MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS (DTPW)

ADDENDUM NO. 2
May 7, 2025

PROJECT: Temporary Road on NW 170th Street. From NW 105th Avenue to NW 97th Avenue.

RPQ No: 20250067
MCC 7360 Plan - CICC 7360-0/08

BID DUE DATE: May 14, 2025; 02:00 P.M.

FROM: Miami-Dade County DTPW
Capital Improvements Division
111 NW First Street, 14th Floor
Miami, FL 33128
305.375.2930

TO: Prospective Bidders and Interested Parties

This Addendum forms part of the project solicitation documents and will be incorporated into the Contract Documents, as applicable. Insofar as the Original Contract Documents, Drawings and Specifications are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum, at the time of bid submittal to Miami-Dade County, in the space provided on the "Acknowledgement of Addenda Form" provided with the project solicitation documents. Failure to acknowledge receipt of all addenda may be cause for disqualification.

A. CHANGES TO ENGINEERING DRAWINGS / PLANS:

1. Disregard/omit Note 4 on Plan Sheet#3 of 60, which is highlighted below the table "Summary of Earthwork." This note does not apply to this Project. Please see the revised sheets attached below.

END OF ADDENDUM NO. 2

Tiondra Wright
Chief, Capital Improvement Division
Department of Transportation and Public Works (DTPW)

TW: mm

cc: Marco Movilla, DTPW
Alejandro Sauleda, DTPW
Maylin Torres, SBD
Katherine Fernandez, DTPW
Laurie Johnson, SBD
Eric Perez, SBD
Caesar Suarez, SBD
Clerk of the Board
Project File

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

Temporary Road on NW 170th Street. From NW 105th Avenue to NW 97th Avenue.

RPQ NO. 20250067

ADDENDUM NO.2

ENGINEERING DRAWINGS/PLANS

REVISED SHEET NO.3

ADDENDUM NO.2

SUMMARY OF QUANTITIES

PAY ITEM NO.	ITEM	UNIT	TOTAL QUANTITY
102-1A	MAINTENANCE OF TRAFFIC	L.S.	1
104-10-3	SEDIMENT BARRIERS	L.F.	4,464
104-18	INLET PROTECTION SYSTEM	EACH	6
110-1-1B	CLEARING AND GRUBBING	L.S./AC	1/4.61
120-1	REGULAR EXCAVATION	C.Y.	123
120-6	EMBANKMENT	C.Y.	5,795
160-4	TYPE 'B' STABILIZATION (12") (MIN. C.B.R. OF 30)	S.Y.	15,335
200-1-10	LIMEROCK BASE (8") (PRIMED)	S.Y.	15,335
334-2-13-2	HOT MIX ASPHALT (TRAFFIC C), SP 12.5, (2")	TON	1,568
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TON	162
520-1-10B	CONCRETE CURB AND GUTTER (TYPE "F")	L.F.	5,045
536-1-1	GUARDRAIL (ROADWAY) (INCLUDES THE COST OF SHOP BENT PANELS AND END ANCHORAGE ASSEMBLY)	L.F.	4,499
536-73B	GUARDRAIL REMOVAL	L.F.	100
575-1-1	SODDING (PENSACOLA BAHIA OR MATCH EXISTING) (INCLUDES WATERING AND MAINTENANCE)	S.Y.	2,083

* ADDITIONAL QUANTITIES ARE CONTINGENT, TO BE USED AS DIRECTED BY THE ENGINEER AND HAVE BEEN INCLUDED IN THE TOTAL QUANTITY AMOUNT SHOWN ON THE SUMMARY OF PAY ITEMS.

PAY ITEM NOTES

102-1A TO BE ACCOMPLISHED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 102 SERIES, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (ANSI D6 1-1978), PUBLIC WORKS MANUAL OF METROPOLITAN DADE COUNTY, AND THE LATEST REVISIONS OF THE AFORE MENTIONED MANUALS. INCLUDES THE COST OF FURNISHING, INSTALLING, MAINTAINING, AND REMOVING ALL ITEMS OF MAINTENANCE OF TRAFFIC NOT PAID FOR UNDER SEPARATE ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, BARRICADES, FLASHING LIGHTS, TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKINGS, TRAFFIC SIGNAL MODIFICATION FOR TRAFFIC CONTROL, ETC.

110-1-1B INCLUDES REMOVAL OF EXISTING PAVEMENT, CONCRETE SIDEWALK, DRIVEWAYS, CURB AND GUTTER, EXISTING STORM SEWERS (DRAINAGE STRUCTURES, PIPES, FRENCH DRAIN AND/OR SLAB COVER TRENCHES. COST OF REMOVAL, DISPOSAL, BACKFILLING AND COMPACTING IS ALSO INCLUDED), MISCELLANEOUS CONCRETE, VEGETATION, TREES UNDER 6" DIA, AND DEBRIS TO BE DISPOSED OF IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDES THE COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. INCLUDES THE REMOVAL OF EXCAVATION MATERIAL, ASPHALT, TIRES, AND MISCELLANEOUS GARBAGE UP TO 20 FEET BEYOND THE PROPOSED EDGE OF PAVEMENT. INCLUDES DUMPING FEE.

120-1 THESE ARE ESTIMATED QUANTITIES AND MAY BE INCREASED OR DECREASED BY THE ENGINEER.

SUMMARY OF EARTHWORK		
ITEM	QUANTITY	
REGULAR EXCAVATION	123	C.Y.
SUBSOIL EXCAVATION	0	C.Y.
FILL	5,795	C.Y.
EMBANKMENT (SUBSOIL EXCAVATION) + FILL	5,795	C.Y.

OMIT NOTE. NO.4

1. SUMMARY OF EARTHWORK IS BASED ON THE CONSTRUCTION OF LIMEROCK BASE 4" AND 8" THICK AS INDICATED ON THE CROSS SECTIONS.
2. ANY EXCAVATED MATERIAL, IF UNSUITABLE, SHALL NOT BE USED IN THE CONSTRUCTION OF THE EMBANKMENT.
3. EXCESS MATERIAL TO BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.
4. AN ESTIMATED 8181 C.Y. OF UNCLASSIFIED MATERIAL IS TO BE DISPLACED BY THE STORM SEWER SYSTEM WHICH INCLUDES THE EXFILTRATION DRAIN AND IS NOT INCLUDED IN THE SUMMARY OF EARTHWORK QUANTITIES. THIS MATERIAL IS TO BE UTILIZED ON THE PROJECT AS DIRECTED BY THE ENGINEER. ANY EXCESS OF MATERIAL IS TO BE DISPOSED OF IN LEGAL AREAS AS PROVIDED BY THE CONTRACTOR.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SUMMARY OF QUANTITIES

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\03 SUMM-QNTS.dwg May 21, 2024 - 3:28pm E210983

SUMMARY OF QUANTITIES

PAY ITEM NO.	ITEM	UNIT	TOTAL QUANTITY
102-1A	MAINTENANCE OF TRAFFIC	L.S.	1
104-10-3	SEDIMENT BARRIERS	L.F.	4,464
104-18	INLET PROTECTION SYSTEM	EACH	6
110-1-1B	CLEARING AND GRUBBING	L.S./AC	1/4.61
120-1	REGULAR EXCAVATION	C.Y.	123
120-6	EMBANKMENT	C.Y.	5,795
160-4	TYPE 'B' STABILIZATION (12") (MIN. C.B.R. OF 30)	S.Y.	15,335
200-1-10	LIMEROCK BASE (8") (PRIMED)	S.Y.	15,335
334-2-13-2	HOT MIX ASPHALT (TRAFFIC C), SP 12.5, (2")	TON	1,568
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TON	162
521-72-40	SHOULDER CONCRETE BARRIER, 38" OR 44" HEIGHT	L.F.	451
520-1-10B	CONCRETE CURB AND GUTTER (TYPE "F")	L.F.	5,045
536-1-1	GUARDRAIL (ROADWAY) (INCLUDES THE COST OF SHOP BENT PANELS AND END ANCHORAGE ASSEMBLY)	L.F.	4,499
536-73B	GUARDRAIL REMOVAL	L.F.	100
575-1-1	SODDING (PENSACOLA BAHIA OR MATCH EXISTING) (INCLUDES WATERING AND MAINTENANCE)	S.Y.	2,083

* ADDITIONAL QUANTITIES ARE CONTINGENT, TO BE USED AS DIRECTED BY THE ENGINEER AND HAVE BEEN INCLUDED IN THE TOTAL QUANTITY AMOUNT SHOWN ON THE SUMMARY OF PAY ITEMS.

PAY ITEM NOTES

102-1A TO BE ACCOMPLISHED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 102 SERIES, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (ANSI D6 1-1978), PUBLIC WORKS MANUAL OF METROPOLITAN DADE COUNTY, AND THE LATEST REVISIONS OF THE AFORE MENTIONED MANUALS. INCLUDES THE COST OF FURNISHING, INSTALLING, MAINTAINING, AND REMOVING ALL ITEMS OF MAINTENANCE OF TRAFFIC NOT PAID FOR UNDER SEPARATE ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, BARRICADES, FLASHING LIGHTS, TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKINGS, TRAFFIC SIGNAL MODIFICATION FOR TRAFFIC CONTROL, ETC.

110-1-1B INCLUDES REMOVAL OF EXISTING PAVEMENT, CONCRETE SIDEWALK, DRIVEWAYS, CURB AND GUTTER, EXISTING STORM SEWERS (DRAINAGE STRUCTURES, PIPES, FRENCH DRAIN AND/OR SLAB COVER TRENCHES. COST OF REMOVAL, DISPOSAL, BACKFILLING AND COMPACTING IS ALSO INCLUDED), MISCELLANEOUS CONCRETE, VEGETATION, TREES UNDER 6" DIA, AND DEBRIS TO BE DISPOSED OF IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDES THE COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. INCLUDES THE REMOVAL OF EXCAVATION MATERIAL, ASPHALT, TIRES, AND MISCELLANEOUS GARBAGE UP TO 20 FEET BEYOND THE PROPOSED EDGE OF PAVEMENT. INCLUDES DUMPING FEE.

120-1 THESE ARE ESTIMATED QUANTITIES AND MAY BE INCREASED OR DECREASED BY THE ENGINEER.

SUMMARY OF EARTHWORK		
ITEM	QUANTITY	
REGULAR EXCAVATION	123	C.Y.
SUBSOIL EXCAVATION	0	C.Y.
FILL	5,795	C.Y.
EMBANKMENT (SUBSOIL EXCAVATION) + FILL	5,795	C.Y.

1. SUMMARY OF EARTHWORK IS BASED ON THE CONSTRUCTION OF LIMEROCK BASE 4" AND 8" THICK AS INDICATED ON THE CROSS SECTIONS.
2. ANY EXCAVATED MATERIAL, IF UNSUITABLE, SHALL NOT BE USED IN THE CONSTRUCTION OF THE EMBANKMENT.
3. EXCESS MATERIAL TO BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.

1

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
5/5/2025	J.M.	REVISION #1						

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SUMMARY OF QUANTITIES

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\03 SUMM-QNTS.dwg May 06, 2025 - 8:37am E210983

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS

Temporary Road on NW 170th Street. From NW 105th Avenue to NW 97th Avenue.

RPQ NO. 20250067

ADDENDUM NO.2

REVISED ENGINEERING DRAWINGS/PLANS

PLANS FOR PROPOSED
TEMPORARY ROAD AT

NW 170 STREET

FROM NW 105 AVENUE TO NW 97 AVENUE

MIAMI–DADE COUNTY PROJECT NO. 20230063
ROAD IMPACT FEE (RIF)

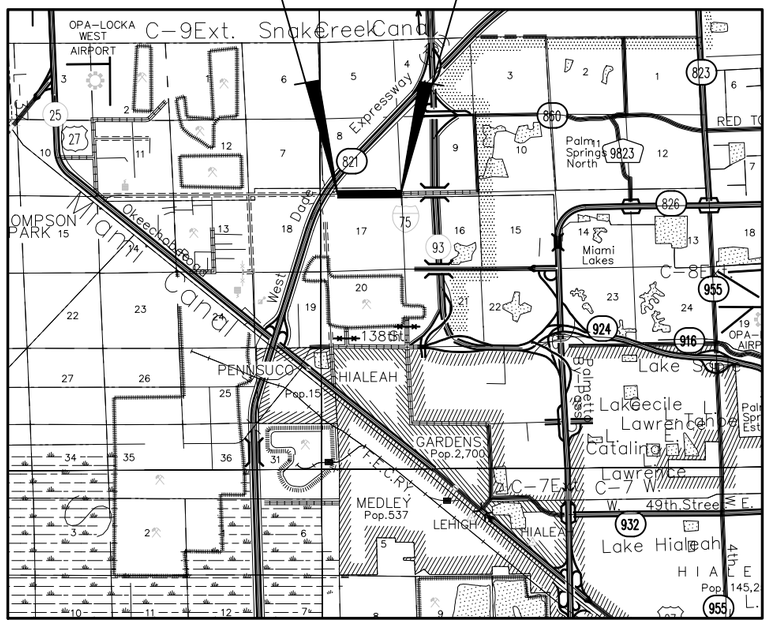
INDEX OF SHEETS

STANDARD INDEX DRAWINGS

SHT. No.	INDEX. No.	SHEET DESCRIPTION
31–33	520–001	FDOT CONCRETE CURB & GUTTER (3 SHEETS)
34–36	521–001	FDOT CONCRETE BARRIER (3 SHEETS)
37–60	536–001	FDOT GUARDRAIL (24 SHEETS)

BEGIN PROJECT
STA 18+09.42

END PROJECT
STA 62+73.18



N

0 1 2
MILES

NOTE:

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA.

LENGTH OF JOB		
	LIN. FT.	MILES
ROADWAY	4,464	0.8455
BRIDGE	–	–
GROSS LENGTH OF JOB	4,464	0.8455
EXCEPTIONS	–	–
NET LENGTH OF JOB	4,464	0.8455

PREPARED BY

MIAMI–DADE COUNTY

MIAMI–DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

THESE PLANS HAVE BEEN PREPARED IN ACCORDANCE WITH AND ARE GOVERNED BY THE MIAMI–DADE COUNTY PUBLIC WORKS DEPARTMENT STANDARDS AND SPECIFICATIONS PARTS 1, 2 AND 3. THE MANUAL OF UNIFORM MINIMUM STANDARDS FOR DESIGN, CONSTRUCTION AND MAINTENANCE FOR STREETS AND HIGHWAYS. THE FLORIDA DEPARTMENT OF TRANSPORTATION FY 2019–20 STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FLORIDA DEPARTMENT OF TRANSPORTATION JULY 2019 STANDARD SPECIFICATIONS EBOOK, AS AMENDED BY CONTRACT DOCUMENTS.

Sunshine811
Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.
Check positive response codes before you dig!

LEANDRO J. ONA LICENSE No. 25588 STATE OF FLORIDA PROFESSIONAL ENGINEER

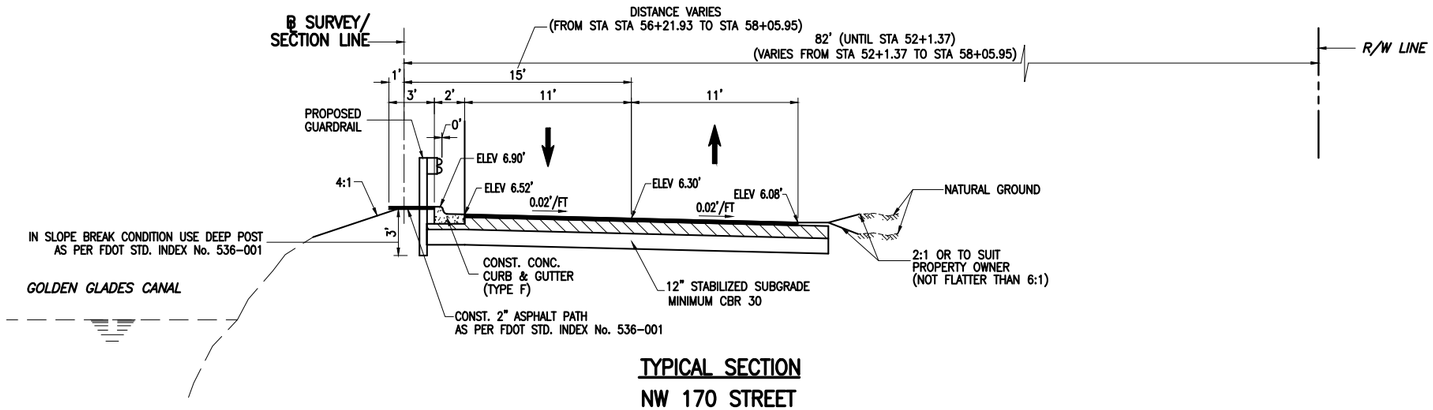
ENGINEER OF RECORD: 5/21/2024

Leandro J. Ona, P.E.
[NAME]
FLORIDA REGISTRATION P.E. No. 25588

APPROVED _____ COUNTY ENGINEER
RECOMMENDED _____ ASSISTANT DIRECTOR
SUBMITTED _____ HIGHWAY DIVISION

PROPOSED	CHECK
DESIGN	DRAWN
DATE	SHEET 1 OF 60

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\01 COVER-SHEET.dwg Feb 16, 2024 – 11:10am E210983



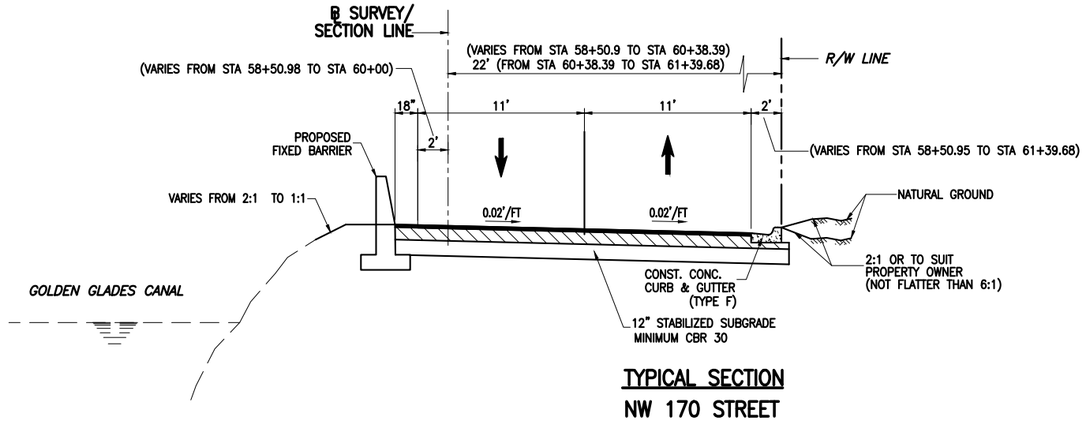
TYPICAL SECTION
NW 170 STREET

STA. 21+38.75 TO STA. 58+05.95

FROM STA 18+09.42 TO STA 23+52.71 (TRANSITION FROM PROPOSED SR 821 TO CURRENT TYPICAL SECTION)
FROM STA 56+21.73 TO STA 58+50.98 (TRANSITION – BERM END AT STA 58+15)

NEW CONSTRUCTION

LIMEROCK BASE (8" THICK) (PRIMED) WITH
HMA, TRAFFIC C, SP-12.5 (2")



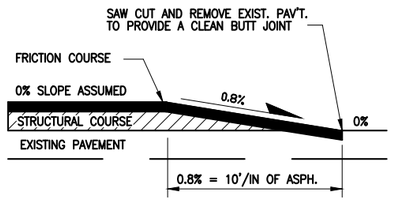
TYPICAL SECTION
NW 170 STREET

STA. 58+50.95 TO STA. 61+39.73

FROM STA 56+21.73 TO STA 58+50.98 (TRANSITION – RIGHT CURB AND GUTTER START AT STA 58+06.10)
FROM STA 61+39.68 TO STA 62+73.18 (TRANSITION TO CONNECT WITH NW 97th AVENUE)

NEW CONSTRUCTION

LIMEROCK BASE (8" THICK) (PRIMED) WITH
HMA, TRAFFIC C, SP-12.5 (2")



NOTE: TO BE USED AT BEGINNING AND END OF
PROJECT AND AT INTERSECTING STREETS.

FEATHERING DETAIL
N.T.S.

TYPICAL SECTION NOTES:

1. ALL EXISTING LIMEROCK BASE THAT IS REMOVED IS TO BE INCORPORATED INTO THE STABILIZED PORTION OF THE SUBGRADE AND IS NOT TO BE USED IN CONSTRUCTION OF THE PROPOSED BASE.
2. EXTEND LIMEROCK BASE (8" THICK) 6" OUTSIDE EDGES OF PAVEMENT AT ALL CONNECTIONS AND INTERSECTIONS TO COUNTY STREETS AND ROADS.
3. STABILIZE ALL TURNOUTS AND INTERSECTIONS TO COUNTY ROADS AND STREETS TO A DEPTH OF 12" (MIN CBR OF 30) AND 12" OUTSIDE EDGES OF PAVEMENT, 6" BACK OF CURB.
4. COST OF LIMEROCK BASE BENEATH CURB & GUTTER IS TO BE INCLUDED IN COST OF C & G (ITEM 520-1-10)

DESIGN SPEED 35 MPH

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\02 TYP-SEC.dwg Feb 16, 2024 - 11:10am E210983

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

TYPICAL SECTION

SUMMARY OF QUANTITIES

PAY ITEM NO.	ITEM	UNIT	TOTAL QUANTITY
102-1A	MAINTENANCE OF TRAFFIC	L.S.	1
104-10-3	SEDIMENT BARRIERS	L.F.	4,464
104-18	INLET PROTECTION SYSTEM	EACH	6
110-1-1B	CLEARING AND GRUBBING	L.S./AC	1/4.61
120-1	REGULAR EXCAVATION	C.Y.	123
120-6	EMBANKMENT	C.Y.	5,795
160-4	TYPE 'B' STABILIZATION (12") (MIN. C.B.R. OF 30)	S.Y.	15,335
200-1-10	LIMEROCK BASE (8") (PRIMED)	S.Y.	15,335
334-2-13-2	HOT MIX ASPHALT (TRAFFIC C), SP 12.5, (2")	TON	1,568
339-1	MISCELLANEOUS ASPHALT PAVEMENT	TON	162
521-72-40	SHOULDER CONCRETE BARRIER, 38" OR 44" HEIGHT	L.F.	451
520-1-10B	CONCRETE CURB AND GUTTER (TYPE "F")	L.F.	5,045
536-1-1	GUARDRAIL (ROADWAY) (INCLUDES THE COST OF SHOP BENT PANELS AND END ANCHORAGE ASSEMBLY)	L.F.	4,499
536-73B	GUARDRAIL REMOVAL	L.F.	100
575-1-1	SODDING (PENSACOLA BAHIA OR MATCH EXISTING) (INCLUDES WATERING AND MAINTENANCE)	S.Y.	2,083

* ADDITIONAL QUANTITIES ARE CONTINGENT, TO BE USED AS DIRECTED BY THE ENGINEER AND HAVE BEEN INCLUDED IN THE TOTAL QUANTITY AMOUNT SHOWN ON THE SUMMARY OF PAY ITEMS.

PAY ITEM NOTES

102-1A TO BE ACCOMPLISHED IN ACCORDANCE WITH THE FLORIDA DEPARTMENT OF TRANSPORTATION INDEX 102 SERIES, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION (ANSI D6 1-1978), PUBLIC WORKS MANUAL OF METROPOLITAN DADE COUNTY, AND THE LATEST REVISIONS OF THE AFORE MENTIONED MANUALS. INCLUDES THE COST OF FURNISHING, INSTALLING, MAINTAINING, AND REMOVING ALL ITEMS OF MAINTENANCE OF TRAFFIC NOT PAID FOR UNDER SEPARATE ITEMS INCLUDING BUT NOT LIMITED TO SIGNS, BARRICADES, FLASHING LIGHTS, TEMPORARY PAVEMENT, TEMPORARY PAVEMENT MARKINGS, TRAFFIC SIGNAL MODIFICATION FOR TRAFFIC CONTROL, ETC.

110-1-1B INCLUDES REMOVAL OF EXISTING PAVEMENT, CONCRETE SIDEWALK, DRIVEWAYS, CURB AND GUTTER, EXISTING STORM SEWERS (DRAINAGE STRUCTURES, PIPES, FRENCH DRAIN AND/OR SLAB COVER TRENCHES. COST OF REMOVAL, DISPOSAL, BACKFILLING AND COMPACTING IS ALSO INCLUDED), MISCELLANEOUS CONCRETE, VEGETATION, TREES UNDER 6" DIA, AND DEBRIS TO BE DISPOSED OF IN LEGAL AREAS PROVIDED BY THE CONTRACTOR. INCLUDES THE COST OF CLEANING-OUT ALL EXISTING DRAINAGE STRUCTURES WHICH ARE TO REMAIN WITHIN THE LIMITS OF CONSTRUCTION. INCLUDES THE REMOVAL OF EXCAVATION MATERIAL, ASPHALT, TIRES, AND MISCELLANEOUS GARBAGE UP TO 20 FEET BEYOND THE PROPOSED EDGE OF PAVEMENT. INCLUDES DUMPING FEE.

120-1 THESE ARE ESTIMATED QUANTITIES AND MAY BE INCREASED OR DECREASED BY THE ENGINEER.

SUMMARY OF EARTHWORK		
ITEM	QUANTITY	
REGULAR EXCAVATION	123	C.Y.
SUBSOIL EXCAVATION	0	C.Y.
FILL	5,795	C.Y.
EMBANKMENT (SUBSOIL EXCAVATION) + FILL	5,795	C.Y.

1. SUMMARY OF EARTHWORK IS BASED ON THE CONSTRUCTION OF LIMEROCK BASE 4" AND 8" THICK AS INDICATED ON THE CROSS SECTIONS.
2. ANY EXCAVATED MATERIAL, IF UNSUITABLE, SHALL NOT BE USED IN THE CONSTRUCTION OF THE EMBANKMENT.
3. EXCESS MATERIAL TO BE DISPOSED OF BY THE CONTRACTOR IN AREAS PROVIDED BY HIM. NO SEPARATE PAYMENT WILL BE MADE FOR THIS ITEM.

1

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
5/5/2025	J.M.	REVISION #1						

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SUMMARY OF QUANTITIES

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\03 SUMM-QNTS.dwg May 06, 2025 - 8:37am E210983

GENERAL NOTES

1. B.M. DATA IS NATIONAL GEODETIC VERTICAL DATUM OF 1929 (N.G.V.D.-29).ANY N.G.V.D. BENCH MARK MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED AND PROPERLY REFERENCED BY A REGISTERED-LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE. IF ANY MONUMENT IS IN DANGER OF DAMAGE, THE PROJECT ENGINEER SHALL NOTIFY THE BUREAU OF SURVEYING AND MAPPING, FLORIDA DIVISION OF STATE LANDS, 3900 COMMONWEALTH BLVD., MAIL STATION 100, TALLAHASSEE, FLORIDA 32399-3000 TELEPHONE (850) 245-2118.

2. ALL PUBLIC LAND CORNERS AND MONUMENTS WITHIN THE LIMITS OF CONSTRUCTION ARE TO BE PROTECTED BY THE CONTRACTOR AS FOLLOWS: CORNERS AND MONUMENTS IN CONFLICT WITH THE WORK AND IN DANGER OF BEING DAMAGED, DESTROYED, OR COVERED SHALL BE PROPERLY REFERENCED BY A REGISTERED-LAND SURVEYOR IN ACCORDANCE WITH THE MINIMUM TECHNICAL STANDARDS OF THE FLORIDA BOARD OF PROFESSIONAL LAND SURVEYORS PRIOR TO BEGINNING WORK AT THE SITE. THE CONTRACTOR SHALL RETAIN THE LAND SURVEYOR TO REFERENCE, AND RESTORE UPON COMPLETION OF THE WORK, ALL SUCH CORNERS AND MONUMENTS AND SHALL FURNISH TO MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT A SIGNED AND SEALED COPY OF THE LAND SURVEYOR'S REFERENCE DRAWING.

3. ALL STATIONS AND OFFSETS REFER TO [BASELINE] OF CONSTRUCTION, UNLESS OTHERWISE STATED.

4. ALL GRADES SHOWN IN PLAN ARE FINISHED GRADES.

5. THE CONTRACTOR SHALL PAINT ALL STATIONS WITH STENCILED NUMBERS ON THE FACE OF CURB:
   A. FROM THE BEGINNING OF THE PROJECT WHERE THE CURB IS TO REMAIN.
   B. AT NEW CURB NOT LATER THAN 72 HOURS AFTER BEING POURED.
   C. WHERE CURB DOES NOT EXIST AND SHALL NOT BE CONSTRUCTED,
   THE CONTRACTOR SHALL MAINTAIN STATIONING WITH SURVEYING STAKES.
   CONTRACTOR SHALL MAINTAIN THE STATION MARKS VISIBLE UNTIL FINAL INSPECTION.

6. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE COUNTY PUBLIC WORKS DEPARTMENT, AND ANY OTHER STATE OR LOCAL AGENCY WITH JURISDICTION. IT IS THE INTENT OF THESE PLANS TO BE IN ACCORDANCE WITH APPLICABLE CODES AND AUTHORITIES HAVING JURISDICTION. ANY DISCREPANCIES BETWEEN THESE PLANS AND APPLICABLE CODES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.

8. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE EPA AND THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES).

9. THE LOCATION AND SIZE OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON THE BEST AVAILABLE INFORMATION AND SHOULD BE CONSIDERED APPROXIMATE ONLY. ADDITIONAL UTILITIES MAY EXIST WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL VERIFY ALL UTILITIES BY ELECTRONIC METHODS AND BY PRE-TRENCHING IN COORDINATION WITH ALL UTILITY COMPANIES, PRIOR TO BEGINNING ANY CONSTRUCTION OPERATION. ANY AND ALL CONFLICTS OF EXISTING UTILITIES WITH PROPOSED IMPROVEMENTS MUST BE RESOLVED BY THE ENGINEER AND THE OWNER. THIS WORK BY THE CONTRACTOR SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION SHALL BE ALLOWED.

10. [BASELINE CONTROL SURVEY CONDUCTED BY MIAMI-DADE COUNTY.] PLEASE CALL MR. JEFFREY D. WHITMORE (305) 375-2657 CONCERNING SURVEY RELATED QUESTIONS.

11. EXISTING TOPOGRAPHIC INFORMATION WAS OBTAINED FROM SURVEY PREPARED BY MIAMI-DADE COUNTY.

12. CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL AT 1-(800)-432-4770 AT LEAST 48 HOURS PRIOR TO PERFORMING ANY DIGGING TO VERIFY THE EXACT LOCATION OF EXISTING UTILITIES. A CONTRACTOR'S REPRESENTATIVE MUST BE PRESENT WHEN UTILITY COMPANIES LOCATE THEIR FACILITIES.

13. THE CONTRACTOR IS TO USE CAUTION WHEN WORKING IN OR AROUND AREAS OF OVERHEAD AND UNDERGROUND UTILITIES.

14. MIAMI-DADE WATER AND SEWER DEPARTMENT REQUIRES THAT ACCESS TO ALL WATER AND SEWER VALVES, SANITARY MANHOLES, AND OTHER CONTROL MECHANISMS BE MAINTAINED THROUGHOUT CONSTRUCTION IN THE EVENT OF AN EMERGENCY TO ENSURE THE PUBLIC HEALTH AND SAFETY. COVERING VALVE BOXES AND MANHOLES CAN BE CONSIDERED UNAUTHORIZED OBSTRUCTION OF AND TAMPERING WITH DEPARTMENT UTILITIES. ALL REQUESTS FOR UTILITY ADJUSTMENTS MUST BE MADE IN WRITING AT LEAST TWO (2) WEEKS IN ADVANCE. FOR MANHOLE AND VALVES, CONTACT THE CONSTRUCTION MANAGEMENT SECTION, PUMP STATIONS UNIT, 3071 SW 38 AVENUE, FAX NO. 305-668-3626. THE DEPARTMENT WILL MAKE ONE FINAL AND PERMANENT ADJUSTMENT AT NO COST TO THE REQUESTING AGENCY. FOR THE ADJUSTMENT OF WATER METERS, CONTACT THE CHIEF OF METER OPERATIONS AND MAINTENANCE, FAX NO. 305-545-3482. FOR ANY FIRE HYDRANTS THAT ARE DAMAGED OR BUMPED DURING CONSTRUCTION, CONTACT THE MDWASD HYDRANT SHOP AT 305-805-4575 BEFORE POURING CONCRETE FOR THE SIDEWALK. IN THE EVENT OF A WATER OR SEWER EMERGENCY, CONTACT MIAMI DADE WATER AND SEWER DEPARTMENT AT 305-274-9272. THIS LINE IS OPEN 24 HOURS, 7 DAYS A WEEK.

15. KNOWN UTILITY COMPANIES IN THE PROJECT LIMITS INCLUDE, BUT ARE NOT LIMITED TO:

MIAMI-DADE WASD	PATRIC CHONG	(786) 552-4416
CITY OF HIALEAH	ALEX MEDINA	(305) 556-3800

16. THE CONTRACTOR IS ADVISED THAT PROPERTIES ADJACENT TO THE PROJECT HAVE ELECTRIC, TELEPHONE, GAS, WATER, AND/OR SEWER SERVICE LATERALS WHICH MAY NOT BE SHOWN IN PLANS. THE CONTRACTOR MUST REQUEST THE LOCATION OF THESE LATERAL SERVICES FROM THE UTILITY COMPANIES. THE ADDITIONAL COST OF EXCAVATING, INSTALLING, BACKFILLING, AND COMPACTING AROUND THESE LATERAL SERVICES MUST BE INCLUDED IN THE BID RELATED ITEM FOR THE WORK BEING DONE.

17. THE CONTRACTOR MUST MAINTAIN CLEARANCES AS REQUIRED BY OSHA WHILE WORKING IN THE PROXIMITY OF FPL's HIGH-VOLTAGE TRANSMISSION CONDUCTORS AND LOW VOLTAGE DISTRIBUTION CONDUCTORS.

18. THE ROADWAY CONTRACTOR MUST MAINTAIN ACCESS TO ALL PFL FACILITIES AT ALL TIMES DURING HIS CONSTRUCTION.

19. ALL EXISTING FACILITIES MUST REMAIN ENERGIZED DURING ROAD CONSTRUCTION.

20. ANY DAMAGE TO PUBLIC OR PRIVATE PROPERTY SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

21. ANY ENCROACHMENT WITHIN THE LIMITS OF CONSTRUCTION SHALL BE RELOCATED OR PROTECTED BY THE ADJACENT PROPERTY OWNER AT THEIR EXPENSE.

22. CLEARING AND GRUBBING, GRADING AND OTHER INCIDENTAL WORK NECESSARY FOR HARMONIZATION OUTSIDE R/W SHALL BE INCLUDED IN RELATED BID ITEMS.

23. ALL GRASS AREAS AFFECTED BY CONSTRUCTION SHALL BE RE-SODDED. COST TO BE INCLUDED UNDER PAY ITEM 575-1-1.

24. THE CONTRACTOR SHOULD TAKE SPECIAL NOTE OF SOIL CONDITIONS THROUGHOUT THIS PROJECT. ANY SPECIAL SHORING, SHEETING OR OTHER PROCEDURES NECESSARY TO PROTECT ADJACENT PROPERTY, PUBLIC OR PRIVATE, DURING THE EXCAVATION OF SUBSOIL MATERIAL AND EXFILTRATION TRENCH, OR FILLING OF ANY AREA, OR FOR ANY OPERATION DURING CONSTRUCTION, SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

25. IF SHEETING, SHORING, OR DEWATERING, INCLUDING WELL POINTS ARE NECESSARY, THE CONTRACTOR MUST MONITOR AND CONTROL ALL WORK THAT MAY CAUSE CRACKING TO ANY ADJACENT BUILDING, STRUCTURE, OR PROPERTY AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGES CAUSED BY THESE OPERATIONS. COST OF SHEETING, SHORING, OR DEWATERING SHALL BE INCLUDED IN THE RELATED BID ITEM FOR THE WORK BEING DONE.

26. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING THE DEWATERING PERMIT. COST OF THE PERMIT AND DEWATERING SHALL BE INCLUDED IN THE THE RELATED BID ITEM FOR THE WORK BEING DONE. (NOT APPLICABLE TO THIS PROJECT).

27. THE CONTRACTOR WILL RESTRICT PERSONNEL, THE USE OF EQUIPMENT, AND THE STORAGE OF MATERIALS TO AREAS WITHIN THE LIMITS OF CONSTRUCTION AND DESIGNATED STAGING AREA.

28. EXPLORATORY OR PRE-TRENCHING IN THE ALIGNMENT AND GRADE OF PROPOSED PIPES STRUCTURES, FRENCH DRAINS, CONDUITS, POLE FOUNDATIONS AND/OR SUB-GRADE SHALL BE PERFORMED SEVEN DAYS IN ADVANCE OF ITS CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE UNDERGROUND UTILITY OWNERS AND THE DEPARTMENT WITH IMMEDIATE NOTIFICATION OF ANY CONFLICT WITH PROPOSED CONSTRUCTION. THIS NOTIFICATION SHALL PROVIDE SURVEY INFORMATION ABOUT EXISTING UTILITY ALIGNMENT, GRADE AND POSSIBLE CONFLICTS. PAYMENT FOR EXPLORATORY OR PRE-TRENCHING, SURVEY AND BACKFILLING SHALL BE INCLUDED IN THE COST OF THE RELATED BID ITEM FOR THE WORK BEING DONE.

29. ALL DITCH EXCAVATIONS SHALL BE PERFORMED IN FULL COMPLIANCE WITH THE PROVISIONS OF THE TRENCH SAFETY ACT.

30. ALL EXCESS MATERIAL, AS DESIGNATED BY THE ENGINEER, IS TO BE DISPOSED BY THE CONTRACTOR IN AREAS PROVIDED BY HIM WITHIN 72 HOURS OF BEING DEPOSITED IN THE CONSTRUCTION AREA AND AT THE CONTRACTOR'S EXPENSE.

31. ALL DISPOSAL OF MATERIALS, RUBBISH, AND DEBRIS SHALL BE MADE AT A LEGAL DISPOSAL SITE OR BY OTHER PRIOR APPROVED MANNER. MATERIAL CLEARED FROM THE SITE AND DEPOSITED ON ADJACENT OR NEARBY PROPERTY WILL NOT BE CONSIDERED AS HAVING BEEN DISPOSED OF SATISFACTORILY.

32. ANY KNOWN OR SUSPECTED HAZARDOUS MATERIAL FOUND ON THE PROJECT BY THE CONTRACTOR SHALL BE IMMEDIATELY REPORTED TO THE PROJECT ENGINEER, WHO SHALL DIRECT THE CONTRACTOR TO PROTECT THE AREA OF KNOWN OR SUSPECTED CONTAMINATION FROM FURTHER ACCESS. THE ENGINEER WILL ARRANGE FOR INVESTIGATION, IDENTIFICATION, AND REMEDIATION OF THE HAZARDOUS MATERIAL. THE CONTRACTOR SHALL NOT RETURN TO THE AREA OF CONTAMINATION UNTIL APPROVAL IS PROVIDED BY THE PROJECT ENGINEER.

33. EXISTING ABOVE GROUND FEATURES ARE SHOWN ACCORDING TO THE BEST AVAILABLE DATA AND MAY NOT ACCURATELY REFLECT PRESENT CONDITIONS. CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING HIMSELF WITH CURRENT SITE CONDITIONS, AND SHALL REPORT DISCREPANCIES TO THE ENGINEER PRIOR TO STARTING WORK.

34. CONTRACTOR IS TO VERIFY THE EXACT LOCATION OF ALL EXISTING TREES, STRUCTURES AND UTILITIES, WHICH MAY NOT BE SHOWN ON PLANS. ANY STRUCTURE, PAVEMENT, TREES OR OTHER EXISTING IMPROVEMENT NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARY DAMAGED, EXPOSED OR IN ANY WAY DISTURBED BY CONSTRUCTION PERFORMED UNDER THIS CONTRACT, SHALL BE REPAIRED, PATCHED OR REPLACED AT NO ADDITIONAL COST TO THE OWNER.

35. CONTRACTOR TO RELOCATE TREES AS DIRECTED BY THE ENGINEER. CONTRACTOR SHALL AVOID DAMAGE TO ANY EXISTING TREES TO REMAIN. EXISTING TREES SHALL BE REMOVED ONLY IF REQUIRED FOR CONSTRUCTION. THOSE TREES NOT INTERFERING WITH CONSTRUCTION SHALL BE PROTECTED IN PLACE.

36. THE CONTRACTOR SHALL USE A STREET SWEEPER (USING WATER) OR OTHER EQUIPMENT CAPABLE OF CONTROLLING AND REMOVING DUST. APPROVAL OF THE USE OF SUCH EQUIPMENT IS CONTINGENT UPON ITS DEMONSTRATED ABILITY TO DO THE WORK.

37. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS FOR ALL ITEMS USED IN THIS PROJECT.

38. WHEN DISSIMILAR MATERIAL CONNECTIONS ARE MADE, SUCH AS CONCRETE TO METAL, THE DISSIMILAR MATERIAL SHALL BE SEPARATED BY COATING THE CONTACT SURFACE WITH BITUMASTIC MATERIAL.

39. THE CONTRACTOR IS RESPONSIBLE FOR KEEPING EXISTING AND NEW INLETS CLEAN OF MILLING MATERIAL, LIMEROCK, DEBRIS, ETC. DURING THE CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. ALL LINES AND STRUCTURES SHALL BE CLEANED PRIOR TO FINAL INSPECTION AND ACCEPTANCE.

40. CAST IRON PRODUCTS: HEAVY-DUTY CLASSIFICATION SUITABLE FOR HIGHWAY TRAFFIC LOADS OR 16,000 LBS WHEEL LOADS.

41. STEEL GRATING AND COVERS: TRAFFIC CLASSIFICATION H-20; 16,000 LBS OVER 8"X20" AREA.

42. EXISTING DRAINAGE STRUCTURES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE REMOVED UNLESS OTHERWISE NOTED.

43. EXISTING MANHOLES AND INLETS SCHEDULED TO REMAIN SHALL BE THOROUGHLY CLEANED BY REMOVING ALL DEBRIS AND SEDIMENTS, AND THE INTERIOR SHALL BE SEALED WITH AN APPROVED NON-TOXIC BITUMASTIC SEALANT.

44. PRIOR TO CONSTRUCTION THE CONTRACTOR WILL INSPECT ALL EXISTING STRUCTURES WHICH ARE TO REMAIN AND NOTIFY THE ENGINEER OF ANY OBVIOUS STRUCTURAL DEFICIENCIES.

45. CONTRACTOR SHALL ADJUST ALL EXISTING CATCH BASINS, GRATES, AND STORM MANHOLE COVERS TO MEET NEW GRADES WHERE APPLICABLE.

46. ELEVATIONS AND OFFSETS SHOWN AT DRAINAGE STRUCTURES REFER TO EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

47. RADII ON CURB RETURNS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED.

48. PRIOR TO CONSTRUCTION THE CONTRACTOR WILL VERIFY INVERT ELEVATIONS OF ALL PIPES WHICH ARE TO REMAIN AND NOTIFY THE ENGINEER OF ANY ELEVATION DEVIATIONS.

49. THERE SHALL BE NO MORE THAN THREE LATERAL DRAINAGE INSTALLATIONS WITHOUT BACKFILLING. BACKFILLING OF LATERAL DRAINAGE SHALL NOT LAG MORE THAN 72 HOURS BEHIND THE START OF EXCAVATION.

50. SPECIAL ATTENTION IS DIRECTED TO THE FACT THAT PORTIONS OF SOME DRAINAGE STRUCTURES EXTEND INTO THE STABILIZED PORTION OF THE ROADBED AND EXTREME CAUTION SHOULD BE USED IN THE STABILIZING OPERATIONS AT THESE LOCATIONS.

51. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, INSTALLATION, AND MAINTENANCE OF ALL TRAFFIC CONTROL AND SAFETY DEVICES, IN ACCORDANCE WITH SPECIFICATIONS OUTLINED IN THE PUBLIC WORKS DEPARTMENT MANUAL, THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND THE FDOT DESIGN STANDARDS.

52. WHERE NEW PAVEMENT MEETS EXISTING, CONNECTION SHALL BE MADE IN A NEAT STRAIGHT LINE AND FLUSH WITH THE EXISTING PAVEMENT.

53. THE LOCATION OF SOME DRIVEWAYS IS APPROXIMATE. VERIFICATION OF EXACT LOCATION AND DIMENSIONS IS RECOMMENDED.

54. EXISTING DRIVEWAYS WITHIN THE LIMITS OF THIS PROJECT ARE TO BE REPLACED AT THE SAME LOCATION AND WIDTH, UNLESS OTHERWISE SHOWN IN PLANS.

55. WHERE CONNECTIONS TO EXISTING SIDEWALKS AND DRIVEWAYS ARE NOT INDICATED ON PLANS, PROPER CONNECTIONS ARE TO BE MADE AS DIRECTED BY THE ENGINEER. DROP CURB AND DRIVEWAY CONNECTIONS SHALL BE PROVIDED FOR ACCESS TO ALL PRIVATE PROPERTIES ADJACENT TO THE PROJECT. PAYMENT SHALL BE INCLUDED IN THE COST OF RELATED BID ITEMS.

56. CONTRACTOR TO INSTALL ½" PREFORMED EXPANSION JOINT WHEN PROPOSED SIDEWALK IMPROVEMENTS IS IMMEDIATELY ADJACENT TO EXISTING CONCRETE SLAB AND/OR BUILDING.

57. THE SIDEWALK AT DRIVEWAY TURNOUTS SHALL BE 6" CONCRETE.

58. ALL BUS STOP SIGNS TO BE FURNISHED BY MIAMI-DADE TRANSIT. ENGINEER TO CONTACT MIAMI-DADE COUNTY TRANSIT AT (305)637-3753 ONE (1) WEEK PRIOR TO POURING SIDEWALKS AND COORDINATE THE REMOVAL AND REPLACEMENT OF BUS STOP SIGNS AND BENCHES.

59. COMPLETE AS-BUILT INFORMATION RELATIVE TO LOCATION AND DEPTH OF PIPES, MANHOLES, ETC. SHALL BE ACCURATELY RECORDED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE WORK. ALL ELEVATIONS SHALL BE TAKEN BY A FLORIDA REGISTERED SURVEYOR AND SHOWN ON THE RECORD DRAWINGS.

60. THE INFORMATION PROVIDED IN THESE DRAWINGS IS SOLELY TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF CONDITIONS WHICH WILL BE ENCOUNTERED DURING THE COURSE OF WORK. THE CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT WHATEVER INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSION REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED, AND UPON WHICH BIDS WILL BE BASED.

61. SHOP DRAWINGS FOR SIGNAL EQUIPMENT AND MAST-ARMS ARE TO BE DELIVERED TO TRAFFIC SIGNALS AND SIGN DIVISION LOCATED AT 7100 NW 36 ST MIAMI, FL 33166 TO THE ATTENTION OF OSCAR RUBIO IN ORDER TO ASSURE EQUIPMENT MEETS THE MDC STANDARDS.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

GENERAL NOTES

STORMWATER POLLUTION PREVENTION PLAN

NARRATIVE DESCRIPTION

THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) NARRATIVE DESCRIPTION CONTAINS REFERENCES TO THE CONTRACT DOCUMENTS, THE STATE OF FLORIDA EROSION AND SEDIMENT CONTROL DESIGNER AND REVIEWER MANUAL (E&SC MANUAL), THE FDOT DESIGN STANDARDS, AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE COMPLETE SWPPP IS COMPRISED OF SEVERAL ITEMS INCLUDING: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN (ECP) PREPARED AND SUBMITTED IN ACCORDANCE WITH CONTRACT DOCUMENTS, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION. ALL OF WHICH ARE COMPLEMENTARY TO THE SIGNED AND CERTIFIED SWPPP IF ONE IS PROVIDED BY THE DEPARTMENT. CONTRACTOR IS REQUIRED TO MAINTAIN COPIES OF THE AFOREMENTIONED ITEMS ON SITE, INCLUDING ALL APPLICABLE PERMITS.

1. SITE DESCRIPTION

A. NATURE OF CONSTRUCTION ACTIVITIES:
THE PROJECT CONSIST OF (2) TWO LANES ROUNDABOUTS AND THE TRANSITION IN ALL ROUNDABOUT LEGS FROM TWO LANES TO THE EXISTING ONE LANE ROADS. OTHER ACTIVITIES INCLUDED ARE SIGNALIZATION AND LIGHTING IMPROVEMENTS. THE PROPOSED DRAINAGE SYSTEM UTILIZES CURB INLETS AND FRENCH DRAIN.

B. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES: THE CONTRACTOR SHALL PROVIDE IN THE ECP A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. EACH CONSTRUCTION PHASE REQUIRES THE INSTALLATION OF PERIMETER CONTROL, AFTER CLEARING AND GRUBBING AS NECESSARY FOR THE INSTALLATION OF THE CONTROLS, PRIOR TO BEGINNING ANY WORK. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING SEDIMENT AND IS APPROVED BY THE ENGINEER.

1) CLEARING AND GRUBBING, AND EARTHWORK.
2) FINAL GRADING AND LANDSCAPING WHERE NECESSARY.

C. AREA ESTIMATES (ACRE)

1) TOTAL SITE AREA: 8.15 AC

2) TOTAL AREA OF THE SITE THAT IS EXPECTED TO BE DISTURBED: 3.82 AC

3) THE SIZE OF THE DRAINAGE AREA FOR EACH OUTFALL

A) THIS PROJECT HAS NO OUTFALLS.

4) THE LOCATION OF EACH OUTFALL IS NOT APPLICABLE TO THIS PROJECT.

E. SITE MAP: THE ASSOCIATED CONSTRUCTION PLAN SHEETS AND CROSS SECTIONS WILL BE USED AS THE SITE MAP. LOCATIONS OF THE REQUIRED INFORMATION ARE DESCRIBED BELOW. THE SHEET NUMBERS FOR ALL ITEMS DISCUSSED ARE IDENTIFIED ON THE COVER SHEET OF THE CONSTRUCTION PLANS.

1) DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER MAJOR GRADING ACTIVITIES: THE SLOPES OF THE SITE CAN BE SEEN ON THE CONSTRUCTION PLAN SHEETS.

2) AREAS OF SOIL DISTURBANCE: THE AREAS TO BE DISTURBED ARE INDICATED ON THE CONSTRUCTION PLAN DETAIL SHEETS. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW GROUND WILL BE DISTURBED.

3) AN OUTLINE OF AREAS WHICH MAY NOT BE DISTURBED: THESE AREAS OF THE PROJECT OUTSIDE THE CLEARING AND GRUBBING AND CONSTRUCTION ACTIVITIES WHICH ARE COMPRISED OF THOSE THAT ARE NOT SUBJECT TO ANY SOIL DISTURBING ACTIVITIES.

4) THE LOCATION OF MAJOR STRUCTURAL AND NONSTRUCTURAL CONTROLS IDENTIFIED IN THE PLAN:TEMPORARY SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AT ALL LOCATIONS WHERE DISTURBANCE OF SOLIDS WILL OCCUR. ADDITIONAL MEASURES MAY BE REQUIRED AS NECESSARY WHERE STORMWATER RUNOFF HAS THE POTENTIAL TO REACH SURFACE WATERS OR OFFSITE STORMWATER COLLECTION FACILITIES.

5) THE LOCATION OF AREAS WHERE STABILIZATION PRACTICES ARE EXPECTED TO OCCUR, SURFACE WATERS, WETLANDS AND LOCATIONS WHERE STORMWATER IS DISCHARGED TO A SURFACE WATER OR MS4: AREAS OF PERMANENT STABILIZATION ARE SHOWN ON THE CONSTRUCTION PLAN SHEETS AND CONSTRUCTION DETAIL SHEETS.

F. DISCHARGE POINT(S): N/A. THIS PROJECT HAS NO OUTFALL.

2. CONTROLS

A. EROSION AND SEDIMENT CONTROLS: THE CONTRACTOR SHALL DESCRIBE IN THE ECP THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES. THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE ECP, SUBJECT TO APPROVAL BY THE ENGINEER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER MANAGEMENT PRACTICES. FOR EACH CONSTRUCTION PHASE INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED. IN ADDITION:

. FURNISH AND PLACE INLET PROTECTION SYSTEMS TO CONTROL EROSION AND SILTATION.

. INSTALL SOIL TRACKING PREVENTION DEVICES (STPDS) AT ALL COMMON AREAS WHERE CONSTRUCTION VEHICLES WILL BE ENTERING AND EXITING THE CONSTRUCTION SITE.

. SEDIMEN BARRIERS SHALL BE INSTALLED AND AT THE TOE OF SLOPE OF EMBANKMENTS AND AT LOCATIONS AS DESCRIBED IN THE EROSION AND SEDIMENT CONTROL DETAILS AND E&SC MANUAL.

. INLET PROTECTION SHALL BE USED FOR ALL EXISTING INLETS SUBJECT TO SEDIMENT RUNOFF.

. EROSION CONTROL MATS MAY BE UTILIZED AS AN EXTRA MEASURE OF PROTECTION FOR EMBANKMENT OR BERM CONSTRUCTION TO PREVENT EROSION.

. CLEARING AND GRUBBING OPERATIONS WILL BE CONTROLLED SO AS TO MINIMIZE UNPROTECTED ERODIBLE AREAS EXPOSED TO WEATHER. AREAS OUTSIDE THE LIMITS OF CONSTRUCTION SHALL NOT BE DISTURBED.

. EXCAVATED MATERIAL SHALL NOT BE DEPOSITED IN LOCATIONS WHERE THE MATERIAL COULD BE WASHED AWAY BY HIGH WATER, RAIN OR STORMWATER RUNOFF. STOCKPILES SHALL BE COVERED OR ENCIRCLED WITH SEDIMENT DEVICES.

1) STABILIZATION PRACTICES: IN THE ECP, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 7 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

A) TEMPORARY: INCLUDES SOD, MULCH, AND ARTIFICIAL COVERINGS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

B) PERMANENT: INCLUDES ASPHALT OR CONCRETE SURFACE, SOD, ROADSIDE SWALES, AND ENDWALLS IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

2) STRUCTURAL PRACTICES: IN THE ECP, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL AND TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

A) TEMPORARY: INCLUDES INLET PROTECTION SYSTEMS, SEDIMENT BARRIERS, TURBIDITY BARRIERS AND SOIL TRACKING PREVENTION DEVICES AS PER THE ES&C MANUAL AND THE CONTRACT DOCUMENTS. SEE EROSION AND SEDIMENT CONTROL DETAILS FOR MORE INFORMATION. ALL SEDIMENT CONTROLS SHALL BE IN PLACE PRIOR TO ANY SOIL DISTURBING ACTIVITY.

B) PERMANENT: INCLUDES ROADSIDE SWALES.

B. PERMANENT STORMWATER MANAGEMENT CONTROLS: STORMWATER RUNOFF WILL BE CONVEYED IN A ROADSIDE SWALE TO THE FRENCH DRAIN AND WILL INFILTRATE INTO THE GROUND. DRAINAGE STRUCTURES WITHIN THE CORRIDOR CONSIST OF CURB INLETS, AND FRENCH DRAIN.

C. CONTROL FOR OTHER POTENTIAL POLLUTANTS: THE CONTRACTOR SHALL PRACTICE GOOD HOUSEKEEPING BY INSTITUTING A CLEAN, ORDERLY CONSTRUCTION SITE. THE FOLLOWING CONTROLS SHALL BE IMPLEMENTED TO FURTHER REDUCE POLLUTION AT THE PROJECT SITE:

1) WASTE DISPOSAL: IN THE ECP, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER:

A) THE CONTRACTOR SHALL DEMONSTRATE THE PROPER DISPOSAL OF ALL CONSTRUCTION WASTE GENERATED WITHIN THE PROJECT LIMITS. WASTE MAY INCLUDE, BUT NOT BE LIMITED TO, VEGETATION FROM CLEARING AND GRUBBING ACTIVITIES, PACKAGING MATERIALS, SCRAP BUILDING MATERIALS, LITTER FROM TRAVELING PUBLIC, SEWAGE FROM SANITARY FACILITIES, HERBICIDES AND PESTICIDES AND THEIR CONTAINERS, AND HYDROCARBON PRODUCTS. CONTRACTOR SHALL DESIGNATE A WASTE COLLECTION AREA ONSITE AND DELINEATE THE AREA ON THE SWPPP SITE MAP.

B) SANITARY/SEPTIC FACILITIES SHALL BE PROVIDED AND MAINTAINED IN A NEAT AND SANITARY CONDITION, FOR THE USE OF THE CONTRACTOR'S EMPLOYEES AS NECESSARY TO COMPLY WITH THE REQUIREMENTS AND REGULATIONS OF THE STATE AND LOCAL BOARDS OF HEALTH. A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR AS REQUIRED BY STATE REGULATIONS WILL COLLECT ALL SANITARY WASTE FROM PORTABLE UNITS.

C) THE CONTRACTOR WILL PROVIDE LITTER CONTROL AND COLLECTION WITHIN THE PROJECT LIMITS DURING CONSTRUCTION ACTIVITIES. CONTRACTOR WILL PROVIDE AN ADEQUATE NUMBER OF LITTER CONTAINERS WITH LIDS AT THE STAGING, STOCKPILE AND FIELD OFFICE AREAS (AS APPLICABLE). WASTE COLLECTION WILL BE SCHEDULED SO THAT CONTAINERS ARE EMPTIED PRIOR TO OVERFLOW. SPILLED LITTER CONTAINERS WILL BE CLEANED UP IMMEDIATELY.

2) OFF-SITE VEHICLE TRACKING & GENERATION OF DUST: IN THE ECP, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENTS AND GENERATING DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

A) STABILIZING CONSTRUCTION ENTRANCES AS NECESSARY ACCORDING TO THE E&SC MANUAL AND THE CONTRACT DOCUMENTS.

B) THE CONTRACTOR SHALL TAKE MEASURES TO INSURE THE CLEANUP OF SEDIMENTS THAT HAVE BEEN TRACKED BY VEHICLES OR HAVE BEEN TRANSPORTED BY WIND OR STORMWATER ABOUT THE SITE OR ONTO NEARBY ROADWAYS.

C) REMOVING EXCESS DIRT FROM ROADS DAILY.

D) USING ROADWAY SWEEPERS DURING DUST GENERATING ACTIVITIES SUCH AS EXCAVATION AND MILLING OPERATIONS.

E) STABILIZED CONSTRUCTION ENTRANCES AND CONSTRUCTION ROADS, IF APPROPRIATE, SHALL BE IMPLEMENTED IN ORDER TO REDUCE OFF-SITE TRACKING.

F) LOADED HAUL TRUCKS SHALL BE COVERED WITH TARPAULIN. EXCESS DIRT ON THE ROAD SHALL BE REMOVED DAILY.

3) STATE OR LOCAL REGULATIONS: IN THE ECP, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

4) APPLICATION OF FERTILIZER AND PESTICIDES

A) THE APPLICATION AND HANDLING OF HERBICIDES AND PESTICIDES SHALL BE IN COMPLIANCE WITH THE MANUFACTURER RECOMMENDED METHOD AND IN ACCORDANCE WITH FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS MODIFIED BY THE CONTRACT DOCUMENTS.

B) HERBICIDES AND PESTICIDES SHALL BE STORED ONSITE IN THEIR ORIGINAL CONTAINERS WITH PRODUCT LABEL INTACT.

5) TOXIC SUBSTANCES AND MATERIALS

A) IN THE ECP, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES AND MATERIALS THAT ARE LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

B) CONTRACTOR SHALL PROVIDE EQUIPMENT NECESSARY TO CONTAIN AND CLEAN UP SPILLS OF HAZARDOUS MATERIALS, INCLUDING PETROLEUM PRODUCTS. SPILLS SHALL BE CONTAINED AND CLEANED UP IMMEDIATELY AFTER THEY OCCUR. SPILLED MATERIAL AND THE EQUIPMENT USED TO CLEAN UP THE SPILL SHALL NOT COME IN CONTACT WITH SURFACE WATERS OR BE INTRODUCED INTO STORMWATER. DISPOSAL OF SURPLUS PRODUCT WILL BE DONE ACCORDING TO MANUFACTURER RECOMMENDED METHOD.

C) CONTRACTOR SHALL PROVIDE A PROJECT SPECIFIC HAZARDOUS MATERIALS SPILL CONTROL PLAN IN ORDER TO ADDRESS THE HANDLING OF HYDROCARBON AND HAZARDOUS MATERIALS.

D) PETROLEUM PRODUCTS SHALL BE STORED IN COVERED AREAS WITH SECONDARY CONTAINMENT SURROUNDING CONTAINER.

E) TOXIC/HAZARDOUS MATERIALS EXPOSED DURING CONSTRUCTION ACTIVITIES SHALL BE HANDLED PER THE FDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS MODIFIED BY THE CONTRACT DOCUMENTS.

D. APPROVED STATE AND LOCAL PLANS AND PERMITS

1) FDEP GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES.

3. MAINTENANCE: IN THE ECP, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING:

A. SEDIMENT BARRIERS-TWELVE (12) MONTHS, OR AS REQUIRED, REPLACEMENT INTERVAL IN ACCORDANCE WITH CONTRACT'S SPECIFICATIONS.

C. INLET PROTECTION SYSTEMS AT INLETS-CHECK AFTER RAINFALL EVENTS. CLEAN IF CLOGGING OCCURS.

D. THE MAINTENANCE OF THESE DEVICES SHALL OCCUR UNTIL THE ENGINEER HAS DEEMED AN AREA PERMANENTLY STABILIZED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE EROSION AND SEDIMENT CONTROL DEVICES ONCE THEY HAVE SERVED THEIR PURPOSE.

4. INSPECTION

A. THE CONTRACTOR SHALL BE REQUIRED TO CONDUCT DAILY VISUAL INSPECTIONS OF ALL TEMPORARY AND PERMANENT EROSION CONTROL MEASURES ALONG THE PROJECT CORRIDOR. THE CONTRACTOR SHALL MAINTAIN, REPAIR AND/OR REPLACE THESE ITEMS AS NECESSARY.

B. THE ENGINEER SHALL HAVE AN INSPECTOR REVIEW THE PROJECT'S TEMPORARY AND PERMANENT EROSION CONTROL MEASURES FOR THE ITEMS LISTED BELOW AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND/OR WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.5 INCHES OR GREATER. A WRITTEN INSPECTION REPORT (FORM ATTACHED) IS REQUIRED EVERY SEVEN CALENDAR DAYS OR WITHIN 24 HOURS OF THE END OF A STORM THAT DEPOSITS 0.5 INCHES OF RAIN OR GREATER.

1) OUTFALLS INTO THE WATERS OF THE UNITED STATES

2) POINTS OF DISCHARGE TO MUNICIPAL SEPARATED STORM SEWER SYSTEMS

3) DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN STABILIZED

4) AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION

5) STRUCTURAL CONTROLS

6) STORMWATER MANAGEMENT SYSTEMS

7) LOCATIONS WHERE VEHICLES ENTER OR EXIT THIS SITE

8) CHECK THAT THE APPROVED OR REVISED EROSION CONTROL PLAN IS FOLLOWED

9) WHERE SITES HAVE BEEN STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH.

C. THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

D. IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE ENGINEER.

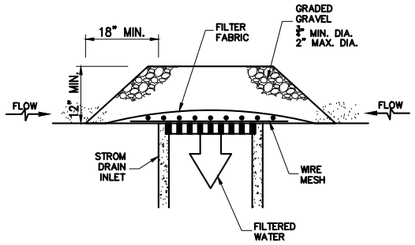
5. NON-STORMWATER DISCHARGES

A. IN THE ECP, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION FROM THESE NON-STORMWATER DISCHARGES.

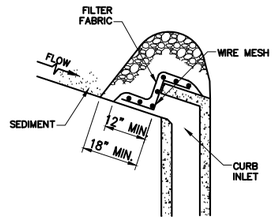
B. IF CONTAMINATED SOIL OR GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR IS TO CEASE OPERATIONS IN THAT AREA. THE CONTRACTOR SHALL CONTACT THE MIAMI-DADE COUNTY REGULATORY AND ECONOMIC RESOURCES COMPLIANCE DESK, AT (305) 372-6955.

6. CONTRACTOR/SUBCONTRACTOR CERTIFICATION.

A. FOR EACH MEASURE IDENTIFIED IN THE SWPPP, THE CONTRACTOR AND/OR SUBCONTRACTOR(S) THAT WILL IMPLEMENT THE MEASURE MUST SIGN A COPY OF THE CERTIFICATION STATEMENT, PROVIDED IN APPENDIX A OF THE SWPPP, PRIOR TO CONDUCTING ANY CONSTRUCTION ACTIVITIES AT THE SITE.



DROP INLET PROTECTION–GRAVEL



CURB INLET PROTECTION–GRAVEL

GRAVEL APPLICATIONS (TYP.) OR APPROVED ALTERNATIVE

NOTES FOR INLET PROTECTION GRAVEL:

1– INSTALLATION/APPLICATION CRITERIA:

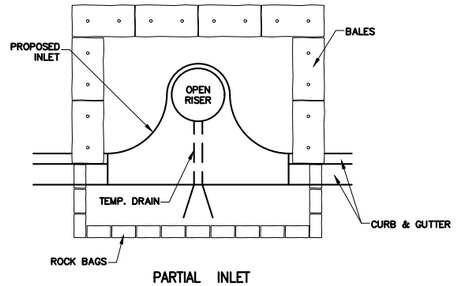
- PLACE WIRE MESH (WITH ½ INCH OPENINGS) OVER THE INLET GRATE EXTENDING ONE FOOT PAST THE GRATE IN ALL DIRECTIONS.
- PLACE FILTER FABRIC OVER THE MESH. FILTER FABRIC SHOULD BE SELECTED BASED ON SOIL TYPE.
- PLACE GRADED GRAVEL, TO A MINIMUM DEPTH OF 12 INCHES, OVER THE FILTER FABRIC AND EXTENDING 18 INCHES PAST THE GRATE IN ALL DIRECTIONS.

2– MAINTENANCE:

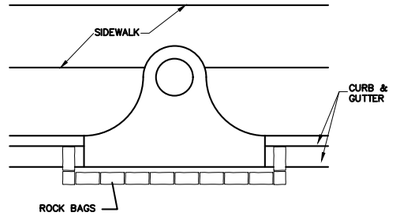
- INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT A MINIMUM OF ONCE MONTHLY.
- REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 4 INCHES IN DEPTH.
- REPLACE FILTER FABRIC AND CLEAN OR REPLACE GRAVEL IF CLOGGING IS APPARENT.

3– LIMITATIONS:

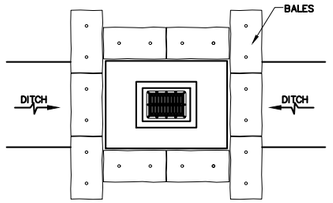
- RECOMMENDED FOR MAXIMUM DRAINAGE AREA OF ONE ACRE.
- EXCESS FLOWS MAY BYPASS THE INLET REQUIRING DOWN GRADIENT CONTROLS.
- PONDING WILL OCCUR AT INLET.



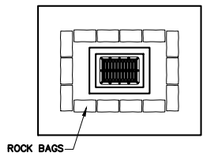
PARTIAL INLET



COMPLETED INLET



DITCH BOTTOM INLET



SWALE INLET

PROTECTION ALONG INLETS WITH ROCK BAGS BALES OR APPROVED ALTERNATIVES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS:

1– TYPE I AND II SYNTHETIC BARRIER SHOULD BE SPACED IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.

2– BALES SHALL BE ANCHORED WITH TWO (2) 1"x2" (or 1" dia.) x 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.

3– RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAYBE USED IF APPROVED BY THE ENGINEER.

4– ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER.

5– WHERE USED IN CONJUNCTION WITH SILT FENCE, BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

INLET PROTECTION SYSTEM (TYP.) OR APPROVED ALTERNATIVE

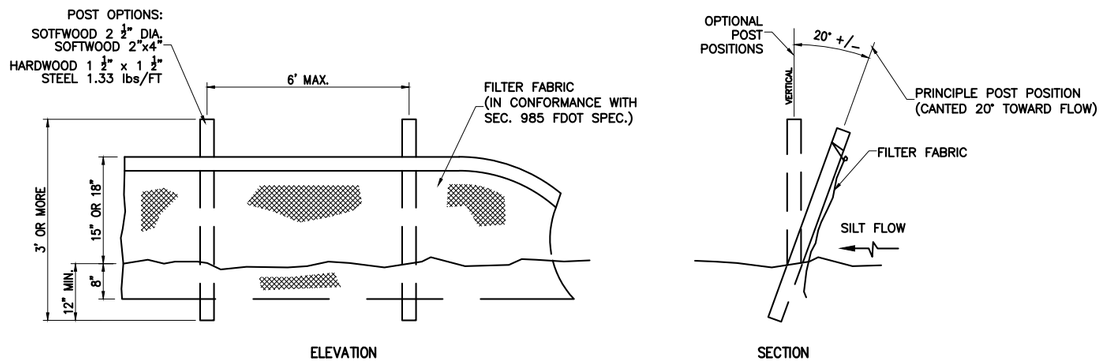
REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

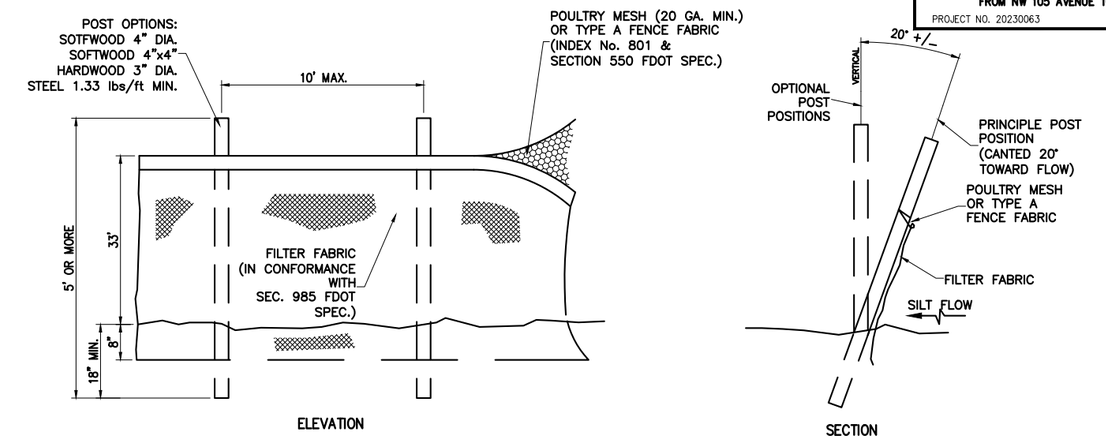
MIAMI–DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

INLET PROTECTION SYSTEMS DETAILS

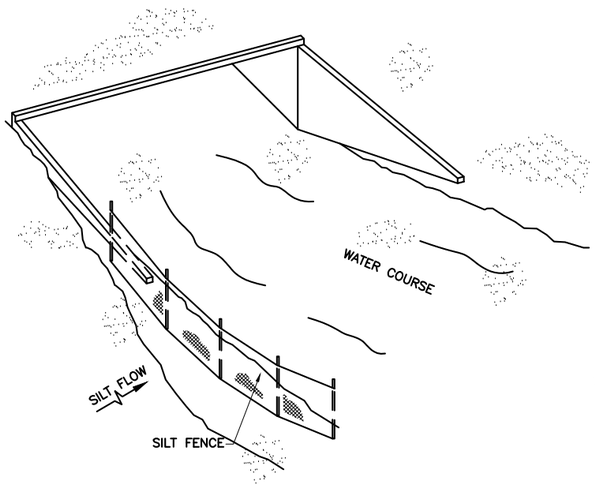
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\06 INLT-PROTN-SYSTM-DETL.dwg Feb 16, 2024 – 11:10am E210983

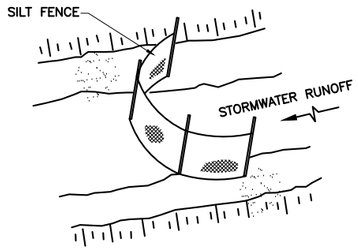


TYPE III SILT FENCE (TYP.)

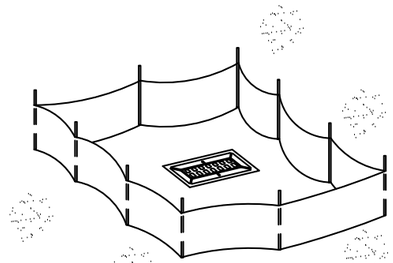


TYPE IV SILT FENCE (TYP.)



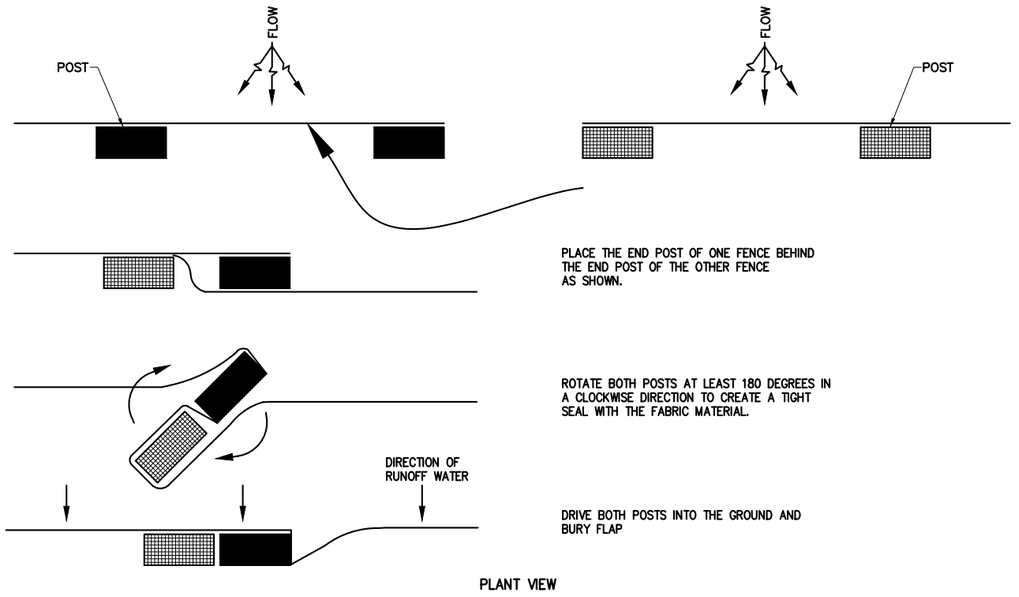


SLIT FENCE PROTECTION IN
DITCHES WITH INTERMITTENT FLOW



SLIT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS

SILT FENCE APPLICATIONS (TYP.)



JOINING TWO SILT FENCES (TYP.)

NOTES FOR SILT FENCES:

1- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.

2- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.

3- DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

4- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

SEDIMENT BARRIERS (TYP.) OR APPROVED ALTERNATIVE

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SEDIMENT BARRIERS DETAILS

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\07 SEDMNT-BARR-DETL.dwg Feb 16, 2024 - 11:11am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 8 OF 60

0 20 40
SCALE IN FEET

LOT 21
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 22
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

EXIST. WATER EDGE

GOLDEN GLADES CANAL

STA:18+09.42
OFF: 20.53' (L)
ELEV: 7.59

PROP. GUARDRAIL

PROP. 3' ASPHALT

EXIST. 24" DIP W.M.

N89° 41' 48"E

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

PROP. 2' C&G (TYPE F)

SURVEY ℄ — SECTION LINE

℄ OF ROAD

N89°41'48"E – 375.85'

PROP. ASPHALT PAVEMENT

STA:21+38.75
OFF: 11.00' (L)
ELEV: 6.55

STA:21+44.55
OFF: 11.00' (L)
ELEV: 6.52

EXIST. ELECT. MH TOP
TO BE ADJUSTED BY OTHERS

STA: 21+85.27

N89°41'48"E – 1308.77'

STA:21+20.28
OFF: 12.73' (R)
ELEV: 6.17

5.46

50'R

NW 105 AVE.

N0°04'21"W

0+00

STA:22+48.02
OFF: 11.00' (R)
ELEV: 6.08

5.52

50'R

STA:18+09.42
OFF: 23.47' (R)
ELEV: 7.53

BEGIN PROJECT
STA. 18+09.42
MEET AND MATCH FDOT PROJECT

R/W LINE

NW 170 STREET

STA:0+62.96
OFF: 13.00' (R)
ELEV: 6.65

STA:0+60.75
OFF: 13.00' (L)
ELEV: 6.65

R/W LINE

TRACT "A"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

13' 13'

EXISTING ROAD TO BE REMOVED

MATCH LINE STA 23+00

18+00 19+00 20+00 21+00 22+00 23+00

60' 82'

DENOTES EXIST. ROAD TO BE REMOVED

DENOTES HARMONIZATION

GRADE BREAK STA = 18+09.42
ELEV = 8.00

GRADE BREAK STA = 21+44.55
ELEV = 6.30

−0.51%

PROP. PROFILE ALONG ℄ OF ROAD

0.00%

EXIST. PROFILE ALONG ℄ OF ROAD

BEGIN PROJECT
STA. 18+09.42
MEET AND MATCH EXISTING PAVEMENT

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

EXIST. 24" DIP W.M. (POLY-WRAPPED)

12 10 8 6 4 2 0 −2 −4

SCALE: 1"=20' (HOR.)
1"=2' (VER.)

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

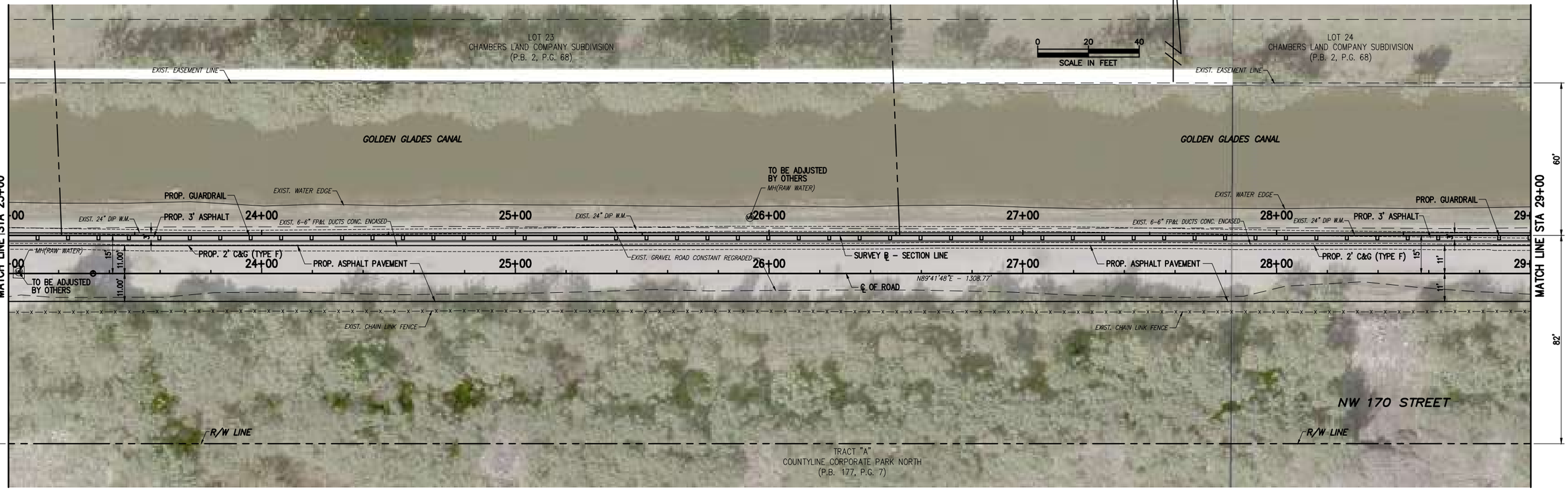
PLAN AND PROFILE

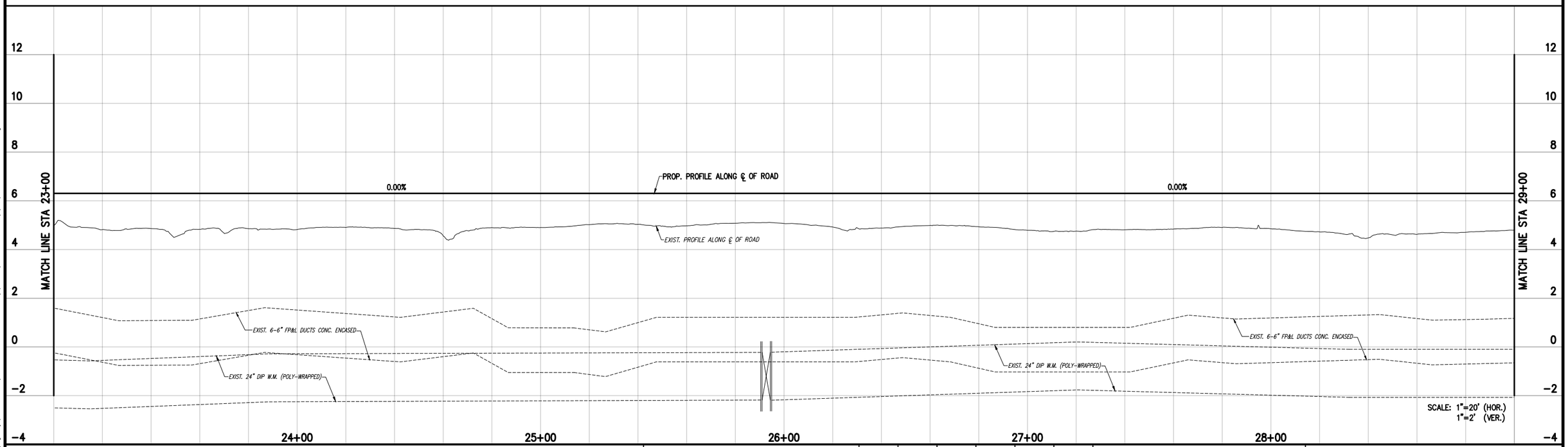
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Sep 09, 2024 - 10:30am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 9 OF 60





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

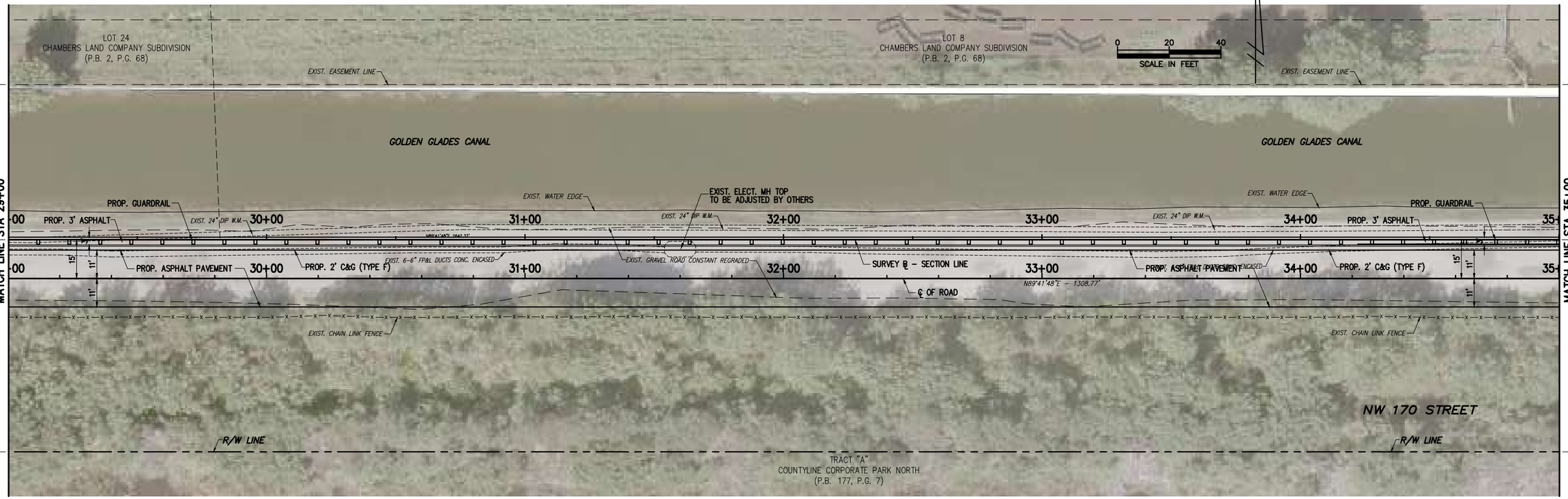
PLAN AND PROFILE

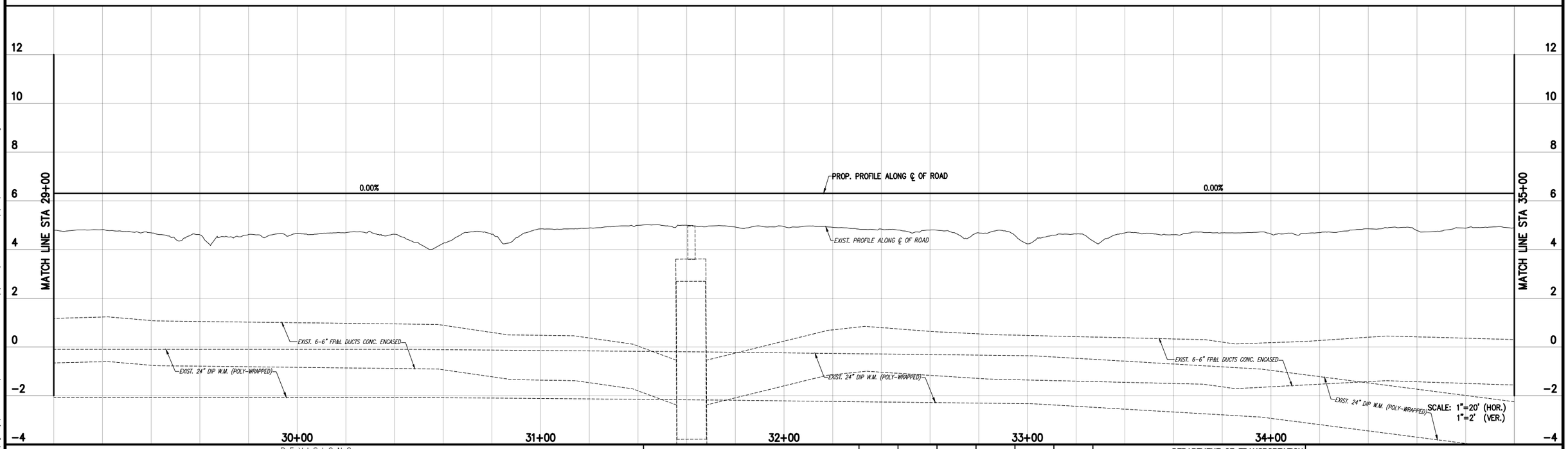
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:16am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 10 OF 60





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

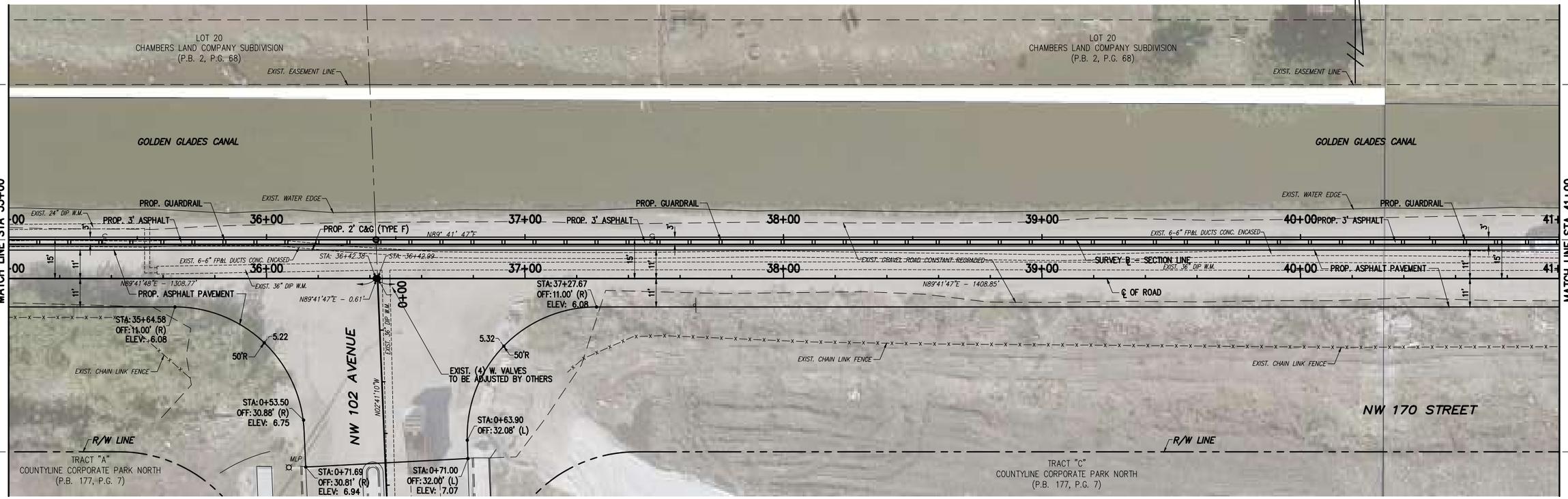
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:16am E210983

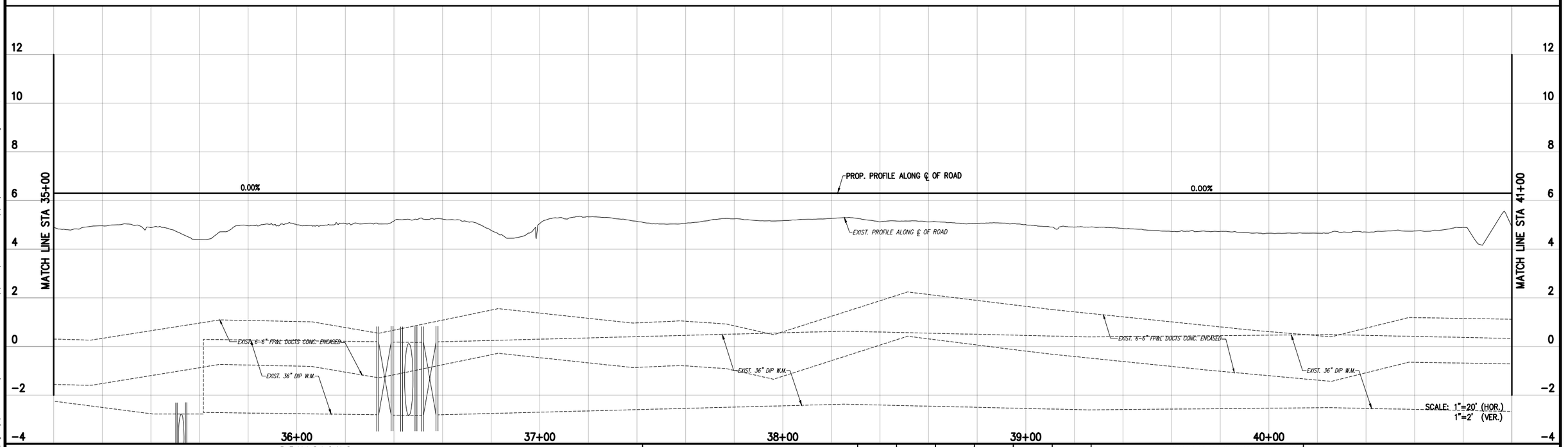
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 11 OF 60

0 20 40
SCALE IN FEET





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

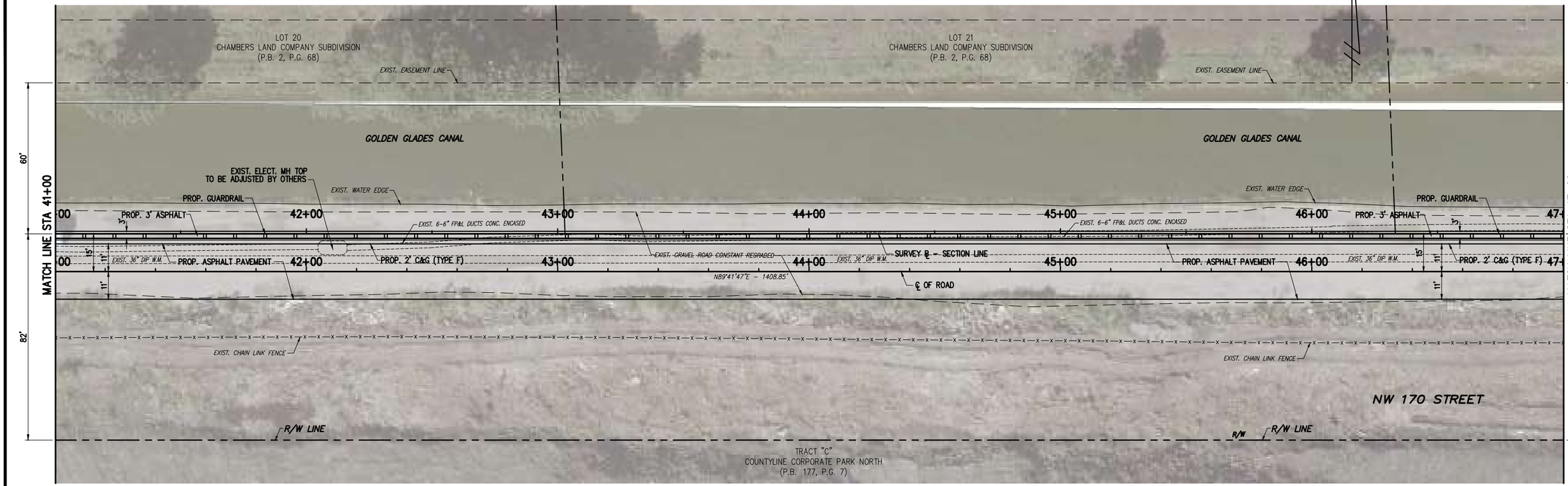
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:17am E210983

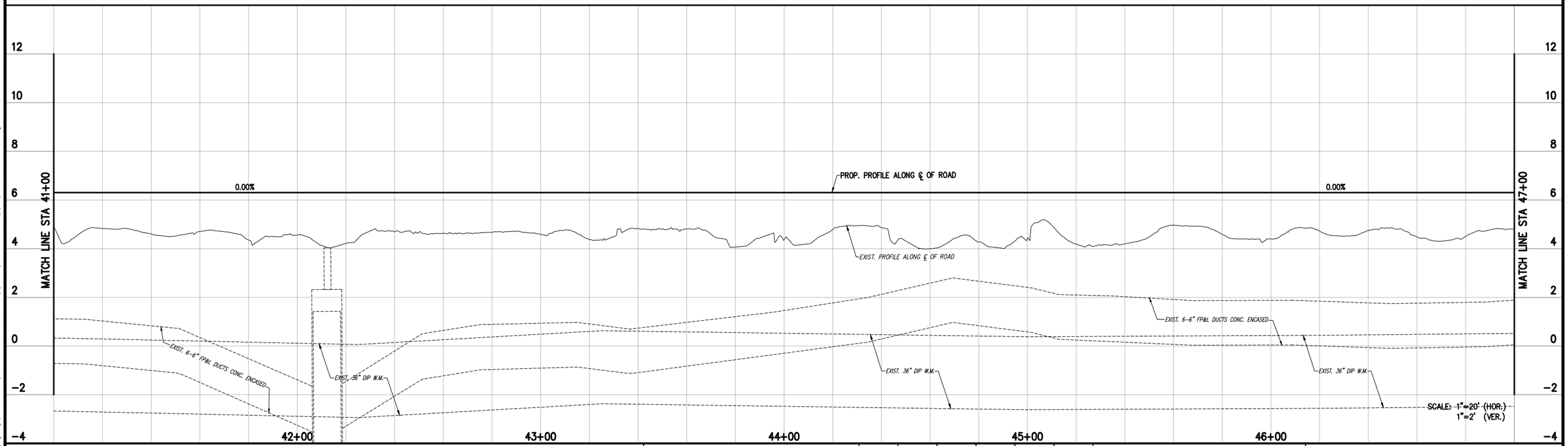
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 12 OF 60

0 20 40
SCALE IN FEET





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

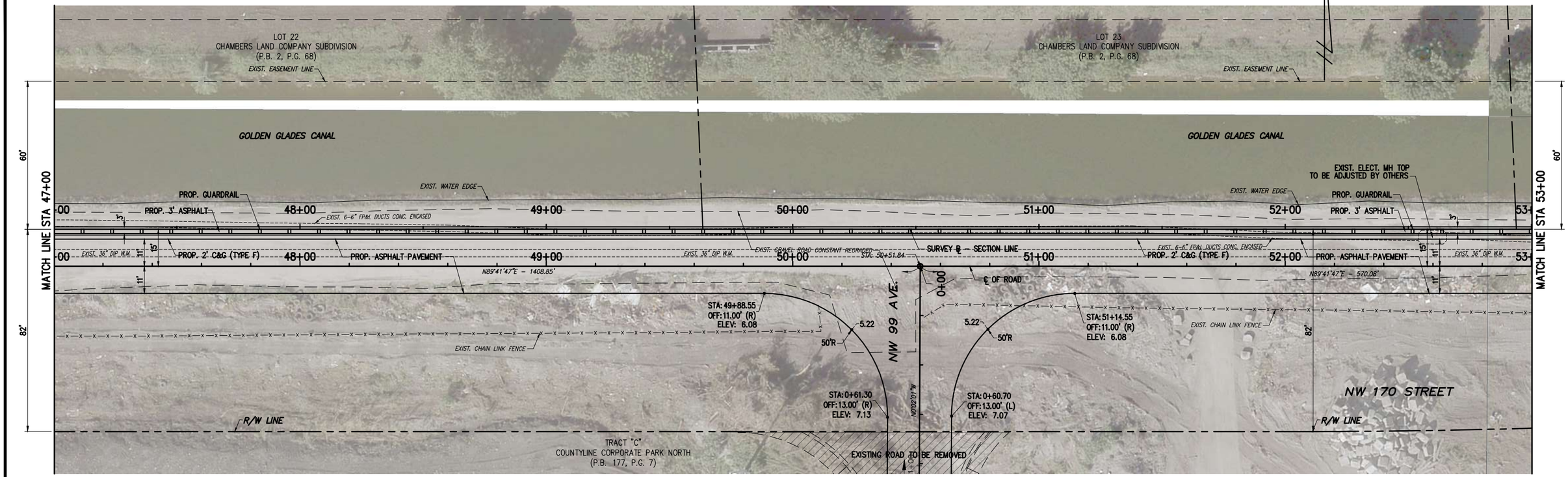
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:17am E210983

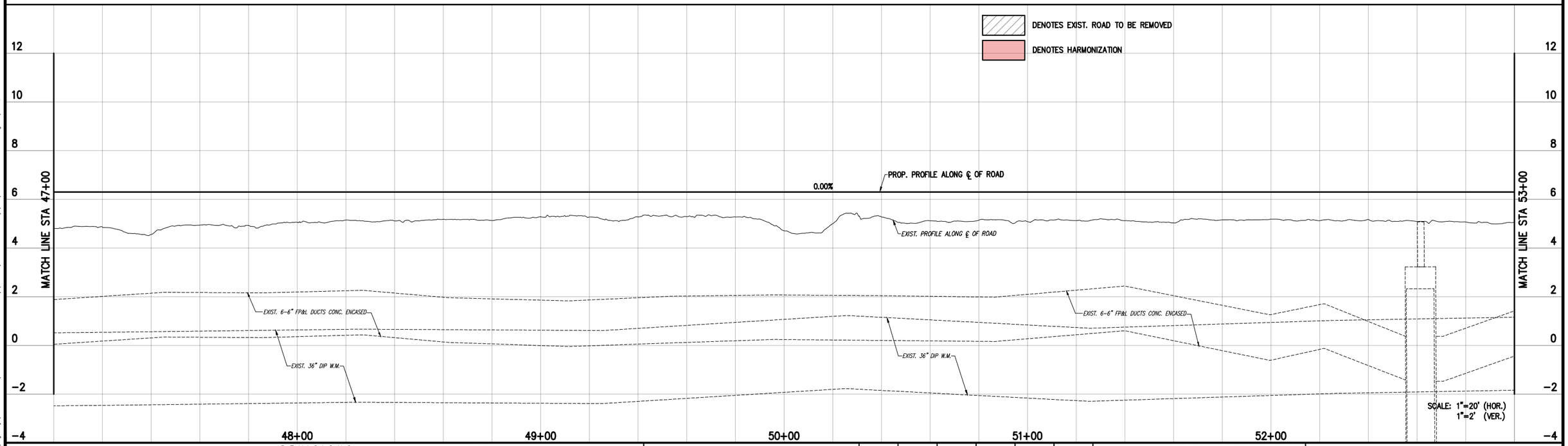
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 13 OF 60

0 20 40
SCALE IN FEET





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

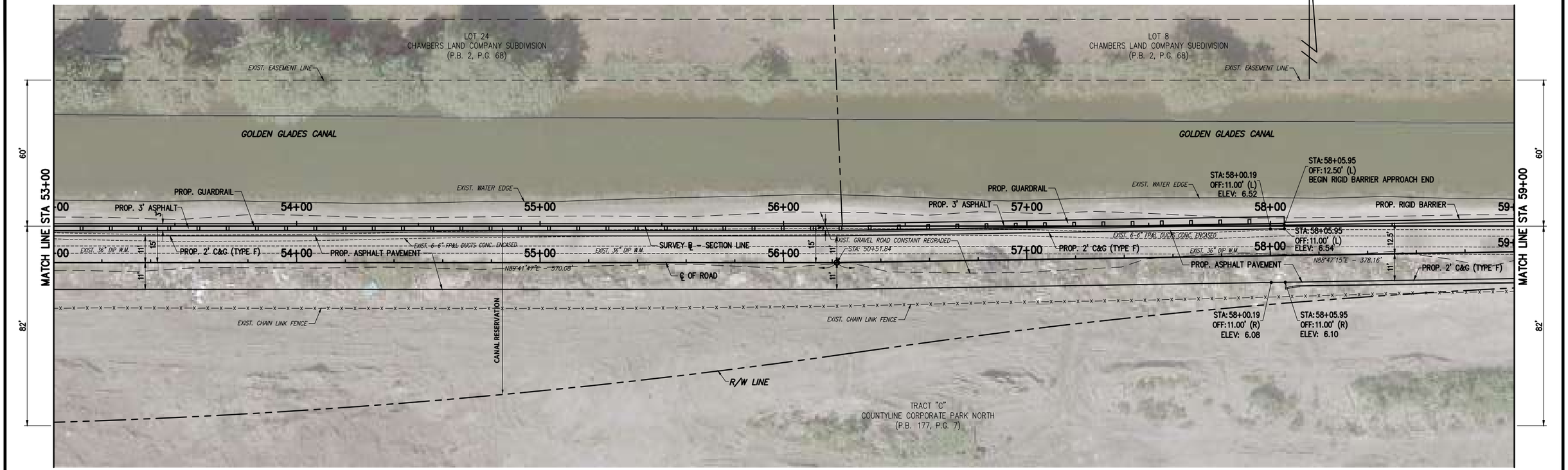
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Sep 09, 2024 - 10:31am E210983

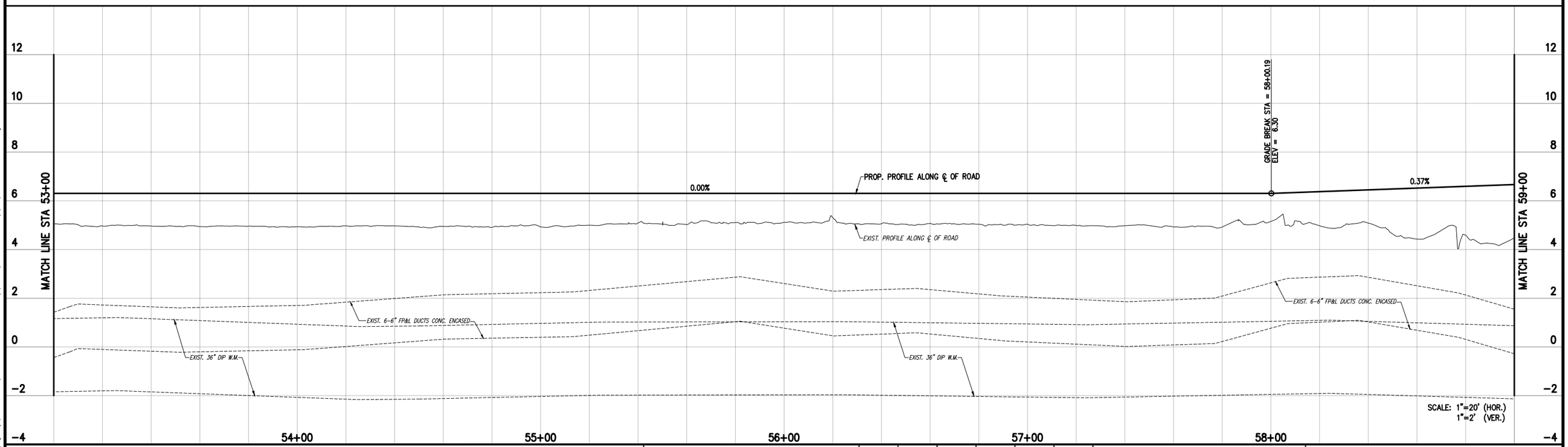
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 14 OF 60

0 20 40
SCALE IN FEET





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

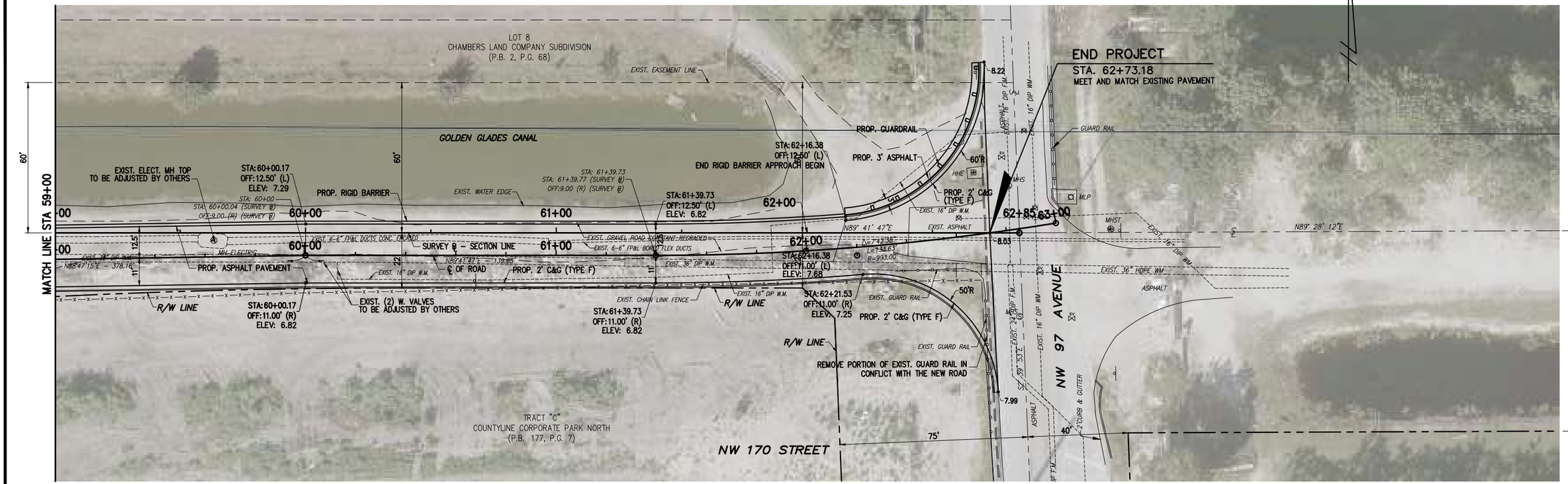
P:\Hwy\Planning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:17am E210983

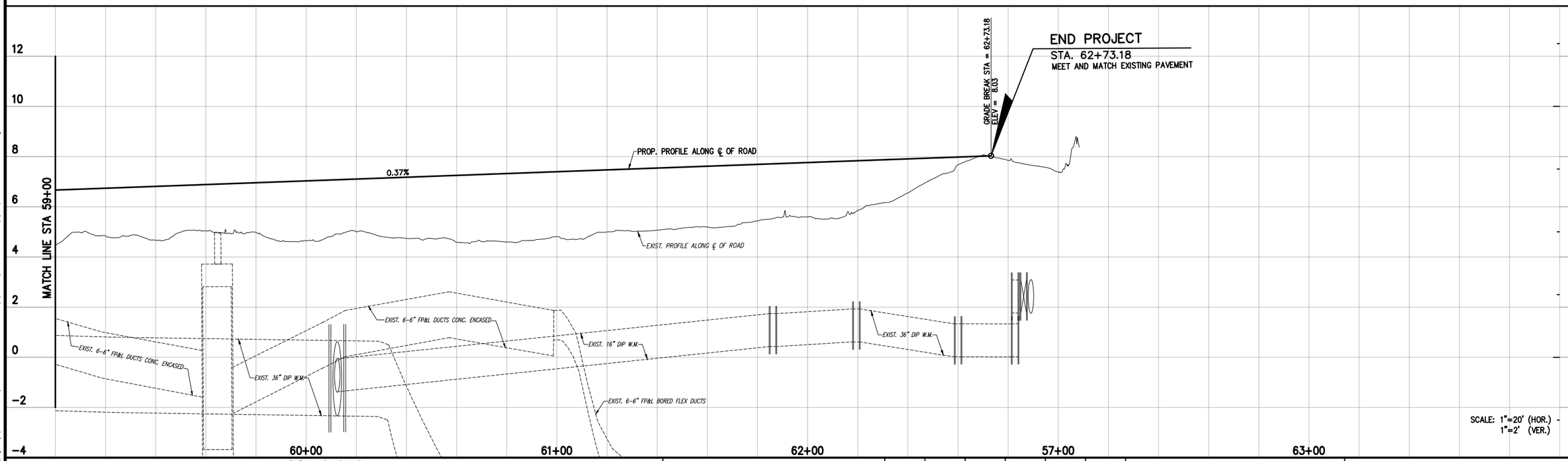
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 15 OF 60

0 20 40
SCALE IN FEET





REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

PLAN AND PROFILE

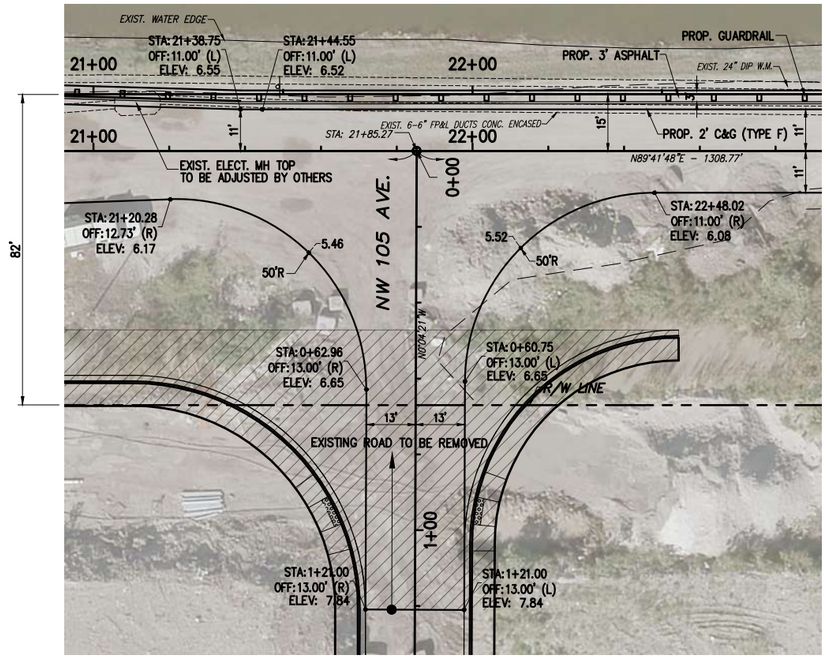
P:\Hwy\Planning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Feb 16, 2024 - 11:17am E210983

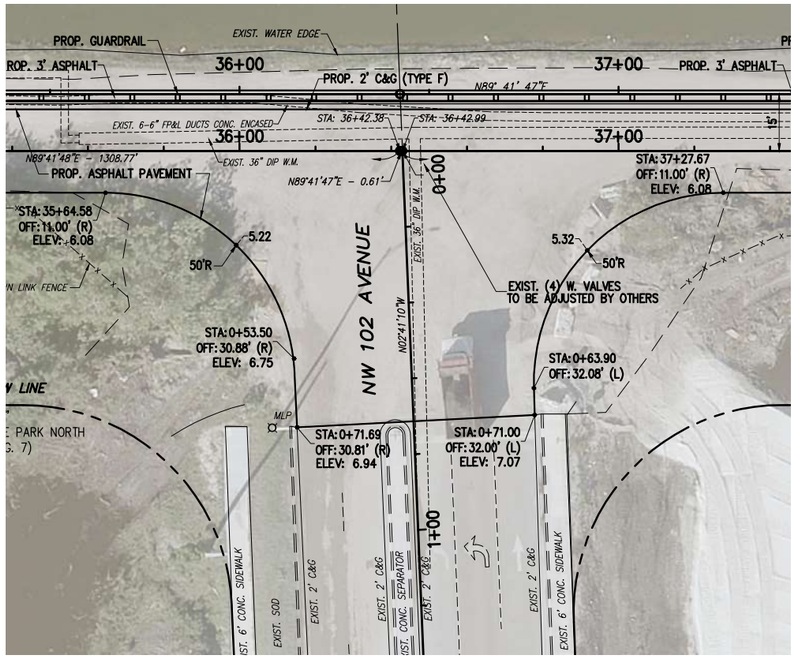
MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

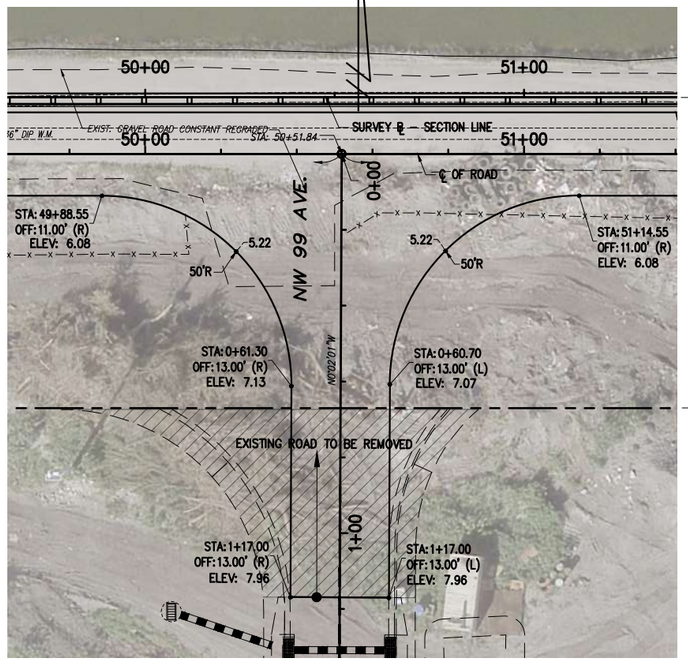
NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 8 OF 60

0 20 40
SCALE IN FEET

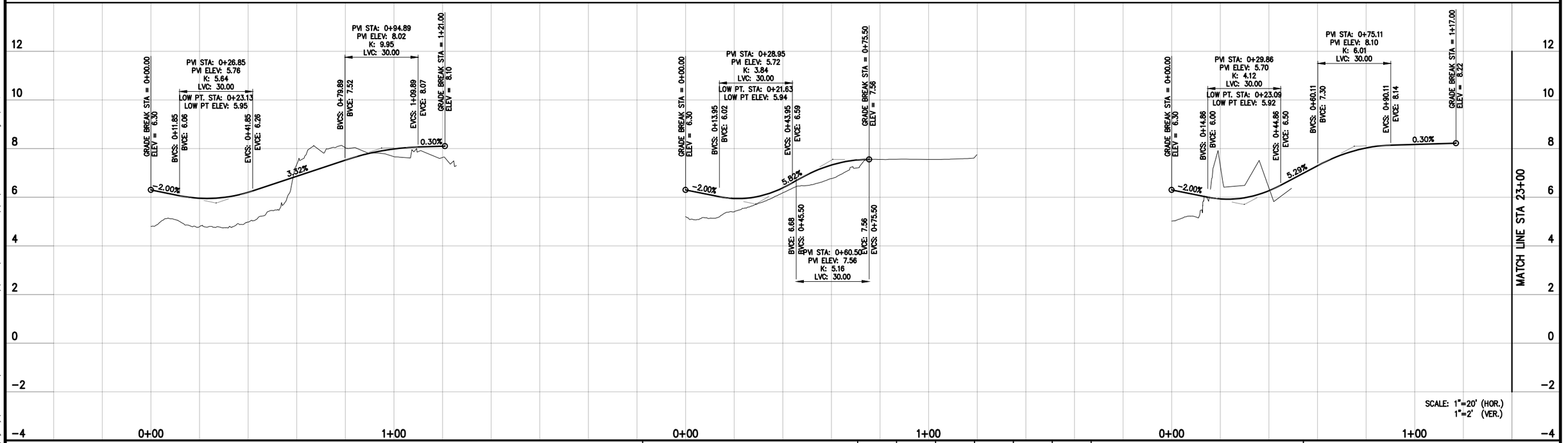






DENOTES EXIST. ROAD TO BE REMOVED

DENOTES HARMONIZATION



MATCH LINE STA 23+00

SCALE: 1"=20' (HOR.)
1"=2' (VER.)

DENOTES EXIST. ROAD TO BE REMOVED

DENOTES HARMONIZATION

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

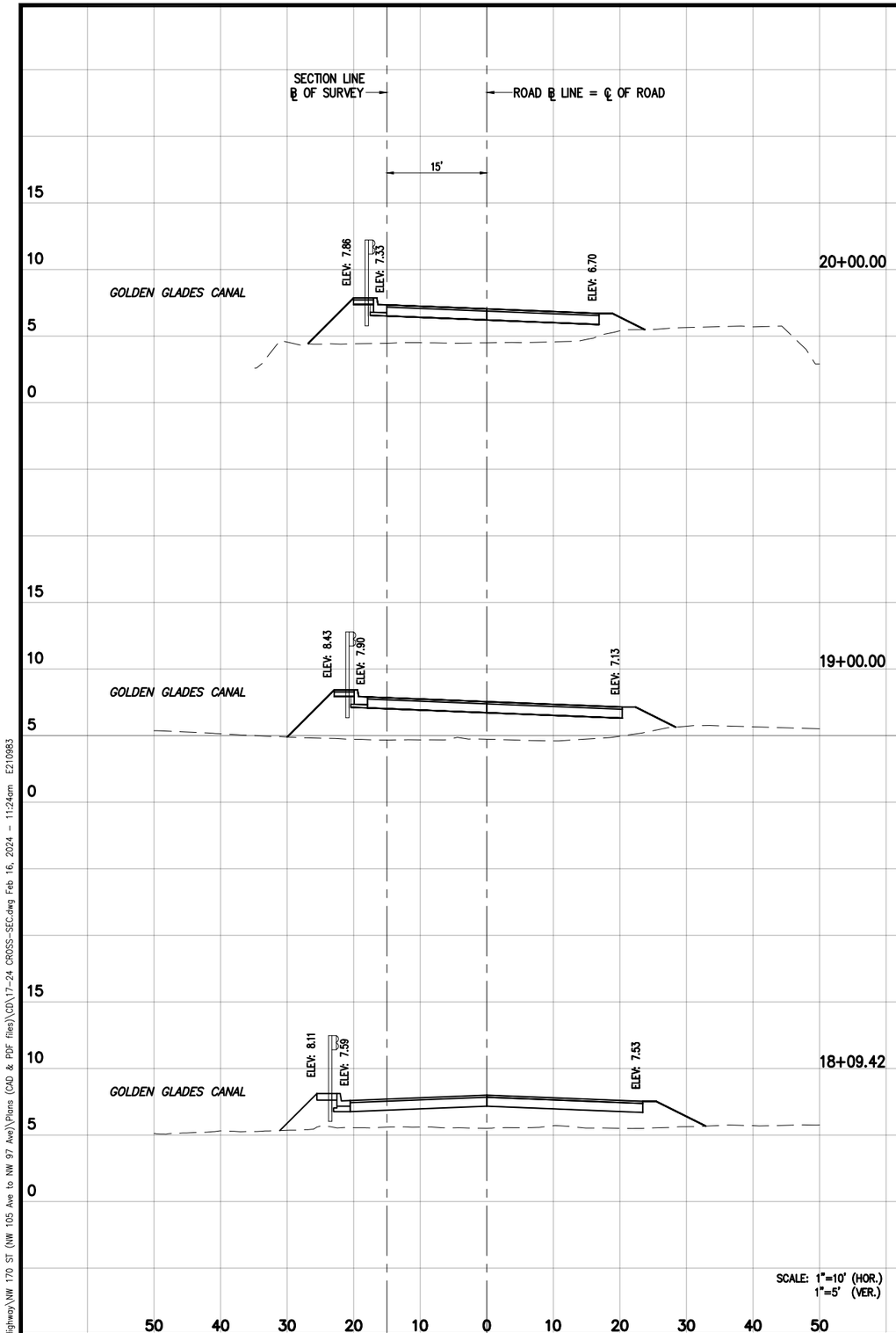
MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

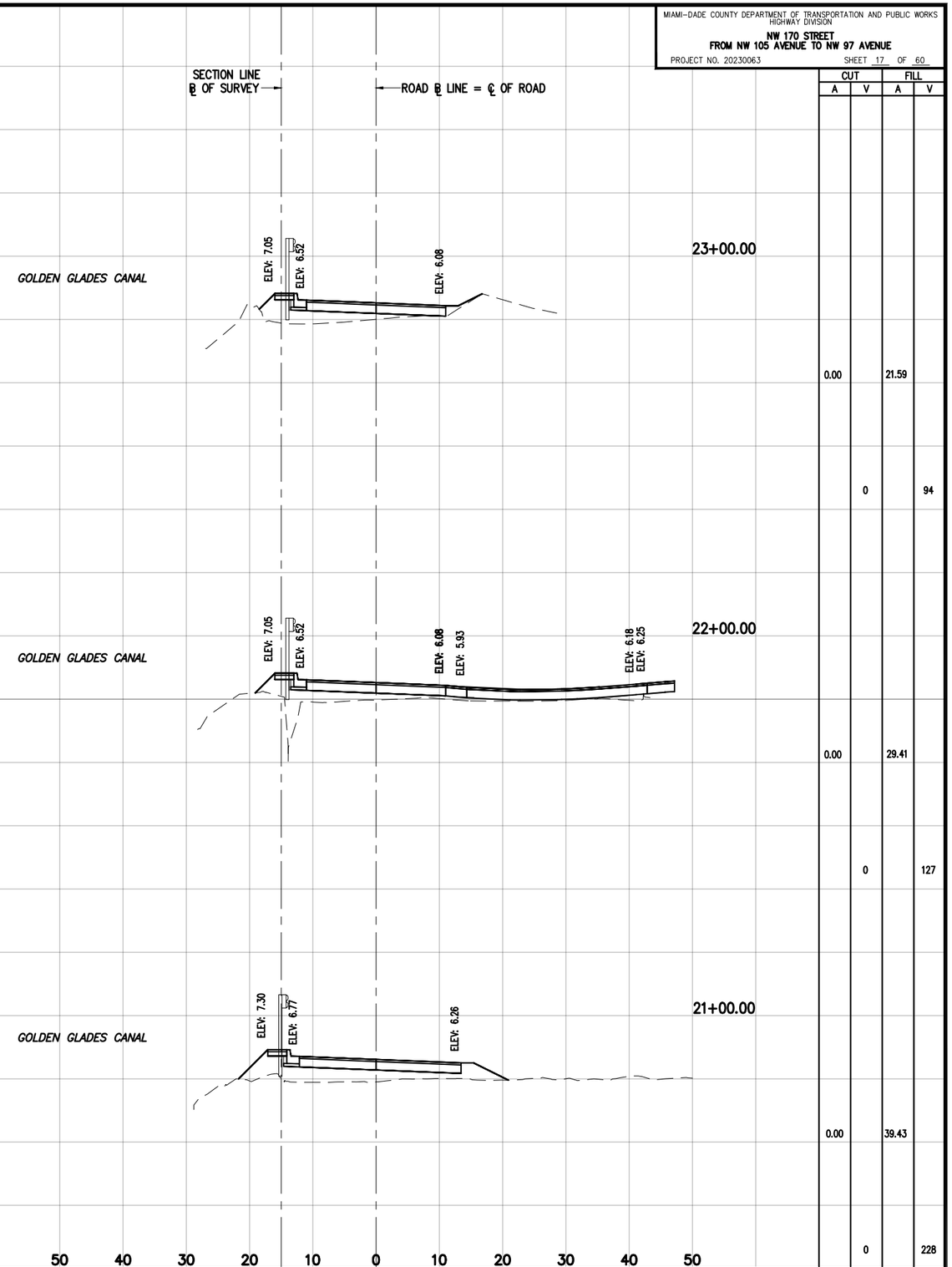
PLAN AND PROFILE

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\08 16 PLAN-PROF.dwg Sep 09, 2024 - 10:32am E210983

	CUT		FILL	
	A	V	A	V
20+00.00	0.00		83.44	
		0		364
19+00.00	0.00		113.02	
		0		364
18+09.42	0.00		105.55	
		0		0



	CUT		FILL	
	A	V	A	V
23+00.00	0.00		21.59	
		0		94
22+00.00	0.00		29.41	
		0		127
21+00.00	0.00		39.43	
		0		228



REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

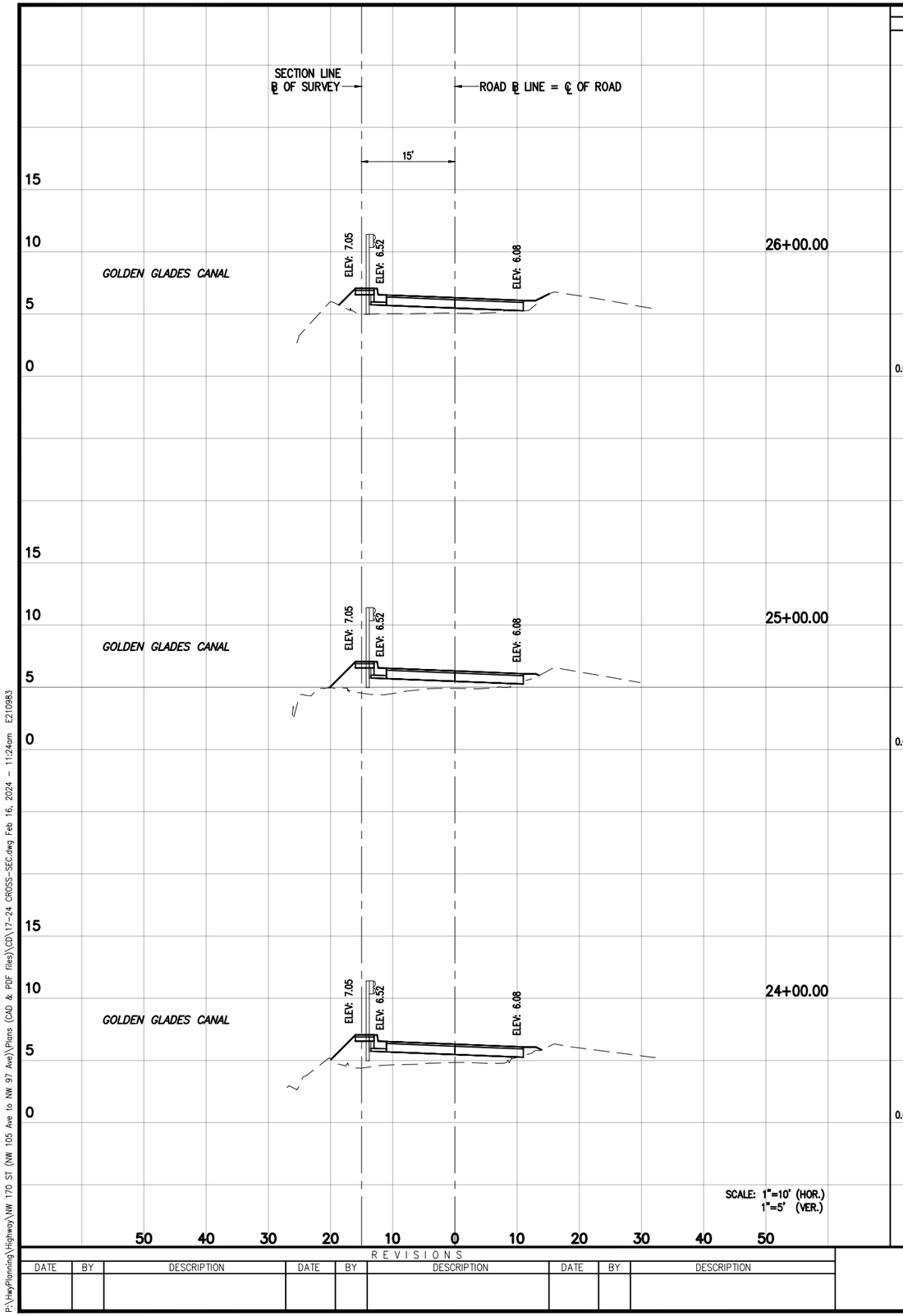
CROSS SECTIONS
NW 170 STREET

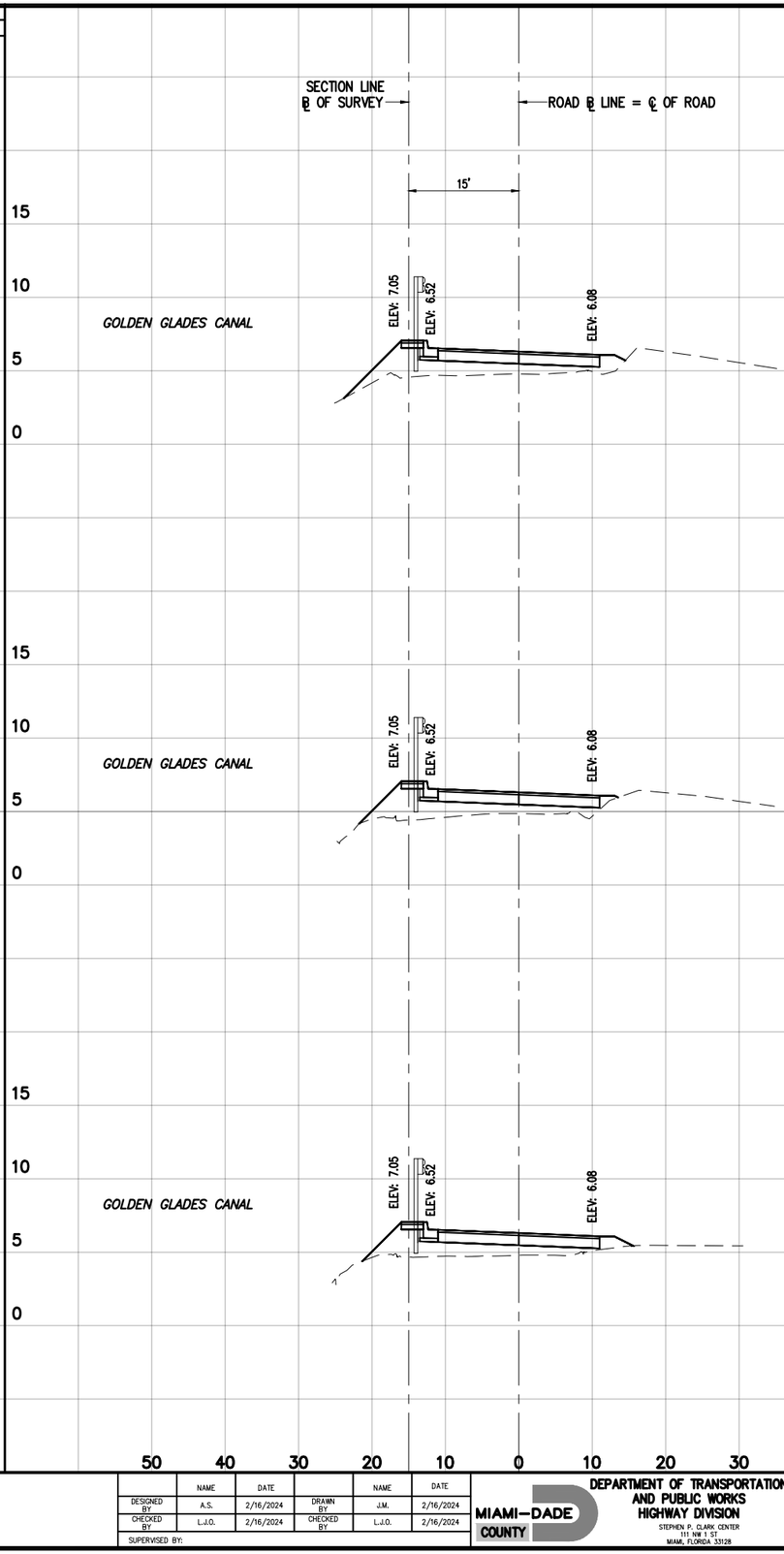
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 18 OF 60





	CUT		FILL	
	A	V	A	V
26+00.00	0.00		16.68	
		0		82
25+00.00	0.00		27.57	
		0		106
24+00.00	0.00		29.54	
		0		95

	CUT		FILL	
	A	V	A	V
29+00.00	0.00		33.84	
		0		120
28+00.00	0.00		30.97	
		0		113
27+00.00	0.00		29.94	
		0		86

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

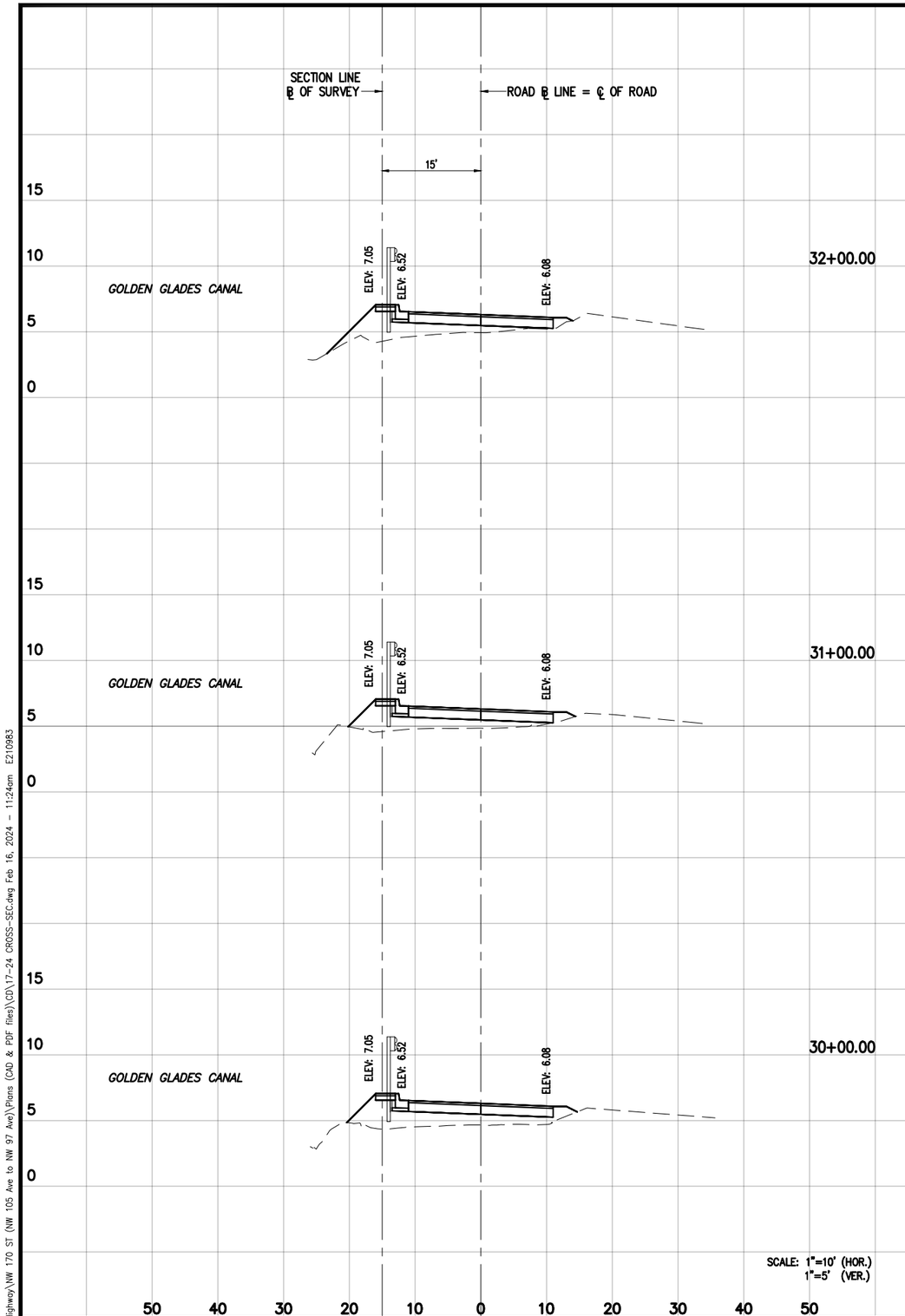
CROSS SECTIONS
NW 170 STREET

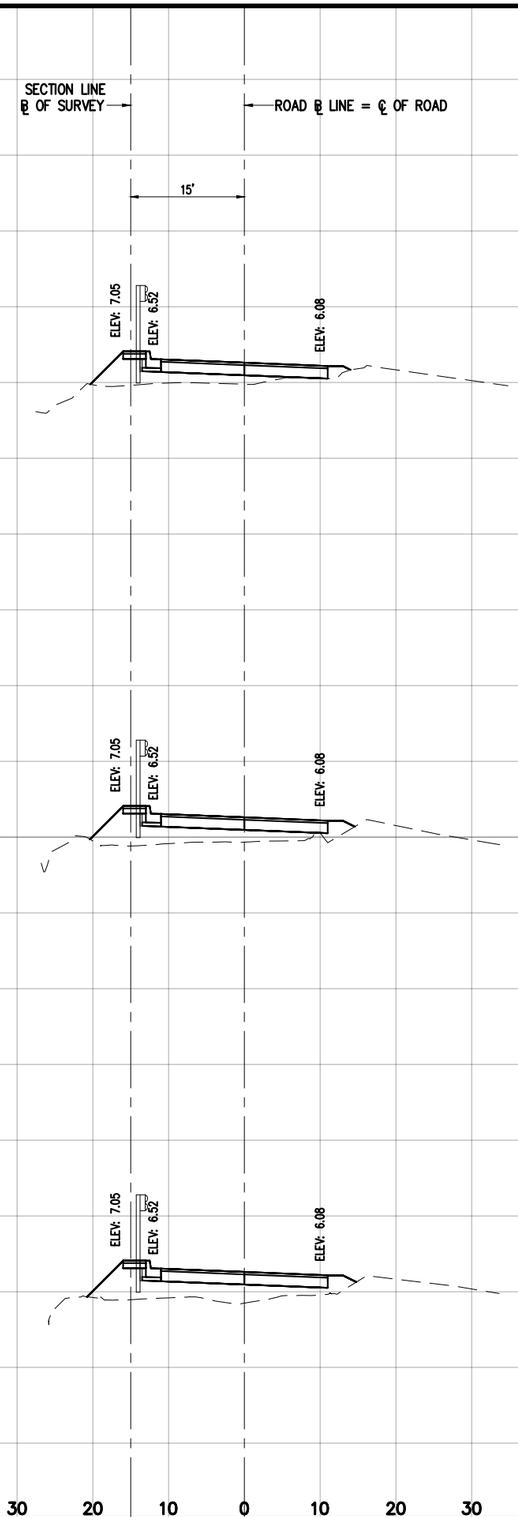
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 19 OF 60





	CUT		FILL	
	A	V	A	V
32+00.00	0.00		28.54	
		0		103
31+00.00	0.00		27.26	
		0		115
30+00.00	0.00		35.08	
		0		128
35+00.00	0.00		21.52	
		0		103
34+00.00	0.00		34.25	
		0		134
33+00.00	0.00		38.00	
		0		123

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

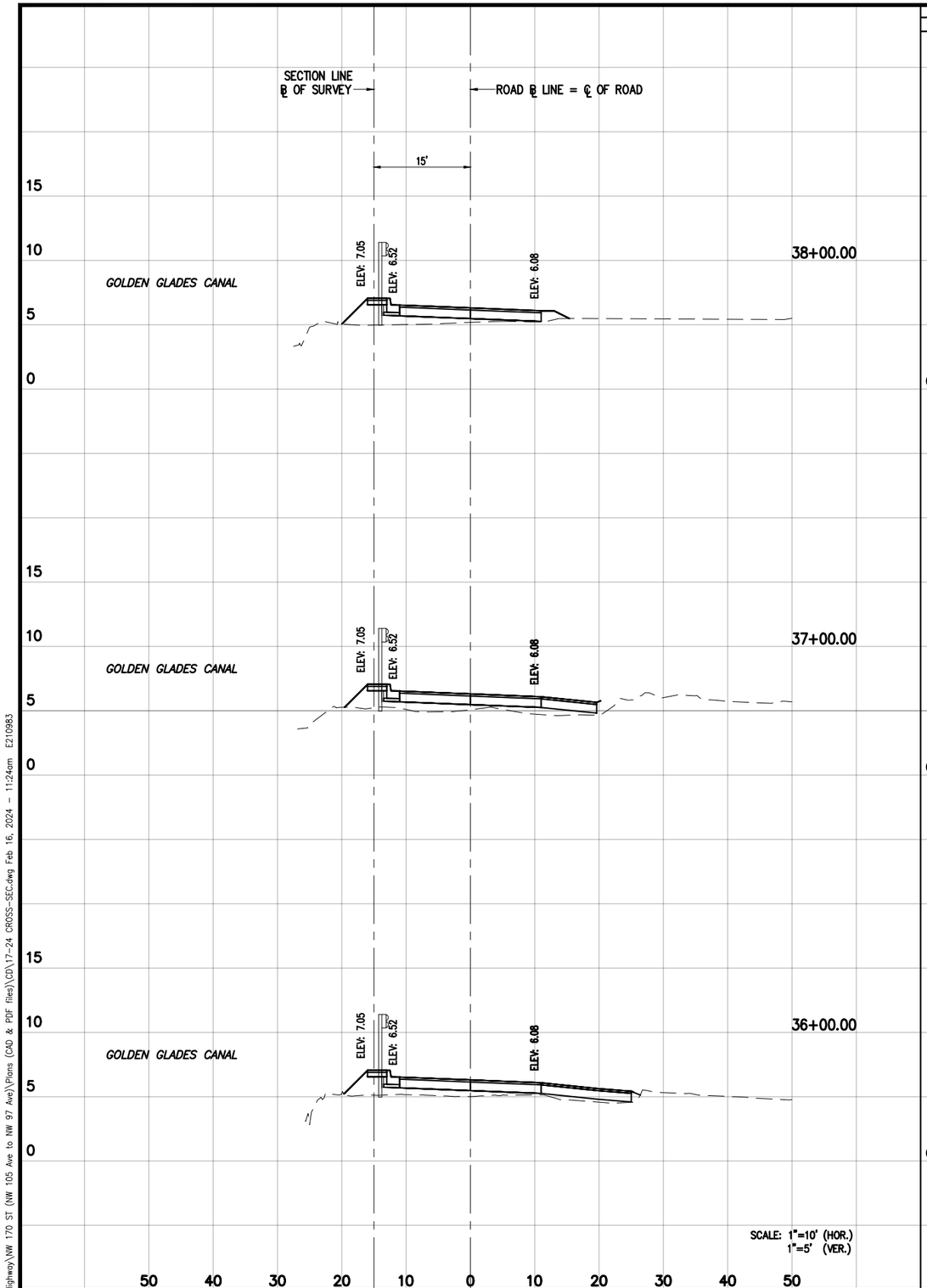
MIAMI-DADE COUNTY

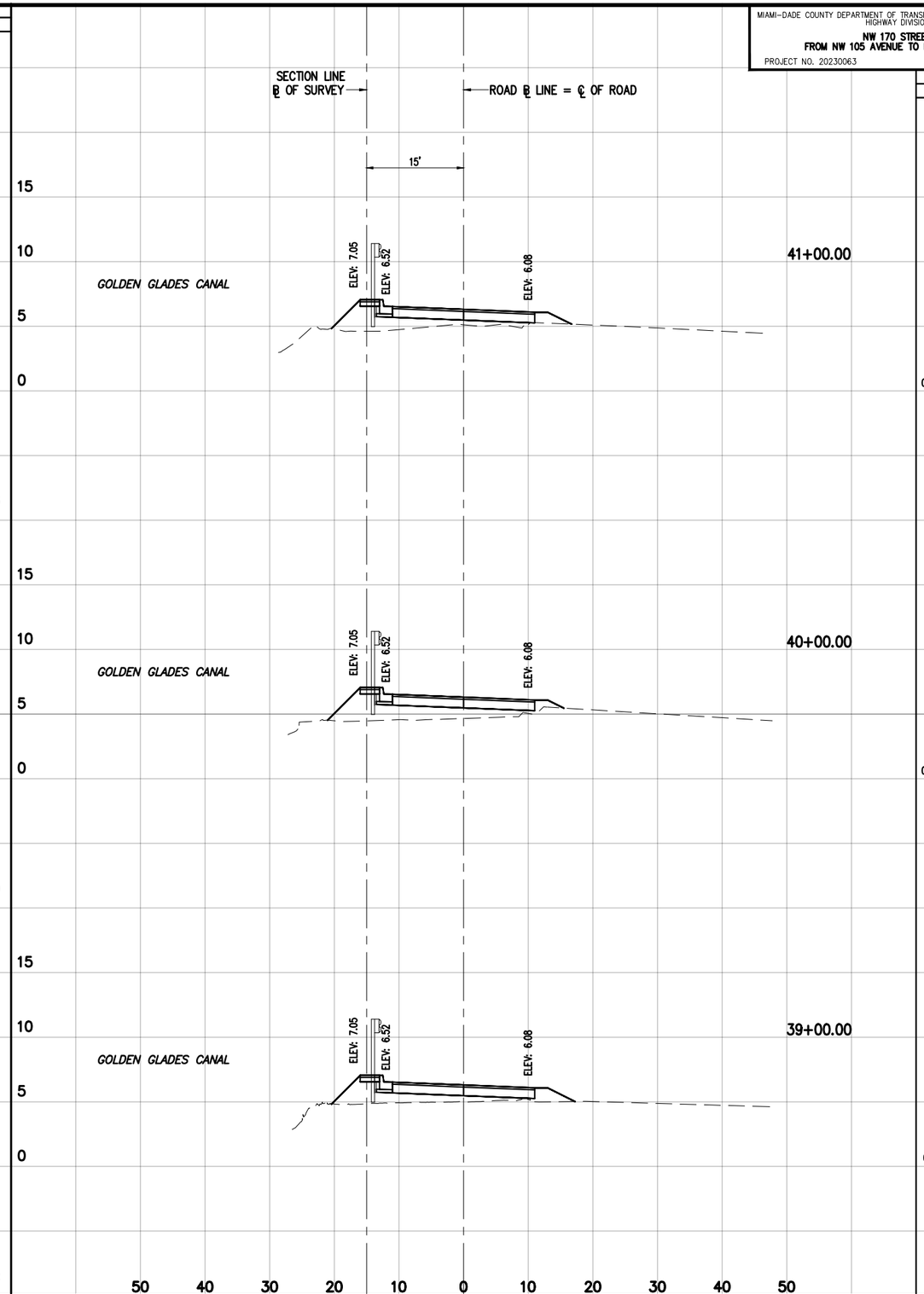
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

CROSS SECTIONS
NW 170 STREET

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE
PROJECT NO. 20230063 SHEET 20 OF 60





	CUT		FILL	
	A	V	A	V
38+00.00	0.00	0	18.78	63
37+00.00	0.00	0	15.42	60
36+00.00	0.00	0	17.25	72
41+00.00	0.00	0	26.86	112
40+00.00	0.00	0	33.63	110
39+00.00	0.00	0	25.65	82

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

CROSS SECTIONS
NW 170 STREET

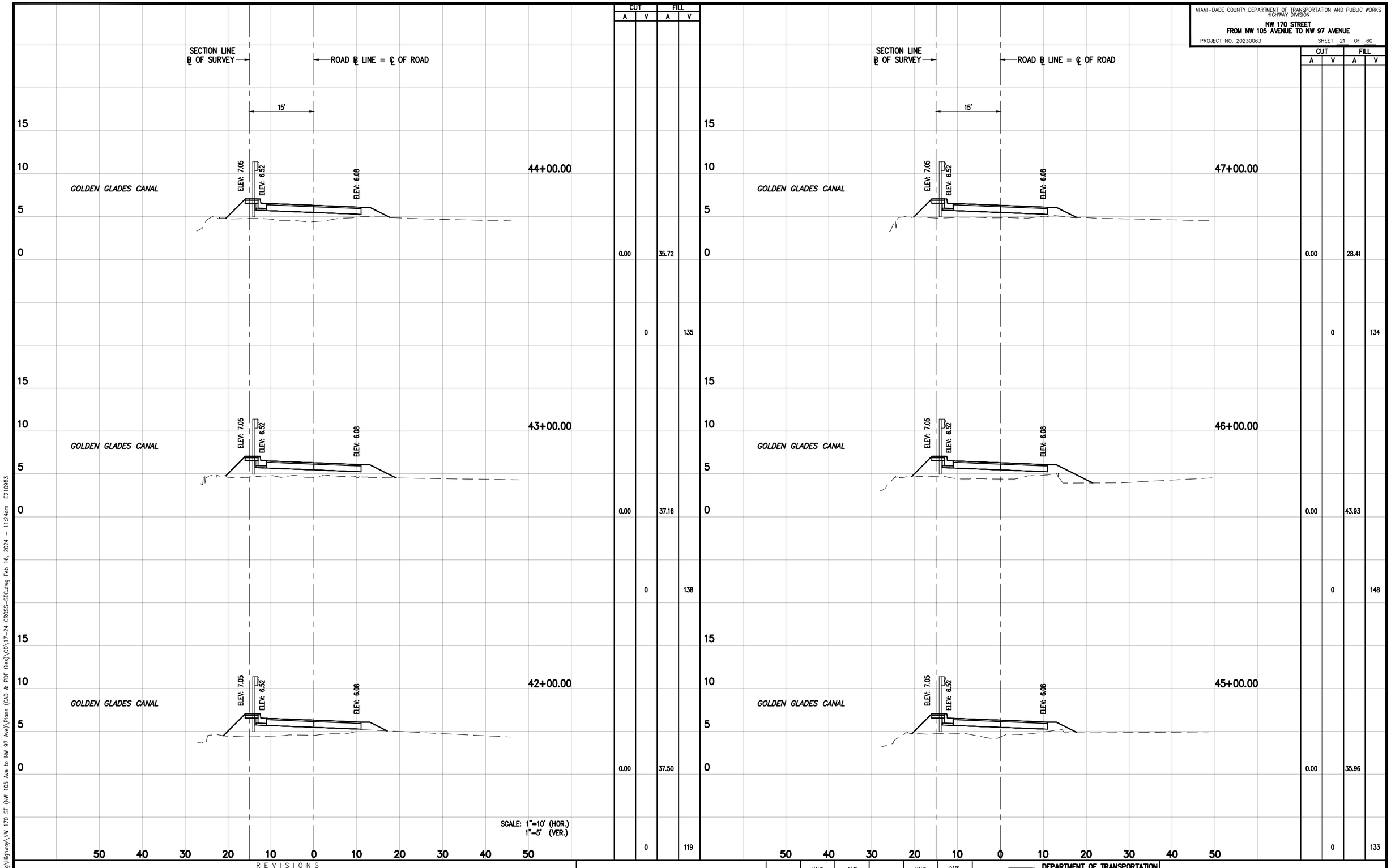
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 21 OF 60

	CUT		FILL	
	A	V	A	V
44+00.00	0.00		35.72	
		0		135
43+00.00	0.00		37.16	
		0		138
42+00.00	0.00		37.50	
		0		119
47+00.00	0.00		28.41	
		0		134
46+00.00	0.00		43.93	
		0		148
45+00.00	0.00		35.96	
		0		133



REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

CROSS SECTIONS NW 170 STREET

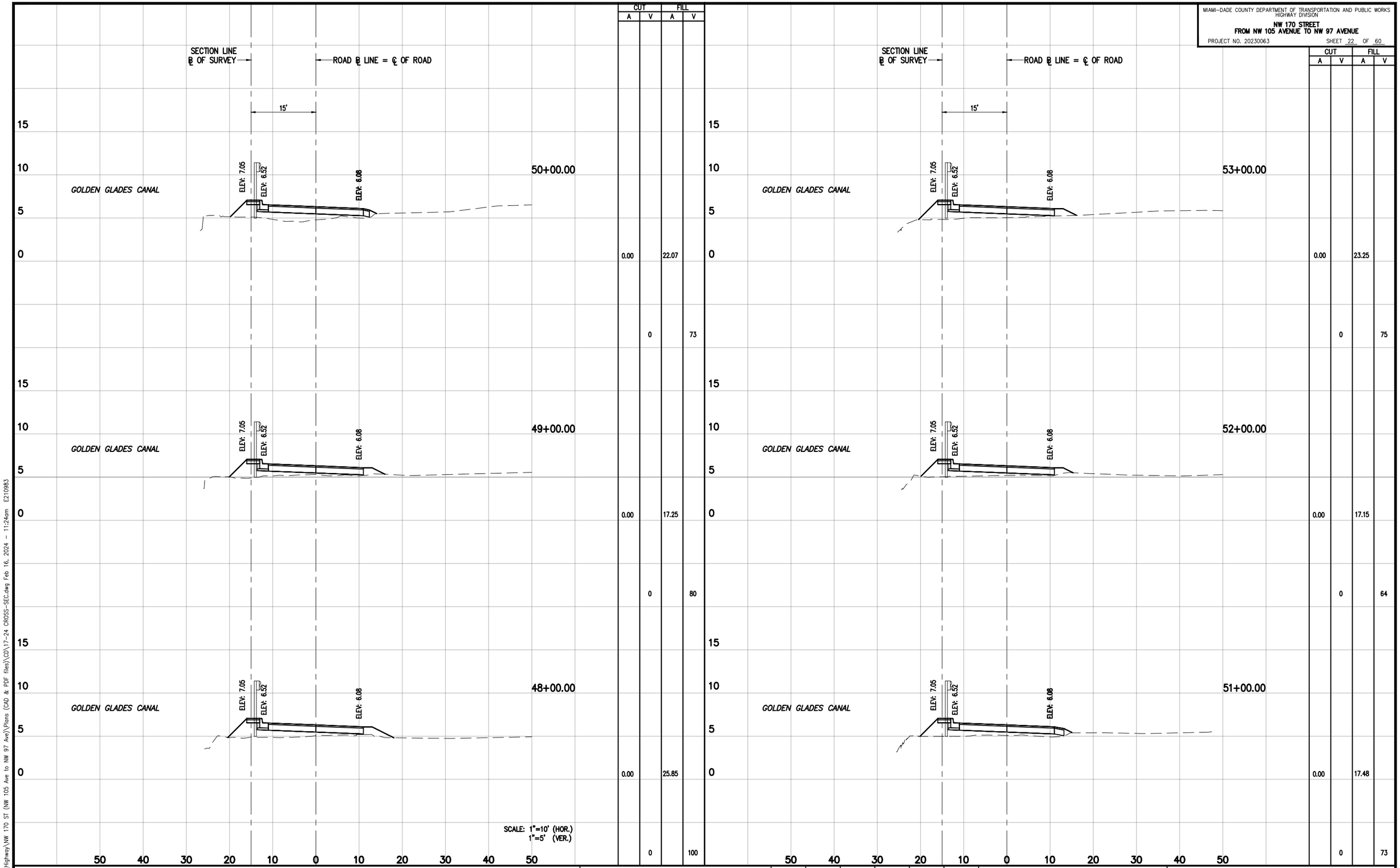
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 22 OF 60

	CUT		FILL	
	A	V	A	V
50+00.00	0.00		22.07	
		0		73
49+00.00	0.00		17.25	
		0		80
48+00.00	0.00		25.85	
		0		100
53+00.00	0.00		23.25	
		0		75
52+00.00	0.00		17.15	
		0		64
51+00.00	0.00		17.48	
		0		73



REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

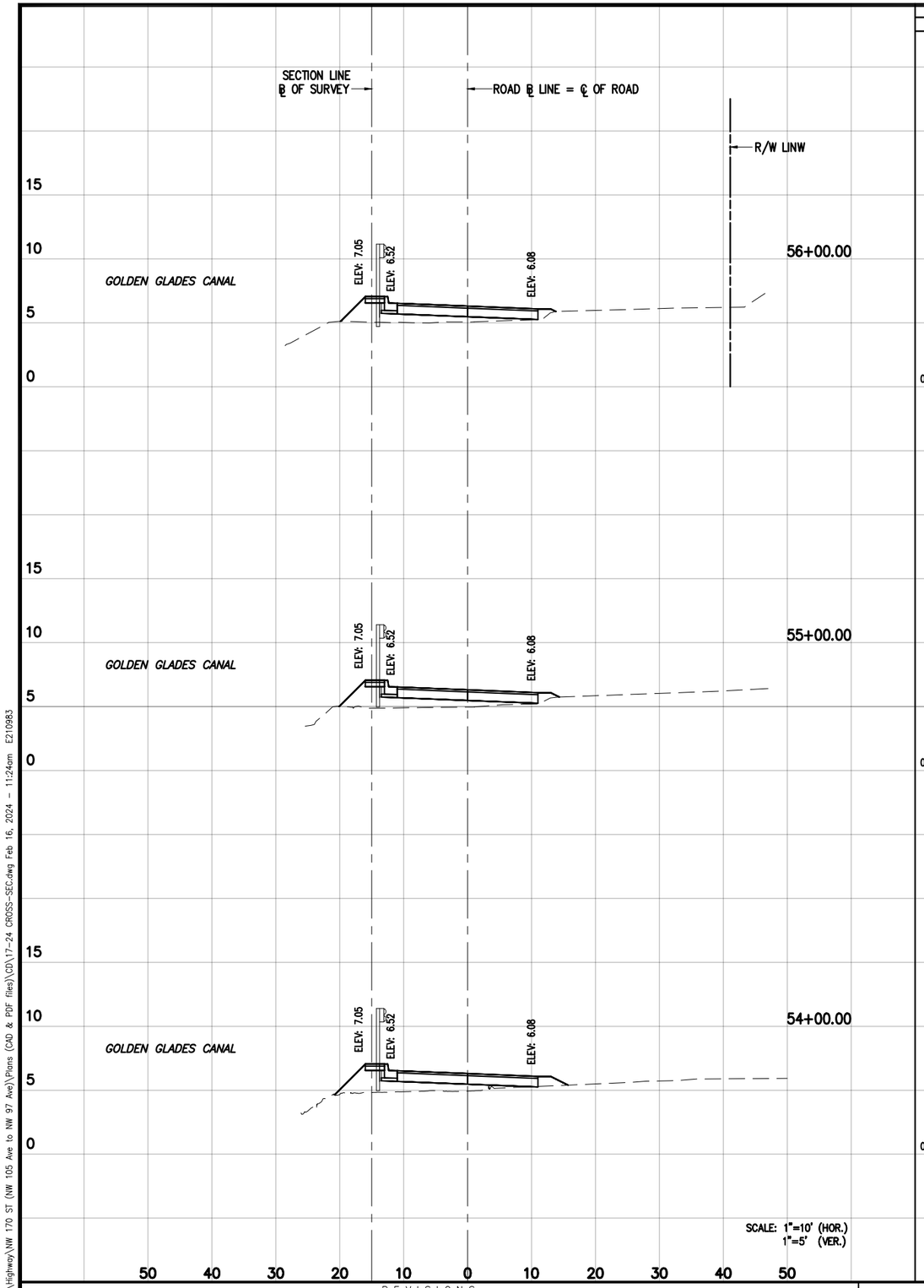
CROSS SECTIONS
NW 170 STREET

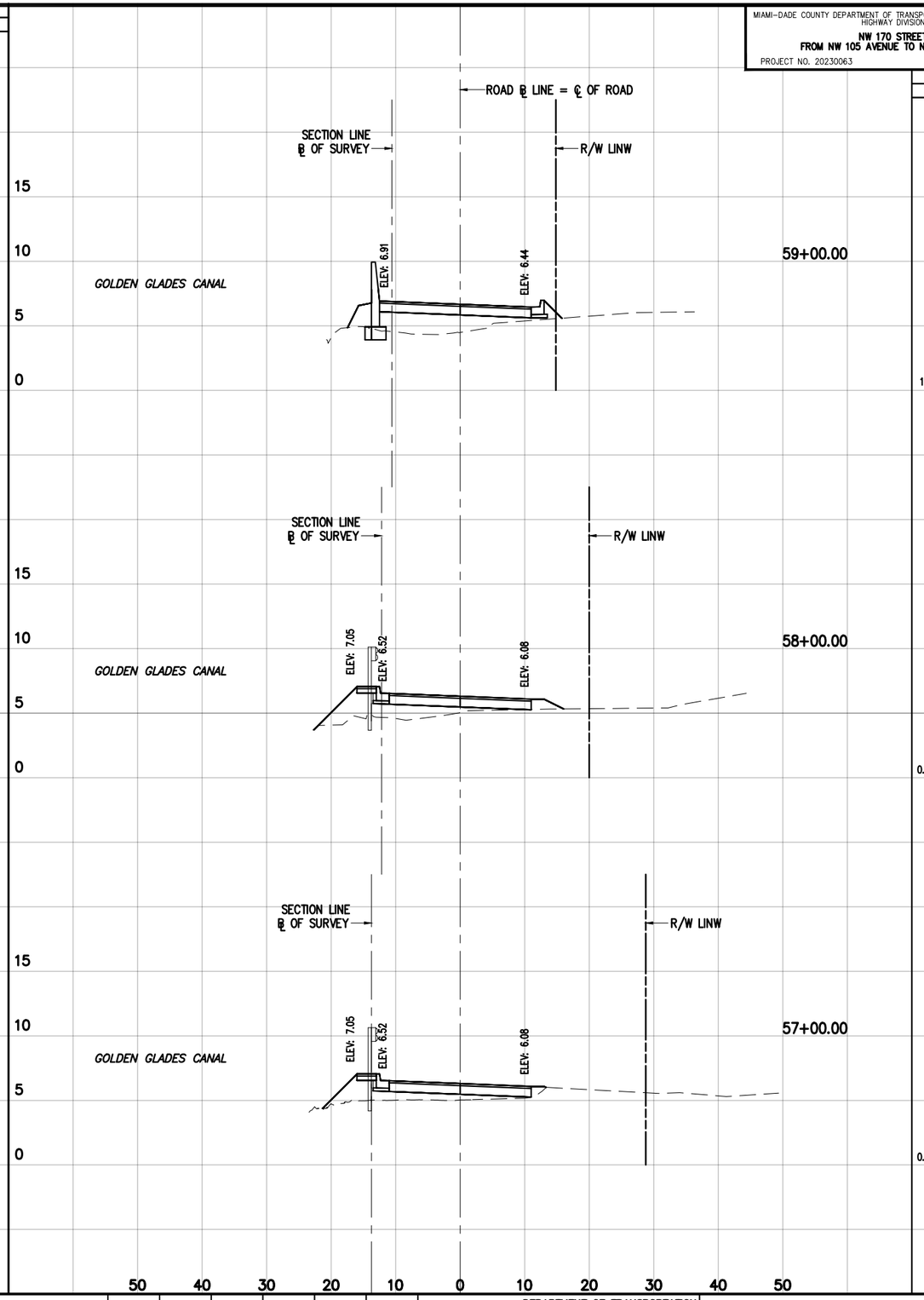
P:\Hwy\Planning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 23 OF 60





	CUT		FILL	
	A	V	A	V
56+00.00	0.00		16.82	
		0		69
55+00.00	0.00		20.41	
		0		82
54+00.00	0.00		23.91	
		0		87
59+00.00	1.16		32.27	
		0		114
58+00.00	0.00		29.25	
		0		88
57+00.00	0.00		18.52	
		0		65

REVISIONS

DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

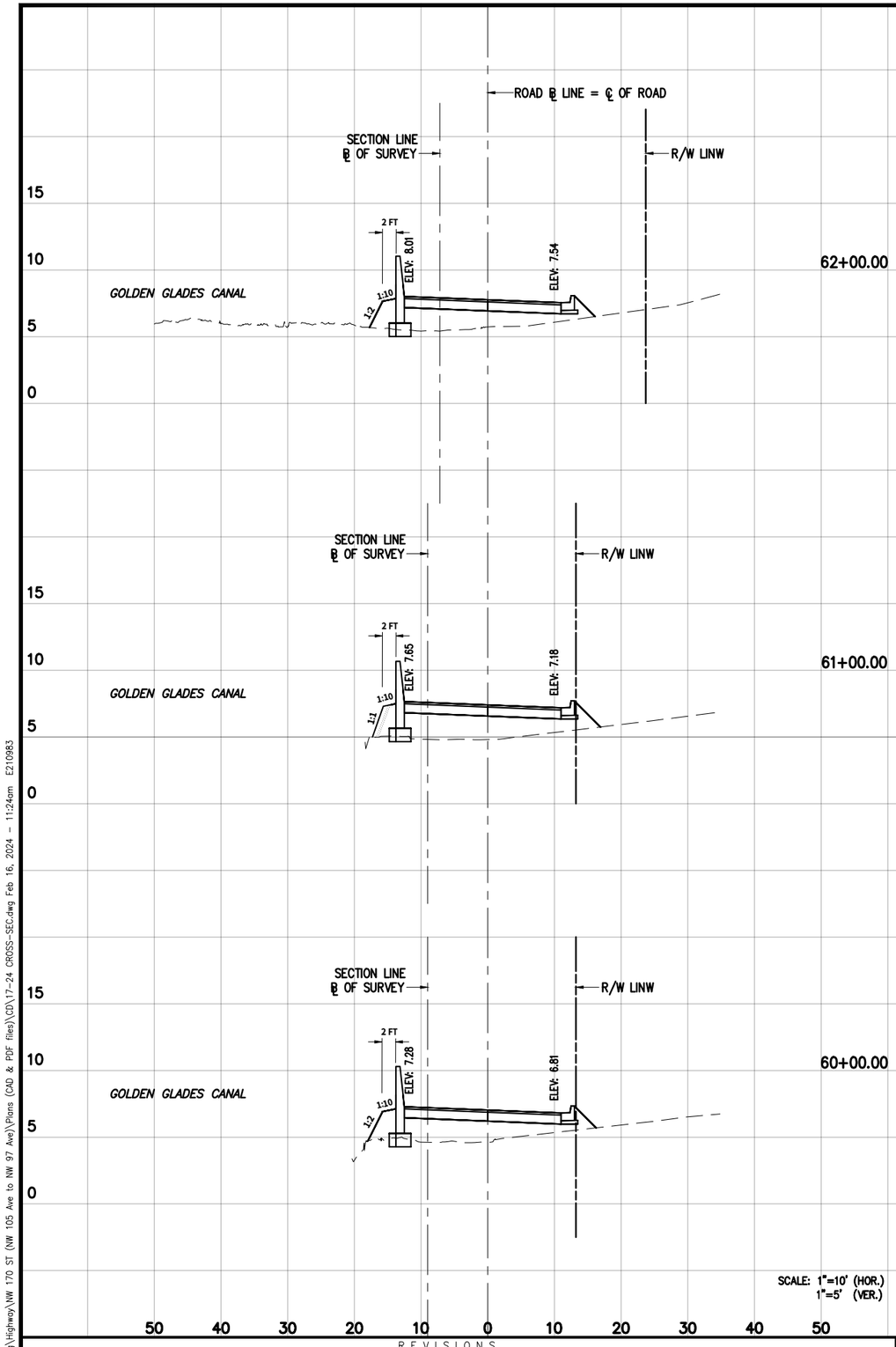
	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

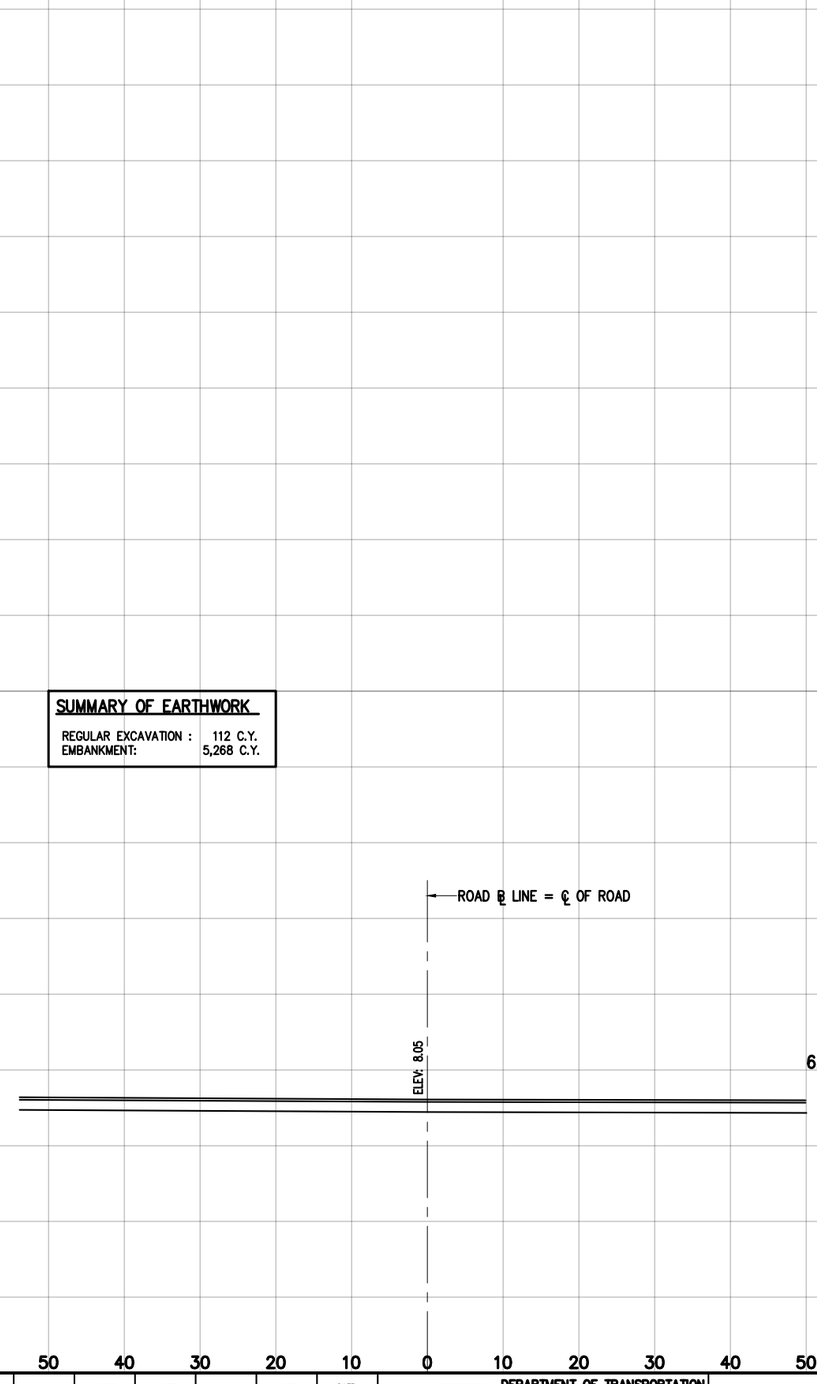
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

CROSS SECTIONS
NW 170 STREET

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983



	CUT		FILL	
	A	V	A	V
62+00.00	0.63		37.99	
		2		157
61+00.00	0.47		47.08	
		2		162
60+00.00	0.76		40.38	
		4		135



	CUT		FILL	
	A	V	A	V
62+73.18	81.03		1.69	
		104		50

SUMMARY OF EARTHWORK

REGULAR EXCAVATION :	112 C.Y.
EMBANKMENT:	5,268 C.Y.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

CROSS SECTIONS
NW 170 STREET

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\17-24 CROSS-SEC.dwg Feb 16, 2024 - 11:24am E210983

GENERAL NOTES

1. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS, THE MIAMI-DADE COUNTY PUBLIC WORKS MANUAL AS PERTAINS TO MAINTENANCE OF TRAFFIC, THE CURRENT EDITION OF THE FLORIDA DOT DESIGN STANDARDS (600 SERIES), THE STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AS MINIMUM CRITERIA
2. THE CONTRACTOR SHALL DEVELOP MAINTENANCE OF TRAFFIC PLAN OF HIS OWN, MEETING THE REQUIREMENTS SPECIFIED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION AND THE FDOT INDEX 600 SERIES. THE CONTRACTOR'S MAINTENANCE OF TRAFFIC PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO START OF CONSTRUCTION. THE PLANS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF FLORIDA.
3. TEMPORARY PAVEMENT SHALL CONSIST OF A MINIMUM OF 6 INCH LIMEROCK BASE, PRIME COAT AND 1-1/2 INCHES HMA. THE BASE LAYER SHALL BE PLACED OVER A FIRM, UNYIELDING, WELL-COMPACTED SUBGRADE. COST OF CONSTRUCTION AND REMOVAL OF TEMPORARY PAVEMENT TO BE INCLUDED IN PAY ITEM 339-2, TEMPORARY ASPHALT.
4. THE CONTRACTOR SHALL IMMEDIATELY REPAIR ALL POTHOLES THAT DEVELOP WITHIN THE PROJECT LIMITS AND WILL MAINTAIN A SUPPLY OF COLD MIX ON THE PROJECT SITE TO EXPEDITE THOSE REPAIRS. COST OF REPAIR TO BE INCLUDED IN PAY ITEM 339-2, TEMPORARY ASPHALT.
5. NOTIFICATION OF LANE CLOSURES OR TEMPORARY DETOURS SHALL BE ACCOMPLISHED 14 WORKING DAYS PRIOR TO CLOSURE OR DETOUR BY COORDINATING WITH DADE COUNTY PUBLIC WORKS DEPARTMENT AND DADE COUNTY TRAFFIC OPERATIONS.
6. THE CONTRACTOR SHALL NOTIFY LAW ENFORCEMENT AND FIRE PROTECTION SERVICES TWENTY-FOUR (24) HOURS IN ADVANCE OF A DETOUR IN ACCORDANCE WITH SECTION 336.07 OF THE FORIDA STATUTES.
7. AT THE DISCRETION OF THE ENGINEER, IF A LANE CLOSURE CAUSES EXTENDED CONGESTION OR DELAY, THE CONTRACTOR SHALL BE DIRECTED TO REOPEN THE CLOSED LANE(S) UNTIL SUCH TIME THAT THE TRAFFIC FLOW HAS RETURNED TO AN ACCEPTABLE LEVEL.
8. THE TRAFFIC AND TRAVEL WAYS SHALL NOT BE ALTERED BY THE CONTRACTOR TO CREATE A WORK ZONE UNTIL ALL LABOR AND MATERIAL ARE AVAILABLE FOR THE CONSTRUCTION IN THAT AREA.
9. LANE CLOSURE SHALL OCCUR ONLY DURING NON-PEAK HOURS ON NONEVENT DAYS/NIGHTS. NO INTERRUPTION TO TRAFFIC IS PERMITTED FROM MONDAY-FRIDAY 7-9 A.M. AND 4-6 P.M. OR ON WEEKENDS AND HOLIDAYS.
10. REGULATORY SPEED ESTABLISHED WITHIN THE WORK ZONE TRAVEL WAYS SHALL BE 25 M.P.H. REDUCED SPEED AND REGULATORY SPEED SIGNS SHALL BE INSTALLED ON SEPARATE POSTS IN ACCORDANCE WITH THE STANDARD INDEXES.
11. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY DURING ALL PHASES OF CONSTRUCTION. LOCAL RESIDENTS WITHIN THE AREA OF CONSTRUCTION SHALL BE GIVEN ACCESS TO THEIR PROPERTY DURING ALL PHASES OF CONSTRUCTION. LOCAL RESIDENTS INCLUDE ALL COMMERCIAL ESTABLISHMENTS AND BUSINESSES.
12. SIGNS ARE TO BE LOCATED BEFORE EACH BUSINESS OR SHOPPING PLAZA ENTRANCE WHERE CONSTRUCTION NEGATIVELY IMPACTS THE ACCESS TO THE BUSINESS OR SHOPPING PLAZA OR AS DIRECTED BY THE ENGINEER. TWO SIGNS WILL TYPICALLY BE REQUIRED AT EACH ENTRANCE. SIGNS ARE TO BE DISPLAYED AS DESCRIBED IN INDEX 600 OF THE ROADWAY AND TRAFFIC DESIGN STANDARDS.
13. AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL COVER WORK ZONE SIGNS WHEN CONDITIONS NO LONGER WARRANT THEIR USE. COST OF COVERING AND UNCOVERING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
14. CONTRACTOR SHALL REMOVE, RELOCATE, OR COVER ANY EXISTING OR PROPOSED SIGNS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. WHEN THE CONFLICT NO LONGER EXISTS, THE CONTRACTOR SHALL RESTORE THE SIGNS TO THEIR ORIGINAL POSITION. COST OF TEMPORARILY REMOVING, RELOCATING, COVERING, AND RESTORING THE SIGNS SHALL BE INCLUDED IN THE PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
15. EACH EXISTING STREET NAME AND TRAFFIC SIGN AFFECTED BY CONSTRUCTION SHALL BE RELOCATED AND MAINTAINED IN AN APPROPRIATE LOCATION FOR THE DURATION OF THE PROJECT. WHEN NO LONGER AFFECTED BY CONSTRUCTION, THESE SIGNS SHALL BE RESTORED IN THEIR ORIGINAL POSITION. COST OF TEMPORARILY RELOCATING AND RESTORING THE SIGNS SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
16. THE CONTRACTOR SHALL NOT PROPOSE ANY ALTERNATIVE TRAFFIC CONTROL PLAN THAT REDUCES THE NUMBER OF TRAVEL LANES SHOWN ON THE CONTRACT TRAFFIC CONTROL PLANS.
17. ARROWS ON THE TRAFFIC CONTROL PLAN DENOTE THE DIRECTION OF TRAFFIC ONLY AND DO NOT REFLECT PAVEMENT MARKINGS UNLESS SPECIFICALLY NOTED.
18. CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAYS UTILIZED FOR MAINTAINING TRAFFIC IN A MANNER APPROVED BY THE ENGINEER. COST FOR REMOVING THE WATER SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
19. FOR DROP-OFF, THE CONTRACTOR'S ATTENTION IS DIRECTED TO FDOT STANDARD INDEX NO. 600, SHEET 7 OF 10. THE CONTRACTOR SHALL USE SHOULDER TREATMENT DETAIL WHEN NO BARRIERS ARE REQUIRED IN THE PLANS.
20. DURING ASPHALT CONSTRUCTION OPERATIONS, NO MORE THAN 1¼" DROP-OFF BETWEEN ADJACENT TRAVEL LANES OR AT TRANSVERSE JOINTS SHALL BE ALLOWED WHEN LANES ARE OPEN TO TRAFFIC. WHERE DROP OFF CONDITIONS EXIST, THE SIGNING FOR UNEVEN PAVEMENT SHALL BE INSTALLED FOR THE DURATION OF THE CONDITION (W8-9AP).
21. THE CONTRACTOR IS TO PLACE TEMPORARY OR REMOVABLE PAVEMENT MARKINGS BETWEEN EACH LAYER OF PAVEMENT, AND IS RESPONSIBLE FOR THE TEMPORARY RELOCATION OF STOP BARS & STOP SIGNS AS APPLICABLE. PAVEMENT MARKINGS AND BARRICADES PLACEMENT SHALL BE APPROPRIATELY COORDINATED.
22. THE CONTRACTOR SHALL REMOVE ANY EXISTING OR TEMPORARY PAVEMENT MARKINGS THAT CONFLICT WITH THE TRAFFIC CONTROL PLANS. GRINDING OR MILLING SHALL ONLY BE PERMITTED IN NON-TRAFFIC AREAS. COST OF REMOVAL OF TEMPORARY PAVEMENT MARKINGS, REGARDLESS OF METHOD, IS INCLUDED IN THE RELATED PAY ITEMS. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED.
23. TEMPORARY LANE TRANSITIONS, SHIFTS, AND CROSSOVERS SHALL HAVE SOLID LANE AND EDGE LINES FOR THE LENGTH OF THE TRANSITION, SHIFT OR CROSSOVER. IN ADDITION, SOLID LANE AND EDGE LINES SHALL EXTEND 100 FT. ON THE TANGENT SECTION BEYOND EACH END OF THESE CROSSOVERS OR TRANSITION AREAS. COST OF THE TEMPORARY RPMS SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
24. TEMPORARY RAISED PAVEMENT MARKERS (RPMS) SHALL BE INSTALLED ON THE EDGE, CENTER, AND LANE LINES OF ALL CROSS-OVERS, TRANSITIONS, AND TANGENT SECTIONS WITHIN THE WORK ZONE WHERE THE VEHICLE PATHS ARE ALTERED. THE SPACING FOR THESE RPMS SHALL BE 40 FT. ON CENTERS FOR TANGENT SECTIONS AND 5 FT. FOR TRANSITIONS, CURVES, AND CROSSOVERS. THE RPMS SHALL EXTEND 100 FT. ON THE TANGENT SECTION BEYOND EACH END OF THESE CROSSOVERS OR TRANSITION AREAS. COST OF THE TEMPORARY RPMS SHALL BE INCLUDED IN THE PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
25. CONTRACTOR SHALL NOTIFY MIAMI-DADE COUNTY TRAFFIC SIGNS AND SIGNALS DIVISION LOCATED AT 7100 NW 36 STREET, MIAMI, FLORIDA 33166 AND PHONE NO. (305) 592-3470, 48 HOURS PRIOR TO ANY MODIFICATION OF AN EXISTING TRAFFIC SIGNAL SYSTEM. THE CONTRACTOR SHALL HAVE FULL RESPONSIBILITY FOR THE MAINTENANCE OF THE EXISTING OR TEMPORARY TRAFFIC SIGNAL(S) WITHIN THE PROJECT LIMITS. COST OF RELOCATING TRAFFIC SIGNAL HEADS, PROVIDING AND REMOVING TEMPORARY SIGNALS, AND MAINTAINING THE EXISTING TEMPORARY TRAFFIC SIGNAL SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
26. THE PROPOSED SIGNALS SHALL BE INSTALLED AND OPERATIONAL PRIOR TO THE REMOVAL OF THE EXISTING SYSTEM AND SHALL BE ADJUSTED TO THE TRAFFIC NEEDS FOR EACH CONSTRUCTION PHASE.
27. THE CONTRACTOR SHALL MAINTAIN ON-LINE COMMUNICATION OF EXISTING OR TEMPORARY SIGNALIZATION VIA INTERCONNECT OR PHONE LINE CONSTRUCTION. CONTRACTORS SHALL PROVIDE TEMPORARY LINES AND CONNECTIONS IF NECESSARY. COST OF MAINTAINING COMMUNICATION, INCLUDING TEMPORARY LINES AND CONNECTIONS SHALL BE INCLUDED IN PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
28. INTERSECTIONS SHALL BE RECONSTRUCTED WORKING ON A CONTINUOUS DAILY BASIS UNTIL COMPLETE AND UNTIL STRUCTURAL COURSE IS IN PLACE.
29. AT ALL INTERSECTING STREETS, NO LESS THAN ONE "ROAD CONSTRUCTION AHEAD" SIGN AND ONE "END CONSTRUCTION" SIGN MUST BE INSTALLED. (TWO EACH FOR STREETS WITH MEDIAN).
30. ADJACENT INTERSECTIONS SHALL NOT BE CONSTRUCTED SIMULTANEOUSLY UNLESS DIRECTED BY THE ENGINEER. FOR EVERY BLOCK, CONSTRUCTION OF DRAINAGE AND SIDEWALK SHOULD BE CONCURRENT WITH ROADWAY CONSTRUCTION.
31. MOT TRANSITIONS AND TEMPORARY INTERSECTION CROSSOVERS WHERE CONSTRUCTION HAS CAUSED GRADE DIFFERENCES BETWEEN THE EXISTING AND NEW ROADWAYS SHALL BE CONSTRUCTED USING A 1:20 HMA SLOPE TO ACCOMMODATE VEHICULAR TRAFFIC FROM ANY DIRECTION. ALL MATERIAL, WORK, INCLUDING ITS REMOVAL, SHALL BE INCLUDED IN PAY ITEM 339-2, TEMPORARY ASPHALT.
32. COORDINATION WITH DADE COUNTY PUBLIC WORKS DEPARTMENT WILL BE REQUIRED.
33. PAVED TEMPORARY CONNECTIONS SHALL BE PROVIDED AT INTERSECTIONS AS DIRECTED BY THE ENGINEER.
34. TRAFFIC SHALL BE MAINTAINED ON A PAVED, DUST-FREE SURFACE AT ALL TIMES.
35. THE CONTRACTOR MUST MAINTAIN TWO LANES OF TRAFFIC AT ALL TIMES. ALL LANES TO BE A MINIMUM OF 10 FT. IN WIDTH.
36. PLANS INDICATE ONLY THE PHASES FOR CONSTRUCTION. MILLING AND RESURFACING OPERATIONS MUST FOLLOW THE SAME FDOT 600 INDEX SERIES, AND MUST BE ACCOMPLISHED AT HOURS APPROVED BY THE ENGINEER.
37. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ROADWAY LIGHTING ILLUMINATION LEVELS DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN EXISTING LIGHTING OR SUPPLY TEMPORARY LIGHTING UNTIL THE PROPOSED SYSTEM IS IN OPERATION. THE CONTRACTOR SHALL SUBMIT A COMPLETE PROPOSED METHOD OF MAINTAINING LIGHTING FOR APPROVAL BY COUNTY ENGINEER PRIOR TO BEGINNING WORK. REFER TO ROADWAY LIGHTING PLANS AND OTHER APPLICABLE DRAWINGS FOR INFORMATION ON EXISTING AND PROPOSED ROADWAY LIGHTING AND DETAIL OF ROADWAY CONSTRUCTION. IF ANY PART OF THE SYSTEM IS OWNED BY F.P.&L., COORDINATE CLOSELY WITH F.P.&L.
38. CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE EROSION CONTROL MEASURES TO PREVENT CLOG OF PROPOSED DRAINAGE STRUCTURES AND SEDIMENT INTRUSION ON WATERWAYS DURING CONSTRUCTION. THESE MEASURES SHALL BE APPROVED BY THE ENGINEER AND CONFORM WITH CURRENT EDITION OF THE FDOT DESIGN STANDARDS FOR EROSION CONTROL (100 SERIES).
39. CONTRACTOR MUST MAINTAIN DRAINAGE AT ALL TIMES. THE EXISTING DRAINAGE SYSTEM SHALL BE KEPT OPERATIONAL OR TEMPORARY DRAINAGE PROVIDED WHILE THE PROPOSED DRAINAGE SYSTEM IS BEING CONSTRUCTED. THE CONTRACTOR SHALL PROVIDE THE NECESSARY TEMPORARY DRAINAGE AS APPROVED BY THE ENGINEER. ALL COSTS SHALL BE INCLUDED IN THE PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
40. AT THE END OF EACH WORK DAY OR WHENEVER THE WORK ZONE BECOMES INACTIVE, ANY DROP OFF GREATER THAN 6 INCHES (150 MM) ADJACENT TO THE PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAVEL PATHS SHALL BE BACKFILLED FLUSH WITH SAID PATHS OR PROTECTED WITH TEMPORARY FENCE, CONCRETE BARRIER WALL OR APPROVED HANDRAIL. COST SHALL BE INCLUDED IN THE PAY ITEM 339-2, TEMPORARY ASPHALT.
41. PEDESTRIAN, BICYCLE, AND WHEELCHAIR TRAFFIC SHALL BE MAINTAINED AND GUIDED USING APPROVED WARNING LIGHTS, SIGNING, AND DELINEATION DEVICES ON AT LEAST ONE SIDE OF THE PROJECT AT ALL TIMES THROUGHOUT THE PROJECT LIMITS. THE TRAVEL PATH SHALL BE A MINIMUM OF 4 FT. WIDE WITH A SMOOTH SURFACE THAT IS NOT SLICK AND IT SHOULD BE RAMPED AS NECESSARY FOR CONTINUITY. COST SHALL BE INCLUDED IN THE PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
42. THE CONTRACTOR SHALL FURNISH AND MAINTAIN VARIABLE MESSAGE SIGNS AS DIRECTED BY THE ENGINEER. MESSAGES FOR THE VMS SHALL BE AS DIRECTED BY THE ENGINEER. THE VMS SHALL BE IN PLACE ONE WEEK BEFORE THE START OF ANY WORK ITEMS AFFECTING THE EXISTING VEHICULAR AND PEDESTRIAN TRAFFIC. VMS INSTALLATION, OPERATION, AND REMOVAL TO BE INCLUDED IN THE PAY ITEM 102-1A, MAINTENANCE OF TRAFFIC.
43. THE CONTRACTOR MUST PROVIDE FLASHING ARROW BOARD FOR ANY LANE THAT IS CLOSED OR DIVERTED.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

MAINTENANCE OF TRAFFIC
GENERAL NOTES

SUMMARY OF QUANTITIES

PAY ITEM NO.	DESCRIPTION	UNIT	SHEET NUMBER 37 ORIG.	37 FINAL	38 ORIG.	38 FINAL	39 ORIG.	39 FINAL	40 ORIG.	40 FINAL					TOTAL THIS SHEET ORIG.	TOTAL THIS SHEET FINAL	GRAND TOTAL ORIG.	GRAND TOTAL FINAL
700-1-11B	SINGLE POST SIGN, F&I GROUND MOUNT (UP TO 12 SF.)	AS.	5		5		5		1						16			
	D1-1d (STREET NAME SIGN)	AS.	2		2		2		2						8			
	R1-1 (STOP SIGN)	AS.	1		1		1		1						4			
	OM1-1 (TYPE 1 OBJECT MARKER)	AS.	3		3		3		0						9			
	W1-6 (DIRECTION LARGE ARROW)	AS.	1		1		1		0						3			
706-1-12A	REFLECTIVE PAVEMENT MARKERS PERMANENT (BI-DIRECTIONAL) AMBER/AMBER)	EA.	73		76		64		60						273			
710-90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS.													1			
711-11-121	THERMOPLASTIC (WHITE) (SOLID) (6")	LF.	2,333		2,456		2,545		2,013						9,347			
711-11-125	THERMOPLASTIC (WHITE) (SOLID) (24")	LF.	27		35		27		56						145			
711-11-221	THERMOPLASTIC (YELLOW) (SOLID) (6")	LF.	1,965		2,487		2,498		2,397						9,347			
711-11-224	THERMOPLASTIC (YELLOW) (SOLID) (18")	LF.	237		84		0		158						479			

NOTES

1. ALL SIGNING AND PAVEMENT MARKINGS SHALL CONFORM WITH THE CURRENT EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE FLORIDA DEPARTMENT OF TRANSPORTATION DESIGN STANDARDS.
2. ALL EXISTING SIGNS ARE TO REMAIN UNLESS OTHERWISE SPECIFIED. BEFORE STARTING THE PROJECT, THE CONTRACTOR WILL REVIEW EXISTING SIGNS SHOWN ON THE PLANS TO BE RELOCATED OR TO REMAIN. THE CONTRACTOR WILL NOTIFY IN WRITING TO THE PROJECT ENGINEER OF ANY MISSING SIGNS BEFORE CONSTRUCTION STARTS. SIGNS DAMAGED BY THE CONTRACTOR'S OPERATIONS WILL BE REPLACED AT NO COST TO THE DEPARTMENT. IF EXISTING SIGNS TO BE RELOCATED HAVE A DAMAGED POLE OR A POLE NOT MEETING HEIGHT SPECIFICATION REQUIREMENTS, THE COST OF A NEW POLE WILL BE INCLUDED IN THE RELOCATION BID ITEM.
3. ALL PAVEMENT MARKINGS, MESSAGES, AND ARROWS SHALL BE THERMOPLASTIC UNLESS OTHERWISE NOTED.
4. REFLECTIVE PAVEMENT MARKERS ARE TO BE PLACED ALONG THE ENTIRE LENGTH OF THE PROJECT.
5. MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND AT THE END OF THE PROJECT AND AT ALL SIDE STREETS WITHOUT JOGS OR OFFSETS.
6. THE CONTRACTOR SHALL REMOVE EXISTING MARKINGS BY FDOT APPROVED METHOD WITHOUT DAMAGE TO THE FRICTION COURSE.
7. SIGN ASSEMBLY LOCATIONS SHOWN ON PLANS WHICH ARE IN CONFLICT WITH LIGHTING, UTILITIES, DRIVEWAYS, WHEELCHAIR RAMPS, ETC. MAY BE ADJUSTED SLIGHTLY AS DIRECTED BY THE ENGINEER. EXTREME LOCATION CHANGES MUST BE APPROVED BY MIAMI-DADE SIGNALS AND SIGNS DIVISION.
8. THE CONTRACTOR SHALL RELOCATE ALL EXISTING POST-MOUNTED STREET NAME AND STOP SIGNS TO A VISIBLE AREA UNDISTURBED BY THE CONSTRUCTION SO AS TO MINIMIZE DAMAGE TO THE SIGNS. NEW STREET NAME SIGNS WILL BE ATTACHED AT THE TOP OF THE NEW STOP SIGNS ON MINOR SIDE STREETS AT THE END OF CONSTRUCTION.
9. THE CONTRACTOR SHALL INSTALL ADVANCED WARNING SIGNS W3-1 (STOP AHEAD) AND W3-3A (SIGNAL AHEAD) ON RESPECTIVE SIDE STREETS ACCORDING TO STANDARDS AS DIRECTED BY THE ENGINEER.
10. EXTRUDED ALUMINUM SIGN SUPPORT CLAMPS ARE NOT ACCEPTABLE. ALL RELOCATED SIGNS MUST COMPLY WITH THE DESIGN STANDARDS AS IF THEY WERE NEW SIGNS. IF EXISTING CLAMPS, BRACKETS, POLES, ETC. NEED TO BE REPLACED THE COST SHALL BE INCLUDED IN THE RELOCATION PAY ITEM.
11. ANY SIGNING MATERIALS, INCLUDING SUPPORTS, TO BE REMOVED AS NOTED ON PLAN SHEETS, SHALL BE DELIVERED BY THE CONTRACTOR IN EXISTING CONDITION, IN CARE OF THE STOREKEEPER AT THE MIAMI-DADE COUNTY MAINTENANCE YARD, 7100 NW 36 STREET, MIAMI, FL 33166.
12. SCHOOL CROSSING SIGNAGE AND SCHOOL SPEED ZONE SIGNAGE TO CONFORM WITH MUTCD/FDOT STANDARDS (FLUORESCENT YELLOW-GREEN BACKGROUNDS).
13. REFLECTIVE PAVEMENT MARKERS AS PER FDOT STANDARD INDEX NO 17352.
14. PAY ITEM # 711-14-160 INCLUDES, BIKE, PED AND ARROW.

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SIGNING & PAVEMENT MARKINGS
SUMMARY OF QUANTITIES

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 27 OF 60

BEGIN PROJECT
STA. 13+62.42
MATCH EXIST. PVMT. MARKING
END PROJECT (443790-1-52-01)
STA 164+45.00

LOT 21
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 22
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

0 20 40
SCALE 1"=20'

EXIST. WATER EDGE

GOLDEN GLADES CANAL

PROP. (3) SIGN OM1-1

PROP. SIGN W1-6

EXIST. WATER EDGE

60'

-00 18+00 19+00 20+00 21+00 22+00 23-

N89° 41' 48"E

20' TYP.

6" WHITE SOLID

8" DOUBLE YELLOW SOLID

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

11'

6" DOUBLE YELLOW SOLID W/ PRM @ 40' SPA.

6" WHITE SOLID

11'

MATCH LINE STA 23+00

82'

18" DOUBLE YELLOW SOLID

6" DOUBLE YELLOW SOLID

6" WHITE SOLID

24" WHITE SOLID

14'

NW 170 ST
NW 105 AV

STOP

PROP. SIGN
(2) D3-1 , (1) R1-1

NW 105 AVE

6" DOUBLE YELLOW SOLID W/ PRM @ 40' SPA.

NW 170 STREET

R/W LINE

R/W LINE

13' 13'

TRACT "A"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

LOT 23
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 24
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

EXIST. EASEMENT LINE

GOLDEN GLADES CANAL

GOLDEN GLADES CANAL

EXIST. WATER EDGE

EXIST. WATER EDGE

60'

MATCH LINE STA 23+00 -00 24+00 25+00 26+00 27+00 28+00 29+ MATCH LINE STA 29+00

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

6" WHITE SOLID

11'

11'

6" DOUBLE YELLOW SOLID W/ PRM @ 40' SPA.

6" WHITE SOLID

6" DOUBLE YELLOW SOLID W/ PRM @ 40' SPA.

6" WHITE SOLID

11'

11'

82'

NW 170 STREET

R/W LINE

R/W LINE

TRACT "A"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SIGNING AND MARKING PLAN

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\27-30-SIGN-PVMT-MRKG-PLANS.dwg Feb 16, 2024 - 11:24am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 28 OF 60

SCALE 1" = 20'

EXIST. EASEMENT LINE
GOLDEN GLADES CANAL
EXIST. WATER EDGE
60'
82'
MATCH LINE STA 29+00
30+00
31+00
32+00
33+00
34+00
MATCH LINE STA 35+00
11'
6" WHITE SOLID
6" DOUBLE YELLOW SOLID W/ PRM @ 40' SPA.
EXIST. 6-6" FP&L DUCTS CONC. ENCASED
NW 170 STREET
R/W LINE
TRACT "A"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

EXIST. EASEMENT LINE
GOLDEN GLADES CANAL
PROP. (3) SIGN OM1-1
PROP. SIGN W1-7
EXIST. WATER EDGE
MATCH LINE STA 35+00
36+00
37+00
38+00
39+00
40+00
MATCH LINE STA 41+00
NW 102 AVENUE
24" WHITE SOLID
18" WHITE SOLID
6" DOUBLE YELLOW SOLID
20' TYP.
NW 170 ST
NW 102 AV
STOP
PROP. SIGN (2) D3-1 , (1) R1-1
MLP
6' CONC. SIDEWALK
EXIST. SOD
EXIST. 2' C&G
CONC. SEPARATOR
NW 170 STREET
R/W LINE
TRACT "A"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)
TRACT "C"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

MATCH LINE A-A FOR CONT. SEE SHEET 30

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024
SUPERVISED BY:					

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SIGNING AND MARKING PLAN

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\27-30-SIGN-PVMT-MRKG-PLANS.dwg Feb 16, 2024 - 11:25am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 29 OF 60

LOT 20
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 21
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

EXIST. EASEMENT LINE

0 20 40
SCALE 1"=20'

GOLDEN GLADES CANAL

GOLDEN GLADES CANAL

EXIST. WATER EDGE

EXIST. WATER EDGE

60'

MATCH LINE STA 41+00

-00 42+00 43+00 44+00 45+00 46+00 47-

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

11'

11'

6" WHITE SOLID

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" WHITE SOLID

6" WHITE SOLID

11'

11'

MATCH LINE STA 47+00

82'

NW 170 STREET

R/W LINE

R/W

R/W LINE

TRACT "C"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

LOT 22
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 23
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

EXIST. EASEMENT LINE

GOLDEN GLADES CANAL

GOLDEN GLADES CANAL

PROP. (3) SIGN
OM1-1

PROP. SIGN
W1-6

EXIST. WATER EDGE

EXIST. WATER EDGE

60'

MATCH LINE STA 47+00

-00 48+00 49+00 50+00 51+00 52+00 53+

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

11'

11'

6" WHITE SOLID

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" WHITE SOLID

6" WHITE SOLID

11'

11'

MATCH LINE STA 53+00

VARIES

82'

24" WHITE SOLID

14'

NW 170 ST
NW 99 AV

STOP

PROP. SIGN
(2) D3-1 , (1) R1-1

NW 99 AVE

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

13' 13'

NW 170 STREET

R/W LINE

TRACT "C"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SIGNING AND MARKING PLAN

P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\27-30-SIGN-PVMT-MRKG-PLANS.dwg Feb 16, 2024 - 11:25am E210983

MIAMI-DADE COUNTY DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION

NW 170 STREET
FROM NW 105 AVENUE TO NW 97 AVENUE

PROJECT NO. 20230063 SHEET 30 OF 60

LOT 24
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

LOT 8
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

EXIST. EASEMENT LINE

0 20 40
SCALE 1"=20'

GOLDEN GLADES CANAL

GOLDEN GLADES CANAL

EXIST. WATER EDGE

EXIST. WATER EDGE

MATCH LINE STA 53+00

-00 54+00 55+00 56+00 57+00 58+00 59+

MATCH LINE STA 59+00

60'

60'

VARIES

VARIES

11'

11'

11'

11'

6" WHITE SOLID

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

6" WHITE SOLID

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" WHITE SOLID

R/W LINE

TRACT "C"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

MATCH LINE A-A FOR CONT. SEE SHEET 28

LOT 8
CHAMBERS LAND COMPANY SUBDIVISION
(P.B. 2, P.G. 68)

EXIST. EASEMENT LINE

END PROJECT
STA. 62+73.18

GOLDEN GLADES CANAL

EXIST. WATER EDGE

MATCH LINE STA 59+00

-00 60+00 61+00 62+00 62+85

60'

VARIES

11'

11'

11'

EXIST. 6-6" FP&L DUCTS CONC. ENCASED

MH ELECTRIC

6" WHITE SOLID

EXIST. 6-6" FP&L BORED FLEX DUCTS

6" DOUBLE YELLOW SOLID
W/ PRM @ 40' SPA.

6" WHITE SOLID

N89° 41' 47"E

25'

R/W LINE

R/W LINE

R/W LINE

NW 170 ST
NW 97 AV

STOP

PROP. SIGN
(2) D3-1 , (1) R1-1

NW 97 AVENUE

NW 170 STREET

TRACT "C"
COUNTYLINE CORPORATE PARK NORTH
(P.B. 177, P.G. 7)

EXIST. 16" ASPHALT DIP F.M.

GUARD RAIL

HHE

MHS

MLP

MHST

EXIST. 24" DIP F.M.

ASPHALT

2' CURB & GUTTER

ASPHALT

EXIST. 24" DIP F.M.

R/W LINE

NW 102 AVENUE

18" WHITE SOLID

20' TYP.

6" DOUBLE YELLOW SOLID

R/W LINE

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY	A.S.	2/16/2024	DRAWN BY	J.M.	2/16/2024
CHECKED BY	L.J.O.	2/16/2024	CHECKED BY	L.J.O.	2/16/2024

SUPERVISED BY:

MIAMI-DADE COUNTY

DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SIGNING AND MARKING PLAN

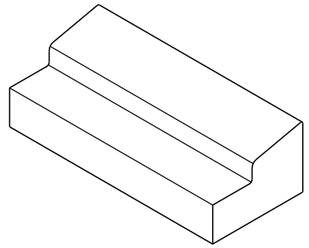
P:\HwyPlanning\Highway\NW 170 ST (NW 105 Ave to NW 97 Ave)\Plans (CAD & PDF files)\CD\27-30-SIGN-PVMT-MRKG-PLANS.dwg Feb 16, 2024 - 11:25am E210983

GENERAL NOTES:

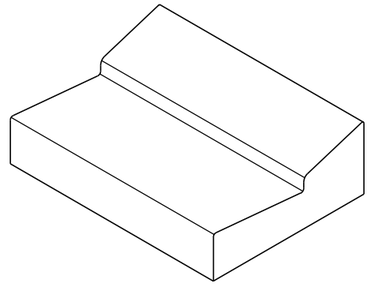
1. For curb, gutter and curb & gutter provide ⅛" – ¼" contraction joints at 10' centers (max.). Contraction joints adjacent to concrete pavement on tangents and flat curves are to match the pavement joints, with intermediate joints not to exceed 10' centers.

2. Locate expansion joints for curb, gutter and curb & gutter in accordance with Specification 520.

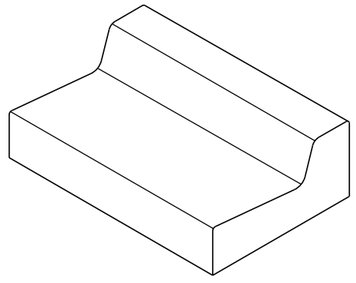
TABLE OF CONTENTS:



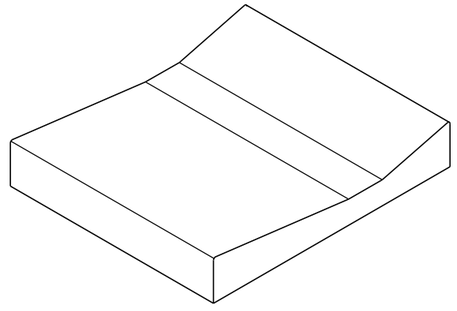
TYPE A



TYPE E

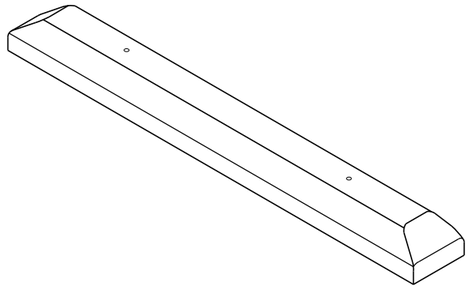


TYPE F



SHOULDER GUTTER

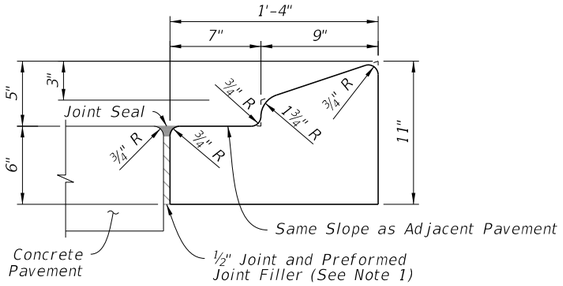
TYPE A, TYPE E, TYPE F, AND SHOULDER GUTTER
(Other Types Similar)



CONCRETE BUMPER GUARD

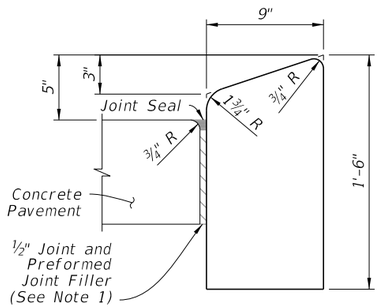
10/6/2022 2:06:40 PM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/21					SHEET 31 OF 60 SHEETS	520-001	1 of 3



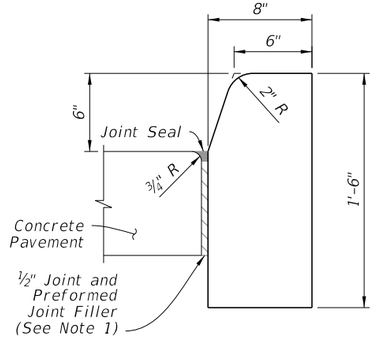
NOTE: For use adjacent to concrete or flexible pavement, concrete shown (See Note 4).

TYPE A



NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

TYPE B



NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

TYPE D

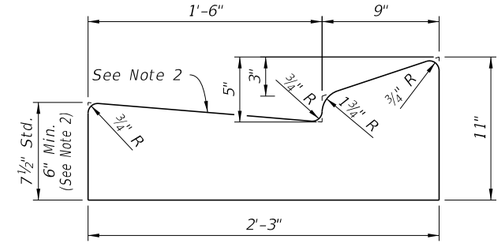
NOTES:

1. For Type A, Type B, and Type D Curb: Expansion joint, preformed joint filler and joint seal are required between curbs and concrete pavement only, see Sheet 3.

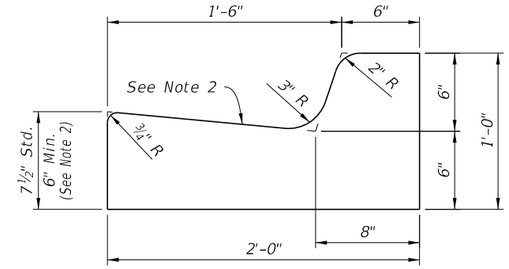
2. For Type E, Type F, Drop Curb, and Valley Gutter: When used on high side of roadways, match the cross slope of the gutter to the cross slope of the adjacent pavement. The thickness of the lip is 6", unless otherwise shown on Plans.

3. For Type RA, rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.

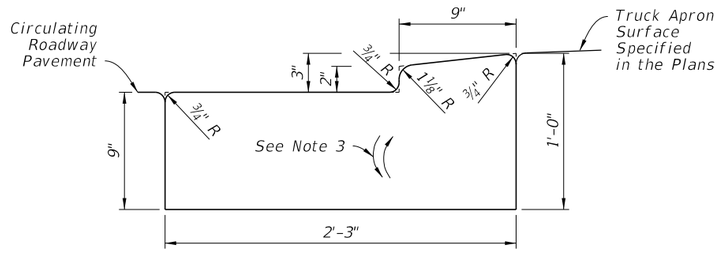
4. For details depicting usage of Type A Curb adjacent to flexible pavement see Sheet 3.



TYPE E

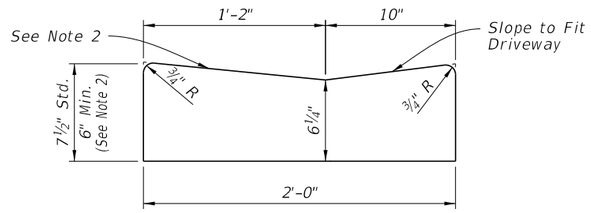


TYPE F

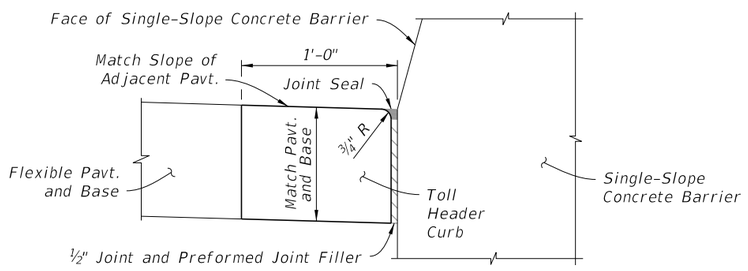


NOTE: Traffic Bearing Sections for use in Roundabout Central Island Construction.

TYPE RA

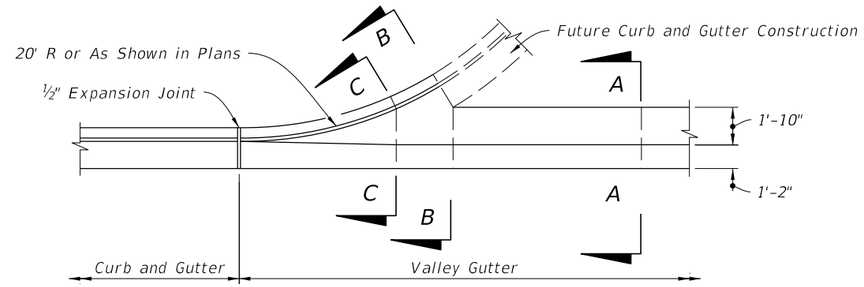


DROP CURB

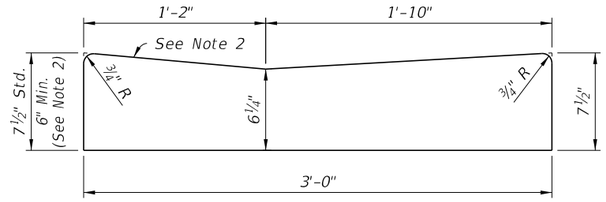


NOTE: See the toll site details for conduit requirements.

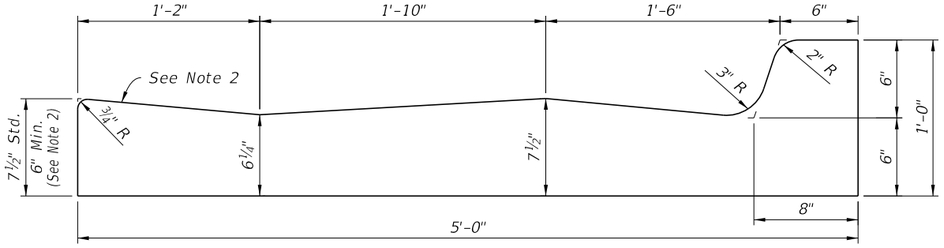
TOLL HEADER CURB



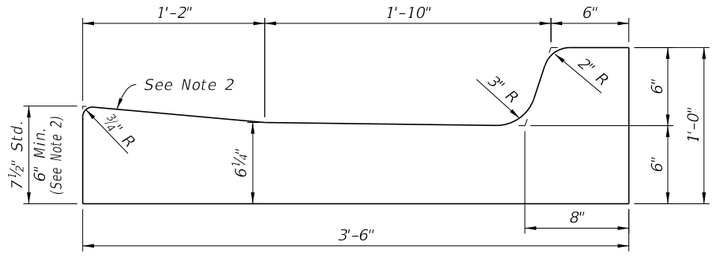
PLAN VIEW



SECTION A-A

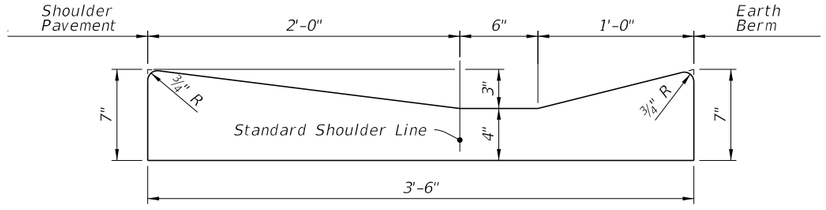


SECTION B-B



SECTION C-C

VALLEY GUTTER

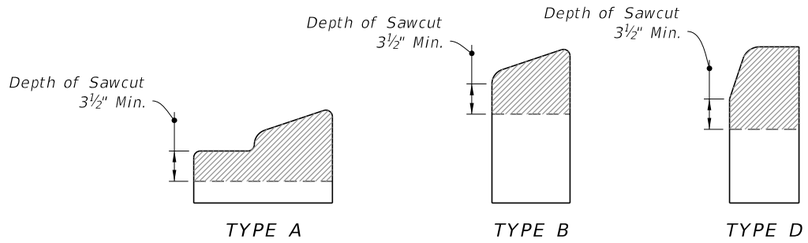


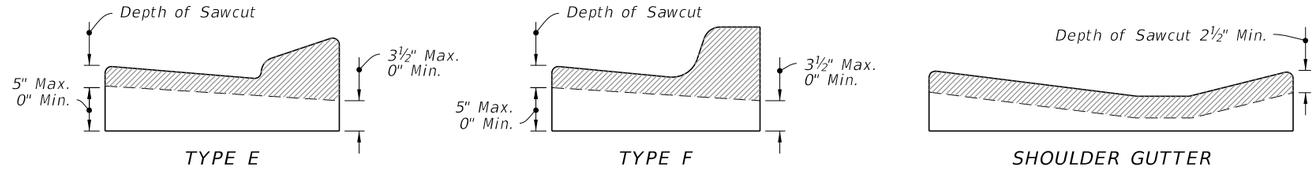
SHOULDER GUTTER

CONCRETE CURB AND GUTTER

10/6/2022 2:06:40 PM

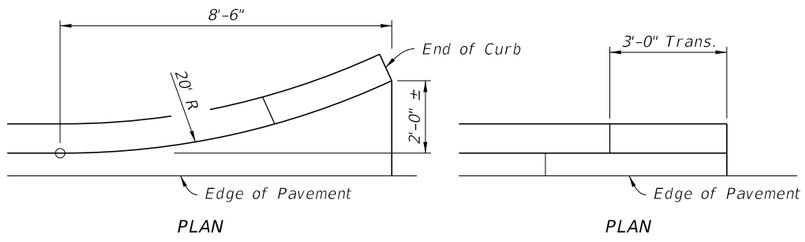
LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/21				SHEET 32 OF 60 SHEETS	520-001	2 of 3



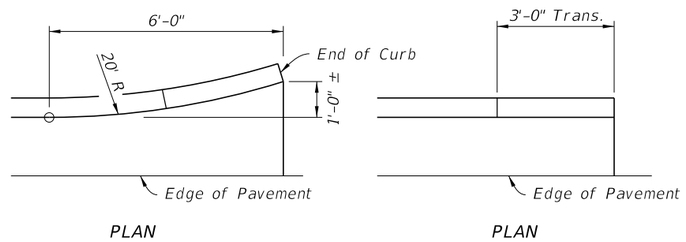


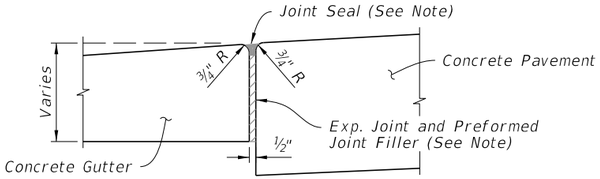
NOTE: Sawcuts should be avoided within valley gutter and within curb and gutter endings.

CONTRACTION JOINTS IN CURB



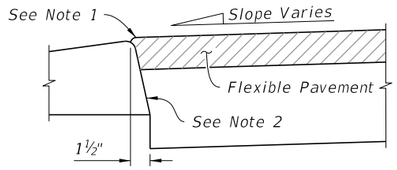
CONTRACTION JOINTS IN CURB & GUTTER





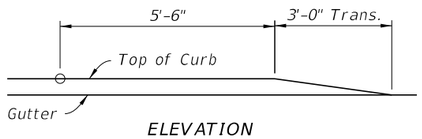
NOTE: Joint Seal application applies to both high and low sides of pavement, low side shown.

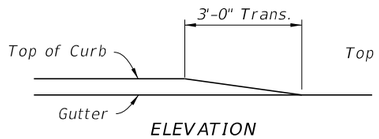
EXPANSION JOINT BETWEEN GUTTER AND CONCRETE PAVEMENT

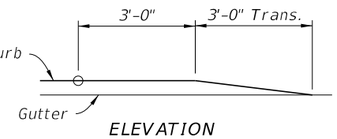


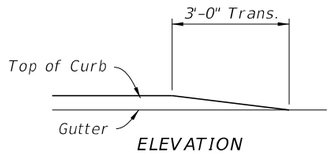
NOTES:

1. Surface on Low Side of Pavement to be ¼" Above Lip of Gutter. Surface on High Side to be Flush With Lip of Curb or Curb & Gutter.
2. Applies to both high and low sides of pavement, low side shown. Applies to shoulder gutter only where adjoining traffic lanes.









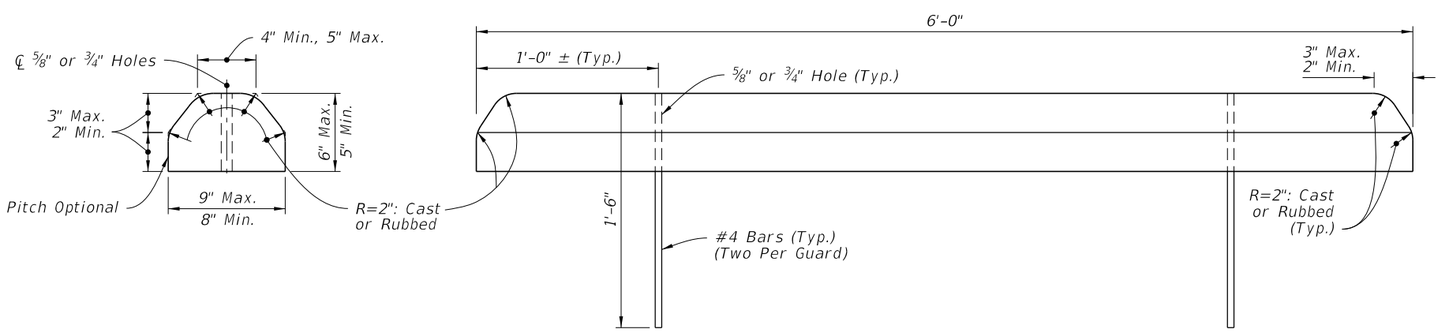
CURB TYPE A

CURB AND GUTTER TYPE E AND TYPE F

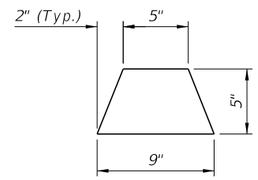
NOTE: Ends of Type B and D Curb transition from full to zero heights in 3 ft.

CURB AND CURB & GUTTER ENDINGS

CURB AND GUTTER AND TYPE A CURB ADJACENT TO FLEXIBLE PAVEMENT



CONCRETE BUMPER GUARD



ASPHALTIC CONCRETE CURB

10/6/2022 2:06:41 PM

CURB AND GUTTER JOINTS AND ENDINGS, CONCRETE BUMPER GUARD, AND ASPHALTIC CONCRETE CURB

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2023-24 STANDARD PLANS	CURB AND GUTTER SHEET 33 OF 60 SHEETS	520-001	3 of 3

GENERAL NOTES:

1. BARRIER CONCRETE: Use Class II concrete for all barriers constructed in slightly aggressive environments, and use Class IV Concrete for all barriers constructed in moderately or extremely aggressive environments. On all exposed surfaces, apply a General Surface Finish in accordance with Specification 400.

2. STEEL BAR REINFORCEMENT: Where required to maintain continuity, provide lap splices of at least 18 inches for No. 4 bars and 20 inches for No. 5 bars, unless otherwise shown herein (including shorter splices as provided by the default bar bending diagrams).

   The default reinforcing details shown herein, including bar shapes and lap splice positions, are intended to show required steel locations and provide for a constructible design. However, with the approval of the Engineer, alternate steel configurations may be used in the same locations shown herein, given that the equivalent strength reinforcing is provided and the cover, maximum spacing, and continuity requirements are maintained.

3. OPTIONAL WELDED WIRE REINFORCEMENT: With the approval of the Engineer, steel welded wire reinforcement in accordance with Specification 415 may be substituted for the steel bars shown herein. Place the welded wire in the same locations specified for the steel bars, and maintain the equivalent strength, cover, maximum spacing, and continuity requirements.

GENERAL NOTES (CONTINUED):

4. TOP FACE LONGITUDINAL REINFORCEMENT: Unless otherwise specified, the longitudinal reinforcement shown closest to the top face of the barrier has a maximum cover of 4½", measured from the top face of the barrier.

5. MINIMUM BARRIER LENGTH: Unless otherwise shown in the Plans, the minimum Concrete Barrier length is 40 feet.

6. CONSTRUCTION JOINTS: Install Construction Joints only as needed for discontinuous concrete casting or cold joints. Maintain continuity of steel reinforcement across Construction Joints. Construction Joints are classified herein as Transverse Joints or Longitudinal Joints.

   Transverse Joints are permitted at 20-foot or greater intervals along the barrier. For Tall Grade-Separated Sections, see Sheet 5 for additional Transverse Joint requirements.

   Longitudinal Joints are only permitted where indicated in the following details and notes, with a vertical position tolerance of ± 1½" from the locations shown.

7. DOWELED JOINTS: As shown in the Dowel Details on Sheets 2 & 13, install ¾" Doweled Joints for Concrete Barrier connections to Wall Coping Barriers, Pier Protection Barriers, and Traffic Railings. Doweled Joints are also required for expansion mitigation in Median Barrier as defined per Sheets 2 & 5. Doweled Joints are not permitted within Grade-Separated Median Barrier.

8. CRACK CONTROL V-GROOVES: At 20-foot intervals, place ⅜" depth V-grooves that run vertically and/or transversely in the front, top, and back faces of barriers. The V-grooves can be either molded or scored while the concrete is still plastic.

9. SUBGRADE: Compact the top layer of subgrade with Type B Stabilization, LBR 40 (12 in.).

10. FOOTING BOTTOM CONCRETE COVER: At the bottom of barrier footings shown throughout this Index, up to 2 inches of additional concrete cover is permitted beyond what is shown herein to accommodate soil grade irregularities.

11. FINISH GRADE ELEVATION: At the barrier face location, the finish grade pavement has a vertical position tolerance of ± ½" from the nominal locations shown herein, relative to the barrier elevation. Maintain visually smooth and even pavement at the barrier face, per the approval of the Engineer.

12. DRAINAGE INLETS: Where called for in the Plans, install corresponding inlets per Indexes 425-030 thru 425-032.

13. LIGHT POLE MOUNTING: Where called for in the Plans, install aluminum light poles per Index 715-002.

14. OPAQUE VISUAL BARRIER: Where called for in the Plans, install Opaque Visual Barrier per Index 521-010.

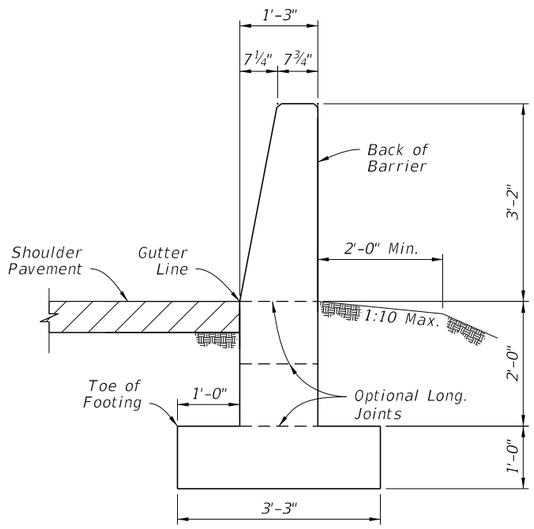
15. BARRIER END MARKERS: For all free ends of concrete barriers that are not shielded with an end treatment or connection to another barrier or traffic railing type, install a Type 3 Object Marker on the end face per Specification 705.

16. BARRIER DELINEATORS: Install Barrier Delineators in accordance with Specification 705. For median barriers, mount the delineator on the top of the barrier, at the centerline of barrier, with reflective sheeting facing traffic on both approaches. For shoulder barriers and split sections, mount the delineators on the top of the barrier, with the roadway side of the delineator located 2" from the front face of the barrier and the reflective sheeting facing traffic of the nearest approach.

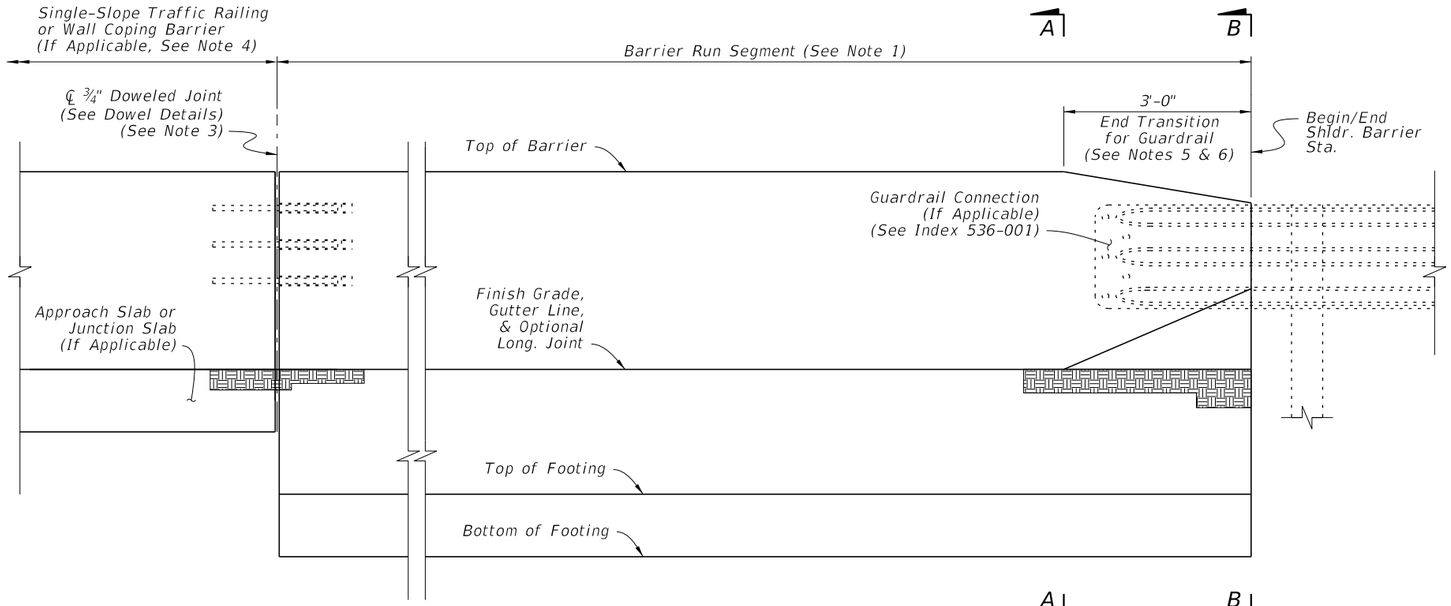
17. TOLL SITES: Where called for in the Plans, substitute the steel reinforcing bars shown herein with GFRP reinforcing bars of the same size. Construct GFRP reinforcing bars in accordance with Specification 932, and use a maximum 4½" inner diameter for bar bends. Alternative bar bending details and shapes may be used so long as the final location of the reinforcing is unchanged and the bars are either continuous or fully spliced at the side and bottom barrier locations. Where required to fit pull boxes while maintaining bar spacing and concrete cover, trim GFRP bars as defined in the Plans.

   At toll site locations, the use of Median Barriers on outside shoulders is permitted where called for in the Plans. Shoulder Pavement shown herein may be substituted with material for an alternate usage where defined in the Plans.

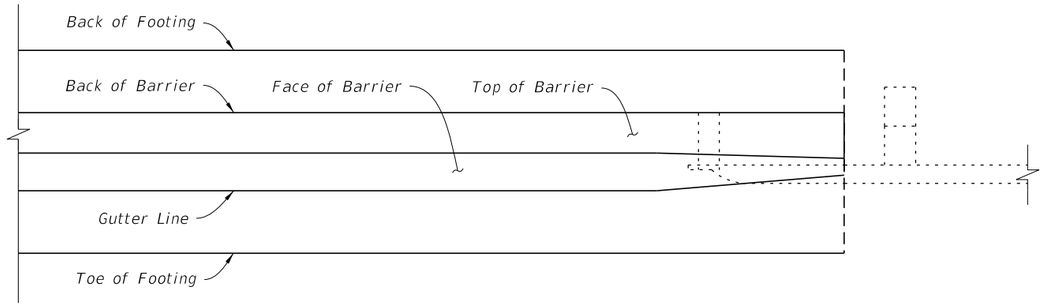
10/7/2022 2:46:52 PM



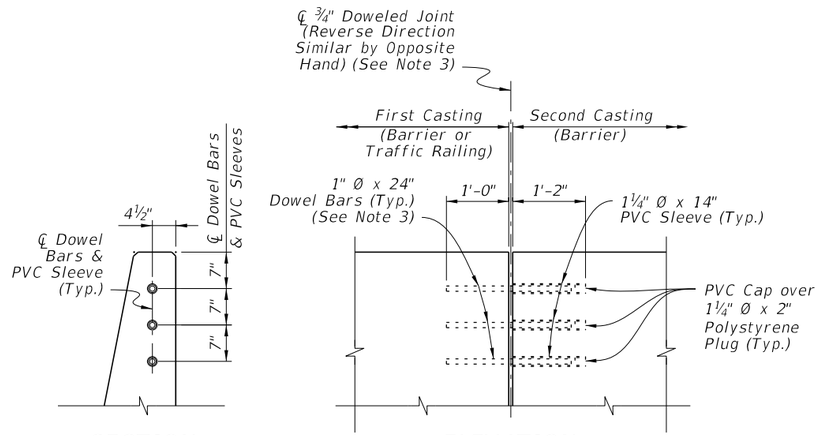
SECTION A-A
38" HEIGHT SHOULDER BARRIER
(See Sheet 14 for Reinforcing Steel Details)



ELEVATION



PLAN



SECTION
DOWEL PLACEMENT

ELEVATION
DOWEL BAR & PVC
CONNECTION

DOWEL DETAILS

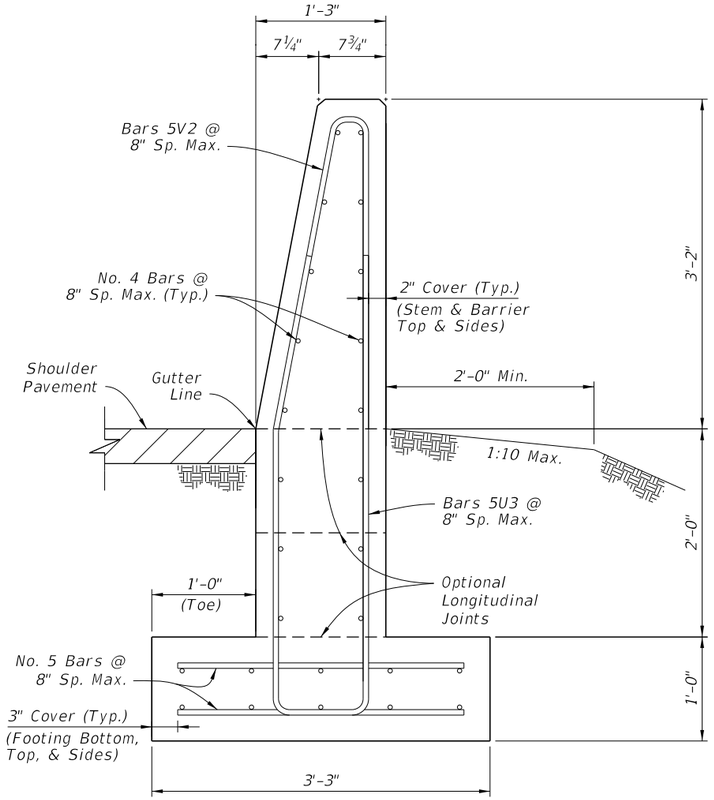
SHOULDER BARRIER NOTES:

1. BARRIER RUN SEGMENT: Either the 38" Height Shoulder Barrier or the differing Shoulder Barrier sections shown throughout the Index may be placed within this segment as required per the Plans.
2. SECTION VIEWS: For additional Views A-A and B-B, see Sheet 14.
3. DOWELED JOINTS: See the General Notes on Sheet 1 for usage of joint types. Place steel reinforcing with a longitudinal 3" cover adjacent to the joint face in the barrier. Use ASTM A36 smooth round bars with hot-dip galvanization.

   For the dowel connection into the first casting, the dowel may be cast-in-place for new concrete or placed into a 1⅛"∅ x 13"(± ½") drilled hole for cured concrete. For drilled holes larger than 1⅛"∅, secure the dowel with adhesive in accordance with Specification 416. No load testing is required.

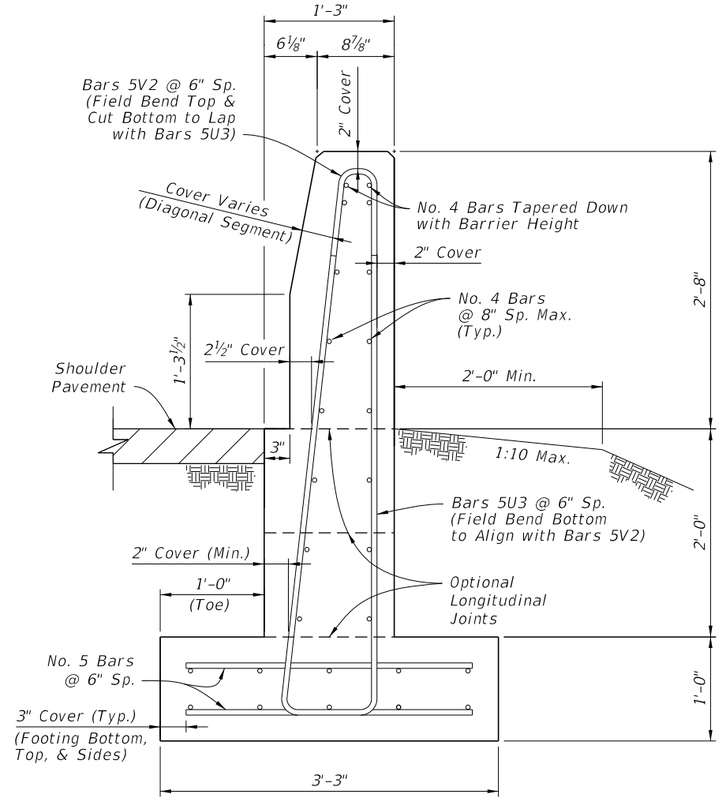
   For the dowel connection into the second casting, use a 1¼" NPS Schedule 80 PVC pipe with a sealed cap, cast-in-place as shown.
4. TRAFFIC RAILING CONNECTIONS: Align the barrier and Traffic Railing faces and connect with the ¾" Doweled Joint.
5. GUARDRAIL CONNECTIONS: Connect Guardrail using the Transition Connections to Rigid Barrier per Index 536-001.
6. CRASH CUSHION CONNECTIONS: Connect Crash Cushions per Index 544-001 in conjunction with the 3'-0" End Transition for Guardrail as shown herein.
7. FREE ENDS: When the barrier end does not terminate with a Traffic Railing Connection, Guardrail Connection, or Crash Cushion Connection as called for in the Plans, terminate in accordance with the Free End Reinforcing Note on Sheet 14.

SHOULDER BARRIER



SECTION A-A
38" HEIGHT SHOULDER BARRIER

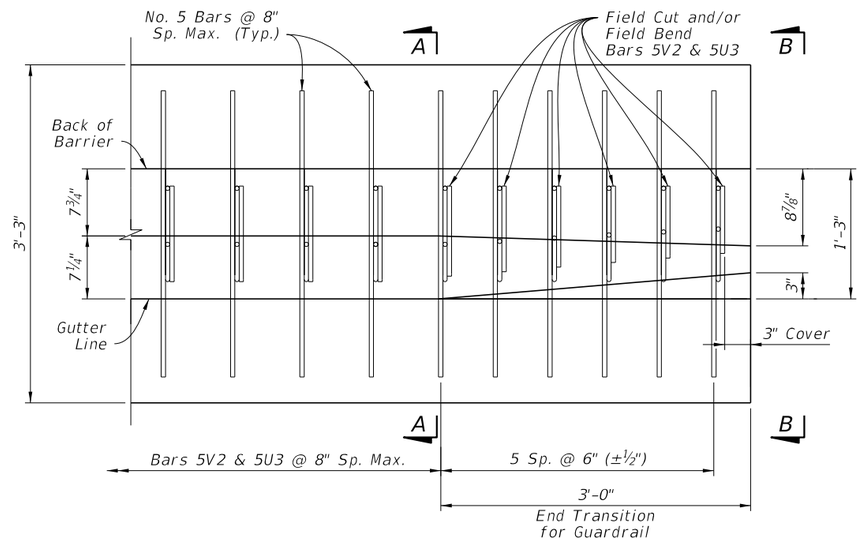
Concrete Qty. = 0.32 CY/FT
Steel Qty. = 50.9 LB/FT



VIEW B-B
REDUCED SECTION OF END TRANSITION FOR GUARDRAIL
(End of Barrier)

NOTES:

1. GENERAL: Work with the Plan and Elevation Views on Sheet 13. The Section Option footings shown on Sheet 15 may be substituted where called for in the Plans.
2. FREE END REINFORCING: Where shown in the Plans, terminate the 38" Height Barrier section with a transverse vertical end face. Reduce the spacing of Bars 5V2 and 5U3 to 6" for 5 Spaces, placed with 3" cover from the barrier's end face.
3. BAR BENDING DIAGRAMS: For additional details for bars 5V2 and 5U3, see the Bar Bending Diagrams on Sheet 26.



PLAN VIEW - END SEGMENT FOR GUARDRAIL CONNECTION
(Longitudinal Steel Not Shown for Clarity)

SHOULDER BARRIER - REINFORCING DETAILS

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	CONCRETE BARRIER	INDEX	SHEET
11/01/18					SHEET 36 OF 60 SHEETS	521-001	14 of 26

10/7/2022 2:47:22 PM

SHEET	CONTENTS
1	General Notes; Index Contents
2	General, TL-3 Guardrail – Installed Plan and Elevation
3	Low-Speed, TL-2 Guardrail – Installed Plan and Elevation
4	W-Beam and Thrie-Beam Panel Details
5	Post and Offset Block Details
6	Guardrail Sections – Heights and Adjacent Slopes
7	End Treatment – Approach Terminal Geometry, Parallel
8	End Treatment – Approach Terminal Geometry, Curbed and Double Faced
9	End Treatment – Trailing Anchorage
10	End Treatment – Component Details
11	End Treatment – Controlled Release Terminal (CRT) System
12	Layout for CRT System – Side Roads and Driveways
13	Approach Transition Connection to Rigid Barrier – General, TL-3
14	Approach Transition Connection to Rigid Barrier – General, TL-3 – Curb Connections
15	Approach Transition Connection to Rigid Barrier – Low-Speed, TL-2
16	Approach Transition Connection to Rigid Barrier – Low-Speed, TL-2 – Curb Connections
17	Approach Transition Connection to Rigid Barrier – Details
18	Approach Transition Connection to Rigid Barrier – Double Faced Guardrail
19	Layout to Rigid Barrier – Approach Ends
20	Layout to Rigid Barrier – Approach Ends with Double Faced Guardrail Layout to Rigid Barrier – Trailing Ends Trailing End Transition Connection to Rigid Barrier
21	Rub Rail Details
22	Pedestrian Safety Treatment – Pipe Rail
23	Modified Mount – Special Steel Post for Concrete Structure Mount; Modified Mount – Encased Post for Shallow Mount; Modified Mount – Frangible Leave-Out for Concrete Surface Mount
24	Barrier Delineators – Post Mounted; Clear Space – Reduced Post Spacing for Hazards; ⅝" Button-Head Bolt System

GENERAL NOTES:

1. INSTALLATION: Construct guardrail in accordance with Specification 536.

   This Index, along with the plans and the manufacturers' drawings on the Approved Products List (APL), is sufficiently detailed for installation of General Guardrail, Low-Speed Guardrail, End Treatment assemblies, and their connecting options shown herein. This precludes requirements for shop drawing submittals unless otherwise specified in the plans.

2. COMPATIBILITY: The General Guardrail in this Index is based on the Midwest Guardrail System (MGS) design, with an approximate height of 31" at the top of the Panel (2'-1" mounting height at vertical ℄ of Panel) and a midspan panel splice as shown on Sheet 2. Guardrail components included on the APL, which are compatible with this Index, may also be identified as 31" or MGS Guardrail.

3. STANDARD COMPONENTS: Standard guardrail components, including posts, panels, and bolt systems, are based on the Task Force 13 Publication: Guide to Roadside Hardware Components (http://tf13.org/Guides/componentGuide/).

4. BUTTON-HEAD BOLTS: Install Button-Head Bolts where indicated using bolts, nuts, and washers as defined on Sheet 24. Place washers under nuts. Do not place washers between bolt heads and panels, except where otherwise shown in this Index.

5. HEX-HEAD BOLTS: Install Hex-Head Bolts where indicated using bolts, nuts, and washers in accordance with material properties of Specification 967. Place washers under nuts.

6. MISCELLANEOUS ASPHALT PAVEMENT: Install Miscellaneous Asphalt Pavement where indicated with a tolerance of ± ½" depth and in accordance with Specification 339.

7. ADJACENT SIDEWALKS & SHARED USE PATHS: When guardrail posts are placed within 4'-0" of a sidewalk or shared use path, use timber posts, or use steel posts only if treated with Pipe Rail as shown on Sheet 22.

   When timber posts are used, one of the following safety treatments is required for the bolt(s) protruding from the back face of the posts:
   a. After tightening the nut, trim the protruding post bolt flush with the nut and galvanize per Specification 562.
   b. Use post bolts 15" in length and countersink the washer and nut between 1" and 1½" deep into the back face of the post.
   c. Use 15" post bolts with sleeve nuts and washers.

   When End Treatment posts are within 4'-0" of a sidewalk or shared use path, steel posts are not permitted within the End Treatment segment. Terminate the Pipe Rail outside of End Treatment segments, as noted per Sheet 22.

8. NESTED W-BEAM: Where called for in the plans, install two W-Beam Panels mounted flush per location, securing all panels with Button-Head Bolts threaded through aligned slots and holes. 2" Button-Head Bolts are permitted for panel splice locations.

9. CONNECTION TO RIGID BARRIER: The connections to Rigid Barrier in this Index only apply to newly constructed bridge Traffic Railing and Concrete Barrier or where the complete Approach Transition Connection to Rigid Barrier shown herein can be installed without conflicting with existing Traffic Railings, structures, or approach slabs.

   For connecting guardrail to existing bridge Traffic Railings, see Indexes 536-002, 521-404, and 521-405.

10. CONNECTION TO EXISTING GUARDRAIL: Where a transition to existing guardrail at 27" height is required, linearly transition the new guardrail height over a distance ranging from 25'-0" to 31'-3". Height transitions must occur outside of End Treatment and Approach Transition segments.

    Provide an immediate transition to the required midspan panel splice using the available panel options on Sheet 4 (9'-4½" or 15'-7½" panel). Alternatively, this transition to midspan panel splice may be achieved by installing a single reduced post spacing of 3'- 1½" within the new guardrail, immediately adjacent to the connection location.

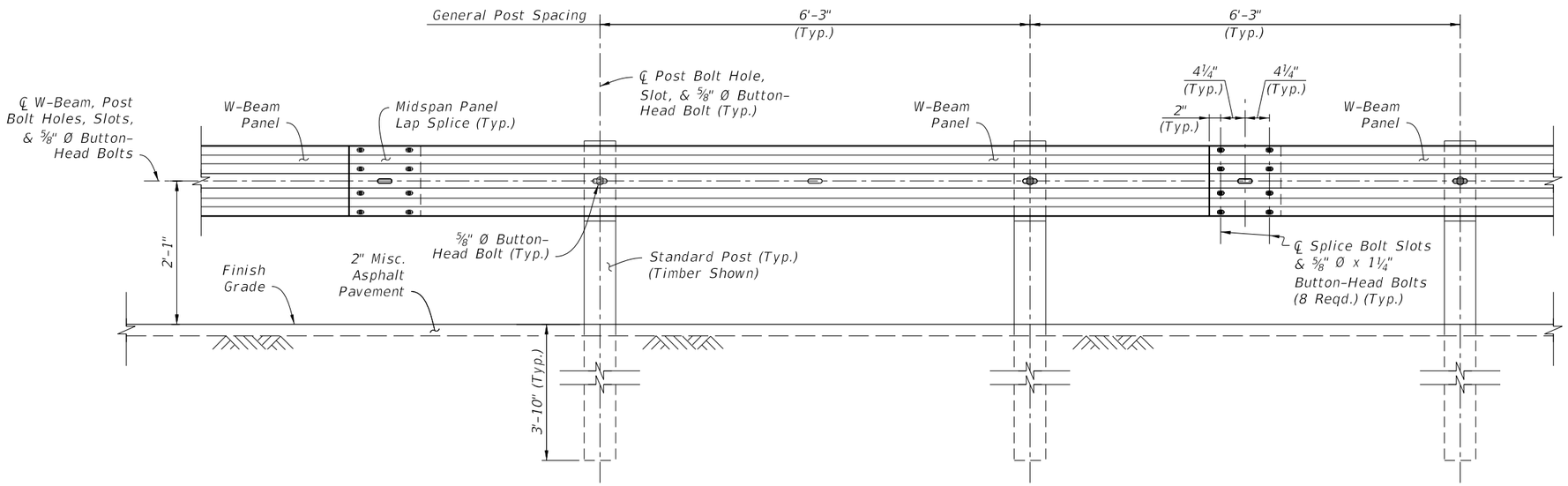
11. PLANS CALLOUTS: Begin/End Station labels are shown throughout this Index as they correspond to the station and offset callouts specified in the plans.

    In the plans, Begin/End Guardrail Station refers to the General TL-3 Guardrail Pay Item, and it may be abbreviated as Begin/End GR. Station. Where the Low-Speed TL-2 Guardrail Pay Item is specifically required, the callout in the plans will then specify Begin/End TL-2 GR. Station.

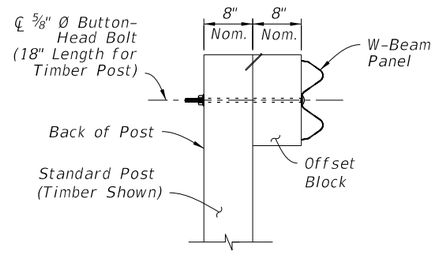
12. QUANTITY MEASUREMENT: Measure guardrail and corresponding components as defined in Specification 536. The Guardrail length is measured along the centerline of installed Panels, between the points labeled Begin/End Guardrail Station shown on the following Index Sheets and defined in the plans (typically measured from the ℄ of the panel's post bolt slots at the approach/trailing ends).

10/6/2022 2:17:09 PM

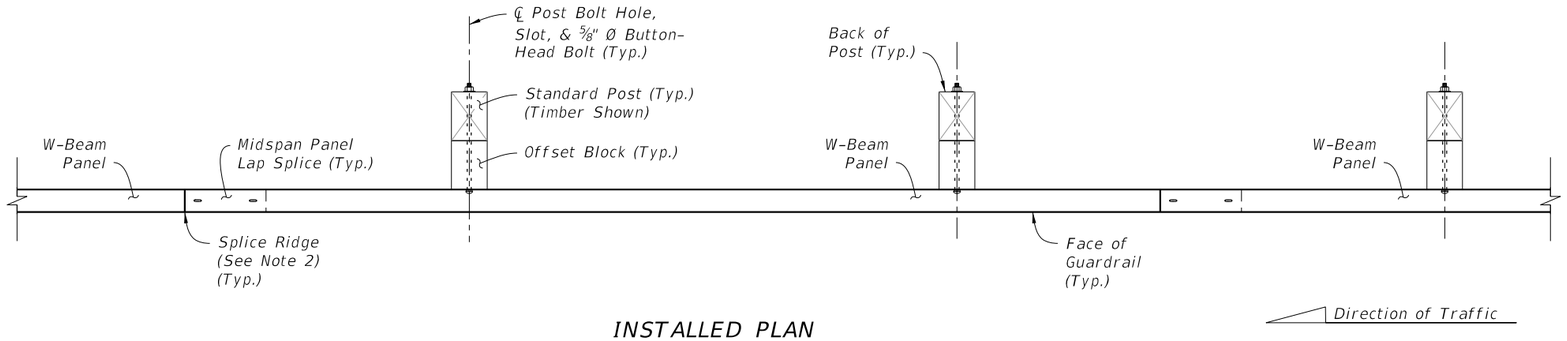
LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19				SHEET 37 OF 60 SHEETS	536-001	1 of 24



GENERAL GUARDRAIL
INSTALLED ELEVATION



INSTALLED SECTION



INSTALLED PLAN

NOTES:

1. GENERAL: Install the General Guardrail configuration where indicated in the plans. This may include tapered segments if called for in the plans.

   Use 12'-6" or longer W-Beam Panels. A single 6'-3" Panel may be used at the end of the run to meet the nominal Begin/End Guardrail Sta. requirements.

   Where a differing guardrail configuration is required for constructability beyond the options shown in this Index or the plans, obtain approval from the Engineer prior to installation.

2. MIDSPAN PANEL LAP SPLICE: For proper structural function, place all Lap Splices at midspan unless otherwise indicated.

   Lap the Panels with the Splice Ridge oriented downstream of the final Direction of Traffic in the nearest traffic lane. For reverse lane conditions, orient the Splice Ridge downstream of the lane direction with the highest traffic volume. Orienting Lap Splices for Temporary Traffic Control phasing is not required.

3. CONNECTION DETAILS: Connections to End Treatments, Approach Transitions, or other segment types are defined in the following Index Sheets, APL Drawings, or the plans.

4. W-BEAM PANEL DETAILS: See Sheet 4.

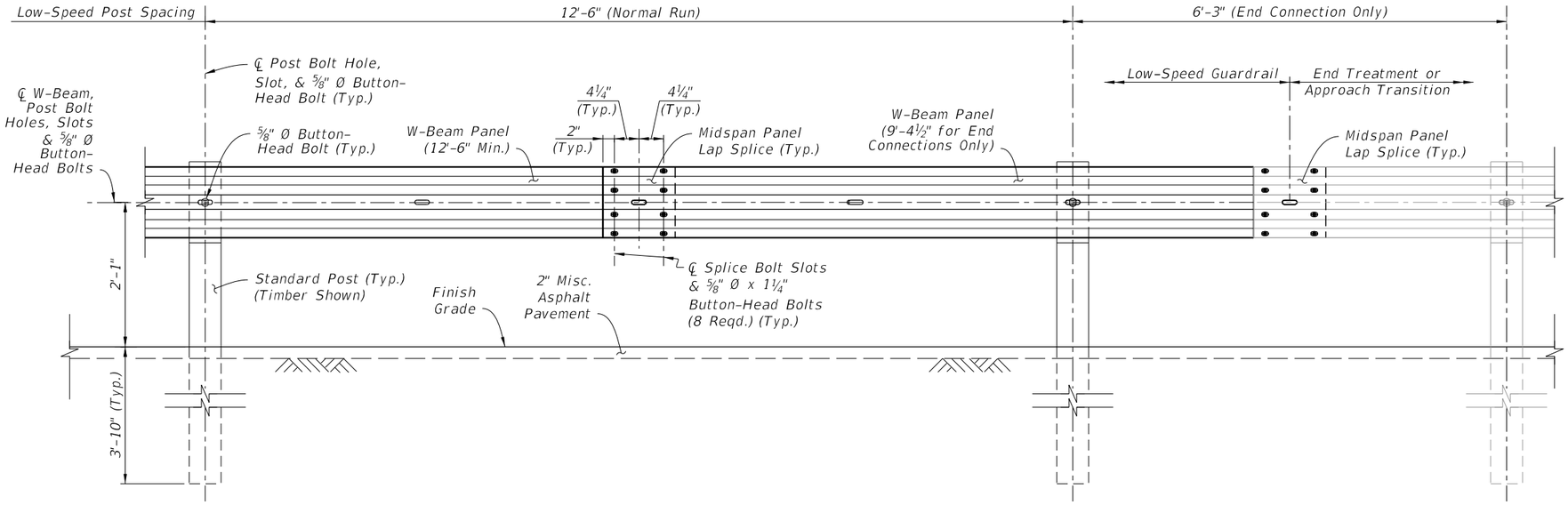
5. POST & OFFSET BLOCK DETAILS: See Sheet 5.

6. GUARDRAIL SECTIONS: For Sections showing typical mounting heights, grading, and lateral offsets in relation to adjacent roadway features, see Sheet 6.

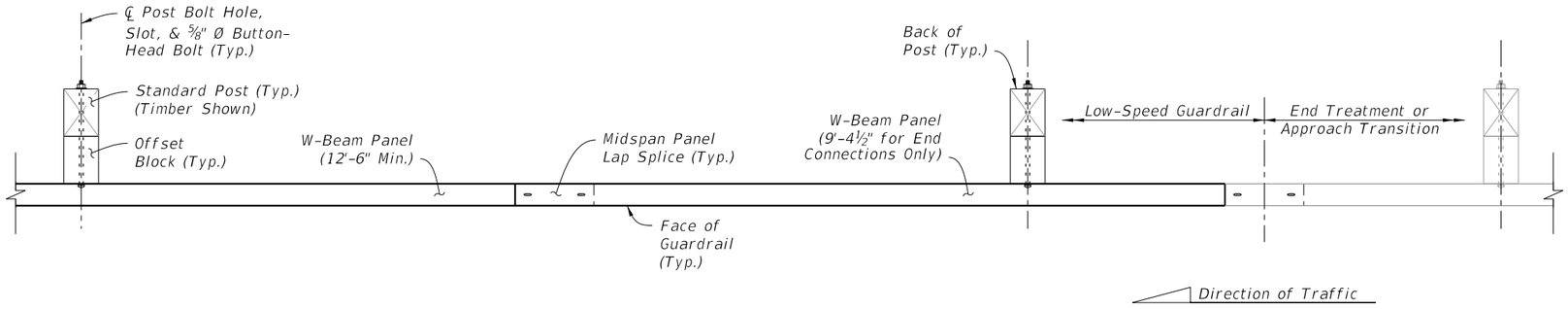
7. MODIFIED MOUNTS: Where concrete structures, concrete sidewalk, or shallow depth conditions are encountered, see Sheet 23 for additional post mounting options.

8. DEFINED SEGMENTS: The General Guardrail shown provides the base configuration, including Post Spacing and splice locations, for Defined Segment modifications where indicated in the plans and using the Guardrail Types, Sections, and/or hardware as shown in this Index (e.g. Double Faced W-Beam, Deep Posts at Slope Breaks, Pipe Rail, Rub Rail, or Reduced Post Spacing for Hazards).

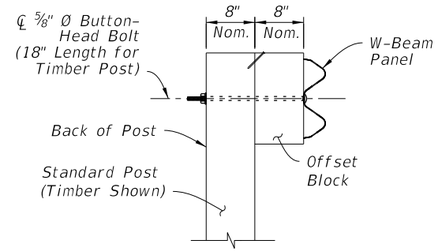
GENERAL, TL-3 GUARDRAIL DETAILS



LOW-SPEED GUARDRAIL INSTALLED ELEVATION



INSTALLED PLAN



INSTALLED SECTION

NOTES:

1. GENERAL: Install the Low-Speed Guardrail configuration where indicated in the plans. Low-Speed Guardrail may include tapered segments if called for in the plans.

   Use 12'-6" or 25'-0" W-Beam Panels for normal spans, and use 9'-4½" Panels for end connections to adjoining segments as shown. A single 6'-3" Panel may be used at the end of the Low-Speed Guardrail run along with a single reduced 6'-3" post spacing to meet the nominal Begin/End Guardrail Sta. required.

   Where a differing guardrail configuration is required for constructability beyond the options shown in this Index or the Plans, obtain approval from the Engineer prior to installation.

2. MIDSPAN PANEL LAP SPLICE: For proper structural function, place all Lap Splices at midspan unless otherwise indicated.

   Lap the Panels with the Splice Ridge oriented downstream of the final Direction of Traffic in the nearest traffic lane. For reverse lane conditions, orient the Splice Ridge downstream of the lane direction with the highest traffic volume. Orienting Lap Splices for Temporary Traffic Control phasing is not required.

3. CONNECTION DETAILS: Connections to End Treatments, Approach Transitions, or other segment types are defined in the following Index Sheets, APL Drawings, or the plans.

4. W-BEAM PANEL DETAILS: See Sheet 4.

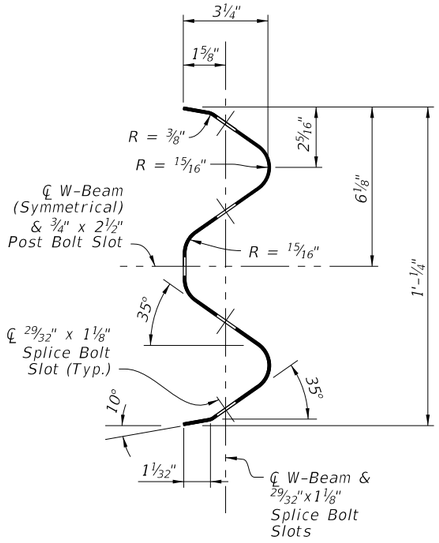
5. POST & OFFSET BLOCK DETAILS: See Sheet 5.

6. GUARDRAIL SECTIONS: For Sections showing typical mounting heights, grading, and lateral offsets in relation to adjacent roadway features, see Sheet 6.

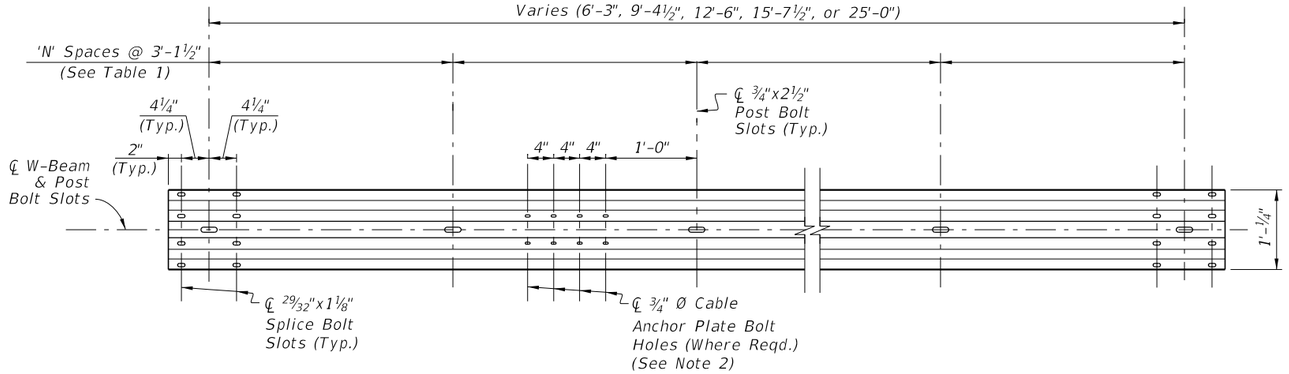
7. MODIFIED MOUNTS: Where concrete structures, concrete sidewalk, or shallow depth conditions are encountered, see Sheet 23 for additional post mounting options.

8. RESTRICTIONS: Low-Speed Guardrail segments are not permitted for use with items including, but not limited to, Double Faced W-Beam, Deep Posts at Slope Breaks, Raised Curb, Pipe Rail, and/or Rub Rail.

LOW-SPEED, TL-2 GUARDRAIL DETAILS



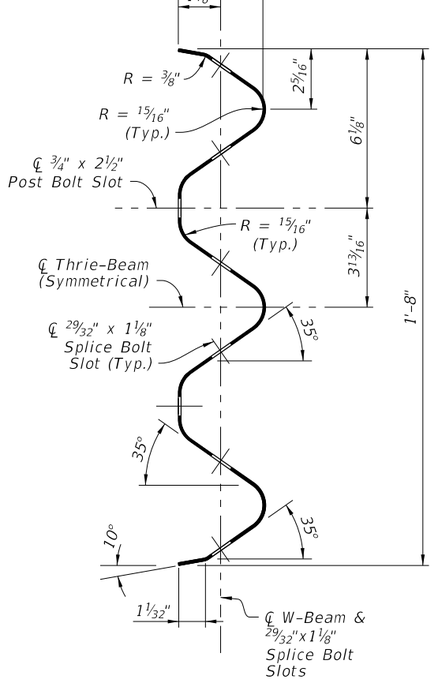
W-BEAM PANEL SECTION



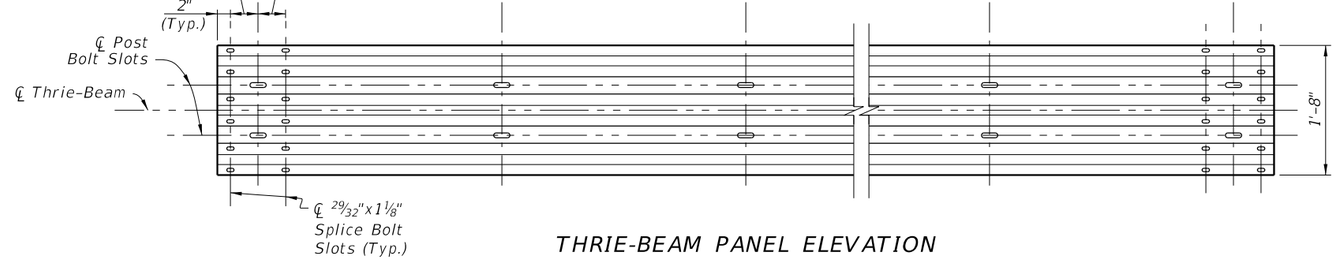
W-BEAM PANEL ELEVATION

PANEL SUMMARY TABLE:

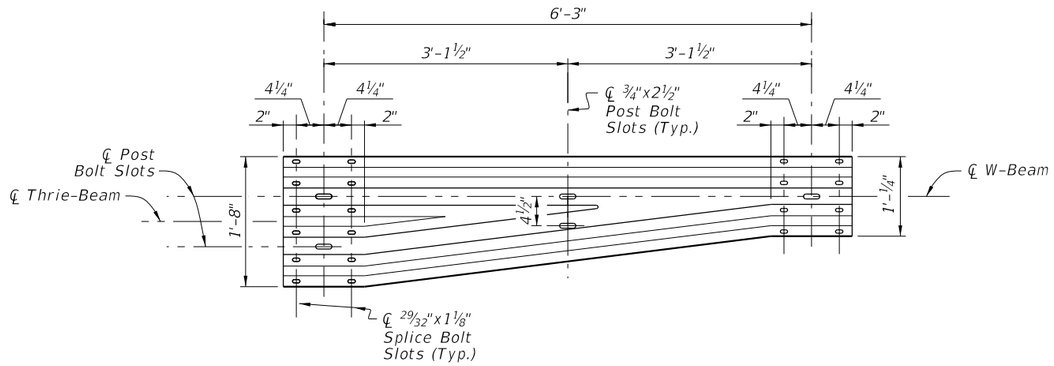
Panel Type	Number of Spaces 'N'	Gauge
6'-3" W-Beam	2	12
9'-4½" W-Beam	3	12
12'-6" W-Beam	4	12
15'-7½" W-Beam	5	12
25'-0" W-Beam	8	12
3'-1½" Thrie-Beam	1	10
6'-3" Thrie-Beam	2	12
12-6" Thrie-Beam	4	12
25-0" Thrie-Beam	8	12
Thrie-Beam Trans.	2	10



THRIE-BEAM PANEL SECTION



THRIE-BEAM PANEL ELEVATION



THRIE-BEAM TRANSITION PANEL ELEVATION
(Reverse Direction Similar by Opposite Hand)

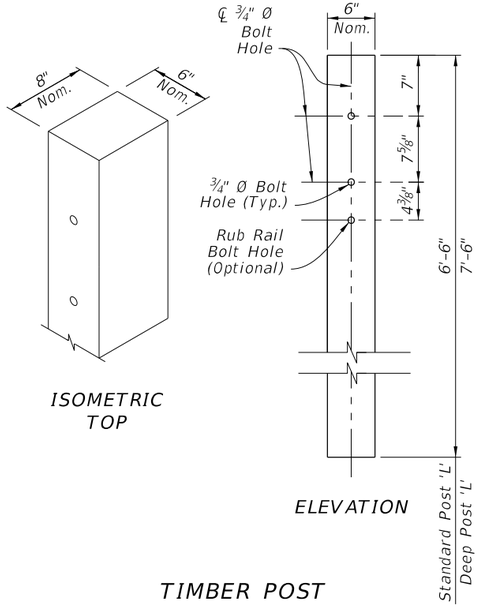
NOTES:

1. MATERIALS:
   Use corrugated steel panels in accordance with Specification 967 and made from either Class A, 12 gauge steel or Class B, 10 gauge steel as specified in the 'Panel Summary Table' above.

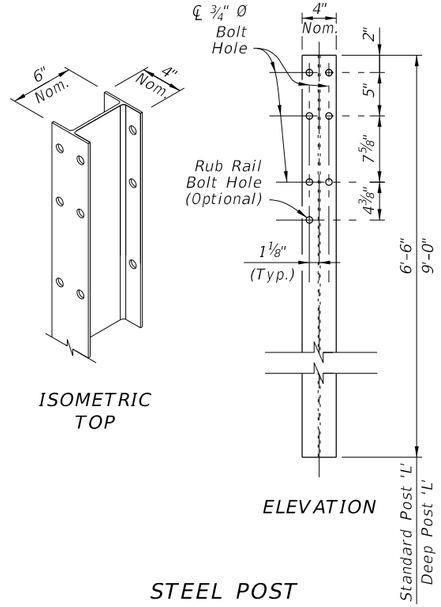
2. CABLE ANCHOR PLATE BOLT HOLES:
   Include ¾" Ø Cable Anchor Plate Bolt Holes only where required for installation of the Cable Anchor Plate shown on Sheet 9, 10, & 11.

   29⁄32" x 1⅛" slots may substitute for the ¾" Ø holes shown.

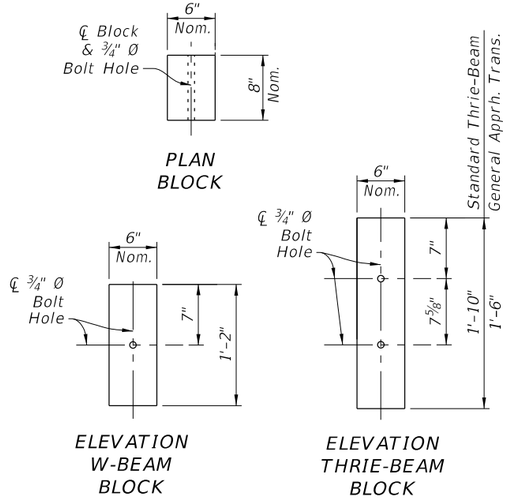
W-BEAM AND THRIE-BEAM PANEL DETAILS



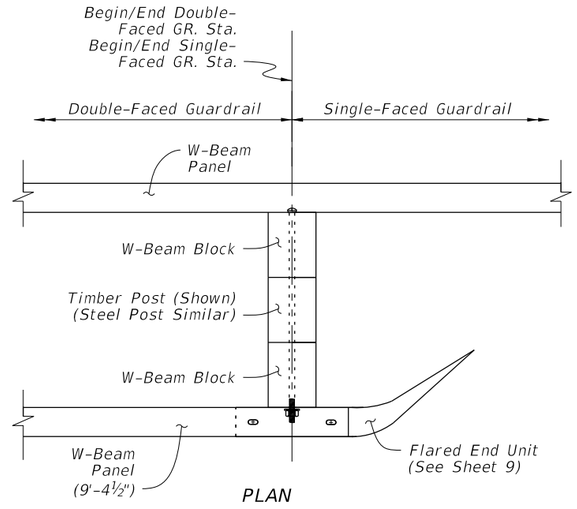
TIMBER POST
(6"X8" Nominal)



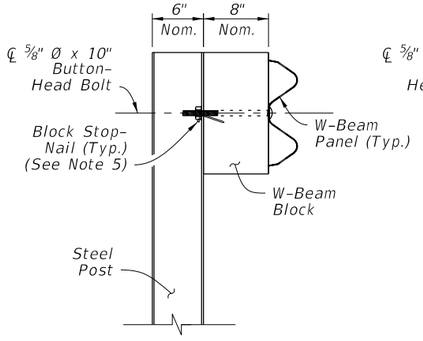
STEEL POST
(W6X8.5 or W6X9)

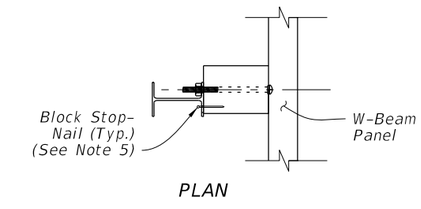


TIMBER OFFSET BLOCK
(6"X8" Nominal)

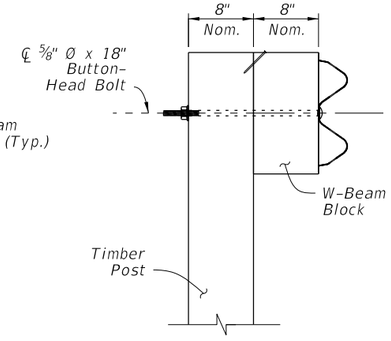


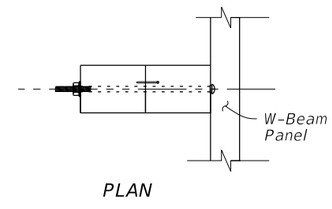
SINGLE-FACED / DOUBLE-FACED
GUARDRAIL CONNECTION



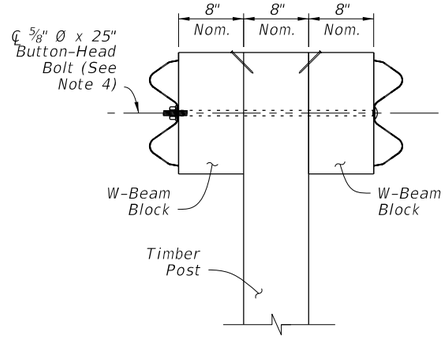


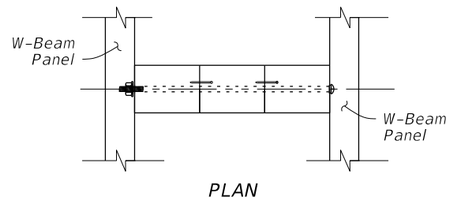
SINGLE-FACED
W-BEAM
STEEL POST



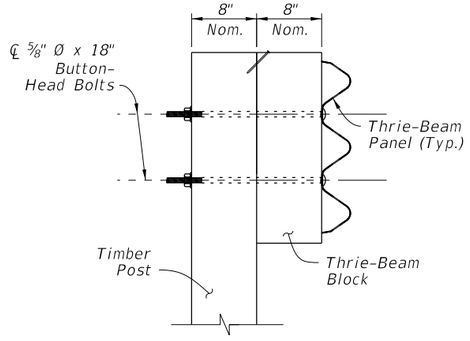


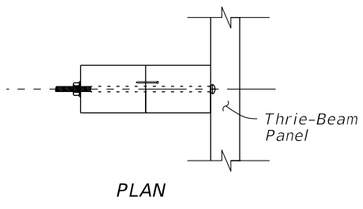
SINGLE-FACED
W-BEAM
TIMBER POST





DOUBLE-FACED W-BEAM
TIMBER POST
(Thrie-Beam Similar)
(Steel Post Similar)





THRIE-BEAM
TIMBER POST
(Steel Post Similar)

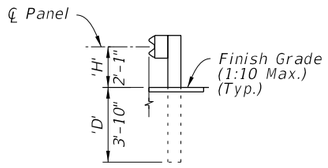
NOTES:

1. STANDARD POSTS: Where Standard Posts are called for in this Index, use either a Timber Post or Steel Post at the Length, 'L', shown for Standard Posts. Use a single post material type consistently per each run of guardrail. Only where specified in the Plans, use the Deep Post 'L' for Slope Break Conditions as shown on Sheet 6.
2. OFFSET BLOCKS: For each Panel type, install the corresponding Offset Block type as shown. For General, TL-3 (Single Faced) Approach Transitions only, use the 1'-6" Thrie-Beam Block (See Sheet 13).
3. BOLT HOLES: ¾" Ø Bolt Holes shown in posts within this Index may be substituted with $^{13}/_{16}$" Ø Bolt Holes.
4. DOUBLE FACED GUARDRAIL: Orient Post Bolts with the Button-Head located on the side nearest the traffic lane. The bolt's threaded portion is not permitted to extend beyond ¾" from the face of the tightened nut; trim the threaded portion as needed and galvanize in accordance with Specification 562.
5. BLOCK STOP-NAIL: Drive one nail per Standard Offset Block as shown to prevent Block rotation. Use steel 3½" Type 16d nails with ASTM A153 hot-dip galvanization. For steel posts, drive the nail through the unused flange Bolt Hole and bend the nail so its head contacts the flange.
6. MATERIALS: Use timber and steel posts and offset blocks in accordance with Specification 967. Composite offset blocks may be substituted as approved on the APL. Use a single offset block type consistently per each run of guardrail. Steel offset blocks are only permitted for Modified Thrie Beam.

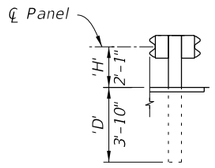
POST AND OFFSET BLOCK DETAILS

10/6/2022 2:17:12 PM

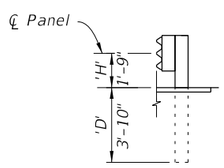
LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19				SHEET 41 OF 60 SHEETS	536-001	5 of 24



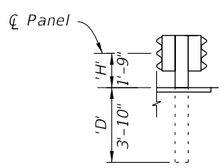
W-BEAM



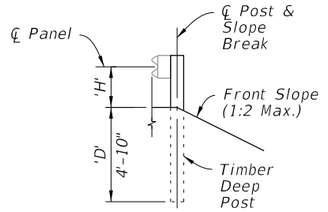
DOUBLE FACED
W-BEAM



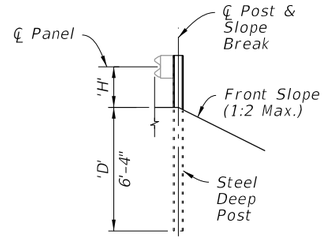
THRIE-BEAM



DOUBLE FACED
THRIE-BEAM

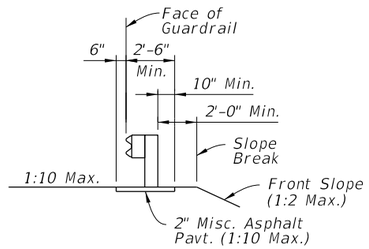


SLOPE BREAK CONDITION
TIMBER DEEP POST

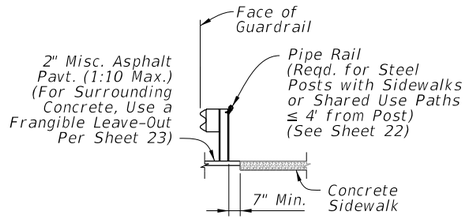


SLOPE BREAK CONDITION
STEEL DEEP POST

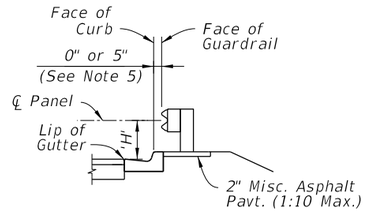
GUARDRAIL TYPES - MOUNTING HEIGHTS & POST DEPTHS



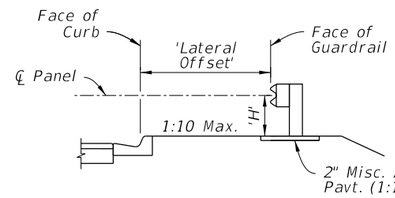
TYPICAL GRADING &
PAVT. PLACEMENT DETAIL
(See Note 2)



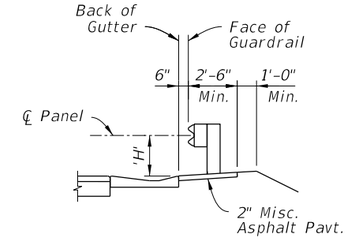
TYPICAL SIDEWALK DETAIL
(Work with Other
Sections as Reqd.)



ADJACENT TO CURB
(Type F Curb Shown)



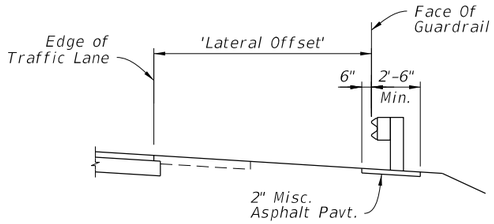
BEHIND CURB
(Type F Curb Shown)



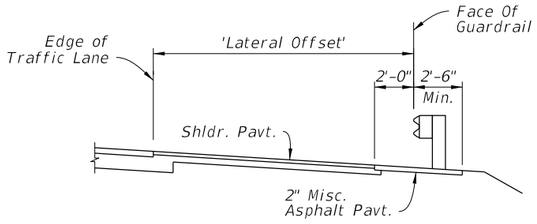
ADJACENT TO
SHOULDER GUTTER

GUARDRAIL SECTIONS - TYPICAL

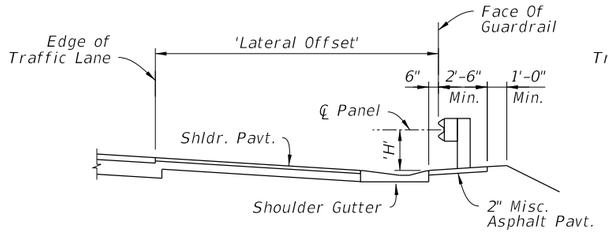
GUARDRAIL SECTIONS - CURB & GUTTER



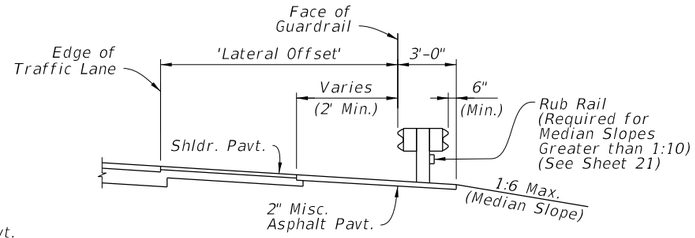
UNPAVED OR PARTIALLY
PAVED SHOULDER



FULLY PAVED SHOULDER



SHOULDER GUTTER



DOUBLE FACED GUARDRAIL
(Shown In Median)

GUARDRAIL SECTIONS - SHOULDERS

GUARDRAIL HEIGHT SUMMARY TABLE:			
Type:	Min. Depth 'D':	Mounting Height 'H':	Post Length 'L':
W-Beam (Single and Double Faced)	3'-10"	2'-1"	6'-6"
Thrie-Beam (Single and Double Faced)	3'-10"	1'-9"	6'-6"
Timber Deep Post	4'-10"	See Above	7'-6"
Steel Deep Post	6'-4"	See Above	9'-0"

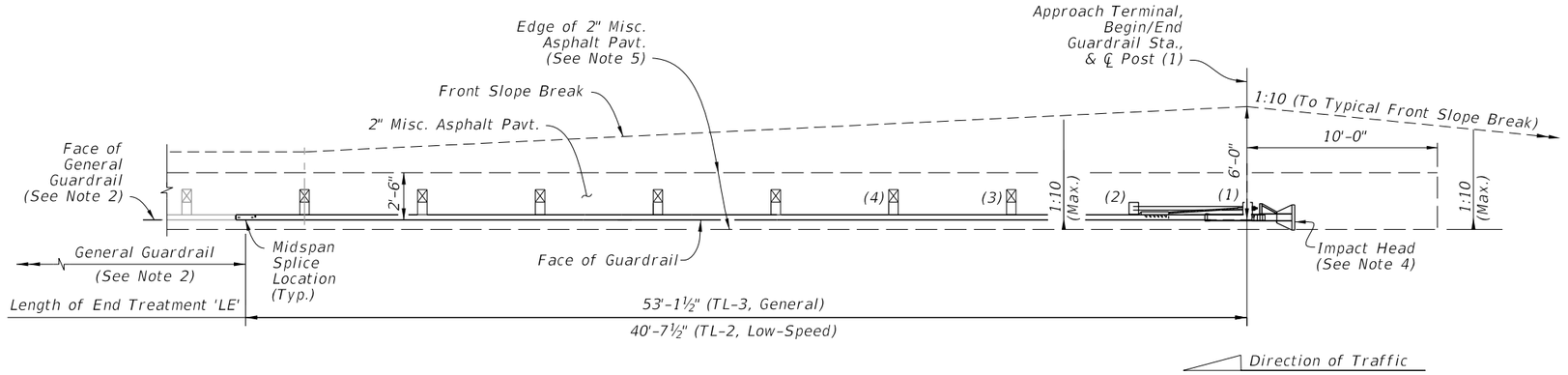
NOTES:

1. GUARDRAIL SECTIONS: Construct Sections as indicated in the plans. The details shown herein depict W-Beam Guardrail, but are applicable to the other defined Guardrail Types placed at the corresponding height, 'H'. Use components per Sheets 4 & 5. Steel and timber post types are interchangeable unless otherwise defined. The 1:10 Max. cross slope shown is the maximum slope permitted for proper guardrail function, but project-specific cross slope requirements are governed by additional design criteria, per the plans.
2. TYPICAL GRADING & PAVEMENT PLACEMENT DETAIL: Construct features as depicted except where superceded by specific Guardrail Sections or the plans. Place the Slope Break a Minimum of 2' behind the post. For Deep Posts, the slope break may be placed at the ℄ Post with the 2" Miscellaneous Asphalt Pavement omitted.
3. SLOPE BREAK CONDITION: Install Deep Posts only where called for in the plans. Deep Posts are only permitted where post spacing is 6'-3" or less.
4. LATERAL OFFSETS: The Lateral Offsets shown are governed by the station and offset call outs for Face of Guardrail, as shown in the plans.
5. ADJACENT TO CURB: Place the Face of Guardrail consistently offset either flush with the Face of Curb or 5" behind the Face of Curb, as indicated by the plans station and offset callout. For offset changes, transition the Face of Guardrail as shown in the plans.

GUARDRAIL SECTIONS

10/6/2022 2:17:13 PM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19					SHEET 42 OF 60 SHEETS	536-001	6 of 24



APPROACH TERMINAL ASSEMBLY
'PARALLEL' TYPE - PLAN VIEW

NOTES:

1. *INSTALLATION: Locate Approach Terminals where called for in the plans, with the Post (1) ℄ placed at the Begin/End Guardrail Station indicated in the plans.*

   The Plan Views shown herein are schematic only, showing basic geometry for Approach Terminals listed on the APL. The predefined Length of End Treatment, 'LE', includes the proprietary portion of various Approach Terminals and provides for more consistent planning of assembly installations across the differing Approach Terminal types. Forward-anchoring style Approach Terminals may vary from the planned lengths shown by up to 3'-0".

   Construct Approach Terminals as shown in the APL and in accordance with the manufacturer's unique drawing details, procedures, and specifications.

   Install posts in accordance with the manufacturer's drawings. The Special Posts on Sheet 23, including Special Steel Posts, Encased Posts, and Frangible Leave-Outs, are not permitted within the Approach Terminal segment unless otherwise called for in the plans.

   Align panel lap splices in accordance with the manufacturer's drawings, regardless of the direction of traffic.

   Install adjacent grading, gutters, and/or curbing as shown herein.

2. *GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments.*

   Approach Transitions, Low-Speed Guardrail, or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.

3. *APPROACH TERMINAL TEST LEVEL: Install either a Test Level 3 (TL-3) or Test Level 2 (TL-2) Approach Terminal as specified in the plans. TL-3 Approach Terminals may substitute for TL-2 Approach Terminals unless the substitution is specifically prohibited in the plans. TL-2 Approach Terminals may not substitute for TL-3 installations.*

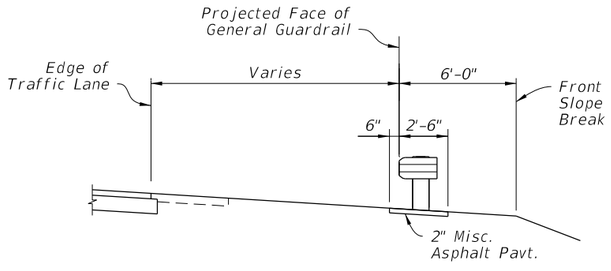
4. *IMPACT HEAD END DELINEATOR: Apply Yellow Retroreflective Sheeting to the nose of the End Terminal in accordance with Specification 536.*

5. *2" MISCELLANEOUS ASPHALT PAVEMENT: The Plan View depicts the Unpaved Shoulder condition. For Fully Paved Shoulder and Shoulder Gutter conditions, extend the 2" Misc. Asphalt Pavement as shown in the corresponding 'Section at Post (1)' details below.*

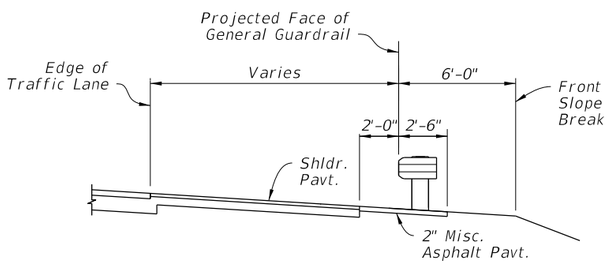
   The 2" Misc. Asphalt Pavement shown upstream of Post (1) may be substituted with a different pavement type where called for in the Plans.

6. *CLEAR AREA REQUIREMENT: Do not place any permanent aboveground installations within the areas shown with 1:10 maximum grading. For the finished condition, keep this area free of all aboveground obstructions, including dense vegetation and trees.*

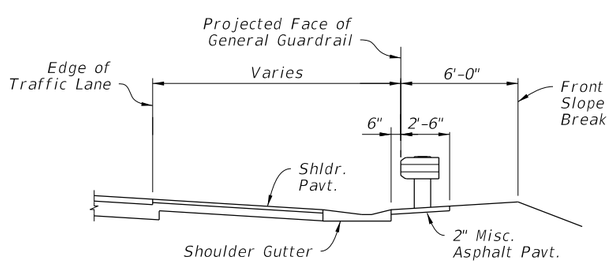
7. *'CURBED' AND 'DOUBLE FACED' GUARDRAIL SEGMENTS: See Sheet 8.*



SECTION AT POST (1)
WITH UNPAVED SHOULDER



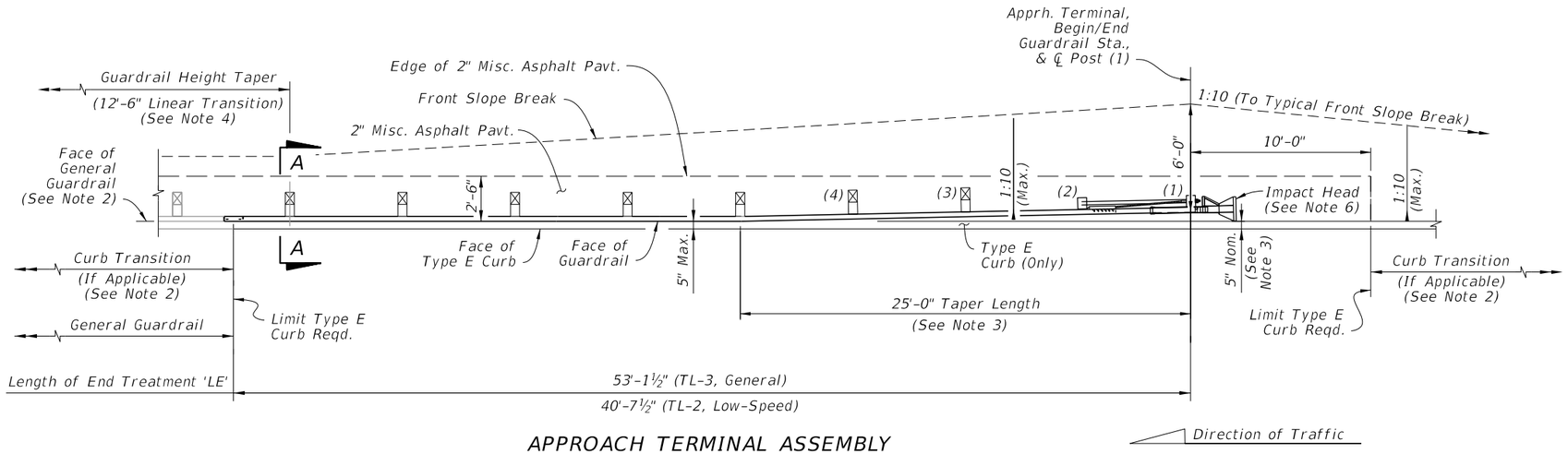
SECTION AT POST (1)
WITH FULLY PAVED SHOULDER



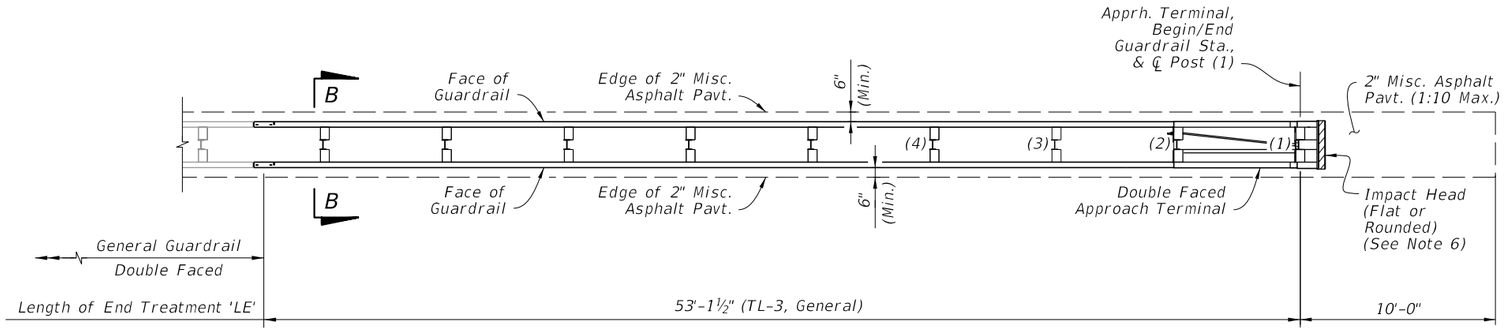
SECTION AT POST (1)
WITH SHOULDER GUTTER

10/6/2022 2:17:14 PM

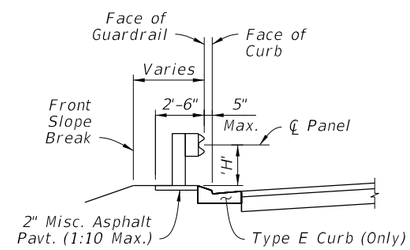
END TREATMENT - APPROACH TERMINAL GEOMETRY - PARALLEL



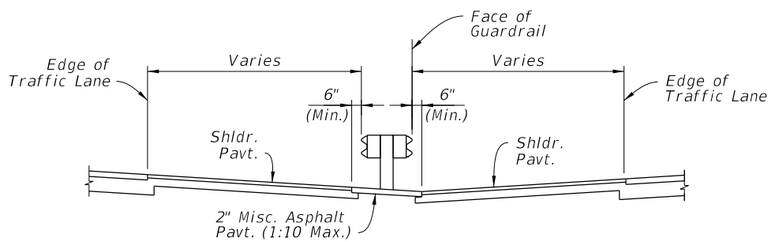
APPROACH TERMINAL ASSEMBLY
'CURBED' SEGMENT - PLAN VIEW



APPROACH TERMINAL ASSEMBLY
'DOUBLE FACED' SEGMENT - PLAN VIEW



'CURBED' SECTION A-A
(Height, 'H', Measured from Misc. Asphalt Pavt.)



'DOUBLE FACED' SECTION B-B
(1:10 Slope or Flatter Reqd.)

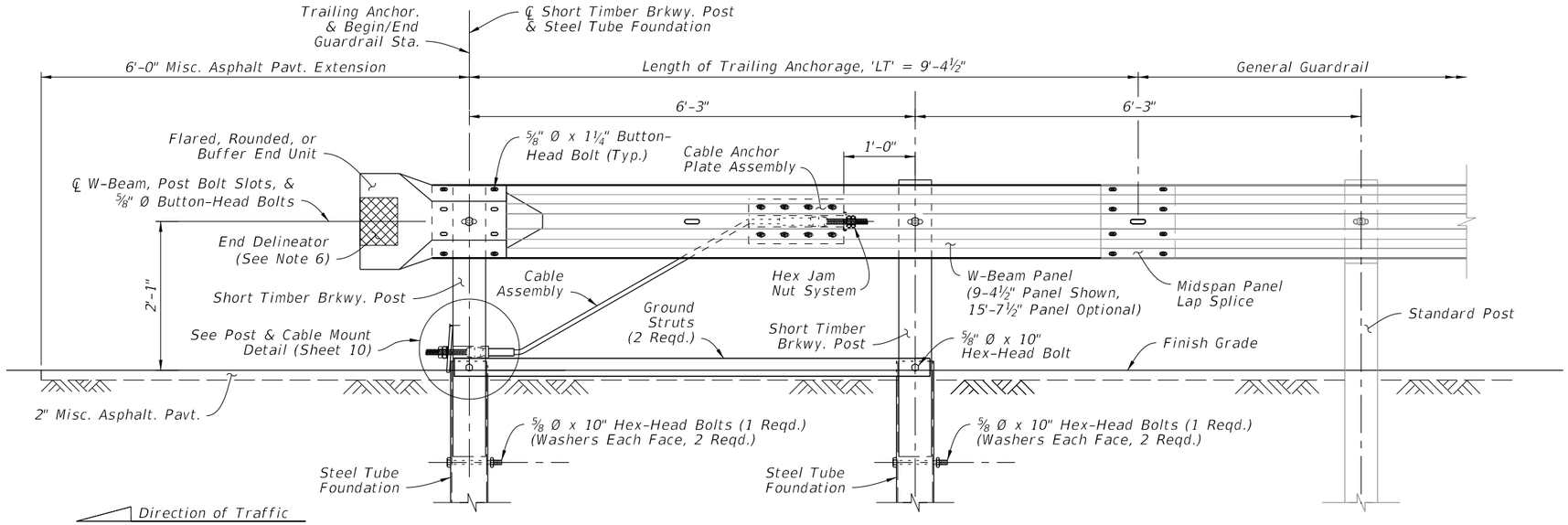
NOTES:

1. GENERAL: See Notes 1 through 3 on Sheet 7.
2. CURBED SEGMENTS: Type E curb is required within the limits shown. When a different curb type is called for outside of the Type E curb limits, transition the curb shape linearly, over a nominal distance ranging 5'-0" to 10'-0"
3. TAPER LENGTH: For Curbed Segments, taper the guardrail away from the roadway where shown to place the inside edge of the Impact Head at 5" behind the face of the curb. Where additional lateral offset is required to fit the Approach Terminal Assembly hardware, such as a soil plate, place the Impact Head as close to the curb as the hardware allows, not to exceed 2'-0" from the face of curb.
4. GUARDRAIL HEIGHT TAPER: For Curbed Segments, the connecting General Guardrail Mounting Height, 'H', is typically measured from the Lip of Gutter (See Sheet 6 Guardrail Sections, 'Adjacent to Curb'), while the End Terminal Assembly 'H' is measured from the Misc. Asphalt Pavt. (See Section A-A). Linearly taper the difference in Mounting Height over a minimum length of 12'-6", starting where indicated herein.
5. DOUBLE FACED SEGMENT: Connect to Double Faced General Guardrail. Use consistent Posts and Offset Block types as specified in the APL drawings over the entire Length of End Treatment, 'LE'. Posts and Offset Blocks in the adjoining General Guardrail segment may be different from those inside of the 'LE'. A change in post type between timber and steel is permitted, immediately outside of the 'LE' segment.

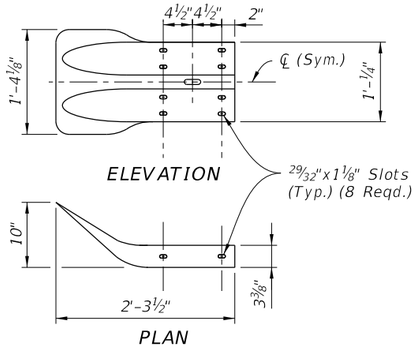
   Maintain the 1:10 maximum grading as shown in Section B-B throughout segment 'LE'. Where required, transition to differing adjacent slopes linearly, over a minimum longitudinal length of 25'-0".
6. IMPACT HEAD END DELINEATOR: Apply Yellow Retroreflective Sheeting to the nose of the End Terminal in accordance with Specification 536.
7. CLEAR AREA REQUIREMENT: Do not place any permanent aboveground installations within the areas shown with 1:10 maximum grading. For the finished condition, keep this area free of all aboveground obstructions, including dense vegetation and trees.
8. 2" MISCELLANEOUS ASPHALT PAVEMENT: The 2" Misc. Asphalt Pavement shown upstream of Post (1) may be substituted with a different pavement type where called for in the Plans.
9. SINGLE FACED 'PARALLEL' SEGMENTS: See Sheet 7.

10/6/2022 2:17:14 PM

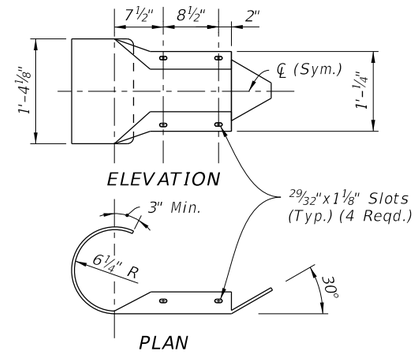
END TREATMENT - APPROACH TERMINAL GEOMETRY CURBED AND DOUBLE FACED



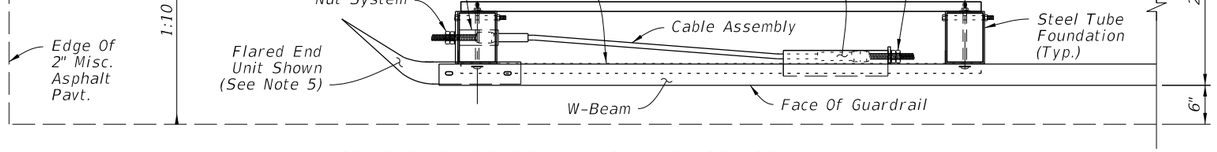
INSTALLED ELEVATION



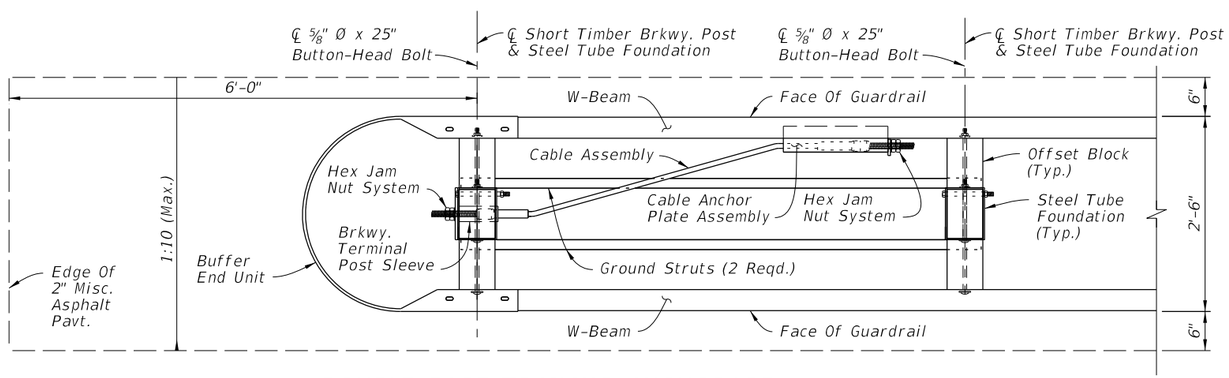
FLARED END UNIT



ROUNDED END UNIT



SINGLE FACE TRAILING ANCHORAGE
INSTALLED PLAN



DOUBLE FACE TRAILING ANCHORAGE
INSTALLED PLAN

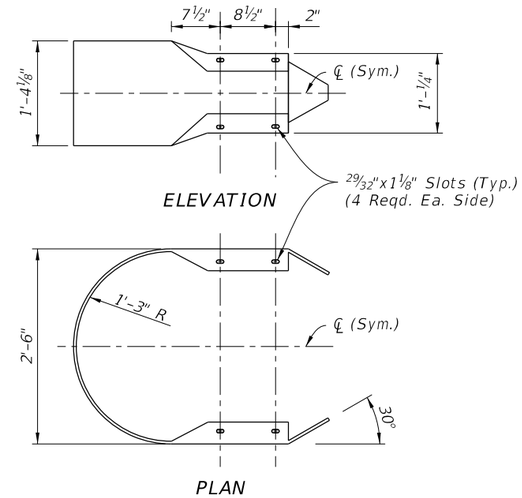
NOTES:

1. *COMPONENT DETAILS: For additional component details, See Sheet 10.*
2. *END UNITS: Use materials for end units as defined in Specifications Section 967. End Units are referred to as "End or Buffer Sections" in AASHTO M180.*

   Lap the Flared End Unit behind the W-Beam; lap the Rounded and Buffered End Units over the face of the W-Beam.
3. *FOUNDATIONS: Install Steel Tubes by either of the following methods:*

   a. Excavate, backfill, and compact material to provide full passive soil resistance to the surface of the Tube.

   b. Drive the Tube using a dummy timber post to prevent damage to the Breakaway Post.
4. *GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments. Transitions, Low-Speed Guardrail, or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.*
5. *SIDEWALK REQUIREMENTS: When sidewalks are located adjacent to the End Treatment, install a Rounded End Unit (Flared End Unit not permitted for this case).*
6. *END DELINEATOR: Mount retroreflective sheeting to the approach face of the End Unit in accordance with Specification Sections 536 and 967.*

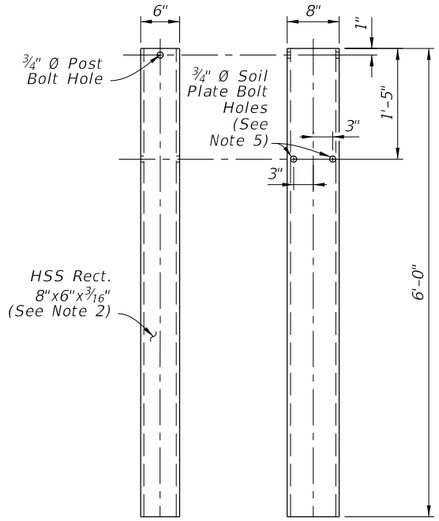


BUFFER END UNIT

END TREATMENT - TRAILING ANCHORAGE

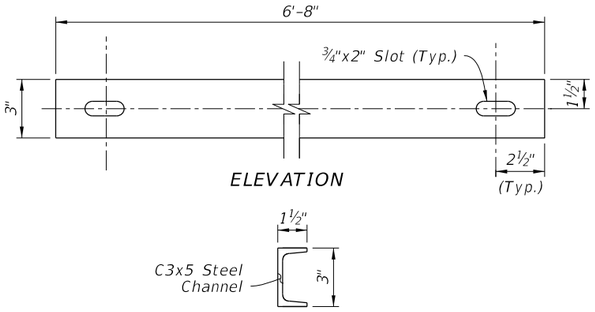
10/6/2022 2:17:15 PM

LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/20				SHEET 45 OF 60 SHEETS	536-001	9 of 24



ELEVATION SECTION

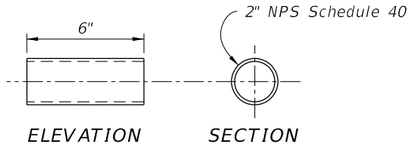
STEEL TUBE FOUNDATION



ELEVATION

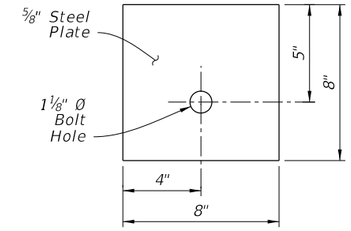
SECTION

GROUND STRUT



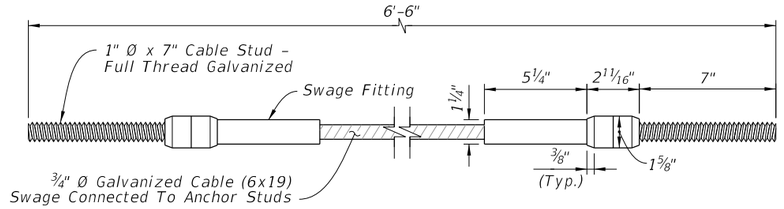
ELEVATION SECTION

BREAKAWAY TERMINAL POST SLEEVE

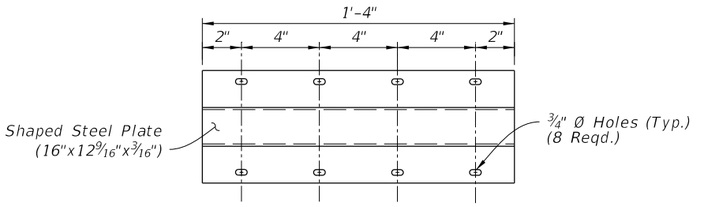


SECTION

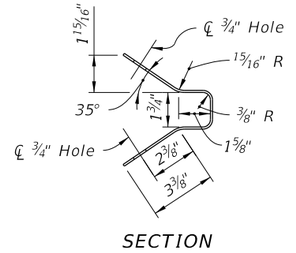
BEARING PLATE



CABLE ASSEMBLY

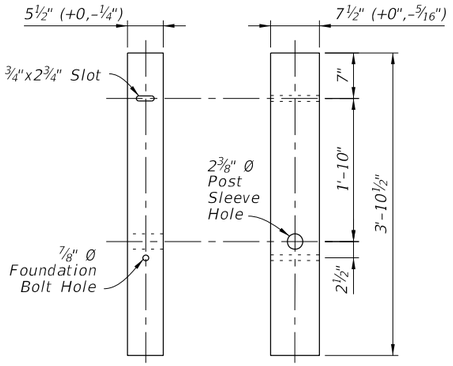


ELEVATION



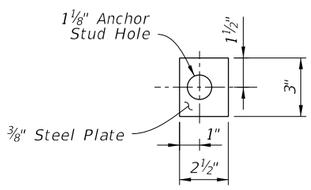
SECTION

CABLE ANCHOR PLATE

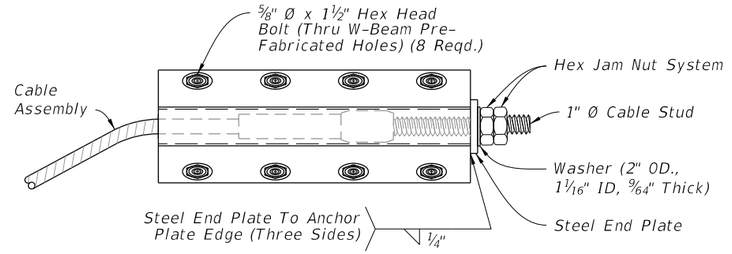


ELEVATION SECTION

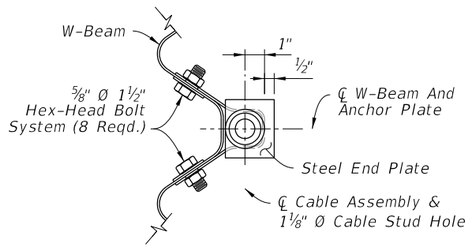
SHORT TIMBER BREAKAWAY POST (6"x8" Nom.)



STEEL END PLATE

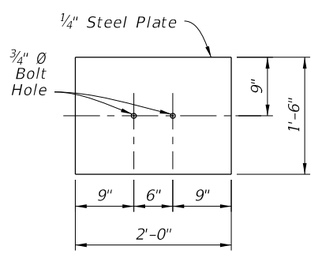


ELEVATION



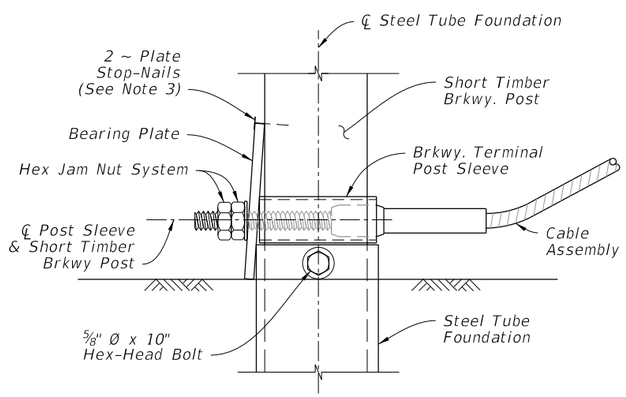
SECTION

CABLE ANCHOR PLATE ASSEMBLY



SECTION

SOIL PLATE



ELEVATION

POST & CABLE MOUNT ASSEMBLY

NOTES:

1. INSTALLATION: Use components as shown on Sheets 9 & 11.
2. MATERIALS: Use steel plates, channels, and Cable Assemblies in accordance with Specification 967.

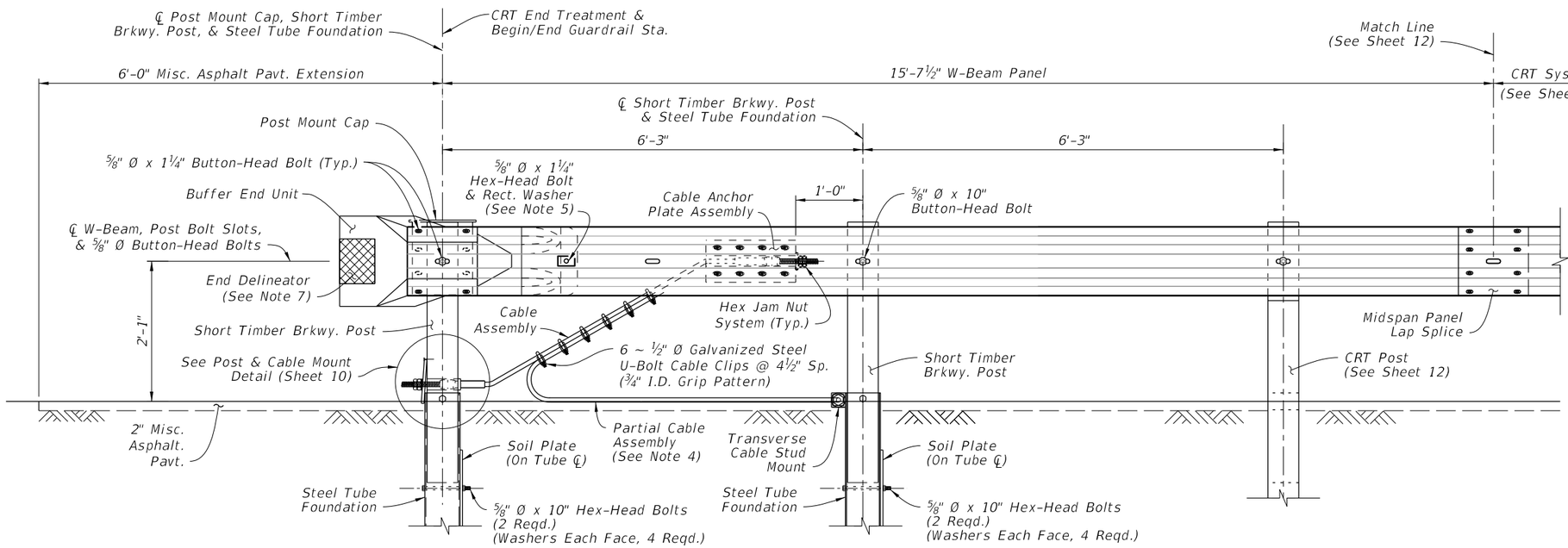
   Use Short Timber Breakaway Posts and Steel Tube Foundations in accordance with Specification 536.

   Use Hex Nuts, Hex Jam Nuts, and Washers in accordance with the AASHTO-AGC-ARTBA Guide to Standardized Barrier Hardware with English unit equivalents of components FNX24a and FWC24a, respectively. Two Hex Nuts may be used for the Hex Jam Nut System.
3. PLATE STOP-NAILS: To prevent rotation of the Bearing Plate, drive steel 2½" Type 8d nails with ASTM A153 hot-dip galvanization.
4. CABLE ANCHOR PLATE ASSEMBLY INSTALLATION: Mount to the pre-fabricated Cable Anchor Plate Bolt Holes in the W-Beam Panel, as shown on Sheet 4. These panel holes are only permitted for this Cable Anchor Plate Assembly application.
5. SOIL PLATE BOLT HOLE(S): For Trailing Anchorage installations as shown on Sheet 9, the two bolt holes shown may be substituted with a single bolt hole located at the tube centerline.

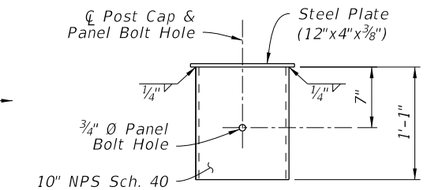
END TREATMENT - COMPONENT DETAILS

10/6/2022 2:17:16 PM

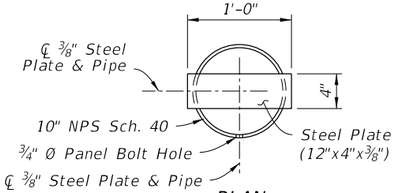
LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19				SHEET 46 OF 60 SHEETS	536-001	10 of 24



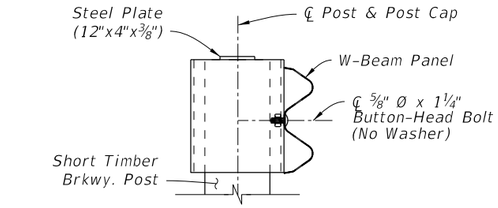
INSTALLED ELEVATION



ELEVATION

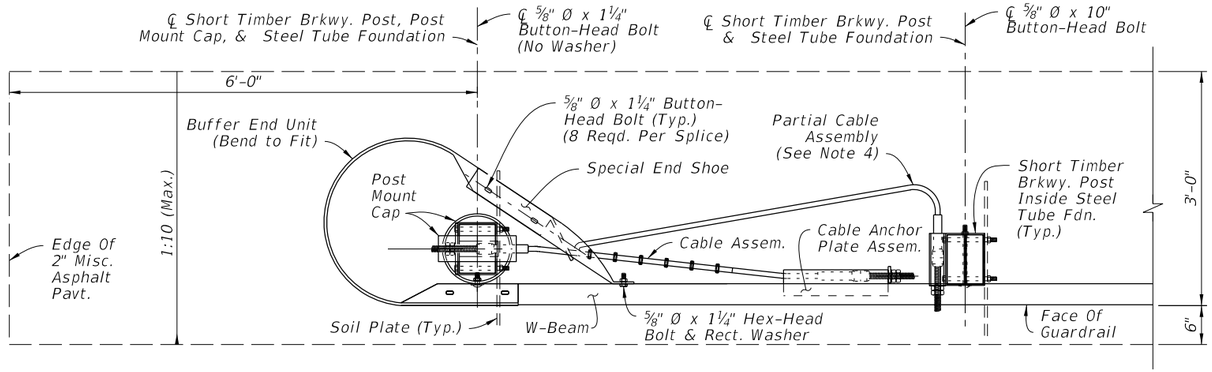


PLAN



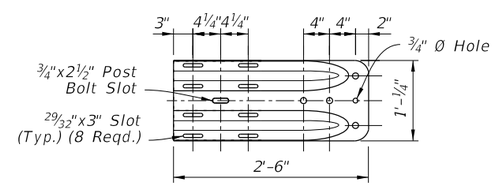
INSTALLED SECTION

POST MOUNT CAP

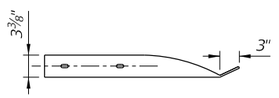


INSTALLED PLAN

CRT END TREATMENT ASSEMBLY

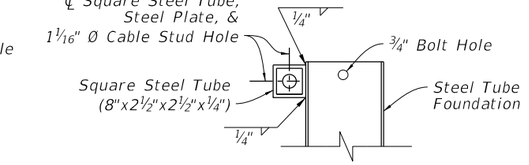


ELEVATION

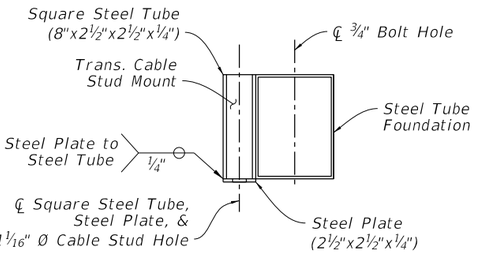


PLAN

SPECIAL END SHOE



ELEVATION



PLAN

TRANSVERSE CABLE STUD MOUNT

NOTES:

1. INSTALLATION: Use with CRT Systems as required on Sheet 12.
2. COMPONENT DETAILS: For additional component details, See Sheet 10 & 12. For the Rectangular Washer detail, see Sheet 24.
3. MATERIALS: Use steel End Shoes, Plates, Tubes, and pipes in accordance with Specification 967.
4. PARTIAL CABLE ASSEMBLY: The Partial Cable Assembly is similar to the Cable Assembly defined on Sheet 10, except with a 9'-0" total length and the Swage Fitting and Cable Stud omitted from one end.

   Feed the Cable Stud through the Cable Stud Hole of the Transverse Cable Stud Mount as shown, and secure it with the Hex Jam Nut System as defined on Sheet 10.
5. SPECIAL END SHOE MOUNT: Punch a ¾" Ø hole in the W-Beam Panel as needed to secure the Special End Shoe with the ⅝" Ø Hex-Head Bolt. Galvanize hole per Specification 562.
6. FOUNDATIONS: Install Steel Tubes with attached Soil Plates by either of the following methods:

   a. Excavate, backfill, and compact material to provide full passive soil resistance to all surfaces of the tube and soil plate.

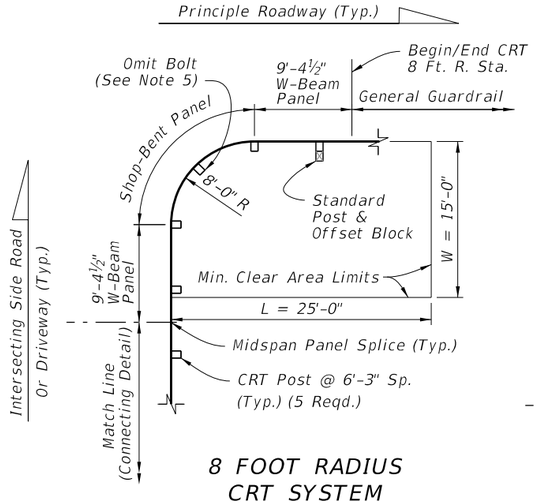
   b. Drive the steel tube and soil plate as a single unit using a dummy timber post to prevent damage to the breakaway post.
7. END DELINEATOR: Mount retroreflective sheeting to the approach face of the Buffer End Unit in accordance with Specifications 536 and 967.

10/6/2022 2:17:17 PM

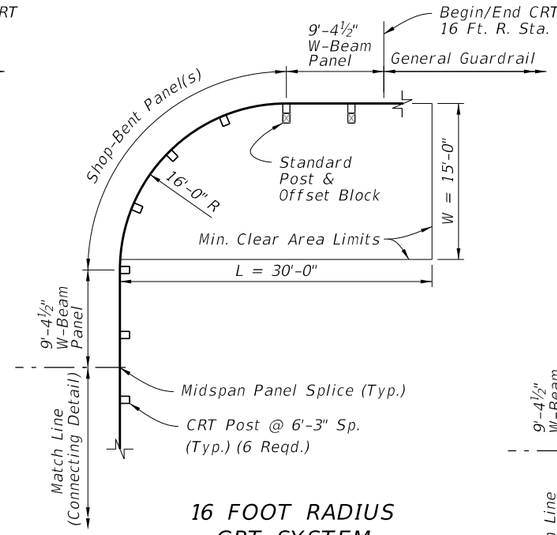
END TREATMENT - CONTROLLED RELEASE TERMINAL (CRT) SYSTEM

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FY 2023-24 STANDARD PLANS	GUARDRAIL	536-001	11 of 24

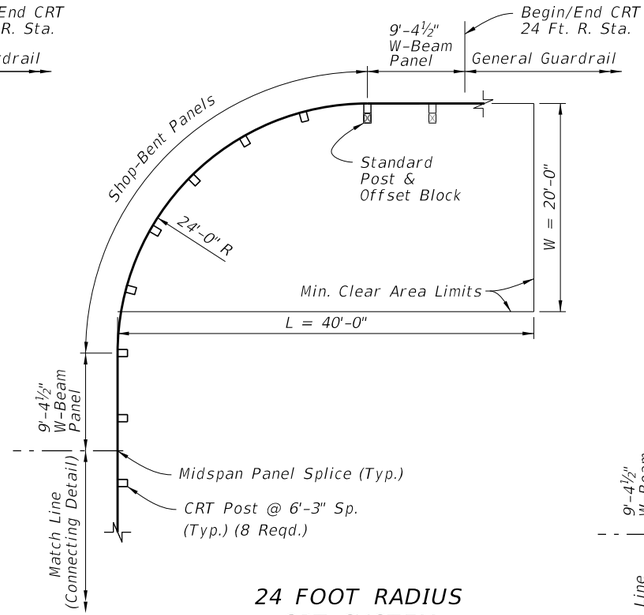
SHEET 47 OF 60 SHEETS



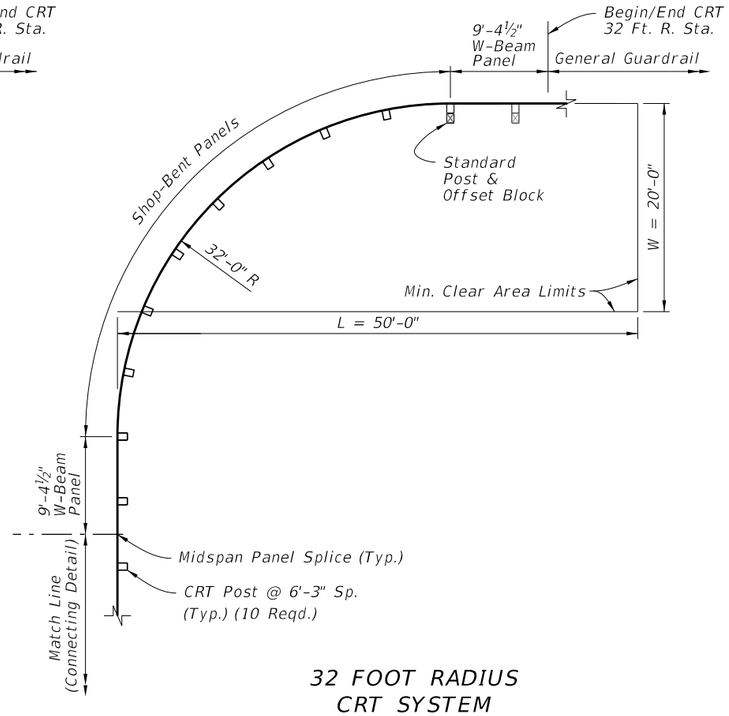
8 FOOT RADIUS CRT SYSTEM PLAN VIEW



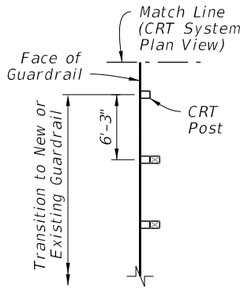
16 FOOT RADIUS CRT SYSTEM PLAN VIEW



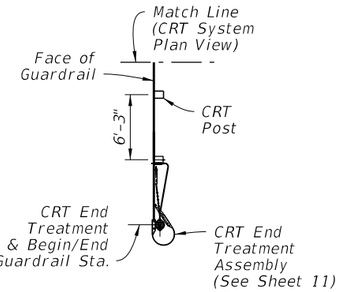
24 FOOT RADIUS CRT SYSTEM PLAN VIEW



32 FOOT RADIUS CRT SYSTEM PLAN VIEW



CONTINUING OPTION

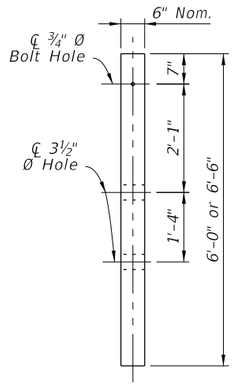


END TREATMENT OPTION

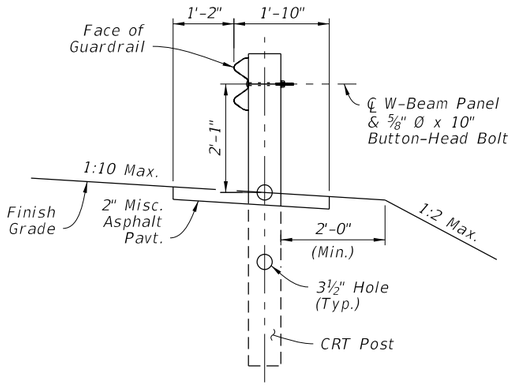
CONNECTING DETAIL

CRT SYSTEM SUMMARY TABLE:

RETURN RADIUS (FT.)	LENGTH OF SHOP-BENT PANEL(S) (FT.)	QUANTITY OF CRT POSTS	AREA CLEAR OF HAZARDS 'L' x 'W' (FT.)
8	12.5	5	25 x 15
16	25.0	6	30 x 15
24	37.5	8	40 x 20
32	50.0	10	50 x 20



CRT POST ELEVATION (6"x8" Nom. Timber)



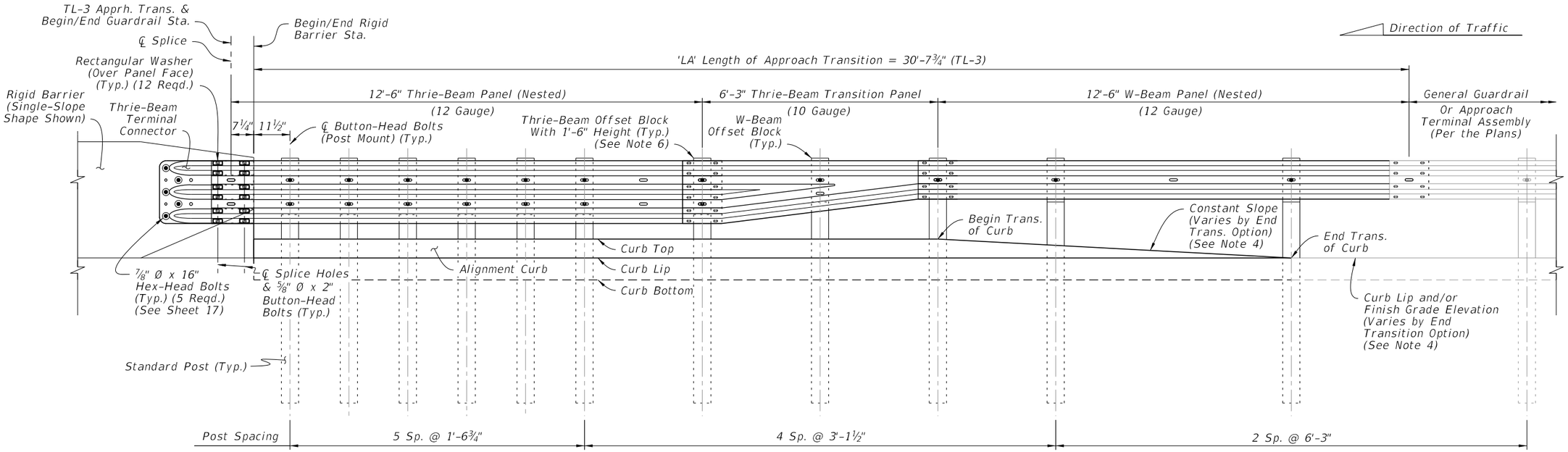
CRT INSTALLED SECTION

NOTES:

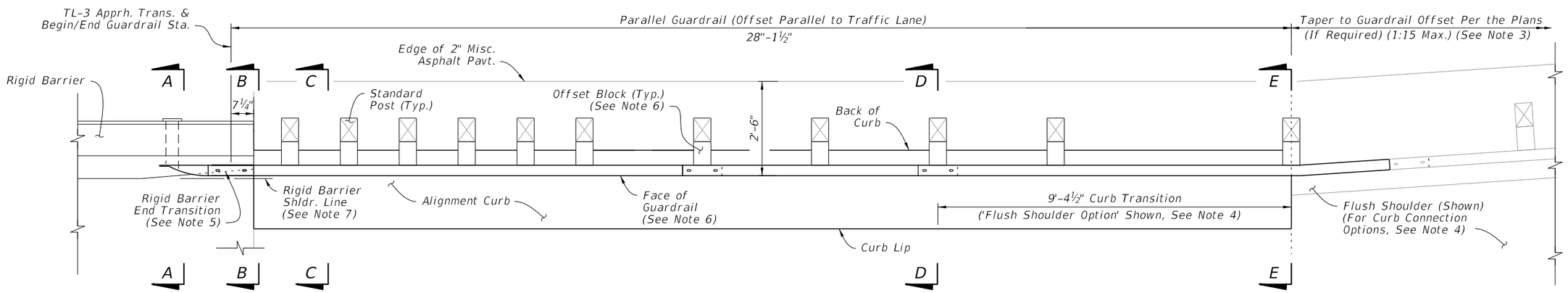
1. INSTALLATION: Construct the specified radius layout and Connecting Detail option as shown in the plans.
2. MIN. CLEAR AREA: Keep the area behind the CRT free of fixed objects and aboveground hazards within the Min. Clear Area limits shown. Maintain a slope not steeper than 1:10 for a minimum 2' behind the posts, and maintain a slope not steeper than 1:2 beyond 2' from the posts.
3. APPROACH GRADING: Maintain grading on the roadway side of the guardrail face at a maximum slope of 1:10.
4. MATERIALS: For CRT Posts, use Timber Post material in accordance with Specification 967. Use steel panels and hardware in accordance with Specification 967.
5. BOLT OMISSION: For the 8 Foot Radius CRT System only, do not place a panel-to-post mount bolt at the center CRT Post (omit the ⅝" Button-Head Bolt only at the location shown).
6. SHOP-BENT PANELS: Install Shop-Bent panel(s) where indicated using 12'-0" or 25'-0" W-Beam Panels. Splice at post locations within the CRT radius using the General configuration of ⅝" Ø Button-Head Bolts (8 reqd. per splice).
7. GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments. Approach Transitions, Low-Speed Guardrail, or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.

10/6/2022 2:17:18 PM

LAYOUT FOR CONTROLLED RELEASE TERMINAL (CRT) SYSTEMS - SIDE ROADS AND DRIVEWAYS



TL-3 APPROACH TRANSITION INSTALLED ELEVATION



TL-3 APPROACH TRANSITION INSTALLED PLAN

NOTES:

1. *INSTALLATION: Construct the Approach Transition segment where indicated in the plans. For example Layouts showing the Approach Transition's fit among other guardrail segments, see Sheet 19.*

   For existing bridge connection options, see Indexes 536-002, 521-404, and 521-405.

2. *SECTION VIEWS & DETAILS: For cross sections and details, including the barrier mounting hardware, curb transition, adjacent grading, and installation dimensions, see Sheet 17.*

3. *GUARDRAIL TAPER: The connecting guardrail may require a different lateral offset if shown in the plans. At the location shown herein, taper the guardrail to the connecting guardrail offset. If the adjacent guardrail segment has the same offset as the Approach Transition segment, then no taper is required.*

4. *END TRANSITION OF CURB OPTIONS: The Plan and Elevation views depict an example Curb Transition to Flush Shoulder from Section D-D to E-E, but this transition may require a different shape depending on the End Transition option shown in the plans (Either a 'Shoulder Gutter Option', 'Raised Curb Option', or 'Flush Shoulder Option'). See Sheet 14 for additional curb options and Sheet 17 for curb shape details.*

5. *RIGID BARRIER END TRANSITION: Taper the Rigid Barrier toe as shown. See Concrete Barrier, Index 521-001, and Traffic Railing, Indexes 521-422 and 521-428, for details.*

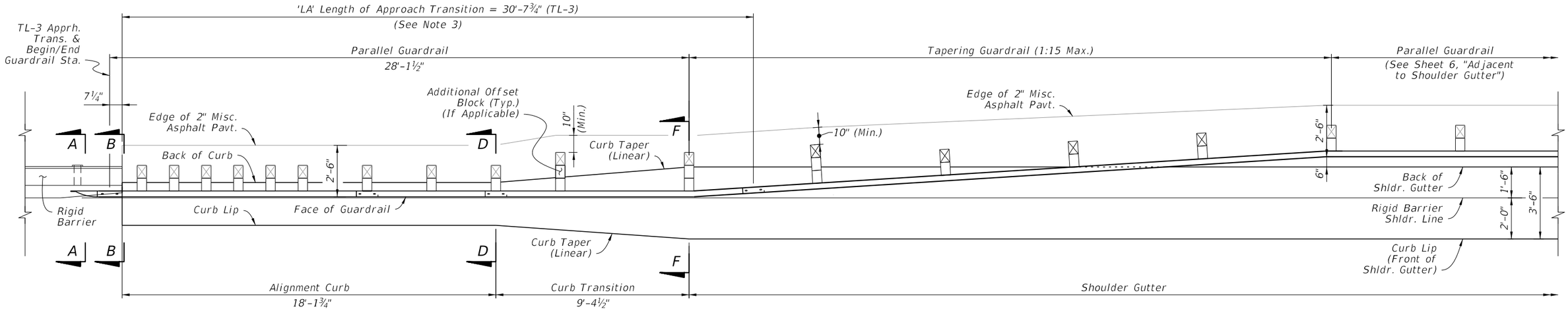
6. *OFFSET BLOCKS: For Thrie-Beam post locations within the Length of Approach Transition segment, use the Timber Offset Blocks with 1'-6" height shown on Sheet 5.*

   For the midspan of the Thrie-Beam Transition Panel and for all other W-Beam locations shown herein, use the W-Beam Offset Blocks with 1'-2" height.

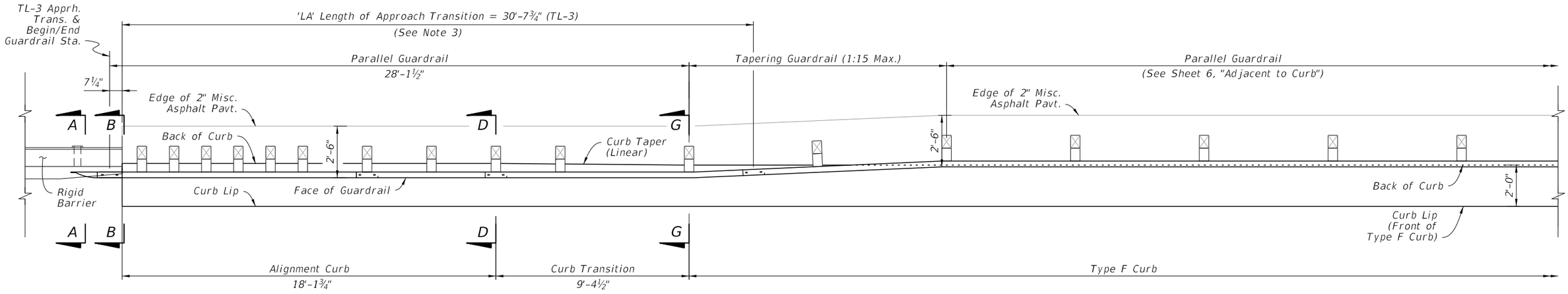
7. *OFFSET: The required offset difference between the Face of Guardrail and Rigid Barrier Shoulder Line is considered negligible and may not be shown in the guardrail offset callouts in the plans. A consistent guardrail offset deviation of up to 4 inches outside of the Rigid Barrier Shoulder Line is permitted over the length 'LA'.*

8. *GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments. Approach Terminals, Low-Speed Guardrail, or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.*

APPROACH TRANSITION CONNECTION TO RIGID BARRIER - GENERAL, TL-3



TL-3 APPROACH TRANSITION WITH 'SHOULDER GUTTER' CONNECTION - PLAN VIEW



TL-3 APPROACH TRANSITION WITH 'TYPE F CURB' CONNECTION - PLAN VIEW

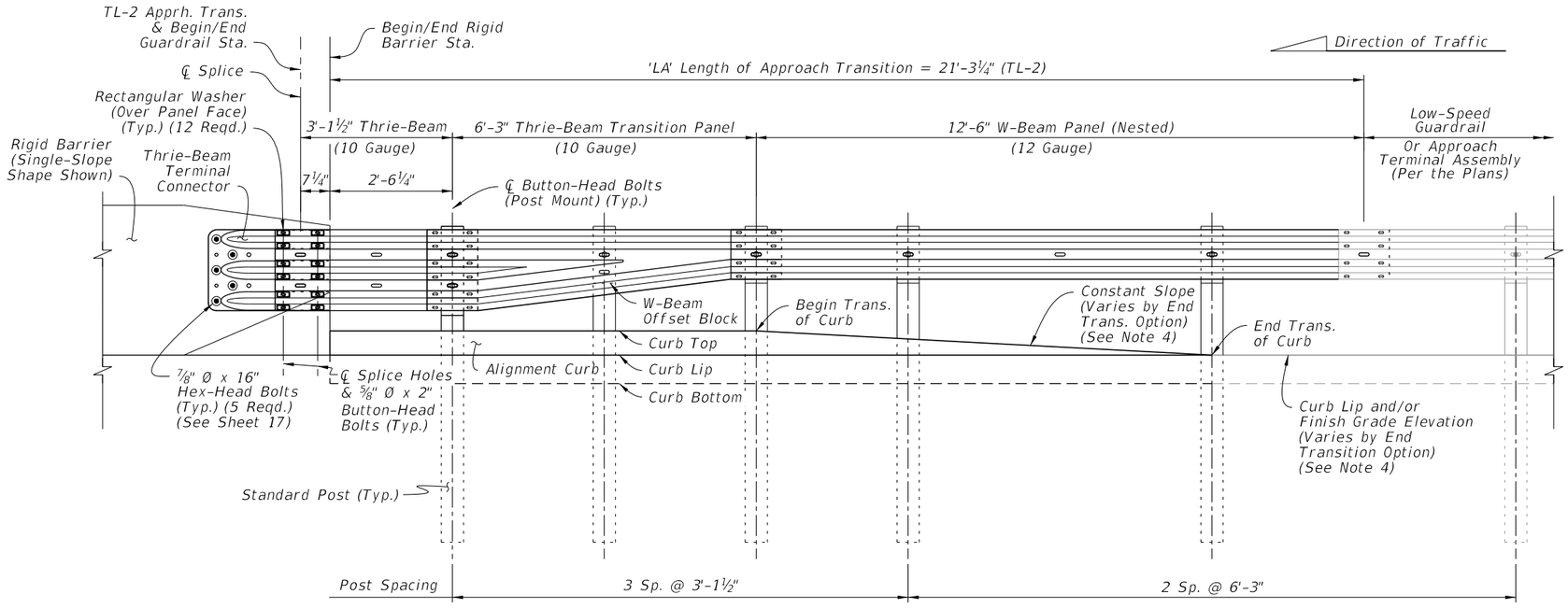
NOTES:

1. GENERAL: See the applicable notes and details on Sheet 13.
2. SECTION VIEWS & DETAILS: For cross sections and details, including the barrier mounting hardware, curb transition, adjacent grading, and installation dimensions, see Sheet 17.
3. ELEVATION VIEW: For post and panel installation details within 'LA', see the elevation view on Sheet 13. The curb details will differ depending on curb option required.

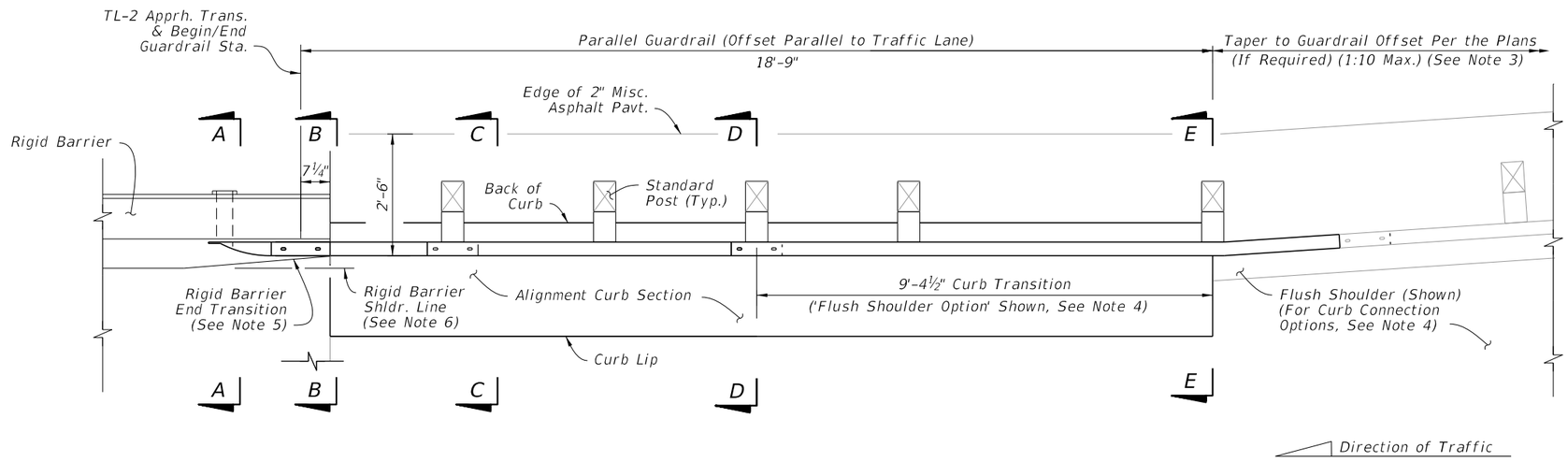
10/6/2022 2:17:19 PM

APPROACH TRANSITION CONNECTION TO RIGID BARRIER - GENERAL, TL-3 CURB CONNECTIONS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FY 2023-24 STANDARD PLANS	GUARDRAIL	536-001	14 of 24
				SHEET 50 OF 60 SHEETS		



TL-2 APPROACH TRANSITION
INSTALLED ELEVATION



TL-2 APPROACH TRANSITION
INSTALLED PLAN

NOTES:

1. *INSTALLATION: Construct the Approach Transition segment where indicated in the plans. For example Layouts showing the Approach Transition's fit among other guardrail segments, see Sheet 19.*

   For existing bridge connection options, see Indexes 536-002, 521-404, and 521-405.

2. *SECTION VIEWS & DETAILS: For cross sections and details, including the barrier mounting hardware, curb transition, adjacent grading, and installation dimensions, see Sheet 17.*

3. *GUARDRAIL TAPER: The connecting guardrail may require a different lateral offset if shown in the plans. At the location indicated herein, taper the guardrail to the connecting guardrail offset. If the adjacent guardrail segment has the same offset as the Approach Transition segment, then no taper is required.*

4. *END TRANSITION OF CURB OPTIONS: The Plan and Elevation views depict an example Curb Transition to Flush Shoulder from Section D-D to E-E, but this transition may require a different shape depending on the End Transition option shown in the plans (Either a 'Shoulder Gutter Option', 'Raised Curb Option', or 'Flush Shoulder Option'). See Sheet 16 for additional curb options and Sheet 17 for curb shape details.*

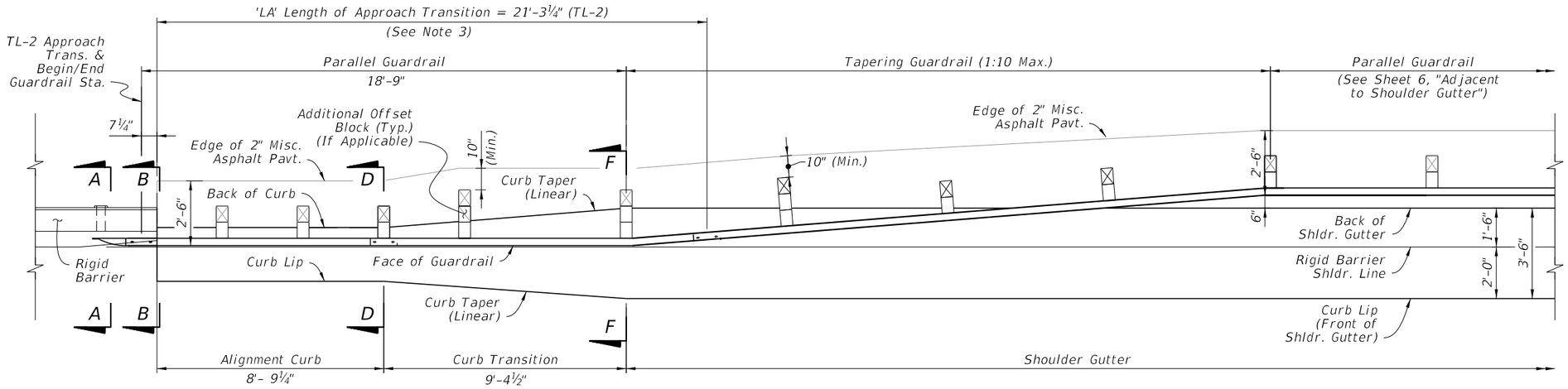
5. *RIGID BARRIER END TRANSITION: Taper the Rigid Barrier toe as shown. See Concrete Barrier, Index 521-001, and Traffic Railing, Indexes 521-422 and 521-428, for details.*

6. *OFFSET: The required offset difference between the Face of Guardrail and Rigid Barrier Shoulder Line is considered negligible and may not be shown in the guardrail offset callouts in the plans. A consistent guardrail offset deviation of up to 4 inches outside of the Rigid Barrier Shoulder Line is permitted over the length 'LA'.*

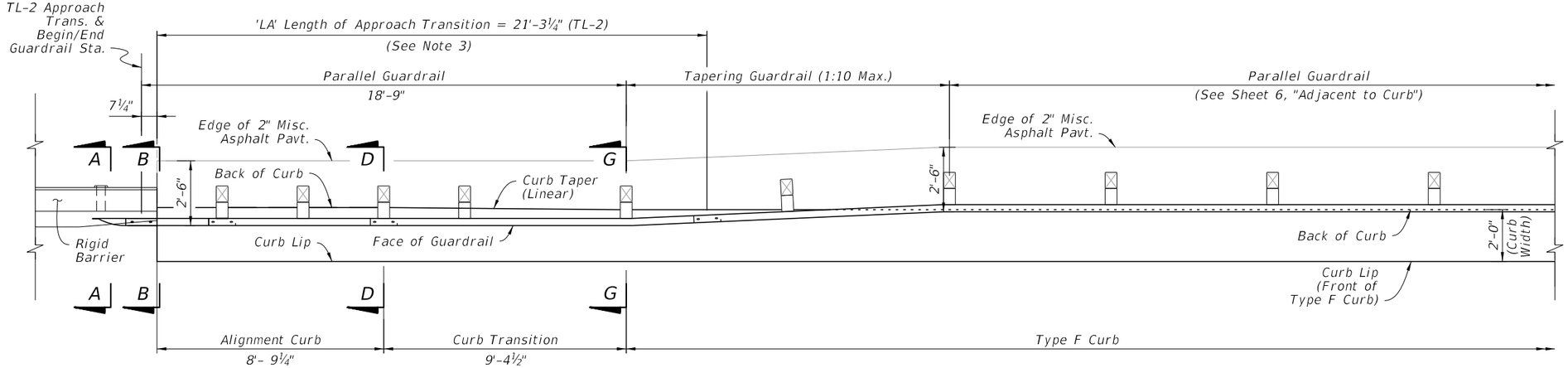
7. *GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments. Approach Terminals, Low-Speed Guardrail, or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.*

10/6/2022 2:17:20 PM

APPROACH TRANSITION CONNECTION TO RIGID BARRIER - LOW-SPEED, TL-2



TL-2 APPROACH TRANSITION WITH 'SHOULDER GUTTER' CONNECTION - PLAN VIEW



TL-2 APPROACH TRANSITION WITH 'TYPE F CURB' CONNECTION - PLAN VIEW

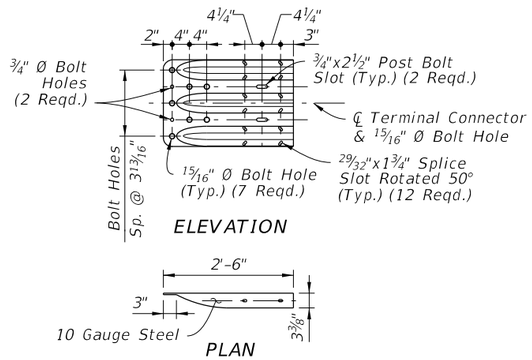
NOTES:

1. GENERAL: See the applicable notes and details on Sheet 15.
2. SECTION VIEWS & DETAILS: For cross sections and details, including the barrier mounting hardware, curb transition, adjacent grading, and installation dimensions, see Sheet 17.
3. ELEVATION VIEW: For post and panel installation details within 'LA', see the elevation view on Sheet 15. The curb details will differ depending on curb option required.

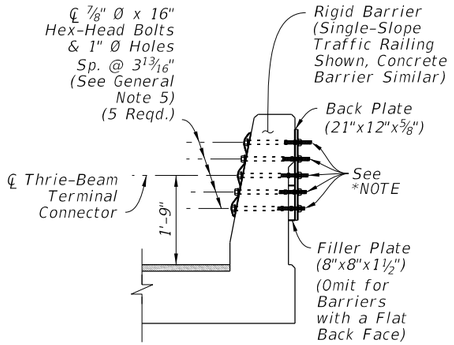
10/6/2022 2:17:21 PM

APPROACH TRANSITION CONNECTION TO RIGID BARRIER - LOW-SPEED, TL-2 CURB CONNECTIONS

LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19				SHEET 52 OF 60 SHEETS	536-001	16 of 24

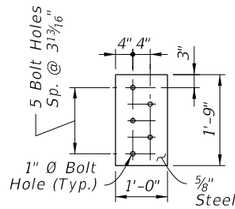


THRIE-BEAM TERMINAL CONNECTOR DETAIL

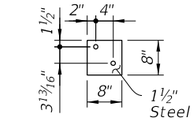


SECTION A-A RIGID BARRIER TERMINAL CONNECTOR MOUNT

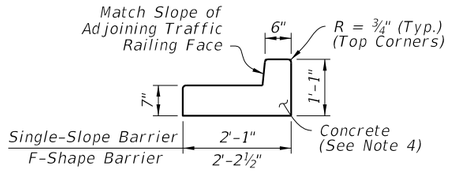
*NOTE: For locations within 4'-0" of a sidewalk or shared use path, trim bolts down to within ¼" of tightend nut. Deform exposed threads. File down sharp edges and burrs.



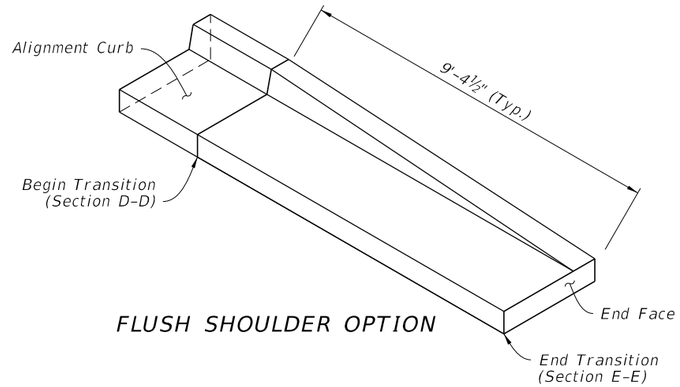
BACK PLATE



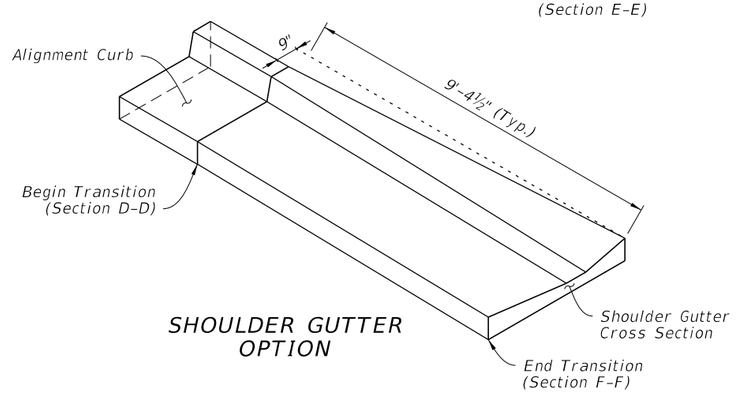
FILLER PLATE



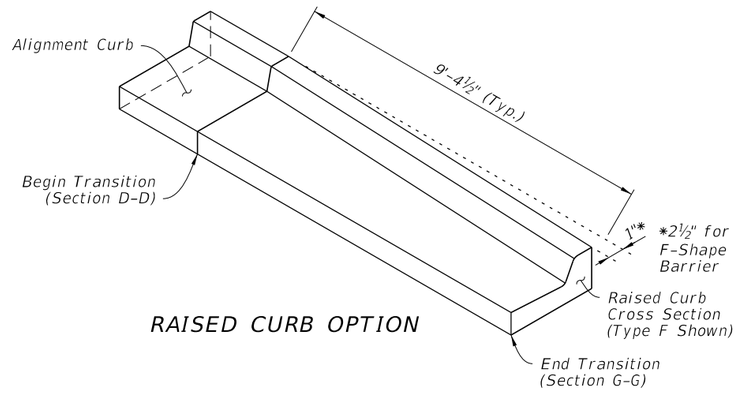
ALIGNMENT CURB SECTION



FLUSH SHOULDER OPTION

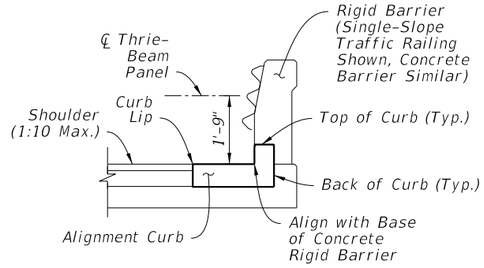


SHOULDER GUTTER OPTION

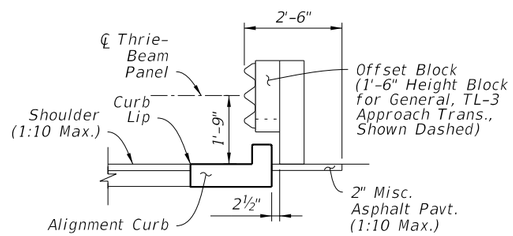


RAISED CURB OPTION

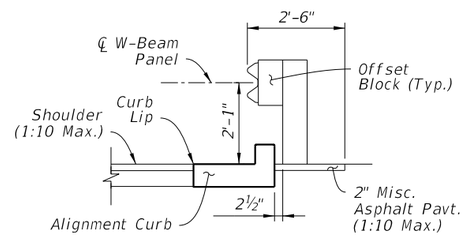
CURB TRANSITION ISOMETRIC VIEWS



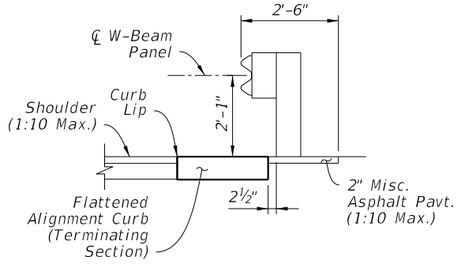
SECTION B-B BEGIN ALIGNMENT CURB (Mate to Rigid Barrier)



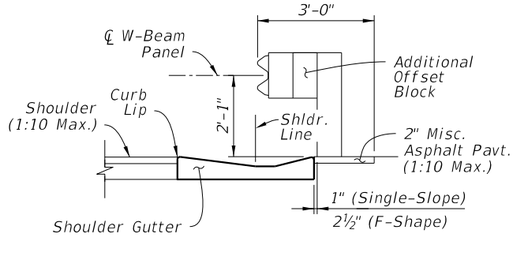
SECTION C-C ALIGNMENT CURB (Intermediate)



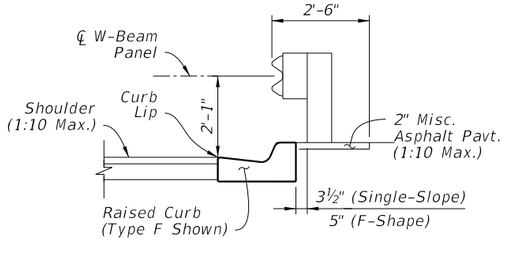
SECTION D-D BEGIN TRANSITION (End Alignment Curb)



SECTION E-E END TRANSITION FLUSH SHOULDER OPTION



SECTION F-F END TRANSITION SHOULDER GUTTER OPTION



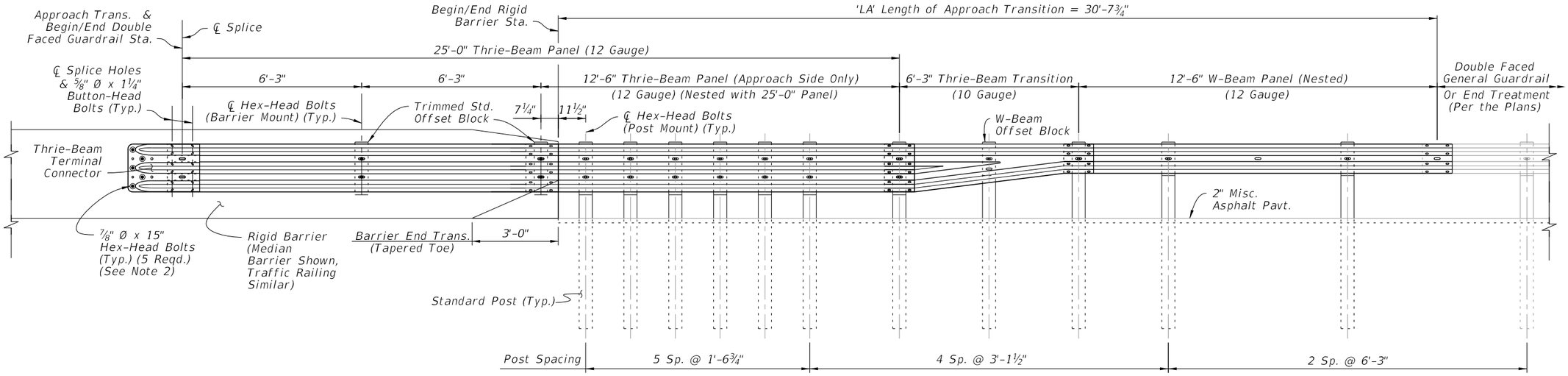
SECTION G-G END TRANSITION RAISED CURB OPTION

CURB TYPICAL SECTIONS

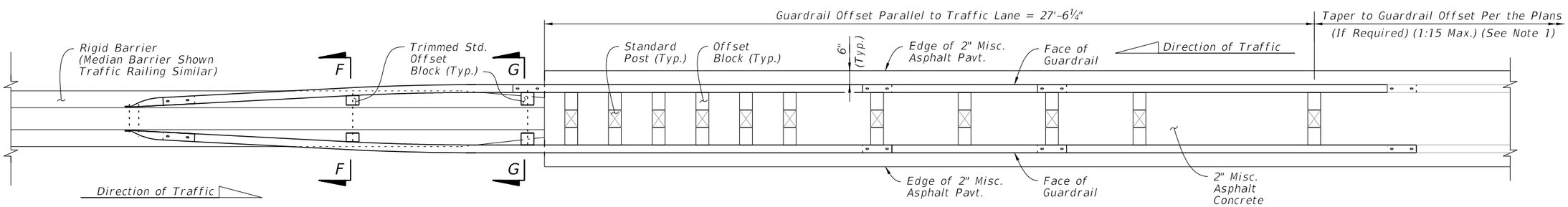
NOTES:

1. PLAN AND ELEVATION VIEWS: Work with Sheets 13 thru 16.
2. END TRANSITION OF CURB OPTION: Install one of the three End Transition types shown per Section E-E as indicated by the plans.
3. GRADING BEHIND POSTS: Place Slope Break a Min. 2'-0" behind the post, per Sheet 6.
4. MATERIALS & CONSTRUCTION: Construct the concrete Aligning Curb and Curb transition in accordance with Specification 520. Use steel Plates and Thrie-Beam Terminal Connectors in accordance with Specification 967.

APPROACH TRANSITION CONNECTION - DETAILS



TL-3 DOUBLE FACED APPROACH TRANSITION
INSTALLED ELEVATION



TL-3 DOUBLE FACED APPROACH TRANSITION
INSTALLED PLAN

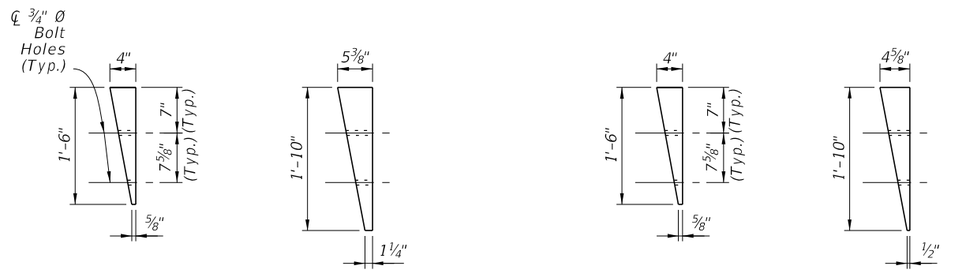
NOTES:

1. INSTALLATION: Construct the Approach Transition segment where indicated in the plans. The required offset of the connecting adjacent guardrail is shown in the plans.

   The Layout given on Sheet 20 provides a basic scheme for connections to adjacent guardrail, where a taper to a differing guardrail offset may be required. If the adjacent guardrail has the same offset as the Approach Transition segment, then no taper is required.

2. THRIE-BEAM TERMINAL CONNECTOR: See Sheet 17 for Details. The installed bolt's threaded portion is not permitted to extend beyond 3#4" from the face of the nut; trim the threaded portion as needed and galvanize in accordance with Specification 562.

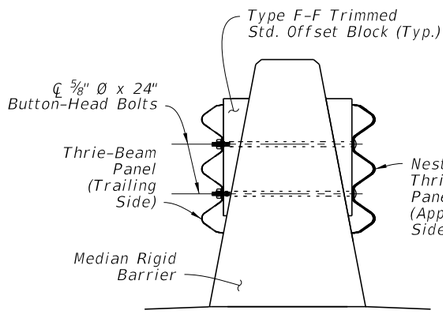
3. GENERAL GUARDRAIL: General Guardrail typically includes Panels and Post Spacing as shown on Sheet 2, including parallel and tapered segments. End Treatments or Reduced Post Spacing Guardrail segments may be substituted for the General Guardrail shown herein if indicated in the plans.



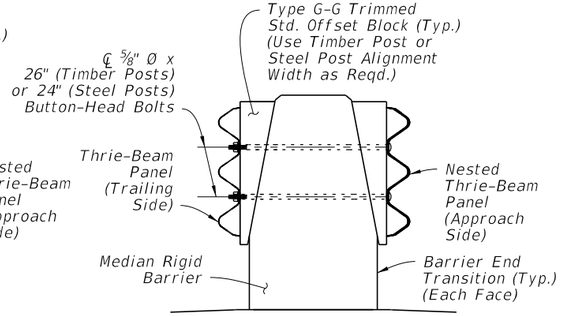
TYPE F-F SECTION | TYPE G-G SECTION | TYPE F-F SECTION | TYPE G-G SECTION

TRIMMED STD. OFFSET BLOCKS
TIMBER POST ALIGNMENT WIDTH

TRIMMED STD. OFFSET BLOCKS
STEEL POST ALIGNMENT WIDTH



SECTION F-F

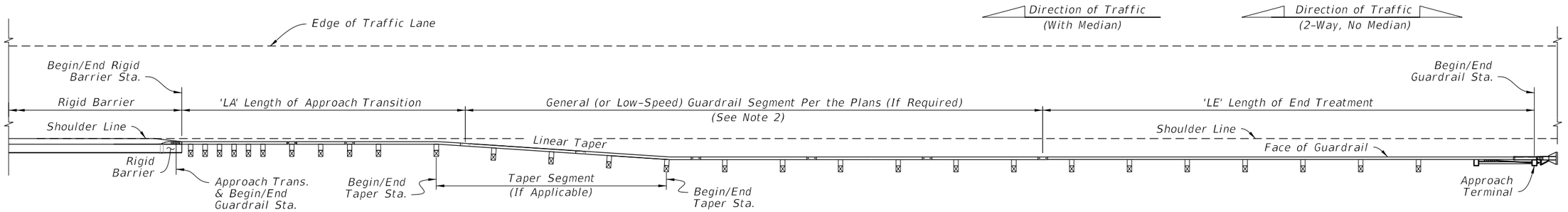


SECTION G-G

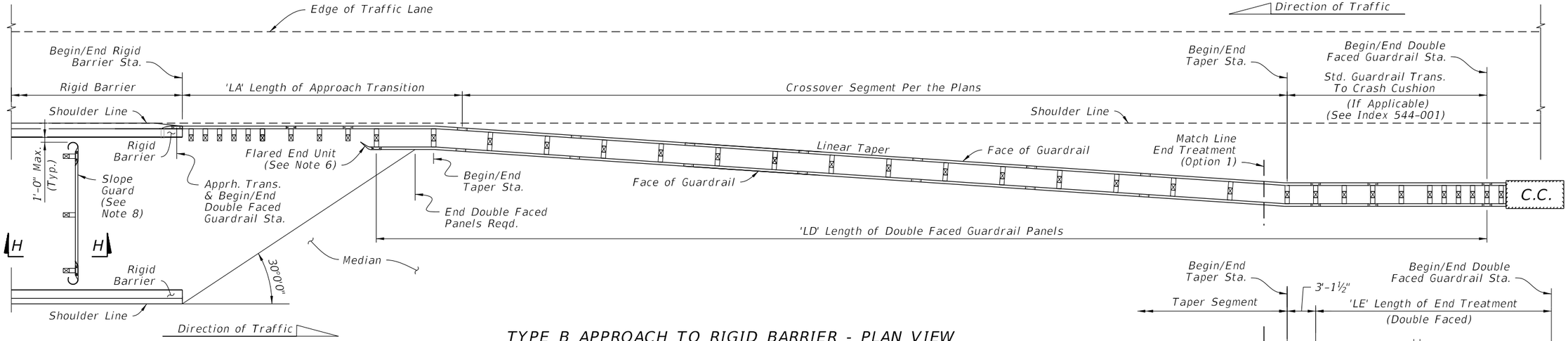
APPROACH TRANSITION CONNECTION TO RIGID BARRIER WITH DOUBLE FACED GUARDRAIL

10/6/2022 2:17:23 PM

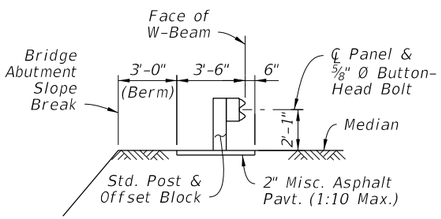
LAST REVISION	REVISION	DESCRIPTION:	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19				SHEET 54 OF 60 SHEETS	536-001	18 of 24



TYPE A APPROACH TO RIGID BARRIER - PLAN VIEW
MEDIAN OR OUTSIDE SHOULDERS
(Mirror Horiz. and/or Vert. for Opposite Direction and/or Side of Road)



TYPE B APPROACH TO RIGID BARRIER - PLAN VIEW
CROSSOVER GUARDRAIL FOR MEDIAN SHOULDERS ONLY
DUAL BRIDGE APPROACH CONFIGURATION
(Mirror Horiz. and Vert. for Opposite Direction)



SECTION H-H
BRIDGE ABUTMENT
SLOPE GUARD
(Between Bridges)

NOTES:

1. *INSTALLATION: The Plan Views shown are schematic only, showing example geometry for connecting guardrail segments including taper locations and Double Faced Guardrail requirements as applicable. Work this Sheet with the plans, where stationing and offsets for Begin/End Guardrail, Begin/End Rigid Barrier, and Begin/End Taper are specified. For existing bridge layouts, see Index 536-002, 521-404, and 521-405.*

2. *GENERAL (OR LOW-SPEED) GUARDRAIL SEGMENT: Construct this segment if shown in the plans. For the case where this segment's offset differs from the Approach Transition offset, linearly taper the guardrail between the Begin/End Taper Stations and offsets as specified in the plans.*

   For the shortest length case of a direct connection between the End Treatment and the Approach Transition, this segment may be omitted as shown in the plans.

3. *LENGTH OF APPROACH TRANSITION 'LA': Install the applicable Approach Transition as shown per Sheets 13 thru 16, where called for in the plans.*

4. *LENGTH OF END TREATMENT 'LE': Install the Approach Terminal End Treatment as shown per Sheet 7 or 8, where called for in the plans. Use the corresponding APL drawings for construction details.*

5. *CROSSOVER GUARDRAIL (FOR TYPE B APPROACH): Install the Crossover Segment tapering linearly from the Begin Taper Sta. and offset to the End Taper Sta. and offset as specified in the plans.*

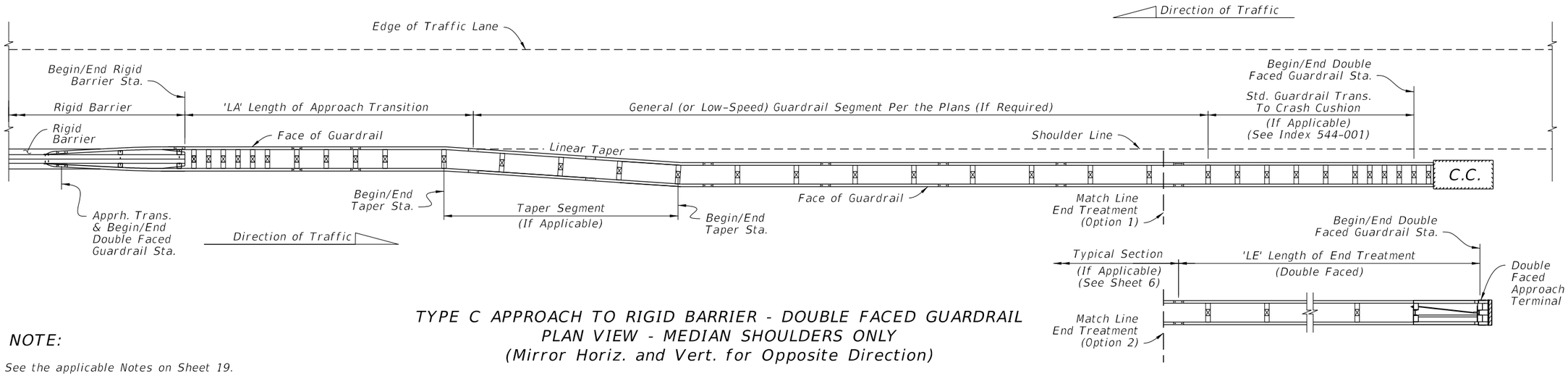
6. *LENGTH OF DOUBLE FACED GUARDRAIL PANELS, 'LD' (FOR TYPE B APPROACH): Terminate the Double Faced Guardrail panels as shown (based upon the 30° line measured from the hazard on the opposite side of the median). Extend the panel segment longer than the dimension 'LD' as needed for the Panel's end Bolt Slot to align with a post Bolt hole.*

   Install a Flared End Unit where shown, as defined on Sheet 9.

7. *END TREATMENT OPTIONS (FOR TYPE B & C APPROACH): For Double Faced applications, use either a Double Faced Approach Terminal Assembly per Sheet 8 or a Crash Cushion per Index 544-001. For either Option, meet the 1:10 adjacent grading requirements for Approach Terminals as shown on Sheet 8.*

8. *SLOPE GUARD: Where indicated in the plans, install a Guardrail segment between bridge approaches and offset from the bridge abutment's Slope Break as shown. Install posts at the end bolt slots of the panel system. Use post spacing of either 3'-1½" or 6'-3", as needed to correctly fit system between barriers. The system may also be lengthened to fit by installing two Rounded End Units as defined on Sheet 9.*

LAYOUT TO RIGID BARRIER - APPROACH ENDS

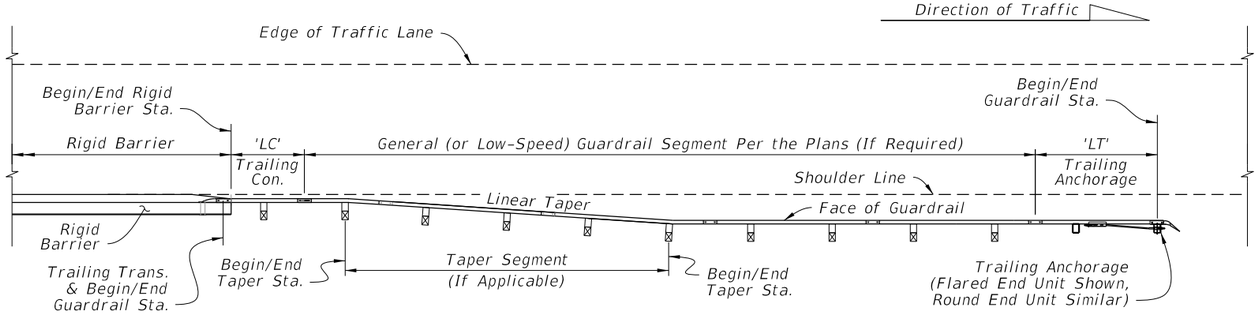


TYPE C APPROACH TO RIGID BARRIER - DOUBLE FACED GUARDRAIL
PLAN VIEW - MEDIAN SHOULDERS ONLY
(Mirror Horiz. and Vert. for Opposite Direction)

NOTE:

See the applicable Notes on Sheet 19.

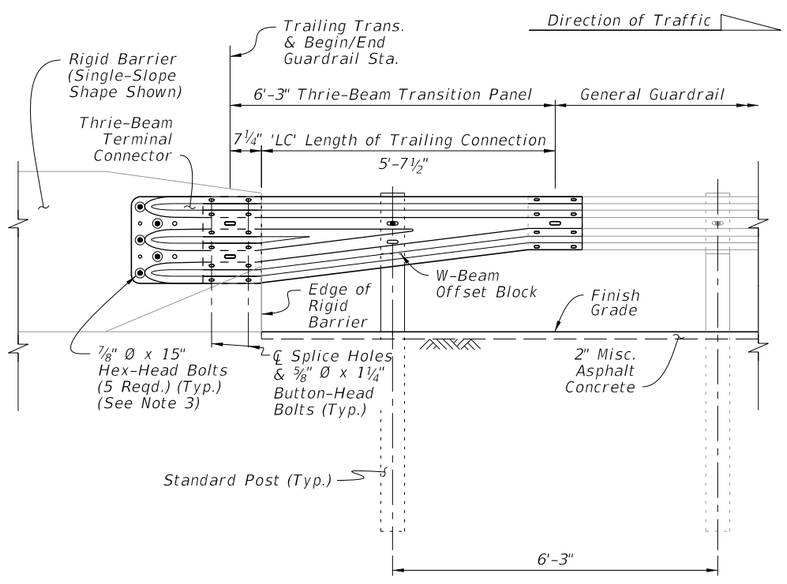
LAYOUT TO RIGID BARRIER - APPROACH ENDS WITH DOUBLE FACED GUARDRAIL



TYPE D TRAILING CONNECTION FROM RIGID BARRIER
PLAN VIEW - MEDIAN OR OUTSIDE SHOULDER
(Mirror Horiz. and/or Vert. for Opposite Direction and/or Side of Road)

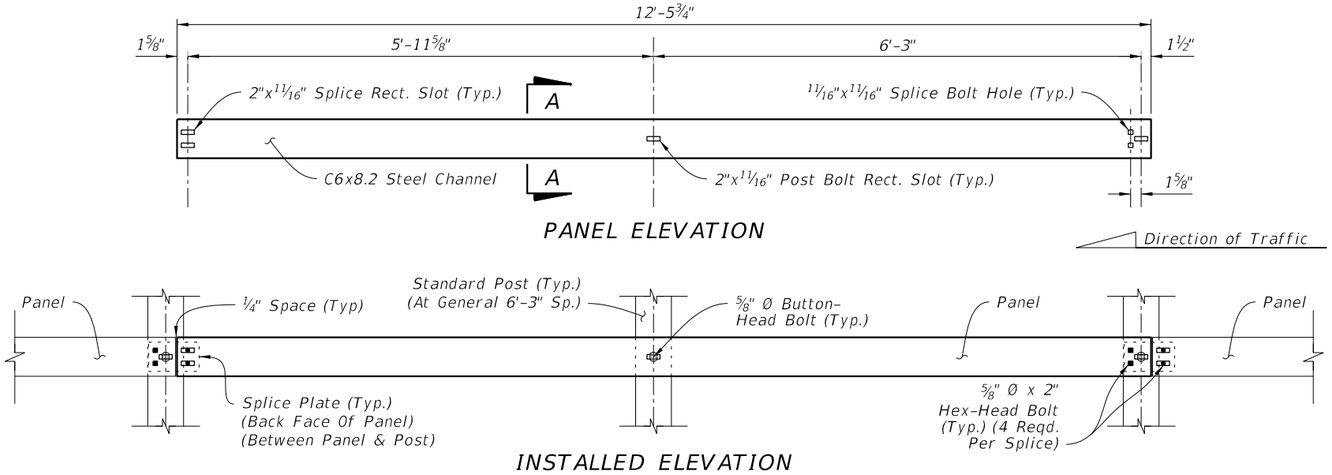
NOTES:

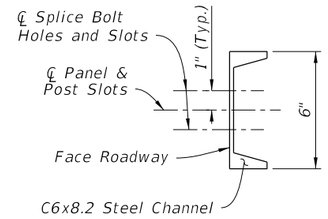
1. See the applicable Notes on Sheet 19.
2. LENGTH OF TRAILING ANCHORAGE, 'LT': Install the Trailing Anchorage as shown on Sheet 9, where called for in the plans.
3. THRIE-BEAM TERMINAL CONNECTOR: Install connector and bolts as shown on Sheet 17.
4. RIGID BARRIER SINGLE SLOPE END FACE: See Concrete Barrier Wall, Index 521-001, and Traffic Railing, Indexes 521-422 and 521-423, for details.



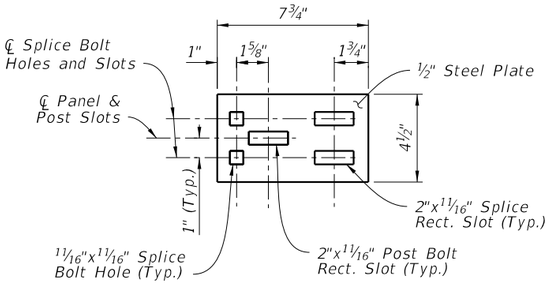
TRAILING END TRANSITION CONNECTION
TO RIGID BARRIER - INSTALLED ELEVATION

LAYOUT TO RIGID BARRIER - TRAILING ENDS



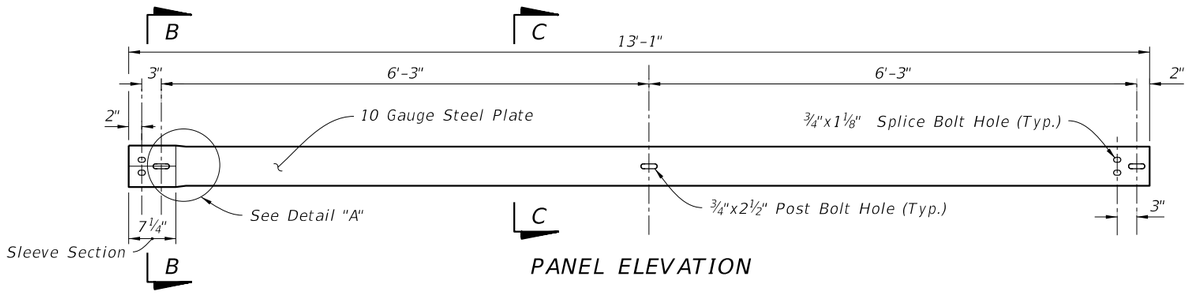


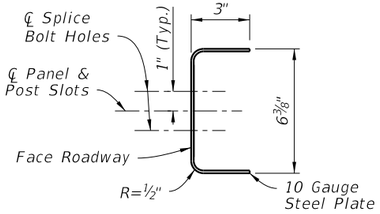
SECTION A-A
(Panel Typical)



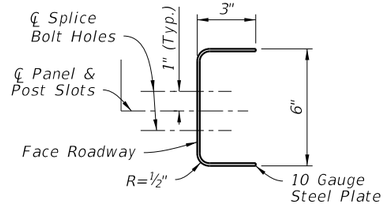
SPLICE PLATE
ELEVATION

CHANNEL SECTION RUB RAIL

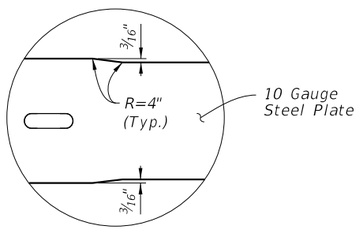




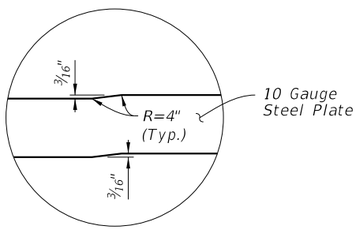
SECTION B-B
(Panel Sleeve End)



SECTION C-C
(Panel Typical)

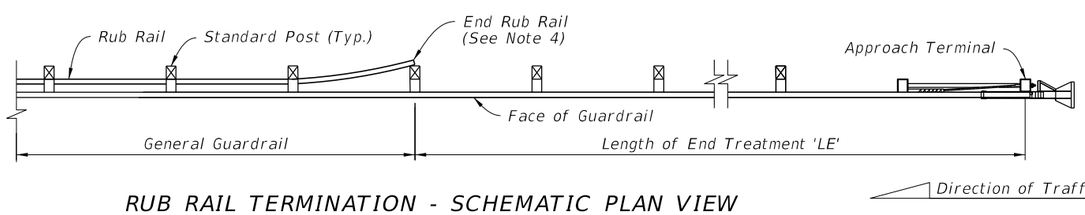


DETAIL "A"
(Sleeve Transition Elevation)



DETAIL "B"
(Sleeve Transition Plan)

BENT-PLATE PANEL RUB RAIL



RUB RAIL TERMINATION - SCHEMATIC PLAN VIEW

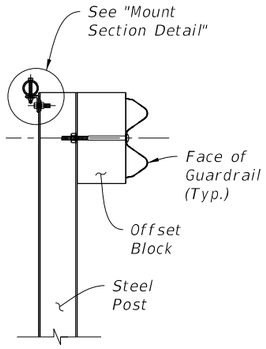
NOTES:

1. GENERAL: Install Rub Rail where called for in the plans. Position as shown on Sheet 6 unless otherwise shown in the plans. Install the backs of Rub Rail panels flush against Standard Posts. Either of the Channel Section or Bent-Plate Panel Rub Rail options may be used (consistent type per project). Where Double Sided Rub Rail is called for, thread the Button-Head Bolt through the Post Bolt Hole(s) and the panels on either side, and tighten the nut against the face of the panel farthest from adjacent traffic lanes. Trim the bolt's threaded portion in accordance with Note 4 on Sheet 5.
2. MOUNTING HEIGHT: Mount to the Standard Post's Rub Rail Bolt Hole as defined on Sheet 5.
3. MATERIALS: Use steel components in accordance with Specification 967.
4. END RUB RAIL: For Single Sided Rub Rail, terminate the run of Rub Rail by bending the panel behind the post and securing in place (as shown). For Double Sided Rub Rail, terminate the runs of Rub Rail on their respective front face of the post and secure with the typical Button-Head bolt.

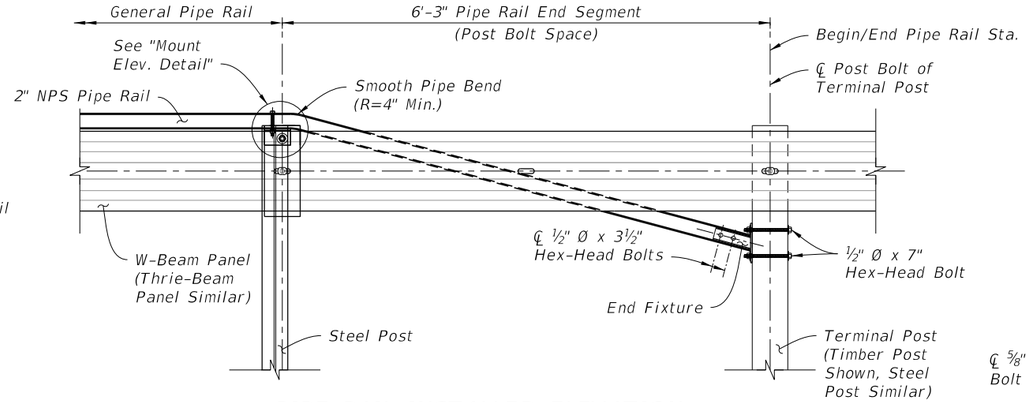
RUB RAIL DETAILS

10/6/2022 2:17:26 PM

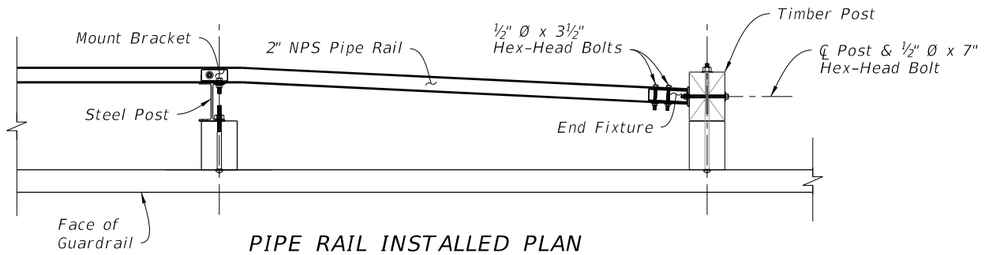
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX	SHEET
11/01/19					SHEET 57 OF 60 SHEETS	536-001	21 of 24



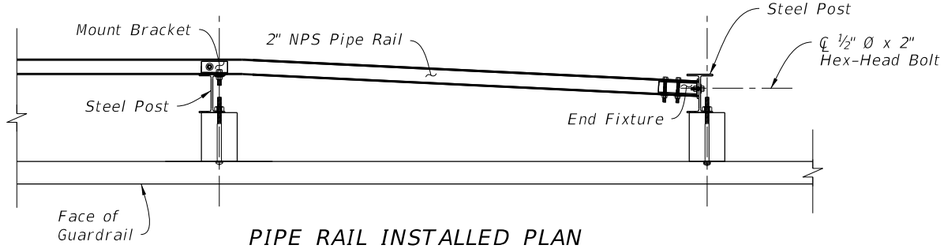
GENERAL PIPE RAIL SECTION



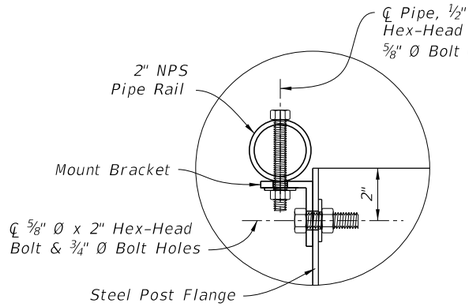
PIPE RAIL INSTALLED ELEVATION
(End Segment Shown)



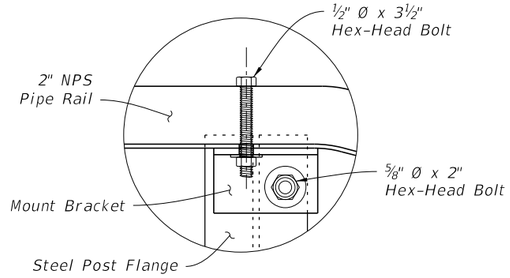
PIPE RAIL INSTALLED PLAN
END AT TIMBER POST OPTION



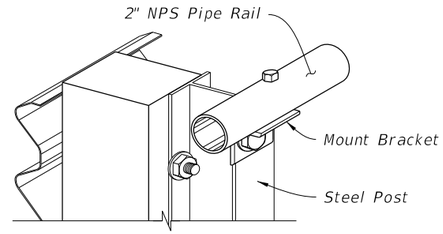
PIPE RAIL INSTALLED PLAN
END AT STEEL POST OPTION



MOUNT SECTION DETAIL



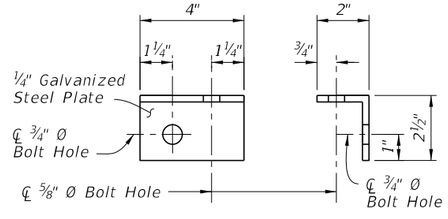
MOUNT ELEVATION DETAIL
(Back View - Mirrored)



MOUNT ISOMETRIC
CUT-AWAY

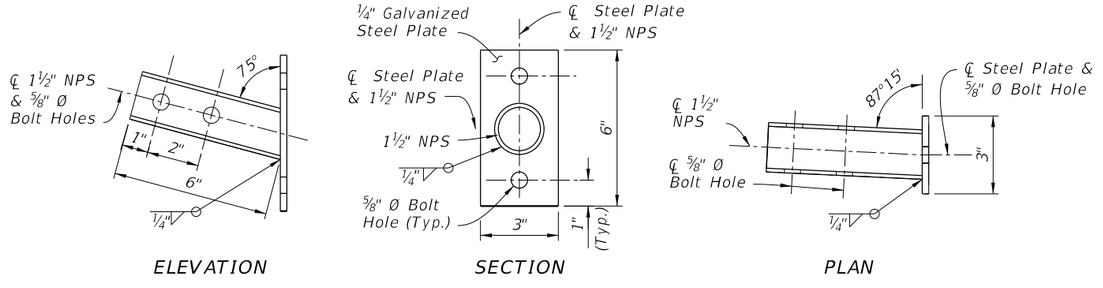
NOTES:

1. GENERAL: Install General Pipe Rail where indicated in the plans or when existing sidewalks or shared use paths are located less than 4'-0" from the back of Steel Posts as shown on Sheet 6.
2. PIPE RAIL END SEGMENTS: Place End Segments on both ends of General Pipe Rail runs, with End Fixtures mounted to Terminal Posts located outside of Approach Terminal Assembly ('LE'), Trailing Anchorage Assembly ('LT'), and Approach Transition ('LA') segments.
3. MATERIALS: Use steel brackets, fixtures, and pipes in accordance with Specification 967.
4. RAIL SPLICES: Install Rail Splices to join pieces of 2" NPS Pipe Rail into a continuous system. Place splices as needed, at a spacing of 18'-0" or greater. Orient the head of bolt on the top of the pipe.



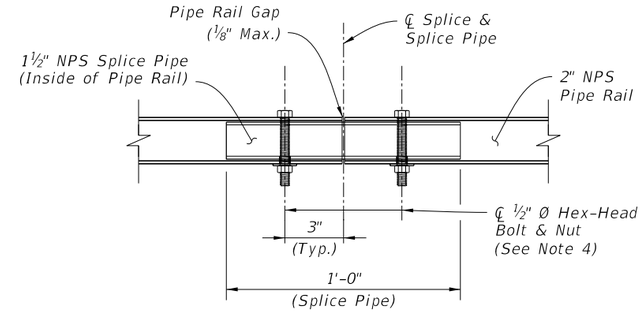
ELEVATION SECTION

MOUNT BRACKET DETAIL



ELEVATION SECTION PLAN

END FIXTURE DETAIL



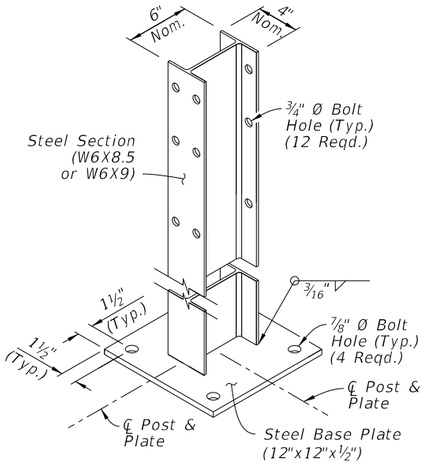
RAIL SPLICE DETAIL

PEDESTRIAN SAFETY TREATMENT - PIPE RAIL

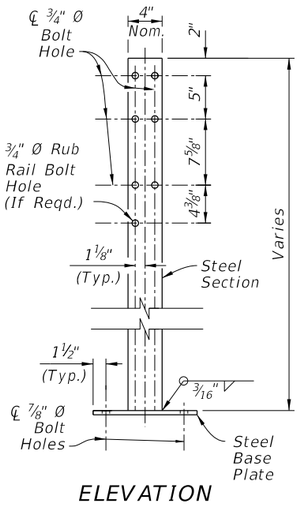
10/6/2022 2:17:27 PM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/19			FY 2023-24 STANDARD PLANS	GUARDRAIL	INDEX 536-001	SHEET 22 of 24

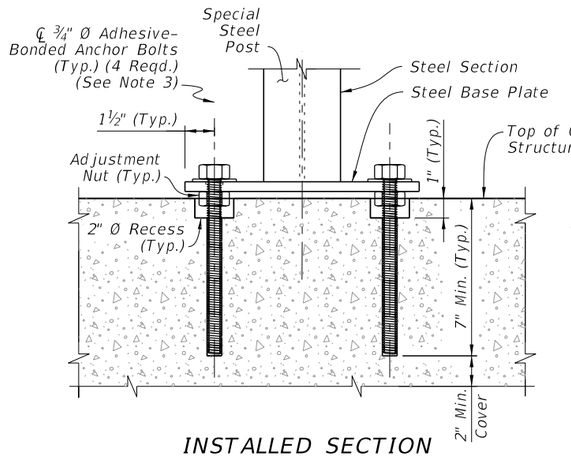
SHEET 58 OF 60 SHEETS



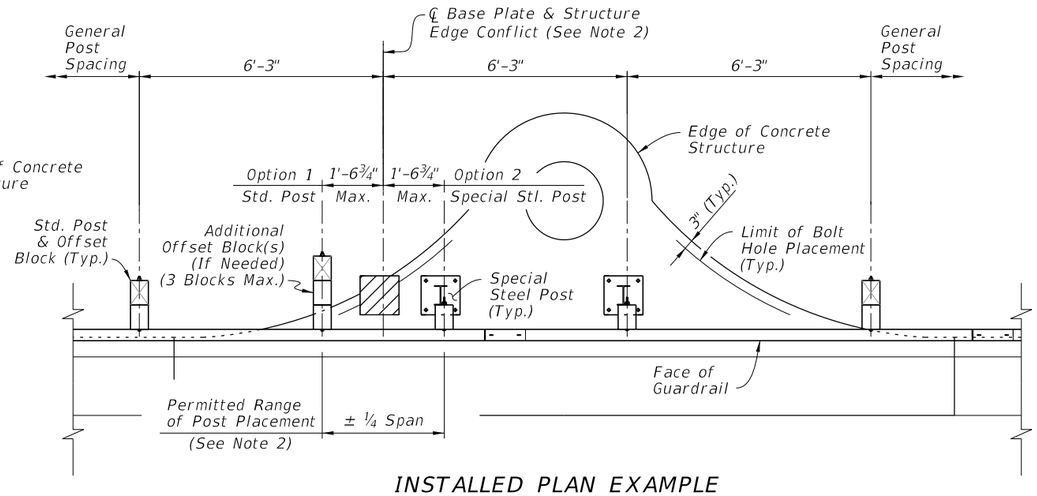
ISOMETRIC VIEW



ELEVATION



INSTALLED SECTION
(Option 2, Special Post)



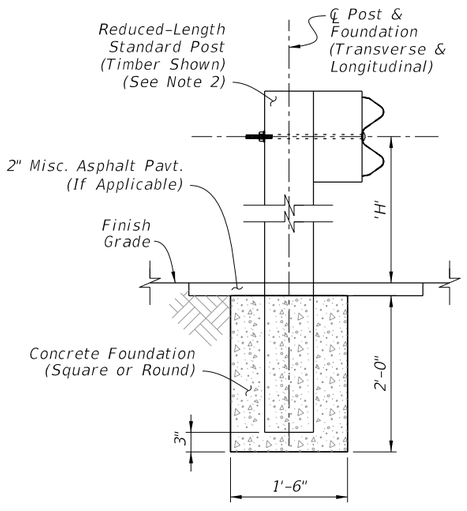
INSTALLED PLAN EXAMPLE
(Curb Inlet Top Type 2 Shown)

SPECIAL STEEL POST STRUCTURE MOUNTING

NOTES:

1. *INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) located atop culverts, inlets, pier footings, or similar concrete structures, a Special Steel Post may be substituted for a Standard Post. Install where shown in the plans and/or as-needed, in accordance with Specification 536.*
2. *EDGE CONFLICT: When a required post location causes an Edge Conflict with the structure, where the Steel Base Plate is not located entirely on the structure at least 3" from the Edge of Concrete, the longitudinal post location may be altered by up to 1'-6¾" (Quarter Span) from the original required spacing location to prevent the Edge Conflict. With the post location adjusted, use a Std. Post mounted in soil (Option 1) or a Special Steel Post with its Base Plate mounted entirely on the structure (Option 2). Maintain the original required spacing locations upstream and downstream of the structure.*
3. *BASE PLATE MOUNT: Install Special Steel Posts as shown using steel Adhesive-Bonded Anchor Bolts in accordance with Specification 536. Use ¾" Hex-Head Bolts for structures less than 9" deep as defined in the Specification.*
4. *PANEL MOUNT TO ADJUSTED POST: Punch additional ¾"x2½" Post Bolt Slot(s) in the W-Beam or Thrie-Beam Panel only where needed to mount the panel to a post in an adjusted location. Meet the Panel Post Bolt Slots requirements of Specification 536.*
5. *MATERIALS: Use steel base plates in accordance with Specification 536.*

SPECIAL STEEL POST FOR CONCRETE STRUCTURE MOUNT

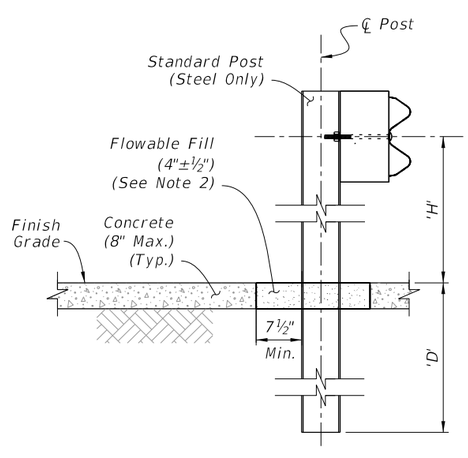


INSTALLED SECTION

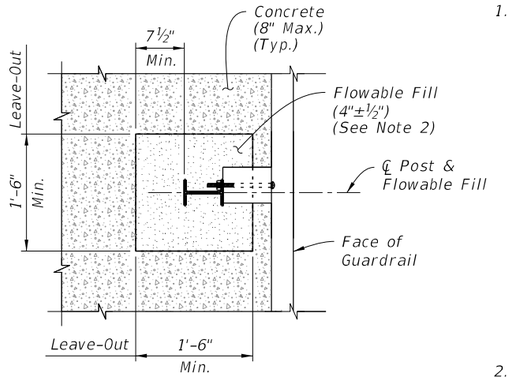
NOTES:

1. *INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) conflicting with underground utilities or other underground obstructions, an Encased Post may be used where a 2'-0" depth will avoid the conflict. Install where shown in the plans and/or as-needed, in accordance with Specification 536.*
2. *REDUCED-LENGTH STANDARD POST: Use a Standard Post with reduced Length such that the Panel Height 'H' is maintained while the post bottom terminates 3" from the bottom of the Concrete Foundation. Typically, the Post Length 'L' is 4'-7" for W-Beam Guardrail.*
3. *FOUNDATION: Use non-reinforced Class NS Concrete material in accordance with Specification 347. After casting the concrete, ensure the surrounding soil material is completely backfilled and tamped to provide full passive resistance.*
4. *LIMIT: Encased Posts are not permitted for more than 3 consecutive posts.*

ENCASED POST FOR SHALLOW MOUNT



INSTALLED SECTION



INSTALLED PLAN

NOTES:

1. *INSTALLATION: When the construction of Guardrail at the required post spacing results in post(s) placed within a concrete surface (typically a sidewalk), use a Frangible Leave-Out around the post base as shown. Install where shown in the plans and/or as-needed, in accordance with Specification 536.*

   Use Standard steel posts. Timber posts are not permitted for frangible leave-outs.

   For the required 1'-6" x 1'-6" Leave-Out, smoothly cut the existing concrete surface or form-up the square shape when an application has new surrounding concrete.

   Ensure Flowable Fill surface is smooth and even with the adjacent concrete surface.
2. *MATERIALS: Use Non-Excavatable Flowable Fill in accordance with Specification 121, not to exceed 150 psi.*

FRANGIBLE LEAVE-OUT FOR CONCRETE SURFACE MOUNT

NOTES:

1. INSTALLATION: Install Barrier Delineators as shown in accordance with the plans, with Specifications 536 and 705, and with the manufacturer's design as approved on the APL.

2. MATERIALS: Use materials of the size and type defined for Barrier Delineators in Specification 993.

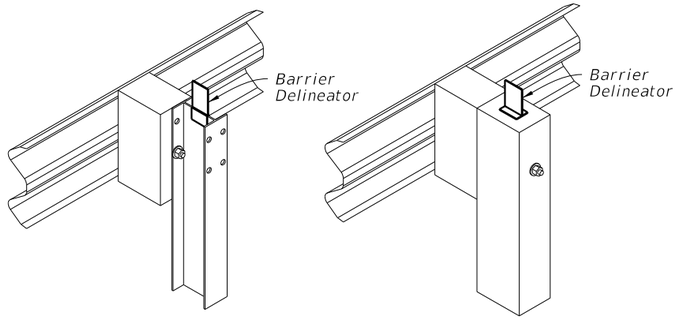
3. COLOR: Use either white or yellow retroreflective sheeting to match the color of the nearest lane's edgeline.

4. MOUNT LOCATIONS: Mount Barrier Delineators atop posts as shown, starting with Post (3) of Approach Terminals and incrementally increasing spacing towards the downstream direction. Install the Barrier Delineators at the following spacing:

   S1 = 25' x 1 Space
   S2 = 50' x 1 Space
   S3 = 75' x 1 Space
   S4 = 100' x for the Remaining Run

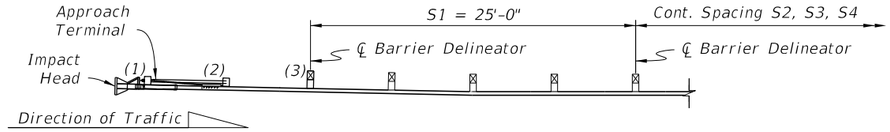
   Additionally, place a Barrier Delineator on Post (2) of the Trailing Anchorage or on the post nearest the Rigid Barrier.

5. MEDIAN GUARDRAIL: Install retroreflective sheeting on both sides of the barrier delineator for Guardrail on medians.



STEEL POSTS TIMBER POSTS

MOUNT LOCATION - ISOMETRIC VIEWS



MOUNT LOCATION - PLAN VIEW

BARRIER DELINEATORS

NOTES:

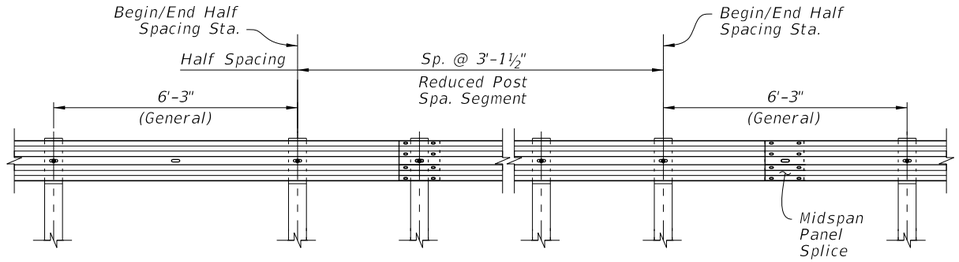
1. INSTALLATION:
   Work these details with the plans, where Stationing for Begin/End Half Spacing and Begin/End Quarter Spacing are indicated if required.

   Where the Begin/End Stations indicated in the plans do not correspond exactly to post locations in construction, extend the Reduced Post Spacing segment to the nearest post(s) before the Begin Station and/or after the End Station called for.

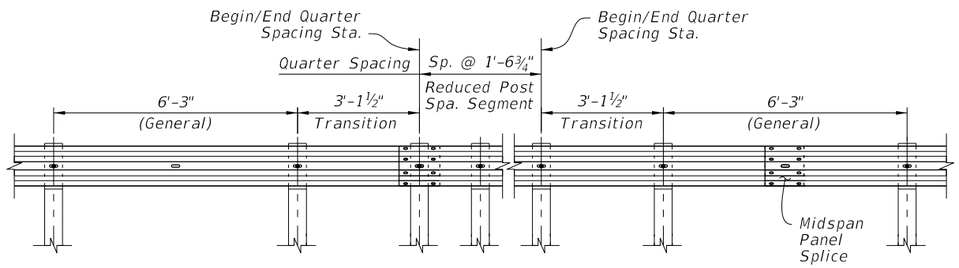
2. PANEL SPLICES: Midspan Panel Splices are not required in Transition and Reduced Post Spacing segments, however they are required for General segments. To place midspan splices in General segments, use one Non-General panel length (9'-4½" or 15'-7½") or add an additional Transition spaced post where required.

3. LOW-SPEED GUARDRAIL: For Reduced Post Spacing with Low-Speed Guardrail (12'-6" post spacing), the Reduced Spacing pattern requires a 6'-3" space between the 12'-6" and 3'-1½" spaces.

4. PANEL POST BOLT SLOTS:
   For Quarter Spacing configurations, punch additional ¾"x2½" Post Bolt Slots in the panels only where required for mounting and in accordance with Specification 536.

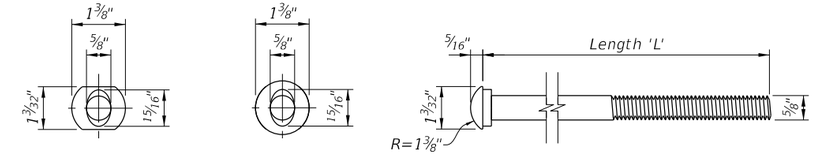


DETAIL 'S' - HALF SPACING ELEVATION
(AS REQD. PER THE PLANS)



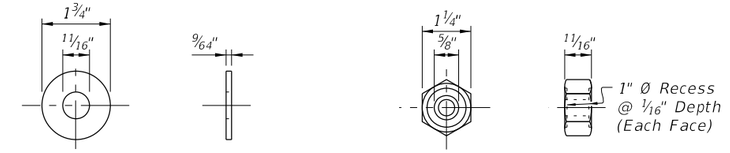
DETAIL 'S' - QUARTER SPACING ELEVATION
(AS REQD. PER THE PLANS)

REDUCED POST SPACING FOR HAZARDS



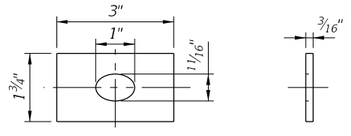
ELEVATION OPTION 1 ELEVATION OPTION 2 PROFILE (Option 1 Shown)

BUTTON-HEAD BOLT



ELEVATION PROFILE — WASHER

ELEVATION PROFILE — HEX-NUT



ELEVATION PROFILE

RECTANGULAR WASHER
(For CRT & Terminal Connectors Where Shown - Install Over Panel Face)

BUTTON-HEAD BOLT LENGTHS:

Application(s):	Length 'L':	Min. Thread Length:
Panel Splice	1¼"	Full Length
Steel Post Mount – Single Faced Guardrail	10"	4"
Timber Post Mount – Single Faced Guardrail	18"	4"
Steel or Timber Post Mount – Double Faced Guardrail	25"	4"

NOTES:

1. Use nuts, bolts, and washers in accordance with Specification 967.
2. For Steel Posts with Double Faced Guardrail, the single 25" Length bolt (one bolt thru both post flanges) may be replaced with two 10" Length bolts (one bolt per post flange).
3. Use bolts listed in Table 2 in corresponding locations shown in this Index.

5/8" BUTTON-HEAD BOLT

12/13/2022 8:36:51 AM