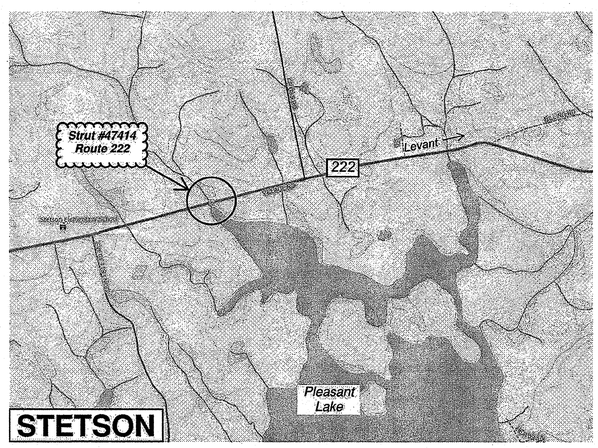
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

LIST OF DRAWINGS

Title Sheet 1
Plans, Notes and Estimated Quantities 2
Sections 3
Sections & Details 4-5

STETSON
PENOBSCOT COUNTY
ROUTE 222
STRUT #47414



LOCATION MAP

MAINTENANCE OF TRAFFIC

Please refer to Traffic Control plan in contract book.

APPROVED
RECOMMENDED APPROVAL
CONCUR
NO APPROVED
DEPUTY CHIEF ENGINEER DATE

BASIC DESIGN STRESSES

Concrete ..... f 'c = 3,000 psi
Reinforcing Steel ..... f y = 60,000 psi
Structural Steel:
ASTM A 709/A 709M, Grade 50W ..... F y = 50,000 psi
ASTM A 709/A 709M, Grade 36 ..... F y = 36,000 psi
ASTM A 325 ..... F μ = 120,000 psi

PROJECT LOCATION	Strut #47414 located 2.3 miles East of intersection of Route 143 (Lakins/Stetson Road). Lat./Long. 44°53'55.69" N 69°05'49.5" W
PROGRAM AREA	Bridge and Structure Maintenance
OUTLINE OF WORK	General repairs, widening strut and safety improvements by adding safety rail and two feet on North and South sides of existing Culvert.

WIN 22217.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED | DATE
COMMISSIONER:
CHIEF ENGINEER:

STATE OF MAINE BRENT A. SNOWDEN No. 4838 LICENSED PROFESSIONAL ENGINEER

PROJECT INFORMATION		
PROGRAM	Bridge & Structure Maintenance	SIGNATURE
PROJECT MANAGER	B. Snowden	4838
DESIGNER	A. Farrington	P.E. NUMBER
CONSULTANT		
PROJECT RESIDENT	J. Prescott	5-24-2016
CONTRACTOR		DATE
PROJECT COMPLETION DATE		

STETSON
STRUT #47414 Route 222
TITLE SHEET

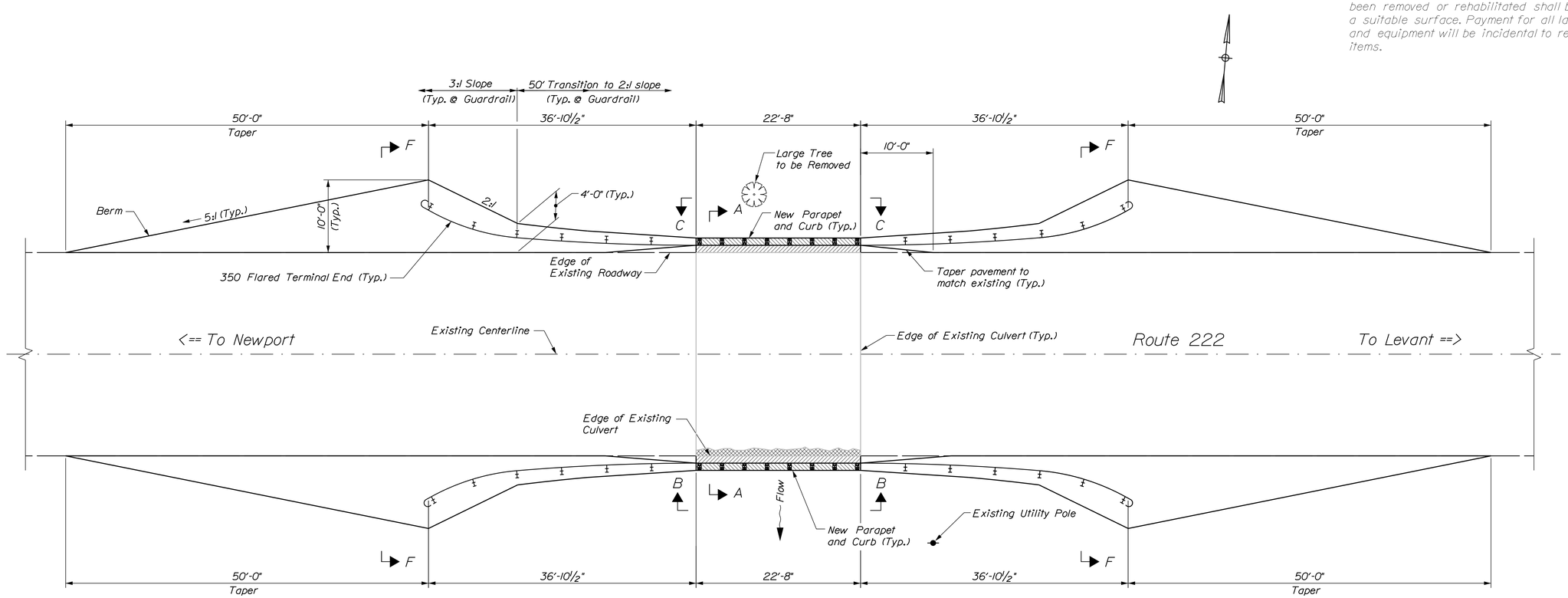
SHEET NUMBER
1

ESTIMATED QUANTITIES			
UNIT	LOCATION	QUANTITY	UNIT
201.23	Removing Single Tree Top Only	1	EA
201.24	Removing Stump	1	EA
202.10	Removing Existing Concrete - Property of Contractor (4 CY)	1	LS
202.202	Removing Pavement Surfaces	71	SY
403.208	Hot Mix Asphalt 12.5 MM Nominal Maximum Size	32	TON
409.15	Bituminous Tack Coat, Applied	2	GAL
502.26	Structural Concrete - Roadway & Sidewalk Slab on Steel Bridges (8 CY)	1	LS
502.49	Structural Concrete Curbs and Sidewalks (2 CY)	1	LS
503.12	Reinforcing Steel, Fabricated and Delivered	1900	LB
503.13	Reinforcing Steel, Placing	1900	LB
514.06	Curing Boxes for Concrete Cylinders	1	EA
515.21	Protective Coating for Concrete Surfaces (14 SY)	1	LS
526.30	Temporary Concrete Barrier Type I	100	LF
527.34	Work Zone Crash Cushion	1	UNIT
606.353	Reflectorized Flexible Guardrail Markers	8	EA
606.74	Guardrail Type III - Single Rail, Bridge Mounted	50	LF
606.754	Widen Shoulder for Guardrail 350 Flare Terminal	4	EA
606.79	350 Flared Terminal End	4	EA

ESTIMATED QUANTITIES			
UNIT	LOCATION	QUANTITY	UNIT
612.06	Bituminous Sealing Coat - Black	98	SY
615.07	Loam	2.5	CY
618.14	Seeding Method Number 2	1	UNIT
619.12	Mulch	1	UNIT
627.733	White or Yellow Pavement Marking Line	600	LF
627.75	White or Yellow Pavement & Curb Marking	40	SF
627.77	Remove Existing Pavement Marking	114	SF
629.05	Hand Labor, Straight Time	20	HR
631.12	All-Purpose Excavator (Including Operator)	10	HR
631.172	Truck - Large (Including Operator)	10	HR
643.72	Temporary Traffic Signal	1	LS
652.33	Drum	40	EA
652.34	Cone	80	EA
652.35	Construction Signs	110	SF
652.361	Maintenance Of Traffic Control Devices (50 CD)	1	LS
652.38	Flaggers	20	HR
656.75	Temporary Soil Erosion and Water Pollution Control	1	LS
659.10	Mobilization	1	LS

GENERAL CONSTRUCTION NOTES:

1. Dimensions shown are from existing plans and may differ from actual field dimensions. Field verify all dimensions prior to construction.
2. The Contractor shall re-establish bridge centerline before widening the deck. Do not rely on crown in roadway or pavement markings to indicate bridge centerline.
3. For traffic control, refer to Figure 6H-12, Lane Closure on a Two-Lane Road Using Traffic Control Signals (TA-12) of the Manual of Uniform Traffic Control Devices or alternative as approved by the Resident.
4. Existing concrete on face of strut shall be removed to sound concrete on both the North and South sides before casting new concrete.
5. Existing reinforcing steel to remain shall be cleaned as directed by the Resident prior to placing new concrete.
6. The existing concrete shall be removed so as not to damage existing reinforcing steel in the deck and headwalls. Any damaged reinforcing steel shall be replaced at the Contractors expense.
7. Reinforcing steel shall have a minimum 2" of cover unless otherwise noted.
8. Protective coating for concrete surfaces shall be applied to all exposed surfaces of new concrete. Payment shall be considered incidental to related contract items.
9. The top of the concrete slab where concrete has been removed or rehabilitated shall be prepared to a suitable surface. Payment for all labor, materials, and equipment will be incidental to related contract items.



PLAN VIEW

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STRUT WIDENING PLANS

WIN 21553.00

STRUT NO. 47414

PLANS

SIGNATURE

P.E. NUMBER

DATE

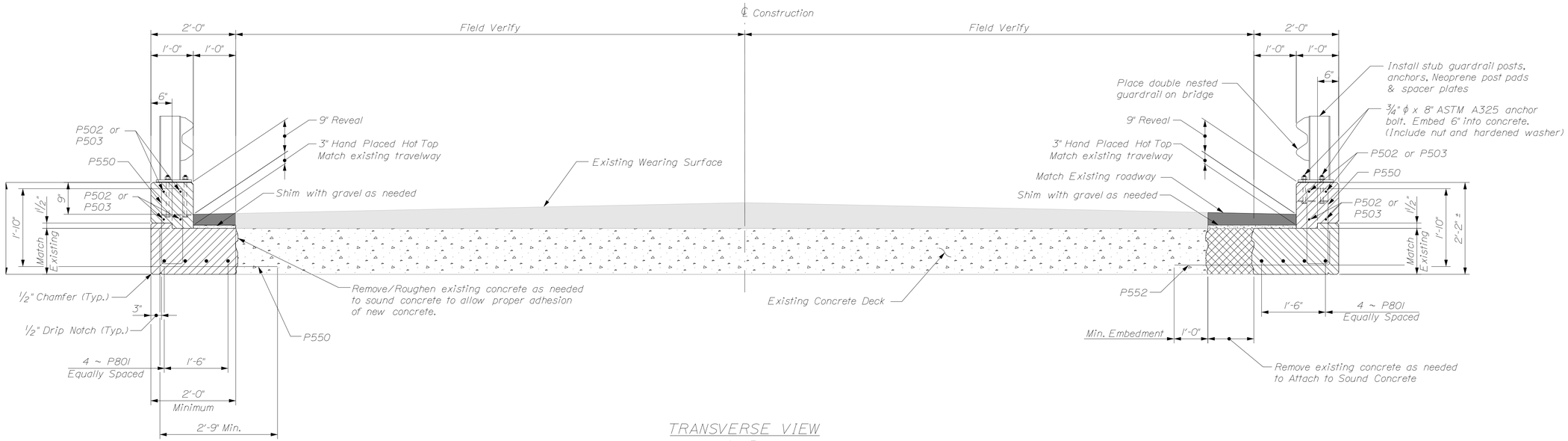
PROJ. MANAGER	B. SNOWDEN	BY	DATE
DESIGN-DETAILED	A. FARRINGTON	G. LIBBY	March 2016
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

STETSON STRUT
ROUTE 222
STETSON PENOBSCOT

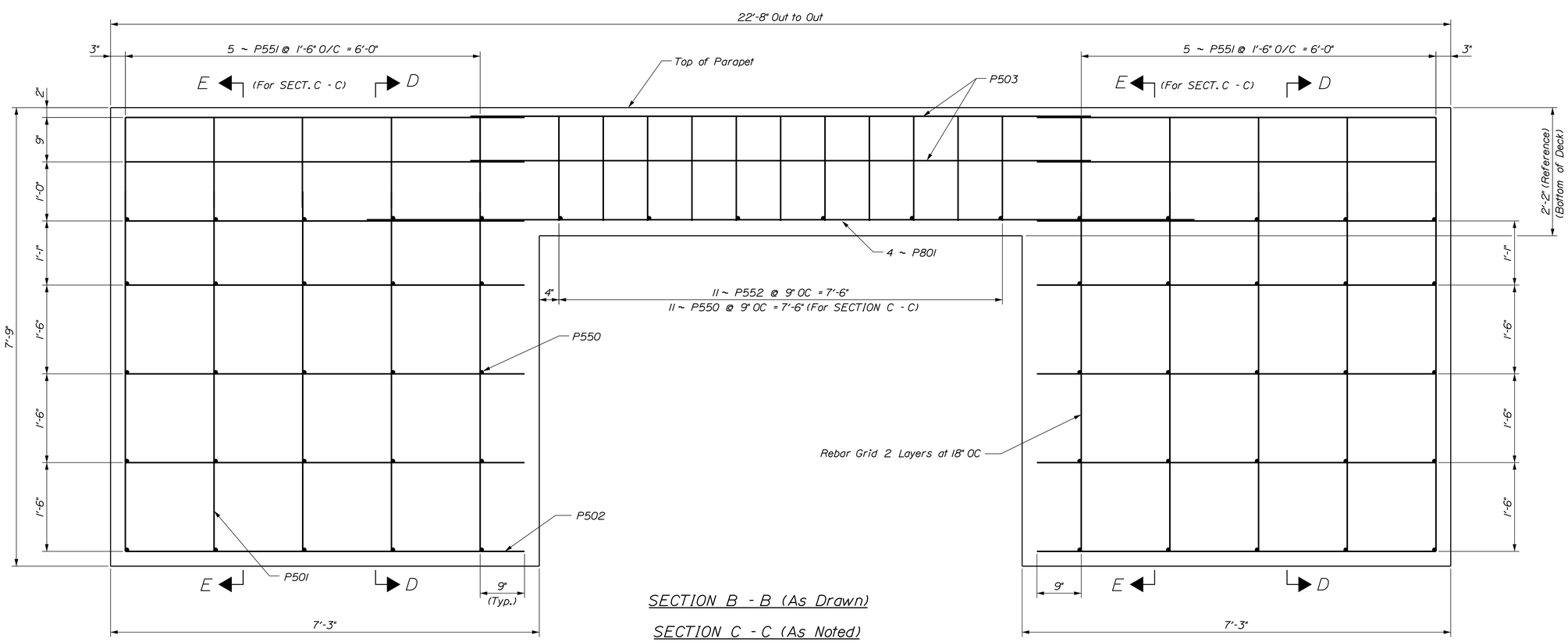
PLANS, NOTES and
ESTIMATED QUANTITIES

SHEET NUMBER
2
OF 5

Filename: ...\002_Plans & Estimate_Quantities.dgn Division: BRIDGE Username: gerald.libby Date:7/1/2016



TRANSVERSE VIEW
(Looking East)



SECTION B - B (As Drawn)

SECTION C - C (As Noted)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STRUT WIDENING PLANS

PLANS

STRUT NO. 47414

PROJ. MANAGER	B. SNOWDEN	BY	DATE
DESIGN-DETAILED	A. FARRINGTON	G. LIBBY	March 2016
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

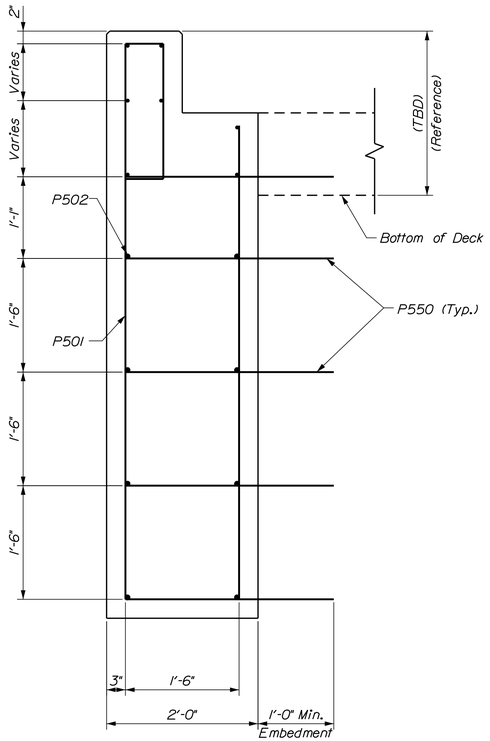
DATE

STETSON STRUT
ROUTE 222
STETSON PENOBSCOT

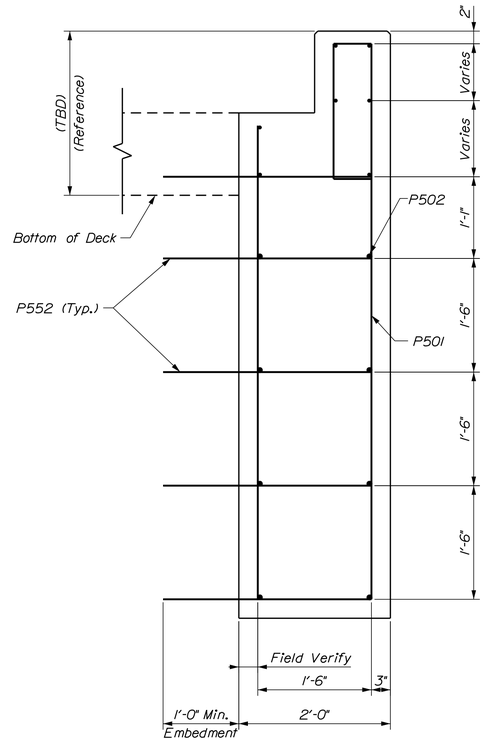
SECTIONS

SHEET NUMBER
3
OF 5

Filename: ...*47414_Stetson\003_Details.dgn Division: BRIDGE Username: gerald.libby Date:5/24/2016



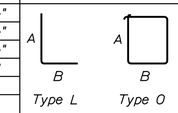
Sect. E - E



Sect. D - D

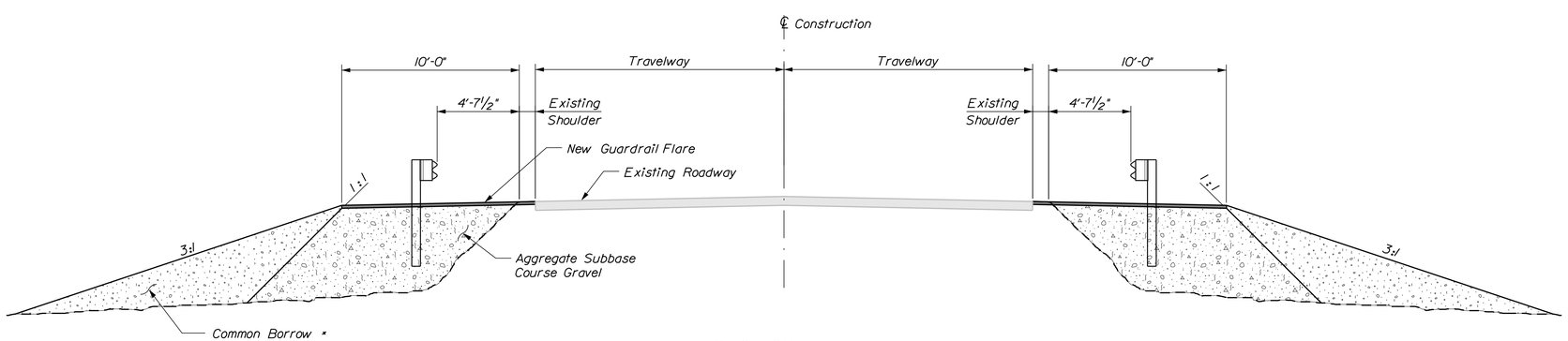
STRAIGHT BARS			
MARK	QTY.	LENGTH	Diam
P501	40	8'-1"	5/8"
P502	48	6'-9"	5/8"
P503	4	9'-6"	5/8"
P801	8	14'	1"

Bending Diagram



BENT BARS						
MARK	QTY.	LENGTH	TYPE	A	B	LOCATION
P550	56	3'-6"	L	2'-9"	9"	Embedded perpendicular into Northside concrete
P551	42	6'-6"	O	2'-9"	6"	Curb
P552	56	Field Measure	L	Field Measure	9"	Embedded perpendicular into Southside concrete

REINFORCEMENT SCHEDULE



SECTION F - F

* - Use adjacent or available excavation in place of Common Borrow unless otherwise directed by the Resident.

Filename: ...*47414_Stetson\004_Details.dgn Division: BRIDGE Username: gerald.libby Date:6/13/2016

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STRUT WIDENING PLANS

PLANS

STRUT NO. 47414

PROJ. MANAGER	B. SNOWDEN	BY	DATE
DESIGN-DETAILED	A. FARRINGTON	G. LIBBY	March 2016
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

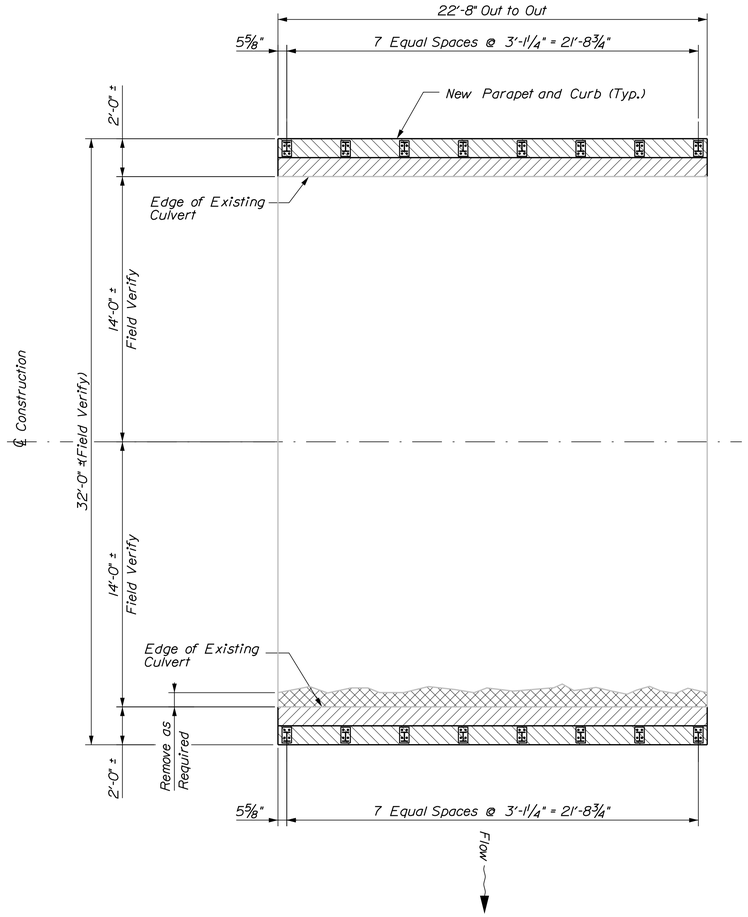
STETSON STRUT
ROUTE 222
STETSON PENOBSCOT

SECTIONS & DETAILS

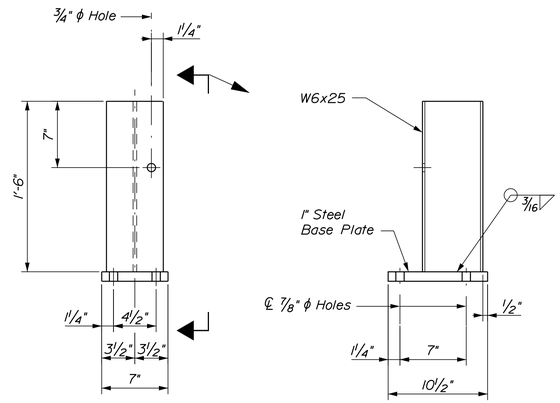
SHEET NUMBER

4

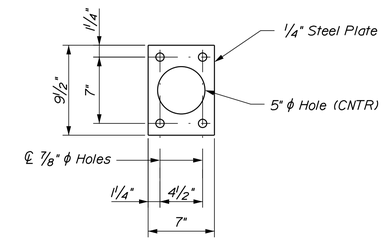
OF 5



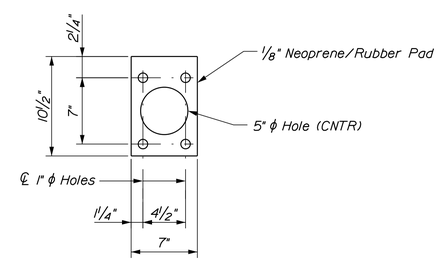
BRIDGE RAIL LAYOUT & PLAN VIEW



STUB POST DETAIL



SPACER PLATE DETAIL



NEOPRENE/RUBBER PAD DETAIL

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STRUT WIDENING PLANS

PLANS

STRUT NO. 47414

PROJ. MANAGER	B. SNOWDEN	BY	DATE
DESIGN-DETAILED	A. FARRINGTON	G. LIBBY	March 2016
CHECKED-REVIEWED			
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

P.E. NUMBER

DATE

STETSON STRUT
ROUTE 222

STETSON PENOBSCOT

DETAILS

SHEET NUMBER

5

OF 5

Filename: ...\005_Btypical_Details.dgn Division: BRIDGE Username: gerald.libby Date:6/13/2016