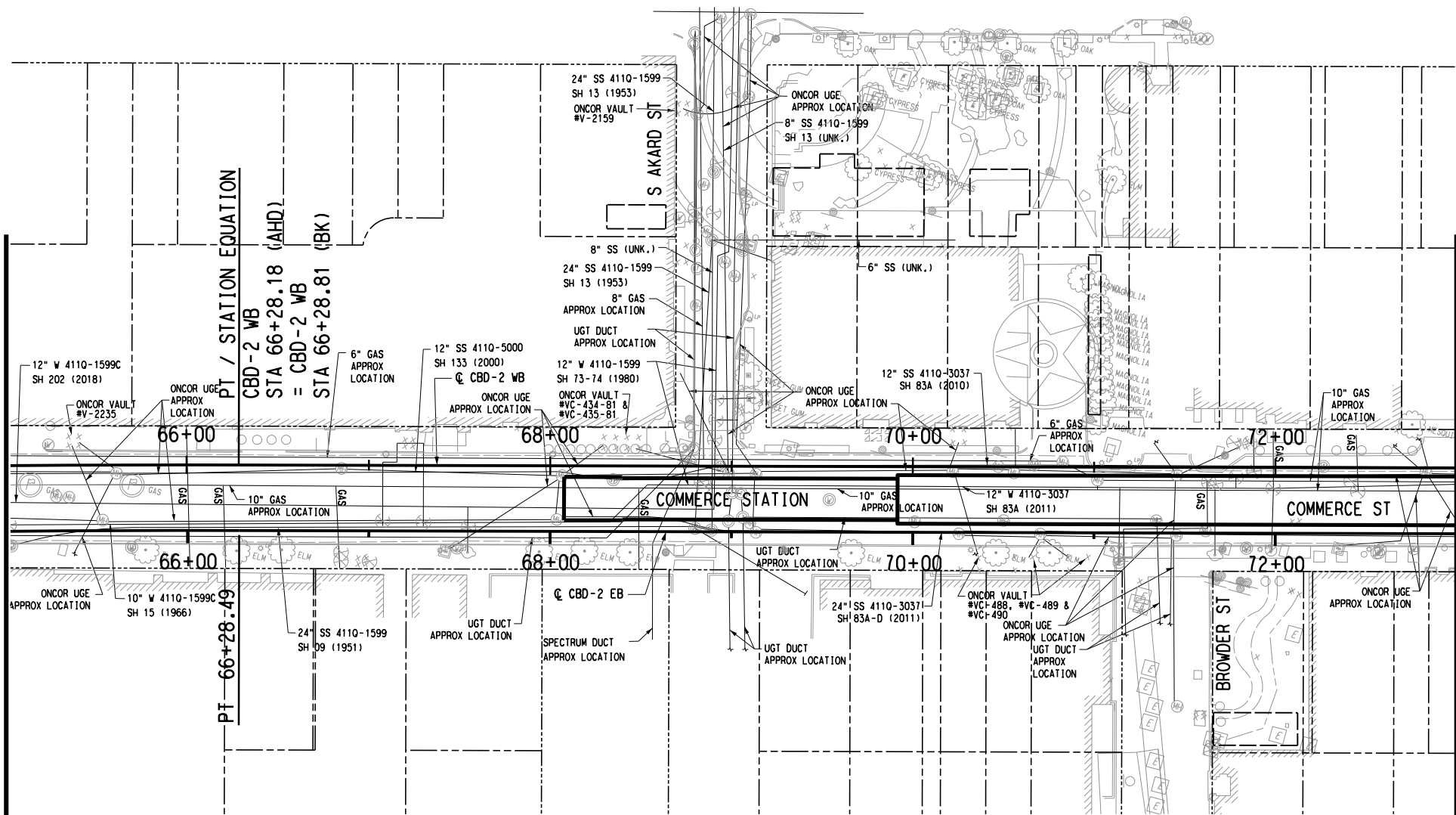
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 01:47:46 PM

Hasan Raza



MATCH LINE CBD-2 EB STA. 65+00.00  
SEE DWG No. UC2-0008



MATCH LINE CBD-2 EB STA. 73+00.00  
SEE DWG No. UC2-0010

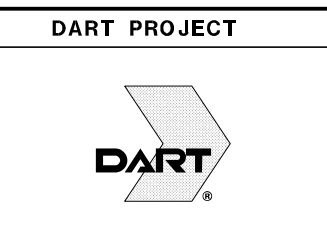
NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:47:58 PM  
\$\$\$\$\$DGN\$SPECIFICATION\$\$\$\$\$

Hason Raza

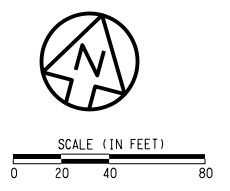
REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

**IN-PROGRESS**  
THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
FAISAL S. SYED, P.E., NO. 84833  
ON 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

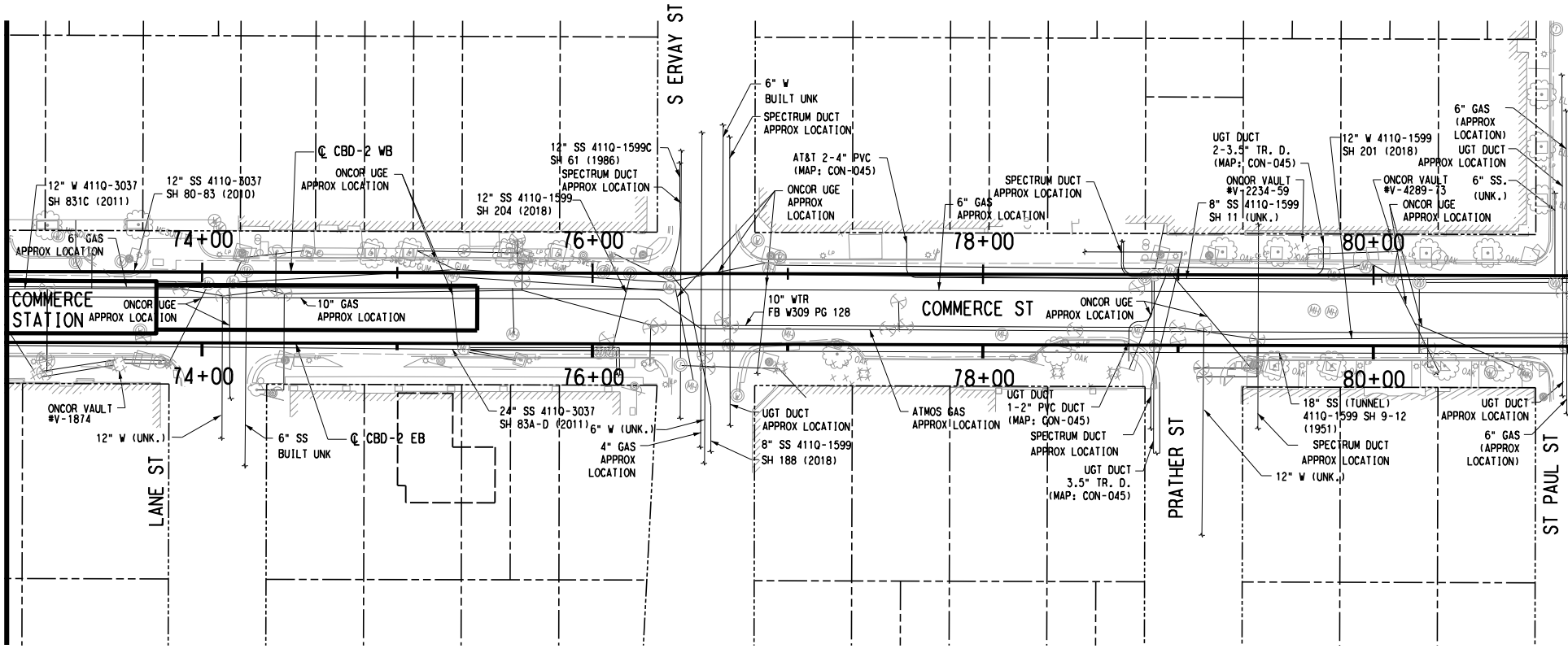


SCALE	1" = 40'
DRAWN	L. WYNDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN  
CONTRACT SHEET No. 266 OF 276  
**LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2**  
EXISTING UTILITY COMPOSITE  
STA 65+00.00 TO STA 73+00.00  
CONTRACT DWG No. UC2-0009 REV



MATCH LINE CBD-2 EB STA. 73+00.00  
SEE DWG No. UC2-0009



MATCH LINE CBD-2 EB STA. 81+00.00  
SEE DWG No. UC2-0011

- NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:48:09 PM

Hasan Raza

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 267 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
STA 73+00.00 TO STA 81+00.00

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
FAISAL S. SYED, P.E., NO. 84633  
ON 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



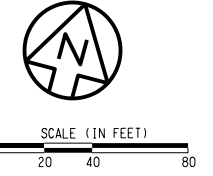
**DART PROJECT**



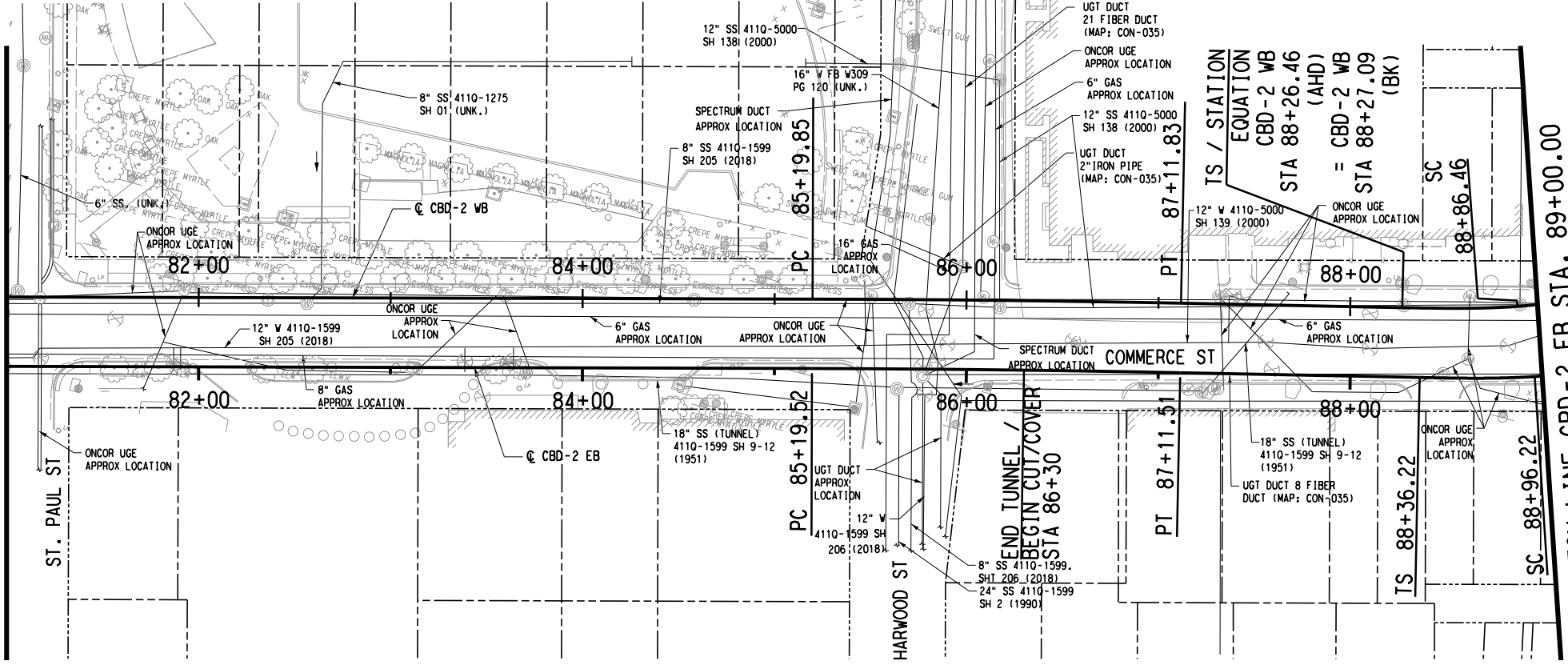
SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

CONTRACT	DWG No. UC2-0010	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



MATCH LINE CBD-2 EB STA. 81+00.00  
SEE DWG No. UC2-0010



MATCH LINE CBD-2 EB STA. 89+00.00  
SEE DWG No. UC2-0012

- NOTES:
- SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 268 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
STA 81+00.00 TO STA 89+00.00

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. 84633  
ON 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TYPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

**UEG**  
urban engineers group

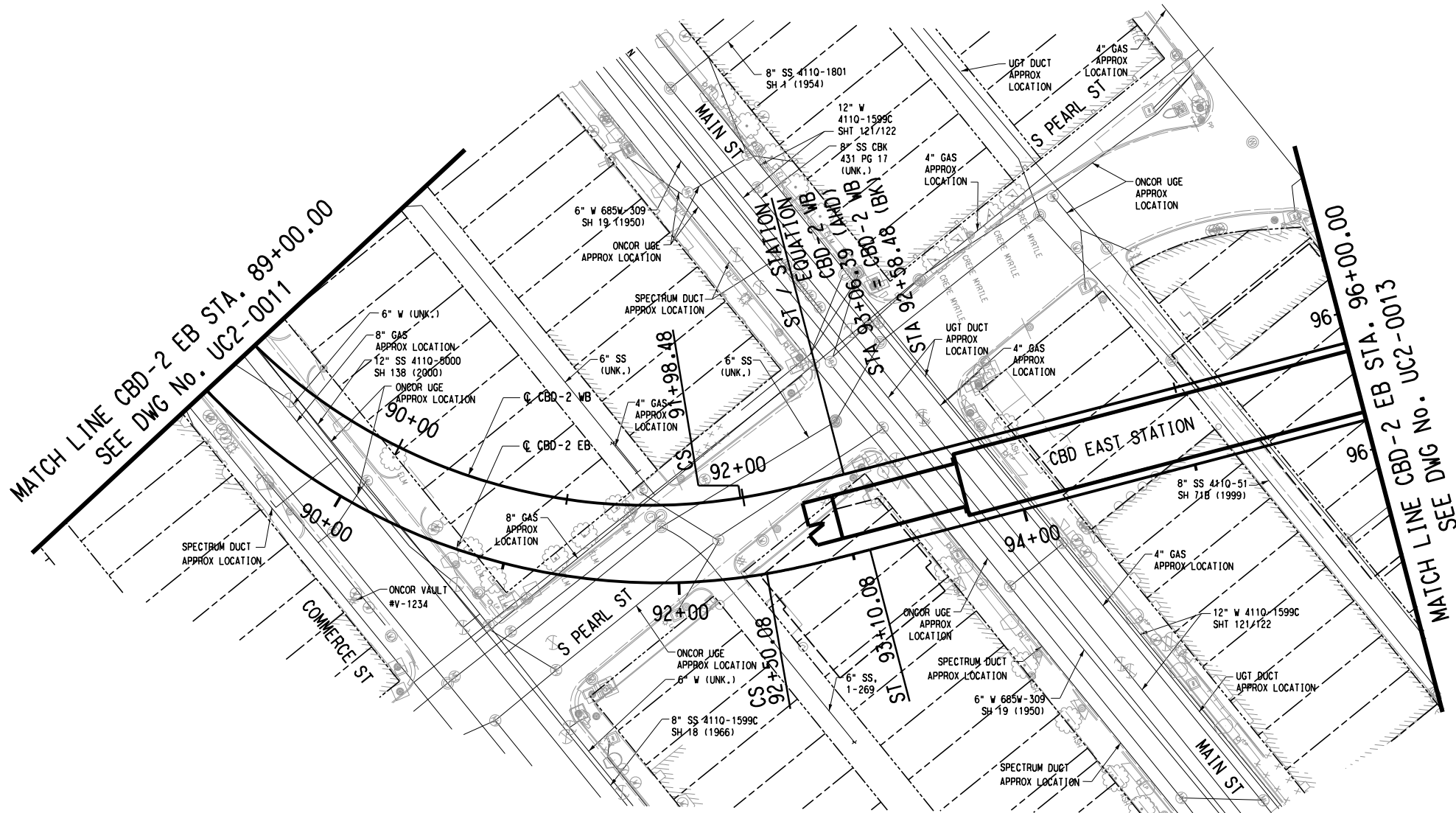
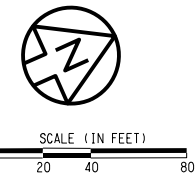
**DART PROJECT**

SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

CONTRACT	DWG No. UC2-0011	REV
----------	------------------	-----

Friday, February 28, 2020 01:48:23 PM

Hasan Raza



NOTES:  
 1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:48:36 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$\$\$

Hasan Raza

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 269 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
 STA 89+00.00 TO STA 96+00.00

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 FAISAL S. SYED, P.E., NO. 84833 ON 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**

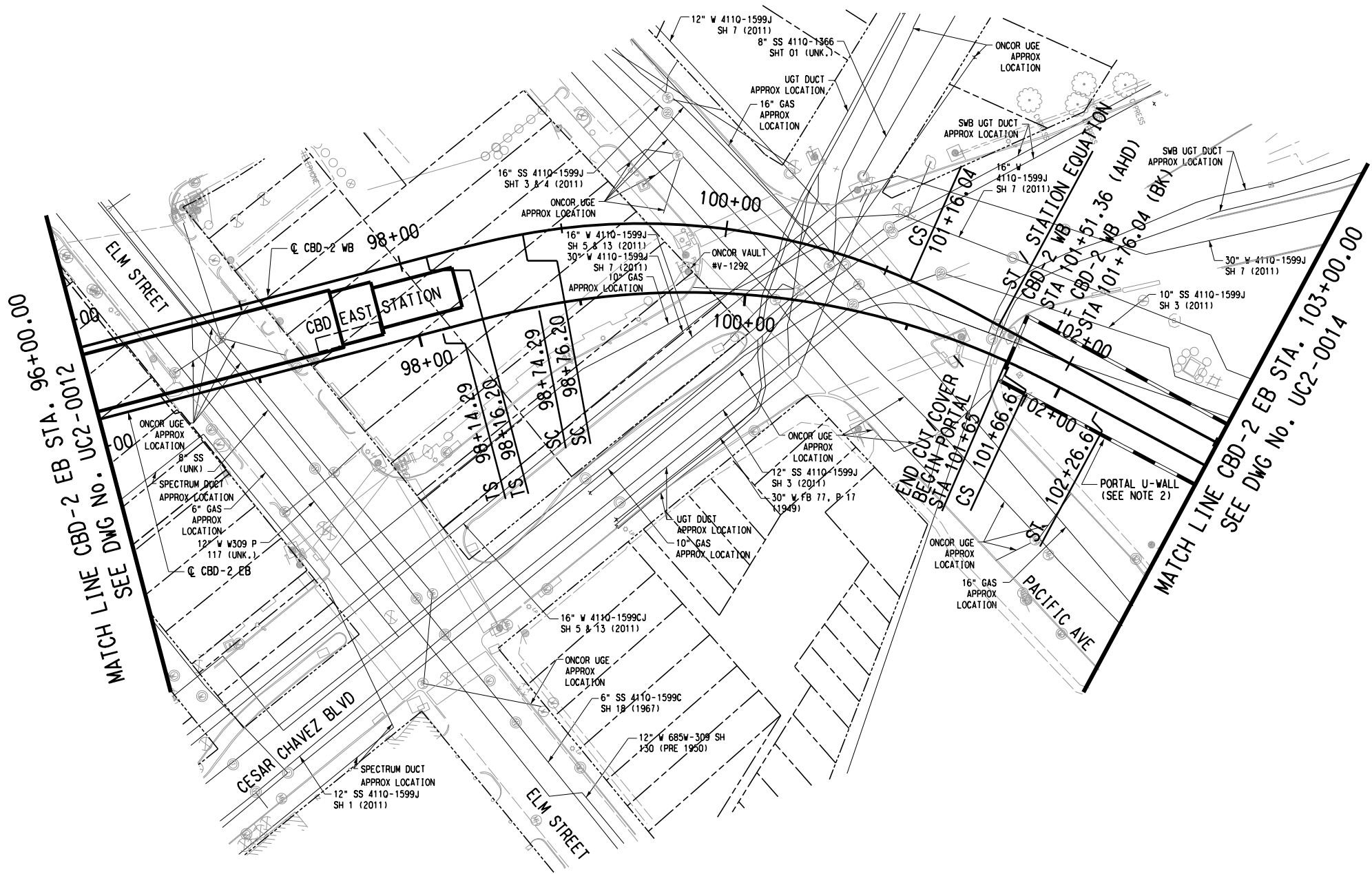
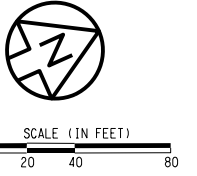


SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020



CONTRACT	DWG No. UC2-0012	REV
----------	------------------	-----

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP



- NOTES:
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
  2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

Friday, February 28, 2020 01:48:49 PM

Hasan Raza

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 FAISAL S. SYED, P.E., NO. 84833 ON 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



**DART PROJECT**



SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 270 OF 276

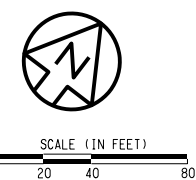
**LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2**

EXISTING UTILITY COMPOSITE  
 STA 96+00.00 TO STA 103+00.00

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

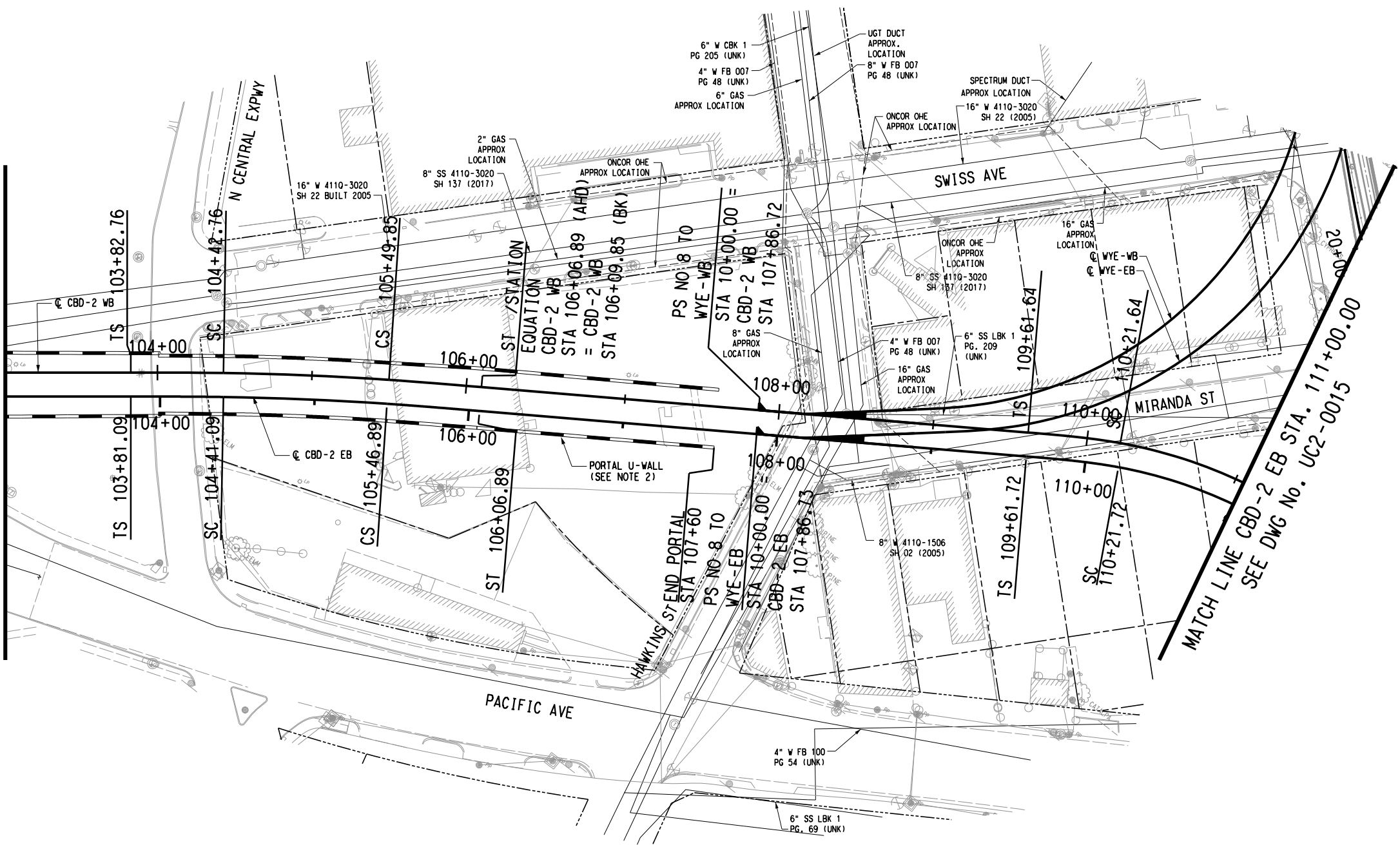
\$\$\$\$\$DN\$SPECIFICATION\$\$\$\$\$





MATCH LINE CBD-2 EB STA. 103+00.00  
SEE DWG No. UC2-0013

MATCH LINE CBD-2 EB STA. 111+00.00  
SEE DWG No. UC2-0015



NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.  
2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

Friday, February 28, 2020 03:31:49 PM  
\$\$\$\$DGN\$SPECIFICATION\$\$\$\$

Hasan Raza

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 271 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
STA 103+00.00 TO STA 111+00.00

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 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



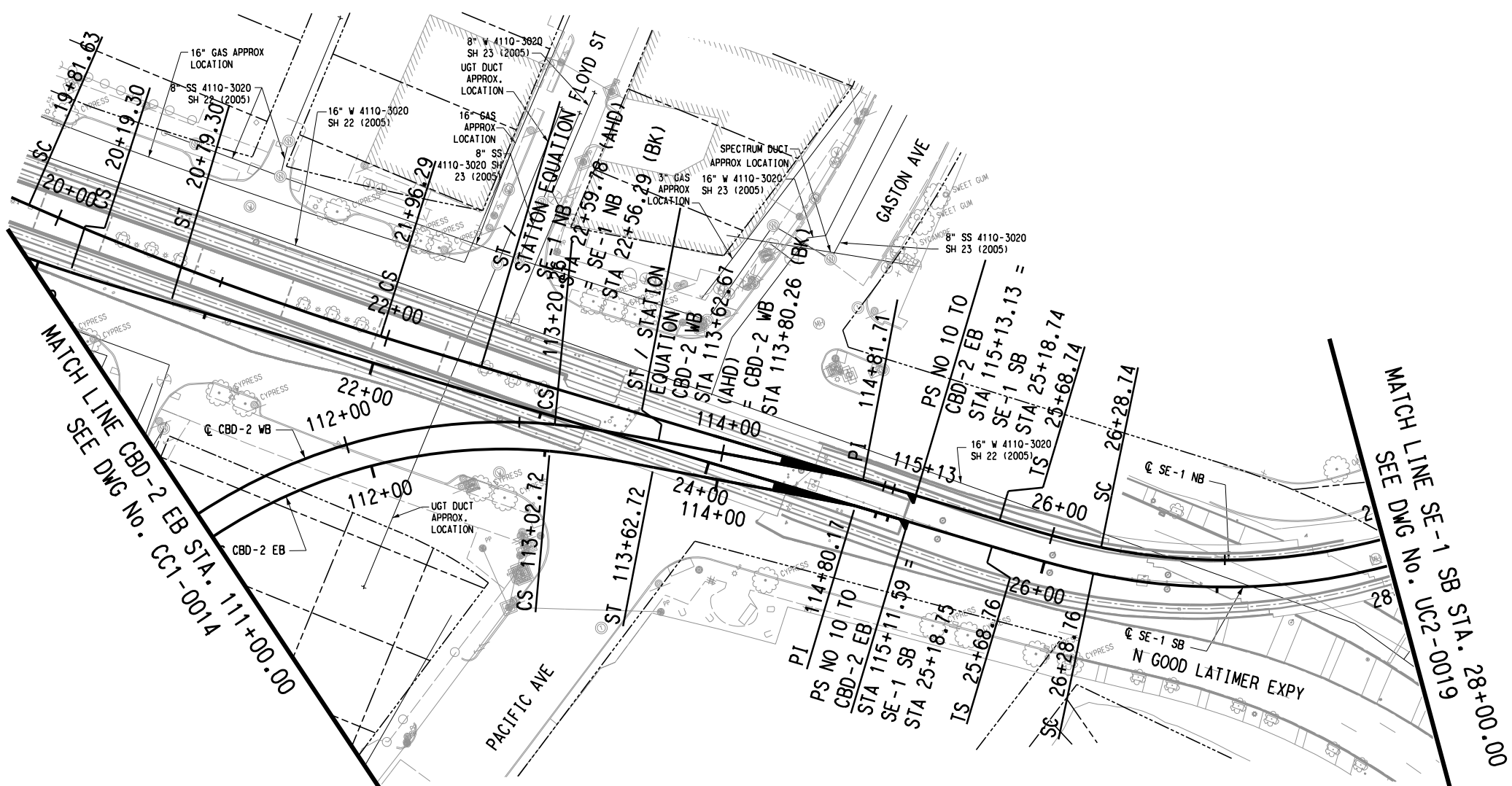
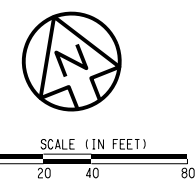
DART PROJECT



SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020



CONTRACT	DWG No.	UC2-0014	REV
----------	---------	----------	-----



NOTES:  
 1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:49:18 PM  
 \$\$\$\$\$GNSPECIFICATION\$\$\$\$\$\$\$\$\$

Hasan Raza

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 272 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE  
 STA 111+00.00 TO SE-1 STA. 28+00.00

**IN-PROGRESS**

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 FAISAL S. SYED, P.E., NO. 84833 ON 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPEE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



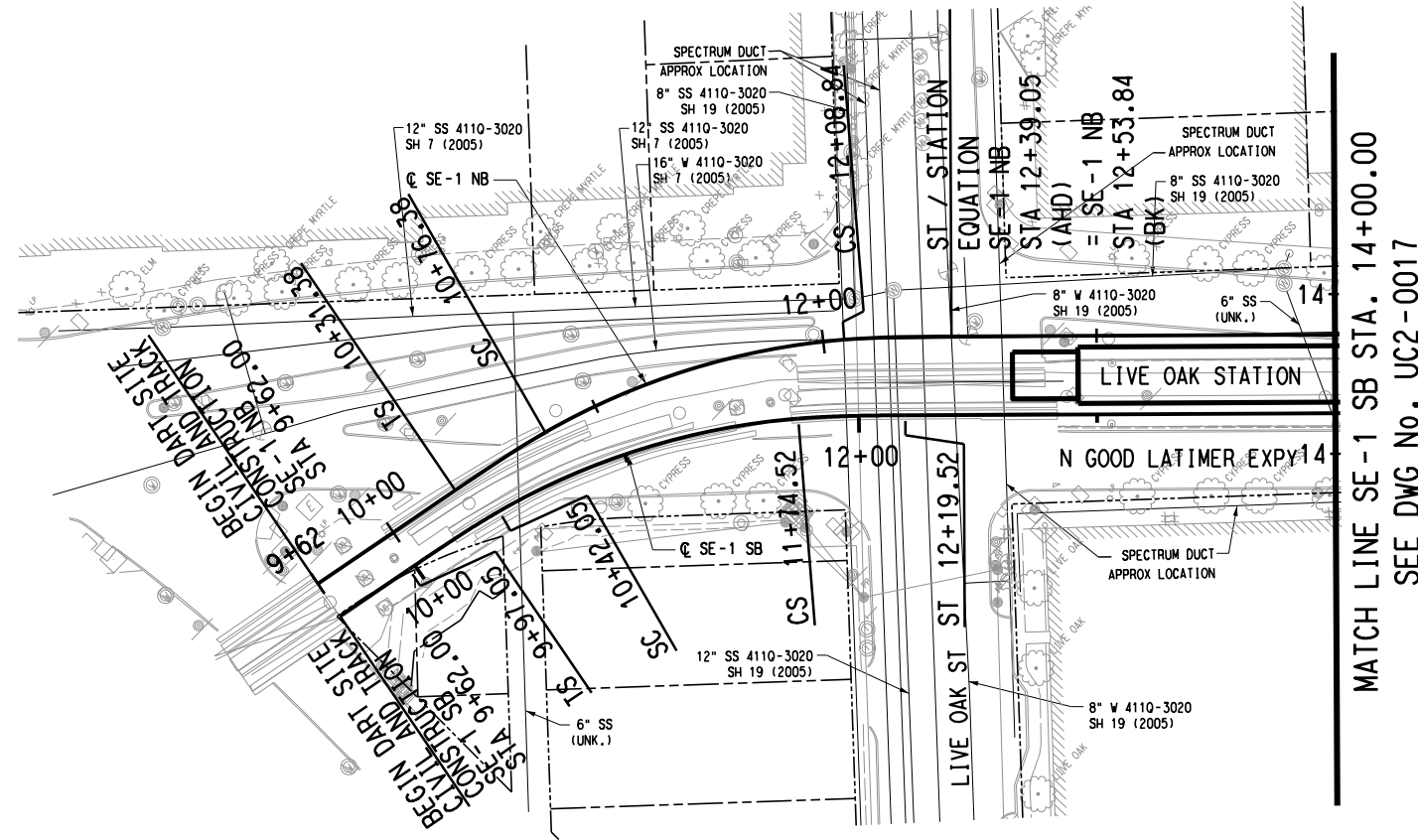
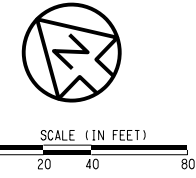
**DART PROJECT**



SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

CONTRACT	DWG No. UC2-0015	REV
----------	------------------	-----



NOTES:  
 1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 273 OF 276

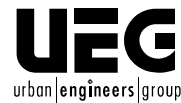
LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

SE-1 SB  
 EXISTING UTILITY COMPOSITE  
 BEGIN PROJECT TO STA 14+00.00

CONTRACT DWG No. UC2-0016 REV

IN-PROGRESS

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:  
 FAISAL S. SYED, P.E., NO. 84833 ON 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



DART PROJECT

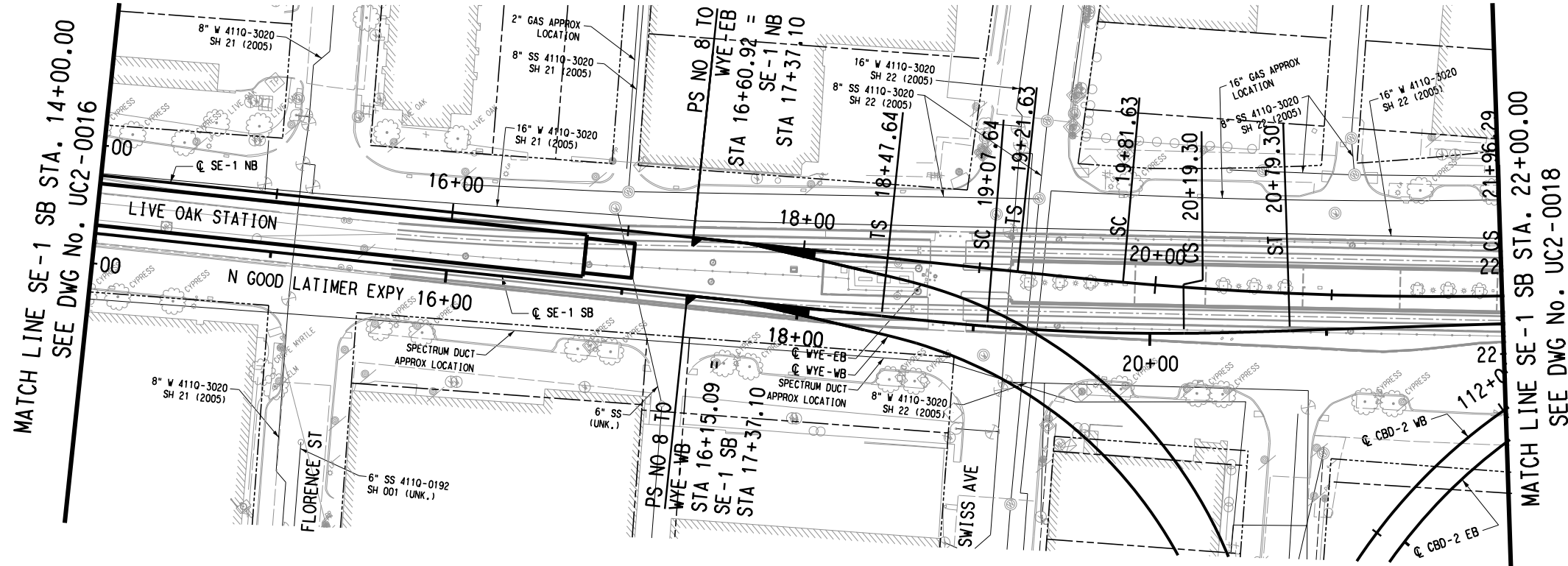
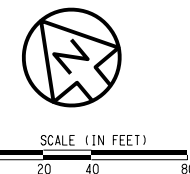


SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

REV	AMEND	CR	DATE	DESCRIPTION	BY	ENG	CHK	APP

Friday, February 28, 2020 01:49:33 PM

Hasan Raza



NOTES:  
 1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

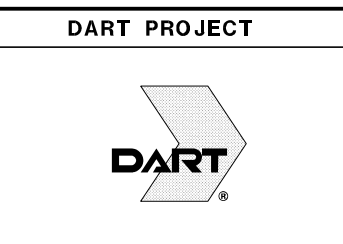
CONTRACT SHEET No. 274 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2

SE-1 SB  
 EXISTING UTILITY COMPOSITE  
 STA 14+00.00 TO STA 22+00.00

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 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

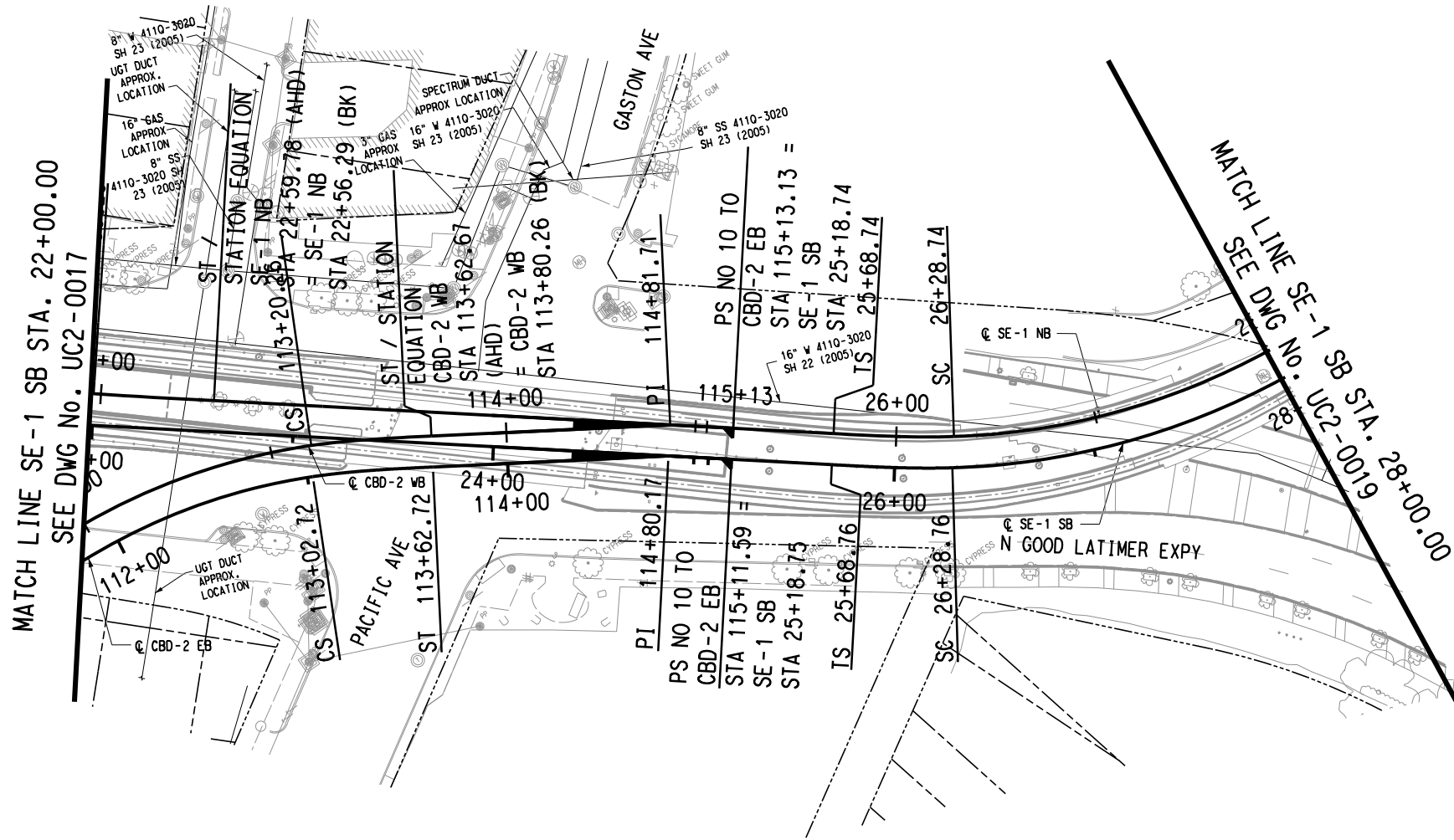
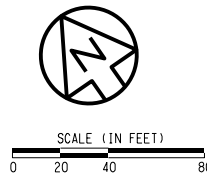


SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

CONTRACT	DWG No. UC2-0017	REV
----------	------------------	-----

Friday, February 28, 2020 01:50:15 PM  
 \$\$\$SDGN\$SPECIFICATION\$\$\$\$\$\$

Hasan Raza



NOTES:  
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

NOT FOR CONSTRUCTION  
NOT AN APPROVED DRAWING  
PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 275 OF 276

LIGHT RAIL TRANSIT SYSTEM  
LINE SECTION CBD-2

SE-1 SB  
EXISTING UTILITY COMPOSITE  
STA 22+00.00 TO STA 28+00.00

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 03/06/2020  
URBAN ENGINEERS GROUP, INC.  
TYPE FIRM NO. F-5332  
IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.

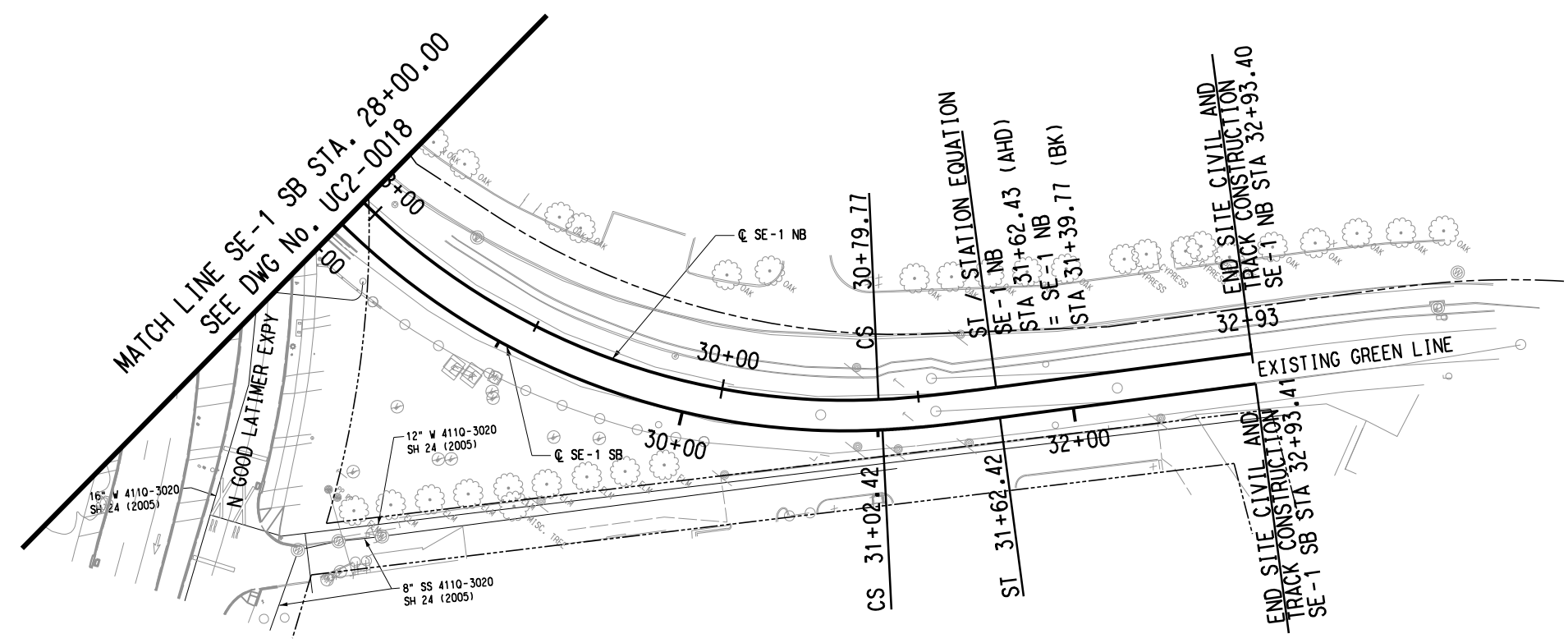
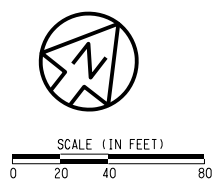


SCALE	1" = 40'
DRAWN	L. WYANDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

CONTRACT	DWG No. UC2-0018	REV
----------	------------------	-----

Friday, February 28, 2020 01:50:40 PM

Hasan Raza



NOTES:  
 1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Friday, February 28, 2020 01:51:13 PM  
 \$\$\$\$\$\$SPECIFICATION\$\$\$\$\$\$

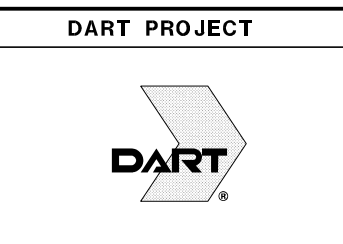
NOT FOR CONSTRUCTION  
 NOT AN APPROVED DRAWING  
 PRELIMINARY 20% DESIGN

CONTRACT SHEET No. 276 OF 276

LIGHT RAIL TRANSIT SYSTEM  
 LINE SECTION CBD-2  
 SE-1 SB  
 EXISTING UTILITY COMPOSITE  
 STA 28+00.00 TO END PROJECT

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 03/06/2020  
 URBAN ENGINEERS GROUP, INC.  
 TPEE FIRM NO. F-5332  
 IT IS NOT TO BE USED FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.



SCALE	1" = 40'
DRAWN	L. WYNDON
DESIGNED	H. RAZA
CHECKED	UEG
IN CHARGE	F. SYED
DATE	03/06/2020

CONTRACT	DWG No. UC2-0019	REV
----------	------------------	-----

Hasan Raza