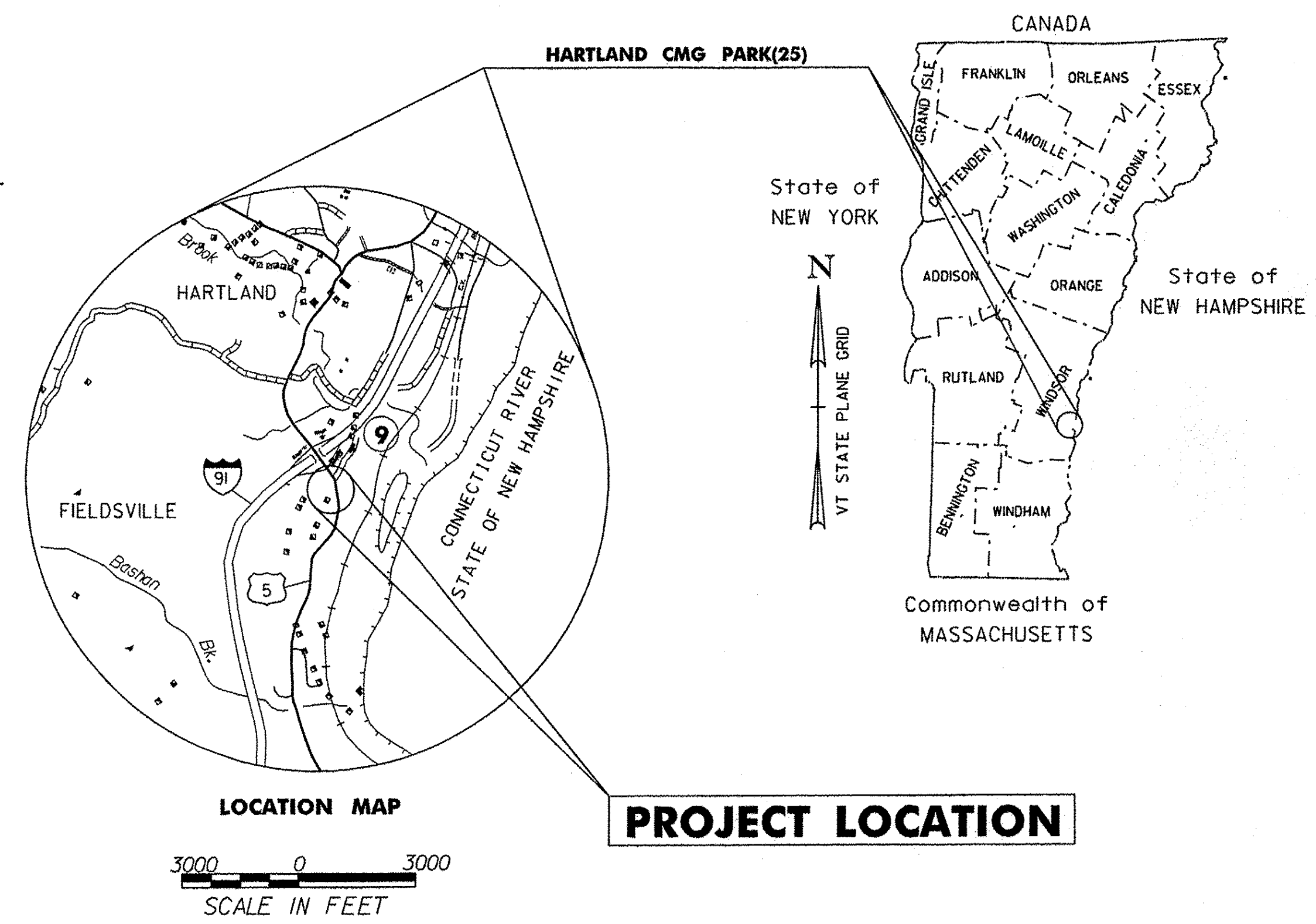


STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT TOWN OF HARTLAND COUNTY OF WINDSOR HARTLAND PARK AND RIDE



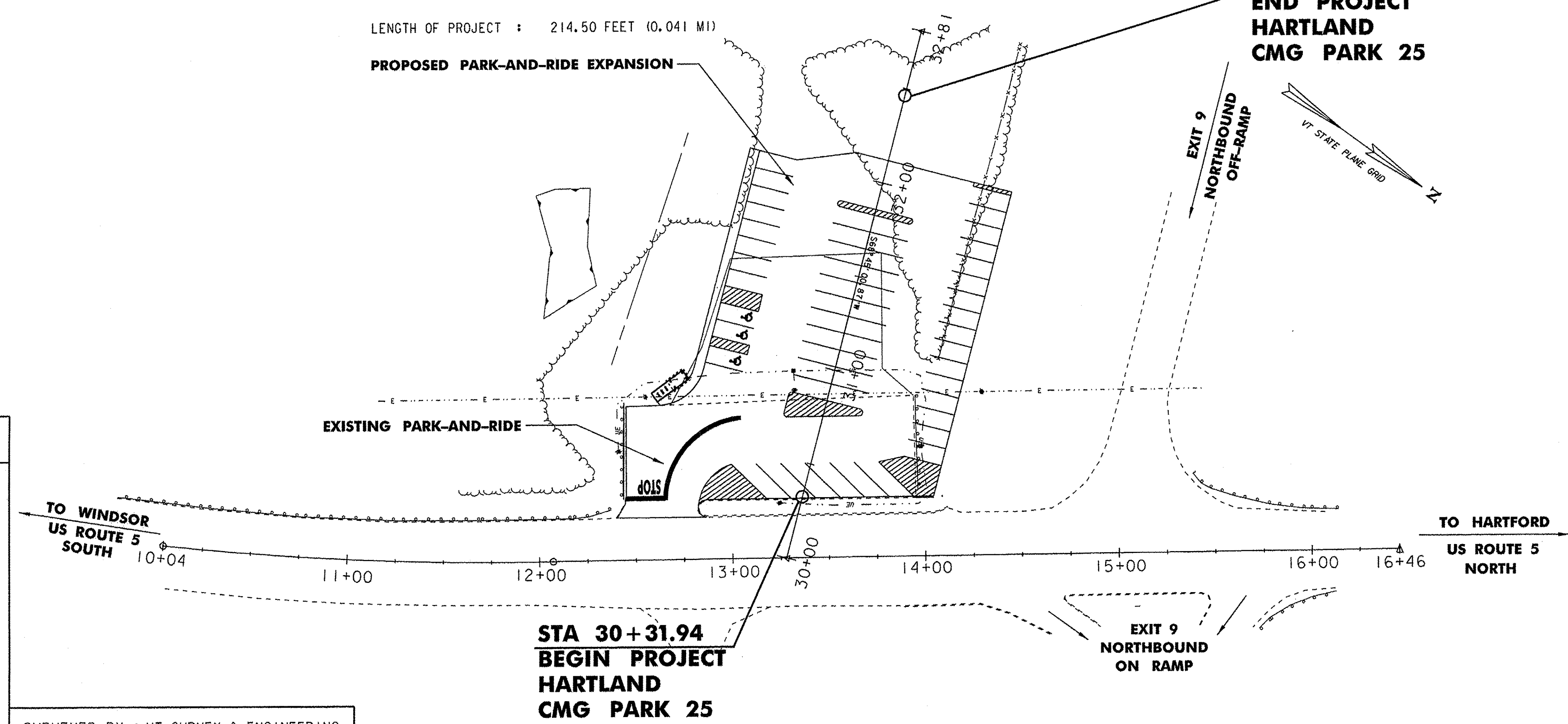
RECORD PLANS	
CONTRACTOR:	CAPITAL EARTHMOVING, INC. - BARRE, VT
RESIDENT ENGINEER:	CHARLIE HARDING
CONSTRUCTION BEGAN:	APRIL 28, 2014
CONSTRUCTION COMPLETE:	OCTOBER 1, 2014
RECORD PLANS BY:	CHARLIE HARDING & CRAIG PIERCE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>Charlie Harding</i> RESIDENT ENGINEER
DATE	02-24-16
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.	

PROJECT LOCATION : THIS PROJECT IS LOCATED ON THE SOUTHERN SIDE OF US ROUTE 5, 200 FEET EAST OF THE INTERSTATE 91, EXIT 9 INTERCHANGE.

PROJECT DESCRIPTION : WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES THE RECONSTRUCTION AND EXPANSION OF THE EXISTING PARK-AND-RIDE FACILITY, INCLUDING NEW SUBBASE, PAVEMENT, MARKINGS, SIGNAGE, LIGHTING, LANDSCAPING AND OTHER HIGHWAY RELATED ITEMS.

LENGTH OF PROJECT : 214.50 FEET (0.041 MI)

PROPOSED PARK-AND-RIDE EXPANSION

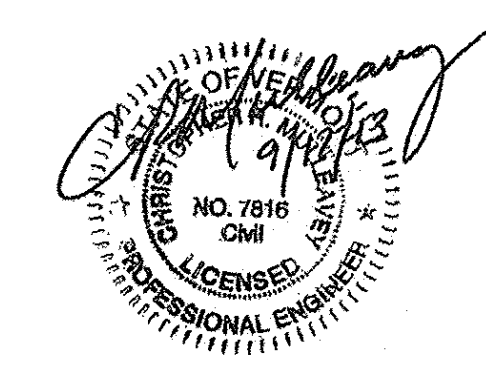
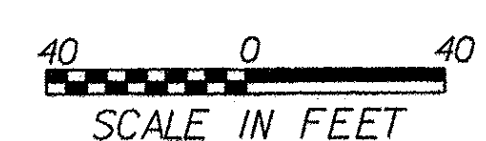


QUALITY ASSURANCE PROGRAM: 3

CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY : VT SURVEY & ENGINEERING
 SURVEYED DATE : JUNE 2005
 DATUM
 VERTICAL NAVD88
 HORIZONTAL NAD83 (1992)



THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
 CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROJECT DEVELOPMENT	
APPROVED	<i>Kevin A. Maslov</i> DATE 9/19/13
PROJECT MANAGER : WAYNE L. DAVIS	
PROJECT NAME :	HARTLAND
PROJECT NUMBER :	CMG PARK (25)
SHEET 1 OF 30 SHEETS	

Hoyle, Tanner & Associates, Inc.
 150 Dow Street
 Manchester, NH 03101-1227
 Telephone: 603-669-5555
 Fax: 603-669-4168
 Web Page: www.hoyletanner.com
 HTA PROJECT 904221

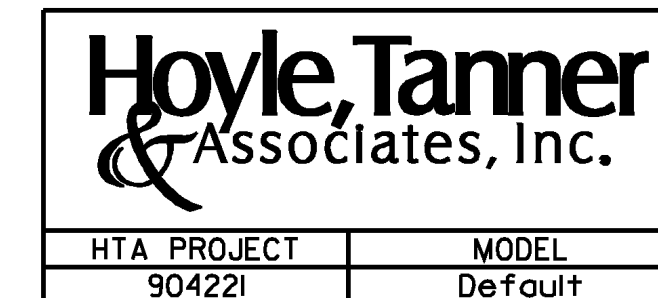
INDEX OF SHEETS

INDEX OF SHEETS

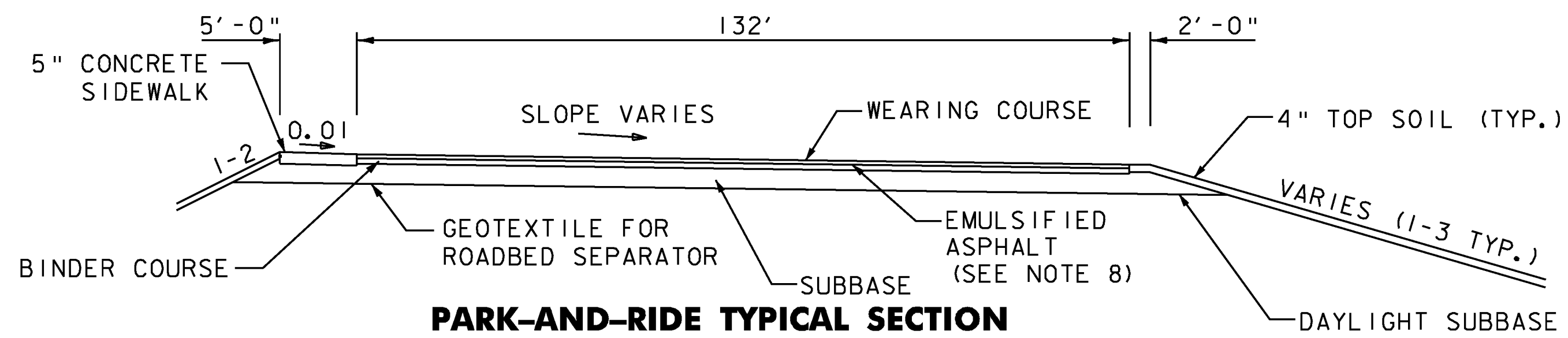
1	TITLE SHEET
2	INDEX OF SHEETS
3	TYPICAL SECTIONS
4-5	QUANTITY SHEETS
6	EARTHWORKS SHEET
7	RIGHT OF WAY PLAN
8	GENERAL PLAN
9	TIE SHEET
10	GRADING PLAN
11	PROFILE
12	CONSTRUCTION APPROACH SIGNING
13	SIGNING AND MARKING PLAN
14	TRAFFIC SIGN DETAILS
15	TRAFFIC SIGN SUMMARY SHEET
16-17	BUS SHELTER DETAILS
18	LIGHTING AND ELECTRICAL PLAN
19	LIGHTING DETAILS
20	EPSC NARRATIVE
21	EPSC EXISTING CONDITIONS
22	EPSC CONSTRUCTION SITE PLAN
23	EPSC FINAL CONDITIONS
24-26	EPSC DETAILS
27-30	CROSS SECTIONS

VTrans DESIGN STANDARDS

B-5	SLOPE GRADING, EMBANKMENTS, MUCK	06-01-94
C-10	CURBING	02-11-08
E-119	UTILITY WORK ZONE	03-01-04
E-131	GUIDE SIGN DETAILS	08-08-95
E-132	GENERAL MOTORIST SERVICE SIGN DETAILS	08-18-95
E-143	REGULATORY SIGN DETAILS	06-15-04
E-173	PULL BOXES AND JUNCTION BOXES	08-09-95
E-175	POWER DROP STANCHIONS	06-08-09
E-180B	STREET LIGHTING DETAILS	08-09-95
E-191	PAVEMENT MARKING DETAILS	02-01-99
E-192	PAVEMENT MARKING DETAIL	10-12-00
E-193	PAVEMENT MARKING DETAILS	08-18-95
F-1	WOVEN WIRE FENCE WITH WOOD POSTS	06-01-94
	WOVEN WIRE FENCE WITH STEEL POSTS	
	WOOD BRACE FOR WOVEN WIRE FENCE	
	STEEL BRACE FOR WOVEN WIRE FENCE	
	DRIVE GATE FOR WOVEN WIRE FENCE	
	WALK GATE FOR WOVEN WIRE FENCE	
G-4	PLANK RAIL	06-01-94
	GUIDE POSTS	
	WOOD MARKER POSTS	
	STEEL MARKER POSTS	
T-1	TRAFFIC CONTROL GENERAL NOTES	08-06-12
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	08-06-12
T-28	CONSTRUCTION SIGN DETAILS	08-06-12
T-30	CONSTRUCTION SIGN DETAILS	08-06-12
T-45	SQUARE TUBE SIGN POST AND ANCHOR	08-06-12



PROJECT NAME:	HARTLAND
PROJECT NUMBER:	CMG PARK(25)
FILE NAME:	Z20k154Index.dgn
PROJECT LEADER:	WAYNE L. DAVIS
DESIGNED BY:	JCC
INDEX OF SHEETS	
PLOT DATE:	9/30/2013
DRAWN BY:	JCC
CHECKED BY:	CRM
SHEET	2 OF 30



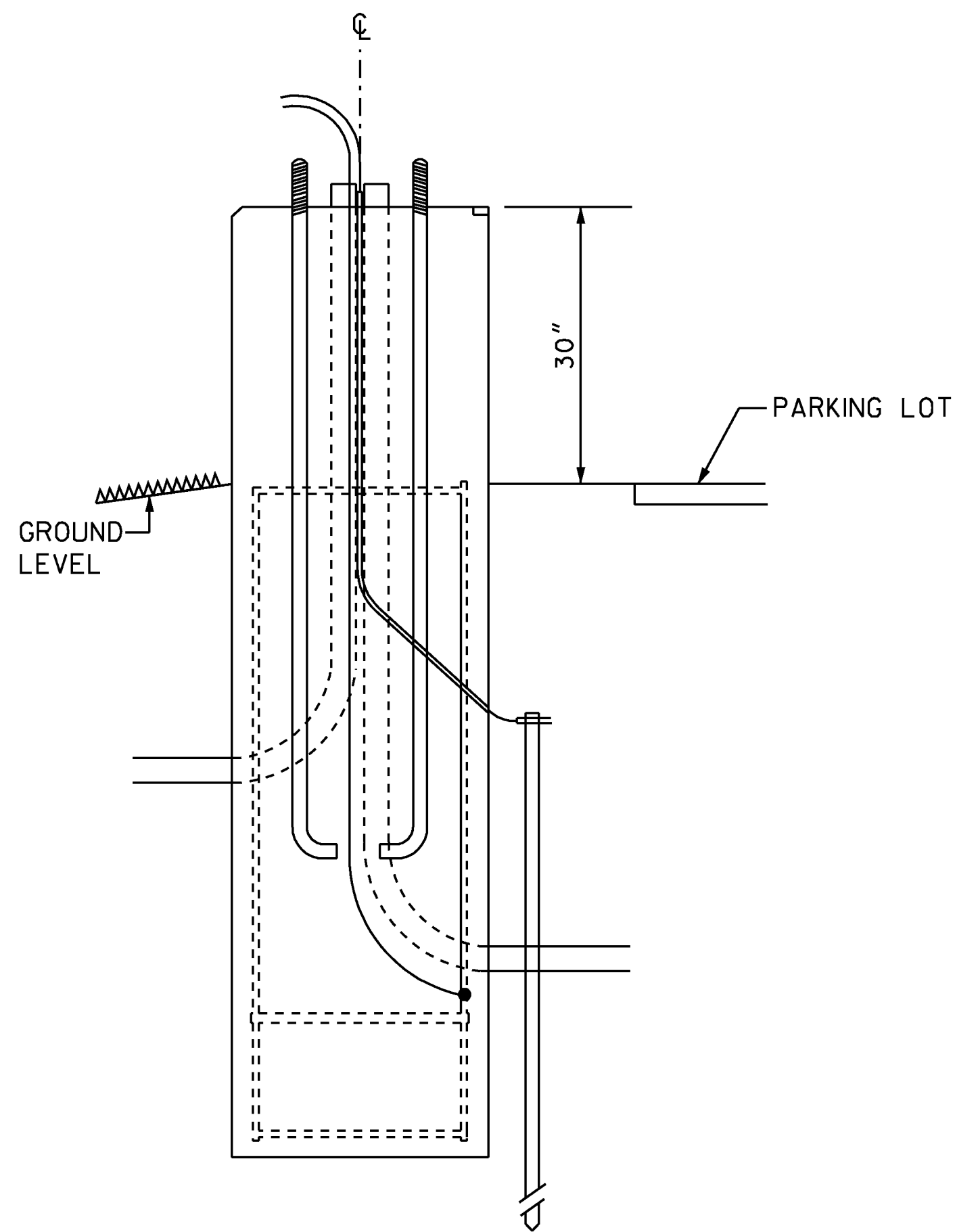
PARK-AND-RIDE TYPICAL SECTION
STA. 30+31.94 TO STA. 32+11.78

N. T. S.

1 1/2" SUPERPAVE BIT. CONCRETE PAVEMENT (1 LIFT - TYPE IVS)
 3 1/2" SUPERPAVE BIT. CONCRETE PAVEMENT (2 LIFTS - TYPE IIS)
 18" SUBBASE OF DENSE GRADED CRUSHED STONE

MATERIAL ITEM THICKNESS/TOLERANCE

BITUMINOUS CONCRETE PAVEMENT +/- 1/4" (TOTAL DEPTH)
 SUBBASE OF DENSE GRADED CRUSHED STONE +/- 1"



NOTE: SEE VTRANS DESIGN STANDARD E-180B FOR ADDITIONAL INFORMATION.

CONCRETE POLE TO BASE DETAIL

NOT TO SCALE

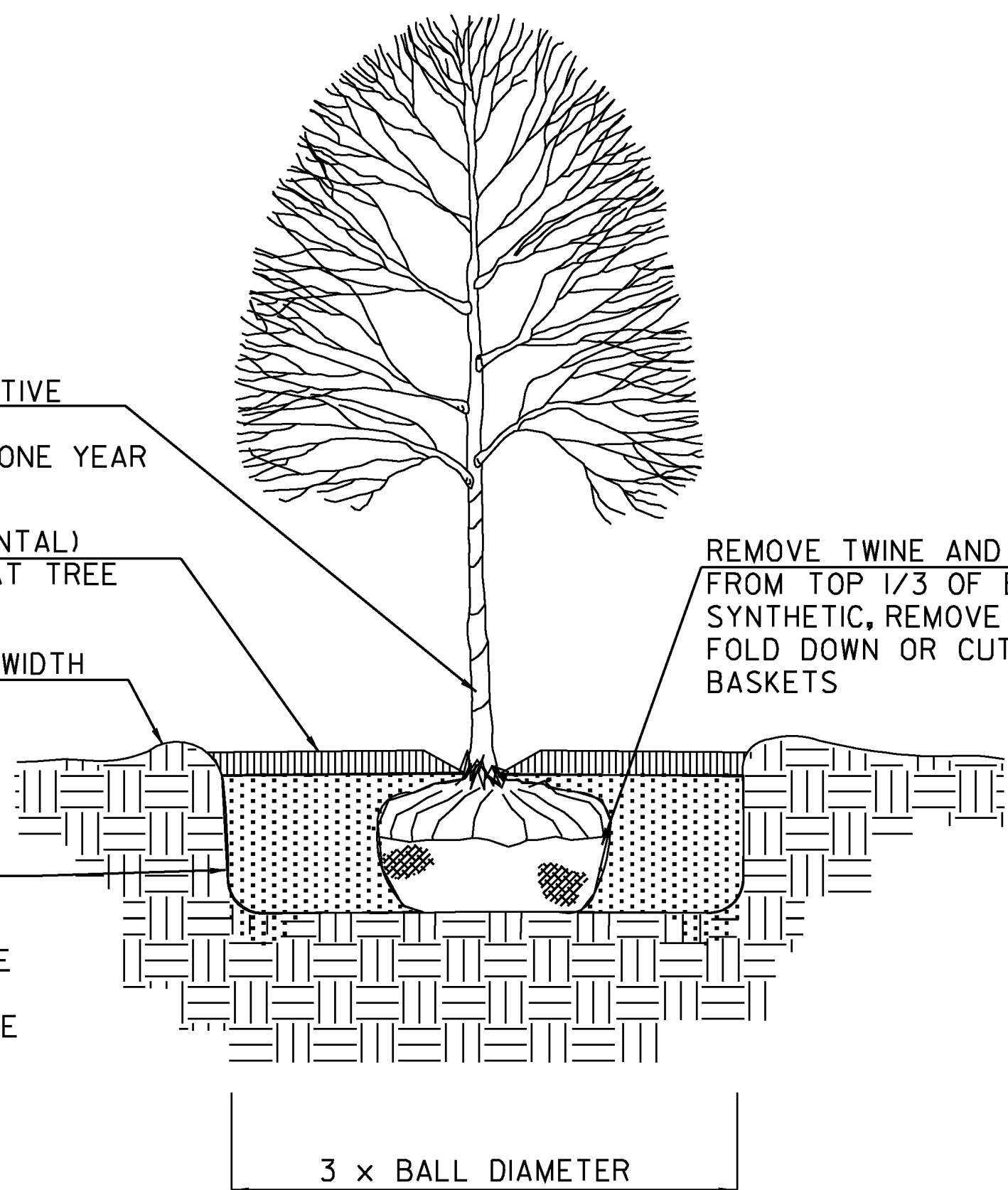
WRAP TRUNK WITH PROTECTIVE PAPER (INCIDENTAL) AS SPECIFIED-REMOVE AFTER ONE YEAR

4" BARK MULCH (INCIDENTAL) AS SPECIFIED TAPER AT TREE TRUNK AS SHOWN

FORM SAUCER WITH 6" WIDTH AND CONTINUOUS RIM

REMOVE TWINE AND BURLAP FROM TOP 1/3 OF BALL. IF SYNTHETIC, REMOVE COMPLETELY FOLD DOWN OR CUT WIRE BASKETS

BACK FILL WITH PLANTING MIX OF 1/2 TOPSOIL (PAID AS LANDSCAPE BACKFILL, TRUCK MEASUREMENT), AND 1/2 NATIVE MATERIAL AS APPROVED BY THE ENGINEER. TAMP TO REMOVE AIR POCKETS AND WATER THOROUGHLY IMMEDIATELY AFTER PLANTING AND AT A MINIMUM OF TWICE WEEKLY DURING THE ESTABLISHMENT PERIOD.

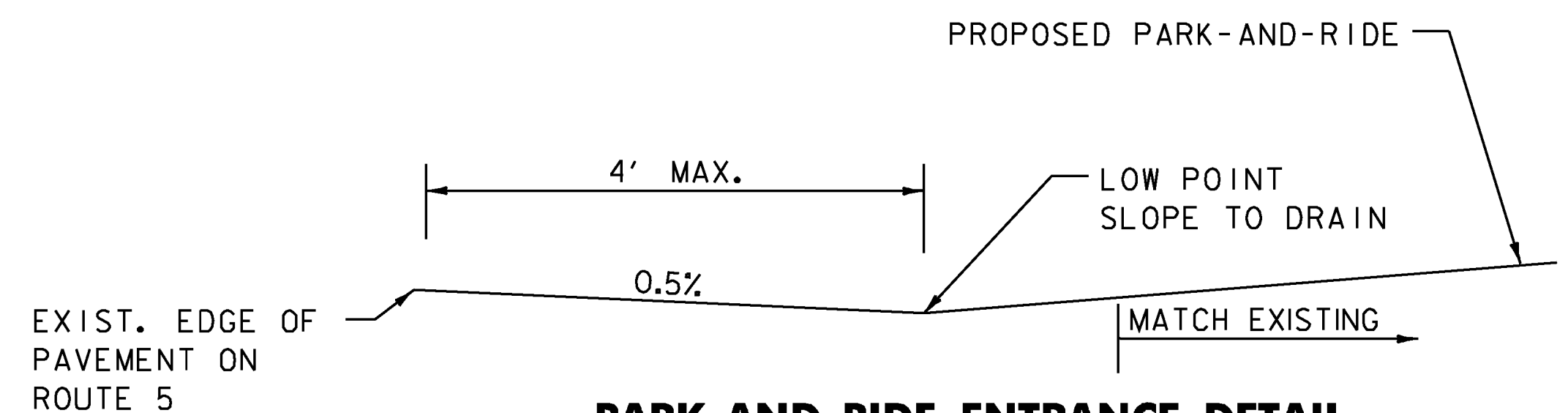


TREE PLANTING

N. T. S.

GENERAL NOTES

1. SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B - 5.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR ANCHORING, SUPPORTING AND/OR RELOCATING AND PROTECTING ALL UTILITIES DURING CONSTRUCTION. ALL COSTS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT ITEMS. IN THE CASE OF DAMAGE, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ALL REPAIRS. SEE THE UTILITY SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
3. THE CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF THE EXISTING FEATURES AND STRUCTURES WITHIN AND ADJACENT TO THE WORK. IN THE CASE OF DAMAGE, THE REPAIRS OR REPLACEMENT SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AS APPROVED BY THE ENGINEER.
4. ALL WORK MUST COMPLY WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN THE CASE OF CONFLICTING REGULATIONS THE MORE CONSERVATIVE OR STRICTER REGULATIONS WILL TAKE PRECEDENCE.
5. ANY DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER, IN WRITING, BEFORE PROCEEDING WITH THE WORK.
6. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SITE SAFETY SHALL SOLELY BE THE CONTRACTOR'S RESPONSIBILITY.
7. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS MODIFIED.
8. EMULSIFIED ASPHALT SHALL BE APPLIED TO SUCCESSIVE COURSES OF PAVEMENT AT A RATE OF 0.05 GAL/SY.
9. SEE EROSION CONTROL DETAILS FOR TURF ESTABLISHMENT INFORMATION, SEEDING FORMULA, AND SEEDING NOTES.



PARK-AND-RIDE ENTRANCE DETAIL

N. T. S.

NOTE: SEE GRADING PLAN FOR ADDITIONAL INFORMATION.

Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221 MODEL Untitled Sheet

PROJECT NAME: HARTLAND
 PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20k154typ.dgn
 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
TYPICAL SECTIONS

PLOT DATE: 9/16/2013
 DRAWN BY: JCC
 CHECKED BY: CRM
 SHEET 3 OF 30

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
						ROADWAY	LANDSCAPING	EROSION CONTROL	UTILITIES - BID ITEMS	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1					1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10				
						1450					1450		CY	COMMON EXCAVATION	203.15	108			
						30					30		CY	SOLID ROCK EXCAVATION	203.16				
						350					350		CY	EARTH BORROW	203.30	32.44			
						220					220		CY	TRENCH EXCAVATION OF EARTH	204.20	25.56			
						20					20		CY	TRENCH EXCAVATION OF ROCK	204.21				
						1					1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				
						1600					1600		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	73.95			
						25					25		CWT	EMULSIFIED ASPHALT	404.65	1.19			
						1					1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50				
						825					825		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	26.52			
						270					270		LB	REINFORCING STEEL, LEVEL I	507.11	2.47			
						8					8		GAL	WATER REPELLENT, SLANE	514.10	1.59			
						4					4		CY	CONCRETE, CLASS B	541.25	0.6			
						10					10		LF	PRECAST REINFORCED CONCRETE CURB, TYPE B	618.26	1			
						80					80		SY	PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH	618.10	3.24			
						8					8		EACH	YIELDING MARKER POSTS	619.17				
						1					1		EACH	REMOVING AND RESETTING PROPERTY MARKERS	619.20				
						225					225		LF	WOVEN WIRE FENCE WITH STEEL POSTS	620.25	2.56			
						1					1		EACH	DRIVE GATE FOR WOVEN WIRE FENCE	620.30				
						6					6		EACH	STEEL BRACE FOR WOVEN WIRE FENCE	620.40				
						125					125		LF	REMOVING AND RESETTING FENCE	620.50	1.42			
						50					50		LF	PLANK RAIL	621.15				
						18					18		EACH	REMOVAL AND DISPOSAL OF GUIDE POSTS	621.81	2			
						80					80		HR	FLAGGERS	630.15				
										1	1		LS	FIELD OFFICE, ENGINEERS	631.10				
										1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16				
										1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17				
										3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26				
						1					1		LS	MOBILIZATION/DEMOBILIZATION	635.11				
						1					1		LS	TRAFFIC CONTROL	641.10				
						2500					2500		LF	DURABLE 4 INCH WHITE LINE	646.400	65.6			
						130					130		LF	DURABLE 4 INCH YELLOW LINE	646.410	3.8			
						20					20		LF	DURABLE 24 INCH STOP BAR	646.480				
						7					7		EACH	DURABLE LETTER OR SYMBOL	646.490				
								2200			2200		SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	28.76			
								200			200		SY	GEOTEXTILE FOR SILT FENCE	649.51	16.6			
								50			50		LB	SEED	651.15	4.44			
								90			90		LB	FERTILIZER	651.18	2.84			
								0.5			0.5		TON	AGRICULTURAL LIMESTONE	651.20	0.15			

PROJECT NAME: **Hartland Park and Ride**
 PROJECT NUMBER: **CMG Park (25)**
 FILE NAME: Z02K154quantity PLOT DATE: 09/17/2013
 PROJECT MANAGER: WLD DRAWN BY: AGB
 DESIGNED BY: JCC CHECKED BY: CRM
 QUANTITY SHEET #1 SHEET 4 OF 30

QUANTITY SHEET 2

SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
					ROADWAY	LANDSCAPING	EROSION CONTROL	UTILITIES - BID ITEMS	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
							0.5			0.5		TON	HAYMULCH	651.25	0.15			
					100					100		CY	TOPSOIL	651.35	6.26			
							1			1		LS	EPSC PLAN	652.10				
							35			35		HR	MONITORING EPSC PLAN	652.20	3			
							1			1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
							610			610		SY	TEMPORARY EROSION MATTING	653.20	9.67			
							1			1		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
							580			580		LF	PROJECT DEMARCATION FENCE	653.55	7.8			
						3				3		EACH	DECIDUOUS TREES (QUERCUS RUBRA) (B&B) (2" - 2 1/2" CALIPER)	656.30				
						5				5		CY	LANDSCAPE BACKFILL, TRUCK MEASUREMENT	656.80	0.5			
					18					18		SF	TRAFFIC SIGNS, TYPE A	675.20	1.62			
					65					65		LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	2.5			
					7					7		EACH	REMOVING SIGNS	675.50				
								590		590		LF	WIRED CONDUIT (2") (PVC) (SCH. 40)	678.23	10.57			
								5		5		EACH	JUNCTION BOX	678.26				
								140		140		LF	ELECTRICAL CONDUIT SLEEVE (6") (PVC) (SCH. 80)	678.30	9			
								5		5		EACH	LIGHT POLE BASE	679.21				
								5		5		EACH	LIGHT POLE	679.45				
								6		6		EACH	BRACKET ARM	679.47				
								1		1		EACH	POWER DROP STANCHION, STREET LIGHTING	679.55				
					1					1		LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50				
					1					1		EACH	SPECIAL PROVISION (BICYCLE RACK)	900.620				
					8					8		EACH	SPECIAL PROVISION (LUMINAIRE, LED)	900.620				
								1		1		EACH	SPECIAL PROVISION (REMOVE EXISTING LIGHT POLE)	900.620				
								1		1		EACH	SPECIAL PROVISION (REMOVE EXISTING POWER DROP STANCHION)	900.620				
					1					1		LS	SPECIAL PROVISION (BUS SHELTER)	900.645				

PROJECT NAME: **Hartland Park and Ride**
 PROJECT NUMBER: **CMG Park (25)**
 FILE NAME: Z02K154quantity PLOT DATE: 09/17/2013
 PROJECT MANAGER: WLD DRAWN BY: AGB
 DESIGNED BY: JCC CHECKED BY: CRM
 QUANTITY SHEET #2 SHEET 5 OF 30

8/17/2013 2:05:11 PM C:\Users\jcc\Documents\CMG\25\154\quantity.qpw

EARTHWORKS

		TOTAL EXCAVATION EARTH AND ROCK		ROCK EXCAVATION		EMBANKMENT						TOTAL EXCAVATION EARTH AND ROCK		ROCK EXCAVATION		EMBANKMENT										SUMMARY AND BALANCES											
STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION	DIST	AREA	VOLUME	AREA	VOLUME	AREA	VOLUME	STATION TO STATION	TOT EXC EARTH & ROCK C.Y.	ROCK EXCAV C.Y.	EMBANK C.Y.	EXCESSES		ACUMULATIVE EXCESSES			
	FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.		FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.		FT.	S.F.	C.Y.	S.F.	C.Y.	S.F.	C.Y.					CUT	FILL	CUT	FILL		
30+23	2	126.54	11.25			0.00																					30+00	33+00	1097		800	296		296			
30+25	25	126.54	209.75			0.00																					TOPSOIL EXCAVATION	215			215		215				
30+50	25	326.51	265.81			0.00	3.61																														
30+75	25	247.64	192.44			7.80	40.20																														
31+00	25	168.03	121.13			79.04	95.57																														
31+25	25	93.60	84.62			127.40	88.62																														
31+50	25	89.18	83.82			64.02	76.94																														
31+75	25	91.87	85.27			102.17	153.59																														
32+00	25	92.32	42.74			229.58	224.12																														
32+25	25	0.00	0.00			254.52	117.83																														
32+50	25	0.00	0.00			0.00																															
32+75	25	0.00	0.00			0.00																															
33+00	25	0.00	0.00			0.00																															
TOTAL			1097				800																														

REMARKS	
EARTH AND ROCK EXCAVATION	1312
SOLID ROCK EXCAVATION	30
EARTH EXCAVATION	1097
PLANIMETERED FILL	-
LESS FACTORED SOLID ROCK	-
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	-
NET PLANIMETERED FILL	-
FACTOR	-
PLANIMETERED FILL INCLUDING FACTOR	-
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	1097
CHANNEL EXCAVATION	-
UNDERDRAIN EXCAVATION	-
STRUCTURE EXCAVATION	-
TOTAL MATERIAL AVAILABLE FOR FILL	1097
TOTAL FILL INCLUDING FACTOR	921
TOTAL MATERIAL FOR FILL	1097
BORROW	-
EXCESS EXCAVATION	176

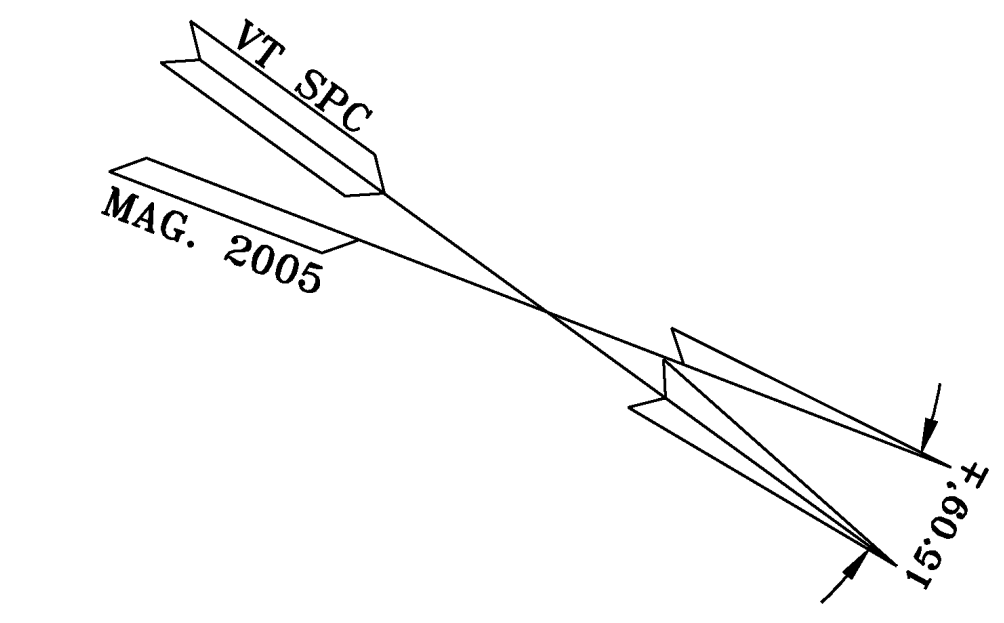
PROJECT NAME: HARTLAND
 PROJECT NUMBER: CMG PARK(25)
 FILE NAME: Z20k154ear+thw.dgn
 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
EARTHWORKS SHEET
 PLOT DATE: 9/17/2013
 DRAWN BY: JCC
 CHECKED BY: CRM
 SHEET 6 OF 30



HTA PROJECT MODEL
 904221 z20k154EARTH

9/17/2013 2:30:53 PM C:\Users\jcc\OneDrive\Documents\2013\104494.dgn

ORIGINAL DRAWING-INK ON POLYESTER FILM MEETING THE REQUIREMENTS OF 27 VSA 1403



BEARINGS AND COORDINATES SHOWN HEREON ARE REFERENCED TO VERMONT STATE PLANE GRID-NAD83(CORS) DERIVED FROM GPS OBSERVATIONS ON JUNE 9, 2005.

NOTES:

N1 - The purpose of this plat is to assist in the conveyance of Parcel A from the Town of Hartland to the State of Vermont and the conveyance of Parcel C from the State of Vermont to the Town of Hartland.

N2 - This survey was performed using an electronic total station to traverse between control points established using dual frequency GPS receivers, resulting in a closure with a relative precision that exceeds 1:10000.

N3 - A combined factor of 0.99994728 was used for grid distance computations. All bearings, distances and coordinates are shown as Vermont Grid, NAD 83 in U.S. Survey Feet.

N4 - The Town of Hartland parcel is subject to rights, restrictions and easements described in Book 125, Page 310 of the Town of Hartland Land Records.

N5 - Inland wetlands delineated by others. (See Reference R1)

N6 - Underground utilities marked by others. (See Reference R1)

Proposed Land Swap ~ Between Property of STATE OF VERMONT and TOWN OF HARTLAND Located in HARTLAND, VT

VERMONT SURVEY AND ENGINEERING, INC. 79 RIVER STREET, MONTPELIER, VT 05602 802-229-9138 vtsurvey@aol.com

DATE: April 3, 2013

TAX MAP 4 - LOT 034 TOWN OF HARTLAND BK. 125/PG. 324 JULY 31, 2001

PARCEL C TO BE CONVEYED FROM STATE OF VERMONT TO TOWN OF HARTLAND

PARCEL A TO BE CONVEYED FROM TOWN OF HARTLAND TO STATE OF VERMONT

TAX MAP 4 - LOT 034 TOWN OF HARTLAND BK. 125/PG. 324 JULY 31, 2001

TAX MAP 4 - LOT 033 STATE OF VERMONT BK. 153/PG. 7 NOV. 18, 2004

STATE OF VERMONT CONDEMNATION ORDER BK. 41/PG. 619 SEPT. 3, 1964

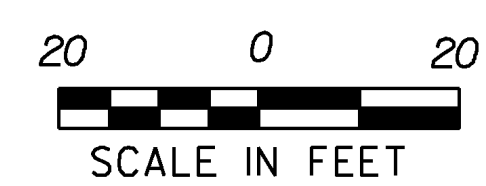
STATE OF VERMONT CONDEMNATION ORDER BK. 41/PG. 619 SEPT. 3, 1964

INTERSTATE 91 VT INTERCHANGE 9

VERMONT ROUTE 5

FOR R.O.W. USE ONLY

THIS SURVEY IS BASED ON EVIDENCE FOUND IN THE FIELD AND INFORMATION ABSTRACTED FROM PERTINENT DEEDS AND RECORDS.



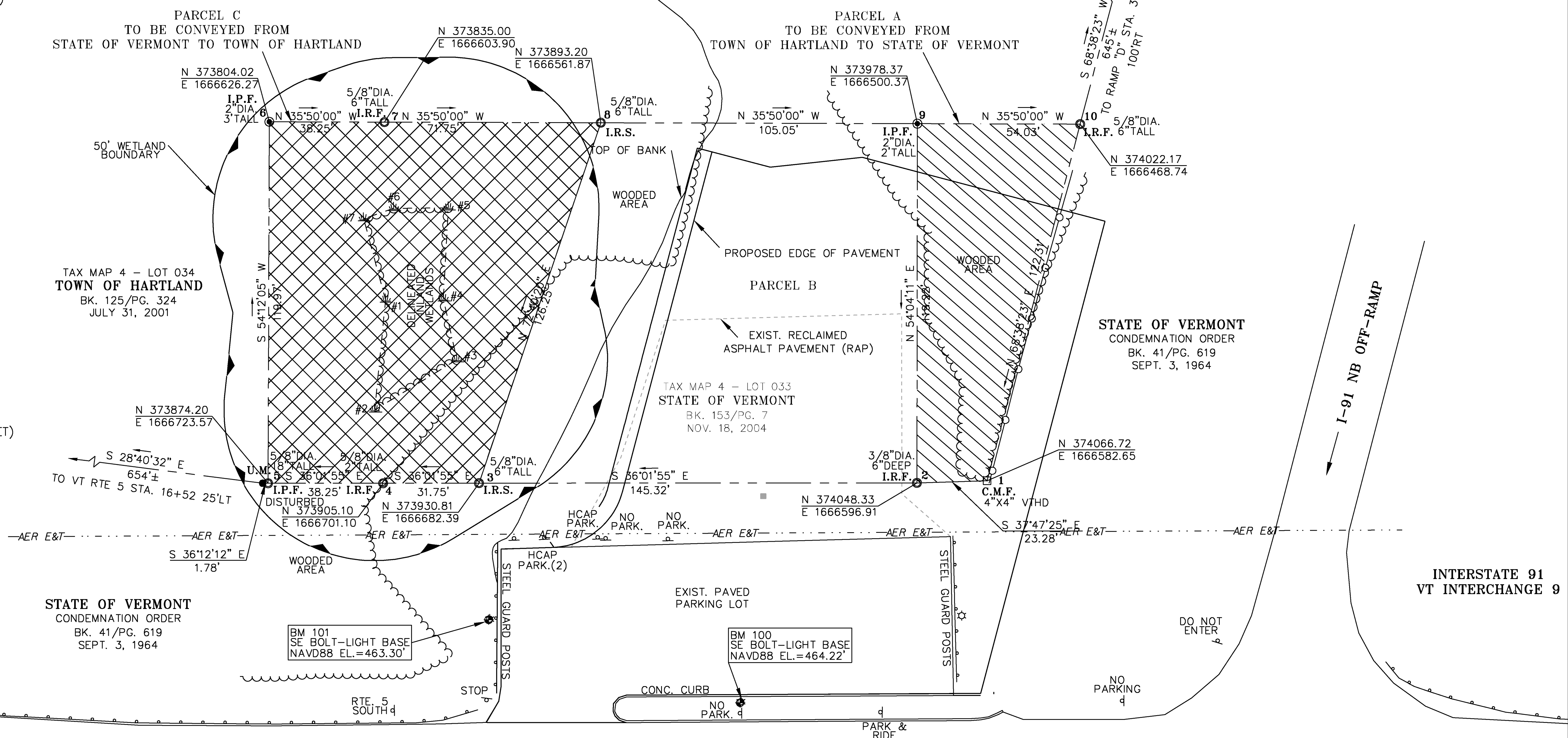
Hoyle, Tanner & Associates, Inc.

Table with 2 columns: HTA PROJECT (90422I) and MODEL (Model)

Project information table including Project Name (HARTLAND), Project Number (CMG PARK(25)), File Name, Project Leader, Designer, Plot Date, Drawn By, Checked By, and Sheet number (7 of 30).

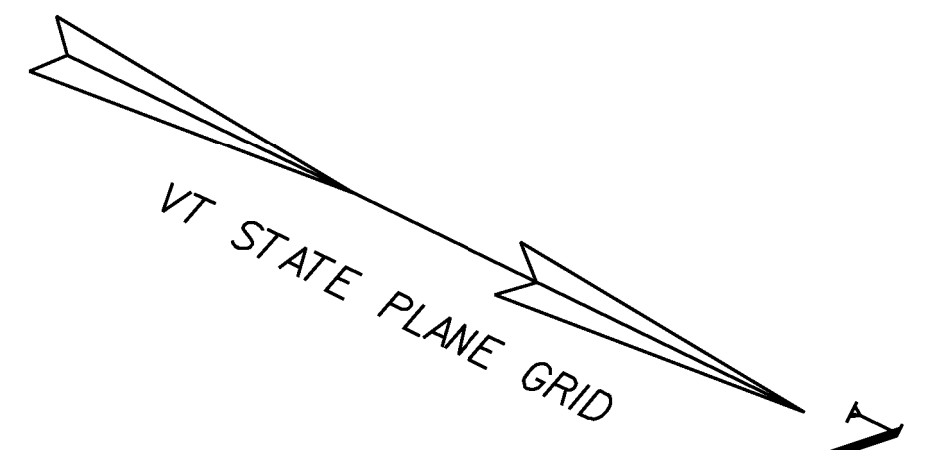
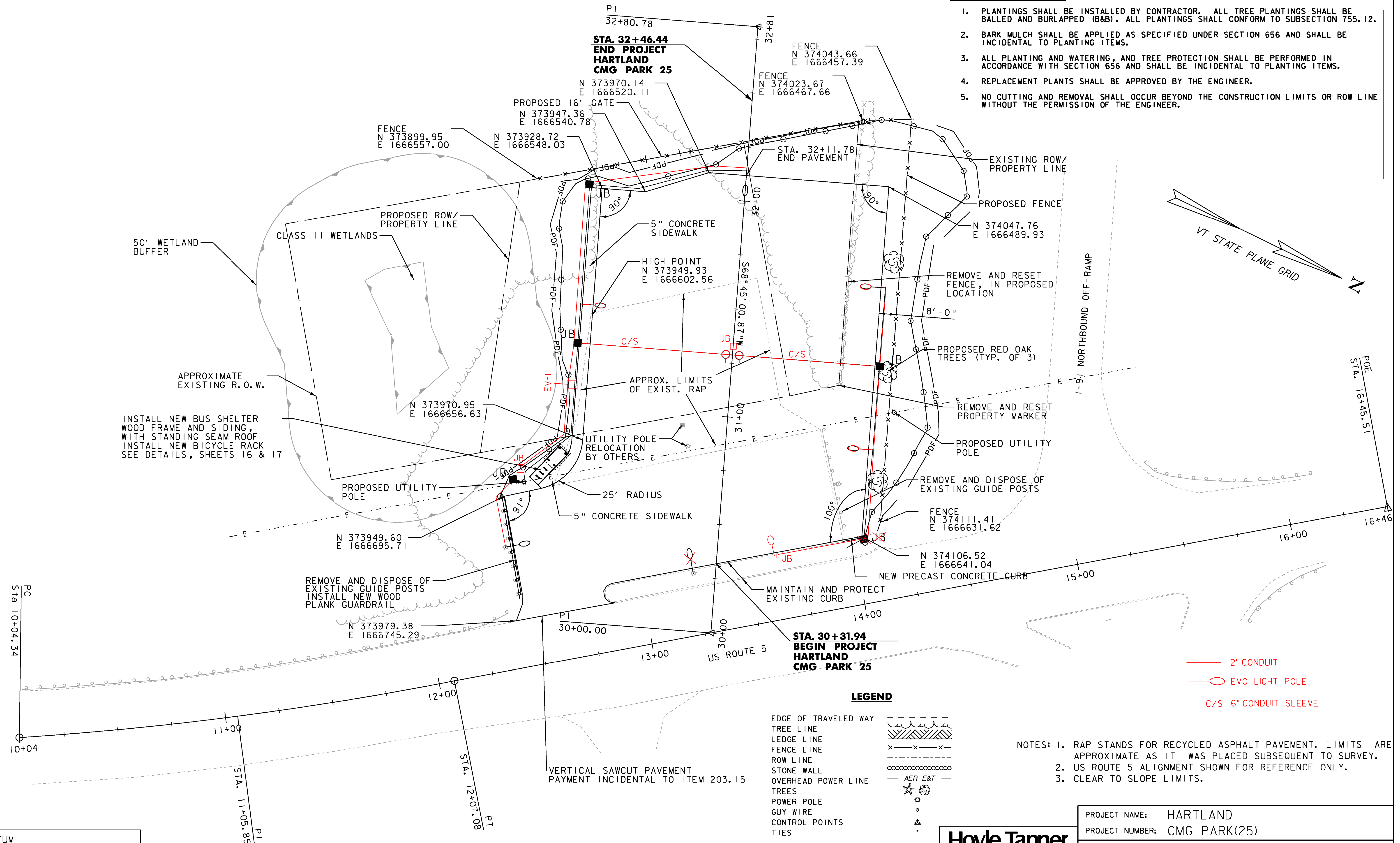
- REFERENCES: R1 - A plat entitled "PROPOSED LAND SWAP; - BETWEEN PROPERTY OF STATE OF VERMONT AND TOWN OF HARTLAND LOCATED IN HARTLAND, VT", prepared by Vermont Survey and Engineering, Inc. Montpelier, VT, dated 10/27/2005, copy provided by Vermont Survey and Engineering, Montpelier, VT. R2 - A plat entitled "LAND SURVEYED FOR SUMMARSELL HARTLAND VERMONT", prepared by Farnsworth & Assoc. Professional Land Surveyors, dated 9/24/1979, filed in Volume 1 Map 1058 of the Town of Hartland Land Records. R3 - A plan entitled "HUMBLE OIL & REFINING CO. HARTLAND SITE ROUTE 5 HARTLAND, VT", prepared by K.A. Leclair Assoc., Inc., Hanover, NH, last revised 5/26/1971, filed at the Vermont Agency of Transportation, Montpelier, VT. R4 - A plat entitled "A TRANSIT & TAPE SURVEY-LAND TO BE CONVEYED TO: R. SUMMARSELL HARTLAND VERMONT", prepared by Robert W. Farnsworth, R.L.S., dated 7/10/1974, copy provided by Vermont Survey and Engineering, Montpelier, VT. R5 - State of Vermont, Agency of Transportation Right-Of-Way Plans, Project I-91- 1(30), Stage 2 Construction, Sheet 35 of 188 of the Weathersfield-Windsor-Hartland job, Contract 4, filed at the Vermont Agency of Transportation, Montpelier, VT.

- ~ LEGEND ~ C.M.F. CONCRETE MONUMENT FOUND I.R.F. IRON ROD FOUND I.P.F. IRON PIPE FOUND I.R.S. 5/8" REBAR SET WITH CAP U.M. UNMONUMENTED POINT BENCHMARK SET PROPERTY LINE PROPOSED LOT LINE PROPOSED LOT LINE STORM DRAIN INLET (DI) LIGHT POLE UTILITY POLE ELECTRICAL PULL BOX EXISTING CONTOUR (NAVD88- FEET) WOVEN WIRE FENCE LINE WOODS LINE SIGN INLAND WETLAND FLAG 50' WETLAND BOUNDARY



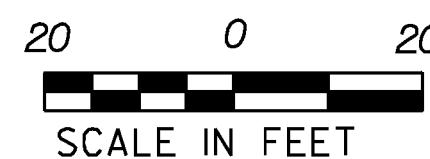
LANDSCAPING NOTES

1. PLANTINGS SHALL BE INSTALLED BY CONTRACTOR. ALL TREE PLANTINGS SHALL BE BALLED AND BURLAPPED (B&B). ALL PLANTINGS SHALL CONFORM TO SUBSECTION 755. 12.
2. BARK MULCH SHALL BE APPLIED AS SPECIFIED UNDER SECTION 656 AND SHALL BE INCIDENTAL TO PLANTING ITEMS.
3. ALL PLANTING AND WATERING, AND TREE PROTECTION SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 656 AND SHALL BE INCIDENTAL TO PLANTING ITEMS.
4. REPLACEMENT PLANTS SHALL BE APPROVED BY THE ENGINEER.
5. NO CUTTING AND REMOVAL SHALL OCCUR BEYOND THE CONSTRUCTION LIMITS OR ROW LINE WITHOUT THE PERMISSION OF THE ENGINEER.



- NOTES: 1. RAP STANDS FOR RECYCLED ASPHALT PAVEMENT. LIMITS ARE APPROXIMATE AS IT WAS PLACED SUBSEQUENT TO SURVEY.
 2. US ROUTE 5 ALIGNMENT SHOWN FOR REFERENCE ONLY.
 3. CLEAR TO SLOPE LIMITS.

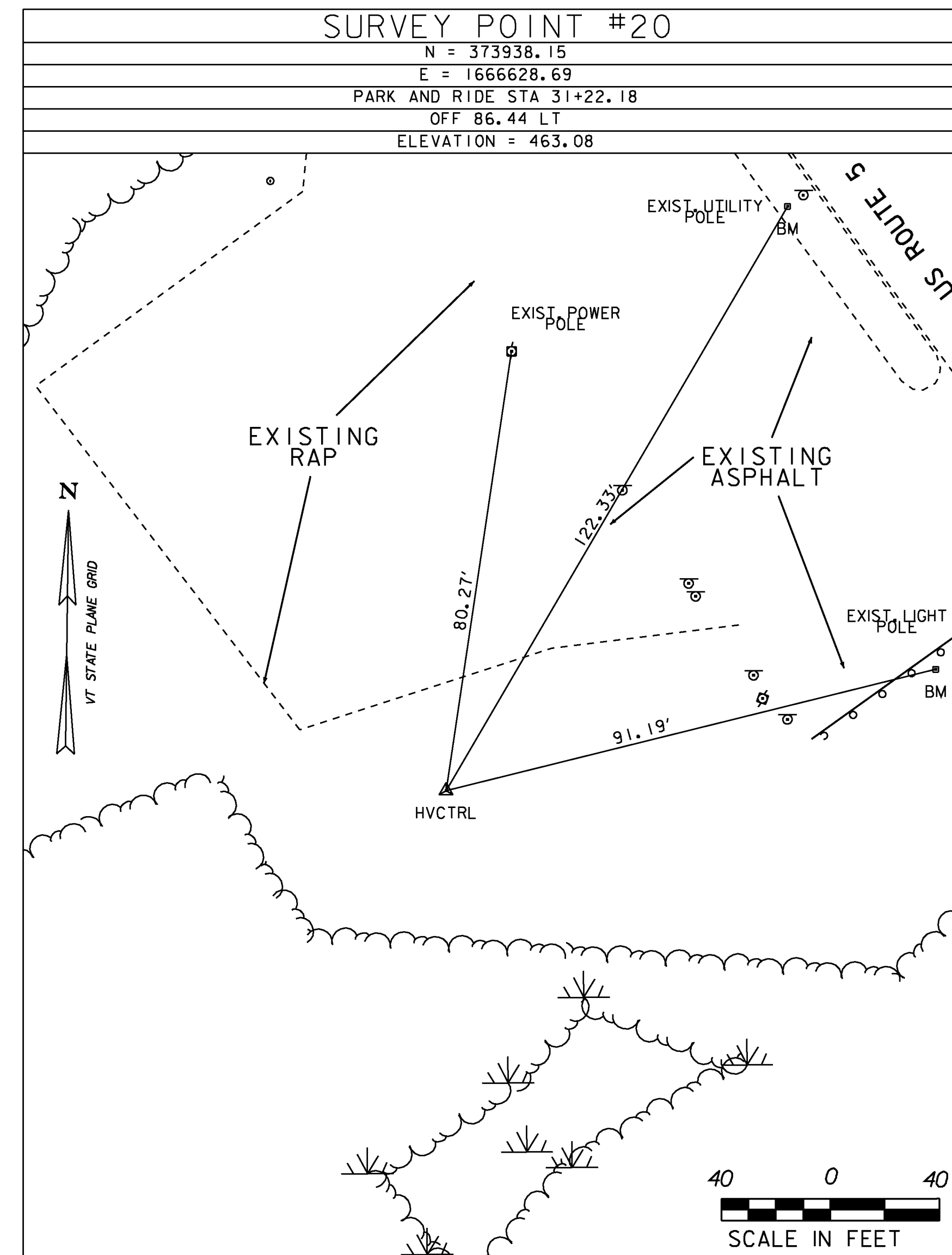
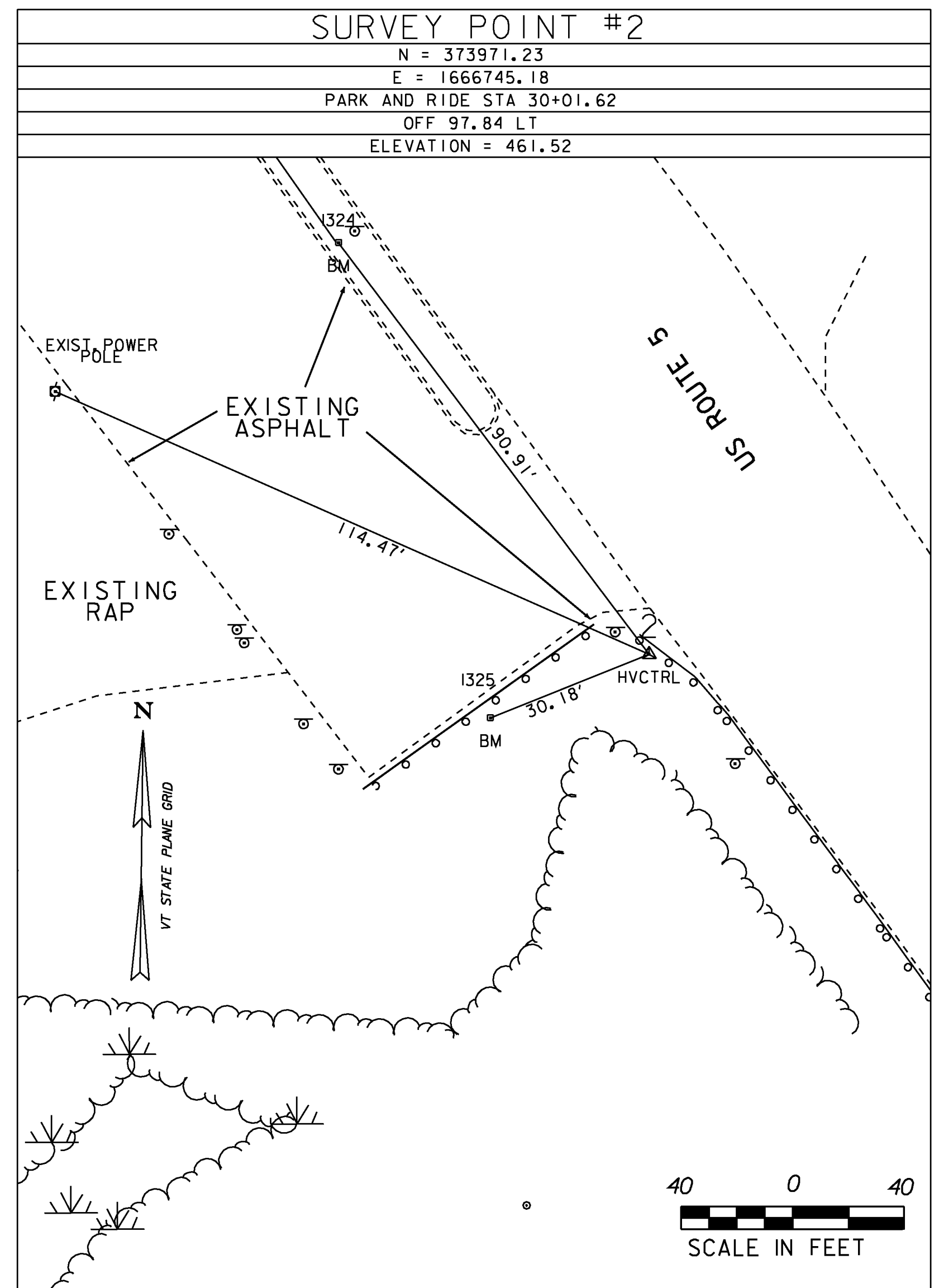
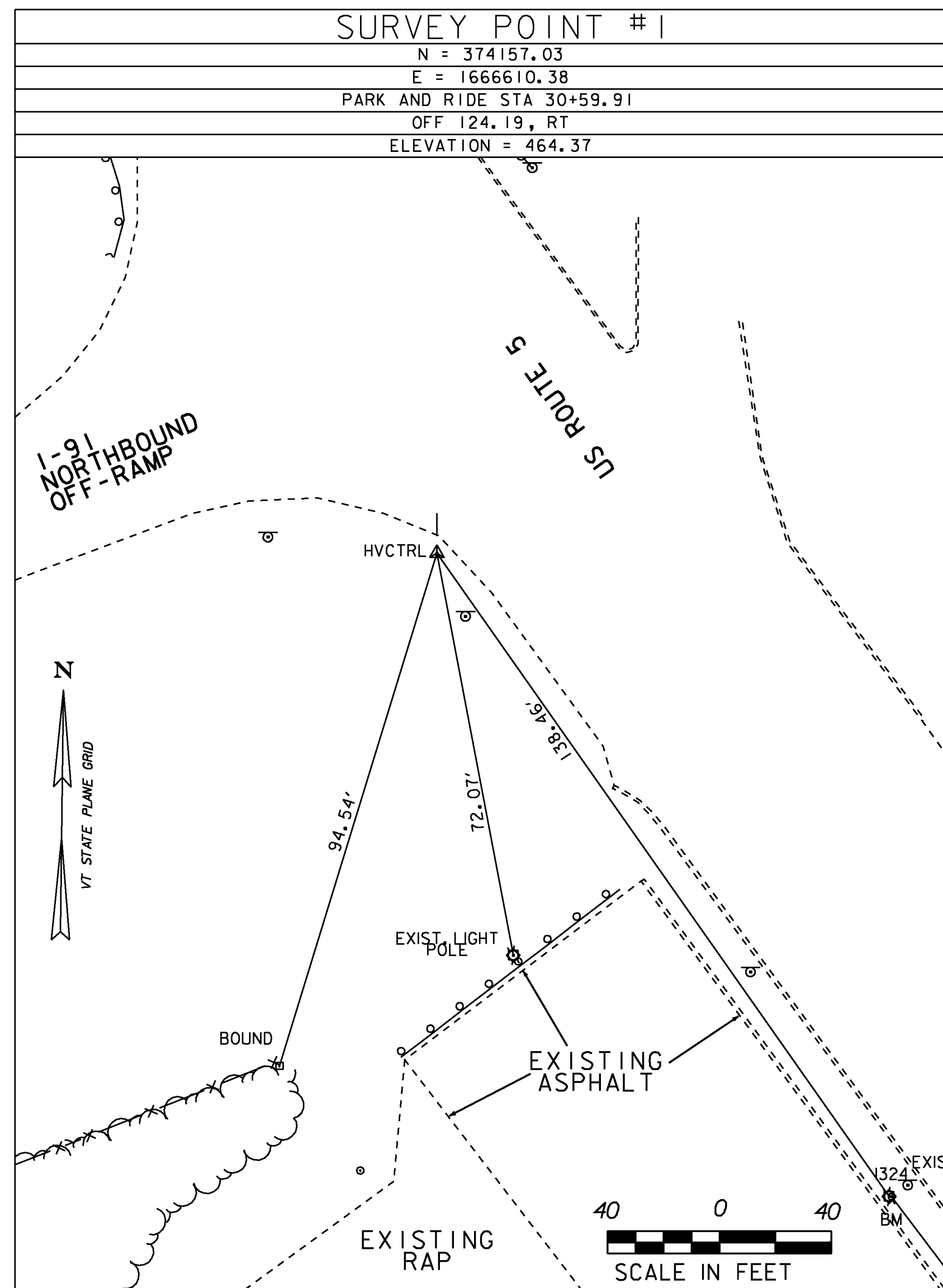
DATUM
 VERTICAL NAVD88
 HORIZONTAL NAD83 (92)



Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221	MODEL Z2051540IPLYMARK
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PROJECT NAME: HARTLAND	PLOT DATE: 9/16/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20k154plymark.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 8 OF 30
DESIGNED BY: JCC	
GENERAL PLAN	



LEGEND

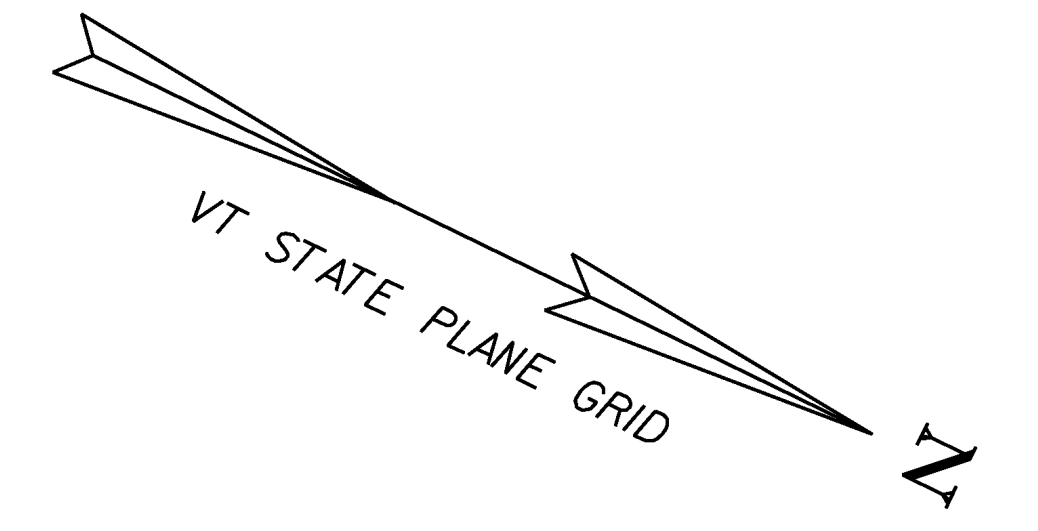
- EDGE OF TRAVELED WAY
- TREE LINE
- LEDGE LINE
- FENCE LINE
- ROW LINE
- STONE WALL
- OVERHEAD POWER LINE
- TREES
- POWER POLE
- GUY WIRE
- CONTROL POINTS
- TIES

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NA83 (92)

Hoyle, Tanner & Associates, Inc.

HTA PROJECT	MODEL
904221	Z20515401E

PROJECT NAME:	HARTLAND	PLOT DATE:	9/16/2013
PROJECT NUMBER:	CMG PARK(25)	DRAWN BY:	JCC
FILE NAME:	Z20k154+1e.dgn	CHECKED BY:	CRM
PROJECT LEADER:	WAYNE L. DAVIS	SHEET	9 OF 30
DESIGNED BY:	JCC	TIE SHEET	



P1
32+80.78
**STA. 32+46.44
END PROJECT
HARTLAND
CMG PARK 25**

STA. 32+11.78
END PAVEMENT

50' WETLAND
BUFFER

CLASS II WETLANDS

*465.10
HIGH POINT

NORTHBOUND OFF-RAMP

POE
STA. 16+45.51

MATCH EXISTING

SEE PARK-AND-RIDE
ENTRANCE DETAIL FOR
GRADING INFORMATION

**STA. 30+31.94
BEGIN PROJECT
HARTLAND
CMG PARK 25**

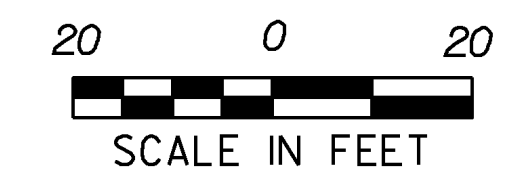
US ROUTE 5

US ROUTE 5

PC
Sta 10+04.34

P1
STA. 11+05.85

P1
STA. 12+07.08



**Hoyle, Tanner
& Associates, Inc.**

HTA PROJECT 904221	MODEL Z20K1540IGRAD
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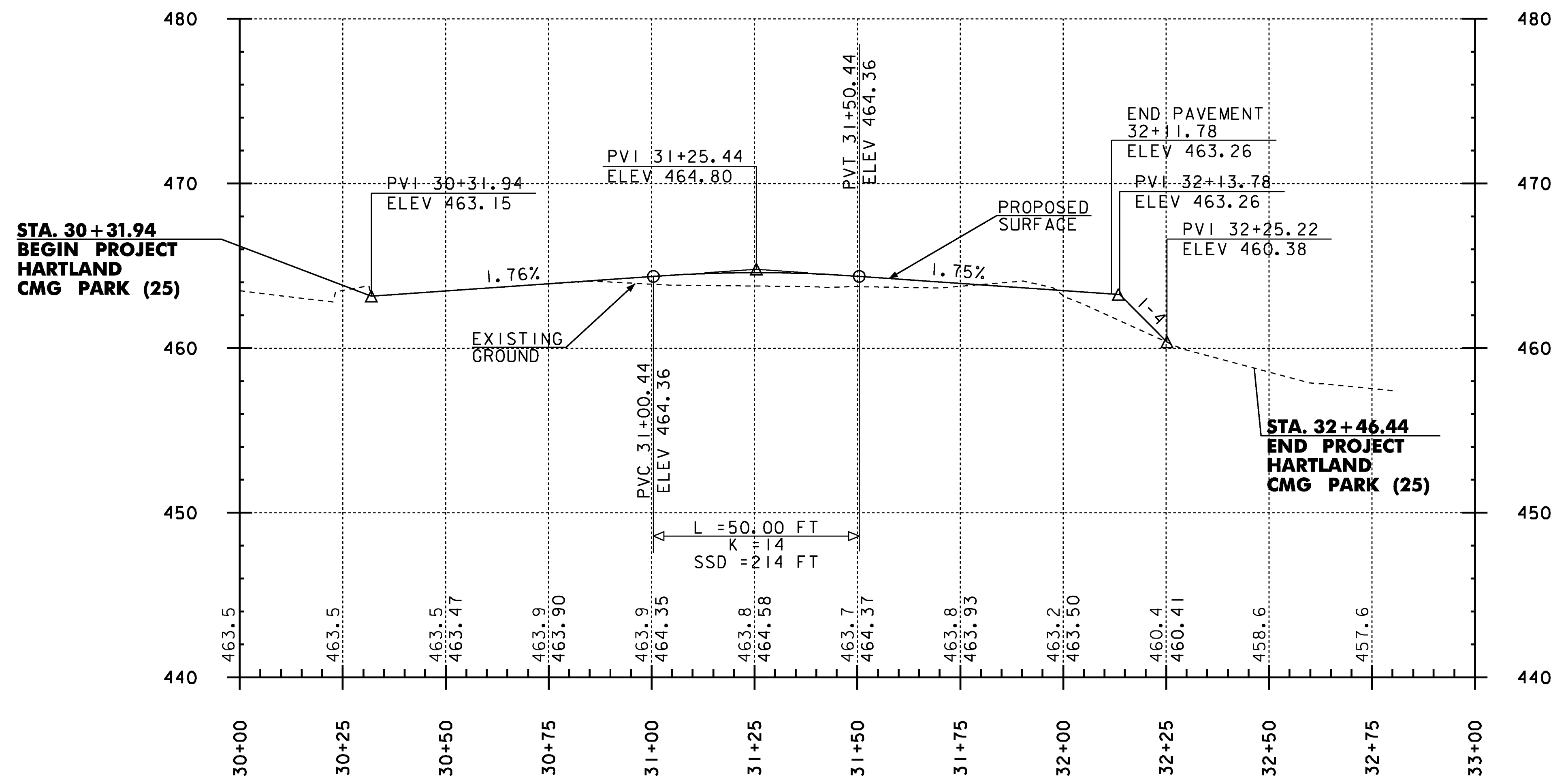
PROJECT NAME: HARTLAND
PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20k154grading.dgn
PROJECT LEADER: WAYNE L. DAVIS
DESIGNED BY: JCC
GRADING PLAN

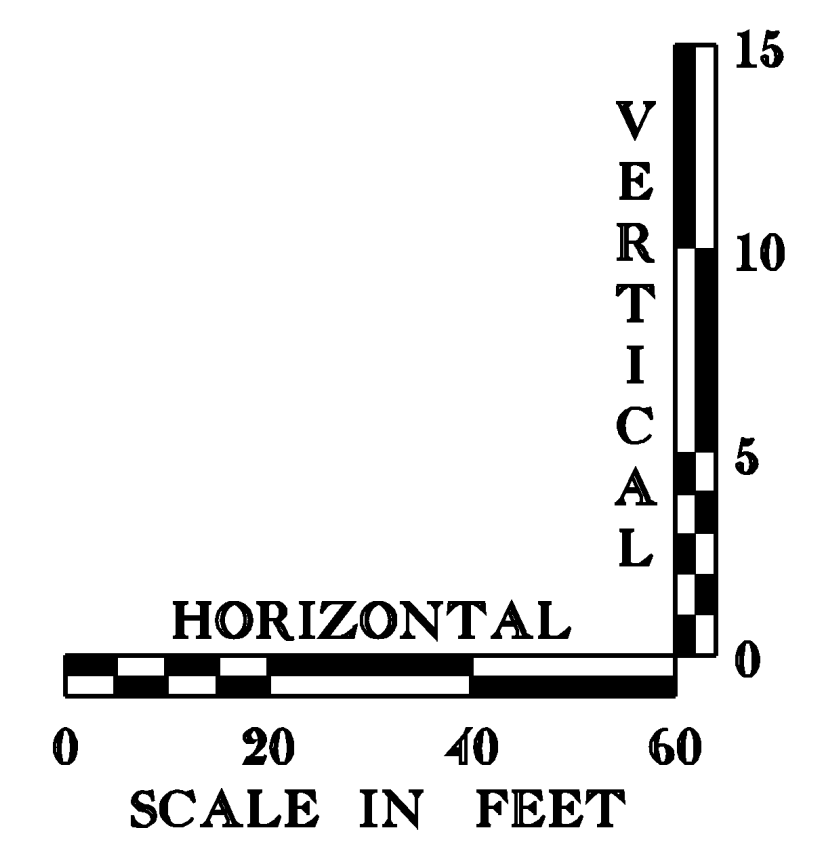
PLOT DATE: 9/16/2013
DRAWN BY: JCC
CHECKED BY: CRM
SHEET 10 OF 30

9/16/2013 10:58:11 AM
 C:\Users\jcc\OneDrive\Documents\Z20K1540IGRAD.dgn

HARTLAND CMG PARK (25)



NOTE: ELEVATIONS SHOWN TO THE NEAREST TENTH ARE EXISTING GROUND ALONG CONSTRUCTION BASELINE. ELEVATIONS SHOWN TO THE NEAREST HUNDREDTH ARE FINISHED GRADE ALONG CONSTRUCTION BASELINE.



Hoyle, Tanner & Associates, Inc.

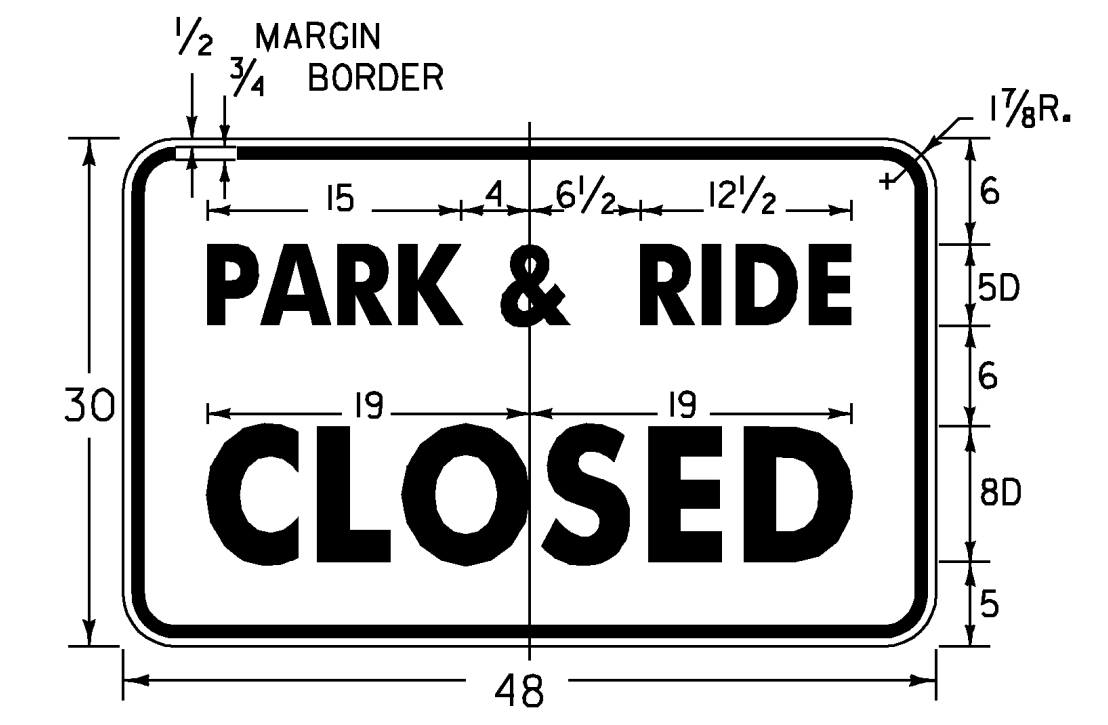
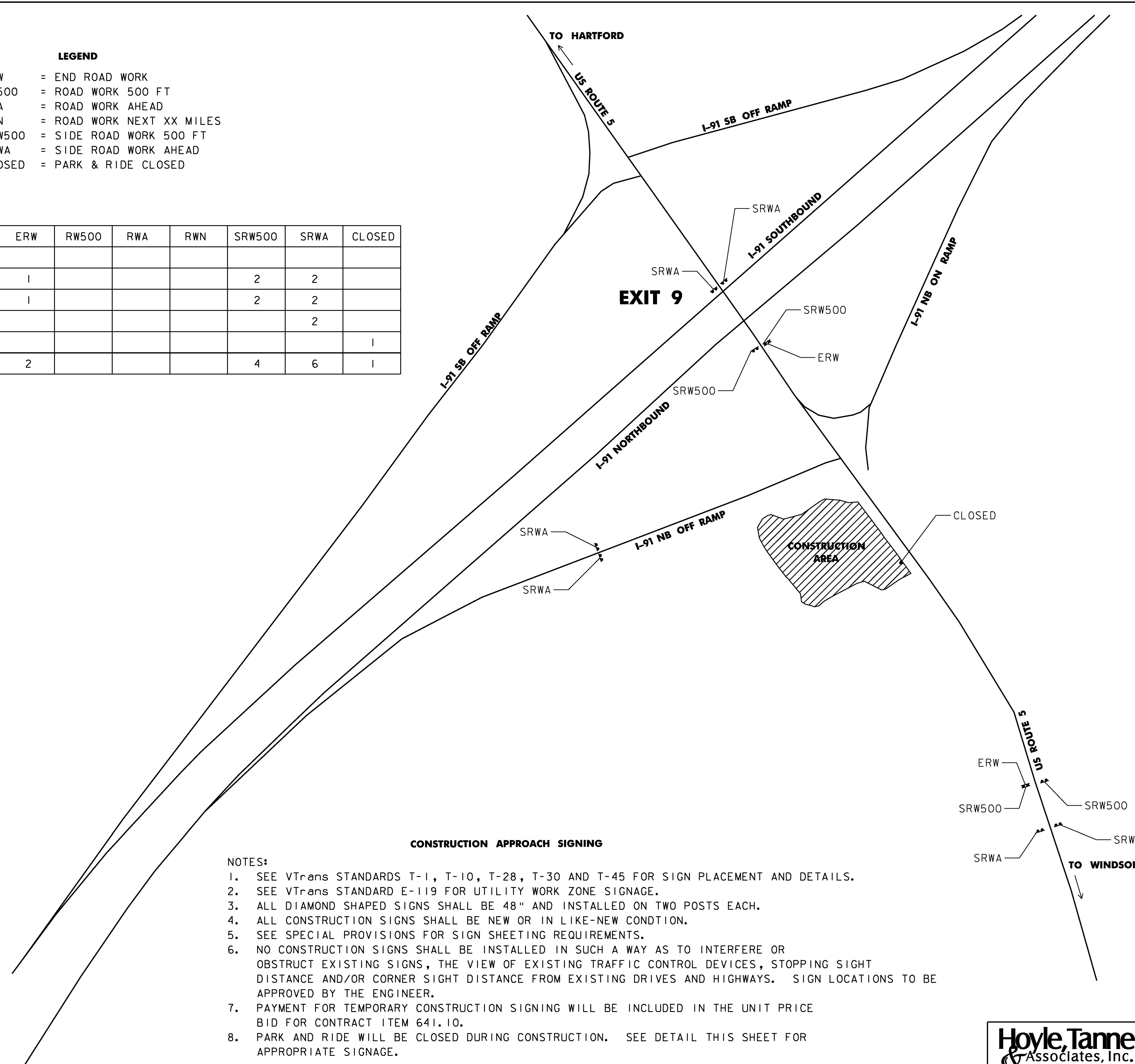
HTA PROJECT	MODEL
904221	Z2051540IPRO

PROJECT NAME: HARTLAND	PLOT DATE: 9/16/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20k154profile.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET II OF 30
DESIGNED BY: JCC	
PROFILE	

9/16/2013 2:48:52 PM C:\Users\jcc\OneDrive\Documents\22051540IPRO.dgn

- LEGEND**
- ERW = END ROAD WORK
 - RW500 = ROAD WORK 500 FT
 - RWA = ROAD WORK AHEAD
 - RWN = ROAD WORK NEXT XX MILES
 - SRW500 = SIDE ROAD WORK 500 FT
 - SRWA = SIDE ROAD WORK AHEAD
 - CLOSED = PARK & RIDE CLOSED

LOCATION	ERW	RW500	RWA	RWN	SRW500	SRWA	CLOSED
US ROUTE 5							
EAST OF SITE	1				2	2	
WEST OF SITE	1				2	2	
I-91 NB OFF RAMP						2	
PARK AND RIDE							1
TOTALS	2				4	6	1



COLORS:
 BLACK TEXT AND BORDER
 WHITE REFLECTORIZED BACKGROUND

CONSTRUCTION APPROACH SIGNING

- NOTES:**
1. SEE VTrans STANDARDS T-1, T-10, T-28, T-30 AND T-45 FOR SIGN PLACEMENT AND DETAILS.
 2. SEE VTrans STANDARD E-119 FOR UTILITY WORK ZONE SIGNAGE.
 3. ALL DIAMOND SHAPED SIGNS SHALL BE 48" AND INSTALLED ON TWO POSTS EACH.
 4. ALL CONSTRUCTION SIGNS SHALL BE NEW OR IN LIKE-NEW CONDITON.
 5. SEE SPECIAL PROVISIONS FOR SIGN SHEETING REQUIREMENTS.
 6. NO CONSTRUCTION SIGNS SHALL BE INSTALLED IN SUCH A WAY AS TO INTERFERE OR OBSTRUCT EXISTING SIGNS, THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE AND/OR CORNER SIGHT DISTANCE FROM EXISTING DRIVES AND HIGHWAYS. SIGN LOCATIONS TO BE APPROVED BY THE ENGINEER.
 7. PAYMENT FOR TEMPORARY CONSTRUCTION SIGNING WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.
 8. PARK AND RIDE WILL BE CLOSED DURING CONSTRUCTION. SEE DETAIL THIS SHEET FOR APPROPRIATE SIGNAGE.

Hoyle, Tanner & Associates, Inc.

HTA PROJECT	MODEL
90422I	Z02KI54const

PROJECT NAME: HARTLAND	PLOT DATE: 9/30/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20KI54const.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 12 OF 30
DESIGNED BY: JCC	
CONSTRUCTION APPROACH SIGNING	

9/30/2013 10:44:11 AM C:\Users\jcc\Documents\2013\90422I.dgn

DURABLE 24 INCH STOP BAR

STA. 30+20.4, 78.4, LT

DURABLE LETTER OR SYMBOL

STA. 30+92.1, 50.0, LT (HANDICAP)
 STA. 31+05.9, 50.1, LT (HANDICAP)
 STA. 31+15.5, 50.1, LT (HANDICAP)
 STA. 30+18.6, 76.7, LT (STOP)

DURABLE 4 INCH YELLOW LINE (DOUBLE CENTERLINE)

STA. 30+13.8, 67.7, LT TO STA. 30+63.9, 40.9, LT

DURABLE 4 INCH WHITE LINE

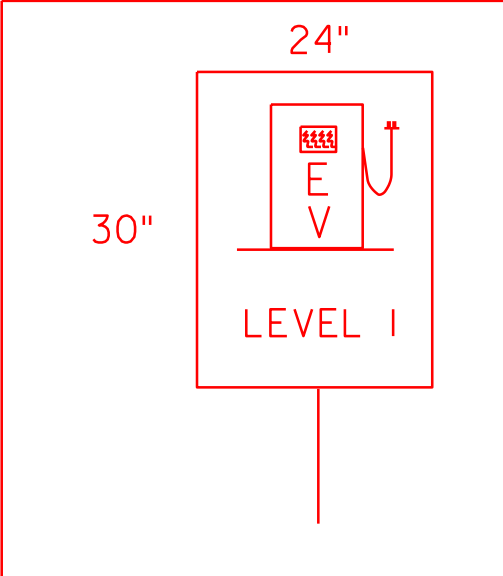
PARKING SPOT LINES
 HANDICAP HATCHING
 END PARK AND RIDE LOT HATCHING

DURABLE 4" WHITE LINE (TYP.)

GORE DETAIL

NTS

MOUNT TO GATE



NEW

- 1 @ 30+26 14' RT
- 1 @ 30+90 68' RT
- 1 @ 31+10 68' LT
- 1 @ 31+47 68' LT
- 2 @ 31+28 0' CL
- 1 @ 31+65 68' RT

NOTES:

1. ALL EXISTING SIGNS NOT SHOWN SHALL BE RETAINED AS DIRECTED BY THE RESIDENT ENGINEER.
2. FOR SIGNING DETAILS, SEE DETAIL SHEETS AND VTRANS STANDARD SHEETS E-191, E-193 AND T-45.
3. ALL SIGNS AND POSTS WILL BE NEW UNLESS OTHERWISE NOTED.
4. COVER PARK AND RIDE SIGNS AT STA 13+72.2 AND 12+11.1 PRIOR TO START OF CONSTRUCTION.
5. REMOVE SIGNS (7 AS SHOWN).

PARKING SPACES	
TOTAL SPACE =	55
ADA SPACES =	1 VAN
ADA SPACES =	2

SIGN LEGEND

- N = NEW
- R = REMOVE
- R&S = REMOVE & SALVAGE
- S = SALVAGE SIGN
- RET. = RETAIN
- B-B = BACK TO BACK



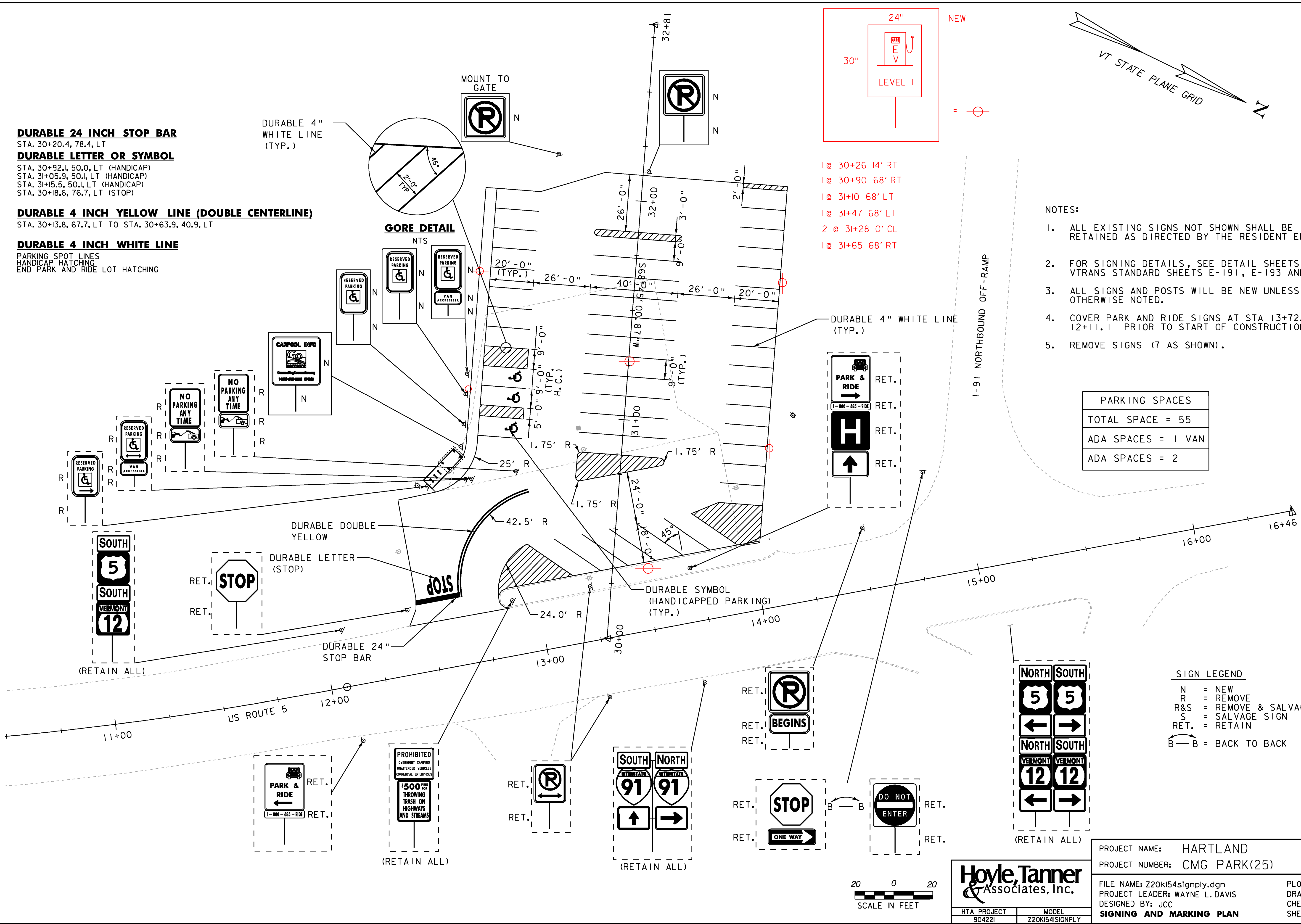
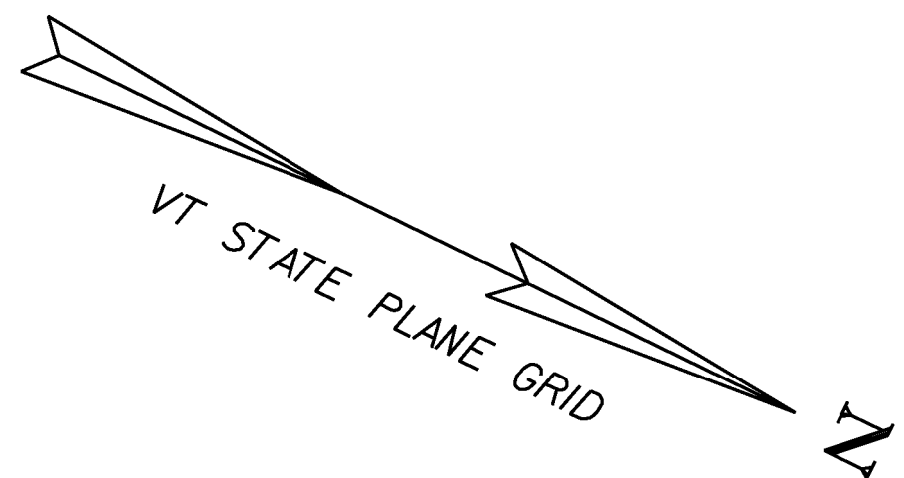
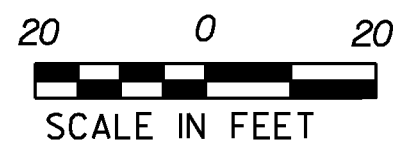
PROJECT NAME: HARTLAND
 PROJECT NUMBER: CMG PARK(25)

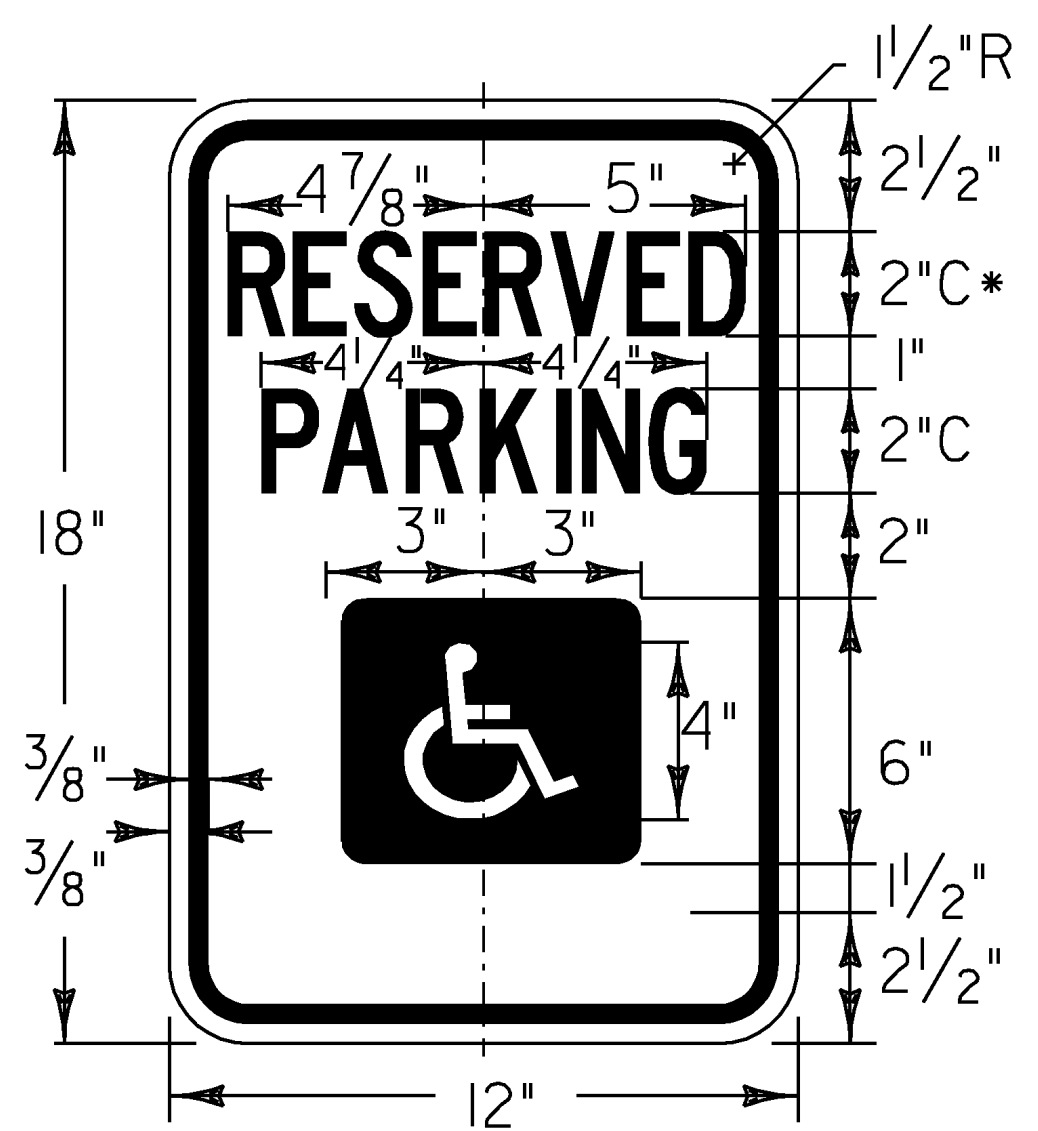
FILE NAME: Z20k154signply.dgn
 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
SIGNING AND MARKING PLAN

PLOT DATE: 9/30/2013
 DRAWN BY: JCC
 CHECKED BY: CRM
 SHEET 13 OF 30

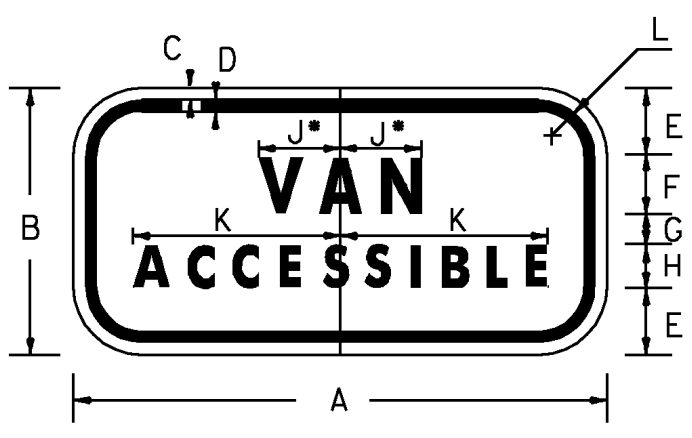
Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221 MODEL Z20K154SIGNPLY





COLORS:
 LEGEND AND BORDER-GREEN
 WHITE SYMBOL ON BLUE BACKGROUND
 BACKGROUND WHITE (REFL.)
 SEE VTRANS STANDARD E-143 FOR MATERIALS



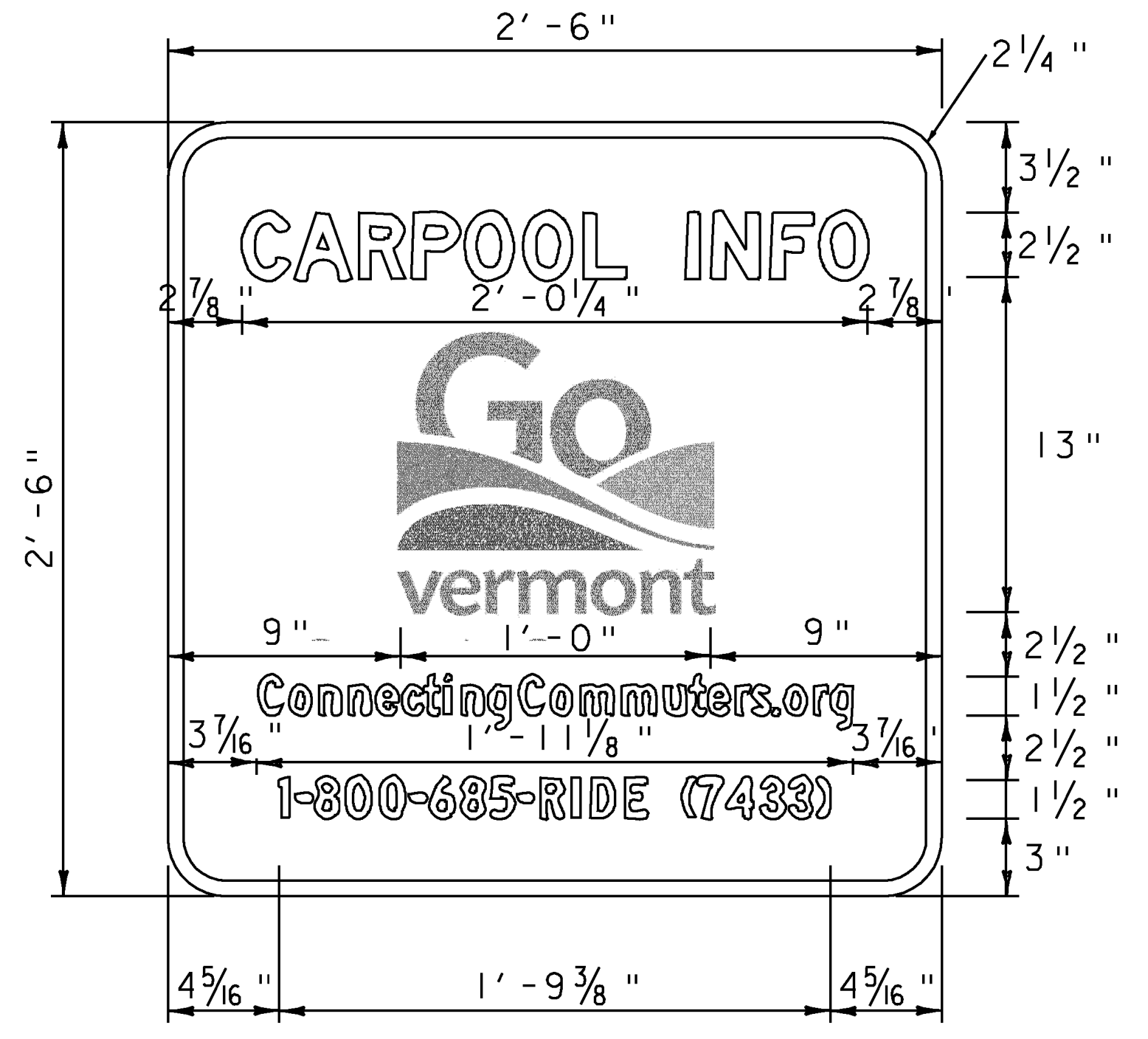
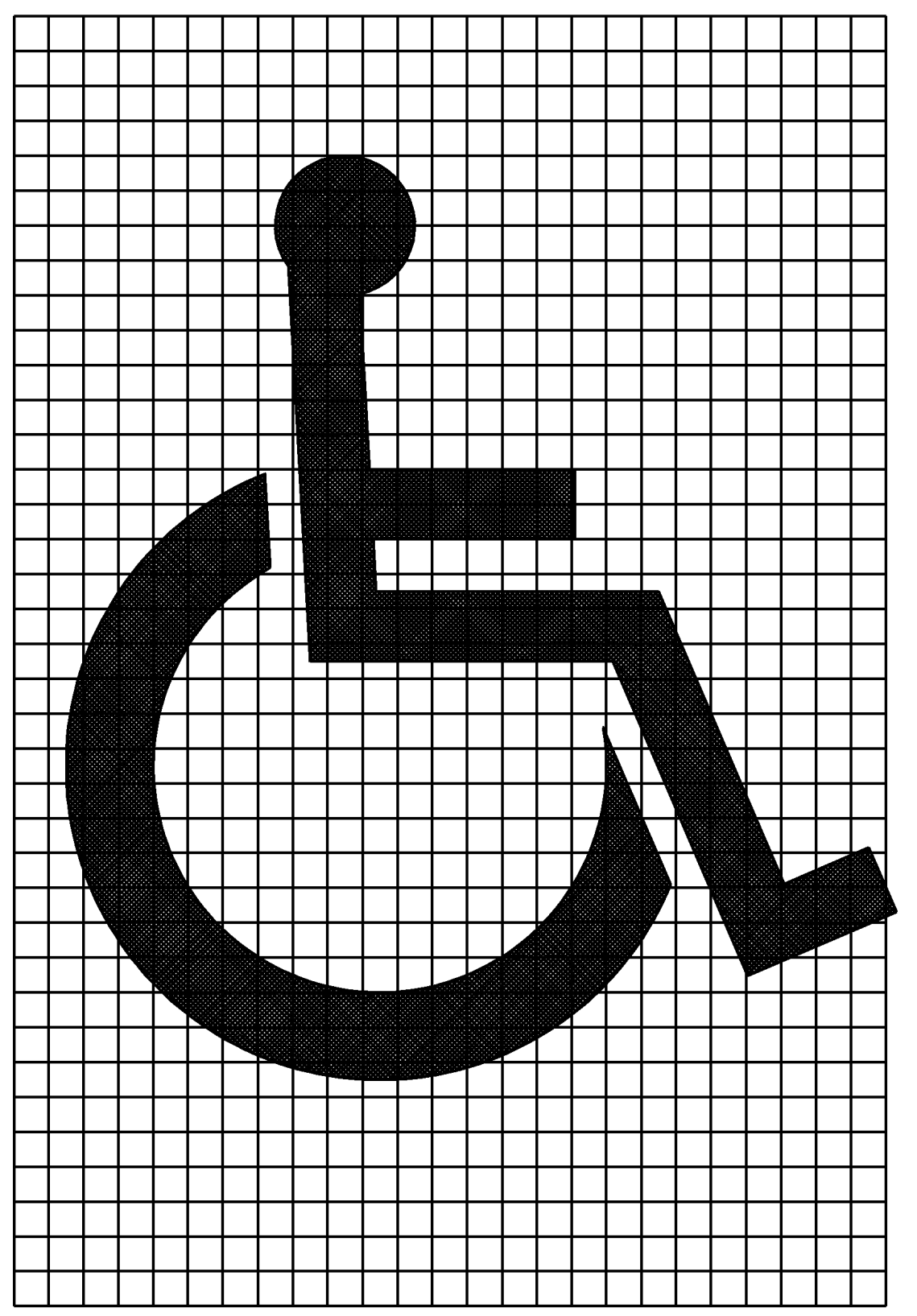
R7-8A
 * INCREASE SPACING 50%

SIGN	DIMENSIONS (INCHES)										
	A	B	C	D	E	F	G	H	J	K	L
MIN	12	6	3/8	3/8	1/2	1/2D	1/2	1D	2 1/2	4	1 1/2
STD	18	9	3/8	5/8	2 1/4	2D	1	1 1/2D	2 3/4	7	1 1/2

COLORS

REGULATORY (COLORS MAY BE REVERSED)
 LEGEND - GREEN OR BLACK
 BACKGROUND - WHITE (RETROREFLECTIVE)

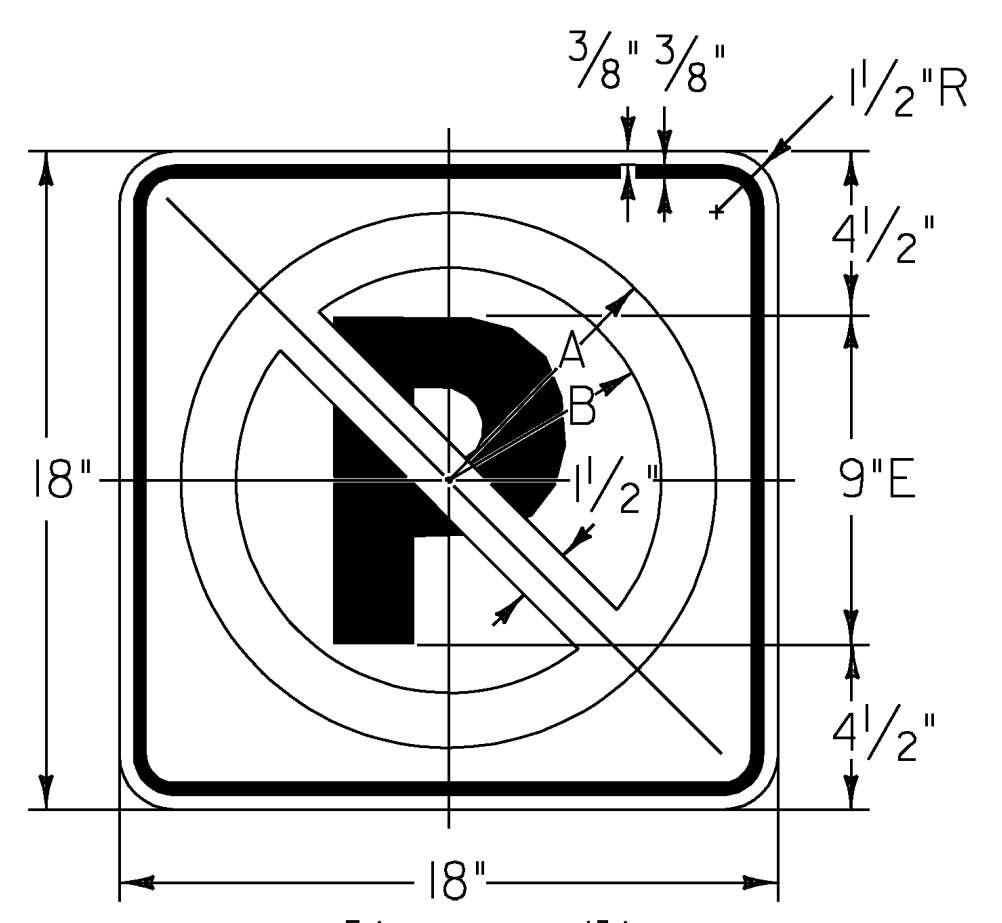
DIRECTIONAL
 LEGEND - WHITE (RETROREFLECTIVE)
 BACKGROUND - BLUE (RETROREFLECTIVE)



WHITE BORDER AND TEXT (RETROREFLECTIVE) (MINIMUM TYPE IX)
 WITH BLUE BACKGROUND (RETROREFLECTIVE) (MINIMUM TYPE III)
 SEE VTRANS STANDARD E-131 FOR MATERIALS

* INCREASE SPACING BY 60%

NOTE: THE "GO VERMONT" LOGO WILL BE PROVIDED TO THE CONTRACTOR BY VAOT IN JPEG FORMAT.



A = 7 5/16 " B = 5 13/16 "

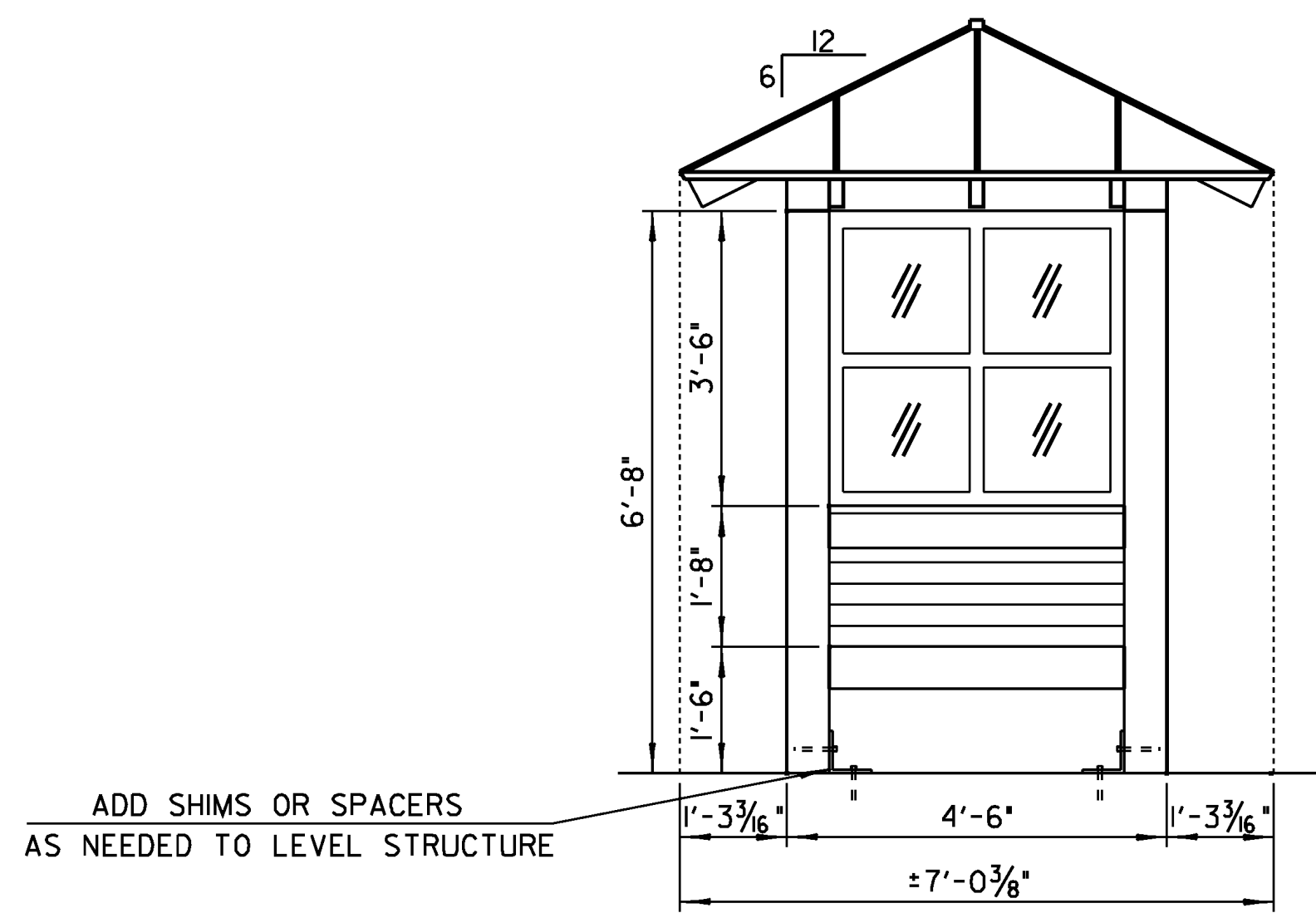
R8-3A

SYMBOL & BORDER-BLACK
 CIRCLE & DIAGONAL-RED
 BACKGROUND-WHITE

Hoyle, Tanner & Associates, Inc.

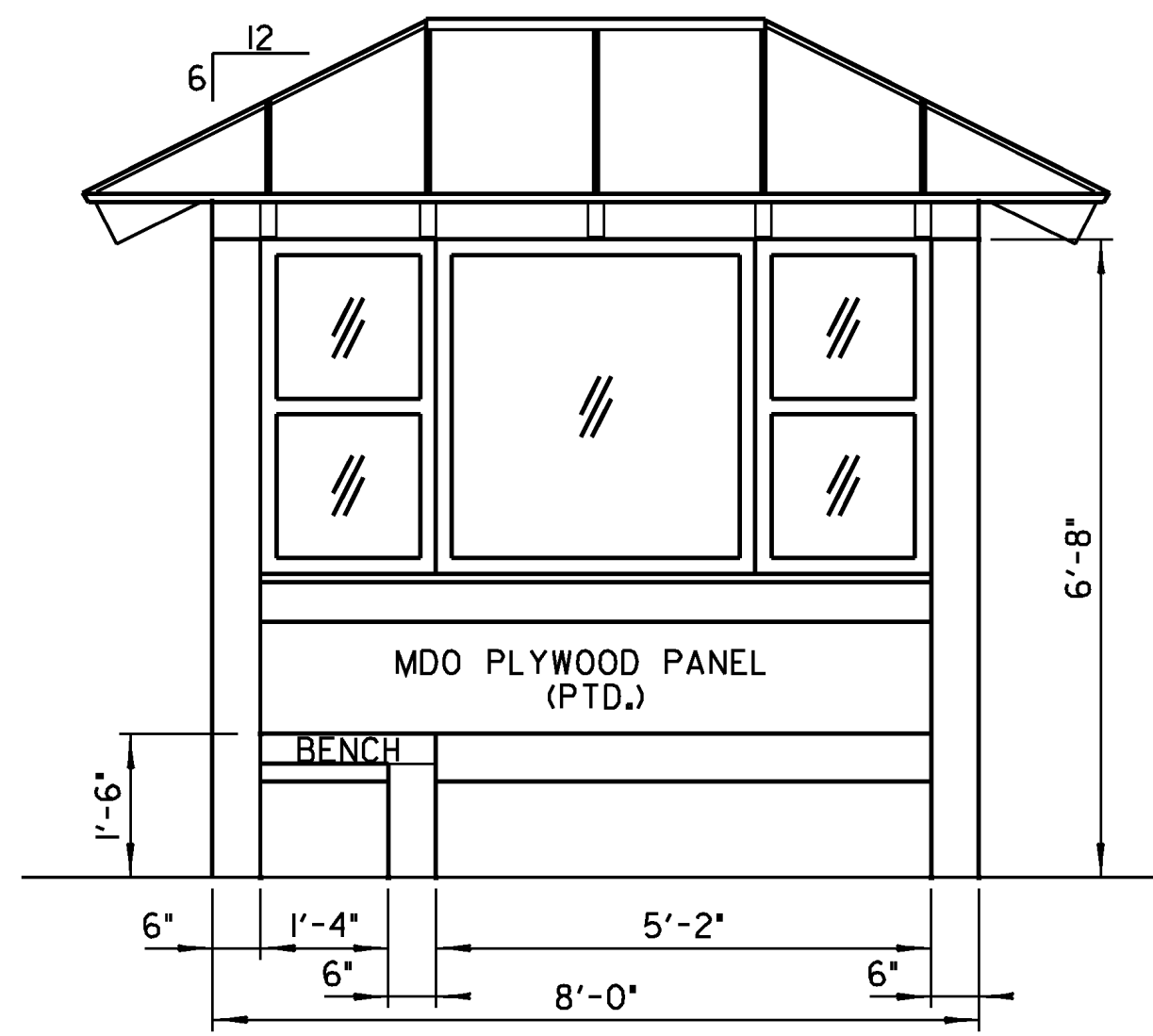
HTA PROJECT	MODEL
904221	Traffic Sign Detail

PROJECT NAME: HARTLAND	PLOT DATE: 9/16/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20K154TRAF.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 14 OF 30
DESIGNED BY: JCC	
TRAFFIC SIGN DETAILS	

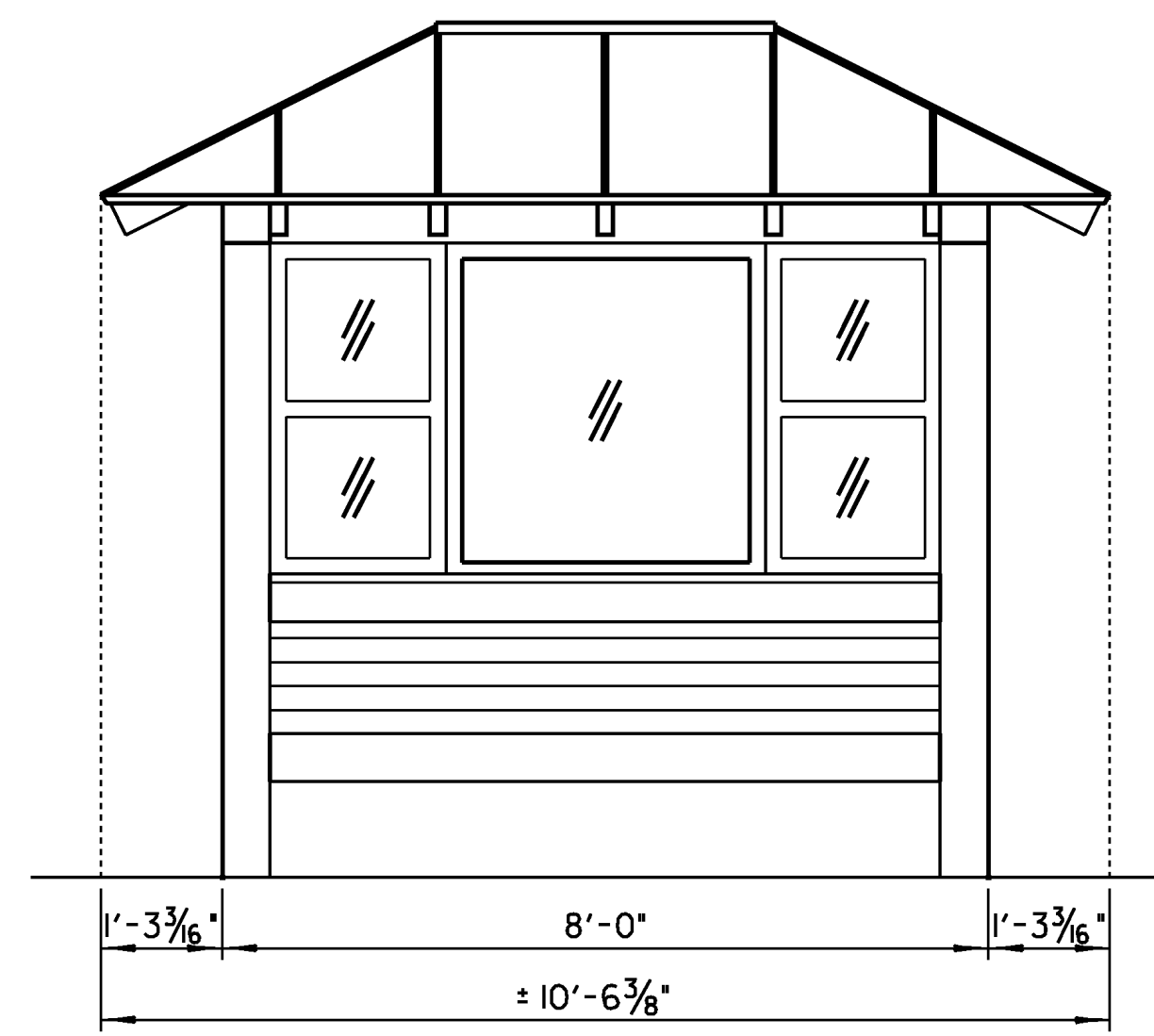


END ELEVATION (TYP.)

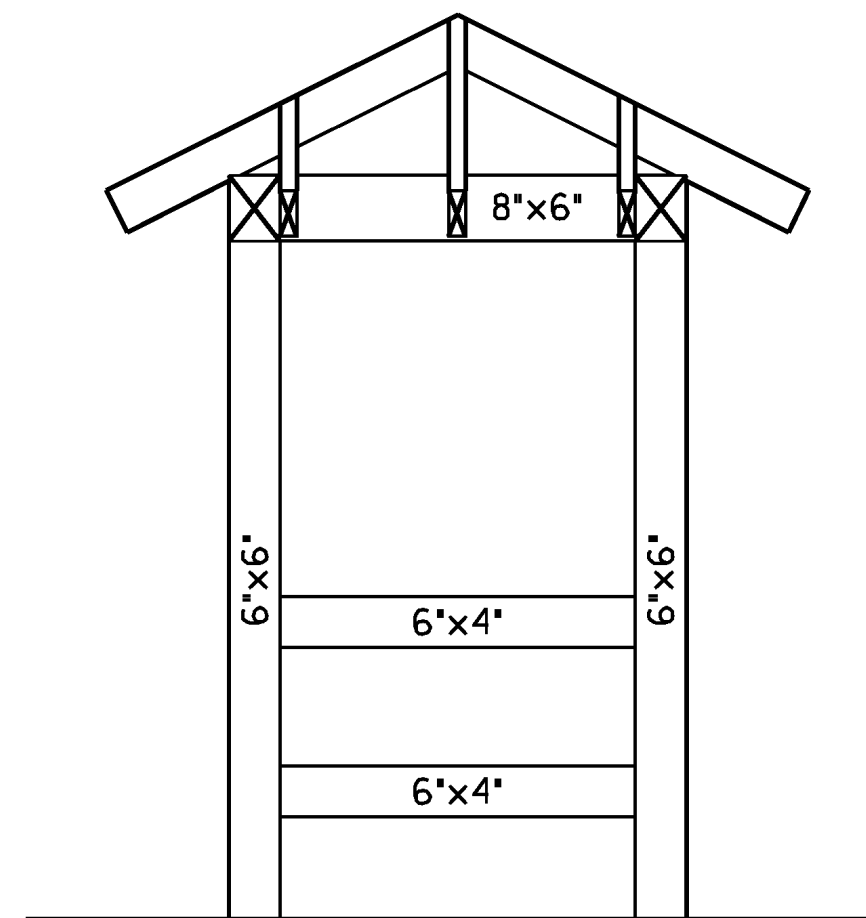
ADD SHIMS OR SPACERS AS NEEDED TO LEVEL STRUCTURE



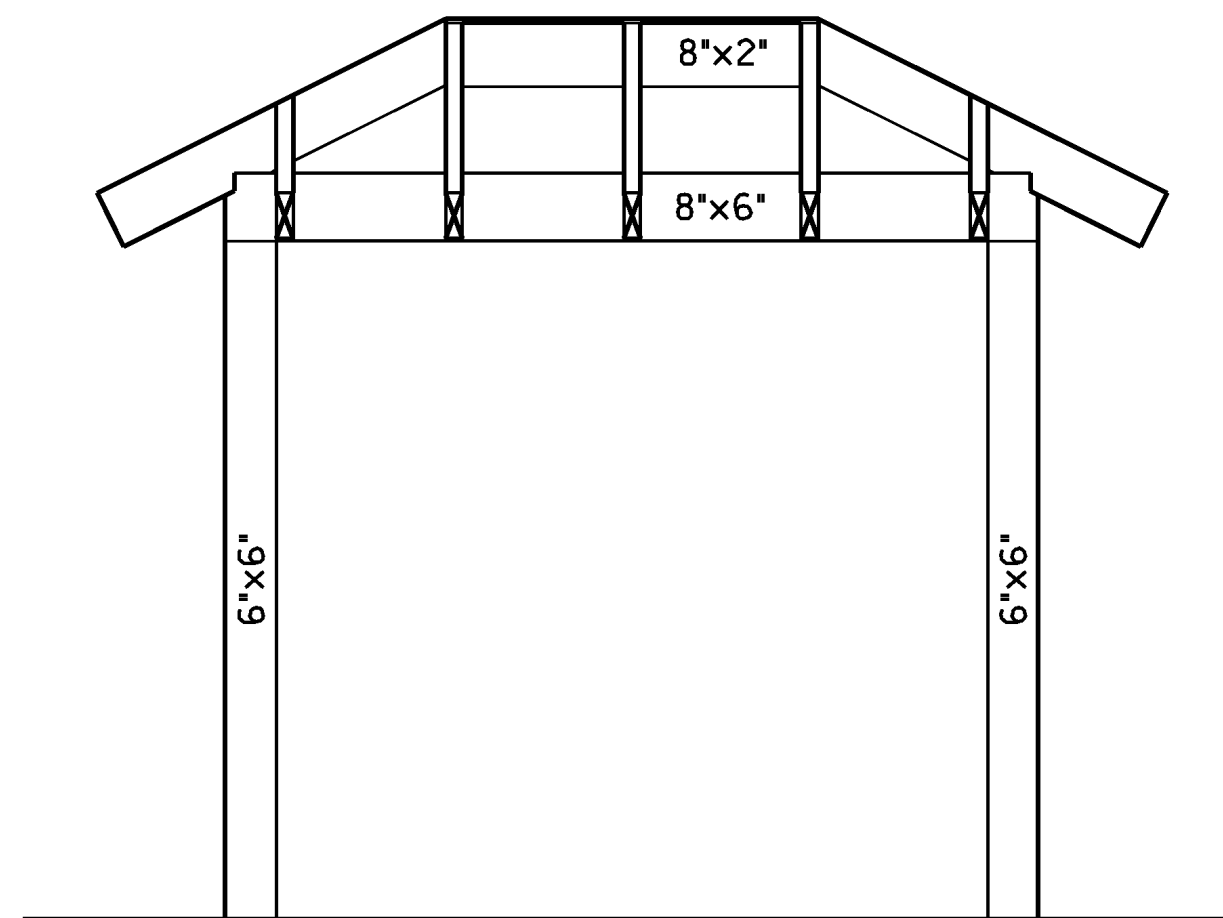
FRONT/INTERIOR ELEVATION



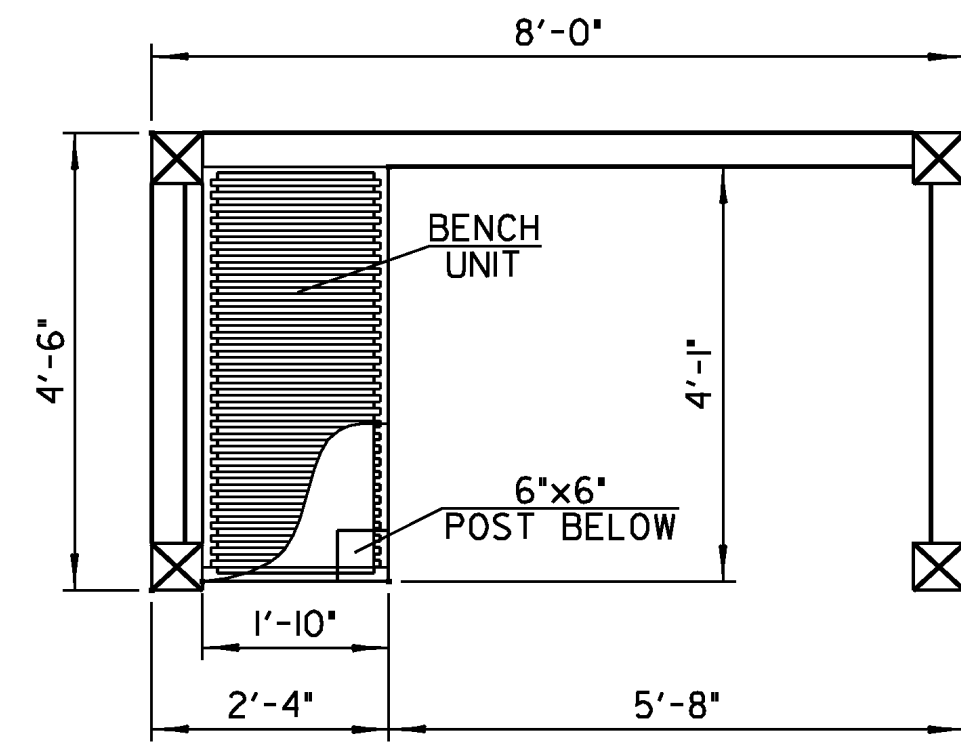
REAR ELEVATION



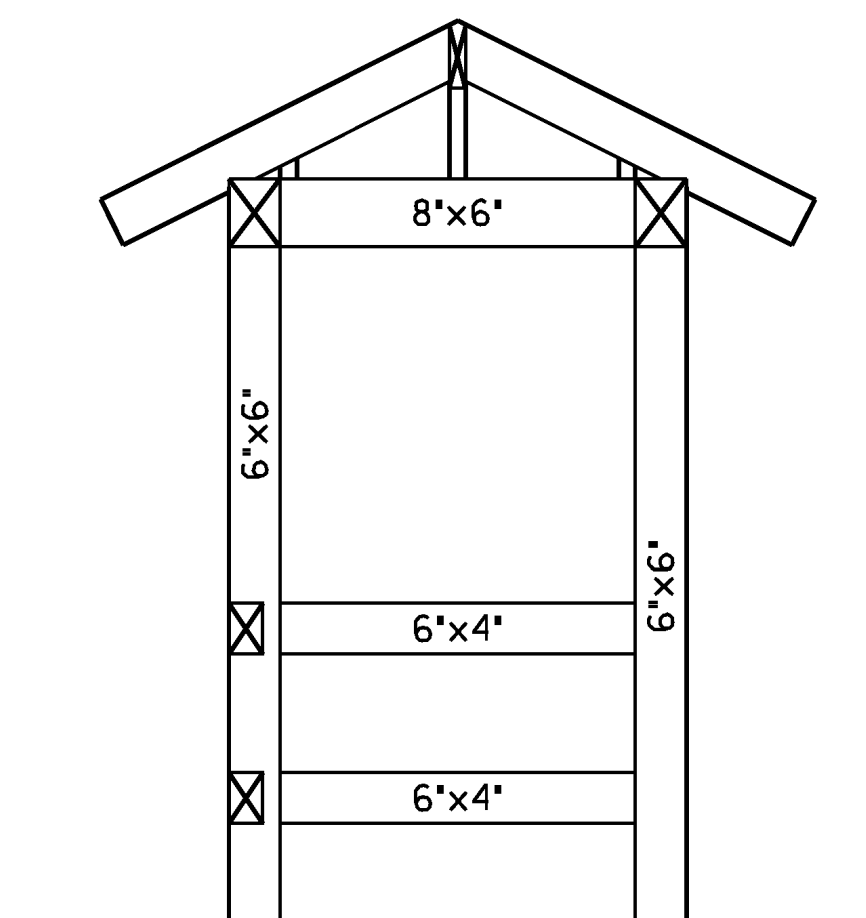
END FRAMING - ELEVATION



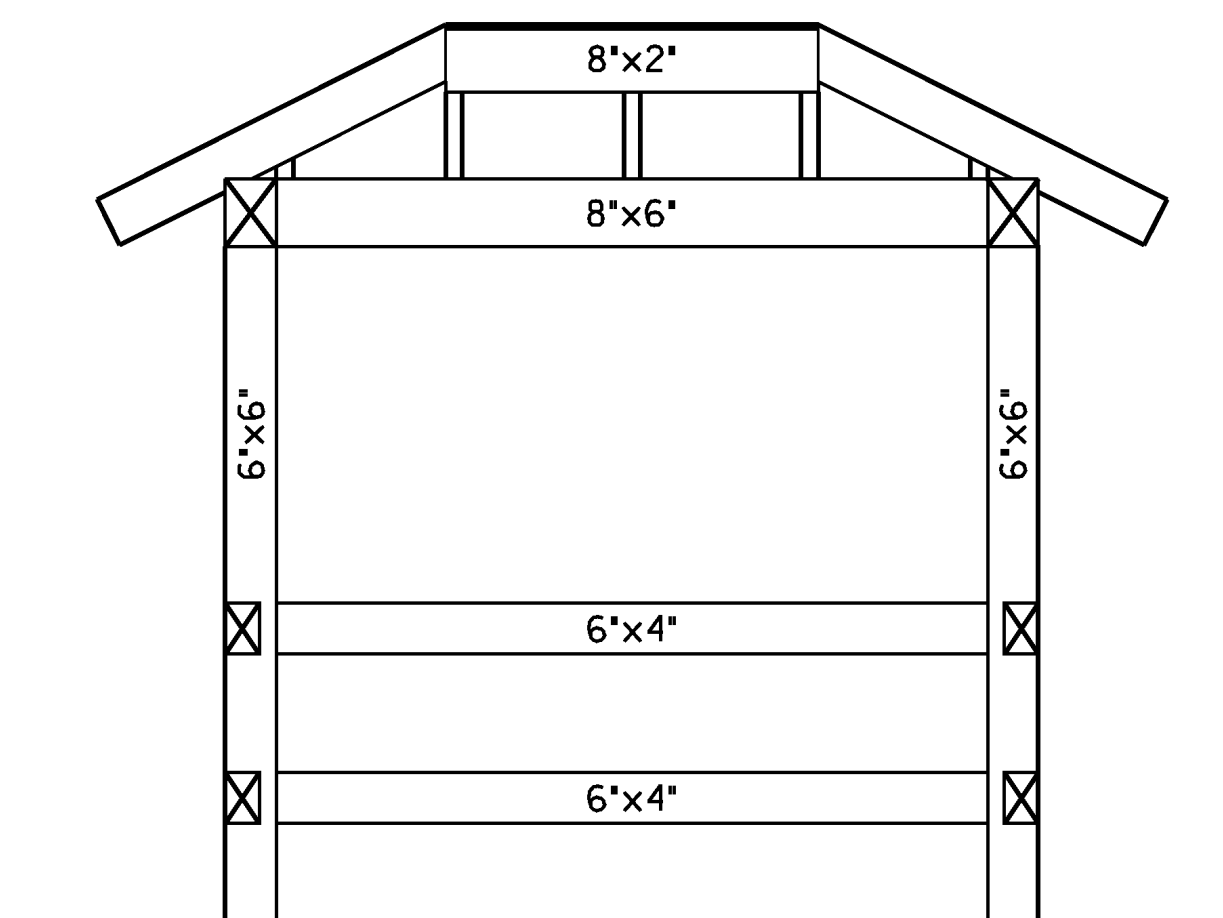
FRONT/REAR FRAMING - ELEVATION



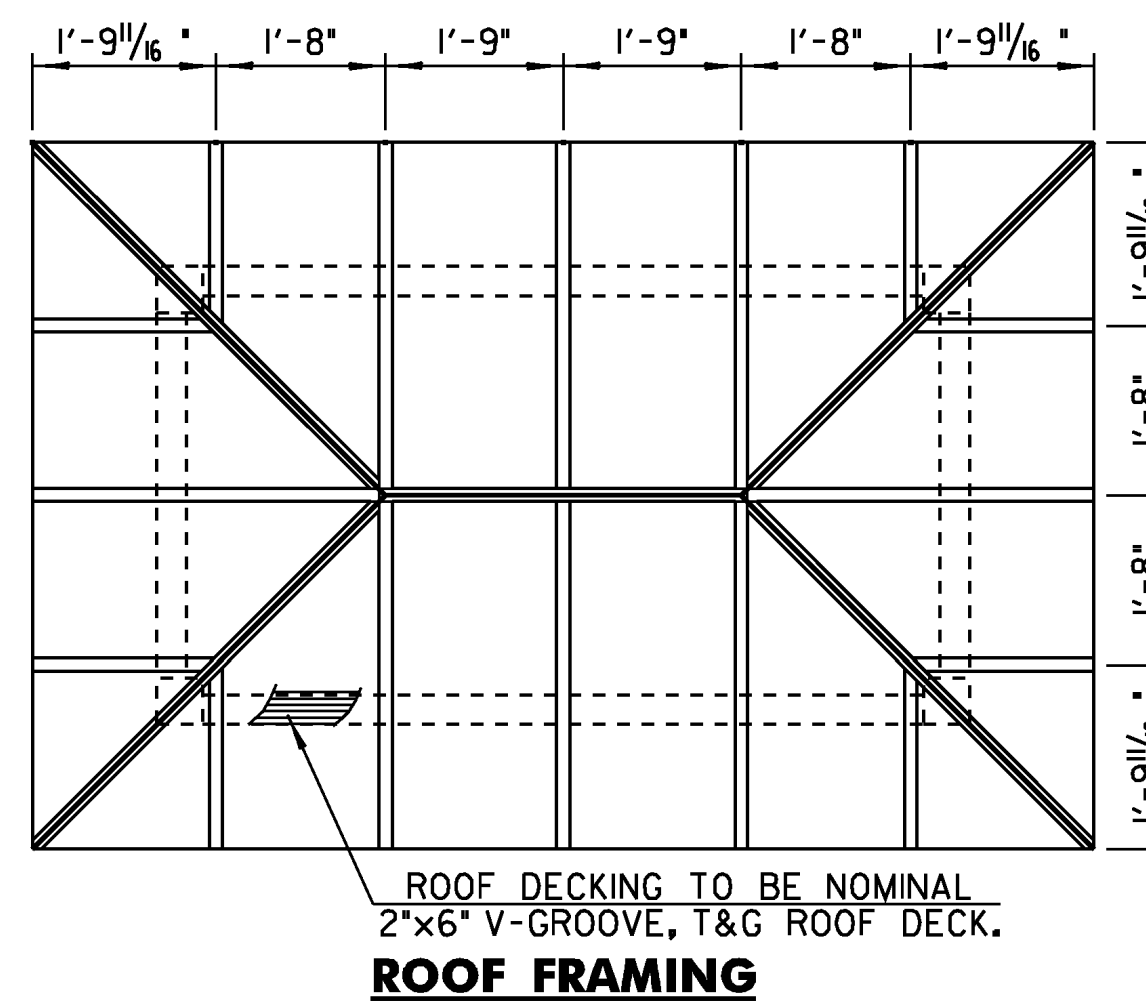
PLAN VIEW



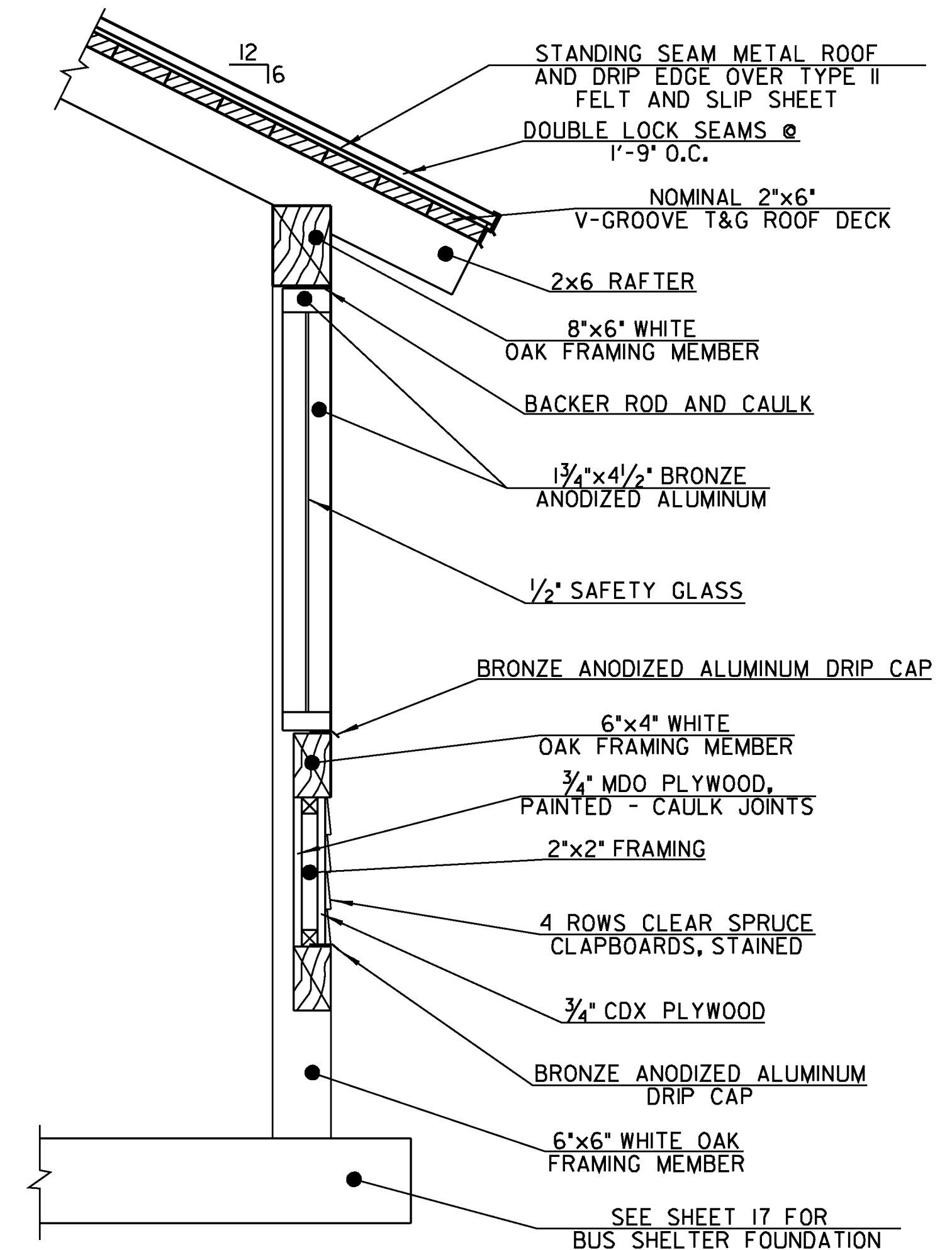
END FRAMING - SECTION



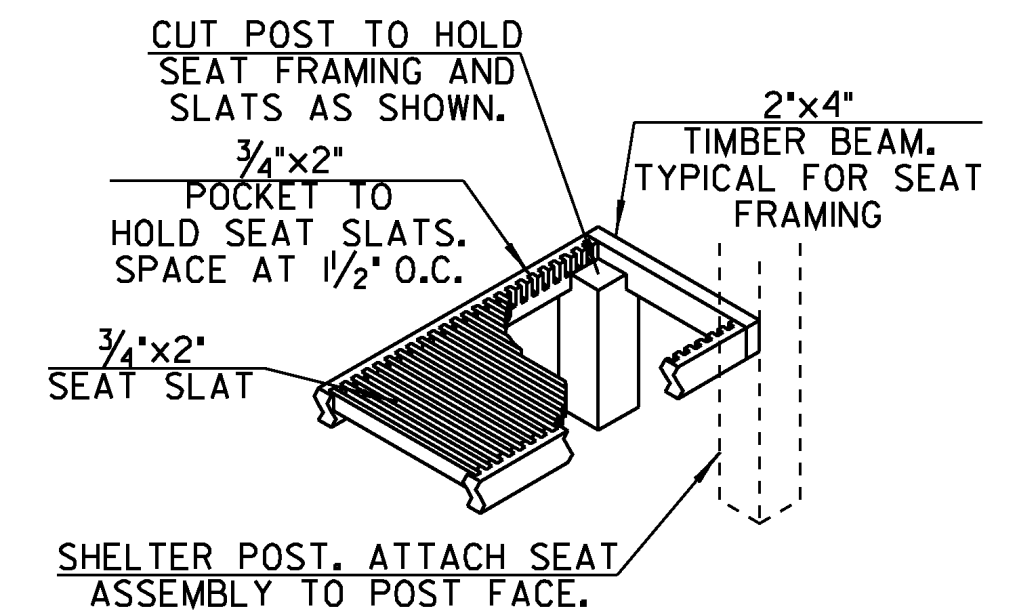
FRONT/REAR FRAMING - SECTION



ROOF FRAMING



TYPICAL WALL SECTION
NOT TO SCALE



DETAIL - BENCH FRAMING
NOT TO SCALE

NOTES

1. PAYMENT OF ITEMS AND LABOR SHOWN ON THIS SHEET SHALL BE INCLUDED UNDER ITEM SPECIAL PROVISION (BUS SHELTER).
2. JACK AND COMMON RAFTERS ARE 2'x6". HIP RAFTERS ARE 2'x8". RIDGE BEAM IS 2'x8".

ALL DETAILS SCALE: 1/2" = 1'-0"
UNLESS OTHERWISE NOTED

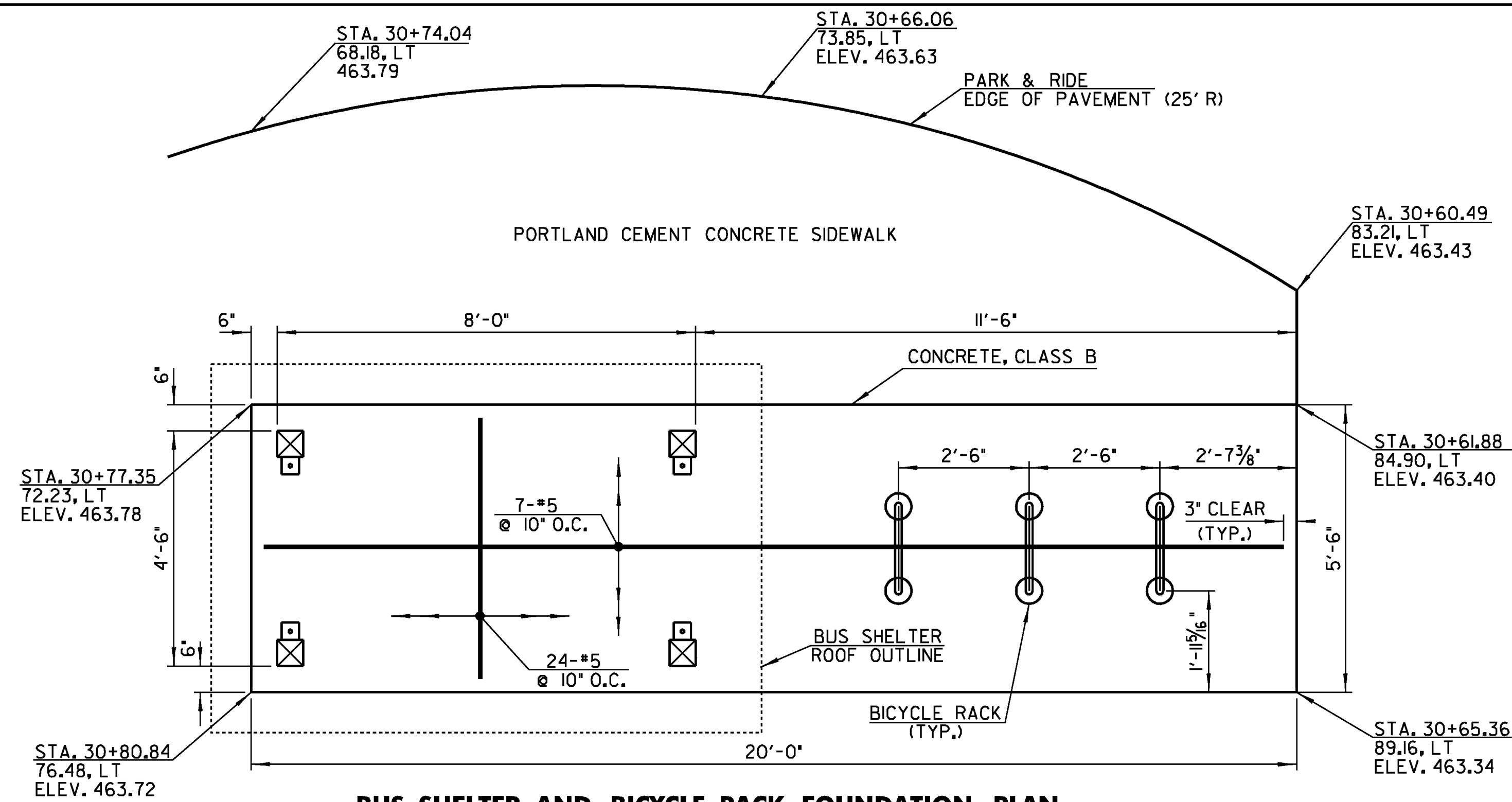
Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221	MODEL Z20K154BDT01
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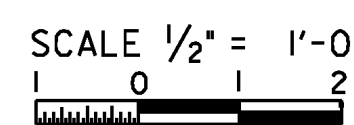
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PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20K154bd+.dgn
PROJECT LEADER: WAYNE L. DAVIS
DESIGNED BY: JCC
BUS SHELTER DETAILS 1 OF 2

PLOT DATE: 9/16/2013
DRAWN BY: JCC
CHECKED BY: CRM
SHEET 16 OF 30

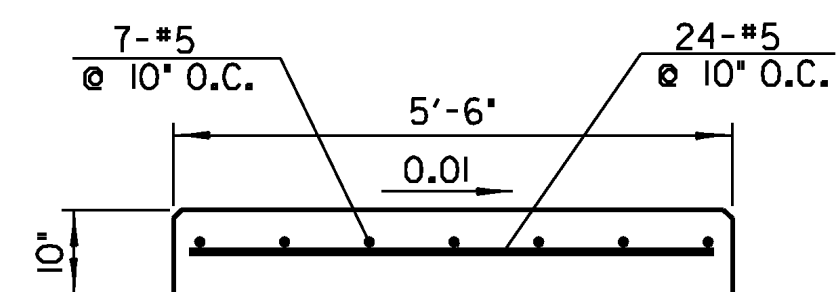


BUS SHELTER AND BICYCLE RACK FOUNDATION PLAN

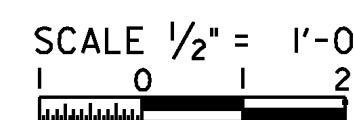


NOTES

1. CONTRACTOR TO FOLLOW MANUFACTURER'S DETAILS FOR INSTALLATION OF BICYCLE RACK (SEE SPECIAL PROVISIONS).
2. INSTALLATION OF THE BICYCLE RACK SHALL BE PAID FOR UNDER ITEM SPECIAL PROVISION (BICYCLE RACK).

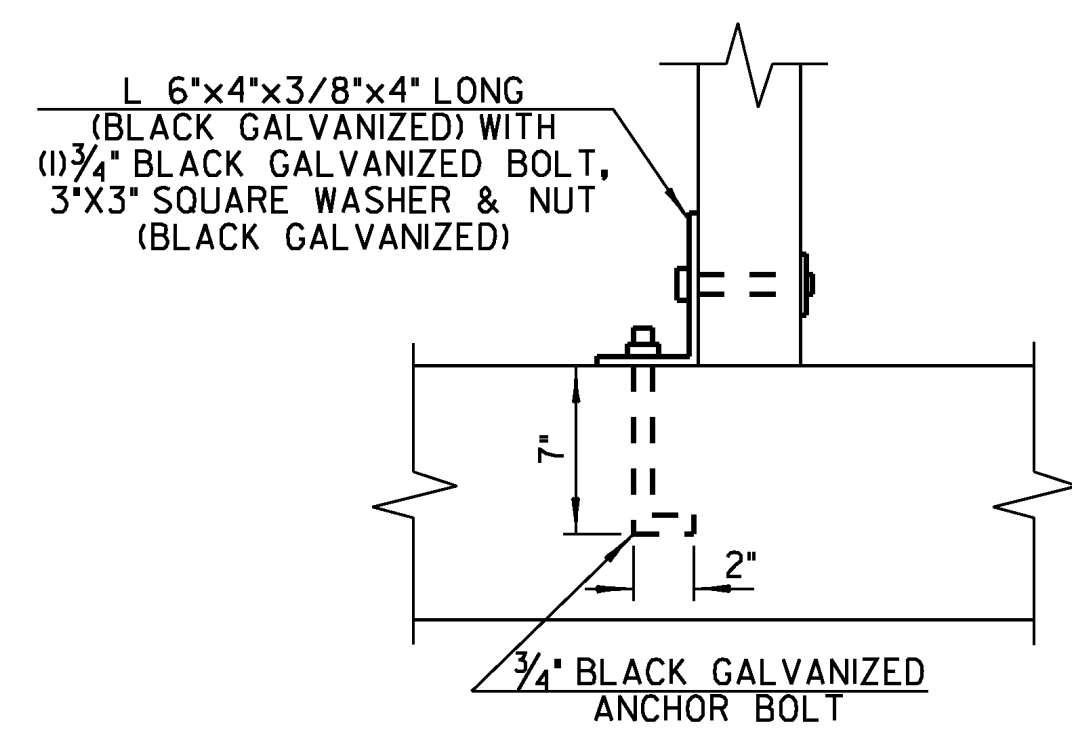


BUS SHELTER AND BICYCLE RACK FOUNDATION SECTION



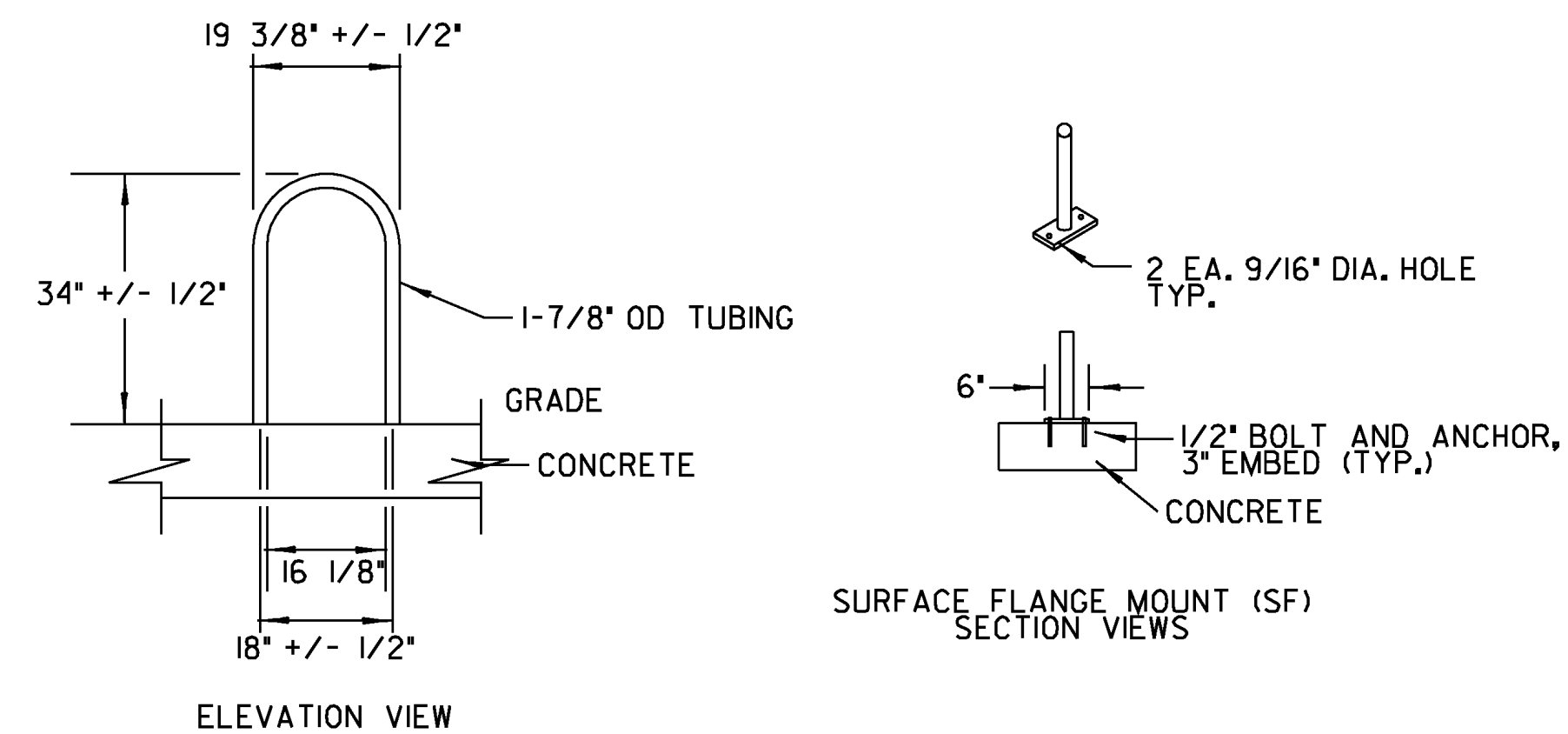
NOTES

1. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 1"
CLEARANCE +/- 1/4"
2. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1" BY 1".
3. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEM WATER REPELLENT, SILANE.
4. PAYMENT FOR BUS SHELTER AND ANCHORAGE SHALL BE MADE UNDER ITEM SPECIAL PROVISION (BUS SHELTER). PAYMENT FOR CONCRETE FOUNDATION SHALL BE MADE UNDER ITEMS CONCRETE, CLASS B AND REINFORCING STEEL, LEVEL 1. PAYMENT FOR BICYCLE RACK SHALL BE MADE UNDER SPECIAL PROVISIONS (BICYCLE RACK).

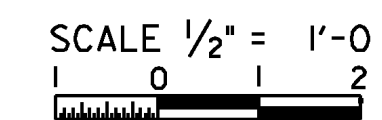


DETAIL
NOT TO SCALE

BUS SHELTER FOUNDATION

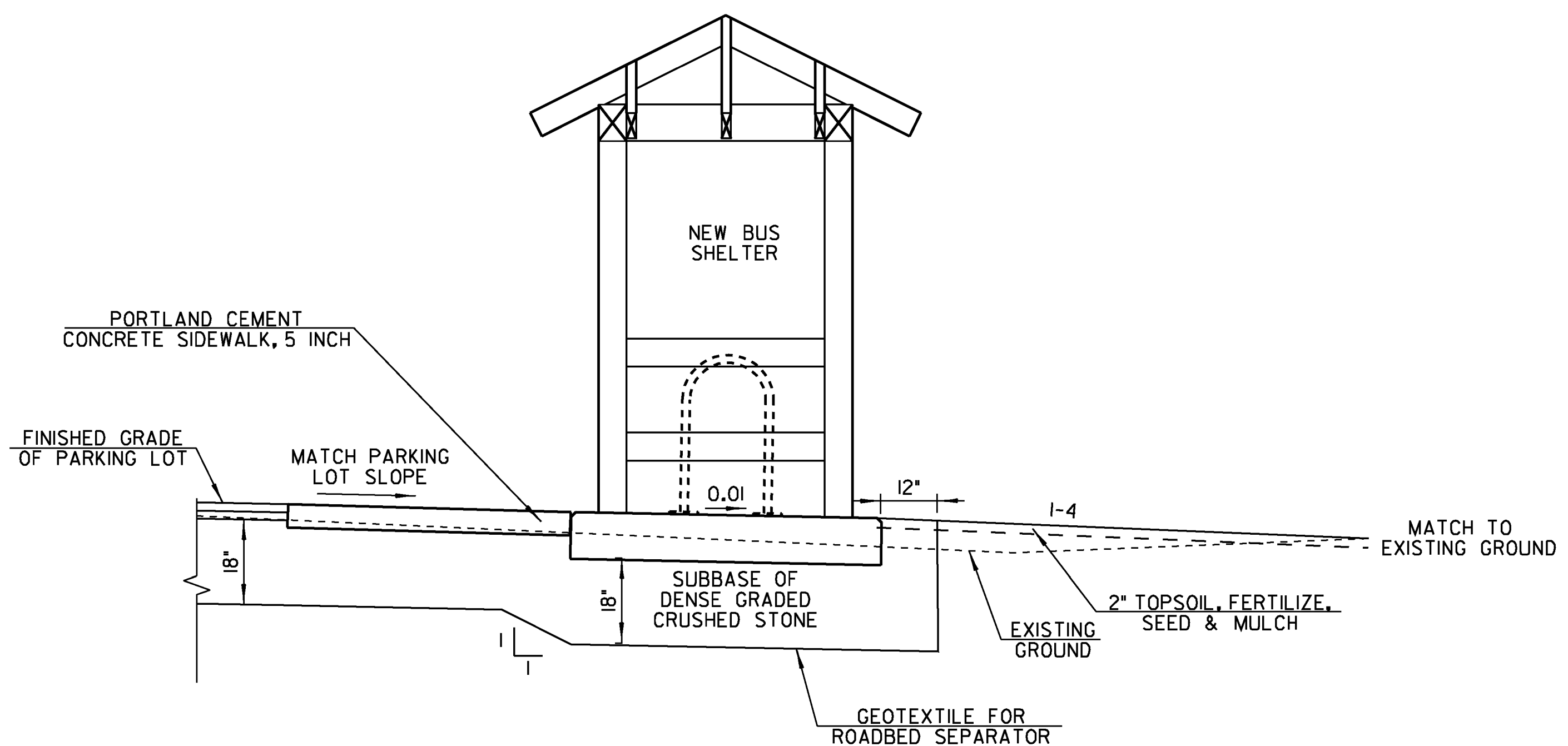


BICYCLE RACK DETAIL

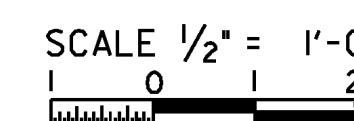


NOTES

1. BICYCLE RACK SHALL BE LOCATED AS SHOWN ON PLANS.
2. BICYCLE RACK COLOR SHALL BE BLACK POWDER COAT.
3. A BICYCLE RACK SYSTEM CONSISTS OF 3 BICYCLE RACKS.



BUS SHELTER SECTION



Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221 MODEL Z20K154BDT02

PROJECT NAME: HARTLAND
PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20K154bd+.dgn
PROJECT LEADER: WAYNE L. DAVIS
DESIGNED BY: JCC

PLOT DATE: 9/16/2013
DRAWN BY: JCC
CHECKED BY: CRM
SHEET 17 OF 30

BUS SHELTER DETAILS 2 OF 2

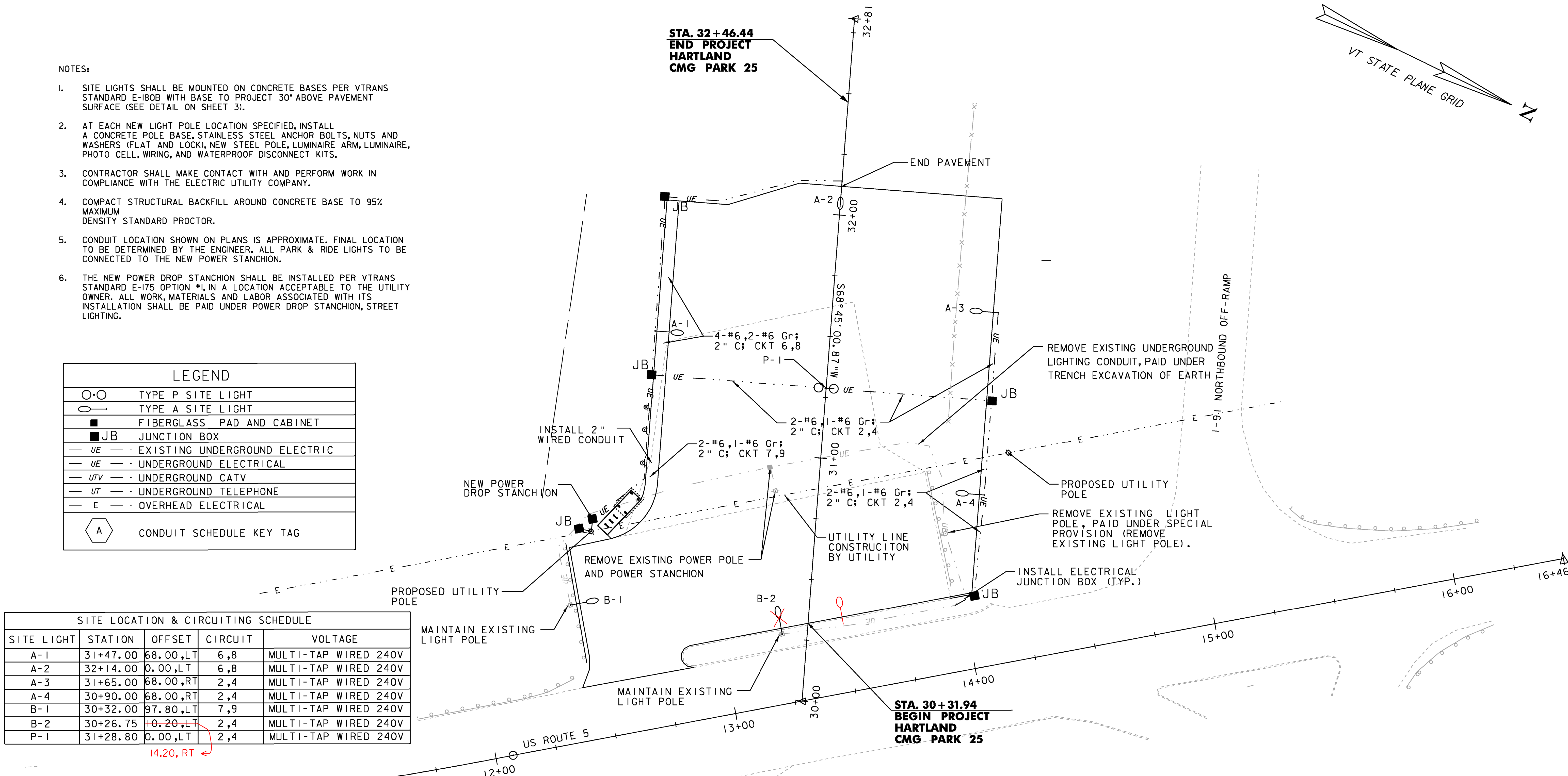
NOTES:

- SITE LIGHTS SHALL BE MOUNTED ON CONCRETE BASES PER VTRANS STANDARD E-180B WITH BASE TO PROJECT 30' ABOVE PAVEMENT SURFACE (SEE DETAIL ON SHEET 3).
- AT EACH NEW LIGHT POLE LOCATION SPECIFIED, INSTALL A CONCRETE POLE BASE, STAINLESS STEEL ANCHOR BOLTS, NUTS AND WASHERS (FLAT AND LOCK), NEW STEEL POLE, LUMINAIRE ARM, LUMINAIRE, PHOTO CELL, WIRING, AND WATERPROOF DISCONNECT KITS.
- CONTRACTOR SHALL MAKE CONTACT WITH AND PERFORM WORK IN COMPLIANCE WITH THE ELECTRIC UTILITY COMPANY.
- COMPACT STRUCTURAL BACKFILL AROUND CONCRETE BASE TO 95% MAXIMUM DENSITY STANDARD PROCTOR.
- CONDUIT LOCATION SHOWN ON PLANS IS APPROXIMATE. FINAL LOCATION TO BE DETERMINED BY THE ENGINEER. ALL PARK & RIDE LIGHTS TO BE CONNECTED TO THE NEW POWER STANCHION.
- THE NEW POWER DROP STANCHION SHALL BE INSTALLED PER VTRANS STANDARD E-175 OPTION #1, IN A LOCATION ACCEPTABLE TO THE UTILITY OWNER. ALL WORK, MATERIALS AND LABOR ASSOCIATED WITH ITS INSTALLATION SHALL BE PAID UNDER POWER DROP STANCHION, STREET LIGHTING.

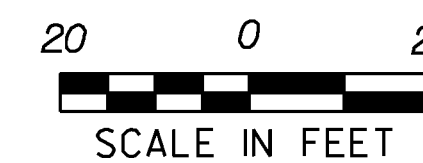
LEGEND	
○	TYPE P SITE LIGHT
○	TYPE A SITE LIGHT
■	FIBERGLASS PAD AND CABINET
■ JB	JUNCTION BOX
— UE —	EXISTING UNDERGROUND ELECTRIC
— UE —	UNDERGROUND ELECTRICAL
— UTV —	UNDERGROUND CATV
— UT —	UNDERGROUND TELEPHONE
— E —	OVERHEAD ELECTRICAL
⬡ A	CONDUIT SCHEDULE KEY TAG

SITE LOCATION & CIRCUITING SCHEDULE				
SITE LIGHT	STATION	OFFSET	CIRCUIT	VOLTAGE
A-1	31+47.00	68.00,LT	6,8	MULTI-TAP WIRED 240V
A-2	32+14.00	0.00,LT	6,8	MULTI-TAP WIRED 240V
A-3	31+65.00	68.00,RT	2,4	MULTI-TAP WIRED 240V
A-4	30+90.00	68.00,RT	2,4	MULTI-TAP WIRED 240V
B-1	30+32.00	97.80,LT	7,9	MULTI-TAP WIRED 240V
B-2	30+26.75	10.20,LT	2,4	MULTI-TAP WIRED 240V
P-1	31+28.80	0.00,LT	2,4	MULTI-TAP WIRED 240V

14.20, RT



SITE LIGHTING SCHEDULE									
TYPE	QUANTITY PER POLE	LAMP TYPE	LAMP WATTAGE	OPTICS TYPE	OPTICS DISTRIBUTION	LENS TYPE	MOUNTING HEIGHT	REMARKS	QUANTITY ON PROJECT
P	2	LED	105	FULL-CUT-OFF	IES AREA 5	N/A	20 FT.	IES AREA 5	1
A	1	LED	105	FULL-CUT-OFF	IES TYPE III	N/A	20 FT.	IES TYPE III	4
B	1	LED	105	FULL-CUT-OFF	IES TYPE A	N/A	20 FT.	IES TYPE A	2



Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221	MODEL z20k154LGT
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PROJECT NAME: HARTLAND
PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20k154light.dgn
PROJECT LEADER: WAYNE L. DAVIS
DESIGNED BY: JCC

LIGHTING & ELECTRICAL PLAN

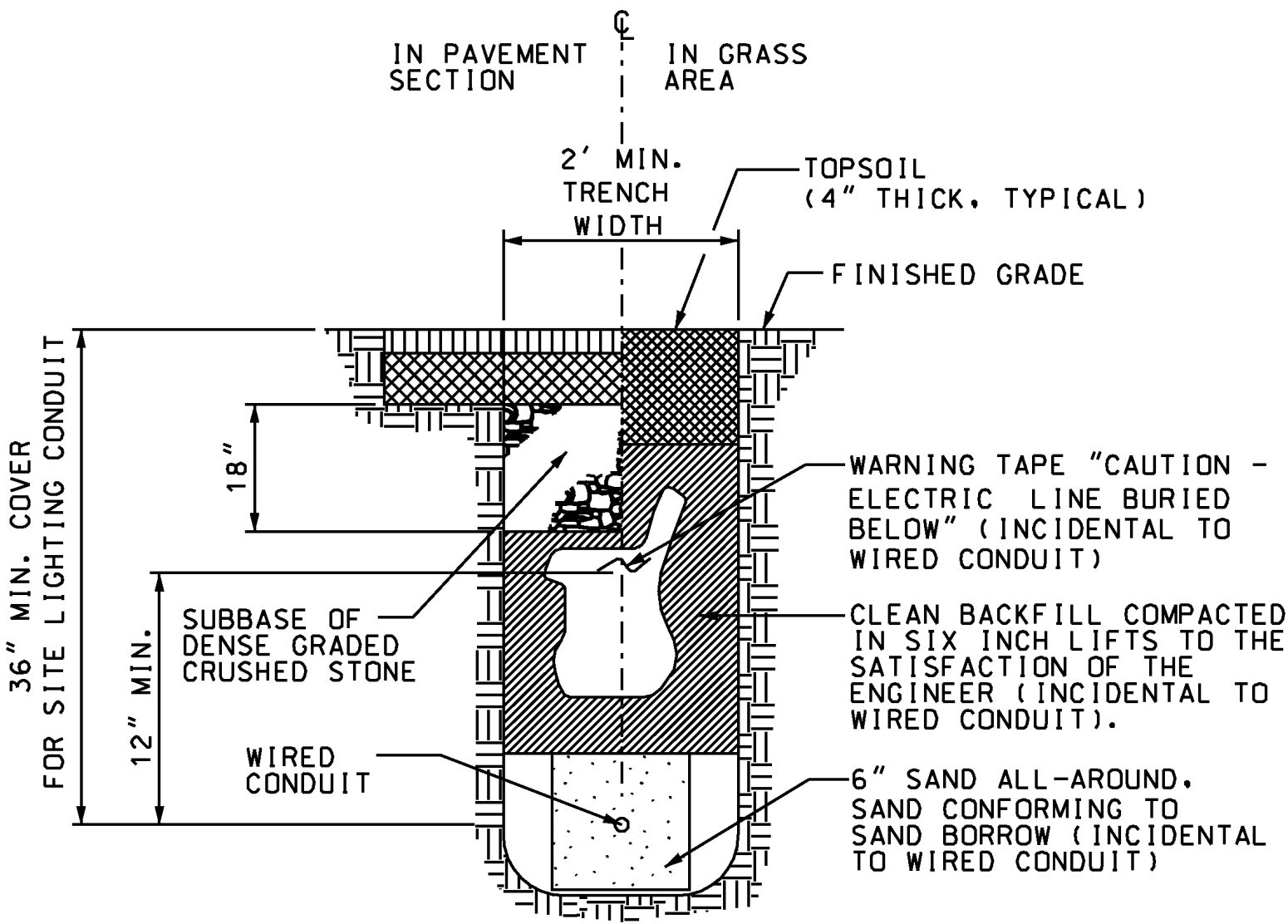
PLOT DATE: 9/16/2013
DRAWN BY: JCC
CHECKED BY: CRM
SHEET 18 OF 30

9/16/2013 10:00 AM

STREET LIGHTING GENERAL NOTES

TYPICAL TRENCH SECTION NOTES:

- BOTTOM OF TRENCH SHALL BE UNDISTURBED ORIGINAL GROUND OR FIRMLY COMPACTED EARTH FREE FROM VOIDS, ROCK, OR RUBBLE AND/OR RELATIVELY SMOOTH ARCH, AND LINED WITH A MINIMUM OF TWO INCHES OF CLEAN SAND.
- CONDUIT UNDER AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL BE ENCASED IN SIX INCH RIGID PLASTIC OR STEEL PIPE SLEEVES TO FIVE FEET (5') BEYOND EDGE OF PAVEMENT, TYPICAL. PAID AS ELECTRICAL CONDUIT SLEEVE.
- SEE TYPICAL TRENCH DETAIL FOR SPACING TO BE MAINTAINED BETWEEN ADJACENT CONDUITS.
- PVC CONDUIT SHALL BE PRIMED AND GLUED TO FORM A WATERTIGHT SEAL.



TYPICAL TRENCH SECTION
NOT TO SCALE



LEGEND: BLACK OR WHITE (NON-REFLECTIVE) - STAMPED PRIOR TO PRINTING/PAINTING.
BACKGROUND: NATURAL ALUMINUM OR FLAT BLACK SURFACE, THE SAME AS POLE FINISH.

DETAIL FOR TAGS ATTACHED TO STREET LIGHT POLES

NOTES:

- THE TAG SHALL BE MOUNTED ON ALL STREET LIGHT POLES IN SUCH A MANNER AS NOT TO BE EASILY REMOVED, SUCH AS WELDED, RIVETED, OR BOLTED WITH VANDAL PROOF BOLTS.
- THE LETTERS SHALL BE PUNCHED, STAMPED, ENGRAVED, OR PHOTO-ETCHED. PUNCHING, STAMPING OR ENGRAVING SHALL PENETRATE AT LEAST 1/2 THE BASE MATERIAL THICKNESS.
- THE BASE MATERIAL FOR THE TAG SHALL BE ALUMINUM WITH A MINIMUM THICKNESS OF 0.10 INCHES.
- THE TAG SHALL BE ATTACHED TO THE POLE ABOVE THE HANDHOLE, 6 INCHES MAXIMUM, IF THE POLE HAS A TRANSFORMER BASE, ATTACH TAG TO COVER.
- FIXTURE TAG CHARACTER 'X' SHALL BE THE DESIGNATED SL NUMBER AS SHOWN ON THE LIGHTING PLANS.
- FIXTURE TAG CHARACTER 'ZZ' SHALL BE THE WATTAGE OF THE LUMINAIRE.

CONCRETE BASES

- WHEN CONCRETE BASES ARE INSTALLED IN SLOPING GROUND, THE GREATEST EXPOSED HEIGHT TO KEEP ALL OF THE TOP ABOVE GROUND MUST BE DOUBLED AND THEN ADDED TO THE MINIMUM DEPTH FOR THE TOTAL BASE DEPTH.
- CARE SHOULD BE TAKEN WHERE CONCRETE BASES, DRAINAGE STRUCTURES OR UTILITIES ARE CLOSE TOGETHER.
- THE OFFSET FOR CONCRETE BASES (FACE OF CURB OR EDGE OF PAVEMENT TO CENTER OF CONCRETE BASE) SHALL BE A MINIMUM OF 2'-6" OR AS OTHERWISE NOTED ON THE PLANS.

POLES, ANCHOR BASES AND ARMS

- ALL NEW STREET LIGHT POLES, POLE BASES AND LUMINAIRE ARMS SHALL BE ALUMINUM, PAINTED FLAT BLACK.
- UTILIZE APPROVED DUAL-RATED PARALLEL TAP CONNECTOR WITH INSULATING COVER TO TAPS AT POLE BASES.

LUMINAIRES

- LUMINAIRES SHALL BE L.E.D. TYPE ONLY.
- ALL LUMINAIRES SHALL BE THE SAME; A MIX OF FIXTURES WILL NOT BE ALLOWED. NO LUMINAIRE SUBSTITUTIONS OTHER THAN THOSE LISTED IN THE LED SPECIAL PROVISIONS SHALL BE ALLOWED.
- ALL LUMINAIRES SHALL BE EQUIPPED WITH BIRD SPIKES ON TOP.
- ALL LUMINAIRE HOUSINGS SHALL BE PAINTED FLAT BLACK.

CONDUIT SLEEVES

- THE SLEEVE SHALL EXTEND TO WITHIN TWO FEET OF THE SIDE OF A CONCRETE BASE OR PULLBOX. WHERE NO CONCRETE BASE OR PULLBOX IS PRESENT, THE SLEEVE SHALL EXTEND FOUR FEET BEYOND THE OUTSIDE EDGE OF SHOULDER OR FACE OF CURB. BACKFILLING AROUND A SLEEVE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. THE SLEEVE SHALL BE SCHEDULE 80.

WIRE

- ALL WIRING BETWEEN THE METER AND/OR THE POWER SOURCE AND THE FIRST POLE AND/OR PULLBOX AND BETWEEN POLES AND/OR PULLBOXES SHALL BE COPPER AND SIZED AS SPECIFIED ON THE PLANS. ALL WIRE SHALL HAVE TYPE XHHW INSULATION OR EQUIVALENT.
- CIRCUIT CONDUCTORS SHALL BE CLEARLY IDENTIFIED BY CORROSION RESISTANT TAGS INDICATING CIRCUIT NUMBER AND PANEL SOURCES AT EVERY POLE BASE AND HANDHOLE.

GROUNDING

- ALL CONDUIT MUST INCLUDE A GROUNDING CONDUCTOR. RIGID STEEL CONDUIT SHALL BE PROPERLY CONNECTED AT THE JOINTS SO AS TO BE WATERTIGHT AND MAINTAIN ELECTRICAL CONTINUITY AND HAVE GROUNDING BUSHINGS SO AS TO ACT AS A GROUNDING CONDUCTOR.
- THE GROUNDING CONDUCTOR SHALL BE CONTINUOUS.
- ALUMINUM WIRE SHALL NOT BE USED FOR GROUND WIRE.

PULL BOXES, MANHOLES AND JUNCTION BOXES

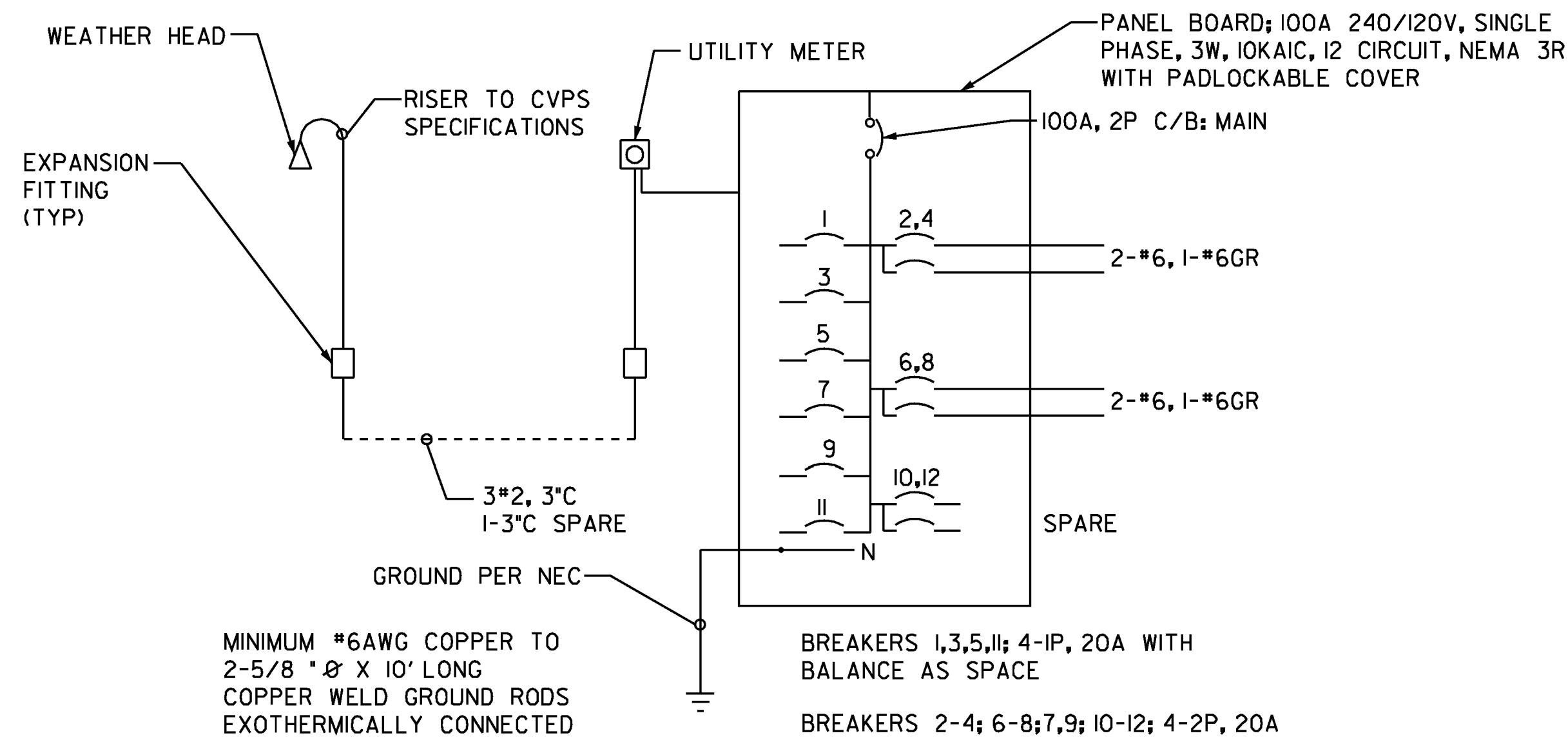
- POLYMER CONCRETE AND REINFORCED FIBERGLASS U.L. LISTED PULLBOXES AND HANDHOLES SHALL BE INSTALLED WITH HEAVY DUTY COVERS.
- ALL CONNECTIONS IN HANDHOLES SHALL BE MADE WITH INSULATED WATERPROOF MECHANICAL SCREW-TYPE CONNECTOR SUITABLE FOR DIRECT BURIAL. NO BARE OR COMPRESSION TYPE CONNECTORS MAY BE USED.

GENERAL

- THE LOAD ON EACH BRANCH OF A THREE WIRE CIRCUIT SHALL BE AS BALANCED AS POSSIBLE. LOAD TO NEUTRAL.
- THE CONTRACTOR SHALL ACQUIRE ALL NECESSARY PERMITS AND MAKE ALL NECESSARY ARRANGEMENTS WITH THE UTILITY COMPANY TO PROVIDE A PERMANENT POWER SUPPLY TO THE STREET LIGHTING SYSTEM. IF APPLICABLE, THE ROUTING OF POWER TO THE SYSTEM SHALL BE SUCH THAT THE AGENCY OF TRANSPORTATION HAS FULL RESPONSIBILITY FROM THE TRANSFORMER THROUGH THE LIGHTING SYSTEM. NO INTERVENING OWNERSHIP OR RESPONSIBILITY SHALL BE ALLOWED.
- ALL CONNECTING HARDWARE (NUTS, BOLTS, ETC.) SHALL BE STAINLESS STEEL.
- MATERIALS AND EQUIPMENT SHALL BE LISTED BY UNDERWRITERS' LABORATORIES AND SHALL BE INSTALLED IN ACCORDANCE WITH SUCH LISTINGS.
- ALL MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, AND ALL CODES, REGULATIONS AND REQUIREMENTS OF ALL MUNICIPAL, STATE, FEDERAL AND OTHER PUBLIC OR PRIVATE AUTHORITIES WHICH HAVE JURISDICTION. IN EACH CASE, CODES ARE MINIMUM REQUIREMENTS.

ILLUMINATION REQUIREMENTS

- LIGHTING LEVELS AS MEASURED AT THE PAVED SURFACE SHALL HAVE AN AVERAGE MAINTAINED ILLUMINANCE OF 1.0 FOOT-CANDLE.



ONE-LINE DIAGRAM SITE LIGHTING SERVICE PEDESTAL

NOT TO SCALE

NOTES:

- STREET LIGHT POLES IN PARKING LOT SHALL HAVE A NON-BREAKAWAY BASE (ANCHOR BASE ASSEMBLY, SEE VTRANS STANDARD E-180B).
- THE MAXIMUM NUMBER OF DEGREES OF SWEEPS BETWEEN EQUIPMENT AND JUNCTION BOXES AND/OR BETWEEN JUNCTION BOXES SHALL BE 270 DEGREES.

GENERAL ELECTRICAL NOTES:

- CONTRACT TO SECURE AND PAY COSTS OF PERMIT, CERTIFICATES, LICENSES, INSPECTIONS AND APPROVALS.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL ARRANGEMENT OF WORK. BASIC DESIGN CONCEPTS INDICATED ARE TO BE EITHER FOLLOWED OR BETTERED. WORK IS INTENDED TO INCLUDE ITEMS NECESSARY FOR PROPER OPERATION AND COMPLETION. FIELD VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS.
- INSTALLATION SHALL BE MADE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- CONTRACTOR TO CONTACT DIGSAFE IN VERMONT PRIOR TO COMMENCING WORK (CALL 811).

PROJECT NAME: HARTLAND
PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20K154sht_idtl.dgn PLOT DATE: 9/16/2013
PROJECT LEADER: WAYNE L. DAVIS DRAWN BY: JCC
DESIGNED BY: JCC CHECKED BY: CRM
LIGHTING DETAILS SHEET 19 OF 30

Hoyle, Tanner & Associates, Inc.
HTA PROJECT 904221 MODEL Light Detail Sheet 1

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE EXPANSION OF AN EXISTING PARK-AND-RIDE LOT LOCATED ON THE SOUTHERN SIDE OF US ROUTE 5 IN THE TOWN OF HARTLAND, APPROXIMATELY 200 FEET EAST OF THE INTERSTATE 91 (I-91) EXIT 9 NORTHBOUND (NB) OFF-RAMP.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.75 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE PROJECT SITE IS RELATIVELY FLAT AND IS ON A LOCAL HIGH POINT. THE EASTERN SIDE OF THE PROJECT SITE IS COMPOSED OF AN EXISTING PARK-AND-RIDE LOT THAT IS ADJACENT TO US ROUTE 5, WHICH IS CURBED AT THIS EDGE.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THERE IS A SMALL CLASS II WETLAND AREA APPROXIMATELY 50 FEET SOUTH OF THE PROJECT SITE, THAT RECEIVES MINIMAL SHEET FLOW FROM THE SITE. THE MAJORITY OF STORMWATER RUNOFF SHEET FLOWS OFF THE SITE INTO DITCHLINES AND EVENTUALLY INTO UNNAMED TRIBUTARIES OF THE CONNECTICUT RIVER.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASS AREAS WITH SURROUNDING DECIDUOUS TREES AND UNDERGROWTH. UPON PROJECT COMPLETION, DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDSOR, VERMONT. SOILS ON THE PROJECT SITE ARE HITCHCOCK SILT LOAM, 8% TO 15% SLOPES, "K FACTOR" = 0.49. THE SOIL IS CONSIDERED HIGHLY ERODIBLE DUE TO HIGH SILT CONTENT.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:

0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: NO
WETLANDS: YES, CLASS II

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT. THEREFORE IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED, BUT SHALL BE UTILIZED AS NECESSARY.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

PERMANENT CONTROLS INCLUDE SEED AND MULCH.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

TEMPORARY STABILIZATION CONTROLS INCLUDE SURFACE ROUGHENING, SEED, MULCH AND EROSION MATTING.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

WINTER STABILIZATION IS NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

STABILIZATION CONTROLS INCLUDE SEED, MULCH AND EROSION MATTING.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

DE-WATERING ACTIVITIES ARE NOT ANTICIPATED TO BE NEEDED AS DESIGNED.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR CONSTRUCTION GENERAL PERMIT AUTHORIZATION STIPULATIONS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION.

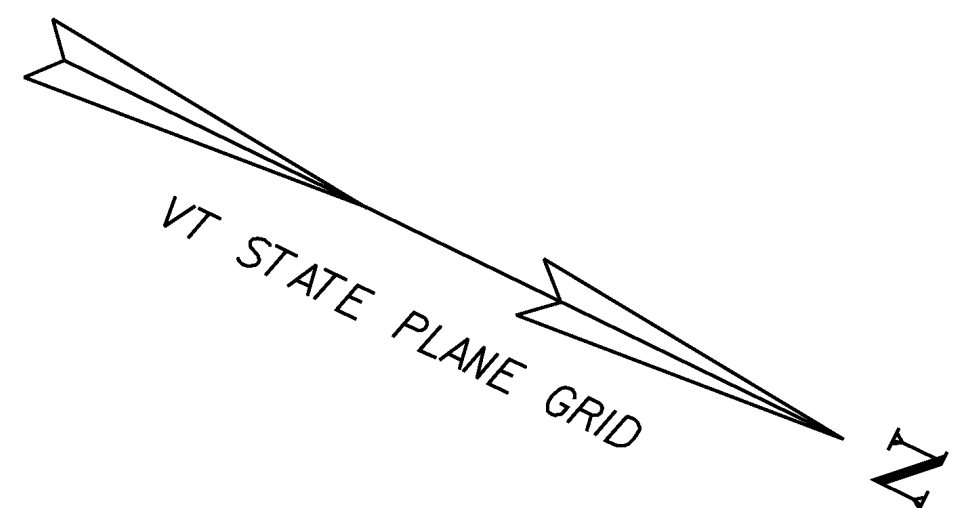
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PROJECT NUMBER: CMG PARK(25)	
FILE NAME: Z20k154eronar.dgn	PLOT DATE: 9/16/2013
PROJECT LEADER: WAYNE L. DAVIS	DRAWN BY: JCC
DESIGNED BY: JCC	CHECKED BY: CRM
EPSC NARRATIVE	
SHEET 20 OF 30	

Hoyle, Tanner & Associates, Inc.	
HTA PROJECT	MODEL
904221	Narrative

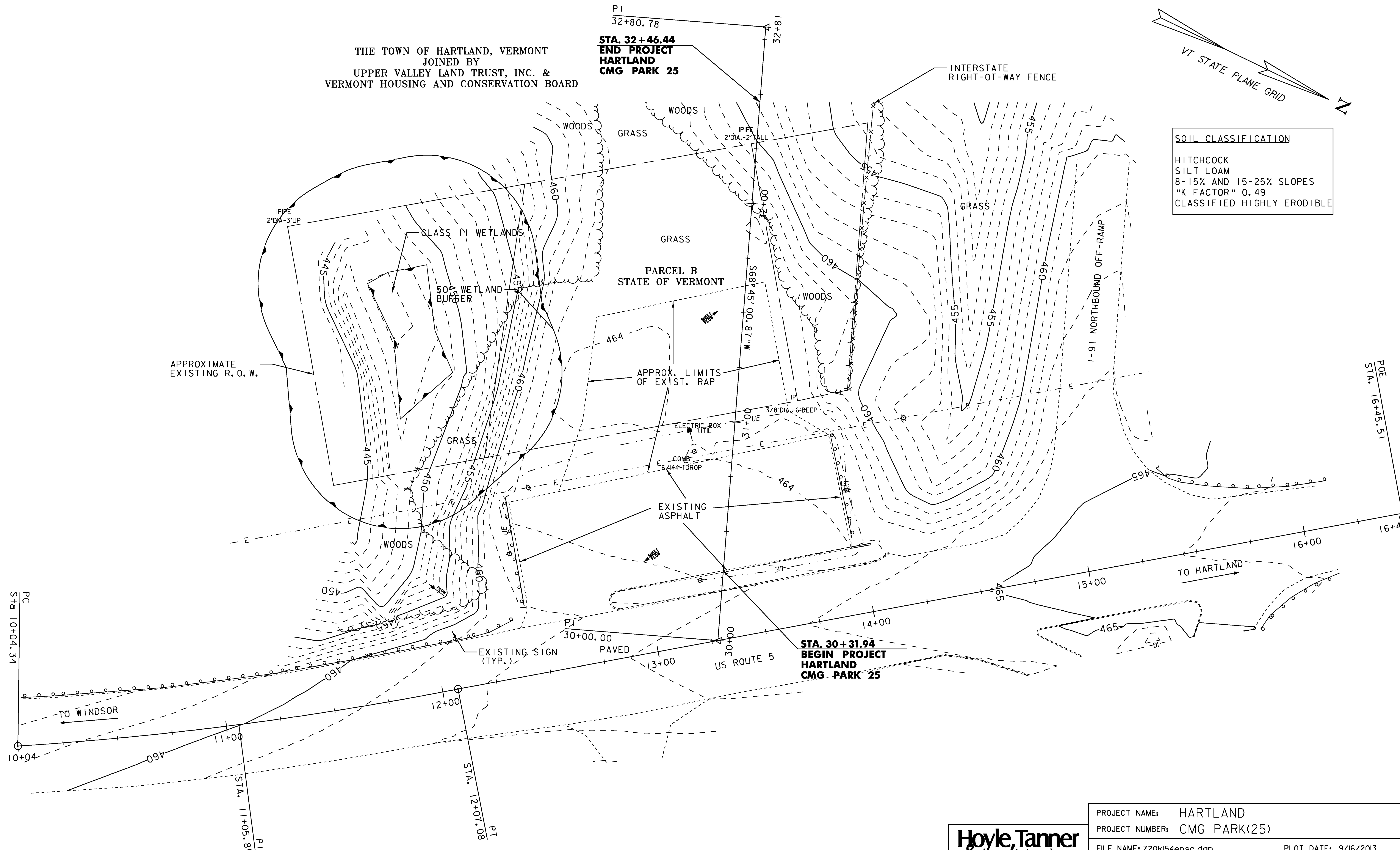
THE TOWN OF HARTLAND, VERMONT
 JOINED BY
 UPPER VALLEY LAND TRUST, INC. &
 VERMONT HOUSING AND CONSERVATION BOARD

STA. 32+46.44
 END PROJECT
 HARTLAND
 CMG PARK 25

STA. 30+31.94
 BEGIN PROJECT
 HARTLAND
 CMG PARK 25



SOIL CLASSIFICATION
 HITCHCOCK
 SILT LOAM
 8-15% AND 15-25% SLOPES
 "K FACTOR" 0.49
 CLASSIFIED HIGHLY ERODIBLE

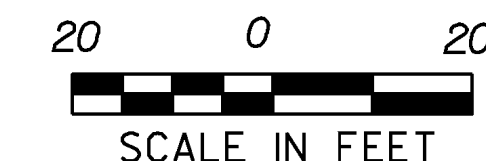


PC
 Sta 10+04.34

PI
 STA. 11+05.85

PI
 STA. 12+07.08

POE
 STA. 16+45.51



Hoyle, Tanner & Associates, Inc.

HTA PROJECT	MODEL
904221	Untitled Sheet

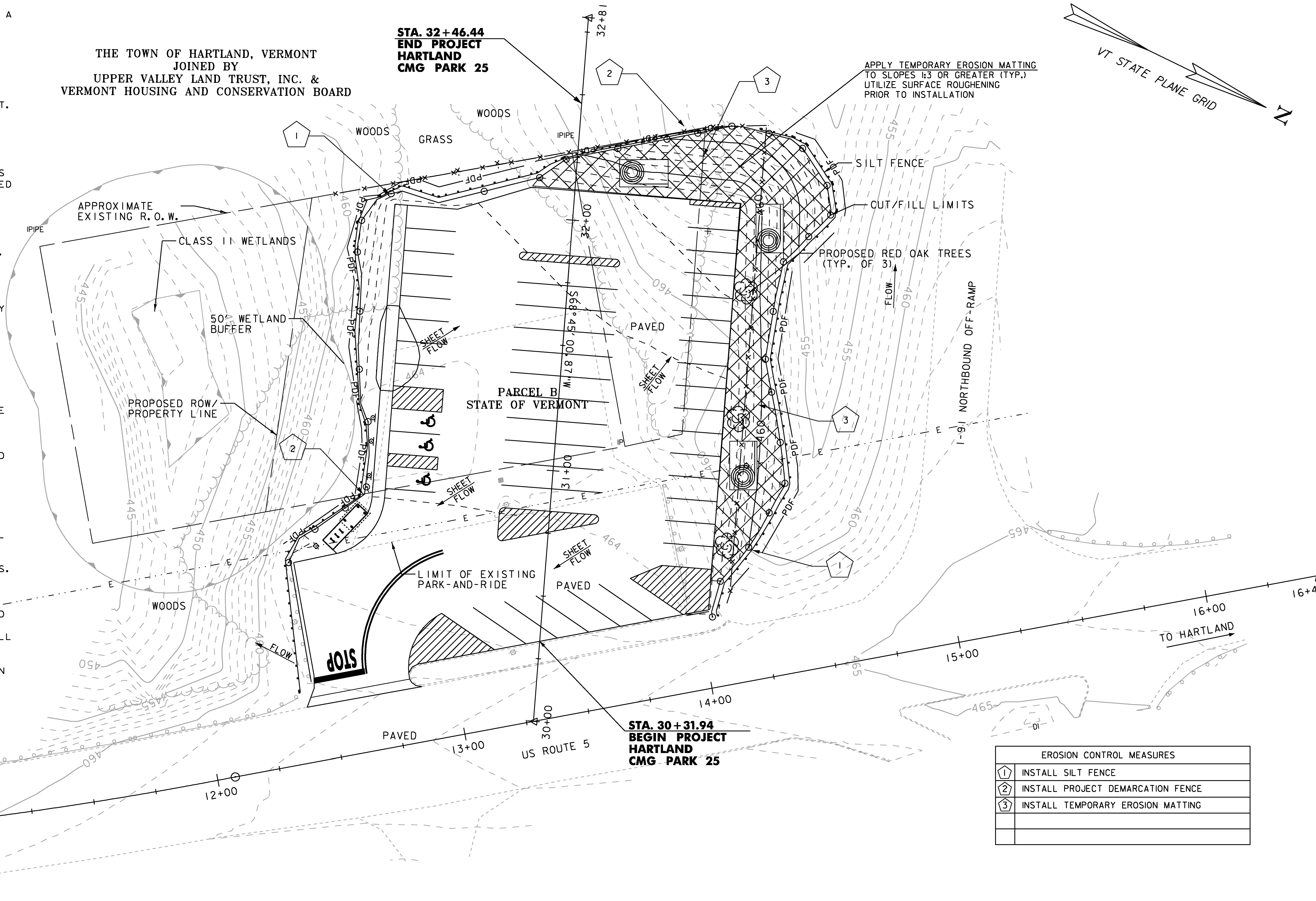
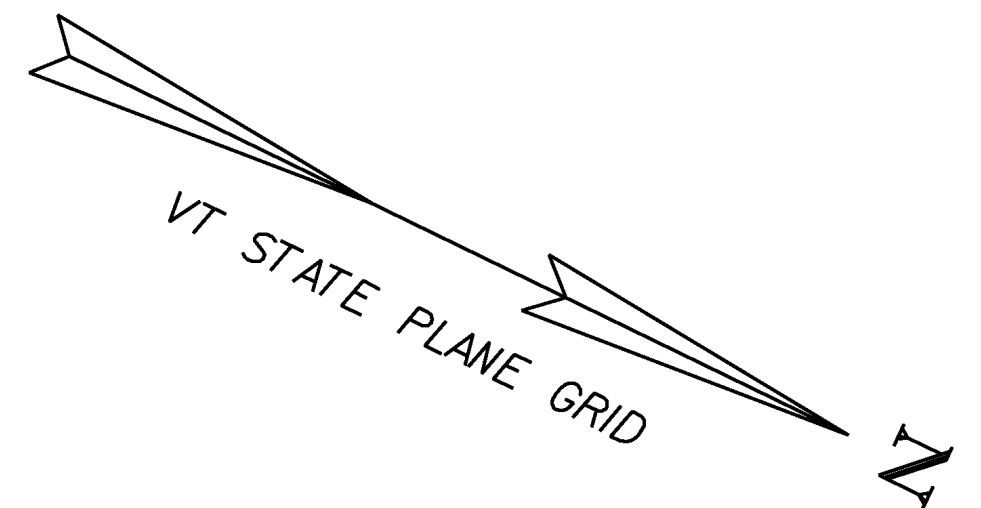
PROJECT NAME: HARTLAND	PLOT DATE: 9/16/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20k154epsc.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 21 OF 30
DESIGNED BY: JCC	
EPSC EXISTING CONDITIONS	

1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN, THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
2. SILT FENCE INSTALLATION MAY REQUIRE PHASING TO MAXIMIZE EFFECTIVENESS. INSTALL AND/OR MOVE SILT FENCE AS CONSTRUCTION PROGRESSES TO OBTAIN THE GREATEST PREVENTION OF SEDIMENT TRANSPORT. ALL SILT FENCE INSTALLATION SHALL BE PROPERLY KEYED INTO THE GROUND AND SUPPORTED AS DETAILED ON THE "EPSC DETAILS" SHEET. THE SILT FENCE SHOULD BE INSTALLED PARALLEL TO THE CONTOURS TO PREVENT CONCENTRATION OF RUNOFF. THE ENDS OF EACH RUN OF SILT FENCE SHOULD BE TURNED UPHILL TO PROVIDE A SMALL POOL FOR SEDIMENT SHOULD WATER TRY TO RUN AROUND THE END OF THE SILT FENCE.
3. NON-WOVEN SILT FENCE WITH STAKES WILL BE PAID FOR UNDER GEOTEXTILE FOR SILT FENCE.
4. SURFACE ROUGHENING HELPS REDUCE RUNOFF VELOCITIES AND INCREASES INFILTRATION RATES. ROUGHENING MAY BE ACCOMPLISHED BY A NUMBER OF METHODS SUCH AS TRACKING UP AND DOWN THE SLOPE WITH A BULLDOZER, TRACKING ACROSS THE SLOPE WITH A WHEELED VEHICLE OR ANY METHOD OF SCARIFYING THE SLOPE SUCH THAT THE GROOVES CREATED RUN PERPENDICULAR TO THE DIRECTION OF WATER RUNOFF.
5. FINAL STABILIZATION MEASURES WILL INCLUDE STABILIZATION OF ALL SURFACES BY ADDING TOPSOIL, SEED, FERTILIZER AND MULCH OR MATTING ALL DISTURBED AREAS THAT ARE NOT PAVED. SEE EPSC DETAILS FOR SEED MIX AND APPLICATION RATES.
6. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION, MAINTENANCE AND MONITORING OF EROSION CONTROL DEVICES.
7. TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE IN PLACE AND APPROVED BY THE ENGINEER PRIOR TO EXCAVATION OF SURFACES, BEYOND THOSE NECESSARY TO INSTALL THESE MEASURES.
8. ONE OBJECTIVE OF THE EROSION PREVENTION AND SEDIMENT CONTROL PLAN IS TO MINIMIZE THE TIME THAT EXCAVATED SOILS ARE EXPOSED TO THE ELEMENTS. EXCAVATION OF THE UTILITY TRENCHES AND PARKING SURFACE SHALL BE SEQUENCED TO ACHIEVE THIS OBJECTIVE. THIS SEQUENCING OF EXCAVATION WORK SHALL BE IN THE CONTRACTOR'S EROSION PREVENTION AND SEDIMENT CONTROL PLAN.
9. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE ENGINEER AND ON SITE COORDINATOR.
10. THE CONTRACTOR SHALL USE OTHER TEMPORARY EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE ENGINEER AND ON SITE COORDINATOR.
11. REFER TO EPSC DETAILS FOR ADDITIONAL DETAILS AND INFORMATION.

THE TOWN OF HARTLAND, VERMONT
 JOINED BY
 UPPER VALLEY LAND TRUST, INC. &
 VERMONT HOUSING AND CONSERVATION BOARD

STA. 32+46.44
 END PROJECT
 HARTLAND
 CMG PARK 25

STA. 30+31.94
 BEGIN PROJECT
 HARTLAND
 CMG PARK 25



EROSION CONTROL MEASURES	
①	INSTALL SILT FENCE
②	INSTALL PROJECT DEMARCATION FENCE
③	INSTALL TEMPORARY EROSION MATTING

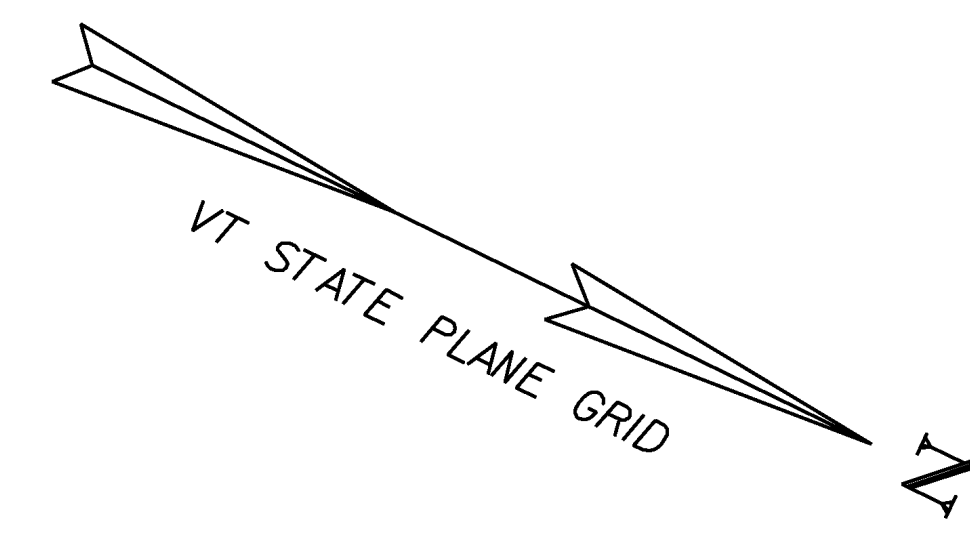


Hoyle, Tanner & Associates, Inc.

PROJECT NAME: HARTLAND
 PROJECT NUMBER: CMG PARK(25)
 FILE NAME: Z20k154epsc3.dgn
 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
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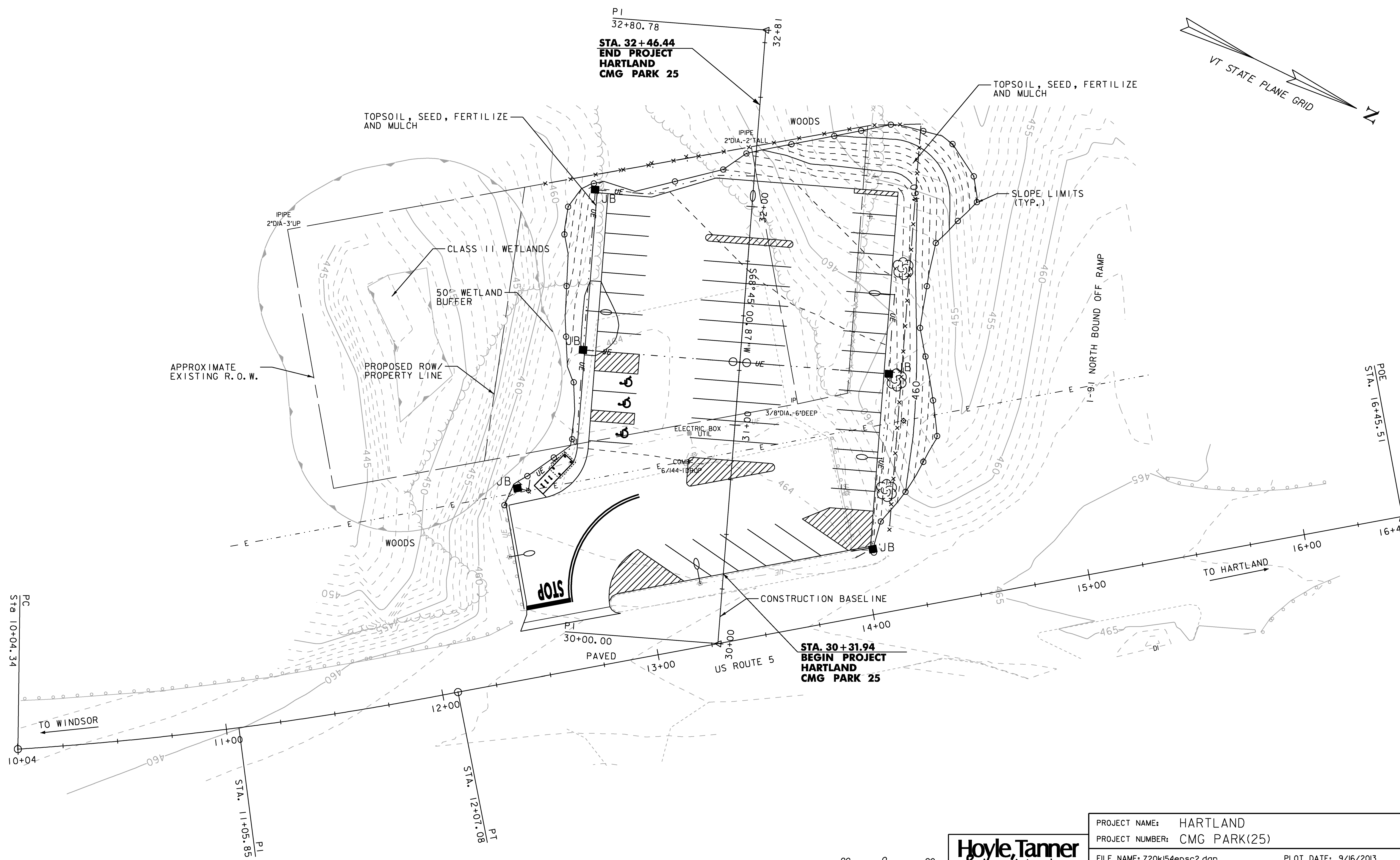
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 CHECKED BY: CRM
 SHEET 22 OF 30

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P1
32+80.78
STA. 32+46.44
END PROJECT
HARTLAND
CMG PARK 25

STA. 30+31.94
BEGIN PROJECT
HARTLAND
CMG PARK 25



PC
Sta 10+04.34

P1
STA. 11+05.85

P1
STA. 12+07.08

POE
STA. 16+45.51

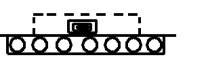
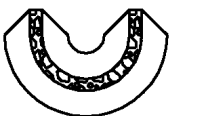
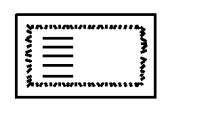
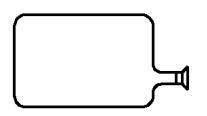
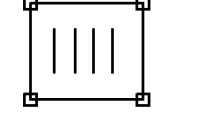
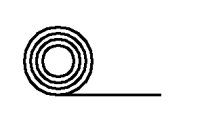
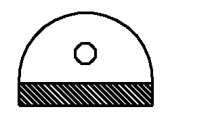


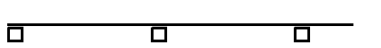
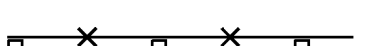
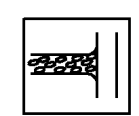
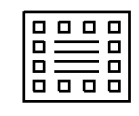
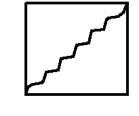
Hoyle, Tanner & Associates, Inc.

HTA PROJECT 904221	MODEL Z20K15401
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PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20k154epsc2.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 23 OF 30
DESIGNED BY: JCC	
EPSC FINAL CONDITIONS	

11/16/2013 10:58:11 AM C:\Users\jcc\OneDrive\Documents\220k154\220k154.dwg

BARRIER FENCE (LINE STYLE) 653.50	- B F - * * * * B F -
BRUSH LAYER 653.75, DETAIL	BL
CHECK DAM (LINE STYLE) 653.25, DETAIL	▶▶▶▶
COFFERDAM (LINE STYLE) 208.40	~~~~~
CURB DROP INLET PROTECTION 653.40, DETAIL	
DUST CONTROL 609.10 & 15	DC
PIPE INLET PROTECTION 653.40, DETAIL	
EXCAVATED DROP INLET PROTECTION 653.40, DETAIL	
FIBER ROLL (EROSION LOG) 653.60, DETAIL	FR
FILTER BAG 653.45, DETAIL	
FILTER FABRIC DROP INLET PROTECTION 653.40, DETAIL	
LIVE CUTTINGS/LIVE STAKES PLANTING 653.70, DETAIL	LS
LIVE FASCINE 653.65, DETAIL	LF
PROJECT DEMARCATION FENCE (LINE STYLE) 653.55	-PDF-----PDF-
ROLLED EROSION CONTROL PRODUCT (RECP) 653.20 (TEMP. EROSION MATTING)	
SEDIMENT BASIN INCIDENTAL TO COFFERDAM 208.40	
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	STANDARD SYMBOLS

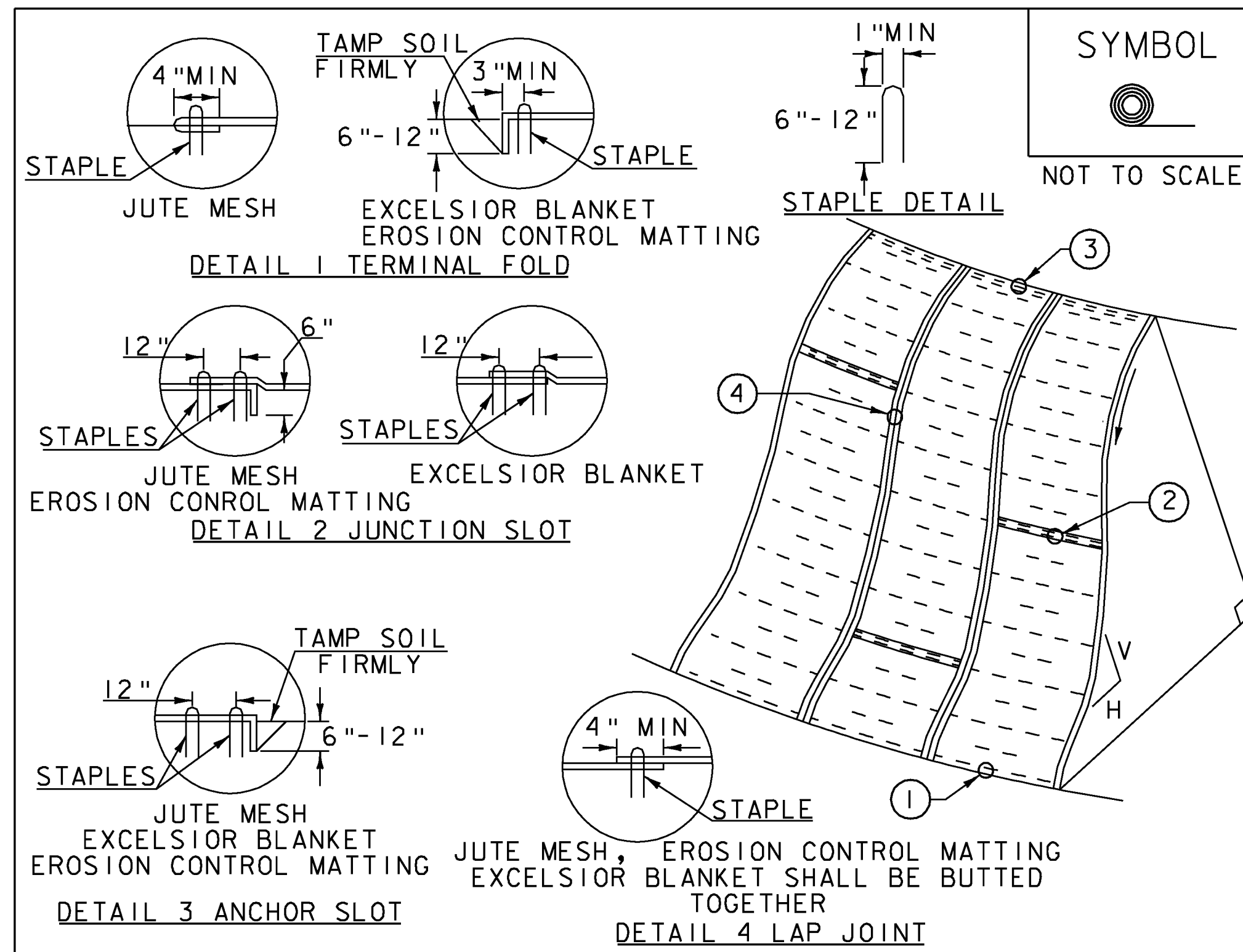
SILT FENCE (LINE STYLE) 649.5I, DETAIL	
SILT FENCE WOVEN WIRE (LINE STYLE) 649.5I5, DETAIL	
STABILIZED CONSTRUCTION ENTRANCE 653.35, DETAIL, VEHICLE TRACKING PAD	
STONE & BLOCK DROP INLET PROTECTION 653.40, DETAIL	
SURFACE ROUGHENING INCIDENTAL TO CONTRACT	
TURBIDITY CURTAIN 649.6I, DETAIL, FILTER CURTAIN	OMO
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	STANDARD SYMBOLS



HTA PROJECT 90422I	MODEL Z20K154IEPSC06
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PROJECT NAME: HARTLAND	PLOT DATE: 9/16/2013
PROJECT NUMBER: CMG PARK(25)	DRAWN BY: JCC
FILE NAME: Z20k154erodet.dgn	CHECKED BY: CRM
PROJECT LEADER: WAYNE L. DAVIS	SHEET 24 OF 30
DESIGNED BY: JCC	EPSC DETAILS 1 OF 3

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CONSTRUCTION SPECIFICATIONS

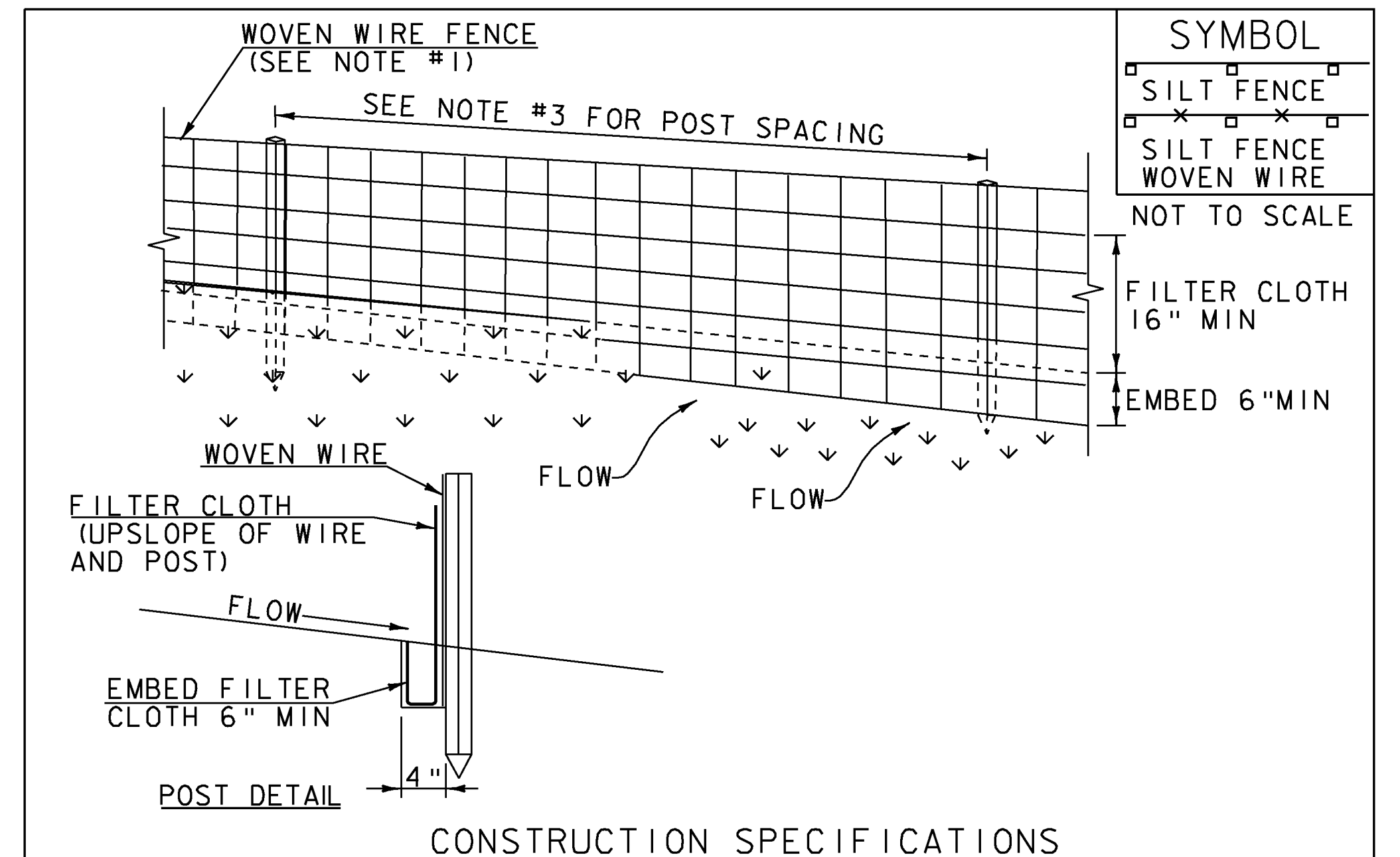
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).



HTA PROJECT	MODEL
904221	Z20K154IEPSC04

PROJECT NAME:	HARTLAND	PLOT DATE:	9/16/2013
PROJECT NUMBER:	CMG PARK(25)	DRAWN BY:	JCC
FILE NAME:	Z20k154erodet.dgn	CHECKED BY:	CRM
PROJECT LEADER:	WAYNE L. DAVIS	SHEET	25 OF 30
DESIGNED BY:	JCC		
EPSC DETAILS 2 OF 3			

VAOT RURAL AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
37.5%	22.5	45	CREeping RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
42.5%	34	68	CREeping RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

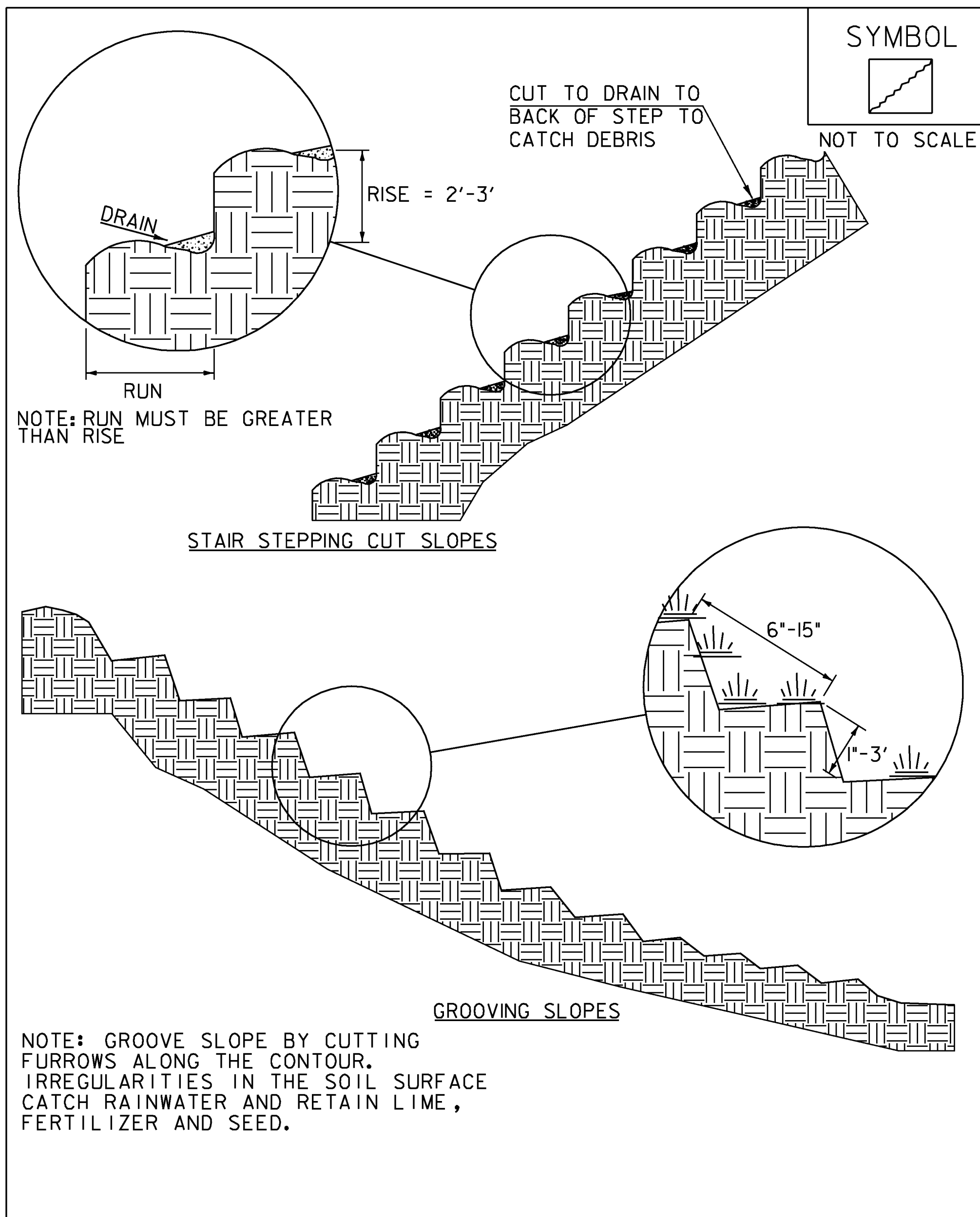
CONSTRUCTION GUIDANCE

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

REVISIONS		
JUNE 23, 2009	WHF	
JANUARY 15, 2010	WHF	
FEBRUARY 16, 2011	WHF	



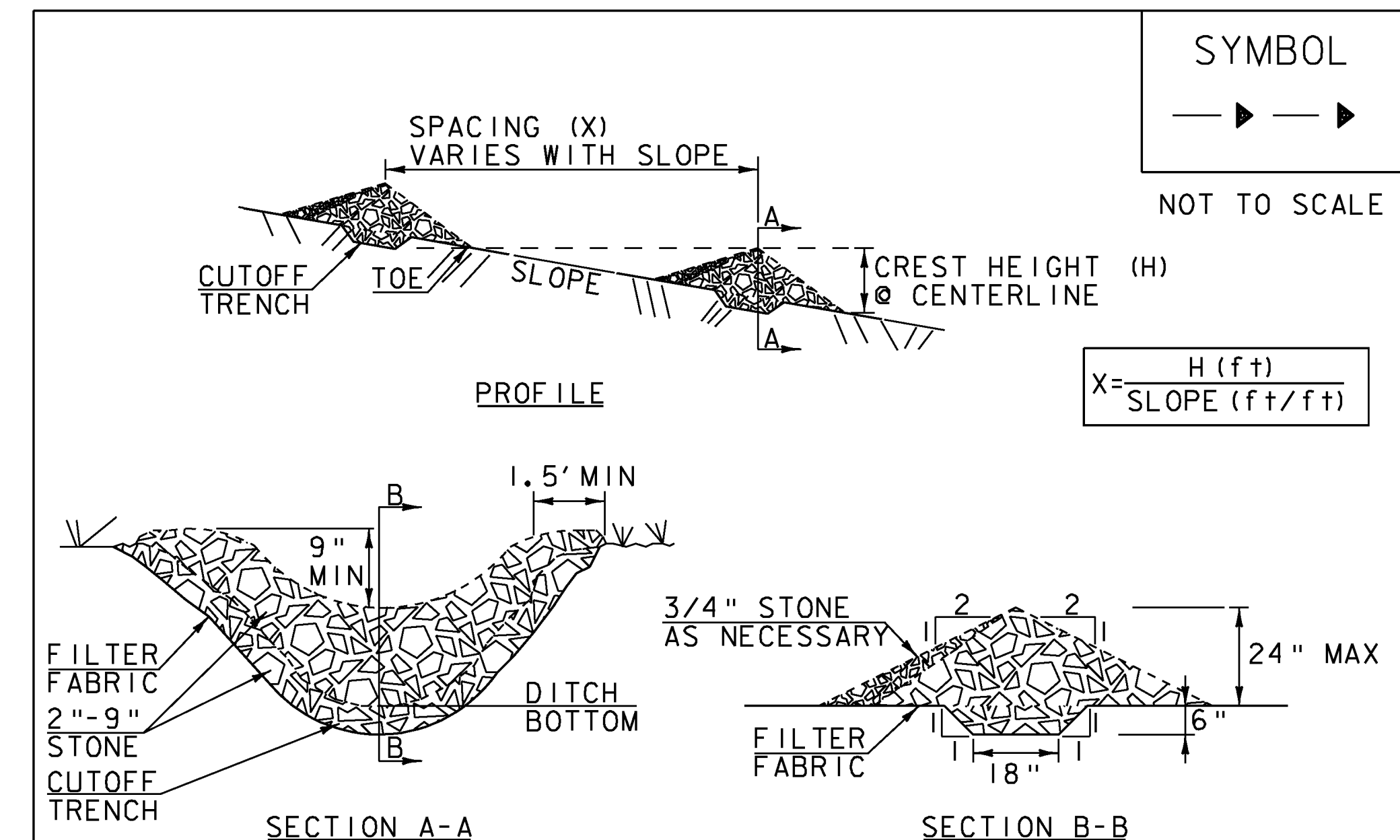
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ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SURFACE ROUGHENING

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT

REVISIONS		
APRIL 1, 2008	WHF	
JANUARY 13, 2009	WHF	



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE 1 (PAY ITEM 653.25)

REVISIONS		
MARCH 21, 2008	WHF	
JANUARY 8, 2009	WHF	



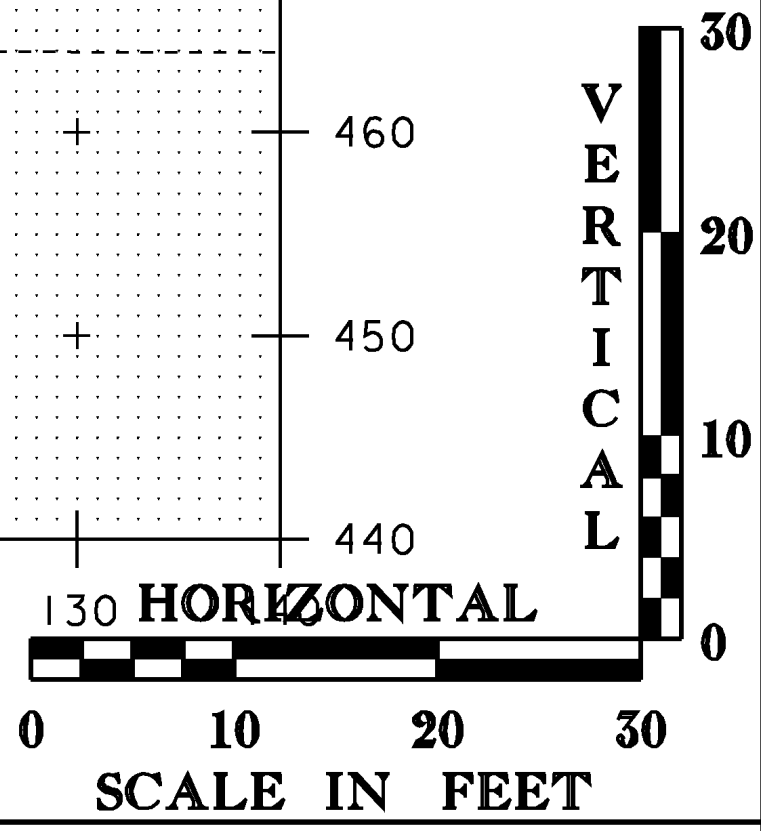
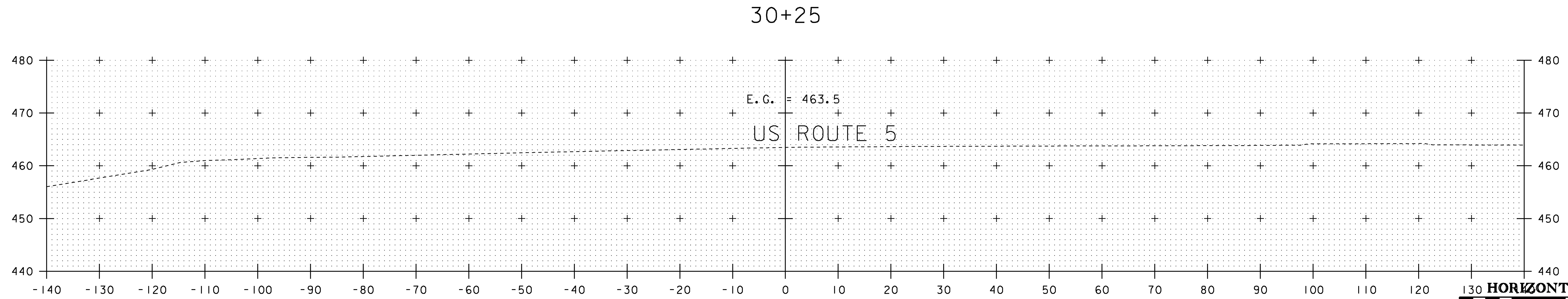
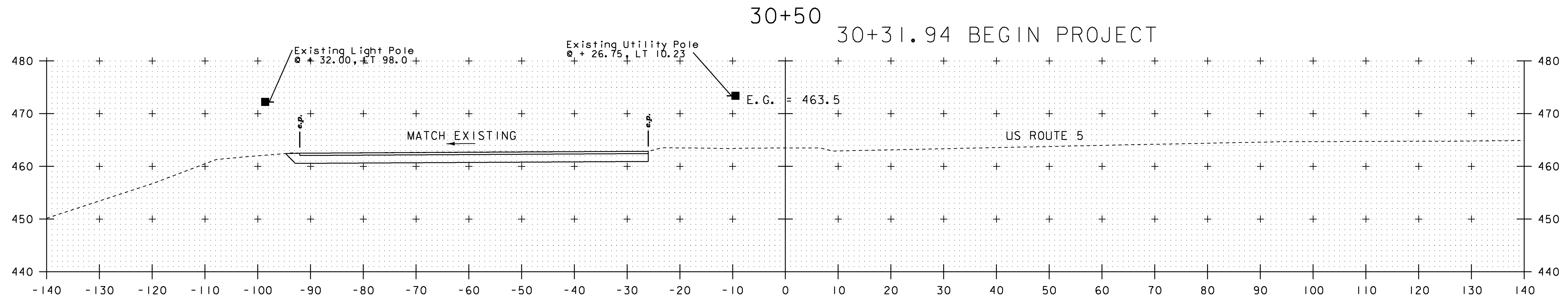
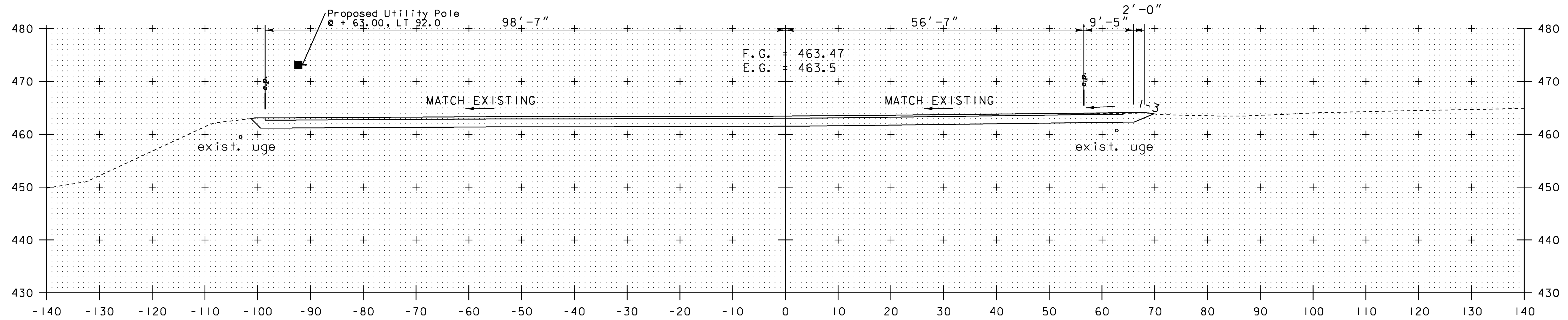
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904221	Z20k154IEPSC05

PROJECT NAME: HARTLAND
PROJECT NUMBER: CMG PARK(25)

FILE NAME: Z20k154erodet.dgn
PROJECT LEADER: WAYNE L. DAVIS
DESIGNED BY: JCC

EPSC DETAILS 3 OF 3

PLOT DATE: 9/16/2013
DRAWN BY: JCC
CHECKED BY: CRM
SHEET 26 OF 30



STA. 30+00 TO STA. 30+50

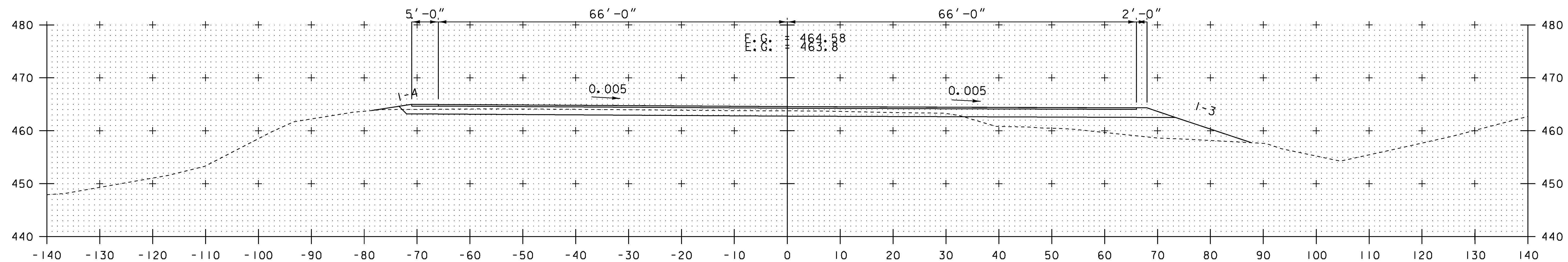
Hoyle, Tanner & Associates, Inc.

HTA PROJECT	MODEL
904221	Z20K15401XSO1

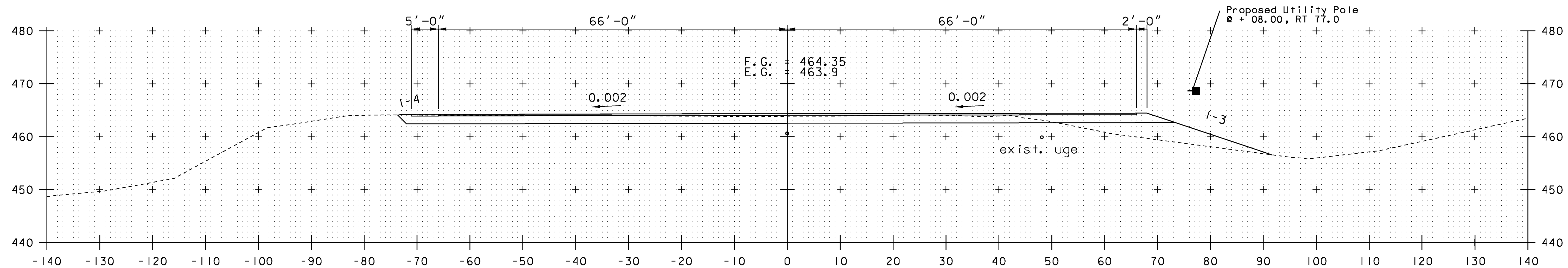
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 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
CROSS SECTIONS 1 OF 4

PLOT DATE: 9/30/2013
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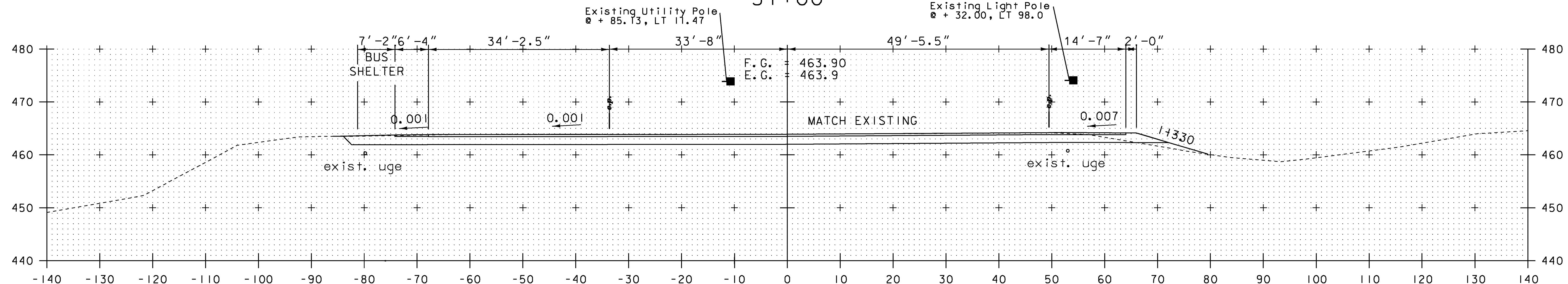
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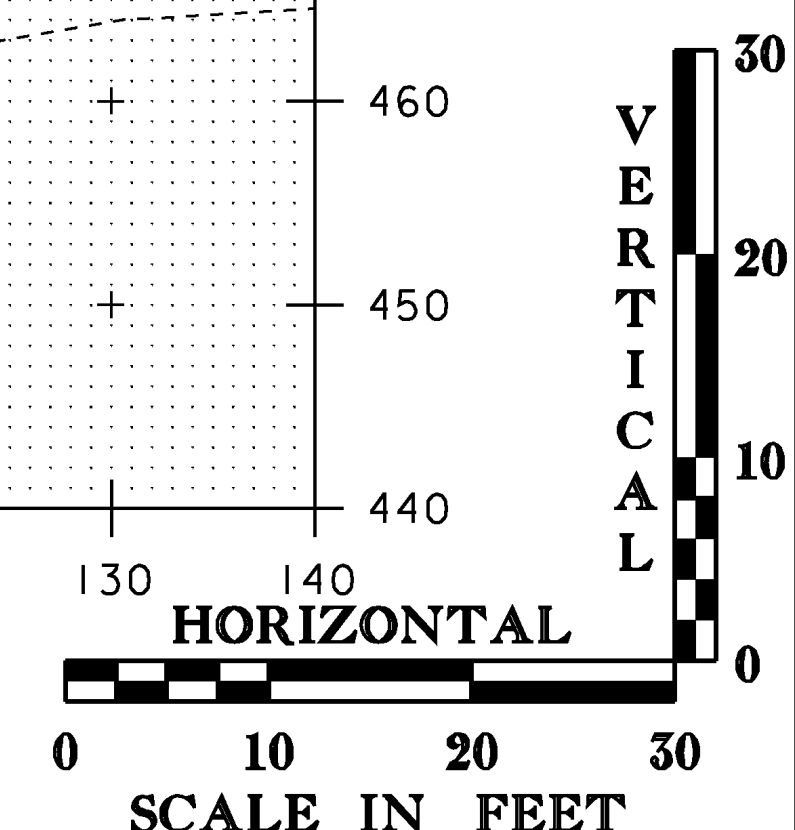
31+25



31+00



30+75



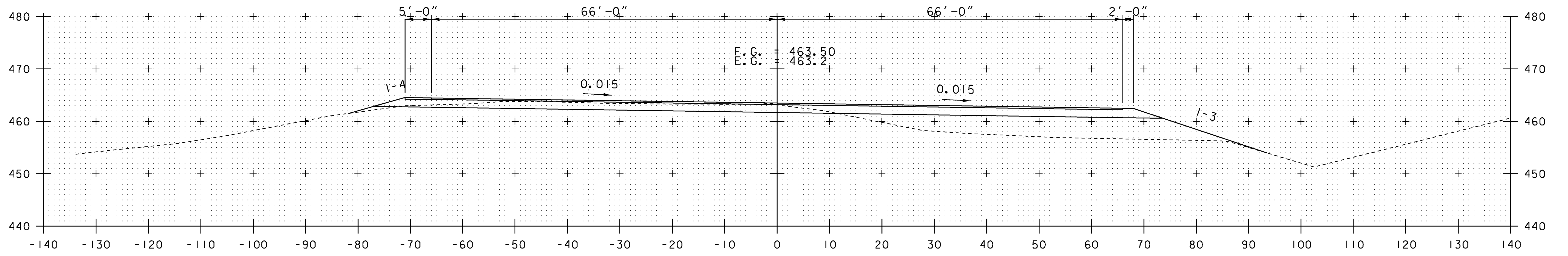
Hoyle, Tanner & Associates, Inc.

STA. 30+75 TO STA. 31+25

HTA PROJECT	MODEL
904221	Z20K15401XS02

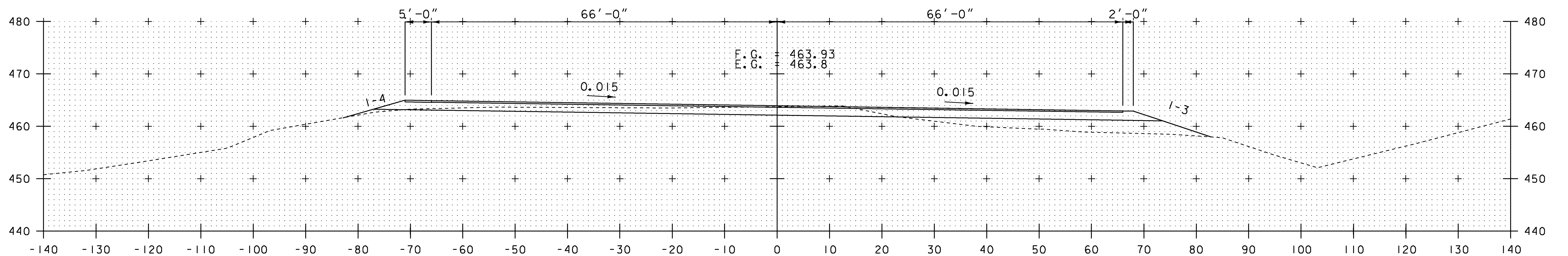
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 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
CROSS SECTIONS 2 OF 4
 PLOT DATE: 9/16/2013
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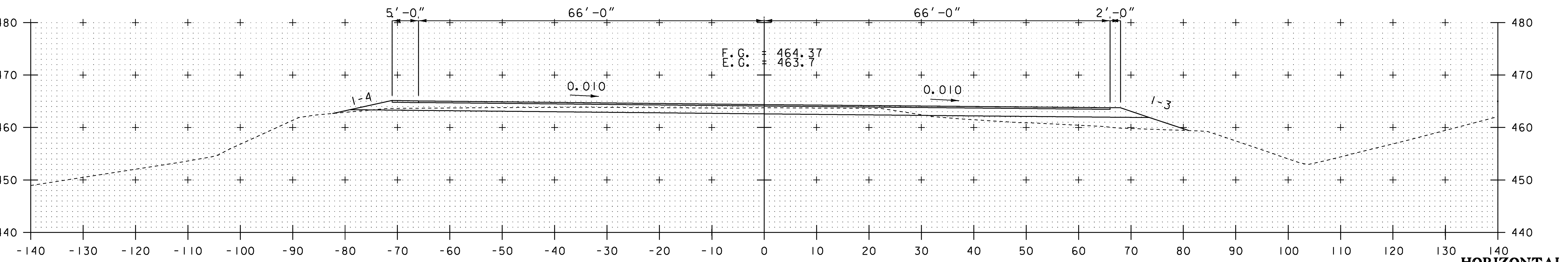


32+00

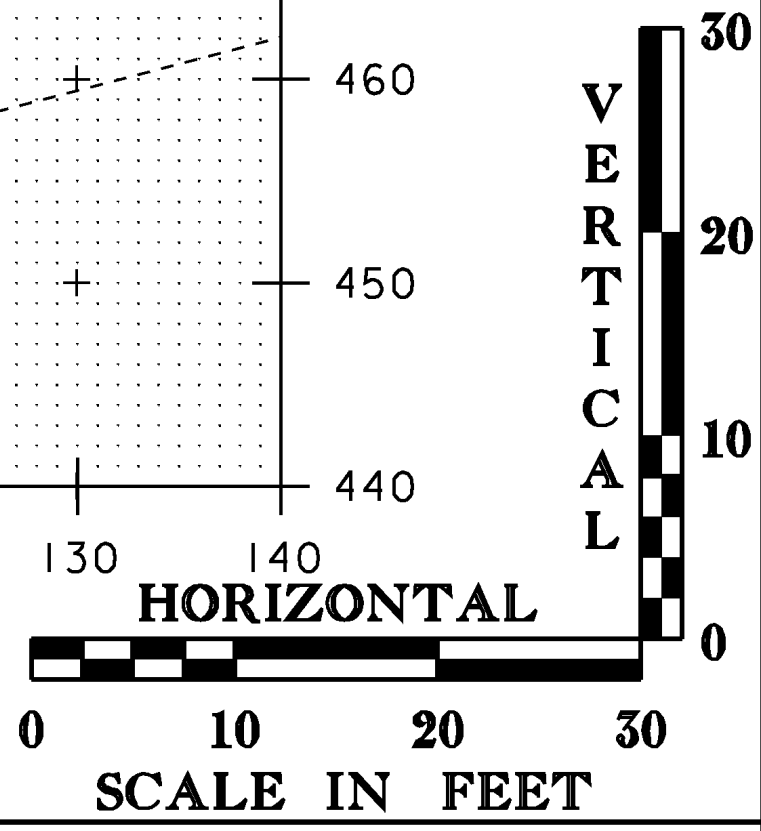
PAVEMENT ENDS @ STATION 32+11.78



31+75



31+50



Hoyle, Tanner & Associates, Inc.

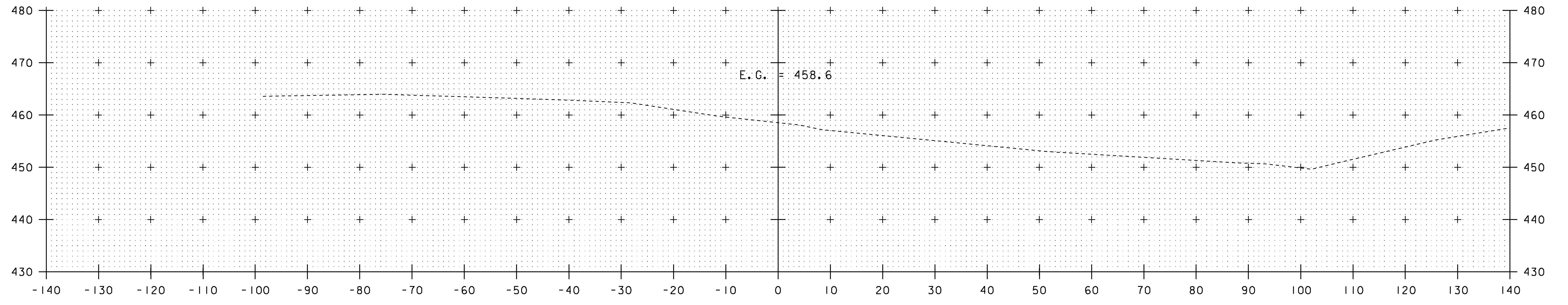
STA. 31+50 TO STA. 32+00

HTA PROJECT 904221	MODEL Z20K1540IXS03
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PROJECT NAME: HARTLAND
 PROJECT NUMBER: CMG PARK(25)
 FILE NAME: Z20k154xsl.dgn
 PROJECT LEADER: WAYNE L. DAVIS
 DESIGNED BY: JCC
CROSS SECTIONS 3 OF 4

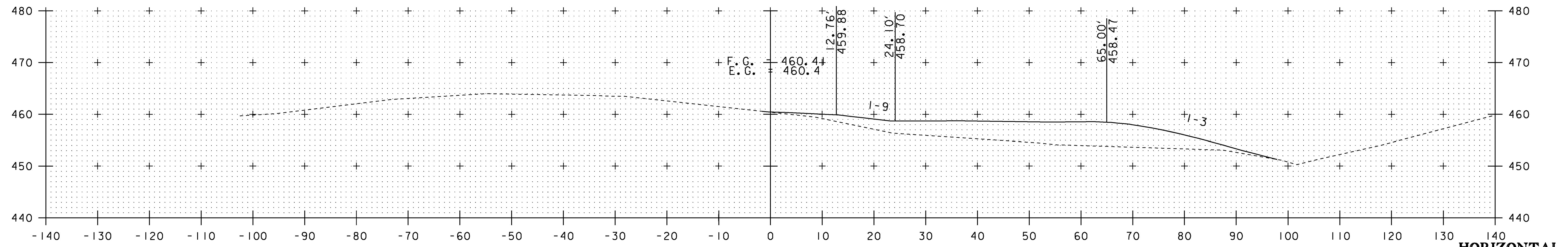
PLOT DATE: 9/16/2013
 DRAWN BY: JCC
 CHECKED BY: CRM
 SHEET 29 OF 30

9/16/2013 2:46:15 PM C:\Users\jcc\OneDrive\Documents\2013\904221\31+50 TO 32+00.dwg

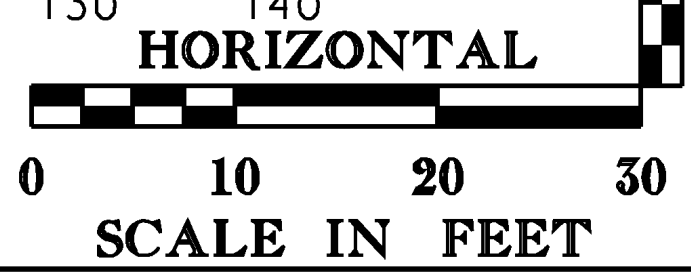


END PROJECT STATION 32+46.44

32+50



32+25



Hoyle, Tanner & Associates, Inc.

STA. 32+25 TO STA. 32+50

HTA PROJECT 904221	MODEL Z20K1540IXS04
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PROJECT NAME: HARTLAND	PROJECT NUMBER: CMG PARK(25)
FILE NAME: Z20k154xsl.dgn	PLOT DATE: 9/16/2013
PROJECT LEADER: WAYNE L. DAVIS	DRAWN BY: JCC
DESIGNED BY: JCC	CHECKED BY: CRM
CROSS SECTIONS 4 OF 4	SHEET 30 OF 30

9/16/2013 2:48:52 PM C:\Users\jcc\OneDrive\Documents\2013\9\16\2013\9\16\2013\9\16\2013.dgn