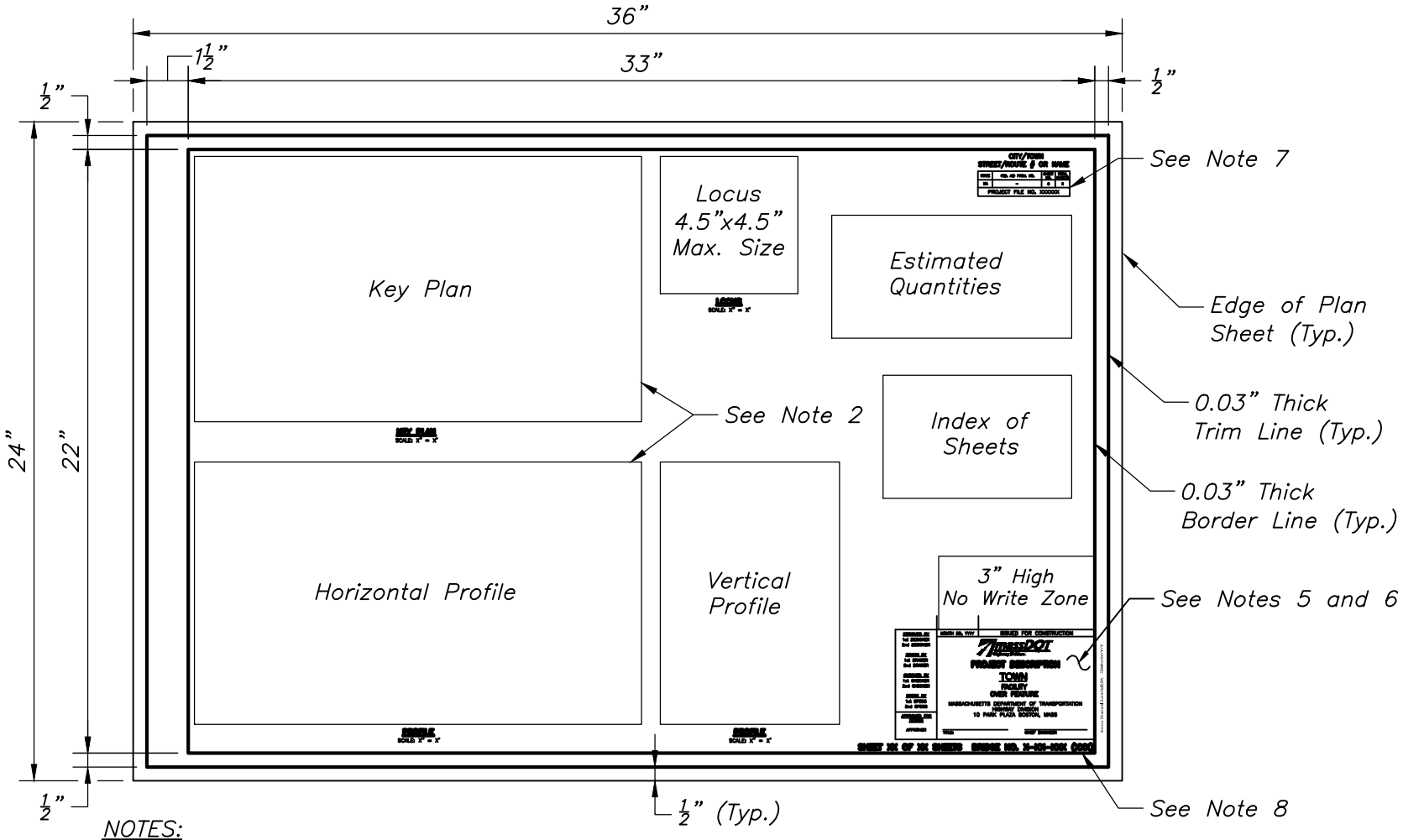
STANDARD FIRST SHEET

CONSTRUCTION DRAWINGS



NOTES:

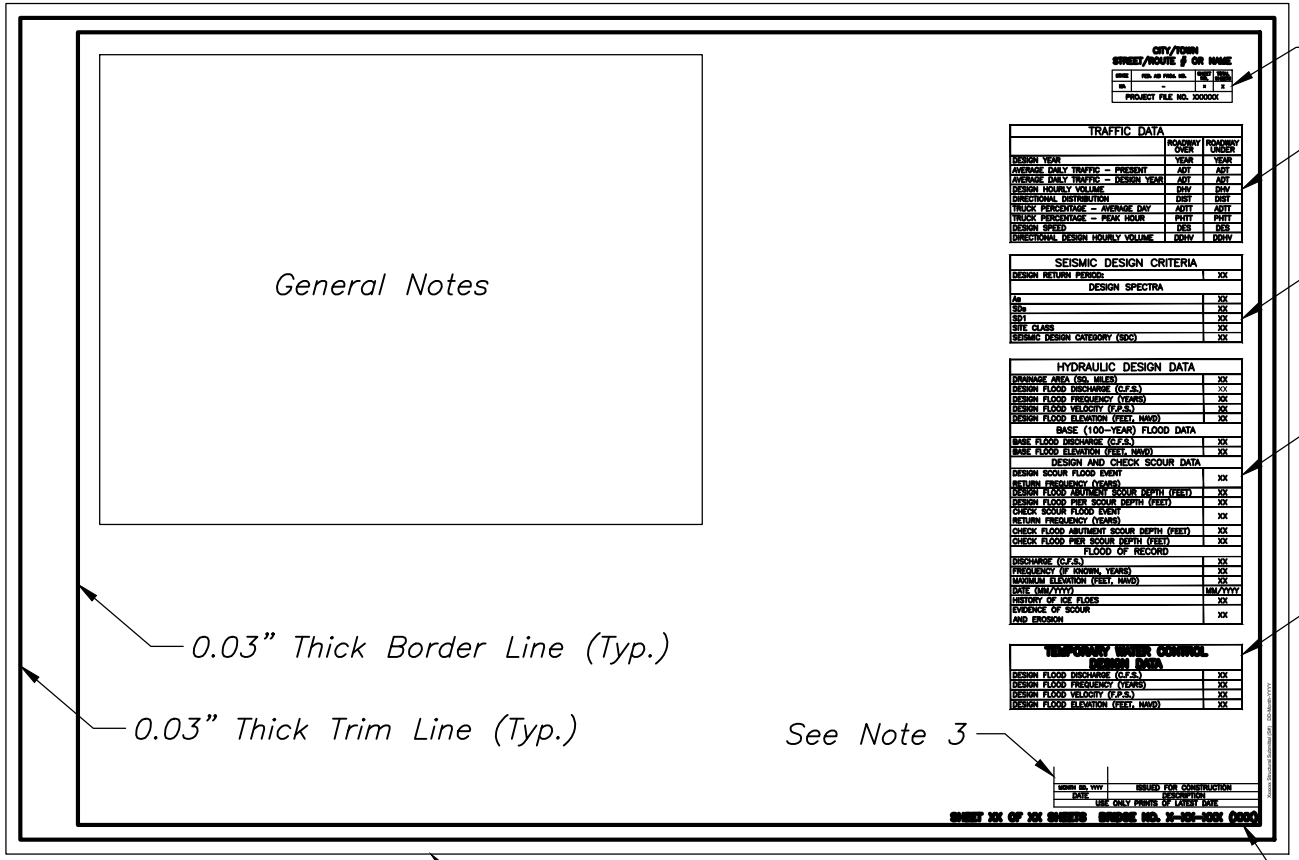
1. The above drawing is not to scale.
2. Horizontal boundaries of the Key Plan and the Horizontal Profile shall coincide and shall be limited to the length of the bridge project ONLY. The stations along ℄ of Construction shown on Horizontal Profile shall be vertically aligned with the ones shown on the Key Plan.
3. The Drawing Frame is sized to work with plotters regardless of media orientation.
4. See Dwg. No. 1.1.2 for Standard Subsequent Sheets.
5. See Dwg. No. 1.1.3 for In-House Design Title Block.
6. See Dwg. No. 1.1.4 for Consultant Design Title Block.
7. See Dwg. No. 1.1.5 for Federal Aid Block.
8. Bridge with single Bridge Identification Number (B.I.N) shown. For bridges with multiple B.I.N's see Dwg. No. 1.1.5.
9. Placeholders shown. Provide Key Plan, Locus, Profiles, Quantities, and Index of Sheets in the shown layout.

DATE OF ISSUE
OCTOBER 2020

DRAWING NUMBER
1.1.1

STANDARD SUBSEQUENT SHEETS

CONSTRUCTION DRAWINGS



NOTES:

1. The above drawing is not to scale.
2. The size and dimensions of subsequent sheets are the same as the Standard First Sheet (See Dwg. No. 1.1.1).
3. See Dwg. No. 1.1.5 for the Federal Aid Block and for the Subsequent Sheets Title Block.
4. Bridge with single Bridge Identification Number (B.I.N) shown. For bridges with multiple B.I.N.'s see Dwg. No. 1.1.5.
5. See Dwg. No. 1.1.6 for the Traffic Data Block.
6. See Dwg. No. 1.1.7 for the Seismic Data Block.
7. See Dwg. No. 1.1.8 for the Hydraulic Data Block.
8. See Dwg. No. 1.1.9 for the Temporary Water Control Design Data Block.
9. The Traffic, Seismic, Hydraulic, and Temporary Water Control Blocks shall be provided only on the first subsequent sheet, as shown above. The rest of the subsequent sheets should have these blocks removed.

BRIDGE MANUAL
PART II

IN-HOUSE DESIGN
TITLE BLOCK
CONSTRUCTION DRAWINGS

DATE OF ISSUE
OCTOBER 2020

DRAWING NUMBER
1.1.3

DESIGNED BY 1st DESIGNER 2nd DESIGNER DRAWN BY 1st DRAWER 2nd DRAWER CHECKED BY 1st CHECKER 2nd CHECKER SPECS BY 1st SPECS 2nd SPECS	MONTH DD, YYYY ISSUED FOR CONSTRUCTION
APPROVED FOR DESIGN BY APPROVER	massDOT Massachusetts Department of Transportation Highway Division PROJECT DESCRIPTION **TOWN** FACILITY CARRIED OVER FEATURE INTERSECTED MASSACHUSETTS DEPARTMENT OF TRANSPORTATION HIGHWAY DIVISION 10 PARK PLAZA BOSTON, MASS TITLE: _____ CHIEF ENGINEER

Xxxxxx Structural Submittal (S#) DD-Month-YYYY

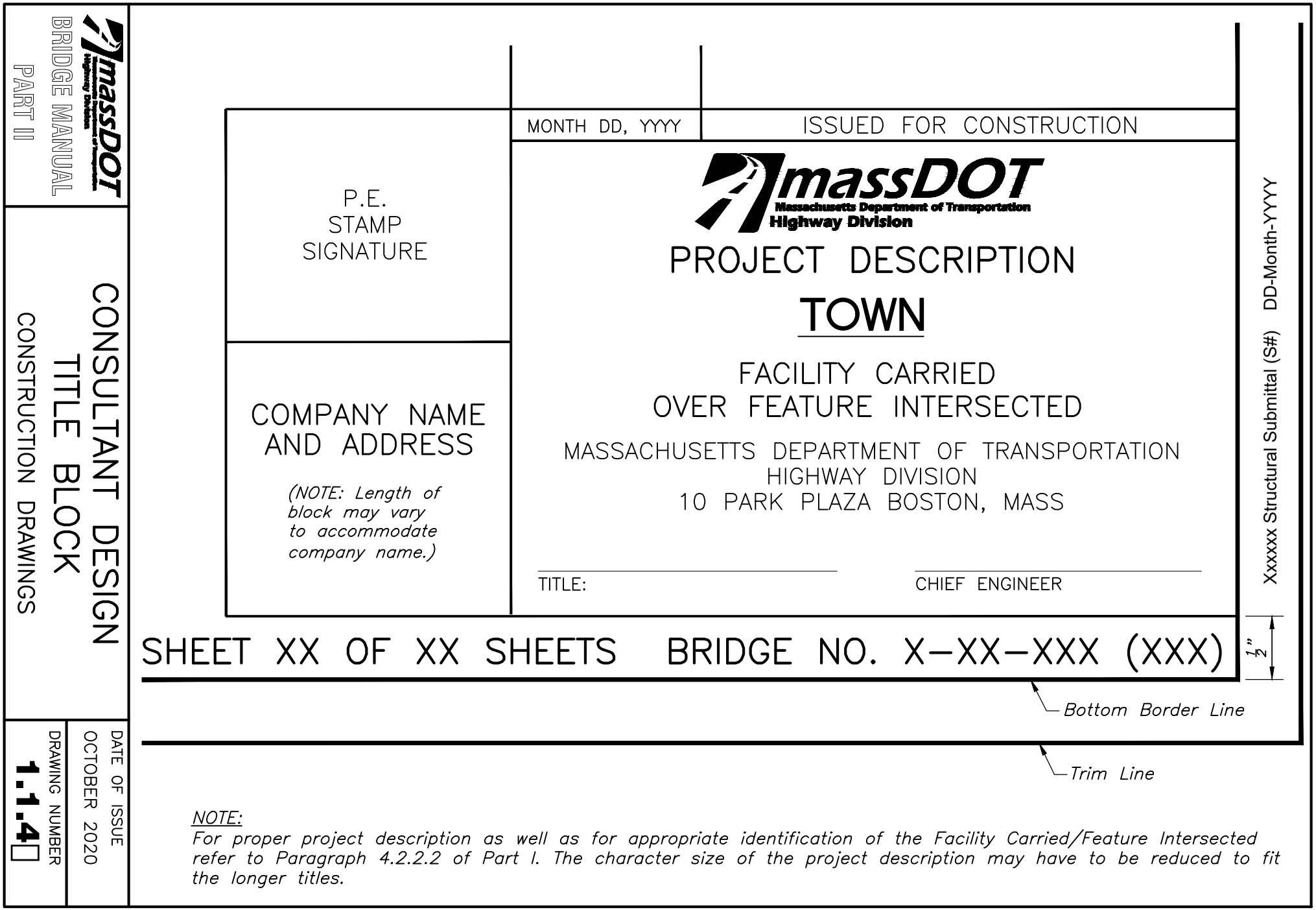
SHEET XX OF XX SHEETS BRIDGE NO. X-XX-XXX (XXX)

1½"

Bottom Border Line

Trim Line

NOTE:
For proper Project Description as well as for appropriate identification of the Facility Carried/Feature Intersected refer to Paragraph 4.2.2.2 of Part I.



NOTE:
For proper project description as well as for appropriate identification of the Facility Carried/Feature Intersected refer to Paragraph 4.2.2.2 of Part I. The character size of the project description may have to be reduced to fit the longer titles.

MISCELLANEOUS BLOCKS

CONSTRUCTION DRAWINGS

DATE OF ISSUE
OCTOBER 2020

DRAWING NUMBER
1.1.5□

Trim Line

1"

CITY/TOWN
STREET/ROUTE # OR NAME

STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
MA	–	X	X
PROJECT FILE NO. XXXXXX			

1"

FEDERAL AID BLOCK

SCALE: FULL SIZE

NOTE:
Above block is located at the top right of all sheets. Non–federally aided projects shall include the term NFA where applicable. The Project File Number shall appear on all Construction Drawings.

Right Border Line

DD-Month-YYYY Xxxxxx Structural Submittal (S#)

*
BIN
BIN
BIN

DATE	DESCRIPTION
MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
USE ONLY PRINTS OF LATEST DATE	

SHEET XX OF XX SHEETS BRIDGE NO. X–XX–XXX (*)

3/4"

Bottom Border Line

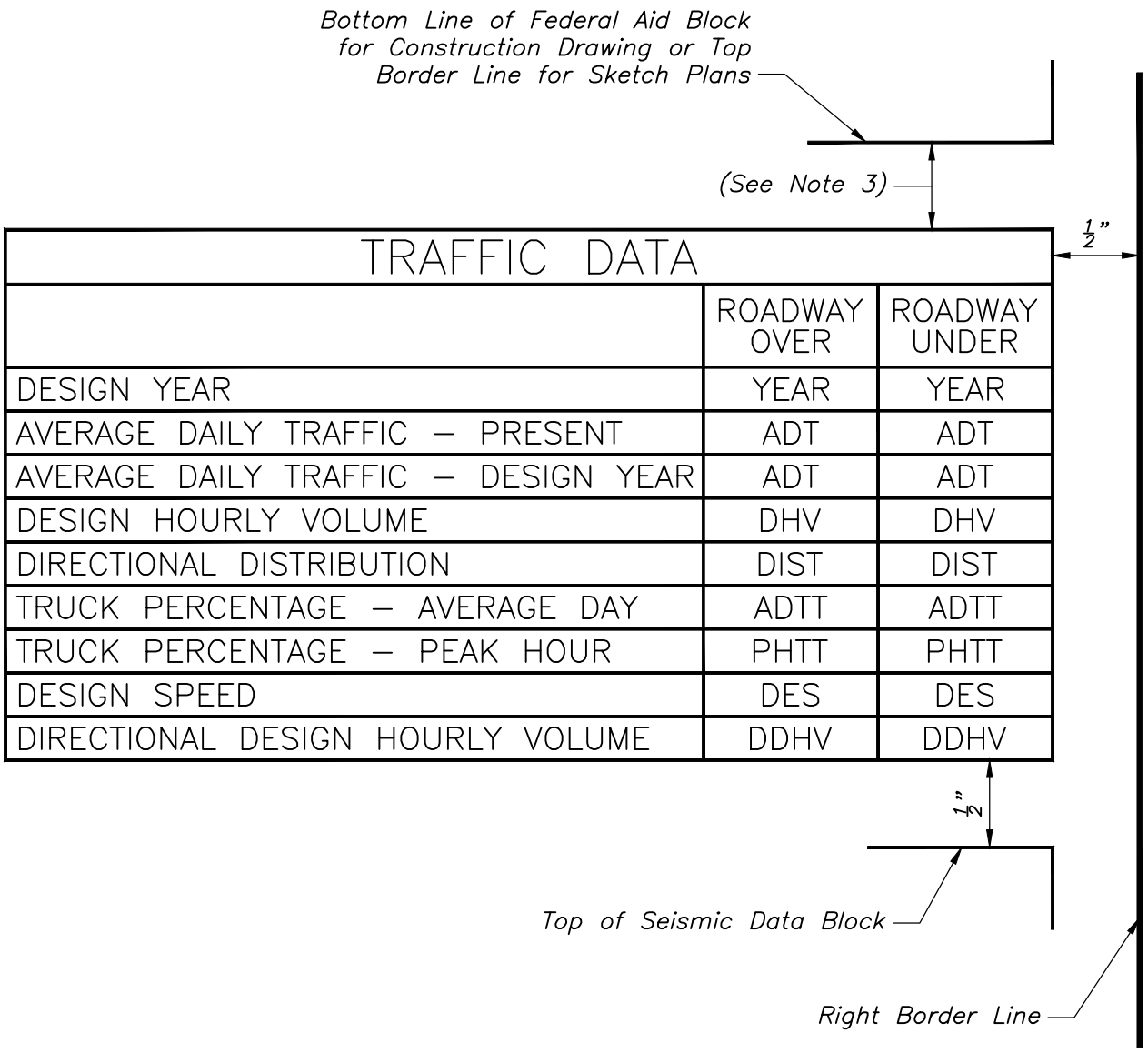
If multiple Bridge Identification Numbers are required, locate the numbers to the left of the Subsequent Sheets (and First Sheet) Title Blocks.

Trim Line

SUBSEQUENT SHEETS TITLE BLOCK

SCALE: FULL SIZE

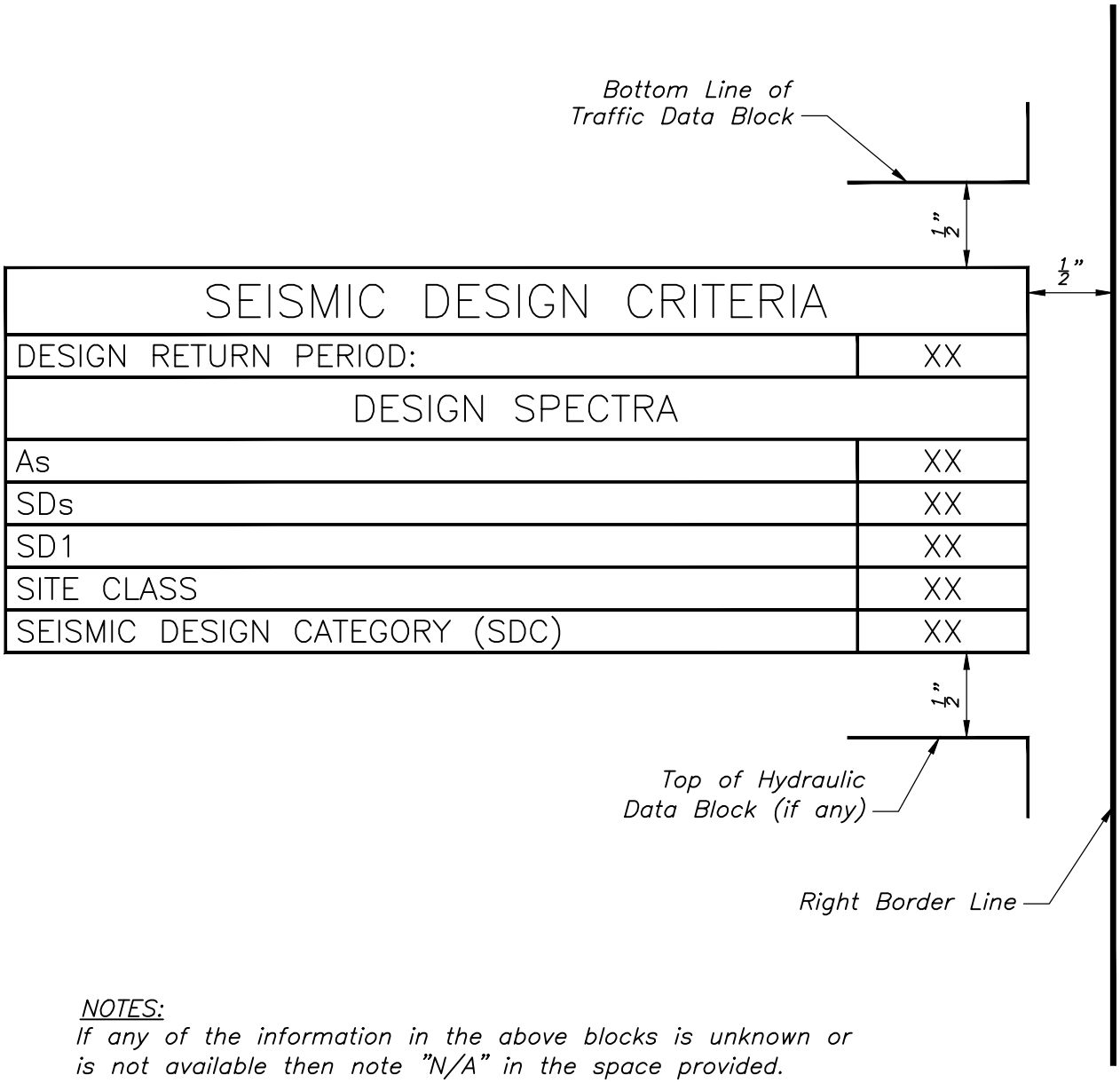
NOTE: Above block is located at the bottom right of all sheets of the Construction Drawings except the first.



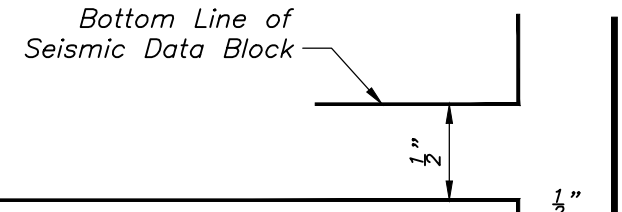
TRAFFIC DATA		
	ROADWAY OVER	ROADWAY UNDER
DESIGN YEAR	YEAR	YEAR
AVERAGE DAILY TRAFFIC – PRESENT	ADT	ADT
AVERAGE DAILY TRAFFIC – DESIGN YEAR	ADT	ADT
DESIGN HOURLY VOLUME	DHV	DHV
DIRECTIONAL DISTRIBUTION	DIST	DIST
TRUCK PERCENTAGE – AVERAGE DAY	ADTT	ADTT
TRUCK PERCENTAGE – PEAK HOUR	PHTT	PHTT
DESIGN SPEED	DES	DES
DIRECTIONAL DESIGN HOURLY VOLUME	DDHV	DDHV

NOTES:

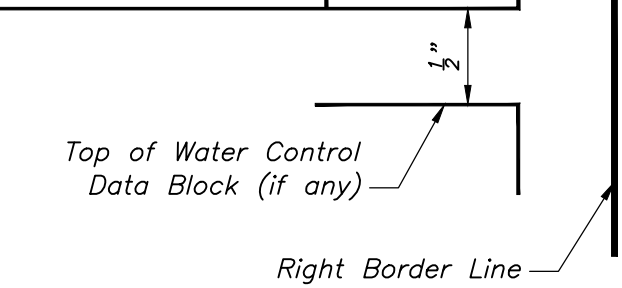
1. *If any of the information in the above blocks is unknown or is not available then note "N/A" in the space provided.*
2. *If there will not be a road under the proposed bridge then draw an "X" over the entire column labeled "ROADWAY UNDER".*
3. *This dimension shall be as follows:*
   - *5/8" below Federal Aid Block for Construction Drawings.*
   - *1/2" below Top Border Line for Sketch Plans.*



NOTES:
If any of the information in the above blocks is unknown or is not available then note "N/A" in the space provided.

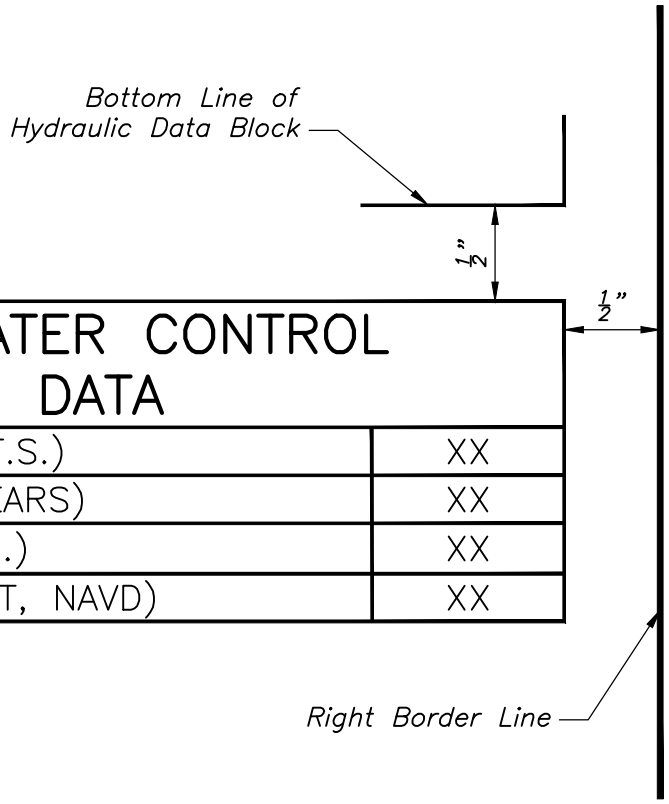


HYDRAULIC DESIGN DATA	
DRAINAGE AREA (SQ. MILES)	XX
DESIGN FLOOD DISCHARGE (C.F.S.)	XX
DESIGN FLOOD FREQUENCY (YEARS)	XX
DESIGN FLOOD VELOCITY (F.P.S.)	XX
DESIGN FLOOD ELEVATION (FEET, NAVD)	XX
BASE (100–YEAR) FLOOD DATA	
BASE FLOOD DISCHARGE (C.F.S.)	XX
BASE FLOOD ELEVATION (FEET, NAVD)	XX
DESIGN AND CHECK SCOUR DATA	
DESIGN SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	XX
DESIGN FLOOD ABUTMENT SCOUR DEPTH (FEET)	XX
DESIGN FLOOD PIER SCOUR DEPTH (FEET)	XX
CHECK SCOUR FLOOD EVENT RETURN FREQUENCY (YEARS)	XX
CHECK FLOOD ABUTMENT SCOUR DEPTH (FEET)	XX
CHECK FLOOD PIER SCOUR DEPTH (FEET)	XX
FLOOD OF RECORD	
DISCHARGE (C.F.S.)	XX
FREQUENCY (IF KNOWN, YEARS)	XX
MAXIMUM ELEVATION (FEET, NAVD)	XX
DATE (MM/YYYY)	MM/YYYY
HISTORY OF ICE FLOES	XX
EVIDENCE OF SCOUR AND EROSION	XX



NOTES:

1. *If any of the information in the above block is unknown or is not available then note "N/A" in the space provided.*
2. *This block shall be provided only for bridges over the water.*

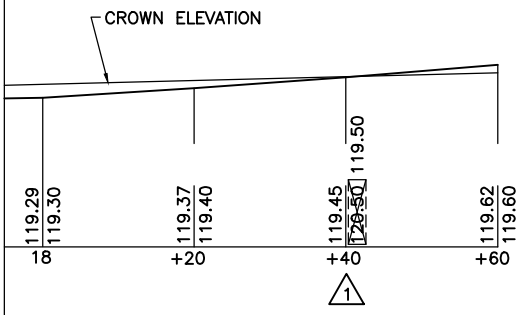


TEMPORARY WATER CONTROL DESIGN DATA	
DESIGN FLOOD DISCHARGE (C.F.S.)	XX
DESIGN FLOOD FREQUENCY (YEARS)	XX
DESIGN FLOOD VELOCITY (F.P.S.)	XX
DESIGN FLOOD ELEVATION (FEET, NAVD)	XX

NOTES:

1. *This block shall be provided only for bridges where the temporary water control is required.*
2. *The top elevation of the temporary water control measure shall be the design flood elevation + 1 foot of freeboard.*
3. *If any of the information in the above blocks is unknown or is not available then note "N/A" in the space provided.*

GRAVEL BORROW FOR BRIDGE FOUNDATION.....2000 C.Y.
SUPERPAVE BRIDGE SURFACE COURSE..... 20 TON
SUPERPAVE BRIDGE PROTECTIVE COURSE..... 20 TON
BRIDGE STRUCTURE (BRIDGE NO. S–XX–XXX).....1 L.S.



PROFILE – ELM STREET
HORIZONTAL SCALE: 1" = 40'
VERTICAL SCALE: 1" = 8'

	MAY 1, 2003	1 PROFILE ELEVATION REVISED
	MAY 1, 2003	1 SHEETS 1 AND 4 REVISED SHEET 15A ADDED
DESIGNED BY A. SMITH	MONTH DD, YYYY	ISSUED FOR CONSTRUCTION
DRAWN BY B. SMITH		
CHECKED BY C. SMITH		
SPECS BY D. SMITH		
APPROVED FOR DESIGN E. SMITH		

massDOT Highway Division

PROPOSED BRIDGE
SMALLVILLE
NEW MALL CONNECTOR OVER ELM STREET
MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION
10 PARK PLAZA BOSTON, MASS

TITLE: CHIEF ENGINEER

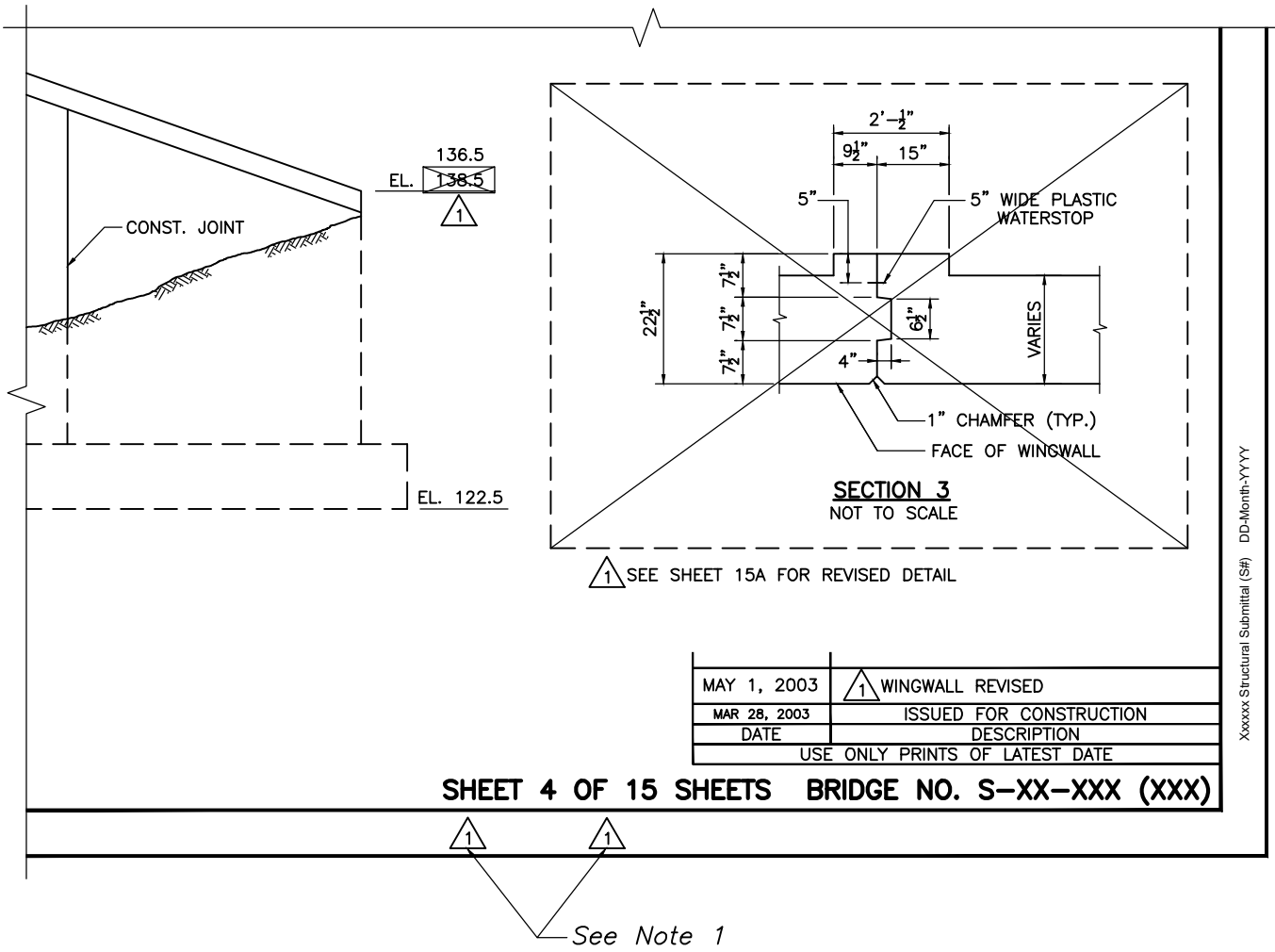
Xxxxxx Structural Submittal (S#) DD-Month-YYYY

SHEET 1 OF 15 SHEETS BRIDGE NO. S–XX–XXX (XXX)

1

NOTES:

1. *A revision symbol (△) shall be located in the lower, upper or right hand margin closest to the revision to facilitate locating revisions.*
2. *Revisions made on the same date shall have the same number in the revision symbol.*
3. *When revising the Construction Drawings, erasures of existing details are not permitted. The correct method for revisions is shown above.*
4. *Indicate the sheet numbers of all revised, added and/or deleted sheets over the title block. If there are any revisions on the first sheet, provide a description of the revisions as well.*

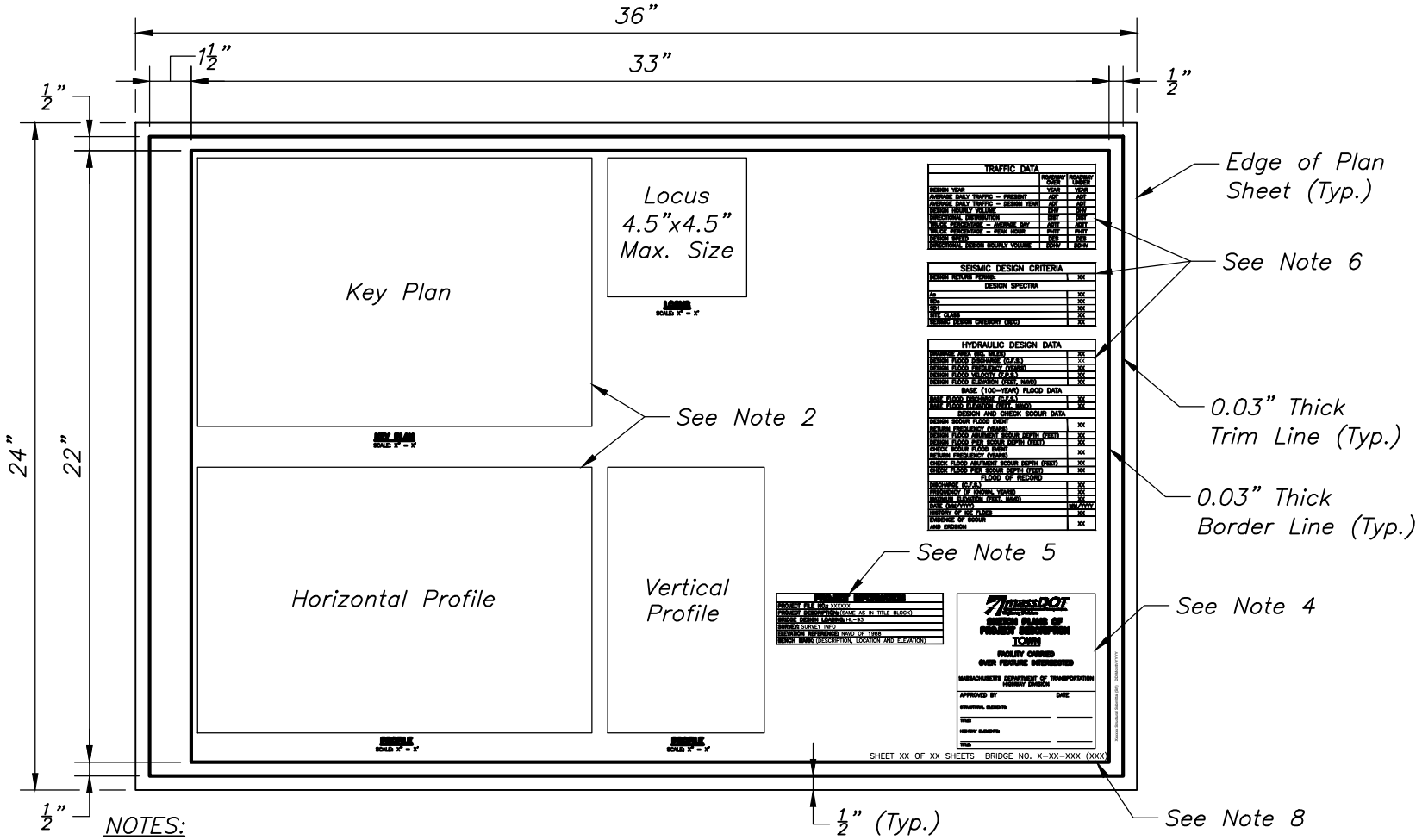


NOTES:

1. *A revision symbol (△) shall be located in the lower, upper or right hand margin closest to the revision to facilitate locating revisions.*
2. *Revisions made on the same date shall have the same number in the revision symbol.*
3. *When revising the Construction Drawings, erasures of existing details are not permitted. The correct method for revisions is shown above.*

STANDARD FIRST SHEET

SKETCH PLANS



NOTES:

1. The above drawing is not to scale.
2. Horizontal boundaries of the Key Plan and the Horizontal Profile shall coincide and shall be limited to the length of the bridge project ONLY. The stations along ℄ of Construction shown on Horizontal Profile shall be vertically aligned with the ones shown on the Key Plan.
3. The Drawing Frame is sized to work with plotters regardless of media orientation.
4. See Dwg. No. 1.2.2 for the In-House Design Title Block or Dwg. No. 1.2.3 for the Consultant Design Title Block.
5. See Dwg. No. 1.2.4 for Project Information Block.
6. See Dwg. No. 1.1.6 to Dwg. No.1.1.8 for Traffic Data Block, Seismic Data Block and Hydraulic Data Block.
7. Subsequent Sheets are the same size and dimension as the first sheet. Omit Project Information Data Block and Title Block on subsequent sheets. Retain sheet and Bridge Number at bottom right corner of all sheets.
8. For bridges with multiple Bridge Identification Numbers, locate numbers in a box to the left of the Title Block (or above the Bridge Number on subsequent sheets) similar to Dwg. No. 1.1.5.
9. Placeholders shown. Provide Key Plan, Locus, Profiles, and Index of Sheets in the shown layout.

BRIDGE MANUAL
PART II

IN-HOUSE DESIGN
TITLE BLOCK
SKETCH PLANS

DATE OF ISSUE
OCTOBER 2020

DRAWING NUMBER
1.2.2□

massDOT
Massachusetts Department of Transportation
Highway Division

SKETCH PLANS OF PROJECT DESCRIPTION

TOWN

FACILITY CARRIED
OVER FEATURE INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

APPROVED BY DATE

STRUCTURAL ELEMENTS:

_____ _____

TITLE:

HIGHWAY ELEMENTS:

_____ _____

TITLE:

Xxxxxx Sketch Plans Submittal (SP#) DD-Month-YYYY

SHEET XX OF XX SHEETS BRIDGE NO. X-XX-XXX (XXX)

Trim Line

Bottom Border Line

NOTE: *For proper Project Description as well as for appropriate identification of the Facility Carried/Feature Intersected refer to Section 4.2.2.2 of Part I. The character size of the project description may have to be reduced to fit in.*

BRIDGE MANUAL
PART II

CONSULTANT DESIGN
TITLE BLOCK
SKETCH PLANS

DATE OF ISSUE
OCTOBER 2020

DRAWING NUMBER
1.2.3□

COMPANY NAME
ADDRESS
ADDRESS

MassDOT
Massachusetts Department of Transportation
Highway Division

SKETCH PLANS OF PROJECT DESCRIPTION

TOWN

FACILITY CARRIED
OVER FEATURE INTERSECTED

MASSACHUSETTS DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION

APPROVED BY DATE

STRUCTURAL ELEMENTS:

_____ _____

TITLE:

HIGHWAY ELEMENTS:

_____ _____

TITLE:

Xxxxxx Sketch Plans Submittal (SP#) DD-Month-YYYY

½"

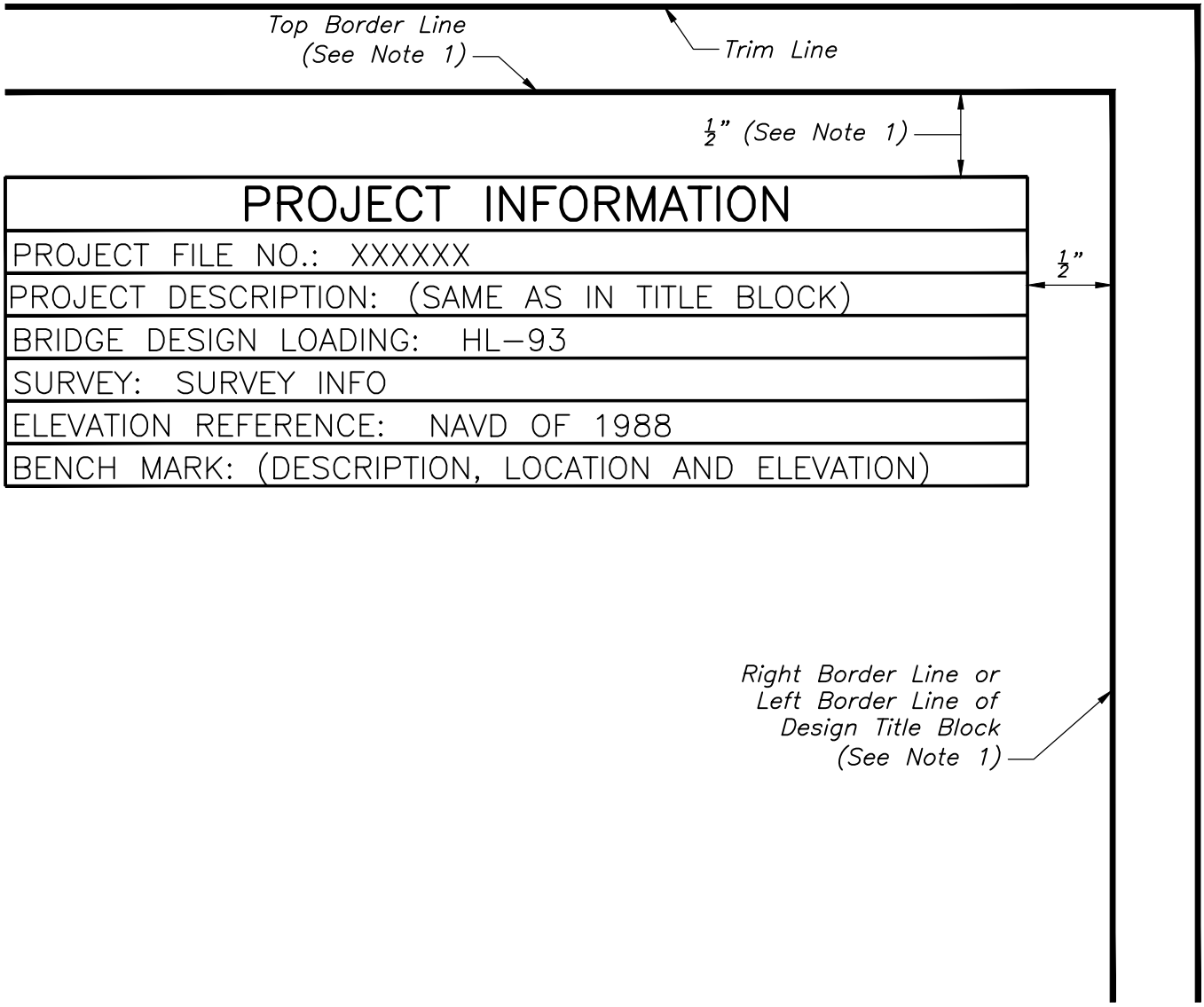
SHEET XX OF XX SHEETS BRIDGE NO. X–XX–XXX (XXX)

½"

Trim Line

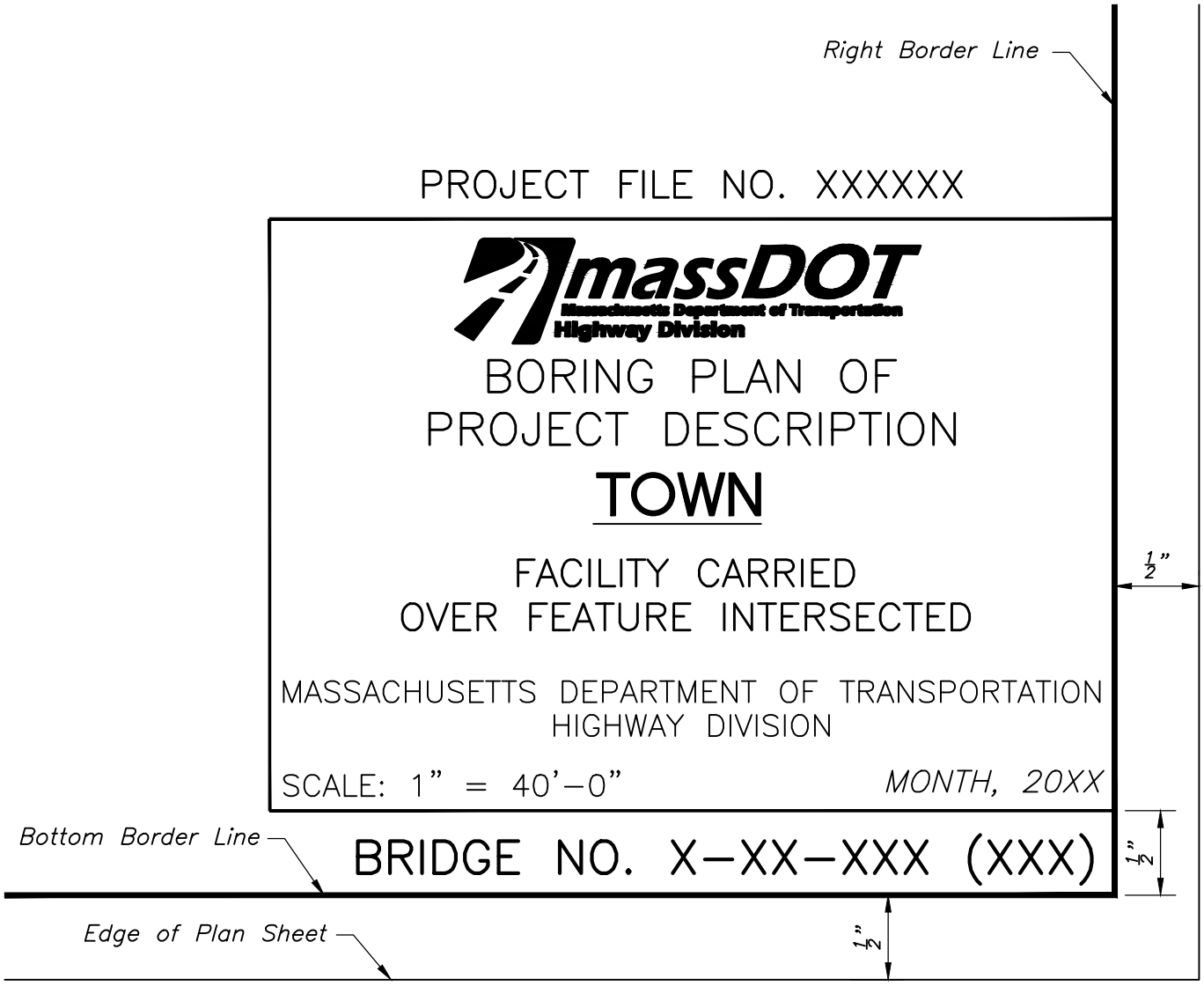
Bottom Border Line

NOTE: For proper Project Description as well as for appropriate identification of the Facility Carried/Feature Intersected refer to Section 4.2.2.2 of Part I. The character size of the project description may have to be reduced to fit in.



NOTES:

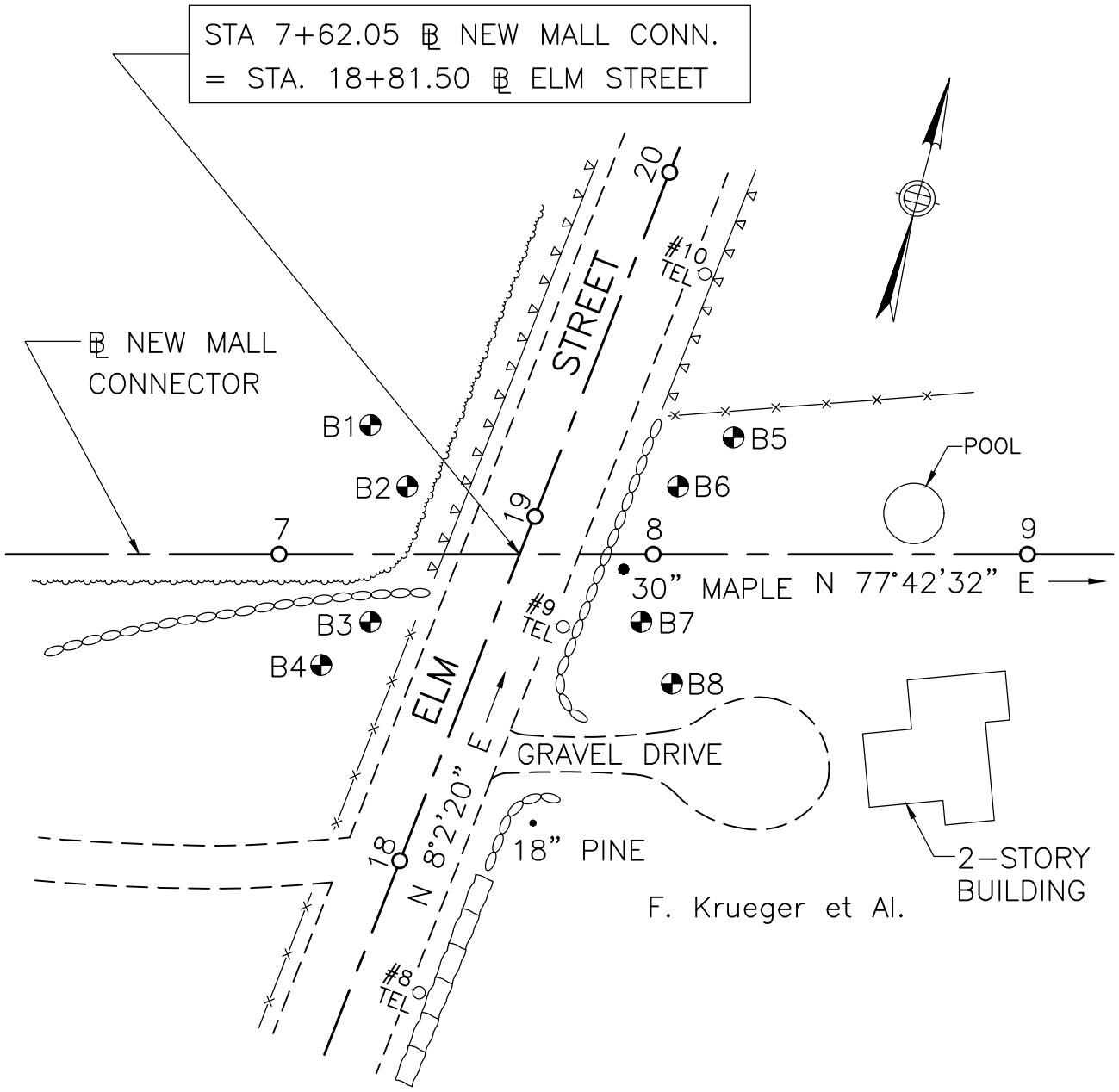
1. *In the case when there is not enough space for all required blocks to be situated along the right border line of the First Sheet, the Project Information Block shall be placed next to the Design Title Block as shown on Dwg. No. 1.2.1.*
2. *If any of the information in the above blocks is unknown or is not available then note "N/A" in the space provided.*
3. *Under "SURVEY" if electronic data collection was used, indicate "ELECTRONIC SURVEY BY (company name)". Otherwise, specify survey note book numbers.*



NOTES:

1. *Size of Boring Plans may vary to accommodate the plan view, boring locations, and notes. However, the maximum size shall not exceed the size of the standard construction drawing sheet shown on Dwg. No. 1.1.1.*
2. *For proper Project Description as well as for appropriate identification of the Facility Carried/Feature Intersected refer to Section 4.2.2.2 of Part I. The character size of the project description may have to be reduced to fit in.*

massDOT Highway Division BRIDGE MANUAL PART II	STANDARD TITLE BLOCK BORING PLANS	DATE OF ISSUE OCTOBER 2020 DRAWING NUMBER **1.3.1**



BORING LOCATIONS (FEET)						
BORING	NORTHING	EASTING	STATION	OFFSET	SURFACE EL.	H.B.E.
B1	2,927,742	589,413	7+23	35' LT	175.0	104.0
B2	2,927,725	589,422	7+34	18' LT	175.0	104.0
B3	2,927,691	589,412	7+23	18' RT	175.2	104.0
B4	2,927,680	589,400	7+10	30' RT	175.1	104.0
B5	2,927,738	589,506	8+19	31' LT	173.0	92.5
B6	2,927,726	589,492	8+05	18' LT	173.5	92.5
B7	2,927,691	589,482	7+95	18' RT	173.2	92.5
B8	2,927,675	589,490	8+03	34' RT	173.4	92.5

NOTES:

1. LOCATION OF BORINGS ARE SHOWN THUS: ◕ *(See Note 1)*
2. SEE THE BORING LOCATIONS TABLE FOR THE SPECIFIED HIGHEST BOTTOM ELEVATION (H.B.E.) OF EACH BORING. *(See Note 2)*
3. BORINGS SHALL EXTEND TO THE SPECIFIED HIGHEST BOTTOM ELEVATION OR TO REFUSAL BELOW THE H.B.E., WHICHEVER IS DEEPER. *(See Note 3)*
4. SHOULD BEDROCK BE ENCOUNTERED AT OR ABOVE THE SPECIFIED HIGHEST BOTTOM ELEVATION, THE BORING SHALL BE CONTINUED AS A ROCK CORE BORING FOR A DEPTH OF 10', THEN TERMINATED. *(See Note 4)*
5. BENCH MARK: *(Description of the Bench Mark, its location, and its elevation to be noted here.)*
6. BORINGS ARE LOCATED FROM THE BASELINE OF THE NEW MALL CONNECTOR. *(Edit as required.)*
7. ADDITIONAL BORINGS MAY BE REQUESTED BY THE ENGINEER, IF NECESSARY.

NOTES:

1. *The type of subsurface investigation shall be determined by the Designer and shall be proper for the site conditions and the type of the proposed bridge (refer to the latest edition of the AASHTO Manual on Subsurface Investigations).*
2. *The specified highest bottom elevation (H.B.E.) shall be determined by the Designer and shall be adequate to assess the foundation bearing resistance and settlement in conformance with the latest edition of the AASHTO LRFD Bridge Design Specifications.*
3. *Where accurate information of the proposed bridge site indicates that refusal occurs far below the H.B.E. the Designer may consider reducing the number of borings which extend to refusal depending on the complexity of the proposed structure. However, at least one boring shall extend deeper than the H.B.E. to refusal.*
4. *For the depth of rock core borings at drilled shaft locations, refer to the latest edition of the AASHTO LRFD Bridge Design Specifications. Specify on the Construction Drawings a minimum of 2" inside diameter NX rock core to be taken at drilled shaft locations socketed into rock.*
5. *Test pits are shown thus:* ◪
6. *Observation wells are shown thus:* ⌖
7. *Probes are shown thus:* ⌖